

## A Mackinaw City-St. Ignace/Wisconsin

### 3.1 A Mackinaw City–St. Ignace/Wisconsin

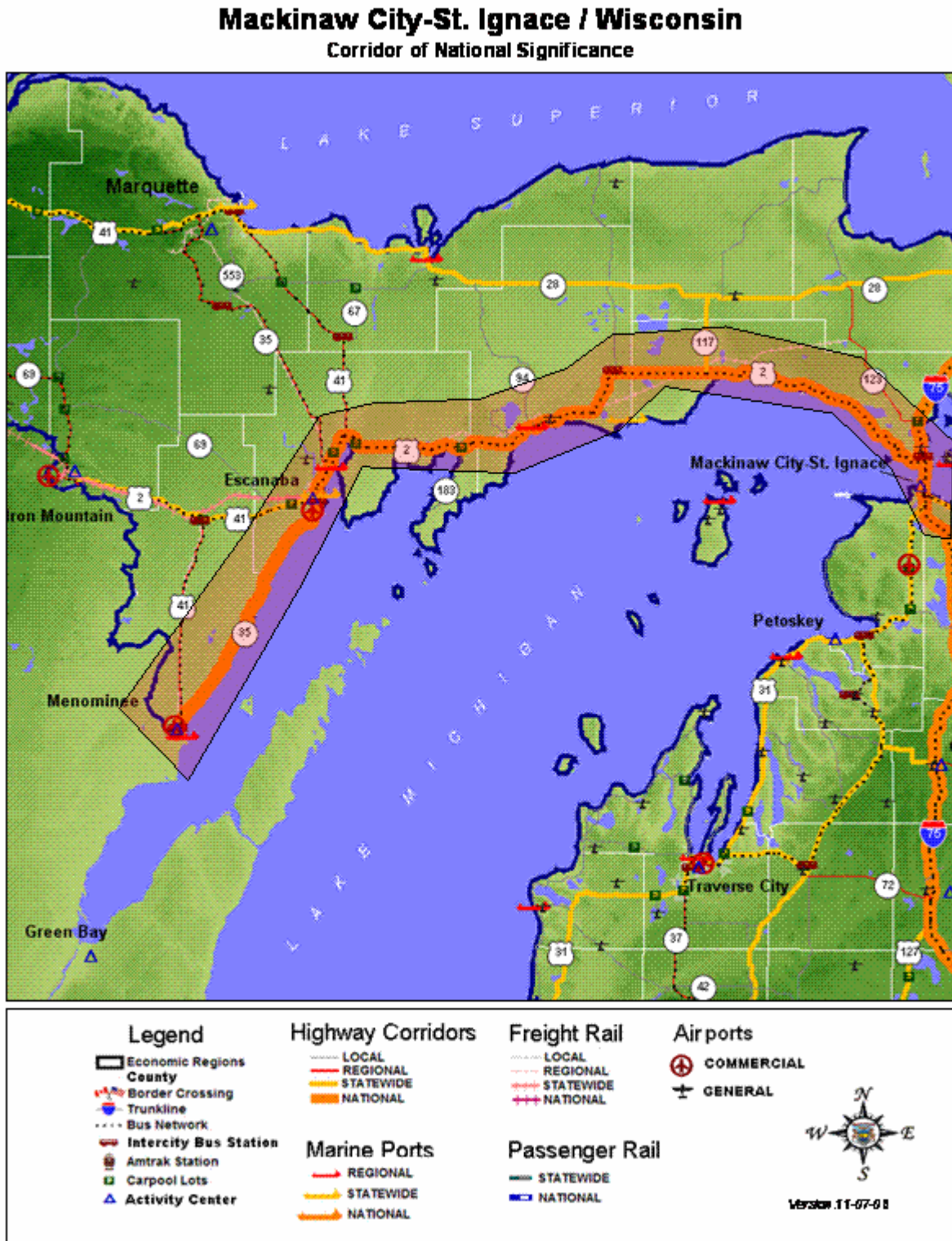
The Mackinaw City – St. Ignace/Wisconsin National/International Corridor of Highest Significance begins at I-75 in St. Ignace and proceeds west following US-2 to M-35 Escanaba and continues to follow M-35 south to Menominee, with a leg continuing west to Iron Mountain ending at the Wisconsin border. It includes Mackinac, Schoolcraft, Delta, Menominee, and Dickenson Counties. Rail lines supporting this corridor begin at Trout Lake, and travel through Escanaba, to Powers, and include both lines from Powers to Iron Mountain and Powers to Menominee.

