Helping an aging parent find the most comfortable living arrangements is something most of us will experience at some time.

MOM, CAN I HAVE THE CAR KEYS? Most of us can remember the first time we got a positive response to this question. Perhaps around age 16? And hopefully with a recently earned drivers license. It was a rite of passage to be celebrated. The car represented freedom, adventure, excitement and a healthy dose of worry for our parents. And not unwarranted worry. As sixteen-year-olds, we knew we were perfect drivers who made no mistakes and were always safe enough. As adults decades later we know better.

My mom was a vigorous woman, fiercely independent and usually got her way. She played tennis with a mean backhand till age 80, and then got a couple of hip replacements over the next few years. As might often be the case, she probably should have stopped driving well before I finally asked for the keys back sometime around age 90. Still, it wasn’t an easy request. Neither my brother nor I lived close to the home we grew up in, and when I suggested it was time for one of us to make a special visit to “ask for the car keys” he replied, “you’re right, let me know how it goes.”

It actually went quite well. Fortunately, she had a friend/helper who was already handling some of the driving. Being sharp as a tack, mom probably realized it was for the best. This was just one of the many episodes in the several decades long aging in place trajectory. Mom was always ada-
mant about staying in the house she called home since 1958 and we were happy to help. She finally passed a few weeks shy of 100 years old right where she wanted to be.

Helping an aging parent find the most comfortable living arrangements is something most of us will experience at some time. Looking back, my brother and I had it rather easy. Mom knew what she wanted, and we made it work. There were bumps, scares and hospitalizations along the way, and towards the end the care was 24 hours a day. But the house was a single story with only one step up to the front porch, so the modifications we needed to make were minimal. One thing we certainly didn't have to consider several years ago was the novel coronavirus and COVID-19.

the new normal?

In mid-June the Kaiser Family Foundation reported that as of June 4th over 43,000 COVID-19 related resident and staff deaths had been reported in long-term care facilities and nursing homes by the 41 states that reported COVID-19 long-term care data. In 27 of those states long-term care and nursing facility residents accounted for 50 percent or more of all COVID-19 deaths. And in early July as the country tried to get back to business, new infections are spiking in the general population at 50,000+ per day and hotspots were on the rise in many states.

In this COVID-19 era seniors and their family members are rethinking what it means to be safe in long-term living arrangements. Many are concluding that the best option includes making some modifications to the place called home, either on their own or with family members. Aging is of course a continuum, one that varies from individual to individual. We won’t attempt to be all inclusive in this story but intend to get us all thinking about options.

don’t call it aging in place

We begin by asking what makes for successful aging in place during our later decades? First, it’s important not to think of
As designers, builders, and home technology pros, we are the ones who can make a difference as our clients embark on a home reset that helps them get on with living.

Working with our living-in-place clients, we start where design and technology professionals always start — by asking questions. Questions that uncover not just the surface wants, but the needs that underly them. Questions that help us create that one-plus-one-equals-three scenario where the home not only removes dangers and obstacles but is intuitive to the occupants’ needs.

As designers, builders, and home technology pros, we are the ones who can make a difference as our clients embark on a home reset that helps them get on with living. Perhaps they are looking at modifications to an existing home to make it more friendly and responsive to their approaching years of reduced vigor.

Perhaps they are planning a new home that meets these same needs, while downsizing out of the larger home in which they raised a family. Perhaps it is the adult children of that family planning a remodel that creates a separate-but-connected apartment for mom or dad to move into. In each case, the question is “how do we enable independence?”

Co-Founder of the Living In Place Institute, Louie Delaware, advises professionals in the building, design, and medical fields on the importance of identifying and mitigating the
Safe flooring is even more important as we age. Choose flooring with a reasonably high coefficient of friction to reduce the chance of slipping. Heated floors reduce stress but even more importantly, help those with nerve issues in their feet.
Studies such as a 2019 measure of lighting’s impact on a group of 77-year-old Norwegians demonstrate that improved quality of light can help improve quality of life and wellness, and that lighting can be adjusted to promote healthy aging at home.

particularly in adults affected by peripheral neuropathy — damage or dysfunction of nerves that can result in numbness, tingling, muscle weakness and pain in the extremities. Risk factors for neuropathy include advancing age, high blood pressure, high cholesterol, obesity, and diabetes (more on diabetes later).

**brighten it up**

Easier navigation also requires good lighting, particularly for our older clients and loved ones. As we age our pupils become smaller and less responsive to changes in light. Delaware sites a telling statistic: “People in their 60s need about three times more illumination for comfortable reading and detailed tasks than people in their 20s.” And it’s not just about reading. Light is one of the important time cues — or zeitgebers — with which we reset our circadian system on a daily basis. Reduced sensitivity to environmental zeitgebers — such as reduced light due to the yellowing and thickening of the eye’s lens as we age — can contribute to circadian changes in later life resulting in decrease of quality sleep at night. Studies such as a 2019 measure of lighting’s impact on a group of 77-year-old Norwegians demonstrate that improved quality of light can help improve quality of life and wellness, and that lighting can be adjusted to promote healthy aging at home.

