

## Appendix E

# “Visitability” Best Practices

To inform how best to develop new code that advances universal design principles and provide better housing opportunity for people of all ages and abilities, City staff consulted with Residential Infill Project Stakeholder Advisory Committee member Alan DeLaTorre, Ph.D, Research Associate with the Institute of Aging at Portland State University (PSU). City staff sought a broader base of knowledge beyond Alan’s contributions and information gained from prior Phase I outreach to the Portland Commission on Disability and at the 2016 Age-Friendly Housing workshop.

Alan recommended collaborating on a strategy for advancing “visitability,” an increasingly-used term used to describe a base level of housing accessibility. There are three main principles of visitability – at least one zero-step entrance, wide doorways and hallways for clear passage, and at least one bathroom on the main floor of a house that can be used, without accommodation from others, by a person in a wheelchair or using another type of mobility device. The collaborative effort aimed to identify how best to create incentives or requirements for some or all of these features.

The team assembled a two-part focus group to inform its analysis. One focus group represented consumers and users, the other group consisted of designers and builders. Notes taken during these discussions are included in this Appendix. Focus group participants are shown below.

**Visibility Focus Group Facilitator:** Alan DeLaTorre, Ph.D. – Portland State University, Institute on Aging

### **Visitability Focus Group #1**

Robert Freeman – Robert Freeman Architecture

Brenda Jose – Portland Commission on Disability, Unlimited Choices

Thalia Martinez-Parker – REACH Community Development, Inc.

Julia Metz – Portland Community Reinvestment Initiative, Inc.

Michael Mitchoff – Portland Houseworks

Garlynn Woodsong – Woodsong Property Renovation Partners, LLC

### **Visitability Focus Group #2**

Nikole Cheron – City of Portland, Office of Equity and Human Rights

Larry Cross – Portland Commission on Disability

Marie Cushman – Portland resident

Susan Cushman – United Cerebral Palsy of Oregon and SW Washington

Myra Sicilia – Portland Commission on Disability, Sakura Counseling

Joe Wykowski – Community Vision

Alan also collaborated with a team of undergraduate students from his age-friendly design class, who assisted in the focus groups and developed a nationwide inventory of visitability best practices.

### **Visitability Research**

Alan DeLaTorre, Ph.D. – Portland State University, Institute on Aging

Alex Freeman – Portland State University

Matthew Wadleigh – Portland State University

## Visitability Best Practices<sup>i</sup> September, 2017

By Alan DeLaTorre, PhD. – Portland State University, Institute on Aging  
Alex Freeman and Matthew Wadleigh, Portland State University



***Visitability...refers to single-family or owner-occupied housing designed in such a way that it can be lived in or visited by people who have trouble with steps or who use wheelchairs or walkers.*** – Visitability.org

### Introduction

The City of Portland's growth is projected to include nearly 123,000 new households by 2035 and approximately 240,000 of those households are expected to be housed in the City's single-dwelling zones.<sup>ii</sup> According to Metro's population projections, from 2010-2035, the greater Portland region is expected to grow by 27.5%; however, the population aged 65+ is expected to grow by 98.1%, which is markedly higher than all other age cohorts.<sup>iii</sup>

To accommodate increases to both the overall number and proportion of older adults, it is critically important that the City of Portland increases the supply of housing that allows older adults – as well as people with disability, parents with strollers, cyclists, etc. – housing that meets their day-to-day needs, as well as the long-term opportunity to age in their home and community.

### Visitability

"Visitability" is a growing national trend in home design. Some variations exist in the ways in which visitability is described such as VisitAble Housing Canada which details "enhanced Visitability" that goes beyond basic features and addresses accessible bathrooms and kitchens, parking, adaptability, etc.<sup>iv</sup> Visitability.org provides the most commonly used definition:<sup>v</sup>

Single-family or owner-occupied housing designed in such a way that it can be lived in or visited by people who have trouble with steps or who use wheelchairs or walkers. A house is visitable when it meets these three basic requirements:

1. One zero-step entrance.
2. Doors with 32 inches of clear passage space.
3. One bathroom on the main floor you can get into in a wheelchair.

Note: in addition to "visitability" terms such as "accessibility," "usability," "age-friendly housing," "universal design," and other terms are used to describe housing that meets the needs of a person with a disability, mobility impairment, or other functional need. For the purpose of this report, we focus on visitability and closely related items.

## Method

As part of this Capstone project, two students working under the direction of the course instructor reviewed existing literature pertaining to visitability and efforts in the United States and Canada that incorporated visitable features and approaches into local policies and programs. To begin, a document from the IDeA Center at the University of Buffalo and AARP's Public Policy Institute that detailed 59 U.S. local visitability initiatives and policies was reviewed.<sup>vi</sup> To supplement those initiatives and policies an Internet search was conducted to identify additional efforts that were underway before determining 10 initiatives that were considered best practices – considerations were made for a range of regulatory, incentive-based, and voluntary programs, as well as policies that were incorporated into local zoning and/or building code and those that were implementable.

