

The Key to Economic Development: Intelligent Business Campuses

The old adage of “location, location, location” has been updated to “location, location, connectivity.”

By James Carlini ■ *Carlini & Associates, Inc.*

Intelligent Business Campuses have come of age. They began more than 20 years ago with the concept of intelligent buildings that were technology-enabled to support communications, IT and building automation.

Today, commercial tenants increasingly demand intelligent amenities including broadband connectivity, diverse power sources and other communications-based applications. And they prefer intelligent buildings to be clustered in campuses and business parks that support synergistic businesses and functions.

Municipalities and regional authorities all over the world are also establishing centers for economic development, global trade and job growth. They are concerned about creating and maintaining regional sustainability. One of their key ingredients is broadband connectivity, which, along with power requirements, has become part of the master planning of new campus environments.

CONNECTIVITY AS A DIFFERENTIATOR

Real estate and property managers sometimes ask, “Is broadband connectivity a differentiating amenity?”

The answer is “Yes.”

Ten years ago, broadband connectivity rarely made the Top 20 requirements list for site selection teams. In the last few years, it has become one of the top three requirements. Tenants want a higher level of network infrastructure coupled

with a redundant power grid. Areas without adequate access to connectivity feel the loss of interest by companies locating or relocating their facilities.

For the property manager trying to lease a building, broadband connectivity is the differentiator that attracts higher-caliber tenants – which in turn means a higher occupancy rate and a more profitable building.

For example, in a county just outside Chicago, 60 of the Class A buildings in the county have available space. Only five of those offer broadband connectiv-

ity, location, connectivity” because broadband connectivity has become a baseline requirement, not an option, for selecting the right site.

The right location now includes a high-speed access point for communicating with global customers, clients and suppliers, and for connecting to the Internet and other network services to support business, research and development applications. Just as, for centuries, the value of a location was based on its proximity to good transportation, sea-

ports and roads, locations now must also be adjacent to information highways and have network infrastructures that tie buildings and communities together.

Real estate developers must adapt their developments and marketing strategies

to meet the changing demands of prospective tenants operating in the global economy. In some places, they must also learn to work closely with municipalities, counties and other local government authorities concerned with regional sustainability and job growth.

Some smaller cities have been faster to understand and act on these issues than larger ones. Fort Wayne, Indiana, with a population of 252,000, has been quietly upgrading its infrastructure since 2000 with the motto “Wired and Inspired.” City officials have worked closely with the incumbent carrier, Verizon, which has invested about \$100 million in connecting 128,000 homes and businesses with fiber to the premises.

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ity In soft markets, these five buildings will not have to deal with competition by lowering rents.

Tenants aren't just looking for specific amenities. Corporate site selection teams also value “one-stop shopping” and fast-track build-out capability facilitated by collaboration between municipalities and master developers. Business tenants want to be able to choose from a *Menu of Intelligent Amenities* and deal with a *Common Campus Response Team*.

ECONOMIC DEVELOPMENT = BROADBAND CONNECTIVITY = JOBS

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Fort Wayne already has remote office packages for telecommuters with offerings of 30 Mbps and 50 Mbps, with a short-term goal of offering 1 Gbps to the home. This is where the average household should be, but this is the exception and far from the norm.

Fort Wayne's network upgrade has opened doors for companies like Raytheon and ITT to expand their local operations, creating new jobs instead of relocating somewhere else.

Lake County in Florida opened up its municipal broadband network in

2001 and its economic growth accelerated 100 percent faster than any other comparable county in Florida. A study by economist George S. Ford and attorney Thomas M. Koutsky showed that broadband connectivity was a major contributing factor to this economic growth. As the study suggests, "cities and counties are beginning to recognize that broadband telecommunications infrastructure is just as important - if not more important - than other areas of public infrastructure."

THEME BUSINESS PARKS

Many countries are now constructing clusters of buildings in campus settings with new amenities and connectivity of 10 Gbps or more. Some of these Intelligent Industrial Parks (IIPs) and Intelligent Business Campuses (IBCs) have themes, allowing them to provide specialized capabilities for tenants and to create synergies among the tenants. Branding these facilities to reflect distinctive value propositions and amenity mixes helps distinguish them from other comparable real estate choices, and such

