

Transforming the Michigan Avenue Corridor

a complete streets and transit-oriented development study

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Clientele

City of East Lansing

City of Lansing

Lansing Charter Township

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Executive Summary

The Michigan Avenue Corridor is the connection between the campus of Michigan State University and downtown East Lansing and downtown Lansing, Michigan's Capitol City. However, the Corridor is not currently meeting its full potential. Much of the length of the Corridor is unattractive, has dysfunctional land uses and lacks an effective and modern transit system. The process of making changes to this corridor is complicated by the fact that it is cross-jurisdictional, falling within the boundaries of the City of East Lansing, Lansing Charter Township, and the City of Lansing. The overall goal of planning and redevelopment efforts on the Michigan Avenue Corridor is to create an attractive and economically viable corridor that connects the state's largest university with the state capital. Specifically, participants in the planning process want Michigan Avenue to become a high-performing public transit, cultural and economic development corridor.

To reach these goals, we completed an analysis of the Michigan Avenue Corridor to determine how well the Corridor accommodates a variety of transportation users including transit-users, pedestrians, bicyclists, and automobile-users, as well as those with disabilities. We also looked at the Corridor's potential for multi-modal transportation.

Findings

Based on our assessment and analysis, we found the following strengths and weaknesses along the Michigan Avenue Corridor:

Weaknesses

- Does not provide safe accommodations for pedestrians, bicyclists and transit-users
- Is dominated by automobiles
- Has an abundance of space dedicated to parking
- Is not handicap accessible
- Does not provide a quick means of travel by transit
- Does not have the conditions necessary to support large-scale transit
- Lacks attractive design features
- Consists of low-density development that creates a disconnected visual appearance
- Does not take advantage of proximity to nearby attractions

Strengths

- Is located in close proximity to or is home to popular destinations
- Falls within the capitol city of Michigan and the state's largest university
- Contains many diverse and local businesses
- High ridership for local transit
- Community interest in walkability and bikeability

Recommendations

The Michigan Avenue Corridor does offer great potential for becoming a viable and attractive corridor. Upon determining the existing conditions of the Corridor, we provide the following general recommendations for improvement:

1. Implement road diet along entire Corridor
2. Provide Bicycle Infrastructure
3. Provide Transit Infrastructure that Encourages Transit Use by Residents and Visitors
4. Pedestrian Infrastructure that Allows Safe Access for All
5. Parking and Access Management that Reduces the Impact of Parking
6. Building Improvements to Create an Attractive and Consistent Street Design
7. Guide Future Developments to be Pedestrian and Transit-Oriented
8. Enhance Strengths of the Corridor
9. Develop a Multi-Modal Transportation Hub and Corridor-Wide Transit System
10. Revitalize Frandor Shopping Center and Red Cedar Golf Course

Structure of the Report

This report is organized into three main sections.

1. **Part I: Introduction** provides information on the coursework, clientele, and project. This includes a basic description of the Corridor and its location as well as the goals, objectives, and methodology for this project.
2. **Part II: Existing Corridor Conditions** provides data for the Corridor to give a better understanding of the context in which this Corridor exists. This section also includes the Complete Streets and Transit-Oriented Development assessments and analysis.
3. **Part III: Recommendations for Corridor Improvement** provides detailed recommendations for Corridor improvement along with some of the costs and benefits of these recommendations.

Part I: Introduction

Planning Practicum

This report was created by students of the Planning Practicum course at Michigan State University. Planning Practicum focuses on integrating classroom work and pragmatic planning in “real world” situations and is essential in the progression from student to professional practitioner. The observations expressed in this report were conducted through first-hand, on-site assessments by a team of seven individuals over a fourteen week time period. The student team worked with a group of professional clientele and two faculty instructors to complete the project.

Clientele

Under the Michigan Corridor Improvement Act, multiple jurisdictions can partner to implement a plan for corridor development while sharing the growth in tax revenue to finance implementation of a joint development plan. The Michigan Avenue Corridor falls within three jurisdictions, which have been working together to improve the Corridor: the City of Lansing, City of East Lansing, and Lansing Charter Township. Clientele for the project include members from each of the three jurisdictions, Brian Anderson of the City of Lansing, Matt Brinkley of Lansing Township, and Tim Dempsey, Lori Mullins, Jeff Smith and Jim VanRavensway of the City of East Lansing. Through a series of meetings and draft revisions, the clientele provided guidance to the student team throughout the process of the project.

Project Description

Project Location

The Michigan Avenue Corridor is the connection between Downtown East Lansing and the campus of Michigan State University and downtown Lansing, Michigan's Capitol City. The study area stretches from the Michigan Avenue and Grand River Avenue intersection in East Lansing to Pere Marquette Drive in Lansing, and additionally passes through Lansing Charter Township. In addition to being home to the state's largest university and the state capitol, the Corridor also contains Sparrow Hospital, and is in close proximity to destinations such as the Lansing River Trail and Oldsmobile Park. The Michigan Avenue Corridor is a commercial corridor of regional importance economically, historically and culturally, and is home to nearly 25,000 people who live in its many urban neighborhoods. The Corridor is home to many unique local businesses that are closely connected to the communities they serve, as indicated in multiple public input workshops, notes for which are provided in Appendix G.

Mission Statement

The goal of planning and redevelopment efforts on the Michigan Avenue Corridor is to create an attractive and economically viable corridor that connects the state's largest university with the state capital. This project is only a piece of a larger project that aims to make Michigan Avenue a high-performing public transit, cultural and economic development corridor.

In order to make the Michigan Avenue Corridor less automobile-dominated, safer, and more attractive for all users to encourage more pedestrian activity, thus, creating vibrancy, we recommend implementing traffic calming design elements, redeveloping underutilized land, and adding infrastructure that accommodates all forms of transportation.

MICHIGAN AVENUE CORRIDOR AERIAL VIEW



Prior Work on the Corridor

The cities of East Lansing and Lansing along with Lansing Township have begun the formation of a Michigan Avenue Corridor Improvement Authority so that businesses and neighborhoods that link the region's landmarks and destinations may be improved to reflect one of the most vital and important passageways in the state. The Corridor Improvement Authority will include people appointed from each jurisdiction. To date, a Planning Committee has been created for the Corridor and has undergone initial analysis.

In July of 1994, the "East Michigan Avenue Revitalization Plan" was submitted by Deardorff Design Resources/Inc., Corbin Design and Reid, Cool & Machalski Inc. in partnership with the City of Lansing Department of Planning & Neighborhood, to provide a catalyst for the economic and aesthetic revitalization of East Michigan Avenue. The plan noted that revitalization occurs when the corridor is attractive, when business on the street have safe and adequate parking, and when the area is easily used and very accessible. This plan attempted to create these conditions through signage, lighting, planting, and unified streetscape elements and furnishings. Details of this report can be found in Appendix G.

In June of 2004, "Michigan Avenue: A Report on the State of the Avenue" was prepared for the Allen Neighborhood Center Board of Directors by Richard Kibbey. This study reviewed the conditions of the Michigan Avenue within the east side of Lansing and described the activities that occur along Michigan Avenue on a daily basis. This report, along with the "East Michigan Avenue Revitalization Plan" identified creating a "gateway" image for the Corridor as a key component of corridor revitalization.

In 2005, the Corridor Improvement Authority Act (CIAA) was passed by the Michigan legislature and amended in 2007. The CIAA allows a multi-municipality Authority to capture new taxes on a single corridor. The act requires that all corridor improvement authorities allow for mixed use and high density residential, that they expedite permitting, and that they support non-motorized transportation. The act also aims to "correct and prevent deterioration in business districts, encourage historic preservation and promote economic growth." The corridor is to be funded through bonds as well as directly through Tax Increment Financing, a financing tool used for public infrastructure improvements. More information on Tax Increment Financing can be found in Appendix E.

Goals and Objectives

To continue the work that has been done to improve the Michigan Avenue Corridor, our group assessed the viability of the Michigan Avenue Corridor as a multimodal transportation corridor and looked at the Corridor's potential for transit-oriented development.

Specifically, we

1. Completed a “complete streets” analysis to determine the extent to which the Michigan Avenue Corridor permits walking, biking, driving, and transit, and accommodates all ages and physical abilities.
 - Researched the components/guidelines of “complete streets” and defined complete streets in the context of Michigan Avenue and its users
 - Block-by-block inventory/analysis
 - Block-by-block and corridor-wide recommendations for becoming a complete street
2. Assessed the potential for Transit Oriented Development (TOD) on the Corridor
 - Researched TOD and possible existing guidelines
 - Created guidelines/criteria for determining suitability for TOD
 - Applied these criteria to the Corridor to determine current and potential sites where TOD principles can be applied
 - Provided recommendations for a feasible transit system for the Corridor

complete
streets are
roadways that
accommodate
all users

1. Complete Streets

“Complete streets” are roadways that accommodate *all* users. “Complete streets” ensure that streets and roads work for drivers, transit riders, pedestrians, and bicyclists, as well as for older people, children, and people with disabilities.

Benefits of Complete Streets include, but are not limited to:

- Provide travel choices, giving people the option to avoid traffic jams and increase the overall capacity of the transportation network
- Streets become more attractive, creating a more positive community image
- Drivers tend to be more courteous and cautious
- As people find streets more pleasing to travel or walk along they tend to come to these streets for greater social interaction. More people walking and driving through a place create more surveillance, and hence dampen the potential for crime.
- Encourage more walking and bicycling, improving health, decreasing likelihood for obesity
- Good for air quality and can help children by allowing physical activity, a safe walk to school and a more positive view of their neighborhood (Complete Streets)

2. Transit-Oriented Development

Transit-Oriented Development (TOD) is that which maximizes access to mass transit and non-motorized transportation with centrally located rail or bus stations surrounded by relatively high-density mixed-use development (Dittmar and Ohland).

Benefits of TOD include, but are not limited to:

- Reduced need for driving and the burning of fossil fuels, lessening problems related to peak oil and global warming
- Higher quality of life through the creation of better places to live, work, and play
- Increased mobility and transit ridership, reduced traffic congestion
- Reduced household spending on transportation
- Healthier lifestyle with more walking and less stress
- Higher, more stable property values
- Increased foot traffic and customers for area businesses
- Reduces incentive to sprawl while increasing incentive for compact development
(www.transitorienteddevelopment.org)

TOD
maximizes
access to mass
transit and
non-motorized
transportation

Methodology

Complete Streets Study

To assess the completeness of each block, we conducted original research and compiled a set of criteria derived from various sources as contributing to “complete streets.” An inventory checklist was created and applied to each block, by dividing the student team into three groups that each were assigned roughly twenty blocks along the Corridor for surveying.

Once the data was collected for the Corridor, a points system was created to classify the blocks into categories of those that were and were not complete. Each user group, including pedestrians, bicyclists, automobile-users, and transit-users had their own set of criteria. Some of the points for pedestrians included sidewalk condition, crosswalk features, and landscaping. For bicyclists points were given for bike lanes, bike racks, lighting, wide shoulders, way finding, and landscaping. The criteria for automobile users considered factors such as lighting, road quality, and signage. Transit-user criteria included such elements as bus pullouts and features of the bus stops. Our survey instrument is provided in Appendix C.

We tallied the points for each user group and also created a combined score for the overall “complete streets” rating. For the four user groups we made each element worth one point to make sure that the “complete streets” rating was un-weighted. For example, a smooth sidewalk did not receive more points than a covered bus shelter. We also created a new list so the criteria that were a part of more than one user-group were not accounted for twice.

Combining all of the data into one list created a point system with a total of 36 points. The points were broken down into five categories from there as indicated in the chart below.

Class Rating	Points Required	Percentage of Criteria Satisfied
1	29 to 36	81-100
2	22 to 28	61-80
3	14 to 21	41-60
4	8 to 14	21-40
5	0 to 7	0-20



For visual organization, we created maps that identify the classification for each block. Each user group has its own map with color-coded indication of Class. A “Complete Streets” map considers all four-user groups and combines them into one to provide the overall “complete streets” rating.

Once our analysis was complete, we identified trends in the data that indicated the concerns for the Michigan Avenue Corridor. Based upon these concerns, we formulated recommendations. Recommendations took into account site-specific conditions as well as the initial goals of the project.

Transit-Oriented Development Study

Research was conducted to determine the conditions in which TODs are typically successful. These conditions were applied to the Michigan Avenue Corridor to compare the area to cities of varying scales where TODs exist. The TOD assessment conducted analyzes the ability of the Corridor to accommodate the components of a transit-oriented design. Further research was conducted on possible transit systems that could be implemented along the Corridor. Recommendations and suitable sites for TOD were determined along the Corridor through reference of the block-by-block analysis and quintile classifications that were conducted for the “complete streets” analysis.

Part II: Existing Corridor Conditions

Data

Provided here is background data for the Michigan Avenue Corridor that covers demographics, zoning, and land use.

Data

Demographics

The population along the East Michigan Avenue Corridor is less racially diverse than Lansing, as a whole. The table below shows the population of the Corridor in relation to the city of Lansing.

	Corridor	Lansing
African-American	9.50%	22%
Caucasian	78.50%	67%
Other	4%	4%

For instance, the block group (Tract 65, block 4) that includes Michigan Avenue between Hosmer and Bingham, is 21% African-American, and the block group just east of there (Tract 13, block 1) is also about 21% African-American. See Figures 3 and 5.

Only about 10% (2,338) of the residents of the six Census tracts along the Corridor are under 18 years of age. Only 5% (1,222) are over 65 years of age. Those between the ages of 18-34 make up a majority of the residents of Census tracts 41 and 42 (combined), accounting for 96% of its population. See Figure 5 and 6.

The percentages of people along the Corridor who are living in poverty are significant. Of the residents of the Census tracts along the Corridor (Ingham County 10, 13, 40, 41, 42, and 65), 38% are living in poverty. The Census tracts with large student populations, 41 and 42, have poverty rates of 71% and 83%. These numbers have a significant bearing on the future of the Corridor as a multi-modal transportation area, because those in poverty rely less on the automobile, and more on other modes of transportation.

Virtually 100% of those in Census tract 42 live in group quarters, whereas 0% of those in Census tract 10 are in group quarters. Census tract 42 contains many student rentals, whereas tract 10 is single-family homes.

along the
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poverty

	Corridor	Lansing
Renter-Occupied	64%	41%

If East Michigan Avenue is to succeed as a multi-modal transportation corridor, it will need to find an appeal in the region as a whole. In the Lansing-East Lansing Metropolitan Statistical Area (MSA), 90% of workers 16 years or older use their automobiles to go to work. However, in the six Census tracts along the Corridor, only 66% use their vehicles to commute. 2,491 walked to work, but over half of that 2,491 were in tract 42, which is Michigan State University.

90% of workers 16 years or older use their automobiles to go to work. However, in the six Census tracts along the Corridor, only 66% use their vehicles to commute

Following are population densities for the Corridor and the surrounding areas:

Population Densities (per square mile)

Lansing/East Lansing MSA	262.3
City of Lansing, MI	3,399.0
Census tract 10	3,618.3
Census tract 13	2,947.7
Census tract 40	7,098.8
Census tract 41	13,798.0
Census tract 42	14,455.8
Census tract 65	5,219.1

(socialexplorer.com)

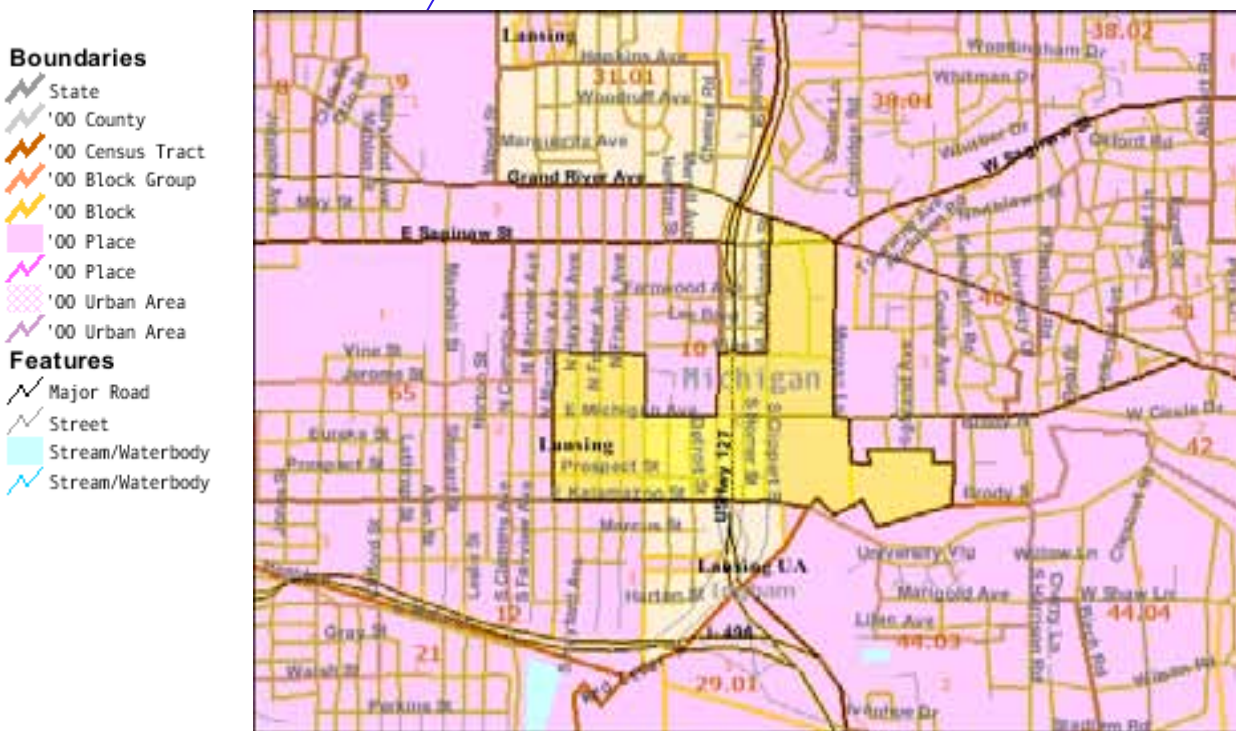
Besides those who live on or near the Corridor, there are those who work along the Corridor. There are three large employers. Near the western boundary of the Corridor study area, which is Pere Marquette Avenue, there is the State government complex. There are a total of 11,012 state employees within Ingham County, though it was not possible to discover how many of those work in downtown Lansing (mdcs). Sparrow Hospital employs 5,652 people total, most of them at the Sparrow complex on East Michigan Avenue (Sparrow). At the eastern extremity of the Corridor, there is the huge Michigan State community. According to the MSU website, there are 46,648 students, 6,166 support staff, and an academic staff of 5,052.

Figure 1: Block Group 1, Census Tract 10, Ingham County, Michigan



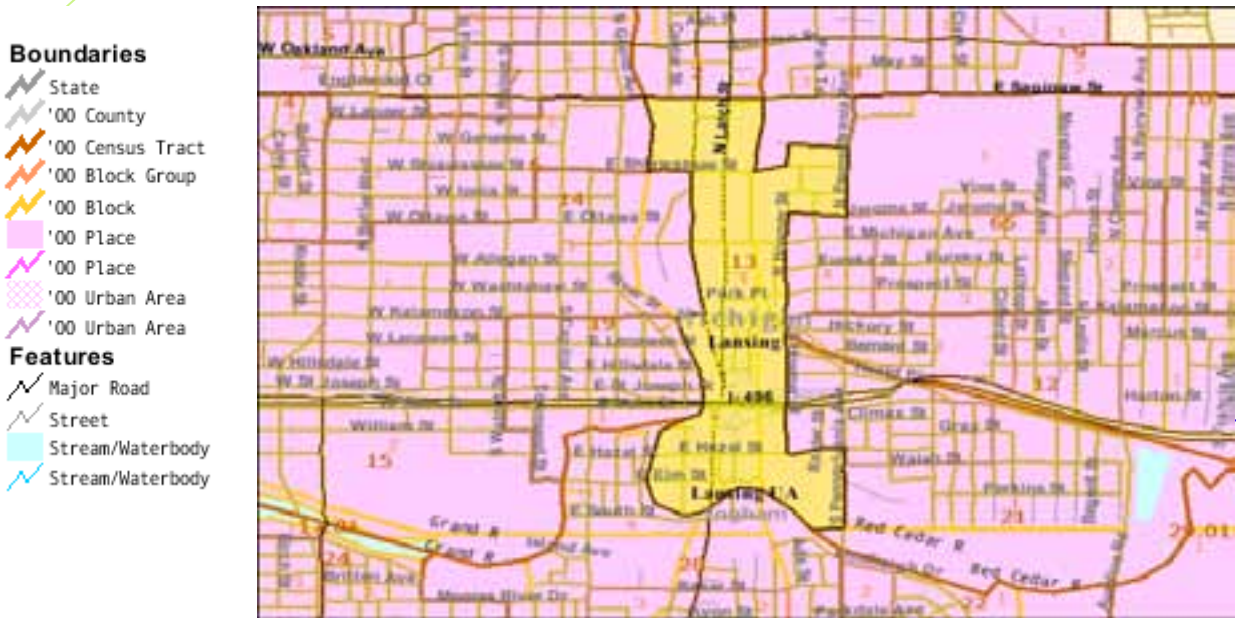
1.1 mile across

Figure 2: Block Group 2, Census Tract 10, Ingham County, Michigan



2.8 miles across

Figure 3: Block Group 1, Census Tract 13, Ingham County, Michigan



2.8 miles across

Figure 4: Block Group 3, Census Tract 40, Ingham County, Michigan



1.1 mile across

Figure 5: Block Group 4, Census Tract 41, Ingham County, Michigan



Figure 6: Block Group 2, Census Tract 42, Ingham County, Michigan

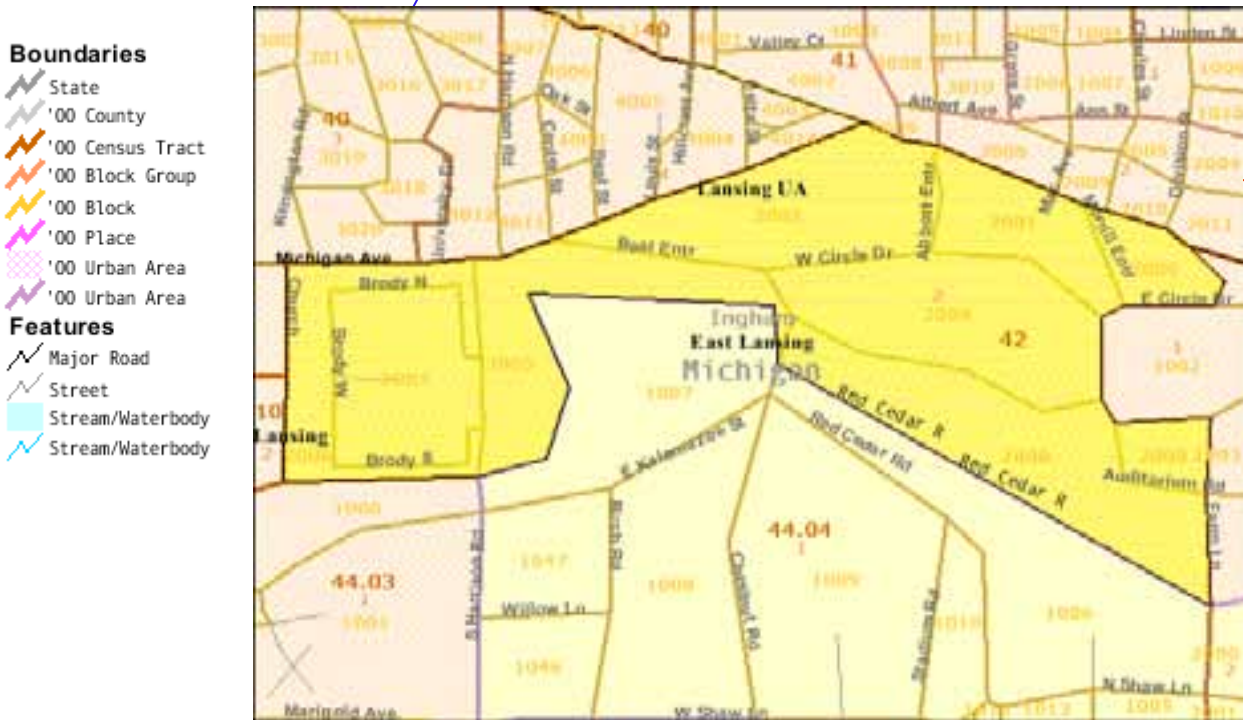


Figure 7: Block Group 2, Census Tract 65, Ingham County, Michigan



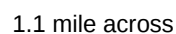
0.5 mile across

Figure 8: Block Group 3, Census Tract 65, Ingham County, Michigan



1.1 mile across

30



Zoning and Land Use

In the City of Lansing, almost the entire Corridor is zoned Commercial. The western extremity of our study area is Pere Marquette Avenue. The first block, which includes Clara's Restaurant, is zoned Light Industrial. Farther east, part of Resurrection Church is zoned Multi-residential, but those are exceptions (lansingmi.gov).

In East Lansing, the north side of Michigan Avenue is zoned by the city, the majority of the south side belonging to Michigan State University. From Harrison to Highland Streets, the zoning is single-family residential, and east of Harrison the zoning is varied, mostly multi-family residential or business (cityofeastlansing.com). The very, very short stretch of East Michigan Avenue within Lansing Township, from Mifflin to Clippert streets, is all zoned commercial (lansingtownship.org).

Zoning maps for each jurisdiction are provided on the following pages.

City of East Lansing Zoning Map Michigan Avenue Corridor



ZONING LEGEND	
RA	Residential - Agriculture
R1	Low Density Single-Family Residential
R2	Medium Density Single-Family Residential
R3	Single-Family and Two Family Residential
RM	Multiple-Family Residential District
RM1-4	Low Density Multiple-Family Residential
RM2-2	Medium Density Multiple-Family Residential
RM3-2	City Center Multiple-Family Residential
RM5-4	University Oriented Multiple-Family Residential
EV	East Village District
B1	General Office Business District
B2	Retail Sales Business District
B3	City Center Commercial District
B4	Restricted Office Business District
B5	Community Retail Sales Business District
C	Community Facilities District
ML	Manufacturing District
QIP	Office Industrial Park
P	Parking District
U	University District
	R-O-1 Rental Restriction Overlay
	R-O-2 Rental Restriction Overlay
	R-O-3 Rental Restriction Overlay
	Community Unit Plan (Repealed)
	Historic District Boundary
	Historic District Landmark Property
	Historic District Fraternity/Sorority
	Conditional Rezoning Request
ZONING CLASSIFIED BY OTHER JURISDICTIONS	
D*	Development District - Bath Township
R*	Rural District - Bath Township
RA*	Single-Family Medium Density - Meridian Township
PD*	Professional and Office District - Meridian Township
RM*	Multiple-Family Low Density - Meridian Township
CL*	Commercial District - Meridian Township
A*	Agricultural - Dewitt Township
M*	Multiple-Family - Dewitt Township
BC*	Business, Community - Dewitt Township
I*	Industrial, Light - Dewitt Township



City of Lansing Zoning Map Michigan Avenue Corridor



Zoning District

	A Residential-Single
	B Residential-Single
	C Residential-2 Unit
	NONE
	CUP Community Unit Plan
	D-1 Professional Office
	D-2 Residential/Office
	DM-1 Residential-Multiple
	DM-2 Residential-Multiple
	DM-3 Residential-Multiple
	DM-4 Residential-Multiple
	E-1 Apartment Shop
	E-2 Local Shopping
	F Commercial
	F-1 Commercial
	G-1 Business
	G-2 Wholesale
	H Light Industrial
	I Heavy Industrial
	J Parking
	ROW Right of Way



Lansing Township Zoning Map Michigan Avenue Corridor



Legend

Parcels

Zoning

A RESID

B RESID

C1 RESI

C2 RESI

C3 RESI

C4 RESI

D ADMIN

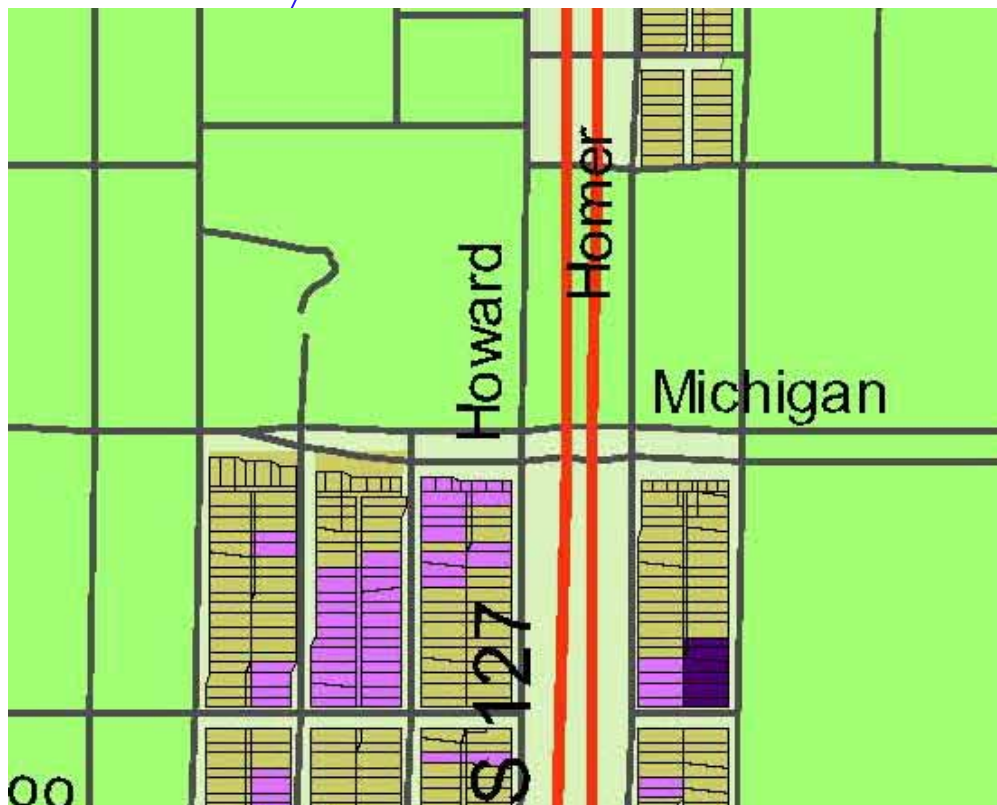
E LOCAL

F COMME

G GENER

H INDUS

PD



Assessment

This section details the criteria that were looked at in assessing the Michigan Avenue Corridor as being a “complete street.” Following the criteria is an analysis for each transportation user group based off of the inventory tool used on site for each block in combination with other qualitative observations made both on-site and using GoogleMaps.

Complete Streets

Criteria for Complete Streets

In order to determine the extent to which the Michigan Avenue Corridor is a complete street, we completed original research to identify characteristics that make a street complete. The Saint Louis Great Streets Initiative is an example of a large-scale project to address the multi-modal transportation on streets. This initiative identified multiple characteristics that create complete streets, and determined the adequate application of each based on the type of street being considered. From there, standards are determined and recommendations made for street improvements that can be applied in other areas.

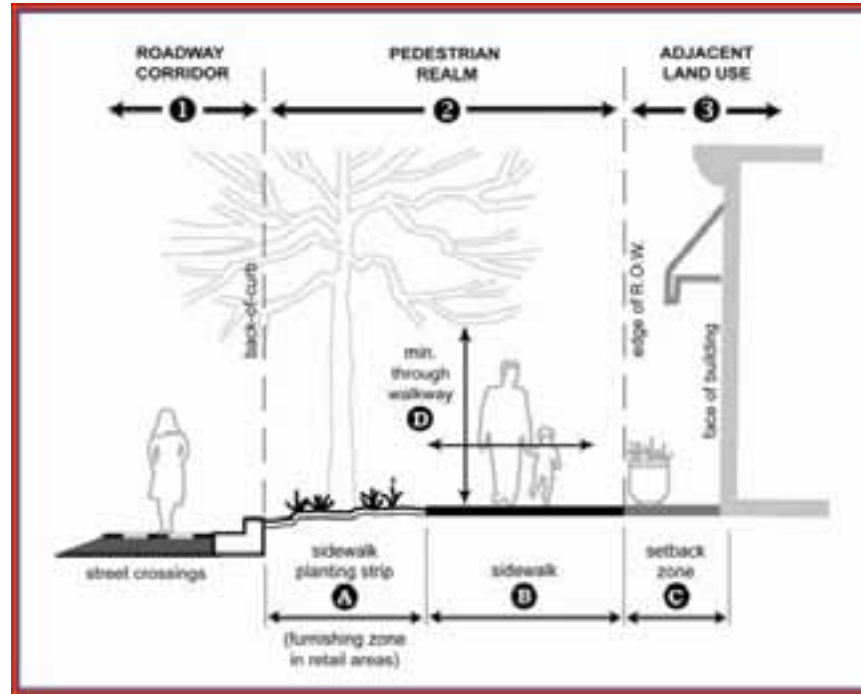
we selected
those
characteristics
we found most
relevant to the
corridor

Some characteristics for a complete street vary for different types of streets, heavily determined by land uses and safety issues. Many characteristics of complete streets, however, can be applied to all types of streets. For the purpose of inventorying the Michigan Avenue Corridor, we selected those characteristics we found most relevant to the Corridor and also the most basic to be considered necessary for completing the streets. Our inventory of the Corridor and the points system by which we rated blocks on the Corridor is not adjusted for the type of street it is, but the characteristics used are for the most part those that are applicable to all types of streets. The criteria that are part of making complete streets are provided in the remainder of this section, lending support for the checklist used during our inventory.

Greater emphasis is placed on non-vehicular users because as is common with most modern developments, the automobile has already been properly accommodated for. It is the other users whose needs have not been adequately provided for. A majority of the following criteria for complete streets refers to pedestrians, bicyclists, and transit-riders. This is not to say that vehicle-users are ignored, but represents that their use is mostly viewed in terms of complete streets as a safety risk for other users. We want to facilitate their use with ease in a way that does not compromise the safety and accessibility for other users.

Understanding the Street

All factors that influence the accommodation of streets to pedestrians fall within one of three areas along a thoroughfare, Roadway Corridor, Pedestrian Realm, or Adjacent Land Use.



St. Louis Great Streets Initiative

1. Roadway Corridor: design of thoroughfares, allocation of space within street rights-of-way, spacing, length and treatment of street crossings, and intersection signal timing.
2. Pedestrian Realm: sidewalk and the buffer zones that separate walkway from vehicular traffic and link the walkway to adjacent properties. This includes:
 - Planting strip (AKA verge, parkway, furnishings zone): Area between the edge curb and the walkway. This is the proper place for utilities such as light poles and parking meters, as well as amenities such as benches, street trees, bicycle parking. The furnishings zone serves as a buffer to separate pedestrians from moving vehicular traffic, improving safety, allows space for utilities and amenities, and allows walkways to be lined up with appropriately placed curb ramps and

walkway:
typically five
feet is an
adequate
width, but
more recently,
eight or even
upwards from
ten feet is
recommended
instead

crosswalks at intersections. The recommended width for this strip is five to eight feet.

- Walkway: primary area allocated to walking. This area should always be paved. Recommended widths for sidewalks have changed. Typically, five feet is an adequate width, but more recently, eight or even upwards from ten feet is recommended instead.
 - Frontage zone: Most pedestrians are not comfortable walking immediately adjacent to a building, wall, or fence, so there should be some space to allow them to keep a slight distance from the adjacent vertical structure. This area accommodates protruding architectural elements, stoops, vegetative planters, sidewalk displays, and window shopping activities, for example. Its width can generally be kept narrow on streets where adequate width has been allotted for the above zones.
3. Adjacent Land Use: A combination of uses must be present within a contiguous area to draw pedestrian presence. Attractive pedestrian environments include buildings with numerous doors and windows framing the street, and parking located on-street or internal to the block (Saint Louis Great Streets Initiative).

Access and Access Management

Access along a thoroughfare refers to the demand for vehicular entry and exit to and from driveways and crossroads that intersect with an arterial, commonly referred to as access points. These access points represent potential conflict between turning and through-moving vehicles, pedestrians, and bicycles. Access management refers to the regulation of access point location and spacing, to minimize such conflicts and create safe streets for all modes of transportation.

Access management refers to the regulation of access point location and spacing, to minimize conflicts and create safe streets for all modes of transportation.

Access management can be very challenging in that there are tradeoffs inherent in every roadway access point decision. Allowing unlimited access points would undermine safety and efficiency of street but prohibiting all access would render adjacent properties essentially worthless. To balance the needs and safety of all users, the follow conditions should be in place:

- o Consolidated access points: Access points create conflicts between through-moving vehicles and pedestrians because drivers attempt to enter the vehicular travel way from a driveway and are often fixated on traffic approaching from the left, so they may not check back to the right for pedestrians before edging out onto arterial.
 - o Minimized number of driveways
 - o At higher volume access points, signage reminding drivers to watch for pedestrians can be used to minimize conflicts
 - o Provided access from side streets: Providing access along lower speed crossroads or alleys helps to minimize the need for direct driveway access points along thoroughfares.
 - o Shared access and the consolidation of access for multiple businesses can also improve efficiency and safety.
- o Use signals at key intersections to facilitate pedestrian crossing and provide a safer pedestrian environment.

- o Use raised medians when appropriate. Restrict left turn movements to the access points across from an opening in the median. Access to driveways is confined to right-in, right-out, reducing number of potential conflicts. This can however, create issues for drivers seeking access to both sides of the thoroughfare. U-turns are generally not recommended where there is significant presence of pedestrians and bicycles because they reduce predictability of traffic for those trying to gauge when it is safe to cross. Other benefits of medians are that they can help reduce speeds by creating more visual friction, they provide opportunity for attractive landscaping (be careful not to affect visibility), and provide a safe haven for pedestrians crossing the street who do not make it all the way across. The preferred minimum “refuge” width is 6 feet (Saint Louis Great Streets Initiative).

