



MM2045 Strategic Multimodal Corridors Report

Final - November 5, 2021

Introduction

With adoption of the Michigan Mobility 2045 state long-range transportation plan, the Michigan Department of Transportation (MDOT) has defined a network of strategic multimodal corridors (Figure 1) representing an integrated, multimodal system to support the safe and efficient movement of people, services, and goods. The strategic multimodal corridors framework builds upon Michigan's National Highway System (NHS) to include parallel major highways that serve as alternate routes as well as Class I (large) rail lines, passenger rail, intercity bus routes, airports, and U.S. bike routes. The intentional decision to include all modes that fall within the strategic corridor band of 20 miles of an NHS freeway, 10 miles of a US route non-freeway, and 5 miles of non-freeway NHS route, is a recognition that a resilient, equitable transportation system is one that provides multiple options for connecting population and employment centers.

Michigan's strategic multimodal corridors carry the vast majority of miles traveled in the state, regardless of mode. Analyzing corridor performance provides policymakers and decision-makers a wider lens to help identify and prioritize segments of the network that may benefit from more detailed planning, engineering, construction, or maintenance. This information also provides supplemental evaluation of policies and investment decisions over time to improve future performance.

In addition, the strategic multimodal corridors represent Michigan's critical truck routes, including less-traveled highways that are important to accessing key economic rural areas of the state. These minor routes also have an important role by providing system redundancy that is critical to a resilient freight network and for use during emergency movement.

This report focuses on key elements of each strategic multimodal corridor, including assets and services, traffic safety and operations, infrastructure condition, and traffic and congestion.

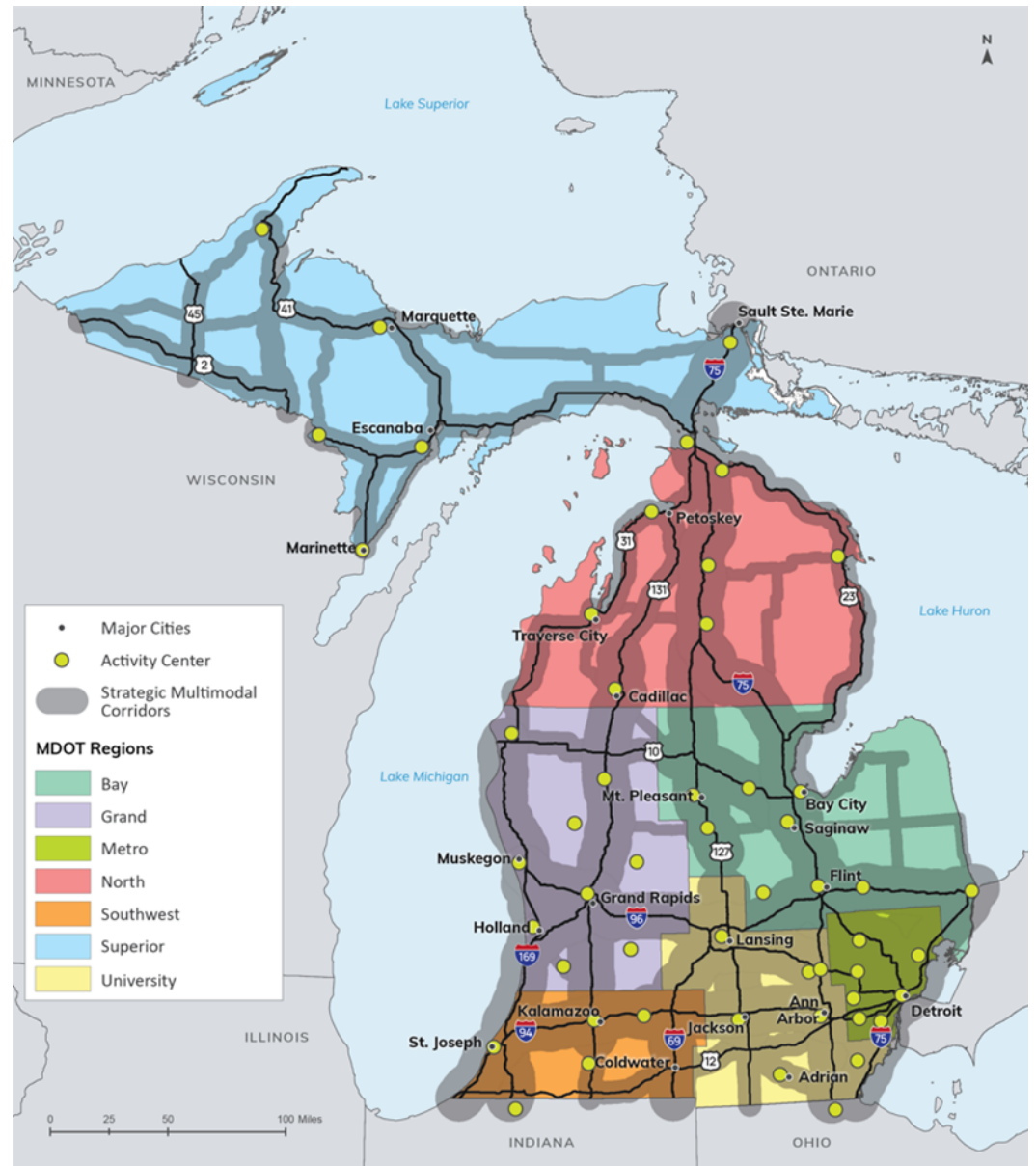


Figure 1 - Michigan Strategic Multimodal Corridors

DEFINITIONS AND INFORMATION

Multimodal Assets/Services

This section of the report provides quick reference to non-roadway transportation assets and services that are within the strategic corridor band.

Traffic and Safety Operations

This section of the report provides a subset of 2018 traffic safety data for all types of traffic crashes that occurred *within the strategic corridor being reported*, and a subset of the “all crashes” corridor data with specific focus on commercial truck crashes.

Fatal Crashes: The number of crashes that resulted in the loss of one or more lives.

Fatalities: The total number of lives lost.

Injury Crashes: The number of crashes that resulted in one or more people being seriously injured (see [MMUCC definition](#) for serious injury).

Serious Injuries: The total number of persons being seriously injured.

Intelligent Transportation Systems (ITS) Assets

ITS is a combination of electronics, telecommunications and information technology used to monitor and manage transportation systems. The following is a subset of ITS assets that are used to support operations along the strategic corridor.

Closed-Circuit Television (CCTV) Cameras: CCTV cameras transmit live video feeds to MDOT transportation operations centers for monitoring roadways and supporting traffic incident management.

Environmental Sensor Stations (ESS): ESS collect and disseminate weather data at points along the road network. The data is used to prioritize maintenance needs and provide accurate traveler information and driving conditions to motorists.

Dynamic Message Signs (DMS): DMS provide motorists real-time information such as traffic conditions, travel times, lane closures, work zones, incidents, weather advisors, or other pertinent information.

Roadside Units (RSU): RSU transmit safety information from roadside infrastructure to connected vehicles equipped with on board units. RSUs use dedicated short-range communications or other wireless communication technologies.

Infrastructure Condition

Transportation asset management is created to minimize life-cycle costs of managing and maintaining transportation assets such as bridges and roads. MDOT is committed to a strategic and systematic process of operating, maintaining, and upgrading transportation assets effectively, including using methods and metrics to track performance over time.

Lane Miles: The number of miles of pavement going in one direction on any given road. Miles of roadway multiplied by the number of lanes equals lane miles. For example, a 1-mile stretch of a three-lane roadway is 3 lane miles.

Route Miles: The geographic distance between two points, without consideration for the number of lanes or overlapping segments. For example, a 1-mile stretch of a three-lane roadway is just 1 route mile.

Remaining Service Life (RSL): RSL measures the estimated number of years until it is no longer cost effective to perform preventive maintenance and a rebuild or major rehabilitation treatment is required.

Pavement Surface and Evaluation Rating (PASER): The PASER system is a windshield road condition rating system. Condition ratings are assigned by evaluating the type and number of visual defects along a road segment while driving the segment.

Bridge Condition: A bridge is classified by the lowest component condition rating for either the deck, superstructure, substructure, or culvert through regulation inspection and reported to the National Bridge Inventory database.

Traffic and Congestion

Measuring traffic volumes, travel time reliability and congestion is important for developing countermeasures and assessing travel time and congestion mitigation improvements. These measures also provide the inputs for air quality modeling. Reliability is not the same as congestion. Reliability provides a consistent travel time to a destination whether or not the route is congested. If a route is regularly congested, travelers can plan accordingly, but if a route is unreliable, it is unknown how long it will take to arrive at the intended destination. Road segments can be both congested and reliable (i.e., reliably congested) whereas other segments can be congested and unreliable.

Daily Vehicle Miles Traveled (VMT): A measure of travel demand (or use of the system) and is the total miles traveled by all vehicles along the corridor in a 24-hour period, during a common weekday.

Daily Vehicle Hours Traveled (VHT): A measure of system performance is the total miles traveled by all vehicles based on an average speed, or travel time, along the corridor.

VMT Congested: VMT under congested conditions measured as a volume-to-capacity ratio exceeding 0.9.

VMT Approaching Congested: MT under near-congested conditions measured as a volume-to-capacity ratio of 0.7 to 0.9.

VMT Severely Unreliable: VMT under severely unreliable conditions as measured by a planning time index exceeding 3.0.

VMT Moderately Unreliable: VMT under moderately unreliable conditions as measured by a planning time index between 2.0 and 3.0.

Truck Miles Unreliable: Truck travel time reliability exceeding an index of 1.75 by means of archived real time speed data using the 95th and 50th percentile truck travel times.

Truck Bottleneck Miles: A measure of the top 5 percent of urban and rural user costs for delay and reliability.

DATA ELEMENTS

Multimodal Assets/Services

Cargo Port: Michigan Center for Shared Solutions (2016)

Commercial Airport: Michigan Center for Shared Solutions (2018)

Freight Rail: Michigan Center for Shared Solutions (2017) https://www.Michigan.gov/documents/MDOT/MI_Rail_Map_553909_7.pdf

Intercity Bus: Michigan Department of Transportation (2020) https://www.Michigan.gov/documents/MDOT-PTD-intercitymap_78377_7.pdf

Passenger Rail: Michigan Department of Transportation (2017) https://www.Michigan.gov/documents/MDOT/MDOT_passengerrailmap_177469_7.pdf

Public Transit: Michigan Department of Transportation https://www.Michigan.gov/MDOT/0,4616,7-151-9625_21607-31837--,00.html

US Bike Route: Michigan Center for Shared Solutions (2014)

https://www.Michigan.gov/documents/MDOT/USBR_10_20_35_route_map_statewide_2014-11-20_475164_7.pdf

Traffic Safety and Operations

Crash Data: MDOT Roadsoft (2018)

ITS Assets: MDOT (2020)

Infrastructure Condition

RSL: MDOT (2018)

PASER: MDOT (2017–2019)

Bridge: MDOT (2018)

Traffic and Congestion

VMT, VHT, and Percent Commercial VMT: Michigan Statewide Travel Demand Model (2018, 2045)

VMT Congested: Michigan Statewide Model (2018)

VMT Severely Unreliable: INRIX (2018)

Truck Miles Unreliable: INRIX NPMRDS (2018)

Truck Bottleneck Miles: INRIX NPMRDS (2019)



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	1,844	Total Crashes	160
Fatal Crashes	3	Fatal Crashes	2
Fatalities	3	Fatalities	2
Injury Crashes	247	Injury Crashes	25
Serious Injuries	27	Serious Injuries	1
ITS Assets			
CCTV	ESS	DMS	RSU
12	1	8	0

Infrastructure Condition			
Lane Miles	352.0		
Route Miles	80.3		
	Good	Fair	Poor
RSL (Lane Miles)	43.1%	38.0%	18.9%
PASER (Lane Miles)	80.2%	9.6%	10.2%
Bridges (Count)	30	102	6
	21.7%	73.9%	4.3%

Multimodal Assets/Services	
Cargo Port:	St. Joseph, Holland
Commercial Airport:	Gerald R. Ford International
Freight Rail:	CSX, Grand Elk, Grand Rapids Eastern
Intercity Bus:	Indian Trails
Passenger Rail:	Pere Marquette
Public Transit:	Berrien, Benton Harbor TA, Van Buren, Allegan, Interurban TA, Macatawa Area Express, The RAPID
U.S. Bicycle Route:	Route 35

Traffic and Congestion		
	2018	2045
Daily VMT	2.9 M	3.5 M
Daily VHT	43.5 K	54.0 K
Percent Commercial VMT	10.0%	17.8%
VMT Congested	1.3%	2.0%
VMT Approaching Congested	4.5%	6.7%
VMT Severely Unreliable	12.2%	N/A
VMT Moderately Unreliable	13.7%	N/A
Truck Miles Unreliable	21.8	N/A
Truck Bottleneck Miles	3.7	N/A



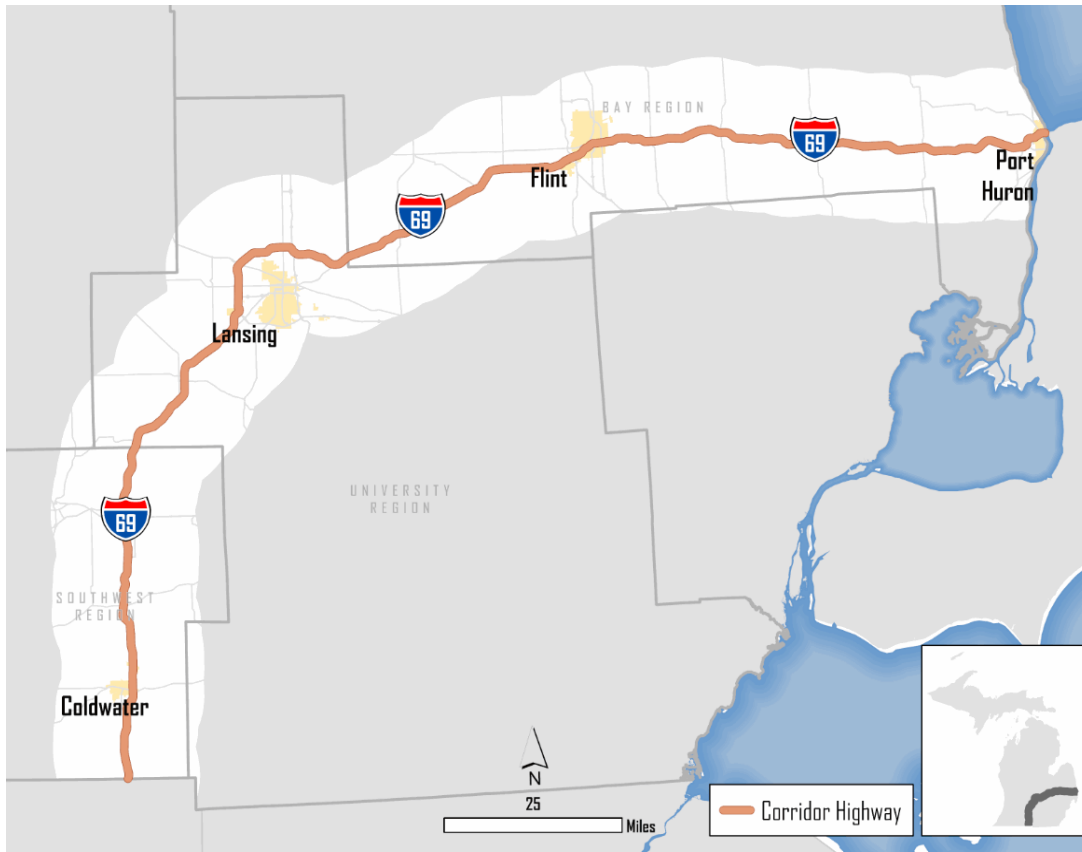
Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	1,638	Total Crashes	179
Fatal Crashes	7	Fatal Crashes	2
Fatalities	7	Fatalities	2
Injury Crashes	276	Injury Crashes	37
Serious Injuries	20	Serious Injuries	4

ITS Assets			
CCTV	ESS	DMS	RSU
37	0	7	26

Infrastructure Condition			
Lane Miles	246.2		
Route Miles	37.0		
	Good	Fair	Poor
RSL (Lane Miles)	27.7%	35.4%	36.9%
PASER (Lane Miles)	92.1%	7.6%	0.2%
Bridges (Count)	28	51	1
	35.0%	63.8%	1.3%

Multimodal Assets/Services	
Cargo Port:	None
Commercial Airport:	Detroit Metropolitan
Freight Rail:	Canadian National, CSX, Norfolk Southern, Consolidated
Intercity Bus:	Baron's Bus Line, Greyhound, Miller Trailways
Passenger Rail:	Wolverine
Public Transit:	DDOT, SMART
U.S. Bicycle Route:	None

Traffic and Congestion		
	2018	2045
Daily VMT	3.0 M	3.1 M
Daily VHT	53.9 K	56.7 K
Percent Commercial VMT	6.7%	8.3%
VMT Congested	14.5%	18.6%
VMT Approaching Congested	38.4%	36.8%
VMT Severely Unreliable	42.1%	N/A
VMT Moderately Unreliable	15.7%	N/A
Truck Miles Unreliable	28.0	N/A
Truck Bottleneck Miles	17.2	N/A



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	2,431	Total Crashes	348
Fatal Crashes	12	Fatal Crashes	3
Fatalities	13	Fatalities	4
Injury Crashes	340	Injury Crashes	59
Serious Injuries	32	Serious Injuries	7

ITS Assets			
CCTV	ESS	DMS	RSU
30	1	14	25

Infrastructure Condition			
Lane Miles	894.4		
Route Miles	202.7		
	Good	Fair	Poor
RSL (Lane Miles)	45.3%	22.6%	32.2%
PASER (Lane Miles)	66.0%	29.8%	4.2%
Bridges (Count)	33	239	10
	11.7%	84.8%	3.6%

Multimodal Assets/Services	
Cargo Port:	Marysville
Commercial Airport:	Bishop International, Capital Region International
Freight Rail:	See Regional Profiles
Intercity Bus:	Indian Trails
Passenger Rail:	Blue Water, Wolverine
Public Transit:	See Regional Profiles
U.S. Bicycle Route:	Route 20

Traffic and Congestion		
	2018	2045
Daily VMT	6.1 M	7.1 M
Daily VHT	85.1 K	100.0 K
Percent Commercial VMT	16.3%	24.7%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	1.0%	N/A
VMT Moderately Unreliable	1.4%	N/A
Truck Miles Unreliable	4.6	N/A
Truck Bottleneck Miles	3.2	N/A

