

Chapter 13

NON-MOTORIZED REVIEW

NON-MOTORIZED AND PEDESTRIAN PROVISIONS IN LEGISLATION

SAFETEA-LU provides the funding, planning, and policy tools necessary to create more walkable and bicycle-friendly communities. Section 217 of Title 23 of the U.S. Code calls for the integration of bicycling and walking into the transportation mainstream. This legislation has allowed communities to invest in projects that can improve safety and practicality of non-motorized transportation options. Title 23 USC Section 217 (g) states:

- *In General.--Bicyclists and pedestrians shall be given due consideration in the comprehensive transportation plans developed by each metropolitan planning organization and State in accordance with sections 134 and 135, respectively. Bicycle transportation facilities and pedestrian walkways shall be considered, where appropriate, in conjunction with all new construction and reconstruction of transportation facilities, except where bicycle and pedestrian use are not permitted.*
- *Safety considerations.--Transportation plans and projects shall provide due consideration for safety and contiguous routes for bicyclists and pedestrians. Safety considerations shall include the installation, where appropriate, and maintenance of audible traffic signals and audible signs at street crossings.¹⁹*

In 2010, the State of Michigan made amendments to Act 51 and the Michigan Planning Enabling Act to incorporate “Complete Street” policies. Complete Streets are defined as roadways “designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a complete street.”²⁰

BENEFITS OF NON-MOTORIZED TRANSPORTATION

To many people, the benefits of non-motorized transportation are obvious. Remaining active is a key element in living a healthy life. Increasing the number of non-motorized facilities and users can also have broader reaching benefits.

Health problems and obesity- According to the Michigan Department of Public Health, an estimated 25.5 percent of Michigan adults were obese in 2004, while an additional 35.5 percent were considered overweight. Obese and overweight adults are at a higher risk than adults who are at a healthy weight status to develop conditions such as high blood pressure, diabetes, gallbladder disease, osteoarthritis, and high cholesterol. In Michigan, obesity-related health costs have been estimated to be \$2.9 billion in 2003 dollars.²¹

Regional air quality- Van Buren, Kalamazoo, and Calhoun counties are currently at a “maintenance” status with the United States Environmental Protection Agency for ground-level ozone. Decreasing

¹⁹ Title 23 U.S.C. §217: Bicycle Transportation and Pedestrian Walkways

²⁰ Complete Streets Frequently Asked Questions www.completestreets.org

²¹ Michigan Department of Community Health. *Health Behaviors in the State of Michigan: 2004 Annual Report*. www.michigan.gov/mdch

the emissions from automobiles by using alternate modes of transportation, whether they are non-motorized or mass transit related is a potential solution.

Tourism and economic development- Having a well defined and integrated non-motorized network is incentive for drawing people into Michigan.

Lowered dependency on the automobile- As people drive more, air quality is threatened and non-renewable resources are consumed. Congestion increases and roads deteriorate. Decreasing the average vehicle miles traveled (VMT) by having a usable and well defined non-motorized system, will help alleviate these problems.

TYPES OF BICYCLE FACILITIES

The American Association of State Highway and Transportation Officials (AASHTO) is the leading source for guidance and standards in the development of non-motorized facilities. The following summary of facility types is from the AASHTO *Guide for Development of Bicycle Facilities*.

Shared Roadway (No Bikeway Designation). Most bicycle travel in the United States now occurs on streets and highways without bikeway designations. This probably will be true in the future as well. In some instances, a community's existing street system may be fully adequate for efficient bicycle travel, and signing and striping for bicycle use may be unnecessary. In other cases, some streets and highways may be unsuitable for bicycle travel at present, and it would be inappropriate to encourage bicycle travel by designating the routes as bikeways. Finally, some routes may not be considered high bicycle demand corridors, and it would be inappropriate to designate them as bikeways regardless of roadway conditions (e.g., minor residential streets). Some rural highways are used by touring bicyclists for intercity and recreational travel. In most cases, such routes should only be designated as bikeways where there is a need for enhanced continuity with other bicycle routes. However, the development and maintenance of 1.2-m (4-foot) paved shoulders with a 100-mm (4-inch) edge stripe can significantly improve the safety and convenience of bicyclists and motorists along such routes.

Signed Shared Roadway. Signed shared roadways are designated by bike route signs, and serve either to provide continuity to other bicycle facilities (usually Bike Lanes); or designate preferred routes through high-demand corridors. As with bike lanes, signing of shared roadways should indicate to bicyclists that particular advantages exist to using these routes compared with alternative routes. This means that responsible agencies have taken actions to assure that these routes are suitable as shared routes and will be maintained in a manner consistent with the needs of bicyclists. Signing also serves to advise vehicle drivers that bicycles are present.

