

MICHIGAN FREIGHT PLAN

Supplement to the 2035 MI Transportation Plan



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MICHIGAN FREIGHT PLAN

Supplement to the 2035 MI Transportation Plan



STATE OF MICHIGAN
EXECUTIVE OFFICE
LANSING

RICK SNYDER
GOVERNOR

BRIAN CALLEY
LT. GOVERNOR

September 16, 2013

Dear Michiganders:

I'm proud to say that Michigan is the nation's comeback state. Our success is due to the hard work and exciting partnerships going on in every corner of Michigan.

We're showing the world that anything is possible with a clear vision and our trademark relentless positive action. While we see examples of progress all around us, we must never be complacent. Michigan's reinvention must continue.

That's why I'm pleased to share with you this Michigan Freight Plan. Transportation is vital to economic activity, and a well-maintained transportation system serves the needs of business and industry, just as it serves the needs of travelers. The value and importance of the production and movement of goods in and around Michigan cannot be disputed.

Supporting continued infrastructure investment to ensure the seamless movement of those goods is absolutely essential to Michigan's ability to attract new businesses and industries.

The Michigan Freight Plan provides a comprehensive overview of Michigan's freight infrastructure assets, needs, and challenges. It illustrates the importance of the movement of freight to the continued renewal of the state's economy. It offers a plan to fuel the economic momentum that is making Michigan a model for the nation.

I look forward to continuing our work so that Michigan can enjoy economic prosperity for years to come.

Sincerely,

A handwritten signature in blue ink that reads "Rick Snyder".

Rick Snyder
Governor



STATE OF MICHIGAN
DEPARTMENT OF TRANSPORTATION
LANSING

RICK SNYDER
GOVERNOR

KIRK T. STEUDLE
DIRECTOR

September 12, 2013

Dear Michiganders:

It is my pleasure to present to you the Michigan Freight Plan, a supplement to the 2035 MI Transportation Plan: Moving Michigan Forward.

This plan was created with the hard work and dedication of an extensive team of staff from the Michigan Department of Transportation (MDOT). In addition, the Federal Highway Administration (FHWA), stakeholders, partners, and the general public helped shape this document in many ways throughout the public involvement process. Thank you to those who participated along the way.

What we learned from this process is that Michigan has an extensive transportation infrastructure system from ports to rail and highways to runways that supports over \$500 billion in economic activity on an annual basis. In addition, we were able to identify issues that need to be addressed in order for Michigan to continue to grow and prosper.

The Michigan Freight Plan also positions Michigan to take advantage of a new federal initiative focused on planning for the long-term freight infrastructure needs of this nation. State freight plans, like this one, will form the solid foundation for a National Freight Plan to be developed in the years to come.

The linkages between transportation, freight, and economic activity are impossible to ignore. The Michigan Freight Plan provides an accurate picture of Michigan's current transportation assets and needs, paving the way for future progress to be made in support of freight activity and investment in the state.

MDOT looks forward to continuing the conversation about freight investment needs in Michigan, and partnering with those who are interested in growing the state's economy.

Sincerely,

Kirk T. Steudle
Director

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INTRODUCTION

The Michigan Department of Transportation (MDOT) recognizes the importance of freight mobility in support of the movement of goods, products, and services across Michigan. A safe, efficient, and well-maintained transportation network supports cost-effective freight movement, economic development, and improved quality of life. The freight transportation system of Michigan is an important element of economic competitiveness, especially as the state continues to expand its role as a major domestic and global trade partner.

The purpose of the Michigan Freight Plan is to provide a comprehensive overview of the state's freight transportation system, including existing assets, system performance, and investments required to ensure long-term success. The Freight Plan is a multi-modal and intermodal resource, providing an overall framework for freight system improvements and priorities. The Freight Plan serves as an element of the 2035 MI Transportation Plan: Moving Michigan Forward (2035 MITP), and integrates its overall vision, goals, objectives, strategies, and decision-making principles.

"The freight transportation system of Michigan is an important element of economic competitiveness, especially as the state continues to expand its role as a major domestic and global trade partner."

THE PLAN IS ORGANIZED INTO THE FOLLOWING SECTIONS:

Section 1, *Plan Overview*, establishes the context for creation of the Michigan Freight Plan. The most recent federal transportation bill, Moving Ahead for Progress in the 21st Century (MAP-21), encourages state departments of transportation to create multi-modal freight plans, and in effect rewards that planning effort by allowing an increased share of federal funding for projects that benefit the movement of freight. Many of the required elements for state freight plans are contained in MDOT's existing state long-range plan, 2035 MITP, and are referenced throughout this document. Information required to comply with MAP-21 that was not already contained within the 2035 MITP is included in this document, which is to be considered a supplement to the current state long-range plan and associated white papers.

Section 2, *Strategic Goals*, includes a description of national freight goals as established in MAP-21. In addition, 2035 MITP goals are described and linked to the national freight goals to demonstrate the alignment of state and federal priorities for the movement of freight, and their contribution to economic development and improved quality of life.

Section 3, *Economic Context of Freight Planning*, delves into the justification for a focus on freight planning in today's economy and includes a brief summary of current freight movement patterns in Michigan. An introduction is provided to the state's Logistics and Supply Chain Strategic Plan, which continues the focus on building and maintaining a strong economic foundation for business with transportation as its backbone.

Section 4, *Freight Policies, Strategies, and Institutions*, includes an overview of the corridor-based analysis conducted during the state's long-range planning process; grant and loan programs available to support freight movement; current fiscal constraints on freight-related investments; and a listing of educational institutions, associations, partnerships, and regional freight planning initiatives present in Michigan.

Section 5, *State Freight Transportation Assets*, provides further details on existing transportation assets, data on freight movement by tonnage and value, and key freight industry and natural resource locations throughout Michigan.

