

# Madison County I-55 Corridor: *4.0 Site Inventory & Analysis*

# Madison County i55 Corridor

## 4.1 Overview

Once the project goals, market and economic analysis were underway or completed, the design team assessed the strengths, weaknesses, opportunities and constraints of the site and the community.

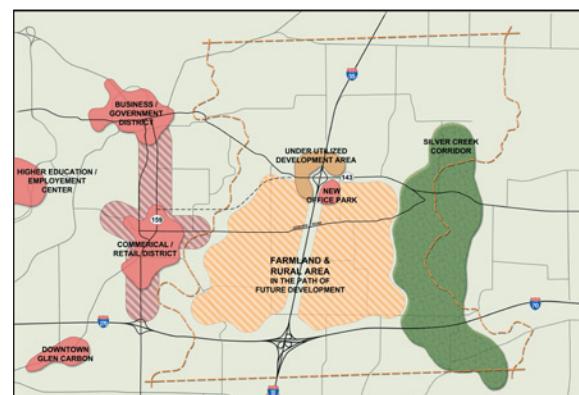
The characteristics identified in this inventory and analysis played an integral part in shaping the land use concepts and development strategies that followed.

Some of the characteristics evaluated by the design team included:

- image
- comparable projects
- regional overview
- local context
- transportation network
- land cover
- development patterns
- landform and natural features
- topography
- hydrology/floodplain
- wetlands
- open space and trail development
- vegetation
- visual analysis
- municipal & school district boundaries
- opportunities and constraints

## 4.2 Image

What is the image of a community and how is it defined? More importantly, what does the “Community” of Edwardsville and Glen Carbon want to be? Through research efforts and site observations, the design team has defined the community image and we will strive to convey it here.



Community Image - Land Use Pressure Diagram

First, through a series of interviews with various residents, elected officials and business leaders from all walks of life, the design team asked that they offer their opinions, likes and dislikes of the community. A consistent and positive response was revealed. Interviewees spoke of several topics: education, history, trails/open space, charm, atmosphere, neighborhoods, connectivity and opportunity. In both general and specific terms, interviewees quickly discussed the image of the community as being:



Community Image - Edwardsville High School (District 7)



Community Image - Edwardsville City Library

- a great place to raise a family,
- community possessing excellent educational resources, both SIUE and the local school districts of Edwardsville and Troy,
- area having deep historical roots unique to both communities, one as an original State community and the other as a mining town,

- possessing trails and open space that give the area great access to parks and recreation opportunities,
- charm and atmosphere of the Edwardsville and Glen Carbon is maintained by its hometown qualities. For instance, every Saturday morning a farmers market (Land of Goshen) is held downtown in front of the County Courthouse,
- community is the home of many stable and envious neighborhoods, Old Town in Glen Carbon, Montclair, Lecalir, and St. Louis Street in Edwardsville.
- the community has good connectivity to the region via the interstates of I-55, 270, and 70,
- community also presents new opportunities for good quality housing and opportunities for development.



Community Image - Trail System (Mont Station Road)

The second and more defining bit of research is what can be learned from N. O. Nelson and the development of Leclair. Mr. Nelson looking to expand his manufacturing business was lured to Edwardsville by railroad connections and the availability of 150 acres of undeveloped land south



Community Image - Leclair Neighborhood Housing

of the City of Edwardsville. Nelson researched, profit sharing and neighborhood planning in Europe and developed a plan for a new neighborhood in Edwardsville he called Leclair. Nelson's image for Leclair was to combine homes, recreation, work, freedom, education and beauty into a visionary, stable, family friendly social community. Today, Leclair still stands as one of Edwardsville's great neighborhoods and its founding principles embody not only itself, but those of the whole community.

When the question is asked - "What is the image of a community and how is it defined? More importantly,



Community Image - Leclair Park

what does the "Community" of Edwardsville and Glen Carbon want to be?" The answer is found in the pages of the communities' history and by asking the resident on the street corner. Stated simply, "*we want to be tomorrow what we are today, only better.*" We want our community image to be defined as follows:

- by the quality of our **housing**,
- by our opportunities to **recreate**,
- by our opportunities for **employment**,
- by our **freedoms**,
- by the quality of our **education**,
- and by the **beauty** of our environment.

These phrases have become clichéd in recent times by today's developers as "live - work - play" communities to the point that they may have lost their message and true feeling. For Edwardsville and Glen Carbon, the phrases go deeper and are a truer reflection of the image of the community. The community image is a unique combination of social,

## **Madison County i55 Corridor**

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environmental, economic and aesthetic values well represented by the words and thoughts of N. O. Nelson.

So, what is the community image and who do we want to be when we grow up? We want to have housing, recreation, employment, freedoms, education and beauty just like we have it now, only better for tomorrow. This is a statement that speaks of a historical/contextual respect for community values that anticipates and desires change. Likewise it is an image that expects these changes to respond to a commitment based on quality.

In conclusion, image is as important as the physical plan. Image controls the aesthetics for the vision and grounds the plan with quality expectations.

### **4.3 Comparable Projects**

Comparable projects (or case studies as some refer to them) represent the learning process the design team utilized while researching other projects. As a key element of the analysis phase, the design team collectively reviewed several key projects. These projects were documented with graphic plans, photographs and statistics. Throughout this process, a graphic list of relevant projects that were similar in scale and scope could be used to educate the PMT, the design team and the public.

Are there some good comparable projects to consider and learn from in order to realize this economic development vision? The answer is yes. When

looking at comparable projects, a focus was placed on finding examples that had met the goals of our projects and embodied the image similar to the desired end-product.

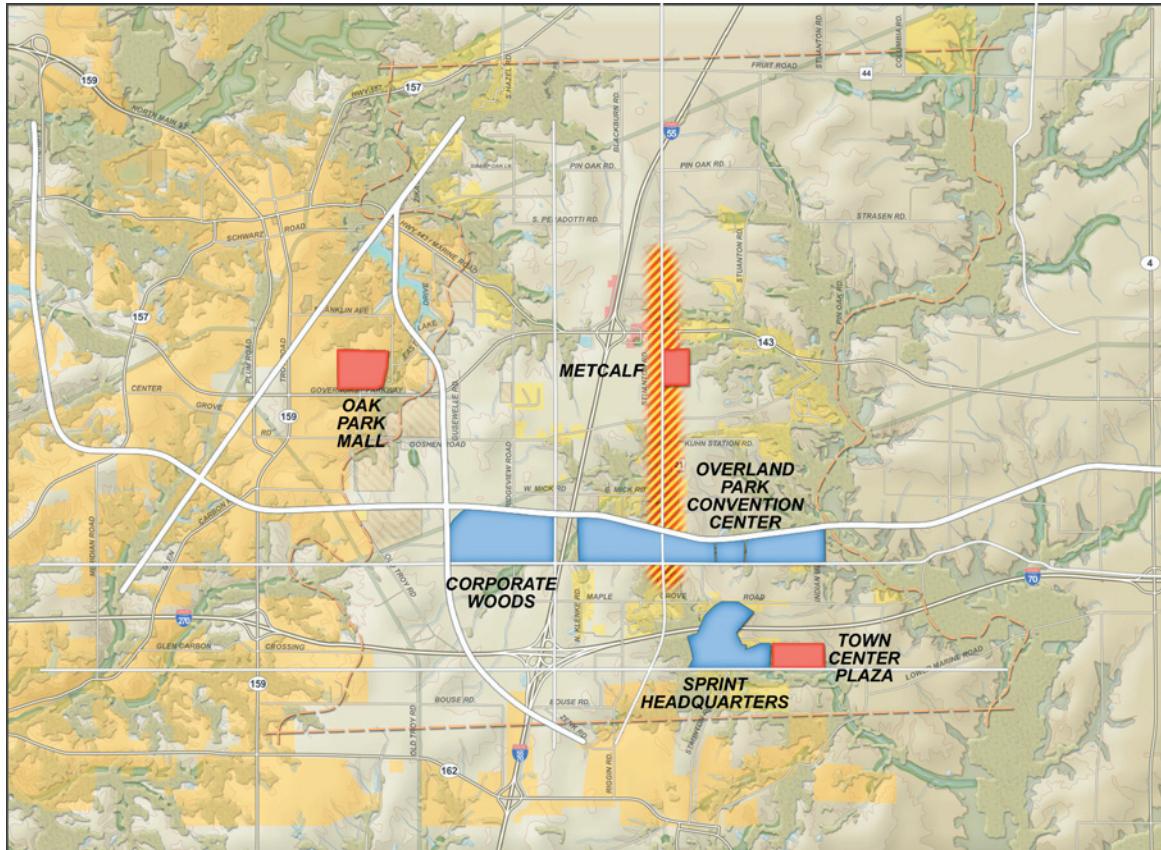
Most of the following projects have the outcomes that are possible and desirable for the Edwardsville and Glen Carbon area.

- **College Boulevard, Overland Park, Johnson County, Kansas** – A large corridor development in suburban Kansas City, paralleling the regional beltway, I-435; accommodates some 13 million square feet of offices, 1.5 million square feet of retail floor area, 8,200 multifamily residential units and 3000 hotel rooms within an area of some 5 square miles - 3 plus miles in length by 1.5 miles wide.
- **Westport, Maryland Heights, St. Louis County, Missouri** – A mixed use cluster occupying two quadrants of a highway interchange on the I-270 beltway, accommodates 4.2 million square feet of offices, 16 million square feet of light industrial and warehouse uses, 300,000 square feet of retail, 550 hotel rooms and 6,700 multifamily residential units within an area of about 4 square miles.
- **Chesterfield Village, Chesterfield, St. Louis County, Missouri** – A mixed use planned community by Sachs Properties that occupies the four quadrants of the I-64/U.S.40 & Clarkson/Olive interchange - 1,500 acres with a ring road interconnecting

the main roadways and knitting the quadrants together. Accommodating a large regional shopping center, diverse offices, the Pfizer Research Center (formerly Monsanto), and diverse multifamily and single-family neighborhoods.

- **I-64/U.S.40 Research Corridor, St. Charles County, Missouri** – Multi-jurisdictional, cooperative plan and zoning strategy designed to “protect and preserve” the interstate corridor primarily for office, light industrial, and research and development uses, capitalizing on the Missouri Research Park and the Busch Wildlife Preserve. Recently attracted Master Card and Citicorp along with the mixed-use Winghaven planned community.
- **Reston, Fairfax County, Virginia** – Large, 7,500 acres, mixed use community planned in mid-1960s and nearing completion, with a model mixed-use town center, village centers and extensive business parks on the Dulles Toll highway.

Comparable project photographs, graphics and images were also collected for reference. They include both positive and negative examples. Categories included roadways, open space and mixed-use town centers. In addition, scaled plans were collected for several areas around the metropolitan St. Louis area as reference. These comparable projects included Forest Park, The St. Louis Galleria, Winghaven, New Towne St. Charles, Maryville Center, Downtown St. Louis CBD and the Delmar Loop area.



