



# 2040 LONG RANGE TRANSPORTATION PLAN

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## FINAL REPORT

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*Prepared for*  
*Decatur Urban Area Transportation Study*

Prepared by  
URS Corporation



# TABLE OF CONTENTS

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<b>Chapter 1 – Introduction</b>	<b>1</b>
Purpose of the Metropolitan Transportation Plan	2
DUATS Study Area	6
Governing Legislation	8
L RTP Development Process	9
<b>Chapter 2 – Goals, Objectives, and Performance Measures</b>	<b>11</b>
Vision Statement	12
Performance-Based Planning	12
2040 L RTP Goals and Objectives	16
<b>Chapter 3 – Existing Conditions</b>	<b>21</b>
Demographics	22
Roadways	28
System Safety	51
Public Transportation Operations	60
Non-Motorized Facilities	75
Rail Operations	83
Aviation	97
<b>Chapter 4 – Future Conditions and Transportation Needs</b>	<b>104</b>
2040 Population and Employment	105
Future Year Needs and Potential Improvements	112
Roadways	113
Public Transportation	138
Non-Motorized	146
Freight	149
Aviation	151
Other Transportation Conditions and Issues	152
<b>Chapter 5 – Recommended Plan</b>	<b>153</b>
Priority Transportation Projects	154
Operations and Maintenance	159
Capital Improvements (Fiscally Constrained Plan)	161
Public Transportation Recommended Plan	167
Non-Motorized Recommended Projects	172
Funding Sources	176
Supporting Strategies and Policies	184
System Security	198
Environmental Mitigation	201
Human Services Plan	209
Environmental Justice Analysis	217

# Chapter 1

# INTRODUCTION

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*This chapter provides the framework for the Decatur Pathways 2040 – Long Range Transportation Plan (LRTP), including the Purpose of the LRTP, an overview of the DUATS Study Area and the Governing Legislation that directs the LRTP process.*

## PURPOSE OF THE LONG RANGE TRANSPORTATION PLAN

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The Decatur Urbanized Area Transportation Study (DUATS) is the designated Metropolitan Planning Organization (MPO) that oversees transportation planning activities for the Decatur region. DUATS is responsible for transportation planning for the Metropolitan Planning Area (MPA), which includes most of Macon County. One of the primary functions of DUATS is the development of the region's Metropolitan Transportation Plan (LRTP). The LRTP, previously referred to as the Long Range Transportation Plan (LRTP), was last updated in 2009 to a horizon year of 2035; this update looks out to the year 2040. The 2040 LRTP addresses potential transportation improvements to identify, plan, and guide transportation decision-making within the MPA.

Within the context of the LRTP, mobility is viewed in terms of the movement of people and goods, not just vehicles. While the plan analyzes specific transportation modes (e.g., roadways, public transportation, bicycles/pedestrians, rail, and aviation), it focuses on the interrelationships between modes to promote the integration of the transportation modes into a comprehensive system that efficiently and cost-effectively meets the mobility needs of the area's citizens, businesses, industries, and the traveling public. It also takes into account the multimodal aspects of transportation planning with other community planning activities such as land use, human and natural resources, and economic development.

The LRTP is federally required to be fiscally constrained, which means that the recommended projects are based on reasonable expectations and projections of available federal, state and local revenue. The LRTP does not assume that significant additional funding will be available beyond current funding levels. By providing broad policy direction, the LRTP can respond to new or changing conditions. Given the requirement to maintain a minimum 20-year planning horizon, all long-range LRTPs represent a work in progress. For example, land use and transportation studies are continuously being completed that impact the region. Moreover, the plan must be reviewed and updated at least every five years, and amendments may occur more frequently in response to the changing realities affecting the region's transportation system.

Perhaps most importantly, the LRTP reflects the vision and direction of local officials, relevant agencies, stakeholders, and the general public. The LRTP development is consistent with the DUATS public outreach plan, which is intended to provide the public an opportunity to be involved in the planning process. The current DUATS Public Involvement Plan can be found on the City of Decatur website (link below; current as of December 2014):

<http://www.ci.decatgur.il.us/citygovernment/duats/DRAFT%20Public%20Participation%20Plan.pdf>

The public plays an important role in the planning process by providing valuable information that helps develop, maintain, and carry out an effective transportation plan. The public involvement process provides opportunities to educate the public about transportation planning, creating an informed community, which leads to better planning.



## Long Range Transportation Planning

As part of the transportation planning process, the relationships between land use, economic development, mobility, and environmental conditions are considered. Long range planning helps communities think strategically as a region, and link the policy direction of a LRTP with project selection. Moreover, the U.S. Department of Transportation (USDOT) mandates a comprehensive, cooperative, and continuing (3-C) approach to transportation planning in the MPA be carried out to receive federal transportation dollars. The entity authorized to carry out this Federal mandate is DUATS. The DUATS planning process meets the 3-C requirements as follows:

- ▶ **Comprehensive** | Examination of how all transportation modes contribute to the overall system (e.g., roadways, transit, bicycles, pedestrians, rail operations, and aviation);
- ▶ **Coordinated** | Efforts are conducted collectively among federal, state, local, and private transportation providers; and
- ▶ **Continuous** | Changing transportation needs within the community are acknowledged, anticipated, and responded to over the course of the 2040 planning horizon.

The transportation planning process recognizes the interdependent relationship that exists between land use and transportation decisions. Rarely are transportation issues (i.e., congestion, connectivity, accessibility, etc.) confined to one jurisdiction or unit of local government. Instead, the impact of transportation and development decisions frequently extend beyond defined city and village boundaries and can have significant regional impacts. The designation of the MPA and the process of preparing the LRTP is intended to analyze the transportation system from a regional perspective and to identify appropriate improvements to address the area's future transportation demands. By doing so, individual communities are able to more effectively manage their transportation resources and meet their future needs.

## Regional Planning

Transportation planning should have and is intended to have a major impact on development in the MPA. This LRTP update builds upon a major theme of the DUATS 2035 LRTP – to promote sustainable development practices and the efficient use of resources, including balanced land development and conservation, and more compact land uses. Encouraging clustered development within and adjacent to existing municipalities promotes greater density, which may allow for the more efficient use of transportation funds. The development of compact and carefully planned residential, industrial, commercial and mixed use districts encourages the use of public transit and alternative transportation modes.

The type and location of transportation infrastructure also has a powerful effect on the location and intensity of land use development. Therefore, it is crucial that the transportation plan be designed to support the land use plan, both in terms of location and intensity of service to be provided by different modes. Well planned and located transportation facilities combined with appropriate levels of service are vital to the success of a sensible development initiative, efficient use of limited community resources, enhancement of local and regional security, improvement of the quality of life for residents, provision of an accessible and connected transportation system, and improvement of the local economy.

## DUATS History and Structure

DUATS was designated in 1964 to conduct the transportation planning activities in the MPA. The organization and structure of DUATS was re-authorized in 2002 through the execution of an intergovernmental agreement. Amendments to that agreement were adopted in early 2006 in which the lead agency planning functions were moved from Macon County to the City of Decatur. DUATS consists of a Policy Committee, a Technical Committee, an Advisory Committee, and is supported by DUATS staff. DUATS' mission, goals and objectives are guided by the LRTP, which must be updated every five years.

Transportation planning activities are undertaken by DUATS staff in cooperation with the Illinois Department of Transportation (IDOT), Federal Highway Administration (FHWA), Federal Transit Administration (FTA), and member entities. The Policy Committee makes final decisions regarding budget expenditures, project selection and other policy matters affecting the overall operation of DUATS. The Policy Committee includes representatives from the following organizations:

- ▶ IDOT District 7;
- ▶ Macon County;
- ▶ City of Decatur;
- ▶ Village of Forsyth; and
- ▶ Village of Mt. Zion.

The Policy Committee is currently chaired by the representative from the Village of Mt. Zion. Election of a chairperson and vice-chair occurs during even numbered years. Any of the voting members, with the exception of the IDOT Regional Engineer, can be elected to chair the DUATS Policy Committee.

Under the general direction of the Policy Committee, the Technical Committee manages the overall transportation planning efforts for DUATS. This committee has the responsibility of professional and technical review of work programs, policy recommendations and transportation planning activities. The Technical Committee is comprised of thirteen members representing local governments within the MPA and IDOT District 7 personnel. The Technical Committee is currently chaired by the Director of Public Works for the City of Decatur. Elections occur every two years (during even numbered years).

## DUATS Primary Objectives and Comprehensive Planning Activities

DUATS is the only intergovernmental planning entity in Macon County. Our organization strongly encourages consultation and communication among the jurisdictions. Furthermore, we conduct outreach to gather input about issues affecting the region from interested parties such as the League of Illinois Bicyclists, the Decatur Bicycle Club, the Macon County Environmental Resource Council, the Macon County Farm Bureau, and other businesses, industries, and stakeholders.

The long standing regional focus of DUATS took on a significant and historic aspect in 2005 when it was proposed that our organization become the sponsoring agency for a countywide comprehensive planning initiative. One of the many goals of such an endeavor was to formulate a cooperative, mutually beneficial, and unified plan. Doing this warrants studying how land use, housing, economic development, natural resources, and transportation issues are interdependent and then formulate a plan identifying how individual jurisdictions within the County could promote these regional concepts to help espouse the notion of a unified community. Furthermore, the plan should clearly define the relationships between transportation, land use, and other community planning activities.

After gaining the approval of FHWA and IDOT, along with the unanimous support of the Decatur City Council and the Macon County Board, the Macon County – Decatur Comprehensive Plan project was commenced in September of 2006. In July of 2009, the Draft Plan was presented to the

public for review and comment and was also vetted through numerous interviews with local leaders. Focus groups and working group committees met numerous times to provide input and guidance on proposed goals and objectives. Town Hall meetings were held in July and September of 2007, where hundreds of interested citizens shared information about areas and issues of importance to them. Outreach and presentations were made to civic and community groups by DUATS staff.

The Comprehensive Plan carefully incorporated this large volume of feedback and in doing so has been significantly shaped by the people of Macon County. To this end, many recommendations resulted from this extensive public involvement, which along with a technical analysis of existing conditions in the MPA, trends, and comparison with other communities, were woven together to form the foundation for the Comprehensive Plan.

In August 2009, the Comprehensive Plan was unanimously adopted by the Macon County Board and Decatur City Council. The adopted Comprehensive Plan recognizes the critical importance of community-wide and interdisciplinary planning and the importance of coordinating land use and development activity with transportation planning. DUATS intends for the Comprehensive Plan and the LRTP to be complimentary planning documents to guide regional growth.

## DUATS STUDY AREA

There are two separate geographical boundaries as part of DUATS transportation study area. These boundaries include:

- ▶ **Urbanized Area Boundary** | Established by the U.S. Bureau of the Census and updated every 10 years as part of the U.S. Census, Urbanized Areas are defined areas that include a central city and contiguous territory that combined has at least 50,000 people and a density of over 1,000 people per square mile. This area can be expanded by coordination between IDOT and local officials, but must include all of the Urbanized Area identified through the Census. FHWA and the Governor must approve any changes. The Urbanized Area boundary is typically updated every three, but not more than five, years and may be done in conjunction with the LRTP update. This boundary is used to determine which projects are eligible for urban or rural funding. The Urbanized Area Boundary was reviewed and approved following the 2010 U.S. Census.
- ▶ **Metropolitan Planning Area (MPA) Boundary** | The MPA must include all of the Urbanized Area and should include all contiguous areas that may become urbanized during the time frame covered in the LRTP. This boundary is established by agreement between DUATS and the Governor through IDOT. A copy of the boundary is provided to FHWA. This boundary is used to determine which projects are included in the LRTP, and ultimately programmed in the Transportation Improvement Plan (TIP) and therefore eligible for federal funding. The MPA boundary was last modified and approved following the 2010 U.S. Census.

### Metropolitan Planning Area







The DUATS MPA falls within Macon County, IL and includes seven municipalities:

- ▶ Decatur (the central city of the MPA);
- ▶ Forsyth;
- ▶ Harristown;
- ▶ Long Creek;
- ▶ Oreana;
- ▶ Mt. Zion; and
- ▶ Warrensburg.

The current MPA boundary encompasses approximately 220 square miles. The Urbanized Area encompasses approximately 111 square miles. Population estimates (2010) are 101,393 for the MPA and 98,009 for the Urbanized Area.

**Figure 1-1** displays the Macon County, MPA, and Urbanized Area boundaries.

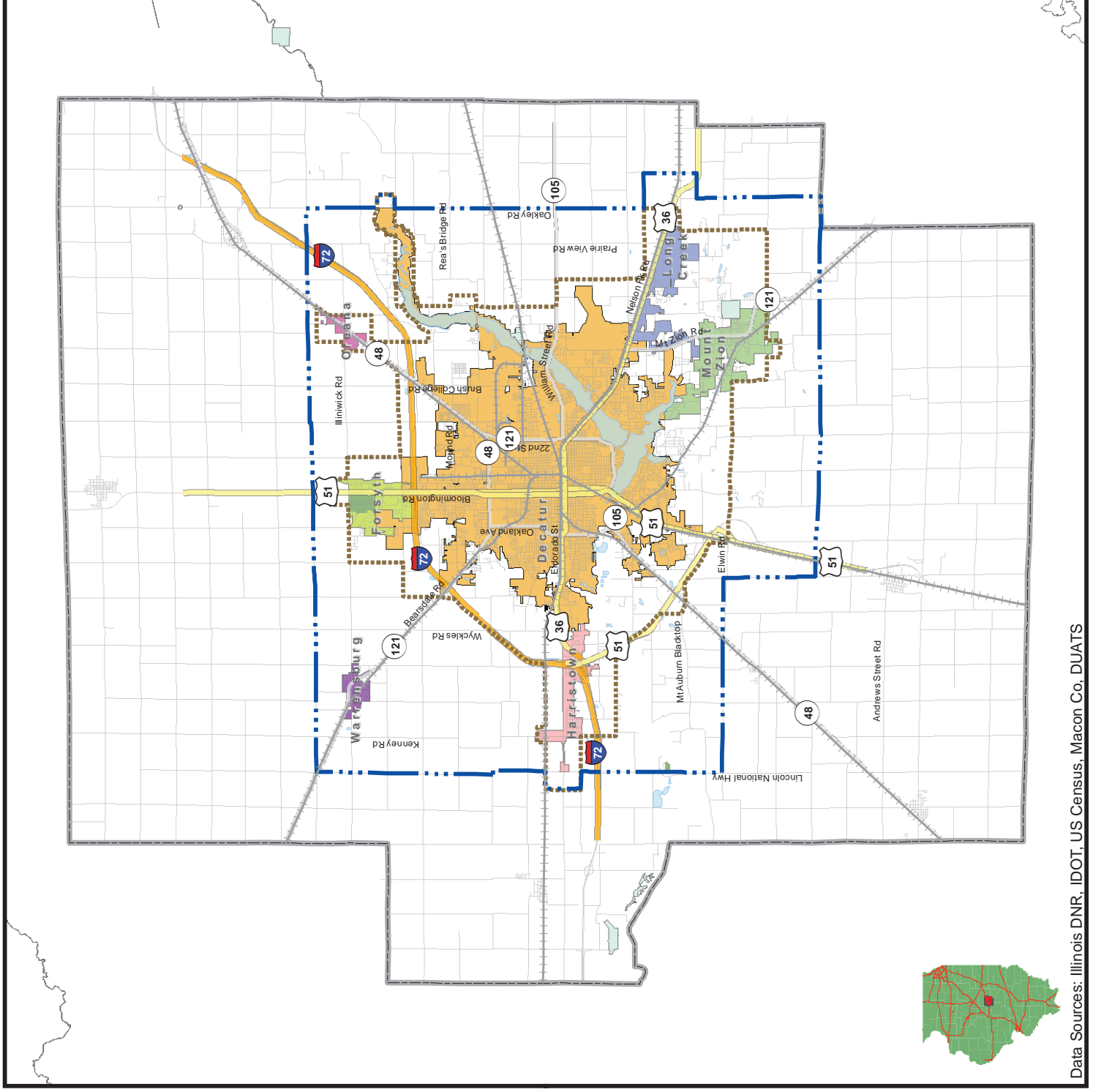
Figure 1-1  
Study Area

- Legend**
-  Urbanized Area Boundary
  -  Macon County
  -  Interstate
  -  US Highway
  -  State Highway
  -  Railroad



4

Miles



## GOVERNING LEGISLATION

To a great degree, federal legislation defines the transportation planning process. The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 recognized the economic and cultural diversity of metropolitan areas, and the need to provide metropolitan areas with more control over transportation decisions. ISTEA emphasized the efficient use and preservation of the existing transportation infrastructure, the inclusion of private citizens and stakeholders in the planning process, the synergistic relationship between all modes of transportation, and transportation linkage with the environment.

Federal surface transportation was reauthorized through the Transportation Equity Act for the 21st Century (TEA-21). TEA-21 continued many provisions of ISTEA, including public involvement, the linkage between land uses to transportation planning, a multi-modal approach in developing transportation solutions, and the need for increased mobility and transportation's key role in economic growth. TEA-21 added the requirement that the LRTP be financially constrained, requiring that each transportation project and strategy identified in the plan is backed by reasonably expected federal, state, local and/or private funding sources. TEA-21 also shifted the emphasis of evaluating transportation systems on how well the system is physically operating to how well the system is meeting the needs of the users. TEA-21 also expanded the view of transportation to the movement of people and goods, not just vehicles.

The next authorization was the Safe, Accountable, Flexible, Efficient Transportation Equity Act - A Legacy for Users (SAFETEA-LU), which continued many provisions of prior legislation, but strengthened requirements to ensure that MPOs become more proactive and assiduous in carrying out the metropolitan transportation planning process. SAFETEA-LU also updated the planning factors, requiring MPOs to consider economic vitality, safety, security, operations and maintenance, environmental mitigation, increased intermodal connections, efficient freight movements, and human services transportation in its planning activities.

The current authorization bill, Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21), is discussed in greater detail in Chapter 2, Goals and Objectives. MAP-21 features a generally large degree of continuity with SAFETEA-LU, with a focus on streamlining and consolidating various processes, programs, and guidelines to help speed up the delivery of federal review, decisions, assistance, and funding. MAP-21 also focuses heavily on the theme of bringing infrastructure and facilities to a "state-of-good-repair" to gain the most utility from existing investments of public tax dollars.

Other relevant legislation is the Clean Air Act Amendments of 1990 (CAAA). The CAAA recast the planning function to confirm that transportation planning will help and not hinder the region in meeting federal air quality standards. It encourages reduced auto emissions, and fewer trips by single-occupant vehicles, and it promotes the use of alternative transportation (transit and bicycles) as a more viable part of the transportation system. Making the receipt of federal funding dependent upon a region's ability to meet air quality standards reinforces the linkage between transportation planning and federal air quality standards. The MPA is in attainment, currently meeting all air quality standards and is not subject to the regulations defined in the CAAA.



## L RTP DEVELOPMENT PROCESS

The DUATS 2040 L RTP has been developed through a continuing, comprehensive, and cooperative process. This L RTP has been developed through the active participation and efforts of DUATS, FHWA, FTA, IDOT, the City of Decatur, the Decatur Park District, the Village of Forsyth, the Village of Mt. Zion, and Macon County government along with other local government, agency, and stakeholder input. The 2040 L RTP provides a blueprint to build upon an ever-evolving process of goal-setting, deficiency analysis, and the identification of appropriate transportation improvements. The 2040 L RTP defines a balanced program of capital development and systems operations. It provides a structure and follows a planning process for examining how all modes of transportation can be integrated to collectively serve the mobility and economic development needs of the region. The future transportation system will evolve as the region's priorities and conditions change, demographics shift, and new technologies develop.

### DUATS Work Products

To optimize use of transportation resources, transportation projects and programs must be carefully planned in advance. As previously noted, MPOs are required to have a 3-C planning process that results in a transportation plan consistent with the needs of the area. The three primary products of this process are the Unified Planning Work Program (UPWP), the TIP, and the L RTP. These documents are described as follows:

- ▶ **Unified Planning Work Program |** The annually updated UPWP outlines proposed tasks and estimated costs associated with conducting the area's transportation planning research plus the administrative activities necessary for the development of the L RTP and TIP.
- ▶ **Transportation Improvement Plan |** The TIP is an annually updated, short-range, four-year programming document which allocates funding for specific transportation projects and activities in the area. The TIP must include all projects that will use federal and state funds within the MPA, including but not limited to; roadway, transit, bicycle, and pedestrian modes.
- ▶ **Metropolitan Transportation Plan |** The L RTP is the long-range planning document that provides a framework for addressing the area's transportation needs. This includes an overview of existing and future needs, with defined strategies to meet those needs. The L RTP must be updated every 5 years and must have a minimum horizon of 20 years.

### Public Involvement

Public involvement is critical to transportation planning and the creation of the 2040 L RTP. DUATS staff and local officials actively solicit comments from those who know the community best: the people who live and work here. Public involvement informs and educates the public about transportation planning, which in turn leads to better planning. Moreover, public participation gives the public a sense of ownership of their community. Regular meetings are attended by the member entities, planning and engineering professionals, stakeholders, and other representatives of the community. These meetings provide an opportunity for members of the community to participate in the transportation planning and decision-making processes that affects the community at large.

In compliance with SAFETEA-LU, the Public Involvement Plan (PIP) provisions of the 2030 L RTP were extensively amended in September 2007. During the review of the 2035 L RTP, it was determined that with current and anticipated staff levels, funding, and transportation planning requirements, activities outlined in these amendments could not be maintained. Therefore, this

2040 LRTP update reiterates the need to proactively encourage the involvement of citizens in the transportation planning process at a realistic and sustainable level. DUATS has developed a stand-alone PIP that outlines public involvement activities that will be conducted during the 2040 LRTP update.

### DUATS 2040 LRTP Organization

The DUATS 2040 LRTP has been updated and reorganized in an effort to make the document more user-friendly. Most of the information contained in the 2035 LRTP is still relevant and is included in this 2040 LRTP. The 2040 LRTP is organized as follows:

- ▶ **Chapter 1 | Introduction** provides background on the LRTP development process and information on the regional setting and transportation system
- ▶ **Chapter 2 | Goals and Objectives** outlines the vision statement, goals and objectives. This chapter also addresses the recent MAP-21 planning requirements which place greater emphasis on establishing performance measures and targets.
- ▶ **Chapter 3 | Existing Conditions** summarizes the existing transportation conditions and identifies transportation deficiencies within the MPA.
- ▶ **Chapter 4 | Future Conditions and Transportation Needs** identifies the challenges and opportunities in transportation, land use, population and employment projections leading up to 2040.
- ▶ **Chapter 5 | Recommended Plan** outlines the recommended plan that includes multimodal transportation projects. This chapter includes the financial analysis which demonstrates a fiscally constrained plan. This chapter also includes environmental justice, environmental mitigations, and supporting policies and strategies.



## Chapter 2

# GOALS AND OBJECTIVES

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*This chapter defines the plan's **vision statement** and **goals and objectives**. This foundation guides the selection of recommended transportation improvements identified in Chapter 5 and reflects the values of the area citizens, businesses, industries, and the traveling public.*

**Performance-based planning** *related to*  
*MAP-21 is also discussed, and the*  
**2040 LRTP goals and objectives**  
*are identified.*

## VISION STATEMENT

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The vision statement is a brief description of a desired future condition. The vision statement defines the end state for the region's transportation system if policies and strategies supported by DUATS and its partner communities and agencies are implemented to address the goals and objectives. The vision statement frames the development of the goals and objectives, which in turn drive the identification and implementation of the recommended transportation strategies and improvements.

### Vision Statement

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**DUATS will continue to develop a regionally integrated multi-modal transportation system to meet the values, needs, and goals of the area's citizens, businesses, industries, and the traveling public.**

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## PERFORMANCE-BASED PLANNING

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Performance-based planning refers to the application of performance management, a “strategic approach that uses performance data to support decisions to help achieve desired performance outcomes.”<sup>1</sup> Performance-based planning occurs within the context of established transportation planning and programming processes used by agencies to deliver a multimodal transportation system. Carrying forward performance-based planning and programming is meant to be an ongoing process (see **Figure 2-1**), informed by quality data and public involvement throughout.

### Federal MAP-21 Requirements for Metropolitan Transportation Planning

In July 2012, the Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21) Act was signed into law. Consistent with previous federal surface transportation legislation, MAP-21 continues the metropolitan planning process through a 3-C framework for transportation investment decision-making. MAP-21 carries forward a number of key provisions from prior legislation, including the eight planning factors, fiscal constraint, and public involvement.

In addition, changes to the metropolitan and statewide planning process have been introduced through MAP-21, such as a new emphasis on the nonmetropolitan transportation planning process, a structural change to the membership of larger MPOs, and a new framework for voluntary scenario planning, among others. However, the most significant change is the move toward a performance-based policy and programmatic framework for the federal-aid highway and transit program that focuses on the use of performance measures and targets to drive transportation system performance.

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<sup>1</sup>FHWA “Performance- Based Planning and Programming Guidebook”, Washington, DC (September 2013).

Figure 2-1. Performance-based Planning Framework



Source: FHWA "Performance- Based Planning and Programming Guidebook", Washington, DC, September 2013.

In recent years, more public agencies have been using performance measurements to track their progress against defined goals and objectives and are reporting results to both internal and external stakeholders and partners. MAP-21 establishes a performance-based federal program, reflecting a national movement toward transportation performance management that promotes performance-based planning practices and data-driven decision-making for both state DOTs and MPOs.

The regulatory changes to the planning process are intended to improve transportation investment decision-making through increased transparency (through the requirement of performance targets) and accountability (via a requirement to report on progress toward meeting targets) and to support a core set of national goals. The key elements of the performance-based planning process include:

- ▶ **National Goals** | Seven national goal areas are codified in legislation.
- ▶ **Performance Measures** | USDOT will establish a limited set of performance measures with input through the rulemaking process. State DOTs and MPOs are free to adopt additional locally defined performance measures and targets.
- ▶ **Performance Targets** | State DOTs and MPOs set targets through a coordinated process that also includes transit service providers.
- ▶ **Performance Plans** | As part of the LRTP, MPOs must evaluate the condition and performance of the transportation system, establish performance targets, and report on progress toward the achievement of these performance targets. The performance-based planning process should be carried forward through the project selection process and linked to the fiscally constrained Transportation Improvement Program (TIP) developed at both the statewide and the metropolitan level. MAP-21 strengthens the linkage between investment priorities and performance outcomes, as both the Statewide (STIP) and Metropolitan (TIP) are now required to describe the anticipated effect of transportation system investments in making progress toward the targets. In other words, the STIP should show a connection between the policy direction in the Statewide and the Metropolitan Transportation Plan and the programming decisions in the STIP.

Additional performance plans now required under MAP-21 that are germane to MPOs include: Metropolitan System Performance Report (included as part of the LRTP); Transit Asset Management Plan; and the Congestion Mitigation and Air Quality Improvement Program (CMAQ) Performance Plan.<sup>2</sup>

- ▶ **Target Achievement** | State DOT and MPO planning processes are intended to guide program and project selection to make progress toward the achievement of targets.
- ▶ **Special Performance Rules** | Special rules apply to the performance elements related to safety (high-risk rural roads, older drivers and pedestrians); Interstate Pavement Condition; and National Highway System Bridge Condition.
- ▶ **Performance Reporting** | State DOTs and MPOs must report to USDOT on progress toward achieving targets and USDOT will assess such progress.

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<sup>2</sup> MAP-21 also requires DOTs, MPOs, and public transportation providers to develop other performance-based plans and processes, and to integrate into their planning process the key performance elements of these other performance plans and processes. These include the Congestion Mitigation and Air Quality Improvement (CMAQ) Program performance plan, the strategic highway safety plan, the public transportation agency safety plan, the highway and transit asset management plans, and, optionally, a state freight plan.

MAP-21 identifies seven national goal areas and requires DOTs and MPOs to develop a performance-based approach to support the national goals. Also prescribed in MAP-21, are a limited set of performance measure areas that DOTs and MPOs must report.

**Table 2-1** documents the national goals and the performance assessment areas that will likely be associated with them. As part of this process, USDOT in consultation with state DOTs, MPOs, and other stakeholders will establish performance measures corresponding to the national goals. State DOTs and MPOs are free to identify additional measures, but all statewide transportation plans and metropolitan transportation plans will need to address the MAP-21 measures and targets associated with those measures, at a minimum. Moreover, state DOTs, MPOs, and public transportation service providers are required to establish performance targets and to coordinate development of these targets to ensure consistency.

**Table 2-1. National Goals and Performance Measure Assessment Areas**

National Goal Area	National Goal	National Performance Measure Assessment Area
<b>Safety</b>	To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.	Fatalities and serious injuries—both number and rate per vehicle mile traveled--on all public roads; and Transit safety
<b>Infrastructure Condition</b>	To maintain the highway infrastructure asset system in a state of good repair.	Pavement condition on the Interstate System and on remainder of the NHS; Bridge condition on the NHS; and Transit state of good repair
<b>Congestion Reduction</b>	To achieve a significant reduction in congestion on the National Highway System.	Traffic congestion
<b>System Reliability</b>	To improve the efficiency of the surface transportation system.	Performance of the Interstate System and the remainder of the NHS
<b>Freight Movement and Economic Vitality</b>	To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.	Freight movement on the Interstate System
<b>Environmental Sustainability</b>	To enhance the performance of the transportation system while protecting and enhancing the natural environment.	On-road mobile source emissions
<b>Reduced Project Delivery Delays</b>	To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.	To be determined

## MAP-21 Performance-based Planning Implementation

The new MAP-21 performance requirements are being implemented through eleven rulemakings which are being released in phases and are expected to be effective by spring of 2015. Based on these rulemakings, MPOs are required to establish a performance-based planning process, including performance targets for the federal-aid highway program as well as targets using the measures and standards that FTA will develop. Given that the rulemaking process is ongoing, many state DOTs and MPOs are experiencing a degree of uncertainty with implementing the new performance-based planning requirements.

It should be noted that, while performance management as a best practice is widely acknowledged in published literature and professional discourse on the topic, the state of the practice at state DOTs and MPOs varies widely. Some agencies have limited data analysis and reporting capabilities, while other agencies have expended significant resources to develop their performance management programs. Therefore, it is generally understood by the transportation planning community that performance-based planning processes are likely to evolve over time.

## 2040 LRTP GOALS AND OBJECTIVES

As part of the 2040 LRTP update, the project team reviewed the 2035 LRTP goals and objectives. After considering input gained during discussions with the Technical and Policy Committees, the goals and objectives were adjusted accordingly to respond to local concerns. For example, a number of the objectives identified in the 2035 LRTP could be better categorized as strategies and, as such, have been incorporated into the revised goals and objectives.

The 2040 LRTP goals and / or performance measures may be modified as additional MAP-21 guidance becomes available. As noted, the federal rulemaking process is still evolving, and many of the MAP-21 performance measures have not yet been defined.

**Table 2-2** lists the main 2040 LRTP Performance Based Planning tenets.

On the following pages, **Table 2-3** provides a detailed summary of the DUATS 2040 LRTP goals, objectives, performance measures, performance targets, and strategies.

**Table 2-2. 2040 LRTP Performance Based Planning**

### Planning

- ▶ Metropolitan and Statewide Planning Rule

### Highway Safety

- ▶ Safety Performance Measure Rule
- ▶ Highway Safety Improvement Program Rule
- ▶ Highway Safety Program Grants Rule

### Highway Conditions

- ▶ Pavement Bridge Performance Measure Rule
- ▶ Asset Management Plan Rule

### Congestion/System Performance

- ▶ System Performance Measure Rule

### Transit Performance

- ▶ Transit Asset Management Rule
- ▶ National Transit Safety Program Rule
- ▶ Transit Agency Safety Plan Rule
- ▶ Transit Safety Management Systems



Goals	Objectives	Targets	Measures	Strategies
<b>1. Create a safe transportation system that balances the travel needs of all users including the general public and area businesses.</b>	a) Improve travel safety by reducing the number of fatalities and serious injuries. b) Improve travel safety by reducing the rate of fatalities and serious injuries per VMT. c) Improve travel safety by reducing the total number of bicycle and pedestrian related crashes.	a) 40% reduction in crashes that result in fatalities and serious injuries by 2020 (consistent with IDOT's 6% reduction per year; MAP-21). b) 6% reduction annually in crashes that result in fatalities and serious injuries through the year 2040 (consistent with IDOT's 6% reduction per year; MAP-21). c) Reduce crashes that involve pedestrians and bicyclists (percentage to be discussed/established with additional analysis and DUATS input).	a) Number of fatalities and serious injuries compared to 2011 five-year rolling average (consistent with IDOT target/measure set for Macon County). b) Five-year rolling average of fatalities and serious injuries per 100 million VMT (consistent with IDOT target/measure set for Macon County). c) Bicycle and pedestrian crashes as recorded by IDOT (if data is available).	<ul style="list-style-type: none"> <li>Improve travel safety within the region by prioritizing transportation improvements that reduce fatalities and serious injuries.</li> <li>Incorporate Complete Streets principles into project designs to accommodate all users of all abilities.</li> <li>Reduce modal conflicts to enhance safety in the movement of people and goods.</li> <li>Utilize innovative design strategies to reduce crash exposure and improve traffic flow along major roadway segments and intersections.</li> <li>Develop regional policies to encourage through trips on major streets (expressways and arterials) and discourage them on local streets.</li> </ul>
<b>2. Preserve and maintain the existing transportation system to make the most efficient and most cost-effective use of existing infrastructure investments.</b>	a) Maintain and improve pavement condition within the MPA. b) Maintain and improve the condition of bridge/structures within the MPA. c) Enhance roadway facilities to better accommodate truck traffic within the MPA. d) Improve efficiency of roadway operations through intelligent transportation system (ITS) and transportation system management (TSM) techniques to enhance traffic flow and reduce travel delay. e) Improve the efficiency of rail traffic through the MPA with an emphasis on reducing delays and increasing safety for the traveling public.	a) To Be Determined based on anticipated guidance from MAP-21. (Future LRTP updates to address). b) Complete the Industrial Transportation Plan by 2015; begin implementation of projects identified. c) Develop an ITS Architecture by 2016.	a) Pavement condition. [Condition of pavements on the Interstate system; condition of pavements on the National Highway System (excluding the Interstate). (Anticipate additional MAP-21 guidance.)] b) Structural ratings. [Condition of bridges on the National Highway System;.] (Anticipate additional MAP-21 guidance.) c) Performance of the Interstate System and the remainder of the NHS. (Anticipate additional MAP-21 guidance.) d) Existence of Industrial Transportation Plan and Infrastructure Improvement Plan. e) Existence of ITS Architecture plan.	<ul style="list-style-type: none"> <li>Support projects that maximize the performance of existing transportation facilities.</li> <li>Improve efficiency of roadway facilities by updating traffic operations or improving route design to upgrade road capacity in congested areas.</li> <li>Establish a consistent system of road standards based on results of the Industrial Transportation Plan.</li> <li>Work with public and private development to leverage funding resources.</li> <li>Maximize the utilization of existing infrastructure by encouraging innovative and compact development strategies.</li> <li>Minimize future infrastructure development needs and construction costs through consistent coordination of regional land use decisions.</li> <li>Seek funding for construction of the Brush College Road at Faries Parkway grade separation.</li> </ul>

Goals	Objectives	Targets	Measures	Strategies
<b>3. Promote and expand the utilization of the regional multimodal transportation system to move people and goods to, from, within, and through the MPA to support the growth of the local and regional economy.</b>	<div>a) Enhance access to the Airport to increase air passenger service and support local, regional, and global industries and businesses located in the Decatur area.</div> <div>b) Promote the MPA as a regional freight distribution center by enhancing existing and constructing new facilities using public-private development strategies.</div> <div>c) Leverage transportation projects to support local, regional, and global economic development opportunities.</div>	<div>a) Exceed 10,000 annual airport boardings by 2020.</div> <div>b) Continue to increase the number of freight related jobs within the region.</div>	<div>a) Number of boardings per year. Track and report on annual basis toward reaching target.</div> <div>b) Freight related impacts (Anticipate additional MAP-21 guidance.)</div> <div>c) Local employment data.</div>	<div>• Assist Decatur Park District in its efforts to retain, expand and enhance passenger and air freight services at the Airport.</div> <div>• Develop a regional hierarchy of roads to concentrate major vehicular movements on uniformly spaced thoroughfares.</div> <div>• Integrate air transportation with local travel modes.</div> <div>• Promote the use of the Decatur Airport to efficiently and affordably serve regional and national passenger and cargo movements.</div> <div>• Develop transportation centers and inter-city terminals to promote intermodal travel and regional and global expansion.</div> <div>• Plan for intermodal terminals to foster efficient transfer of people and goods between different modes of transportation.</div> <div>• Develop an Industrial Transportation Plan and Infrastructure Improvement Plan to better accommodate freight movement and support economic development within the region.</div>



Goals	Objectives	Targets	Measures	Strategies
<b>4. Improve and promote a countywide public transit system that provides area citizens with a safe, competitive alternative to the private automobile.</b>	a) Continue to grow fixed-route ridership on the Decatur Public Transit System (DPTS). b) Increase the percentage of the Macon County population and employers served by public transportation. c) Reduce the impact of rail crossing delays on public transit operations. d) Improve the state of good repair of DPTS assets. e) Reduce the rate of fatalities and serious injuries per VMT (of transit vehicles).	a) Increase DPTS fixed-route rider-ship by 5% per year, and reach 1,750,000 passenger trips (UPT) by 2020. b) Increase MPA transit coverage by 5% by 2025. c) Reduce transit delay due to rail crossings by 25% by 2025, and reduce missed transfers due to rail crossing delays by 50% by 2025. d) Reduce the age of the oldest vehicles in service to no more than 110% of programmed vehicle life by 2025. e) Reduce transit crashes that result in fatalities and serious injuries by 20% by 2025.	a) Fixed route passenger trips (UPT) recorded by the DPTS and reported to the National Transit Database (NTD). b) Percent of population and percent of geographic area within the public transit service area. c) Utilize DPTS data supplied to DATES as the baseline. Collect and compare DPTS rail crossing delay data annually. Report on progress toward meeting the target. d) Programmed vehicle life in years as specified by the FTA, and actual vehicle life in years as recorded by DPTS. e) Transit system crashes involving fatalities and injuries recorded by the DPTS and reported to the National Transit Database (NTD).	<ul style="list-style-type: none"> <li>Expand fixed-route service between existing and future residential areas, employment centers, and key destinations</li> <li>As funding becomes available, increase the DPTS hours of operations (evenings and Sundays).</li> <li>Seek additional funding for public transportation to better serve existing needs, to expand transit service – hours of operation and area served, and to replace vehicles as soon as they reach their programmed vehicle life.</li> <li>Pursue funding from area municipalities to allow expansion of service to other communities in the MPA.</li> <li>Continue to support and coordinate with Macon County on the implementation of countywide public transportation.</li> <li>Promote site planning and mutually beneficial land use development strategies that encourage the use of public transit and make public transit more efficient and easier to use.</li> <li>Explore cost-effective transit services (such as subsidized taxi and van pools) to serve major activity centers during principal hours of operation, outside of the normal DPTS hours of operation.</li> <li>Improve driver training through use of national training programs and training software.</li> </ul>

Goals	Objectives	Targets	Measures	Strategies
<b>5. Promote alternative modes of transportation and develop transportation facilities to accommodate alternative modes.</b>	<ul style="list-style-type: none"> <li>a) Plan, develop, and promote bicycle and pedestrian facilities as viable and efficient forms of transportation.</li> <li>b) Comply with the Americans with Disabilities Act and the State of Illinois requirements by providing clearly marked and maintained walkways, sidewalks, crosswalks, ramps, and curb cuts.</li> </ul>	<ul style="list-style-type: none"> <li>a) Construct new non-motorized facilities including on-street and new trails. (DUATS will work to establish a baseline estimate and potential target for annual improvements).</li> <li>b) Upgrade, replace, or construct, sidewalks within the MPA. (DUATS will work to establish a baseline estimate and potential target for annual improvements).</li> </ul>	<ul style="list-style-type: none"> <li>a) <b>Baseline trail and bicycle facility mileage. (Identify current miles of existing trails and on-street bicycle facilities; track additional miles of improvements added on an annual basis.)</b></li> <li>b) <b>Baseline ADA compliant sidewalks. (Identify length of sidewalk improvements (replacement or new) on annual basis.)</b></li> </ul>	<ul style="list-style-type: none"> <li>• Develop a system of safe, efficient and marked, on-street bike lanes and off-street paths and trails throughout the MPA that connect residential areas, neighborhoods, schools, parks, services, shopping, and employment centers.</li> <li>• Require new developments and major reconstructions to include the installation of sidewalks and other non-vehicular infrastructure.</li> <li>• Expand the use of Transportation Demand Management (TDM) techniques.</li> <li>• Promote community walkability by requiring consideration of alternate modes of transportation be incorporated into all new construction and major reconstruction projects</li> <li>• Increase efforts to create dedicated bike and pedestrian connections.</li> </ul>
<b>6. Coordinate land use and transportation improvements to insure compatibility and sensitivity with the social, economic, and ecological environments.</b>	<ul style="list-style-type: none"> <li>a) Preserve agricultural areas, parks, and forested areas by minimizing transportation related impacts.</li> </ul>	<ul style="list-style-type: none"> <li>a) To Be Determined (Anticipate additional MAP-21 guidance.)</li> </ul>	<ul style="list-style-type: none"> <li>a) [Traffic congestion] (Anticipate additional MAP-21 guidance.)</li> <li>b) [On-road mobile source emissions.] (Anticipate additional MAP-21 guidance.)</li> </ul>	<ul style="list-style-type: none"> <li>• Support the GROW AMERICA Act that will build ladders of opportunity to help Americans get to the middle class by providing transportation options that are more affordable and reliable and by improving their quality of life through greater access to education and new job opportunities, including jobs in the transportation industry.</li> <li>• Preserve adequate rights-of-way for future transportation facilities, including the South East Beltway corridor, through appropriate land use regulations and other legislative action(s).</li> <li>• Remain consistent with the Macon County-Decatur Comprehensive Plan to maintain a strong relationship between land use development and transportation improvements.</li> <li>• Review operations to reduce neighborhood through traffic.</li> <li>• Adopt transportation standards that are consistent with USDOT and IDOT design guidelines that incorporate context sensitive solutions where appropriate.</li> </ul>

## Chapter 3

# EXISTING CONDITIONS

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*This chapter assesses the current conditions of the regional transportation system. It includes an evaluation of individual travel modes and the interaction and connectivity between modes. Transportation modes include **roadways, public transportation, non-motorized, rail, and aviation** systems.*

## DEMOGRAPHICS

### Population

The 2010 population of Macon County was 110,768, which is nearly 4,000 less people than in the year 2000. Since 1980, the overall population trend in Macon County has been steadily declining; from 1980 to 2010, the population dropped by about 16 percent, which equals approximately 21,000 fewer people. The vast majority of Macon County residents live in the MPA, which contained an estimated 101,393 total residents in 2010.

However, while most of Macon County is included in the MPA, not all parts of the MPA are declining in population. Mt. Zion, Long Creek, and in particular Forsyth have all experienced growth. Forsyth alone has increased from just over 1,000 residents in 1980 to nearly 3,500 residents in 2010. **Table 3-1** provides historic population levels for each incorporated area within the MPA, as well as total population for the MPA and Macon County.

**Table 3-1. Historic Population for Macon County and MPA Communities (1980 – 2010)**

Place	1980	1990	2000	2010	Percent Change 1980 – 2010
Decatur	94,081	83,885	81,860	76,122	-19.1%
Forsyth	1,072	1,275	2,434	3,490	225.6%
Harristown	1,456	1,379	1,338	1,367	-6.1%
Long Creek	N / A	1,250	1,364	1,328	6.2%*
Mt. Zion	4,563	4,522	4,845	5,833	27.8%
Oreana	999	N / A	892	875	-12.4%
Warrensburg	1,372	1,274	1,289	1,210	-11.8%
Macon County	131,375	117,206	114,706	110,768	-15.7%

Source: US Census Bureau, Census of Population and Housing 1980, 1990, 2000, and 2010. (2014)

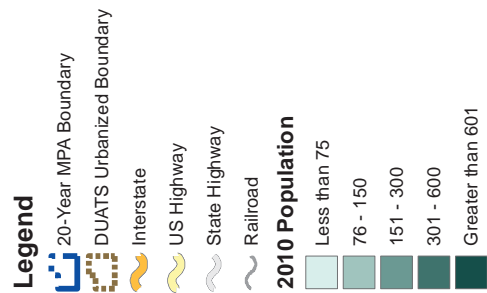
\* Percent change for Long Creek is for 1990 to 2010

Since 1990, the MPA has experienced an increase in housing while simultaneously losing population. The increase in housing and loss of population has been unevenly distributed. During the past fifteen years, population and housing units increased in Hickory Point, Oakley, and Mt. Zion Townships. Population decreased, but housing units increased in Harristown, Whitmore, Long Creek and South Wheatland townships. The Villages of Forsyth and Mt. Zion experienced large percentage increases in population and housing. The City of Decatur lost population and housing units.

During this same fifteen year period, average home size increased while household size declined. Development trends have been toward the urban fringes, which pulls the housing market and associated commercial development further from the existing, older core neighborhoods. This trend leaves certain areas with transportation and infrastructure that is underutilized, while requiring large investments in the construction and installation of new utility and infrastructure to service new development. Correspondingly, the average commute time and average daily traffic has increased on certain routes.

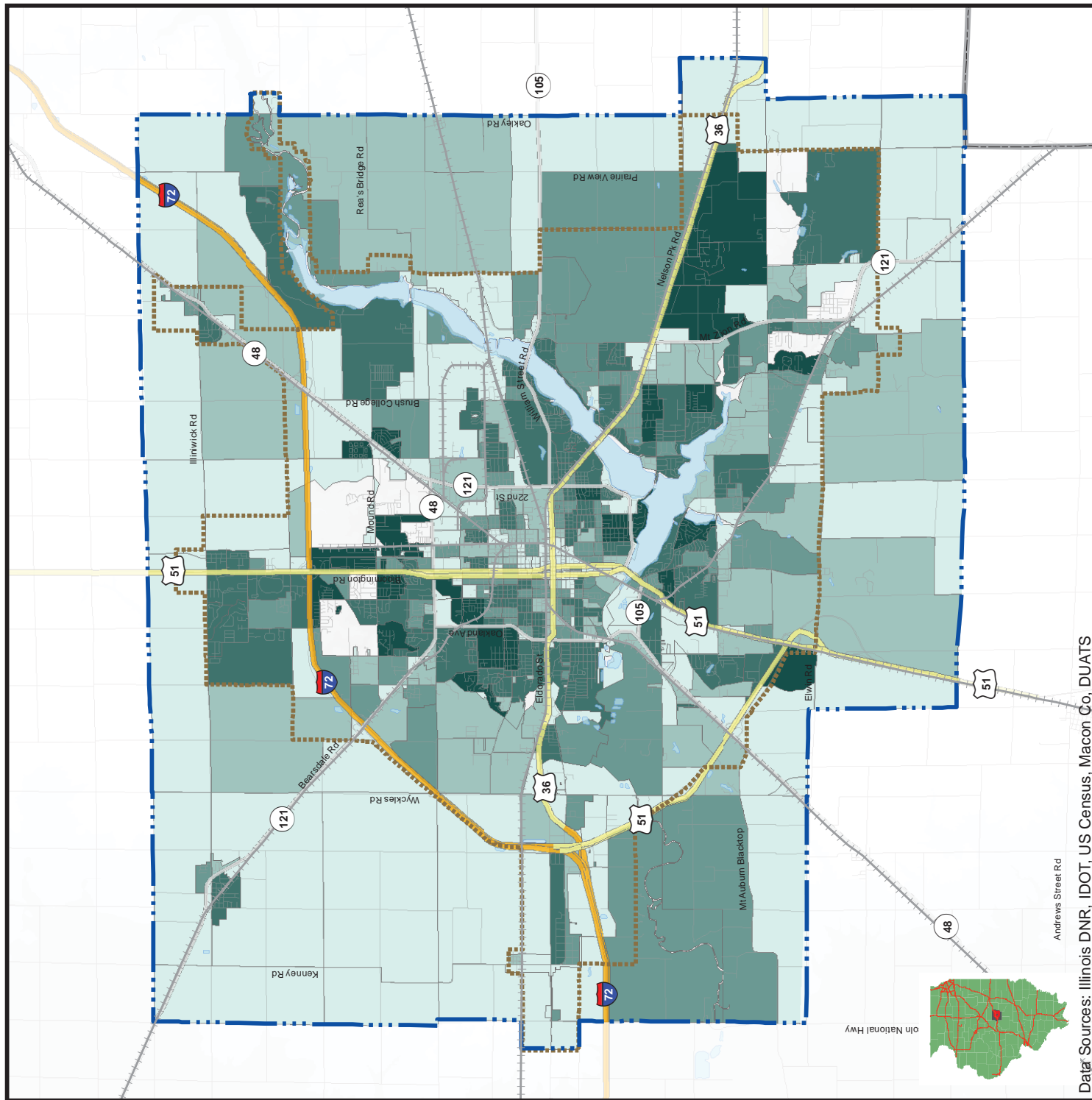
**Figure 3-1** and **Figure 3-2** display the respective population and population density in the Decatur MPA area for the year 2010.

### Figure 3-1 2010 Population



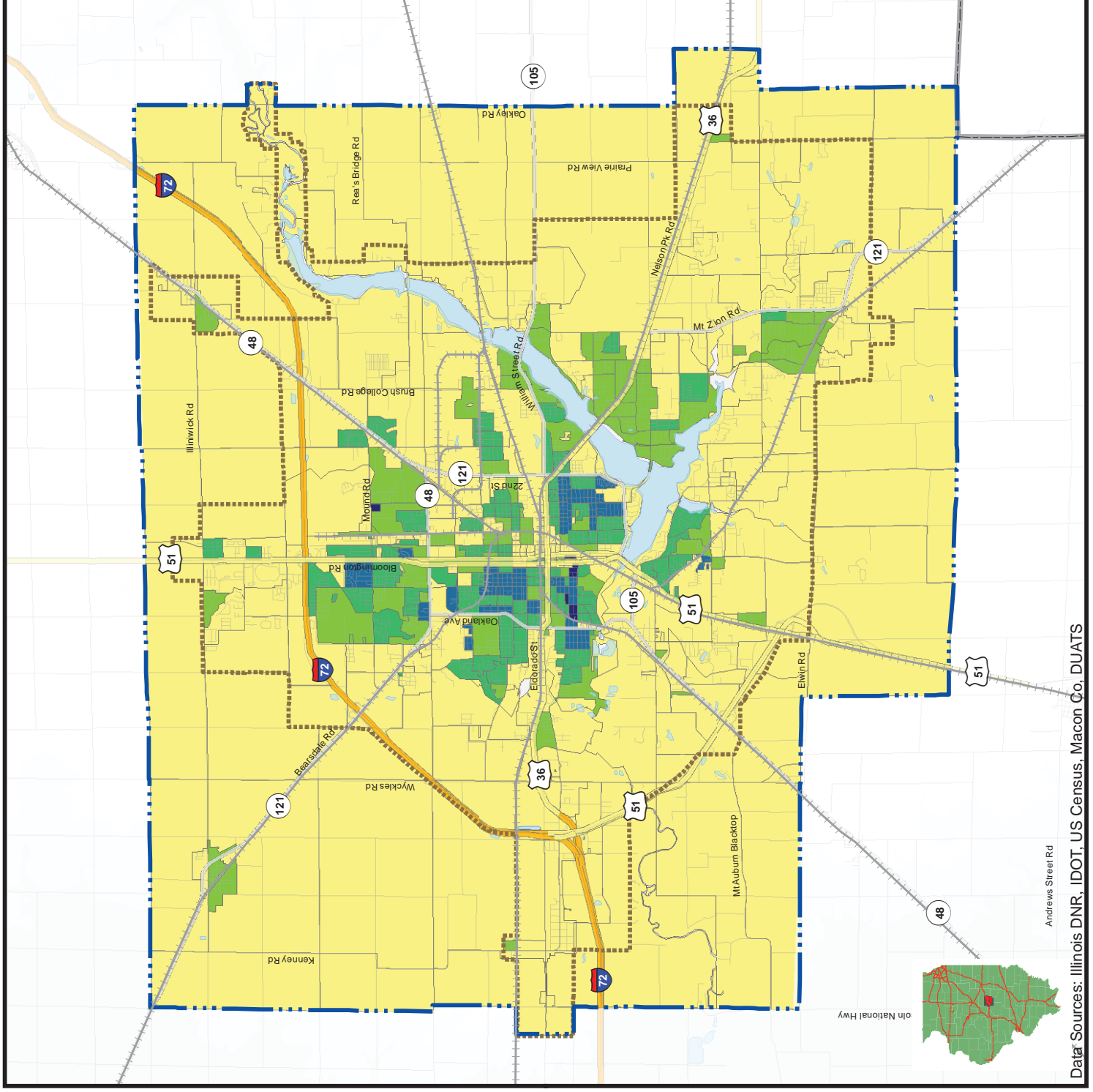
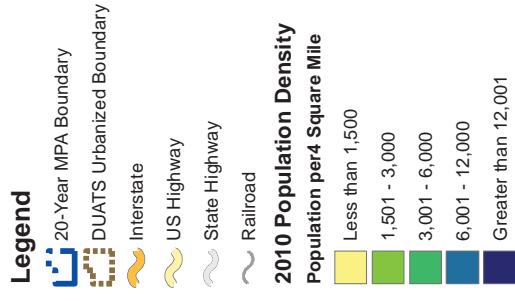
## 2.5

Miles



Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS

**Figure 3-2**  
**2010 Population Density**



## Employment

The MPA is estimated to have a total of 47,173 jobs in 2010. This represents an 18 percent decline from the 57,664 jobs in the year 2000. The primary cause for the decline can be attributed to the economic recession that began in 2007/2008, with the effects of the economic downturn continuing to impact communities across the nation into 2014.

Employment locations are somewhat scattered throughout the MPA, but generally fall within the Decatur Urbanized Area boundary. High numbers of employment locations are located along major roadways such as:







- ▶ The ADM, Caterpillar, and Tate & Lyle facilities in the eastern part of Decatur (featuring the largest volumes of employment among these areas);
- ▶ Eldorado Street and Franklin/Main and Water Streets (US-36 and US-51, respectively);
- ▶ The intersections of Water Street and Pershing Road;
- ▶ The Hickory Point Mall;
- ▶ The area near US-51 and IL-105; and
- ▶ A large area of land south of Camp Warren Road and east of Mt. Zion Road in the far southeast corner of the MPA.

**Figure 3-3** displays employment levels in 2010, while **Figure 3-4** shows employment density per square mile. Using this analysis, downtown Decatur and the surrounding area feature the highest concentration of jobs, as well as the ADM and Caterpillar facilities and commercial businesses along Pershing Road / IL-48.








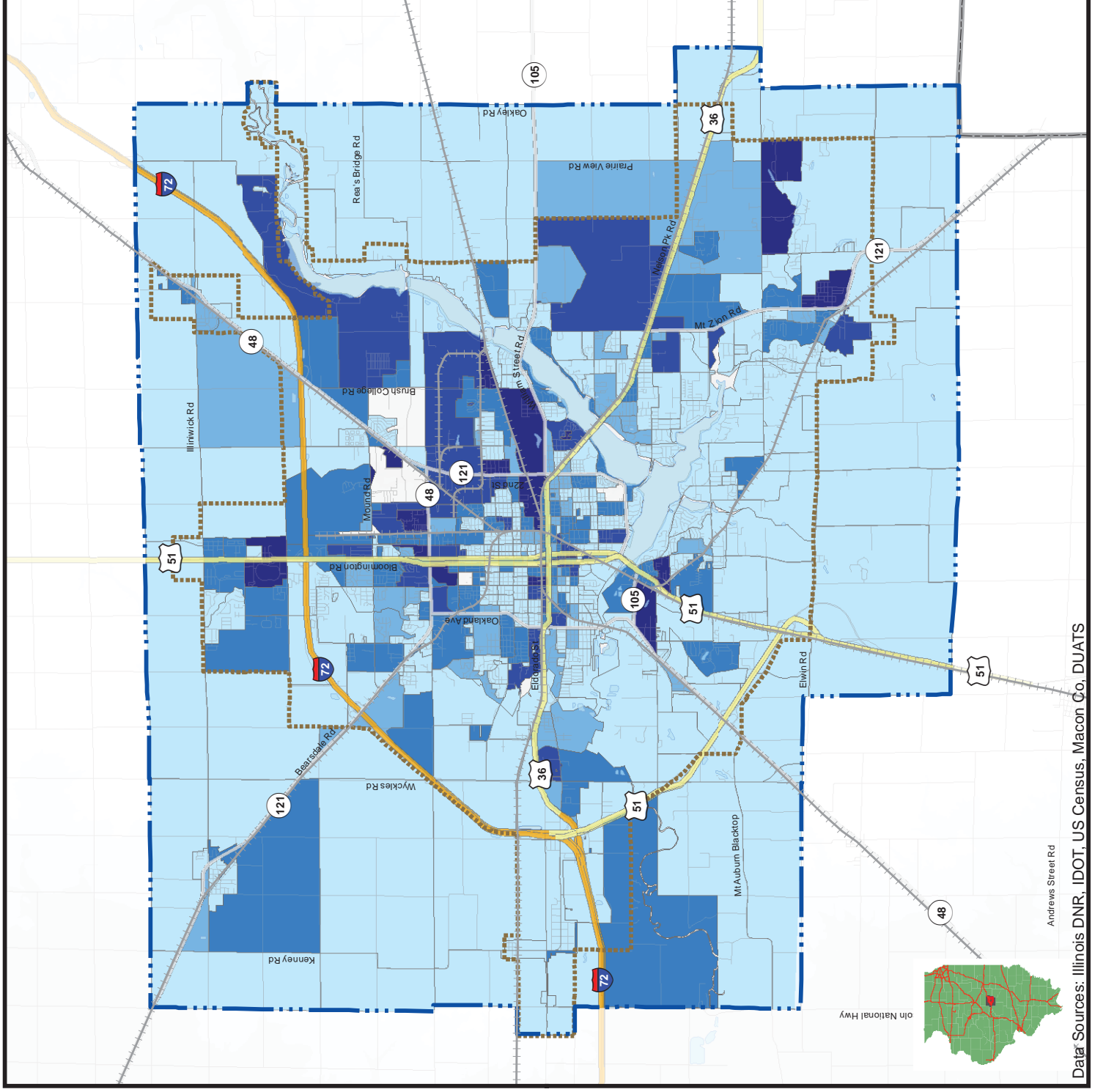
**Figure 3-3**  
**2010 Employment**

**Legend**

-  20-Year MPA Boundary
-  DUATS Urbanized Boundary
-  Interstate
-  US Highway
-  State Highway
-  Railroad

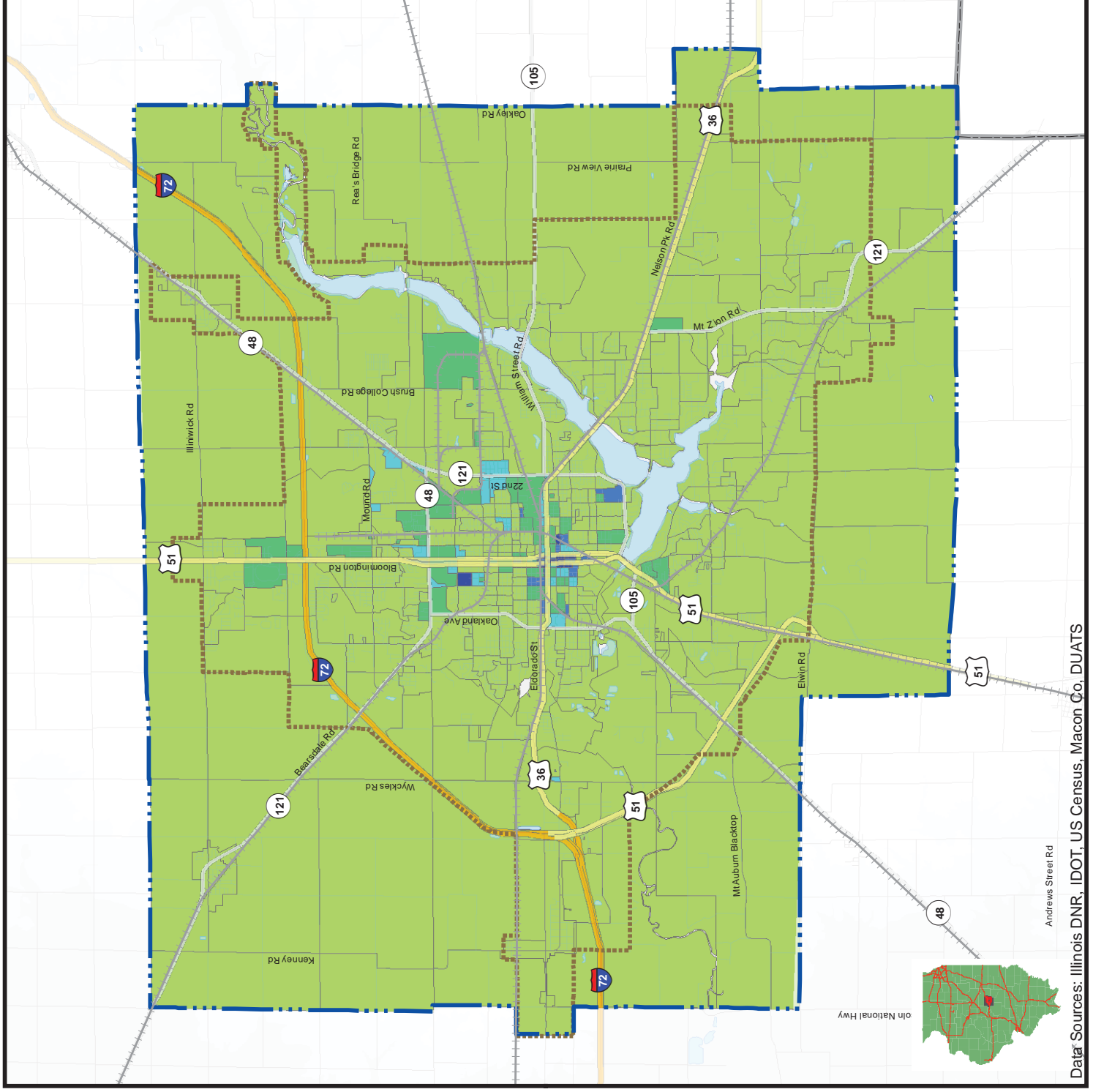
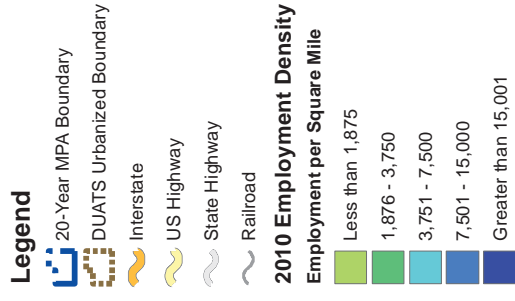
**2010 Employment**

-  Less than 38
-  39 - 75
-  76 - 250
-  251 - 500
-  Greater than 501





**Figure 3-4**  
**2010 Employment Density**



## ROADWAYS

The MPA consists of a grid roadway network that is altered by topography, conservations areas, Lake Decatur, and I-72. It is connected to the surrounding rural area and the region by a system of federal, state and county highways. The primary roadways in the MPA are:

- ▶ **I-72** | Provides an east-west connection to the national Interstate highway system;
- ▶ **US-51** | A four lane, restricted access highway connecting Bloomington to the north and Pana to the south;
- ▶ **IL-48** | Travels northeast-southwest through Macon County, providing an alternate route between I-55 and St. Louis, and I-57 and Chicago;
- ▶ **IL-121** | Extends northwest-southeast between I-55 and Lincoln and I-57 and Mattoon;
- ▶ **US-36** | Provides an important link between the City of Decatur to the west and the Illinois-Indiana border to the east; and
- ▶ **IL-105** | Another east-west route that extends from the junction of IL-48 in southwest Decatur, east to the Piatt-Macon County line.

As mentioned, topography, Lake Decatur, and I-72 interrupt and form obstacles to the grid system. For example, there are five bridge crossing locations to facilitate the movement of traffic to areas primarily east and west of the Sangamon River and Lake Decatur. To the south, southwest, across the Sangamon River and its tributaries, traffic movement is limited to a few bridge locations. Several residential developments throughout the MPA use curvilinear street patterns to limit pass through traffic and increase the amount of developable land.

### Functional Classification

Functional classification is a process by which streets, roads and highways are grouped into “classes” which describes the service level provided and operation of roadways within the transportation network. The functional classification system facilitates the safe and efficient movement of people and goods.

The majority of the area’s roadway mileage is within the jurisdiction of the City of Decatur. The State of Illinois has jurisdiction over the Interstate, expressways, and most of the major arterials. Many of the minor arterials and collectors, based on roadway mileage, are under jurisdiction of the Macon County Highway Department. **Table 3-2** shows the combined length of each functional classification in the MPA. **Table 3-3** describes the typical street design characteristics.

**Table 3-2. Functional Classification**

Functional Classification	Miles	One area that lacks a sufficient number of high classification routes is in the east and southeastern portion of the MPA. This area is generally southeast of Lake Decatur, near Mt. Zion and Long Creek. The South East Beltway, a planned project identified in previous DUATS planning efforts, would address this concern by providing a major thoroughfare in the southeast portion of the MPA. The South East Beltway would have significant mobility benefits in terms of accessibility and traffic movement in the southeast and east portions of the MPA.
Freeway and Expressway	14.8	
Interstate	26.5	
Local Road or Street	655.9	
Major Collector	141.0	
Minor Arterial	103.1	
Minor Collector	9.0	
Other Principal Arterial	73.9	

The Urban Classified System provides for the efficient movement of traffic. The system is well connected and provides for continuous traffic flow resulting in good circulation. Exceptions are found during peak travel periods on Lake Decatur bridge crossings, on Pershing between Woodford and Monroe Streets, and US-51, north from Mound Road through Forsyth.

Figure 3-5 displays the Decatur MPA functional classification system.

**Table 3-3. Street Design Criteria (IDOT and DUATS sanctioned)**

**Principal Arterials (Interstates, Expressways, and Other Principal Arterials)**

<b>Service</b>	Principal arterials provide a high degree of continuity of travel around the MPA.
<b>Connection</b>	Principal arterials typically connect to other principal arterials.
<b>Form</b>	Principal arterials normally have at least four lanes with a traffic median or turn lane.
<b>Frequency</b>	Spacing of principal arterials should relate to the need to connect major destinations.
<b>Access</b>	Properties abutting the principal arterial should not have direct access onto Arterials.
<b>Land Use</b>	Land uses adjoining principal arterials should be protected from the negative effects of traffic by large setbacks and landscaping techniques including vegetative screens and berms.

**Minor Arterials (Major Streets)**

<b>Service</b>	Minor arterials provide continuous travel through the MPA.
<b>Connection</b>	Minor arterials provide connection to areas of high activity and connect the County Highway System to the road network.
<b>Form</b>	Minor arterials are typically four lanes wide with opposing traffic separated by a median, or two lanes wide with a third lane used for turning movements.
<b>Frequency</b>	Minor arterials should occur no more often than one every mile intervals within the MPA.
<b>Access</b>	Access to minor arterials from abutting property should be limited to public roads.
<b>Land Use</b>	Land uses along minor arterials should be protected from the negative effects of traffic by large setbacks and landscaping techniques including vegetative screens and berms.

**Urban Collector Streets and Roads**










<b>Service</b>	Collectors link local streets and roads to minor arterials. Urban collectors should not provide a high degree of continuity for travel or serve as alternatives to minor arterials.
<b>Connection</b>	Collectors should collect traffic from local streets and distribute it to the minor arterials.
<b>Form</b>	Collectors vary from two to four lanes wide and are usually less than two miles long.
<b>Frequency</b>	Collectors occur throughout the urban area.
<b>Access</b>	Abutting properties normally have access to urban collectors.
<b>Land Use</b>	When urban collectors only provide connection between local streets and minor arterials no special land use considerations are needed.

**Local Streets (Minor Residential Streets and Roads)**

<b>Service</b>	Local streets provide for travel from individual properties to urban collectors.
<b>Connection</b>	Local streets connect local traffic to collectors.
<b>Form</b>	Local streets typically are no more than two lanes wide in residential areas.
<b>Frequency</b>	Local streets occur universally throughout the MPA.
<b>Access</b>	Properties are allowed direct access to local streets and roads.
<b>Land Use</b>	Local streets typically require no special land use considerations.

Figure 3-5  
Functional  
Classification  
System (2012)

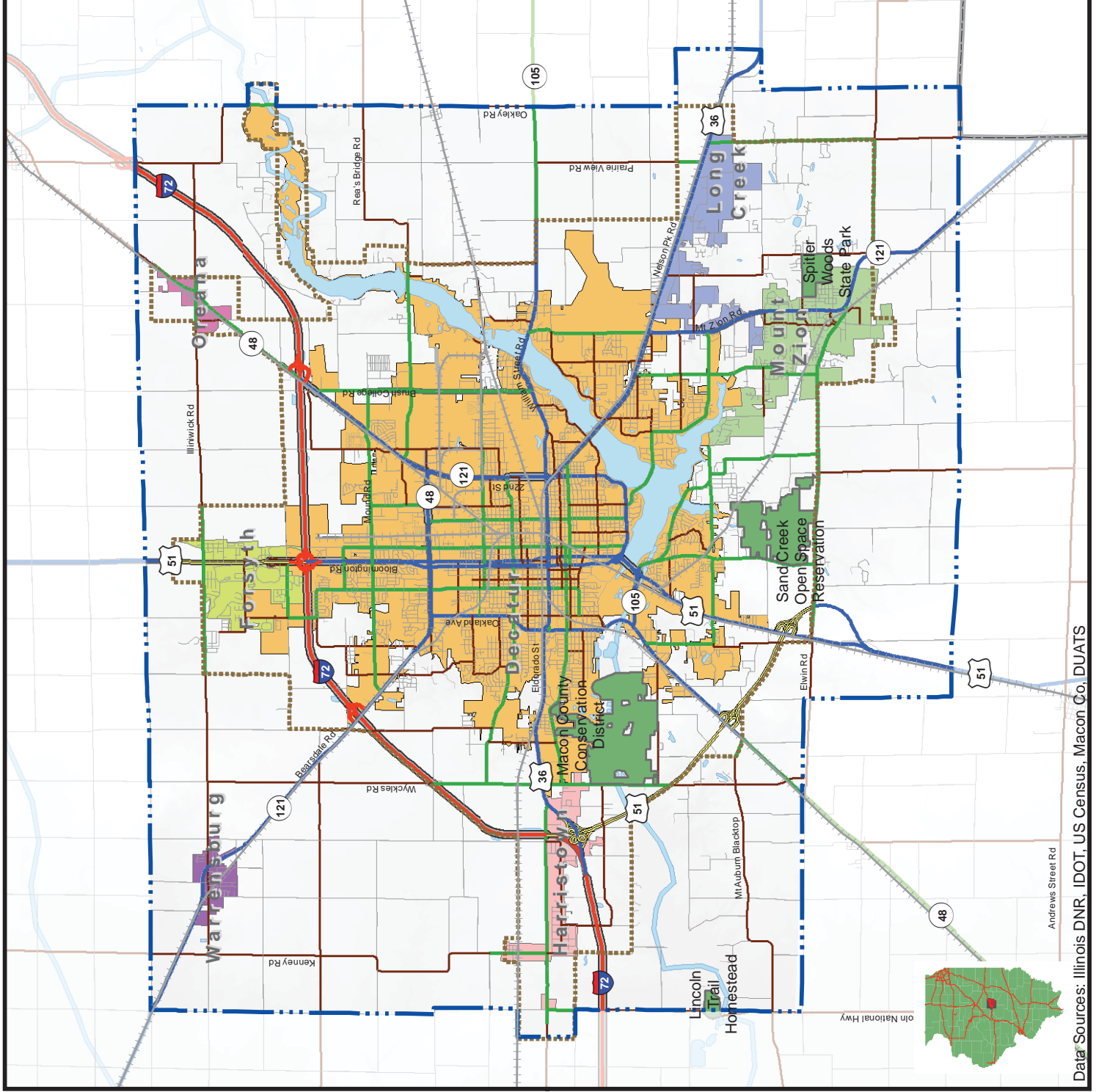
Legend

-  20-Year MPA Boundary
-  DUATS Urbanized Boundary
-  Interstate
-  Freeway/Expressway
-  Major Arterial
-  Minor Arterial
-  Collector
-  Local Road or Street
-  Railroad



2.5

Miles



## Average Daily Traffic

Average daily traffic (ADT) volumes on Federal and State roadways within the MPA were obtained from IDOT. As expected, the Interstate, freeways, and arterials carry the largest traffic volumes within the region. The roadway segment with the highest ADT is located on US-51, north of I-72 in Forsyth. This segment of US-51, near Barnett Street, carries 28,900 vehicles per day (vpd) and provides access to regional shopping destinations. The next highest daily volumes are observed along Pershing Road, just east of Jasper Street. This roadway segment carries 22,900 vpd. **Figure 3-6** displays selected daily traffic volumes for the MPA.

The Decatur region is unique in that the Interstate system carries considerably less daily traffic compared to many of the local area roadways. In 2012, I-72 carried on average between 10,600 vpd, east of IL-48, and 13,600 vpd near Harristown. Just east of US-51, I-72 carries 12,100 vpd.

**Table 3-4** summarizes historic daily traffic volumes observed at the five major bridges crossing Lake Decatur. Since 2005, the bridge crossing volumes have remained fairly stable. The three primary crossings in fact show a slight decrease in traffic volumes when comparing 2005 and 2013 volumes. The Main/Franklin (US-51) bridge showed a 9% decrease in volumes between 2005 and 2013. The US-36 bridge also showed a 7% decrease during this same time period.

