EAST-WEST CORRIDOR TRANSPORTATION STUDY

GRAND TRAVERSE
County Road Commission

MAY 2019

Source: AboutNorth.com

TABLE OF CONTENTS

Introduction

PROJECT BACKGROUND

The East-West Corridor Transportation Study is a project funded and managed by the Grand Traverse County Road Commission (GTCRC) to develop solutions to the growing transportation issues in north-central Grand Traverse County. As Traverse City and the surrounding communities have grown into a thriving region and national tourist destination, traffic congestion and other transportation woes threaten to stifle that progress.

This study began in January 2018 with a goal to provide independent analysis of primary GTCRC corridors using traffic modeling, safety analysis, environmental impacts, and stakeholder/public input. A project team consisting of staff from the GTCRC and the OHM Advisors consultant team was formed to handle the technical work and identify potential solutions for the region. Additionally, a Local Agency Group (LAG) was formed to provide meaningful interaction with stakeholder groups along the corridor and provide guidance throughout the study. The LAG members included representatives from the City of Traverse City, Garfield Township, MDOT, Grand Traverse County, East Bay Township, business owners in the area, law enforcement agencies, parks and recreation committees, and local environmental organizations. A list of all entities included in the LAG can be found in Appendix A.

Congestion on S. Airport Road. Source: Traverse City Record-Eagle

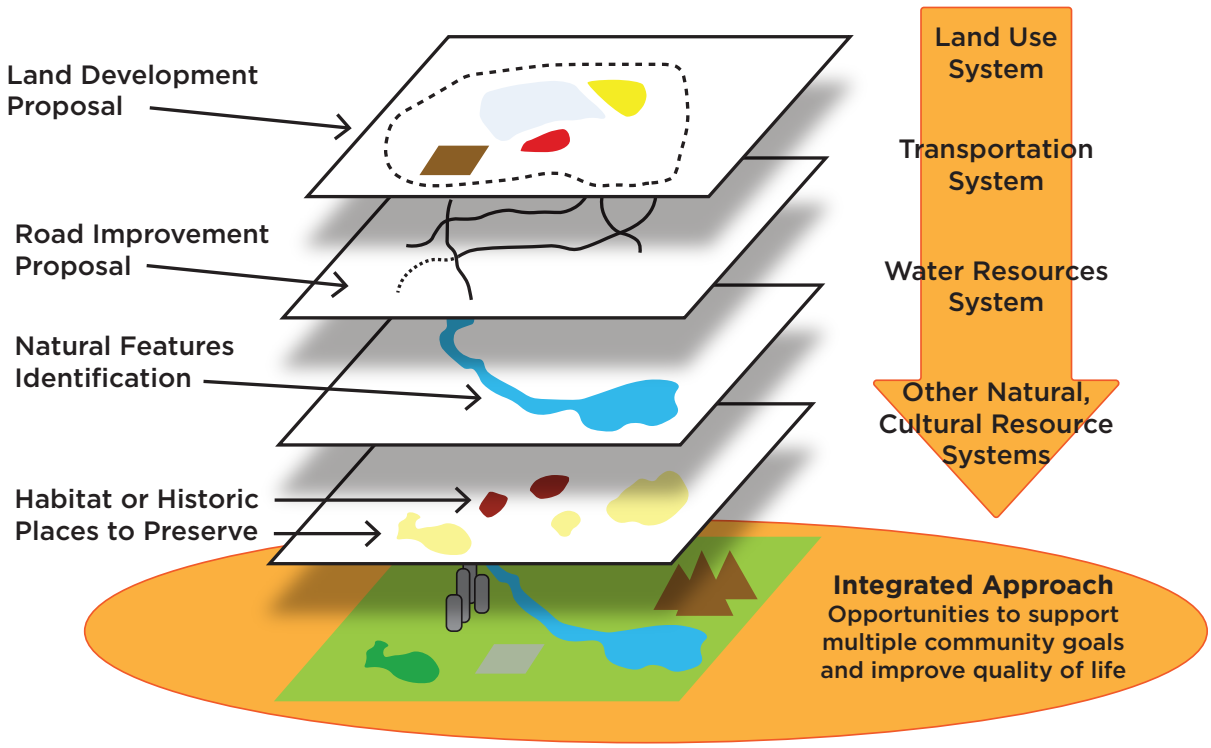
PLANNING AND ENVIRONMENTAL LINKAGES (PEL) PROCESS

The East-West Corridor study followed the Planning and Environmental Linkages (PEL) process developed by the Federal Highway Administration (FHWA). Although this study is not a full PEL study, the project team is following the overall PEL process to ensure planning and environmental factors are considered throughout the process, which allows the solutions to be carried forward into National Environmental Policy Act (NEPA) clearance, if deemed necessary. The PEL process also promotes dialogue and direct communication between key stakeholders within the study area leading to an improved and balanced planning and decision-making process. By combining aspects of various planning initiatives into a single study, agencies are able to more efficiently identify potential impacts, accelerate project delivery, develop better environmental outcomes, and implement mutually beneficial outcomes.

It is important to note that this process is not a complete environmental evaluation as required by the state, resource agencies, or FHWA and does not result in environmental clearance under NEPA. What this process does is identify where impacts are greatest for proposed solutions so that GTCRC may implement a plan for mitigation or begin the environmental assessment process.

The Study Area for the PEL process is bound by Grandview Parkway to the north, 4 Mile Road to the east, Beitner Road to the south, and US-31/ Division Street to the west, as illustrated in Figure 1 on Page 7. The study focuses on roadways under the GTCRC's jurisdiction.

The Integrated Approach to PEL



Existing Conditions

Grand Traverse County's proximity to Lake Michigan, nearby outdoor recreation amenities, and various entertainment options have made it one of Michigan's most popular regions. The County has a population of 91,222, according to the 2017 American Community Survey and is part of the larger Traverse City Micropolitan Statistical Area (population 147,606).

Grand Traverse County is one of the largest producers of tart cherries in the United States. Traverse City hosts the annual National Cherry Festival in early July, and attracts approximately 500,000 visitors to the festival annually. Grapes grown in the surrounding countryside contribute to one of the largest wine production centers in the Midwest. Tourism, mostly in the summer and early fall, is a booming industry. The Traverse City area features varied natural attractions, including Great Lakes and Lake Michigan beaches, wineries, micro-breweries, Sleeping Bear Dunes National Lakeshore, campgrounds, historic lighthouses and State forest areas.

The popularity of the region, however, is causing mobility issues for both residents in Grand Traverse County and visitors to the region. Traffic backups are common in the Study Area (Figure 1), especially on the roads traveling east-west. Opinions vary on the amount of traffic seeking to get into the City, versus around the City, but the fact remains the population of the region is increasing and its popularity as a tourism destination will continue to contribute to traffic issues. According to MDOT, 80% - 90% of traffic in the region is coming into Traverse City.

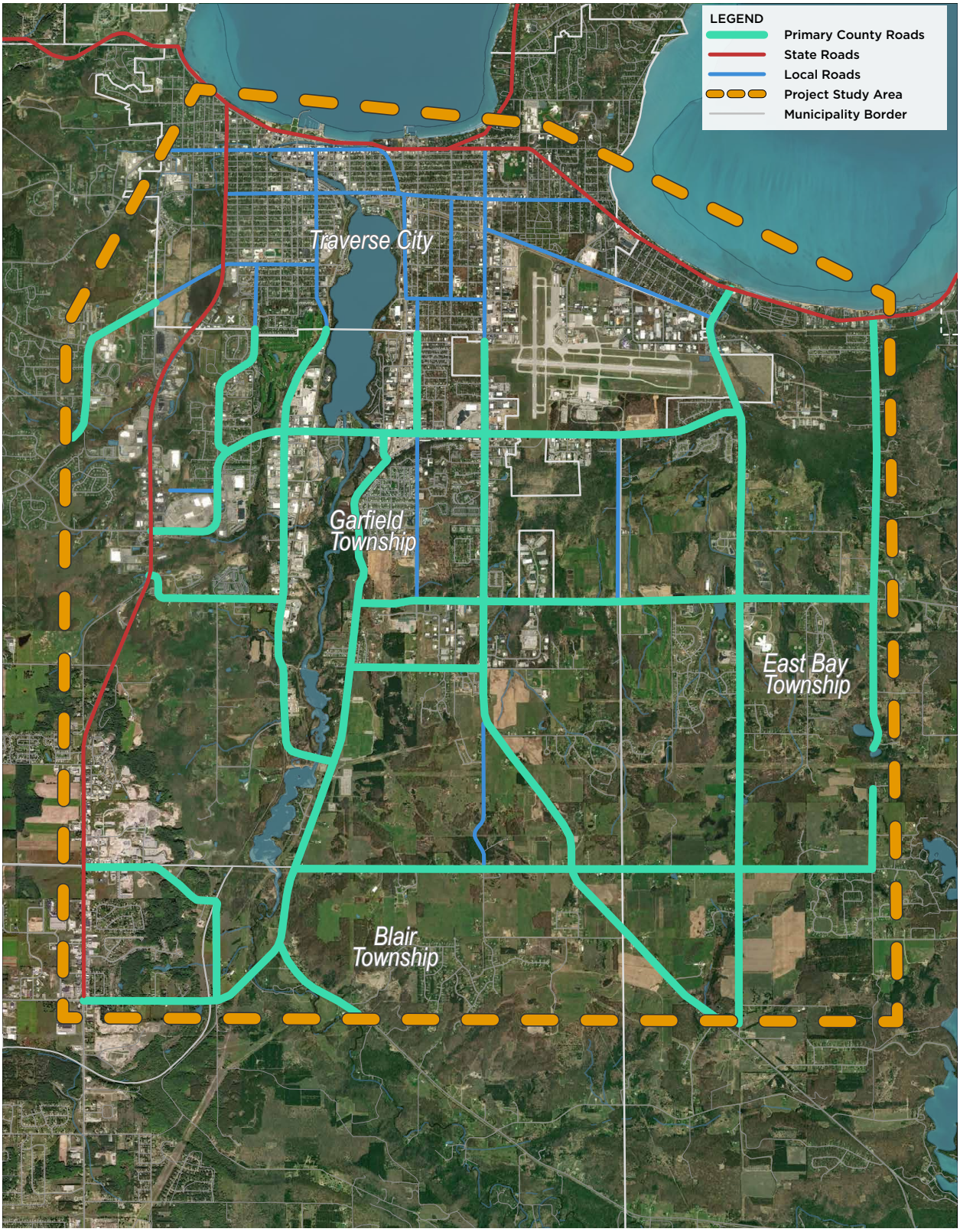


Figure 1: The project Study Area extends from Grandview Parkway to Beitner Road and from US-31/ Division Ave to Four Mile Road

EXISTING CONDITIONS

The East-West Corridor Transportation Study is an attempt to identify specific issues and potential solutions to improve mobility in the region.

TRANSPORTATION SYSTEM AND EXISTING CONDITIONS

The East-West Corridor Transportation Study is focused on the roads under the jurisdiction of the Grand Traverse County Road Commission, as the Study's solutions will be implemented by the agency. Many of the major streets outside of the City of Traverse City are under the Road Commission's jurisdiction and are centered in the busiest and most densely populated area of the county including S. Airport Road, Hammond Road, Hartman Road, and Keystone Road.

The major roadways create a gridded street pattern making navigation relatively easy, however a "sub-grid" of local streets within the major streets does not exist. This forces people out onto major roadways, even for short trips to adjacent neighborhoods, to school, or to nearby shopping. In combination with the longer distance travelers, mixing all the short and longer trips onto a few roads intensifies congestion and potential for crashes.

A well-established network of non-motorized and bicycle facilities exist in parts of the study area, much of it focused in Traverse City. The City has a number of on-road bicycle facilities and a highly connected sidewalk network that allows many residents to travel to nearby destinations on foot. A number of shared-use, non-motorized pathways managed by TART Trails allows cyclists and pedestrians to travel around the region on separated and dedicated facilities. Many of these trails extend south from Traverse City into the center of the Study Area.

A regional transit system operated by the Bay Area Transportation Authority (BATA) provides bus service through much of the Study Area. The majority of service is operated on the City Loops which run in Traverse City, Garfield Township, and East Bay Township. These routes extend as far south as Hammond Road. BATA operates other long-haul Village Loops which run into the surrounding counties and connect the smaller villages to Traverse City.

Source: IndigoBluffs

LAND USE AND SURROUNDING ENVIRONMENT

There are three distinct land use zones in the Study Area which are apparent when traveling from north to south. The north end, located in Traverse City contains a dense, historic development pattern with mixed use neighborhoods, small lot sizes, and few driveways all located within a gridded street network. This development pattern allows for a higher density of residents and businesses to coexist and makes non-automobile travel easier due to the interconnected sidewalk and bicycle facility network.

This land use development pattern continues south to the area around S. Airport Road where more industrial and suburban style linear commercial businesses exist. Land use is less dense than in the City, is more auto-oriented, and is served by of many driveways. Newer residential housing has been constructed, but the site designs do not include sidewalk or bike infrastructure connections to surrounding development.

South of Hammond Road, the land is more rural and is characterized by fewer, more sporadic developments located on large parcels of land. Small businesses are spread throughout the area. The road network consists mostly of arterial and collector roads that GTCRC has jurisdiction over and a few local streets in between.

Various ecological resources also exist within the Study Area, including Lake Michigan and the Grand Traverse Bay, Boardman Lake, the Boardman River, along with the associated floodplains and wetlands. The Boardman River, including Boardman Lake, extends through the entire Study Area flowing from south to north.

Downtown Traverse City is dense, mixed-use, and walkable. Source: Traverse Magazine

S. Airport Road is home to the Grand Traverse Mall and other primarily auto-oriented development. Source: RealEstateOne

Many acres of farmland and conservation land can be found in the southern part of the Study Area. Source: Estately.com

EXISTING CONDITIONS

PROBLEM STATEMENT

As population and development pressures have incrementally increased over the decades, potential changes to the transportation system have been long debated in Grand Traverse County. The region's population, employment, and local tourism industry continues to grow, and traffic congestion is growing along with it. While some residents believe additional road options could help relieve congestion, others believe the impacts of new improvements are not worth the cost or they will induce more traffic. Much of the past debate is centered on adding transportation options for moving east-west through the County, as well as concern over potential impacts to the Boardman River.

Throughout the Study Area, a number of problem areas exist that lead to increased congestion. First, there are a limited number of east-west crossings of the Boardman River, which essentially splits the Study Area in half (see Figure 2). 8th Street is the main east-west crossing of the Boardman River within the City of Traverse City, and functions as a slower speed collector road through a pedestrian friendly, business lined street. S. Airport Road is the next crossing of the river to the south and is lined with a number of busy land uses like the Grand Traverse Mall, restaurants, retail centers, and residential developments, which are destinations in their own right. Cass Road (Robbins Bridge) is the next river crossing to the south and does not continue east past Keystone Road. Beitner Road is the southernmost river crossing within the Study Area and connects to US-31 at Chum's Corner, a popular shopping destination for area residents. Beitner Road also connects directly into Keystone Road without continuing east. US-31/Division Street is an important transportation corridor to the west and is relatively disconnected from the road network on the east side of the Boardman River.

Second, as population has grown over the years, businesses and residents started to spread out from the core of Traverse City. S. Airport Road became a significant east-west connection through the center of the region as well as a regional shopping destination with the arrival of big box stores, the Grand Traverse Mall, and numerous restaurants and local businesses. Access management (consideration of the cumulative impacts based on the number and placement of driveways - as described in more in Appendix D) was not considered at the time and as a result the density of driveways contributes to the congestion and crashes along this corridor. This same issue has occurred on other corridors to a lesser degree, however they are less developed, and the

Robbins Bridge allows Cass Road to cross the Boardman River

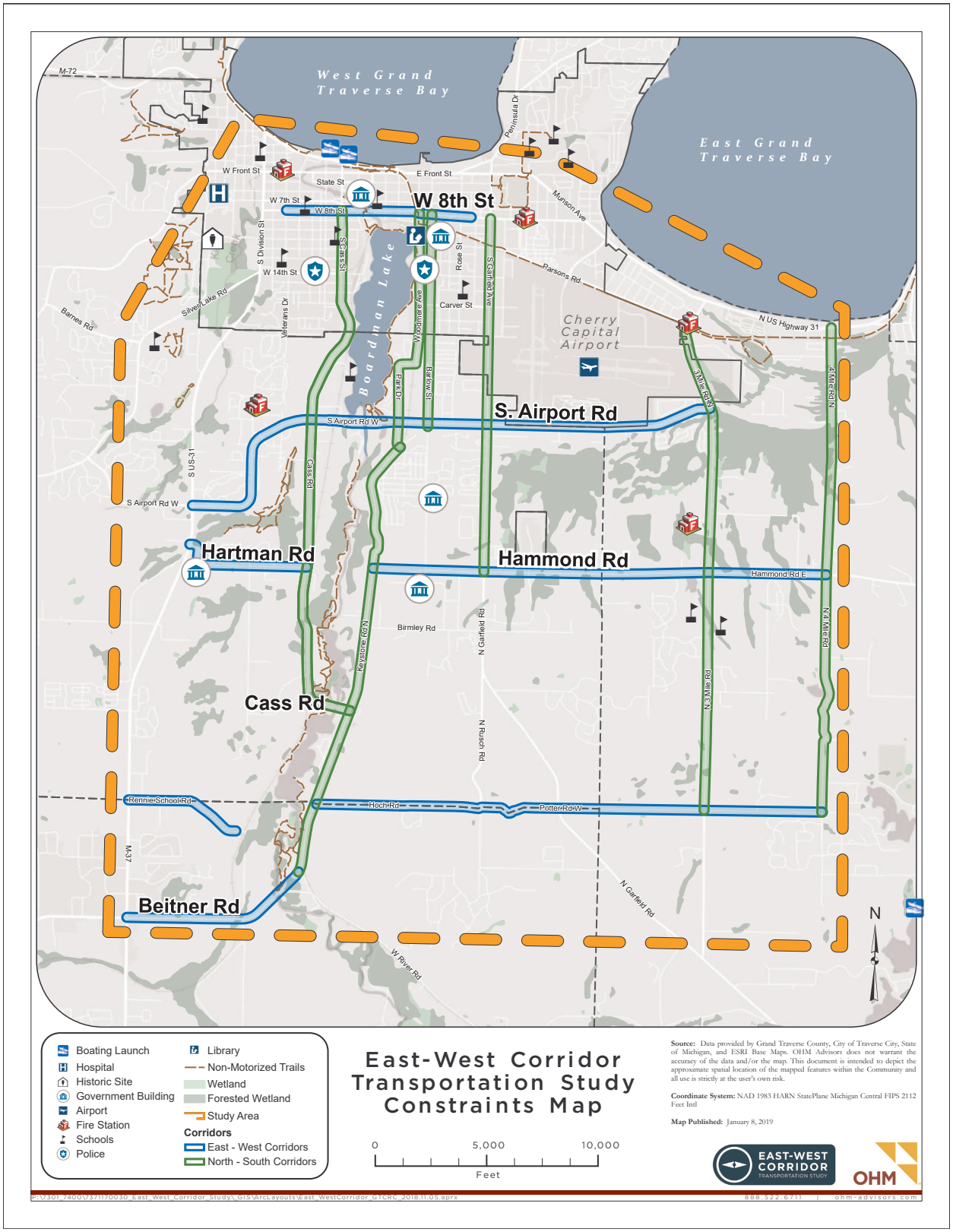


Figure 2 - East-West Corridor Study Area Environmental Constraints

problem has not reached the level seen on S. Airport Road.

Finally, the ecological resources that exist within the Study Area are difficult to overcome from both a cost and public opinion standpoint. The major environmental barrier is the Boardman River, but there are also numerous conservation areas, wetlands, and floodplains that make adding new connections a challenge.

PREVIOUS PROJECTS AND STUDIES

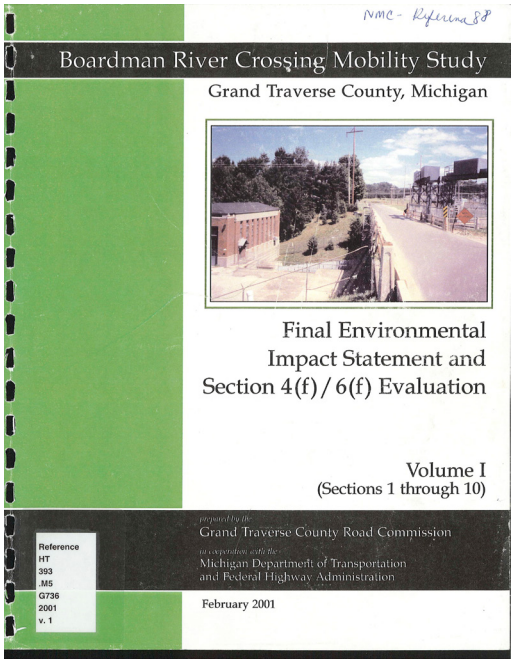
There is a long history of transportation planning projects attempting to mitigate or solve the vehicular traffic issues in the Traverse City Region. Some of the previous transportation planning studies have focused on the specific corridors and routes identified in this study. Others identify mobility solutions for the entire region. The Project Team reviewed these plans to help inform the solutions developed as part of the East-West Corridor Study process.

Boardman River Crossing Mobility Study - FEIS

Published in 2001, the Final Environmental Impact Statement (FEIS) for the Boardman River Crossing Mobility Study was the final step in the evaluation of bridge replacement alternatives to improve the transportation network. The FEIS evaluated in detail the potential impacts that each of the alternatives would have on the surrounding environment. The study was sponsored by GTCRC, the Traverse City Area Transportation and Land Use Study (TC-TALUS), Grand Traverse County, and Garfield Township.

Typical traffic congestion on S. Airport Road. Source: The Ticker

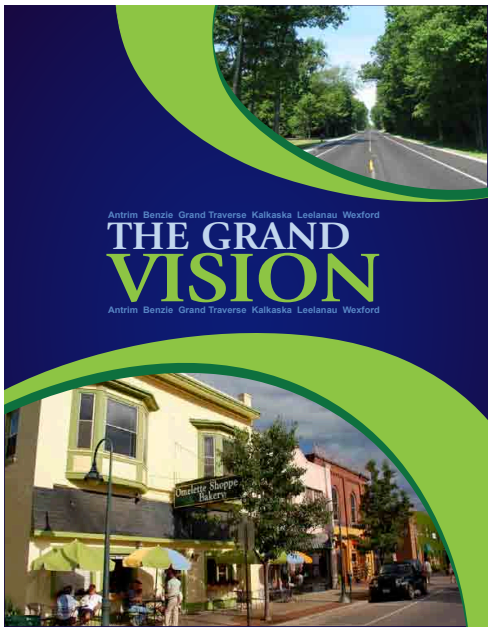
Four alternatives were selected for evaluation in the EIS, including a No Build Alternative, a transportation system management alternative, a Hartman-Hammond Road bridge connection, and a widening of S. Airport Road. Ultimately, the Hartman-Hammond Road Connector was selected as the Recommended Alternative which included a new bridge over the Boardman River.



Although the Boardman River Crossing at Hartman-Hammond Roads was selected as the recommended alternative, a permit was not issued to construct the crossing due to environmental impacts associated with the project. Additionally, the environmental clearance has expired so a plan for crossing the Boardman River in this location would require a new Environmental Impact Statement.

The Grand Vision

The Grand Vision is a comprehensive framework for the Northwest Michigan focused on land use, transportation, economic development, and environmental stewardship. The Grand Vision originated when the permit application process and construction activities associated with the Hartman-Hammond Connector were paused. A comprehensive, multi-modal transportation plan was created using reallocated federal transportation dollars in 2006. The Transportation Network recommendations looked to maintain and improve the existing road system, increase public transportation services between cities and villages in the region, and expand infrastructure serving pedestrians and bicyclists, both in and out of town.



Garfield Township Master Plan

Garfield Township completed their five-year Comprehensive Plan in 2018 and is to be used as a road map for making land use and transportation decisions into the near future. Much of the plan focuses on the land use decisions that the Township can direct to meet resident's needs, however a section dedicated to transportation was included in the plan. The transportation section focuses specifically on the east-west mobility challenges through Garfield Township. Transportation goals include finding solutions for overburdened roadways and improving alternative transportation options (walking, biking, transit) in the Township.

Specific recommendations for access management, redevelopment, and non-motorized travel are laid out for a number of corridors in the Garfield Township Master Plan. Recommendations for S. Airport Road focus on improving traffic flow by managing access, setting up a Corridor Improvement Authority, and improving east-west travel for all users. Hartman and Hammond Roads are recommended to be connected with a bridge to help accommodate growing population and future development plans along the corridor.

US Route 31/M-72/M-37 Regional Corridor Study – MDOT

The US-31/M-72/M-37 Regional Corridor Study completed in 1996 considered roadway improvements to improve traffic flow within a Study Area that stretched from Acme Township, through Garfield Township, and back up to Elmwood Township. The purpose of the study was to identify new routes through the core of the Traverse City region to improve vehicular travel. Potential alternatives included a mix of existing roadways and new alignments through open land.

Master Street Plan - Traverse Transportation Coordinating Initiative (TTCI)

TTCI's Master Street Plan was developed to provide a conceptual plan to achieve a balanced understanding of the land use and transportation connection. TTCI used data from the 2045 MDOT regional model, local input from area officials, and municipal planning documents to estimate the needs of the future transportation needs in the region. The Master Street Plan was broken down into three steps, including the existing conditions analysis, demand projection, and recommendations for future connections and improvements.

TTCI was able to determine where the future projected growth areas are slated, and which improvements should be made to address the growth there. In the majority of the growth areas small roadway connections are recommended along with larger non-motorized and sidewalk connections to the existing network. Many of the small network connections, for example between local streets and arterial streets, would help all motorists navigate the existing network more efficiently.

West South Airport Road between Park Road and Garfield Road:

Specific corridor recommendations, like for this focus area on S. Airport Road, are made in the Garfield Township Master Plan.

TC-TALUS Transportation and Land Use Study – Vision 2035

The Traverse City Transportation and Land Use Study developed the Vision 2035 Plan in 2014 to identify specific short term and long-term transportation projects for the Traverse City region. The goals of the Vision 2035 Plan are to enhance the surrounding land use and natural resources, improve efficiency of the transportation system, ensure basic mobility for all residents in the region and be accessible to all, recognize funding availability and constraints, and support the Grand Vision plan.

The Vision 2035 Plan identifies a variety of roadway improvements to the region including intersection improvements along S. Airport Road to improve safety, improved multi-modal transportation options, additional transit service options, and investments to roadways that are over capacity.

Prior Studies Conclusion

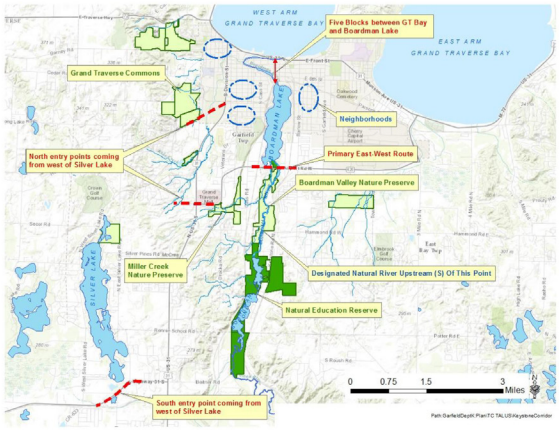
Each of these previous studies helped lay the framework for the East-West Corridor Transportation Study by identifying the issues and opportunities related to traffic congestion within Grand Traverse County. The work completed prior to this Study reinforces the notion that a single "Silver Bullet" project will not solve the congestion issues present in the County. A coordinated approach, consisting of operational improvements, land use changes, non-motorized and alternative transportation investment, and capacity increases, is needed throughout the County.

TTCI

Traverse Transportation Coordinating Initiative

Final
October 8, 2014

Vision 2035 - Executive Summary October, 2014



Map #1 – Transportation Challenges provided by Brian VanDenBrand – Garfield Charter Township

Project Process

The Traverse City Region has been studying improvements to the roadway network for many years. A key challenge for many projects is reaching local consensus in order for projects to move forward into environmental clearance, design and ultimately funding and construction. GTCRC determined the best way to reach a consensus for a recommended solution was to:

1) Start with no preconceived notions about potential solutions.

2) Use FHWA's PEL process which emphasizes stakeholder and public engagement during the development and decision making process, while also considering potential environmental impacts.

The scope of work included documentation of the process which was updated throughout the study, and includes:

- Summarize and review previous planning efforts and existing conditions
- Establish a Local Agency Group and Focus Groups to collaborate with during the process
- Engage and solicit input from stakeholders and members of the public
- Develop and refine a Purpose and Need Statement
- Develop a Recommended Solution for use in securing funding and considering future phasing
- Document how the Recommended Solution will help solve existing traffic problems

NEPA-like terminology was used in the project documentation to accommodate future NEPA classification if necessary. For instance, the PEL includes a Purpose and Need Statement which went through multiple reviews and edits, including a public review period.

The graphic shown on the next page illustrates the overall project process for the East-West Corridor Study. The general process focused on identifying as many possible solutions as possible and evaluating each to see how well they fit the purpose and need. At the end of the process, a final recommended solution is presented.

EAST-WEST CORRIDOR TRANSPORTATION STUDY

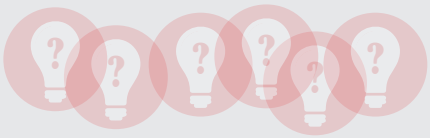
PROCESS AT A GLANCE

1 DEVELOP "PURPOSE & NEED"

» *What problems need to be addressed?*

PURPOSE & NEED

2 REVIEW PAST PLANS, DATA & INFORMATION



CONCEPTUAL SOLUTIONS

3 IDENTIFY CONCEPTUAL SOLUTIONS

» *What are some logical connections?*

4 INITIAL EVALUATION

» *Screen using technical evaluation criteria*

» *Which solutions have major environmental constraints?*

» *Which don't meet the purpose and need?*

PRACTICAL SOLUTIONS

5 IDENTIFY PRACTICAL SOLUTIONS

» *Some conceptual solutions may be combined or modified*

6 ADD DESIGN FEATURES INCLUDING ACCESS MANAGEMENT, NON-MOTORIZED, AND TRANSIT

7 EVALUATE PRACTICAL SOLUTIONS

» *Screen using technical evaluation criteria*

» *Best or recommended solutions emerge*

PREFERRED SOLUTIONS

SHORT-TERM
MID-TERM
LONG-TERM

8 SELECTION

» *May include multiple projects and phasing*

Project Coordination

The East-West Corridor Study coordinated with the public and stakeholders throughout the entire process. Two individual Stakeholder and Local Agency Group (LAG) meetings were initially held. Halfway through the study process, the Project Team and both groups agreed that combined Local Agency Group/stakeholder meetings would be more productive, and would encourage additional dialogue between the groups. Additionally, three public input sessions were held to gather input from the general public. Once the Practical Solutions were identified, the Study Team also met with both MDOT and MDNR to discuss environmental impacts and identify and potential red-flags that might prohibit further investigation.

DIGITAL MEDIA

The Study Team utilized a variety of online and digital engagement efforts to ensure everyone in the County had access to the products created throughout the Study process. A project website was developed that served as an informational page and a repository for deliverables created for the Study. Public meeting notices, presentations, technical reports, and other information was posted for the public to review. The GTCRC used their Facebook page to push out information to the public regarding the Study. Additionally, comments received through the Facebook page and website were compiled with the input gathered through the public meetings and online surveys.

LOCAL AGENCY GROUP/ STAKEHOLDER MEETINGS

The East-West Corridor Study Team worked with representatives of the LAG and other project stakeholders in order to obtain advisory input regarding direction and decisions made throughout the project. The LAG/Stakeholder group was an integral element of this study as progression of the project was dependent upon engaging community members and gathering important feedback. A list of LAG member organizations is shown on the next page in Table 1. LAG members were also kept up to date through emails and postings to the project webpage. Meeting presentations, attendance lists, and other information is included in Appendix B.

PUBLIC INVOLVEMENT

Three public meetings were held during the East-West Corridor Study process. The sessions were held to share information such as the study process, the project purpose and need, how the alternatives were developed, and, most importantly, to solicit feedback from the public as to what they see as problems in the study area and to get suggestions as to how those problems would be addressed. Meeting notices were posted to the project's website, GTCRC's website and social media accounts, and distributed to local media outlets.

Table 1: East-West Transportation Study Local Agency Group and Stakeholders

Participating Municipalities and Government Services	Participating Non-Profit and Private Stakeholders
Acme Township	Manufacturing and Wholesale Distribution
Blair Township	Fire and Emergency Management Services
Bay Area Transportation Authority (BATA)	Big Box Retail
City of Traverse City	Auto Dealers
East Bay Township	Major Employers
Elmwood Township	Construction, Development, and Realty
Fife Lake Township	Health and Human Services
Garfield Township	Utilities, Energy, and Shipping
Grand Traverse County	Environment and Natural Resources
Long Lake Township	Multi-Modal Transportation
Mayfield Township	Events and Tourism
Union Township	
Whitewater Township	
Village of Fife Lake	
Village of Kingsley	
Networks Northwest	
Cherry Capital Airport Authority	
Michigan Department of Transportation	
Traverse Bay Area Intermediate School District	
Traverse Transportation Coordinating Initiative (TTCI)	
Traverse City Area Public Schools	

RESOURCE AGENCY MEETING

JANUARY 14, 2019

The Study Team met with representatives from MDOT and MDNR to discuss potential environmental "red flags" that may exist along the Conceptual Solutions routes. Representatives from federal resource agencies were unable to attend due to the government shutdown happening at the time. It is anticipated that future meetings with these agencies will be beneficial upon the selection of projects to discuss any potential impacts in further detail. Both agencies identified areas that contained known environmental issues that may impact the construction of the alternatives. Marshy land along 4 Mile Road between Hoch Road and Hammond Road were identified as the most recognizable constraints.