Comparable Project - College Blvd. Overlayed onto I-55 Corridor Base Map as Scale Comparison



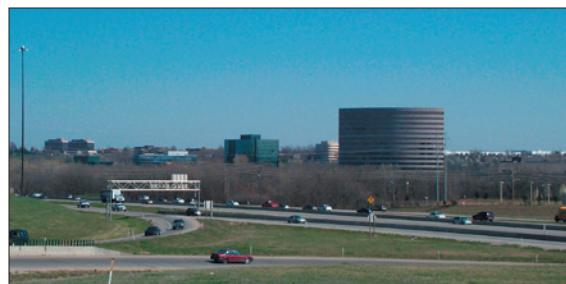
Comparable Project - College Blvd. Corporate Woods



Comparable Project - College Blvd. Corporate Woods



Comparable Project - College Blvd. Residential Housing

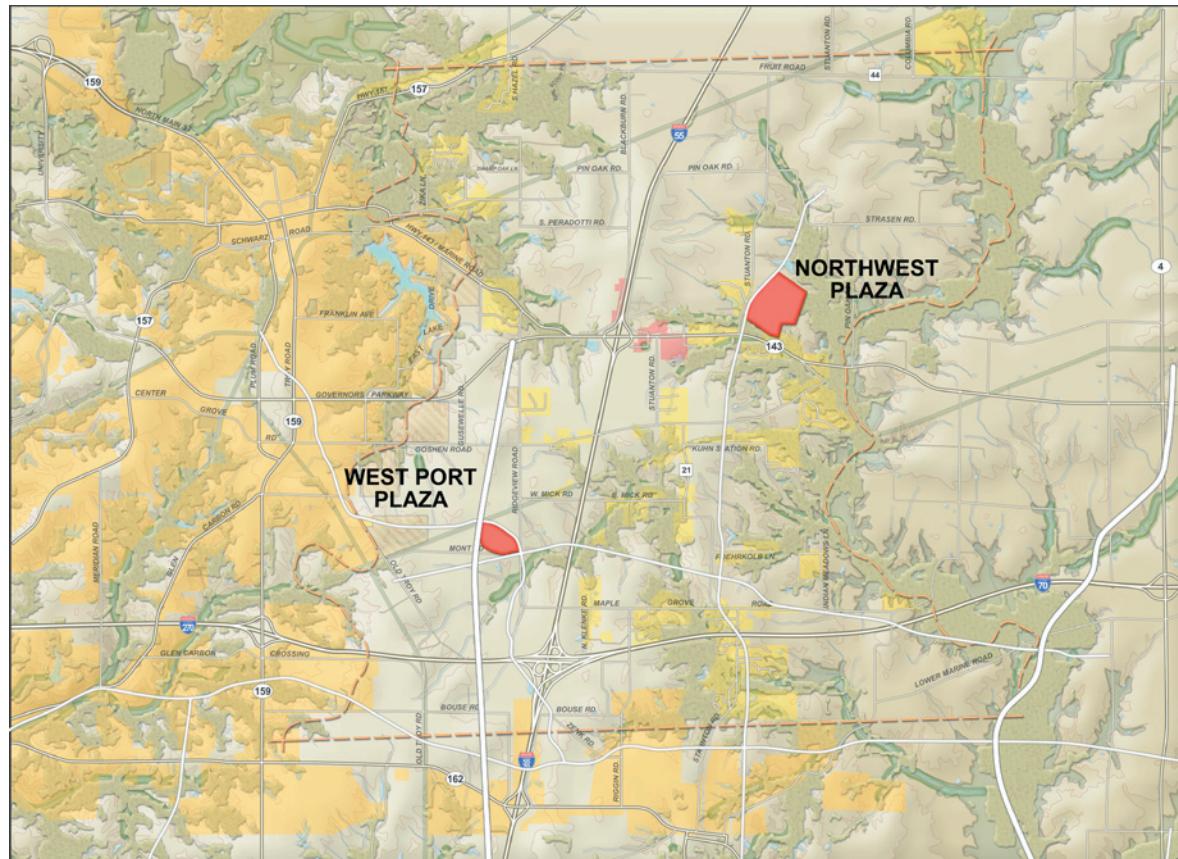


Comparable Project - College Blvd. I-435 Interchange

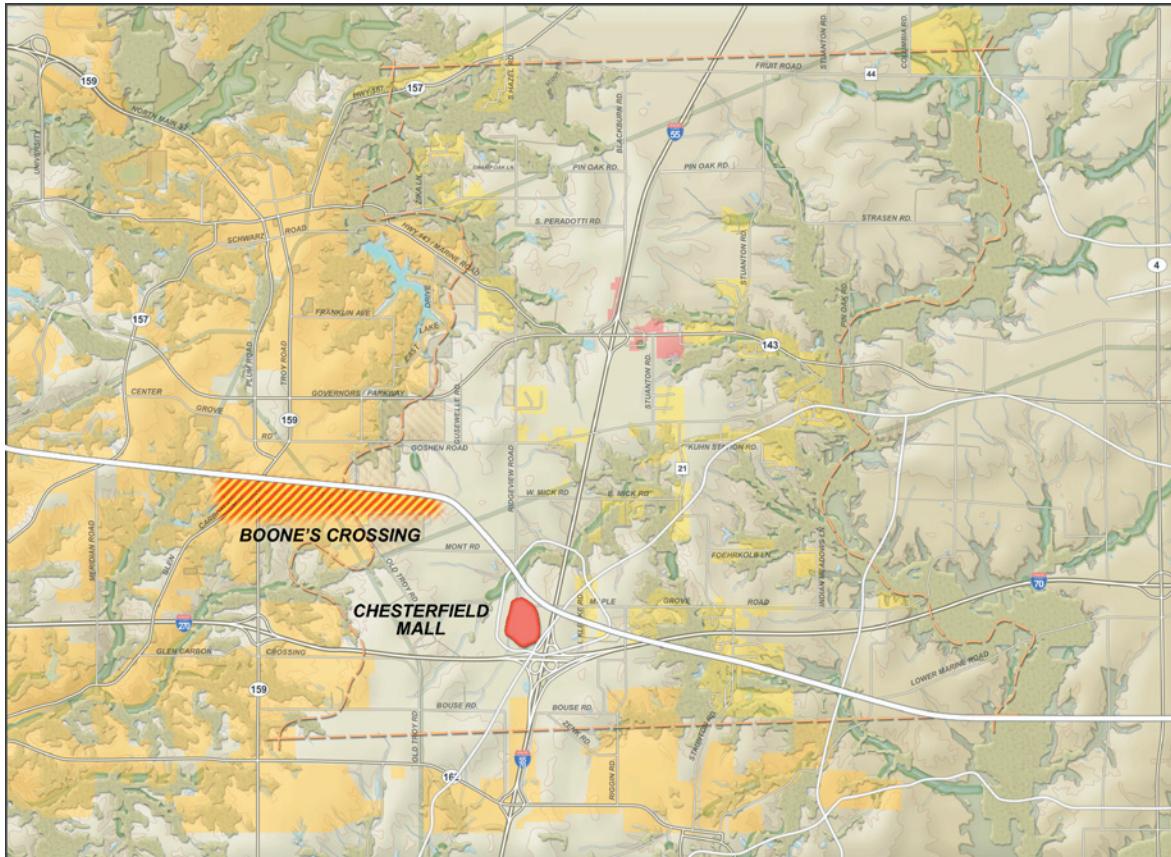


Comparable Project - College Blvd. Sprint Headquarters

## Madison County i55 Corridor



Comparable Project - Westport Plaza



Comparable Project - Chesterfield Village Overlayed onto I-55 Corridor Base Map as Scale Comparison



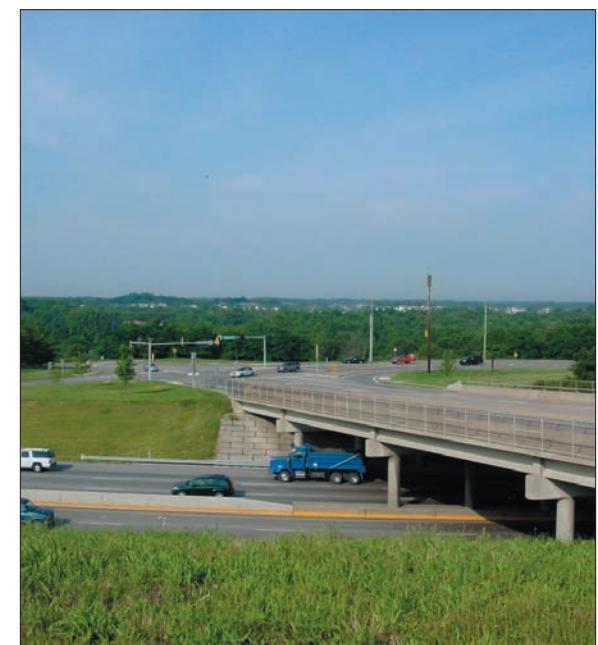
Comparable Project - Chesterfield Parkway Loop Road