#### 3.1.1 Profile and Map

This 195.1-mile east-west corridor provides the major connection for travelers and freight through the Upper Peninsula. Though St. Ignace itself is bypassed, as a multi-modal corridor, the Mackinaw City – St. Ignace/ Wisconsin Corridor includes the primary rail freight route that crosses east-west through the Upper Peninsula from Canada into the western US states. Four *MI Transportation Plan* activity centers are located along this corridor. These include Mackinaw-St. Ignace, Escanaba, Menominee, and Iron Mountain.

The corridor links to the west with Wisconsin. It links with the *MI Transportation Plan* Sault Ste. Marie/Bay City National/International Corridor of Highest Significance providing access to the international border crossing at Sault Ste. Marie National/International Corridor and the urban areas of the Lower Peninsula. The corridor also links to the five-mile Mackinaw Bridge, which provides the only vehicular crossing connecting the Upper and Lower Peninsulas of Michigan.

Figure 3: Mackinaw City - St. Ignace/Wisconsin



### 3.1.2 Estimate of Corridor Value

This is one of only two Corridors of Highest Significance that support passenger and freight travel within and through the Upper Peninsula (UP). The Upper Peninsula encompasses approximately one-third of the state's entire geographic area. The corridor supports the year-round residents, mining, timber, and tourism industries of the Upper Peninsula.

The Mackinaw City - St. Ignace/Wisconsin Corridor serves and supports:

- Approximately 0.6 percent of Michigan residents and 0.7 percent of Michigan jobs;
- The corridor accounts for 2.6 percent of the total statewide ton miles and 1.6 percent of the total statewide value miles of truck freight;
- The corridor accounts for 6.4 percent of total statewide rail-ton miles and 2.0 percent of rail-value miles;
- The Mackinaw bridge that is the only vehicular link between Michigan's Lower and Upper Peninsulas;
- Three of Michigan's *MI Transportation Plan* Economic Regions;
- A total average daily traffic (corridor average) of 5,472 vehicles;
- Three major and a number of smaller water ports that handle over 9.5 million-tons per year of freight. Much of this is iron ore and limestone from mining in the Upper Peninsula of Michigan;
- Land connections to the Upper Peninsula and Canada, Wisconsin, and the Lower Peninsula of Michigan;
- Close to 3.5 million person days of tourism activity per year;
- Access to four state parks; and,
- Two commercial airports (9,600 enplanements) at Escanaba and Iron Mountain.

In comparing this corridor to other *MI Transportation Plan* Corridors of Highest Significance, this corridor carries some of the lowest values and volumes of passengers and freight. Its value and importance should not, however, be underestimated. It is one of the only major routes through this portion of Michigan.

**Table 2: Population/Employment/ADT within a 20-mile geographic area around Corridor Mackinaw City - St. Ignace/Wisconsin Corridor**

<i>Corridor Length (195.1 miles)</i>	<b>2005</b>	<b>2030</b>
Population within band	65,500	67,940
Employment within band	38,100	41,920
Total daily vehicle-miles of travel	1,067,500	1,424,280
Total average daily traffic (corridor average)	5,470	7,300
Highest total ADT	26,540	32,160
Lowest total ADT	3,000	4,440
Passenger average daily traffic (corridor average)	4,760	6,330
Highest passenger ADT	25,320	30,690
Lowest passenger ADT	2,350	3,480
Commercial average daily traffic (corridor average)	720	980
Highest commercial ADT	1,220	1,600
Lowest commercial ADT	500	610

