H Port Huron/Lansing/Indianapolis

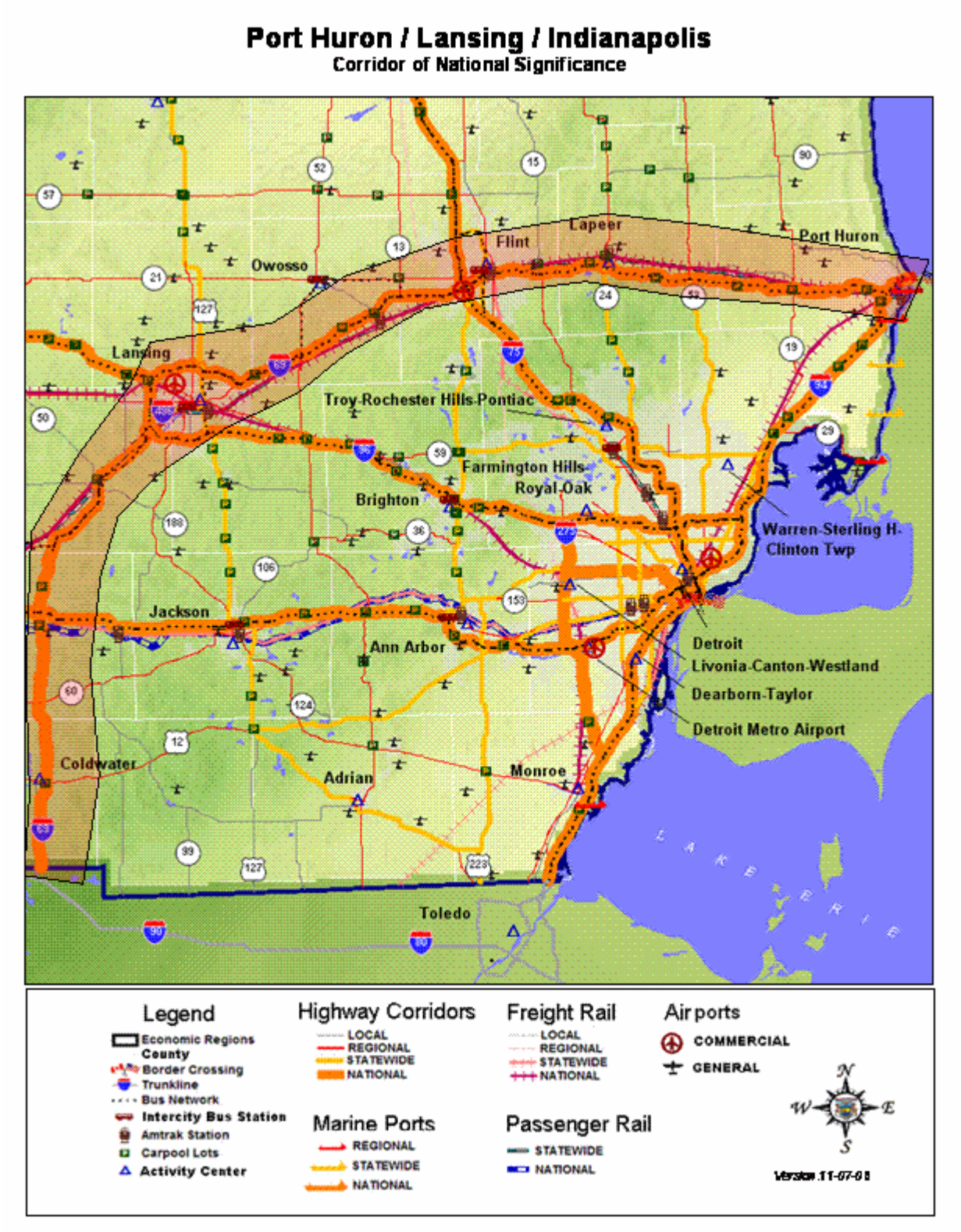
3.8 H Port Huron/Lansing/Indianapolis

The Port Huron/Lansing/Indianapolis National/International Corridor of Highest Significance begins at the International Border Crossing at the Canadian border in Port Huron, follows I-69 west and south through Lansing continuing through to Indianapolis. It includes St. Clair, Lapeer, Genesee, Shiawassee, Clinton, Eaton, Calhoun, and Branch Counties.

3.8.1 Profile and Map

This 202.7-mile corridor and the Port Huron/Chicago Corridor follow primarily the same route. The difference in the two corridors is near the Battle Creek area where this corridor bends south to Indianapolis and points south and the Port Huron/Chicago Corridor bends west to Chicago. Each of these corridors supports in-state, international, and long-distance travel opportunities that avoid the Detroit metropolitan area. The corridor links seven small and mid-sized *MI Transportation Plan* activity centers. It is shaped and operates like a large outer-beltline to the Detroit metropolitan area allowing long-distance travelers and freight carriers to avoid Detroit but reach its outer ring suburbs and destinations outside the state.

Figure 11: Port Huron/Lansing/Indianapolis Corridor



3.8.2 *Estimate of Corridor Value*

The value of this corridor to the state of Michigan is 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 Port Huron/Lansing/Indianapolis Corridor supports:

- Approximately 10 percent of Michigan's population and 11 percent of Michigan jobs;
- The corridor accounts for 10 percent of the total statewide ton miles and 11.9 percent of the total statewide value miles of truck freight;
- Rail freight for this corridor is attributed to the Port Huron/Chicago Corridor; the reason for this is that the CN rail line following the corridor crosses at Port Huron by proceeds to Chicago;
- Seven of Michigan's 50 *MI Transportation Plan* activity centers;
- Four of Michigan's 17 *MI Transportation Plan* economic regions;
- A total average daily traffic (ADT) (corridor average) of 28,536 vehicles, is projected to have the third highest 41 percent of ADT growth as compared to all *MI Transportation Plan* National Corridors;
- Connections to an International Border Crossing at Port Huron;
- Connections to three National/International Corridors of Highest Significance, four Statewide Corridors of Highest Significance, and continues as a fourth National Corridor to Chicago;
- Key linkages nationally to the southern US and internationally to Canada;
- Approximately 20 million person days of tourism activity per year;
- Two passenger airports with 870,000 annual enplanements;
- Major marine cargo ports in St. Clair County handling about 9 million tons; and
- Four state parks, 110,000 students, 17 major medical facilities, and 15 prisons.

