



Final Report

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Chapter 1 OVERVIEW

This chapter provides the framework for the DUATS 2045 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 transportation planning process.

1

PURPOSE OF THE LONG RANGE TRANSPORTATION PLAN

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 Long Range Transportation Plan (LRTP). The last LRTP update, completed in 2014, had a 2040 horizon year; this update has a horizon year of 2045. The 2045 LRTP addresses multimodal improvements to identify, plan, and guide transportation decision-making and future year investments within the DUATS 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, biking, walking, rail, and aviation), it focuses on the interrelationships between modes to promote their integration 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 coordinates transportation planning with community planning activities that address land use, human and natural resources, and economic development.

The LRTP is federally required to be fiscally constrained, which means the recommended projects are based on reasonable projections of available federal, state, and local revenue. The plan also provides broad policy direction which allows DUATS to respond to new or changing conditions during the life of the plan. Land use and transportation studies which impact local and regional travel are regularly being completed—correspondingly, the LRTP is updated every five years, though amendments may occur more frequently in response to the changing realities that affect the region's transportation system.

Perhaps most importantly, the LRTP reflects the vision and direction of local officials, relevant agencies, stakeholders, and the public. The LRTP development process is consistent with the DUATS public outreach plan, which provides the public an opportunity to be involved in the planning process. The DUATS Public Involvement Plan is available upon request from DUATS staff.

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 offers opportunities to educate the public about transportation planning, creating an informed community and leading to better planning.

Regional 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 the 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 in order to be eligible to receive federal transportation funding. DUATS is the agency authorized to carry out this Federal mandate in the Decatur region.

DUATS "3-C" Planning Process

- Comprehensive | Examination of how all transportation modes—roads, transit, bicycles, pedestrians, rail operations, and aviation—contribute to the overall system
- Coordinated | Efforts are conducted collectively among federal, state, local, and private transportation providers
- Continuing | Changing transportation needs within the community are acknowledged, anticipated, and responded to over the course of the 2045 planning horizon

The transportation planning process recognizes the interdependence 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 extends beyond defined city and village boundaries and can have significant regional impacts. The process of preparing the LRTP is intended to analyze the transportation system from a regional perspective and to identify priority improvements to address the area's future transportation demands. As a result, individual communities are able to more effectively manage their transportation resources and better address their future needs.

Transportation planning has a major impact on development in the MPA. This LRTP continues a major theme established in the DUATS 2040 LRTP—to promote sustainable development practices and the efficient use of resources, including balanced land development and conservation, and more compact land uses. Clustered development within and adjacent to existing municipalities promotes greater density, which may encourage more efficient use of transportation resources. The development of compact and carefully planned residential, industrial, commercial, and mixed-use districts also helps encourage 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 consistent with the land use plan, in terms of both the location and the level 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. In early 2006 amendments to that agreement were adopted to move the lead agency planning functions from Macon County to the City of Decatur. DUATS consists of a Policy Committee and Technical Committee and is supported by City of Decatur staff. DUATS' mission, goals, and objectives are included in Chapter 2 and are reviewed every five years as part of the LRTP update.

Transportation planning activities are undertaken by DUATS 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:

- 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 voting member, with the exception of the IDOT Regional Engineer, can be elected to chair the 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 comprises 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 during even-numbered years.

DUATS is the only intergovernmental planning entity in Macon County and it strongly encourages consultation and communication among the jurisdictions. DUATS also conducts 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.

In 2005 DUATS was the sponsoring agency for a countywide comprehensive planning initiative that looked to formulate a cooperative, mutually beneficial, and unified plan that considered land use, housing, economic development, natural resources, and transportation issues. The process recognized that it was important to formulate a plan identifying how individual jurisdictions within the County could promote these regional concepts and espouse the notion of a unified community. In August 2009, the Comprehensive Plan was unanimously adopted by the Macon County Board and Decatur City Council. DUATS continues to rely on the Macon County/Decatur Comprehensive Plan to help guide regional growth and transportation decision-making within the Decatur region.

DUATS Study Area

The two geographical boundaries that make up the DUATS study area are described below. Figure 1-1 displays the Urbanized Area and MPA and boundaries.

- 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 reviewed/updated every three, but not more than five, years and may be done in conjunction with the LRTP update. The Urbanized Area encompasses approximately 111 square miles and is used to determine which projects are eligible for urban or rural funding.
- Metropolitan Planning Area (MPA) Boundary | The MPA must include the Urbanized Area and should include all contiguous areas that may become urbanized by the LRTP horizon year (for this plan, 2045). 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 to be included in the LRTP and ultimately programmed in the Transportation Improvement Plan (TIP), making them eligible for federal funding. The MPA boundary was last modified/approved following the 2010 U.S. Census. The current MPA encompasses approximately 220 square miles and includes the majority of Macon County and these seven municipalities:
 - Decatur (MPA central city)
 - Mt. Zion
 - Forsyth

Long Creek

.

- Warrensburg
- Oreana Harristown





Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS File: \\uschg1fs001\prod\Projects\60604788\900_CAD_GIS\920_GIS\MXDs\StudyArea.mxd

GOVERNING LEGISLATION

The current transportation authorization bill is the Fixing America's Surface Transportation (FAST) Act, passed in 2015. It authorized \$305 billion in federal funding for fiscal years 2016 to 2020 for highway, safety, public transportation, motor carrier safety, hazardous materials safety, rail, research, technology, and statistics programs. The FAST Act also provided the first dedicated source of federal funding for freight projects. It is part of the larger movement toward performancebased transportation planning, which came to the fore with the Moving Ahead for Progress in the 21st Century (MAP-21) Act. As such, it emphasizes a performance-driven process to support investment decision-making for physical assets, including the identification of performance measures to track and evaluate the area's progress toward meeting its goals. The FAST Act also promotes the development of risk-based asset management planning. Prior federal transportationrelated legislation includes the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, the Transportation Equity Act for the 21st Century (TEA-21) of 1998, and the Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU) of 2005. Taken together, the past 30 years of federal legislation have guided the transportation planning process to its current emphasis on the robust multimodal planning, public engagement, and the need to maintain existing infrastructure in a state of good repair.

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 (e.g., 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. The MPA is in attainment, currently meeting all air quality standards, and thus it is not subject to the regulations defined in the CAAA.

LRTP DEVELOPMENT PROCESS

The DUATS 2045 LRTP has been developed through a continuing, comprehensive, and cooperative process that included the active participation 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 2045 LRTP provides a blueprint to build upon an ever-evolving process of goal-setting, needs analysis, and the identification of appropriate transportation improvements. The 2045 LRTP 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 using 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 LRTP. 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 LRTP 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 projects.
- Long Range Transportation Plan | The LRTP 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 LRTP must be updated every 5 years and must have a minimum horizon of 20 years.

Public Involvement

Public involvement is an important element of the transportation planning process and the development of the 2045 LRTP. 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 activities, which in turn leads to better planning. Moreover, it gives the public a sense of ownership of their community and its development. Regular meetings are attended by the member entities, planning and engineering professionals, stakeholders, and other representatives of the community. Each meeting provides an opportunity for members of the community to participate in the planning and decision-making processes that affect the community at large.

For the 2045 LRTP update, DUATS conducted the following outreach:

- Stakeholder Surveys | Key stakeholders in the region were contacted to discuss transportation mobility and infrastructure issues. In total, 12 individuals provided input.
- Community Survey | 957 Decatur area residents, or frequent travelers to the area, responded to a 23-question survey addressing roads/freight, transit, and biking within the Decatur region.
- Short Questionnaire | DUATS staff distributed a short questionnaire (5 questions) during a neighborhood event. Nearly 90 questionnaires were returned.
- Public Open Houses | Public open houses were held December 4, 2019 (5:00 p.m. to 7:00 p.m.) and December 5, 2019 (3:00 p.m. to 5:00 p.m.) at the Decatur Public Library Staley Room. Draft LRTP recommendations were available for the public to review and comment on. One person attended the open house and no written comments were received.
- Public Review of the LRTP | A draft of the LRTP was made available for a minimum 30-day public review beginning on December 11, 2019 and ending January 13, 2020.

2045 LRTP Organization

The 2045 LRTP is organized as follows:

- Chapter 1 | Overview provides background on the LRTP development process and information on the regional setting and transportation system
- Chapter 2 | Goals and Objectives Performance Measures outlines the 2045 LRTP vision statement, goals, and objectives. This chapter discusses system performance and documents DUATS progress toward addressing FAST Act performance measures.
- Chapter 3 | Existing Demographics summarizes existing population and employment data. It also summarizes education attainment and a peer region review.
- Chapter 4 | Existing Conditions summarizes the existing transportation conditions and identifies transportation deficiencies within the MPA.
- Chapter 5 | Future Needs Analysis identifies year 2045 population and employment projections, which serve as the basis for the needs analysis, including the identification and review of potential transportation improvements. The needs analysis documents the challenges and opportunities related to transportation and land use leading up to the planning horizon year 2045.
- Chapter 6 | Priorities and Recommended Plan outlines the recommended multimodal transportation projects. This chapter provides the financial analysis which demonstrates a fiscally constrained plan and also includes an environmental justice assessment, environmental mitigation analysis, and supporting policies and strategies.



Chapter 2 GOALS AND OBJECTIVES — PERFORMANCE MEASURES

This chapter defines the plan's **vision statement** and **goals and objectives.** This foundation guides the selection of recommended transportation improvements identified in Chapter 6 and reflects the values of the area citizens, businesses, industries, and the traveling public. **Performance measures** related to FAST Act are also discussed.

VISION STATEMENT

A vision statement is a brief description of a desired future condition. The DUATS LRTP 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 also frames the development of the goals and objectives, which in turn drive the identification and implementation of the recommended transportation strategies and improvements. Table 2-1 summarizes the DUATS LRTP vision statement.

Table 2-1: DUATS LRTP Vision Statement

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

REVIEW OF 2040 LRTP GOALS AND OBJECTIVES

The process of developing the DUATS 2045 LRTP goals and objectives began with a review of the previous 2040 LRTP goals and objectives. The following summary frames the discussion by transportation mode.

Roadways

In developing the 2040 LRTP, safety performance measures and targets were developed to reflect the plan's priority of a safe regional roadway system. This 2045 LRTP summarizes progress toward meeting the safety targets, and also reinforces DUATS commitment to enhance safety for the traveling public.

Maintaining infrastructure and focusing on a state of good repair was also a focus of the 2040 LRTP. While a concern in the 2040 LRTP, pavement condition has since become an even more important priority. The 2045 LRTP survey results support efforts within the DUATS MPA to prioritize investment in the existing infrastructure. Specific actions that were identified include completing the Industrial Transportation Plan for the Midwest Inland Port (currently programmed for fiscal year (FY) 2020 in the FY 2020-FY 2023 TIP) and developing a regional ITS architecture and (currently in process).

Moving forward, the 2045 LRTP will continue to develop performance measures as well as future targets to evaluate progress toward meeting specific measures.

Transit

The 2040 LRTP goals and objectives outlined a short-term transit target of continuing to grow fixed-route transit ridership in order to reach 1,750,000 annual passenger trips by 2020. At the time, this anticipated a ridership increase of approximately 5 percent per year. For various reasons, discussed in more detail in Chapter 4, the transit ridership has been gradually declining since the 2040 LRTP update and the 2018 annual ridership totaled 1,134,274.

Another 2040 LRTP transit goal focused on expanding transit service coverage with a 2025 timeframe for implementation. Current service coverage is considered good in the DUATS region and there does not appear to be an immediate need to expand coverage. The issue of service coverage can be revisited as part of a planned Comprehensive Operational Analysis (COA) that Decatur Public Transit System (DPTS) will conduct in 2020. In addition, a more detailed review of transit ridership can also be examined as part of the COA.

The 2040 LRTP recognized the negative impact that at-grade rail crossing delays have on DPTS service, and as such the plan supported the construction of grade-separated structures at key locations to improve travel time reliability. The construction of the Brush College Road overpass at Faries Parkway, which is currently being designed, will improve travel time reliability and benefit DPTS operations. Additional grade separations would further enhance transit operations in the region and remain an important infrastructure priority.

Bike / Pedestrian

The 2040 LRTP goals and objectives focus on efforts to continue to implement the regional bicycle improvements. Portions of this network have been completed in the past four years and the partner agencies remain committed to developing a comprehensive, connected regional bicycle network.

Aviation

The 2040 LRTP goals and objectives identified the need to improve access to the airport, and constructing the first phase of the Beltway goes a long way in providing this improved access. The plan also envisioned the airport reaching 10,000 annual enplanements. The enplanement data from the past few years show that the facility is on pace to surpass 10,000 enplanements in 2019 or 2020.