Section 6, *System Condition and Performance*, describes 2035 MITP performance measures as they relate to the goals and objectives that guide transportation investment decisions in Michigan. MDOT maintains a number of tracking systems that provide a quick snapshot as to how the department is performing in relation to the performance measures that have been established through the state's long-range planning process, including measures related to the movement of freight.

Section 7, *20-Year Freight Forecast*, presents modal forecasts through 2030 for highway, rail, and marine commodity movements using information from the Transearch database maintained by IHS Global Insight. Transearch is a planning tool that allows users to analyze current and future freight flows by origin, destination, commodity, and transport mode.

Section 8, *Overview of Trends, Needs, and Issues*, includes a summary of the existing trends, needs, and issues in Michigan as they relate to the movement of freight across the state by all modes, including a discussion of specific freight bottlenecks and highway conditions that impact its efficient movement.

Section 9, *The State's Decision-Making Process*, presents the public involvement and stakeholder engagement process conducted throughout the creation of the Michigan Freight Plan. In addition, a detailed description of the methods used to create the prioritized list of freight projects is included, such as a discussion of the tiered project list approach and the specific data measures used to identify projects with significant freight impacts.

Section 10, *Freight Project List*, contains all three project tiers, including currently programmed highway projects that align with national freight investment priorities, as well as projects on highways and other modes of transportation that also are critical to the continued efficient functioning of Michigan's transportation system as a whole.



1 PLAN OVERVIEW

FREIGHT DEFINED

Freight is defined as any good, product, or raw material carried by a commercial means of transportation - including air, highway, rail, water, and pipeline. The activities involved in the management of how and where freight moves are defined as logistics. This is becoming a significant challenge due to the growing need for freight services resulting from increased consumer demand in Michigan, congestion, and the ability of transportation infrastructure to support such demand. In light of existing market forces, rising fuel prices, and other factors that will increase the cost of moving goods, freight planning is an important component of the statewide and metropolitan planning process.

When trucks carrying goods to market or factory are delayed in traffic, the result can be reduced productivity, increased operating costs, and decreased fuel efficiency. Delay can potentially increase the cost of transporting goods by as much as 50 to 250 percent.¹ The 2,110 freight bottlenecks on highways throughout the United States cause more than 243 million hours of delay to truckers annually. At a delay cost of \$26.70 per hour, the conservative value used by the U.S. Department of Transportation (USDOT) Federal Highway Administration (FHWA) Highway Economic Requirements System model, these bottlenecks cost shippers and truckers about \$6.5 billion per year.² Those costs ripple throughout the economy, affecting the cost of goods for businesses and consumers alike.

¹ Federal Highway Administration, Highway Economic Requirements System (HERS), "Creating a Freight Sector within HERS" white paper, 2001.

² Federal Highway Administration, Freight Story, The Economic Costs of Freight Transportation, www.ops.fhwa.dot.gov/freight/freight_analysis/freight_story/costs.htm.

³ MAP-21 Moving Ahead for Progress in the 21st Century, U.S. Department of Transportation, Federal Highway Administration, www.fhwa.dot.gov/map21/.

MOVING AHEAD FOR PROGRESS IN THE 21ST CENTURY

The Michigan Freight Plan was created in response to recommendations outlined in the most recent federal surface transportation authorization bill, Moving Ahead for Progress in the 21st Century (MAP-21), enacted in 2012.

In response to growing pressures on the freight network, Section 1115 of MAP-21 emphasized that the policy of the United States is to improve the condition and performance of the national freight network to help provide the foundation for the country to compete in the global economy.³

In addition to outlining national freight goals, Section 1115 of MAP-21 requires that FHWA establish a National Freight Network by Oct. 1, 2014. The National Freight Network is to include an FHWA-identified primary freight network of approximately 27,000 miles, a more focused system than the 40,000-mile federal interstate system. The National Freight Network will consist of roads and bridges deemed critical to the national movement of freight and include rural freight corridors, identified in cooperation with the states, which serve as connectors to the primary freight network.

In order to demonstrate the importance of the movement of freight to the economic competitiveness of the United States and the commitment of the federal government, MAP-21 included a financial incentive designed to encourage states to create state freight plans, either as stand-alone documents or as part of existing state long-range plans.

The creation of a state freight plan, along with a prioritized list of projects, has the potential to increase a state's federal match portion of funding for projects on interstate routes from 90 percent to 95 percent. Non-interstate routes are eligible for an increase from 80 to 90 percent in federal funding. While it does not increase federal funding to the state, receiving an increased federal share on critical freight projects statewide would create additional flexibility in the use of state funds for other types of projects.

In general, a “freight project” is defined as any surface transportation project eligible for assistance under 23 U.S.C. that improves the movement of freight. Eligible project types include:

- **Construction, reconstruction, rehabilitation, and operational improvements directly relating to improving freight movement;**
- **Intelligent Transportation Systems (ITS) and other technology directly relating to improving freight movement;**
- **Efforts to reduce the environmental impacts of freight movement on the primary freight network;**
- **Railway-highway grade separation;**
- **Geometric improvements to interchanges and ramps;**
- **Truck-only lanes;**
- **Climbing and runaway lanes;**
- **Truck parking facilities eligible for funding under Jason’s Law;**
- **Real-time traffic, truck parking, roadway condition, and multi-modal transportation information systems;**
- **Improvements to freight intermodal connectors; and**
- **Improvements to truck bottlenecks.**

Freight projects are required to have adequate funding sources identified, demonstrate improvements to the efficient movement of freight, and meet national performance targets. National performance targets are to be established by USDOT by Oct. 1, 2015. Until those targets are established, states need to demonstrate how the project makes progress toward achieving national goals for freight movement and economic vitality, improves the National Freight Network, enhances the ability of a rural community to access national and international trade markets, or supports regional economic development activities.

