Lew and Marie have lived in their comfortable two-story home in Stamford, Conn., for most of their 50 married years. Lew’s 94-year-old mother has lived with them for the past 20 years. While they have concerns about future mobility and the possible challenge of climbing stairs to the second floor, they plan to remain in their paid-for home, which is in a familiar neighborhood and community, close to their children and grandchildren.

Bill and Loretta, now in their 70s, tried life in South Carolina for several years after retirement, but missed being near children and close friends. They moved back to a north suburb of Chicago, where they built a two-story home with careful planning: The master bedroom is on the lower level, and the guest bedrooms for their visiting children are above.

John will be only 45 when he retires from the Air Force next year. After more than 20 years of transfers around the world, he and wife, Pam, want to return to the Colorado Springs ranch home they lived in 10 years ago and have rented out since that time. John expects to do extensive renovation to totally upgrade the kitchen, bathrooms and master bedroom suite. Fortunately, he's thinking ahead about the needs they may have when they are older.

These homeowners are typical of many midlife and older Americans, the majority of whom plan to remain in their current homes for the rest of their lives. In some studies, as many as 8 in 10 homeowners age 45 and over say they would like to stay in their homes as long as possible, even if at some point they would need help caring for themselves in order to do so. An AARP study found that the desire to continue to live in the same house actually increases with age: 83% of homeowners age 65 and over said they were “Very Likely” or “Somewhat Likely” to stay in their current homes for the rest of their lives, compared to 78% of those ages 55 to 64, and 69% of those ages 45-54.

Homeowners give a variety of reasons for why they prefer to stay in place. In an ASID survey of homeowners age 35 and over, 27% of the respondents said they love the location in which they live; 25% have an affinity for the design and layout of their homes; 12% said their current homes were comfortable; and 11% said they just like the house.
A Major Opportunity for Designers

Homeowners' preference to “age in place,” that is, to remain in one’s current home rather than relocate to new quarters, a senior community or, if need be, a care facility, takes on greater significance for interior designers when viewed in the light of other demographic trends:

- According to the U.S. Census Bureau, more than 75% of Americans between the ages of 45 and 54 (about 32.5 million) are homeowners, and more than 80% of Americans age 55 to 75 (40.3 million) own their home.

- Between now and 2019, the 75 million baby boomers will turn 55, an age at which they are likely to be caring for an aging relative and/or seriously planning for their retirement. In 2011, the first baby boomers will reach the traditional retirement age of 65. At 2030, baby boomers will comprise about 20% of the total U.S. population, ranging in age from 66 to 84.

- Most boomers, according to a recent study by the National Association of Realtors, live in two-income households with higher than average median incomes. Almost one in four boomer households have a high net worth of $500,000 or more, and 97% of these households are homeowners.

- A study commissioned by the Mortgage Bankers Association (MBA) found that 6.6 million households headed by someone age 50 or older own a second home. MBA predicts that baby boomers will add two million second homes to their portfolios as they approach retirement.

Taken together, these factors promise a major opportunity for interior designers who understand how people’s needs change as they age and how to integrate features into today’s designs that will benefit them for years to come.
Planning for Now and Later

When dealing with this new generation of people who plan to age where they now live, you may need to broaden your approach to gathering useful information from them that will allow you to respond not only to their short-term desires but also to their long-term needs.

An ASID study of homeowners age 35 and older revealed that while homeowners are thinking about issues like safety, ease of access and mobility, they also value comfort and enjoyment. Thinking about the home and how it factors into their future is as important as planning for financial security or health care. Seventy-six% of the participants in the study had planned for the way they want their homes to be, third only to planning for financial security (79%) and for health care (77%).

• Some 62% planned for social activities, which can influence design decisions if they intend to entertain or host guests.

• For nearly one-fifth of the respondents, the most convenient floor plan was having one level to navigate.

• Those who were not likely to stay in their homes mentioned stairs as a concern more than those who were likely to remain (33% vs. 14%).

• People want a house that’s easier to maintain (57%) and easier to get around in (40%). Twenty-three percent felt that downsizing would make it easier to maintain and get around. Those choices impact selection of everything from floor, wall and counter surfaces to organizer-storage units.