FAST ACT PLANNING REQUIREMENTS

The FAST Act sets the course for transportation investment with an emphasis on improving mobility on America's highways, creating jobs and supporting economic growth, accelerating project delivery, and promoting innovation. The DUATS LRTP supports the ten federal planning requirements outlined below. Since the last LRTP, the FAST Act expanded the scope of consideration of the metropolitan planning process to include (1) improving transportation system resiliency and reliability by reducing (or mitigating) the stormwater impacts of surface transportation, and (2) enhancing travel and tourism. [23 U.S.C. 134(h)(1)(I) & (J)]



DUATS 2045 LRTP GOALS AND OBJECTIVES

The DUATS technical and policy committees met in June 2019, at which time they reviewed the 2040 LRTP goals and objectives. The committee confirmed that the 2040 LRTP goals and objectives continue to address the primary transportation concerns and issues within the region. As such, the DUATS 2045 LRTP goals and objectives remain for the most part unchanged from the previous LRTP. Some of the targets and measures for the goals and objectives have been modified to address recent updates to transportation performance measures. References to the new FAST Act planning factors are also included. DUATS will continue to review, update, and report on progress toward achieving the measures. Table 2-2 summarizes the 2045 LRTP goals and objectives.

Goals	Objectives	Targets	Measures
 Create a safe transportation system that balances the travel needs of all users including the general public and area businesses. 	 a) Enhance 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 100 million VMT. c) Improve travel safety by reducing the total number of bicycle- and pedestrian-related serious injuries and fatalities. 	 a) DUATS supports the statewide safety targets established by IDOT. a) Complete the Midwest Inland Port study by 2021; begin implementation of projects identified. 	 a) Number of Fatalities b) Fatality Rate per 100 Million Vehicle Miles Traveled (VMT) c) Number of Serious Injuries d) Serious Injury Rate per 100 Million VMT e) Number of Non-Motorized Fatalities and Serious Injuries (specific targets and measures identified later in Chapter 2)
 Preserve and maintain the existing transportation system to make the most efficient and most cost-effective use of existing infrastructure investments. 	 a) Improve pavement condition within the MPA. b) Improve the condition of bridge/structures within the MPA. c) Enhance roadway facilities and system connectivity to better accommodate truck traffic within the MPA. d) Improve the 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 atgrade rail crossing delays and increasing safety for the traveling public. 	 a) DUATS supports the statewide pavement and bridge condition targets established by IDOT. b) Complete the development of an ITS Architecture by 2020; begin implementation of projects identified. 	 a) Percentage of pavements on the Interstate System in Good condition b) Percentage of pavements on the Interstate System in Poor condition c) Percentage of pavements on the NHS (excluding the Interstate System) in Good condition d) Percentage of pavements on the NHS (excluding the Interstate System) in Poor condition e) Percentage of NHS bridges in Good condition f) Percentage of NHS bridges in Poor condition (specific targets and measures identified later in Chapter 2)

Table 2-2: DUATS 2045 Goals and Objectives

	Strategies
les	• Prioritize transportation improvements that have a direct impact on reducing fatalities and serious injuries, for all transportation modes.
	Use Complete Streets principles in project designs to accommodate all users of all abilities.
	Reduce modal conflicts to enhance the movement of people and goods.
torin	Use innovative design strategies and new technologies to reduce crash exposure and improve traffic flow along major roadways.
	• Develop regional policies to encourage through trips on major streets (expressways, arterials) and discourage such trips on local streets.
	 Incorporate safety design elements in all transportation planning efforts to support freight- friendly roadway plans.
ate	• Support projects that maximize the performance of existing transportation facilities.
ate	• Improve the efficiency of roadway facilities by updating traffic operations or improving route design to upgrade road capacity in congested areas.
DC	• Focus on roadway system preservation by performing needed maintenance before segments/structures are in critical need of repair.
)r	Work with public and private development to leverage funding resources.
dition	• Maximize the utilization of existing infrastructure by encouraging innovative and compact development strategies and coordination of regional land use decisions.
ter in	Seek additional funding to maintain and modernize the regional transportation system.

G	bals	0	ojectives	Ta	argets	M	easures
3.	Promote and expand the utilization of the regional multimodal transportation system to move people and goods to, from, within,	a)	Enhance access to the Airport to increase air passenger service and support local, regional, and global industries and	a)	DUATS supports the statewide system performance targets established by IDOT.	a)	Percent of Reliable Person-Miles Traveled the Interstate.
	and through the MPA to support the growth of the local and regional economy.		businesses located in the Decatur area.	b)	Exceed 10,000 annual airport boardings by 2021.	b)	Percent of Reliable Person-Miles Traveled the Non-Interstate NHS.
		b)	Promote the MPA as a regional freight distribution center by enhancing existing facilities and constructing new facilities	c)	Increase the number of freight-related jobs within the region.	c)	Truck Travel Time Reliability Index
		C	using public-private development strategies.			d)	Number of airport boardings per year. Tra and report on an annual basis toward reaching target.
			local, regional, and global economic development opportunities.			e)	Local employment data.
		d)	Support efforts to develop a statewide high- speed passenger rail service that connects to the Decatur region.				
		e)	Support transportation improvements that enhance recreational activities and support increased tourism within the region.				

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 Support and implement improvements identified in the Supply Chain Optimization Study. Develop a Midwest Inland Port Transportation Plan and Infrastructure Improvement Plan to better accommodate freight movement and support economic development within the region. Support efforts to retain, expand and enhance passenger and air freight services at the Decatur Airport. Continue to expand the regional hierarchy of area roadways (functional classification system) to concentrate vehicular movements on major thoroughfares. Integrate air transportation with local travel modes. Promote the use of the Decatur Airport to efficiently and affordably serve regional and national passenger and cargo movements. Develop transportation centers and inter-city terminals to promote intermodal travel and regional and global expansion. Plan for intermodal terminals to foster efficient transfer of people and goods between different modes of transportation. 		Strategies
 Develop a Midwest Inland Port Transportation Plan and Infrastructure Improvement Plan to better accommodate freight movement and support economic development within the region. Support efforts to retain, expand and enhance passenger and air freight services at the Decatur Airport. Continue to expand the regional hierarchy of area roadways (functional classification system) to concentrate vehicular movements on major thoroughfares. Integrate air transportation with local travel modes. Promote the use of the Decatur Airport to efficiently and affordably serve regional and national passenger and cargo movements. Develop transportation centers and inter-city terminals to promote intermodal travel and regional and global expansion. Plan for intermodal terminals to foster efficient transfer of people and goods between different modes of transportation. 	on	 Support and implement improvements identified in the Supply Chain Optimization Study.
 Support efforts to retain, expand and enhance passenger and air freight services at the Decatur Airport. Continue to expand the regional hierarchy of area roadways (functional classification system) to concentrate vehicular movements on major thoroughfares. Integrate air transportation with local travel modes. Promote the use of the Decatur Airport to efficiently and affordably serve regional and national passenger and cargo movements. Develop transportation centers and inter-city terminals to promote intermodal travel and regional and global expansion. Plan for intermodal terminals to foster efficient transfer of people and goods between different modes of transportation. 	ck	• Develop a Midwest Inland Port Transportation Plan and Infrastructure Improvement Plan to better accommodate freight movement and support economic development within the region.
 Continue to expand the regional hierarchy of area roadways (functional classification system) to concentrate vehicular movements on major thoroughfares. Integrate air transportation with local travel modes. Promote the use of the Decatur Airport to efficiently and affordably serve regional and national passenger and cargo movements. Develop transportation centers and inter-city terminals to promote intermodal travel and regional and global expansion. Plan for intermodal terminals to foster efficient transfer of people and goods between different modes of transportation. 		• Support efforts to retain, expand and enhance passenger and air freight services at the Decatur Airport.
 Integrate air transportation with local travel modes. Promote the use of the Decatur Airport to efficiently and affordably serve regional and national passenger and cargo movements. Develop transportation centers and inter-city terminals to promote intermodal travel and regional and global expansion. Plan for intermodal terminals to foster efficient transfer of people and goods between different modes of transportation. 		• Continue to expand the regional hierarchy of area roadways (functional classification system) to concentrate vehicular movements on major thoroughfares.
 Promote the use of the Decatur Airport to efficiently and affordably serve regional and national passenger and cargo movements. Develop transportation centers and inter-city terminals to promote intermodal travel and regional and global expansion. Plan for intermodal terminals to foster efficient transfer of people and goods between different modes of transportation. 		Integrate air transportation with local travel modes.
 Develop transportation centers and inter-city terminals to promote intermodal travel and regional and global expansion. Plan for intermodal terminals to foster efficient transfer of people and goods between different modes of transportation. 		• Promote the use of the Decatur Airport to efficiently and affordably serve regional and national passenger and cargo movements.
Plan for intermodal terminals to foster efficient transfer of people and goods between different modes of transportation.		• Develop transportation centers and inter-city terminals to promote intermodal travel and regional and global expansion.
		• Plan for intermodal terminals to foster efficient transfer of people and goods between different modes of transportation.

Goals	Objectives	Targets	Measures	Strategies
4. Improve and promote a countywide public transit system that provides area citizens with a safe, competitive alternative to the private automobile.	 a) 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) Complete Comprehensive Operations Analysis in 2020. (additional targets to considered and adopted in the COA planning efforts) 	 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) Update DPTS rail crossing delay data annually and compare results to Decatur Area Transportation Efficiency Study (DATES) baseline findings. 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 NTD. 	 Implement strategies identified in the upcoming Comprehensive Operational Analysis. Monitor fixed-route service between existing and future residential areas, employment centers, and key destinations to determine if service expansion is needed. Explore opportunities to implement expanded service hours (evenings and Sunday service). Seek a reliable funding source to replace vehicles as soon as they reach their programmed vehicle life. 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. Explore cost-effective transit services (such as subsidized taxi and van pools) to serve major activity centers during principal hours of operation.

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Go	als	Ot	ojectives	Та	irgets	Me	easures	St	trategies
5.	Promote alternative modes of transportation and develop transportation facilities to accommodate alternative modes.	a) b)	Plan, develop, and promote bicycle and pedestrian facilities as viable and efficient forms of transportation. 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.	a) b)	Construct new non-motorized facilities including focusing on new trails consistent with the DUATS bike plan. Upgrade, replace, or construct, sidewalks within the MPA as opportunities present themselves.	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.) Baseline ADA compliant sidewalks. (track sidewalk improvements—either replacement or new—and report on annual basis.)	•	Prioritize the completion of a connected north-south trail system through the MPA that connects residential areas, neighborhoods, schools, parks, services, shopping, and employment centers. Require new developments and major reconstructions to include sidewalks and other non-vehicular infrastructure. Promote community walkability by requiring that consideration of alternate modes of transportation be incorporated into all new construction and major reconstruction projects.
6.	Coordinate land use and transportation improvements to ensure compatibility and sensitivity with the social, economic, and ecological environments.	a) b)	Preserve agricultural areas, parks, and forested areas by minimizing transportation- related impacts. Incorporate appropriate design features into infrastructure investments to increase the resiliency and reliability of the transportation.	a) b) c)	Minimize impacts on environmentally sensitive areas within the region. Identify opportunities to reduce or mitigate stormwater impacts as part of regional transportation improvements. Support projects that benefit Environmental Justice areas.	a) b)	Complete environmental mitigation analysis as part of LRTP updates. Complete environment justice analysis as part of LRTP updates; consider impacts/benefits when programming projects in the TIP.	•	Support initiatives that expand transportation options that are affordable, reliable, and improve quality of life through greater access to education and new job opportunities. Preserve adequate rights-of-way for future transportation facilities, including the Beltway corridor, through appropriate land use regulations and other legislative action(s). Review potential transportation improvements for consistency with the Macon County-Decatur Comprehensive Plan to promote a strong relationship between land use development and transportation improvements. Apply transportation standards that are consistent with USDOT and IDOT design guidelines that incorporate context sensitive solutions where appropriate.

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TRANSPORTATION PERFORMANCE MANAGEMENT

With the passage of the Moving Ahead for Progress in the 21st Century Act (MAP-21), and continuing as part of the FAST Act, Congress established Transportation Performance Management (TPM). FHWA defines TPM as a strategic approach that uses system information to make investment and policy decisions to achieve national performance goals.

Another requirement is Performance Based Planning and Programming (PBPP), which impacts the development of the 2045 LRTP as well as the Transportation Improvement Program (TIP). PBPP refers to the application of performance management principles within the planning and programming processes of transportation agencies to achieve desired performance outcomes for the multimodal transportation system.