Bike Lane or Bicycle Lane. Bike lanes are established with appropriate pavement markings and signing along streets in corridors where there is significant bicycle demand and where there are distinct needs that can be served by them. The purpose should be to improve conditions for bi-cyclists on the streets. Bike lanes are intended to delineate the right of way assigned to bicyclists and motorists and to provide for more predictable movements by each. Bike lanes also help to increase the total capacities of highways carrying mixed bicycle and motor vehicle traffic. Another important reason for constructing bike lanes is to better accommodate bicyclists where insufficient space exists for comfortable bicycling on existing streets. This may be accomplished by reducing the width of vehicular lanes or prohibiting parking in order to delineate bike lanes. In addition to lane striping, other measures should be taken to ensure that bicycle lanes are effective facilities. In particular, bicycle-safe drainage inlet grates should be used, pavement surfaces should be smooth, and traffic signals should be responsive to bicyclists. Regular maintenance of bicycle lanes should be a top priority, since bicyclists are unable to use a lane with potholes, debris or broken glass. If bicycle

travel is to be improved, special efforts should be made to assure that a high quality network is provided with these lanes. However, the needs of both the motorist and the bicyclist must be considered in the decision to provide bike lanes.

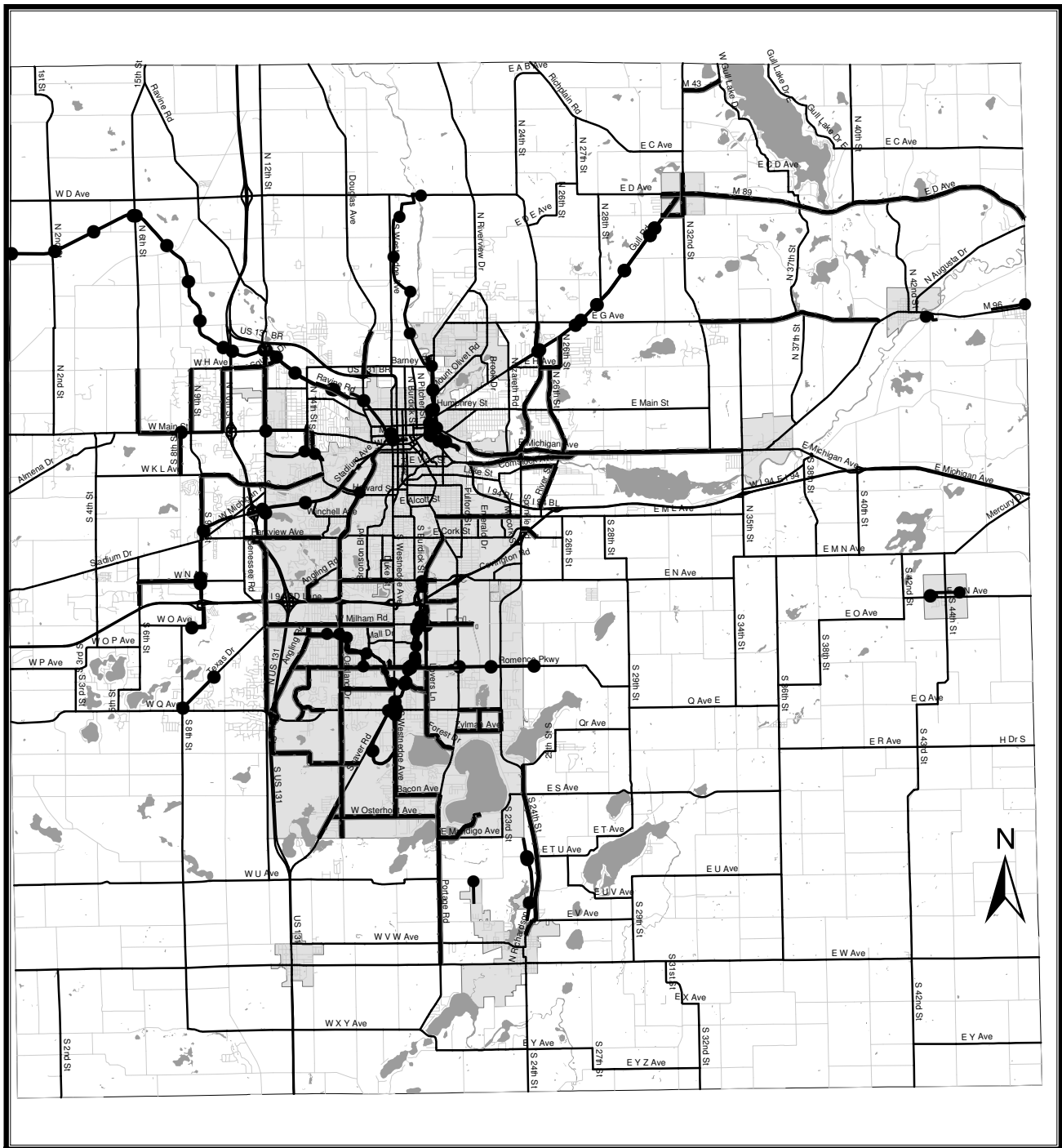
Shared Use Path. Generally, shared use paths should be used to serve corridors not served by streets and highways or where wide utility or former railroad right-of-way exists, permitting such facilities to be constructed away from the influence of parallel streets. Shared use paths should offer opportunities not provided by the road system. They can provide a recreational opportunity or, in some instances, can serve as direct commute routes if cross flow by motor vehicles and pedestrians is minimized. The most common applications are along rivers, ocean fronts, canals, utility rights-of-way, former or active railroad rights-of-way, within college campuses, or within and between parks. There may also be situations where such facilities can be provided as part of planned developments. Another common application of shared use paths is to close gaps in bicycle travel caused by construction of cul-de-sacs, railroads and freeways or to circumvent natural barriers (rivers, mountains, etc.). While shared use paths should be designed with the bicyclist's safety in mind, other users such as pedestrians, joggers, dog walkers, people pushing baby carriages, persons in wheelchairs, skate boarders, in-line skaters and others are also likely to use such paths.