**Table 3: Corridor Truck Freight Totals**

<i>Mack-St.Ignace/Wisconsin</i>				
<i>(193.7 miles)</i>	<b>2003 Tons</b>	<b>2013 Tons</b>	<b>2003 Value</b>	<b>2013 Value</b>
Average	7,072,400	7,747,242	\$10,967,511,768	\$12,448,217,400
High	10,084,500	11,137,235	\$14,910,136,014	\$16,889,935,424
Low	5,958,000	6,626,474	\$6,933,040,941	\$8,575,942,983

**Table 4: Corridor Rail Freight Totals**

<i>MackStIg/Wisc</i>				
<i>Track Miles (249.95)</i>	<b>2003 Tons</b>	<b>2013 Tons</b>	<b>2003 Value</b>	<b>2013 Value</b>
Average	3,869,700	4,204,842	\$1,639,826,188	\$1,773,942,007
High	7,902,900	8,720,036	\$2,865,905,372	\$3,335,151,769
Low	8,500	9,638	\$10,421,000	\$11,816,699

Source: Michigan Department of Transportation Statewide and Urban Travel Analysis Section

**Table 5: Mackinaw City - St. Ignace/ Wisconsin Corridor - Activity Centers Summary**

<i>Activity</i>	<i>Measure</i>	<i>Year</i>	<i>Mackinaw City- St.Ignace</i>	<i>Escanaba</i>	<i>Menominee</i>	<i>Total Value</i>
<b>URBAN</b>						
Population	Total Activity Center Population	2005	5,381	37,940	12,728	56,049
<b>COMMERCIAL</b>						
General Economic Activity	Total Employment	2005	7,780	20,976	7,809	36,565
Retail Activity	Retail Employment	2005	2,419	4,408	1,235	8,062
<b>TOURISM</b>						
Hotel Capacity	Hotel Units	2000	3,203	560	68	3,831
Annual Lodging Use Tax revenue	Revenue	2004	1,632,556	211,569		1,844,125
National Park	Number of National Park	2005				
State Park	Number of State Park Location	2005	3	1		4
Gaming	Gaming Centers Employment	2005	325	600		925
Number of Visitors	Person Trips	2004	804,310	695,398	12,837	1,512,545
Length of Stay	Person Days	2004	2,328,451	1,185,700	31,408	3,545,559
<b>EDUCATION/TECHNOLOGY CENTER</b>						
Educational Centers	Student Population	2005		2,355		2,355
Smart Zones	Number of Technology Centers	2006				
<b>LIFE SCIENCE</b>						
Hospitals	Number of Facilities	2005	1	1	1	3
<b>CORRECTIONAL FACILITIES</b>						
Prisons	Number of Facilities	2005				
<b>MILITARY BASE</b>						
Military Base Center	Number of Facilities	2005				
<b>PASSENGER FACILITIES</b>						
Air Passenger	Passenger Enplanments	2005		9,596		9,596
Amtrak	Number of Passengers	2005				
Car Pool	Number of Facilities	2005		4		4
Intercity Bus Station	Passenger Stations	2005	1	1	1	3
<b>FREIGHT FACILITIES</b>						
Air Cargo Ports	Cargo Tonnage	2005		345		345
Marine Ports	Cargo Tonnage	2003	9,000	4,582,000	355,000	4,946,000
<b>INTERNATIONAL BORDER CROSSING</b>						
Passenger and Freight	Number of Border Crossings	2005				

### 3.1.3 Corridor Analysis

This corridor provides facilities for all modes of travel including roadways, trails, rail, air, and water ports. Overall, the roadway conditions are adequate and the need is for continuing maintenance and preservation. The issues with the highway segments of the corridor are lane inconsistencies. The numbers of lanes change from two to four to five over the length of the 195-mile corridor. There are also capacity problems during tourist season at Escanaba and Manistique.