CORRIDOR: I-69

Bay Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	1,444	Total Crashes	188
Fatal Crashes	7	Fatal Crashes	2
Fatalities	8	Fatalities	3
Injury Crashes	224	Injury Crashes	30
Serious Injuries	18	Serious Injuries	4
ITS Assets			
CCTV	ESS	DMS	RSU
29	0	10	25

Infrastructure Condition			
Lane Miles	465.7		
Route Miles	106.0		
	Good	Fair	Poor
RSL (Lane Miles)	47.1%	34.8%	18.1%
PASER (Lane Miles)	71.9%	23.0%	5.1%
Bridges (Count)	25	140	4
	14.8%	82.8%	2.4%

Multimodal Assets/Services	
Cargo Port:	Marysville
Commercial Airport:	Bishop International
Freight Rail:	Canadian National, CSX, Lapeer Industrial, Huron & Eastern
Intercity Bus:	Indian Trails
Passenger Rail:	Blue Water
Public Transit:	Blue Water, Greater Lapeer, Flint MTA, Shiawassee Area
U.S. Bicycle Route:	Route 20

Traffic and Congestion		
	2018	2045
Daily VMT	3.1 M	3.4 M
Daily VHT	43.5 K	48.8 K
Percent Commercial VMT	12.9%	22.2%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	1.8%	N/A
VMT Moderately Unreliable	0.7%	N/A
Truck Miles Unreliable	4.6	N/A
Truck Bottleneck Miles	3.2	N/A



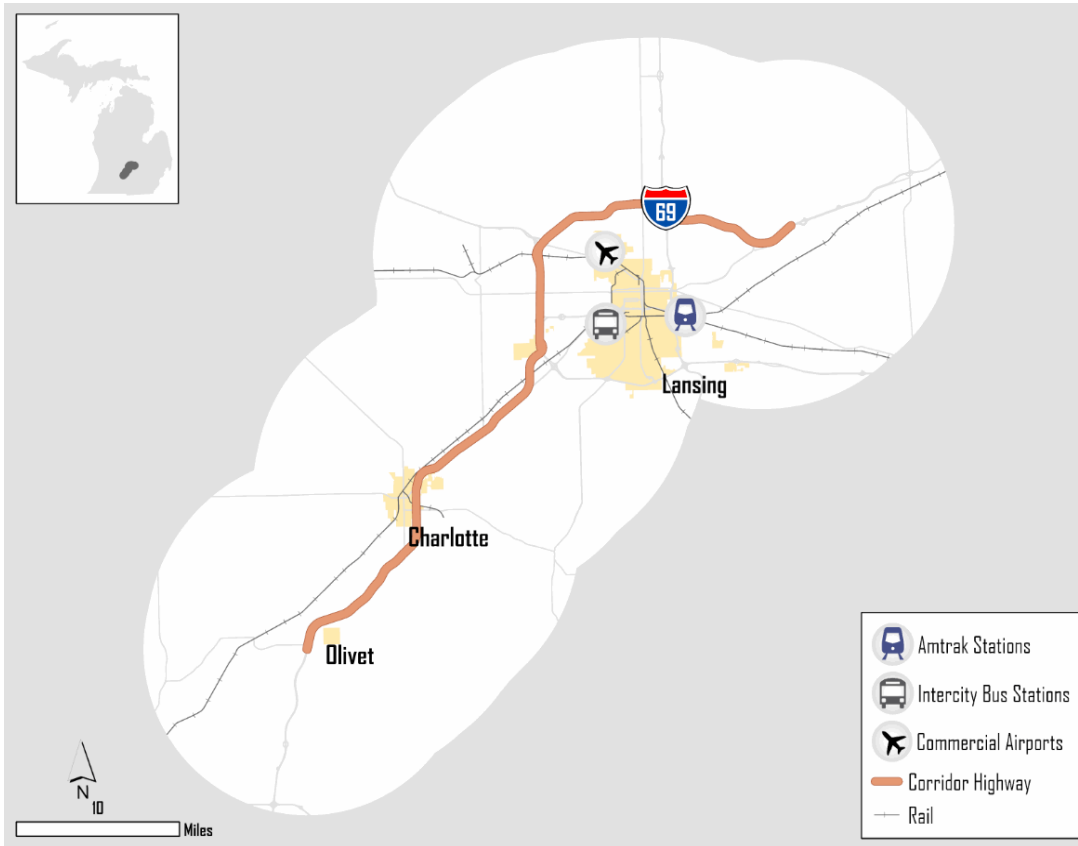
Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	335	Total Crashes	68
Fatal Crashes	3	Fatal Crashes	0
Fatalities	3	Fatalities	0
Injury Crashes	44	Injury Crashes	18
Serious Injuries	5	Serious Injuries	2

ITS Assets			
CCTV	ESS	DMS	RSU
1	1	3	0

Infrastructure Condition			
Lane Miles	197.7		
Route Miles	47.3		
	Good	Fair	Poor
RSL (Lane Miles)	82.9%	0.0%	17.1%
PASER (Lane Miles)	84.5%	9.2%	6.3%
Bridges (Count)	1	42	1
	2.3%	95.5%	2.3%

Multimodal Assets/Services	
Cargo Port:	None
Commercial Airport:	None
Freight Rail:	Canadian National, Norfolk Southern, Indiana Northeastern
Intercity Bus:	Indian Trails
Passenger Rail:	Blue Water, Wolverine
Public Transit:	Battle Creek, Marshall Dial-a-Ride, Branch Area
U.S. Bicycle Route:	None

Traffic and Congestion		
	2018	2045
Daily VMT	1.3 M	1.6 M
Daily VHT	17.0 K	21.9 K
Percent Commercial VMT	26.0%	32.3%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	0.0%	N/A
VMT Moderately Unreliable	0.0%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	0.0	N/A

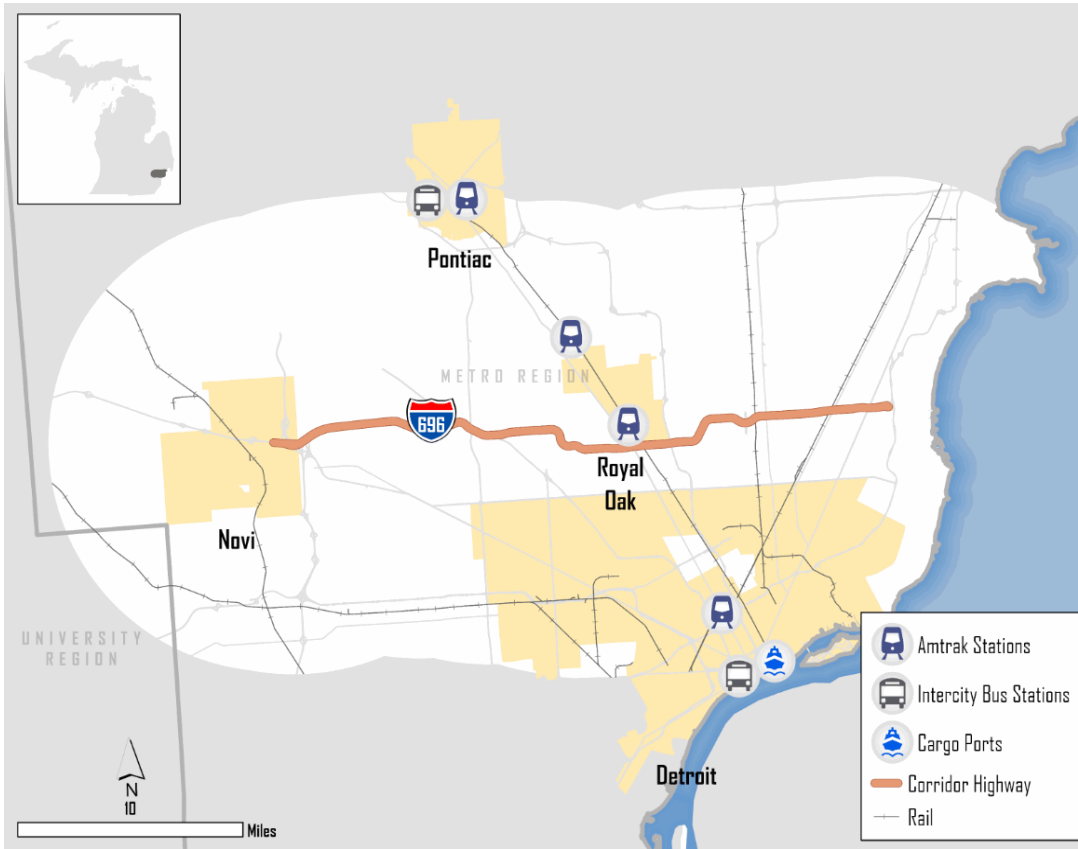


Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	652	Total Crashes	92
Fatal Crashes	2	Fatal Crashes	1
Fatalities	2	Fatalities	1
Injury Crashes	72	Injury Crashes	11
Serious Injuries	9	Serious Injuries	1
ITS Assets			
CCTV	ESS	DMS	RSU
0	0	1	0

Infrastructure Condition			
Lane Miles	231.0		
Route Miles	49.4		
	Good	Fair	Poor
RSL (Lane Miles)	9.3%	17.2%	73.5%
PASER (Lane Miles)			
Bridges (Count)	7	57	5
	10.1%	82.6%	7.2%

Multimodal Assets/Services	
Cargo Port:	None
Commercial Airport:	Capital Region International
Freight Rail:	Canadian National, CSX, Jackson & Lansing, Charlotte Southern
Intercity Bus:	Indian Trails
Passenger Rail:	Blue Water
Public Transit:	Clinton Area, Eaton, CATA
U.S. Bicycle Route:	None

Traffic and Congestion		
	2018	2045
Daily VMT	1.8 M	2.1 M
Daily VHT	24.5 K	29.3 K
Percent Commercial VMT	15.4%	22.9%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	0.0%	N/A
VMT Moderately Unreliable	3.6%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	0.0	N/A



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	2,354	Total Crashes	175
Fatal Crashes	5	Fatal Crashes	1
Fatalities	5	Fatalities	1
Injury Crashes	486	Injury Crashes	40
Serious Injuries	26	Serious Injuries	2

ITS Assets			
CCTV	ESS	DMS	RSU
35	0	8	32

Infrastructure Condition			
Lane Miles	227.7		
Route Miles	29.0		
	Good	Fair	Poor
RSL (Lane Miles)	8.2%	60.9%	30.9%
PASER (Lane Miles)	71.6%	18.3%	10.1%
Bridges (Count)	22	76	3
	21.8%	75.2%	3.0%

Multimodal Assets/Services	
Cargo Port:	Detroit
Commercial Airport:	None
Freight Rail:	CSX, Canadian National, Consolidated
Intercity Bus:	Greyhound, Indian Trails
Passenger Rail:	Wolverine
Public Transit:	SMART
U.S. Bicycle Route:	None

Traffic and Congestion		
	2018	2045
Daily VMT	4.6 M	4.6 M
Daily VHT	97.8 K	98.5 K
Percent Commercial VMT	2.4%	2.7%
VMT Congested	21.1%	11.2%
VMT Approaching Congested	65.7%	65.5%
VMT Severely Unreliable	35.7%	N/A
VMT Moderately Unreliable	41.4%	N/A
Truck Miles Unreliable	51.4	N/A
Truck Bottleneck Miles	22.7	N/A

CORRIDOR: I-75

Statewide



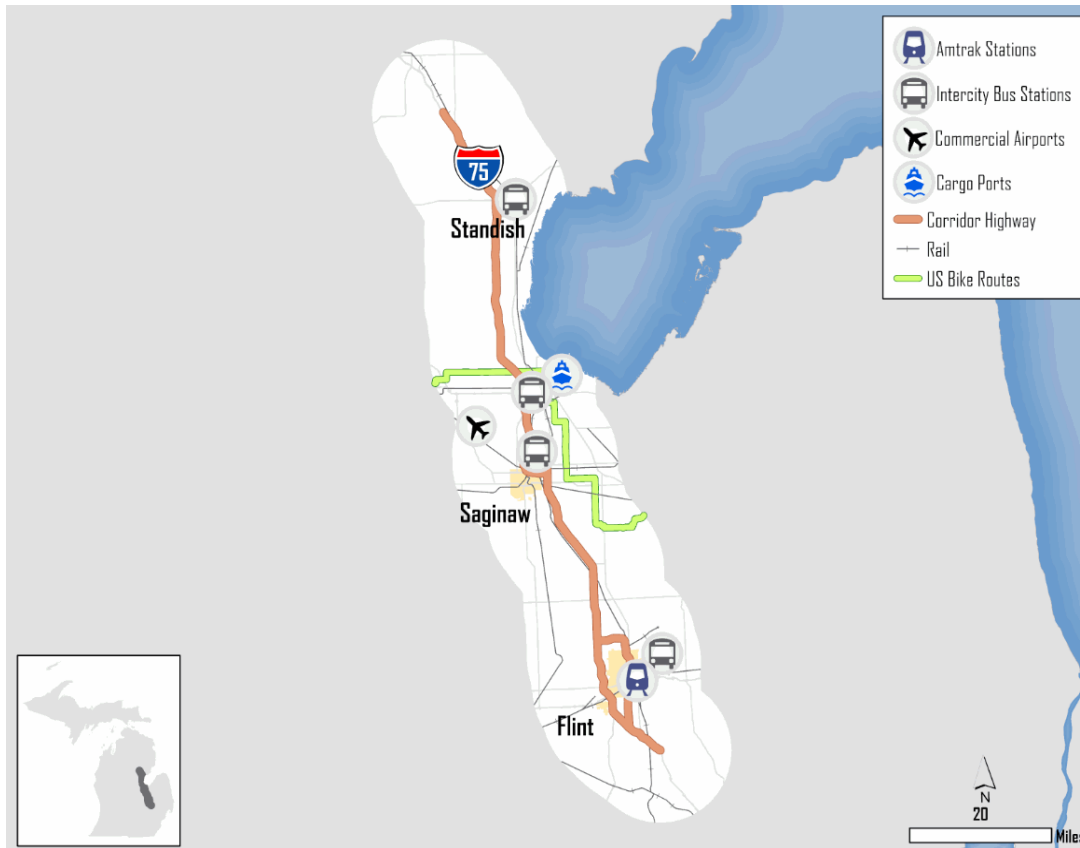
Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	9,161	Total Crashes	894
Fatal Crashes	25	Fatal Crashes	7
Fatalities	26	Fatalities	8
Injury Crashes	1,713	Injury Crashes	174
Serious Injuries	138	Serious Injuries	27

ITS Assets			
CCTV	ESS	DMS	RSU
150	6	44	35

Infrastructure Condition			
Lane Miles	2,209.4		
Route Miles	420.0		
	Good	Fair	Poor
RSL (Lane Miles)	43.8%	44.1%	12.1%
PASER (Lane Miles)	79.5%	13.2%	7.4%
Bridges (Count)	175	355	58
	29.8%	60.4%	9.9%

Multimodal Assets/Services	
Cargo Port:	Monroe, Detroit, Saginaw, Cheboygan, Mackinac, Sault Ste. Marie
Commercial Airport:	Detroit Metro, Bishop International, MBS International, Pellston, Chippewa Cty International
Freight Rail:	See Regional Profiles
Intercity Bus:	Hiawatha, Straits, Sleeping Bear, Indian Trails, Miller, Baron's
Passenger Rail:	Wolverine, Blue Water
Public Transit:	See Regional Profiles
U.S. Bicycle Route:	Route 20, Route 35, Route 10

Traffic and Congestion		
	2018	2045
Daily VMT	17.1 M	18.2 M
Daily VHT	285.7 K	306.7 K
Percent Commercial VMT	8.8%	13.0%
VMT Congested	4.7%	3.9%
VMT Approaching Congested	20.8%	26.7%
VMT Severely Unreliable	18.3%	N/A
VMT Moderately Unreliable	12.5%	N/A
Truck Miles Unreliable	91.7	N/A
Truck Bottleneck Miles	42.4	N/A



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	2,300	Total Crashes	136
Fatal Crashes	7	Fatal Crashes	1
Fatalities	7	Fatalities	1
Injury Crashes	409	Injury Crashes	30
Serious Injuries	44	Serious Injuries	1
ITS Assets			
CCTV	ESS	DMS	RSU
28	0	7	0

Infrastructure Condition			
Lane Miles	706.2		
Route Miles	122.6		
	Good	Fair	Poor
RSL (Lane Miles)	47.9%	39.2%	12.9%
PASER (Lane Miles)	81.7%	7.7%	10.6%
Bridges (Count)	37	138	26
	18.4%	68.7%	12.9%

Multimodal Assets/Services	
Cargo Port:	Saginaw River
Commercial Airport:	MBS International, Bishop International
Freight Rail:	Lake State Railway, Huron & Eastern, CSX, Canadian National
Intercity Bus:	Huron, Indian Trails
Passenger Rail:	Blue Water
Public Transit:	Flint MTA, Saginaw, Bay Metro, Arenac/Bay
U.S. Bicycle Route:	Route 20

Traffic and Congestion		
	2018	2045
Daily VMT	5.0 M	5.2 M
Daily VHT	71.3 K	73.7 K
Percent Commercial VMT	6.0%	10.9%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.2%
VMT Severely Unreliable	0.5%	N/A
VMT Moderately Unreliable	1.9%	N/A
Truck Miles Unreliable	1.8	N/A
Truck Bottleneck Miles	0.0	N/A



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	5,350	Total Crashes	553
Fatal Crashes	10	Fatal Crashes	2
Fatalities	11	Fatalities	3
Injury Crashes	1,081	Injury Crashes	111
Serious Injuries	62	Serious Injuries	15

ITS Assets			
CCTV	ESS	DMS	RSU
93	3	26	32

Infrastructure Condition			
Lane Miles	550.4		
Route Miles	79.9		
	Good	Fair	Poor
RSL (Lane Miles)	23.4%	44.6%	32.0%
PASER (Lane Miles)	76.0%	22.9%	1.2%
Bridges (Count)	103	102	8
	48.4%	47.9%	3.8%

Multimodal Assets/Services	
Cargo Port:	Detroit
Commercial Airport:	Detroit Metropolitan
Freight Rail:	Canadian National, CSX, Consolidated, Canadian Pacific, Detroit Connecting, Delray Connecting, Norfolk Southern
Intercity Bus:	Indian Trails, Greyhound, Miller Trailways
Passenger Rail:	Wolverine
Public Transit:	DDOT, SMART, People Mover
U.S. Bicycle Route:	None

Traffic and Congestion		
	2018	2045
Daily VMT	8.4 M	8.9 M
Daily VHT	163.0 K	174.2 K
Percent Commercial VMT	7.5%	9.0%
VMT Congested	9.5%	8.0%
VMT Approaching Congested	42.4%	54.4%
VMT Severely Unreliable	35.5%	N/A
VMT Moderately Unreliable	23.3%	N/A
Truck Miles Unreliable	79.0	N/A
Truck Bottleneck Miles	36.0	N/A