Intersections

An intersection is the area where two or more roadways join or cross. Medians can be used to provide separation between opposing traffic, channelization for turn lanes, and refuge for pedestrians. The appropriate type of control should be selected for each intersection, such as yield signs, stop signs, roundabouts, or traffic signals. Depending on the area, certain controls are more or less suitable. For example, roundabouts are not appropriate in some areas because they create a constant flow of vehicular traffic, reduce predictability, and impede pedestrian movement across the thoroughfare.

Intersections need to be designed to meet needs of pedestrians while maintaining an adequate level of efficiency for motor vehicle traffic. Good intersection design involves the following:

- o **Clarity:** Motorized traffic should be alerted to presence of pedestrians and pedestrians should be able to easily identify crossing locations—marked by proper signage, textures and colors to emphasize crosswalks.



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- o **Predictability:** Crossings placed in expected, predictable locations, every 330 to 528 feet. In unexpected locations, use clear and visible signing, flashing lights, etc. to alert drivers and pedestrians of the crossing.
- o **Visibility:** Provide adequate sight distance, appropriate lighting.
- o **Short Wait:** minimize the time pedestrians spend waiting to cross the street.

- o **Sufficient Crossing Time:** There should be no more than 5 lanes to cross at once. Signals programmed to allow all users, including elderly and individuals with disabilities, enough time to safely cross the intersection. Newer signals provide countdown that clearly communicate time remaining to cross. To accommodate those with vision impairments, crossing signals with audible, vibrotactile, and transmitted message features are available.



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- o **Limited Exposure:** The exposure for pedestrians to safety risk can be improved by reducing crossing distance, providing refuge islands or medians, reducing conflict points, and on thoroughfares with curbside parking, curb extensions or bulb outs can reduce the crossing distance and make pedestrians more visible to drivers (Saint Louis Great Streets Initiative).

Parking

The quantity, location, management, cost, and design of parking depends heavily on the adjacent land use the parking is serving (consider the difference between parking design for downtown areas compared to that of a suburban office complex). Parking guidelines for complete streets are as follows:

- o **Minimize supply:** Parking is often oversupplied, because minimum parking requirements are often set at the annual maximum expected demand, leaving excess parking for much of the year. This excess creates an environment often dominated by parking lots, which is neither attractive nor safe for pedestrians. Encouraging shared parking is one way to minimize supply. Consider the parking needs for a bank adjacent to a movie theater. These two uses could feasibly share parking spaces since their peak parking demands are likely at different times.
- o **Place parking behind buildings.** Fronting streets with buildings instead of parking lots creates a more interesting, pedestrian-friendly environment and allows access points to be placed on side streets, reducing potential for conflict when pedestrians would have to cross through parking lots to reach a destination's front door, eliminating mid-block congestion, and creating a more continuous pedestrian frontage.
- o **Provide handicapped parking:** Federal law requires that handicapped parking be provided in all designated parking areas.
- o **Include bicycle parking.**
- o **Ensure delivery parking** (Saint Louis Great Streets Initiative).

Signage and Wayfinding

Signage is very important for complete streets because it can draw attention to pedestrians, bicyclists, and transit-riders, making them more noticeable to vehicles. This increases a driver's ability to respond to movement, putting the pedestrian at a much lesser risk. Signage should also be included for parking to direct people to appropriate lots or structures as well as destination spots. Also, when well-designed, street signs can be used to create identity and a sense of character for a street (Saint Louis Great Streets Initiative).



blogdowntown.com/blog/1983

Building Design

Many building design elements can create an interesting streetscape. Ground-floor building articulation is important for creating a street that welcomes and supports pedestrian activity. When well articulated, buildings can provide visual interest and a sense of security and community identity. This includes building materials, transparency, architectural details, and other design elements. Building articulation also helps to direct pedestrians and frame views of the corridor.

Canopies are architectural projections from the street wall that hang over a portion of the sidewalk, providing weather protection, identity, or decoration. Awnings are an example of a canopy that can meet many canopy design functions, thus improving the pedestrian realm.

Figure 1 www.bikepedimages.org/DanBurden



Figure 2



A well-designed streetscape, (Fig. 1) increases visual interest and engagement of pedestrians through use of storefront windows that keep “eyes on the street” and support a safer, friendlier pedestrian environment, compared to a poorly-designed and pedestrian-unfriendly streetscape (Fig. 2).



A setback is the distance, prescribed by zoning ordinances that buildings must be literally set back from the public right-of-way. Many communities are now replacing setbacks with “build-to-lines” to encourage spatial definition and development of a street wall. Buildings set close to the street help create enclosure, and reduce distances pedestrians must travel from sidewalk to building entrances (Saint Louis Great Streets Initiative).

Landscaping

Trees, while also good for the environment, are beneficial at creating identity along a street, increasing attractiveness. They can also serve as a traffic calming device because they reduce the apparent width of the street, increasing “friction” and lowering average speeds.



www.pedbikeimages.org/danburden

Consideration needs to be given to trees and other vegetation selected for a street. Trees can have root developmental patterns that as they mature, raise pavement and crack surfaces. This creates a rough surface, making it especially difficult for wheelchair-users to travel (Saint Louis Great Streets Initiative).

Lighting

Due to their vertical orientation, streetlights are highly visible and can noticeably change the look and feel of a streetscape. Their architectural style should draw from and complement the character of the area and poles should include elements designed to help create a more human-scaled streetscape and corridor, such as a decorative base treatment. Lighting is necessary also for visibility and security at night. “Cobra lights” refer to the very tall lighting fixtures that hang over the road, which are effective at providing light for cars but much less effective at lighting the sidewalk for pedestrians. Cobra lights typically are not as ornamentally designed as pedestrian-scaled lighting (Saint Louis Great Streets Initiative).

Figure 1: www.pedbikeimages.org/DanBurden



Figure 2: www.pedbikeimages.org/ITEPedestrianBicycleCouncil



Compare the pedestrian-scaled lighting in Figure 1 and automobile-scaled lighting in Figure 2.

Aesthetic Treatments to Sidewalk

Various design treatments, such as colored or textured pavement, brick pavers, or cobblestones can be used to visually enhance the streetscape, creating identity and a much safer and attractive place. However, textures should not be used in bicycle lanes because they can be hazardous or uncomfortable for bicyclists to ride on (Saint Louis Great Streets Initiative).



www.pedbikeimages.org/DanBurden

Curb cuts are absolutely necessary for allowing wheelchair-users to travel along a sidewalk.

Special Accommodations for Disabled

Disabled persons most important to consider when creating complete streets are those with visual impairments, particularly blindness, as well as those who travel by wheelchair. Curb cuts are absolutely necessary for allowing wheelchair-users to travel along a sidewalk. Without curb cuts, there is no option for safely getting across the street. Curb cuts need to have smooth ramps since high “lips” create tipping risk for wheelchairs. Similarly, driveway cross slopes that are too steep are difficult for wheelchair persons to cross. As previously mentioned, care must be taken in selecting trees/vegetation so that root growth does not crack the sidewalk. In such a case, a wheelchair-user may not be able to travel along the sidewalk due to the unevenness created by the tree. Additionally, bus stop shelters need to be wheelchair-accessible, with appropriate space between the shelter and curb.



www.pedbikeimages.org/DanBurden

Other considerations for the vision impaired include sufficient separation between the sidewalk and vehicular traffic. A narrow sidewalk and buffer zone is especially dangerous for the blind, who could unknowingly wander into the street. Also to prevent this, textured surfaces, commonly referred to as detectable warnings, are very beneficial to the visually impaired because they indicate nearing the edge of the sidewalk. Audible, vibrotactile, and transmitted message crossing signals are all options for accommodating the safe crossing of the vision impaired (Saint Louis Great Streets Initiative).



www.pedbikeimages.org/MichaelCynecki

Special Bicycle Accommodations

To accommodate the needs of bicyclists, one must have an understanding of how bicyclists use the transportation network. Bicyclists can generally be split into two or three categories based on skill, experience, and age:

1. Advanced: Experienced riders comfortable operating a bicycle under most traffic conditions. These are mainly commuters or bike club riders. They follow the rules of the road even without special accommodations for bicyclists, riding in line with vehicular traffic. These users are best served by making every street bicycle-friendly by removing hazards and maintaining smooth pavement surfaces.



www.pedbikeimages.org/AnnieLux

2. Basic: Casual or new adult and teenage riders who are less confident of their ability to ride in traffic without special bicycle provisions. They prefer to have clear separation between bicycles and motor vehicles and are best served when designated bicycle facilities such as striped bicycle lanes and off-road trails are provided.



www.pedbikeimages.org/DanBurden

3. Children: Pre-teen cyclists who typically ride close to home under close parental supervision. Sidewalks may be best for young riders, but sidewalks are pedestrian spaces and their presence is not meant to substitute for bicyclist use of the roadway.



www.pedbikeimages.org/DanBurden

Every type of street should be accessible for all bicyclists. Depending on land use and safety considerations for the area, certain criteria should exist. Either bike lanes, paved shoulders, or wide curb lanes should be present. Typically, where traffic speeds are above 35 mph and there is heavy truck traffic, bike lanes are not recommended. There should, however, still be some area designated for bicyclists. Bicycle parking should be provided for within 120 feet of the building entrance it serves (Saint Louis Great Streets Initiative).



www.pedbikeimages.org/DanBurden

Transit Features

It is important to acknowledge that conditions more suitable for pedestrians are better for transit. Safety and connectivity are important factors for transit-users who will use the pedestrian environment to move between transit stops. Clear signage is important for directing pedestrians between transit stops. Information should be provided to the user on how to use the transit system. Pedestrian-scale lighting is necessary for visibility and security. Pedestrians will be reluctant to rely on transit after dusk if sufficient lighting is not provided.

Bus pullouts are areas where an additional stretch of roadway is created to allow space for the bus to reach transit stops. This allows vehicular traffic to flow better, but could make it difficult for buses to reenter the stream of traffic.



www.versalux.com.au

Transit-only lanes are another feature that can help prioritize transit as an option along thoroughfares with higher ridership. This refers to space provided on the street dedicated to use by buses (and sometimes bicyclists and high-occupancy vehicles) that can help make transit a more efficient, viable, and attractive choice. The transit-only lane may be in use throughout the day or during peak periods only, depending on ridership levels and the necessity for the alternative use for the lane (Saint Louis Great Streets Initiative).

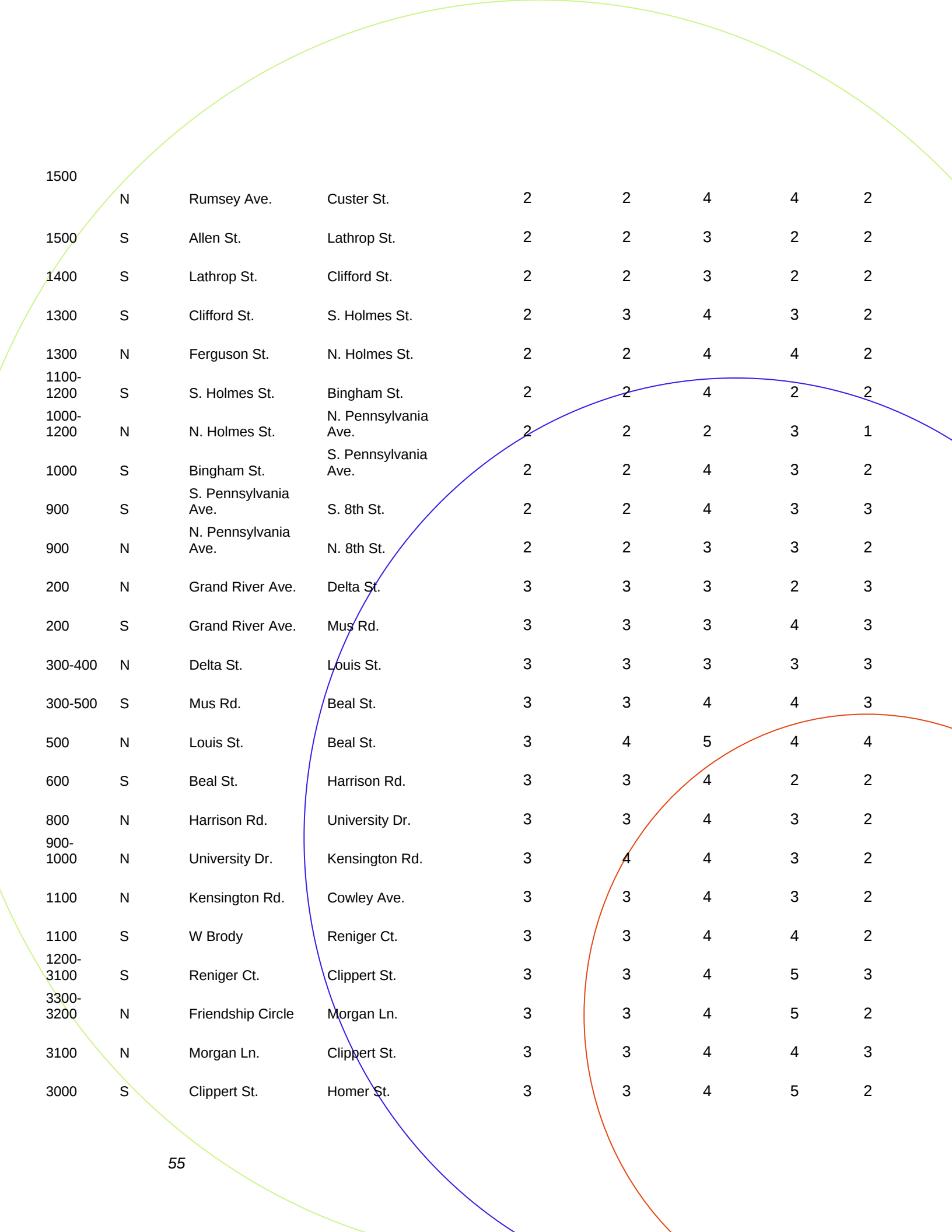
Complete Streets Classifications

After assessing each block using complete streets criteria, each block received points for its attributes and was placed into classifications accordingly. Each user group was placed into a quintile classification, and then received an overall complete streets rating. Our data is sorted in the following table first by the block's complete streets overall rating, and then organized by placement on the Corridor from east to west.

In order to visualize trends in the data, we created maps indicating the rating for each user group by color coding each block and categorizing it into one of five classes; class one being the highest ranking and class five being the lowest. The classifications were decided according to the percentage of criteria that was met. Class five is the first twenty percentile (0-20%), Class four the second twenty (21-40%), Class three the third percentile (41-60%), Class two the fourth (61-80%), and lastly Class one (81-100%).

Michigan Avenue Corridor Complete Streets Classifications

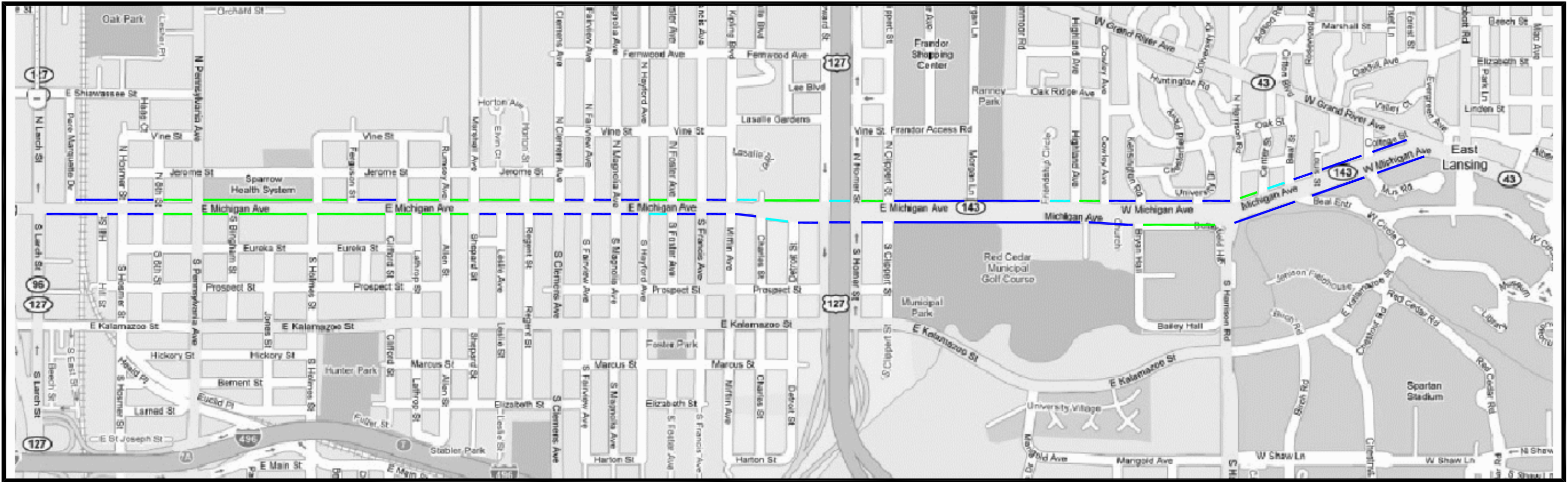
Block Number	N or S	Start (E to W)	End	Complete Streets	Pedestrians	Bicyclists	Transit User	Auto User
700	N	Center	Harrison Rd.	2	2	4	3	3
800-1000	S	Harrison Rd.	W Brody	2	3	3	2	2
1200	N	Cowley Ave.	Highland Ave.	2	3	4	3	2
3000	N	Clippert St.	Homer St.	2	2	3	4	2
2700-2800	N	Howard St.	Lasalle Ct.	2	2	4	3	2
2400	N	N. Francis Ave.	N. Foster Ave.	2	2	4	4	2
2300	N	N. Foster Ave.	N. Hayford Ave.	2	2	4	4	2
2000	N	N. Fairview Ave.	N. Clemens Ave.	2	4	4	2	3
2000	S	S. Fairview Ave.	S. Clemens Ave.	2	2	4	4	2
1900	N	N. Clemens Ave.	Horton St.	2	2	3	2	2
1700-1800	N	Horton St.	Marshall Ave.	2	2	3	2	2
1600	N	Marshall Ave.	Rumsey Ave.	2	2	4	4	2
1600	S	Shepard St.	Allen St.	2	2	3	2	2



1500	N	Rumsey Ave.	Custer St.	2	2	4	4	2
1500	S	Allen St.	Lathrop St.	2	2	3	2	2
1400	S	Lathrop St.	Clifford St.	2	2	3	2	2
1300	S	Clifford St.	S. Holmes St.	2	3	4	3	2
1300	N	Ferguson St.	N. Holmes St.	2	2	4	4	2
1100-1200	S	S. Holmes St.	Bingham St.	2	2	4	2	2
1000-1200	N	N. Holmes St.	N. Pennsylvania Ave.	2	2	2	3	1
1000	S	Bingham St.	S. Pennsylvania Ave.	2	2	4	3	2
900	S	S. Pennsylvania Ave.	S. 8th St.	2	2	4	3	3
900	N	N. Pennsylvania Ave.	N. 8th St.	2	2	3	3	2
200	N	Grand River Ave.	Delta St.	3	3	3	2	3
200	S	Grand River Ave.	Mus Rd.	3	3	3	4	3
300-400	N	Delta St.	Louis St.	3	3	3	3	3
300-500	S	Mus Rd.	Beal St.	3	3	4	4	3
500	N	Louis St.	Beal St.	3	4	5	4	4
600	S	Beal St.	Harrison Rd.	3	3	4	2	2
800	N	Harrison Rd.	University Dr.	3	3	4	3	2
900-1000	N	University Dr.	Kensington Rd.	3	4	4	3	2
1100	N	Kensington Rd.	Cowley Ave.	3	3	4	3	2
1100	S	W Brody	Reniger Ct.	3	3	4	4	2
1200-3100	S	Reniger Ct.	Clippert St.	3	3	4	5	3
3300-3200	N	Friendship Circle	Morgan Ln.	3	3	4	5	2
3100	N	Morgan Ln.	Clippert St.	3	3	4	4	3
3000	S	Clippert St.	Homer St.	3	3	4	5	2

2800-2900	S	Homer St.	Detroit St.	3	3	4	5	2
2600	S	Charles St.	Mifflin Ave.	3	3	4	5	2
2500	N	Kipling Blvd.	N. Francis Ave.	3	3	4	4	2
2500	S	Mifflin Ave.	S. Francis Ave.	3	4	4	4	2
2400	S	S. Francis Ave.	S. Foster Ave.	3	4	4	4	2
2200	N	N. Hayford Ave.	N. Magnolia Ave.	3	3	4	4	2
2200	S	S. Hayford Ave.	S. Magnolia Ave.	3	4	4	4	2
2100	N	N. Magnolia Ave.	N. Fairview Ave.	3	3	4	4	2
2100	S	S. Magnolia Ave.	S. Fairview Ave.	3	4	4	4	2
1900	S	S. Clemens Ave.	Regent St.	3	2	4	4	2
1800	S	Regent St.	Leslie Ave.	3	3	3	3	4
1700	S	Leslie Ave.	Shepard St.	3	2	3	3	2
1400	N	Custer St.	Ferguson St.	3	3	4	4	2
800	S	S. 8th St.	S. Hosmer St.	3	3	4	3	2
800	N	N. 8th St.	N. Hosmer St.	3	3	4	4	2
700	S	S. Hosmer St.	Hill St.	3	3	4	5	3
700	N	N. Hosmer St.	Pere Marquette Dr.	3	2	3	3	2
600-700	S	Hill St.	Pere Marquette Dr.	3	2	4	5	4
600	N	Beal St.	Center St.	4	4	4	4	3
1300-3400	N	Highland	Friendship Circle	4	4	4	1	2
2900	N	Homer St.	Howard St.	4	4	5	4	3
2700	S	Detroit St.	Charles St.	4	5	4	5	2
2600	N	Lasalle Ct.	Kipling Blvd.	4	4	4	4	2
2300	S	S. Foster Ave.	S. Hayford Ave.	4	4	4	4	2

COMPLETE STREET CLASSIFICATION MAP



COMPLETE STREET LEGEND	
	CLASS 1
	CLASS 2
	CLASS 3
	CLASS 4
	CLASS 5

Complete Streets Analysis

Overall, the Michigan Avenue Corridor is not a complete street. With class 1 being the best and class 5 indicating the poorest conditions, 23 blocks received a class 2 rating, 32 received a class 3 rating, and six blocks received a class 4 rating. A Complete Street is one that is accommodating to all modes of transportation; the Corridor is lacking characteristics of a complete street within each user category.

Pedestrians experience cracked, uneven, and narrow sidewalks for much of the Corridor. Most of the lighting is provided by cobra lights, which are directed toward the street and do not sufficiently light the sidewalk. Attractive landscaping is rare, and at some points landscaping features are placed directly in the pathway of pedestrians and cause obstructions. Curb cuts are prevalent along Michigan Avenue, and pedestrians must often cross through parking lots, driveways, and other access points. The Corridor only has one crosswalk featuring an audible countdown, which is located at Pennsylvania Avenue. The rest of the Corridor lacks features for the blind, handicapped, and elderly.

The Corridor best accommodates automobile users. The pavement is in good condition for much of the duration of the Michigan Avenue Corridor. The Corridor has at least four lanes at any given point, including both eastbound and westbound lanes, and has seven lanes at its widest point. Traffic lights are well timed, and the slowest speed limit on the Corridor is 30 mph. There is no shortage of accessible parking for automobile-users. Cobra lights provide suitable lighting for drivers and are consistent along the Corridor.

Michigan Avenue adequately accommodates transit-users when pertaining to the number of bus stops along the Corridor. In the study area, there are a total of 34 bus stops. Only 10 have covered shelters, the rest lack any protection from the weather. Two-thirds of the bus stops display route information. Only two blocks on the Corridor have bus pullouts.

The Corridor is least accommodating to the bicyclist. The entire Corridor lacks bicycles lanes, and only five of the 61 blocks studied had bike racks. The sidewalk is too narrow to safely move pedestrians and bicyclists concurrently, and biking in the roadway is unsafe for all but the most skilled bicyclists.

Most Complete Street

Example: 2000 North, Fairview Street to Clemens Street



www.photobucket.com

This block was ranked as a class 2 block in the overall complete street category. The short setbacks provide a comfortable enclosure for pedestrians, and ornamental lighting is at pedestrian-scale. Restaurants along the block provide outdoor seating, and the sidewalks are wide and smooth. A pedestrian-activated crosswalk is located at the west end of the block. On-street parking is available, as well as parking behind the buildings. Business facades are attractive and inviting. Although this block does not have a bus stop, the adjacent block to the west has a bus stop with a covered shelter. Keeping with the trend on the rest of the Corridor, this block does not have bike parking or bike lanes, influencing the rating for this block as a class 2.

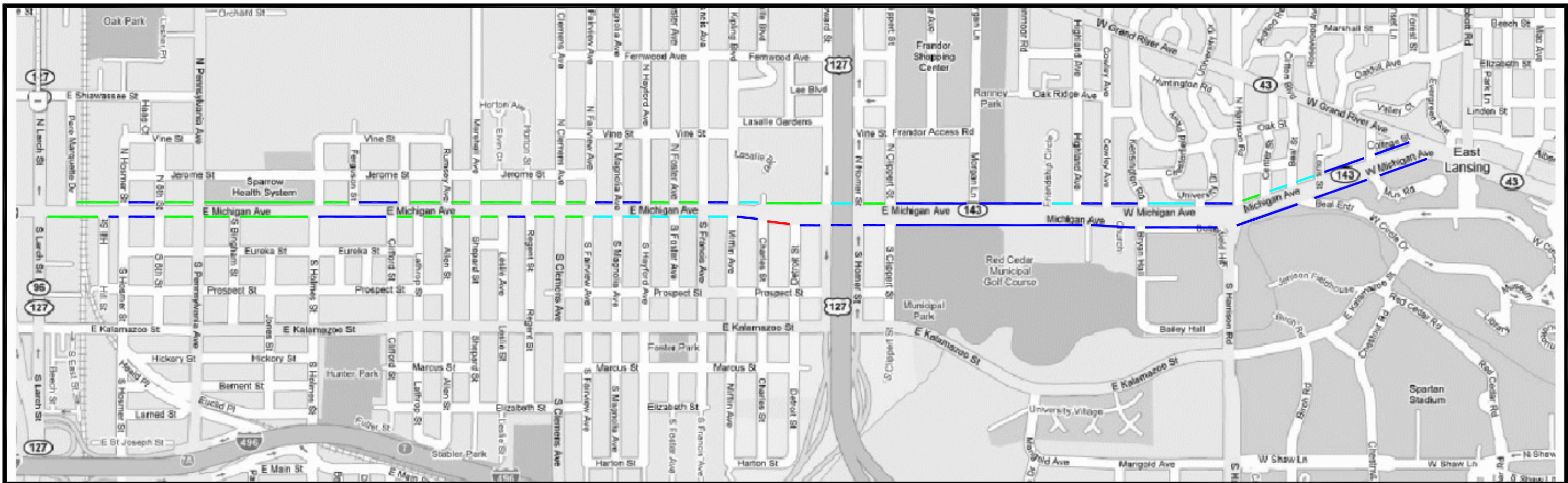
Least Complete Street

Example: 1300-3400 North, Highland Avenue to Friendship Circle



This block was ranked as a class 4 block in the overall complete street category. Though the photo shows a large building on the west end of the block, it has recently been demolished. This block has cracked uneven sidewalks and is not well lit. The long setback and large parking lot is not appealing. The block does not have crosswalks at either end, and does not have a bus stop. There are no bike lanes or bike racks present on this block. The roadway is smooth and has three lanes heading west with a speed limit of 35, which keeps the block from receiving a class 5 rating and earns a class 4 rating.

PEDESTRIAN CLASSIFICATION MAP



PEDESTRIAN LEGEND

- | | |
|--|---------|
| | CLASS 1 |
| | CLASS 2 |
| | CLASS 3 |
| | CLASS 4 |
| | CLASS 5 |

Pedestrian Analysis

Summary Analysis

In the Michigan Avenue Corridor, the focus on the automobile and its use has created an environment that generally is not safe for all pedestrians. The average pedestrian can for the most part travel along the corridor, but not as easily as he or she might be able to with some improvement. A complete street, however, accounts for *all* pedestrians. Those who are physically disabled and travel by wheelchair would have a very difficult time traveling along most parts of the corridor, as would a person with visual impairments. The most general trend on the Michigan Avenue Corridor is that the westernmost portion of the corridor is most suitable for pedestrians, falling into either the Class 2 or 3 categories. The eastern half of the corridor falls primarily into the Class 3 category, with Class 2 and 4 blocks interspersed throughout it, and one Class 5 block. These ratings indicate that on average, the corridor is moderately suited to pedestrian use. This does not separate disabled users from the non-disabled, but provides a general rating for the corridor.



www.michiganavecorridor.com

To compare the lowest with the highest rated blocks, the 2700 South block of Michigan Avenue is a Class 5 block, and the 1000 North block is a Class 2 block for pedestrians. The 2700 block received such a rating due to the sidewalk missing from half of the block. This is the most major issue that causes this to be such a problem block for pedestrian use. The 1000 block, which is where Sparrow Hospital is located, has wide sidewalks and other features to make it a pedestrian-friendly environment.



The most prevalent issues for pedestrians along the Michigan Avenue Corridor involve the condition and safety of sidewalks, including the level at which they are maintained, as well as the way they have been designed. More specifically, this includes features such as the placement of landscaping within the sidewalk and safety buffer zones to separate pedestrians from automobile traffic. Along the corridor, there is a lack of properly designated crosswalks for pedestrians, and of these crosswalks, many do not have signals and of those that do, none are audible for those with visual impairments. The streetscape is for the most part not designed in a pedestrian-friendly manner. There is inconsistency in building setbacks and articulation, as well as the overall physical appearance of structures. Many uses along the corridor are dominated by parking lots and automobile accessibility. Also, a majority of the corridor does not include, for example, seating or landscaping that would help to create a pedestrian-friendly streetscape.

Sidewalk

Surface Condition

One of the most significant issues along the corridor is the sidewalk. Much of the sidewalk is very poorly maintained, creating an unsmooth surface, unpleasant for pedestrians on foot, and uncomfortable or hindering for pedestrians in wheelchairs. In particular, the stretch of sidewalk on the North side of the street that runs from the intersection of Michigan Avenue and Grand River Avenue, all the way down to just past Harrison Road is very broken up and uneven. The South side is part of Michigan State University's campus and is not experiencing the same distress. The North side has several large holes and is very uneven. A person in a wheelchair may not even be able to physically make it across this area. Some parts of the sidewalk also have significant plant growth coming up between cracks and sidewalk joints, which leads to further deterioration. Some of the worst rated blocks in this respect are in front of Frandor Shopping Center between Clippert and Morgan Lane, and a few blocks west of US-127.

Obstructions

We observe a pattern from block 2500 to 1300, most common on the South side of Michigan Avenue, where trees have been planted right in the middle of the sidewalk, most without any grates.



When trees grow over time and do not get enough water, their roots spread out, breaking up the surface of the sidewalk (US DOT). The sidewalk surrounding the tree forms around the tree, creating an uneven sidewalk. This is a problem for wheelchair-users who need smooth surfaces to travel along. The sidewalk also cracks with the tree's growth, reducing the quality of the sidewalk and creating a bumpy surface for any pedestrian. Aside from the breaking up of the sidewalk as a result of these trees, the placement in the middle of the sidewalk is a problem in itself. This is a hindrance to any pedestrian, particularly those who are using wheelchairs, causing one to make extra effort to maneuver around the barrier.

Further west along the corridor, this is not as much of a problem. Grates are more commonly used, and where they are not, trees are closer to one side of the sidewalk, rather than in the middle.

Connectivity

Some areas along the corridor do not have a sidewalk that connects along the entire block. Two particular instances of this are at the North 1300 block and also along the 2700 South block. At Highland, during the time of our Complete Streets Inventory, construction was being done on this block. There is no alternate path provided for pedestrian travel, so there was no connection between the sidewalk on each side of the construction. This may be a periodic concern, particularly for someone in a wheelchair who cannot easily maneuver around and over the grass instead. In front of Mac's Bar on the 2700 South block, the sidewalk completely cuts off. It picks back up on each side of the building, but for some reason, was not connected directly in front. The same problem of having to travel through the grass applies here.



Width

Sidewalk width is typically inadequate. The area between Grand River Avenue and Harrison Road, North blocks 200-800, narrows in some places to less than five feet. Past this point, the walkway is usually about five feet wide. Starting at the 2200 block, headed west, the sidewalk width increases to about ten feet, but the width of the walkway does not always increase as well. Some blocks have an inconsistent width and range (within the one block) between about five and fifteen feet. The South 2300 block between Foster and Hayford, where Lansing Art Glass is located, is one example where this inconsistency occurs. Where the walkway width is only five feet, not much room is allowed for multiple users. Particularly if there is a wheelchair-user, which takes up more space, there is not much space for another user to pass. Since the Michigan Avenue Corridor does not accommodate bicyclists in the street, many bicyclists may choose to ride on the sidewalk, which is an additional user to account for consuming space on the sidewalk.

Aesthetics

Closer to Sparrow Hospital, we observe decorative benches, trash receptacles, and rain gardens, and an effort to create a space for pedestrians and their use going beyond just their easy and safe movement. In addition, a brick pattern becomes common in this area and continues westward down the corridor. This adds to the pedestrian environment that has been accounted for more here, and gives a sense of character to blocks 1200-600. Rain gardens are meant to be aesthetically pleasing forms of landscaping, while also being positive to the environment. However, they may significantly decrease the amount of space available for pedestrian travel when located on the sidewalk of a corridor. Especially for someone in a wheelchair, accommodating a few users crossing paths would be difficult here.

Lighting

The lighting along the corridor is something worth noting. From Grand River Avenue west toward US-127, the only lighting present is scaled for automobiles. This typically is the very tall, visually unappealing light fixtures that hang down over the street. These provide lighting for automobiles at night, but are less effective for pedestrians. One exception to this is the 800 North block between Harrison and University, where there are pedestrian-scaled lights, but only two of them, and on a block that is comparatively long. On many other blocks with pedestrian-scaled lighting, such as between 2700-2000, there are about 4 lights per block and these are blocks of shorter length. Between Cowley and Highland on 1200 North, there are no lights present. Beginning at 2900 and continuing on west, more pedestrian-scaled lights are used. They are typically the smaller, double-acorn lights, many of which have decorative MSU banners, indicating the close proximity to the university. Ornamental light fixtures like this create a more pedestrian friendly environment that is both safer and more visually appealing to users.

Fig. 1: pedbikeimages.org/DanBurden



Fig. 2: pedbikeimages.org/ITEPedestrianBicycleCouncil



Compare pedestrian-scaled lighting in Fig. 1 and automobile-scaled lighting in Fig. 2.

Pedestrian/Automobile Buffers

The rain gardens are beneficial at providing a buffer between pedestrian and automobile traffic. It is important that there be a space that separates the two, mainly for safety purposes. A majority of the corridor sometimes has no “verge,” the landscaped area between the street and the sidewalk. The verge is important both for aesthetic purposes and also for safety. The closest attempt to create this is the trees that are *sometimes* located with the rain gardens, or the larger planters found on block 1100 with Sparrow Hospital. While not as aesthetically pleasing as a landscaped verge, on-street parking, which is more common in the western half of the corridor, a majority of blocks 2000-800, does provide a separation between pedestrians and the automobile traffic.



Lansing Rain Gardens: www.mywatersheds.org

Along much of the Michigan Avenue Corridor, there are no shoulders along the road. This presents a safety hazard for pedestrians because there is no buffer between the automobile and pedestrian zones. Where there is on-street parking, a buffer zone is created, as well as where there are rain gardens or significant landscaping efforts that separate the pedestrian walkway from automobile traffic. This only accounts for about one-third of all blocks along the corridor.

Crosswalks

We observe along a majority of the corridor a significant lack of North to South crosswalks. More commonly, where there are crosswalks, there is no signal, countdown, crossing-button, and further, no audible timer. Between Grand River Avenue (200) and Harrison Road (700), there are multiple crosswalks through the blocks, but the only signals are located at the main intersections (Grand River and Harrison). This is a major issue because there is so much traffic in this area. Adjacent to and on the campus of MSU, there are many students traveling by foot that cross Michigan Avenue. There also is considerable automobile traffic here. The combination of the two should necessitate safer crossings for pedestrians. One particular block where a crosswalk is missing but may be appropriate is block 600 North, between Beal and Center Streets. The grass on the median has a worn down "foot path," indicating a desire and need for there to be a crosswalk in this location. After the crosswalk at Harrison, there are no crosswalks for seven blocks until the 3000 block at Clippert. This is a stretch of approximately three-quarters of a mile. There is a median in the road, but because of the traffic volume along these blocks, a pedestrian cannot easily cross, and someone in a wheelchair would not be able to cross at all. West of US-127, crosswalks are few and far between and typically have no signals or medians.

Lack of a median or crossing island along Michigan Avenue creates an unsafe situation for pedestrians, on foot or wheelchair, where pedestrians that cannot make it completely across the street, a likely situation for a road with five lanes, are stranded in the middle of the street with no safe haven to wait at. The lack of a median or crossing island continues westward along the corridor. Crosswalks become more common west of 2100 and sometimes do have a signal, but are not audible. They become even more common and consistent with the 1300 block and usually do have a signal, and additionally, a crossing button and timer; still not audible. A few blocks past Sparrow Hospital, they become less common again and less likely to have signals.