• A significant number wanted upgrades and changes that enhance lifestyle. Appliances (from compact washer-dryer units to top-of-the line refrigerator-freezers) and fixtures were high on the list. Three out of five of those who opted for changes said they would update appliances and fixtures.

• Two in five people wanted their homes to be more luxurious. To do that, 37% would change the look, 27% would expand space, and 31% would change the floor plan.

• Luxury means various things to different people. Luxury can mean a lounging-bath to some and a gourmet kitchen to others. For example, respondents were almost equally divided on whether they wanted to add a hot tub or whirlpool spa (15%) or to update appliances (14%).
Eleven percent wanted to add a room. Responses were fairly equal among those who would add a bathroom, a porch/sun room or a bedroom. An almost equal number (10%) wanted to remodel, with bathrooms and kitchens equally important as makeover candidates.

Although the ASID report was released in 2000, more recent studies confirm that these trends are still relevant today. The American Institute of Architects Home Design Trends Survey for the first quarter of 2007 found that U.S. homeowners are increasingly requesting greater accessibility with the home through wider hallways, fewer steps and single-floor design. They also want more flexible and less formal living spaces, along with outdoor living spaces that are an extension of indoor living.

Similarly, a recent survey of baby boomers’ domestic likes and dislikes, commissioned by the publishing company, Hanley Wood LLC, generated similar findings. The boomers in the Hanley Wood survey said they would prefer a hardworking one-level floor plan and universal design features so they can age in place. At the same time, they want houses that are smaller, more luxurious, and high-tech; they want them more functional, lower-maintenance and energy-efficient; they want a better connection to the outdoors and room to party with friends. They also care about green design.

In working with this population, you have an opportunity to help them understand the long-term impact of their decisions and to advise them on how to combine aesthetics and function. The following guidelines and insights are drawn from interviews with interior designers from around the country, based on their work with clients.
Life Changes Prompt Home Modifications

Today, older Americans are healthier and better off financially than at any time in history, and they are living longer. By various estimates, the number of Americans over the age of 100 by mid-century could be 800,000 or even as many as 1 million. Joining these folks will be a population of 90-somethings numbering at least 8 million and a population of 80-somethings numbering at least 20 million.

As longevity increases, so will the likelihood of chronic health conditions and the need for regular assistance. Studies show that elderly Americans are reducing their use of nursing home care, in part because they prefer home-delivered care or assisted living. They will need a suitable and accessible place to live, whether they remain in their own homes or live with a family member.

It is estimated that relatives provide about 80 percent of the caregiving for older persons. Often they must make changes to accommodate the physical needs or limitations of a parent or older relative. In the ASID study, one in four (26%) participants said they had or will have to modify their homes.

Among the alterations they mentioned were

- Improve access by installing ramps or railings or by widening doors and halls.
- Add grab bars to make baths and showers more accessible and to reduce the likelihood of falls. (Many respondents were not certain what modifications would be required, signaling a need for counsel and education in this area.)
- Set up a bedroom designated for the live-in.
- Chairs should have high seats and strong, unpadded arms to make them easy to sit in and get up from.
- The quality and quantity of lighting in the design is especially important for persons with vision problems.
- Avoid installing whirlpools or spas if they are too difficult to get in and out of.
- Raise the level of toilet seats and place grab bars nearby.
- Use locks suitable for people with arthritic hands.
- Use paddle/lever handles on doors and faucets in place of knobs.
- Use illuminate rocker light switches.
- Install walk-in showers without curbs on the shower pan to reduce the hazard of falling, ease access and, if required at some point, to accommodate a wheelchair or other mobility device.

In addition, the designers we interviewed made these suggestions

- Improve access by installing ramps or railings or by widening doors and halls.
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Safety First

The mature market wants modifications to their homes that increase efficiency, convenience and comfort. Safety was not a major worry among those who participated in the ASID study. But, in the AARP study, 70 percent of respondents who had made modifications to their homes cited safety as the primary reason.

According to the Centers for Disease Control and Prevention, falls are the leading cause of injury deaths among older adults. They are also the most common cause of nonfatal injuries and hospital admissions for trauma. Almost without exception, falls can be linked to some deficiency in the immediate environment, according to the National Safety Council. Accident-causing culprits that designers should assess are inadequate lighting, slippery floor surfaces, improper piled or installed carpeting, throw or area rugs, steep or winding stairs, thresholds in doorways and showers, high tub sides, inadequate stair railings, roll-away furniture and hard-to-reach areas that require stepping on a platform, such as a ladder.