CORRIDOR: I-75

North Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	785	Total Crashes	42
Fatal Crashes	3	Fatal Crashes	1
Fatalities	3	Fatalities	1
Injury Crashes	124	Injury Crashes	7
Serious Injuries	17	Serious Injuries	0
ITS Assets			
CCTV	ESS	DMS	RSU
13	1	2	0

Infrastructure Condition			
Lane Miles	566.3		
Route Miles	135.7		
	Good	Fair	Poor
RSL (Lane Miles)	55.1%	44.9%	0.0%
PASER (Lane Miles)	70.2%	17.3%	12.5%
Bridges (Count)	4	72	13
	4.5%	80.9%	14.6%

Multimodal Assets/Services	
Cargo Port:	Mackinac Island, Cheboygan
Commercial Airport:	Pellston Regional
Freight Rail:	Lake State Railway
Intercity Bus:	Straits, Sleeping Bear
Passenger Rail:	None
Public Transit:	Ogemaw, Roscommon, Crawford, Otsego, Straits Regional
U.S. Bicycle Route:	Route 35

Traffic and Congestion		
	2018	2045
Daily VMT	1.6 M	1.9 M
Daily VHT	21.8 K	25.1 K
Percent Commercial VMT	6.2%	15.7%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	5.2%	N/A
VMT Moderately Unreliable	3.2%	N/A
Truck Miles Unreliable	0.7	N/A
Truck Bottleneck Miles	0.2	N/A



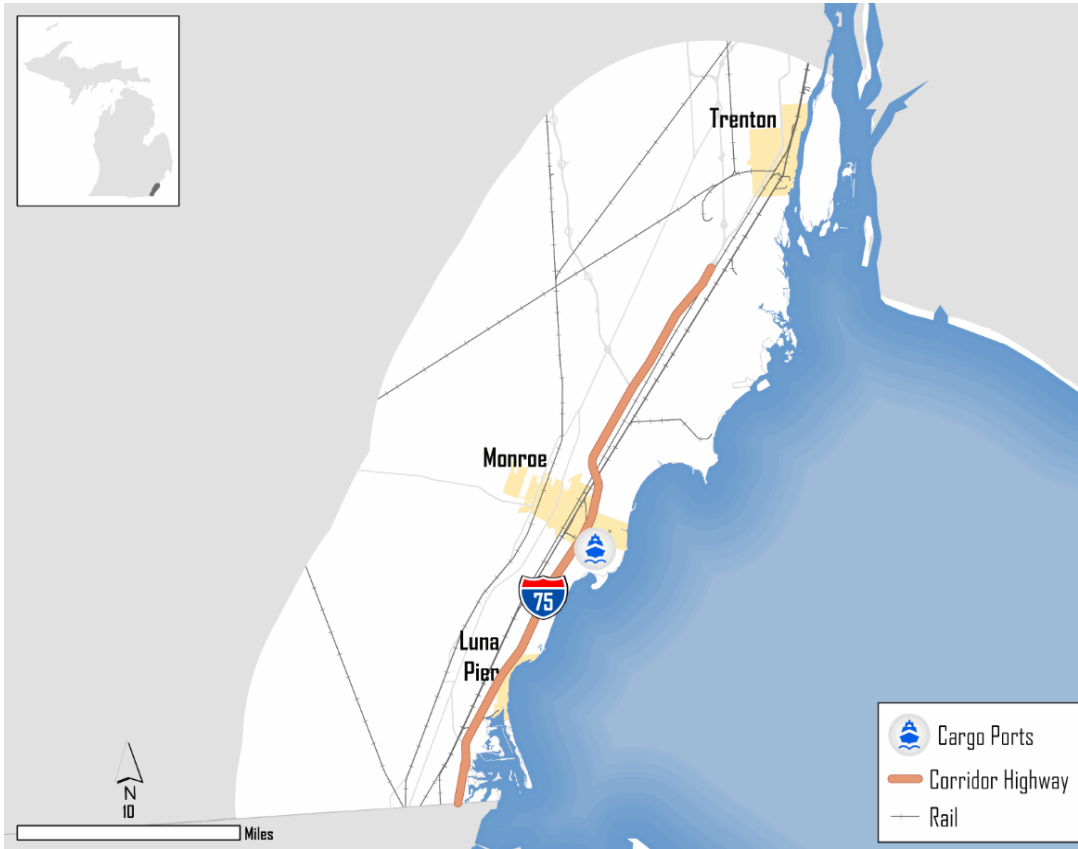
Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	199	Total Crashes	8
Fatal Crashes	1	Fatal Crashes	0
Fatalities	1	Fatalities	0
Injury Crashes	23	Injury Crashes	0
Serious Injuries	0	Serious Injuries	0

ITS Assets			
CCTV	ESS	DMS	RSU
2	2	3	0

Infrastructure Condition			
Lane Miles	214.2		
Route Miles	55.0		
	Good	Fair	Poor
RSL (Lane Miles)	70.1%	29.9%	0.0%
PASER (Lane Miles)			
Bridges (Count)	10	21	2
	30.3%	63.6%	6.1%

Multimodal Assets/Services	
Cargo Port:	Sault Ste. Marie, Mackinac Island
Commercial Airport:	Chippewa County International
Freight Rail:	Canadian National
Intercity Bus:	Hiawatha, Baron's Bus Line, Straits
Passenger Rail:	None
Public Transit:	Eastern UP Transportation Authority
U.S. Bicycle Route:	Route 35, Route 10

Traffic and Congestion		
	2018	2045
Daily VMT	0.4 M	0.4 M
Daily VHT	5.1 K	5.8 K
Percent Commercial VMT	4.4%	7.4%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	25.8%	N/A
VMT Moderately Unreliable	15.9%	N/A
Truck Miles Unreliable	10.2	N/A
Truck Bottleneck Miles	6.2	N/A



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	527	Total Crashes	155
Fatal Crashes	4	Fatal Crashes	3
Fatalities	4	Fatalities	3
Injury Crashes	76	Injury Crashes	26
Serious Injuries	15	Serious Injuries	11
ITS Assets			
CCTV	ESS	DMS	RSU
14	0	6	3

Infrastructure Condition			
Lane Miles	172.2		
Route Miles	26.8		
	Good	Fair	Poor
RSL (Lane Miles)	22.3%	77.7%	0.0%
PASER (Lane Miles)	84.9%	14.7%	0.4%
Bridges (Count)	21	22	9
	40.4%	42.3%	17.3%

Multimodal Assets/Services	
Cargo Port:	Monroe
Commercial Airport:	None
Freight Rail:	Norfolk Southern, Canadian National, CSX
Intercity Bus:	Greyhound, Baron's Bus Line
Passenger Rail:	None
Public Transit:	Lake Erie Transit, SMART
U.S. Bicycle Route:	None

Traffic and Congestion		
	2018	2045
Daily VMT	1.7 M	1.8 M
Daily VHT	24.5 K	27.9 K
Percent Commercial VMT	27.4%	36.5%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	0.0%	N/A
VMT Moderately Unreliable	0.6%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	0.0	N/A



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	8,895	Total Crashes	1,308
Fatal Crashes	26	Fatal Crashes	7
Fatalities	27	Fatalities	8
Injury Crashes	1,691	Injury Crashes	236
Serious Injuries	136	Serious Injuries	37

ITS Assets			
CCTV	ESS	DMS	RSU
148	7	46	75

Infrastructure Condition			
Lane Miles	1,425.7		
Route Miles	279.0		
	Good	Fair	Poor
RSL (Lane Miles)	35.1%	42.7%	22.2%
PASER (Lane Miles)	74.6%	12.5%	12.9%
Bridges (Count)	86	318	33
	19.7%	72.8%	7.6%

Multimodal Assets/Services	
Cargo Port:	St. Joseph, Detroit, Marysville, St. Clair, Marine City
Commercial Airport:	Detroit Metro, Kalamazoo/Battle Creek International
Freight Rail:	See Regional Profiles
Intercity Bus:	Miller, Greyhound, Baron's, Indian Trails
Passenger Rail:	Wolverine, Blue Water, Pere Marquette
Public Transit:	See Regional Profiles
U.S. Bicycle Route:	Route 35, Route 20

Traffic and Congestion		
	2018	2045
Daily VMT	18.5 M	19.7 M
Daily VHT	318.6 K	345.0 K
Percent Commercial VMT	11.2%	15.9%
VMT Congested	6.7%	6.5%
VMT Approaching Congested	29.6%	31.8%
VMT Severely Unreliable	16.3%	N/A
VMT Moderately Unreliable	10.3%	N/A
Truck Miles Unreliable	78.0	N/A
Truck Bottleneck Miles	45.6	N/A



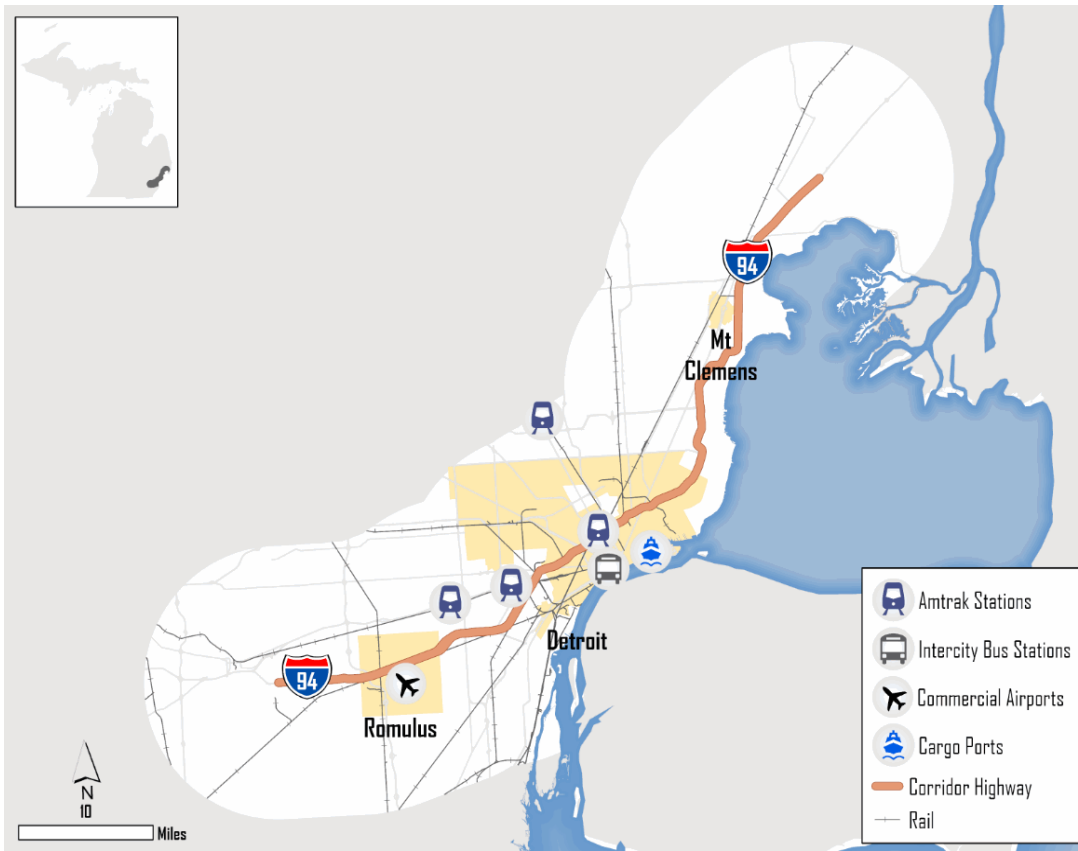
Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	290	Total Crashes	41
Fatal Crashes	0	Fatal Crashes	0
Fatalities	0	Fatalities	0
Injury Crashes	47	Injury Crashes	4
Serious Injuries	1	Serious Injuries	0

ITS Assets			
CCTV	ESS	DMS	RSU
24	0	5	14

Infrastructure Condition			
Lane Miles	106.7		
Route Miles	25.8		
	Good	Fair	Poor
RSL (Lane Miles)	96.3%	3.7%	0.0%
PASER (Lane Miles)			
Bridges (Count)	16	22	2
	40.0%	55.0%	5.0%

Multimodal Assets/Services	
Cargo Port:	Marysville, St. Clair, Marine City
Commercial Airport:	None
Freight Rail:	Canadian National, CSX
Intercity Bus:	None
Passenger Rail:	Blue Water
Public Transit:	Blue Water Transportation Commission
U.S. Bicycle Route:	Route 20

Traffic and Congestion		
	2018	2045
Daily VMT	0.6 M	0.7 M
Daily VHT	8.8 K	9.4 K
Percent Commercial VMT	10.2%	16.4%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	5.8%	N/A
VMT Moderately Unreliable	5.5%	N/A
Truck Miles Unreliable	4.6	N/A
Truck Bottleneck Miles	3.8	N/A



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	4,611	Total Crashes	568
Fatal Crashes	14	Fatal Crashes	3
Fatalities	14	Fatalities	3
Injury Crashes	1,012	Injury Crashes	93
Serious Injuries	59	Serious Injuries	6

ITS Assets			
CCTV	ESS	DMS	RSU
61	0	23	56

Infrastructure Condition			
Lane Miles	398.0		
Route Miles	62.4		
	Good	Fair	Poor
RSL (Lane Miles)	6.1%	69.6%	24.3%
PASER (Lane Miles)	62.1%	22.4%	15.5%
Bridges (Count)	44	113	16
	25.4%	65.3%	9.2%

Multimodal Assets/Services	
Cargo Port:	Detroit
Commercial Airport:	Detroit Metropolitan
Freight Rail:	Canadian National, CSX, Consolidated, Canadian Pacific, Detroit Connecting, Delray Connecting, Norfolk Southern
Intercity Bus:	Miller Trailways, Greyhound, Baron's Bus Line
Passenger Rail:	Wolverine
Public Transit:	DDOT, SMART, People Mover
U.S. Bicycle Route:	None

Traffic and Congestion		
	2018	2045
Daily VMT	7.1 M	7.3 M
Daily VHT	147.3 K	152.0 K
Percent Commercial VMT	5.5%	6.5%
VMT Congested	17.2%	17.4%
VMT Approaching Congested	64.4%	65.0%
VMT Severely Unreliable	34.9%	N/A
VMT Moderately Unreliable	20.2%	N/A
Truck Miles Unreliable	63.2	N/A
Truck Bottleneck Miles	21.0	N/A



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	2,416	Total Crashes	490
Fatal Crashes	5	Fatal Crashes	0
Fatalities	5	Fatalities	0
Injury Crashes	375	Injury Crashes	96
Serious Injuries	45	Serious Injuries	22
ITS Assets			
CCTV	ESS	DMS	RSU
42	7	12	5

Infrastructure Condition			
Lane Miles	620.9		
Route Miles	127.0		
	Good	Fair	Poor
RSL (Lane Miles)	43.7%	28.2%	28.0%
PASER (Lane Miles)	81.1%	12.1%	6.8%
Bridges (Count)	22	131	11
	13.4%	79.9%	6.7%

Multimodal Assets/Services	
Cargo Port:	St. Joseph
Commercial Airport:	Kalamazoo/Battle Creek International
Freight Rail:	Norfolk Southern, Canadian National, Grand Elk, Amtrak, West Michigan, CSX
Intercity Bus:	Miller Trailways, Greyhound, Indian Trails
Passenger Rail:	Wolverine, Blue Water, Pere Marquette
Public Transit:	Battle Creek, Marshall Dial-a-Ride, Kalamazoo, Van Buren, Berrien, Benton Harbor TA
U.S. Bicycle Route:	Route 35

Traffic and Congestion		
	2018	2045
Daily VMT	7.0 M	7.8 M
Daily VHT	103.4 K	122.1 K
Percent Commercial VMT	17.2%	24.7%
VMT Congested	0.2%	0.0%
VMT Approaching Congested	2.9%	10.1%
VMT Severely Unreliable	0.2%	N/A
VMT Moderately Unreliable	0.1%	N/A
Truck Miles Unreliable	0.7	N/A
Truck Bottleneck Miles	3.5	N/A



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	1,578	Total Crashes	209
Fatal Crashes	7	Fatal Crashes	4
Fatalities	8	Fatalities	5
Injury Crashes	257	Injury Crashes	43
Serious Injuries	31	Serious Injuries	9

ITS Assets			
CCTV	ESS	DMS	RSU
21	0	6	0

Infrastructure Condition			
Lane Miles	300.1		
Route Miles	63.9		
	Good	Fair	Poor
RSL (Lane Miles)	33.7%	51.1%	15.2%
PASER (Lane Miles)	64.0%	8.3%	27.7%
Bridges (Count)	4	52	4
	6.7%	86.7%	6.7%

Multimodal Assets/Services	
Cargo Port:	None
Commercial Airport:	Detroit Metropolitan
Freight Rail:	Norfolk Southern, Ann Arbor, Jackson & Lansing
Intercity Bus:	Miller Trailways, Greyhound, Baron's Bus Line
Passenger Rail:	Wolverine
Public Transit:	Ann Arbor TA, Jackson TA
U.S. Bicycle Route:	None

Traffic and Congestion		
	2018	2045
Daily VMT	3.8 M	3.9 M
Daily VHT	59.1 K	61.5 K
Percent Commercial VMT	11.3%	15.9%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	18.1%	18.1%
VMT Severely Unreliable	9.0%	N/A
VMT Moderately Unreliable	9.0%	N/A
Truck Miles Unreliable	9.5	N/A
Truck Bottleneck Miles	17.3	N/A



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	7,087	Total Crashes	633
Fatal Crashes	14	Fatal Crashes	3
Fatalities	17	Fatalities	3
Injury Crashes	1,375	Injury Crashes	137
Serious Injuries	120	Serious Injuries	26

ITS Assets			
CCTV	ESS	DMS	RSU
65	1	22	31

Infrastructure Condition			
Lane Miles	1,050.6		
Route Miles	203.5		
	Good	Fair	Poor
RSL (Lane Miles)	39.5%	43.2%	17.3%
PASER (Lane Miles)	66.8%	24.4%	8.8%
Bridges (Count)	87	244	19
	24.9%	69.7%	5.4%

Multimodal Assets/Services	
Cargo Port:	Muskegon, Grand Haven, Detroit
Commercial Airport:	Capital Region International, Gerald R. Ford International, Muskegon County
Freight Rail:	See Regional Profiles
Intercity Bus:	Greyhound, Indian Trails
Passenger Rail:	Wolverine, Blue Water, Pere Marquette
Public Transit:	See Regional Profiles
U.S. Bicycle Route:	Route 35