Transportation performance measures and targets describe how well the transportation system is functioning in quantitative terms. The data is used to set future targets for system performance based on calculated values and recent trends. States and MPOs are required to incorporate FHWA and FTA performance measures and targets into their planning practices. MPOs have the option of supporting statewide targets or setting their own, along with assuming the responsibility of achieving them. DUATS has chosen to support IDOT-established targets.

Federal Highway Performance Goals

According to FHWA, TPM represents the opportunity to prioritize needs and align resources to optimize system performance in a collaborative manner. The national Federal highway program performance goals as established by Congress are summarized in Table 2-3.

Safety
 To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
Infrastructure Condition
•To maintain the highway infrastructure asset system in a state of good repair.
Congestion Reduction
•To achieve a significant reduction in congestion on the National Highway System.
System Reliability
•To improve the efficiency of the surface transportation system.
Freight Movement & Economic Vitality
•To improve the national freight highway network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
Environmental Sustainability
 To enhance the performance of the transportation system while protecting and enhancing the natural environment.
Reduced Project Delivery Delays
•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.

SOURCE: Federal-Aid Program [23USC §150(b)]

DUATS Performance Measures

The following outlines DUATS' progress toward addressing the established TPM measures. The section also discusses opportunities that could move the DUATS region closer toward achieving the established targets.

Safety

DUATS and its partner agencies place a high priority on providing a safe transportation system for the traveling public. This is consistent with IDOT's Highway Safety Improvement Program (HSIP), which states, "Our goal is to reduce the number of deaths and serious injuries due to crashes in the state of Illinois." In establishing the 2045 LRTP goals, the DUATS Technical and Policy committees reaffirmed safety as a top priority and national safety performance measures further reinforce the importance of prioritizing safety for the traveling public. The five safety performance measures that are required include:

- 1. Number of Fatalities
- 2. Fatality Rate per 100 Million Vehicle Miles Traveled (VMT)
- 3. Number of Serious Injuries
- 4. Serious Injury Rate per 100 Million VMT
- 5. Number of Non-Motorized Fatalities and Serious Injuries

Every August, IDOT establishes their highway safety targets as part of the HSIP that must be submitted to FHWA. As mentioned above, DUATS has elected to adopt the statewide targets. As reference, Table 2-4 summarizes the statewide safety performance targets established by IDOT using a five-year rolling average.¹ The current targets are for the 2014 to 2018 timeframe; the 2015 to 2019 timeframe reflects desired values if the current performance targets are met.

Table 2-4: Statewide Sa	afety Performance	Targets
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	Rolling 5-year Average				
	2012 to 2016	2013 to 2017	2014 to 2018	2015 to 2019	
Number of Fatalities	289.4	1,017.8	997.4	977.5	
Fatality Rate per 100 Million VMT	0.94	0.96	0.94	0.92	
Number of Serious Injuries	12,169	12,211	11,967	11,727	
Serious Injury Rate per 100 Million VMT	11.7	11.5	11.3	11.0	
Number of Non-Motorized Fatalities and Serious Injuries	1,499	1,491	1,461	1,432	

*The 2019 target is the desired value of the 2015-2019 rolling average for each of the measures.

Figure 2-1 displays the original DUATS targets for serious injuries and fatalities. In this figure, years 2015 to 2020 (green and orange bars) were projected using the historical crash rate per 100 million annual vehicle miles of travel (according to IDOT notes, AVMT data for 2013 and before was estimated using 2014 and 2015 values).

¹ Due to numerous factors, traffic crash related injuries and fatalities vary from year to year and as such a five-year rolling average is used to smooth the data.

While Figure 2-1 displays the projected number of crashes and injuries between 2015 and 2020 based on the assumption that historical crash rates will continue to apply over that period of time, Figure 2-2 reflects the number of serious injuries and fatalities that actually occurred, using updated crash statistics through 2017. The 2018, 2019, and 2020 targets (green/orange bars) represent the desired value (-2 percent annual reduction) of the five-year rolling average for each of the measures. Approximately 89 percent of fatalities and 87 percent of serious injuries within Macon County were identified to have occurred within the DUATS MPA boundary (based on a six-year average between 2009 and 2014 and assuming the historical spatial distribution of crashes remains the same).

Years 2015 through 2017—and years 2016 and 2017 in particular—saw significant declines in the number of serious injuries and fatalities within the DUATS MPA. This decline reversed what was a spike in serious injuries and fatalities between 2012 and 2014. This rather sharp drop in serious injuries and fatalities in 2016 and 2017 also helped reverse the trendline which now projects a gradual decline through year 2020.





SOURCE: IDOT Crash Data.



Figure 2-2: DUATS Serious Injury and Fatality Targets (updated with 2015 – 2017 data)



Figure 2-3 compares the DUATS five-year rolling average for fatality rates to the Illinois statewide rates. As this figure shows, in 2013 (based on the 2009 to 2013 five-year rolling average) the DUATS fatality rate per 100 vehicle miles of travel was essentially the same as the statewide rate. Since 2014, the DUATS rate has steadily increased, causing the DUATS rate to exceed the statewide average. Much of this increase is due in large part to a number of years that saw high fatalities, including 2016 in which there were 18 fatalities in Macon County.



Figure 2-3: Fatality Rate (per 100 Million VMT; 5-Year Rolling Average)

Figure 2-4 compares the DUATS five-year rolling average for serious injury rates to the statewide rates. This figure shows an opposite trend compared to fatalities in that in 2013 (based on the

2009 to 2013 five-year rolling average) the DUATS serious injury rate per 100 million vehicle miles of travel was higher than the statewide rate. In 2015 and 2016 the DUATS rate peaked at 18.8 serious injury crashes per 100 vehicle miles of travel, but starting in 2017 the rate started to decline. Should this trend continue, DUATS could see a serious injury crash rate more consistent with the statewide rates in the next few years.



Figure 2-5 displays the total number of non-motorized serious injuries and fatalities within the DUATS MPA dating back to 2005. With the exception of 2013 and 2014, the combined total of non-motorized crashes that resulted in a serious injury or fatality has remained below 20. The blue columns in the figure reflect an anticipated decline in non-motorized crashes through the year 2020 (2018 and 2019 data not available at the time of this update).





Progress/Opportunities Toward Reaching Safety Targets

DUATS places a high priority on programming projects that will enhance safety for the traveling public in an effort to reduce fatalities and serious injuries. The current DUATS TIP for FY 2020-2023 identifies projects that are programmed to address safety concerns and as previously mentioned the 2045 LRTP again prioritizes safety.

Generally speaking, the data shows an improvement in that the number of serious injuries and fatalities appears to be declining since 2014. Additionally, the most recent crash data for serious injuries and fatalities is below the previous low observed in 2011. As for the DUATS fatality rate, this performance measure has consistently been higher than the statewide average. For the most part this has also been true with the serious injuries rate; however, recent serious injury rates are starting to decline.

It appears that DUATS should continue to focus efforts to reduce fatalities and serious injuries. While there is no direct correlation, better accommodating truck traffic in the region and eliminating major at-grade rail crossing delays could help improve overall traffic operations that in turn would have safety benefits for the traveling public. Additionally, conducting a detailed review of intersections with the highest crash exposure could also potentially help improve overall safety by reducing serious injuries and fatalities. The top 20 intersection crash locations are identified in Chapter 4.

Pavement and Bridges

A second performance measure that State DOTs carry out as part of the National Highway Performance Program (NHPP) is to assess the condition of pavements on the non-Interstate National Highway System (NHS); pavements on the Interstate System; and bridges carrying the NHS. The final rule addresses the following six measures:

- percentage of pavements on the Interstate System in Good condition
- percentage of pavements on the Interstate System in Poor condition
- percentage of pavements on the NHS (excluding the Interstate System) in Good condition
- percentage of pavements on the NHS (excluding the Interstate System) in Poor condition
- percentage of NHS bridges in Good condition
- percentage of NHS bridges in Poor condition

Table 2-5 summarizes the statewide pavement targets and Table 2-6 summarizes the statewide bridge targets (both established by IDOT). DUATS has adopted these statewide targets.

Performance Measure	2017 Baseline	2020 Target	2022 Target
Percentage of Interstate Pavements in Good Condition			65.0%
Percentage of Interstate Pavements in Poor Condition			<4.9%
Percentage of non-Interstate NHS Pavements in Good Condition	37.6%	27.0%	27.0%
Percentage of non-Interstate NHS Pavements in Poor Condition	19.4%	6.0%	6.0%
Source: IDOT Porformance Measures Report, March 2019			

Table 2-5: IDOT Pavement Performance Targets

Source: IDUT Performance Measures Report, March 2019.

Performance Measure	2017 Baseline	2019 Target	2021 Target
Percentage of NHS Bridges in Good Condition	29.4%	28.0%	27.0%
Percentage of NHS Bridges in Poor Condition	11.6%	13.0%	14.0%

Table 2-6: IDOT Bridge Performance Targets

Source: IDOT Performance Measures Report, March 2019.

For the 2045 LRTP, DUATS reviewed IDOT pavement condition data for the NHS interstate and NHS non-interstate road segments to identify the percentage in "good" and "poor" condition. Based on the most recent data, 44.5 percent of the interstate pavement within the DUATS MPA is classified in "good" condition and 1.6 percent in "poor" condition. Comparing this to the 2022 targets in Table 2-5, the DUATS MPA is not on track to meet the 65 percent "good" target; however, the DUATS MPA does currently meet the less than 4.9 percent "poor" threshold target. The majority of interstate pavement within the DUATS MPA is rated "fair," which—if left as is—could result in additional roadway segments declining to "poor" condition.

Currently, 25.7 percent of the NHS non-interstate pavement within the DUATS MPA is classified in "good" condition and 15.3 percent in "poor" condition. In comparing this to the 2020 targets in Table 2-5, the DUATS MPA is nearly on par with the statewide target of 27 percent for "good" pavement. The 15.3 percent "poor" condition total is currently more than twice the statewide target of 6 percent. Additional investment to improve the NHS non-interstate pavement condition will be needed in order for the DUATS MPA to reach the desired NHS non-interstate targets.

Regarding bridge condition, there were 110 bridges identified as being located on the NHS within the DUATS MPA. The target for bridges in "good" condition is 29.4 percent and the DUATS MPA currently has 49.1 percent (54) of bridges classified as "good." The target for "poor" condition is 11.6 percent and the DUATS MPA currently has 4.5 percent (5) bridges classified as "poor." Based on this most recent data, the DUATS MPA exceeds the bridge condition performance targets. Figure 2-6 displays the NHS bridge condition ratings within the DUATS MPA.

While NHS bridge conditions meet the performance targets, pavement conditions are a significant issue for the region. This is supported by the 2045 LRTP public survey that found that 93 percent of respondents indicated they are either very dissatisfied (67 percent) or dissatisfied (27 percent) with current condition of roadways within the DUATS MPA. Both in the open response and multiple-choice sections of the survey, respondents consistently reported that the road conditions need to be a priority (over 60 percent of responses mentioned road conditions as the most important transportation issue that should be addressed in the LRTP). Open responses cite specific problematic roadways and major routes were particular concerns. For example, many participants mentioned US-51 and US-36 as roads that are in very poor condition.



Figure 2-6: NHS Bridge Ratings

Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS File: \\uschg1fs001\prod\Projects\60604788\1900_CAD_GIS\920_GIS\MXDs\BridgeConditions_NHS.mxd

Travel Time Reliability and Freight Reliability

State DOTs and MPOs will use travel time reliability and freight reliability measures to report on the following characteristics within their jurisdiction:

- the performance of the Interstate and non-Interstate NHS to carry out the NHPP;
- freight movement on the Interstate system; and
- traffic congestion and on-road mobile source emissions for the purpose of carrying out the Congestion Mitigation and Air Quality Improvement (CMAQ) Program.

This System Performance/Freight/CMAQ Performance Measures final rule includes six measures:

- Interstate Travel Time Reliability Measure: Percent of Person-Miles Traveled on the Interstate that are Reliable
- Non-Interstate Travel Time Reliability Measure: Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable
- Freight Reliability Measure: Truck Travel Time Reliability Index
- Peak Hour Excessive Delay (PHED) Measure: Annual Hours of PHED Per Capita
- Non-Single Occupancy Vehicle (non-SOV) Travel: Percent of non-SOV Travel
- On-Road Mobile Emissions: Total Emissions Reduction

The CMAQ measures do not apply to the DUATS region, so the final 3 bullet points—PHED, Non-SOV and on-road mobile emissions targets—are not addressed. Table 2-7 summarizes the system reliability targets established by IDOT.