MAP-21 also encourages states to develop freight plans in coordination with a state freight advisory committee consisting of internal and external stakeholders. Efforts are under way to formally assemble a statewide freight advisory committee, the duties of which will be in alignment with MAP-21.⁴

PLAN DEVELOPMENT PROCESS

Since 2009, MDOT has maintained the Freight Coordination Group (FCG), an internal advisory committee comprised of staff involved in freight planning, research, and programming, with representatives from the central office and seven MDOT regions. In addition to MDOT staff, representatives from FHWA Michigan Division participate as well. MDOT relied on the expertise of FCG and public input as this plan was developed.

Recently, the Legislature enacted [Public Act 76 of 2013](#), which established the Commission for Logistics and Supply Chain Collaboration. The Commission was created to support the growing international trade, supply chain, and logistics industries and will serve in an advisory capacity on the development and coordination of state transportation and economic development policies. In the future, the Commission will be called upon to fill the role of a state freight advisory committee as encouraged by MAP-21. The Commission will advise the state on freight-related priorities; serve as a forum for discussion of state transportation policies affecting freight mobility; communicate with local, regional, state, and national partners; and participate in the development of the freight portion of the state long-range plan. To maintain consistency with state long-range planning requirements, MDOT provided stakeholders and the general public the opportunity to provide comment on the Freight Plan. See Section 9 for more information on the public involvement process for the Freight Plan.

CONNECTION TO 2035 MI TRANSPORTATION PLAN

MDOT’s current long-range plan, 2035 MITP, was adopted in September 2012 as an update to the 2030 MI Transportation Plan (2030 MITP), completed in 2007. The original 2030 MITP contains 17 technical and 11 strategic reports that include many of the elements required for a state freight plan as described in MAP-21. These include identification of trends, needs, issues, policies, strategies, and performance measures as they relate to freight and the transportation system as a whole. Those technical and strategic reports will be referred to throughout this document. In addition to the technical and strategic reports from the 2030 MITP, the 2035 MITP update includes a series of white papers that reflect newly available data and explain the variety of changes that took place in Michigan between 2007 and 2012.

MDOT has produced additional state-level planning documents that serve as valuable resources for this plan. They include the Michigan State Rail Plan (2011) and the Michigan Airport System Plan (2008).

⁴ MAP-21 Moving Ahead for Progress in the 21st Century, Prioritization of Projects to Improve Freight Movement Guidance, U.S. Department of Transportation, Federal Highway Administration, Oct. 19, 2012.

2 STRATEGIC GOALS

NATIONAL FREIGHT GOALS

The Michigan Freight Plan aligns with Michigan's state long-range transportation plan goals and with the national freight goals established in MAP-21. The Michigan Freight Plan was developed to meet national freight goals and support the overarching goals of the [2035 MITP](#). The national freight goals are summarized as follows:

- **Improve the contribution of the freight transportation system to economic efficiency, productivity, and competitiveness;**
- **Reduce congestion on the freight transportation system;**
- **Improve the safety, security, and resilience of the freight transportation system;**
- **Improve the state of good repair of the freight transportation system;**
- **Use advanced technology, performance management, innovation, competition and accountability in operating and maintaining the freight transportation system; and**
- **Reduce adverse environmental and community impacts of the freight transportation system.**

2035 MI TRANSPORTATION PLAN GOALS

In June 2007, MDOT redeveloped and adopted its long-range transportation plan, the [2030 MITP](#). Many of the technical reports are referenced throughout this document.

In 2012, the 2030 MITP was updated to reflect new data, describe changes that had taken place throughout the state between 2007 and 2012, and maintain the 20-year planning horizon required by FHWA. The mission, goals, objectives, and rationale from the 2030 MITP were reaffirmed in the 2035 MITP. A series of white papers was developed to catalogue the many changes that took place, including new collaborations, changes in freight volumes, socioeconomic changes, and other topic areas.

Figure 1 on the next page illustrates how the national freight goals are linked to the 2035 MITP goals.

The following goals, established in the 2030 MITP, were reaffirmed in the 2035 MITP:

System Improvement: Modernize and enhance the transportation system to improve mobility and accessibility.

Efficient and Effective Operations: Improve the efficiency and effectiveness of the transportation system and transportation services, and expand MDOT's coordination and collaboration with partners.

Safety and Security: Continue to improve transportation safety and ensure the security of the transportation system.

Stewardship: Preserve transportation system investments, protect the environment, and utilize public resources in a responsible manner.

The 2030 MITP identified the following goals that are specific to the Corridors of Highest Significance (COHS) that were extensively detailed in the [Corridors and International Borders Report](#), and again reaffirmed in the [Corridors and International Borders White Paper](#):

Modal Choice: Provide choices for user segments, connectivity between modes, and connectivity between activity centers for a seamless transition between modes.

Freight Adequacy: Support for Michigan businesses, industry, freight shippers, and haulers to improve economic competitiveness.

