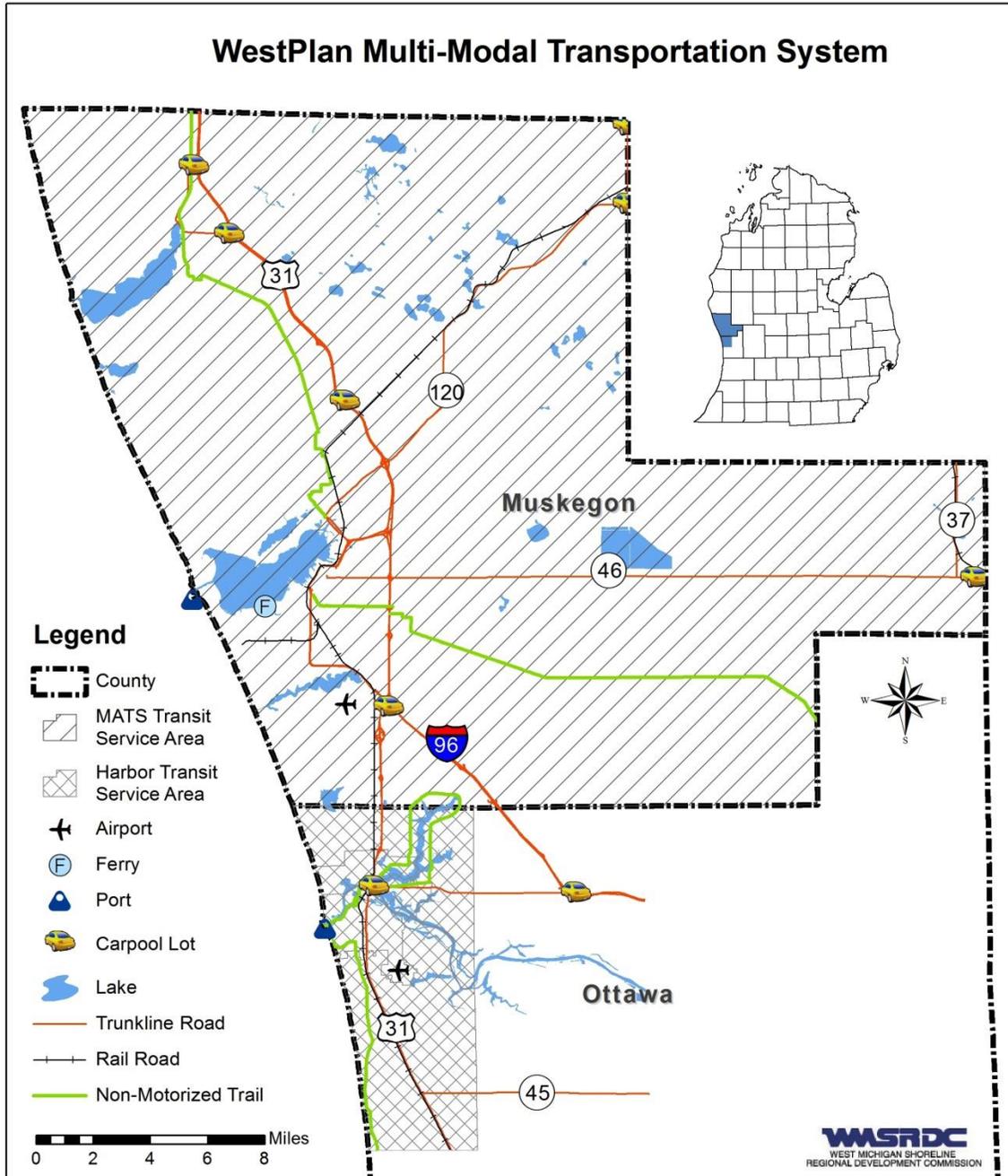


Chapter 7

Existing Transportation System Facilities

The Muskegon/Northern Ottawa MPO area has a very diverse multi-modal transportation system. The network includes a mix of highway, public transportation, non-motorized, as well as freight, rail, port and air transportation. With such a complex system, there is a continuing need to identify and plan for this regional and global asset.