The Canadian National (CN) Railroad provides east-west rail service to this area. The issue in terms of rail is a lack of adequate rail cars to support the industry based needs of this region. However, given the demand, CN has felt it is not cost-efficient to provide additional cars. Passenger air service is adequate and provided from two small commercial airports in Iron Mountain and Escanaba with connections both internationally and to larger air hubs. Water ports are adequate but improvements to intermodal centers are needed. Trails, such as those for snowmobiles, are widely used.

US-2, in this corridor, has become a growing international long-haul route for Canadian trucks passing through traveling between Eastern Canada, Wisconsin, and Western Canada. US-2 also supports the movement of forestry products, paper products, and non-metallic minerals.

Intercity bus serves locations in all three counties in the corridor; however, it is dependent on state subsidy. St. Ignace and Escanaba are connecting points for two or more intercity bus routes. A permanent passenger terminal is available in Escanaba, while other stops are at local businesses, such as restaurants and gas stations. A permanent intercity bus terminal is under development for St. Ignace. Connecting intercity bus service in the Upper Peninsula with the national network requires service to run in the late-night/early-morning hours. Countywide transit services are available in Schoolcraft and Delta Counties, while transit in Mackinac County is very limited.

Opportunities on this corridor include lower volumes of traffic and seasonal traffic that combine to provide times throughout the year when roadwork can occur without interfering with heavy traffic volumes. At the same time, the weather in the “off-season” can be a barrier limiting times when construction and maintenance can be done. Other barriers to movement, such as missing or deficient links to the existing and future physical transportation system gaps include the lane number and capacity issues.

### 3.1.4 Corridor Objectives

This corridor serves a unique mix of year-round residents, seasonal tourists, freight from local mines and timber industries, and Canadian traffic passing through the region.

Objectives for the corridor are to:

- Integrate differing users’ transportation needs;
- Provide for safe and efficient travel;

- Expand rail-freight opportunities and intermodal connectivity; and,
- Preserve existing transit and intercity bus services and support expansion of public transit opportunities to include countywide service in all counties.

### 3.1.5 Broad Policy-Based Corridor Strategies

The following strategies may help to advance these corridor-specific objectives. Detailed examples of capital projects, programs, and policies that may be used to implement the strategies identified below are provided in **Appendix D** to the *Corridors and International Borders Report*. MDOT will:

- MDOT will support enhancements - creating unique/signature Upper Peninsula design features for this corridor - given the extent of tourism on the corridor and the importance of tourism to the economic health and growth of Michigan;
- Highway - Maintenance/Asset Management, MDOT will continue to strive to maintain good pavement conditions along all of its trunkline corridors.
- MDOT will strive to improve overall corridor condition and operation for all modes.
  - Highway - Operational Additions - adding hill-climbing or passing-relief lanes
  - Pedestrian and Bicycle - MDOT will seek to incorporate into the design of its existing projects where possible enhanced long-distance bicycle and snowmobile trails.
- MDOT will seek opportunities and implement low-cost operational improvements to increase roadway corridor mobility. These include but are not limited to: geometric improvement, turning lanes, signal timing, visitor-friendly signage, incident management, and maintenance of traffic practices during construction projects;
- Develop strategies that can be implemented at the local level to innovate public transportation services to meet the unique needs/demands of the aging population;
- Support communication and coordination between local transit systems and between transit and intercity bus to improve connectivity and regional public transportation;
- Support coordination of transportation services and funding between local human service agencies and local transit agencies;
- Continue to provide financial and technical assistance to local agencies to help them preserve existing and specialized services;
- Encourage local transit agencies to evaluate the potential to expand to countywide service to increase service availability, increase opportunities for transfer to transit systems in neighboring counties, and to increase opportunities to transfer to intercity bus;
- Work with intercity carriers and Travel Michigan to promote Michigan as a travel destination; and
- Continue to support the MichiVan program to provide commuter alternatives.