Figure 1: Linkage Between 2013 MITP Goals and National Freight Goals

2035 MITP Goals ▶ National Freight Goals ▼	Efficient and Effective Operations	System Improvements	Safety and Security	Stewardship	Modal Choice	Freight Adequacy
Enhance economic efficiency, productivity, and competitiveness	●	●	●	●	●	●
Reduce congestion	●	●	●		●	●
Improve safety, security, and resiliency	●	●	●	●	●	●
Improve state of good repair	●	●		●	●	●
Use advanced technology, performance management, innovation, competition, and accountability in operation and maintaining network	●	●	●	●	●	●
Reduce adverse environmental and community impacts	●			●	●	●

3 ECONOMIC CONTEXT OF FREIGHT PLANNING



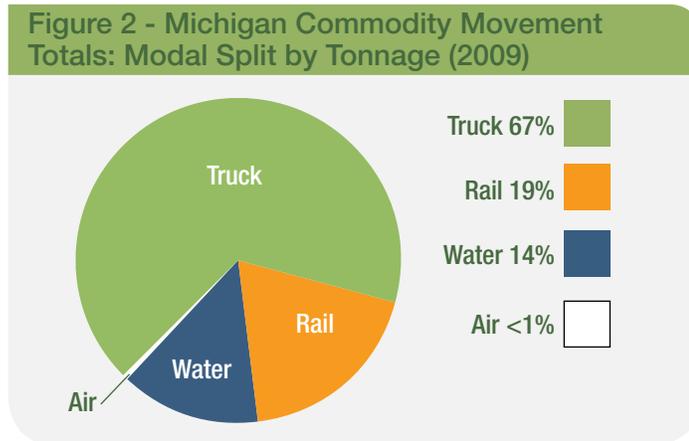
An efficient and well-maintained transportation system provides the backbone for all economic activity. Efficient transportation systems move goods and people throughout local, regional, national, and international economies in a safe, timely, and reliable manner. Transportation is very closely tied to economic development and is a vital part of the nation's and Michigan's overall economic competitiveness. Both USDOT and MDOT identify the link between transportation and the economy as a top priority.

Statistics indicate that the demand for transportation grows with economic activity. In Michigan, commercial vehicle miles traveled (VMT) has historically grown at an even higher rate than the Gross State Product (GSP), suggesting that economic growth is strongly linked to transportation in Michigan.

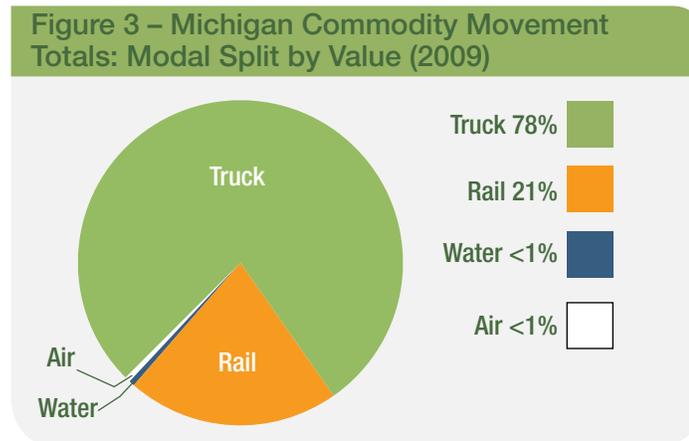
Michigan's three largest industries - manufacturing, agriculture and tourism - are highly dependent on good transportation systems. An efficient and dependable transportation system can lower costs, enhance competitiveness, and support just-in-time inventory systems for business.

STATEWIDE FREIGHT MOVEMENT SNAPSHOT

Tonnage moved to, from, within, and through Michigan totaled approximately 434 million tons in 2009. Trucking accounted for 67 percent of the tonnage moved, while rail handled 19 percent, water handled 14 percent, and aviation carried less than 1 percent (Figure 2). The value of all freight movements throughout Michigan in 2009 was more than \$520 billion, with trucks handling 78 percent of the goods moved by value, rail handling 21 percent, and water and air modes each handling less than 1 percent (Figure 3).



Source: MDOT Statewide and Urban Travel Analysis



Source: MDOT Statewide and Urban Travel Analysis

Major commodities moved throughout the state by truck in 2009 include nonmetallic minerals, such as sand and gravel (48.49 million tons); farm products (37.17 million tons); and secondary traffic, such as movements of mixed freight to and from warehouse and distribution centers (35.42 million tons).

For rail, coal (19.77 million tons), chemicals (11.09 million tons), and metallic ores (9.95 million tons) were the top commodities moved by tonnage in Michigan in 2009, with coal being all inbound, chemicals mostly through movements, and metallic ores mostly through outbound movements from the iron mines in Marquette County.

Nonmetallic minerals (25.01 million tons) were the leading commodity shipped by water in Michigan in 2009, mostly outbound from limestone quarries in northern Michigan.

In terms of air freight, the Detroit Wayne County International Airport continued to handle the majority of high-value, time-sensitive products typically shipped by air at 164,590 tons in 2009. Detroit Willow Run (38,822 tons), Grand Rapids (38,277 tons), Lansing (21,023 tons), and Flint (8,798 tons) make up the next tier of cargo airports.

The United States and Canada are the world's largest bilateral trading partners, with the cross-border movement of goods between them exceeding \$1.6 billion per day. The Ambassador Bridge in Detroit is the busiest commercial border crossing in the United States, with more than 2.6 million trucks crossing in 2011. The Blue Water Bridge in Port Huron is the second-busiest northern border crossing, with almost 1.5 million trucks in 2011. Transportation equipment is the leading product crossing Michigan's border with Canada, due to the presence of several auto manufacturing plants that require shipments between Michigan and Ontario.

3 ECONOMIC CONTEXT FOR FREIGHT PLANNING

LOGISTICS AND SUPPLY CHAIN STRATEGIC PLAN

In addition to the vision and goals set forth in the 2030 MITP and reaffirmed in the 2035 MITP, Gov. Rick Snyder and his administration have embraced an asset-based economic development approach to improving the state's economy, with a focus on building and maintaining a strong economic foundation for business. One key component is the presence of a safe, efficient, and low-cost logistics and supply chain network in Michigan. As a result, MDOT works closely with the Michigan Economic Development Corp. (MEDC) and the Michigan Department of Agriculture and Rural Development (MDARD) through a formal partnership intended to help achieve the economic development goals of the state and accelerate economic success for businesses.