Setbacks

The inconsistent design along the Corridor presents a problem for pedestrian use. The setbacks between and within blocks vary greatly. There are some buildings set close to the street, for example, the north side of the 1600 block, while others are set very far back, the most extreme example being block 3200 North, where Dunham's is located.

Figure 1



Compare the large setback on Michigan Avenue in Figure 1 with the streetscape created by a short setback in Figure 2.

Figure 2



Those that are set closer to the street create a more pedestrian friendly space. When nice-looking facades are designed, and there are windows to look through, an aesthetically pleasing and also safe feeling is created. A greater setback creates a greater distance for a pedestrian to have to cross in order to reach a destination.

Parking

Similarly, the distance between structures greatly differs. The pedestrian-friendly situation is one such as the 2000 block, where Gone Wired Café, Everybody Reads, and other businesses are all connected. This puts more uses in one place, both making it easier for pedestrians to reach their destination, and also creating a more lively and urban setting. Other blocks have parking lots, or curb cuts leading to parking lots that separate the uses. We casually observe that there seems to be more parking than is needed, which creates a blanket of gray space, very visually unappealing. Dunham's on the north side of the 3200 block between Friendship Circle and Morgan Lane is the prime example of excess parking. This parking is meant for customers of Dunham's and the small strip of businesses including Mark Taylor's School of Dance and a few others. Another example of excessive parking is the lot next to Hot Tubs on the south side of the 2100 block between Fairview and Magnolia.



Michigan Avenue Corridor pictured above, 3200 North block.
www.michiganavecorridor.com

The only parking garages along the corridor are at Sparrow Hospital and at Campus Village Apartments on the south side of Michigan Avenue near the western edge of MSU's campus. The latter provides parking only for residents of the apartment complex. Aside from these garages, nearly every other business along the corridor has available parking. This varies between parking lots off to the side of buildings, in front of, or at the rear.

Even where there is on-street parking, this is usually supplemented by a parking lot. Beginning with the more densely built 2000 block between Fairview and Clemens, on-street parking becomes very common and continues for a majority of the remaining corridor. Between blocks 2000 and 1400, there is on-street parking, and west of 1400, about half of the remaining blocks have on-street parking available. These are the blocks located closer to Sparrow Hospital, which provides large parking structures for its users.

Facades/Visual Appearance

The design of individual buildings greatly differs. There is no consistent appearance along a majority of the corridor. Some businesses are located within detached units that formerly were homes. Others are in large and flat buildings that lend nothing but a cold and gray wall to the street.



Michigan Avenue Corridor: www.michiganavecorridor.com



On some blocks, for example the 2100 south block between Magnolia and Fairview, a random trailer is set about twice as far back from the street as the other structures. Some blocks, like the 2400 south block between Francis and Foster, have strip malls as part of their development. This block has a restaurant set fairly close to the street, about 30-40 feet, but on the same block is a small strip development with a convenience store and other businesses, with a small parking lot in front. The inconsistency of design on the corridor makes it difficult for there to be a single sense of character on the corridor. Numerous vacant buildings are found within the corridor. These vacancies leave the corridor deprived of potentially beneficial uses as well as character that could come from a business that may locate there. Such a condition is less conducive to pedestrian travel and creates an environment that is uninviting and often unsafe for pedestrians.

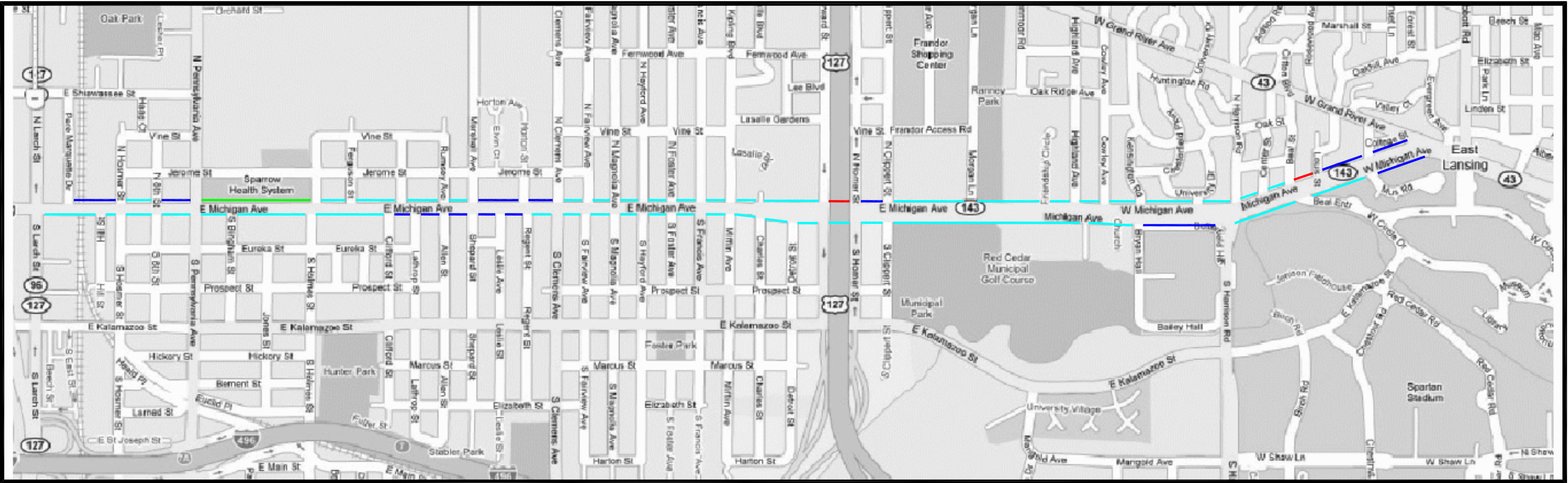
Wayfinding

A pedestrian feature missing from almost all of the corridor is wayfinding. The blocks east of Sparrow Hospital have no signs to provide wayfinding to important destinations and landmarks in the downtown Lansing area such as the State Capitol Building. In front of Sparrow Hospital, signage directs people to different destinations within the hospital. Beyond this block, there are some signs indicating direction to Oldsmobile Park, Museum District, Lansing Center, but no direction toward the Capitol Building or the Lansing City Market, for example. The State Capitol Building is clearly visible from the corridor, but it is important enough of a landmark that it should also be indicated on signage. Signage is important in East Lansing and for Michigan State University destinations as well. These signs provide direction to pedestrians for how to access places they are likely to be going, particularly for those who may be visiting. The lack of wayfinding east of Sparrow though, fails to provide much direction for westbound travelers who may be further away from their destinations.

Accommodations for the Visually Impaired

Along the entire corridor, there are very few features to accommodate the visually impaired. Of the crossing signals that are present, none have audible timers. A person who is blind would have a terrible time crossing the street, not knowing if or when it is time to cross. This poses a huge safety hazard since a visually impaired pedestrian could think it is safe to cross, unaware of a car coming down the street. Additionally, there are detectable warnings on the sidewalk to make a visually impaired pedestrian aware that they are reaching the street only on South 200 and west of block 900, but no other blocks. This is a safety hazard because a blind person could unknowingly walk into the street, putting him or her at risk of being struck by a car.

BIKEABILITY CLASSIFICATION MAP



BIKEABILITY LEGEND

- | | |
|--|---------|
| | CLASS 1 |
| | CLASS 2 |
| | CLASS 3 |
| | CLASS 4 |
| | CLASS 5 |

Bicyclist Analysis

Summary Analysis

The Michigan Avenue Corridor is very unsuitable for bicyclists. Of the sixty-one blocks on the Corridor, half fall into the Class 4 category for bikeability. The second most common rating for bicyclists is Class 3. Other blocks fall into the Class 2 or 5 categories, but this is much less common. None of the blocks receive a rating higher than Class 2. The corridor's focus on the automobile has pushed the needs of the bicyclist to the sidewalks at best. There are many vehicle access points throughout the corridor that pose a safety risk for bicyclists. There are also rarely any features that specifically accommodate those traveling by bicycle. Bike racks are very rare, and the complete lack of bike lanes forces users to ride on the sidewalk, which is in poor condition for much of the corridor. Other concerns include access to the Lansing River Trail.

Two examples of blocks that received ratings on opposite ends of the scale are the 1000 North and 2900 North blocks. The 1000 North block of Michigan Avenue, where Sparrow Hospital is located is the highest rated block for bikeability, receiving a rating of Class 2. This has much to do with the wide and well maintained sidewalks, compared to the 2900 North block, which received a rating of Class 5. Among other concerns, this block has no accommodations specifically for bicyclists and is also poorly lit, a large safety hazard.

Bike Lanes

Along the entire corridor, there are no bike lanes. Bicyclists are technically supposed to ride in the street, but the speed limit along the corridor ranging between 30 and 35 miles per hour is typically too fast of a speed for the average bicyclist to keep pace with. Similarly, there are not shoulders for a bicyclist to use as makeshift bike lanes. Thus, if a bicyclist does choose to ride in the street, he or she faces high risk of being struck by a car. Alternatively, a bicyclist faces many problems by having to ride on the sidewalk.

Sidewalk Condition and Design

Sidewalk Surface

The sidewalk condition is of poorest quality on the north side of Michigan Avenue from Grand River Avenue (200) stretching just past Harrison Road (700). The sidewalk here is very broken up and uneven. This is both unsafe and discomforting to bicyclists. A few blocks beyond Harrison Road, the sidewalk tends to be more well-maintained, at least to the point that it will not cause too many issues for a bicyclist. However, even the joints of sidewalks can be annoying to bicyclists as this creates a bumpy surface for riding. The bicycling condition would improve if either bike lanes on the street, or a smooth and

continuous path alongside the sidewalk where bicyclists can safely and smoothly travel were provided.

Obstructions

Another concern with the sidewalk is the obstruction that is common from trees that have been placed in the middle of the sidewalk or in other areas, rain gardens. The trees in the sidewalk are most common throughout the few blocks west of Mifflin. This creates a hindrance to bicyclists as they have to carefully maneuver around each tree in their way. This is both an issue of safety and riding ease. Other obstructions to travel are further west, where the rain gardens begin near Sparrow Hospital and continue to be present along the block all the way to the western boundary of the Corridor. These decrease the space available for travel along the sidewalk and create a safety hazard when there are multiple users on the sidewalk.

Curb Cuts

We observe that curb cuts exist on the corners of each block, which allow for smooth travel crossing over side streets. Curb cuts leading in and out of Michigan Avenue, however, pose safety issues. The excess of parking lots along the corridor, and the curb cuts that so often lead into them provide many potential dangers for bicyclists riding along the sidewalk, unaware of cars that may be trying to turn into parking lots.

Bicycle Parking

Along the corridor, there is bicycle parking on and near MSU's campus. There are racks on both the north and south 200 blocks and many racks near the Brody dormitories, South 800-1000. There is one on the south side of Michigan Avenue between Reniger and Clippert (1200-3100), but none at all west of the point along the corridor. Without a safe and proper place to park bicycles, bicyclists are not being accommodated.

Lighting

Lighting along the corridor varies, and generally speaking, is directed toward the road from Grand River Avenue to US-127, but after this point, pedestrian-scaled lighting provides more direct lighting toward the sidewalk. While the automobile-scaled lighting directed toward the road would be appropriate if bike lanes in the road were provided, ornamental lighting is more appropriate for lighting the sidewalk.

Wayfinding

An important feature missing from almost all of the corridor, as noted in the Pedestrian Analysis, is wayfinding. The blocks east of Sparrow Hospital have no signs to provide wayfinding to important destinations and landmarks in the downtown Lansing area. In front of Sparrow Hospital, signage directs people to

different destinations within the hospital. Beyond this block, there are some signs indicating direction to Oldsmobile Park, Museum District, Lansing Center, but no direction toward the Capitol Building or Lansing City Market for example. The State Capitol Building is clearly visible from the corridor, but it is important enough of a landmark that it should also be indicated on signage. These signs provide direction to users for how to access places they are likely to be going, particularly for those who may be visiting. The lack of wayfinding before Sparrow though, fails to provide much direction for those who may be further away from their destinations.

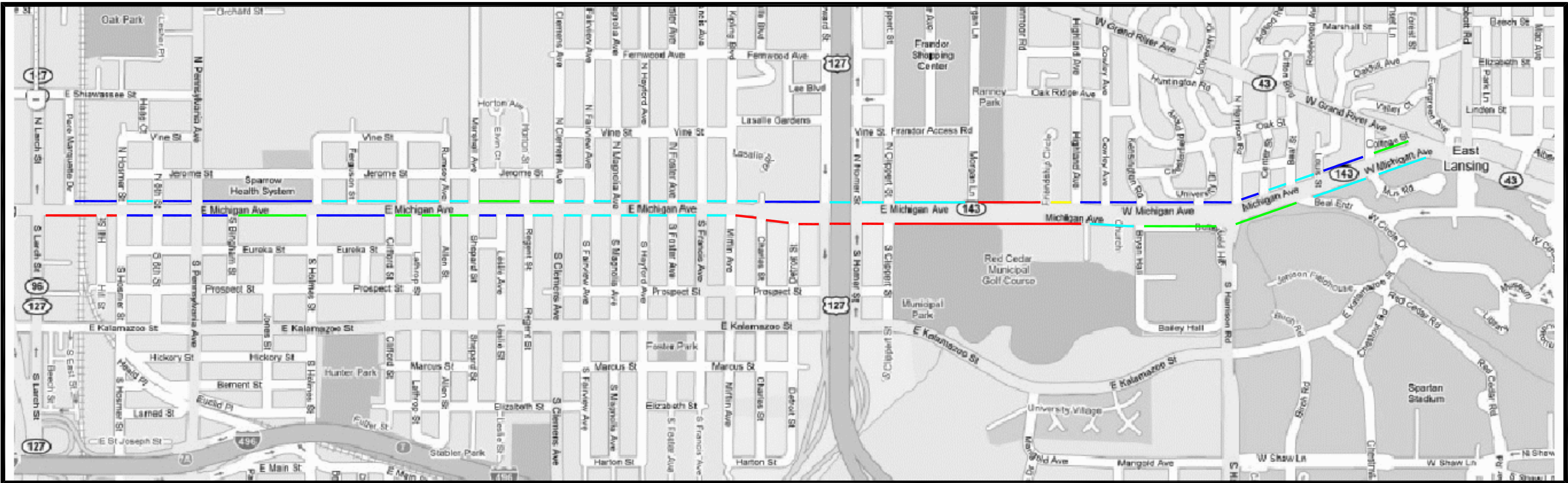
There is also no wayfinding to the Lansing River Trail. The Lansing River Trail is an approximately 9-mile long trail that runs alongside the Grand River and the Red Cedar River, a popular destination for many bicyclists (www.trails.com).



www.countryinns.com

The river trail is easily accessible from Michigan Avenue a few blocks beyond the reach of the corridor, but proper indication of this closeness could be indicated on the corridor.

TRANSIT CLASSIFICATION MAP



TRANSIT LEGEND

- | | |
|--|---------|
| | CLASS 1 |
| | CLASS 2 |
| | CLASS 3 |
| | CLASS 4 |
| | CLASS 5 |

Transit-User Analysis

Summary Analysis

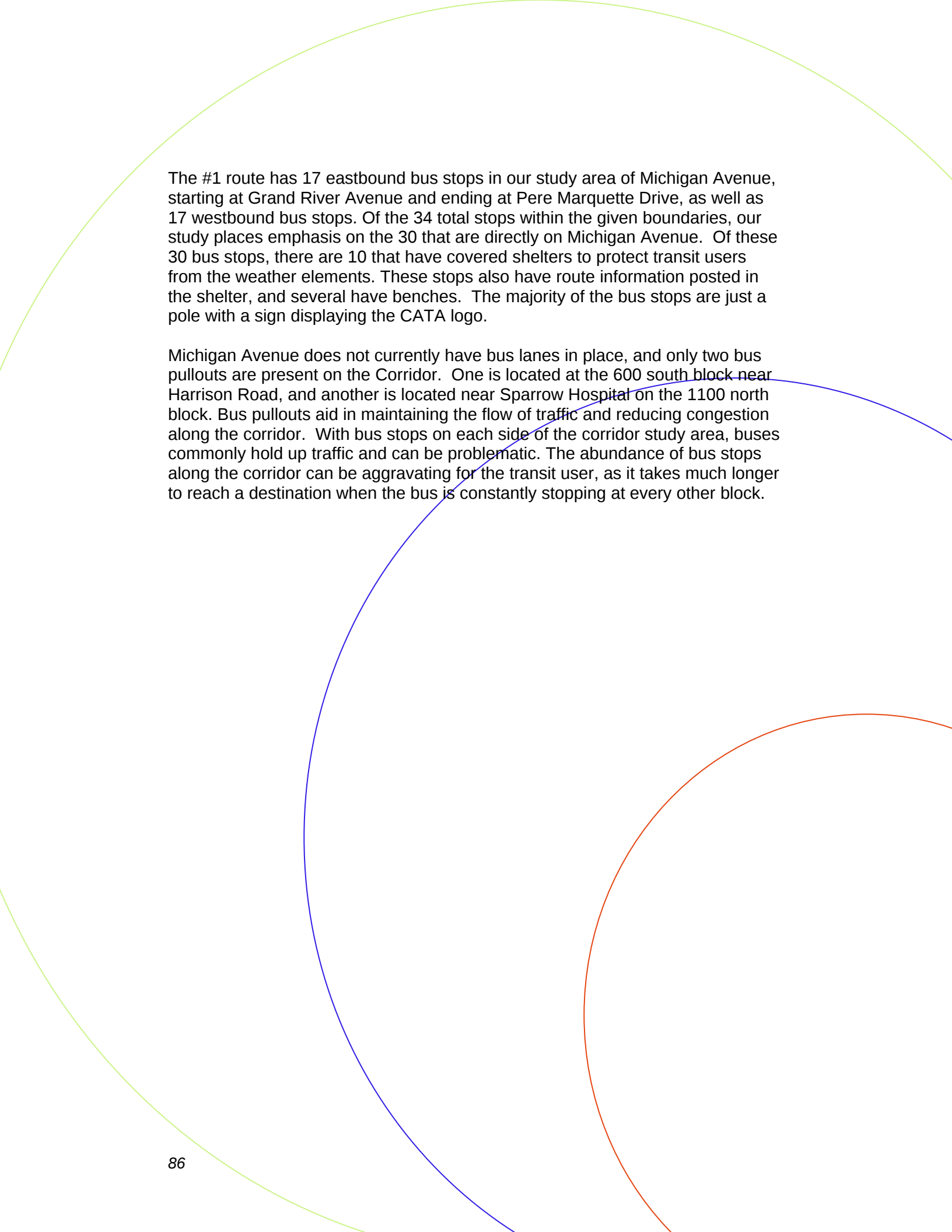
The only mode of public transit currently available on the Michigan Avenue Corridor is the Capital Area Transportation Authority (CATA) bus system. Servicing roughly 600 square miles in Ingham County, the CATA system has 196 vehicles in its fleet. It is the first bus system in Michigan to utilize hybrid buses, though it currently only has 10 of these in its fleet. Most buses are equipped with bike racks and have audio stop announcement systems.

The CATA bus system has 32 fixed-routes, buses that service specific stops at specific times, 16 of which travel the Lansing area and return to the CATA Transportation Center (CTC) in downtown Lansing. This centrally located hub between Kalamazoo Street and Lenawee on Grand Avenue makes it easy for transit-users to transfer buses; the facility also has restrooms, an information center, seating area, coffee shop, vending machines, and bus pass/token purchasing. The Entertainment Express is another route option that runs Thursday, Fridays, and Saturdays between 7:30PM and 2:30AM with limited stops along the corridor.

The regular one-way fixed-route fare is \$1.25, while the discounted rate is 60 cents. The discounted rate applies to students with a valid student ID, those with a Medicare Card, or seniors and disabled persons with a CATAClub card. About twenty percent of the funding for CATA in 2007 was from passenger fares and other funding, while 47% was local funding, and 33% was funded by the state.

The CATA bus route #1 originates from the CTC and ends at the Meridian Mall in Okemos, with 40 stops along the eastbound route and 48 stops along the westbound route. On weekdays, the #1 route stops every ten minutes. As this route travels along main roads Michigan Avenue and Grand River Avenue, it receives the most ridership, providing 156,000 rides in the month of January 2008 and travels all along the corridor. In comparison, route #8, which travels from Pennsylvania Avenue to Holt Road, provided 34,000 rides during the same period. The number of users fluctuates greatly as Michigan State students leave during the summer. In July 2008, the number of rides given on route #1 dropped to 110,000.

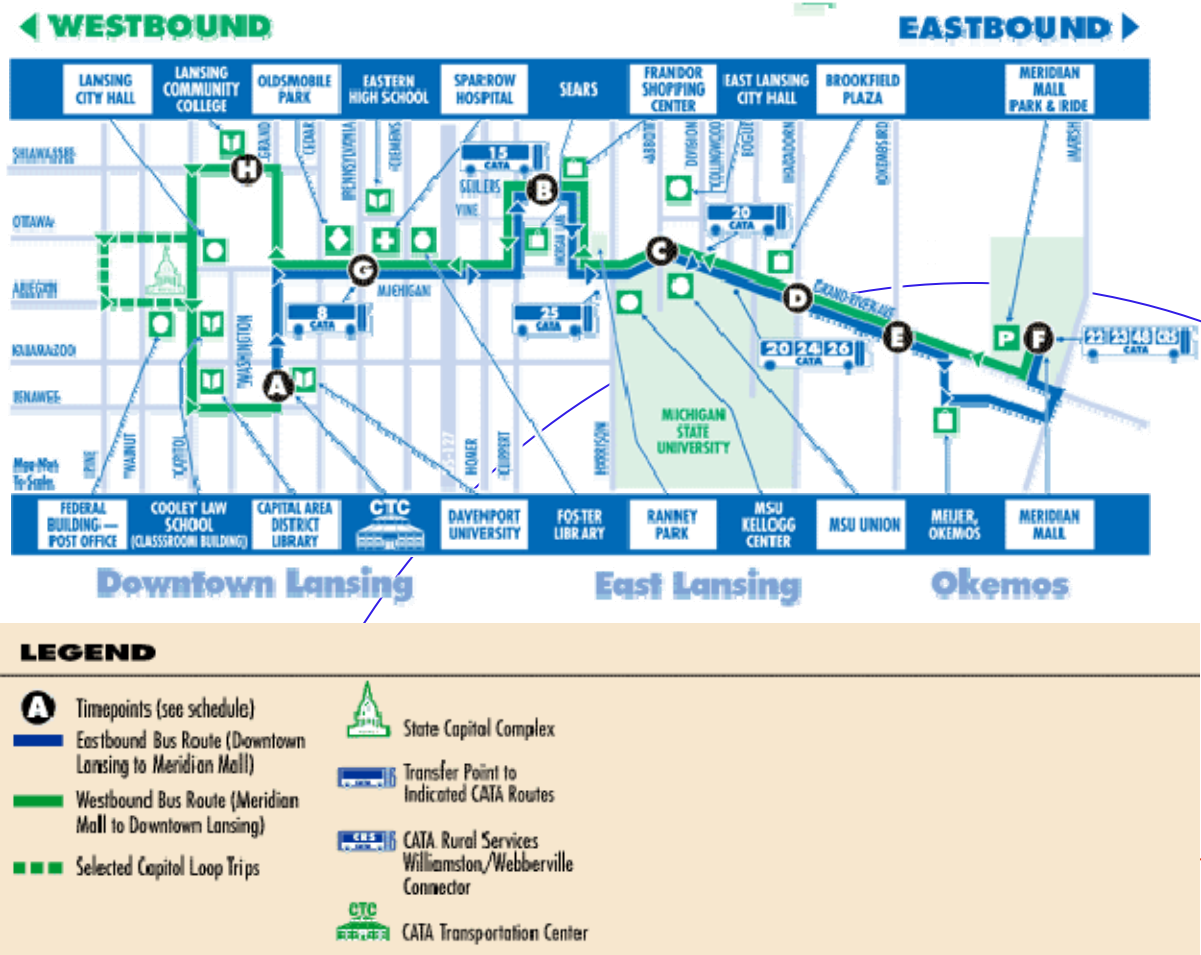
After analyzing the corridor by performing a block-by-block study, the rating for the transit portion of the study resulted in mostly Class 3. The criteria for transit included the presence of bus lanes, bus pullouts, bus stops, and whether the bus stops were equipped with a shelter, seating, and route information. With 34 bus stops within the corridor study boundaries, this may be considered an excess amount of bus stops.



The #1 route has 17 eastbound bus stops in our study area of Michigan Avenue, starting at Grand River Avenue and ending at Pere Marquette Drive, as well as 17 westbound bus stops. Of the 34 total stops within the given boundaries, our study places emphasis on the 30 that are directly on Michigan Avenue. Of these 30 bus stops, there are 10 that have covered shelters to protect transit users from the weather elements. These stops also have route information posted in the shelter, and several have benches. The majority of the bus stops are just a pole with a sign displaying the CATA logo.

Michigan Avenue does not currently have bus lanes in place, and only two bus pullouts are present on the Corridor. One is located at the 600 south block near Harrison Road, and another is located near Sparrow Hospital on the 1100 north block. Bus pullouts aid in maintaining the flow of traffic and reducing congestion along the corridor. With bus stops on each side of the corridor study area, buses commonly hold up traffic and can be problematic. The abundance of bus stops along the corridor can be aggravating for the transit user, as it takes much longer to reach a destination when the bus is constantly stopping at every other block.

CATA Bus Route #1



www.cata.org

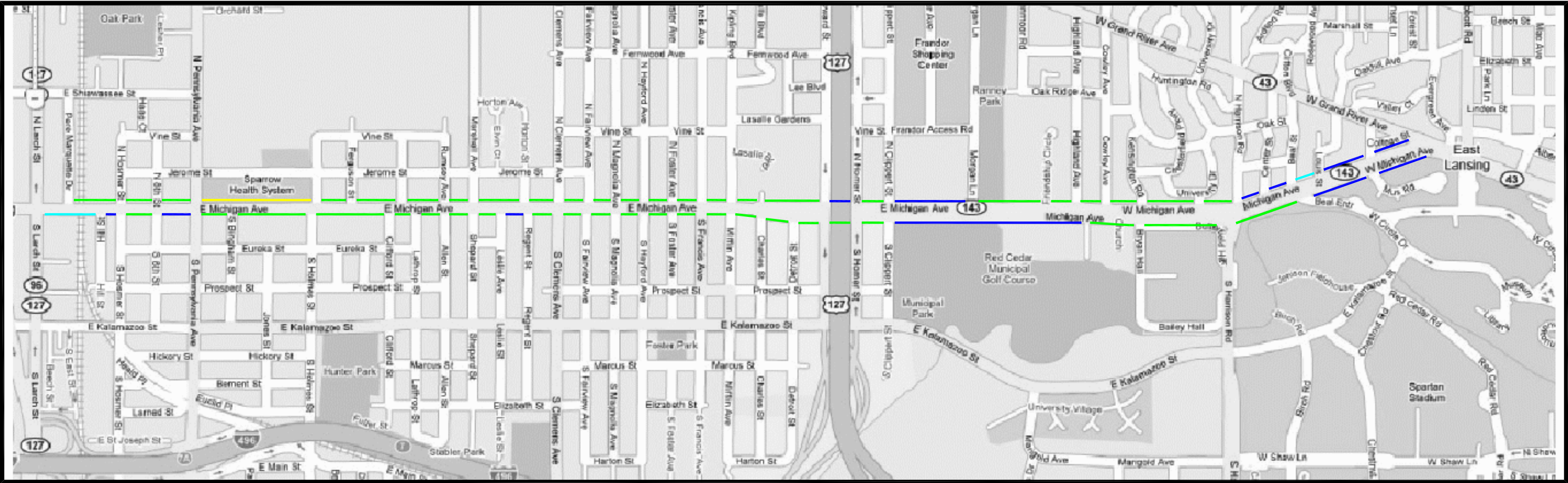
CATA Bus Route #1 Stops Within Corridor Study Boundaries

(Grand River Avenue to Pere Marquette Drive)

* = shelter

Westbound Bus Stops within Corridor Study Area	Eastbound stops within Corridor Study Area
Stop #1725 WBD Michigan past Delta St *	Stop #1675 EBD Michigan before S Hosmer St
Stop #1726 WBD Michigan Ave past Louis St	Stop #1676 EBD Michigan past Pennsylvania *
Stop #1727 WBD Michigan past Center St. *	Stop #1677 EBD Michigan past Jones St.
Stop #1728 WBD Michigan before Kensington *	Stop #1678 EBD Michigan past Holmes St.
Stop #1730 WBD Michigan past Friendship Cir	Stop #1679 EBD Michigan past Lathrop St. *
Stop #4 WBD Frandor Center *	Stop #1680 EBD Michigan past Sheperd St.
Stop #1732 SBD Clippert St before Michigan Ave	Stop #1681 EBD Michigan past Clemens Ave.
Stop #1734 WBD Michigan past Howard Ave *	Stop #1682 EBD Michigan before S Magnolia Ave.
Stop #1735 WBD Michigan past Kipling Blvd	Stop #1683 EBD Michigan past Foster Ave.
Stop #1736 WBD Michigan past Foster Ave	Stop #1684 EBD Michigan past Mifflin Ave.
Stop #1737 WBD Michigan before Magnolia Av	Stop #4636 NBD Clippert St past E Michigan
Stop #1738 WBD Michigan past Clemens Ave *	Stop #9 EBD Frandor Center *
Stop #1739 WBD Michigan past Marshall Ave	Stop #1688 EBD Michigan Ave past Friendship Cl
Stop #1740 WBD Michigan past Custer Ave	Stop #1689 EBD Michigan past Highland Ave
Stop #1741 WBD Michigan past Holmes St *	Stop #1690 EBD Michigan past Brody Rd W *
Stop #1742 WBD Michigan before Pennsylvania	Stop #1691 EBD Michigan past Harrison Rd *
Stop #1743 WBD Michigan before Hosmer St	Stop #1693 EBD Michigan Ave before Delta St

AUTOMOBILE-USER CLASSIFICATION MAP



AUTOMOBILE-USER LEGEND	
	CLASS 1
	CLASS 2
	CLASS 3
	CLASS 4
	CLASS 5

Automobile-User Analysis

Summary Analysis

For past decades the automobile has dominated many choices that have been made in development. The Michigan Avenue Corridor is a perfect example of this trend. The roads, parking, and infrastructure along the Corridor are focused around the use of the automobile. Forty eight of the sixty one blocks are considered to be a Class 2 and one block is categorized as a Class 1. This shows that 80% of the Corridor fulfills 60-80% of the required criteria for an automobile user. The rest of the blocks along the Corridor fall into Class 3 other than one block that is insufficient for automobile users classified as a Class 4 and no blocks are considered to be a Class 5. Of all the users on the Corridor the automobile users are most accommodated for. There are many aspects to driving that complete a safe and enjoyable commute. Elements such as road quality, signage, and ease in navigation are a few of the many parts of an automobile-user's complete street.

Traffic Flow

Cars being the dominant aspect of the Corridor there is a good amount of infrastructure that revolves around the accommodation of the vehicle. Currently along the corridor there are three lanes that run east and three lanes that run west from the 200 block (Grand River) to the 2800 block (Detroit). Along these blocks there are medians that serve as left hand turns as well as turn arounds. There are only few lights that stop the flow of traffic within this area. This prevents back ups and keeps the flow of traffic at a steady rate. On the west side of the corridor from the 2800 block to the 600 block (Pere Marquette) there are two lanes that run east and two that run west but there is a middle lane that serves as a turning lane. There is place for people to turn left at lights as well as the within the middle of the blocks drivers are able to pull into the middle lane while waiting to turn. This prevents stopped vehicles from blocking the flow of traffic. The west end of the corridor does lack one positive attribute that the east side holds. There are several more lights that are poorly timed. The timing of traffic lights does not reflect the flow of traffic or the designated speed limit. Often cars will be stopped within 100 feet of the previous light they were just at. This would make more sense if there were crosswalks along this area but there are not. From an automobile-user's perspective traveling east to west on the Corridor there may be too many lights and they are timed

inefficiently and cause for more back ups and an increase in unsafe travel. The speed limits along the Corridor also are in the motorized vehicles favor. From Grand River to Clippert the speed limit is 35 miles per hour and the rest of the Corridor, Clippert to Pere Marquette, the speed limit reduces to 30 miles per hour before it reaches 25 miles per hour downtown Lansing. There is one more aspect that affects automobile users through out the corridor. Bus pullouts are rare along Michigan Avenue. For the 34 bus stops there are only two bus pullouts. When a bus does not have a pullout it is required to stop in the lane. This blocks a whole lane completely. This is another cause of back ups on the corridor. Not having bus pullouts negatively affects the automobile users as well as transit users. Another aspect that can be potentially unsafe for many corridor users is road quality. The majority of the Corridor has no problem regarding the condition of the road. There is one specific area that has more issues than an occasional pothole. The 3100 block which is located directly east of 127 has a poor road make up. The pavement is not smooth in several areas. These spots are longer and larger than a regular pothole. They also are found in all lanes east and west bound. This block may service more users being parallel to 127 and Frandor Shopping Center but the quality is unsatisfactory.

Signage/Wayfinding

Along the corridor the street signs are easy to see and are helpful to the automobile user. This assists them in navigating the area without confusion and gives clarity to people who are not familiar with the area. This is an important detail in encouraging visitors to return. Way finding is another form of signage that completes an area. Lansing being our state capital and East Lansing being home to the largest university in the state there are many destinations and attractions that people are coming to the area for. The amount of wayfinding along the Corridor is lacking. The only wayfinding is found the 900 block on the north side between Pennsylvania and Eighth St and on the north side of the 1100 block between Holmes and Pennsylvania. On the 900 block there is a sign that does show direction to a few destinations such as Oldsmobile Park and the Museum District. This list should include many other locations in the area such as the Capital Building, the Lansing Center, the River Trail, City Market, the State Library, and Old Town. Not only should the sign contain more information they should also be found more frequently. One limited sign is not enough. On the 1100 block is Sparrow Hospital. The wayfinding here gives direction to the emergency room as well as other aspects of the hospital. There is no wayfinding on the east side of the Corridor that should provide guidance for those visiting the

university. There are several venues on campus that are visited frequently.

Parking

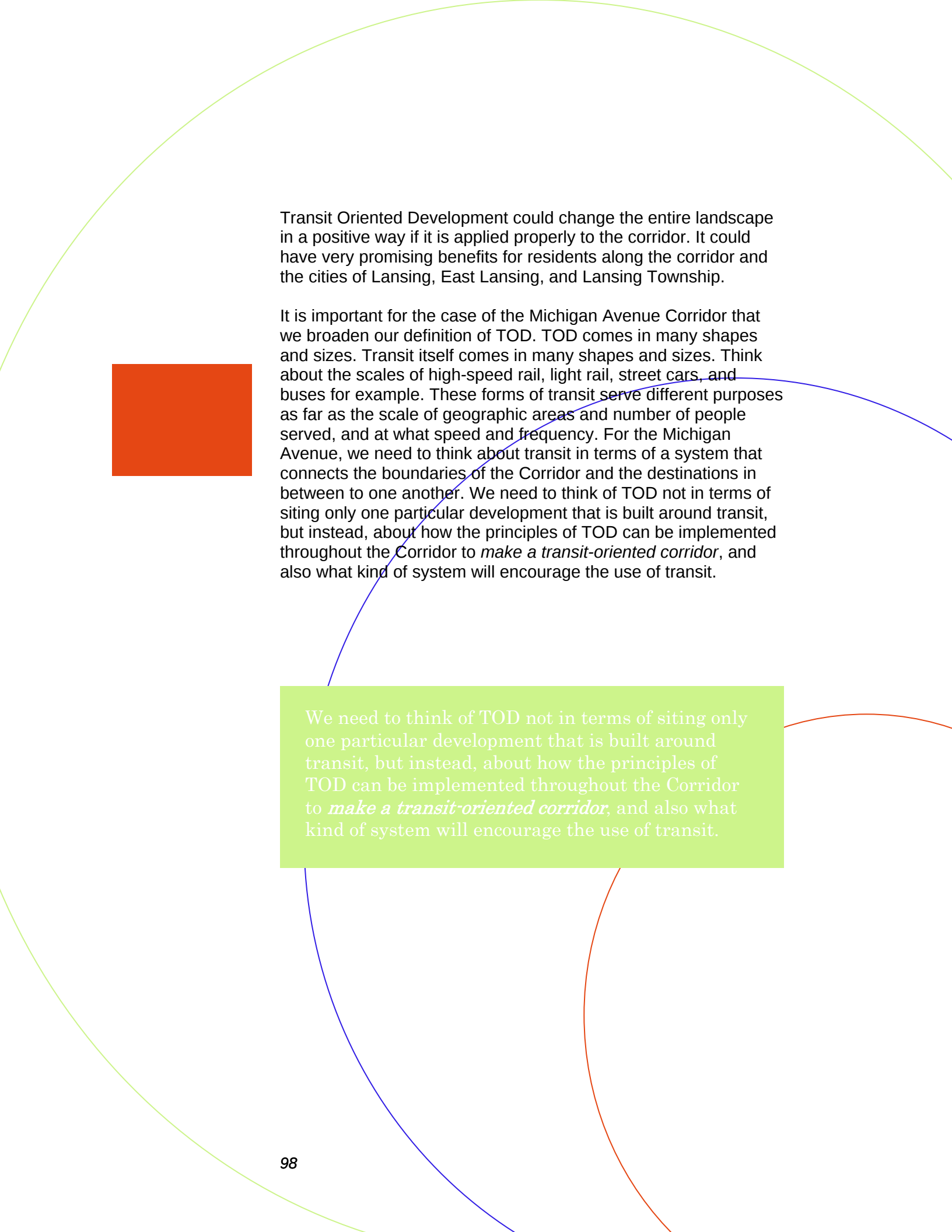
There appears to be sufficient amount of parking along the Corridor. In some areas there seems to be even more than necessary. On the south side of the Corridor from Grand River to Harrison there is all University property where the only parking provided is next to the dorms. On the north side of the street from Grand River to Harrison there are some offices, a sorority house, several apartments, some individual houses, as well as some commercial and retail area. Here there is also enough parking for all places whether it is in the rear for the residents or parallel parking lots for the stores and restaurants. Between Harrison and Homer on the south side of the street there is also a wide variety of uses as well. Furthest to the east there is more parking for dorms but the neighbor to the west is more apartments. These apartments have a large lot in rear as well as a parking structure that borders the Corridor. Even further west is the former Red Cedar Golf Course which has parking as well. On the north side of this area starting at the east for many blocks there is only residential where there is personal driveways and parking available. Further west there is a small block of commercial with a parking lot that is lies between the street and storefront. The next two blocks contain Frandor Shopping Center. Here there is an abundance of parking. These parking lots take over the area and hinder the character. On the west side of 127 from Howard to Fairview there is no on-street parking on the north or south sides of the street but there is sufficient parking lots in front of, on the side, or to the back of all commercial areas. From Fairview to Pere Marquette there is on street parking on the majority of these blocks. For many instances there appears to be more than enough parking available behind the businesses that on-street parking and several underutilized lots can go to a greater need that could benefit all users.

