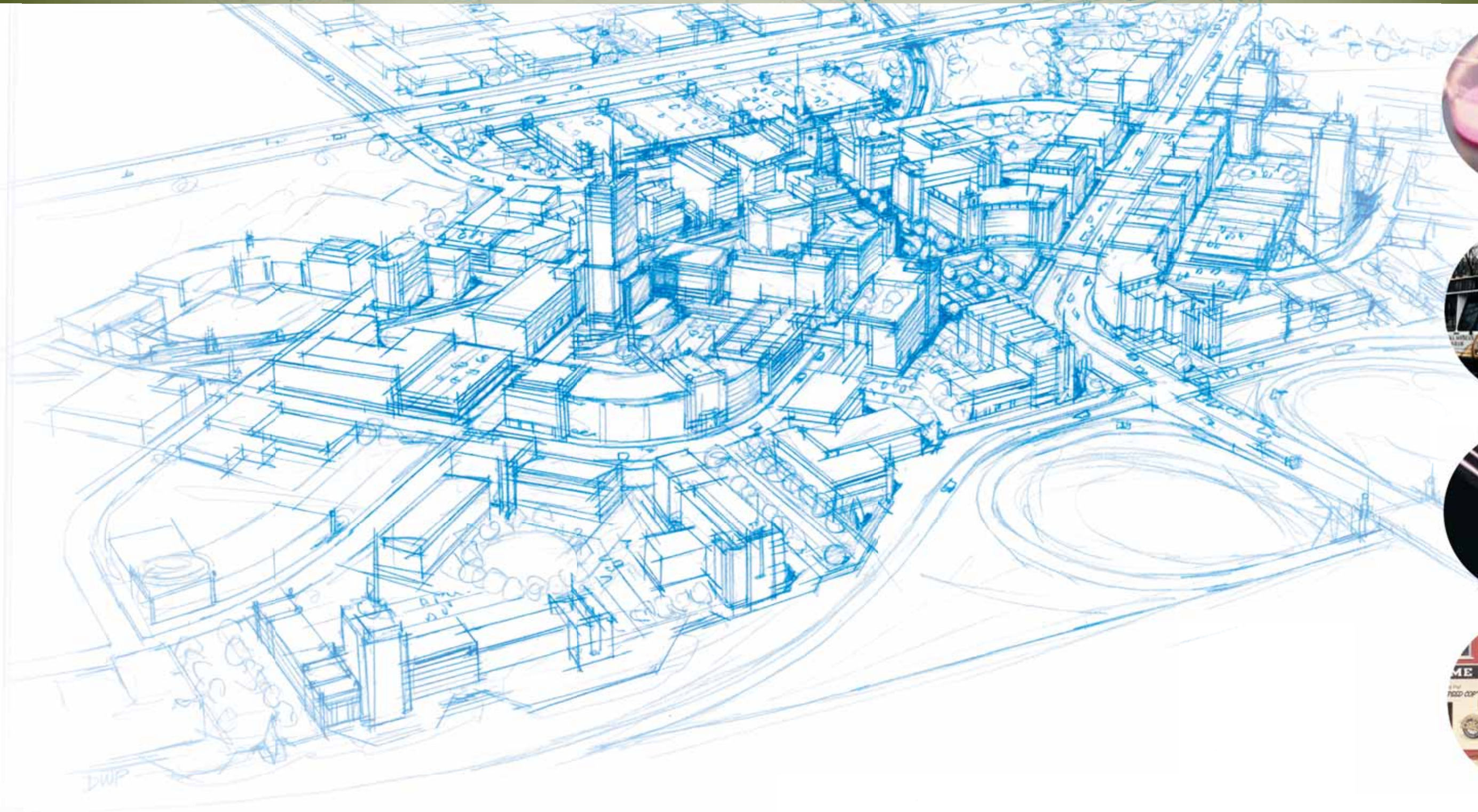


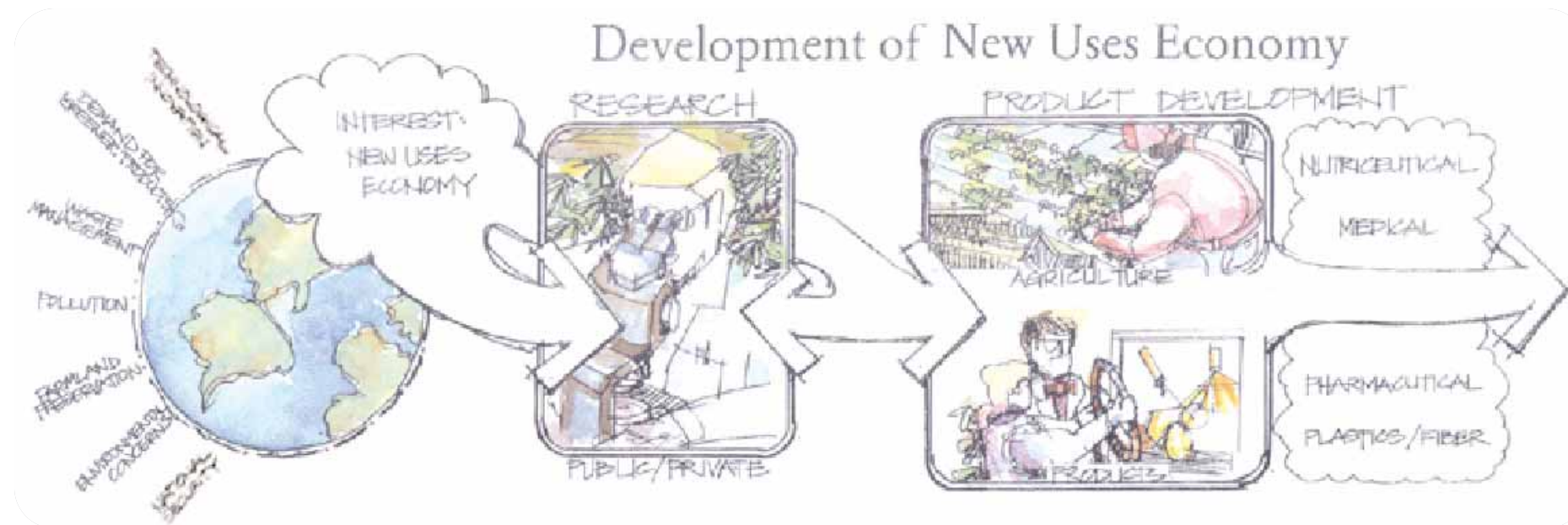
# FLORA NEIGHBORHOOD PLAN

Boone County; City of Belvidere; & Flora, Belvidere, & Spring Townships





Now is our opportunity to re-invigorate the region's economy and sustainability. A "new uses" economy can bring it to fruition.



Today a "new uses" economy is emerging—moving us from a petroleum-based economy to a "green" economy based on agricultural raw materials and commodities. Science-based technology companies are creating new uses for crops, creating new crops, and devising new uses for crop residues and wastes.