EW CORRIDOR STUDY MEETING SUMMARIES

Who Are These Groups?	
Stakeholder Group	*Representatives from public and private sectors with unique perspectives on east-west transportation challenges and solutions, including representatives from:* • *Manufacturing and Wholesale Distribution* • *Fire and Emergency Management Services* • *Big Box Retail* • *Auto Dealers* • *Major Employers* • *Construction, Development* • *Realty* • *Health and Human Services* • *Utilities* • *Energy* • *Shipping* • *Environment and Natural Resources* • *Multi-Modal Transportation* • *Events and Tourism*
Local Agency Group (LAG)	*Representatives from State, County, City, and Township units of government within Grand Traverse County and with transportation planning, decision-making, and project implementation authority.*
Public	*All members of the community who are interested in this issue and/or process. Open to anyone.*
How Were These Groups Engaged And What Was The Outcome?	
Stakeholder Focus Groups & Interviews: Introduction to Study ***March 2, 2018***	*The study team introduced participants to the proposed study process and facilitated small group discussions and one-on-one interviews regarding participants' east-west transportation use, concerns, and desired outcomes, to help inform a successful study process and the development of the Purpose and Need document.*
LAG Meeting: Introduction to Study ***April 9, 2018***	*The study team introduced participants to the proposed study process and facilitated a group discussion regarding participants' east-west transportation planning tools, concerns, and desired outcomes to help inform a successful study process and the development of the Purpose and Need document.*
Public Meeting: Introduction to Study ***April 23, 2018***	*The study team introduced participants to the proposed study process and facilitated individual table discussions regarding participants' east-west transportation values and concerns to inform the development of the Purpose and Need document. Participants were asked to fill out a comment card with their input.*
Stakeholder Meeting: Purpose and Need ***June 11, 2018***	*The study team presented the first draft of the Purpose and Need statement. Participants reviewed and provided feedback to inform further refinement of this document.*
LAG Meeting: Purpose and Need ***June 18, 2018***	*The study team presented the first draft of the Purpose and Need statement. Participants reviewed and provided feedback to inform further refinement of this document.*

How Were These Groups Engaged And What Was The Outcome (con't)?	
Combined LAG/ Stakeholder Meeting: Purpose and Need ***July 30, 2018***	*The study team presented the second draft of the Purpose and Need statement. Participants reviewed and provided feedback to inform the final draft of this document.*
Combined LAG/ Stakeholder Meeting: Purpose and Need ***September 11, 2018***	*The Study Team presented the final draft of the Purpose and Need statement and asked participants to identify portions of the study Purpose and Need which they absolutely could not align with (thus presenting an impediment to potential project implementation). This discussion informed and resulted in the final Purpose and Need statement.*
Combined LAG/ Stakeholder Meeting: Conceptual Solutions ***November 26, 2018***	*The study team presented the conceptual solutions—based on the Purpose and Need, previous studies, and Stakeholder/LAG input—and participants broke into small groups to provide initial feedback on pros and cons of each solution. This engagement informed further refinement of the solutions. 23 individuals attended.*
Access Management Trainings: LAG/Stakeholder & Public ***January 14, 2019***	*The study team facilitated two separate trainings regarding access management—first, to representatives of the Local Agency and Stakeholder Groups and second to members of the public—with the intent of educating participants on the need, standards, and best practices of access management. 31 total individuals attended.*
Combined LAG/ Stakeholder Meeting: Practical Solutions ***February 11, 2019***	*The study team presented the practical solutions—refined and improved based on the groups' feedback on the conceptual solutions—and participants split into small groups to provide further feedback on pros and cons of each solution. This engagement provided additional refinement of the solutions, for presentation to the public in the next week. 17 individuals attended.*
Public Meeting: Practical Solutions ***February 18, 2019***	*The study team invited the public to their first look at the practical solutions, presented in an informal, open house format. Participants were asked to submit comment cards with their initial feedback on the pros and cons of each solution. Over 250 individuals attended.* *To reach individuals who could not attend the event, an online version of the same comment card was provided via SurveyMonkey on the project website. 588 survey responses were recorded.*
Combined LAG/ Stakeholder Meeting: Recommended Solutions ***April 16, 2019***	*The study team presented the recommended solutions, evaluation criteria used to make those recommendations, and justification for creating short-, long-, and future-term solutions for implementation. Participants were invited to ask questions to help inform the final public presentation. 17 individuals attended.*
Public Meeting: Recommended Solutions ***April 30, 2019***	*The study team presented the recommended solutions, evaluation criteria used to make those recommendations, and justification for creating short-, long-, and future-term solutions for implementation. Participants were invited to sit ask questions before breaking out into an informal open house for a closer inspection of each recommended solution. Participants were asked to submit a comment card with their reaction to the recommended solutions. 75 individuals attended.* *To reach individuals who could not attend the event, an online version of the same comment card was provided via SurveyMonkey on the project website. 208 survey responses were recorded.*

PUBLIC INPUT SURVEYS

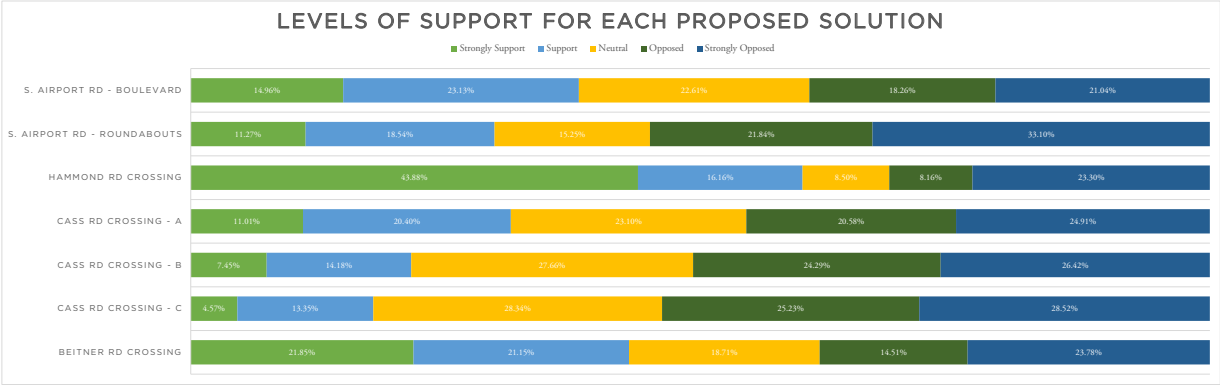
As part of Public Meetings 2 and 3, a paper and online survey was developed to capture input from the community. Participants at the meetings filled out paper versions, while the digital version was made available on the project website. The Solutions presented in the surveys are explained in detail in Section 7 and include options for crossing the Boardman River.

PUBLIC MEETING 2 SURVEY

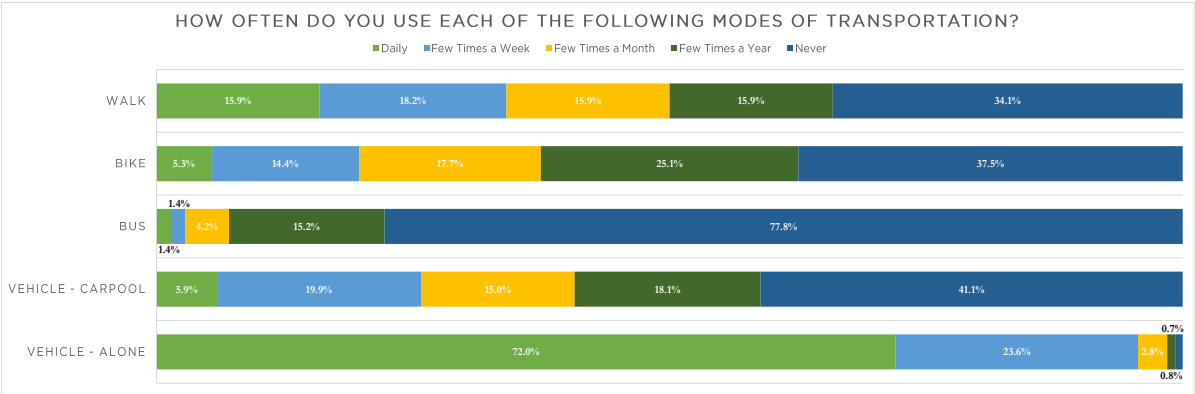
Nearly 590 people took part in the first public input survey. The survey asked a variety of questions so the project team could better understand the needs and desires of the public. Questions included the frequency of use of specific transportation modes, how often respondents use the county road network, the zip code of each participant, and what each respondent likes and dislikes about each Practical Solution.

A thorough review of the comments revealed that there is a strong desire for the project to include non-motorized facilities and public transit improvements. Respondents appear to want to have the option to travel safely by car, bike, bus, or walking.

Overall, the most favored solution of the five Practical Solutions was the Hammond Crossing option, with over 60% of respondents supporting the option. The most opposed solution was the S. Airport Road Crossing option featuring the string of sequential roundabouts. Nearly 55% of respondents were opposed to this Solution. The written comments received voiced both opposition and support for the inclusion of roundabouts in the Recommended Solution.



About 60% of respondents support the Hammond Road Crossing option



Over half of the respondents walk for transportation at least once a month

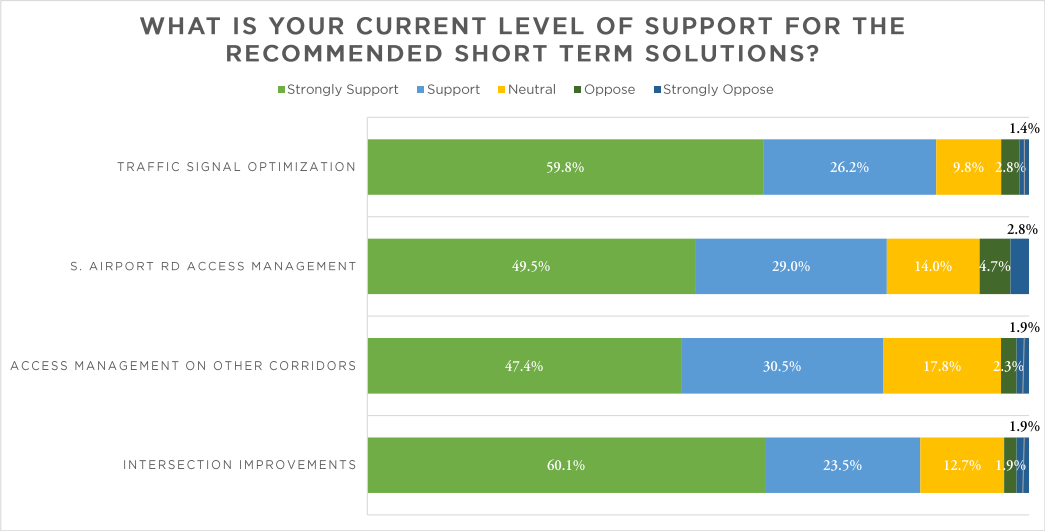
PUBLIC MEETING 3 SURVEY

The final survey gathered responses from nearly 210 people and asked participants to rate their support for the recommended Short Term, Long Term, and Potential Future Solutions.

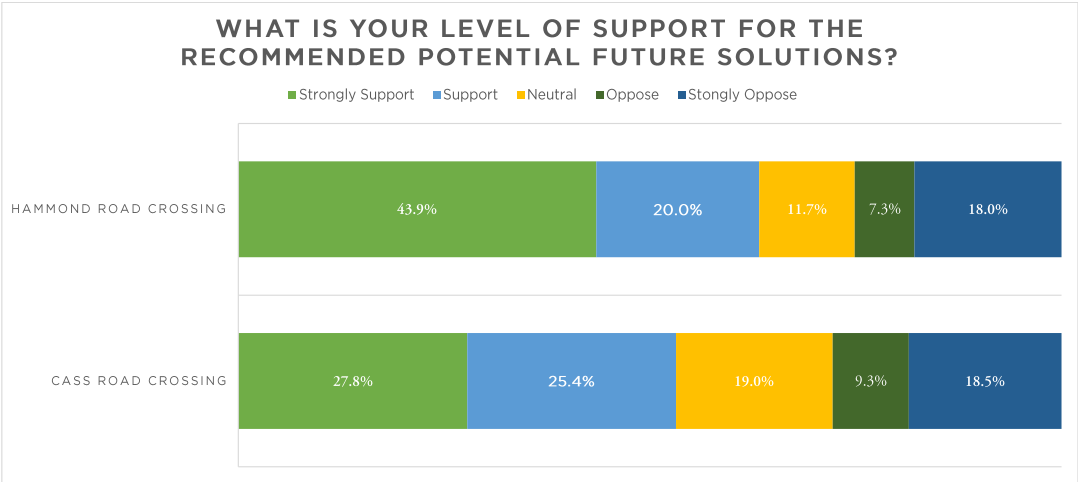
The final survey question asked about support for the Potential Future Solutions. About 65% of respondents Strongly Support or Support the Hammond Road Crossing. Just over 52% of respondents are in support of the Cass Road Crossing option.

Overall, the public was very supportive of the recommended Short Term Solutions, with between 67% and 85% of respondents being supportive of the projects. Between 61% and 72% of the survey respondents are supportive of the Long Term Solutions.

A review of the submitted comments revealed that there is still a split in public opinion between adding an additional crossing of the Boardman River and focusing on the Short and Long Term Solutions first. It is apparent that the respondents are eager for progress to be made and that the benefits offered by the Recommended Solutions would be welcome.



Most of the respondents surveyed strongly support or support the recommended Short Term Solutions



Over 60% of those surveyed are still in support of the Hammond Road crossing as a future solution

Safety Analysis

SAFETY EVALUATION

A Corridor Safety Analysis was completed to identify high crash locations, determine correctable problems, and evaluate potential solutions. A total of five years of crash data, from January 1, 2013 through December 31, 2017 was obtained from the Michigan State Police database for major roads within the Study Area, and reviewed to identify any fatal and serious injury collisions.

The analysis consisted of identifying the location, type and severity of each crash. Figure 3 shows the location and total number of intersection crashes within the Study Area. Figures 4 and 5 show the total number and severity of crashes along the two highest crash corridors, S. Airport Road and Hammond Road.

The "hot spots," with more than 58 crashes in a fifth of a mile, are located where west S. Airport Rd intersects with N. Garfield Rd and Keystone Rd, as well as where Hammond Rd intersects Garfield Rd and Three Mile. An additional "hot spot" was located on Three Mile Rd between Hammond Rd and west S. Airport Rd.

There were 5,917 crashes in the 5-year study period, which represents 33.1% of all the crashes that had occurred in Grand Traverse County during this time frame. The crashes on the road segments under study involved 18.2% of all the serious injuries and fatalities that have occurred in the five years for the County.

There were four fatalities in the study area, three of which included only vehicles and the other included a pedestrian. Grand Traverse County experienced a total of 54 crash fatalities over the last five years and the study area accounted for about 7% of the total.

See Appendix G for the entire Roadway Corridor Safety Analysis.

ACCESS MANAGEMENT TECHNIQUES

On corridors with a high density of driveways, like S. Airport Rd, there is a higher potential for crashes because of the additional conflict points that exist. Access management can reduce the crash potential by limiting turning movements that are the main cause of vehicle crashes. Well managed corridors have 40-50% fewer crashes than poorly managed corridors.

Three types of access management techniques exist with the goal of reducing conflict points and improving the safety of streets.

- Planning and Ordinances - Zoning and land use standards to regulate access
- Site Access and Design - Driveway and shared access standards to facilitate safe access
- Road and Intersection Design - Signal spacing, turning restrictions, and intersection standards to reduce conflict points

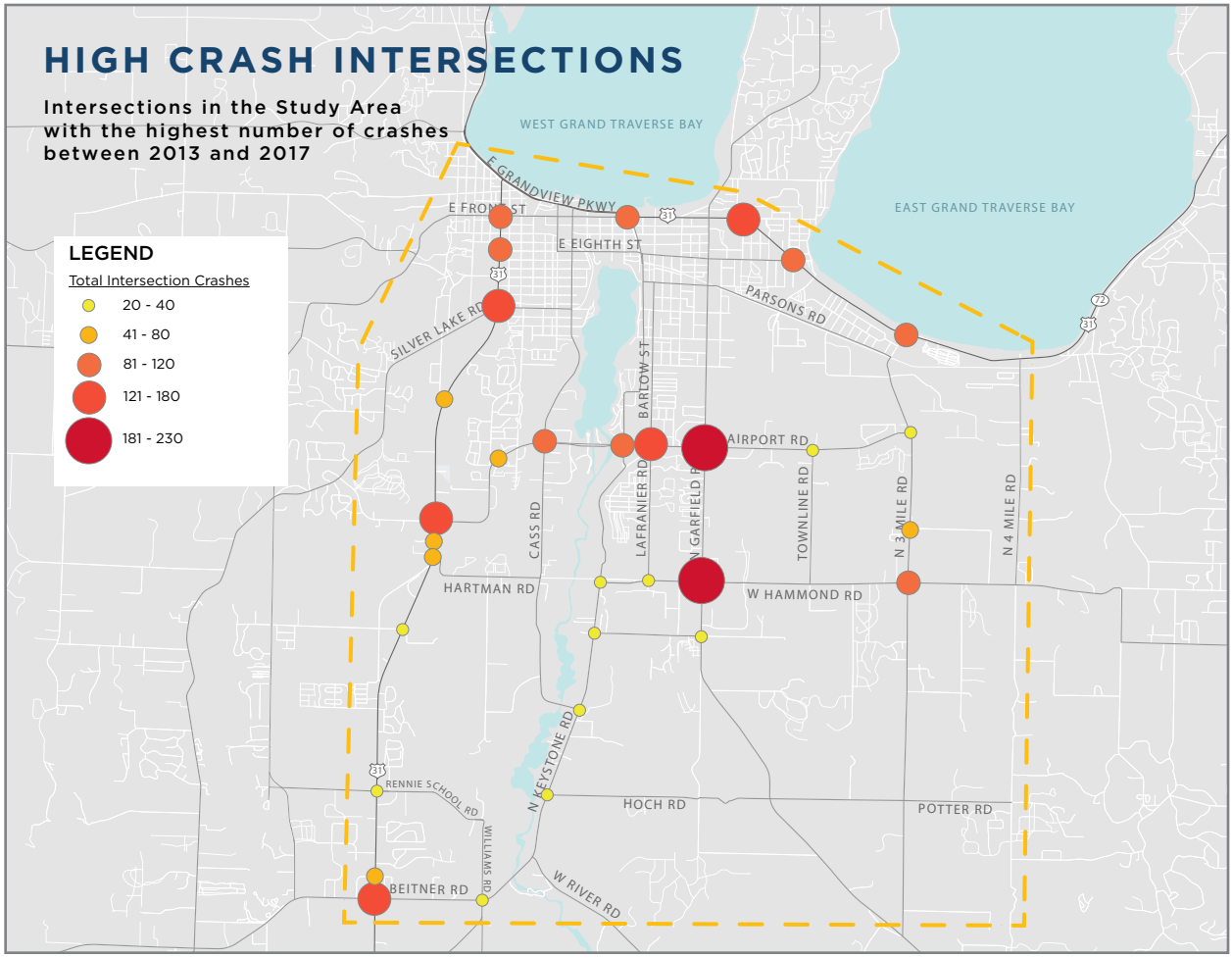


Figure 3: Total Intersection Crashes in EW Corridor Study Area: 2013 - 2017

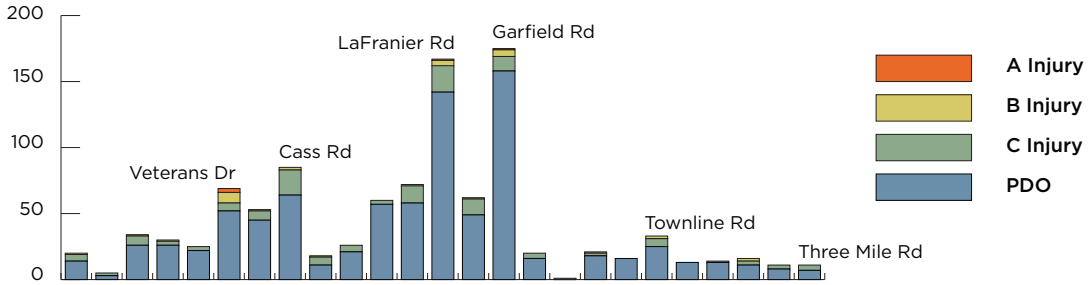


Figure 4: S. Airport Road Crashes: 2013 - 2017

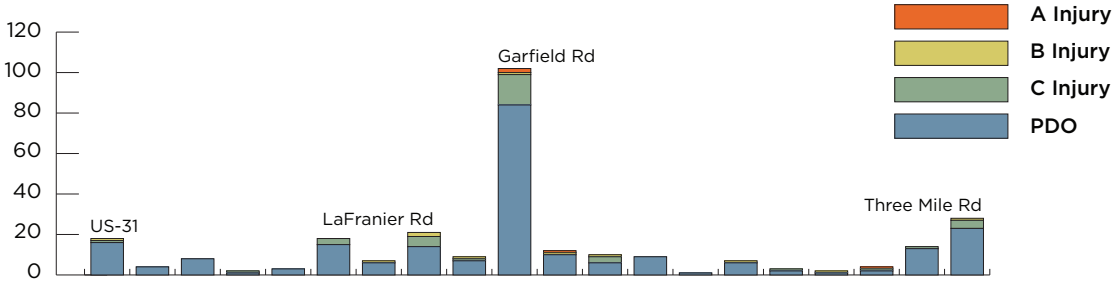
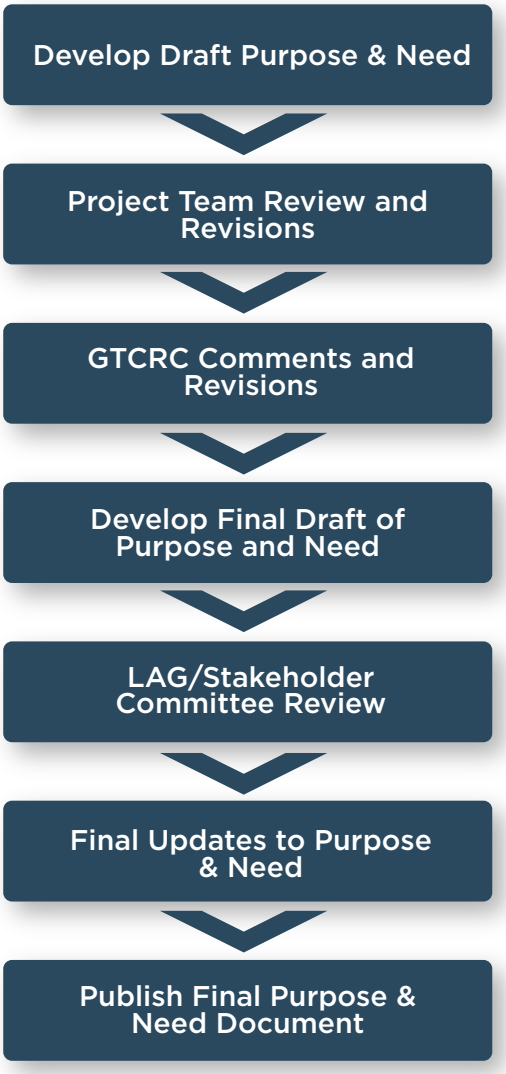


Figure 5: Hammond Road Crashes: 2013 - 2017

Purpose and Need

The draft project Purpose and Need statement was developed with input provided by the GTCRC staff, the Local Advisory Group, and the public. The Purpose and Need was then presented to the GTCRC Board for comments and approval prior to the commencement of the alternatives development process. The draft Purpose and Need provided the foundation for criteria such as safety and traffic operations as well as non-motorized mobility within the corridor to screen alternatives. The Purpose and Need was refined multiple times based on comments received from the LAG and the public.



PURPOSE AND NEED STATEMENT

The purpose of the East-West Corridor Transportation Study is to recommend alternatives and actions that address safety, improve mobility and efficiency, improve transportation mode options and improve connectivity with a focus on east-west travel for all users of the Road Commission's network in the study area. The alternatives and actions should conserve the natural environment and enhance positive benefits for adjoining properties, neighborhoods, parks and businesses.

The need is demonstrated by the high levels of congestion and excessive delay for motorists traveling east and west along the five key road corridors during peak and non-peak seasonal

hours within the study area which extends from Grandview Parkway south to Beitner Road and from US-31 east to 3-Mile Road. There are limited east-west routes in the Traverse City area due to the natural geography of the city, bay and river. Within the study area there are intersections that have higher than average crashes. Due to lack of infrastructure, non-motorized mobility is also limited within the urbanized study area.

The outcomes of the study are intended to:

- Support the Road Commission's Mission – "to upgrade and maintain a safe and efficient road system."
- Reflect the participation and input from local agencies, stakeholders and the public.
- Identify improvements to safety and efficiency for all modes of travel within the County road system.
- Create a plan that responds, to the extent possible, to the needs of various interests for enhancements and accessibility benefits. These interests include commuters, businesses, neighborhoods, parks, goods movement, tourists, transit, pedestrians, and bicyclists.
- Provide solutions that consider the character and context of the study area.
- Address system resiliency for peak seasonal events or incident management.
- Address potential implications of existing and future land use patterns related to alternatives.
- Improve accessibility, routing and connectivity for modes of travel.
- Evaluate and incorporate natural and cultural resource conservation best practices into designs and solutions.
- Maintain or improve air quality.
- Evaluate a package of solutions that can be adopted based on agency budgets and planned or projected financial resources.

Additional Considerations

1. There was discussion and recognition during the various meetings that although the study area was limited to the scope defined above, that other areas and routes that influence transportation and traffic patterns in the study area will also be evaluated. The study process will include information about transportation assets under the City and MDOT's jurisdiction, however due to the scope of the Road Commission's authority, the alternatives presented by OHM Advisors will be limited to areas outside the City limits and will not include recommendations for City streets or City bike or pedestrian infrastructure, or MDOT roads.

2. This study process is being led by the Grand Traverse County Road Commission. The Road Commission wants to engage effectively with other agencies and stakeholders as it focuses on its mission, while recognizing that its own implementation of the study's preferred alternatives may be constrained by the availability of funding, the width of existing right-of ways, and/or other factors. The Road Commission is committed to continuing to communicate and jointly plan with other agencies and entities as it implements future projects.

Range of Solutions

APPROACH AND BRAINSTORMING

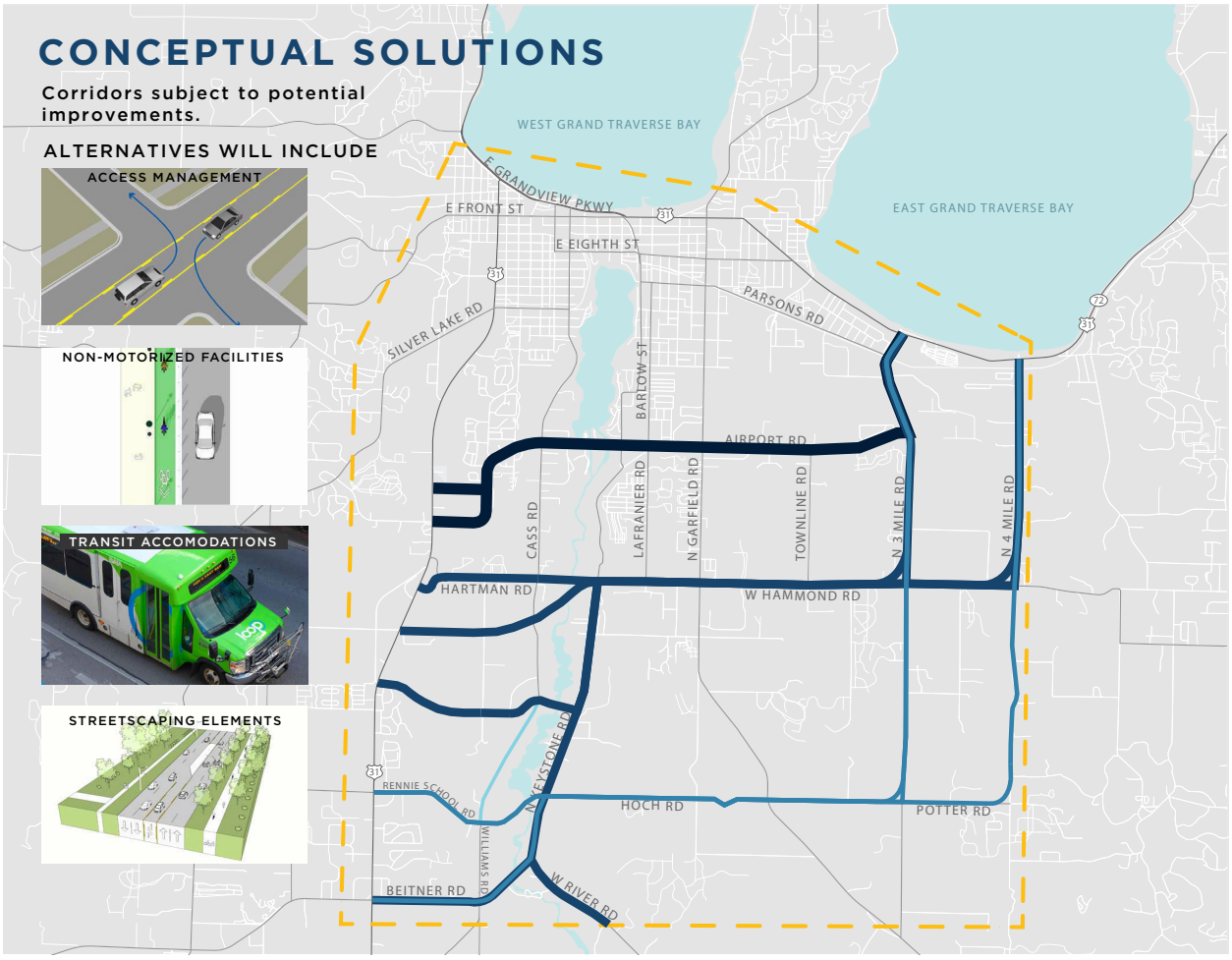
Due to the complicated history of the East-West Corridor Transportation study, the Study Team went into the process without any preconceived notions of what solutions may work for the region. Previous studies have recommended bridges, roadway expansions, and operational improvements that never got off the ground because it was perceived by the public that the final recommendation of each study was already determined at the beginning of the project. Additionally, travel patterns, trends, and the public's desires may have changed since the previous recommendations were made.

The solutions and alternatives from prior studies were discussed during the brainstorming process, however an evaluation of the potential alternatives from a "blank slate" point was also included to ensure that all potential solutions were uncovered, including those that may have been overlooked or not evaluated previously.

The initial set of Conceptual Alternatives was developed at a Study Team brainstorming session held in October 2018. To provide direction, the following items were discussed as screening criteria:

- Draft Purpose and Need statement
- Known physical constraints
- Potential fatal flaws
- Current traffic levels
- Input from the LAG/Stakeholder group

The purpose of this session was to brainstorm ideas for viable alternatives and improvements worthy of moving into the conceptual alternative development process. The Conceptual Solutions were identified out of this session and are shown in the map on the following page.



CONCEPTUAL SOLUTIONS

Nine potential Conceptual Solutions were developed out of the brainstorming session held by the Study Team. All of the Conceptual Solutions, except one, provide a connection between US-31 on the west side of the study area to US-31/M-72 on the northeast side of the study area.

The Conceptual Solutions extend from the south end of Boardman Lake to Beitner Road, encompassing much of the Study Area. The general idea behind each of these solutions is to improve or provide a more efficient crossing of the Boardman River and expand options for travel to east and west within the Study Area.

The Conceptual Solutions included roadway improvements, such as adding medians, roundabouts, additional lanes, and new roadway alignment, where needed. Additionally, each solution would include recommendations to improve access management, streetscaping and other design elements; areas where transit access could be improved; potential locations for new non-motorized facilities. These improvements were considered throughout the study process because they are important to the local community, however specific areas where they would be located was not identified in this stage of the development of alternatives.

RANGE OF SOLUTIONS

The following Conceptual Solutions were identified:

S. Airport Road with Roundabouts

Restricting left-turns on S. Airport Road is an option that would provide safety and operational improvement. S. Airport Road would be reconstructed as a four-lane narrow (≤12') divided boulevard from US-31 to 3 Mile Road, and including 3 Mile Road from S. Airport Road to M-72. A string of roundabouts would be added at most major intersections and direct left turns would be eliminated to keep traffic moving.

S. Airport Road Boulevard

S. Airport Road would be reconstructed as a divided boulevard with a wide (60'+) center median from US-31 to 3 Mile Road without roundabouts, and including 3 Mile Road from S. Airport Road to M-72. All direct left turns would be eliminated and replaced with "Michigan Left Turns" using the median turn-arounds.

Hartman-Hammond Connection

In this concept, a new bridge over the Boardman River would be constructed linking Hartman and Hammond Roads. Both Hartman and Hammond Roads would be expanded to accommodate greater traffic volumes. Additionally, the intersection of Hartman Road and US-31 would be re-aligned to provide more distance between the Hartman and S. Airport Road intersections. This concept could include improvements to either 3 Mile Road or 4 Mile Road, depending on need.

Hammond Road to US-31 - Direct Connection

In this Conceptual Solution, Hammond Road would be extended over the Boardman River with a new bridge and would continue along a new alignment through relatively open land to US-31. Hammond Road would receive improvements to accommodate greater traffic loads. Improvements to either 3 Mile Road or 4 Mile Road would be included, depending on the need.

4 Mile Road – Hammond Road – Keystone Road – Cass Road – US-31

This concept focuses on an improved crossing of the Boardman River using the Cass Road (Robbins) Bridge and a new alignment connecting Cass Road to US-31. Improvements to Keystone Road, Hammond Road, and 4 Mile Road would be included. Roundabouts or signal controlled intersections are proposed for the major intersections along Keystone and Hammond Roads.

An underused railroad line connecting Williams Road, Rennie School Road, and Cass Road would be converted to a roadway in this Conceptual Solution. It would provide another north/south connection on the west side of the Boardman River extending the length of the Study Area.

Hoch Road to Rennie School Road Connection

A new bridge would be built connecting Rennie School Road to Keystone Road in this Conceptual Solution. Improvements to Hoch Road would be made to accommodate greater traffic volumes as well. Either 3 Mile Road or 4 Mile Road, depending on the need, would be improved to M-72 to complete the connection.

Beitner Road – Keystone Road – Hammond Road – 4 Mile Road

No new crossings of the River would be constructed as part of this Conceptual Solution. Roadway improvements to Beitner, Keystone, Hammond, and 4 Mile Roads would be made to improve traffic flow. Additionally, roundabouts at the major intersections along this route are proposed to keep traffic moving and improve safety.

Beitner Road – Keystone Road – Hoch Road – 3 Mile Road

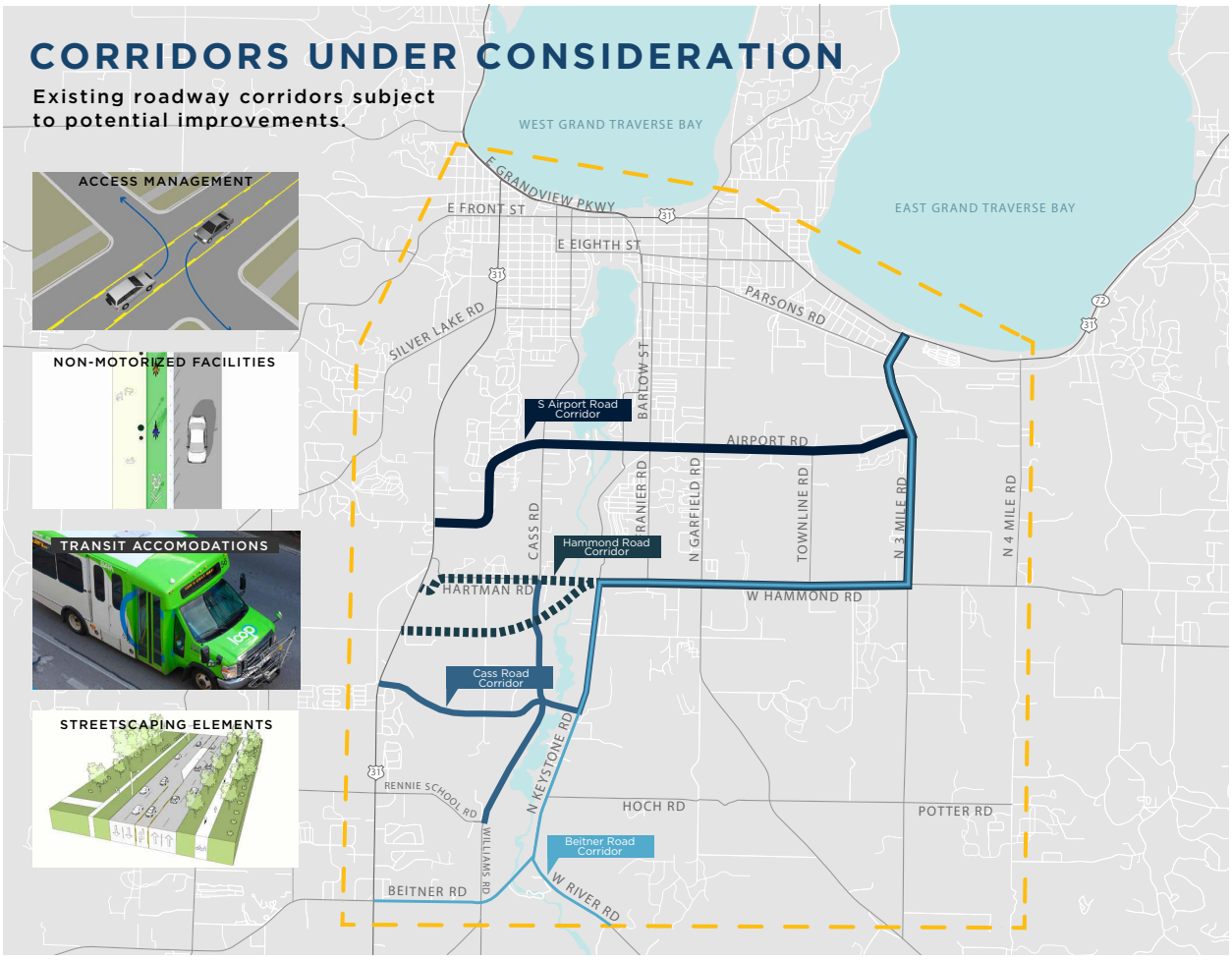
This concept does not include any new river crossings and focuses on improvements to the existing roadways. Beitner, Keystone, Hoch, and 3 Mile Roads would receive upgraded roadways as well as strategically placed roundabouts to improve safety and reduce traffic delays.

PRACTICAL SOLUTIONS

The nine Conceptual Alternatives were refined to five Practical Solutions following the presentation to GTCRC staff and the LAG. This was done with the intent to make the evaluation process more efficient and allow for the criteria to be explored in greater depth. The Study Team used the Purpose and Need statement to determine which of the Conceptual Solutions would best address the transportation issues in Grand Traverse County. Additionally, some of the solutions were combined.

The modifications that were made following the refinement period focused mostly on combining aspects of various solutions for purposes of streamlining the traffic modeling and evaluation process:

- The two S. Airport Road Conceptual Solutions were combined into a single solution with an A and B right-of-way option.
- The two Hammond Road river crossings were also combined into a single Practical Solution with an A and B right-of-way option for connecting to US-31.
- The concept using Cass Road as a river crossing was combined with the underused rail right-of-way option. Improvements on Cass Road from the bridge to Hartman Road was added as well.
- Finally, the Beitner Road-Keystone Road-Hammond Road concept was carried forward unchanged.