**Table 3-4. Bridge Volumes**

Name	2005	2009	2013	Percent Change (2005 – 2013)
William Street Bridge (IL-105)	11,400	11,400	11,200	-1.8%
Main / Franklin Street (US-51) Bridge	30,100	28,400	27,300	-9.3%
US-36 (IL-121) Bridge	25,600	24,400	23,800	-7.0%
Taylorville Road (IL-48) Bridge	9,700	10,600	10,300	6.2%
Reas Bridge (IL-24)	2,550	2,300	2,650	3.9%

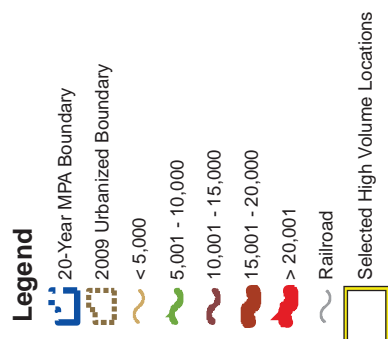
SOURCE: IDOT Historical Traffic Counts

## Number of Lanes

The majority of roadways within the MPA are two-lane roadways. Most of the roadway miles have an assigned functional classification featuring four lanes, many with turn lane options. One exception is the Main Street/Water Street arterial couplet that runs north-south from south of the Decatur Central Business District (CBD) north to Pershing Road. Many segments along this one-way couplet have three or more traffic lanes and in places left and/or right turn lanes. The number of lanes within the MPA is shown in **Figure 3-7**.

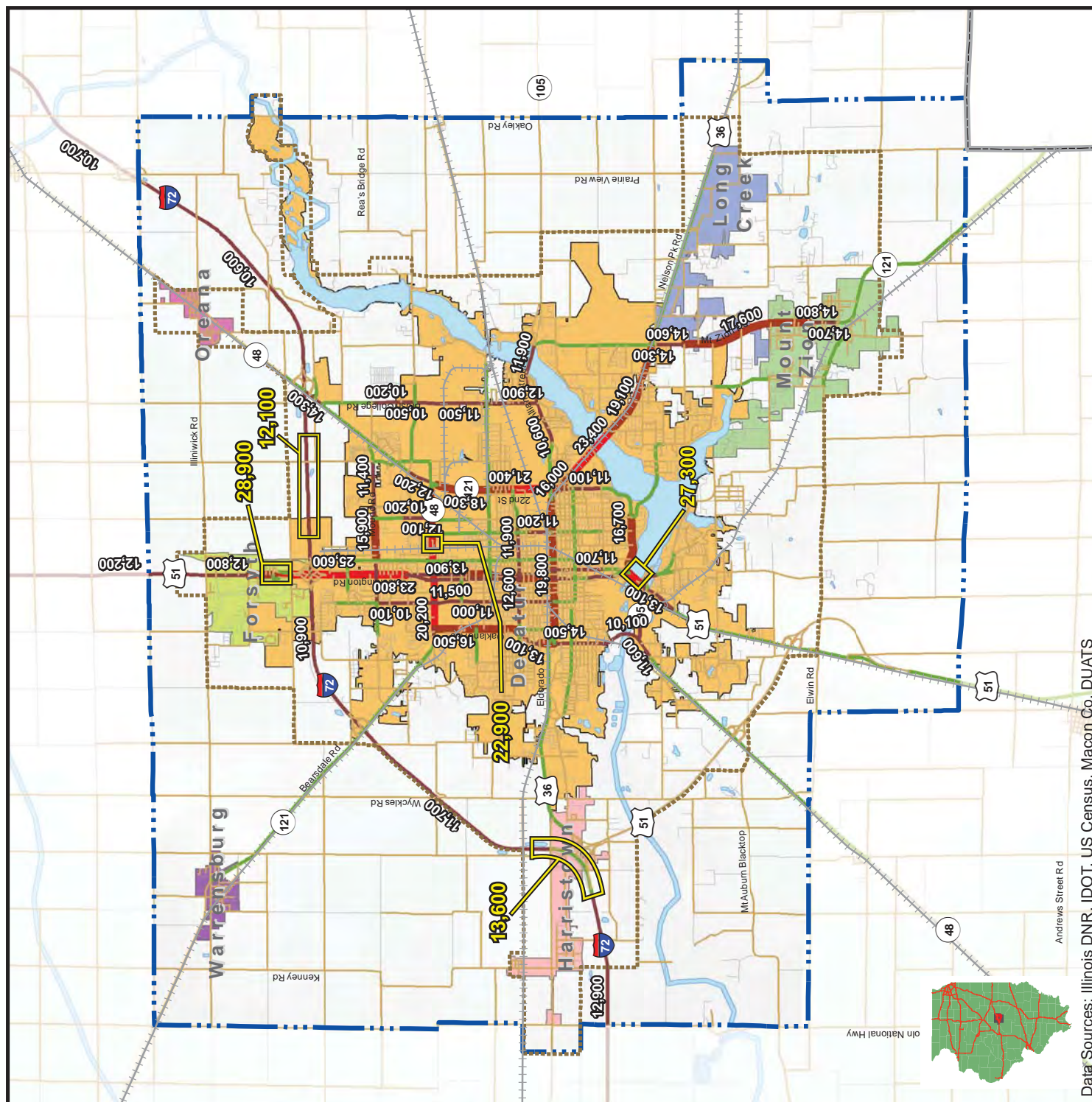


**Figure 3-6  
Annual Average  
Daily Traffic (2012)**



2.5

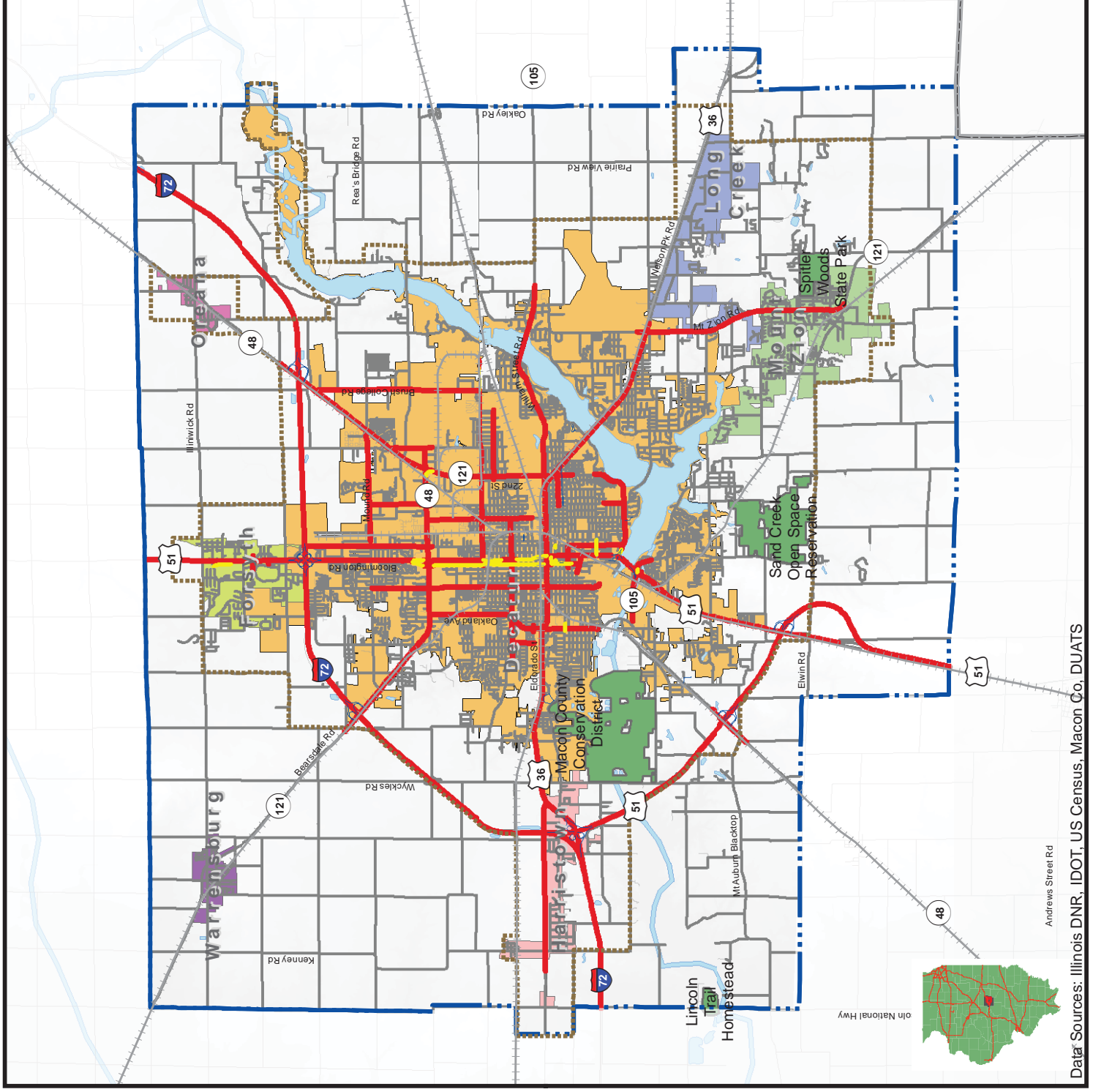
Miles



Data Sources: Illinois DNR, IDOT, US Census, Macon Co. DUATS

Figure 3-7  
Number of Lanes

- Legend**
- 20-Year MPA Boundary
  - DUATS Urbanized Boundary
  - 1 Lane
  - 2 Lane
  - 3 Lane
  - 4 Lane
  - Railroad



## Designated Truck Routes

There are nineteen designated state truck routes within the MPA. State truck route classifications are generally based on truck weight, maximum load allowances, and vehicle size. There are two Class 1 truck routes designated by IDOT present in the MPA, with seventeen Class 2 routes also present. Class 1 truck routes are approved for all load widths of 8'6" or less. Typically, Class 1 truck routes include interstate facilities as is the case in the MPA. Class 2 truck routes are approved for all load widths of 8'6" or less with a wheel base no greater than 55 feet. In general, trucks can typically travel on local roads within five miles of a designated Class 2 truck route and within one mile of a Class 1 truck route. The primary truck route within the MPA is I-72. This route provides same-day access to more than 60 large markets including Chicago, St. Louis, Detroit, Minneapolis, Kansas City and Cincinnati.

Most of the designated truck routes direct truck traffic around the City of Decatur. The exceptions are US-36, which accommodates east-west truck travel through the northern boundary of Decatur's CBD and IL-48 between Brush College Road and I-72 which carry substantial truck traffic to industries such as ADM and Caterpillar. Both are Class 2 Truck Routes and carry significant truck traffic. US-51 and IL-121 carry a large number of freight trucks through the Villages of Forsyth and Mt. Zion respectively.

**Table 3-5** and **Figure 3-8** identify the designated truck routes within the MPA. Several one-to-two block segments are also present in the MPA that are not listed in **Table 3-5** (all are offshoots of other main Class 2 routes). Unless noted otherwise, routes are designated Class 2.



Table 3-5. Designated Truck Routes within the MPA

**Illinois Department of Transportation (IDOT)**

I-72 (Class 1)	Sangamon County Line to Piatt County Line
US-51 (Class 1)	I-72 (Exit 133) to BR-51
US-36	I-72 (Exit 133) to Piatt & Moultrie County Lines
US-51	Dewitt County Line to I-72 (near Exit 141)
BR-51	S. Franklin Street to Grand Avenue (via Wood Street and MLK Drive)
BR-51	(North of Elwin) US-51 exit to S. Franklin Street
IL-48	(north segment) Piatt County Line to I-72 (Exit 144)
IL-48	(south segment) Christian County Line to BR-51 (via Southside Drive)
IL-105	Piatt County Line to 22 <sup>nd</sup> Street (Decatur)
IL-121	(north segment) Logan County Line to I-72 (Exit 138)
IL-121	(south segment) US-36 - Airport Rd. Intersection

**Macon County**

Bear Road	Hill Road to Cantrell Street
Brush College Road	Faries Parkway to IL-48
Cantrell Street	Bear Road to Wyckles Road
Elwin Road	US-51 (BR) to Turpin Road
Mound Road	US-51 (BR) to Brush College Road
Wyckles Road	Cantrell Street to US-36

**Decatur (Municipal)**

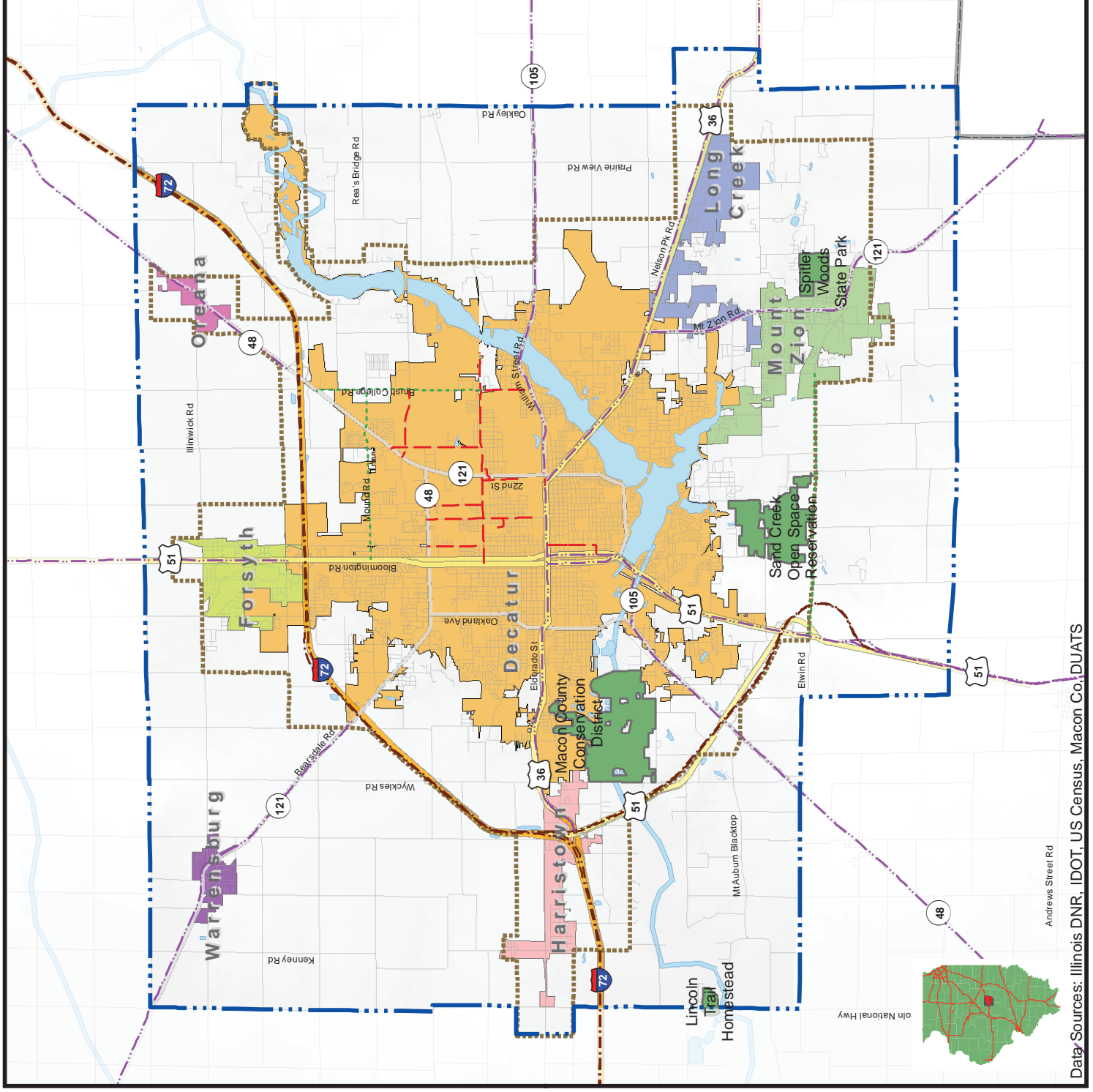
21 <sup>st</sup> Street	Condit Street to Garfield Avenue
23 <sup>rd</sup> Street	Logan Street to Garfield Avenue
27 <sup>th</sup> Street	Garfield Avenue to IL-48
Brush College Road	IL-105 to Faries Parkway
Cantrell Street	S. Franklin Street to S. Martin Luther King Jr. Drive
E. Hickory Street	N. Calhoun Street to N. Jasper Street
E. Wood Street	S. Main Street to S. Martin Luther King Jr. Drive
Faries Parkway	27 <sup>th</sup> Street to East City Limits
Franklin (Old BR US-51)	E. Cleveland Avenue to E. Wood Street
Garfield Avenue	US-51 (BR) to 27 <sup>th</sup> Street
Gault	Jackson Street to Martin Luther King Jr. Drive
Grand Avenue	US-51 (BR) to Clinton Street
Hubbard	IL-48 to Brush College Road
Jasper Street	Sangamon Street to IL-121
Logan Street	IL-121 to 23 <sup>rd</sup> Street
Main Street (Old BR US-51)	W. Wood Street to E. Cleveland Avenue

Martin Luther King Jr. Drive	Cantrell Street to US-36
Martin Luther King Jr. Drive	Garfield Avenue to IL-121
Martin Luther King Jr. Drive	US-36 to Grand Avenue
N. Calhoun Street	E. Hickory Street to North End
Olive Street	21 <sup>st</sup> Street to IL-121
Samuels Street	Division Street to Faries Parkway
William Street	Martin Luther King Jr. Drive to Hilton Street
Woodford Street	Garfield Avenue to IL-48

SOURCE: IDOT Designated State Truck Route System, June 2014, City of Decatur, DUATS.

Figure 3-8  
Truck Routes

- Legend**
- 20-Year MPA Boundary
  - DUATS Urbanized Boundary
  - City Class 2
  - County Class 2
  - State Class 1
  - State Class 2



## Major Truck Route Changes

Historically, trucks accounted for a substantial amount of traffic within Decatur's Central Business District (CBD) on Business US-51 (Business Route (BR)-51 from US-51 to Eldorado Street (US-36). Previous LRTPs have highlighted this issue and in 2011, large trucks were routed onto Martin Luther King Jr. Drive, diverting much of the heavy truck traffic out of the CBD. Previously, a large number of heavy trucks traversed this area and produced a negative aesthetic and environmental impact (e.g., fumes, noise, vibration), and other effects to the region on areas such as facility operations, pedestrian safety, and concerns over potentially hazardous material. These impacts led to significantly negative effects on the downtown business climate, pedestrians and shoppers, for example as travel disruptions and delays were commonplace.

In response to the need for a viable alternate truck route, a route study was commenced in 2006 that resulted in the creation of the 6W route in 2012, which diverts traffic around the CBD. The final recommended alternative identified a portion of East Wood Street and South MLK Jr. Drive to Eldorado Street (US-36) to carry through trucks around the CBD.

Moving through truck traffic off of BR-51 has since greatly reduced the adverse impact of large commercial carriers hauling loads through the CBD. Also in 2006, the City of Decatur and numerous private investors embarked on a major, aggressive downtown redevelopment initiative. Overall, the goal of this initiative was to provide a customer and pedestrian friendly environment to support Decatur's CBD as a historic, cultural, governmental, and entertainment center. The elimination of through freight truck traffic on BR-51 was a major component that has helped achieve this goal.

Even though truck traffic through downtown Decatur has been addressed, heavy truck movements throughout the region remain a concern. Therefore, it is extremely important that issues related to transportation improvements, security, safety, the environment, and maintenance be continually analyzed. Furthermore, understanding how roads and streets are utilized as well as the impact of through freight truck traffic should be considered collectively with other transportation modes and routes, particularly given the estimated increase in both rail and truck freight movements in the future.

## Truck Volumes

Truck volumes, or Heavy Commercial Vehicle (HCV) volumes, were provided by IDOT for years 2009 to 2013 (note that some roadway segments have more recent information recorded than others).

**Table 3-6** displays the ten highest HCV volume locations identified within the MPA. Locations were identified using loop detector stations, which are electromagnetic devices buried in the roadway that count axels that pass over. The “from” and “to” columns in this table featuring roadway names represents those closest to these station ID numbers. HCV volumes are divided into two categories, multi-unit vehicles (semi-trucks, tractor-trailers, etc.) and single-unit vehicles (box trucks, flatbeds, moving vans, tow trucks, etc.).

**Table 3-6. Top Ten Truck Route Segments in the MPA**

Location	From	To	Heavy Commercial Vehicle (HCV)	Multiple Unit (MU)	Single Unit (SU)	Average Daily Traffic (ADT)
I-72	US-51	Brush College Rd.	3,525	2,800	725	11,500
I-72	Lincoln Mem. Pkwy.	Joynt Rd.	3,075	2,250	825	13,600
I-72	Harristown Blvd.	Ash Ave.	3,025	2,450	575	12,000
I-72	Ash Ave.	US-51	2,950	2,400	550	10,700
I-72	Brush College Rd.	Jordan Rd.	2,700	2,200	500	10,700
I-72	Joynt Rd.	Harristown Blvd.	2,475	1,850	625	8,000
US-51	Weaver Rd.	Grand Ave.	2,125	975	1,150	27,300
22 <sup>nd</sup> Street	Geddes Ave.	Locust St.	2,075	1,300	775	28,900
IL-48	Cundiff Rd.	I-72	1,850	1,075	775	19,400
Brush College Rd.	Mound Rd.	Tohill Rd.	950	10,500	1,700	750

Source: IDOT, DUATS

I-72 carries the highest truck volumes within the MPA for the six highest volume segments, featuring between approximately 2,500 to 3,500 HCV annually. I-72 / US-51, between IL-121 and US-36, had the highest truck volume at 3,000 per day. This represents about 30 percent of all traffic recorded along I-72 in the segments identified in the table. In general, HCV volumes represent approximately 7.2 percent to 30.9 percent of all traffic observed on these top ten highest roadway segments by truck volume in the MPA, with 20.8 percent representing the mean.

Other roadways within the MPA typically carry seven percent to 12 percent HCV. US-51 was the highest non-interstate facility carrying approximately 2,124 HCV per day. This volume represents 7.8 percent of the daily traffic along this roadway segment.

**Figure 3-9** shows truck volumes in the study area. Note that while not necessarily among the top ten highest segments in the MPA, Brush College Road, Faries Parkway, and Eldorado Street are each traversed by up to 1,200 HCV annually. The major contributing factor to these volumes is the connectivity to major industrial facilities such as ADM, Caterpillar, and Tate & Lyle.

**Figure 3-9**  
**Truck Volumes/  
Heavy Commercial Vehicle  
(HCV)**

**Legend**


 Metropolitan Planning Area (MPA) Boundary

 Urbanized Area Boundary

**Average Daily Truck Traffic (IDOT)  
HCV (2013)**

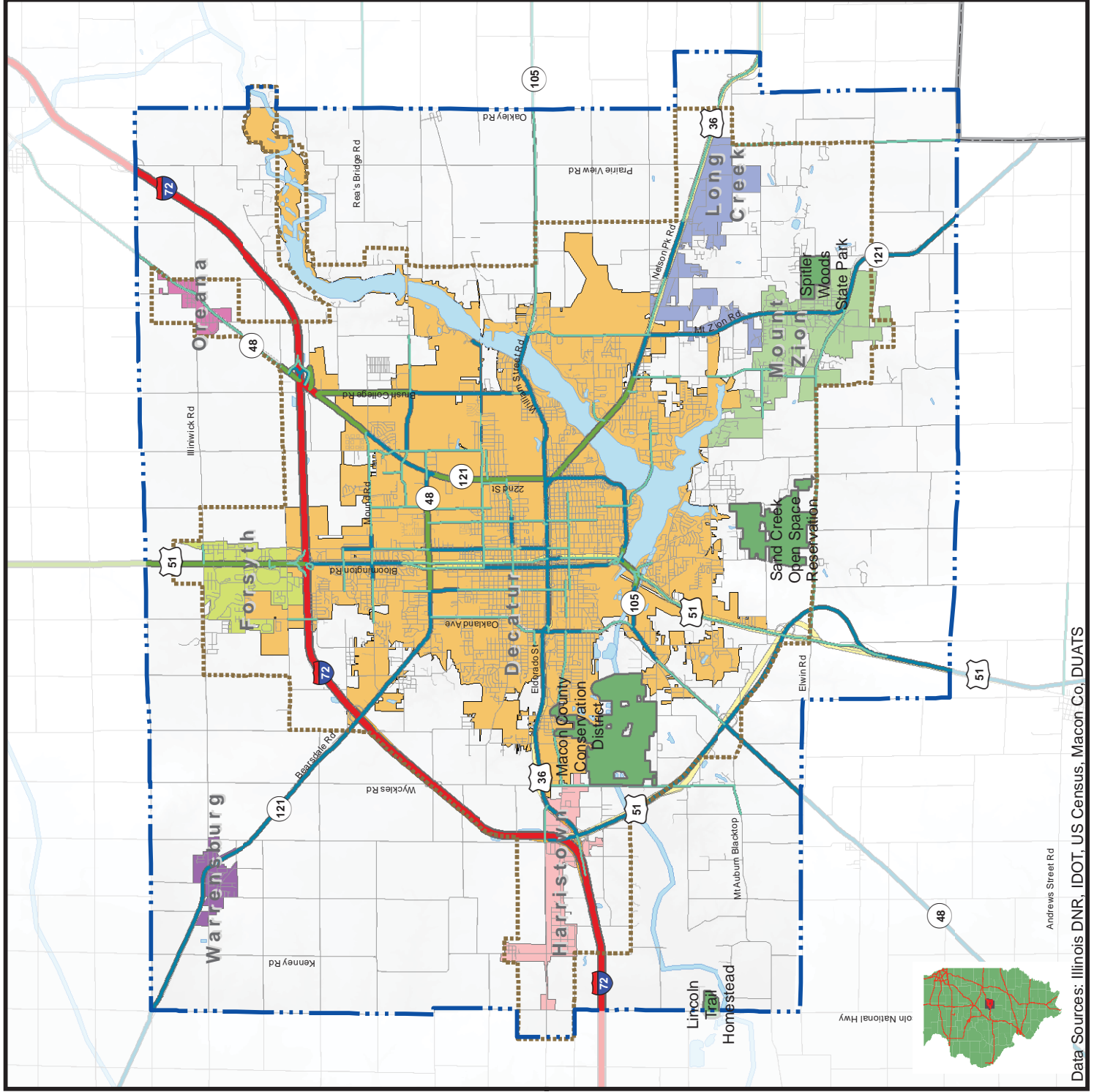
 Less than 200

 201 - 600

 601 - 1,200

 1,201 - 2,400

 More than 2,401





## Capacity Analysis

### Travel Demand Model Results

DUATS utilizes a travel demand forecasting model to assist in identifying potential existing and future year roadway capacity issues. A planning level capacity analysis compares traffic volumes (existing or future) to typical daily roadway capacities (based on number of lanes and functional classification). The model calculates a volume-to-capacity (v/c) ratio which is compared to general planning level of service (LOS) thresholds to identify roadway segments that are approaching-capacity, at-capacity, or over-capacity.

The project team utilized the updated 2010 travel model to evaluate the current travel conditions in the region. The analysis yielded the following capacity-related results:

- ▶ **Approaching-capacity** | 9.6 miles system-wide, concentrated along US-51 (mainly north of IL-48), US-36 (between Lake Decatur and Garfield Avenue), and several small segments intersecting US-51.
- ▶ **At-capacity** | 2.2 miles system-wide, mostly concentrated along the Garfield Avenue viaduct spanning the railroad tracks, as well as a small section of US-51 near Mound Road.
- ▶ **Over-capacity** | 0.8 miles system-wide, concentrated along East Riverside Drive at the intersection with E. Lake Shore Drive near the entrance to St. Mary's hospital, as well as a short section of S. Shores Drive where it merges traveling north with S. Franklin Street Road.

Overall, less than one percent of the area roadways in the MPA are classified as either at-capacity or over-capacity. In all instances, involving congestion and/or capacity, there is little in the way of imminent, economical solutions. In all instances the segments shown as congested, near or at capacity there is limited right-of-way (ROW) that can be utilized for additional lanes. Property improvements and land uses are very close or on the existing ROW. Purchasing additional land at market price for the property improvements is financially problematic as is bridge widening at Lake Decatur crossings to allow additional lanes. Moreover, the terms "congested" and "near or at capacity" are by definition relative. The user experience typically equates to the "inconvenience" of having to wait multiple signal sequences for vehicles to move through a particular segment.

Figure 3-10 shows roadway congestion levels as recorded in 2010.

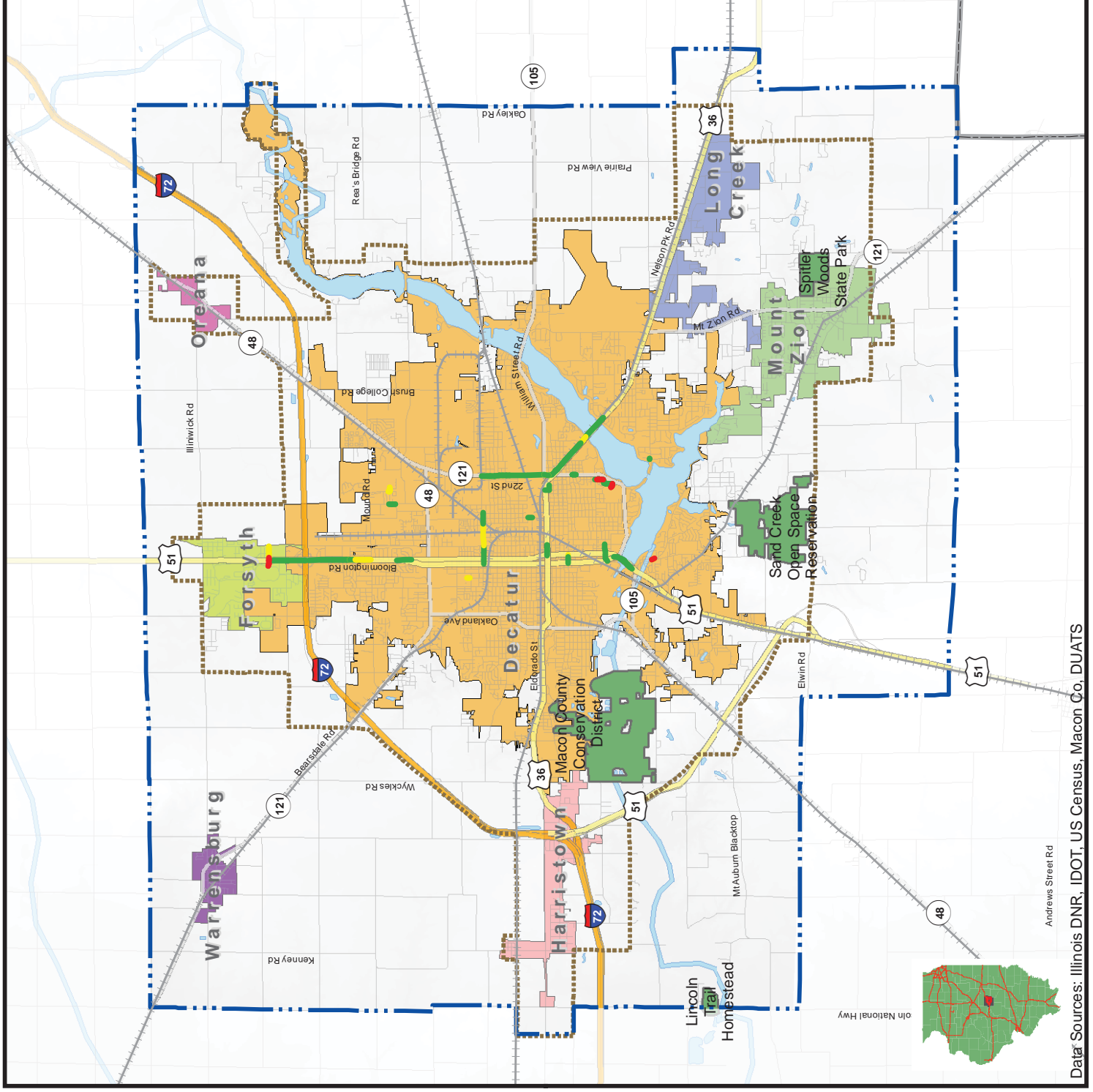
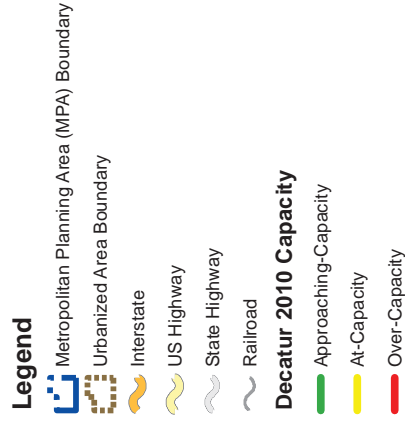
### At-Grade Rail Crossing Impacts on Roadway Capacity

As discussed, there are relatively few significant capacity issues that exist in the region. Perhaps the biggest traffic operation concern is at-grade rail crossing delays, which can be perceived by the public as a traffic congestion, or capacity issue. If these at-grade crossings did not exist, many of the area roadways would operate at acceptable levels.

The 2013 Decatur Area Transportation Efficiency Study (DATES) identified several at-grade rail crossing delays that significantly impact local and regional traffic operations. The primary area of concern is the Norfolk Southern (NS) crossing on Brush College Road at Faries Parkway. The DATES report indicated that this crossing averages 17.2 hours of delay per week, resulting in multiple vehicular backups throughout the day for the traveling public and truck/freight shipments.

Recognizing the growing problem along Brush College Road, the City of Decatur undertook the Brush College Corridor Study in 2010. The study, currently in the process of being completed, identified infrastructure improvements to improve traffic flow and safety along this vital corridor. The study identified a preferred alternative that includes the construction of a new four-lane overpass at the NS rail yard and the need for a second overpass at the NS crossing on Brush College Road, just north of Faries Parkway.

Figure 3-10  
2010 Roadway  
Capacity



## Access Management

Access management is a concept that can help maintain acceptable levels of mobility and potentially reduce exposure to crashes. Access management standards and controls increase safety by reducing potential conflicts, enhance traffic flow, and often enhance aesthetics. Safety and capacity can both be negatively impacted by multiple access points along a corridor, or poor access control. As part of the planning process, the project team evaluated safety and capacity data to identify potential locations that could be explored for possible access management improvements. **Figure 3-11** identifies the two areas within the MPA that could potentially be further studied to determine how access management could benefit traffic operations. These two areas include:

- ▶ **Northwest of US-51 / US-36** | This area is mostly characterized by residential and commercial areas, with high traffic volumes along both US-51 and US-36. The majority of locations with high concentrations of crashes are along or nearby major thoroughfares such as IL-48, Grand Avenue, and the above mentioned roadways. While many commercial uses feature multiple access points that contribute to potential traffic safety issues, including those located at major intersections, there is also the issue of private driveways of residential parcels that connect with these arterial roadways. Vehicles entering and exiting at these driveways further contribute to the uncontrolled nature of roadway access.

Design standards, land use / comprehensive plans, and zoning code improvements are all examples of tools that could help prevent this type of development from happening in areas expected to feature new growth or redevelopment of existing areas. DUATS may need to investigate this issue further to determine if any near-term solutions are possible.

- ▶ **Eldorado Street US-36 / IL-121 Area** | This area is roughly the same geographic location identified as “Eldorado Street (US-36)” in the 2035 LRTP. However, the most current analysis reveals that IL-121 and nearby residential streets also experience high crash rates and as such, are considered part of a larger geographic area that extends south to approximately St. Mary’s Hospital.

Beyond a high number of crashes and approaching capacity roadway segments along US-36 and part of IL-121, this area features two major at-grade crossings near the IL-36 / IL-121 / IL-105 intersection near the Tate & Lyle industrial facility, as well as the Eldorado (US-36) crossing with the CSX / CN railroad. Eldorado is also a Class 2 truck route which means that congestion and delays at these locations are impacted more severely when large tractor trailers have to wait for freight trains to pass.

As previously noted, it is possible that trucks may be avoiding the 6W route that circumvents downtown Decatur in order to avoid two left-turns to get back on US-51 to access I-72. Instead, they may be taking IL-121 through this area in order to access IL-48 to finally connect with I-72. This alternate route only requires a single right turn for northbound truck drivers and may be easier and faster.

DUATS may need to take a closer look at access management (with a focus on limiting access) along this stretch to help reduce both accidents and congestion while enhancing traffic flow and mobility. Such a strategy would need to be developed in tandem with any grade separation or other at-grade crossing improvements to the locations identified above.

**Figure 3-11**  
**Areas Featuring Potential Access Management Issues**  
(Accident Rates compared with Congestion Levels)

**Legend**

- 20-Year MPA Boundary
- DUATS Urbanized Boundary
- Railroad

**Decatur 2010 Capacity**

- Approaching-Capacity
- At-Capacity
- Over-Capacity

**Total Crash Rate\***

- <25
- 25 to 75
- 75 to 150
- 150 to 500
- >500

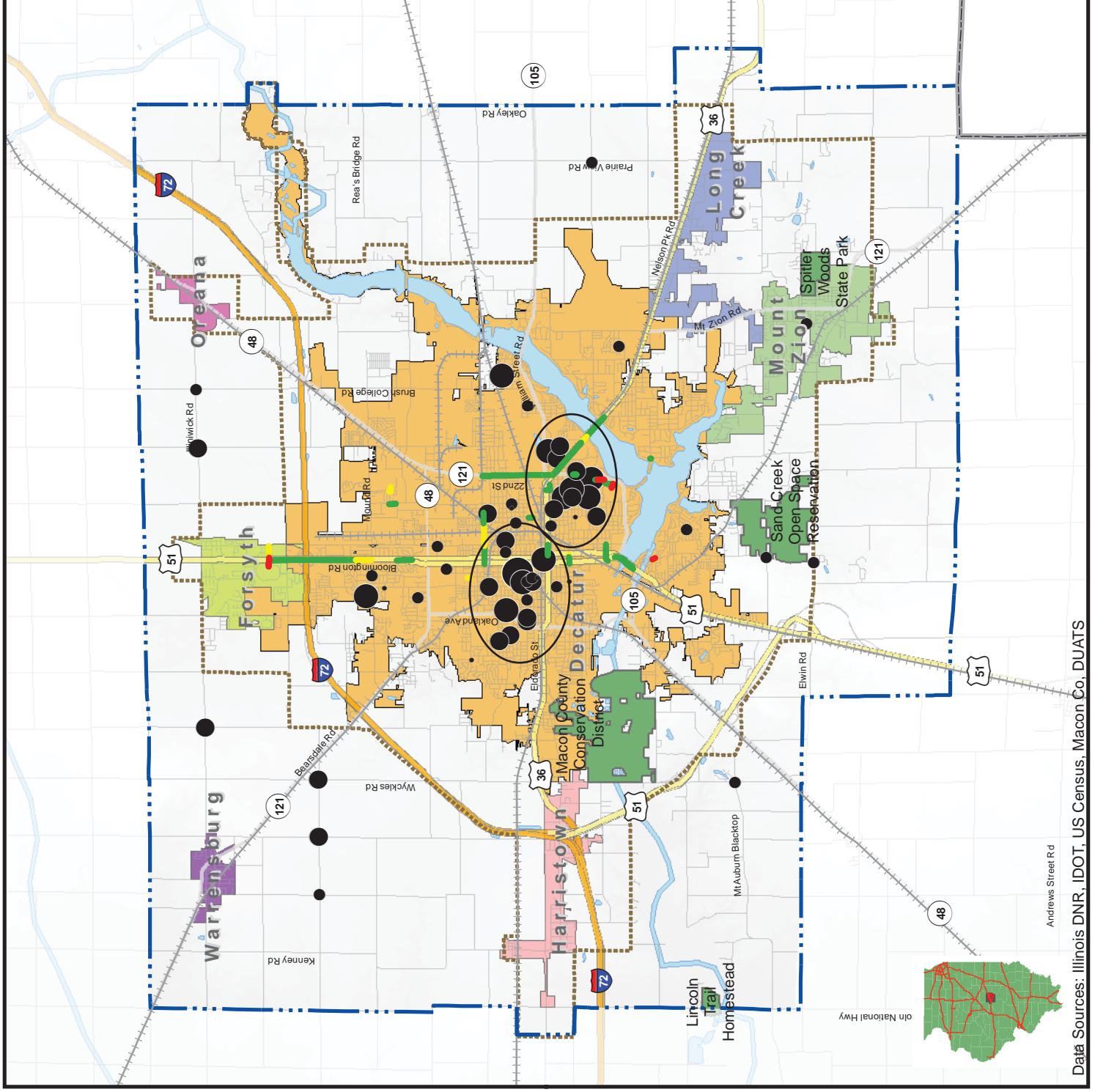
\* For all crashes, calculated per Hundred Million Total Entering Vehicles

Potential Access Management Areas



2.5

Miles



## Pavement Condition

IDOT collects pavement condition data on Federal and State routes every two years. The data is reported in the Condition Rating Survey (CRS). As part of the continuing transportation planning process, this information is placed in the GIS database and reviewed as it becomes available. For the purpose of the LRTP, the IDOT pavement ratings have been condensed into the following categories:

- ▶ Excellent;
- ▶ Fair;
- ▶ Poor; and
- ▶ Critical.

In the City of Decatur, 62 percent of paved roadways have been rated as either “excellent” or “good.” Overall, the pavement condition of these roadways has been declining since 2007 due to increases in asphalt prices since 2005 and a decrease in the amount of money dedicated to repairs since 2009. There also exists \$10 million in repair backlogs.<sup>3</sup> As such, the overall pavement conditions within Decatur are getting worse and, if not addressed, will result in more extensive and expensive repairs. As of January, 2013, pavement ratings in Decatur were as follows:

- ▶ **Excellent = 12.7 percent**
- ▶ **Good = 49.1 percent**
- ▶ **Fair = 31.5 percent**
- ▶ **Poor = 4.8 percent**
- ▶ **Very Poor = 1.2 percent**
- ▶ **Failing = 0.7 percent**

Roadways classified as excellent can be described as being adequately maintained, recently built or reconstructed. They have a sound existing sub-base, base and surface. Fair roadways are described as having older surfaces that have been well maintained and are generally smooth, free of potholes, and devoid of high and low areas. Roadways classified as poor are those that should be scheduled for at least a surface overlay or other minor reconstruction. These roadways may remain in this condition for many years before deteriorating to a state of critical condition. Critical roadways are those where the pavement has deteriorated to the point that major reconstruction is probably warranted.

Within the MPA there were a total of 161 miles of IDOT rated pavement in the year 2013. Of this total, 18.5 miles were rated as excellent (11.5 percent). Another 25.2 miles (15.6 percent) were rated as good while 91.7 miles (56.8 percent) were rated as fair. Finally, 25.9 miles (16.1 percent) of roadways within the MPA were rated as poor. These totals are summarized in **Table 3-7**.

**Table 3-7. Condition Rating Survey (IDOT Roads)**

Condition Rating	Rated Miles Through 2013	Percent
Excellent	18.5	11.5%
Good	25.2	15.6%
Fair	91.7	56.8%
Poor	25.9	16.1%

**Figure 3-12** displays the 2013 pavement condition ratings for the City of Decatur, and **Figure 3-13** displays the 2013 pavement conditions for all roads recorded by IDOT.

<sup>3</sup> City of Decatur – Public Works Department, Engineering Division, Pavement Master Plan. January 22, 2013.



Figure 3-12  
General Pavement  
Condition Ratings-  
Decatur

Legend

- 20-Year MPA Boundary
- DUATS Urbanized Boundary
- Railroad
- General Pavement Condition Ratings
- Excellent
- Good
- Fair
- Poor
- Very Poor
- Fail

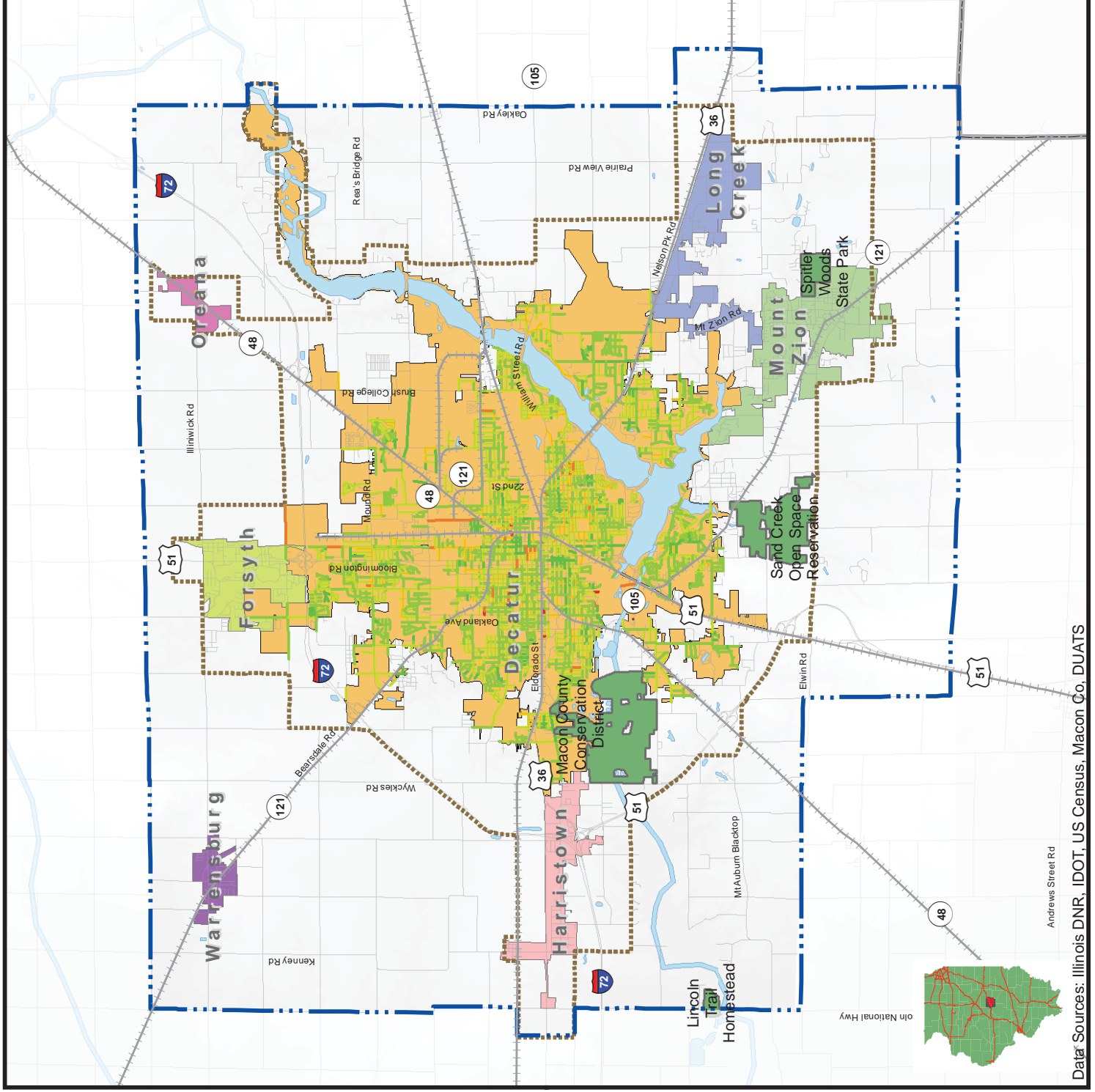
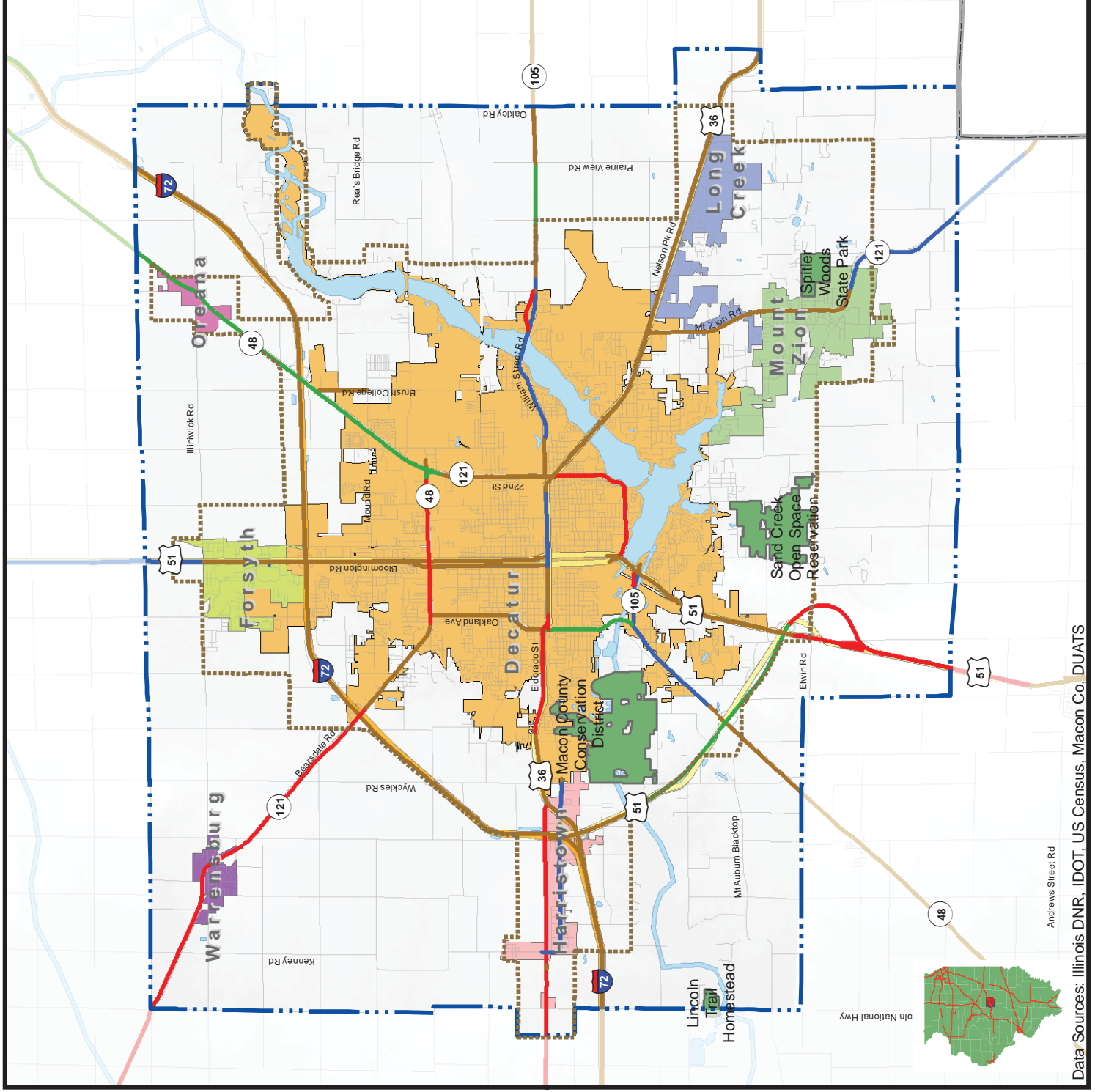
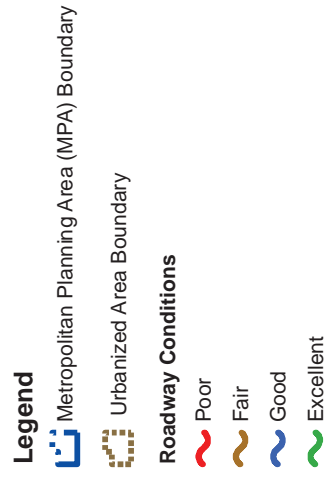




Figure 3-13  
Condition Rating Survey  
for IDOT Roadways  
2009-2013



## Bridges and Structural Condition

### Jurisdiction and Type

There are 250 numbered bridges or drainage structures within the MPA. These structures range in age from early steel truss bridges dating to about 1900 to modern reinforced concrete box culverts and bridges. The lengths range from the twenty-foot State minimum<sup>4</sup> up to more than two thousand feet.

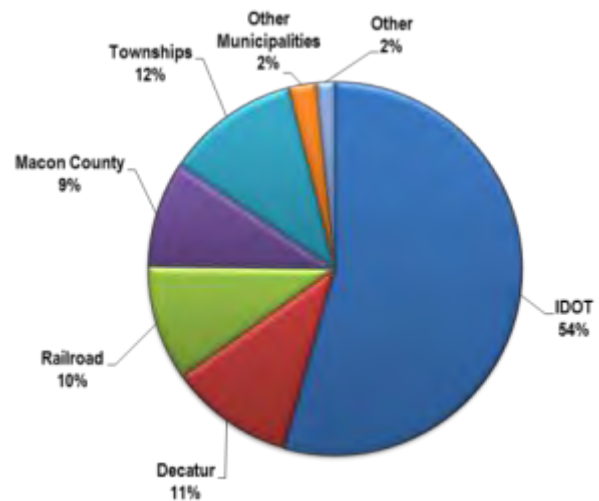
IDOT maintains 136 structures in the MPA, many of which were built in the late 1970's in conjunction with the I-72 and US-51 Bypass project. Macon County maintains 23 bridges within the MPA while various townships within the MPA maintain another 29 bridges. The City of Decatur has maintenance responsibility over 27 bridges. Within the MPA there are also 25 railroad bridges that are maintained by private rail companies.

Table 3-8 and Figure 3-14 display bridge structures by ownership / maintenance within the MPA.

**Table 3-8. Bridge Structures by Jurisdictional Ownership / Maintenance**

Ownership / Maintenance	Count	Percent of MPA Total
IDOT	136	54.4%
Macon County	23	9.2%
Unknown Municipality	1	0.4%
Decatur	27	10.8%
Forsyth	1	0.4%
Harristown	1	0.4%
Long Creek	2	0.8%
Mt Zion	2	0.8%
Railroad	25	10.0%
Township Blue Mound	2	0.8%
Township Decatur	1	0.4%
Township Hickory Point	4	1.6%
Township Illini	3	1.2%
Township Long Creek	6	2.4%
Township Mt Zion	4	1.6%
Township Oakley	1	0.4%
Township South Wheatland	3	1.2%
Township Whitmore	5	2.0%
County/Railroad	1	0.4%
Other/Harristown Township	1	0.4%
Other	1	0.4%
<b>Grand Total</b>	<b>250</b>	<b>100.0%</b>

**Figure 3-14. Percent Bridge Structure Jurisdictional Ownership / Maintenance**



<sup>4</sup> Twenty-foot bridge structure minimum, as defined by the State of Illinois. .

## Vertical Clearance

For both arterials and freeways, minimum clearance is 14- to 16-feet, and 17-feet for sign trusses and pedestrian overpasses. Collector and local streets have a 14-foot minimum clearance. The majority of bridges within the MPA meet the minimum standard vertical clearances.<sup>5</sup>

One exception is the City of Decatur maintained bridge located at Garfield over 22nd Street (058-6001). In addition, several railroad overpasses within the MPA do not meet the minimum vertical clearance standards. These include overpasses at:

- ▶ N. Main Street
- ▶ E. Condit Street
- ▶ W. Forrest Street
- ▶ N. Jasper Street
- ▶ Becker-E. Lake Shore Drive (near US-36)
- ▶ W. Main Street (near Oakland)
- ▶ N. Monroe Street
- ▶ E. Prairie Street
- ▶ N. Van Dyke Street

Structural condition ratings are based on criteria provided in the Illinois Structure Information System (ISIS) manual. To simplify the ratings, the ten general IDOT condition ratings were condensed into the following five rating categories:

- ▶ Excellent;
- ▶ Good;
- ▶ Fair;
- ▶ Poor; and
- ▶ Critical.

There are also several bridges in critical condition which may be eligible for funding from the federal Highway Bridge Replacement and Rehabilitation Program (HBRRP), which replaces the Highway Bridge Program (HBP) established under SAFETEA-LU. Using the previous program's evaluation criteria, these bridges meet each of the four previous criteria necessary to be considered for this program:

1. Public Roads that are longer than 20 feet;
2. Have a sufficiency rating of 80 or less;
3. Be considered structurally deficient or functionally obsolete; and
4. Cannot be rehabilitated or reconstructed or have received other federal funding for bridge improvements within the past 10 years.<sup>6</sup>

Bridge candidates that meet the above referenced criteria in the MPA include:

- ▶ **Tr-34(Lincoln Memorial)** at Willow Branch
- ▶ **Center Street** at Stevens Creek
- ▶ **Mound Rd** at Spring Creek
- ▶ **Meadowlark Drive** at Caterpillar Ditch
- ▶ **CH-26 (Country Club Rd)** at Lake Decatur
- ▶ **CH-24** at Lake Decatur

**Figure 3-15** displays bridge sufficiency ratings with critical condition bridges highlighted.

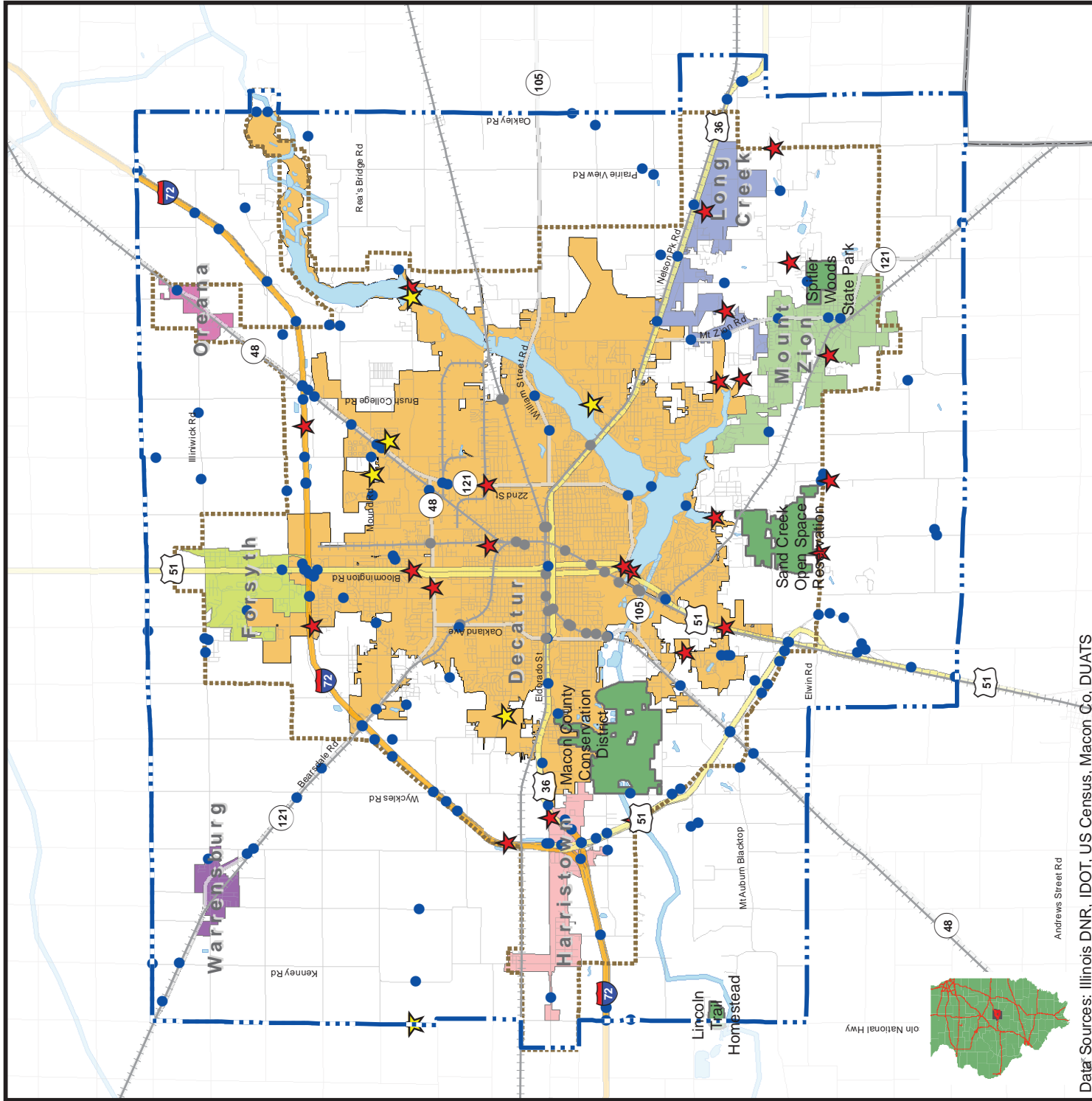
<sup>5</sup> United States Department of Transportation (USDOT) Federal Highway Administration (FHWA). Mitigation Strategies for Design Exceptions (July 2007); A Policy on Geometric Design of Highways and Streets, AASHTO (2007)

<sup>6</sup> United States Department of Transportation (USDOT) Federal Highway Administration (FHWA). Eligibility Criteria for Highway Bridge Program (HBP) Funds. <http://www.fhwa.dot.gov/indiv/hbrpeli.cfm> (2014)

Figure 3-15  
Bridge Conditions

Legend

- 20-Year MPA Boundary
- DUATS Urbanized Boundary
- Interstate
- US Highway
- State Highway
- Railroad
- Bridge Conditions (2013)**
  - N/A
  - Sufficiency Rating <80% - 50 Structures
  - Sufficiency Rating >80% - 171 Structures
  - HBP-Eligible/Critical Condition



## SYSTEM SAFETY

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### Overview of Federally-Administrated Safety Plans and Programs

Since its inception, and through the ISTEA, TEA-21, SAFETEA-LU, and now MAP-21 surface transportation acts, DUATS has maintained compliance with federal mandates by completing documents such as the Long Range Transportation Plan (LRTP), Transportation Improvement Program (TIP), and the Unified Work Program (UWP). With every reauthorization bill, however, new rules and practices are promoted which require DUATS and other government agencies to review their existing documents and make changes that renew compliance. Safety was one of the elements which needed to be revised according to MAP-21.

#### MAP-21

The most current transportation act, MAP-21, both continues and improves upon the provisions of SAFETEA-LU. As indicated in Chapter 2, a major focus of the MAP-21 is to streamline various programs and policies to improve the funding and administration of transportation projects. MAP-21 also continues to focus on safety, with updates to the Highway Safety Improvement Program (HSIP) aimed at requiring states to “report on the extent to which projects funded via the HSIP contribute to reducing the number and rate of fatalities and serious injuries on all public roads with, to the maximum extent practicable, a breakdown by functional classification and ownership in the State.”<sup>7</sup>

Importantly, MAP-21 requires that the reporting system used to record accidents, injuries, and fatalities be updated based on a uniform set of definitions that will comply with national performance measures. The act calls for a “significant reduction in traffic fatalities and serious injuries on all public roads.” Both IDOT and DUATS will be required to set targets for safety improvements and demonstrate progress toward target achievement.

MAP-21 also updated a list of 38 data elements that states can use in combination with crash data to process and identify safety issues and make informed decisions in conjunction with the mandates of the HSIP. These data elements are described in the Fundamental Data Elements (FDEs) to Improve the Highway Safety Improvement Program outlined in a 2011 Guidance Memorandum issued by FHWA.

In the previous 2035 LRTP update, DUATS adopted the following objectives to address safety in the MPA, which continue to be germane in the 2040 LRTP Plan:

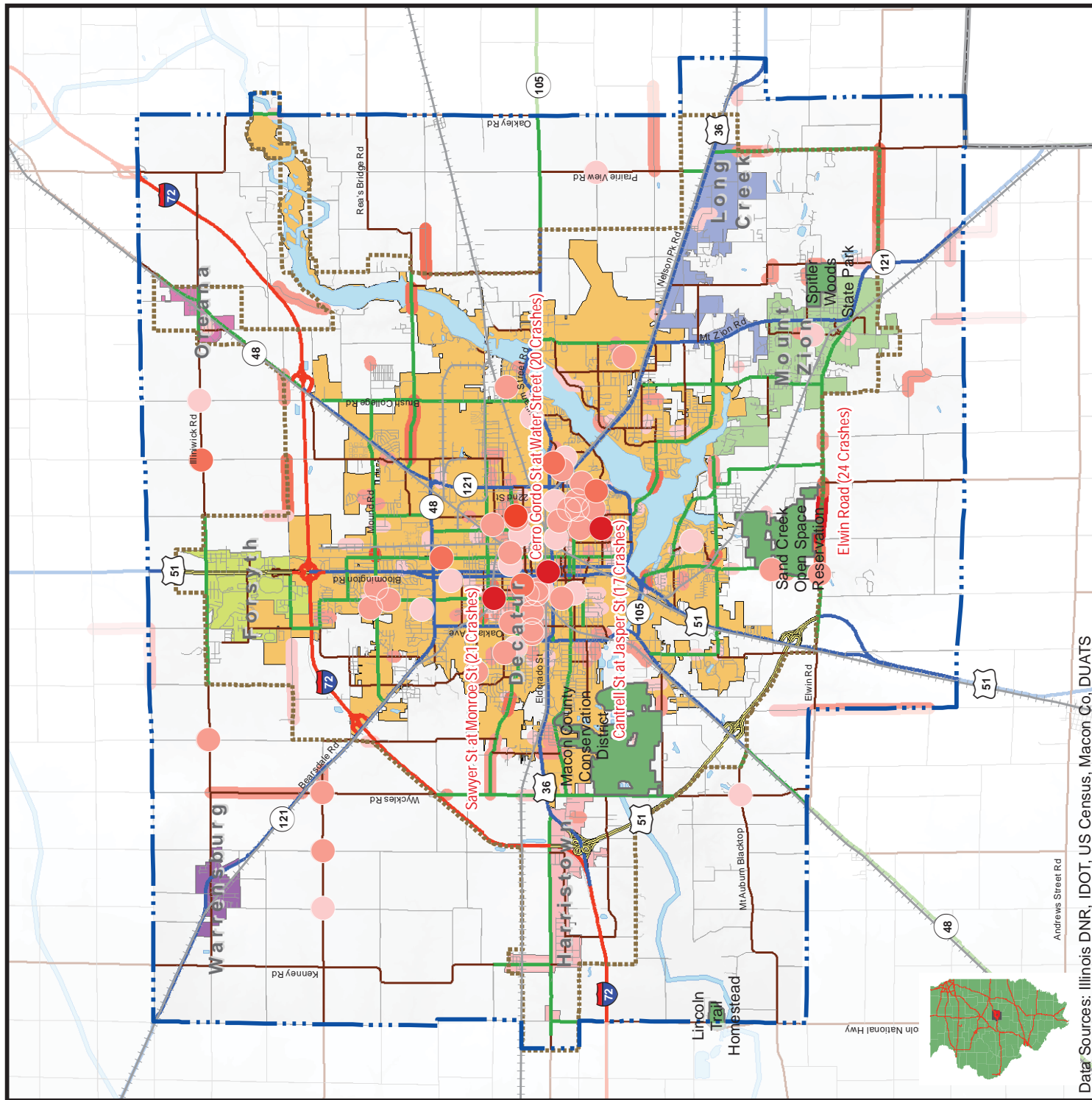
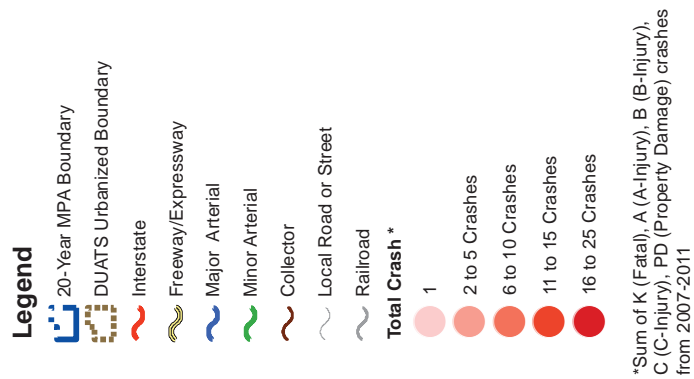
- ▶ Increase transportation system safety through improved facilities, vehicles, education, and training of the user,
- ▶ Promote implementation of transportation improvements that reduce crashes, and
- ▶ Identify and monitor/protect vital elements in the transportation network through the use of ITS advancements.

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<sup>7</sup> United States Department of Transportation (USDOT), Federal Highway Administration (FHWA), MAP-21 – Moving Ahead for Progress in the 21<sup>st</sup> Century. Highway Safety Improvement Program (HSIP) Questions & Answers. <https://www.fhwa.dot.gov/map21/qandas/qahsipreport.cfm> (2014)



**Figure 3-16  
Crash Totals  
(2007 Through 2011)**





## Safety Analysis

Using DUATS and IDOT data, accident locations were identified for intersections and roadway segments / spot locations within the MPA for the time period of 2007 through 2011. The accident / crash data is presented in the following sections. **Figure 3-16** on the previous page shows crash locations by highest rate in the MPA for the time period of 2007 to 2011. The symbols for total crashes used in this map are determined by a weighted average of each of fatality, Type A, and Type B injury types using hundred million vehicle miles traveled (HVMVT) values.

### All Crash Locations

**Table 3-9** provides the total number of fatalities, serious injuries, and rate of fatalities per HVMVT for Macon County and four other peer counties in Illinois. **Table 3-10** summarizes all crashes in the MPA for this time period by type. The classification system for injuries (used by both IDOT and DUATS) is as follows:

- ▶ **Type A** | Includes crashes where a person suffered a serious injury (requiring immediate medical care);
- ▶ **Type B** | Includes crashes where a person suffered a minor injury; and,
- ▶ **Type C** | Includes crashes where an injury was reported but not substantiated.

Note that many of the individual incidents that have been summarized in these tables are associated with other injury types and / or property damage claims. This simply signifies that more than one person and / or vehicle was involved in a crash.

Overall, Macon County features a relatively high number of fatalities, 1.7 HVMVT, when compared with similar sized communities depicted in **Table 3-9**. For example, this is about double the rate of Champaign and Peoria Counties. The same holds true for serious (Type A) injuries.

In the MPA, most crashes involved only property damage (nearly 10,000 for the five year period) and a lesser number involving non-serious injuries (roughly 1,200 for each of Types B and C). About three quarters of fatalities and three fifths of serious (Type A) injuries in Macon County occurred within the MPA area; this is significantly less than the nine tenths ratio of population between the two areas. These ratios indicate that a higher proportion of serious crashes are occurring along rural roads outside of the MPA (and urbanized) area. Consistent with IDOT's goal of achieving zero fatalities, DUATS is committed to improvements that are aimed at enhancing safety for all transportation users. Consistent with MAP-21, reducing fatality and Type A injuries are a specific area for improvement.

**Table 3-9. Comparison of Crash Types for Macon County and Peers (2007 – 2011)**

Community	Fatalities	Type A (Serious Injury)	Fatality Rate (per Hundred Million VMT)*	Type A Injury Rate (per Hundred Million VMT)*
Macon County	44	732	1.7	28.1
Champaign County	85	1,279	0.9	14.2
Sangamon County	109	1,452	1.1	14.0
Peoria County	76	1,147	0.9	13.9
Kankakee County	66	818	1.4	17.4

\* Average for 5-year period

**Table 3-10. Crash Types in the MPA (2007 – 2011)**

Fatalities	Type A (Serious Injury)	Type B (non-Serious Injury)	Type C (Unsubstantiated Injury)	Property Damage Claims
30	434	1,144	1,216	9,949

### Intersection / Spot Location Analysis

**Table 3-11** displays the intersection and spot crash locations among the top five percent of intersections (those with the most frequent number of crashes) for the period 2007 to 2011. The order of the ranking is not an indication of the relative danger of any particular location, rather, rows are ordered by crash severity (Fatality, Type A, etc). Conducting further analysis on this dataset could aid DUATS in determining locations that pose a more significant risk for an accident which may warrant some form of improvement. High accident locations by intersection are shown in **Figure 3-17**.

### Segment Analysis

Roadway segments and intersection were reviewed in 2014 for obvious changes in frequency, patterns or other characteristics. The overwhelming majority of crashes occurred within 50-feet of intersections. There were a number of segments used by IDOT that have changed from those used in the 2030 LRTP, which makes direct comparison at times difficult. As a result of the changes in segment parameters and the fact that most crashes happen within 50-feet of intersections, DUATS presents the data in relation to both intersections and segments.

The top five percent of accident locations by roadway segment are shown in **Figure 3-18** for the 2007 to 2011 time period.