Table 2-7: IDOT System Reliability Performance Targets

Performance Measure	2017 Baseline	2020 Target	2024 Target
Percent of Reliable Person-Miles Traveled on the Interstate	80.8%	79.0%	77.0%
Percent of Reliable Person-Miles Traveled on the Non-Interstate NHS	87.3%	N/A	83.3%
Truck Travel Time Reliability Index	1.3	1.34	1.37

Source: IDOT Performance Measures Report, March 2019.

DUATS has adopted the established statewide targets as set forth in Table 2-7 and will evaluate progress toward meeting the target when data is available in 2020. In the meantime, Figure 2-7 displays a recent snapshot of truck travel time reliability index from August 2019. As this figure shows, the interstate system through the DUATS region provides a high level of reliability, indicated by a rating near 1.00. The one area that shows a slightly higher index is near the US-51 interchange; however, this index value is still within an acceptable range. Furthermore, given the relatively low traffic volumes on I-72, as compared to typical interstate facilities, it is not anticipated that travel time reliability will be an issue within the DUATS MPA.



Transit Asset Management

The National Transit Asset Management System Final Rule (49 U.S.C. 625) requires all agencies that receive federal financial assistance under 49 U.S.C. Chapter 53 and own, operate, or manage capital assets used in the provision of public transportation to create a Transit Asset Management (TAM) Plan. Agencies can meet this requirement through either an Individual or Group TAM Plan. Group TAM Plans are meant to collect TAM information about groups (smaller subrecipients of 5311 or 5310 grant programs) that do not have a direct financial relationship with FTA. The Decatur Public Transportation System (DPTS) is considered a tier II provider (i.e., it does not operate rail and has 100 or fewer vehicles in peak revenue service) and as such is part of the group TAM plan produced by IDOT. Table 2-8 displays the IDOT TAM targets. Year 2020 and 2022 targets are yet to be determined.

Performance Measure	2019 Baseline	2020 Target	2022 Target
Equipment – State of Good Repair (% of non-revenue service that exceed the useful life benchmark)	50%	TBD	TBD
Facilities – State of Good Repair (% of facilities rated < 3.0 on Transit Economic Requirements Model scale)	16%	TBD	TBD
Rolling Stock – State of Good Repair (% of revenue service vehicle that exceed useful life benchmark)	48%	TBD	TBD
Course IDOT Defermence Measures Depart March 2010			

Table 2-8: IDOT Transportation Asset Management Targets

Source: IDOT Performance Measures Report, March 2019.

The FTA has determined that, at a minimum, facilities should be rated 3.0 ("adequate condition") on the Transit Economic Requirements Model (TERM) scale. An assessment of DUATS assets was completed as part of the TAM Plan, finding no facilities rated at less than 3.0. Information on DPTS current vehicle fleet is summarized in Chapter 4.

Conclusion

The PBPP process is still relatively new in terms of implementation and monitoring, and as such the 2045 LRTP provides a high-level assessment of progress toward addressing the federally mandated transportation performance measures. The most current data suggests that the biggest concern for DUATS is reaching the NHS pavement condition targets (both "good" and "poor") for non-interstate facilities. As such, the 2045 LRTP should prioritize efforts to improve pavement condition ratings in the short-term. Furthermore, the 2045 LRTP goals are consistent in supporting the PBPP process and moving the region and IDOT toward meeting established performance targets.


Chapter 3 EXISTING DEMOGRAPHICS

This chapter outlines the current demographics of the Decatur Region. It includes an overview of **population**, **employment**, **education**, and **peer city comparison**.

POPULATION

According to U.S. Census data, the 2015 population of Macon County was 109,193, which is approximately 1,500 fewer people than in 2010 and 5,500 fewer than in the year 2000. Since 1980, the overall population trend in Macon County has been steadily declining; from 1980 to 2015, the population dropped by about 17 percent, or approximately 22,200 people. The vast majority of Macon County residents live in the MPA, which is estimated at approximately 107,200 residents in 2015, or 98 percent of the county population.

However, not all parts of the MPA are declining in population, as observed by growth in Forsyth and Mt. Zion. Forsyth has increased from just over 1,000 residents in 1980 to nearly 3,500 residents in 2015. Mt. Zion has added nearly 1,600 residents since 1980 to reach over 6,100 residents in 2015. Table 3-1, and Figure 3-1 and Figure 3-2, summarize the historic population for the incorporated areas within the MPA, as well as the total population for Macon County. The maps in Figure 3-3 and Figure 3-4 display the respective 2015 population and population density in the MPA.

Tuble		i opulation, i	01 10100011 00	and and the second	Coommannan	2010	5)
						% Change	
Community	1980	1990	2000	2010	2015	(1980–2015)	(2010–2015)
Decatur	94,081	83,885	81,860	76,122	74,654	-21%	-2%
Forsyth	1,072	1,275	2,434	3,490	3,493	226%	0%
Harristown	1,456	1,379	1,338	1,367	1,330	-9%	-3%
Long Creek	N / A	1,250	1,364	1,328	1,528	22%*	15%
Mt. Zion	4,563	4,522	4,845	5,833	6,118	34%	5%
Oreana	999	N / A	892	875	885	-11%	1%
Warrensburg	1,372	1,274	1,289	1,210	1,217	-11%	1%
Macon County	131,375	117,206	114,706	110,768	109,193	-17%	-1%

Table 3-1: Historic Population, for Macon County and MPA Communities (1980 – 2015)

* Percent change for Long Creek is for 1990 to 2015.



Figure 3-1: Macon County and Decatur Population

Source: US Census Bureau, Census of Population and Housing 1980, 1990, 2000, and 2010, American Community Survey 5-year estimates 2015. (2019)







Figure 3-4: 2015 Population Density

Milles Data Sources: Illinois DNR, IDOT, US Census. Macon Co, DUATS File: \\uschg1fs001\prod\Projects\60604788\1900_CAD_GIS\920_GIS\MXDs\PopulationDensity_2015.mxd Since 2000, the MPA has experienced a small increase in housing while simultaneously losing population. The increase in housing and loss of population have been unevenly distributed in the MPA. Since 2000, 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 the largest percentage increases in population and housing, while the City of Decatur has lost population and housing units. Figure 3-5 displays the percent change in housing units by community.



Source: U.S. Census 2000, 2010; ACS 2015, 2017.

Recent development trends continue toward the urban fringes, which pulls the housing market and associated commercial development farther from 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.

In terms of the demographic makeup, Macon County is generally older and less racially diverse when compared to nationwide averages. There are 19,177 millennials (ages 20-34) in the County, which is below the national average for an area this size. Retirement risk is also high, with 35,664 people 55 or older. There are 25,032 people identified as racial or ethnic minorities in the area, whereas the national average for an area this size is over 40,000. Figure 3-6 summarizes the demographic benchmarks.





EMPLOYMENT

The Decatur Supply Chain Network Planning and Optimization Study estimated there to be a total of approximately 64,500 jobs in Macon County in 2018. Employment locations are somewhat scattered throughout the MPA, but generally fall within the urbanized area. High levels of employment are found along major roadways including:

- 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 3-7 displays the distribution of employment throughout the MPA, while Figure 3-8 shows employment density per square mile. The employment on the map represents year 2015 data which has been allocated to the traffic analysis zones. 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.







-

2.5 Miles

Figure 3-8: Employment Density

Legend



Wiles Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS File: \uschg1fs001\prod\Projects\60604788\1900_CAD_GIS\920_GIS\MXDs\EmploymentDensity_2015.mxd According to Quarterly Census of Employment and Wages data, as reported by Emsi, jobs in the Decatur MSA (i.e., Macon County) increased by two percent from 2013 to 2018, but this growth falls well short of national trends (eight percent over the same period). The top three industries in 2018 are Grain and Oilseed Milling, Restaurants and Other Eating Places, and General Medical and Surgical Hospitals. The largest supersectors (2-digit NAICS) are Manufacturing, Health Care and Social Assistance, Government, Retail Trade, and Accommodation and Food Services. As can be seen in Figure 3-9, there are far more workers in manufacturing in Macon County than would be expected based on nationwide averages—more than twice as many. There are also more health care and social workers than nationally. By comparison, there are far fewer government workers and slightly fewer retail trade workers than would normally be expected based on the national average.

The fastest growing industries are Manufacturing and Health Care and Social Assistance, by a wide margin. Manufacturing is by far the largest contributor (\$2.4 billion) to the gross regional product and has the third-highest earnings per worker (behind only Management of Companies and Utilities). The fastest-growing occupations are Healthcare Practitioners and Transportation and Material Moving Workers (Emsi 2019).



Figure 3-9: Largest Industries (Macon County and Nationwide Average)

Industry diversity is comparatively low in the Decatur MSA, meaning that employment is distributed less evenly between the 12 industry clusters compared to the typical MSA. A region with high diversity can signal economic stability and more easily withstand economic pressures, while a region with low diversity can signal the potential for economic instability, should a shock occur in one of its industry concentrations. Figure 3-10 illustrates the industry diversity in the MSA—the purple bars show how the Decatur MSA has far more concentration in capital-intensive manufacturing, engineering-intensive manufacturing, and healthcare than a typical MSA. Correspondingly, there is less diversification into other industries such as knowledge-intensive business services; finance, insurance, and real estate; media, entertainment, and recreation; etc.



Within the Decatur MSA, roughly 81 percent of the population is working age, and among this group the labor force participation rate is estimated at 58 percent, or 49,557 of 85,580 people (Figure 3-11). According to the Bureau of Labor Statistics, unemployment stands at 4.9 percent as of September 2019, having decreased from 8.5 percent over the prior 5 years, but still above state and national averages (3.4 percent and 3.9 percent, respectively). Nevertheless, 4.9 percent is considered full employment by the Federal Reserve. The share of Total Unemployment that is represented by a given industry supersector is provided in Figure 3-12. In the Decatur MSA, the largest share of unemployment is in the construction industry (38 percent of all unemployment), followed by manufacturing—though this is due in part to the outsized proportion of total employment that manufacturing claims.

		Population
	Total Working Age Population	85,580
	Not in Labor Force (15+)	36,023
	Labor Force	49,557
105,080	Employed	46,488
Population	Unemployed	3,069
	Under 15	19,500

Figure 3-11: 2018 Labor Force Breakdown

Source: Emsi (Q1 2019)

Figure 3-12: Unemployment by NAICS Industry (Decatur MSA vs. National Average)



Source: Emsi (2019), based on BLS Local Area Unemployment Statistics, Department of Labor Characteristics of the Insured Unemployed, and Illinois Department of Employment Security.

EDUCATION

Macon County has a somewhat below average share of high education attainment: in 2010, 30 percent had an Associate's Degree or higher, versus 38 percent statewide or 37 percent nationwide; in absolute numbers, there were 22,356 such individuals in 2010 and 21,709 in 2018. Figure 3-13 illustrates the highest educational attainment level across the population. The most common education level is a high school diploma, at just over one third of the population, followed by some college education at nearly a quarter. A combined 30 percent of the population have a tertiary degree, with the most common being a Bachelor's. Approximately 11 percent did not complete the equivalent of a high school education.

	% or Population	Population
 Less Than 9th Grade 	3.7%	2,702
 9th Grade to 12th Grade 	7.4%	5,384
High School Diploma	35.1%	25,465
Some College	23.7%	17,178
Associate's Degree	8.0%	5,768
Bachelor's Degree	13.9%	10,099
Graduate Degree and Higher	8.1%	5,852

N/ of Developing

Desident

Source: Emsi, based on ACS and Emsi demographic data. Educational attainment data cover only the population aged 25 years or more.

As displayed in Figure 3-14, in 2017 there were about 1,525 college graduates in Macon County, IL, and this pipeline had shrunk by 2 percent over the past 5 years. The highest share of these graduates came from Nursing Assistants/Aides, Liberal Arts and Sciences, and Automotive Mechanics Technician programs.

Figure 3-14: Education Pipeline

School	Total Graduates (2017)	Graduate Trend (2013 - 2017)
Richland Community College	959	
Millikin University	566	• ~~-

Source: Emsi (2019)

PEER REGION COMPARISONS

Socioeconomic data were gathered for a number of peer regions (Metropolitan Statistical Areas, or MSAs) in Illinois: Peoria, Champaign-Urbana, Springfield, Bloomington, Ottawa, Kankakee, and Danville. Michigan City-La Porte, Indiana was also included in the comparison.



Statistics regarding these peer MSAs, including socioeconomic trends between 2010 and 2018, are provided in Table 3-2. The only two MSAs to grow during this time were Champaign-Urbana and Bloomington, both notable for their student populations (University of Illinois and Illinois State University). The two smallest MSAs, Decatur and Danville, experienced the largest proportional drops in population between 2000 and 2018. Decatur has more jobs than the slightly more populous MSAs of Kankakee and Michigan City-La Porte, though there was a small decline between 2010 and 2018. The cost of living index (99.2) is slightly below the US average (100), but above comparably sized peer MSAs. Median household income is about \$49,000, lower than all but Peoria, Michigan City-La Porte, and Danville. Education level is higher than most MSAs at the smaller end of the population scale (22 percent with a Bachelor's or higher, versus high teens).