## B Sault Ste. Marie/Bay City

### 3.2 B Sault Ste. Marie/Bay City

The Sault Ste. Marie/Bay City National/International Corridor of Highest Significance begins at the International Border Crossing at the Canadian border in Sault Ste. Marie and follows I-75 south ending at US-10. It is the northern segment of the whole I-75 corridor of Michigan. The corridor includes Chippewa, Mackinac, Cheboygan, Otsego, Crawford, Roscommon, Ogemaw, Arenac, and Bay Counties.

#### 3.2.1 Profile and Map

This 233.4-mile north-south corridor connects seven *MI Transportation Plan* activity centers, parallels the north portion of I-75 through central Michigan. I-75 is Michigan's longest highway corridor measuring 395 miles, and creates a direct link to Canada at the International Bridge and Border Crossing at Sault St. Marie. The corridor is sub-divided at US-10 in order to provide a more specific profile and distinguish between its unique northern and southern features.

The corridor begins at the international border crossing in Sault Ste. Marie and travels through heavily forested and rich agricultural lands, and many tourist locations supporting numerous Michigan jobs. It serves several commodities and services critical to Michigan's farming and forest products industries. Approximately 1.9 million vehicles per year cross the international border at Sault Ste. Marie. Over 125,300 of these crossings are commercial vehicles. The rural nature of the land surrounding the corridor creates a tourism attraction for both Michigan and out-of-state residents. This corridor serves the *MI Transportation Plan* activity centers of Sault Ste. Marie, Mackinaw City-St. Ignace, Cheboygan, Gaylord, and Bay City.

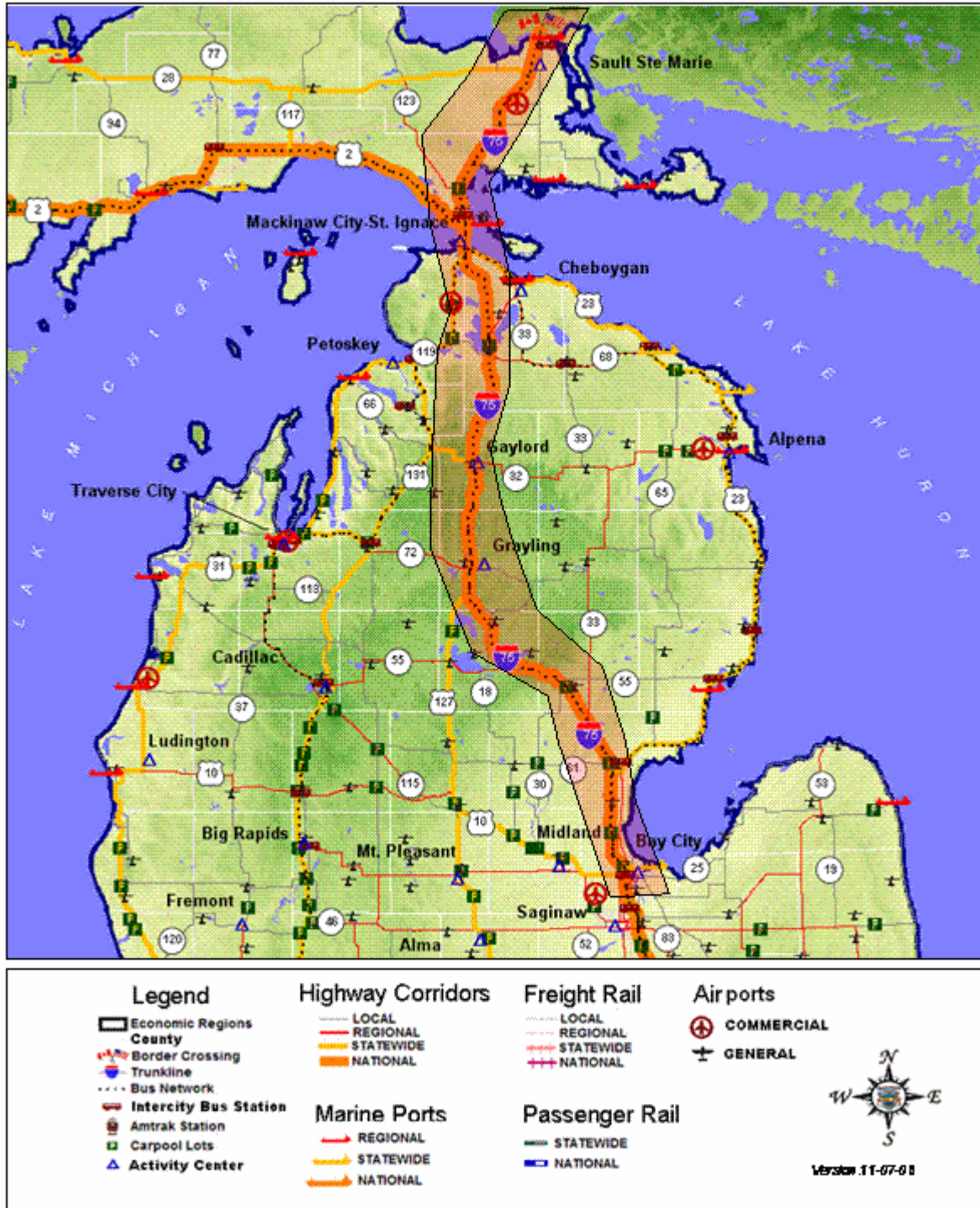
This corridor includes the five-mile long Mackinaw Bridge, which connects Michigan's Upper Peninsula with Lower Michigan. It is operated by the Mackinaw Bridge Authority that collects tolls on motor vehicles crossing the bridge. The current fee structure is \$1.25 per axel for passenger vehicles and \$3.00 per axel for commercial vehicles. All maintenance activities for the bridge are supported through the revenue generated by the tolls. The Mackinaw Bridge authority also oversees the daily operations of the bridge.