Table 30: Population/Employment/ADT within a 20-mile geographic area around Corridor Port Huron/Lansing/Indianapolis

(202.7 miles)	*2005*	*2030*
Population within band	1,170,600	1,316,890
Employment within band	641,370	730,480
Total daily vehicle-miles of travel	5,783,360	8,146,080
Total average daily traffic (corridor average)	28,540	40,190
Highest total ADT	89,600	118,210
Lowest total ADT	14,820	19,520
Passenger average daily traffic (corridor average)	23,050	32,540
Highest passenger ADT	84,070	110,910
Lowest passenger ADT	10,290	13,300
Commercial average daily traffic (corridor average)	5,480	7,660
Highest commercial ADT	9,300	14,880
Lowest commercial ADT	3,860	5,010

Table 31: Corridor Rail Freight Totals

**No rail along this corridor.

Table 32: Corridor Truck Freight Totals

Port Huron/Lansing/Indiana

Miles (203.81)	*2003 Tons*	*2013 Tons*	*2003 Value*	*2013 Value*
Average	25,936,400	30,689,760	$78,885,513,201	$102,333,986,724
High	45,587,870	53,316,470	$138,312,838,912	$177,715,015,808
Low	16,502,060	20,439,320	$51,025,880,960	$68,496,593,280

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

Table 33: Port Huron/Lansing/Indianapolis – Activity Centers Summary

Activity	*Measure*	*Year*	*Port Huron*	*Lapeer*	*Flint*	*Owosso*	*Lansing*	*Battle Creek*	*Coldwater*	*Total Value*
URBAN										
Population	Total Activity Center Population	2005	171,921	93,056	445,583	73,483	463,240	139,434	47,684	1,434,401
COMMERCIAL										
General Economic Activity	Total Employment	2005	66,291	35,052	222,780	28,378	291,917	77,093	22,982	744,493
Retail Activity	Retail Employment	2005	13,495	6,747	43,652	6,688	51,735	15,074	5,002	142,393
TOURISM										
Hotel Capacity	Hotel Units	2000	1,106	270	2,275	163	3,846	1,324	364	9,348
Annual Lodging Use Tax revenue	Revenue	2004	330,864	50,767	387,264	19,884	557,604	148,150	19,630	1,514,163
National Park	Number of National Park	2005								
State Park	Number of State Park Location	2005	2	1			1			4
Gaming	Gaming Centers Employment	2005								-
Number of Visitors	Person Trips	2004	1,340,362	593,473	2,203,328	318,305	4,448,262	2,092,459	358,272	11,354,461
Length of Stay	Person Days	2004	2,774,663	1,131,795	4,288,798	609,519	6,770,637	3,481,508	651,587	19,708,507
EDUCATION/TECHNOLOGY CENTER										
Educational Centers	Student Population	2005	5,698		24,120	2,725	69,570	7,514		109,627
Smart Zones	Number of Technology Centers	2006					1	1		2
LIFE SCIENCE										
Hospitals	Number of Facilities	2005	3	2	5	1	3	2	1	17
CORRECTIONAL FACILITIES										
Prisons	Number of Facilities	2005	1	1	3		6	1	3	15
MILITARY BASE										
Military Base Center	Number of Facilities	2005								
PASSENGER FACILITIES										
Air Passenger	Passenger Enplanments	2005			557,848		310,924			868,772
Amtrak	Number of Passengers	2005	5,193	2,733	11,384	3,517	20,396	25,069		68,292
Car Pool	Number of Facilities	2005	7	7	4	3	13	4	1	39
Intercity Bus Station	Passenger Stations	2005			1	1	1	1		4
FREIGHT FACILITIES										
Air Cargo Ports	Cargo Tonnage	2005			9,609		14,779			24,388
Marine Ports	Cargo Tonnage	2003	9,285,000							9,285,000
INTERNATIONAL BORDER CROSSING										
Passenger and Freight	Number of Border Crossings	2005	4							4

3.8.3 Corridor Analysis

This corridor is part of the I-69-Mid-Continental NHS High Priority Corridor and Study. MDOT is participating in this study with FHWA, Canada, and eight other US states (Indiana, Kentucky, Tennessee, Arkansas, Louisiana, Mississippi, and Texas). The study identified a number of specific improvements to keep goods flowing and improve border crossings. Specifics of the needs can be found at www.fhwa.dot.gov/hep10/nhs/hipricorridors/hpcfi.htm. Michigan has spent $540 million over the past five years on improvements to this corridor. The identified, unfunded needs total $ five billion.

This corridor supports heavy truck movement with both domestic and international long-haul freight being carried along the corridor. Specific industries supported by the movement of this freight include transportation equipment, agriculture, and metal manufacturing. Primary roadway concerns are congestion at border crossings and in urban areas, maintenance of traffic during construction, need for improved incident management, need for modernization (e.g. bridge clearances and geometrics, and ramp improvements), ongoing system preservation, and improvements and expansion of roadside facilities to handle the heavy volumes of truck traffic.

The Canadian National rail line between Chicago and Montreal/Toronto follows this corridor from Lansing to Port Huron. However, much of the traffic on this line passes directly from Canada to point south and west of Chicago without significant direct impact on Michigan modal facilities. As such, it is better characterized as part of the Port Huron-Chicago Corridor (J) or ever in conjunction with the Detroit-Chicago Corridor (E).

There is intercity bus service between Flint and Battle Creek with intermodal facilities in three locations along the route. The rest of the corridor does not have intercity bus service at this time. Public transit within the corridor consists of a combination of urban, countywide and small community service. MichiVan service is growing in popularity as jobs are displaced and shifted to other areas of the state.

3.8.4 Corridor Objectives

Objectives for the corridor are to:

- Provide for safe and efficient travel by reducing congestion and delay, and improving intersections and interchanges;
- Modernize and improve roadway and bridge conditions including pavement condition;
- Improve system conditions consistent with Asset Management strategies MDOT;
- Improve freeway to freeway interchanges;
- Improve efficiency and interconnectivity at International Border Crossings;
- Expand air and rail opportunities and intermodal connectivity;
- Preserve existing transit and intercity bus services;

- Provide more public transit opportunities within and between the urban areas; and
- Support expansion of public transit opportunities to include countywide service all counties.

3.8.5 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:

- Apply Asset Management principles;
- Highway;
  - Border Infrastructure - expand the Blue Water Bridge plaza and provide corridor improvements across the Black River;
  - Modernization – bring bridges and roadway geometrics to current design standards;
  - Maintenance and Rehabilitation – implement scheduled and preventive maintenance programs;
- ITS – include or expand ITS along the urban portion of the corridor especially at key traveler decision locations along the corridor;
- Passenger and freight rail, air and public transit - provide improvements and expansion of these services;
- Operational strategies such as increased incident management and maintenance of traffic practices during construction projects will be utilized;
- Modernize roadside facilities to meet the growing commercial needs of this corridor;
- Utilization of Vehicle Information Integration (VII) systems will be developed and tested within this corridor;
- Add carpool lots between Lansing and Flint;
- Transportation Demand Management (TDM) and Transportation Systems Management and Operations (TSMO) improvements – work with local governments to implement TDM and TSMO strategies;
- Seek opportunities and implement low-cost operational improvements to increase roadway corridor mobility. These include but are not limited to geometric improvement, interchange improvements, ramp extensions, turning lanes, signal timing, visitor-friendly signage, improved incident management, and maintenance of traffic practices during construction projects;
- Improve overall corridor condition and operation for all modes;

- 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 services;
- 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;
- Continue to support the MichiVan program to provide commuter alternatives;
- Monitor unsubsidized intercity bus service;
- Continue to provide financial assistance to help preserve existing state subsidized passenger rail service;
- Work with intercity carriers and Travel Michigan to promote Michigan as a travel destination;
- Encourage opportunities for infrastructure improvements between rail freight and rail passenger that reduce congestion and provide for improved on time performance;
- Support communication and coordination between local transit systems and between transit and intercity bus to improve connectivity and regional public transportation; and
- Support coordination of transportation services and funding between local human service agencies and local transit agencies.

J Port Huron/Chicago

3.9 J Port Huron/Chicago

The Port Huron/Chicago National/International Corridor of Highest Significance begins at the International Border Crossing at the Canadian border in Port Huron, follows I-69 through Lansing to I-94, follows I-94 west and continues through to Chicago. It includes St. Clair, Lapeer, Genesee, Shiawassee, Clinton, Eaton, Calhoun, Kalamazoo, Van Buren, and Berrien Counties.

