2045
LONG RANGE TRANSPORTATION PLAN




Adopted by:
St. Clair County Transportation Study (SCCOTS): January 9, 2019
St. Clair County Metropolitan Planning Commission: January 16, 2019

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Part 1
Introduction

INTRODUCTION

The St. Clair County transportation system is about more than simply moving people and things from one place to another. Our transportation system is about economic opportunity, quality of life, and environmental stewardship. Well planned and coordinated, our transportation system can be a catalyst for collaboration and opportunity. It is the responsibility of the St. Clair County Metropolitan Planning Commission and the St. Clair County Transportation Study (SCCOTS) to ensure that the time, talent, and resources we invest in transportation infrastructures delivers the kind of system and community that we desire and need.

St Clair County Metropolitan Planning Commission has produced the SCCOTS 2045 Long Range Transportation Plan to ensure that our transportation system is coordinated throughout the region and serves our current needs while contributing to the future we all desire. Wise investment in our future demands a foresighted plan that balances transportation, land use, and natural resources. St Clair County worked with civic leaders, public officials, and area residents to define a vision for the SCCOTS 2045 Long Range Transportation Plan. This vision seeks to align future transportation needs with policy to preserve the area's resources.

PLANNING PROCESS

This plan was developed with the assistance of local, regional, and state transportation agencies, who met to provide guidance, discuss objectives, and review draft products.

Agencies participating in the steering committee include:

- St. Clair County Metropolitan Planning Commission
- Blue Water Area Transit Commission
- St. Clair County Road Commission
- Southeast Michigan Council of Governments
- St. Clair County Transportation Study- Technical Committee
  - City of Algonac
  - City of Marine City
  - City of Marysville
  - City of Port Huron
  - City of St. Clair
  - City of Yale
  - City of Memphis
  - Village of Capac
  - MDOT

HOW THIS DOCUMENT IS ORGANIZED

This document is organized into four sections.

Part I: Articulates the considerations, vision, and goals that influenced the development of the SCCOTS 2045 Long Range Transportation Plan.

Part II: Explains in greater detail the purpose of the plan.

Part III: Describes the multimodal transportation system envisioned by the plan.

Part IV: Sets forth the specific strategies and steps required to achieve the transportation goals and implement the transportation system envisioned by the region.

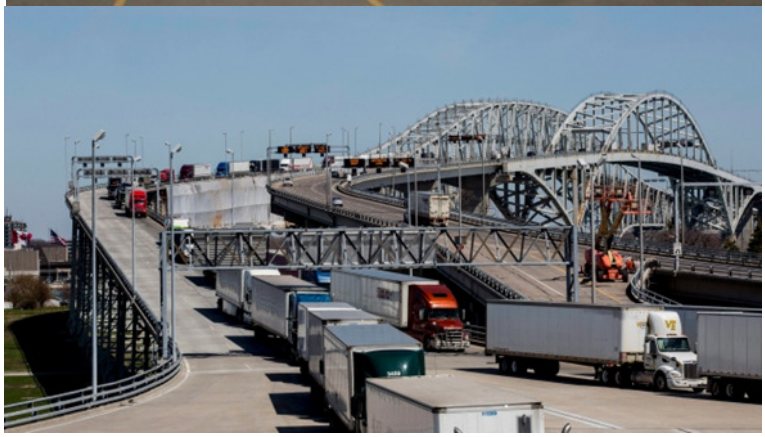
STRIKING A BALANCED APPROACH TO TRANSPORTATION

As we worked with communities and agencies to develop this Plan, we were reminded that our ultimate goal was to create a plan that improved the overall livability of our region by balancing the need to move traffic with the need to build quality communities. In order to achieve this balance, we considered not only the movement of vehicles but the mobility of people, the sustainability of the system, and impact of our future investments on land use and growth patterns.

The four main elements of a balanced transportation system include:

Move goods and people by providing:

- A safe and efficient network of roads, highways, and railways
- Transit options
- Bicycle and pedestrian facilities



GOALS THAT MOVE US FORWARD

SCCOTS 2045 Long Range Transportation Plan must comply with certain requirements set forth by federal law. Specifically, the federal legislation known as: Moving Ahead for Progress in the 21st Century (MAP-21) and Fixing America's Surface Transportation (FAST) Act which have the following planning factors/goal areas:

1) Support the **economic vitality** of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.

2) Increase the **safety of the transportation system** for motorized and non-motorized users.

3) Increase the **security of the transportation system** for motorized and non-motorized users.

4) Increase the **accessibility and mobility** of people and for freight.

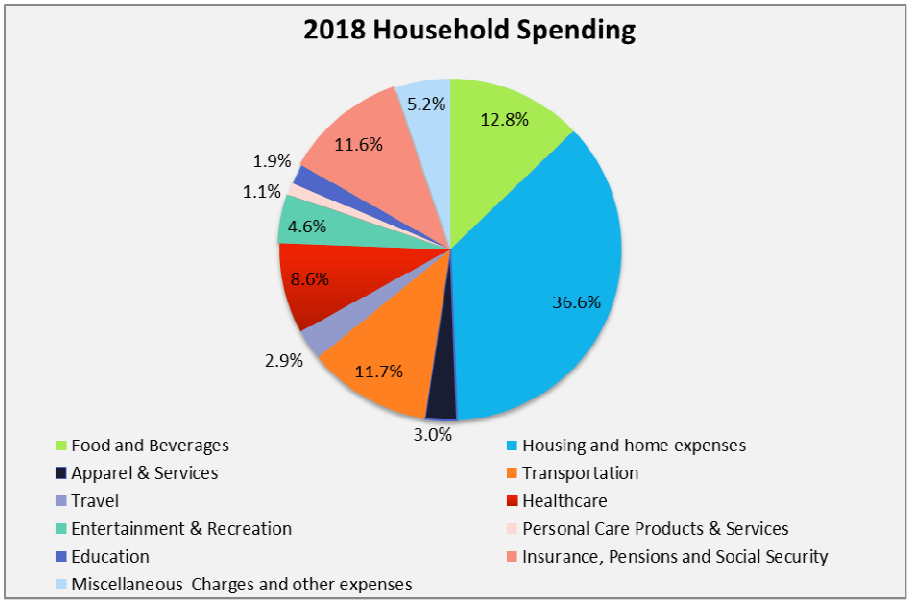
5) Protect and enhance the environment, promote energy conservation, **improve the quality of life,** and promote consistency between transportation improvements and State and local planned growth and economic development patterns.

6) Enhance the **integration and connectivity** of the transportation system, across and between modes, for people and freight.

7) Promote **efficient system management and operation.**

8) Emphasize the **preservation of the existing transportation system.**

Figure 1.1



Improve quality of travel by providing:

- Context sensitive design solutions
- Personal security and safety
- Improved reliability

Manage demand on the system by providing:

- A connected road network
- Coordinating land use policy
- Policies that encourage telecommuting/e-commerce

Build a sustainable system by:

- Reducing environmental impacts
- Minimizing cost

Considering the Impact of Transportation on our Lives and Landscape

Throughout this process, we also kept in mind the significant impact that transportation infrastructure has on our lives and landscapes.

Transportation systems and investments have a profound impact on our region. They do more than simply respond to growth. They are, in fact, primary determinants to the patterns of growth and land use in a community. Where we focus our transportation investments, and the types of transportation investments we make, goes a long way toward determining where and how we live. For this reason, we considered carefully the direct and indirect impacts of our transportation decisions.

On a more local level, streets have a tremendous impact on the quality of our communities. They comprise the majority of public spaces. In most of our communities, roads and related infrastructure occupy more land than our parks, our playgrounds, and our public places. For this reason, we must plan and design our transportation system with consideration for those who live with it as well as those who use it.

Finally, it is wise to consider the influence of transportation decisions on our wallets. Transportation is typically a household's second largest expenditure. This is the case for St. Clair County if you combine transportation and travel expenses, accounting for 14.6 percent of all expenses (See Figure 1). Even if transportation is not combined, it is the third largest expenditure at 11.7 percent and not too far behind food and beverage spending which is the county's second largest expenditure.

Housing and transportation costs are the two largest expenditures for most households and combining them provides a more accurate depiction of the true cost of housing where the substantial price of living in a vehicle dependent area becomes evident. Many households spend 50 percent of their income on rent and transportation costs combined. This is about where St. Clair County is at. When combined, housing and transportation costs comprise more than 48 percent of total expenditures and if travel expenses are added in the mix, the amount spent swells to over 51 percent.

The cost of transportation is a very significant component of household costs that many tenants and home buyers only discover after moving to a community. Generally, the cost of transportation to work, to buy groceries, or to medical facilities is higher in rural areas where less expensive housing is found. Households may unintentionally trade cheaper housing costs located away from economic centers and heavily populated areas for increased transportation costs and number of vehicles owned. Low-income families spent a far greater share of their income on core needs, such as housing, transportation, and food, than upper-income families spent.

Similar to people anywhere, rural and small town residents rely on transportation to access jobs, schools, medical facilities, retail shopping, recreation, social events and other services. As a county with many rural areas and small towns St. Clair faces challenges of lengthy travel distances and limited travel options. While it is sometimes assumed that public transportation is only essential for large urban areas with significant traffic congestion, public transportation can also play an important role in rural areas and small towns. As the county is constantly seeking more efficient solutions to their transportation needs, looking into the expansion of public transportation throughout the more rural areas of the county may be an economical and practical consideration

Background

The St. Clair County Transportation Study (SCCOTS) is a state designated transportation study area within southeast Michigan. SCCOTS functions similar to a Metropolitan Planning Organization (MPO) by setting transportation policy and developing plans. Through the Michigan Department of Transportation (MDOT) and Southeast Michigan Council of Governments (SEMCOG), the designated MPO for the region, over five million dollars in federal funds are allocated to SCCOTS annually.

SCCOTS provides several services within St. Clair County, including identifying the county's long range transportation needs as part of the Long Range Transportation Plan (LRTP). The SCCOTS 2040 LRTP was adopted in 2014, and included planning requirements established in the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) Legislation.

The Moving Ahead for Progress in the 21st Century Act (MAP-21), enacted in 2012, included provisions to make the Federal surface transportation more streamlined, performance-based, and multimodal, and to address challenges facing the U.S. transportation system, including improving safety, maintaining infrastructure condition, reducing traffic congestion, improving efficiency of the system and freight movement, protecting the environment, and reducing delays in project delivery.

On December 4, 2015, President Obama signed into law the Fixing America's Surface Transportation Act, or "FAST Act" and this act builds on the changes made by MAP-21. It is the first long-term surface transportation authorization enacted in a decade that provides long-term funding certainty for surface transportation.

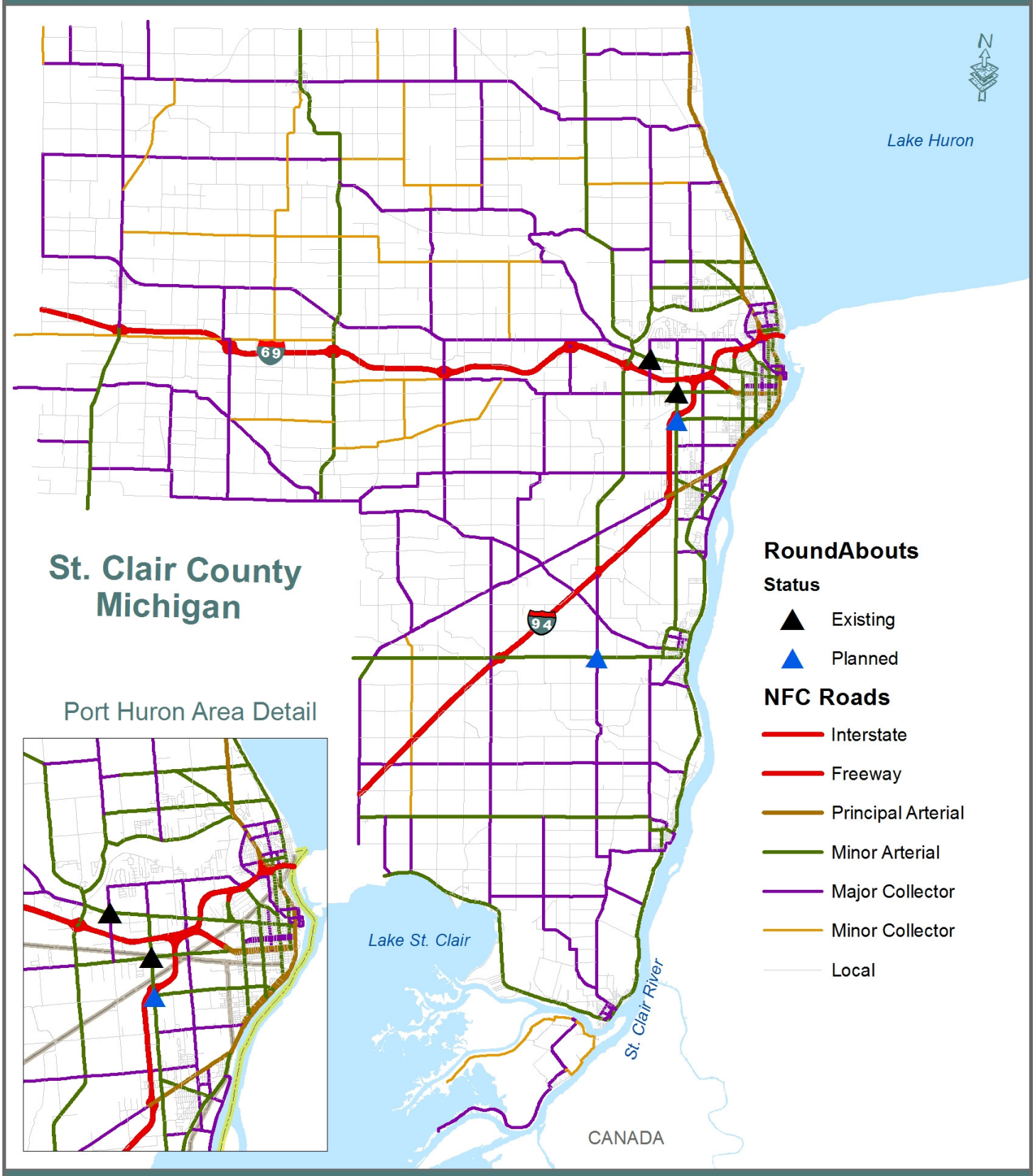
The law also makes changes and reforms to many Federal transportation programs, including streamlining the approval processes for new transportation projects, providing new safety tools, and establishing new programs to advance critical freight projects.

Below are a more detailed summary of some FAST Act provisions.

PROJECT DELIVERY: speed the permitting processes

SCCOTS
ST. CLAIR COUNTY TRANSPORTATION STUDY

Transportation Network



Source: SEMCOG

http://www.stclaircounty.org/Offices/metro/

while still protecting environmental and historic treasures and also codifying the online system to track projects and interagency coordination processes.

FREIGHT: provide a dedicated source of Federal funding for freight projects, including multimodal projects. The Act emphasizes the importance of Federal coordination to focus local governments on the needs of freight transportation providers.

INNOVATIVE FINANCE BUREAU: serve as a one-stop shop for state and local governments to receive federal funding, financing, or technical assistance. This builds on the work of the Department's Build America Transportation Investment Center and provides additional tools to improve coordination across the Department to promote innovative finance mechanisms.

TIFIA: includes organizational changes that will provide an opportunity for important structural improvements with the potential to accelerate the delivery of innovative finance projects.

SAFETY: help bolster the Department's safety oversight of transit agencies and also streamlines the Federal truck and bus safety grant programs, giving more flexibility to States to improve safety in these areas.

TRANSIT: reinstating the popular Bus Discretionary grant program and strengthening the Buy America requirements that promote domestic manufacturing through vehicle and track purchases.

LADDERS OF OPPORTUNITY: a number of items that strengthen workforce training and improve regional planning. These include allocating slightly more formula funds to local decision makers and providing planners with additional design flexibilities. Notably, FAST makes Transit Oriented Development (TOD) expenses eligible for funding under highway and rail credit programs. TOD promotes dense commercial and residential development near transit hubs in an effort to shore up transit ridership and promote walkable, sustainable land use.

GOALS

The following goals were developed to align our vision with the Federal planning factors.

1) *Improve the Safety and Security of the Transportation System*
   - A. Prioritize improvements that prevent accidents and minimize losses.
   - B. Promote alternative transportation options for area residents and employees that are reliable and accessible to all users.

2) *Increase the Accessibility, Reliability, and Mobility of the System for People, Freight and Services*
   - A. Encourage "Complete Streets" in countywide planning principles and part of the construction of major transportation improvements.
   - B. Improve the operating efficiency of the existing infrastructure.

3) *Invest Strategically in Transportation Infrastructure to Enhance the Area's Livability and Sustainability*
   - A. Develop a connected road network.
   - B. Coordinate land use policies.
   - C. Develop and Implement policies that encourage telecommuting/ e-commerce.

4) *Prioritize maintenance of the existing system*
   - A. Ensure adequate funding to preserve and maintain the integrity of the existing transportation infrastructure.
   - B. Encourage programs, including asset management, that are designed to better preserve and maintain the regional infrastructure.

PUBLIC INPUT

St. Clair County is committed to a proactive public outreach effort throughout the development and maintenance of the 2045 LRTP, a Public Participation Plan was adopted by the Metropolitan Planning Commission in June 2017. That plan helped to guide the public participation activities for the development of the 2045 LRTP. The public outreach focuses on maximizing awareness of the study process, obtaining input from residents and employers, and ultimately building support for the plan. Many of the public involvement outreach efforts are completed in conjunction with SEMCOG and the development of the LRTP.

As the Long Range Transportation Plan was developed, the public had a number of opportunities to provide input into the document. MPC Staff was present at a Planning Workshop, where planning/elected officials and other stakeholders were present. There were posters with the plan's goals and objectives and project lists, they had an opportunity to review and comment on those.

MPC Staff also went out in the public and looked for input at three St. Clair County library branches (Main, Marine City, and Yale) and the transit center in downtown Port Huron.

At all of these Public Input Sessions, individuals had an opportunity to fill out a quick three-question survey.

1. What is the biggest Transportation Challenge that you face?
2. Do you use Public Transportation on a regular basis?
3. Do you ever use non-motorized transportation (walk or bike) to get to work, school, appointments, or to run other errands?

Sixty-five surveys were filled out. Figure 1.2 is a word cloud generated from question one, these were the most popular words submitted, the larger the word the more frequent it was written on the surveys. Six people indicated that they used public transportation on a regular basis. Thirty-four people indicated that they often walked or rode their bike for various errands.

A digital copy of the LRTP was e-mailed to each municipality in the County. The County used the Metropolitan Planning Commission website to provide the public with additional opportunities to provide input. There were two public hearings held, one for the project list which included the Fiscal Year 2020-2023 Transportation Improvement Program that was held on Wednesday, June 20, 2018 at the St. Clair County Metropolitan Planning Commission Meeting. Another public hearing for the 2045 Long Range Transportation Plan was held on Wednesday, December 12, 2018 at the St Clair County Transportation Study Policy Committee (Metropolitan Planning Commission) Meeting.

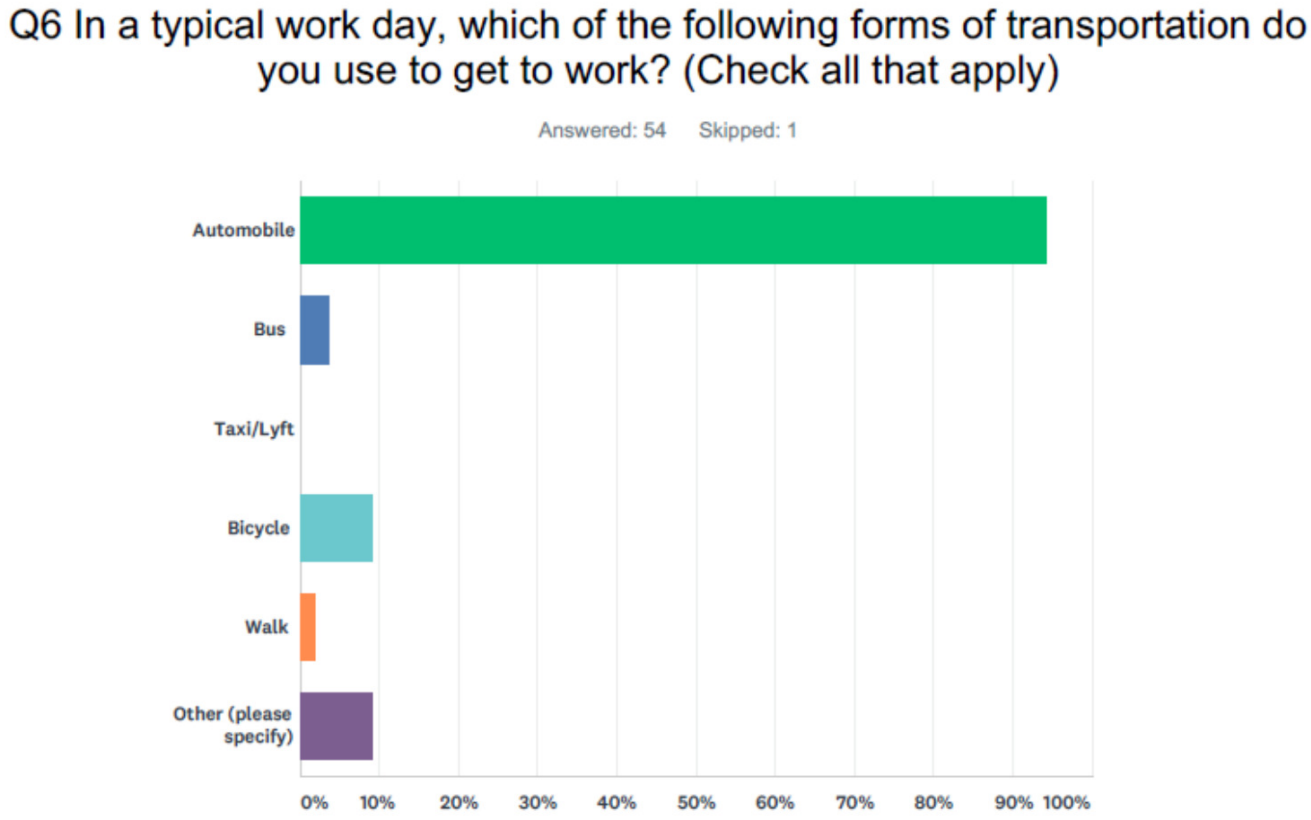
A public survey was also conducted, we received 55 responses, there is a summary of responses on the next pages.

Figure 1.2

Figure 1.3

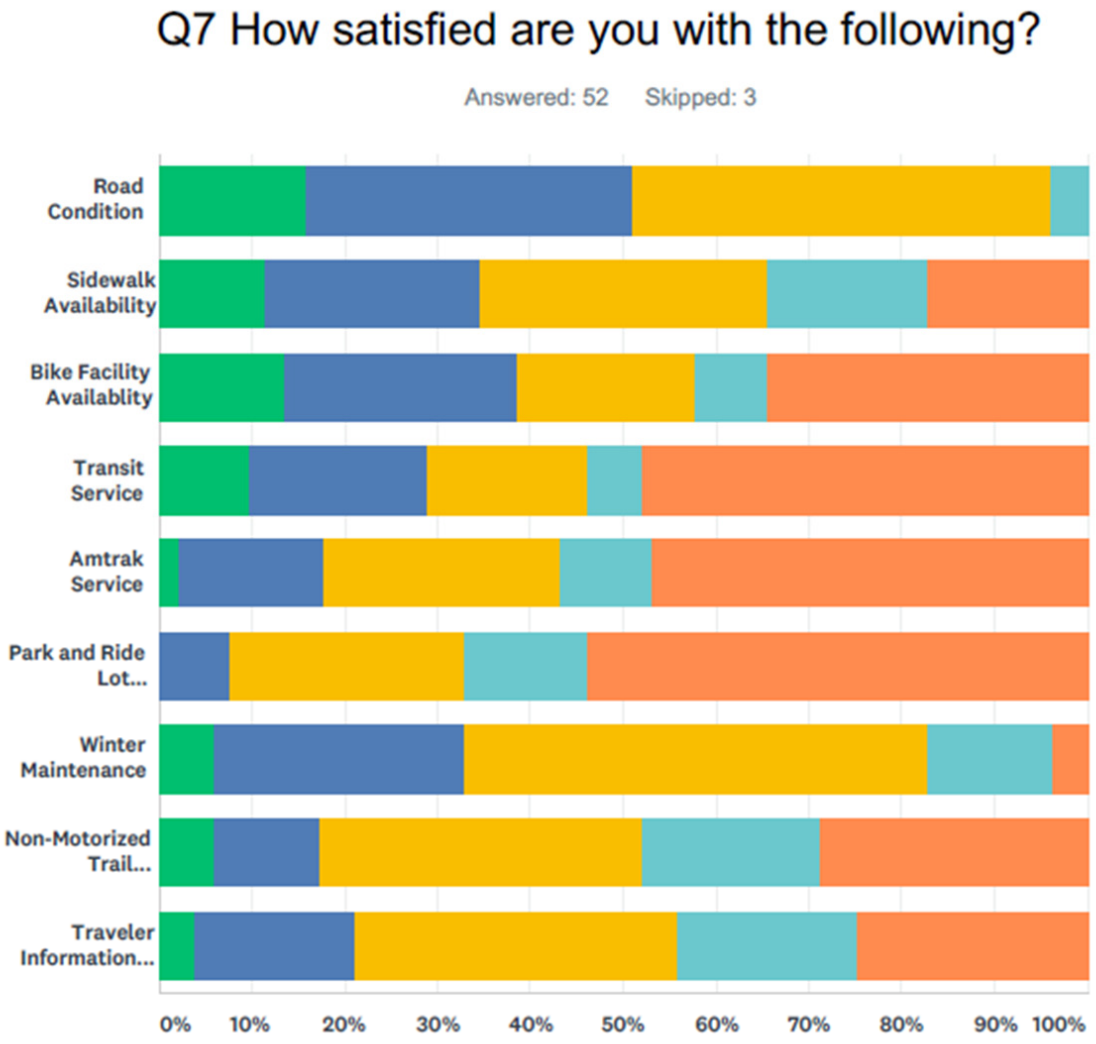
The majority of people are traveling no more than 15 miles round trip to work (7.5 maximum each way). There are almost equal amounts of people driving 15-30 miles and more than 45 miles for their total commute.

