





ILLINOIS DEPARTMENT OF TRANSPORTATION LONG-RANGE TRANSPORTATION PLAN

TRANSPORTATION SYSTEM UPDATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DOCUMENT VERSION: DRAFT 7.0

PROJECT NO.: 16952B DATE: DECEMBER 2018

B1. Introduction

B1.1 BACKGROUND

The Transportation System Update report is prepared as part of the Illinois Department of Transportation (IDOT) 2017 Long Range State Transportation Plan (Plan) to provide information about IDOT's multimodal assets and programs.

Illinois lies at the heart of the nation's transportation network. Illinois businesses, residents, and visitors have access to one of the greatest multimodal transportation systems in the nation including the second largest public transportation system, the second largest rail system, the third largest interstate system, the fourth largest highway system, and one of the busiest airport systems. The success of Illinois, its residents, businesses, and visitors relies on a safe, effective, accessible, and progressive transportation system where all modes connect in ways that improve travel options and help build communities.¹

The main purpose of this plan is to provide strategic direction for the Illinois transportation system. The guiding strategic priorities of the plan are to improve safety and mobility, support economic growth, promote livability, increase resiliency, and to provide stewardship.

¹ Illinois Department of Transportation Website, July 2017

B2. Aviation

B2.1 DESCRIPTION

Aviation plays a critical role in Illinois, in terms of passenger travel, air cargo and other aeronautical activities. For example, O'Hare International Airport is ranked third in the nation in enplanements, and fourth in air cargo activity.² The St. Louis Downtown Airport in Cahokia and Sauget is a thriving general aviation airport. It has eight air charter providers, seven maintenance companies, one aircraft parts and supplies wholesaler, the nation's oldest certified flight school, and an Air and Space museum. Chicago/Rockford International Airport is home to UPS' second largest domestic air hub sorting facility, and is Foreign Trade Zone 176. Furthermore, the airport showed a 16% increase in landed weight from 2015 to 2016, and is anticipated to exceed one million pounds in landed weight in 2017, which will likely –place the airport in the top 25 airports in the U.S. by landed weight³,⁴. In total, a recent study indicates that the state's aviation facilities support more than 312,581 jobs and contributes \$54 billion to the state's economy.⁵

Across Illinois there are 116 public use aviation landing facilities and 12 airports that offer scheduled commercial air carrier service.⁶ 78 of these airports are publicly owned, with 38 privately owned.⁷ These facilities foster connections between communities large and small, provide landing space for medical transporters, provide access to local businesses, enable aviation services such as aerial application or survey, and enhance aviation enthusiasts' quality of life.

IDOT, empowered by the Illinois Aeronautics Act (620 ILC/5)⁸, encourages, fosters, and assists in the development of aeronautics in the state and encourages the establishment of airports and other air navigation facilities. Additionally IDOT administers the State Block Grant Program (SBGP) for the Federal Aviation Administration (FAA), with "responsibility for administering Federal Airport Improvement Program (AIP) grants at airports classified as "other than primary" airports – that is, nonprimary commercial service, reliever, and general aviation airports. IDOT is responsible for determining which locations will received funding for ongoing project administration". Overall, IDOT supports public airports through financial assistance, inspections and technical oversight, and supports the aviation industry with safety and other education programs offered to pilots, aircraft owners, mechanics, and industry professionals. IDOT is managing the State's investment in a third metropolitan Chicago airport, the South Suburban Airport, with the intention of providing additional capacity for the metropolitan region and the state.

Systems goals for aviation in Illinois include:

- → To promote an aviation system that improves Illinois' quality of life by supporting health, welfare, and safetyrelated services and actives.
- → To promote a safe aviation system, as measured by compliance with applicable State and FAA standards.

² US Department of Transportation, Federal Aviation Administration. Passenger Boarding (Enplanement) and All- Cargo Data for U.S. Airports. <u>www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/passenger/.</u> Accessed June 7, 2017.
³ U.S. DOT Federal Aviation Administration. CY2016 Final All-Cargo Landed Weights.

https://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/passenger/media/preliminary-cy16-cargo-airports.pdf. Accessed September 2017.

⁴ Rockford Register Star. "Cargo activity surges 39 percent at Rockford airport in first half of 2017". <u>http://www.rrstar.com/news/20170725/cargo-activity-surges-39-percent-at-rockford-airport-in-first-half-of-2017</u>. Accessed September 2017.

⁵ U.S. DOT Federal Aviation Administration. The Economic Impact of Civil Aviation on the U.S. Economy. Economic Impact of Civil Aviation by State. https://www.faa.gov/about/plans_reports/media/2017-economic-impact-report.pdf September, 2015.

⁶ Illinois DOT. Airport Inventory. P. 39. <u>http://www.idot.illinois.gov/Assets/uploads/files/Transportation-System/Reports/Aero/2012inventory.pdf</u>. Accessed June 7, 2017.

⁷ lbid. p. 56

⁸ Illinois General Assembly. <u>http://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=1803&ChapterID=48</u>. Accessed July 18, 2017.

- → To advance a system of airports that is supportive of Illinois' economy, ensuring that the aviation system is matched to Illinois' socioeconomic and demographic characteristics.
- → To protect and support an aviation system that maintains the flexibility to respond to changes in future needs in Illinois, while considering the environment.
- → Determine where Illinois' aviation system of public airports is currently adequate and where there are deficiencies.
- → Identify the need for change in the aviation system and the Department's policies to meet Illinois' future aviation needs.⁹

Figure 2.1 is a map of all public use aviation facilities throughout Illinois.





Source: IDOT Aviation Inventory, 2017

⁹ IDOT. Aviation White Paper. May 12, 2016.

B2.1.1 BASED AIRCRAFT

As a measure of aviation activity, IDOT utilizes an FAA metric that accounts for thenumber of planes and other aircraft, operational and airworthy, stored at a specific airport or storage facility for the majority of a given year. This count is called "based aircraft" and is self-reported by airport operators. Aircraft owners choose a facility to house their aircraft based on a number of factors including:

- → the physical characteristics of the facility (runway length and instrument approach capabilities)
- → proximity to business or home
- → the availability of services (fuel and maintenance)
- → the cost and availability of aircraft storage options

In late 2017, at nonprimary public-use public-owned airports, Illinois had 4,418 based aircraft, classified as follows:

- → 3,317 single-engine propeller airplanes
- → 462multi-engine propeller airplanes
- → 324 jet airplanes
- → 122 rotorcraft (helicopters)
- → 27 gliders
- → 57 military aircraft
- → 109 ultralight aircraft

Aurora Municipal Airport has the highest number of based aircraft at 311, followed by Chicago Executive Airport in Wheeling with 263.¹⁰ It is important to note that the busiest airports in the state do not necessarily have the most based aircraft. The combination of airport purpose, congestion, and the premium on available land at busy airports often dictate that local aircraft are parked at other airports. Chicago's O'Hare International Airport is an example of this situation, as it does not have any based aircraft.

Many aircraft that call Illinois home are not necessarily captured in the FAA based aircraft metric. IDOT utilizes the metric because of its importance to planning and programming federal airport improvement program monies at eligible airports. However, IDOT does track total aircraft in Illinois at primary commercial service airports, and other Illinois registered aircraft not captured in the FAA metric for other purposes. Depending on the selection and criteria, IDOT numbers range from a total of 5,256 aircraft to 8,562 aircraft.

B2.1.2 AIRCRAFT OPERATIONS

An aircraft operation is defined as a takeoff or a landing. Counts are recorded by the Federal Aviation Administration (FAA) control tower activity or for airports without a tower, by visual assessment or machine, but counts are not completed every year for all airports; for airports without a tower, FAA counts should be supplemented by independent counts for the most accurate and timely information however, the most recent counts for Illinois airports are from 2012, for select airports. Throughout all of 2017 at all publicly operated airports in Illinois where there is air traffic control there were nearly 1.8 million air operations recorded according to the FAA. A detailed breakdown of air operations is shown in Table 2.1.

¹⁰ Ibid. pp. 19 – 24.

Table 2.1 Total Air Operations in Illinois - 2016

Itinerant ¹¹				Local				
Air Carrier	Air Taxi	General Aviation	Military	Total	Civil	Military	Total	Total Operations
1,056,382	530,126	412,010	22,218	2,020,736	431,615	19,081	450,696	2,471,432

Source: Federal Aviation Administration: Air Traffic Activity System, 2017

B2.1.3 PASSENGER ENPLANEMENTS

In 2017 twelve airports in Illinois recorded passenger enplanements (boardings). Table 2.2 details total enplanements at all Illinois airports for 2016 and 2017. The table also provides each airport's ranking of all 550 airports in the United States based on enplanements. The top three most active airports in the state are O'Hare International, Midway International, and Quad Cities International. In 2017 the State of Illinois had nearly 50.1 million enplanements, an increase of almost 2% from 2016.¹²

Table 2.2 Total Enplanements in Illinois 2016 - 2017

Rank (of 544)	ST	City	Airport Name	CY 17Enplanements	CY 16Enplanements	% Change
3	IL	Chicago	Chicago O'Hare International	38,593,028	37,589,899	2.67%
27	IL	Chicago	Chicago Midway International	10,912,074	11,044,387	-1.20%
151	IL	Moline	Quad City International	335,940	364,393	-7.81%
157	IL	Peoria	General Downing - Peoria International	312,378	307,189	-1.69%
193	IL	Bloomington- Normal Airport	Central IL Regional Airport at Bloomington-Normal	163,475	188,490	-13.27%
214	IL	Belleville	Scott AFB/MidAmerica	123,841	79,988	54.82
221	IL	Rockford	Chicago/Rockford International	112,682	101,790	10.88%
231	IL	Savoy	University of Illinois-Willard	100,133	89,318	12.11%
239	IL	Springfield	Abraham Lincoln Capital	92,048	93,269	-1.31%
394	IL	Marion	Williamson County Regional	11,029	10,044	9.81%
415	IL	Decatur	Decatur	8,324	8,453	-1.53%
408	IL	Quincy	Quincy Regional-Baldwin Field	7,709	7,847	-1.76%
			Total 2017 Illinois Enplanements	50,672,761		

Source: FAA - Passenger Boarding Data for U.S. Airports, 2017

B2.1.4 AIR CARGO

Air cargo, by tonnage, is the fifth most utilized mode of freight shipment in Illinois behind truck, rail carload, rail intermodal, and water Freight moved by air is usually of high value, time sensitive, and low-weight, because of cost and

¹¹ "Itinerant" movements are those in which aircraft proceed to or arrive from another location; or where aircraft leave the circuit but return without landing at another airport. Local movements are where aircraft do not leave the circuit.

¹² FAA. Passenger Boarding for U.S. Airports. <u>https://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/passenger/media/cy17-all-enplanements.pdf</u>

competing transportation alternatives. Chicago's O'Hare International Airport is one of the nation's primary air hubs, particularly for international trade, and it stands out as the state's principal air cargo facility. As shown in **Table 2.3 Inbound Air Cargo Shipments to Illinois, 2014** handled 91.2 percent of Illinois inbound air tonnage and as shown in Table 2.4 Outbound Air Cargo Shipments from Illinois, 2014, O'Hare handled 87.5 percent of outbound air tonnage, as well as held equally predominant positions in both belly and freighter activity, with inbound tonnage percentages of 94.5 and 90.1, respectively and outbound tonnage percentages of 93.3 and 85.6, respectively.

The airport in Rockford (Chicago Rockford International Airport), which is a regional air hub for the United Parcel Service (UPS), is second to O'Hare in both inbound and outbound air cargo, with 5.6 percent of inbound tonnage and 8.6 percent of outbound tonnage. The UPS regional air hub influence is reflected in the belly and freighter percentages at the Rockford Airport. The belly percentages for both inbound and outbound are virtually nonexistent, indicating freighter shipment is predominant at 7.5 percent for inbound tonnage and 11.4 percent for outbound tonnage.

Peoria's General Wayne A. Downing Peoria International Airport and Chicago's Midway International Airport are ranked third and fourth, for both inbound and outbound air cargo. For inbound tonnage, Peoria is at 1.5 percent and Midway at 1.4 percent, with Peoria having slightly more total tons at 15,312, compared to 14,049 for Midway. For outbound tonnage, Peoria is at 1.8 percent and Midway at 1.6 percent, with Peoria having slightly more total tons at 15,312, compared to 14,049 for Midway. For outbound tonnage, Peoria is at 1.8 percent and Midway at 1.6 percent, with Peoria having slightly more total tons at 15,312, compared to 14,049 for Midway. For outbound tonnage, Peoria is at 1.8 percent and Midway at 1.6 percent, with Peoria having slightly more total tons at 15,532, compared to 14,132 for Midway. A more detailed discussion of air cargo and a breakdown by airport is in the *Air Cargo Traffic Highlights* section of the 2017 Illinois State Freight Plan.

	Belly		Freig	ghter	Grand Total		
Airport Name	Tons	% Tons	Tons	%Tons	Tons	%Tons	
Chicago O'Hare International	242,166	94.5%	705,432	90.1%	947,598	91.2%	
Chicago Midway International	14,048	5.5%	0	0.0%	14,049	1.4%	
General Downing - Peoria International	5	0.0%	15,307	2.0%	15,312	1.5%	
Chicago/Rockford International	119	0.0%	58,497	7.5%	58,616	5.6%	
Total	256,338	100%	779,236	99.6%	1,035,575	99.7%	

Table 2.3 Inbound Air Cargo Shipments to Illinois, 2014

Source: BTS T-100. Due to statistically small numbers, some percentages above are shown as 0.0%.

Table 2	4 Outbound	Air Cargo	Shipments	from Illing	bis. 2014
I UNIC Z	.+ Outbound	All cargo	Simplification		// <i>3/</i> Z U I T

Airport Namo	Belly		Freig	ghter	Grand Total		
Airport Name	Tons	% Tons	Tons	%Tons	Tons	%Tons	
Chicago O'Hare International	197,471	93.3%	560,730	85.6%	758,201	87.5%	
Chicago Midway International	14,132	6.7%	0	0.0%	14,132	1.6%	
General Downing - Peoria International	4	0.0%	15,529	2.4%	15,532	1.8%	
Chicago/Rockford International	127	0.1%	74,370	11.4%	74,497	8.6%	
Total	211,734	100.0%	650,629	99.4%	862,362	99.5%	

Source: BTS T-100. Due to statistically small numbers, some percentages above are shown as 0.0%.

B2.2.1 FEDERAL AIRPORT IMPROVEMENT PROGRAM STATUS

Federal Aviation Administration reauthorization legislation, H.R. 658 (P.L. 112-095), the FAA Modernization and Reform Act of 2012, enacted on February 14, 2012 authorized appropriations to the FAA from Fiscal Year 2012 through Fiscal Year 2015. H.R.636 (P.L. 114-190), the FAA Extension, Safety, and Security Act of 2016 extended FAA's authority and funding through September 2017. Since October 1, 2017, FAA has operated under two short-term extensions of FAA's legislative authority: H.R.3823 (P.L. 115-63), the Disaster Tax Relief and Airport and Airway Extension Act of 2017, extended FAA's funding and authorities through March 31, 2018; and H.R. 1625 (P.L. 115-141), the Consolidated Appropriations Act, 2018, further extended FAA's funding and authority through September 30, 2018. IDOT expects a multiyear reauthorization completing Fiscal Year 2018.

The reauthorization will ultimately affect Fiscal Year 2019 and for programmatic purposes assumes funding levels and requirements will remain very similar to prior authorizations. IDOT anticipates some minor programmatic shifting will occur due to overall language in the bill and due to the Fiscal Year 2018 Omnibus bill, which was signed into law by President Trump on March 23, 2018 and included a 1-billion-dollar boost in supplementary airport funding nationwide, from the general fund, rather than funds associated with the Airport and Airway Trust Fund. Regardless, projects utilizing federal funds will include: design, construction, safety, security, capacity enhancement, equipment, maintenance, noise mitigation, environmental, planning and land acquisition.

B2.2.2 ILLINOIS AVIATION SYSTEM PLAN

The Illinois Aviation System Plan (IASP) should be considered a continual planning process which produces, periodically, a formal narrative and analysis of the overall Illinois Aviation System. This document, which has not been fully updated since 1994, identifies system needs and sets short-to-long term goals and objectives in consideration with the National Airspace System and aviation industry evolution as well as coordination with industry stakeholders and other IDOT planning processes, such as the LRTP. The formal narrative and analysis of the IASP should be based in part on routinely updated and maintained individual system plan components and studies such as an Aircraft operations at non-towered airports, the Illinois Aviation Inventory Report, regional specific planning, and the Illinois Statewide Aviation Economic Impact Study. Several individual system plan components and the overall Illinois Aviation System Plan process are used in project ranking/planning/programming/design *and* evaluation. A quick review of aviation system planning documents across the nation reveals that Illinois may be the state running on the longest time span without a full system plan update. The average system plan completion date among states falls at 2010 with the greatest amount of updates occurring in 2016. The FAA provides funding for aviation system planning.

B2.2.3 STATE-LOCAL AIRPORT IMPROVEMENT PROGRAM

For FY 2017, Illinois has programmed a single-year State-Local Airport Improvement Program, for which a continuous program was last in effect in FY 2004, followed by a one year State-Local Program funded in FY-2012 which resulted in \$7.5 million in improvements. The program supports improvements at airports that are ineligible or low priority for the federal Airport Improvement Program but are a high priority for the state or for the local community. For FY 2017, the State of Illinois has identified airport improvement projects and has committed \$9.8 million with \$1.7 million in local

matching funds for these improvement projects.¹³ A continual State-Local program has numerous advantages over single year sporadic spending. For instance, a continual program allows airports to better plan, coordinate, and compete for these dollars – by knowing program priorities and criteria in advance. The Illinois Aviation System Plan would help determine the criteria where continual State-Local Program would be guided to adderess system needs not captured by the Federal AIP.

B2.2.4 ESSENTIAL AIR SERVICE PROGRAM

The Airline Deregulation Act (ADA), passed in 1978, gave air carriers almost total freedom to determine which markets to serve domestically and what fares to charge for that service. The Essential Air Service (EAS) program was put into place to guarantee that small communities that were served by certificated air carriers before airline deregulation continue to maintain a minimal level of scheduled air service. The United States Department of Transportation is mandated to provide eligible EAS communities with access to the National Air Transportation System. This is generally accomplished by subsidizing two round trips a day with 30- to 50-seat aircraft, or additional frequencies with aircraft with 9-seats or fewer, usually to a large- or medium-hub airport. USDOT currently subsidizes commuter and certificated air carriers to serve approximately 60 communities in Alaska and 115 communities in the lower 48 contiguous states that otherwise would not receive any scheduled air service.¹⁴

There are three communities in Illinois in the EAS program: Decatur, Marion and Quincy. Details of these three communities' annual subsidy provided by the EAS program is provided in

Community	Nearest Hub Airport	Annual Subsidy (2015)	Per Passenger Subsidy
Decatur	St. Louis	\$2,667,922	\$208
Marion	St. Louis	\$2,104,616	\$107
Quincy	St. Louis	\$1,956,856	\$99
	Total Illinois EAS Subsidy	\$6,729,394	

Table 2.5 Essential Air Service Program in Illinois - 2015

B2.2.5 MIDWAY MODERNIZATION PROGRAM

In August, 2015 Mayor Rahm Emanuel announced a program to modernize and improve Chicago – Midway Airport. The program would direct approximately \$250 million to improve and upgrade restaurants, shops, parking and security checkpoints.¹⁵ The initial phase of the project is focused on improvements to retail and concessions and totals approximately \$75 million. This project will include 21 new food and retail outlets, creating 1,000 new employment opportunities.¹⁶ Future phases of the program will expand the security checkpoint areas and expand parking locations near the airport.

B2.2.6 O'HARE MODERNIZATION PROGRAM

The O'Hare Modernization Program (OMP) is transforming O'Hare International Airport into an airport with six parallel east-west runways, two crosswind runways, a new terminal and other enhancements, with the goals of reducing weather related delays and increasing capacity at the third busiest airport in the nation.

The OMP runway projects currently completed include the new Runway 9L/27R on the north airfield and the extension of Runway 10L/28R on the south airfield, opened in 2008, and the new Runway 10C/28C opened in 2013. The City of Chicago

¹³ IDOT. FY-2017 State-Local Airport Improvement Program Project List. <u>http://www.idot.illinois.gov/Assets/uploads/files/Transportation-</u> <u>System/Reports/OP&P/AIP/FY17%20State-Local%20Project%20List.pdf</u>. Accessed June 8, 2017.

¹⁴ USDOT. Essential Air Service Overview. <u>https://www.transportation.gov/policy/aviation-policy/small-community-rural-air-service/essential-air-service</u>. Accessed June 8, 2017.

¹⁵ Karp, Gregory. Midway Airport to get \$248 million upgrade. <u>http://www.chicagotribune.com/business/ct-midway-airport-upgrades-0807-biz-20150806-story.html</u>. Chicago Tribune. August 6, 2015. Accessed June 8, 2017.

¹⁶ Lazare, Lewis. Midway Airport modernization project begins Friday with debut of new eateries.

http://www.bizjournals.com/chicago/news/2017/05/11/midway-airport-modernization-project-begins-friday.html. Chicago Business Journal. May 11, 2017. Accessed June 8, 2017.

has modified the construction schedule for the completion of the other runways planned in the OMP, but is completing the OMP airfield improvements reflected in the approved build out.¹⁷ Since its inception the OMP has adjusted and schedules have shifted. In 2016 the City of Chicago reached agreement with two major airlines serving O'Hare to construct another new runway, 9C/27C, to increase capacity and further reduce delays. The estimated cost for the new runway is estimated a \$1.3 billion.¹⁸ An illustration of O'Hare runway reconfiguration is displayed in Figure **2.2**.¹⁹ The OMP projects are largely within the purview of the FAA and City of Chicago, and therefore IDOT does not hold construction lettings, manage, or oversee the OMP program; even so it is discussed in this report due to the important role O'Hare Intenational Airport plays in the larger system of Illinois airports.





Source: Chicago Tribune, 2015

B2.2.7 SOUTH SUBURBAN AIRPORT

The concept of a third airport in the metropolitan Chicago region has been considered since 1984. In 1998, a South Suburban Airport site was selected near Peotone (approximately 40 miles south of the Chicago) and environmental studies began.

¹⁷ FAA. Final Re-Evaluation of the O'Hare Modernization EIS. Pp. 1-1. <u>ftp://public-ftp.agl.faa.gov/2015%20re-eval/final%20re-eval/chapter_1.pdf</u>. 2015. Accessed June 8, 2017.

¹⁸ Schaper, David. O'Hare to Get 6th Runway, But Without Expanded Terminals, Delays May Continue. <u>http://www.npr.org/sections/thetwo-</u> way/2016/02/01/465101435/ohare-will-get-a-sixth-runway-but-without-expanded-terminals-delays-may-continue. National Public Radio. February 1, 2016. Accessed June 9, 2017.

¹⁹ Tribune Graphics. <u>http://www.chicagotribune.com/ct-map-of-new-runway-opened-at-ohare-airport-20151015-htmlstory.html</u>. October 15, 2015. Accessed June 9, 2017.

Taking a phased approach to airport development, the project studies are concentrated on a five- year inaugural airport program and an ultimate airport build-out. The inaugural airport program consists of a single runway, a passenger terminal with six to nine gates, and air cargo and general aviation facilities on approximately 5,000 acres. The ultimate airport, envisioned to be constructed twenty years or more after the inaugural airport is operational, is planned to have six parallel runways and a passenger terminal complex with 250 gates on approximately 20,000 acres.