Highways and Bridges

There are approximately 2,257 miles of public roads in the WestPlan MPO area, of which, 860 are maintained through federal transportation money, as designated through the National Functional Classification System (NFC). Approximately 425 miles are NFC classified as arterial, interstate, or other freeway. These routes include US-31, I-96, M-120, M-37, M-46, M-231, and M-104. Also included with these routes are all “Business Routes” (BR). These routes are generally considered “Trunkline” routes and are under the jurisdiction of the Michigan Department of Transportation. There are approximately 435 miles of NFC classified major and minor collectors in the MPO area. Collectors are generally under the ownership of the local road agencies; road commissions, cities, or villages. The remaining 1,398 miles are considered “Local” and are not funded with federal transportation money, but are eligible for PA51 funding and are also under the supervision of local road agencies.

National Functional Classifications of roadways reflect a roadway’s balance between providing land access versus mobility. Functional classification is the process by which public streets and highways are grouped into classes according to the character of service they are intended to provide. Classifications of roadways play an important role in the planning, funding, and management of the transportation network. The Federal Highway Administration (FHWA) provides specific guidelines when assigning roadway classifications. If a road is not federally classified, the road may not be eligible for federal funding. In that case, local money may be used for maintenance or improvements.

Arterials are the highest classified roads, and are regulated by state and federal agencies. Cities, villages and road commissions maintain all other roads down to the local level. Other local governments that are not road agencies, such as townships, do not receive federal funding for road projects. In these cases the county road commission would have jurisdiction over the road and would work with the local government on projects. The classification system includes interstates, other freeways, arterials, collectors, and locals. In order to receive federal funding, a road must be classified higher than a “local” road. A general summary of the selected classifications are as follows:

FHWA Hierarchy of National Functional Classification roadways:

Arterials (Principle and Minor): These roads serve major centers of activity within the metropolitan area. Principle and minor arterials should carry the majority of non-freeway traffic within the network. Minor arterials provide service for trips of moderate length, serve geographic areas that are smaller than their higher arterial counterparts and offer connectivity to the higher arterial system. In an urban context, they interconnect and augment the higher arterial system, provide intra-community continuity and may carry local bus routes. In rural settings, they are identified and spaced at intervals consistent with

population density, so that all developed areas are within a reasonable distance of a higher level arterial.

Interstate Highways: Interstates are the highest classification of arterials and were designed and constructed with mobility and long distance travel in mind. Interstate roads are generally limited access, divided highways offering high levels of mobility while linking major urban areas of the United States. I-96 and most of US-31 serve under the Interstate Highway Network in our region.

Other Freeway- These roads may look and function similar to interstate roads. These roads will also have directional travel lanes separated by some type of physical barrier, and their access and egress points are limited to on- and off-ramp locations or a very limited number of at grade intersections.

Other Principal Arterial (Urban and Rural) - These roadways serve major centers of metropolitan areas, provide a high degree of mobility and can also provide mobility through rural areas. These roadways are designed to serve abutting land uses directly with driveways and at grade intersections.

Collectors (Major and minor): Collectors distribute trips from the arterial system to ultimate destinations. These roads usually provide traffic access and circulation to residential, commercial and industrial areas.

Local Roads: These roads offer the lowest level of mobility and provide access to both land and higher roadway systems within the network.

WestPlan MPO roads that are classified as Arterials:

I-96

Interstate 96 (I-96) connects Muskegon County with Detroit, and several cities along the way. I-96 merges into BR-31 near the US-31 interchange in the City of Norton Shores. The original connection between the existing I-96 near Coopersville and US-31 in Muskegon County was established in the early 1960's. This route replaced the previous route known as US-16 through Muskegon County. There are several access points along this five mile stretch. Exits 4 and 5 provide access on and off from I-96 to the Fruitport area, and there is an exit farther west at the Hile Road area. There is a connection to US-31 that allows travelers to go north or south on US-31. This is a most important junction because of the Lakes Mall and all of the adjacent development around the mall, as well as the Muskegon County Airport that is in the vicinity. There is an ongoing effort to provide a more efficient transition from the I-96 corridor to the US-31 corridor by means of an additional access point along I-96. Several studies have looked at the possibility of adding an interchange at the intersection of I-96 and Sternberg Road in Fruitport Township. MDOT has indicated

that funding and federal requirements have delayed any potential projects from moving forward at that location.

