

JACTS

Existing Transportation System

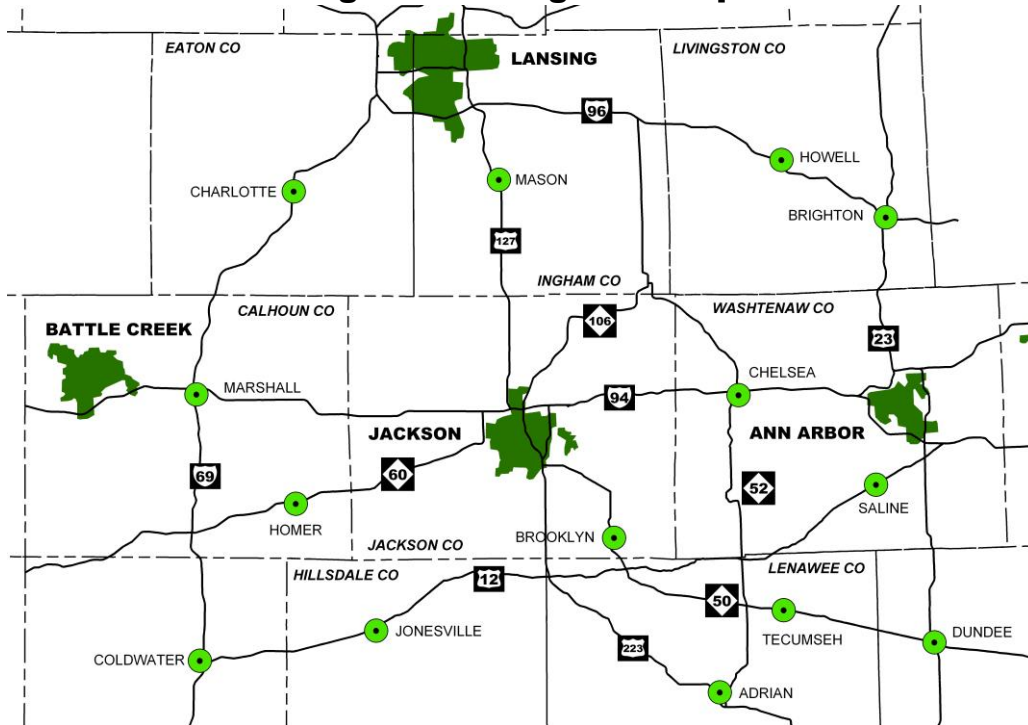
The Jackson County transportation system is served by several modes of transportation including streets and highways, multi-modal, non-motorized, rail, and aviation. While the focus of the transportation planning process tends to emphasize streets and highways, the other modes of transportation utilized to move people and goods are equally important and must be addressed in the long range planning effort.

This chapter provides an overview of the existing roadway system and Chapters 6, 7, and 8 deal with its multimodal aspects.

State and Federal Major Highways

Jackson County, located in south-central lower Michigan, is fortunate to be positioned on the freeway network linking Michigan and the Midwest to other areas of the United States (Figure 3-1). Interstate 94 (I-94), a North American Free Trade Act (NAFTA) route, connects the JACTS area to Ann Arbor, Detroit, and Canada to the east and Battle Creek, Kalamazoo and Chicago to the west. The City of Detroit is approximately 73 miles east of the City of Jackson and the City of Chicago is approximately 205 miles west of Jackson. US-127 provides a connection to Lansing to the north and continues south into Ohio. This major north-south highway traverses Jackson County.

Figure 5-1- Regional Map



M-50 provides a southeastern connection to the Village of Brooklyn and the cities of Tecumseh, Dundee and Monroe. It also provides a northwestern connection to Charlotte, I-96 and the City of Grand Rapids. M-60 provides for a southwest connection through the Spring Arbor area and to the South Bend/Mishawaka/Elkhart, Indiana area. M-106 extends to the northeast and provides a connection to the Village of Stockbridge.

Functional Classification System

Identifying the existing function of the road system in terms of what are principal and minor arterials; major and minor collectors; and local streets is an important process in defining the existing transportation system. The functional classification system defines travel in the area by how movement is conducted through the area's network of roads. The importance of this system in the long range transportation process is to define the role of any particular road or street in facilitating the flow of trips through a highway network. The functional classification process involves the identification of service functions provided by each street and highway in the area based upon the principal function they serve. Classification is also useful in determining whether the route serves a primary function by the degree to which it either moves traffic or provides access to property.

