Twenty-seven years ago, Debra (Deb) and Timothy (Tim) Ohno put an offer on the first house they visited in the 6th Avenue West development. Tim had just accepted a position at the Colorado School of Mines (Mines) and people in the neighborhood raved about the location.

When recalling this momentous decision, Deb stated, “I can honestly say that I was a little freaked out. Golden was tiny and rural. After growing up just outside of Boston, spending my young adult years near Washington, D.C., and then residing in Minneapolis, I was used to noise and traffic. I was not accustomed to horses and cows. Colorado Mills did not exist. Instead, there was a huge horse farm. Denver West Mall and the movie theaters had yet to be built. I couldn’t walk to any places, so driving was a must, and we had to get a second car.” Tim, on the other hand, had come from a rural city in Canada. For him, the slower pace of Golden felt like home.

Tim and Deb met at the University of Maryland when they were both attending graduate school. Due to gatherings with a mutual friend, it was inevitable that the two would spend time together ice-skating, playing co-ed soccer, and going on beach
trips. They came from different backgrounds—countries, cultures, and religions. Tim and Deb dated on and off for many years because they were adapting to their differences and seeing if it would work. “But in the end, I guess you could say, love triumphed over differences, and we knew we were supposed to be together.”

Tim grew up with two sisters and four brothers in Lethbridge, a small city in Alberta, Canada. His parents were born in British Columbia. During World War II, their respective families were forced to move inland to Alberta. Neither parent was able to complete their education due to their Japanese ancestry. Tim’s mother had to stop attending fifth grade so that she could help out with her younger siblings while his father lived with a widowed aunt to avoid being sent to an internment camp.

During Tim’s youth, his mother stayed at home while his father worked as an auto mechanic. From an early age, Tim considered himself a bookworm and nerd. “A key event in my life was when my parents bought a set of three encyclopedias. More than any single person, these books influenced me. Unlike the internet, I was confident that the Book of Knowledge was the truth.” His passion for learning fueled his educational pursuits.

After graduation, he attended the University of Lethbridge and then transferred to the University of Alberta in Edmonton. As a first-generation college attendee, Tim had no clue how to navigate financial aid. He paid his way through college by working.

He spent two summers employed at the National Research Council of Canada in Ottawa, Ontario and then entered the graduate program in physics at the University of Maryland College Park where he earned a Ph.D. in solid-state physics. Next, he accepted a post-doctoral position at the University of Minnesota in the materials science department. While acting as an assistant to a well-known scientist, Tim was allowed to work on high-temperature superconductors and Buckyballs, the molecules that have the same geometry as a soccer ball. This position led to his tenure-track professorship at Mines.

Being close to the National Renewable Energy Laboratory made it possible to work on solar cell physics. Tim’s research focuses on how solar cells are turned into modules that are more efficient at converting light to electricity. His collaborative work at Mines has contributed to the low cost and widespread use of photovoltaics.

For several years, Tim has been either the director or the co-director of the Mines undergraduate energy minor. Being involved with this program has expanded Tim’s horizons to areas as diverse as climate change and building energy and water efficiency.

Deb grew up west of Boston. While she thought her community was small, it was three times the size of Tim’s hometown. Deb’s father completed his undergraduate studies at Colorado College and later obtained his Master’s Degree in accounting at Boston University. In the Marine Corps, he was involved in the atomic bomb testing and was one of four men who were the closest to the bomb drop in the Nevada desert.

Deb’s mother graduated from Brandeis University and had her first daughter on her graduation day. She entered the job market after achieving an MBA while raising four daughters. “She taught her daughters that there were no limits to what a girl can do.” Despite her mother’s exemplary role modeling,
Deb was not sure if she wanted to attend college. Her parents insisted. In her freshman year, Deb experienced anti-Semitism for the first time. She was called horrible names and taunted by her peers. One of her professors intentionally downgraded her work. To prove that he graded her papers without reading them, she purposely put the middle pages of an assigned paper in random order. The professor didn't acknowledge the mismatch. "I now refer to my freshman year as the worst and best experiences of my life because it taught me about respect, compassion, and that you never judge a book by its cover."

After taking a consumer economics class, reading The Jungle by Upton Sinclair and Silent Spring by Rachel Carson, and listening to a Ralph Nader lecture, she dropped out of the School of Education. Instead, she pursued a Master's Degree in management and consumer studies at the University of Maryland, with an emphasis on consumer protection. She worked as a special investigator at the Consumer Protection Commission in Prince George's County, Maryland where she investigated consumer complaints, mediated complaints, and took businesses to hearings. Many times she filed assurances of discontinuances to stop the companies from engaging in unlawful business practices. She left this position when she married Tim and moved to Minnesota.

Deb chose to be a stay-at-home mother until their oldest child was in first grade. She then became a consumer fraud specialist at the 1st Judicial District Attorney's Office in Golden. Deb loves the diversity of this job and her daily challenges.

As empty-nesters, Deb and Tim's home life revolves around their two rescued pets, a Pekinese dog and a grey tortoishell cat. In her spare time, Deb enjoys sewing, quilting, cross-stitch, crafting, and baking. She baked homemade tiny house cookies for a recent awards dinner.

Their daughters, Madeleine (Maddie) and Micah divide their time between successful careers and traveling. Having grandparents in two different countries started their budding careers for travel that has continued to this day.

At the end of August, Tim will be in Morocco with Deb, their two adult daughters, and a group of students to compete in the Solar Decathlon Africa. Twenty teams from Africa, Europe, and North America will be participating in a wide variety of events.

Four years ago, a group of students approached Tim. They wanted Mines to enter the U.S. Solar Decathlon. A lack of time
prevented these students from being part of the competition. To prepare for the next event, Tim supervised the designing and constructing of an off-grid, solar energy powered tiny home. The “Mines Tiny House” was exhibited at the 2017 Denver Solar Decathlon. The group’s application to the 2019 Africa event was accepted. Designing the structure, fundraising, and acquiring materials became the group’s top priorities for the past 12 months.

At the end of June, Tim shipped 7,000 pounds of equipment and goods for building the proposed one thousand square foot Inter House in Morocco. The students will build the house walls with clay and sand bricks shaped like Legos. They will have three weeks to complete the project.

Local Golden companies—electricians, solar installers, HVAC companies, and manufacturers and retail stores—have helped the students with the Solar Decathlon and Tiny House projects. The students have also done a few outreach events for K-12 programs and the Cub Scouts and have even met with the Golden Sustainability Advisory Board.

It was a significant endeavor for these students to construct the Tiny House and then enter the Solar Decathlon. This is especially so considering that Mines does not have an architecture program or teach building science.

Before embarking on these projects, most of the students and volunteers did not have any building or home improvement renovation experience, and most had limited or no knowledge of sustainable building practices. Everyone learned on the job. By working together, the participants learned how much they loved the process of designing and building.

The Golden Living community sends our best wishes for a memorable and successful competition for Tim’s team in Morocco.