The Gross Regional Product of Decatur MSA is \$6.6 billion. Controlling that figure for employment count, Decatur MSA's gross regional product per worker is about \$122,000, which is higher than all other peer MSAs except Bloomington. This is likely due in part to the major presence of exportoriented industries such as manufacturing, as well as the benefits and economies of regional specialization.

		Peoria	Champn <u>Urbana</u>	Spring field	Bloom- ington	Ottawa	Kankakee	MI City- La Porte	Danville
Population (2018)	105,080	406,707	227,226	208,625	172,687	148,331	109,245	109,810	77,430
Pop. Change (2010-2018)	(5%)	(2%)	4%	(1%)	2%	(4%)	(4%)	(1%)	(5%)
Total Industry Jobs (2018)	54,161	190,517	104,693	139,582	91,308	61,446	48,208	44,189	29,573
Jobs Change (2010-2018)	(1%)	(3%)	3%	2%	(3%)	(2%)	6%	(2%)	(4%)
Cost-of-Living Index	99.2	100.2	102.0	102.2	101.3	100.9	97.4	91.7	95.0
Bachelor's Degree or Higher %	22.0%	26.0%	43.2%	33.1%	42.9%	17.2%	18.1%	17.5%	14.1%
Gross Regional Product (billions)	\$6.6	\$22.4	\$10.4	\$15.8	\$11.5	\$6.7	\$5.3	\$4.1	\$3.1
Unemployment (2019)	6.9%	6.9%	5.4%	5.7%	5.4%	8.1%	7.5%	5.5%	7.0%
Median HH Income (2017)	\$49,052	\$48,599	\$50,720	\$58,956	\$63,333	\$54,830	\$56,542	\$49,921	\$44,930

Table 3-2: Peer MSA Comparison

Source: Emsi (Q2 2019), based on employment data from BLS, BEA, IDES, among others; cost of living data from the Council for Community and Economic Research; demographic data from the US Census Bureau and the US Health Department; and Emsi's multi-regional social account matrix input-output model.



Chapter 4 EXISTING CONDITIONS

This chapter outlines 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.

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 in the MPA use curvilinear street patterns to limit through traffic.

Functional Classification

Functional classification is a process by which streets, roads, and highways are grouped into "classes" to describe the service level provided and typical roadway operation 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 the jurisdiction of the Macon County Highway Department. Table 4-1 displays the miles of each functional classification in the MPA (Source: Illinois Travel Statistics, 2018). Table 4-2 describes the typical street design characteristics associated with the respective functional classification.

	Miles
Interstate	18.9
Freeway and Expressway	12.4
Principal Arterial	64.5
Minor Arterial	78.1
Major Collector	131.5
Minor Collector	41.7
Local Road or Street	646.9
Total	994.0

Table 4-1: Functional Classification

One area that lacks sufficient 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 Beltway is a project that has been identified in previous planning efforts to address this concern by creating a major thoroughfare. Related studies have demonstrated significant mobility benefits in terms of accessibility and regional connectivity that would support existing industries and future development in this area.

The urban portion of the classified system generally 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. At-grade rail crossings, which are frequently blocked by train movements, are also a cause of traffic delays. Figure 4-1 displays the Decatur MPA functional classification system.

Table 4-2: Street Design Criteria (IDOT and DUATS sanctioned)

Principal Arterials (Ir	nterstates, Expressways, and Other Principal Arterials)
Service	Principal arterials provide a high degree of continuity of travel around the MPA.
Connection	Principal arterials typically connect to other principal arterials.
Form	Principal arterials normally have at least four lanes with a traffic median or turn lane.
Frequency	Spacing of principal arterials should relate to the need to connect major destinations.
Access	Properties abutting the principal arterial should not have direct access onto Arterials.
Land Use	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 (Majo	or Streets)
Service	Minor arterials provide continuous travel through the MPA.
Connection	Minor arterials provide connection to areas of high activity and connect the County Highway System to the road network.
Form	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.
Frequency	Minor arterials should occur no more often than one every mile interval within the MPA.
Access	Access to minor arterials from abutting property should be limited to public roads.
Land Use	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 Stre	ets and Roads
Service	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.
Connection	Collectors should collect traffic from local streets and distribute it to the minor arterials.
Form	Collectors vary from two to four lanes wide and are usually less than two miles long.
Frequency	Collectors occur throughout the urban area.
Access	Abutting properties normally have access to urban collectors.
Land Use	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)
Service	Local streets provide for travel from individual properties to urban collectors
Connection	Local streets connect local traffic to collectors.
Form	Local streets typically are no more than two lanes wide in residential areas
Frequency	Local streets occur universally throughout the MPA.
Access	Properties are allowed direct access to local streets and roads.
Land Use	Local streets typically require no special land use considerations.





Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS File: \\uschg1fs001\prod\Projects\60604788\900_CAD_GIS\920_GIS\MXDs\FunctionalClass.mxd

Average Daily Traffic

Average daily traffic (ADT) volumes on Federal and State roadways within the MPA were obtained from IDOT. Interstate highways, freeways, and arterials carry the largest traffic volumes within the region with the highest daily volume found on US-51, north of I-72 in Forsyth. The segment of US-51, near Barnett Street, carries nearly 28,000 vehicles per day (vpd) and provides access to regional shopping destinations. The next highest daily volumes are observed at the Main/Franklin (US 51) bridge with 24,600 vpd. Figure 4-2 displays selected daily traffic volumes for the MPA and Figure 4-3 displays a close-up of Decatur area volumes. Figure 4-4 displays the ADT change between 2011 and 2018. The data indicate that roadways on the fringe areas of the MPA are seeing a steady increase in volumes while several segments within the central portion of Decatur have declined. The traffic volume increase generally correlates to areas that are experiencing demographic growth within the MPA, while areas that are experiencing a decline in population have generally seen some decline in volumes.

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. In 2018 these volumes showed a slight increase to 12,800 vpd east of IL-48 and 15,700 vpd near Harristown; however, these volumes are still well below typical interstate volumes. Just east of US-51, I-72 carried 13,400 vpd in 2018.

DUATS continues to monitor bridge volumes and Table 4-3 summarizes historic ADTs at the major bridges crossing Lake Decatur. Most of the crossings show a decrease in volumes. The Main/Franklin (US-51) bridge showed a 10 percent decrease in volumes between 2005 and 2017; however, it remains the second-highest overall volume observed in the region.

	Table 4-	5.11131011	c bridge	volumes		
Bridge Crossing	2005_	2009_	2013	2017	% Change (2005-2017)	(2013-2017)
William Street Bridge (IL-105)	11,400	11,400	11,200	10,800	-5.3%	-3.6%
Main / Franklin Street (US-51) Bridge	30,100	28,400	27,300	24,600	-18.3%	-9.9%
US-36 (IL-121) Bridge	25,600	24,400	23,800	21,300	-16.8%	-10.5%
Taylorville Road (IL-48) Bridge	9,700	10,600	10,300	10,000	3.1%	-2.9%

Bridge Crossing	2005	2009	2013	2017	% Change (2005-2017)	(2013-2017)
Reas Bridge (IL-24)	2,550	2,300	2,650	2,450	-3.9%	-7.5%
Lost Bridge Road	N/A	9,600	9,600	8,800	N/A	-8.3%

SOURCE: IDOT 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 that features four lanes (often including dedicated turnlanes). 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 some places, left- and/or right-turn lanes. The number of lanes within the MPA is shown in Figure 4-5.



Figure 4-2: Average Daily Traffic Volumes (2018)

Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS File: \\uschg1fs001\prod\Projects\60604788\900_CAD_GIS\920_GIS\MXDs\Annual Average Daily Traffic_Portrait.mxd





Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS File: \luschg1fs001\prod\Projects\60604788\1900_CAD_GIS\920_GIS\MXDs\Annual Average Daily Traffic_Zoom.mxd



Figure 4-4: AADT Change (2011 to 2018)

Data Sources: Illinois DNR, IDOT, US Census. Macon Co, DUATS File: \\uschg1fs001\prod\Projects\60604788\1900_CAD_GIS\920_GIS\MXDs\AADT_Change_2011-18.mxd



Figure 4-5: Number of Lanes

Data Sources: Illinois DNR, IDOT 2018, US Census, Macon Co, DUATS File: \\uschg1fs001\prod\Projects\60604788\1900_CAD_GIS\920_GIS\MXDs\LaneNumbers.mxd

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 in the MPA, along with seventeen Class 2 routes. 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. 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 main truck route in the MPA is I-72, which 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 carries substantial truck traffic to industrial facilities such as ADM and Caterpillar. Both are Class 2 Truck Routes and carry significant truck volumes. US-51 and IL-121 carry a large number of freight trucks through the Villages of Forsyth and Mt. Zion, respectively.

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). In response to the need for a viable alternate truck route, the 6W route was introduced in 2012 to divert traffic around the CBD. The route uses a portion of East Wood Street and South MLK Jr. Drive to Eldorado Street (US-36) to carry through trucks around the CBD. This modification has greatly reduced the adverse impact of large commercial carriers hauling loads through the CBD and supported an initiative to provide a pedestrian-friendly environment to support Decatur's CBD as a historic, cultural, governmental, and entertainment center.

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. Table 4-4 and Figure 4-6 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 4-4 (all are offshoots of other main Class 2 routes). Unless noted otherwise, routes are designated Class 2.

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 nd Street (Decatur)			
IL-121	(north segment) Logan County Line to I-72 (Exit 138)			

Table 4-4: Designated Truck Routes within the MPA

Illinois Department of Transpor	rtation (IDOT)		
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)			
21st Street	Condit Street to Garfield Avenue		
23rd Street	Logan Street to Garfield Avenue		
27th 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	27th Street to East City Limits		
Franklin (Old BR US-51)	E. Cleveland Avenue to E. Wood Street		
Garfield Avenue	US-51 (BR) to 27 th 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 rd 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	21st 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, City of Decatur, DUATS.



Figure 4-6: Designated Trucks Routes

Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS File: \\uschg1fs001\prod\Projects\60604788\1900_CAD_GIS\920_GIS\MXDs\TruckRoutes.mxd

Truck Volumes

Truck volumes, or Heavy Commercial Vehicle (HCV) volumes, were obtained from IDOT for 2018. Table 4-5 displays the ten highest HCV volume locations identified within the MPA. 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.). The total daily traffic for the segment is also provided.

			Неали			Average
			Commercial Vehicle	Multiple Unit	Single Unit	Daily
Location	From	То	(HCV)	(MU)	(SU)	(ADT)
I-72	IL 48	US 51	3,650	3,200	450	13,500
I-72	US 51	IL 121	3,450	3,000	450	13,300
I-72	SR 121	Harristown Blvd	3,425	2,900	525	14,300
IL 48	I-72 WB	Boyd Rd	3,275	2,900	375	14,300
I-72	US 51	Lincoln Nat'l Hwy	2,950	2,500	450	15,700
I-72	US 48	Jordan Rd	2,900	2,350	550	12,100
I-72	Harristown Blvd	US 36	2,550	2,200	350	9,500
Bloomington Rd	Shellabargar Rd	Shafer St	1,800	1,250	550	12,400
22nd St	Garfield Ave	Locust St	1,800	1,150	650	16,200
22nd St	Pershing Road	Garfield Ave	1,575	1,100	475	15,900

Table 4-5: Top Ter	Truck Route Segments in the MPA
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Source: IDOT

I-72 carries the highest truck volumes within the MPA for the three highest-volume segments, featuring between approximately 3,425 to 3,650 HCV daily. I-72, between SR 48 and US 51, had the highest truck volume at 3,650 per day, which represents 27 percent of all traffic along this segment. In general, HCV volumes account for between 10 percent and 27 percent of all traffic observed on these top ten highest truck volume roadway segments.

Figure 4-7 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 daily. The major contributing factor to these volumes is the connectivity to major industrial facilities such as ADM, Caterpillar, and Tate & Lyle.

Figure 4-8 displays the change in truck volumes between approximately 2011 and 2018 (exact year varies based on actual traffic count year). Increases in truck volumes have mostly been observed on the fringe area roadways within the MPA. Truck volumes have also been increasing along E. Lake Shore Drive.