Comparable Project - Public Parking Facilities

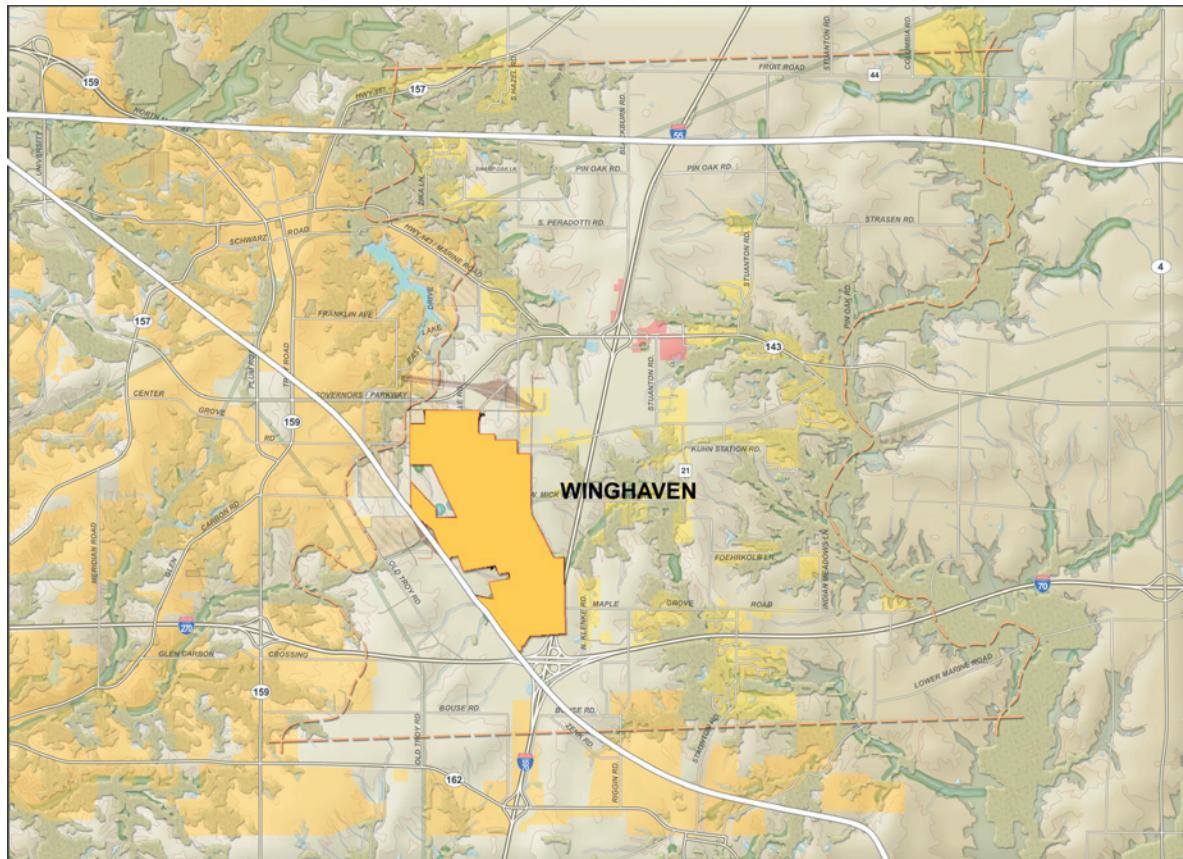


Comparable Project - Chesterfield Village and Mall



Comparable Project - Inbterstate Access

## **Madison County i55 Corridor**



### Comparable Project - I-64/U.S. 40 Winghaven



### *Comparable Project - Winghaven Country Club*



Comparable Project - Winghaven Residential Development



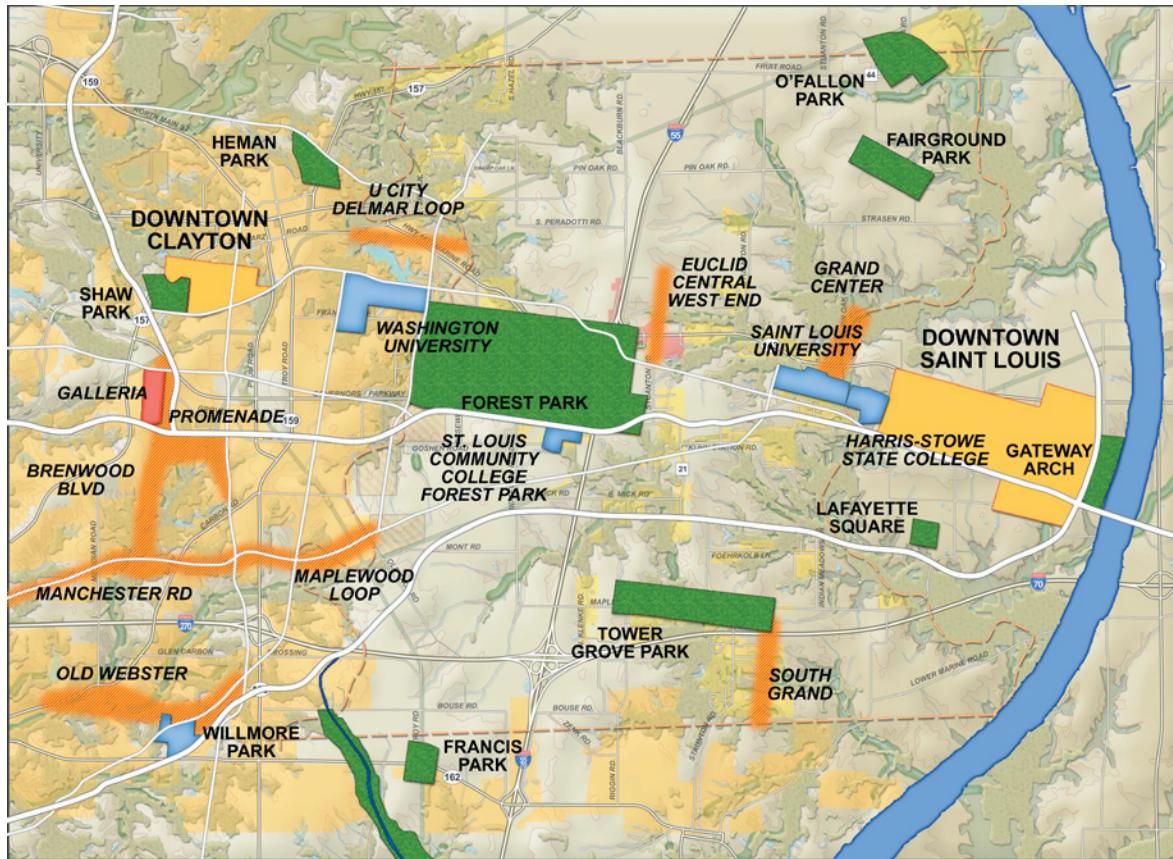
*Comparable Project - Winghaven Town Center*



#### *Comparable Project - Winghaven Green Infrastructure*



#### Comparable Project - Winghaven Thoroughfares



Comparable Project - City of St. Louis and Clayton Overlaid onto I-55 Corridor for Scale Comparison



Comparable Project - Unfavored Frontage Road System



Comparable Project - Favored Roadways as Green Space

# Madison County i55 Corridor

## 4.4 Regional Overview

The bi-state St. Louis region encompasses twelve counties, five in Illinois and seven in Missouri. It is the 18th most populated metropolitan area in the United States. St. Louis is home to over 2.6 million people, with more than 600,000 people residing on the Illinois side (Metro East). Within the Metro-East, over 260,000 people reside in Madison County with more than 33,000 people living in the I-55 study area.

The diagram below depicts regional development patterns and the anticipation of continued growth in the Metro East.



St. Louis Regional Development Patterns

The diagram below illustrates regional node distances from the I-55 Corridor study area. The 30 square mile study area is located approximately 15 miles from downtown St. Louis, the area's largest employment district. Lambert International Airport is located 25 miles west of the study area. Having close proximity to regional destinations make the I-55 corridor attractive for development, both commercial and residential.



St. Louis Regional Node Distances from I-55 Corridor



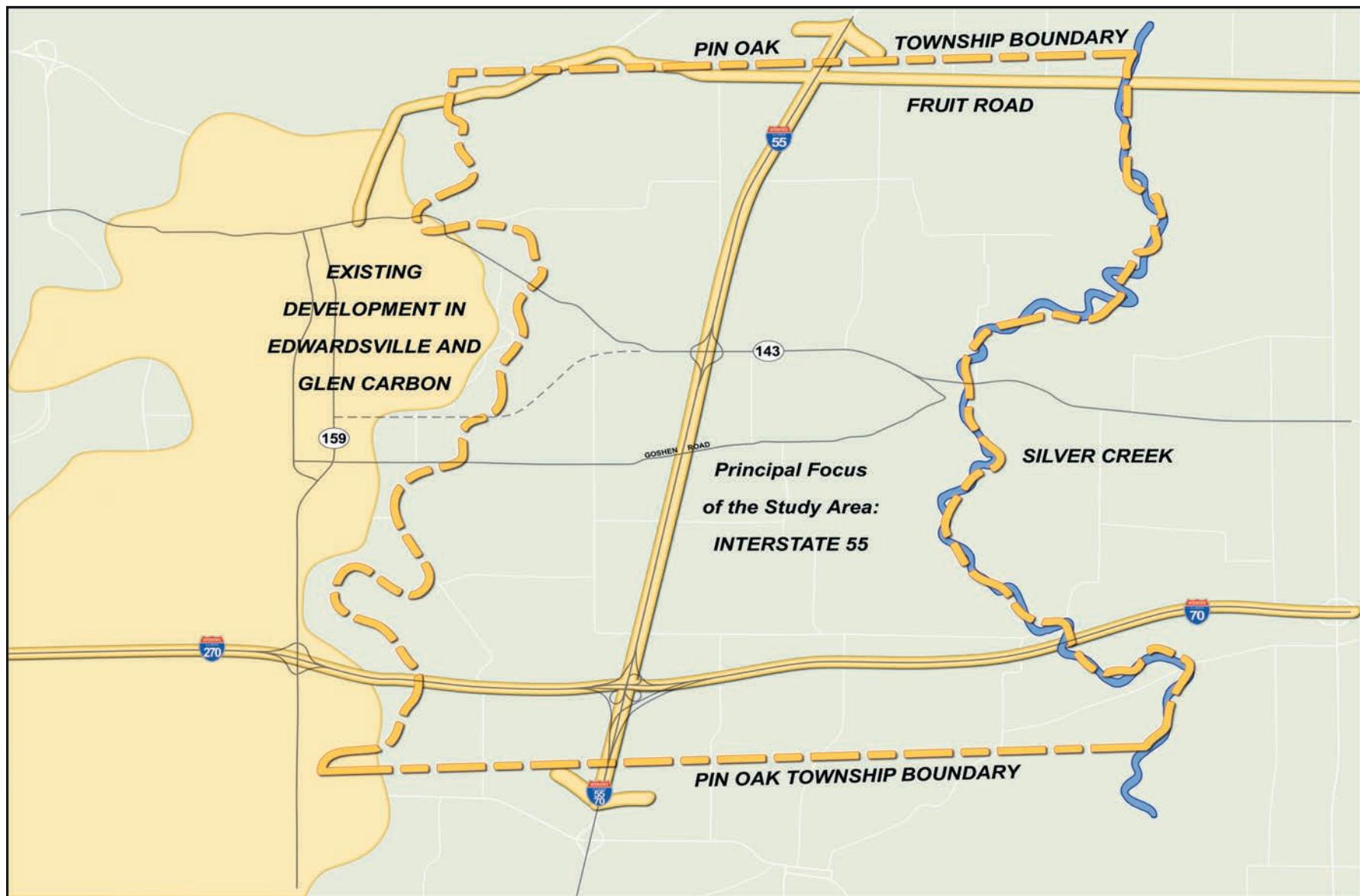
St. Louis Regional Location Map

## 4.5 Local Context

The I-55 corridor study area is centrally located in Madison County, IL just east of the City of Edwardsville and Village of Glen Carbon. The area stretches approximately three miles on either side of a six mile section of Interstate-55. The corridor is bounded by the following: Silver Creek on the east, Interstate 270 on the south, the existing edge of development on the west and Fruit Road on the north. The I-55 Corridor is predominately a rural area comprised of the Silver Creek flood plain, farmland and low density suburban estates. In general terms, the site encompasses all of Pin Oak Township.

**Aerial Photograph:** As shown on the plan on the next page, the aerial photograph provides an initial indication of current land uses and developed areas. The municipal developments are shown surrounding the undeveloped farmland along I-55.

Throughout the region there are many different perceptions of the corridor. The majority of the I-55 area is seen as rich agricultural lands. Further east is the Silver Creek floodplain. Silver Creek is an area of wooded hills with many steep slopes around a flowing unchanneled creek.



### *I-55 Corridor Study Area Aerial Photograph*

# Madison County i55 Corridor

## 4.6 Transportation Network Analysis

Strategically, the I-55 corridor is positioned along the perimeter of the St. Louis regions interstate network. The majority of Metro East's growth has followed the interstate network and transportation accessibility. The attractiveness of the I-55 corridor is twofold: first its connectedness to the City of St. Louis and its adjacency to the I-270/I-55/70 crossroads.

As image and perception are vital to a community, traffic is as well. Regional development and residents have dramatically increased traffic volume in the community, while its transportation network has been forced to react. Also, the concentration of a commercial/retail node into one district has attracted many people to the IL 159 corridor. Since there is future development coming to the region, public vehicular circulation into and out of the area will need to be planned. To improve the regional connectivity to the area, studies of new interchanges along I-55 and I-70/270 are occurring. These

interchanges will provide better and more choices of connections to the east side of Glen Carbon and Edwardsville where easy access to I-55 and I-270 are available. To support the circulation within the development area, improvements and/or new alignments to several west-east and north-south connections need to be studied.

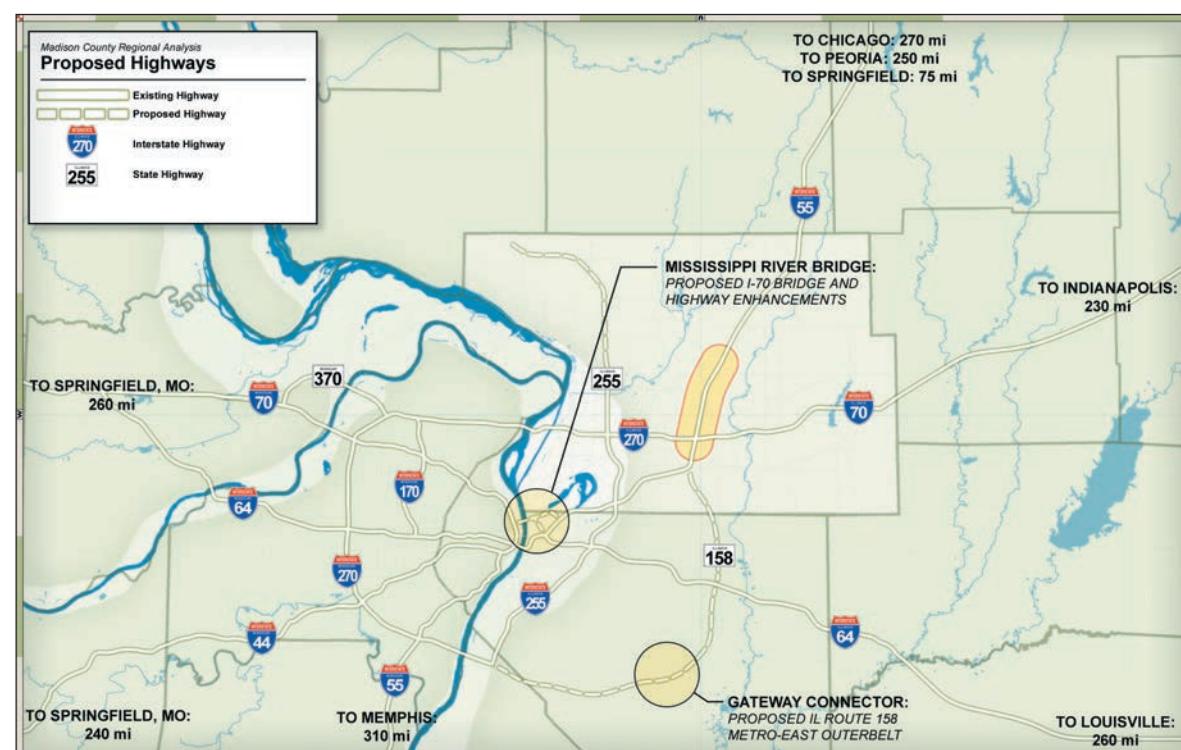
Edwardsville/Glen Carbon offers a potential optimal combination of transportation access for all modes if the system can be leveraged to its full capability.