US-31

US-31, in its entirety, traverses from southern Alabama to Michigan. In the MPO area, US-31 is a north/south limited access route that runs from the southern border of Grand Haven Township in Ottawa County, to the northern border of Muskegon County near Montague. The route changes characteristics in Ottawa County, where at grade crossings are common at most major intersections. In Muskegon County, the route has limited access, and there are eleven access points along the roughly 28 mile stretch inside Muskegon County. Most of the interchanges have development around them, but there are a few in the northern county that remain undeveloped. The most heavily developed areas are around the Sternberg Road area, the Laketon and Sherman areas, the M-46 area, and the M-120 area. There is also some development in the White Lake area around the Colby Road interchange. There are two business route portions of US-31 in Muskegon County. Starting in the south, there is BR-31 that extends from the western termination of I-96 near the US-31/I-96 Interchange, north to M-120 near the former B.C. Cobb power plant in the City of Muskegon. The second BR-31 is in the White Lake area, near the Cities of Whitehall and Montague. This route begins at the Colby Road/US-31 interchange and travels through the City of Whitehall and into the City of Montague, terminating at the Fruitvale Road/US-31 interchange, north of Montague.

M-37

M-37 is another north/south route that traverses a large area in the state, but in Muskegon County, only about five miles. The Muskegon portion begins near the Village of Casnovia and heads north through Bailey before entering Newaygo County. Most of the road in that area is two lanes, with a few added turn lanes or flares for accommodating turn movements. There are a few pockets of commercial activity along the route, but most of the land use is agriculture based.

M-45

M-45 (Lake Michigan Drive) starts near Lake Michigan at an intersection with Lakeshore Drive near the Grand Rapids water filtration plant. The road runs east to an intersection with US-31 in Agnew, where the M-45 designation begins. The road runs through rural Ottawa County to Allendale, where it passes through the main campus of Grand Valley State University. M-45 ends at the interchange with I-196. Lake Michigan Drive continues east to its end where it becomes Pearl Street near the Grand River in downtown Grand Rapids.

M-46

M-46 (Apple Avenue) is a major trunk line route in Muskegon County, and provides east-west travel through the entire county. From the east, at the intersection of M-37, the road runs west to the City of Muskegon and terminates just west of US-31. M-46 has experienced considerable growth with Muskegon Community College and Baker College now located in the same vicinity, along with the Orchard View School District and the campus of Mercy Hospital.

M-104

The western terminus of M-104 is at US-31 in Ferrysburg at the north end of the drawbridge spanning the Grand River north of Grand Haven. The highway runs along Savidge Street and crosses a bridge over the channel that connect the river with Spring Lake. On the opposite shore, the trunkline continues along Savidge Street, running between the river to its south and Spring Lake to its north. M-104 crosses the central business area of the Village of Spring Lake. East of downtown, the highway transitions to follow Cleveland Street which continues due east to Nunica. The eastern terminus of M-104 is located at the exit 9 interchange along I-96 just west of Nunica.

M-120

M-120 (Holton Road) begins in the City of Muskegon, near the border with the City of North Muskegon, and heads in a north-easterly direction into Oceana and Newaygo County near the Holton area. Most of this roadway is two lanes, other than a few areas where turn lanes have been added to accommodate turn movements. There are approximately 20 miles of road that are designated as M-120 in Muskegon County. The most heavily developed areas are in the southern portion of the road, in the Charter Township of Muskegon, and in Dalton Township.