Traffic and Congestion		
	2018	2045
Daily VMT	13.2 M	14.0 M
Daily VHT	219.6 K	233.1 K
Percent Commercial VMT	6.6%	9.0%
VMT Congested	5.3%	2.3%
VMT Approaching Congested	31.1%	31.0%
VMT Severely Unreliable	19.5%	N/A
VMT Moderately Unreliable	16.5%	N/A
Truck Miles Unreliable	76.1	N/A
Truck Bottleneck Miles	29.7	N/A

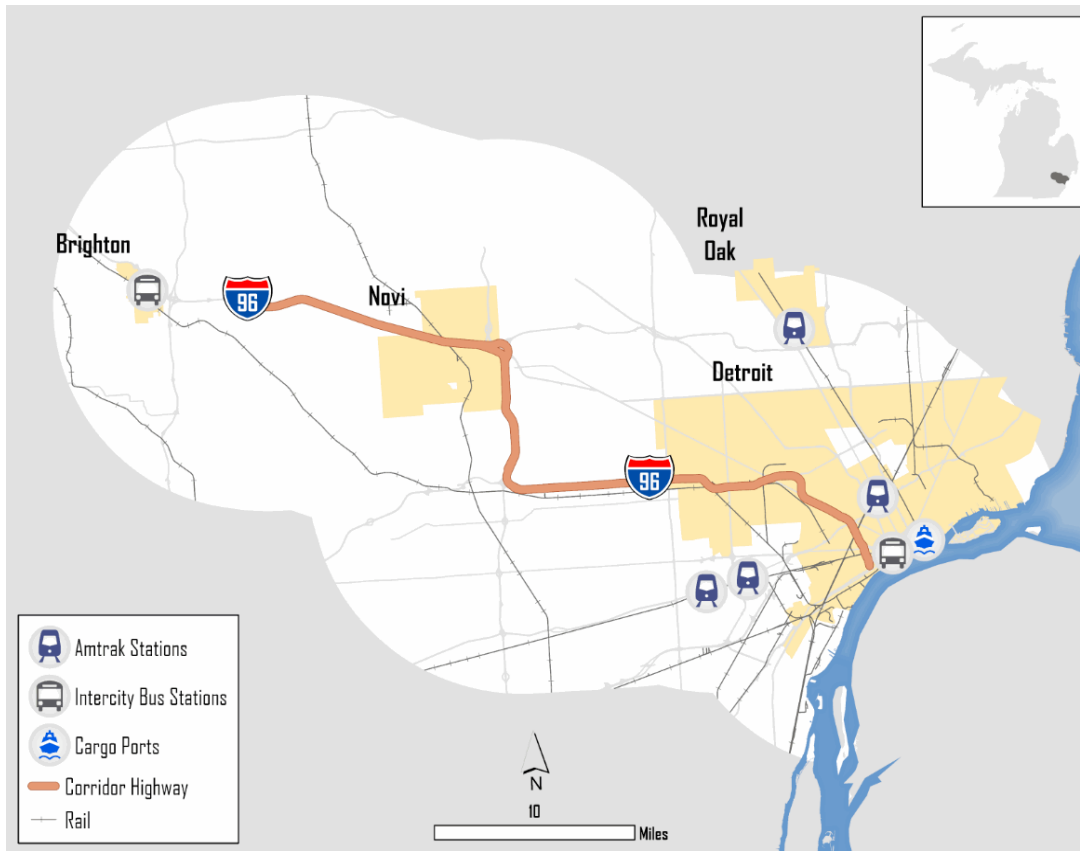


Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	1,807	Total Crashes	165
Fatal Crashes	4	Fatal Crashes	0
Fatalities	4	Fatalities	0
Injury Crashes	295	Injury Crashes	27
Serious Injuries	33	Serious Injuries	7
ITS Assets			
CCTV	ESS	DMS	RSU
22	1	9	0

Infrastructure Condition			
Lane Miles	350.0		
Route Miles	40.0		
	Good	Fair	Poor
RSL (Lane Miles)	46.7%	36.7%	16.7%
PASER (Lane Miles)	67.4%	32.4%	0.2%
Bridges (Count)	18	84	2
	17.3%	80.8%	1.9%

Multimodal Assets/Services	
Cargo Port:	Muskegon, Grand Haven
Commercial Airport:	Muskegon County, Gerald R. Ford International
Freight Rail:	CSX, Grand Elk, Grand Rapids Eastern, Marquette, Coopersville and Marne, Mid-Michigan, Michigan Shore
Intercity Bus:	Indian Trails
Passenger Rail:	Pere Marquette
Public Transit:	Ionia DAR, RAPID, Harbor Transit, Muskegon Area
U.S. Bicycle Route:	Route 35

Traffic and Congestion		
	2018	2045
Daily VMT	3.5 M	3.7 M
Daily VHT	50.2 K	55.0 K
Percent Commercial VMT	8.2%	11.2%
VMT Congested	0.2%	0.2%
VMT Approaching Congested	4.2%	5.4%
VMT Severely Unreliable	4.7%	N/A
VMT Moderately Unreliable	2.8%	N/A
Truck Miles Unreliable	11.7	N/A
Truck Bottleneck Miles	4.5	N/A



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	3,067	Total Crashes	272
Fatal Crashes	4	Fatal Crashes	2
Fatalities	4	Fatalities	2
Injury Crashes	699	Injury Crashes	65
Serious Injuries	48	Serious Injuries	6
ITS Assets			
CCTV	ESS	DMS	RSU
27	0	6	29

Infrastructure Condition			
Lane Miles	289.0		
Route Miles	80.9		
	Good	Fair	Poor
RSL (Lane Miles)	45.9%	53.5%	0.7%
PASER (Lane Miles)	71.5%	13.9%	14.6%
Bridges (Count)	61	44	3
	56.5%	40.7%	2.8%

Multimodal Assets/Services	
Cargo Port:	Detroit
Commercial Airport:	None
Freight Rail:	Canadian National, CSX, Consolidated, Canadian Pacific, Detroit Connecting, Delray Connecting, Norfolk Southern
Intercity Bus:	Greyhound
Passenger Rail:	Wolverine
Public Transit:	DDOT, SMART, People Mover
U.S. Bicycle Route:	None

Traffic and Congestion		
	2018	2045
Daily VMT	5.2 M	5.5 M
Daily VHT	101.6 K	105.6 K
Percent Commercial VMT	3.9%	4.8%
VMT Congested	13.3%	5.8%
VMT Approaching Congested	64.1%	64.3%
VMT Severely Unreliable	40.5%	N/A
VMT Moderately Unreliable	30.2%	N/A
Truck Miles Unreliable	55.2	N/A
Truck Bottleneck Miles	17.4	N/A



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	2,213	Total Crashes	196
Fatal Crashes	6	Fatal Crashes	1
Fatalities	9	Fatalities	1
Injury Crashes	381	Injury Crashes	45
Serious Injuries	39	Serious Injuries	13
ITS Assets			
CCTV	ESS	DMS	RSU
16	0	7	2

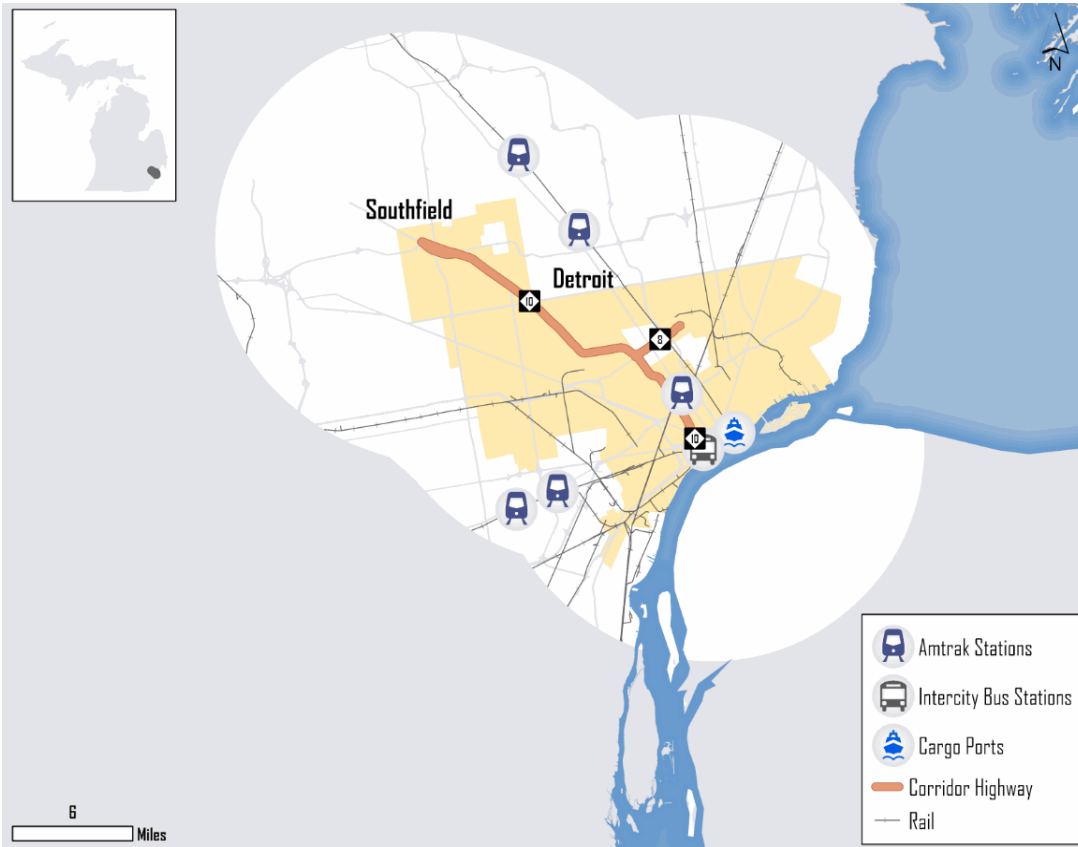
Infrastructure Condition			
Lane Miles	411.5		
Route Miles	82.6		
	Good	Fair	Poor
RSL (Lane Miles)	29.1%	41.6%	29.4%
PASER (Lane Miles)	64.0%	21.5%	14.6%
Bridges (Count)	8	116	14
	5.8%	84.1%	10.1%

Multimodal Assets/Services	
Cargo Port:	None
Commercial Airport:	Capital Region International
Freight Rail:	CSX, Huron & Eastern, Jackson & Lansing, Canadian National
Intercity Bus:	Greyhound, Indian Trails
Passenger Rail:	Blue Water
Public Transit:	Livingston, CATA, Eaton, Clinton Area
U.S. Bicycle Route:	None

Traffic and Congestion		
	2018	2045
Daily VMT	4.5 M	4.7 M
Daily VHT	67.8 K	72.5 K
Percent Commercial VMT	8.4%	12.0%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	13.4%	12.5%
VMT Severely Unreliable	3.9%	N/A
VMT Moderately Unreliable	9.0%	N/A
Truck Miles Unreliable	9.3	N/A
Truck Bottleneck Miles	7.8	N/A

CORRIDOR: M-10

Metro Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	1,321	Total Crashes	52
Fatal Crashes	2	Fatal Crashes	1
Fatalities	2	Fatalities	1
Injury Crashes	359	Injury Crashes	8
Serious Injuries	33	Serious Injuries	1
ITS Assets			
CCTV	ESS	DMS	RSU
27	0	6	1

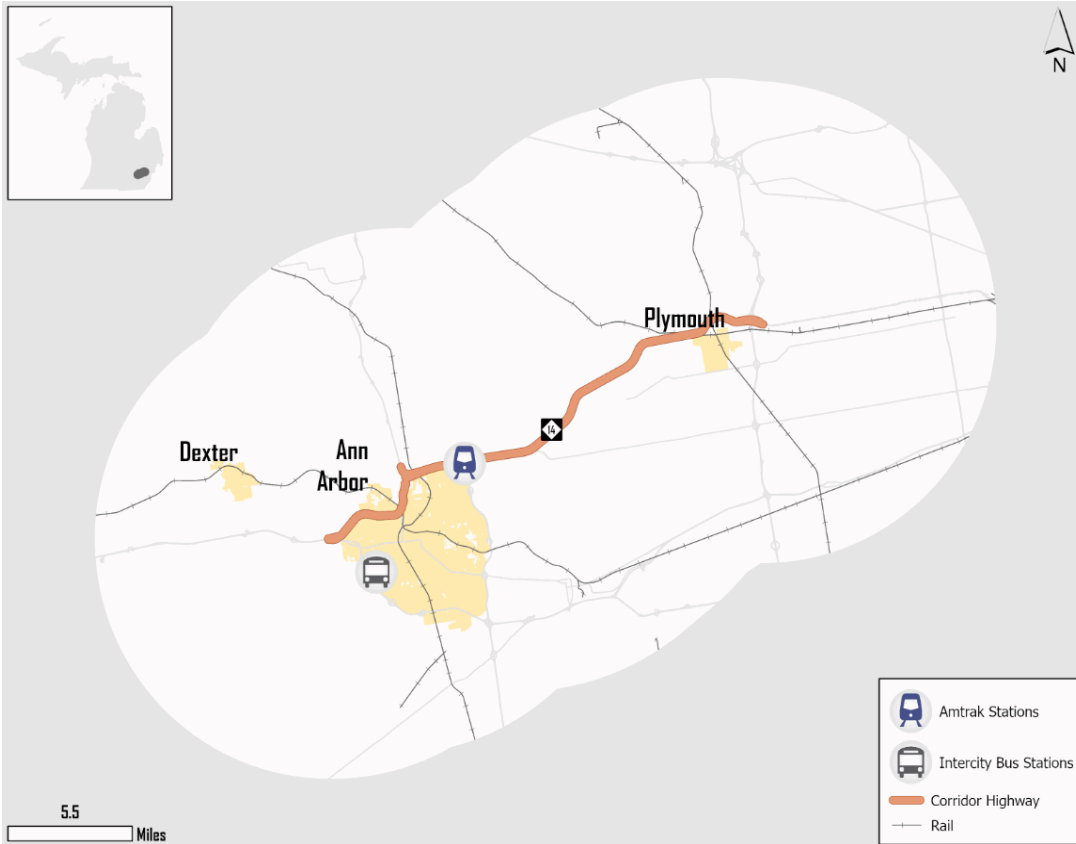
Infrastructure Condition			
Lane Miles	147.6		
Route Miles	21.4		
	Good	Fair	Poor
RSL (Lane Miles)	42.6%	55.2%	2.3%
PASER (Lane Miles)	84.1%	12.3%	3.6%
Bridges (Count)	38	56	4
	38.8%	57.1%	4.1%

Multimodal Assets/Services	
Cargo Port:	Detroit
Commercial Airport:	None
Freight Rail:	Canadian National, CSX, Consolidated, Canadian Pacific, Detroit Connecting, Delray Connecting, Norfolk Southern
Intercity Bus:	Greyhound, Indian Trails
Passenger Rail:	Wolverine
Public Transit:	DDOT, SMART, People Mover
U.S. Bicycle Route:	None

Traffic and Congestion		
	2018	2045
Daily VMT	2.3 M	2.3 M
Daily VHT	46.1 K	48.3 K
Percent Commercial VMT	2.8%	2.9%
VMT Congested	3.3%	2.7%
VMT Approaching Congested	55.4%	50.2%
VMT Severely Unreliable	29.1%	N/A
VMT Moderately Unreliable	19.2%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	0.9	N/A

CORRIDOR: M-14

University Region/Metro Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	829	Total Crashes	91
Fatal Crashes	3	Fatal Crashes	1
Fatalities	3	Fatalities	1
Injury Crashes	121	Injury Crashes	18
Serious Injuries	11	Serious Injuries	2

ITS Assets			
CCTV	ESS	DMS	RSU
9	0	4	3

Infrastructure Condition			
Lane Miles	109.5		
Route Miles	22.4		
	Good	Fair	Poor
RSL (Lane Miles)	20.1%	79.4%	0.5%
PASER (Lane Miles)	91.8%	5.5%	2.7%
Bridges (Count)	3	40	3
	6.5%	87.0%	6.5%

Multimodal Assets/Services	
Cargo Port:	None
Commercial Airport:	None
Freight Rail:	CSX, Norfolk Southern, Ann Arbor
Intercity Bus:	None
Passenger Rail:	Wolverine
Public Transit:	SMART, Ann Arbor TA
U.S. Bicycle Route:	None

Traffic and Congestion		
	2018	2045
Daily VMT	1.6 M	1.6 M
Daily VHT	27.4 K	28.5 K
Percent Commercial VMT	6.7%	10.3%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	42.3%	39.0%
VMT Severely Unreliable	19.1%	N/A
VMT Moderately Unreliable	18.4%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	4.5	N/A

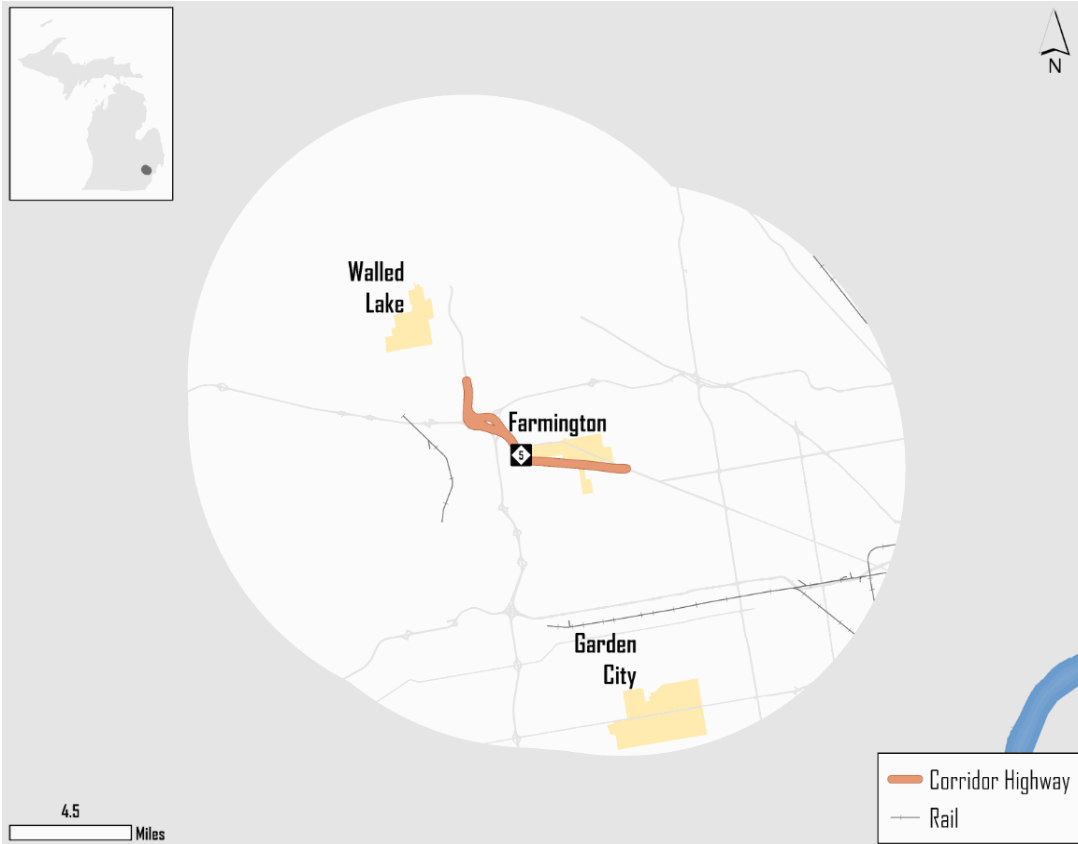


Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	1,782	Total Crashes	84
Fatal Crashes	2	Fatal Crashes	0
Fatalities	2	Fatalities	0
Injury Crashes	381	Injury Crashes	15
Serious Injuries	16	Serious Injuries	1
ITS Assets			
CCTV	ESS	DMS	RSU
10	0	6	0