Sited adjacent to four interstate highways, the nation's sixth busiest airport, the nation's second busiest rail center, and the country's only duty-free inland port, the area is ideally situated for regional, national, and international access or distribution. Light rail, a bi-state bus system and the new Mid-America Airport provides additional service options for the Metro East vicinity.

The St. Louis metropolitan public transportation authority (Metro) continues to develop MetroLink,



St. Louis Regional Existing Transportation Network



St. Louis Regional Proposed Transportation Network

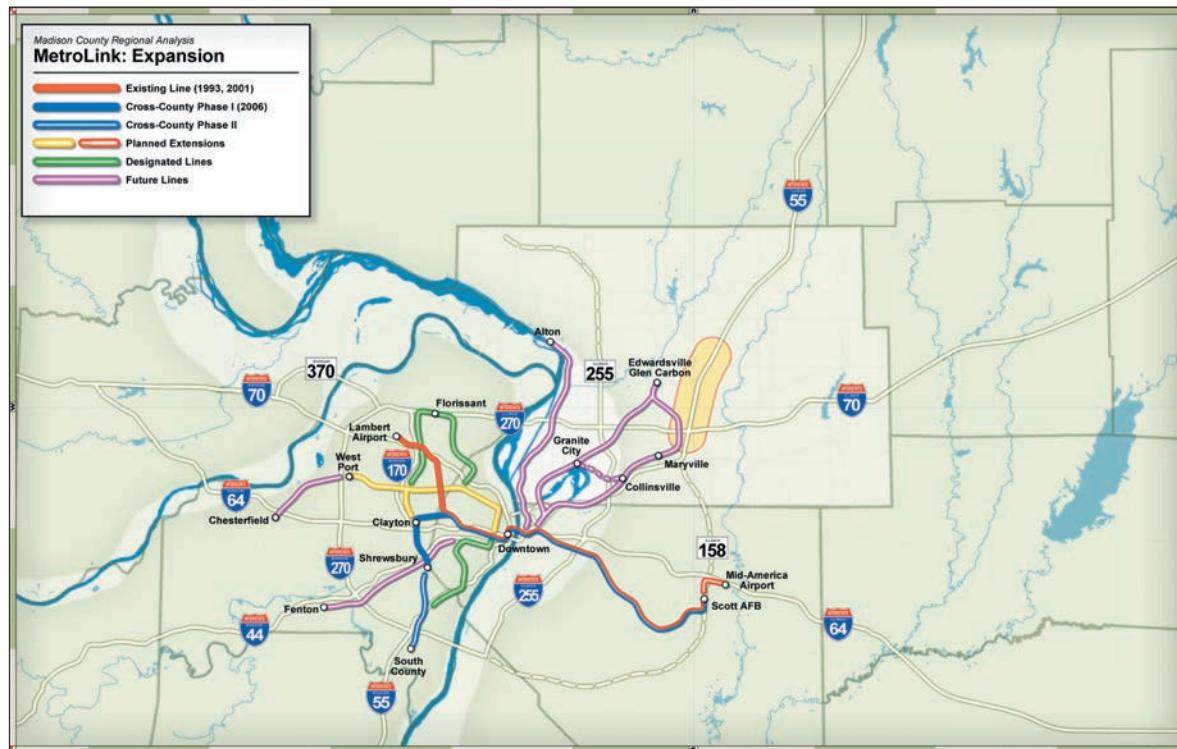
the regions light rail system. Currently, MetroLink provides a single service route into Illinois. This route extends from Lambert International Airport through downtown St. Louis to Scott Air Force Base in St. Clair County, IL. Due to current growth trends, Metro is now in the process of studying three proposed routes from downtown St. Louis to Madison County, IL. Two of these alignments potentially have a long-term positive impact on the I-55 Corridor Study Area.



St. Louis Regional Existing MetroLink



Existing Transportation Diagram - Level of Service



St. Louis Regional Proposed MetroLink

# Madison County i55 Corridor

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## Roadway Classification and Character

Functional classification is a grouping of roadways according to the character of service for which they are intended to provide. Travel rarely occurs on individual roadways; rather most trips involve movement through a network of roadways. Each classification has a distinct purpose and role in trip making.

Roadways are grouped into functional classifications because the goals of land access and mobility are in conflict with each other. While local roadways are designed to provide a safe environment for property access and local use, interstate freeways are designed to provide for safe long distance movements.

Collector and arterial roadways serve intermediate functions and also provide circulation between other facilities. Imagine how safety and efficiency would be impacted if individual driveways accessed directly onto I-270!

It is critical that the transportation plan be grounded with an appropriate functional classification scheme. A proposed functional classification scheme for the study corridor is reflected in the transportation plan, and definitions for these classifications are described in the following.

**Freeway** - Access restricted roadway designed to carry vehicles between urban centers and through metropolitan regions and counties. These roadways are designed for mobility with no provision made for direct

access to adjacent land uses. Proper access management is indispensable.

**Arterial** - Limited access roadway designed to carry vehicles entering and leaving, or traveling through urban areas. Roadways are designed primarily for mobility with little provision made for direct access to adjacent land uses. Access management is important to the function of these facilities

**Collector** - Controlled access roadway designed to provide local circulation for adjacent developments and neighborhoods. Roadways are designed primarily for circulation with provision made for direct access to significant adjacent land uses such as subdivisions and shopping centers. Access management should be considered in the design of these facilities.

**Local** - Roadway designed to provide access to adjacent property. Roadways are designed for access to adjacent land uses with little provision made for mobility.

## Existing Traffic Conditions

Currently, the study corridor mostly consists of agricultural land and is served primarily by interchanges at its periphery. I-55 is accessed via IL 143, I-270 via IL 159, I-70 via IL 4, and I-55/70 via IL 162. Agricultural roadways (e.g., Old Troy Road, Mick Road, and Ridgeview Road) provide circulation within the corridor. Development, however, is occurring to the south and west of the study corridor

leading to an increase in through traffic volumes. Although congestion is an issue for some external roadways that feed the study area (e.g., IL 159), it is not currently an issue for any of the roadways located within the study area.

## Currently Planned Roadway Improvement Projects

Prior to developing a roadway plan it is appropriate to gain an understanding of previous planning efforts to minimize conflicts and capitalize on previous planning efforts. The following section lists current roadway improvement plans in the study area as obtained from various comprehensive planning documents from partner agencies.

Planned roadway projects for the city of Edwardsville are

- Widening of IL159 to 5 lanes (four travel lanes with a center turn lane) from downtown Edwardsville to I-270.
- Widening of IL 157 to 5 lanes from downtown Edwardsville to I-270.
- An alternative IL 159 from Main Street to Center Grove Road.
- Addition of 3 lanes road from Old Troy Road to IL 159.
- Building of a new 3 lane South Edwardsville Bypass with a signalized intersection at IL 159.
- Widening Goshen Road from Gerber Road to Ridge View Road to residential collector standards.

- Widening Ridge View Road from Goshen Road to its intersection with IL 143.
- Widening Gerber Road to residential collector from Willow Creek to Goshen Road.
- Building of new 2 lane Gusewelle Road from Goshen Road to the new City park.

Planned roadway projects for the village of Glen Carbon are

- Glen Crossing Road improvements incorporating the extension of the new roadway from Judy Branch to IL 159 including relocating the Glen Crossing and Main Street intersection and providing a signalized intersection at Glen Crossing Road and IL 159 (programmed for improvement).
- Extension of IL 255 from its present terminus at I 143 through Bethalto to Godfrey (programmed for improvement).
- Widening IL 157 to a 5 lane section between I-270 and the existing intersection of IL 157 and Schwartz Street in Edwardsville.
- Widening IL 159 to a 5 lane section between Collinsville on the south and Edwardsville on the north.
- Improvement of Acme School Road through an extension of Glen Crossing Road to the east to connect with Old Troy Road. Improvements include widening the road to a 30 foot wide 2 lane road with a sidewalk on side of the road.
- Construction of an interchange where Old Troy Road intersects I-270.

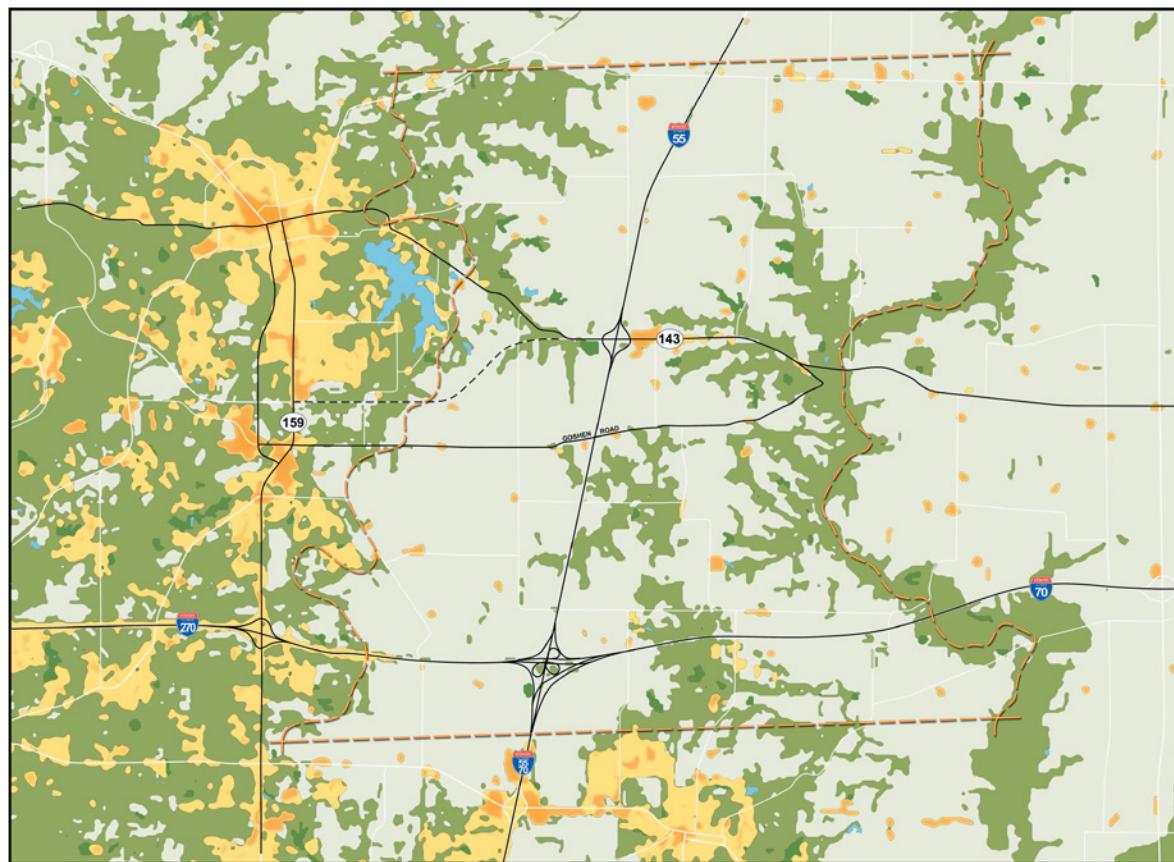


Existing Transportation Diagram - Roadway Classifications

- Improvement of Old Troy Road on the north side of I-270 to a three lane cross section which would provide two 12 foot wide through lanes and a 12 foot wide center turn lane.
- Addition of a number of 2 lane collector streets as the Village develops.