The corridor also supports other international, national, statewide, and local travel seeking to travel to more distant *MI Transportation Plan* activity centers within and outside of Michigan. Users from Houghton, Marquette, Iron Mountain, Menominee, Escanaba, and Wisconsin connect to the corridor to reach the International Bridge and to travel south into Michigan. Users from *MI Transportation Plan* activity centers at Traverse City, Cadillac, and Alpena also travel to join this corridor to serve their long-distance travel needs.



Figure 4: Sault Ste. Marie to Bay City Corridor

**Sault Ste. Marie / Bay City**  
Corridor of National Significance



### 3.2.2 Estimate of Corridor Value

The value of this corridor to the state of Michigan is defined based on the people, businesses, industries, and activities it supports together with how it is integrated and connected to the greater Michigan transportation system and *MI Transportation Plan* activity centers inside and outside the state.

The corridor serves and supports:

- Approximately three percent of Michigan's population and three percent of Michigan jobs;
- The corridor accounts for 6.9 percent of the total statewide ton miles and 5.2 percent of the total statewide value miles of truck freight;
- The corridor accounts for 0.2 percent of total statewide rail-ton miles and 0.1 percent of rail-value miles;
- Three of Michigan's *MI Transportation Plan's* economic regions;
- A total average daily traffic (ADT) (corridor average) of 11,875 vehicles is projected to have the fourth-highest percent of ADT growth as compared to all *MI Transportation Plan* National Corridors of Highest Significance;
- Connections to an International Border Crossing at Sault St. Marie;
- The International Bridge at Sault Ste. Marie carries 1.9 million vehicles/year including 125,300 commercial vehicles and handles \$2.2 billion/year in freight;
- Connections to two *MI Transportation Plan* National/International Corridors at Saginaw's Corridor of Highest Significance and four *MI Transportation Plan* Statewide Corridors of Highest Significance;
- The port and locks at Sault Ste. Marie that provide the only water access to Lake Superior;
- Key linkages nationally via I-75 to locations as distant as Miami, Florida;
- Connections to the southern portion of the I-75 corridor in Michigan which carries one of the three highest volumes of traffic of any of the *MI Transportation Plan* Corridors of Highest Significance;
- Approximately 16 million person days of tourism activity per year;
- One commercial airport with 15,000 enplanements at Sault Ste. Marie; a joint military/civilian use general aviation airport at Grayling;
- Four marine cargo ports handling almost five million tons;
- Twelve state parks and 1,800 people employed in gaming centers;
- The Mackinaw Bridge, which provides 3.3 million annual vehicle crossings, linking Michigan's Upper and Lower and Peninsulas; and