An examination of existing land use trends helps to define the relationship between land use and transportation and directs planning toward achieving a suitable match between travel needs generated by community activity systems and transportation system capacity. In a time of limited resources, improvements in traffic flow can also be proposed to promote development of adjacent land uses and support higher intensity developments. Transportation exerts a major influence on urban form. Transportation improvements alter accessibility and thereby land development or redevelopment potential. Transportation improvements not only benefit traffic flow but also support economic development by improving accessibility to land. The coordination of land use planning and transportation planning is, therefore, essential to creation of a viable community.

The responsibility for maintaining the roads and streets within the City of Jackson lies with the city's Neighborhood & Economic Operations Department. This Department routinely collects Annual Average Daily Traffic (AADT) volumes and maintains an inventory of pavement conditions in order to develop and program improvement and maintenance projects. Township roads in Jackson County are the responsibility of the Jackson County Road Commission (JCRC). The assessment and determination of road maintenance and improvement project needs is facilitated through the collection of AADT volumes and pavement condition inventories. Finally, each of the six (6) villages located in Jackson County, including Brooklyn, Concord, Grass Lake, Hanover, Parma and Springport are each responsible for the overall maintenance and operation of their street systems.

Because of the pattern of development in Jackson County, and the County’s slow growth, the majority of the road improvement projects within the JACTS study area are focused on the preservation and maintenance of the existing road system. Funding for these improvements includes appropriations from city and village general funds, state funding for general use on major and local streets through the Act 51 Michigan Transportation Fund (MTF) gas tax program, and federal transportation funds for use on the federal-aid eligible roadways.

There are approximately 1,934 total roadway miles in Jackson County. The Federal Highway Administration (FHWA) provides specific guidelines for assigning roadways a classification. As noted above, once a roadway has been classified, the classification establishes the basis for determining eligibility for federal funding for roadway improvements.

The following statistics for Jackson County, obtained from the Michigan Department of Transportation, indicate the total number of miles within each of the functional classifications as approved by the Federal Highway Administration:

**Table 5-1
Total Mileage of Jackson County Roadways**

Facility	Designated Areas	
	Urban	Rural
Interstate	9.93 miles	20.59 miles
Other Freeway	15.66 miles	5.06 miles
Other Principal Arterial	38.65 miles	6.52 miles
Minor Arterial	80.47 miles	72.41 miles
Urban and Major Rural Collector	62.92 miles	291.57 miles
Minor Rural Collector	—	158.84 miles
Local Collector	358.65 miles	812.91 miles
Total Mileage	566.18 miles	1,367.90 miles

Figures 5-2a and 5-2b illustrate the National Functional Classification System for the Jackson urbanized area and the balance of Jackson County as updated in 2011.

Interstates and Other Freeways. The principal arterial system includes freeways and non-freeway classifications. In the Jackson area, the principal arterial system consists of both an urban and rural system with integration internally and between major rural connections, interstate highways, freeways and principal arterials. I-94, an interstate highway, is the major transportation route serving the Jackson metropolitan area. The freeways in the urban area that connect to rural principal arterials are M-60 (located south of I-94) and US-127.