It appears that the projects currently being planned by partner agencies do not conflict with those recommended in this effort.

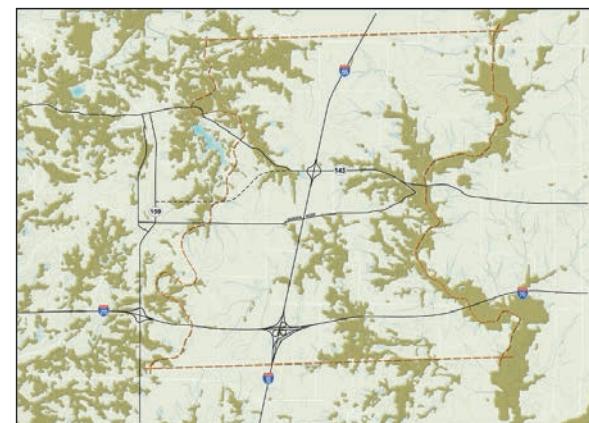
## Madison County i55 Corridor



Land Cover Diagram

### 4.7 Land Cover

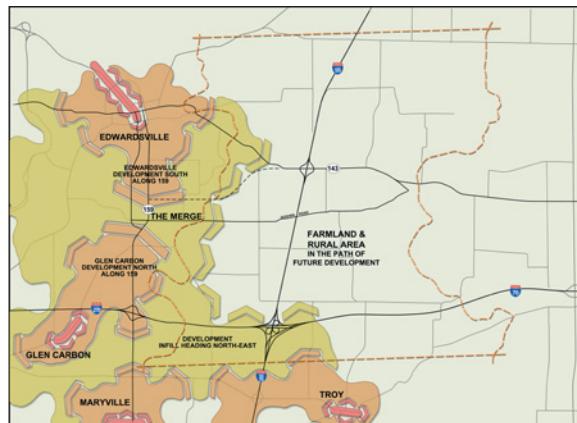
The land cover diagram depicts the current land coverage of the I-55 corridor and its surrounding region. Developed areas, shown as yellow, illustrate the dense areas of residential and commercial/retail for the four surrounding municipalities. Tree cover, shown as green, diagram the areas with existing trees and possible farm production and/or real estate development restrictions due to natural limitations. Tree Cover is evident along Silver Creek where steep slopes and wetland conditions possibly restrict future development.



Tree Coverage Diagram

## 4.8 Development Patterns

**Historical Development:** The diagram below illustrates the historical development direction and movement of the region including Edwardsville, Glen Carbon, Maryville, and Troy. Shown in red is the initial settlement of each municipality. This is where the city or village started its growth. As time past and population grew, the municipalities began to spread out from the center and develop

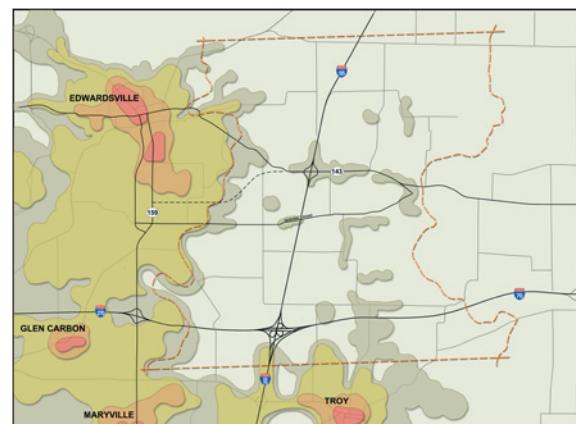


*Historical Development Diagram*

along transportation corridors. Glen Carbon and Edwardsville expanded along the current IL 159 corridor and Glen Carbon Road. Troy expanded west along IL 162. After the initial development, population continued to grow and so did public amenities such as roads and utility services. Soon the once separate municipalities began to grow together along the existing transportation network. Now the direction of development is changing. Farmland and the rural area in the study area are in the path of future development

While the Historical Development diagram illustrates the development direction and movement, the Development Typology diagram describes the character of the development, such as density, walkability, public interconnectivity, mixed-use, transit-supportive neighborhoods, and open space. The diagram organizes the community on a scale from urban to rural.

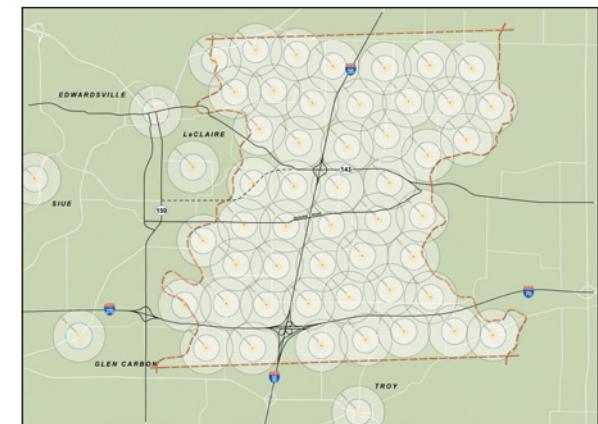
**Development Typology** is also referred to as the Transect. Shown in red, illustrates the Core of the community. The Core has the most urban character and image to it. It is the center of activity and energy. Next, the orange illustrates the Center. The Center still has the urban feel, but may have less density. The Center may provide more housing than the Core. Shown as green, illustrates the General development. The General includes most of the community housing stock. This area is less dense by having bigger setbacks and wider streets. Illustrated in gray, is



*Development Typology Diagram*

the Edge, approaching the rural character. Land use densities are very low by larger lots and winding streets. Finally the Preserve is illustrated in beige. The Preserve is the rural condition. Housing and commercial uses are rare, while farming and forest land prevail.

**Walkable Distances:** The diagram represents a standard measurement of walking distances used in urban planning. The inner circle is a  $\frac{1}{4}$  mile radius



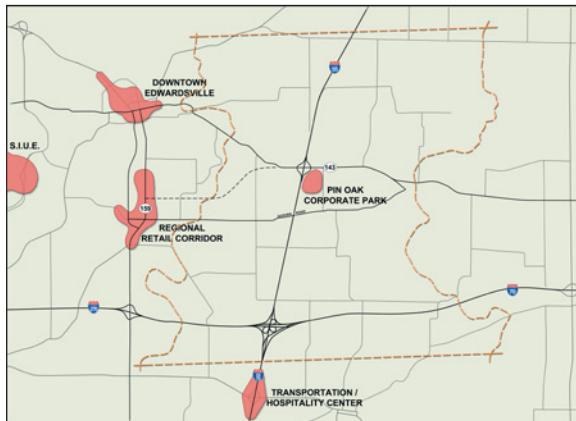
*Walkable Distances Diagram*

which represents a 5 minute walk. A 5 minute walk is the average distance an individual is willing to travel for services without the use of a vehicle. The outer circle is a  $\frac{1}{2}$  mile radius which represents a 10 minute walk. A 10 minute walk is the upper limits of distance an individual will walk. These distances create a framework for developing town centers with commercial services surrounded by residential neighborhoods. The diagram gives you a sense of scale by comparing the downtowns of Glen Carbon, Edwardsville, and Troy to the study area.

## Madison County i55 Corridor

**New Development:** The area of Edwardsville and Glen Carbon continues to grow as more people move to this area. As a result, area developers have taken advantage of the migration, planning new residential subdivisions along the eastern edge of Glen Carbon and Edwardsville. This diagram clearly demonstrates the development progression into the I-55 corridor study area.

**Economic Nodes:** The I-55 corridor area is surrounded by many economic nodes that provide most of the current employment force. As the county seat, the City of Edwardsville provides many government and private jobs in its downtown. Located on the east side of Edwardsville is Southern Illinois University Edwardsville. This local University provides many jobs for the region. Along IL 159 between Glen Carbon and Edwardsville is the regional retail corridor. Many commercial uses such as retail services demand a large workforce.

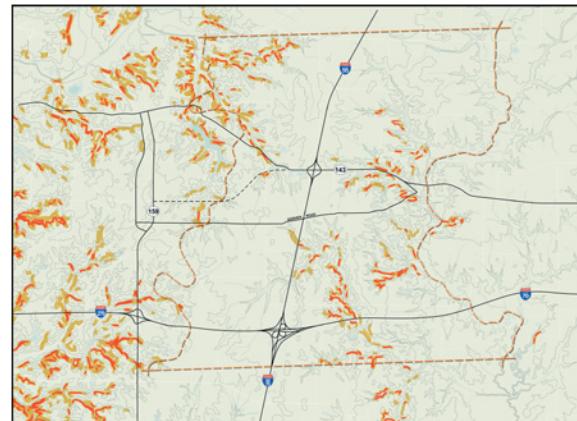


Economic Nodes Diagram

South of the study area near Troy is home to a major transportation/hospitality center. The trucking industry supports the local economy along the interstate. Within the study area a new development, Pin Oak Corporate Park, currently provides many regional jobs with the Hortica Corporation. The Pin Oak Corporate Park has the potential to expand and create more jobs for the region.



Topography Diagram

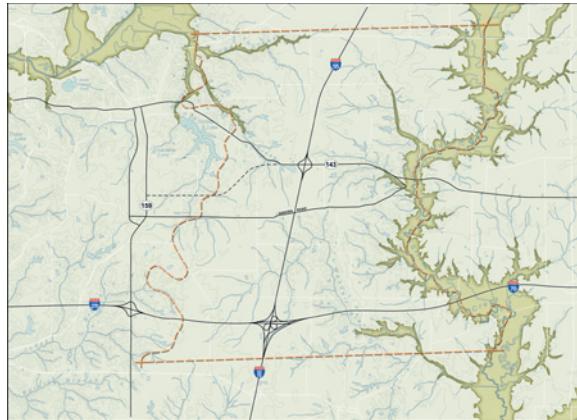


Steep Slopes Diagram

### 4.9 Land Form & Natural Features

**Topography:** Elevation is one the natural elements that creates the pattern of development. The I-55 corridor study area experiences roughly 200 feet in elevation change. Located in the southwest corner, the elevation of 600 feet represents the highest point of the study area. The lowest elevations can be found along the Silver Creek Corridor to the east and parallel to IL 143 to the west. Overall, the main agriculture land experiences little changes.

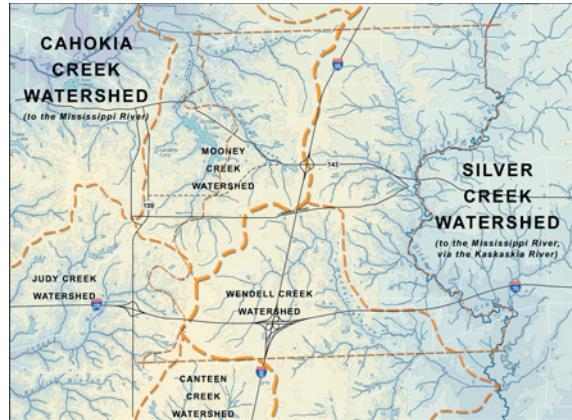
**Steep Slopes** are a direct relationship to site elevation. The more elevation change the land has in a determined distance the greater the slope. Steep slopes over 20%, shown in red, hinder development opportunities by not allowing appropriate road access and development pads without highly modifying the natural condition. Slopes of 10%-20%, shown in orange, can support certain developments such as residential if carefully planned. Industrial and commercial developments in this range are still very limited. Slopes less than 10%, shown in beige, can be readily used for development with careful planning. In all conditions, sensitive planning must be used in order to control and/or eliminate erosion.



Flood Zones Diagram

**Flood Zones:** Mapping floodways, such as 100 year flood zones, is essential to land use planning. Floodways are the areas that tend to receive most of the surrounding storm water. Developing in a floodway not only modifies and/or destroys the natural water cycle, but it creates a large risk of property damage. The map above diagrams the areas that are prone to frequent flooding. Flood prone areas in the study are located along the Sugar Creek Corridor to the east and just north of IL 143 near Edwardsville.