## Best practices

The review of the literature and existing efforts in the U.S. led to identifying six municipalities that addressed visitability through regulatory approaches, including (note: [Details, including links to policy documents can be found in a developed spreadsheet<sup>vii</sup>](#)):

- Austin, TX
- Bolingbrook, IL
- Dublin City, CA
- Pima County, AZ
- Pine Lake, GA
- San Antonio, TX

In addition to those municipalities, four local governments were identified with incentive-based and voluntary approaches, including (note: [details of those programs can be found here](#)):

- Escabana, MI
- Irvine, CA
- Monroeville, PA
- Montgomery County, MA

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<sup>i</sup> This document was prepared for the Bureau of Planning and Sustainability, by Portland State University faculty (Dr. Alan DeLaTorre, Institute on Aging, College of Urban and Public Affairs) and students (Alex Freeman & Matthew Wadleigh) from the University Studies Capstone course titled *Creating Age-friendly Communities*.

<sup>ii</sup> City of Portland (2017). *Residential Infill Project*. Retrieved from: <https://www.portlandoregon.gov/bps/67728>. The Residential Infill Project in Portland has sought to address myriad concerns related to Portland's changing demographics and housing stock, including size of housing, demolitions, affordability, housing choice, and meeting the needs of the future populations.

<sup>iii</sup> Lycan, R. (2016). Population Forecasts for the Portland Metro Region: Disparities between Metro's Metroscope Model and the Demographers' Forecasts. Retrieved from: [https://www.pdx.edu/ioa/sites/www.pdx.edu.ioa/files/Metroscope\\_Demographers\\_2.pptx](https://www.pdx.edu/ioa/sites/www.pdx.edu.ioa/files/Metroscope_Demographers_2.pptx)

<sup>iv</sup> VisitAble Housing Canada (n.d.). VisitAble Housing Canada – Winnipeg Task Force. Retrieved from: <http://visitablehousingcanada.com/wp-content/uploads/2016/03/Winnipeg-TF-Accessibility-Continuum-Chart.pdf>.

<sup>v</sup> Visitability.org (2017). Visitability – what is it? Retrieved from: <http://www.visitability.org/>.

<sup>vi</sup> IDeA Center & AARP Public Policy Institute (2014). Local Visitability Initiative & Policies. Retrieved from: <http://idea.ap.buffalo.edu/visitability/reports/existingcitylaws.htm>.

<sup>vii</sup> Visitability spreadsheet developed by PSU students/faculty as part of the course *Creating Age-friendly Communities*: <https://docs.google.com/spreadsheets/d/1HnPLvD6vVxuRA256nlt7KsytvAN9Y2P4JPqLQQ9tHI/edit#gid=858828875>

## **Residential Infill Project — Visitability Focus Groups**

Thursday, May 25, 2017 - Portland State University, Room 410

Facilitated by Alan DeLaTorre, Ph.D. - Portland State University, Institute on Aging

“Visitability” refers to housing designed in such a way that it can be lived in or visited by people who have trouble with steps or who use wheelchairs or walkers. A house is visitable when it meets these three basic requirements: (1) has at least one zero-step entrance; (2) has doors with at least 32 inches of clear passage space; and (3) has at least one bathroom on the main floor that can be used, without accommodation from others, by a person in a wheelchair or other mobility device.

### **Focus Group #1 (11:00 am to Noon) - Questions for Designers/Builders:**

- 1. How common is it for new construction to have visitable features, as defined above? What about remodels and renovations?** Is there a market trend towards more visitability and/or accessibility for all users and abilities (‘universal design’)?
- 2. In addition to the three visitability features mentioned above, what other visitability features do you feel lead to more accessible, age-friendly housing?** For example, features such as door and cabinet hardware, electrical switches and plugs, kitchen and bath design, paths and routes, raised/accessible garden areas, etc.
- 3. What are the barriers to including more visitability and accessible features in new and remodeled houses?** For example: cost, consumer preference, floorplan constraints, difficulties in providing zero-step entrances etc.
- 4. What construction approaches or floorplan designs facilitate easier adaptability in response to a change in one’s ability or function?** For example: having ground floor bedroom/bathroom, placement of plumbing for laundry facilities, minimum size of bathroom to adapt for later accessibility, blocking/backing for future grab bars, etc.
- 5. What visitability and adaptability features would be most effective if mandated or incentivized in the zoning and/or building code?** Which features are best mandated vs. incentivized?
- 6. With respect to visitability, how important is a reserved space for parking or passenger loading (on-street, off-street, covered, etc.)?** What standards should be required or incentivized to create usable, off-street parking for people with mobility challenges?
- 7. How important are outdoor spaces for improving visitability?** What features should be considered? (hard surface, covered or protected from weather, vegetation, etc.)
- 8. Would visitability standards need to be modified for steeply sloping sites?** If sloped lots limit the ability to reasonably provide zero-step entrances, what advice do you have for zoning agencies seeking to maximize visitability on steeply sloping sites? Are there other site constraints that impede providing a visitable unit?