3.9.1 Profile and Map

This 272.6-mile corridor follows Port Huron/Lansing corridor and then near the Battle Creek area bends west to Chicago. This corridor supports in-state, international and long-distance travel opportunities between the northeastern US, Toronto, and other parts of Canada and Michigan, Chicago, and other parts of the upper Midwest. The corridor links eight small and mid-sized *MI Transportation Plan* activity centers. It is shaped and operates like a large outer-beltline to the Detroit metropolitan area providing long travelers and freight to avoid Detroit but reach its outer ring suburbs and destinations outside the state.

Figure 12: Port Huron/Chicago Corridor

3.9.2 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 activity centers inside and outside the state.

The Port Huron/Chicago Corridor supports:

- Approximately 14 percent of Michigan's population and 16 percent of Michigan jobs;
- The corridor accounts for 23.5 percent of the total statewide ton miles and 28.8 percent of the total statewide value miles of truck freight;
- The corridor accounts for 37.9 percent of total statewide rail-ton miles and 43.7 percent of rail-value miles;
- Eight of Michigan's 50 *MI Transportation Plan* activity centers;
- Five of Michigan's 17 *MI Transportation Plan* economic regions;
- A total average daily traffic (ADT) (corridor average) of 35,500 vehicles; is projected to have 36 percent of ADT growth by 2030;
- Connections to International Border Crossings at Port Huron;
- Connections to four *MI Transportation Plan* National/International Corridors of Highest Significance, six Statewide Corridors of Highest Significance, and is part of the Port Huron/Lansing/Indianapolis *MI Transportation Plan* National Corridor of Highest Significance;
- Key linkages nationally and internationally;
- Over 28 million person days of tourism activity per year (the fifth highest of all the Corridors of Highest Significance);
- Over 156,000 students enrolled in post-secondary institution along the corridor which are home to three Michigan Economic Development Commission SmartZones ;
- Four commercial airports (1.1 million enplanements); including the Battle Creek airport a joint military/civilian use general aviation airport that is home to the Western Michigan University's Aviation Program with over 900 students working to become professional pilots;
- Amtrak service for 128,000 passengers;
- Major marine cargo ports including on Michigan's east and west coasts (800,000 tons at St. Joseph) and (over 9 million tons in St. Clair County); and
- Seven state parks, 22 major health care facilities, and 15 prisons.

Table 34: Population/Employment/ADT within a 20-mile geographic area around Corridor Port Huron/Chicago

(272.6 miles)	*2005*	*2030*
Population within band	1,595,030	1,787,570
Employment within band	897,470	1,016,280
Total daily vehicle-miles of travel	9,665,220	13,111,205
Total average daily traffic (corridor average)	35,450	48,090
Highest total ADT	89,600	118,210
Lowest total ADT	14,820	19,520
Passenger average daily traffic (corridor average)	27,800	37,800
Highest passenger ADT	84,070	110,910
Lowest passenger ADT	10,290	13,300
Commercial average daily traffic (corridor average)	7,650	10,290
Highest commercial ADT	14,300	18,470
Lowest commercial ADT	3,860	5,010

Table 35: Corridor Truck Freight Totals

Port Huron/Chicago

Miles (273.85)	*2003 Tons*	*2013 Tons*	*2003 Value*	*2013 Value*
Average	45,288,370	52,724,710	$141,807,850,059	$182,427,755,329
High	95,956,690	109,931,300	$296,846,627,120	$378,327,695,424
Low	16,502,060	20,439,320	$51,025,880,960	$68,496,593,280

Table 36: Corridor Rail Freight Totals

Port Huron/Chicago

Track Miles (219.98)	*2003 Tons*	*2013 Tons*	*2003 Value*	*2013 Value*
Average	26,036,300	28,464,180	$40,864,017,853	$41,979,883,879
High	27,527,980	30,203,260	$43,040,991,576	$43,305,405,558
Low	24,094,720	26,266,390	$37,568,819,984	$39,451,358,790

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

Table 37: Port Huron/Chicago – Activity Centers Summary

Activity	*Measure*	*Year*	*Port Huron*	*Lapeer*	*Flint*	*Owosso*	*Lansing*	*Battle Creek*	*Kalamazoo*	*Benton Harbor*	*Total Value*
URBAN											
Population	Total Activity Center Population	2005	171,921	93,056	445,583	73,483	463,240	139,434	323,558	162,976	1,873,251
COMMERCIAL											
General Economic Activity	Total Employment	2005	66,291	35,052	222,780	28,378	291,917	77,093	188,832	90,505	1,000,848
Retail Activity	Retail Employment	2005	13,495	6,747	43,652	6,688	51,735	15,074	34,862	16,521	188,774
TOURISM											
Hotel Capacity	Hotel Units	2000	1,106	270	2,275	163	3,846	1,324	2,389	1,983	13,356
Annual Lodging Use Tax revenue	Revenue	2004	330,864	50,767	387,264	19,884	557,604	148,150	255,068	135,615	1,885,216
National Park	Number of National Park	2005									
State Park	Number of State Park Location	2005	2	1			1		2	1	7
Gaming	Gaming Centers Employment	2005									-
Number of Visitors	Person Trips	2004	1,340,362	593,473	2,203,328	318,305	4,448,262	2,092,459	3,505,960	1,422,594	15,924,743
Length of Stay	Person Days	2004	2,774,663	1,131,795	4,288,798	609,519	6,770,637	3,481,508	6,162,598	3,003,448	28,222,966
EDUCATION/TECHNOLOGY CENTER											
Educational Centers	Student Population	2005	5,698		24,120	2,725	69,570	7,514	39,697	7,172	156,496
Smart Zones	Number of Technology Centers	2006					1	1	1		3
LIFE SCIENCE											
Hospitals	Number of Facilities	2005	3	2	5	1	3	2	3	3	22
CORRECTIONAL FACILITIES											
Prisons	Number of Facilities	2005	1	1	3		6	1	2	1	15
MILITARY BASE											
Military Base Center	Number of Facilities	2005									
PASSENGER FACILITIES											
Air Passenger	Passenger Enplanments	2005			557,848		310,924		236,744	2,817	1,108,333
Amtrak	Number of Passengers	2005	5,193	2,733	11,384	3,517	20,396	25,069	46,877	12,902	128,071
Car Pool	Number of Facilities	2005	7	7	4	3	13	4	7	3	48
Intercity Bus Station	Passenger Stations	2005			1	1	1	1	2	1	7
FREIGHT FACILITIES											
Air Cargo Ports	Cargo Tonnage	2005			9,609		14,779		77	1	24,465
Marine Ports	Cargo Tonnage	2003	9,285,000							803,711	10,088,711
INTERNATIONAL BORDER CROSSING											
Passenger and Freight	Number of Border Crossings	2005	4								4

3.9.3 Corridor Analysis

This corridor is part of the I-69 – Mid-Continental NHS High Priority Corridor and Study. This NHS corridor includes the leg of I-94 to the Michigan state border. MDOT is participating in this study with FHWA, Canada, and eight other US states (Indiana, Kentucky, Tennessee, Arkansas, Louisiana, Mississippi, and Texas). The study identified a number of specific improvements to keep goods flowing and improve border crossings. Specifics of the needs can found at www.fhwa.dot.gov/hep10/nhs/hipricorridors/hpcfi.htm.