MENU OF INTELLIGENT AMENITIES			
Amenity	Requirements	Acceptance	Business Impact
Power & Telecom:			
Avoiding a single point of failure			
Broadband Connectivity	High bandwidth (at least 1 Gbps; 10 Gbps is preferred today; tomorrow 40 Gbps), multiple carriers, multiple access points, connection to National Lambda Rail via StarLight communications exchange	Becoming a must-have, not a nice-to-have	Faster access, faster dissemination of huge documents, drawings and video images
Power	Preplanned layouts and capabilities, multiple providers and power grids	Becoming part of the Master Planning process instead of an afterthought	Eliminating concerns about power creates higher productivity
Alternative Energy Source	Third-party provider or an on-campus alternative such as a peaker plant or wind turbines generating power	Regarded as critical for security, compliance, and sustainability	Positive impact on environment, higher reliability
Services & Support			
Master Planning: Upfront Coordination	Coordination of municipal planning issues, adherence to building codes, etc.	New concept, but effective in selling to tenants that want a rapid development process unhindered by municipal issues	Faster ramp-up from decision to build to move-in date. Saves time to get productive
Master Planning: "Network Tailor" instead of "Network Jailer"	Custom-tailored network infrastructure, rather than an "off-the-rack" solution	New concept	More cost-effective, wider selection of services
Ongoing support: Common Campus Response Team Services	Service providers including power and network carriers as well as companies like AT&T, Cisco and other support services	New concept gaining ground as well as popularity "One-stop shopping" becomes "one-stop support" after the tenant is in place	Faster response to complex problems impeding productivity; no loss in global competitiveness

Source: James Carlini, Certified Infrastructure Consultant

The DuPage Airport Authority, which owns the land for the DuPage National Technology Park, hammered out its unique public/private model with the attitude of “Innovate or die.”

a theme or park “signature” can be important for success.

The Asia/Pacific region has many well-funded campuses and intelligent industrial parks under various levels of development by government agencies. Some would argue that they are more advanced than their counterparts in the United States. Cyberport in Hong Kong is a multibillion-dollar, government-funded campus catering to the IT industry. Mainland China’s Hunan Province has a new business park focused on the construction industry, and several IIPs in Taiwan also support specific themes or common goals.

Developing successful campuses is not a cookie-cutter process. The IBC or IIP will take on a unique configuration approach depending on tenant mix, theme focus (bioscience, IT, construction industry equipment, etc.) and other factors.

INTELLIGENT INDUSTRIAL PARKS IN TAIWAN AND THE US

Taiwan has made great strides in refining and implementing the concept of IIPs. The government launched an initiative in 1999 to establish these sophisticated parks, saying they would play an important part in making Taiwan an “Island

of Science and Technology.” The initiative seems to have succeeded: By 2005, the World Economic Forum ranked Taiwan second only to the United States in its Global Technology Competitiveness Index.

The Far Glory Park, which came out of that initiative, combines several industries at a strategic location close to an airport as well as to rail and highways for logistical support. Its transportation amenities take advantages of the park’s centralized location in relationship to seven other major Asian cities. With connectivity rates of 10 Gbps, the park plays on Taiwan’s recognized strength: a “strong grasp of technology production and research.”

In some ways Taiwan’s Far Glory Park parallels the DuPage National Technology Park (DNTP) in Illinois, even though they were planned from very different perspectives. Both have been master-planned to provide value-added amenities and fiber optic-based network infrastructures to businesses dependent on high-speed access. They also offer other amenities that distinguish them from traditional industrial parks.

The DNTP is an 800-acre public/private development in Illinois focused

on high-tech industries and companies that support them, with a very sophisticated setting serviced by multiple carriers and power grids. Connectivity for the DNTP is currently 40 Gbps, and the park is adjacent to an airport.

The DNTP’s goal was to create a cluster of intelligent buildings that provide a center for economic development and job creation. It did not fit into the traditional “university model” or the standard business park approach. With no model to follow, the DuPage Airport Authority, which owns the DNTP land, created its own approach. Through necessity, the Authority hammered out the private/public model with the attitude of “Innovate or die.”

This public/private approach will probably be replicated as the concern for regional sustainability grows. But reinventing a region to attract and maintain new businesses is not a quick-fix approach; the process can easily take several years or even a decade of planning, designing and implementing.

The old real estate adage of “Change is great – you go first” must be rethought. Developers must be flexible, adaptive and creative, and they must understand the importance of technology. Traditional network carriers must also do some adapting – they must focus on providing the fastest access as well as redundant access. All connectivity within intelligent industrial parks and business campuses must be redesigned to the standard of providing business continuity, not disaster recovery. **BBP**

About the Author

James Carlini is a certified Infrastructure Consultant. He has advised on major projects including a six-building complex in Silicon Valley for the Santa Fe Southern Pacific Development Company, the Chicago 911 Center and the new DuPage National Technology Park. He pioneered the concept of “Measuring a Building’s IQ” and has been an expert witness on cases involving major network infrastructures. He has also served as an adjunct faculty member at Northwestern University. He can be reached at 773-370-1888. For more information, read his blog, www.carliniscomments.com.



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