Top of Swan- Foothills Professional Offices

Rio West Quarterly

Inside This Issue:

Will Drones Take Off? 2
Utilize WideBay 3
Const. Helps Fuels Economy 3
The Good News 4
Rio West Information 4

Tesla's Powerwall: The Next Big Thing In New Home Construction?

Homebuilders might one day offer Tesla’s new Powerwall as part of an energy-efficiency package that includes rooftop solar panels and promises to slash a new homeowner’s electricity bills. But it might be a while before the carmaker’s power pack, designed to store solar electricity for use after dark or during a power outage, boots backup generators from the builder’s menu of optional upgrades.

A week after Tesla CEO Elon Musk announced the $3,000 to $3,500 high-tech battery earlier this month, he told investors that the company had already sold out after taking 38,000 orders and wouldn’t be able to fill new requests for another year. Due to such high demand for all versions of the Tesla batteries, including the larger utility option, the company is considering expanding its $5 billion gigafactory currently under construction in Nevada, according to Utility Dive. However, Bloomberg has reported that the devices “don’t work well with rooftop solar at least not yet.”

Best Intentions:
Bloomberg explained that storing the unused electricity generated by a home’s rooftop solar panels with the battery’s smaller version, which can store 7 kWh of power and is intended for daily use, isn’t as cost-effective as selling that extra juice to the local utility. So suppliers, including Musk’s own Solar City, will not be installing it in homes for the time being. That means owners of houses that rely on solar panels for at least some of their electrical needs won’t be able to use Tesla’s celebrated high-tech device to store the excess energy they generate on sunny days for use after dark.
"Making American homes energy self-sufficient and far less reliant on the electricity grid."

**Tesla’s Powerwall cont.**

Instead, the company will be promoting the larger, 10 kWh version for home use as a backup power source during the occasional electrical outage. That one is not equipped for daily use. Powerwall, which techies are calling “revolutionary” and crediting in advance with making American homes energy self-sufficient and far less reliant on the electricity grid. Early adopters among residential contractors almost certainly will find a way to get the Powerwall into their new homes. And construction companies that have built their reputations as “green” builders will be watching for future developments that might make the Powerwall suitable for storing and delivering solar power that is generated but not needed during the day for use at night.

Riviera Beach, FL.,-based Mesocore, whose sustainable factory-built homes feature solar energy, rainwater harvesting and "allow … for off-grid applications," is one of those builders. The Powerwall, the company noted in a press release after Musk unveiled the device, "offers perfect synergy for solar battery backup systems that are currently being used by sustainable homebuilders."

Still, Bloomberg noted, "the Powerwall product that has captured the public’s imagination has a long way to go before it makes sense for most people." Yet the financial writers there predicted that homeowners will line up to buy the batteries nonetheless.

**Will Drones Take Off in The Construction & Real Estate Industries?**

Programs and applications are in the works to use unmanned drones to keep an eye on construction sites, to take aerial photographs of homes that might help real estate agents sell them, to inspect oil pipelines and bridges, to monitor wildlife, and even to deliver small packages to homeowners’ doors. They could be used to take overhead videos or still photos of weddings and other events, to spray crops, and to show time-released progression on buildings-in-progress. A handful of contractors and real estate agents are already using the remote-controlled, miniature aircrafts to get the bird’s-eye view of their property. But the Federal Aviation Administration says it’s illegal to use drones for commercial purposes without a formal exception from the agency, which is drafting regulations for safety and privacy before opening the skies to the new devices. Hobbyists may fly their drones, but they’re supposed to avoid restricted areas like the airspace around airports and the White House, where a government employee’s personal quad-copter crashed on the lawn last month.

The FAA reportedly will propose that drones weighing less than 55 pounds may fly no higher than 400 feet, and only during daylight. The proposed rule might also mandate that drone operators keep the remote-controlled devices in their sight while they’re in the air. The rules could regulate the use of drones in areas where airplanes fly in the same space and ensure pilots can detect and avoid them.

Once the FFA issues its rules, which agency officials have said won’t come until 2017, it won’t be long before drones are everywhere. In fact, the FAA has forecast that 10,000 commercial drones will be licensed by 2018.