**Watersheds.** The I-55 corridor is split down the center by two main watersheds, the Silver Creek Watershed to the east and the Cahokia Creek Watershed to the west. The Silver Creek Watershed is made up of smaller site related watersheds that together flow to the Mississippi River via the Kaskaskia River. The Cahokia Creek Watershed is made of the smaller site related watersheds as well,



Water Sheds Diagram

that together flow directly to the Mississippi River. Having the study area split by two watersheds creates two distinct drainage directions. Knowing this information helps plan for future utility infrastructure systems.

**Wetlands.** Wetlands play a significant role in the land's ecosystem. A wetland is transitional lands between aquatic and terrestrial systems where the water table is at or near the surface of the land while supporting plants that are adapted to wet soil conditions. In terms of development wetlands do not provide appropriate conditions for development without costly modifications. Shown above in green, potential wetlands follow the existing drainage corridors.

Generally, wetlands are lands where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal



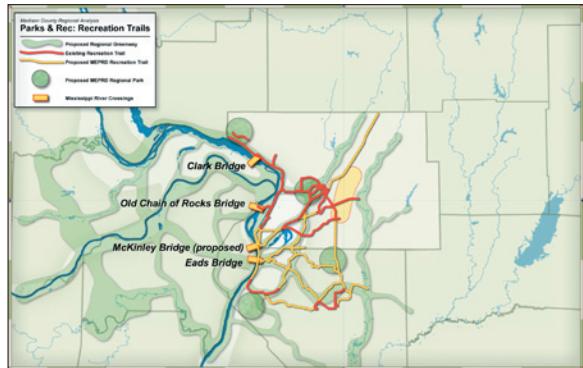
Wetlands Diagram

communities living in the soil and on its surface. Wetlands vary widely because of regional and local differences in soils, topography, climate, hydrology, water chemistry, vegetation, and other factors, including human disturbance. Wetlands provide temporary floodwater and runoff storage; protect water quality by absorbing flood water contaminants; provide wildlife habitat through food, water, cover, nesting and breeding; shape urban form by providing open space boundaries separating land uses; provide educational and passive recreational opportunities and enhance the natural beauty of the area.

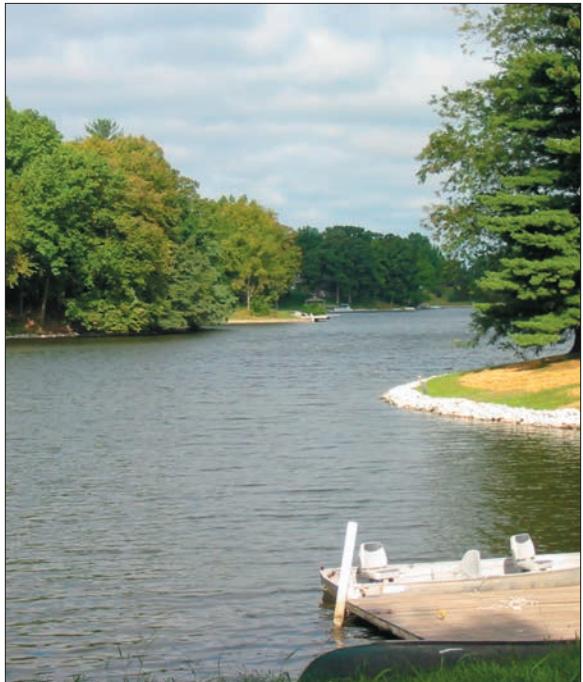
As a key component to open space planning and the preservation and creation of green infrastructure, wetlands should be protected and enhanced because of the role they play in the environment. The Illinois Department of Natural Resources reviews projects impacting streams, lakes and wetlands for the I-55 corridor study area.

# Madison County i55 Corridor

## 4.10 Parks and Open Space



Metro East Park and Recreation District Diagram



Open Space - Dunlap Lake

The I-55 corridor area includes and is adjacent to many community parks and trails. Madison County, IL has been proactive in creating community amenities such as trails by acquiring existing railroad easements. Ronald Foster Heritage Trail and Quercus Grove Trail provide connections to the study area. The continued trail corridor preservation and development of other public green connections to the existing network is critical to the future community.

In addition to trails, neighborhood and community parks create a great amenity. Edwardsville most recent park, Joe Glik Park, falls within the study area. This 42 acre park is located east of the Dunlap Lake subdivision, on East Lake Drive. The Edwardsville Park Board has recently completed the first phase of the development of the site, with walking, biking, skating trails, two fishing lakes, picnic pavilions, a comfort station, playground, sand volleyball courts, and areas for open play.



Parks & Trails Diagram



Silver Creek



Open Space - Glik Park

## 4.11 Boundaries

The municipal boundaries of the City of Edwardsville, Maryville, Troy, and the Village of Glen Carbon are shown surrounding the western and southern edges of the study area. The City of Edwardsville has annexed east along IL 143 to the I-55 interchange to include the new Pin Oak Corporate Park.

The I-55 corridor study area falls into three area school districts, Edwardsville Community Unit School District #7, Triad Community Unit School District #2, and Collinsville Community Unit School District #10. While, the Collinsville district falls into the study area, it covers a very small area of the study area in the southwest corner. The Edwardsville and Triad schools districts share most of the study corridor. The Triad school district

covers the entire southwest corner of the study area, while Edwardsville blankets the northwest and north portions of the corridor.

## 4.12 Infrastructure

At the long range planning level, utilities and infrastructure were reviewed to identify major opportunity areas in the study area. The opportunity for growth along the I-55 corridor has the capacity from the availability of land, but infrastructure may have the biggest impact on cost and attraction.

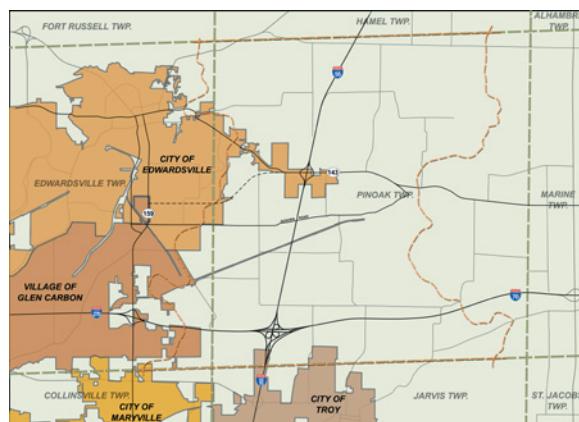
Infrastructure is a multi-faceted word that has three primary definitions for this planning study including; roads, utilities and open space planning. Roads and the overall design of a transportation system is a key component to infrastructure planning. In addition, open space or green infrastructure is a unique difference maker for the I-55 corridor. For

this section of the analysis, infrastructure deals with utility systems and the natural systems that they impact.

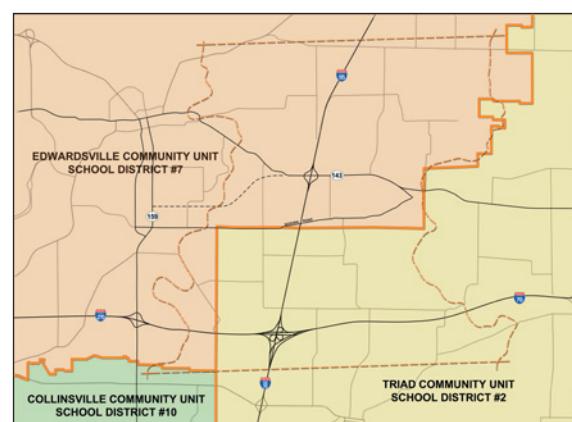
**Water:** The Edwardsville Water Treatment Plant serves the local area providing water to the City of Edwardsville, the Village of Glen Carbon, Southern Illinois University Edwardsville and North East Central Public Water District. The City of Edwardsville and the Village of Glen Carbon share the same water service. Glen Carbon began a 20 year agreement to buy up to 2.0 million gallons of water per day from Edwardsville in 2002.

There are three potential sources for potable water in the I-55 corridor area; reservoirs – currently limited; ground water – tapped by private and public wells from aquifers (note: eastern areas of the county are not dependable); Mississippi River – many Madison County municipalities depend on this option. Edwardsville depends on water from 9 deep-water wells located near the water treatment plant. The water taps into the American Bottoms and the aquifers associated with the lowland areas.

In 1996 the water treatment plant expanded to handle 15 years worth of projected growth. The capacity is an approximate 7.8 million gallons per day (mgd). Current demands are up to 3.7 mgd for Edwardsville and 1.5 mgd per day for Glen Carbon. Edwardsville has additional storage capacity of up to 1 mgd and Glen Carbon can store 1 mgd as well. In addition Glen Carbon has 2 emergency connections to



City Limit Boundaries



School District Boundaries

## **Madison County i55 Corridor**

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Maryville Water Distribution System and a pipeline to the Maryville Plant for reserve. Glen Carbon also has 3 back-up wells with capacity of almost 1 mgd per well.

Glen Carbon has established an east/west main water service line running parallel to the Foster Heritage Trail. This service line is the best opportunity to service the I-55 Corridor project area. The trail serves as a perfect utility corridor and future north south rails and road right of ways will create an infrastructure more than adequate to service the entire area. Edwardsville has established an east/west main water service line running along IL route 143 currently extending to Old Staunton as it goes southward from 143. This corridor will be crucial as growth begins to extend northward from 143.

**Sewer:** Three sewer options are available for Madison County in the project area. They include: sewage treatment plants, private sewage disposal systems – septic systems and aerobic treatment systems, and lagoon treatment systems.

Edwardsville and Glen Carbon have separate sewer treatment plants in place to handle existing sewage needs for the areas they serve. Private systems are common place in unincorporated Madison County. They especially occur in areas that have been developed under traditional development concept of rural subdivisions of less than one lot per acre and smaller lot subdivision near the edges of municipalities. Both communities have set goals to

phase out septic systems within their jurisdictional boundaries.

The City of Edwardsville operates its own secondary sewage treatment plant and it has a capacity of 2.75 million gallons per day (mgd). Currently the daily average flow (DAF) is at 80% of its capacity. Expansion of this facility will accommodate 4.3 mgd.

In 1997, Glen Carbon entered into an agreement with the Madison County Regional Wastewater District to convey wastewater from its service area through connector mains to the regional wastewater facility in Granite City, Illinois. To help aid in this process 24 lift pumping stations are in place to accomplish this task. Glen Carbon has a sewer capacity to accommodate 3.0 mgd and its current daf is 1.0 mgd. The Granite City Regional Wastewater treatment Plant has potential to receive flows from other communities and from future sewered areas. The Granite facility has 23.0 mgd design average flow and current flow is only 10.4 mgd (43% of design capacity).

The major problem with sewage disposal in the project area is topography. A ridge line that runs between the Judy Creek and Mooney Creek watersheds to the west and the Wendell Creek watershed to the east establishes a critical need to pump sewage over the north/south dividing line.

**Electric & Gas:** Illinois Power which is now Ameren UE IP along with SW Electric Cooperative serve the project area. In areas where electric service is

available, the State of Illinois offers choices through the Illinois Electric Service Customer Choice and Rate Relief Law. More information on these options are available on-line or via the State of Illinois.

**Storm Water:** Effective storm water management minimizes storm water runoff, maximizes water quality and retains storm water on site. In the I-55 Corridor study area, all storm runoff and streams eventually drain the Mississippi river via Silver Creek and Cahokia Creek. Storm water management seeks to provide the means for a cost-effective, safe, aesthetic and reasonable storm water drainage and erosion control plan which would minimize water quality degradation and habitat loss.

Currently in Madison County, a comprehensive storm water management plan is not in place for the County or the Village of Glen Carbon. The City of Edwardsville does have a storm water management plan and it is recommended that all of the governing entities create a comprehensive unified approach to storm water management.

A key contributor to a strong comprehensive storm water management plan is the protection of floodplains. Floodplains are areas of low-lying, flat ground on either side of a river, stream, pond or lake subject to periodic inundation by flooding. Silver Creek offers the greatest opportunity to protect and preserve floodplain within the I-55 Corridor area.