- Approximately 14,000 students are enrolled in post secondary institutions.

**Table 6: Population/Employment/ADT within a 20-mile geographic area around Corridor Sault Ste. Marie/Bay City**

<i>Corridor Length (233.4 miles)</i>	<i>2005</i>	<i>2030</i>
Population within band	304,670	334,740
Employment within band	166,020	183,390
Total daily vehicle-miles of travel	2,771,320	3,836,030
Total average daily traffic (corridor average)	11,880	16,440
Highest total ADT	37,340	50,410
Lowest total ADT	3,990	5,120
Passenger average daily traffic (corridor average)	10,580	14,640
Highest passenger ADT	33,750	45,560
Lowest passenger ADT	3,270	4,200
Commercial average daily traffic (corridor average)	1,300	1,800
Highest commercial ADT	3,590	4,850
Lowest commercial ADT	450	560

**Table 7: Corridor Truck Freight Totals  
Sault Ste. Marie/Bay City**

<i>Miles (233.51)</i>	<i>2003 Tons</i>	<i>2013 Tons</i>	<i>2003 Value</i>	<i>2013 Value</i>
Average	15,564,090	17,192,580	\$29,986,079,043	\$35,370,632,375
High	27,461,340	30,346,980	\$51,298,640,019	\$60,967,727,680
Low	2,953,130	3,143,560	\$3,918,755,018	\$4,552,647,088

**Table 8: Corridor Rail Freight Totals**

<i>Gaylord/Bay City</i>				
<i>Track Miles (119.06)</i>	<i>2003 Tons</i>	<i>2013 Tons</i>	<i>2003 Value</i>	<i>2013 Value</i>
Average	238,920	229,970	\$88,291,109	\$82,785,288
High	271,570	264,180	\$92,944,656	\$86,343,394
Low	212,930	202,790	\$84,908,440	\$80,451,272

Source: Michigan Department of Transportation Statewide and Urban Travel Analysis Section

**Table 9: Sault Ste. Marie/Bay City – Activity Centers**

<i>Measure</i>	<i>Year</i>	<i>Sault Ste Marie</i>	<i>Mackinaw City- St.Ignace</i>	<i>Cheboygan</i>	<i>Gaylord</i>	<i>Grayling</i>	<i>Bay City</i>	<i>Total Value</i>
Total Activity Center Population	2005	39,008	5,381	27,753	25,170	15,585	108,759	221,656
Total Employment	2005	19,854	7,780	10,922	16,094	6,982	54,851	116,483
Retail Employment	2005	3,570	2,419	2,464	3,429	1,344	12,766	25,992
Hotel Units	2000	1,674	3,203	344	858	420	707	7,206
Revenue	2004	126,654	1,632,556	58,795	175,931	199,549	18,837	2,212,322
Number of National Park	2005							
Number of State Park Location	2005	2	3	4	1	1	1	12
Gaming Centers Employment	2005	1,500	325					1,825
Person Trips	2004	1,296,602	804,310	1,956,223	873,506	437,944	1,373,398	6,741,983
Person Days	2004	2,918,186	2,328,451	5,343,399	2,025,857	1,227,795	2,306,973	16,150,661
Student Population	2005	3,289					10,459	13,748
Number of Technology Centers	2006							
Number of Facilities	2005	1	1	1	1	1	1	6
Number of Facilities	2005	5			2	1	1	9
Number of Facilities	2005					1		1
Passenger Enplanments	2005	15,325						15,325
Number of Passengers	2005							
Number of Facilities	2005			1			2	3
Passenger Stations	2005	1	1				1	3
Cargo Tonnage	2005	1						1
Cargo Tonnage	2003	1,567,000	9,000	241,000			3,162,500	4,979,500
Number of Border Crossings	2005	1						1

