Aging In Place:

Renovations to Meet Changing Needs

MORSE CONSTRUCTIONS

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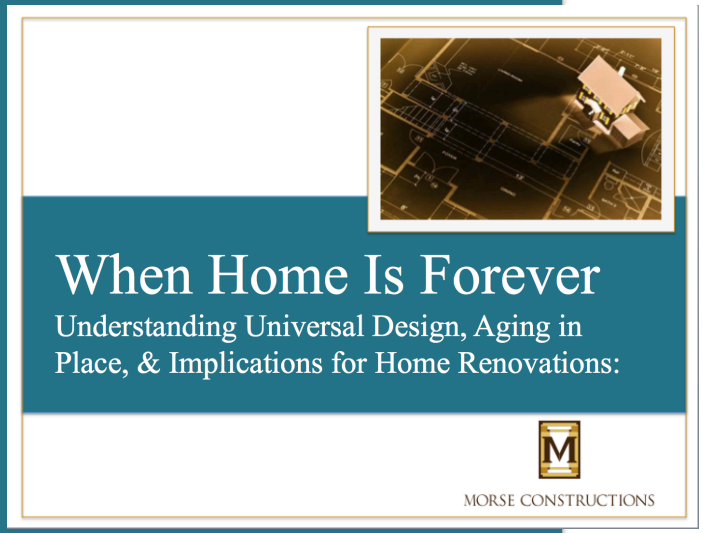
Universal home design principles are frequently used to enable people to age-in-place. Universal design is the art of creating environments that are usable by all people without the need for adaptation or specialized design.

To find out more about universal design, read our universal design whitepaper.



A Plan for the Future

Susann and her husband, Michael, are a vibrant couple with an active professional, social and community life. Yet when they contacted us at Morse Constructions to renovate their Somerville home, we all discussed how they would live in the house as they age.

It simply makes good sense to plan for potential future issues when renovating a home. Even if you don't intend to grow old in your house, a major renovation is the ideal time to make your home as welcoming as possible to visitors and guests of all ages and mobility.

We believe that aging-in-place and visitability deserve consideration in all renovations, regardless of the age of the homeowner. To us, aging-in-place simply means planning renovations with the future in mind – whether that future holds a home that is welcoming to guests of all ages, low maintenance spaces to support a retirement lifestyle, or adaptations for declining vision or mobility.

In the following pages, we explain what aging-in-place and visitability mean, and how to incorporate basic principles into your renovation.

Visitability is about the ability of all people -- regardless of age or ability -- to visit and enjoy a home without having to make modifications.

Visitability dovetails with aging-in-place. If a home is visitable, it will also support the changing mobility of its owner as he or she ages.

At a minimum, visitable homes must include:

- *At least one zero-step entrance*
- *Passage doors that are at least 32" wide*
- *At least a half bath/powder room on the main floor*

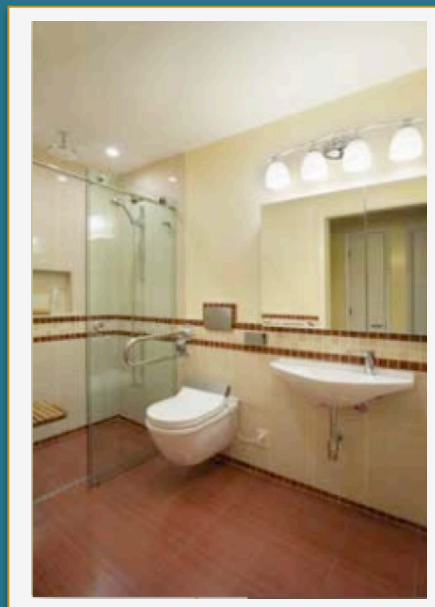
Homes that incorporate aging-in-place features typically meet – and surpass – the visitability guidelines.

What Is Aging in Place?

"Aging-in-Place" is a catch-all term that means growing older safely, comfortably and independently in one's own home. The vast majority of Americans do want to age in place. A study conducted by the MetLife Mature Market Institute found that 91% of pre-retirees age 50 to 65 want to live in their own homes in retirement. The American Association of Retired People (AARP) cites a similar statistic for senior who want to stay at home as they age.