In 2000, the State, in conjunction with the FAA, initiated a two tiered environmental approval process. The Tier 1 Environmental Impact Statement (EIS) was prepared to determine a preferred location. The Tier 1 EIS study received a FAA Record of Decision (ROD) in 2002, which allowed the project to move forward with further study and land acquisition. The Tier 2 EIS was initiated shortly after the Tier 1 EIS ROD was issued and is still underway. An airport master plan study is also being conducted in conjunction with the Tier 2 EIS, and land acquisition began in 2002. To date, approximately 4,500 acres have been acquired. In 2017, IDOT sought proposals from private interests to potentially develop and operate the future airport.

Both the Tier 2 EIS and Master Plan study are in progress. The Master Plan study,²⁰ following FAA guidance, is comprised of several reports documenting study findings. These reports are listed below, with FAA approval dates in parentheses:

- → Existing Conditions (December, 2011)
- → Aviation Forecasts (March, 2011)
- → Facility Requirements (November, 2011)
- → Alternatives Analysis (June, 2012)
- → Interchange Access Justification Report (December, 2016)
- → Airport Access Plan
- → Airport Layout Plan
- → FAA Airspace Analysis
- → Environmental Considerations
- → Facility Implementation Plan
- → Financial Feasibility Report
- → Community Involvement

The Tier 2 EIS process requires a significant amount of analysis which culminates with the issuance of the Tier 2 Final EIS and ROD.

²⁰ South Suburban Airport, Master Plan Process. <u>www.southsuburbanairport.com/MasterPlan/MP-process.htm.</u> Accessed June 30, 2017.



Figure 2.3 South Suburban Airport and Layout with Land Acquisition Status

Source: South Suburban Airport Project Office, July 2017

B3. Bicycle and Pedestrian Facilities

B3.1 DESCRIPTION

Bicycling and walking, sometimes referred to as non-motorized or active transportation, are important modes for local transportation in Illinois. Walking is most conducive for trips under one mile (5 to 20 minutes of travel), while bicycling is often used for trips between one and five miles (5 to 30 minutes). Bicycling and walking can be independent modes, but are often combined with public transit to facilitate longer distance trips. Bicycling and walking do not require significant amounts of pavement or fossil fuel to operate, but do require physical activity, which is why they are referred to as active transportation modes.

IDOT has a role in supporting these modes beyond administering federal funding for federally specified programs. Adding multi-use paths or trails, sidewalks, or on-road bicycle facilities along state roads promotes safer connections for pedestrians and bicyclists. A designated statewide long-distance bicycle route system can foster bicycle tourism as well as add connections in rural areas where non-motorized transportation infrastructure may be limited.

IDOT chairs the Inter-Agency Bikeway Coordinating Working Group (BCWG), which at a minimum is comprised of representatives from Illinois Department of Natural Resources (IDNR), Illinois Department of Commerce and Economic Opportunity, Illinois State Board of Education, Illinois Association of County Engineers, and the Cook County Forest Preserve District. This group meets quarterly and focuses on non-motorized issues such as Transportation Alternatives funding, State Bikeway Plan development, and Complete Streets implementation.

Other agencies also have a significant role in planning for and developing the bicycle and pedestrian network. For example, the IDNR has been involved in developing multi-use trails throughout the state. IDNR cooperates with IDOT and the Federal Highway Administration in administering the Recreational Trails Program, which is funded through federal transportation legislation. IDNR also administers the Bicycle Path Grant Program, which supports the development of linear paths on non-road right-of-way, although IDNR is not accepting funding applications for this program at this time.

Local agencies' actions to build multi-use trails, bicycle routes, and sidewalks make important contributions to bicycle and pedestrian activity and the State's overall network of facilities. Many individual communities have developed bicycle and pedestrian plans, and building these facilities increases the multimodal options in a community. Metropolitan Planning Organizations (MPOs) include bicycle and pedestrian plans in their long-range transportation plans. MPOs are responsible for programming some federal funds to local jurisdictions for planning and construction of bicycle and/or pedestrian facilities through the Transportation Alternatives Program (TAP), Surface Transportation Block Grant Program (STP), Congestion Mitigation and Air Quality (CMAQ) Program and others. IDOT also supports bicycle planning in local communities by granting State Planning and Research Funds for bicycle planning.

B3.1.1 STATE RANKING AND STATISTICS

The Alliance for Biking and Walking (ABW) collects data from across the U.S. in order to release periodic reports detailing each individual State's levels of bicycling and walking, adopted policies, and funding information. According to ABW's 2016 Benchmarking Report²¹, 3.1 percent of Illinois commuters walk to work and 0.6 percent cycle to work; Illinois ranks 18th in the number of walking commuters and 19th overall in number of cycling commuters; and Illinois ranks 29th in per capita spending on bike/walk projects, spending \$2.20 per capita.

The U.S. Department of Transportation-Bureau of Statistics, State Transportation Statistics 2015 Report, further supports the ABW's 2016 Benchmarking Report, which suggests 3.7 percent of Illinois commuters either walked (3.1 percent) or

²¹ The League of American Bicyclists, Bicycle Friendly State 2015 Ranking <u>http://www.bikeleague.org/sites/default/files/2015_state_ranking_chart.pdf</u>

biked (0.6 percent) to work in 2013 (Table 3.1). These values are equal to the national average for biking to work (0.6 percent) and slightly more than the national average for walking to work (2.8 percent).

The League of American Bicyclists (LAB) runs a program called The Bicycle Friendly State, which is designed to establish best practices to help improve safety, comfort, and accessibility of bicycling. The ranking compares all 50 states across five distinct attributes: Legislation & Enforcement, Programs & Policies, Infrastructure & Funding, Education & Encouragement, and Evaluation & Planning.²² According to their 2015 Ranking and Report Card, Illinois is ranked 14th most Bicycle Friendly State out of all 50 states; lower than in 2012, when Illinois was ranked 9th. Illinois scored 4 out of 5 points for its Legislation & Enforcement, 3 out of 5 for its Policies & Programs, and 2 out of 5 for both its Infrastructure & Funding and Evaluation & Planning.²³

Mode	Illinois (%)	U.S. (%)
Drove Alone	73.6	76.4
Carpool	8.3	9.4
Public transit	9.1	5.2
Bicycle	0.6	0.6
Walked	3.1	2.8
Other (motorcycle, taxi, ferry, school bus, airplane)	1.0	1.3
Worked at Home	4.2	4.4

Table 3.1: 2013 Commuter Mode Share, All Person Trips

Source: US Department of Transportation, Bureau of Transportation Statistics, Illinois Transportation by the Numbers, 2013.

B3.1.2 MULTI-USE FACILITIES

According to the ABW Benchmarking Report, in 2015, Illinois had approximately 1,875 miles of dedicated multi-use trails that have been funded through federal programs, state funds, and local resources. Most trails are suitable for a variety of users, like walkers, runners, and bicyclists. Trails are often located in parks or natural areas, and may be circular or wandering, making them less attractive for point-to-point destination travel. However, linear trails and segments between communities may be an option for transportation purposes.

Some of the longer linear trails in the state include²⁴:

→ Chicago Lakefront Trail. Paralleling Lake Michigan, the 20-mile trail runs from the far north to the far south sides of the city. The path is paved and is often used by bicyclists and walkers for commuting to work or accessing social and recreation activities in the adjacent neighborhoods and along the waterfront.

²² The League of American Bicyclists, Bicycle Friendly State Report Card Illinois <u>http://bikeleague.org/sites/default/files/BFS2015</u> Illinois.pdf

²³ Illinois Department of Transportation, Bicycle and Pedestrian Infrastructure. <u>http://www.idot.illinois.gov/Assets/uploads/files/Transportation-System/Fact-Sheets/Bicycle%20Facts_041216.pdf</u>

²⁴ IDOT, Alphabetical Listing of Trails. www.dot.il.gov/bikemap/trailist.htm. Rails-to-Trails Conservancy, TrailLink www.traillink.com/.

→ Fox River Trail and Illinois Prairie Path. Starting in Aurora, the 35-mile north-south Fox River Trail connects

to the Illinois Prairie Path at Batavia, Elgin, Geneva and continues further north to Algonquin. The 62-mile Illinois Prairie Path travels from Elmhurst to Wheaton, and splits into four other paths that terminate at the Fox River, in the communities of Aurora, Batavia, Elgin, and Geneva.

- → Great River Trail. This 60-mile trail parallels the Mississippi River, between Savanna and Rock Falls, in the Quad Cities region. The trail is a combination of on and off street facilities.
- → Hennepin Canal Parkway. This 105-mile trail is the longest in Illinois.
 The east-west segment travels between Bureau Junction near the

Illinois River and the Quad Cities area with a trail head at the Rock River. The 29-mile north-south segment connects Sterling and Rock Falls, at the Rock River, to the east-west corridor.

- → Rock Island Trail and Greenway. This is the first state-owned trail. The 27-mile greenway on old railroad right-of-way connects Alta (Peoria County) and Toulon (Stark County) and communities in between. A 13 mile extension was completed in 2014 and now connects Alta and Peoria.
- → Tunnel Hill State Trail. This trail connects Harrisburg (Saline County) to Karnak (Pulaski County), for a total trail length of 45 miles. The trail passes through ten communities and the Cache River Natural Area, and is near the Shawnee National Forest.

B3.1.3 ON-STREETBICYCLE FACILITIES

Throughout the state, there are approximately 5,000 miles (31 percent) of the nearly 17,000- mile state highway system identified as being suitable for bicycling.²⁵ Bicycling is at least somewhat comfortable on more than 63 percent of all roads, out of the 146,000 plus miles of all roads in the state.

On-road facilities range from:

- → Suggested routes that are unsigned and unmarked, but are identified on maps.
- → Signed bike routes, usually found on local or very low volume roads.
- → Sharrows, which are painted arrows with a bicycle symbol, indicating that the road is to be shared by bicycles and motor vehicles.

ROCK SLAND SLAND TRAIL TRAIL TRAIL TRAIL

Figure 3.2 Rock Island Trail



²⁵ US DOT Bureau of Statistics, State Transportation Statistics 2015, https://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/STS_2015.pdf

- → Bicycle lanes, which are generally 5 feet wide, next to either the sidewalk or parked cars and adjacent to moving traffic. These may sometimes be buffered with a few feet between the bicycle lane and moving traffic. The buffer is usually a series of white painted lines intended to indicate that motor vehicles should not cross.
- → Separate, on-street protected bicycle lanes, known as protected bike lanes or cycle tracks. These differ from buffered bicycle lanes because there is usually a physical barrier between the bike lane and the motor vehicle traffic lane. Physical barriers include planters, curbs, parking vehicles, bollards, medians, or other physical separation. Protected bike lanes are usually adjacent to the parkway or sidewalk.

Paved shoulders or an extra wide outside lane are other options that provide space for pedestrians and bicyclists when no other facility is available. Paved shoulders often have rumble strips to prevent run-off-the-road vehicle incidents,

so IDOT adjusts the width of the strips when the paved shoulder serves as a bicycle accommodation. Extra width on an outside lane provides a similar benefit to bicyclists and walkers providing room to travel adjacent to traffic flow.

B3.1.4 OTHER BICYCLE FACILITIES

Other infrastructure important for bicyclists includes bicycle parking, bicyclistspecific signaling at traffic lights, public bicycle rental programs, wayfinding, and bicycle stations. Bicycle stations are a premium amenity, as they are usually buildings that can house bicycle repair facilities, showers and clothing lockers, temporary bicycle parking, and temporary bicycle rental / bicycle share services. Bicyclist specific signals at traffic lights are common in Europe, but are now beginning to be utilized throughout the U.S. Locations where these signals are installed include Long Beach and Davis, California and Denver, Colorado. In 2012 new bicycle lanes and bicycle signals were added to a 1.2 mile section of the Dearborn corridor from Polk to Kinzie in downtown Chicago.²⁶

Bicycle parking is a necessity for ensuring bicycling activity. Bicycle parking takes many forms, including racks, lockers, corrals, stations, and is sheltered or unsheltered. Bicycle parking should be installed at locations where bicyclists need secured parking. Locations include transit stations, activity centers like schools and recreational facilities, and commercial centers. Commercial centers

Figure 3.4: Bicycle Traffic Signal on Dearborn St. - Chicago

Source: Chicagonow.com. 12/9/13

include office locations, retail streets and centers, dining establishments, neighborhood stores of all types, and entertainment locations. Sheltered parking is preferable, to protect from rain and other weather conditions. Many commercial centers in Chicago provide private bike parking and valet services.

Bicycle parking corrals are either permanent or temporary. Permanent bicycle corrals are located on-street, and replace automobile parking with rack(s) that store multiple bicycles. Temporary bicycle corrals are set up to support a specific event. The corrals are similar to coat-check or automobile valet services, in that a bicyclist receives a claim ticket needed to retrieve their bicycle at the end of their visit.

Figure 3.3 West Kinzie St. Cycle Track - Chicago





²⁶ Kuhrt-Brewer, Carole. Chicago Bike Lanes: Dearborn St. Lane Named Best in the Country. <u>http://www.chicagonow.com/show-me-chicago/2013/12/chicago-bike-lanes-dearborn-st-lane-named-best-in-the-country/</u>. Accessed July 18, 2017.

Temporary public bicycle rental or bicycle share services are gaining in popularity in the U.S. The first programs offered free bicycles, usually painted a noticeable color, and were unlocked, parked throughout the community, and available to anyone. Due to theft, vandalism, or maintenance problems, these services faded although some still exist - primarily in communities with college students.

The second generation of bicycle share services are either for-profit or are supported through advertising revenues, and require pre-registration. A system of bicycles is installed at various locations throughout a densely populated area such as a business district. Bicycles are available to members for a small fee and are either reserved in advance or are used on-demand. Rentals are sometimes free for the short period (e.g., half-hour) after which a small fee is assessed. Members sign-in, unlock a bicycle from the bicycle docking station, and borrow the bicycle for a set period. Bicycles can be returned at any open docking station. Currently, bicycle-share services are in use in Washington, D.C., New York and Boston, with more underway. Divvy, owned by the Chicago Department of Transportation and operated by Motivate, is Chicago's bicycle share system. Initial startup costs for Divvy were supported by CMAQ funding that was administered by IDOT. Divvy started in June 2013 and currently (2017) includes 580 stations and 5,800 bikes across Chicago. In 2016, Divvy expanded to the suburban Chicago communities of Oak Park and Evanston. 13 stations were added in Oak Park and 10 stations were added in Evanston.²⁷

B3.1.5 PEDESTRIAN FACILITIES

Pedestrian facilities – sidewalks and paths, benches, crosswalks, pedestrian signals – are often located in urbanized areas. These facilities provide safe spaces for community residents to walk to jobs, shopping, visiting neighbors, or for health. Streets in urban communities often have sidewalks while suburban and exurban developments may not. Rural roads may have paved shoulders that can serve as pedestrian walkways although many do not.

Figure 3.5 Pedestrian Crossing with Median Island



Pedestrian infrastructure also includes dedicated bridges or underpasses,

streetlights, special pavements or painted crosswalks, signage, medians and islands, push-button signals, and other traffic calming devices like corner bump- outs. New strategies such as in-pavement flashing lights at crosswalks, rapid-flash beacons for safer crossings on high volume roads, and advance stop bars are being installed to reduce pedestrian fatalities and injuries.

Because sidewalks offer access to buildings and land uses, they must be accessible under the Americans with Disabilities Act (ADA). Guidance on sidewalk width, acceptable slope, curb cuts and corner access is defined by the US Access Board, and additional proposed ADA guidance for public rights-of way is included in the Public Rights-of-Way guidelines and addendum guidance for shared-use paths.²⁸, ²⁹

Pedestrian facilities are most often the responsibility of local communities. IDOT's commitment to providing pedestrian facilities along roads under its jurisdiction is detailed in the Complete Streets policy.

²⁷ DIVVY. Expansion. <u>https://www.divvybikes.com/expansion</u>. Accessed July 18, 2017.

²⁸ US Access Board. Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way. <u>https://www.access-board.gov/attachments/article/743/nprm.pdf</u>. Accessed September 2017.

²⁹ Federal Register, Vol. 78, No. 30. Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way; Shared Use Paths. <u>https://www.access-board.gov/attachments/article/1108/sup-snprm.pdf</u>. Accessed September 2017.

B3.2 IMPLEMENTATION STRATEGIES AND PROGRAMS

The Illinois Complete Streets law was enacted in October 2007.³⁰ A "complete street" is one that can accommodate all users safely including the most vulnerable whom are identified as youths, persons with disabilities, and the elderly. The legislation requires IDOT to give full consideration to bicycle and pedestrian facilities in the planning, design, and construction of state transportation facilities with some exceptions.

The Complete Streets legislation reads:

605 ILCS 5/4-220. Bicycle and pedestrian ways.

1.Bicycle and pedestrian ways shall be given full consideration in the planning and development of transportation facilities, including the incorporation of such ways into State plans and programs.

2. In or within one mile of an urban area, bicycle and pedestrian ways shall be established in conjunction with the construction, reconstruction, or other change of any State transportation facility except:

(1) in pavement resurfacing projects that do not widen the existing traveled way or do not provide stabilized shoulders; or

(2) where approved by the Secretary of Transportation based upon documented safety issues, excessive cost or absence of need.

3.Bicycle and pedestrian ways may be included in pavement resurfacing projects when local support is evident or bicycling and walking accommodations can be added within the overall scope of the original roadwork.

4. The Department shall establish design and construction standards for bicycle and pedestrian ways. Beginning July 1, 2007, this Section shall apply to planning and training purposes only. Beginning July 1, 2008, this Section shall apply to construction projects.

(Source: P.A. 95-665, eff. 10-10-07.)

In 2010 the Illinois Legislature amended the Illinois Vehicle Code to require motorists to stop and yield the right-ofway to a pedestrian crossing the roadway within a crosswalk or approaching the roadway. (P.A. 625 ILCS 5/11-1002).³¹

The Complete Streets statute only applies to local agencies where work is being performed on a state-maintained highway as part of a local improvement project. However, there is guidance for provision of pedestrian facilities on local projects in Chapter 41 of the Bureau of Local Roads and Streets manual.

Figure 3.6 is an example of a complete street layout which includes sidewalks separated from the road with a planted parkway and a bicycle facility (lane, sharrows, or other) adjacent to the parking lane. The road provides accessibility for all users.

³⁰ Illinois General Assembly, Public Act 095-0665. <u>www.ilga.gov/legislation/publicacts/fulltext.asp?Name=095-0665.</u>

³¹ Illinois General Assembly: <u>http://ilga.gov/legislation/publicacts/fulltext.asp?Name=096-1165</u>. Accessed July 19, 2017.

Figure 3.6 Example of Complete Street Design



Source: Institute of Transportation Engineers, Designing Walkable Urban Thoroughfares: A Context Sensitive Approach, 2010. Page 70.

In June 2010, IDOT amended its Bureau of Design and Environment manual to incorporate the new law in Chapter 5 Local Agency Agreements and Chapter 17 Bicycle and Pedestrian Accommodations.³² The manual details the decision process for excluding a facility, exceptions and partial exceptions to considering accommodations, and details the warrants that must be met before bicycle accommodations can be made. In March 2011, IDOT amended Section 17-1.03 of the manual to reflect that if any of the following conditions exist, the state shall provide adequate on or off-road accommodation:

- → The highway or street is designated as a bikeway in a regionally or locally adopted bike plan or is published in a regionally or locally adopted map as a recommended bike route.
- → The projected two-way bicycle traffic volume (see Section 17-1.04) approximate 25 ADT or more during the peak three- months of the bicycling season five years after completion of the project.
- → The route provides "primary access" to a park, recreational area, school, or other significant destination.
- → The route provides unique access across a natural or man-made barrier (e.g., bridges over rivers, bridges over rivers, bridges over railroad yards, bridges over freeways or expressways, highways through a National Forest). Bicyclists will be accommodated on the bridge unless bicycles are otherwise prohibited to operate on the roadway approaches. For projects that meet no other warrants, a minimum shoulder width of 4 ft. (1.2 m) shall satisfy this warrant.
- → The highway project will negatively affect the recreational or transportation utility of an independent bikeway or trail. Highway projects will negatively affect at-grade paths and trails when they are severed, when the projected roadway traffic volumes increase to a level that prohibits safe crossings at-grade, or when the widening of the roadway prohibits sufficient time for safe crossing.

Additional details regarding project submittals, calculating demand, engaging the public and building support, design criteria and standards, and other considerations are also in the manual.

For pedestrian accommodations, conditions that require pedestrian accommodation (Section 17-4.03, BDE Manual, May 2017) are:

³² Illinois Department of Transportation, Bureau of Design and Environment Manual

- \rightarrow If there is current evidence of frequent pedestrian activity (dirt trails / paths).
- → If there is a history of pedestrian-related crashes.
- → The new road or improvement will create a safety issue for pedestrian travel.
- → There is a urban or suburban development that would attract pedestrian travel along the route to be improved.
- → Pedestrian-attracting development adjacent to the road exists, or is expected within the next five years.
- → The road provides "primary access" to a significant destination, including parks, recreational areas, and other significant destinations or across a natural or man-made barrier.

B3.2.1 TRANSPORTATION ALTERNATIVES

The aforementioned MAP-21, enacted in July 2012, consolidated a number of previous federal programs that funded bicycle and pedestrian projects. MAP-21 combined the Transportation Enhancements, Recreational Trails, and Safe Routes to Schools programs. Other changes in MAP-21 include:

- → Reduced the total amount of funding available.
- → Kept the funding share at 80 percent federal and 20 percent local.
- → Made the Recreational Trails Program an optional set-aside.
- → Changed some of the types of projects that can be funded. For example, projects that address Americans with Disabilities Act (ADA) compliance are now identified as being eligible for these resources. MAP-21 also allocated programming authority of a portion of the funds to the Metropolitan Planning Organizations (MPO) with urban populations of more than 200,000.

Out of the \$233 million of Transportation Enhancement funds allocated to Illinois under the previous federal transportation legislation, IDOT has committed \$199 million, with the last round of projects announced on October 12, 2016 funding 33 projects for \$30.7 million. The next round of ITEP applications is being accepted from October 2 to December 1, 2017 with an award announcement projected in Spring 2018. Since the start of the Transportation Enhancements program in 1991, pedestrian and bicycle facilities, including trails, have received about half of all funding available – nearly \$217 million out of the \$410 million that has been programmed. Other eligible project types that do not involve pedestrian and bicycle facilities are landscape/streetscape and other scenic beautification, conversion of abandoned railroad corridors to trails, historic preservation, vegetation management in transportation rights of way, archaeological activities relating to impacts from implementation of transportation projects, stormwater management, and construction of turnouts or viewing areas.

For the Safe Routes to Schools program, IDOT has committed approximately \$43.5 million since the program began in 2005; as of June 2012, awardees are reported to have spent a little more than \$12.6 million (28%). Twenty-one educational and encouragement projects that have been funded include bike rodeos in Matteson and Lena, designated days to walk to school in Marysville and Plano, training programs to teach students how to be safe bicyclists and walkers, crossing guard trainings, planning for 'walking school bus' events and a variety of other educational and encouragement programs.

Per the ABW's 2016 Benchmarking Report, the percentage of federal funds obligated for biking and walking projects totaled nearly \$153 million from FY 2009 to FY 2014. Table 3.2 depicts a percentage breakdown of these funds, per federal program, for FY 2009 to FY 2014.

Federal Program	Percentage of Funds (%)
CMAQ	26
STP/TE TAP/TE*	27
Other STP	4
SRTS	17
RTP	1
HSIP	0
NHPP	6
ТАР	2
ARRA	12
All Other Programs	5
Total	100

Table 3.2 Federal Funding Programs for Biking and Walking Projects (FY 2009 - 2014)

*At this time Transportation Enhancement part of STP funding source.