A state agency partnership released the [Logistics and Supply Chain Vision 2013-2020](#), that further refines the mission of the State of Michigan in regard to creating a positive business environment for economic growth:

"To lower cost, reduce time and remove risk for firms by developing an efficient logistics and supply chain ecosystem that leverages our assets and provides opportunities for collaboration and partnership."

The vision to reinvent Michigan to become a center of international trade requires developing an infrastructure that will meet the modern day demands of a globalized economy. Michigan has significant transportation assets, which serve intermodal freight traffic from around the world, including two of the country's busiest international border crossings in Detroit and Port Huron, four Class I railroads, a network of interstate highways, the St. Lawrence Seaway, many commercial port facilities, and the major cargo-carrying airports of Willow Run and Detroit Metro. Michigan's robust freight infrastructure assets are described in greater detail in Section 5 of this plan.

4 FREIGHT POLICIES, STRATEGIES, AND INSTITUTIONS

This section provides a summary of the strategies, policies, programs, and institutions that support the mobility and efficient movement of freight in Michigan.

MDOT's approach to freight planning is intended to increase economic productivity and promote economic growth by recognizing freight needs in the long-range planning process. Freight is recognized by MDOT as important to the economic vitality of the state. The importance of the movement of freight to the economic vitality of the state has long been identified in the long-range transportation planning conducted at MDOT.

INVESTMENT DECISION GUIDANCE: A CORRIDOR-BASED APPROACH

Freight must travel seamlessly along geographic corridors, with a choice of transportation modes between locations or activity centers within and outside Michigan. To support this, MDOT chose to focus on a corridor-based strategy to define economic activity centers throughout Michigan. The corridor approach has allowed MDOT to gain a better understanding of economic conditions and needs statewide.

The corridor-based analysis conducted during development of the 2030 MITP found that specific corridors serve and support specific economic sectors, and the 2035 MITP reaffirmed this finding. By improving specific corridors, the shippers, businesses, and industries dependent on those corridors can be strengthened, further supporting Michigan's economic competitiveness.



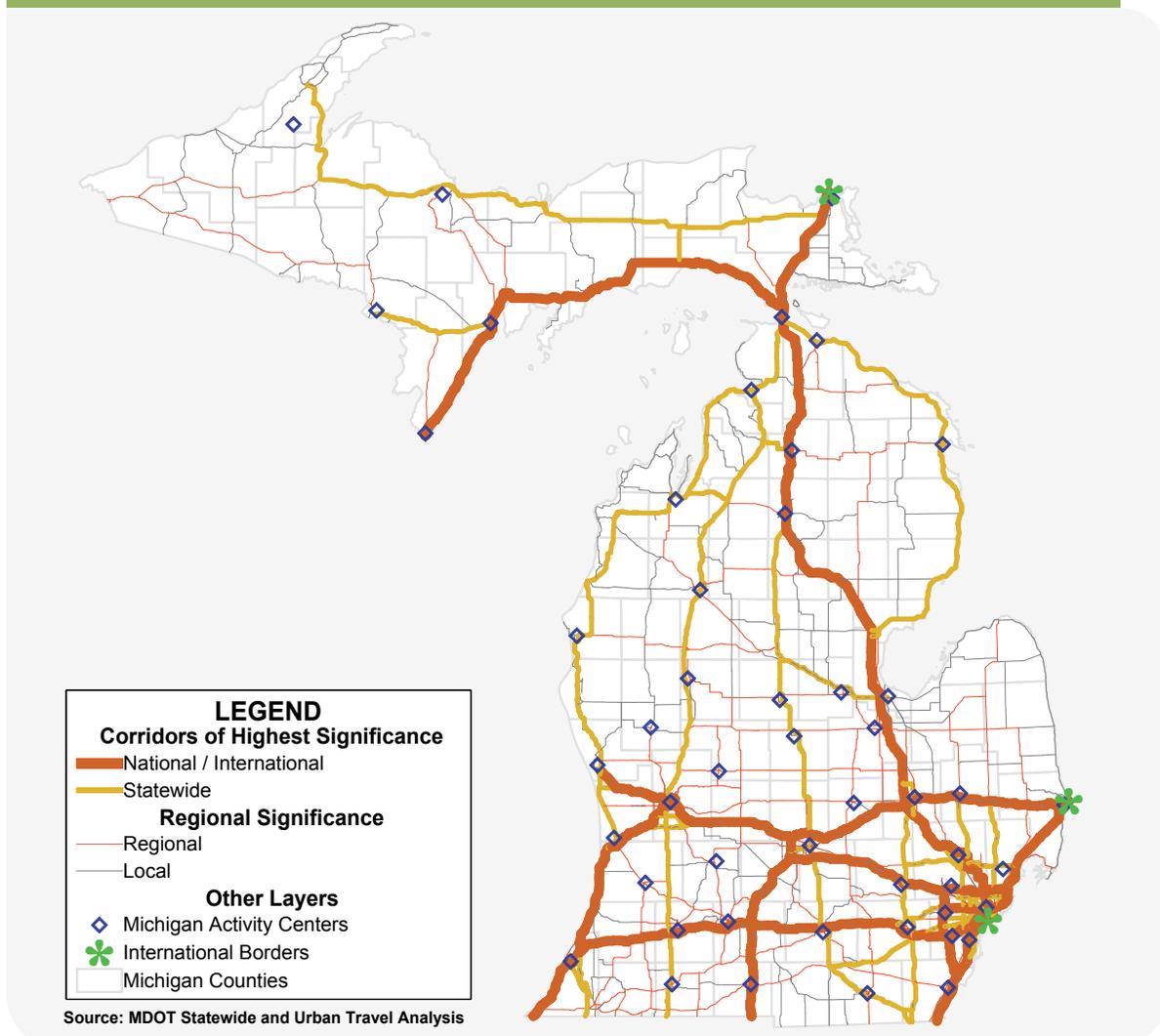
4 FREIGHT POLICIES, STRATEGIES, AND INSTITUTIONS

Corridors of Highest Significance - National/International and Statewide Corridors

A significant portion of the 2030 MITP was focused on the development of the COHS (Figure 4). Corridors were designated and named based on the primary travel origin and destination they serve: national/international, statewide, regional, or local. COHS include national/international and statewide designated trunkline corridors and are defined as:

An integrated, multi-modal system of transport infrastructure along geographic corridors that provides a high level of support for the international, national, and state economies. These corridors connect activity centers within and outside Michigan and serve the movements of people, services, and goods vital to the economic prosperity of the state.