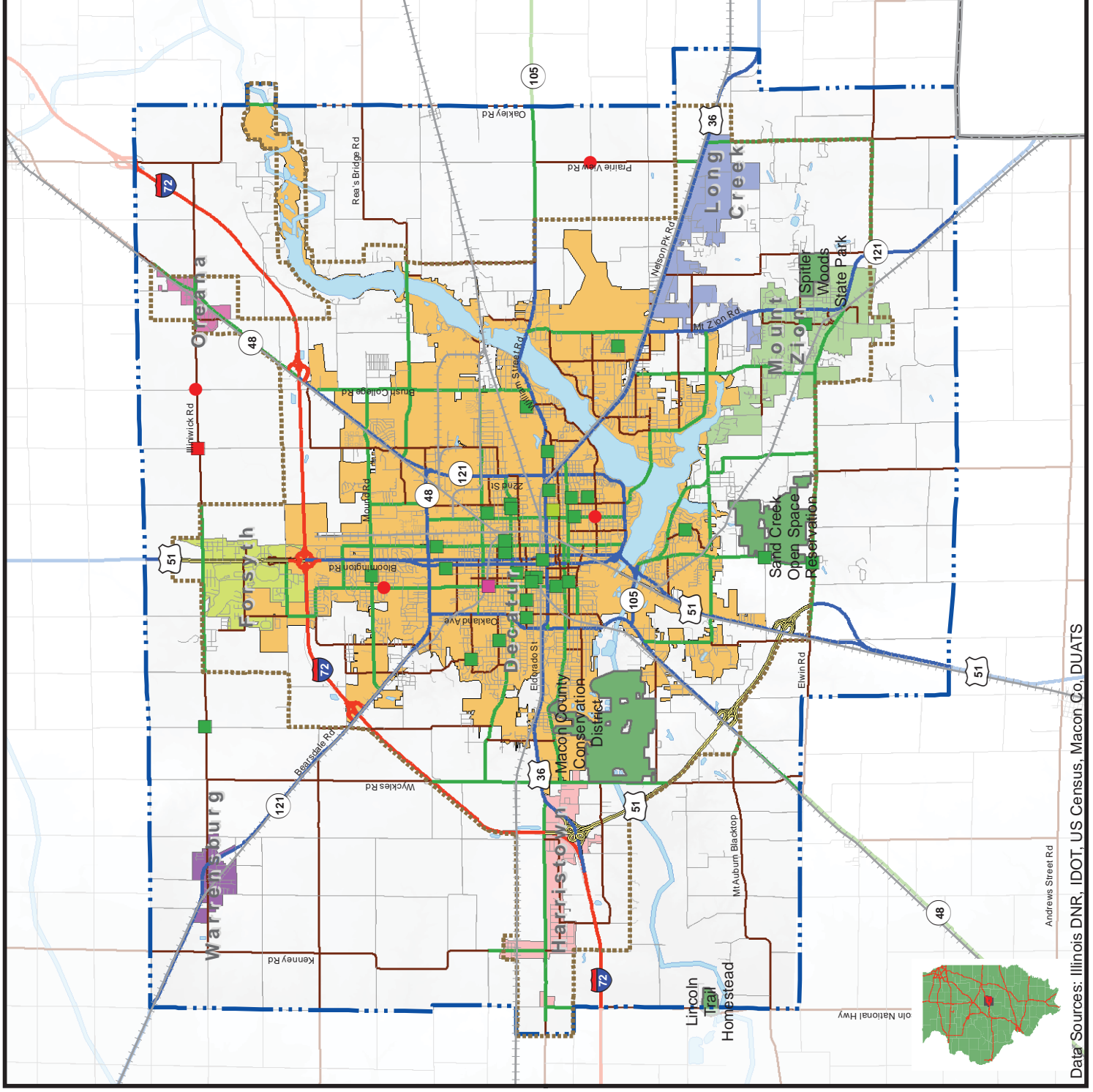
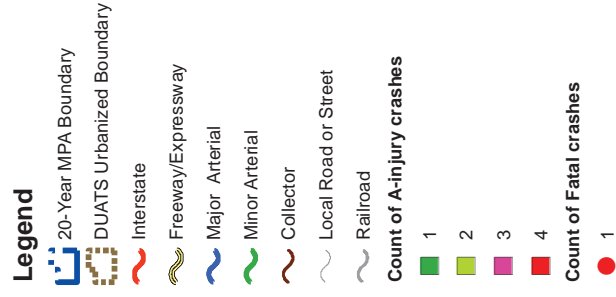
**Table 3-11. Top Five Percent of Accident Locations by Fatality, Injury Type, and Property Damage  
(2007 to 2011)**

Roadway #1	Roadway #2	Fatality	Serious Injury (Type A)	Non- Serious Injury (Type B)	Possible / Unverified Injury (Type C)	Property Damage
BRUSH COLLEGE RD	ILLINIWICK RD	1	0	0	0	0
CANTRELL ST	CANTRELL ST	1	0	2	1	13
MACARTHUR RD	KAREN DR	1	0	0	0	2
PRAIRIE VIEW RD	RIDGE RD	1	0	0	0	0
ILLINIWICK RD	GREENSWITCH RD	0	4	2	0	3
SAWYER ST	SAWYER ST	0	3	4	4	10
WILLIAM ST	STONE ST	0	2	0	0	1
17TH ST	17TH ST	0	1	1	0	1
25TH ST	NORTH ST	0	1	0	1	4
35TH ST	35TH ST	0	1	0	0	0
AIRLANE DR	BEACON DR	0	1	0	1	0
BAY SHORE DR	BAY SHORE DR	0	1	0	0	0
CERRO GORDO ST	CERRO GORDO ST	0	1	1	1	17
COLLEGE ST	COLLEGE ST	0	1	0	0	1
DAMON AVE	DAMON AVE	0	1	0	0	0
DIVISION ST	TAYLOR AVE	0	1	1	0	2
ELWIN RD	ELWIN RD	0	1	1	0	2
GRAND AVE	CHARLES ST	0	1	1	1	1
GREEN ST	GREEN ST	0	1	0	0	0
ILLINIWICK RD	ILLINIWICK RD	0	1	0	0	2
KING ST	KING ST	0	1	0	0	3
LOGAN ST	LOWBER ST	0	1	0	0	1
MARIETTA ST	HILL AVE	0	1	0	0	1
MONROE ST	WILLIAM ST	0	1	1	1	2
MORGAN ST	CENTER ST	0	1	0	0	2
MT GILEAD RD	FRANKLIN STREET	0	1	0	0	1
NORTH ST	19TH ST	0	1	0	0	0
SUMMIT AVE	RAVINA PARK RD	0	1	0	0	1
UNION ST	UNION ST	0	1	0	0	5
VAN DYKE ST	VAN DYKE ST	0	1	2	1	1
WARREN ST	WARREN ST	0	1	0	0	0
WHITMER ST	17TH ST	0	1	0	1	3
WOODFORD ST	WOODFORD ST	0	1	2	2	9
WOODLAND DR	NORTH DR	0	1	0	0	0
CLAY ST	19TH ST	0	0	2	0	3

GULICK AVE	CENTER ST	0	0	2	0	2
MARIETTA ST	UNIVERSITY AVE	0	0	2	0	0
MOORE ST	MOORE ST	0	0	2	0	5
17TH ST	17TH ST	0	0	1	3	1
22ND PL	22ND PL	0	0	1	0	1
26TH ST	26TH ST	0	0	1	0	0
CALHOUN ST	CALHOUN ST	0	0	1	0	0
COLLEGE ST	COLLEGE ST	0	0	1	0	0
HICKORY ST	JAMES ST	0	0	1	0	2
MC CLELLAN AVE	MC CLELLAN AVE	0	0	1	0	0
MONTGOMERY LN	ARTHUR DR	0	0	1	0	2
PACKARD AVE	COLLEGE ST	0	0	1	0	1
PARK RD	GLASGOW RD	0	0	1	0	1
PARK RD	WEST ST RD	0	0	1	0	0
N / A	24TH ST	0	0	1	0	1
N / A	VAN BUREN AVE	0	1	1	1	5
N / A	GREENRIDGE DR	0	1	0	0	4
N / A	JOHNS AVE	0	1	0	0	3
N / A	ILLINOIS ST	0	0	1	0	0
N / A	BARNES DR	0	0	1	0	0
N / A	WYCKLES RD	0	0	2	0	3

SOURCE: IDOT and DUATS

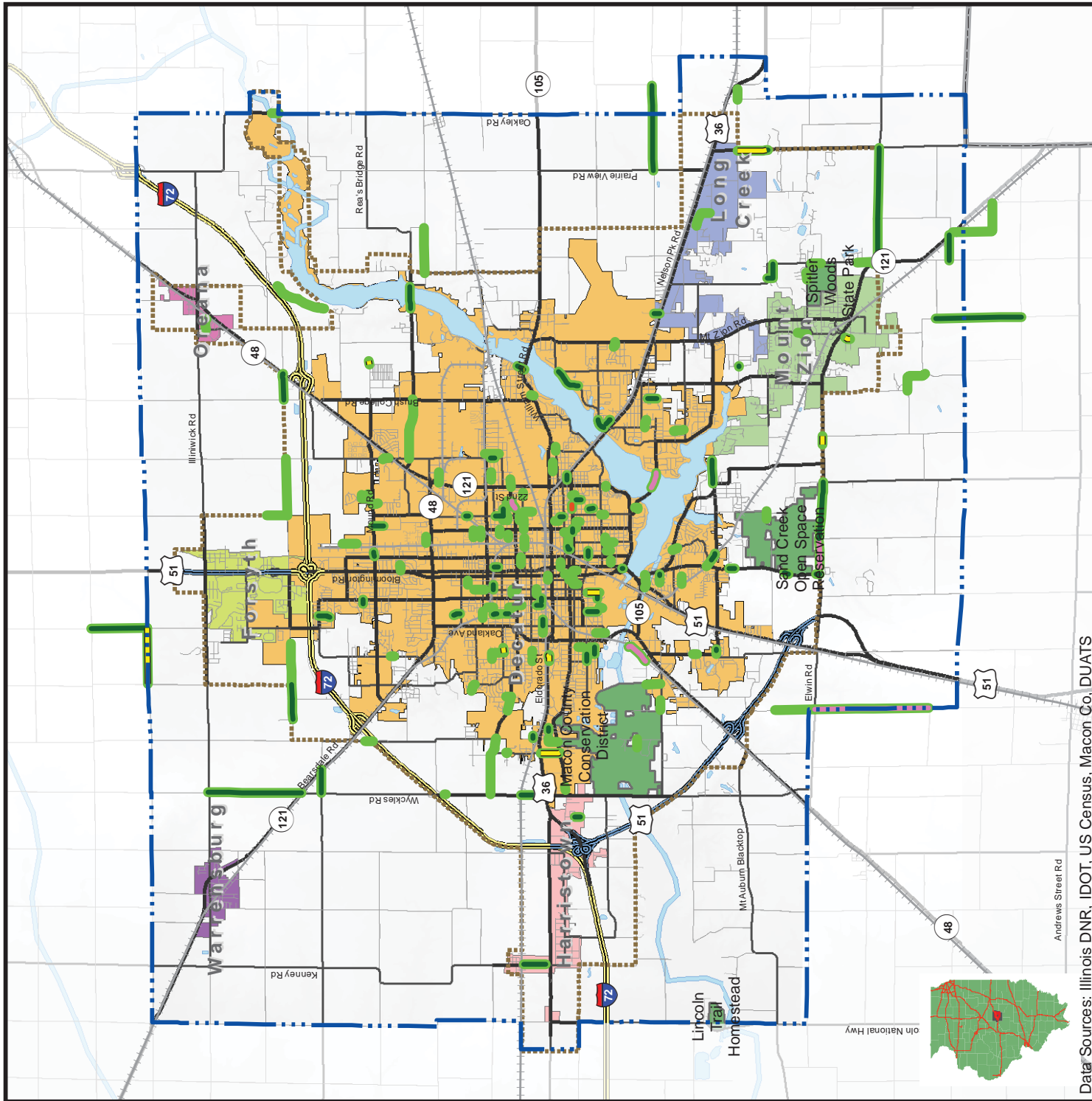
**Figure 3-17**  
**High Accident Intersections**  
**Exceeding 5% of**  
**Accident Totals**  
**(2007 Through 2011)**



**Figure 3-18**  
**High Accident Segments**  
**Exceeding 5% of**  
**Accident Totals**  
**(2007 Through 2011)**

**Legend**

- 20-Year MPA Boundary
- DUATS Urbanized Boundary
- Interstate
- Freeway/Expressway
- Arterials
- Collector
- Local Road or Street
- Railroad
- Five Percent Segment Flag
- Count of Fatal Crash Segments
- Count of A-injury Crash Segments
- 1
- 2
- 3





## Establishing Safety Targets

IDOT has established specific targets for Macon County and DUATS relating to roadway fatalities and serious injuries. These targets are set by year from 2012 through 2045 and are based on a six percent decrease per year, which reflects the five year rolling average for Macon County.

**Table 3-12** displays the total number of fatalities and serious injuries in Macon County by roadway type for the years 2003 to 2011, as well as several categories of rolling averages based on this data. This information is the basis for **Figure 3-19**, which displays actual (2007 through 2011) and targeted (2012 through 2045) number of fatalities for Macon County. This analysis can be incorporated into DUATS' annual accident counting procedures to fulfill the requirements of MAP-21.

**Table 3-12. Fatalities and Serious Injuries for Macon County (2003 to 2011)**

Performance Measures	2003	2004	2005	2006	2007	2008	2009	2010	2011
Number of fatalities (Total)	11	13	16	10	11	10	7	4	12
Number of fatalities (State Routes)	4	4	8	3	6	6	2	2	4
Number of fatalities (Local Routes)	7	9	8	7	5	4	5	2	8
Number of serious injuries (Total)	230	224	180	173	168	158	142	164	100
Number of serious injuries (State Routes)	101	106	98	74	84	83	75	82	48
Number of serious injuries (Local Routes)	129	118	82	99	84	75	67	82	52
Fatality rate (per HMVMT)	2.1	2.5	3.1	1.9	2.1	1.9	1.3	0.8	2.3
Serious injury rate (per HMVMT)	44.2	43.0	34.6	33.2	32.3	30.4	27.3	31.5	19.2
5-Year Rolling Avg. Number of fatalities					12.2	12.0	10.8	8.4	8.8
5-Year Rolling Avg. Number of serious injuries (Type A)					195.0	180.6	164.2	161.0	146.4
5-Year Rolling Avg. Fatality rate (per Hundred Million VMT)	N / A				2.3	2.3	2.1	1.6	1.7
5-Year Rolling Avg. Serious injury rate (per Hundred Million VMT)					37.5	34.7	31.5	30.9	28.1

SOURCE: IDOT

**Figure 3-19. Macon County Performance Targets (2007 to 2045)**



SOURCE: IDOT

## PUBLIC TRANSPORTATION OPERATIONS

Transit service within the DUATS MPA is operated by the City of Decatur, Decatur Public Transit System (DPTS). Since September 2001, two in-depth transit studies focusing on the DPTS fixed-route service and paratransit service have been completed. As a result of these studies many changes, including a realignment of the fixed-route system, have been implemented. The following describes the existing transit operations within the DUATS MPA.

### System Overview

The DPTS contracts with a management firm, MV Transportation, Inc., which employs approximately 70 employees who operate the transit system. Of this total, there are approximately 45 full-time and part-time bus drivers, six van drivers, six mechanics, and additional personnel including managers and office staff. The DPTS operates fifteen fixed bus routes and complementary paratransit service for people with disabilities, serving primarily the City of Decatur with limited service to most of the Village of Forsyth and portions of the Villages of Harristown and Long Creek. The DPTS also operates one trolley route which circulates around downtown Decatur. The photograph below shows a typical DPTS fixed-route service vehicle.

The DPTS fixed-route service operates on a pulse system: all of the buses arrive at the transit center at the same time, to allow passengers to transfer between bus routes. With only a few exceptions, all of the bus routes "pulse" at 15 and 45 minutes past each hour throughout the service day. The transit system operates Monday through Friday from 5:30 a.m. to 7:15 p.m. and Saturday from 6:15 a.m. to 7:15 p.m. There is no service currently provided on Sunday and on six major holidays.

DPTS also provides complementary paratransit services to individuals with disabilities who are unable to use the fixed-route system. This door-to-door service uses seven wheelchair accessible vans operated by the DPTS and a subsidized taxicab and livery program. Paratransit service is available during the same hours and days of operation as the fixed-route system, but operates on a demand-responsive basis. The area served is all of the City of Decatur plus areas outside of the City that are within three quarter-miles of a fixed bus route.



Typical DPTS fixed-route service vehicle, a 30 foot long low-floor bus

## Facilities

In 2002, the DPTS opened the Senator Severns Transit Center, located on the west side of Jackson Street, between Prairie Street and William Street. This 5,000 square foot, multi-modal facility serves as the primary transfer point for passengers using the fixed-route system. The transit center includes a number of passenger amenities such as an indoor waiting area, restrooms, pay-phone and vending area. The transit center also provides full-time, on-site DPTS employees who can assist passengers with route and schedule information. Transit users are also able to purchase transit tokens, passes and punch cards on-site. The transit center is intended to be used as a multi-modal facility, as a drop-off and pick-up point for a variety of privately operated services including:

- ▶ Taxicab operators and livery service operators;
- ▶ Inter-city bus lines, such as Greyhound; and
- ▶ Shuttle services to Amtrak stations and airports throughout central Illinois.



Senator Severns Transit Center



DPTS Administrative Office Building

The DPTS Administrative Office Building and Maintenance Garage is located at 555 East Wood Street in Decatur. The facility was constructed in 1996. The bus storage building at 100 Industry Court, located directly behind the Administrative Office Building, was constructed in 1980.

## Transit Services

The DPTS operates fixed-route transit routes, including one downtown trolley route, and complementary paratransit service for people with disabilities. The following sections describe these services in greater detail.

### Fixed-route Bus Services

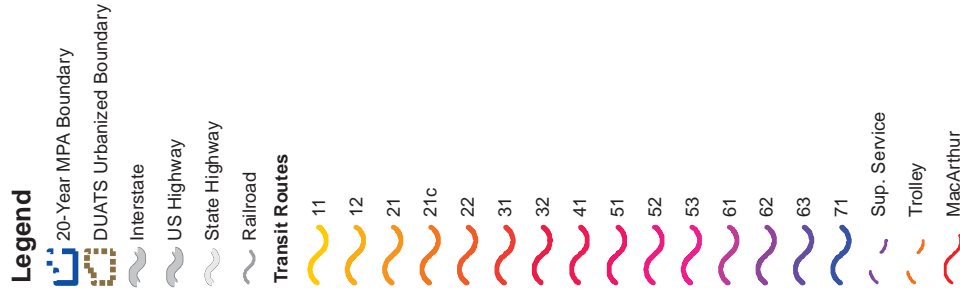
All of the DPTS fixed bus routes are located within the City of Decatur with one exception: US-51, Water St - Hickory Point Mall. This route serves the Hickory Point Mall in the Village of Forsyth, under a formal agreement between the City of Decatur and the Village of Forsyth. Major destinations and service areas for the 15 DPTS bus routes are identified in **Table 3-13**. The fixed-route service is displayed in **Figure 3-20**.

**Table 3-13 | DPTS Fixed-route Major Destinations / Service Areas**

No.	Route	Service Areas
11	<b>Martin Luther King - Meadowlark</b>	Martin Luther King Jr. Dr -- north of Eldorado / Wabash Crossing / K-Mart / County Market / Driver's License Facility / Wellington Way and Portage Place Apartments / Decatur Correctional Center / Meadowlark Subdivision
12	<b>Airport - Wal-Mart East</b>	Thomas Jefferson School/ Baum School / East Eldorado Street / St. Patrick's Elementary School / Pines Shopping Center / Decatur Airport / Macon County Historical Society Museum / Wal-Mart Plaza East
21	<b>Monroe - Wal-Mart North</b>	Decatur Memorial Hospital / Spring Creek Plaza / Aldi's / Social Security Office / Wal-Mart Plaza North / Shadow Lane / Bristol Gardens
21c	<b>Monroe - Wal-Mart North via McKinley &amp; N. Taylor / W. Mound</b>	Decatur Memorial Hospital / N. Oakland Ave. / Aldi's / Social Security Office / W. Mound Rd. / Wal-Mart Plaza North / Shadow Lane / Bristol Gardens
22	<b>St. Mary's Circulator</b>	E. Eldorado Street / Tate & Lyle / Pine's Shopping Center / E. Wood Street / Eisenhower High School / St. Mary's Hospital
31	<b>W. Grand - Ravina Park</b>	Van Dyke Street / Bintliger's / Ravina Park Subdivision / MacArthur High School
32	<b>South Shores</b>	South Water Treatment Plant / South Shores Shopping Center / Imboden Creek Nursing Home / South Shores School / Holy Family School
41	<b>E. Grand - Richland Community College</b>	Senior Center / DMH Occupational Health / ADM Corporate Office / Richland Community College / N. 22nd Street -- north of Grand
51	<b>Jasper - Park 101</b>	Wabash Crossing / Municipal Services Center / K-Mart / County Market / Driver's License Facility / Park 101 / Macon Resources / Caterpillar Inc.
52	<b>West Main - Wyckles Road</b>	Millikin University / West End / W. Main St. / MacArthur High School / Fairview Plaza / Fairview Park / Decatur Conference Center and Hotel
53	<b>Enterprise - Taylor Rd</b>	Martin Luther King Jr. Dr. south of Eldorado / Illinois Power Plaza / South Shores Shopping Center / WAND - TV / Enterprise School / Decatur Township Office
61	<b>Water - Hickory Point Mall</b>	Insight Cable Office / CHIC Clinic / Brettwood Village Shopping Center / Wal-Mart North / Hickory Point Mall / Forsyth
62	<b>Oakland</b>	Millikin University / The Woods Apartments / MacArthur High School / Fairview Plaza
63	<b>Decatur</b>	W. Decatur St. / The DISC / Millikin University / MacArthur High School / Fairview Plaza
71	<b>Lost Bridge - Wal-Mart East</b>	Eisenhower High School / St. Mary's Hospital / Airport Plaza (Kroger) / Wal-Mart Plaza East

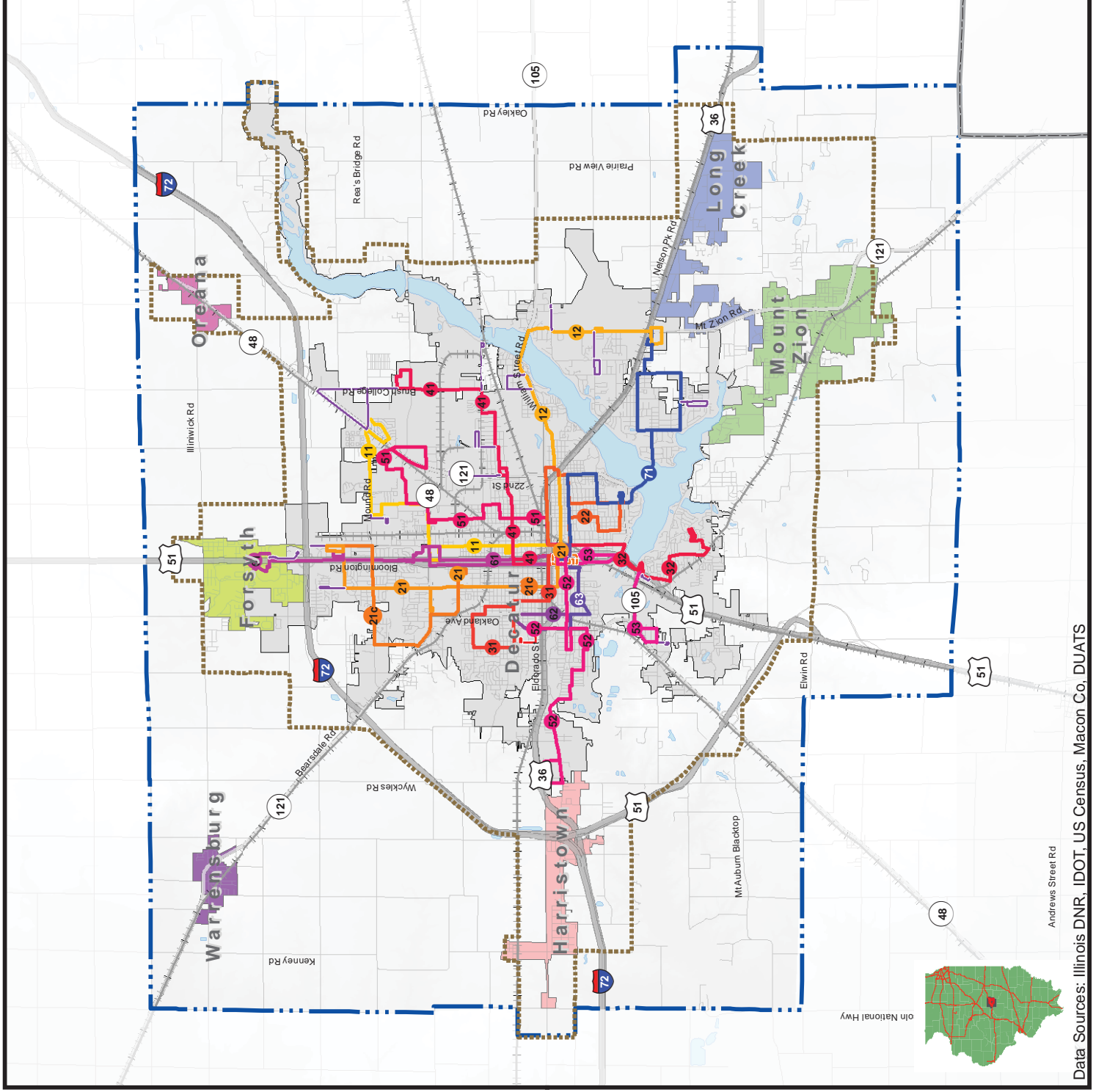
SOURCE: Decatur Public Transit System, August, 2013

Figure 3-20  
Decatur Public  
Transit System



2.5

Miles





### Trolley Service

The DPTS operates one trolley route that serves downtown Decatur. The Downtown Trolley route has been in service for more than ten years and transports approximately 30,000 riders per year. In 2012 the Downtown Trolley route carried more passengers than the #32 South Shores route and the #53 Enterprise – Taylor Rd. route. One trolley operates along the route which starts at the transit center on the hour, 15 minutes, 30 minutes, and 45 minutes past the hour. The Downtown Trolley service begins at 7:00 a.m. on weekdays and at 8:00 a.m. on Saturdays. The last trip of the day starts at 6:00 p.m. The Downtown Trolley provides service to all major downtown parking lots and garages, and passes close by every downtown location. There is no charge to ride the Downtown Trolley.

### Operation Uplift

All DPTS fixed-route buses and trolleys are wheelchair accessible. However, the DPTS also provides Operation Uplift: complementary paratransit services for individuals with disabilities who are unable to use the fixed-route bus system because of their disabilities. This paratransit service uses wheelchair accessible vans operated by the DPTS as well as subsidized taxicabs and livery service vehicles, under a formal agreement with one or more local, private companies. The rider may choose to use either the DPTS vans or the private taxis or livery vehicles. The fares, rules and regulations of Operation Uplift apply equally to all service providers.

Paratransit service is available during the same hours and days of operation as the fixed-route system, but operates on a demand-responsive, door-to-door basis. The geographic service area for Operation Uplift is all of the City of Decatur plus areas outside of the City that are within 3/4 mile of a DPTS bus route. Individuals using Operation Uplift pay a one-way fare of \$2.00. Personal care attendants or escorts may accompany an eligible rider. Personal care attendants may ride free of charge while escorts are required to pay \$2.00 per one-way trip.

Individuals must apply for eligibility for Operation Uplift and submit proof of their disability. The following are categories of people who are eligible for Operation Uplift:

- ▶ Persons who are unable to board, ride, or disembark from a bus, even if the bus is wheelchair or handicapped accessible;
- ▶ Persons who cannot use buses without lifts or other accommodations. These persons are eligible for Operation Uplift only if accessible fixed-route buses are not available on the route on which they need to travel;
- ▶ Persons with specific impairments or related conditions who cannot travel to a boarding location or from a disembarking location to their final destination; and,
- ▶ In general persons with disabilities who are presently riding fixed-route buses are not eligible for Operation Uplift.



## Fare Structure

The current DPTS fixed-route adult bus fare is \$1.00. The last fare increase occurred on January 1, 2010, when the DPTS implemented a 25 cent fare increase from the previous adult fare of 75 cents. Youths, ages five through eighteen and those with an approved high school card, ride for a reduced fare of 80 cents. Individuals with disabilities and senior citizens 65 years and older are eligible to ride the fixed-route bus system for a reduced fare of 50 cents. Senior citizens and individuals with disabilities who are eligible for the State's Circuit Breaker program and children less than five years of age may ride for free. Free transfers are issued for connections with other DPTS routes. **Table 3-14** summarizes the current DPTS fare structure for the fixed-route buses and for Operation Uplift.

**Table 3-14. DPTS Fare Structure**

TYPE of FARE	CASH	TOKENS	PUNCH CARDS <sup>1</sup>	MONTHLY PASSES <sup>2</sup>	SATURDAY PASSES <sup>3</sup>
<b>BUS FARES</b>					
Adult (over 18 years of age)	\$1.00	\$1.00	\$18.40	\$36.80	\$2.00
Youth (5 – 18 years of age and those with an approved high school card)	\$.80	\$.80	\$14.70	\$29.45	\$1.60
Child (under 5 years of age, when accompanied by a fare paying passenger)	FREE	N / A	N / A	N / A	N / A
Disabled Passenger (with Medicare Card or DPTS ID card)	\$.50	\$.50	\$9.20	\$18.40	\$1.00
Senior Citizen (65 years of age or older with ID card)	\$.50	\$.50	\$9.20	\$18.40	\$1.00
Disabled or Senior Citizen with Circuit Breaker ID card	FREE	N / A	N / A	N / A	N / A
Transfers	FREE	N / A	N / A	N / A	N / A
<b>OPERATION UPLIFT FARES</b>					
Certified Disabled Rider with DPTS ID card	\$2.00	N / A	\$36.80	\$73.60	\$4.00
Escorts (5 years of age and older, if space is available)	\$2.00	N / A	N / A	N / A	N / A
Escorts (under 5 years of age, if space is available)	FREE	N / A	N / A	N / A	N / A
Personal Care Attendant (PCA)	FREE	N / A	N / A	N / A	N / A

<sup>1</sup> Good for 20 rides.

<sup>2</sup> Unlimited rides, good only in the month of issue.

<sup>3</sup> Unlimited rides, good only for one Saturday.

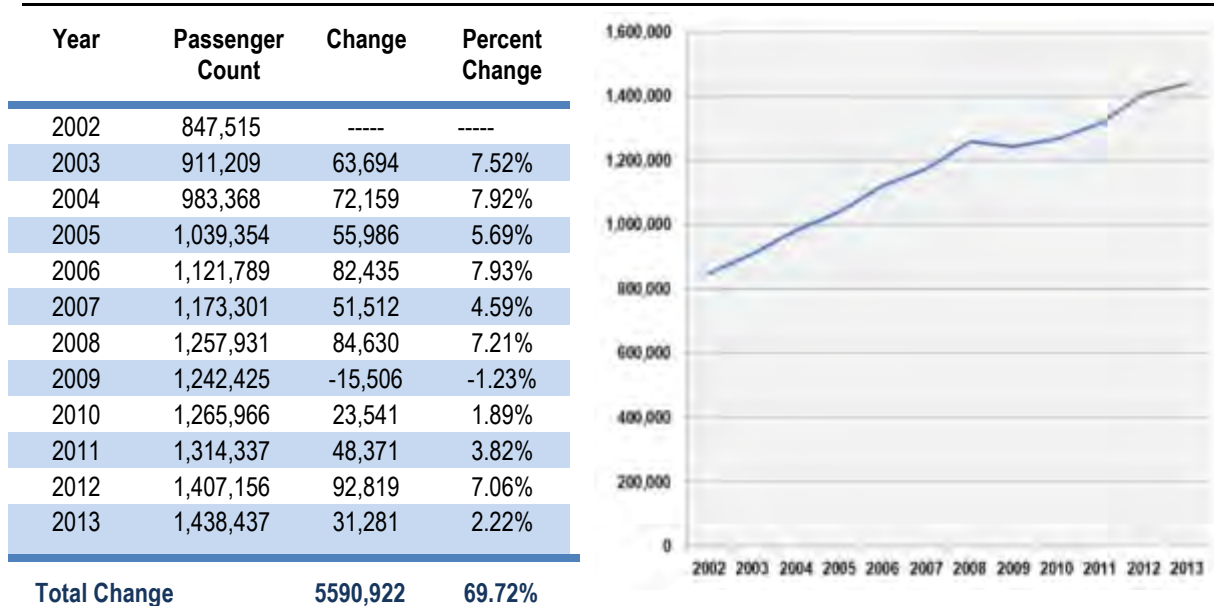
SOURCE: Decatur Public Transit System, August, 2013

## Operational Characteristics

### Ridership

Transit ridership in the DUATS planning area has been steadily increasing over the past decade, reversing a downward trend prior to 2002. The recent 1.4 million passengers reported in 2013 account for a 70 percent increase from the roughly 850,000 passengers in 2002 while the average annual increase in ridership since 2002 has been about five percent. This increase occurred since DPTS implemented a comprehensive realignment of its fixed-route bus system in 2002, based on recommendations contained in the Planning Study. These changes went into effect soon after the DPTS received 13 new buses, and at the same time that the Senator Severns Transit Center was opened. For several years leading up to 2002 ridership had been decreasing. After improvements were implemented, ridership has grown significantly and nearly continuously. **Figure 3-21** shows the number of bus riders by year, the absolute change, and the year-over-year percent change, for calendar years 2002 through 2013.

**Figure 3-21. DPTS Bus Ridership by Year - 2002 through 2013**



SOURCE: Decatur Public Transit System, August, 2013

The paratransit services of Operation Uplift, as previously described, include trips provided by DPTS vans and by private taxicabs and livery vehicles. Ridership for calendar years 2002 through 2013 is provided in **Table 3-15**. The figures are broken down by vans and by taxicabs/livery vehicles. Ridership on Operation Uplift was not affected by the changes implemented in the fixed-route bus system in 2002.

In 2002 the DPTS vans carried 8,743 riders, compared to 45,162 passengers in private taxicabs under Operation Uplift. By 2013, DPTS vans carried 18,167 riders. This is an increase of 108 percent from 2002. During that same period taxi/livery ridership dropped from 45,162 down to 17,067 riders (up from only 5,572 riders in 2012), showing a 62.2 percent decrease from 2002 to 2013.

The DPTS staff has concluded that the large shifts in DPTS van ridership are the result of improvements in the quality and quantity of service provided by the DPTS vans, such as the increase in the number of vans from four in 2002 to seven in 2012. The significant decrease in taxi/livery ridership over the years is indicative of the generally poor quality of service provided by the various private companies, and also relates to the number of companies that have started and then ceased operations in Decatur. Note that from mid-October, 2011, through February, 2012, there were no taxicab companies or livery / limousine services carrying passengers in Decatur.

**Table 3-15. Operation Uplift Ridership by Year - 2002 through 2012**

Year	DPTS Vans	Taxicabs/ Livery Vehicles	Total	Change	Percent Change
2002	8,743	45,162	53,905	----	----
2003	12,372	40,881	53,253	-652	-1.21%
2004	14,290	34,989	49,279	-3,974	-7.46%
2005	17,416	22,146	39,562	-9,717	-19.72%
2006	19,445	15,427	34,872	-4,690	-11.85%
2007	21,095	12,956	34,051	-821	-2.35%
2008	20,464	13,939	34,403	352	1.03%
2009	21,968	12,174	34,142	-261	-0.76%
2010	22,140	10,130	32,270	-1,872	-5.48%
2011	21,561	5,935	27,496	-4,774	-14.79%
2012	21,860	5,572	27,432	-64	-0.23%
2013	18,167	17,067	35,234	7,802	28.44%
<b>Total Change</b>				<b>-18,671</b>	<b>-34.64%</b>

SOURCE: Decatur Public Transit System, August, 2013

### Vehicle Fleet

The DPTS currently has 22 buses and two trolleys for fixed-route service, and seven vans for paratransit service. The Transit System's revenue vehicles are usually purchased using nearly 100 percent state and federal grant funds.

Under Federal Transit Administration (FTA) regulations, the 13 buses placed in service in 2001 were eligible for replacement in 2013. The actual replacement year depends on the availability of matching state and / or federal funds and the amount of lead time the manufacturer needs to build and deliver the vehicles. The lead time for new buses is from 12 to 18 months. The DPTS took delivery of five new buses in 2009, and four new buses in 2010. When those nine buses went into service, all of the 1993 buses were eliminated from service. The DPTS is currently working on state and federal grants for the purchase of ten new buses, to replace the same number of 2001 buses. Delivery of those buses is expected in early 2015.

The DPTS fleet of seven wheelchair accessible vans was acquired during each of 2003, 2008, 2010, 2011, and 2013. FTA regulations allow the replacement of vans after only five years. So the 2008 vans were eligible for replacement in 2013 and the two vans put into service in 2013 will be eligible for replacement in 2018. Similar to the rest of the fleet, the actual replacement year depends chiefly on the availability of funds, but the lead time for new vans is only about four to six months. **Table 3-16** displays the current DPTS vehicle fleet inventory.

Table 3-16. DPTS Vehicle Fleet Inventory (2013)

Fleet #	Year in Service	Make	Model / Type	Length	Expected Life	FTA Eligible Replacement
<b>Fixed-route</b>						
1921	2001	Dbl K	Trolley Replica	28'	12 Yrs	2013
1922	2001	Dbl K	Trolley Replica	28'	12 Yrs	2013
9101	2001	Gillig	Low Floor	30'	12 Yrs	2013
9102	2001	Gillig	Low Floor	30'	12 Yrs	2013
9103	2001	Gillig	Low Floor	30'	12 Yrs	2013
9104	2001	Gillig	Low Floor	30'	12 Yrs	2013
9105	2001	Gillig	Low Floor	30'	12 Yrs	2013
9106	2001	Gillig	Low Floor	30'	12 Yrs	2013
9107	2001	Gillig	Low Floor	30'	12 Yrs	2013
9108	2001	Gillig	Low Floor	30'	12 Yrs	2013
9109	2001	Gillig	Low Floor	30'	12 Yrs	2013
9110	2001	Gillig	Low Floor	30'	12 Yrs	2013
9111	2001	Gillig	Low Floor	30'	12 Yrs	2013
9112	2001	Gillig	Low Floor	30'	12 Yrs	2013
9113	2001	Gillig	Low Floor	30'	12 Yrs	2013
9914	2009	Gillig	Low Floor	30'	12 Yrs	2021
9915	2009	Gillig	Low Floor	30'	12 Yrs	2021
9916	2009	Gillig	Low Floor	30'	12 Yrs	2021
9917	2009	Gillig	Low Floor	30'	12 Yrs	2021
9918	2009	Gillig	Low Floor	30'	12 Yrs	2021
9019	2010	Gillig	Low Floor	35'	12 Yrs	2022
9020	2010	Gillig	Low Floor	35'	12 Yrs	2022
9021	2010	Gillig	Low Floor	35'	12 Yrs	2022
9022	2010	Gillig	Low Floor	35'	12 Yrs	2022
<b>Paratransit</b>						
1013	2008	EIDorado Nat'l Aerolite		18'	5 Yrs	2013
1014	2008	EIDorado Nat'l Aerolite		18'	5 Yrs	2013
1016	2010	EIDorado Nat'l Aerolite		18'	5 Yrs	2015
1017	2010	EIDorado Nat'l Aerolite		18'	5 Yrs	2015
1018	2011	Startrans Hybrid Senator		22'	7 Yrs	2018
1019	2013	Braun Entervan		15'	5 Yrs	2018
1020	2013	Braun Entervan		15'	5 Yrs	2018

## Transit Service Coverage

The DPTS primarily operates within the Decatur city limits with the exception of limited service to Forsyth, Harristown, and Long Creek. For the purpose of the LRTP, transit service is evaluated from the perspective of the entire MPA. The following sections analyze the existing public transit coverage in proximity to households/residences and non-residential destinations.

### Proximity to Households/Residences

Transit coverage in proximity to households/residences was evaluated using Geographic Information System (GIS) applications to compare the existing transit coverage to the approximate number of households/residences served. A quarter-mile buffer on each side of the transit routes was applied to identify the existing service area coverage. This distance represents the typical walking distance to a transit stop.

In the year 2010 there were an estimated 44,915 households within the in MPA, representing a total population of 110,768 individuals. Of this total, approximately 60 percent (about 61,000 persons) fell within a quarter-mile radius of the DPTS fixed-route service area. **Figure 3-22** displays the transit service coverage within a quarter-mile proximity to households/residences within the MPA.

### Proximity to Non-Residential Destinations

Transit coverage in proximity to non-residential destinations (i.e., major or large employers, shopping areas, etc.) was also evaluated using GIS to determine the approximate number of employees served by transit. Once again, a quarter-mile buffer on each side of the transit routes was applied to identify existing service area coverage, which represents the typical walking distance to a transit stop.

Existing DPTS service currently covers the majority of non-residential destinations within the MPA. Specifically, the Hickory Point Mall, the Decatur Airport, ADM and other major employers, currently have access via the DPTS fixed-route service. Of the estimated 47,174 jobs within the MPA for the year 2010, about 68 percent (31,946 jobs) were located within a quarter-mile radius of the DPTS service area.

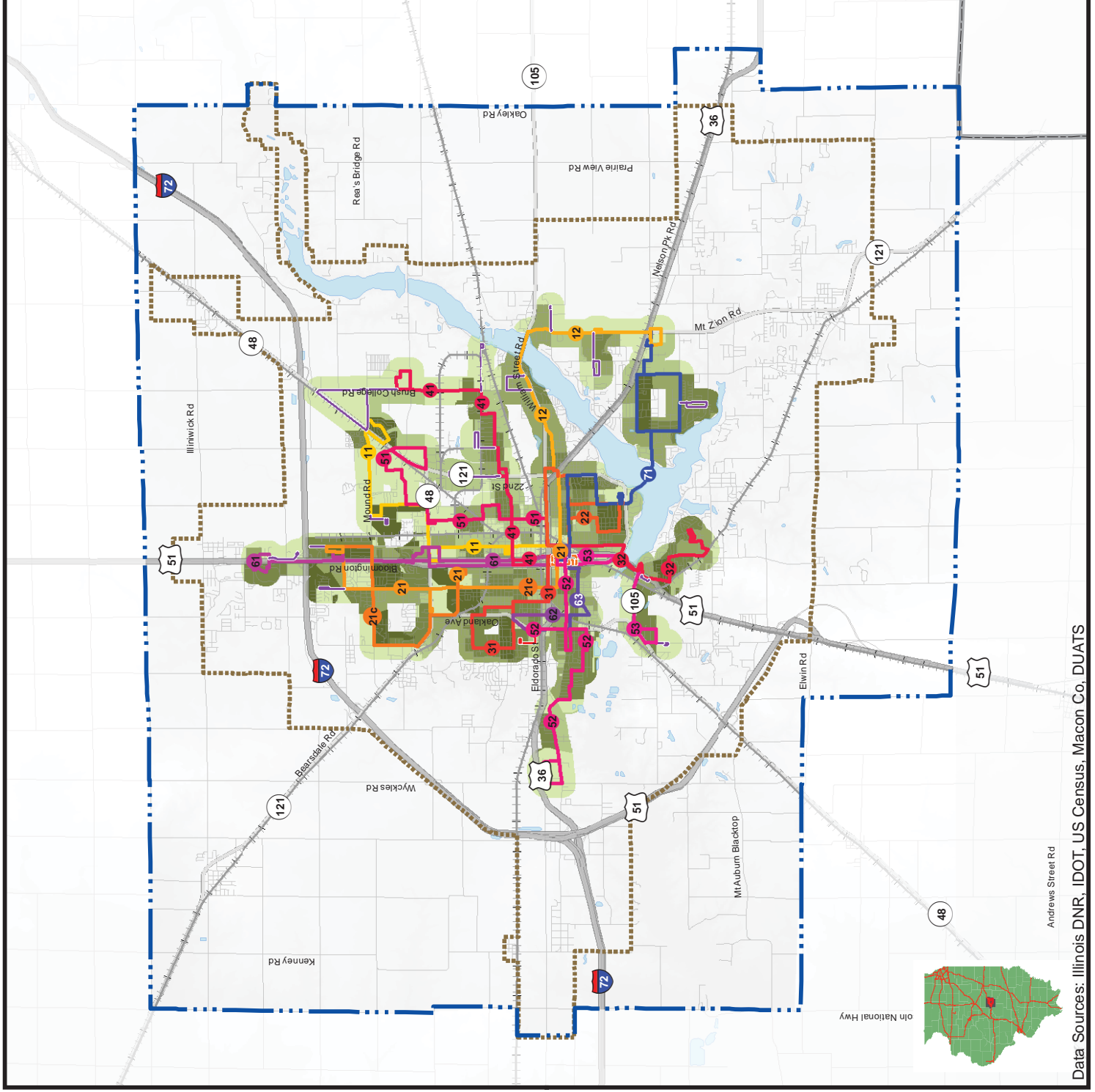
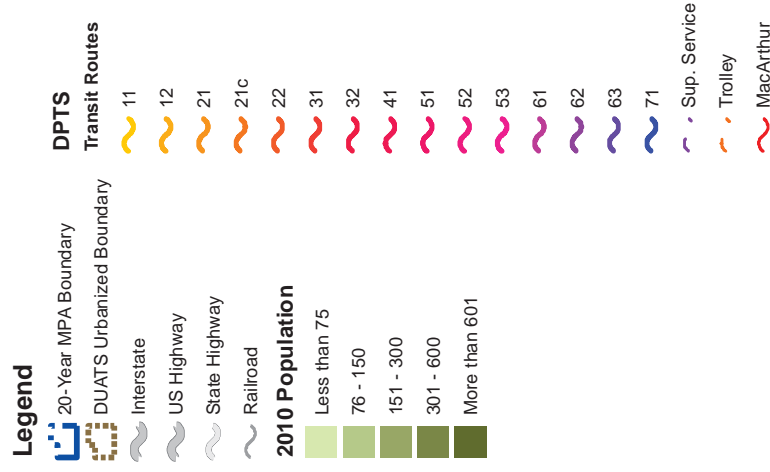
**Figure 3-23** displays the transit service coverage in in a quarter-mile proximity to non-residential destinations within the MPA. **Table 3-17** summarizes the existing DPTS service area coverage.

**Table 3-17. Demographic Composition within Existing DPTS Service Area (2010 Estimates)**

Demographic Criteria	Value (Approximate)
Macon County Population	110,768
MPA Population	101,393
Population within ¼ Mile Radius of Fixed-routes	60,918
Proportion of MPA Population within ¼ Mile Radius of Fixed-routes	60.1%
MPA Employment	47,174
Employment within ¼ Mile Radius of Fixed-routes	31,946
Proportion of MPA Employment within ¼ Mile Radius of Fixed-routes	67.7%

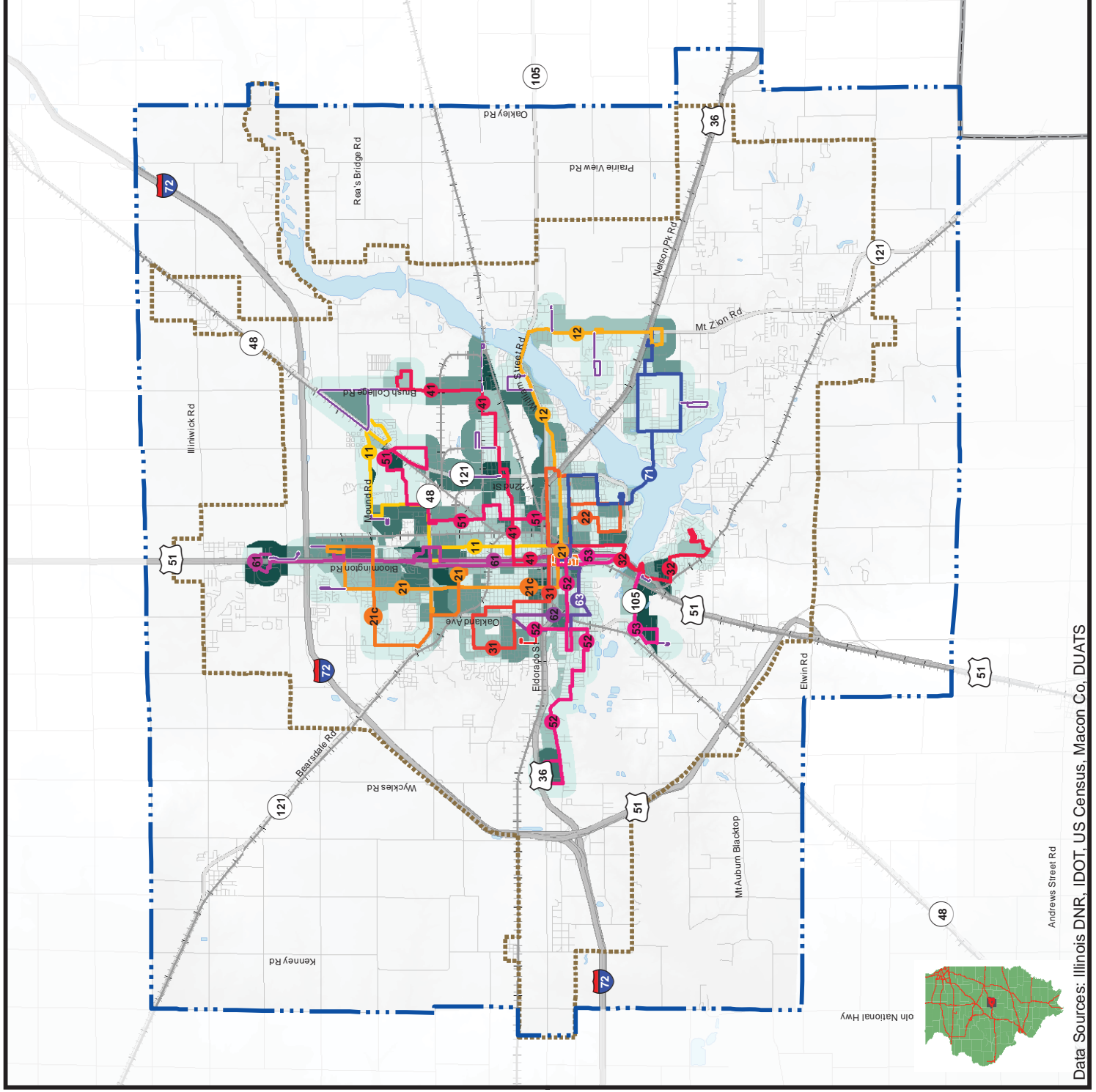
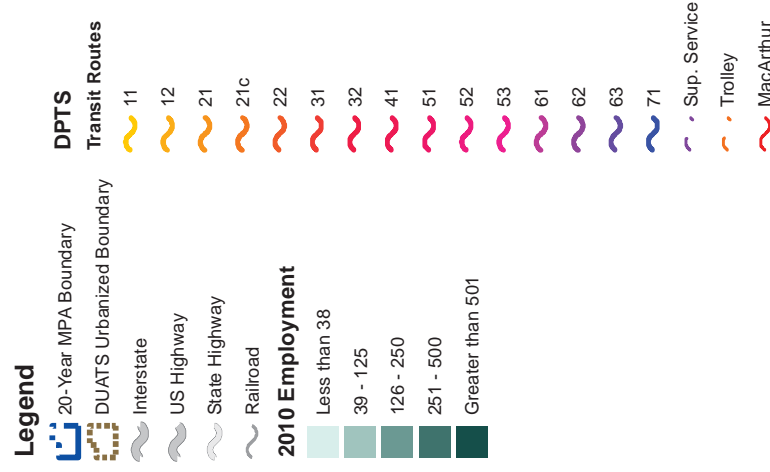
Source: URS Corporation, DUATS, US Census Bureau (2014)

Figure 3-22  
Population within  
1/4 Mile of DPTS Routes





**Figure 3-23**  
**Employment within**  
**1/4 Mile of DPTS Routes**



## Areas of Concern

DPTS provided input related to transit operations in the area, which include issues with at-grade railroad crossings that result in significant or frequent travel delays and areas where capacity / geometric improvements could be implemented to enhance transit operations. **Table 3-18** summarizes specific areas of concern that were identified by DPTS.

**Table 3-18. Transit Needs and Issues**

### Railroad Crossing Related

#### Martin Luther King Jr. Dr. (MLK) at:

- ▶ Wood Street
- ▶ Cerro Gordo Street
- ▶ Peoria Avenue

#### Oakland Ave. at Cerro Gordo St.

#### E. Eldorado Street at:

- ▶ 800 Block R.R. tracks
- ▶ 22<sup>nd</sup> Street

#### Prairie at 22<sup>nd</sup> Street

#### Monroe Street at Garfield Avenue

#### Faries Parkway at:

- ▶ 27<sup>th</sup> Street
- ▶ Near Brush College Road

#### Jasper Street at Garfield Avenue

#### Water Street/Main Street at Johnson Street

### Capacity / Geometric Related

#### Van Buren at Water Street and MLK Drive

#### Riverside from 16<sup>th</sup> Street to Maffit

#### Maffit from Riverside to Cantrell Street

#### Medial Drive in South Shores

#### Ridge Drive and Ridgedale Drive

#### Division St. between Samuel and 27<sup>th</sup> Street

#### Dennis St. between Grand Ave. and Ravina Park Rd

#### Dennis St. between W. Main St. and Riverview Ave.

#### Walnut between Jasper Street and Woodford Street

#### Hayworth Street between Decatur and Sunset Ave.

#### Prairie Street to 22<sup>nd</sup> Street

#### William Street from the Pines to Rte. 105

#### Oakland Avenue from Eldorado to Grand Avenue

#### Fulton from Country Club Road to Baltimore Ave.

#### New entrance to Fairview Park from US Rte. 36

#### Extend MLK Drive over I-72 to Forsyth

SOURCE: Decatur Public Transit System

## Passenger Survey Results

DPTS commissioned a passenger survey<sup>8</sup> of system users on July 8 and 9, 2013. The survey instrument was a hardcopy form featuring 24 questions inquiring about demographics, service usage, satisfaction, and opinions of DPTS fixed-route services. In all, there were 786 completed surveys. The passenger survey is administered annually and was started in 2009. Over time, DPTS has realized the following trends.

Demographic features of the survey population include:

- ▶ A nearly equal number of men and women;
- ▶ A majority of riders within the 19 – 64 age group, with some indication that riders may be aging overall, despite a low number of passengers aged 65 or older compared to transit systems nationally;
- ▶ Slightly more African American passengers than white passengers (51.5 percent and 43.8 percent respectively) with about 5 percent Hispanic and other races;
- ▶ A high fluency in speaking the English language;
- ▶ A nearly equal number of passengers with and without internet access at home; and
- ▶ A majority who consider having service announcements posted on the internet to be important.

Service usage characteristics of the survey include the following:

- ▶ A significant majority of passengers who utilize DPTS for work-related trips;
- ▶ An increase in the number of respondents indicating they use DPTS for multiple trip purposes over previous survey periods;
- ▶ A significant majority of passengers who transferred in order to complete their one-way trip;
- ▶ A majority of passengers stated having no car available as the primary reason for taking transit, with “cannot drive or no license” ranking second – overall the vast majority of passengers can be considered transit dependent;
- ▶ A majority of riders who ride DPTS fixed-route services regularly (83.7 percent riding three days or more per week, with 56.6 percent riding five days or more per week); and
- ▶ A slim majority, 51 percent, indicating having used DPTS for more than two years.

Questions related to passenger satisfaction provided the following information:

- ▶ While driver courtesy remained very high, there was a slight decrease in passenger satisfaction;
- ▶ Driver safety held relatively stable with most passengers rating “excellent” or “good”;
- ▶ Sense of security on board vehicles continued to decrease slightly from “excellent” to “good”;
- ▶ Cleanliness of buses remained stable with about three quarters rating such positively;
- ▶ Security at Transit Center remains strong at about 78 percent positive; and
- ▶ Schedule Reliability (on-time performance) maintained a high 78 percent reporting “excellent” or “good.”

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<sup>8</sup> Decatur Public Transit System Passenger Survey – February 2014 (First Transit, 2013)

Finally, the survey featured a section for open-ended comments; of these, the top ten responses that were repeated most are summarized in **Table 3-19**.

**Table 3-19. Top Ten Open-Ended Survey Responses**

Rank	Change Suggested	Votes	Percent
1	Longer Hours (night service)	182	32
2	Operate on Sunday (7 days/week, holidays, 24 hours)	110	20
3	Operate more frequent service	68	12
4	Drivers to be nicer or more helpful	44	8
5	Buses running on schedule	36	6
6	Serve larger area (more routes & businesses, Mt Zion)	33	6
7	Cleaner buses (take better care of buses)	31	5
8	Cheaper fares, passes, punch cards	20	4
9	More (visible) security at Transit Center	20	4
10	Bigger, better, newer buses	16	3
<b>TOTAL</b>		<b>560</b>	<b>100</b>

The results of the survey indicate that the passengers are satisfied with the services provided, use the system extensively, feel safe, and are satisfied with driver courtesy and safety. Improvement areas include vehicle cleanliness, on-time performance, target growing demographic groups with better marketing, more service options and expansion of existing services, and expansion of customer training to improve employee-customer relations.

## NON-MOTORIZED FACILITIES

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Bicycle facilities and trail systems are an increasingly important transportation mode for recreational and other trip purposes. They are also valuable community assets that greatly enhance the quality of life for DUATS area residents. Bicycle and pedestrian facilities provide enhanced living environments, have been shown to increase property values and corresponding tax revenues, and they help stabilize neighborhoods. These facilities provide connections between places and people. As added benefits, they provide open space, can reduce the amount and intensity of storm water runoff, provide a “filter effect” to reduce pollution, and allow wildlife habitat to remain or be enhanced.

In 2011, DUATS completed a comprehensive review of the *Decatur Metro Area Greenway Plan*, adopted in 1998, and the *1996 – 2016 DUATS Comprehensive Bicycle Plan*, which was adopted in 1996. The following section summarizes the existing system and general functionality.

### Current System Overview

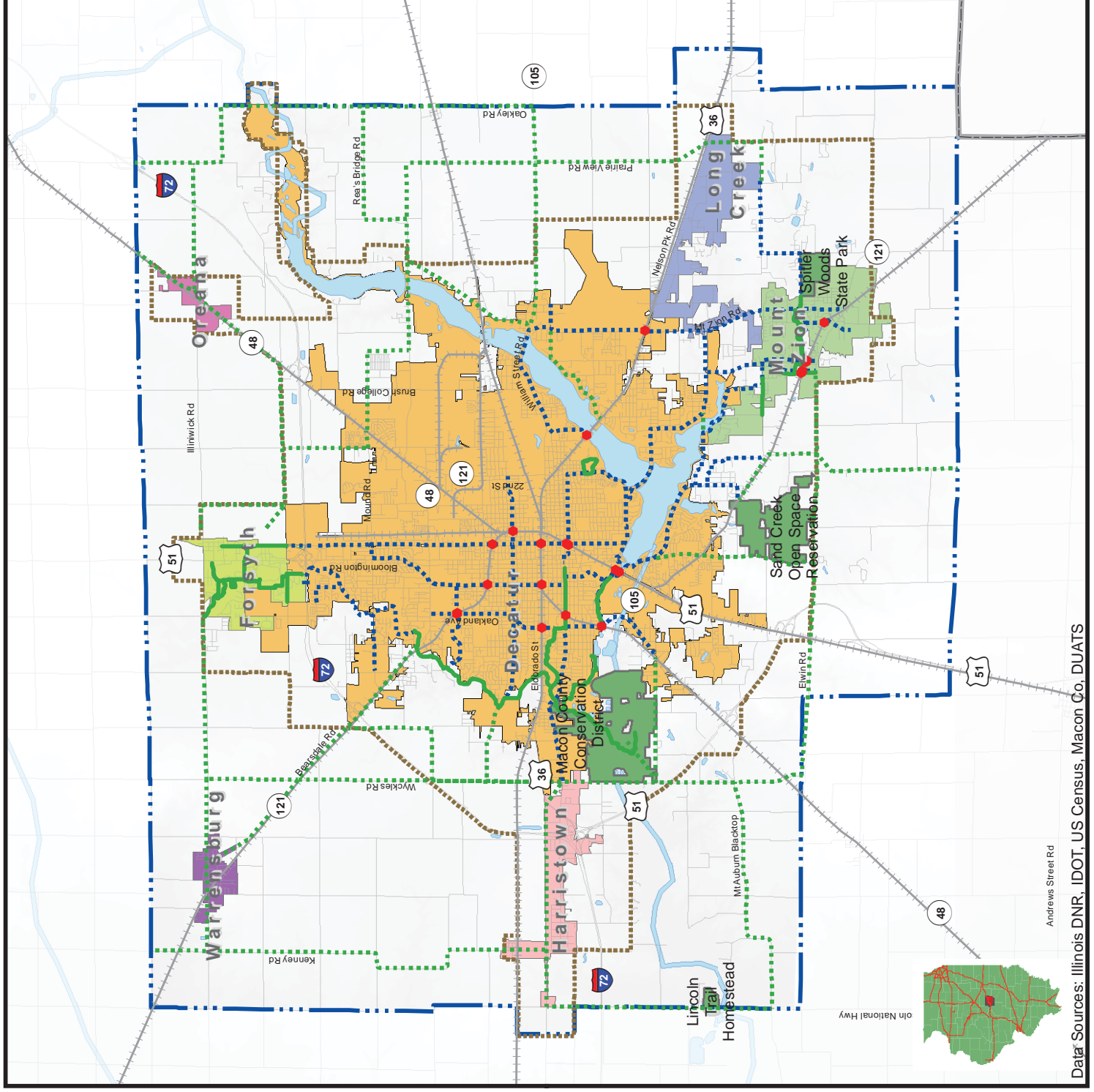
The number of designated bicycle miles in the MPA has increased three fold since 2004, from the approximate nine miles to 22.6 miles currently. As of 2009, 12.4 miles were in Decatur, 3.1 miles in Mt. Zion and 6.1 miles are in Forsyth.

Most bicycle trips within the MPA are made on existing streets and area roads. In an effort to highlight existing facilities and encourage public support for increasing system miles, DUATS in cooperation with the Illinois League of Bicyclists and the Decatur Bicycle Club, created a first-ever Decatur Metro Bike Map (November 2010).

**Figure 3-24** shows the existing and proposed bicycle facilities in the MPA.

Figure 3-24  
Bicycle Network

- Legend**
- 20-Year MPA Boundary
  - DUATS Urbanized Boundary
  - Railroad
  - Bike Paths Existing
  - Bike Paths Proposed
  - Bike Plan (2030)
  - Bike Path/RR Intersections



2.5

Miles



## Multi-Use Trails / Paths

Well-planned and designed multi-use trails/paths can provide good pedestrian and bicycle mobility. The trails/paths can serve both commuter and recreational cyclists. Generally, the following points are essential to development of successful, multi-use trails. Trail planning in the MPA should address as many of these factors as possible when making trail development decisions.

- ▶ Multi-use trails / paths should be separate from vehicular traffic lanes with as few street or driveway crossings as possible to keep the conflict points to a minimum;
- ▶ To the greatest degree possible, paths should be located along a river, stream or other greenway in order to offer an aesthetic experience that attracts cyclists and pedestrians;
- ▶ Multi-use trails / paths should make connections to areas such as shopping malls, downtown, schools, parks, employment centers and other community destinations;
- ▶ Well-designed street crossings, with measures such as bike and pedestrian activated signals, median refuges and warning signs for both motor vehicles and path users should be incorporated;
- ▶ Trip segments should be shorter than those provided by the road network and should make connections between dead-end streets or cul-de-sacs, or by providing short-cuts through open spaces;
- ▶ Proximity to housing and businesses increases visibility, accessibility and safety. Despite fears of some property owners, paths have not attracted crime into adjacent neighborhoods;
- ▶ Good design should include adequate width, sight distance, proper drainage and the avoidance of blind corners, steep slopes and other obstructions and impediments; and
- ▶ Multi-use trails / paths must be properly maintained, which includes regular sweeping, brush control and repairs.

## Recent Improvements

A primary bicycle facility is located between Fairview Park and Rock Springs Conservation Area in Decatur. This trail crosses Stevens Creek to Kiwanis Park and Sunset Avenue ending at the Environmental Center. In 2008, a connecting trail between Downtown Decatur and Millikin University was completed as part of the West Main Streetscape improvement project. An additional trail in Decatur was constructed on the north bank of the Sangamon River near Lincoln Park Drive, between the Lake Decatur Dam and IL-48.

Phase 1 of the Decatur Park District's Stevens Creek Bike Trail was completed in October of 2011. This trail adds more than four miles to the trail system and connects Fairview to Greendell Parks in Decatur. Phase 2 is in the engineering stage and plans for connecting Greendell Park north to Forsyth. Phase 2 of the Stevens Creek Trail will extend from Forsyth to Cresthaven Park; engineering plans for this trail are currently under development and expected to be completed by November of 2014.

A new trail in Mt. Zion runs along the eastern part of Harryland Road south and east to near the entrance to Spitler Woods State Park. A few portions of this trail run alongside, but separately from the streets, with the remainder being a greenway. Forsyth continues to incorporate trail facilities as part of most new developments. The Village has an extensive trail system which ties together residential, commercial and public locations such as the library and parks.

## On-Street Facilities

The majority of bicycle travel within the MPA takes place on the Area's streets and roads. Bicycle travel can be safely accommodated on streets or roads by planning and designating bicycle routes and providing on-street facilities such as striped bicycle lanes.

Two Decatur street segments, Country Club Road from Airport Road to US-36 and Lost Bridge Road, have a painted curb lane to assist pedestrians and bicyclists. These lanes are not specifically designed for bicycles and their width, striping and pavement conditions vary along their course. There are no specified bike lanes in the MPA.

However, Decatur has incorporated a bicycle-friendly design during reconstruction efforts on two bridges, which include the MacArthur / Stevens Creek and South Shores / Sand Creek structures.

## Spot Locations Deficiencies

As part of the 2040 LRTP, meetings were held with the Decatur Bicycle Club to gather input on identifying spot location deficiencies, locations that present concerns to cyclists and for their assistance in providing first-hand information regarding this mode of transportation. Feedback received from those meetings is provided below and quoted verbatim from meeting minutes developed by DUATS.

## Comments from Decatur Bicycle Club

Outreach to Decatur Bicycle Club was attempted as part of the 2040 LRTP update. No comments from the Decatur Bicycle Club were received. Several of the comments from the last LRTP likely still apply and as such are provided in in this update. Members of the Decatur Bicycle Club (DBC) generally felt that there needs to be more done to provide for the safety and convenience of bicycle riders, to encourage more bicycle riding, and to educate the community with regard to the rules and laws associated with bicycle riding. They noted that many motorists think that it is illegal for bicyclers to be on the streets ('Go ride on the sidewalks where you belong!') and often display aggressive, dangerous behavior towards riders.

As part of the last LRTP, the DBC encouraged the implementation of The Decatur Urbanized Area Comprehensive Bicycle Plan, 1996-2016 which is a supplement to the Metropolitan Transportation Plan. Below are additional comments provided in August 2009 by the DBC.

1. Develop E W/ N S bike routes through the city. Maybe Wood St and Mound Rd for east-west. Maybe Monroe St and Jasper St for north-south.
2. Purchase abandoned railroad lines for future trails now.
3. All new or improved road/street projects make bicycle and pedestrian compatibility a priority.
4. Bike lanes marked and kept clean for riding with bicycles.
5. Bike lanes evenly paved without grate openings parallel to direction of travel.
6. Bridges should be crossable without riding in car traffic.
7. Signage for bicycle traffic.
8. Bike racks around the city and on buses.
9. Bike storage lockers downtown.
10. Trail maps, benches, and water fountains for riders convenience.
11. Roads and streets kept in good repair with even pavement.

It was also suggested that it would be a good idea to have an alternate transportation advocate in

the planning office to represent alternate transportation, to write grants, etc. This person would be actively involved both in the planning and in the implementation of ideas beneficial to people in the community who wish to utilize alternate transportation.

One of the most frequently mentioned concerns of bicyclists is the strong desire to provide safe and adequate crossings of Lake Decatur. The lack of adequate sidewalks or other facilities that would afford a safe means of crossing Lake Decatur is also supported by the technical analysis. High travel speeds, high traffic volumes, narrow shoulders and lack of adequate sidewalks make crossing Lake Decatur by any means other than motorized vehicle extremely difficult.

### Accessibility to Community Resources

Accessibility to community resources such as schools, universities, libraries, and parks, commercial areas and employment centers are important aspects of any bicycle network. These community resources were overlaid with the existing MPA bicycle system to analyze bicycle accessibility. Potential bicycle improvements are identified to maximize bicycle connections to community resources.

**Figure 3-25** identifies various community destinations and facilities – major attractions – which primarily include educational and civic institutions, retail locations, and major industrial / employment centers.

### Intermodal Connections

Intermodal connections currently require bicyclists to share roadways with automobiles, trucks, and buses in all but a few locations. Safety and accessibility for cyclists and pedestrians is important. Future planning should strongly emphasize and require provisions for alternative modes of transportation in conjunction with new roadways or reconstruction whenever possible. Providing alternative modes of transportation needs to be a primary concern when making street and roadway improvements. Street and roadway design and construction should always provide accommodations for bikes and pedestrians.

Another consideration must be bicycle parking. For bicycles to be considered a viable travel option, it is necessary for major destinations to accommodate bicycle parking. For example, bicycle parking is provided at the Senator Severns Transit Center, where bicyclists are able to ride to the Transit Center, park, and ride DPTS buses. In addition, on-street bicycle improvements have been made via the installation of bicycle racks by the Macon County Health Department in the Downtown Streetscape. The Decatur Civic Center is an example where there are no provisions for bicycle parking. Since the Civic Center houses the majority of City offices, it should provide accommodations for the cycling public.

DPTS is considering the installation of bike racks on buses to support intermodal connectivity and the use of bicycles as a viable transportation option.

## ADA Transition Plan

In July of 2011, the City of Decatur Department of Public Works developed an ADA Transition Plan for upgrading public right of ways and sidewalks. The purpose of the plan was to assess the needs of the current sidewalk system to determine where improvements are needed to bring conditions up to ADA requirements and standards. Additionally, the plan identifies design elements, priorities, and an implementation schedule for the development of the needed system.

Specifically, intersections are being inspected and evaluated to determine the presence and / or condition of sidewalk ramps. Intersections with improvement needs are prioritized based on the presence of a disabled population or specific request from a disabled person or advocacy group, high volumes of pedestrians, proximity to public buildings and commercial land uses, and areas featuring no sidewalks.

Additional features of the sidewalk and public right of way system that are considered in the plan include the condition of sidewalks, traffic signals, and crosswalks. While the primary focus is on curb ramp compliance, these other elements should be addressed as needed through other transportation improvement projects, or on an individual basis as funding and priority warrant.

Figure 3-25  
Major Attractions

Legend

- 20-Year MPA Boundary
- DUATS Urbanized Boundary
- Interstate
- US Highway
- State Highway
- Railroad

Major Attractions

- Education
- Retail
- Civic
- Industrial

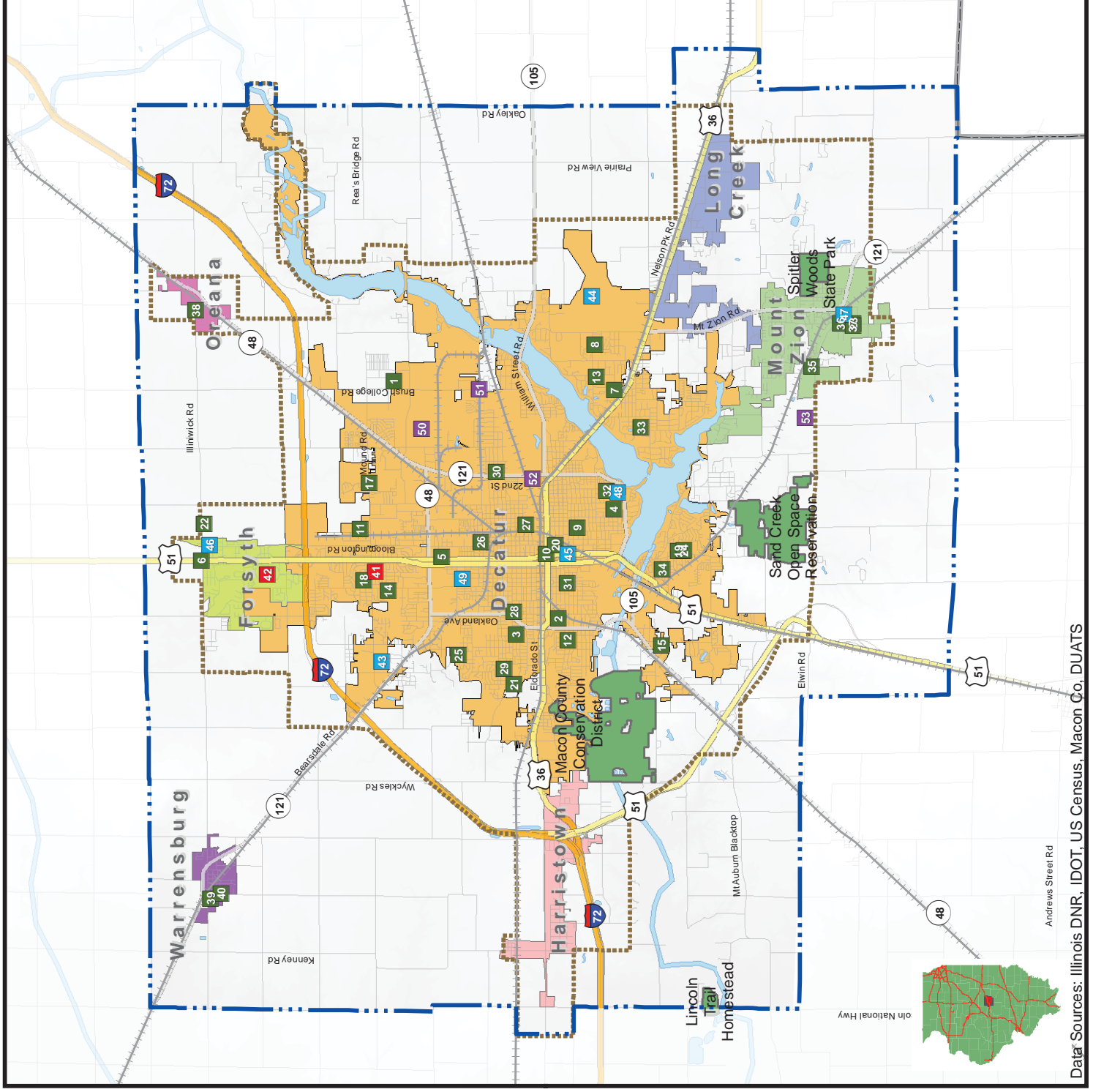


Figure 3-25 (continued). Key of Major Trip Attractions

### Educational Institutions

1. Richland Community College
2. Millikin University
3. Douglas MacArthur High School
4. Eisenhower High School
5. St. Teresa High School
6. Decatur Christian School
7. Hillside Bethel Christian School
8. Thomas Jefferson Middle School
9. Johns Hill Magnet School
10. Stephen Decatur Middle School
11. Stevenson Elementary School
12. Dennis Elementary School
13. Michael E. Baum Elementary School
14. Parsons Accelerated School
15. Enterprise Elementary School
16. South Shores Elementary School
17. Lutheran School Association
18. Our Lady of Lourdes
19. Holy Family Elementary School
20. St. Patrick Elementary School
21. Northwest Christian Campus
22. Forsyth Elementary School
23. Mt. Zion Intermediate School
24. Pershing Pre-K Center
25. Benjamin Franklin Elementary School
26. Harris Elementary School
27. Hope Academy
28. Durfee Magnet School
29. Oak Grove Elementary School
30. Robertson Charter School
31. French Academy
32. Phoenix Academy
33. Muffley Elementary School
34. Garfield Montessori Magnet School
35. McGaughey Primary School
36. Mt. Zion Grade School
37. Mt. Zion High School
38. Oreana Elementary School
39. Warrensburg-Latham Senior / Junior High School
40. Warrensburg Elementary School

### Retail Locations

41. Target Center
42. Hickory Point Mall

### Civic Institutions

43. Macon County Fairgrounds
44. Decatur Airport
45. Decatur Public Library
46. Forsyth Public Library
47. Mt. Zion Public Library
48. St. Mary's Hospital
49. Decatur Memorial Hospital

### Industrial Facilities

50. Caterpillar
51. Archer Daniels Midland (ADM)
52. Tate & Lyle
53. PPG Industries



## RAIL OPERATIONS

### System Overview

The presence of rail service is a key component of the MPA transportation system. The region is served by four major railroads, which includes the three Class 1 railroads of Norfolk Southern (NS), Canadian National (CN), and CSX Transportation (CSX). The Decatur Junction Railway Company is the fourth and the only non-Class 1 railroad operating in the area. Primary users of these railroads include major employers such as ADM, Caterpillar, and Tate and Lyle.