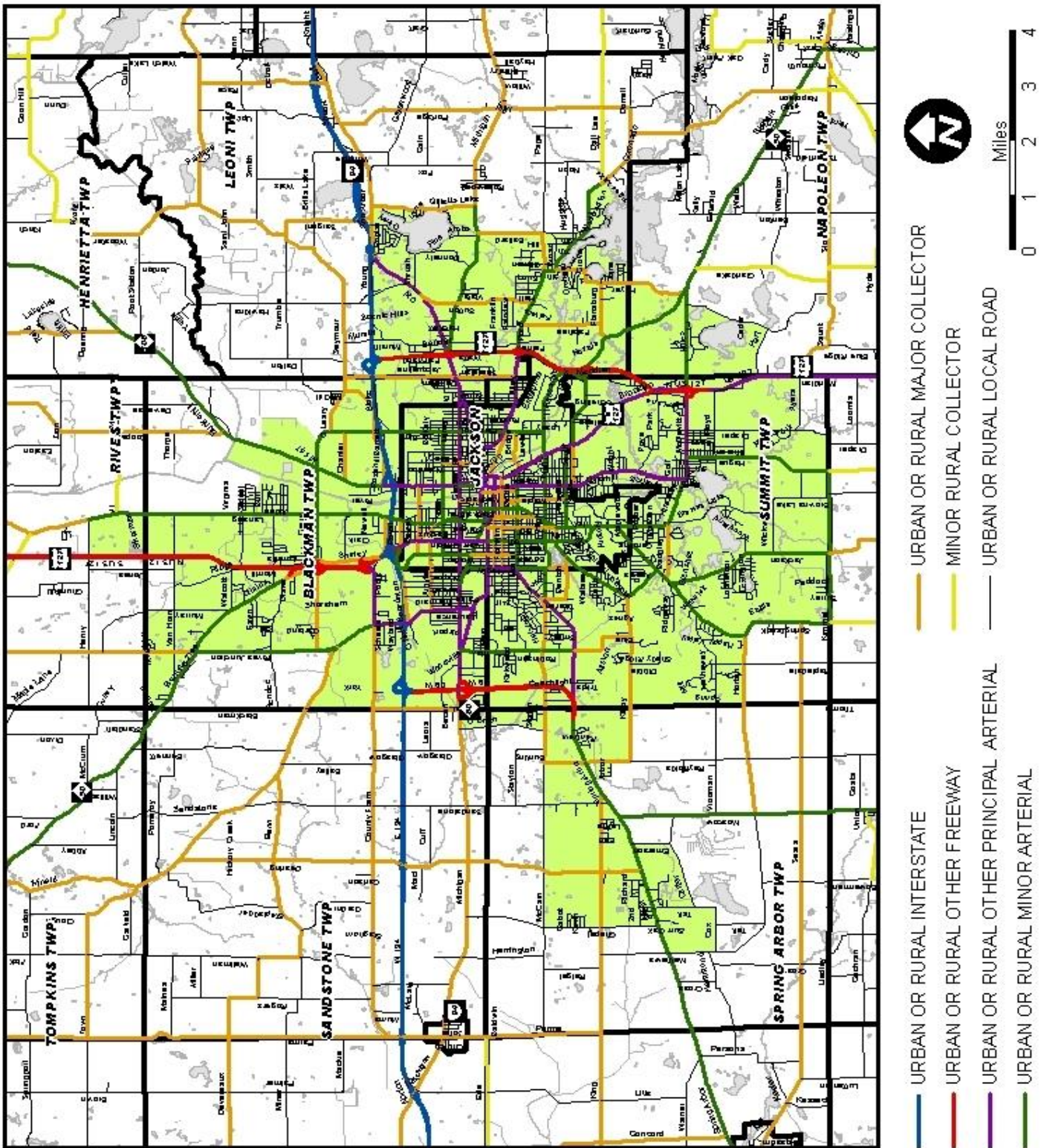
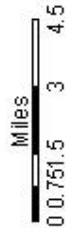
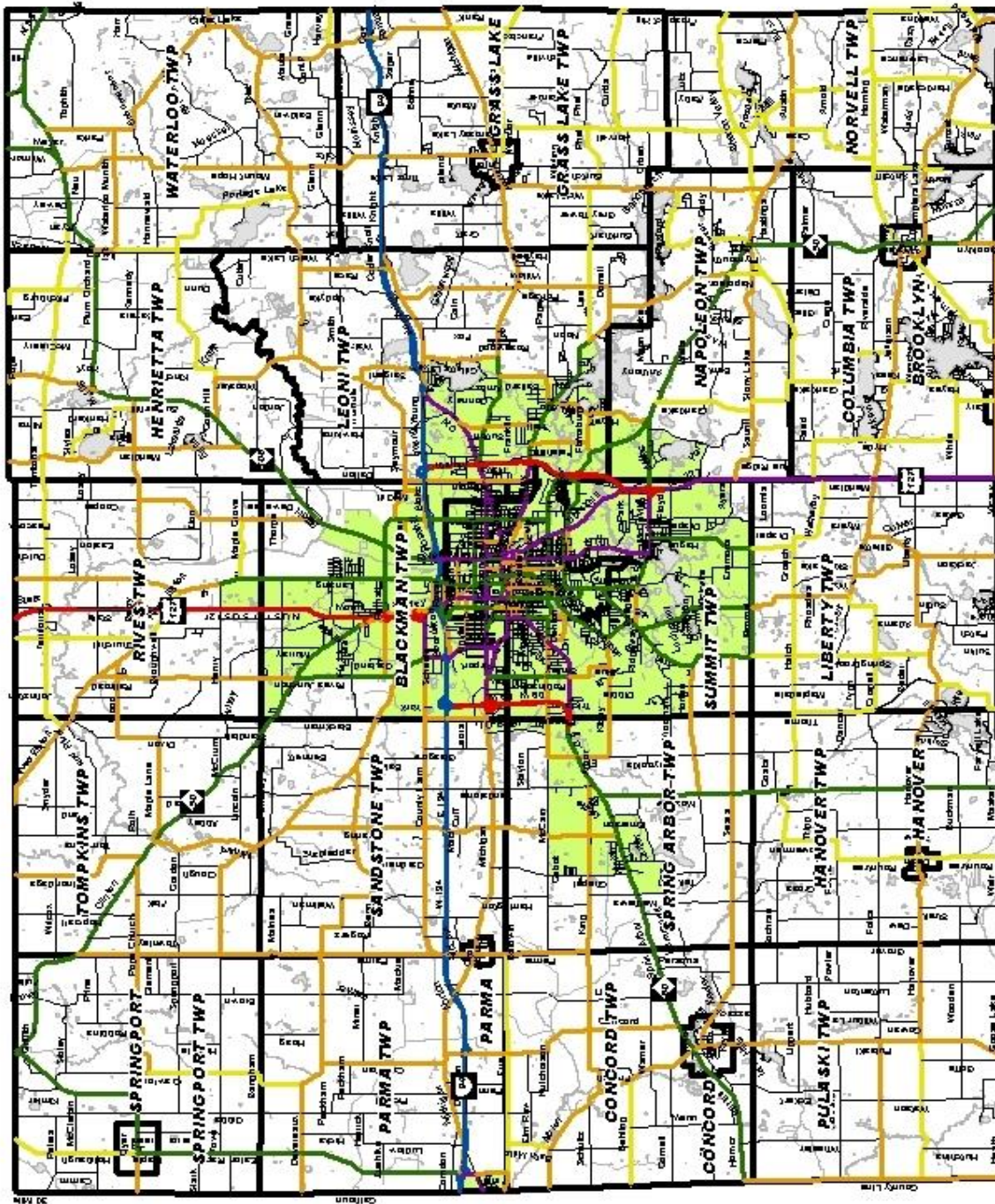