Figure 1.4



The majority of the respondents use their own automobile to get to and from work every day with very few people using any other form of transportation

Figure 1.5



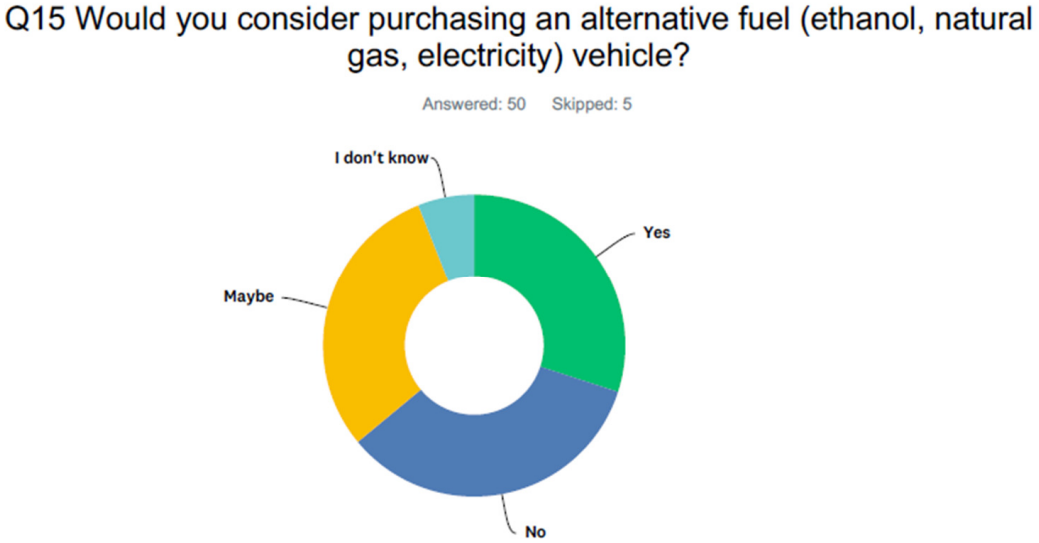
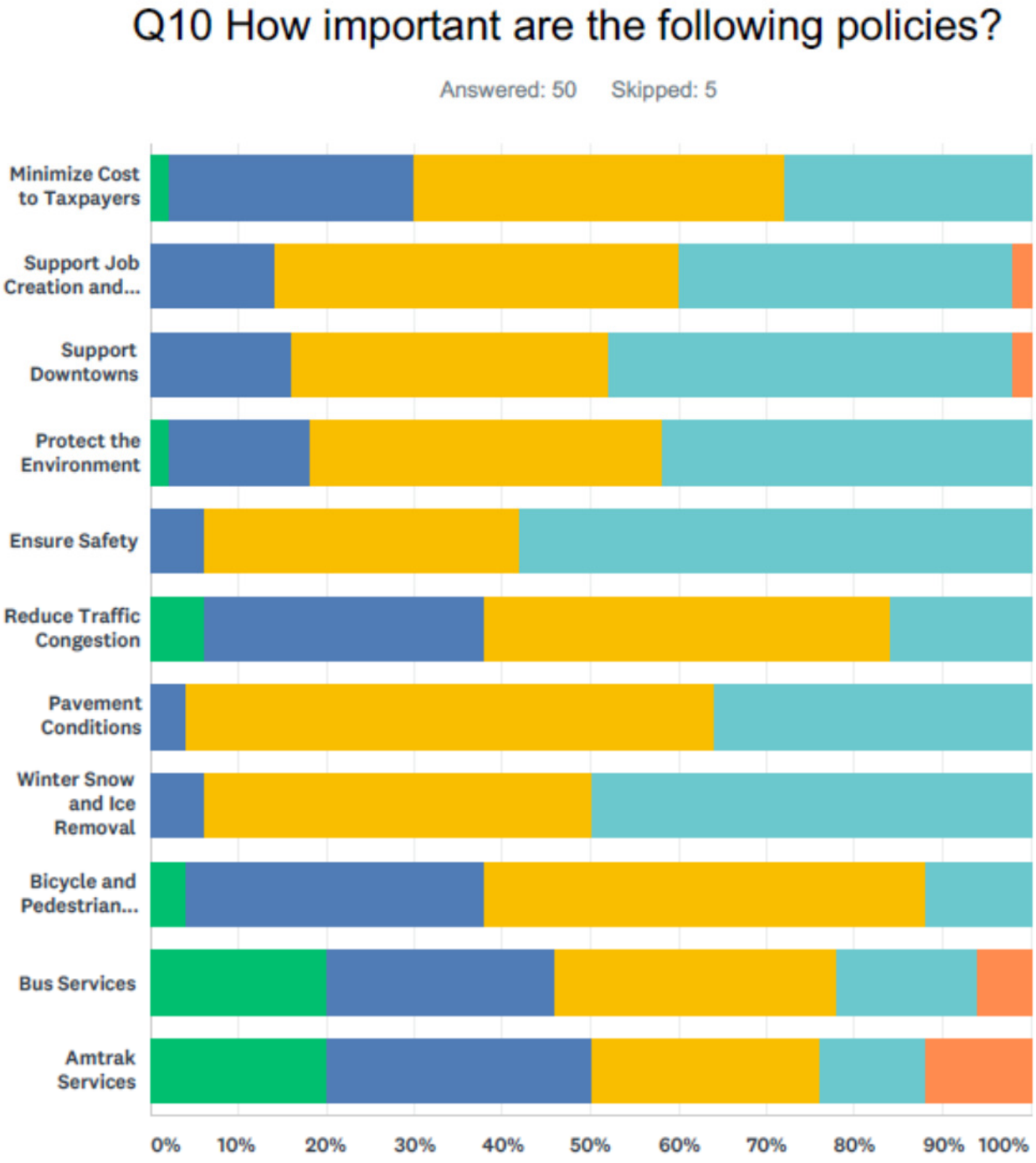


Figure 1.6

There is almost an equal split among people considering alternative fuel vehicles. Including the group that might consider alternative fuel vehicles, almost 2/3 of respondents are open to the idea of these vehicles. Only 1/3 of people would not consider them at all.

Figure 1.7


Q10 How important are the following policies?
Answered: 50 Skipped: 5
Minimize Cost to Taxpayers
Support Job Creation and...
Support Downtowns
Protect the Environment
Ensure Safety
Reduce Traffic Congestion
Pavement Conditions
Winter Snow and Ice Removal
Bicycle and Pedestrian...
Bus Services
Amtrak Services
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

Part 2
How The Plan Works

The SCCOTS 2045 Long Range Transportation Plan is intended not only to set forth the strategies to be employed achieve the region's goals and vision but also the tactics, including specific projects, that will be used to actually achieve our desired objectives.

The SCCOTS 2045 Long Range Transportation Plan is designed to be an action-oriented tool for creating the future we desire. It has been developed with the participation of those key to its implementation and has been written in a way to allow sufficient flexibility to respond to future change while establishing specific steps to be taken in the interim.

The intended users of this Plan are the local municipalities and agencies who will implement the various projects identified and the interested public, who will be critical in holding public agencies, like St. Clair County, accountable for their performance in executing the plan.

This section explains how the Plan will be implemented and how interested parties can monitor and amend the Plan as appropriate.

ADOPTION OF THE PLAN

The SCCOTS 2045 Long Range Transportation Plan was adopted by the St. Clair County Metropolitan Planning Commission on January 16, 2019.

AMENDMENTS

Amendments to the Plan can be considered between major plan updates. Requests should be submitted in writing and include:

1) A complete description of the amendment. The description should identify the implementing jurisdiction, where the item appears in the plan, and fully describe the change being proposed.
2) Detailed maps showing the location and effect of the amendment.
3) Any technical information needed to show that the amendment will not have an adverse impact on countywide travel.

SCCOTS Staff will review the request and forward it to the SCCOTS Advisory Committee for their consideration if it meets all qualifying criteria. Amendment requests will be forwarded to the SCCOTS Advisory Committee on a quarterly basis.

Administrative Amendments

These amendments do not require action by the SCCOTS Committee. If an Administrative Amendment is approved by the Transportation Planner, the amendment shall be provided online for the benefit of the public and to the SCCOTS Committee for informational purposes before the next SCCOTS Meeting.

Components of the Plan which do not require amendment

Amendments to descriptive text, including demographic forecasts, background data, performance information, and other content that is advisory or informational in nature does not require formal amendments to the SCCOTS 2045 Plan. Any change to these components should be considered as part of the subsequent major update.

Amendments that require a formal plan amendment process

All other plan amendments require a formal plan amendment process as described in the St. Clair County Public Participation Plan.

FEDERALLY-REQUIRED METROPOLITAN PLANNING PROCESS

The SCCOTS 2045 Long Range Transportation Plan keeps needed Federal Transportation funding flowing to the County. As a condition of receiving such federal funding, SCCOTS is required to develop an updated

Plan Adoption Process

Figure 2.1

Long Range Transportation Plan every 4-5 years. The continuous, comprehensive, and cooperative transportation planning processes used to develop the Plan provides an opportunity for local communities to comes together to set the priorities for the transportation investments in the county.

SCCOTS Transportation Improvement Program

The SCCOTS Transportation Improvement Program (TIP) is a federally required program that includes a listing of key projects in St. Clair County that will be implemented in the short term with Federal, State, and Local funding. For projects to be included in the TIP and received Federal or State funding, they must be consistent with the long range plan.

Selection of Projects

SCCOTS oversees project selection processes for several sources of state and federal funding. The policies, project list, and maps of the plan govern these project selection processes.

Local Project Development

The plan also plays a role in local project development.

Regionally-Significant Projects

The plan includes an accounting of all regionally-significant projects, regardless of funding source. Should the region become a non-attainment area for air quality, regionally significant projects will not be able to move forward without being included in the plan and accounting for their impact on regional air quality.

Regional Framework

The plan provides for coordination of investments in the regional transportation network by entities.

Part 3
Multi-Modal System

Blue Water Area Transit

INTRODUCTION

SCCOTS 2045 Long Range Transportation Plan provides a vision for how the region can implement a comprehensive multi-modal transportation system by 2045. The system will address future transportation needs within the constraints of anticipated funding, while supporting regional air quality, preserving our natural resources, and considering social equity.

This plan calls for the region to:

- Prioritize maintenance of the existing system.
- Support livable communities and efficient use of transportation investments through better integration of land use and transportation.
- Expand investments in public transportation , bicycle and pedestrian infrastructure, and other projects that support reduced demand on the region's roadway system.
- Increase investments in state of the art operation and management of the roadway system, and;
- Leverage local funding and innovative funding resources to support plan implementation.

The major components of the Long Range Transportation Plan are all highly interrelated projects, programs, and policies that work in concert to support efficient access and movement of goods and people over the life of the plan.

POPULATIONS TRENDS AND FORECASTS

One element that fuels the need for regular updates to the LRTP is the change and shift in demographic and socioeconomic trends. This refers to the number of residents and employees in the county, where they will live and work, and their social and economic factors that affect how and when they travel. Past trends and the future outlook are used to determine the expected impact to the transportation system through 2045 based on the anticipated shift in demographics. Between 2000 and 2010, the population of the County decreased by .7% from 161,845 to 163,040. Much of this population loss was a result of a weak economy and loss of jobs.
According to SEMCOG, St. Clair County currently has a 2017 (July) population of 159,719, representing an approximate population decrease of 3,321 (-2.0%) from 2010 United States Census figures and 4,516 (-2.7%) from 2000 Census figures. While we have experienced a rather steady drop in population for over a decade, this decline is estimated to come to an end and grow to over 166 thousand by 2045.

The forecasted population change by community within St. Clair County is one of either minimal growth or decline (See Figure 3.1). With the exception of four communities, each municipality within the County is anticipated to experience their population fluctuate either positively or negatively, but all staying within the single digits percentage rates (-8.5%-9.4%). The City of Richmond is only slightly higher with an anticipated growth rate of 11 percent by 2045, but Kimball Township is expected to grow the most, by almost 24 percent. The Villages of Emmett and Capac, St. Clair County's only two villages, are the only communities with populations expected to shrink at a rate in the double digits by 2045 (-14.4% and -18.6, respectively). This appears to be a trend similar to other counties that have been experiencing their population shifting outward from the cities and villages into the suburban and rural townships.

Age Composition

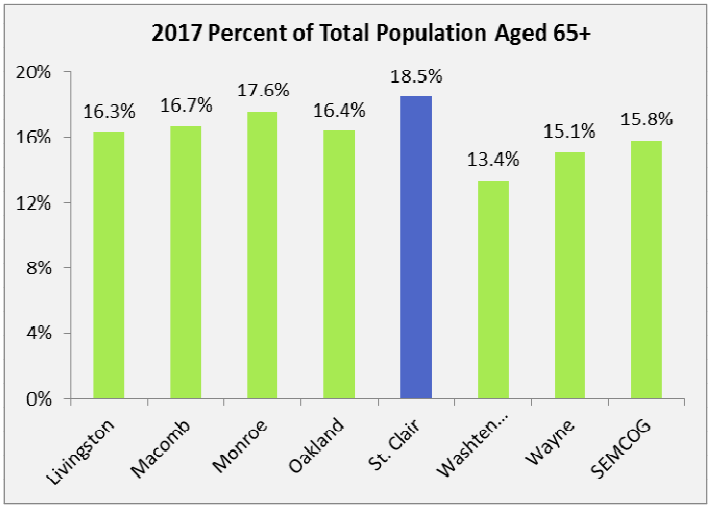
Looking at the County's population when broken down by age reveals it is changing composition and the average age is becoming older. This is a significant issue from a transportation perspective as experience indicates that older populations seek out alternative transportation options, as they are unable to rely solely on their cars, or are no longer interested in doing so. It will become critical to adequately provide for the changing mobility needs of older adults as their transportation preferences shift over time. According to the 2017 U.S. Census American

Figure 3.1

Population Forecast: St. Clair County Communities					
	2015	2025	2035	2045	Growth
St. Clair County	159,882	162,159	165,898	166,185	3.9%
Algonac City	4,289	4,274	4,275	4,285	-0.1%
Berlin Township	2,822	2,904	2,866	2,853	1.1%
Brockway Township	2,063	1,979	1,976	1,933	-6.3%
Burtchville Township	4,397	4,075	4,672	4,655	5.9%
Casco Township	4,204	4,156	4,092	3,949	-6.1%
Capac Village	1,943	1,744	1,700	1,582	-18.6%
China Township	3,574	3,884	3,852	3,835	7.3%
Clay Township	8,728	8,958	8,759	8,979	2.9%
Clyde Township	5,111	5,393	5,504	5,563	8.8%
Columbus Township	3,555	3,636	3,708	3,734	5.0%
Cottrellville Township	3,120	3,367	3,401	3,384	8.5%
East China Township	4,047	4,139	4,286	4,399	8.7%
Emmett Township	2,295	2,335	2,291	2,320	1.1%
Emmett Village*	257	217	216	220	-14.4%
Fort Gratiot Township	11,669	12,175	12,525	12,493	7.1%
Grant Township	1,791	1,878	1,833	1,804	0.7%
Greenwood Township	1,404	1,378	1,373	1,373	-2.2%
Ira Township	4,501	4,457	4,543	4,631	2.9%
Kenockee Township	2,294	2,328	2,328	2,279	-0.7%
Kimball Township	8,503	9,238	10,462	10,521	23.7%
Lynn Township	1,266	1,187	1,138	1,159	-8.5%
Marine City	3,969	3,928	3,763	3,783	-4.7%
Marysville City	10,199	10,516	11,001	11,156	9.4%
Memphis City	341	317	320	314	-7.9%
Mussey Township	2,365	2,339	2,316	2,240	-5.3%
Port Huron City	28,294	28,246	28,762	29,131	3.0%
Port Huron Township	11,800	11,591	12,414	12,266	3.9%
Richmond City	5,891	6,286	6,332	6,540	11.0%
Riley Township	3,340	3,397	3,313	3,281	-1.8%
St. Clair City	5,481	5,770	5,765	5,651	3.1%
St. Clair Township	6,979	7,173	7,326	7,277	4.3%
Wales Township	3,359	3,268	3,189	3,205	-4.6%
Yale City	1,921	21	1,927	1,927	0.3%

Source: SEMCOG

Figure 3.2



Aging Population- Source: U.S. Census

Community Survey, approximately 18.5 percent of the population in St. Clair County was age 65 or older. This is a higher proportion of elderly residents than in any of the other six counties within the SEMCOG region or the average of the entire Southeast Michigan region which is comprised of 15.8 percent (See Figure 3.2) aged 65 or older. Between 2015 and 2045, the number of residents aged 65 or older is expected to increase by nearly half, with an anticipated 41,065 people, or 48.93 percent. In 2045, the population of the Southeast Michigan region is anticipated to consist of 22.67 percent age 65 or older.

However, an increase of people over the age of 65 is not the only driver of this trend but also a diminishing proportion of the population under the age of 18. The youth population of the county is experiencing a decrease which is anticipated to continue into the forecasted future of St. Clair County. This is a similar trend occurring among all of southeastern Michigan, with the exception of Washtenaw County. Looking at the last Census and into the future, from 2010 to 2045, the proportion of the population in St. Clair County under the age of 18 is expected to decrease by over 14 percent during the 35 year timespan. Meanwhile, the proportion of the population aged 65 or over is anticipated to grow by 73.5% during the same 35 year span. Taking into consideration the current forecasted population numbers and the growing elderly population beginning to decline in numbers due to mortality, without an influx of population from outside of the county or a significant increase in birth rates, St. Clair County is likely to see a dramatic decline in coming decades.

Economic Trends and Forecasts

Current conditions as well as anticipated future trends indicate only moderate growth in Southeast Michigan's population and labor market over the next 30 years. The forecasted employment change of St. Clair County at the community level is one of either minimal growth or decline. Over half (19 communities) of the County's 33 municipalities are expected to experience some With the exception of four communities, each municipality within St. Clair County is anticipated to experience a positive or negative fluctuation, but all changes are expected to remain within the range of single digit percentages, from an eight percent loss to a nine percent gain. While there are three communities projected to lose jobs at rates falling negatively into the double digit percentages (Village of Capac, -15.8%; Brockway Township, -12.7%; Ira Township, -10.4%), the community expected to lose the highest amount of jobs is the City of St. Clair with an expected loss of 271 jobs. However, this only equates to an 8 percent deficit from the current job count. The City of Marysville is expected to see the greatest jump in employment percentage wise with an anticipated increase of 14.5 percent by 2045. However, the community with the highest figure of new jobs is the City of Port Huron with the anticipation of 1,367 jobs to be added by 2045 (7.2 percent increase) As projections, these numbers simply reflect the labor force changes we can expect if past trends continue into the future; however, there are many factors that could alter these expected trends.

Labor Force

According to the most recent (August 2018) employment and unemployment statistics provided by The Michigan Department of Technology, Management & Budget (DTMB), the size of St. Clair County's labor force has grown slightly since 2011, but merely by one percent. Both statewide and nationally there was a greater increase in the total labor force, increasing by more than 4 percent each. The County's employment rate experienced a substantial dip throughout 2008 to 2001, falling to their lowest in 2009 with an 82.3 percent rate of their labor force employed. That was a similarly rough year for the state and nation which also experienced their

Figure 3.3

Employment Forecast					
	2015	2025	2035	2045	Growth
Southeast Michigan	2,774,223	2,862,711	2,892,543	2,959,998	6.70%
St. Clair County	64,234	65,581	65,992	66,711	3.90%
Algonac City	753	734	768	788	4.6%
Berlin Township	415	444	439	441	6.3%
Brockway Township	432	401	386	377	-12.7%
Burtchville Township	609	601	612	610	0.2%
Casco Township	1,097	1,092	1,087	1,112	1.4%
Capac Village	570	505	474	480	-15.8%
China Township	1,009	919	953	978	-3.1%
Clay Township	2,129	2,022	2,072	2,089	-1.9%
Clyde Township	760	758	767	794	4.5%
Columbus Township	684	677	692	702	2.6%
Cottrellville Township	492	468	504	510	3.7%
East China Township	2,352	2,253	2,282	2,246	-4.5%
Emmett Township	253	265	268	256	1.2%
Emmett Village*	192	190	181	178	-7.3%
Fort Gratiot Township	6,866	7,271	7,397	7,484	9.0%
Grant Township	269	286	290	289	7.4%
Greenwood Township	248	254	250	247	-0.4%
Ira Township	1,594	1,417	1,395	1,429	-10.4%
Kenockee Township	312	335	332	333	6.7%
Kimball Township	2,465	2,386	2,413	2,443	-0.9%
Lynn Township	187	179	178	185	-1.1%
Marine City	2,486	2,403	2,306	2,392	-3.8%
Marysville City	5,992	6,716	6,758	6,863	14.5%
Memphis City	148	134	130	138	-6.8%
Mussey Township	364	340	331	348	-4.4%
Port Huron City	18,892	19,925	20,127	20,259	7.2%
Port Huron Township	5,366	5,540	5,796	5,658	5.4%
Richmond City	2,788	2,840	2,897	2,976	6.7%
Riley Township	543	544	566	530	-2.4%
St. Clair City	3,376	3,195	3,155	3,105	-8.0%
St. Clair Township	1,829	1,799	1,836	1,877	2.6%
Wales Township	505	514	507	520	3.0%
Yale City	1,034	1,004	1,032	1,044	1.0%

Source: Michigan DTMB

lowest employment rates during the same year. However, the state only dropped to 86.3 percent and the nation remained in the nineties with a low of 90.8 percent of their labor force employed.

While the size of St. Clair County's labor force has been slowly increasing along with their employment rates over the past decade, the gap is finally closing between the average employment rates both statewide and nationally. The County was lagging behind the State by over 4 percent and nearly 8.5 percent behind the nation when it comes to the employed percentage of their workforce. The average annual employment in 2011 was 64,509 persons (87 percent) and it climbed to 71,750 persons, nearly 96 percent, as of August 2018. This is less than half a percentage point away from both the State (96.2 percent employed) and the nation (96.1 percent employed). From 2011 to 2017 the number of unemployed workers in St. Clair County declined by over 61 percent or 5,951 workers while the number of employed has increased by 7,163 or 11.1 percent. The unemployment rate has dropped significantly in St. Clair County, declining by over eight percentage points from 13.1 in 2011 to 5.0 in 2017.

Travel Patterns

Travel generated by employers and employees contributes significantly to peak-time trips on a transportation network. This may include impacts on traffic volumes and traffic congestion, demands for new or upgraded access or infrastructure, or an opportunity for targeted investments in public transit. According to 2017 ACS Data, approximately 45,700 St. Clair County residents, or 64 percent, worked within the county. Of the 25,850 residents, or 36 percent who commuted to work outside of the county, 360 people, less than one percent of that number is commuting outside of the state. Data on where individuals in St. Clair County live and work provide valuable insight for assessing transportation. According to the United States Census, On The Map Application and LEHD Origin-Destination the top ten county level locations where workers who are employed in St. Clair County live and commute from are depicted in Figure 3.4 and the top ten county level destinations where workers who live in St. Clair County commute to are depicted in Figure 3.5

Where people live and the transportation options available can influence their travel method choices. Driving is undeniably the predominant mode of travel in St. Clair County. According to 2017 ACS data, almost 40 percent of the county's workforce have two vehicles available, an even greater amount, 41

Figure 3.4

Where St. Clair County's Workforce Lives, 2015		
	Count	Share
Total All Jobs	42,878	100%
St. Clair County	28,054	65.4%
Macomb County	3,895	9.1%
Wayne County	1,737	4.1%
Oakland County	1,578	3.7%
Sanilac County	1,522	3.5%
Lapeer County	1,055	2.5%
Genesee County	587	1.4%
Tuscola County	329	0.8%
Ingham County	307	0.7%
Saginaw County	297	0.7%
All Other Locations	3,517	8.2%

Source: U.S. Census

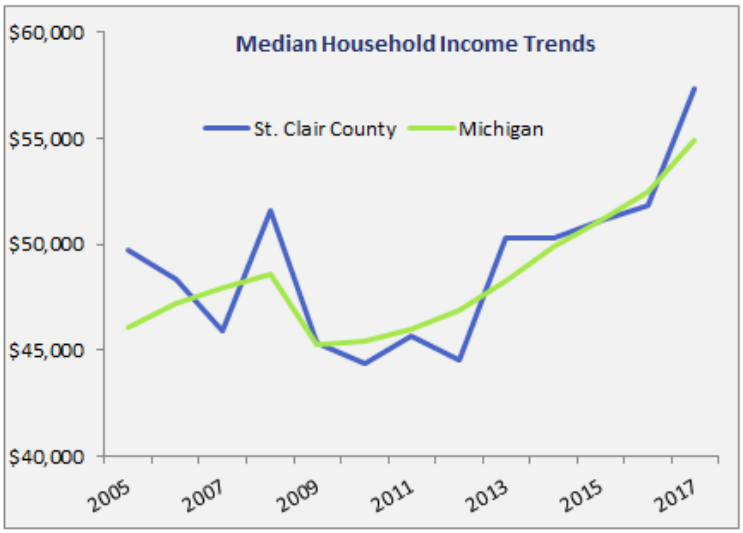
Figure 3.5

Where St. Clair County Residents Work, 2015		
	Count	Share
Total All Jobs	74,303	100.0%
St. Clair County	28,054	37.8%
Macomb County	16,267	21.9%
Oakland County	10,867	14.6%
Wayne County	6,916	9.3%
Genesee County	1,978	2.7%
Lapeer County	1,076	1.4%
Kent County	1,029	1.4%
Ingham County	939	1.3%
Sanilac County	869	1.2%
Washtenaw County	808	1.1%
All Other Locations	5,500	7.4%

Source: U.S. Census

Figure 3.6

SMR in Marysville, MI: Large Employer in St. Clair County



Source: U.S. Census

percent, have three or more vehicles available and only 2.3 percent of the workforce has no vehicle available to them. Only 1.7 percent walked to work and less than one percent of St. Clair County workers used public transportation. Of all work trips made, the majority, 85.5 percent, are made by people driving alone and the amount of carpooling has decreased. The number of commuters using public transportation, walking, or biking has remained relatively constant.

It takes St. Clair County residents an average of 28.2 minutes to get to work. Approximately 56 percent have a commute time under 25 minutes, and 17 percent have a commute of less than 10 minutes. At the other end of the spectrum, 13 percent commute at least an hour to get to their workplace. St. Clair's commute times are slightly higher than at the state level, where the average commute time is 24.3 minutes; almost 60 percent have a commute less than 25 minutes, and just over 6 percent commute at least an hour to work.