Infrastructure Condition			
Lane Miles	109.4		
Route Miles	14.2		
	Good	Fair	Poor
RSL (Lane Miles)	33.6%	30.1%	36.3%
PASER (Lane Miles)	75.2%	23.6%	1.2%
Bridges (Count)	22	27	5
	40.7%	50.0%	9.3%

Multimodal Assets/Services	
Cargo Port:	Detroit
Commercial Airport:	Detroit Metropolitan
Freight Rail:	Canadian National, CSX, Consolidated, Canadian Pacific, Detroit Connecting, Delray Connecting, Norfolk Southern
Intercity Bus:	Greyhound, Miller Trailways
Passenger Rail:	Wolverine
Public Transit:	DDOT, SMART
U.S. Bicycle Route:	None

Traffic and Congestion		
	2018	2045
Daily VMT	1.8 M	1.8 M
Daily VHT	40.6 K	41.3 K
Percent Commercial VMT	2.6%	3.1%
VMT Congested	10.5%	6.3%
VMT Approaching Congested	55.7%	65.1%
VMT Severely Unreliable	33.3%	N/A
VMT Moderately Unreliable	31.6%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	0.9	N/A



Traffic Safety and Operations

All Crashes		Commercial Truck Crashes	
Total Crashes	263	Total Crashes	10
Fatal Crashes	1	Fatal Crashes	0
Fatalities	1	Fatalities	0
Injury Crashes	63	Injury Crashes	2
Serious Injuries	4	Serious Injuries	0

ITS Assets			
CCTV	ESS	DMS	RSU
3	0	1	0

Infrastructure Condition

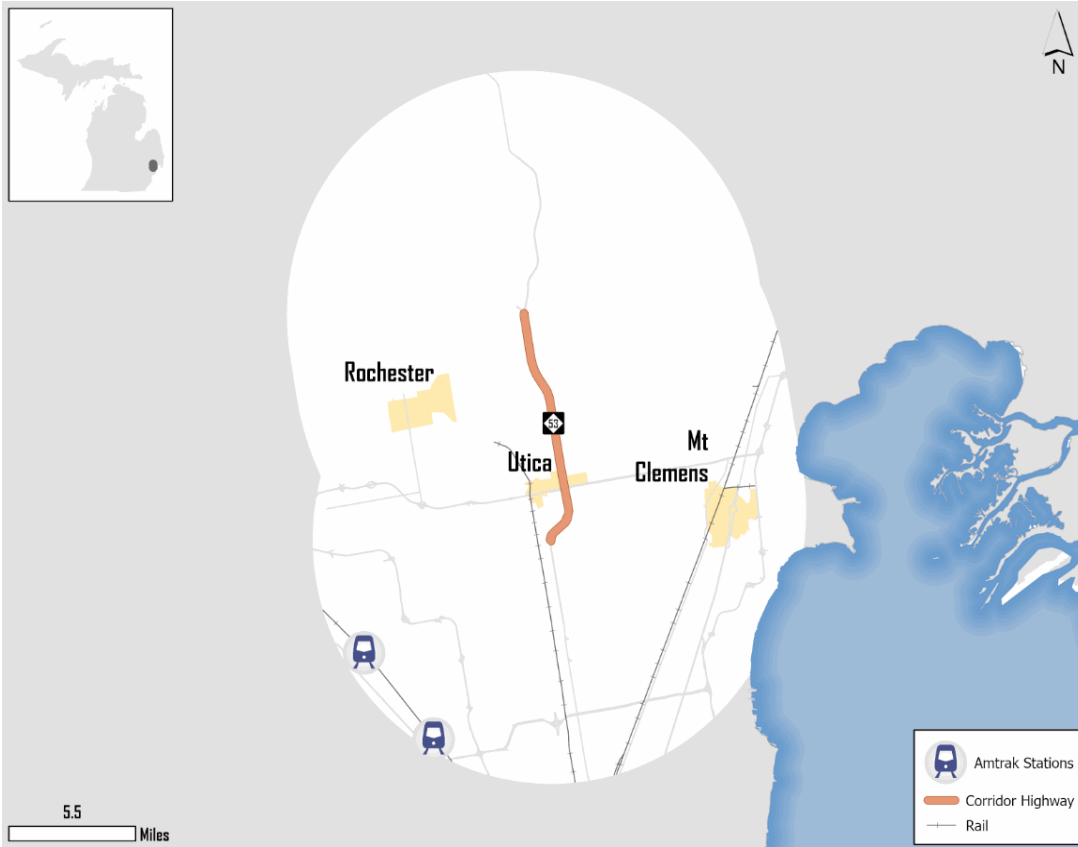
Lane Miles	35.6		
Route Miles	7.6		
	Good	Fair	Poor
RSL (Lane Miles)	0.0%	43.8%	56.2%
PASER (Lane Miles)	47.0%	0.7%	52.2%
Bridges (Count)	4	17	0
	19.0%	81.0%	0.0%

Traffic and Congestion

	2018	2045
Daily VMT	0.4 M	0.4 M
Daily VHT	6.7 K	7.2 K
Percent Commercial VMT	4.3%	4.8%
VMT Congested	5.5%	5.0%
VMT Approaching Congested	3.7%	3.8%
VMT Severely Unreliable	36.4%	N/A
VMT Moderately Unreliable	4.5%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	0.0	N/A

Multimodal Assets/Services

Cargo Port:	None
Commercial Airport:	None
Freight Rail:	CSX
Intercity Bus:	Greyhound
Passenger Rail:	None
Public Transit:	SMART
U.S. Bicycle Route:	None



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	344	Total Crashes	16
Fatal Crashes	1	Fatal Crashes	0
Fatalities	1	Fatalities	0
Injury Crashes	50	Injury Crashes	2
Serious Injuries	4	Serious Injuries	1

ITS Assets			
CCTV	ESS	DMS	RSU
0	0	0	0

Infrastructure Condition			
Lane Miles	44.1		
Route Miles	9.9		
	Good	Fair	Poor
RSL (Lane Miles)	0.0%	96.1%	3.9%
PASER (Lane Miles)	62.8%	36.8%	0.4%
Bridges (Count)	8	14	0
	36.4%	63.6%	0.0%

Multimodal Assets/Services	
Cargo Port:	None
Commercial Airport:	None
Freight Rail:	Consolidated, Canadian National
Intercity Bus:	None
Passenger Rail:	Wolverine
Public Transit:	SMART
U.S. Bicycle Route:	None

Traffic and Congestion		
	2018	2045
Daily VMT	0.6 M	0.6 M
Daily VHT	10.1 K	11.4 K
Percent Commercial VMT	4.3%	4.4%
VMT Congested	0.0%	31.6%
VMT Approaching Congested	56.0%	38.5%
VMT Severely Unreliable	7.7%	N/A
VMT Moderately Unreliable	50.2%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	0.0	N/A



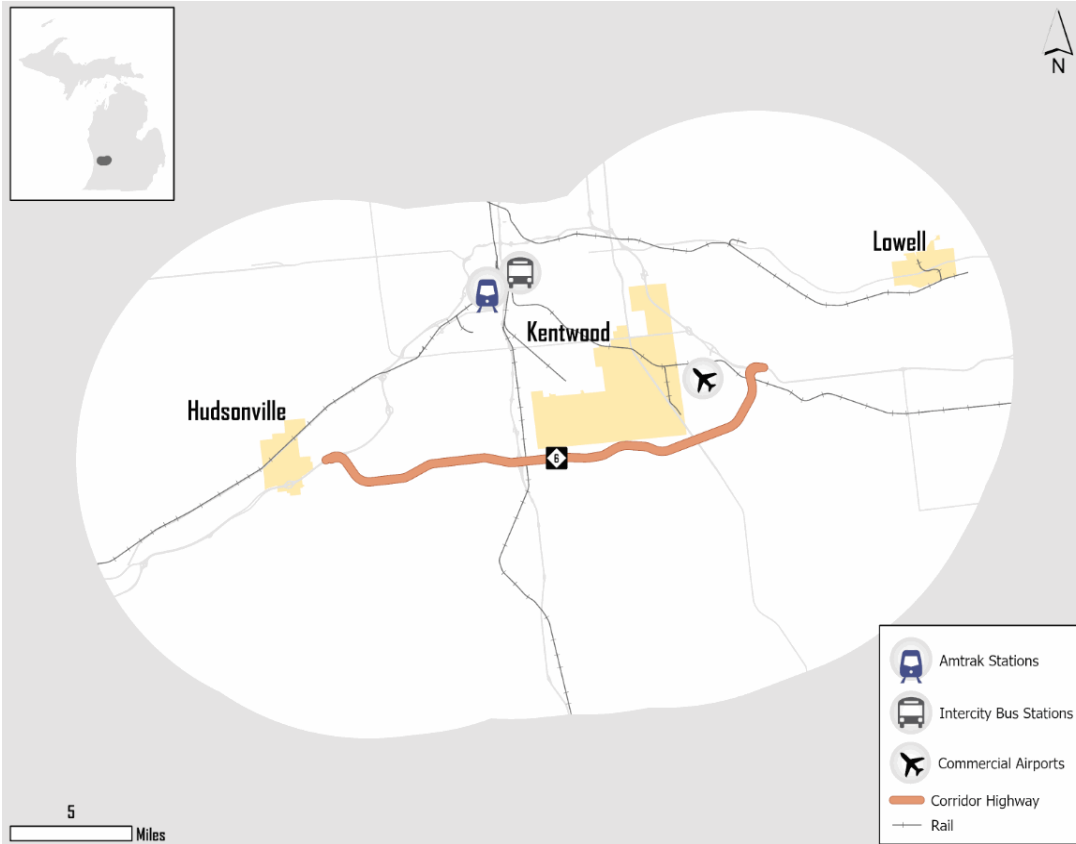
Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	732	Total Crashes	35
Fatal Crashes	2	Fatal Crashes	0
Fatalities	2	Fatalities	0
Injury Crashes	132	Injury Crashes	4
Serious Injuries	10	Serious Injuries	2

ITS Assets			
CCTV	ESS	DMS	RSU
7	0	3	0

Infrastructure Condition			
Lane Miles	89.5		
Route Miles	13.2		
	Good	Fair	Poor
RSL (Lane Miles)	53.9%	46.1%	0.0%
PASER (Lane Miles)	73.3%	25.5%	1.1%
Bridges (Count)	21	12	0
	63.6%	36.4%	0.0%

Multimodal Assets/Services	
Cargo Port:	None
Commercial Airport:	None
Freight Rail:	Canadian National, Consolidated
Intercity Bus:	Indian Trails
Passenger Rail:	Wolverine
Public Transit:	SMART
U.S. Bicycle Route:	None

Traffic and Congestion		
	2018	2045
Daily VMT	1.2 M	1.0 M
Daily VHT	20.1 K	15.9 K
Percent Commercial VMT	3.5%	4.0%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	26.2%	1.0%
VMT Severely Unreliable	26.9%	N/A
VMT Moderately Unreliable	44.9%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	0.0	N/A



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	364	Total Crashes	38
Fatal Crashes	0	Fatal Crashes	0
Fatalities	0	Fatalities	0
Injury Crashes	65	Injury Crashes	8
Serious Injuries	7	Serious Injuries	0

ITS Assets			
CCTV	ESS	DMS	RSU
1	0	3	0

Infrastructure Condition			
Lane Miles	93.9		
Route Miles	18.2		

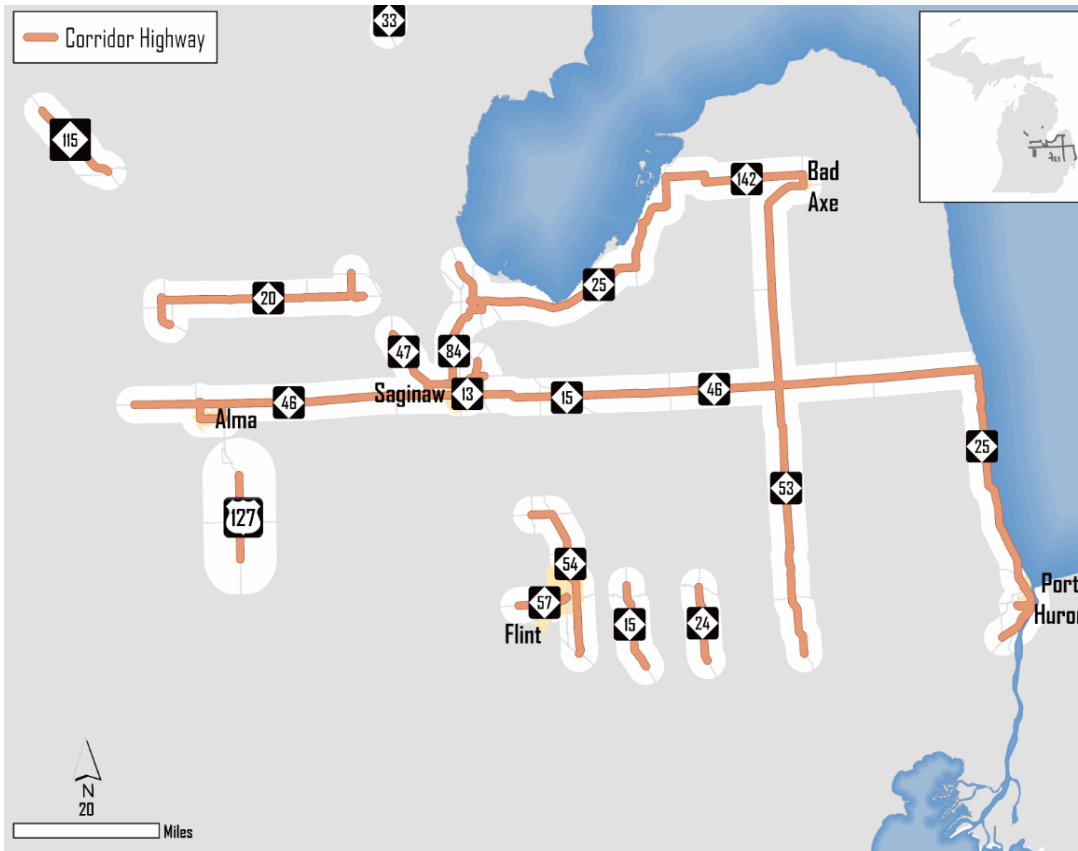
	Good	Fair	Poor
RSL (Lane Miles)	73.7%	23.2%	3.1%
PASER (Lane Miles)			
Bridges (Count)	37	17	0
	68.5%	31.5%	0.0%

Multimodal Assets/Services	
Cargo Port:	None
Commercial Airport:	Gerald R. Ford International
Freight Rail:	CSX, Grand Elk
Intercity Bus:	None
Passenger Rail:	Pere Marquette
Public Transit:	The RAPID
U.S. Bicycle Route:	None

Traffic and Congestion		
	2018	2045
Daily VMT	0.8 M	0.9 M
Daily VHT	11.6 K	13.8 K
Percent Commercial VMT	9.1%	11.1%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	0.0%	N/A
VMT Moderately Unreliable	0.0%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	0.0	N/A

CORRIDOR: OTHER NHS

Bay Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	5,554	Total Crashes	196
Fatal Crashes	24	Fatal Crashes	6
Fatalities	25	Fatalities	6
Injury Crashes	1,177	Injury Crashes	45
Serious Injuries	106	Serious Injuries	9

ITS Assets			
CCTV	ESS	DMS	RSU
0	0	0	0

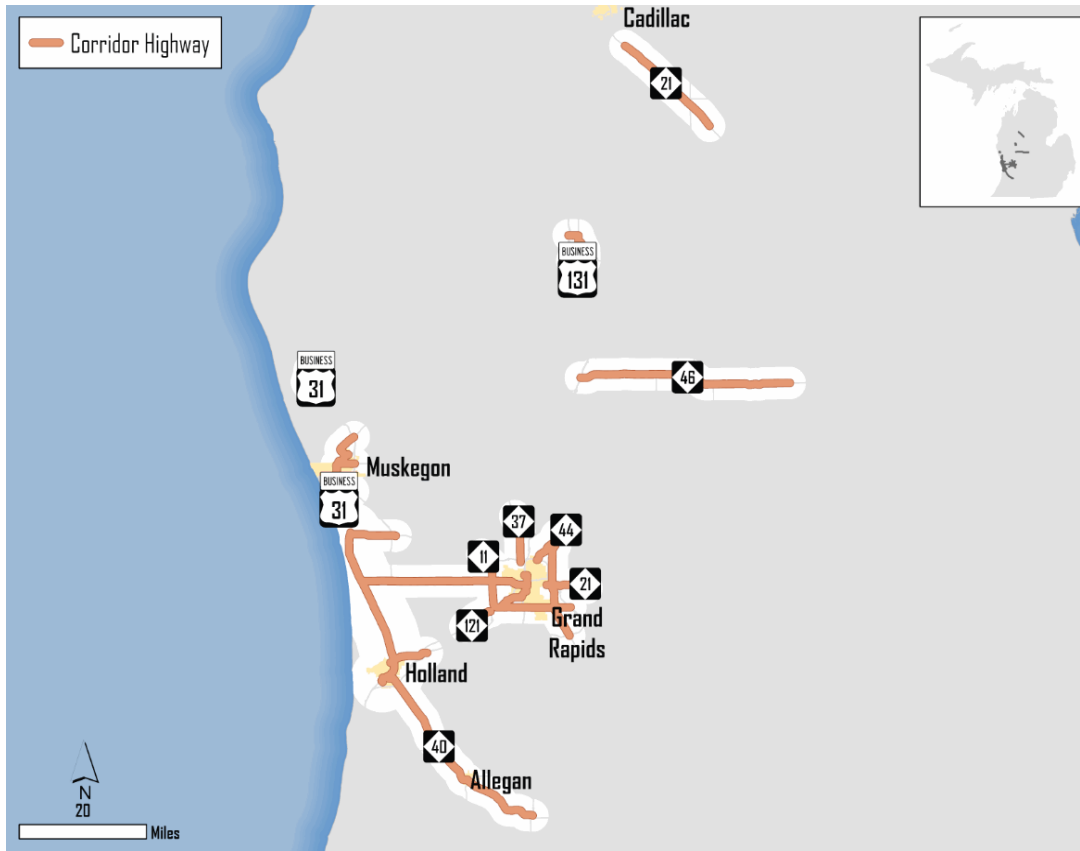
Infrastructure Condition			
Lane Miles	1,404.0		
Route Miles	403.9		
	Good	Fair	Poor
RSL (Lane Miles)	24.4%	29.4%	46.2%
PASER (Lane Miles)	58.8%	37.3%	3.9%
Bridges (Count)	22	70	12
	21.2%	67.3%	11.5%

