The age old adage “necessity is the mother of invention” applies to any number of gadgets that have come along over the centuries and changed the way people live, work and do business.

Long-time Walnut Creek residents Claudia and Stuart Wentworth’s ingeniously simple innovation for mounting solar panels onto rooftops is having a profound impact on the $8.4 billion solar industry. It has also allowed the couple to go from operating a general contracting business out of their home to running Quick Mount PV, a fast-growing company that designs and manufactures solar products. They moved into an 89,000-square-foot facility in Shadelands Business Park in January and aim to make their company a model of 21st century sustainability.

That means “sustainability” in the broad sense of the word. By using 100 percent recycled materials and aiming for a zero-waste stream, the Wentworths are showing that manufacturing doesn’t have to be dirty – an idea that could be transformative for Shadelands Business Park which has long struggled with an identity crisis and high vacancy rates.

The Wentworths embrace the view that sustainability requires a strong commitment to the community. To bring its staff to 62 people and counting, the company first looked local – the state Employment Development Department’s Workforce center in Concord and to moms Claudia had met while her three kids were going through Muirwood Elementary.
Claudia and Stuart put a high value on employee well-being, making room for an employee-tended vegetable garden on their 12-acre campus, sponsoring two employee bands, keeping the kitchen stocked with healthy food for lunch and snacks. “I work with a happiness index,” says Claudia, the company’s CEO. “I want to make sure employees enjoy working here.”

Being entrepreneurs, inventors, and captains of industry was not something the couple set out to do back when they were growing up: Stuart in Berkeley and Claudia, first in Berkeley and then in Orinda. Both their fathers worked in aluminum so they crossed paths as kids. They started dating in 1984 and their wedding three years later “was like a merger” of two metal families, Claudia jokes. They first settled down in Pleasant Hill, then moved to Walnut Creek, looking for good schools for their two daughters and son. Their general contracting business focused on building and remodeling high-end homes. Claudia also worked as a teacher. She always knew that the key to success lay in manufacturing something, though they had no idea what it would be, Stuart says.

They made the connection in the late 1990s while learning to install residential solar systems for construction clients. It was a class at Diablo Valley College that spurred innovation. They were assigned the task of designing a system to install in their own home and identified a flaw in standard practices for mounting solar panels on roofs. Solar installers were punching holes into roofs and racking the modules—along with their 20-year warranties—on mounts prone to rainy season leaks. Concern about roof damage was a major deterrent for people considering going solar. As the Wentworths began installing solar systems for clients, they worked on developing a long-lasting waterproof roof mount.

Their device consists of an aluminum plate—or flashing—that slips under roof shingles. It’s attached to a cast aluminum block that encases a tube, through which a bolt is inserted to attach the mount to the rafter. The ingeniously simple concept that makes their mount a game changer in the solar industry is that it raises the water seal .7 inches off the roof, so it holds back water. The Wentworths patented their design and launched Quick Mount PV in 2006, first in Emeryville, then in Concord and now in Shadelands Business Park.

In keeping with their philosophy of local and sustainable, they didn’t use venture capital money to build their business. They took out a line of credit on their house, and Claudia taught green technology classes at DVC to make payroll. “Things were upside down the first few years,” Stuart says. When it came time to purchase the Shadelands property, they relied on a U.S. Small Business Administration loan.

One thing the former teacher understands is the necessity of motivating employees to care about doing good work. At Quick Mount PV, employees bring their dogs to work, rehearse their bands, and the Wentworths regularly host barbecues and lunches. “We’re not a Silicon Valley company,” Claudia says. “We can’t pay top dollar. We’re a lifestyle company. It’s a culture that the employees want to see happen.”