Figure 5-2a
 NATIONAL FUNCTIONAL CLASSIFICATION (NFC)
JACKSON URBANIZED AREA

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- URBAN OR RURAL INTERSTATE
- URBAN OR RURAL OTHER FREEWAY
- URBAN OR RURAL OTHER PRINCIPAL ARTERIAL
- URBAN OR RURAL MINOR ARTERIAL
- URBAN OR RURAL MAJOR COLLECTOR
- MINOR RURAL COLLECTOR
- URBAN OR RURAL LOCAL ROAD

Figure 5-2b
NATIONAL FUNCTIONAL CLASSIFICATION (NFC)
JACKSON COUNTY

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Other Principal Arterials. The functional classification system of principal arterials in the Jackson area is significant because of the composition of traffic that is served. The principal arterial system should serve the major centers of activity of a metropolitan area, the highest traffic volume corridors, and the longest trip desires. It should also carry a high proportion of the total urban area travel on a minimum of mileage.

Urban principal arterials that connect to rural minor arterials have been identified as McDevitt Street, M-60 west of Spring Arbor Road, M-50 north of Parnall Road and Cooper Street (M-106). These routes also serve major centers of activity, have high traffic volumes and are similar to the interstate route by providing a connection between outlying cities and villages. These routes differ, however, from the interstate, freeways and expressways by allowing automobile access to adjacent property.

Minor Arterials. The minor arterial street system interconnects and augments the principal arterial system and provides service for trips of moderate length at a lower level of travel mobility than major arterials.

Collectors. The collector system provides both land access and traffic circulation within residential neighborhoods, commercial and industrial areas. It differs from the arterial system in that facilities on the collector system may penetrate residential neighborhoods, distributing trips from the arterials through the area to the ultimate destination. Conversely, the collector street also collects traffic from local streets in residential neighborhoods and channels it to the arterial system.

Existing Traffic Conditions

In analyzing the existing Jackson urban area roadway network, it is necessary to examine how the thoroughfare system accommodates the movement of traffic through the area. This section reviews the network in terms of its existing traffic operations.