Multimodal Assets/Services	
Cargo Port:	Saginaw River, Marysville
Commercial Airport:	MBS International, Bishop International
Freight Rail:	Huron & Eastern, Lake State Railway, Mid-Michigan, Canadian National, CSX, Lapeer Industrial
Intercity Bus:	Straits, Huron, Indian Trails
Passenger Rail:	Blue Water
Public Transit:	Isabella, Midland Co., Midland DAR, Bay Metro, Alma DAR, Saginaw, Caro, Huron, Sanilac, Flint, Lapeer, Blue Water
U.S. Bicycle Route:	Route 20

Traffic and Congestion		
	2018	2045
Daily VMT	4.3 M	4.2 M
Daily VHT	93.4 K	91.2 K
Percent Commercial VMT	4.8%	5.7%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	1.1%	N/A
VMT Moderately Unreliable	6.7%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	4.2	N/A

CORRIDOR: OTHER NHS

Grand Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	6,395	Total Crashes	303
Fatal Crashes	23	Fatal Crashes	4
Fatalities	25	Fatalities	4
Injury Crashes	1,331	Injury Crashes	68
Serious Injuries	115	Serious Injuries	14

ITS Assets			
CCTV	ESS	DMS	RSU
22	0	3	0

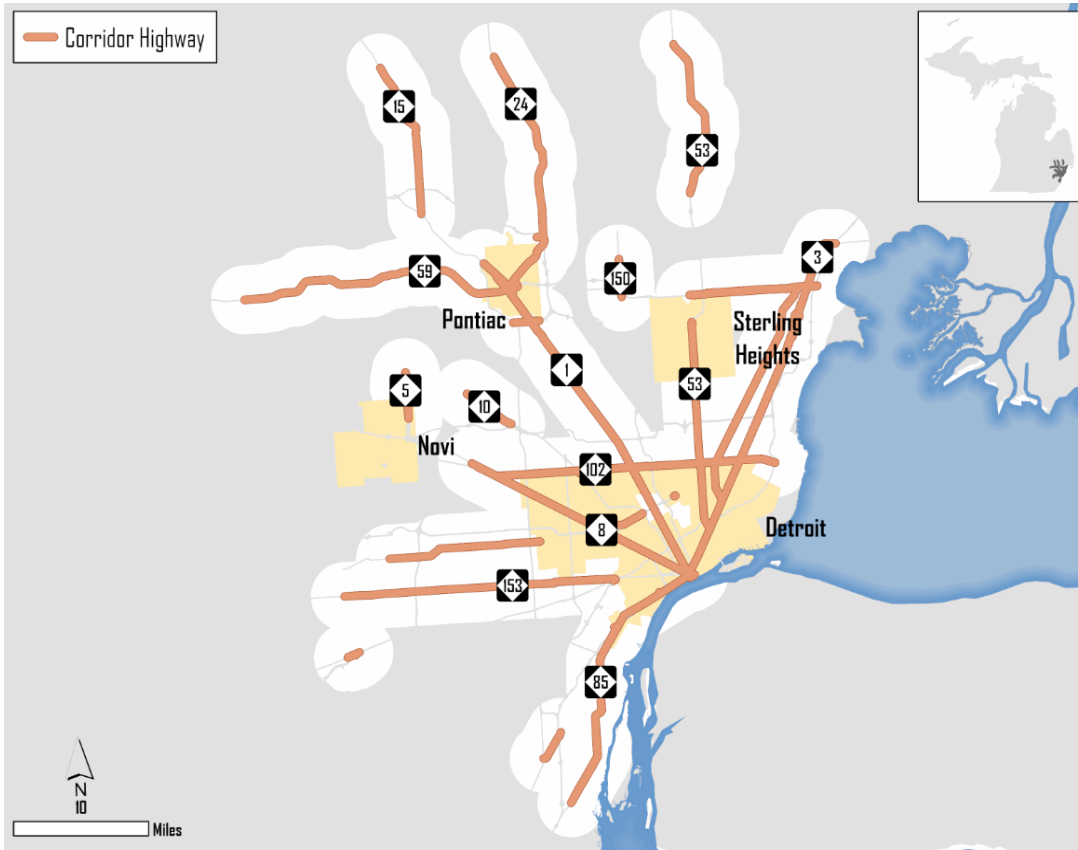
Infrastructure Condition			
Lane Miles	917.2		
Route Miles	112.9		
	Good	Fair	Poor
RSL (Lane Miles)	50.4%	47.3%	2.3%
PASER (Lane Miles)	62.7%	27.7%	9.6%
Bridges (Count)	20	82	5
	18.7%	76.6%	4.7%

Multimodal Assets/Services	
Cargo Port:	Muskegon, Grand Haven
Commercial Airport:	Gerald R. Ford International, Muskegon County
Freight Rail:	CSX, Grand Elk, Grand Rapids Eastern, Marquette, Coopersville & Marne, Mid-Michigan, Michigan Shore
Intercity Bus:	Indian Trails, Sleeping Bear
Passenger Rail:	Pere Marquette
Public Transit:	Muskegon, Mecosta-Osceola, Greenville, The RAPID, Harbor Transit, Macatawa Area Express, Allegan
U.S. Bicycle Route:	Route 35, Route 20

Traffic and Congestion		
	2018	2045
Daily VMT	4.7 M	4.9 M
Daily VHT	109.8 K	117.7 K
Percent Commercial VMT	4.4%	5.3%
VMT Congested	0.4%	0.9%
VMT Approaching Congested	1.5%	3.7%
VMT Severely Unreliable	6.4%	N/A
VMT Moderately Unreliable	14.4%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	16.6	N/A

CORRIDOR: OTHER NHS

Metro Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	16,625	Total Crashes	880
Fatal Crashes	38	Fatal Crashes	3
Fatalities	41	Fatalities	3
Injury Crashes	3,942	Injury Crashes	183
Serious Injuries	261	Serious Injuries	15

ITS Assets			
CCTV	ESS	DMS	RSU
8	0	1	30

Infrastructure Condition			
Lane Miles	1,668.0		
Route Miles	223.8		
	Good	Fair	Poor
RSL (Lane Miles)	9.2%	50.4%	40.3%
PASER (Lane Miles)	48.5%	32.4%	19.0%
Bridges (Count)	43	66	6
	37.4%	57.4%	5.2%

Multimodal Assets/Services	
Cargo Port:	Detroit
Commercial Airport:	None
Freight Rail:	Canadian National, CSX, Consolidated, Canadian Pacific, Detroit Connecting, Delray Connecting, Norfolk Southern
Intercity Bus:	Greyhound, Miller Trailways, Indian Trails
Passenger Rail:	Wolverine
Public Transit:	DDOT, SMART, People Mover
U.S. Bicycle Route:	None

Traffic and Congestion		
	2018	2045
Daily VMT	7.4 M	8.0 M
Daily VHT	206.9 K	227.6 K
Percent Commercial VMT	4.7%	4.7%
VMT Congested	0.1%	1.0%
VMT Approaching Congested	8.2%	7.9%
VMT Severely Unreliable	18.6%	N/A
VMT Moderately Unreliable	29.1%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	14.2	N/A

CORRIDOR: OTHER NHS

North Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	1,503	Total Crashes	63
Fatal Crashes	6	Fatal Crashes	1
Fatalities	7	Fatalities	1
Injury Crashes	222	Injury Crashes	14
Serious Injuries	47	Serious Injuries	6

ITS Assets			
CCTV	ESS	DMS	RSU
6	5	0	0

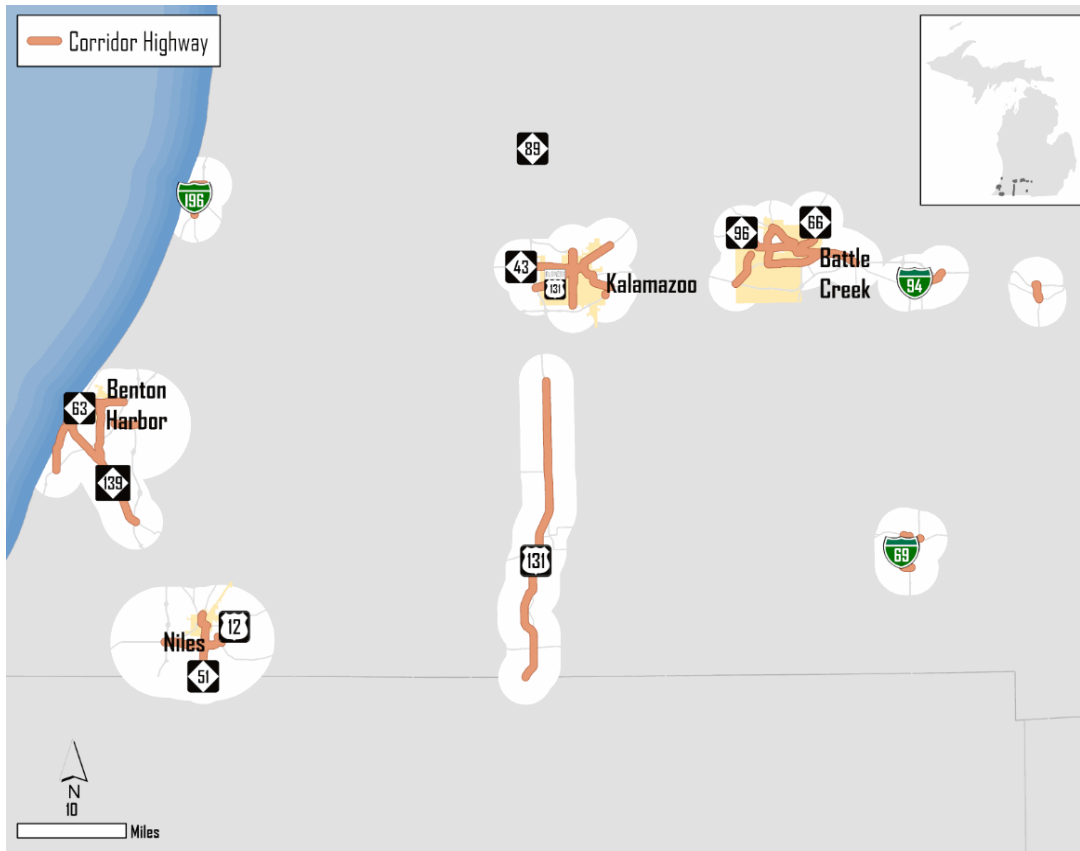
Infrastructure Condition			
Lane Miles	613.8		
Route Miles	233.6		
	Good	Fair	Poor
RSL (Lane Miles)	40.4%	46.0%	13.6%
PASER (Lane Miles)	57.8%	31.1%	11.1%
Bridges (Count)	6	20	0
	23.1%	76.9%	0.0%

Multimodal Assets/Services	
Cargo Port:	Alpena
Commercial Airport:	Alpena County Regional
Freight Rail:	Huron & Eastern, Lake State Railway
Intercity Bus:	Sleeping Bear, Straits, Huron
Passenger Rail:	None
Public Transit:	Bay Area, Cadillac, Kalkaska, Crawford, Otsego, Thunder Bay TA, Ogemaw
U.S. Bicycle Route:	Route 35

Traffic and Congestion		
	2018	2045
Daily VMT	1.8 M	1.9 M
Daily VHT	35.0 K	37.0 K
Percent Commercial VMT	4.6%	8.2%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	0.2%	N/A
VMT Moderately Unreliable	1.0%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	4.5	N/A

CORRIDOR: OTHER NHS

Southwest Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	3,343	Total Crashes	165
Fatal Crashes	15	Fatal Crashes	3
Fatalities	18	Fatalities	3
Injury Crashes	715	Injury Crashes	36
Serious Injuries	70	Serious Injuries	5

ITS Assets			
CCTV	ESS	DMS	RSU
1	1	0	0

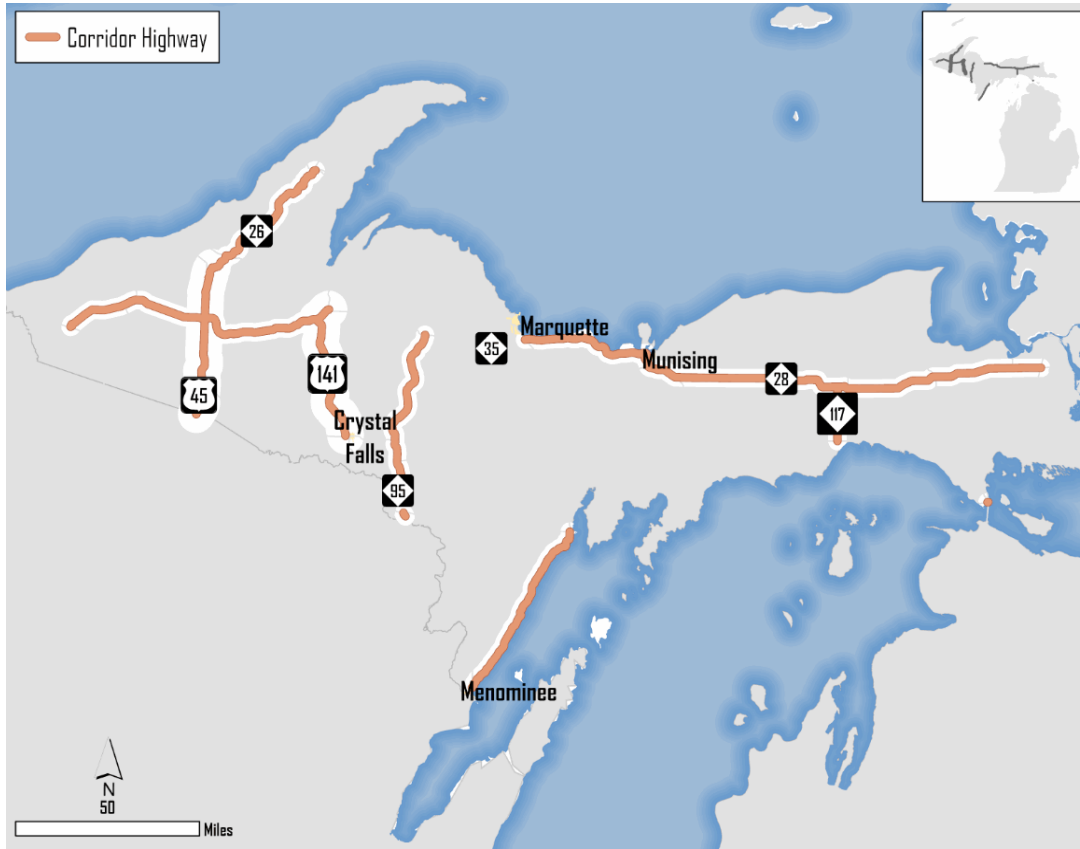
Infrastructure Condition			
Lane Miles	557.8		
Route Miles	121.5		
	Good	Fair	Poor
RSL (Lane Miles)	15.2%	36.2%	48.6%
PASER (Lane Miles)	38.7%	47.4%	13.9%
Bridges (Count)	8	44	2
	14.8%	81.5%	3.7%

Multimodal Assets/Services	
Cargo Port:	St. Joseph
Commercial Airport:	None
Freight Rail:	CSX, Canadian National, Norfolk Southern, Grand Elk, Amtrak, Michigan Southern, Indiana Northeastern
Intercity Bus:	Greyhound, Indian Trails, Miller Trailways
Passenger Rail:	Pere Marquette, Blue Water, Wolverine
Public Transit:	Battle Creek, Marshall DAR, Kalamazoo, Branch, St. Joseph, Cass, Berrien, Benton Harbor, Buchanan DAR, Niles DAR
U.S. Bicycle Route:	Route 35

Traffic and Congestion		
	2018	2045
Daily VMT	2.0 M	2.0 M
Daily VHT	47.4 K	48.5 K
Percent Commercial VMT	4.9%	6.2%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	1.2%	N/A
VMT Moderately Unreliable	5.5%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	7.5	N/A

CORRIDOR: OTHER NHS

Superior Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	1,016	Total Crashes	43
Fatal Crashes	3	Fatal Crashes	1
Fatalities	3	Fatalities	1
Injury Crashes	125	Injury Crashes	12
Serious Injuries	19	Serious Injuries	3
ITS Assets			
CCTV	ESS	DMS	RSU
12	36	4	0