Illinois has experienced an increase in federally funded bicycle and pedestrian projects in recent years. From FY 2006-2008 to FY 2009-2011, the total amount of funds for bicycle and pedestrian projects tripled. The increase from FY 2009-2011 to FY 2012-2014 was not as noticeable; however, funding still increased over 20 percent. Table 3.3 details federal funds obligated from FY 2006 to FY 2014.

Table 3.3 Federal Funds Obligated to Bicycle and Pedestrian Projects (FY 2006 - 2014)

FY	Total Amount of Funds (\$)
2006-2008	22,020,429
2009-2011	67,802,006
2012-2014	85,031,839
Total	174,854,274

Source: Alliance for Biking and Walking, 2016 Benchmarking Report.

B3.2.2 CONGESTION MITIGATION AND AIR QUALITY PROGRAM (CMAQ)

With passage of the Clean Air Act Amendments of 1990, the Congress made great strides in America's efforts to attain the National Ambient Air Quality Standards (NAAQS). The 1990 amendments required further reduction in the amount of allowable vehicle tailpipe emissions, initiated more stringent control measures in areas that still failed to meet the NAAQS-known as nonattainment areas-and provided for a stronger, more rigorous link between transportation and air quality planning. Further establishing this link, one year later, the Congress passed the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. This far-reaching legislation brought transportation into the multi-modal arena and also set the stage for an unprecedented focus on environmental programs. Part of this approach was the Congestion Mitigation and Air Quality Improvement Program. The CMAQ program was implemented to support surface transportation projects and other related efforts that contribute air quality improvements and provide congestion relief. Administered by FHWA, the CMAQ program has been reauthorized under every successive Transportation Bill up to and including the FAST Act in 2015. Through the close of the MAP-21 period in 2015, the CMAQ program has provided more than \$30 billion to fund over 30,000 transportation related environmental projects for State DOTs, metropolitan planning organizations, and other sponsors throughout the US. As with its predecessor legislation, the FAST Act provides funding to areas in nonattainment or maintenance for ozone, carbon monoxide, and/or particulate matter. In addition, those States that have no nonattainment or maintenance areas still receive a minimum apportionment of CMAQ funding for either air quality projects or other elements of flexible federal aid highway spending. The FAST Act provides from \$2.3 to almost \$2.5 billion in CMAQ funding for each year of the authorization-2016 through 2020. While project eligibilities remain largely the same, the legislation places increased emphasis on diesel engine retrofits including

construction equipment, port-related landside non-road or on- road equipment and alternative fuel infrastructure in designated alternative fuel corridors. ³³

The State of Illinois receives an allocation of federal CMAQ funds. Under the Intermodal Surface Transportation Efficiency Act (ISTEA), Transportation Equity Act for the 21st Century (TEA-21), and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), funding apportionments for each state were calculated based on a formula using weighted populations in ozone and PM2.5 nonattainment and maintenance areas. Under MAP-21 and the FAST Act, the federal funds are allocated using the proportions from the final year of SAFETEA-LU. In Illinois, CMAQ funds are distributed between the nonattainment areas of the state based on the same formula used in ISTEA, TEA-21, and SAFETEA-LU. Currently, the only two MPOs with ozone and PM2.5 nonattainment areas in Illinois are CMAP and the East-West Gateway Council of Governments (EWGCOG). CMAP receives approximately 95.21 percent of the annual apportionment and EWGCOG receives approximately 4.79 percent. As of MAP-21, 25% of the funds must be obligated on projects that improve PM2.5.³⁴

B3.2.3 STATE BIKEWAYS PLAN

Illinois completed its first statewide bicycle plan in 2014. This plan provides IDOT with a foundation for bicycle and pedestrian planning in Illinois. The plan draws on existing policies as defined in the Bureau of Design and Environment and the Bureau of Local Roads and Streets manuals, including previous planning and programming implemented by IDOT. The plan includes an assessment of current conditions, identifies goals for future enhancements to infrastructure and education and encouragement programs, and sets a path for implementation. Based on the existing conditions analysis, plan recommendations included the following:

- → Bicycling related planning and policy recommendations,
- → Bikeway safety, design and maintenance recommendations,
- → Regional-scale bikeway network recommendations,
- → Bikeway network implementation and prioritization recommendations,
- → State bicycling performance measures,
- → Education, outreach and enforcement recommendations, and
- → Funding recommendations.

B3.2.4 BICYCLE MAPS

Mapping a network of suitable bicycle routes was one of the first initiatives of IDOT's bicycle program. These maps cover the state and provide measures of suitability for bicycling on roadways in the state. These recommendations have six different levels, ranging from "most suitable" to "not recommended for bicycling" and two other classifications ("bicycles prohibited," generally on interstates, and "use at your discretion," for roads that are unpaved). IDOT assessed the roads using a Bicycle Level of Service calculation, which considers traffic volume and speed, pavement condition, lane and shoulder widths, the number of lanes, on-street parking, and the percentage of truck traffic on the road. In addition, the ratings assume an average or better than average level of skill for an adult bicyclist, who is comfortable with sharing the road with vehicular traffic.

State bicycle maps are available in print by request, or on line by county, in downloadable printable format.³⁵ IDOTproduced maps rely on data from the Illinois Roadway Information System (IRIS), a Geographic Information System (GIS) database that includes information on most Illinois roadways.

³³ Federal Highway Administration. Air Quality: CMAQ Program. <u>https://www.fhwa.dot.gov/environment/air_quality/cmaq/</u>. Accessed July 19, 2017.

 ³⁴ IDOT, MPO Cooperative Operations Manual. P. 12. <u>http://www.idot.illinois.gov/Assets/uploads/files/Transportation-System/Manuals-Guides-&-Handbooks/Highways/Metropolitan%20Planning%20Organization%20Cooperative%20Operations%20Manual.pdf</u>. Accessed July 19, 2017.
 ³⁵ <u>http://www.idot.illinois.gov/travel-information/recreation/trails-paths-streets/index</u>

B3.2.5 GO GREEN

Illinois has committed to bicycling as a priority, as part of the State's sustainability initiative. There is a bicycling information page on the Green.Illinois.gov website under the Sustainable Transportation tab, which compiles a listing of all efforts and program by all state agencies involved with bicycling.³⁶

As an example of how bicycling (and walking) are becoming embedded into state government activity, the 2014 Annual Report of the Green Governments Coordinating Council notes the efforts by various agencies to promote the use of bicycling by providing bicycle parking at facilities, as ways to reduce greenhouse gas emissions and to improve employee health.

³⁶ GreenIllinois.Gov. <u>https://www.illinois.gov/gov/green/Pages/BikeContents.aspx.</u>

B4. Freight System

B4.1 DESCRIPTION

The efficient movement of goods is critical to the economy of Illinois and the United States. Illinois is the freight epicenter of the nation due to its critical role in the movement of freight nationwide. Freight of all kinds is being shipped to and from Illinois on a daily basis by truck, rail, water, and air. Illinois is served by all seven Class I railroads and the National Highways System in Illinois contains 7,945 miles³⁷; the 4th largest in the nation. IDOT plays an important role supporting the infrastructure that allows freight to effectively and reliably move in and out of the state. In addition to this section, more detailed information on freight modes, goods movement, and conditions can be found in 2017 Illinois State Freight Plan.

B4.1.1 OVERVIEW OF FREIGHT FLOWS

Freight traffic flows by mode, commodity, and geography are a fundamental way to understand the demand on Illinois infrastructure, and the connection between freight and the economy of the state. Several datasets, as described in the 2017 Illinois State Freight Plan, were combined to develop an accurate overview of Illinois' freight flows.

In 2014, 1.23 billion tons of freight was moved to, from, or within Illinois. This cargo was valued at \$2.97 trillion. The modal breakdown and directional flow of this freight movement is shown below in Table 4.1. The top half of Table 4.1 shows tonnage and value for inbound, outbound, and within state flows. The bottom half shows the mode share percentages based on these tonnages and values.

	Inbound		Outb	ound	Within		Grand	Total
	Tons 2014	Value 2014						
	(M)	(BUSD)	(M)	(BUSD)	(M)	(BUSD)	(M)	(BUSD)
Truck - FAF Dis	129.1	\$296.3	133.8	\$415.2	401.4	\$360.8	664.2	\$1,072.3
Rail Intermodal - STB	48.8	\$647.3	56.2	\$662.4	0.1	\$3.9	105.1	\$1,313.6
Rail Carload - STB	195.2	\$198.1	129.5	\$161.9	24.2	\$11.1	348.9	\$371.2
Water - TS	21.2	\$10.6	80.0	\$19.7	6.6	\$1.2	107.8	\$31.5
Air - T100	1.0	\$97.7	0.9	\$87.0	-	\$0.7	1.9	\$185.4
Grand Total	395.3	\$1,250.0	400.4	\$1,346.2	432.3	\$377.7	1,227.9	\$2,974.0
Truck - FAF Dis	32.7%	23.7%	33.4%	30.8%	92.9%	95.5%	54.1%	36.1%
Rail Intermodal - STB	12.3%	51.8%	14.0%	49.2%	0.0%	1.0%	8.6%	44.2%
Rail Carload - STB	49.4%	15.8%	32.3%	12.0%	5.6%	2.9%	28.4%	12.5%
Water - TS	5.4%	0.8%	20.0%	1.5%	1.5%	0.3%	8.8%	1.1%
Air - T100	0.3%	7.8%	0.2%	6.5%	0.0%	0.2%	0.2%	6.2%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 4.1 Mode and Type of Flow Overview, 2014

Source: WSP Combined Commodity Flow Dataset, Only Truck, Rail, Air, and Water

* STB: Surface Transportation Board; TS: Transearch; T100: 2014 Bureau of Transportation Statistics T-100 Segment Database (value calculated based on average value per ton figures from FAF)

A comparison of inbound, outbound, and within state flows, by tonnage and by value is presented below in Figure 4.1. As shown on the left side of Figure 4.1, by tonnage, freight flows inbound, outbound, and within the state are roughly evenly distributed, at 32.2 percent, 32.6 percent, and 35.2 percent, respectively. These percentages are

³⁷ FHWA. NHS Estimated MAP-21 NHS Mileages.

https://www.fhwa.dot.gov/planning/national_highway_system/nhs_maps/map21estmileage.cfm. Accessed September 2017.

based on the total tonnages for inbound, outbound, and within state flows shown in Figure 4.2: Mode and Type of Flow Overview, 2014, divided by the grand total of 1,227.9 million tons.

As shown on the right side of Figure 4.1, the value of inbound and outbound freight was roughly equal at 42.0 percent and 45.3 percent, respectively, whereas, the value of freight moving only within the state was much lower, at 12.7 percent. These percentages are based on the total values of inbound, outbound, and within state freight flows shown in Figure 4.3: Mode and Type of Flow, 2014, divided by the grand total of \$2,974.0 billion.

These figures exclude freight that passes through the state, such as transcontinental rail shipments hubbed in and around Chicago or interstate truck trips from Wisconsin to Indiana.



Figure 4.1 Freight Flow Overview (Shares Labeled), 2014

Source: WSP Combined Commodity Flow Dataset, Only Truck, Rail, and Water

A comparision by mode share is shown below. This comparison summarizes the modal breakdown from the Grand Total column in Table 4.1: Mode and Type of Flow Overview, 2014.

As shown on the left side of Figure 4.2: Modal Overview, 2014, over half (54.1 percent) of all tonnage is transported by truck. Rail intermodal shipments represent 8.6 percent of tonnage. Rail shipments by carload represent 28.4 percent of tonnage. Water represents 8.8 percent of tonnage. Air represents 0.2 percent of tonnage.

As shown on the right side of Figure 4.2: Modal Overview 2014, the rail intermodal mode jumps to a mode share of 44.2 percent in terms of value, which is larger than the mode share for truck of 36.1 percent. This reflects the importance of intermodal to the region and the relatively high value commodities that use this mode. The truck mode in Illinois carries a significant tonnage of gravel and other low value commodities which accounts for its lesser value share of 36.1 percent. Rail carload value also drops considerably from a tonnage share of 28.4 percent to a value share of 12.5 percent due to a large percentage of bulk commodities, such as coal and cereal grains. Water's mode share also decreases considerably going from a tonnage share of 8.8 percent to a value share of only 1.1 percent due once again to its concentration in bulk commodities. On the other hand, the air mode increases to 6.2 percent in terms of value.

Figure 4.2 Modal Overview, 2014



Source: WSP Combined Commodity Flow Dataset, Only Truck, Rail, and Water

Several other findings from Figure 4.2: Modal Overview, 2014, also stand out:

- → The inbound rail carload tonnage is substantially larger than the truck inbound tonnage, which are 195.2 and 129.1 million tons, respectively.
- → The inbound and outbound truck tonnage is essentially balanced (129.5 and 133.8 million tons, respectively), and trucking handles the vast majority of traffic that stays within the state (401.4 million tons).
- → There is roughly four times more tonnage outbound by water than inbound by water (80.0 and 21.2 million tons, respectively).
- → Most of these outbound water flows are lower value commodities, as the gap is smaller by value, with total values of \$19.7 billion for outbound and \$10.6 billion for inbound, which by percentage of overall value correlates to 1.5 percent and 0.9 percent, respectively.
- → Inbound air cargo³⁸ represents 7.8 percent of the value and outbound air cargo represents 6.5 percent of the value, but air cargo is negligible in terms of tonnage share.

Understanding the flow of individual commodities is necessary to characterize the drivers of freight activity. Figure 4.3 through Figure 4.6 show commodity flows by tonnage, value, mode, and type.

As shown in Figure 4.3, the largest commodity flow in 2014 by tonnage is coal, representing 14.9 percent of all tons moved to, from, and within the state, with the majority of these flows heading inbound. As shown by Figure 4.5,: Mode Share of Top 15 Commodities by Tonnage, 2014, 76.8 percent of coal is transported by rail carload in unit trains, although the water mode is used more intensely than other states, accounting for 18.0 percent of tons moved of this commodity. Inbound flows of coal are primarily supplying power plants for local energy generation. Figure 4.3 also shows that cereal grains are the second largest commodity by tonnage, representing 10.7 percent of all flows to, from, and within Illinois. This is unsurprising given the importance of this industry to Illinois' economy. Most of these cereal grain movements are internal, heading to consumption markets and food processing facilities around the state, although outbound flows to other states are also substantial.

As shown in Figure 4.5: Mode Share of Top 15 Commodities by Tonnage, 2014, approximately 61.8 percent of these grain tons were carried by truck, with an additional 22.3 percent being transported by rail carload.

Figure 4.3: Top 15 Commodities by Tonnage by Type of Flow, 2014, also shows that the third largest commodity by tonnage is gravel, representing 7.6 percent of tons. Gravel is used primarily in the construction sector. Because of its

³⁸ Air cargo totals are included in Figure 4.1 and 4.2 but are excluded from subsequent tables and figures because they were generated from a database that did not contain commodity level information.

high weight to value ratio, gravel is typically only shipped short distances, which is why the majority of gravel shipments that start in Illinois have destinations in Illinois.

As shown in Figure 4.5: Mode Share of Top 15 Commodities by Tonnage, 2014, gravel is transported mainly by truck, with a mode share of 86.1 percent.



Figure 4.3 Top 15 Commodities by Tonnage by Type of Flow, 2014

Source: WSP Combined Commodity Flow Dataset, Only Truck, Rail, and Water

[The corresponding SCTG Commodity Codes for the above are: Coal (15), Cereal Grains (02), Gravel (12), Mixed Freight (43), Other foodstuffs (07), Gasoline (17), Basic chemicals (20), Other ag prods. (03), Chemical prods. (23), Nonmetal min. prods. (31), Base metals (32), Waste/scrap (41), Motorized vehicles (36), Fuel oils (18), and Fertilizers (22).]





Source: WSP Combined Commodity Flow Dataset, Only Truck, Rail, and Water

[The corresponding SCTG Commodity Codes for the above are: Mixed freight (43), Motorized vehicles (36), Machinery (34), Electronics (35), Chemical prods. (23), Unknown (N/A), Plastics/rubber (24), Textiles/leather (30), Other foodstuffs (07), Base metals (32), Misc. mfg. prods. (40), Pharmaceuticals (21), Articles-base metal (33), Gasoline (17), and Basic chemicals (20).]

Analyzing commodity flows by value provides an overview of the supply-chains that are most important to the state's economy. As shown in Figure 4.4: Top 15 Commodities by Value by Type of Flow, 2014, shipments of Mixed Freight are by far the largest commodity flow in the state (33.6 percent); however, this is a special category used for rail intermodal traffic and it can be composed of a wide range of products. Given the importance of Chicago in nationwide intermodal logistics and the movement of international trade, it is expected that this commodity group appears prominently in the data. An issue that might be overstating the importance of these shipments is that some rail intermodal containers that pass through Chicago on transcontinental shipments are rebilled (issued a second waybill) in Chicago as they switch railroads. It is possible these shipments are counted twice as shipments that terminate in the state and then originate again. Rebilling generally occurs at any east/west rail interchange and thus can affect data at St. Louis as well, although Chicago is the chief location. Adjusting for it is not simple—there is no way to perfectly connect rebilled shipments. However, the effect of this data issue on total results is likely to be of secondary importance: it tends to exaggerate volumes more than it distorts broad traffic patterns.

Figure 4.4: Top 15 Commodities by Value by Type of Flow, 2014, is also useful to highlight the key outbound commodities for the state. For commodities such as machinery, electronics, chemical products, and plastic/rubber, the state ships more to other states than it receives for local consumption. Outbound flows of these high value commodities are important for the local economy because they are an indication of manufacturing activity and high value added production.

As shown in Figure 4.6: Mode Share of Top 15 Commodities by Value 2014, with the exception of chemical products, truck is the most important mode for these commodities. The truck mode share for chemical products was only slightly less than that for rail carload. The truck mode share for these commodities is as follows:

- → Machinery (69.3 percent)
- → Electronics (63.8 percent)
- → Chemical Products (37.4 percent)
- → Plastic/Rubber (67.4 percent).

As shown by Figure 4.4: Top 15 Commodities by Value by Type of Flow, 2014, the second largest commodity group in Illinois by value is motorized vehicles, representing 12.5 percent of flows in the whole state. This reflects the importance of this sector to the state's economy.

As shown by Figure 4.5: Mode Share of top 15 Commodities by Tonnage, 2014, around half of these flows are moving by rail carload (50.9 percent) and the rest are split between truck (27.3 percent) and rail intermodal (21.8 percent).

Figure 4.5 Mode Share of Top 15 Commodities by Tonnage, 2014



Source: WSP Combined Commodity Flow Dataset, Only Truck, Rail, and Water

[The corresponding SCTG Commodity Codes for the above are: Coal (15), Cereal grains (02), Gravel (12), Mixed freight (43), Other foodstuffs (07), Gasoline (17), Basic chemicals (20), Other ag prods. (03), Chemical prods. (23), Nonmetal min prods. (31), Base metals (32), Waste/scrap (41), Motorized vehicles (36), Fuel oils (18), and Fertilizers (22).]

Figure 4.6 Mode Share of Top 15 Commodities by Value, 2014



Source: WSP Combined Commodity Flow Dataset, Only Truck, Rail, and Water

[The corresponding SCTG Commodity Codes for the above are: Mixed Freight (43), Motorized vehicles (36), Machinery (34), Electronics (35), Chemical prods. (23), Unknown (N/A), Plastics/rubber (24), Textiles/leather (30), Other foodstuffs (07), Base metals (32), Misc. mfg. prods. (40), Pharmaceuticals (21), Articles-base metal (33), Gasoline (17), and Basic chemicals (20).]

B4.2.1 ILLINOIS RAIL PLAN

The 2017 Illinois State Rail Plan, as a coordinated part of the overall Illinois State Transportation Plan, reviews the existing rail infrastructure, provides recommendations for improving the rail system, and explores possible connections between rail and other modes of transportation. As the Rail Plan is a stand-alone comprehensive planning document that includes both freight and passenger rail, it is not entirely focused on freight movement in Illinois. However, in its description of the rail lines and railroads operating in Illinois, the Rail Plan provides a valuable resource to understanding the data presented in the 2017 Illinois State Freight Plan regarding rail freight mode share and rail freight commodity flows.

The primary goal of the Rail Plan is to create a vision of what rail services will look like in the future. The Plan identifies anticipated trends, needs and issues that will affect rail service and demand over the next two or three decades. It also provides a long range investment program framework for rail services within the State.

B4.2.2 RAIL FREIGHT LOAN PROGRAM

The Rail Freight Loan Program provides capital assistance to communities, railroads, and shippers to improve rail freight service and promote statewide economic development. Through the Rail Rreight Loan Program, IDOT provides capital funding in the form of low interest loans, creating a revolving, self-sufficient funding program. In FY 2018, the General Assembly provided \$1.7 million for the Rail Freight Loan Program. Each project considered for financial support must produce economic benefits that meets or exceeds the funding provided by the state, as determined through a benefit/cost analysis.

B4.2.3 REGIONAL, MULTI-STATE AND NATIONAL EFFORTS

IDOT is also engaged in several efforts to improve freight movement from a local, regional, multi-state and national perspective. Some of these efforts are briefly reviewed here, and are discussed in more detail in the 2017 Illinois State Freight Plan.

CREATE PROGRAM

The existing Chicago railroad system has infrastructure limitations that result in motorist, public transit, passenger rail, and freight rail delays and congestion on a daily basis. Recognizing that rail capacity improvements within the Chicago metropolitan area contribute directly to local and national economic growth and environmental improvements, the Chicago Region Environmental and Transportation Efficiency Program (CREATE) program was formed in 2003. CREATE is a public-private partnership between the U.S. Department of Transportation, the Illinois Department of Transportation, the City of Chicago Department of Transportation, Cook County, the Association of American Railroads, Amtrak, Metra, and the six Class I freight rail carriers in the Chicago area

The C R E A T E Programs a multi-billion dollar investment in the metropolitan Chicago region's railroad infrastructure. To date, 28 projects have been completed, with 42 under development. The CREATE program improvements will benefit the nation by increasing the efficiency and safety of the railroad network, and reducing costs due to delays and crashes

(BNSF Railway, Canadian Pacific Railway, Canadian National Railway, CSX Transportation, Norfolk Southern Corporation, and Union Pacific Railroad), the Belt Railway Company of Chicago, and the Indiana Harbor Belt Railroad. The CREATE program includes 70 rail and grade separation projects that will result in increased efficiency and reliability of rail service within the Chicago region, while also providing additional benefits to highway users through the elimination of at-grade crossing delays and other conflicts. To date, the CREATE partners have committed over \$1.4 billion to the program, which is estimated to have a total cost of approximately \$4.4 billion. Thus far, 28 of the 70 projects have been completed, with the remaining 42 projects in various phases of development. Figure 4.7 shows the status of the projects as of January 2017.



Figure 4.7 Status of CREATE Projects as of January 2017

MID-AMERICA FREIGHT COALITION

The Mid-America Freight Coalition³⁷ (MAFC) is a regional organization of ten midwestern states that cooperates in the planning, organization, preservation, and improvement of transportation infrastructure. The ten states that are members of MAFC are Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Ohio, and Wisconsin. The ten member states share key interstate corridors, major inland waterways. MAFC members submit and review

Source: Chicago Region Environmental and Transportation Efficiency Program, http://www.createprogram.org/projects.htm#other, Accessed April 2017.

proposed research projects that may be of interest to the group. Typically, several projects are completed and published each year based on those selected from this slate of proposed projects.