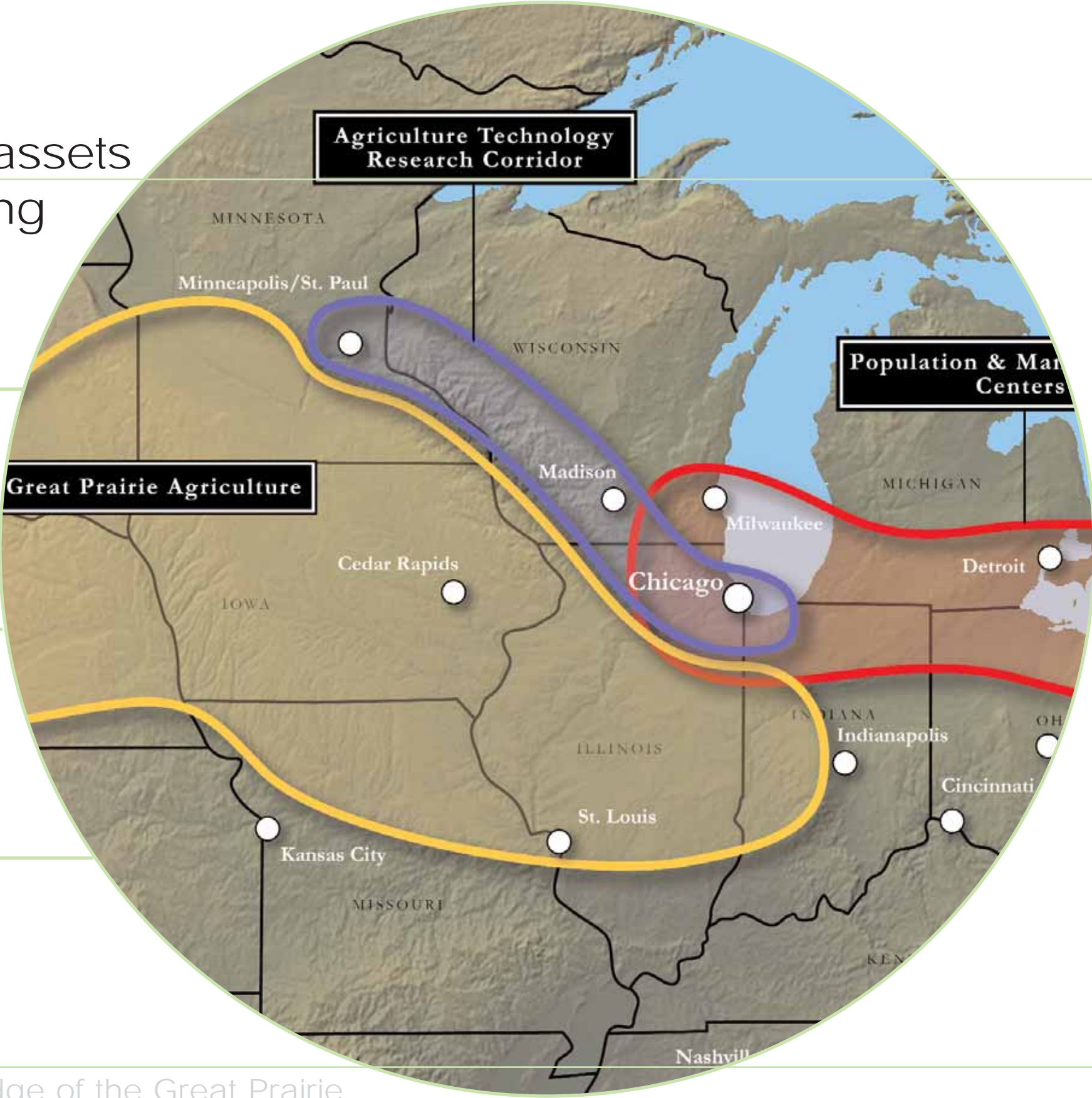
new uses economy: • new uses for crops • new crops • new uses for crop residues & wastes

Our region's tremendous system of assets is perfectly suited to the task of making this economic renewal possible.

The area functions collectively by sharing a system of transportation, economic, and geographic assets.

Anchored by the cities of Chicago, Milwaukee, Madison, Minneapolis, and Rockford, our "regional city" is the fourth largest urban constellation in the US—home to 17 million people.

This is the edge of the Great Prairie, the most productive farmland in the world.



a shared system of assets • 17 million people • edge of the Great Prairie

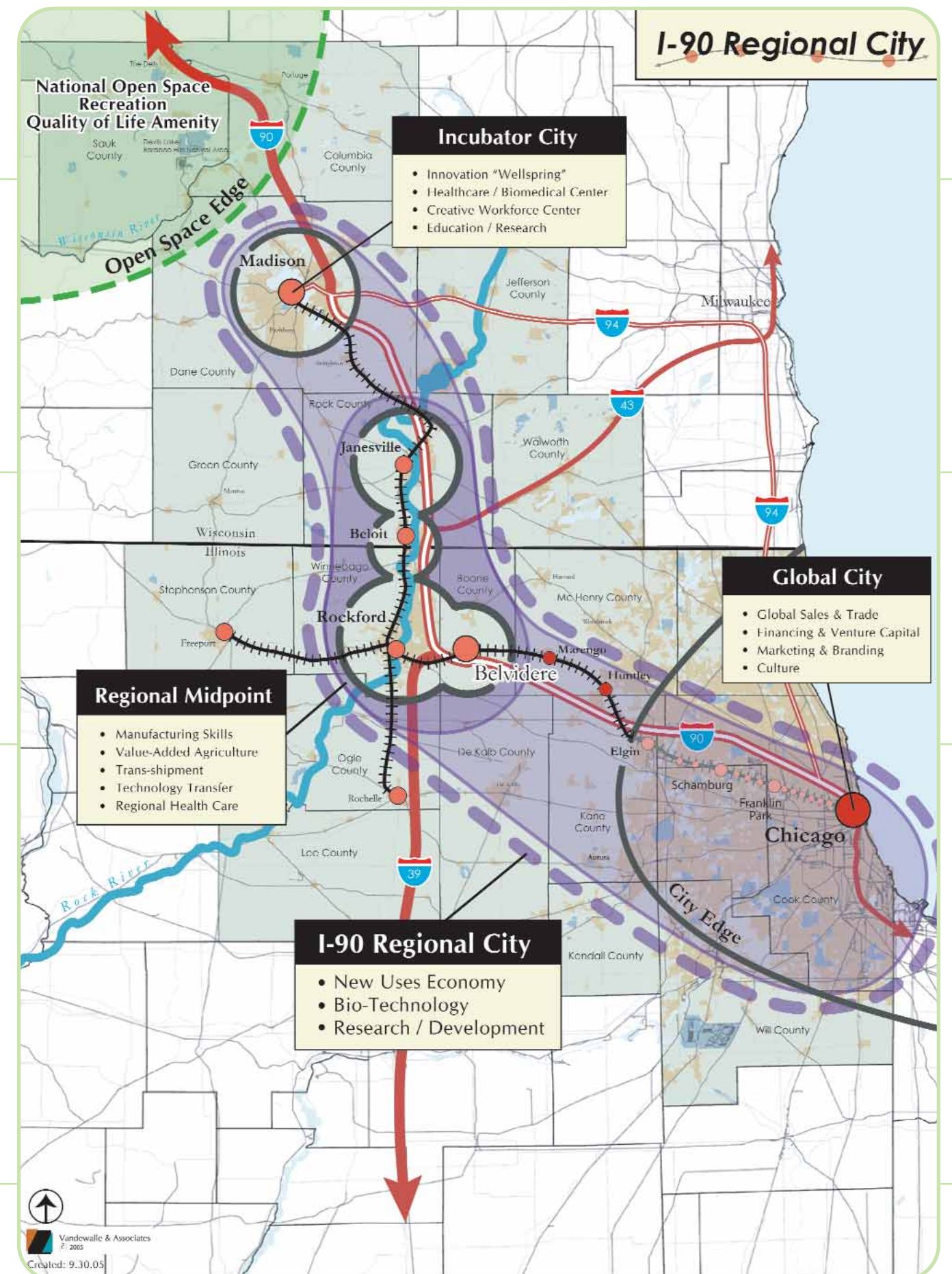
Our next transportation decisions are key. I-90, a regional corridor, can provide the workforce mobility needed for successful economic development.

**CONNECTING A SKILLED WORKFORCE TO NEW ECONOMY JOBS.**

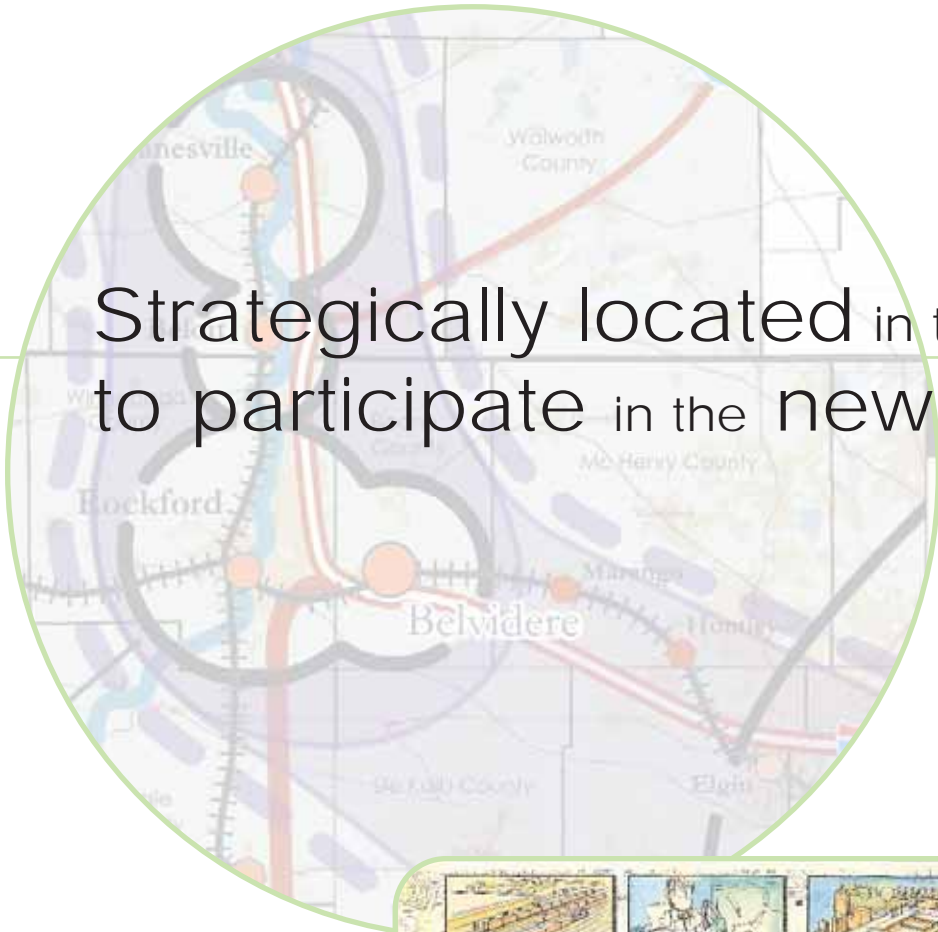
The I-90 regional corridor connects the edges of our regional city to its center. From the “global” city of Chicago, to the “quality of life” city of Madison, the I-90 regional corridor is a necklace of skill centers in manufacturing, agriculture, recreation, transshipment, and health care.