Primary roadway concerns are congestion at border crossings and in urban areas, maintenance of traffic during construction, need for improved incident management, need for modernization (e.g. bridge clearances and geometrics, and ramp improvements), ongoing system preservation, and improvements and expansion of roadside facilities to handle the heavy volumes of truck traffic.

Intercity bus service is available within all but one section of the corridor (between Port Huron and Flint) with multiple intercity terminals. Public transit options consist of a combination of urban, countywide and small community service. MichiVan service also provides service within the corridor and continues to grow in popularity as a commute alternative.

3.9.4 Corridor Objectives

Objectives for the corridor are to:

- Provide for safe and efficient travel by reducing congestion and delay, and improving intersections and interchanges;
- Modernize and improve roadway and bridge conditions including pavement condition;
- Improve system conditions consistent with Asset Management strategies MDOT;
- Improve freeway to freeway interchanges;
- Improve efficiency and interconnectivity at International Border Crossings;
- Expand air and rail opportunities and intermodal connectivity;
- Preserve existing transit and intercity bus services;
- Provide more public transit opportunities within and between the urban areas; and
- Support expansion of public transit opportunities to include countywide service in all counties.

3.9.5 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:

- Apply Asset Management principles;
- Apply Highway strategies;
  - Border Infrastructure - expand the Blue Water Bridge plaza and provide corridor improvements across the Black River;
  - Modernization – bring bridges and roadway geometrics to current design standards;
  - Maintenance and Rehabilitation – implement scheduled and preventive maintenance programs;
- Include or expand ITS along the urban portion of the corridor especially at key traveler decision locations along the corridor;
- Provide improvements and expansion of passenger and freight rail, air and public transit services;
- Operational strategies such as increased incident management and maintenance of traffic practices during construction projects will be utilized;
- Modernize roadside facilities to meet the growing commercial needs of this corridor;
- Utilization of Vehicle Information Integration (VII) systems will be developed and tested within this corridor;
- Add carpool lots between Lansing and Flint;
- Work with local governments to implement Transportation Demand Management (TDM) and Transportation Systems Management and Operations (TSMO) improvements and strategies;
- Work with local governments to apply Access Management strategies;
- Seek opportunities and implement low-cost operational improvements to increase roadway corridor mobility. These include but are not limited to geometric improvement, interchange improvements, ramp extensions, turning lanes, signal timing, visitor-friendly signage, improved incident management, and maintenance of traffic practices during construction projects;
- Improve overall corridor condition and operation for all modes;
- 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 service;
- 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;
- Encourage local transit agencies to evaluate the potential to expand to countywide service for increased availability and regional connectivity;

- Continue to support the MichiVan program to provide commuter alternatives and congestion relief;
- 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;
- Monitor unsubsidized intercity bus service and plan for continued losses in Greyhound's services; and
- Support implementation of recommendations in Midwest Regional Rail Initiatives as funding becomes available.

K I-696

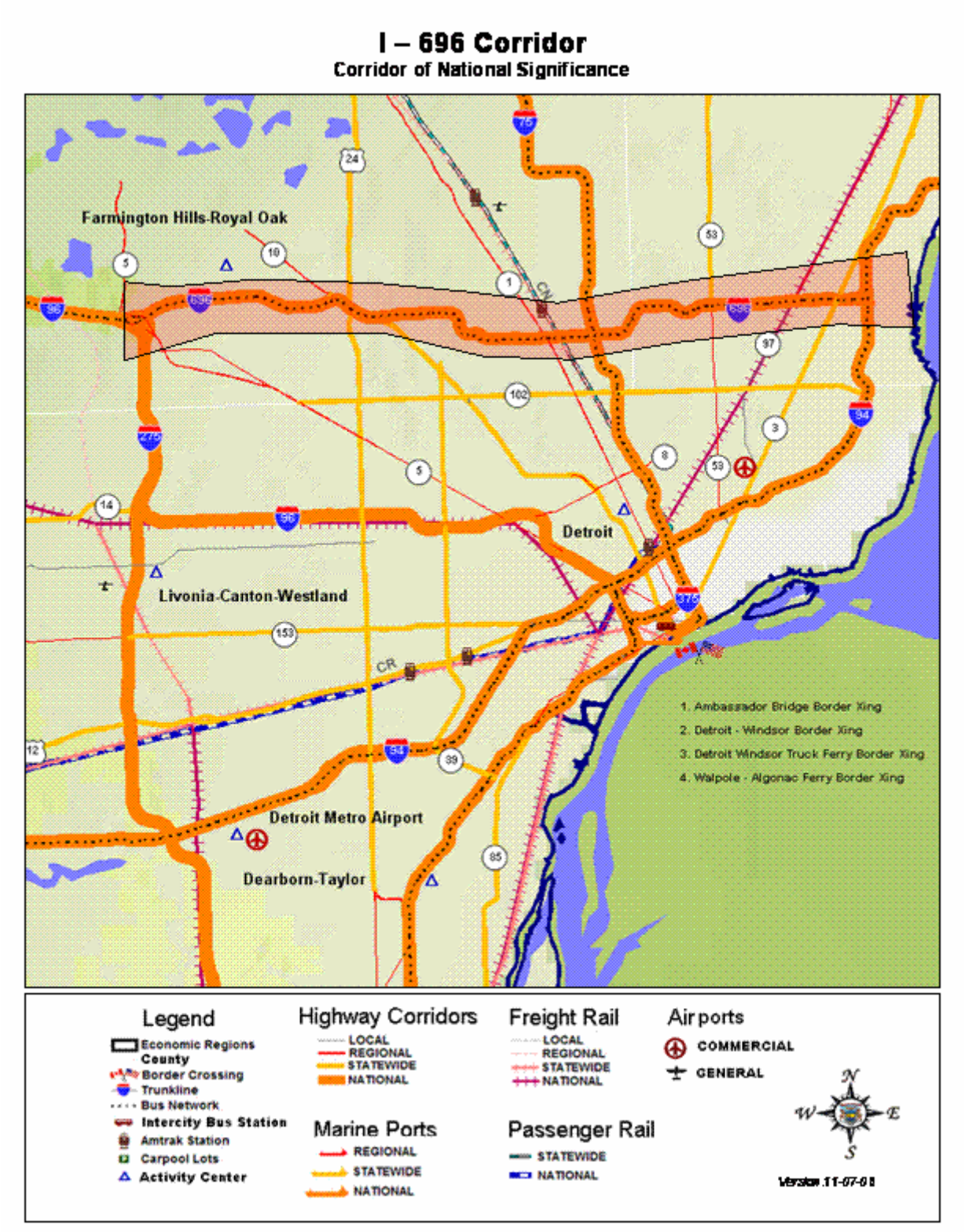
3.10 K I-696

The I-696 *MI Transportation Plan* National/International Corridor of Highest Significance begins at I-96 in Farmington Hills and follows I-696 east ending at I-94. It includes Oakland and Macomb Counties.

3.10.1 Profile and Map

This relatively short, 28.7-mile corridor is a partial beltway linking major interstate routes within the Detroit metropolitan area. In comparison to the other 18 *MI Transportation Plan* corridors, it carries the highest volumes of vehicular travel in the state. The corridor serves the Detroit metropolitan area and connects directly with the following corridors: C Bay City–Midland–Saginaw/Flint/Detroit; D Muskegon/Grand Rapids/Lansing/Detroit; and G Port Huron/Detroit/Toledo. This corridor supports heavy commuter movements for the manufacturing, professional services, health care, finance, and retail trade industries within the greater Detroit metropolitan area. This multitude of corridors converging in the Detroit area makes it clear that within this area, these corridors operate more as a network than as individual corridors.