M-231

M-231 has been partially constructed and has full traffic flow to date. The route begins along M-45 (Lake Michigan Drive) in Robinson Township near the intersection with 120th Avenue, and runs due north and across the Grand River into Crockery Township. After crossing the river, M-231 has a grade-separated junction with Leonard Road south of M-104. M-231 and M-104 intersect near the existing M-104 eastern terminus at I-96, and M-231 continues north to its own northern terminus at I-96.

Currently, in order to cross the Grand River, travelers must either use US-31 through Grand Haven or 68th Avenue through Eastmanville. This new road provides a river crossing almost equidistant between the two, greatly reducing drive times between areas north and south of the river. Currently, a drive from Nunica to Robinson is a 20-mile trip, the new highway provides a route closer to 7 miles in length.



Public Transit

Within the WestPlan area there are two major transit providers, as well as a number of smaller transit providers. In Muskegon County, the Muskegon Area Transit System is the major provider and the Harbor Transit Multi Modal Transportation System is the primary transit agency in northern Ottawa County.

Muskegon Area Transit System (MATS)

The Muskegon Area Transit System (MATS) is a department of the County of Muskegon. Since 1974, MATS has provided public transportation in the Muskegon community on behalf of the local communities. MATS operates a network of fixed route bus services in the Muskegon area and demand-response services throughout the County. As the public transportation provider in the community, MATS also participates in transportation planning to improve the community and coordinates various transportation efforts.

MATS has a total of 34 vehicles and employs up to 70 people. In fiscal year 2019, MATS traveled 732,610 miles, served 480,253 passengers and operated 52,150 vehicle hours.

MATS currently operates service on 11 fixed-routes serving urbanized and regional areas consisting of the cities of Muskegon, Muskegon Heights, Roosevelt Park, Norton Shores, Muskegon Township, Whitehall, and Montague. MATS also provides paratransit services throughout Muskegon County to meet public demand. The hours of operation are Monday through Friday, 6:30 am to 10:40 pm and Saturdays 9:30 am to 6:00 pm.

Harbor Transit Multi Modal Transportation System

Harbor Transit has been serving the public transportation needs of the Tri-Cities area since 1975. It was reorganized into the Harbor Transit Multi-Modal Transportation System in January of 2012 which coincided with the expansion of the service area to include all of Grand Haven Charter Township. In 2014 the residents of Spring Lake Township approved a ballot proposal to add Spring Lake Township to the service area. The total service area now covers 55.5 square miles and includes the cities of Grand Haven and Ferrysburg, the village of Spring Lake, and Grand Haven Township. In 2013, a \$700,000 building rehab and renovation project was completed that will allow for better customer service and operation areas.

The system employs 65 full and part-time employees and operates a fleet of 25 buses along with two seasonal trolleys. The fleet is powered by fifteen gasoline motor vehicles along with ten L. P. powered buses. In a normal month, buses will travel 40,000 miles.

The Harbor Transit Multi-Modal Transportation System partners with the Federal Transit Administration (FTA) for federal operating and capital funds, and the Michigan Department of Transportation (MDOT) for operating and capital funds. Local partners include the City of Grand Haven, City of Ferrysburg, the Village of Spring Lake, Spring Lake Township and the Township of Grand Haven contributes the local share operating funds and small capital projects.

Other Transit Providers

In addition to MATS and Harbor Transit, there are a number of other non-profits within the MPO which provide specialized transit services. Many of these non-profits access funding through the 5310 program. Examples of these providers are the Age Well Services, Pioneer Resources, and Goodwill Industries.

Pioneer Resources

Pioneer Resources offers services for people with mobility impairments, developmental disabilities, senior citizens and others facing transportation barriers. Services are provided along the lakeshore in western Michigan (Ottawa and Muskegon counties). Pioneer Resources can also assist eligible passengers or organizations with field trips and special events.