**DEVELOPING HIGH TECH CENTERS.**

Illinois and Wisconsin are becoming high-tech centers. The I-90 corridor connects top public- and private-sector research in Madison and Chicago to centers for incubation, development and manufacture throughout the corridor.



manufacturing • ag • transshipment • healthcare • high-tech • research

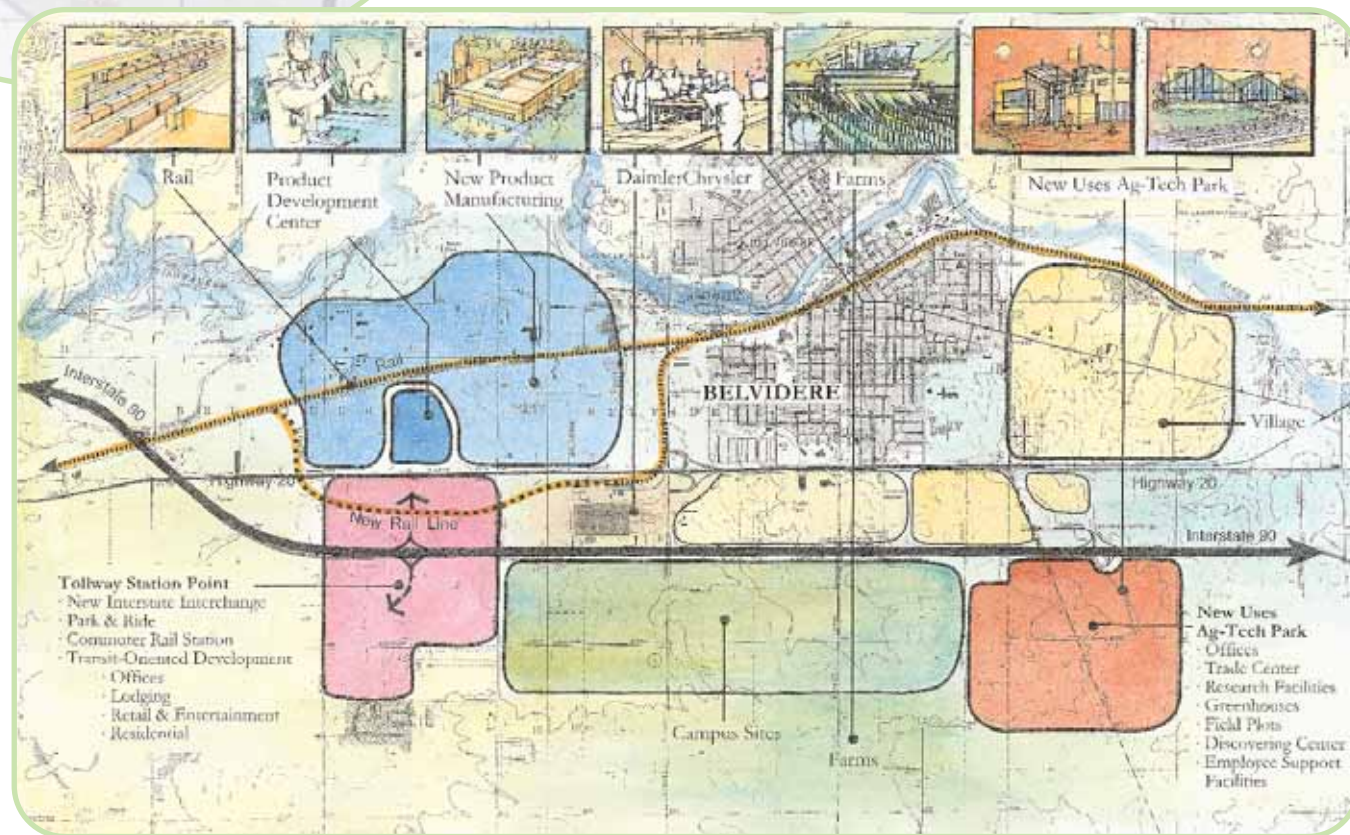


Strategically located in the corridor, Belvidere-Boone County is in position to participate in the new uses economy.

IDEAL LOCATION, CORPORATE COMMUNITY, & LAND USE OPPORTUNITIES.

Belvidere-Boone County occupies an ideal spot in the I-90 corridor. Additionally, its corporate community and its land use opportunities position it to participate in four phases of the new uses economy. These include new uses product development, farm production, product manufacture, and assembly.

New Uses Ag-Tech Districts



STRONG RESEARCH NETWORK.

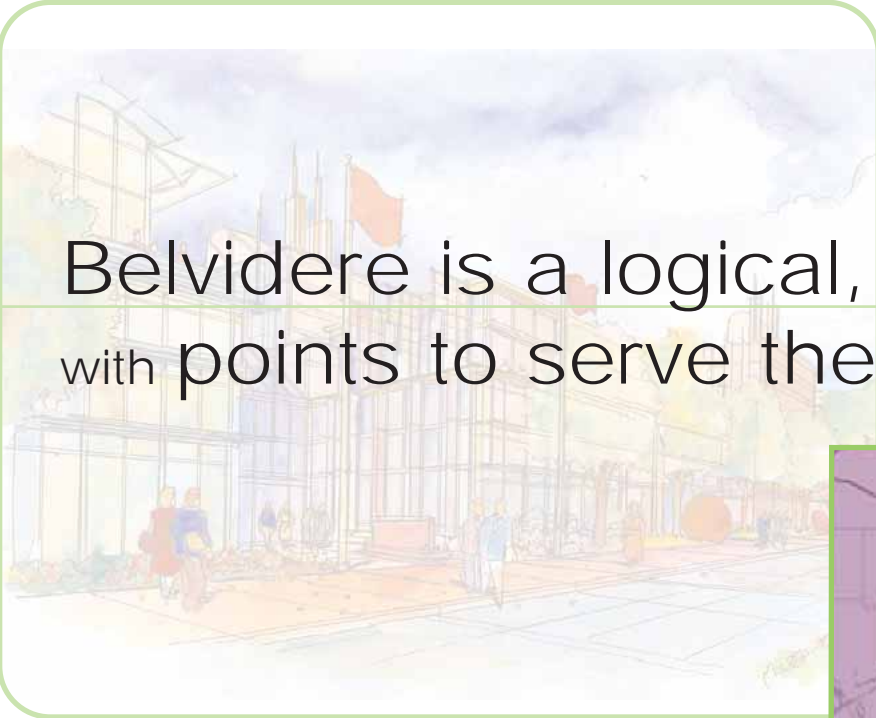
Belvidere-Boone Co. is at the center of a network of public and private research facilities.

LOCAL INITIATIVES.

Local initiatives are supporting development of a “new uses” economy. They include:

- DaimlerChrysler, a German-based automobile manufacturer, is at the center of a manufacturing revolution:
  1. moving to a flexible platform system that allows for nimble assembly and state of the art upgrades.
  2. ready to embrace new “green” fuel systems.
  3. working with suppliers to source alternative products and engage new uses.
- Belvidere Energy Strategy Initiative (BESI), a new energy strategy for Belvidere that will utilize distributed energy, multiple-redundancies and alternative fuel sources to supply clean, reliable power.
- A New Uses Technology Park is proposed to front I-90, as well as a new product manufacturing park, and corporate business park with frontage on I-90.