Figure 4 - Corridors of Highest Significance: National/International and Statewide



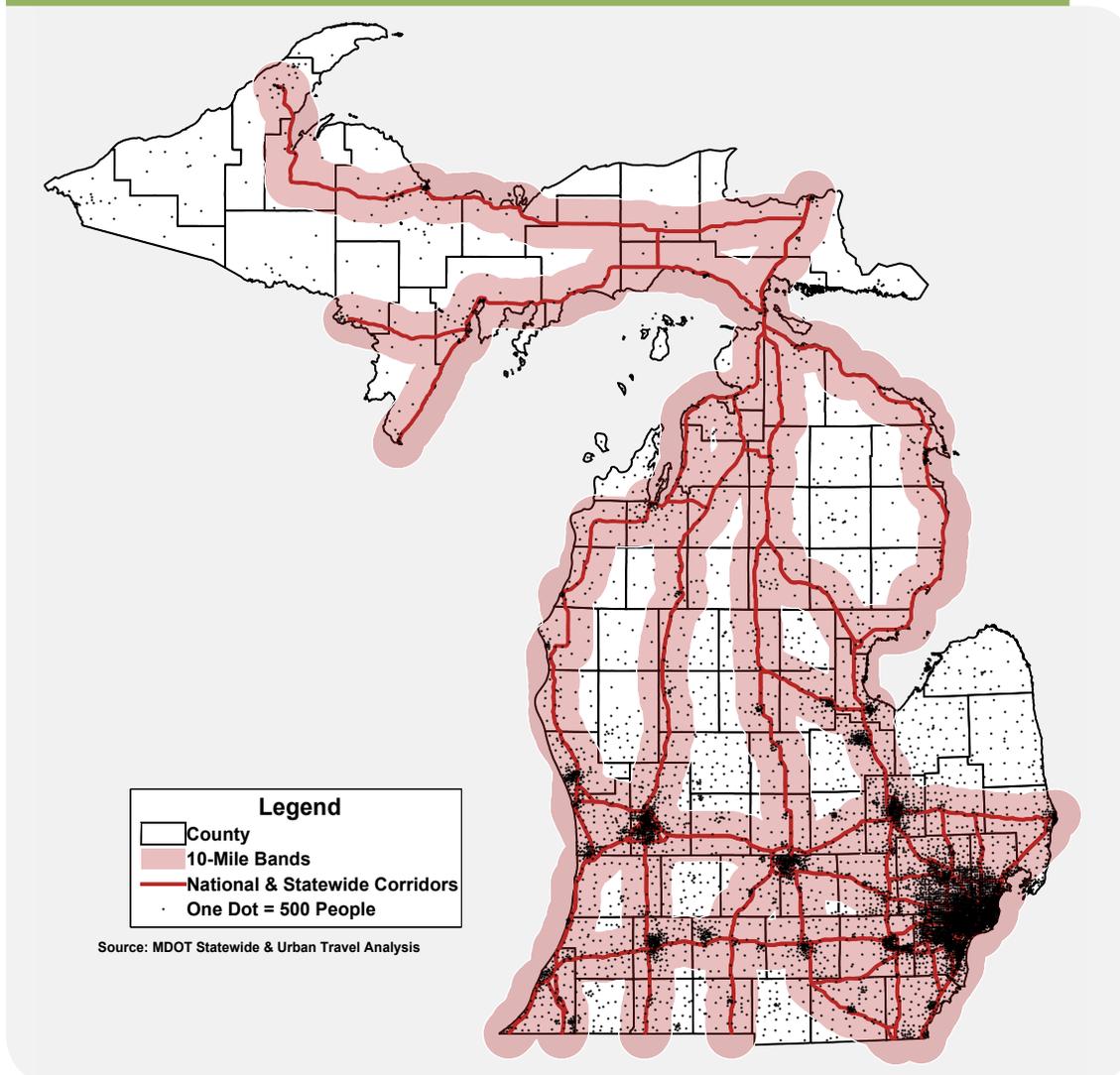
Regionally and Locally Significant Corridors

Michigan's economy includes many local and regional economic activity centers throughout the state in addition to the corridors that support the international, national, and state economies. In identifying the COHS, it became clear that certain corridors support regional economies and are vital components of the transportation network and the state's economic health. These corridors were identified as regionally and locally significant corridors and are defined as:

An integrated, multi-modal system of transportation infrastructure along geographic corridors that provides a high level of support for a specific sub-state region of Michigan's economy. These corridors connect to and augment the COHS and serve the movements of people and goods within or between activity centers.

Because the corridors are multi-modal and not limited to highways, service areas were defined to include population and employment within a 20-mile geographic area around the corridor, called the 20-mile band, which covers 10 miles on each side of the trunkline (Figure 5). COHS are not ranked; instead, they are based on the type of travel they carry. Even though the COHS do not include the entire state transportation network, they serve a very large segment of the travel needs of Michigan's businesses and encompass nearly 93 percent of the state's population.

Figure 5 - Population within 10 miles of a Corridor of Highest Significance



For more information on these corridors, please see the [Corridors and International Borders Technical Report](#), the [Corridors and International Borders White Paper](#), and the [MI Corridors of Significance Profile Summary](#) on the Web at www.michigan.gov/slrp.