Transit-Oriented Development

Background Information

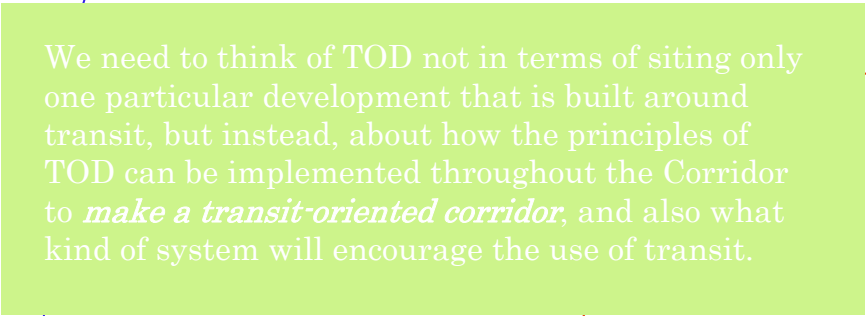
The Bay Area Rapid Transit Authority (BART) defines Transit-Oriented Development (TOD) as “Moderate- to higher-density development, located within an easy walk of major transit stop, generally with a mix of residential, employment, and shopping opportunities designed for pedestrians without excluding the automobile. TOD can be new construction or redevelopment of one or more buildings whose design and orientation facilitate transit use”. In searching for the proper criteria for Transit Oriented Development, the BART definition addressed what is desirable for the Michigan Avenue Corridor. In order for Transit Oriented Development to be created along the corridor, many land use policies and zoning regulations would need to be changed to allow for this type of development.

TOD: higher-density development, located within an easy walk of transit stops, mixed-use designed for pedestrians and automobiles alike. new construction or redevelopment of buildings whose design and orientation facilitate transit use.



Transit Oriented Development could change the entire landscape in a positive way if it is applied properly to the corridor. It could have very promising benefits for residents along the corridor and the cities of Lansing, East Lansing, and Lansing Township.

It is important for the case of the Michigan Avenue Corridor that we broaden our definition of TOD. TOD comes in many shapes and sizes. Transit itself comes in many shapes and sizes. Think about the scales of high-speed rail, light rail, street cars, and buses for example. These forms of transit serve different purposes as far as the scale of geographic areas and number of people served, and at what speed and frequency. For the Michigan Avenue, we need to think about transit in terms of a system that connects the boundaries of the Corridor and the destinations in between to one another. We need to think of TOD not in terms of siting only one particular development that is built around transit, but instead, about how the principles of TOD can be implemented throughout the Corridor to *make a transit-oriented corridor*, and also what kind of system will encourage the use of transit.



We need to think of TOD not in terms of siting only one particular development that is built around transit, but instead, about how the principles of TOD can be implemented throughout the Corridor to *make a transit-oriented corridor*, and also what kind of system will encourage the use of transit.

TOD Analysis

Population Analysis

In deciding where to put TOD, the most important considerations are population and job densities. The TOD guidelines used for population density in the Twin Cities, in Minnesota, was 15 > persons per acre in the immediate area, which is about 9,600 people per square mile (metro council). There are six U.S. Census tracts along the stretch of Michigan Avenue from Pere Marquette to Grand River, and only two consistently reach that total. Census tract 41 is roughly the triangle formed by Harrison, Grand River and Michigan Avenue, where there is multi-family residential and some fraternity and sorority houses. Census tract 42 is across Michigan Avenue from tract 41, and has several dormitories. In 2000, Census tract 41 had almost 14,000 people per square mile, and Census tract 42 had almost 14,500. Conversely, Census tracts 10, 13 and 65 fell well short of 9,600 people per square mile and 40 has consistently been around 7,000.

The total population of the six Census tracts along our East Michigan Avenue study area has decreased. In 1990 there were 22,801 people in those six Census tracts, and in 2000 there were 21,905 people in the same area.

Below is a count, from the 2000 Census, of populations most likely to use public transit. These are just for the Ingham County U.S. Census tracts 10, 13, 40-42, and 65.

Populations most likely to use public transit	%
Under 18 years of age	10%
Over 65 years of age	5%
% under 18 in poverty	20%
% between 18-64 in poverty	38.3%

This includes large numbers of college students living along the eastern portions of our study area. The large student population probably had a significant impact on the statistics regarding means used to get to work. Approximately two thirds drove to work. 23.5 % walked to work, a statistic that is clearly affected by the student population. However, only 4.5 % said they used public transportation.

Current Public Transit Ridership

Following are ridership totals on the CATA public transit system for January and July, 2004 through 2008 (Oudsema, CATA). This is for Route 1, the route that runs down Michigan Avenue.

	January	July
2004	115,000	92,000
2005	124,000	87,000
2006	134,000	87,000
2007	146,000	98,000
2008	156,000	110,000

As you can see, the numbers are trending upward. This is encouraging regarding the possibility of Transit-Oriented Development.

CATA passengers took 10.7 million trips in 2007, a record for CATA. CATA's fixed route ridership is the second highest in the state, behind Detroit's (cata.org). Analysis was based on the highest level of data we could obtain, but does not include data specific to individual bus stops, making it more difficult to assess the impact of the system or the feasibility of its integration with TOD.

Conclusion

While the Michigan Avenue Corridor does not currently have many TOD principles in place, there are good reasons to believe that we can make this a transit-oriented corridor, evidenced by the current demographics and transit ridership in the Corridor. The following section shows how transit and TOD can work for the Corridor.

Part III: Recommendations for Corridor Improvement

Recommendations for Making the Michigan Avenue Corridor a Complete Street

The overall goal for making the Michigan Avenue Corridor a Complete Street is to make it less automobile-dominated, safer, and more attractive for all users in order to encourage more pedestrian activity, thus, creating vibrancy. We will do this by implementing traffic calming design elements, redeveloping underutilized land, and adding infrastructure that accommodates all forms of transportation.

Important terms used throughout recommendations:

- **Bus Pullout:** Road design constructed to provide a designated space for a bus to pull into when making a stop
- **Detectable Warnings:** A standardized surface feature built in or applied to walking surfaces or other elements to warn of hazards on a circulation path. (Accessible Design for the Blind)
- **Road Diet:** Removing a lane or reducing lane width on a roadway to make room for alternative forms of transportation such as a bike lane or widened sidewalk. (Bicycle Coalition of Greater Philadelphia)
- **Verge:** Dedicated space between roadway and walkway that separates automobile traffic from pedestrian activity, usually contains pedestrian amenities or landscaping. Also often referred to as parkway.

Detailed recommendations are made for each individual block on North and South sides of the street, which can be found in Appendix B. Below are the general recommendations to be implemented throughout the Michigan Avenue Corridor in order to make it a “complete street.”

1. Implement road diet along entire Corridor.

- Reduce by one lane for much of the Corridor
- Lower speed limit where needed to make the whole Corridor 30 miles per hour
- Narrow the width of lanes to 10 feet

2. Provide Bicycle Infrastructure

- Add bike lanes along the right side of the roadway
- Add bicycle parking in the form of bike loops near all non-residential buildings, cluster around higher density uses

3. Provide Transit Infrastructure

- Add covered shelter, seating, route information and schedule to all bus stops
- Add bus pullout to every bus stop where roadway allows

4. Provide Pedestrian Infrastructure

- Better maintenance
- Repave sidewalk where surfaces are uneven and cracked
- Widen sidewalk to 8 feet
- Relocate trees that obstruct the walkway, replant in verge
- Widen verge and add decorative landscaping
- Add detectable warnings to all block corners
- Add ornamental, pedestrian-scaled lighting where it is not present
- Add crosswalks to every block according to need and activity
- Upgrade current signals to have audible countdowns
- Painted markings in the roadway indicating every crosswalk
- Add pedestrian crossing signage at most crosswalks
- Place pedestrian activated signals where extra safety precautions are

necessary and there is not already a traffic light present

5. Improve Parking and Access Management

- Reduce amount of parking available
- Make parking accessible by way of side streets rather than along Michigan Avenue
- Locate parking at rear of buildings
- Consider shared parking and parking structures

6. Improve Building Appearance

- Façade enhancements
- Renovation of deteriorating buildings

7. Guide Future Developments

- Orient toward the street
- Mixed use developments
- Pedestrian and transit oriented
- Short setbacks
- Infill development

8. Enhance Strengths of the Corridor

- Provide decorative signage for destinations including Spartan Stadium, the Breslin Center, Old Town, River Trail, Lansing Center, etc.
- Draw attention to the Red Cedar River
- Decorative flags on light post to indicate proximity to Michigan State University and the State Capitol

Support for these recommendations can be found in the Complete Streets Criteria section of the report, beginning on page 31.

Recommendations for Implementing TOD along the Michigan Avenue Corridor

Our proposal for the Transit Oriented Development of the Michigan Avenue Corridor is to implement an electric streetcar system. The electric streetcar system was used in many cities from the late 1800's until World War II and helped shape many of those city neighborhoods. We feel this could happen here along the Michigan Avenue Corridor. The streetcar system has a multitude of potential along the corridor. TOD principles should be applied to existing and new developments to facilitate use of this system.

- Main theme “20 minute corridor” or “20 minute neighborhood” (live, work and play on the corridor) the route is 4 miles – 13 minutes by car.
- Install electric streetcar system on corridor with multi-modal headquarters/structure. Keep near highway 127 for easy access.
 - Site option – abandoned Red Cedar golf course
 - Site option – Dunhams site. (Redevelop site. Encourage existing businesses to relocate to Frandor or other sites on Corridor)
- Business Development Plan
 - Maximize effect of new developments in area
 - Stadium District
 - Lansing City Market
 - East Lansing City Center(s)
 - Ball Park North Development (Gillespie) Encourage developer to design buildings to incorporate TOD.
 - Capitol Club Tower (Shawn Elliot)
 - Sparrow Healthcare
 - Michigan Flyer Bus (regional transportation)
- Multi-modal Transportation Center to have:
 - Hotel
 - Parking structure
 - Service for cabs, bus, streetcar,
 - Bike storage/racks/ (bike and bus lanes on road as part of Complete Streets)
 - Service connection to airport and rail station
 - Proximity/tie in with rental cars businesses on corridor
 - Tourist information kiosk
- CATA and Board of Water and Light take roles as primary stakeholders along with municipalities. (play on the “clean energy, environmentally responsible” trend)
- Revitalize Frandor Shopping Area
 - Bring in “big names” and “local business”
- Advertising/Marketing opportunities on Corridor
 - Streetcars to have digital screens on cars
 - Weekly events to attract patrons
 - Festivals
 - Spotlight of businesses
 - Cater to (target market)
 - Lansing Community College
 - Cooley Law School
 - Davenport College
 - State Employees
 - Local businesses
 - MSU
 - Sparrow Employees
 - Neighborhoods
- Involve General Motors in streetcar development
 - New niche for industry
 - GM already present in the area, helps to keep them in Lansing (helps local economy & job market)
- Streetcar system will help to alleviate traffic and at the same time encourage business on corridor.
 - Effects on CATA #1 route (diminish need)

Overall Theme

The assessment for a transit-oriented design along the Michigan Avenue Corridor showed us that although the corridor lacks a high-level of population density, the creation of a street car network could be implemented to improve transit variety among users. Such a network would allow people to live, work and play on the corridor and would run along a four mile route, experiencing a trip time of 20 minutes from end to end. Therefore, the proposed streetcar system exists as a pedestrian accelerator network with a theme as the “20 Minute Corridor”, or “20 Minute Neighborhood.”

To fit this system within the Corridor, principles of TOD need to be applied to existing and future developments. These are encouraged through our “complete streets” recommendations and include elements such as mixed use, high density development and walkable sidewalks.

Possible Site Locations

This electric streetcar system will be centered on a Multi-modal Transportation Center that should be located near highway 127 for easy accessibility. Two possibilities for an electric streetcar nerve center include the Red Cedar Golf Course, which has been closed since 2008, or across the street on the Dunham’s Sporting Goods lot. Building on the golf course may be beneficial because it is currently closed, yet may prove difficult due to its proximity to the flood plain. Another option would be to redevelop this area into a park or a venue for community events. The lot on the north side of the corridor between Friendship Circle and Morgan Lane may be beneficial for redevelopment but would require the demolition of current structure on the property. These businesses should be encouraged to relocate into the vacant areas of the Frandor Mall.

Business Development Plan

The business development plan for this streetcar system should incorporate newer developments in the area such as Stadium District, Lansing City Market, the East Lansing City Centers, the Ball Park North Development, Capital Club Tower, Sparrow Health Systems and the Michigan Flyer regional transportation system. The implementation of a streetcar system provides advertising and marketing opportunities to businesses on the corridor. Streetcars should have digital advertising panels on the inside of the car which could promote weekly events to attract patrons. Festivals and businesses along the corridor could benefit from the operation of a streetcar system that catered toward college students and state employees alike.

Multi-Modal Transportation Center

The streetcar Multi-modal Transportation Center should be developed next to a hotel and parking structure. The Center could provide service for cabs, buses and streetcars alike along with bike racks or storage. Service connection to the airport would benefit the streetcar hub along with rental car businesses along the corridor. The streetcar station should also contain park-like characteristics and exist as an attractive, pedestrian friendly site.



Clean Energy and the Environment

Because the streetcar system is environmentally responsible and plays a part of the “clean energy” trend, CATA and the Board of Water and Light should be involved as primary stakeholders along with municipalities. By associating CATA and the Board of Water and Light with the streetcar system, these industries experience a positive, pro-environment image which is beneficial to the community.

Involvement of General Motors

Based on the role that CATA and the Lansing Board of Water and Light accept with regards to the streetcar implementation on the corridor, we recommend approaching General Motors Corporation about the possibility becoming involved with the design and production of alternative transportation. GM is currently one of the largest employers in the greater Lansing Metropolitan area and already has existing infrastructure in place that lends the company to accept the role as one of primary stakeholders in the corridor redevelopment. As the automobile industry continues to decline, GM's involvement in the project would allow them branch out into supplementary manufacturing options. Additional jobs could possibly be created in the area, diminishing unemployment rates and further strengthening the local economy.

Streetcar Effects on Existing CATA Bus Routes

To complement the Michigan Avenue streetcars, a rapid transit bus route should be created. This service would be geared more toward commuters, especially commuters to jobs at three of the Lansing area's largest employers: Michigan State University, Sparrow Health Center and the State government.

Whereas, the CATA #1 route (Michigan Avenue) travels all the way out to the Meridian Mall, this route would keep in a continuous loop, from the State office

buildings to the west of the Capitol building, to the transit center at MSU. It should run during morning and afternoon rush hours: roughly 6-9 AM and 4-6 PM. It would have limited stops: at the three major employers mentioned above, at LCC, near Oldsmobile Park, the Multi-Modal Center and at the corner of Clemens and Michigan, for instance. This potential route would coordinate well with the Multi-Modal Center, since many commuters enter the Corridor off of the US 127 Highway.



Feasibility of a Streetcar System

According to Mark Dorn in the report "Why Streetcars: The Role of Streetcars in Portland." streetcar systems generally operate in single car units and also states that Streetcar lines cost about \$10 million to \$15 million per mile. The Michigan Avenue Corridor is approximately 4 miles long so the cost for an addition of a streetcar line may be between \$40million to \$60 million total. The streetcar comes in a few different sizes, but on average the vehicle is 66 feet long and 8 feet wide (Dorn 14). The vehicle receives its power from an overhead power source. It can be easily accessible by passengers because of low floors with doors on each side of the vehicle. Retractable ramps can be outfitted to the vehicle for wheelchair accessibility. A 66 by 8 foot streetcar can seat 30 passengers with 51 standees (Dorn 14). There is space for wheelchairs, bikes and strollers. The life expectancy of a streetcar is 30 years (Dorn 14). The cost of each streetcar itself is \$2.9 million (Dorn 14). The cost of implementing such a system may sound a little pricey but in comparison with the amount of buses already running along Michigan Avenue. The costs could even out in the long run.

San Francisco's transit preferential streets program is referenced in the Portland Streetcar System Plan. San Francisco's plan was designed to make transit line more effective and to operate quicker. Their plan included:

- Timing signals to match transit vehicle flow
- Signal priority systems for buses and streetcars
- Bus bulbs (sidewalk extensions at bus stops)
- Boarding islands for the center lane boarding
- Transit lanes
- Contra-flow lanes
- Exclusive transit right of ways (raised or reserved medians or track lanes)
- Transit stop re-spacing and relocation
- Transit exceptions to turn restrictions

In the report it is said that "These treatments are aimed at allowing the transit vehicles to flow more smoothly and quickly between stops..." (Dorn 17). Also in the report it says

"To ensure that the street functioned effectively with this change, parking was removed at intersections to install dedicated right - or left - turn lanes in the curb lane, so that traffic waiting to turn would not block through movements. On-street parking was converted to metered truck-loading to ensure the availability of truck loading spaces so that trucks would not double-park and block either the transit lane or the one remaining auto lane" (Dorn 17).

Appendix



Complete Streets Block-by-Block Analysis

Introduction

An analysis of each block along the Michigan Avenue Corridor is provided here. Within each block, there is an analysis for both North and South sides of the street. The analysis covers the complete streets ratings and assessments for each user group: Complete Streets, Automobile-User, Pedestrian, Bicyclist, and Transit-User. This examines the extent to which each block accommodates different types of transportation users based upon the inventory conducted by our group.

Block number: 200

Starting and ending streets: Grand River Ave to Delta St

Side of the street: North

**Zoning: B1 - General Office Business District and B2 - Retail Sales Business District
(City of East Lansing)**



Complete Street

This block falls into the Class 3 category for Complete Streets. As an entrance to the Michigan Avenue Corridor, there is no evidence of a gateway. It can be a problematic area for automobiles as congestion occurs at the busy intersection of Grand River and Michigan Avenue. The sidewalk on this block was rated in poor condition, and lighting is more suited for automobiles. The block is not suited for bicyclists; both shoulder and bike lanes are absent, and the narrow, cracked sidewalk is not conducive for safe riding. Those seeking public transit will find a CATA bus shelter equipped with route information on the adjacent block.

Automobile-User

This block is categorized as a Class 3 block for automobiles. The 200 North block of Michigan Avenue serves as the gateway to the Michigan Avenue Corridor for westbound travelers. Currently, visitors are welcomed with the 24/7 Convenience Store to their right and a lack of signage indicating their presence on Michigan Avenue. The center median is lined with trees and seems to be well maintained. This is an area of high congestion; an abundance of traffic signals along Grand River contribute to the traffic jam that frequently occurs during peak hours of travel at the traffic light on Grand River and Michigan Avenue. Once past the light, three lanes heading west and a speed limit of 35 mph adequately accommodate traffic flow. The parking for residential and commercial uses along the block is accessed from Grand River and drivers must exit onto Michigan Avenue. A turn-around is located at the west end of the block, which is a major cause of congestion at this point as drivers must wait for eastbound traffic to clear.

Pedestrian

The 200 North block of Michigan Avenue is currently substandard for pedestrian travel and is a Class 3 pedestrian block. The sidewalk is narrow, cracked, uneven, and contains large holes. Lighting on the avenue is not suited for pedestrians and is geared toward automobile use. The block does, however, have three crossing islands. The crosswalk at the east end of the block near Grand River has a light signal that allows adequate time to cross to the median, but very little time to cross the street in its entirety, especially for the elderly or disabled. The other two crosswalks do not have a signal, and pedestrians must wait until the traffic clears to cross. Landscaping on the block is generally pleasant and the buildings' short setbacks provide a comfortable enclosure.

The block is equipped with curb cuts, allowing a smooth transition for wheelchairs, but no physical features indicating the end of the block and entry to the road are provided for the blind.

Bicyclist

This block is not suitable for biking and is a Class 3 Bicyclist block. There are no bike lanes present and the complete lack of a shoulder on Michigan Avenue make bicycling on the road very dangerous. The width of the sidewalk is too narrow to safely move pedestrians and cyclists concurrently. The block has one bike rack situated near the apartment building, likely intended for residents' use, but nevertheless accessible to anyone traveling on Michigan Avenue.

Transit-User

While there is no bus stop present on this block, there is a bus stop on the block to the west, so the block is categorized as Class 2 for transit. This adjacent bus stop has a covered shelter, as well as information about bus routes and schedules.

Block number: 200

Starting and ending streets: Grand River Ave to Mus Rd.

Side of the street: South

Zoning: U - University District (City of East Lansing)



Complete Street

This block falls into the Class 3 category for Complete Streets. It lacks signage as a gateway into East Lansing and marking the end of the Michigan Avenue Corridor. This block has an abundance of natural beauty as well as eye-catching historic buildings. It can be a problematic area for automobiles as congestion occurs at the busy intersection of Grand River and Michigan Avenue. Due to its proximity to campus, this block experiences a high volume of pedestrians. The sidewalk on this block was rated in poor condition in some areas. Both shoulder and bike lanes are absent, and the narrow, cracked sidewalk is not conducive for safe riding. Those seeking public transit will find a CATA bus shelter equipped with seating and route information on the eastern adjacent block, as well as a bus stop on the western adjacent block.

Automobile-User

This block is categorized as a Class 3 block for automobiles. The 200 South block of Michigan Avenue serves as a gateway to East Lansing for eastbound travelers, and marks the end of Michigan Avenue. Attractive historic campus buildings, such as Mary Mayo Hall and Wills House, are located on this block. The center median is lined with trees and seems to be well maintained. Once past the traffic light heading east and merging onto Grand River, a speed limit of 35 mph is reduced to 25 mph. On-street parking is not available on this block, and entry to campus parking is easily accessible. As this block is part of Michigan State University's campus, many pedestrians are present in the area and will require heightened awareness when driving.

Pedestrian

The 200 South block of Michigan Avenue is currently adequate for pedestrian travel and is a Class 3 pedestrian block. The sidewalk is cracked and uneven in some areas, but smooth for much of the block. Lighting on the avenue is not suited for pedestrians and is geared toward automobile use. The block does, however, have three crossing islands. The crosswalk at the east end of the block near Grand River has a light signal that allows adequate time to cross to the median, but very little time to cross the street in its entirety, especially for the elderly or disabled. The other two crosswalks do not have a signal, and pedestrians must wait until the traffic clears to cross. Large, leafy trees and

various shrubs provide beautiful landscaping, and the historic campus buildings are admirable in any season. Setbacks over forty feet place more emphasis on the old buildings. The block is equipped with curb cuts, allowing a smooth transition for wheelchairs, and tactile surfacing indicating the end of the block and entry to the road are provided for the blind.

Bicyclist

This block is not suitable for biking and is a Class 3 Bicyclist block. There are no bike lanes present and the complete lack of a shoulder on Michigan Avenue make bicycling on the road very dangerous. The width of the sidewalk is too narrow to safely move pedestrians and cyclists concurrently. Although, the beautiful landscaping allows for a pleasant ride. The block has two bike racks situated near Mary Mayo Hall, likely intended for students' use, but nevertheless accessible to anyone traveling on Michigan Avenue.

Transit-User

While there is no bus stop present on this block, there is a bus stop on the block to the west, so the block is categorized as Class 4 for transit. This adjacent bus stop is just a pole; it lacks protection from the weather, but it does supply transit users with bus route information.

Block number: 300-400

Starting and ending streets: Delta St to Louis St

Side of the street: North

Zoning: RM32 - City Center Multiple-Family Residential (City of East Lansing)



Complete Street

This block falls into the Class 3 category for Complete Streets. A speed limit of 35 mph and adequate number of lanes accommodate traffic, minor congestion occurs due to a bus stop and a turn-around. Pedestrians will experience poor sidewalk maintenance and unsuitable lighting. Bicyclists do not have a bike lane or shoulder in which to ride, and the narrow sidewalk is difficult to share with other pedestrians. Those seeking public transit will find a CATA bus shelter equipped with route information on this block.

Automobile-User

This block is categorized as a Class 3 block for automobiles. The 300-400 North block of Michigan Avenue does not have on-street parking, but several apartment buildings have easily accessible parking lots. The center median is lined with trees and seems to be well maintained. Three lanes with a moderate speed limit of 35 mph allow traffic to flow smoothly, with the exception of the CATA bus stop for route #1 arriving every 10-15 minutes and causing temporary congestion. Likewise, a turn-around is located at the west end of the block, which is another cause of congestion on this block as drivers must wait for eastbound traffic to clear.

Pedestrian

The 300-400 North block of Michigan Avenue is currently substandard for pedestrian travel and is a Class 3 pedestrian block. The sidewalk is narrow, cracked, uneven, and contains large holes. Lighting on the avenue is not suited for pedestrians and is geared toward automobile use. The block does, however, have two crossing islands. The crosswalk at the west end of the block near Louis Street does not have a signal, and

pedestrians must wait for traffic to clear to cross three lanes to reach the crossing island, and two more lanes to completely cross Michigan Avenue. The same is true for the crosswalk at the east end of the block near Delta Street. Landscaping on the block is generally pleasant and the buildings' short setbacks provide a comfortable enclosure. The block is equipped with curb cuts, allowing a smooth transition for wheelchairs, but no detectable warnings indicating the end of the block and entry to the road are provided for the blind.

Bicyclist

This block is not suitable for biking and is a Class 3 Bicyclist block. There are no bike lanes present and the complete lack of a shoulder on Michigan Avenue make bicycling on the road very dangerous. The width of the sidewalk is too narrow to safely move pedestrians and cyclists concurrently. The block has bike racks situated near an apartment building.

Transit-User

There is a bus stop on this block with a covered shelter as well as information about bus routes and schedules, so the block is categorized as Class 3 for transit. The street does not have a bus lane, and there is not a bus pullout present.

Block number: 300-500

Starting and ending streets: Mus Rd to Beal St

Side of the street: South

Zoning: U - University District (City of East Lansing)



Complete Street

This block falls into the Class 3 category for Complete Streets. As eastbound Michigan Avenue transitions from three lanes to two lanes, traffic slows. From the safety of a vehicle, the dense trees provide beautiful landscaping; however, pedestrians may feel unsafe with the lack of buildings and lighting directed toward the street. Parts of the sidewalk are cracked and bumpy, while the west end of the block has a smooth, wider sidewalk. Bicyclists will find it difficult to share the sidewalk with pedestrians, as no shoulder or bike lane is present. Those seeking public transit will find a CATA bus stop with route information, but no shelter or seating is present.

Automobile-User

This block is categorized as a Class 3 block for automobiles. The 300-500 South block of Michigan Avenue does not have on-street parking or access to parking lots. Beal Street marks the point on Michigan Avenue where three lanes merge into two lanes, reducing the speed of traffic. Beal Street is a common access point for entry onto the Michigan State University campus, though no way-finding signs are present. A turn-around is present at the midpoint of the block; with only two lanes, this causes some congestion. There is an abundance of street lighting. The center median is lined with trees and seems to be well maintained.

Pedestrian

The 300-500 South block of Michigan Avenue is currently substandard for pedestrian travel and is a Class 3 pedestrian block. The sidewalk is narrow, cracked, and uneven at the east end of the block, but gradually increases in quality and width as one progresses west. This is a long block, a large portion of which is densely wooded area with no buildings, and pedestrians may not feel safe. While there are many street lights on the block, they are not at pedestrian scale and are geared toward automobile use. The block does, however, have three crossing islands. The crosswalk at the west end of the block near Beal Street does not have a signal, and pedestrians must wait for traffic to clear to cross two lanes to reach the crossing island, and three more lanes to completely cross Michigan Avenue. The same is true for the crosswalk at the east end of the block near

Mus Road, and the crosswalk located at the midpoint of the block. Landscaping is pleasant during the daytime hours, but walking at great lengths near the trees at night can cause uneasiness. The block is equipped with curb cuts, allowing a smooth transition for wheelchairs, but no physical features indicating the end of the block and entry to the road are provided for the blind.

Bicyclist

This block is not suitable for biking and is a Class 4 Bicyclist block. There are no bike lanes present and the complete lack of a shoulder on Michigan Avenue make bicycling on the road very dangerous. The sidewalk is wide enough at some points to safely move pedestrians and cyclists concurrently. The block does not have any bike racks.

Transit-User

There is a bus stop on this block, so the block is categorized as Class 4 for transit. This bus stop is just a pole; it lacks protection from the weather, but it does supply transit users with bus route information.

Block number: 500

Starting and ending streets: Louis St to Beal St

Side of the street: North

Zoning: B2 - Retail Sales Business District (City of East Lansing)



Complete Street

This block falls into the Class 3 category for Complete Streets. A speed limit of 35 mph and an adequate number of lanes accommodate traffic, minor delays may occur due to a bus stop. Pedestrians will experience poor sidewalk maintenance and will have to cross parking lots, as well as walk alongside the busy road with no verge separating them from traffic. Bicyclists do not have a bike lane or shoulder in which to ride, though the sidewalk is wide enough to share with other pedestrians. This block lacks landscaping aside from landscaping along the median. Those seeking public transit will find a CATA bus stop on this block equipped with route information, though it does not provide transit riders with a shelter or seating.

Automobile-User

This block is categorized as a Class 4 block for automobiles. The 500 North block of Michigan Avenue does not have on-street parking, but the two businesses located on this block have parking lots that are easy to access. The center median is lined with trees and seems to be well maintained. Three lanes with a moderate speed limit of 35 mph allow traffic to flow smoothly, with the exception of the CATA bus stop for route #1 arriving every 10-15 minutes and causing temporary delays. There are no shoulders in the road, nor a buffer separating the sidewalk from the road, therefore, drivers must use extra caution when driving along this block.

Pedestrian

The 500 North block of Michigan Avenue is currently poor for pedestrian travel and is a Class 4 pedestrian block. Although it is a relatively short block, the entire length of the block consists of parking lots without a verge separating the sidewalk from the road, or the sidewalk from the parking lot. Pedestrians must use extra caution when walking along the sidewalk in front of BP, as this location experiences a high volume of traffic entering and exiting the gas station and the sidewalk is flush with the gas station lot. The sidewalk is in very poor condition, and landscaping does not exist on this block. Lighting on the avenue is not suited for pedestrians and is geared toward automobile use. The crosswalk at the west end of the block near Beal Street does not have a signal; pedestrians must wait for traffic to clear to cross three lanes to reach the crossing island, and two more lanes to completely cross Michigan Avenue. The block is equipped with curb cuts, allowing a smooth transition for wheelchairs, but no physical features indicating the end of the block and entry to the road are provided for the blind.

Bicyclist

This block is not suitable for biking and is a Class 5 Bicyclist block. There are no bike lanes present and the complete lack of a shoulder on Michigan Avenue make bicycling on the road very dangerous. The width of the sidewalk is too narrow to safely move pedestrians and cyclists concurrently. There are no bike racks located on this block.

Transit-User

This bus stop is just a pole; it lacks protection from the weather and does not supply transit users with bus route information, so the block is categorized as Class 4 for transit. The street does not have a bus lane, and there is not a bus pullout present.

Block number: 600

Starting and ending streets: Beal St to Center St

Side of the street: North

Zoning: B2 - Retail Sales Business District (City of East Lansing)



Complete Street

This block falls into the Class 4 category for Complete Streets. A speed limit of 35 mph and an adequate number of lanes accommodate traffic, with an extra wide lane to allow vehicles to merge from the campus exit. Pedestrians will experience poor sidewalk maintenance, but short setbacks provide a sense of safety. Bicyclists do not have a bike lane or shoulder in which to ride, and the narrow sidewalk is difficult to share with other pedestrians. This block has very little landscaping aside from landscaping along the median. Those seeking public transit will find a CATA bus stop adjacent to either side of this block, one of which provides transit users with a shelter, seating, and route information.

Automobile-User

This block is categorized as a Class 3 block for automobiles. The 600 North block of Michigan Avenue does not have on-street parking, but the two businesses located on this block have parking lots that are easy to access. The center median is lined with trees and seems to be well maintained. Three lanes with a moderate speed limit of 35 mph allow traffic to flow smoothly. Those exiting campus from Beal Street on the south side of Michigan Avenue merge onto Michigan Avenue here, so the furthest left lane is extra wide to accommodate the merging vehicles, which can be confusing for some drivers unaware of the incoming traffic.

Pedestrian

The 600 North block of Michigan Avenue is currently poor for pedestrian travel and is a Class 4 pedestrian block. It is a relatively short block, and there is very little landscaping. The building setbacks are less than ten feet from the sidewalk, which provides a feeling of safety and intimacy. The sidewalk is in very poor condition, with cracks and unlevel surfaces. Lighting on the avenue is not at pedestrian scale and is geared toward

automobile use. There is no crosswalk on this block, but there is an area on the median that is very worn down due to people crossing at this point regardless of the lack of a designated crosswalk. The block is equipped with curb cuts, allowing a smooth transition for wheelchairs, but no physical features indicating the end of the block and entry to the road are provided for the blind.

Bicyclist

This block is not suitable for biking and is a Class 4 Bicyclist block. There are no bike lanes present and the complete lack of a shoulder on Michigan Avenue make bicycling on the road very dangerous. The width of the sidewalk is too narrow to safely move pedestrians and cyclists concurrently. There are no bike racks located on this block.

Transit-User

This block does not have a bus stop. The blocks adjacent, both to the west and to the east of this block, each have a bus stop so the block is categorized as Class 4 for transit.

Block number: 600

Starting and ending streets: Beal St to Harrison Rd

Side of the street: South

Zoning: U - University District (City of East Lansing)



Complete Street

This block falls into the Class 3 category for Complete Streets. Three lanes and a 35 mph speed limit allow for a steady flow of traffic. From the safety of a vehicle, the dense trees and Red Cedar River provide beautiful landscaping; however, pedestrians may feel unsafe with the lack of buildings and lighting directed toward the street. Much of the sidewalk is smooth and wide, making it easier for bicyclists to share the sidewalk with pedestrians, as no shoulder or bike lane is present. Those seeking public transit will find a CATA bus stop, with shelter, seating, and route information, which is also a stop for the Entertainment Express Trolley.

Automobile-User

This block is categorized as a Class 2 block for automobiles. The 600 South block of Michigan Avenue does not have on-street parking or access to parking lots. There are three lanes for the entire length of this block, along with a right turning lane onto Beal Street for entry onto the Michigan State University campus, though no way-finding signs are present. The number of lanes and the 35 mph speed limit allows traffic to flow smoothly. This is a long block, and there are no turn-arounds present. There is an abundance of street lighting, and there are no buildings located on this block as the Red Cedar River runs parallel to Michigan Avenue at this point. The center median is lined with trees and seems to be well maintained. A CATA bus stop is present, but with the presence of a bus pullout it does not interfere with traffic.

Pedestrian

The 600 South block of Michigan Avenue is currently substandard for pedestrian travel and is a Class 3 pedestrian block. The sidewalk is in excellent condition for the majority of the block. This is a long block, and there is only one crosswalk present near the intersection of Harrison and Michigan Avenue, which has a light signaling when it is safe to cross. The entire block runs adjacent to the Red Cedar River, separated by a densely wooded area with no buildings. While very beautiful during the day, pedestrians may not feel safe at night. There are many street lights on the block, but they are not at pedestrian scale and are geared toward automobile use. The block is equipped with curb cuts, allowing a smooth transition for wheelchairs, and detectable warnings indicating the end of the block and entry to the road are provided for the blind.

Bicyclist

This block is not suitable for biking and is a Class 4 Bicyclist block. There are no bike lanes present and the complete lack of a shoulder on Michigan Avenue make bicycling on the road very dangerous. The sidewalk is smooth, and wide enough at some points to safely move pedestrians and cyclists concurrently. The block does not have any bike racks.

Transit-User

There is a bus stop on this block with a covered shelter, seating, and bus route and schedule information, so the block is categorized as Class 2 for transit. This bus stop also is frequented by the Entertainment Express, or the “trolley” bus. The bus stop also has a designated bus pullout.

Block number: 700

Starting and ending streets: Center St to Harrison Rd

Side of the street: North

Zoning: B2 - Retail Sales Business District (City of East Lansing)



Complete Street

This block falls into the Class 2 category for Complete Streets. The primary use on this block is the well established restaurant Harrison Roadhouse, which is situated on the very busy corner of Michigan Avenue and Harrison Road. The 700 North block is very short; there are three lanes with a speed limit of 35 mph on this block. Parts of the sidewalk are cracked and in need of repair. Bicyclists will find it difficult to share the sidewalk with pedestrians, as no shoulder or bike lane is present. Those seeking public transit will find a CATA bus stop with a shelter, seating, and route information. The Entertainment Express Trolley also stops at this point.