In selecting the proper facility, an overriding concern is to assure that the proposed facility will not encourage or require bicyclists or motorists to operate in a manner that is inconsistent with the rules of the road. The needs of both motorists and bicyclists must be considered in selecting the appropriate type of facility. An important consideration in selecting the type of facility is continuity. Alternating segments of shared use paths and bike lanes along a route are generally inappropriate and inconvenient because street crossings by bicyclists may be required when the route changes character. Also, wrong-way bicycle travel with a higher potential for crashes may occur on the street beyond the ends of shared use paths because of the inconvenience of having to cross the street.

CURRENT NON-MOTORIZED FACILITIES

The Kalamazoo Area Transportation Study, with the help of committee members, the non-motorized community, and other sources, has assembled an inventory that shows where separate bicycle paths, bicycle lanes, wide traffic lanes, and paved shoulders at least four feet wide are adjacent to the federal aid eligible street network. The inventory map is not a complete system map of the non-motorized network in Kalamazoo County, nor does it recommend that any particular segment shown is appropriate for any or all riders. It merely shows the location of non-motorized facilities that meet AASHTO standards along the KATS network of roads. A map of existing and planned non-motorized facilities follows.

Kalamazoo plays an important role in linking the existing regional trail network. The Kalamazoo River Valley Trailway currently has 14 miles of paved trail. It connects the Kal-Haven Trail to downtown Kalamazoo, extends north from Mayor's Riverfront Park to D Avenue. Current expansion plans will take the Kalamazoo River Valley Trailway to the east county line, linking it with Calhoun County, and extend south to the Portage Bicentennial Park Trail.