WILL COUNTY COMMUNITY FRIENDLY FREIGHT MOBILITY PLAN

The Will County Community Friendly Freight Mobility Plan³⁹ is a partnership between Will County and the Will County Center for Economic Development (CED), with additional support from the Illinois Department of Transportation, the Workforce Investment Board of Will County, Three Rivers Association of Realtors, Federal Highway Administration, and the Chicago Metropolitan Agency for Planning (CMAP). With the development of two large, modern intermodal centers and the addition of over 100 million square feet of new industrial space, and more intermodal centers and industrial spec planned, Will County is the largest inland port in North America. The Will County Community Friendly Freight Mobility Plan will be multimodal and will provide strategies and goals to guide freight policies, programs, projects and investments throughout Will County in a community-friendly manner. The Will County Community Friendly Freight Mobility Plan will encompass a holistic planning approach covering freight mobility, land-use integration, workforce development, education/training and community livability. The Will County Community Friendly Freight Mobility Plan began in October 2016 and is slated for completion in late 2017.

HOUBOLT ROAD BRIDGE

IDOT, CenterPoint Properties, Will County, and the City of Joliet have partnered to deliver the Houbolt Road Bridge project over the Des Plaines River, connecting I-80 to North America's largest inland port located in the municipalities of Elwood and Joliet in Will County. The project will help facilitate the movement of goods throughout the region, relieve congestion and safety concerns in nearby communities, and further strengthen the state's economy. The project has a cost estimate of \$170 million to \$190 million. Under the agreement, CenterPoint will build and operate a new toll bridge on Houbolt Road over the Des Plaines River and the BNSF Railroad tracks at a cost of \$150 million to \$170 million. Will County has passed a resolution allowing tolls to be issued and collected by CenterPoint. An IDOT contribution of \$21 million will widen Houbolt Road and reconfigure the existing interchange with I-80 to a diverging-diamond design to accommodate the increased traffic demand. The City of Joliet will work with IDOT to implement and oversee the improvements³⁹.

³⁹ Governor Bruce Rauner Press Release, July 11, 2016

B5. Rail

B5.1 DESCRIPTION

With the rise of fuel prices and increase in congestion, alternatives to driving are in higher demand than ever before; therefore, the use of the Illinois rail system is trending positively. The recent growth in rail passenger ridership in Illinois is a strong indicator of the importance of rail travel in maintaining a balanced transportation system and demonstrates the need for an efficient passenger rail network.

Illinois has long advocated for and invested in the passenger rail network, resulting in a mature commuter rail system and an intercity rail system that links to the national rail network. As such, passenger rail in Illinois is not a stand-alone network but rather an integral element of the transportation system network. Illinois represents a major crossroads in the nation's rail network and Chicago represents the largest rail hub in North America. The Illinois rail system provides residents and visitors with various rail alternatives for all activities ranging from the daily commute for business to leisurely getaways.

B5.1.1 INTERCITY PASSENGER RAIL

The Passenger Rail and Improvement Act of 2008 (PRIIA) requires States to submit a State Rail Plan if they are receiving federal funding for facilities, infrastructure, and equipment to provide or develop intercity passenger rail transportation⁴⁰. The U.S. Department of Transportation will not officially approve PRIIA grants for a project unless the project is part of the State Rail Plan⁴¹. Since PRIIA defines passenger rail as intercity and commuter rail, this section will only discuss these types of rail systems in Illinois, which include Amtrak, Metra, and the Northern Indiana Commuter Transportation District (i.e. South Shore Line), as well as their intermodal connections.

AMTRAK

In 1970, Congress created Amtrak to take over intercity passenger rail services that twenty, financially distressed railroad companies operated in the United States⁴². Most of these companies were looking to unload their moneylosing passenger rail operations, even though they provided a vital public service. Over fifty years later, Amtrak operates 44 routes that serve over 500 destinations in 46 states and three Canadian provinces⁴³. These services are comprised of long-distance routes, medium-distance (regional or corridor) routes, state-supported routes, and state-supported commuter rail routes.

Illinois is at the center of Amtrak's national passenger rail system. Of the 38 national Amtrak trains, 11 Amtrak routes traverse Illinois, creating a hub for travelers and an opportunity for Illinois to provide quality service that affects nationwide travel⁴⁴. As detailed in Table 5.1 below, Amtrak operates eight long-distance routes and four medium-distance routes (regional) to and from Chicago's Union Station as well as four in-state routes. Each of these rail segments are depicted in Figure 5.1.

⁴⁰ Subdivision information for this and other Class I railroads has been temporarily transferred from the 2012 State Rail Plan and will be verified to ensure that all information is up-to-date.

⁴¹ United States Code 49 Section 24402(b)(1)

⁴² https://www.amtrak.com/ccurl/998/601/Amtrak-National-Fact-Sheet-FY2015,0.pdf

⁴³ Amtrak, https://www.amtrak.com/national-facts, accessed July 27, 2017.

⁴⁴ Amtrak Illinois, <u>http://illinoisrail.org/amtrak_illinois/</u>, accessed July 27, 2017

Figure 5.1 Amtrak in Illinois



Source: Amtrak website, www.amtrak.com

Table 5.1 Amtrak Routes in Illinois

Route		Route Length	Track Owners	Travel Time	Service Cars	No. of Cities Served
Long-Distance I	Routes					
California Zephyr	Chicago-Galesburg- Emeryville, CA	2,438 miles	Burlington Northern Santa Fe, Union Pacific	52 hrs.	Superliner Sleepers and Coach Service	42
Capitol Limited	Chicago-Cleveland- Washington DC	780 miles	Norfolk Southern, CSX	18 hrs.	Coach and First Class	16
Cardinal	Chicago-Cincinnati- New York	1,147 miles	Norfolk Southern, CSX, Buckingham Branch RR, Amtrak	26.5 hrs.	First Class Sleeper, Reserved Business Class, Reserved Coach Class	32
City of New Orleans	Chicago-Champaign- New Orleans	934 miles	Canadian National	19 hrs.	Coach and First Class Sleeper	19
Empire Builder	Chicago-St. Paul/Minneapolis- Seattle, WA/Portland, OR	2,206 miles (Chicago- Seattle) 2,257 miles (Chicago- Portland)	Metra, Canadian Pacific, Burlington Northern Santa Fe	46 hrs., 10 min. (Chicago to Seattle) 45 hrs., 55 min (Chicago to Portland)	Superliner Sleeper and Coach	46
Lake Shore Limited	Chicago-Cleveland- New York or Boston	1,017 miles (Chicago to Boston) 959 miles (Chicago to NYC)	Norfolk Southern, CSXT, Metro North RR, Amtrak	22 hrs., 40 min. (Chicago to Boston) 20 hrs. (Chicago to NYC)	Heritage or Viewliner Diner Cars, Amfleet Coaches and Lounges, Viewliner Sleeper	24
Southwest Chief	Chicago-Kansas City- Los Angeles	2,265 miles	Burlington Northern Santa Fe	43 hrs., 15 min.	First Class Sleeper, Reserved Business Class, Reserved Coach Class	33

Route		Route Length	Track Owners	Travel Time	Service Cars	No. of Cities Served
Texas Eagle	Chicago-St. Louis-San Antonio (some continue onto Los Angeles)	1,306 miles (Chicago to San Antonio) 2,265 miles (Chicago to Los Angeles)	Canadian National, Union Pacific, Burlington Northern Santa Fe	32 hrs., 10 min. (Chicago to San Antonio) 65 hrs., 50 min. (Chicago to Los Angeles)	Reserved Coach and Superliner Roomettes and Bedrooms	41
Medium-Distan	ce Routes					
Blue Water	Chicago-Port Huron, MI	319 miles	Canadian National/Grand Trunk Western, Amtrak, Michigan DOT, Norfolk Southern	7 hrs.	N/A	11
Hoosier State	Chicago-Indianapolis	196 miles	Norfolk Southern, CSX	5 hrs.	Coach	6
Pere Marquette	Chicago-Grand Rapids, MI	176 miles	CSXT, Norfolk Southern	4 hrs.	Coach	5
Wolverine	Chicago- Detroit/Pontiac (connects to Amtrak's Thruway Program mid- way)	304 miles	Norfolk Southern, Canadian National, Amtrak, Conrail	6 hrs., 40 min.	Coach	N/A
In-State Routes						
Lincoln Service	Chicago- Bloomington/Normal- Springfield-St. Louis	284 miles	Canadian National, Union Pacific, Norfolk Southern, Kansas City Southern, Terminal Railroad Association of St. Louis	5.5 hrs.	Coach	11
Illini and Saluki Service	Chicago-Champaign- Carbondale	310 miles	Illinois Central (Canadian National)	5.5 hrs.	N/A	11
Carl Sandburg and Illinois Zephyr Services	Chicago-Quincy	258 miles	Burlington Northern Santa Fe	4 hrs., 28 min.	N/A	10
Hiawatha Service	Chicago-Milwaukee	85 miles	Metra, Canadian Pacific	1.5 hrs.	Coach	5

Source: Draft Rail Plan, May 17, 2017.
Figure 5.2 Amtrak Routes in Illinois



Source: IDOT, <u>http://www.idot.illinois.gov/Assets/uploads/images/Travel-Information/passenger-rail/Amtrak%20Map%20for%20Travelers.jpg</u>, accessed June 29, 2017.

B5.1.2 COMMUTER RAIL

Metra and the Northern Indiana Commuter Transportation District (NICTD) provide commuter rail service within Illinois. Metra and NICTD commuter transportation districts are depicted in Figure 5.3. The following discusses the rail operations for each provider.



Figure 5.3 Metra Commuter Rail Lines

Source: Metra, <u>www.metrarail.com</u>, accessed June 29, 2017.

METRA

Metra is one of the largest commuter rail systems in the nation serving a six-county region of 8,364,162 people living on 5,112 square miles⁴⁵. Metra operates 11 rail lines with 488 route miles. It uses 1,100 miles of track, 800 bridges, and 2,000 signals each weekday⁴⁶.

Figure 5.4 Metra Train in Chicago



Source: Metra Facebook Page, https://www.facebook.com/MetraRail/

In 1974, the Illinois General Assembly created the Regional Transportation Authority to coordinate public transportation throughout Chicago's metropolitan region. The Regional Transportation Authority created the Northeast Illinois Regional Commuter Railroad Corporation (NIRC) in the early 1980's to operate commuter service on rail lines threatened by private carrier bankruptcy and line sales. The Northeast Illinois Regional Commuter Railroad commuter services on the bankrupt Rock Island Railroad in June 1981 and on the former Milwaukee Road commuter rail lines a year later⁴⁷. In 1983, the Regional Transportation Authority was reorganized to provide three service boards responsible for day-to-day operations of system wide bus, rapid transit, and commuter rail service. In 1984, the Commuter Rail Service Board introduced "Metra" as the service mark for their commuter rail system.

Today, Metra oversees all commuter rail operations within Northeastern Illinois (except for the Hegewisch Station which is on the Northern Indiana Commuter Transportation District's South Shore Line). Metra is responsible for day-to-day operations, fare and service levels, capital improvements, and planning. The Metra directly operates seven of its lines and contracts with two freight carriers, the Burlington Northern Santa Fe Railway and the Union Pacific Railroad, to run four others. These 11 separate lines radiate out of Chicago's Loop with 241 stations in more than 100 communities. Under Purchase of Service Agreements (PSAs), the freight carriers use their employees and own or control the rights-of-way and most of the other facilities required for operations. Metra owns the rolling stock and controls fares, service, and staffing levels. The following provides a general description of Metra's lines.

Table 5.2 Metra Transit Lines

Route		Route Miles	Owner/Operator	No. of Trains (Weekdays)	No. of Trains (Weekends)	Notes
Union Pacific North Line	Ogilvie Transportation Center to Kenosha, WI	51.6	Union Pacific	35 (each direction)	13-14 (Sat.) 9-10 (Sun.)	

45 U.S. Census, 2016

⁴⁶ Metra, <u>www.metrarail.com</u>, accessed June 29, 2017.

⁴⁷ RTAMS, http://www.rtams.org/rtams/home.jsp, accessed June 29, 2017.

Route		Route Miles	Owner/Operator	No. of Trains (Weekdays)	No. of Trains (Weekends)	Notes
Milwaukee District North Line	Chicago Union Station to Fox Lake	51.6	Metra	30 NB & 31 SB	12 each direction (Sat.) 10 each direction (Sun.)	Several other rail services operate on this line.
North Central Service	Chicago Union Station to Antioch	52.8	Metra & Canadian National/Metra	11 NB & SB	None	Can transfer onto Milwaukee District West Line.
Union Pacific Northwest Line	Ogilvie Station to Harvard or McHenry	61.3 (Harvard) 55.7 (McHenry)	Union Pacific	33 NW & 32 SE Harvard has 11 and McHenry has 3 in each direction.	12 NW & SE (Sat.) 9 stop in Harvard and none in McHenry 8 NW & 7 SE (Sun.) 7 to Harvard and none to McHenry.	
Milwaukee District West Line	Chicago Union Station to Big Timber (Elgin)	39.8				
Union Pacific West Line	Ogilvie Station to Elburn	43.6	Union Pacific	30 W & 29 E	10 W & E (Sat.) 9 W & E (Sun.)	No service to Kedzie on weekends.
Burlington Northern Santa Fe Line	Chicago Union Station to Aurora	37.5	Burlington Northern Santa Fe	47 each direction	14 each direction (Sat.) 9 each direction (Sun.)	No weekend service to Halsted, LaVergne, Congress Park, Highlands, and West Hinsdale
Heritage Corridor Line	Chicago Union Station to Joliet	37.2	Canadian National/Metra	3 NB & 4 SB	None	
Southwest Service Line	Chicago Union Station to Manhattan	40.8	Norfolk Southern/Metra	15 each direction (3 serving Laraway Road and Manhattan)	3 each direction (Sat.)	
Rock Island District Line	LaSalle Station to Joliet (express mainline) and Beverly Branch	46.8 (collectively)	Metra & CSX/Metra	36 each direction (16 express, 14 Beverly Branch, 6 all stops)	20 each direction (6 express, 6 Beverly Branch, 4 all stops)	All stops: except 95 th Street Longwood and 103 rd Street Washington Heights
Metra Electric District Line	Millennium Station to University Park (mainline) 93 rd Street (South Chicago Branch) Blue Island (Blue Island Branch)	40.6 (collectively)	Metra	N/A	N/A	Only Metra line using electric propulsion.

Source: Draft Rail Plan, May 17, 2017.

NICTD

The Northern Indiana Commuter Transportation District (NICTD) operates the South Shore Line, which serves Chicago's southeast side, northwestern and north central Indiana, and southwestern Michigan. The NICTD assumed ownership of this line when the South Shore Line's private operator went bankrupt in 1989. Overall, the South Shore Line spans 89.7 miles from Millennium Station in Chicago to the South Bend International Airport in Indiana. People boarding or alighting this train can only use the South Shore Line if they are traveling to or from Chicago's Hegewisch Station or stations within Indiana. This train cannot serve commuter trips that Metra can make.

The NICTD runs the aforementioned South Shore Line on tracks that Metra and they own. The South Shore Line uses an overhead catenary wire system rather than diesel locomotives. The Northern Indiana Commuter Transportation District operates 21 westbound and 22 eastbound trains on weekdays. Two of these trains travel only between Carroll Avenue and the South Bend Airport. On weekends, the Northern Indiana Commuter Transportation District operates nine westbound and 11 eastbound trains. Two of the eastbound trains travel only between Carroll Avenue and the South Bend Airport.



Figure 5.5 South Shore Line Train

Source: South Shore Line Facebook, https://www.facebook.com/SouthShoreLine/

MULTIMODAL CONNECTIVITY

Intermodal connections are key to providing efficient transportation options to users. Intermodal connections are defined as an intercity passenger rail service facility's ability to let passengers conveniently connect with other transportation modes⁴⁸. This section profiles but does not include all existing intermodal connections at intercity passenger rail stations in Illinois, which includes: Chicago Union Station, Glenview, Homewood, Joliet, La Grange, Naperville, and Summit.

⁴⁸ IDOT, Illinois State Rail Plan, December 2012.

Table 5.3 Illinois Stations with Intermodal Connections

Station	Intermodal Connections							
Station	Chicago Transit Authority (Rail and Bus)	Amtrak (Rail)	Amtrak Thruway Motorcoach (Bus)	Metra (Rail)	Pace (Bus)	Illinois Highway Network (Road)	Megabus (Bus)	Other or Local Bus Service
Chicago Union Station	Х	Х	Х	Х	Х	Х	Х	
Glenview		Х		Х	Х	Х		
Homewood		Х		Х	Х	Х		
Joliet		Х		Х	Х	Х		
La Grange Road		Х		Х	Х	Х		
Naperville		Х		Х	Х	Х		
Summit		Х		Х	Х	Х		
Champaign Illinois		Х	Х			Х		
Terminal								
Carbondale		Х				Х		Х
Multimodal Station								

Source: IDOT, Draft Rail Plan, May 2017.

B5.2 IMPLEMENTATION STRATEGIES AND PROGRAMS

B5.2.1 HIGH-SPEED RAIL

The Federal Railroad Administration (FRA) launched the High-Speed Intercity Passenger Rail Program in June 2009 as part of the American Recovery and Reinvestment Act (ARRA). Illinois was selected in January 2010 to receive a federal award to bring high-speed passenger rail service (the High Speed Rail Project (HSR) to Illinois.

Approximately 99 percent of the 35 million annual trips made in the Chicago to St. Louis corridor are accomplished through automobile and air travel⁴⁹. The Chicago to St. Louis Rail Corridor is 284 miles long, with various configurations and owners. The HSR project would work to establish a more balanced modal use of the transportation network, with passenger trains designated to operate up to 110 miles per hour. Work is limited to infrastructure improvements and safety component improvements, as the current corridor operates on a single-track mainline for much of its length. A full build out of an additional second track is a future vision, but not currently funded. Construction activities along the corridor are scheduled to be largely complete in 2017.

⁴⁹ IDOT, Illinois High Speed Rail website, accessed July 2017.

Figure 5.6 Quad Gate Arms in Odell, Illinois



Source: City of Bloomington, Illinois website, <u>http://www.cityblm.org/government/departments/public-works/traffic/high-speed-rail</u>.

In September 2010, one of the first construction projects of the HSR project began. Since then, construction has continued along the corridor yearly between April and August. Construction is anticipated to be completed by the end of 2017. Construction work includes: building new/reconstructing sidings and second track, upgrades to bridges and culverts, drainage improvements, installation and upgrades to signal and wayside equipment, continued crossing and approach improvements, fencing installation, and utility improvements. Operations of trains up to 110 miles per hour began in 2012 between Dwight and Pontiac.

As further development of the HSR project, a feasibility study for 220 mile per hour trains from downtown Chicago, to Champaign-Urbana, and on to St. Louis and/or Indianapolis was conducted in 2013. This would connect the University of Illinois to Chicago, as well as three of the region's key cities together. It was determined the cost to build this project would be substantial and required further study⁵⁰.

B5.2.2 RE-INSTATEMENT OF PASSENGER RAIL SERVICE

Supporting intermodal connections is a very important part of having an efficient transportation system. Intermodal not only refers to passenger rail transit, but also freight rail. Promoting and expanding intermodal connectivity was included in the 2012 Illinois State Rail Plan.

The 2012 Rail Plan discussed the re-instatement of two intercity passenger rail services which would provide new intermodal connections. The Chicago-Rockford-Dubuque intercity passenger rail service has been put on hold due to insufficient funds⁵¹. IDOT and Iowa Department of Transportation applied for High-Speed Intercity Passenger Rail funding in 2009 for service between Chicago and Iowa City. New stations would provide new intermodal

⁵⁰ IDOT, 220 mph High Speed Rail Preliminary Feasibility Study, September 24, 2013.

⁵¹ Chicago Tribune, <u>http://www.chicagotribune.com/news/local/breaking/chi-plan-for-amtrak-service-from-chicago-to-rockford-on-hold-20150209-</u> story.html. Accessed in July 2017.

connections. Funding was awarded in 2010 and service was scheduled to begin in 2015⁵². However, the project was also put on hold due to the state budget impasse. IDOT has since moved forward with the project within the Chicago to Moline portion, with Iowa DOT declining to fund its portion of the project from Moline to Iowa City in 2014⁵³. Currently, the Chicago to Moline project has completed environmental studies along the BNSF portion of the route from Chicago to Wyanet, and is continuing environmental studies along the Iowa Interstate Railroad (IAIS) portion from Wyanet to Moline.⁵⁴.

B5.2.3 RAIL SAFETY AND SECURITY

Rail safety has historically been and continues to be a priority for the railroads, the Illinois Commerce Commission (ICC), and IDOT. Safety has potential impacts on the general public and the efficiency of rail operations. Although the major railroads have long had their own police and security forces, the focus of rail safety is more recent, with an emphasis on the potential threat of terrorists using rail to disrupt transportation, or to harm large numbers of citizens.

A number of federal and Illinois state agencies, in concert with railroads and rail operators, continue to make progress with regard to rail safety and security. The following is a summary of these issues and ongoing activities in Illinois.

RAIL SAFETY IN ILLINOIS

Rail safety requirements are provided through a combination of federal and state laws. A majority of safety-related rules and regulations fall under the jurisdiction of the FRA, as outlined in the Rail Safety Act of 1970⁵⁵ and other legislations, such as the most recent Rail Safety Improvement Act of 2008⁵⁶. Many of FRA's safety regulations are found in Title 49 Code of Federal Regulations Parts 200-209⁵⁷.

For rail passenger operations, the same FRA safety standards apply, with the addition of specific regulations regarding passenger equipment safety standards and passenger train emergency preparedness. Recommendations from the FRA's Railroad Safety Advisory Committee (RSAC) for proposed improvements to continually upgrade existing safety standards are generated as passenger equipment technology improves. FRA then issues the final rule at the conclusion of its rule-making process.

⁵² Senator Dick Durbin website, <u>https://www.durbin.senate.gov/newsroom/press-releases/durbin-harkin-announce-230-million-in-funding-for-new-rail-service-from-chicago-to-iowa-city-through-the-quad-cities</u>. Accessed in July 2017.

⁵³ The Dispatch/The Rock Island Argus, <u>http://www.qconline.com/news/local/illinois-commits-to-chicago-moline-passenger-rail/article_fd9a15d9-6b9c-59a0-8912-23f88dc5df01.html</u>. Accessed in July 2017.

⁵⁴ The Gazette, <u>http://www.thegazette.com/subject/news/business/transportation/railroad/iowa-leaving-53-million-for-amtrak-service-sitting-on-the-track-20141027</u>. Accessed in July 2017.

⁵⁵ <u>http://uscode.house.gov/statutes/pl/91/458.pdf</u>, accessed July 26, 2017.

⁵⁶ <u>https://www.fra.dot.gov/eLib/Details/L03588</u>, accessed July 26, 2017.

⁵⁷ https://www.gpo.gov/fdsys/granule/CFR-2010-title49-vol4/CFR-2010-title49-vol4-part209, accessed July 26, 2017.

Figure 5.7 Fencing Installed in Dwight, Illinois as Part of Illinois High Speed Rail Project



Source: IDOT, HSR website, http://www.idothsr.org/media_center/

Rail safety issues generally fall into the following broad categories:

- → Employee safety
- → Inspection and maintenance of track, signals, bridges, and infrastructure
- → Inspection of locomotives and cars
- → Operating rules and practices
- → Radio communications
- → Control of drug and alcohol use
- → Accident reporting
- → Rail-highway grade crossing safety
- → Passenger equipment safety standards
- → Passenger train emergency preparedness
- → Movement of hazardous materials
- → Development and implementation of new technology
- → Other areas specific to the rail industry.

The primary responsibility for enforcement of federal rail and safety regulations falls under FRA's jurisdiction. In Illinois, the ICC also actively participates in the enforcement of regulations as authorized by 49 CFR Part 212⁵⁸. IDOT is also involved in efforts to improve the safety of the rail system.

⁵⁸ https://www.gpo.gov/fdsys/granule/CFR-2010-title49-vol4/CFR-2010-title49-vol4-part209, accessed July 26, 2017.