Automobile-User

This block is categorized as a Class 3 block for automobiles. The intersection at Harrison Road and Grand River Avenue is typically very busy, but three lanes, a moderate 35 mph speed limit, and well timed traffic lights allow for a steady flow of traffic. Although, this is a notoriously problematic and confusing intersection for eastbound travelers turning left onto Harrison Road. The 700 North block of Michigan Avenue does not have on-street parking, but has easy access to the Harrison Roadhouse parking lot. This area of Michigan Avenue often has high pedestrian activity, so drivers and pedestrians must use caution. A CATA bus stop is present on this block and may cause temporary delays. Lighting is adequate, and the center median is lined with trees and seems to be well maintained.

Pedestrian

The 700 North block of Michigan Avenue is currently adequate for pedestrian travel and is a Class 2 pedestrian block. The sidewalk is wide, straight, and fairly smooth. This is a very short block consisting entirely of Harrison Roadhouse and its parking lot. While there are many street lights on the block, they are not at pedestrian scale and are geared toward automobile use. The block does, however, have a crossing island. The

crosswalk at the west end of the block near Harrison Road has a light signaling when it is safe to cross. It provides adequate time to reach the median, but not enough time to cross Michigan Avenue entirely. Landscaping is very nice along the restaurant, with trees and shrubs that blossom in the summer. The block is equipped with curb cuts, allowing a smooth transition for wheelchairs, and detectable warnings indicating the end of the block and entry to the road are provided for the blind.

Bicyclist

This block is not suitable for biking and is a Class 4 Bicyclist block. There are no bike lanes present and the complete lack of a shoulder on Michigan Avenue make bicycling on the road very dangerous. The block does not have any bike racks.

Transit-User

There is a bus stop on this block with a covered shelter, seating, and bus route and schedule information, so the block is categorized as Class 3 for transit. This bus stop also is frequented by the Entertainment Express, or the “trolley” bus. The bus stop lacks a designated bus pullout.

Block number: 800

Starting and ending streets: Harrison Rd to University Dr

Side of the street: North

Zoning: P – Parking District and R2 - Medium Density Single-Family Residential (City of East Lansing)



Complete Street

This block falls into the Class 3 category for Complete Streets. This block consists mainly of single family homes, but also has a business on the northwest corner of Harrison and Michigan Avenue. The block has four lanes, including the turning lane, with a speed limit of 35 mph. The sidewalk is in fair condition with minor unlevel segments. Bicyclists will find it difficult to share the sidewalk with pedestrians, as no shoulder or bike lane is present. Those seeking public transit will find a CATA bus on each of the adjacent blocks equipped with a shelter, seating, and route information.

Automobile-User

This block is categorized as a Class 2 block for automobiles. As drivers heading west on Michigan Avenue are unable to turn left at the Harrison and Michigan Avenue intersection, they must drive a block further to access the turnaround in order to head south on Harrison Road. As this is a common function, there is a designated lane leading to the turnaround. This block has four lanes, including the turning lane, with a speed limit of 35 mph. Lighting on this block is at pedestrian scale, but this does not create a problem for drivers. The 800 North block of Michigan Avenue does not have on-street parking, but has easy access to driveways and the Quality Dairy. The center median is attractively lined with trees and seems to be well maintained.

Pedestrian

The 800 North block of Michigan Avenue is currently adequate for pedestrian travel and is a Class 3 pedestrian block. The sidewalk is uneven in some places, but stable and smooth for a majority of the block. The lengthy block only has one crosswalk with a light signaling when it is safe to cross to the crossing island. It provides adequate time to reach the median, but not enough time to cross Michigan Avenue entirely, especially for the elderly or disabled. The streetlights are at pedestrian scale, though few and far between. Landscaping is very nice along this block, with old trees shading the sidewalk and shrubs that blossom in the summer. The block is equipped with curb cuts, allowing a smooth transition for wheelchairs, but no physical features indicating the end of the block and entry to the road are provided for the blind.

Bicyclist

This block is not suitable for biking and is a Class 4 Bicyclist block. There are no bike lanes present and the complete lack of a shoulder on Michigan Avenue make bicycling on the road very dangerous. The sidewalk is not wide enough to safely move pedestrians and cyclists concurrently. The block does not have any bike racks.

Transit-User

There is not a bus stop on this block, but there is a bus stop on each of the adjacent blocks so the block is categorized as Class 3 for transit. Both bus stops have a covered shelter, seating, as well as schedule and route information.

Block number: 800-1000

Starting and ending streets: Harrison Rd to West Brody

Side of the street: South

Zoning: U-University (City of East Lansing)



Complete Street

This block is categorized as a Class 2 for Complete Streets. The whole block consists of a dormitory that holds a couple thousand students. With high density in such a small area it is necessary to recognize that there are many users that need to be considered. There is room for an overall improvement focusing mainly on bikers and transit users.

Automobile-User

This block falls into the Class 2 category for automobiles. The block is an entrance point to campus and creates heavy traffic flow; having three lanes on both sides of the median help to accommodate this. The lights are well timed and the turnaround is helpful to the flow of traffic. This area is easy to navigate by vehicle, as the signs are easily visible. Accessing parking to the dormitories is available from several locations. The landscaping is appropriate for the area and is more comforting to the driver as they do approach campus. One thing that the automobile user would benefit from is a bus pullout. There are many students entering and exiting the bus on a consistent basis and this holds up the traffic behind them.

Pedestrian

The 800-1000 block on the South side of Michigan Avenue was classified as a Class 3 for pedestrians. On this block there is a sidewalk that is wide as well as smooth and straight. Sidewalks should not only be aesthetically pleasing but also safe for the user and also accommodate the handicap. The crosswalk located at the corner of Harrison and Michigan is necessary for users attempting to cross at such a busy intersection. There is an adequate amount of time to cross the street. The crosswalk lacks both a pedestrian-activated signal and an audible countdown. The landscaping is full of trees, shrubbery and flowers. The curb cuts are well placed.

Bicyclist

This block has fallen into Class 3 for bicyclists. Throughout the corridor there are very few places that are bicycle friendly, but this block has an abundance of bike racks that are available. Many students use bicycles as their main form of transportation. Several bike racks indicate that this block does acknowledge the high demand for them and offers a safe place for students and visitors to keep their bikes. Despite the amount of

bike racks, there are no bike lanes or wide shoulders that would provide a safer route of travel.

Transit-User

On this block there is a bus stop that services different routes including routes 1, 20,15, 31, 25, and 34. The stop does have shelter as well as a bench. This makes the wait time easier for the handicap as well as being sheltered from the weather especially in our harsh winters. As well as shelter and benches there are schedules and signs that provide the user with information. The downside is there is not a bus pullout or a bus lane present. Both of these features would make it easier for the bus to get around and be able to accommodate more users. These aspects of the bus stop categorize this block as a Class 2 for transit.

Block number: 900 - 1000

Starting and ending streets: University Dr to Kensington Rd

Side of the street: North

Zoning: R2-Residential (City of East Lansing)



Complete Street

This block is categorized into Class 3 for Complete Streets. This block is mainly residential and is accommodating to those who are traveling by automobile, and somewhat accommodating to those who are traveling by bus. This block is not useful to pedestrians or bicyclists.

Automobile-User

This block fell into Class 2 as it fit most of the criteria for an automobile user. The flow of traffic is adequate for those traveling by personal vehicle, including the turnarounds that prevent congestion on the road and keep the steady flow of traffic with a speed limit of 35 miles per hour. Parking is easily accessed for those who reside in these homes; it is not relevant to those who are not looking for these locations. There are fewer streetlights on this block than others, which may create safety issues when it becomes darker.

Pedestrian

This block is a Class 4 for pedestrians. There are many problems that this block faces from a pedestrian point of view. The sidewalk is uneven and unsafe. There are streetlights but no pedestrian-scale lighting for the sidewalk when it gets dark. There also is no crosswalk on this block that provides a challenge for those trying to cross this wide street. Also, this block is not adequate for the disabled.

Bicyclist

Like pedestrians, this is not a good block for bicyclists and is a Class 4. There are no bike lanes as well as no bike racks. As a residential block, there may be fewer needs for a bike rack as there are not any businesses located on the block. It is important to provide these resources on every block throughout the corridor and show that no matter what type of uses are present that all people using the corridor are accommodated.

Transit-User

This block is categorized as a Class 3 for transit. There is not a bus stop directly on this block but there is one on the block to the west. When categorizing the class for transit

we not only took into account the stops on that specific block, but the ones on the blocks directly to the east and west. We evaluate the stop to the adjacent block that not only had signage but also benches as well as shelter. This provided for a fairly adequate source for someone using the transit system.

Block number: 1100

Starting and ending streets: Kensington Rd to Cowley Ave

Side of the street: North

Zoning: R2-Residential (City of East Lansing)



Complete Street

This block is considered to be a Class 3 block for Complete Streets. This block is especially good for automobile-users. Pedestrians and transit-users are also accommodated for. What is really lacking on this block is what is needed for bicyclists. Even though the first three users are minimally sufficient one user group is not and it impacts the overall rating.

Automobile-User

The 1100 block of Michigan Avenue is good for automobile use and falls into the Class 2 category. This block contains well-timed lights, a turnaround that helps the flow of traffic, and adequate road quality. All of these aspects help create a user-friendly environment as well as safe travel for those using the automobile. One of the downsides is the lack of lighting, only having one streetlight on the entire block, which may interfere with the safety of the driver and their ability to see others around them. As there is a bus stop located on this block, it could be beneficial for the driver if there was a bus pullout.

Pedestrian

This block is categorized as a Class 3 for pedestrians. Most of the criteria for pedestrians has been met, though there is still room for improvement. The lack of lighting affects both the driver but the pedestrian. The sidewalk is useable and straight with no obstructions, but it is not smooth. This block lacks crosswalks.

Bicyclist

Block 1100 is categorized as a Class 4 after having its only good attribute to bicyclists is the aesthetically pleasing view. There are no bike lanes or bike racks, and like the automobile and pedestrian, it is important for there to be adequate amount of street lights. If the bicyclist was to use the sidewalk it is not smooth which would serve as another safety concern for the rider.

Transit-User

On this block there is a bus stop that is helpful to the user resulting in block 1100 to be a Class 3 for transit. There is a shelter, benches, and signage indicating bus route and schedule information. Ideally the stop would include a bus pullout.

Block number: 1100

Starting and ending streets: West Brody to Reniger Ct

Side of the street: South

Zoning: B1-General Office Business District and B2-Retail Sales Business District (City of East Lansing)



Complete Street

Block 1100 is categorized as a Class 3 for Complete Streets. This block is good for the automobile user as well as the transit user. The traffic flow as well the option of two bus stops within walking distance makes this block ideal for those using motorized transportation. For those who wish to travel by bicycle or foot will have a harder time.

Automobile-User

This block falls into the Class 2 for automobiles. There are no traffic lights on this block, reducing congestion during busier times. The turnaround and the median serve as a tool to keep the flow of traffic smooth. The block is well-lit for automobile users, and the landscaping for this block also serves as a positive aspect. The apartments are close to the street and parking is accessed from the side streets.

Pedestrian

Pedestrian travel on this block is not nearly as easy as it is for the automobile. Block 1100 fell into Class 3 for pedestrians. The sidewalk for this area is above average with wide, smooth sidewalks, with no obstructions, and fits in with the landscaping. There also is an adequate amount of street lighting that drastically increases the safety for all users. There are no crosswalks on this block.

Bicyclist

Similar to pedestrians, bicyclists also have a difficult time using the corridor. This block is classified as a Class 4 for bicyclists. Even though the sidewalk is smooth, it is not a biker's ideal way of travel. There are no bike lanes or bike racks available.

Transit-User

Even though there is no bus stop on this specific block there is a bus stop to the east and west that provides easy access to those traveling to and from block 1100. This results in classifying this block as a Class 4 for transit. The bus stop to the east provides shelter as well as benches but there is no signage. The bus stop to the west does not have these amenities but is in a location that is useful to many bus riders having Frandor Shopping Center across the street as CATA does make stops within the center.

Block number: 1200

Starting and ending streets: Cowley Ave to Highland Ave

Side of the street: North

Zoning: B2- Retail Sales Business District (City of East Lansing)



Complete Street

This block is categorized as a Class 2 for Complete Streets. Like many blocks in this area of the corridor the street is adequate for the automobile user as well as those who are traveling by bus. Those who are pedestrians and wish to travel by bicycle face more challenges. One large issue is the lack of lighting as well as the absence of bike lanes and bus pullouts. Even though the automobile users and transit users are fairly accommodated for it is not a complete street if all users are not safe and provided with the appropriate features.

Automobile-User

Block 1200 has fallen into the Class 2 for automobiles. The number of lanes provides enough for a steady traffic flow and this block also has a center median that gives an adequate turnaround that also assists the flow of traffic. The road quality is efficient for the area and there is a proper amount of street signs even though wayfinding would be helpful.

Pedestrian

This block is classified as a Class 3 for pedestrians. The sidewalk for this area is excellent; it is new and clean and fits in perfectly with the new infrastructure around it. It is smooth, wide, straight, and has no obstructions. It serves as a good way of travel for all people looking to use the sidewalk. In addition to the smooth sidewalk there are also detectable warnings at the west end of the block. There are no crosswalks on this block. There is no easy way to get from one side of Michigan Avenue to the other without going to a major light. This block also does not have an adequate amount of streetlights to make this block pedestrian friendly. It is important to keep areas lit and safe.

Bicyclist

This block received a Class 4 for bicyclist. On this block there are no bike lanes or bike racks. The lighting is inadequate and the landscaping is not friendly for the user as well. The only positive part of the whole block is the sidewalk the block has but bicyclists would rather ride in a bike lane than the sidewalk where there is foot traffic.

Transit-User

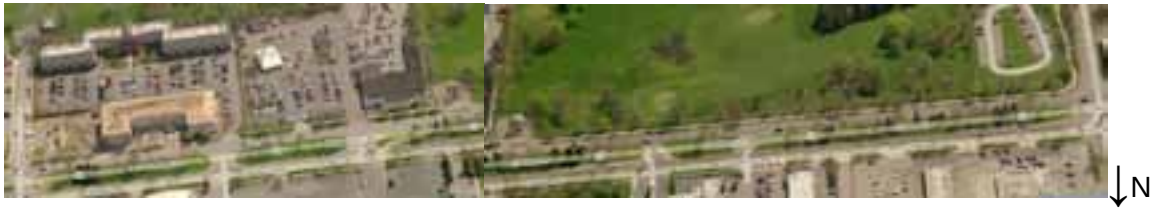
There is not a bus stop located on this block but there is a stop a block to the east. The stop has a sheltered area with benches protecting from the weather and provides a place to have more comfortable wait time.

Block number: 1200-3100

Starting and ending streets: Reniger Ct to Clippert St

Side of the street: South

Zoning: B2-Retail Sales Business District (City of East Lansing) and A-Residential-Single (City of Lansing)



Complete Street

This block is categorized as a Class 3 for Complete Streets. The automobile user and the bicyclist have an easier time traveling through this area of the corridor than the pedestrian or the transit user. The block is mainly the former Red Cedar Golf Course that serves as green space for the area. The lighting is a positive asset to the block with sixteen streetlights on this block alone.

Automobile-User

This block has fallen into the Class 3 for automobile users. The road quality on this block indicates that the street needs to be repaved. The area has a good aesthetic feeling and there is good lighting with sixteen streetlights lining this exceptionally long block. The number of lanes keeps a good flow of traffic it is sometimes congested coming from under the viaduct with the increase in speed but there is a median that helps with congestion and allows for people to turn left. Most of the block consisting of the former Red Cedar Golf Course has helpful signage.

Pedestrian

This block is classified as a Class 3 for pedestrians. By the golf course there is some landscaping. The sidewalk along the whole block looks great. It is new as well as clean and is wide, straight, and smooth. It is accommodating to the pedestrian not only in looks but is safe for all users. Landscaping is appropriate, there is enough lighting, and the sidewalk is accommodating, but there are no crosswalks for the entire duration of the block. No accessibility for disabled is apparent.

Bicyclist

This block falls into a Class 4 for bicyclists. There are no bike lanes, there is appropriate lighting for safety, landscaping is appropriate and there are bike racks, which is a main concern for a bicyclist.

Transit-User

This block is categorized as a Class 5 for transit. There is a bus stop on this block but the stop does not include a bench, shelter, or signage. There is also no bus pull out. The lack of accommodations for transit-users hinders the experience and ease from the users perspective.

Block number: 1300 – 3400

Starting and ending streets: Highland Ave to Friendship Cir

Side of the street: North

Zoning: B2-Retail Sales Business District (City of East Lansing)



Complete Street

This block has been categorized as a Class 4 for Complete Streets. The only form of transportation that this block satisfies is the automobile. The sidewalk is inadequate and the bus stop does not meet the needs of a transit-user. There are several changes that can be made for pedestrians, transit users, and bicyclists.

Automobile-User

For the automobile user this block has been rated as a Class 2. A Class 2 is good taking into consideration the rest of the corridor, but it still could improve. In this instance there are enough lanes for the amount of traffic, there are medians that make it easier to turn, and the road quality of the street is well kept. There are signs that help the driver navigate where they are going. On this block there is a parking lot that separates the street from the strip mall, giving easy access to parking and reducing confusion. There are lights that accommodate the driver making it safer for everyone.

Pedestrian

This block on Michigan Avenue has been classified as a Class 4 for pedestrians. The sidewalk on this block is fairly adequate as it is smooth and straight with little obstruction. The problem falls in front of the vacant lot on the west half of the block. The sidewalk does not meet up with the side street due to the construction. There is also no crosswalk that is another sign of a safety concern. There are no streetlights in this area. The lighting is helpful but as half the block is now an empty lot the block lacks decorative landscaping.

Bicyclist

Like the pedestrian this block also received a Class 4 for bicyclists. With the lack of bike lanes and the incomplete sidewalk it would be difficult for any biker to navigate the area safely. The lighting does not fit the needs of the biker as well as the little landscaping that is apparent in the area. There are no bike racks present on this block.

Transit-User

There is no bus stop placed on this block but there is one on the block to the west. This block is classified as a Class 5 for transit users. This bus stop being in walking distance from the block makes it accessible for those trying to get to and from this block but even though the bus stop is available there is no shelter, benches, or a schedule. The only thing located at this bus stop is a sign that confirms which bus comes to that stop.

Block number: 3300-3200

Starting and ending streets: Friendship Cir to Morgan Ln

Side of the street: North

Zoning: F-Commercial (City of Lansing)



Complete Street

This block has been categorized as a Class 3 for Complete Streets. This block holds a lot of parking that overtakes the whole block when there is a park right next door that brings green space and is more aesthetically pleasing. This parking lot may serve well to automobile users but does not accommodate transit users, pedestrians, and bicyclists. This is an example of a development that did not take into consideration all types of users.

Automobile-User

This block falls into the Class 2 category for automobiles. A large parking lot dominates the entire area. For a driver this is important to have easy access to parking. When pulling into the strip mall all you see is parking. The roads adequately handle automobile travel. There are three lanes on each side of the median making it easy for those coming into the shopping center, those continuing forward, as well as those who are using the turn around. There is also adequate street lighting on the street and in large parking lots. One thing that could assist automobiles would be to add a bus pullout where the bus stop is to prevent slowdowns and backups.

Pedestrian

From a pedestrian point of view the block is classified as a Class 3. The sidewalk is has adequate curb cuts that assist the walker from one block to another. There are also benches along the verge that are helpful for all pedestrians while walking. There is some landscaping on the verge and around the park. The skate park and the green space provide a nice addition for the pedestrian. One of the downsides the pedestrian faces is the setback of the buildings. With the hundreds of feet of parking lot it is difficult for pedestrians to get to these businesses. Another negative aspect is the lack of crosswalks on this block. There is a considerable amount of foot traffic; a crosswalk to the south side could be helpful.

Bicyclist

This block is found to be a Class 4 block for bicyclists. There is still no bike lane available on this area of the corridor. There also was not any bike racks on the block.

Transit-User

There is a bus stop on this block that is definitely a positive attribute when there is a considerable amount of activity on a block but this stop did not accommodate most peoples' needs leaving this block to be classified as a Class 4 for transit. This stop would benefit with shelter as well as benches. A schedule and route information would also assist those who are waiting for the next bus.

Block number: 3100

Starting and ending streets: Morgan Ln to Clippert St

Side of the street: North

Zoning: F-Commercial (City of Lansing)



Complete Street

This block falls into the Class 3 category for Complete Streets. The automobile users are the most accommodated users for on this block. Being categorized as a Class 3 block shows that there are improvements that need to be made across the board and that every user needs to be focused on here. This block is where the Frandor Shopping Center is located meaning that there are a lot of vehicles and pedestrians that need to access that this area on a daily basis whether they are workers or just visitors.

Automobile-User

Block 3100 has been categorized as a Class 3 for automobiles. Like its neighboring blocks there is a lot of parking lot space. This is one end of a large shopping center that at one point had attracted many people. From the driver's perspective it is nice that there is a lot of pavement and many open parking lots. From Michigan Avenue you see Sears as well as a Jeep dealership that both hold large parking lots that connect in between. The road quality for this block is poor and in need of repair. There is an adequate amount of lanes and a good flow of traffic. Having a bus stop on this block is very important but it would help the prevent congestion if there was a bus pullout There is also a good amount of street lights that promote safety on the street and in the large parking lots.

Pedestrian

This block falls into a Class 3 for pedestrians. The sidewalk along this area is fairly accommodating to all users but could be a little smoother and better kept. The weeds growing between the cracks can serve as a safety issue for some. There are also well-lit streets as well as parking lots that keep people more aware of their surroundings. Even with this the curbs lack curb cuts and there are no crosswalks along the block. The shopping center attracts people and to be able to access the center easily and safely it is important to have crosswalks available.

Bicyclist

For a bicyclist this block has more to offer than the others. This block has bike racks that have the main purpose of serving the people visiting Frandor Shopping Center. With this addition block 3100 is found to be a Class 4 for bicyclist.

Transit-User

This block is classified as a Class 4 for transit. There is a bus stop at this location that is necessary for the amount of people that use this site on a daily basis. What this bus stop lacks most importantly is shelter and benches. These are essential to the majority of people that ride the bus. A route schedule would also be helpful as well as a bus pullout that would assist the disabled and be more accommodating to those who are entering and exiting the bus at this specific site.

Block number: 3000

Starting and ending streets: Clippert St. to Homer St.

Side of the street: North

Zoning: F-1 Commercial (City of Lansing)



Complete Street

This block falls into the Class 2 category for Complete Streets. Staples, Inc. is the only business located on the north side of the block so the target demographic is mercantile shoppers. While this portion of the corridor favors automobile use, it lacks support for all other forms of transportation. Automobile noise is highly noticeable as this block is located adjacent to U.S. Highway 127. The Staples building has a fair amount of landscaping consisting of 5 small evergreens, shrubs, and a mulching bed along the southern portion of property. The building façade that faces the corridor has no windows and lends a cold, impersonal appearance. The median is covered with grass that is in above average condition and contains eight large, healthy trees.

Automobile-User

This block is categorized as a Class 2 block for automobiles. There is parking for Staples customers, which is served by the only curb cut on the block. The 3000 block serves as an accessory road to Highway 127 promoting a high vehicle use throughout the day and evening. The street has 3 lanes, including the turn lanes, as well as properly timed traffic lights, allowing automobiles to move through the block. The center median provides a division between east and west travelers and lends an added safety factor to drives while at the same time providing visual aesthetics.

Pedestrian

The 3000 block falls into a Class 2 category. The sidewalks are 5' wide and are in favorable condition as they are smooth, straight, and are only interrupted by one curb cut. Both the east and west ends feature curb cuts for walkers and 3 of the 4 intersections have crosswalks. The area is well lit with 3 light fixtures, adequate for the length of the block. The noise from the highway makes it hard to hear when walking along the block and is a safety concern.

Bicyclist

This block does not lend ideal characteristics for bicyclists and is classified in the Class 2 category. There are no bike lanes or storage racks present and the complete lack of a shoulder on Michigan Avenue makes bicycling on the road very dangerous, especially when located near the freeway as this block is. The width of the sidewalk is too narrow to safely move pedestrians and cyclists at the same time.

Transit-User

While there is no bus stop present on this block, there is a bus stop on the block to the east; however it lacks a shelter or bench. Transit riders enjoy adequate lighting and landscaping as they pass through the block, which serve as the only positive items contributing to this class 4 block.

Block number: 3000

Starting and ending streets: Clippert St. to Homer St.

Side of the street: South

Zoning: F-Commercial (Lansing Charter Township)



Complete Street

This block falls into the Class 3 category for Complete Streets. It does not properly accommodate a variety of users. It is very conducive to automobile use, but is not very suitable for use of other forms of transportation as well as for children and those with visual impairments.

Automobile-User

The 3000 block is categorized as a Class 2 block for automobiles. The number of lanes, given the fairly light traffic flow, as well as proper turn lanes and well-timed lighting, allows traffic to move through the block relatively easy. Parking is easily accessible from the road.

Pedestrian

This block is not very suitable for all kinds of pedestrians and is classified as a Class 3 block. Sidewalks of adequate width and condition exist along the block; however, there are not features for the visually impaired within the sidewalks. There also is only a crosswalk on the west end of the block, but not at the east end closer to Frandor. This crosswalk does have a lit crossing signal, but many drivers on Homer approaching the intersection have not fully reduced their speeds by the time they reach Michigan Avenue and when making right turns, are not paying close attention to pedestrians that may be crossing the street. Also, large setbacks and unaesthetic building facades make this an unattractive area for pedestrians to travel through. Lighting along the block is scaled to automobile use, so it does provide lighting in the form of safety, but does not contribute to a pedestrian environment.

Bicyclist

This block has no features specifically designed for bicyclists and is a Class 4 bicyclist block. There are no bike lanes or parking for bicycles. Without proper bike lanes, a bicyclist is forced to use the sidewalk, which is in pretty good condition and is without obstructions.

Transit-User

While there is no bus stop present on this block, there is a bus stop on the block to the east, so the block is categorized as Class 5 for transit. This adjacent bus stop has no covered shelter, seating, or information about bus routes, but is within walking distance from any destination on the 3000 block.

Block number: 2900

Starting and ending streets: Homer St. to Howard St.

Side of the street: North and South

Zoning: ROW-Right-Of-Way (City of Lansing)



Complete Street

This block falls into the Class 4 category for Complete Streets. There are no occupants on the entire block as the U.S. Highway 127 runs directly overhead. The highway noise is so obtrusive that two people would have trouble carrying on a conversation when walking on the block. Overall the block caters toward automobile users and earns a class 2 classification.

Automobile-User

This block is categorized as a Class 3 block for automobiles. There are no businesses on the block so the demand for parking is nonexistent. The street has 3 lanes, including the turn lanes, as well as properly timed traffic lights and a center median with tree lined landscaping. The center median provides a division between east and west travelers and lends an added safety factor to drives while at the same time providing visually appealing aesthetics and allows automobiles to move through the block without congestion. Road signage is present informing drivers of the most feasible route to take to their destination.

Pedestrian

The 3000 block falls into a Class 4 category. The sidewalks are 5' wide and are in favorable condition as they are smooth, straight, and contain no curb cuts. Both the east and west ends feature curb cuts for walkers. Although there is a center median, it's not accessible to pedestrians as there are not crosswalks associated with it. A pedestrian would need to travel to the next block for crosswalk access. Overgrown trees hang down over the sidewalk and act as an obstruction. The area has 3 light fixtures, but the highway cast shadows producing dark areas that are unsafe under the overpass. The noise from the highway makes it hard to hear when walking along the block and is another safety concern.

Bicyclist

This block does not lend ideal characteristics for bicyclists and is classified in the Class 5 category. There are no bike lanes or storage racks present and the complete lack of a shoulder on Michigan Avenue makes bicycling on the road very dangerous, especially

when located near the freeway as this block is. Bicyclists are forced to ride on the sidewalk and the overhanging tree branches on the sidewalk are an obstacle that must be avoided. The lighting is also poor, making the branches even more dangerous.

Transit-User

While there is no bus stop present on this block, there is a covered bus stop on the block to the west. Although there is landscaping present on this block, the majority of the area is occupied by the concrete foundations of the freeway. This block earns a Class 4 rating.

Block number: 2800

Starting and ending streets: Howard St. to Detroit St.

Side of the street: South

Zoning: G-General Business (Lansing Charter Township)



Complete Street

This block falls into the Class 3 category for Complete Streets. It does not properly accommodate a variety of users. It is very conducive to automobile use, but is not very suitable for use of other forms of transportation as well as for children and those with visual impairments.

Automobile-User

The 2800 block is categorized as a Class 2 block for automobiles. The number of lanes, given the fairly light traffic flow, as well as proper turn lanes and well-timed lighting, allows traffic to move through the block without congestion. The only use along the block is Bud Kout's Used Cars, which has accessible parking in its car lot. A median in the road and a turn-around for going from westward travel to eastward makes for an organized pattern of driving on the block.

Pedestrian

This block is not very suitable for all kinds of pedestrians and is classified as a Class 3 block. Sidewalks of adequate width and condition exist along the block; however, there are not features for the visually impaired within the sidewalks. There are lit crosswalks, but nearby freeway traffic can be a safety hazard for those trying to cross. With the car dealership being the sole use found along this block, there is not much visual interest or variety. This block has both pedestrian scaled and automobile scaled lighting. There are four of the double-acorn lighting fixtures with Michigan State University flags indicating some sense of direction toward the university as well as much taller lighting fixtures that hang over Bud Kouts.

Bicyclist

This block has no features specifically designed for bicyclists and is a Class 4 bicyclist block. There are no bike lanes or parking for bicycles. Without proper bike lanes, a bicyclist is forced to use the sidewalk, which is in pretty good condition and is without obstructions.

Transit-User

The closest bus stop to this block is two blocks away, therefore, this block is a Class 5 block for transit.

Block numbers: 2700 - 2800

Starting and ending streets: Howard St. to Lasalle St.

Side of the street: North

Zoning: G-2 Wholesale, H-Light Industrial, F-1 Commercial (City of Lansing)



Complete Street

Bud Kouts Automobile Dealership is the sole business located on the north side of the block so the target demographic is automobile shoppers. This is one of the longer blocks on the corridor, perhaps at one time acting as 2 blocks, and joined together to serve the needs of the dealership. Though this block lacks visual appeal, the infrastructure suggests a Classification of category 2 with regards to complete streets. The vast majority of the block is parking lot for new car storage and sales.

Automobile-User

This block is categorized as a Class 2 block for automobiles. There is substantial parking for Bud Kouts customers along with 3 curb cuts for easy automobile accessibility. The street has decorative street light fixtures with MSU banners and proper road signage. There are 3 lanes that function in collaboration with a center median that has turning lanes built in. This provides access to businesses on the south side and a passage for motorists seeking entrance to the highway located 1 block to the east, and aids in minimizing traffic congestion. The center median is also filled with trees and shrubs providing pleasant landscaping, minimizing the inner city hardscape located further west on the corridor.

Pedestrian

This block falls into a Class 2 category. The sidewalks are 5' wide and are fairly smooth and straight. The east and west ends feature a curb cut for walkers and contain a crosswalk on the east corner, which contains signals, crossing buttons and adequate crossing time. Buildings are moderately close to the street and the area is well lit with light fixtures. The car dealership light fixtures provide additional safety lighting. The noise from the highway makes it hard to hear when walking along the block and is a safety concern and is also a hindrance to the dealership.

Bicyclist

This block does not lend ideal characteristics for bicyclists and is classified in the Class 4 category. There are no bike lanes or storage racks present and the complete lack of a shoulder on Michigan Avenue makes bicycling on the road very dangerous. The width of the sidewalk is too narrow to safely move pedestrians and cyclists at the same time.

Transit-User

There is a bus stop on this block with a covered shelter, seating, as well as information about bus routes and schedules, so the block is categorized as Class 3 for transit. The street does not have a bus lane, and there is not a bus pullout present. The bus stop is located close to the east corner intersection as vehicles turning onto Michigan Avenue are immediately confronted with bus that's servicing patrons.

Block number: 2700

Starting and ending streets: Detroit St. to Charles St.

Side of the street: South

Zoning: F-Commercial (Lansing Charter Township)



Complete Street

This block falls into the Class 4 category for Complete Streets. It does not properly accommodate a variety of users. It is very conducive to automobile use, but is not very suitable for use of other forms of transportation. Those using non-motorized transportation, either pedestrians or bicyclists, are inhibited by the lack of a surface dedicated to their use. The block is also not safe for those with disabilities. Further, this focus on automobile use makes the block particularly unsafe for children and seniors who do not drive.

Automobile-User

This block is categorized as a Class 2 block for automobiles. The number of lanes, given the fairly light traffic flow, as well as proper turn lanes and well-timed lighting, allows traffic to move through the block without congestion. The parking for uses along the block such as Mac's Bar or Refugee Services is located next to the buildings, is easily accessible from side streets.

Pedestrian

The 2700 block of Michigan Avenue is currently not good for pedestrian travel and is a Class 5 pedestrian block. The sidewalk on the block ends in front of Mac's Bar and is incomplete. There are also no crosswalks anywhere along the block or at either corner, causing a pedestrian to have to travel two blocks away in order to safely cross to the other side of the street. The block does, however, have 4 double-acorn lighting fixtures scaled for pedestrians. There are curb cuts on the block; good for those traveling by wheelchair, but other disabilities such as blindness are not accounted for. There are no detectable warnings on sidewalk surfaces and no crosswalks with audible timers.

Bicyclist

Similar to use for pedestrians, this block is not suitable for biking and is only a Class 4 Bicyclist block. There are no bike lanes present and the lack of sidewalk in front of Mac's Bar makes sidewalk travel a very poor alternative. If a bicyclist were to travel along the block, there would be no place to park the bike as there are no bike racks or loops anywhere along the block.

Transit-User

While there is no bus stop present on this block, there is a bus stop on the block to the west, so the block is categorized as Class 5 for transit. This adjacent bus stop has no covered shelter, seating, or information about bus routes, but is within walking distance from any destination on the 2700 block.

Block number: 2600

Starting and ending streets: Lasalle Ct. to Kipling Blvd.

Side of the street: North

Zoning: F-1 Commercial (City of Lansing)



Complete Street

This block act primarily acts as a mercantile use block. There are many large advertisement billboards and “criminals beware” signs. The businesses that occupy the block consist of: Logan Brothers Printing, Superior Optical, The Tattoo Shop and Avis Car Rental. Avis Car Rental is a modular building and stands out from the rest of the buildings on the block. The block earns a rating in Category 4.

Automobile-User

This block is categorized as a Class 2 block for automobiles. There is substantial parking for all business customers along with 2 curb cuts for easy automobile accessibility. The street has decorative street light fixtures with MSU banners and proper road signage. The street median present on the block to the east tapers down on this block joining the east/west traffic with a center turning lane. A combination of street signs, well-timed traffic lights, way finding and a turning lane make this block adequate for automobile usage.

Pedestrian

This block falls into a Class 4 category. The sidewalks are 5' wide but are uneven and there is grass growing in the control joints causing deterioration in the concrete. There are no crosswalks located on this block. The Avis Car Rental property is busy with cars pulling in and out of the parking lot and acts as an added obstacle for walkers to cross. There are 5 light poles that provide more than enough lighting on this short block.

Bicyclist

This block does not lend ideal characteristics for bicyclists and is classified in the Class 4 category. There are no bike lanes or storage racks present and the complete lack of a shoulder on Michigan Avenue makes bicycling on the road very dangerous, especially the busy driveways that occupy this block. The width of the sidewalk is too narrow to safely move pedestrians and cyclists at the same time.

Transit-User

There is a bus stop on this block that consists of a sign and pole lending this block to receive a Class 4 rating for transit. This stop would benefit from a shelter benches and a schedule of bus route and times. Crosswalks are not present, but would also aid transit-users accessibility to the bus stop.

Block number: 2600

Starting and ending streets: Charles St. to Mifflin Ave.

Side of the street: South

Zoning: F-Commercial (Lansing Charter Township)



Complete Street

This block falls into the Class 3 category for Complete Streets. It does not properly accommodate a variety of users. It is very conducive to automobile use, but is not very suitable for use of other forms of transportation as well as for children and those with visual impairments.

Automobile-User

This block is a Class 2 block for automobile-users. The five lanes allow plenty of space for the traffic that travels through this block so there is not congestion. There is easy access to parking, however, the spaces in the parking lot of Theio's Restaurant do not have a very organized design pattern.

Pedestrian

The 2600 block is a Class 3 block for pedestrians. There are smooth sidewalks without obstructions, but the nearest crosswalk is one block away and does not have any features to accommodate the visually impaired. Theio's Restaurant is about ten feet away from the sidewalk, but the wide area between the sidewalk and the road is used by the restaurant as well and makes for a greater setback. In front of Theio's Restaurant, there is some extra landscaping such as bushes and rocks, as well as outdoor seating in the form of picnic tables that help to create a pedestrian environment. This block also has four of the double-acorn lighting fixtures with Michigan State University flags indicating some sense of direction toward the university.

Bicyclist

This block has no features specifically designed for bicyclists and is a Class 4 bicyclist block. There are no bike lanes or parking for bicycles. Without proper bike lanes, a bicyclist is forced to use the sidewalk, which is in decent condition and is without obstructions.

Transit-User

There is a bus stop within this block, but the block is categorized as Class 5. The stop has no seating or shelter for users and provides no bus route information. The bus stop consists solely of a pole in the middle of the verge, quite a few feet away from the sidewalk. This would force someone riding the bus to either stand in the grass or on the sidewalk away from the bus stop.

Block number: 2500

Starting and ending streets: Kipling Blvd. to Francis Ave.