Figure 4-7: Truck Volumes





Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS File: \\uschg1fs001\prod\Projects\60604788\1900_CAD_GIS\920_GIS\MXDs\Truck_Change_2011-18.mxd

Capacity Analysis

Travel Demand Model Results

DUATS maintains a travel demand forecasting model to assist in identifying potential roadway capacity issues. The model results, along with planning-level capacities, can be used to compare traffic volumes (existing or future) to typical daily roadway capacities (based on number of lanes and functional classification) to calculate a volume-to-capacity (V/C) ratio. The V/C ratios can then be compared to general planning level of service (LOS) thresholds to identify roadway segments that are approaching-capacity, at-capacity, or over-capacity.

The DUATS travel model and corresponding socioeconomic data was updated in 2018 as part of the Decatur Supply Chain Network Planning and Optimization Study. As part of this update, the consultant added a delay feature to the model to replicate the numerous at-grade train crossing delays that occur on a daily basis throughout the region. Given the unique traffic conditions within the DUATS MPA, a typical LOS analysis does not necessarily provide an accurate representation of actual traffic conditions. The delay feature helps provide a better representation of traffic conditions that can be used for high-level planning, such as the LRTP modeling.

The Decatur region is difficult to analyze from a regional model perspective, due in large part to the rail delays previously described. Generally speaking, the regional roadways have sufficient capacity to accommodate current traffic volumes and I-72 in particular is well below typical interstate volumes. It is also important to point out that the terms "congested" and "approaching or at-capacity" are normative terms and thus relative. The user experience typically equates to the inconvenience of having to wait multiple traffic signal sequences for vehicles to move, or in the case of the Decatur region, having to wait an extended time for train blockage.

Figure 4-9 displays the approximate roadway level of service for 2015 for the DUATS MPA. Generally speaking, the areas identified as over-capacity (red segments) occur during peak travel periods (a.m. or p.m. peak) or are in locations where at-grade rail crossings are common. In all instances where the segments are shown as congested, approaching-capacity, or at-capacity, there is limited right-of-way (ROW) that could be utilized for additional lanes. Property improvements and land uses are very close to or on the existing ROW. Purchasing additional land at market values for the property improvements is financially problematic, as is widening any of the Lake Decatur bridge crossings. Currently, with the exception of at-grade rail crossing delays, there are no areas identified that would be considered significant capacity concerns that require immediate attention.

At-Grade Rail Crossing Impacts on Roadway Capacity

As discussed, there are relatively few capacity issues that exist in the region. The Decatur region is unusual in that the biggest traffic operation concern is at-grade rail crossing delays, which can easily be perceived by the public as a traffic congestion or capacity issue. If at-grade crossings did not exist within the region, the area roadways would have sufficient capacity and operate at acceptable levels. In a 2019 LRTP survey, 84 percent of respondents identified the issue of at-grade rail crossings as the top priority to address within the DUATS region.

The 2013 Decatur Area Transportation Efficiency Study (DATES) identified several at-grade rail crossings 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 shippers. The Brush College Road at Faries Parkway crossing is currently being designed for a grade-separated facility and is programmed in the DUATS FY 2020 – 2023 TIP. However, current plans for the Brush College grade separation do not include an additional grade separation of the NS underpass, which was also identified in the original analysis as being an important improvement to enhance traffic flow along the corridor. This improvement is still considered a regional priority but currently no funding has been identified.



Figure 4-9: Roadway Level of Service (2015)

Legend

20-Year MPA Boundary
 DUATS Urbanized Boundary
 Railroad
 Approaching-Capacity
 At-Capacity
 Over-Capacity



NOTE: The model level of service (LOS) accounts for at-grade rail crossing delays. As such, the LOS results displayed on this map do not necessarily indicate capacity issues. The LOS results presented are for planning purposes and are not intended to be a substitute for a detailed LOS analysis.



Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS File: C:\Projects\Decatur\920_GIS\MXDs\LOS_2015.mxd

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. Table 4-6 summarizes the IDOT ratings while Figure 4-10 geographically displays the pavement condition ratings.

	2013	}	20	18	Actual Change
Excellent	18.5	11.5%	38.1	17.0%	5.6%
Good	25.2	15.6%	37.5	16.8%	1.1%
Fair	91.7	56.9%	93.6	41.8%	-15.0%
Poor	25.9	16.1%	54.5	24.4%	8.3%
Total Rated Miles	161.3		223.7		

Table 4-6: IDOT Rated Miles	(2013 vs.	2018)
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Within the MPA there were a total of 223 miles of IDOT-rated pavement in the year 2018. Of this total, 17.0 percent were rated as excellent and another 16.8 percent were rated as good. Among the remaining mileage, 41.8 percent was fair, and 24.4 percent was poor. The percentage of fair pavement condition has declined in recent years while the percentage of poor rated pavement has increased and now represents one-quarter of the IDOT rated roadways.

Roadways classified as excellent or good can be described as being adequately maintained, recently built or reconstructed, with 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 where the pavement has deteriorated to the point that major reconstruction may be warranted.

Table 4-7 summarizes the City of Decatur pavement condition ratings for 2018 and Figure 4-11 displays the pavement conditions. Approximately 30 percent of the City of Decatur pavement is rated as good or excellent. The majority of pavement, at 56 percent, is rated as fair. Less than 1.5 percent of the City of Decatur pavement was rated as very poor or failing.

	Rated Miles	Percent
Excellent	36.2	9.5%
Good	79.7	20.9%
Fair	213.8	56.0%
Poor	46.9	12.3%
Very Poor	4.4	1.2%
Failing	0.7	0.2%

SOURCE:	City of	Decatur.
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Figure 4-10: Pavement Conditions Ratings

Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS File: \uschg1fs001\prod\Projects\60604788\1900_CAD_GIS\920_GIS\MXDs\Pavement_Condition.mxd





Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS File: \luschg1fs001\prod\Projects\60604788\1900_CAD_GIS\920_GIS\MXDs\Pavement_Condition_Decatur.mxd

Bridges and Structural Condition

Jurisdiction and Type

According to recent IDOT bridge data, there are 254 numbered bridges or drainage structures within the DUATS MPA. These structures range in age from early steel truss bridges dating to around 1900 to modern reinforced concrete box culverts and bridges. The lengths range from the twenty-foot State minimum² up to more than two thousand feet.

IDOT maintains 137 structures in the MPA, many of which were built in the late 1970s in conjunction with the I-72 and US-51 bypass project. Macon County maintains 26 bridges within the MPA, various townships maintain 31 bridges, and the City of Decatur has maintenance responsibility over 27 bridges. Private rail companies maintain 24 railroad bridges. Table 4-8 and Figure 4-12 display bridge structures by ownership / maintenance within the MPA.

Table 4-8: Bridge Structures by Jurisdictiona	
Ownership/Maintenance	

Ownorship/Maintonanco	Count	Percent
Ownership / Maintenance	Count	Total
IDOT	137	53. 9 %
Municipality	35	13.8%
County	26	10.2%
Railroad	24	9.4%
Long Creek Township	6	2.4%
Whitmore Township	6	2.4%
Mt Zion Township	4	1.6%
South Wheatland Township	4	1.6%
Hickory Point Township	3	1.2%
Illini Township	3	1.2%
Blue Mound Township	2	0.8%
Oakley Township	2	0.8%
Decatur Township	1	0.4%
Other	1	0.4%
Municipality/Rail	1	0.4%
Grand Total	254	100.0%





Vertical Clearance

For arterials and freeways, the minimum vertical 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.³ One exception is the bridge at Garfield over 22nd Street (058-6001), which is maintained by the City of

² Twenty-foot bridge structure minimum, as defined by the State of Illinois.

³ 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)
Decatur. 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

Structural condition ratings are based on criteria provided in the Illinois Structure Information System (ISIS) manual. Figure 4-13 displays bridge sufficiency ratings ranging from 80 percent and greater to 50 percent or less. Structures identified with a rating of less than 50 percent are considered to be the top priority bridges for potential improvement.

Bridge performance measurements were previously discussed in Chapter 2. The performance measures use a different condition rating approach and focus on just NHS roadway segments.





Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS File: \luschg1fs001\prod\Projects\60604788\1900_CAD_GIS\920_GIS\MXDs\BridgeConditions.mxd

A SR under 50 is eligible for bridge repair/replacement program funding, and SR less than 80 are "deficient" and eligible for federal aid funding for rehabilitation. <u>https://www.ilsoyadvisor.com/sites/default/files/documents/REP-ISA%20Road%20%26%20Bridge%20Study-20130916.pdf</u>

System Safety

Safety has been—and will continue to be—a priority for DUATS. DUATS MPA safety data for 2012 to 2016 (which is the most current available data at the time of this study) was assessed to identify potential areas of concern. Identifying these locations as part of the LRTP can help in identifying potential projects or improvements to enhance safety for the traveling public.

As previously discussed, Federal legislation places an increased focus on safety performance measures. MPOs and state DOTs are required to report on their performance in reducing fatalities and serious injuries. DOTs, in conjunction with MPOs, set the safety performance targets which are discussed in Chapter 2. The Highway Safety Improvement Program (HSIP) remains an important document which aims to contribute to reduce the number and rate of fatalities and serious injuries on all public roads.

Table 4-9 summarizes historical crash data for the DUATS MPA and Figure 4-14 displays a heat map identifying the location of weighted crashes within the DUATS MPA between 2012 and 2016. Figure 4-15 (Figure 4-16 zoom-in view) displays the top 20 crash intersection locations within the DUATS MPA. Further details about particular crash locations are provided in Table 4-10. A review of the data identifies the central portion of the MPA as having the greatest frequency of crashes. Further analysis of the top 20 intersection crash locations shows the top crash locations concentrated along the US-51 corridor through the MPA. The top location, in terms of number of crashes, is along US-51 at Barnett Avenue (121 crashes between 2012 and 2016).

	2012-2016					<u>2007-2011</u>			
	2012	2013	2014	2015	2016	Total	5-year Avg	5-year Total	5-year Avg
Fatal	9	9	12	12	6	48	9.6	30	6.0
Injury	538	521	536	558	562	2,715	543	1,578	316
PDO	1,638	1,663	1,593	1,581	1,760	8,235	1,647	9,949	1,990
Total	2,185	2,193	2,141	2,151	2,328	10,998	2,200	11,557	2,312
Fatal	0.4%	0.4%	0.6%	0.6%	0.3%	0.4%		0.3%	
Injury	24.6%	23.8%	25.0%	25.9%	24.1%	24.7%		13.7%	
PDO	75.0%	75.8%	74.4%	73.5%	75.6%	74.9%		86.1%	

Table 4-9: DUATS Historical Crash Data

Source: IDOT Crash Data.





Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS File: \\uschg1fs001\prod\Projects\60604788\900_CAD_GIS\920_GIS\MXDs\Crashes_HeatMap.mxd



Figure 4-15: Intersection Crashes (Top 20 Locations)

Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS File: \\uschg1fs001\prod:Projects\60604788\1900_CAD_GIS\920_GIS\MXDs\Crashes_Intersections.mxd



Figure 4-16: Intersection Crashes (Top 20 Locations) – Zoom-In View

Existing Conditions

Table 4-10: Top Crash Locations (2012 – 2016)

Roadway #1	Roadway #2	Crash Count
US 51	Barnett Ave	121
Pershing Rd	Macarthur Rd / Monroe St	103
Pershing Rd	US 51 S	98
Pershing Rd	US 51 N	95
N Main St	Eldorado St	93
Mound Rd	M L King Jr Dr	89
Pershing Rd	22nd St	83
22nd St	Eldorado St	77
Mound Rd	Bloomington Rd	76
Bloomington Rd	Ash Ave	75
22nd St	Eldorado St	73
Pershing Rd	M L King Jr Dr	65
William St	22nd St	56
Garfield Ave	US 51 N	53
M L King Jr Dr	Eldorado St	53
N Main St	Garfield Ave	51
Mount Zion Rd	IL 36	51
27th St	IL 36	49
Macarthur Rd	Mound Rd	49
Eldorado St	US 51 N	48
Oakland Ave	Eldorado St	47
I 72	US 51	47
Eldorado St	Monroe St	43
Monroe St	Grand Ave	42
Mt Zion Rd	Maryland St	42
Brush College Rd	Fairies Pkwy	42
Woodford St	IL 48	41
Garfield Ave	M L King Jr Dr	41
Nelson Pk Rd	Prairie St	41
Grand Ave	US 51 S	40
Fairview Ave	Grand Ave	40

SOURCE: IDOT Crash Data (2012 - 2016).

Serious Injuries and Fatalities

The primary focus of the national safety performance standards, and a focus of the IDOT HSIP, is to reduce the number of crashes resulting in a serious injury or fatality. 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.