GRADE CROSSING SAFETY IN ILLINOIS

The rail safety area most visible to the public and the most potential harm to the public is the interface between the rail and highway systems at grade crossings. Currently in Illinois, there are 7,651 public at-grade crossings, 3,649 at-grade crossings on private property (which are not under the jurisdiction of the State), and 320 pedestrian crossings⁵⁹.

IDOT is committed to an effective relationship with the ICC for grade crossing safety. IDOT currently has safety strategies and efforts being implemented which they refer to as the Three E's – Education, Enforcement, and Engineering⁶⁰ as follows:

- → Education The state is active in developing programs to educate the dangers at grade crossings. The ICC is involved in Operation Lifesaver, which targets both motorists and pedestrians in a continuing effort to reduce train-related incidents in these categories. It also aims to improve driver and pedestrian behavior at railroad crossing by being compliant with traffic laws in place regarding crossing signs and signals.
- → Enforcement It is key to enforce the existing laws regarding traffic and trespassing on railroads, especially when warning signals have been activated.
- → Engineering IDOT continuously works to identify and implement physical and system improvements to improve safety. This includes installation and upgrading of grade crossing warning signs, automatic warning devices, and grade separations, where necessary. The State of Illinois Highway-Rail Grade Crossing Safety Action Plan focuses on the engineering of capital improvements to further railroad crossing safety on local roads.

RAIL SAFETY INSPECTION

Through a cooperative agreement with the FRA, the Rail Safety Section of the ICC provides oversite responsibility through the enforcement of State laws and rules. This oversight is conducted on freight railroads in Illinois, as well as the Illinois portion of the MetroLink light rail system. There are four main areas of rail safety handled by the Rail Safety Section. These include track safety, transportation of hazardous materials, railroad signals and train control, and railroad operating practices⁶¹.

- Track Safety: Inspect railroad tracks to determine compliance with the FRA and State Track Safety Standards; investigate complaints of unsafe/defective trackage, excessive train speeds, and improper yard procedures.
- → Hazardous Materials: Conduct equipment inspections at railroad yards, sidings and interchange tracks, railroad terminals, and along mainlines to observe and note violations in marking, placarding, and the placement of hazardous material cars.
- Railroad Signals and Train Control: Inspect railroad signal systems to determine compliance with FRA and State Signal Safety Standards, investigate complaints of unsafe or defective signal systems, and perform railroad crossing signal inspections.
- Railroad Operating Practices: Conduct inspections for the purpose of determining compliance with all sections of the Federal Operating Practice Regulations and Hours of Service Act, and inspection of railroad facilities to determine compliance with standards regarding structural clearances, employee facilities, and sanitary regulations.

⁵⁹ ICC Crossing Safety Improvement Program FY 2018-2022 Plan, https://www.icc.illinois.gov/reports/report.aspx?rt=20. Accessed September 2017.

⁶⁰ IDOT Rail Safety website, <u>http://www.idot.illinois.gov/transportation-system/safety/rail-safety/index</u>. Accessed July 2017.

⁶¹ Illinois Commerce Commission, Inspection Program website, <u>https://www.icc.illinois.gov/railroad/InspectionsProgram.aspx</u>. Accessed July 2017.

HAZARDOUS MATERIALS

The Secretary of the Department of Transportation is responsible for regulation of the transportation of hazardous materials, as defined in the Hazardous Materials Transportation Act (HMTA). Hazardous material regulations are applicable to interstate, intrastate, and foreign carriers by rail car, aircraft, motor vehicle, and vessel⁶². The State of Illinois also adheres to the Illinois Hazardous Materials Transportation Act (430 ILCS 30) ⁶³. The Illinois Environmental Protection Agency regulates the transportation of used tires, special waste including hazardous waste, and potentially infectious medical waste⁶⁴.

The ICC enforces the hazardous materials regulations in Illinois in cooperation with the FRA. The ICC's Hazardous Materials Safety Program is comprised of four main components:

- → Inspection of railroad equipment and shipper/consignee facilities
- → The provision of technical assistance to shippers/consignees and rail carriers
- → The inspection and escort of nuclear materials
- → Education and outreach activities to shippers/consignees, rail carriers, emergency responders and the general public

POSITIVE TRAIN CONTROL

Positive train control (PTC) refers to technologies designed to automatically stop or slow a train before certain accidents occur. PTC is designed to prevent collisions between trains and derailments caused by excessive speed, trains operating beyond their limits of authority, incursions by trains on tracks under repair, and by trains moving over switches left in the wrong position. PTC systems are designed to determine the location and speed of trains, warn train operators of potential problems, and take action if operators do not respond to a warning. The Rail Safety Improvement Act of 2008 required railroads to place PTC systems in service by December 31, 2015 on Class I railroads (lines with over 5 million gross tons annually) over which any poisonous- or toxic-by-inhalation hazardous materials are transported, and on main lines with regularly scheduled commuter or intercity passenger operations. PTC requirements currently exclude Class II or Class III railroads that have no passenger service. However, trains of Class II and III railroads that operate on lines that must have PTC are also required to be PTC-equipped. The December 31, 2015 deadline was extended by three years to December 31, 2018 with an additional two years if certain requierments are met.⁶⁵ As part of the extension, railroads are also required to submit a PTC Implementation Plan outlining when and how they would have their PTC systems fully installed and activated. PTC projects in Illinois include the following⁶⁶:

- Illinois Department of Transportation (IDOT): \$18.87 million to complete the design, delivery, installation, and testing of a fully integrated Interoperable Electronic Train Management System (I-ETMS) PTC system on two routes for Amtrak's use on 14.7 route miles of Terminal Railroad Association of St. Louis (TRRA) right-of way in a dense urban area of St. Louis on both the Illinois and Missouri banks of the Mississippi River. Amtrak ridership figures for 2014 show 1,136,271 passengers pass through the St. Louis Station that would directly benefit from PTC system implementation on this rail line.
- Regional Transportation Authority (Metra): \$20.2 million for three subprojects on Metra's Commuter Rail Division to implement wayside PTC signals, reconfigure signals, and upgrade an existing PTC

⁶³ Illinois General Assembly, <u>http://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=1650&ChapterID=39</u>. Accessed in July 2017.

⁶² United States Department of Transportation, Federal Motor Carrier Safety Administration. <u>https://www.fmcsa.dot.gov/regulations/hazardous-materials/how-comply-federal-hazardous-materials-regulations</u>. Accessed in July 2017.

⁶⁴ Illinois Environmental Protection Agency, Transportation of Wastes, <u>http://www.epa.illinois.gov/topics/waste-management/waste-disposal/special-waste/transportation-permits/index</u>. Accessed in July 2017.

⁶⁵ USDOT-FRA, <u>https://www.fra.dot.gov/ptc</u>, accessed August 25, 2017.

⁶⁶ USDOT-FRA, <u>https://www.fra.dot.gov/eLib/details/L18716</u>, accessed July 26, 2017.

automatic block signaling systems on Metra's Milwaukee District West (MD-W) and North (MD-N) lines in Northeastern Illinois. Metra's commuter rail network is the fourth busiest in the country, with nearly 14 million passenger trips on the MD-W and MD-N lines each year. Each day, over 1,300 Metra, freight, and Amtrak trains operate in the region. Since they frequently share the same track, precise scheduling and close coordination among railroad partners are required to plan the complex interaction between these trains each day.

RAIL SECURITY

The Department of Homeland Security (DHS) and IDOT are the responsible parties for security related to transportation modes in Illinois. These agencies have addressed transportation security largely through identifying critical infrastructure assets, developing protection strategies, and developing emergency management plans. The lead state agency for rail security in Illinois is the ICC, in coordination with IDOT and the Illinois Terrorism Task Force (ITTF). There are currently five committees that serve the ITTF, and IDOT is the chair of the Critical Infrastructure Committee⁶⁷.

The Critical Infrastructure Committee includes organizations ranging from institutions and industry representatives to emergency responders and labor organizations. They use these work groups to provide guidance on specific topics and areas deemed to be of greatest priority. One such group is the Railroad Safety subcommittee, which focuses on areas of common interests within the railroad industry to address all aspects of railroad security. The subcommittee works to provide a common goal of making Illinois a leader in railroad security that other states will easily be able to adopt using combined talents to achieve the maximum assistance from resources available through DHS.

⁶⁷ IEMA, <u>https://www.illinois.gov/iema/ITTF/Pages/Committees.aspx</u>, accessed July 26, 2017.

B6.1 DESCRIPTION

Multimodal connectivity encompasses the interaction of several modes of transportation. Multimodal transportation networks provide choices for users and provide users with the ability to trade between a variety of factors, such as time, cost, environmental impact, social interaction, lifestyle preferences, and others. Building a multimodal transportation network also provides redundancy in the system, so that if one mode is unusable, another mode can be accessed, which may be important in the event of an emergency. A multimodal facility can be as simple as a bus stop, where a pedestrian becomes a transit rider or more complex where intercity passenger rail, intercity bus, local bus service, and other modes connect and interact.

Multimodal connections are increasingly important for the movement of people throughout communities and regions. Multimodal connections for passengers also affect economic activity by providing transportation options and choices. These options are increasingly important in efforts to control vehicle congestion, reduce energy consumption, and improve system operations. IDOT's role is to foster multimodal connections to ensure an efficient and effective transportation system and transportation choices for travelers.

B6.1.1 MULTIMODAL PASSENGER FACILITIES AND CONNECTIONS

Multimodal passenger facilities are those that provide passengers a place to transfer from one mode to another, such as airport terminals and transit stations. Connectors are those important links between a facility and the larger transportation network; for example, a connector might be a road from an airport used by both buses and personal vehicles, which leads to an expressway.

In Illinois:

- → As of 2012, Illinois has 115 public-use airports. Of these, seven offer connections to transit, at least parttime. Midway International Airport in Chicago has sidewalks to the terminal from the surrounding neighborhood and bicycle access, making walking and bicycling viable access options.
- → Amtrak has 30 train stations on the 15 services that travel in Illinois. Of the 30 stations, 16 are served by bus transit, one has ferry connections, six connect with intercity bus, and seven eight have transfers to commuter rail. Five stations do not have a transit stop directly at the station. Three have other transit connections a short distance away. Moreover, as all of the Amtrak stations are located within municipal boundaries, they are accessible by bicycle or walking, although some stations are more pedestrian- and bicycle-friendly than others.
- → Intercity bus services in Illinois have a mix of multimodal facilities. Some sites are stops on the road, business locations, or school buildings. Other sites are at Amtrak stations, local transit or airport facilities, and some are intercity bus company buildings. In some cases, the internet has facilitated on-line ticket purchases, eliminating the need for ticketing agents and station areas.
- → Most transit rail stations in Illinois light rail in metropolitan St. Louis as well as heavy and commuter rail in metropolitan Chicago have bus transit connections, and are accessible by foot or bicycle. Some suburban rail stations are accessible only by personal motor vehicle.

Figure 6.2 shows the locations of multimodal passenger facilities in Illinois; Figure 6.3 shows those in the metropolitan Chicago region.

B6.1.2 MULTIMODAL TRAVEL

In addition to multimodal connection points and facilities, multimodal travel occurs daily throughout Illinois. Multimodal travel combines modes or uses infrastructure in new ways to speed travel and increase access or mobility for users. For example:

- → Nine of the 15 urban bus transit systems operating in Illinois have bicycle racks on buses to assist riders with their multimodal transportation. All Illinois rail transit providers also allow bicycles on their trains, with some travel time restrictions.
- → The two water-taxi services in the state (Chicago and Rock Island) have stops that connect to local transit services and carry pedestrians and bicyclists.
- → The two IDOT ferries between Grafton and Brussels (Illinois Route 100) and between Kampsville and Eldred (Illinois Route 108) and the for-profit ferry that operates on the Mississippi River out of Golden Eagle in Calhoun County carry walkers, automobiles, bicyclists, buses, and semi-trailers.
- → Although buses share roads with automobiles and trucks daily, a program is underway that allows Pace express buses to operate on I-55 shoulders during peak periods. Riding on the shoulder lets the bus and its riders bypass peak-period congestion. On-time performance of the two Pace routes utilizing the bus on shoulder lanes have increased to 92 percent from the 68 percent of on-time performance prior to the start of the program, and ridership has doubled. In 2014, the Illinois General Assembly enacted legislation permanently allowing bus-on-shoulder service and expanding that permission to all the region's expressways and tollways. Pace and the Illinois State Toll Highway Authority constructed a "flex lane" on the Jane Addams Tollway (I-90), which opened for Pace buses on September 5, 2017 as part of the 16-mile I-90 SmartRoad enhancement⁶⁸. Pace and IDOT are also studying future bus-on-shoulder services on the Edens Expressway (I-94).⁶⁹

B6.2 IMPLEMENTATION STRATEGIES AND PROGRAMS

B6.2.1 COMPLETE STREETS

After the passage of Complete Streets legislation in 2007, IDOT began developing policies and implementing practices to more fully integrate multimodal designs into its roadway improvements. The provision of facilities to provide for the safe and efficient movement of bicyclists and pedestrians in roadway corridors is now considered in every IDOT improvement.

As stated in the Design Manual:

- → IDOT will consider the travel needs of all users of a transportation corridor including bicyclists and pedestrians.
- → Bicycle and pedestrian travel demand in the vicinity of a project is determined; when sufficient demand is indicated, IDOT will provide the appropriate accommodations.
- → The proper application of criteria and guidelines will result in consistent designs and subtle roadway design changes that will facilitate bicycle and pedestrian travel.
- → Facilities for the safe travel of bicyclists and pedestrians within an improvement corridor are considered an integral part of a highway project for funding purposes and thus are eligible for cost participation.
- → Adequate bicycle and pedestrian accommodations shall be included where they can be accommodated.

⁶⁸ Pace Bus. <u>http://constance.pacebus.com/sub/news_events/Pace_2017.asp</u>. Accessed September 2017.

⁶⁹ Pace Bus. <u>http://www.pacebus.com/sub/vision2020/expressway_brt.asp</u>. Accessed 6/30/17.

While there are exceptions based on project scope and/or facility type identified in the manual, highway improvements currently being developed by IDOT give full consideration to the provision of bicycle and pedestrian accommodations.

B6.2.2 MULTIMODAL PASSENGER FACILITIES

Interest in supporting multimodal connections is growing, as communities and transportation agencies recognize the value and need for facilitating multimodal travel. Centers are planned for Carbondale and in multiple communities along the developing Illinois High Speed Rail corridor.

CHICAGO UNION STATION

In 2012 a partnership of Chicago Department of Transportation, Metra, Amtrak and Regional Transportation Authority published a Master Plan for the redevelopment of Chicago's Union Station located between Canal and Clinton Streets in downtown Chicago. Union Station is one of the region's key transportation facilities and economic drivers. It is the third-busiest railroad terminal in the United States, serving over 300 trains per weekday carrying about 120,000 arriving and departing passengers – a level of passenger traffic that would rank it among the ten busiest airports in the U.S. Most travelers at Union Station take Metra commuter trains. The Station is also the hub of Amtrak's network of regional trains serving the Midwest as well as most of the nation's overnight trains, which connect to the Atlantic, Gulf, and Pacific coasts.⁷⁰ Goals for the Master Plan and future development of Union Station included:

- \rightarrow Providing capacity for increases in Metra and intercity ridership
- → Making the terminal more inviting for passengers
- → Providing direct and convenient transfers to buses, CTA trains, taxis, shuttles, etc.
- → Creating a terminal that is vibrant, civic asset and catalyst for growth in the West Loop.

In 2016 an importation part of the Master Plan was implemented with the opening of a new bus transit center on Canal Street. The transit center has space to accommodate up to nine buses at a time and serves six CTA bus routes. The project total cost was approximately \$41.5 million and will improve connections for passengers between rail and buses as well as relieve congestion problems around Union Station by moving the bus transfer facility off-street. According to CTA the six routes serving Union Station carry an estimated 3,400 riders daily.⁷¹

CARBONDALE STATION

Planning work has been conducted for a new multimodal station centered around the construction of a new Amtrak station in Carbondale, Illinois. The project would facilitate connections between Amtrak, passenger vehicle, pedestrians, buses, bicycles, transit, and taxi. Total design and construction costs are estimated to be approximately \$18.5 million.⁷² In 2016 the City of Carbondale and its partners submitted a TIGER grant application seeking funds to support the construction of the new Carbondale multimodal facility. The application was unsuccessful, but the community continues to identify alternative funding options.

⁷¹ Wisniewski, Mary. Union Station Transit Center for CTA Buses to Open Sunday. Chicago Tribune, 8/30/16.

http://www.chicagotribune.com/news/local/breaking/ct-union-station-transit-center-20160829-story.html. Accessed July 19, 2017. ⁷² City of Carbondale: 2016 TIGER Application. <u>http://explorecarbondale.com/sites/default/files/images/multimodal/01-</u> <u>Carbondale%20Station.pdf</u>. Accessed 6/30/17.

⁷⁰ Union Station Master Plan. <u>http://www.unionstationmp.com/background/2012master.php</u>. Accessed July 19, 2017.

Figure 6.1 Rendering of Proposed Carbondale Station, 2016



Source: Carbondale Station TIGER Application, 2016

ILLINOIS HIGH SPEED RAIL MULTI MODAL STATION IMPROVEMENTS

The Illinois Department of Transportation (IDOT) continues to move forward with station planning and construction for communities along the Chicago to St. Louis corridor. Funded through the Federal Railroad Administration's (FRA) High-Speed Intercity Passenger Rail (HSIPR) program, the Chicago-St. Louis High Speed Rail project includes provisions for upgraded station facilities with improved passenger safety and convenience, better transportation connectivity, technology enhancements, and promoting economic development. New construction or improvements to existing stations include:

- → **Joliet** The City received a discretionary grant from IDOT to construct a multi-modal facility and to make safety improvements at this station. Construction is being led by the City and is ongoing.
- → **Dwight** A new station was built south of the current location on property owned by the Village. The station officially opened for service on October 28, 2016.
- → Pontiac A new station is being built southwest of the existing station on property owned by the City. Construction was completed summer 2017.
- → Normal A new multi-modal facility, funded outside of this project with a Transportation Investments Generating Economic Recovery (TIGER) grant received by Normal, was opened in July 2012. The High-Speed Rail project is funding a second platform and upgrades to the south waiting room. Construction is ongoing and is anticipated to be completed in 2017.
- → **Lincoln** The existing station and related facilities are planned to receive upgrades. Construction is underway and is anticipated to be completed in 2017.
- → **Springfield** Upgrades to the Springfield station, including access and parking lot improvements, are in the final design stage. Construction is anticipated to begin in 2018.
- → **Carlinville** A new station is planned to be built near the current facility. Construction is underway and is anticipated to be completed in 2017.
- → Alton A new station and multi-modal facility is being built northwest of the existing station on property owned by the city. Construction is underway and was completed in the summer of 2017.⁷³

⁷³ Illinois High Speed Rail. <u>http://www.idothsr.org/2010_const/improvements.aspx</u>. Accessed 6/30/17.

Figure 6.2 Passenger Multimodal Centers





Figure 6.3 Passenger Multimodal Centers in the Chicago metropolitan region

B7. Highways

B7.1 DESCRIPTION

Streets and highways are fundamental elements of our integrated transportation system. Due to its size, location, and historic function as a transportation hub, Illinois has the fourth largest highway system in the nation, and the third largest Interstate network. In 2016, the combined state and local roadway systems in Illinois encompassed 146,958_miles⁷⁴ and 26,775 bridges.⁷⁵

This network ranges from heavily traveled urban streets and expressways to lightly used rural roads. In 2016, this network carried nearly 294 million vehicle miles of travel on an average day.⁷⁶ Multiple agencies – the state, counties, townships, and municipal governments – are responsible for the highway system.

B7.1.1 ILLINOIS HIGHWAY NETWORK

Illinois was among the first states to begin building Interstate highways and opened its first Interstate route to traffic in the late 1950s. In urban areas, the construction of the Interstate highway system provided an alternative to local streets for long-distance truck and automobile traffic. In addition, the Interstate system improved access and mobility for Illinois citizens and visitors passing through Illinois. Today, portions of two coast-to-coast Interstates (I-80 and I-90) cross Illinois. Five major east-west Interstates (I-24, I-64, I-70, I-74,

Illinois is third in the nation in the number of miles of Interstates. The 2,185 miles of the State's Interstate system comprise 1.48 percent of all roads in the State, but carry 31 percent of all traffic. Source: Illinois Travel Statistics, 2016

I-88 and I-94) and three major north-south Interstates (I-55, I-57 and I-39) provide access for freight and travelers through Illinois.

Out of the 146,958 miles of roads in the state, IDOT is responsible for 15,918 miles.⁷⁷ The roads under IDOT's

jurisdiction are comprised of the Interstates, US Highways, and State Routes. Out of the 15,918 miles, 2,185 miles are Interstates. IDOT manages the majority of these while the Illinois State Toll Highway Authority (Tollway) manages 293 miles as toll roads.⁷⁸_The state highway system (including all road miles managed by the Tollway) represents approximately 11 percent of all road miles in Illinois and carries 41 percent of all travel in Illinois.⁷⁹

In addition to Interstates, the State has 165 miles of other freeways, 5,243 miles of principal arterials, 8,925 miles of other arterials, 22,731 miles of collectors and 107,708 miles of local roads. Source: Illinois Travel Statistics, 2016

Augmenting the Interstate system are 144,773 miles of state, county,

township, and local highways and roads, making the Interstate network accessible from every region of Illinois. The state and local road systems are classified as urban or rural to respond to federal funding guidelines. Urban roads (within urban areas of 5,000 residents or more) make up 34 percent of the system and carry 76 percent of all traffic. Rural roads make up 66 percent of the network and carry the remaining 24 percent of the total daily vehicle miles.

⁷⁴ Illinois Highway and Street Mileage Statistics, Tables HS-1, December 2016

⁷⁵ Illinois Highway Statistics Sheet 2016.

⁷⁶ Illinois Travel Statistics 2016, Table M-1. February 2017.

⁷⁷ Illinois Highway and Street Mileage Statistics, Tables HS-1, December 2016. Total does not include ramp or collector-distributor mileage.

⁷⁸ Illinois Highway and Street Mileage Statistics, Tables HS-C, December 2016.

⁷⁹ Illinois Travel Statistics 2016, Table S-1. February 2017. Travel percent does not include Tollway travel.

Figure 7.1 is a map of the Illinois roadway network by functional classification. The local street network is not shown.

Figure 7.2 shows the total miles of each functional classification and the traffic carried by each class. This figure graphically illustrates the relationship between roadway classification and the level of traffic that uses each type of road.



Figure 7.1 Illinois Road Network by Functional Classification





Source: Illinois Department of Transportation. Illinois Travel Statistics 2016, Table FC-1

B7.1.2 ILLINOIS STATE TOLL HIGHWAY AUTHORITY

The Illinois State Toll Highway Authority (Tollway) was created by legislation in 1967 "to promote the public welfare and to facilitate vehicular traffic by providing convenient, safe, modern, and limited access highways." Under the direction of the Tollway Board of Directors, the Tollway builds, operates, and maintains the roads under its jurisdiction. The Tollway is authorized to issue bonds to expand and make capital improvements to its system and to collect tolls to fund its operations and to repay bonds.

The Tollway operates and maintains 293 miles (2016) of the state's Interstate highways, the majority located in the Chicago metropolitan area. A map of the Illinois Tollway system is Figure 7.3.

Recent (2016) accomplishments by the Tollway include:

- → Completion of the 4-year, 62-mile I-90 Rebuilding and widening project from Rockford to Chicago.
- → Addition of the Illinois Route 390 Tollway, with the implementation of cashless tolling.
- → \$1.15 billion in Capital Program expenditures for roadway construction, expansion, and system wide maintenance.