Side of the street: North

Zoning: F-1 Commercial (City of Lansing)



Complete Street

This Class 3 block acts primarily as a mercantile use block. The businesses that occupy the block consist of: Capital Imaging, Lam's Sweeper Shop, Global Tax Service and a vacant building. On the west corner parking lot of this block there is a mobile restaurant trailer called EL Oasis which sells Mexican Food. This is a walk up style trailer painted bright yellow and hinders the appearance of the block. Impervious materials such as the asphalt parking lot and cement sidewalks make up the abundance of this block.

Automobile-User

This block is categorized as a Class 2 block for automobiles. There is substantial parking for all business customers along with 2 curb cuts for easy automobile accessibility. There is a large parking that occupies the west corner of the block along with parking spaces adjacent to the north side of the sidewalk on 3/4 of the block. The street has decorative street light fixtures with MSU banners and proper road signage. A combination of street signs, well-timed traffic lights, way finding and a turning lane make this block adequate for automobile usage.

Pedestrian

This block falls into a Class 3 category. The sidewalks widths are generous at 10' wide and are fairly smooth and straight. The east and west ends feature a curb cut for walkers but fail to provide signals or crossing buttons. There are no cross walks that serve north or south crossing. The sidewalk extends directly adjacent to the road curb and there is a lack of buffer between pedestrians and drivers. Trees are the only landscaping on this block and they are planted directly into the sidewalk.

Bicyclist

This block does not lend ideal characteristics for bicyclists and is classified in the Class 4 category. There are no bike lanes or storage racks present and the complete lack of a shoulder on Michigan Avenue makes bicycling on the road very dangerous, especially

the busy driveways that occupy this block. The width of the sidewalk is too narrow to safely move pedestrians and cyclists at the same time.

Transit-User

Although there is no bus stop present on this block, there is one located on the block to the east. The 2500 block earns a Class 4 transit rating because of lack of landscaping, and for being dominated by automobile parking and traffic.

Block number: 2500

Starting and ending streets: Mifflin Ave. to Francis Ave.

Side of the street: South

Zoning: F-1-Commercial (City of Lansing)



Complete Street

This block falls into the Class 3 category for Complete Streets. It does not properly accommodate a variety of users. It is very conducive to automobile use, but is not suitable for use of other forms of transportation, particularly those that are non-motorized, as well as for children and those with disabilities.

Automobile-User

The 2500 block is a Class 2 block for automobile use. The road condition and pattern easily accommodates the traffic the flows through the block. Parking to the small businesses such as CBI Copy Products or Honeyderm is easily accessible and yields plenty of extra space.

Pedestrian

This block is classified as a Class 4 block for pedestrians. There are no crosswalks along the block and the nearest one would be two blocks away in either direction. There also are no features to safely allow people with visual impairments to travel. The landscaping on this block consists of four large trees placed right in the middle of the sidewalk. Their growth over the years has caused the sidewalk to crack open around the trunk of the tree, creating an uneven surface. These trees are also a hindrance to those passing through, particularly those traveling by wheelchair. The setbacks of some structures on the block are within ten to twenty feet of the street, but the forty-foot setbacks are much more prominent, so the majority of the block is not very pedestrian friendly. Even where the setback is smaller, building facades are visually unappealing, commonly of all brick or siding with no windows. Adding to the disarray of the block, the sidewalks vary between five and ten feet wide.

Bicyclist

The 2500 block does not have any features to accommodate bicyclists and it a Class 4 block. There are no bike lanes, and for a bicyclist to ride in the sidewalk, they would

have to maneuver around the trees that are in the middle of the sidewalk. The unevenness of the sidewalk as a result of these trees' growth also would make for a bumpy ride.

Transit-User

This block is a Class 4 block for transit use. It does not have its own bus stop but is within walking distance to the bus stop on the 2400 block, however, this bus stop does not have any shelter or route information for users.

Block number: 2400

Starting and ending streets: Francis Ave. to Foster Ave.

Side of the street: North

Zoning: F-1 Commercial (City of Lansing)



Complete Street

This Class 2 block consists of mercantile and residential use. The businesses that occupy the block consist of: RBH Auto Repair, Capitol Discount Pawn, Complete Catering and Incporium Tattoo Shop. The Incporium Tattoo shop is built onto a multi-family housing unit and the structure is in desperate need of façade improvements. The street has decorative street light fixture. Three of the four buildings on this block are located within 10' of the road curb, with the exception being RBH Auto Repair, which has customer parking located between the building and the sidewalk.

Automobile-User

This block is categorized as a Class 2 block for automobiles. There is substantial parking for all business customers along with 3 curb cuts for easy automobile accessibility. There is also an alleyway located between RBH Auto and Capitol Discount Pawn that serves a customer parking lot. A combination of street signs, well-timed traffic lights, way finding and a turning lane make this block advantageous for automobile usage.

Pedestrian

This block falls into a Class 2 category. The sidewalks widths are generous at 10' wide and are fairly smooth and straight. The east and west ends feature a curb cut for walkers but fail to provide signals or crossing buttons. There is crosswalk on the west corner that serves north and south crossing with a timer and crossing button. The only major pedestrian concern is that Capitol Discount Pawn has bicycles for sale located outside the south entrance of the building. These bicycles encroach on the sidewalks path of travel and deter from the block facade as they are secured with large locks. The sidewalk extends directly adjacent to the road curb and there is a lack of buffer between pedestrians and drivers. Landscaping consists of trees and grass beds at the corners.

Bicyclist

This block does not lend ideal characteristics for bicyclists and is classified in the Class 4 category. There are no bike lanes or storage racks present and the complete lack of a shoulder on Michigan Avenue makes bicycling on the road very dangerous, especially the busy driveways that occupy this block. The width of the sidewalk is too narrow to safely move pedestrians and cyclists at the same time.

Transit-User

While there is no bus stop present on this block, there is a bus stop on the block to the west, so the block is categorized as Class 4 for transit. This adjacent bus stop has seating and also is a pick-up spot for the CATA entertainment trolley.

Block number: 2400

Starting and ending streets: Francis Ave. to Foster Ave.

Side of the street: South

Zoning: F-1-Commercial (City of Lansing)



Complete Street

This block falls into the Class 3 category for Complete Streets. It does not properly accommodate a variety of users. It is very conducive to automobile use, but is not suitable for use of non-motorized transportation, particularly for children and those with disabilities.

Automobile-User

For automobile use, this block is a Class 2. The road pattern and condition easily accommodates the traffic flow. There are no bus pullouts along the block. Parking is easily accessible to Fish & Chips or to the small strip mall development that includes the Quality Dairy.

Pedestrian

This block is not very suitable for pedestrian use by all people and is a Class 4 block. The sidewalks have trees right in the middle of them, which has created an uneven surface that obstructs use, especially for wheelchairs. There is a crosswalk at only one end of the block, which is lit and does have a pedestrian-crossing button, allowing for safe travel by the average person that does not have any disabilities. Although, it is not audible and there is no indication along the sidewalk for visually impaired pedestrians to know when they are reaching the end of the sidewalk. In addition, there is no median or crossing island for pedestrians to wait at while crossing. This is particularly an issue for slower movers such as the elderly. This block is also unsafe for pedestrians because there is no verge so pedestrians must travel right alongside automobiles. There is some outdoor seating at Fish & Chips, creating a place for people, along with barrels for flowers that add some visual appeal. The parking lot in front of the Quality Dairy strip mall is fairly small in size, but still crosses the sidewalk, and therefore must be crossed before a pedestrian can reach the structure.

Bicyclist

This block has no features specifically designed for bicyclists and is a Class 4 bicyclist block. There is a slightly higher density and variety of uses compared to other blocks to the east, including businesses that people including bicyclists would want to use such as the Quality Dairy. There is no bike parking to accommodate this user group though. There also are no bike lanes so a bicyclist is forced to use the sidewalk, which is very obstructed and uneven because of the trees in the middle of the sidewalk.

Transit-User

There is a bus stop within this block, and the block is categorized as Class 4. The stop does have a trash receptacle and two benches for seating- one provided by CATA, the other a concrete bench with an advertisement on it. The bus stop does not provide bus route information for routes and timing. There also is no bus lane to speed the flow of the bus, or a pullout or wide shoulder to allow users a safe place to enter and exit the bus separate from traffic.

Block number: 2300

Starting and ending streets: Foster Ave. to Hayford Ave.

Side of the street: North

Zoning: F-1 Commercial (City of Lansing)



Complete Street

This Class 2 block consists of mixed use and mercantile uses. The businesses that occupy the block consist of: Blimpie Restaurant, Enterprise Rent A Car, Renee Hair Design and the Hayford Street Clinic. Renee Hair Design and the Hayford Street Clinic reside in former houses, and have apartments located on the upper floors and rear of the structure. The street has decorative street light fixtures along the entire block and a grass buffer at the western 1/4 of the block that divides the sidewalk from the buildings.

Automobile-User

This block is categorized as a Class 2 block for automobiles. There is parking for all business customers along with 4 curb cuts for easy automobile accessibility. There is also resident parking located behind the 2 mixed use buildings. This block accommodates auto-usage by keeping traffic flow steady and experiences no obstruction from the CATA bus stop as it lacks a bus pullout. Street lights, signs, turning lanes, landscaping, way finding and easy parking access give this block a Class 4 rating for automobile use.

Pedestrian

This block falls into a Class 2 category. The smooth and straight sidewalks are 5' wide. The east and west ends feature a curb cut for walkers but fail to provide signals or crossing buttons. There is crosswalk on the east corner that serves north and south crossing with a timer and crossing button. The sidewalk extends directly adjacent to the road curb and there is a lack of buffer between pedestrians and drivers. Landscaping mainly consists of trees, with grass beds at the west corner.

Bicyclist

This block does not lend ideal characteristics for bicyclists and is classified in the Class 4 category. There are no bike lanes or storage racks present and the complete lack of a shoulder on Michigan Avenue makes bicycling on the road very dangerous, especially the busy driveways that occupy this block. The width of the sidewalk is too narrow to safely move pedestrians and cyclists at the same time.

Transit-User

This block is categorized as Class 4 for transit. There is a CATA bus stop present, however it is unsheltered and no route signage or bus schedule is present. Benches provide those waiting for a bus a place to sit, but they lack covered shelter. The 4 decorative street lights provide adequate lighting for those waiting for the bus.

Block number: 2300

Starting and ending streets: Foster Ave. to Hayford Ave.

Side of the street: South

Zoning: F-1-Commercial (City of Lansing)



Complete Street

This block falls into the Class 4 category for Complete Streets. It does not properly accommodate a variety of users. It is very conducive to automobile use, but is not suitable for use of non-motorized transportation, particularly for children and those with disabilities.

Automobile-User

For automobile use, this block is a Class 2. The road pattern and condition easily accommodates the traffic flow. There are no bus stops along the block, so traffic is not slowed by the stop of a bus. Parking for the uses along the block is located behind the buildings and is easily accessible through side streets or the curb cut.

Pedestrian

This block is a class 4 block for pedestrians. The average person can travel fairly easily along it, but a person with disabilities could have trouble. The sidewalks have trees in the middle of them creating an uneven surface that hinders wheelchair access. The sidewalk also is very uneven, ranging from about five to fifteen feet in width. There is no verge on the block, creating an unsafe distance between pedestrians and automobiles. A majority of the uses along the block are set within ten to twenty feet of the street, including Lansing Art Glass and Barefoot Christian Church. Lansing Art Glass, in particular, has visual appeal for pedestrians passing by. East Michigan Family Care is set very far back by itself behind all other structures, and at the corner of Hayford and Michigan Avenue, however, the Lansing Civic Players building is set much further back, at least forty feet, so there is some inconsistency between the design of the block. There is only one crosswalk on the block, at Foster, so a person closer to Hayford would have to either walk three blocks west to Fairview or one block east to Foster in order to safely cross the street.

Bicyclist

This block has no features specifically designed for bicyclists and is a Class 4 bicyclist block. There is a slightly higher density and variety of uses compared to other blocks to the east, but no bike parking to accommodate this user group. There also are no bike

lanes so a bicyclist is forced to use the sidewalk, which is very obstructed and uneven because of the trees in the middle.

Transit-User

The 2300 block is categorized as Class 4 for transit use. It does not have its own bus stop, but is within walking distance to the stop on the 2400 block. This stop has a trash receptacle and two benches for seating, but does not provide information for bus routes and timing.

Block number: 2200

Starting and ending streets: Hayford Ave. to Magnolia Ave.

Side of the street: North

Zoning: F-1 Commercial (City of Lansing)



Complete Street

This Class 3 block consists of assembly and residential uses. The block consists of Liberty Christian Church and 2 multi-family houses, which appear vacant. The 2 residential units occupy 2 story houses with parking in the rear. There is a large unattractive “available” leasing sign in the front yard of the houses. The remainder of the block consists of the Church and associated parking. The parking lot for the church divides it and the residential buildings, and is also located in the rear of the structure.

Automobile-User

This block is categorized as a Class 2 block for automobiles. There is parking for all business customers along with a large curb cut servicing the church. A combination of street signs, well-timed traffic lights, way finding and a turning lane make this block advantageous for automobile usage.

Pedestrian

This block falls into a Class 3 category. The sidewalks widths are generous at 10' wide and are fairly smooth and straight with landscaping that consists of trees, mulching beds, shrubs and grass. The east and west ends feature a curb cut but fail to provide signals or crossing buttons. There is no signal to cross in the north or south directions. The path of travel is well lit with 4 decorative poles. All the buildings on the 2200 block are located within 20' of the street curb.

Bicyclist

This block does not lend ideal characteristics for bicyclists and is classified in the Class 4 category. There are no bike lanes or storage racks present and there is a complete lack of shoulder on Michigan Avenue. The width of the sidewalk is too narrow to safely move pedestrians and cyclists at the same time.

Transit-User

Although there is no bus stop present on this block, there is one located on each of the neighboring blocks to the east and west. The 2200 block earns a Class 4 transit rating

because of the abundance of groomed landscaping, lighting and adjacency to 2 bus stops.

Block number: 2200

Starting and ending streets: Hayford Ave. to Magnolia Ave.

Side of the street: South

Zoning: F-1-Commercial (City of Lansing)



Complete Street

This block falls into the Class 3 category for Complete Streets. It does not properly accommodate a variety of users. It is very conducive to automobile use, but is not very suitable for use of non-motorized transportation, as well as for children and those with disabilities.

Automobile-User

For automobile use, this block is a Class 2. The road pattern and condition easily accommodates the traffic flow. There are no bus stops along the block, so traffic is not slowed by the stop of a bus. Parking lots can be found in the front of some buildings, with others off to the side. Those that are in front do not allow for much movement and would basically have to cross over the sidewalk while maneuvering around.

Pedestrian

The 2200 block is a Class 4 block for pedestrians. Setbacks vary along the block, some buildings appear to be relatively new with attractive facades and decorative awnings, adding visual appeal, particularly for those walking down the street. Other structures are set at least forty feet back and have parking lots in front. There are three trees along the block, all of which are right in the middle of the sidewalk, creating an uneven surface. There is no buffer between sidewalk and street, creating a safety hazard for pedestrians alongside automobile traffic.

Bicyclist

This block has no features specifically designed for bicyclists and is a Class 4 bicyclist block. There also is no bike parking or bike lanes so a bicyclist is forced to use the sidewalk, which is very obstructed and uneven because of the trees in the middle.

Transit-User

The 2200 block is categorized as Class 4 for transit use. It does not have its own bus stop, but is within walking distance to the stop on the 2100 block. This stop, however, does not have any seating or route information, so is not very helpful to transit-users

Block number: 2100

Starting and ending streets: Magnolia Ave. to Fairview Ave.

Side of the street: North

Zoning: F-1 Commercial (City of Lansing)



Complete Street

This Class 3 block consists of mercantile and business uses. National City Bank is the only functional business on the block. The other building is vacant. The street has decorative street light fixtures along the entire block and grass buffers at the eastern 1/2 of the block that divide the sidewalk from the a parking lot.

Automobile-User

This block is categorized as a Class 2 block for automobiles. There is parking for all business customers along with 2 curb cuts for easy automobile accessibility. There is abundant customer parking located behind the bank and in front of the vacant building. This block accommodates auto-usage by keeping traffic flow steady and experiences no obstruction from the CATA bus stop as it lacks a bus pullout. Street lights, signs, turning lanes, landscaping and way finding give this block a Class 4 rating for automobile use.

Pedestrian

This block falls into a Class 3 category. The sidewalks widths are generous at 10' wide and are fairly smooth and straight with landscaping that consists of trees, mulching beds, shrubs and grass. The east and west ends feature a curb cut for walkers but fail to provide signals or crossing buttons. There is no signal to cross in the north or south directions. The path of travel is well lit with 4 decorative poles.

Bicyclist

This block does not lend ideal characteristics for bicyclists and is classified in the Class 4 category. There are no bike lanes or storage racks present and the complete lack of a shoulder on Michigan Avenue makes bicycling on the road very dangerous, especially the busy driveways that occupy this block. The width of the sidewalk is too narrow to safely move pedestrians and cyclists at the same time.

Transit-User

There is a bus stop on this block that consists of a sign and pole. This stop would benefit from a shelter benches and a schedule of bus route and times. This block receives a Class 4 rating largely due to the landscaping, lighting and opportunity for transit riders to park on the adjacent west block public parking facility.

Block number: 2100

Starting and ending streets: Magnolia Ave. to Fairview Ave.

Side of the street: South

Zoning: F-1-Commercial (City of Lansing)



Complete Street

This block falls into the Class 3 category for Complete Streets. It does not properly accommodate a variety of users. It is very conducive to automobile use, but is not very suitable for other forms of transportation, as well as for children and those with disabilities. A large portion of the block has been dedicated to parking but appears to be very underutilized.

Automobile-User

For automobile use, this block is a Class 2. The road pattern and condition easily accommodates the traffic flow. Traffic can be slowed by frequent stops of CATA bus #1, but there is usually opportunity to drive around the bus and into another lane. The parking lot between buildings provides of space for parking, and is easily accessible from Fairview.

Pedestrian

For pedestrians, this is a Class 4 block. There is significant disarray in the design of the block. Hot Tubs consumes almost half of the block and is set within about ten to twenty feet of the street, but has absolutely no verge or landscaping of any form in front, a safety hazard for pedestrians while traveling along side automobile traffic. Beyond Hot Tubs, there are four trees in the middle of the sidewalk, hindering smooth passage by pedestrians, particularly those who are handicapped. A building on the corner also has a small setback, but appears to be vacant. Another structure is set over forty feet from the street, resembling a trailer, and is currently for rent. The inconsistency between structures on the block does not make for a very pedestrian friendly environment. This block does not have a crosswalk, so users must go three blocks east or one block west in order to safely cross. There also are no features to accommodate people with visual impairments.

Bicyclist

This block has no features specifically designed for bicyclists and is a Class 4 bicyclist block. There also is no bike parking or bike lanes so a bicyclist is forced to use the sidewalk, which is very obstructed and uneven because of the trees in the middle.

Transit-User

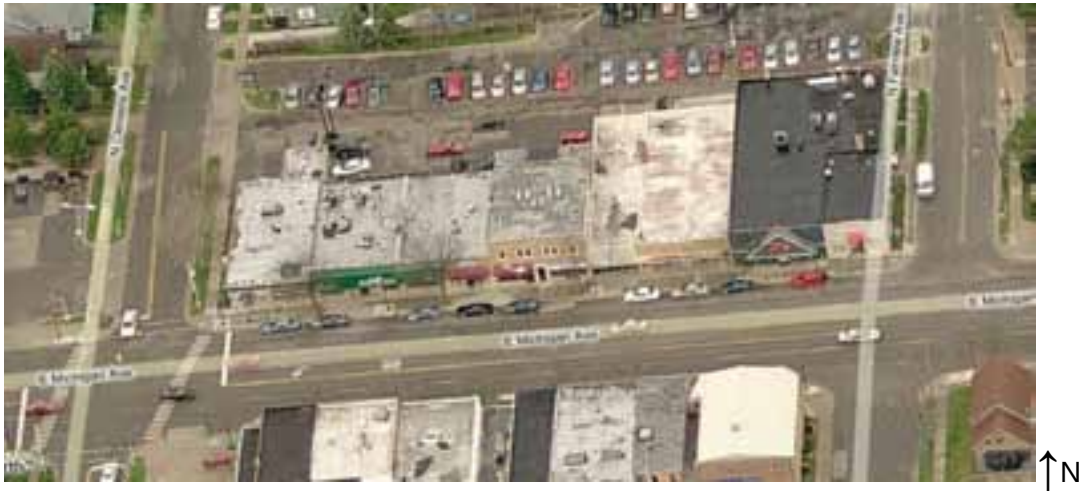
The 2100 block is categorized as Class 4 for transit use. The bus stop in front of Hot Tubs does have a bench for users to rest while waiting for the bus, but does not indicate the bus routes that pass the stop or the times they will come.

Block number: 2000

Starting and ending streets: Fairview Ave. to Clemens Ave.

Side of the street: North

Zoning: F-1 Commercial (City of Lansing)



Complete Street

This Class 3 block consists of mercantile and assembly uses. The businesses that occupy the block consist of: Lamai's Kitchen, Gone Wired Café, Everybody Reads Bookstore, Bill Leech Appliance Repair, Bead Boutique, Lansing Ethnic Foods, Lopez Bakery, The Greendoor Bar, Barber Love and The City Pulse. When traveling west, this is the first taste a corridor voyager gets of a true downtown atmosphere, filled with shopping, street and off street parking and entertainment options. This block also provides a street view of the State Capital giving one a feeling of being in the Capital City.

Automobile-User

This block is categorized as a Class 2 block for automobiles. There is parking for all business customers with free on-street parking, and a public parking lot behind the businesses that charges 25 cents/hour. This block accommodates auto-usage by keeping traffic flow steady and experiences no obstruction from a CATA bus stop. Street lights, signs and turning lanes give this block a Class 4 rating for automobile use.

Pedestrian

This block falls into a Class 2 category. The sidewalks widths are generous at 10' wide and are fairly smooth and straight, with exception of the occasional tree root protruding up from the street landscaping. The east and west ends feature a curb cut for walkers. A signal and crossing button is located at the west end crosswalk to aid in crossing the busy Michigan Avenue. The path of travel is well lit with 4 decorative poles and additional light from the business facades and signage. All of the buildings on this block are located within 10' of the street curb. The on-street parking provides a buffer between pedestrians and busy street traffic.

Bicyclist

This block does not lend ideal characteristics for bicyclists and is classified in the Class 4 category. There are no bike lanes or storage racks present and the complete lack of a shoulder on Michigan Avenue makes bicycling on the road very dangerous, especially

the busy driveways that occupy this block. The width of the sidewalk is too narrow to safely move pedestrians and cyclists at the same time.

Transit-User

Although there is no bus stop present on this block, there is one located on each of the neighboring blocks to the east and west. The bus stop to the west is complete with a shelter and benches. The 2000 block earns a Class 4 transit rating because of the lighting, adjacency to 2 bus stops, parking amenities and proximity to desired business destinations.

Block number: 2000

Starting and ending streets: Fairview Ave. to Clemens Ave.

Side of the street: South

Zoning: F-1-Commercial (City of Lansing)



Complete Street

This block falls into the Class 2 category for Complete Streets. It accommodates the average pedestrian fairly well relative to other blocks, but not those with disabilities. It is also fairly conducive to transit use and very conducive to automobile use, but not at all conducive to bicycle travel.

Automobile-User

For automobile use, this block is a Class 2. The road pattern and condition easily accommodates the traffic flow. Traffic can be slowed by frequent stops of CATA bus #1, but there is usually opportunity to drive around the bus and into another lane. There are about 8 straight on-street parking spaces on the block as well as a parking lot next to the Barber Shop, accessible from Clemens.

Pedestrian

For pedestrians, this is a Class 2 block. There are wide sidewalks along the block that run alongside buildings set within ten to twenty feet of the street. There are windows to look through, providing visual appeal and safety for pedestrians. There is no verge between the sidewalk and street, but the on-street parking provides somewhat of a buffer to separate the two users. There is not much landscaping beyond five trees in the sidewalk that hinder sidewalk traffic, creating a problem especially for those traveling by wheelchair. This has also caused upheaval of the sidewalk, making an uneven surface for all. One tree has grating around it, but this doesn't seem to fit with the rest of the block. Some businesses along the block also have added their own decorative flower boxes and barrels, and Magdalena's Tea House has provided its own seating as well. Lighting is adequately scaled to pedestrians as is the overall design of the block. There are crosswalks at both ends of the street; however, neither are lit or audible. This, along with the lack of textured surface on the sidewalk makes the block particularly unsafe for the visually impaired.

Bicyclist

This block has no features specifically designed for bicyclists and is a Class 4 bicyclist block. There are no bike lanes so a bicyclist is forced to use the sidewalk, which is very obstructed and uneven because of the trees in the middle. There also is no bike parking, so while there are a variety of popular venues along the block, a bicyclist has nowhere to park.

Transit-User

The 2000 block is categorized as Class 4 for transit use. The bus stop in front of Magdalena's Tea House indicates that the stop is serviced by CATA route #1 and #4 and also lists the times in which this service will occur.

Block number: 1900

Starting and ending streets: Clemens Ave to Horton St.

Side of the street: North

Zoning: F-1 Commercial



Complete Street

This block falls into the Class 4 category for Complete Streets. It does not properly accommodate a variety of users. It is automobile friendly but not very suitable for use of other forms of transportation. There is a gas station and four businesses on this block. Three businesses are homes converted into office space. Two of those houses converted into office space have grass as a buffer between the sidewalk and itself.

Automobile-User

This block is categorized as a Class 3 block for automobiles. The number of lanes, given the fairly light traffic flow, as well as proper turn lanes and well-timed lighting, allows traffic to move through the block without congestion. There is on street parking but additional parking is available east of Clemens which makes parking very accessible in this area. There are no bus pullouts along the block so the frequent stops of the CATA bus #1 can cause slowdowns, but due to the multiple lanes, it is usually possible for automobiles to move around the bus.

Pedestrian

The 1900 block of Michigan Avenue is currently good for pedestrian travel and is a Class 4 pedestrian block. The sidewalk on the block is about 10 feet wide making it easily maneuverable for pedestrians. There is a crosswalk at the corner of Clemens which makes it safe to cross Michigan Ave. Lighting on the street is good with 4 ornamental street lights. There are curb cuts on the block; good for those traveling by wheelchair, but other disabilities such as blindness are not accounted for. There are no detectable warnings on sidewalk surfaces and no crosswalks with audible timers.

Bicyclist

Similar to use for pedestrians, this block is not suitable for biking and is only a Class 2 Bicyclist block. There are no bike lanes present. If a bicyclist were to travel along the block anyway, there would be no place to park the bike as there are no bike racks or loops anywhere along the block.

Transit-User

There is a bus stop present on this block with a bench and shelter. This categorizes this block as Class 3 for transit. There is no bus lane or pull out which may lead to traffic congestion.

Block number: 1900

Starting and ending streets: Clemens Ave to Regent St

Side of the street: South

Zoning: F-1 Commercial



Complete Street

This block falls into the Class 4 category for Complete Streets. It does not properly accommodate a variety of users. It is automobile friendly but not very suitable for use of other forms of transportation. There are four businesses on the block. Two homes were converted into businesses. There is on street parking and a parking lot for customers of one business.

Automobile-User

This block is categorized as a Class 4 block for automobiles. The number of lanes, given the fairly light traffic flow, as well as proper turn lanes and well-timed lighting, allows traffic to move through the block without congestion. There is on street parking but additional parking is available east of Clemens which makes parking very accessible in this area. There is no bus stop on this block, but there is a stop one block east without a shelter or bench.

Pedestrian

The 1900 block of Michigan Avenue is currently good for pedestrian travel and is a Class 4 pedestrian block. The sidewalk on the block is about 10 feet wide making it easily maneuverable for pedestrians. There is a crosswalk at the corner of Clemens which makes it safe to cross Michigan Ave. Lighting on the street is good. There are curb cuts on the block; good for those traveling by wheelchair, but other disabilities such as blindness are not accounted for. There are no detectable warnings on sidewalk surfaces and no crosswalks with audible timers.

Bicyclist

Similar to use for pedestrians, this block is not suitable for biking and is only a Class 2 Bicyclist block. There are no bike lanes present. If a bicyclist were to travel along the block anyway, there would be no place to park the bike as there are no bike racks or loops anywhere along the block.

Transit-User

There is no bus stop present on this block with but there is a stop one block east of this block, with no shelter or benches. It is categorized as a Class 2 for transit.

Block number: 1700 -1800

Starting and ending streets: Horton St. to Marshall Ave.

Side of the street: North

Zoning: F-1 Commercial



Complete Street

This block falls into the Class 3 category for Complete Streets. It does not properly accommodate a variety of users. It is automobile friendly but not very suitable for use of other forms of transportation. There are seven businesses and an abandoned lot present on the block. The block is not attractive. Many of the building need outside aesthetic improvements.

Automobile-User

This block is categorized as a Class 4 block for automobiles. The roads are in good condition. The number of lanes, given the fairly light traffic flow, as well as proper turn lanes and well-timed lighting, allows traffic to move through the block without congestion. There is no on street parking. The only parking available is parking available for customers of some of the businesses present.

Pedestrian

The 1800 block of Michigan Avenue is currently good for pedestrian travel and is a Class 4 pedestrian block. The sidewalk on the block is about 10 feet wide making it easily maneuverable for pedestrians. There is a crosswalk at the corner of Marshall which makes it safe to cross Michigan Ave. Lighting on the street is good with 6 ornamental street lights. There are curb cuts on the block; good for those traveling by wheelchair, but other disabilities such as blindness are not accounted for. There are no detectable warnings on sidewalk surfaces and no crosswalks with audible timers.

Bicyclist

This block is not suitable for biking and is only a Class 2 Bicyclist block. There are no bike lanes present. If a bicyclist were to travel along the block anyway, there would be no place to park the bike as there are no bike racks or loops anywhere along the block.

Transit-User

This block is categorized as a Class 4 for transit. There is no bus stop on this block, but one block east there is a bus stop available with no shelter, or bench.

Block number: 1800

Starting and ending streets: Regent St to Leslie Ave

Side of the street: South

Zoning: F-1 Commercial



Complete Street

This block falls into the Class 3 category for Complete Streets. It does not properly accommodate a variety of users. It is automobile friendly but not very suitable for use of other forms of transportation. There are homes that have been converted into businesses. Only parking source is on street parking. Not bike or pedestrian friendly.

Automobile-User

This block is categorized as a Class 2 block for automobiles. The number of lanes, given the fairly light traffic flow, as well as proper turn lanes, allows traffic to move through the block without congestion. There is on street parking. There is no bus stop on this block.

Pedestrian

The 1800 block of Michigan Avenue is currently good for pedestrian travel and is a Class 3 pedestrian block. The sidewalk on the block is about 10 feet wide making it easily maneuverable for pedestrians. There is no cross walk signal on this block. Lighting on the street is good with ornamental style street lights. There are curb cuts on the block; good for those traveling by wheelchair, but other disabilities such as blindness are not accounted for. There are no detectable warnings on sidewalk surfaces and no crosswalks with audible timers.

Bicyclist

Similar to use for pedestrians, this block is not suitable for biking and is only a Class 3 Bicyclist block. There are no bike lanes present. If a bicyclist were to travel along the block anyway, there would be no place to park the bike as there are no bike racks or loops anywhere along the block.

Transit-User

There is no bus stop present on this block but there is a stop one block west of this block, with no shelter or benches. It is categorized as a Class 1 for transit.

Block number: 1700

Starting and ending streets: Leslie Ave to Shepard St

Side of the street: South

Zoning: F-1 Commercial, DM-3 Residential Multiple, and J Parking



Complete Street

This block falls into the Class 3 category for Complete Streets. It does not properly accommodate a variety of users. It is automobile friendly but not very suitable for use of other forms of transportation. There are four businesses on the block. There are a few homes that were converted into businesses. There is on street parking available.

Automobile-User

This block is categorized as a Class 4 block for automobiles. The number of lanes, given the fairly light traffic flow, as well as proper turn lanes and well-timed lighting, allows traffic to move through the block without congestion. There is on street parking available.

Pedestrian

The 1700 block of Michigan Avenue is currently good for pedestrian travel and is a Class 4 pedestrian block. The sidewalk on the block is about 10 feet wide making it easily maneuverable for pedestrians. There is a crosswalk at the corner of Shepard which makes it safe to cross Michigan Ave. Lighting on the street is good. There are curb cuts on the block; good for those traveling by wheelchair, but other disabilities such as blindness are not accounted for. There are no detectable warnings on sidewalk surfaces and no crosswalks with audible timers.

Bicyclist

Similar to use for pedestrians, this block is not suitable for biking and is only a Class 3 Bicyclist block. There are no bike lanes present. If a bicyclist were to travel along the block anyway, there would be no place to park the bike as there are no bike racks or loops anywhere along the block.

Transit-User

There is a bus stop present on this block but there is no shelter or bench for the stop. Also there are no bus lanes or pull outs. It is categorized as a Class 1 for transit.

Block number: 1600

Starting and ending streets: Marshall Ave – Rumsey Ave

Side of the street: North

Zoning: F-1 Commercial, C Residential 2-Unit, B Residential-Single



Complete Street

This block falls into the Class 2 category for Complete Streets. Buildings along this side of the street include 2 buildings for lease, the MSU Center for Community and Economic Development and a vacant lot containing an abandoned gas station. This block is largely designed for automobile use but offers signaled crosswalks, sidewalks and seating for pedestrians. There is also a bust stop located here which offers route signage for bus riders.

Automobile-User

This block is categorized as a Class 2 block for automobiles. The number of lanes as well as proper turn lanes and well-timed lighting, allows traffic to move through the block without congestion. Ornamental street lights and street landscaping create a block that is appealing to drivers. On-street parking gives drivers easy access to parking.

Pedestrian

This block on Michigan Avenue is a Class 2 pedestrian block. Sidewalks are wide, straight, smooth and unobstructed. Crosswalk is signaled, containing a crossing button and providing adequate crossing time. The pedestrian scaled design includes street lighting, attractive landscaping and several benches. Buildings are close to the street and there is one curb cut on this side of the block.

Bicyclist

This block is a Class 4 Bicyclist block. Riders experience adequate lighting and generous street landscaping. No bike lanes or loops are provided at this location.

Transit-User

This block is categorized as Class 4 for transit. One CATA bus stop can be found here with route signage but no shelter or benches provided for bus riders. Bus riders experience a combination of aesthetic landscaping and lighting on this block.

Block number: 1600

Starting and ending streets: Shepard St to Allen St

Side of the street: South

Zoning: F-1 Commercial



Complete Street

This block falls into the Class 4 category for Complete Streets. It does not properly accommodate a variety of users. It is automobile friendly but not very suitable for use of other forms of transportation. There are four businesses on the block. Two homes were converted into businesses. There is no on street parking and a parking lot for customers of one business.

Automobile-User

This block is categorized as a Class 4 block for automobiles. The number of lanes, given the fairly light traffic flow, as well as proper turn lanes and well-timed lighting, allows traffic to move through the block without congestion. There is on street parking but additional parking is available east of Clemens which makes parking very accessible in this area. There is no bus stop on this block, but there is a stop one block east without a shelter or bench.

Pedestrian

The 1500-1700 block of Michigan Avenue is currently good for pedestrian travel and is a Class 4 pedestrian block. The sidewalk on the block is about 10 feet wide making it easily maneuverable for pedestrians. There is a crosswalk at the corner of Shepard which makes it safe to cross Michigan Ave. Lighting on the street is good. Sidewalks have a nice smooth surface. There are curb cuts on the block; good for those traveling by wheelchair, but other disabilities such as blindness are not accounted for. There are no detectable warnings on sidewalk surfaces and no crosswalks with audible timers.

Bicyclist

Similar to use for pedestrians, this block is not suitable for biking and is only a Class 3 Bicyclist block. There are no bike lanes present. If a bicyclist were to travel along the block anyway, there would be no place to park the bike as there are no bike racks or loops anywhere along the block.

Transit-User

There is no bus stop present on this block with but there is a stop one block east and west of this block. The stop to the east has no bench or shelter but the stop one block to the west has shelter and a bench. It is categorized as a Class 4 for transit.

Block number: 1500

Starting and ending streets: Rumsey Ave to Custer St

Side of the street: North

Zoning: DM-3 Residential-Multiple



Complete Street

This block falls into the Class 2 category for Complete Streets. The Church of the Resurrection is located on this block along with two signaled crosswalks. On street parking lines the side of this street which is intended mainly for auto-use.

Automobile-User

This block is categorized as a Class 2 block for automobiles. A sequence of street signs, well-timed traffic lights and a turning lane make this block adequate for automobile usage. Ornamental street lights and street landscaping create a block that is appealing to drivers. Slow speed along these roads promotes attentiveness for drivers and safety for pedestrians coming to and from the church.

Pedestrian

This block on Michigan Avenue is a Class 2 pedestrian block. Two crosswalks with crossing signals and buttons are located by the church. Sidewalks are wide, unobstructed, straight and very smooth. Crossing time is adequate for those with a disability. Ornamented street lights and landscaping are present at this block.

Bicyclist

This block is a Class 4 Bicyclist block. No bike lanes or racks on this block. Street lighting and landscaping provide an aesthetic appeal for bicyclists.

Transit-User

This block is categorized as Class 4 for transit. Bus riders experience aesthetic landscaping and lighting on this block. No route signage, way finding, bus lanes, pullouts, or stops can be found at this particular location.

Block number: 1500

Starting and ending streets: Allen St to Lathrop St

Side of the street: South

Zoning: F-1 Commercial



Complete Street

This block falls into the Class 4 category for Complete Streets. It does not properly accommodate a variety of users. It is automobile friendly but not very suitable for use of other forms of transportation. Like the other blocks it has homes that were converted into businesses on the block. There is on and off street parking.