From the basis of traffic volumes in the study area, the major traffic movements identified within Jackson County are as follows:

1. To and from retail and hotel establishments at US-127 North near I-94 to retail and office activities along W. Michigan Avenue and the City of Jackson Central Business District (CBD)
2. From US-127 South to commercial and industrial areas along E. Michigan Avenue, High Street and the CBD
3. From US-127 South into the CBD along S. Cooper Street (US-27 BR /M-50)
4. From the southwest at M-60 north to Michigan Avenue
5. From the southwestern residential areas along Horton Road and Kibby Road to S. West Avenue and Fourth Street into retail areas on N. West Avenue, W. Michigan Avenue and the CBD

Less significant but still important traffic movements exist along Airport Road from County Farm Road to Wildwood Avenue; Brown Street from Michigan Avenue to Spring Arbor Road; and, along the Francis Street corridor which carries traffic from M-50 and the traffic generated by Jackson Community College.

Another area of concern in the Jackson urban area involves the efficient movement of large volumes of traffic from one part of the urban area to another. Some of the primary issues include the north-south movement on the west side of the City, movement from I-94 into the downtown area, access into the downtown area from the east and movement between the southeast and the southwest portions of the City. These movement problems are characterized by discontinuous north/south and east/west routes. The physical arrangement of the streets and railroads and the physical location of I-94 has resulted in the north/south routes that terminate south of I-94 at/or near the CBD. Parks, schools, and recreational uses have also prevented the development of continuous routes in the urban area. Because of these obstacles, many motorists travel a circuitous path from one side of the urban area to the other.

West Avenue provides for good access from the urban center to the major commercial areas to the north and the residential areas to the south. This is due largely to an absence of railroad and automobile conflicts. A new bridge over the Norfolk Southern railroad at N. West Avenue was completed in 2012, as well as intersection improvements at Ganson Street. This has improved the traffic flow through the area considerably. Vehicles traveling to or from the CBD with destinations at commercial uses along N. West Avenue can also use Wildwood Avenue or W. Michigan Avenue as a connector.

Lansing Avenue is a minor arterial which provides for travel between the urban center and the north. The route, however, terminates near the urban center and only facilitates movements to and from the south by diverting to other streets. A moderately traveled route, Lansing Avenue experiences some delays for northbound traffic at the intersection of Lansing Avenue and North Street during peak periods. Southbound traffic along Lansing Avenue flows smoothly as it is diverted onto Steward Avenue. Traffic flow between Lansing Avenue and the CBD is occasionally interrupted by the railroad at Steward Avenue and Blackstone Street. Access to the north along Lansing Avenue is good as the route extends over and beyond I-94 and into Ingham County. Future plans include changing both Steward Street and Lansing Avenue from one-way to two-way.

Cooper Street (M-106) provides the best access from I-94 and the northeast Jackson County area into the CBD. It also links I-94 traffic to industrial areas east of Cooper Street near the urban center. Travel from Cooper Street traverses through the CBD and continues south as M-50/US-127 BR (Brooklyn Road) eventually connecting to US-127 South. However, a railroad crossing exists at the Cooper Street/E. Michigan Avenue intersection compounding access problems between the CBD and I-94. The city plans on

converting both Washington Street and Louis Glick Highway from one-way to two-way between Michigan Avenue and Cooper Street in the future.

There are difficulties relating to the transition of flow between East Michigan Avenue, the CBD and West Michigan Avenue. Michigan Avenue, other than I-94, is the only major route that directly traverses the entire width of the urban area. W. Michigan is a major route linking the western section of the City to office development and retail uses near and in the downtown area. E. Michigan Avenue is also the major east-west route linking the CBD with the eastern sections of the urban area. Glick Highway acts as a perimeter route that provides for a transition for westbound E. Michigan travelers to W. Michigan Avenue. Westbound travel is, however, occasionally hindered by railroad closures due to the close proximity to the Amtrak station.

The I-94 Freeway Modernization Study, completed in 2005, evaluated the need and feasibility of upgrading nine (9) miles of the interstate between M-60 and Sargent Road in Jackson County, including all interchanges and bridges located within the study area corridor. The Hawkins Road and Dettman Road bridges have been replaced to meet the requirements of the Modernization Study. The Sargent Road interchange is currently under construction and the bridge will be replaced and widened. MDOT is planning on reconstructing the Cooper Street interchange as well as replacing the bridge over the Grand River in 2017.