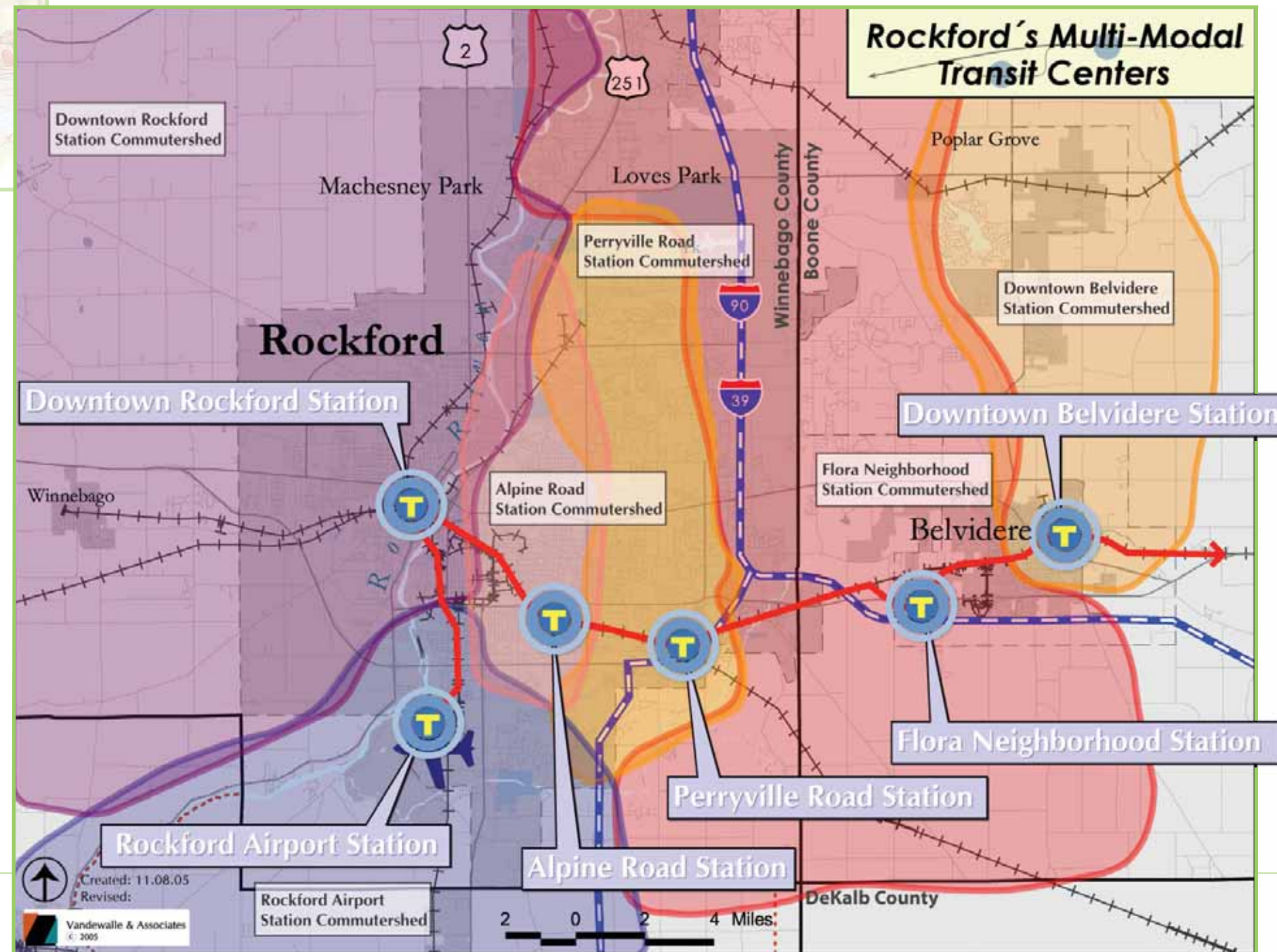
Belvidere-Boone County can participate in: • development • farm production • product manufacturing • assembly



Belvidere is a logical, linear extension for Chicago's Metra-Rail system, with points to serve the Belvidere area workforce and interstate travelers.

**DOWNTOWN TRANSIT CENTER.**  
Entertainment and hospitality, historic downtown setting, and urban living.

**TOLLWAY STATION CENTER.**  
Regional employment center, manufacturing, and technology-based industry.



# The communities of Belvidere and Boone County have become synonymous with "quality."

Since 1835, when a Mr. Whitney first dubbed the land that would become the City of Belvidere, "Elysian Fields," the community and county have become known for being a well-spring for quality living. The Kishwaukee River is a Class A river that flows through the heart of Belvidere and winds its way past parks, open fields, and productive farmland. The City of Belvidere is host to several major corporations, from Daimler-Chrysler to General Mills, companies look at Belvidere for its source of high-quality workers with high education levels and strong work ethic.

The Belvidere School District #100 is unified county-wide and has made recent investments in the middle and high school campuses. District #100 routinely scores high in rankings in the classroom as well as on the athletic fields. The Belvidere Bucs were once again in the State Semi-finals for football just this fall.

As "the City of Murals," Belvidere also cherishes and celebrates its historic past and the artistic talents of its citizenry as it annually holds community festivals and events.

In the past 10 years, Belvidere and Boone County's growth has outpaced most of the greater Chicagoland Area. This is no accident. As people from the urban metro area tire of lack of community and waning benefits coupled with high real estate prices, Belvidere has become a logical choice for having, "the best of both worlds." Belvidere is a strong and vibrant community with good businesses, multiple transportation connections, and a highly educated workforce while also having a high quality of life, an abundance of natural areas and open space, and a heritage based on quality values and community spirit.



quality living • high-quality workers • historic past • vibrant community spirit

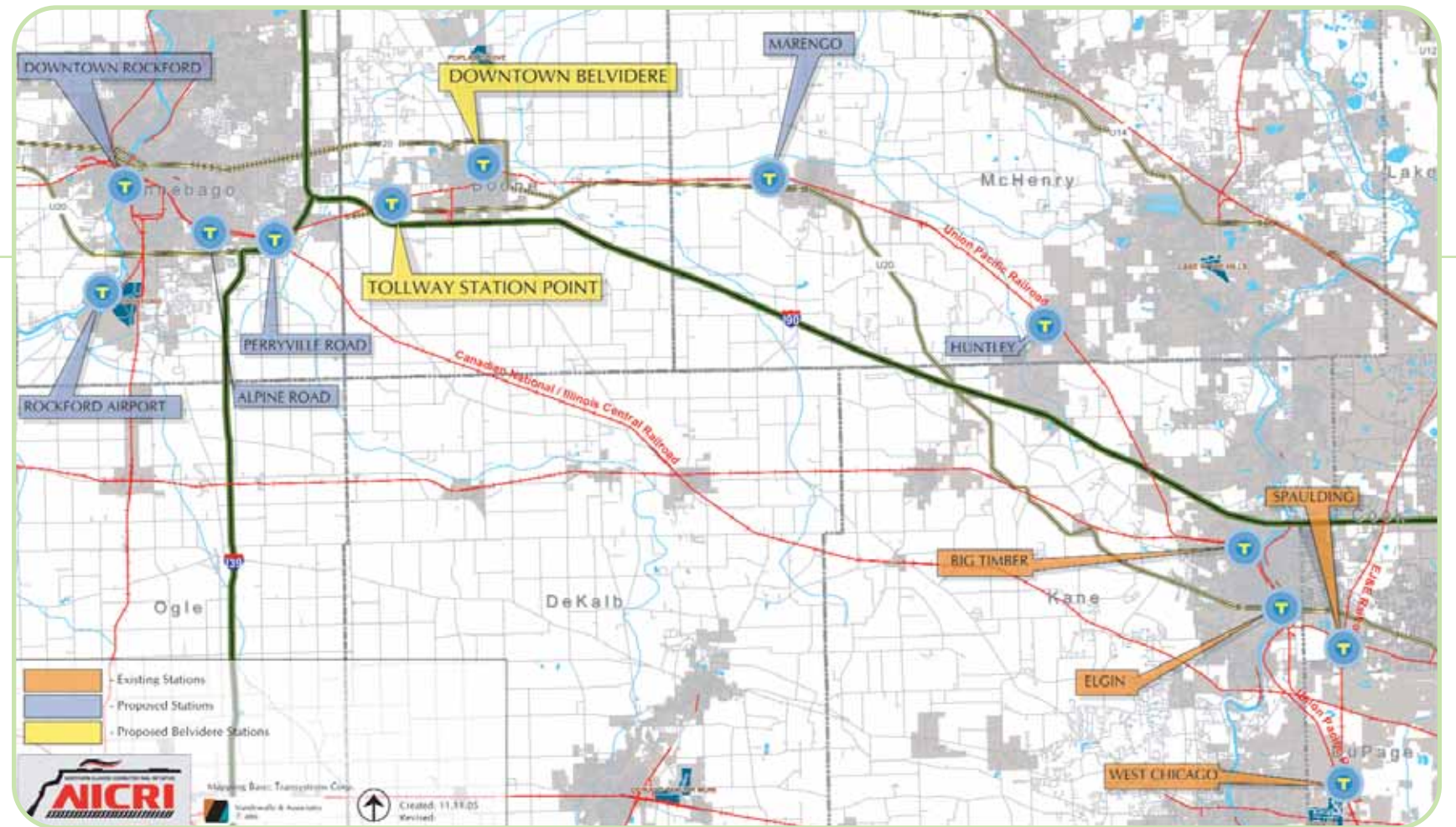
# Introduction

TRANSPORTATION ENERGY COMMUNITY INNOVATION

Boone County and the City of Belvidere have become known throughout the region for solid community values, prime agricultural land, hard-working individuals, and forward thinking governments. As growth and development pressures from the expanding Chicago Metro Market reach further into and beyond Boone County, the community is in the processes of devising proactive plans to not only deal with growth, but also to integrate sustainable land and economic development that protects the area's financial, cultural, and environmental resources.