### 3.2.3 Corridor Analysis

This corridor supports travel for local residents, tourists from Michigan and other state, and north-south long-distance tourist and freight travel. Though travel is primarily on roadway facilities, commercial service airports in Midland/Bay City/Saginaw, Pellston and Sault Ste. Marie provide passengers with convenient access to larger hub airports with numerous national and international connections. Two roadway concerns are that all *MI Transportation Plan* Corridors of Highest Significance in this region are predominately north-south with few corridors crossing east-west and the need for maintenance and modernization. There are limited public transit services within the *MI Transportation Plan* activity centers along the corridor.

There is countywide, demand-response transit in all but one county of the corridor. Intercity bus service is currently absent from much of the corridor due to Greyhound Lines service cutbacks that began in 2004. Restoration of intercity bus service to Gaylord, Grayling Indian River and Mackinaw City, via state subsidy, is being considered.

Opportunities for this corridor include the potential for economic growth in the tourist industry and the movement of forest products and natural resources. Barriers to movement include missing or deficient links, existing and future physical transportation system gaps, the decline of pavement quality and bridge condition, and the limited availability and connectivity to alternative modes of transportation beyond roadway facilities.

### 3.2.4 Corridor Objectives

This corridor serves a unique mix of year-round residents, seasonal tourists, and freight traffic passing through the region. Objectives for the corridor are to:

- Integrate differing users' transportation needs;
- Provide for safe and efficient travel;
- Improve roadway and bridge conditions (vertical clearance, weight capacity, lane width) to current design standards;
- Expand rail freight opportunities and intermodal connectivity; and
- Preserve existing transit and intercity bus services, support expansion of public transit opportunities to include countywide service in and between all counties, and expand intercity bus services to the degree state funds are available.

### 3.2.5 Broad Policy-Based Corridor Strategies

The following strategies may help to advance these corridor-specific objectives. Detailed examples of capital projects, programs, and policies that may be used to implement the strategies identified below are provided in **Appendix D** to the *Corridors and International Borders Report*. MDOT will:

- Seek opportunities and implement low-cost operational improvements to increase roadway corridor mobility. These include but are not limited to geometric improvement, ramp extensions, turning lanes, signal timing, visitor-friendly signage, improved incident management, and maintenance of traffic practices during construction projects;
- Continue to strive to maintain good pavement conditions, and modernize as warranted, along all of its trunkline corridors.
- Add or enhance long-distance bicycle trails;
- Work with local governments to implement Access Management on strategic sections of the regional and local roadways;
- Install and implement ITS advances in key corridors to improve the overall operations of the region's transportation systems;
- Strive to improve overall corridor condition and operation for all modes;
- Identify opportunities to integrate multi-modal transportation systems throughout this corridor including but not limited to incorporating carpool lot facilities, and bicycle and pedestrian facilities into future projects where feasible;
- Continue to coordinate improvements and management practices with key local stakeholder groups along corridors;
- Continue to provide financial and technical assistance to local agencies to help them preserve existing transit;
- Develop strategies that can be implemented at the local level to innovate public transportation services to meet the unique needs/demands of the aging population;
- Support communication and coordination between local transit systems and between transit and intercity bus system to improve connectivity and regional public transportation;
- Support coordination of transportation services and funding between local human service agencies and local transit agencies;
- Evaluate potential intercity bus ridership in this corridor in comparison to existing intercity bus services in other northern Michigan corridors to optimize the investment of state resources in intercity bus service and
- Provide feeder bus services in accordance with the Midwest Regional Rail Initiatives as passenger-rail service is improved and funding becomes available.