To age in place successfully, a home must be able to evolve as the owner's needs change. Ideally, renovations are made to a home well before they are required. The house then seamlessly supports the homeowner's lifestyle in the long-term.

Key Aging in Place Considerations



All good renovations are designed to enhance how your home functions. Renovations to age-in-place simply expand that focus to accommodate potential lifestyle changes in the future. We encourage our clients to consider:

At least one level entry – Imagine if you were even temporarily in a wheel chair or had trouble walking. Would you be able to get in and out of the house easily. Include at least one entry without steps in your renovation plans.

Flexible spaces – Focus on creating multi-purpose spaces that easily change function as your needs evolve. or example, two closets that align on separate floors may be turned into a home elevator shaft in the future. A first floor home office or den can easily change into a master bedroom with the addition of an adjoining bathroom. A first or second floor closet can become a laundry area, and so on.

Zero thresholds – Eliminate the slight step over a threshold between rooms. Level flooring surfaces enhance mobility for people of all ages – from children just learning to walk, to teens too busy texting to look up, to older adults.

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Key Aging in Place Considerations

Great light – Your eyes need more light to see well as we age. Add natural light with as many windows as possible and focus on excellent task lighting, particularly in hallways, kitchens, bathrooms and stairs.

Energy Efficiency – Older adults are more sensitive to cold. Minimize air leakage by blocking drafts, plugging exterior gaps and adding spray foam insulation to conserve energy and make the house feel warmer.

Wider hallways and doors – Wide hallways and doorways are airy, inviting – and essential for anyone in a wheelchair.
Laundry at living level – A basement laundry room is awkward for anyone, but particularly if you are older and have trouble climbing stairs with laundry baskets in hand.

Low Maintenance features – Home maintenance is a key reason why seniors move
from their homes. Choose interior and exterior materials that require minimal upkeep.

Key Aging in Place Considerations

Reachable switches, controls and outlets – Electrical outlets should be set 18” off the floor and the tops of light switches and thermostats should be at 42” for maximum accessibility.

Easy-to-reach storage and appliances – Nobody enjoys balancing on a step stool to reach an item in a too-tall kitchen cabinet, but it gets increasingly hazardous as you age. Focus on easy pull-out drawers at convenient heights. Many appliances also come in drawer form so they may be located at just the right height.

Zero-threshold showers – It is dangerous to climb in and out of the bathtub to take a shower. Fortunately, showers with seats and multiple shower heads have become more popular than bath tubs or combination tub/showers over the past few years. Aging-in-place considerations simply take the trend one step farther to replace shower thresholds with drain systems that allow for entry without stepping over the side of the tub or a curb.

Case History:

A Phased Renovation to Age-in-Place

Phase 1

Susann and Michael – the couple we mentioned in our introduction – took a very sensible approach to aging-inplace.

When they decided to renovate their home, they planned for the future, but chose to delay making some of the changes until they really needed them. For example, a first floor living room was identified as the future home for a first floor master bedroom. Space was carefully planned to accommodate a shower next to the existing powder room in future renovations.

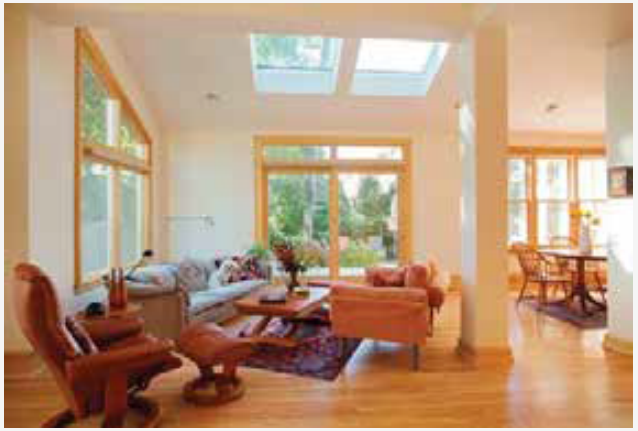
Susann's and Michael's immediate goal was to create more comfortable, accessible and flexible first floor living space. To do so, they first needed to find a new home for the books that had overrun almost every room.