**Figure 3-26** displays the location of these four railroads, which are also described in further detail in the following sub-sections.

### Norfolk Southern

Norfolk Southern (NS) is the largest rail carrier in the Decatur area which contains the largest flat switching yard in the NS system. Although there are significant switching operations within the Decatur yard, there is minimal impact to traffic because the majority of rail traffic enters the yard over grade separated crossings. Where at-grade crossings exist, trains typically operate at a track speed of 40 mph, which only minimally impacts traffic. Furthermore, grade separated roadways are in proximity to the NS at-grade crossings so motorists have a viable alternative route that can generally be used to avoid delays.

One significant exception to the previous statements is the NS at-grade crossings along Brush College Road, near Faries Parkway and further north at the ADM plant. Switching operations at these crossings (that service ADM West and East plants) are numerous and can result in significant traffic delays. Unlike through movements on the NS mainline, the switching operations occur at very low speeds which increase the train blockage delays.

### Canadian National

CN is the smallest of the three Class 1 rail companies operating in the Decatur area. While the total number of trains is not as high as NS, CN rail traffic can cause significant disruptions to traffic when unit coal trains arrive from Peoria destined for ADM facilities. The unit train travels at a very low speed (5 to 10 mph) as it enters the yard which is centrally located in the Decatur urbanized area.

CN movements block major north-south thoroughfares including US-51 and MLK Jr. Drive; in these instances, no alternative roadways are available for traffic to avoid delays. When this movement occurs, it is among the most disruptive train blockages that can occur within the City. Additional at-grade crossings are also impacted by CN operations. Blockages are common at 22nd and 27th Streets as CN provides service to ADM. Coal used by ADM represents the majority of material transported via CN trains; however, one general merchandise train typically arrives daily from the south (from Mattoon or Centralia).

### CSX Transportation

CSX runs a limited service in the area operating one or two trains on a typical day. CSX usually transports ethanol and all trains travel east towards Avon Yard near Indianapolis. The Decatur rail yard is the end of line for this route and does not extend any further west. While there are not many trains traveling in and out of the area, CSX still creates numerous at-grade train blockages as they assemble trains just south of Wabash- Illinois Central (WABIC) diamond. These movements directly impact the at-grade crossing of Eldorado (US-36) and many also impact the crossing at the MLK Jr. Drive / Wood Street intersection. The short storage facility in the CSX rail yard requires multiple movements to assemble trains and is the primary issue causing delays. While these blockages do not necessarily occur daily, they typically occur several times per week. CSX has recently replaced ties east of Decatur and performed other track upgrades in the area.

### Decatur Junction Railway

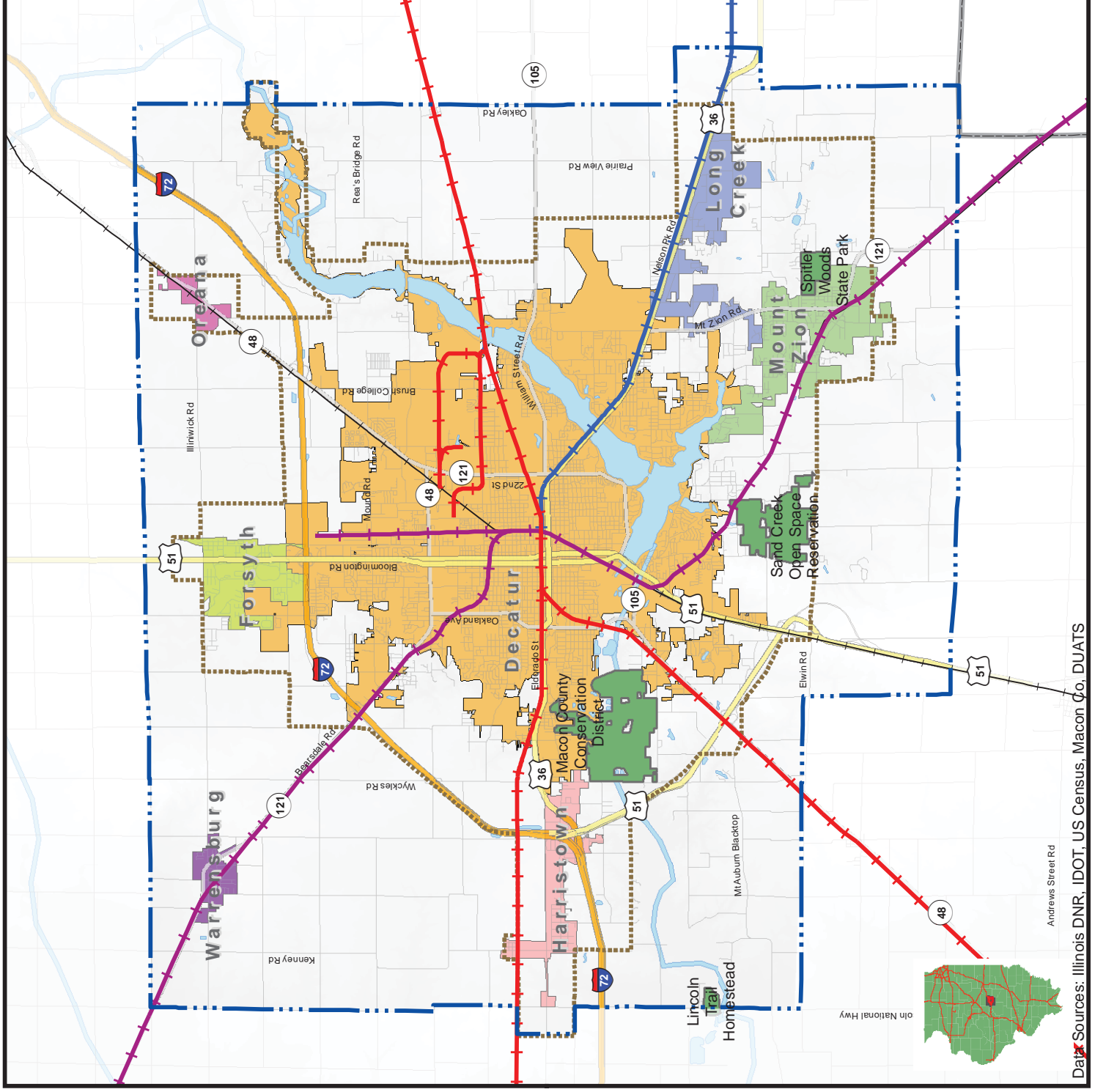
This short line railroad is operated by the Decatur Junction Railway Company, a wholly-owned subsidiary of Pioneer Railcorp. It consists of a 38 mile span of track from Assumption to Cisco, IL, with major operations in the Decatur, Springfield, and Champaign regions. The railway makes a major connection to the CN in Decatur and primarily ships grain, fertilizer, and plastics commodities over this section of track.<sup>9</sup>

Figure 3-27 shows the location of the at grade rail crossings.

<sup>9</sup> Pioneer Railcorp, Pioneer Lines – Decatur Junction Railway. <http://www.pioneer-railcorp.com/dt.html> (2014)

Figure 3-26  
Railroad Ownership

- Legend**
- 20-Year MPA Boundary
  - DUATS Urbanized Boundary
  - Interstate
  - US Highway
  - State Highway
  - Norfolk & Southern Railroad
  - CSX
  - CN
  - Decatur Junction



Andrews Street Rd

Data Sources: Illinois DNR, IDOT, US Census, Macon Co. DUATS

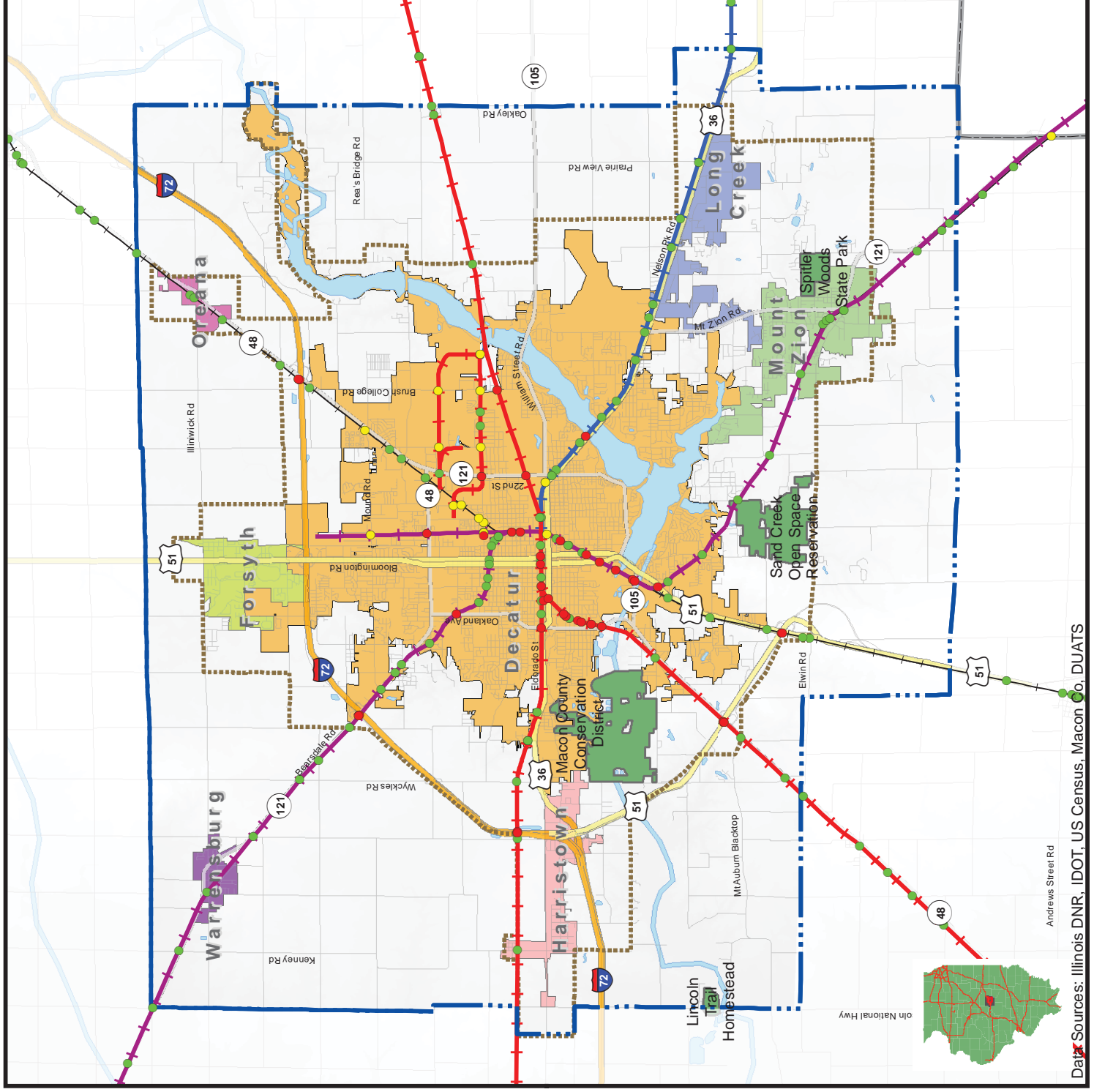


2.5

Miles

Figure 3-27  
At-Rail Crossing Locations

- Legend**
- 20-Year MPA Boundary
  - DUATS Urbanized Boundary
  - Interstate
  - US Highway
  - State Highway
  - Norfolk & Southern Railroad
  - CSX
  - CN
  - Decatur Junction
  - Railroad Structure
  - Street Intersection
  - Truck Route Intersection



## At-Grade Train Blockages

### DATES Study

The Decatur Area Transportation Efficiency Study (DATES) was completed in 2013, which evaluated rail and truck movements within the region. The goal was to identify short- and long-term improvements that enhance the overall efficiency of the regional transportation network. Findings from this effort are represented in the following sections where applicable.

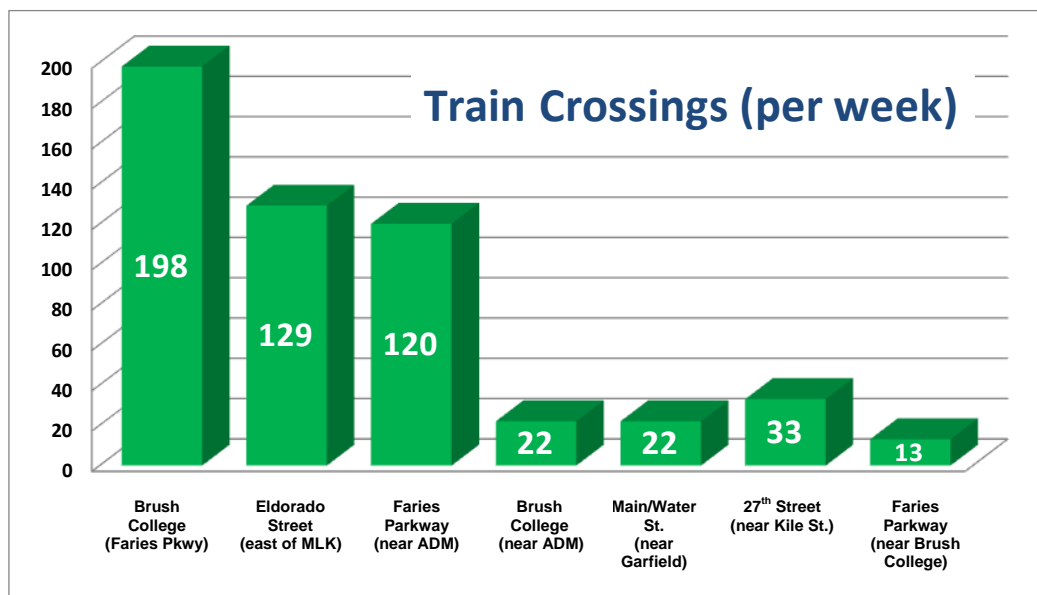
### Overview of At-Grade Rail Crossings

In Macon County there are a total of 138 at-grade rail crossings. Of this total, 113 are located in Decatur. The at-grade rail crossings are a significant source of travel delays due to the high number of trains, the train length, relatively slow speed of trains in the urbanized area, and the high traffic volumes on major arterials. A significant number of switching and reverse movements, in/out of rail yards, add to the at-grade crossing delays.

While area residents, officials, and stakeholders have long known these issues exist, it has been nearly impossible to document the blockages/delays on a daily or weekly basis. Without this data, it has been difficult for area officials to understand the true impact of rail operations on the regional roadway network. As a result, identifying and prioritizing potential solutions has also been nearly impossible. To address this concern, DATES included the development of a simulation model of the Decatur rail network which has aided in understanding rail issues and ultimately identifying potential solutions to create a more efficient transportation system.

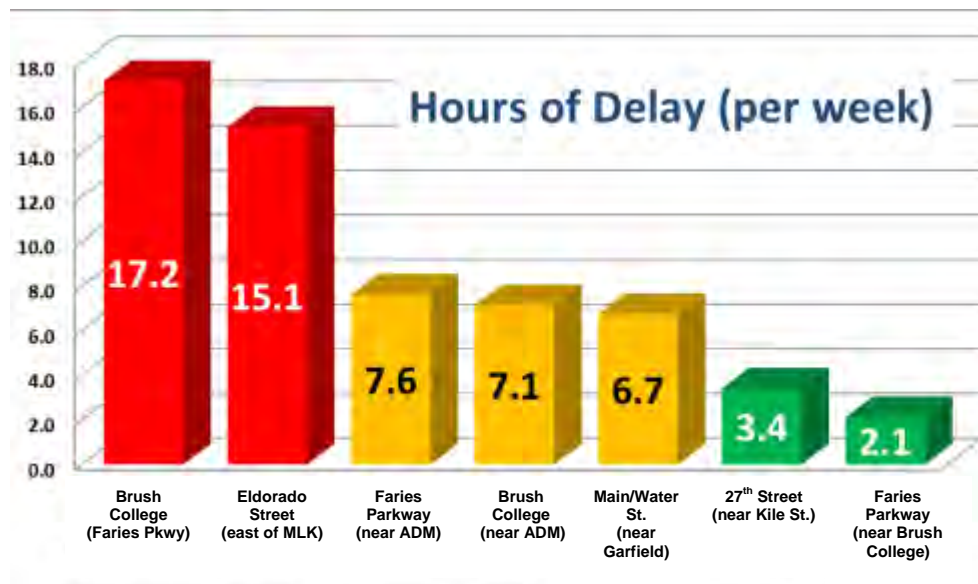
Based on these model results, **Figure 3-28** identifies crossing locations representing the highest number of train movements per week while **Figure 3-29** displays the hours of delay associated with the blockages. Together, these figures represent the crossing locations of highest concern.

**Figure 3-28. Existing At-Grade Rail Crossings**



SOURCE: URS Corporation; RTC Decatur Area Model.

Figure 3-29. Existing At-Grade Rail Crossing Delays



SOURCE: URS Corporation; RTC Decatur Area Model.

### Brush College Road Crossings

The Brush College Road corridor includes three areas of concern. The first is the bottleneck that exists at the NS rail yard underpass. Current conditions include a very narrow two-lane underpass that has known safety issues, limited non-motorized accommodations, and drainage issues. CN also operates a rail line through the underpass.

While crossings along this corridor present the potential to create travel delays, the majority of operations at these locations are limited compared to the main line tracks and. Additionally, movements often occur during off-peak times such as late evening and early morning, which further limit travel delays.

However, the Brush College Road at-grade rail crossing near the ADM East Plant is used to move materials into the ADM plant and often includes very slow movements, including reverse moves that delay traffic. This is an ideal location for ADM to expand yard tracks along the western edge of the East Plant as the location is accessible by NS (from the south, along the former Illinois Terminal tracks next to Faries Parkway), and by CSX and CN (from the north, via the CN route). Expanded rail activity at this location would probably result in more interference with highway traffic at 27th, Faries / Brush College, or both locations. The train movements that occur at this crossing are also a dependent function of how ADM (not the Class 1 railroads) completes their switching. Unlike other crossings in the area, this location does not have any alternate route that can be used to avoid delays.

### Eldorado Crossing

The Eldorado at-grade crossing is another primary area of concern since it is a US highway (US-36), a Class 2 truck route, and forms an at-grade crossing that generates significant rail blockages just east of MLK Jr. Drive. Traffic volumes on Eldorado exceed 20,000 vehicles per day and truck volumes range between 900 and 1,200 per day.



### **MLK and Wood Crossing**

As previously mentioned, the MLK / Wood intersection at-grade crossing is closely linked with the Eldorado crossing. A number of CSX and CN movements block this intersection while the trains make reverse movements. Wood and MLK are now both part of the 6W truck route; as such, rail delays at this crossing can cause significant delays to trucks and the motoring public. The City of Decatur has explored improvements at this intersection to alleviate this problem.

In total, there are currently 129 blockages per week that occur at the Eldorado crossing. Of this total, nearly 74 percent (95 trains) also block the MLK / Wood intersection. A further analysis shows that of the 95 trains, 64 are CN trains and 31 are CSX trains.

Because of the significant number of train blockages that occur at Eldorado and MLK / Wood, area residents frequently use the Prairie Avenue underpass to avoid potentially long train delays.

### **Main, Water, and MLK Crossings**

The CN crossings at Main, Water, and MLK Jr. Drive currently include 22 blockages per week which result in 6.7 hours of delay. The future year train scenario shows the potential to increase to 29 trains per week resulting in 7.9 hours of delay. By comparison to other crossings throughout the region, these crossings would produce a lesser impact.

Since Main and Water Streets function as a one-way pair, travel speeds approaching the crossing can be a concern; however, CN trains moving through this area are generally moving at relatively low travel speeds which also limit the impacts.

## At-grade Rail / Roadway Accidents

### Accident History

**Table 3-20** summarizes the accident history of at-grade crossing locations in the MPA by year (2004 – 2013). Locations featuring recurring accidents include Faries Parkway at the NS line (five accidents), Wyckles Road at the NS line (two accidents), Brush College Road at the CN line (four accidents), Brush College Road at the NS line (three accidents), and Wood at MLK Jr. Drive at the IC line (two accidents). The largest number of annual accidents was six, which occurred in 2008. **Figure 3-30** displays the at-grade rail crossing location accidents between 2009 and 2013.

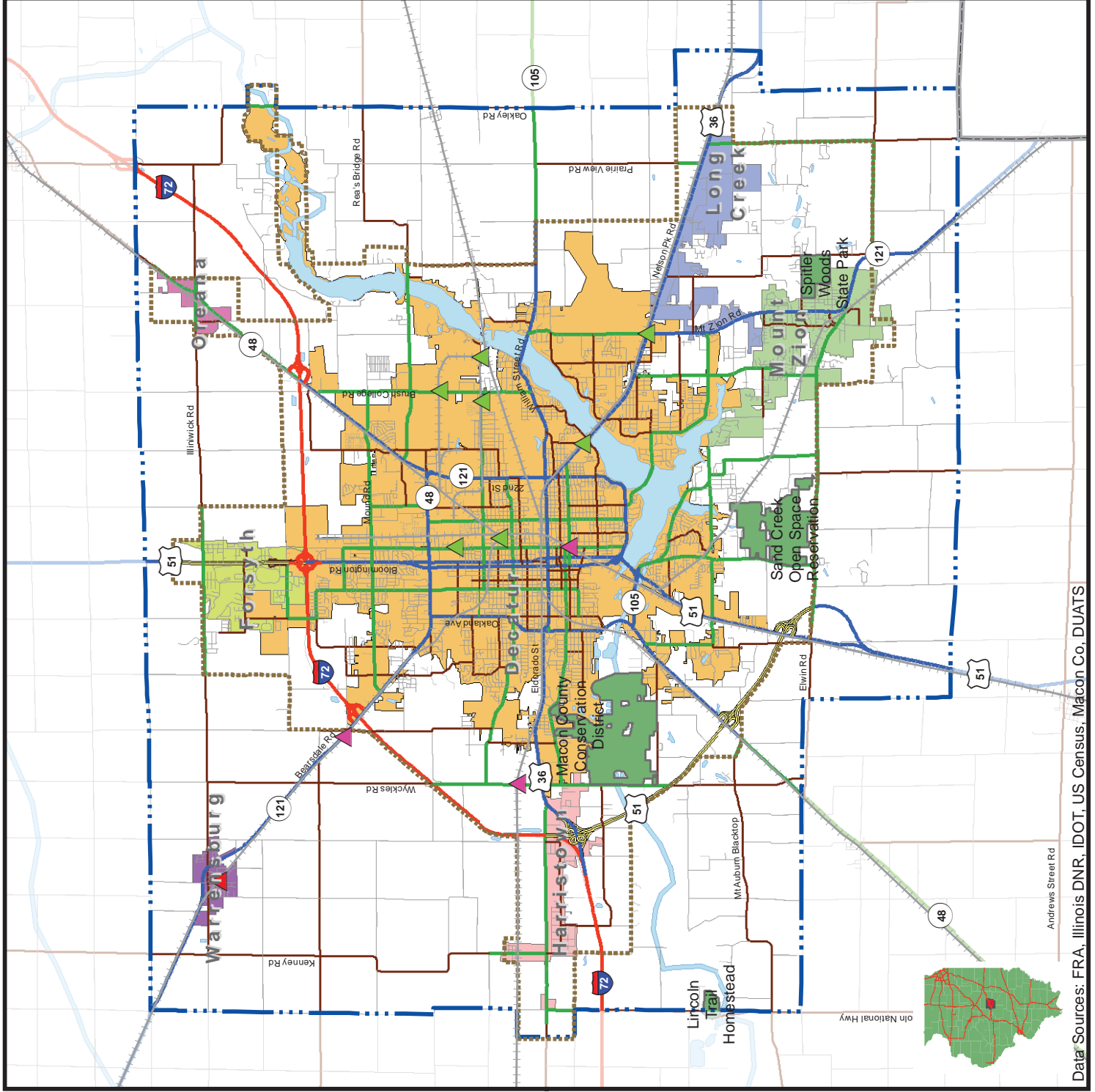
**Table 3-20. Accident History at Rail Grade Crossings**

CROSSING ID	RR	STREET	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	TOTAL
328512C	NS	Faries Parkway		1	1			1	1			1	5
291378J	CN	Brush College Road					4						4
328516E	NS	Brush College Road		1		1				1			3
499206B	NS	Wyckles Road					1		1				2
N / A	IC	Wood at MLK Jr. Drive							1		1		2
291377C	CN	27th Street					1						1
291373A	CN	Hubbard Avenue				1							1
292858Y	CN	MLK Jr. Drive				1							1
328522H	NS	Faries Parkway				1							1
291241P	DJ	Wood Street			1								1
291384M	CN	Harrison Street			1								1
292856K	CN	Water Street		1									1
292850U	CN	Monroe Street		1									1
328520U	NS	Faries Parkway	1										1
N / A	CSX	27th Street						1					1
N / A	NS	Private						1					1
N / A	IC	Division						1					1
N / A	IC	Gravel Pile Entrance								1			1
N / A	NS	MLK Jr. Drive								1			1
N / A	NS	MLK Jr. Drive									1		1
N / A	CSX	Airport Road										1	1
TOTAL			1	4	3	4	6	4	3	3	2	2	32

Source: Federal Railroad Administration & DUATS

Figure 3-30  
Grade Crossing Accidents  
(2009 Through 2013)

- Legend**
- 20-Year MPA Boundary
  - DUATS Urbanized Boundary
  - Interstate
  - Freeway/Expressway
  - Major Arterial
  - Minor Arterial
  - Collector
  - Local Road or Street
  - Railroad
- Grade Crossing Accident Location (2009-2013)**
- Fatality
  - Injury
  - Property Damage Only



Andrews Street Rd

Data Sources: FRA, Illinois DNR, IDOT, US Census, Macon Co, DUATS



2.5

Miles

## Accident Prediction

Accident prediction is based on the findings from the Accident Prediction Report for Public At-Grade Highway-Rail Crossings as provided by the Federal Railroad Administration (FRA) Office of Safety Analysis Highway-Rail Crossing Safety & Trespass Prevention. Accident prediction reports were originally developed as a tool to alert law enforcement and local officials of the important need to improve safety at public highway-rail intersections within their jurisdictions. However, the accident prediction tool can also be used to identify particular crossings that may require physical safety improvements or enhancements.

The accident prediction formula is based upon two independent factors: (1) basic data about a crossing's physical and operating characteristics; and (2) five years of accident history data at the crossing. For the purpose of this analysis, the most recent five-year accident data was available from 2009 to 2013.

Accident prediction does not directly imply that particular crossings are the more dangerous than others. Rather, the data provides an indication that conditions are such that one crossing may be more hazardous than another based on the specific data that is in the program. The accident prediction methodology is only one of the tools that might be used to determine where and how to focus attention for improving safety at public highway-rail intersections.

## Intermodal Connections

The MPA is well located in terms of having the ability and infrastructure in place to ship products to other parts of the country. With the exception of west coast destinations, such as Los Angeles and Seattle, most goods can be shipped to their destination within two days by either rail or truck.

**Table 3-21** displays the distance and approximate travel time (in days) for rail and trucks to reach major destinations. **Figure 3-31** shows the 200-mile and 500-mile shipping distances from Decatur.

**Table 3-21. Freight Distance by Miles and Travel Days by Rail and Truck**

City	Miles	Days by Rail	Days by Truck
Atlanta, GA	592	2	1
Chicago, IL	179	1	1
Cincinnati, OH	270	1	1
Cleveland, OH	473	1	1
Dallas, TX	764	3	2
Denver, CO	901	2	2
Detroit, MI	422	1	1
Indianapolis, IN	165	1	1
Kansas City, MO	344	1	1
Los Angeles, CA	1,935	4	4
Memphis, TN	380	2	1
Minneapolis, MN	500	3	1
New Orleans, LA	758	2	2
New York, NY	906	2	2
St. Louis, MO	120	1	1
Springfield, IL	36	1	1
Seattle, WA	2,075	4	4

SOURCE: DUATS (2014)

**Figure 3-31. Freight Coverage Area within 200 and 500 Miles**



SOURCE: URS Corporation

Although existing surface transportation affords the ability to ship products quickly and with general ease, intermodal freight connectivity is limited within the MPA. Currently, there is no rail access to the airport and there are limited rail spurs serving major industrial locations such as ADM and Caterpillar. Rail track to the old Firestone plant is still in place serving some locations for steel unloading for a fabrication plant and for scrap dealers.

One possible location for an intermodal facility is located off the CSX track near the business industrial park located south of the Decatur Airport. However, current rail traffic volumes would likely not warrant the development of an intermodal facility at this time. Further study and discussion is strongly encouraged as to the location and future construction of an intermodal freight facility.

### Recent Improvements

Recent rail improvements within the MPA have focused on improving specific at-grade crossing locations. The most recent improvements include the improved crossing at E. Wood and MLK and on US-36 which were completed in 2008 and 2009, respectively. While no specific grade separated facilities have been programmed for construction at this time, several key projects have been identified and recommended for consideration in the 2014 DATES Study, and are further discussed in Chapter 5 - Recommended Plan.

Maintenance of rail infrastructure is principally the responsibility of the railroads. However, local jurisdictions, especially municipalities, take an active role in working with rail operators on projects that will enhance the efficient movement of freight through the region.

### ADM Intermodal Facility

In 2009-2010, ADM built its own 250-acre Rail and Intermodal Logistics facility to handle switching yard and storage tracks that serve freight trains. The facility allows the company to efficiently load and unload freight products based on their own production schedule. This is a significant improvement for rail operations in the area, as the railroad companies can more easily respond to ADM's needs while freeing ADM of having to rely on the railroads for switching operations.<sup>10</sup>

The facility is part of the larger Midwest Inland Port operation, which is the collective and connected infrastructure network of the three Class 1 railroads, five major roadways (I-72, I-55, I-74, I-57, and US-51), the Decatur Airport, an intermodal ramp, and other facilities. The Port is also within a Tax Increment Financing (TIF) district and Enterprise Zone, Foreign Trade Zone, and features customs clearing operations.

These types of intermodal improvements represent significant and prolonged investment opportunities for businesses and industries that support or rely on freight rail operations, which are a major boon to the local economy of the MPA.

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<sup>10</sup> Dupin, Chris. "All Points on the Compass: With new intermodal yard in Decatur, ADM can move containers efficiently in the U.S. and Canada. American Shipper (October 2012).



## Multimodal Impacts

Lengthy rail delays have a significant impact on the transit system's ability to maintain schedules. Since DPTS operates on a pulse system, all buses need to arrive at the Transit Center at the same time to allow passengers to transfer from one route to another. DPTS, when possible, tries to work around train blockages by deviating from the scheduled route to an alternative route that avoids potentially long rail delays. In doing so, this adds miles and expense to the impacted routes, and causes buses to miss portions of their route – possibly stranding passengers. When there is no detour route, DPTS may send a van to meet the bus, making passenger transfers mid-route.

In January 2011, DPTS collected data to identify how often train blockages impacted transit service. The information that was collected included number of train blockages, number of times the buses had to stop as a result of the blockage, number of times that buses deviated to avoid stopping, and number of passengers impacted by the delay. **Table 3-22** summarizes these data.

**Table 3-22. Train Blockage Impacts on the Decatur Public Transit System**

Month (2011)	Number of Days Data was Recorded	Number of Train Blockages	Average Blockages per Day	Number of Times Buses Were Stopped	Average Number of Buses Stopped per Day	Number of Times Buses Deviated to Avoid Train Blockages	Average Number of Buses that Deviate per Day
January	19	223	11.7	135	7.1	88	4.6
February	24	345	14.4	165	6.9	180	7.5
March	11	153	13.9	64	5.8	89	8.1
<b>Total</b>	<b>54</b>	<b>721</b>	<b>13.4</b>	<b>364</b>	<b>6.7</b>	<b>357</b>	<b>6.6</b>

SOURCE: Decatur Public Transit System (January – March, 2011)

Over the course of almost two months (54 operating days, Monday through Saturday), the DPTS recorded 721 incidents where their operations were impacted by train blockages. Of this total, 364 buses had to stop as a result of the blockages (50 percent), impacting almost seven buses on average per day. The other 357 buses were able to identify the train blockage far enough in advance to deviate from the scheduled route to use an alternative route to avoid potential delays. **Table 3-23** shows the transit related impacts in terms of delay and number of passengers impacted.

**Table 3-23. Transit Related Impacts Resulting from Buses Stopped for Trains**

Month (2011)	Number of Days Data was Recorded	Number of Times Buses were Stopped	Total Delay Time for Stopped Buses (hours:minutes)	Number of Passengers On-Board Stopped Buses	Number of Buses that Missed Connections	Number of Passengers that Missed Connections
January	19	135	12:44	1,224	2	22
February	24	165	14:34	2,176	4	15
March	11	64	6:14	901	1	3

SOURCE: Decatur Public Transit System (January – March, 2011)

**Projected Annual Total (based on data collected between January and March, 2011)**

2011	304	2,050	188:39*	24,226	39	225
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\* Equivalent of approximately 7.8 days

Note: Does not assume any adjustment for harvest season when rail delays usually increase.

The 364 buses stopped for train blockages were delayed a total of 33 hours and 32 minutes. The total number of passengers on-board when these delays occurred totaled 4,301. During the approximately two-month time period, train blockages resulted in seven buses missing their connection, which impacted 40 riders. When these totals are projected over the course of a year, with no seasonal adjustment for harvest season when rail activity typically increases, it equates to over 2,000 buses being stopped resulting in 188 hours delay, or the equivalent of almost eight full days of delay. Furthermore, the impact to transit riders equates to over 24,000 riders potentially being delayed on an annual basis.

The crossings that most often impacted by train blockages include:

- ▶ **E. Wood at MLK |** Detour routes are possible if the train is noticed in time; two bus routes are affected;
- ▶ **E. Eldorado east of Morgan |** Detour routes are possible if the train is noticed in time; two bus routes are affected;
- ▶ **MLK north of Cerro Gordo |** Detour routes are possible if the train is noticed in time; one bus route is affected;
- ▶ **Brush College at Faries Parkway |** No detour routes; one route is affected; and
- ▶ **E. William at N. 23rd Street |** No detour routes; two routes are affected.

## AVIATION

The following provides an overview of existing facilities and operations at the Decatur Airport. The airport is located approximately four miles east of downtown Decatur at 910 Airport Road. It is one of eleven primary airports in the State of Illinois.

### System Overview

The Decatur Airport is owned and operated by the Decatur Park District. The Airport is one of only five Park District-operated airports in the State of Illinois and the only Park District-owned airport served by an air carrier (Air Choice One). The Airport encompasses an area of approximately 2,200 acres and includes over 5,000,000 square feet of pavement surfaces for aircraft operations (runways, taxiways and parking aprons) and 360,000 square feet of roads and vehicle parking areas. The Decatur Airport has the fourth-longest runway in the State at 8,500 feet with two other runways measuring 6,800 feet and 5,300 feet in length.

The Decatur Airport is located along the east-central edge of the MPA. The airport maintains three runways. The primary runway, 6/24, at 8,500 by 150 feet, can accommodate large jet service. The surface of 6/24 is grooved asphalt and concrete. Runway 12/30 is 6,800 feet by 150 feet with a surface of grooved (partial) asphalt and concrete. Runway 18/36 is 5,300 by 150 feet with a surface of grooved asphalt. All are served by a full taxiway system and monitored by a control tower. Two multiple storage hangers are on site to house some of the 125 base aircraft. One is 27,000 square feet and the other is 8,000 square feet. There are 115 T-hangers also on site.

The terminal includes two gates, baggage-handling conveyors, ticketing counters, automobile rental offices, and a restaurant with a capacity of 130 persons. Full snow removal capabilities are present and a fire station is located on the field allowing 24/7 operations.

A commuter airline provides service between Decatur and Chicago O'Hare and Decatur and St. Louis. The Illinois Army National Guard maintains helicopters, as well as some fixed wing aircraft on site.

### Facilities

The Decatur Airport Terminal Building is a 24,000 square foot ground level facility housing airline and car rental counters, seating areas for passengers and guests, baggage claim area, administrative offices and a restaurant/banquet facility. Close-in parking is available for visitors and travelers have the convenience of long-term parking at no-charge. The airport amenities/businesses include the following:

- ▶ American Connection Ticket Counter
- ▶ Avis Rent-A-Car
- ▶ "Main Hangar" Restaurant and Banquet Facility
- ▶ Lobby Seating Area
- ▶ Volunteer Information Desk
- ▶ Baggage Claim Area
- ▶ Advertising Displays
- ▶ Motel Courtesy Phone
- ▶ Airport Administrative Offices
- ▶ Foreign Trade Zone and US Customs

## Foreign Trade Zone #245

Foreign Trade Zone (FTZ) #245 was established at the Decatur Airport in 2000 with Decatur Park District being named as the “Zone Grantee.” FTZs are designated sites where special customs procedures apply. The designated area is called a General Purpose US FTZ, which for Custom purposes is considered outside the United States. This designation allows nearly any imported merchandise to be brought into a FTZ for manipulation, without paying U.S Customs or duties fees. This helps encourage US companies to conduct business in the Decatur area by keeping the cost of imports and exports down. As of 2009, there were approximately \$35 million of imports and \$1 billion of exports to/from the Decatur area that could use this zone.

A Sub-Zone Site designation had been applied for by ADM with support of the Decatur Park District. Another potential use might involve naming an industry such as Caterpillar to handle earth-moving components for its worldwide market. This would have a positive impact on overall economic and land development efforts by offering an added service to companies considering expansion or relocating to a particular area. Companies involved in international trade who are both importing and exporting will be most interested in the program because it provides for duty-free treatment of imports while they remain in the Zone. Imported components re-exported, either unchanged or as a part of a final product, never become subject to US Customs fees.

## Department of Homeland Security

The Decatur Airport is designated a US Customs Port and serves as an important regional freight hub. This facility services corporate and general aviation aircraft at the airport. This is potentially a major growth factor for the airport. The US Customs office became operational on August 29, 1999, funded through user fees and a Decatur Park District subsidy. When entries reach 25,000 per year US Customs typically fund the operation.

ADM, Caterpillar, and other corporate flyers are the primary users of the Customs facility. Until recently, the airport also served as a hub for the UPS. Prior to the economic downturn, UPS made the Decatur Airport its primary facility for Illinois south of I-80 with more than ten million pounds of freight passing through each year.

ADM ships between South America and Canada and items destined for those locations can clear customs at the Decatur Airport. The presence of both Customs and the FTZ make the Decatur Airport unique from other regional airports and provides the business park and the region an excellent location and opportunity for growth.

## Operational Characteristics

The Decatur Airport is served by commercial airline service provided by Air Choice One, which provides charter service to Burlington (Iowa), Chicago, Ironwood (Michigan), Jonesboro (Arkansas), and St. Louis.

There are six departure flights per weekday to each of Chicago and St. Louis, with three arrival flights from each of Chicago and St. Louis per weekday, for a total of 12 flights served by the Decatur airport during the work week of Monday through Friday. Each of the following weekday flights also provides Sunday service: Chicago to Decatur, St. Louis to Decatur, Decatur to Chicago, and Decatur to St. Louis (all are the last flights out Monday through Sunday). Additionally, a single Saturday flight is offered to and from each city, for a total of four flights. Altogether, there are 16 flights coming and going from Decatur Airport during a typical 7-day week.

Table 3-24 displays the commercial flight schedule for the Decatur Airport.

**Table 3-24. Decatur Airport Commercial Flight Schedule**

Departure	Destination	Frequency	Flight Number	Origin Airport	Departure Time	Destination Airport	Arrival Time
Decatur (DEC)	Chicago (ORD)	Monday - Friday	2510	DEC	6:00 AM	ORD	7:20 AM
		Sunday - Friday	2512	DEC	9:45 AM	ORD	11:05 AM
		Saturday	2516	DEC	10:50 AM	ORD	12:10 PM
		Sunday - Friday	2514	DEC	5:10 PM	ORD	6:30 PM
	St. Louis (STL)	Monday - Friday	2511	DEC	9:25 AM	STL	10:20 AM
		Sunday - Friday	2513	DEC	1:20 PM	STL	2:15 PM
		Sunday - Friday	2515	DEC	8:35 PM	STL	9:30 PM
		Saturday	2517	DEC	2:25 PM	STL	3:20 PM
Chicago (ORD)	Decatur (DEC)	Monday - Friday	2501	ORD	7:50 AM	DEC	9:10 AM
		Saturday	2507	ORD	12:45 PM	DEC	2:05 PM
		Sunday - Friday	2503	ORD	11:40 AM	DEC	1:00 PM
		Sunday - Friday	2505	ORD	7:00 PM	DEC	8:20 PM
St. Louis (STL)		Monday - Friday	2500	STL	5:00 AM	DEC	5:45 AM
		Sunday - Friday	2502	STL	8:35 AM	DEC	9:30 AM
		Sunday - Friday	2504	STL	4:00 PM	DEC	4:55 PM
		Saturday	2506	STL	9:40 AM	DEC	10:35 AM

Source: Air Choice One, Flight Schedule. airchoiceone.com (2014)

## Operations – Total Commercial and Non-Commercial Take-Offs and Landings

Primary users of the airport are general aviation and the military. Gaitros Aviation LLC offers aviation fuel sales, pilot lounge and quiet room, ramp/tie-down services, aircraft cleaning and hangars for aircraft storage. Between 2004 and 2013, operations averaged over 44,500 per year. During this time period, operations reached a high of approximately 48,000 in 2007.

The total operations (take-offs and landings) for the Decatur Airport (years 2004 to 2013) are displayed in **Table 3-25** and **Figure 3-32**.

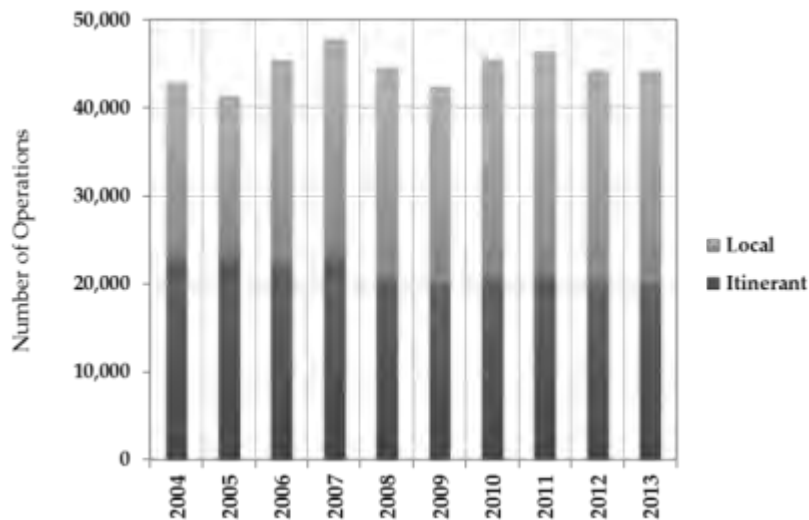
**Table 3-25. Decatur Airport Operations, Total Commercial and Non-Commercial Take-Offs and Landings**

Year	Itinerant					Local			Grand Total
	Air Carrier	Air Taxi	General Aviation	Military	Total	Civil	Military	Total	
2004	14	2,777	19,300	952	23,043	19,461	426	19,887	42,930
2005	20	2,586	18,767	1,896	23,269	16,509	1,669	18,178	41,447
2006	41	2,917	17,078	2,301	22,337	19,621	3,554	23,175	45,512
2007	33	3,161	17,610	2,344	23,148	21,081	3,632	24,713	47,861
2008	42	2,523	15,224	2,635	20,424	19,380	4,821	24,201	44,625
2009	4	2,409	15,834	1,633	19,880	19,945	2,666	22,611	42,491
2010	3	3,942	13,699	3,020	20,664	19,562	5,356	24,918	45,582
2011	9	4,003	13,595	3,398	21,005	18,767	6,694	25,461	46,466
2012	13	4,021	11,988	3,839	19,861	17,140	7,309	24,449	44,310
2013	1	3,986	12,138	3,710	19,834	17,697	6,689	24,386	44,220

SOURCE: Federal Aviation Administration, (FAA) Air Traffic Activity System (ATADS), Airport Operations. [aspm.faa.gov/opsnet/sys/Airport.asp](http://aspm.faa.gov/opsnet/sys/Airport.asp) (2014)



Figure 3-32. Decatur Airport Operations, Total Commercial and Non-Commercial Take-Offs and Landings



## Enplanements

Enplanements are simply the number of air passengers who board an airplane, and the term is interchangeable with passenger boardings. The Decatur Airport operates four passenger service flights per day to each of Chicago, IL and St. Louis, MO enplanements had been stable, with passenger declines in both 2008 and 2009. Then in 2010 and 2011, passenger volumes surged from about 1,200 to about 7,800. Volumes leveled off in 2012 and declined slightly to approximately 6,800 in 2013.

It is important to note that 10,000 passengers per year is the threshold to be eligible for Federal Aviation Administration (FAA) funding and Primary Airport status. Since enplanements at Decatur Airport have so rapidly gained in volume towards reaching this threshold, it will become ever more imperative that the appropriate investments are made to plan for this significant change in status.

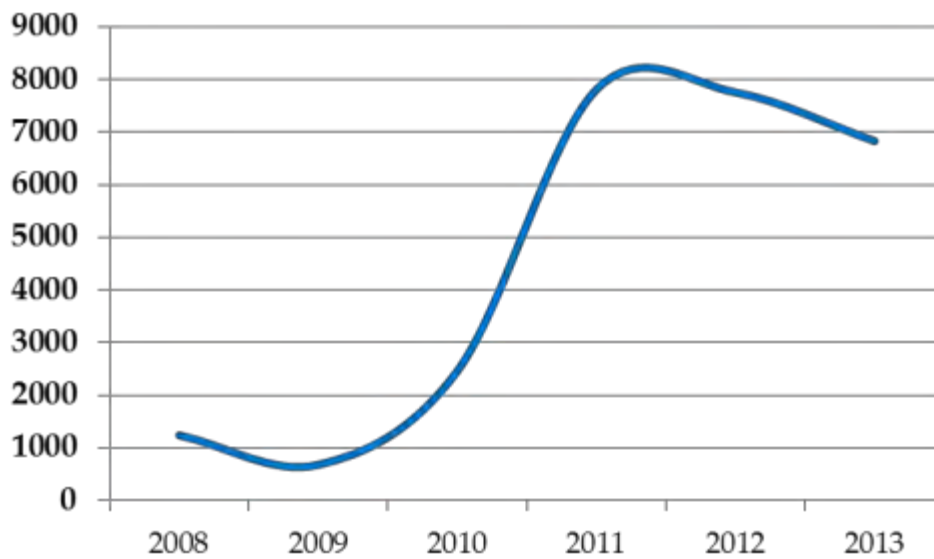
Table 3-26 displays annual enplanement volumes for the Decatur Airport, and Figure 3-33 displays the total enplanements for each year during time period of 2008 – 2013.

Table 3-26. Decatur Airport Total Enplanements (2008 – 2013)

Year	Rank Among all US Airports	Airport Service Class	Enplanements (Current Year)	Enplanements (Previous Year)	Percent Change
2008	661	General Aviation	1,232	4,014	-69.3%
2009	700	General Aviation	672	1,232	-45.5%
2010	557	General Aviation	2,456	672	265.5%
2011	437	Commercial Service	7,808	2,456	217.9%
2012	438	Commercial Service	7,753	7,808	-0.7%
2013	433	Commercial Service	6,827	7,753	-11.9%

Source: Federal Aviation Administration (FAA), Passenger Boarding (Enplanement) and All-Cargo Data for US Airports.  
[www.faa.gov/airports/planning\\_capacity/passenger\\_allcargo\\_stats/passenger/?year=all](http://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/passenger/?year=all) (2014)

Figure 3-33. Enplanements



### Intermodal Characteristics

The surrounding land uses around the Decatur Airport are compatible with air service. In particular, close access to a business industrial park is very beneficial. As part of the airport layout plan there is the possibility of a CSX rail spur to serve the industrial park. This would likely occur if the industrial park occupant needed rail service.

### Accessibility

The Decatur Airport is located on the eastern edge of the city and can be accessed via US-36, IL-105, and IL-121. There is no direct access to the airport by interstate or other limited-access highways. The SE Beltway is a potential improvement that would benefit the industrial park on Park District property by providing increased accessibility for passengers, commercial vehicles and other airport users (see Chapter 4 | Future Conditions for more discussion on the SE Beltway).

DPTS provides fixed-route bus service to the Airport via Route #12–Airport–Wal-Mart East. This route also connects with the Severns Transit Center located in Decatur’s CBD. Travel time is approximately 19 minutes between the two locations. **Table 3-27** shows the schedule of Route #12.

### Recent Improvements

Within recent years, the Decatur Airport has implemented improvements totaling nearly \$13.5 million. Those improvements are shown in **Table 3-28**.

Table 3-27. Route #12 Service to Decatur Airport

Outbound		Inbound	
Leave Transit Center	Arrive Decatur Airport	Leave Decatur Airport	Arrive Transit Center
5:32	5:46	5:57	6:13
6:15	6:34	6:51	7:10
7:15	7:34	7:51	8:10
8:15	8:34	8:51	9:10
9:15	9:34	9:51	10:10
10:15	10:34	10:51	11:10
11:15	11:34	11:51	12:10
12:15	12:34	12:51	1:10
1:15	1:34	1:51	2:10
2:15	2:34	2:51	3:10
3:15	3:34	3:51	4:10
4:15	4:34	4:51	5:10
5:15	5:34	5:51	6:10
6:15	6:34	6:51	7:10

SOURCE: City of Decatur, Decatur Public Transit System Routes & Schedules (2014)

Table 3-28. Decatur Airport Improvements

Project name	Estimated Cost	Status	Year
I Fly Project	\$2,062,500	Completed	2004
Taxiway G – Phase II	\$2,780,000	Completed	2006
Reconstruct & Widen Taxiway C	\$2,125,000	Completed	2006
Pavement Rehabilitation – South T-Hangar Area	\$493,000	Completed	2006
Reconstruct South Perimeter Road	\$114,000	Completed	2006
ARFF Vehicle & Reimbursement for Land Parcel	\$1,053,000	Completed	2007
Reconstruct Portion of Runway 6/24 & Portions of Taxiways A & C	\$887,000	Completed	2007
Airport Master Plan	\$282,000	In Progress	2007
Snow Removal Equipment	\$529,000	Completed	2008
ARRA – Reconstruct Intersection of Runways 6/24 & 12/30	\$792,000	Completed	2009
Acquire Land for Approach Protection	\$336,000	In Progress	2009
Partial Fence Replacement	\$226,000	In Progress	2009
Snow Removal Equipment Purchase	\$417,000	Completed	2009
Construct Water Main	\$357,000	Completed	2009
Rehabilitate Taxiway A & Ramp	\$869,000	Completed	2010
Reconstruct North Ramp	\$967,800	Completed	2012
Airport Master Plan	\$282,000	Completed	2012
Rehabilitate Terminal Building Parking Lot	\$720,000	In Progress	2014
Wildlife Study	\$31,000	In Progress	2014
Obstruction Removal	\$201,000	In Progress	2014
Fence Upgrade	\$2,354,000	In Progress	2009-2015
<b>Total</b>	<b>\$18,659,500</b>		

Source: Decatur Airport, September 2009.

## Chapter 4

# FUTURE CONDITIONS AND TRANSPORTATION NEEDS

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*This chapter summarizes year 2040 population and employment projections and the multimodal conditions and issues within the Metropolitan Planning Area.*

*The analysis addresses potential multimodal deficiencies and identifies projects for roadways, public transportation, freight, non-motorized, and aviation.*

## 2040 POPULATION AND EMPLOYMENT

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### Overview

The year 2040 population and employment projections for the MPA are presented to assist in validating future year transportation improvements. As part of the DATES project, the socioeconomic data used for the regional travel demand forecasting model was updated. This included updating the base year to 2010 using U.S. Census data. The future year population and employment projections were also reviewed and an updated to 2035 to reflect recent economic and development trends within the region.

In preparing to update the LRTP to 2040, the DUATS committee determined that it would be appropriate to use the 2035 socioeconomic data developed for DATES to reflect the year 2040 conditions. This approach was done to maintain consistency between the DATES study and the 2040 LRTP, and it was felt this development scenario reflected a realistic growth projection for the region. The results of these efforts were then used to produce a comparison of the baseline and alternative scenarios for Macon County and the MPA in 2040, which are discussed in the following sections.

## Population

According to the U.S. Census, the population in Macon County was 110,768 in 2010. The estimated MPA population for 2010 was 101,393, representing approximately 92% of the County population. In 2000, the estimated population in Macon County was 114,706. This is an approximate decrease in the County population of 4,000 between 2000 and 2010. A significant portion of this decline is likely a reflection of the national economic recession that occurred between 2007 and 2010. **Table 4-1** summarizes the historic (1990 – 2010) and projected population (2020 – 2040) for Macon County and the MPA.

**Table 4-1. Historic and Projected Population for Macon County and MPA (1990 – 2040)**

Area	1990	2000	2010	2020	2030	2040
<b>Macon County Population</b>	117,206	114,706	110,768	113,394	116,020	118,648
<b>Estimated MPA Population</b>	107,908	108,534	101,393	105,456	109,059	112,716
<b>Percent of County Population within the MPA</b>	92%	95% *	92% *	93% **	94% **	95% **

SOURCE: US Census (1990 – 2010); URS estimates (2020 – 2040)

### NOTES

\* The estimated percent of the County population within the MPA dropped from 95% to 92% between 2000 and 2010 numbers. It is believed that the percentage was overestimated in 2000. The US Census was used to update the 2010 value and is believed to provide a more accurate reflection of the population distribution within Macon County.

\*\* Percent of County population within the MPA for the years 2020 through 2040 are estimated. The percentages gradually increase through the year 2040 to reflect an assumption that the majority of growth occurring within the region will occur within the Decatur MPA.

In developing the year 2040 projections, DUATS began by reviewing previous projections in the 2035 LRTP and updated the socioeconomic data as part of the DATES project. DATES utilized a future year projection which was developed using the 2035 LRTP data, input from local planning agencies, and projections that were based on data from The Illinois Department of Commerce and Economic Opportunity (DCEO) – which provides population projections for Illinois counties. DATES established a planning horizon year of 2035; however, for the purpose of the 2040 LRTP update, DUATS determined that the 2035 projections would also be used to represent the 2040 projections. This was done to maintain consistency between the two plans and ultimately the DUATS committee agreed that the 2035 projections reflected a more realistic projection of the 2040 growth scenario, especially given the economic downturn that occurred around 2007 to 2010.

The 2040 population projection for Macon County is estimated to be 118,648. At the time DATES was being developed, DCEO projections estimated that Macon County would grow to a population of 119,693 in 2030, which exceeds the 2040 LRTP projection. However, further analysis shows the 2010 DCEO projections exceeded actual 2010 US Census totals (110,768 US Census vs. 111,957 DCEO).<sup>1</sup> Another indicator of more conservative population growth is the 2013 U.S. Census estimate for Macon County, which at 109,278 represents a 1,500 person decline in population compared to the 2010 U.S. Census.







**Figure 4-1** displays projected population levels in 2040 and **Figure 4-2** displays projected population densities in 2040.

<sup>1</sup> Illinois Department of Commerce and Economic Opportunity (DCEO), DCEO County Population Projections. data.illinois.gov/Economics/DCEO-County-Population-Projections/h3bx-hbbh (2014)








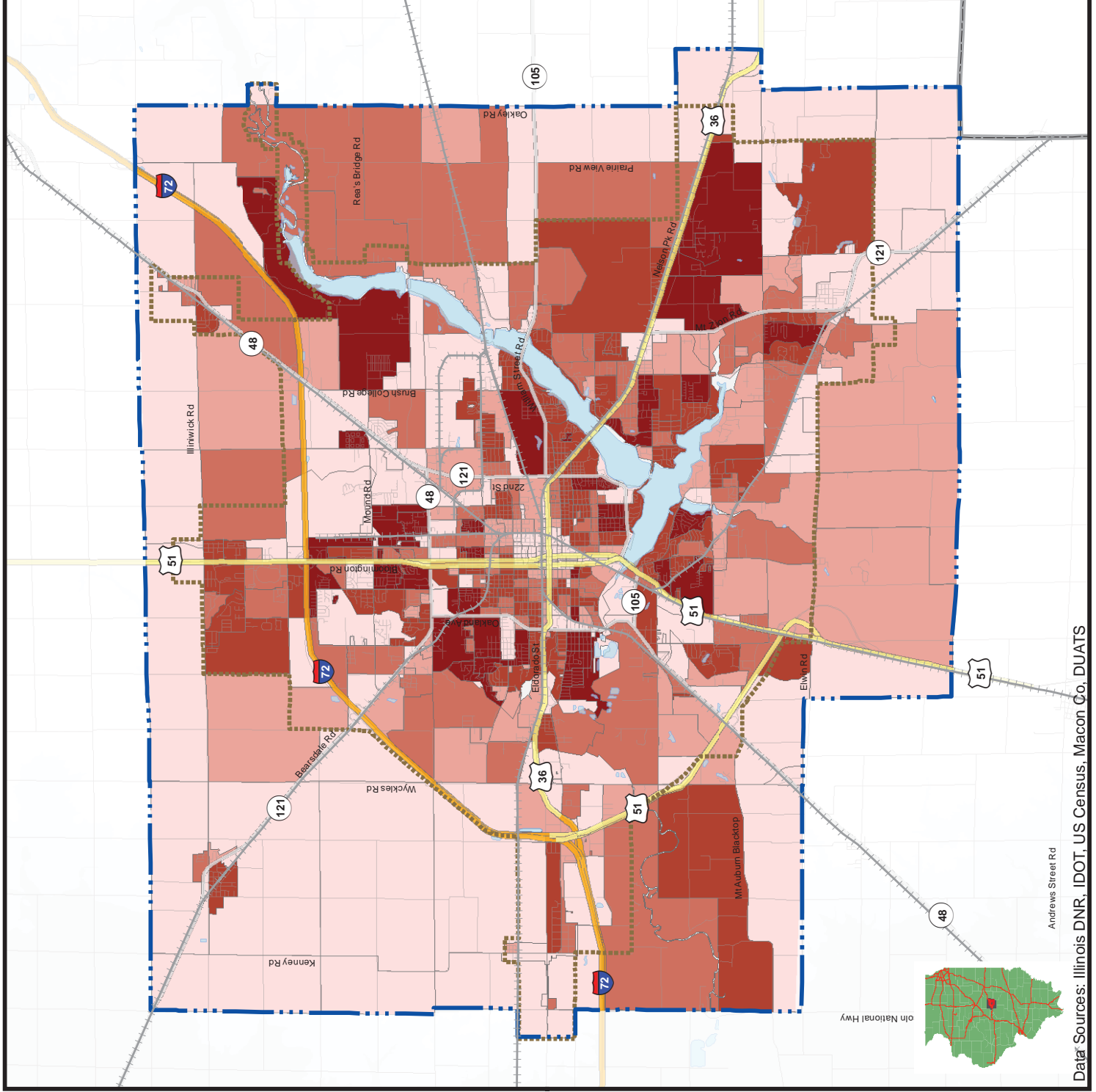
**Figure 4-1**  
**2040 Population**

**Legend**

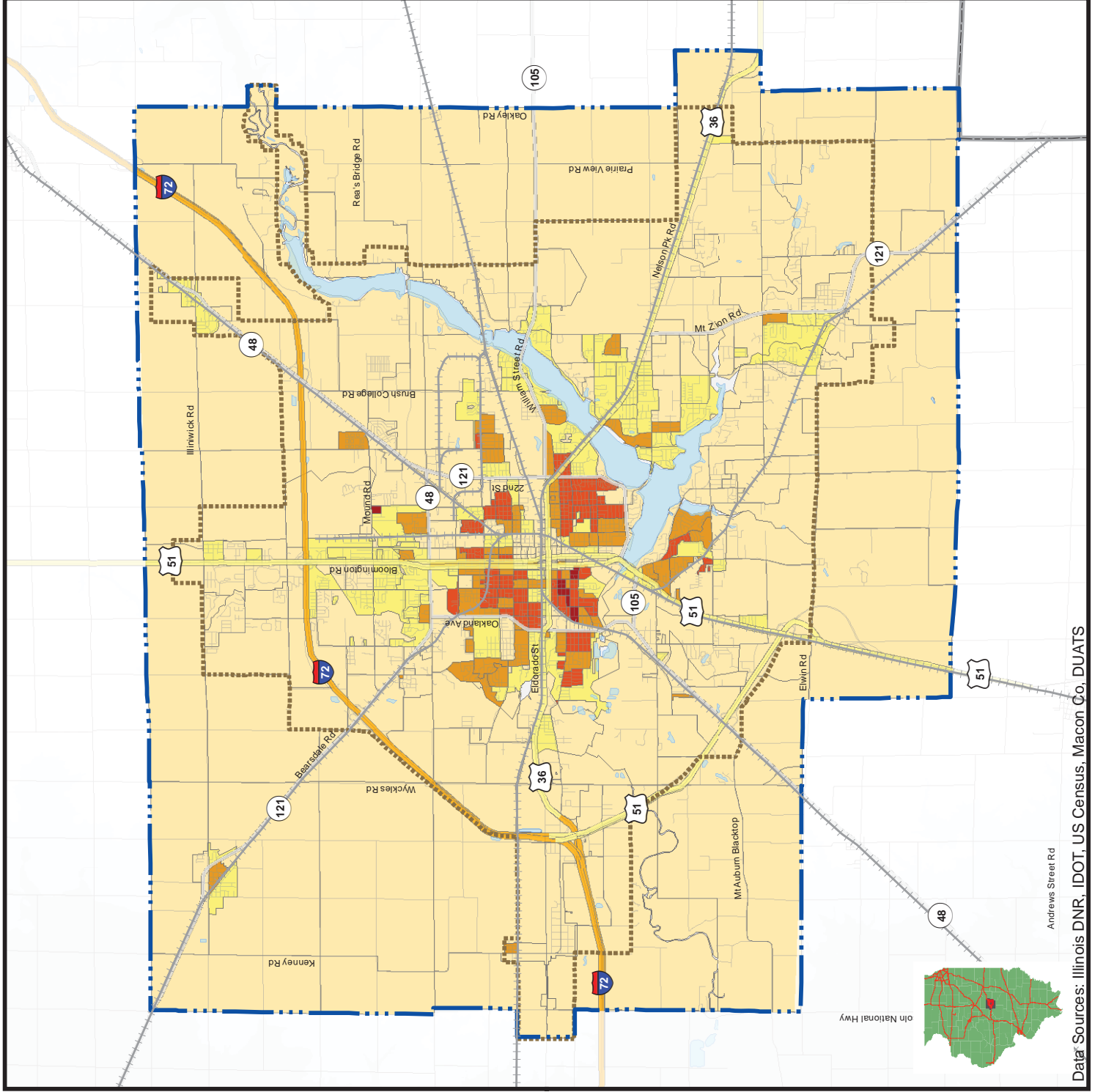
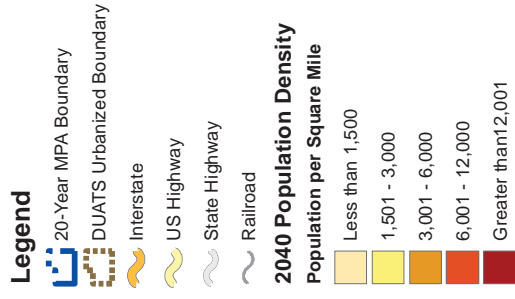
-  20-Year MPA Boundary
-  DUATS Urbanized Boundary
-  Interstate
-  US Highway
-  State Highway
-  Railroad

**2040 Population**

-  Less than 75
-  76 - 150
-  151 - 300
-  301 - 600
-  Greater than 601



**Figure 4-2**  
**2040 Population Density**



## Employment

As part of the LRTP update, future year employment projections were developed. The employment projections are consistent with the population projections in that the DATES socioeconomic data was used to reflect 2040 projections. Furthermore, for the purpose of estimating the employment within the MPA, it was determined that 96 percent was a reasonable percentage to use for future growth, as this is consistent with previous LRTP updates.

While the MPA contained the same proportion (96 percent) of Macon County employment in 2010 that was previously estimated in 2000, the total employment has declined significantly, from approximately 60,000 in Macon County and 58,000 in the MPA in 2000 to 49,000 and 47,000 respectively in 2010. The decline can be attributed in part to the national economic recession starting in 2007 and to the fact that the model socioeconomic data was updated in 2010.

Employment projections show moderate growth for both the County and MPA, with 2040 expected to grow to roughly 54,000 and 52,000 jobs for each respective area. This represents a 10 percent increase for both areas, bringing the 2040 projected totals back to 1990 levels.

**Table 4-2** depicts the historic (1990 – 2010) and projected employment (2020 – 2040) for Macon County. The table also estimates the employment that falls within the MPA.

**Table 4-2. Historic and Projected Employment for Macon County and MPA Communities (1990 – 2040)**







Area	1990	2000	2010	2020	2030	2040
<b>Macon County Employment</b>	54,142	59,817	48,935	50,555	52,175	53,794
<b>MPA Employment</b>	51,976	57,664	47,174	48,736	50,298	51,859
<b>Percent of County Employment within the MPA</b>	96%	96%	96%	96%	96%	96%

SOURCE: DUATS






**Figure 4-3** displays projected employment levels in 2040 and **Figure 4-4** displays projected employment densities in 2040.

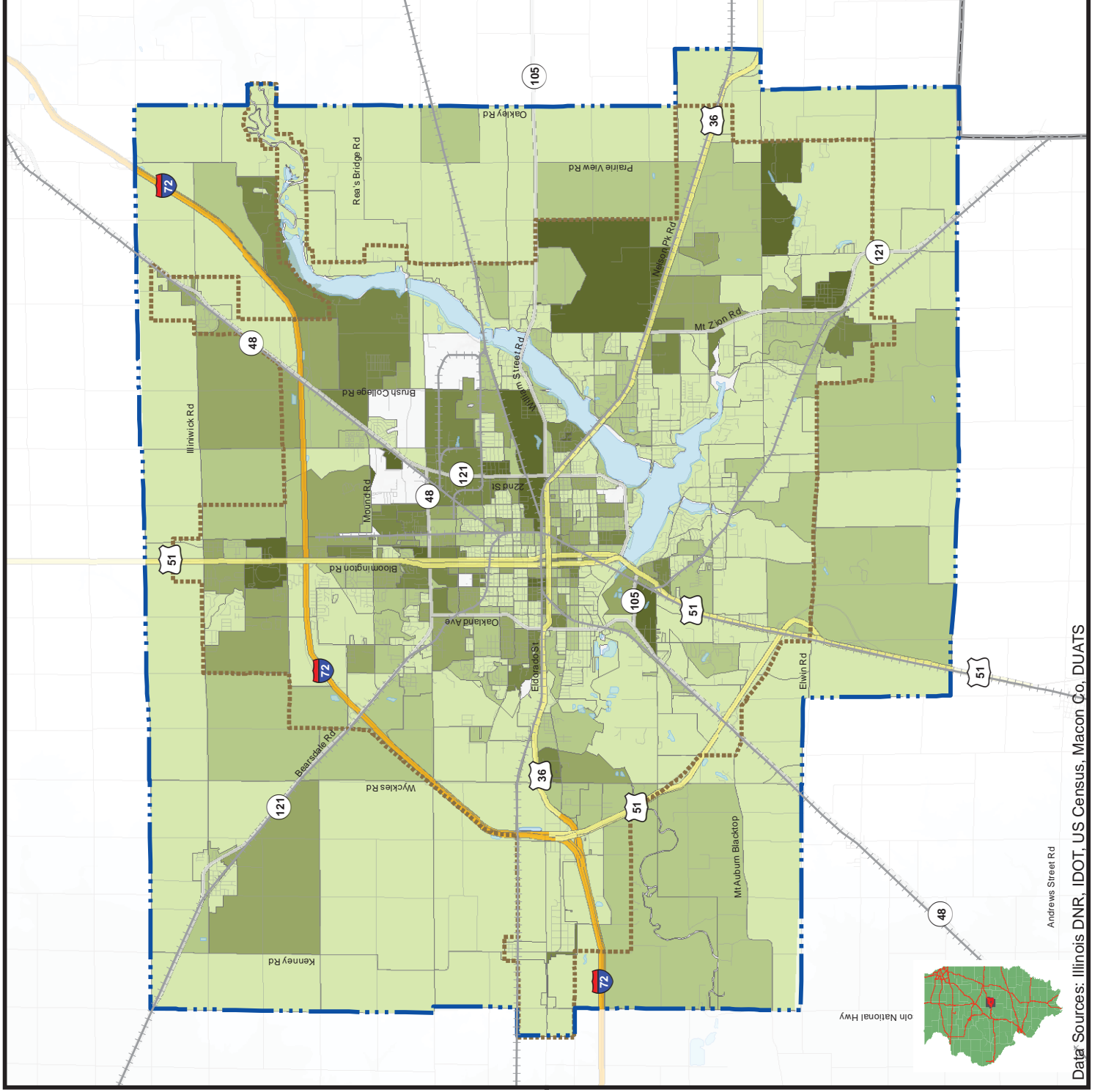
**Figure 4-3**  
**2040 Employment**

**Legend**

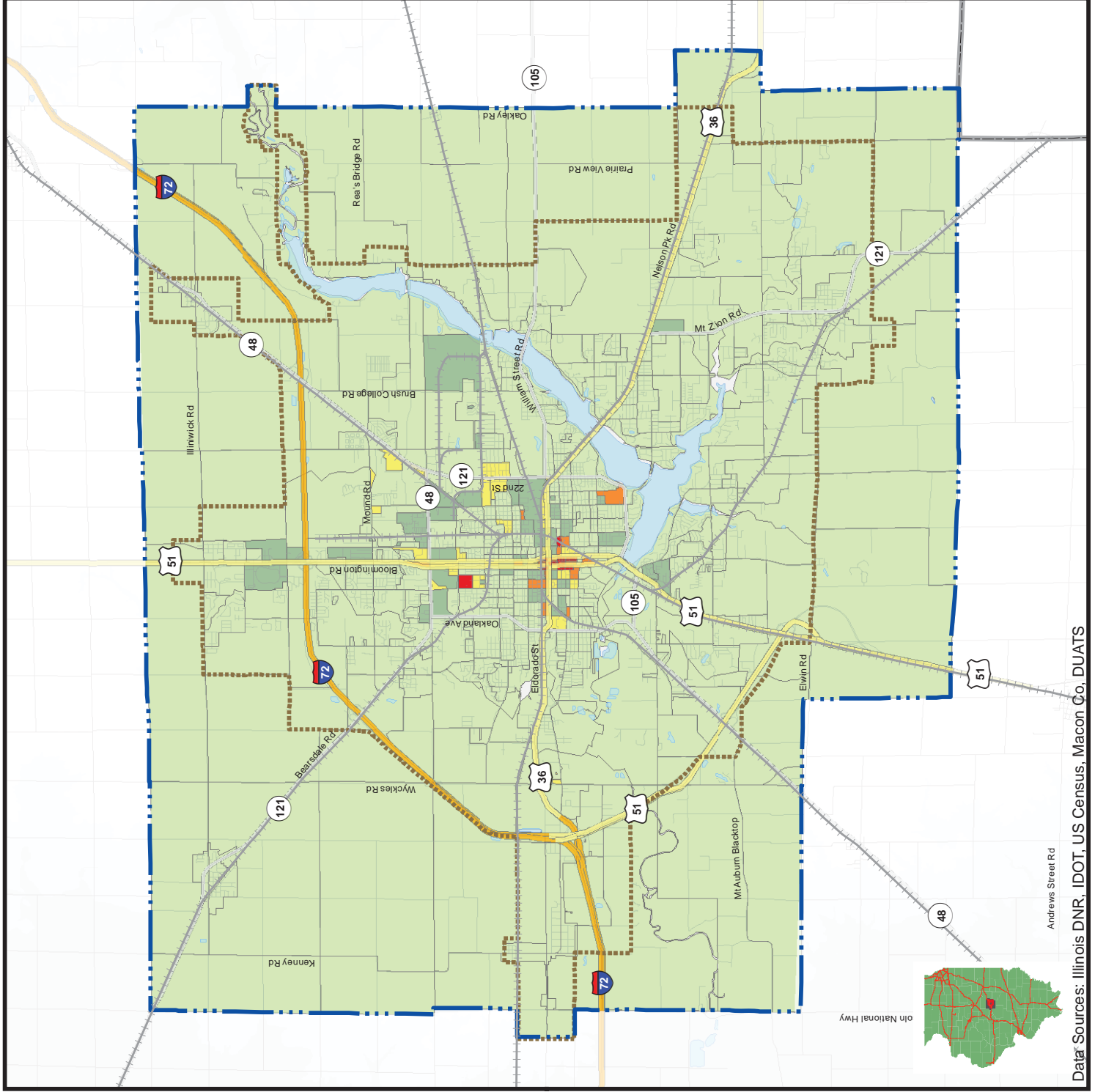
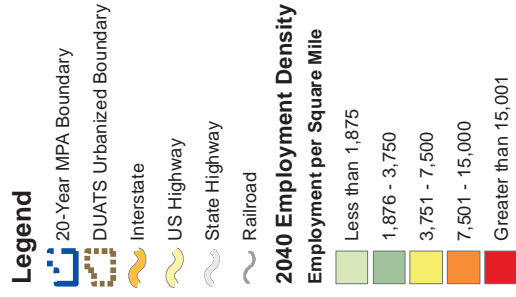
-  20-Year MPA Boundary
-  DUATS Urbanized Boundary
-  Interstate
-  US Highway
-  State Highway
-  Railroad

**2040 Employment**

-  Less than 38
-  39 - 125
-  126 - 250
-  251 - 500
-  Greater than 501



**Figure 4-4**  
**2040 Employment Density**



## **FUTURE YEAR NEEDS AND POTENTIAL IMPROVEMENTS**

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Projected population and employment growth through the year 2040 will place increased demands on the regional transportation infrastructure. Identifying the future year transportation needs, and mobility solutions, are critical to help support economic growth and improve the quality of life for area residents.