Figure 13: I-696 Corridor



3.10.2 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. Based on the volume of vehicular traffic it carries, this corridor ranks as one of the top *MI Transportation Plan* Corridors of National/International and Statewide Significance. There is no rail service within this corridor.

The I-696 Corridor supports:

- Approximately 23 percent of Michigan's population and 27 percent of Michigan jobs;
- The corridor accounts for 0.9 percent of the total statewide ton miles and 1.1 percent of the total statewide value miles of truck freight;
- Two of Michigan's 50 *MI Transportation Plan* activity centers;
- The state's highest total corridor average daily traffic (ADT) of 163,852 vehicles;
- The highest total ADT (208,000) and the highest passenger ADT (154,000) of any corridor in the state, and is projected to have a 28 percent ADT growth;
- Connects to two *MI Transportation Plan* National/International Corridors of Highest Significance;
- Serves close to 5.6 million person days of tourism activity per year;
- Amtrak service for approximately 20,000 riders;
- Approximately 55,000 students enrolled in post-secondary institutions; and
- Twelve major health care facilities.

Table 38: Population/Employment/ADT within a 20-mile geographic area around Corridor I-696

(28.7 miles)	*2005*	*2030*
Population within band	2,568,710	2,564,000
Employment within band	1,530,160	1,596,390
Total daily vehicle-miles of travel	4,698,620	6,012,230
Total average daily traffic (corridor average)	163,850	209,660
Highest total ADT	208,100	260,130
Lowest total ADT	60,500	90,850
Passenger average daily traffic (corridor average)	154,380	197,390
Highest passenger ADT	199,210	248,780
Lowest passenger ADT	49,340	74,095
Commercial average daily traffic (corridor average)	9,470	12,280
Highest commercial ADT	11,160	16,760
Lowest commercial ADT	8,590	10,180

Table 39: Corridor Truck Freight Totals

I-696				
Miles (28.6)	*2003 Tons*	*2013 Tons*	*2003 Value*	*2013 Value*
Average	16,256,660	17,326,940	$51,372,350,521	$62,261,218,616
High	17,441,560	17,793,390	$60,290,105,408	$73,280,080,288
Low	15,974,720	16,622,920	$35,029,464,448	$41,833,466,624

Table 40: Corridor Rail Freight Totals

**No freight rail along this corridor.

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

Table 41: I-696 – Activity Centers Summary

Activity	*Measure*	*Year*	*Farmington Hills-Royal Oak*	*Warren*	*Total Value*
URBAN					
Population	Total Activity Center Population	2005	665,327	810,094	1,475,421
COMMERCIAL					
General Economic Activity	Total Employment	2005	540,791	394,321	935,112
Retail Activity	Retail Employment	2005	89,556	69,596	159,152
TOURISM					
Hotel Capacity	Hotel Units	2000	6,161	3,501	9,662
Annual Lodging Use Tax revenue	Revenue	2004	3,139,411	779,948	3,919,359
National Park	Number of National Park	2005			
State Park	Number of State Park Location	2005	1		1
Gaming	Gaming Centers Employment	2005			
Number of Visitors	Person Trips	2004	1,481,852	1,224,652	2,706,504
Length of Stay	Person Days	2004	2,758,827	2,858,295	5,617,122
EDUCATION/TECHNOLOGY CENTER					
Educational Centers	Student Population	2005	29,899	25,336	55,235
Smart Zones	Number of Technology Centers	2006			
LIFE SCIENCE					
Hospitals	Number of Facilities	2005	7	5	12
CORRECTIONAL FACILITIES					
Prisons	Number of Facilities	2005		3	3
MILITARY BASE					
Military Base Center	Number of Facilities	2005			
PASSENGER FACILITIES					
Air Passenger	Passenger Enplanments	2005			
Amtrak	Number of Passengers	2005	19,915		19,915
Car Pool	Number of Facilities	2005		2	2
Intercity Bus Station	Passenger Stations	2005			
FREIGHT FACILITIES					
Air Cargo Ports	Cargo Tonnage	2005			
Marine Ports	Cargo Tonnage	2003			
INTERNATIONAL BORDER CROSSING					
Passenger and Freight	Number of Border Crossings	2005			

3.10.3 Corridor Analysis

This corridor supports approximately 24 percent of Michigan's jobs and travel for local residents, businesses and tourists. As described in **Section 6.10.1**, the corridor interconnects with other Corridors of Highest Significance in the state and creates an overlapping network offering travel options for the Detroit metropolitan region. Problems and improvements on any one of the corridors in this interconnected network impact all the corridors within the Detroit metropolitan area.

For this corridor, it is important to approach issues and needs from a broad network perspective that looks at interconnectivity throughout the region. It is a newer roadway and is overall in adequate physical conditions.

Countywide transit service and specialized transit service is available throughout the corridor. There is unsubsidized, intercity service within this corridor with one intercity passenger bus terminal in Southfield. However, the service is currently provided by Greyhound Lines, whose services nationwide have been subject to reductions. MichiVan service is used widely in the corridor and continues to grow in popularity as a commute alternative.

Barriers to movement, including missing or deficient links and existing and future physical transportation system gaps include freight bottlenecks. The FHWA, October 2005, *National Assessment of Freight Bottlenecks on Highways* ranked the I-75 interchange at I-696 on this corridor as among the worst (among the top 120) in the nation for annual hours of delay for all trucks. (http://fhwainter.fhwa.dot.gov/policy/otp/bottlenecks) **Figure 6** in **Section 3.3.3** presents FHWA maps showing existing and projected peak congested locations.

3.10.4 Corridor Objectives

This corridor and its many interconnecting corridors provide an overlapping network for travel within the region, international travel for the border crossing in the region, and for manufacturers and workforces for much of southeastern Michigan. Objectives for the corridor are to:

- Maintain roadway and system conditions consistent with Asset Management strategies MDOT;
- Improve freeway to freeway interchanges;
- Provide for safe and efficient travel by reducing congestion and delay, and improving intersections and interchanges;
- Maintain pavement condition;
- Consider how this corridor operates from a network perspective;
- Preserve existing transit and intercity bus services; and
- Support expansion of public transit and downtown transit services.

3.10.5 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:

- Apply Asset Management principles;
- Highway;
  - Modernization – bring bridges and roadway geometrics to current design standards;
  - Maintenance and Rehabilitation – implement scheduled and preventive maintenance programs;
- ITS – include or expand ITS along the urban portion of the corridor;
- Operational strategies such as increased incident management and maintenance of traffic practices during construction projects will be utilized;
- Transportation Demand Management (TDM) and Transportation Systems Management and Operations (TSMO) improvements – work with local governments to implement TDM and TSMO strategies;
- Continued participation in the metro Detroit Regional Concept for Transportation Operations (RCTO). A RCTO is the collaboration and coordination between transportation system managers responsible for operating the transportation system on a day-to-day basis;
- Seek opportunities and implement low-cost operational improvements to increase roadway corridor mobility. These include but are not limited to geometric improvement, interchange improvements, ramp extensions, turning lanes, signal timing, visitor-friendly signage, improved incident management, and maintenance of traffic practices during construction projects;
- 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 service;
- 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 support the MichiVan program to provide commuter alternatives and congestion relief;
- Monitor unsubsidized intercity bus service and plan for continued losses in Greyhound's services;
- Enhance cooperation, connectivity and coordination between intercity bus and passenger rail;
- Continue to provide financial assistance to help preserve existing state subsidized passenger rail service;
- Work with intercity carriers and Travel Michigan to promote Michigan as a travel destination;
- Encourage opportunities for infrastructure improvements between rail freight and rail passenger that reduce congestion and provide for improved on time performance; and
- Assist in local/regional efforts to advance plans for new regional and new downtown transit services.