During the first phase of the renovation, we sealed the fieldstone foundation of an underused part of the basement, insulated the space, installed shelving and created a library.

Once the books had their own home, Susann and Michael worked with our design-build team on the second phase of their renovations.

Case History:

Phase 2



"The new space is flexible, easy to maintain and much more comfortable because it is well insulated. The whole house just feels sturdier."

-- Susann
Somerville, MA

During the extensive, second phase renovations, we:

- Reconfigured first floor spaces and added a 200 square foot addition to enhance the connection with the outdoors, incorporate universal design features, and create flexible areas to accommodate everything from yoga workshops to intimate dinners
- Added skylights and updated second floor office
- Relocated laundry to the second floor
- Replaced old windows with energy-efficient models throughout the home
- Constructed a new deck and assisted with landscaping to integrate inside and outside spaces

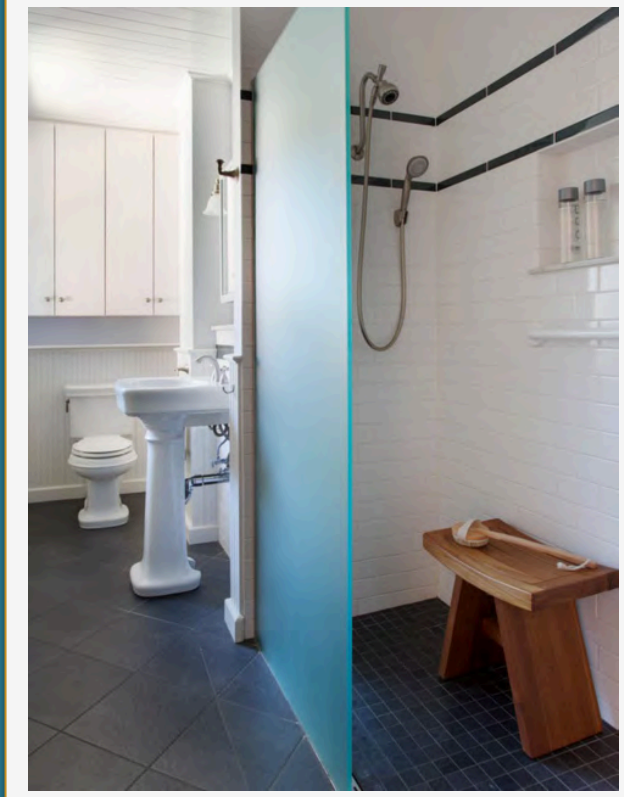
Top Three Aging-in-Place Misconceptions

Aging-in-place and visitability is considered as part of every major renovation that we undertake. Over the years, we continually encounter three major misconceptions:

1. Aging-in-place will make my home look institutional.

When people think of aging-in-place, they often have images of ugly grab bars and access ramps. In reality, many of the homes that people admire may have subtly incorporated universal design or aging-in-place features. Wide hallways, oversized doors, great lighting, low or no thresholds … these are just a few of the ingredients of a stunning home design and aging-in-place.

Top Three Aging-in-Place Misconceptions



2. I'm too young to consider aging-in-place issues.

You may be too young now, but think about your relatives and neighbors. Do you have a family member who has a little trouble navigating your home at the holidays or would you ever want to host gatherings with people from different age groups? If so, you'll want to consider visitability issues.

Furthermore, there are tremendous cost advantages to renovating once to meet your needs for decades to come, rather than becoming a "serial renovator" as your needs change.

3. I won't be able to sell my house if it has aging-in-place features.

Why? Well done renovations with aging-in-place features look beautiful, contain the open spaces and function that buyers want, and are adaptable to people of all ages, sizes and health.

Renovations to accommodate aging in place and visitability will only expand your market of potential buyers.

Aging-in-Place Remodeling Checklist

There is a lot to think about as you plan a renovation so you can age in place.