Existing Non-motorized Facilities

Legend

— Federal Aid Roads

Type of Facility

— Bike Lane or Paved Shoulder

●— Designated Path

Data Source: MCGI, KATS

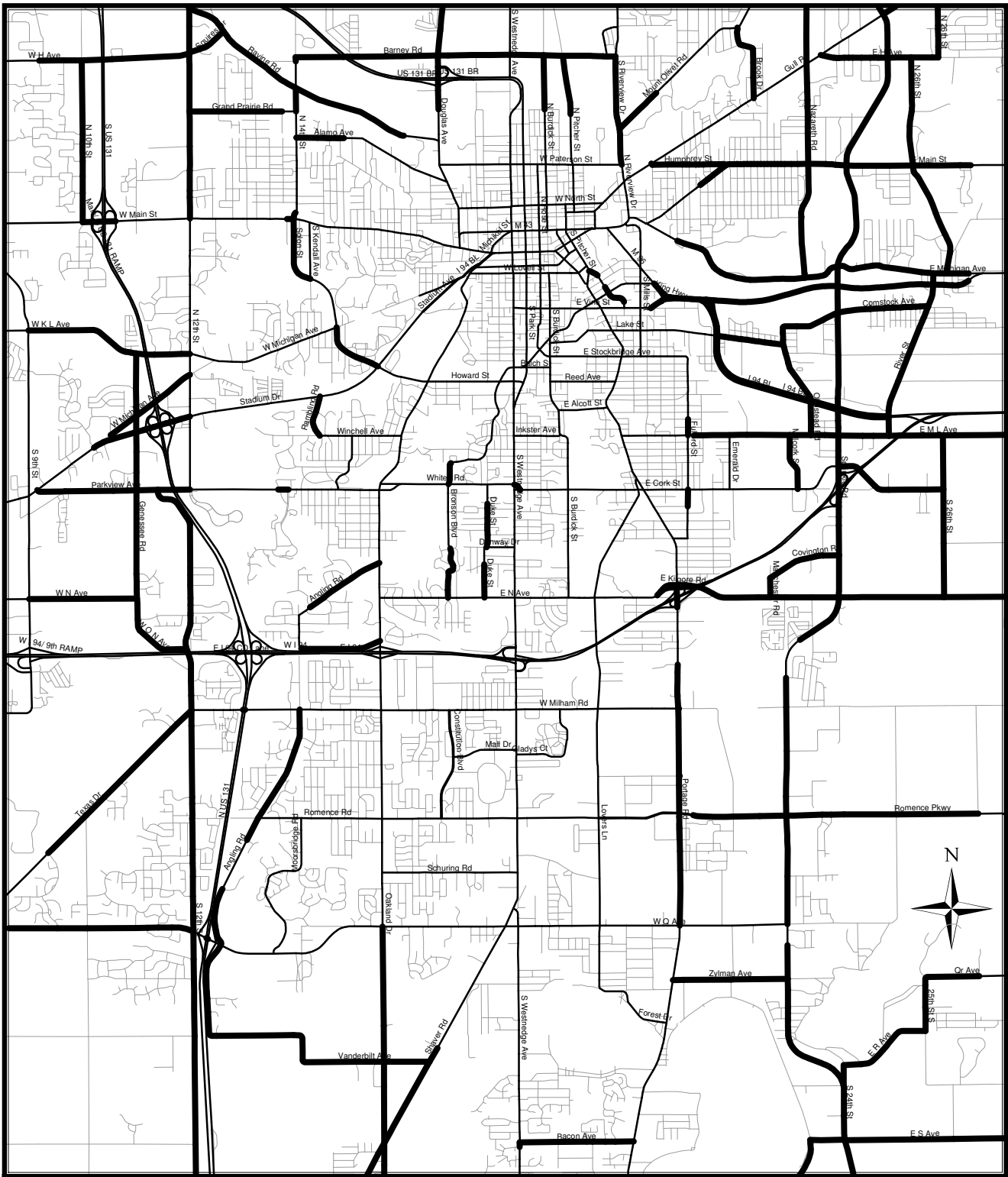
CURRENT PEDESTRIAN FACILITIES

While non-motorized pathways and bike lanes are an important link in a transportation system, sidewalks are often overlooked. Every trip contains a non-motorized element, whether it is walking to a business from a parking structure or walking to a car parked on a street. A proper sidewalk network is critical for safe pedestrian movement. Missing sidewalks, along with ill repaired or ill maintained sidewalks, are a barrier to pedestrian movements.

The City of Kalamazoo Non-motorized Transportation Plan identified several non-motorized transportation issues within the City of Kalamazoo. Since the adoption of the plan in 1999, the City of Kalamazoo has addressed several of the Missing Sidewalk Links listed in the plan. Some of the major corridors addressed are Drake Road, portions of Kilgore Road, Stadium Drive, and Parkview Avenue. Sidewalks are often how children get to school or how someone gets to work. In under-privileged areas, sidewalks are often the primary means of transportation. Providing a safe and efficient means for people to walk is critical to a transportation system.

Within the county, suburban areas are also increasing or requiring sidewalks with new developments. Oshtemo Township recently filled a large gap of missing sidewalk along West Main Street, which is a vital regional retail corridor.

Following is a map showing the missing pedestrian links along federal aid eligible roads within the metropolitan area of Kalamazoo County, encompassing the cities of Kalamazoo, Parchment and Portage.



Gaps in Pedestrian Facility Locations on Federal Aid Roads in Metropolitan Area

Legend

- Missing Pedestrian Links
- Federal Aid Roads

No facility on either side of road

Data Source: KATS, MCGI