The identification, integration and development of future projects can help in reducing congestion, increasing safety, enhancing security, and increasing efficiencies in operating and maintaining the transportation system – all of which are reflected in the DUATS goals and objectives. Planning for future transportation needs can also reduce conflicts between transportation modes and have a positive impact on the environment.

The following sections discuss potential future year needs for the individual transportation modes. While discussed by mode, it is recognized that an integrated, multimodal transportation system will ultimately provide a more diverse and efficient transportation system that is better able to respond to future travel demands in a cost effective manner.

In addition to the transportation needs, committed and planned projects are also identified. These projects include brief descriptions. The financial feasibility of these projects is evaluated in Chapter 5 - Recommended Plan, which identifies the fiscally constrained projects.

The discussion of the future year issues and needs are categorized into the following sections:

- ▶ **Roadway;**
- ▶ **Public Transportation;**
- ▶ **Non-Motorized;**
- ▶ **Freight Traffic and Mobility; and**
- ▶ **Aviation.**



## ROADWAYS

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### Overview

One aspect of the 2040 LRTP planning process is to identify projects that address future year needs. This section identifies potential roadway improvements within the MPA. These projects are consistent with the goals and objectives outlined in Chapter 2. The roadway section of this chapter is organized into the following four areas:

1. **Committed and Future Roadway Projects** | For roadway projects, two improvement categories – committed and future projects – are identified. Committed projects are typically projects included in the TIP, or have a funding source identified. Future projects are generally described as projects that address a future year need, but do not currently have funding available.
2. **System Preservation and Maintenance** | Preservation of the existing transportation infrastructure is a critical, and costly, aspect of the regional transportation system. On-going maintenance and preservation costs for the MPA are discussed.
3. **Modeling Scenarios** | In addition to the committed and future roadway projects, DUATS tested the impact of three proposed future improvements using the 2040 travel demand model. Five scenarios are evaluated and summarized.
4. **Future Roadway Issues** | A discussion of future roadway issues and mobility concerns are discussed.

## Committed and Future Roadway Projects

Committed and future roadway projects were identified as part of the 2040 LRTP update. Following is a brief description of each type of roadway project:

- ▶ **Committed Projects** | For the purpose of this LRTP, committed projects are transportation improvements that are planned in a given fiscal year or range of years, are programmed in the current Transportation Improvement Plan (TIP), are fiscally constrained, and are likely to be constructed by the target year – for this LRTP update, the year 2020.
- ▶ **Future Projects** | Future projects are transportation improvements that are identified as addressing a future year need and would likely be constructed within the next 25 years if funding were available. These projects are not considered fiscally constrained as they are currently not programmed. Such “Illustrative” projects have been termed future projects for the purposes of this LRTP.









**Figure 4-5 and Figure 4-6** include all committed projects for fiscal years 2015 through 2020 and future roadway improvement projects in the 2040 planning horizon, followed by a corresponding key. **Figure 4-5** displays IDOT and Macon County Highway Department committed and future projects; IDOT projects are labeled beginning with an “A” and Macon County projects are labeled “B”. **Figure 4-6** displays Decatur, Forsyth, and Mt. Zion committed and future projects; Decatur projects are labeled “C”, Forsyth projects are labeled “D”, and Mount Zion projects are labeled “E”.

The project lists represented in the figure keys include general level cost estimates for the year 2015. As part of the recommended plan, the 2015 project costs will be inflated to reflect an anticipated construction year. These lists were developed in coordination with the respective DUATS members.

Figure 4-5  
Committed and Future  
Roadway Projects

IDOT and Macon County  
Highway Department

**Legend**

-  Metropolitan Planning Area (MPA) Boundary
-  Urbanized Area Boundary
-  Interstate
-  US Highway
-  State Highway
-  Railroad
-  IDOT Projects
-  Macon County Highway Department Projects

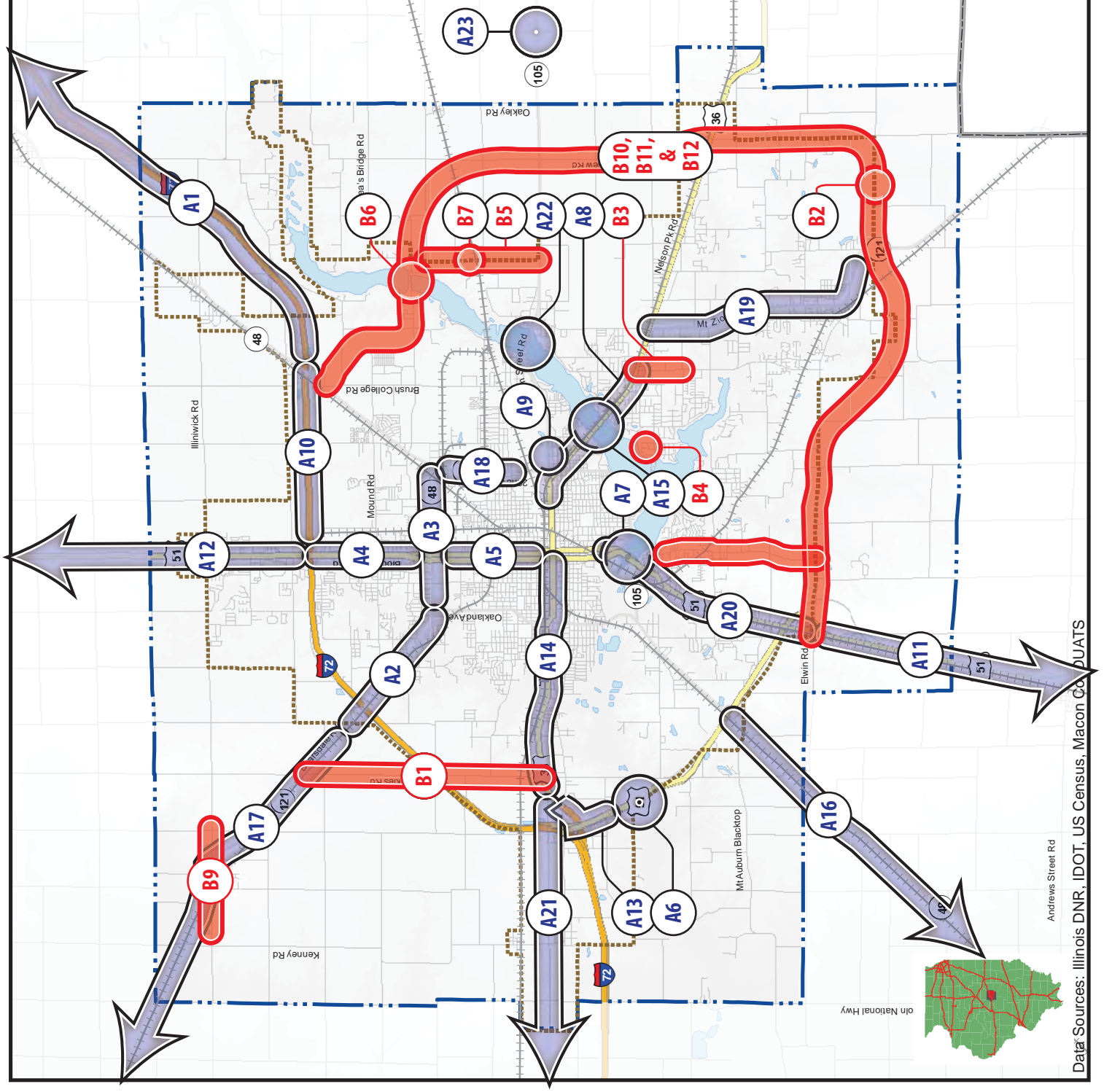









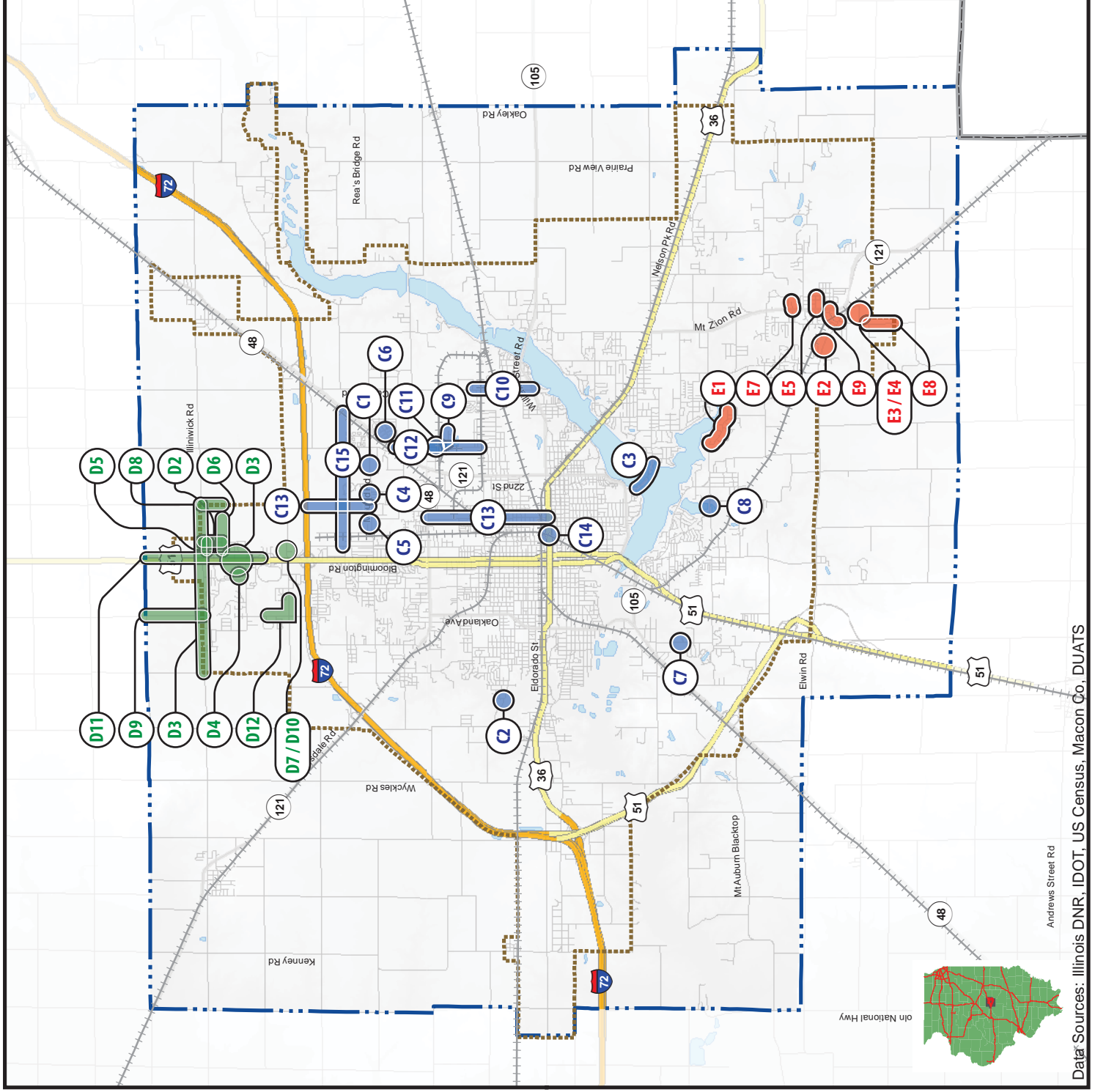


Figure 4-6  
Committed and Future  
Roadway Projects

Decatur, Forsyth, and  
Mount Zion

**Legend**

-  Metropolitan Planning Area (MPA) Boundary
-  Urbanized Area Boundary
-  Interstate
-  US Highway
-  State Highway
-  Railroad
-  Decatur Projects
-  Forsyth Projects
-  Mount Zion Projects



**Figure 4-5A. Illinois Department of Transportation (IDOT) – Committed Projects**

- A1. I-72 Patching / Resurfacing |** 6.64 miles from 0.5 miles east of IL-48 to 4.4 miles west of Piatt County Line Road (\$13.4 million)
- A2. IL-121 Patching |** 2.72 miles from 0.6 miles northwest of I-72 to University Avenue in Decatur (\$1.3 million)
- A3. IL-121 and IL-48 Patching / Resurfacing |** 2.55 miles and bridge repair from University Avenue to 0.2 miles west of 22<sup>nd</sup> Street in Decatur (\$2.4 million)
- A4. Old Business US-51 Patching / Resurfacing and Bridge Repair |** 2.68 miles from I-72 to IL-121 in Decatur (2.4 million)
- A5. Old Business US-51 Patching / Resurfacing |** 4.27 miles from IL-121 to US-36 in Decatur (\$3.6 million)
- A6. US-51 Bridge Replacement |** Both north- and south-bound sections over the Sangamon River, one mile south of Harristown (\$17.0 million)
- A7. US-105 Bridge Deck Replacement |** Both north- and south-bound sections over Lake Decatur at the Dam in Decatur (\$6.1 million)
- A8. US-36 Bridge Deck Replacement |** Both east- and west-bound sections over US-51 in Harristown (\$2.0 million)
- A9. IL-105 Intersection Improvement |** At 24<sup>th</sup> Street in Decatur (\$750,000)

**Figure 4-5A. Illinois Department of Transportation (IDOT) – Future Projects**

- A10. I-72 Patching / Resurfacing |** 4.21 miles from 0.5 miles west US-51 to 0.5 miles east of IL-48 (\$11.4 million)
- A11. US-51 Patching / Resurfacing |** 9.88 miles from Old Business US-51 southwest of Decatur to Shelby County Line (\$7.8 million)
- A12. US-51 Patching / Resurfacing |** 10.01 miles from Dewitt County Line to I-72 (\$11.3 million)
- A13. US-36 and US-51 Patching / Resurfacing |** 6.48 miles and bridge repairs from I-72 to 0.2 miles east of Harristown Boulevard and I-72 south to Cantrell Road west of Decatur (\$5.3 million)
- A14. US-36 Patching / Resurfacing |** 4.19 miles and bridge repairs from 0.2 miles east of Harristown Boulevard to Church Street in Decatur (\$2.9 million)
- A15. US-36 Patching / Resurfacing |** 3.39 miles from 19<sup>th</sup> Street to Mt. Zion Road in Decatur (\$2.8 million)
- A16. IL-48 Patching / Resurfacing |** 10.93 miles from US-51 to Christian County Line (\$4.5 million)
- A17. IL-121 Patching / Resurfacing |** 8.23 miles from Logan County Line to 0.6 miles northwest of I-72 (\$2.9 million)
- A18. IL-121 Patching / Resurfacing |** 1.17 miles from 0.1 miles south of Kile Street to Locust Street in Decatur (\$1.0 million)
- A19. IL-121 Patching / Resurfacing |** 4.15 miles from US-36 to Sangamon County Line of Mt. Zion (\$4.0 million)
- A20. Old Business US-51 Patching / Resurfacing |** 5.86 miles from Cleveland Avenue in Decatur to US-51 (\$4.4 million)
- A21. Old US-36 Patching / Resurfacing |** 9.67 miles from Sangamon County Line to US-36 in Decatur (\$3.8 million)
- A22. IL-105 and Williams Street Bridge Deck Replacement |** Both east- and west-bound over Lake Decatur (\$8.6 million)
- A23. IL-105 and Long Creek Bridge Replacement |** 2.5 miles west of the Piatt County Line (\$950,000)



Figure 4-5B. Macon County Highway Department – Committed Projects

- 
- B1. CH-41 / Wyckles Road Reconstruction |** From US-36 north to IL-121 (2015) (\$3.4 million)
  - B2. CH-60 / Sefton Road Bridge Replacement |** (2015) (\$1.5 million)
  - B3. CH-7 Reconstruction |** Between Fitzgerald and US-36 (2016) (\$3.0 million)
  - B4. CH-63 / Country Club Road Resurfacing |** 2,900 feet of roadway (2016) (\$120,000)
  - B5. CH-23 / Sangamon Road Curve Reconstruction |** (2016) (\$400,000)

Figure 4-5B. Macon County Highway Department – Future Projects

- 
- B6. Reas Bridge Road Bridge Replacements** (\$20 million)
  - B7. CH-23 / Sangamon Road Resurfacing |** 14,000 feet of roadway (\$200,000)
  - B8. CH-61 / Franklin Street White-topping** (\$2.4 million)
  - B9. CH-20 / Reconstruction |** Warrensburg, IL (\$5.0 million)
  - B10. SE Beltway |** Final Engineering (\$18.0 million)
  - B11. SE Beltway |** Phase 1, Construction (\$95.0 million)
  - B12. SE Beltway |** Phase 2, Construction (\$85 million)
  - B13. Various Structure Reconstruction or Replacement** (\$14.4 million)

Figure 4-6A. Decatur – Committed Projects

- 
- C1. Mound Road Bridge over Spring Creek (East) |** Bridge west of Greenswitch (\$650,000)

Figure 4-6A. Decatur – Future Projects

- 
- C2. Center Street Bridge over Steven's Creek |** 0.9 miles west of Home Park Avenue (\$800,000)
  - C3. Lost Bridge Road Guardrail Replacement |** Along causeway over Lake Decatur (\$200,000)
  - C4. Mound Road Bridge over Spring Creek (Middle) |** 0.3 miles east of Woodford Street (\$700,000)
  - C5. Mound Road Bridge over Spring Creek (West) |** 0.3 miles west of Woodford Street (\$750,000)
  - C6. Meadowlark Bridge Improvements |** 0.3 miles south of Mound Road (\$400,000)
  - C7. Taylor Road Bridge over Ward Branch |** 0.6 miles south of IL- 48 (\$1.0 million)
  - C8. Grove Road Bridge over Sand Creek |** 0.8 miles east of Franklin Street Road (\$500,000)
  - C9. Parkway Drive Improvement |** 27th Street to ADM Intermodal Ramp (\$700,000)
  - C10. Brush College Road Improvements |** William Street to Harrison Avenue (\$83 million)
  - C11. 27th Street and CN Railroad Overpass |** 0.4 miles south of Pershing Road (\$50.0 million)
  - C12. 27th Street Improvement |** Faries Parkway to IL-48 (\$2.0 million)
  - C13. Jasper Street Improvement |** Eldorado to Pershing Road (\$2.0 million)
  - C14. Woodford Street Extension and Interchange |** Mound Road to I-72 (\$30.0 million)
  - C15. Ash Avenue Extension |** MLK Jr. Drive to IL-48 (\$30,0 million)
  - C16. Eldorado (US-36) and CN Railroad Overpass |** 0.15 miles east of MLK Jr. Drive (\$50.0 million)



Figure 4-6B. Forsyth – Committed Projects

- None

Figure 4-6B. Forsyth – Future Projects

- D1. Illiniwick Road (CH-20) |** Various Improvements (\$105,000)
- D2. Smith Street Reconstruction |** To CH-20 (Phase IV) (\$755,000)
- D3. Magnolia and US- 51 |** Intersection Study (\$60,000)
- D4. Christopher Drive |** Drainage Improvements (\$135,000)
- D5. Moon Street Reconstruction** (\$315,000)
- D6. East Cox Street |** Phase 3 Extension (\$3.9 million)
- D7. Koester Drive and E. Hickory Point Road |** Intersection study; jointly funded project between Forsyth and Decatur (\$500,000)
- D8. Sawyer Road Improvements |** CH-20 South Cox Street Extension (\$755,000)
- D9. Oakland Avenue Extension |** From CH-20 north to Shallenbarger (\$1.5 million)
- D10. Hickory Point Road and US- 51 |** Intersection Study (cost unknown)
- D11. Frontage Road Construction |** The east side of US- 51 from Weaver Road to CH-20 (\$1.5 million)
- D12. Bike Trail Construction |** Extension of West Hickory Point Road west to Oakland Avenue, north to Hickory Point Est.; proposed joint funding between Forsyth, Decatur Park District and DUATS (cost unknown)

Figure 4-6C. Mt. Zion – Committed Projects

- E1. South Lake Court Rehabilitation** (\$433,800)

Figure 4-6C. Mt. Zion – Future Projects

- E2. Main Street Bridge Rehabilitation** (\$525,000)
- E3. Fletcher Park Road |** Construction of 0.22 miles of east-west roadway section (\$534,000)
- E4. Fletcher Park Road |** Construction of 0.18 miles of north-south roadway section (\$457,000)
- E5. Lewis Park Drive Extension** (\$403,000)
- E6. Crestview Addition Widening** (\$425,000)
- E7. East Roberts Street Widening** (\$275,000)
- E8. Henderson Street Reconstruction – Phase III** (\$497,000)
- E9. Broadway Street Reconstruction** (\$1.2 million)

## System Preservation and Maintenance

System preservation and on-going maintenance are critical to maintaining a safe, efficient, and reliable transportation network. System preservation improvements include general maintenance such as resurfacing and reconstruction of regional roadways and bridges. This category also includes roadway upgrades, or design enhancements, that do not add capacity. Examples of such upgrades include:

- ▶ Widening / paving roadway shoulders;
- ▶ Improving roadway alignments by eliminating horizontal (curves) and vertical (hills) design deficiencies;
- ▶ Adding turning and / or passing lanes to improve traffic flow;
- ▶ Improving intersection site distance; and
- ▶ Improving access controls along major roadways.

**Table 4-3** provides the 2009-2013 / five-year average of maintenance costs for each entity with roadway oversight in the MPA, as well as the projected cumulative subtotals of these costs over the next 25-year period (2015 to 2040). The 25-year values include a three percent annual inflation rate. The average five-year and projected 25-year totals for all entities in the MPA are listed in the table. The historic five-year data is based on information provided by the DUATS member agencies.

**Table 4-3. Historic and Projected Maintenance Costs within the MPA (5 and 25 year)**

Entity	Existing 5-Year Average (2009 – 2013)	Projected Total (2015 – 2040) †
IDOT	\$358,261	\$14,226,413
Macon County Highway Department	\$1,349,737	\$53,597,578
Decatur	\$1,658,284	\$65,849,850
Forsyth	\$100,811	\$4,003,176
Mt. Zion	\$50,498	\$2,005,265
Harristown*	\$35,000	\$1,389,837
Long Creek*	\$90,000	\$3,573,867
Oreana*	\$35,000	\$1,389,837
Warrensburg*	\$40,000	\$1,588,385
Township Road Districts within the MPA*	\$600,000	\$23,825,780
<b>Total</b>	<b>\$4,317,592</b>	<b>\$171,449,988</b>

\* Based on 2035 LRTP Projections

† Costs escalated based on a 3.0 percent inflation rate

SOURCE: IDOT, Macon County Highway Department, City of Decatur, Village of Forsyth, Village of Mt. Zion, and DUATS.

In total, it is estimated that the region will need to spend approximately \$171 million over the next 25 years to maintain the current transportation infrastructure. In many cases, the current level of funding for on-going system preservation and maintenance is not sufficient to meet the current demand for infrastructure improvements. This is a critical issue that should be monitored throughout the region so it does not negatively impact area businesses, industries, and quality of life for area residents.

## Projected 2040 Traffic Volumes and Capacity Analysis

### DUATS Travel Demand Forecasting Model

In 2012, DUATS conducted a travel demand model update as part of the Decatur Area Transportation Efficiency Study (DATES) project. This effort included the conversion of the modeling program from TRANPLAN to Cube / Voyager software. The updated model provides better application interface and improved interoperability with ArcGIS software currently used by DUATS and other area governments. The model follows the traditional four step process that includes:

1. **Trip Generation;**
2. **Trip Distribution;**
3. **Mode Choice; and**
4. **Trip Assignment.**

Using this approach, five future year (2040) scenarios were modeled. These included the following:

- ▶ **Scenario 1** | No-Build;
- ▶ **Scenario 2** | Brush College Road Improvements;
- ▶ **Scenario 3** | Ash Avenue Extension;
- ▶ **Scenario 4** | Southeast (SE) Beltway Project; and
- ▶ **Scenario 5** | All Three Projects Combined (Scenarios 2, 3 and 4).

Each of these scenarios is discussed further in the following sub-sections. These discussions are followed by **Figures 4-7** through **4-16**, which display the results from the modeling conducted for each scenario. Each of the scenarios is represented by two figures; the first depicts the projected 2040 daily traffic volumes, while the second depicts the capacity analysis showing areas projected to be approaching-capacity, at-capacity, or over-capacity.

### **Scenario 1 | No-Build**

The 2040 no-build scenario provides a baseline condition from which other scenarios can be compared against. While DUATS fully expects projects that are planned and programmed to in fact be carried out, it is nonetheless useful to understand the characteristics of the transportation system if no new projects were to be undertaken, with the exception of typical annual operations and maintenance work. **Figure 4-7** displays projected 2040 traffic volumes; **Figure 4-8** displays projected roadway capacity.

### **Scenario 2 | Brush College Road Improvements**

This scenario tests how the widening of Brush College Road between William Street and Faries Parkway might impact traffic conditions in the planning area. Brush College Road currently carries over 11,000 vpd and has peak hour traffic congestion. This improvement was previously identified in the 2035 LRTP and is part of the on-going Brush College Road Corridor study which has identified a need to widen Brush College from 2-lanes to 4-lanes between William Street and Faries Parkway. This study has also identified additional infrastructure needs, including two overpasses, which are discussed in more detail in the freight section of this chapter. **Figure 4-9** displays projected 2040 traffic volumes; **Figure 4-10** displays projected roadway capacity.

### **Scenario 3 | Ash Avenue Extension**

Ash Avenue is currently an east-west local street in Decatur starting at MacArthur Road on the west and terminating at MLK Jr. Drive on the east. The only major roadway that Ash Avenue intersects is US-51. However, Ash Avenue provides vehicular access to a Walmart Supercenter and, as such, facilitates a large amount of traffic movements, including truck deliveries. Extending Ash Avenue east to IL-48 would provide motorists along IL-48 an alternative route to get to US-51 and destinations in and along the US-51 corridor. This improvement was previously identified as a conceptual improvement in the 2035 LRTP. **Figure 4-11** displays projected 2040 traffic volumes; **Figure 4-12** displays projected roadway capacity.

### **Scenario 4 | Southeast (SE) Beltway Project**

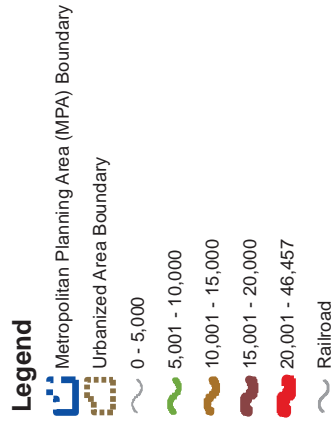
Previous DUATS LRTPs have long identified the Southeast (SE) Beltway as a project that would benefit the region. The SE Beltway is a proposed 24-mile limited-access roadway alignment that would connect US-51 south of Decatur to I-72 in the far northeastern portion of Decatur at the interchange with IL-48 via a circumferential “outer loop” in the southeastern portion of the MPA. From US-51, the route would travel east along Elwin Road, curve southeast near Karl Road, straighten out and continue east along Sefton Road, turn north along 85<sup>th</sup> Street, curve west near IL-24, turn north and run parallel to Christmas Tree Road, curve northwest between IL-22 and Garver Church Road, and finally terminate along IL-48 near the interchange with I-72.

The SE Beltway, which continues to be supported in the 2040 LRTP, supports several of the DUATS goals including increased accessibility and mobility, improved movement of freight, and potentially supporting economic development opportunities. Additionally, the SE Beltway could reroute truck traffic out of downtown Decatur, which would enhance the movement of freight through the region as well as alleviate areas of traffic congestion and help limit the negative impacts associated with truck traffic. Furthermore, the outer loop would eliminate potential travel delays associated with at-grade rail crossings. Respondents to a DATES freight survey (in 2011) indicated that a SE Beltway connection would enhance the movement of freight through the region and area stakeholders have also indicated the potential economic development benefits associated with the project. **Figure 4-13** displays projected 2040 traffic volumes; **Figure 4-14** displays projected roadway capacity.

### **Scenario 5 | Combined Projects (Scenarios 2, 3 and 4)**

This scenario combines all the projects identified in scenarios 2, 3, and 4 to evaluate the possible impacts. **Figure 4-15** displays projected 2040 traffic volumes; **Figure 4-16** displays projected roadway capacity.

Figure 4-7  
Scenario 1: No Build  
Volumes



2.5

Miles

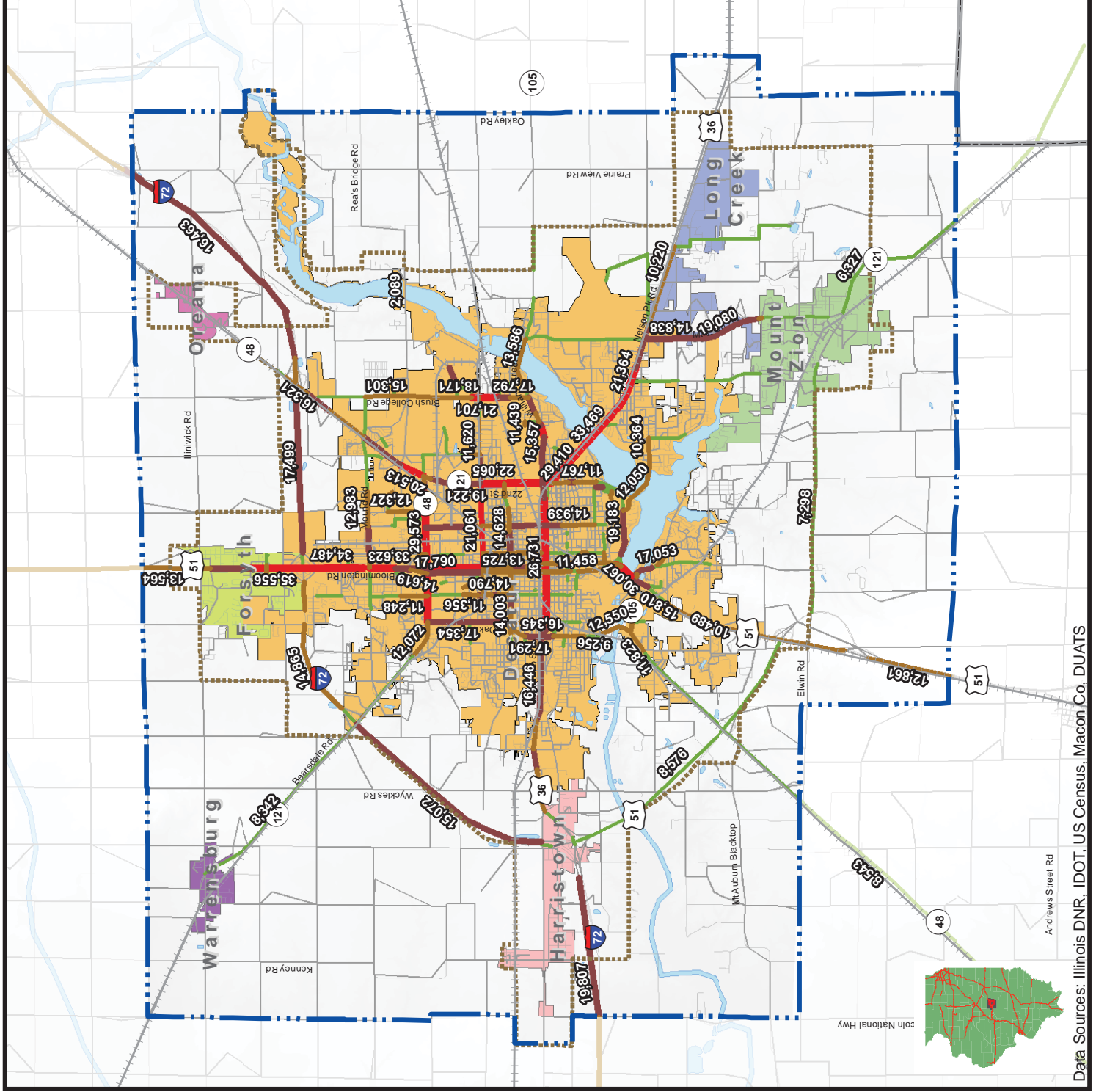
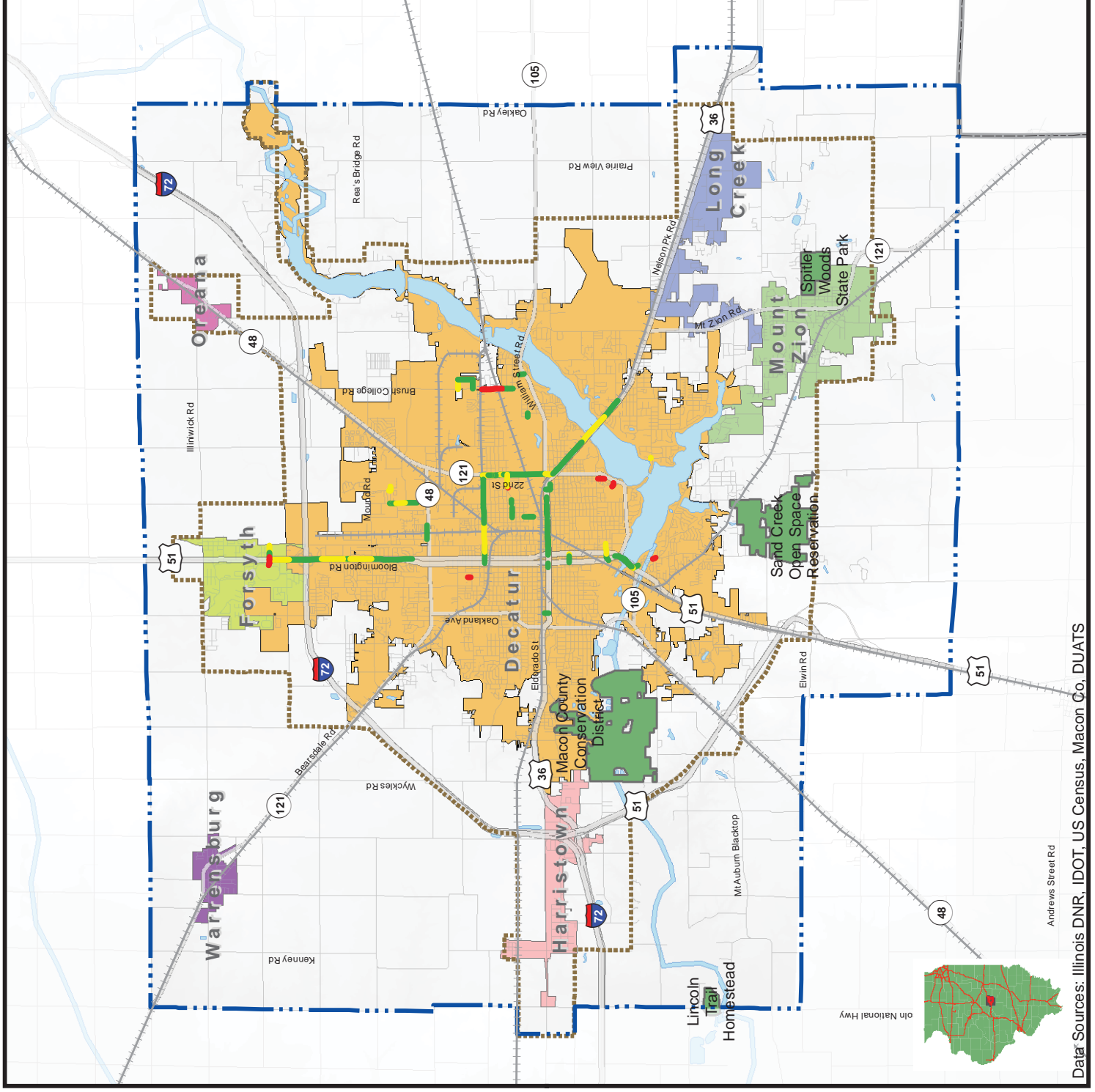




Figure 4-8  
Scenario 1: No Build  
Capacity

- Legend**
- Metropolitan Planning Area (MPA) Boundary
  - Urbanized Area Boundary
  - Railroad
  - Capacity Level**
    - Approaching-Capacity
    - At-Capacity
    - Over-Capacity



2.5

Miles

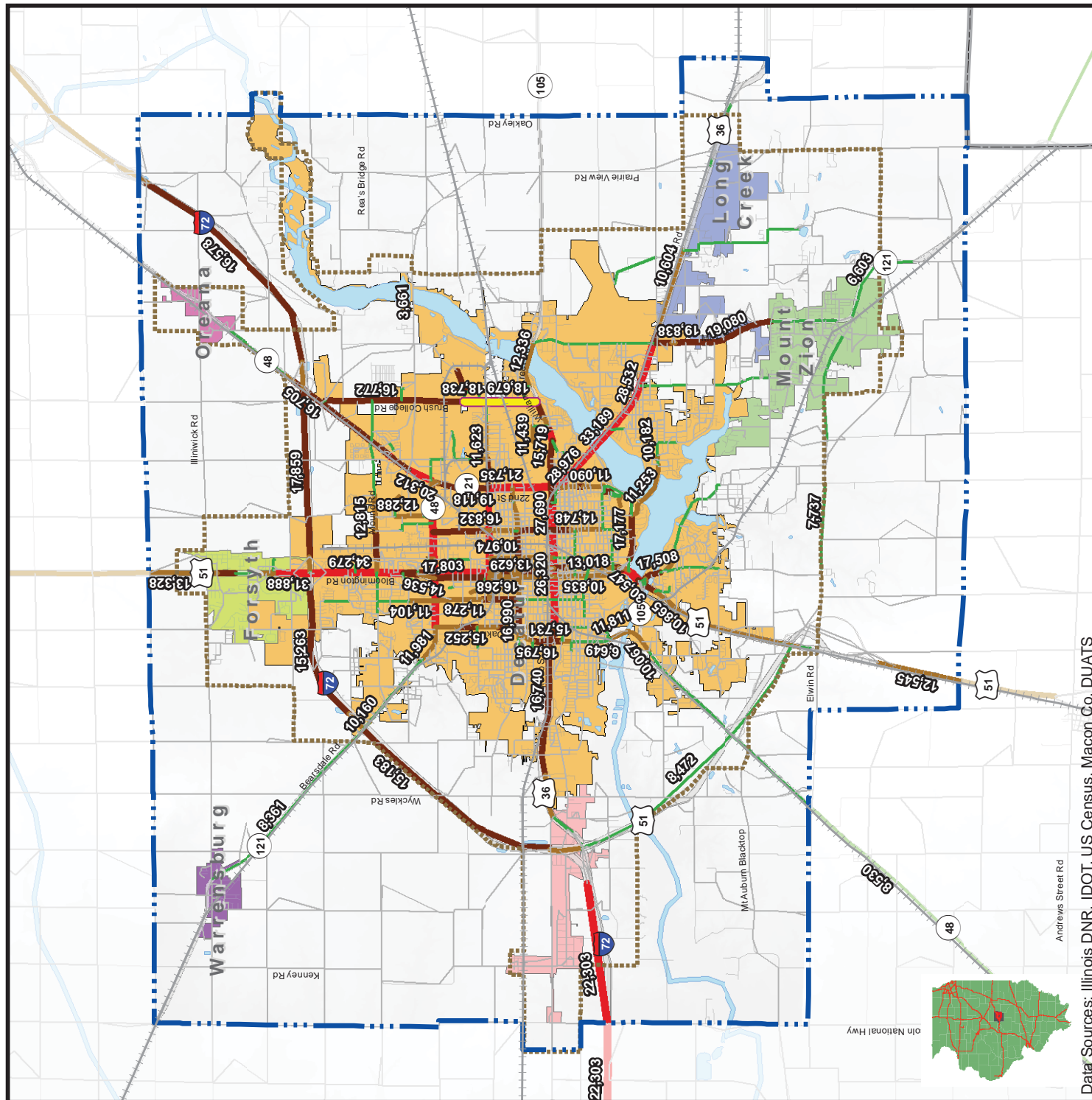


Figure 4-10  
Scenario 2: Bush College Road  
Capacity

- Legend**
- Metropolitan Planning Area (MPA) Boundary
  - Urbanized Area Boundary
  - Brush College Road Improvement
  - Railroad
  - Capacity Level**
    - Approaching-Capacity
    - At-Capacity
    - Over-Capacity

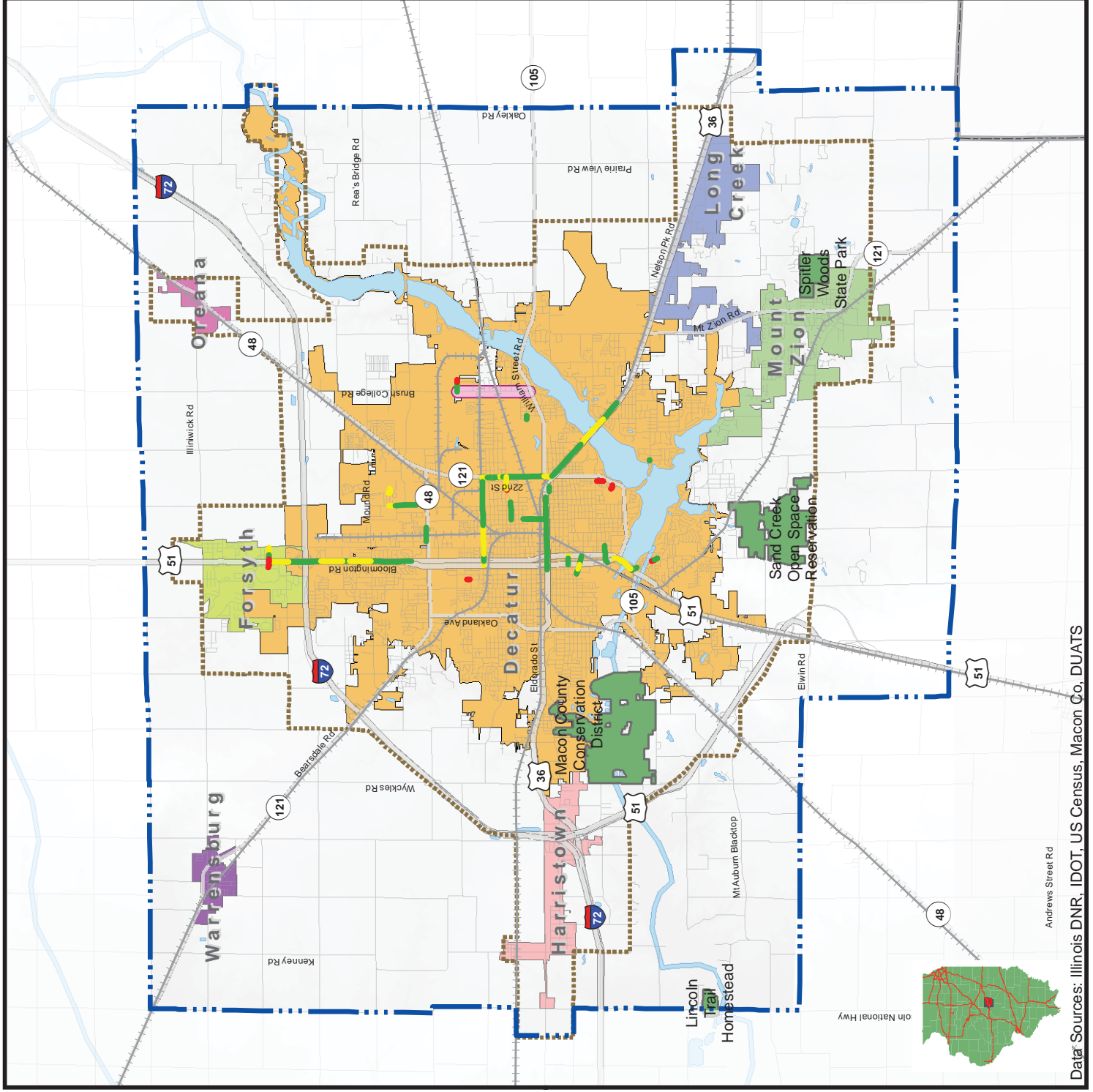


Figure 4-11  
Scenario 3: Ash Ave. Extension  
Traffic Volumes

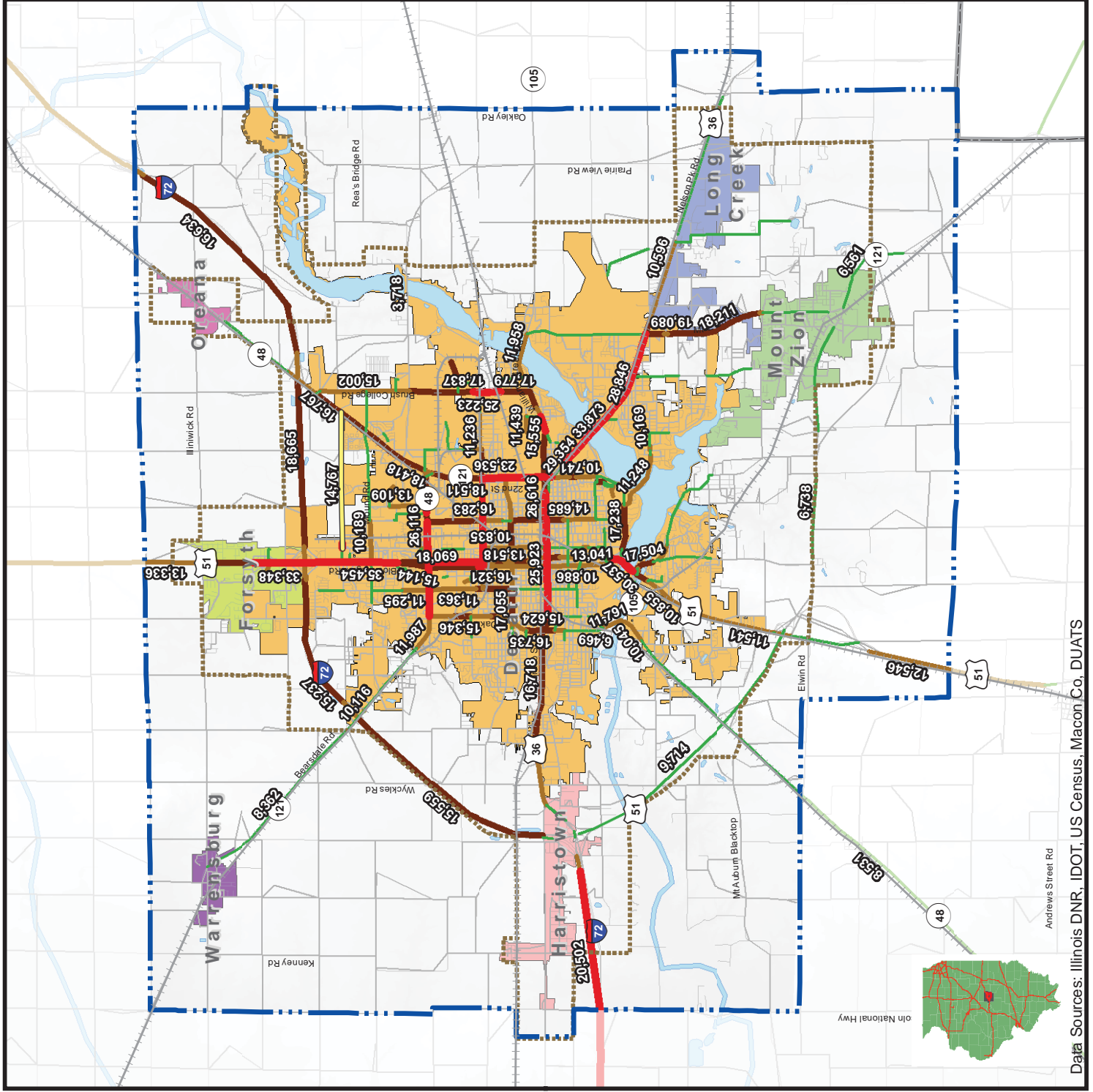
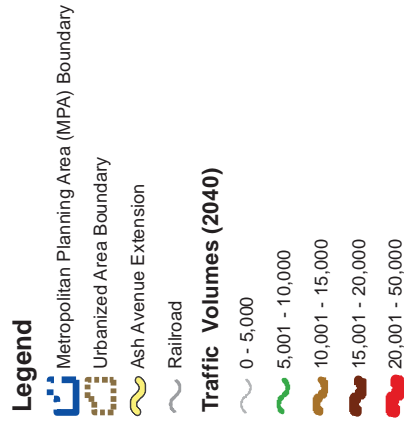




Figure 4-12  
Scenario 3: Ash Ave. Extension  
Capacity

- Legend**
- Metropolitan Planning Area (MPA) Boundary
  - Urbanized Area Boundary
  - Ash Avenue Extension
  - Railroad
  - Capacity Level**
    - Approaching-Capacity
    - At-Capacity
    - Over-Capacity

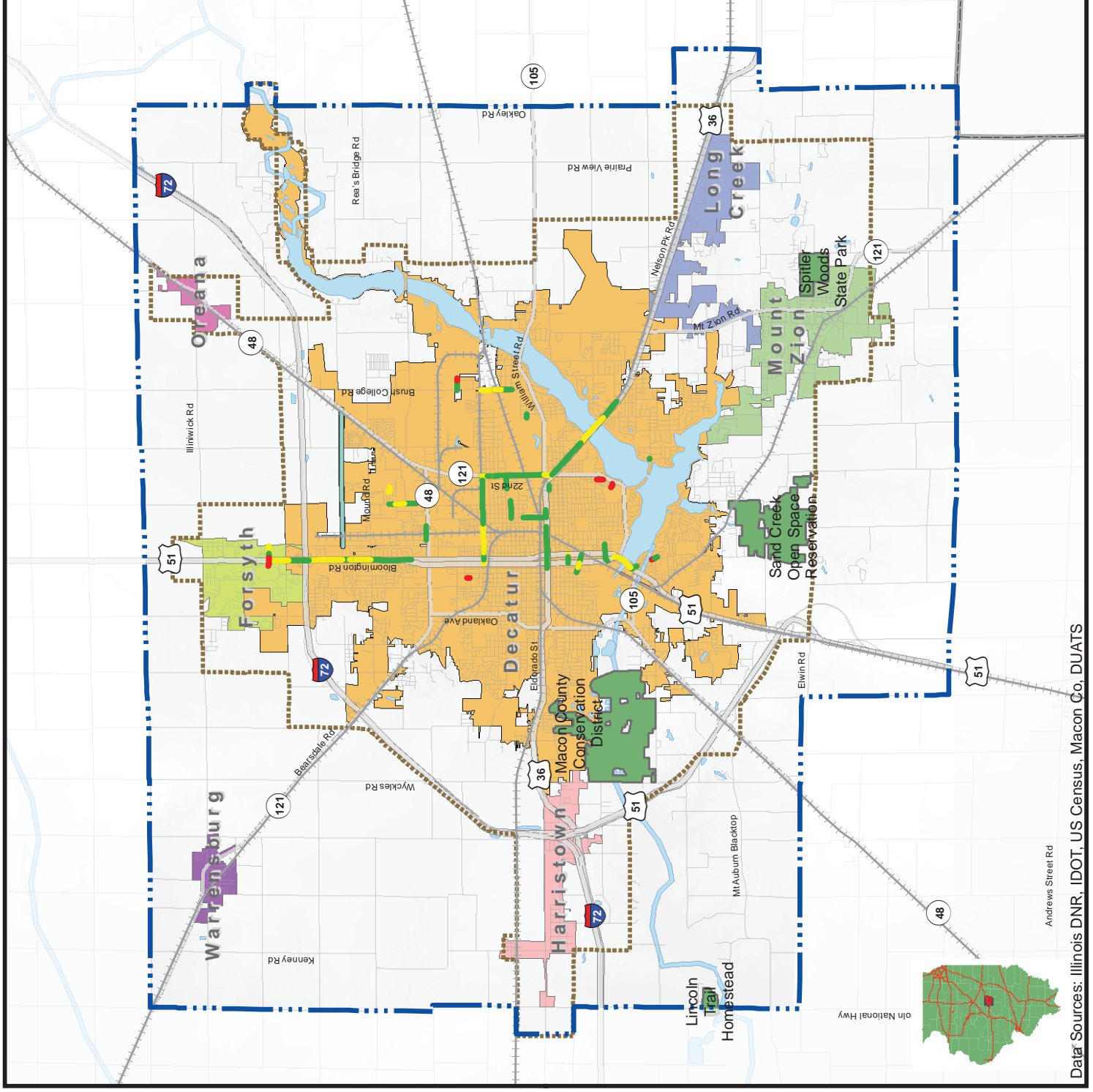
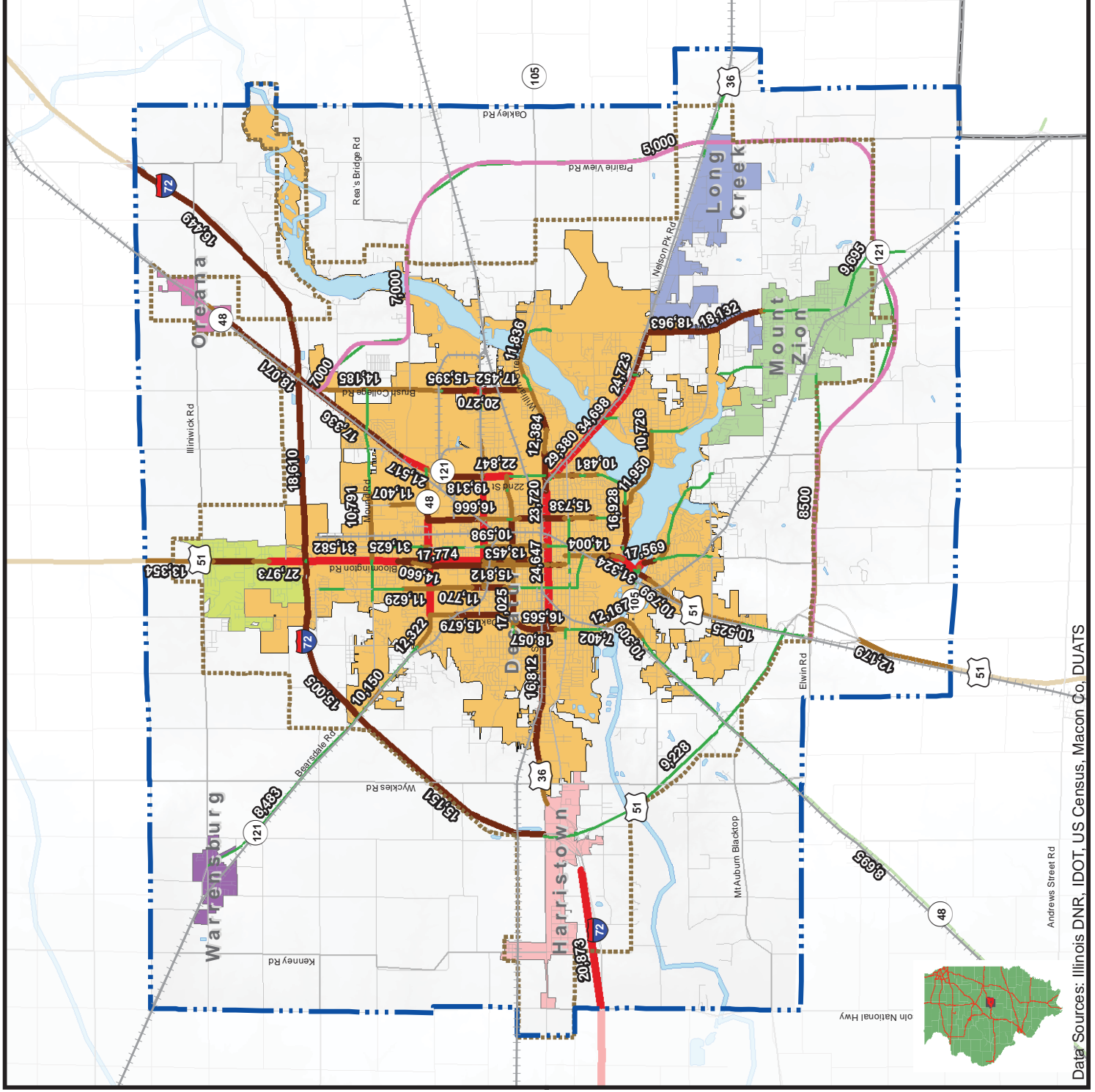
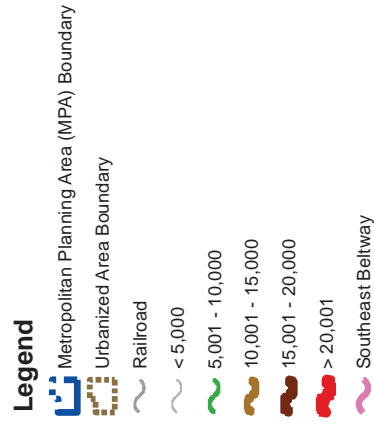


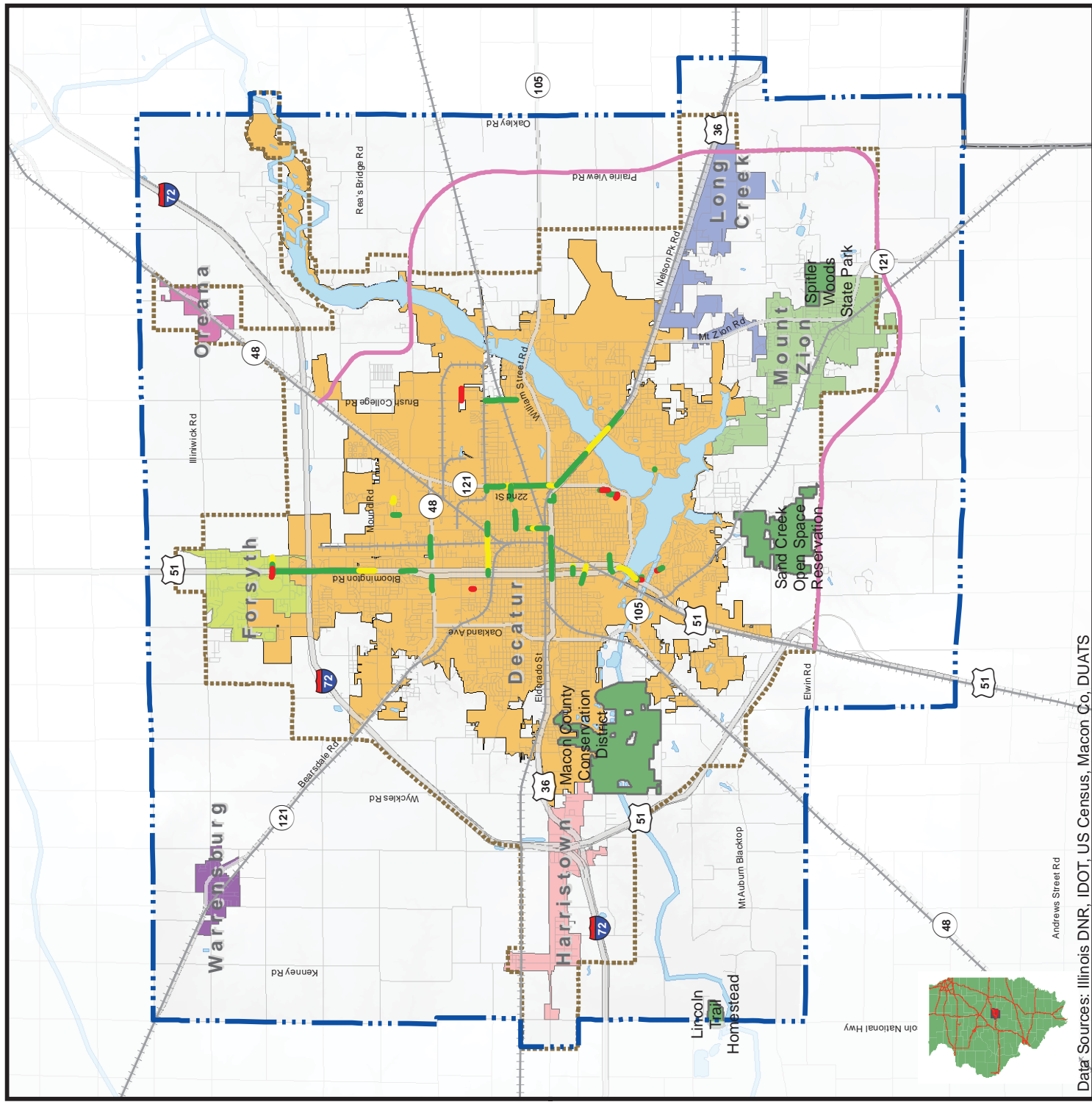
Figure 4-13  
Scenario 4: Southeast Beltway  
Traffic Volumes



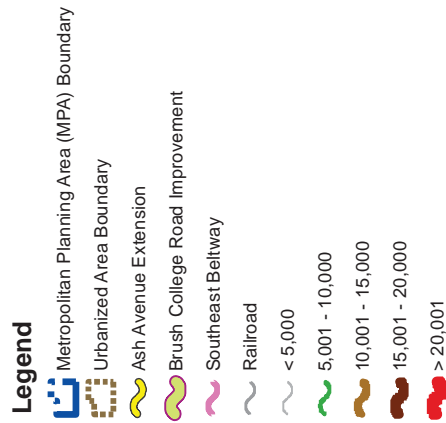


**Figure 4-14**  
**Scenario 4: Southeast Beltway**  
**Capacity**

- Legend**
- Metropolitan Planning Area (MPA) Boundary
  - Urbanized Area Boundary
  - Interstate
  - US Highway
  - State Highway
  - SE Beltway
  - Railroad
- Capacity Level**
- Approaching-Capacity
  - At-Capacity
  - Over-Capacity

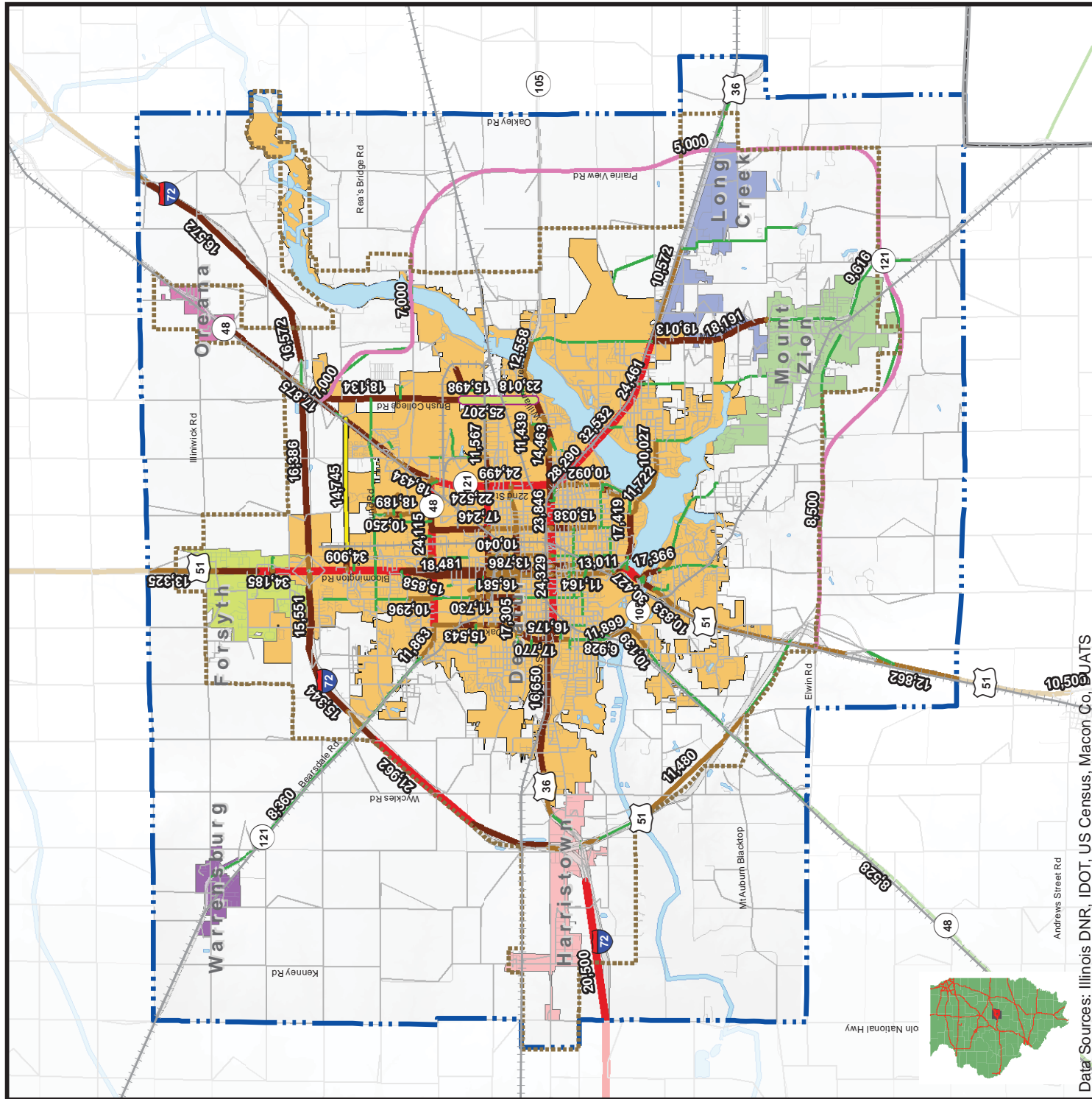


**Figure 4-15**  
**Scenario 5: All Projects**  
**Traffic Volumes**



## 2.5

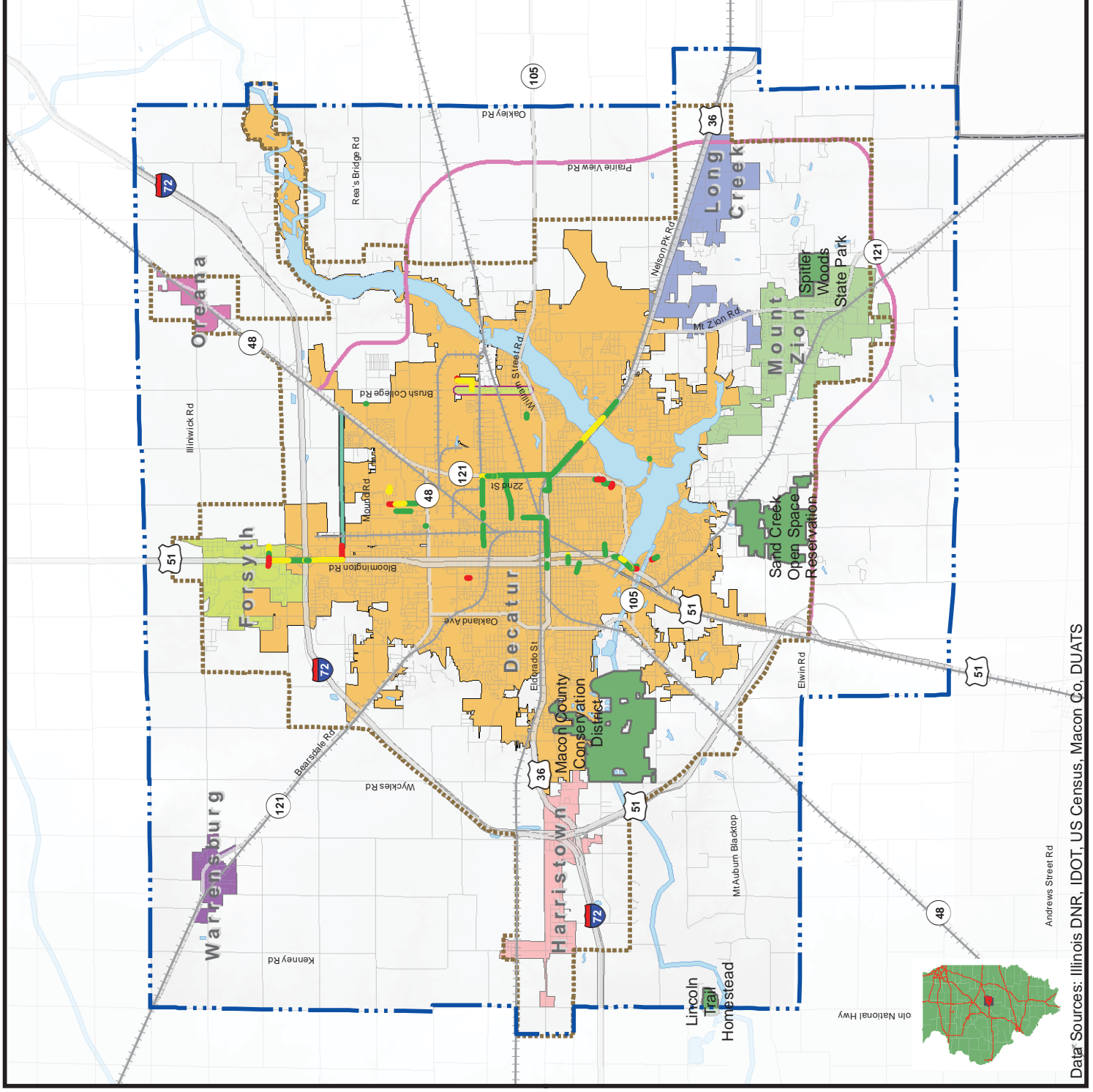
Miles



Data Sources: Illinois DNR, IDOT, US Census, Macon Co., IL

Figure 4-16  
Scenario 5: All Projects  
Capacity

- Legend**
- Metropolitan Planning Area (MPA) Boundary
  - Urbanized Area Boundary
  - Interstate
  - US Highway
  - State Highway
  - Ash Avenue Extension
  - Brush College Road Improvement
  - SE Beltway
  - Railroad
- Capacity Level**
- Approaching-Capacity
  - At-Capacity
  - Over-Capacity



Andrews Street Rd

Data Sources: Illinois DNR, IDOT, US Census, Macon Co. DUATS



2.5

Miles

## Capacity Analysis

Similar to the existing conditions capacity analysis, the projected 2040 volumes for each scenario were compared to the roadway capacities to identify the volume-to-capacity ratios. Using the same planning level of service thresholds the miles of roadways approaching-capacity, at-capacity, and over-capacity were identified. **Table 4-4** summarizes the 2040 capacity results by scenario.

**Table 4-4. Capacity Results for each 2040 Scenario**

Scenario	Miles of Roadways			
	Approaching-Capacity	At-Capacity	Over-Capacity	Total
Existing Capacity	9.6	2.2	0.8	12.6
1. No-Build	13.0	5.8	1.7	20.5
2. Brush College Road Improvements	12.3	5.4	1.1	18.8
3. Ash Avenue Extension	12.8	5.8	1.1	19.7
4. SE Beltway	12.9	3.7	1.4	18.0
5. All Projects	10.5	5.2	1.8	17.5

## Capacity Analysis Results

Following are brief summaries of the result of each scenario:

- Scenario 1 – No-Build** | The No-Build scenario projects that traffic volumes and capacities will increase incrementally, with many roadway segments that are currently experiencing approaching capacity expected to be at-capacity. In total, 20.5 miles of congested roadways are expected, which is a 62 percent increase over the existing 12.6 miles of congestion.
- Scenario 2 – Brush College Road Improvements** | The main difference between the No-Build and Brush College Road scenarios is that Brush College Road would be alleviated of over-capacity issues identified in Scenario 1 if widened according to Scenario 2. Beyond being relieved of traffic congestion, Brush College would also facilitate the movement of about 1,000 or so additional vehicles daily.
- Scenario 3 – Ash Avenue Extension** | Like Scenario 2, Scenario 3 has very little variation compared to the No-Build option, excepting the volumes of traffic on I-72 between US-51 and IL-48, which are expected to increase somewhat if Ash Avenue were extended, from roughly 17,500 to 18,600. Additionally, new traffic volumes would be seen on the extended portion of Ash Avenue totaling nearly 14,800. Extending Ash Avenue would also improve capacity along Brush College from over-capacity to at-capacity.
- Scenario 4 – SE Beltway** | The SE Beltway is expected to reduce congestion on Brush College Road from over-capacity to approaching capacity, eliminate congestion entirely on Garfield Avenue west of IL-121 to the railroad tracks, reduce or eliminate approaching- and at-capacity levels along Woodford Street between Mound Road and IL-121, and reduce congestion along US-51 extending both north and south from the I-72 interchange.
- Scenario 5 – All Projects** | This scenario projects the largest decrease in total roadway segments featuring capacity issues, at 17.5 miles (by comparison, Scenarios 1 and 3 feature 20.5 miles and 19.7 miles respectively, while Scenarios 2 and 4 feature 18.8 miles and 18.0 miles respectively). While traffic volumes on US-51 near I-72 are projected at about 35,000 under the No-Build scenario, they are expected to drop somewhat to 34,000 if all three projects were constructed. However, these levels along US-51 in Scenario 5 are about 3,400



vpd higher than reported in Scenario 4 (35,000 vpd compared to 31,600 vpd respectively). The reason for this is linked to the extension of Ash Avenue, which would draw more vehicles towards this location; extending Ash Avenue as tested in Scenario 3 would also result in more vehicles on US-51, even without building the SE Beltway.