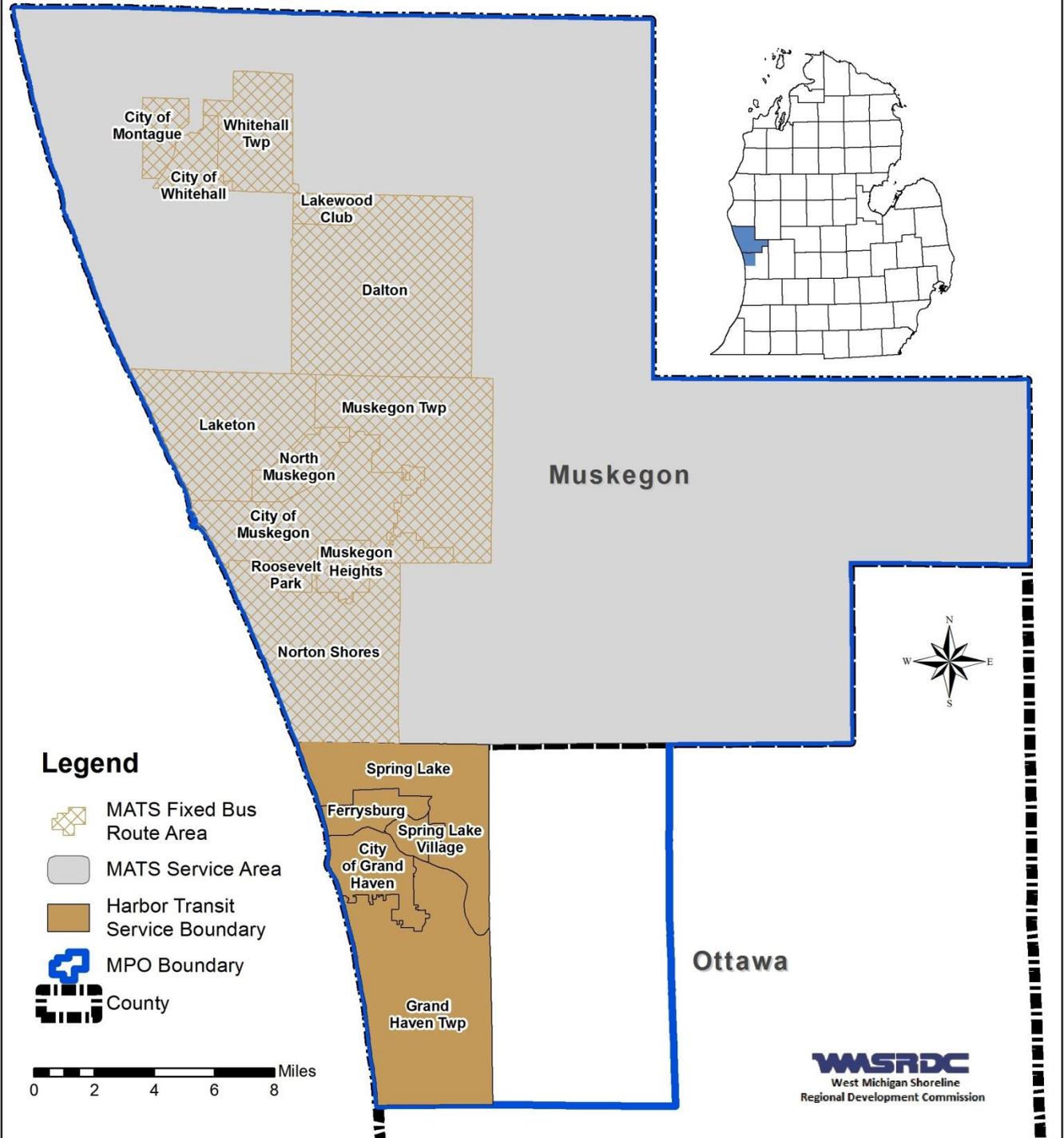
Age Well Services

The Age Well Services Senior Transportation Program is a service for Muskegon County seniors who are living on limited incomes and need transportation to get to their medical appointments. The service provides door-to-door, non-emergency medical transportation and operates Monday-Friday from 8:30am – 5:00pm.