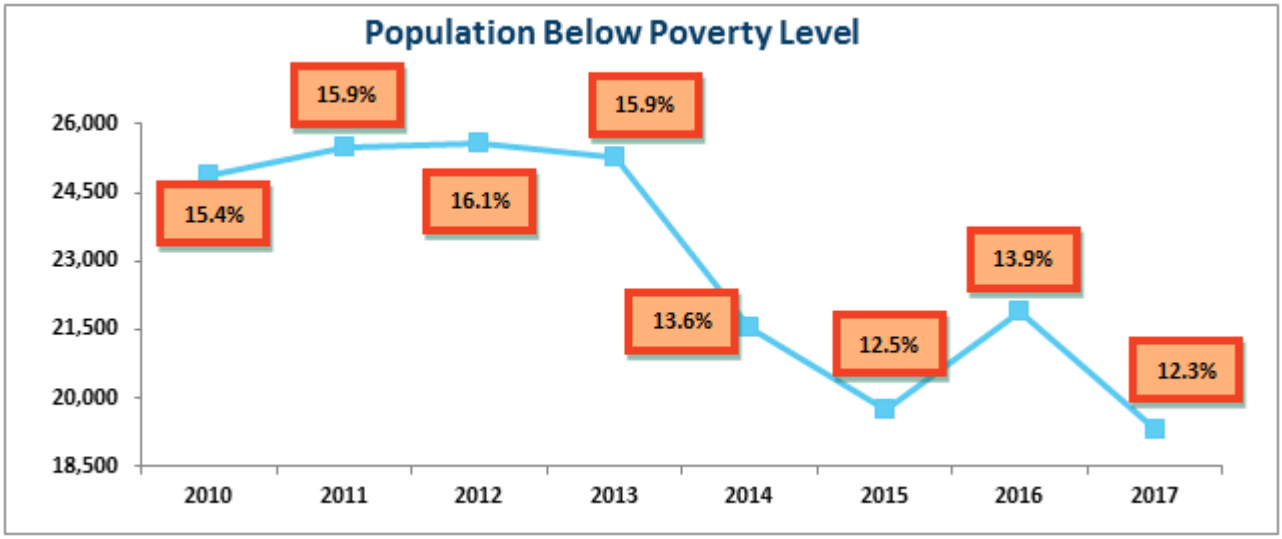
Income and Poverty Trends

Income is another important dimension of the region's economic profile. The labor market is the foundation of income for the vast majority of families. Family incomes are affected by weak labor markets, both through job loss and through hour and wage cuts for those who have work. Although the median household income of St. Clair County has been increasing over time, the annual growth rate declined off and on between 2007 and 2012. During this same timespan the average household income in St. Clair County was slightly lower than the state of Michigan, but once it picked up in 2013 it has been steadily increasing. The current median household income is $57,362, according to the 2017 U.S. Census American Community Survey estimates. This is an increase of 29.3 percent or $12,993 from the 2010 Census estimates.

Household income significantly influences a person's travel behavior. The less disposable income a person has, the less likely they are to own multiple vehicles or even one vehicle, and likely to have a higher dependency on other forms of transportation, such as public transport, family and/or friends, walking or bicycling. The higher disposable income a person has, the more likely they are to own multiple cars. In addition, it is more probable they have a larger selection of housing choices in relation to where they work, shop, and recreate and how they commute (by car, public transportation as a choice rider, or other modes) as wealthier households are more likely to travel further distances and more frequent for leisure activities.

The official U.S. Census Bureau's poverty measure uses money income to determine a person's poverty status. Money income includes all sources of income with the exception of capital gains or losses, noncash benefits and tax credits. Each family or unrelated individual in the population is assigned a money income threshold based on the size of his or her

Figure 3.7



Source: U.S. Census

family and age of its members. A person is defined as living in poverty if his or her family income is below the poverty threshold for that family size and composition (the poverty threshold for a couple with two children was $24,858 in 2017 If a family's total income Is less than the poverty threshold for a family of equal size, that family and everyone in it is considered to be in poverty. The poverty thresholds are adjusted each year to reflect changes in the consumer price index.

The U.S. Census' 2017 American Community Survey reported that 19,310 persons or 12.3 percent lived below poverty level (See Figure 11). This is a decrease of over 22 percent from the 2010 Census that reported almost 25,000 persons were living in poverty. The U.S. Census' 2015 American Community Survey also reported that 8,826 households were at or below the poverty level. This equates to 13.8 percent. This is a 2.4 percent increase from the 7,330 households (11.3 percent) reported to be in poverty in 2010).

A. Countywide Roadway System

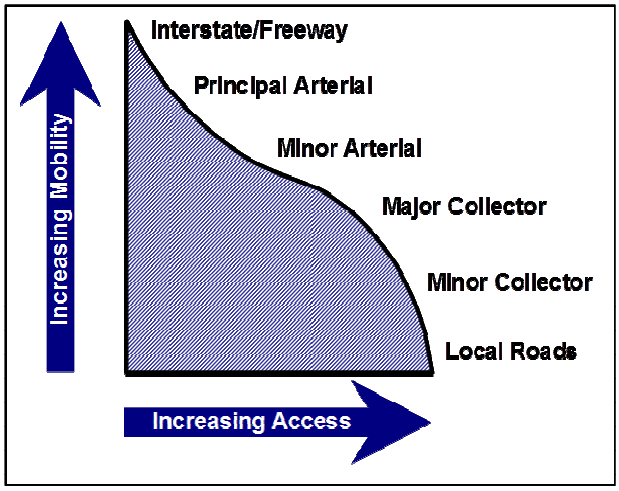
Improvement and expansion to the current system of roadways in the County with a focus on:

- Relieving existing congestion hot-spots.
- Improving safety and security.
- Supporting public transportation, and;
- Serving expected and desired future growth in the County.

The financially constrained project list on page 4-8 of this plan provides detailed information about the roadway projects that would be implemented.

Regional Significance and Roadway Functional Classification

The plan prioritizes regionally significant roadways. These are roadways that have been classified as arterials or higher, or that are, in some limited cases, collectors of regional significance. Over the life of the plan, additional improvements and expansions will also be made to the County's system of local roads and collectors which are not shown in the plan. In order for a roadway project to qualify for state or



Who is responsible for the location and design of road?

The SCCOTS 2045 Long Range Transportation Plan does not govern the specific design or alignment of roadways. Nor does it govern the design of intersections. The jurisdiction responsible for the upgrading or constructing the roadway has authority over all aspects related to alignment, design and connections between facilities. While the system maps included in this plan show the approximate location of roadways, these may not align with actual or planned locations.

federal funding, it must be included in the SCCOTS 2045 Long Range Transportation Plan.

Local Priorities

While the focus of state and federal funding will be on regionally significant roadways, the plan also identifies numerous projects, which would be paid for entirely with local funding. These projects have been prioritized for inclusion in the plan by the potential project sponsor.

Multimodal Functionality

Federally-funded roadways in urban/suburban areas will be designed to function for multiple modes and uses. Where feasible, roads will be designed to accommodate bicycles and pedestrians. Roadways should also provide elements that are beneficial to freight and/or public transportation, including wide outer lanes and other features that support the movement of larger vehicles.

B. Public Transportation

Public transportation is critical to the County's productivity and economic development. It can reduce congestion, improve environmental quality, and encourage a more sustainable environment for development. Today, the County has several challenges to its public transportation, including:

- Increasing demand and costs which strain existing public transportation resources.
- Jurisdictional and service boundaries as well as funding barriers which increase cost and complexity of coordination and leave some communities with limited or no service, and;
- The lack of a predictable amount of annual State funding makes budgeting for current and future service very challenging.

The Blue Water Area Transportation Commission (BWATC) provides transit services to several communities within St. Clair County including the cities of Port Huron and Marysville and the townships of Port Huron, Fort Gratiot and Burtchville. BWATC operates a combination of fixed route, demand response and contract services.

Downtown Transfer Center

A new transfer center opened in December of 2015, in downtown Port Huron. The center is located south of McMorran Place, between McMorran Blvd and Grand River Ave. This center provides more than 2,000 daily passengers who come downtown a safe and efficient means to transfer buses. Buses enter and depart in different directions and wait for passengers in two sheltered parallel lanes.
Blue Water Area Transit's bus transit center project included more than $2.5 million in improvements to the surrounding downtown area. BWAT improved landscaping, lighting, parking, walkways, outdoor seating, and roads, which makes the area more appealing for all downtown visitors.

In addition to BWAT funds, the $9.8 Million bus transit

Blue Water Area Transit Downtown Transfer Center

center project was made possible by support from federal funds (70%) and state funding (17.5%).

EXISTING CONDTIONS AND TRENDS

Blue Water Area Transit and a number of other agencies in the county currently provide general and/or client based public transportation services. While coverage is moderate, Map #2 illustrates that there are portions of the urbanized area that fall outside of the Blue Water Area Transit Service Area.

The communities that are included within the service area have opted to contribute. The City of Port Huron, Fort Gratiot Township, Burtchville Township, and Port Huron Township all have specific transit millages. The City of Marysville pays out of their general fund.

Fixed Routes

BWATC currently operates eight regularly scheduled bus routes (routes #1 to #6, #9, and shopper shuttle) within the City of Port Huron, Fort Gratiot Township, and Port Huron Township. Although there are fixed stops along each route, the service operates a flag system where necessary to allow bus riders to catch the bus anywhere along route. Headways are generally 45 minutes and all vehicles for the fixed route service are lift or ramps equipped and are equipped with bicycle racks. Map 3.1 displays the BWATC's current countywide service, including a detailed inset view of service in downtown Port Huron.

Demand Response

Demand response, or Dial-A-Ride, services are available Monday- Saturday to residents living in Burtchville, Port Huron, and Fort Gratiot townships and Monday - Friday in the City of Marysville. Bus service is often dispatched within the hour, depending on when a customer reserves a ride. Reservations made 24 hours in advance can usually guarantee a trip that conforms to a customer's schedule.

On-demand services are available for Americans with Disabilities Act (ADA) eligible riders, as well as limited mobility passengers. Reservations can be made as early as two weeks in advance and as late as the day prior to scheduled pick-up. All vehicles available for this service are ADA accessible

Commuter Routes

Two commuter routes run between Port Huron and Chesterfield Township, a community in northern Macomb County that is home to many suburban office parks, twice a day Monday through Friday. This service links up with the Suburban Mobility Authority for Regional Transportation (SMART) buses so commuters can make a connection to their final destination in Southeast Michigan and/or downtown Detroit. One route is called the I-94 Express Route. It has 4 stops in St. Clair County before reaching its final destination at 23 Mile Rd. and Gratiot. Commuters can also take the M-29 commuter route. This route services communities along the St. Clair River via M-29 and also connects to SMART at 23 Mile Rd. and Gratiot.

Shopper Shuttle

Shuttle service to major shopping centers in the northern end of the community is available to customers Monday through Friday beginning at 9:35 a.m. and Saturday beginning at 10:20 a.m. The shuttle provides door-to-door service to the shops along the route. Transfers between the shuttle and other BWATC buses are free. Shopper shuttle service ends at 8:50 p.m.

Blue Water Trolley

During the summer tourist season, BWATC operates a trolley route that highlights the historic and scenic sites of the downtown area. The route lasts

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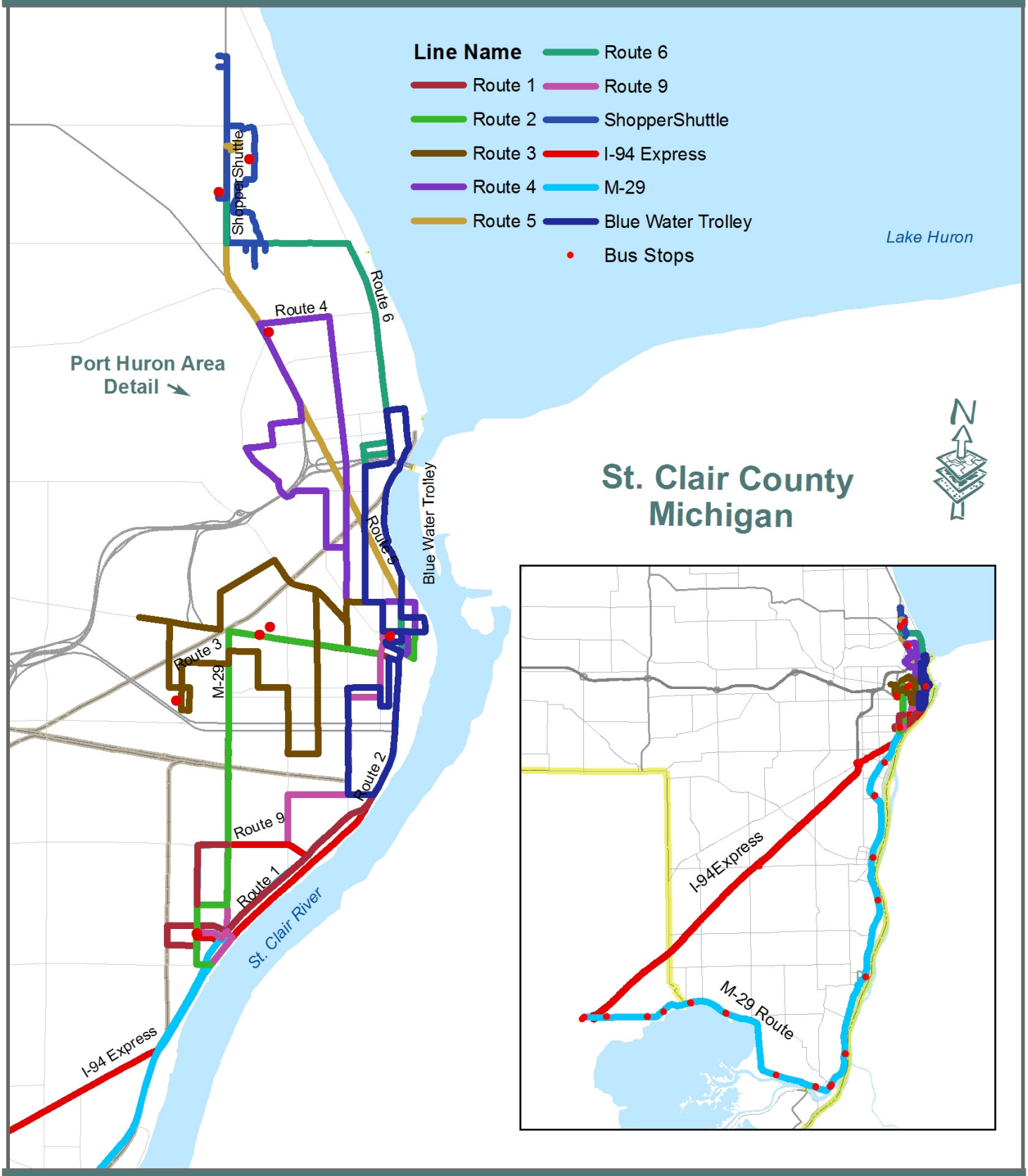
Blue Water Transit



Source: St. Clair County GIS

http://www.stclaircounty.org/Offices/metro/

approximately an hour and includes several points of interest, historic sites and panoramic views of the Blue Water Bridge and the St. Clair River. The fare for the Blue Water Trolley is ten cents.

Late Night Service

There is a Friday and Saturday late night service that runs from 11:30pm to 3:00am and departs the Downtown Transit Center every hour, starting at 11:45pm. The last departure is at 2:45am.

Funding and Governance

As development occurs, air quality, and people behaviors change the needs and desires for transit service increases over time, it will become more challenging to rely on the existing framework of funding and governance. Issues related to transit funding and governance includes:

- Distribution of Federal Transit Administration URBANIZED Area Formula Funding
- Distribution of Federal Transit Administration RURAL Area Formula Funding
- Proposed Funding Sources
- Contract for Services

There are several funding and revenue sources that enable BWATC to operate its services including:

- Federal: BWATC receives both capital and operating assistance from the FTA Urbanized Area Formula Program.
- State and Local: BWATC receives capital assistance from state gasoline taxes. Operating assistance comes from both state gasoline taxes and local community property taxes.
- Fare Revenue and Purchased Transportation Revenue: BWATC receives fare revenue from both directly operated and purchased transportation services.

Amtrak Service

The CN east-west route provides passage for Amtrak passenger rail service. The Port Huron depot station is the only scheduled stop in the County for daily round trip service between Port Huron and Chicago. And as this service continues to grow, more trips are likely to be added. The current Amtrak station is located on 16th Street in Port Huron and has a number of deficiencies that detract from the passenger experience and the functioning of the station itself.

Blue Water Trolley

Overall, the existing Amtrak station is inadequate to serve Amtrak passengers. The property on which the station is located is a narrow parcel that does not provide enough parking for passengers. Additionally, there is currently no connection to public transportation and there are further deficiencies from a security standpoint.

A collaborative group of community officials and local stakeholders have convened meetings to begin discussing the potential for developing a new Amtrak station to serve the Port Huron/St. Clair County area. Initial discussions have highlighted potential opportunities that a new Amtrak station could bring to the community. A likely location for a new station is the area between 24th Street and Michigan Street, at the site of the existing CN Tiffin Yard.

There is overwhelming community support for a new station that would be part of a larger development that would complement the services of the Amtrak station - amenities such as food, retail and hospitality services, potential for serving as a regional transportation center with connections to Blue Water Area Transit service, and other features that could make the new station part of a transit-oriented development (TOD). Both CN Railroad and Amtrak have taken part in these initial discussions and are amenable to further discussions about a new location,


Wadhams to Avoca Trail, Trestle Over Mill Creek

development as a larger transportation center, and establishment of other retail and hospitality amenities that will provide additional economic development opportunities.

C. Bicycle and Pedestrian Accomodations

Planners, health advocates, and others are seeking solutions to promote bicycling and walking as active transportation choices that offer "savings in fuel costs, a smaller carbon footprint, and a practical way to achieve recommended levels of physical activity." Well-planned facilities for bicycle and pedestrian travel have been shown to have positive impacts on accessibility of destinations, air quality, congestion, healthy, local economies, personal savings, road maintenance, and safety. Given the growing consensus of the benefits of active transportation improvements, the principal issue is crafting a system of connected and enhanced facilities that work for St. Clair County. In addition to programmatic improvements in education, encouragement, and enforcement, these benefits are addressed by focusing on countywide facility improvements in the following areas:

- New and expanded facilities as complete streets with bicycle and pedestrian infrastructure
- Transit facilities connected to the roadway system
- Connecting to recreation facilities and open space
- Enhancing facilities in mixed-use areas

Exisiting Conditions and Trends

All roadways in the region currently serve as bicycle and pedestrian facilities, except those expressly forbidding access, such as the I-69 and I-94 expressways. Most of countywide pedestrian system is served by locally-developed sidewalks along major roadways. This system is not simply an "add-on" to the overall transportation system but a fundamental component and contributor to mobility since almost all trips include a pedestrian element. Funding and expertise at all levels are needed to continue filling pedestrian access gaps throughout the County.

Bicycle access is primarily provided by interconnected, low-volume streets, and shoulders or bicycle lanes on higher volume streets. Despite a developing network of bicycle facilities, many gaps still exist in the regional system.


Bicyclists in St. Clair County

GREENWAYS IN ST. CLAIR COUNTY

Greenways are corridors of land recognized for their ability to connect people and places together. According to the EPA, greenways promote outdoor recreation, catalyze economic development, increase adjacent property values, celebrate historical and cultural assets, promote conservation and environmental education and improve qualify of life.

Greenways have multiple purposes, but from a recreation perspective they have two major functions:

1) To link and facilitate hiking and biking access between residential areas and parks.
2) To provide opportunities for the linear forms of outdoor recreation (i.e. hiking, jogging, bicycling, equestrian riding, and walking) in which many St. Clair County residents engage today. These recreation activities require the development of trails along the greenways.

There are two primary trail systems within St. Clair County: the Wadhams to Avoca Trail and the Bridge to Bay Trail.

Wadhams to Avoca Trail

In 1999, PARC purchased the surface rights to 9.82 miles (100 acres) of right-of-way from CSX Railroad and began developing it as the Wadhams to Avoca Trail. In 2001 and 2004, PARC purchased two additional properties totaling 17.65 acres adjacent to the trail north of Imlay City Road for a trailhead and parking. In 2003, PARC purchased the surface rights to an additional two and a half miles of CSX Railroad right-of-way totaling 17.66 acres from Wadhams Road to Griswold Road. The trail is over 12.4 miles long and contains 160 acres.

To date, the 640-foot Mill Creek Trestle has been decked and railed for pedestrians and bike riders. Three acres of land southeast of the Trestle was purchased to create a horse crossing at Mill Creek.

At the south end of the trail in Kimball Township, over five miles of trail have been paved starting at McLain Road running southeast to Griswold Road. The paved section of the trail passes through a developing residential area and is heavily used by residents.

In a joint effort with the St. Clair County Road Commission, a hybrid pedestrian signal was installed in 2010 where the trail crosses Wadhams Road. It was the first time this type of signal has been used for a trail crossing in Michigan. The signal prompts flashing lights to stop traffic when a pedestrian wishes to cross the road.

Designated parking areas are located at the Wadhams Road, Imlay City Road, Lapeer Road and Avoca Road trailheads. The non-motorized trail is open to walkers, bicyclists and equestrians.

Bridge to Bay Trail

The St. Clair County Parks and Recreation Commission (PARC) is working in conjunction with 13 local units of government to develop a 54-mile paved trail from Lakeport State Park to New Baltimore. St. Clair County helps to plan and promote the trail while each local unit of government is responsible for constructing their section of the trail. Even though PARC plays an instrumental coordinating role in the development of the Bridge to Bay Trail, the property that makes up that trail is owned by various municipalities and townships. Most trail construction projects are funded by grants. PARC usually helps to fund the local match required for trail construction grants.

The Bridge to Bay Trail extends from St. Clair County's northern border; under the Blue Water Bridge; through Port Huron, Marysville, St. Clair, Marine City, and Algonac; and past state and municipal parks, museums, gazebos, and lighthouses. Sometimes the trail is within reach of the water's edge and sometimes a few miles inland. It connects communities together for walkers, joggers, strollers,

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Non-Motorized Facilities

Source: St. Clair County GIS

http://www.stclaircounty.org/Offices/metro/

and bicyclists of all ages. The trail varies from a ten-foot wide separated paved pathway in the right of way along a road, or a five-foot wide dedicated bike lane.

They can potentially link to the Wadhams to Avoca Trail within St. Clair County, the Millennium Legacy Trail, the Discover Michigan Trail, the Macomb-Orchard Trail in Richmond, and - via ferry - the St. Clair Parkway Trail in Lambton, Ontario, Canada. As of 2018, roughly 25 miles of the 54-mile Bridge to Bay Trail is complete.

Funding for the Bridge to Bay Trail comes from the St. Clair County Parks and Recreation Millage, local government funds, and grants. Grant money for the trail has been provided by the United States government through federal transportation grants, and by the Michigan Department of Transportation (MDOT), the Michigan Department of Natural Resources (MDNR), and the Michigan Natural Resources Trust Fund (MNRTF).

Currently work is underway to support the completion of Great Lake to Lake Trail Route #1 from South Haven to Port Huron. Plans are in place to open the trail by the fall of 2019. Wayfinding, signage along the route, and gap connections are in the works for select portions of the trail. The Bridge to Bay Trail is a key asset for the Great Lake to Lake Trail.

Blue Water River Walk

The Blue Water River Walk is almost one mile long and runs along the St. Clair River shoreline immediately south of the mouth of the Black River in Port Huron. It is less than a mile downriver from the Blue Water Bridge to Sarnia and the southern end of Lake Huron. Owned by the Community Foundation of St. Clair County, the Blue Water River Walk is open to the public year-round. The river walk features an observation deck, a pedestrian trail, an outdoor classroom, shoreline and habitat restoration, a fishing pier and public art.

St. Clair County Trails Strategy and Action Plan

With funding assistance from SEMCOG and the Community Foundation of St. Clair County, the County is developing a comprehensive strategic plan for trails and greenways that will enable local and county officials, as well as other community partners, to prioritize the completion of non-motorized gaps and implement trail system connectivity both within and outside of St. Clair County.

Blue Water River Walk in Port Huron

The project consultant will manage a process that results in the development of a non-motorized strategic plan that will identify existing gaps in our countywide trail networks, identify preferred alternatives to eliminate those gaps, and prioritize the timing for completing needed connections. This will involve coordinating with multiple local units of government with assistance from the County and a project steering committee that will be formed to help guide the process. The plan is expected to be completed by May 2019.

Complete Streets

Complete Streets are streets designed and operated to enable safe use and support mobility for all users. Those include people of all ages and abilities, regardless of whether they are travelling as drivers, pedestrians, bicyclists, or public transportation riders. The concept of Complete Streets encompasses many approaches to planning, designing, and operating roadways and rights of way with all users in mind to make the transportation network safer and more efficient. Complete Street policies are set at the state, regional, and local levels and are frequently supported by roadway design guidelines.

Complete Streets approaches vary based on community context. They may address a wide range of elements, such as sidewalks, bicycle lanes, bus lanes, public transportation stops, crossing opportunities, median islands, accessible pedestrian signals, curb

extensions, modified vehicle travel lanes, streetscape, and landscape treatments. Complete Streets reduce motor vehicle-related crashes and pedestrian risk, as well as bicyclist risk when well-designed bicycle-specific infrastructure is included. They can promote walking and bicycling by providing safer places to achieve physical activity through transportation. One study found that 43% of people reporting a place to walk were significantly more likely to meet current recommendations for regular physical activity than were those reporting no place to walk (Powell, Martin, Chowdhury, 2003).

More and more jurisdictions at the state, local, and regional levels have adopted Complete Streets policies. There are model local ordinances and local resolutions for Complete Streets. A resolution may be easier for a local agency to pass, but are not binding like an ordinance is. Public participation and accountability is required in the planning process and the adoption of an ordinance or resolution. A model ordinance is provided for a reference, see Appendix A of this document.

BIKESHARE

The Blue Water Area Transportation Commission (BWATC) began a Bike Share program in July of 2017 and agreed to continue the existing program at least through July of 2019. Currently, the program is managed for BWATC by the third-party bike share company Zagster. The program is funded by BWATC, the Michigan Department of Transportation, and four community partners.

Five locations were chosen for fixed stations. The station locations were strategically chosen to offer the widest coverage for individuals living and working in downtown Port Huron as well as individuals visiting

Port Huron Bikeshare

Port Huron Bikeshare

the Blue Water Convention Center along the St. Clair River. Individuals can become annual members or daily members of the program and check out bikes from any of the five locations and return them to the station of their choice.

The bike share and individual transportation market is a rapidly changing market. Dockless bike share programs and battery powered scooters, both operated solely by private providers, are two of the emerging trends. Although BWATC expects some type of shared individual transportation to be available to the community in the future, who will operate it and how that will look is undetermined at this time.

CONNECT WITH TRANSIT

The Blue Water Area Transit Commission has recently completed a few major transit investments and has plans for more. They have bicycle racks on the majority of their buses which allows for riders to complete their trips.

Better sidewalks and facilities are needed in some areas to access the transit sites more safely and efficiently, as well as bicycle racks at the busiest stops.

CONNECT WITH RECREATION AND TRANSPORTATION BICYCLE FACILITIES

Active and passive recreation facilities such as athletic fields, neighborhood parks, nature preserves, and beaches are important destination facilities that need to be connected into the bicycle system Development of the master trail plans and parks and recreation plans assure robust connectivity with other transportation modes and population centers.

EXPANDING TRAILS AS TRANSPORTATION FACILITIES

Expanding regional trails provides an enhanced transportation facility, as well as recreational facility,

for bicycles and pedestrians. Regional trails also provide an opportunity for multiple jurisdictions to leverage limited local funding, which results in transportation and health benefits to the county.

FUTURE NEEDS

Policy

- *Maintain existing bicycle and pedestrian facilities,* Sometimes certain intersection improvements or expansions can inadvertently reduce or eliminate bicycle and pedestrian access. Additionally, limited access highway projects can limit crossing access for other modes, but this impact can be mitigated with pedestrian grade separations or other techniques.