Currently, the only MPA area bridges with known capacity issues are the US-51 and US-36 bridges over Lake Decatur, each of which were approaching capacity in 2010. All five scenarios project an at-capacity level for the US-36 bridge, while scenarios 2, 3, and 4 show US-51 is projected to increase from approaching- to at-capacity. Under Scenario 5, US-51 is projected to increase to at-capacity, with a small section near the south bank to increase to over-capacity.

Brush College Road represents one roadway segment that would be impacted by each of the four build scenarios. While the no-build option shows over-capacity along Brush College between the two railroad track lines, extending Ash Avenue would reduce this to at-capacity, while construction of the SE Beltway would reduce this to approach-capacity, and the Brush College Road improvements would eliminate congestion completely.

None of the proposed scenarios will eliminate all roadway segments operating at over-capacity. In total, approximately 1.1 to 1.8 miles of roadways in the year 2040 will remain over-capacity, depending on the scenario. As a result, the year 2040 the roadway network would have about the same or slightly more over-capacity roadway segments than it did in 2010 (0.8 miles currently).

It is important to note that the majority, if not all, of the roadways identified as approaching-capacity provide a high level of mobility. The classification of approaching-capacity is intended to identify areas that could either reach capacity or exceed capacity if additional traffic is generated by new or larger developments. At the same time it should be understood that congestion and capacity are by nature relative. The traffic congestion and capacity issues raised are not a severe problem in the MPA.

### **Other Factors Impacting Capacity**

The capacity analysis results highlight certain roadway segments in the region that might experience traffic congestion in future years. It should be mentioned that the capacity analysis is based on an analysis of projected daily traffic volumes which does not factor in peak hour travel conditions. Within the Decatur MPA, congestion issues tend to be confined to the morning and evening peak hour commute times and to holiday / seasonal times of the year. Given the local food processing industries, the Decatur area can also experience capacity issues during the harvest season. Due to weather conditions, the start, and length, of the harvest season will often vary from year-to-year.

Generally speaking, traffic congestion is mostly dictated by intersection operations, or roadway bottlenecks, that cause operational issues and result in reduced roadway capacity. The discussion of capacity in the Decatur area is not complete without addressing the issue of at-grade rail crossing delays. The DATES report concluded that overall there are relatively few capacity issues in the region. Instead, at-grade rail crossings are the primary source of frequent, and sometimes lengthy, travel delays. These rail delays can easily be perceived by the traveling public as a capacity issue, when in fact if the rail delays did not occur there would likely be sufficient capacity in most locations to accommodate existing and project traffic volumes.

## Future Year Roadway Needs

### Congestion and Travel Delay Issues

Generally speaking, the Decatur region has sufficient roadway capacity to accommodate existing travel demand during the peak hour travel periods. The presence of numerous at-grade rail crossings, and related train blockages, makes it difficult to identify true congestion issues in the area. Traffic congestion that does exist is typically limited to the peak period travel hours (i.e., morning and evening rush hours), is seasonal (i.e., increase during holiday times near shopping areas), or is impacted by the harvest season (i.e., major food processing industries in the area).

Overall, some isolated locations may require segment or intersection improvements to address capacity concerns. These locations may be addressed through lower cost transportation system management improvements including the addition of turn-lanes or signal coordination to enhance travel flow.

As previously discussed, long travel delays are a direct result of freight trains blocking at-grade rail crossings. This issue has been a concern of area officials and the public for many years; however, this has not been well-documented until the DATES project identified current delays and projected increases in delays at key crossing locations in the MPA, including:<sup>2</sup>

- ▶ **NS Crossing at Brush College Road (near Faries Parkway) |** This location will continue to be the most frequently blocked crossing with an estimated 234 blockages per week resulting in 24.3 hours of delay – the equivalent of being blocked one full day each week;
- ▶ **The Main / Water Crossings |** These locations project the lowest increase in number of trains, increasing from 22 to 29;
- ▶ **Brush College Road (near ADM) |** The most significant increase in train blockages that result in increased travel delays were projected at this location. Using the future year rail growth assumptions, this crossing is projected to increase from approximately seven hours to almost 19 hours of delay per week. It is important to note that the increase is one of many possible scenarios and the actual impact at this location is directly related to ADM operations; and
- ▶ **Other Crossings |** Other locations are generally projected to increase to a point that they would add between 20 and 30 additional train blockages per week.

### Safety

Eliminating at-grade rail crossings at key locations, such as Brush College Road and Eldorado Street, are high priorities in the region and are vital to supporting economic growth. At-grade rail crossings are also a safety concern as collisions between trains and other roadway users can not only cause serious injury and death, but also many other externalities such as loss of economic productivity, damage to infrastructure, cost of emergency services, pain and suffering to crash victims and their families, friends, and co-workers, and others. Eliminating crossings via bridges, viaducts, alternate routes, and other means of separation enhances the safety of the entire transportation system. DUATS places a high priority on reducing at-grade rail crossings within the region.

<sup>2</sup> URS Corporation, Decatur Area Transportation Efficiency Study (DATES) Final Report (2013).



### **Enhanced Roadway Connectivity**

Improving access to the eastern section of the MPA is another issue of significance to DUATS. This issue has been identified in previous LRTP updates and continues to be a priority. Enhancing connectivity to the eastern portion of the area will improve access to air travel, enhance both freight and general / commercial aviation prospective, and support additional economic development in the area. Moreover, the proposed SE Beltway is expected to better accommodate truck traffic and alleviate truck-related congestion and other undesirable impacts large trucks have on local roads. Specifically, the SE Beltway could potentially help lower roadway maintenance costs within the urbanized area by shifting through truck traffic to the fringe of the MPA.

### **State of Good Repair**

Besides considering the potential impact of larger-scale roadway projects, DUATS continues to dedicate resources to the ongoing maintenance and preservation of the existing transportation system. Known as state of good repair (SOGR), these efforts are focused on maintaining and modernizing the existing system as opposed to adding capacity through system expansion. SOGR consumes a significant amount of financial resources, but remains critical to the mobility and safety of the traveling public.

One concern related to the on-going maintenance in the area is that the routine maintenance needs are starting to increase at a faster rate than available funding. This is an important concern to monitor as it may be necessary in the future to dedicate additional funding toward maintenance and preservation.

### **Access Management**

The existing conditions analysis identified two potential geographic areas of the MPA that warrant consideration concerning access management. These areas characterize some general underlying issues with the transportation system that may contribute to crashes and traffic congestion.

### **Intelligent Transportation Systems (ITS)**

Enhancing traffic signals in the MPA is an issue that will be addressed both in the short- and long-term planning horizons. Efforts on this front are being coordinated statewide with other counties and municipalities under the direction of IDOT. Chapter 5 | Recommended Plan provides additional detail on the specific issues and activities that DUATS will be involved in going forward.

## PUBLIC TRANSPORTATION

### Fleet and Facility Needs

Over the past decade, DPTS has continued to evaluate and plan for continued growth within the region. This has included two comprehensive transit studies evaluating fixed-route and paratransit service within the Decatur Urbanized Area. Based on these studies, the DPTS implemented service changes including a comprehensive restructuring of the fixed-route system. DPTS continually monitors service performance, new residential and commercial developments, and rider requests, and, when appropriate, makes service modifications to better serve the needs of the community.

Recently DPTS invested nearly \$200,000 in federal funds into improvements to its facilities, including:

- ▶ Upgrades to the bus barn, built in 1979, including updating the plumbing, electrical, heating and air conditioning systems, remodeling the restrooms and offices, and sealing and painting the exterior walls;
- ▶ Installation of a water recycling system in the bus washer to significantly reduce the amount of water used in washing buses; and
- ▶ Repairing and seal coating the asphalt parking areas and driving lanes on the north side of the Transit Administration Building.

**Table 4-5** identifies the vehicle replacement schedule anticipated by the DPTS through 2040. Of particular mention is that need to increase the fleet of wheelchair accessible paratransit vans. In 2011, DPTS increased the number of wheelchair accessible vans from six to seven. DPTS projects that this number will increase to eight vans in 2020 to accommodate additional paratransit demand. Adding service, or service improvements (e.g., extended night service, modified or new routes, extended service area, etc.), are evaluated as the need arises, with implementation tied closely to available funding.

**Table 4-5. DPTS Anticipated Vehicle Replacement Schedule**

<b>Bus Improvements</b>	<b>Estimated Year</b>
10 Replacement 30' Low Floor Buses	2015
3 Replacement 30' Low Floor Buses	2017
5 Replacement 30' Low Floor Buses and 4 Replacement 35' Low Floor Buses	2023
10 Replacement 30' Low Floor Buses	2029
3 Replacement 30' Low Floor Buses	2031
5 Replacement 30' Low Floor Buses and 4 Replacement 35' Low Floor Buses	2037
<b>Trolley Improvements</b>	
2 Replacement Trolley Replica Coaches	2017
2 Replacement Trolley Replica Coaches	2031
<b>Wheelchair Vans</b>	
2 Replacement Mini-Vans w/ Ramp	2013
2 Replacement Light-Duty Lift Vans	2016
2 Replacement Light-Duty Lift Vans	2018
2 Replacement Light-Duty Lift Vans	2020
2 Replacement Mini-Vans w/ Ramp	2022
2 Replacement Light-Duty Lift Vans	2024
2 Replacement Light-Duty Lift Vans	2026
2 Replacement Light-Duty Lift Vans	2028
2 Replacement Mini-Vans w/ Ramp	2030
2 Replacement Light-Duty Lift Vans	2032
2 Replacement Light-Duty Lift Vans	2034
2 Replacement Light-Duty Lift Vans	2036
2 Replacement Mini-Vans w/ Ramp	2038
2 Replacement Light-Duty Lift Vans	2040

SOURCE: Decatur Public Transit System (2014)

## Operational Conditions

Future year population and employment centers were reviewed with respect to transit operations to gauge the impact on accessibility to year 2040 population and non-residential destinations. This was completed to identify potential areas that might require additional services in future years. The following highlights the findings for population and non-residential developments.

### Access to Residential Areas

The 2010 conditions analysis estimated that 60.1 percent of the MPA population lived within a one quarter mile radius of an existing transit route. Projections show that the transit service coverage (assuming the addition of no new transit routes or services) would increase slightly to 64.3 percent of the population by 2040.

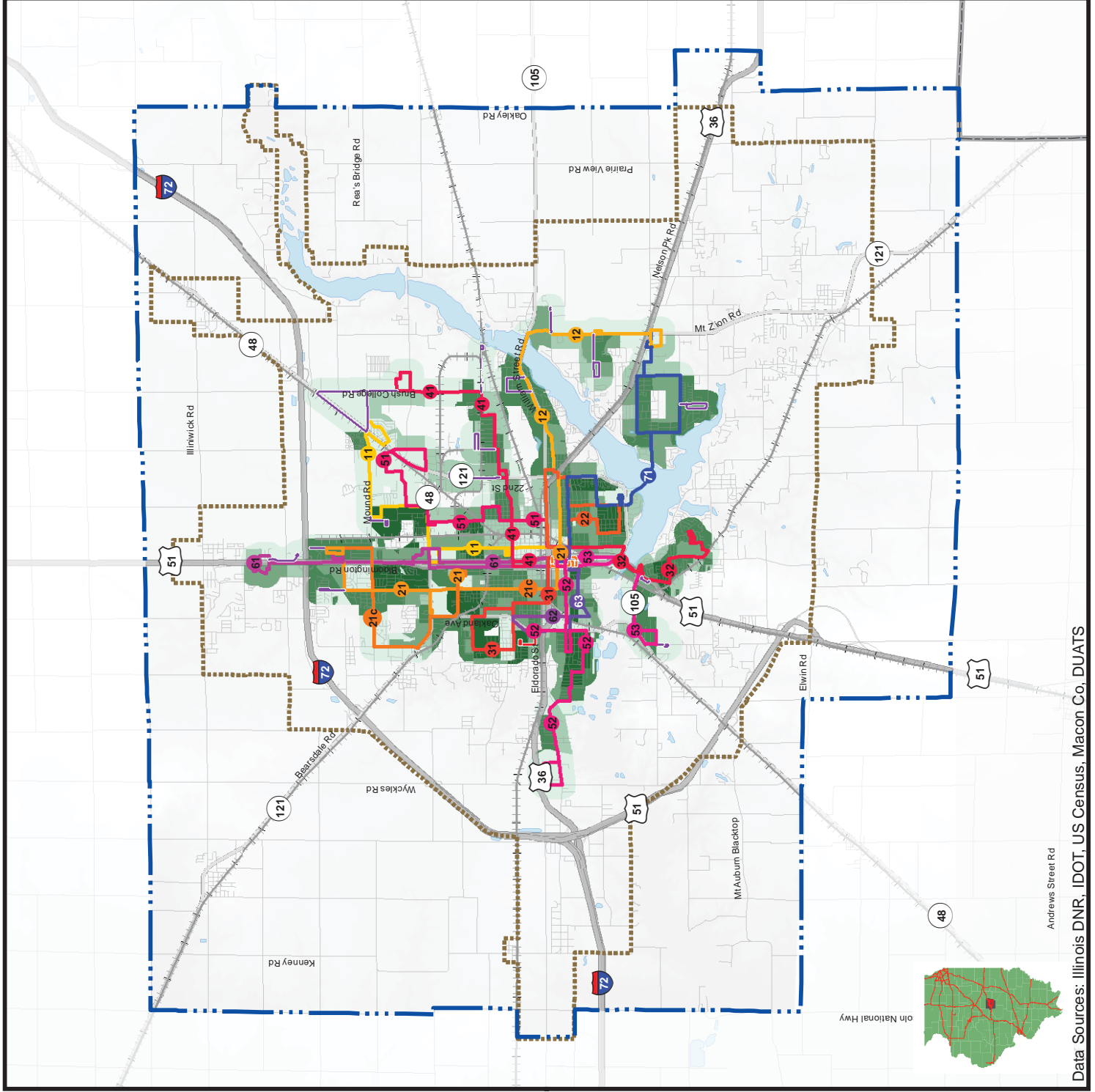
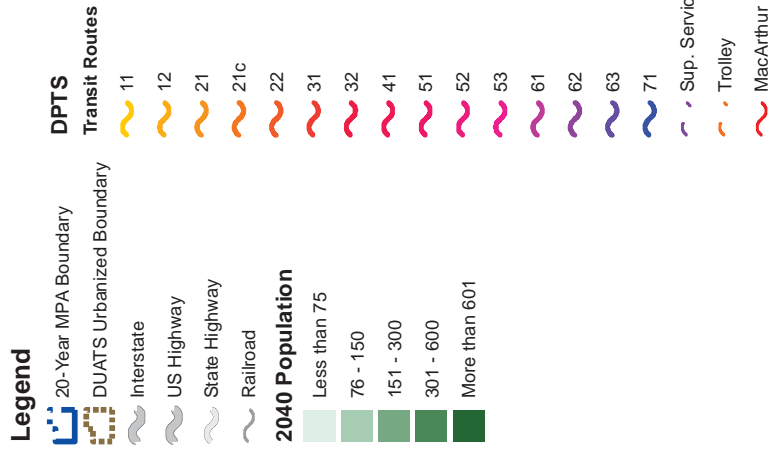
**Table 4-6** lists the estimated total MPA population, the estimated MPA population within one quarter mile radius of DPTS fixed-routes, and the percent of the total population within one quarter mile radius of DPTS fixed-routes for both 2010 and 2040.

**Figure 4-17** displays the 2040 residential population within a one quarter mile radius of the DPTS fixed-route bus system.

**Table 4-6. Public Transit Residential Accessibility**

Residential / Population-related Criteria	2010	2040	Actual Change	Percent Change
Estimated MPA population	101,393	112,716	11,323	11.2%
Estimated MPA population within one quarter mile radius of DPTS fixed-routes	60,918	72,508	11,590	19.0%
Percent of total population within one quarter mile radius of DPTS fixed-routes	60.1%	64.3%	6.9%	-

**Figure 4-17**  
**2040 Population within**  
**1/4 Mile of DPTS Routes**



### Access to Non-Residential / Employment Areas

Based on the modeling conducted for the 2040 LRTP, 67.7 percent of employment in the MPA is contained within a one quarter mile radius of transit routes in 2010. The year 2040 baseline scenario shows that only 61.9 percent of jobs would be within a one quarter mile distance of a transit route, assuming no new transit routes or services would be added. In other words, fewer jobs will be accessible by transit in 2040 than were in 2010. This analysis indicates that employment growth is projected to occur outside the DPTS coverage area and highlights the need for additional or expanded fixed-route transit service to provide access to these employment areas.

**Table 4-7** lists the estimated total MPA employment, the estimated MPA employment within a quarter mile radius of DPTS fixed-routes, and the percent of total employment within one quarter mile radius of DPTS fixed-routes for both 2010 and 2040.

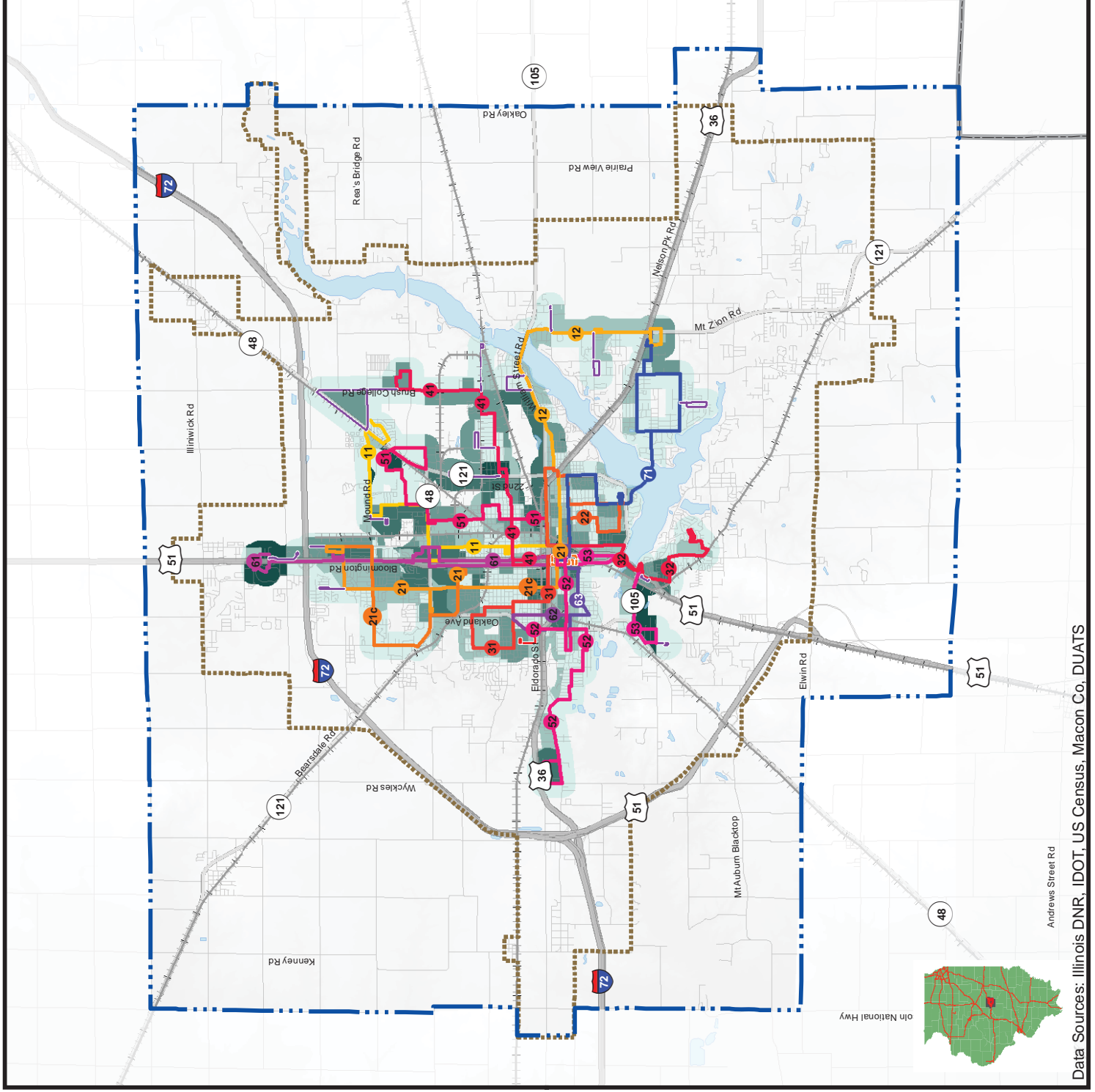
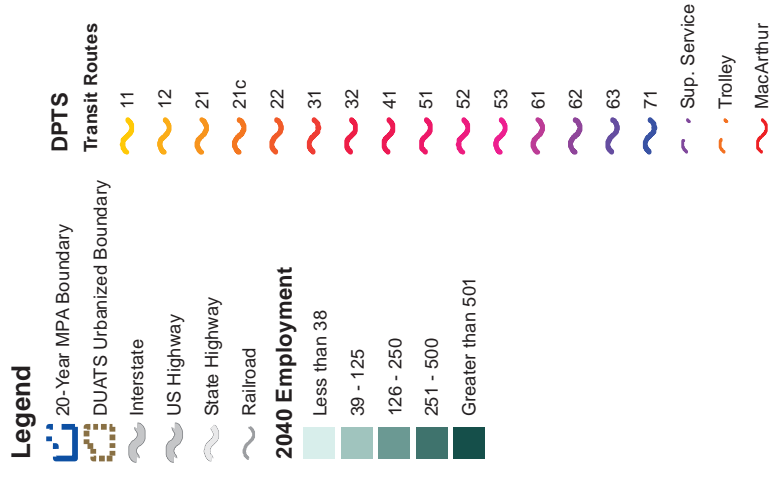
**Table 4-7. Public Transit Employment Accessibility**

Employment Criteria	2010	2040	Actual Change	Percent Change
Estimated MPA Employment	47,174	51,859	4,685	9.9%
Estimated MPA Employment within one quarter Mile Radius of DPTS Fixed-routes	31,946	32,106	160	4.4%
Percent of Total Employment within one quarter Mile Radius of DPTS Fixed-routes	67.7%	61.9%	-8.6%	-

**Figure 4-18** displays the projected 2040 employment levels within a one quarter mile radius of the DPTS fixed-route bus system.



**Figure 4-18**  
**2040 Employment**  
**within 1/4 Mile of DPTS Routes**



## Schedule Adherence

Schedule adherence has been a concern of DPTS for several years. In fact, this issue dates back as far as 2001 when a DPTS planning study identified this concern. Schedule adherence issues have also been supported by bus drivers who have noted several locations throughout the DPTS service area that have frequent travel delays.

The primary issue that impacts DPTS schedule adherence continues to be at-grade rail crossings that frequently result in travel delays. Since DPTS uses a pulse system to coordinate transfers at the Severns Transit Center, it is extremely important that the individual transit routes adhere to the set schedule. However, this is often not possible due to at-grade rail crossing delays caused by freight train interference. For example, the DATES found that of the average 13.4 daily blockages that affected DPTS operations during the January through March 2011 time period, an average of 6.7 buses were stopped daily, which equals 364 buses total.<sup>3</sup> Nearly 4,500 passengers aboard these buses were forced to wait a total of 33.5 hours combined during the three month time period. Additionally, 6.6 buses deviated from their route, totaling 357 buses. Seven buses in total missed their pulse connection at the transit center, which impacted 40 passengers. The at-grade rail crossings that most often impacted by train blockages include:

- ▶ **Wood Street at MLK Jr. Drive |** Detour routes are possible if the train is noticed in time; two bus routes are affected. Plans are identified to improve this intersection;
- ▶ **Eldorado Street east of Morgan Street |** Detour routes are possible if the train is noticed in time; two bus routes are affected;
- ▶ **MLK Jr. Drive north of Cerro Gordo Street |** Detour routes are possible if the train is noticed in time; one bus route is affected;
- ▶ **Brush College Road at Faries Parkway |** No detour routes; one route is affected; and
- ▶ **William Street at 23rd Street |** No detour routes; two routes are affected.

Opportunities to minimize or eliminate travel delay for transit vehicles should be considered in all future planning studies, including studies that consider potential rail and / or roadway improvements. Overall, eliminating at-grade rail crossing delays remain a priority of the DUATS 2040 LRTP.

## Service Expansion

Future population and employment projections suggest that the areas of Forsyth and Mt. Zion could see substantial residential and employment growth over the next twenty-five years. The construction of the SE Beltway could create residential and employment opportunities in the southeast portion of the MPA that would fall beyond current transit service boundaries. This further emphasizes the future year need for transit service to be extended beyond current boundaries to connect area residents with new job opportunities.

Opportunities for service expansion should be closely monitored to identify potential new areas to be served by transit. Since the 2001 DPTS Study, demand on the fringes of the existing service area has increased significantly. This recent demand warrants additional study for planning new and updated services, some of which could involve major changes.

The primary concern related to service expansion is extending the routes to cover areas on the urban fringe. The further routes are extended into developing areas on the fringe, the more difficult it is to

<sup>3</sup> URS Corporation, Decatur Area Transportation Efficiency Study. September 2013. Pages 54, 55.

adhere to scheduled bus service. If routes are extended, it may be necessary to modify route alignments to operate primarily along major roadways. In essence, routes operating on local roadways, or through neighborhoods, might have to be eliminated to expand service coverage and remain on-schedule. If this were to happen, it could mean that some riders would need to walk further to reach a bus stop. As such, this would require the need for adequate pedestrian accommodations (i.e., sidewalks, accessible ramps, marked crosswalks, etc.) and on-going maintenance (i.e., sidewalks in good condition, over-hanging vegetation removed, snow removal, etc.) to ensure adequate network connectivity and accessibility. One final factor that is of particular concern to the Decatur area is the at-grade rail crossing impacts. Extending routes further out would leave less time to divert to an alternate route if at-grade rail crossings are blocked.

## NON-MOTORIZED

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### Future Year Non-Motorized Needs

#### Bicycle Plan

It has been several years since DUATS adopted the Decatur Urbanized Area Comprehensive Bicycle Plan (1999). DUATS has proposed that this plan be merged with the Metro Area Greenways Plan, although this has not occurred. A newly updated and merged Bicycle Plan would be of great value to local governments and interested parties in expanding their non-motorized networks and developing ways to enhance bicycling conditions in the MPA. A Bicycle Plan could also provide a strategy for prioritizing and sequencing projects both local and regional in nature. Lastly, the Bicycle Plan would provide an updated list of potential linkages between the CBD, the Severns Transit Center, and other destinations.

Figure 4-19 displays the current and proposed bicycle routes in the MPA.

#### At-grade Rail Crossings

While travel delays experienced by motorists are the most common among all roadway users, at-grade rail crossings also impact bicyclists and pedestrians. Beyond having to wait the same amount of time to cross, these users are potentially exposed to increased safety concerns. Most notably, bicyclists and pedestrians are exposed to weather conditions, including extreme heat and cold – something that motorists can largely avoid through climate control conditions within their vehicles. These users must also stand or lean on their bicycles, which is more tiring than sitting in a car or truck. For these reasons and in general, at-grade rail crossings are a major concern to non-motorized users. As such, the strategic development of grade-separated facilities at key locations throughout the MPA is a critical component of achieving a high degree of mobility for non-motorized users, as well as enhancing safety and comfort.

#### Bicycle Travel in Downtown Decatur

The current multi-use trail system serves primarily the outer areas of the MPA. Bicycle travel in downtown Decatur is limited by existing roadway configurations that do not contain design elements that are supportive of bicycle travel. One completed project that addressed the need of providing a safe route to the CBD was the construction of the dedicated bike and pedestrian way along West Main Street to Millikin University. Opportunities to improve bicycle travel along existing roadways should continue to be considered as part of any roadway reconstruction project throughout the MPA. Consistent signage, bicycle parking, and on-street facilities should be identified and provided in various locations in the CBD to improve bicycle travel in the downtown area.

#### Safe Routes to School

Providing safe routes to school is an important consideration for the planning and development of the MPA bicycle network. In 2009, Decatur was awarded a Safe Routes to School grant for sidewalk improvements in the vicinity of Harris Elementary School. This type of improvement should be sought out in future years. Funding for additional improvements can also be pursued via the Safe Routes to School program, a federally-funded initiative allocated by MAP-21.



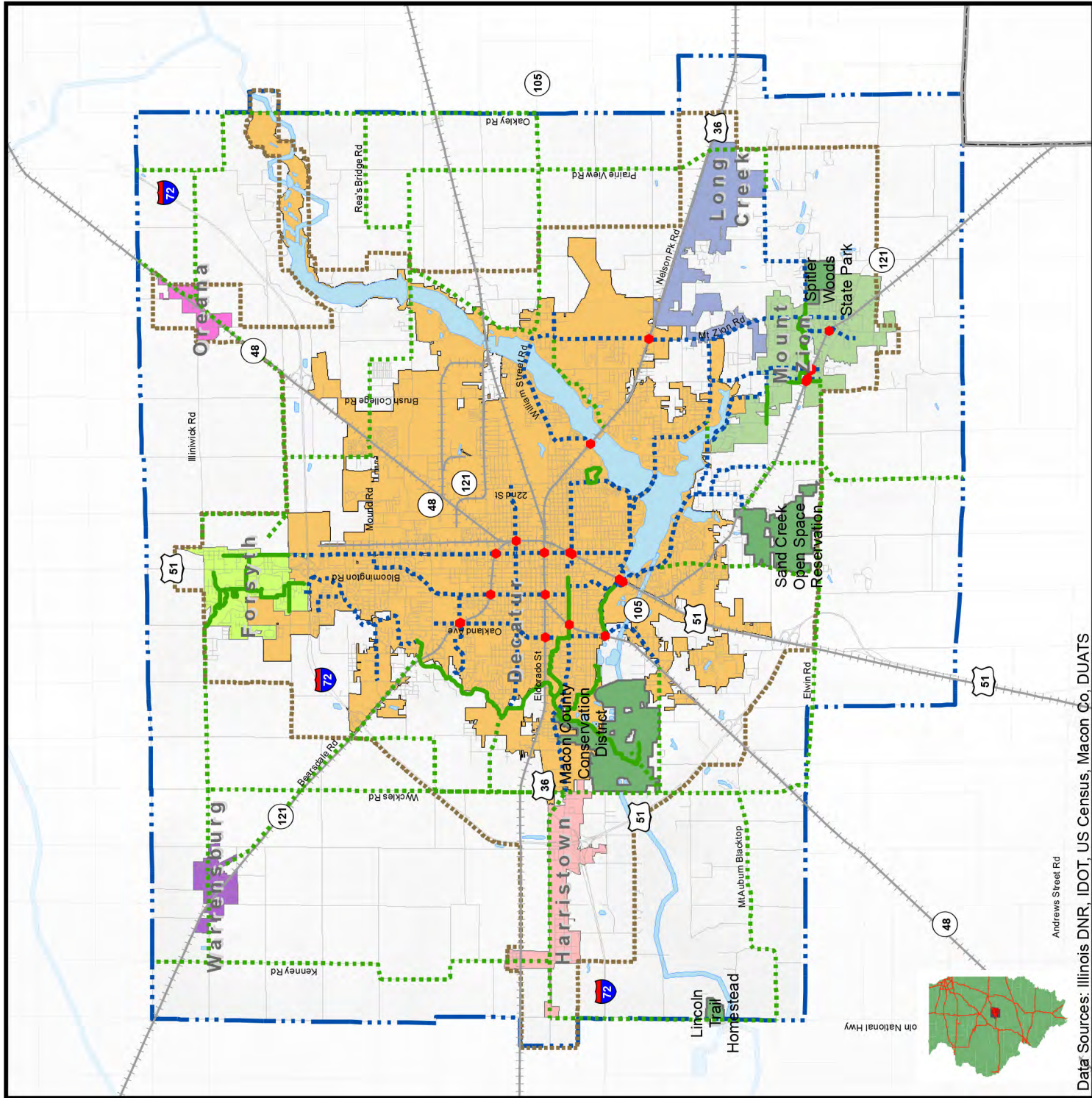
**Figure 4-19**  
**Bicycle Network**

- Legend**
- 20-Year MPA Boundary
  - DUATS Urbanized Boundary
  - Railroad
  - Bike Paths Existing
  - Bike Paths Proposed
  - Bike Plan (2030)
  - Bike Path/RR Intersections



2.5

Miles



Data Sources: Illinois DNR, IDOT, US Census, Macon Co. DUATS

## Committed Non-Motorized Trail Improvements

Currently, there exists only one committed non-motorized trail improvement in the MPA region, which is the Stevens Creek Bike Trail. Phase 1 of this project was completed in 2012, and Phase 2 is slated for construction in 2015-2016.

## Potential Future Year Non-Motorized Projects

### Trail Expansion Plans

Several expansion plans have been issued by various governing authorities in the past several years. The following items provide a brief summary of each plan:

- ▶ **Stevens Creek Bike Trail** | This trail expansion project is of greatest significance in the region. As mentioned in Chapter 3 | Existing Conditions, Phase 1 of the project was completed in 2011, with Phase 2 of the trail currently undergoing engineering design.
- ▶ **Trail Facilities around Lake Decatur** | The Lake contains great potential for recreational development in the near future and as such, provides a unique opportunity for complementary non-motorized trails, which would connect to the existing Fairview Park and Rock Springs trails.
- ▶ **State Funded Trails** | Trail improvements have been complemented from the northwest corner of Spitler Woods State Park to Baltimore Road, north to Harry Land Road and west to Southbrook Drive. Partial funding for this trail was provided by the State of Illinois. As funding becomes available, the State will be encouraged to participate with local entities to aid in the construction of bike and pedestrian paths in conjunction with other alternative modes of transportation.
- ▶ **Forsyth and Mt. Zion** | Both villages continue to expand bike and pedestrian trails as opportunity and funding become available. These trails are intended to interconnect with other trail systems in the region and increase both the size of the system and number of destinations that can be reached. For example, previous additions in Forsyth include paths along new streets on the Village's west side and trail connections on the north side.
- ▶ **Decatur** | The City recently built a dedicated bike path along the newly reconstructed West Main Street. This path runs parallel to Main Street and extends from the CBD to Millikin University. Another recent improvement is a one mile long path along Lincoln Park Drive constructed by the Decatur Park District.
- ▶ **Illinois Statewide Trail Plan** | The State of Illinois also has a comprehensive trail plan; while the current plan does not provide for connections with the MPA, connecting our regional trail corridors with the state route will become a higher priority as opportunities and financing become available.



## **FREIGHT TRAFFIC AND MOBILITY**

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### **Future Year Freight Needs**

#### **Overview**

The movement of commodities, goods, and raw materials via truck and rail is critical to supporting the economic vitality of the region and meeting the operational requirements of businesses and industries in the MPA. However, truck and rail traffic often conflict with the movement of other surface transportation modes – primarily private automobiles, transit vehicles, and non-motorized users. The operation of trucks and trains also contribute to quality of life issues.

As such, the primary objective of planning for freight traffic focuses on balancing mobility needs of trucks and rail with the preservation of a high quality of life for residents throughout the MPA.

#### **Truck Movements**

Given the importance of truck traffic to the economic activity of the region, there exists a need to better accommodate truck movements. In this regard, the SE Beltway project is the best available option for providing enhanced connectivity among the interstate and key truck routes along the southern and eastern areas of the region.

As previously noted, at-grade rail crossings are an issue in the MPA. Not only does the movement of rail trains at these locations cause a negative impact on the traveling public, but they also cause significant delays for trucks. Stalled large trucks, such as tractor trailers, have an even greater impact on overall congestion associated with grade crossings since their size consumes a larger portion of the roadway than do private automobiles.

Another issue related to truck movements involves the expansion of the ADM intermodal facility (in the NW quad of Brush College and Faries). This development is likely to result in increased truck and rail traffic. Much of this expansion occurred after the completion of the DATES study, which illustrates how quickly developments like this one can impact the transportation network.

### **Potential Freight Related Improvements**

#### **Overview**

There are several areas for improvement that DUATS and partner stakeholders can investigate to address future year needs. These include:

- ▶ The separation of at-grade rail crossings;
- ▶ Roadway improvements at MLK Jr. Drive and Wood Street;
- ▶ Conducting an Industrial Transportation Plan; and
- ▶ Reconstruction of overpasses.

### **Brush College Road Improvements**

Brush College Road features an additional critical improvement area for consideration. The Brush College Report has investigated the future needs issues associated with this roadway and has identified several alternative improvements that could be made.<sup>4</sup> These improvements include:

- ▶ **Grade Separation at NS Rail Yard |** Included consideration of both an overpass and underpass, with the overpass option being selected as the preferred alternative;
- ▶ **Grade Separation at Faries Parkway |** Given that an overpass was selected for the NS Rail Yard grade separation, an overpass for the Faries Parkway grade separation was identified as the best option given the proposed elevation of Brush College. Additionally, two different options were considered for building a ramp to connect Faries Parkway and Brush College Road.

The final recommended design alternative included in the Brush College Report includes an overpass at the Norfolk Southern rail yard to replace the existing underpass, an overpass at Faries Parkway, and a ramp from Brush College Road to Faries Parkway in the southeast quadrant of the intersection featuring traffic signals at both the top and bottom of the ramp.

This alternative would also necessitate improvements to two nearby intersections:

- ▶ **Brush College Road and Marietta Street |** Includes the addition of traffic signals, turn lanes, and the re-alignment of the entrance to the ADM James Randall Research Center;
- ▶ **Brush College Road and William Street |** Includes the addition of turn lanes and a raised median, and a shared-use path along Brush College Road and William Street.

The Brush College Report also included modeling of traffic scenarios associated with each improvement, as well as a no-build option for comparison. This analysis concluded that if no improvements are made to Brush College Road and related intersections (the no-build scenario), complete gridlock would eventually ensnare the roadway and nearby network. However, if the recommended improvements to Brush College Road were implemented, the travel times would drop from 206 hours (no-build condition) to 71 hours. Travel times could be reduced even further to 64 hours under a slightly different version of the preferred alternative featuring a roundabout option instead of traffic signals.

### **Relocation of Rail Facilities beyond the Urbanized Area**

The project team considered several different options for improving freight rail related congestion and delay issues in the MPA that involved significant alterations to the configuration of tracks in the region. Ultimately, both alternatives of re-routing CN tracks (estimated at \$33.9 million) and relocating the CSX yard outside of the urbanized area (estimated at \$19.1 million) were both considered too expensive and disruptive to the area to warrant further consideration. Furthermore, the amount of funding necessary for either project could be put to more productive use for other smaller, targeted improvements.

<sup>4</sup> City of Decatur, Brush College Road Improvement Study – Combined Design Report, pg. 75 (2014)

## AVIATION

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### Future Year Aviation Needs

The Park District maintains an updated version of the Airport Layout Plan, which includes improvements that are planned to occur over the next 25 years. The improvements are intended to enhance the capabilities of the facility as an engine for economic growth, provide efficient and cost effective passenger and freight movement and enhance the quality of life of the community. The Decatur Park District identified improvement projects to be included in the 2040 LRTP.

The improvements include a new entrance road connection, business/industrial park infrastructure, lengthening the primary runway, new runway lighting, a second cargo apron and lengthening the secondary runway. The airport desires to reach the 10,000 operations level which would push it into a need category. If the SE Beltway is constructed, this would open up potential economic development opportunities.

Following are a list of other future needs regarding the Decatur Airport:

- ▶ **Airport Operations |** Continued investment in the Decatur Airport is necessary to maintain and enhance its position as a passenger facility and airfreight hub of regional significance. The following are future year issues regarding the Decatur Airport that need to be considered as part of the transportation planning process.
- ▶ **Airport Expansion |** Expansion plans are critical to the continued development and success of the Decatur Airport. Coordinated land use and transportation planning is needed to ensure that airport expansion plans can be implemented. In particular, it is important that new commercial and residential development does not encroach on the airport. Furthermore, the proposed alignment of the SE Beltway needs to accommodate future airport expansion.
- ▶ **Development of the Industrial Park |** A goal of the region is to attract new businesses and industries to the area. A goal of the LRTP is to support economic development opportunities within the MPA. Development of the airport and industrial park are considered important to attracting new economic development opportunities to the area.
- ▶ **Improved Accessibility |** The Decatur Airport is located on the eastern edge of the city and can be accessed via US-36, IL-105, and IL-121. There is currently no direct access to the airport by interstate or other limited-access highways. Improved accessibility is critical to the continued development of the Decatur Airport.

## OTHER TRANSPORTATION CONDITIONS AND ISSUES

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### Passenger Rail

In previous years, DUATS was involved with a local initiative intended to bring Amtrak passenger rail service to Decatur. There has not been passenger service available to the community in decades and community ridership and support will be crucial in attempts to initiate service. Preliminary plans on how to address the issues have been completed.

### High Speed Passenger Rail

In June, 2009, the Director of the Midwest High Speed Rail Association (MWHsRA), community representatives, and interested citizens attended a public meeting on the potential and possibilities of constructing passenger high speed rail between Chicago and St. Louis. The currently proposed route would run between Champaign and Springfield on a dedicated rail line. MWHsRA was promoting the rail project as supporting train speeds as high as 220-mph. According to MWHsRA such service is economical, efficient, and an investment well worth making. At 220-mph, a high speed train could transport passengers from Chicago to Decatur in an hour and five minutes.

A study commissioned by the Midwest High-Speed Rail Association has demonstrated that this is an attainable and valuable goal for Illinois transit. The study explored the feasibility of a route from Chicago to Saint Louis via major population centers in the corridor between those cities. The findings concluded that a rail route through Decatur, an important center of business in Illinois, would be optimal and allow for electrically powered trains that could operate at such high speeds. This high speed rail project would also bring jobs, revenue, and fast transit options to the citizens of Decatur. Although current federal funding does not support 220-mph service, the feasibility of 220-mph service reported in this study build a strong case for greater federal commitment to high speed rail funding in the future.

In September of 2013, the University of Illinois, in partnership with IDOT and several consultants, published a feasibility study that evaluated HSR between Chicago and terminal cities of St. Louis and Indianapolis, titled 220 MPH High Speed Rail Preliminary Feasibility Study. A station in Decatur is listed in this study as being one among nine stops between Chicago and St. Louis.<sup>5</sup> This study underscores the fact that planning efforts for HSR continue to evolve in Illinois and potential service and construction work appears to be shifting from long-term to short-term expectations.

Planning for and possibly constructing such a massive transportation project would be of great significance to the MPA and the region. Existing freight lines are numerous, the number of trains in and out of the MPA daily is large and safety, security, operation, etc., would warrant a substantial investment of time, finances and cooperation. Even with the obstacles, it is in the MPA's best interest to pursue high speed passenger rail service in Decatur.

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<sup>5</sup> University of Illinois at Chicago and University of Illinois at Urbana-Champaign. 220 MPH High Speed Rail Preliminary Feasibility Study (2013).

## Chapter 5

# RECOMMENDED PLAN

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*This chapter summarizes the DUATS 2040 LRTP recommended transportation improvements and supporting strategies and policies.*

*This chapter prioritizes projects based on fiscal constraints and projects are supplemented with an analysis of revenues, expenditures, and funding sources by mode.*

*The Recommended Plan also includes an environmental mitigation, environmental justice, and human service plan analyses.*

## RECOMMENDED PLAN

This chapter summarizes the recommended transportation improvements for application within the DUATS Metropolitan Planning Area (MPA). The transportation improvements were identified based on how they:

- ▶ Achieve the stated LRTP goals and objectives
- ▶ Address existing and future year transportation needs and deficiencies
- ▶ Address the concerns and priorities of the DUATS committees and the general public

### Priority Transportation Projects

Chapter 4 identified future year projects that address existing and projected transportation needs through the year 2040. These potential projects include new construction and more extensive maintenance projects, such as roadway reconstruction and resurfacing of I-72 and other principal arterials. In addition to these capital projects, the on-going maintenance and preservation of the existing transportation infrastructure is critical to providing a safe, reliable, and efficient transportation network to meet the needs of area residents, industries, and businesses. Routine operations and maintenance (O&M) needs are discussed in more detail later in this chapter.

The DUATS Technical and Policy committees identified the priority transportation needs within the region. As documented in DATES, at-grade rail crossing delays are a significant concern within the region that negatively impacts the traveling public, area businesses, and industries. The need to enhance access and improve connectivity to the eastern portion of the MPA to support existing and new economic development opportunities is also a priority of the committees. DUATS identified the following transportation priorities (see **Figure 5-1**).








- ▶ **Brush College Road Corridor Improvements.** The Brush College Road corridor improvements would extend from William Street (IL 105) to just north of Faries Parkway. The project addresses existing intersection and segment capacity issues, the deteriorating NS yard rail underpass, and at-grade rail crossing delays just north of Faries Parkway. The project consists of widening Brush College Road and includes the construction of two new overpasses – one at the NS rail yard and a second at Faries Parkway/NS rail crossing.
- ▶ **Southeast Beltway.** The Southeast Beltway would provide an outer roadway connecting IL 48 in the northeast portion of the MPA to US 51 in the southwest. The project would enhance connectivity to the airport, support economic development opportunities, and better accommodate regional truck traffic. The DUATS Technical and Policy committees identified the segment of IL 48 to US 36 as phase one of the overall project.
- ▶ **27<sup>th</sup> Street Corridor Improvements.** The 27<sup>th</sup> Street corridor is a major north-south roadway that provides access to local and regional industries. This corridor continues to grow in importance given the direct access it provides to the inland port near ADM and adjacent industries. DUATS plans to study this corridor further as part of a comprehensive industrial transportation access and implementation plan. It is anticipated that this plan will identify specific projects to enhance accessibility, improve connectivity, reduce travel delays, and support economic development. As specific projects are identified, DUATS will amend the LRTP accordingly to include specific transportation improvements.

The priority projects provide the greatest benefit to the region by addressing the LRTP goals and objectives and addressing the region's greatest transportation needs. However, these projects have substantial engineering and construction costs which current and projected funding levels will not cover. This is discussed further as part of the fiscally constrained plan analysis.

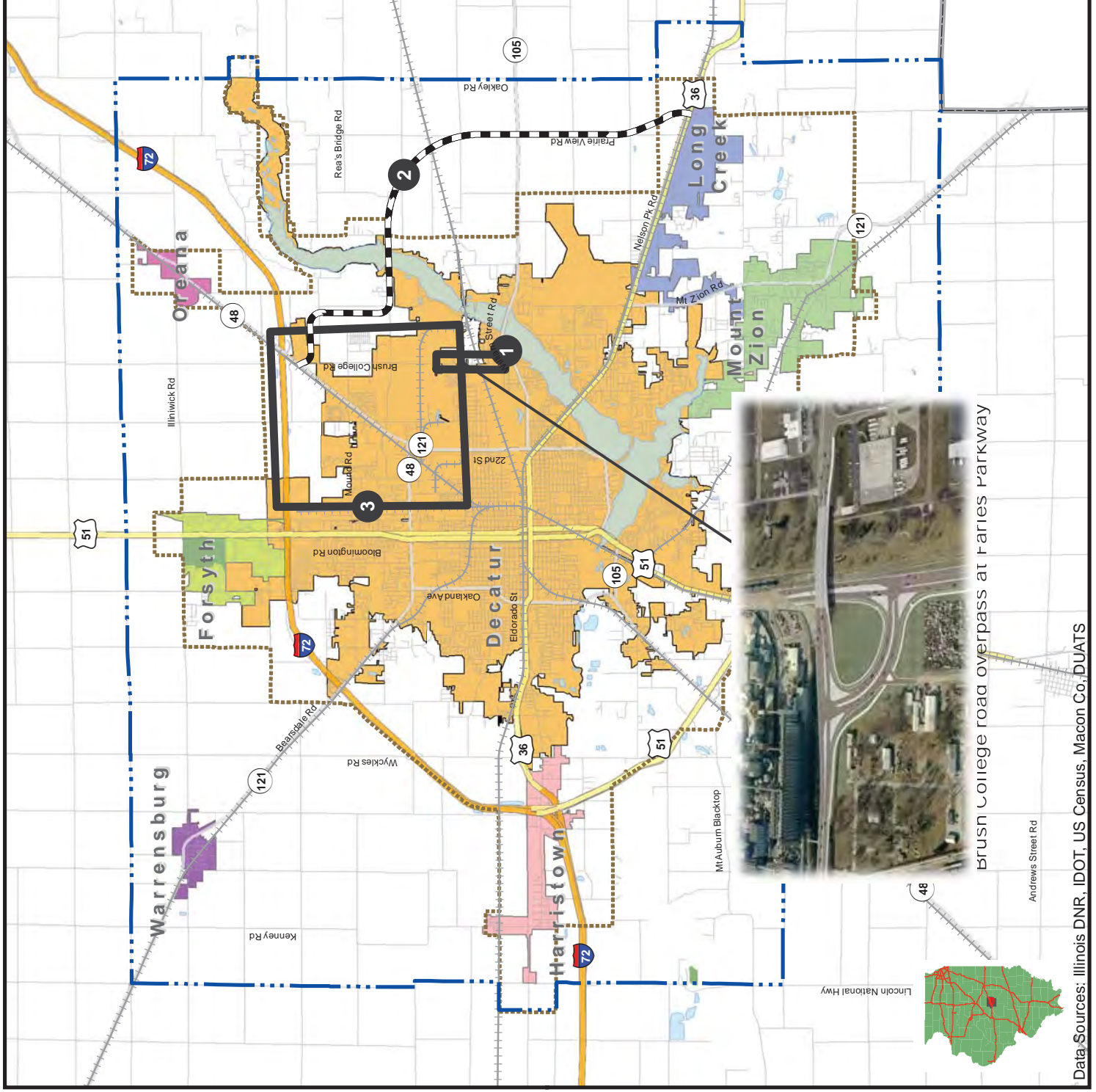


**Figure 5-1**  
**2040 LRTP**  
**Priority Projects**

**Legend**

-  Metropolitan Planning Area (MPA)
-  Urbanized Area Boundary
-  Macon County
-  Interstate
-  US Highway
-  State Highway
-  Railroad

- 1** **Brush College Road Improvements**  
(Overpass at NS Rail Yards, Overpass at Farries Parkway)
- 2** **Southeast Beltway**  
Phase 1
- 3** **Midwest Inland Port Improvement**



Brush College road overpass at Farries Parkway

Andrews Street Rd

### Brush College Road Corridor Improvements

The Brush College Road corridor, and specifically the NS rail yard underpass, has been identified in previous LRTPs as a transportation corridor requiring both safety and capacity improvements. Since the last LRTP was completed, this corridor was evaluated as part of The Brush College Road Corridor Study. This study initially focused on the NS rail yard underpass to address safety and capacity concerns but the analysis showed that the capacity issues extended beyond the underpass and impacted the William Street intersection and the Faries Parkway intersection. After further evaluation, DATES determined that an overpass at the NS rail yard, an overpass at Faries Parkway, and intersection improvements at William Street (IL 105) were needed to address the issues within the corridor. The corridor improvements are summarized in **Figure 5-2**.

**Figure 5-2. Brush College Road Corridor Improvements**





The Brush College Road Corridor Study found that adding capacity between William Street and Faries Parkway, including a new NS overpass (see **Figure 5-3**), would not address the underlying capacity issue in the corridor – that being the extensive delays that occur at the NS crossing just north of Faries Parkway. Detailed analysis, including the use of VISSIM to model the train delay impact on traffic operations, showed that even with the Brush College Road improvements, a 15 minute train delay at the NS crossing would result in traffic backups extending from Faries Parkway back to Marietta Street. Furthermore, once a train cleared the crossing, the impact would extend for another 15 minutes, or longer, as traffic operations returned to normal. Additional data collected during DATES showed that the blockages at this crossing in fact often exceeded 15 minutes, with some delays approaching one hour.

**Figure 5-3. Proposed Brush College Road Overpass at NS Rail Yard**



SOURCE: URS Corporation.

### Fiscally Constrained Analysis

Funding for DUATS transportation maintenance and improvement projects come from a variety of federal, state, local and private sources. The federal government is the primary source of funding for transportation systems in the United States. These funds come from federally assessed user fees, motor and aviation fuel taxes, and landing fees. They are apportioned back to the states on a formula basis. The primary source of revenue at the federal and state levels includes motor fuel taxes, vehicle registration fees, special motor carrier fees, parking fees and toll fees. Finance at the county and municipal levels are primarily based on property taxes, sales taxes, and special assessments. Private sector funding comes from developers and business associations through impact fees, right-of-way donations, and cost sharing.

Federal, state, local agencies and private developers have invested hundreds of millions of dollars in the DUATS transportation system over the past several decades. In the late 1990's, programs such as TEA-21 and Illinois FIRST significantly increased federal and state funding authorizations above previous levels. However, the cost of maintaining the existing transportation infrastructure is continually increasing as the facilities age. At the same time, the limited availability of local funds makes it more difficult to pursue funding for capital improvement projects. DUATS faces the challenge of balancing the maintenance of the existing transportation

infrastructure while identifying funding to construct the priority projects that will support existing area businesses and create new economic development opportunities within the region.

### Federal Regulations

MAP-21 planning regulations require that MPOs consider the financial implications of their planning efforts as part of the LRTP. Specific provisions in the law regarding the financial plan state the following requirements:<sup>1</sup>

- ▶ Development of a financial plan that demonstrates how the adopted transportation plan can be implemented;
- ▶ Development of funding estimates that will be available to support LRTP implementation, including all necessary financial resources from public and private sources;
- ▶ State recommendations on pursuing additional financing strategies to fund projects and programs included in the LRTP; and
- ▶ Account for all projects and strategies for which federal, state, local, or private funds would be used to finance, and use an inflation rate to reflect multi-year costs and revenues.

Simply stated, the LRTP should be fiscally constrained with reasonable funding sources identified for the proposed transportation projects. Projects with no known funding sources may still be included in the LRTP but only as illustrative projects. This DUATS 2040 LRTP summarizes the projects that are part of the fiscally constrained recommended plan and unconstrained vision, or illustrative projects. The following sections summarize the fiscal constraint analysis and the recommended projects.

### Projected Roadway Funds

Projected roadway funds available to the region are based on historical funding levels identified for the past five-years as reported by DUATS member agencies. In particular, transportation expenditures from IDOT, Macon County, and Decatur make up the majority of transportation expenditures. Based upon recent five-year averages for IDOT, Macon County, and the City of Decatur, it is estimated that the approximately \$623.5 million would be available through the year 2040 for maintenance and construction.

The plan also looked at historical funding sources (FY 2009 – 2014) available to the MPA. These funding sources include:

- ▶ Surface Transportation Urban (STU);
- ▶ Surface Transportation Rural (STR);
- ▶ Highway Bridge Program (HBP);
- ▶ Motor Fuel Tax (MFT); and,
- ▶ IDOT Multi-Year Program.

**Table 5-1** displays the historical funding for each funding source along with the five-year average. The five-year average is used as the baseline assumption to project available funds that are reasonably expected to be available to the DUATS area through the year 2040. Future year funding is projected on an annual basis and includes a 3 percent inflationary factor per year. Consistent with the 2035 LRTP, it is assumed that a maximum of 25 percent of STR funding and 75 percent of HBP funding would be allocated for projects in the MPA. The amounts listed in **Table**

<sup>1</sup> United States Government Printing Office (USGPO). 23 CFR 450.322(f)(10) – Development and Content of the Long Range Transportation Plan (LRTP). <http://www.gpo.gov/fdsys/pkg/CFR-2011-title23-vol1/pdf/CFR-2011-title23-vol1-sec450-322.pdf> (2014)

5-1 for these two sources reflect these percentages of the total amount allocated to Macon County. IDOT projections were based on the current Multi-Year Program (2015 – 2020) which currently averages approximately \$7.0 million per year.

**Table 5-1. Historical and Projected Funding Levels**

Fiscal Year	Surface Transportation Urban (STU)	Surface Transportation Rural (STR)*	Highway Bridge Program (HBP)**	Motor Fuel Tax (MFT)	IDOT Multi-Year Program ***
2014	\$961,873	\$85,806	\$375,878	-	
2013	\$951,127	\$84,874	\$287,844	\$4,328,198	
2012	\$1,021,799	\$102,452	\$262,105	\$4,256,657	
2011	\$704,516	\$70,627	\$260,306	\$4,066,798	
2010	\$785,000	\$78,613	\$539,912	\$4,659,167	
2009	-	-	-	\$4,726,021	
5-Year Average	\$884,863	\$84,475	\$345,209	\$4,407,368	\$7,000,000
25-Year Inflation Adjusted Totals	\$35,100,000	\$3,400,000	\$13,700,000	\$175,000,000	\$278,000,000

\* STR funds represent 25 percent of total funds allocated to Macon County.

\*\* HBP funds represent 75 percent of total funds allocated to Macon County.

\*\*\* Annual estimate provided by IDOT based on the current Multi-Year Program.

SOURCE: DUATS, IDOT (2014)

By applying a 3 percent annual inflation rate, it is estimated that approximately \$505.2 million would be available from these primary funding sources. The difference between this total, and the \$623.5 million previously mentioned, is the result of additional funding these agencies receive through grants and local funding sources.

### Operations and Maintenance

Tables 5-2 through 5-5 provide a breakdown of the typical operations and maintenance expenses incurred by IDOT, Macon County, and the City of Decatur. These costs were provided by each agency for the time period between 2009 and 2013. Applying a 3 percent inflation rate, the routine maintenance expenses are expected to total \$133.7 million for these three agencies which make up the majority of the operations and maintenance expenses within the MPA. Subtracting this from the total of \$623.5 million would leave approximately \$489.8 million for capital improvements.

Based upon the information provided by the agencies, DUATS believes that there is adequate funding available for operations and maintenance through the year 2040. With that said, all agencies are facing increasing maintenance needs which could be considered beyond routine. These projects are reflected in the capital construction projects.

Table 5-2. Historical IDOT Maintenance Costs

Activity	2009	2010	2011	2012	2013
Pavement Rehabilitation/Replacement	\$ 56,331	\$ 38,318	\$ 40,018	\$ 89,934	\$ 88,298
Bridge Rehabilitation/Replacement	\$ 1,400	\$ 7,153	\$ 4,085	\$ 1,378	\$ 1,527
Shoulders/Curb and Gutter	\$ 34,833	\$ 24,295	\$ 19,380	\$ 7,194	\$ 35,965
Drainage Work	\$ 9,314	\$ 1,666	\$ 3,341	\$ 402	\$ 8,026
Snow & Ice Removal	\$ 302,579	\$ 319,171	\$ 319,377	\$ 157,805	\$ 193,870
Other Operation and Maintenance Expenses *	\$ -	\$ -	\$ 16,641	\$ 9,004	\$ -
<b>Total</b>	<b>\$ 404,457</b>	<b>\$ 390,603</b>	<b>\$ 402,842</b>	<b>\$ 265,717</b>	<b>\$ 327,686</b>

SOURCE: IDOT, 2014.

Table 5-3. Historical Macon County Maintenance Costs

Activity	2009	2010	2011	2012	2013
Pavement Rehabilitation/Replacement	\$ 757,864	\$ 761,471	\$ 760,645	\$ 834,803	\$ 589,715
Bridge Rehabilitation/Replacement	\$ 252,625	\$ 548,368	\$ 91,786	\$ 69,120	\$ 669,740
Shoulders/Curb and Gutter	\$ 60,800	\$ 92,564	\$ 92,629	\$ 81,803	\$ 107,443
Drainage Work	\$ 27,064	\$ 24,502	\$ 6,982	\$ 13,500	\$ 19,578
Snow & Ice Removal	\$ 97,408	\$ 81,722	\$ 94,744	\$ 57,868	\$ 135,974
Other Operation and Maintenance Expenses *	\$ 25,188	\$ 89,118	\$ 178,327	\$ 48,191	\$ 77,145
<b>Total</b>	<b>\$ 1,220,949</b>	<b>\$ 1,597,745</b>	<b>\$ 1,225,113</b>	<b>\$ 1,105,285</b>	<b>\$ 1,599,595</b>

SOURCE: Macon County, 2014.

Table 5-4. Historical City of Decatur Maintenance Costs (General Fund Expenditures)

Activity	2009	2010	2011	2012	2013
Materials Streets & Alley	\$ 146,795	\$ 124,847	\$ 144,451	\$ 132,468	\$ 232,945
Materials for Culverts	\$ 10,181	\$ 9,307	\$ 10,634	\$ 15,407	\$ 17,237
Materials - Sewers	\$ 10,385	\$ 6,167	\$ 15,945	\$ 13,867	\$ 15,735
Traffic Control Supplies	\$ 2,707	\$ 4,471	\$ 12,955	\$ 397	\$ 3,985
Electricity - Street Lights	\$ 965,681	\$ 1,041,571	\$ 943,352	\$ 1,334,862	\$ 1,967,158
Electricity - Traffic Lights	\$ 59,449	\$ 105,149	\$ 125,796	\$ 98,537	\$ 151,842
Material - Signs	\$ 45,799	\$ 24,674	\$ 41,868	\$ 25,231	\$ 154,444
Material - Traffic Signals	\$ 35,142	\$ 30,905	\$ 17,879	\$ 32,919	\$ 60,180
Material - Street Lights	\$ 23,403	\$ 13,497	\$ 17,285	\$ 13,339	\$ 30,572
<b>Operations &amp; Maintenance Total</b>	<b>\$ 1,299,542</b>	<b>\$ 1,360,588</b>	<b>\$ 1,330,165</b>	<b>\$ 1,667,027</b>	<b>\$ 2,634,098</b>

SOURCE: City of Decatur, 2014.

NOTE: General fund expenditures consist of routine operations and maintenance of the transportation system. Work performed by the Streets &amp; Sewers Section (street expenses only) and the traffic section (signals, signs, pavement markings) are included in this table.

Table 5-5. Historical City of Decatur Maintenance Costs (Capital Fund Expenditures)

Activity	2009	2010	2011	2012	2013
Pavement Rehabilitation/Replacement	\$ 2,435,325	\$ 3,862,787	\$ 1,101,025	\$ 2,203,947	\$ 1,993,735
Bridge Rehabilitation/Replacement	\$ 56,733	\$ 231,752	\$ 205,916	\$ 317,830	\$ 372,233
Shoulders/Curb and Gutter	\$ -	\$ -	\$ -	\$ -	\$ -
Drainage Work	\$ 116,135	\$ 395,430	\$ 227,606	\$ 122,538	\$ 267,265
Other Construction	\$ 410,761	\$ 176,619	\$ 238,825	\$ 4,100,464	\$ 5,706,405
<b>Total</b>	<b>\$ 3,018,954</b>	<b>\$ 4,666,588</b>	<b>\$ 1,773,372</b>	<b>\$ 6,744,779</b>	<b>\$ 8,339,638</b>

SOURCE: City of Decatur, 2014.

NOTE: Capital fund expenditures include Motor Fuel Tax Funds and Capital Improvement Funds that are spent on transportation infrastructure. This work is performed by construction firms under contract to the City or IDOT. Other construction in 2009 is for LED traffic signal improvements and Eldorado Streetscape; 2010, 2011, 2012, 2013 expenditures are for Downtown Streetscape design and construction.



### Capital Improvements (Fiscally Constrained Plan)

The fiscal constraint requirement is intended to ensure that L RTPs reflect realistic assumptions about future revenues. Compliance with the requirement entails a comparison of revenues and estimated project costs. The primary question that must be answered is "Will the projected revenues (federal, state, local, and private) through the year 2040 cover the anticipated project costs?"

Factoring out operations and maintenance costs leaves approximately \$489.8 million for capital projects through the year 2040. Based on current data, approximately \$82.2 million is dedicated to committed projects (through 2020), leaving \$407.6 million available from 2021 to 2040 for capital improvements. The roadway projects in Chapter 4 were then evaluated to determine which projects could reasonably be considered for construction based upon historic funding levels. The projects were evaluated and grouped into three tiers including:

- ▶ **Tier 1 |** (See **Figure 5-4**) Committed projects identified in the TIP that are programmed and have identified funding in the short-term (2015 – 2020).
- ▶ **Tier 2 |** (See **Figure 5-5**) Fiscally constrained future year projects that are reasonably expected to be funded between 2021-2040. Tier 2 projects are grouped into five-year bands to reflect the approximate construction period and year of expenditure. The bands are as follows:
  - Band 1 | 2021 – 2025
  - Band 2 | 2026 – 2030
  - Band 3 | 2031 – 2035
  - Band 4 | 2036 – 2040
- ▶ **Tier 3 |** (See **Figure 5-6**) Remaining projects that have been identified as addressing a need in the region but do not currently have a reasonable funding source identified. These projects are referred to as the fiscally unconstrained vision. It is important to note that the three priority projects for the region, previously identified in this chapter, currently fall into Tier 3 and are considered to be part of the unconstrained vision.

As mentioned, Tier 2 projects are divided into five-year bands to prioritize when projects are anticipated for construction. The project cost estimates, currently in year 2014 dollars, are inflated at an annual 3 percent rate to reflect the anticipated year of expenditure. To determine year of expenditure, the five-year project cost average was used. For example, a project estimated to cost \$10.0 million in 2014 dollars would cost approximately \$14.26 million if constructed in the year 2026, \$14.69 million in 2027, \$15.13 million in 2028, \$15.58 million in 2029, and \$16.05 million 2030. The five-year average cost is \$15.14 million which is used as the year of expenditure project cost for projects planned for construction between 2026 and 2030 (Tier 2, Band 2). Based upon the historic funding levels, **Table 5-6** identifies the funding anticipated to be available to each agency during the five-year bands.

Using these projected available funds, the roadway projects were allocated to the five-year bands. **Table 5-7** identifies the DUATS projects that are part of the fiscally constrained plan. In completing this analysis, additional funds were left in each of the five-year bands for each agency. This was done to cover additional projects and transportation needs that are likely to be identified over the next twenty-five years. Projects identified as part of the fiscally constrained plan include year of expenditure cost estimates.

Table 5-6. Projected Funds by Agency (million dollars)

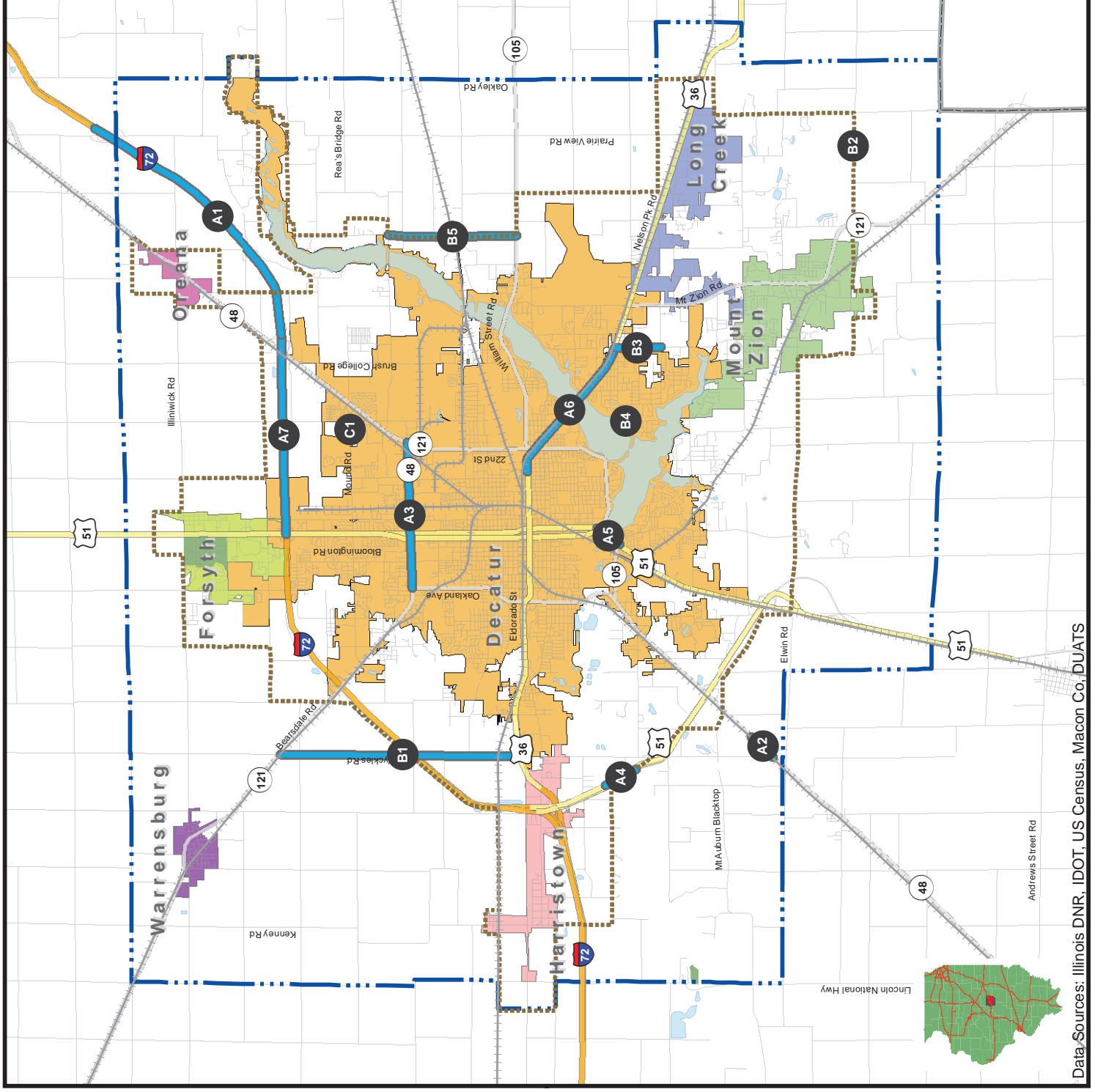
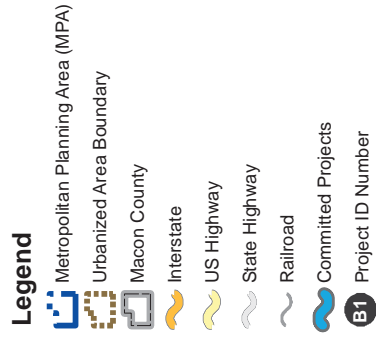
Agency	Tier 2			
	Band 1	Band 2	Band 3	Band 4
	2021-2025	2026-2030	2031-2035	2036-2040
IDOT	\$ 43.1	\$ 50.0	\$ 57.9	\$ 67.1
Macon County	\$ 19.3	\$ 22.4	\$ 25.9	\$ 30.0
City of Decatur	\$ 18.2	\$ 21.1	\$ 24.4	\$ 28.3

NOTE: Projected funds include a 3 percent annual inflation rate.