Figure 7.3 Illinois Toll Highway Network



Source: Illinois Tollway, www.illinoistollway.com, accessed June 20, 2017.

B7.1.3 BRIDGES AND STRUCTURES

As of 2016, there are 26,770 bridges in Illinois that must be inspected. IDOT is responsible for 7,835 bridges (29 percent), the Tollway is responsible for 571 (2.0 percent) and the remaining 18,364 (69 percent) belong to others (counties, townships, municipalities and others, like private companies such as railroads). There are 39 bridges that cross the three major rivers that make up 71 percent of the state's boundaries and crossing the three rivers – the Mississippi, the Ohio and the Wabash – requires coordination with the adjacent states of Iowa, Missouri, Kentucky, and Indiana.

IDOT also has a number of other structures it is responsible for including pedestrian / bicycle crossings, tunnels, culverts, and pipeline structures. The majority (70 percent) of the nearly 34,200 bridges and other structures traverse some form of water.

B7.1.4 LOCAL HIGHWAY AGENCIES

Collectively, the counties, townships, and municipalities of Illinois are responsible for the operation and maintenance of 130,745 miles of roads.⁸⁰ These local agencies use a mix of federal transportation funds, state motor fuel tax funds, and locally generated funds to address the needs of the roads and bridges under their jurisdiction.

B7.1.5 COMMERCIAL VEHICLE OPERATIONS

Illinois is a center for motor carrier transportation. With a vast economic base to serve; motor carriers serve all elements of the Illinois economy as they:

→ transport manufactured products from industries to all parts of the country

⁸⁰ Illinois Travel Statistics 2016, Table C-1. February 2017

- → make farm-to-market shipments to Illinois grain processors and rail and water terminals
- → deliver coal and other minerals to and from Illinois ports
- \rightarrow ship consumer goods to retailers throughout the state

The Surface Transportation Assistance Act of 1982 provided for the designation of a national network of highways to promote uniformity throughout the nation for legal truck sizes and weights on a National Truck Network. The network includes all Interstate highways and large portions of the Federal-aid primary system. In addition, the act required that "reasonable access" be provided along other designated routes to allow trucks to travel from the National Truck Network to terminals and to points of loading and unloading.

As a result, IDOT developed and implemented a "Designated State Truck Route System for Large Vehicles and Combinations" to govern the movement of these vehicles. Over time, this system has evolved to respond to new federal and state mandates. IDOT maintains an interactive map of the Designated State Truck Route System that includes state and local streets and highways that have been designated as truck routes. These maps can be found on IDOT's website.⁸¹

In 2014, trucks in Illinois carried \$664 million tons of freight valued at nearly \$1.2 billion. The inbound and outbound truck tonnage is essentially balanced (129.1 and 133.8 million tons, respectively), and trucking handles the vast majority of traffic that stays within the state (401.4 million tons). A full discussion of the trucking industry's contribution to the movement of freight in Illinois is contained in the *Truck Traffic Highlights* section of the 2017 Illinois State Freight Plan.

B7.2 IMPLEMENTATION STRATEGIES AND PROGRAMS

B7.2.1 HIGHWAY PROGRAM

Each year IDOT develops a multi-year capital improvement program that weighs the need to preserve the existing system in a state of good repair with the need to enhance or expand the highway network to address congestion and economic development demands. Before being included in the Highway Program improvements are evaluated based on goals, needs, and available resources.

For the highway program, IDOT uses a mix of federal transportation funds, state motor fuel tax and vehicle registration fees, bonds and miscellaneous revenue sources to build, operate, and maintain the roads under its jurisdiction. For the FY 2017 to 2022 program, IDOT has committed \$7.680 billion for the highway network, with \$1.368 billion allocated for FY 2017.⁸²

IDOT has a number of strategies in place that address the multitude of road maintenance, preservation, operations, and planning issues. Some of these strategies require coordination with other state agencies, other transportation agencies, and local jurisdictions. Strategies include:

→ Performance Based Project Selection Tool for enhancement and expansion projects

⁸¹ www.gettingaroundillinois.com

⁸² Illinois Department of Transportation, Proposed Highway Improvement Program

- → Transportation Asset Management Plan for maintenance of pavement and bridges
- → Pavement management, with the Pavement Condition Rating Program
- → Bridge management, with the Illinois Structure Information System (ISIS), Structures Information Management System (SIMS), SIMS-County, Bridge Inspection Program (BIS), and Township Bridge Program
- → Environmental coordination
- → Traffic management strategies, including Intelligent Transportation Systems (ITS) technologies
- → Traveler information and communication programs, such as the Getting Around Illinois website⁸³
- → Safety, with the Strategic Highway Safety Plan
- → Emergency response to incidents, with the Emergency Traffic Patrol Program
- → Enforcement activities
- Commercial motor carrier programs

B7.2.2 SCENIC BYWAYS PROGRAM

Illinois has seven nationally designated scenic byways. The National Scenic Byways Program was created to highlight roads that "possess outstanding scenic, historic, recreational, cultural, archeological and/or natural qualities" and new off-site advertising is prohibited as a way to ensure the continued scenic beauty of the road. The seven Illinois National Scenic Byways⁸⁴ are:

- → Great River Road
- → Historic National Road
- → Historic Route 66
- → Illinois Lincoln Highway
- → Illinois River Road
- → Meeting of The Great Rivers
- → Ohio River Scenic Byway





Source: USDOT-FHWA, <u>www.fhwa.dot.gov</u>, accessed June 20, 2017.

The Historic National Road is also designated an "All-American Road". A road with the All-American designation is deemed a tourist destination by itself, and is considered one of the most scenic with unique features not found in other places. The Historic National Road in Illinois is part of the National Road, the first federally funded interstate highway, which travels through Indiana, Maryland, Ohio, Pennsylvania, and West Virginia and ends in East St. Louis.

B7.2.3 COMPLETE STREETS

Illinois passed Complete Streets legislation in October 2007. This legislation requires IDOT to fully consider including bicycle and pedestrian facilities on any new construction or additional capacity on state roads, with some exceptions. The criteria for including these facilities include safety, current or future projected need, and local support. The Complete Streets program is discussed in more detail in the Bicycle and Pedestrian section (3.0) of this report.

⁸³ <u>www.gettingaroundillinois.com/</u>

⁸⁴ www.dot.state.il.us/byways.html#a. Accessed July 16, 2012.

B7.2.4 REGIONAL, MULTI-STATE, AND NATIONAL EFFORTS

IDOT is engaged in several efforts to improve conditions for local, regional, multi-state, and national motor carrier traffic. In addition to coalitions focused on policy advocacy, IDOT is involved in several on-going studies that have implications for improved freight movement. These efforts are briefly reviewed here, and are also discussed in the 2017 Illinois State Freight Plan.

I-290

Preliminary engineering and environmental studies (Phase I) for the improvement of the I-290 Eisenhower Expressway from Mannheim Road to Racine Avenue in DuPage and Cook Counties were recently completed resulting in a combined Final Environmental Impact Statement and Record of Decision that explored multimodal alternatives related to specific transportation needs identified including: improve mobility for regional and local travel, improve access to employment, improve safety, improve transit connections and opportunities, and improve facility deficiencies. Due to anticipated costs and revenue options, public/private partnerships are being investigated for this project.

I-55

Preliminary engineering and environmental studies (Phase I) for the improvement of I-55 from I-355 (Veterans Memorial Tollway) to I-90/94 (Dan Ryan Expressway) in DuPage and Cook Counties are currently underway. This project is examining the addition of one managed lane in each direction (generally within the existing median of I-55). The study was started in the spring of 2012 and is following the Federal National Environmental Policy Act (NEPA) process, as well as IDOT's Context Sensitive Solutions (CSS) policy. Due to anticipated costs and revenue options, public/private partnerships are being investigated for this project.

I-74 BRIDGE

The lowa Department of Transportation and IDOT have worked together to complete the I-74 Mississippi River Bridge. The existing I-74 Mississippi River bridge is an important east-west link between lowa and Illinois. With growing population and employment, traffic projections estimate that 99,900 vehicles per day will travel the bridge by 2035, an increase of nearly 26,000 cars from 2016 data. It was determined the existing bridges would be replaced in an effort to improve the I-74 corridor from Moline, Illinois to Davenport, Iowa.

The new I-74 bridges will be along a new alignment that is to the east of the existing bridges. It will include a pedestrian/bike path on the downstream side of the southbound bridge, with a pedestrian overlook at the center of the arch. An elevator would be installed for accessibility to the path on the bridge. In addition to the bridge replacement the project includes interchange ramp reconfigurations and local roadway improvements. Overall, the project will improve mobility, operations, and safety.

Currently, construction phases 0 and 1 have been completed, which included road improvements. Phase 2, which includes road improvements and the new Mississippi River bridge construction will conclude in 2022. Existing bridge demolition is scheduled for 2021. Phase 3 will include landscaping, trail, and road work.⁸⁵

⁸⁵ I-74 Mississippi River Bridge project website, <u>http://www.i74riverbridge.com/</u>. Accessed in July 2017.

MISSISSIPPI RIVER BRIDGE, ST. LOUIS

The New Mississippi River Bridge was completed in February 2014, creating a new gateway between Illinois and Missouri that provides better connections to and through St. Louis. The project was completed in order to ease traffic congestion on other bridges, reduce traffic crashes, improve travel times, and enhance economic growth. In addition to the completion of the 1,500 foot cable-stayed bridge, the project included two interchange projects and a roadway connection project. The total estimated cost was \$667 million. The bridge carries two lanes in each direction, but is wide enough to be re-striped for three lanes in each direction if traffic volumes warrant. Five additional components were included as a future phase of this project. One of these includes a companion bridge with four additional lanes of traffic.⁸⁶

MID-AMERICA FREIGHT COALITION

The Mid-America Freight Coalition⁸⁷ (MAFC) is an organization of ten state transportation agencies in the mid-west that share the Great Lakes, key Interstate corridors or major inland waterways. The coalition works together for planning, operating, preserving and improving transportation infrastructure throughout the member states. MAFC is currently working on an Upper Midwest Freight Corridor Study; analysis of truck parking management systems, and benefits and limitations of J-turn intersections.

⁸⁶ New Mississippi River Bridge Project website, <u>http://www.newriverbridge.org/index.html</u>. Accessed in July 2017.

⁸⁷ Mid-America Freight Coalition. <u>midamericafreight.org/</u>. Accessed April 3, 2012. MAFC was formerly known as the Mississippi Valley Freight Coalition.

B8. Public Transit

B8.1 DESCRIPTION

Public transit service is an essential transportation service, vital to the state's economic well-being, especially if Illinois is to remain competitive in the global marketplace. Transit, by moving more people per vehicle, offers solutions to traffic congestion and reduces oil dependency. Transit also improves community quality of life, because it provides transportation options to work, education, shopping, health care, recreation, and other trips that might not have been possible for some users.

There are 55 public transit agencies in Illinois. Three provide services in the metropolitan Chicago region in Illinois and two provide service to the Illinois portion of metropolitan St. Louis (Metro East). The remaining 50 provide services in 85 counties representing small urban and rural areas.

Illinois actively supports transit services throughout the state with

many programs that help both rural and urban transit providers. IDOT's Office of Intermodal Project Implementation (OIPI) provides technical assistance and financial resources to public transportation providers to create mobility options for people throughout Illinois. In Illinois, 55 public transit operators provide a mix of rail, bus, and on-demand service.⁸⁸ Many other human services agencies provide specialized services to persons with disabilities, low-income people, and seniors.

B8.1.1 DOWNSTATE TRANSIT

Downstate transit, according to the 2017 IDOT Transit Asset Report, is considered as those agencies outside of metropolitan Chicago (northeastern) and metropolitan St. Louis (southwestern). This classification includes 50 public transit agencies: 14 in urbanized areas and 36 in small urban or rural areas. Services funded by the 50 agencies range from fixed-route, fixed-schedule transit, to multi-county, demand-responsive vehicles.

URBANIZED AREAS

Services in the 14 downstate urbanized areas consist of a mix of fixed route bus and/or paratransit service. Transit ridership and vehicle fleet information for agencies are summarized in Table 8.1.

⁸⁸ There are 55 providers that receive funding from Illinois; the Northern Indiana Commuter Transportation District operates the South Shore Line into Millennium Station in Chicago and is partially funded by the Chicago RTA, but is not funded by IDOT. <u>www.idot.illinois.gov/transportation-system/Network-Overview/transit-system/index</u>, accessed June 20, 2017.

Table 8.1 Downstate Urbanized Areas Transit Utilization

Agency	Ridership (Millions)		
Champaign-Urbana MTD	13.29		
Connect Transit (Bloomington/Normal)	2.59		
Danville Mass Transit	0.64		
Decatur Public Transit System	1.46		
Huskie Bus & Voluntary Action Center (DeKalb / Sycamore)	0.13		
Galesburg Transit (City of Galesburg)	0.15		
CityLink (Greater Peoria MTD)	3.48		
Quincy Transit Lines (City of Quincy)	0.52		
River Valley Metro MTD (Kankakee / Bourbonnais)	0.96		
Rock Island County Metropolitan MTD (Metro)	3.30		
Rockford MTD	1.74		
Saluki Express (Carbondale)	0.56		
Sangamon MTD (Springfield)	1.90		
Stateline MTD (South Beloit)	n/a		

MTD = Mass Transit District

Sources: Agency websites, US Department of Transportation, Federal Transit Administration, National Transit Database, American Public Transportation Association, Illinois Statewide Public Transportation Plan website: <u>http://ilpublictransportation.businesscatalyst.com/map_transit.htm</u>.

Connect Transit (formerly Bloomington-Normal PTS):⁸⁹ Operates 17 fixed route buses with a late night program (9:30 p.m. to 12:00 a.m.) Monday through Saturday, excluding major holidays. All buses are accessible to people with disabilities and have bike racks. Connect Transit, in cooperation with Illinois State University (ISU), operates Redbird Express, a free campus shuttle service available to the community during the school year from 7:00 a.m. to 3:00 a.m., Monday through Sunday, on days when ISU is in session. Connect Transit operates a Bloomington Tripper Route and Normal Tripper Route, which only operate at set times Monday through Friday, excluding major holidays.

Champaign-Urbana MTD (CUMTD):⁹⁰Operates 22 fixed route buses during the day on weekdays, with fewer buses at night and on Saturdays and Sundays. All buses are accessible to people with disabilities and have bike racks. In addition to paratransit service, CUMTD provides a half-fare cab program for registered seniors and people with disabilities. Finally, CUMTD offers Safe Rides, which is a seasonal program for late night travel for University of Illinois Urbana-Champaign students that cannot be completed by a fixed route bus.

Danville Mass Transit:⁹¹Operates 14 fixed routes, Monday through Saturday, except on major holidays. All buses are accessible to people with disabilities. Paratransit services are available. Evening dial-a-ride is available from 6:15 p.m. to 9:40 p.m.

⁸⁹ Connect Transit website: <u>https://www.connect transit.com/default.asp</u>

⁹⁰ Champaign-Urbana MTD website: <u>www.cumtd.com</u>

⁹¹ Danville MT website: <u>www.ridedmt.org/</u>

Decatur Public Transit System(DPTS):⁹²_DPTS operates 15 fixed routes and a downtown trolley, Monday through Saturday, except on major holidays. All buses and trolleys are accessible to people with disabilities, but do not have bike racks. "Operation Uplift" is provided as a paratransit service for those unable to use the fixed route bus system due to disability.

DeKalb / Sycamore:⁹³ Two providers operate bus service in the DeKalb / Sycamore area. Northern Illinois University's (NIU) Huskie Bus operates 11 fixed routes; service levels vary based on the NIU schedule. Three of these routes are specifically weeknight routes. There is one route specific for weekends and NIU breaks. A shuttle bus to the Elburn Metra station is available on Fridays and Sundays. The Barsema Express, a residential hall peak time route, operates Monday through Thursday. Additionally, NIU operates "Freedom Mobile," the university's paratransit system, to supplement when Huskie Line is not a reasonable option.

The Voluntary Action Center (VAC) provides two circular routes, which operate from 7 a.m. to 9 p.m. Monday through Friday, except on holidays. Kishwaukee College contracts for a separate service available to students, faculty and staff of the college. The VAC also provides demand response service throughout DeKalb County, for registered residents.

Galesburg Transit:⁹⁴ Galesburg Transit operates four fixed bus routes with one-hour headways; meaning it will take up to an hour to reach the location a person left from. Service is provided Monday through Saturday 7:00am until 6:15pm. Galesburg Handivan is a curbside transportation system operated by the city of Galesburg to provide accessible public transportation to individuals who are unable to utilize the bus system or other regular forms of transportation because of a permanent or temporary disability which severely restricts their mobility. Handivan provides non-emergency, lift-equipped service to a variety of destinations within the city limits.

Peoria CityLink:⁹⁵_CityLink operates 20 fixed route bus lines in the greater Peoria area, Monday through Saturday, with some Sunday service. A few routes are only operational Monday through Friday. An additional route provides transportation from various residential facilities to the Community and Workshop Training Center. All fixed route buses are accessible to people with disabilities and are equipped with bike racks. CityLink provides a paratransit service call CityLift for those not capable to use fixed-routes. CityLink also provides half-fares for veterans.

Quincy Transit Lines: ⁹⁶ The Quincy Transit Lines offers fixed route services, paratransit services, and senior citizen transportation in the City of Quincy. Bus services are offered seven days per week with the exception that no buses operate on Thanksgiving or Christmas. Quincy Transit Lines (QTL) operates eight fixed-route buses Monday through Friday and two fixed-route buses on Saturday and Sunday. QTL also operates four Para-transit buses and four senior citizen vans Monday through Friday and one Para-transit bus on Saturday and Sunday.

MetroLINK [Rock Island County Metropolitan Mass Transit]:⁹⁷ MetroLINK operates 12 fixed route bus lines, Monday through Saturday, with fewer routes operating on Sundays. MetroLINK also operates "The Connect" route Monday through Friday for Western Illinois University. All buses are accessible to people with disabilities and have bike racks. Additionally, MetroLINK operates a paratransit service. The Channel Cat Water Taxi provides services on

⁹² Decatur PTS website: <u>http://www.decaturil.gov/departments/transit/routes-and-schedules</u>

⁹³ DeKalb transit websites: City of DeKalb, <u>http://cityofdekalb.com/473/Transit;</u> Huskie Bus, <u>www.huskieline.com/;</u>Voluntary Action Center, <u>http://cityofdekalb.com/555/Voluntary-Action-Center</u>

⁹⁴ Galesburg Transit: <u>http://www.ci.galesburg.il.us/services/transit/</u>

⁹⁵ Greater Peoria Mass Transit: <u>http://www.ridecitylink.org/</u>

⁹⁶ Quincey Transit Lines: <u>http://www.quincyil.gov/government/CityDepartments/Transit</u>

⁹⁷ Rock Island County Metropolitan Mass Transit: <u>www.gogreenmetro.com/</u>

the Mississippi River seven days a week from Memorial Day through Labor Day. Nearly the entire Metro fleet runs on clean burning, compressed natural gas.

Rockford MTD:⁹⁸ Operates 18 daytime fixed route buses, six night routes and two late night shuttles. Service is daily, year round, except for major holidays and with reduced service on Saturday and Sunday (five routes on Sunday). Rockford MTD also provides paratransit service. Buses are accessible to people with disabilities and bike racks are available.

River Valley Metro MTD:⁹⁹ Operates 10 fixed-routes in Kankakee and surrounding cities, Monday through Saturday year round with the exception of major holidays. River Valley Metro also operates commuter routes to the University Park Metra Station and Chicago Midway Airport. All buses are accessible to people with disabilities and have bike racks. MetroPLUS provides paratransit services.

Saluki Express [Carbondale]:¹⁰⁰ The Saluki Express Bus Service has two routes (Summer East and Summer West) during the eight week summer semester. There is no bus service on July 4 and one week in August between summer session and fall semester. Regular academic year routes begin four days prior to the start of the fall semester. The regular academic year routes of six weekday routes and three weekend routes (while school is in session).

Sangamon MTD:¹⁰¹ Operates 16 daytime and five night routes, Monday through Saturday, with reduced services on Saturday. Operations do not run on major holidays. They also offer several supplemental service routes. All buses are lift-equipped, and most have a kneeling feature for access. All fixed-route buses are equipped with bike racks. SMTD currently use 3 types of environmentally-friendly alternative fuels. Per the Illinois Green Fleets database, the MTD operates 25 CNG buses.

Stateline MTD:¹⁰² Operates demand response only for the SMTD area and connects to the Rockford and Beloit (WI) transit systems. Service is available seven days a week with fewer hours on Saturday and Sunday. No service is provide on major holidays.

RURAL AREAS

There are 85 downstate counties classified as rural areas and covered by public transit services. Figure 8.1 is a map of rural public transit service throughout Illinois. A number of these agencies – along with many others – receive human services transportation funding (5307). Human services transportation is discussed in section B8.2.4. Human services transportation differs from public transportation in that public transportation is open to all users, while human services transportation provides transportation exclusively for persons with disabilities, senior citizens, and low-income people.

There are four counties currently without any rural public transit service (Winnebago, Knox, Henderson, and Adams,). Henderson is working on an independent application. In 2016 Sangamon County initiated a new on-

⁹⁸ Rockford MTD: <u>www.rmtd.org/</u>

⁹⁹ River Valley Metro MTD: <u>www.rivervalleymetro.com/</u>

¹⁰⁰ Saluki Express: <u>http://studentcenter.siu.edu/services/saluki-express/</u>

¹⁰¹ Sangamon MTD: <u>www.smtd.org/</u>

¹⁰² Stateline MTD: <u>www.smtd.biz/</u>

demand transit service for Sangamon and Menard Counties. Sangamon/Menard Area Regional Transit (SMART) acquired vehicles through IDOT.

Table 8.2 and Table 8.3 lists the small urban and rural areas with public transit that receive funding (5311) through IDOT. Transit service ranges from intra-city to out-of-state transportation. A number of counties share the same transportation provider, while others have a transit system for their county only. Some agencies provide comprehensive information through a website, while others have a Facebook page or a telephone number. Most providers are demand response, meaning that customers must call in advance for service, although some have fixed route bus service.

The Rural Transportation Assistance Center (RTAC) supports these rural area transit providers with a number of programs. RTAC is discussed in more detail in section B8.1.4.

Figure 8.1 FY 2016 Public Transit Services in Illinois



Source: Rural Transit Assistance Center. <u>http://www.iira.org/wp-content/uploads/2014/09/fy16ruralpublicTrans.pdf</u>, accessed June 20, 2017.

Notes: Per <u>www.transit.dot.gov</u>: The Formula Grants for Rural Areas (Section 5311) program provides capital, planning, and operating assistance to states to support public transportation in rural areas with populations of less than 50,000, where many residents often rely on public transit to reach their destinations. The Urbanized Area Formula Grants (Section 5307) makes federal resources available to urbanized areas and to governors for transit capital and operating assistance in urbanized areas and for transportation-related planning.

A number of these agencies – along with many others – receive human services transportation funding (5307). Human services transportation is discussed in section B8.2.4. Human services transportation differs from public transportation in that public transportation is open to all users, while human services transportation provides transportation exclusively for persons with disabilities, senior citizens, and low-income people.

There are four counties currently without any rural public transit service (Winnebago, Knox, Henderson, and Adams,). Henderson is working on an independent application. In 2016 Sangamon County initiated a new on-demand transit service for Sangamon and Menard Counties. Sangamon/Menard Area Regional Transit (SMART) acquired vehicles through IDOT.