- *Ensure bicycle and pedestrian facilities are developed in conjunction with roadway projects* in populated areas. Except for areas planned to be rural in 2045, roads should at least have facilities such as shoulders and sidewalks with connecting infrastructure to provide access for bicyclists and pedestrians in the future. To ensure adequate right-of-way is available to construct the facilities, jurisdictions should continue to acquire enough right-of-way for planned bicycle and pedestrian improvements.
- *Use discretionary funds* at the regional and state level, such as Surface Transportation Program and Transportation Alternatives Program funding to focus on filling gaps in urban areas, and funding special projects with limited local funding sources available.

Infrastructure

As with any transportation mode, supply is often outpaced by demand. Pedestrian infrastructure is needed throughout the county, but investments in existing developments may provide more impact by serving more potential users.

D. FREIGHT

The movement of goods using a variety of modes is extremely important to economic development and growth opportunities of any metropolitan area. Properly planned accommodation for freight movement can drive economic opportunity in a region without undermining quality of life and environmental considerations. The 2045 SCCOTS Long Range Transportation Plan recognizes the importance of freight to the regional economy.

EXISITING CONDITIONS

Rail

CSX Transportation and CN North America Railroad provide Class I rail service to the County. The Class I rail routes in St. Clair County provide U.S. freight connections to Canada through the International Railroad Tunnel in Port Huron, as well as service to industrial sites throughout Michigan. In 2017, nearly 239,000 loaded containers and nearly 169,000 empty containers were shipped across the United States-Canadian border.

The CN North America's primary line runs east to west through the communities of Port Huron, Emmett, and Capac. CN North America also has a route through the communities of Columbus Township and Smiths Creek on a SW-NE Detroit line. The CSC line runs from Marine City through St. Clair, Marysville, and Port Huron. St. Clair County rail routes are depicted in Map 4. On the map, the at-grade crossings are indicated, which shows the potential for vehicle/train conflict

Truck

Southeast Michigan's unique geographic position, and specifically St. Clair County, forms an integral gateway to Canada, Chicago and the Midwest, Mexico, and beyond. Given the geography of the region, the

Figure 3.8

Rail Containers					
Year	2013	2014	2015	2016	2017
Trains	3,607	4,074	3,370	3,003	3,423
Unloaded	243,828	267,178	251,119	232,250	239,194
Loaded	181,946	211,360	186,056	136,129	168,881

Source: Michigan Department of Transportation

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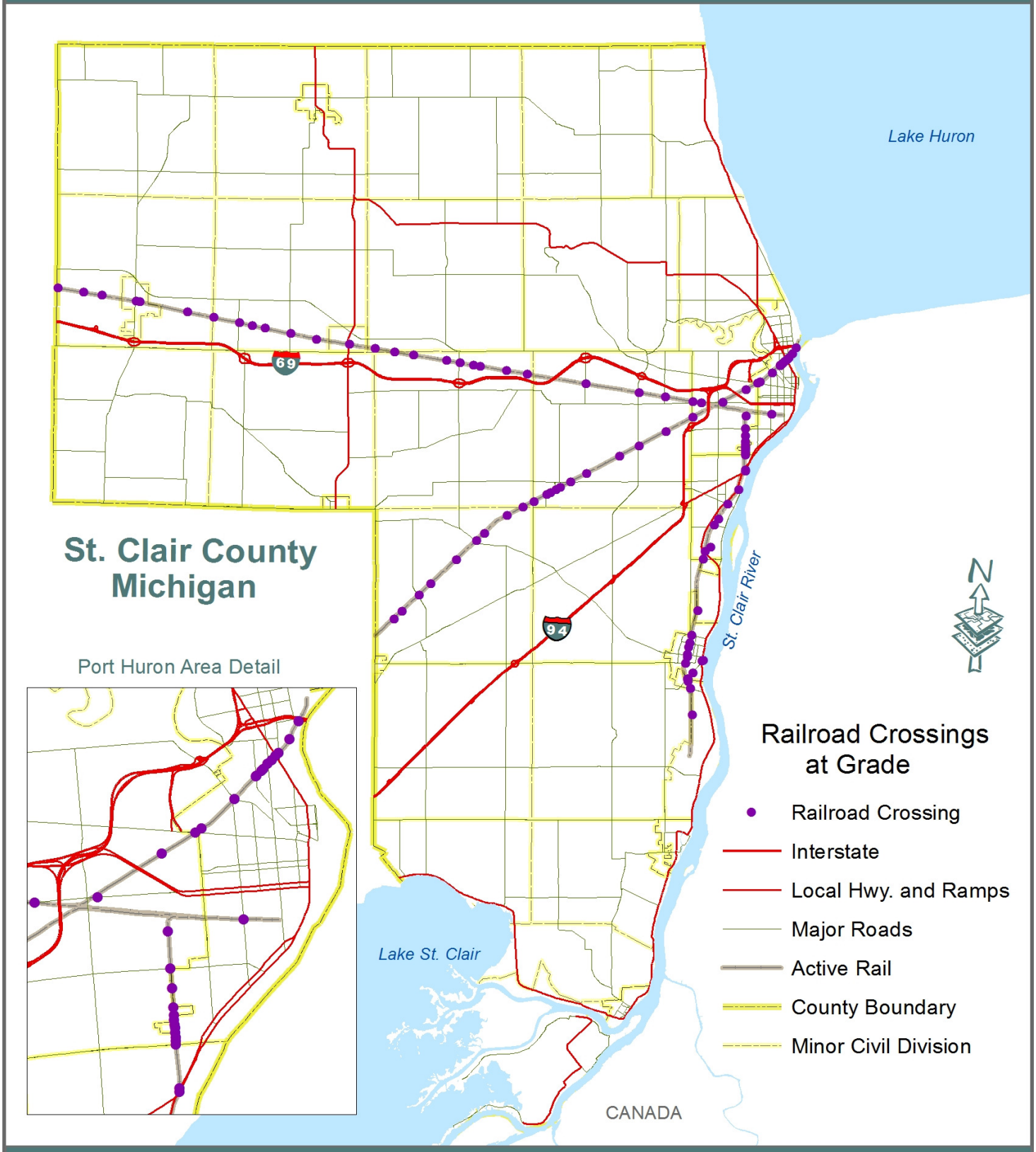
Railroads



Source: St. Clair County GIS

http://www.stclaircounty.org/Offices/metro/

Figure 3.9

Incoming: Truck Containers					
Year	2013	2014	2015	2016	2017
Trucks	731,165	778,268	801,272	834,731	826,288
Unloaded	158,460	157,273	135,382	119,596	231,870
Loaded	565,265	610,848	654,721	740,730	782,144

Source: Michigan Department of Transportation

Figure 3.10

2-Way Traffic on Blue Water Bridge			
Year	Cars	Trucks	Buses
2013	3,545,220	1,426,479	6,350
2014	3,762,632	1,586,161	6,871
2015	3,182,379	1,603,410	6,179
2016	2,986,955	1,680,238	5,385
2017	2,975,965	1,648,520	5,042

Source: Michigan Department of Transportation

Truck arriving in St. Clair County after crossing the Blue Water Bridge

efficiency of the transportation system is determined by the quality and effectiveness of the state and regional highway and road system as well as by the efficiencies at the international border crossings.

St. Clair County is likely to experience significant increases in truck volume due to its status as a U.S. port/border gateway. The additional volume will place greater pressure on the county's transportation network by trying to balance the concerns of freight companies with local commuters and tourists. Due to the changes in truck volume, MDOT has plans to further improve the Blue Water Bridge Plaza specifically in regards to customs and the way that traffic moves. Recent improvements have been made to the I-94/I-69 interchange and the interstates in the surrounding area. A new Welcome Center located just west of the Blue Water Bridge on I-94 opened in May 2015. Welcome Centers are the first point of contact for visitors to the state; it is an important to have a good and welcoming first impression which is why this Welcome Center was necessary.
Figures 3.9 and 3.10 display border crossing data between 2013 to 2017.

Major truck stops
The trucking industry identified the need for full-service truck stops in the area. The Love's Travel Stops & Country Stores is headquartered in Oklahoma City, Oklahoma. Founded in 1964, Love's has more than 450 locations in 41 states. They have a long list of services for the trucking industry including; Emergency Roadside Assistance, Tire Services, Light Mechanical work, oil changes, and other preventative maintenance work.

Love's saw the opportunity here in St. Clair County and have constructed one travel stop off I-69 in Capac, MI about 29 miles west of the Blue Water Bridge. This just opened in March 2018. The other location planned in St. Clair County is located on I-94 in St. Clair Township, MI about 13 Miles southwest of the Blue Water Bridge. This truck stop is scheduled to open early 2019.

Air
The St. Clair County International Airport (SCCIA) primarily functions as a cargo airport providing 24-hour customs/immigration services. The SCCIA is equipped with Pilot Controlled Lighting, an Automated

Privately owned planes at the St. Clair County International Airport

Ferry crosses the St. Clair River to Canada

Weather Observations System and an Instrument Landing System. The SCIAA's primary runway is 5,103 feet long by 100 feet wide and the secondary runway is 4,100 feet long by 75 feet wide. Major roadways that serve the airport include I-94, I-69, and Gratiot Avenue.

Directly adjacent to the airport is the 80-acre St. Clair County Airport Industrial Park. This industrial park is geared towards attracting applied research and technology with 12,000-20,000 square foot facilities available. This location is considered ideal for corporate research and development, rapid prototyping, or related industrial activity due to the convenience of airport facilities for corporate and time sensitive logistics.
The Marine City Airport is also located in St. Clair County but is privately owned and classified as a general-utility airport. The I-94 and 26 Mile Road interchange is the closest major access point to serve this airport.

Port

Freighters travel through the St. Clair River and Lake Huron, the midpoint of the St. Lawrence Seaway system. Deep water ports along the shoreline can accommodate Great Lakes and ocean-going freighters.

There are 38 deep-water ports in the state of Michigan, four of which are in St. Clair County.

- Port Huron, Seaway Terminal: Commercial Port
- Marysville, Old DTE Site: US Customs Service Port
- St. Clair, DTE Site: US Customs Service Port
- Marine City, Ferry Service: US Customs Service Port

Ferry Service

- The Marine City Ferry operates year-round between Marine City and Sombra, Ontario. Although due to ice damage in recent years, this service is currently suspended and the future of this service is still undetermined.
- The Walpole Island Ferry provides year-round transport between Algonac and Wallaceburg, Ontario.
- The ferry service from Algonac to Russell Island and Harsens Island is the only access to the island outside private boat and aircraft.

E. Safety and Security

Safety

The safety of the transportation system is a growing concern in St. Clair County and throughout the region, state, and country. Safety is an important consideration for the transportation planning process which should work to resolve existing safety deficiencies while planning for a system that will

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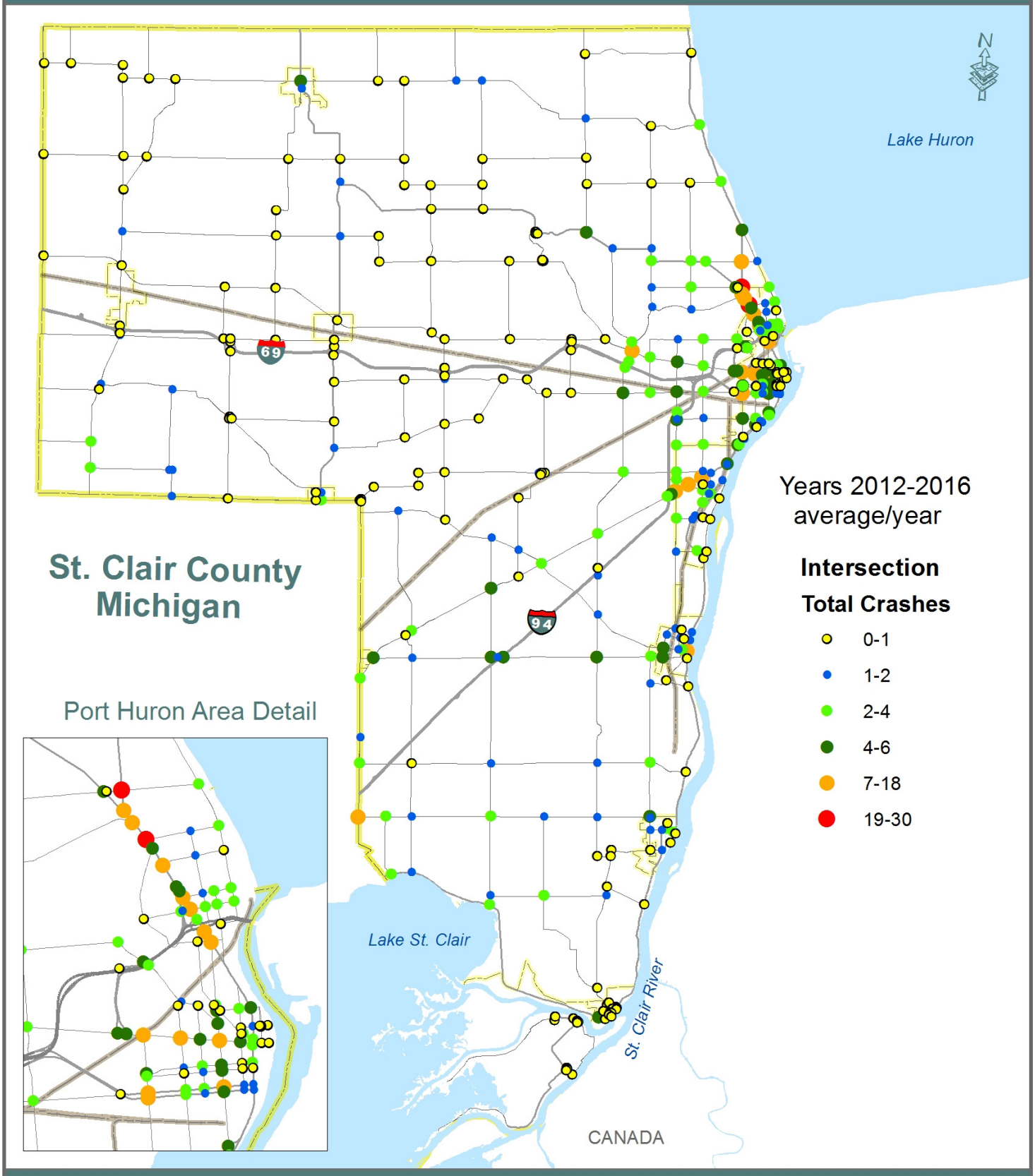
Intersection Crashes



Source: SEMCOG

http://www.stclaircounty.org/Offices/metro/

Figure 3.11

Intersection Crashes: Top 10 Locations							
Rank	Intersection	2013	2014	2015	2016	2017	Average
1	M 25 @ Krafft Rd	30	28	34	30	32	30.8
2	Pine Grove Ave @ Holland Ave	29	29	29	24	22	26.6
3	Pine Grove Ave @ Sanborn St	14	15	22	20	27	19.6
4	Hancock St @ Pine Grove Ave	18	16	14	10	27	17
5	Gratiot Blvd @ Range Rd	11	18	18	21	12	16
6	10th St @ Lapeer Ave	20	16	16	17	7	15.2
7	M 25 @ Keewahdin Rd	19	18	11	13	10	14.2
8	Pine Grove Ave @ River Rd N	18	17	12	13	10	14
9	I 69 BL @ 24th St	14	10	18	9	18	13.8
10	Pine Grove Ave @ Garfield St	17	12	17	9	11	13.2

Source: SEMCOG

perform safely in the future.

Data on locations, causes, and numbers of crashes is important in the transportation planning process. The data allows transportation planners to focus on changing the causes of the crashes, whether human behavior or the transportation system, to ultimately reduce the number of crashes. SCCOTS and its member jurisdictions use crash data to plan and prioritize improvements.

Existing Conditions and Trends

Vehicle Crashes

Safety in transportation can be attributed to human factors and the existing transportation system. In the years 2013-2017 alcohol and speeding were contributing factors to the highest number of fatal crashes in St. Clair County. Fatal crashes involving motorcycles were also very high. As well as fatal crashes involving only one vehicle, meaning that other cars were not involved and the cause of the cause of the crash could be attributed to either human behavior or the transportation system. Map 3.3 provides a breakdown of intersection crashes in St. Clair County for years 2012-2016.

Railroad and Vehicle Crashes

St. Clair County has a large number of railroad crossings. The road-rail grade crossing is a unique location within the transportation system, where two distinctly different transportation modes- roadway users and railroads- cross each other. Grade separation between these two modes is the optimal design to address safety concerns, but it is also the most expensive measure and the funding is limited. Usually, railroads provide a standard crossbuck sign at each public crossing and federal funds are available at the state level for automatic grade crossing warning devices.

Safety Planning Considerations

Safety Conscious Planning

Safety Conscious Planning (SCP) is a proactive approach aimed at preventing accidents and unsafe conditions on the transportation network. Safety considerations are integrated into the transportation planning process at all levels. In developing SCP, the region should strive to minimize exposure, minimize risk, and minimize the consequences of crashes.

Safety Countermeasure

Safety upgrades can also be made to reduce the recurrence and severity of crashes on the existing transportation system. Effective countermeasures will depend on the nature of the crash. Examples include:

- Increase enforcement of Zero Tolerance laws for underage drinkers and distracted driving.
- Promote better access management policies and practices
- Continue speed enforcement in school and work zones
- Encourage the use of traffic calming
- Develop programs to encourage safe walking rather than driving for appropriate trips

- Increase helmet and protective gear usage through education
- Require safety belts and child safety seats for all seating locations
- Construct overpasses or underpasses to eliminate at-grade crossings

SECURITY

Concern over the security of the transportation system has grown as the country has responded to increasing incidents of terrorism and natural disasters. Federal regulations now require that security be addressed as a separate factor in the long range transportation planning process. The regulations also stress the importance of increasing the security of the transportation system for motorize and non-motorized users.

Existing Conditions

Coordination of security planning occurs at the federal, state, and local level. Overall, security guidance is provided by the U.S. Department of Homeland Security. The Michigan State Police and Homeland Security and St. Clair County Office of Emergency Management can provide detailed information of the types of threats that people in Michigan and St. Clair County are most exposed to and described coordination of security planning at the county and state levels. The Blue Water Area Transit Commission continues to take steps to ensure the security of the county's public transportation system including lighting and cameras.

A great deal of local security planning and operations in St. Clair County occurs in coordination with local police departments, sheriff office, and Emergency Operations Center in St. Clair County.

System Needs and Planning Considerations

Over the past few years, the need for more robust security planning has been increasingly important for agencies. In response, St. Clair County Metro Planning has increased its involvement in safety and security working groups, collected plans, reviewed relevant literature, and has been part of trainings and exercise hosted by the Office of Emergency Management. There are still other planning strategies that SCCOTS can participate in to strengthen transportation security. The following list provides a few examples of strategies that MPOs can utilize:

- Accommodating street closures, by providing efficient detours
- Using adaptive signal control
- Updating and Using Traveler Information Systems
- Analyzing the transportation network for emergency route planning/strategic gaps in the network
- Funding new strategies/technologies/projects that can help prevent events
- Funding and perhaps coordinating regional transportation surveillance system that can identify potential danger prior to its occurring.

Blue Water River Walk in Port Huron

F. SUSTAINABILTY AND ENVIRONMENTAL

Smart Growth and Sustainability are becoming increasingly important in local and regional planning. Recognition of a deteriorating infrastructure and the volatile gas prices over the past decade has forced the nation to reconsider local, regional, and national transportation needs and priorities.

Preserving the existing transportation infrastructure is an important element within St. Clair County. Large capacity projects may no longer be the easy solution to address mobility concerns. Simply adding lanes will increasingly require more evaluation and justification. Future transportation planning decisions will emphasize other issues including environmental concerns. Maintaining and preserving the natural environment and social character of St. Clair County has always been of the outmost importance to St. Clair County residents and local officials. Avoiding,

minimizing, or mitigating environmental impacts remain a priority throughout St. Clair County.

Communities across the country are using creative strategies to develop ways that preserve natural lands and critical environmental areas, protect water and air quality, and reuse already-developed land. They conserve resources by reinvesting in existing infrastructure and reclaiming historic buildings. By designing neighborhoods that have shops, offices, schools, churches, parks, and other amenities near homes, communities are giving their residents and visitors the option of walking, bicycling, taking public transportation, or driving as they go about their business. A range of different types of homes makes it possible for senior citizens to stay in their homes as they age, young people to afford their first home, and families at all stages in between to find a safe, attractive home they can afford. Through smart growth approaches that enhance neighborhoods and involve local residents in development decisions, these communities are creating vibrant places to live, work, and play. The high quality of life in these communities makes them economically competitive, creates business opportunities, and improves the local tax base.

Based on the experience of communities around the nation that have used smart growth approaches to create and maintain great neighborhoods, the Smart Growth Network developed a set of ten basic principles:

1) Mix land uses
2) Take advantage of compact building design
3) Create a range of housing opportunities and choices
4) Create walkable neighborhoods
5) Foster distinctive, attractive communities with a strong sense of place
6) Preserve open space, farmland, natural beauty, and critical environmental areas
7) Strengthen and direct development towards existing communities
8) Provide a variety of transportation choices
9) Make development decisions predictable, fair, and cost effective
10) Encourage community and stakeholder collaboration in development decisions

Climate Adaptation & Air Quality

Climate adaptation and air quality continue to be major issues and must be considered as we plan for the future because the impacts affect everyone in one way or another. Below are some statistics taken from a study developed by the Great Lakes Integrated Sciences and Assessments Center:

Temperature

- Average temperatures increased by 2.3 degrees F (1.3 degrees C) from 1968 to 2002 in the Great Lakes region.
- By 2050, average air temperatures are projected to increase by 1.8 to 5.4 degrees F (1 to 3 degrees C).

Extreme Weather Events

- The frequency and intensity of severe storms has increased, and current models suggest that this trend will continue as the effects of climate change become more pronounced.
- The amount of precipitation falling in the heaviest 1% of storms increased by 37% in the Midwest from 1958 through 2012.

Water Quality and Storm water Management

- Increased risk of droughts, severe storms, and flooding events may increase the risk of erosion, sewage overflow, lead to more interference with transportation, and more flood damage.
- Future changes in land use could have a far greater impact on water quality than climate change. The coupling of climate change and land use change could therefore result in even stronger effects in some areas.

Snow and Ice Cover

- From 1973 to 2010, annual average ice coverage on the Great Lakes declined by 71%.
- From 1975 to 2004, the annual number of days with land snow cover decreased by 15 and the average snow depth decreased by 2 inches (5.1 cm).

Lake Levels

- Other factors, such as land use and lake regulations also affect lake levels; however, it is still unclear how much of the recent trend in lake levels may be attributed to climate change.
- While most models project continued, long-

term declines in lake levels, shorter-term variations will remain large, and periods of high lake levels are probable.

Water Availability

- Overall, the Great Lakes region is expected to become drier due to increasing temperatures and evaporation rates.
- The seasonal distribution of water availability will likely change. Warmer temperatures may lead to more winter rain and earlier peak streamflows.

Agriculture

- The growing season will likely lengthen and positively impact some crop yields.
- An increased frequency and intensity of severe weather, increased flooding, and drought risks, as well as more pests and pathogens will likely negatively impact crop yields.

Energy and Industry

- Warmer temperatures and more frequent heat waves will likely increase electricity demands, particularly in urban areas and during the summer months.

Transportation

- With increasing temperatures, damage to paved surfaces due to expanding and softening pavement is more likely.
- The most significant impact on roadways will likely be the increased risk of flood damage.
- Shipping lanes will likely be open earlier and longer due to reduced ice cover on the Great Lakes.
- Lower lake levels may lead to decreased depth of navigation channels and a reduction in the maximum loads carried by vessels.

Public Health

- Increased risk of heat waves and increased humidity may increase the number of heat-related deaths and illnesses.
- Diseases such as West Nile virus and Lyme disease may become more widespread since carrier insects will be more likely to survive milder winters.

G. Environmental Justice and Social Equity

A critical element of the 2045 Long Range Transportation Plan is the incorporation of fairness and equity into the development of all transportation policies and funding decisions. SCCOTS recognizes that the identification of traditionally underserved, low-income, minority and otherwise vulnerable populations is important because these populations often have specific and unique transportation needs to be considered, planned for, built, and maintained. Environmental justice and social equity play essential roles in transportation planning and visioning. The Long Range Planning development process includes efforts to assess countywide performance with regard to socio-cultural effects and environmental justice and both the potential positive and adverse impacts of proposed transportation projects. At its heart, environmental justice is about making sure that the things we do and services we provide are helping, and not hurting, low-income communities and minority populations.

Ensuring Nondiscrimination

Environmental justice (EJ) addresses fairness of all populations, particularly disadvantaged and those populations that have been historically underrepresented. The concept of environmental justice was derived from Title VI of the Civil Rights Act of 1964 and other civil rights statutes. It was first put forward as a national policy goal in 1994 by the

The U.S. Environmental Protection Agency (EPA) defines environmental justice as *"the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies."*

issuance of Presidential Executive Order No. 12898: Federal Actions to Address Environmental Justice in Minority Populations and Poverty Populations. It directs "each federal agency to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and poverty populations." This concept is distinct from Title VI, which provides legal protection from discrimination on the basis of race, color, or national origin in federal programs.

In the two and a half decades since Order 12898 was issued, numerous additional rulings have been put into place in support of Environmental Justice. Drawing from the framework established by Title VI of the Civil Rights Act of 1964 and the National Environmental Policy Act (NEPA) of 1969, the U.S. Department of Transportation (USDOT) established the following three principles to ensure that planned transportation projects affecting EJ populations and nondiscrimination are properly addressed in the transportation planning process of federally funded activities:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including interrelated social and economic effects, on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction, or significant delay in the receipt of benefits by minority populations and low-income populations.

As a recipient of federal aid funding it is the policy of the St. Clair County Transportation Study (SCCOTS), the federally designated transportation agency responsible for comprehensive transportation planning in St. Clair County, to specifically address EJ in all SCCOTS transportation plans. SCCOTS must determine whether a program, policy, project, or activity will impact minority or low-income populations disproportionately and that these communities are:

- Afforded an opportunity under Title VI to participate in the planning process to ensure a non-discriminatory process, in each of its programs and activities whether federally funded or not, while developing and advancing transportation programs and projects.
- Involved in the identification of impacts associated with the project in an effort to determine if the effects suffered by these populations are disproportionately high, and
- Involved in identifying mitigation and enhancement measures associated with a particular project.

These requirements apply to projects that receive federal funding or require a type of federal permit. The roadway and transit projects identified and programmed in the 2045 Long Range Transportation Plan must address the principles relating to Environmental Justice. Specifically, the plan must identify, address, minimize, mitigate, and (preferably) avoid disproportionately high and adverse human health or environmental effects of its programs and policies.