The National Association of Home Builders publishes a handy checklist of aging-in-place features. We have shared the checklist below, but feel free to call us at 617-666-4460 to discuss your project and get additional ideas.

EXTERIOR

- Low-maintenance exterior (composite trim and decking, and fiber-cement siding)
- Low-maintenance shrubs and plants
- Deck, patio, or balcony surfaces are no more than ½ inch below interior floor level

OVERALL FLOOR PLAN

- Main living on a single story, including full bath
- No steps between rooms/areas on the same level
- 5-foot by 5-foot clear/turn space in living area, kitchen, a bedroom, and a bathroom

HALLWAYS

- Minimum of 36 inches wide, wider preferred
- Well lit

ENTRY

- Accessible path of travel to the home
- At least one no-step entry with a cover
- Sensor light at exterior no-step entry focusing on the front-door lock
- Minimum of 32 inches of clear width, which requires a 34-inch door
- Non-slip flooring in foyer
- Entry door sidelight or high/low peep hole viewer: sidelight should provide both privacy and
- Safety
- Doorbell in accessible location
- Surface to place packages on when opening door

THRESHOLDS

- Flush preferable
- Exterior maximum of 1/2 inch beveled
- Interior maximum of 1/4 inch

Aging-in-Place Remodeling Checklist

INTERIOR DOORS
- Minimum of 32” of clear width, which requires a 34-inch door (same thing)
- Levered door hardware

WINDOWS
- Plenty of windows for natural light
- Lowered windows or taller windows with lower sill height
- Low maintenance exterior and interior finishes
- Easy- to- operate hardware

GARAGE OR CARPORT
- Covered carports and boarding spaces
- Wider than average carports to accommodate lifts on vans
- Nine foot door heights to accommodate some raised roof vans
- Five-foot minimum access aisle between accessible van and car in garage
- If code requires floor to be several inches below entrance to house for fume protection,
- can slope entire floor from front to back to eliminate need for ramp or step
- Ramp to doorway if needed
- Handrail if steps

FAUCETS
- Lever handles or pedal-controlled
- Thermostatic or anti-scald controls
- Pressure balanced faucets

Kitchen and Laundry COUNTERS
- Wall support and provision for adjustable and/or varied height counters and
- removable base cabinets
- Upper wall cabinetry three inches lower than conventional height
- Accented stripes on edge of countertops to provide visual orientation to
- the workspace
- Counter space for dish landing adjacent to or opposite all appliances
- Base cabinet with roll out trays and lazy susans
- Pull-down shelving
- Glass-front cabinet doors
- Open shelving for easy access to frequently used items

Aging-in-Place Remodeling Checklist

APPLIANCES

- Easy to read controls
- Washing machine and dryer raised 12 to 15 inches above floor
- Front loading laundry machines
- Microwave oven at counter height or in wall
- Side-by-side refrigerator/freezer
- Side-swing or wall oven
- Raised dishwasher with pushbutton controls Electric cook top with level burners for safety in transferring between the burners, front
- controls and downdraft feature to pull heat away from user; light to indicate when
- surface is hot

MISCELLANEOUS

- 30-inch by 48-inch clear space at appliances or 60-inch diameter clear space for turns
- Multi-level work areas to accommodate cooks of different heights
- Open under-counter seated work areas
- Placement of task lighting in appropriate work areas
- Loop handles for easy grip and pull
- Pull-out spray faucet
- Levered handles
- Laundry chute or laundry facilities in master bedroom in multi-story homes

BATHROOMS

- Wall support and provision for adjustable and/or varied height counters and removable base cabinets
- Contrasting color edge border at countertops
- At least one wheelchair maneuverable bath on main level with 60-inch turning radius or acceptable T-turn space and 36-inch by 36-inch or 30-inch by 48-inch clear space
- Bracing in walls around tub, shower, shower seat, and toilet for installation of grab bars to
- Support 250 - 300 pounds
- Curbless, 36 inch wide or larger stand-up shower in main bath
- Lower bathtub for easier access
- Fold down seat in the shower
- Adjustable/handheld showerheads, 6-foot hose
- Tub/Shower controls offset from center
- Shower stall with built-in antibacterial protection
- Light in shower stall
- Toilet 2 ½ inches higher than standard toilet (17 to 19 inches) or height-adjustable
- Design of the toilet paper holder allows rolls to be changed with one hand
- Wall-hung sink with knee space and panel to protect user from pipes
- Slip-resistant flooring in bathroom and shower