Agency	Website or Contact	Service Area	
Bond County Senior Center	www.bondseniors.org	Bond	
Boone County Council on Aging	http://www.keenage.org/transportation.html	Boone	
Bureau & Putnam Area Rural Transit (BPART)	www.ridebpart.org/	Bureau, Putnam	
Carroll County Transit	www.ccseniorcenter.org/Transportation.html	Carroll	
C-CARTS (Champaign County Rural Transportation System)	http://c-carts.com/	Champaign	
Central Illinois Public Transit (CIPT)	www.cefseoc.org/CIPT/CIPT.htm	Clay, Effingham, Fayette, Montgomery, Moultrie, Shelby, Christian	
Coles County Council on Aging (Dial- a-Ride)	http://www.colescouncilonaging.org/dialaride.html	Coles, Douglas	
CountyLink (Rural Peoria County Public Transportation)	http://www.ridecitylink.org/countylink	Peoria County, Outside of Peoria city limits and City Link service area	
RIS Rural MTD www.ruraltransits.org/		Vermillion	
East Central Illinois MTD	217-465-8143	Clark, Edgar	
Fulton County Rural Transit (FCRT) <u>http://www.fultoncountyruraltransit.com/p/blog-page.html</u>		Fulton	
Grundy Transit System	www.grundyco.org/about/public-transport	Grundy and certain stops in Joliet	
Hancock County	www.hancockhealth.info/rides/index.html	Hancock	
Henry County Public Transportation (Abilities Plus)	http://www.ride-hcpt.com/	Henry, Stark and western portions of Bureau	
Jackson County MTD	http://www.jcmtd.com/	Jackson	
Jo Daviess County Transit (The Workshop)	http://www.theworkshopgalena.org/jo_daviess_county transit_bus_seniors_disabled.html	Jo Daviess	
Kendall Area Transit	http://www.co.kendall.il.us/kendall-area-transit/	Kendall	
Lee Ogle Transportation System	www.lotsil.org/	Lee, Ogle	
Logan- Mason County Public Transportation	Logan- Mason County Public Transportation		
Macoupin County Public Transit	www.mcphd.net/general_information_transpertation.p hp	Macoupin	

Table 8.2 Downstate Rural Area Public Transportation Providers

Table 8.3 Downstate Small Urban and Rural Public Transportation Providers (Continued)

Agency	Website or Contact	Service Area
Marshall-Stark Transportation	309-364-2287	Marshall, Stark
McDonough County Public	http://www.837ride.com/	McDonough County, City of
Transportation / Go West Transit	http://www.wiu.edu/student services/go west/	Macomb
Monroe-Randolph MTD	618-443-4433 ext. 201	Monroe, Randolph
North Central Area Transit	www.cityofottawa.org/government/transportation	City of Ottawa, LaSalle County
Piattran (Piatt County Public Transportation)	www.piattran.org/index.php	Piatt
Pretzel City Area Transit	www.seniorresourcecenter.net/services/transportation/ #pretzel	Stephenson
Rides MTD	www.ridesmtd.com/	Crawford, Cumberland, Edwards, Gallatin, Hamilton, Hardin, Jasper, Lawrence, Pope, Richland, Saline, Wabash, Wayne, White, Williamson, Clark, Edgar, Effingham
RIM Rural Transit	www.ridetherim.org	Mercer, Rock Island
Sangamon/Menard Area Regional Transit (SMART)	(217) 679-5009	Menard (Sangamon not funded)
Shawnee MTD	www.shawneemtd.com	Alexander, Johnson, Massac, Pulaski, Union
SHOW BUS <u>http://www.showbusonline.org/</u>		DeWitt, Ford, Iroquois, Kankakee, Livingston, McLean, Macon
South Central Transit MTD	www.southcentraltransit.org	Clinton, Franklin, Jefferson, Marion, Perry, Washington
Tri-County Rural Transit	1-844-TRI-RIDE, or 1-844-874-7433	Calhoun, Greene, Jersey
Voluntary Action Center(TransVac & MedVac)	http://vacdk.com/transportation/	DeKalb
Warren Achievement Center (Warren County Public Transportation)	http://www.warrencountyil.com/about-us/public- transportation	Warren
WeCare, Inc.	https://www.wecareofmorton.com/services/transportation/ on/ (309) 263-7708 or (800) 538-6906	Tazewell, Woodford
West Central MTD/City of Beardstown, Illinois River Valley Public Transit	www.wcmtd.org www.cityofbeardstown.org/index.aspx?nid=1091	Brown, Morgan, Pike, Scott, Cass, Schuyler
Whiteside County Public www.whitesidecountyseniorcenter.org/transportation Whiteside County Public tml http://tranpro.utc.uic.edu/php/provInfo.php?p_cid=		Whiteside

Note: This list contains 37 transit services providers. Some services are funded by multiple transit agencies. Sources: Provider websites, Urban Transportation Center, UIC TRANPRO website, <u>www.utc.uic.edu/tranpro/index.html</u>

B8.1.2 SOUTHWEST ILLINOIS TRANSIT (METRO EAST)

Two different agencies provided transit service in southwestern Illinois (the St. Louis region): St. Clair County Transit District (SCCTD)/Metro and Madison County Transit (MCT). The SCCTD and MCT are part of the Metro-East Mass Transit District, which is the taxing authority for transit funds. Figure 8.2 shows the transit system map for service in Illinois; ridership for fiscal year 2016. Table 8.4 lists ridership for fiscal year 2016.

 Table 8.4 Southwestern Illinois 2016 Ridership

Agency	Ridership (Millions)
MCT, Fixed Route Bus	2.6
SCCTD/MetroBus and MetroLink	2.2

Sources: MCT website, <u>www.mct.org/MCTInfo/MCT_Overview.aspx.</u>SCCTD website, <u>http://www.scctd.org/</u> Bi-State Development Agency 2016 Comprehensive Annual Financial Report

Figure 8.2 Southwest Illinois Transit System



Source: Metro Transit, 2016. https://www.metrostlouis.org/wp-content/uploads/2016/02/IL_WEB-MAP.pdf

ST. CLAIR COUNTY TRANSIT DISTRICT AND METRO

The St. Clair County Transit District (SCCTD) contracts for Metro service in Illinois.¹⁰³ The Bi-State Development Agency provides transit operations, under the name Metro in Missouri and Illinois. Metro operates MetroLink, a light rail transit (LRT) service and MetroBus, the fixed route bus network. Metro operates 18 fixed route bus lines in St. Clair County:

- → Scott Air Force Base shuttles (2)
- → Metrolink Station Shuttle
- → Sauget Industrial Parkway bus line
- → Waterloo bus line in Monroe County
- → Lebanon and Mascoutah express bus route
- → 12 fixed route services

Figure 8.3 MetroLink to Shilo-Scott Station



Ten of Metro Link's 11 Illinois stations have park-and-ride facilities, and all have bus connections with the exception of East Riverfront. Figure 8.2 is a map of all transit service in the Illinois portion of the St. Louis region.

Metro's bus and rail system in Illinois is 100 percent accessible. Alternative Transportation System provides paratransit service in St. Clair County, on behalf of SSCTD.

Bicycles can be brought on board MetroLink trains at all times, and must be loaded on the first two train cars. Bicycle parking is available at eight of the 11 MetroLink stations in Illinois. All Metro buses have bike racks. Metro provides service information to customers by a variety of methods.

Trip Planner, Metro's Tripfinder (Metro's Mobile App), assists riders via phone or with printed maps and schedules. Additionally, trip planning is available through Google Transit. Rider and service alerts are available on its web site, Twitter and RSS feeds. Metro has a presence on social media. Metro also sends out an e-mail newsletter, called the Metro Memo. Metro sponsors a blog, Next Stop, which is one more way to disseminate information about the agency and transit to the public and its users.

The SCCTD provides additional information for Illinois residents. In addition to purchasing transit and paratransit service, SCCTD contracts for special event transit with Metro. SSCTD has also worked with Metro to build a bicycle trail adjacent to portions of the MetroLink right-of-way, which extends from Shiloh-Scott MetroLink station to the Memorial Hospital MetroLink station.

MADISON COUNTY TRANSIT

Madison County Transit¹⁰⁴ (MCT) provides 24 fixed route bus lines throughout Madison County and into St. Louis, with varying schedules. In addition to fixed route, MCT provides paratransit service, a guaranteed ride home service for MCT Express passengers, and express services to special events. MCT coordinates with Metro and SCCTD on their half-fare program. MCT also operates the eight county St. Louis region's car and vanpooling service, RideFinders.

¹⁰³ Metro: <u>www.metrostlouis.org/.</u> St. Clair County Transit District: <u>www.scctd.org.</u>

¹⁰⁴ Madison County Transit: <u>www.mct.org</u>
All MCT buses are accessible to people with disabilities and are equipped with bicycle racks. MCT Express buses have free wi-fi. MCT also develops and maintains a series of trails throughout Madison County, with the goal of preserving abandoned rail corridor right-of-way for potential future transit use. MCT keeps in touch with its customers via its website and its e-news service, which provides e-mail updates on routes and general information. It also has a Facebook page and a text alert system. Madison County has partnered with the East-West Gateway Commerce Center to improve transit services between the community and new job centers.

B8.1.3 NORTHEASTERN ILLINOIS TRANSIT

Transit operations in the six-county northeastern Illinois region are extensive, covering a 3,700- square-mile service area¹⁰⁵. Three service boards report to the Regional Transportation Authority (RTA): the Chicago Transit Authority (CTA), Metra (commuter rail), and Pace (suburban bus).

CTA provides bus and rail rapid transit service within Chicago and its immediate suburbs. Metra provides commuter rail service between Chicago and nearly 100 other communities in the region. Pace operates the suburban bus services, and all paratransit, vanpool, and rideshare services for the entire region. The Northern Indiana Commuter Rail District (NICTD), which operates the South Shore line between downtown Chicago and South Bend International Airport in Indiana, is a State of Indiana agency which receives RTA operating funding (through Metra via a purchase-of-service agreement) for service provided on its route between downtown Chicago and the state line.

While the service boards have operational responsibility, the RTA provides funding, planning and fiscal oversight for these operations. The RTA¹⁰⁶ publishes the region's transit map in English and Spanish and provides on-line regional trip planning for transit users. The RTA is also responsible for coordinating the Program Management Plan for the FTA 5316 Job Access Reverse Commute and 5317 New Freedom Programs. The RTA supports planning, capital, and operating projects sponsored by transit providers, local governments, and other agencies through a variety of technical assistance and funding. Table 8.5 shows ridership and vehicle fleet information for the three service boards under the RTA.

Agency	Ridership (Millions)	Fleet ¹	
CTA Fixed Route Bus	274.3	1,888	
CTA Heavy Rail	241.7 ²	241.7 ² 1,492	
Metra Commuter Rail	81.6	843 passenger cars 146 locomotives	
Pace Fixed Route Bus, Vanpool and Paratransit	29.6 (fixed route) 2.1 (vanpool) 5.1 (paratransit & Dial-A-Ride)	720 buses 680 vans, 503 paratransit vehicles	

Table 8.5 Northeast Region 2015 Ridership and Fleet Information

Source: Regional Transportation Authority – Mapping and Statistics, accessed May 2, 2017. ¹ 2015 Comprehensive Financial Report.

http://rtachicago.org/files/documents/businessandfinance/financialreports/2015%20Comprehensive%20Annual%20Financial%20Report.pdf ² http://w.transitchicago.com/assets/1/ridership_reports/2015_Annual.pdf

¹⁰⁵ 2015 Comprehensive Annual Financial Report for the RTA.

www.rtachicago.org/files/documents/businessandfinance/financialreports/2015%20Comprehensive%20Annual%20Financial%20Report.pdf ¹⁰⁶ RTA system maps: <u>http://www.rtachicago.org/index.php/plan-your-trip.html</u>

CHICAGO TRANSIT AUTHORITY

The CTA operates 140 bus routes. Buses make over 25,000 trips daily, and serve nearly 12,000 bus stops.¹⁰⁷ The CTA rail system, referred to as "The 'L'", has eight transit routes, with 145 stations, and approximately 224.1 miles of track. Two routes—the Red and Blue Lines — provide service 24 hours, every day. Altogether, annual ridership for CTA system was 497 million trips in 2016.¹⁰⁸

All CTA buses and trains are accessible to people with disabilities and more than 60 percent of all rail stations have accessible elevators or ramps. The CTA is working to achieve 100 percent station accessibility.

The CTA is becoming more sustainable and multi-modal through the use of a variety of fuels in its bus fleet and support vehicles.¹⁰⁹ The CTA purchased two all-electric buses, which produce zero tailpipe emissions. The CTA converted the entire remaining bus fleet to ultra-low sulfur diesel. CTA currently operates more than 250 hybrid buses, which make up nearly 15 percent of the total bus fleet. Hybrid buses achieve at least 20 percent greater fuel efficiency than standard diesel buses.

Figure 8.4 CTA Bus Bike Rack



The CTA is using outdoor power cords to plug in hybrid buses during cold weather and is installing additional bus fuelefficiency technologies. All CTA buses are equipped with racks that carry two bicycles. Support vehicles include hybridelectric, vehicles that can run on ethanol, and vehicles that run on compressed natural gas. The CTA has introduced a new family of 'L' railcars into service, known as the 5000 Series. These are equipped with a regenerative braking system that can transfer electricity back to the third rail, supplementing power to nearby CTA trains. Bicycles are permitted on board CTA rail trains most times (with exceptions for peak periods and certain holidays). More than 80 CTA rail stations have indoor or sheltered bicycle racks for secure storage.

CTA has about 12,000 bus stops¹¹⁰, and has more than 400 displays installed at bus shelters and rail stations which provided estimated arrival times. In addition to the visual display, a push button will provide verbal updates of bus arrival times. All rail stations are equipped with variable message signs that provide updated arrival times of trains. Audible announcements inform customers of an approaching train. The CTA Train Tracker and CTA Bus Tracker information systems allow people with smartphones or web access to determine when the next few buses or trains will be arriving at their location. The CTA also provides updates on arrival times by text message. In addition, other non-CTA applications present the CTA data in different user interfaces, adding information options for transit users.

The CTA stays in touch with the public and riders through its website, Twitter, Facebook, text message or e-mail, and RSS feeds. In addition to the RTA trip planner, trip planning for CTA service is available through Google Transit.¹¹¹ The CTA also has a number of informational videos available on YouTube.¹¹²

¹⁰⁷ Chicago Transit Authority: <u>www.transitchicago.com/</u>

¹⁰⁸ Chicago Transit Authority, Planning and Development, Planning Analytics. Annual Ridership Report, Calendar Year 2015. <u>www.transitchicagp.com/assests/1/ridership reports/2015</u> Annual.pdf Accessed May 3, 2017.

¹⁰⁹ Chicago Transit Authority, Going Green: http://www.transitchicago.com/goinggreen/vehicles.aspx

¹¹⁰ Chicagobus.org, Accessed August 2017

¹¹¹ Google Transit: <u>transit.google.com</u>

¹¹² CTA Connections: <u>www.transitchicago.com/news</u> initiatives/connections.aspx

METRA

Metra contracts for or directly operates commuter rail service on 11 routes radiating out of downtown Chicago.¹¹³ There are 241 stations on the 487-route-mile system. In 2016, Metra provided over 80.4 million rides, which requires more than 1,000 pieces of rolling stock (including locomotives, trailer and cab coaches, and multiple-unit electric cars). Metra train lines are fully accessible, and most stations are accessible or have partial accessibility. Riders needing assistance are encouraged to call to determine the accessibility level of a particular station. A limited number of bicycles are permitted on Metra trains with a few travel time exceptions (e.g., peak periods and certain holidays). Most Metra stations offer outdoor bicycle parking.

Figure 8.5 Metra Commuter Station



Metra communicates with the public in a number of ways. There are variable message signs and audible announcements with train arrival times at stations. Metra's website and a separate mobile phone version, provide schedules, fare, and additional information about the system. Metra offers service alerts via e-mail or Twitter and posts on its websites. Its "My Metra" service allows users to arrange for automatic ticket purchases, personalize service alerts and provides real- time arrival information. Mobile tickets can be purchased via the Ventra app.

PACE

For its bus operations, Pace¹¹⁴ currently provides services on 209 fixed routes in more than 202 communities, as well as express service to many events and activities. There are nine Pace-owned fixed-route service divisions, which recorded 28.1 million unlinked passenger trips in 2015. Pace's contracted service ridership totaled 2.6 million in 2015.¹¹⁵ Pace has several different types of paratransit services. Pace's Dial-a-ride paratransit network serves mostly senior citizens and persons with disabilities. It is available in all six counties in the metropolitan region, and provided 0.9 million unlinked trips in 2015. Ridership on the ADA Paratransit service was 4.2 million unlinked

Figure 8.6 PACE Bus



Source: <u>www.pacebus.com</u>, accessed June 2017.

trips. Pace's vanpool ridesharing operations, provided 2.1 million unlinked trips in 2015.116 Pace operates RideShare, 117 a ride-match service for commuters interested in carpooling or signing up for a new or existing vanpool. Pace's Call-n-Ride offers reservation-based shared-ride service to anyone within the six county service area.

Pace continues to implement its Vision 2020 plan. Current initiatives according to their website include: New Arterial Bus Rapid Transit Network (Pulse), I-90 Market Expansion Program, North Avenue Corridor Study, North Shore Study, and Pace Illinois Route 390 Tollway Corridor Service Study. Pace has continued its I-55 Bus on Shoulders service, which began in late 2011. It has added several trips and routes in response to passenger requests, and eliminated others due to low ridership. In 2014, the pilot project became permanent after enacted legislation in the Illinois General Assembly. A flex

¹¹³ Metra: metrarail.com/about-metra/our-history

¹¹⁴ Pace: <u>www.pacebus.com/</u>

¹¹⁵ 2015 RTA Regional Ridership 2015 Report.

¹¹⁶ RTAMS, Ridership Statistics, Pace Paratransit and Vanpool. <u>www.rtams.org/rtams/paceVanRidership.jsp.</u> Accessed May 3, 2017.

¹¹⁷ Pace RIDESHARE: <u>www.pacerideshare.com</u>

lane on the Jane Addams Tollway (I-90) is scheduled to be open for Pace buses in spring 2017. Pace and IDOT are studying possible bus-on-shoulder services on the Edens Expressway (I-94).¹¹⁸

All Pace buses are handicap accessible. Pace has a combination of bus shelters and signed bus stops, and is working toward improving passenger amenities at its bus stops, as Pace moves toward adopting a posted-stop-only boarding and alighting policy. All Pace buses have bicycle racks that accommodate up to two bicycles. Throughout its system, Pace owns twelve Park-n-Ride lots for use by its riders, and has agreements in place with the owners of nineteen additional lots for Park-n-Ride use.

Pace provides information on its services through its website, Facebook, Twitter, You Tube, RSS feeds, text messaging, and real-time e-mail notifications through its bus tracking system. Pace has a version of Bus Tracker suitable for mobile phones. Some Pace shelters contain QR codes for use in the QR code scanning application. The mobile application, Ventra, provides real-time data for Pace, CTA, and Metra services.

B8.1.4 HUMAN SERVICES TRANSPORTATION

"Human services transportation" refers to transportation for persons with disabilities, low-income populations, the elderly and sometimes veterans and youth. In the past, transportation for these groups was often uncoordinated, resulting in duplicative, fragmented, underutilized or non-existent service. In 2005, SAFETEA-LU included language requiring that human services transportation (HST) be coordinated and in 2007, the FTA developed guidelines for locally developed coordination plans for the federal human services transportation funding programs.

Illinois began to work on the issue in 2004 and created the Interagency Coordinating Committee on Transportation (ICCT). The ICCT serves in an advisory role to IDOT for HST plans and implementation. To facilitate the development of these plans, IDOT created eleven HST planning regions, and support a plan coordinator each responsible for the development and implementation of the plan within the planning region. An additional region, which covers the metropolitan Chicago area, is administered by the RTA. Figure 8.7 shows the planning regions.

To date, all regions have developed plans. For each region to develop a plan, a Regional Transportation Committee was formed, an analysis of demographics, needs and current services in the area is completed, and extensive discussions with stakeholders are conducted to establish services needed in the district. Each plan, which is suggested to be updated every three years, includes a list of projects that are reviewed and incorporated into the STIP.

¹¹⁸ Pace, Bus-on-Shoulder Service. <u>www.pacebus.com/sub/vision2020/expressway_brt.asp</u>. Accessed May 4, 2017.



Figure 8.7 Illinois Human Services Transportation Planning Regions

B8.2 IMPLEMENTATION STRATEGIES AND PROGRAMS

B8.2.1 PUBLIC TRANSPORTATION PROGRAM

To meet the needs of the state's residents, workers, employers and visitors, IDOT supports public transit by distributing federal and state funds. A number of federal programs allocate resources to different public transit initiatives and state and local programs contribute money necessary to meet federal funding requirements for these initiatives. The federal funding programs, along with information on human services transportation funding programs, are discussed in more detail in the Transportation Funding report.

For the FY 2016 – 2021 multi-year public transportation program, IDOT has identified a total of \$3.5 billion for public transit from state sources. An additional \$3.2 billion will come from the federal government, with approximately \$1.4 billion to come from local sources, for a total of more than \$8.1 billion statewide from all sources.

B8.2.2 TRANSIT PLANNING ACTIVITIES

ILLINOIS DEPARTMENT OF TRANSPORTATION

The Illinois Statewide Public Transportation Plan is integrated within the state Long Range Transportation Plan. This plan is meant to assess existing public transportation services and create an inventory. This helps in determining gaps and needs for future service, and develops and proposes strategies for meeting needs. An update of this plan is anticipated to coincide with the completion of this Long Range Transportation Plan.

A fundamental topic of discussion in development of the current plan is the potential for increasing the amount of technology used in the state to support transit operations and to make it easier and more attractive for potential passengers to use¹¹⁹. The following technologies are available and are suggested for urban fixed route systems within Illinois in the future: schedule system, trip planning, computer-aided dispatch/automatic vehicle location (CAD/AVL), onboard 'next stop' audio and visual annunciator system, automatic passenger counts, 'next bus' information, and fare collection. Currently, the CTA, Connect (Bloomington-Normal), and St. Clair County Transit have deployed a majority of the aforementioned technology systems, with minimal exceptions. CUMTD (Champaign-Urbana, MetroLink (Rock Island), Rockford, Springfield, Danville, Madison County, and Go West (Macomb) are at various stages of implementing the suggested technology systems. In contrast, Peoria, River Valley (Kankakee), Decatur, Quincy, and Galesburg have yet to implement any of the technology systems.

A trend and suggestion for the rural demand systems in Illinois is to move toward 'cloud-based computing', relieving the rural transit agencies the responsibility to provide a person skilled to manage their system and instead a service, or individual, would operate the system remotely. Currently, nearly half of the rural transit agencies operate this type of system.

¹¹⁹ Technology Applications, Draft Technical Memorandum for the Statewide Public Transportation Plan, September 2016.