**Focus Group #2 (12:30 pm to 1:30 pm) - Questions for Consumers/Users:**

- 1. Please discuss the relevance of these three visitability features with respect to your own day-to-day experiences.** Can these three features be prioritized?
- 2. In addition to the three visitability features mentioned above, what other visitability features do you feel should be included in the zoning and/or building code?** For example, features such as door and cabinet hardware, electrical switches and plugs, kitchen and bath design, paths and routes, raised/accessible garden areas, etc.
- 3. What construction approaches or floorplan designs facilitate easier adaptability in response to a change in one's ability or function?** For example: having ground floor bedroom/bathroom, placement of plumbing for laundry facilities, minimum size of bathroom to adapt for later accessibility, blocking/backing for future grab bars, etc.
- 4. With respect to visitability, how important is a reserved space for parking or passenger loading (on-street, off-street, covered, etc.)?** What standards should be required or incentivized to create usable, off-street parking for people with mobility challenges?
- 5. How important are outdoor spaces for improving visitability?** What features should be considered? (hard surface, covered or protected from weather, vegetation, etc.)
- 6. What visitability and adaptability features would be most effective if mandated or incentivized in the zoning and/or building code?** Which features are best mandated vs. incentivized?
- 7. Would visitability standards need to be modified for steeply sloping sites?** If sloped lots limit the ability to reasonably provide zero-step entrances, what advice do you have for zoning agencies seeking to maximize visitability on steeply sloping sites? Have you experienced other site constraints that impede providing a visitable unit?

## **Residential Infill Project—Visitability Focus Groups**

**Focus Group #1: Consumer/User Group** (11:00 – noon)

**Focus Group #2: Designer/Builder Group** (12:30-1:30 pm)

Thursday, May 25, 2017 - Portland State University, Room 410

Facilitated by Alan DeLaTorre, PSU Institute on Aging

City of Portland, Bureau of Planning & Sustainability: Julia Gisler and Todd Borkowitz

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### **Why these focus groups?**

- City Council directed staff to explore requirements and bonus for age-friendly housing as we develop zoning standards for new development in single-dwelling zones as part of the Residential Infill Project. We are focusing on what we have control over – the Zoning Code but we can also facilitate discussions with other bureau – like BDS who have jurisdiction over Building Code implements and the Housing Bureau who administers housing programs.
- We can approach zoning regulations two ways 1) mandatory requirements. Example: in triplex require at least one unit to have a zero-step entrance and 2) Incentives- not a requirement but builder gets a bonus in units, extra height, etc.
- We need to keep in mind that zoning regulations can add cost and complexity to housing.
- We will be looking at trade-offs in design: 1) Tuck under garages reduce impact of the garage on front of house and many think they look better but elevates the finished floor and makes access more challenging. 2) Desire to separate living space from public realm for privacy and safety often results in finished floor above grade level. 3) paving increases ease of access but reduces pervious surface for vegetation and stormwater infiltration. 4) on-site parking disrupts the sidewalk, takes away an on-street parking space and creates more vehicle/pedestrian conflict points.

**Working Definition of Visitability:** Refers to housing designed in such a way that it can be lived in or visited by people who have trouble with steps or who use wheelchairs or walkers. A house is visitable when it meets the following three basic requirements ([visitability.org](http://visitability.org)).

- At least one zero-step entrance
- Doors with 32 inches of clear passage space
- One bathroom on the main floor you can get into in a wheelchair.

### **Focus Group #1: Consumers/Users**

Myra Sicilia (Counselor & Portland Commission on Disability), Marie Cushman (resident), Susan Cushman (United Cerebral Palsy), Larry Cross (Portland Commission on Disability), Nikole Cheron (City of Portland, OEHR), Joe Wykowski (Community Vision)

### **How important are visitability features with respect to your day-to-day experiences?**

#### ***Entrances:***

- These three features are very important and used every day if I want to get around. Of course, the zero step (with appropriate clearance) is the first criteria to getting into the home.
- It is stigmatizing to not be able to get into other’s houses for visiting.

- I carry a portable ramp in my car but it has limited use. Portable ramps can be unsafe. They should never be used for access of more than 5 steps – 2 steps maximum is the most comfortable.

***Doors/Hallways:***

- 36" is really more comfortable and becoming more necessary as wider wheelchairs are being built to accommodate our increasing obese population.
- Pocket doors offer great opportunities. They are easy to open/close and take up less space.

***Bathrooms:***

- Provide reasonable space in bathrooms to accommodate personal assistants.
- Should have at least a 5-foot turning radius of a t-shaped floor design.
- Wheel chair baths with no threshold are preferred ("open" bathroom floor plan with "roll-in" showers and no-slip surfaces); minimal/no additional cost of roll-in showers; hold up much better than conventional shower/tubs.
- Two grab bars at either side of toilet are preferred.
- Cabinets beneath sink limit usability of both sink and cabinets; cabinets in bathrooms are still important.
- Single water mixers on shower are easier to control than one each for hot and cold water.
- Opinions on grab bars varied; some see blocking as a waste and that grab bars should always just be designed in to a bathroom; others saw horizontal (i.e. at 30 inches high) and vertical blocking at key locations to allow future adaptability as important. Grab bars come in a variety of designs and aid more than just people with disabilities. Don't mandate grab bars but at least allow for their ready installation later.
- Low toilets are bad; no preferences indicated for toilet bowl length.
- Towel racks could double as grab bars and should also have a strong backing.
- ADA guidelines for baths should be considered minimum for any visitable residential bathroom; NKBA offers a guidebook with great kitchen/bath guidelines.
- At least an accessible ½ bath (sink/toilet) on the ground floor.

***Other considerations:***

- Lower door handles might be useful [some disagreed].
- Integrate visitability features into design; they should not look like add-ons.
- All wheelchairs (like electric assist) are not meant to be lifted by others; design accordingly; also, others may not understand a person in a wheelchair's personal needs, so it's best to plan spaces for the independent wheelchair user without the assumption that they will be assisted by others.
- Open floor plans are popular and offer the most adaptability/flexibility over time; rooms separated by doors may be a matter of preference but door functionality will determine whether rooms will work; there is no benefit to a bedroom that is too small to be functional for a person with a disability.