**What If It Crashes:**

Just as they would any other vehicle, contractors and real estate agents who use drones to photograph or monitor their properties need to insure them. But construction companies might not be able to buy that coverage from the same companies that insure their job sites. Although more insurance companies are starting to offer standardized coverage for drones, for now, fewer than five offer the coverage. As more climb on board, prices will deflate, Grant Goldsmith, vice president of Avalon Risk Management, told Engineering-News Record. The policies will cover bodily injury and property damage in case of an accident, and damage to the device itself, Goldsmith said.
Utilize WideBay™ to Achieve Clear Spans and Open Floor Space

The latest product from Varco Pruden, WideBay™ Trussed Purlin, is a competitive alternative to bar joist. Designed to allow up to 60 feet of spacing between frame lines, WideBay is an ideal and innovative option for projects requiring clear, open interior space for equipment placement, racking and storage or where column free space is needed for sporting events or concerts.

The advanced engineering and state-of-the-art manufacturing process used to make WideBay provides a cost competitive alternative to bar joist. On average, a WideBay solution will weigh 15% to 25% less than bar joists and there is no field welding required. The standard G-30 Galvanized finish doesn’t require field or factory painting and the acrylic coating helps protect the structural appearance for long-term, maintenance-free performance.

The advanced system provides more options, too. Available in depths of 30, 34 and 40 inches and a selection of five gauges, WideBay offers exceptional loading solutions. Designed to support several roofing options, WideBay is compatible with VP’s SSR, ThermoDeck and HWR roof systems. The product is also designed to work with SLR architectural metal roofs or EPDM when using VP’s Deck Frame system.

Construction Employment Helps Fuel Economy

Construction employers added 45,000 jobs in April, helping to fuel nationwide employment growth and push the country’s unemployment to its lowest level since May 2008. April was the best month for construction employment since January 2014, U.S. Labor Department figures showed on Friday and not just for job creation. Unemployment among construction workers fell to its lowest level since 2006.

The news was better than expected after the industry lost 9,000 jobs in March. The construction industry added more jobs in April than any other industries except professional/business services and healthcare.

Bloomberg called the construction numbers “one clear bright spot.” Associated Builders and Contractors Chief Economist Anirban Basu called the report “a relief” and said the unemployment data “strongly suggested that employers viewed the recent bout of economic weakness as temporary.”

**Nonresidential building:** The soft spot in the otherwise buoyant report was nonresidential building, which lost 7,800 jobs last month, even as other construction sectors gained positions. Still, job creation in non-residential building construction increased by 16,600, or 2.4%, since April 2014. And Robert Murray, chief economist for Dodge Data & Analytics, said he foresees a “favorable” future for nonresidential building jobs, based on healthy increases in commercial and institutional building starts in 2014.

Specialty trade contractors in the non-residential sector had a good month, however, adding 20,200 jobs for skilled carpenters, plumbers, electricians and others in April. In fact, the industry has added jobs for 76,400 nonresidential trades since April 2014.

Heavy and civil construction employers also came out ahead for the month, adding 8,400 jobs and putting employment in that sector up by 33,100 positions since this time last year.

“Heavy and civil construction employers also came out ahead for the month, adding 8,400 jobs and putting employment in that sector up by 33,100 positions since this time last year.”
The Good News For Property Developers

The cost of construction disputes in the past year has gone down, claims the 2015 “Global Construction Disputes” report from Arcadis, a global design and consultancy firm. The firm estimates that the average value of construction disputes in North America has decreased to $29.6 million in 2014, from $34.3 million in 2013. The bad news is that it now takes 1.9 months longer to resolve those disputes, at an average of 16.2 months. In the interest of preventing the problems that create disputes in the first place, Arcadis also provided a list of top five issues that lead to them. Here is what they found (the research was based on construction disputes handled by Arcadis Construction Claims Consulting and EC Harris Contract Solutions):

1. **Errors or omissions in the contract document.** This was the number one cause of construction disputes in 2014.

2. **Differing site conditions.** This appeared to become a bigger issue in recent months, as it moved up from being the third most common cause of construction disputes in 2013 to the second most common cause in 2014.

3. **Employer, contractor or sub-contractor failing to understand or comply with contractual obligations.** This issue made the Top Five ranking for the first time this year.

4. **A failure to properly administer the contract.** This issue also moved up the ladder, from number five in 2013 to number four in 2014.

5. **Poorly drafted, incomplete or unsubstantiated claims.** This was another new entry on the list. According to a summary provided by Mike Allen, global leader of contract solutions with Arcadis, "There is an interesting link here with the fact that projects with disputes tend to be late and over budget, with issues of compromised quality and scope for clients."

Note:

The Pima County statistics are not available due to software updates, but will return for the September newsletter.