Intercity Bus Service

Greyhound operates two daily arrivals and departures out of the MATS terminal on Morris Avenue in Muskegon. The terminal is open Monday through Saturday. Service is available to a variety of cities. Muskegon is part of the Greyhound Great Lakes region.

WestPlan Transit Service Areas



Air Transportation

Muskegon and Ottawa County (City of Grand Haven) both provide different levels of Air service to the MPO area and surrounding region.

Muskegon County Airport

The Muskegon County Airport is a safe, clean and modern commercial air facility serving West Michigan. The Muskegon County Airport was established at its current site in 1929 when the Muskegon County Board of Supervisors voted to purchase 242 acres of land in Norton Township as a site for the new County Airport. Since that time, the Airport has been developed into a major regional air transportation facility, providing direct access to the air transportation system to an MSA of nearly 500,000 residents.

The airport is included in the Federal Aviation Administration's (FAA) National Plan of Integrated Airport System (NPIAS), making it eligible for both entitlement and discretionary funding as a primary commercial service airport. Approximately 95% of the aircraft operations are general aviation/corporate in nature, and the remaining 5% is commercial airline service.

The Airport is open 24 hours per day, 7 days per week, providing a base for varied services, including, but not limited to, daily United Airlines jet service to Chicago O'Hare, U.S. Coast Guard Search and Rescue, medical life flights, flight training, casino charter flights,



airframe/power plant/avionics repair, and private/corporate aircraft storage. On site fire fighting, per Federal Aviation Regulation Part 139, is available, as is law enforcement support through an agreement with the Muskegon County Sheriff Department.

Grand Haven Memorial Airport

The Grand Haven Memorial Airport provides the Grand Haven area with a convenient, accessible and safe Airport for business and recreational small aircraft users. Grand Haven Memorial Airport is a



U-5 General Aviation all-weather facility, licensed by the Michigan Bureau of Aeronautics. The Airport is served with a paved primary runway 3,750 feet long and a paved cross-wind runway 2,100 feet long. The Airport is operated through a management agreement with Benz Aviation of Grand Haven that provides a Fixed Base Operator (FBO) for service, maintenance and general day-to-day airport management.

The Airport has a 1,360 square foot administration building, a maintenance and community hangars. The Airport has 68 rental hangars. Hangars are available for lease.

Port and Maritime Transportation

Port of Muskegon

Muskegon County offers five commercial docking facilities providing a variety of shipping, logistics support, storage, towing, and ship repair services for corporations. Convenient options are available to deliver and receive goods from the Port of Muskegon, and move those goods to market, nationally and internationally.



Muskegon Lake is the largest natural deep-water port in West Michigan. The Port of Muskegon handles shipments of freight, aggregate, coal and salt throughout the year.

The United States Army Corps of Engineers provides funding for dredging of the Muskegon Lake Channel to provide year-round access to port facilities.

In addition to the commercial port facilities, 12 recreational marinas operate on Muskegon Lake and over 20 charter fishing operations call Muskegon Lake home. White Lake, about 7.5 nm north of the Muskegon Lake Channel, has 8 recreational marinas and 12 charter fishing operators. A scenic cruise ship, the Aquastar, offers leisure and dinner cruises on Muskegon Lake and Lake Michigan from its berth on Muskegon Lake.

Building on its tradition as a Port City, Muskegon County is also served by the Lake Express Ferry, a high-speed ship carrying passengers and vehicles across Lake Michigan from Milwaukee to Muskegon in just 2.5 hours, offering two runs every day during its May-October season.