L I-275

3.11 L I-275

The I-275 *MI Transportation Plan* National/International Corridor of Highest Significance begins at I-96/I-696 interchange in Farmington Hills and follows I-275 south ending at I-75. It includes Oakland, Wayne and Monroe Counties.

3.11.1 Profile and Map

This relatively short, 37.6-mile corridor is a partial beltway linking major interstate routes within the Detroit metropolitan area. While other modal facilities, such as rail, are along its length, it is primarily a highway corridor. It supports close to 11 percent of Michigan's population and 13 percent of Michigan's jobs. This corridor supports heavy commuter movements for the manufacturing, professional services, health care, finance, and retail trade industries within the greater Detroit metropolitan area. This corridor also provides key linkages to the Detroit Metropolitan Airport.

Figure 14: I-275 Corridor

3.11.2 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. Some of the most important values of this corridor are as a multi-modal connector. It supports passenger and air cargo travel to the Detroit Metropolitan Airport. It also provides linkages to the marine ports in the Detroit area.

The I-275 Corridor supports:

- Approximately 14.2 percent of Michigan's population and 15.6 percent of Michigan jobs;
- A total average daily traffic (ADT) (corridor average) of 92,000 vehicles the second highest of all the *MI Transportation Plan* corridors;
- The corridor accounts for 0.1 percent of the total statewide ton miles and less than 0.01 percent of the total statewide value miles of truck freight;
- The corridor accounts for 2.1 percent of total statewide rail-ton miles and 1.6 percent of rail-value miles;
- Connections to an International Border Crossing in Detroit;
- Approximately 29 million person days of tourism activity per year;
- Detroit Metropolitan Commercial Airport (18 million enplanements);
- Marine cargo port in Monroe, handling over one million tons;
- Major air cargo ports handling over 272,000 tons; and
- Approximately 76,700 students enrolled in post-secondary institutions.

Table 42: Population/Employment/ADT within a 20-mile geographic area around Corridor I-275

(37.6 miles)	*2005*	*2030*
Population within band	1,449,707	1,585,533
Employment within band	891,991	1,017,038
Total daily vehicle-miles of travel	3,466,507	5,011,413
Total average daily traffic (corridor average)	92,143	133,208
Highest total ADT	198,800	281,721
Lowest total ADT	27,614	36,683
Passenger average daily traffic (corridor average)	82,575	119,468
Highest passenger ADT	183,224	259,648
Lowest passenger ADT	20,656	27,440
Commercial average daily traffic (corridor average)	9,568	13,740
Highest commercial ADT	15,576	15,586
Lowest commercial ADT	6,958	9,243

Table 43: Corridor Truck Freight Totals

I-275				
Miles (29.4)	*2003 Tons*	*2013 Tons*	*2003 Value*	*2013 Value*
Average	1,959,840	1,627,290	$1,548,489,339	$1,802,444,822
High	1,959,840	1,627,290	$1,548,489,339	$1,802,444,822
Low	1,959,840	1,627,290	$1,548,489,339	$1,802,444,822

Table 44: Corridor Rail Freight Totals

I-275				
Track Miles (32.44)	*2003 Tons*	*2013 Tons*	*2003 Value*	*2013 Value*
Average	10,037,750	11,396,160	$10,414,553,772	$11,720,447,569
High	11,495,350	13,156,630	$17,648,715,132	$20,549,896,488
Low	8,733,750	9,825,360	$4,205,089,148	$4,135,628,523

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

Table 45: I-275 – Activity Centers Summary

Activity	*Measure*	*Year*	*Farmington Hills-Royal Oak*	*Livonia*	*Detroit Metro Airport*	*Dearborn-Taylor*	*Monroe*	*Total Value*
URBAN								
Population	Total Activity Center Population	2005	665,327	427,728	23,758	574,133	153,441	1,844,387
COMMERCIAL								
General Economic Activity	Total Employment	2005	540,791	265,499	41,754	320,012	58,512	1,226,568
Retail Activity	Retail Employment	2005	89,556	60,723	3,960	61,141	12,532	227,912
TOURISM								
Hotel Capacity	Hotel Units	2000	6,161	2,871	2,902	3,200	618	15,752
Annual Lodging Use Tax revenue	Revenue	2004	3,139,411	1,056,803	107,475	1,266,878	110,345	5,680,912
National Park	Number of National Park	2005						
State Park	Number of State Park Location	2005	1	1			1	3
Gaming	Gaming Centers Employment	2005						
Number of Visitors	Person Trips	2004	1,481,852	3,550,921	832,167	6,445,937	1,151,573	13,462,450
Length of Stay	Person Days	2004	2,758,827	7,862,983	1,842,709	14,273,564	2,002,442	28,740,525
EDUCATION/TECHNOLOGY CENTER								
Educational Centers	Student Population	2005	29,899	15,501		23,075	4,177	72,652
Smart Zones	Number of Technology Centers	2006				1		1
LIFE SCIENCE								
Hospitals	Number of Facilities	2005	7	3		5	1	16
CORRECTIONAL FACILITIES								
Prisons	Number of Facilities	2005		2	1	1		4
MILITARY BASE								
Military Base Center	Number of Facilities	2005						
PASSENGER FACILITIES								
Air Passenger	Passenger Enplanments	2005			17,668,661			17,668,661
Amtrak	Number of Passengers	2005	19,915			34,549		54,464
Car Pool	Number of Facilities	2005					3	3
Intercity Bus Station	Passenger Stations	2005						
FREIGHT FACILITIES								
Air Cargo Ports	Cargo Tonnage	2005			135,869	135,869		271,737
Marine Ports	Cargo Tonnage	2003					1,077,000	1,077,000
INTERNATIONAL BORDER CROSSING								
Passenger and Freight	Number of Border Crossings	2005						

3.11.3 Corridor Analysis

This corridor supports approximately 24 percent of Michigan's jobs and travel for local residents, businesses and tourists. As described in **Section 3.10.1**, the corridor interconnects with other corridors of significance in the state and creates an overlapping network offering travel options for the Detroit metropolitan region. Problems and improvements on any one of the corridors in this interconnected network impact all the corridors within the Detroit metropolitan area.

For this corridor, it is important to approach issues and needs from a board network perspective that looks at interconnectivity throughout the region. It is a newer roadway and is overall in adequate physical and design conditions.

This corridor provides one of two points of access to Michigan's largest commercial service airport and one of its most important connections to the world, Detroit Metropolitan Wayne County International Airport.

Countywide transit service and specialized transit service is available throughout the corridor. There is no intercity service within the corridor. MichiVan service is used widely in the corridor and continues to grow in popularity as a commute alternative.

Barriers to movement, including missing or deficient links and existing and future physical transportation system gaps include freight bottlenecks. The FHWA, October 2005, *National Assessment of Freight Bottlenecks on* ranked the I-75 interchanges at I-275 on this corridor as among the worst (among the top 120) in the nation for annual hours of delay for all trucks. (http://fhwainter.fhwa.dot.gov/policy/otp/bottlenecks) **Figure 6** in **Section 3.3.3** presents FHWA maps showing existing and projected peak congested locations.