This document outlines one of the current efforts in the larger process of defining land and economic futures for Belvidere, Boone County, and Townships of Flora, Spring and Belvidere. The Flora Neighborhood Development Area (formerly called the "Tollway Neighborhood") was identified early in the County's Comprehensive Planning Process as an area needing additional study and detailed planning and analysis. This document summarizes these planning efforts from the impetus regional vision to the detailed land use areas. It outlines a strategy by which Boone County, Belvidere, and the three Townships can best utilize their place-based assets and local opportunities while still preserving community character, natural features, prime agricultural land, and economic vitality that are hallmarks of the area.

A Commuter Rail Feasibility Study published in November 2004 by the Northern Illinois Commuter Rail Initiative concluded that a Metra line extension to Rockford with multiple stops, including Belvidere's planned Flora Neighborhood as well as Downtown Belvidere, is a feasible and important next step in addressing the increasing residential and commercial growth along the I-90 corridor. Extending Metra to Belvidere will provide a viable alternative for the growing number of commuters



from Northern Illinois and Southern Wisconsin to the Chicago-area. Recognizing the vital need to mitigate highway traffic congestion, reduce oil consumption, and improve air quality, Belvidere is proactively working to make this Metra line extension a reality.

The Flora Neighborhood Plan Project addresses the implementation of a neighborhood development strategy that includes not only a Metra rail station, but also two Tollway interchanges, a new travel corridor between north and south Belvidere, several large scale industrial and manufacturing components, mining and quarry operations, and

planning and positioning a land area that is over 3000 acres in size. Key components needed to make the vision of the Flora Neighborhood Plan a success include development of transportation, energy and data infrastructure, conservation of energy and resources, and connection to place that recognizes the quality assets that have and will continue to draw people to the area. We invite you to explore this document and learn how the vision of the Flora Neighborhood Plan will become a reality.

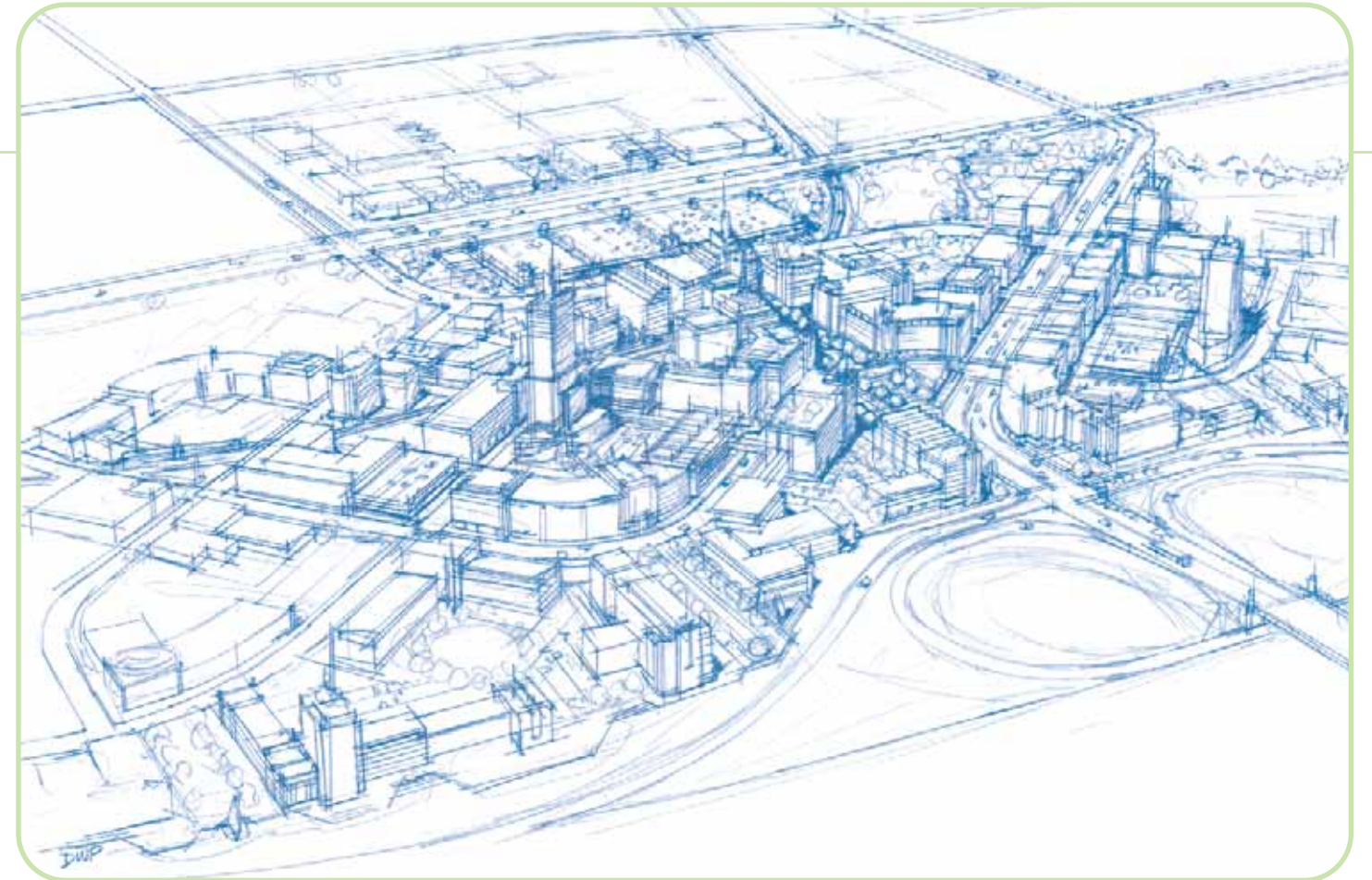


# Tollway Station Transit Center

The regional analysis presents a convergence of opportunities that Belvidere has responded to with a broad vision and long-term strategy for sustainable development and a concentrated effort to build even larger opportunities. The most prominent portion of Belvidere and Boone County's vision is the Tollway Station Transit Center. Focused on vertical densities and multiple transit options, the vision is both forward looking and respectful of larger metropolitan planning ideas.

Midwest visionary architect Frank Lloyd Wright and in more modern times, the landscape architect Phil Lewis, FASLA, envisioned the development of linear cities that would be connected by major transportation and infrastructure corridors. Rather than focusing on horizontal, sprawling densities, these "pearls on the necklace" would focus on dense urban developments that would leave the land between the corridors for farmland and open space. Wright held the Jeffersonian ideal that every citizen should be in contact with "a vine and a fig tree," meaning that urban residents would be connected to the people, to the food and to the land of the region. By bridging the divide between the benefits of urban living and the trappings of country life, the vision of both Wright and Lewis offered the best of both worlds.

Wright's plan for his "Broadacre City" was never realized and as more and more farmland is consumed by large single family lots and sprawling development, Belvidere and Boone County have recognized that the best way to preserve their valuable agricultural lands and pristine natural areas is to embrace the concept of the urban center and firmly lead it into the future.



Centered between US20 to the North and the I-90 Tollway to the South, and near a new Tollway interchange at Irene Road to connect to Townhall Road across the Kishwaukee River, the Tollway Station Transit Center will act as the catalyst for developing a dense urban core of buildings that will offer employment, retail, recreation, and homes to new residents. Easy access by rail to downtown and suburban Chicago, by car to Wisconsin and recreational areas, by bus to Downtown Belvidere, Rockford and the Chicago suburbs, and by foot and bicycle to parks, open space, and community amenities will attract new residents, visitors, and businesses.