Transportation projects have short- and long-term effects on communities. These impacts can be positive or beneficial, such as improving travel options, creating safety outcomes and providing congestion relief or travel time reduction. Projects may also have negative effects, burdens or adverse effects. Adverse effects encompass the totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects that may include, but are not limited to:

- Adverse employment effects.
- Vibration, pollution and contamination.
- Bodily impairment, infirmity, illness or death.
- Destruction or disruption of a community's economic vitality, facilities, services and man-made or natural resources.
- Destruction or diminution of aesthetic values.
- Displacement of persons, businesses, farms or nonprofit organizations.
- Increased traffic congestion or isolation, exclusion or separation of minority populations within a community.

METHODOLOGY

St. Clair County's Approach to Environmental

Justice

Neither Title VI of the Civil Rights Act nor Executive Order #12898 provides specific guidance to evaluate EJ within a region's transportation planning process. Therefore, SCCOTS must devise their own methods for ensuring that EJ population groups are geographically identified and EJ issues are represented in transportation planning and the decision making process. In consideration of the EJ policies identified above, St. Clair County developed a baseline Environmental Justice Analysis as an initial step toward better identifying the locations and concentrations of the underserved populations in the SCCOTS planning area. Datasets were assembled as a reference point inventory of demographic attributes for four populations, Minority, Low-Income (below poverty line), Senior (Elderly 65+) and Zero-car households.

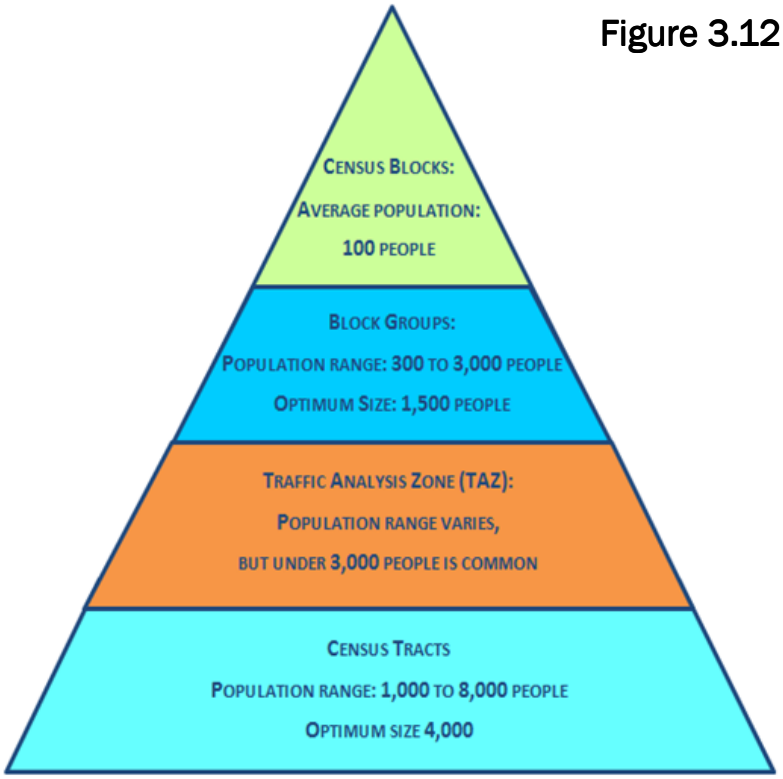
Identifying Geographic Areas for Analysis

An EJ analysis considers disproportionate impacts. Therefore, two areas must be defined to facilitate comparison: the area actually affected for each alternative and a larger regional area that serves as a basis for comparison and includes the actual area affected. Groups of EJ populations could occur as interconnected neighborhoods within a municipality or could encompass a broad area which is comprised of minority or low-income populations but have no specific concentrations of EJ residents.

When identifying impacted population groups, the scale of geography selected is crucial because it must provide detailed information about the population characteristics within an impacted area. The different size scales may provide altered demographic profiles, allowing for the potential of distorting the impacted area analysis. St. Clair County has chosen to use data at the Census Tract scale, but intends to scale down to the Transportation Analysis Zone (TAZ), block group or block level for a more detailed project-level assessment or when the impacts require a high degree of demographic resolution

It is essential to alter the geographic boundaries for analysis contingent upon the nature of the proposed action or plan. St. Clair County should establish the study area boundaries carefully so as not to inaccurately distort the representation of minority and low-income individuals in the affected population. The County should also revise the boundaries if ensuing data collection and public involvement demonstrate a need. As a FHWA funding recipient, the County should work closely with their FHWA representative to establish appropriate units of geographic analysis.

Figure 3.12



Geographic Areas- Source: U.S. Census

Where are the Disadvantaged Populations?

Define and Identify Environmental Justice Indicators: The first step of the environmental justice analysis is to identify the concentrations of populations that fall into the categories of low-income and minority populations. These are defined as:

- Minority population — Any identifiable minority group(s) who live in a geographic proximity. This includes people who are Black/African-American, Hispanic or Latino, Asian American, American Indian and Alaskan Native, and Native Hawaiian and other Pacific Islander.
- Low-income population — The U.S. Census Bureau's poverty threshold is calculated annually by using the poverty guidelines of the U.S. Department of Health and Human Services (HHS). Annual poverty threshold is set by household size. Families and individual's total income that falls below the determined poverty

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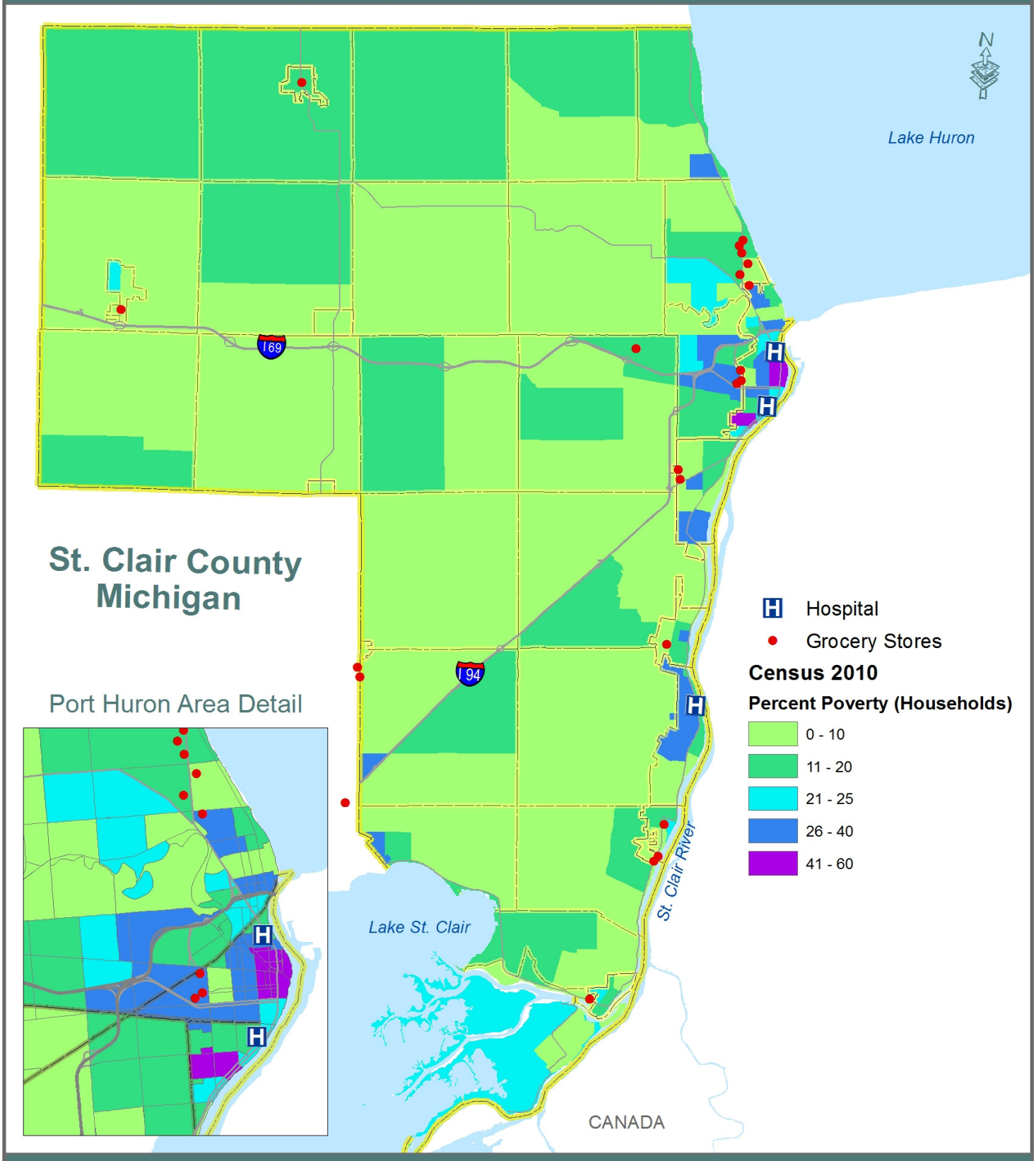
Households in Poverty



Source: SEMCOG

http://www.stclaircounty.org/Offices/metro/

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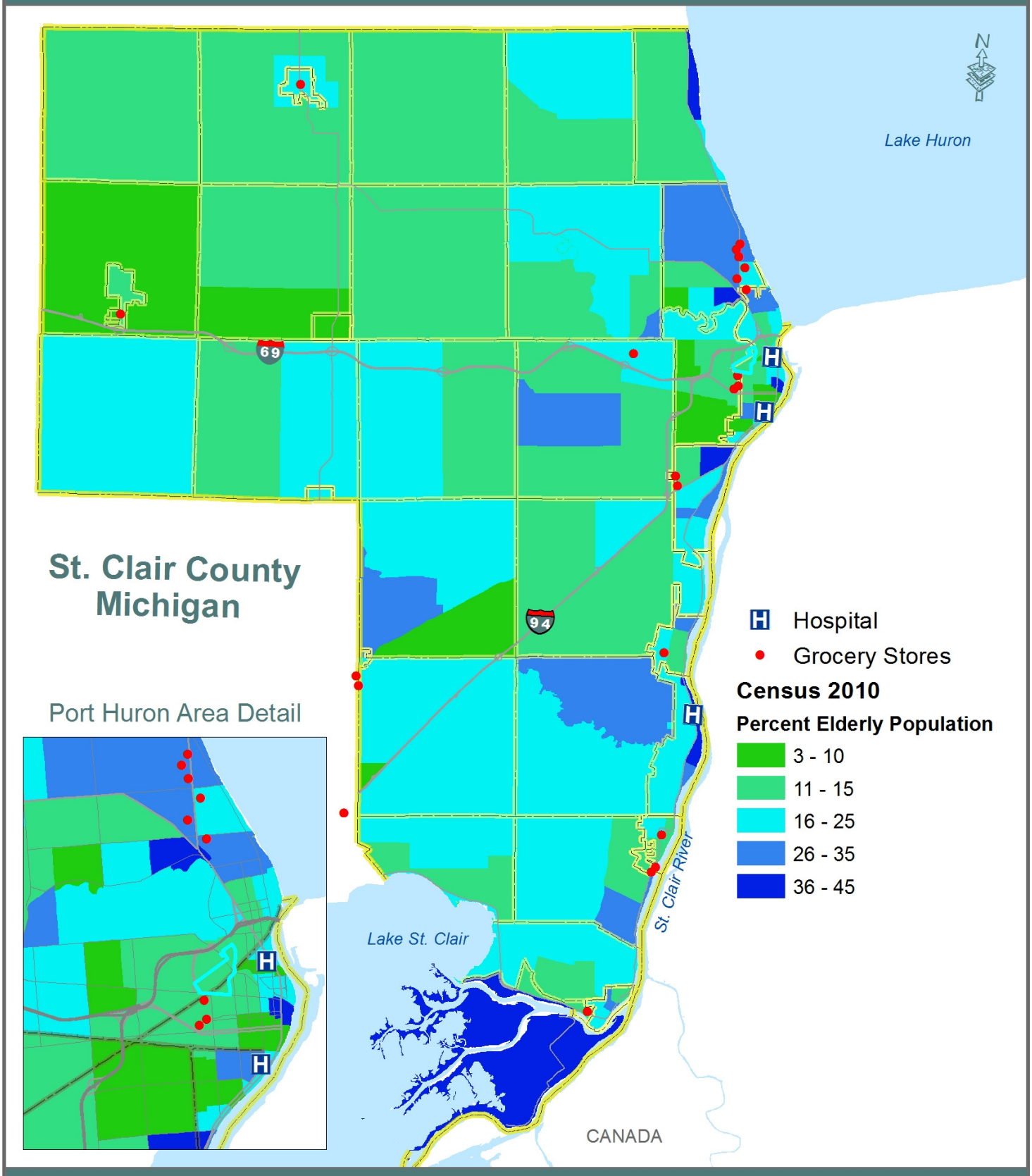
Elderly Population



Source: SEMCOG

http://www.stclaircounty.org/Offices/metro/

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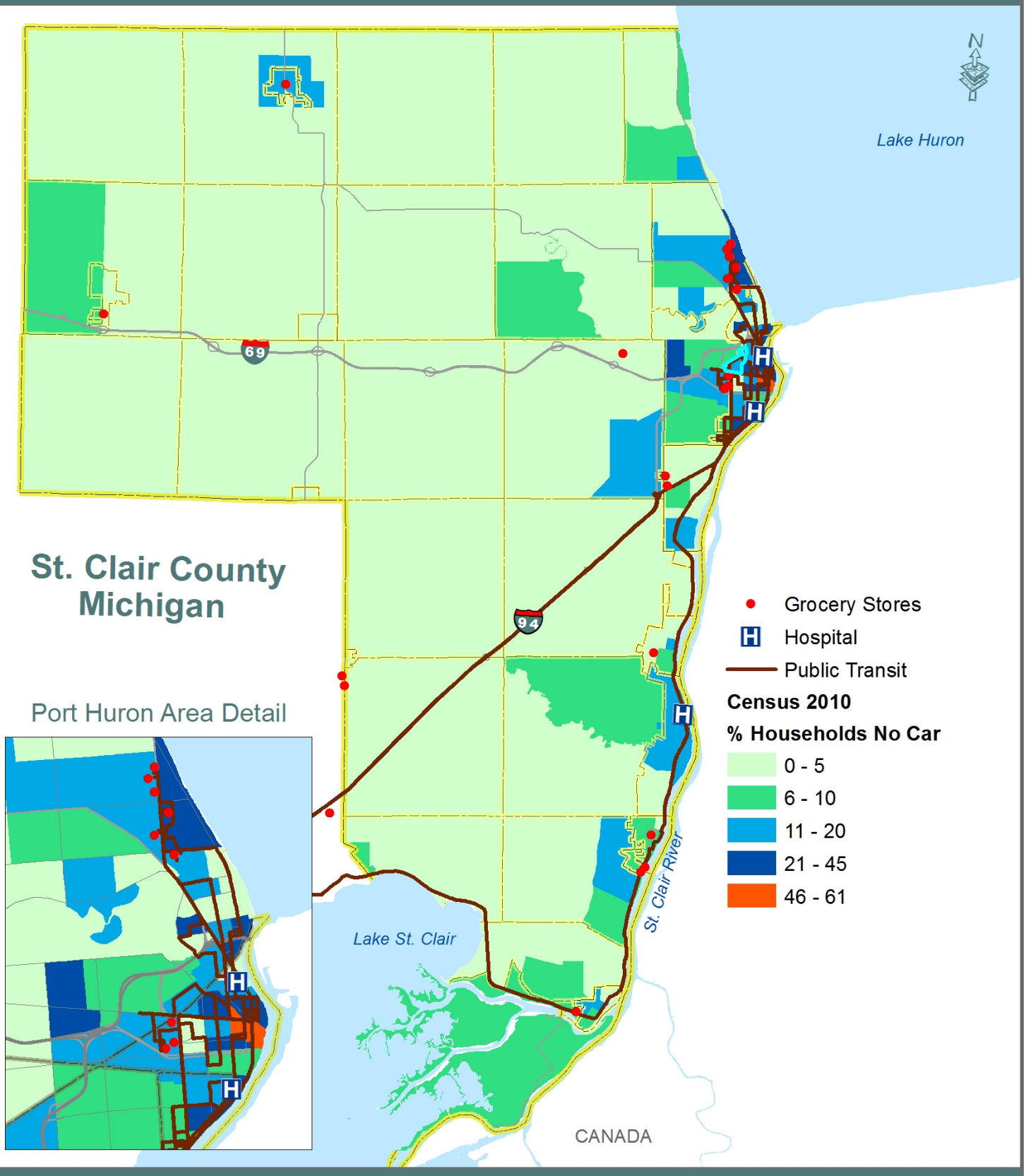
Households With No Car



Source: SEMCOG

http://www.stclaircounty.org/Offices/metro/

threshold are considered living in poverty. In Michigan, the 2018 threshold is $12,140 for a one person household.

While not included in the identification of EJ populations, St. Clair County looks at some additional EJ indicators. These indicators were chosen on the basis that when a person falls into these categories are just as likely to be vulnerable to disproportionate health, environmental, social, and economic impacts as minorities and low-income populations. By assessing these other disadvantaged populations who are also at risk to encounter deficiencies resulting from transportation decisions, St. Clair County is expanding the focus and only enhancing their assessment. These additional indicators include:

- Older adult populations — Individuals aged 65 and over.
- Zero -car households — Households where no cars, vans, pickup or panel trucks of one-ton capacity or less are owned and available for the use of household members.

Locating these disadvantaged populations is necessary for conducting effective public participation and for understanding the distribution of benefits and burdens of transportation plans and projects. There is no universally accepted practice for identifying communities with higher concentrations of households which may need special consideration.

Determine Data Sources: The next step is to decide on the level of detail required for spatially identifying population groups and identifying data sources to use to conduct a demographic profile. It is recommended that a GIS demographic inventory is conducted to identify the distribution and concentrations of disadvantaged groups. Simultaneously along with following the identification of EJ communities using traditional data, SCCOTS should be reaching out into the community to test the validity of their data and assumptions with a field review and direct public involvement. Engage leaders and representatives of demographic groups to help identify target populations. If feasible, verify results through field visits and community consultation. Visiting the community and performing a walking or windshield survey, can help determine the true physical boundaries of what are considered to be low-income and minority communities.

MDOT recommends using U.S. Census data to identify EJ populations. Counties and census tracts are usually utilized for statewide planning; census tracts, census block groups and Traffic Analysis Zones (TAZs) are used for metropolitan planning; and census block groups, census blocks, or individual households are typically used for project development. For the purpose of this initial assessment to be used as a starting point and a planning tool within the LRTP, an overview of strategies, techniques for identification, outreach, and analysis of effects, all data was obtained from the U.S. Census Bureau's 2012-2016 American Community Survey (ACS) 5-Year Estimates data set to identify the EJ indicators. The data was obtained for four different Census Bureau

Figure 3.13

EJ Populations in the County, State and Nation	St. Clair County	Michigan	United States
Total Population	160,069	9,909,600	318,558,162
Minority Population	10,238	2,091,773	84,901,084
Minority Concentration	6.4%	21.1%	26.7%
Senior Population	26,660	1,527,698	46,180,632
Senior Concentration	16.7%	15.4%	14.5%
Population for which Poverty Status has been determined	158,290	9,683,865	310,629,645
Low-Income Population	22,360	1,575,066	46,932,225
Poverty Concentration	14.1%	16.3%	15.1%
Occupied Housing Units	64,529	3,860,394	117,716,237
Zero Vehicle Available	4,884	309,613.0	10,562,847
Zero Vehicle Concentration	7.6%	8.0%	9.0%

Source: U.S. Census

geographies: census tracts, county, state and the nation. The resulting EJ population concentrations at the county, state and national level are depicted in Figure 3.13.

H. Operations, Technology, and Future Travel Options

Travel Demand Managment

Travel Demand Management (TDM) strategies focus on changing travel behavior in order to reduce traffic during congested periods. Managing demand provides travel choices such as work location, route, time, and mode.

Strategies include:

- Park and Ride Facilities
- Ridesharing programs/incentives, vanpool, and
- Projects and programs that encourages bicycle and pedestrian choices

There are a number of initiatives and programs that can implement these strategies.

Parking

Parking management can shift some automobile travel to alternative modes and can help improve access by creating more cluster, multi-modal land use patterns. Some examples of parking management strategies which influence travel demand include:

- Creating a greater opportunity for shared parking by encouraging compact mixed-use development and improving walking and cycling conditions
- Pricing parking to reflect the cost of providing parking
- Providing a parking "cash out" or other financial incentive to employees to use alternative modes
- Renting or selling parking facilities separate from building space
- Providing better user information and marketing relating to parking availability and price

Telecommuting and Flexible Work Hours

St. Clair County will continue to promote and support flexible schedules and telecommuting programs through Administration. By allowing employees to work from home or utilize flexible schedules, employers can help to reduce demand on the transportation system during peak hours, effectively increasing the efficiency of the system.

Land Use Strategies

Pedestrian-oriented, mixed use development patterns can support a reduction in transportation demand on the countywide and regional roadway system by allowing people to use transit, bike or walk for some trips and by supporting shorter trips. St Clair County is working with local agencies to support the emergence of mixed use development in the more densely populated community centers.

Conngestion Managment

SEMCOG develops and implements a Congestion Management Process (CMP) to improve mobility in the region. Congestion is the traffic level at which a roadway becomes saturated and unable to support intended volumes of travelers. Congestion levels are most severe during time periods when there are more reasons to travel, in places where there is a greater density of activity, and on roads where there are fewer alternative routes. Congestion can unpredictably delay travelers, increase the risk of vehicular crashes, and contribute to degrading regional air quality. CMP information helps SEMCOG and its regional partners develop policies for managing congestion and projects that mitigate congestion. The CMP has three basic steps:

- Monitor and evaluate transportation system performance,
- Identify congestion problems, and
- Evaluate and recommend mitigation strategies.

In managing congestion, the CMP draws from congestion mitigation strategies that promote pooled travel options (carpool, vanpool, transit, biking, walking), emphasize improving how roads operate (ITS, access management), and increasing roadway capacity when other management strategies are not effective.

Map 9 and Map 10 show the existing traffic counts and areas of congestion in St. Clair County. The areas of higher Average Daily Traffic (ADT) and that show congestion are in the urbanized areas of congestion in

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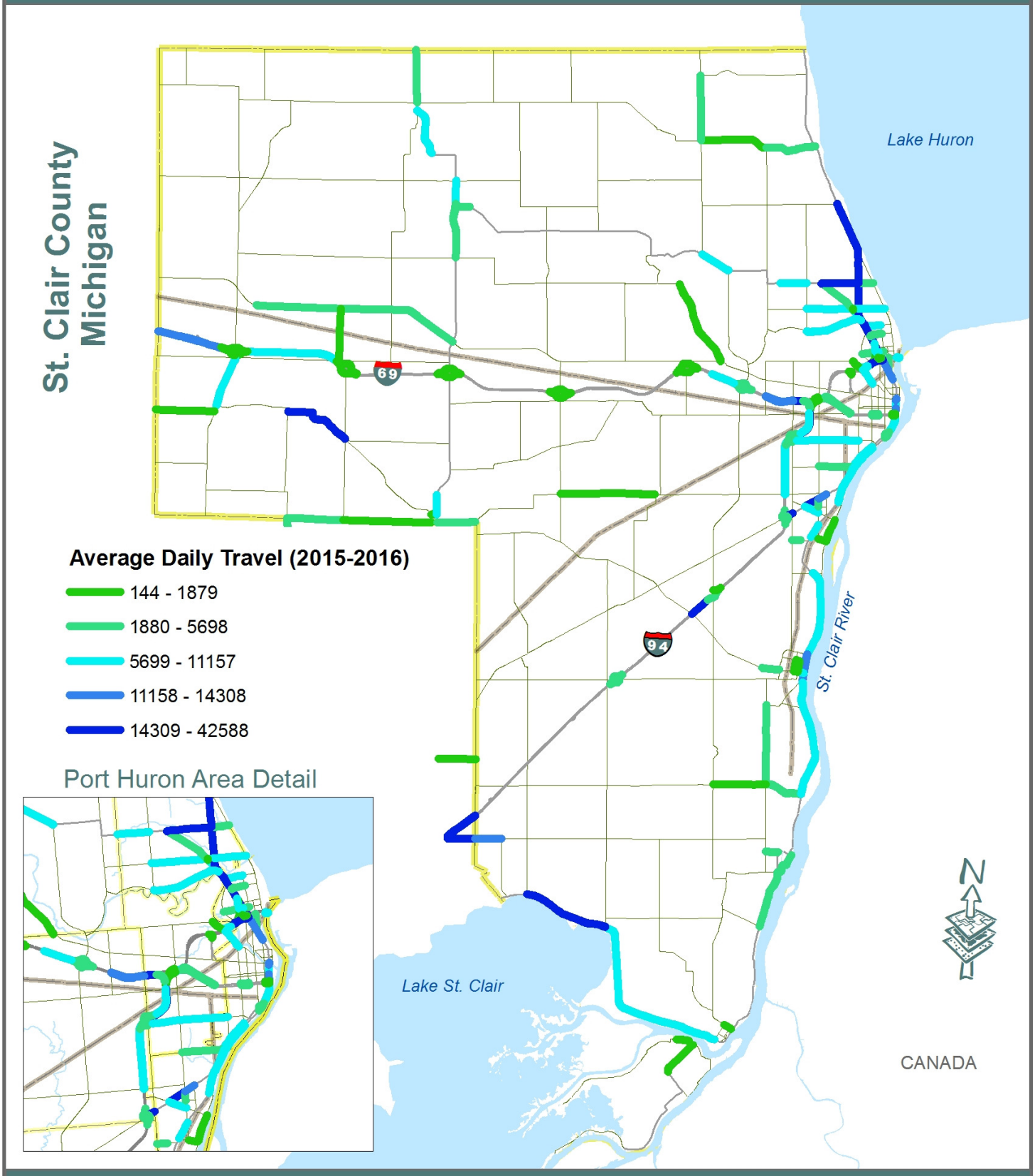
Traffic Counts



Source: SEMCOG

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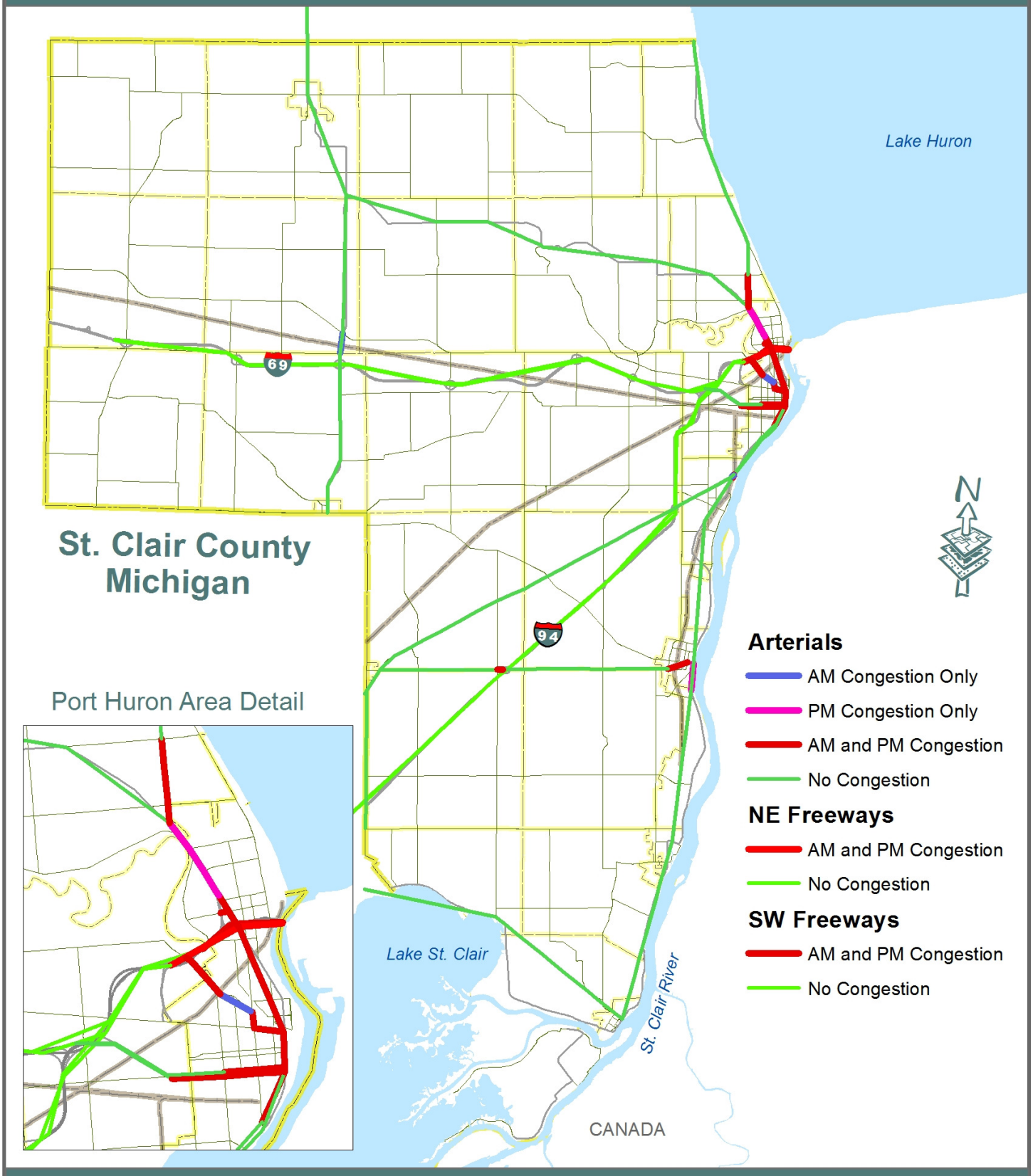
Congestion



Source: SEMCOG

http://www.stclaircounty.org/Offices/metro/

St. Clair County. The areas of higher Average Daily Traffic (ADT) and that show congestion are in the urbanized areas, majority in Port Huron and Fort Gratiot Township. Some of the roads with the highest traffic counts include:

- M-25
- M-29
- Pinegrove
- I-94/I-69
- Water Street

Intelligent Transportation Systems (ITS)

Fulfilling the commitment to make roadways safer and more efficient is no longer as simple as building new roads or expanding existing ones. These traditional methods are very expensive and sometimes carry adverse environmental and/or social impacts. Furthermore, congestion deficiencies are only one of many concerns that need to be addressed. Travelers throughout the Southeast Michigan region need accurate, up-to-date, and relevant road condition information in order to make the best decision for their trip.