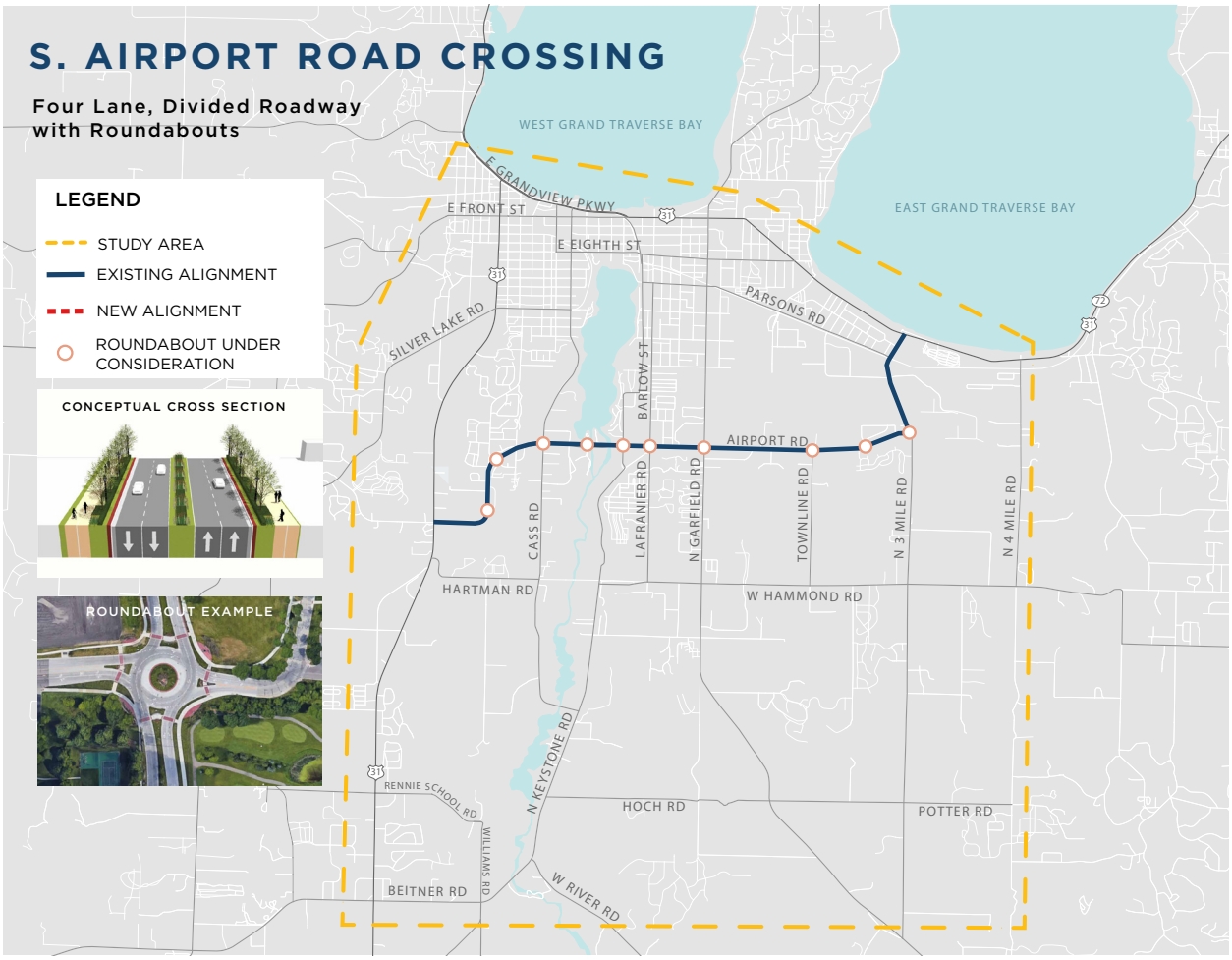
The Practical Solutions were refined from the original Conceptual Solutions

The two Conceptual Solutions that used Hoch Road were not moved forward into the Practical Solution evaluation because it was determined that they did not meet the Study's Purpose and Need. Neither option that uses Hoch Road met the Local Agency Group's goal of addressing congestion issues traveling into Traverse City. The Hoch Road Alternatives are better suited for moving traffic around the City of Traverse City, which was not identified as a goal in the Purpose and Need.

The following five Practical Solutions were agreed upon by the Study Team, GTCRC staff, and LAG/ Stakeholder group:

S. Airport Road Corridor with Roundabouts

The S. Airport Road Corridor Solution with roundabouts would change the road from a five-lane road to a four-lane divided boulevard with roundabouts at every major intersection. Motorists would use the roundabouts as a turnaround to access property on the other side of the street instead of making a direct left turn. This configuration in conjunction with access management practices will provide improved safety and operational benefits.



S. Airport Road Corridor Boulevard

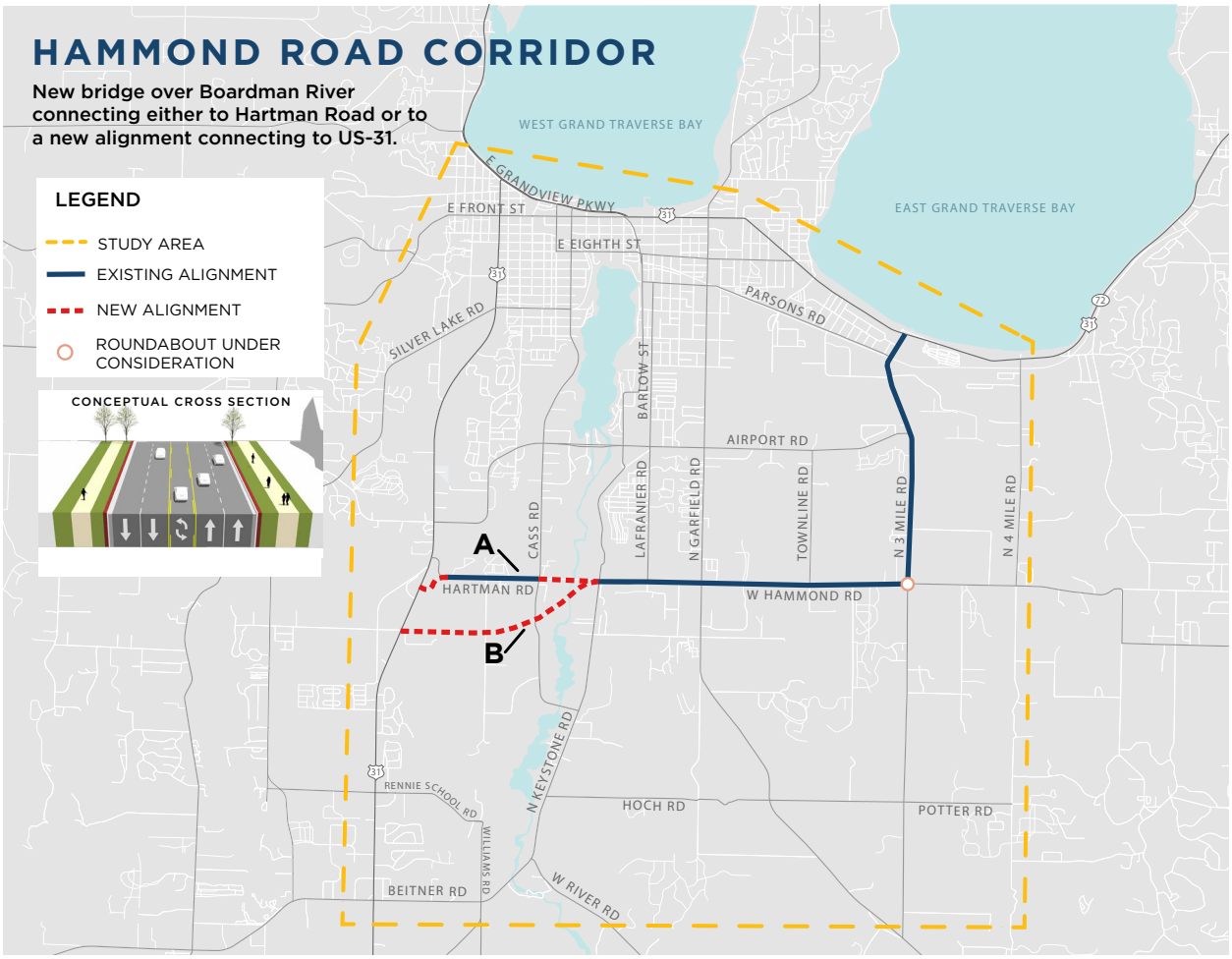
The second S. Airport Road Corridor Solution would convert the street into a four-lane, fully divided boulevard without roundabouts. Motorists would be required to perform "Michigan Lefts" to access businesses on the other side of the street, instead of making a direct left turn or utilizing roundabouts. Restricting left turns will improve safety and traffic flow on one of the most congested streets in the region.

Hammond Road Corridor

The Hammond Road Corridor could be implemented in two different ways:

- Option A would provide a direct, straight connection from Hammond Road to Hartman Road over the Boardman River, and to US-31. Expansion of Hartman Road would impact residential properties and property acquisition may be required.
- Option B would create a new alignment for Hammond Road to continue over the Boardman River that connects directly to US-31.

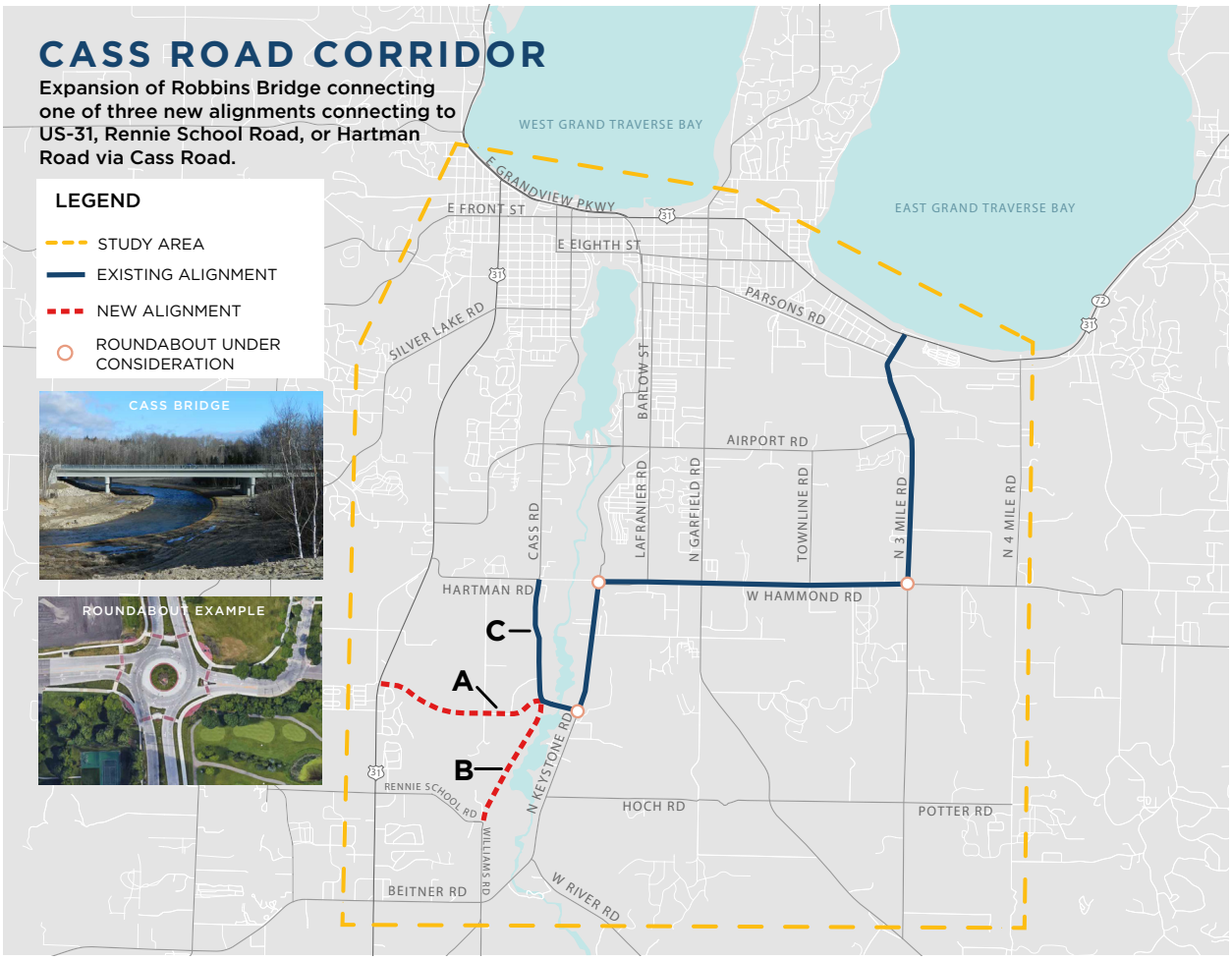
Option B provides additional distance from the S. Airport Rd. intersection, but also could be aligned to minimize environmental impacts to the Boardman basin. Further analysis will be required however to assure the intersection location does not cause any further issues with sight distance on US-31. A modified alignment will require property acquisition, however it is unlikely that existing residential units will be impacted.



Cass Road Corridor

The Cass Road Corridor would provide roadway improvements to 3 Mile Road, Hammond Road, Keystone Road and the Cass Road Bridge and connect to US-31 one of three ways:

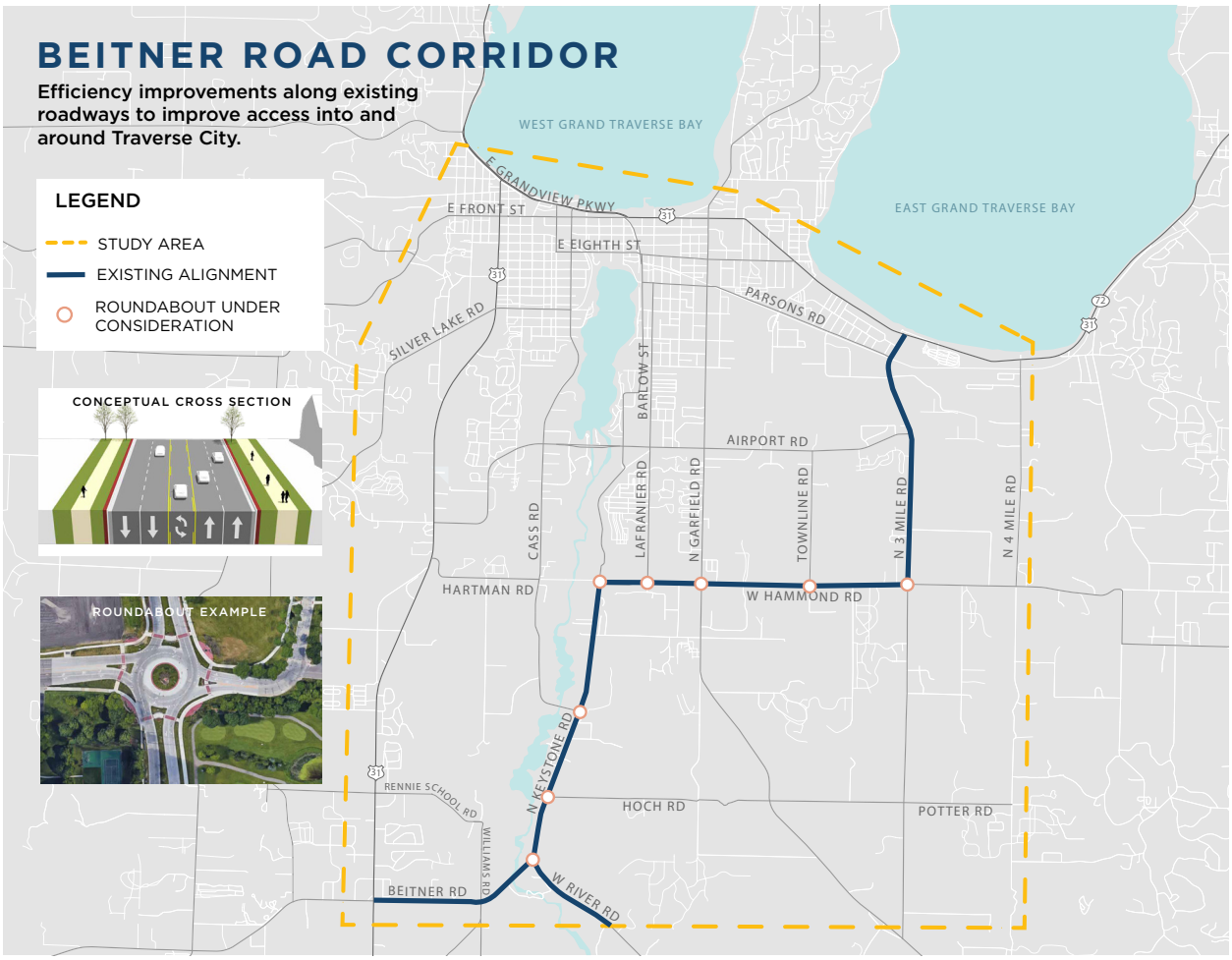
- Option A would continue Cass Road as a new alignment to US-31.
- Option B would re-purpose the railroad right-of-way into a roadway connection to Rennie School Road.
- Option C would divert motorists up Cass Road to Hartman Road.



Beitner Road Corridor

The Beitner Road Corridor would involve adding improvements to the following roads: Beitner Road, Keystone Road, River Road, Hammond Road, and 3 Mile Road. No new alignments would be implemented as part of this solution. A series of roundabouts could be added in strategic locations along the route to improve traffic flow and safety.

These five solutions were carried forward to the evaluation phase of the study where they were subjected to specific analysis criteria related to traffic projections, environmental constraints, safety, economic development, land use, and equitable access.



Evaluation of Solutions

Although the project team was able to refine the Conceptual Solutions to a more approachable number of Practical Solutions, further refinement was needed to develop Recommended Solutions that GTCRC will be able to feasibly implement. A high-level evaluation methodology was developed that specifically looked for "Red Flags" that could pose an issue to implementation. Each Practical Solution was ranked into a Poor, Acceptable, and Good range and any Red Flags were identified.

EVALUATION RESULTS

The full results of the evaluation are shown on the next page. Due to the varied aspects of each Practical Solution, there are aspects of each that score very well in the evaluation and some aspects that score worse. Much of this variation is due to the proximity of the corridors to existing amenities and infrastructure in the region.

For example, the S. Airport Road Corridor achieves high scores on the Equitable Access, Environmental Responsibility, and Safety criteria due mostly to it's proximity to Traverse City and the area's existing amenities. As the Practical Solutions move south, away from S. Airport Road, they tend have an overall lower score. These areas have more environmental constraints to deal with, fewer amenities to connect with, and less need for safety improvements. Design and construction costs rise as well because of the additional length of the solutions. However, there are fewer property impacts and slightly larger operational benefits associated with the Hammond Road, Cass Road, and Beitner Road Corridors.

Based on the balanced results of the evaluation and the results of the traffic modeling exercise (shown on the next page), a "mix of fixes" approach was taken in developing the final recommendations. The data and evaluation showed that a single large scale solution does not exist and that there are more efficient (both time and financially) ways to improve congestion in Grand Traverse County. The evaluation affirms the ideas that aspects of each corridor can be instrumental in this approach.

As detailed in the next section, the Recommended Solution will include Short Term (1-5 Years), Long Term (5-10 Years), and Potential Future Solutions for improving mobility in Grand Traverse County.

East-West Corridor Practical Solution Evaluation Results

- Most Positive Impact
- Positive Impact
- Least Positive Impact

		S. Airport Road Corridor - Boulevard	S. Airport Road Corridor - Roundabouts	Hammond Road Corridor - A	Hammond Road Corridor - B	Cass Road Corridor - A	Cass Road Corridor - B	Cass Road Corridor - C	Beitner Road Corridor
Roadway Operations	Projected VMT in Build Year (2025)	Most Positive Impact	Most Positive Impact	Least Positive Impact	Least Positive Impact	Positive Impact	Positive Impact	Positive Impact	Positive Impact
	Projected VHT in Build Year (2025)	Least Positive Impact	Least Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact
	Average Impact to Traffic	Least Positive Impact	Least Positive Impact	Least Positive Impact	Least Positive Impact	Positive Impact	Positive Impact	Positive Impact	Least Positive Impact
Land Use Plans	Consistency with Local Land Use Plans	Most Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact	Positive Impact	Positive Impact	Positive Impact	Least Positive Impact
	Impacts on Existing E-W Corridors	Least Positive Impact	Least Positive Impact	Most Positive Impact	Most Positive Impact	Positive Impact	Positive Impact	Least Positive Impact	Positive Impact
	Impacts on Residential Areas	Least Positive Impact	Positive Impact	Most Positive Impact	Most Positive Impact	Positive Impact	Positive Impact	Positive Impact	Positive Impact
Environmental Responsibility	Impact on Historic Resources	Most Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact
	Parkland Impacts - Total Parks	Most Positive Impact	Most Positive Impact	Positive Impact	Positive Impact	Positive Impact	Positive Impact	Positive Impact	Least Positive Impact
	Parkland Impacts - Total Park Acres	Most Positive Impact	Most Positive Impact	Most Positive Impact	Positive Impact	Least Positive Impact	Least Positive Impact	Least Positive Impact	Least Positive Impact
	Environmental Justice Impacts	Most Positive Impact	Most Positive Impact	Positive Impact	Positive Impact	Positive Impact	Positive Impact	Positive Impact	Most Positive Impact
	Crossings of Boardman River	Most Positive Impact	Most Positive Impact	Least Positive Impact	Least Positive Impact	Positive Impact	Positive Impact	Positive Impact	Positive Impact
	Other Stream Crossings	Most Positive Impact	Most Positive Impact	Least Positive Impact	Least Positive Impact	Least Positive Impact	Least Positive Impact	Least Positive Impact	Least Positive Impact
	Total Wetlands and Floodplain Affected	Most Positive Impact	Most Positive Impact	Positive Impact	Positive Impact	Positive Impact	Positive Impact	Positive Impact	Positive Impact
	Habitat Fragmentation	Most Positive Impact	Most Positive Impact	Most Positive Impact	Least Positive Impact	Least Positive Impact	Least Positive Impact	Most Positive Impact	Most Positive Impact
	ROW Impacts	Least Positive Impact	Least Positive Impact	Positive Impact	Positive Impact	Least Positive Impact	Positive Impact	Positive Impact	Least Positive Impact
Safety	Non-Motorized Safety Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact
	Motorized Safety Impact	Most Positive Impact	Most Positive Impact	Positive Impact	Positive Impact	Positive Impact	Positive Impact	Positive Impact	Most Positive Impact
	Emergency Response Time	Least Positive Impact	Least Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact
	Potential For Crash Reduction	Most Positive Impact	Most Positive Impact	Least Positive Impact	Least Positive Impact	Least Positive Impact	Least Positive Impact	Least Positive Impact	Positive Impact
Economic Development	Estimated Design and Construction Cost	Most Positive Impact	Most Positive Impact	Least Positive Impact	Least Positive Impact	Positive Impact	Positive Impact	Positive Impact	Least Positive Impact
	Number of Business Relocations	Least Positive Impact	Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact	Most Positive Impact
Equitable Access	Improves Transit Mobility	Most Positive Impact	Most Positive Impact	Positive Impact	Positive Impact	Positive Impact	Positive Impact	Most Positive Impact	Least Positive Impact
	Improves Pedestrian Mobility	Most Positive Impact	Most Positive Impact	Positive Impact	Positive Impact	Positive Impact	Positive Impact	Positive Impact	Least Positive Impact
	Improves Bicycle Mobility	Most Positive Impact	Most Positive Impact	Least Positive Impact	Least Positive Impact	Least Positive Impact	Least Positive Impact	Least Positive Impact	Least Positive Impact

EVALUATION CRITERIA AND METHODOLOGY

A relatively robust set of evaluation criteria and specific methodology was developed to better understand the pros and cons of each Practical Solution. Five goals derived from the project Purpose and Need were identified and a number of evaluation criteria were developed that helped measure how well each solution meets its respective goal. The goals, evaluation criteria, and methodology for measuring are laid out below.

Roadway Operations

These evaluation criteria measure projected changes in travel and operational improvements associated with the solutions.



REGIONAL TRAVEL DISTANCE IMPACT

Measure of the projected change in regional Vehicle Miles Traveled (VMT) of each Practical Solution compared to the 2025 No Build option. This measure uses the Study's traffic model to estimate how much more motorists will end up traveling due to the improvements. The solutions with the lowest increases in regional VMT received higher scores.

REGIONAL TRAVEL TIME IMPACT

Measure of the projected change in regional Vehicle Hours Traveled (VHT) of each Practical Solution compared to the 2025 No Build option. This measure uses the Study's traffic model to estimate how each solution would affect delay in the design year. The solutions with the largest reduction in VHT from the No Build received higher scores.

AVERAGE TRAFFIC IMPACT

Projected change in Annual Average Daily Travel (AADT) along each solution route compared to the 2025 No Build option. This intended to measure the traffic impacts associated with the improvements. Solutions with a higher increase in average AADT along the length of the route received a lower score.

Community Land Use Plans

The following evaluation criteria examine how each Practical Solution fit within current land use plans and how they affect existing residential and commercial land uses.



CONSISTENCY WITH LOCAL PLANS

Local land use and transportation plans were reviewed to determine which solutions have been considered previously for improvement. Corridors with specific recommendations in local planning documents received a high score. Solutions without any specific planning recommendations received a low score.

IMPACT ON EXISTING E-W CORRIDORS

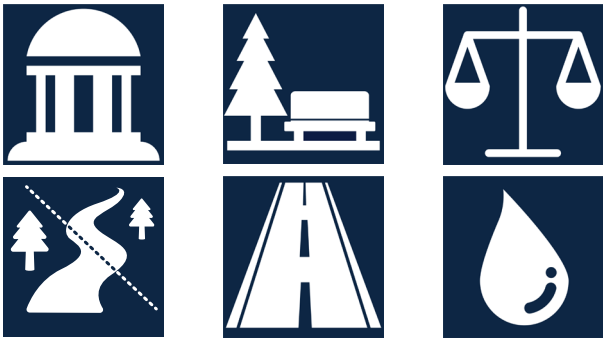
Measure of projected traffic shifts along the existing east-west corridors in the Study Area, to each of the Practical Solutions, compared to the 2025 No Build option. The solutions with a higher shift in AADT received a higher score.

IMPACTS ON EXISTING RESIDENTIAL AREAS

This evaluation criteria will measure the potential impacts to residential areas due to additional right-of-way needs for each solution. The total number of residential structures that would potentially need to be acquired was calculated for each solution. Solutions that would have impacts to more residential structures received a lower score than those with fewer residential impacts.

Environmental Responsibility

These evaluation criteria will measure how each Practical Solution will affect the historic, environmental and environmental justice resources surrounding it.



IMPACT ON HISTORIC RESOURCES

This evaluation explores any potential impacts by the Practical Solutions to historic properties and resources within the Study Area. A 300-foot buffer was used to determine whether any historic resources would potentially be impacted by construction or other improvements. Location data from the National Register of Historic Places was used.

IMPACTS TO PARKLAND

Two sub-criteria were considered while measuring the impacts to parkland; total number of parks impacted and the total acres of parkland impacted.

NUMBER OF PARKS IMPACTED

This evaluation explores any potential impacts by the Practical Solutions to the total number of parkland and conservation land areas by each solution. Practical Solutions with a greater number of adjacent parks and conservation land were awarded lower scores as this represents a greater impact than a single large park parcel.

TOTAL ACRES OF PARKLAND IMPACTED

This evaluation explores potential impacts to parks based on the total area of parkland within a 300 foot buffer of each solution. Practical Solutions with a greater number of acres within the buffer were awarded lower scores.

IMPACTS TO ENVIRONMENTAL JUSTICE POPULATIONS

This evaluation explores any potential impacts by the Practical Solutions to Environmental Justice populations within the Study Area. Environmental Justice (EJ) populations include low income and minority individuals. The total number of low income and minority individuals residing within the census tracts touching each Practical Solution was identified using the US Census' 2017 American Community Survey data. Solutions with a higher number of EJ individuals along the route received a lower score.

IMPACTS TO HYDROLOGICAL RESOURCES

Three sub-criteria were identified to evaluate the impacts to hydrological resources along each solution. These criteria include crossings of the Boardman River, crossings of other streams, and impacts to wetlands and floodplains.

BOARDMAN RIVER CROSSING

Each Practical Solution was evaluated based on the type of bridge needed to cross the Boardman River. Three possible options were given to the solutions: New Crossing, Modified Crossing, and Unchanged Crossing. The most intense potential impact, New Crossing, received the lowest score and the least intense potential impact, Unchanged Crossing, received the highest score.

OTHER STREAM CROSSINGS

The total number of total stream crossings that each Practical Solution passes over was identified to better understand the potential impact each solution would have on other hydrologic resources. The Practical Solutions with more total stream crossings received a lower score than those crossing fewer streams.

WETLAND AND FLOODPLAIN IMPACT

This is a measure of the total number of acres that would potentially be impacted by each Practical Solution. Using a 300-foot buffer on either side of each solution, the total wetland and floodplain acreage located within the buffer was calculated using data from the US Fish and Wildlife Service and FEMA. Solutions with the lowest number of acres in the buffer received a higher score.

RIGHT-OF-WAY IMPACTS

The total amount of right-of-way needed for a five-lane road with shoulders was assumed to be 120 feet wide for the entire length of the solution, except for the S. Airport Road Crossing Wide Median Boulevard option. The S. Airport Road Wide Median Boulevard was assumed to require 180 feet of right-of-way for the entire length of the solution. Existing right-of-way was calculated using data from GTCRC. Solutions with a higher net right-of-way needed received a lower score.

Safety

The Safety Evaluation criteria attempt to analyze the potential safety benefit each Practical Solution will have on the surrounding area, and the need each solution has for safer infrastructure based on current crash levels.

POTENTIAL NON-MOTORIZED SAFETY IMPACT

The potential impact to non-motorized safety was evaluated by analyzing the opportunity each Practical Solution has to incorporate sidewalks and other non-motorized facilities into the final design was considered. Solutions with a higher potential to improve non-motorized safety received a top score.

POTENTIAL MOTORIZED SAFETY IMPACT

The potential non-motorized safety impacts were analyzed in a similar way to the non-motorized safety impact by assuming as many safety design elements as possible would be incorporated into the final design. Some design elements are already planned for, like access management, roundabouts, and boulevards that will likely improve safety on the streets. The solutions that would likely see a large positive impact received the top score, solutions that would experience little or no impact received a medium score, and the solutions that could see more crashes received a low score.

EMERGENCY RESPONSE TIME

This measure is based on the expected reduction in congestion and travel time based on the Study's model. The Practical Solutions with the highest reduction in travel time in the Study Area received a higher score than those with less improvement in travel time.

TOTAL CRASHES

Using the Michigan Crash Facts data, this evaluation looks at the roadways with the greatest need for safety improvements. All of the crashes recorded along the route of each Practical Solution from 2013 to 2017 were tallied up. The solutions with the greatest number of crashes recorded received the highest score (as these area present the greatest need), while those with least amount received the lowest score.

Fiscal Impacts

These evaluation criteria are exploring the financial impacts each Practical Solution may have to the region. This includes the expected direct costs to the region, including estimated construction costs and potential business relocations.

ESTIMATED COST TO CONSTRUCT

This evaluation looks at the order of magnitude construction cost of each solution and includes the cost for a new roadway, roundabouts, bridges, and a

25% contingency. This evaluation is a preliminary estimate, since designs have not been developed yet and it does not include costs to purchase right of way. The Practical Solutions with the highest estimated construction cost received the lowest score as these will be financially more difficult to implement.

NUMBER OF BUSINESS RELOCATIONS

Using the estimated required right-of-way for each Practical Solution, the number of potential business relocations was estimated. This was completed by assuming 120 feet of right-of-way is needed for the full improvement (180 feet in the case of S. Airport Wide Median Boulevard) and identifying the commercial properties, specifically structures, that would be greatly affected by this expansion. The solutions with the highest number of potential business relocations received the lowest score.

Equitable Access

The Equitable Access Evaluation Criteria help to measure the effect on alternative mobility options: public transit, pedestrian mobility, and bicycle mobility. Additionally, the public's opinion regarding the Practical Solutions has been evaluated.



POTENTIAL IMPROVEMENT TO TRANSIT ACCESS

This evaluation assumes that with each Practical Solution identified, there would be the opportunity to improve public transit infrastructure with the roadway improvements proposed. Potential improvements could be bus stop infrastructure like shelters, signage, and benches, bus pull outs, wayfinding, among others. The solutions with the greatest length of BATA routes running alongside received the highest score, as these solutions have the greatest opportunity for improved transit access.

POTENTIAL IMPROVEMENT TO PEDESTRIAN MOBILITY

This evaluation assumes that each Practical Solution would include new sidewalks alongside any roadway improvements. The measure examines the proximity of each solution to the existing sidewalk network, with the understanding that more pedestrians would use the facilities if they are near existing walkable areas. The solutions nearest to the existing sidewalk network received the highest score, while those farther away received the lowest.

POTENTIAL IMPROVEMENT TO BICYCLE MOBILITY

The improvement in Bicycle Mobility evaluation uses the same assumption as in the pedestrian mobility evaluation: that each new Practical Solution would include bicycle facilities alongside it. The measure is different however, in that it is looking at the connections that would be made to existing bicycle facilities that intersect the solution. The total length of the non-motorized facilities that directly connect to the solution was measured and the solutions with the greatest length received the highest score.

TRAFFIC MODELING SUMMARY

Traffic modeling was completed as part of the evaluation process to develop a better understanding of how each Practical Solution would impact total traffic, congestion, and travel time within the Study Area. The Traverse City TTCI 2015 base year model developed by MDOT was used and the 2015 base year run was calibrated and validated by MDOT. The Traffic Modeling Technical Memorandum and relevant data can be found in Appendix F.

In order to best determine how each Solution would affect the network, No Build model runs were completed for both 2015 and 2025, the horizon year for our Study. The results of the potential improvements from each solution were compared to the 2025 No Build, which represents how traffic could change if no improvements are made.

Due to constraints within the model, three alternatives were completed; S. Airport Road corridor, Hammond Road corridor, and the Beitner Road Corridor. It was assumed that because the Cass Road and Hammond Road crossings are relatively close together, there would not be a highly discernible difference in the results if both were run.

High-level comparisons of model outputs can provide additional insight into the benefit potential of the alternatives being tested. However, it should be noted that model outputs are just one measure that can be used in the evaluation of projects in a region. The reliance on the actual model result/ numbers needs to be in the context of understanding the models ability to fairly evaluate changes to the system and the sensitivity of the model to those changes.

The table below highlights the total changes in vehicle miles traveled (VMT) and vehicle hours traveled (VHT) at a regional level. Each of the alternatives produce additional VMT, but changes in magnitude of VMT between the alternatives are within 10% of each other.

For VHT changes, the S. Airport Road alternative seems to be the least impactful in relieving congestion with a decrease in daily hours traveled by only 287 compared to the other alternatives that both are over 400 hours. When looking at the AM and PM periods, it becomes apparent that the Hammond and Existing Roadway alternatives offer more relief to congestion and travel times. However, it is important to note that the existing road alternative gets most of its impacts from an assumption that a majority of the corridor will benefit by improving travel speeds by about 9 mph. This change, combined with the model's ability to truly reflect congestion through feedback of volumes and capacity, limits the reliability of that value. See Appendix F for VMT and VHT data by time period.

The forecasted changes in VHT and VMT are for the entire model network, however it is assumed that the reduction in VHT would be localized to the corridors where the improvements were made. For example, the Hammond Bridge reduction of 412 hours would be experienced the most along Hammond Road and the nearby corridors. Additionally, each solution was modeled as a stand-alone improvement. If pieces of each solution were implemented in tandem, greater impacts to the VHT and VMT would be experienced. The limits of the model do not allow for a detailed evaluation of where exactly the impacts would be experienced.

	2025 No-Build	2025 South Airport Rd Corridor		2025 Hammond Rd Corridor		2025 Existing Roadway Improvement	
	Total	*Total*	*Difference*	*Total*	*Difference*	*Total*	*Difference*
Total VMT	*3,025,108*	*3,030,200*	*5,093*	*3,031,797*	*6,689*	*3,030,987*	*5,880*
Total VHT	*88,192*	*87,905*	*-287*	*87,780*	*-412*	*87,753*	*-439*

Total estimated Vehicle Miles Traveled (VMT) and Vehicle Hours Traveled (VHT) for each modeled solution.

