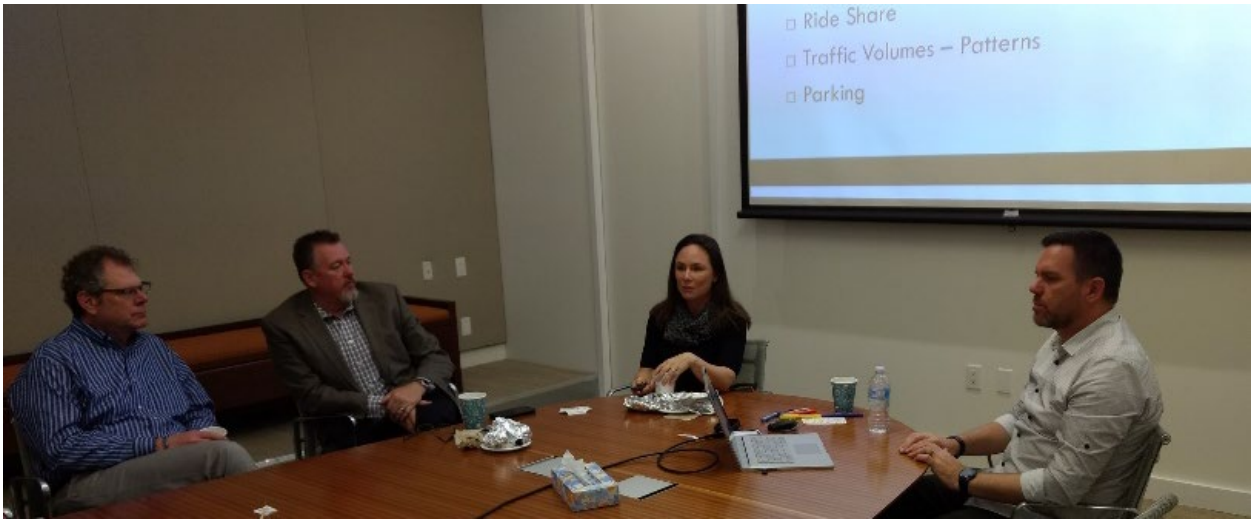
# REIAC March breakfast program highlights emerging trends, how technology advances are affecting our industry

Architects mining data and not just designing buildings. Applying traffic flow to smart-city technology. Modeling software that helps developers with hydrology issues.

This is how far the commercial real estate has come; and it's just the beginning.

The March REIAC Southwest Breakfast Series at CoStar brought together a trio of panelists whose companies rely on technology that makes a difference in their respective disciplines.




The panelists included Korey Wilkes, RA – Associate/PM, Butler Design Group; Dawn Cartier, President, CivTech, Inc.; and Ted Northrop, Regional Vice President and Partner, Atwell.

"The challenge in architecture and technology is to not let technology hold back the architecture," Wilkes said. "Ushered in during the late 80s until the downturn, AutoCAD (a commercial computer-aided design and drafting software application) and programs like it were the mainstay of technology for architects.

"But it was both the Achilles heel and strength of architects and drafters. Now we have Autodesk Revit, a 3D modeling program. Using that has changed things again. It set the stage for architecture and technology to clash but now they are embracing it," Wilkes said.

The goal, Wilkes said, is to keep it simple. Previously a developer didn't understand the complexities of what architects were doing with these programs. Now, Wilkes explained, everyone can think and draw in 3D.

"Now we're doing that in one model," he said. "We are taking them to the next level of technology. This includes full-size models, and BIM (Building Information Modeling) in multiple levels."

From that standpoint, Wilkes said, architecture is data mining now. It's helping that industry utilize what systems are most cost efficient.

"We can take our models, turn to the contract, interface with the building, and have a final BIM model."

At CivTech, Cartier and her team are exploring the smart city concept. After 9/11, there was a move to "infrastructure that was less hackable," Cartier said. There was a need for long lifespan management. This includes fiber network under every street in America. This is where CivTech comes in.

"This gives us access to technology in which we can tie into street lights," she said. "All of that is coming back to the cities. It's also making these types of systems energy efficient."

One of the more notable trends, Cartier said, is what's happening with parking. There are studies on reducing parking as autonomous vehicles and ridesharing become the norm. Technology is even creeping into how parking structures are built.

"You're seeing parking structures with flat floor plates and greater floor to ceiling height," Cartier explained. "This allows it to be converted to leasable space. The top floor can be also converted to office space. This trend is being caused by fewer people driving to work.

"We have seen this trend among our millennial population. Other generations are making these choices as well," she said.

In Atwell's case, even though "sewer is sewer, water is water, and soil is soil," according to Northrop, FLO-2D modeling software is a key technology. FLO-2D was conceptualized in 1986 to predict mudflow hydraulics.

The U.S. Federal Emergency Management Agency (FEMA) supported the initial model development. Over the past 30 years, FLO-2D has become the most widely used commercially available flood model.

"It really sped up the process with FEMA," Northrop said. "In the future, modeling will cut down considerably on the time it takes for reviews. There will be significant savings. Technology on the hydrology side will make a big difference.

"It allows us to reclaim some portions of a site in the floodplain and make it developable. However, getting through the flood plain map revision process with FEMA still takes 6 to 9 months. That is still too long," Northrop said.