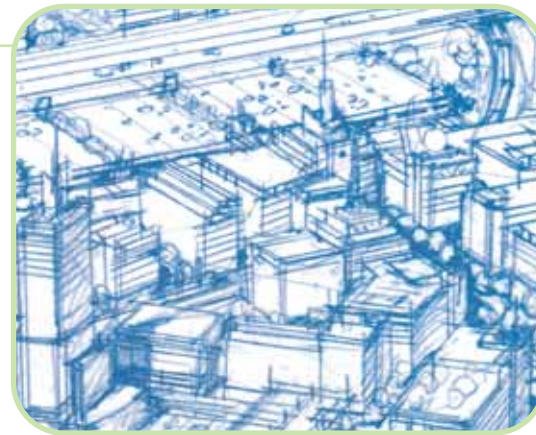
urban core of buildings • employment • retail • recreation • homes • multiple transit options

## TOLLWAY STATION TRANSIT CENTER

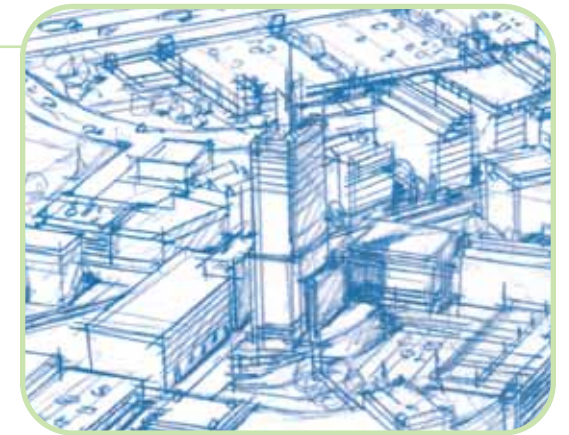
Recognizing the importance of the Tollway Station as a regional commuter hub, the station will have a structured parking lot that will allow commuters to quickly get from the Tollway, US20, or Townhall Road to parking and onto the train platform with a minimal amount of waiting or walking.



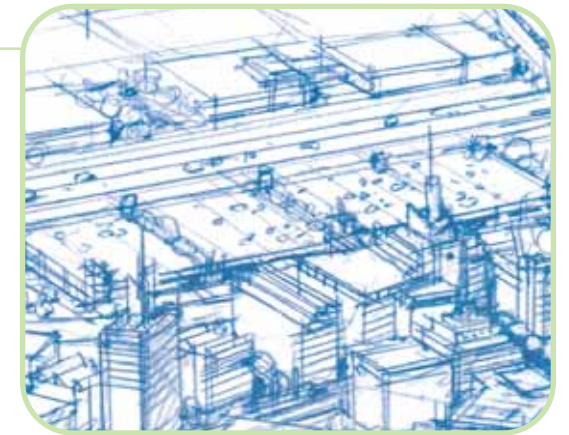
Adjacent to the Transit Center will be a concentration of large buildings offering a range of uses, from retail on ground floors to commercial in middle floors, to residential above. The vertical density of these buildings will allow for direct connections to large green space areas and open space corridors. One of the prime sites will be the Prairie Tower, which will boast a variety of uses, offer residents a full-range of services and amenities within walking distance to the transit center, and provide breathtaking views of Boone County's agricultural land and open spaces.



Central to the concept of the urban center is working with architecture that can not only anticipate greater densities over time, but can also adapt to them. For example, the structured parking facility for the Tollway Station will start as a park and ride surface lot. Over time, in anticipation of the need, a structured parking deck will be put into place. As the urban center grows and gathers greater density, the architecture of the structure will allow for the facility to expand further and adapt to changing needs.



Belvidere and Boone County recognize the irreplaceable value of their agricultural land as a cultural, natural, and community asset. This asset, coupled with the convergence of transportation, energy, and data infrastructure in the Flora Neighborhood, will allow the community to seize the opportunity to become visionary leaders in the Chicago Metro Area and the Midwest Region by developing a sustainable, walkable, and viable urban center.



# Infrastructure

## Transportation

The ability to move people and goods easily and effectively to, from, and through the Flora Neighborhood is vital. The Flora Neighborhood will center on the Tollway Station Transit Center which provides the ability to board a commuter train and arrive in downtown Chicago in less than two hours, or board a bus with dedicated travel lanes to reach the Flora Technology Center, Flora Power Park, Daimler-Chrysler, Rockford, O'Hare Airport, and Downtown Belvidere among other destinations. The Tollway Station Transit Center in the Flora Neighborhood will be connected from all four ordinal directions by appropriately sized roadways to handle the traffic flow.

The adjacent connection to the new Irene Road Interchange with I-90 will allow commuters to quickly exit the Tollway, enter a covered parking facility, and board a train or bus to complete their commute. Additional connection to the Transit Center will come from the north, as Town Hall Road is extended across the Kishwaukee River and connected directly to Irene Road. Besides being another effective travel route for commuters, the Townhall Road extension will relieve congestion traffic through Downtown Belvidere, as trucks and other regional traffic use the Townhall Road crossing to travel south to the Tollway, the US20 corridor, and points beyond.

Within the Flora Neighborhood, bus service will connect commuters from the Transit Center to points in the neighborhood. Likewise, the Transit Center will be connected to local bike and pedestrian ways to allow commuters the option to seek alternative commute options.



"One component necessary for the long-term success of the Flora Neighborhood will be a comprehensive and innovative approach to multi-modal transportation."

# Infrastructure

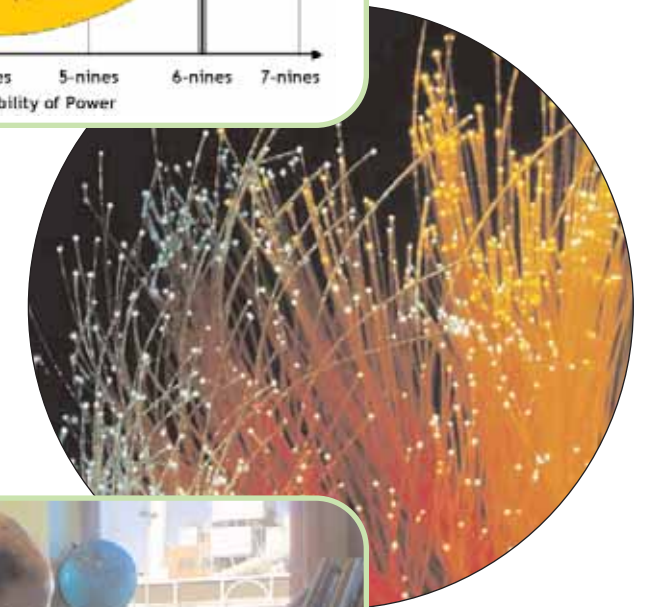
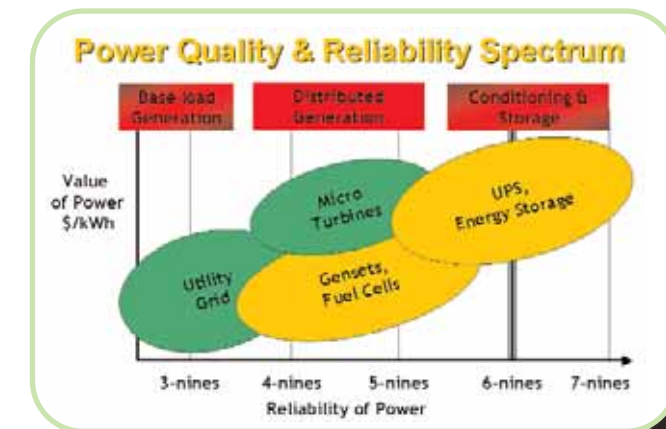
## Energy & Data

Just as the ability to move people and goods will be critical for the long-term economic success of the Flora Neighborhood, so too will be managing the flow and capacity of data and energy resources. To meet the energy demands of emerging technology and business ventures, the Flora Neighborhood is designed to be a self-contained Power Island. Planned as a distributed energy network, the Flora Neighborhood will have a co-generation plant on site that will provide the urban center with clean, reliable power at a minimum 6-nines capacity (99.9999% reliability) as well as co-generating steam and chilled water for the heating and cooling needs of the urban center.

Along with meeting energy needs, the Power Island will serve as a catalyst for the attraction of businesses that can not only benefit from reliable power, but can utilize the co-generation facility to research alternative energy solutions and the application of new energy technologies.

Being able to provide reliable and redundant data infrastructure will also be a critical component of the Flora Technology Neighborhood. Both wireless and hard wire technologies will be utilized to give business and technology clients in the Flora Neighborhood multiple venues for transferring, transmitting, and storing voice and data needs. The I-90 corridor is a dark fiber corridor with large amounts of available fiber optic wire for data and voice transmission needs. As part of the implementation stage, additional fiber optics will be installed in the technology center, the urban center, the supplier park, and the planned corporate land use areas to provide direct and ample access to "big-pipe" data transmission networks.

Wireless data access will also be made available throughout the Flora Neighborhood, allowing for data and voice demands to be met in an anytime, anywhere situation.