COST ESTIMATES

Cost estimates for the Practical Solutions were kept high-level and conservative. Since no design work has been completed for any of the identified Practical Solutions, some assumptions were made to streamline the process and provide consistent estimates. It is important to note that these cost estimates are planning-level and will need further analysis if relied upon for programming decisions.

The cost estimates all assume that each solution will consist of either a 5 lane cross section or 4 lane boulevard cross section for the entirety of the Practical Solution length. The S. Airport Road Corridors would be 4 lane boulevards and the remaining solutions would be 5 lane roadways from end to end.

General roadway cost estimates were produced by utilizing MDOT's standard average cost of $1.8M per lane per mile. Meaning that a one lane road, one mile long would cost $1.8M to design and construct. Additionally, the original estimate for the Hartman-Hammond Bridge crossing developed in the 2003 Environmental Impact Study was used, but the cost was escalated to 2019 dollars. The updated cost for a bridge spanning the Boardman River at Hammond Road is estimated to be about $41M. Based on comparable projects completed recently for smaller bridges and bridge expansions, a cost estimate was also developed for improved crossings on Beitner Road and Cass Road. This figure was estimated to be $8M.

Finally, the cost estimates include estimates for all of the roundabouts identified along the route. The cost for a multi-lane roundabout, including design and construction was estimated at about $2 million in 2019 dollars. This estimate is purposely conservative and assumes that all identified roundabouts would be constructed.

The table below presents the cost estimates in 2019 dollars for each Practical Solution and the sub-solutions associated with each. The cost estimates do not include the cost of right-of-way acquisition as this was too speculative to include in estimates without detailed designs.

Practical Solution	Total Solution Length	Total Roundabouts	Estimated Bridge Cost	Total Cost ($2019)
S. Airport Rd Crossing - Roundabouts	*5.98*	*10*	*$0*	***$79M***
S. Airport Rd Crossing - Boulevard	*5.98*	*0*	*$0*	***$54M***
Hammond Rd Crossing - A	*5.56*	*1*	*$41M*	***$94M***
Hammond Rd Crossing - B	*5.83*	*1*	*$41M*	***$96M***
Cass Rd Crossing - A	*8.49*	*3*	*$8M*	***$92M***
Cass Rd Crossing - B	*9.14*	*3*	*$8M*	***$98M***
Cass Rd Crossing - C	*8.72*	*3*	*$8M*	***$94M***
Beitner Rd Crossing	*11.17*	*8*	*$8M*	***$129M***

The cost estimates shown above are planning-level and will need further analysis based on programming and design decisions

RED FLAGS

Part of the evaluation involved searching for any "Red Flags" or constraints that would greatly inhibit the implementation of any Practical Solution. Typically, these include protected cultural or historic property, environmental challenges, right-of-way constraints, and others. All in all, there were very few potential Red Flags that exist for the identified practical solutions. But based on the Red Flags identified, the following solutions were dismissed:

CASS ROAD CORRIDOR - B

The Cass Road Corridor Option B was identified to use an existing railroad alignment that runs along the Boardman River and could connect Cass Rd and Rennie School Road. The project team identified the alignment as a potential option for a new roadway that would connect the two existing roads. Initially, the team thought the railroad was no longer in use, however after speaking with MDOT, it was confirmed that trains still use the tracks on a regular basis and there were no plans to re-purpose the right-of-way into a roadway. The official letter from MDOT explaining the ownership and plans for the railroad corridor is located in Appendix I.

A train crosses Rennie School Road on the railroad right-of-way that was identified as a possible Solution for the Cass Road Crossing - Option B

Recommended Solutions

The Practical Solutions evaluation, traffic modeling, and cost estimates identified a number of Short Term and Long Term Solutions that will help address traffic congestion issues over the next 10 years. Potential Future Solutions were also identified as improvements that may be needed past the 10 year horizon of this Study, however planning and programming for these projects could begin immediately.

SHORT TERM SOLUTIONS (1 - 5 YEARS)

The Short Term Solutions are easy implementable projects that can be addressed in the relative near term to improve traffic congestion in the Region. These solutions consist of smaller projects that are less costly to implement and do not require a long lead time in funding acquisition, design, or construction.

ACCESS MANAGEMENT PLAN

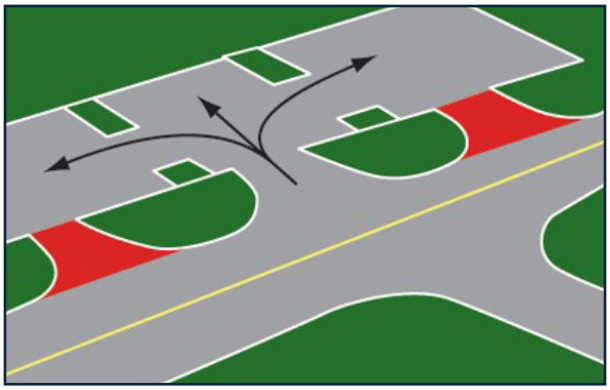
An access management program for County roadways should be developed in partnership with the local communities. A starting point is adopting a clear policy with definitive design guidelines based on the MDOT Access Management Guide. Preferably the Township Zoning Ordinances would direct applicants to the County's standards. Both the county guidelines and Township regulations should have a threshold that triggers a re-evaluation with a change in use or expansion. County access permitting procedures should be evaluated with more specifications on the use and anticipated traffic approved with the permit; that a change would require a new permit or improvements to the road or access system.

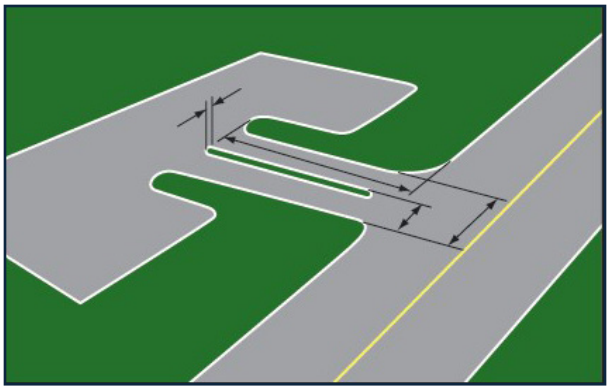
First, an access management plan for S. Airport Road should be developed. This would include the establishment of a corridor-wide framework for access management improvements as part of any redesign or reconstruction efforts. The Access Management Plan should provide a strategy to implement access management through a combination of traffic engineering measures, local land use regulations, and close coordination among transportation and land use decision makers.

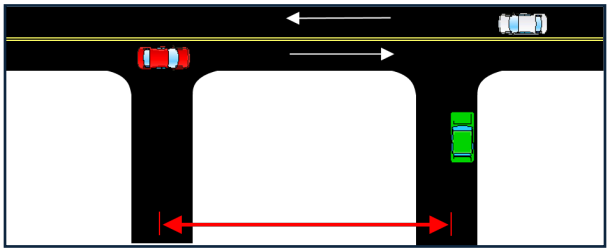
Specific components of the plan and regulations may include:

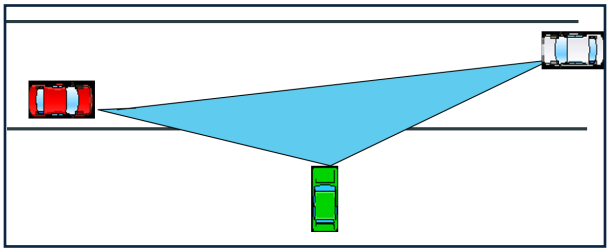
a. Require additional information on the site plan or lot split, including information on existing access along and across the street, sight distance, an analysis of access options and multi-modal transportation

b. Minimum lot width and lot split recommendations to ensure compliance is considered for both the existing/proposed and future access









c. Minimum structure setback recommendations

d. Minimum corner clearance design criteria

e. Driveway design and spacing criteria

f. Parking and internal circulation design criteria

g. Right turn and taper design criteria

h. Shared driveway provisions and possible incentives

i. Provisions to accommodate transit routes;

j. Provisions to support pedestrian and non-motorized travel including systems along the road, connections to building entrances, convenient bike parking

k. Requirements for transportation impact studies and their review

l. Signage placement

m. Other provisions as identified throughout the study process

n. A tight process for consideration of waivers or modifications that require approval of both the township and county road commission (not just the township)

TRAFFIC SIGNAL OPTIMIZATION

As a way to improve efficiency on the most congested corridors in the Study Area, the existing traffic signals should be optimized. The most congested section of roadway under GTCRC jurisdiction is along S. Airport Road between Logan's Landing and Garfield Road. The signals here should be retimed and the signal lengths, offsets, and green splits should be optimized for the current level of traffic volume and current patterns.

Additionally, the signals along corridors with recently completed improvements should be "fine tuned" to complement the improvements made. As MDOT introduces it's adaptive signal system into the regional roadway network, the signals along GTCRC roadways should be incorporated into that system to improve efficiency.

INTERSECTION IMPROVEMENTS

In conjunction with the "softer" improvements of Access Management planning and signal optimization, a number of intersections should be

considered for "harder" infrastructure improvements. Eight intersections were identified and prioritized based on the safety and operation issues that exist at each, with the first priority on crash reduction and the second on operational improvements. These improvements could include additional turn lanes, improved signal timing, pedestrian crossing infrastructure, or the construction of roundabouts. The major crash and operational issues exist on the S. Airport, Beitner, Keystone, and Hamond Road Corridors and the following intersections should be targeted:

- S. Airport Road at Garfield Road
- S. Airport Road at Barlow Street/LaFranier Road
- Garfield Road at Hammond Road
- Hammond Road at 3 Mile Road
- S. Airport Road at Park Drive
- Cass Road at Keystone Road
- Beitner Road at Keystone Road/W. River Drive

LONG TERM SOLUTIONS (5 - 10 YEARS)

The Long Term Solutions are larger and more expensive projects that will help improve congestion issues along corridor segments in the Region. These solutions consist of roadway redesigns and/or expansions that will require a longer lead time in funding acquisition, property acquisition, design, and construction.

ROADWAY WIDENING/ REDESIGN

Two corridors are suggested for widening or redesign based on the results of the traffic modeling; S. Airport Road and Keystone Road. These corridors contain the areas of highest congestion within the Study Area and are targeted for improvements to improve east-west traffic flow in the area. The following specific corridors are identified for redesign or widening:

- S. Airport Road between Barlow Street/ LaFranier Road and Garfield Road - Redesign to a 4 lane narrow median boulevard and include a roundabout at Barlow Street/LaFranier Road
- S. Airport Road between Logan's Landing and Barlow Road/LaFrainier Road - Redesign to a 4 lane narrow median boulevard and include a roundabout at Park Drive
- Keystone between Hammond Road and Cass Road - Widen to 5 lanes

REFINED COST ESTIMATES

The recommended Short and Long Term Solutions were refined from the initial Practical Solutions, meaning that the cost estimates needed to be refined to match. The cost estimates summarized below use the same assumptions as the original estimates and includes the cost of reconstructing a roadway and adding roundabouts at all of the key intersections.

Corridor	Specific Section	Roadway Cost ($2019)	Roundabout Cost ($2019)
S. Airport Road	*Barlow St to Garfield Rd*	$1,000,000	$4,000,000
	Logan's Landing to Barlow St	$1,500,000	$2,000,000
Keystone Road	*Hammond Rd to Cass Rd*	$2,000,000	$4,000,000
Hammond Road	*Garfield Rd to 3 Mile Rd*	-	$4,000,000
	Total	**$4,500,000**	**$14,000,000**
Traffic Signal Optimization - S. Airport and Hammond Roads		**$45,000**	
	Total Design/Construction Cost	**$18,550,000**	

FUTURE POTENTIAL SOLUTIONS (10 - 25 YEARS)

The scope of the East-West Corridor Transportation Study was limited to a 10 year horizon and the recommendations attempt to fit within that timeframe. The Short and Long Term recommendations look to identify practical, implementable solutions that will provide the greatest impact to safety issues and traffic congestion in the most efficient way possible. The results of the evaluation show that benefits similar to adding another crossing of the Boardman River can be achieved with a "mix of fixes" applied throughout the network.

However, the Traverse City Region is not expected to stop growing and in the future there may be a more demonstrable need for an additional crossing of the Boardman River. Two potential crossings paired with new roadway could be explored in the future to alleviate congestion, should it be warranted.

- Hammond Road Crossing - Including improvements to Hammond Road and 3 Mile Road
- Cass Road Crossing - Including improvements to Hammond Road and 3 Mile Road, and tying into the widened Keystone Road (from the Long Term Solutions)

Cost for potential future solutions are included in the table below and are to be considered preliminary until further analysis and design is completed.

The reality of constructing a new crossing is that acquiring the funding and property needed to implement a new bridge will take a number of years in itself, which does not include the required Environmental Impact Statement needed in order to obtain a permit to build the new bridge. Constructing a new corridor will provide traffic relief for a limited piece of the roadway network and does not provide relief for other corridors in the Region that are experiencing congestion.

It is recommended that the GTCRC focus concurrently on implementing the Short and Long Term Solutions over the next few years, while also exploring the requirements needed to construct a new crossing. A new crossing should be explored after all other options are vetted and it is certain that a crossing will provide a large enough benefit to justify the cost.

Potential Future Solutions Costs

Boardman Crossing	Improvements	Construction Cost ($2019)
Hammond Rd	*New Bridge and Alignment*	*$44,000,000*
Cass Rd	*Bridge Widening and Alignment*	*$11,000,000*

OTHER CONSIDERATIONS

As the Traverse City Region continues to grow, there are management strategies that can help maximize the return on investments in the transportation system. These approaches, described below, include considerations of the full transportation impact with land use changes, site design, access management, and assertive promotion of alternatives to driving such as walking, bicycling and transit. In addition, over the next 30 years, there will be changes in travel demands related to the emergence of technology, ride hailing and more vehicle automation. Those factors emphasize the need for the solutions to be phased and flexible to adjust to actual changes in the conditions

LAND USE

There is a direct relationship between land use and how well the transportation system operates. The liner development pattern and separation of uses, similar to those along S. Airport Road, intensifies the potential for peak hour congestion. To avoid a repeat, the county and townships should apply ways to reduce the traffic levels associated with new development. This includes more of a mixture or clustering of land use types, such as residential near commercial so some trips do not need a vehicle, requirements for internal connections between developments (instead of isolated access), and convenient options to walk or bicycle.

Coordination with BATA to consider options for park and ride, and easy access to transit service should be built into any development scenario. Developers should be required to assess their full long term traffic impact and demonstrate how they can reduce that impact by applying some of these tactics.

Some of these considerations can be incorporated into an Access Management plan and access standards for commercial corridors applied in unison by the Township's (through zoning) and the county/MDOT (through access permitting). The Road Commission and local communities should work together in the coming years to coordinate improvements and find efficiencies in areas outside of the physical road network.

This will also require continuous eduction of officials, the development community, and especially the developer's design professionals, to understand the benefits of access management and the safety and congestion consequences of not applying it.

MULTI-MODAL TRANSPORTATION

To optimize the return on investments to the roadways, the East-West Corridor Study promotes system-wide improvements to encourage non-motorized and transit travel as well. The Study assumed that bicycle, pedestrian, and transit improvements would be a part of each of the Practical Solutions. Some concepts are included in the Study, such as shared pathways along the roadways and convenient pedestrian crossings. Traffic design speeds, intersections and signals or roundabouts, should support safe non-motorized travel, especially in areas that are, or are expected to be, developed.

These facilities should be prioritized in areas where there already is a demand for multi-modal transportation, i.e. where residents are currently walking, biking, and riding transit. Areas of new development that are expected to produce a high number of walking, bike, and transit trips should

New developments that allow residents to walk and bike for short trips can help reduce congestion

be prioritized as well. In some cases, the Road Commission does not have authority to construct these facilities but should coordinate with staff from the local communities and agencies responsible for implementation. The most efficient way to improve conditions for vehicles and multi-modal users is to construct improvements in conjunction with each other.

Improving conditions for bicyclists, pedestrians, and transit users encourages people to use alternate modes of transportation and takes some of the vehicular load off of the existing roadway network. These improvements will be most successful if they are implemented in concert with land use changes that encourage walking and biking as a viable form of transportation. The following actions should be considered alongside the solutions presented in this Study:

- Design sites so there are sidewalk connections from building entrances to the public system along the roads. If through a parking lot, make sure there are islands and crosswalks to prioritize safety and visibility for pedestrians.
- Require bike parking to be placed near building entrances or at another convenient spot, preferably with accommodation for bike parking indoors
- Coordinate with BATA and major developments to provide convenient transit stops with good pedestrian connections and amenities to encourage transit use
- Look for park-and-ride lot opportunities within the road right-of-way
- Add interesting design elements, amenities, or destinations to encourage walking and bicycling trips, such as street trees, wayfinding signs, health information such as the numbers of steps on a route, mini-parks, and links to restaurants or shopping

Encourage travel using BATA transit vehicles by introducing transit friendly design into the roadway and land development process to reduce the load on surface streets in the Region.

POTENTIAL FUNDING SOURCES

A number of funding sources are currently available that could be applied to the Short Term, Long Term, and Potential Future Solutions identified as part of the East-West Corridor Study. Some funding sources are only applicable to specific projects. For example, the Transportation Alternatives Program (TAP) is to improve walking, biking, and transit options. Additionally, the MDOT Local Bridge Program is to be used to replace, rehabilitate, and maintain bridges in the State.

Below is a list of potential funding options that GTCRC could explore when implementing the Recommended Solutions. The larger and more expensive projects will likely require a longer lead time to apply and be approved for one of the larger federal grants that would be needed. Additionally, if and when the Traverse City Region is designated an Urbanized Area, additional funding sources will become available to the Road Commission.

FEDERAL AID OPPORTUNITIES

- BUILD (Better Utilizing Investments to Leverage Development) Grants
  - » TIGER grant replacement to be used for innovative capital project. Up to $1.5 billion available.
- Surface Transportation Program (STP)
  - » Flexible funding to be used to maintain or improve transportation conditions
- Transportation Alternatives Program (TAP)
  - » Funding for activities that enhance alternative transportation options
- Congestion Mitigation and Air Quality (CMAQ)
  - » Support for transportation projects that contribute to air quality improvements and congestion relief

UNITED STATES DEPARTMENT OF COMMERCE ECONOMIC DEVELOPMENT ADMINISTRATION

- This Federal agency provides grants for Public Works projects throughout the U.S.

INFRA (INFRASTRUCTURE FOR REBUILDING AMERICA) GRANTS

- Dedicated and discretionary funding source for projects that address critical issues facing our nation's highways and bridges

MICHIGAN DEPARTMENT OF TRANSPORTATION/STATE OF MICHIGAN OPPORTUNITIES

- Michigan State Infrastructure Bank Loan
  - » Program to help meet urgent financing demands for all Act 51 public entities
- MDOT Rural Task Force
  - » Federal dollars provided to rural counties for both road and transit capital projects
- MDOT Local Bridge Program
  - » Program to replace, maintain, and rehab locally owned bridges

TRANSPORTATION ECONOMIC DEVELOPMENT FUND (TEDF)

- TEDF Category A: Economic Development Road Projects
  - » Goal to promote increased economic development through transportation projects by opening up areas for growth or redevelopment
- TEDF Category F: Urban Areas in Rural Counties
  - » Provides funding for projects that increase access to the State all-season road system in rural counties

SAFE ROUTES TO SCHOOLS

- Approach that promotes walking and bicycling to school through infrastructure improvements, enforcement, tools, safety education, and incentives to encourage walking and bicycling to school.

ADVANCE CONSTRUCTION

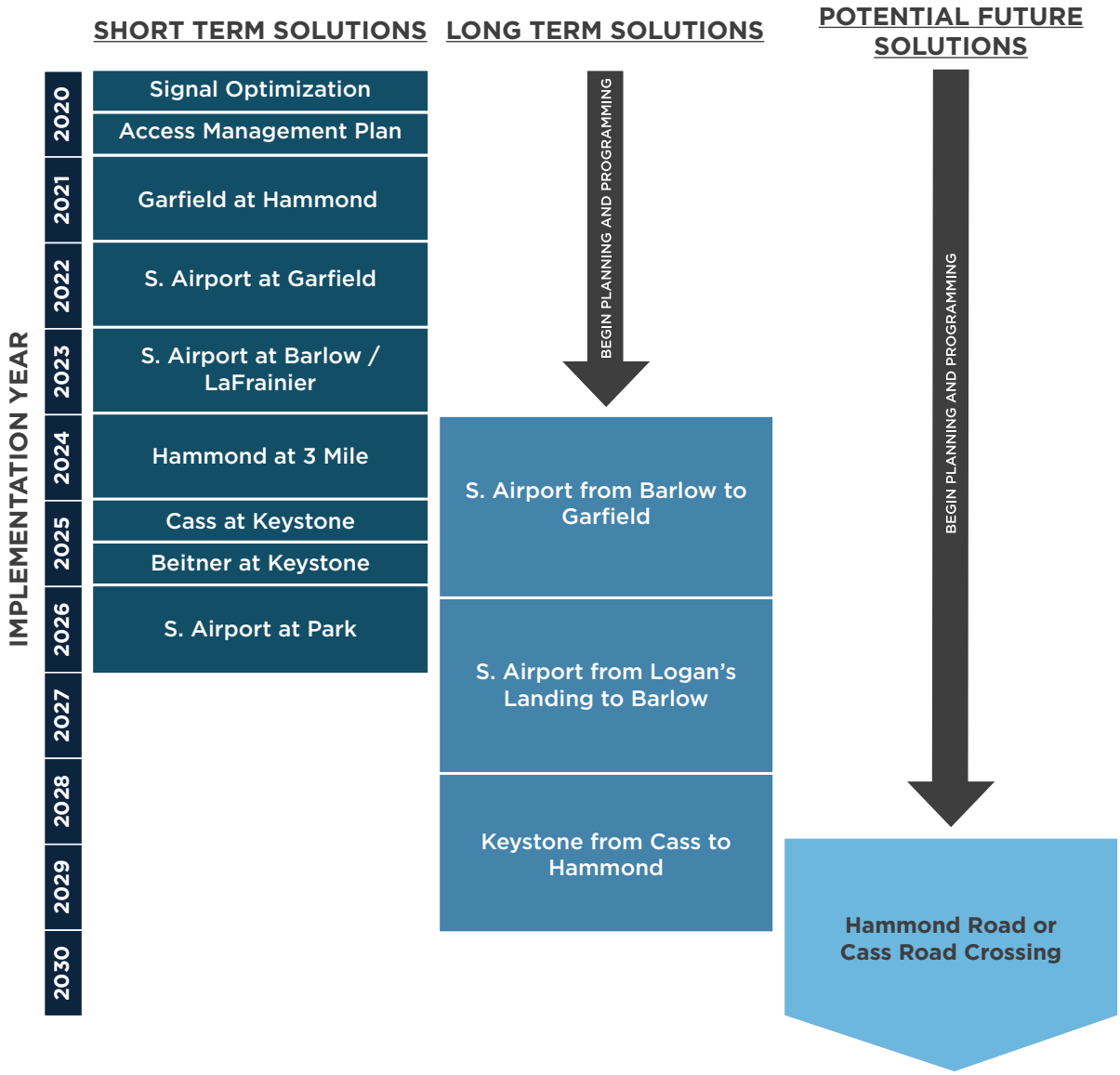
- Program that allows states to begin a project in without sufficient Federal-aid obligation to cover the share of project costs.

LOCAL FUNDING (COUNTY, CITY, TOWNSHIP)

- In the absence of all other funding opportunities, local funding can be used to implement projects.
- Inter-jurisdictional agreements are needed
- Agencies should look to collaborate on paying for items based on need

IMPLEMENTATION PLAN

The East-West Corridor Study identified a number of solutions that can be implemented over the next decade that will help alleviate congestion in the short term until a larger (and more expensive) solution is needed. The implementation plan laid out below can be used as a roadmap to achieving the goals of this study, and will help the GTCRC lay the groundwork for a new crossing of the Boardman River, should they need it.




Enjoy the Grand Traverse Natural Education Reserve
THE BOARDMAN RIVER WATERSHED
Natural Education Reserve Trail System

Appendices

APPENDIX A:
LOCAL ADVISORY GROUP ENTITIES

APPENDIX B:
LOCAL ADVISORY GROUP PRESENTATIONS

APPENDIX C:
PUBLIC INPUT SUMMARY DOCUMENTS

APPENDIX D:
ACCESS MANAGEMENT PRESENTATION

APPENDIX E:
COST ESTIMATES

APPENDIX F:
TRAFFIC MODELING ANALYSIS TECHNICAL MEMORANDUM

APPENDIX G:
ROADWAY SAFETY ANALYSIS TECHNICAL MEMORANDUM

APPENDIX H:
REVIEW OF ECOLOGICAL AND ENVIRONMENTAL RESOURCES

APPENDIX I:
AGENCY COORDINATION

Appendix A:

Local Agency Group Members

LOCAL AGENCY GROUP MEMBERS
Traverse City Downtown Development Authority
Traverse Transportation Coordinating Initiative
Networks Northwest
City of Traverse City
Grand Traverse County
Acme Township
Blair Township
East Bay Township
Fife Lake Township
Garfield Township
Grant Township
Green Lake Township
Long Lake Township
Mayfield Township
Paradise Township
Peninsula Township
Union Township
Whitewater Township
Elmwood Township
Village of Fife Lake
Village of Kingsley
Michigan Department of Transportation
Cherry Capital Airport/ Northwest Regional Airport Commission
Bay Area Transit Authority
Grand Traverse County Road Commission
Grand Traverse Conservation District
Grand Traverse Band of Ottawa and Chippewa Indians
Grand Traverse County Drain Commission
Michigan Department of Natural Resources
Michigan Department of Environmental Quality

Appendix B:

Local Agency Group Presentations


EAST-WEST CORRIDOR
TRANSPORTATION STUDY
Local Agency Group Meeting
Traverse Area District Library
April 9, 2018

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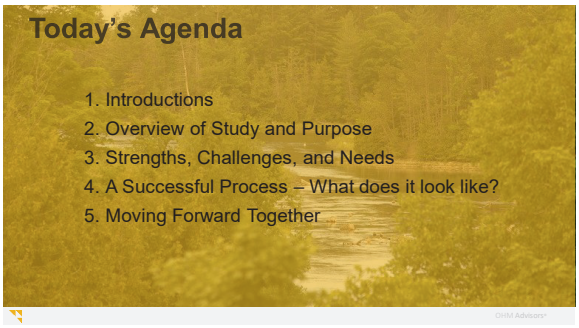
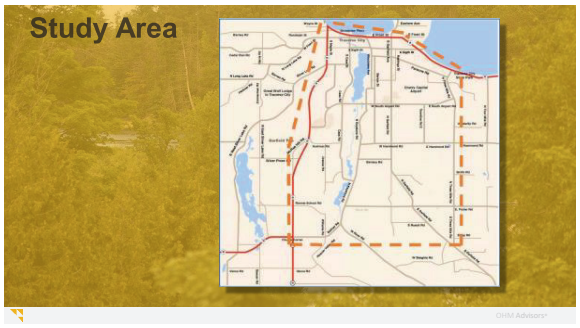
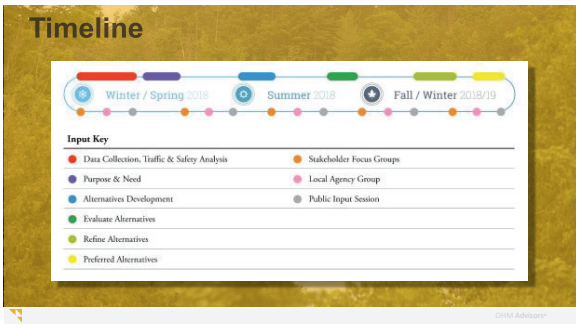

Today's Agenda
1. Introductions
2. Overview of Study and Purpose
3. Strengths, Challenges, and Needs
4. A Successful Process – What does it look like?
5. Moving Forward Together

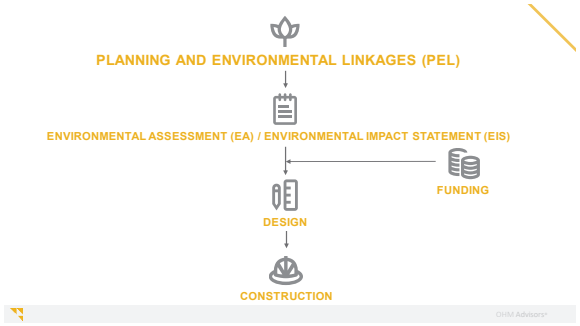
2


Study Area

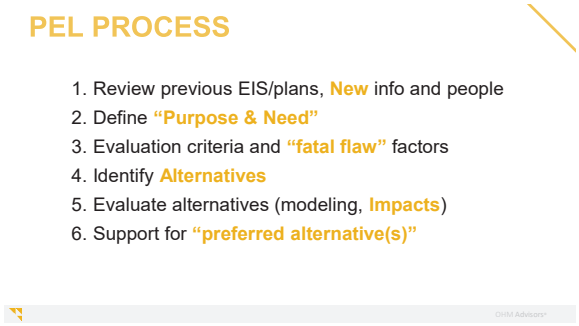
3


Timeline
Winter / Spring 2018
Summer 2018
Fall / Winter 2018/19
Input Key
Data Collection, Traffic & Safety Analysis
Stakeholder Focus Groups
Purpose & Need
Local Agency Group
Alternatives Development
Public Input Session
Evaluate Alternatives
Refine Alternatives
Preferred Alternatives

4


PLANNING AND ENVIRONMENTAL LINKAGES (PEL)
ENVIRONMENTAL ASSESSMENT (EA) / ENVIRONMENTAL IMPACT STATEMENT (EIS)
FUNDING
DESIGN
CONSTRUCTION

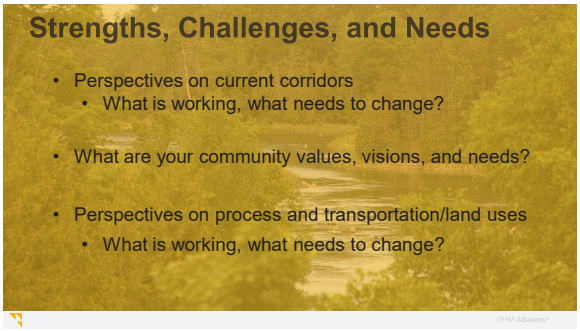
5


PEL PROCESS
1. Review previous EIS/plans, New info and people
2. Define "Purpose & Need"
3. Evaluation criteria and "fatal flaw" factors
4. Identify Alternatives
5. Evaluate alternatives (modeling, Impacts)
6. Support for "preferred alternative(s)"

6


Public Process Goals
1. Establish Trust
2. Foster Community Ownership
3. Arrive at a Supported Decision

7


Strengths, Challenges, and Needs
• Perspectives on current corridors
• What is working, what needs to change?
• What are your community values, visions, and needs?
• Perspectives on process and transportation/land uses
• What is working, what needs to change?

8


A Successful Process…
• What elements lead to a successful process?
• How do you want to engage in process?
• What does good communication look like?
• What can we do for you?
• What can you offer?
Get more info at www.gtcrc.org, look for

9


Moving Forward Together
• Memorandum of Agreement
• Meeting Schedule

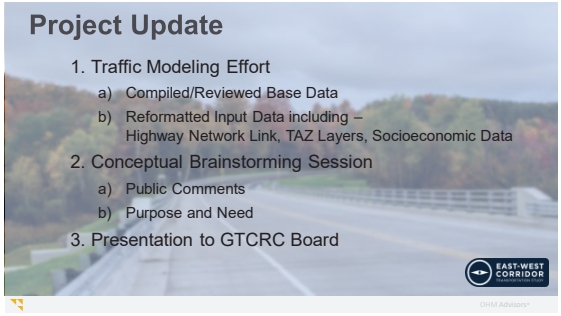
10


Questions?
Thank you for attending, see you next time!
OHM-Advisors.com

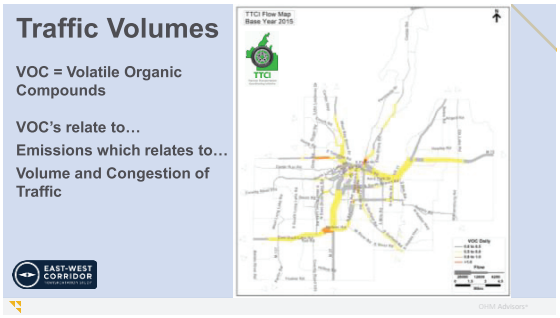
11


EAST-WEST CORRIDOR
TRANSPORTATION STUDY
CONCEPTUAL ALTERNATIVES
November 26, 2018
GRAND TRAVERSE COUNTY ROAD COMMISSION

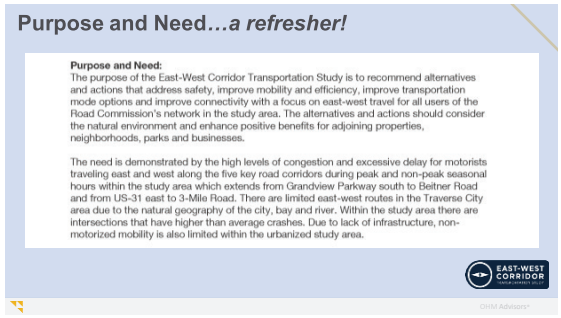
1


Project Update
1. Traffic Modeling Effort
a) Compiled/Reviewed Base Data
b) Reformatted Input Data including – Highway Network Link, TAZ Layers, Socioeconomic Data
2. Conceptual Brainstorming Session
a) Public Comments
b) Purpose and Need
3. Presentation to GTCRC Board
EAST-WEST CORRIDOR

2


Traffic Volumes
VOC = Volatile Organic Compounds
VOC's relate to…
Emissions which relates to…
Volume and Congestion of Traffic
TTCI Flow Map Base Year 2015
TTCI
EAST-WEST CORRIDOR

3


Purpose and Need…a refresher!
Purpose and Need:
The purpose of the East-West Corridor Transportation Study is to recommend alternatives and actions that address safety, improve mobility and efficiency, improve transportation mode options and improve connectivity with a focus on east-west travel for all users of the Road Commission's network in the study area. The alternatives and actions should consider the natural environment and enhance positive benefits for adjoining properties, neighborhoods, parks and businesses.
The need is demonstrated by the high levels of congestion and excessive delay for motorists traveling east and west along the five key road corridors during peak and non-peak seasonal hours within the study area which extends from Grandview Parkway south to Beitner Road and from US-31 east to 3-Mile Road. There are limited east-west routes in the Traverse City area due to the natural geography of the city, bay and river. Within the study area there are intersections that have higher than average crashes. Due to lack of infrastructure, non-motorized mobility is also limited within the urbanized study area.
EAST-WEST CORRIDOR

4


Conceptual Alternative Criteria
1. Utilized Feedback from Public/Stakeholder/LAG Meetings
2. Identified routes/features that best met P&N
3. Avoided Major Environmental Constraints
4. Identified Convenient Connections
5. Most everything was on the table!!
EAST-WEST CORRIDOR

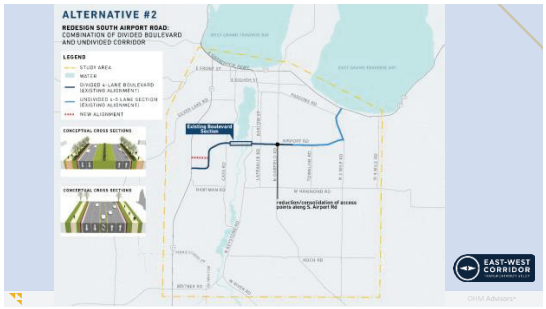
5


TRAVERSE CITY E-W CORRIDOR
EACH ALTERNATIVE WILL INCLUDE:
ACCESS MANAGEMENT
NON-MOTORIZED TRANSIT
OTHER DESIGN ELEMENTS
EAST-WEST CORRIDOR

6

APPENDIX B: LOCAL AGENCY GROUP PRESENTATIONS

7



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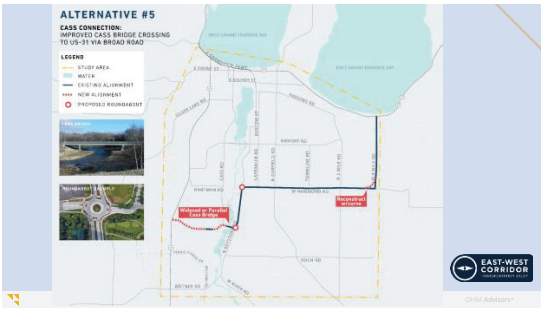