Port of Grand Haven/Ferrysburg/Village of Spring Lake

At the mouth of the Grand River, lies the cities of Grand Haven and Ferrysburg, as well as the Village of Spring Lake. There is limited shipping activity in this area, primarily of aggregates, but a majority of the activity is recreational based. There are adequate modes of transportation to accommodate shipping activities, but water depth fluctuation plays an important role, and being the mouth of Michigan's longest river, there are a lot of deposits occurring in that area. The average depth of the harbor is around 16-20 feet, which make it difficult for deeper draft vessels to use the port. The US Army Corps of Engineers provides annual funding for dredging of the channel to allow for deeper draft vessels that deliver to the docks in Grand Haven and Ferrysburg. Fishing and boating are the primary uses of this waterway, but Grand Haven is also the home to the United States Coast Guard's "Group Grand Haven," which coordinates all Lake Michigan Coast Guard activities.

Rail and Freight Transportation

Genesee-Wyoming Inc. operates a short rail line in the Muskegon-Northern Ottawa area, which connects to several other regional lines throughout the state. The Michigan Shore Railroad (MS) is located along the shore of Lake Michigan and interchanges with the CSXT. The MS operates a line with more than 7,000 cars per year, primarily consisting of sand and chemicals.

At this time there is no rail passenger service in the MPO Area, but the region is served by Amtrak and there are ongoing discussions with local and state leaders about expanding Amtrak services that exist in Holland and Grand Rapids, into the MPO area. Amtrak's Pere Marquette route connects these two cities with Chicago.



Michigan Shore Railroad, Inc.
101 Enterprise Drive
Vassar, Michigan 48768
989-797-5100

- Genesee & Wyoming Railroads - Midwest Region**
- GR Grand Rapids Eastern Railroad Inc.
 - HESR Huron and Eastern Railway Company, Inc.
 - MMRR Mid-Michigan Railroad, Inc.
 - MS Michigan Shore Railroad, Inc.
 - MQT Marquette Rail, LLC
- G&W Nearby Railroads**
- CFE Chicago, Fort Wayne & Eastern Railroad
 - IORY Indiana & Ohio Railway Company
- Dashed line indicates Trackage Rights

Non-Motorized Transportation

Regional efforts are focused on a strategic approach to creating safe and easily identified routes throughout the area, as well as connecting to other regional facilities. The Region currently has numerous pedestrian and bicycle transportation facilities. These existing and proposed networks should be linked, if possible, to encourage their use by casual travelers, commuters, and for recreational purposes. An extensive bicycle and pedestrian network not only stimulates single-mode trips (walking or biking alone), but also encourages the use of public transit. Transit agencies have provided crucial links to the non-motorized system in the area by adding bicycle racks to the busses that service the Muskegon urbanized area and the Harbor Transit Multi Modal Transportation System service area.

Pedestrian facilities include sidewalks, bike lanes, greenways, and trails. Sidewalks are common in a majority of the cities and villages within the Region, but are less common in the rural areas. Many of the communities in the Region also utilize expanded lanes on the roadway for bikers and walkers.

In 2013 the MPO completed a Non-Motorized plan for the MPO area. The plan outlines the trails, bike paths, and paved shoulders, as well as traffic data along roadways with wide shoulders. The plan is available on the WMSRDC website.

Lakeshore Trail System (Muskegon County)

This system of trails in the City of Muskegon was started in 1998. The trail system is approximately 13 miles in length, and offers a variety of routes throughout the city. Future plans include linking the Laketon Avenue section with the Musketawa Trail to the east. There are also plans on connecting the Shoreline Route with another connector in North Muskegon, which will link this system up with the Muskegon State Park and the Hart-Montague Trail.

Musketawa Trail (Muskegon County)

This trail system contains approximately 26 miles of paved recreational trail, which extends from the City of Marne in Ottawa County, west to the City of Muskegon, in Muskegon County. This trail is used by bikers, horseback riders, inline skaters, cross country skiers, wheelchair travelers, and nature lovers. Future plans include linking up with other trail systems in Muskegon County.

Hart-Montague Trail (Muskegon County)

This trail system runs from Hart, Michigan, south to Whitehall. It is approximately 24 miles in length. The trail ends at the Whitehall southern city limits, where the Phase I of the Fred Meijer Berry Junction Trail continues south in to Dalton Township.