REGIONAL TRANSPORTATION AUTHORITY (RTA)

In addition to transit planning conducted by IDOT, the RTA publishes the Regional Transit Strategic Plan (the Strategic Plan) every five years. The current plan is due to be replaced in 2018. The plan provides a visionary roadmap for near-term transit investment in the RTA six-county area. This plan helps the Chicago region's transit agencies in planning and funding future projects, as well as unique day-to-day activities, that are needed to meet passenger needs. Current projects, as a result of the Strategic Plan's efforts, include¹²⁰:

- → Regional Transit Signal Priority Implementation Program: Transit Signal Priority (TSP) utilizes existing vehicle location and wireless communication technologies to advance or extend the green light of a traffic signal to allow a CTA or Pace bus to continue through an intersection when the bus is running behind schedule helping to reduce travel times and ensure on-time arrivals. TSP is currently (July 2017) deployed along 13 priority corridors to help CTA and Pace buses travel along 100 miles of roadway and through about 400 intersections operated by IDOT, CDOT, and other local departments of transportation throughout the region.
- → Interagency Signage: The RTA has developed a new system of signs, maps, route diagrams and schedules to help riders more easily navigate the regional transit system. All the products are designed to complement and reinforce each other, making transferring between services as seamless and intuitive as possible. The overall plan is to deploy these sign and information products at train stations where CTA, Metra, and Pace services connect. The first phase of the project was completed in 2013, installing interagency signs at four demonstration locations. In August of 2014, the RTA, CTA, Metra, and PACE completed a manual to promote consistency across the RTA transit services. The next phase of the program is to install signage at an additional 19 locations.
- Community Planning: The RTA's Community Planning program provides funding as well as technical assistance to applicants for implementation and planning projects that benefit the community and the regional transit system. Eligible projects include transit-oriented development (TOD) plans, transit corridor plans, TOD zoning code updates, TOD developer discussion panels, transit neighborhood mobility improvement plans, plans to develop special funding districts in transit areas, and other innovative implementation approaches. The Community Planning program strives to not just plan for the future but to provide assistance that achieves results. To date (July 2017), the program has completed more than 100 transit-oriented development and implementation plans since the late 1990's using a combination of RTA, local and federal funds, totaling nearly \$10 million.
- Innovation, Coordination, and Enhancement (ICE): The ICE program was established as part of the 2008 Mass Transit Reform Legislation. The program provides funding assistance to enhance the coordination and integration of public transportation and to develop and implement innovations to improve the quality and delivery of public transportation. Projects funded through this program advance the vision and goals of the RTA by providing reliable and convenient transit services and enhancing efficiencies through effective management, innovation, and technology.
- Section 5310: The Enhanced Mobility of Seniors and Individuals with Disabilities Program (Section 5310) aims to improve mobility for seniors and individuals with disabilities by removing barriers to transportation service and expanding transportation mobility options. This program supports transportation services planned, designed, and carried out to meet the special transportation needs of seniors and individuals with disabilities. The RTA and IDOT are co-designated recipients of Section 5310 funding for Northeastern Illinois.
- → Access to Transit Improvement Program: The RTA established the Access to Transit Improvement Program to seek capital funding for small-scale projects that increase pedestrian and bicycle access to the transit

¹²⁰ RTA, Plans and Programs website, <u>http://www.rtachicago.org/index.php/plans-programs.html</u>. Accessed in July 2017.

system. The Access to Transit Improvement Program is intended to leverage RTA and local funds with federal <u>Congestion Mitigation and Air Quality Improvement Program (CMAQ)</u> funding to help implement recommendations contained in studies completed through the RTA's Community Planning program or CMAP'S Local Technical Assistance (LTA) program. Projects selected as part of the RTA's Access to Transit Improvement Program will be assisted by RTA staff in developing information required for a CMAP application.

→ Green Transit Plan: The RTA and its partners have developed the Chicago Regional Green Transit Plan, which calculates the environmental benefits of transit in the region and provides a roadmap to making the regional transit system greener. The plan includes a series of strategies aimed to grow transit ridership and market share, promote transit-orientated communities, and improve operational efficiency and green the transit system.

B8.2.3 REGIONAL MAINTENANCE CENTERS

Regional Maintenance Centers (RMC) provide maintenance services for IDOT grantee and not-for- profit agency paratransit vehicles in a specified region. Currently, IDOT has contracted with the Rockford MTD and Sangamon MTD. These agencies provide for non-routine maintenance and repair for paratransit vehicles for other agencies within a 60-mile radius. The RMC ensures that smaller providers can maintain their equipment with trained repair staff and without having significant delays in repairs. The RMC charges for its services; costs are paid by the respective transportation provider.

B8.2.4 RURAL TRANSPORTATION ASSISTANCE CENTER

The Rural Transportation Assistance Center (RTAC) is a unit of the Illinois Institute for Rural Affairs at Western Illinois University in Macomb.¹²¹ The mission of RTAC is to promote the safe and effective delivery of public transportation in rural areas, and more efficiently use public and private resources. RTAC has two primary responsibilities: it runs the Rural Transit Assistance Program (RTAP), which is funded by the Federal Transit Administration, and it serves as the clearinghouse for the ICCT, a state legislated body created in 2003.

The ICCT is chaired by the Office of the Governor, co-vice chaired by IDOT and a representative of a community-based organization involved in transportation, and supported by ICCT Clearinghouse staff. The ICCT has produced a Transportation Coordination Primer that guides counties in developing a coordinated public transportation system and provides technical assistance as counties work through the planning and implementation process.

¹²¹ Illinois Institute for Rural Affairs. <u>http://www.iira.org/</u>

B9. Waterways and Ports

B9.1 DESCRIPTION

The State of Illinois has 1,095 miles of navigable waterways bordering or traversing the state, comprising the Illinois Marine Transportation System (IMTS). A navigable waterway is defined as waters of the United States that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for the use to transport interstate or foreign commerce¹²². From a transportation perspective, the State's rivers and Lake Michigan are primarily used for freight traffic. Passenger travel on the waters is most often for recreation.

IDOT's role in managing the State's waterways, harbors and ports includes freight planning, providing land and roadway access to and from the water terminals, and providing planning and construction funding for port improvements. Since lakes and rivers are an important environmental resource, the Water Resources Division of the IDOT was transferred to the Illinois Department of Natural Resources (IDNR) in 1995. IDNR and the Illinois Environmental Protection Agency (IEPA) coordinate with the US Army Corps of Engineers (Corps) in supervising the State's waterways. IDOT is proposing to regain oversight of transportation functions related to Illinois Ports and Illinois Inland Waterways in an effort to fill a void that remains over state government's involvement and multimodal planning over transportation issues on the IMTS. Through the involvement in port and inland waterways, IDOT will lead the way in the planning, development, and implementation of strategies that will support a truly comprehensive transportation system in Illinois.

The jurisdictional authority of the Corps over the nation's rivers was established in the Rivers and Harbors Act of 1899¹²³ and the Corps' involvement continues. IDNR Office of Water Resources Division of Resource Management works with the Corps to ensure that the waterways remain navigable while the IEPA is primarily concerned with water quality. Activity generated from Illinois ports and waterways has a significant impact on the state. Waterways and ports support nearly 50,000 jobs and contributes \$6.4 billion to the state's economy.¹²⁴

B9.1.1 LAKES AND RIVERS

The IMTS is a link between the Atlantic Ocean (via the St. Lawrence Seaway) and the Gulf of Mexico. Lake Michigan is an important water resource, with three major ports along the waterfront in Illinois and many others in the other bordering states. Commercial traffic on Lake Michigan and the river network facilities is almost exclusively bulk freight and the ships and barges mainly carry coal, agricultural products, fertilizers, and petroleum products.

NAVIGABLE WATERWAYS

The primary navigable waters in Illinois include Lake Michigan, the Illinois River and canal system, and the Mississippi, Ohio, and Kaskaskia rivers. Other waters in the state are also navigable although most are used for recreation. Illinois waterborne traffic totaled 107.8 million tons in 2014, representing 8.8 percent of the freight tonnage in the state. The movement of waterborne freight through Illinois is predominately north-to-south, since the Illinois River and canal system connects Lake Michigan to the Mississippi River and allows for transport to occur between the Great Lakes and the Gulf of Mexico. Other major freight flows by water in Illinois occur on the Mississippi River along the western border

¹²² U.S. Government Publishing Office. Definition of Navigable Waters of the United States. 33 CFR 329 - DEFINITION OF NAVIGABLE WATERS OF THE UNITED STATES. <u>https://www.gpo.gov/fdsys/pkg/CFR-2010-title33-vol3/pdf/CFR-2010-title33-vol3-part329.pdf</u>.

¹²³ US Army Corps of Engineers. A Brief History. <u>www.usace.army.mil/About/History/BriefHistoryoftheCorps/Introduction.aspx</u>. Accessed June 1, 2017. ¹²⁴ United States Chamber of Commerce. Waterways Work for Illinois.

https://www.uschamber.com/sites/default/files/legacy/lra/docs/Illinois USChamb Waterway StateFactSheet 071213a.pdf. Accessed June 3, 2017.

of Illinois and on the Ohio River at the southern end of Illinois. The Kaskaskia River also has freight traffic. Illinois' waterborne freight is heavily skewed in the outbound direction, led by coal and agricultural products including cereal grains and other agricultural products heading down the Mississippi River to New Orleans. Of the 107.8 million tons of Illinois waterborne freight in 2014, 74 percent was outbound, 20 percent inbound and 6 percent was within-state. Illinois has 1,095 miles of navigable waterways that either border or pass through the state, including the nation's only all-water connection between the Great Lakes and the Mississippi River system. As shown in Figure 9.1: Illinois Waterway System, the five major waterways used to transport freight in Illinois are:

- Lake Michigan
- The Illinois River System connecting Lake Michigan to the Mississippi River including:
 - Chicago River
 - Calumet River
 - Des Plaines River
 - Chicago Sanitary and Ship Canal connecting the Chicago River to the Des Plaines River
 - Calumet-Sag Channel connecting the Calumet River to the Des Plaines River
- The Mississippi River on Illinois ' western border
- The Ohio River on the state's southern border,
- The Kaskaskia River

Figure 9.1: Illinois Waterway System



Source: Illinois Department of Natural Resources

A more detailed discussion of waterborne freight flows is in the *Water Traffic Highlights* section of the 2017 Illinois State Freight Plan.

LOCKS AND DAMS

Navigation on the four major rivers in the state is controlled by a series of locks and dams. There are 15 lock and dam structures along the Mississippi River. The Illinois River and canal system have nine lock and dam facilities; on the Ohio River, along the Illinois border with Kentucky, there are currently three lock and dam structures. The final lock and dam in the state is on the Kaskaskia River, in Modoc. Table 9.1 details all locks and dams on navigable waterways in Illinois.

Name	Location [River Bank]	River Milepoint	Corp District	
[Upper] Mississippi River				
12	Bellevue, Iowa [R]	567	Rock Island	
13	Fulton, Illinois [L]	522	Rock Island	
14	Pleasant Valley, Iowa [R]	493	Rock Island	
15	Rock Island, Illinois [L]	483	Rock Island	
16	Illinois City, Illinois [L]	457	Rock Island	
17	New Boston, Illinois [L]	437	Rock Island	
18	Gladstone, Illinois [L]	410	Rock Island	
19*	Keokuk, Iowa [R]	364	Rock Island	
20	Canton, Missouri [R]	343	Rock Island	
21	Quincy, Illinois [L]	325	Rock Island	
22	New London, Missouri [R]	301	Rock Island	
24	Clarksville, Missouri [R]	273	St. Louis	
25	Winfield, Missouri [R]	241	St. Louis	
Melvin Price*	Alton, Illinois [L]	201	St. Louis	
Chain of Rocks / 27	Granite City, Illinois [L]	185.5	St. Louis	
Illinois River and Canal System: River Milepoint from Grafton, Illinois				
Chicago Harbor	Chicago [R]	327 [Main]	Chicago	
T.J. O'Brien	Chicago [R]	327 [South]	Rock Island	
Lockport	Lockport [L]	291	Rock Island	
Brandon Road	Joliet [R]	286	Rock Island	
Dresden Island	Morris [L]	272	Rock Island	
Marseilles [Lock]	Marseilles [L]	245	Rock Island	
Starved Rock	Ottawa [R]	231	Rock Island	
Peoria	Creve Coeur [L]	158	Rock Island	
LaGrange	Versailles [R]	80	Rock Island	
Ohio River: River Milepoint from Pittsburgh Point				
Smithland	Hamletsburg [L]	919	Louisville	
52	Brookport [R]	939	Louisville	
53	Grand Chain [R]	963	Louisville	
Kaskaskia River				
Kaskaskia	Modoc [R]	0.8	St. Louis	

Table 9.1 Locks and Dams in Illinois

*Main lock length = 1,200 feet

River milepoints run north/east to south/west

Source: US Army Corps of Engineers, various websites

The IDNR Office of Water Resources owns and maintains a number of low head dams along the Fox River, one on the Rock River, and operates Stratton Lock and Dam to allow recreational navigation between the Chain O' Lakes and the Fox River down to the Algonquin Dam.

On the Illinois Waterway, four lock and dams (Brandon Road, Dresden, Marseilles and Starved Rock) are located on property owned by the State of Illinois, but the lock and dam structures are owned, operated and maintained by the Corps. The Lockport Lock and Dam was originally constructed by the Metropolitan Water Reclamation District, but today

is operated and maintained by the Corps. The Chicago River Lock and Dam was also similarly constructed and today is operated and maintained by the Corps. On the Calumet River, the Corps owns, operates and maintains the O'Brien Lock and Dam. The remaining two lock and dams on the lower Illinois River (LaGrange and Peoria), along with the other locks and dams on the remaining Illinois rivers (Mississippi, Ohio and Kaskaskia) are operated and maintained by the Corps per their federal responsibility to maintain the inland waterway system, which also includes flood control and ecosystem restoration. On the Upper Mississippi River, Locks 11 through 22 are managed by the Rock Island District. The Rock Island District also operates and manages all locks on the Illinois River and canal system, except for the Chicago Harbor, which is under the Chicago District. On the Mississippi, Locks 24 through 27 are under the purview of the St. Louis District, which also is responsible for the Kaskaskia Lock and Dam.¹²⁵ Figure 9.2 illustrates the location and jurisdiction of locks and dams within and bordering Illinois.



Figure 9.2 Lock and Dam Locations and Controlling Jurisdictions in Illinois

Source: US Army Corps of Engineers

¹²⁵ Illinois Department of Natural Resources, Email to IDOT, November 13, 2017

B9.1.2 PORTS AND HARBORS

Ports and harbors are two water facility terms that are often used interchangeably. A port provides infrastructure and services for loading and unloading cargo and passengers, while a harbor is where ships are sheltered and can anchor close to a shore. Harbors are more often along lakes, seas, and oceans, while ports are in harbors and along rivers.

In Illinois, Lake Michigan has three harbors for large ocean going vessels and more for recreational boats. The harbors along Lake Michigan that handle freight-bearing ships are the Waukegan Harbor, Chicago Harbor, and the Calumet Harbor. Waukegan is also a port, while the Calumet Harbor connects to the Illinois International Port / Port of Chicago via the Calumet River and Lake Calumet. The Chicago Harbor is not a port, but some freight cargo passes through, to access the Chicago River and the Illinois River and canal system. The Chicago District of the Corps has jurisdiction for the harbor facilities on Lake Michigan.

Port development and activity in Illinois involves private industry and the State, which uses enabling legislation to create port districts. The enabling legislation gives ports tax-exempt status and the ability to issue bonds for port development. Port districts are required to submit financial reports to the Office of the State comptroller. The 19 legislatively created public port districts in Illinois are displayed in Figure 9.3.

IDOT can provide technical and operating assistance to port districts in coordination with Illinois Department of Commerce and Economic Opportunity (DCEO). DCEO often works with port districts to facilitate economic development in the area. IDOT also supports water freight movement by providing freight planning, planning and construction dollars for improvements, and by providing land and roadway access to and from the water terminals. Private industry creates loading and unloading facilities on riverfront sites for their own use after obtaining approvals from the municipal jurisdiction, the Corps, and the IDNR. These facilities include docks, wharves, mooring sites, terminals, and other storage facilities, loading and unloading equipment, and other supportive structures.

Figure 9.3 Active Port Districts in Illinois



Source: Illinois Department of Transportation, 2017

B9.1.3 FERRIES AND WATER TAXIS

IDOT operates two free ferries across the Illinois River. These ferries are located in southwestern Illinois and operate all hours, year round. One ferry is the Illinois Route 108 connecting link between Kampsville and Eldred. Illinois Route 108, which is the eastern branch of the Great River Road Scenic Byway connects to Illinois Route 100, which is the main branch of the scenic byway. The second IDOT ferry, which is further south, connects Illinois Route 100 near Grafton to County Highway 1 / Illinois River Rd, which leads to the town of Brussels. This ferry is near Pere Marquette State Park and the mouth of the Illinois River, where it merges with the Mississippi. The two IDOT ferries are operated 24 hours a day, seven days a week. Other ferries include one at Cave-in-Rock. This ferry, operated by the Kentucky Transportation Cabinet in agreement with IDOT, crosses the Ohio River and connects Illinois Route 1 to Kentucky Route 91. The Cave-in-Rock Ferry operates year round from 6:00 a.m. to 9:30 p.m.

Along the Mississippi River, there are ferries / water taxis in Moline (Rock Island County), Meyer (Adams County), Golden Eagle (Calhoun County) and Modoc (Randolph County). The furthest ferry service south on the Mississippi River boarding Illinois is the Ste. Genevieve-Modoc Ferry, operated by the New Bourbon Regional Port Authority in Missouri.

The Channel Cat water taxi in Moline is operated by MetroLink, the public transit provider for the Quad Cities region. The taxi operates daily from Memorial Day to Labor Day and then on weekends only in September. There are four landing sites: two in Moline and two in Iowa, in Bettendorf and East Davenport. The taxi takes passengers and bicycles, but no motor vehicles¹²⁶

In Calhoun County, the Calhoun Ferry Company operates two for-profit ferry services between Calhoun County, Illinois and Missouri. The Golden Eagle Ferry takes vehicles across the Mississippi River between Golden Eagle in Calhoun County and Kampville in St. Charles County, Missouri. The Winfield Ferry crosses the Mississippi River near Batchtown in Calhoun County into Lincoln County, Missouri connecting with Route 79.¹²⁷

Chicago has two services that operate water taxis. Chicago Water Taxi operates on the Chicago River between Michigan Avenue and Chinatown / Ping Tom Memorial Park, with two additional stops at LaSalle / Clark and Madison streets. The Madison Street landing offers access to Metra's Ogilvie Transportation Center. 128 Shoreline Sightseeing operates on the Chicago River with four stops, at Michigan Avenue, Erie Street, Wacker at Wells, and the Willis (Sears) Tower / Union Station. Other taxi options include service between the Museum Campus and Navy Pier, and between Navy Pier and Michigan Avenue or the Willis Tower.¹²⁹

B9.2 IMPLEMENTATION STRATEGIES AND PROGRAMS

A number of state agencies are involved with the State's waterways and ports. IDNR and IEPA address environmental issues, while DCEO assists with economic development activities by administering the Port Development Revolving Fund and the River Edge Redevelopment Zone Program. IDOT can provide technical, capital, and operating assistance to port districts in coordination with DCEO, and is involved with port development by ensuring access to the state road network.

B9.2.1 PORT DEVELOPMENT REVOLVING LOAN FUND

DCEO maintains the Port Development Revolving Loan Fund to facilitate and enhance the utilizations of Illinois' waterways. Funds from the program are available to active port districts in the state through a competitive process. The maximum loan request is \$3,000,000 and may be used for up to 50% of a project's financing. The maximum loan term is 20 years with a top interest rate of 5% per annum.¹³⁰

B9.2.2 RIVER EDGE REDEVELOPMENT ZONE PROGRAM

The River Edge Redevelopment Zone (RERZ) Act supports municipalities with river access to remediate environmentallychallenged property located adjacent to or surrounding an Illinois River. The law enables communities to designate an area as a redevelopment zone, and allows the municipality to access grants or to provide tax incentives to remediate and cost-effectively clean the environmentally-challenged land. The River Edge Redevelopment Zone Act took effect in 2006

¹²⁶ Channel Cat Water Taxi. General Information. <u>https://www.gogreenmetro.com/231/Channel-Cat</u>. Accessed June 2, 2017.

¹²⁷ Great River Road. http://www.greatriverroad.com/SecondaryPages/ferries.htm#Calhoun County, Illinois. Accessed June 2, 2017.

¹²⁸ Chicago Water Taxi. Route Map. <u>https://www.chicagowatertaxi.com/Chicago-River-Boat-Map</u> Accessed June 2, 2017.

¹²⁹ Shoreline Sightseeing. Water Taxis. <u>http://shorelinesightseeing.com/water-taxi/</u>. Accessed June, 2, 2017.

¹³⁰ FindLaw. Illinois Statutes Chapter 30. Finance § 750/9-11. Port Development Revolving Loan Program. <u>http://codes.findlaw.com/il/chapter-30-finance/il-st-sect-30-750-9-11.html</u>. Accessed June 5, 2017.

and is administered by DCEO. RERZ offers several incentives for the redevelopment along Illinois rivers, largely focused on sales tax exemptions and property tax abatements. The DCEO has designated River Edge Development Zones in Aurora, East St. Louis, Elgin, Peoria, and Rockford.

B9.2.3 MARINE HIGHWAY CORRIDORS

In 2010, the USDOT, as part of a national initiative (America's Marine Highway Program) to facilitate the use of the nation's waterways system for transportation purposes to relieve landside traffic congestion, improve air quality, and other environmental concerns. The Marine Highway System currently include 24 all-water Marine Highway Routes that serve as extension of the surface transportation system.¹³¹ Figure 9. displays all Marine Highway Corridor in the United States. Illinois is part of three corridors: M-55, which includes the Mississippi and Illinois Rivers, from New Orleans to Chicago; M-70, which includes the Mississippi, Missouri, and Ohio Rivers, from Kansas City to Pittsburgh; and M-35 that links the Upper Mississippi River with the M-55 Corridor. The M-55 corridor was selected to address congestion on I-55; M-70 will provide additional support for travel along I-70. The M-35 and M-55 Corridor forms a continuous all-water route from the beginning of the Mississippi River to the Gulf of Mexico.



Figure 9.4 United States Marine Highway Corridors

Source: www.marad.dot.gov

¹³¹ U.S. DOT Maritime Administration. America's Marine Highway Program. <u>https://www.marad.dot.gov/ships-and-shipping/dot-maritime-administration-americas-marine-highway-program/</u>. Accessed June 5, 2017.

B9.2.4 AMERICA'S CENTRAL PORT

The Tri-City Regional Port District was created in 1959 by the Illinois State Legislature as an economic development tool for the communities of Venice, Madison and Granite City in southwestern Madison County, Illinois and was re-branded as "America's Central Port" in 2011. The \$50 million South Harbor project in Madison added a new space for "multi-modal capacity" — allowing companies transporting goods to transfer them among rail, truck, river barge and other modes of transportation, and was completed in late 2015. The project funding included a \$14.5 million USDOT grant and a \$4 million DCEO grant, along with a private loan. The South Harbor improvement is anticipated to generate an additional 25% of Port District cargo in the five years following its completion, up from its nearly 3 million tons of cargo handled in 2015.¹³²

B9.2.5 KASKASKIA REGIONAL PORT DISTRICT

The Kaskaskia Regional Port District (KRPD) is another example of a successful port district development. The KRPD was created by state statute on June 22, 1965, and currently encompasses four terminals along the 90-mile navigable portion of the Kaskaskia River in southwestern Illinois. Its 2015 Annual Report cited its standing as the 76th port district in the nation among the top 150 by volume as ranked by the Corps of Engineers, and an increase in cargo moved through the terminals from approximately 0.8 million tons in 2011 to 1.4 million tons in 2015, an increase of 76% over four years. Along with fertilizer and chemicals, the port moves grain, steel, stone used in scrubbers at a coal power plant, and sands used in the hydraulic fracturing, or fracking, process for drilling oil and gas.In 2015, construction started on a new road connecting Illinois Route 15 to a proposed entrance to the planned new, 128-acre port terminal in Fayetteville. Much of the acreage for the planned terminal was acquired from IDNR in 2012.¹³³

¹³² Belleville News-Democrat. "America's Central Port to christen South Harbor soon". <u>http://www.bnd.com/news/local/article38351142.html</u>. Accessed September 2017.

¹³³ Kaskaskia Regional Port District. 2015 Annual Report. <u>http://www.kaskaskiaport.com/2015%20Annual%20Report.pdf</u>. Accessed September 2017.