Clemson's ICAR Campus Poised to Become Automotive Research Hub

By Coleman Wood

The Clemson University International Center for Automotive Research (ICAR) is a partnership between Clemson University and Grubb & Ellis|The Furman Company.

Development is underway in Greenville for a project that, when complete, stands to be one of the world's premiere automotive research campuses. Developed as a partnership between Clemson University and locally based Grubb & Ellis|The Furman Company, the Clemson University International Center for Automotive Research (ICAR) already has attracted a large amount of attention over the course of its short existence.

"It started with Clemson wanting to be at the forefront of research and development for the automotive industry," says Jason Klue, development manager for The Furman Company.

The 250-acre campus began with the construction of the Carroll A. Campbell Jr. Graduate Engineering Center. The building is home to Clemson's graduate and doctoral research programs, the latter of which is the only doctoral automotive engineering program in the country. The Campbell Center also contains $10 million in state-of-the-art facilities and equipment, including multiple laboratories that test all facets of a vehicle's performance.

Soon after, German automaker BMW, which already has a manufacturing facility in the state, began work on a research facility within the ICAR campus. Completed in 2005, the BMW Information Technology Research Center is an 84,000-square-foot research facility equipped with six research zones, a data center and a research lab with operating theaters.

But that was not the extent of BMW's involvement with the project. The automaker donated the funds to endow two chairs within Clemson's engineering program, which was matched by the state of South Carolina through its Centers of Economic Excellence Program.

Also endowing a chair within the Campbell Center was The Timken Company, a Canton, Ohio-based manufacturer of specialty bearings and steels used in the automotive and motorsports industries. Timken also became the third tenant to occupy the campus when the $10 million Timken Technology Center was completed in late 2006. The two-story, 117,000-square-foot facility features offices, a high-bay area, a five-ton crane, product prototype and development laboratory space, and expansion capability to more than 200,000 square feet. A 4,000-square-foot observation deck provides a view of the entire campus from the building. The Timken Technology Center also is leading the sustainable drive with its achievement of LEED-Gold certification from the U.S. Green Building Council.

"We designed it for Silver and we received Gold, which we were extremely happy about," Klue says.

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The project boasts a multitude of green features, including raised access flooring, under-floor air distribution, operable windows, and sun shading. The property also makes use of native and drought-resistant plants to eliminate the need for irrigation. This native landscaping is not just for Timken's building; it transfers to the overall design of the campus.

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There are two additional buildings planned for Technology Neighborhood 1, the area currently occupied by the Graduate Center, BMW and Timken. Current plans call for Collaboration 1 and 2 to be twin four-story, 80,000-square-foot office buildings. Also, they both will be applying for LEED-Silver certification. While the plan right now is to make them pure office buildings, Klue notes that Clemson and Furman Company are flexible in adding other elements to the buildings based on market demand.

Rounding out Neighborhood 1 is a 1,300-space parking garage located in the center of the neighborhood. The garage also has office and retail space at the front of it that currently houses the Clemson University Research and Real Estate Foundation. Clemson ultimately will develop five neighborhoods at the campus, but plans only have been finalized for the first one so far. The construction timetable for Collaboration 1 and 2 also has not been set yet.

The ICAR campus may still be decades away from completion, but to Klue, momentum for the project is building.

"It's still in the very beginning stages, but I think a lot of companies are starting to buy in to it as the next world-class automotive research park," Klue says.

With the availability of cheap land and a large labor pool, the Southeast has become a manufacturing destination for automakers from around the world. The ICAR campus may prove to be the catalyst to attract the research divisions of these companies, as more and more automotive and motorsports companies call the region home.

"The corridor from Charlotte to Atlanta is becoming an enormous hub for all automotive sports, not just NASCAR," Klue says. "You're seeing somewhat of a paradigm shift from Detroit to this corridor. I think, in the next generation, it will be like the old Detroit."