- Public areas (kitchens, living rooms, etc.) should be located at the main ‘public’ entry to a house; private areas (bedrooms, etc.) should be away from it.
- Cabinet doors are often a hassle; best to have door-free cabinets.

**Comments on visitability features in other areas:**

***Kitchens:***

- Probably the main space for socialization with visitors.
- Range tops that pull out are good.
- “Reachable” cabinets are functional cabinets.
- 30-inch high countertops are ideal and most practical; “bar seating” is way too high.
- Open kitchen design is critical; avoid long aisle, dead-end kitchens.
- Side access to appliances is extremely difficult for many people with disabilities to use; head-on access is highly preferred.
- Back burners are difficult to reach. A row of burners is preferred to front/back burners.
- Appliances, drawers and cabinets should be easy to open.
- Microwaves are important for many people with disabilities and should be at a usable height. Never placed above the stove top.

***Laundry rooms:***

- Should be on the main floor.
- Washer/dryer should be side-by-side.

***Yards:***

- Because Portland has only 3-4 months of sunny weather each year; focus should be on visitable areas inside a house.
- Focus on creating a quality and usable route to/from the housing unit.
- Consider making the back entrance as the primary entrance if visitability to it is more practical.
- Use combinations of ramps and railings; even in flat areas, railings offer balance for people who have various challenges with walking; always include a railing for even one or two steps.
- Avoid wood ramps as they’re always slippery. Consider hard surfaces.
- Drainage of all surfaces is often overlooked. Use porous surfaces (like permeable concrete) to avoid water buildup.
- Accessible garden space can provide many benefits for people with disabilities.
- Gravel is terrible, even in parking strips; grass is generally easier for people with disabilities to maneuver.
- Small steps are often used for design purposes where a sloping path could be used and would be accessible.
- Designs should allow ramps to be built later when needed in the future.
- Steep slopes are difficult and terrifying; ramps are not too stigmatizing and can be well designed into the landscape; ensure that slopes have flat landing surfaces.



***Parking areas:***

- Dedicated parking is not a big concern. The bigger concern is how to people in wheelchairs get in and out of cars picking them up and dropping them off.
- Avoid gravel in passenger loading areas; grass is okay, pavers are preferred. Allow surface to drain!

**What visitability features are best mandated versus made as incentives?**

***Mandates:***

- Would expand products/materials markets, making them more affordable.
- Zero step entrances are priority- mandate some percentage of units.
- One- or zero-step entries, or at least the ability to easily install a safe ramp.
- “Basic” visitability, even for skinny houses.
- Minimum: 36-inch doors and corridors, and ½ bath on first floor.

***Incentives:***

- Additional FAR for housing units that are fully accessible on at least one level.
- Incentivize plexes (bottom level units visitable with other units above that allow opportunity for non-mobility impaired personal assistants to have their own personal space).

***Resources:***

- Model examples: Ed Roberts Center (Berkeley, CA) and Axis Living (Chicago, IL)
- The City of Atlanta codified visitability into its zoning code.
- LEED-like rating system for visitability would be helpful.

**Key Takeaways from Focus Group #1 (BPS Staff):**

1. Location of a house (near services, transit, etc.) is often a higher need than accessibility as people with disabilities eventually find solutions to best access a house.
2. There are very few accessible apartments. Accessible houses are continually being lost to new development
3. Mandating zero-step entries on first floors would have significant benefits for advancing visitability. (priority of the group)
4. A 36-inch wide entry standard is a “non-noticeable” requirement (appearance and cost) that offer significant benefit. (priority of group)
5. Open floor plan is the best.

**(Continued)**

6. Dedicated parking is not a significant priority. Barrier-free access on well-drained, stable surfaces is a bigger priority.
7. Integrating visitability design features will help make them more acceptable and common.
8. Design for all ages and abilities; not just people with disabilities. Messaging should identify that everyone will likely be limited by a disability at some point on their lives.
9. Design for independent living and visiting, but also keep in mind that many people with disabilities often rely on personal assistants whose work needs should also be considered.

**Focus Group #2: Designer/Builder**

Thalia Martinez-Parker (Reach Community Development), Brenda Jose (Unlimited Choices, Portland Commission on Disabilities), Garlynn Woodsong (Woodsong Partners), Michael Mitchoff (Portland Houseworks), Robert Freeman (architect), Julia Metz (Portland Community Reinvestment Initiative)

**How common in remodels/renovations are visitability features?**

- Visitability features are not “on the radar” of most contractors.
- When visitability features are included, they are usually “a product of need” (i.e. ramps, add-on grab bars, etc.) and done cheaply and expeditiously.
- Steps have positive meaning in our culture- slab on grade is less preferred and is considered cheap construction. Threshold keeps the rain out.
- There is not much difference in costs of construction materials.

**What is the market demand for visitability features?**

- There is demand for visitability/accessibility features in affordable housing projects.
- One estimate: In 50 percent of jobs, the clients themselves introduce issues of accessibility.
- There is interest in visitability features in single-family homes; a legal requirement in multifamily units.

**Comments on visitability features:**

***Entrances:***

- Steps are dominant in nearly all new construction.
- Stepped entrances provide a means to keep water out of a house.
- Development without steps often requires significant site grading, which can add cost.
- Slab-on-grade construction offers accessibility and lower cost, but is usually not preferred by buyers.