Automobile-User

This block is categorized as a Class 4 block for automobiles. The number of lanes, given the fairly light traffic flow, as well as proper turn lanes and well-timed lighting, allows traffic to move through the block without congestion. There is on and off street parking.

Pedestrian

The 1500 block of Michigan Avenue is currently good for pedestrian travel and is a Class 4 pedestrian block. The sidewalk on the block is about 10 feet wide making it easily maneuverable for pedestrians. There is a crosswalk at the corner of Lathrop which makes it safe to cross Michigan Ave. Lighting on the street is good. There are curb cuts on the block; good for those traveling by wheelchair, but other disabilities such as blindness are not accounted for. There are no detectable warnings on sidewalk surfaces and no crosswalks with audible timers.

Bicyclist

Similar to use for pedestrians, this block is not suitable for biking and is only a Class 2 Bicyclist block. There are no bike lanes present. If a bicyclist were to travel along the block anyway, there would be no place to park the bike as there are no bike racks or loops anywhere along the block.

Transit-User

There is a bus stop on this block with shelter and a bench. It is categorized as a Class 2 for transit. Also there are no bus lanes or pull outs.

Block number: 1400

Starting and ending streets: Custer St to Ferguson St

Side of the street: North

Zoning: F-1 Commercial, C-Residential 2 Unit, DM-3 Residential-Multiple



Complete Street

This block falls into the Class 3 category for Complete Streets and is primarily oriented toward automobile-users. A variety of businesses can be found here including restaurants, a flower shop and a hair salon.

Automobile-User

This block is categorized as a Class 2 block for automobiles. A sequence of street signs, well-timed traffic lights and a turning lane make this block adequate for automobile usage. Ornamental street lights and street landscaping create a block that is appealing to drivers.

Pedestrian

This block on Michigan Avenue is a Class 3 pedestrian block. There are no crosswalks or crossing signals located on the block. Sidewalks are wide, unobstructed, straight and very smooth. Ornamented street lights and landscaping are present at this block.

Bicyclist

This block is a Class 4 Bicyclist block. No bike lanes or racks on this block. Street lighting and landscaping provide an aesthetic appeal for bicyclists.

Transit-User

This block is categorized as Class 4 for transit. There is a CATA bus stop located on this block, however it is unsheltered and no route signage or bus schedule is present. Benches provide those waiting for a bus a place to sit. Bus riders experience nominal landscaping and lighting on this block

Block number: 1400

Starting and ending streets: Lathrop St to Clifford St

Side of the street: South

Zoning: F-1 Commercial



Complete Street

This block falls into the Class 3 category for Complete Streets. It does not properly accommodate a variety of users. It is automobile friendly but not very suitable for use of other forms of transportation. There is one building that appears to be mixed use with a business down stairs and an apartment upstairs. There is no street parking and a parking lot for customers of one business.

Automobile-User

This block is categorized as a Class 4 block for automobiles. The number of lanes, given the fairly light traffic flow, as well as proper turn lanes and well-timed lighting, allows traffic to move through the block without congestion. There is on and off street parking. There is no bus stop on this block, but there is a stop one block east with a shelter and bench.

Pedestrian

The 1400 block of Michigan Avenue is currently good for pedestrian travel and is a Class 4 pedestrian block. The sidewalk on the block is about 10 feet wide making it easily maneuverable for pedestrians. There is a crosswalk at the corner of Lathrop which makes it safe to cross Michigan Ave. Lighting on the street is good with 4 ornamental street lights. There are curb cuts on the block; good for those traveling by wheelchair, but other disabilities such as blindness are not accounted for. There are no detectable warnings on sidewalk surfaces and no crosswalks with audible timers.

Bicyclist

Similar to use for pedestrians, this block is not suitable for biking and is only a Class 2 Bicyclist block. There are no bike lanes present. If a bicyclist were to travel along the block anyway, there would be no place to park the bike as there are no bike racks or loops anywhere along the block.

Transit-User

There is no bus stop present on this block with but there is a stop one block east of this block, with a shelter and a bench. It is categorized as a Class 3 for transit.

Block number: 1300

Starting and ending streets: Ferguson St to Holmes St

Side of the street: North

Zoning: F-1 Commercial, Parking, C-Residential 2 Unit



Complete Street

This block falls into the Class 2 category for Complete Streets. The 1300 block is primarily oriented toward auto-usage but offers sidewalks and signaled crosswalks for pedestrians. Transit usage is limited at this location because there are no bus stops, lanes, or pullouts on this side of the block. There are zero curb cuts along the street allowing sidewalks to stretch along the block without obstruction.

Automobile-User

This block is categorized as a Class 2 block for automobiles. The number of lanes as well as proper turn lanes and well-timed lighting, allows traffic to move through the block without congestion. Ornamental street lights and street landscaping create a block that is appealing to drivers.

Pedestrian

This block on Michigan Avenue is a Class 2 pedestrian block. Crosswalks are signaled, contain crossing buttons and adequate crossing time. The pedestrian scaled design includes street lighting and street landscaping. Buildings are moderately close to the street and there are zero curb cuts along this side of the block. Sidewalks are wide, level, straight and unobstructed.

Bicyclist

This block is a Class 4 Bicyclist block. No bike lanes or racks on this block. Street lighting and landscaping provide an aesthetic appeal for bicyclists.

Transit-User

This block is categorized as Class 4 for transit. Bus riders experience minimal landscaping and lighting on this block. No route signage, way finding, bus lanes, pullouts, or stops can be found at this particular location.

Block number: 1300

Starting and ending streets: Clifford St to Holmes St

Side of the street: South

Zoning: F-1 (Commercial) & J (Parking) City of Lansing



Complete Street

The Holmes-Clifford block is a Class 2. This block is very friendly to auto users. But it has the deficiencies of virtually all the other blocks up and down Michigan Avenue when it comes to bicycle users. There is a bus stop, with a bench. There is one poorly marked crosswalk.

Automobile-User

This block is Class 2 regarding automobile travel. The road is in good shape, and the signs and signals are adequate. There is a turning lane in the middle of the Avenue, and adequate lighting. There are no bus pullouts, however.

Pedestrian

The Holmes-Clifford block is only Class 3 for pedestrians. This block has wide and straight sidewalks. Tree roots, however, have damaged the sidewalk at one point. It has adequate curb cuts. Aesthetically, it has landscaping, ornamental lighting and the buildings are close to the street. This block has one crosswalk. There is not protection from the weather for pedestrians. This block is not friendly to pedestrians.

Bicyclist

This is only Class 4 for bicyclists. On this block, as is true in neighboring blocks, there are no bike lanes or bike racks. There are wide shoulders along Michigan Avenue, but in places, they are for on-street parking. There is adequate lighting, but generally, this block is very unfriendly to bicyclists.

Transit-User

This is a Class 3 block for transit users. There is a bus stop, with a bench. But there is no bus pullout and no shelter. This is not a good block for transit users.

Block number: 1100-1200

Starting and ending streets: Holmes St to Bingham St

Side of the street: South

Zoning: DM-4 (Residential-Multiple) & F1 (Commercial) City of Lansing



Complete Street

This is a Class 2 block. This block is very friendly to auto users. It has a bus pullout. It is fairly friendly to pedestrians and public transit users, providing an overhang to protect against the elements and a bench in front of the Sparrow office building. It, however, has the same deficiency of all the blocks on Michigan Avenue, in regard to the lack of accommodation for bicycle users.

Automobile-User

Class 2. This block is very good for automobile travel. The road is in good shape, and the signs and signals are adequate. There is a turning lane in the middle of the Avenue, and adequate lighting. There is a bus pullout, in front of the Sparrow building.

Pedestrian

For Pedestrians, this is a Class 2 block. This block has a wide, smooth and straight sidewalk. It has adequate curb cuts. Aesthetically, it has landscaping, ornamental lighting and the buildings are close to the street. There is an elevated crosswalk and a poorly marked street level crosswalk. There is seating for pedestrians and transit users.

Bicyclist

This block, just like up and down Michigan Avenue, is a Class 4 for bicyclists. There are no bike lanes or bike racks. There are not wide shoulders along this block of Michigan Avenue. There is adequate lighting, but generally, this block is very unfriendly to bicyclists.

Transit-User

This is Class 2 for public transit users. There is a bus stop, with a bench. There is also shelter from the weather, under an overhang. There are posted bus schedules. This block is fairly friendly to public transit users.

Block number: 1000 – 1200

Starting and ending streets: Holmes St to Pennsylvania Ave

Side of the street: North

Zoning: F-1 Commercial



Complete Street

This block falls into the Class 2 category for Complete Streets. Sparrow Hospital and the Sparrow Regional Cancer Center can be found at this location. This block is oriented to a variety of user groups and provides two bus stops, bus pullouts, bus shelter, brick sidewalks, signaled crosswalks and way finding. Traffic lights, street signs, a turning lane, decorative street lights and street landscaping is also present on this block.

Automobile-User

This block is categorized as a Class 1 for its accommodating features to auto-usage. Traffic flows steadily, experiencing no obstruction from the CATA pullout stop. Street lights, signs, turning lanes, landscaping, way finding and easy parking access give this block an honorable standing for auto-use.

Pedestrian

This block on Michigan Avenue is a Class 2 pedestrian block. Sidewalks are wide, straight, smooth and unobstructed. Crosswalks are signaled, contain crossing buttons and adequate crossing time. The pedestrian scaled design includes street lighting, attractive landscaping, decorative brick sidewalks and several benches. Way finding provides direction to Sparrow Hospital destinations.

Bicyclist

This block is a Class 2 Bicyclist block. Riders experience adequate lighting and generous street landscaping. Way finding provides direction to hospital destinations. No bike lanes.

Transit-User

This block is categorized as Class 3 for transit. This stretch contains two CATA stops with shelter and benches. Bus riders experience pleasant landscaping, adequate street lighting and bus pullouts. No route signage or bus schedule displayed at these CATA stops.

Block number: 1000

Starting and ending streets: Bingham St to Pennsylvania Ave

Side of the street: South

Zoning: F1 (Commercial) City of Lansing



Complete Street

The Pennsylvania-Bingham block is a Class 2. This block is very friendly to auto users, but it's also more friendly to pedestrians and transit users than some neighboring blocks. This is probably because the intersection of Pennsylvania and Michigan Avenues is one of the major intersections on the east side of Lansing. This block is across the street from Sparrow Hospital. There is a sheltered bus stop, but there is no bus pullout. There are timed crosswalks for pedestrians, but the timers don't seem to be working.

Automobile-User

This block is very good for automobile travel. It is Class 2 for autos. The road is in good shape, and the signs and signals are adequate. There is a turning lane in the middle of the Avenue, and adequate lighting. There are no bus pullouts, however.

Pedestrian

This block is Class 2 for pedestrians. This block has a wide, smooth and straight sidewalk. It has adequate curb cuts. Aesthetically, it has landscaping, ornamental lighting and the buildings are close to the street. There are crosswalks, and a crosswalk signal with a timer, though the timer doesn't seem to work. There is a pedestrian crossing button. There are also "blind bumps". This block is friendly to pedestrians.

Bicyclist

Pennsylvania-Bingham block is Class 4 for bicyclists. On this block, just as elsewhere on Michigan Avenue, there are no bike lanes or bike racks. There are not wide shoulders along this block of Michigan Avenue. There is adequate lighting, but generally, this block is very unfriendly to bicyclists.

Transit-User

Class 3 for public transit users. There is a sheltered bus stop, with benches. There are posted bus schedules. This block is friendlier to public transit users than many neighboring blocks

Block number: 900

Starting and ending streets: Pennsylvania Ave to Eighth St

Side of the street: North

Zoning: F-1 Commercial, G-2 Wholesale, Parking, F- Commercial



Complete Street

This block falls into the Class 2 category for Complete Streets. Most of this block is oriented toward auto-use. All users benefit from the way finding at this location, directing street users to Oldsmobile Park, the Lansing Center and Museum District. Ornamental street lights and street landscaping create a block that is appealing. Sidewalks, crosswalks and well-timed traffic lights allow all users adequate direction to their destinations.

Automobile-User

This block is categorized as a Class 2 block for automobiles. A combination of street signs, well-timed traffic lights, way finding and a turning lane make this block adequate for automobile usage. Ornamental street lights and street landscaping create a block that is appealing to drivers.

Pedestrian

This block on Michigan Avenue is a Class 2 pedestrian block. Wide sidewalks extend in a straight line along the block and are in good condition. Crosswalks on the corners provide a crossing signal and possess a timed countdown feature. These crosswalks also contain a pedestrian crossing button. Ornamental lighting, street landscaping and buildings that are close to the sidewalk engage pedestrian activity throughout this block. Way finding provides direction for pedestrians unfamiliar with the area.

Bicyclist

This block is a Class 3 Bicyclist block. No bike lanes or racks on this block. Street lighting and landscaping provide an aesthetic appeal for bicyclists. Way finding offers a sense of direction for bike riders.

Transit-User

This block is categorized as Class 3 for transit. No bus stops, lanes or pullouts at this given location. Bus riders enjoy the effects of a combination of ornamental street lighting, street landscaping and way finding on the 900 block.

Block number: 900

Starting and ending streets: Pennsylvania Ave to Eighth St

Side of the street: South

Zoning: F-1 (Commercial) City of Lansing



Complete Street

The Pennsylvania-8th block is a Class 2. This block is very friendly to auto users. The intersection of Pennsylvania and Michigan Avenues is major, and there are adequate signals and signs. It is very unsafe for bicyclists, with no accommodation for them. Michigan Avenue is wide here, and there is no crossing island for pedestrians. There are no bus stops for public transit customers, though there is a sheltered one in the next block.

Automobile-User

This block is only Class 3 for autos. The intersection of Pennsylvania and Michigan Avenues is major. The road is in good shape, and the signs and signals are adequate. There is a turning lane in the middle of the Avenue, and adequate lighting. There are no bus pullouts, however, and the shoulders are used for on-street parking.

Pedestrian

Class 2 for pedestrians. This block has a wide, smooth and straight sidewalk. It has adequate curb cuts. Aesthetically, it has landscaping, ornamental lighting and the buildings are close to the street. There are crosswalks, and there is a crossing signal with a timed countdown, though it isn't working. This block is considerably friendlier to pedestrians than many others along Michigan Avenue.

Bicyclist

Like neighboring blocks, this block is Class 4 for bicyclists. On this block there are no bike lanes or bike racks. There are wide shoulders but they are used, in places, for on-street parking. There is adequate lighting, but generally, this block is very unfriendly to bicyclists.

Transit-User

This block is Class 3 for transit users. There is no bus stop, but there is a sheltered bus stop in the next block, with benches. There are no route signage or wayfinding signs. This block is deficient for public transit users.

Block number: 800

Starting and ending streets: Eighth St to Hosmer St

Side of the street: North

Zoning: F-1 (Commercial) G-2 (Wholesale, Parking) DM-3 (Residential-Multiple)



Complete Street

This block falls into the Class 3 category for Complete Streets. It does not properly accommodate a variety of users. It is advantageous to automobile use, but is not very suitable for use of other forms of transportation. Sidewalks are adequately provided but their paths are narrowed by obstructing trees and benches. No form of pedestrian crosswalk currently exists on this block.

Automobile-User

This block is categorized as a Class 2 block for automobiles. Road quality is satisfactory and the street signs, traffic lights and turning lane generate a street that is useful for all drivers. Approximately 3-4 on street parking spots provide drivers with relatively easy access to parking.

Pedestrian

This block on Michigan Avenue is a Class 2 pedestrian block. Although the sidewalks here are generally wide, smooth and straight, pathways are ultimately obstructed by benches and trees. No crosswalks exist to assist pedestrians using the sidewalks.

Bicyclist

The 800 block is unsuitable for biking and is a Class 4 Bicyclist block. No bike lanes are present and bike racks/loops are also absent. Street shoulders are rather wide however, accommodating bicyclists as the sidewalks are fairly obstructed.

Transit-User

This block is categorized as Class 4 for transit. Bus riders experience minimal landscaping and lighting on this block. No route signage, way finding, bus lanes, pullouts, or stops can be found at this particular location.

Block number: 800

Starting and ending streets: Eighth St to Hosmer St

Side of the street: South

Zoning: F-1 (Commercial) City of Lansing



Complete Street

The Hosmer-8th block is Class 3. This block is very friendly to auto users. Michigan Avenue is wide here, two lanes in either direction, with a turning lane. There are adequate signals and signs. It is very unsafe for bicyclists, as is common along East Michigan Avenue. It is not conducive to any uses other than automobile.

Automobile-User

This is a Class 2 block for autos. This block is very good for automobile travel. The road is in good shape, and the signs and signals are adequate. There is a turning lane in the middle of the Avenue, and adequate lighting. There are no bus pullouts, however, and the shoulders are used for on-street parking.

Pedestrian

The 8th-Hosmer block is Class 3 for pedestrians. This block has a wide, smooth and straight sidewalk. It has adequate curb cuts. Aesthetically, it has landscaping, ornamental lighting and the buildings are close to the street. It has one crosswalk, but no crossing signal nor pedestrian crossing buttons. There is no protection from the weather for pedestrians.

Bicyclist

Class 4 for bicyclists. There are no bike lanes or bike racks. The wide shoulders are used for on-street parking. There is adequate lighting, but generally, this block is very unfriendly to bicyclists.

Transit-User

This is a Class 3 block for transit users. There is a bus stop, with a bench. There is no route signage or wayfinding signs. This is a deficient block for transit users.

Block number: 700

Starting and ending streets: Hosmer St to Pere Marquette Dr

Side of the street: North

Zoning: H- (Light Industrial)



Complete Street

This block falls into the Class 3 category for Complete Streets. It does not properly accommodate a variety of users. It is advantageous to automobile use, but is not very suitable for use of other forms of transportation. Pedestrians and bicyclists are inhibited by the lack of surface committed to their use. Trees, benches, street lights, sidewalks and railroad tracks are jumbled throughout this particular block, obstructing the paths of pedestrians and bicyclists.

Automobile-User

This block is categorized as a Class 2 block for automobiles. Traffic moves moderately slow through this block as drivers must cross railroad tracks running North and South. Road quality for drivers is adequate, no severe cracks or pot holes were noted and a proper turning lane divides the four lanes. Landscaping along the roadside exists but is composed of a few trees and is of minimal significance for drivers. Curb cuts on this block are very tight and difficult to turn into.

Pedestrian

This block on Michigan Avenue requires improvement for pedestrian travel and is a Class 2 pedestrian block. Although the sidewalks here are generally wide, smooth and straight, pathways are ultimately obstructed by railroad tracks, benches and trees. Crosswalks exist but lack any form of signaling to assist pedestrians.

Bicyclist

The 600 block is a Class 3 Bicyclist block. No bike lanes are present and bike racks/loops are also absent. Sidewalks are fairly obstructed which could cause difficulty for bicyclists. Street shoulders are rather wide on this particular block, accommodating bicyclists.

Transit-User

There is a bus stop present on this block with a few uncovered benches so the block is categorized as Class 3 for transit. Additionally, bus riders experience minimal

landscaping and lighting on this block. No route signage, way finding, bus lanes or pullouts can be found at this particular location.

Block number: 700

Starting and ending streets: Hosmer St to Hill St

Side of the street: South

Zoning: H (Light Industrial) & J (Parking) City of Lansing



Complete Street

This block, a very short block, is a Class 3. This block is very friendly to auto users, but other users suffer. It is unsafe for bicyclists, with no accommodation for them. Michigan Avenue is wide here, but there is no crossing island for pedestrians, nor any crosswalk. There are no bus stops.

Automobile-User

This is a Class 3 for auto travel. The road is in good shape, and the signs and signals are adequate. There is a turning lane in the middle of the Avenue, and adequate lighting. There are no bus pullouts, however, and the shoulders are used for on-street parking.

Pedestrian

Block 700 is a Class 3 for pedestrians. This block has a wide, smooth and straight sidewalk. It has adequate curb cuts. Aesthetically, it has landscaping, ornamental lighting and the buildings are close to the street. There are detectable warnings at the intersection. However, it has no crosswalk. There are no protections from the elements for pedestrians. This block is not friendly to pedestrians.

Bicyclist

Class 4 for bicyclists. There are no bike lanes or bike racks. The shoulders are wide, but they are used for on-street parking. There is adequate lighting, but generally, this block is very unfriendly to bicyclists.

Transit-User

This is only a Class 5 block for transit users. There is no bus stop. There is no route signage or wayfinding signs. This is a very poor block for transit users.

Block number: 600 - 700

Starting and ending streets: Hill St to Pere Marquette Dr

Side of the street: South

Zoning: H (Light Industrial) City of Lansing



Complete Street

This is a Class 3 block. This is a very short block. It is very friendly to auto users, and somewhat friendly to pedestrians. It is very unsafe for bicyclists, with no accommodation for them. There is a crosswalk, with pedestrian crossing button and signal. This block is divided by a railroad track, which is an obvious hazard.

Automobile-User

This block is only a Class 2 for auto travel. This block is adequate for automobile travel, but traffic often is held up by the trains. The road is in good shape, and the signs and signals are well placed. There is a turning lane in the middle of the Avenue, and adequate lighting. There are no bus pullouts, however.

Pedestrian

This block is Class 2 for pedestrians. This block has a wide, smooth and straight sidewalk. It has adequate curb cuts. There is landscaping, ornamental lighting and the buildings are close to the street. There are crosswalks, with signal and crossing buttons. However, some of the landscaping is in the form of rain gardens in the sidewalk, which may inconvenience the blind. As well, there is the need to cross the railroad tracks in the middle of the block.

Bicyclist

Class 4 for bicyclists. On this block, as is true throughout East Michigan Avenue, there are no bike lanes or bike racks. There are not wide shoulders along Michigan Avenue. There is adequate lighting, but generally, this block is very unfriendly to bicyclists.

Transit-User

There is no bus stop. But this block is bisected by the railroad track, so a bus stop is impractical. This block is not good for transit users.

Complete Streets Block-by-Block Recommendations

Introduction

This section provides both short and long term recommendations for Corridor improvement. These recommendations are based upon the criteria and classifications determined for “complete streets” in the context of the Michigan Avenue Corridor. Recommendations are provided for each block along the Corridor on both the north and south sides of the street.

Block number: 200

Starting and ending streets: Grand River Ave to Delta St

Side of the street: North

- Reduce automobile lanes from 3 to 2
- Reduce speed limit from 35 to 30 miles per hour
- Add bike lane
- Add bike loops to 24/7
- Repave sidewalk and widen to 8 feet
- Increase quality of landscaping
- Upgrade crossing signal at east end to have audible countdown
- Add pedestrian-scaled, ornamental lighting
- Add detectable warnings at corners
- Add decorative gateway signage to indicate entry to Michigan Avenue Corridor
- Façade improvements to 24/7

Block number: 200

Starting and ending streets: Grand River Ave to Mus Rd

Side of the street: South

- Reduce automobile lane width to 10 feet
- Reduce speed limit from 35 to 30 miles per hour
- Add bike lane
- Repave sidewalk and widen to 8 feet
- Upgrade crossing signal at east end to have audible countdown
- Add pedestrian-scaled, ornamental lighting
- Redesign sidewalk at corner east end to be less angular to allow easier wheelchair mobility
- Add detectable warnings at corners

Block number: 300 – 400

Starting and ending streets: Delta St to Louis St

Side of the street: North

- Reduce automobile lanes from 3 to 2
- Reduce speed limit from 35 to 30 miles per hour
- Add bike lane
- Add bike loops
- Repave sidewalk and widen to 8 feet
- Add pedestrian-activated crossing signal at west end
- Add pedestrian-scaled, ornamental lighting
- Add detectable warnings at corners
- Place emphasis on proximity to campus by placing MSU flags on lighting

Block number: 300 – 500

Starting and ending streets: Mus Rd to Beal St

Side of the street: South

- Reduce automobile lane width to 10 feet
- Reduce speed limit from 35 to 30 miles per hour
- Add bike lane
- Repave sidewalk and widen to 8 feet
- Add pedestrian-activated crosswalk at west end
- Increase landscaping
- Add pedestrian-scaled, ornamental lighting
- Add detectable warnings at block corners
- Place emphasis on proximity to campus by placing MSU flags on lighting
- Add campus signage at Beal entrance

Block number: 500

Starting and ending streets: Louis St to Beal St

Side of the street: North

- Reduce automobile lanes from 3 to 2
- Reduce speed limit from 35 to 30 miles per hour
- Add bike lane
- Add bike loops
- Repave sidewalk and widen to 8 feet
- Remove curb cuts from Michigan Avenue, access parking through side streets
- Add verge and landscaping to separate gas station from sidewalk
- Add pedestrian-scaled, ornamental lighting
- Add detectable warnings at corners
- Bus stop needs shelter, bench, route information and schedule
- Consider future development closer to street

Block number: 600

Starting and ending streets: Beal St to Center St

Side of the street: North

- Reduce automobile lanes from 3 to 2
- Reduce speed limit from 35 to 30 miles per hour
- Add bike lane
- Add bike loops
- Repave sidewalk and widen to 8 feet
- Paint lines indicating crosswalk, pave median for crosswalk, add pedestrian crossing sign in median
- Increase landscaping
- Add pedestrian-scaled, ornamental lighting
- Add detectable warnings at corners
- Consider future development closer to street

Block number: 600

Starting and ending streets: Beal St to Harrison Rd

Side of the street: South

- Reduce automobile lane width to 10 feet
- Reduce speed limit from 35 to 30 miles per hour
- Add bike lane
- Repave sidewalk and widen to 8 feet
- Upgrade crossing signal to have audible countdown at west end
- Paint lines indicating crosswalk, pave median for crosswalk, add pedestrian crossing sign in median
- Add pedestrian-scaled, ornamental lighting
- Add detectable warnings at block corners
- Enhance and draw attention to river area with signage, lighting, and seating

Block number: 700

Starting and ending streets: Center St to Harrison Rd

Side of the street: North

- Reduce automobile lanes from 3 to 2
- Reduce speed limit from 35 to 30 miles per hour
- Add bike lane
- Add bike loops
- Repave sidewalk and widen to 8 feet
- Upgrade crossing signal to have audible countdown at west end
- Remove curb cuts from Michigan Avenue, access parking through side streets
- Additional landscaping to separate street from sidewalk
- Add pedestrian-scaled, ornamental lighting
- Add detectable warnings at corners
- Consider future development closer to street
- Reduce parking spots, consider parking structure
- Infill development

Block number: 800

Starting and ending streets: Harrison Rd to University Dr

Side of the street: North

- Reduce automobile lanes from 3 to 2
- Reduce speed limit from 35 to 30 miles per hour
- Add bike lane
- Add bike loops
- Repave sidewalk and widen to 8 feet
- Upgrade crossing signal to have audible countdown at east end
- Add pedestrian-scaled, ornamental lighting
- Add detectable warnings at corners
- Consider future development closer to street
- Consider shorter setback with future developments

- Infill development

Block number: 800-1000

Starting and ending streets: Harrison Rd to West Brody

Side of the street: South

- Reduce automobile lanes from 3 to 2
- Reduce speed limit from 35 to 30 miles per hour
- Add bike lane
- Add bus pullout
- Repave sidewalk and widen to 8 feet
- Paint lines indicating crosswalk from University Drive, pave median for crosswalk
- Add pedestrian-scaled, ornamental lighting
- Add detectable warnings at block corners
- Enhance and draw attention to river area with signage, lighting, and seating

Block number: 900-1000

Starting and ending streets: University Dr to Kensington Rd

Side of the street: North

- Reduce automobile lanes from 3 to 2
- Reduce speed limit from 35 to 30 miles per hour
- Add bike lane
- Repave sidewalk and widen to 8 feet
- Paint lines indicating crosswalk from University Drive, pave median for crosswalk
- Add pedestrian-scaled, ornamental lighting
- Add detectable warnings at corners

Block number: 1100

Starting and ending streets: Kensington to Cowley

Side of the street: North

- Reduce automobile lanes from 3 to 2
- Reduce speed limit from 35 to 30 miles per hour
- Add bike lane
- Repave sidewalk and widen to 8 feet
- Paint lines indicating crosswalk from Kensington to West Brody, pave median for crosswalk, add pedestrian crossing sign in median
- Add pedestrian-scaled, ornamental lighting
- Add detectable warnings at corners

Block number: 1100

Starting and ending streets: West Brody to Reniger Ct

Side of the street: South

- Reduce automobile lanes from 3 to 2
- Reduce speed limit from 35 to 30 miles per hour
- Add bike lane
- Add bus pullout

- Repave sidewalk and widen to 8 feet
- Paint lines indicating crosswalk from West Brody to Kensington, pave median for crosswalk, add pedestrian crossing sign in median
- Add pedestrian-scaled, ornamental lighting
- Bus stop needs shelter, bench, route information and schedule
- Add detectable warnings at block corners

Block number: 1200

Starting and ending streets: Cowley St to Highland Ave

Side of the street: North

- Reduce automobile lanes from 3 to 2
- Reduce speed limit from 35 to 30 miles per hour
- Add bike lane
- Add bike loops
- Repave sidewalk and widen to 8 feet
- Remove curb cuts on Michigan Avenue, access parking through side streets
- Add pedestrian-scaled, ornamental lighting
- Add detectable warnings at corners
- Add crosswalk at Cowley with painted lines, pedestrian crossing sign, and paved median

Block number: 1200-3100

Starting and ending streets: Reniger to Clippert Street

Side of the street: South

- Reduce automobile lanes from 3 to 2
- Reduce speed limit from 35 to 30 miles per hour
- Add bike lane
- Add bike loops
- Repave sidewalk and widen to 8 feet
- Reduce number of curb cuts on Michigan Avenue
- Add pedestrian-scaled, ornamental lighting
- Add pedestrian-activated crosswalk with audible countdown at Morgan Lane, paint lines and pave median.
- Add crosswalk at Cowley with painted lines, pedestrian crossing sign, and paved median
- Add detectable warnings at block corners
- Official entry into East Lansing, add gateway/signage
- Utilize golf course as green space, public recreation, etc.
- For future development, consider redesigning this block into two or more blocks

Block number: 1300 - 3400

Starting and ending streets: Highland Ave to Friendship Cir

Side of the street: North

- Reduce automobile lanes from 3 to 2
- Reduce speed limit from 35 to 30 miles per hour
- Add bike lane

- Add bike loops
- Repave sidewalk and widen to 8 feet
- Remove curb cuts on Michigan Avenue, access parking through side streets
- Add pedestrian-scaled, ornamental lighting
- Add detectable warnings at corners
- Consider redeveloping block; move storefronts closer to street, parking in rear
- Wayfinding to skate park and Frandor Shopping Center
- Official entry into Lansing; add gateway/signage

Block number: 3300-3200

Starting and ending streets: Friendship Cir to Morgan Ln

Side of the street: North

- Reduce automobile lanes from 3 to 2
- Reduce automobile lane width to 10 feet
- Reduce speed limit from 35 to 30 miles per hour
- Add bike lane
- Add bike loops
- Repave sidewalk and widen to 8 feet
- Add pedestrian-activated crossing signal at Morgan Lane, add markings on roadway to indicate crosswalk
- Add pedestrian-scaled, ornamental lighting
- Add detectable warnings at corners
- Add decorative signage for skate park, tennis courts, other recreational facilities in the area
- Redevelop or add infill to Dunham's site, oriented toward street, short setbacks, removing parking lot
- Potential for Frandor parking structure
- Remove curb cuts on Michigan Avenue, access parking from side streets

Block number: 3100

Starting and ending streets: Morgan Ln to Clippert St

Side of the street: North

- Reduce automobile lane width to 10 feet
- Reduce speed to 30 miles per hour
- Add bike lane
- Add bike loops
- Add decorative landscaping
- Repave sidewalk and widen to 8 feet
- Add pedestrian-scaled, ornamental lighting
- Add detectable warnings to block corners
- Consider redevelopment that is attractive, pedestrian-oriented, high density mixed-use

Block number: 3000

Starting and ending streets: Clippert St to Homer St

Side of the street: North

- Reduce automobile lane width to 10 feet
- Reduce speed to 30 miles per hour
- Add bike lane
- Add bike loops
- Add decorative landscaping
- Repave sidewalk and widen to 8 feet
- Add pedestrian-scaled, ornamental lighting
- Add detectable warnings to block corners
- Infill development

Block number: 3000

Starting and ending streets: Clippert St to Homer St

Side of the street: South

- Reduce automobile lanes from 3 to 2
- Lower speed limit to 30 miles per hour
- Add bike lane
- Add bike loops
- Repave sidewalk and widen to 8 feet
- Add pedestrian-scaled, ornamental lighting
- Add detectable warnings to block corners
- Reduce number of curb cuts

Block number: 2900

Starting and ending streets: Homer St to Howard St

Side of the street: North

- Reduce automobile lane width to 10 feet
- Reduce speed to 30 miles per hour
- Add bike lane
- Repave sidewalk and widen to 8 feet
- Add pedestrian-scaled, ornamental lighting
- Add detectable warnings to block corners
- Better maintenance of landscaping to remove overhanging trees
- Add decorative features and additional landscaping around overpass to make this an attractive gateway

Block number: 2900

Starting and ending streets: Homer St to Howard St

Side of the street: South

- Reduce automobile lane width to 10 feet
- Lower speed limit to 30 miles per hour
- Add bike lane

- Repave sidewalk and widen to 8 feet
- Add pedestrian-scaled, ornamental lighting
- Add detectable warnings to block corners
- Better maintenance of landscaping to remove overhanging trees
- Add decorative features and additional landscaping around overpass to make this an attractive gateway

Block number: 2800

Starting and ending streets: Howard St to Detroit St

Side of the street: South

- Remove one automobile lane
- Reduce automobile lane width to 10 feet
- Lower speed limit to 30 miles per hour
- Add bike lane
- Add bike loops
- Widen sidewalk to 8 feet
- Upgrade crosswalk at east end of the block to have audible countdown
- Add pedestrian-scaled, ornamental lighting
- Add decorative landscaping
- Add detectable warnings to block corners
- Consider moving store fronts to street
- Add infill development that is pedestrian-oriented with short setbacks from street
- Limit parking to rear of buildings

Block number: 2700 - 2800

Starting and ending streets: Howard St to Charles St

Side of the street: North

- Reduce automobile lane width to 10 feet
- Lower speed limit to 30 miles per hour
- Add bike lane
- Add bike loops
- Widen sidewalk to 8 feet
- Add pedestrian-activated crossing signal with painted markings on street to indicate crosswalk and pedestrian crossing signage
- Add bus pullout
- Add detectable warnings to block corners
- Add pedestrian-scaled, ornamental lighting
- Reduce curb cuts off of Michigan Avenue and move parking to rear of buildings
- Add decorative landscaping such as trees or planters
- Add infill development with short setbacks that is pedestrian-oriented

Block number: 2700

Starting and ending streets: Detroit St to Charles St

Side of the street: South

- Reduce by one automobile lane

- Add bike lane
- Add bike loops
- Widen sidewalk to 8 feet
- Extend sidewalk along the entire length of the block
- Add crosswalk at west end of block with pedestrian-activated signal, painted markings in street, pedestrian crossing signage
- Add detectable warnings to block corners
- Façade improvements
- Add infill development that is pedestrian-oriented with short setbacks from street

Block number: 2600

Starting and ending streets: Lasalle Ct to Kipling Blvd

Side of the street: North

- Reduce lane width
- Lower speed limit to 30 miles per hour
- Add bike lane
- Add bike loops
- Repave sidewalk and widen to 8 feet
- Add shelter, seating, and route information to bus stop
- Add crosswalk to east and west ends of block with painted markings and pedestrian crossing signage
- Add pedestrian-scaled, ornamental lighting
- Eliminate curb cuts from Michigan Avenue and make parking accessible only from side streets
- Move store fronts closer to street
- Add detectable warnings to corners
- Add decorative landscaping

Block number: 2600

Starting and ending streets: Charles St to Mifflin Ave

Side of the street: South

- Reduce lane width to 10 feet
- Add bike lane
- Add bike loops
- Repave and widen sidewalk to 8 feet
- Add crosswalk to east and west ends of block with painted markings and pedestrian crossing signage
- Add shelter, seating, and route information to bus stop
- Eliminate curb cuts from Michigan Avenue and make parking accessible only from side streets
- Move store fronts closer to street
- Add detectable warnings to corners
- Add decorative landscaping

Block number: 2500

Starting and ending streets: Kipling Blvd to Francis Ave

Side of the street: North

- Reduce lane width to 10 feet
- Add bike lane
- Add bike loops
- Repave and widen sidewalk to 8 feet
- Add crosswalk to east and west ends of block with painted markings and pedestrian crossing signage
- Eliminate curb cuts from Michigan Avenue and make parking accessible only from side streets
- Move store fronts closer to street
- Add detectable warnings to corners
- Add decorative landscaping
- Façade improvements
- Add infill development that is pedestrian-oriented with short setbacks from street
- Create a verge

Block number: 2500

Starting and ending streets: Mifflin Ave to Francis Ave

Side of the street: South

- Reduce lane width
- Add bike lane
- Add bike loops
- Repave and widen sidewalk to 8 feet
- Add crosswalk to east and west ends of block with painted markings and pedestrian crossing signage
- Eliminate curb cuts from Michigan Avenue and make parking accessible only from side streets
- Move store fronts closer to street
- Add detectable warnings to corners
- Add decorative landscaping
- Add infill development that is pedestrian-oriented with short setbacks from street
- Façade improvements
- Create a verge

Block number: 2400

Starting and ending streets: Francis Ave to Foster Ave

Side of the street: North

- Reduce lane width
- Add bike lane
- Add bike loops
- Repave and widen sidewalk to 8 feet
- Add crosswalk to east end of block with painted markings and pedestrian crossing signage