The benefits of ITS are significant. ITS can address a multitude of transportation issues while improving operations and maintaining safety in a cost effective manner. For example:

- There are reduced crashes and fatalities when vehicles are equipped with ITS components.
- The flow of traffic from one area to another can be optimized when using ITS applications.

Source: FHWA

- ITS traffic management systems can utilize permanent vehicle detection technologies in coordination with closed circuit television cameras (CCTV) to monitor the traffic conditions on the roadway.
- ·Fewer traffic stops and less congestion will translate into reduced fuel emissions.

In summary the benefits of utilizing ITS systems include:

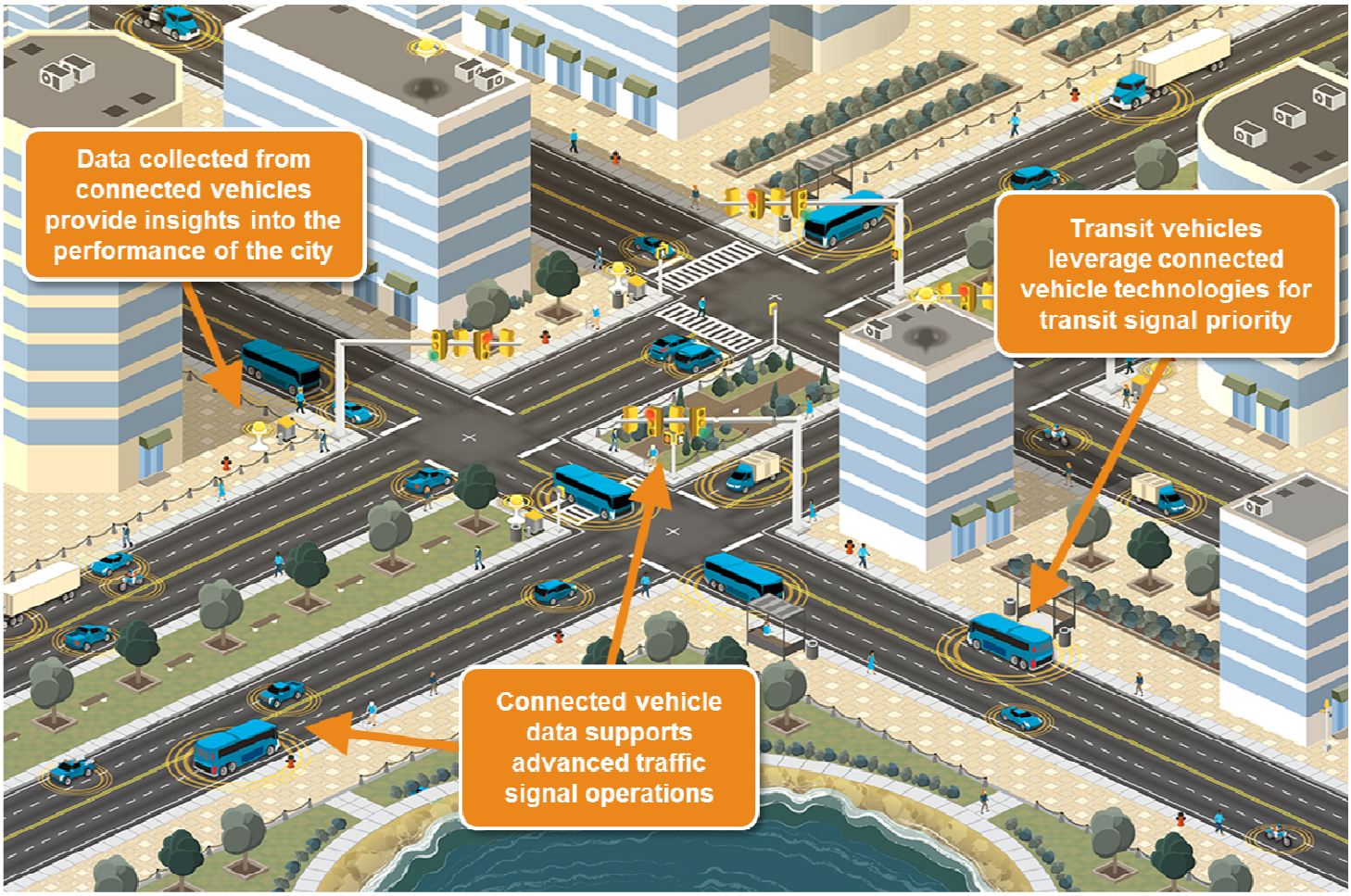
- Reducing delay and congestion
- Reducing incident response time
- Reducing travel time and variability in travel time
- Improving available traveler information
- Informing travelers of current weather and pavement conditions
- Reducing the number of crashes and secondary crashes
- Reducing emissions and fuel consumption
- Improving roadway capacity
- Improving traffic flow and travel speed

Connected and Autonomous Vehicles

Connected and autonomous vehicle technology will transform transportation systems over the coming decades, with major implications for the planning and design of communities. Autonomous vehicles, also known as driverless or self-driving cars, have been sharing streets and roads for years.

According to the American Planning Association,

> *"The widespread deployment of autonomous vehicles for cities and metropolitan regions will change the way we design our public rights-of-way. Sensors will allow autonomous vehicles to travel closer together than human-controlled vehicles, reducing the necessary pavement width and freeing up space for wider sidewalks, bike lanes, and other amenities. Local zoning codes will need to address requirements for passenger loading and unloading, and parking needs will change drastically if a shared use model is employed. As cities transition away from ordinances that now require large amounts of land to be used for parking and circulation, they will need to determine how best to make use of that "extra" land through new approaches to land use and zoning. "*



Source: FHWA

Tesla Charging Station at the Blue Water Convention Center

Connected and autonomous vehicles will require new infrastructure that will rely on sensors to be located on structures and other infrastructure. Sensors will allow vehicles to "talk" to one another, as well as to the surrounding infrastructure. This technology will feed into a larger ecosystem known as a "Smart City." Large amounts of data will be transferred between vehicles and infrastructure and this data will be able to provide planners, engineers, and decision makers with new insight as to how a transportation network, and the overall community, is functioning.

From safety, cost, energy/fuel conservation, advancement of technology, and traffic efficiency to drivers who are informed of weather, road conditions, construction, and emergencies. Connectivity provides many opportunities to improve on-road, roadside, and planning activities that are all connected by the ability to collect, process, and manage big data. Using Dedicated Short Range Communication, Wi-Fi, and satellite connections to connect vehicles to

infrastructure, vehicles, and pedestrians will provide numerous opportunities for economic development and transportation improvements.

In addition to connected and autonomous vehicles, other innovations and technology will also impact how people travel and interact with the built environment, including:

Shared-Use Mobility Services

The Shared-Use Mobility Center defines shared-use mobility as transportation services and resources that are shared among users, either concurrently or one after another. This includes public transit; taxis and limos; bike sharing; car sharing; ride sharing; ride sourcing or ride-hailing; ride-splitting; scooter sharing (now often grouped with bike sharing under the heading of "micromobility"); shuttle services and "microtransit;" as well as other options. This includes services such as Lyft and Uber that can be accessed via smartphone. Advances in technology have made sharing transportation options efficient and easy. Automobile manufacturers, rental car companies, and transit agencies have developed new solutions and mobile applications designed to alter routes, fill empty seats, collect fares and share real-time arrival and departure information. These types of services provide people with additional transportation options, reduce traffic congestion, and provide first and last mile options.

Electric Vehicles

Community partners should look into creating an "Electric Avenue" along the M-25 corridor through Marysville and Port Huron connecting to the Blue Water Bridge. This would equip the corridor with electric vehicle charging infrastructure that leverages the smart grid and provide needed infrastructure and resources to drivers of electric vehicles coming into the country or leaving the country via the Blue Water Bridge, as well as our residents who already have or are considering an electric vehicle. Moreover, this would create additional economic development opportunities within the County.

Data and Technology

A data rich and connected "Smart City" provides the ideal opportunity to develop deep learning and automation alternatives to promote autonomous functionality, increased safety solutions, improved resource management and maximized energy efficiency in real world environments.

Connectivity must be secure, stable, and sufficient to support initial automation development phases. A connected automation environment will be established to provide\ the necessary infrastructure to support different sensing technologies that can collect, store, and support transfer of data.

Exploring different technology solutions at the infrastructure and vehicle levels will be among initial activities to support studies and deep learning that can be used to compare performance characteristics, limitations, quality, durability, and cost effectiveness comparisons. Consideration of acquisition, installation, maintenance, user reliability, processing, data handling, storage, and communication will be among other critical elements of evaluation.

Specific research opportunities of connected vehicle and infrastructure technology to model and test traffic flow efficiency, safety improvements, homeland security improvements related to commercial freight and transport crossing the Blue Water Bridge, providing additional mobility between downtown assets, improving safety and efficiency of school buses and public transit, and reducing congestion and emissions from idling vehicles at known choke points (i.e. rail crossings, drawbridges, etc.)

Land Use and Infrastructure

Intelligent, sensor-based infrastructure will ultimately be deployed over time to collect data that will ultimately be used to improve system efficiencies, public safety, and overall mobility. Connected and autonomous vehicles and shared-mobility services will have a profound impact on how we plan our communities. According to Professor Jonathan Levine at the University of Michigan,

> *"if we do not address land use, there will be an ultimate impediment to access to transportation for consumers and constituents. Two examples of this impediment include parking and zoning. In many cities, when a new residential or commercial building is constructed, there must be a minimum number of parking spots attached. This requirement of parking increases housing costs in the area. Furthermore, when zoning laws encourage low density development, that density is*

Figure 3.14

PASER Categories			
Quality	Rating	Treatment (Asphalt)	Treatment (PCC)
Excellent	9-10	No maintenance required	No maintenance required
Good	7-8	Crack sealing and Minor patching	Routine maintenance
Fair	5-6	Preservation Treatments (non-structural)	Surface repairs, partial-depth patching
Poor	3-4	Structural renewal (overlay)	Extensive slab or joint rehabilitation
Failed	1-2	Reconstruction	Reconstruction

Figure 3.15

St. Clair County PASER Ratings			
Year	Quality	Rating	Percentage
2015	Excellent	9-10	14.4%
2015	Good	7-8	16.9%
2015	Fair	5-6	20.9%
2015	Poor	3-4	41.9%
2015	Failed	1-2	5.8%
2016	Excellent	9-10	4.8%
2016	Good	7-8	14.2%
2016	Fair	5-6	27.1%
2016	Poor	3-4	48.7%
2016	Failed	1-2	5.2%

eventually capped and cannot increase."

"What autonomous vehicles (AVs) could potentially do is encourage infill development in the cities, reducing their outward expansion making their per-capita environmental footprints smaller. The benefits are not restricted to cities; employing AVs to operate in coordination with public transit to encourage transit-oriented development can make suburbs more attractive to live in."

According to a Florida State University Study (*"Envisioning Florida's Future: Transportation and Land Use in an Automated Vehicle World"*) there are strong indicators that AVs will require narrower ROWs and travel lanes, influence the location, form, and amount of parking, impact the mobility of bicyclists and pedestrians, declutter urban environments through reduced signalization and signage, and provide redevelopment opportunities on now unnecessary parking lots and excess ROW.

I. System Preservation

System preservation refers to a collection of activities aimed at preserving investments in the regional transportation system. It is the sum of all activities undertaken to provide undertaken to provide and maintain serviceable roadways, transit facilities, bicycle and pedestrian facilities, and other elements of the transportation system. An effective system preservation program encompasses a full range of maintenance strategies, as well as rehabilitation treatments and reconstruction, with the goal of enhancing system performance (ride quality, safety, service life, etc) in a cost- effective and efficient manner.

Pavement Maintenance, Rehabilitation, and Reconstruction

Most agencies involved in the preservation of our regional roadway system recognize that effectively

Poor Road Surface Rating

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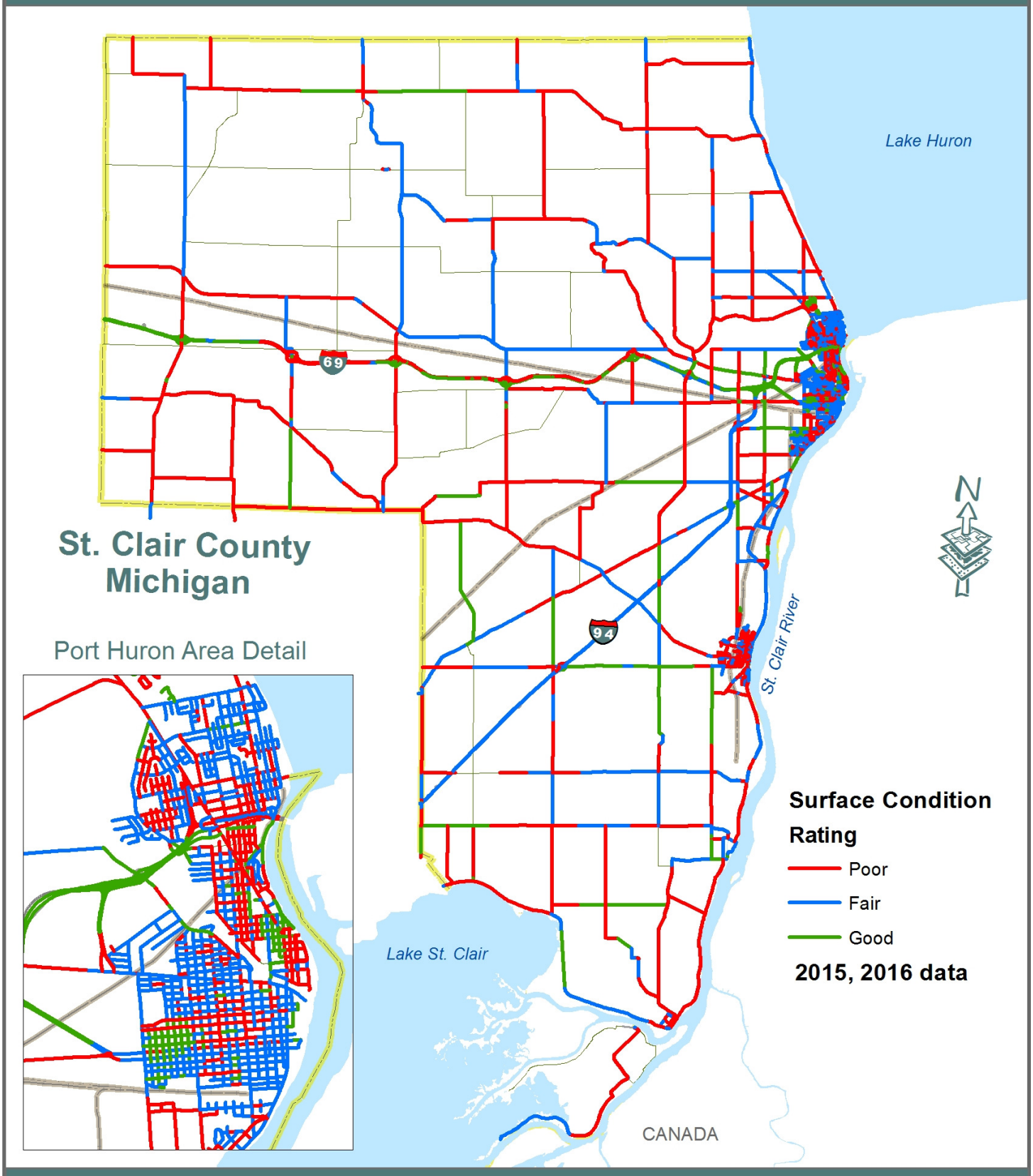
Pavement Condition



Source: SEMCOG

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maintaining this investment requires an approach that looks at the needs of the system as a whole rather than incrementally reacting to major deficiencies.

Maintenance consists of cost-effective treatments to an existing roadway system that preserve the system or maintain or improve the functional condition of the system. Maintenance may be proactive in the case of preventative or routine maintenance or reactive in the case of corrective maintenance.

Rehabilitation consists of structural enhancements that extend the service life of an existing pavement and/or improve its load carrying capacity. Rehabilitation techniques include restoration treatments and structural overlays.

Reconstruction is the replacement of the entire pavement structure by the placement of the equivalent or increased pavement structure. Reconstruction usually requires the complete removal and replacement of the existing pavement structure.

Preventative maintenance and other pavement preservation techniques can be applied strategically throughout a roadway's life to help cost-effectively extend the design life of the facility and manage the costs of full roadway rehabilitation and reconstruction. However, assuming roadways have a 40-year design life, approximately 62.5% of the existing regional roadways system will need to be rehabilitated or reconstructed in the next 25 years.

Pavement Surface Evaluation and Rating (PASER)

The Michigan Transportation Asset Management Council has selected the PASER rating system as the statewide standard of pavement condition reporting. Each year, St. Clair County staff and MDOT staff rate half of the Federal-Aid roads in the county. In 2015, 340 miles of road in the western half of the county were rated. And in 2016, 336 miles of road in the eastern half of the county were rated.

The PASER scale is a 1-10 rating system for road pavement condition developed by the University of Wisconsin-Madison Transportation Information Center. PASER uses visual inspection to evaluate pavement surface conditions. When assessed correctly, PASER ratings provide a basis for comparing the quality of roadway segments. The PASER assessment method does not require measurements of individual distresses, and thus PASER ratings cannot be disaggregated into measurements of specific distress types. The advantage to this method is that roads may be assessed quickly, possibly even by "windshield survey." A primary disadvantage is that because PASER ratings cannot be disaggregated into component distress data, the metric cannot be used in mechanistic-empirical transportation asset management programs.

Numerical PASER ratings are translatable to condition categories and prescribed treatment options, as shown below .

Bridge Maintenance, Rehabilitation, and Replacement

Recent and past events where bridge collapses have caused injury and loss of life have highlighted the face that inspection and maintenance of our nation's bridges is of critical importance. In partnership with State DOT's, the Federal Highway Administration maintains a National Bridge Inventory (NBI) covering just under 600,000 of the Nation's bridges located on public roads, including Interstate Highways, U.S. Highways, State, and county roads, as well as publicly-accessible bridges on Federal lands. The NBI does not apply to railroad and pedestrian bridges.

Each State is required to conduct periodic inspections of all bridges subject to the NBI and to report data to the FHWA. Based on inspection, bridges may be classified as:

- Structurally deficient- Indicates a bridge with a structure that is in poor condition or a bridge with a low load rating that is in need of replacement
- Functionally obsolete- Indicates a bridge that is too narrow or provides too little clearance to meet modern engineering standards

Bridges classified as structurally deficient or functionally obsolete are prioritized for replacement or rehabilitation using state and federal funding allocated for bridge replacements. However, the funding available for bridge replacement and rehabilitation has not kept up with needs, which are likely to increase in the future as bridge structures in our region age.

Figure 3.16 shows the rating of all the bridges that were rated in St. Clair County from 2013-2017. This data comes from the State of Michigan's Transportation Asset Management Council.

St Clair Highway Bridge Reconstruction in China Township

Figure 3.16

St. Clair County Bridge Ratings			
Year	Good	Fair	Poor
2013	148	145	33
2014	146	150	30
2015	146	153	27
2016	144	147	37
2017	135	152	40

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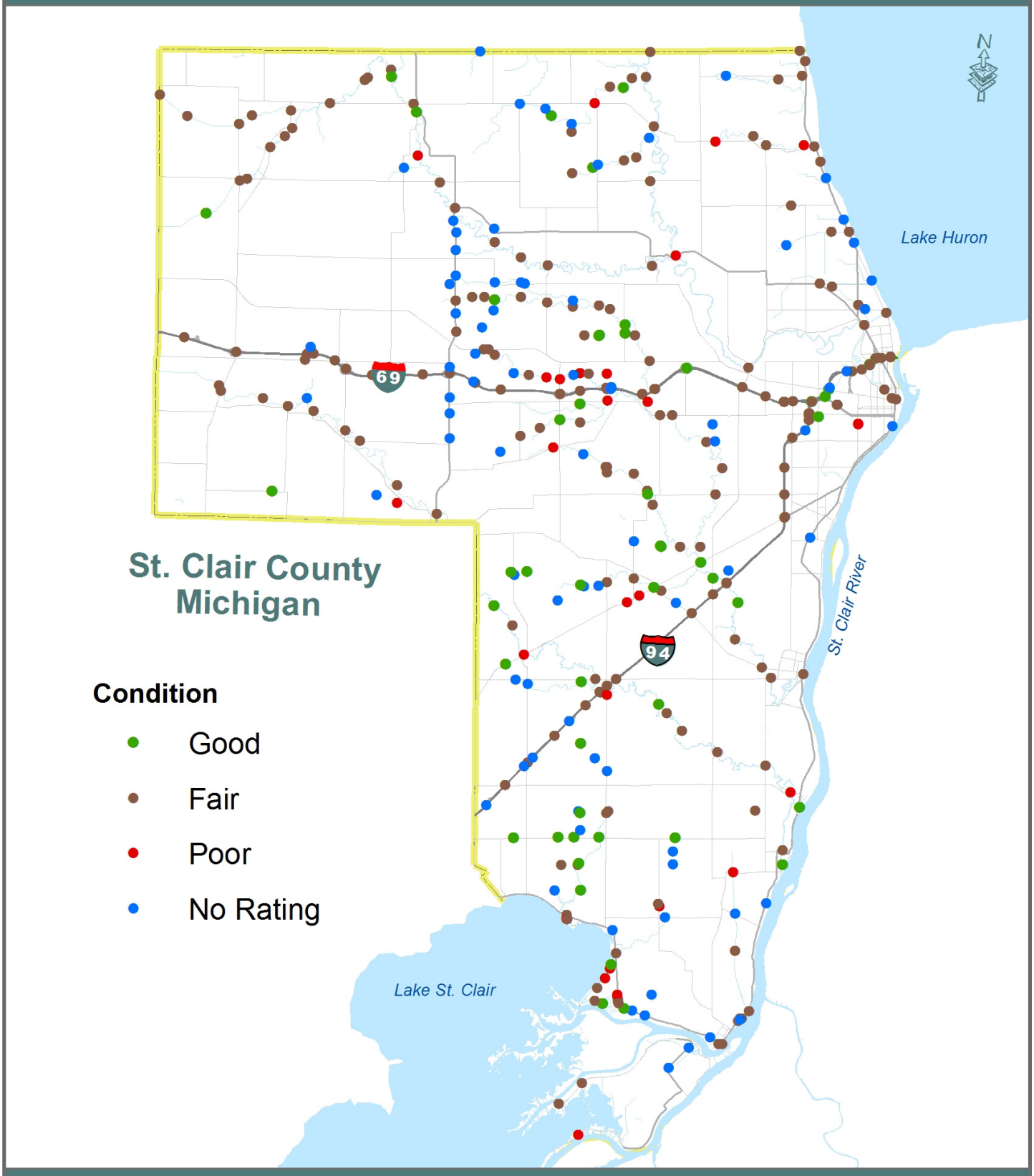
Bridges



Source: SEMCOG, SCC Road Commission

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Part 4
Implementing the Plan

A. Performance Measures

MAP-21 legislation continues to emphasize the inclusion of operational and management strategies to improve the performance of existing transportation facilities in order to relieve vehicular congestion and to maximize the safety and mobility of people and goods. The purpose of identifying and utilizing operational and management strategies is not only to improve the overall performance of the system but also to reduce the number of costly widening (capacity) projects and the frequency of total roadway reconstruction projects on the area's roadway network.

