

THE TECHNOLOGY FACTOR

By Debi Wacker

And Its Impact on Hampton Roads' Growth

In Hampton Roads, technology and research are driving forces, with high-tech firms contributing to a significant portion of the area's growth.

As the fourth largest metropolitan area in the southeastern United States, the Hampton Roads region is comprised of 17 communities including ten cities, six counties and one town spanning Newport News to Virginia Beach. The area boasts a population of 1.6 million and the labor force surpasses 750,000 with manufacturing, the Port of Virginia, tourism, military and high-tech as major industry drivers in the \$54 billion economy. The area is home to eight colleges and universities and two federal laboratories: the Thomas Jefferson National Accelerator Facility, a U.S. DOE facility that conducts basic and applied atomic research, and the NASA Langley Research Center, an 800-acre facility conducting research in aviation and space sciences. A major contributor to the area's economy are defense government organizations, including the U.S. Joint Forces Command and Naval Air Station-Oceana, among others.

Further, Hampton Roads' Technology Incubator System is dedicated to nurturing high-growth, high-tech businesses into profitable industry leaders.

While the region's overall economic performance ranks as average when compared to national statistics (GRP for the region increased by 38 percent from 2001 to 2006), Hampton Roads' footprint in the technology industry has consistently grown at accelerated rates, and is forecasted to continue in the future. Most of this growth is occurring in the service-based sector, especially in-

dustries servicing the federal government, manufacturing and health care sectors.

Of particular merit, the Small Business Administration ranked Hampton Roads at the top of its High-Impact Firm Index in 2007. High-Impact Firms are those who have doubled their sales over five years, have an employment growth quantifier of two or greater and are a subset of the total technology firms.

As commercial and industrial construction continue to flourish in Hampton Roads, technology continues to play a significant role in management and decision-making.

- How does growth in high-tech firms affect the size and specifications for future buildings in the region?
- How can technology assist the construction industry in meeting our clients' needs?
- What types of technology can assist the construction industry in operational efficiency?

High-Tech Yields Flexible Space

Because of the sheer number of new technology-related businesses and the relative acceleration of these firms' growth, experts estimate most firms will need less than 5,000 square feet of office space, initially. (These estimates correlate with five-year historical data as reported by the City of Virginia Beach and other localities.) As these firms triple, and possibly quadruple in size in a matter of years, the need for space will increase.

Amy Parkhurst, senior vice president of the Hampton Roads Economic Development

Association states that HREDA's primary industry targets include:

- aviation and aerospace;
- modeling and simulation;
- maritime and logistics;
- and corporate management and regional headquarters.

Cindy Cave, economic development director for the City of Suffolk, states that these types of new clients need smarter spaces, adding, "on the exterior, these buildings appear like any other space; on the inside, they're wired for sale."

For example, a large facility built for Lockheed features a movie studio, war room, think tank and state-of-the-art conference rooms, all specifically designed to showcase the company's own technologies.

Measure Once, Cut Once

While largely DOD-driven, Old Dominion University and the Virginia Modeling, Analysis and Simulation Center in Suffolk are leading the way in jumpstarting the technology transfer to the private sector. ODU and Eastern Virginia Medical School are using the modeling technology to develop a virtual operating room complete with a simulated patient with symptoms.

Similarly, while the commercial construction industry already uses AutoCAD technology to design buildings, modeling and simulation can take these capabilities to new heights. Imagine you are building a mixed-use project in a new development. With the computer data representing the existing structure, the modeling software can use GIS technology to determine the

specific weather and soil impact of that particular parcel of land, and then overlay traffic patterns, allowing plans to be adjusted accordingly.

Modeling and simulation can expose safety risks, reveal opportunities for proficiencies, and assist in training initiatives for equipment operators. Operations become more efficient by simulating scenarios and tests for field workers. A rare high-risk scenario, difficult to reenact in real life, can be modeled with relative ease.

Enhancing Products and Services

As the commercial construction industry becomes more tech savvy, so do the businesses that provide subcontractor and administrative support services.

John Hall Electrical Contractor in Portsmouth has seen steady growth in its Special Systems division, that offers new products and services in structured network cable,

security, power quality and residential entertainment and automation systems.

Similarly, the Ware Insurance Company is now a completely paperless office, allowing online access to certificates and policies, as well as detailed information for faster turnaround times with documentation for equipment purchases, certificates of insurance, and quotes. “An experience Mod maintenance program is also in place, whereby workers compensation policies and actual claims can be reviewed and analyzed to determine cost-savings strategies and implement work safety and proactive drug testing programs,” says Sidney Kellam, director of operations.

To Infinity...and Beyond

As our society’s computer and technology systems become more sophisticated, so do the facilities that house this equipment. By understanding our potential clients’ industries, we as builders and contractors can an-

ticipate construction needs and recommend design and material features to enhance quality and customer satisfaction.

The Hampton Roads region is uniquely poised to capitalize on its assets and secure a national leadership position in specific facets of technological growth. Andrew Sinclair, project manager at the Hampton Roads Partnership, states “the technology in the Hampton Roads region covers the entire continuum from the point where you collect the data, to the point that you make a decision based on that data.”

This spells opportunity for the commercial construction community.

Debi Wacker, president of LightSource Marketing, a marketing consulting firm out of Virginia Beach with expertise in web and interactive communications.



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