***Doorways/Hallways:***

- Open floor plans are preferred in nearly all housing units.

- Pocket doors are sometimes hard for users to operate and are not desirable in high-use areas; carpentry skills are often needed to install correctly, increasing their costs; most are poorly designed (they often come in two grades – the lower grades often lack important “smart” handles); many are too narrow (often 24 inches wide) for many people with disabilities to use.

***Bathrooms:***

- Roll-in showers are common; trench drains have become increasingly more affordable and are easy to maintain.

***Other considerations:***

- Cabinet hardware and maneuverability features are “low-hanging fruit” that can often be done for little/no additional cost.
- Carpets are problematic for visitability; glued-on carpet is a solution; low pile, no-pad carpet is important for visitability, especially on stairs.
- Cover all outdoor spaces to protect users from weather.
- Design for people with Alzheimer’s and Dementia by:
  - Illuminating surfaces;
  - Using large address numbers;
  - Covering deck areas;
  - Including seating at front doors;
  - Assuring in-unit communication through open floor plans and/or communication devices;
  - Installing remote access on doors;
  - Maximizing safety through street orientation;
  - Influencing decision making (reducing decision making and providing “wayfinding clues” is a common best practice when designing for people with Alzheimer’s); and
  - Install windows or eyeholes in doors to maximize security.

**Comments on visitability features in other areas:**

***Yards:***

- Low- or flat-sloped walks are preferable.
- While impermeable paving materials are often preferred for people with disabilities, this preference should be balanced with the ecological benefits (i.e. stormwater permeability) of porous surfaces. Pervious concrete may offer an effective balance.
- Access to attractive outdoor areas, especially for gardening, is often very important for people with disabilities.
- May be needed to accommodate ramps, especially if switchbacks are required; porch lifts could minimize these spatial needs (they can now plug into a 110 outlet and be leased).

***Parking areas:***

- On-site spaces are needed.
- Transit investments should be prioritized over parking requirements.

- Modify parking requirements to allow for zero-step entries.

### **What are primary barriers to designing for visitability?**

- Code requirements for accessible units (1 for every 4 units) limits overall housing that might otherwise be built; solution: residential elevators.
  - Cost around \$40,000 installed in a 3- to 4-story building (additional \$2,000 per floor) – including \$30,000 to purchase and \$10,000 to install (by comparison, commercial elevators are about \$135,000 to purchase/install and about \$200/month to maintain).
  - Create an incentive that provides a net benefit by covering the cost of elevator purchase/installation.
- Availability of land is a barrier to visitability in new construction. Most remaining lots are narrow/skinny, which are difficult to make visitable.
  - Visitability incentives (i.e. extra units, etc.) could rectify this.
  - While lots in East Portland are often larger, they often have poor transportation access.
- On-site stormwater mitigation requirements (drywell) limit available space for visitability features.
  - Create incentive to have stormwater requirement waived if house is lowered to allow for visitability, if mitigating through a rain garden, or if using stormwater in a graywater system.
  - Allow water to discharge into sewer if at least 1 unit has 1 or less steps to access.

### **How can housing be adaptable to provide visitability later?**

- Promote open floor plans.
- Block out for elevators.
  - Requires a 6-foot by 8-foot shaft, 12-inch vertical space at bottom and 18-inch clear at the top (for mechanical equipment).
  - Create building code exceptions for 5 or fewer units (buildings with over 2 units now must meet commercial elevator code).

### **What visitability features are best mandated versus made as incentives?**

#### ***Mandates:***

- Zero- or no-step entrance (not all agreed, one person indicating that steps are actually healthy for anyone who does not have a mobility impairment; another indicated the prevalence of steeply sloping lots in Portland); could be either front or back door.
- Any mandate could “kill a project” and reduce the amount of housing units that would otherwise get built.
- Steep slopes make mandates problematic.

#### ***Incentives:***

- Consider incentivizing different levels of visitability.
- Bonuses should be offered as a package (FAR, height, AND setback).

- Creative solutions to meeting on-site stormwater requirements, while presumably a challenge to codify, could provide key space available on-site to meet visitability needs.

**Key Takeaways from Focus Group #2 (BPS Staff):**

1. The increasing affordability and practicality of residential elevators present an interesting opportunity to achieve some visitability goals.
2. Modifying on-site parking requirements could minimize barriers to visitability.
3. Mandates for “low hanging fruit” like “visitability-friendly” door handles, cabinet hardware and rails could provide some not-overly prescriptive mandates for little/no additional cost.
4. Zero- or 1-step entries, while possibly the most impactful feature, could also be the most challenging to achieve given costs and market preferences. Changing this paradigm may require strong and meaningful incentives and viable development options for steep sloping lots.

## Identification of U.S. States with Standards for Visitability

The following U.S. states have standards that aim to achieve some levels of visitability: California, Maryland, Oregon, Pennsylvania and Texas.