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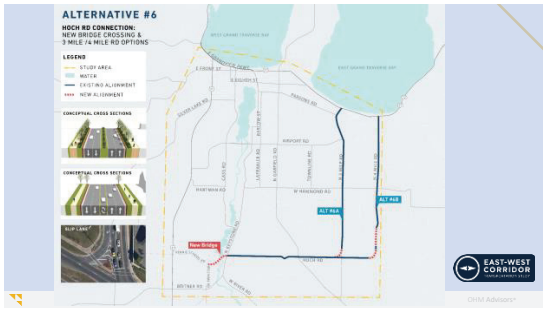

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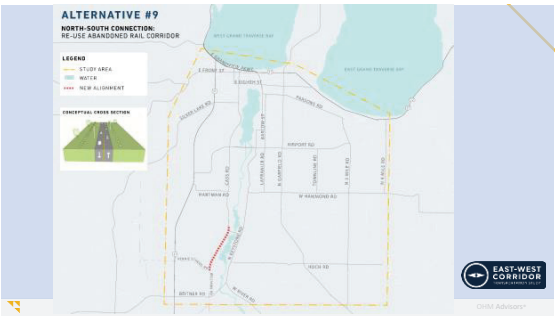

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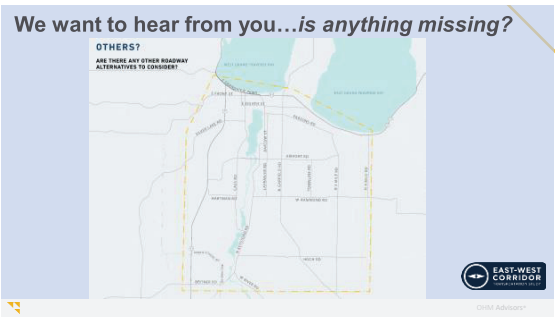

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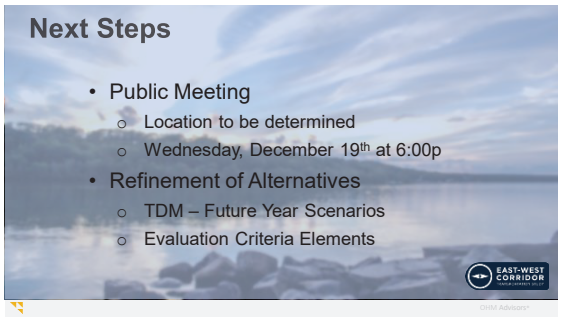

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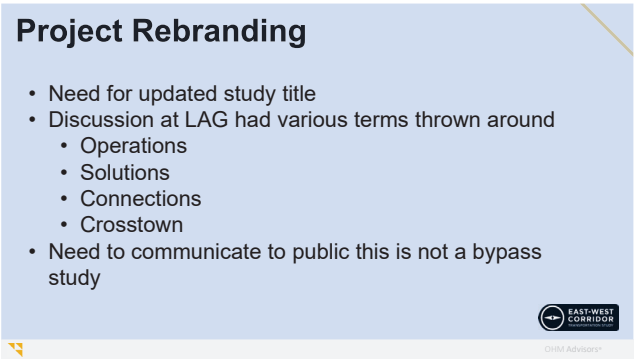
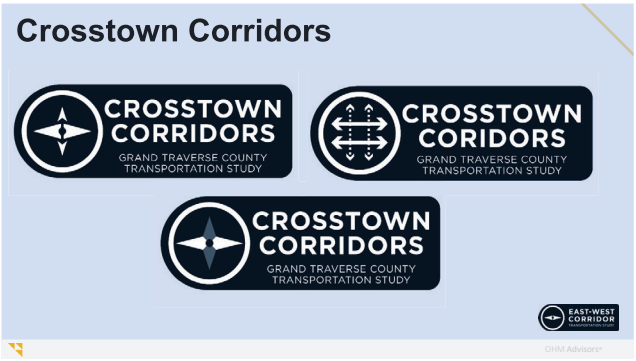
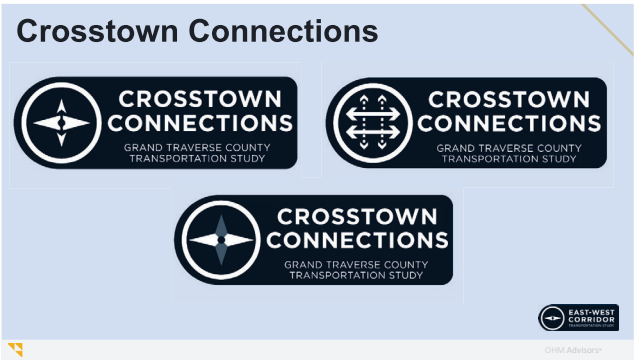
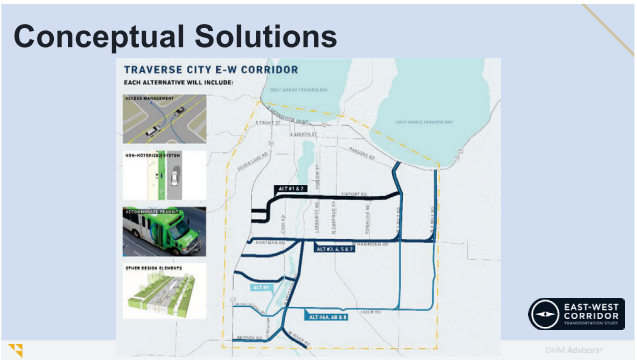
APPENDIX B: LOCAL AGENCY GROUP PRESENTATIONS







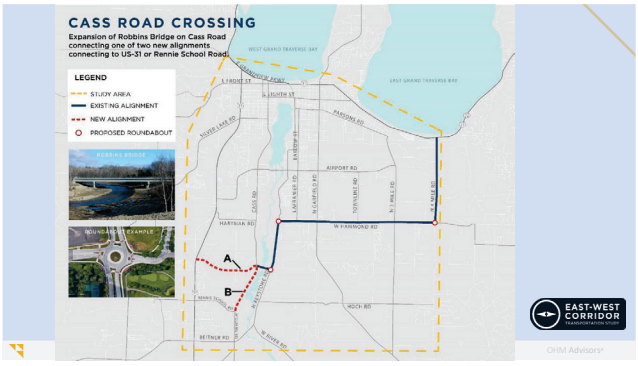

Conceptual Solutions
TRAVERSE CITY E-W CORRIDOR
EACH ALTERNATIVE WILL INCLUDE:
ACCESS MANAGEMENT
NON-MOTORIZED SYSTEM
TRANSIT IMPROVEMENTS
OTHER DESIGN ELEMENTS
ALT #1 & 2
ALT #3, 4 & 5
ALT #6, 4B & 5
EAST-WEST CORRIDOR TRANSPORTATION STUDY
OHM Advisors


Practical Solutions
CORRIDORS UNDER CONSIDERATION
Existing roadway corridors subject to potential improvements.
ACCESS MANAGEMENT
NON MOTORIZED FACILITIES
TRANSIT IMPROVEMENTS
STREETSCAPING ELEMENTS
EAST-WEST CORRIDOR TRANSPORTATION STUDY
OHM Advisors

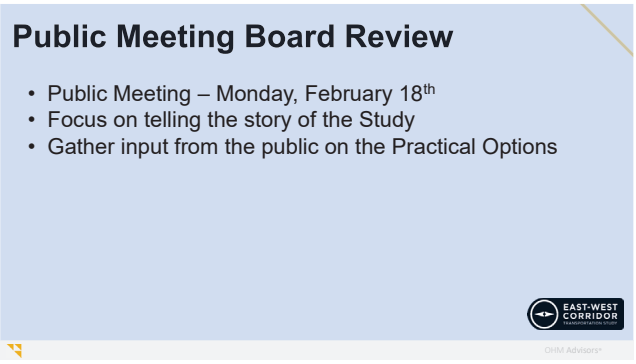

S. AIRPORT ROAD CROSSING
Full width boulevard with center median and turn-arounds. Would require additional ROW.
LEGEND
STUDY AREA
EXISTING ALIGNMENT
CONCEPTUAL CROSS SECTION
CENTER MEDIAN TURNAROUND
EAST-WEST CORRIDOR TRANSPORTATION STUDY
OHM Advisors


S. AIRPORT ROAD CROSSING
Four Lane, Divided Roadway with Roundabouts
LEGEND
STUDY AREA
EXISTING ALIGNMENT
NEW ALIGNMENT
PROPOSED ROUNDABOUT
CONCEPTUAL CROSS SECTION
ROUNDABOUT EXAMPLE
EAST-WEST CORRIDOR TRANSPORTATION STUDY
OHM Advisors

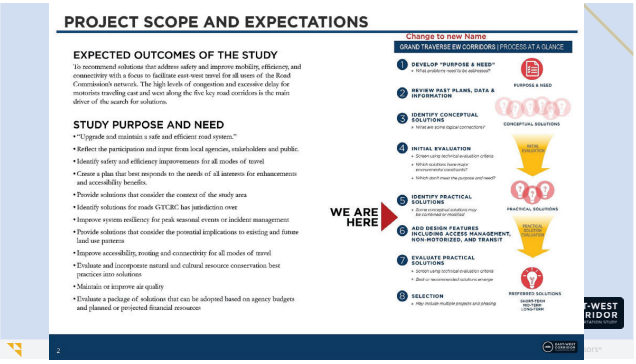

HAMMOND ROAD CROSSING
New bridge over Boardman River connecting either to Hartman Road or to a new alignment connecting to US-31.
LEGEND
STUDY AREA
EXISTING ALIGNMENT
NEW ALIGNMENT
PROPOSED ROUNDABOUT
CONCEPTUAL CROSS SECTION
A
B
EAST-WEST CORRIDOR TRANSPORTATION STUDY
OHM Advisors


CASS ROAD CROSSING
Expansion of Robbins Bridge on Cass Road connecting one of two new alignments connecting to US-31 or Rennie School Road.
LEGEND
STUDY AREA
EXISTING ALIGNMENT
NEW ALIGNMENT
PROPOSED ROUNDABOUT
ROBBINS BRIDGE
ROUNDABOUT EXAMPLE
A
B
EAST-WEST CORRIDOR TRANSPORTATION STUDY
OHM Advisors

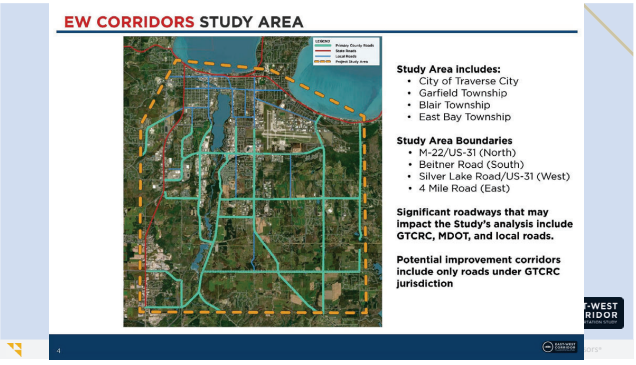

BEITNER ROAD CROSSING
Efficiency improvements along existing roadways to improve access into and around Traverse City.
LEGEND
STUDY AREA
EXISTING ALIGNMENT
ROUNDABOUT UNDER CONSIDERATION
CONCEPTUAL CROSS SECTION
EAST-WEST CORRIDOR TRANSPORTATION STUDY
OHM Advisors

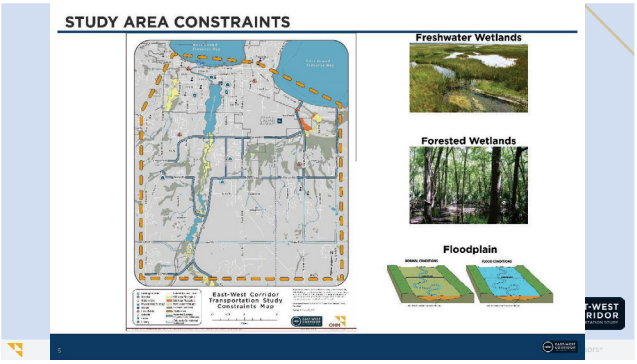

Public Meeting Board Review
• Public Meeting – Monday, February 18th
• Focus on telling the story of the Study
• Gather input from the public on the Practical Options
EAST-WEST CORRIDOR TRANSPORTATION STUDY
OHM Advisors

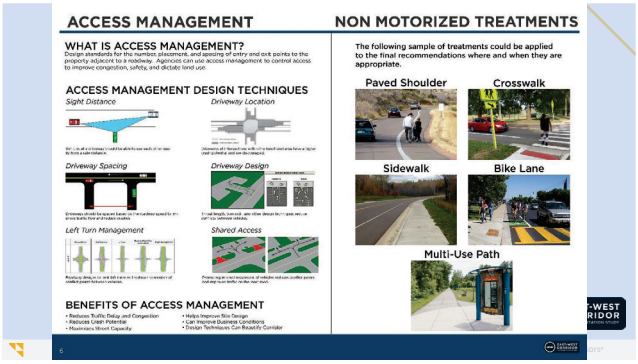

WELCOME!
East-West Corridors Study
COUNTY ROAD COMMISSION
EAST-WEST CORRIDOR TRANSPORTATION STUDY

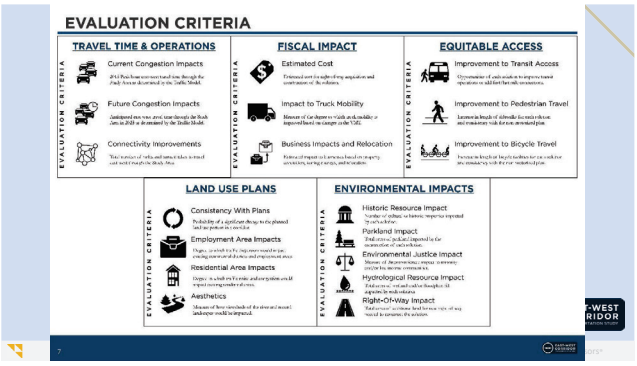

PROJECT SCOPE AND EXPECTATIONS
EXPECTED OUTCOMES OF THE STUDY
To recommend solutions that address safety and improve mobility, efficiency, and connectivity with a focus to facilitate east-west travel for all users of the Road Commission's network. The high levels of congestion and excessive delay for motorists travelling east and west along the five key road corridors is the main driver of the search for solutions.
STUDY PURPOSE AND NEED
• "Upgrade and maintain a safe and efficient road system."
• Reflect the participation and input from local agencies, stakeholders and public.
• Identify safety and efficiency improvements for all modes of travel
• Create a plan that best responds to the needs of all interests for enhancements and accessibility benefits.
• Provide solutions that consider the context of the study area
• Identify solutions for roads GTCRC has jurisdiction over
• Improve system resiliency for peak seasonal events or incident management
• Provide solutions that consider the potential implications to existing and future land use patterns
• Improve accessibility, routing and connectivity for all modes of travel
• Evaluate and incorporate natural and cultural resource conservation best practices into solutions
• Maintain or improve air quality
• Evaluate a package of solutions that can be adopted based on agency budgets and planned or projected financial resources
Change to new Name
GRAND TRAVERSE EW CORRIDORS | PROCESS AT A GLANCE
1 DEVELOP "PURPOSE & NEED"
• What problems need to be addressed?
PURPOSE & NEED
2 REVIEW PAST PLANS, DATA & INFORMATION
3 IDENTIFY CONCEPTUAL SOLUTIONS
• What are some logical connections?
CONCEPTUAL SOLUTIONS
4 INITIAL EVALUATION
• Screen using technical evaluation criteria
• Which solutions have major environmental constraints?
• Which don't meet the purpose and need?
WE ARE HERE
5 IDENTIFY PRACTICAL SOLUTIONS
• Some conceptual solutions may be combined or modified
PRACTICAL SOLUTIONS
6 ADD DESIGN FEATURES INCLUDING ACCESS MANAGEMENT, NON-MOTORIZED, AND TRANSIT
7 EVALUATE PRACTICAL SOLUTIONS
• Screen using technical evaluation criteria
• Best or recommended solutions emerge
8 SELECTION
• May include multiple projects and phasing
PREFERRED SOLUTIONS
SHORT-TERM
MID-TERM
LONG-TERM

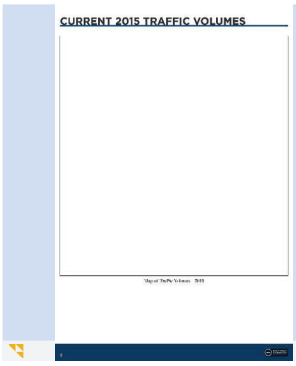

LOCAL AGENCY GROUP PARTICIPANTS
The Local Agency Group (LAG) was conferred upon to create the Purpose and Need and helped guide the selection of improvement options.
PARTICIPATING LAG AGENCIES
TRAVERSE CITY LIGHT & POWER
CITY of TRAVERSE CITY MICHIGAN
TRAVERSE city TOURISM
NMEAC
TBA ISD
Charter Township of UNION
KINGSLEY
D&W Mechanical
T·A·R·T TRAILS
BATA
DISABILITYnetwork
Northwestern Michigan College
Networks Northwest
Conservation Resource Alliance
TVC
ACME TOWNSHIP
MDOT Michigan Department of Transportation

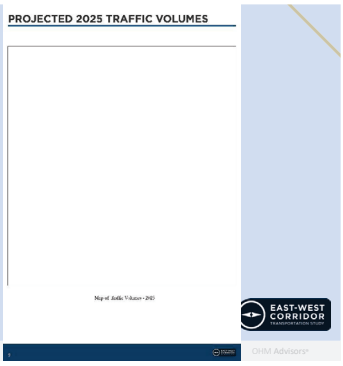

EW CORRIDORS STUDY AREA
Study Area includes:
• City of Traverse City
• Garfield Township
• Blair Township
• East Bay Township
Study Area Boundaries
• M-22/US-31 (North)
• Beitner Road (South)
• Silver Lake Road/US-31 (West)
• 4 Mile Road (East)
Significant roadways that may impact the Study's analysis include GTCRC, MDOT, and local roads.
Potential improvement corridors include only roads under GTCRC jurisdiction

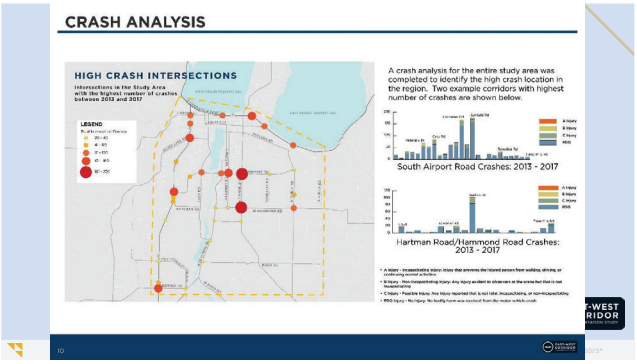

STUDY AREA CONSTRAINTS
Freshwater Wetlands
Forested Wetlands
Floodplain
East-West Corridor Transportation Study Constraints Map

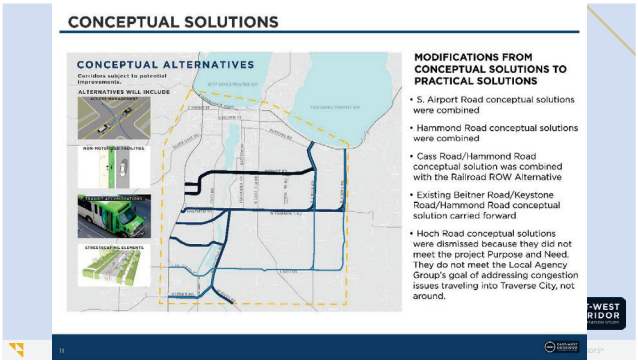

ACCESS MANAGEMENT
WHAT IS ACCESS MANAGEMENT?
ACCESS MANAGEMENT DESIGN TECHNIQUES
Sight Distance
Driveway Location
Driveway Spacing
Driveway Design
Left Turn Management
Shared Access
BENEFITS OF ACCESS MANAGEMENT
NON MOTORIZED TREATMENTS
The following sample of treatments could be applied to the final recommendations where and when they are appropriate.
Paved Shoulder
Crosswalk
Sidewalk
Bike Lane
Multi-Use Path


EVALUATION CRITERIA
TRAVEL TIME & OPERATIONS
Current Congestion Impacts
Future Congestion Impacts
Connectivity Improvements
FISCAL IMPACT
Estimated Cost
Impact to Truck Mobility
Business Impacts and Relocation
EQUITABLE ACCESS
Improvement to Transit Access
Improvement to Pedestrian Travel
Improvement to Bicycle Travel
LAND USE PLANS
Consistency With Plans
Employment Area Impacts
Residential Area Impacts
Aesthetics
ENVIRONMENTAL IMPACTS
Historic Resource Impact
Parkland Impact
Environmental Justice Impact
Hydrological Resource Impact
Right-Of-Way Impact

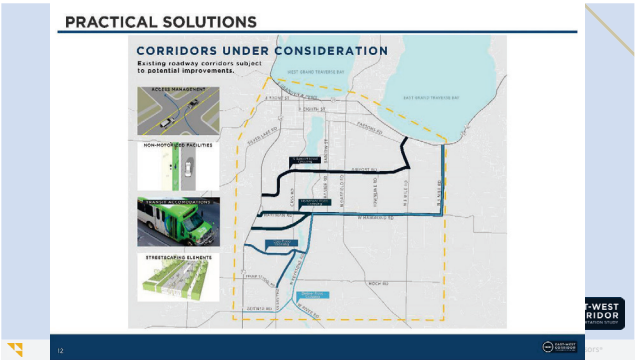

CURRENT 2015 TRAFFIC VOLUMES

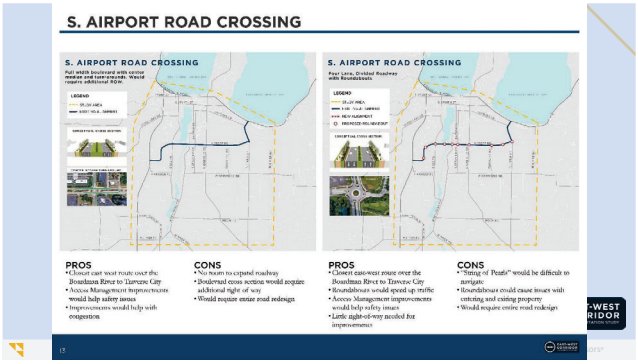

PROJECTED 2025 TRAFFIC VOLUMES
EAST-WEST CORRIDOR
TRANSPORTATION STUDY

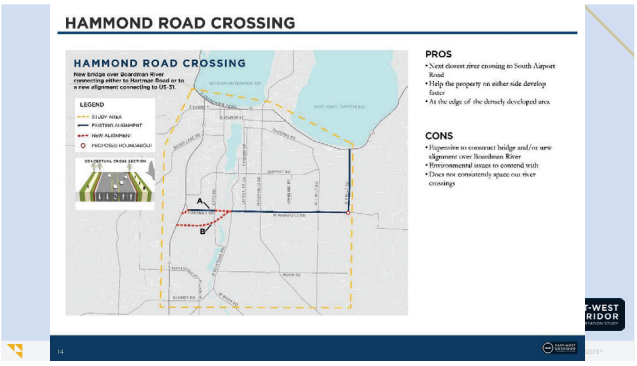

CRASH ANALYSIS
HIGH CRASH INTERSECTIONS
Intersections in the Study Area with the highest number of crashes between 2013 and 2017
LEGEND
A crash analysis for the entire study area was completed to identify the high crash location in the region. Two example corridors with highest number of crashes are shown below.
South Airport Road Crashes: 2013 - 2017
Hartman Road/Hammond Road Crashes: 2013 - 2017

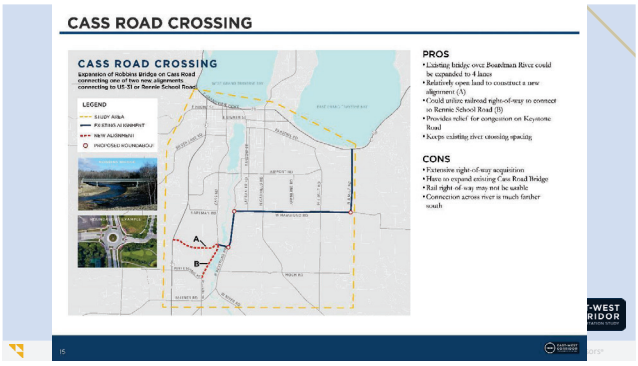

CONCEPTUAL SOLUTIONS
CONCEPTUAL ALTERNATIVES
Corridors subject to potential improvements.
ALTERNATIVES WILL INCLUDE
MODIFICATIONS FROM CONCEPTUAL SOLUTIONS TO PRACTICAL SOLUTIONS
• S. Airport Road conceptual solutions were combined
• Hammond Road conceptual solutions were combined
• Cass Road/Hammond Road conceptual solution was combined with the Railroad ROW Alternative
• Existing Beltner Road/Keystone Road/Hammond Road conceptual solution carried forward
• Hoch Road conceptual solutions were dismissed because they did not meet the project Purpose and Need. They do not meet the Local Agency Group's goal of addressing congestion issues traveling into Traverse City, not around.

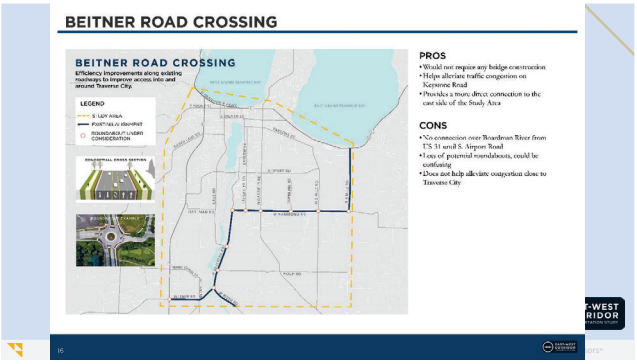
APPENDIX B: LOCAL AGENCY GROUP PRESENTATIONS

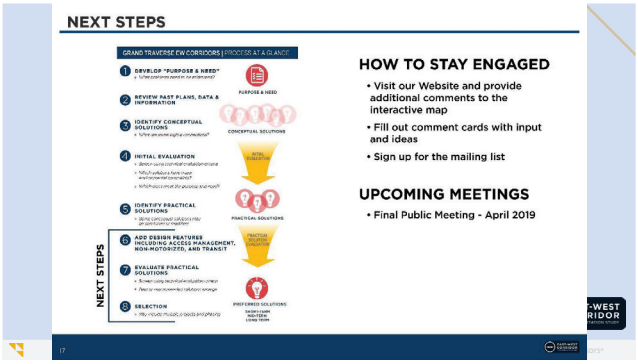








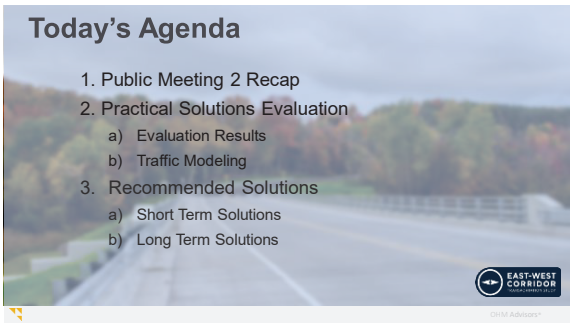




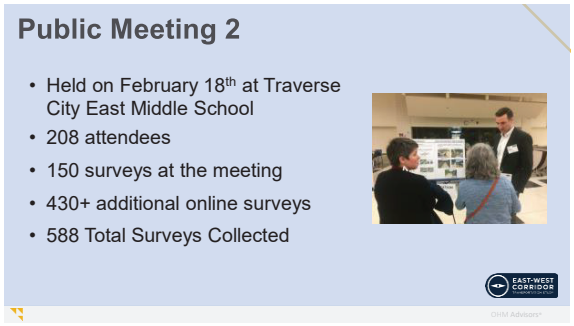

Questions?
OHM
Advancing Communities
OHM Advisors


EAST-WEST CORRIDOR
TRANSPORTATION STUDY
EVALUATION RESULTS AND RECOMMENDED SOLUTIONS
April 16, 2019
GRAND TRAVERSE COUNTY ROAD COMMISSION

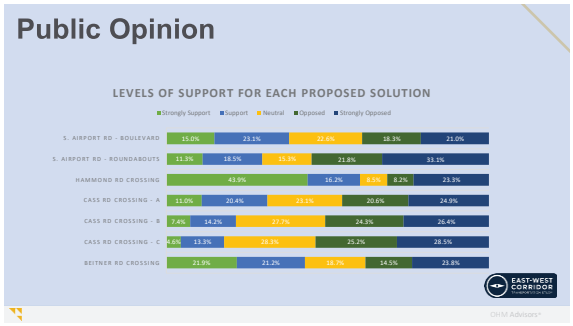
1


Today's Agenda
1. Public Meeting 2 Recap
2. Practical Solutions Evaluation
a) Evaluation Results
b) Traffic Modeling
3. Recommended Solutions
a) Short Term Solutions
b) Long Term Solutions
EAST-WEST CORRIDOR

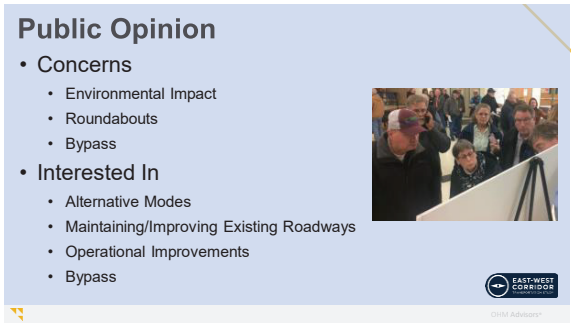
2


Public Meeting 2
• Held on February 18th at Traverse City East Middle School
• 208 attendees
• 150 surveys at the meeting
• 430+ additional online surveys
• 588 Total Surveys Collected
EAST-WEST CORRIDOR

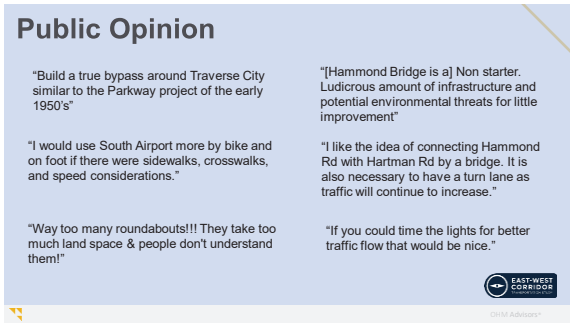
3


Public Opinion
LEVELS OF SUPPORT FOR EACH PROPOSED SOLUTION
Strongly Support
Support
Neutral
Opposed
Strongly Opposed
S. AIRPORT RD - BOULEVARD 15.0% 23.1% 22.6% 18.3% 21.0%
S. AIRPORT RD - ROUNDABOUTS 11.3% 18.5% 15.3% 21.8% 33.1%
HAMMOND RD CROSSING 43.9% 16.2% 8.5% 8.2% 23.3%
CASS RD CROSSING - A 11.0% 20.4% 23.1% 20.6% 24.9%
CASS RD CROSSING - B 7.4% 14.2% 27.7% 24.3% 26.4%
CASS RD CROSSING - C 13.3% 28.3% 25.2% 28.5%
BEITNER RD CROSSING 21.9% 21.2% 18.7% 14.5% 23.8%
EAST-WEST CORRIDOR

4


Public Opinion
• Concerns
• Environmental Impact
• Roundabouts
• Bypass
• Interested In
• Alternative Modes
• Maintaining/Improving Existing Roadways
• Operational Improvements
• Bypass
EAST-WEST CORRIDOR

5


Public Opinion
"Build a true bypass around Traverse City similar to the Parkway project of the early 1950's"
"I would use South Airport more by bike and on foot if there were sidewalks, crosswalks, and speed considerations."
"Way too many roundabouts!!! They take too much land space & people don't understand them!"
"[Hammond Bridge is a] Non starter. Ludicrous amount of infrastructure and potential environmental threats for little improvement"
"I like the idea of connecting Hammond Rd with Hartman Rd by a bridge. It is also necessary to have a turn lane as traffic will continue to increase."
"If you could time the lights for better traffic flow that would be nice."
EAST-WEST CORRIDOR

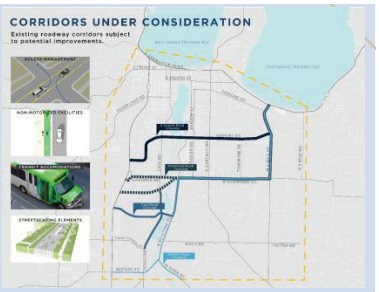
6

Progress Since Public Meeting

- Compiled all survey results
- Completed traffic modeling for existing and future impacts of each Solution
- Evaluated Solutions based on Purpose and Need factors

7

Practical Solutions



8

Evaluation Criteria

- 6 Overarching Criteria for Evaluating Practical Solutions based on Purpose and Need
  - **Roadway Operations**
  - **Community Land Use Plans**
  - **Environmental Responsibility**
  - **Safety**
  - **Economic Development**
  - **Equitable Access**

9

Evaluation Criteria

- Analyzed each Solution using various measures
- Helped determine which would have most impact to Region
- Determined if any 'Red Flags' were present
- Better understanding of the pros and cons for each
- Criteria scored 1 – 3 and color coded
  - **3 has the most positive impact, 1 is least positive impact**

10

Roadway Operations

	Potential Congestion Impact	Potential Travel Time Impact	Impact to Truck Mobility
	Projected difference in 2025 VMT of Solution compared to No Build	Projected difference in 2025 VHT of Solution compared to No Build	Projected Difference in Average AADT of Solution compared to No Build
S. Airport Road Crossing - Boulevard	3	2	1
S. Airport Road Crossing - Roundabouts	3	2	1
Hammond Road Crossing - A	1	3	1
Hammond Road Crossing - B	1	3	1
Cass Road Crossing - A	2	3	2
Cass Road Crossing - B	2	3	2
Cass Road Crossing - C	2	3	2
Beltner Road Crossing	2	3	1

11

Traffic Modeling Results

- Traffic modeling shows all solutions reduce vehicle hours of travel

Vehicle Miles Traveled (VMT) Changes								
	2015 No Build	2025 No Build	2025 South Airport Rd		2025 Hammond Bridge		2025 Existing Roads Improvement	
	VMT	VMT	VMT	Difference	VMT	Difference	VMT	Difference
Total	2,633,967	3,025,108	3,030,200	5,093	3,031,797	6,689	3,030,987	5,880

Vehicle Hours Traveled (VHT) Changes								
	2015 No Build	2025 No Build	2025 South Airport Rd		2025 Hammond Bridge		2025 Existing Roads Improvement	
	VHT	VHT	VHT	Difference	VHT	Difference	VHT	Difference
Total	75,642	88,192	87,905	-287	87,780	-412	87,753	-439

12

Community Land Use Plans

	Consistency with Local Land Use Plans	Impacts on Existing EW Corridors	Impacts to Residential Areas
	Specific local plans for the corridors within the Solution	Projected traffic shifts from existing corridors	Total potential residential relocations along route
S. Airport Road Crossing - Boulevard	3	1	1
S. Airport Road Crossing - Roundabouts	3	1	2
Hammond Road Crossing - A	3	3	3
Hammond Road Crossing - B	3	3	3
Cass Road Crossing - A	2	2	2
Cass Road Crossing - B	2	2	2
Cass Road Crossing - C	2	1	2
Beltner Road Crossing	3	2	2

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Environmental Responsibility

	Impact to Historic Resources	Number of Parks Impacted	Acres of Parkland Impacted	Environmental Justice Impacts
	Number of Historic Properties within 300 Feet of Solution	Total number of park parcels touching Solution	Total acres of parkland within 300 feet of Solution	Total low income and minority population within adjacent census tracts
S. Airport Road Crossing - Boulevard	3	3	3	3
S. Airport Road Crossing - Roundabouts	3	3	3	3
Hammond Road Crossing - A	3	2	3	2
Hammond Road Crossing - B	3	2	2	2
Cass Road Crossing - A	3	2	1	2
Cass Road Crossing - B	3	2	1	2
Cass Road Crossing - C	3	2	1	2
Beltner Road Crossing	3	1	1	3

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Environmental Responsibility (cont)

	Crossing of Boardman River	Other Stream Crossings	Potential Wetland & Floodplain Impacts	Habitat Fragmentation	ROW Impacts
	New, Modified, or Unchanged crossing needed	Total crossings of streams by Solution	Acres of wetland & floodplains in buffer	Virgin land bisected by Solution	Net Acres of ROW needed
S. Airport Road Crossing - Boulevard	3	3	3	3	1
S. Airport Road Crossing - Roundabouts	3	3	3	3	1
Hammond Road Crossing - A	1	1	1	3	2
Hammond Road Crossing - B	1	1	1	1	2
Cass Road Crossing - A	2	1	1	1	1
Cass Road Crossing - B	2	1	1	1	2
Cass Road Crossing - C	2	1	1	3	2
Beltner Road Crossing	2	1	1	3	1