- Upgrade cross signal at west corner to have audible countdown
- Reduce curb cuts from Michigan Avenue and make parking accessible only from side streets
- Add detectable warnings to corners
- Add decorative landscaping
- Façade improvements
- Add infill development that is pedestrian-oriented with short setbacks from street
- Improve verge

Block number: 2400

Starting and ending streets: Francis Ave to Foster Ave

Side of the street: South

- Reduce lane width
- Add bike lane
- Add bike loops
- Repave and widen sidewalk to 8 feet
- Add crosswalk to east end of block with painted markings and pedestrian crossing signage
- Upgrade cross signal at west corner to have audible countdown
- Add shelter, seating, and route information to bus stop
- Reduce curb cuts from Michigan Avenue and make parking accessible only from side streets
- Add detectable warnings to corners
- Add decorative landscaping
- Move store fronts to street
- Façade improvements
- Add infill development that is pedestrian-oriented with short setbacks from street
- Improve verge

Block number: 2300

Starting and ending streets: Foster Ave to Hayford Ave

Side of the street: North

- Reduce lane width
- Add bike lane
- Add bike loops
- Repave and widen sidewalk to 8 feet
- Add crosswalk to west end of block with painted markings and pedestrian crossing signage
- Upgrade cross signal at east corner to have audible countdown
- Eliminate curb cuts from Michigan Avenue and make parking accessible only from side streets
- Parking at rear of buildings
- Bring store fronts to street
- Add detectable warnings to corners

- Add decorative landscaping
- Façade improvements

Block number: 2300

Starting and ending streets: Foster Ave to Hayford Ave

Side of the street: South

- Reduce lane width
- Add bike lane
- Add bike loops
- Repave and widen sidewalk to 8 feet
- Relocate trees out of the walkway
- Add crosswalk to west end of block with painted markings and pedestrian crossing signage
- Upgrade cross signal at east corner to have audible countdown
- Eliminate curb cuts from Michigan Avenue and make parking accessible only from side streets
- Parking at rear of buildings
- Bring store fronts to street
- Add detectable warnings to corners
- Add more landscaping
- Façade improvements to some buildings

Block number: 2200

Starting and ending streets: Hayford Ave to Magnolia Ave

Side of the street: North

- Reduce lane width
- Add bike lane
- Add bike loops
- Add audible, pedestrian-activated cross signal at east end of block (across from church) with painted markings and pedestrian crossing signage
- Add crosswalk with painted markings and pedestrian crossing signage at west end
- Add detectable warnings to corners
- Add more trees to buffer church parking lot from street and sidewalk

Block number: 2200

Starting and ending streets: Hayford Ave to Magnolia Ave

Side of the street: South

- Reduce lane width
- Add bike lane
- Add bike loops
- Relocate trees out of walkway
- Repave sidewalk
- Add audible, pedestrian-activated cross signal mid-block (connecting to church) with painted markings and pedestrian crossing signage

- Eliminate curb cuts from Michigan Avenue and make parking accessible only from side streets
- Parking at rear of buildings
- Add detectable warnings to corners
- Add decorative landscaping
- Potential to convert small parking lot at front of building to outdoor seating area for a restaurant

Block number: 2100

Starting and ending streets: Magnolia Ave to Fairview Ave

Side of the street: North

- Reduce lane width
- Add bike lane
- Add bike loops
- Add shelter, seating, and route information to bus stop
- Widen sidewalk toward buildings
- Add crosswalk to east and west ends of block with painted markings and pedestrian crossing signage
- Redevelop to add parking structure on eastern half of block
- Add detectable warnings to corners

Block number: 2100

Starting and ending streets: Magnolia Ave to Fairview Ave

Side of the street: South

- Reduce lane width
- Add bike lane
- Add bike loops
- Add shelter, seating, and route information to bus stop
- Relocate trees out of walkway
- Repave sidewalk
- Add crosswalk to east and west ends of block with painted markings and pedestrian crossing signage
- Redevelop western half of block with pedestrian-oriented development set close to the street
- Eliminate curb cut, make parking accessible from side street
- Add detectable warnings to corners
- Façade improvements for Hot Tubs

Block number: 2000

Starting and ending streets: Fairview Ave to Clemens Ave

Side of the street: North

- Reduce lane width to ten feet
- Eliminate on-street parking
- Extend curb
- Create verge

- Add bike lane
- Add bike loops
- Add bus pullout
- Widen sidewalk to ten feet
- Add crosswalk to east end of block with painted markings and pedestrian crossing signage
- Upgrade cross signal at west end of block to have audible countdown
- Add benches or other outdoor seating for pedestrians or users of these businesses
- Add more decorative landscaping
- Add detectable warnings to corners
- Add more visible signage indicating parking at rear of buildings
- At east and west end, add a landscaped pedestrian refuge island

Block number: 2000

Starting and ending streets: Fairview Ave to Clemens Ave

Side of the street: South

- Reduce lane width to ten feet
- Eliminate on-street parking
- Add bike lane
- Add bike loops
- Add bus pullout
- Widen sidewalk and walkway, provide space for outdoor restaurant dining
- Relocate trees from walkway, create verge
- Add shelter and seating to bus stop
- Add bus pullout
- Add crosswalk to east end of block with painted markings and pedestrian crossing signage
- Upgrade cross signal at west end of block to have audible countdown
- Add benches or other outdoor seating for pedestrians or users of these businesses
- Add decorative landscaping
- Add detectable warnings to corners
- At east and west end, add a landscaped pedestrian refuge island

Block number: 1900

Starting and ending streets: Clemens Ave to Horton St

Side of the street: North

- Eliminate on-street parking
- Reduce automobile lane to 10 feet
- Add bike lane
- Add bike loops
- Add bus pullout
- Repave sidewalk and widen to 8 feet, relocate trees
- Add detectable warnings at corners
- Add decorative landscaping to serve as a buffer

- Add crosswalk at Clemens, include painted lines and pedestrian crossing sign

Block number: 1900

Starting and ending streets: Clemens Ave to Regent St

Side of street: South

- Eliminate on-street parking
- Reduce automobile lane to 10 feet
- Add bike lane
- Add bike loops
- Repave sidewalk and widen to 8 feet
- Add detectable warnings at corners
- Eliminate curb cuts, access parking from side streets
- Add decorative landscaping
- Redevelop or add infill
- Add crosswalk at Clemens, include painted lines and pedestrian crossing sign

Block number: 1700-1800

Starting and ending streets: Horton St to Marshall Ave

Side of street: North

- Eliminate on-street parking
- Reduce automobile lane to 10 feet
- Add bike lane
- Add bike loops
- Repave sidewalk and widen to 8 feet
- Upgrade crossing signal at Marshall to have audible countdown
- Add detectable warnings at corners
- Eliminate curb cuts, access parking from side streets
- Add decorative landscaping
- Redevelop or add infill
- Consider outdoor seating/dining
- Façade improvements

Block number: 1800

Starting and ending streets: Regent St to Leslie Ave

Side of street: South

- Eliminate on-street parking
- Reduce automobile lane to 10 feet
- Add bike lane
- Add bike loops
- Repave sidewalk and widen to 8 feet
- Add crosswalk at Leslie, include painted lines and pedestrian crossing sign
- Add detectable warnings at corners
- Eliminate curb cuts, access parking from side streets
- Add decorative landscaping

- Redevelop or add infill
- Façade improvements

Block number: 1700

Starting and ending streets: Leslie Ave to Shepard St

Side of the street: South

- Eliminate on-street parking
- Reduce automobile lane to 10 feet
- Add bike lane
- Add bike loops
- Add bus pullout
- Add bus shelter, bench, and signage to bus stop
- Repave sidewalk and widen to 8 feet, relocate trees
- Add detectable warnings at corners
- Reduce curb cuts, access parking from side streets
- Create a verge, extend curb
- Add decorative landscaping

Block number: 1600

Starting and ending streets: Marshall Ave to Rumsey Ave

Side of street: North

- Eliminate on-street parking
- Reduce automobile lane to 10 feet
- Add bike lane
- Add bike loops
- Add bus pullout
- Add bus shelter, bench, and signage to bus stop
- Repave sidewalk and widen to 8 feet, relocate trees
- Upgrade crossing signal at Marshall to have audible countdown
- Add crosswalk at Rumsey, include painted lines and pedestrian crossing sign
- Add detectable warnings at corners
- Reduce curb cuts, access parking from side streets
- Add decorative landscaping
- Redevelop or add infill

Block number: 1600

Starting and ending streets: Shepard St to Allen St

Side of street: South

- Eliminate on-street parking
- Reduce automobile lane to 10 feet
- Add bike lane
- Add bike loops
- Repave sidewalk and widen to 8 feet, relocate trees
- Upgrade crossing signal at Shepard to have audible countdown

- Add crosswalk at Allen, include painted lines and pedestrian crossing sign
- Add detectable warnings at corners
- Reduce curb cuts, access parking from side streets
- Add decorative landscaping
- Redevelop or add infill
- Façade improvements

Block number: 1500

Starting and ending streets: Rumsey Ave to Custer St

Side of street: North

- Eliminate on-street parking
- Reduce automobile lane to 10 feet
- Add bike lane
- Add bike loops
- Repave sidewalk and widen to 8 feet, relocate trees
- Upgrade crossing signal at Lathrop (in middle of block) to have audible countdown
- Add crosswalk at Rumsey, include painted lines and pedestrian crossing sign
- Add detectable warnings at corners
- Reduce curb cuts, access parking from side streets
- Add decorative landscaping
- Add signage for Allen Street Farmers Market

Block number: 1500

Starting and ending streets: Allen St to Lathrop St

Side of street: South

- Eliminate on-street parking
- Reduce automobile lane to 10 feet
- Add bike lane
- Add bike loops
- Add bus pullout
- Repave sidewalk and widen to 8 feet, relocate trees
- Upgrade crossing signal at Lathrop to have audible countdown
- Add crosswalk at Allen, include painted lines and pedestrian crossing sign
- Add detectable warnings at corners
- Eliminate curb cuts, access parking from side streets
- Add decorative landscaping
- Redevelop or add infill to vacant lots
- Add signage for Allen Street Farmers Market

Block number: 1400

Starting and ending streets: Custer St to Ferguson St

Side of street: North

- Eliminate on-street parking
- Reduce automobile lane to 10 feet

- Add bike lane
- Add bike loops
- Add bus pull out
- Add shelter, bench, and signage to bus stop
- Repave sidewalk and widen to 8 feet, relocate trees
- Add crosswalk at Ferguson, include painted lines and pedestrian crossing sign
- Add detectable warnings at corners
- Eliminate curb cuts, access parking from side streets
- Add decorative landscaping on eastern half of block
- Redevelop or add infill to vacant lots
- Consider pocket park on grass lot next to Soup Spoon
- Outdoor seating/dining instead of side parking lot

Block number: 1400

Starting and ending streets: Lathrop St to Clifford St

Side of street: South

- Eliminate on-street parking
- Reduce automobile lane to 10 feet
- Add bike lane
- Add bike loops
- Repave sidewalk and widen to 8 feet, relocate trees
- Upgrade crossing signal at Lathrop to have audible countdown
- Add detectable warnings at corners
- Eliminate curb cuts, access parking from side streets
- Add decorative landscaping
- Redevelop or add infill
- Façade improvements

Block number: 1300

Starting and ending streets: Ferguson St to Holmes St

Side of street: North

- Eliminate on-street parking
- Reduce automobile lane to 10 feet
- Add bike lane
- Add bike loops
- Repave sidewalk and widen to 8 feet toward buildings, relocate trees
- Upgrade crossing signal at Holmes to have audible countdown
- Add detectable warnings at corners
- Eliminate curb cuts, access parking from side streets
- Add decorative landscaping
- Redevelop or add infill
- Reduce parking spaces

Block number: 1300

Starting and ending streets: Clifford St to Holmes St

Side of street: South

- Reduce automobile lane to 10 feet
- Add bike lane
- Add bike loops
- Add bus pull out
- Add shelter, bench, and signage to bus stop
- Repave sidewalk and widen to 8 feet toward buildings, relocate trees
- Upgrade crossing signal at Holmes to have audible countdown
- Add pedestrian-activated crosswalk to connect Ferguson, include painted lines and pedestrian crossing sign
- Add detectable warnings at corners
- Eliminate curb cuts, access parking from side streets
- Add decorative landscaping
- Redevelop or add infill
- Widen verge
- Consider parking structure
- Reduce parking spaces

Block number: 1100-1200

Starting and ending streets: Holmes St to Bingham St

Side of street: South

- Eliminate on-street parking
- Reduce automobile lane to 10 feet
- Add bike lane
- Add bike loops
- Add route signage at bus stop
- Upgrade crossing signal at Holmes to have audible countdown, repaint crossing lines
- Add detectable warnings at corners
- Redevelop or add infill
- Eliminate parking lot and curb cuts
- Share parking structure with north side of block

Block number: 1000-1200

Starting and ending streets: Holmes St to Pennsylvania Ave

Side of street: North

- Reduce automobile lane to 10 feet
- Add bike lane
- Add bike loops
- Add signage for bus stop on the east side of the block
- Add shelter, bench, and signage for the bus stop on the west side of the block
- Upgrade crossing signal at Holmes to have audible countdown

Block number: 1000

Starting and ending streets: Bingham St to Pennsylvania Ave

Side of street: South

- Reduce automobile lane to 10 feet
- Add bike lane
- Add bike loops
- Upgrade crossing signal at Pennsylvania to have audible countdown
- Add detectable warnings at corners
- Add decorative landscaping

Block number: 900

Starting and ending streets: Pennsylvania Ave to Eighth St

Side of street: North

- Eliminate on-street parking
- Reduce automobile lane to 10 feet
- Remove bulb out, remove curb extensions
- Add bike lane
- Add bike loops
- Upgrade crossing signal at Pennsylvania to have audible countdown
- Add crosswalk at Eighth, include painted lines and pedestrian crossing sign
- Add detectable warnings at corners
- Eliminate parking lot at west end of block, add infill close to street
- Create more attractive way finding

Block number: 900

Starting and ending streets: Pennsylvania Ave to Eighth St

Side of street: South

- Eliminate on-street parking
- Reduce automobile lane to 10 feet
- Remove bulb out, remove curb extensions
- Narrow curb cut in front of Pollack Glass
- Add bike lane
- Add bike loops
- Upgrade crossing signal at Pennsylvania to have audible countdown
- Add crosswalk at Eighth, include painted lines and pedestrian crossing sign
- Add detectable warnings at corners
- Add decorative landscaping
- Redevelop or add infill between Pollack Glass and DBI Furniture

Block number: 800

Starting and ending streets: Eighth St to Hosmer St

Side of street: North

- Eliminate on-street parking
- Reduce automobile lane to 10 feet

- Remove bulb out, remove curb extensions
- Add bike lane
- Add bike loops
- Add crosswalk at Eighth St and Hosmer, include painted lines and pedestrian crossing sign
- Add detectable warnings at corners
- Add decorative landscaping
- Redevelop or add infill next to Anthony's flowers
- Reduce parking lot size

Block number: 800

Starting and ending streets: Eighth St to Hosmer St

Side of street: South

- Eliminate on-street parking
- Reduce automobile lane to 10 feet
- Remove bulb out, remove curb extensions
- Narrow curb cut in front of Stoebers
- Add bike lane
- Add bike loops
- Add crosswalk at Eighth St and Hosmer, include painted lines and pedestrian crossing sign
- Add detectable warnings at corners
- Add decorative landscaping
- Redevelop or add infill on east side of block
- Reduce size of parking lot

Block number: 700

Starting and ending streets: Hosmer St to Pere Marquette Dr

Side of street: North

- Eliminate on-street parking
- Reduce automobile lane to 10 feet
- Remove bulb out, remove curb extensions
- Add bike lane
- Add bike loops
- Add crosswalk at Hosmer, include painted lines and pedestrian crossing sign
- Add detectable warnings at corners
- Add decorative landscaping
- Façade improvements
- Consider parking structure between MSHDA and Sparrow offices

Block number: 700

Starting and ending streets: Hosmer St to Hill St

Side of street: South

- Eliminate on-street parking
- Reduce automobile lane to 10 feet

- Remove bulb out, remove curb extensions
- Add bike lane
- Add bike loops
- Add crosswalk at Hosmer, include painted lines and pedestrian crossing sign
- Add detectable warnings at corners
- Add decorative landscaping
- Redevelop or add infill

Block number: 600-700

Starting and ending streets: Hill St to Pere Marquette Dr

Side of street: South

- Eliminate on-street parking
- Reduce automobile lane to 10 feet
- Remove bulb out, remove curb extensions
- Add bike lane
- Add bike loops
- Add detectable warnings at corners
- Add decorative landscaping
- Consider parking structure in parking lot

Sample Inventory Sheet for Block by Block Analysis

Block Number: _____ to _____ N____ S____

Pedestrians

1. Sidewalks ___ / 1

- Wide (5ft plus) ___ / 1
- Smooth (not uneven or broken up) ___ / 1
- Straight ___ / 1
- No obstructions ___ / 1
- Curb cuts (east and west of the blocks) ___ / 1
- Blind bumps ___ / 1

2. Crosswalks ___ / 1

- Timer/countdown ___ / 1
- Signal ___ / 1
- Audible ___ / 1
- Enough time to cross (take into consideration # of lanes) ___ / 1
- Crossing Island ___ / 1
- Pedestrian crossing button ___ / 1

3. Not having to cross through parking lots ___ / 1

4. Slow speed limit (30 mph or less) ___ / 1

5. Pedestrian scaled design

- Seating ___ / 1
- Buildings close to street ___ / 1
- Protection from weather (awnings) ___ / 1

Total: ___ / 19

Bicyclists

1. Bike lanes ___ / 1

2. Bike racks or loops (at least 1 on every block) ___ / 1

Total: ___ / 2

Transit – CATA

1. Bus stops

- Shelter ___ / 1
- Benches ___ / 1

2. Route signage ___ / 1

- Including a schedule of all buses that come to that location ___ / 1

3. Bus Lanes ___ / 1

Total: ___ / 5

Automobiles

1. Road quality (drivable, excludes singular potholes) ___ / 1
2. Signage (street signs) ___ / 1
3. Well timed traffic lights ___ / 1
4. Appropriate turning lanes and turn around ___ / 1
5. Easy access to parking ___ / 1

Total: ___ / 5

Overall

1. Landscaping ___ / 1
2. Lighting ___ / 1
3. Wide Shoulders ___ / 1
4. Way Finding ___ / 1
5. Bus Pullout ___ / 1

Michigan Avenue Corridor Complete Streets Inventory Checklist																										
Block Number	N or S	Start (E to W)	End	Use	Average Setback	Sidewalk condition	Cross-walk(s)	Raised CW	CW Signal	Bike Lanes	Bike Racks	Bus Lanes	Bus pullouts	Bus stop	Bus shelter	On-street parking	Off-street parking	Wide shoulders	Crossing islands	Street landscaping	Street lights	# of lanes	curb cuts	Center median	Traffic circle	Speed limit
200	N	Grand River Ave.	Delta St.	Business	20'-30'	poor	Y	N	Light only	n/a		1 N	N	N	N	N	Y	N	Y	below average	7	5	5 average	N		35
200	S	Grand River Ave.	Mus Rd.	Educational	40' or greater	average	Y	N	Light only	n/a		1 N	N	N	N	N	Y	N	Y	average	7	5	4 average	N		25
300-400	N	Delta St.	Louis St.	R2	10'-20'	below average	Y	N	n/a	n/a		1 N	N	Y	Y	N	Y	N	Y	below average	6	5	4 average	N		35
300-500	S	Mus Rd.	Beal St.	Educational	40' or greater	average	Y	N	n/a	n/a		0 N	N	Y	N	N	Y	N	Y	average	10	5	3 average	N		35
500	N	Louis St.	Beal St.	Business	10'-20'	below average	Y	N	n/a	n/a		0 N	N	Y	N	N	Y	N	Y	n/a	5	5	5 average	N		35
600	N	Beal St.	Center St.	Business	less than 10'	below average	N	N	n/a	n/a		0 N	N	N	N	N	Y	N	N	n/a	5	5	2 average	N		35
600	S	Beal St.	Harrison Rd.	Educational	40' or greater	average	Y	N	Light only	n/a		0 N	Y	Y	Y	N	N	N	Y	n/a	7	5	1 average	N		35
700	N	Center	Harrison Rd.	Business	40' or greater	below average	Y	N	Light only	n/a		0 N	N	Y	Y	N	Y	N	Y	above average	4	5	1 average	N		35
800	N	Harrison Rd.	University Dr.	Mixed	20'-30'	poor	Y	N	Light only	n/a		0 N	N	N	N	N	Y	N	Y	above average	2	5	4 average	N		35
800-1000	S	Harrison Rd.	W Brody	Educational	40' or greater	below average	Y	N	Light only	n/a		10 N	N	Y	Y	N	Y	N	Y	above average	7	5	1 average	N		35
900-1000	N	University Dr.	Kensington Rd.	R2	30'-40'	poor	N	N	n/a	n/a		0 N	N	N	N	N	Y	N	N	average	4	5	5 average	N		35
1100	N	Kensington Rd.	Cowley Ave.	R2	30'-40'	poor	N	N	n/a	n/a		0 N	N	Y	Y	N	Y	N	N	average	1	5	above 2 average	N		35
1100	S	W Brody	Reniger Ct.	Business	20'-30'	above average	N	N	n/a	n/a		0 N	N	N	N	N	Y	N	N	above average	4	5	above 2 average	N		35
1200	N	Cowley Ave.	Highland Ave.	Mixed	20'-30'	excellent	N	N	n/a	n/a		0 N	N	N	N	N	Y	N	N	average	0	5	above 1 average	N		35
1200-3100	S	Reniger Ct.	Clippert St.	Business	10'-20'	excellent	N	N	n/a	n/a		2 N	N	Y	N	N	Y	N	N	average	16	5	above 4 average	N		35
1300-3400	N	Highland	Friendship Circle	Business	40' or greater	above average	N	N	n/a	n/a		0 N	N	N	N	N	Y	N	N	average	2	3	above 1 average	N		35
3300-3200	N	Friendship Circle	Morgan Ln.	Business	40' or greater	above average	N	N	n/a	n/a		0 N	N	Y	N	N	Y	N	N	above average	6	3	above 5 average	N		35
3100	N	Morgan Ln.	Clippert St.	Business	20'-30'	above average	N	N	n/a	n/a		0 N	N	Y	N	N	Y	N	N	above average	5	3	5 average	N		35
3000	N	Clippert St.	Homer St.	Mercantile	40' or greater	average	Y	N	Light only	n/a		0 N	N	N	N	N	Y	N	Y	n/a	3	3	1 average	n		35
3000	S	Clippert St.	Homer St.	Business	40' or greater	average	Y	N	Light only	n/a		0 N	N	N	N	N	Y	N	N	average	3		4	N		35
2900	N	Homer St.	Howard St.	NA	10'-20'	above average	N	N	n/a	n/a		0 N	N	N	N	N	N	N	N	average	3	3	0 average	N		35
2800-2900	S	Homer St.	Detroit St.	Business	40' or greater	average	Y	N	Light only	n/a		0 N	N	N	N	N	Y	N	N	average	3		1	N		35

2700-2800	N	Howard St.	Lasalle Ct.	Business	40' or greater	above average	Y	N	n/a	n/a	0	N	N	Y	Y	N	Y	N	Y	average	8	2	3	average	N	35
2700	S	Detroit St.	Charles St.	Business	40' or greater	no sidewalk	N	N	n/a	n/a	0	N	N	N	N	N	Y	N	N	average	4		0			35
2600	N	Lasalle Ct.	Kipling Blvd.	Mercantile	30'-40'	below average	N	N	n/a	n/a	0	N	N	Y	N	N	Y	N	N	below average	5	4	2	n/a	N	35
2600	S	Charles St.	Mifflin Ave.	Business	40' or greater	average	N	N	n/a	n/a	0	N	N	Y	N	N	Y	N	N	average	4		3			35
2500	N	Kipling Blvd.	N. Francis Ave.	Mercantile	30' to 40'	above average	N	N	n/a	n/a	0	N	N	N	N	N	Y	N	N	below average	4	4	2	n/a	N	30
2500	S	Mifflin Ave.	S. Francis Ave.	Business	10'-20'	below average	N	N	n/a	n/a	0	N	N	N	N	N	Y	N	N	average	4		3			30
2400	N	N. Francis Ave.	N. Foster Ave.	R2	less than 10'	above average	Y	N	n/a	n/a	0	N	N	N	N	N	Y	N	N	below average	3	4	3	n/a	N	30
2400	S	S. Francis Ave.	S. Foster Ave.	Mercantile	40' or greater	below average	Y	N	Light only	n/a	0	N	N	Y	N	N	Y	N	N	poor	3		3			30
2300	N	N. Foster Ave.	N. Hayford Ave.	mixed	40' or greater	average	Y	N	Light only	n/a	0	N	N	Y	N	N	Y	N	N	below average	4	4	4	n/a	N	30
2300	S	S. Foster Ave.	S. Hayford Ave.	Business	10'-20'	average	Y	N	Light only	n/a	0	N	N	N	N	N	Y	N	N	poor	4		2			30
2200	N	N. Hayford Ave.	N. Magnolia Ave.	assembly, R:	20'-30'	excellent	N	N	n/a	n/a	0	N	N	N	N	N	Y	N	N	average	4	4	1	n/a	N	30
2200	S	S. Hayford Ave.	S. Magnolia Ave.	Business	10'-20'	average	N	N	n/a	n/a	0	N	N	N	N	N	Y	N	N	poor	4		2			30
2100	N	N. Magnolia Ave.	N. Fairview Ave.	Business	less than 10'	above average	N	N	n/a	n/a	0	N	N	Y	N	N	Y	N	N	average	4	4	2	n/a	N	30
2100	S	S. Magnolia Ave.	S. Fairview Ave.	Business	10'-20'	average	N	N	n/a	n/a	0	N	N	Y	N	N	Y	N	N	poor	4		0			30
2000	N	N. Fairview Ave.	N. Clemens Ave.	Mercantile	10'-20'	average	Y	N	Light only	n/a	0	N	N	N	N	Y	Y	N	N	poor	4	4	0	n/a	N	30
2000	S	S. Fairview Ave.	S. Clemens Ave.	Assembly	20'-30'	above average	Y	N	b/a	n/a	0	N	N	Y	N	Y	Y	N	N	poor	4		0			30
1900	N	N. Clemens Ave.	Horton St.	Mixed	10'-20'	average	Y	N	Light only	n/a	0	N	N	Y	Y	Y	N	N	N	average		3	2	n/a	N	30
1900	S	S. Clemens Ave.	Regent St.	Mixed	less than 10'	average	Y	N	Light only	n/a	0	N	N	N	N	Y	Y	N	N	poor		3	1	n/a	N	30
1700-1800	N	Horton St.	Marshall Ave.	Mixed	10'-20'	average	N	N	n/a	n/a	0	N	N	N	N	Y	N	N	N	average		3	2	n/a	N	30
1800	S	Regent St.	Leslie Ave.	Mixed	less than 10'	average	N	N	n/a	n/a	0	N	N	N	N	Y	Y	N	N	poor		3	1	n/a	N	30
1700	S	Leslie Ave.	Shepard St.	Mixed	10'-20'	average	N	N	n/a	n/a	0	N	N	Y	N	Y	Y	N	Y	average		3	1	n/a	N	30
1600	N	Marshall Ave.	Rumsey Ave.	Institutional	less than 10'	average	Y	N	Light only	n/a	0	N	N	Y	N	Y	N	N	N	average		3	1	n/a	N	30
1600	S	Shepard St.	Allen St.	Mixed	less than 10'	average	Y	N	Light only	n/a	0	N	N	N	N	Y	Y	N	N	average		3	1	n/a	N	30
1500	N	Rumsey Ave.	Custer St.	Assembly	less than 10'	above average	Y	N	Light only	n/a	0	N	N	N	N	Y	N	N	N	average		3	1	n/a	N	30

1500	S	Allen St.	Lathrop St.	Mixed	less than 10'	average	Y	N	Light only	n/a	0	N	N	Y	Y	Y	Y	N	N	average	3	3	n/a	N	30
1400	S	Lathrop St.	Clifford St.	Mixed	less than 10'	average	Y	N	Light only	n/a	0	N	N	N	N	Y	Y	N	N	average	3	1	n/a	N	30
1400	N	Custer St.	Ferguson St.	Mixed	less than 10'	above average	N	N	n/a	n/a	0	N	N	Y	N	Y	Y	N	N	average	3	2	n/a	N	30
1300	S	Clifford St.	S. Holmes St.	Mixed	less than 10'	above average	N	N	n/a	n/a	0	N	N	Y	N	N	Y	N	N	below average	3	6	n/a	N	30
1300	N	Ferguson St.	N. Holmes St.	Mixed	less than 10'	above average	Y	N	Light only	n/a	0	N	N	N	N	Y	N	N	N	average	3	0	n/a	N	30
1100-1200	S	S. Holmes St.	Bingham St.	Institutional	10'-20'	excellent	Y	N	Light only	n/a	0	N	Y	Y	N	N	Y	N	N	below average	3	3	n/a	N	30
1000-1200	N	N. Holmes St.	N. Pennsylvania Ave.	Institutional	10'-20'	above average	Y	Y	Light only	n/a	0	N	N	Y	Y	N	Y	N	N	average	3	2	n/a	N	30
1000	S	Bingham St.	S. Pennsylvania Ave.	Mixed	10'-20'	above average	Y	N	Light only	n/a	0	N	N	Y	Y	N	Y	N	N	n/a	3	1	n/a	N	30
900	S	S. Pennsylvania Ave.	S. 8th St.	Mixed	10'-20'	average	Y	N	Light only	n/a	0	N	N	N	N	Y	Y	N	N	average	3	4	n/a	N	30
900	N	N. Pennsylvania Ave.	N. 8th St.	Utility	10'-20'	above average	Y	N	Light only	n/a	0	N	N	N	N	Y	Y	N	N	average	3	2	n/a	N	30
800	S	S. 8th St.	S. Hosmer St.	Mixed	less than 10'	average	N	N	n/a	n/a	0	N	N	Y	Y	Y	Y	N	N	average	3	3	n/a	N	30
800	N	N. 8th St.	N. Hosmer St.	Mixed	10'-20'	above average	N	N	n/a	n/a	0	N	N	N	N	Y	N	N	N	average	3	2	n/a	N	30
700	S	S. Hosmer St.	Hill St.	Mercantile	less than 10'	above average	N	N	n/a	n/a	0	N	N	N	N	N	Y	N	N	above average	3	1	n/a	N	30
700	N	N. Hosmer St.	Pere Marquette Dr.	Institutional	10'-20'	above average	Y	N	n/a	n/a	0	N	N	Y	N	N	Y	Y	N	average	3	2	n/a	N	30
600-700	S	Hill St.	Pere Marquette Dr.	Utility	less than 10'	above average	Y	N	n/a	n/a	0	N	N	N	N	N	Y	N	N	average	3	2	n/a	N	30

Tax Increment Financing Reference

TIF is operated by the use of future gains in taxes to finance the current improvements that will create those gains. When a public project such as a road, school, or hazardous waste cleanup is carried out, there is often an increase in the value of surrounding real estate, and perhaps new investment (new or rehabilitated buildings, for example). This increased site value and investment generates increased tax revenues. The increased tax revenues are the "tax increment." Tax Increment Financing dedicates tax increments within a certain defined district to finance debt issued to pay for the project. TIF is designed to channel funding toward improvements in distressed or underdeveloped areas where development would not otherwise occur. TIF creates funding for public projects that may otherwise be unaffordable to localities. Cities use TIF to finance public infrastructure, land acquisition, demolition, utilities and planning costs, and other improvements including: Sewer expansion and repair, Curb and sidewalk work, Storm drainage, Traffic control, Street construction & expansion, Street lighting, Water supply, Landscaping, Park improvements, Environmental remediation, Bridge construction & repair, and Parking structures. The duration of the TIF is usually determined by the goals and costs of the proposed improvements.

In Michigan, the Tax Increment Finance Authority (TIFA) is used to help eligible cities to stop the decline of property value in specific areas. TIFA districts are designed to increase the property tax valuation of the area and to eliminate the causes of the decline in property values. As of January 1, 1987, the Michigan legislature decreed that "a new TIF Authority or authority district shall not be created and the boundaries of an existing TIF Authority shall not be expanded to include additional land." If your community does not currently have a TIFA district, you are not allowed to create one. Communities in Michigan without a TIFA district that wish to use tax increments to pay for various projects may receive assistance through Downtown Development Authorities (DDA) or Local Development Finance Authorities (LDFA).

Corridor Survey Review

According to a small online survey conducted by the Corridor Improvement Authority Committee, the majority of survey respondents were those who were living on, or in a neighborhood adjacent to, Michigan Avenue. While a large majority of respondents primarily indicated driving as their usual method of travel on Michigan Avenue, others indicated biking and walking as their usual method. When asked, how often do you go to Michigan Avenue and what would make you go more often? The statements that were anonymously given by survey respondents demonstrated variety among these frequencies. Survey takers answered to a range of use frequencies ranging from 1-2 times a week up to a daily basis. While most respondents admitted to a daily use of the corridor, suggestions made by them included more outdoor dining, facade improvements, locally owned businesses, and more interesting places to go that stay open past 6 pm. One respondent wrote, "I enjoy some of the restaurants, stores and cafes that are located there. I would go more often if it was more bicycle friendly and if parts of it seemed safer to walk around at night". Another said, "I bike Michigan Avenue daily. I would love it if there were better sidewalks and bike lanes. It would make my commute safer and friendlier". One surveyed individual wanted to see new development and specifically suggested incorporating either a high end clothing store or Art store. Others wanted to see the development of more restaurants, coffee shops and places to hang out.

The online survey showed that these people primarily used the corridor while driving to work, to eat, to shop, or to the hospital. Specifically, many corridor users cited businesses including Gone Wired, Everybody Reads, Emil's, Clara's, and Liz's Alteration Shop. One person said they frequently attended meetings and conferences at the Lansing Center and another referenced Sparrow Hospital as their typical use of the corridor. Those partaking in the nightlife experience enjoyed such bars/clubs on the corridor as the Green Door, Stobers, Moriarty's Pub, Rum Runners and the Nuthouse. Others responded by describing their use for the corridor as "mostly for commuting." One person said "sometimes I stop at destinations within the corridor. Other times, I'm simply passing through."

When asked what Michigan Avenue users liked most about the current corridor, a variety of responses were expressed in the survey results. Many remarked that the corridor was relatively easy drive; others described strong local businesses, good bus transportation and good parking in response to this question. A few of those surveyed described an appreciation for the corridor's walkable design. "I like the idea of Michigan Avenue as the main corridor running the length of the center of the town, connecting the capitol with MSU" said an anonymous respondent. "I like the fact that it is the main connector between East Lansing and Lansing and the fact that you can see the Capitol building from my neighborhood on the East Side". Also mentioned were the street-side parking spots, the Ronald McDonald House and the new additions to Sparrow Hospital.

Finally, the survey asked individuals to describe their dislikes of the Michigan Avenue Corridor along with what they could change about the corridor if they could. The majority of these answers came in the form of a more bicycle-friendly design. One individual wrote, "Some of the side roads that I would travel from my house are too narrow and there are no bike lanes on Michigan Ave." Many responded that there were no places to lock up bicycles safely, people drive too fast and there is no room between parked cars and the right lane. Others responded that the avenue was an "eye sore", pointing out the vacant houses, offices and abandoned gas station were currently obstructing the continuation of shops and restaurants along the corridor. Overall, most people described

a desire for better shops, business, bicyclist features, public transit, and aesthetic features such as fountains, creating a theme for an improved downtown. While those who responded to the survey remain anonymous, the results taken from the survey suggest the respondents were composed of mainly residents and workers familiar with the Michigan Avenue Corridor and perhaps even a bicycle advocacy group.

East Michigan Revitalization Plan

In July of 1994, the East Michigan Avenue Revitalization Plan was submitted by Deardorff Design Resources/Inc., Corbin Design and Reid, Cool & Machalski Inc. in partnership with the City of Lansing Department of Planning & Neighborhood, to provide a catalyst for the economic and aesthetic revitalization of East Michigan Avenue. The details of this report can be found in Appendix F. This plan utilized a process that insured maximum opportunity for participation by residents who lived in or adjacent to the study area which included business owners, representatives of the Lansing School District, and Sparrow Hospital leadership. The plan was guided by several design principles but focused specifically on creating a "Gateway" image and encouraging economic revitalization. Their plan was to eliminate curb cuts wherever possible, consolidate and encourage shared use of parking lots, and provide a signage system which communicates to the users how the parking systems worked. The plan also emphasized unity. It was noted that the study area contained a mixture of architectural styles which date from the early 1900's to the Sparrow Hospital expansion which was completed in 2008-2009. In order to increase unity on the street, their goal was to create a streetscape which would become a unifying context within which the current collection of architecture would exist in harmony with newer buildings in the future. In other words, the proposed streetscape would not be distracting additional elements, but rather a collection of attractive elements which do not dominate the street.

The East Michigan Avenue Revitalization Plan of 1994 noted that revitalization occurs when the corridor is attractive, when business on the street have safe and adequate parking, and when the area is easily used and very accessible. This plan attempted to create these conditions through signage, lighting, planting, and unified streetscape elements and furnishings. Producers of the plan claimed the most feasible option for funding streetscape enhancement was the Intermodal Surface Transportation Efficiency Act of 1991 or ISTEA. These were federal funds available for historic preservation, pedestrians and bicycle amenities and projects with a multi-modal emphasis. East Michigan Avenue meets the requirements of the ISTEA because it is a major line of the Capital Area Transportation Authority's bus system that connects downtown Lansing and downtown East Lansing.

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