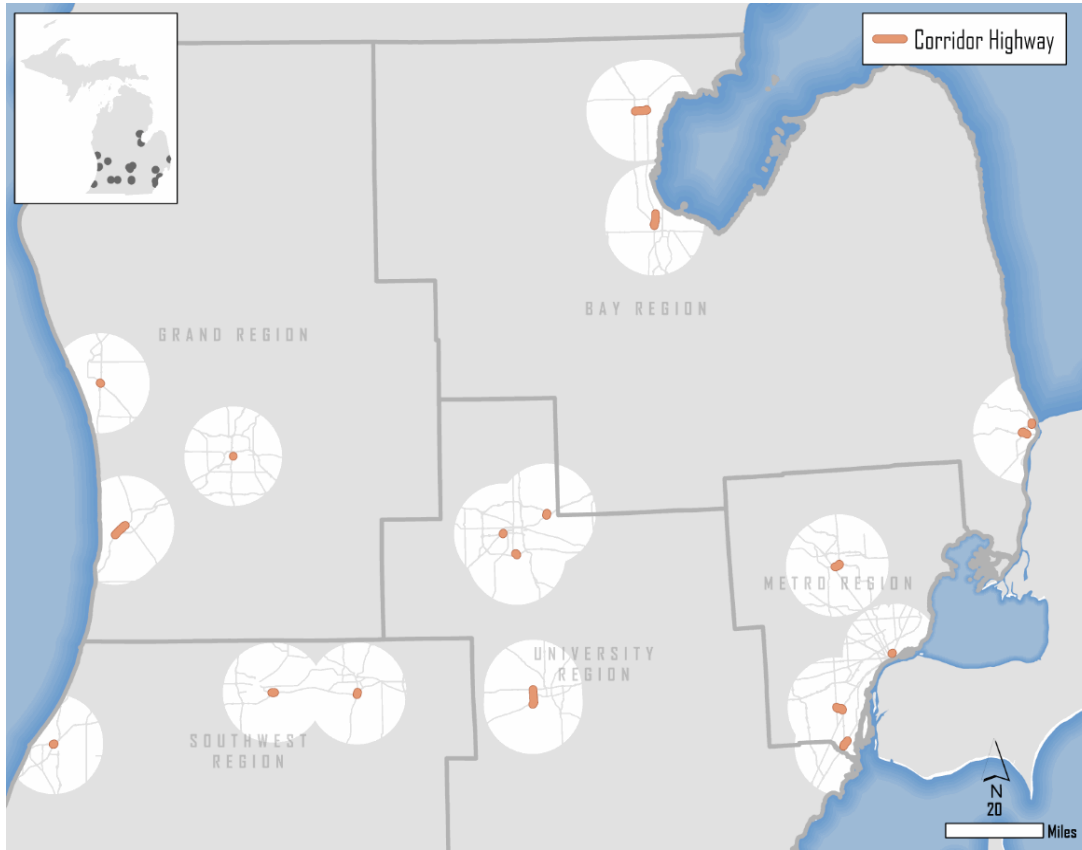
Infrastructure Condition			
Lane Miles	1,025.6		
Route Miles	463.5		
	Good	Fair	Poor
RSL (Lane Miles)	44.9%	53.8%	1.3%
PASER (Lane Miles)			
Bridges (Count)	20	47	7
	27.0%	63.5%	9.5%

Multimodal Assets/Services	
Cargo Port:	Keweenaw, Menominee, Escanaba, Munising
Commercial Airport:	Delta County
Freight Rail:	Canadian National, Escanaba & Lake Superior, Lake Superior & Ishpeming
Intercity Bus:	Hiawatha, Superior
Passenger Rail:	None
Public Transit:	Houghton, Ontonagon, Gogebic, Marquette, Alger, Delta, Schoolcraft, Eastern UP TA
U.S. Bicycle Route:	Route 10, Route 35

Traffic and Congestion		
	2018	2045
Daily VMT	1.7 M	1.9 M
Daily VHT	33.1 K	35.8 K
Percent Commercial VMT	7.6%	11.2%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	0.2%	N/A
VMT Moderately Unreliable	3.7%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	6.4	N/A

CORRIDOR: OTHER NON-INTERSTATE FREEWAY

Statewide



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	299	Total Crashes	22
Fatal Crashes	0	Fatal Crashes	0
Fatalities	0	Fatalities	0
Injury Crashes	76	Injury Crashes	4
Serious Injuries	9	Serious Injuries	0
ITS Assets			
CCTV	ESS	DMS	RSU
2	1	0	0

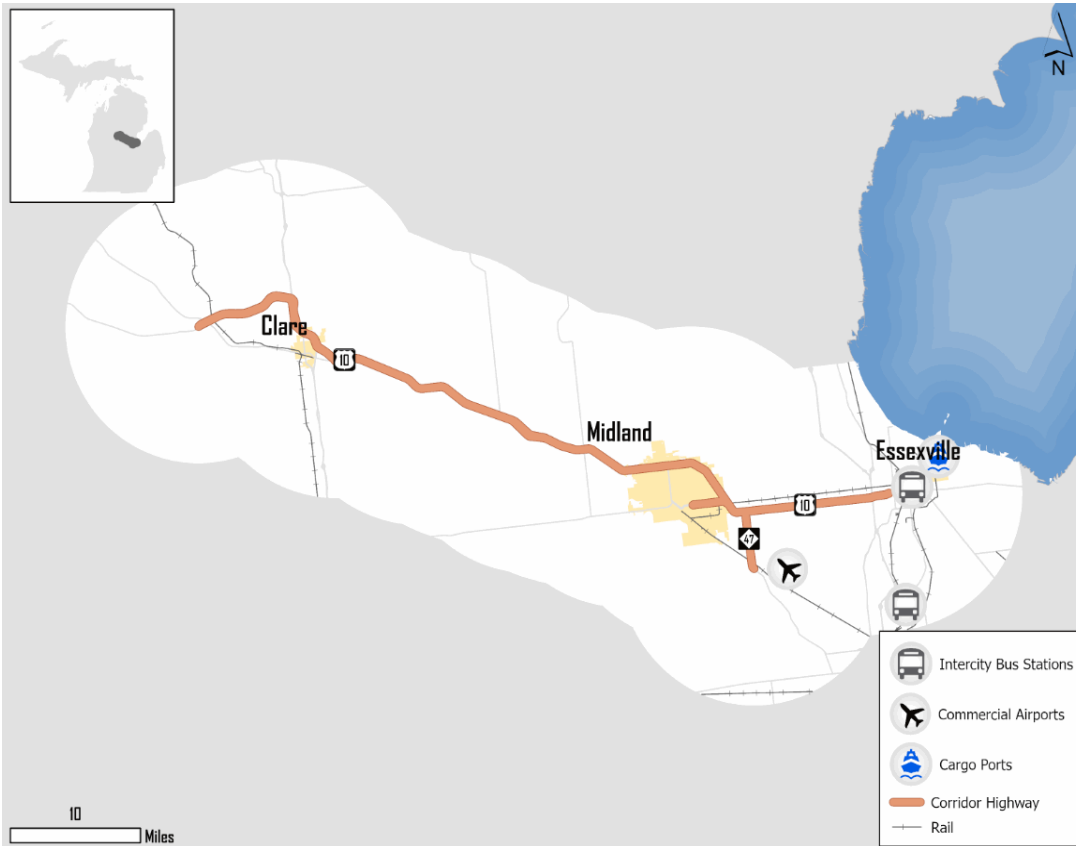
Infrastructure Condition			
Lane Miles	79.3		
Route Miles	14.5		
	Good	Fair	Poor
RSL (Lane Miles)	48.9%	16.2%	34.9%
PASER (Lane Miles)	78.0%	21.0%	1.0%
Bridges (Count)	11	24	3
	28.9%	63.2%	7.9%

Multimodal Assets/Services	
Cargo Port:	N/A
Commercial Airport:	N/A
Freight Rail:	N/A
Intercity Bus:	N/A
Passenger Rail:	N/A
Public Transit:	N/A
U.S. Bicycle Route:	N/A

Traffic and Congestion		
	2018	2045
Daily VMT	0.3 M	0.3 M
Daily VHT	5.0 K	5.3 K
Percent Commercial VMT	5.3%	7.0%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	17.5%	N/A
VMT Moderately Unreliable	0.0%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	0.2	N/A

CORRIDOR: US-10 (FREEWAY)

Bay Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	676	Total Crashes	21
Fatal Crashes	2	Fatal Crashes	0
Fatalities	2	Fatalities	0
Injury Crashes	97	Injury Crashes	3
Serious Injuries	7	Serious Injuries	1
ITS Assets			
CCTV	ESS	DMS	RSU
3	0	2	0

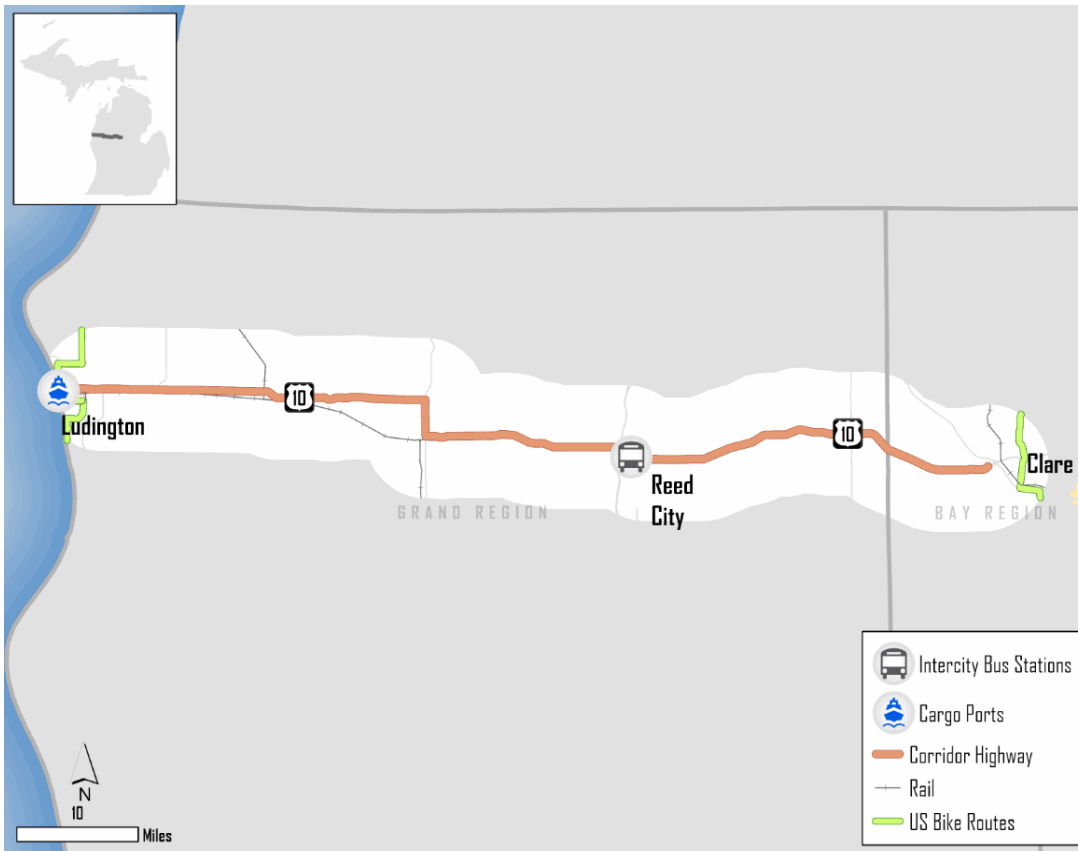
Infrastructure Condition			
Lane Miles	263.0		
Route Miles	66.2		
	Good	Fair	Poor
RSL (Lane Miles)	33.5%	39.8%	26.7%
PASER (Lane Miles)	79.4%	18.9%	1.6%
Bridges (Count)	11	48	6
	16.9%	73.9%	9.2%

Multimodal Assets/Services	
Cargo Port:	Saginaw River
Commercial Airport:	MBS International
Freight Rail:	Huron & Eastern, Lake State Railway, Great Lakes Central
Intercity Bus:	None
Passenger Rail:	None
Public Transit:	Bay Metro, Midland County, Midland Dial-a-Ride, Isabella, Clare
U.S. Bicycle Route:	Route 20

Traffic and Congestion		
	2018	2045
Daily VMT	1.1 M	1.1 M
Daily VHT	15.8 K	15.9 K
Percent Commercial VMT	6.0%	7.9%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	4.7%	N/A
VMT Moderately Unreliable	2.0%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	0.0	N/A

CORRIDOR: US-10 (NON-FREEWAY)

Bay Region/Grand Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	469	Total Crashes	17
Fatal Crashes	2	Fatal Crashes	0
Fatalities	2	Fatalities	0
Injury Crashes	64	Injury Crashes	6
Serious Injuries	15	Serious Injuries	2

ITS Assets			
CCTV	ESS	DMS	RSU
0	0	0	0

Infrastructure Condition			
Lane Miles	195.4		
Route Miles	81.8		
	Good	Fair	Poor
RSL (Lane Miles)	38.9%	52.1%	9.0%
PASER (Lane Miles)	38.7%	53.9%	7.4%
Bridges (Count)	4	8	0
	33.3%	66.7%	0.0%

Multimodal Assets/Services	
Cargo Port:	Ludington
Commercial Airport:	None
Freight Rail:	Huron & Eastern, Marquette
Intercity Bus:	None
Passenger Rail:	None
Public Transit:	Clare, Mecosta-Osceola, Yates Township, Ludington MTA
U.S. Bicycle Route:	Route 20, Route 35

Traffic and Congestion		
	2018	2045
Daily VMT	0.4 M	0.4 M
Daily VHT	8.0 K	7.7 K
Percent Commercial VMT	7.5%	8.5%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	0.7%	N/A
VMT Moderately Unreliable	6.5%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	1.2	N/A

CORRIDOR: US-12

Southwest Region/University Region/Metro Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	2,707	Total Crashes	163
Fatal Crashes	13	Fatal Crashes	0
Fatalities	14	Fatalities	0
Injury Crashes	586	Injury Crashes	35
Serious Injuries	49	Serious Injuries	5
ITS Assets			
CCTV	ESS	DMS	RSU
3	0	0	4

Infrastructure Condition			
Lane Miles	470.3		
Route Miles	148.3		
	Good	Fair	Poor
RSL (Lane Miles)	28.3%	24.6%	47.1%
PASER (Lane Miles)	47.5%	33.2%	19.4%
Bridges (Count)	11	22	2
	31.4%	62.9%	5.7%

Multimodal Assets/Services	
Cargo Port:	Detroit
Commercial Airport:	Detroit Metropolitan
Freight Rail:	Grand Elk, Michigan Southern, Indiana NE, Norfolk Southern, Ann Arbor, CSX, Consolidated, Canadian Pacific
Intercity Bus:	Greyhound, Miller Trailways, Baron's Bus Line
Passenger Rail:	Wolverine
Public Transit:	St. Joseph, Branch Area, Hillsdale, Lenawee, Adrian Dial-a-Ride, Ann Arbor TA, SMART, DDOT
U.S. Bicycle Route:	None

Traffic and Congestion		
	2018	2045
Daily VMT	1.9 M	1.9 M
Daily VHT	43.8 K	45.6 K
Percent Commercial VMT	5.5%	6.4%
VMT Congested	0.2%	0.3%
VMT Approaching Congested	5.2%	7.9%
VMT Severely Unreliable	9.5%	N/A
VMT Moderately Unreliable	19.3%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	12.5	N/A

CORRIDOR: US-127 (FREEWAY)

Bay Region/North Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	846	Total Crashes	24
Fatal Crashes	2	Fatal Crashes	0
Fatalities	2	Fatalities	0
Injury Crashes	87	Injury Crashes	3
Serious Injuries	22	Serious Injuries	6
ITS Assets			
CCTV	ESS	DMS	RSU
5	0	1	0

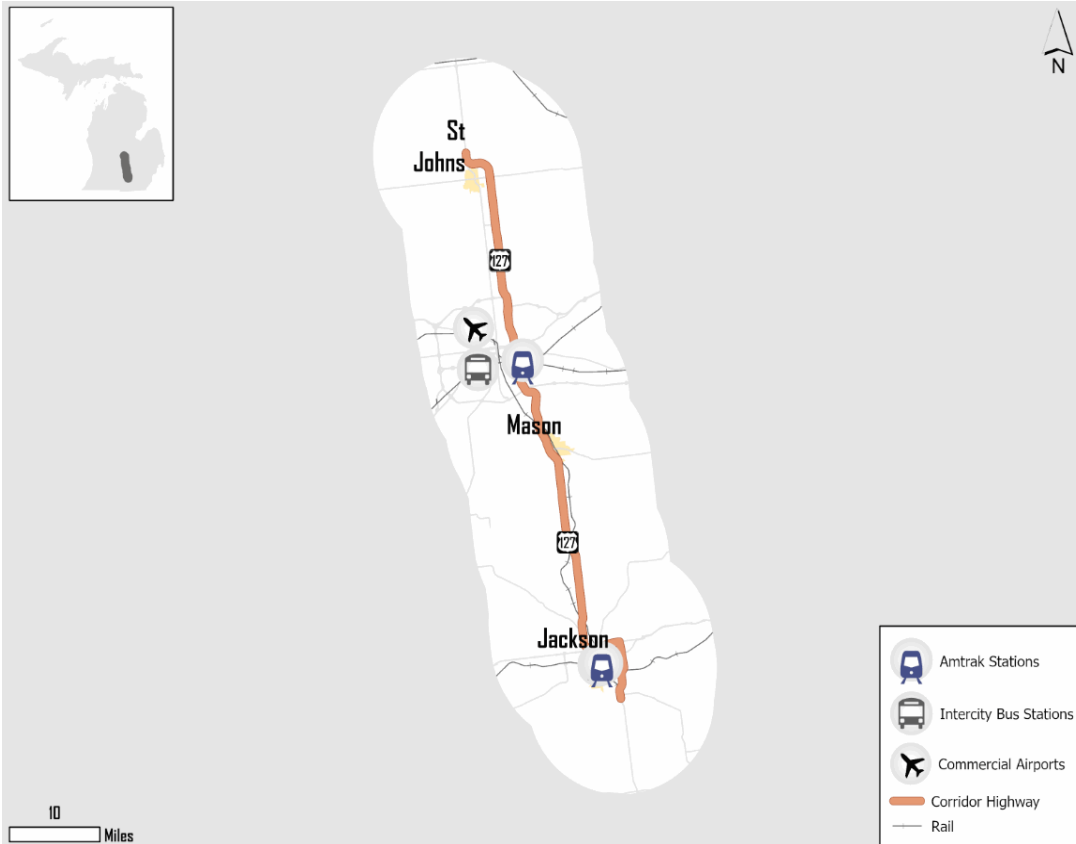
Infrastructure Condition			
Lane Miles	420.6		
Route Miles	98.4		
	Good	Fair	Poor
RSL (Lane Miles)	26.6%	49.2%	24.2%
PASER (Lane Miles)			
Bridges (Count)	14	66	13
	15.1%	71.0%	14.0%

Multimodal Assets/Services	
Cargo Port:	None
Commercial Airport:	None
Freight Rail:	Huron & Eastern, Mid-Michigan, Great Lakes Central
Intercity Bus:	Straits
Passenger Rail:	None
Public Transit:	Alma Dial-a-Ride, Isabella, Clare, Roscommon, Crawford
U.S. Bicycle Route:	Route 20

Traffic and Congestion		
	2018	2045
Daily VMT	1.1 M	1.2 M
Daily VHT	15.5 K	16.4 K
Percent Commercial VMT	6.0%	10.9%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	7.9%	N/A
VMT Moderately Unreliable	1.6%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	0.0	N/A

CORRIDOR: US-127 (FREEWAY)

University Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	1,412	Total Crashes	87
Fatal Crashes	3	Fatal Crashes	0
Fatalities	3	Fatalities	0
Injury Crashes	205	Injury Crashes	20
Serious Injuries	22	Serious Injuries	4
ITS Assets			
CCTV	ESS	DMS	RSU
7	0	3	0