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Safety Impacts

	Potential Non-Motorized Safety Impact	Potential Motorized Safety Impact	Emergency Response Time	Potential for Crash Reduction
	Could the Solution improve bike/ped safety?	Could the Solution improve vehicle safety?	Projected regional travel time reduction	Based on the total crashes along route
S. Airport Road Crossing - Boulevard	3	3	2	3
S. Airport Road Crossing - Roundabouts	3	3	2	3
Hammond Road Crossing - A	3	2	3	1
Hammond Road Crossing - B	3	2	3	1
Cass Road Crossing - A	3	2	3	1
Cass Road Crossing - B	3	2	3	1
Cass Road Crossing - C	3	2	3	1
Beltner Road Crossing	3	3	3	2

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Economic Development

	Estimated Construction Cost	Business Impacts and Relocations
	Design and construction costs for 5 lane road, bridges, and contingency	Total potential number of businesses relocated
S. Airport Road Crossing - Boulevard	3	1
S. Airport Road Crossing - Roundabouts	3	2
Hammond Road Crossing - A	1	3
Hammond Road Crossing - B	1	3
Cass Road Crossing - A	2	3
Cass Road Crossing - B	2	3
Cass Road Crossing - C	2	3
Beltner Road Crossing	1	3

EAST-WEST CORRIDOR DEVELOPMENT GROUP

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17

Cost Estimates

	Estimated Construction Cost	Estimated Average Land Cost*	Estimated Total Cost for ROW	Estimated Total Construction Cost
	Design and construction costs for 5 lane road, bridges, and contingency ($2019)	Average Assessed Value x 2.2 ($2019)	Assumes purchase of entire parcel affected by ROW expansion needs ($2019)	Construction Cost + ROW Cost ($2019)
S. Airport Road Crossing - Boulevard	**$52M**	$350,000	$60M	**$112M**
S. Airport Road Crossing - Roundabouts	**$58M**	$345,000	$48M	**$106M**
Hammond Road Crossing - A	**$105M**	$115,000	$26M	**$131M**
Hammond Road Crossing - B	**$107M**	$57,000	$43M	**$150M**
Cass Road Crossing - A	**$85M**	$61,000	$50M	**$134M**
Cass Road Crossing - B	**$91M**	$68,000	$31M	**$122M**
Cass Road Crossing - C	**$87M**	$122,000	$30M	**$117M**
Beltner Road Crossing	**$111M**	$154,000	$56M	**$167M**

Source: Loveland Technologies

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Equitable Access

	Potential Improvement to Transit Mobility	Potential Improvement to Pedestrian Mobility	Potential Improvement to Bicycle Mobility
	Miles of existing transit routes operating on each Solution	Proximity and connections to existing sidewalk network	Length of bike facilities directly touching Solution
S. Airport Road Crossing - Boulevard	3	3	3
S. Airport Road Crossing - Roundabouts	3	3	3
Hammond Road Crossing - A	2	2	1
Hammond Road Crossing - B	2	2	1
Cass Road Crossing - A	2	2	1
Cass Road Crossing - B	2	2	1
Cass Road Crossing - C	3	2	1
Beitner Road Crossing	2	1	1

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19

Average Evaluation Scores

	Roadway Operations	Community Land Use Plans	Environmental Responsibility	Safety	Economic Development	Equitable Access
S. Airport Road Crossing - Boulevard	2.0	1.7	2.8	2.8	2.0	3.0
S. Airport Road Crossing - Roundabouts	2.0	2.0	2.8	2.8	2.5	3.0
Hammond Road Crossing - A	1.7	3.0	2.0	2.3	2.0	1.7
Hammond Road Crossing - B	1.7	3.0	1.7	2.3	2.0	1.7
Cass Road Crossing - A	2.3	2.0	1.6	2.3	2.5	1.7
Cass Road Crossing - B	2.3	2.0	1.7	2.3	2.5	1.7
Cass Road Crossing - C	2.3	1.7	1.9	2.3	2.5	2.0
Beitner Road Crossing	2.0	2.3	1.8	2.8	2.0	1.3

EAST-WEST CORRIDOR

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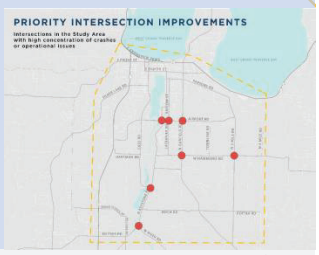
20

Recommended Short Term Solutions

- Improve Intersections with Crash or Operational Issues
  - S. Airport at Garfield
  - S. Airport at Barlow
  - Garfield at Hammond
  - Hammond at 3 Mile
  - S. Airport at Park
  - Cass at Keystone
  - Beitner at Keystone



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Recommended Short Term Solutions

- Access Management Improvements
  - S. Airport Rd– implement gradually as redevelopment occurs
    - Improvements as part of the redesign/reconstruction
  - Develop an Access Management Plan for roads south of Airport Road
    - Purchase of access rights, or limits on access locations, should be part of any ROW purchases

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Recommended Short Term Solutions

- Traffic Signal Optimization
  - Retime signals on S. Airport Rd Corridor
    - Optimize signal lengths, offsets, and green splits for current traffic volumes and patterns
  - "Fine tune" GTCRC signals relative to recently completed improvements
  - Incorporate GTCRC signals into new MDOT adaptive signal system

EAST-WEST CORRIDOR

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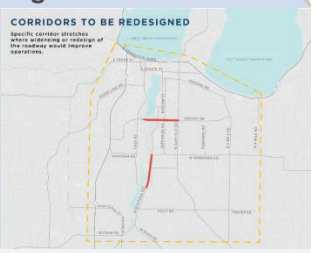
23

Recommended Long Term Solutions

- Widen/Redesign Specific Corridor Stretches
  - S. Airport from Barlow to Garfield: 4-Lane narrow median
  - S. Airport from Logan's Landing to Barlow: 4-Lane narrow median
  - Keystone from Hammond to Cass: 5 Lane road



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Recommended Long Term Solutions

- Recommended Long-Term Solution
  - S. Airport Road
    - S. Airport from Barlow to Garfield: $900,000 + 2 roundabouts
    - S. Airport from Logan's Landing to Barlow: $1.5M + 1 roundabout
  - Keystone from Hammond to Cass:
    - 5 Lane road: $2.2M + 2 roundabouts
  - Total Cost = $4.7M + $1.3M (rdbts) = **$6M**
- Hammond Bridge and New Alignment
  - Bridge = $41M
  - Alignment = $3M
  - Total = **$44M**

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Recommended Long Term Solutions

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26

Next Steps:

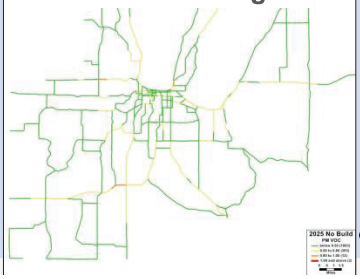
- Public Meeting #3
  - April 30, 2019, 6 PM to 8 PM
  - Hagerty Conference Center
- Complete Final Report
- Approval by GTCRC Board

27

Questions?

28

2025 No Build Congestion



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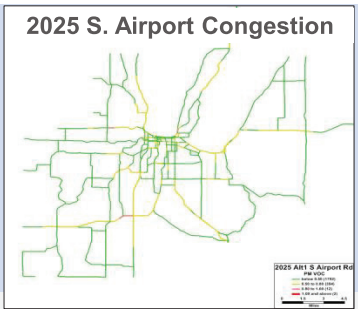
2025 S. Airport Congestion



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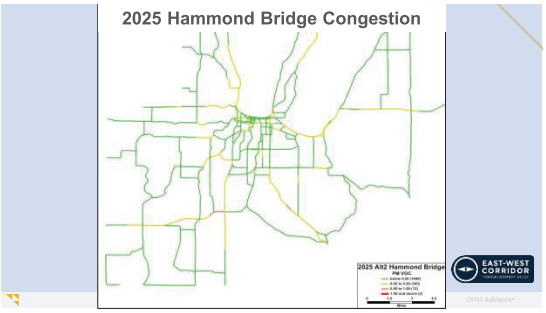
2025 Hammond Bridge Congestion
2025 Alt2 Hammond Bridge
PM VOC
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31


2025 Existing Roads Congestion
2025 Alt3 Existing Roads
PM VOC
EAST-WEST
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32

Appendix C: Public Input Summaries

TO: NEWS MEDIA

FROM: GRAND TRAVERSE COUNTY ROAD COMMISSION

DATE: April 16, 2018

SUBJECT: **ROAD COMMISSION HOSTING APRIL 23RD PUBLIC MEETING TO GATHER INPUT ON EAST-WEST CORRIDOR TRANSPORTATION STUDY**

CONTACT: Jim Cook Manager
Phone: (231)-922-4848, extension 215
email: jcook@gtcrc.org

FOR IMMEDIATE RELEASE

Traverse City, Michigan – The Grand Traverse County Road Commission will host a public meeting on Monday, April 23 from 6:00 p.m. - 8:00 p.m. at East Middle School, located at 1776 N Three Mile Rd, Traverse City, MI.

The purpose of the meeting is to gather information about the public's transportation experiences and values. Information shared at the session will help inform the development of goals and criteria that will be used to evaluate potential transportation solutions. The meeting will begin with a formal presentation and project overview and will include an interactive exercise. There is no charge to attend.

The April 23rd meeting is the first public session associated with Phase 1 of an East-West Corridor Transportation Study commissioned by the Road Commission. The Road Commission has hired a consultant team led by OHM Advisors, a Michigan-based architecture, engineering and planning firm to lead the Phase 1 effort. Jim Cook, the Manager of the Grand Traverse Road Commission said, "The purpose of this Phase 1 process is to assess conditions and listen to our community, and identify a range of solutions to address transportation and mobility needs. There may be 50 small solutions, or five big projects, or a combination. We want actionable solutions to come out of this study, including projects we can implement as early as next year, as well as longer-term projects. We do not yet know what those solutions will be. We are going into this process with an open mind, while referencing all available information from past studies."

The geographic scope of the study includes Grandview Parkway south to Beitner Road and from US-31 east to 3-Mile Road. Other areas and routes that influence transportation and traffic patterns in the study area will also be evaluated. The study process will include information about transportation assets under the City of Traverse City's and MDOT's jurisdiction. However, due to the scope of the Road Commission's authority, the alternatives presented by OHM Advisors will be limited to areas outside of the City limits and will not include recommendations for City streets or City bike or pedestrian infrastructure, or MDOT roads.

The consultant team is following the Federal Highway Administration's Planning and Environmental Linkages (PEL) process which is designed to address social, ecological and economic considerations and constraints related to transportation and mobility. Public and stakeholder input will help to frame the criteria for the way projects will be selected and the way alternatives are evaluated. The study process includes several phases of engagement

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with three general groups:

- Government agencies at the local, state, tribal and federal level with authority for transportation asset development and management and land-use decision-making. These agencies will provide insights about past land use, transportation plans, and regulations. Because local agencies are involved in making plans, and implementing projects and services that directly impact mobility, their perspectives, buy-in, and coordination is important to the planning and scenario development process. Local agencies will be involved through meetings throughout the study process.
- Stakeholders including public, private, and non-profit sector individuals and groups with special insight and perspectives related to the environment, land use, energy, safety, and the movement of people and goods. Stakeholders and their constituents will be involved through interviews, focus groups, and questionnaires or surveys.
- The public, those people who live, work, and play in the community will be involved through meetings, questionnaires or surveys.

Parallel Solutions LLC, a local company, is guiding and coordinating the community and stakeholder engagement as member of the team led by OHM Advisors.

The outcomes and deliverables of Phase 1 will include an assessment of travel demand, a map and report that depicts social, environmental, economic constraints and issues in the study area, publicly-informed goals (called a Purpose and Need statement) and criteria to evaluate projects, a range of alternatives that fit the criteria, and preferred alternatives.

At future meetings in 2018 and in early 2019, the public will have an opportunity to review the range of alternatives and inform the development of a final preferred alternatives map and suite of projects. It is anticipated this phase of work will be completed by early 2019. More information about the Phase 1 Study process is available on Grand Traverse County Road Commission's website: www.gtcrc.org.

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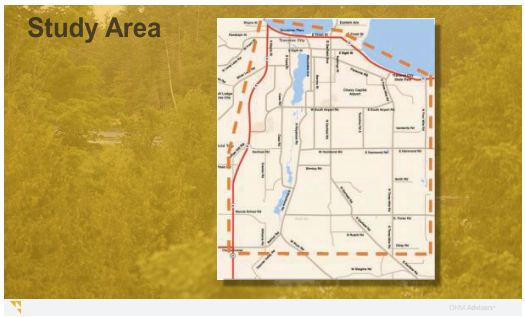
EAST-WEST CORRIDOR
TRANSPORTATION STUDY
Public Involvement Meeting #1
East Middle School, Traverse City
April 23, 2018

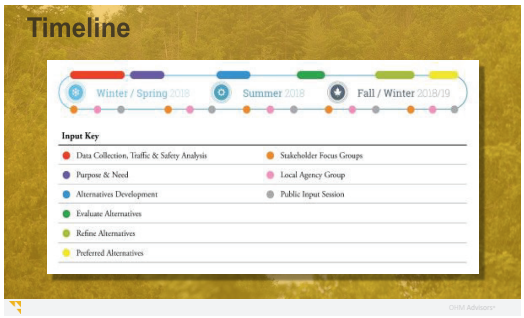
1


Today's Agenda
1. Overview of Study Process
2. Facilitated Exercise
Storytelling
Values Worksheet
Reporting Out
3. Next Steps - Moving Forward Together!

2


Study Area

3


Timeline
Winter / Spring 2018
Summer 2018
Fall / Winter 2018/19
Input Key
Data Collection, Traffic & Safety Analysis
Purpose & Need
Alternatives Development
Evaluate Alternatives
Refine Alternatives
Preferred Alternatives
Stakeholder Focus Groups
Local Agency Group
Public Input Session

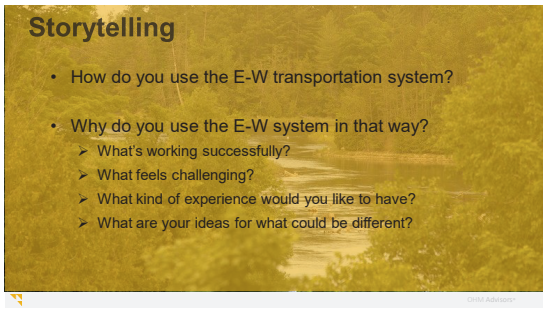
4


PEL PROCESS
1. Stakeholder, LAG, and Public Engagement
2. Review prior studies
3. Define "Purpose & Need"
4. Evaluation criteria and "fatal flaw" factors
5. Identify Alternatives
6. Evaluate alternatives (modeling, Impacts)
7. Select for "preferred alternative(s)"

5


Public Process Goals
1. Establish Trust
2. Foster Community Ownership
3. Arrive at a Supported Decision

6


Storytelling
• How do you use the E-W transportation system?
• Why do you use the E-W system in that way?
➢ What's working successfully?
➢ What feels challenging?
➢ What kind of experience would you like to have?
➢ What are your ideas for what could be different?
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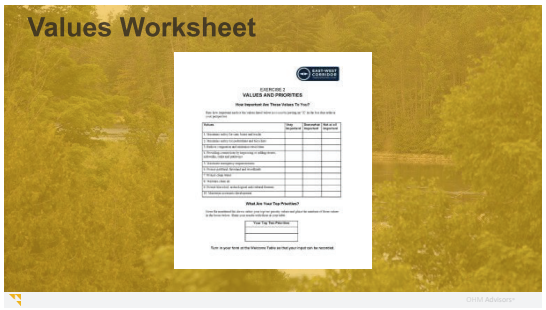
Values Worksheet
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8


Reporting Out
• Shared Values
• Conflicting Values
• Win-Win Solutions
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9


Next Steps –
Moving Forward Together!
• Stay informed
• Provide comments
• Attend meetings and talk to others!
Get more info at www.atcrc.org, look for
OHM Advisors

10


Questions?
Thank you for attending, see you next time!
OHM-Advisors.com

11

April 23, 2018 Public Meeting

Draft Agenda for Engagement Team Discussion

1. Presentation and Study Process Overview (15 minutes)

2. Facilitated Exercise (90 minutes)

Part 1 – Storytelling (30 minutes)

At tables of 6-8, participants use a map to indicate:

a. How they use the E-W transportation system?
Example 1: I walk from my house to work daily, using Rose ST to Eighth to head east into town.

Example 2: I live in Kingsley and drive to work at Munson every day. I use Bronson and South Airport to get to Cass, then I take Cass to Fourteenth, then turn left onto Division and left turn onto Eleventh.

b. Why they use the E-W transportation system in that way?
Example 1: I walk because it clears my head and feels better than driving to me. I take Rose Street, instead of Woodmere, to head west on Eighth because Rose has trees and homes lining the sidewalk and better infrastructure for crossing busy streets. This adds 5 minutes round-trip but is a more enjoyable and safer commute.

Example 2: I use these roads because they are the roads that lead most directly to where I work I don't feel there are any other options, other than taking South Airport to Veterans to Fourteenth, or taking Eighth Street and then Union and then cutting through Central neighborhood on the one-way street to go west toward the hospital once I'm in town, or going all the way to Grandview parkway so I can take a right-hand turn.

c. What's working successfully?
d. What feels challenging?
e. What kind of experience would you like to have? What are your ideas for how things could be different?

Share with table. Discuss shared successes, challenges, and potential solutions.

Part 2 – Values Worksheet (30 minutes)

Participants are asked to rank their top 5 values from a list of 20/25. This ranking is based on how each person answered the "WHY (b)" and "IDEAS (e)" from Part 1, storytelling.

Share with table. Discuss shared values, conflicting values, potential win-win solutions. Facilitators gather all values rankings from participants.

Part 3 – Report Out (30 minutes)

Each table designates spokesperson to report out on shared values, conflicting values, potential win-win solutions.

3. Overview of Next Steps, How Information Gathered Will Be Used, How to Stay Involved (15 minutes)

EXERCISE 2

VALUES AND PRIORITIES

How Important Are These Values To You?

Rate how important each of the values listed below is to you by putting an "X' in the box that reflects your perspective.

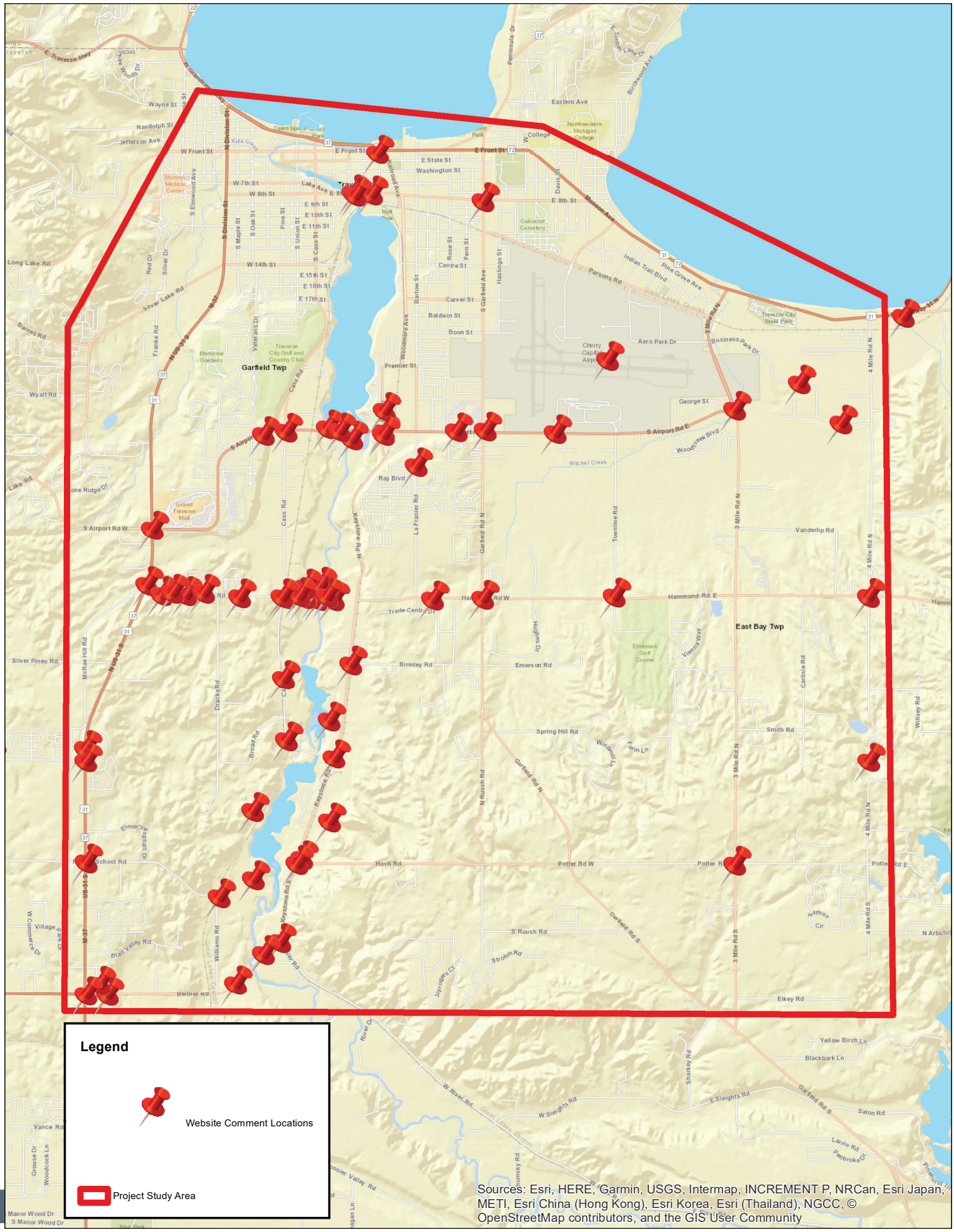
Values	Very Important	Somewhat important	Not at all important
1. Maximize safety for cars, buses and trucks			
2. Maximize safety for pedestrians and bicyclists			
3. Relieve congestion and minimize travel time			
4. Providing connections by improving or adding streets, sidewalks, trails and pathways			
5. Maximize emergency responsiveness			
6. Protect parkland, farmland and woodlands			
7. Protect clean water			
8. Maintain clean air			
9. Protect historical, archeological and cultural features			
10. Maximize economic development			

What Are Your Top Priorities?

From the numbered list above, select your top two priority values and place the numbers of those values in the boxes below. Share your results with those at your table.

Your Top Two Priorities

Turn in your form at the Welcome Table so that your input can be recorded.


Legend
Website Comment Locations
Project Study Area
Garfield Twp
East Bay Twp
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

East-West Corridor Website Map Comments

Date	Comments
9/13/2018 18:09	The board of NMEAC would like to go on record with the following: no new roads; improve what is already there, and above all protect the environment.
10/30/2018 10:43	We desperately need a bridge to connect Hammond and Hartman roads. Leadership submitted to naysayers who touted environmental concerns of a bridge. The alternative has been far worse. Gridlocked and traffic jams at peak drive times with untold amounts of carbon emissions as vehicles wait in traffic jams. Add to that the additional impact on infrastructure as vehicles commute additional miles on roads not intended for such heavy traffic.
10/30/2018 10:43	Intersection of Hoch and Keystone. At peak times, this intersection is a mess. We need two lanes clearly marked at the intersection so left turning traffic is separated from right turning traffic. In addition, the right lane shoulder (currently being used as the right turn lane) needs to be repaired so vehicles cross the tracks safely.
10/30/2018 10:58	Although not on the plan (being that it's in TVC), it sure would be nice to have a turn lane on Front Street between the Holiday Inn and Garfield. I realize this would require expanding the road width but it needs to be discussed. That section of road at peak times during the year (and especially in the summer) is a constant back-up which forces many drivers to dodge through the neighborhoods to avoid the area. Seems counter-intuitive to me. Keep heavy traffic flowing and protect the neighborhoods.
11/14/2018 16:13	Better timed lights on South Airport or sensor lights. At Logan's Landing, have 'Michigan Left" rather than a traffic light.
11/14/2018 16:13	Less curb cuts, no left turns... Keep traffic moving through this section.
2/12/2019 14:36	Please avoid Airport Road. The road already was reconstructed last year and there is already a high volume of traffic due to all the Big Box shopping centers. To me, it seems that mixing a by-pass that is trying to avoid busy downtown events with a high volume commercial area would be a mistake. The route furthest to the south would be the best and would provide a less congested access to avoid the major traffic.
2/13/2019 3:01	Hammond Hartman connection is a no brainer. This should have been done way back when Hammond was turned into a 4 lane road. Get this done.
2/16/2019 20:12	The NEW Boardman River bridge and thoroughfare from Hammond to Hartman roads should finally be completed, and then make as straight of road as possible to U.S. 31 using the existing Hartman Road. The enhanced east-west corridor would draw vehicles close to the commercial district of Garfield Twp (which is what businesses need) but would also provide an exit in the event they wanted to go eastward. If a bridge is NOT built, then millions of taxpayer $$$ will have been wasted for the Hammond Road expansion from years ago. Complete the Boardman River bridge, and then start planning for another bypass farther south of town as population grows.
2/17/2019 13:28	I support roundabouts wherever possible.
2/18/2019 18:56	I feel this intersection is often overlooked. You have a West access from the shoreline via 8th Street and 31 that is 35 Mph, and it intersects with Garfield 2 major downtown intersections (Garfield and Front being the other). This is a major artery for West to East Cross traffic. A simple increase to 30 mph and re timing of the 6 lights on 8th street for peak times (Noon, 5pm) could reduce the large wait times during those hours.
2/18/2019 18:56	From Garfield to Cass on South Airport road the lights log jam the East West/ West East commute. Cass and South Airport light seems to the be trouble maker as it changes timing which throws the flow of traffic (from the light on Veteran's back to the Barlow light). Retiming those during peak hours could keep things moving.
2/18/2019 23:57	Having lived in Holiday Hills, east of Five Mile, and Elk Rapids, for many years, I have watched much traffic purely wanting to avoid the Traverse City proper, and searching for an easier way to get totally around the city to M37 or US31. This includes the thousands that are vacationing and purely wanting to go north and south on the west side of the State.

2/19/2019 1:31	Our homesteads and farms have been on Hammond Road since 1868. We have an established market on Keystone/Hammond, and a presence at several local markets. We are an active and growing farm, our infrastructure is on both sides of Hammond Road, those structures and our access to both sides are critical. We have not been contacted about any solutions. It would seem you would need to drastically disturb the primary head waters to Mitchell Creek, and destroy numerous of our historic farm structures to make any of the Hammond Road solutions a reality.
2/19/2019 4:50	If you really want to move traffic away from down town, start at Chums. Anything closer in creates an inner beltway. Look at your interstate system.
2/19/2019 12:32	Connect Hoch Rd to Rennie School Rd
2/19/2019 12:32	Connect Hammond to Hartman via a new bridge
2/19/2019 12:32	Re-time the traffic lights on S Airport Rd, specifically between Garfield and Cass Rds
2/19/2019 14:03	Given the high water table conditions in the Logan's Landing area it will be challenging to widen the road enough to accommodate the necessary upgrades and improvements. This alternative also has substantial ROW challenges.
2/19/2019 14:03	As someone who used to live in East Bay Twp and now lives on the west side, I second the comments related to Hoch Road. It's easy to see from the map that any east-west connection involves a water crossing of some type. People seem to be perfectly fine with the ones that already exist, I don't see anyone advocating taking any out. However, the problem seems to be that some people are not willing to consider any new, additional water crossings. In my opinion improving and adding a crossing at either Hammond/Hartman or Hoch/Rennie would help create a more viable system for the long-term. South Airport can never handle all the volume coming in from the south on its own. Plus, should there be some sort of crisis or emergency shutting down South Airport there is not other way to effectively get around. Additionally, if someone is trying to get a large-load vehicle through town during Cherry Festival they have very few options (or if a farmer in Leelanau needs to get a tractor to Williamsburg for service).
2/19/2019 14:30	Demand for moving traffic from east to west continues to grow. It woud be the biggest benifit for all, if a bridge could be added to complete Hammond road.
2/19/2019 15:13	Hammond-Hartman corridor is the most logical solution and practical from the perspective of a long-time Traverse City resident and commuter. The main opposition to this alternative appears to be based on environmental considerations. I view the Cass Road bridge as a good example of minimal disturbance to the natural environment that the bridge would pose. The Cass Road bridge maintains a scenic environment with minimal disturbance and a Hammond-Hartman bridge could do the same
2/20/2019 13:29	Please remove the Hammond Road Crossing from the from the options being considered. After several years of discussion on this option during the 1990's, it was determined that any benefits offered by this route were far outweighed by the associated negative environmental impact on the Boardman River and financial reality of the bridge construction and long-term maintenance. It is my hope that all Project Team Members take the time to walk to the proposed bridge location on the Boardman River to personally visualize the environmental impact before this option is given further consideration. The Beitner Road Crossing is the best option, as it alleviates East-West and Keystone Road traffic congestion—and at the same time minimizes environmental impact and construction and maintenance expenses.
2/21/2019 4:52	This stoplight only allows for 2 southbound cars to pass through the intersection. Ridiculously short!
2/21/2019 4:52	There are no speed limit signs from S. Airport to Woodmere.
2/21/2019 4:52	For the love of all that is good in this world, please fix 8th street with something more substantial than duct tape and bubblegum.
2/21/2019 21:20	Build the bridge before the cost escalates again. I will be built someday, better sooner than later.
2/24/2019 17:50	Adding a connector to cass road and reconfiguring Beitner, would be a good alternative to a VERY expensive and lawsuit riddles new crossing of the Boarman river in at any point.
2/24/2019 17:50	I agree with another comment on this intersection, add a dedicated right turn lane from Keystone and onto Keystone. Should be a NO stop right turn, similar to a merge lane but with a yeild sign. We have to assume that most drivers will be able to manage this. At the meeting, one of the engineers personally didn't like these. I have used them in other states with very constricted roads, they work fantastically!
2/24/2019 17:50	Get rid off that light! Not really sure why it was put in, I drive that everday and previously to the light, I didn't see a large amout of crashes there. put in a no stop right turn from Keystone onto Cass. If traffic control is needed, this is a good spot for a TWO lane roundabout

2/24/2019 17:50	Seems like a good place to put in a connector road for Rennie School, through to Beitner. Design it to allow traffic to flow to beitner with a left turn to continue over the bridge, or yet another roundabout.
2/24/2019 17:50	Good spot for a no stop right turn lane off and onto Keystone. OR yet another roundabout.
2/24/2019 17:50	Another good location for a no stop right turn onto and off Keystone. The existing light could be configured to only operate when a left turn is needed, otherwise flashing left turn. Almost all lights should be flashing left turns.
2/24/2019 17:50	I agree with another comment, the light is rediculously short, BUT it should be at CERTAIN traffic times. This portion of Keystone is under utilized. The only issue in this section is the rail crossing. It could be re-configured slightly for better flow.
2/24/2019 17:50	Take the light out. Since the reconfigure of the intersection, it isn't needed. It seems to me that the eventual take over of that area for a park on the north side of the road won't need a light.
2/24/2019 17:50	Really tough spot to do anything with, timing of the light at Airport in peak traffic would be nice.LaFranier wasn't upgraded properly for the expansion of the area. Can the Mobile Home community put in a connector to Keystone in some place? They have one to the south to Hammond. That seems like part of the issue on LaFranier with the relocation of the county buildings adding to the car count.
2/24/2019 17:50	With additional use of the existing lanes for through traffic to the south, seems like a good spot to upgrade the south side of Garfield road to accept two lanes of traffice south through the light. Another good spot for a no stop right turn lane onto Hammond from the south, could be one to the north from Hammond also.
2/24/2019 17:50	This intersection gives the most promise. Beitner road is improved just past Chums. I don't think the state would be opposed to the county adding to the improved intersection. Finish the road as far into town as possible, maybe later update/widen the CURRENT bridge over the Boadman. NOW is the time, due to the small number of homes close to the road. Maybe we could get agreement to move a couple of homes back away from the road. Need to act now, before any more are built. That portion of the road will require significant grade changes, but would be the best bang for the buck if done NOW. This portion was talked about in the late 70's?early 80's for expansion. Does anyone have those plans????
2/24/2019 17:50	I understand there will be a traffic light here in the very near future. Why not fix the intersecton with right turn lanes, eventually this could be yet another feeder to get around the normal choke points.
2/24/2019 17:50	Make this a one way in with a right turn lane.
2/24/2019 17:50	Unfortunately, we need a light here! I don't live there but use this route daily. Too many horrific accendents here. Also connect this PUBLIC road to Silver Lake Road
2/24/2019 17:50	Connect this to Silver Lake Road
2/24/2019 17:50	Make this right turn only off US31 or close it completely. I know that area will be developed eventually, so fix that now.
2/24/2019 17:50	Put up a sign, so people know to use the right hand through lane. Maybe upgrade the rest of the road to Silver Lake Road, NOW before it is further developed. If needed put lanes part way down the road now and get the right of ways now.
2/24/2019 17:50	reconfigure this road now, before it is further developed. Maybe combine an intersection with McRae Hill road. Make the right turn off US31 a no stop right turn.
2/24/2019 17:50	For now, no stop right turns on and off Hartman. Can be done cheaply and would work with any other future extensions.
2/24/2019 17:50	No stop right turns with Yield signs, add dedicated right turns on all sides.
2/24/2019 17:50	Dedicated right turn lanes. Only activate a stop signal for any turn during peak times. It's busy there but flashing lefts at all times combined with dedicated no stop right turns would help.
2/24/2019 17:50	Time the light, only activate on left turns, dedicated right turn lanes, connect four mile road to the south.
2/24/2019 17:50	Connect 4 mile road. Will provide another route south.
2/24/2019 17:50	Fix this, visibility is very poor. More traffic will make this even more dangerous.
2/24/2019 17:50	Connect International Dr. to Glendale St. to help Three Mile road.
3/1/2019 2:55	I would like to support a true by-pass route. I drove home from East to West today and the traffic was heavy on Keystone to Beitner because everyone wanted to avoid town. I strongly recommend the Hammond-Keystone-Beitner By-pass. Routing traffic from Hammond over the river to Hartman will feed heavy traffic onto US-31 ONLY one half mile from South Airport. This will only lead to more traffic congestion on US-31. The town is growing and the traffic needs to move as far South as possible. Also, there is open land along Keystone & Beitner making road construction easier. Run the traffic through Chums Corner where it can split and run West or South while avoiding the City traffic.

3/1/2019 21:48	We should do everything we can to preserve the remaining cedar swamps, forested lands and wetlands.
3/1/2019 21:48	Let's try out improvements to this existing corridor before we impact undeveloped lands by making a new corridor
3/4/2019 3:19	I echo the comment that building a bridge across the river is best alternative. The threat to the environment is minimal and it is stalking horse for those opposed to growth in this area. A few years ago the river was ruined for what some estimate to be 100 years, all in the name of fish. Build the bridge now so that any damage from construction can heal along with the damage that has been done.
3/12/2019 18:34	Since the Cass Rd dam was removed and a new bridge built over a new "old" boardman river, the traffic has nearly tripled in this area. This road (South of Hartman) was not designed for this the type (semi trucks) and quantity of traffic that it is seeing. The Hartman-Hammond crossing is the only logical solution and the sooner it is completed, the better. Any environmental concerns are minimal compared to the damage already caused by removing dams and re-routing a river that has re-established itself in the 100+ years since it was originally re-routed for the dams. Such a crossing would allow more people to see the true beauty of the boardman river valley and the surrounding parklands already owned by the county and township.
3/14/2019 12:21	extend Hartman road before the s curves and take the roadway up over the hill. This would create a natural elevation that would allow you to create a cloverleaf that would funnel people right out of town. There is land between the highway and McCray Hill road that would support this idea.
3/15/2019 3:32	First next time hire someone that can create a website that is readable. I zoomed to 250% on some of the pages throughout yet it was still blurry. Improve South Airport as recommended would be a great improvement for the city. Then make all the other options EXCEPT the Hartman/Boardman River bridge. Wait for it . . . follow the money . . .
5/3/2019 15:15	The problem will still exist until we stop trying to run all the traffic through chums. You can go around town but at the end of the day you still have to go through chums at the same time as everybody else.
5/4/2019 4:05	Keystone/Bietner 4 lanes between Hammond and Chums Corners. Delete the light at Cass RD intersection.
5/4/2019 4:05	Connect Cass Rd to Rennie School RD along existing RR grade would be better than a new Boardman Bridge. No more stop lights along US31, using the new light at Rennie/31.
5/8/2019 20:28	Definitely by far prefer the Hartman/Hammond location. 8th and Airport are already too busy. Beitner/Keystone is too long, winding and indirect. Hartman/Hammond is the best of both worlds: out of town enough to accommodate those who want to by-pass Traverse City, but close enough to be used by residents.
5/8/2019 20:28	Hammond Hartman. Just makes sense
5/9/2019 12:40	Roundabouts on S Airport would be a nightmare. Roundabouts on Keystone looks like a good idea. New connection to Hammond via or just south of Hartman is by far the most logical for a variety of reasons
5/10/2019 14:39	Create a connection from E South Airport @ 3-Mile to Business Park Dr, and then from Business Park Dr over to 4-Mile between Finnila & Pine.
5/10/2019 14:39	Create a new roadway via a roundabout between Holiday Rd and 4-Mile Rd, utilizing eminent domain to raze two dilapidated housing units and an abandoned mini-putt course. Create "4-1/2 Mile Rd" and then connect it to my proposed E South Airport Rd extension between Finilla and Pine.

