



**AIA New York Chapter**

The Founding Chapter of  
The American Institute of Architects

## **Urban Design and Architectural Guidelines for an Age-Friendly New York City**

Older adults want and should be able to live actively and independently for as long as possible. Age-friendly design takes into account the physical changes that occur over time, reducing physical and psychological barriers and the potential for injury. It enables older adults to maintain and maximize their physical capabilities and continue to live independently.

### **1. General**

- a)- Restorative recommendations for urban environments should advance numerous social objectives: liveliness, safety, sustainability, health, pleasure, dignity, equitable use, inclusiveness (e.g. age, gender, race, disabilities, height, pets, etc.).
- b)- Design for the scale of a range of individuals and how they experience an environment: eye level, pace of walking, views, clarity of information, flexibility of use, etc.
- c)- Emphasize qualitative aspects of design: comfortable eye-level stimulation with esthetic variety that is not overwhelming or confusing (contrast in color and shapes, elements with varying textures to respond to sight and touch, ample amount of ambient light, non-glare finishes), control of ambient noise.
- d)- Design for minimization of perceived or real physical barriers; all elements for public use should be located in easily accessible barrier-free areas.
- e)- Design building forms and public spaces to maintain a uniform level of comfort: reducing glare and drafts; controlling temperature, sound, and light; providing a feeling of safety.
- f)- Allow for reasonable amounts of physical activity in daily routines, but avoid elements that require high levels of strength and dexterity to operate.
- g)- Pay special attention to edges; whenever ground surface level changes exist, design the edges with contrasting colors and textures for easy perception by all users (street/sidewalk, stair treads and platforms, park/street, public/private, etc.).
- h)- All elements intended to be used by the public should be located in close proximity to access points (the public right-of-way, public transportation stops, accessible parking spaces, passenger drop-off areas).
- i)- Use multiple modes (pictorial, verbal, tactile) to provide information and enable wayfinding through the environment; use a font size and type that is easily perceptible by seniors.
- j)- All age-friendly design should take into consideration the 7 principles of Universal (Inclusive) Design: Equitable use; Flexibility in use; Simple and intuitive use; Perceptible information; Tolerance for error; Low physical effort; Size and space for approach and use. For additional information about these principles see the website of the Center for Universal Design of North Carolina University <<http://www.ncsu.edu/www/ncsu/design/sod5/cud/index.htm>>.

### **2. Public Spaces**

- a)- Design ways to invite people to use public space. Spaces should be designed to include items of interest for a variety of age groups (artwork, playgrounds, comfortable viewing areas, etc.), arranged so people with different interests can interact but not interfere with each other.
- b)- Provide the same means of access for all users, identical when possible, equivalent when not.
- c)- A percentage of the public space and elements should provide shelter from inclement weather - rain, sun, wind - so activities can occur under sheltered conditions that are easily accessible and safe.
- d)- Provide both shady and sunny areas, noisy and quiet areas, more-public and more-private areas, covered and open areas.

- e)- 'Shortest-distance' paths of travel with minimal changes in grade and smooth but not slippery surfaces should be clearly indicated.
- f)- If steps are necessary, provide dual handrails, at least on both sides and possibly in intermediate locations; provide ramps for wheelchairs, baby carriages, tricycles, etc.
- g)- Provide an adequate amount and variety of seating along the pathways, ideally on widened areas of the paths, in comfortably arranged conversational groups as well as in linear configurations; provide tables in some locations; provide movable chairs, at least some of which have arms.
- h)- Water fountains, restrooms, and recycling wastebaskets should be conveniently located along the pathways; food concessions are usually desirable.
- i)- Provide adequate lighting for paths of travel, seating areas, and play areas, to enable all desired activities and to increase comfort, safety, and security at all times.
- j)- Separate pedestrian traffic from bicycles, skateboards, rollerblades, etc., and provide appropriate informational signs and warning signs at intersections.

### **3. Streets**

- a)- Design for safety, access, and mobility. Incorporate mid-block curb extensions that can support benches, shading trees, and other elements that help reduce the length of continuous travel.
- b)- Sidewalks should be smooth, flat (level cross slope), with some protection from the elements, and no slippery surfaces. Provide a clear path free of obstructions; light poles, fire hydrants, seating, vegetation, newsstands, subway entrances, bicycle racks, parking meters, wastebaskets, etc. should be organized linearly near the curb. Use tinted concrete or different materials to create contrast between high-traffic zones and safe rest areas.
- c)- Design for context and livability, with some encouragement for physical activity. Provide frequent seating in hilly areas.
- d)- Provide separated pathways for walking, bicycling, and motor transport. Pay special attention to safety, accessibility, convenience, and comfort at junctions where the pathways cross.
- e)- Provide sidewalk extensions at intersections where possible. Curbs at crosswalks should include visible, textured ramps for wheeled vehicles and pedestrians.
- f)- Crosswalks should be clearly marked and well lit; medians and other safe areas in which pedestrians can rest should be provided, especially on high-traffic two-way streets. Wherever possible, incorporate raised crosswalks with contrasting paving materials; changes in level will help to reduce traffic speed and increase safety on residential streets.
- g)- Traffic signals for motorized vehicles, bicycles, and pedestrians should be located to be clearly visible relative to the corresponding pathway; timing of traffic signals should be adequate to allow slower-moving pedestrians to cross.
- h)- Sewer drains with numerous small openings (rather than fewer large openings) should be located adjacent to curbs, but not in crosswalks.