3.11.4 Corridor Objectives

This corridor and its many interconnecting corridors provide an overlapping network for travel within the region, international travel for the border crossing in the region, manufacturers and workforces for much of southeastern Michigan. Objectives for the corridor are to:

- Maintain roadway and system conditions consistent with Asset Management strategies of MDOT;
- Improve freeway to freeway interchanges;
- Provide for safe and efficient travel by reducing congestion and delay, and improving intersections and interchanges;
- Maintain pavement condition;
- Preserve existing transit;
- Maintain access and improve ITS approaching the Detroit Metropolitan Airport;
- Consider how this corridor operates from a network perspective; and

- Support expansion of public transit and downtown transit services.

3.11.5 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:

- Apply Asset Management principles;
- Highway;
  - Modernization – bring bridges and roadway geometrics to current design standards;
  - Maintenance and Rehabilitation – implement scheduled and preventive maintenance programs;
- ITS – include or expand ITS along the urban portion of the corridor;
- Transportation Demand Management (TDM) and Transportation Systems Management and Operations (TSMO) improvements – work with local governments to implement TDM and TSMO strategies;
- Continued participation in the metro Detroit Regional Concept for Transportation Operations (RCTO). A RCTO is the collaboration and coordination between transportation system managers responsible for operating the transportation system on a day-to-day basis;
- Seek opportunities and implement low-cost operational improvements to increase roadway corridor mobility. These include but are not limited to geometric improvement, interchange improvements, ramp extensions, turning lanes, signal timing, visitor-friendly signage, improved incident management, and maintenance of traffic practices during construction projects;
- Coordinate improvements and management practices with key local stakeholder groups along corridors;
- Continue to provide financial and technical assistance to local agencies to help preserve existing transit service;
- 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;

- Enhance cooperation, connectivity and coordination between intercity bus and passenger rail;
- Assist in local/regional efforts to advance plans for new regional and new downtown transit services;
- Evaluate potential intercity bus ridership in this corridor in comparison to existing intercity bus services in other Michigan corridors to optimize the investment of state resources in intercity bus service; and
- Continue to support the MichiVan program to provide commuter alternatives and congestion relief.

M Houghton/Marquette/Sault Ste. Marie

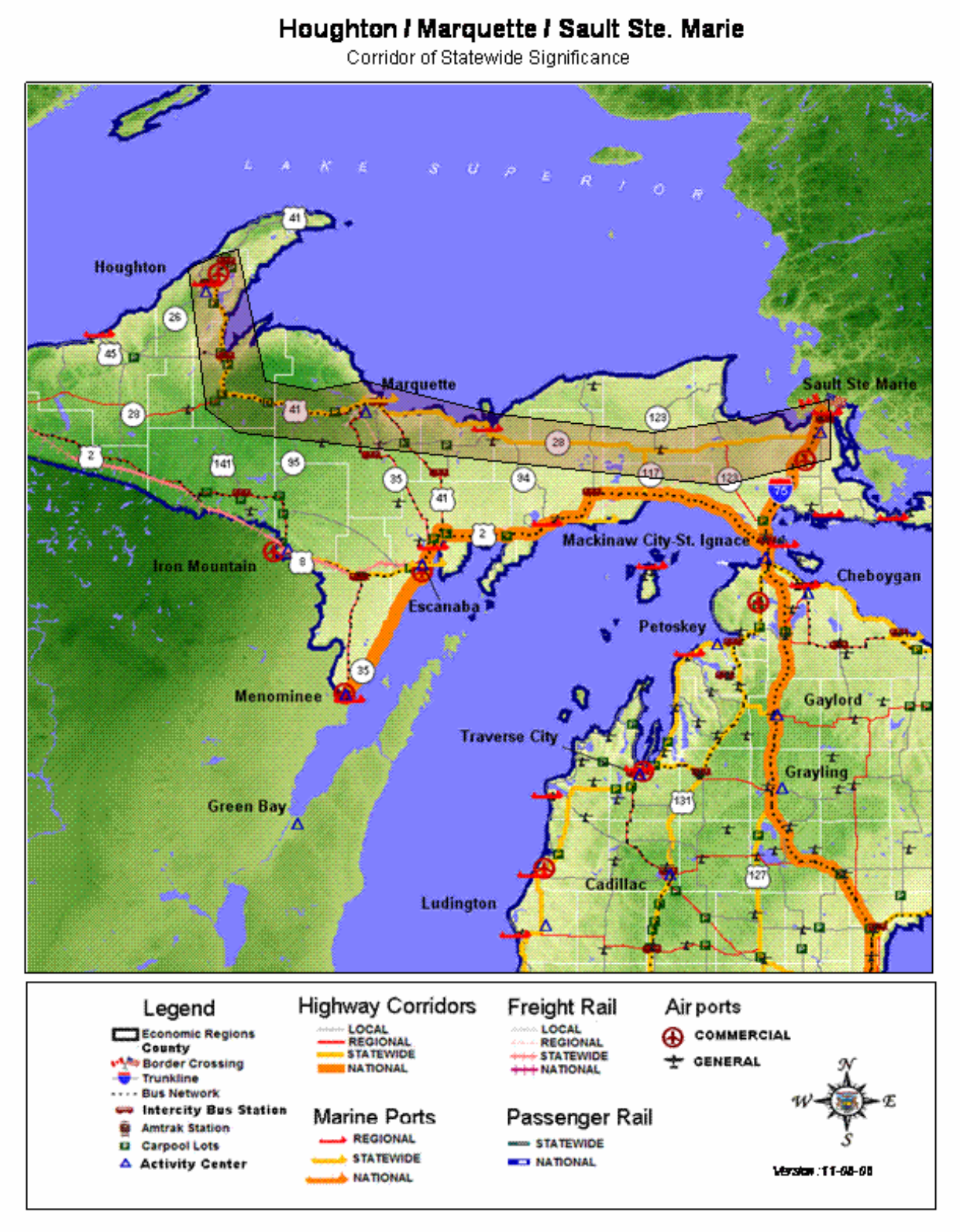
3.12 M Houghton/Marquette/Sault Ste. Marie

The Houghton/Marquette/Sault Ste. Marie *MI Transportation Plan* Statewide Corridor of Highest Significance begins at the bridge in downtown Houghton and follows US-41 east to Marquette then follows M-28 east to I-75 and continues to follow I-75 through Sault Ste. Marie ending at the International Border Crossing at the Canadian border in Sault Ste. Marie. It includes Houghton, Baraga, Marquette, Alger, Schoolcraft, Luce, and Chippewa Counties.

3.12.1 Profile and Map

This 263.8-mile east-west corridor provides one of only two *MI Transportation Plan* Corridors of Highest Significance connecting travelers and freight through the Upper Peninsula. It connects the cities of the northern Upper Peninsula with the north-south Sault Ste. Marie/Bay City corridor running from Canada to the urban areas of the Lower Peninsula. Three *MI Transportation Plan* activity centers are located along this corridor. These include Mackinaw-St. Ignace, Marquette, and Houghton. The corridor links to the Sault Ste. Marie/Bay City National/International Corridor of Highest Significance that follows I-75 and provides access to the International Border Crossing at Sault Ste. Marie. **Figure 15** presents a map of this corridor.

Figure 15: Houghton/Marquette/Sault Ste. Marie Corridor



3.12.2 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 activity centers inside and outside the state.