Infrastructure Condition			
Lane Miles	276.6		
Route Miles	62.4		
	Good	Fair	Poor
RSL (Lane Miles)	34.0%	51.2%	14.8%
PASER (Lane Miles)	81.5%	12.7%	5.8%
Bridges (Count)	7	88	10
	6.7%	83.8%	9.5%

Multimodal Assets/Services	
Cargo Port:	None
Commercial Airport:	Capital Region International
Freight Rail:	Canadian National, CSX, Norfolk Southern, Jackson & Lansing
Intercity Bus:	Indian Trails, Straits
Passenger Rail:	Blue Water, Wolverine
Public Transit:	Jackson TA, CATA, Clinton Area
U.S. Bicycle Route:	None

Traffic and Congestion		
	2018	2045
Daily VMT	1.8 M	1.9 M
Daily VHT	27.4 K	28.2 K
Percent Commercial VMT	6.4%	8.5%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	6.3%	7.4%
VMT Severely Unreliable	7.3%	N/A
VMT Moderately Unreliable	3.3%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	0.0	N/A

CORRIDOR: US-131 (FREEWAY)

Southwest Region/Grand Region/North Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	3,914	Total Crashes	274
Fatal Crashes	10	Fatal Crashes	1
Fatalities	11	Fatalities	1
Injury Crashes	606	Injury Crashes	59
Serious Injuries	78	Serious Injuries	10
ITS Assets			
CCTV	ESS	DMS	RSU
25	2	15	0

Infrastructure Condition			
Lane Miles	762.3		
Route Miles	173.0		
	Good	Fair	Poor
RSL (Lane Miles)	68.1%	29.6%	2.3%
PASER (Lane Miles)	73.7%	16.3%	10.0%
Bridges (Count)	67	147	7
	30.3%	66.5%	3.2%

Multimodal Assets/Services	
Cargo Port:	None
Commercial Airport:	Gerald R. Ford International, Kalamazoo/Battle Creek International
Freight Rail:	Huron & Eastern, Marquette, CSX, Grand Elk, Grand Rapids Eastern, Canadian National, Amtrak
Intercity Bus:	Sleeping Bear, Indian Trails, Miller Trailways
Passenger Rail:	Wolverine, Blue Water, Pere Marquette
Public Transit:	Kalamazoo, Allegan, The RAPID, Mecosta-Osceola, Big Rapids Dial-a-Ride, Yates Township, Cadillac/Wexford
U.S. Bicycle Route:	Route 20

Traffic and Congestion		
	2018	2045
Daily VMT	5.6 M	6.2 M
Daily VHT	88.4 K	98.7 K
Percent Commercial VMT	6.7%	10.5%
VMT Congested	0.3%	1.3%
VMT Approaching Congested	16.2%	15.7%
VMT Severely Unreliable	12.6%	N/A
VMT Moderately Unreliable	14.0%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	7.4	N/A

CORRIDOR: US-131 (NON-FREEWAY)

North Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	448	Total Crashes	16
Fatal Crashes	1	Fatal Crashes	1
Fatalities	1	Fatalities	1
Injury Crashes	81	Injury Crashes	3
Serious Injuries	18	Serious Injuries	1
ITS Assets			
CCTV	ESS	DMS	RSU
5	10	0	0

Infrastructure Condition			
Lane Miles	177.1		
Route Miles	72.7		
	Good	Fair	Poor
RSL (Lane Miles)	61.7%	36.8%	1.4%
PASER (Lane Miles)	65.9%	29.6%	4.5%
Bridges (Count)	0	3	0
	0.0%	100.0%	0.0%

Multimodal Assets/Services	
Cargo Port:	None
Commercial Airport:	None
Freight Rail:	Huron & Eastern
Intercity Bus:	Sleeping Bear, Straits
Passenger Rail:	None
Public Transit:	Cadillac/Wexford, Bay Area TA, Kalkaska, Antrim, Charlevoix
U.S. Bicycle Route:	Route 35

Traffic and Congestion		
	2018	2045
Daily VMT	0.6 M	0.7 M
Daily VHT	12.2 K	13.2 K
Percent Commercial VMT	6.2%	9.9%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	0.0%	N/A
VMT Moderately Unreliable	0.0%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	0.0	N/A

CORRIDOR: US-2

Superior Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	1,286	Total Crashes	52
Fatal Crashes	8	Fatal Crashes	0
Fatalities	9	Fatalities	0
Injury Crashes	162	Injury Crashes	9
Serious Injuries	30	Serious Injuries	3

ITS Assets			
CCTV	ESS	DMS	RSU
14	12	2	0

Infrastructure Condition			
Lane Miles	832.1		
Route Miles	305.1		
	Good	Fair	Poor
RSL (Lane Miles)	52.3%	44.6%	3.1%
PASER (Lane Miles)	58.9%	38.7%	2.4%
Bridges (Count)	23	35	4
	37.1%	56.5%	6.5%

Multimodal Assets/Services	
Cargo Port:	Brevort, Port Inland, Manistique, Gladstone, Escanaba
Commercial Airport:	Delta County, Iron Mountain Ford, Gogebic-Iron County
Freight Rail:	Canadian National, Escanaba & Lake Superior
Intercity Bus:	Hiawatha, Superior
Passenger Rail:	None
Public Transit:	Schoolcraft, Delta Area, Gogebic
U.S. Bicycle Route:	Route 10, Route 35

Traffic and Congestion		
	2018	2045
Daily VMT	1.7 M	1.9 M
Daily VHT	34.7 K	37.6 K
Percent Commercial VMT	7.8%	11.4%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	0.2%	N/A
VMT Moderately Unreliable	0.0%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	6.4	N/A

CORRIDOR: US-23 (NON-FREEWAY)

Bay Region/North Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	819	Total Crashes	26
Fatal Crashes	5	Fatal Crashes	2
Fatalities	7	Fatalities	4
Injury Crashes	110	Injury Crashes	5
Serious Injuries	22	Serious Injuries	2
ITS Assets			
CCTV	ESS	DMS	RSU
1	3	1	0

Infrastructure Condition			
Lane Miles	466.6		
Route Miles	196.0		
	Good	Fair	Poor
RSL (Lane Miles)	29.1%	59.4%	11.5%
PASER (Lane Miles)	66.5%	29.1%	4.4%
Bridges (Count)	9	15	0
	37.5%	62.5%	0.0%

Multimodal Assets/Services	
Cargo Port:	Alpena, Stoneport, Port Calcite, Cheboygan
Commercial Airport:	Alpena County Regional
Freight Rail:	Lake State Railway
Intercity Bus:	Huron
Passenger Rail:	None
Public Transit:	Arenac/Bay, Iosco, Thunder Bay TA, Straits Regional
U.S. Bicycle Route:	Route 35

Traffic and Congestion		
	2018	2045
Daily VMT	0.9 M	0.9 M
Daily VHT	19.2 K	18.8 K
Percent Commercial VMT	4.0%	5.5%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	0.1%	N/A
VMT Moderately Unreliable	0.0%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	0.0	N/A

CORRIDOR: US-23 (FREEWAY)

University Region/Bay Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	2,324	Total Crashes	231
Fatal Crashes	9	Fatal Crashes	3
Fatalities	12	Fatalities	4
Injury Crashes	376	Injury Crashes	40
Serious Injuries	23	Serious Injuries	3
ITS Assets			
CCTV	ESS	DMS	RSU
47	0	15	25

Infrastructure Condition			
Lane Miles	393.4		
Route Miles	90.4		
	Good	Fair	Poor
RSL (Lane Miles)	22.0%	66.3%	11.8%
PASER (Lane Miles)	85.4%	12.6%	1.9%
Bridges (Count)	10	68	24
	9.8%	66.7%	23.5%

Multimodal Assets/Services	
Cargo Port:	None
Commercial Airport:	Bishop International
Freight Rail:	Canadian National, CSX, Norfolk Southern, Ann Arbor, Indiana & Ohio, Adrian & Blissfield, Huron & Eastern
Intercity Bus:	Greyhound
Passenger Rail:	Blue Water, Wolverine
Public Transit:	Lake Erie Transit, SMART, Ann Arbor TA, Livingston Essential, Flint MTA
U.S. Bicycle Route:	None

Traffic and Congestion		
	2018	2045
Daily VMT	5.2 M	5.7 M
Daily VHT	79.4 K	92.3 K
Percent Commercial VMT	9.2%	13.7%
VMT Congested	1.1%	3.2%
VMT Approaching Congested	15.0%	26.1%
VMT Severely Unreliable	13.8%	N/A
VMT Moderately Unreliable	7.9%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	0.0	N/A

CORRIDOR: US-24

University Region/Metro Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	3,903	Total Crashes	271
Fatal Crashes	12	Fatal Crashes	2
Fatalities	17	Fatalities	3
Injury Crashes	853	Injury Crashes	44
Serious Injuries	51	Serious Injuries	4
ITS Assets			
CCTV	ESS	DMS	RSU
1	0	0	0

Infrastructure Condition			
Lane Miles	452.3		
Route Miles	78.6		
	Good	Fair	Poor
RSL (Lane Miles)	16.6%	58.5%	24.9%
PASER (Lane Miles)	56.0%	31.8%	12.2%
Bridges (Count)	23	24	2
	46.9%	49.0%	4.1%

Multimodal Assets/Services	
Cargo Port:	Monroe
Commercial Airport:	Detroit Metropolitan
Freight Rail:	Ann Arbor, Canadian National, CSX, Norfolk Southern, Consolidated
Intercity Bus:	Greyhound, Baron's Bus Line
Passenger Rail:	Wolverine
Public Transit:	Lake Erie Transit, SMART, DDOT
U.S. Bicycle Route:	None

Traffic and Congestion		
	2018	2045
Daily VMT	2.2 M	2.3 M
Daily VHT	56.4 K	59.3 K
Percent Commercial VMT	4.6%	4.9%
VMT Congested	0.2%	0.2%
VMT Approaching Congested	3.0%	2.7%
VMT Severely Unreliable	23.2%	N/A
VMT Moderately Unreliable	26.9%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	6.9	N/A

CORRIDOR: US-31 (FREEWAY)

Grand Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	1,046	Total Crashes	38
Fatal Crashes	0	Fatal Crashes	0
Fatalities	0	Fatalities	0
Injury Crashes	191	Injury Crashes	6
Serious Injuries	23	Serious Injuries	1
ITS Assets			
CCTV	ESS	DMS	RSU
11	2	3	0

Infrastructure Condition			
Lane Miles	288.9		
Route Miles	69.6		
	Good	Fair	Poor
RSL (Lane Miles)	64.8%	32.0%	3.2%
PASER (Lane Miles)	83.9%	16.1%	0.0%
Bridges (Count)	15	71	0
	17.4%	82.6%	0.0%

Multimodal Assets/Services	
Cargo Port:	Grand Haven, Muskegon, Ludington
Commercial Airport:	Muskegon County
Freight Rail:	Mid-Michigan, Michigan Shore, Marquette
Intercity Bus:	None
Passenger Rail:	None
Public Transit:	Harbor Transit, Muskegon Area, Ludington MTA
U.S. Bicycle Route:	Route 35, Route 20

Traffic and Congestion		
	2018	2045
Daily VMT	1.4 M	1.4 M
Daily VHT	20.2 K	20.0 K
Percent Commercial VMT	4.1%	5.2%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	1.9%	2.0%
VMT Severely Unreliable	4.0%	N/A
VMT Moderately Unreliable	3.9%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	0.0	N/A

CORRIDOR: US-31

Grand Region/North Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	2,201	Total Crashes	67
Fatal Crashes	9	Fatal Crashes	1
Fatalities	10	Fatalities	1
Injury Crashes	342	Injury Crashes	17
Serious Injuries	34	Serious Injuries	0

ITS Assets			
CCTV	ESS	DMS	RSU
7	9	0	0

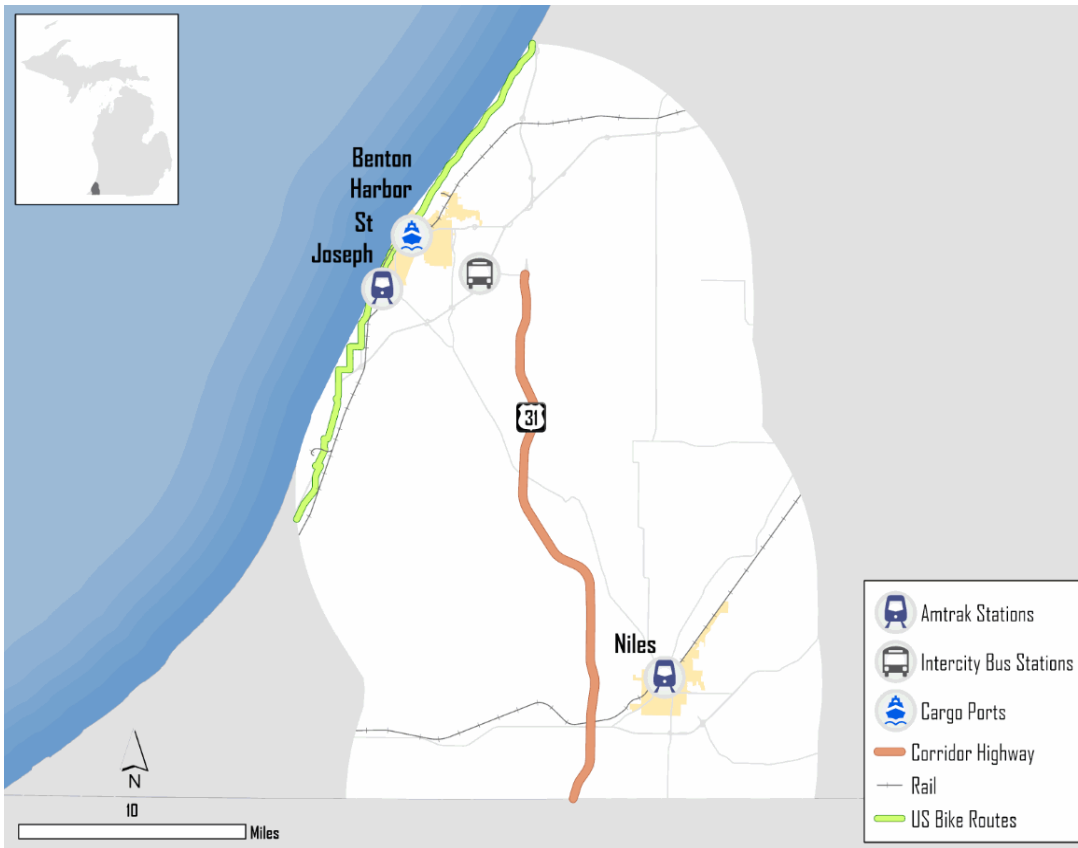
Infrastructure Condition			
Lane Miles	499.9		
Route Miles	166.0		
	Good	Fair	Poor
RSL (Lane Miles)	39.3%	52.3%	8.5%
PASER (Lane Miles)	51.1%	28.1%	20.8%
Bridges (Count)	3	16	1
	15.0%	80.0%	5.0%

Multimodal Assets/Services	
Cargo Port:	Ludington, Manistee, Charlevoix
Commercial Airport:	Cherry Capital, Pellston Regional
Freight Rail:	Huron & Eastern, Marquette
Intercity Bus:	Sleeping Bear, Straits
Passenger Rail:	None
Public Transit:	Ludington MTA, Manistee, Benzie, Bay Area TA, Antrim, Charlevoix
U.S. Bicycle Route:	Route 35

Traffic and Congestion		
	2018	2045
Daily VMT	2.3 M	2.3 M
Daily VHT	50.0 K	50.6 K
Percent Commercial VMT	3.0%	3.6%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	6.0%	6.1%
VMT Severely Unreliable	1.5%	N/A
VMT Moderately Unreliable	22.0%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	2.4	N/A

CORRIDOR: US-31 (FREEWAY)

Southwest Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	189	Total Crashes	13
Fatal Crashes	1	Fatal Crashes	0
Fatalities	1	Fatalities	0
Injury Crashes	28	Injury Crashes	5
Serious Injuries	2	Serious Injuries	0
ITS Assets			
CCTV	ESS	DMS	RSU
0	0	0	0

Infrastructure Condition			
Lane Miles	100.0		
Route Miles	24.0		
	Good	Fair	Poor
RSL (Lane Miles)	48.2%	0.0%	51.8%
PASER (Lane Miles)			
Bridges (Count)	4	21	0
	16.0%	84.0%	0.0%

Multimodal Assets/Services	
Cargo Port:	St. Joseph
Commercial Airport:	None
Freight Rail:	Amtrak, CSX
Intercity Bus:	None
Passenger Rail:	Wolverine, Blue Water, Pere Marquette
Public Transit:	Berrien, Benton Harbor, Buchanan Dial-a-Ride, Niles Dial-a-Ride
U.S. Bicycle Route:	Route 35

Traffic and Congestion		
	2018	2045
Daily VMT	0.3 M	0.4 M
Daily VHT	4.6 K	6.0 K
Percent Commercial VMT	11.1%	17.4%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	0.0%	N/A
VMT Moderately Unreliable	0.0%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	0.0	N/A

CORRIDOR: US-41

Superior Region



Traffic Safety and Operations			
All Crashes		Commercial Truck Crashes	
Total Crashes	1,279	Total Crashes	59
Fatal Crashes	7	Fatal Crashes	3
Fatalities	7	Fatalities	3
Injury Crashes	213	Injury Crashes	20
Serious Injuries	27	Serious Injuries	4

ITS Assets			
CCTV	ESS	DMS	RSU
10	17	0	0

Infrastructure Condition			
Lane Miles	639.2		
Route Miles	230.3		
	Good	Fair	Poor
RSL (Lane Miles)	39.5%	58.1%	2.4%
PASER (Lane Miles)	69.9%	27.7%	2.4%
Bridges (Count)	21	27	3
	41.2%	52.9%	5.9%

Multimodal Assets/Services	
Cargo Port:	Menominee, Escanaba, Gladstone, Marquette, Keweenaw
Commercial Airport:	Delta County, Sawyer International, Houghton County
Freight Rail:	Canadian National, Escanaba & Lake Superior, Lake Superior & Ishpeming
Intercity Bus:	Hiawatha, Superior
Passenger Rail:	None
Public Transit:	Delta Area, Alger, Marquette, Houghton Motor, Hancock
U.S. Bicycle Route:	Route 10

Traffic and Congestion		
	2018	2045
Daily VMT	1.9 M	1.9 M
Daily VHT	37.5 K	37.8 K
Percent Commercial VMT	3.7%	5.2%
VMT Congested	0.0%	0.0%
VMT Approaching Congested	0.0%	0.0%
VMT Severely Unreliable	0.2%	N/A
VMT Moderately Unreliable	0.7%	N/A
Truck Miles Unreliable	0.0	N/A
Truck Bottleneck Miles	10.7	N/A