Floodplain protection offers a natural aid to drainage, fights erosion and pollution by settling out sediment

from slow moving waters in flood storage areas, provides wildlife habitat, provide passive and active recreational areas, helps to preserve the natural landform and enhances and protects the scenic beauty of the environment.

The City of Edwardsville currently has requirements in place that control any construction in the flood plain fringe to provide the creation of 1-1/2 times the volume of fringe lost. This floodplain management tool is effective at controlling and managing construction in the floodplain and should be considered a prototype for Madison County and the Village of Glen Carbon to follow. In addition FEMA requires that new structures built in any floodplain be elevated to the level of the 100 year flood.

A watershed is the geographic area from which surface water runoff drains off the land and into a receiving body of water. It is important that all development activities on the land within a watershed ultimately have an effect on the water resources of that watershed. Watersheds very rarely correspond to local governmental boundaries therefore; coordination with local, regional and state governments and the private sector are needed.

Key objectives for the I-55 Corridor study area are the continued reduction of impervious surfaces in new developments, utilization of best management practices and cooperative planning between governmental agencies. Imperviousness affects water resources by impacting water quality, the physical

shape of streams, contributing to stream warming and a reduction in the bio-diversity of aquatic habitat. Three ways to reduce impervious surfaces in a watershed by using smart growth motivated design methods include the clustering of buildings, reducing the setback of buildings and providing density bonuses as an incentive. Best management practices include the reduction of adverse impacts of development and maximizing the protection and enhancement of water resources.

An effective watershed management plan protects open space adjacent to waterways, requires buffer strips along streams and wetlands, stabilizes banks through structural or vegetative means, protects and introduces native plant species, controls nutrient loading from new development and agricultural land uses and minimizes pollutants and pesticides from new development and agricultural land uses.

## 4.13 Conclusion

### What are the major resources and attributes of the local context area?

The Edwardsville and Glen Carbon area and the I-55 corridor share a number of important strategic advantages that any land use and economic development strategy should seek to capitalize upon. These include:

1. **A high capacity regional cross-road** - The convergence of I-55 and I-70 at the present fringe of the metropolitan area presents an obvious opportunity. Add to this the prospect of an Illinois "outer belt" highway that connects the I-255/Ill. 3 interchange at the Jefferson Barracks bridge to the I-70/U.S.40 interchange in the study area, plus the possibility of a future MetroLink corridor passing nearby, and the area clearly has an inherent locational advantage unmatched elsewhere in the metropolitan region.
2. **Labor force** – The area is today primarily a bedroom community for the higher skilled, higher income white collar members of the Metro East labor force. With the exception primarily of those employed at SIUE, most commute to the west for jobs in northwest St. Louis County via I-270 or by means of the Poplar Street Bridge in downtown St. Louis, the West End with St. Louis University and Washington University and their medical centers, and the Clayton area. Offered more high quality places of employment in the study area, many or most commuters will opt for a job closer to home, and more will follow with their choice to live in the area.
3. **Anchors uses** – Three salient anchors contribute to the economic advantage of the Edwardsville / Glen Carbon area, including:

**SIUE** – The presence of the university is of course the fundamental reason for the

## Madison County i55 Corridor

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*higher quality labor force, higher average incomes and greater amenities of the area. Not that everyone lives there, but the university community sets the tone and elevates the conversation in the community to a more sophisticated level than other communities in Metro East.*

**Gateway Commerce Center** – *More than any other single factor, the partnership of the City of Edwardsville, Madison County and the State of Illinois with TriStar Business Communities has had the effect of reversing perceptions regarding real estate investment in Metro East. The success of this venture has put the area on the national map as a key location in the Midwest for major distribution and warehouse operations. The development further takes appropriate advantage of the protected flood plain topography of its location at the interchange of I-270 and I-255.*

**Madison County Seat** – *Look no further than Clayton to see what can be accomplished by capitalizing on the growth of a large urbanizing county to the advantage of the seat of government. Along with growth in the county comes growth in county government itself, local and state courts, professional businesses with lawyers, architects, engineers, surveyors, appraisers and title companies, banking and others in support of that growth. This promise argues for taking steps to insure that downtown*

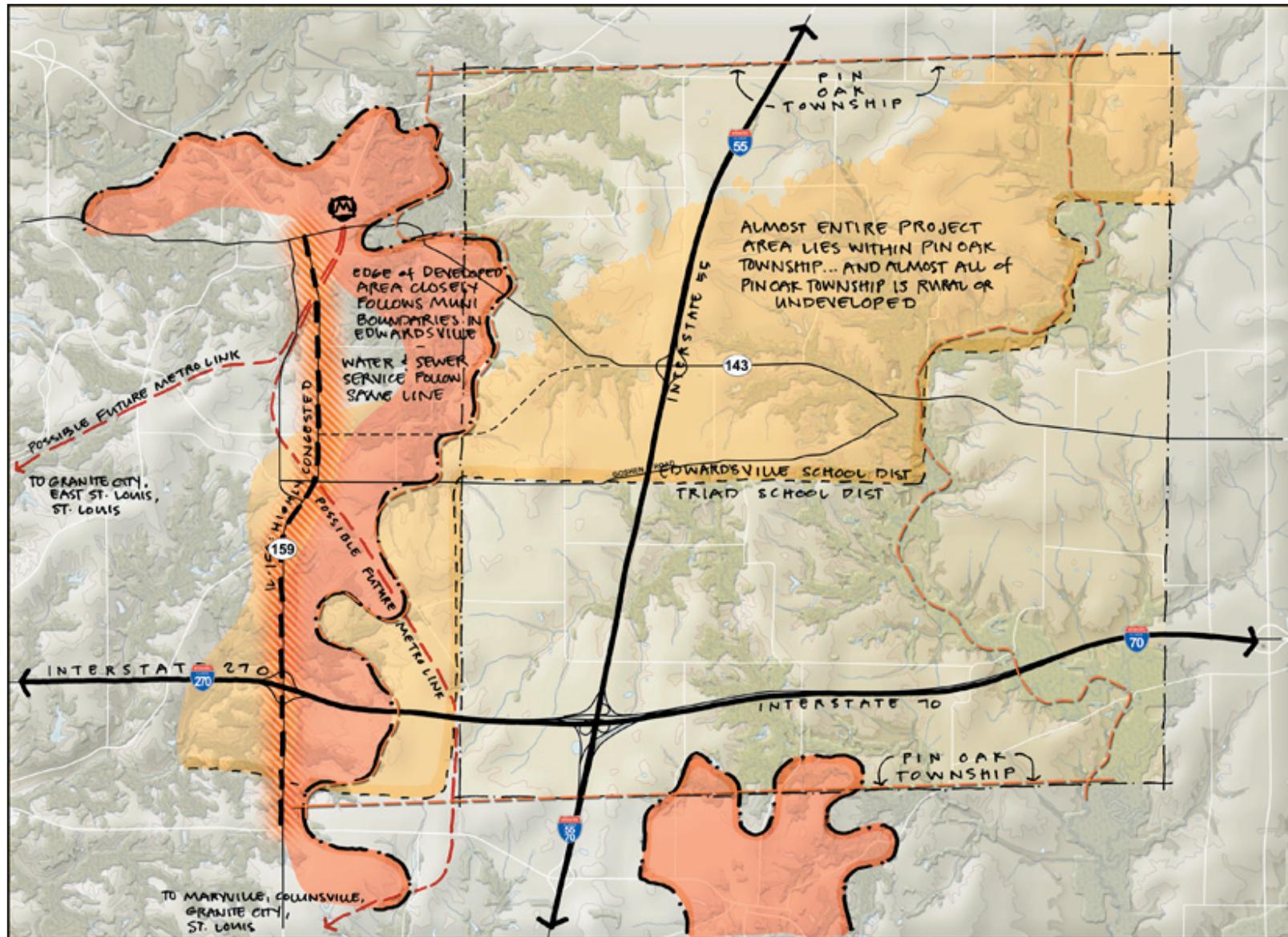
*Edwardsville captures an optimum share of these types of jobs as Clayton has in St. Louis County over the past 50 years. Otherwise, they will be dispersed across the county and not achieve a critical mass that advantages any one location.*

4. **Natural amenities** – The fact that the study area is near the bluff that defines the

edge of the Mississippi River alluvial plain and that it accommodates the passage of Silver Creek on its southward course to the Kaskaskia River en route to the Mississippi River, introduces natural features that can distinguish and add value to the community built along the I-55 corridor.