Figure 4-17 displays the location of fatalities and serious injuries (type A) that occurred within the DUATS MPA between 2012 and 2016. Generally speaking, there does not appear to be any obvious pattern that would be contributing to crashes resulting in fatalities. The fatalities appeared to be fairly evenly distributed, while the serious injury crashes seem to follow the overall distribution of crashes, with the most crashes occurring within the central portion of Decatur.





Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS File: \\uschg1fs001\prod\Projects\60604788\900_CAD_GIS\920_GIS\MXDs\Crashes_KsandAs.mxd

PUBLIC TRANSPORTATION

Transit service within the DUATS MPA is operated by the City of Decatur Public Transit System (DPTS). The following describes the existing transit operations within the DUATS MPA.

Transit System Overview

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. 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. DPTS also operates one trolley route which circulates around downtown Decatur. The adjacent photograph shows a typical DPTS fixed-route service vehicle.

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



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

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.

Transit Facilities

The Senator Severns Transit Center, located on the west side of Jackson Street, between Prairie Street and William Street, was built in 2002. This 5,000 square-foot multimodal 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, and a vending area. The transit center also staffs fulltime, 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 operate as a multimodal facility, as a drop-off and pick-up point for a variety of privatelyoperated 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.

DPTS Administrative Office Building

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 located directly behind the Administrative Office Building at 100 Industry Court was constructed in 1980.

Transit Services

As mentioned above, DPTS operates fixed transit routes (including bus and trolley) and complementary paratransit service for people with disabilities. The following sections describe these services in greater detail.

Fixed-Route Bus Service

DPTS fixed-route service is all 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 4-11. The fixed-route bus service network is displayed in Figure 4-18 and Figure 4-19.

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

Table 4-11: DPTS Fixed-route Major Destinations / Service Areas

Source: Decatur Public Transit System





Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS File: \\uschg1fs001\prod\Projects\60604788\1900_CAD_GIS\920_GIS\MXDs\Transit.mxd





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. One trolley operates along the route, which departs from the transit center every 15 minutes, starting on 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. 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 it 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 4-12 summarizes the current DPTS fare structure for the fixed-route buses and for Operation Uplift.

Table 4-1	2: DPTS Fai	re Structure			
TYPE of FARE	CASH	TOKENS	PUNCH CARDS ¹	MONTHLY PASSES ²	SATURDAY PASSES ³
BUS FARES					
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
OPERATION UPLIFT FARES					
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
¹ Good for 20 rides.					

² Unlimited rides, good only in the month of issue.

³ Unlimited rides, good only for one Saturday.

Source: Decatur Public Transit System.

Operational Characteristics

<u>Ridership</u>

Since 2005, transit ridership in the Decatur area has exceeded 1,000,000 annual passenger trips. In 2014, ridership peaked at 1,485,443 passenger trips but has since been steadily declining to 1,134,274 trips in 2018—an approximate decline of 351,000, or 23 percent, over a four-year period. However, to the current riders making a combined 1.1 million trips annually, transit remains a vital means of travel, and in some cases represents a person's only travel option.

Figure 4-20 displays the annual, and five-year rolling average, ridership from 2002 through 2018. Figure 4-21 displays the percent change in ridership during this same time period.





SOURCE: Decatur Public Transit System, July 2019.





SOURCE: Decatur Public Transit System, July 2019.

There are several factors impacting transit ridership. Nationally, over the past five years there has been a slight overall decline in transit ridership, which may be attributed in part to the sustained economic recovery. In many cases the cost of an automobile is relatively inexpensive, and some individuals may decide to purchase a vehicle as opposed to riding the bus. Gas prices have dropped compared to five years ago, further lowering costs. Aside from the strictly monetary considerations, a person may need a personal vehicle to access jobs at locations or times when

the bus does not operate. Regardless of the exact cause, the DPTS staff recognizes the changing mobility needs of the public and as such plans to conduct a comprehensive operational analysis in 2020 to identify potential service modifications to address the needs of the area residents.

Table 4-13 and Figure 4-22 show ridership by route (including the trolley) from 2014 to 2018. The Water Route had the highest number of riders, followed by MLK and Decatur routes. Nearly all routes declined in ridership in the last five years; however, many stabilized and did not decline further between 2017 and 2018. The Celebration route began service in August 2015.

	Table	4-15. Rideiship	by Route (2014 -	2010)	
	2014	2015	2016	2017	2018
MLK	220,110	164,846	145,650	137,091	137,180
AIRPORT	68,069	61,599	56,001	51,210	55,352
MONROE 21	101,522	86,219	76,187	76,041	71,149
MONROE 21C	70,414	60,946	54,473	52,406	54,673
ST. MARY'S	164,777	155,653	140,389	130,506	129,054
W.GRAND	63,521	52,138	49,441	43,894	42,677
S.SHORES	21,504	20,431	21,340	20,611	20,135
E. GRAND	74,808	67,549	56,628	50,589	48,236
JASPER	135,121	124,355	113,562	100,856	100,735
W.MAIN	38,580	38,564	36,109	39,264	35,319
ENTERPRISE	27,487	28,982	26,882	18,694	19,326
WATER	218,361	208,281	184,759	177,622	182,600
OAKLAND	34,393	32,033	31,308	27,938	26,943
DECATUR RT	147,713	147,483	139,759	139,760	127,701
L.BRIDGE	60,773	59,508	63,633	59,703	55,823
D. TROLLEY	38,290	42,266	37,554	30,932	25,235
CELEBRATION	0	3,769	3,171	2,569	2,136
	1,485,443	1,354,622	1,236,846	1,159,686	1,134,274

Table 4-13: Ridership by Route (2014 - 2018)

Source: Decatur Public Transit System, 2019.



Figure 4-22: Fixed-Route Ridership (2014 – 2018)

Source: Decatur Public Transit System, 2019.

The paratransit services of Operation Uplift include trips provided by DPTS vans and by private taxicabs and livery vehicles. Ridership for calendar years 2002 through 2018 is provided in Figure 4-23. In 2018, DPTS paratransit carried approximately 22,200 riders. This ridership total is down significantly from almost 54,000 riders in 2002. This declining ridership is something that should be examined in more detail as part of the COA.







Vehicle Fleet

DPTS currently has 21 buses and two trolleys for fixed-route service, and eight vans for paratransit service. Historically, the transit system's revenue vehicles are purchased using nearly 100 percent state and federal grant funds.

Under Federal Transit Administration (FTA) regulations, the 12 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 four new buses in 2009 and four new buses in 2010. When those eight buses went into service, all of the 1993 buses were eliminated from service.

The DPTS fleet of eight wheelchair accessible vans was acquired during each of 2008, 2010, 2013, and 2017. FTA regulations allow the replacement of vans after five years and as such the 2008, 2010, and 2013 vans are eligible for replacement, and the two vans put into service in 2017 will be eligible for replacement in 2022. Table 4-14 displays the DPTS fleet inventory.

Fleet #	Year in Service	Make	Model / Type	Length	Expected Life	FTA Eligible Replacement
Fixed-route						
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
9113	2001	Gillig	Low Floor	30'	12 Yrs	2013
9914	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
9323	2019			40′	12 Yrs	2031
Paratransit						
1013	2008	ElDorado Nat'l Aerolite		18′	5 Yrs	2013
1014	2008	ElDorado Nat'l Aerolite		18′	5 Yrs	2013
1016	2010	ElDorado Nat'l Aerolite		18′	5 Yrs	2015
1017	2010	ElDorado Nat'l Aerolite		18′	5 Yrs	2015
1019	2013	Braun Entervan		15′	5 Yrs	2018
1020	2013	Braun Entervan		15′	5 Yrs	2018
1026	2017	E450			5 Yrs	2022
1027	2017	E450			5 Yrs	2022

Table 4-14	4: DPTS	Vehicle Fleet	Inventory
	1. 01.10	10111010111001	in ivonitor y

Transit Service Coverage

DPTS primarily operates within the Decatur city limits with the exception of limited service to Forsyth, Harristown, and Long Creek. Transit service coverage in proximity to population and employment was evaluated using Geographic Information System (GIS) along with the travel demand model traffic analysis zones. A quarter-mile buffer on each side of the transit routes was applied to identify the approximate population and number of jobs that falls within the existing service area. A quarter-mile represents the typical walking distance to a transit stop.

Based on recent population estimates completed for the Decatur Supply Chain Network Planning and Optimization Study, it is estimated that approximately 61 percent of the current population falls within the existing DPTS service area. Figure 4-24 displays the transit service coverage within a quarter-mile proximity to households/residences within the MPA.

Transit coverage in proximity to employment was also evaluated using GIS to determine the approximate number of jobs served by transit. 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. Based on recent employment estimates completed for the Decatur Supply Chain Network Planning and Optimization Study, approximately 71 percent of jobs are located within a quarter-mile radius of the DPTS service area. Figure 4-25 displays the transit service coverage in in a quarter-mile proximity to non-residential destinations within the MPA.



Figure 4-24: Population (2015) within ¼-Mile of Fixed-Route Transit





Areas of Concern

As part of prior LRTP updates, DPTS provided input related to transit operations in the area, including 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 4-15 summarizes past areas of concerns. These locations should be revisited as part of the DPTS 2020 COA study to determine if these issues still exist, or if new issues have been identified.

	Table	4-15:	Transit	Needs	and	Issues
--	-------	-------	---------	-------	-----	--------

ilroad Crossing Related
artin Luther King Jr. Dr. (MLK) at:
Wood Street
 Cerro Gordo Street
Peoria Avenue
land Ave. at Cerro Gordo St.
Idorado Street at:
800 Block R.R. tracks
22 nd Street
rie at 22 nd Street
roe Street at Garfield Avenue
es Parkway at:
27 th Street
Near Brush College Road
er Street at Garfield Avenue
r Street/Main Street at Johnson Street

SOURCE: Decatur Public Transit System

At-Grade Rail Impacts

Lengthy rail delays have a significant impact on the transit system's ability to maintain schedules. Since DPTS transit service operates on a pulse system, all buses need to arrive at the Transit Center at the same time to allow passengers the opportunity to transfer from one route to another. The 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 4-16 summarizes these data.

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
Total	54	721	13.4	364	6.7	357	6.6

Table 4-16: Train	Blockage	Impacts on	the Decatur	Public Tra	ansit System

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 bus service was 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 4-17 shows the transit related impacts in terms of delay and number of passengers impacted.

Table 4-17: Transit Related Impacts Resulting from Buses Stopped for Trains

January 19 135 12:44 1,224 2	nections
	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

* 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 estimated to be 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 were 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.

NON-MOTORIZED FACILITIES

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 area residents. Bicycle and pedestrian facilities provide enhanced living environments and have been shown to increase property values and corresponding tax revenues and 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 conserve or enhance wildlife habitats.

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. Figure 4-26 displays the existing bicycle facilities in the MPA. Most of the bike trails are in the outskirts of Decatur and in surrounding villages including Forsyth and Mt. Zion. The map also highlights potential conflict points (rail crossings) between bicycle and railroad facilities.

The number of designated bicycle miles in the MPA has more than doubled since 2004, from approximately nine miles to 22.6 miles currently. As of 2018, there are an estimated 12.4 miles of bicycle facilities within Decatur, 3.1 miles in Mt. Zion and 6.1 miles in Forsyth.



Figure 4-26: Existing Bicycle Network

Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS File: \uschg1fs001\prodtProjects\60604788\1900_CAD_GIS\920_GIS\MXDs\ExistingBicycleNetwork106.mxd While connectivity (i.e., eliminating network gaps) is often considered the most important factor for a successful non-motorized system, safety and comfort on existing facilities can have a major impact on the non-motorized travel. LRTP survey participants were asked to provide feedback regarding the perceived comfort level of riding on-street and off street (i.e., on a trail). Figure 4-27 shows that the majority (72 percent) do not feel very safe riding on-street and only nine percent feel safe, whereas 49 percent feel safe and 15 percent feel very safe riding on off-street trails. Given the amount of truck traffic in the region, it is not surprising that so few people feel safe riding alongside heavy commercial and passenger vehicles and as such the preference for non-motorized travel in the Decatur region has focused on building dedicated paths/trails.





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 dedicated bike lanes in the MPA. However, Decatur has incorporated a bicycle-friendly design during reconstruction efforts on two bridges: the MacArthur / Stevens Creek and South Shores / Sand Creek structures.

Spot Location Deficiencies

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 in November 2010. This was part of a larger LRTP update effort in which meetings were held with the Decatur Bicycle Club to gather input on identifying locations that present concerns to cyclists and other first-hand information regarding bicycling in the MPA.

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.

Source: DUATS 2045 LRTP Survey, 2019.

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 LRTP. Below are additional comments provided by the DBC.

- 1. Develop east-west/north-south 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 alternative 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 use alternative transportation modes.