Designers we interviewed also mentioned the following safety measures:
- Slip-resistant bathroom surfaces
- Increased ambient lighting levels and the use of a brighter color palette
- Hallways that can accommodate walkers or wheelchairs
- Short-pile carpets to prevent tripping
- Furniture with rounded corners
- Sensors or other devices that turn lights on automatically
- Illuminated paint that glows in the dark to provide wayfinding at night
HOME FOR A LIFETIME
Interior Design for Active Aging

Tips for Working More Effectively With People Planning to Age in Place

Gain knowledge of the aging process, lifestage needs and appropriate products.

- Help clients plan ahead; they may be young enough presently to overlook their future special needs. Counsel them on the possibilities and how they can include features now that will prove more beneficial as they age.
- Understand the ergonomic needs of the frail or physically impaired.
- Assess special needs, such as diminished motor skills or mobility, memory loss, visual perception difficulties, or disability, as well as possibly a future live-in family member or caregiver.

Research how midlife and older people’s needs change as they age.

- Significant vision and hearing loss occurs in about one in three adults ages 65 to 75.
- Color perception alters with aging. It is like looking through an amber-colored filter. Thus, ambient and task lighting need to be increased. Color contrasts become more important. Color palettes need to adjust for “ambering out.”
- Upper-arm strength diminishes with age, affecting reach, agility and getting in and out of furniture and bathtubs.
- Cognitive impairments can affect memory and sense of orientation. Well-organized, easy-to-reach storage facilities and space plans, color-coding and affective use of color can assist recall and prevent injury.

Focus on furniture with an eye toward mobility and agility.

- Remove unnecessary furniture, thereby creating more open space for easier mobility.
- Eliminate furniture that is too large, too deep, awkward or heavy to move around.
- Ensure furniture is properly scaled and of the correct firmness to aid in ease of movement. Appropriately scaled furniture will have an approximate seat depth of 20”, a seat height of 18” – 20” and an arm height of 24” – 25”.
- Consider furniture such as motorized recliners or adjustable chairs that assist mobility or provide additional comfort.
- Avoid wheeled furniture, which can roll away if someone leans against it.
- Select furniture with rounded edges to avoid injury from sharp corners.
Increase light to aid diminished vision.

• Increase bulb wattage, if needed. Verify that selected lamps are rated to accommodate higher wattage. Avoid halogen-style torchieres or other high-heat lighting that could easily tip over and start a fire.

• Ensure that work areas, such as kitchen counters, sinks and stove tops, are adequately lit and that the lighting does not cast shadows.

• Arrange furniture and work areas to optimize the use of natural light.

• Consider floor lamps to increase ambient lighting, brighten dark corners or illuminate areas where table lamps are not feasible.

• Add remote controls to make it easier to turn lighting on and off.

• Assess permanent light fixtures in every room to determine the illuminating value they provide.

• Include nightlights.

• Install light sensors or other mechanisms that automatically turn lights on when a door is opened in a bathroom, closet, kitchen, bedroom or stairwell.

• Use a brighter color palette.

• Accent contrasts at entryways, halls, stairs and exits.
Enhance most-used rooms for ease of access and safety.

**General considerations**

- Consider flat, smooth surfaces for floors, such as cork or wood, instead of carpeting.
- When carpeting is used, avoid thick, soft padding; select short-pile carpet.
- Eliminate recessed floor levels, such as in living rooms, and avoid elevated entry halls and foyers.
- Select a convenient, stairless location for the washer and dryer.
- Add sufficient storage to reduce clutter and keep work areas open.