"An economic imperative for the viability of the Flora Neighborhood will be an innovative distributed energy strategy and access to multiple forms of data storage and transfer."

## Conservation



Energy, Data, and Transportation Infrastructure are vital for the Flora Neighborhood as it develops and grows into a viable Urban Center. In addition to providing the infrastructure, Belvidere and Boone County will also take the opportunity to become leaders in the Midwest region in model energy conservation and alternative energy strategies. The Flora Neighborhood will be a highly visible model of application of Green Technology and sustainable design solutions.

Centered in the Power Park will be a cogeneration power system, also known as combined heat and power that will produce electricity and use the unused excess heat from the process for steam, hot water heating, space heating, cooling and other thermal needs. This power system will provide clean, reliable, and quality power to site users.

All buildings within the Neighborhood will meet energy conservation design standards as part of the Belvidere Energy Strategy Initiative (BESI). In particular, Ag-Tech Village will be a model of conservation design, walkability, and efficient residential infrastructure.



“The Flora Neighborhood has the opportunity to be a highly visible model of application of Green Technology and sustainable design solutions.”

## Connection to Place

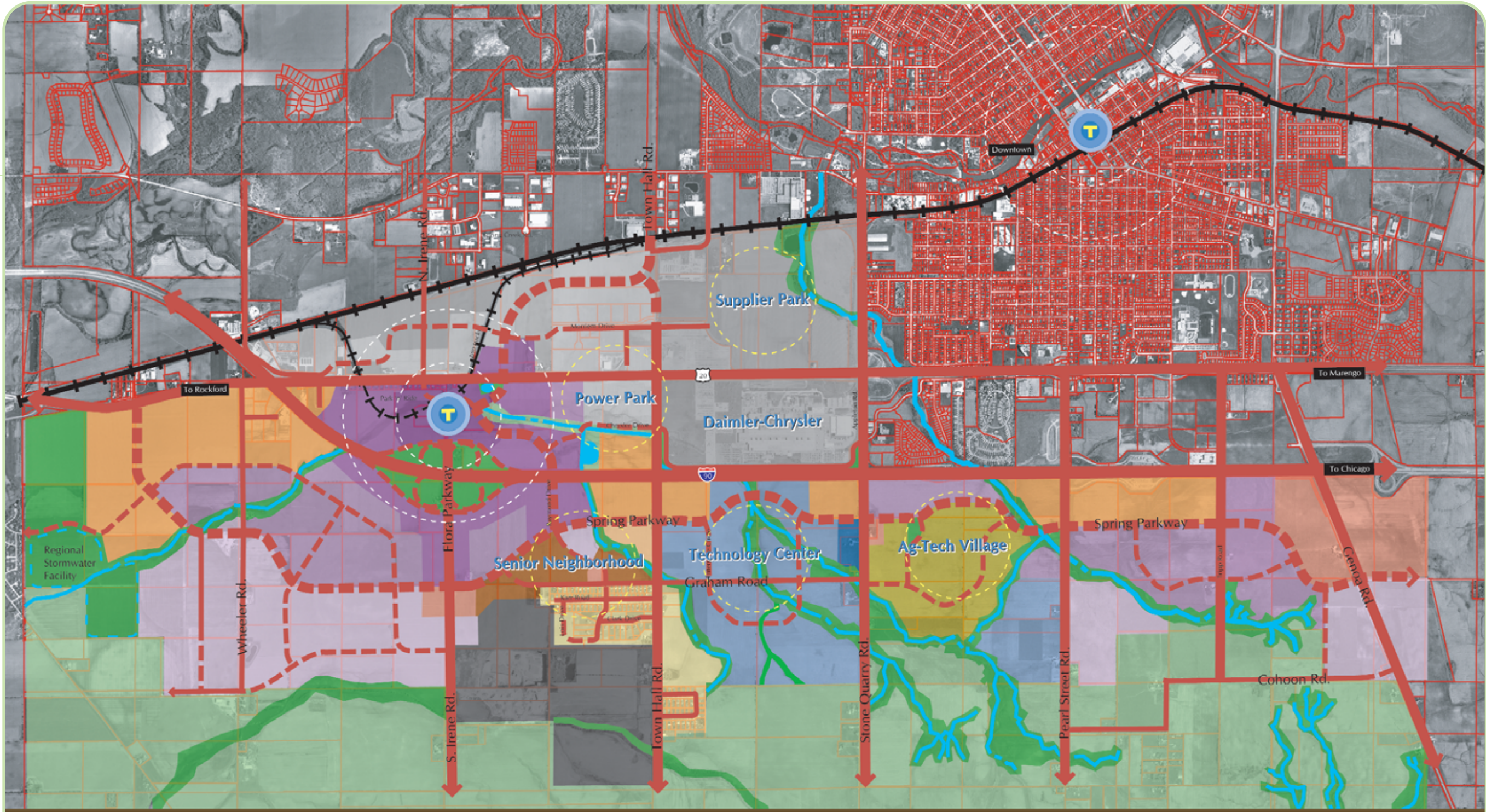
The convergence of opportunities achieves its greatest potential by connecting to the place-based assets of the Belvidere community in a variety of ways. For one, the Flora Neighborhood Plan will have direct connections to existing and planned regional bike and pedestrian pathways. Greenway corridors are apparent throughout the planning area, and this will form the “green Spine” that will serve to connect the various land use areas as well as giving residents and users a variety of transportation options and recreational opportunities.

In addition to physical connections, uniting visual connections will be critical in the planning area. By developing the Tollway Station area at a higher density, the vertical development pattern will not only allow for greater walkability, it will also give the users in the buildings an enhanced opportunity to see beyond the developed corridor and south to the preserved agricultural lands, north to the Kishwaukee river corridor, west to Cherry Valley, and east to Downtown Belvidere, the Power Park, and Daimler-Chrysler.

Connections have also been made in other ways. The Tollway Station will connect to the Downtown Multi-modal Transit Center through routine bus service, the parts of the neighborhood will be connected through a variety of bus routes, and the greater Belvidere area will be connected to Rockford and Chicago greater metro areas through air, road and rail.



“The reasons why people moved to this region and have prospered are a combination of hard work and connection to the land. Neither of these components should be compromised in the Flora Neighborhood Plan.”



**Established Land Use Categories**

- Rural/Agriculture
- Single Family Residential
- Planned Office
- Neighborhood Business
- Planned Business
- Planned Industrial
- Heavy Industrial
- Institutional
- Environmental Corridor

**Additional Land Use Categories**

- Planned Mixed Use IV
- Planned Mixed Use VI
- Planned Mixed Use II
- Planned Mixed Use I
- Corporate Center
- Technology Center
- Senior Neighborhood
- Ag-Tech Village



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 11.17.05  
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 Base Source: Boone County GIS

# Additional Integral Components of the Flora Neighborhood

In addition to the Tollway Transit Center, there are other key areas in the Flora Neighborhood Plan. These areas are made up of a variety of different land uses, but are to be envisioned as a part of the whole- providing amenity and opportunity while at the same time promoting energy conservation, connection to place and agricultural land preservation.

## SUPPLIER PARK AND DAIMLER-CHRYSLER

Daimler-Chrysler is one of the major land uses in the Flora Neighborhood, and instead of planning around the plant, the plan must be integral to them and their future needs. Within the Flora Neighborhood will be a Supplier Park, directly north of the Daimler-Chrysler Plant. The strategy is to encourage suppliers of parts to the automaker to develop manufacturing, assembly, and storage facilities in the Supplier Park, thus streamlining the flow of goods and services from the supplier to the assembler. By clustering suppliers in the park, collective and collaborative opportunities are created that could possibly not be afforded outside of the park. For example, food and health services can be centralized, offering greater human services to employees. Secondly, power and infrastructure needs can be streamlined to meet the exact needs of the supplier, and a guarantee in power quality and quantity can be assured. Finally, a supplier campus can allow for greater innovation in the actual process of making parts and managing the supply chain. Innovations in manufacturing can be shared, response to platform changes can be more streamlined, and implementation of new techniques, robotics, people, and processes can be applied more effectively. Additionally, since Belvidere and Boone County are active supporters of innovative industry measures like plant asset re-utilization and waste material recycling, they will be better able to work with the various businesses if positioned in a centralized location.



## POWER PARK

Belvidere and Boone County recognize that continuing economic development depends in part on having an improved energy infrastructure. While expansion of the state's generation and transmission capacity is under way, the leaders of the county and city government recognize that many of the industries comprising the commercial core of the economy are becoming increasingly reliant on dependable power supplies to avoid costly down time and the corresponding loss of business.

Electronic information storage and exchange has been increasingly important in the economy, and has brought an ever increasing awareness for not only power reliability, but power quality as well. Industries and clients that require highly reliably and quality power address the issues such as high availability (24/7) power supply with low probability of failure and assurances of near perfect power quality.