Table 5-7. Tier 2 and 3 Projects (Fiscally Constrained)

Entity	Map ID #	Name	Project Cost (2014 Dollars)	Tier 2				Tier 3
				Band 1 2021-2025	Band 2 2026-2030	Band 3 2031-2035	Band 4 2036-2040	
IDOT	A8	Old Busn 51 Patching and Resurfacing and Bridge Repair	\$2.4	\$3.0				
	A9	Old Busn 51 Patching and Resurfacing	\$3.6	\$4.6				
	A10	IL 105 Intersection Improvement	\$0.8		\$1.1			
	A11	IL 121 Patching	\$1.3	\$1.6				
	A12	US 51 Patching and Resurfacing	\$7.8	\$9.9				
	A13	US 51 Patching and Resurfacing	\$11.3		\$16.7			
	A14	US 36and US 51 Patching and Resurfacing	\$5.3		\$7.7			
	A15	US 36 Patching and Resurfacing and Bridge Repair	\$2.9		\$4.3			
	A16	US 36 Patching and Resurfacing	\$2.8	\$3.6				
	A17	ILL 48 Patching and Resurfacing	\$4.5		\$6.6			
	A18	ILL 121 Patching and Resurfacing	\$2.9	\$3.6				
	A19	ILL 121 Patching and Resurfacing	\$1.0		\$1.5			
	A20	ILL 121 Patching and Resurfacing	\$4.0	\$5.1				
	A21	Old Busn 51 Patching and Resurfacing	\$4.4			\$7.5		
	A22	Old US 36 Patching and Resurfacing	\$3.8				\$7.5	
	A23	ILL 105, Williams St Bridge Deck Replacement	\$8.6			\$14.7		
	A24	ILL 105, Long Creek Bridge Replacement	\$1.0		\$1.4			
	A25	I-72 Patching and Resurfacing	\$17.4			\$29.6		
	A26	I-72 Patching and Resurfacing	\$16.0				\$31.6	
	IDOT Total		\$101.7	\$31.4	\$39.3	\$51.7	\$39.1	
MCHD	B6	Reas Bridge Road Replacements	\$20.0					●
	B7	CH-23 /Sangamon Road Resurfacing	\$0.2	\$0.3				
	B8	CH-61 / Franklin Street White-topping	\$2.4	\$3.0				
	B9	CH-20 / Reconstruction   Warrensburg, IL	\$5.0	\$6.3				
	B10	SE Beltway   Final Engineering	\$18.0					●
	B11	SE Beltway   Phase 1, Construction	\$95.0					●
	B12	SE Beltway   Phase 2, Construction	\$110.0					●
	B13	Various Structure Reconstruction or Replacement	\$14.4	\$4.4	\$5.1	\$5.9	\$6.8	
	MCHD Total		\$265.0	\$14.0	\$5.1	\$5.9	\$6.8	
DECATUR	C2	Center Street Bridge over Steven's Creek	\$0.8	\$1.0				
	C3	Lost Bridge Road Guardrail Replacement	\$0.2	\$0.3				
	C4	Mound Road Bridge over Spring Creek (Middle)	\$0.7	\$0.9				
	C5	Mound Road Bridge over Spring Creek (West)	\$0.8	\$1.0				
	C6	Meadowlark Bridge Improvements	\$0.4	\$0.6				
	C7	Taylor Road Bridge over Ward Branch	\$1.0	\$1.3				
	C8	Grove Road Bridge over Sand Creek	\$0.5	\$0.6				
	C9	Parkway Drive Improvement	\$0.7	\$1.1				
	C10	Brush College Road Improvements	\$83.0					●
	C11	27th Street and CN Railroad Overpass	\$50.0					●
	C12	27th Street Improvement	\$2.0	\$3.0				
	C13	Jasper Street Improvement	\$2.0	\$3.0				
	C14	Woodford Street Extension and Interchange	\$30.0					●
	C15	Ash Avenue Extension	\$30.0					●
	Decatur Total		\$202.1	\$12.8	\$0.0	\$0.0	\$0.0	

**Figure 5-4**  
**Fiscally Committed Projects**



**Figure 5-5**  
**Fiscally Constrained Plan**

**Legend**

Metropolitan Planning Area (MPA)

Urbanized Area Boundary

Macon County

**Constrained Projects**

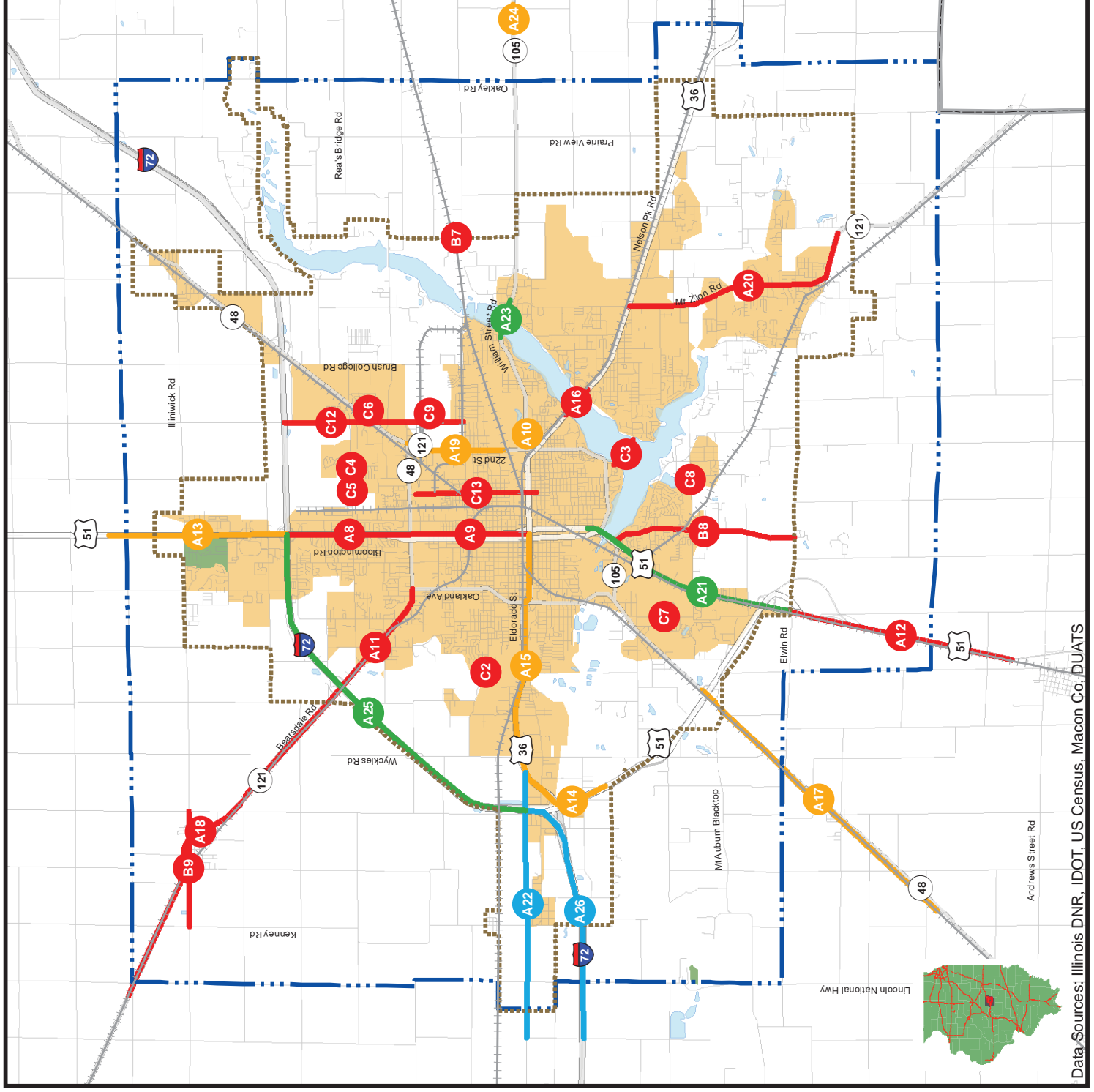
2021 to 2025

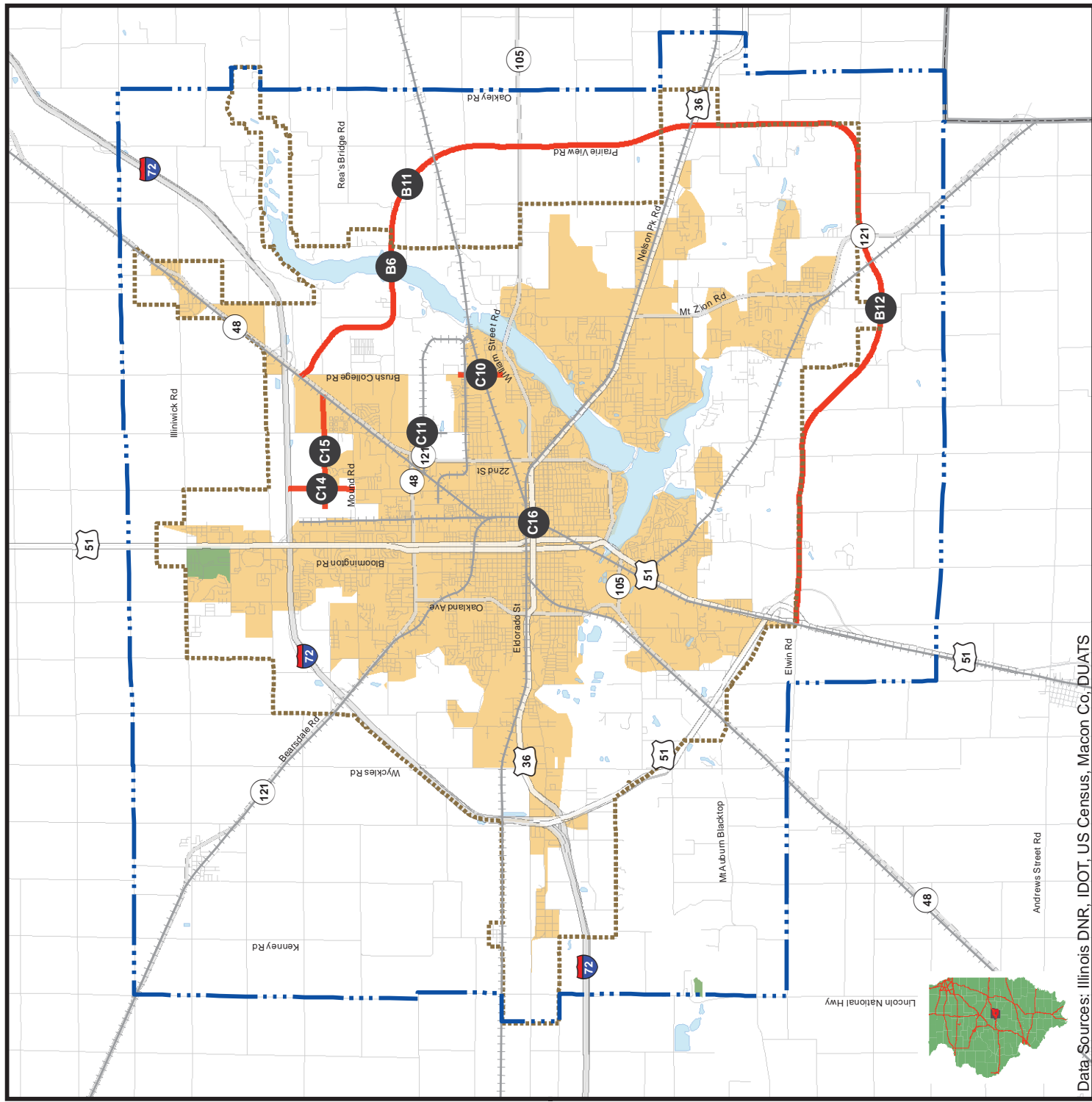
2026 to 2030

2031 to 2035

2036 to 2040

**B1** Project ID Number





## Conclusion

The roadway financial analysis presents a reasonable projection that DUATS will be able to continue to fund routine maintenance, more extensive maintenance (i.e., interstate and arterial resurfacing/reconstruction), and construct limited capital improvements. At present time, the priority projects, identified at the beginning of this chapter, are not fiscally constrained. While not currently part of the fiscally constrained plan, there could be additional opportunities over the coming years to add these projects in the LRTP and program them in the TIP. In particular, the top priority – Brush College Road Corridor improvements – could be divided into phases to construct one of the two overpasses in staged construction (currently, the NS rail yard overpass is identified as the first phase).

Based upon current funding projections, even a phased construction would not reasonably allow the Brush College Road corridor project to be included in the fiscally constrained plan. While some funding could potentially be applied toward this project, DUATS would need to identify additional funding sources before any phased projects could be included in the LRTP. DUATS will continue to pursue additional funding opportunities through transportation and economic development related grants, and seek support from private industries as a way to fund the priority improvements.



## Public Transportation Recommended Plan

The Decatur Public Transit Service (DPTS) operates a very successful public transportation system that in recent years has carried over 1.4 million riders per year. While there may be potential growth opportunities in Forsyth and Mt. Zion, no major service expansion plans are currently identified. The DPTS will continue to monitor the need for service expansion; however, currently the focus is on the operations and maintenance of the existing system. As such, the biggest need over the next 25-years will be the upkeep of the transit vehicle fleet.

The priority roadway projects, identified at the beginning of this chapter, also support public transportation operations by eliminating at-grade rail crossings thus reducing delays to the traveling public, including transit riders. An overpass constructed at the NS at-grade rail crossing on Brush College Road, at Faries Parkway, would eliminate a major source of travel delay and enhance transit service along the Brush College Road corridor.

### Fiscally Constrained Transit Plan

A feasible transit service relies upon secure funding sources and sufficient revenue to support the continuing operation and potential expansion of public transportation services. The purpose of this analysis is to evaluate the financial feasibility of the DPTS to the year 2040. Transit operations can be divided into two categories: operating costs and capital improvements. These costs are described in the following sections.

### Operating Costs

Operating costs for the DPTS service were approximately \$6.1 million for Fiscal Year 2014, which ended June 30, 2014. The primary operating funding sources are provided at the federal and state levels. Federal funding over recent years has accounted for approximately 22 percent of the DPTS operating costs while the State of Illinois has covered nearly 65 percent of operating costs. Additional funding is also provided by the City of Decatur and by other revenues generated by the transit system – primarily bus and paratransit fares, but also advertising revenue and concession revenue (which combined account for approximately 13 percent of total operating costs).

In order to analyze potential future year transit financial conditions, it is necessary to make some assumptions regarding future year operating costs and funding sources. Operating costs and funds were reviewed for the past five-years to determine any trends. This evaluation discovered that total operating costs for DPTS have increased at an average rate of approximately 3.4 percent per year. During the same five year period, state funding remained constant at the 65 percent reimbursement rate, which has not changed since it was increased from the previous 55 percent reimbursement rate in 2008 and it is assumed that state funding will remain at the 65 percent reimbursement rate through 2040. Therefore, the amount of State revenue will increase at the same rate as operating expenses. Federal funding levels (Section 5307 funds) have increased at approximately 5.5 percent per year during the past five years.

The City of Decatur funding levels have varied significantly. City funding had remained constant at approximately \$150,000 per year for many years, then increased to about \$200,000 in City fiscal year (CFY) 2006-2007 and to \$214,000 in CFY 2007-2008. In the last two years, the City has not provided any operating funds to DPTS. It is assumed that no City funding will be provided through 2040.

DPTS generated revenues, including bus and paratransit fares, advertising revenues and concession revenues, currently account for 9.5 percent of operating expenses. Since transit fare

prices change every few years, the percentage of operating costs covered by fares rise in the year of a fare increase and then gradually decline over the next few years until the next fare increase is implemented. Currently, the next fare increase is scheduled for 2016.

It should also be noted that many other variables should be factored into the projection of operating costs. Specifically, additional transit service, expansion of existing service, and / or other improvements would add to the total operating costs and impact revenues. Furthermore, it is difficult to estimate potential funding levels over the next twenty-five years as there could be significant changes to the primary funding sources. **Table 5-8** displays projected operating costs, for the DPTS system through the year 2040.

**Table 5-8. DPTS Projected Operating Costs (2015 – 2040)**

Year	Estimated Operating Costs (in \$1,000)	Estimated Sources of Funds (in \$1,000)					Estimated Deficit	Percent Funded
		FTA	State	Local	DPTS Revenues	Total		
2014	\$6,100	\$1,400	\$3,965	\$0	\$581	<b>\$5,946</b>	\$154,000	97.5%
2015	\$6,309	\$1,477	\$4,101	\$0	\$601	<b>\$6,179</b>	\$131,000	97.9%
2016	\$6,526	\$1,558	\$4,242	\$0	\$621	<b>\$6,421</b>	\$104,000	98.4%
2017	\$6,749	\$1,644	\$4,387	\$0	\$643	<b>\$6,674</b>	\$76,000	98.9%
2018	\$6,981	\$1,734	\$4,538	\$0	\$665	<b>\$6,937</b>	\$44,000	99.4%
2019	\$7,220	\$1,830	\$4,693	\$0	\$687	<b>\$7,210</b>	\$10,000	99.9%
2020	\$7,468	\$1,903	\$4,854	\$0	\$711	<b>\$7,468</b>	\$0	100.0%
2021	\$7,724	\$1,968	\$5,021	\$0	\$735	<b>\$7,724</b>	\$0	100.0%
2022	\$7,989	\$2,036	\$5,193	\$0	\$761	<b>\$7,989</b>	\$0	100.0%
2023	\$8,263	\$2,105	\$5,371	\$0	\$787	<b>\$8,263</b>	\$0	100.0%
2024	\$8,547	\$2,178	\$5,555	\$0	\$814	<b>\$8,547</b>	\$0	100.0%
2025	\$8,840	\$2,252	\$5,746	\$0	\$842	<b>\$8,840</b>	\$0	100.0%
2026	\$9,143	\$2,330	\$5,943	\$0	\$870	<b>\$9,143</b>	\$0	100.0%
2027	\$9,457	\$2,410	\$6,147	\$0	\$900	<b>\$9,457</b>	\$0	100.0%
2028	\$9,781	\$2,492	\$6,358	\$0	\$931	<b>\$9,781</b>	\$0	100.0%
2029	\$10,116	\$2,578	\$6,576	\$0	\$963	<b>\$10,116</b>	\$0	100.0%
2030	\$10,463	\$2,666	\$6,801	\$0	\$996	<b>\$10,463</b>	\$0	100.0%
2031	\$10,822	\$2,758	\$7,035	\$0	\$1,030	<b>\$10,822</b>	\$0	100.0%
2032	\$11,194	\$2,852	\$7,276	\$0	\$1,066	<b>\$11,194</b>	\$0	100.0%
2033	\$11,577	\$2,950	\$7,525	\$0	\$1,102	<b>\$11,577</b>	\$0	100.0%
2034	\$11,975	\$3,051	\$7,783	\$0	\$1,140	<b>\$11,975</b>	\$0	100.0%
2035	\$12,385	\$3,156	\$8,050	\$0	\$1,179	<b>\$12,385</b>	\$0	100.0%
2036	\$12,810	\$3,264	\$8,327	\$0	\$1,220	<b>\$12,810</b>	\$0	100.0%
2037	\$13,250	\$3,376	\$8,612	\$0	\$1,261	<b>\$13,250</b>	\$0	100.0%
2038	\$13,704	\$3,492	\$8,908	\$0	\$1,305	<b>\$13,704</b>	\$0	100.0%
2039	\$14,174	\$3,612	\$9,213	\$0	\$1,349	<b>\$14,174</b>	\$0	100.0%
2040	\$14,660	\$3,735	\$9,529	\$0	\$1,396	<b>\$14,660</b>	\$0	100.0%

SOURCE: Decatur Public Transit System (2014)

It is estimated that the DPTS operating expenses over the next twenty-five years will total approximately \$264 million. During this same time period the potential funding sources are also

estimated to total nearly \$264 million. Under this scenario, there would be a deficit of approximately \$520,000 during the next twenty-five years. Again, several factors should be considered as part of this projection. First, the revenues do not factor in any increase in transit fares over the twenty-five year period. In all likelihood, transit fares will increase four or more times over the next twenty-five years generating additional revenue. Secondly, other potential funding sources could increase at a higher rate than the estimated levels, thus generating additional revenue. Finally, the service provided could be expanded or the service area could be increased, potentially creating additional revenues.

Currently, the DPTS operating costs are reasonably projected to be sufficient through the year 2040. It is essential that adequate revenues and funding sources are secured for the transit system to maintain a high level of service within the MPA. The DPTS will continue to monitor potential concerns that could create significant gaps between future year operating costs and projected funding. If significant gaps were to occur, it could result in one or more of the following:

- ▶ **Increased Transit Fares** | Transit fares would need to be increased to generate additional funds to cover increasing operating costs. Increasing transit fares is never a popular decision but is one that is often necessary to offset rising operating costs;
- ▶ **Service Cuts** | If funding levels do not increase at a higher rate than the projected levels, some elements of the transit service may need to be eliminated or scaled back to reduce operating costs;
- ▶ **Limited Ability to Extend Service** | Without additional funding sources it would be extremely difficult to extend the hours of transit operation to provide later service or expand current service beyond the existing coverage area to other communities in the MPA; and,
- ▶ **Increased Funding from Other Communities** | Additional funding from other communities would likely be necessary to provide expansion of transit service throughout the MPA.

### Capital Improvements

The regularly scheduled replacement of transit vehicles represents the most significant capital improvement expense. It is projected that approximately 44 new buses will be needed during the next twenty-five years. This assumes the replacement of buses after approximately 14 years instead of the FTA minimum bus life of 12 years. Other planned improvements include the replacement of two trolleys anticipated around the year 2017 and then again in 2031. Additionally, there is a need to replace or add approximately 26 new vans between 2015 and 2040. This assumes the replacement of vans after approximately eight years, instead of the FTA minimum van life of five to seven years. The total estimated cost, as shown in the **Table 5-9**, is approximately \$21.4 million.

Additional capital improvements have been identified in the current FY 2015 – FY 2018 TIP. **Table 5-10** displays non-vehicle capital improvements which total approximately \$482,500.

Table 5-9. Public Transit Capital Improvements

Improvement Description	Estimated Cost	Year
<b>Bus Improvements</b>		
10 Replacement 30' Low Floor Buses	\$3,300,000	2015
3 Replacement 30' Low Floor Buses	\$1,029,000	2017
5 Replacement 30' Low Floor Buses and 4 Replacement 35' Low Floor Buses	\$3,623,000	2023
10 Replacement 30' Low Floor Buses	\$4,350,000	2029
3 Replacement 30' Low Floor Buses	\$1,359,000	2031
5 Replacement 30' Low Floor Buses and 4 Replacement 35' Low Floor Buses	\$4,778,000	2037
<b>Subtotal</b>	<b>\$18,439</b>	
<b>Trolley Improvements</b>		
2 Replacement Trolley Replica Coaches	\$624,000	2017
2 Replacement Trolley Replica Coaches	\$824,000	2031
<b>Subtotal</b>	<b>\$1,448</b>	
<b>Wheelchair Vans</b>		
2 Replacement Light-Duty Lift Vans	\$102,000	2016
2 Replacement Light-Duty Lift Vans	\$106,000	2018
2 Replacement Light-Duty Lift Vans	\$110,000	2020
2 Replacement Mini-Vans w/ Ramp	\$68,000	2022
2 Replacement Light-Duty Lift Vans	\$120,000	2024
2 Replacement Light-Duty Lift Vans	\$124,000	2026
2 Replacement Light-Duty Lift Vans	\$130,000	2028
2 Replacement Mini-Vans w/ Ramp	\$80,000	2030
2 Replacement Light-Duty Lift Vans	\$140,000	2032
2 Replacement Light-Duty Lift Vans	\$146,000	2034
2 Replacement Light-Duty Lift Vans	\$152,000	2036
2 Replacement Mini-Vans w/ Ramp	\$94,000	2038
2 Replacement Light-Duty Lift Vans	\$164,000	2040
<b>Subtotal</b>	<b>\$1,448,000</b>	
<b>Total Vehicle Improvement Costs</b>	<b>\$21,423,000</b>	

Table 5-10. Non-Vehicle Capital Improvements (2015-2018)

Project Number	Year	Project Description	Total Cost
2010-6	2015	Purchase Paratransit Scheduling Software	\$40,000
2014-2	2015	Purchase Replacement Radio System	\$215,000
2010-7	2016	Install Motorized Security Gate, with Camera	\$85,000
2017-2	2018	Install Replacement Carpeting in Offices and Public Areas	\$22,500
2017-3	2018	Install Bus Stop Improvements at Benches / Shelters to Enhance ADA Accessibility	\$120,000
<b>Total Cost</b>			<b>\$482,500</b>

SOURCE: Decatur Public Transit System (2014)

Additional capital improvements beyond the current TIP projects could include the purchase of additional transit vehicles to provide service to growing areas of the MPA. Additional vehicles would be required if service is expanded into the under-served areas of the DPTS service area, if service is increased in the Forsyth area, and/or if new service is extended to Mt. Zion. Extending service would not only require the initial capital expense but as previously mentioned would also increase operating expenses.

As no specific plans are identified to extend transit service in the near future, no capital cost estimates beyond the current TIP are identified. Capital improvements amounts associated with purchasing additional buses would be contingent on the type and amount of service that would be provided. This would require a detailed planning study to determine the exact service needed and the capital and operating costs associated with the proposed transit service improvement. Based on recent history and projected capital and operating needs, it is reasonably assumed that the DPTS will continue to operate a fiscally constrained system through the year 2040.

## Non-Motorized Recommended Projects

Currently, the Decatur Park District and Macon County Conservation District (MCCD) are the two entities primarily responsible for planning park-related improvements, which include non-motorized trails. Some non-motorized projects listed in **Table 5-11**, such as the Decatur Bike Trail project, are planned to coordinate with roadway improvement projects. DUATS will continue to work with other area organizations to coordinate these improvements as they have significant potential for helping non-motorized trail improvements become implemented.

DUATS supports the expansion of the bicycle network within the MPA by constructing new facilities to form a regional bicycle system. The Metro Area Greenways Plan identified proposed trails locations and cost estimates. Some of these proposed facilities have been carried forward for planning in the 2040 LRTP. As mentioned in previous chapters, the Greenways Plan and the DUATS Bicycle Plan should be updated and merged into one document. This updated plan should identify the potential corridors, set priorities, and provide updated project cost estimates.

Regarding the construction of additional bicycle improvements, there exists a need for safe access and mobility for crossing Lake Decatur, I-72, and many other areas within the MPA that lack sidewalk or other provisions for alternative transportation. This is a significant concern throughout the MPA, as many areas are accessible only by motorized vehicles. A detailed planning and engineering study would be needed to identify the most feasible solution to accommodate bicycle travel across existing Lake Decatur bridge crossings. As these studies are conducted, the detailed recommendations and cost estimates should be incorporated into LRTP updates.



Table 5-11. Non-Motorized Improvements and Cost Estimates

ID#	Project	Responsible Agency	Estimated Cost (2015 Dollars)	Status
1	Finley Creek Conservation Area Trail	Decatur Park District	\$1,100,000	No plans currently in progress
2	Lake Shore Trail	Decatur Park District	\$3,900,000	No plans currently in progress
3	Rock Springs Trail	Decatur Park District	\$1,100,000	No plans currently in progress
4	Spitler Woods Trail Head	Mt. Zion	\$700,000	No plans currently in progress
5	Stevens Creek Trail – Phase 2	Decatur Park District	\$3,400,000	Cresthaven Park to Forsyth – Currently in final engineering
6	Improve bridge crossings over I-72	Decatur / Forsyth	None Identified	No plans currently in progress
7	Chandler Park to Scovill Park	Decatur Park District	\$1,400,000	No plans currently in progress
8	Fairview Park to Downtown	Decatur Park District	\$700,000	No plans currently in progress
9	Fairview Park to Forsyth	Decatur Park District	\$7,700,000	No plans currently in progress
10	Fairview Park to Harristown	Decatur Park District	\$700,000	No plans currently in progress
11	Fairview Park to Scovill GC	Decatur Park District	\$350,000	No plans currently in progress
12	Finley Creek Conservation Area to Baltimore Avenue	Mt. Zion	\$1,100,000	No plans currently in progress
13	Fort Daniels to Spitler Woods	Greenway Coalition	\$2,100,000	No plans currently in progress
14	Montezuma to Oakland Avenue	Forsyth	\$560,000	No plans currently in progress
15	Mt. Zion Park to Girl Scouts	Mt. Zion	\$700,000	No plans currently in progress
16	Neighborhood Park to Spitler Woods	Mt. Zion	\$1,400,000	No plans currently in progress
17	Neighborhood Park to Finley Creek Conservation Area	Mt. Zion	\$1,400,000	No plans currently in progress
18	Nelson Park to Faries Park	Decatur Park District	\$3,500,000	No plans currently in progress
19	IL-121 connection to US-36	Mt. Zion	\$1,400,000	No plans currently in progress
20	South Shores to Big Creek	Decatur Park District	\$2,800,000	No plans currently in progress
21	Woodland Drive to High School	Decatur Park District	\$700,000	No plans currently in progress

SOURCE: DUATS (2009), Decatur Metro Greenways Plan (1998)

Table 5-12. Proposed Non-Motorized Improvements

Project Name	Description	Cost
<b>Decatur Park District Potential Trail Projects</b>		
<b>West End Bridge</b>	Improvements near Fairview Avenue, Fairview Park	\$ 850,000
<b>Bike Trail Project</b>	Incorporate with Country Club Road Reconstruction Project	\$ 500,000
<b>West End Road Reconstruction</b>	Near Fairview Park	\$80,000
<b>Twin Bridge Road Project – Option 1</b>	Reconstructing and widening - From US-36, north to the Decatur Airport	\$2,500,000
<b>Twin Bridge Road Project – Option 2</b>	Reconstructing and widening - From north end of Twin Bridge Road west to Airport Road	\$1,250,000
<b>Fairies Parkway</b>	Reconstruction and repaving	\$325,000
<b>Macon County Conservation District (MCCD) Potential Trail Projects</b>		
<b>Fort Daniel Trail Improvement</b>	Replacement of three trail structures	\$88,000

SOURCE: DUATS

## Freight and Aviation Recommended Projects

The movement of freight within the Decatur region has a significant impact on the local and regional economy. The continued development of the Midwest Inland Port highlights the need for the region to continue to accommodate the movement of freight in a safe and efficient manner. The Decatur Area Transportation Efficiency Study (DATES) provides the bulk of freight related recommendations for the 2040 LRTP. The long-term DATES vision focused on the following improvements:

- ▶ Construct the Brush College Road Corridor Improvements
- ▶ Grade Separate the Eldorado Street Rail Crossing
- ▶ Construct the Southeast Beltway

Additional detail on these and other freight-related projects is discussed below.

### Brush College Road Corridor Improvements

As previously discussed, the Brush College Road improvements would provide significant benefits to the regional transportation system by positively impacting motorized and non-motorized users alike. This project is anticipated to reduce traffic congestion, eliminate freight trains blocking an at-grade rail crossing, enhance safety, and increase mobility for trucks traveling to and from nearby large-scale industries and intermodal operations. The Brush College Road Corridor improvements include several components:

- ▶ Widening the roadway between William Street and Faries Parkway;
- ▶ Constructing an overpass at the NS Rail Yard (currently a narrow, two-lane underpass); and,
- ▶ Constructing an overpass at the NS rail crossing (just north of Faries Parkway).

As discussed in DATES, and the Brush College Corridor Study, the overall improvements could be constructed in stages. However, it is important to note that it is the comprehensive package of projects that is needed to eliminate the train related delays and achieve an acceptable level of mobility within the corridor.

### US-36 / Eldorado Street Improvements

The DATES study reports that the US-36 (Eldorado Street) railroad crossing contains the second highest number of train blockages per week (129 total) and the second longest delay (just over 15 hours) of all at-grade rail crossings in the MPA. US-36 is also a primary truck route which increases the need for improvements to address the study goal of improving mobility in the region. Constructing a grade-separated facility would eliminate 129 current and 147 future year blockage events, as well as 15 current and 18 future year hours of delay.

Initial estimates, developed for DATES, show that a grade-separated facility at this location would cost an estimated \$19.8 million (2012 dollars). Traffic impacts, which would likely include street closures and limited access to some businesses, would be associated with this project. A detailed engineering analysis would be needed to identify the overall impacts and to refine the planning level cost estimate.

### Truck Improvements

Truck routes through the Decatur MPA should be evaluated to identify opportunities where traffic signal coordination and other improvements could facilitate the more efficient movement of

regional freight. This could be accomplished through the use of new technology and/or signals to better respond to real time traffic conditions.

Improving truck traffic along the 27<sup>th</sup> Street corridor would also benefit existing industries in the area and further support the development of the Midwest Inland Port. Construction of the Southeast Beltway would also enhance truck movements and support economic development opportunities. Additionally, the Southeast Beltway would remove some truck traffic from the urbanized area and thus avoid some of the current at-grade rail crossings which have been documented to cause frequent travel delays.

### Aviation

The Decatur Park District identified general aviation improvement projects to be included in the DUATS 2040 LRTP. These projects were identified in August 2014 for implementation on a schedule yet to be determined. Land acquisition is considered an on-going process with no-time frame identified. The improvements include:

- ▶ The rehabilitation of the terminal building parking lot;
- ▶ An on-going wildlife study;
- ▶ Obstruction removals;
- ▶ Reconstruction of the north ramp; and,
- ▶ Fence upgrades.

The improvement that would have the most benefit to the airport is one of the priority projects listed at the beginning of this chapter – the Southeast Beltway. The construction of the Southeast Beltway would enhance access to the airport and provide an additional freight connection within the region. With continued growth in intermodal activity, the airport would significantly benefit from this improvement and play an important role in supporting future economic development activity.

### Conclusion

The efficient movement of freight through the Decatur region is critical to the sustainability of the region's economy. The priority roadway improvements all support enhanced freight movement by improving regional accessibility, enhancing connectivity, reducing travel delays for the public, and better accommodating local and regional truck traffic. The priority projects also support the continued development of intermodal activity and inland port operations. DUATS will continue to explore freight related funding opportunities to construct the priority roadway projects. With a national emphasis being placed on the efficient movement of freight, the next surface transportation bill could provide additional funding opportunities to construct the DUATS priority projects.

## FUNDING SOURCES

The following sections provide an overview of typical funding sources available to DUATS by mode.

### Roadways

#### Federal Funding Sources

MAP-21 has consolidated dozens of programs into a smaller list of seven core formula programs, listed below:<sup>2</sup>

- ▶ **National Highway Performance Program (NHPP)**
- ▶ **Surface Transportation Program (STP)**
- ▶ **Congestion Mitigation and Air Quality Improvement Program (CMAQ)**
- ▶ **Highway Safety Improvement Program (HSIP)**
- ▶ **Railway-Highway Crossings (set-aside from HSIP)**
- ▶ **Metropolitan Planning (MP)**
- ▶ **Transportation Alternatives (TA)**

Previously, DUATS received funding from four federal programs organized under SAFETEA-LU, listed below:

- ▶ **Highway Bridge Program (HBP) |** HBP Funds are provided to replace or rehabilitate structurally deficient bridges on or off the system for the safe and expeditious transportation of the general public. The funds are allotted to districts based on a formula involving square footage of eligible bridges. Local governments are required to provide a twenty percent match.
- ▶ **Surface Transportation Urban (STU) |** This category is for transportation needs within urbanized areas with populations less than 200,000 and greater than 5,000. Funding is 80 percent federal and 20 percent State and Local. Funds are allocated by census population and projects are selected by DUATS. STU is administered by the State of Illinois for DUATS. STU money is allotted to MPO's for transportation projects such as road construction, reconstruction and bridge rehabilitation. Ten percent of all STU funds must be used for safety projects, which can be used for rail crossing improvements, signals, and other accident-reducing methods of transportation improvement.
- ▶ **Surface Transportation Rural (STR) |** This category is for transportation needs outside urbanized areas with populations less than 200,000 and greater than 5,000. Funding is 80 percent federal and 20 percent state and local. STR money is made available for transportation projects such as road construction, reconstruction and bridge rehabilitation in the more rural areas.
- ▶ **Surface Transportation Enhancements (STE) |** Ten percent of STU funding is available for enhancements such as bike and pedestrian facilities, preservation of historic sites, scenic beautification and other transportation related projects. The MPO must submit a letter stating their support of the project, identifying funding, and attesting that the project is consistent with long range transportation plans.

Under MAP-21, the HBP program is now covered under the NHPP, while the STU, STR, and STE programs are now covered under the new STP program.<sup>3</sup> However, the activities and reserved

<sup>2</sup> Federal Highway Administration - Office of Policy and Governmental Affairs. Moving Ahead for Progress in the 21st Century Act (MAP-21), A Summary of Highway Provisions. (2012).

<sup>3</sup> Congressional Research Service. Surface Transportation Funding and Programs Under MAP-21,. (2012). Page 8.

uses described in the bullets above are still applicable under the new program structure.

There are several other federal funding sources that DUATS could potentially qualify to receive additional funding, based on the specific conditions of individual projects. Moreover, MAP-21 offers more flexibility for states to allocate more or less funding for any one specific program to meet the unique needs of that states transportation system. Specifically, states can to move up to 50 percent of funds between programs (with some restrictions).

The STP, CMAQ, and TA program are particularly flexible with respect to eligible activities / projects. These funds may be used (as capital funding) for public transportation capital improvements, car and vanpool projects, fringe and corridor parking facilities, bicycle and pedestrian facilities, and intercity or intra-city bus terminals and bus facilities – to name a few examples. These funds can also be used for surface transportation planning activities, wetland mitigation, transit research and development, and environmental analysis. Other eligible projects under STP include transit safety improvements and most transportation control measures.

### State Funding Sources

State funding is administered by IDOT. Among the most common forms of funding are the following:

- ▶ **Motor Fuel Tax (MFT)** | The MFT is collected on each gallon of gas that is purchased. The State of Illinois levies a tax of 19.0 cents per gallon of gasoline and 21.5 cents per gallon of diesel fuel for operating motor vehicles and boats. The tax is included in the selling price so the user of the motor fuel ultimately pays the tax. The tax is collected by the Department of Revenue and distributed to local governments. To qualify for funding, municipalities must be incorporated. Municipalities receive their funding based on population. Counties receive their allotment based on total license fees in the county. Townships must levy a 0.08 percent road and bridge tax to be eligible to receive the money. Township allocations are based on total township mileage.
- ▶ **Truck Access Routes** | Truck access routes have a special funding category available for designated truck routes which may receive up to \$30,000 per lane-mile and \$15,000 per intersection for the improvement of access.
- ▶ **Illinois Commerce Commission (ICC)** | The ICC provides special funding for rail crossing improvements that are at grade with a street. This funding can be used for new or upgraded rail crossings.
- ▶ **Economic Development Funds** | Economic Development funds may be used for transportation projects if the new or improved facility will attract or create jobs. This program can be used for industrial, commercial and recreational projects if the project is necessary.
- ▶ **Illinois Downstate Public Transportation Fund** | The State's Downstate Public Transportation Fund provides reimbursements to transit operators for a percentage of their public transit operating expenses. Eligible participants are defined by the Downstate Public Transportation Act. In 2008 the state increased its funding for transit operations from 55 percent up to 65 percent reimbursement for eligible transit operating expenses.

Likewise there are numerous other funding sources that may be available. This LRTP did not take into account those funds which could not be reasonably expected to be available for the general maintenance of existing infrastructure and/or construction of new roads or trails. The available funding sources also do not take into account all funds that may be received by a particular entity in any given year. For example, some communities use all of the MFT funding for maintenance,

while others use it for what they classify as “new construction.” This LRTP requires less reliance on funding sources that cannot be reasonably expected to be available. With the passage of MAP-21, fiscal constraint and reasonable expectations are mandatory considerations to factor into the transportation planning process.

### Local Funding Sources

The basis of local funding of transportation projects in the local municipalities and Macon County is primarily through federal and state allocations and block grants. However, there exist additional revenues which primarily come from property taxes, sales taxes, special assessments, and special tax districts. General funds for roadway maintenance may be obligated from the general property, sales, and other tax proceeds for transportation purposes. While this represents a funding source, the trend in local government is to use general fund property tax proceeds for operation and maintenance of general government. Additional funding includes:

- ▶ **Township Bridge Program** | Township Bridge Program funds are used to construct bridges twenty feet or more in length for the safe transportation of school children, the movement of agriculture equipment and products, rural mail routes, and the traffic needs of the general public. Funds are allocated to each eligible road district based on the total township mileage. Townships must levy a 0.08 percent road and bridge tax to qualify for the allocation.
- ▶ **Bonds** | Transportation projects may be financed utilizing bonded indebtedness. This method allows a unit of government to raise capital through the sale of public bonds to be repaid with interest using general property tax receipts, motor fuel tax, or revenue from the project upon completion. The City of Decatur has utilized this financing alternative to complete several public transportation projects.
- ▶ **Tax Increment Financing (TIF)** | The TIF technique captures all increases in property tax resulting from improvements to a property until such time as allowable project expenses have been paid. Proposed improvements and planned expenditures are defined in a plan and must meet eligibility requirements under the enabling legislation. City governments define the TIF district and program in consultation with units of local government impacted by the proposed district.
- ▶ **Capital Improvement Program (CIP)** | Funding for near-term (one to five years) transportation projects are identified in the State’s multi-year program, a municipalities’ Capital Improvement Program (CIP) and Macon County’s CIP. Estimates of near-term transportation funding is based on appropriated levels of federal funding, cash flows of state funding sources, and city and county bonding programs and general revenue sources.

### Private Sector Funding Sources

As a community grows, vacant land or farmland is often converted to urban uses. As part of that growth, land developers pay the cost of infrastructure development including streets. Particularly as it relates to commercial development and industrial development, developers pay a large share of arterial and collector street widening, enhancement, or rehabilitation. The continued enforcement and management of growth through subdivision code administration minimizes the cost to the community.

When developing major roadways, units of local government may negotiate with private interests to share in the development costs of arterial or collector streets that provide direct benefit to private interests. The amount of money available using this technique is limited only by the



degree of commitment from the private sector and the willingness of the private sector to share in those costs.

Impact fees are costs assigned to new development for the maintenance of existing facilities. Developers pay these fees with costs generally passed on to the eventual owners of the property.

Under Illinois Law Special Service Taxing Districts may be established for the purpose of construction and financing public improvements within a defined service area. It could be the practice of local governments in Macon County to respond to citizen inquiries requesting that a special taxing district(s) be created to fully assess interest within the proposed district. Projects that could be considered under this financing method could include street lighting, street construction or rehabilitation, and sidewalk construction.

A Special Assessment District is established under Illinois law for the purpose of financing and providing certain public facilities. A special assessment district is established through a judicial process that attempts to fairly allocate costs between private and public interests. These funds have typically been used for utility projects and not transportation projects.

## Public Transportation

### State Funding

The most important aspect of State funding is the reimbursement of 65 percent of eligible transit operating expenses. Illinois does this through the provision of the Downstate Public Transportation Fund, which provides reimbursements to transit operators for a percentage of their public transit operating expenses. Eligible participants are defined by the Downstate Public Transportation Act. In 2008 the state increased its funding for transit operations from 55% up to 65% reimbursement for eligible transit operating expenses.

### Federal Funding Programs

The FTA administers several funding programs that are applicable to the transit service in the MPA. Applicable funding programs are detailed in the bulleted list below:

- ▶ **Urbanized Area Formula Program <sup>4</sup>** | MAP-21 has maintained the Urbanized Area Formula program, which provides resources to urbanized areas and to governors for transit capital and operating assistance in urbanized areas and for transportation related planning. An urbanized area is an incorporated area with a population of 50,000 or more that is designated as such by the US Department of Commerce, Bureau of the Census. For urbanized areas under 200,000 in population, apportionments of these funds are based on population and population density. Eligible purposes for Urban Area Formula funds include:
  - Operating expenses, to offset the operating deficit;
  - Planning, engineering, design, and evaluation of transit projects and other technical transportation-related studies;
  - Capital investments in bus and bus-related activities such as replacement of buses, overhaul of buses, rebuilding of buses, crime prevention and security equipment and construction of maintenance and passenger facilities; and,

<sup>4</sup> Page 16.

- All preventive maintenance and some Americans with Disabilities Act complementary paratransit service costs are considered capital costs.
- ▶ **Metropolitan Planning Program** | This program provides funding to support the cooperative, continuous, and comprehensive planning program for making transportation investment decisions in metropolitan areas. State DOTs and MPOs may receive funds for purposes that support the economic vitality of the metropolitan area. Funds are apportioned to states using a formula that includes consideration of each state's urbanized area population in proportion to the urbanized area population for the entire nation, as well as other factors.
- ▶ **Bus and Bus Facilities Formula Program** | This program provides capital assistance for new and replacement buses and for bus related facilities. Section 5339 funds, as they relate to the MPA, would be used generally for replacement of buses and improving / maintaining existing transit facilities. Funds are apportioned to states on the basis of population, vehicle revenue miles and passenger miles. Funds would then be distributed by the states to the urbanized areas.

#### Special Federal Programs and Grant Funding

- ▶ **Job Access and Reverse Commute Program** | The Job Access and Reverse Commute Program (JARC) was a former formula grant program for projects that improve access to employment related transportation services for welfare recipients and eligible low-income individuals, and that transport residents of urbanized and non-urbanized areas to suburban employment opportunities. Although this program has been repealed, JARC type projects are now an eligible project activity under Section 5307, Urbanized Area Formula Program.
- ▶ **New Freedom Program** | The New Freedom Program was a formula grant program that provided funding for capital and operating expenses to support new public transportation services and alternatives beyond those required by the Americans with Disabilities Act (ADA). The Program's goal was to assist in overcoming barriers facing people with disabilities seeking integration into the workplace and full participation in society. Although this Program has been repealed, New Freedom type project activities are eligible under the Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Formula Program.
- ▶ **Flexible Funds for Highway and Transit Flexible Funding** | Flexible funds are certain legislatively specified funds that may be used either for transit or highway purposes. The idea of flexible funds is that a local area can choose to use certain Federal surface transportation funds based on local planning priorities, and not on a restrictive definition of program eligibility. Flexible funds include FHWA STP and Congestion Mitigation and Air Quality Improvement Program (CMAQ) funds and Federal Transit Administration (FTA) Urban Formula Funds.
- ▶ **National Highway System (NHS) Program** | This program provides funding for a wide range of transportation activities. Eligible transit projects under the NHS program include fringe and corridor parking facilities, bicycle and pedestrian facilities, carpool and vanpool projects, and public transportation facilities in NHS corridors, where they would be cost effective and improve the level of service on a particular NHS limited access facility.

## FTA Funding

Additionally, FTA provides funding for transit projects. FTA funding can be used for a variety of transit improvements such as new fixed guideway projects, bus purchases, construction and rehabilitation of rail stations, maintenance facility construction and renovations, alternatively-fueled bus purchases, bus transfer facilities, multimodal transportation centers, and advanced technology fare collection systems. Two specific programs include the following:

- ▶ **STP-U and STP-Rural Programs** | The Surface Transportation Urban (STU) and Rural (STR) programs (described earlier in the Roadway section of this chapter) provide the greatest flexibility in project funding. These funds may be used (as capital funding) for public transportation capital improvements, car and vanpool projects, fringe and corridor parking facilities, bicycle and pedestrian facilities, and intercity or intracity bus terminals and bus facilities. As funding for planning, these funds can be used for surface transportation planning activities, wetland mitigation, transit research and development, and environmental analysis. Other eligible projects under STP include transit safety improvements and most transportation control measures.
- ▶ **Ladders of Opportunities Initiative** | This new FTA program is focused on enhancing access to work for disadvantaged communities, supporting economic opportunities, offering transit access to employment centers, and providing for educational and training opportunities. Recipients will be able to use the funds towards the modernization of vehicle fleets and transit-related facilities.

## Non-Motorized

### Non-Motorized Funding Sources

- ▶ **Illinois Transportation Enhancement Program (ITEP)** | The ITEP program provides financial assistance and funding for projects that provide alternative modes of transportation. It is also designed to support enhancements that improve cultural, historic, aesthetic, and environmental aspects of the transportation system. But the main focus of the program is on non-motorized travel.

Any governing agency with taxing authority is eligible to apply for funding from ITEP. Funding awards are contingent on the availability of matching local funds, as well as the initiation of a project within three years of award notice.<sup>5</sup>

- ▶ **Illinois Bicycle Path Grant Program** | The Illinois Bicycle Path Grant Program was created in 1990. Its purpose is to provide financial assistance to eligible units of government for acquiring, constructing, and rehabilitating public, non-motorized bicycle and pedestrian paths and directly related support facilities. Project applications are limited to land acquisition or trail development along a single trail corridor. Bicycle routes sharing existing roadway surfaces are not eligible for funding consideration under this program. Agencies eligible for assistance under this program are any unit of local government with statutory authority to provide lands for public bicycle path purposes. This includes, but is not limited to; counties, townships, municipalities, park districts, conservation districts and forest preserve districts. Federally funded projects only in Phase I or Phase II engineering are not eligible for Bicycle Path funding consideration.

The Bicycle Path grant program provides up to a maximum of 50% funding assistance on approved local project costs. The maximum grant assistance for construction projects is limited to \$200,000 per annual request. There is no maximum grant amount limit for

<sup>5</sup> Illinois Department of Transportation (IDOT) – Illinois Transportation Enhancement Program (ITEP). [www.idot.illinois.gov](http://www.idot.illinois.gov) (2014).

acquisition projects other than the established annual state appropriation level for the program. Revenue for the program comes from a percentage of vehicle title fees collected pursuant to Section 3-821(f) of the Illinois Vehicle Code.<sup>6</sup>

- ▶ **Recreational Trails Program (RTP)** | The Federal RTP was created through the National Recreational Trail Fund Act (NRTFA) enacted as part of the ISTEA and re-authorized by each of TEA-21, SAFETEA-LU, and MAP-21. Under MAP-21, this program is being funded as a set-aside from the Transportation Alternatives Program.<sup>7</sup>

The RTP provides funding assistance for acquisition, development, rehabilitation and maintenance of both motorized and non-motorized recreation trails. By law, 30 percent of RTP funding allocated to each state must be targeted for motorized trail projects, with another 30 percent reserved for non-motorized trail projects, and the remaining 40 percent used for multi-use (diversified) motorized and non-motorized trails or a combination thereof.

In Illinois, RTP funds are administered by the DNR in cooperation with IDOT and FHWA. The Illinois Greenways & Trails Council serves as the official “state trails advisory board” as required by NRTFA. Eligible applicants include federal, state and local government agencies and not-for-profit organizations. The RTP program can provide up to 80 percent federal funding on approved projects and requires a minimum 20 percent non-federal funding match. Eligible projects include:

- Trail construction and rehabilitation;
  - Restoration of areas adjacent to trails damaged by unauthorized trail uses;
  - Construction of trail-related support facilities and amenities such as trail head parking, restrooms, rest areas, signage, etc.; and,
  - Acquisition from willing sellers of trail corridors through easements or fee simple title.
- ▶ **Community Development Block Grant (CDBG) Funds** | CDBG funds are allocated to metropolitan areas by the Federal government on a formula basis. These funds must be used to principally benefit low and moderate-income persons and must be an eligible activity as defined by program regulations. Historically, these funds have been used in the MPA to help with the replacement of sidewalks of eligible low and moderate-income neighborhoods.
- ▶ **Other Grants** | Other grants to assist in motorized recreational trails include the Local Government Snowmobile Program, the Snowmobile Trail Establishment Fund, and the Off-Highway Vehicle (OHV) Recreation Trails Program. Additional information on these programs is available from IDOT.

## Freight

Funding for the maintenance of rail freight facilities comes primarily from private sources. Some economic development grants could be used to plan intermodal facilities or other projects that would attract or create jobs. With the growing emphasis on freight movement and the coordination of rail and highway interchange, more attention will be given to this transportation sector in the future. The responsibility of the MPA is to provide the requisite planning for the

<sup>6</sup> Illinois Department of Natural Resources – Illinois Bicycle Path Program. [Dnr.state.il.us](http://Dnr.state.il.us) (2014)

<sup>7</sup> Federal Highway Administration (FHWA). Recreational Trails Program. [www.fhwa.dot.gov/environment/recreational\\_trails](http://www.fhwa.dot.gov/environment/recreational_trails) (2014).

infrastructure needs to support intermodal or other new rail facilities. The initial planning will have to quickly transition to design and construction as the new facilities will stress the existing infrastructure, once full build out of the facility is completed.

## SUPPORTING STRATEGIES AND POLICIES

In addition to the recommended transportation improvements, the following supporting strategies and policies are provided. These strategies and policies are intended to move the region forward by addressing the LRTP goals and objectives and by helping implement the future year multimodal improvements.

### Roadways

- ▶ **System Management |** Transportation System Management (TSM) and Intelligent Transportation Systems (ITS) strategies offer cost-effective solutions to transportation deficiencies. TSM projects such as isolated intersection improvements (i.e., adding turn lanes, geometric improvements, etc.) can often alleviate capacity problems along an entire corridor. ITS applications (i.e., traffic signal interconnects, signal preemption, etc.) can be used to improve traffic flow and provide priority to emergency vehicles. DUATS was recently informed that it would be included in an ITS regional architecture study that will begin in Fall 2014.
- ▶ **Traffic Calming |** As appropriate, implement traffic calming techniques to discourage drivers from using local residential streets for avoiding arterial roadways and other intended through routes. Traffic calming measures also support the goal of maintaining a high quality of life within the MPA. This is crucial to accommodate truck traffic that may be using local roadways to avoid traveling through downtown.
- ▶ **Access Management |** Access management has been shown to have significant benefits regarding the preservation of roadway / intersection capacity while improving traffic safety. Specific corridors within the MPA have been identified for the implementation of access management studies and possible improvement techniques. All of the areas identified for access management attention are high accident locations, have numerous and closely spaced access points, and / or feature confusing intersection configurations. These corridors should be closely monitored.
- ▶ **Midwest Inland Port Transportation Plan |** Conduct an industrial transportation plan that would evaluate truck and rail access in the vicinity of the inland port. The study would identify additional transportation improvements to enhance access to/from the inland port by both rail and truck.
- ▶ **Design Considerations |** Support roadway design standards that strengthen the functional classification system. Periodically review the standards to determine those that should be eliminated, updated, or new standards that should be added. For example, arterial roadways should generally be spaced every mile. In more densely developed areas with uses that attract a greater number of trips (such as a CBD or large retail or employment centers) arterials may need to be more closely spaced;
- ▶ **Coordinate and Implement Regional Land Use Design Standards |** Housing density should play a key role in determining roadway spacing. In general, areas featuring higher numbers of dwelling units per acre should warrant more closely spaced streets. While the optimal street spacing ranges from 300 to 400 feet, in no case should residential blocks exceed 500 feet in length. This spacing requirement would provide a greater number of travel paths, reduce travel speed on residential streets, and promote pedestrian travel and the use of public transportation services offered by DPTS. DUATS should collaborate with



partnering municipalities and other community stakeholders to strengthen land use typologies identified in the comprehensive plan that would facilitate this and similar types of urban design standards.

- ▶ **Foster Context Sensitive Approaches for All Types of Improvements** | Transportation improvements should be sensitive to the existing and planned environment. Steps should be taken to preserve features such as landscaping, scenic views, informal spaces, and all other applicable environmental considerations. Planning for improvements should involve CSS and plans should include aesthetic characteristics to make the improvements and corridor visually pleasing.
- ▶ **Consideration / Accommodation of Non-Motorized Uses** | The design of all roadway improvements should consider and/or plan for alternate facilities that serve the needs of pedestrians, bicyclists, and other non-motorized users.
- ▶ **Considerations for Building Additional Capacity** | When demand exceeds capacity, and mitigation measures are determined to be unsuccessful, new capacity should be evaluated and implemented to maintain a high level of mobility within the MPA. In these cases, it is important to consider the regional impacts of adding new capacity such as the effects new capacity may have on nearby existing roadways, neighborhoods, schools, and businesses. The addition of roadway facilities should only come after utilizing appropriate modeling tools that evaluate the regional impacts of any potential transportation improvements.
- ▶ **Motorization and Maintenance** | Priority projects should be monitored continually through the project lifecycle to determine if specific components need modification or if any associated elements should be added or removed. Additionally, DUATS should continue to emphasize the importance of regular and continual maintenance of the existing roadway facilities within the MPA to achieve MAP-21 guidance regarding state of good repair standards, as well as to maximize on the investment of public tax dollars.
- ▶ **Utilize FHWA's Infrastructure Carbon Emissions Estimation Tool** | FHWA has developed a sketch tool to estimate the lifecycle energy use and GHG emissions associated with the construction and maintenance of transportation facilities. The spreadsheet-based tool supports planning-level analysis and would help DUATS evaluate the impacts of long range plans, project alternatives, and mitigation strategies. It is unique in requiring limited input data on lane and track miles of construction and maintenance projects, rather than detailed engineering information about construction activities, equipment, and materials.<sup>8</sup>

## Public Transit

### Overview

Public transit is a critical component of any transportation system. It provides mobility options to transit captive and choice riders and serves as the primary source of transportation many individuals to jobs, schools, community centers / resources, and daily shopping activities. It is important that DUATS support the continued development of the DPTS services and encourage the expansion of public transportation beyond current DPTS service area boundaries. In support of the LRTP goals the following recommendations and policies are proposed for transit operations

<sup>8</sup> United States Department of Transportation – Federal Highway Administration, Office of Planning, Environment, and Realty. Climate Change and Sustainability. GHG emissions mitigation publication and tools page.  
[http://www.fhwa.dot.gov/environment/climate\\_change/mitigation/publications\\_and\\_tools/](http://www.fhwa.dot.gov/environment/climate_change/mitigation/publications_and_tools/) (2014)

within the MPA.

#### ► Administration and Funding

- a) Continue to work in partnership with Macon County to improve and expand transportation opportunities throughout the County, beyond the DPTS service boundaries.
  - Encourage participation of surrounding communities in the transit planning process.
  - Support regional funding mechanisms for public transportation. Financial support from surrounding communities is critical to expand DPTS transit service into areas of the DUATS MPA that are currently beyond the DPTS service area.
  - Explore the potential for implementing perimeter transfer points between DPTS and the rural transportation system.
  - Explore fare collection strategies, in cooperation with Macon County, that make transfers between urban and rural transit systems seamless and effortless.
- b) Support increased state and federal operating assistance and capital funding for transit and paratransit services within the DUATS MPA.
- c) Support innovative partnerships between highway and transit agencies to broaden the range of eligible activities their funds can support.
- d) Continue to explore opportunities for funding/grants from programs such as welfare reform and Medicaid/ Medicare.
- e) Continue to explore opportunities for funding assistance through cooperative agreements with Millikin University and Richland Community College.

#### ► Service Enhancements

- a) Continue to expand the level of transit/paratransit services to meet existing and future year community transportation needs within the DPTS service area.
  - Explore opportunities to extend appropriate transit service (i.e., fixed route service, paratransit/dial-a-ride services, flexible routes, community circulators, vanpools, and/or carpools) to outlying parts of the City of Decatur that are currently unserved or underserved.
  - Periodically review community growth patterns to ensure that the appropriate level of service is provided to new developments and to changing parts of the service area.
- b) Extend service hours to meet the needs of employees and patrons of major retail, commercial, and/or entertainment centers, and to meet the needs of employees of major industries.
  - Implement extended evening and Sunday fixed-route bus service as ridership demands warrant and funding becomes available.
  - Explore opportunities to implement night service hours using demand responsive vehicles, including subsidized taxicabs and DPTS vans as ridership demands warrant and funding becomes available.

- c) Maintain and enhance service standards for routing, on-time performance, route productivity, frequency of operation, special populations' needs and other standards to ensure the provision of quality services.
  - Periodically review community demographics, ridership by route, ridership demographics, etc, to determine whether the level of service provided meets the needs of all areas that DPTS serves.
  - Explore new data collection techniques (e.g. using automatic vehicle location systems and automatic passenger counters) to improve planning and management analyses.
- d) Explore the opportunity to create vanpool/carpool programs in the DUATS MPA and surrounding area, as demand warrants and funding becomes available.
  - Target large employers with employees that arrive and depart from work at the same time such as ADM, Caterpillar, and Tate and Lyle.

► **Land Use / Development Considerations.**

- a) Actively promote and adopt design standards, policies, and principles throughout the DUATS MPA to enhance accessibility and safety.
  - Promote the requirement that all new development, especially within ¼ mile walking distance of bus routes, provide sidewalks and curb cuts that comply with ADA standards and requirements.
  - Promote the construction of sidewalks and curb cuts in existing neighborhoods that currently do not have them.
  - Support the repair and upkeep of existing sidewalks to provide better connections to transit facilities.
  - Provide safe and comfortable waiting areas at bus stops, including such elements as shelters, benches, curb ramps, and paved connections to sidewalks.
  - Provide communication elements such as improved signage and schedules at major transit stops throughout the DUATS MPA.
- b) Encourage local agencies to include public transportation needs in their review of major commercial and residential developments to ensure transit/paratransit needs are sufficiently addressed. Such review will help to promote transit friendly design and encourage transit usage throughout the MPA.

► **Vehicle Maintenance / Expansion.**

- a) Continue scheduled vehicle replacements to maintain a modern transit/paratransit fleet in good working condition. Replace buses and vans whose design life has expired as soon as funding becomes available.
- b) Implement a bus fleet expansion plan to meet the increased levels of geographic coverage and service frequency. Begin identifying potential expansion plans now so that the need for new vehicles, by type and size, can be identified and addressed, and funding can be programmed.

► **Safety**

- a) Identify improvements, including the use of new technology, to enhance passenger safety on buses and vans and at the Transit Center.

- Install on-board video equipment on all new and/or replacement buses and vans to provide an increased level of security.
- Review the need for additional cameras at the Transit Center to provide an increased level of security. Implement this improvement when funding is available.
- Consider the implementation of Automatic Vehicle Location (AVL) systems to help monitor transit and paratransit vehicle locations. Specific route location can be essential in the event of an emergency and can also help improve transit and paratransit efficiency. Implement this improvement when funding is available.

#### ► Intermodal Connections

- a) Continue to work to establish linkages between DPTS and taxi services and intercity motor coach services by offering accommodations and providing connections at the downtown Transit Center.
- b) Support projects that encourage the integration of transit and bicycles.
  - When demand warrants and as funding permits, implement a bicycle on buses program to encourage increased accessibility for bicyclists throughout the DUATS MPA.
  - Improve bicycle connections to/from the DPTS Transit Center and monitor bicycle parking needs. Increase bicycle parking at the Transit Center as bicycle parking demand warrants.

### Policy / Administration Strategies

- **Creation of a Regional Transit Board** | Currently, DPTS service coverage primarily extends to the City of Decatur with limited service to Forsyth, Harristown, and Long Creek. In order to extend public transportation beyond these existing limits, the creation of a regional transit board should be considered. This board would be tasked with supporting and evaluating the effectiveness of regional transit operations and finding ways to support capital improvement plans. This board would consist of representatives from Decatur, Macon County, Forsyth and Mt. Zion, as well as other interested communities, agencies, and stakeholders. A regional transit board would also be well positioned to address future year transit needs for the entire MPA. This is a strategy that has been identified in previous LRTPs and will be something that the DPTS and the region will continue to monitor.
- **Transit Oriented Development (TOD)** | Transit Oriented Development (TOD) is a planning concept that draws from land use and development policies that support transit operations and ultimately help promote transit usage. Encouraging dense, mixed-use developments that are easily accessible via walking or bicycling can promote transit usage. Context Sensitive Solutions (CSS) can also encourage and promote alternative transportation modes such as public transit. Repaving sidewalks and constructing shared or dedicated non-motorized facilities that connect to transit stops are just two examples of improvements that can be incorporated with roadway or other transportation improvements and ultimately increase transit patronage.
- **Access for the Older Adult, Disabled, and Disadvantaged Populations** | Public transportation is a vital component in providing mobility to older adults, people with disabilities, and disadvantaged in the Decatur urbanized area. Public transportation can provide the basic

mobility needed to access employment opportunities, health care facilities, daily shopping activities, and other basic community services.

The Americans with Disabilities Act (ADA) of 1990 is a civil rights legislation that was intended to remove barriers that limit community opportunities for disabled individuals. The ADA requires fixed-route transit operators to provide complementary paratransit services for persons with disabilities who are unable to use the fixed route bus system. FTA requires that this service be provided to and from locations within a three quarter mile radius from fixed bus routes, even if that is beyond the normal service area for the transit system.

Within the DPTS service area, this provision means that ADA paratransit service is provided to most of the Village of Forsyth and to part of the villages of Harristown and Long Creek. ADA also mandates that buses along fixed-routes be more accessible to persons with disabilities, and be equipped with amenities such as wheelchair lifts and audible stop announcements on buses.

Beyond the utilization of auxiliary paratransit vehicles, providers of public transit in the US may also fulfill ADA (and Federal Transit Administration) mandates by changing the operational nature of fixed route services to become flex routes. These are normal fixed-route services that offer route deviations to bring people closer to their point of origin or destination. Flex routes are utilized by a growing number of public transit agencies nationally since they can help address the mobility needs of disadvantaged individuals while using fewer resources (i.e. additional vehicles, labor, maintenance, etc.).

- ▶ **Station and Stop Location Design Criteria** | Improved access to public transportation should be mandated through various administrative practices to ensure that transit user needs receive sufficient consideration. Access improvements should mostly include design criteria such as sidewalk geometry and expansion / repair, construction of shelters and benches, and installation of a comprehensively designed signage system. These and other design elements should be incorporated into transportation planning processes, and potentially into zoning review and other physical planning processes.

Examples of other related land use and design criteria that should be considered include:

- Require all new development, especially within one quarter mile walking distance of bus routes, to provide sidewalks and curb cuts that comply with ADA standards and requirements.
- Support the repair and upkeep of existing sidewalks to provide better connections to transit facilities.
- Provide safe and comfortable waiting areas at bus stops, including such elements as shelters, benches, bike racks, and curb ramps. Provide communication elements such as improved signage and enlarged schedules at major transit stops throughout the MPA.

## Non-Motorized

### Investment Strategies

- ▶ **Lake Decatur Crossings** | As previously discussed, Lake Decatur crossings are a primary concern regarding bicycle travel within the MPA, and the key to providing a true regional bicycle network. One specific improvement involves integrating bicycle facilities into the design of the Southeast Beltway. Currently, a specific design issue relating directly to bicycle travel has been incorporated into the design of a new bridge crossing over Reas Bridge Road. The new bridge crossing is planned to be four-lanes and should accommodate bicyclists and pedestrians. Other existing Lake Decatur crossings should also be evaluated to determine how they might be retrofitted to provide adequate bicycle and pedestrian accommodations.
- ▶ **Bicycle Connections to New Development** | New developments should be required to address bicycle and pedestrian accessibility. Efforts should be taken to connect residential developments with existing and planned bicycle facilities. New development, particularly in commercial areas, should provide adequate bicycle parking facilities to encourage bicycle travel.

### Operational Strategies

- ▶ **Bicycles on Buses** | As discussed in the transit operations, bicycles on buses is a program that supports multimodal connections and increased accessibility throughout the MPA. This program would allow bicyclists to transport a bicycle on a rack that would be installed on the outside front of a transit vehicle below the windshield. This program helps expand the existing MPA bicycle network by allowing bicyclists to travel along areas that otherwise might be inaccessible for bicyclists. This program would provide immediate relief to issues associated with crossing Lake Decatur and downtown bicycle travel until more permanent solutions can be identified and implemented.
- ▶ **Statewide Connectivity** | Explore opportunities to expand the DUATS bicycle network beyond the MPA boundaries to connect to Statewide facilities. Specifically, support the development of a bicycle trail along the IL-48 corridor through Oreana to connect to the Heartland Pathways North and South trails as well as the Clinton Lake area.

### Administrative / Policy Strategies

- ▶ **Context Sensitive Solutions** | Context Sensitive Solutions (CSS) is an interdisciplinary approach that seeks effective, multimodal transportation solutions by working with stakeholders to develop, build and maintain cost-effective transportation facilities which fit into and reflect the project's surroundings - its "context". Through early, frequent, and meaningful communication with stakeholders, and a flexible and creative approach to design, the resulting projects improve safety and mobility for the traveling public, while preserving and enhancing the scenic, economic, historic, and natural qualities of the settings through which they pass.



Potential CSS applications should include prioritizing bicycle and pedestrian improvements with any new or improved roadway projects. Bicycles and pedestrians should be a primary consideration in any transportation planning project within the MPA rather than being considered as an afterthought to roadway improvements.

Additionally, DUATS should seek consultation and coordinate with IDOT on these types of solutions; currently, IDOT provides guidance on CSS principles and is a resource for implementing associated solutions.

- ▶ **Regional Bicycle Planning |** Continue proactive regional bicycle planning to coordinate development of a bicycle network that serves all areas of the MPA and connects to statewide bicycle facilities beyond the MPA boundaries:
  - Complete the update of the Decatur Metro Area Greenways Plan and continually identify weaknesses and identify critical linkages to public facilities, schools, recreational areas, retail and employments centers and the Transit Center;
  - Identify and preserve potential rights-of-way that could be used to develop bicycle / pedestrian facilities. Specifically, abandoned rail corridors should be identified and preserved as potential linkages to the existing and planned DUATS bicycle network; and
  - Early in the planning stage of potential improvements, provisions for pedestrians and cyclists should be strongly considered.
- ▶ **Safe Routes to Schools |** Prioritize bicycle and pedestrian improvements along corridors connecting to schools within the MPA. This effort should include developing an inventory of existing non-motorized facilities by identifying sidewalk conditions, crosswalks, traffic control device locations, traffic volumes, posted speed limits, and observed speed limits. This database could then be used to plan non-motorized routes. Additionally, DUATS should continue to pursue Safe Routes to School awards in communities throughout the MPA.
- ▶ **Comprehensive Review of Bicycle Facilities |** An updated comprehensive review of existing and planned bicycle facilities should be completed to identify current levels of bicycle usage and the most appropriate corridors for bicycle and pedestrian facilities.
- ▶ **Land Use and Design Considerations |** Local agencies should adopt policies that emphasize and promote bicycle/pedestrian travel:
  - Amend or adopt building codes and development standards to emphasize bicycle/pedestrian travel. Building codes could be amended to require bicycle parking/racks as part of the building design or site plans. Terminal facilities to make riding more attractive should also be encouraged;
  - Adopt aggressive street repair policies that help support bicycle and pedestrian travel;
  - Designate and post bicycle route signs to increase awareness of motorists to share the roadway with bicyclists;
  - Encourage the integration of land uses and mixed-use development. This type of development supports pedestrian and bicycle travel and would improve connections to transit stops;
  - Incorporate bicycle facilities in the design and construction of major roadway

improvements throughout the MPA. Accommodate bicycles specifically in the construction of the Southeast Beltway; and,

- Accommodate bicycle travel along the Southeast Beltway; both proposed overpasses should accommodate north-south bicycle travel via shared or dedicated lane facilities along with all necessary signage, striping, facilities, and / or signals.

## Freight

- ▶ **Decatur Area Joint Operating Committee** | A railroad operations management plan would look to increase the efficiency of the current system by adjusting schedules (postpone rail activity to off-peak periods) and encouraging operational agreements allowing the Class 1 railroads to share each other's trackage. While this sounds good in theory, the fact of the matter is that industry demands, to a large extent, dictate when products are needed and when rail maneuvers occur, thus making schedule adjustments difficult. Operational agreements can also be difficult as the Class 1 railroads are generally not inclined to share each other's trackage unless there are clear benefits to both parties.

With this said, the Decatur area could benefit from the formation of a Decatur Area Joint Operating Committee. This committee would include representatives of the Class 1 railroads, major industries, and area officials who would meet a few times a year to discuss rail issues and possible solutions. Similar committees have been formed, and successful, in other locations, including the Chicago metropolitan area which included a significant number of railroad stakeholders that continue to work together to increase the overall movement of freight and passengers through the region. In reality, the formation of the joint operating committee is likely the only way that schedule changes and operational agreements would even be considered a viable solution to address the area rail issues.

- ▶ **Truck Travel** | Current truck patterns result in a significant amount of truck traffic in the downtown Decatur area. Along with truck traffic are the related impacts of noise, air pollution, and damage to roadways. Plans are being formulated for alternative truck routes around Decatur's CBD. While the new 6W truck route has helped shift much of the truck traffic from downtown, truck traffic along arterial streets continues to have an impact on the local transportation network.

Another concern mentioned by freight carriers is the lack of a through connection between the Decatur Airport and I-72. Improved access to I-72 from the airport would better facilitate freight movement within and through the MPA and could support economic development within the region.

Both of these issues could potentially be addressed through the construction of the Southeast Beltway, as well as the Brush College Road improvements.

- ▶ **Public-Private Partnerships** | The development of plans for future year rail operations has historically been conducted primarily by the rail companies. However, there is a growing consensus and willingness to cooperate on future growth strategies among both the public and private sectors.

One way in which specific issues could be addressed in a collective manner involves the initiation of an open dialogue with major parties and stakeholders, with the intent of increasing cooperation and communication. Specific areas of where resources could be

pooled include:

- Sharing infrastructure;
- Constructing improvements;
- Consolidating freight operations and improved logistical planning;
- Intermodal opportunities;
- Passenger rail service; and,
- Highway / rail corridor improvements.

### Network Enhancements and Facility Upgrades

- ▶ **Grade-Separated Facilities** | Traffic operations and associated delays at at-grade rail crossings is a primary concern within the MPA. Local agencies should continue to coordinate continuing maintenance with the private rail companies. Existing at-grade crossings should constantly be monitored to determine if upgrades in traffic control devices or other improvements are needed (i.e. install gates, install flashing lights, grade separation, etc.).

One potential improvement that would benefit both rail and roadway operations would be the study and construction of grade-separated facilities (i.e., rail overpasses or underpasses) at certain locations. Construction of grade-separated facilities in most areas within the MPA may be difficult due to right-of-way restrictions, land acquisition costs, and the expense of the separation. The private rail companies would need to support such improvements.

One particular crossing identified for possible grade separation is the at-grade crossing along Eldorado Street, between Front and Hilton. Additional grade separation along 22nd Street and 27th Street are other possible locations to consider. Grade-separated facilities could greatly reduce travel delays for the various transportation modes including private vehicles, transit buses, and ground freight movement.

Other grade-separation issues include the following:

- Monitor at-grade rail crossings to provide a high level of safety and mobility for motorists, bicyclists and pedestrians;
  - Identify high priority crossings that could be considered for improved traffic control devices and potential grade separated facilities;
  - Identify transit routes and at-grade crossings to determine the potential travel delays resulting from at-grade rail crossings;
  - Continue routine maintenance and upkeep of the existing rail infrastructure; and,
  - Create an inter-jurisdictional committee of local government, railroads and other stakeholders to explore the potential for intermodal connections, increases in freight efficiencies, possible trans-load operations, possible at grade crossing closures and other improvements which would increase the effectiveness and importance of rail service in the MPA and in the region.
- ▶ **New Technology** | New technology in rail operations should be identified and considered for possible application within the MPA. This technology could include simply installing new gates and flashing lights to improve safety at grade crossing locations. It may also involve other technologies which would improve logistical efficiencies.

- ▶ **Intermodal Opportunities** | The MPA is steadily becoming a primary nexus for the movement of freight and consumer goods within the region and the State of Illinois. The existing rail service already in place, close access to the Decatur Airport, and nearby industrial park made the MPA an ideal location for an intermodal facility constructed by ADM in 2013. This investment has bolstered the marketing prowess of the Midwest Inland Port, led by the Economic Development Corporation of Decatur and Macon County. The presence of the Foreign Trade Zone and Customs at the Decatur Airport is also a significant resource to support intermodal opportunities.

Construction of the Southeast Beltway and the widening of US-51 (outside the MPA) would further support potential intermodal connections. Finally, a rail spur accessing the Airport industrial park would further promote intermodal connections.