### Inventory of Local Regulatory Mandates for Visitability

#### **Austin, TX** *Date of Adoption: 2014*

**Weblink to Policy Description:** [www.austintexas.gov/edims/document.cfm?id=205386](http://www.austintexas.gov/edims/document.cfm?id=205386) / [www.austintexas.gov/sites/default/files/files/Planning/Residential/Visitability\\_Presentation.pdf](http://www.austintexas.gov/sites/default/files/files/Planning/Residential/Visitability_Presentation.pdf) / [www.austintexas.gov/edims/document.cfm?id=202500](http://www.austintexas.gov/edims/document.cfm?id=202500)

**Key Features to Implementation:** "A dwelling must be accessible by at least one no-step entrance with a beveled threshold of 1/2 inch or less and a door with a clear width of at least 32 inches. The entrance may be located at the front, rear, or side, or in the garage or carport, of the dwelling". Ramps leading to entrance must not exceed 1:50 grade slope.

**External Design Highlights (entry, halls/doors, bathrooms, kitchen, electrical, etc.):** Only direct mention of parking/garages in the policy document is R320.7, which requires an approved entrance to have a no more than 1:50 sloped ramp from a garage, driveway, public street, or sidewalk to reach the no-step entrance.

**Internal Design Highlights (site, yard, paths, patios, parking, etc.):** Bathrooms: Minimum 30 inches clear opening, lateral 2x6 blocking installed flush with studs in bathroom walls 34 inches from and parallel to the floor except behind the lavatory. Route to bathroom must remain 32 inches wide from entrance to bathroom entrance. Electrical Switches/controls no higher than 48 inches from floor, outlets no higher than 15 inches except outlets designed into the floor.

**Exemptions or exceptions:** Does not apply to remodels or additions; waiver of exterior visitable route provision for: 1) lots with 10 percent or greater slope prior to development; or 2) properties for which compliance cannot be achieved without the use of switchbacks.

#### **Bolingbrook, IL** *Date of Adoption: 2003*

**Weblink to Policy Description:** [www.bolingbrook.com/vertical/sites/%7B55EB27CA-CA9F-40A5-A0EF-1E4EEF52F39E%7D/uploads/MunicipalCodeChpt25.pdf](http://www.bolingbrook.com/vertical/sites/%7B55EB27CA-CA9F-40A5-A0EF-1E4EEF52F39E%7D/uploads/MunicipalCodeChpt25.pdf)

**Key Features to Implementation:** Zero step entrance, ramps to not exceed 1:12. "All exterior and interior doors shall not be less than 3 feet in width and 6 feet, 8 inches in height, and shall provide a minimum clear opening of 32 inches. All required exit doors shall be side hinged. The minimum width of a hallway or exit access shall not be less than 42 inches."

**External Design Highlights (entry, halls/doors, bathrooms, kitchen, electrical, etc.):** "This step free entrance shall be approached by a slope no greater than 1 in 12 (less steep is desirable). This entrance can be approached by a sidewalk, a driveway, a garage floor, or other useable route. The step free entrance may be located at any entrance to the home. If the step free entrance is located in the garage, a door bell button shall be located outside the overhead garage door. In a case where a lot is so steep that it cannot be graded to a maximum slope of 1:12, the driveway may have to exceed a 1:12 slope. In this case, upon approval by the Building Commissioner, the builder may construct a 1:12 (or less) route leading from the driveway to the

no-step entrance. If the grade of a lot is so steep that providing a step free entrance would be unfeasible or dangerous, the Building Commissioner may waive this requirement."

**Internal Design Highlights (site, yard, paths, patios, parking, etc.):** One zero-step entrance into the home. One bathroom on the same level as the zero-step entrance. Bathroom wall reinforced for grab bars. Minimum 42-inch wide hallways and 36-inch passageways. Electrical wall outlets/ receptacles shall be 15 inches above the finished floor. Wall switches controlling light fixtures and fans shall be a maximum 48 inches above the finished floor. All exterior and interior doors shall be 32 inches in width.

**Exemptions or exceptions:** Multiple exceptions per item in code. No direct mention to specific garage code.

### **Dublin City, CA Date of Adoption: 2007**

**Weblink to Policy Description:** [www.codepublishing.com/CA/Dublin/Dublin07/Dublin0790.html](http://www.codepublishing.com/CA/Dublin/Dublin07/Dublin0790.html)

**Key Features to Implementation:** The accessible primary entrance that is consistent with the requirements of CBC Chapter 11A. The floor or landing at and on the exterior and interior side of the accessible entrance door that is either of the following: consistent with the requirements of CBC Chapter 11A; or the width of the level area on the side to which the accessible entrance door swings shall extend 24 inches past the strike edge of the door.

**External Design Highlights (entry, halls/doors, bathrooms, kitchen, electrical, etc.):** At least one doorbell is provided for accessible entry door. An exterior accessible route must not be less than 40 inches wide and not have a slope greater than 1:20. Exterior accessible door that has a 34-inch net clear opening. If on the primary entry level, miscellaneous areas or facilities (such as a patio or yard, laundry room, or storage area) for the dwelling must have an accessible route to and from the accessible entrance, either through the dwelling unit or around the dwelling unit.

**Internal Design Highlights (site, yard, paths, patios, parking, etc.):** At least one accessible route through the hallway consistent with the requirements of CBC chapter 11A from the entrance of the dwelling unit to the primary entry level restroom/bathroom, a common use room, and the kitchen if located on the primary level. No sunken or raised area in the bathroom. Handrails may be installed along the accessible route. This route must have a minimum width of 42 inches. Restroom/ bathroom must have grab bar reinforcement for the shower or tub. Clear space in the restroom/ bathroom outside the swing of the door or a 48-inch circle. Sink controls not requiring tight grasping, pinching or twisting of the wrist are required in the bathroom and kitchen.