Contained within the Flora Neighborhood, strategically positioned between Daimler-Chrysler, the Tollway Station Transit Center, and the Supplier Park, the Power Park will provide reliable and quality power, as well as co-generation steam and chilled water to adjacent users.

The Flora Neighborhood is designed to be a leader in the region in energy conservation and green technologies. The Belvidere Energy Strategy Initiative (BESI) outlines the Boone County and Belvidere vision for reliable, quality, and sustainable energy use and application as a component of economic development as well as a regional model for the future.





## ADDITIONAL INTEGRAL COMPONENTS OF THE FLORA NEIGHBORHOOD

### TECHNOLOGY CENTER

Creation of a Technology Center will provide a location for businesses with similar needs and interests to cluster. The focus of the Center will be the application of new technologies and the transfer of technological innovation to application. This new park will bolster Belvidere's ability to remain competitive in the market for the high-paying jobs of the future.

The Technology Center is located along the I-90 corridor in a highly visible and central location. The area is well connected to the region locally as well as to the Rockford and Chicago metro areas via road, air, and rail and has energy and data infrastructure to meet the needs of new economy businesses.



### AG-TECH CAMPUS AND AG-TECH VILLAGE

An Ag-Tech Campus located near the Tollway will focus on ag-based and biobased materials that can be grown nearby and used by local businesses. Agricultural resources found in Belvidere can provide renewable raw materials for a wide range of products such as lubricants, fibers, chemicals, construction materials, and fuels. This would synchronize with current industries in Belvidere as well as new industries.

New businesses in the Ag-Tech Campus can accelerate the product concepts through the early stages of testing, screening and evaluation. Others can work to expand the markets for ag-based products, accelerate market penetration and reduce dependence on existing resources. The campus may house facilities to research and develop, transfer technology, commercialize or market the renewable materials as well as possibly establish biobased policy. Green technologies and design will be applied to the buildings on the campus to maintain its vision and purpose. There are many streams, ponds, wetlands and wildlife habitats as well as significant areas of wooded land throughout the county that would benefit from the environmental advantages to the use of biobased products.

The Ag-Tech Village will focus on diversity of housing types by including multi-family, single-family, townhome and other residential units as well as a neighborhood center, a central park and a charter school. Ag-Tech Village will be a model of conservation design, walkability, and efficient residential infrastructure.

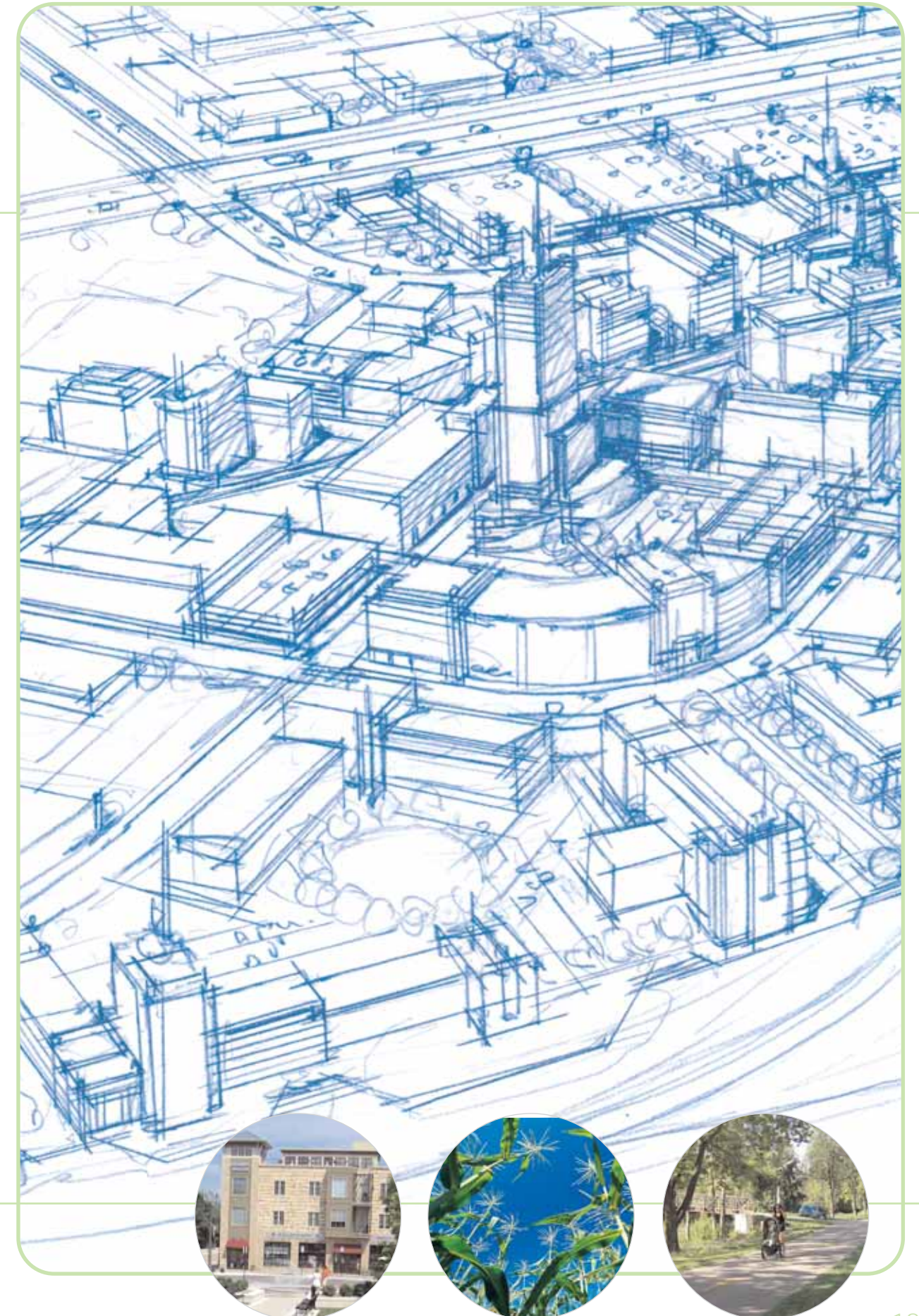
The Ag-Tech Charter School will focus on integrated learning topics, bringing traditional academic topics alive through application in design, composition, and interactive learning. The Ag-Tech Campus and Village will make functional and logical connections to the environment and the community and will serve as an example for the county and region.

# Making It Happen

The Plan for the Flora Neighborhood was not developed as a model; it was produced as an implementable vision for a region's future. Throughout the life of this plan, forces will routinely test and challenge the vision laid forth. For that reason, solid tools have been developed to aid in holding the community's vision strong and true to its original intent.

The Flora Neighborhood Development Plan provides:

- **DEVELOPMENT STRATEGY** with design and development standards for growth in the neighborhood for a variety of land use types - from industrial to mixed use residential, from senior housing to planned business.
- **LAND USE STRATEGY** that preserves rural agriculture by developing at densities that absorb sprawling residential growth patterns.
- **ECONOMIC STRATEGY** that promotes ag-land conservation through market incentive with new product markets and bio-based strategies that are built from local existing crop and livestock resources.
- **TRANSPORTATION STRATEGY** that makes the Flora Neighborhood as much a destination for mass transit as a starting point. By building at higher densities, residents and users can rely less on the automobile and more on mass transit options supported by a critical mass that allows them to operate efficiently and effectively.
- **CONNECTION TO PLACE** that never forgets the community and resources that have given the region its strength and vitality through physical connections, bike and pedestrian connections, transit connections to the downtown and outlying areas, and visual connection to both the Tollway Corridor and preserved lands to the South that are open, vibrant and productive.



development • land use • economic • transportation • connection

## Key Steps

The Flora Neighborhood and its necessary components require the dedication of funding and professional resources to maintain plan continuity, build partnerships and other funding sources, and carry the plan forward to reality.

Some initial steps are being set in motion to make the Flora Neighborhood Plan a reality:

1. Establishment of a Project Steering Committee specifically for the implementation of key neighborhood components
2. Engaging the IDOT and ISTHA in committing to the Irene interchange and the Town Hall Road extension south across the Kishwaukee River
3. Coordinating and collaborating with Metra to plan strategy and timeline in the implementation of the Big Timber extension to Belvidere and/or an extension of the Star Line from Hoffman Estates to Belvidere
4. Sharing the plan for the Flora Neighborhood and establishing inter-governmental agreements with neighboring municipalities to provide coordinated and responsible land use and annexation
5. Defining and adopting an energy strategy that includes a distributed energy system with co-generation capabilities
6. Establishing a funding district to implement the Transit Center and rail extension