## Aviation

Continued investment in the Decatur Airport is necessary to maintain and enhance its position as a passenger facility and airfreight hub of regional significance. The 2040 LRTP recommends the following actions to improve the position of the MPA as a regional air transportation center.

- ▶ **Surrounding Development** | It is important to discourage additional residential development around the airport through zoning changes, especially on the north side of the airport where noise levels are likely to be greatest and potential exists for more noise-compatible land uses, such as light industry and air freight operations. The update of the airport master plan will identify airport expansion plans which will coordinate the future development of the airport with surrounding land uses and related transportation projects.
- ▶ **Accessibility Improvements** | The construction of the Southeast Beltway could greatly improve accessibility to the Decatur Airport and the industrial park. The final alignment did take into account future runway extension plans and should provide primary access to the airport via IL-105 (E. William Street) or US-36. If the Southeast Beltway is not built, or is delayed for several years, it is important to explore other alternatives to improve accessibility for vehicles and for truck access between I-72 and the airport and industrial park. Improved access will facilitate freight movement within the MPA.
- ▶ **Intermodal Facility** | The industrial park is an ideal location for intermodal transfers between ground, rail, and air transportation. A detailed study should be considered to identify the feasibility of these activities.

## DUATS Safety Goals

Ensuring the safety of the transportation system remains a primary objective for DUATS. Promoting ways to increase the reliability of safe travel conditions for all users of the transportation system has led to many of the current initiatives in place. With MAP-21 placing an increased focus on safety, DUATS will continue to monitor the following sub-sections.

### Motorized Transportation Safety

- ▶ Educate the public on how to use the transportation system in a safe and responsible manner;
- ▶ Encourage all vehicular users to use safety belts and appropriate safety restraint devices;
- ▶ Increase work zone safety;

- ▶ Provide safe and accessible transit stops throughout the urbanized area;
- ▶ Have accurate and detailed safety data to measure performance of the transportation network for motorized transportation;
- ▶ Incorporate the Transit System Safety Program Plan into Long Range Transportation Plans; and,
- ▶ Complete and then monitor the TIP and STU project selection criteria to ensure that safety concerns are a high priority.

### Non-Motorized Transportation Safety

- ▶ Reduce the conflict with vehicular traffic in areas of high pedestrian or bicyclist volumes;
- ▶ Improve intersection design, markings and signage;
- ▶ Promote new sidewalks and bicycle and pedestrian trails in areas and along urban streets and roads where no such facilities exist and through the creation and improvement of crosswalks;
- ▶ Continue to maintain and expand street lighting and sidewalk system signs in all areas;
- ▶ Establish a sidewalk priority system that provides safe routes to schools in all new neighborhood developments, as well as working to retrofit older, existing neighborhoods;
- ▶ Collect accurate and detailed safety data to measure performance of the transportation network for non-motorized users;
- ▶ Encourage adequate and safe pedestrian facilities which enhance the pedestrian environment and facilities access between destinations;
- ▶ Further incorporate pedestrian and bicyclist issues into the DUATS organization;
- ▶ Expand connections which will fully create a regional trails system; and,
- ▶ Encourage non-motorized modes of travel for daily commutes.

### Safety Planning Activities

All transportation improvements, policies, and activities in the 2040 LRTP address safety. Efforts to increase safety within DUATS will be carried out through long-range and short-range planning activities involving multiple jurisdictions. Examples of such activities include:

- ▶ The Illinois Five Percent Plan will continue to guide the identification of key projects to advance safety in the urbanized area. This includes the development of annual Intersection Location Crash Reports with specific information on fatalities, injuries, and property damage statistics for the top five percent of intersections in the urbanized area;
- ▶ DUATS will work closely with all the safety stakeholders to find and implement safety measures to reduce traffic related fatalities;
- ▶ Study how existing bicycle facilities and bus stops can be realigned to reduce conflicts, especially in downtown areas;
- ▶ Target improving at-grade railroad crossings to grade-separated facilities near major intersections as additional funding sources are identified and awarded;
- ▶ Study the feasibility of on-street striped and marked bike lanes and their inclusion in the urbanized area transportation system;
- ▶ Encourage the provision of sidewalks on both sides of the street, pedestrian refuge islands (designed to facilitate the crossing of wide streets), and clearly marked crosswalks with special lighting for visibility;
- ▶ Encourage traffic calming and narrow lane widths on appropriate streets to reduce the speed of motor vehicles;

- ▶ Encourage urban design which Increases pedestrian safety by maintaining and expanding street lighting and sidewalk systems in all areas;
- ▶ Encourage adequate pedestrian facilities in new developments that enhance the pedestrian environment, and facilitate access between destinations;
- ▶ Increase pedestrian safety by encouraging the reduction of vehicular traffic in areas with high pedestrian volumes, by providing incentives for motorists to carpool or use alternative transportation modes;
- ▶ Increase pedestrian safety by encouraging measures such as improving intersection markings and signage, especially in downtown areas, by installing accessible pedestrian signals where appropriate, and by implementing consistent crosswalk markings that are indicative of bicycle or pedestrian passage throughout the urbanized area;
- ▶ Increase pedestrian safety by supporting local jurisdictions in improving intersection design to better accommodate pedestrians ;and
- ▶ Coordinate with local agencies in promoting a sidewalk system that provides safe routes to schools in all new neighborhood developments, and retrofitting existing neighborhoods where feasible, including coordination of Safe Walking Route maps developed by local school districts.

In cooperation with the Macon County Sheriff's Office, Decatur Police Department and other law enforcement agencies, DUATS will continue to locate crash data on the DUATS database system for all of Macon County. This information provides a single GIS data layer containing all crash information. The information is used by local engineers and officials to identify locations with a high likelihood of crashes. This data is an excellent resource which permits the development of geopolitical maps to illustrate crash data. Having this historical data aids in understanding crash location clusters, the dynamics which contribute to crashes, trends, and other correlations. This data is also used to identify sights that need further review and engineering work.

### Supporting Economic Development

The DUATS supports economic growth for the region and job opportunities with livable wages for all residents. Transit operations can support programs that help individuals move from welfare to work and can help employers fill existing jobs.

Many new jobs are located in growing outlying areas of the MPA which are often not served by existing transit routes. Commercial development that is common along major highways at the edges of the urbanized area is especially dependent on low-income residents to fill the entry-level jobs in retail, restaurants, hotels, and other businesses. By law, current transit services are primarily available in Decatur and are limited or non-existent in many neighboring villages and outlying areas, making it difficult for city residents to travel by transit to jobs outside of the City. This creates a job-housing mismatch that could potentially be mitigated by increasing and improving public transportation services.

### Ladders of Opportunity Initiative <sup>9</sup>

Recently, the FTA has announced a new program with approximately \$100 million worth of competitive grant funding called the Ladders of Opportunity Initiative. Funds are targeted at modernizing and expanding bus transit service, in particular services that address the needs of

<sup>9</sup> United States Department of Transportation (USDOT) – Federal Transit Administration (FTA), "U.S. Department of Transportation Announces the Availability of \$100 Million for New Ladders of Opportunity Initiative to Connect More Americans with Jobs." [http://www.fta.dot.gov/newsroom/news\\_releases/12286\\_16007.html](http://www.fta.dot.gov/newsroom/news_releases/12286_16007.html) (2014)



disadvantaged and low-income populations. Modernization efforts may include the purchase, replacement, or rehabilitation of vehicles, which also includes vans, as well as the construction or rehabilitation of facilities. Grantees will receive 80 percent in federal funding and be required to contribute the remaining 20 percent through other (i.e. local) funds.

The program requires that the following components be addressed in proposals for funding:

- ▶ **Enhance Access to Work |** Specifically for individuals lacking ready access to transportation, particularly those living in low-income communities;
- ▶ **Support Economic Opportunities |** Offer transit access to employment centers, provide for educational and training opportunities, and address other basic needs; and
- ▶ **Support Partnerships and Coordinated Planning |** Proposals should determine how to engage state and local governments as well as social, human service, and transportation providers to coordinate planning efforts and the delivery of workforce development, training, education, and basic services to veterans, seniors, youths, and other disadvantaged populations.

## SYSTEM SECURITY

### Federal Provisions

Since its inception DUATS has endeavored to maintain compliance with federal mandates by completing documents such as the LRTP, TIP, and the Unified Planning Work Program (UPWP). Safety and security are often used interchangeably; however, there exists a difference between the two concepts, which largely involves the issue of intent. The National Cooperative Highway Research Program (NCHRP) Report 525 makes the following distinction between safety and security:<sup>10</sup>

- ▶ **Safety** | Protection of persons or property from unintentional damage or destruction caused by accidental or natural events; and
- ▶ **Security** | Protection of persons or property from intentional damage or destruction caused by vandalism, criminal activity, or terrorist events.

The report suggests the following provisions to incorporate security into the transportation planning process:

- ▶ Distinguish the separate yet interrelated issues of safety and security in the transportation planning process;
- ▶ Provide resources for transportation-related homeland security projects that would be identified through the regular transportation planning process, including those aimed at prevention, mitigation, response and recovery;
- ▶ Provide resources to improve international freight security in and around key freight gateways and hubs, including intermodal and Strategic Highway Network connectors;
- ▶ Provide resources to expedite urgent highway and public transportation security projects to address imminent damage or to repair damage caused by a terrorist attack against the United States, including structural hardening, relocation of roads from underneath critical structures, property acquisition to create secure zones, or repairing or replacing a bridge or tunnel that has been damaged or destroyed by a terrorist attack;
- ▶ Encourage the use of monitoring systems, such as ITS, to check the status or condition of key surface transportation facilities; and
- ▶ Inclusion into the planning process of security related stakeholders such as local law enforcement agencies, fire departments and rescue squads, federal response agencies, and the Department of Homeland Security (DHS).

### Addressing the Gaps in Security

DUATS will continue to study, create and establish relevant and specific goals, objectives and anticipated outcomes regarding existing and anticipated security and public safety issues. These include attention to the following:

- ▶ Review current statewide and Long Range Transportation Plans for emergency planning / security elements;
- ▶ Develop security goals and appropriate strategies in conjunction with the Macon County Emergency Management Agency (MCEMA);

<sup>10</sup> Transportation Research Board of the National Academics, NCHRP Report 525: Surface Transportation Security Volume 4 – A Self-Study Course on Terrorism-Related Risk Management of Highway Infrastructure. [http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp\\_rpt\\_525v4.pdf](http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_525v4.pdf) (2005)

- ▶ Continue to work with DPTS to formulate appropriate security planning. DUATS will work with DPTS to incorporate the SPP into the state and local transportation planning process, as well as define the role of the DPTS, DUATS and the state in promoting security; and

DUATS will continue to address the following objectives:

- ▶ **Develop ITS Capabilities** | Regional ITS plans are a benefit as they outline stakeholders, their responsibilities and functions, and identifies projects that facilitate safety, security, and the dissemination of information.
- ▶ **Solicit Staff Review** | Emergency management personnel are continually invited to review and comment on public safety, general security and vehicle access as it relates to new roadway construction and proposed developments or redevelopment areas.
- ▶ **Increase Public Awareness** | Educate the public about how they should use the area transportation system in case of an emergency and/or disaster.

## Security Plans

### Evacuation Plan

The City of Decatur and Macon County have jointly developed an evacuation plan as part of a larger emergency operations planning effort. The evacuation plan defines the procedures and policies that govern how the city and county would operate in the event of an emergency that would require the evacuation of part or the entire county.

The plan also provides how local law enforcement and other public agencies should mobilize and coordinate their efforts to assist in evacuation procedures. These provisions are designed to coordinate with state and federal response efforts and focus on issues of safety and orderliness which are of high importance in providing for an expeditious response.

### Hazardous Materials Plan

The hazardous materials plan establishes the policies and procedures under which Decatur and Macon County will operate in the event of a hazardous material emergency. It defines the roles, responsibilities, and relationships of government and private organizations in response to a hazardous materials incident. This plan provides assurance of appropriate response to protect the population of Macon County in the event of a hazardous material incident involving the transport, use, storage and / or processing of hazardous materials.

### Terrorism Plan

The Terrorism Consequence Management Plan establishes the policies and procedures under which Macon County will operate in the event of a terrorism emergency. This annex describes how local agencies and organizations are mobilized and coordinated in response to or support of a Weapons of Mass Destruction (WMD) emergency in response to terrorism. Also described are procedures to integrate with state and federal response efforts with Macon County capabilities.

The Macon County Terrorism Task Force has developed this plan in compliance with federal planning requirements contained in the Managing the Emergency Consequences of Terrorist Incidents guidelines and its contents apply only to Macon County. It is intended to supplement the Macon County Emergency Operations Plan and, as such, does not conflict with the County Plan, which addresses a full range of major emergencies.

Additionally, the Illinois Plan for Radiological Accidents (IPRA) will be used during an Incident involving a potential or actual release of radiation from any source. Activities required to protect the public health and safety in such circumstances will be implemented in accordance with the procedures of the IPRA.

### Recent Efforts to Address Performance Measures

In cooperation with MCEMA, local law enforcement agencies, health and other emergency responders, DUATS will continue to maintain or provide access to various texts, tables, charts, figures, graphs, maps and other data which has been collaboratively collected, verified and maintained. This information supports the goals and objectives of protecting the public safety, providing disaster assistance and protection of personal and public property, infrastructure and other assets. This data includes:

- ▶ **GIS Data |** A comprehensive list of critical and potential public resources, critical care facilities, and transportation infrastructure facilities. These facilities and corresponding attributes are maintained by the Macon County GIS department. GIS will continue to be used for a number of security purposes, such as emergency vehicle routing, transit vehicle routing, computer aided dispatch, and evacuation planning;
- ▶ **ITS Architecture |** In coordination with the upcoming update of the Illinois Statewide ITS Architecture, the MPA will be developing a regional ITS architecture during the 2014-2016 timeframe. An ITS architecture is a framework for the coordinated, targeted deployment of various technologies on and around the transportation network, as well as strategies to optimize their use. These technologies include tools that transportation managers can apply to increase safety, reduce congestion, and enhance traveler convenience.  
The ITS architecture development process will involve a wide range of stakeholders within the MPA, including representatives from counties and municipalities, public safety and emergency services, transit, major employers, and others that manage and/or rely on the region's transportation network. A series of workshops, interviews, and surveys will be conducted to gather input from these stakeholders to help prioritize potential ITS solutions for the region;
- ▶ **DPTS Security Plan |** An update to the DUATS and DPTS Security Plan was completed in 2008. DUATS will work with DPTS to incorporate the recommendations of the security review into the state and local transportation planning process. Recently, DPTS has taken the following actions to enhance the security of the public transit system:
  - Made repairs to the perimeter fences of its facilities;
  - Installed camera systems on all new buses (nine total to date) and ADA-accessible vans (seven total to date);
  - Installed a camera system in the vault room / farebox counting room;
  - Installed a camera system that monitors both the inside and outside of Transit Center; and,
  - Installed an electronic keypad at the employee entrance to Transit Center which features individualized access codes for keyed entry authorization.
- ▶ **Ongoing Coordination with IEMA |** The Illinois Emergency Management Agency (IEMA) is responsible for coordinating mitigation, preparation, response and recovery operations during disasters in the State of Illinois, which includes areas beyond the boundaries of Macon County. DUATS and its governing partners will continue to work with IEMA to plan for and take action regarding these types of events.

## ENVIRONMENTAL MITIGATION

The federal government, through MAP-21 and the mandates of various departments and bureaus, requires that environmental impacts and mitigation be an integral part of the planning processes, which include those of the LRTP.

IDOT administers all projects receiving federal funds, whether under state or local jurisdiction and ensures that projects adhere to all applicable state and federal environmental laws. Since most transportation projects require a plan to address environmental impacts, IDOT and DUATS will continue to incorporate environmental mitigation policies and strategies in making transportation improvements. DUATS continues to foster positive relationships with environmental groups, government agencies and the public at large when discussing infrastructure projects and has worked to make part of the transportation planning process.

### Environmental Objectives

DUATS is committed to wise stewardship of transportation planning dollars and effective decision making, including project selection, which will be integrated and coordinated with land use, water, and natural resource planning and management. The Macon County – Decatur Comprehensive Plan encourages the establishment of environmental suitability as a key limiting factor in determining the nature and location of future development. This principle of environmental sensitivity applies to transportation planning as an extension or major modification of the transportation system. The identification of a full range of environmental concerns will occur early in the transportation planning and project development process.

DUATS has developed the objectives listed below to aid in the incorporation of environmental planning:

- ▶ Maintain and support the transportation system with improvements that are environmentally responsible and support conservation of the regions natural, cultural, historic and aesthetic resources;
- ▶ Ensure that social, environmental, energy, regional and community, and other non-transportation goals, plans and programs affecting transportation are considered in all phases of the transportation planning process;
- ▶ Identify, implement, or support public investment in transportation facilities and services that effectively address social, environmental, and energy goals of the community;
- ▶ Evaluate innovative methods for mitigating the environmental impacts of transportation facilities and improvements; and
- ▶ Encourage the shift of new developments that are typically scattered and are primarily vehicle oriented to areas that are transit and pedestrian oriented, that have existing transportation infrastructure in place and utilize conservation design techniques.

## IDOT Environmental Mitigation Strategies and Procedures

The National Environmental Policy Act (NEPA) requires full disclosure of the impacts that federally funded transportation projects would cause to the surrounding environment. NEPA also requires that impacts to resources be avoided altogether if possible. If impacts cannot be avoided, measures must be taken to minimize those impacts via compensation or mitigation.

Based on its mission and the provisions of state and federal environmental laws, IDOT makes every attempt to minimize negative environmental impacts of projects it funds and directs both during construction and after completion. IDOT policies, strategies and procedures are specifically designed to identify potential environmental impacts and to proactively take all reasonable steps to ensure the least environmental disruption or other negative consequences. There are several key areas in which environmental mitigation activities are focused. The following are the most commonly identified areas:

- ▶ Section 4(f) Lands;
- ▶ Section 6(f) Land Conversions;
- ▶ Cultural Resources (Historic Properties and Archaeological Sites);
- ▶ Threatened and Endangered Species (State and Federal) and Natural Areas;
- ▶ Farmlands;
- ▶ Wetlands ;
- ▶ Floodplains;
- ▶ Noise Abatement; and
- ▶ Air Quality

### Section 4(f) Lands

Section 4(f) of the USDOT Act of 1966 applies to any USDOT funded project which involves the use of any significant publicly owned public park, recreation area, or wildlife and waterfowl refuge and any land from a historic site of national, state or local significance. Special environmental analyses are required to determine if there is a feasible or prudent alternative to taking the proposed action involving the use of the 4(f) property. In addition, the project sponsor must demonstrate that all possible planning to minimize harm has occurred. These measures to minimize harm, which include mitigation, will be documented in the 4(f) evaluation. IDOT, as part of its Bureau of Design and Environment (BDE) manual has procedures in place for completing 4(f) evaluations that document these findings.

### Section 6(f) Land Conversion

Section 6(f) of the Land and Water Conservation Fund Act of 1965 applies to any USDOT funded projects which involve the use of lands which have Land and Water Conservation (LAWCON) or Open Space Land Acquisition and Development (OSLAD) funds involved in their purchase or development. IDOT, as part of its BDE manual has procedures in place for handling 6(f) lands when developing highway projects. These procedures focus on early and on-going coordination with local officials as well as the Illinois Department of Natural Resources.

### Cultural Resources (Historic Properties and Archaeological Sites)

When IDOT develops a federal funded/regulated project, appropriate measures are taken to avoid and / or minimize impacts on properties that are included in/or eligible for the National Register of Historic Places. Where such properties will be affected, the Advisory Council on Historic Preservation shall be afforded a reasonable opportunity to comment prior to project approval. Special efforts shall be made to minimize harm to any National Historic Landmark. The



BDE manual contains specific procedures for minimizing harm to historic resources in cooperation with the Advisory Council on Historic Preservation and the State Historic Preservation Officer.

### Threatened and Endangered Species/ Natural Areas

In the development of a project, special studies and coordination are required when the action may affect Federally-listed threatened and endangered species. Studies and coordination also are required for actions that may adversely impact State-listed species. IDOT also conducts studies and coordination activities on actions that may adversely impact areas included in or eligible for the Illinois Natural Areas Inventory. It is IDOT's policy that in the development of a project, an assessment shall be made of the likely impacts on species of plants or animals listed in the Federal and/or State level as threatened or endangered and on State-designated Natural Areas. Every effort is made to minimize the likelihood of jeopardizing the continued existence of listed threatened or endangered species or the destruction or adverse modification of a Natural Area. Efforts are also made to avoid negative impacts on areas of habitat designated as critical habitat or essential habitat. The BDE manual specifies procedures for avoiding and/or mitigating impacts on endangered or threatened species and Natural Areas including consultation with the U.S. Fish and Wildlife Service and the Illinois Department of Natural Resources.

### Farmlands

In the development of a project, consideration is given to the impacts that the action will cause in conversion of farmland to non-farm uses. Under certain circumstances, coordination must be initiated with the U.S. Department of Agriculture, Natural Resources Conservation Service and/or the Illinois Department of Agriculture to evaluate the impacts on farmland and obtain the views of those agencies on alternatives to the proposed action. Proposed actions will be developed to be compatible with state, local government and private programs and policies to protect farmland. The BDE manual outlines coordination procedures and defines those lands subject to these provisions.

### Wetlands Preservation

Protection and preservation of wetlands is an important environmental goal of IDOT. In this area, mitigation efforts are coordinated with other state and federal agencies and are clearly defined in both policy and procedures.

The Illinois Interagency Wetland Policy Act of 1989 (IWPA) includes the identification and delineation of jurisdictional wetlands. The Wetlands Group within the Illinois Natural History Survey performs this work under a statewide contract with the IDOT. Under the CWA (Clean Water Act) and IWPA, the IDOT must demonstrate that all measures were taken to first avoid and then minimize impacts to wetlands to the fullest extent practicable. Unavoidable impacts are mitigated by way of wetland compensation through either restoration or creation of wetlands. Methods used by the IDOT to restore or create wetlands follow the Illinois Wetland Restoration and Creation Guide. In addition to the INHS Wetlands Group, the Wetlands Geology Section at the Illinois State Geological Survey provides technical assistance to the IDOT in locating, evaluating and monitoring compensatory wetlands. All IDOT wetland compensation plans include a commitment to monitor planned wetlands for attainment of performance standards. Departmental procedures for ensuring compliance with the CWA and IWPA are detailed in the IDOT Wetlands Action Plan. There are no Wetland Compensation sites in the Decatur MPA.

## Wetland Mitigation Bank Sites

The IDOT has also worked closely with the Illinois Department of Natural Resources (IDNR) to establish two wetland mitigation bank sites, including the 830-acre Morris site located in north-central Grundy County and the 1640-acre LaGrange site located in extreme northeastern Brown County. At these sites, wetlands will be restored in advance of unavoidable losses from highway projects. Impacts within the bank's approved service area may be mitigated at the bank. Instruments for both bank sites were prepared in accordance with the Federal Guidance for the Establishment, Use and Operation of Mitigation Banks. Other agencies involved in the development of these sites included the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency.

## Floodplains

In the development of a federally funded project, special requirements are imposed by Executive Order 11988 when the project will entail a significant floodplain encroachment. These requirements are in addition to floodplain permit requirements and the special hydraulic analyses associated with determining bridge and culvert heights and widths for projects located in floodplains. A project that will result in significant floodplain encroachment will require the preparation of an Environmental Assessment or Environmental Impact Statement. Both the BDE manual and the IDOT Water Quality Manual provide additional information and procedures for projects involving floodplains.

## Noise Abatement

Federal laws and regulations require that it is necessary to undertake special technical analyses to identify and evaluate the potential noise impacts a project will involve. Once a noise impact is identified, IDOT will evaluate feasible and reasonable noise abatement methods to reduce traffic noise impacts. Traffic noise can potentially be reduced by addressing the noise source, noise path or noise receiver. The BDE manual includes specific guidance and procedures for determining the need for noise abatement evaluations and the types of mitigation strategies that are appropriate for a variety of situations. The manual also specifies coordination requirements with local government and public participation procedures.

## Air Quality

All transportation plans, programs, and projects which are funded or approved under Title 23 USC must be determined to conform with State or Federal air implementation plans as required by the Clean Air Amendments of 1990 and subsequent federal regulations. Such implementation plans describe how air quality standards will be achieved in those areas of a State in which standards are being exceeded. This requirement helps regulate projects and guarantees that any new projects may not cause or contribute to new violations of air quality standards, exacerbate existing violations, or interfere with the timely reduction of emissions as reflected in the State Implementation Plan.

Illinois has areas in which standards are being exceeded for one or more criteria pollutants. Transportation-related criteria pollutants include ozone, carbon monoxide, nitrogen dioxide as well as both particulates and fine particulates (PM 10 and PM 2.5). These pollutants are modeled in non-attainment areas in order to determine the required conformity with air quality requirements. The Decatur Metropolitan Planning Area is an attainment area and is in compliance with air quality standards and within the parameters of transportation related pollutants.

## Environmental Mitigation Analysis

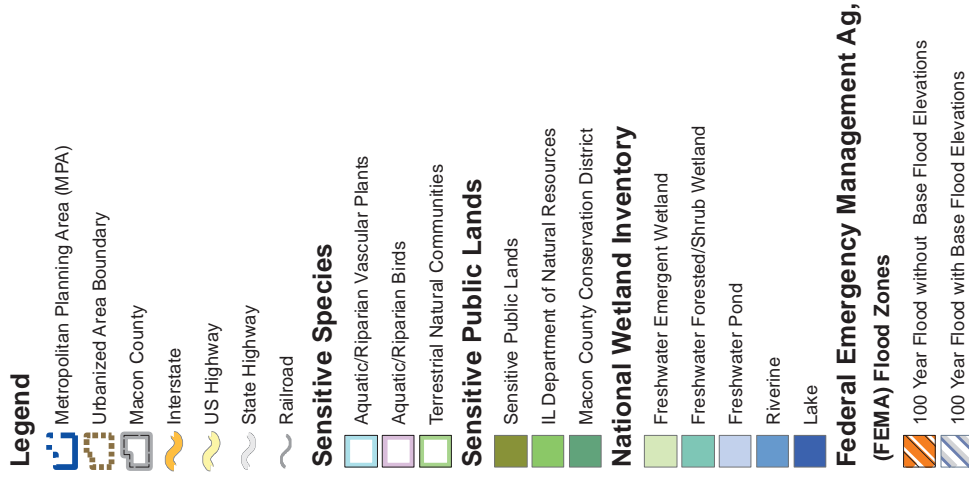
DUATS maintains a comprehensive series of GIS layers and associated databases pertaining to environmentally sensitive and geographically significant areas. The layers include floodplains, soils including those which are highly erodible, wetlands, oil and coal fields, conservation and recreation areas, greenways and brownfield/gray field site maps. The available layers and associated attribute tables continue to increase and grow more inclusive as accurate information becomes available.

By comparing the environmental and transportation layers, areas of critical concern and / or environmental incompatibility can be visually compared. For example, if a proposed road is on an alignment that would cross an environmentally sensitive area or a floodplain, DUATS would be able to identify this in advance of a detail study or engineering effort.

DUATS will continue to cooperate and coordinate planning activities with all applicable local, state, federal and quasi-public environmental resource agencies. DUATS cooperatively maintains a timely, state of the art aerial mapping series of at least six inch resolution, presented in full color and orthographically rectified.

**Figure 5-7** depicts environmentally sensitive areas in the MPA. **Figure 5-8** displays the fiscally constrained recommended plan projects along with the environmental features.

Figure 5-7  
Environmental Assets



2.5  
Miles

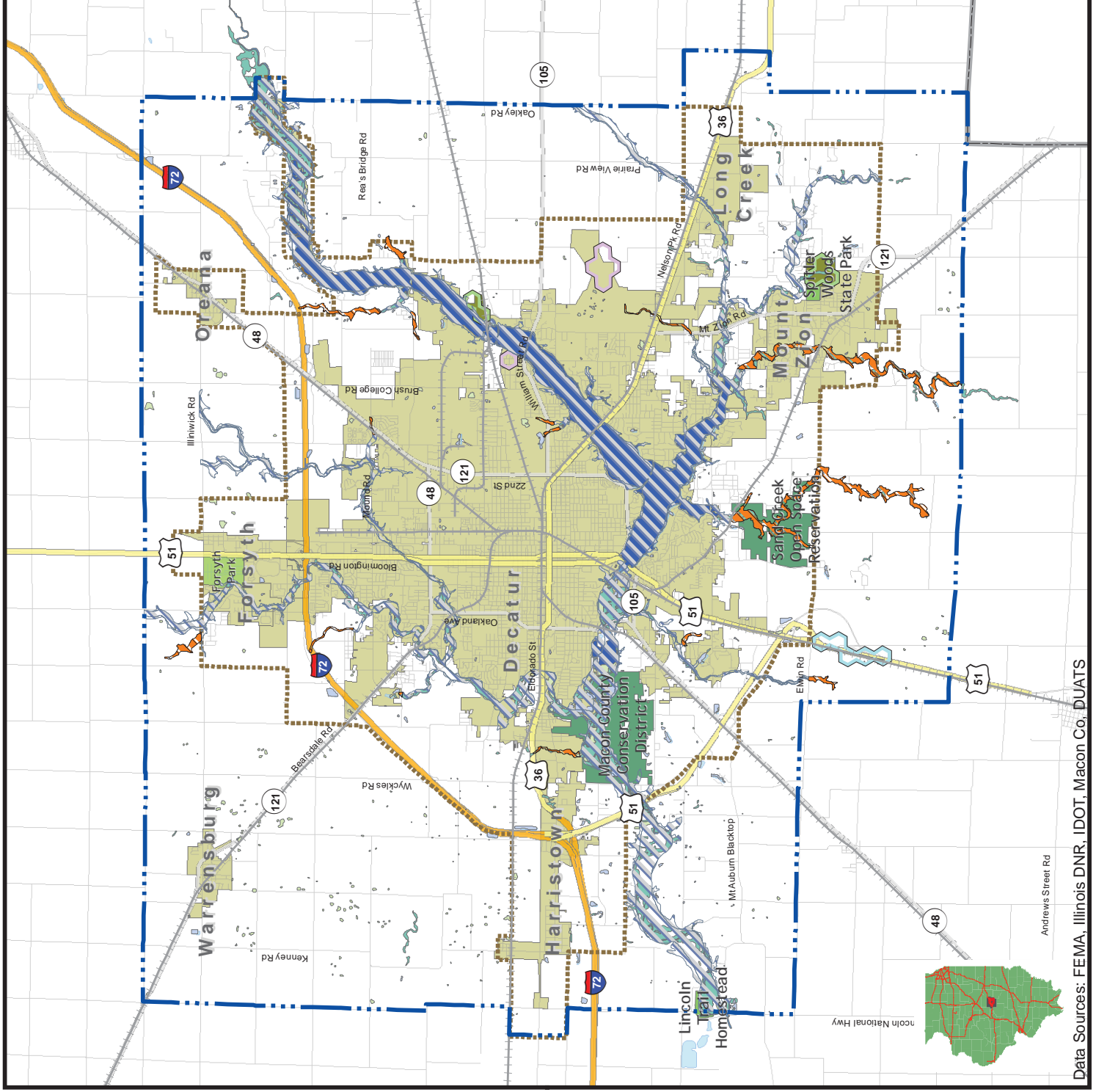
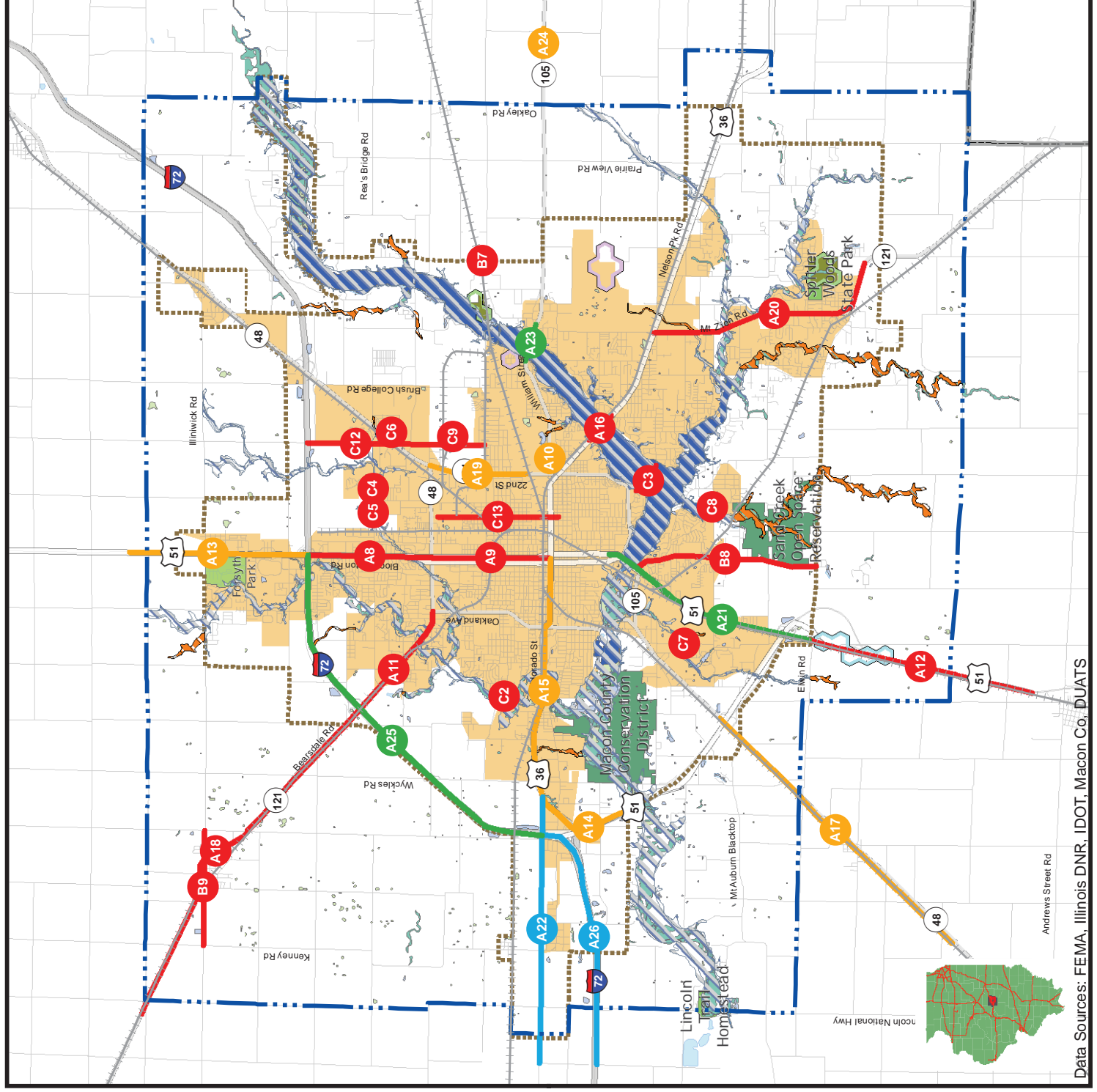
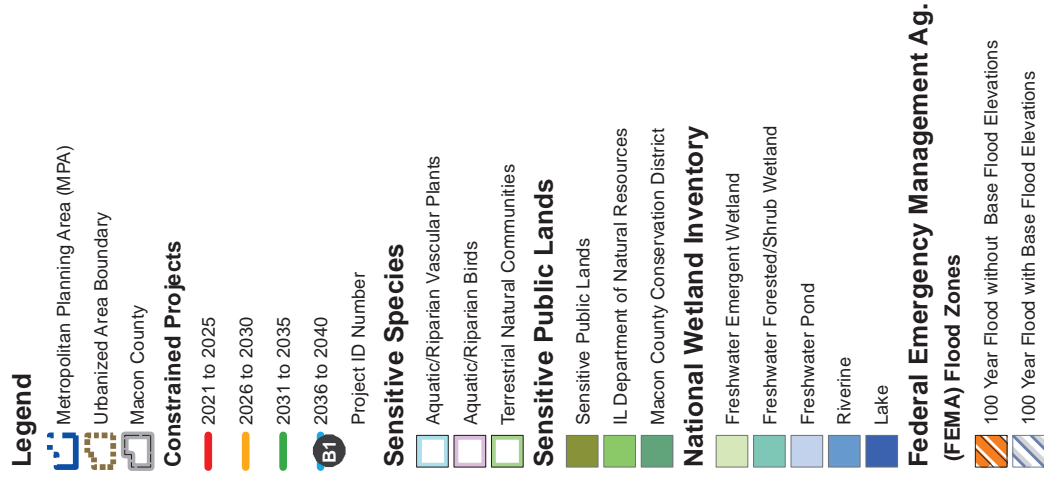


Figure 5-8  
Environmental Mitigation





## Context Sensitive Solutions

Of particular high priority to members of the public are issues relating to traffic congestion from home to work, suburban sprawl, preservation of scenic landscapes and historic neighborhoods, and the ability to use the transportation system to walk, bike, and access public transit. Context Sensitive Solutions (CSS) is an IDOT-sponsored mandate that aims at addressing these concerns. This program helps ensure that IDOT's transportation projects are designed to improve the quality of life for all who have a stake in the system.

IDOT requires that the principles of CSS be applied to the planning, design, construction and operation of all state projects involving new construction, reconstruction, and major expansion of transportation facilities. The CSS process works as a partnership between IDOT and stakeholders to come up with working solutions to transportation needs identified by stakeholder groups. IDOT can then make planning and design decisions by incorporating this input into their technical analyses. The CSS process is also a key way to ensure that appropriate environmental mitigation activities are considered.

Additionally, the development of the Comprehensive Plan includes environmental elements. This planning process utilized Context Sensitive Solutions as it continually engaged the public in planning for the future.

## Mitigation Activities during Construction

IDOT strives to reduce the negative impacts of highway construction and rehabilitation projects by requiring contractors to adhere to related provisions in their Standard Specifications for Road and Bridge Construction. This document includes specific requirements in a number of areas related to the environment:

- ▶ Protection of existing plant material;
- ▶ Removal of waste; and
- ▶ Temporary erosion control.

In addition to these general provisions, some highway projects also include additional construction mitigation requirements which are consistent with the location and magnitude of the project, the types of impacted resources and other project specific issues. DUATS supports monitoring construction activities and instituting control programs on major construction projects. These efforts focus on the following actions:

- ▶ **Controlling Construction Dust** | Watering, street sweeping and chemical dust suppressants;
- ▶ **Reducing Diesel Emissions** | Emission control devices, cleaner fuels and idling restrictions;
- ▶ **Controlling Erosion and Sedimentation** | Special equipment and procedures; and
- ▶ **Reducing Noise and Vibration** | Special drilling techniques and low-impact hammers.



# HUMAN SERVICES PLAN

## Overview

An increasing number of people are unable to get to work, run errands, or reach medical services simply because they do not have access to reliable transportation. This group of transportation disadvantaged includes disabled individuals who cannot operate vehicles or travel outside of the home on their own because of medical conditions or limitations; people who cannot afford their own automobile; and people who live in areas without access to public transportation.

To enable these individuals to travel for employment, medical, education, and other needs, state and federal grants are used to provide transportation services that assist elderly persons, persons with disabilities and/or low-income persons get to their destinations. In urbanized areas, regular public transportation service and supplemental paratransit service is often available to meet many of these needs. In rural and smaller urban areas, however, public transportation service is less available and human service providers such as senior centers must often find other ways to provide their clients with transportation.

Numerous local programs supported by state and federal agencies provide separate transportation services, including services for the elderly, hospital access for low-income individuals, services for the physically and mentally disabled and transportation for job training or job access. In Illinois, there are numerous state and federal programs administered by a variety of different state agencies that provide funding to be used for public and human services transportation. The lack of coordination among these programs and providers has led to duplication of transportation and dispatching services and an inefficient use of needed transportation and human services funds.

In 2012, Congress passed MAP-21 which focuses on several goals including safety, state of good repair, performance, and program efficiency. The bill consolidates the New Freedom Program (5317) into the Enhanced Mobility of Seniors and Individuals with Disabilities Program (5310). In addition the Job Access and Reverse Commute Program [JARC] (5316) was combined into the Urbanized Area Formula Grants Program (5307).

Federal transit law, as amended by MAP-21, requires that projects funded from the Section 5310 (Elderly and Disabled) program be derived from a locally developed, coordinated public transit-human service transportation plan (HSTP). The HSTP is intended to maximize the collective coverage area of the targeted programs and increase service options, increase efficiency and address the needs through a process that includes representatives of public, private and non-profit transportation and human services providers and the users of these services.

No known entities receive Section 5310 funding at this time. However, DUATS has explored issues and conducted surveys which relate to the program objectives of these funding streams. In 2006, the Macon County Health Foundation, in cooperation with DUATS surveyed service providers and clients concerning transportation needs and issues. Service providers were in need of additional resources for transporting clients to work, medical appointments, social service agencies, and shopping venues. Youth were generally less likely to need transit services. As the client's age increased the need for service increased and closely correlated to those expressed by service providers.

Also in 2006, DUATS supported the efforts of Illinois State University and the East Central Illinois Area Agency on Aging which conducted research on the areas of the County having the highest

poverty rates, lowest median income and the highest concentrations of elderly and physically challenged individuals. The information has proved useful in our study of rural to urban transit needs and obstacles. DUATS staff has talked extensively with adjacent and nearby counties and communities on their transportation operations. Information and suggestions have been the main goal and outcome to date. At this time, DUATS feels that affiliating with an existing transit system/operator would be a better option than creating a new entity. Further study and discussion is warranted on this topic.

In 2008, the Macon County Transit Partnership Group (TPG) was created. The TPG has about 90 participants from throughout the County. This group is charged with studying and encouraging the creation of a Countywide transit entity or annexation to an existing and adjacent service provider. Either option would enhance the ridership options for persons with various physical and/or economic challenges.

### Federal Funding Programs

The FTA administers several funding programs that are applicable to the transit service in the MPA. Applicable funding programs are detailed in the bulleted list below. Some programs have already been discussed in this chapter.

- ▶ **Section 5307 (Urbanized Area Formula Program)** | Section 5307, the Urbanized Area Formula program (49 U.S.C. 5307), makes Federal resources available to urbanized areas and to Governors for transit capital and operating assistance in urbanized areas and for transportation related planning. An urbanized area is an incorporated area with a population of 50,000 or more that is designated as such by the US Department of Commerce, Bureau of the Census. For urbanized areas under 200,000 in population, such as the Decatur urbanized area, the Section 5307 formula apportionments are based on population and population density. Eligible purposes for Section 5307 funds include:
  - Operating expenses, to offset the operating deficit;
  - Planning, Engineering design and evaluation of transit projects and other technical transportation-related studies;
  - Capital investments in bus and bus-related activities such as replacement of buses, overhaul of buses, rebuilding of buses, crime prevention and security equipment and construction of maintenance and passenger facilities;
  - All preventive maintenance and some Americans with Disabilities Act complementary paratransit service costs are considered capital costs; and
  - The Job Access and Reverse Commute Program (JARC) was a former formula grant program for projects that improve access to employment related transportation services for welfare recipients and eligible low-income individuals, and that transport residents of urbanized and non-urbanized areas to suburban employment opportunities. Although this program has been repealed, JARC type projects are now an eligible project activity under Section 5307, Urbanized Area Formula Program.

- ▶ **Section 5339 (Bus and Bus Facilities Formula Program)** | Section 5339 (formerly Section 5309), the Bus and Bus Facilities Formula Program (49 U.S.C. 5339), provides capital assistance for new and replacement buses and for bus related facilities. Section 5339 funds, as they relate to the MPA, would be used generally for replacement of buses and improving / maintaining existing transit facilities. Funds are apportioned to states on the basis of population, vehicle revenue miles and passenger miles. Funds would then be distributed by the states to the urbanized areas.
- ▶ **Section 5303 (Metropolitan Planning)** | Section 5303, Metropolitan Planning Program (49 U.S.C. 5303), provides funding to support the cooperative, continuous, and comprehensive planning program for making transportation investment decisions in metropolitan areas. According to the FTA, state DOTs and MPOs may receive funds for purposes that support the following:
  - Economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
  - Increasing the safety and security of the transportation system for motorized and non-motorized users;
  - Increasing the accessibility and mobility options available to people and for freight;
  - Protecting and enhancing the environment, promoting energy conservation, and improving quality of life;
  - Enhancing the integration and connectivity of the transportation system, across and between modes, for people and freight;
  - Promoting efficient system management and operation; and
  - Emphasizing the preservation of the existing transportation system.

Funds are apportioned by a complex formula to states that includes consideration of each state's urbanized area population in proportion to the urbanized area population for the entire nation, as well as other factors. States can receive no less than 0.5 percent of the amount apportioned. These funds are then sub-allocated by states to MPOs by a formula that considers the urbanized area population, individual planning needs, and a minimum distribution.

- ▶ **Section 5310 (Enhanced Mobility of Seniors and Individuals with Disabilities)** Section 5310, Metropolitan Planning Program (49 U.S.C. 5310), provides funding to increase the mobility of seniors and persons with disabilities. The New Freedom Program (5317) that provided services for individuals with disabilities beyond those required by the Americans with Disabilities Act (ADA) under SAFETEA-LU has been folded into this program under MAP-21.

For Section 5310 funds, the state designates an agency with the requisite legal, financial, and staffing capabilities to receive and administer Federal funds under this program. The designated State agency is the recipient of all Section 5310 funds apportioned to the State, and applies to the FTA for these funds on behalf of private non-profit agencies and eligible local governmental authorities within the state. Using these funds for operating expenses requires a 50 percent local match while using these funds for capital expenses requires a 20 percent local match.

- ▶ **Flexible Funds for Highway and Transit Flexible Funding** | Flexible funds are certain legislatively specified funds that may be used either for transit or highway purposes. The idea of flexible funds is that a local area can choose to use certain Federal surface transportation funds based on local planning priorities, and not on a restrictive definition of program eligibility. Flexible funds include FHWA STP and Congestion Mitigation and Air Quality Improvement Program (CMAQ) funds and FTA Urban Formula Funds.

## State Funding Programs

Section 5310 (Elderly and Disabled) funds are apportioned among the states by a formula based on the number of elderly persons and persons with disabilities in each state. The most important aspect of state funding is the reimbursement of 65 percent of eligible transit operating expenses. Illinois does this through the provision of the Downstate Public Transportation Fund, which provides reimbursements to transit operators for a percentage of their public transit operating expenses. Eligible participants are defined by the Downstate Public Transportation Act. In 2008 the state increased its funding for transit operations from 55% up to 65% reimbursement for eligible transit operating expenses.

### Coordination Requirements

Projects selected for funding under Sections 5310, must be derived from a locally developed, coordinated public transit-human services transportation plan developed through a process that includes representatives of public, private, and non-profit transportation and human service providers, participation by the public, and representatives addressing the needs of older adults, individuals with disabilities and low-income individuals.

### Planning Requirements

Section 5310 projects in urbanized areas must be included in the Long Range Transportation Plan (LRTP), the Transportation Improvement Program (TIP) and the Statewide Transportation Improvement Program (STIP). Projects outside urbanized areas must be included in, or be consistent with the statewide LRTP and must be included in the STIP.

Section 5329 of MAP-21 requires all recipients of FTA funding to develop agency safety plans. Plans must include performance targets, strategies, and staff training. Small systems may have their plans drafted by the state. Measures must be incorporated into metropolitan and state wide transportation plans and improvement programs.

### Program of Projects

The Program of Projects (POP) for Section 5310 identifies the sub-recipients and projects for which the state or designated recipient is applying for financial assistance. The annual POP the state submits to FTA for approval must indicate the total number of sub-recipients; identify each sub-recipient and indicate whether they are governmental authorities, or private non-profit agencies. In addition, the POP must include a brief description of each project, which includes the counties served by the project. The POP must show, for each project, the total project cost and the federal share. The total federal funding level for the POP cannot exceed the total amount of Section 5310 funds available. The program of projects must be identical to, or consistent with, listings contained in the applicable TIP and STIP.

## The Coordinated Public Transit–Human Services Transportation Plan

Federal transit law, under MAP-21, requires that projects selected for funding be included in a locally developed, coordinated public transit / human services transportation plan. The plan should be developed and approved through a process that includes participation by seniors, individuals with disabilities, representatives of public, private, and nonprofit transportation and human services providers, and other members of the public. The experiences gained from the efforts of the Federal Interagency Coordinating Council on Access and Mobility (CCAM), and specifically the United We Ride (UWR) initiative provide a useful starting point for the development and implementation of the local public transit-human services transportation plan.

### Overview

The locally developed, coordinated public transit-human services transportation plan identifies the transportation needs of individuals with disabilities, older adults, and people with low incomes, provides strategies for meeting those local needs, and prioritizes transportation services for funding and implementation. Local plans may be developed on a local, regional, or statewide level. The decision as to the boundaries of the local planning areas should be made in consultation with the state and the metropolitan planning agency, where applicable.

The agency leading the planning process is decided locally and does not have to be the state. A coordinated plan should maximize the collective coverage of programs by minimizing duplication of services. Furthermore, a coordinated plan shall be developed through a process that includes representatives of public, private and non-profit transportation and human services transportation providers, and participation by members of the public.

Members of the public should include representatives of the targeted population(s) including individuals with disabilities, older adults, and people with low incomes. While the plan is only required in communities seeking funding under one or more of the three specified FTA programs, a coordinated plan should also incorporate activities offered under other programs sponsored by federal, state, and local agencies to greatly strengthen its impact.

### Required Elements

Projects shall be derived from a coordinated plan that minimally includes the following elements at a level consistent with available resources and the complexity of the local institutional environment:

- ▶ An assessment of available services that identifies current transportation providers (public, private, and non-profit);
- ▶ An assessment of transportation needs for individuals with disabilities, older adults, and people with low incomes. This assessment can be based on the experiences and perceptions of the planning partners or on more sophisticated data collection efforts, and gaps in service;
- ▶ Strategies, activities, and / or projects to address the identified gaps between current services and needs, as well as opportunities to achieve efficiencies in service delivery; and,
- ▶ Priorities for implementation based on resources (from multiple program sources), time, and feasibility for implementing specific strategies and / or activities identified.

## Implementation

At the federal level, the UWR initiative was established to break down the barriers between programs and set the stage for local partnerships that generate common sense solutions. The overall goal of this effort is to make it easier for the customer to access public and specialized transportation services by reducing transportation service duplication, increase efficient transportation service delivery, and expand transportation access for older Americans, persons with disabilities, and individuals with low incomes. The HSTP is the tool identified in MAP-21 to accomplish this goal.

Locally, DUATS would be responsible for ensuring that the new federal coordination requirements are met for the urbanized area. The Illinois Department of Transportation (IDOT) is responsible for those parts of the state that are outside the urbanized jurisdictions. IDOT has begun to implement the HSTP to be in compliance with the new requirements, which went into effect in FY 2007.

Because Illinois has no formal rural public transportation planning infrastructure, IDOT has created a framework for developing the plan and project submission process for public and human services transportation funding. Through a combination of research and public involvement sub-state regions were established to facilitate the HSTP process. Each region will develop an HSTP to coordinate the delivery of services within its boundaries.

## Coordination

Much of the developmental work within rural and small urban areas will be carried out by a regional coordinator working with regional review committees to develop the non-urbanized portion of the regional HSTP. In our urbanized areas, DUATS staff will function as the regional coordinator and the organizer of the urbanized area review committee. A key challenge will be integrating the rural HSTP with the urbanized area HSTP within each region.

The primary role of DUATS will be to facilitate the review committee meetings, solicit feedback on the plan and projects for the urbanized portion of the region and to develop an urbanized area HSTP document. Another key responsibility will be to work with rural and small urban regional coordinators to integrate the HSTP activities of DUATS and the Regional Transportation Committee. IDOT provides oversight for the program to ensure that the HSTP procedural guidelines are being met.

## Process

The HSTP development process must, at a minimum, include stakeholders representing public, private and non-profit transportation service providers, human service providers, the public, representatives addressing the needs of older adults, individuals with disabilities and low-income individuals, planning organizations and/or county government representatives. In our urbanized area, DUATS staff would compile and analyze input and organize it into a readable report that will be reviewed and adopted by the Policy Committee. At a minimum, the plan must analyze and address the following issues.

- ▶ Identify the public and specialized transportation goals of the community;
- ▶ Inventory of existing transportation services;
- ▶ Assess human services transportation needs;
- ▶ Analyze gaps in human services transportation service; and,
- ▶ Recommend short and long-term transportation strategies to address service gaps and improve coordination.



Once information on local needs and resources is compiled and organized, the plan needs to explore the following questions for the region:

- ▶ Where are we doing well?
- ▶ Where do we need to do better?
- ▶ What will it take to get to the next level of service provision?

Where there is agreement on needed improvements, strategies to implement the improvements and an action plan to accomplish the strategies needs to be developed. The action plan needs to include the following elements:

- ▶ A clear set of steps;
- ▶ Identification of who is responsible for carrying out each step;
- ▶ Timeline for tasks; and
- ▶ A strategy for communication within the group.

### Projects

In order to be eligible for federal funding, projects identified through the HSTP process must be included in the STIP, a Regional Program of Projects (RPOP) in rural and small urban areas and in the TIP in urbanized areas:

- ▶ All projects funded from the Section 5310 (Elderly and Disabled) program will be competitively selected regardless of who the designated recipient is; and
- ▶ All projects funded from the Section 5310 (Elderly and Disabled) program will be reviewed and approved by IDOT and/or the State Oversight Committee (SOC).

The SOC is composed of agencies involved in the planning and provision of transportation, human service and economic development services. Representatives of the agencies listed below serve on the SOC:

- ▶ IDOT;
- ▶ Rural Technical Assistance Center (RTAC), part of the Illinois Institute for Rural Affairs;
- ▶ Illinois Department of Aging;
- ▶ Illinois Department of Human Services;
- ▶ Illinois Department of Healthcare and Family Services;
- ▶ Illinois Department of Commerce and Economic Opportunity;
- ▶ Lieutenant Governor's Office;
- ▶ MPO representative (from the Springfield-Sangamon County Regional Planning Commission);
- ▶ Illinois Association of Regional Councils; and
- ▶ Illinois Public Transportation Association.

## DUATS' Human Services Transportation Plan Approach

Currently no 5310 funds are received by any entity in the Decatur urbanized area. At such time that the urbanized area is required to develop a HSTP, DUATS will be the entity responsible for developing the plan. As such, DUATS would have the following duties if in the future such funds were to be received:

- ▶ **Utilize the Macon County TPG** | Coordinate the public involvement process; representatives of the public transportation provider(s), human service agencies, DUATS and users of transportation services are already serving in the capacity of advisory committee. The specific names of the human service agencies and transit users which will be included on this proposed committee is pending further local discussion in cooperative and collaboration with HSTP Region 6;
- ▶ **Implement a Broad Based Proactive Public Involvement Process** | Identify and catalogue existing services, determine unmet needs and identify potential strategies to meet those needs. The PPP as adopted by DUATS reflects the wishes and intent regarding a proactive approach to involving the public in all facets and at all stages of plan and project discussion and any subsequent projects;
- ▶ **Create a Regional Consensus on Feasible Strategies** | Enhance the effectiveness and efficiency of human service transportation provided in the County;
- ▶ **Coordinate with the HSTP Region 8 Coordinator** | Ensure the urbanized area boundary does not create a barrier to the delivery of seamless transportation services to the targeted populations;
- ▶ **Develop an Action Plan** | Clearly identify the actions to be taken, the projects to be implemented and the persons / agencies responsible for making the specified activities happen;
- ▶ **Amend the Projects** | Reflect proposals for federal funding into the TIP;
- ▶ **Forward those Projects** | Send to IDOT for review and approval;
- ▶ **Monitor and Evaluate** | Consider the effectiveness of implemented strategies and projects;
- ▶ **Adjust Strategies** | Address new and / or previously undetected needs;
- ▶ **Amend the TIP** | Reflect projects selected for funding; and
- ▶ **Update and/or Revise the HSTP** | Revise as necessary or appropriate. DUATS intends to review the HSTP annually.

# ENVIRONMENTAL JUSTICE ANALYSIS

## Overview

Environmental Justice (EJ) is a federal policy that requires agencies receiving federal funds to set up processes that take into account impacts of plans, projects, and activities on minority and low-income populations. FHWA and FTA establish policy guidelines that focus on the following:

- ▶ **Limited Effects** | Avoid, minimize, or mitigate disproportionately high and adverse effects on human health and the local environment. This includes social and economic effects on minority and low-income populations;
- ▶ **Inclusion** | Ensure that all communities that would potentially be affected by the transportation decision making process have the opportunity to participate and be represented; and
- ▶ **Guarantee of Benefits** | Prevent the denial, reduction, or significant delay of the receipt of benefits to minority and low-income population.

FHWA and FTA require environmental justice considerations in compliance with Title VI of the Civil Rights Act of 1964 which:

“...prohibits discrimination by recipients of Federal financial assistance on the basis of race, color, and national origin, including matters related to language access for limited English proficient (LEP) persons. Under DOT’s Title VI regulations, as a recipient of DOT financial assistance, you are prohibited from, among other things, using ‘criteria or methods of administering your program which have the effect of subjecting individuals to discrimination based on their race, color, or national origin.’ For example, neutral policies or practices that result in discriminatory effects or disparate impacts violate DOT’s Title VI regulations, unless you can show the policies or practices are justified and there is no less discriminatory alternative. In addition, Title VI and DOT regulations prohibit you from intentionally discriminating against people on the basis of race, color, and national origin.” <sup>11</sup>

## EJ Analysis

The EJ analysis evaluates the location of the recommended transportation improvements in relation to EJ populations. EJ populations, including minority and low income populations, are defined within the DUATS MPA by using 2010 U.S. Census tract data. **Figure 5-9** displays the minority population within the DUATS metropolitan planning area, while **Figure 5-10** displays the low income population. **Figure 5-11** displays the overall environmental justice areas used for the EJ analysis.

## Definition of Minority Population

Minority population is defined as any identifiable group of minority persons who live in geographic proximity. Additionally, minority populations can include geographically dispersed or transient persons who would be similarly affected by a proposed transportation improvement. Minority persons include those who are American Indian, Alaska Native, Asian, Black or African American, Hispanic or Latino, and Native Hawaiian and other Pacific Islander. For the purpose of the EJ analysis, a census tract having a minority population of 50% or greater is defined as an EJ area.

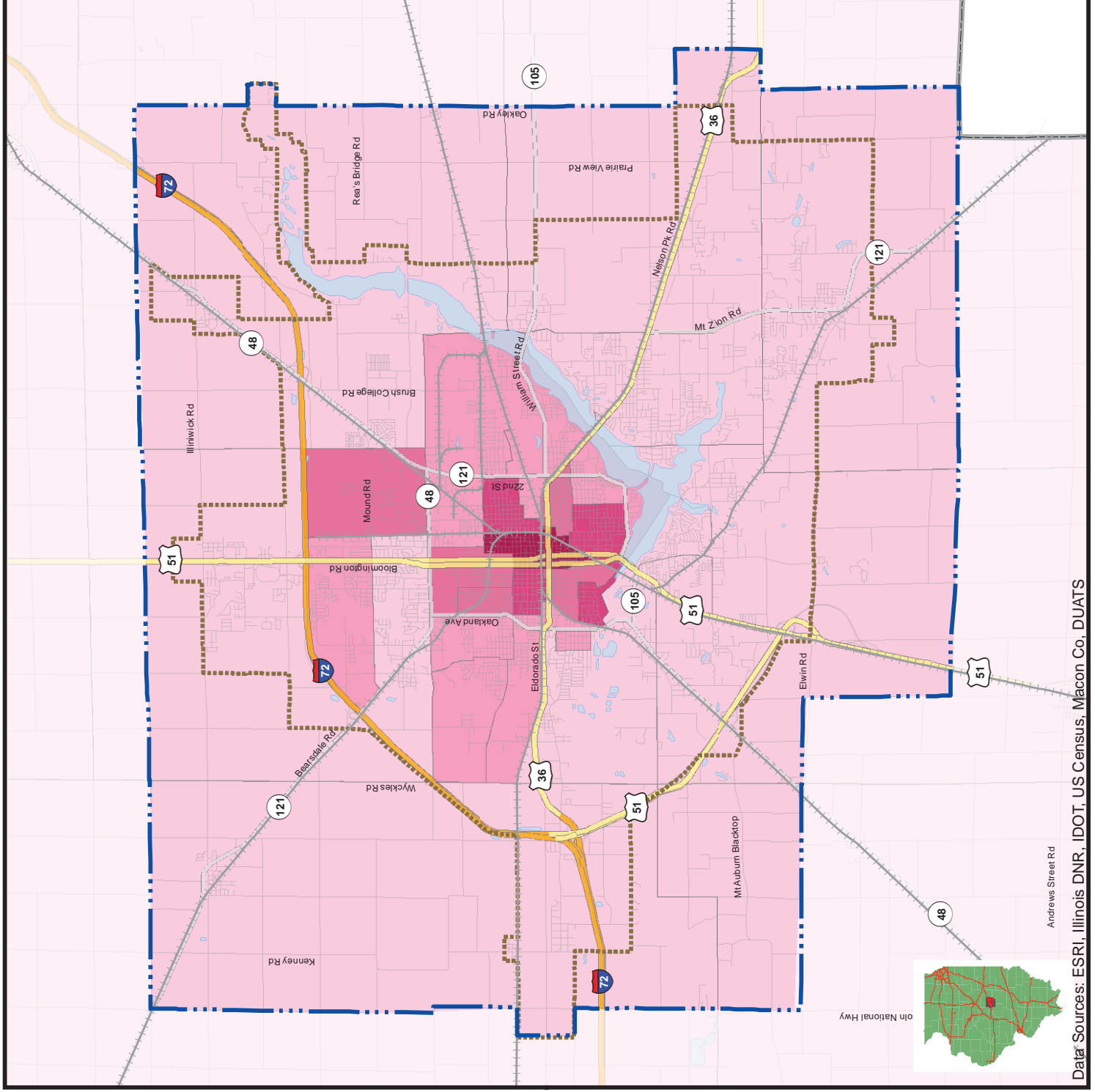
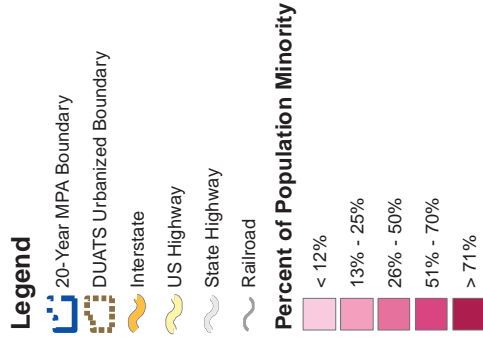
<sup>11</sup> Page 2

The non-Caucasian population of the MPA is primarily concentrated in the central part of Decatur, extending north from Lake Decatur to East Garfield Avenue, between Oakland Avenue and 22nd Street. Minorities in this general area account for 50 to 75 percent of the population. Another area exceeding the 50% minority population threshold is located in the north/northeast portion of Decatur, north of Garfield Avenue to I-72 roughly between US-51 and Brush College Road.

#### **Definition of Low-Income Population**







Low-income populations were defined by the median household income. For the purpose of this analysis, the median household income for the City of Decatur (\$39,635) was used as the threshold to identify low-income EJ areas. Consistent with federal planning guidelines, the use of the City of Decatur median household income, as opposed to the overall Macon County household income which is higher, provides greater coverage to identify potential groups which might be adversely affected by the transportation improvements. The low-income population of the MPA is also highly concentrated in the central part of Decatur, and includes the same geographic boundaries described in the minority population.

**Figure 5-9**  
**Minority Population**








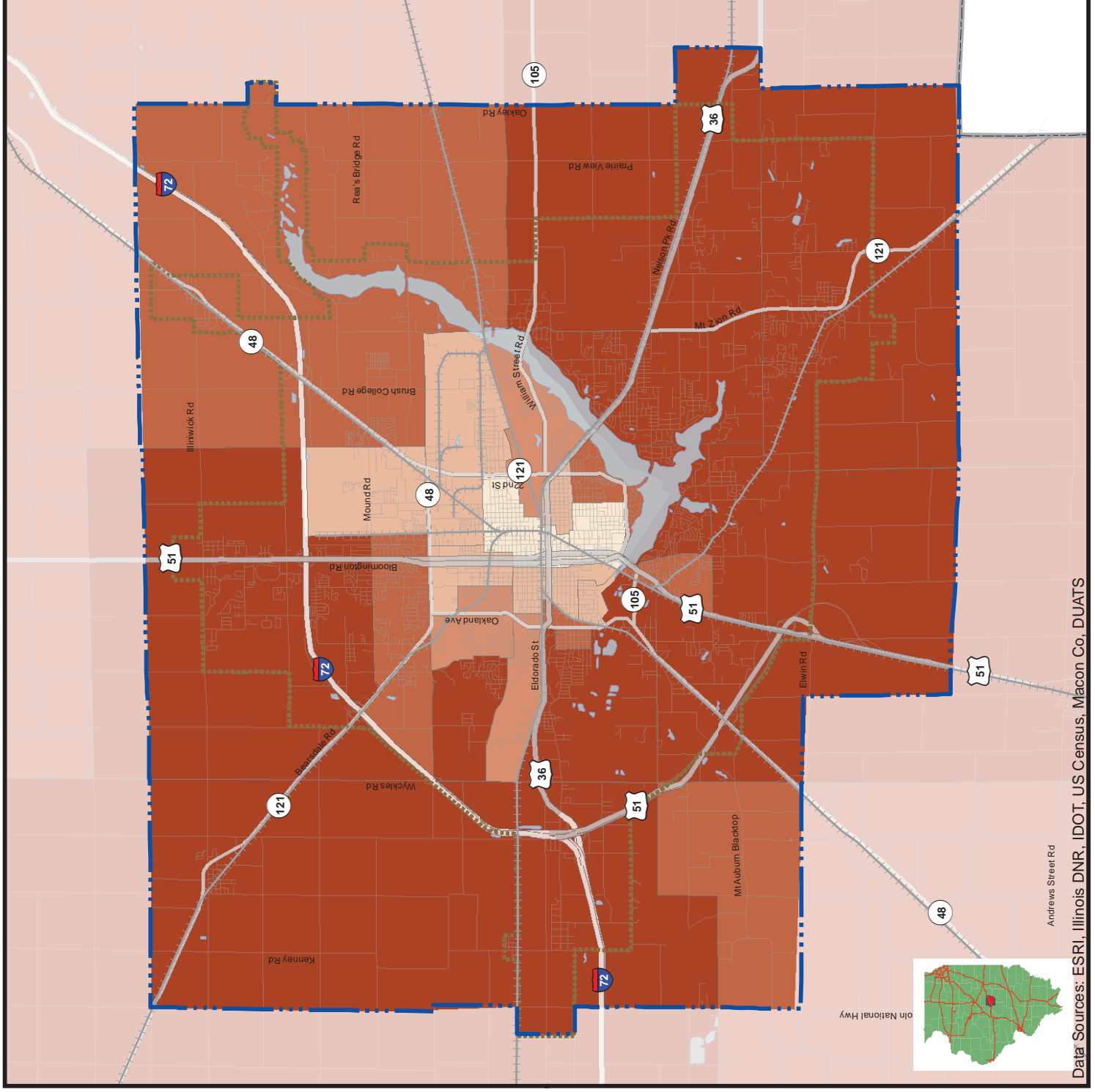
**Figure 5-10**  
**Median Household Income**

**Legend**

-  20-Year MPA Boundary
-  DUATS Urbanized Boundary
-  Interstate
-  US Highway
-  State Highway
-  Railroad

**Median Income 2010**

-  \$24,351 - \$28,000
-  \$28,001 - \$39,635
-  \$39,636 - \$50,000
-  \$50,001 - \$65,000
-  \$65,001 - \$121,396

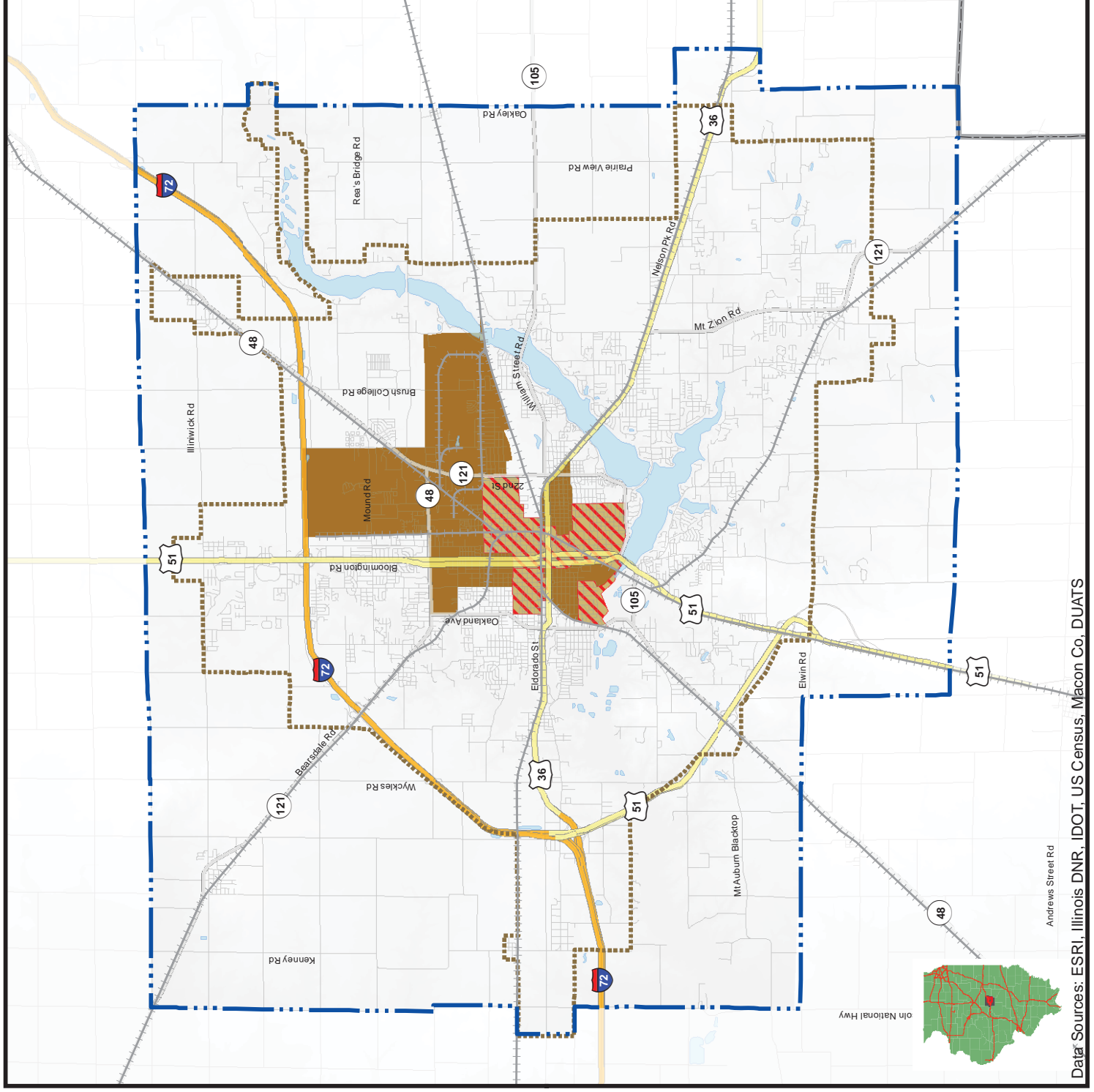
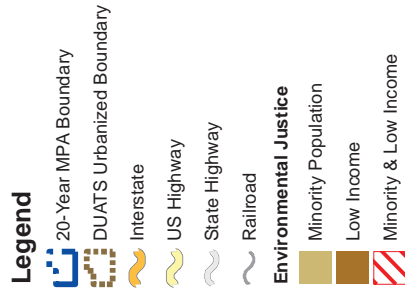


2.5

Miles



Figure 5-11  
Environmental Justice  
Areas By Census Tract



2.5

Miles

### Environmental Justice Areas with Fiscally Constrained Projects

An analysis of the fiscally constrained projects and EJ areas was conducted to identify potentially adverse impacts on low income and minority populations within the DUATS MPA.

**Figure 5-12** displays the distribution of the fiscally constrained projects between 2020 and 2040 in relation to the EJ areas.

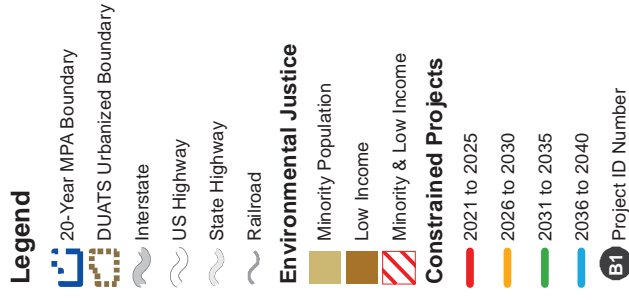
The vast majority of the LRTP projects are on-going maintenance improvements focused on preserving the existing roadway network. The priority projects – including the Brush College Road corridor and Southeast Beltway projects – are not fiscally constrained and are therefore not considered in this EJ analysis.

The existing transit service coverage includes the primary EJ areas identified. There are no current plans to cut service that would negatively impact transit riders in the defined EJ areas. The LRTP discusses the potential to extend transit service coverage in the future which would increase accessibility throughout the region for the EJ population areas.

### Summary

Overall there is low potential for discrimination against low-income and minority populations in relation to the recommended LRTP projects. The identified low-income and minority populations in the DUATS MPA stand to benefit from the planned transportation improvements identified in the recommended plan. Furthermore, should funding for the priority projects be identified, these projects would support economic development within the region which would also benefit residents in the EJ population areas.

**Figure 5-12**  
**Environmental Justice Areas**  
**With Fiscally**  
**Constrained Projects**



2.5

Miles