4 FREIGHT POLICIES, STRATEGIES, AND INSTITUTIONS

GRANT AND LOAN PROGRAMS

MDOT maintains a number of grant and loan programs that provide financial support to projects designed to enhance the movement of freight.

Transportation Economic Development Fund

MDOT's Office of Economic Development manages the [Transportation Economic Development Fund \(TEDF\)](#). Enacted in 1987, the TEDF was created to assist in the funding of highway, road, and street projects necessary to support economic growth. Eligible entities include MDOT, county road commissions, and all city and village road agencies. Developers must work with one of the eligible recipients to access this fund. The program's mission is to serve as a catalyst for economic growth and enhance the state's ability to compete in the global marketplace, while improving the quality of life for the residents of Michigan. The goal of the TEDF is to provide funding for transportation projects to:

- **Improve the network of highway services essential to economic competitiveness;**
- **Improve accessibility to target industries as a catalyst for economic growth;**
- **Support private initiatives that create or retain jobs; and**
- **Encourage economic development and redevelopment efforts that improve the health, safety, and welfare of Michigan citizens.**

The types of projects eligible for TEDF assistance are:

- Category A** - Road projects related to target industry development and redevelopment opportunities.
- Category C** - Road improvements in urban counties to reduce traffic congestion.
- Category D** - Road improvements in rural counties to create an all-season road network.
- Category E** - Road improvements essential to the development of commercial forests in Michigan.
- Category F** - Road improvements that support an all-season road network in the urban areas of rural counties.

Freight Economic Development Program

The [Freight Economic Development Program](#) helps new or expanding businesses connect to the rail system. The program provides low-interest loans that can cover up to 50 percent of rail infrastructure costs at new or expanded facilities. The loans are designed to be forgiven if contractually obligated shipping commitments are met over the five-year repayment period.

Michigan Rail Loan Assistance Program

The [Michigan Rail Loan Assistance Program \(MiRLAP\)](#) provides no-interest loans to preserve railroad infrastructure through track maintenance and rehabilitation projects. Up to 90 percent of the eligible project costs can be covered by the loans, limited to \$1 million per project. Loans have a 10-year repayment period. Eligible projects include any type of construction or rehabilitation work that is associated with permanently affixed track materials and related structures, such as bridges and culverts.

State Infrastructure Bank Loans

[State Infrastructure Bank \(SIB\)](#) loans are available to private companies and nonprofit organizations that are developing a publicly owned facility. These loans allow eligible applicants to close financing gaps; expand project scopes; improve safety; and, through project acceleration, avoid cost increases and reduce construction period disruptions. Eligible borrowers include any public entity, such as political subdivisions, state agencies, regional planning commissions, transit agencies, airports, port authorities, and economic development corporations. Private companies, such as railroads and nonprofit organizations that are developing a publicly owned facility, are eligible for SIB financing. The interest rate for SIB loans is currently set at 3 percent. The interest rate may vary, depending on the level of risk and repayment terms requested by the borrower. The interest rate also may vary for projects in need of emergency financing.

Office of Aeronautics Loan Program

The [Office of Aeronautics Loan Program](#) allows a publicly owned airport to borrow up to \$100,000 for airport-related projects. The interest rate on the loan, established annually by the state treasurer, is currently at 3.4 percent per annum (January 2012). Repayment is scheduled in yearly installments over a maximum 10-year period. Loans are often used by sponsors for their local match obligation in capital improvement projects; however, a loan may not exceed 90 percent of the sponsor's match of the overall project cost.

CONSTRAINTS ON FREIGHT-RELATED INVESTMENTS

Michigan does not have a separate funding mechanism specifically for freight projects. Limited funding at the state level, and limitations on how federal funding can be spent, hinder MDOT's ability to complete needed freight projects.

Federal transportation funding received through FHWA cannot be spent for projects that are not a part of the federal-aid highway system or otherwise eligible for funding as specified in [Title 23](#) of the U.S. Code. Federal aid is limited to roads classified in the Functional Classification System as a collector or higher. This limits investments in local roads serving industries directly or connecting to the higher functioning federal-aid system.

The need for an increase in state transportation funding is currently the subject of significant debate. Existing state funding is insufficient to sustain "good" highway conditions, and additional revenue is needed to fund freight projects that go beyond simply preserving the existing transportation system. Further, funds available through the specialized state programs described above are at risk of being reduced.

FREIGHT-RELATED INSTITUTIONS

A number of freight-related institutions are present and active throughout Michigan. The following list is not exhaustive, but represents many of the industry associations and educational institutions that focus on freight interests in Michigan. MDOT coordinates with each of the following groups on a project-by-project basis during times of stakeholder engagement for plan studies and long-range planning updates.

Associations

The [Michigan Railroads Association \(MRA\)](#) is a nonprofit trade association that represents the interests of the freight railroads operating in Michigan. MRA members range in size from large Class I carriers to smaller regional carriers and short-line railroads. MRA members account for more than 95 percent of all rail freight moved in Michigan.

The [Michigan Trucking Association \(MTA\)](#) is a statewide, full-service trade association that has promoted the interests of Michigan motor carriers since 1934. The mission of the MTA is to serve the interests of the trucking industry; enhance the industry's image, efficiency, productivity and competitiveness; promote highway safety; provide educational programs; and work for a healthy business environment.

The Michigan Grain Dealers Association, the forerunner of the [Michigan Agri-Business Association](#), was formed on June 25, 1903. The primary interest of the group is to further the development and prosperity of businesses engaged in agriculture.

Educational Institutions

Michigan State University, Supply Chain Management Program

The [Supply Chain Management Program](#) at Michigan State University (MSU) integrates topics from manufacturing operations, purchasing, transportation, and physical distribution into a unified course of study. This is the most widely recognized program in the United States that offers integration among these critical, value-adding components to enhance global competitiveness.