WELCOME!

East-West Corridor Transportation Study

COUNTY ROAD COMMISSION

EAST-WEST CORRIDOR TRANSPORTATION STUDY

1

PROJECT SCOPE AND EXPECTATIONS

EXPECTED OUTCOMES OF THE STUDY

To recommend solutions that address safety and improve mobility, efficiency, and connectivity with a focus to facilitate east-west travel for all users of the Road Commission's network. The high levels of congestion and excessive delay for motorists traveling east and west along the five key road corridors is the main driver of the search for solutions.

STUDY PURPOSE AND NEED

- "Upgrade and maintain a safe and efficient road system."
- Reflect the participation and input from local agencies, stakeholders and public.
- Identify safety and efficiency improvements for all modes of travel
- Create a plan that best responds to the needs of all interests for enhancements and accessibility benefits.
- Provide solutions that consider the context of the study area
- Identify solutions for roads GTCRC has jurisdiction over
- Improve system resiliency for peak seasonal events or incident management
- Provide solutions that consider the potential implications to existing and future land use patterns
- Improve accessibility, routing and connectivity for all modes of travel
- Evaluate and incorporate natural and cultural resource conservation best practices into solutions
- Maintain or improve air quality
- Evaluate a package of solutions that can be adopted based on agency budgets and planned or projected financial resources

2

LOCAL AGENCY AND STAKEHOLDER ENGAGEMENT

Local Agency representatives and stakeholders helped to inform the development of the Purpose and Need and evaluation criteria and provided guidance and feedback on the development of potential options."

Participating Municipalities & Government Services

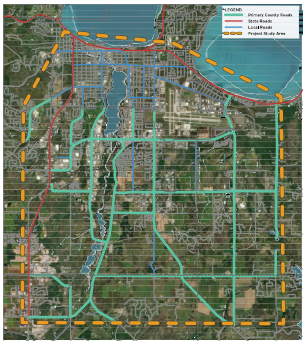
- Acme Township
- Blair Township
- Bay Area Transportation Authority
- City of Traverse City
- East Bay Township
- Elmwood Township
- Fife Lake Township
- Garfield Township
- Grand Traverse County
- Long Lake Township
- Mayfield Township
- Union Township
- Whitewater Township
- Village of Fife Lake
- Village of Kingsley
- Networks Northwest
- Northwest Regional Airport Commission/Cherry Capital Airport Authority
- Michigan Department of Transportation
- Traverse Bay Area Intermediate School District
- Traverse Transportation Coordinating Initiative (TTCI)
- Traverse City Area Public Schools

Participating Non-Profit and Private Stakeholders

- Manufacturing and Wholesale Distribution
- Fire and Emergency Management Services
- Big Box Retail
- Auto Dealers
- Major Employers
- Construction, Development & Realty
- Health & Human Services
- Utilities, Energy and Shipping
- Environment and Natural Resources
- Multi-Modal Transportation
- Events and Tourism

3

EAST-WEST CORRIDOR STUDY AREA



Study Area includes:

- City of Traverse City
- Garfield Township
- Blair Township
- East Bay Township

Study Area Boundaries

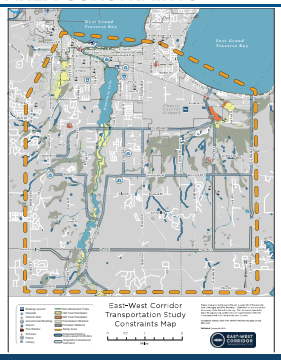
- M-22/US-31 (North)
- Beitner Road (South)
- Silver Lake Road/US-31 (West)
- 4 Mile Road (East)

Significant roadways that may impact the Study's analysis include GTCRC, MDOT, and local roads.

Potential improvement corridors include only roads under GTCRC jurisdiction

4

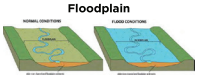
STUDY AREA CONSTRAINTS



Freshwater Wetlands

Forested Wetlands

Floodplain



5

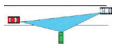
ACCESS MANAGEMENT

WHAT IS ACCESS MANAGEMENT?

Design standards for the number, placement, and spacing of entry and exit points to the property adjacent to a roadway. Agencies can use access management to control access to improve congestion, safety, and dictate land use.

ACCESS MANAGEMENT DESIGN TECHNIQUES

Sight Distance



Vehicles at a driveway should be able to see each other easily from a safe distance.

Driveway Location

Driveways at intersections within the functional area have a higher crash potential and are discouraged.

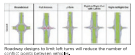
Driveway Spacing

Driveways should be spaced based on the roadway speed to improve traffic flow and reduce crashes

Driveway Design

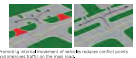
Throat length, turn radii, and other design techniques reduce conflicts between vehicles

Left Turn Management



Roadway designs to limit left turns will reduce the number of conflict points between vehicles.

Shared Access



Promoting shared ownership of access points reduces conflict points and improves traffic on the east-west.

BENEFITS OF ACCESS MANAGEMENT

- Reduces Traffic Delay and Congestion
- Reduces Crash Potential
- Maximizes Street Capacity
- Helps Improve Site Design
- Can Improve Business Conditions
- Design Techniques Can Beautify Corridor

NON MOTORIZED TREATMENTS

The following sample of treatments could be applied to the final recommendations where and when they are appropriate.

Paved Shoulder

Crosswalk

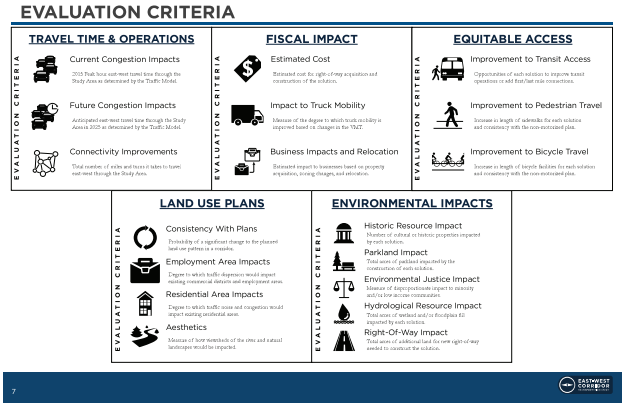
Sidewalk

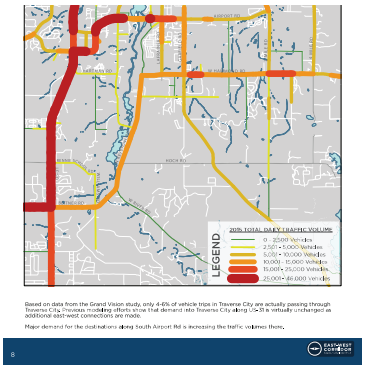
Bike Lane

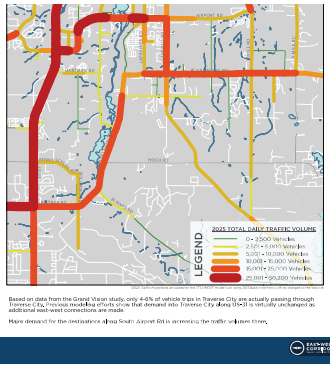
Multi-Use Path

6

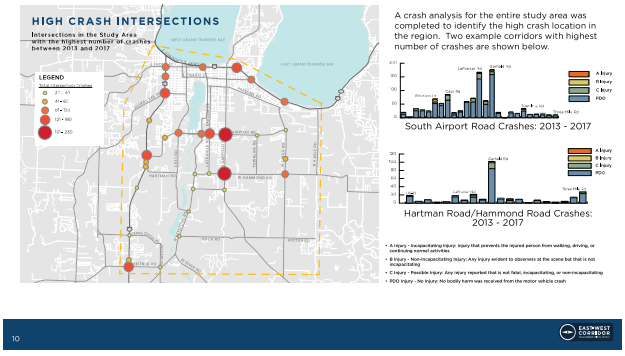
EVALUATION CRITERIA



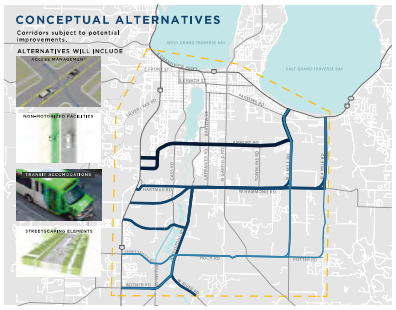




CRASH ANALYSIS



CONCEPTUAL SOLUTIONS

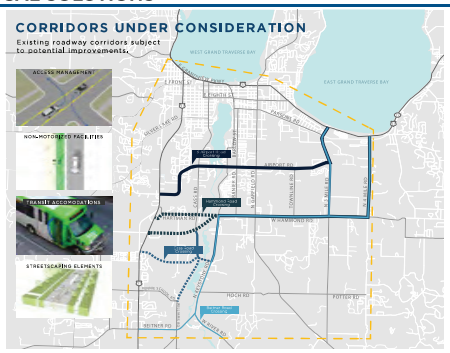


MODIFICATIONS FROM CONCEPTUAL SOLUTIONS TO PRACTICAL SOLUTIONS

- S. Airport Road conceptual solutions were combined
- Hammond Road conceptual solutions were combined
- Cass Road/Hammond Road conceptual solution was combined with the Railroad ROW Alternative
- Existing Beitner Road/Keystone Road/Hammond Road conceptual solution carried forward
- Hoch Road conceptual solutions were dismissed because they did not meet the project Purpose and Need. They do not meet the Local Agency Group's goal of addressing congestion issues traveling into Traverse City, not around.

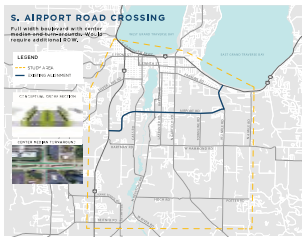
11
EAST-WEST CORRIDOR

PRACTICAL SOLUTIONS



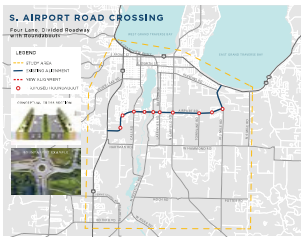
12
EAST-WEST CORRIDOR

S. AIRPORT ROAD CROSSING



PROS
- Closest east-west route over the Boardman River to Traverse City
- Access Management improvements would address safety issues
- Improvements would help with congestion

CONS
- No room to expand roadway
- Boulevard cross section would require additional right-of-way
- Would require entire road redesign
- 'Michigan Lefts' would be required

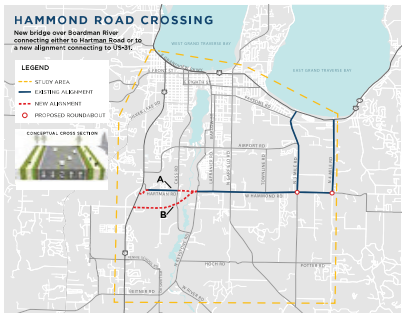


PROS
- Closest east-west route over the Boardman River to Traverse City
- Roundabouts would speed up traffic
- Roundabouts would address intersection concerns
- Little right-of-way needed for improvements

CONS
- Sequential roundabouts may be challenging to some
- Roundabouts may cause issues with entering and exiting property
- Would require entire road redesign
- 'Michigan Lefts' would be required

13 EASTWEST CORRIDOR

HAMMOND ROAD CROSSING

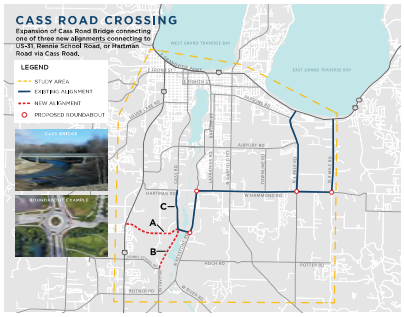


PROS
- Next closest river crossing to South Airport Road
- May help address traffic congestion on South Airport Rod
- At the edge of the densely developed area
- Allows for a longer east-west connection
- May increase development along Hammond Road

CONS
- Expensive to construct bridge and/or new alignment over Boardman River
- Introduces environmental impacts
- Future maintenance of new crossing could be expensive
- May increase development along Hammond Road

14 EASTWEST CORRIDOR

CASS ROAD CROSSING

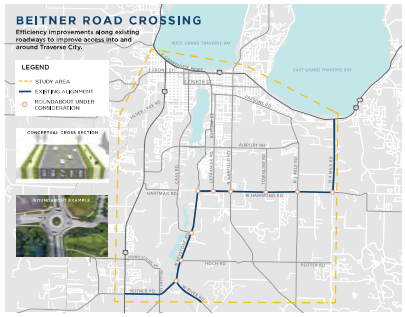


PROS
- Existing bridge over Boardman River could be expanded to 4 lanes
- Could utilize railroad right-of-way to connect to Rennie School Road (B)
- Provides relief for congestion on Keystone Road
- No new ROW would be needed (C)

CONS
- Extensive right-of-way acquisition (A)
- Have to expand existing Cass Road Bridge
- Rail right-of-way may not be usable (B)
- Rail right-of-way could be used for bike/pedestrian travel (B)
- Connection may be too far south to provide congestion relief
- Connection to US-31 from river is far (C)

15 EASTWEST CORRIDOR

BEITNER ROAD CROSSING

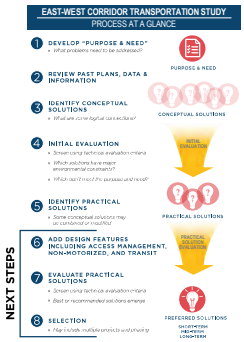


PROS
- Would not require any bridge construction
- Helps alleviate traffic congestion on Keystone Road
- Provides a more direct connection to the east side of the Study Area
- Utilizes an existing crossing of the Boardman River

CONS
- May be too far south to provide congestion relief near Traverse City
- Sequential roundabouts may be challenging to some

16 EASTWEST CORRIDOR

NEXT STEPS



HOW TO STAY ENGAGED

- Visit our Website and provide additional comments to the interactive map
- Fill out comment cards with input and ideas
- Sign up for the mailing list

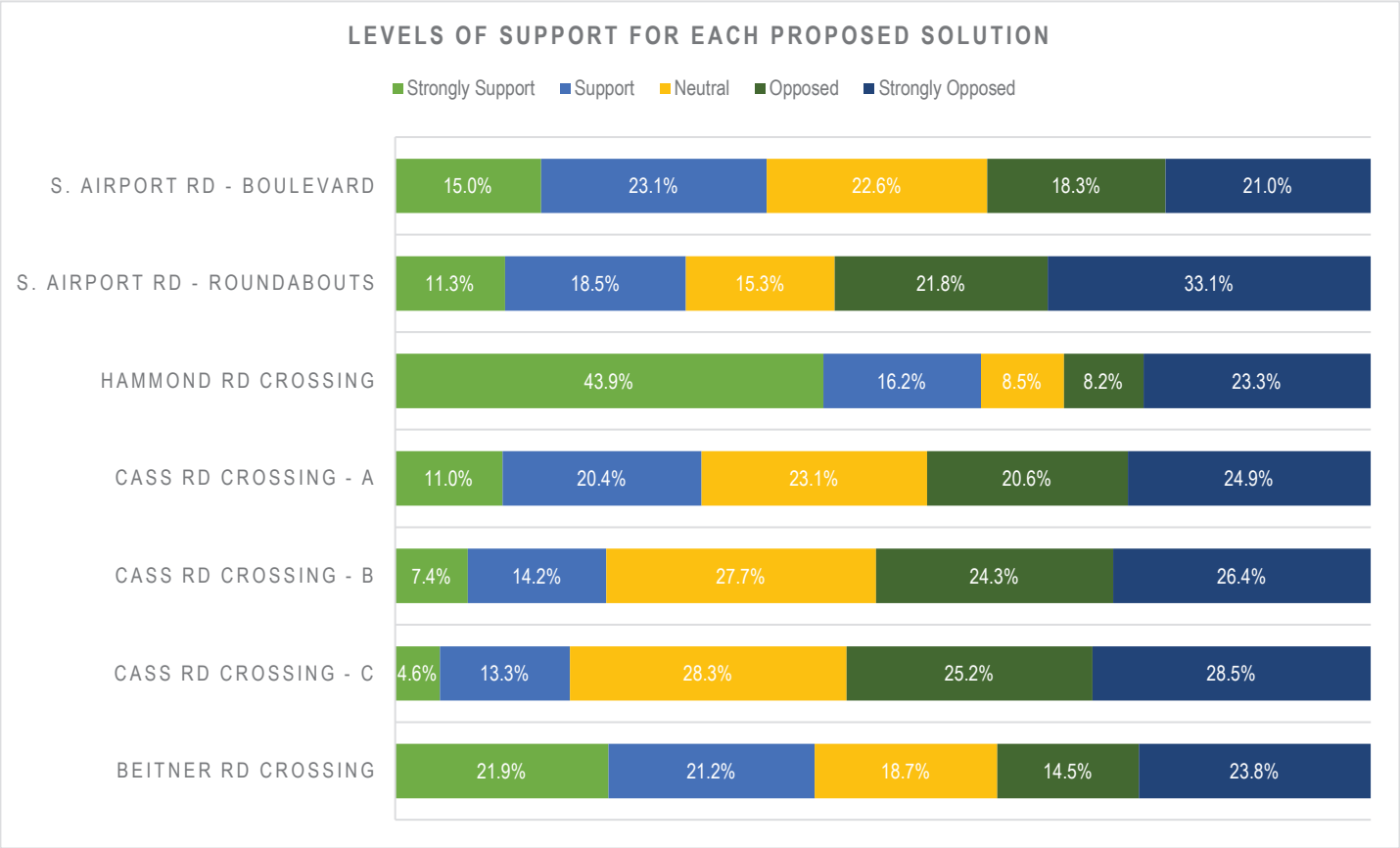
UPCOMING MEETINGS

- Recommended Solutions Public Meeting - April 2019

17 EASTWEST CORRIDOR

What is your current level of support for the following proposed Practical Solutions?

	Strongly Support		Support		Neutral		Opposed		Strongly Opposed		Total	Weighted Average
S. Airport Rd - Boulevard	15.0%	86	23.1%	133	22.6%	130	18.3%	105	21.0%	121	**575**	2.93
S. Airport Rd - Roundabouts	11.3%	65	18.5%	107	15.3%	88	21.8%	126	33.1%	191	**577**	2.53
Hammond Rd Crossing	43.9%	258	16.2%	95	8.5%	50	8.2%	48	23.3%	137	**588**	3.49
Cass Rd Crossing - A	11.0%	61	20.4%	113	23.1%	128	20.6%	114	24.9%	138	**554**	2.72
Cass Rd Crossing - B	7.4%	42	14.2%	80	27.7%	156	24.3%	137	26.4%	149	**564**	2.52
Cass Rd Crossing - C	4.6%	25	13.3%	73	28.3%	155	25.2%	138	28.5%	156	**547**	2.40
Beitner Rd Crossing	21.9%	125	21.2%	121	18.7%	107	14.5%	83	23.8%	136	**572**	3.03



What Do You Like About Each Practical Solution?
S. Airport Rd - Boulevard
Opportunity to add crossing for non-motorized trail (north/south)
Does not address the bottleneck and traffic congestion
Yes - Space to separate on-coming traffic. Any pedestrians would actually have a place to cross
Expanding S Airport to handle higher traffic volumes
Uses existing corridor and beautifies it as well as relieves congestion with Michigan lefts
Too much fanciness
Does not seem practical - is only a theory
S. Airport is not a viable solution
No
No - not needed
Looks like it could happen fairly quickly. Provides solution where the problem is.
For both of these the big advantage is that S. Airport crossing of the river would be addressed sooner. Needs to happen before costly repairs/maintenance.
It helps move traffic along faster and more efficiently then I like this
Investment stays in an existing corridor
No roundabouts. Reasonably direct good solution
Type of road system I'm most familiar with. No roundabouts
Moves traffic through while allowing access to all businesses
Better flow of traffic
Moving traffic and improves safety.
Improved eye appeal
Great idea with access road but needs to be combined with another way across the river farther south
Re-engineering S Airport Rd is a good move if part of a "mix of fixes" on the existing road system
I prefer this over roundabouts, having done both downstate
Looks nice
It is ok
Nothing. Unsafe concept
This should be explored
Maintenance
Waste of money
Keeps investment along existing corridors. Keeps investment closest to city center where MDOT states 90% of traffic is headed toward.
Seems to chew up more property and add nothing really functional.
Doesn't create increase flow of traffic
Assume Logan's Landing is representative. This is a good design.
The Logan's Landing modifications are great. Doing that along the rest of Airport will be nice, but a ROW acquistion nightmare.
An existing road would have the least environmental impacts
Signal lights are a traffic jam. Avoid this area by using Cass or Chum's Corner
Boulevard turns
Simple concept
Improves existing roadways
I would be fine with either of these options, but I see them as more of a complement to other options as opposed to a solution. That is to say I think improvements in these options would be smart regardless of E/W diversions
Greenspace within medians. Some pedestrian/cyclist protections
I really like the idea of improving existing roads before building new ones.
Only problem, slowing of traffic

Would benefit east-west mobility. Is there enough room? Take pressure from 8th and downtown
Handle more traffic
Good idea, uses existing ROW
Probably the best solution. Would it be possible to eliminate some stop lights with this option?
Would look pretty.
Less confusion, simpler
Restrict left turns :)
Will help in small part with H.H. Bridge
Like this best!
I use this a lot to get to businesses and would welcome
Boulevard in this location would be convenient
Too busy. All intersections long wait
Nothing. There is not sufficient available space. Although installing a "boulevard" sounds inviting it would not be pretty and would impete shopping at businesses on Airport.
Why? The problems are safety and safely handling high traffic volumes.
No room to widen existing road.
Current road is ugly and too focused on business. This beautifies and fixes movement.
appears traffic would flow better
Nothing
I am use to MI lefts so I have no issue with that option.
Improves existing road
Will increase traffic flow and eliminate some of the stop lights
less curb cut, slow down vehicles add beauit
Existing corridor
Nothing.
Boulevards are great, but not really on S. Airport
Just maintains the roads we have stop wasting 400,000 on projects like Logan's landing, fix the roads we have
Provides better pedestrian scale.
nothing
Nothing
Existing foot print
No real differnce from today
Worked on East Beltline in GR but need third lane entry to turnaround that is long enough or will get back ups.
Nothing
aids flow on S. Airport
no round a bouts
Michiganians are used to this manner of routing traffic
Can work if traffic signals are synchronized to improve flow
Low hanging fruit; presumably allows continued pedestrian/bridge access to south Boardman river area (south Y); uses existing roadways rather than new roadways
Consideration for all - not just cars
Boudlevards provide beautification -area is dumpy
Not much different, but improved
Aesthetically, it would look very nice. Not sure it is worth the cost, and does not address improving the flow of traffic.
South Airport has inconsistent traffic and it changes so much throughout the day and at various points in the road that it needs a solution to stop the last turns onto it as it is dangerous. This is a good solution and better than what is existing g, but I like divided highway with roundabouts better as roundabouts really make the flow of traffic continuous.
Uses existing roadways, most direct

Less congestion at lights
Aesthetics, I have experience in Grand Rapids on the E Beltlineit works!
Better traffic management
With the boulevard design, it will be an attactive option. Learned to use medians to turn left as Gd. Rapids is layed out.
Similar to what we have now
Allows for turn around with Michigan left while maintaining the existing access and traffic slow-downs (lights) so people don't excessively speed.
Uses existing road right away
Nothing.
uses existing road, no roundabouts
Gives a way to access to the left without too much traffic impediment or increase in asphalt to the detriment of nature
Tunarounds may help allieviate traffic flow from turn lanes.
this design seems to elimate the congestion of vehicle turning right and left from the same road location. This model would streamline traffic for those traveling east to west/west to east
Better than roundabouts
Practicality???
It might improve traffic flow, but would make S. Airport look more like major roads in Grand Rapids.
It gets closer to the Traverse City travel area.
Less impact on current traffic pattern
Nothing.
Nothing
Move traffic, address intersections
Center median is nice
Might help traffic move in that area
The boulevard design should help getting in and out of diceways to businesses
Easy to implement
Divided highway. Minimize collisions
That the busiest road in town is divided!
The elimination of choke points
The Michigan left will be easier than having roundabouts. I like having the traffics lights, rather than the roundabouts. I grew up with the boulevard design and it just works.
Needs to be done
Any improvement is good
Nothing
Better than what is there
Dividing up the road
.
No rerouting or new land acquisition required. Closest to TC congestion.
Needed improvements.
Install a bypass
trafffic flows nicely. Example: 44th street in Grand Rapids
Better than what is there now
I Like a median. Michigan Lefts are a way to allow vehicles to safely change direction when leaving a business without having to dangerously cross multimple lanes of traffic.
Love the green space.
The use of existing road.
Safer design
It would be much easier to fix

It the closest (fastest) and most traveled option. Upgrading this road just makes sense. use what you have!
pretty
Traffic moves better with a boulevard
WIll improve look of South Airport but is not practical, it does not open up any true additional corridor, rather spends an inordinate amount of money on the current one.
like the boulevard look
Limited access and walk/ped/transit options where currently zero exist.
Cross sections keep traffic flow safer
It is only part of the solution.
No Roundabouts
Improves existing roads
Don't like
May make lefts easier?
I'm Neutral with this
First with the current traffic flow patters and development
Elegant urban sprawl look
Nothing
Michigan "Left" better than left turn lane.
No round abouts
I believe traffic would move smoother. It would get a larger amount of traffic through the area quicker. Less backups
nothing
High traffic flows
uses existing roadway
From experience, it works OK in the Detroit Metro area
Compatible with non-motorized transportation (walking, biking)
Seems to work well in other cities i've visited
Utilizes existing pathway. Michigan u-turns are awesome! All of Telegraph road in Metro Detroit work amazingly well.
What ever makes it easier to travel on this road. So busy!
nothing to like about this option
it will look nice
South Airport needs to be able to pass more cars per minute. Currently too much signal time is allocated exclusively to left turns. Also, constant stops lead to lower average speed thereby increasing congestion.
No roundabouts
eliminate the fifth (left turn lane) lane
Pros listed
The divided hwy.
Limited access and michigan right turns
Less complicated
South Airport already IS the east west corridor! Just make it more efficient. Boulevard and Michigan lefts work well in many other Michigan communities.
like the boulevard. Hate the michigan left and hate roundabout.
do not
Would help to alleviate traffic with little additional ROW needed
Existing Road that can perform much better with access management. Discourages sprawl.
no change to current routing
speed traffic along
Softens, calms

addresses major flow issues and safer travel with little to no cross traffic turns
might be fewer accidents.
Should be done anyways with other alternative
Would help improve traffic flow
Closest to destinations
Turn lanes eliminates turning at lights.
It is much easier to make left turns without slowing traffic. I experienced this road design down state with Michigan Avenue.
Uses existing right of ways and addresses the problem where the problem exists
We can use existing roadways
If the project is not to create a by pass for US 31, this would improve traffic flow
Closest path as alternative to east west traffic through downtown.
close to town
Too much traffic already
Does nothing to alleviate traffic and waste money
michigan lefts
Keeps the traffic where it is, just fixing the issues
Potential better flow
Utilizes existing roadways and will help ease congestion on South Airport Rd without creating another traffic headache.
Changes to South Airport will not relieve traffic pressure if the City of Traverse City continues to limit and restrict crosstown traffic.
No roundabouts
No roundabouts
Eliminates need for additional crossings.
Nothing
no new roads, moves traffic within, not a bypass
nothing
waste of tax dollars would congest traffic more on side streets
extension of Logan's Landing new process
No
That there would be a boulevard between the lanes.
No new river crossing, control development
Use of existing major right of way - Minimum Investment
Some value but not the best solution.
Appears to be least costly and does not have roundabouts
good
Nothing
nothing - s. airport is maxed out
better traffic flow, aesthetics, cost
Almost nothing, it does not solve the problem. It is low cost but does not address the issues.
n/a
The reduction of stop lights
Traffic can move better...no left turns
nothing
if other solutions were used, S. Airport would be fine the way it is...
Access
don's like same traffic thru constricted area
Already too much traffic on airport this would add to the congestion
might look nicer, but we need more than aethstetics

N/A
I like the michigan lefts
Sidewalks
no real change at all, money spent for nothing
No roundabouts
The fact you are improving and existing corridor.
enhances traffic flow on an existing road
Nothing
Simple - s Airport already carries a lot of traffic and needs capacity
uses an existing corridor and makes improvements
simple
Road is already there.
nothing
Would allow expansion for bike and running/pedestrian traffic
improves on existing infrastructure
improving existing infrastructure
Improved flow of S. Airport Rd.
Too much traffic on South Airport already
Nothing fix all the roads we already have
Nothing
Adds to traffic claming
It would help a little, with pedestrian crossing oasis potential
Relieves congestion on S airport
helps with left turns
Nothing
Proven to work in other city's
close to town
Simply S. Airport needs relief. Try synchronizing the lights now.
S. Airport already developed, just making improvements
Safer left turns.
Utilizes an existing corridor that's already slammed with development. Also, no new bridge over the Boardman River.
Reduces congestion on Airport Rd.
Potential for less stopping at intersections.
You are improving an existing corridor which is already established for high volumes of traffic, therefore this is a good idea.
Michigan left turns.
Attractive and allows for smoother traffic flow.
Nothing.
Doesn't fix anything just makes it look better
It's important to increase traffic flow to reduce long lines of congestion at all of the lights along this corridor
Seems like an improvement over the current layout, with more green space, accessibility for other modes of transportation (walking, cycling, transit, etc.), and would also result in less conflict points.
Faster traffic flow, eliminating backups caused by people waiting to turn left
It attempts to route high volumes of traffic using exiting roadways in appropriate areas.
Using existing roads /and Three Mile Rd
Leverages existing, heavily used corridor.
physical boulevards add green "softening" and more natural storm water management solutions to be integrated. Decreases current accident risk at intersections

needs improvement no matter what other solutions
Not much
Similar to what we already have on part of South Airport
Less ROW acquisition
Safer for pedestrian and bike traffic
Improvement to a corridor that already needs it, limited turning motions will increase efficiency
apposed
Practical, easy for vehicle use, close to downtown TC
Uses existing structure
Nothing
it looks cool
nothing
oth
It would require eliminating a bunch of ugly buildings set far too close to the road. Strip malls would disappear and new developments could take advantage of the Opportunity Zone destination.
existing roadway, seems like an overall improvement
If studies show that it calms traffic and is safe for pedestrian and bikes
a lot
Reduces the absurd amount of dangerous turning movement on S Airport
Better design than what we have now
greatly improves existing road
relatively easy to do, with positive outcomes when paired with the Hammond Road bridge crossing
Better access management, potential for street trees and pedestrian/bicycle infratructure.
It looks like it's going that direction now
use of existing roadway
Easy to turn into businesses still
No new crossing and no added development.
looks nice, but not practical
Nothing
Absolutely Nothing
I like nothing
Nothing
Limited left turns
I'm from GR and thesework well there.
Conveneient to access mall area shopping restaurants
Nice wide road with turnarounds.
Keeps traffic moving
smoother traffic on s airport
nothing
Not much different than what's there now
S Airport is way too congested now
Don't like
Reasonable update
Closest route to Traverse City
Would be able to be done with a lot of traffic disruption
Caution light at Logan's is good improvement
No roundabouts. Michigan lefts when properly positioned work. Example is Holland - 6 lane - 3 lane each way for MI lefts

Any improvements for increased traffic flow would be a benefit. It would simplify my decision coming out of a business to only having to worry about turning right
Nothing due to the cons
Would help with congestion of traffic
No
How are these going to be plowed
I like the boulevard concept. I think it works well in every other area I have seen it implemented
Traffic would move a little smoother with the turnarounds
We are overloaded already
Nothing
The bouelvard design seems to fit the location and type of traffic. The recent improvement at Logans Landing intersection has been a very positive improvement
Both S Airport schemes should/could be a complement to a further out solution to alleviate some of the local traffic. Improvements could enhance both flow and safety
Nothing
Having a wide road with lots of room and having turnarounds is much safer than roundabouts are!
I'm thinking, perhaps, in ten years, or as population of area increases, we would be visiting the same problem again. I believe Airport can't handle the traffic now, and even with "center median and turn around" or roundabouts,
Streamlines traffic flow, and would solve the difficulties associated with left turns.
It doesn't build more roads, with the corresponding costs of maintenance. It uses things like access roads that I've seen work in other cities. More intentional traffic planning could mitigate any problems in safety and keep traffic going consistently to increase number of vehicles that it can handle. It avoids more destruction of natural areas.
NOT MUCH HELP FROM WHAT WE HAVE
Northern-most for downtown access and without the number of roundabouts
Nothing - to complex
Don't care either way
maintain traffic flow
It would take too much room & So. Airport is already very, very busy!
By actually addressing the functionality of in town E-W route is likely to improve traffic flow. Allows for future dense development along this route which can also reduce congestion
Expand / fixes current asset
Might enhance traffic flow.
All of it.
don't like, waste of money, band aid fix!!
nothing
Would improve a bad situation
Best Design
Already a major route, increase ease
looks like it will ease traffic congestion
The most important thing is to focus on reducing car traffic, inviting more in electric transit and educating the public on how healthy it is to take transit, walk or bike. There needs to be departures from the outlying communities at least every 20 minutes at commute times and maybe every 30 on elk-ends, so people will use transit for their daily commutes and to visit outlying areas. We need to get off fossil fuel now to maintain a livable world. With leadership and education, we can change and become a city that others can emulate. Keep downtown walkable. Do not spend any more money on new roads. Spend funds of managing the roads we do have intelligently and safely.
no new roads, makes existing road work better
nothing
Existing route in business area
use existing bridges and roadways
not much, honestly

Neutral
Nothing
S. Airport Rd - Roundabouts
Same as above, better with roundabouts
Great solution; roundabouts work well with other cities; lets suck it up and move forward.
Nothing is good about this. No - these would be 2 lane, tight turns
Allows for better traffic flow without expanding the road too much
Uses existing corridor and improves traffic flow greatly by use of roundabouts
Nobody understands roundabouts. I say no!
Would this be 4 lanes with curbcuts for turning? Roundabouts can be difficult for large trucks and snow removal.
N/A
No
Roundabouts don't work in snow country and as your people explaining this emergency vehicles can't get through until it clears
Roundabouts work!
Same
For both of these the big advantage is that S. Airport crossing of the river would be addressed sooner. Needs to happen before costly repairs/maintenance.
Investment stays in an existing corridor
nothing appeals to me.
Slows people down with safer options
Preserve flow of traffic
Moving traffic and improves safety.
Works now except overcrowded. It should be better with new east-west corridor (Hammond-Hartman)
Not crazy about roundabouts
Same as above
No
Looks nice
??
No roundabouts. They do not work and will cause more accidents
Excellent. Has worked on M-72 east of Acme
No roundabouts..
Widen it. 3 Mile -> Garfield and put in a left turn lane
This road is the major east-west travel for ambulance and police can't see them being able to navigate effectively with vehicles trapped in intersections.
Roundabouts work well for continuous traffic flow. Keeps investment closest to city center. Keeps investment along our corridors.
Move improved traffic flow
I think these would help with traffic flow
Ditto above
Don't like roundabouts
No. Too much traffic, too many lanes in roundabout - likely causing cross over congestion in roundabout
Nothing
This may be acceptable
Pain in the neck'. Should have 5 acres to accommodate trucks
Roundabouts
Divided roadway
Love roundabouts!