SCCOTS participates in and promotes a wide variety of transportation strategies that work towards reducing congestion, prolonging the life of the existing facilities, and maximizing the safety and mobility of people and goods. These strategies, discussed below, also support the SCCOTS 2045 Long Range Transportation Plan goals of addressing operations and maintenance as well as preservation and accessibility.

Transportation legislation developed by Congress provides a vision and direction for all transportation agencies. In July 2012, President Obama signed MAP-21 that established transportation systems move toward a performance- and outcome-based program. The objective of the performance and outcome-based program is for the investment of resources in projects that collectively make progress toward the achievement of nationally set goals. The emphasis continues in the FAST Act. As part of the bill, national performance goals were created for roads, highways, and public transportation.

Program Overview

Roads & Highways National Performance Goals

The performance measures were created around monitoring the federal aid highway program. They are designed to be national goals to help monitor the success of the transportation system and help drive investment. Below is a brief summary of the seven national goals included in MAP-21.:

1) Safety - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
2) Infrastructure Condition - To maintain the highway infrastructure asset system in a state of good repair .
3) Congestion Reduction - To achieve a significant reduction in congestion on the National Highway System.
4) System Reliability - To improve the efficiency of the surface transportation system .
5) Freight Movement - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
6) Environmental Sustainability - To enhance the performance of the transportation system while protecting and enhancing the natural environment.
7) Reduced project delivery delay - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies/work practices.

Public Transportation National Performance Goals

MAP-21 also mandated the Federal Transit Administration (FTA) to develop a rule establishing a strategic and systematic process of operating, maintaining, and improving public capital assets effectively through their entire life cycle. The Transit Asset Management Final Rule became effective October 1, 2016 and established four performance measures. The performance management

requirements are a minimum standard for transit operators. Providers with more data and sophisticated analysis expertise are allowed to add performance measures. Below are the asset categories that are the focus of the transit asset management performance measures:

1) Rolling Stock - means a revenue vehicle used in providing public transportation, including vehicles used for carrying passengers on fare-free services.
2) Equipment - means an article of nonexpendable, tangible property has a useful life of at least one year.
3) Facilities - means a building or structure that is used in providing public transportation
4) Infrastructure - means the underlying framework or structures that support a public transportation system.

In additional to transit asset management goals and performance measures, FTA is also expected to identify performance measures for safety and safety planning that transit agencies must address.

National Goals Implementation Schedule

The timeline for implementation of the national performance measures is determined when a final rule establishing the date for the rule is effective. The table outlines the effective date of the final rule and when States and MPOs must take action.

TARGET OVERVIEW

Within one year of the USDOT final rule on performance measures, states are required to set performance targets in support of those measures. To ensure consistency, each state must to the maximum extent practicable:

- Coordinate with an MPO when setting performance targets for the area represented by that MPO.
- Coordinate with public transportation providers when setting performance targets in an urbanized area not represented by an MPO.

Target Coordination with MDOT

Performance target coordination between MPOs and MDOT began in January 2017. As Michigan MPOs, MDOT, and FHWA staff met monthly as part of the Michigan Transportation Planning Association (MTPA).

The Target Coordination Meetings give MDOT and FHWA the opportunity to provide updates on performance measures and target setting to the MPOs. The meetings also give the MPOs an opportunity to ask questions and provide feedback on the methods used to set performance targets. MTPA members have been meeting with various MDOT agencies in the development of language and timelines to implement the targets. This MDOT Transportation Performance Measures Metro Planning Team has met monthly to ensure the timely delivery of these targets for MPOs to incorporate into their local planning documents. MPOs have also been coordinating with MDOT to develop a process for reporting MPO performance targets and the recommended action to be taken by MPO policy committees on setting performance targets.

Performance Reporting Requirements

MDOT is required to report to FHWA on the establishment of state performance targets and the progress made in attaining the state targets on a biennial basis. The reports are due October 1 of each even numbered year. Federal regulations require the use of four-year performance periods over which progress toward attaining targets is tracked and reported. The first performance period runs from January through December 2022 for all performances measures. The exception to the four-year performance period is for the safety performance measures, which are required to be established and reported by MDOT to FHWA through the Highway Safety Improvement Program Annual Report by August 31 of each year.

Figure 4.1

Final Rule	Effective Date	States Targets Dates	MPO Targets Dates	MTP and TIP Inclusion
Safety Performance Measures	April 14, 2016	August 31, 2017	Up to 180 days after the states set targets, but not later than Feb. 27, 2018	Updates or amendments on or after May 28, 2018
Pavement/Bridge Performance Measures	May 20, 2017	May 20, 2018	No later than 180 days after the State(s) sets target November 16, 2018	Updates or amendments on or after May 20, 2019
Reliability & Freight Performance Measures	May 20, 2017	May 20, 2018	November 16, 2018	Updates or amendments on or after May 20, 2019
Statewide nonmetropolitan and metropolitan planning	May 27, 2016	There are no measures associated with the planning rule.		
Asset Management Plan	October 2, 2017	By April 30, 2018 State DOTs submit initial plans describing asset management plan processes. By June 30, 2019 State DOTs submit fully compliant asset management plan.		
Transit Asset Management Plan	October 1, 2016	January 1, 2017	Optional reporting year for 2017 and mandatory for 2018. State will set targets for rural transit providers and urban providers will set own targets	
Transit Safety Plan	Currently no regulation has been adopted to enact this rule.			

MPOs are not required to provide annual reports other than MPO decisions on targets. MPOs are required to report MPO performance targets to MDOT in accordance with the documented procedures for MPO reporting targets. This will result in MPOs reporting MPO safety targets annually to MDOT, and other performance targets as they are established.

Road & Highway Future Targets

There are additional performance measures that do not have published targets as of the adoption of this plan. The dates of inclusion can be found below. As the targets are set and published by MDOT, the MPOs will take action either through adoption of the state targets or development of MPO specific targets. The following are the performance measures that do not currently have set targets to date.

1) *Interstate & National Highway System Pavements*

Current coordination efforts include evaluation of the pavement condition on the interstate and non-interstate National Highway System (NHS). The evaluation of the pavement will be evaluated by four metrics:

- International Roughness Index (IRI)
- Cracking Percent
- Rutting
- Faulting

The rule designates that MDOT is required to establish two and four year targets for pavement condition on the NHS. There are two sets of targets, one for the Interstate System, and the other for the Non-Interstate NHS. The first performance period takes place from January 1, 2018 to December 31, 2022. MDOT is required to submit biennial progress reports to FHWA. There are four performance measures for assessing pavement condition based on composite analysis of the metrics. Figure 4.2 shows the pavement condition metrics from MDOT.

Figure 4.2

Pavement Condition Metric	Statewide Baseline	State Target 2-Year	State Target 4-Year
% of Interstate pavement of Good Condition	57%	N/A	48%
% of Interstate pavement in Poor Condition	5%	N/A	10%
% of Non-Interstate NHS pavement in Good Condition	50%	47%	44%
% of Non-Interstate NHS pavement in Poor Condition	19%	22%	25%

2) *NHS Bridges*

Current coordination efforts include evaluation of the condition of the substructure, superstructure, deck, and culverts for bridges on the NHS system. The evaluation of the bridges will use the National Bridge Inspection Standards (NBIS). Each substructure, superstructure, deck, and culvert are rated on a 0-9 scale and recorded in the National Bridge Inventory (NBI) database. The NBI condition ratings are broken up into three categories below:

- Good Condition: Rating of 7-9
- Fair Condition: Rating of 5-6
- Poor Condition: Rating of 0-4
- Serious/Critical Condition: Rating of 2-3
- Imminent Failure/ Failed Condition: Rating of 0-1

The rule designates that MDOT is required to establish two and four year targets for bridge condition on the NHS. MDOT is required to submit three performance reports to FHWA within the four year performance period. There are two performance measures for assessing bridge condition:

- % of NHS bridges in Good Condition
- % of NHS bridges in Poor Condition

Figure 4.3

	Baseline Condition			State Target (2-Year)			State Target (4-year)		
NHS Bridge Condition	*Good*	*Fair*	*Poor*	*Good*	*Fair*	*Poor*	*Good*	*Fair*	*Poor*
% by deck area	33%	57%	10%	27%	66%	7%	26%	67%	7%

Figure 4.4

Reliability Metrics	Statewide Baseline	State Target
% of person-miles traveled on interstate that are reliable	84%	75%
% of person-miles traveled on non-interstate NHS that are reliable	80%	70%

Freight Movement Metric	Statewide Baseline	State Target
Truck Travel Time Reliability Index - Interstate	1.36	1.75

Figure 4.5

The minimum penalty threshold requires that no more than 10 percent of NHS bridges measured by deck area be classified as structurally deficient.

3) *Interstate and NHS Reliability*
In 2015, MDOT formed the Statewide Congestion Management Group (SCMG) to coordinate efforts between the Department and MPO's that address federal system performance measures. Since that time, this group has produced a congestion analysis white paper, reviewed and commented on draft performance measures, provided comment on a RFP for vehicle probe data, and discussed best practices and issues with measuring congestion.

In May 2018, MDOT submitted statewide targets for the federal system performance measures. MPO's will have six months to either support the statewide targets or develop their own. MDOT is working with the MPO's to discuss the process and methods for setting the targets, and the RITIS and INRIX platforms that can help agencies set their own targets if they desire. The performance measures for assessing interstate and NHS reliability is as follows. MDOT's performance measure baselines and targets for reliability are shown in Figure 4.4.

4) *Freight Movement on the Interstate*
Freight movement will be assessed by a Truck Travel Time Reliability (TTTR) Index by analyzing freight travel over several time periods. The measure comes from the recognition that the industry's use of the transportation system during all times of day. MDOT and the Jackson MPO will have the choice of using FHWA's National Performance Management Research Data Set or an equivalent data set. Figure 4.5 shows the Freight Movement Metrics from MDOT.

MDOT must establish two- and four- year targets by May 20, 2018. The targets will be reported in the State's baseline performance period report due by October 1, 2018. MDOT will have the option to adjust the four-year target in their mid-performance period progress report, due October 1, 2020.

5) *Congestion Mitigation and Air Quality*
This measure is intended to assess the CMAQ program by measuring two and four year cumulative reported emissions reductions for all projects financed with CMAQ program funds. The regulation applies to any DOT and MPO with CMAQ funded projects in areas designated as nonattainment or maintenance for ozone, carbon monoxide, or particulate matter National Ambient Air Quality Standards. Emissions are expressed in total kilograms, to the nearest one thousandths, of reduced emissions for each applicable criteria pollutant or precursor. See Figure 4.6.

Measure	Baseline Condition	2- Year Targets	4-Year Targets
On-Road Mobile Source Emissions for Carbon Monoxide	87,665.109	32,968.780	65,937.560
On-Road Mobile Source Emission for Particulate Matter	653.357	417.410	834.820

Figure 4.6

Infrastructure Alignment

The transition to performance-based planning is underway at SEMCOG and St. Clair County and will continue as the federally-required performance measures continue to be identified, understood, and move toward maturity. At the time of the plan's adoption, there remain several performance measures that have yet to be finalized by MDOT. The only performance measures that MPOs have been required to address are the transit asset management measures and the five highway-related safety measures. MPOs will be working through the remaining performance measures throughout the rest of this year.

MDOT is working with the MPO's to better understand the expectations of the federally-required measures. For planning agencies to maximize the benefits of performance-based planning, good data is needed on the current and desired transportation system. The data is important to set strategic directions, analyze how funds are invested and programmed, and evaluate program outcomes. For many performance measures there is not a lot of good information to base decisions on. The lack of data makes it difficult to determine how projects or a program of projects will impact future performance.

As planning agencies around the country gain experience in working with the federally required measures, tools will likely be developed to help agencies understand the impact that investments will have on outcomes. This will allow for the consideration of the tradeoffs in pursuing or focusing on one measure over another to produce results that are important to the stakeholders in St. Clair County.

B. PROJECTS

The selected projects for FY 2020-2023 are included in this plan, as well as an Illustrative list for FY 2024-2045. This list was compiled by the agencies / municipalities that sit on the SCCOTS Technical Committee; Blue Water Transit Commission, St Clair County Road Commission, City of Port Huron, City of Marysville, City of St. Clair, City of Memphis, and Village of Capac. This list includes both transit and road projects. The funding mechanisms/targets are also included through 2045.

Fiscally constrained Project List

This list serves as a guide for transportation investments and planning resources within St. Clair County over a 25-year time horizon. The lists are organized into categories and funding sources.

Roadway Projects:

- These projects are designed to increase the overall network through road rehabilitation and reconstruction. Some of these projects might include a bicycle, transit, pedestrian, or freight component.

Public Transit Projects:

- These projects are designed to support and expand transit throughout St. Clair County.

They are categorized by the following:

- Short term: 2020-2023
- Medium term: 2024-2029
- Long Term: 2030-2045

Year: Identifies the year the project will be funded.
Sponsor: Identifies the jurisdiction and/or agency responsible for the project.
Project Type: Identifies the type of project to receive funding, i.e. roadway, non-motorized, bridge, transit capital/operating.
Project Name: Identifies the project.
Limits: Identifies the extent and location of each project.
Fund Source: Identifies the federal fund source.

FISCAL YEAR 2020-2023
TRANSPORTATION IMPROVEMENT PROGRAM

FY 2020

Sponsoring Agency	Project Type	Project Name	Limits	Fund Source	Federal Cost	State Cost	Local Funding	Total Cost
SCCRC	Road Rehab	Capac Rd	.3 miles north of Tuospring Rd to .2 miles north of Almont Rd.	Rural	$ 731,043		$ 182,761	$ 913,804
Port Huron	Road Rehab	McMorran Blvd	Huron to Merchant	Urban	$ 450,285		101715	$ 552,000
SCCRC	Resurfacing	Wadhams Rd	Smith Creek to Gratiot	Urban	$ 370,570		89430	$ 460,000
SCCRC	Road Rehab	Range Rd (N)	Ashley to Griswold	Urban	$ 456,745		103255	$ 560,000
SCCRC	Road Rehab	Range Rd (S)	Davis to Carney	Urban	$ 249,923		70077	$ 320,000
SCCRC	Resurfacing	Lapeer Rd	Ruddock to Abbottsford	Category D	$ 120,000		30,000	$ 150,000
SCCRC	Resurfacing	Smiths Creek	Range to 0.6 mi west of Sturdevant	Category D	$ 108,262	$ 27,738	$ 34,000	$ 170,000
SCCRC	Resurfacing	Vincent	North River Rd to M-136	Category D	$ -	$ 100,000	$ 25,000	$ 125,000
BWATC	Operations	Transit Operations	Blue Water Area Transit Service Area	Operating	$2,439,580	$ 4,826,040	$ 1,123,368	$ 8,388,988
BWATC	Capital	CNG Compressor	BWATC Facility	Capital	$ 88,000	$ 22,000		$ 110,000
BWATC	Capital	Furniture/Fixtures	BWATC Facility	Capital	$ 88,998	$ 22,250		$ 111,248

FY 2021

Sponsoring Agency	Project Type	Project Name	Limits	Fund Source	Federal Cost	State Cost	Local Funding	Total Cost
SCCRC	Road Rehab	Wachams Rd	Gratiot to I-94	Rural	$ 154,000		$ 66,000	$ 220,000
SCCRC	Resurfacing	King Rd	Romeo to Marine City Hwy	Rural	$ 245,000		$ 105,000	$ 350,000
SCCRC	Resurfacing	Marine City Highway	King to Starville	Rural	$ 346,564		$ 153,436	$ 500,000
Marysville	Road Rehab	Huron Blvd, Phase III	Gratiot (BL-94) to Connecticut	Urban	$ 578,384		$ 232,411	$ 810,795
Algonac	Road Rehab	Michigan St	M-29 ROW to 150' South of Liberty	Urban	$ 102,010		$ 40,990	$ 143,000
SCCRC	Road Rehab	Range Rd I	Griswold to Lapeer	Urban	$ 535,016		$ 214,984	$ 750,000
SCCRC	Resurfacing	Wachams Rd	Lapeer to 0.1 miles north of North River	Urban	$ 71,336		$ 28,665	$ 100,001
SCCRC	Resurfacing	North River	Wadhams to Lightle	Urban	$ 142,671		$ 57,329	$ 200,000
SCCRC	Resurfacing	Lapeer Rd- East	24th St to I-94 Overpass	Urban	$ 156,938		$ 63,062	$ 220,000
SCCRC	TBD	TBD	TBD	Category D	$ 232,827	$ 148,490	$ 60,000	$ 441,317
BWATC	Operations	Transit Operations	Blue Water Area Transit Service Area	Operating	$2,510,834	$ 4,035,105	$ 1,357,980	$ 8,603,919
BWATC	Capital	Bus Shelters	BWATC Service Area	Capital	$ 100,000	$ 25,000		$ 125,000
BWATC	Capital	HVAC Units	BWATC Facility	Capital	$ 76,998	$ 19,250		$ 96,248

FY 2022

Sponsoring Agency	Project Type	Project Name	Limits	Fund Source	Federal Cost	State Cost	Local Funding	Total Cost
SCCRC	Resurfacing	Division Rd	I-94 to Gratiot	Rural	$ 472,577		$ 127,423	$ 600,000
SCCRC	Resurfacing	Kilgore Rd	Lapeer to Metcalf	Rural	$ 144,000		$ 36,000	$ 180,000
SCCRC	Resurfacing	Yale Rd	Yale City Limits to 0.25 mi East of Duce Rd	Rural	$ 144,000		$ 36,000	$ 180,000
Marysville	Reconstruction	Huron Blvd, Phase IV	Range Road to Gratiot (BL-94)	Urban	$ 307,235		$ 133,195	$ 440,730
St. Clair	Road Rehab	Fred Moore Hwy	Carney to 15th St	Urban	383,407		166,593	$ 550,000
SCCRC	Resurfacing	Griswold East	I 69 BL to I 94 Overpass	Urban	104,566		45,434	$ 150,000
SCCRC	Resurfacing	Griswold- West	Range Road to Wadhams	Urban	125,479		54,521	$ 180,000
SCCRC	Road Rehab	Lapeer Rd- West	Wadhams to Abbotsford	Urban	627,394		272,606	$ 900,000
SCCRC	Resurfacing	Krafft	M-25 to M-136	Urban	70,000		30,000	$ 100,000
SCCRC	TBD	TBD	TBD	Category D	$ 237,483	$ 153,984	$ 66,000	$ 456,467
BWATC	Operations	Transit Operations	Blue Water Area Transit Service Area	Operating	$2,687,854	$ 4,121,276	$ 2,015,742	$ 8,824,872
BWATC	Capital	South Transfer Improvements	BWATC Service Area	Capital	$ 176,998	$ 44,250		$ 221,248

FY 2023

Sponsoring Agency	Project Type	Project Name	Limits	Fund Source	Federal Cost	State Cost	Local Funding	Total Cost
SCCRC	Road Rehab	Comstock/Burtch Rd	Graham to Wildcat	Rural	$ 240,000		$ 60,000	$ 300,000
SCCRC	Resurfacing	Fargo Rd	M-136 to Yale	Rural	$ 120,000		$ 30,000	$ 150,000
Memphis	Road Rehab	Bordman Rd	Main St (M-19) to Cole St	Rural	$ 405,600		$ 101,400	$ 507,000
Port Huron	Reconstruction	Gratiot	Holland to Garfield	Urban	$1,066,880		$ 533,120	$ 1,600,000
SCCRC	Resurfacing	24th St	Lapeer to 0.12 miles north of Dove	Urban	$ 306,728		$ 153,272	$ 460,000
SCCRC	Resurfacing	Range Rd II	Cuttle to Davis	Urban	$ 93,352		$ 46,648	$ 140,000
SCCRC	Resurfacing	Meisner Rd	King to M-29	Urban	$ 100,020		$ 49,980	$ 150,000
SCCRC	Resurfacing	King Rd	Marine City Hwy to Chartier	Urban	$ 83,350		$ 41,650	$ 125,000
SCCRC	TBD	TBD	TBD	Category D	$ 242,233	$ 159,681	$ 70,000	$ 471,914
BWATC	Operations	Transit Operations	Blue Water Area Transit Service Area	Operating	$2,767,145	$ 4,209,988	$ 2,075,205	$ 9,052,338
BWATC	Capital	Replace Bus Wash System	BWATC Service Area	Capital	$ 176,998	$ 44,250		$ 221,248

ILLUSTRATIVE LIST OF PROJECTS

Muncipality	Project Name	Project Limits	Project Type	Estimated Cost	Estimated Year
Port Huron	Quay	Glenwood to Mrchant	recosntruct	$ 261,360.00	2019
Marine City	Woodworth St	N. Mary to Belle River	Mill & Cap	$ 47,346.00	2020
Marine City	Harold St	Pearl to Westminister	Mill & Cap	$ 10,414.00	2020
Port Huron	Lapeer	13th to 24th	resurface	$ 871,200.00	2020
Port Huron	Gratiot	Kraffft to Holland	resurface	$ 858,000.00	2021
Marine City	Katherine	W. Blvd to Metroplis	Mill & Cap	$ 31,382.00	2022
Marine City	Fredrick	Fairbanks to Butler	Mill & Cap	$ 23,368.00	2022
Marine City	Bulter	W. Blvd to Metroplis	Mill & Cap	$ 31,368.00	2022
Port Huron	Reid	Electric to Military	reconstruct	$ 190,080.00	2022
Port Huron	Water	10th St to Arch	reconstruct	$ 879,120.00	2022
City of St. Clair	Fred Moore Hwy	S. Carney to 15th St.	Road Rehab	$ 550,000	2022
Port Huron	Hancock	Riverside to 16th	reconstruct	$ 997,920.00	2023
City of St. Clair	S. 3rd St.	Clinton to Vine St.	Reconstruct	$ 575,000	2023
Marine City	S. Main	Broadway to Bridge	Mill & Cap	$ 144,262.00	2024
Port Huron	Fort	Glenwood to Quay	reconstruct	$ 1,140,480.00	2024
Port Huron	Glenwood	Pine Grove to 10th Ave	reconstruct	$ 594,000.00	2024
village capac	main st	aldrich-melerst	mill/pave	$ 300,000.00	2024
SCCRC	Burtch Road	M-25 to 0.75 miles west of State	Road Rehab	$ 670,000	2024
SCCRC	Bethuy Road	King to M-29	Resurfacing	$ 210,000	2024
SCCRC	Krafft	M-136 to Parker	Road Rehab	$ 900,000	2024
SCCRC	Lakeshore Road	Keewahdin to M-25	Resurfacing	$ 160,000	2024
SCCRC	Metcalf Road	M-25 to State	Resurfacing	$ 200,000	2024
SCCRC	Range Road	Gratiot to Ashley	Resurfacing	$ 440,000	2024
City of St. Clair	Clinton/Carney Intersection	Intersection	Road Rehab	$ 250,000	2024
Port Huron	Glenwood	10th Ave to Erie	Road Rehab	$ 750,000	2024
Port Huron	16th St	Oak to Lapeer	Resurfacing	$ 550,000	2024
Port Huron	Water St	10th to 13th	Road Rehab	$ 1,150,000	2024
Port Huron	Gratiot Ave	Krafft to Holland	Road Rehab	$ 1,050,000	2024
Port Huron	Gratiot Ave	Garfield to Elmwood	Road Rehab	$ 800,000	2024
Memphis	West Bordman	M-19 to Henderson	Reconstruction	$ 582,000.00	2025
Marysville	Ravenswood	BL-94 to Michigan	2" HMA Overlay	$ 675,000.00	2025
Port Huron	Court	10th to 13th	reconstruct	$ 641,520.00	2025
Port Huron	River	10th Ave to 12th Ave	resurface	$ 409,200.00	2025
SCCRC	King Road	Marine City Highway to Red Moore	Rehabilitation	$ 1,400,000.00	2025
SCCRC	Countyline Road	Springborn to Gratiot	Rehabilitation	$ 980,000.00	2025
SCCRC	Gratiot Road	Countyline to Mayer	Reconstruction	$ 5,500,000.00	2025
SCCRC	Krafft Road	Gratiot to Campbell	Reconstruction	$ 3,650,000.00	2025
SCCRC	Capac Road	Bowers to Dudley	Rehabilitation	$ 950,000.00	2025
SCCRC	Yale Road	Capac to Miller	Rehabilitation	$ 640,000.00	2025
SCCRC	Fred Moore Hwy	I-94 to King	Rehabilitation	$ 1,400,000.00	2025
SCCRC	Wadhams Road	I-94 to Fred Moore	Reconstruction	$ 2,750,000.00	2025
SCCRC	Wales Center Road	Lapeer to Rattle Run	Reconstruction	$ 5,500,000.00	2025
City of St. Clair	N. Carney Drive	S. Range to N. Delano	Resurface	$ 994,000	2025
Marysville	Ravenswood	Michigan to Range	2" HMA Overlay	$ 510,000.00	2026
Marine City	N.Third	Fairbanks to Gladys	Mill & Cap	$ 44,580.00	2026
Marine City	N. Second	Fairbanks to gladys	Mill & Cap	$ 44,576.00	2026
Port Huron	Gratiot	Holland to Elmwood	reconstruct	$ 2,803,680.00	2026
Port Huron	Scott	Riverside to 11th Ave	reconstruct	$ 332,640.00	2026