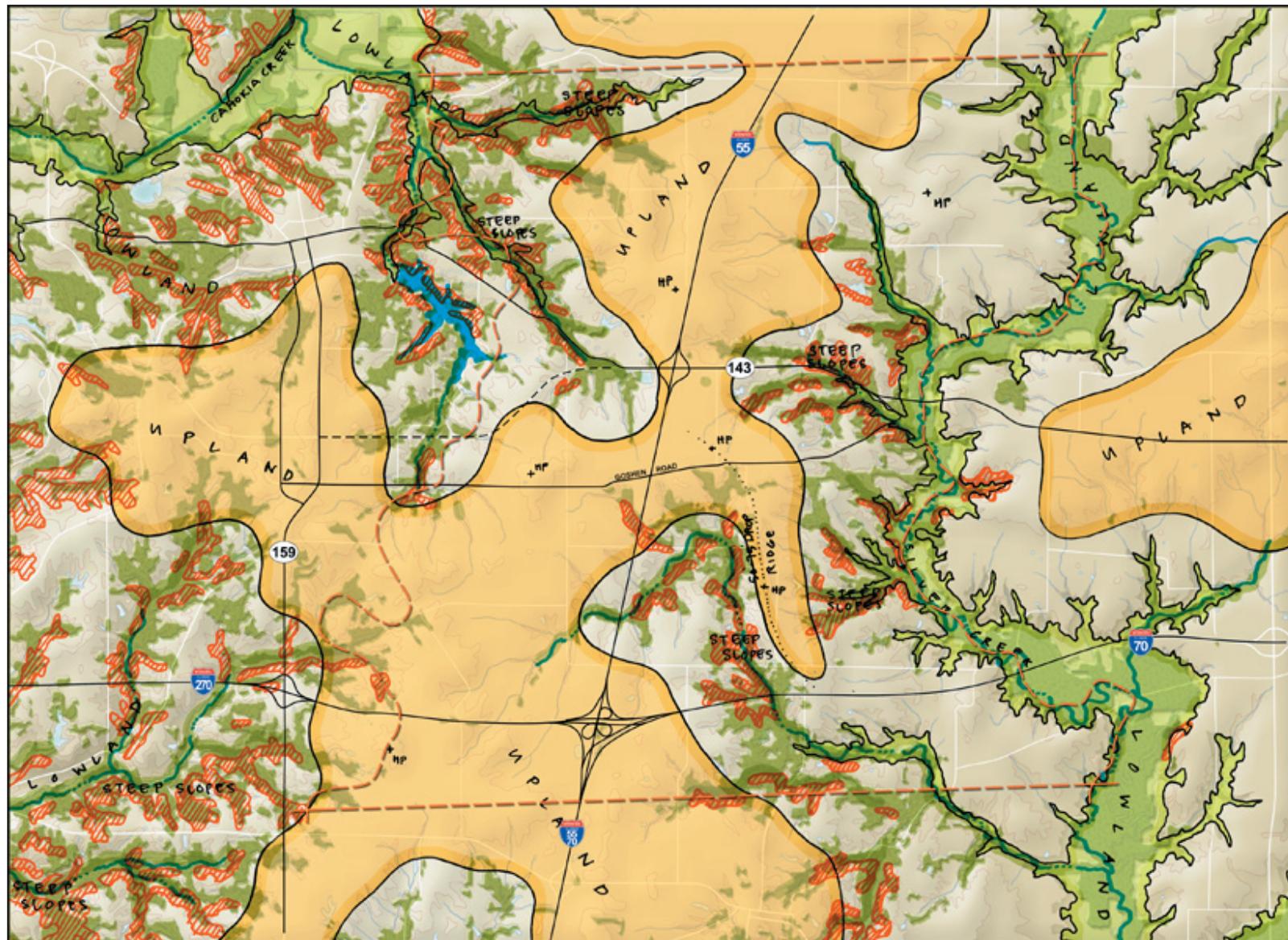


*High Capacity Regional Cross-Road - I-55/70/270 Interchange*



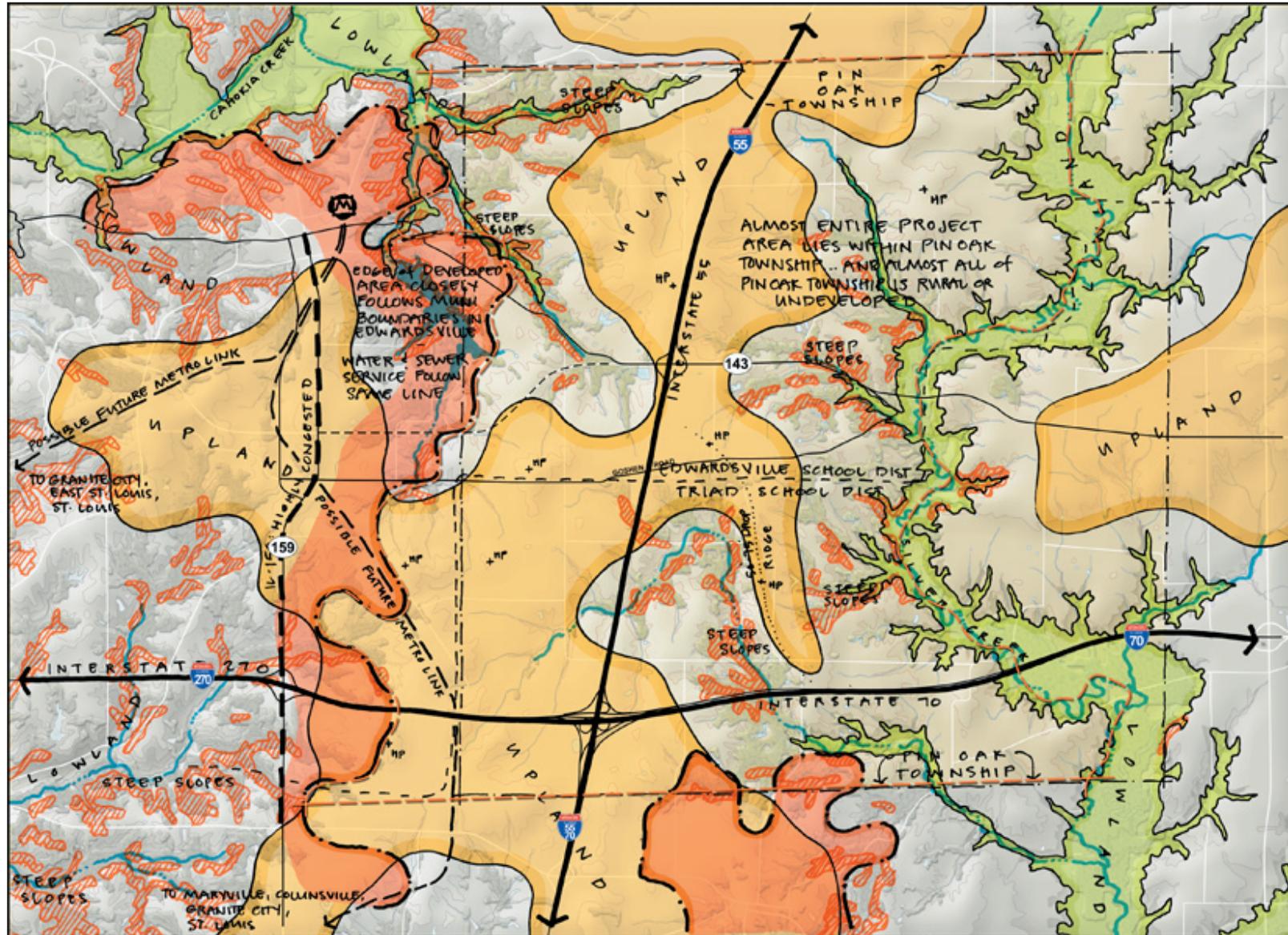
Opportunities and Constraints - Municipalities

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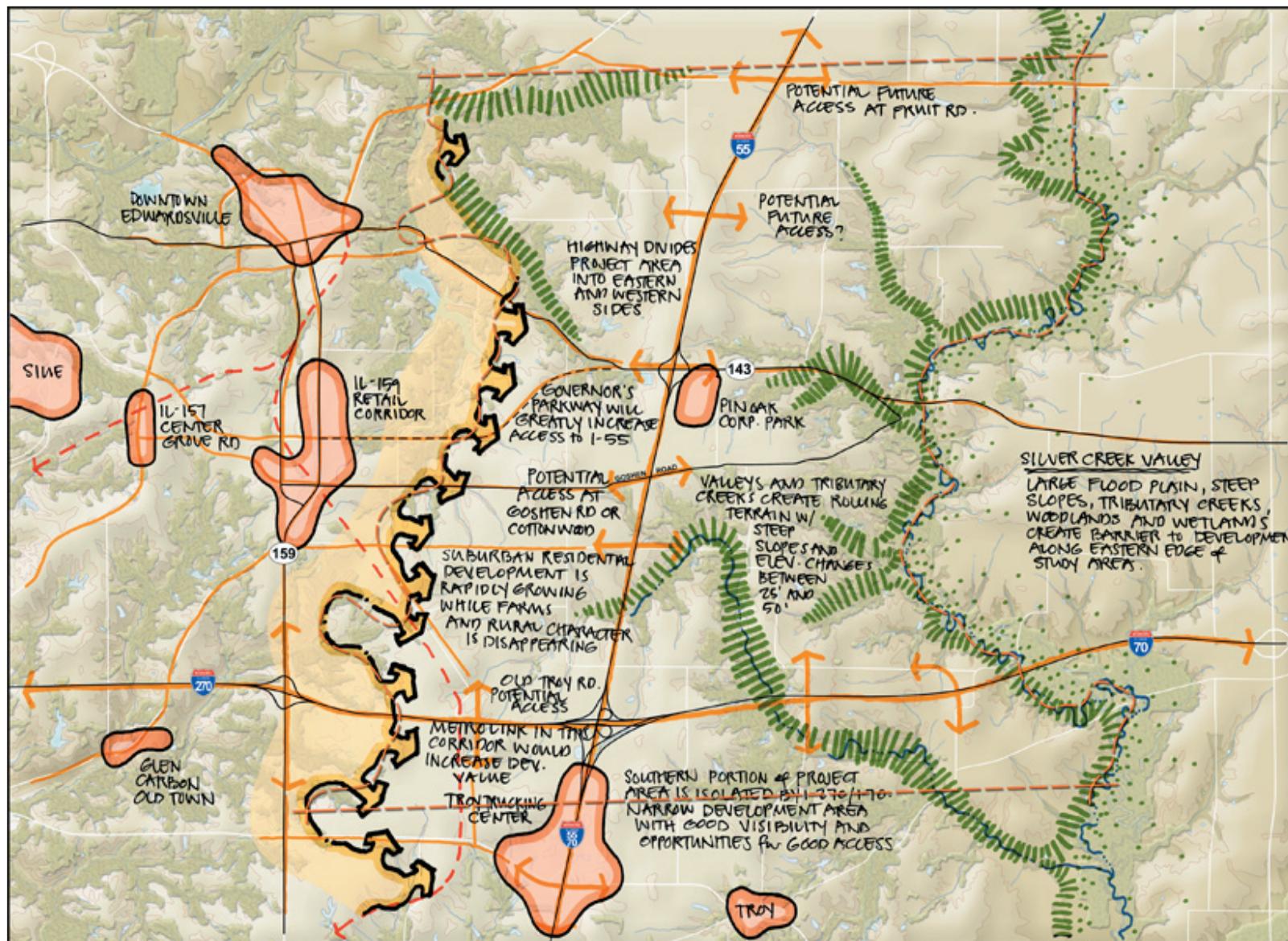


Opportunities and Constraints - Natural Systems & Amenities

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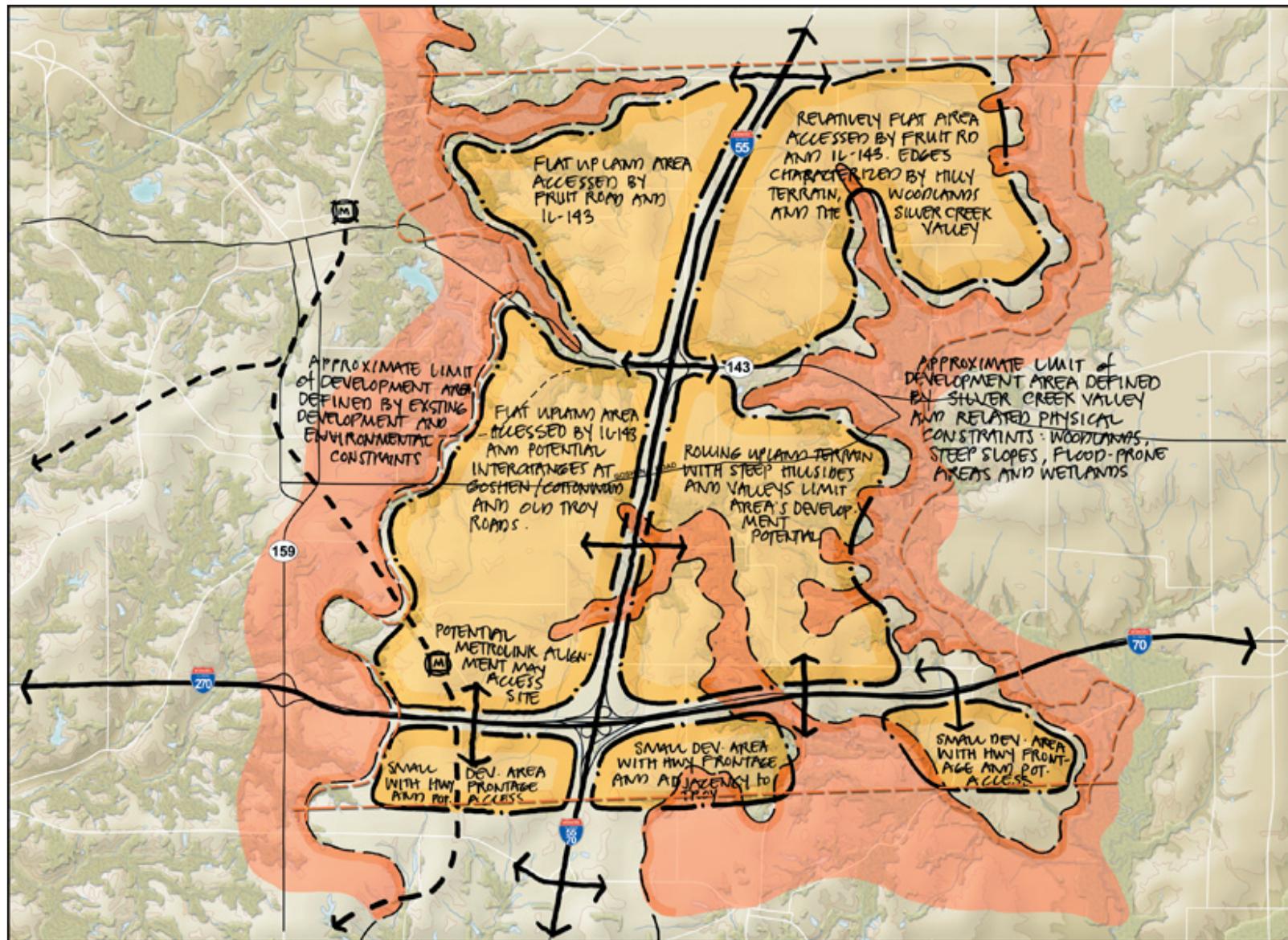


## Madison County i55 Corridor



Opportunities and Constraints - Development Pressures

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Opportunities and Constraints -Development Opportunities