### **4. Neighborhood Developments**

- a)- These should be designed, as much as possible, to contain all the components necessary for daily living, in reasonable proximity to each other: housing, stores, restaurants, offices, schools and day care centers, social service facilities, medical offices/hospitals/clinics, parks/playgrounds, community activities spaces, etc. The public facilities should be available not only to residents/tenants but also to others in the neighborhood.
- b)- New developments should 'reach out' to the surrounding community and be organized to take advantage of and be supplemental to existing elements in that community. Respect cultural diversity.
- c)- Exterior gathering spaces in new developments should be visible to the surrounding streets/community; visibility encourages interaction and enhances safety.
- d)- Provide some indoor community spaces designated solely for seniors, and others designated solely for children.
- e)- Public transportation should be conveniently located, easy to reach, and easy to access. Provide bus shelters, with raised loading platforms if necessary. If possible, request additional bus stops in proximate locations to the development.

## 5. Buildings

### Residential and non-Residential Buildings

- a)- Design building floor plans that are clearly understood and easily negotiable. Access to spaces must be clear and intuitive. Avoid complicated circulation patterns and provide wayfinding markers (forms, color, texture, light, sound, landmarks, etc.).
- b)- To accommodate a wide range of abilities, literacy and language skills, use a multiplicity of modes to provide essential information (pictorial, verbal, tactile). Maximize legibility of essential information; introduce color to establish identifiable landmarks within buildings.
- c)- Provide covered car drop-off areas (with curb cuts if possible) and covered entries for pedestrians.
- d)- Provide power-assisted entry doors, whether swing or sliding.
- e)- Design deep vestibules to give people with walkers or wheelchairs better maneuverability and more time to move away from one set of doors that is opening or closing.
- f)- Provide seating in lobbies to allow seniors to rest and wait comfortably.
- g)- Provide seating near elevators to allow seniors to rest while waiting for elevators on all floor levels.
- h)- Design all public toilets to be handicapped accessible; when providing grab bars, provide a rear-wall flip-down bar, as most seniors need 2 side supports if they need to use grab bars.
- i)- In public toilets provide automatic sensor no-touch water faucets, soap dispensers, and flushometers whenever possible.
- j)- Develop alliances with nearby dry cleaners, markets that deliver groceries, and house-cleaning companies that could provide maid service for apartments.
- k)- Design consistent light levels that allow seniors to see well with obviously-located, adequately-lit directories and wayfinding signs. Prevent glare by providing indirect light and by controlling sunlight.
- l)- Design buildings to provide access to views and controlled natural light wherever possible; this is good for orientation and general well-being.
- m)- Provide handrails or lean-rails along interior corridors.
- n)- Provide warnings when approaching hazardous areas or sectors that are not intended for everyone.

## 6. Residential Units

### A. General:

- a)- Design all residential spaces to accommodate people with diverse abilities. Design spaces that can be flexibly adapted as the needs of users change.
- b)- Design layouts that are barrier-free and allow for adequate maneuverability of wheelchairs.
- c)- Give especially careful attention to fall-prevention and to the selection of materials (colors, textures, maintenance requirements, offgassing). Avoid rounded transition strips.
- d)- Design hallways at least 4 feet wide.
- e)- Provide washers and dryers within units in multiple dwellings, preferably side by side, front-loading on storage pedestals, stacked accessible second choice. In private houses, locate appliances on the living-area level, not on an upper floor or in the basement.
- f)- Design walk-in closets with 2 parallel sides of hanging space to be more than 6' in width; if closets must be less than 6' wide, design them with L-shaped hanging space.
- g)- Provide multiple shelves in all closets, mounted at different heights to allow use by people of all abilities. If possible, design for the shelves to be adjustable.
- h)- Provide lighting inside all usable spaces, especially storage areas, closets, cabinets, and drawers. Incorporate automatic motion sensors when possible. If automated sensors are not possible for closets and storage areas, install switches on the exterior side of each space.
- i)- Mount electrical wall-outlets at heights conveniently accessible to seated and standing users. Provide more than the minimum required number of electrical outlets in every space, to allow greater flexibility of use.

### B. Kitchens:

- a)- Provide universally-designed equipment, fixtures, and cabinets.
- b)- Microwaves and other ovens must be placed at a height that eliminates the need for lifting hot objects overhead. Use counter-level or under-counter microwaves.

- c)- Wall ovens must be located adjacent to a counter.
- d)- Raise dishwashers (install like wall ovens) so seniors don't have to bend to load.
- e)- Do not design cabinets above 7', since it is too high to reach, so stools (which could result in loss of balance) are not required.
- f)- Favor drawers, pull-out shelves, pull-out cabinets, and other pull-out elements over basic below-counter storage cabinets. Drawers and pull-out elements allow for greater reach and less maneuvering space within a kitchen.
- g)- Incorporate dynamic systems that provide greater convenience in the use of the kitchen, e.g. a countertop that can be raised or lowered to accommodate the needs of tall, short, seated, and standing users.
- h)- Introduce light in all storage cabinets and drawers. Take advantage of the different systems available, such as contact, magnetic, motion-activated.

**C. Bathrooms:**

- a)- Favor showers over bathtubs. Design showers large enough to include a bench, or room to bring in a stool.
- b)- Avoid designing deep soaking tubs that are difficult for seniors to get out of, requiring a lot of upper body strength.
- c)- In showers and tubs, provide temperature controls and anti-scalding devices; put shower head on a vertical adjustable rod for ease of use if resident must sit down in the shower.
- d)- Reinforce all bathroom walls to allow for (future) installation of grab bars in a flexible manner. Though horizontal grab bars are the most common placement, they are not always the best solution for a variety of disabilities in the use of tubs, showers and toilets.

AIA New York Chapter  
Design for Aging Committee

May 18, 2011