**the most dangerous rooms in the house**

Okay, that heading might seem extreme but think about it: Place electricity next to water, throw in some fire and a slippery floor surface and what do you have? A kitchen or a bathroom. The kitchen stove top is one item that can cause
For many living in place, an induction stove top is the smart choice, particularly with an auto-off mode that shuts off the burners after a pre-set time. Smart microwave technology has evolved to simplify cooking even more, some with smartphone or virtual assistant control, others with barcode scanning to download cooking instructions. “Kitchen tech is getting fabulous!” says Sabatino. “Appliances that let you know when your food is ready or when they need cleaning are just the start. Voice control is big, and the kitchen doesn’t need to be overlooked when we talk of smart voice control in the home.”

In the bathroom it’s a combination of safety and dignity. For safety, start with plenty of space that can one day accommodate a homeowner using a walker or assisted by a caregiver. In the years before actually “needing” the space for the additional equipment or assistance it will feel like a luxury that reduces stress and adds to cognitive stamina. Flooring with that “reasonably high coefficient of friction” mentioned earlier and strategically placed grab bars are essential to reduce opportunities for falls. A grab bar doesn’t need to look like a telltale sign of “aging” in place. It adds to the comfort for guests as well, and both Delaware and Sabatino referenced framing it with clients as a friendly accessory for the homeowner’s older house guests.

IN THE KITCHEN
For many living in place, an induction stove top is the smart choice, particularly with an auto-off mode that shuts off the burners after a pre-set time.

IN THE BATH
From friction-based flooring for avoiding slips to toilets that are motion-activated and clean you and also themselves... there are many ways to make the bathroom safer and more accessible.
The toilet is not just the common location needing a grab bar, but for parents living with adult kids, toileting itself is an awkward area and one that can challenge dignity. Fortunately, modern toilet technology can actually help with independence and dignity in this room where we prefer privacy. Toilets like the Kohler Veil and Toto Neorest deliver advanced features that include a built-in bidet, heated seats, motion activated lid and self-cleaning. Of course, it’s cleaning ourselves (without the involvement of others) that can maintain dignity through periods of declining vigor.

**staying connected and confident**

Part of the question around what is best for aging mom and dad, is what gives family members confidence that their parents are okay staying in their “forever home.” Most leading security or smart home control systems enable remote monitoring of surveillance cameras and sensors. Family members can then “check on mom or dad” and make sure the doors are locked and the alarm is set. Sensors can alert family members of issues. Back to kitchen safety as an example, the 2GIG Stove and Grill Guard can alert family members when the stove is left on beyond a pre-set time. Of course, it can issue an alert in the home as well.

A career move required the son of an elderly couple on Anna Maria Island in the Sarasota/Bradenton, Florida area to relocate to the Northeast. Working with local integrator Tempus Pro Services, the home was equipped with a surveillance system that allowed him remote access to the video feed via the security system, enabling him to check in on mom and dad and see that they’re okay. Smoke detectors and carbon monoxide detectors were attached to the security system for added peace of mind. Per Brett Price, CEO of Clare Controls and the manufacturer for many of the smart security systems installed by Tempus, “people want to be virtually connected to the home, and this provides as much comfort to family members away from the home as it does for the homeowner.”

**i’ve fallen and i can’t get up**

Smart medical technology is beginning to integrate into the smart home, and it goes beyond the personal emergency response system pendant worn by many seniors, unfortunately sometimes referred to as the “death button.” One company pursuing this technology convergence, Sensoria Health, is developing remote patient-monitoring smart garments, including a smart sock that monitors the wearer’s gate to detect and eventually to predict falls. These are interpreted and monitored with artificial intelligence software and distributed via the Sensoria cloud as actionable, near real-time information for patients and remote caregivers.

“Every minute of every day a limb is lost due to diabetes,” says VP Business Development John Carpenter talking about the company’s smart diabetic footwear. “The biggest problem is that people don’t listen to their doctor.” The company’s Motus Smart Boot monitors a patient’s rehabilitation

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**ON THE BODY**

Prediction is the direction smart home technology is headed, so it seems a safe bet that smart wearable medical tech will eventually be part of the home tech ecosystem.
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The design-build team that comes together to envision the forever home is making sure the client will be able to comfortably age in the home, so it’s essential to look at the long-term goals and feasibility, design accordingly, and include technology early in the process. “We become a team and then become Team Client,” is how Sabatino summarized the relationship between designer, architect, builder and technologist. “Our ultimate goal is the best long-term investment in the client’s lifestyle and their most significant asset.” Part of that protection is designing with a flexible future in mind, for example, a two-story home with 5’ x 5’ closets “stacked” on floor one and floor two, creating the space that could become the elevator shaft if the need arises. “If you talk to people about their lifestyle, their passions, expectations and who comes to visit, you can design and build to that,” concluded Sabatino. “Then it truly becomes a living-in-place home.”

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