The Houghton/Marquette/Sault Ste. Marie Statewide Corridor supports:

- Slightly over one percent of Michigan's population and 1.4 percent of Michigan jobs;
- The corridor accounts for 2.4 percent of the total statewide ton miles and 1.6 percent of the total statewide value miles of truck freight;
- The corridor accounts for 4.5 percent of total statewide rail-ton miles and 0.5 percent of rail-value miles;
- Three of Michigan's 50 *MI Transportation Plan* activity centers;
- Three of Michigan's 17 *MI Transportation Plan* economic regions;
- A total average daily traffic (ADT) (corridor average) of 5,100 vehicles, the least of all 19 *MI Transportation Plan* corridors; is projected to have a 46 percent ADT growth, the third highest as compared to all *MI Transportation Plan* Statewide Corridors of Highest Significance;
- Connections to an International Border Crossing at Sault Ste. Marie that handles $2.76 billion in international freight;
- Key linkages throughout the Upper Peninsula;
- Approximately 7.8 million person days of tourism activity per year including Pictured Rocks National Lake Shore Park which attracts over 450,000 tourist per year;
- Three commercial airports (Houghton, Sault Ste. Marie, and Marquette) with over 103,000 enplanements annually;
- Major marine cargo ports handling almost 11.6 million tons;
- Approximately 15,000 students enrolled in post-secondary institutions; and
- Six state parks, 2,000 people employed in gaming centers and eight prisons.

Table 46: Population/Employment/ADT within a 20-mile geographic area around Corridor Houghton/Marquette/Sault Ste. Marie

(263.8 miles)	*2005*	*2030*
Population within band	140,300	150,460
Employment within band	79,090	91,370
Total daily vehicle-miles of travel	1,344,990	1,966,960
Total average daily traffic (average)	5,100	7,460
Highest total ADT	33,390	43,620
Lowest total ADT	1,840	2,510
Passenger average daily traffic (average)	4,710	6,870
Highest passenger ADT	32,370	42,290
Lowest passenger ADT	1,620	2,230
Commercial average daily traffic (average)	390	590
Highest commercial ADT	1,020	1,340
Lowest commercial ADT	180	250

Table 47: Corridor Truck Freight Totals

Houghton/Marquette/ Sault Ste. Marie

Miles (263.78)	*2003 Tons*	*2013 Tons*	*2003 Value*	*2013 Value*
Average	4,745,440	5,395,420	7,928,276,820	$9,756,887,194
High	7,744,140	8,869,960	$12,854,302,853	$15,942,603,776
Low	1,837,840	2,183,690	$2,266,938,008	$2,757,023,272

Table 48: Corridor Rail Freight Totals

Houghton/Marquette/ Sault Ste. Marie (split in two sections)

Track Miles (271.451)	*2003 Tons*	*2013 Tons*	*2003 Value*	*2013 Value*
Average	2,828,950	2,648,400	$375,487,501	$387,518,506
High	7,564,270	7,881,480	$1,730,865,072	$1,769,622,508
Low	3,000	1,440	$1,374,000	$659,237

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

Table 49: Houghton/Marquette/Sault Ste. Marie – Activity Centers Summary

Activity	*Measure*	*Year*	*Houghton*	*Marquette*	*Sault Ste Marie*	*Total Value*
URBAN						
Population	Total Activity Center Population	2005	36,405	64,606	39,008	140,019
COMMERCIAL						
General Economic Activity	Total Employment	2005	18,241	35,410	19,854	73,505
Retail Activity	Retail Employment	2005	4,231	7,401	3,570	15,202
TOURISM						
Hotel Capacity	Hotel Units	2000	531	264	1,674	2,469
Annual Lodging Use Tax revenue	Revenue	2004	223,392	240,578	126,654	590,624
National Park	Number of National Park Locations	2005	1			1
State Park	Number of State Park Locations	2005	2	2	2	6
Gaming	Gaming Centers Employment	2005	300	200	1,500	2,000
Number of Visitors	Person Trips	2004	724,554	1,389,371	1,296,602	3,410,527
Length of Stay	Person Days	2004	2,011,891	2,852,254	2,918,186	7,782,331
EDUCATION/TECHNOLOGY CENTER						
Postsecondary Educational Centers	Student Population	2005	7,042	4,609	3,289	14,940
Smart Zones	Number of Technology Centers	2006	1			1
LIFE SCIENCE						
Hospitals	Number of Facilities	2005	1	1	1	3
CORRECTIONAL FACILITIES						
Prisons	Number of Facilities	2005	1	2	5	8
MILITARY BASE						
Military Base Center	Number of Facilities	2005				
PASSENGER FACILITIES						
Air Passenger	Passenger Enplanments	2005	28,417	59,370	15,325	103,112
Amtrak	Passenger Stations	2005				
Car Pool	Number of Facilities	2005	4	2		6
Intercity Bus Station	Passenger Stations	2005	2	2	1	5
FREIGHT FACILITIES						
Air Cargo Ports	Cargo Tonnage	2005	278	7	0.50	285.6
Marine Ports	Cargo Tonnage	2003	1,500	9,982,000	1,567,000	11,550,500
INTERNATIONAL BORDER CROSSING						
Passenger and Freight	Number of Border Crossings	2005			1	1

3.12.3 Corridor Analysis

This corridor provides transportation facilities for all modes of travel including roadways, trails, rail, air, and water ports. The issues with the roadways on the corridor are lane inconsistencies. The numbers of lanes change from two to four to five over the length of the corridor. There are also capacity problem on roadway segments during tourist season. The issue in terms of rail is a lack of adequate rail cars to support the corridor and regional needs. Passenger air service is adequate and provided by a number of small regional carriers 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. There are some conflicts with these trails and the roads and railroads in the corridor.

Adequate and reliable air passenger service is provided by the commercial service airports at Houghton/Hancock (Calumet), Marquette (Gwinn) and Sault Ste. Marie (Kinross). These facilities provide passengers with convenient access to larger hub airports with numerous national and international connections.

Intercity bus service is available on a direct route along the corridor between Marquette and Hancock; however, the link from Sault Ste. Marie to Marquette is via the corridor running along the southern edge of the Upper Peninsula. There is an intermodal facility in Marquette. Public transit service varies within the corridor – some areas have countywide service, some have community service and some have very limited specialized services. The International Bridge Bus links Sault Ste. Marie, Michigan to Canada via the International Bridge.

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 continued need for passing relief lanes.

3.12.4 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.

3.12.5 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:

- 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;
- Continue Highway - Maintenance/Asset Management;
- Continue to strive to maintain good pavement conditions along all of its trunkline corridors;
- Strive to improve overall corridor condition and operation for all modes:
  - Highway - Operational Additions - adding hill-climbing or passing-relief lanes;
  - Freight and Rail - providing improvements and expansion of these services;
  - Pedestrian and Bicycle - MDOT will add or enhance long-distance bicycle trails and opportunities for snowmobile trails;
- 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;
- Add or enhance long-distance bicycle trails, continue to provide and improve snowmobile crossings, and improve coordination with other state agencies such as DNR as a partner on this strategy;
- Continue to provide financial and technical assistance to local agencies to help them preserve existing transit services;
- 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;
- Encourage local transit agencies to evaluate the potential to expand to countywide service to enhance availability and connectivity of public transit;
- Continue to support local rideshare offices and the MichiVan program to provide commute alternatives;
- Support communication and coordination between local transit systems and intercity bus to improve connectivity and regional public transportation; and
- Support coordination of transportation services and funding between local human service agencies and local transit agencies.