**Exemptions or exceptions:** A 34-inch clear doorway width may be requested from a hallway with a 39-inch width, and a 36-inch clear doorway width may be requested from a hallway with a 36-inch width.

### **Pima County, AZ Date of Adoption: 2003**

**Weblink to Policy Description:** [www.accessiblesociety.org/topics/housing/pimacoruling.html](http://www.accessiblesociety.org/topics/housing/pimacoruling.html) / <http://idea.ap.buffalo.edu/visitability/reports/existingcitylaws.htm>

**Key Features to Implementation:** Zero step entrance; lever door handles.

**External Design Highlights (entry, halls/doors, bathrooms, kitchen, electrical, etc.):** No explicit mention of external features.

**Internal Design Highlights (site, yard, paths, patios, parking, etc.):** Reinforced walls in bathrooms for grab bars, switches no higher than 48 inches. Hallways must be at least 36 inches wide throughout main floor. Electrical outlets and light switches that are reachable by someone in a wheelchair.

## **Pine Lake, GA** *Date of Adoption: 2007*

### ***Weblink to Policy Description:***

[www.municode.com/library/ga/pine\\_lake/codes/code\\_of\\_ordinances?nodid=PTIICOR\\_CH54PLDE\\_ARTIIR E\\_S54-33VICO](http://www.municode.com/library/ga/pine_lake/codes/code_of_ordinances?nodid=PTIICOR_CH54PLDE_ARTIIR E_S54-33VICO) / [www.pinelakega.com/wp-content/uploads/2012/08/City-of-Pine-Lake-Zoning-Ordinance.pdf](http://www.pinelakega.com/wp-content/uploads/2012/08/City-of-Pine-Lake-Zoning-Ordinance.pdf)

**Key Features to Implementation:** Zero step entry. This zero-step entrance can be at any entrance to the home with the slope approaching this entrance no greater than 1:12. Threshold on the entrance no more than a 1/2 in height. 32-inch minimum clearing for interior doors and 30-inch minimum width of hallways. All required exit doors shall be side hinged. Hallways shall not be less than 42 inches in width and all passageways, other than doorways to be no less than 36 inches in width.

**External Design Highlights (entry, halls/doors, bathrooms, kitchen, electrical, etc.):** Step-free entrance shall be approached by a slope no greater than 1:12 (less steep is desirable). In a case where a lot is so steep that it cannot be graded to a maximum slope of 1:12, the driveway may have to exceed a 1:12 slope. In this case, upon approval by the Building Commissioner, the builder may construct a 1:12 (or less) route leading from the driveway to the no-step entrance.

**Internal Design Highlights (site, yard, paths, patios, parking, etc.):** Grab bars required in restrooms/ bathrooms made of wood blocking within wall framing. This reinforced wall must be located between 33 inches and 36 inches above the finished floor and must be in all walls adjacent to a toilet, shower stall or bathtub. At least one bathroom/restroom containing at least one toilet and one sink on the dwelling floor.

**Exemptions or exceptions:** Multiple exceptions laid out per item in code.

## **San Antonio, TX** *Date of Adoption: 2002*

**Weblink to Policy Description:** [www.sanantonio.gov/Portals/0/Files/DAO/UD-Ordinance95641.pdf](http://www.sanantonio.gov/Portals/0/Files/DAO/UD-Ordinance95641.pdf)

**Key Features to Implementation:** Flat entrance with a beveled threshold of 1/2 inch or less, all interior doors no less than 32 inches wide except doors leading to closet of less than 15 square feet. Each hallway at least 36 inches wide and level, with ramped or beveled changes at each door threshold.

**External Design Highlights (entry, halls/doors, bathrooms, kitchen, electrical, etc.):** At least one entrance shall have a 36-inch no step door and be on an accessible route. An accessible route is a continuous, unobstructed path at least 36 inches wide connecting all interior and exterior elements and spaces of a house and site, including corridors, parking, curb ramps, crosswalks and sidewalks. No explicit mention of parking or garages in code.

**Internal Design Highlights (site, yard, paths, patios, parking, etc.):** Bathrooms to have studs in wall around toilet to facilitate future grab bar installation. Bathtub/Shower to either have studs for grab bars or room for pre-approved ADA compliant alteration. All doorknobs to be lever handles. Light switches, electrical panels, and thermostat to be no less than 48 inches from the floor. All electrical plug or receptacles at least 15 inches from floor.



# Inventory of Local Incentives for Visitability

## **Escanaba, MI** *Date of Adoption:* 2002

***Weblink to Policy Description:*** [www.escanaba.org/images/11/file/visabord.pdf](http://www.escanaba.org/images/11/file/visabord.pdf)

***Key Features to Implementation:*** Must comply with State of Michigan code standard for accessible route, doorway must be 36 inches wide minimum.