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 a motorized vehicle extremely difficult.

Multi-Use Trails

Well-planned and designed multi-use trails 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 been shown to attract 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

The majority of recent trail improvements have occurred in the southeastern portion of the DUATS MPA. Improvements have been made along Country Club Road, Baltimore Road, and a small segment along the DUATS eastern MPA boundary, near Long Creek.

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 should be a primary concern when making street and roadway improvements bike and pedestrian accommodations should be considered in roadway design and construction.

Another consideration is 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.

Accessibility to Community Resources

Accessibility to community resources (e.g., 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 highlight bicycle accessibility. Potential bicycle improvements are identified to maximize bicycle connections to community resources.

Figure 4-28 identifies various community destinations and facilities—major attractions—which primarily include educational and civic institutions, retail locations, and major industrial / employment centers. Further detail about the major attractors is provided in Table 4-18.



Figure 4-28: Major Trip Attractions

Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS File: \luschg1fs001\prod\Projects\60604788\1900_CAD_GIS\920_GIS\MXDs\MajorAttractions.mxd

Table 4-18: Key of Major Trip Attractions (See Figure 4-28)

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 Élementary 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-Lathum 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

Rail operations within the area are a key component of the regional transportation system and play a significant role in supporting the regional economy. The Decatur region is served by five railroads, including two Class 1 railroads: Norfolk Southern and Canadian National. The other three railroads are Decatur Central Railroad (a subsidiary of Omnitrax), Decatur and Eastern Illinois Railroad (DREI, a subsidiary of Watco), and the Decatur Junction Railway (a subsidiary of Pioneer Railcorp). The primary users of these railroads include major employers such as ADM, Caterpillar, and Tate and Lyle.

Figure 4-29 displays the location of these five railroads, which are described in detail below.

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 through grade separated highway-rail 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 (serving ADM West and East plants) at these crossings 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. The Brush College Road at Faries Parkway crossing has been the primary focus of the Brush College Road Corridor Study that has been on-going for the past several years. Currently, the intersection is in Phase II design and construction is anticipated to begin 2021 with a possible opening of the grade separated facility in year 2023.

Canadian National

Canadian National (CN) is the second-largest 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 vehicular traffic when unit coal trains arrive from Peoria destined for ADM facilities. A unit train travels at a very low speed (5 mph 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 to motorists to avoid delays. When this movement occurs, it is among the most disruptive train blockages to the traveling public. Additional at-grade crossings are also impacted by CN operations, including blockages that are common at 22nd and 27th Streets as CN provides service to ADM. Coal used by ADM represents the majority of material transported by CN trains; however, one general merchandise train typically arrives daily from the south (from Mattoon or Centralia).

Decatur and Eastern Illinois Railroad (WATCO)

Decatur and Eastern Illinois Railroad (DREI, which was formerly CSX Transportation) runs a limited service in the area, operating one or two trains on a typical day. DREI usually transports ethanol and all trains travel east towards Avon Yard near Indianapolis or Terre Haute, Indiana. The Decatur rail yard is the westernmost end of this route. While there are not many trains traveling in and out of the area, DREI still creates numerous at-grade blockages as they assemble trains just south of Wabash-Illinois Central (WABIC) diamond. These train 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 DREI rail yard requires multiple movements to assemble trains, which is the primary issue causing delays. While these blockages do not necessarily occur daily, they typically occur several times per week.

Decatur Central Railroad (Omnitrax)

This short line railroad is operated by the Decatur Central Railroad, a wholly-owned subsidiary of Omnitrax. It consists of a 16-mile span of track from Decatur to Cisco, IL, with major operations in the Decatur region. The railway makes a major connection to the CN in Decatur and through the CN connection the Midwest Inland Port. It primarily ships grain and fertilizer.

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 span of track from Assumption to Southeast Decatur. The railway makes a connection to the CN in Decatur and primarily ships grain and fertilizer over this section of track.





Data Sources: Illinois DNR, NTAD 2019, IDOT, US Census, Macon Co, DUATS File: \\uschg1fs001\prod\Projects\60604788\1900_CAD_GIS\920_GIS\MXDs\RailNetwork.mxd
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 (82 percent) 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. Figure 4-32 displays the crossing locations within the DUATS MPA.

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 4-30 identifies crossing locations representing the highest number of train movements per week, while Figure 4-31 displays the hours of delay associated with the blockages. Together, these figures represent the crossing locations of highest concern.



Figure 4-30: Existing At-Grade Rail Crossings



Figure 4-31: Existing At-Grade Rail Crossing Delays

SOURCE: AECOM; RTC Decatur Area Model - DATES.

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.

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 CN (from the north). 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.

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. Additionally, movements often occur during off-peak times such as late evening and early morning, which further limit travel delays.

Eldorado Crossing

The Eldorado at-grade crossing is another primary area of concern since it is a US highway (US-36) 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 train movements block this intersection, including trains making reverse movements. The Wood and MLK intersection is somewhat improved as part of the 6W truck route but rail delays can still cause significant delays to trucks and the general public.

The DATES estimated that 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. At the time of the DATES project, it was estimated that of the 95 trains, 64 were CN trains and 31 were CSX trains. Recent data regarding the number of blockages is not available; however, delays still happen at this location.

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 include 22 blockages per week, which result in 6.7 hours of delay. The future year train scenario showed the potential to increase to 29 trains per week resulting in 7.9 hours of delay. In comparison to other crossings throughout the region, these crossings have a lesser impact; however, over time the delays are still an issue. The trains moving through these crossings are generally moving at relatively low travel speeds which can contribute to sometimes lengthy delays.



Figure 4-32: At-Grade Rail Crossing Locations

Data Sources: Illinois DNR, NTAD 2019, IDOT, US Census, Macon Co, DUATS File: \\uschg1fs001\prod\Projects\60604788\1900_CAD_GIS\920_GIS\MXDs\RailNetwork_withCrossings.mxd

Intermodal Connections

The DUATS MPA is well positioned 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 4-19 displays the distance and approximate travel time (in days) for rail and trucks to reach major destinations. Figure 4-33 shows the 200-mile and 500-mile shipping distances from Decatur.

City	Milos	Days by	Days by
	WIIES	Rail	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

Table 4-19: Freight Distance by Miles and Travel Days by Rail and Truck

SOURCE: DUATS (2014)



Figure 4-33: Freight Coverage Area (within 200 and 500 Miles)

Although existing surface transportation affords the ability to ship products quickly and easily, 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, e.g., steel unloading for a fabrication plant and scrap dealers.

One possible location for an intermodal facility is located off the DREI 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 facility.

Midwest Inland Port

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 allowed the company to efficiently load and unload freight products based on their own production schedule. This was a significant investment for rail operations in the area, as the railroad companies could more easily respond to ADM's needs while freeing ADM of having to rely on the railroads for switching operations.⁴

The facility is part of the larger Midwest Inland Port operation, which is the collective and connected infrastructure network of the Class 1 railroads, five major roadways (I-72, I-55,

⁴ 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).

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.

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.

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 (Cape Air). The Airport encompasses an area of approximately 2,200 acres and includes over 5,000,000 square feet of pavement surface 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 in addition to two other runways.

The Decatur Airport is located along the east-central edge of the MPA (Figure 4-34). As mentioned, the airport maintains three runways. The primary runway (6/24), measuring 8,500 by 150 feet, can accommodate large jet service and has a surface of 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 three runways 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. Full snow removal capabilities are present, and a fire station is located on the field, enabling 24/7 operations. Figure 4-35 displays the Decatur Airport diagram.

Facilities

The Decatur Airport Terminal Building is a 24,000 square-foot ground level facility housing two gates, airline and car rental counters, seating areas for passengers and guests, baggage claim area, administrative offices, and a restaurant/banquet facility. Nearby 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



Miles



Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS File: \\uschg1fs001\prod\Projects\60604788\1900_CAD_GIS\920_GIS\MXDs\DecaturAirport.mxd





Foreign Trade Zone #245

According to the Decatur Supply Chain Network Planning and Optimization Study, the Decatur Park District oversees the Decatur Airport and the airport's business park. The business park is a foreign trade zone (FTZ #245) which features 42 acres of land adjacent to the airport runway available for commercial development. The business park also features a vacant cross dock facility that that was originally built for UPS air cargo operations through the Decatur airport.

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 Customs purposes is considered outside the United States. This designation allows nearly any imported merchandise to be brought into an FTZ for manipulation, without paying U.S Customs or duties fees. This is intended to encourage US companies to conduct business in the Decatur area by keeping the cost of imports and exports down. The MIP is also serviced by the Decatur Airport, the U.S. Customs office, and has Foreign Trade Zone status. A Sub-Zone Site designation had been applied for by ADM with support of the Decatur Park District.

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, which 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 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.

Land Use and Accessibility

The land uses surrounding the Decatur Airport are compatible with air service—close access to a business industrial park is particularly 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.

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 Beltway is a planned improvement that will benefit the industrial park by providing increased accessibility for passengers, commercial vehicles and other airport users.

Operational Characteristics

The Decatur Airport is served by commercial airline service provided by Cape Air, which provides charter service to Burlington (lowa), Chicago, Ironwood (Michigan), Jonesboro (Arkansas), and St. Louis. There are four departure flights per weekday from Decatur to Chicago and two departure

flights to St. Louis. On Saturdays there are five departures—three to Chicago and two to St. Louis. On Sundays there are three departures—two to Chicago and one to St. Louis.

The 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 2018, operations have averaged 43,450 take-offs and landings per year. During this time period, operations reached a high of approximately 48,000 in 2007. Within the past five years (2014 to 2018) operations averaged slightly over 41,250 per year, down approximately 3,300 compared to the 2004 to 2013 average. The total operations (take-offs and landings) for the Decatur Airport (years 2004 to 2018) are displayed in Table 4-20 and Figure 4-36 displays annual operations along with the 5-year rolling average.

			Itinerant				Local		
	Air	Air	General						Grand
Year	Carrier	Taxi	Aviation	Military	Total	Civil	Military	Total	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
2014	0	3,911	11,379	3,552	18,842	17,078	6,862	23,940	42,781
2015	7	3,893	12,002	3,111	19,013	17,216	5,496	22,712	41,725
2016	22	4,060	10,778	3,770	18,630	14,822	6,406	21,228	39,858
2017	5	4,244	11,459	3,523	19,231	15,428	6,302	21,730	41,014
2018	9	4,349	10,398	3,636	18,392	15,329	7,081	22,410	40,906
2004 to 2013	18.0	3,233	15,523	2,573	21,347	18,916	4,282	23,198	44,544
2014 to 2018	8.6	4,091	11,203	3,518	18,822	15,975	6,429	22,404	41,257
Change	-9.4	859	-4320.1	946	-2,525	-2,942	2,148	-794	-3,288
2014 to 2018 Change	8.6 -9.4	4,091 859	11,203 -4320.1	3,518 946	18,822 -2,525	15,975 -2,942	6,429 2,148	22,404 -794	41,257 -3,288

Table 4-20: Decatur Airport, Commercial and Non-Commercial Take-Offs and Landings

Source: Decatur Airport (2019).



Figure 4-36: Airport Operations

NOTE: 5-Year Rolling represents last year of the 5-year period. For example, 2008 represents the 5-year total between 2004 and 2008.

Enplanements

Enplanements, i.e., the number of passengers who board an airplane, has been steadily increasing over the past decade. Table 4-21 and Figure 4-37 display the annual enplanements for the Decatur Airport between 2008 and 2018. In 2011, enplanements jumped significantly to 7,800 with the introduction of commercial air service and then declined slightly until 2015, when they rebounded to hit 8,000. Since 2015, enplanements have been increasing to reach 9,500 in 2018. A total of 10,000 passengers per year is the threshold to be designated as a Primary Airport and the Decatur airport is quickly approaching this threshold.

Table 4-21: Decatur Airport Total Enplanements (2008 – 2018)

Year	Airport Service Class	Enplanements	Percent Change (from previous year)
2008	General Aviation	1,232	-
2009	General Aviation	672	-45.5
2010	General Aviation	2,456	265.5
2011	Commercial Service	7,808	217.9
2012	Commercial Service	7,753	-0.7
2013	Commercial Service	6,827	-11.9
2014	Commercial Service	6,746	-1.2
2015	Commercial Service	8,034	19.1
2016	Commercial Service	8,453	5.2
2017	Commercial Service	8,324	-1.5
2018	Commercial Service	9,519	14.4
Average 2008 to 2013		4,458	-
Average 2014 to 2018		8,215	-
Change (2008-2013 vs 2014-2018)		3,757	84.3

SOURCE: Decatur Airport (2019).





SOURCE: Decatur Airport (2019).