**The kitchen**

- Consider eliminating an island to provide more room to move around.
- Create a great room so the kitchen and a frequently-used ancillary area are close together.
- Use lighter colors to brighten the kitchen area.
- Install more floor cabinets and fewer upper cabinets. Upper cabinets should be no higher than 48” from the floor.
- Elevate dishwashers 8” above the floor to facilitate loading and unloading.
- Select durable, easy-to-clean counter tops.
- Set counter tops at varying heights to accommodate standing or sitting.
- Promote upgrading appliances that not only enhance the look and feel, but also provide easy access.
- Consider smaller appliances, where appropriate, that are lightweight and easier to grip.
- Use wide kitchen chairs with high seats and strong wooden arms and a kitchen table without corners.
The bathroom

- Ensure the bathroom is adjacent to the bedroom for fast, convenient access.
- Include seating in the bathroom to make it easier to undress/dress.
- Install a walk-in shower that is accessible people in wheelchairs.
- Locate shower and tub controls near point of entry.
- Build in a large, wide seat in the shower and/or add a seat to the tub.
- Counsel clients that bathtubs can be difficult to get into and out of.
- Install grab bar and safe holds near wet areas.
- Include an attachment to raise the toilet seat.
- Install safety water temperature controls.
- Use slip-resistant floor tiles or smaller tiles with more grout lines to reduce chances of slipping.
- Select non-permeable floor materials.
- Install easy-maintenance vanity counters.
- Install handheld adjustable shower heads.

The bedroom

- Use lower beds. (Some manufacturers offer reduced height on box springs.)
- Consider an electric bed that can be lowered for easy access.
- Install closet organizers that eliminate clutter and the need to bend down or reach up for items.
Plan for special needs.

**Mobility**

- Widen hallways, if possible. (Suggested minimum is 36”.)
- Eliminate door thresholds greater than ¼” that could impede access.
- Widen doorways, if needed. (ADA guideline is a minimum of 32”.)
- Include easy-to-reach illuminated rocker wall switches.
- If needed and affordable, consider adding an elevator or chair lift.
- Add access ramps, if needed. (ADA guideline is a minimum of 36” wide with slopes of 1:12 or less, but a more gradual slope may be needed for older persons.)
- Situate the bed so there is at least 36’ of clearance to allow for wheelchair approach and convenient access to bathroom.

**Agility (such as arthritis, frailty, injury)**

- Use paddle handles on faucets.
- Install paddle handle hardware in place of knobs on doors and cabinets.
- Install easy-to-manipulate door locks; avoid traditional thumb-activated mechanisms.
- Increase the use of contrasting colors between adjacent surfaces and on control mechanisms to make them easier to see.
Ensure Safety.

• Install support (grab) bars in the bathroom, especially in the shower/bath and near the toilet, and in other areas as deemed necessary. Be sure to install proper backing.

• Eliminate throw or area rugs that may slip when stepped on.

• Eliminate any exposed cords or cables to prevent tripping.

• Ensure that work areas are properly lit and set at the appropriate height.

• Install electronic devices that warn when appliances are left on and ones to call for assistance.
Physical activity, mental stimulation, social interaction and relaxation are all important to healthy aging. Many people want to add features that support these needs and a sense of luxury to their home when they renovate. Some suggestions that include safety and design features as well are listed below.

- Design bathrooms that are fun and comfortable to lounge in.
- Include flexible space that can be used for multiple purposes, such as a computer room, exercise room, hobby room, etc.
- Create a suite (bedroom and private bath) for guests and/or a caregiver.
- Design a kitchen for multiple generations that can be adapted for changing lifestyle needs.
Resources on Aging and Design Solutions

The following is a selected list of easily accessible resources on aging in place. Many include additional resource lists.

**Publications**


**Web Sites**

www.aarp.org  The AARP Web site includes a wealth of information about aging, the mature market, aging in place, universal design, products and much more. You do not need to be a member to access the information on this site.

www.asid.org  The Knowledge Center on the ASID Web site includes information and links to other resources and publications about aging in place, universal design and accessibility.
HOME FOR A LIFETIME

Interior Design for Active Aging

www.ada.gov  Although the Americans with Disabilities Act (ADA) does not apply to residential buildings, this site, operated by the U.S. Department of Justice, contains technical assistance (including a checklist with guidelines and specifications) that can be useful to the residential designer.

www.homemods.org  Operated by the Ethel Percy Andrus Gerontology Center at the University of Southern California, the National Resource Center on Supportive Housing and Home Modification conducts applied research and policy analysis; provides training, education and technical assistance; and maintains a clearinghouse of reports, guidebooks, newsletters and factsheets in the areas of supportive housing and home modifications for elderly persons who wish to remain in their homes.

www.design.ncsu.edu/cud  The Center for Universal Design, at North Carolina State University, has information about improving accessibility and other issues, publications and a list of additional resources.