Aging-in-Place Remodeling Checklist

STAIRWAYS, LIFTS, AND ELEVATORS

- Adequate hand rails on both sides of stairway, 1 1/4-inch diameter
- Increased visibility of stairs through contrast strip on top and bottom stairs, color contrast
- between treads and risers on stairs and use of lighting
- Multi-story homes may provide either pre-framed shaft (ie. stacked closets) for future
- elevator, or stairway width must be minimum of 4 feet to allow space for lift
- Residential elevator or lift

RAMPS

- Slope no greater than one inch rise for each 12 inches in length
- Adequate handrails
- Five-foot landing provided at entrance
- Two-inch curbs for safety

STORAGE

- Adjustable closet rods and shelves
- Lighting in closets
- Easy open doors that do not obstruct access

ELECTRICAL, LIGHTING, SAFETY, AND SECURITY

- Light switches by each entrance to halls and rooms
- Light receptacles with at least two bulbs in vital places (exits, bathroom)
- Light switches, thermostats, and other environmental controls placed in accessible
- locations no higher than 48 inches from floor Electrical outlets 15 inches on center from floor; may need to be closer than 12 feet apart
- Clear access space of 30 inches by 48 inches in front of switches and controls
- Rocker or touch light switches
- Audible and visual strobe light system to indicate when the doorbell, telephone or smoke
- or CO2 detectors have been activated
- High-tech security/intercom system that also controls heating, air conditioning, and lighting
- Easy-to-see and read thermostats
- Pre-programmed thermostats
- Flashing porch light or 911 switch
- Direct wired to police, fire, and EMS (as option)
- Home wired for security
- Home wired for computers

Aging-in-Place Remodeling Checklist

FLOORING

- Smooth, non-glare, slip-resistant surfaces, interior and exterior
- Low (less than 1/2 inch high pile) density carpeting with firm pad when carpeting used
- Color/texture contrast to indicate change in surface levels

HVAC

- Easily accessible filters
- Energy-efficient units
- Windows that can be opened for cross ventilation, fresh air

ENERGY-EFFICIENT FEATURES

- In-line framing with two by six studs spaced 24-inch on center
- Air-barrier installation and sealing of duct work with mastic
- Reduced-size air conditioning units with gas furnaces
- Mechanical fresh air ventilation, installation of air returns in all bedrooms and use of
- carbon monoxide detectors
- Installation of energy efficient windows with Low-E glass

REDUCED MAINTENANCE/CONVENIENCE FEATURES

- Easy- to-clean surfaces
- Central vacuum
- Built-in pet feeding system
- Built-in recycling system
- Video phones
- Intercom system

OTHER IDEAS

- Separate apartment for rental income or future caregiver
- Flex room that can used as a nursery or playroom when the children are young
- and as a home office later; if combined with a full bath, room could also be used
- for an aging parent/aging in place

Source: Home Innovation Research Labs ToolBase online resources

Morse Construction has been associated with a number of organizations and have won a number of awards over the years.

We are proudly members of the following organizations:

- National Association of the Remodeling Industry (NARI) Eastern MA, facilitator of NARI Green Remodeling Certification
- Builders Association of Greater Boston Green Council.

Find out more about our work and our team:

www.morseconstructions.com

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About Morse Constructions

Morse Constructions Inc. is a design/build firm providing complete renovation services to homeowners throughout the greater Boston area for over 40 years.

Morse Constructions has been selected as “Best of Houzz and received the PRISM Gold Award for Best Universal Design from the Builders and Remodelers Association of Greater Boston.

Our work has been featured on Houzz and in numerous publications including This Old House, Architectural Digest, Better Homes and Gardens, and The Boston Globe.

Over our years in business, Remodeling Magazine named Morse to its list of the top 50 remodeling companies in the country.

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