Municipality	Project Name	Project Limits	Project Type	Estimated Cost	Estimated Year
Marysville	6th. St	Michigan to Range	Mill and Resurface 7" HMA	$ 1,400,000.00	2027
Port Huron	Gratiot	Elmwood to State	reconstruct	$ 213,840.00	2027
Port Huron	10th Ave	Harker to Black River	diamond grind	$ 1,320,000.00	2027
SCCRC	Burtch Road	Babcock to M-25	Reconstruction	$ 2,520,000.00	2027
SCCRC	Wildcat Road	Metcalf to M-136	Rehabilitation	$ 470,000.00	2027
SCCRC	Bauman Road	Dolan to Gratiot	Rehabilitation	$ 1,600,000.00	2027
SCCRC	Starville Road	Marine City Hwy to Genaw	Reconstruction	$ 4,040,000.00	2027
SCCRC	Breen Road	Burt to Bryce	Reconstruction	$ 2,000,000.00	2027
SCCRC	Comstock/Burtch	Cribbins to Babcock	Reconstruction	$ 6,050,000.00	2027
SCCRC	Wildcat Road	Fisher to Metcalf	Rehabilitation	$ 1,400,000.00	2027
SCCRC	Capac Road	Burt to Bowers	Rehabilitation	$ 1,200,000.00	2027
SCCRC	Riley Center Road	Bordman to Burt	Reconstruction	$ 6,100,000.00	2027
City of St. Clair	Brown St	Range to 9th St	Road Rehab	$ 255,000	2027
Marysville	18th. St	Range to m29	2" HMA Overlay	$ 455,000.00	2028
Marysville	River	M29 to Huron	2" HMA Overlay	$ 420,000.00	2028
Marine City	Ward St	M-29 to S. Belle River	Mill & Cap	$ 35,708.00	2028
Marine City	Bowery	M-29 to S. Belle River	Mill & Cap	$ 24,062.00	2028
Port Huron	Lapeer	7th to 13th	resurface	$ 792,000.00	2028
Port Huron	13th St	Lapeer to Oak	resurface	$ 963,600.00	2028
City of St. Clair	Clinton Ave.	S. Carney to 3rd. St.	Reconstruct	$ 1,847,000	2028
Memphis	West Bordman	Henderson to West City Limits	Reconstruction	$ 546,000.00	2029
Marysville	Michigan	Ravenswood to Gratiot	Mill and Resurface 3.5" HMA	$ 1,400,000.00	2029
Port Huron	Stone	Garfield to State	resurface	$ 594,000.00	2029
Port Huron	Stone	State to Pine Grove	resurface	$ 726,000.00	2029
Marysville	Michigan	Gratiot to Cuttle	Mill and Resurface 3.5" HMA	$ 1,750,000.00	2030
Marysville	River	Huron to Mack	2" HMA Overlay	$ 860,000.00	2030
Marine City	S. Elizabeth	Broadway to Marine	Mill & Cap	$ 142,274.00	2030
Port Huron	7th Street	Black River to Oak	resurface	$ 765,600.00	2030
Port Huron	10th St	city limits toBlack River	diamond grind	$ 2,468,400.00	2030
Port Huron	24th St	City limits to Dove	resurface	$ 171,600.00	2030
village of capac	mill st	neeper-west limit	mill/pave	$ 500,000.00	2030
SCCRC	Yale Road	Miller to Cork	Rehabilitation	$ 1,650,000.00	2030
SCCRC	Marine City Highway	Countyline to Mayer	Reconstruction	$ 4,800,000.00	2030
SCCRC	Palms Road	Marine City Hwy to Division	Reconstruction	$ 4,310,000.00	2030
SCCRC	Marsh Road	Genaw to City of Algonac	Reconstruction	$ 4,080,000.00	2030
SCCRC	North Road	Lightle to M-136	Reconstruction	$ 2,900,000.00	2030
SCCRC	Palms Road	Division to Gratiot	Rehabilitation	$ 680,000.00	2030
SCCRC	Keewahdin Road	M-136 to Lakeshore	Rehabilitation	$ 2,330,000.00	2030
SCCRC	Fargo Road	Metcalf to Yale	Reconstruction	$ 4,700,000.00	2030
SCCRC	Fargo Road	M-136 to Metcalf	Reconstruction	$ 1,200,000.00	2030
SCCRC	Imlay City/Downey/Bryce	Cade to Miller	Rehabilitation	$ 1,600,000.00	2030
SCCRC	West Water	Range to City of Port Huron	Reconstruction	$ 3,500,000.00	2030
SCCRC	Dove Street	24th to Range	Rehabilitation	$ 675,000.00	2030
SCCRC	Gratiot Road	Mayer to I-94	Reconstruction	$ 7,000,000.00	2030
SCCRC	Wadhams Road	I-94 to Yager	Rehabilitation	$ 810,000.00	2030
City of St. Clair	Vine Street	S. Carney to condition change	Resurface	$ 592,000	2030
Marysville	River	Mack to Davis	Concrete Panel Replacement	$ 450,000.00	2031
Port Huron	State	Stone to Gratiot	resurface	$ 924,000.00	2031
Port Huron	16th St	17th St to Lapeer	resurface	$ 1,003,200.00	2031
Memphis	Belle River Rd	Bordman to Mill St	Reconstruction	$ 450,000.00	2032
Marysville	Collard	Michigan to Delaware	Mill and Resurface 2" HMA	$ 250,000.00	2032
Marine City	Pittsburg	N. Parker to N. Belle River	Mill & Cap	$ 54,890.00	2032
Marine City	N. Parker	Fairbanks to Gladys	Mill & Cap	$ 44,580.00	2032
Port Huron	10th Ave	Garfiled to Harker	reconstruct	$ 554,400.00	2032
Port Huron	16th St	Lapeer to Oak	resurface	$ 633,600.00	2032
SCCRC	Indian Trail	Fred Moore to Marine City Hwy	Reconstruction	$ 4,400,000.00	2032

Municipality	Project Name	Project Limits	Project Type	Estimated Cost	Estimated Year
SCCRC	Vincent Road	M-136 to North River	Rehabilitation	$ 1,200,000.00	2032
SCCRC	Wadhams Road	Yager to Vincent	Rehabilitation	$ 1,800,000.00	2032
SCCRC	Range Road	Brown to Gratiot	Rehabilitation	$ 1,350,000.00	2032
Marysville	Cuttle	M29 to Range	Mill and Resurface 3.5" HMA	$ 890,000.00	2033
Port Huron	Court	Military to 10th	resurface	$ 554,400.00	2033
Port Huron	Riverside Drive	Pine Grove to Sanborn	resurface	$ 356,400.00	2033
Port Huron	16th St	Oak to Cedar	resurface	$ 422,400.00	2033
SCCRC	Capac Road	Burt to Macomb County	Rehabilitation	$ 1,900,000.00	2033
SCCRC	Bryce/Dunnigan	Miller to Stapleton	Rehabilitation	$ 1,900,000.00	2033
SCCRC	Palms Road	Marine City Hwy to M-29	Reconstruction	$ 3,300,000.00	2033
Marysville	Cuttle	m29 to river	Mill and Resurface 3.5" HMA	$ 740,000.00	2034
Marine City	Pleasant	Woodworth to City limits	Mill & Cap	$ 26,498.00	2034
Port Huron	Court	13th to 24th	resurface	$ 976,800.00	2034
Port Huron	Riverside Drive	Sanborn to Brandywine	resurface	$ 369,600.00	2034
Port Huron	16th St	Cedar to Beard	resurface	$ 290,400.00	2034
Memphis	Belle River Rd	Mill St to North City Limits	Reconstruction	$ 652,000.00	2035
Marysville	Delaware	Gratiot to Huron	Mill and Resurface 2" HMA	$ 660,000.00	2035
Port Huron	Erie	Black River to McMorran	resurface	$ 211,200.00	2035
Port Huron	10th Ave	Holland to Garfield	resurface	$ 1,452,000.00	2035
Port Huron	16th St	Beard to Electric	resurface	$ 990,000.00	2035
village of capac	mill st	walker-east limit	mill/pave	$ 500,000.00	2035
SCCRC	Marine City Highway	Mayer to King	Reconstruction	$ 6,200,000.00	2035
SCCRC	Marsh Road	Chartier to Genaw	Reconstruction	$ 4,900,000.00	2035
SCCRC	North River Road	Campbell to M-25	Reconstruction	$ 4,500,000.00	2035
SCCRC	Smiths Creek Road	Richman to Range	Rehabilitation	$ 1,800,000.00	2035
SCCRC	Griswold Road	Dunlap to Range	Rehabilitation	$ 1,380,000.00	2035
Marine City	N. Elizabeth	Broadway to Bridge	Mill & Cap	$ 134,065.00	2036
Port Huron	Erie	McMorran to Pine Grove	resurface	$ 739,200.00	2036
Port Huron	Union	10th to 24th	resurface	$ 1,465,200.00	2036
Port Huron	24th St	Manuel to Electric	resurface	$ 712,800.00	2036
City of St. Clair	Fred Moore Hwy	CSX Rail to Clinton	Road Reconstruction	$ 1,203,000	2036
Port Huron	Quay	Glenwood to Huron	resurface	$ 250,800.00	2037
Port Huron	Sanborn	Pine Grove to 12th Ave	resurface	$ 224,400.00	2037
Port Huron	Water	Miltary to 7th St	resurface	$ 224,400.00	2037
SCCRC	North River Road	Wadhams to Ligthle	Reconstruction	$ 3,280,000.00	2037
SCCRC	Yale Road	Cork to Cribbins	Reconstruction	$ 9,850,000.00	2037
Marine City	Scott St	M-29 to the west	Mill & Cap	$ 70,412.00	2038
Port Huron	Gratiot	Keewahdin to Krafft	resurface	$ 1,452,000.00	2038
Port Huron	Sanborn	12th Ave to 10th Ave	resurface	$ 382,800.00	2038
Port Huron	Hancock	Pine Grove to Gratiot	resurface	$ 778,800.00	2039
Port Huron	Sanborn	10th ave to Gratiot	resurface	$ 514,800.00	2039
Port Huron	Union	Military to 10th	resurface	$ 554,400.00	2039
Marine City	Catherine	Scott to Chartier	Mill & Cap	$ 24,619.00	2040
Port Huron	Conner	Electric to Military	resurface	$ 92,400.00	2040
Port Huron	24th St	Dove to Manuel	resurface	$ 277,200.00	2040
SCCRC	Kilgore Road	Lapeer to M-136	Reconstruction	$ 9,500,000.00	2040
SCCRC	Range Road	Gratiot to Lapeer	Rehabilitation	$ 2,200,000.00	2040
SCCRC	Lapeer Road	Abbostford to Range	Rehabilitation	$ 1,350,000.00	2040
SCCRC	Lapeer Road	Range to 24th	Rehabilitation	$ 1,350,000.00	2040
Port Huron	Dove	16th to 32nd	resurface	$ 990,000.00	2041
Port Huron	Glenwood	Pine Grove to Fort	resurface	$ 184,800.00	2041
Port Huron	Riverside Drive	Brandywine to Mansfield	resurface	$ 1,333,200.00	2041
City of St. Clair	N. 9th St.	Clinton to Brown St.	Resurface	$ 767,000	2041
Marysville	18th St	Range to m29	HMA Reconstruction	$ 2,400,000.00	2042
Marine City	S. Belle River	Chartier to Alger	Mill & Cap	$ 64,866.00	2042
Port Huron	Reid	Electric to 16th	resurface	$ 250,800.00	2042

Municipality	Project Name	Project Limits	Project Type	Estimated Cost	Estimated Year
Port Huron	12th Ave	River to Scott	resurface	$ 884,400.00	2042
Port Huron	McMorran	Pine Grove to Erie	resurface	$ 184,800.00	2043
Port Huron	Riverside Drive	Mansfield to Scott	resurface	$ 343,200.00	2043
Marysville	Ravenswood	BL-94 to Michigan	HMA Reconstruction	$ 3,950,000.00	2044
Marine City	Metropils	N. Parker to N. Sixth	Mill & Cap	$ 74,965.00	2044
Port Huron	Hancock	16th Ave to BL94	resurface	$ 118,800.00	2044
Port Huron	Holland	Pine Grove to Gratiot	resurface	$ 1,293,600.00	2044
Marysville	Ravenswood	Michigan to Range	HMA Reconstruction	$ 2,960,000.00	2045
Port Huron	River	Glenwood to east of Stone	resurface	$ 356,400.00	2045
Port Huron	Water	City limits to Arch	diamond grind	$ 712,800.00	2045
Port Huron	17th St	Water to 16th	diamond grind	$ 105,600.00	2045
City of St. Clair	S. 6th St.	Clinton to Vine St.	Reconstruct	$ 688,000	2045
Marine City	N. Market	Broadway to N. Main	Mill & Cap	$ 81,174.00	2046
Various	Various Rural	Various	Various	Unknown	
Various	Various Urban	Various	Various	Unknown	
Various	Various Category D	Various	Various	Unknown	
Various	Various Bridge	Various	Various	Unknown	
Various	Various TAP	Various	Various	Unknown	

C. FUNDING TARGETS: ROAD INFRASTRUCTURE

	2020	2021	2022	2023
STP-Urban	$155,249	$1,586,355	$1,618,082	$1,650,443
STP-Rural	$731,043	$745,664	$760,577	$775,789
Cat D (STP– Flex)	$228,262	$232,827	$237,483	$242,233
Cat D (State)	$143,192	$148,490	$153,984	$159,681
Local Match	$575,000	$580,000	$585,000	$590,000
	$3,232,746	*$3,293,336*	*$3,355,126*	*$3,418,146*

	2024	2025	2026	2027	2028	2029
STP-Urban	$1,683,453	$1,717,122	$1,751,464	$1,786,493	$1,822,223	$1,865,956
STP-Rural	$791,305	$807,131	$823,273	$839,739	$856,534	$877,091
Cat D (STP– Flex)	$247,078	$252,019	$257,060	$262,201	$267,445	$273,864
Cat D (State)	$165,590	$171,717	$178,070	$164,659	$191,491	$195,895
Local Match	$600,000	$605,000	$610,000	$640,000	$655,000	$670,000
	$3,487,426	*$3,552,989*	*$3,619,867*	*$3,693,092*	*$3,792,693*	*$3,882,806*

	2030-2034	2035-2039	2040-2045
Federal	$16,206,028	$18,246,365	$24,952,800
State	1,049,169	1,175,502	1,598,909
Local	3,600,000	4,200,000	5,400,000
	$20,855,197	*$23,621,867*	*$31,951,709*

D. Funding Targets: Transit

Operating/Capital				
	2020	2021	2022	2023
Federal 5307	$1,889051	$1,944,778	$2,002,149	$2,061,212
Federal 5311	$646,971	$666,056	$685,705	$705,933
Federal 5339	$172,066	$177,142	$182,367	$187,747
State CTF	$5,510,446	$5,553,943	$5,597,886	$5,642,282
Local Match	$1,123,368	$1,957,980	$2,015,742	$2,075,205
	$9,341,902	*$10,299,899*	*$10,483,849*	*$10,672,379*

Operating/Capital						
	2024	2025	2026	2027	2028	2029
Federal 5307	$2,122,018	$2,184,617	$2,249,063	$2,315,411	$2,383,715	$2,454,035
Federal 5311	$726,758	$748,198	$770,270	$792,993	$816,386	$840,469
Federal 5339	$193,286,	$198,988	$204,858	$210,901	$217,123	$223,528
State CTF	$4,389,818	$4,445,090	$4,536,391	$4,636,046	$4,738,638	$4,844,257
Local Match	$2,136,424	$2,199,450	$2,264,334	$2,331,131	$2,399,898	$2,470,695
	$9,375,018	*$9,776,343*	*$10,024,916*	*$10,286,482*	*$10,555,760*	*$10,832,984*

Operating/Capital			
	2030-2034	2035-2039	2040-2045
Federal	$19,209,492	$22,215,067	$31,292,624
State	$30,317,856	$31,574,278	$39,642,569
Local	$14,407,119	$16,661,300	$23,469,468
	$63,934,467	*$70,450,645*	*$94,404,661*

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nplan
NATIONAL POLICY & LEGAL ANALYSIS NETWORK TO PREVENT CHILDHOOD OBESITY

Model Complete Streets Resolution for Local Governments

July 2015

The National Policy & Legal Analysis Network to Prevent Childhood Obesity (NPLAN) is a project of ChangeLab Solutions. ChangeLab Solutions is a nonprofit organization that provides legal information on matters relating to public health. The legal information in this document does not constitute legal advice or legal representation. For legal advice, readers should consult a lawyer in their state.

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Resolution No. _____

A RESOLUTION OF THE [*City Council/Board of Supervisors*] OF THE [*Jurisdiction*] ADOPTING A COMPLETE STREETS POLICY

WHEREAS, safe, convenient, and accessible transportation for all users is a priority of [*Jurisdiction*];

WHEREAS, the term "Complete Streets" describes a comprehensive, integrated transportation network with infrastructure and design that allow safe and convenient travel along and across streets for all users, including pedestrians, bicyclists, persons with disabilities, motorists, movers of commercial goods, users and operators of public transportation, seniors, children, youth, and families;

WHEREAS, the lack of Complete Streets is dangerous for pedestrians, bicyclists, and public transportation riders,[1–3] particularly children,[4,5,6] older adults,[7] and persons with disabilities[8,9]; on average, a pedestrian was killed every two hours and injured every seven minutes in traffic crashes in 2012[10];

WHEREAS, [*add local data on traffic injuries if desired and available*];

WHEREAS, low- and moderate-income areas, whether they be located in rural, urban, or suburban communities, are typically the least safe for pedestrians and bicyclists,[11] especially for children walking and biking to school,[12] due to long-standing infrastructure disparities[13–15] and a higher concentration of streets with faster-moving and/or higher-volume traffic[16,17];

WHEREAS, Complete Streets improve public health and safety by reducing the risk of injuries and fatalities from traffic collisions for users of all modes of transportation[1,2,18–24];

WHEREAS, streets that are designed with the safety and convenience of pedestrians and bicyclists in mind increase the number of people walking and bicycling[25–27];

WHEREAS, a balanced transportation system that includes Complete Streets is conducive to streets that are lively with people walking and bicycling to everyday destinations, such as schools, shops, restaurants, businesses, parks, transit, and jobs, which in turn enhances neighborhood economic vitality[20,22,28–32] and livability[33–35];

WHEREAS, encouraging people to walk, bicycle, and use public transit saves energy resources, reduces air pollution, and reduces emissions of global warming gases[36–38];

WHEREAS, [*add local data on obesity, chronic disease, etc., if desired and available*];

WHEREAS, Complete Streets encourage an active lifestyle by creating opportunities to integrate exercise into daily activities,[39,40] thereby helping to reduce the risk of obesity and its associated health problems, which include diabetes, heart disease, high blood pressure, high cholesterol, as well as certain cancers, stroke, asthma, and depression[41–45]; and

WHEREAS, in light of the foregoing benefits and considerations, [*Jurisdiction*] wishes to improve its commitment to Complete Streets and desires that its streets form a comprehensive and integrated transportation network promoting safe, equitable, and convenient travel for all users while preserving flexibility, recognizing community context, and using the latest and best design guidelines and standards.

NOW, THEREFORE, BE IT RESOLVED, by the [*City Council/Board of Supervisors*] of [*Jurisdiction*], State of [_____], as follows:

1. That the [*Jurisdiction*] adopts the Complete Streets Policy ("Policy") attached hereto as Exhibit A, and made part of this Resolution.
2. That the next substantive revision of the [*Jurisdiction*]'s [*Comprehensive/ General/Master*] Plan [*or insert name of comparable local planning document if different*] shall incorporate Complete Streets policies and principles consistent with the Policy.

PASSED AND ADOPTED by the [*City Council/Board of Supervisors*] of the [*Jurisdiction*], State of [_____], on _____, 20__, by the following vote:

Attachment: Exhibit A

EXHIBIT A

This Complete Streets Policy was adopted by Resolution No. _____ by the [*City Council/Board of Supervisors*] of the [*Jurisdiction*] on _____, 2____.

COMPLETE STREETS POLICY OF [*JURISDICTION*]

A. DEFINITIONS

1. "Complete Street" means a street or roadway that allows safe and convenient travel by all of the following categories of users: pedestrians, bicyclists, people with disabilities, motorists, movers of commercial goods, users and operators of public transportation, seniors, children, youth, and families [*insert other significant local users if desired, e.g., drivers of agricultural vehicles, emergency vehicles, or freight*].

2. "High Need Area" means (1) any census tract in which the median household income is less than [*80%*] of the statewide average median based on the most current census tract-level data from the U.S. Census Bureau American Community Survey, (2) any area within two miles of a school in which at least [*50%*] of the children are eligible to receive free and reduced-price meals under the National School Lunch Program, or (3) any area that has a high number of pedestrian and/or bicycle collisions.

3. "Transportation Project" means any development, project, program, or practice that affects the transportation network or occurs in the public right-of-way, including any construction, reconstruction, retrofit, signalization operations, resurfacing, restriping, rehabilitation, maintenance (excluding routine maintenance that does not change the roadway geometry or operations, such as mowing, sweeping, and spot repair), operations, alteration, and repair of any public street or roadway within [*Jurisdiction*] (including alleys, bridges, frontage roads, and other elements of the transportation system).

B. COMPLETE STREETS REQUIREMENTS

[*Jurisdiction*] shall work toward developing an integrated and connected multimodal transportation system of Complete Streets that serves all neighborhoods. Toward this end:

1. Every Transportation Project, and phase of that project (including planning, scoping, funding, design, approval, implementation, and maintenance), by [*Jurisdiction*] shall provide for Complete Streets for all categories of users identified in Section A(1) of this Policy.

2. The [*identify relevant internal departments and agencies by name*] shall routinely work in coordination with each other, any Bicycle or Pedestrian Coordinator, and any relevant advisory committees, to create Complete Streets and to ensure consistency with any existing Pedestrian/Bicycle/Multi-Modal Plans [*or insert name of other comparable plans*].

3. Wherever possible, Transportation Projects shall strive to create a network of continuous bicycle- and pedestrian-friendly routes, including routes that connect with transit and allow for convenient access to work, home, commercial areas, and schools.

4. The [*insert names of departments and agencies identified in Section B(2)*] shall coordinate with adjacent jurisdiction(s) and any other relevant public agencies, including [*insert relevant regional/state agencies*], to ensure that, wherever possible, the network of continuous bicycle- and pedestrian-friendly routes identified in Section B(3) extends beyond [*Jurisdiction*]'s boundaries into adjacent jurisdictions.

5. [*Jurisdiction*] shall rely upon the current editions of street design standards and guidelines that promote and support Complete Streets.

> **COMMENT:** Current examples of street design standards and guidelines that promote and support Complete Streets [*add as of date when draft is finalized*]
>
> - *Urban Street Design Guide* and *Urban Bikeway Design Guide* (National Association of City Transportation Officials)
> - *Designing Walkable Urban Thoroughfares: A context sensitive approach* (Institute of Transportation Engineers/Congress for the New Urbanism)
> - *Pedestrian Safety Guide and Countermeasure Selection System* (U.S. Department of Transportation, Federal Highway Administration)
> - *Bicycle Safety Guide and Countermeasure Selection System* (U.S. Department of Transportation, Federal Highway Administration)
> - *Separated Bike Lane Planning and Design Guide* (U.S. Department of Transportation, Federal Highway Administration)

6. This Policy shall be implemented in all neighborhoods, with particular attention to High Need Areas.

7. All Complete Streets shall reflect the context and character of the surrounding built and natural environments, and enhance the appearance of such. At the planning stage,

[*Jurisdiction*] shall work with local residents, business operators, neighboring jurisdictions, school districts, students, property owners, and other stakeholders who will be directly affected by a Complete Streets project to address any concerns regarding context and character.

C. LEAD DEPARTMENT

The [*insert name of lead department or agency* (*e.g., Transportation or Planning Department*) *and title of person accountable* (*e.g., Director or Bicycle/Pedestrian Coordinator*)] shall lead the implementation of this Policy and coordinate with [*insert names of other relevant departments or agencies*].

D. IMPLEMENTATION

The following steps shall be taken [*immediately upon/or within one–two years of*] the effective date of this Policy:

1. All street design standards used in the planning, designing, and implementing phases of Transportation Projects shall be reviewed to ensure that they reflect the best available design guidelines for effectively implementing Complete Streets.
2. [*Insert names of all relevant departments and agencies*] shall incorporate this Policy into relevant internal manuals, checklists, rules, and procedures.
3. [*Insert name of lead agency*] shall assess whether any municipal and zoning codes, land use plans, or other relevant documents, including the Capital Improvement Program [*include all relevant programs, e.g., pavement management program, traffic signal program, tree program, ADA curb ramp program, etc.*], conflict with this Policy, and shall submit a report, along with a proposal for addressing any conflicts, to the [*City Manager or insert relevant position*].
4. [*Insert name of lead agency*] shall provide training on Complete Streets and the implementation of this Policy to all relevant staff, and develop a plan for providing such training for new hires.
5. [*Insert name of lead agency*] shall identify all High Need Areas and develop benchmarks to ensure that Complete Streets are implemented in such areas consistent with their need.
6. [*Insert name of lead agency*] shall identify an existing process or develop a new process that allows for public participation (including participation by bicycle, pedestrian, and Complete Streets advisory committees) in decisions concerning the design, planning, and use of streets and roadways covered by this Policy.
7. [*Jurisdiction*] shall actively seek sources of public and private funding to assist in the implementation of this Policy.

E. EXCEPTIONS TO POLICY

1. A specific category of user may be excluded from the requirements of Section B of this Policy only if one or more of the following exceptions apply:
    a. Use of the roadway is prohibited by law for the category of user (e.g., pedestrians on an interstate freeway, vehicles on a pedestrian mall). In this case, efforts shall be made to accommodate the excluded category of user on a parallel route; or
    b. There is an absence of both a current and future need to accommodate the category of user (absence of future need may be shown via demographic, school, employment, and public transportation route data that demonstrate, for example, a low likelihood of bicycle, pedestrian, or transit activity in an area over the next 20 years); or
    c. The cost would be excessively disproportionate to the current need or future need over the next 20 years.

2. An exception shall be granted only if:
    a. a request for an exception is submitted in writing, with supporting documentation, and made publicly available with a minimum of [30] days allowed for public input; and
    b. the exception is approved in writing by the [*identify governing body, e.g., City Council or head of lead agency, e.g., Director of the Department of Public Works*], and the written approval is made publicly available.

F. PERFORMANCE MEASURES

In order to evaluate whether the streets and transportation network are adequately serving each category of users, [*insert names of relevant agencies and departments*] shall collect and/or report baseline and annual data on matters relevant to this Policy, including, without limitation, the following information:

1. Mileage by [*district/neighborhood*] of new bicycle infrastructure (e.g., bicycle lanes, paths, and boulevards)
2. Linear feet [*or mileage*] by [*district/neighborhood*] of new pedestrian infrastructure (e.g., sidewalks, trails, etc.)
3. Number by [*district/neighborhood*] of new curb ramps installed
4. Number by [*district/neighborhood*] of new street trees planted
5. Type and number by [*district/neighborhood*] of pedestrian- and bicycle-friendly signage and landscaping improvements, including street furniture and lighting

6. Bicycle and pedestrian counts, including in High Need Areas
7. Commute mode percentages by [*district/neighborhood*] as provided by the American Community Survey conducted by the U.S. Census Bureau (e.g., drive alone, carpool, transit, bicycle, walk)
8. The percentage by [*district/neighborhood*] of transit stops accessible via sidewalks and curb ramps
9. The number, locations, and cause of collisions, injuries, and fatalities by mode of transportation
10. The total number [*or rate*] by [*district/neighborhood*] of children walking or bicycling to school
11. Vehicle Miles Traveled (VMT) or Single Occupancy Vehicle (SOV) trip reduction data as made available by [*insert name of Metropolitan Planning Organization, county, or other relevant governmental body or agency*].

G. REPORTING REQUIREMENTS

One year from the effective date of this Policy, and annually thereafter, the lead agency shall submit a report to the [*insert name of governing body, e.g., city council*] on the progress made in implementing this Policy that includes, at a minimum, the following: (1) baseline and updated performance measures as described in Section (F); (2) a summary of (a) all Transportation Projects planned or undertaken and their status, including a full list and map, with clear identification of which projects are located in High Need Areas; (b) all exceptions granted pursuant to Section E of this Policy, including identification of exceptions granted in High Need Areas; (c) the progress made in achieving the benchmarks for High Need Areas developed pursuant to Section D(5); (d) updates to street design standards, internal department and agency manuals and procedures, zoning and municipal codes, and land use plans, pursuant to Sections D(1)-(3); (e) all funding acquired for projects that enhance the Complete Streets network; (f) all staff trainings and professional development provided pursuant to Section D(4); and (3) any recommendations for improving implementation of this Policy.

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