4 FREIGHT POLICIES, STRATEGIES, AND INSTITUTIONS

University Research Corridor

The [University Research Corridor](#) is an alliance between MSU, the University of Michigan, and Wayne State University to transform, strengthen, and diversify the state's economy. University Research Corridor partners have formed this alliance to improve understanding of the vital role the three universities have played, and will play, in revitalizing the state's economy.

Additional University Research

The following universities have completed multiple studies with and for the department, including freight topics related to traffic reliability, border crossing delay, ITS applications to reduce traffic congestion, and commercial vehicle safety.

- Michigan Tech Research Institute
- Michigan Tech Transportation Institute
- University of Michigan Transportation Research Institute (UMTRI)
- Center for Automotive Research (CAR)

REGIONAL FREIGHT PLANNING AND BORDER PARTNERSHIPS

This section provides an overview of the regional freight planning initiatives and border partnerships that MDOT participates in, including multi-state freight corridors, multi-state metropolitan areas, and other regional groups of states and provinces.

Great Lakes Regional Transportation Operations Coalition

MDOT is a member of the [Great Lakes Regional Transportation Operations Coalition \(GLRTOC\)](#), which is made up of Michigan's neighboring state DOTs (Illinois, Indiana, Wisconsin, and Minnesota), and toll authorities in Indiana, Illinois, and Ontario, Canada. GLRTOC collaborates on initiatives that improve cross-regional highway operations in support of regional economic competitiveness and improved quality of life. Plans and strategies designed to achieve the coalition's goals include efficient freight operations, reliable mobility, traffic incident management, and emergency traffic operations.

Next Michigan Development Corporations

A major economic development effort in Michigan has been the creation of five [Next Michigan Development Corporations](#) (NMDCs), as designated by the Michigan Strategic Fund through Public Act 275 of 2010.

NMDCs were created to foster economic opportunities in Michigan and promote economic growth focused on multi-modal transportation. NMDCs in Michigan include:

- [Port Lansing Next Michigan Development Corp.](#)
- [West Michigan Economic Partnership](#)
- [Traverse City Next Michigan Development Corp.](#)
- [I-69 International Trade Corridor](#)
- [Detroit Region Aerotropolis Development Corp.](#)

Detroit Regional Chamber of Commerce: TranslinkeD

The Detroit Regional Chamber of Commerce is paving the way for the growth of the transportation, distribution, and logistics industry through [TranslinkeD](#). The mission of TranslinkeD is to develop the southeast Michigan, northwest Ohio, and southwest Ontario region into a world-class and globally recognized transportation and logistics hub. The program is dedicated to convening stakeholders and industry leaders, aggregating resources and regional metrics, and accelerating investment and job growth.

Mid-America Freight Coalition

The [Mid-American Freight Coalition \(MAFC\)](#) is a regional organization that cooperates in the planning, operation, preservation, and improvement of transportation infrastructure in the Midwest. This region includes 10 states (Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Ohio, and Wisconsin) that share key interstate corridors, inland waterways, and the Great Lakes. These 10 states signed a Memorandum of Understanding in October 2006 demonstrating their willingness to meet freight demands through regional cooperative efforts. The MAFC is built upon the work of the [Upper Midwest Freight Corridor Study \(UMFCS\)](#).

Northwoods Rail Transit Commission

The [Northwoods Rail Transit Commission](#) was created with the mission to sustain and enhance safe, reliable, and efficient rail service critical to the businesses, communities, and economies in northern Wisconsin and Michigan's Upper Peninsula. The Commission is comprised of 11 Wisconsin counties that reside along the Michigan border. In 2013, of the Commission charter was amended to allow neighboring border counties in Michigan to join.

Eastern Border Transportation Coalition

The [Eastern Border Transportation Coalition \(EBTC\)](#) is a nonprofit membership organization created in 1994 dedicated to improving the movement of people and goods between the United States and Canada. EBTC members are the state transportation agencies of Michigan, New York, Vermont, and Maine; and the Canadian provinces of Ontario, Quebec, New Brunswick, Nova Scotia, Newfoundland, and Labrador.

Transportation Border Working Group

The mission of the [Transportation Border Working Group \(TBWG\)](#) is to promote the safe, secure, efficient, and environmentally responsible movement of people and goods across the U.S.-Canada border. It brings together transportation and border agencies to coordinate transportation planning, policy implementation, and the deployment of technology to enhance infrastructure and operations on the northern border. It was established in 2000.

Public Border Operators Association

The [Public Border Operators Association \(PBOA\)](#) is a bi-national membership organization representing the publicly owned and operated international bridge and tunnel crossings between the province of Ontario and the states of Michigan and New York. Current members include the Blue Water Bridge Authority, Buffalo and Fort Erie Public Bridge Authority, Detroit-Windsor Tunnel, MDOT, Niagara Falls Bridge Commission, Ogdensburg Bridge and Port Authority, Sault Ste. Marie Bridge Authority, Seaway International Bridge Corp., and Thousand Islands Bridge Authority.

North American Strategy for Competitiveness

[North American Strategy for Competitiveness \(NASCO\)](#) is a coalition of North American governments, businesses, and educational institutions specifically focusing on solutions for needs and requirements in the areas of transportation, energy, logistics, infrastructure, security, and the development of a skilled workforce. NASCO's ultimate objective is to have a globally competitive transportation network.

International Bridge, Tunnel and Turnpike Association

The [International Bridge, Tunnel, and Turnpike Association \(IBTTA\)](#) was founded in 1932 and is the worldwide association for owners and operators of toll facilities and the businesses that serve tolling. Its mission is to advance toll-financed transportation. MDOT is a member.