***External Design Highlights (entry, halls/doors, bathrooms, kitchen, electrical, etc.):*** Sidewalks and ramps that are part of the visitable route shall have a maximum slope and length as follows: Sidewalks: 1/20 N/L, Type 1 Ramp. 1/8 5-foot (max 7.5-inch rise), Type 2 Ramp. 1/10 12-foot (max. 14.5-inch rise), Type 3 Ramp. 1/12 30-foot (Between Landings), Width: The route shall have a minimum clear width of 36 inches. Landings: Landings in a visitable route shall be not less than 36 inches by 36 inches clear or shall meet the Michigan Accessibility Code whichever is greater. Surfaces: Surfaces shall be non-slip. Drainage: Cross-slope shall be no greater than 1/50. Only direct mention comes from section 6.39(2), "The entrance may be at the front, side, or back of a dwelling if it is served by an accessible route such as a garage or sidewalk."

***Internal Design Highlights (site, yard, paths, patios, parking, etc.):*** Wide doorways and a half bath on the first floor, the code addresses hallways, bathroom design and the height of wall switches and receptacles.

## **Irvine, CA** *Date of Adoption:* 1999

***Weblink to Policy Description:*** [www.cityofirvine.org/community-development/accessibility-universal-design#Design Features](http://www.cityofirvine.org/community-development/accessibility-universal-design#Design%20Features)

***Key Features to Implementation:*** N/A

***External Design Highlights (entry, halls/doors, bathrooms, kitchen, electrical, etc.):*** Accessible path of travel to dwelling, Maximum ½-inch vertical change in level at thresholds, 32-inch wide interior doors, Lever door hardware, doorbell no higher than 48 inches. "No specific mention to parking or Garage requirements."

***Internal Design Highlights (site, yard, paths, patios, parking, etc.):*** Visual fire alarms and visual doorbells  
Switches, outlets and thermostats at 15 inches to 48 inches above the floor  
Rocker light switches  
Closet rods and shelves adjustable from 3 feet to 5 feet-6 inches high  
Residential elevator or lift; Bathrooms: Grab bar backing in walls, Grab bars, 5-foot diameter turning circle, 36 inches by 36 inches or 30 inches by 48 inches of clear space, Lavatory with lever faucet controls, Open-front lavatory with knee space and protection panel, Contrasting color edge border at countertops, Anti-scald devices on all plumbing fixtures, 17 inches to 19 inches high water closet seat, Roll-in shower in lieu of standard tub or shower, Shower stall with 4-inch lip in lieu of standard tub, Hand-held adjustable shower head. Kitchen: 30 inches by 48 inches clear space at appliances or 60-inch diameter clear space for U-shaped kitchen, Removable base cabinets at sink, Countertop height repositioning to 28 inches high, Lever controls at kitchen sink faucet, Base cabinets with pull-out shelves, Base cabinets with Lazy Susans, Contrasting color edge border at countertops, Microwave oven at countertop height Under cabinet task lighting.

## **Monroeville, PA** *Date of Adoption: 2006*

***Weblink to Policy Description:*** [www.monroeville.pa.us/ordinances/ORD2419.pdf](http://www.monroeville.pa.us/ordinances/ORD2419.pdf)

***Key Features to Implementation:*** No step entry, and having a threshold no greater than three fourths inch. In addition, a place where pedestrians may enter from a public right of way. This includes sidewalks, driveway, streets, alleys and paths. No-step entrances must have a clear open width of at least 32 inches.

***External Design Highlights (entry, halls/doors, bathrooms, kitchen, electrical, etc.):*** The no step entry could be through an entrance through the visitable level of the dwelling through an integral garage.

***Internal Design Highlights (site, yard, paths, patios, parking, etc.):*** Interior paths on visitable level must have a clear open width of at least 32 inches and be equipped with lever opening hardware. Interior hallways must be 36 inches in width throughout the length. One powder room or one full bathroom is required on the visitable level. Bathroom must be a minimum of 30 inches by 48 inches of clear floor space. Plumbing fixtures and entry doors must be equipped with lever style hardware. All powder rooms and full bathrooms throughout the house shall have a reinforcement of at least two inches by eight inches of blocking in the wall to allow for installation of grab bars. The reinforcement must be capable to resist pulling and benign forces of at least 250 pounds.

***Exemptions or exceptions:*** Lights switches can't be higher than 48 inches above the floor.

## **Montgomery County, MA** *Date of Adoption: 2009*

***Weblink to Policy Description:*** [www.montgomerycountymd.gov/HHS-Program/Resources/Files/A%26D%20Docs/DFLM/DFLMGuidelinesVoluntaryCertificationProgram09.pdf](http://www.montgomerycountymd.gov/HHS-Program/Resources/Files/A%26D%20Docs/DFLM/DFLMGuidelinesVoluntaryCertificationProgram09.pdf)

***Key Features to Implementation:*** No step entry at front door, back door or side door. Walking surfaces must have a slope no steeper than 1:20. Floor or ground surfaces shall be stable and slip resistant. Building entrance must have width of 32 inches when the door is open 90 degrees.

***External Design Highlights (entry, halls/doors, bathrooms, kitchen, electrical, etc.):*** Accessible routes shall consist of one or more of the following components: Walking surfaces with a slope not steeper than 1:20. Doorways, ramps, curb ramps, elevators, and wheelchair (platform) lifts. Floor or ground surfaces shall be stable, firm, and slip resistant.

***Internal Design Highlights (site, yard, paths, patios, parking, etc.):*** Hallways must be 36 inches in width. The powder room/bathroom shall be large enough to accommodate a clear space of 2 foot-6 inches by 4 feet-zero inches.

***Exemptions or exceptions:*** New homes and renovated homes can apply for the permit, can either be level 1 which focuses on visitability or level 2 which includes livability.