Fred Meijer Berry Junction Trail (Muskegon County)

This entire trail is now complete and connects the southern end of the Hart-Montague Trail to the Lakeshore Trail in the City of North Muskegon. The trail is approximately 12 miles from Whitehall to North Muskegon. The trail is sponsored and maintained by a very active group called the Friends of the Fred Meijer Berry Junction Trail.

Grand Haven Waterfront Trail (Ottawa County)

The Grand Haven Waterfront Trail offers access to the Grand Haven State Park and public parking areas along the waterfront.

North Bank Trail (Ottawa County)

The North Bank Trail (NBT) currently consists of 3.3 miles of paved trails, with an additional 14.7 miles planned for the future once funding is secured. The multipurpose pathway is located along the former Grand Trunk Railroad that extends from Spring Lake to Coopersville. The path connects at the east end of the Village of Spring Lake Bike Path to the east end of the Musketawa Trail and serves as a regional link between the beaches of Grand Haven/Spring Lake area and the Grand Rapids metro area. Spring Lake Township is part of the “Friends of the North Bank Trail” committee that has been meeting since August of 2006 to support and strategize future NBT projects. In addition, the Spoonville Trail crosses the new M-231 bridge and will connect the Grand River Greenway Trail (once completed) to the North Bank Trail. The 28-mile Grand River Greenway would run on the south side of the Grand River and eventually connect with Allendale trails, which connect to Grand Rapids

Lakeside Trail (Ottawa County)

The Lakeside Trail is a 15 mile trail system that encircles Spring Lake through the communities of Ferrysburg, Fruitport, and the Village of Spring Lake. There are connections from this trail to the North Bank Trail and the Grand River Greenway. The Lakeside Trail runs on the north side of Savidge from N. Fruitport Road to the east to Old Boy's Brewhouse on the west. A cross country skiing/snowshoeing trail is located in the wooded area north of Lakeside Trail. It begins at North Buchanan, proceeds to Fruitport Road and continues along the North Bank Trail, provided by Spring Lake Township, which is a continuation of the Rail-Trail that extends east 3.3 miles into Spring Lake and Crockery Townships.

Spoonville Trail (Ottawa County)

The first 1.8 miles of the Spoonville Trail were opened in 2016. This first phase goes from North Cedar Drive to Leonard Road, crossing the Sgt. Henry E. Plant Memorial Bridge. When completed the trail will create a link between the North Bank Trail and the Grand River Explorers Trail.

Lakeshore Trail (Ottawa County)

The Lakeshore Trail in Ottawa County is a 20 mile paved path that connects the communities of Grand Haven and Holland and allows users to travel from the Grand Haven State Park to the Holland State Park on one continuous route.

In addition to these major trails there are a number of other local trails, pathways and other non-motorized facilities within the MPO area.

Safety Planning

Safety planning is one of the key criteria which is examined during the project selection process of TIP and LRP development. In addition to road and transit projects that have safety components, MPO committees have approved a number projects which are primarily safety related projects. Most notably these include various Safe Routes to School projects. Also, many of the non-motorized trail and Transit projects have key safety components.

The West Michigan Shoreline Regional Development Commission is responsible for Hazard Mitigation Planning for the entire region, which includes Muskegon County. Similar planning is done for Ottawa County by the State of Michigan. Hazard Mitigation Plans are developed to identify, reduce and eliminate long-term risks to people and property from natural or manmade hazards. Planners work directly with the Michigan State Police and the Federal Emergency Management Agency, as well as local emergency managers and stakeholders.

Some of the issues identified through this program include weather related hazards such as fog and winter storms. With the proximity to Lake Michigan, the MPO area is prone to these types of hazardous weather conditions. Also identified in these plans are issues such as hazardous material incidents, which could be uncontrolled releases of hazardous materials along the transportation network. An infrastructure failure is another potential hazard identified in these plans. The failure of critical public or private infrastructure could result in temporary loss of essential functions and/or services. The Michigan Department of Transportation has identified and posted emergency routes along the major trunklines in Muskegon and Ottawa Counties, primarily on US-31 and I-96.