I would be fine with either of these options, but I see them as more of a complement to other options as opposed to a solution. That is to say I think improvements in these options would be smart regardless of E/W diversions
I find roundabouts a great solution to keep traffic moving. Integrates protection for pedestrians and cyclists. More cost effective and smaller footprint than boulevard design.
Its using an existing corridor
No way, don't care for more roundabouts
Would benefit east-west mobility. Is there enough room? Take pressure from 8th and downtown. Increases safety more than boulevard
Handle traffic with less stops - saves gas and time
There were way too many roundabouts. I don't think those would increase traffic flow. This was my least favorite option
No roundabouts
Way too many for the road. It feels like every intersection will have a roundabout.
Too many roundabouts. I don't mind the use of one but this is too many.
Roundabouts better than boulevard.
No new ROW to obtain. Easier to build.
Nothing
Too many roundabouts. Could handle 2-3 along route.
I'm quite comfortable with roundabouts as a way to increase throughput
Less impact on environment and businesses
Roundabouts promote good traffic flow
Hate roundabouts
Allows for traffic flow
Horror Story!
Too many roundabouts
Current road is ugly and too focused on business. This beautifies and fixes movement.
people seem to be opposed to rounouts and may contribute to more slow downs and back ups
Reduced user delay. ie traffic lights and left turn lanes and lights
A divided road with reduced driveways is a good idea.
Improves existing road and improves intersections
I like round abouts
Roundabouts generally seem efficient
Existing corridor
Uses existing developed area instead of developing natural areas. I think the roundbouts will successfully move traffic.
Move traffic from east to west
what is wrong with just taking care of the current road, this stupid idea that roundabouts are practical for such busy inspections is crazy. During heavy traffic it will be slowed to a crawl, and how does it make sense with all the semi truck traffic on south airport
Provides less incentive to speed between lights
absolutely not!!!!!
Nothing
Nothing. Roundabouts are a good use occasionally but they are being exploited as a fix all when they really just drive people crazy.
People cannt handle roundabouts
Concerned some intersections may be too busy and will back up.
Nothing
no traffic lights
roundabout!
nothing
potential to alleviate some issues
Too many roundabouts

Good option; would seem to move more traffic efficiently using existing infrastructure; concern about pedestrian/bike crossing at Tart/Logan's Landing across busy round-a-bout
Ability to manage higher traffic volumes without additional future expansion, and the opportunity to change drivers' behavior
roundabouts increase safe traffic flow
I like the roundabout at 3 mile
Not much different, but improved
Roundabouts improve traffic flow, no question. However, this proposal shows 10 different roundabouts within just a few miles, which seems excessive. Roundabouts at the highest traffic intersections only could reduce the number to 6.
As resident one block off of S. Airport, it needs a major change. People unsafely pullout into the turn lane to turn left. There are too many entrances onto the road that make it unsafe. The lights create a lot of backup and as traffic changes so much on the road throughout the day, it makes sense to have roundabouts. Studies have shown them to be safer as well and we need that. The divided highway will prevent all the left turns which would make me feel safer immediately. I am a fan of roundabouts and once people get sued to them (average of 3 years) people don't mind them And like them because they keep traffic flowing. This is by far my favorite plan.
Better traffic flow; no stopping for lights
S Airport has traffic backups particularly after 5:00 pm. The left turn signal from Lafranier onto S Airport gets backed up and you can't turn. Roundabout would alleviate the problem
Nothing!!
Hoping the roundabouts would help traffic move more quickly
Roundabout tend to keep traffic flowing
Absolutely nothing
Uses existing road right away
Roundabouts seem like a practical solution for that road.
nothing
Absolutely nothing is good about this design.
Little or no stopping with roundabouts
For effective roundabouts, need extensive property on both sides of road.
Roundabouts increase traffic efficiency. Will be learned quickly by drivers that aren't used to them.
No more stopping and waiting, more free flowing of traffic.
There would be fewer slow downs with the roundabouts.
Consistent traffic flow, less congestion and impatient drivers at busy intersection
Nothing.
hate round a bouts
I like the safety aspect keeping traffic divided
Nothing
Move traffic, address intersections
I like roundabouts
The roundabouts
Fewer accidents, but much slower movement.
The roundabouts should help with reversing traffic to make it easier to get in and out of driveways
Nothing
Divided highway will minimize collisions
Keep flowing traffic
Probably the best option of all proposals.
I don't like how many roundabouts that are proposed. I feel it's difficult for must drivers to come in and out of the roundabouts.
Somethyneeds to be done
I really believe in the pedistrian friendly benefits of roundabouts. There more s airport can allow for all methods of transportation, biking, walking, driving.
Nothing
Round abouts are great. People will get used the them.

I don't like it.
Prefer the connection to 4 mile and adding the roundabouts
Safer
I lived in England for 4 years and used roundabouts all the time. They work when drivers are experienced with safely using roundabouts. Risky here with inexperienced drivers.
Same
I think there would be less traffic backups with this design.
I like having the road divided and allowing for vehicles to change direction. .
Roundabouts.
I'm a fan of roundabouts
I do not like roundabouts
Roundabouts are teachable. Gets traffic moving.
Trendy, hip roundabouts
Less change
I love roundabouts but Americans are afraid of them, it won't be approved
dumb drivers and tourist with roundabouts dont work
Roundabouts are super efficient, can be sized appropriately, and increase safety measures.
I dont, too many roundabouts
Do not like roundabouts..
Improves existing roads
Don’t like. South Airport needs to have traffic moved away from it not redesigned for the same traffic.
Next most efficient
Nothing
I'm Neutral with this
I love roundabouts and think this has the most going for it.
Improves existing flow
Nothing
Roundabouts keep traffic flowing and reduce accident injuries. Using existing roads has less impact to environment.
A couple roundabouts would improve the flow.
Nothing
Nothing
roundabouts
Sensible solution that does not require extensive right-of-way expansion
nothing
Nervous about Roundabouts. Harder to picture with walkers and bikers
I like that roundabouts keep traffic moving
I do not mind roundabouts, but this is far too many
Nothing.
Traffic too heavy for that many roundabouts
no traffic lights; but may be too many roundabouts
It will move traffic better
Nothing
this would be to confinding
Pros listed; round-a-bouts
No roundabouts please that is only for long hair liberals
May help traffic flow?
nothing

Let’s just improve our already/existing east-west corridor! Less expensive, no new builds, less environmental damage and most folks use this route now!
No Roundabouts. We are not England. They are just the latest fad with the planners. They stink.
do not
Would be good for major intersections, would probably work best if roundabouts were in major intersections with the boulevard used in the lower volume intersections
Adds capacity without widening to an existing road. Reduces serious crashes. Access management is cheaper than building new lanes.
no change to current routing
Roundabouts are best
helps with flow
fewer accidents.
dont like alll the roundabouts
No additional ROW needed and safer
Don't like.
on the fense with this solution leaning toward dislike.
Uses existing right of ways and addresses the problem where the problem exists
as above
This would improve E-W traffic flow with slower traffic patterns.
Too many roundabouts that will not work with high traffic volumes
close to town
Too much traffic already
Roundabouts will move traffic continuously at safe speed. This is already a major east/west corridor heavily trafficked, in desperate need of relief and would benefit highly from smooth flow.
Too much traffic for this design, dangerous making turns
nothing
same
no new bridge
Improved flow, less back ups
Keeps existing road intact.
If roundabouts are a good idea, the City of Traverse City would have them at every traffic light.
Nothing
No roundabouts
Eliminates need for additional crossings and enhances functionality of South Airport, especially with the use of Roundabouts
Nothing
all those roundabouts look difficult for the amount of traffic present, much less in the future
nothing
Same as above
NOTHING
No
It would elimiate hitting all the stop lighs. It keeps traffic moving.
Move traffic better, no new crossing
Much improved traffic flow during rush hours
Not much
oppose any and all roundabouts
Nothing
nothing - s airport is maxed out
better traffic flow

This design should not be an alternative; it should be implemented as soon as possible and should not preclude the Hartman-Hammond option.
Roundabouts.
Believe it will help with traffic flow
Roundabouts better than stop lights
keeps trafic moving
nothing
roundabouts are not the answer
None
don't like same traffic thru constricted area
might look nicer, but we need more than aethstetics
N/A
I hate the roundabouts, the are diffcult to use in winter
Sidewalks
Very bad with tourists present and slowing SA at all is BAD
Too many roundabouts
Roundabouts help slow traffic down while they keep the traffic flowing.
enhances traffic flow on an existing road
Nothing
Nothing
uses an existing corridor and makes improvements; traffic flow is managed by roundabouts
roundabouts work, just a lot of them here
Road is already there.
nothing
Nothing
improves on existing infrastructure
I like roundabouts but maybe this is too many
less stop and go
Nothing. So many roundabouts is a terrible idea. It may looks good on paper, but in reality may increase congestion.
roundabouts to keep traffic moving
Hate roundabouts
Nothing fix all the roads we already have
Nothing
Help with traffic flow
It would help a little, but with less poorly timed traffic lights
Relieves congestion on S Airport
helps with left turns and keping traffic moving
Nothing
WAY to much traffic for roundabouts, especially during rush hours
prefer round abouts
Simply S. Airport needs relief.
see above
Safer left turns. Roundabouts will help keep cars moving rather than stacking deeply at lights.
Please see above.
Roundabouts would greatly reduce congestion on Airport Rd, reduce fuel consumption, save money where they replace traffic signals, improve quality of life, and benefit businesses in the area. "Michigan lefts" are also beneficial.
More of a constant flow.
Roundabouts would allow traffic to continue moving while slowing traffic down for safety.

No traffic lights.
I think the roundabouts will facilitate traffic flow and ease congestion.
Nothing.
Would improve safety but doesn't give as a second route, would be good if done with the Hammond route
Some roundabouts would improve traffic flow
I really like this because traffic flows better through roundabouts. I've seen it in Marquette where I'm from. 10 years ago they had similar jams along the most heavily used corridors, and after installing all of their roundabouts over the years there's been a very noticeable and positive difference in traffic flow. I also like the expanded green space and expanded accessibility for alternative modes of transit.
I would think this has the best traffic flow during heavy times and would improve aesthetics.
Very efficient when people know how they work
Safety of travelers and traffic movement
It attempts to route high volumes of traffic using exiting roadways in appropriate areas.
Using existing roads/and Three Mile Rd
Leverages existing, heavily used corridor.
Same boulevard advantages with added infiltration potential in roundabouts; better/safer integration of non-motorized traffic, traffic calming and flow.
needs improvement no matter what other solutions
Not much
Roundabouts could relieve some of the biggest problems in this corridor; traffic could continuously flow
I like the round-abouts - however, see next question.
The potential for increased flow of traffic.
Smooth traffic flow
Efficient traffic flow, safety improvements at intersections, improves a corridor already targeted by many drivers that needs improvements currently.
apposed
Close to downtown TC, already a main route
More simple than boulevard solution & would require less $$ & ROW
No stop lights
Used existing structure
Definitely nothing
it looks cool
nothing
oth
Would be better at keeping traffic moving.
This will move traffic more efficiently and safely without environmental impacts
roundabouts keep traffic flowing, a good idea
a lot
Also reduces the absurd amount of dangerous turning movement on S Airport
I don't
i like roundabouts...improves flow
not a fan of this
Continuous flow of traffic.
any improvement is better
same as above
Roundabouts better than long line at intersection
No new crossing and no added development.
nothing
Nothing
Absolutely nothing

I like nothing, no more roundabouts, and will make roads difficult to plow
Nothing
Too many roundabouts in a row. I hate all of this.
Nothing
I like that this seems quicker in creating. The other design seems like it will take longer. Not sure all those roundabouts would really be needed though?
Roundabouts can be confusing.
nothing
Nothing
S Airport is way too congested now
Don't like
Like nothing about this plan
nothing
good for exisitng routes
too many roundabouts
Any improvements for increased traffic flow would be a benefit. It would simplify my decision coming out of a business to only having to worry about turning right
Nothing. Doesn't address any of the problems
Slows traffic
No
Why more roundabouts
Too many roundabouts
I think roundabouts could really help move traffic through existing intersections and would be a great improvement
Less light sitting
Same
Would look pretty
Could work at certain intersections but could be problematic during heavy traffic congestion.
It could potentially provide a consistent flow of traffic
I just cannot imagine the driving population being able to navigate high volume roundabouts
Improvements could be designed to enhance use of buses
Nothing
I like the 4 lane divided road idea
Roundabouts everywhere. While I, personally, don't mind roundabouts, they are a bone of contention with many. I'm unsure it this would speed up commute or not.
This corridor is incredibly busy in the summer, and I wonder if a mix of lights and roundabouts would better facilitate traffic flow.
It doesn't build more roads, with the corresponding costs of maintenance. It uses things like access roads that I've seen work in other cities. I think roundabouts will help calm traffic and increase the total number of vehicles it can handle. It avoids more destruction of natural areas.
TOO MANY ROUNDABOUTS
Nothing - not sufficient room
Roundabouts are stupid
truck traffic challenges - truck need both lanes to navigate round abouts and typical traffic is not aware of this fact - safety concerns
Do NOT like roundabouts!! They take too much room, & land!
Little right of way required, round abouts are simple to navigate. And by actually addressing the functionality of an in town E-W route this can impact congestion.
possible help with traffic flow..... learning curve with RA.
All of it.
don't like, waste of money, band aid fix!!
nothing

Great solution - love all of it!
Good but hate roundabouts!!!
I like round-abouts
The most important thing is to focus on reducing car traffic, inviting more in electric transit and educating the public on how healthy it is to take transit, walk or bike. There needs to be departures from the outlying communities at least every 20 minutes at commute times and maybe every 30 on elk-ends, so people will use transit for their daily commutes and to visit outlying areas. We need to get off fossil fuel now to maintain a livable world. With leadership and education, we can change and become a city that others can emulate. Keep downtown walkable. Do not spend any more money on new roads. Spend funds of managing the roads we do have intelligently and safely.
no new roads, makes exiting road work better
nothing
Existing route in business area
roundabouts speed up traffic flow, less ROW costs and affects
same
roundabouts and continuous traffic flow is an improvement over lights
Uses existing roadway and may calm traffic to the actual speed limit.
Bad idea
Nothing

Hammond Rd Crossing
Direct over narrow part of river, fairly short, direct path
Moves traffic away from S Airport and town; least residential impact; utilizes new bridge the best; GO FOR IT!
Great alternative
Hammond/Hartman Bridge time has come
Nothing
Semi off S. Airport - they can avoid going through town. Summer traffic can avoid town congestion.
Adds a third bridge to alleviate traffic flow across Airport, along 8th and even on the bayfront
Best idea still
Hammond Rd SHOULD NOT become another S
Best response to addressing traffic congestion in town
Hammond Rd alignment using alternative B provides the best approach for commercial vehicles
Yes
Nothing
Leave a large-wide wildlife/hiking corridor underneath
Close in - much of this is already in place
Looks Best
Most direct and responsible use of money. Hammond already capable of increased traffic load. Both water and wildlife can cross under a bridge.
Most direct connection. One bridge solves lots of traffic backup. Better for trucks bypassing town. Better traffic flow
It gives us another East-west connection as close to town as possible. Hammond is already ready for it.
Not needed.
Direct route! 'A' best - 'B' us good also
Direct route. 'A' is most practical due to existing roads.
Not at all
Nothing - will cause accidents at 31/37 South; too close to city, defeats intent to move traffic out.
Most direct route from one side of the county to the other. Helps commerical vehicles that do not need to be down in the congestion. Great access for county road commission to take care of roads.
Least expensive
Closest to TC. Uses 4 Mile Rd. Avoids S. Airport congestion
Much needed. Traverse City has 8 bridges crossing the Boardman River. TC has a population of 15,000 people. Grand Traverse County has a population of 91,000 people. Minus 15,000 people = 76,000 people Cass/Keystone crossing is the only South crossing for GT County (down county residents).
Favorite combined with improved S. Airport
Development shows in pro column. It could be both con and pro
A is the most practical option
Cost prohibited $30 Million could be used as better cost-benefit on existing road system
Please build the bridge
Greatest
Ok
All for the crossing with route B
Absolutely nothing. Wetland impact. No, No, No
Run the river in multiple culvert pipes and do not build a bridge.
No! This option has been rejected numerous times. Environmental impacts too great. Select another option
Excellent
Love it but get rid of bridge and throw in some tubes. Our cutesy-cutesy would is bleeding us dry
Not much
A is less out of the way to travel E-W. B requires driving farther south than north to travel east.

What would happen to folks living on 4 Mile if that were to be widened. Plus what about wetlands?
Most direct. New road and Hartman
This most practical; probably cheapest to do
New bridge - major time to execute
Straighter shot
Will heavily impact the Boardman River valley.
Disrupts homes along Hartman. Expense?
Makes the most practical sense
Symmetry of roads
Would provide direct access
I don't like the idea of building a whole new commercial corridor along Hartman-Hammond Rds
Straight shot across the county
Absolultely nothing. We do not need another bridge over the Boardman River
Good if it doesn't affect floodplains, probably most expensive. Would be bad to have intersection on hill of 31/37
I do like this option - I feel the roundabouts at 3 and 4 Mile Rd are good ideas and the bridge at Hartman gives people another option.
I like the idea of connecting Hammond Rd with Hartman Rd by a bridge. It is also necessary to have a turn lane as traffic will continue to increase.
Poor idea again. Ruins the environment. Runs through parkland that is close to town and very accessible. This also forces people out of their homes. This would add lots of noise and pollution in a sensitive area.
Probably the best option but will have the most opposition and highest cost.
Looks good. Nees the crossing over the river.
Most direct
Nothing due to new river crossing.
Build the bridge!
Most direct. Fast.
Without this all else will fall short
Direct route - solid relief value for east/west congestion
No way!
This would not help me. I live in Holiday Hills; this would not help me get to businesses or 31, nor to Interlochen or Menards
Ok Yes
Hammond Rd is already developed for this solution. Seems to be the most practical. Development along this corridor can be controlled with zoning and access management.
too busy
No to the bridge. Expensive crossing environmental wet lands
Seems to be a clear way to 3 Mile/4 Mile
Best, most practical solution; less disturbance of existing businesses and environment. A bridge over the water could be built w/o great environmental damage.
It's the only practical alternative, The technology exists to construct a bridge with virtually no impact to habitat/wetlands. Connect to 31 via 3 Mile, going to 4 Mile requires unneccessary ROW and significant veritcal geometry between 3 Mile and 4 Mile.
Has been historically defeated.
It is the shortest route; This is route the ROW would fly and straight; Least amount of time to get from east to west. This crossing of river has the least environmental issues = flat, open, no trees by river without vegetation in river = this is dregged area. It would serve the most users from the west and east sides verses going south = lots of users. It is the only natural areas on both side of river that matches the terrains = number one choice: choose Hammond-Hartman
Good idea - keeps it simple. Avoiding wetland will be a challenge.
This is old school. Good luck!
straight cross town connector
Lowest construction cost
Nothing

I live on Hammond and work on Cass so any additional river crossings are a plus.
Nothing, expensive bridge to nowhere
Helps plan for TC inevitable expansion south. Seems the most logical, direct way to US31
need to widen 3 mile & 4 mile. Build bridge over river to Hartman
Best alternative to alleviate traffic congestion
Hammond Rd has already been improved and the county owns the land necessary for expanding Hartman and creating a crossing. It will alleviate issues on Airport Rd and provide a secondary West-East access should an emergency occur on Airport.
Disturbs undeveloped natural area.
Don't love the idea of a new bridge over the Boardman River, but probably like this marginally better than the next 4
No roundabouts
Nothing
most beneficial for local and transient traffic
Ok
Most partical, less intrusive to the environment
I think a new crossing is needed. This is a good location to peel some traffic out of the congested downtown roads
Best answer, quick and straight across to hammond
I think Hammond to Harmon would be the most important of all proposals in that area.
It relieves congestion on both S.A.P and Chums corner
nothing
uses more exisiting roads
could keet downtown less congested
Nice flow, will serve well into the future
Environmental impacts are not worth the potential apparently relatively small traffic relief; likely to lead to sprawl
Necessary - and although the environmental impacts are not fully known, I believe a direct route across the Boardman River between Hammond and Hartman is necessary
Truly would make a difference, ease congestion
This is critically needed both now, and for future expansion. Connecting to Hartman Rd makes the most sense, but either option A or B is vital for the future as traffic will only continue to grow.
We need another way to get across, but I don't want it to affect the environment of the river.
Uses existing roadways, more direct than most others
Diverts the traffic from only S Airport
Just say no!
most direct.
This is THE best way to mimic the function and flow of South Airport Road's East-West connection.
Round-about would be okay here
Not sure
The bridge would make my commute to work faster
Connecting Hammond to Hartman will all straight-through access to US-31 without having to go out of the way.
The cost of a new bridge is extensive and it is to close to South Airport.
best direct solution
it gets traffic away from a lot of business traffic
This would allieviate traffic on S Airport as it isn't a huge deviation from that route.
This seems like the most direct and practical solution for having another east-west corridor. This solution would likely decrease the volume of traffic on South Airport Rd.
Too close to TC
Roundabouts increase traffic efficiency. Will be learned quickly by drivers that aren't used to them.
I don't like it.

Moves traffic along east to west close to Traverse City with a new avenue that really does provide a good alternative corridor to take pressure off those already existing.
Ease and access, simple route west to east. There is a destination in mind and you avoid business traffic.
Most direct route across town accessible from 3 mile or 4 mile with least construction disruption for commuters.
This is the only one that offers a new, practical option
This is the most logical solution to my mind. It will relieve congestion on S. Airport without complicating the traffic and impeding access to business on S. Airport. E-W access via H/H is close enough to town to be useful, unlike other possibilities listed.
Nothing
environmental impacts
Least amount of change
Bridge connecting Hammond and Hartman would be awesome
It will be a way for people who do not want to go into TC to go around TC. Shortest distance between two sides of town. Hopefully speed limits will be maintained.
It is kind of future proofing the road if done right, just have to leave enough right of way for future expansion.
Nothing
Overall effect way to get across town
NOOOOOOOO!
The completion of a long overdue project
This is a great solution to get over to the west side. It's a straight shot. Much better than going around the river.
best solution
Straight line and it's closer to town.
Best use of current roadways
This and Beitner will get traffic out of the city the fastest.
Need to pull traffic from South Airport
Too much traffic need something safe
Build the bridge! Its beyond needed
I strongly feel the cost of this will not be worth it. Improving the other roads and maintaining them at a higher level will be a much greater value for our county. This would be a large and expensive project which would take a lot of capacity.
Keeps traffic going around TC if there is no need to be in town.
BADLY NEEDED FOR DECADES
.
Alleviate S Airport traffic
Logical next step as development moves south. I am anti "sprawl", but clearly we are moving in that direction, so we need the road infrastructure to support safe transit.
Makes most sense
Same
At first I was opposed to this but if the bridge was built with a higher span it would impact wildlife a lot less.we need another corrider besides airport rd,
Will take pressure off S Airport and will be used by many
Offers an alternative crossing
Balance between being close enough to funnel traffic into town from south and let some bypass.
True East, West travel.
best solution
It to damaging to the preteen Board river and the wildlife
Close and eases congestion on S. airport.
distributes traffic throughout the metro area best
More efficient route
This is the best option. It creates a whole new corridor that connects to the highest traffic areas. Hammond has multiple accesses to Grandview Parkway (3,4,5 mile) and to South Airport.

most direct route across town,
Not much to like. Sorry.
I like A for needing less construction but it would depend on the area and how many people may get displaced.
Like that it is a straight shot to the other side of TC. Also, could go west and connect into Bugai Rd to connect the bypass planned years ago by GT and Leelanau Cos
Best for traffic flow
Nothing!
Makes the most sense.
Should be able to move the most traffic efficiently
This seems like the most practical solution for another east/ west solution.
I'm Neutral with this
creates new road deer interface
Everything
No round abouts
Another east west road that is needed in the city
nothing
MOST EFFECTIVE SOLUTION FOR GROWTH
It's perfect. I would use it everyday. Allows for a bypass around S. Airport.
I believe it will help alleviate traffic flow along Keystone, as well as provide an additional route to east side of town
Way too much traffic on Hartman rd now
Takes advantage of Hammond Road, an existing 5 lane highway that can easily handle more traffic volume in its current state.
NOT NECESSARY IF OTHER EXISTING ROADS ARE FIXED
Its a straight shot east/west across the city
Seems like the easiest and quickest way to move cars east and west
While I dislike putting infrastructure over virgin land, it seems them best solution with the smallest new footprint. The 2 turnarounds are at busy, but not "insanely busy" intersections.
Most practical solution for a high volume bypass. Environmental concerns can be mitigated.
Make sense
it will route traffic better
Does not add congestion to Keystone which is already overloaded at certain times of the day.
Most direct with least amount of additional land use
Minimal # of roundabouts & more direct access to 31, that's at a better (more northern) access point to 31
extend the hammond road to four lanes to 4-mile Rd
Pros listed, seems like the most direct route, logical
Best to keep has many south of town that we can
Straight direct route east to west
Needed for years
Do it already.
As to all these remaining options, I don't believe they will actually be used as much as anticipated. People want to be in town... not go way out of their way south to traverse east to west in Traverse. These other solutions are wasteful and not practical.
The idea of connecting the road is not a bad thought, and some elements are ok. You are kidding yourself if you think it will eliminate traffic from S. Airport. It will just mean more overall traffic.
gets area more east west options
Not needed with Airport Road enhancements. Add strong potential of another sprawling development pattern like South Airport Road
Just the right distance south. I live in Leelanau County but we have used these roads extensively in the past year in the process of building a house, visiting many TC area vendors. We try to avoid Airport Rd. and often go as far south as Beitner/Keystone but that is out of our way. Sometimes we use Hartman but it is narrow and winding, and turns onto 31 can be a challenge. It has often occurred to me that a bridge connecting Hartman to Hammond would be efficient. We are new to the area so I am not really familiar with the infamous proposal know as the Harman-Hammond Bypass; I guess there were environmental concerns (which I share) but it sounds mostly like the proposal was not presented well.

much needed east-west route
direct. best to alleviate some congestion in town
option A is to obvious, it needs to go here. Helps address the issue its inteded to getting people east-west just south of the metro area. but I would not go further south.
I like route B
Hammond is already set to accept traffic off of 31 and empty onto three mile and out to 31N.
Fewer destinations - allows for limited access
best solution to solve the problem
Additional traffic flow off of Airport Rd.
Nothing
N/A
Should be fastest link than other proposals. Also opens up to further travel towards Fife Lake and US131
nothing
Most straight forward and practical, environmentalist cannot contro
another bridge over the boardman river for more vehicle capacity
Nothing traffic is a problem we live on Hartman rd.
Hammond is too busy now, would totally destroy the East Side of town
Obvious high profile area, intuitive for navigators
Nothing.
Was a good idea 20 years ago, but not practical today.
No roundabouts
This is the best route
Furthers the spread of sprawl in the GT region
Build it already
not in favor of building roads in the area
best choice
Do not like at all biggest waste of tax dollars
Provides a true new crossing, close to T.C. that will reduce congestion at existing crossings. The best long-term solution.
1/2 of vehicles do not want or need to be near town
Most practical with 4 mile access to us31
It gets traffic to US-31 faster than using Keystone / Beitner.
most direct bypass route
Relieves traffic pressure from S. Airport and opens up a new corridor.
Probably the best way to moved E/W traffic to releive some congestion in TC
good
Would ease traffic on S. Airport Rd., Division but be pretty direct to East Side.
Non of these other solutions get the heavy traffic off these roads
Nothing
It would give an alternative to South Airport.
oppose any new bridge on the river
everything, build it, kill 2 birds, lessen traffic in town, improve traffic flow
This is the best solution for the long-term development of the city and county and should be implemented.
This solution makes the most sense to me...we have many years for this to happen
This seems to have best chance at diverting traffic past congested areas
Strait shot to Hartman and then to 37/31
Straight shot, keeps the flow of traffic moving
most efficient

Least disruption to current traffic and most likely to be an effective bypass
Should have been built 20 years ago.
alternate route really needed. it would keep a lot of traffic off s. airport.
Access
Moves traffic efficiently around area
better east/west flow, cut down on s. airport traffic amounts
Most straight forward solution and keeps potential development closer to the city
it is the most direct and efficient traffic flow
I think this will relieve South Airport congestion
most direct route and minimal roundabouts
Need a new crossing this is the only option that offers
Oppose
Just makes practical sense for both locals and tourists alike
Best solution to take pressure off of Airport Road, straightest route to move traffic, get traffic all the way across town
same old story the can connect to nothing
Straight shot to west
Most logical solution
Hammond Rd connects at a reasonable distance From downtown
nothing
Shortens the route and uses minimal rounabouts
Most logical. Look at a map. It was meant to be connected at some point...
Best way to ease traffice coingestion
Seamless access from Hammond to Rt31
opens up a new traffic artery
nothing
most direct route that would clearly lessen traffic on s airport
This is by far the most logical solution to this issue. This creates an alternative thoroughfare other than S. Airport and it's close enough to town to be relevant.
This solution makes the most sense
Great way to avoid South Airport Rd and Traverse City. Like option B better than option A.
Pipe dream quit bringing it up.
This one makes the most sense. Less right-of-way expense, less work involved and the best plan to relieve the traffic on South Airport Rd.
It eliminates having to drive up and down hills, which in the winter can be dangerous. It also connects our main Industrial Parks on the East and West sides of the County. It also acts as a by-pass for Trucks that need to get through the County.
Environmentally very poor choice, an excessive bridge and roadway cost,simply adds more traffic a very short distance just south of the US31 + South Airport major intersection, does not significantly reduce the primary north + south corridor to/from downtown TC, Beitner Road Crossing is a superior traffic management and "roundabout" alternative.
More river crossings are needed
Makes for quicker east/west movement and relieves congestion
makes the most sense with getting across the river without having to go to the north to S. Airport or to the south to Cass or Bietner
most of the structure is already there
This makes the most sense. Cut the roundabouts.
Should have been done years ago, would not be in this situation now
nothing
Personally most convenient. Located in middle of target area.
Would create an "easy path" and clear path for drivers to access the major North/South corridors (e.g., Cass, Lafranier, etc.); Adds some roundabouts; Uses existing road with Hartman.

This is the most irresponsible option from an aesthetic, biological, and fiscal standpoint. The river between S. Airport Road and the new Cass Road bridge provides an opportunity to recreate either from a canoe or on foot, without having to the direct noise and ugliness associated with a road corridor right in your face. The habitat that will be disrupted through construction of a new corridor includes northern white cedar swamp which is constantly under threat due to development and climate change. And, if all that matters to you is money, this one will cost the most with additional O&M costs into the future.
Makes the most sense
Closest approach to having a straight shot acrss the area.
Would reduce congestion on Airport Rd.
Completely new route with little development currently.
We do not like anything about this option due to the negative environmental impacts.
Straight shot around town.
I don't like this option. I think it will be the most costly, and has big environmental impacts in terms of disruption of the river and wildlife corridor, and runoff problems into the wetlands and river. This option jams all the traffic too close to the city and S. Airport Rd.
BUILD the Hammond-Hartman BRIDGE already!
Nothing.
Makes logical sense. We've been asking for this for years.
Gives a true redundant path for traffic efficiently
Great solution-this option was considered many years before the Cass Road Bridge was built & met with tons of objections at that time
This would provide a way to alleviate traffic at the S. Airport and Beitner intersection with US 31.
closest option to Airport Rd, least amount of diversion to Mall area
This is a good location because it is the right distance away from South Airport.
Helps divert traffic away from South Airport
This seems like a direct road route that attempts to use much of the existing road infrastructute and add minimally more.
nothing. The river, wetlands, groundwater infiltrations should not be risked for the sake of handling more cars. The only way a "bridge" should ever be considered is if the decision is made to spend every $$ necessary to design, build, and maintain in perpetuity a world-class demonstration of a transportation corridor that has literally ZERO impact on the entire ecosystem of the watershed, on the future supply and quality of surface and groundwater, on any ecological service that is now or will in the future be provided by the Boardman River, or on the serenity and sustainability of healthy human and non-human habitats.
Easiest to do keeps traffic out of congested areas
Staright across and effective
A straight shot from Hammond to 31 would be convenient, and not that far from S. Airport
More direct
Straight shot East and West. Increased development potential
Direct access to US-31
most practical, much of it already in place
Close to downtown TC, very easy to use for everyone, spur development in this region which is practical
Seems like best solution for traffic. However, the maintenance & environmental impacts are unclear to me
Stright east/west corridor, plenty of room for roundabouts and 4 lanes of traffic
Only one that makes sense.
Way too expensive and unnecessary to build over river
Love any and all cross town improvements south of S. Airport
it looks cool
nothing
oth
Having a parallel, straight east-west route would relieve traffic on S. Airport. Also, this again could help increase development in the Opportunity Zone.
nothing
Never ever build a bridge over wetlands. NO HH bridge. This has been studied plenty
a lot

Seems to have the most potential to alleviate traffic on S Airport
The best option, relieves congestion on S. Airport
has always been a good option
It is the most direct and in an area that could be vitalized through this route
it makes the most sense to have good alternatives to travel east/west. Traffic can make its way to S. Airport or the Hammond Road Crossing bridge to get around town. Do it.
Nothing.
Should have been done 30 years ago. It is time!
adds another route in addition to S Airport
Good if 3 mile is used
excellent utilization of current traffic patterns
Could work if right bridge was built
Road will be fixed but do not like the idea of roundabouts
Seems doable, hammond is a highway
Good Alternative to S Airport
It makes the most sense.
We need this. It make sense to open up Hammond to get across town.
Efficient avoid congestion traffic
This makes the most sense
Better east west travel, limit side roads
This plan is almost complete. It's only missing the bridge and the newly designed Hartman/31 Intersection
An alternative route makes most sense.
Option A - this is my preferred choice - straight road from US-31 to 4 Mile, limited access possible in most areas - both adding to safety. Option B - acceptable choice, fairly straight road from River to 4 Mile
Good idea
This is the only option that truly addresses all of the needs of area traffic flow
zero
Most direct EW route.
Would address congestion. The straightest route, fewer miles of new roads. Less roads for future upkeep costs. It gets one from here to there. Bridge and new road is short distance. New construction would not interfere with traffic like other proposed routes would.
would add and alternateive route around town
Practical, not too far south
The best choice here
This addresses most of the issues by still lacks a few needs
would help take traffic off South Airport and Keystone
Makes the most sense. No roundabouts
nothing
Should have been done in the 1960's
Hammond bridge needs to be built with Hammond as a boulevard from 4 Mile to 31
A = Connects H. H. all the way to 31. B = like this better. It gets the intersection off the bottom of the hill
Make sense. Has for a long time
To Hartman. Its past due. Best for congestion
A looks like the best for getting into and out of TC
Most direct route traffic heading to west side where majority of people live. This is geared toward the residents who live and work here as opposed to seasonal traffic. Traffic at 31 would then turn south or continue to east Silver then N or S to home
The proposal has many flaws and could increase gridlock
This seems like the most obvious solution as it directs traffic toward shopping centers
Seems the most likely and direct route for bypass traffic and much of it exists already (except for a bridge connection)

Direct route from 31 to 4 Mile
I like the new bridge over the Boardman River
Looks like the shortest and most direct route. A straight shot.
Would need to check a topographic map, but I like alignment B better than A - it's more direct..
It seems simpler; it's a clean slate.
MOST DIRECT AND SHORTEST ROUTE -- GREAT CHOICE
Logical roundabouts and not too far south
Provides the best crosstown connection & eases S. Airport Rd traffic
Makes most sense
Makes the most sense
connected to hartman - yes - aleviates 125% capacity traffic on s airport - you need another route to absorb the traffic
This is the best & most practical solution! The roads are mostly in place already, & it would take less money, manpower, time & resources!
This route is fairly far south and I fail to be convinced that the environmental degradation and myopic advocacy of a small group justifies the illusive benefits of bridging this natural water feature.
We have worked to hard to clean up the Boardman River? It is going to be walkable, bike friendly, water sports friendly. Why introduce a bridge which will change the environment forever? No sense. Wont be able to go back and resurrect changes to wildlife, nature, and quiet.
Already half done with Hammond as a 4 lane, just finish it
None of it. Boardman River does NOT need another bridge.
Good alternative to south airport
I think this is the best long term solution
everything, right spot, simple, efficient
I don't like anything about this - unnecessary!
Connects Hartman and Hammond, makes sense
Logical extension to Hammond/Hartman project already
no brainer, do not spend any funds on this. Re-read the Grand Vision plan our community created
most direct and efficient
Direct route; not too far south
moves work away from center of town
nothing
nothing; this is my least-favored option
Do NOT like
Nothing. Cost in dollars and environmental impact is impossibly high.

Cass Rd Crossing - A
existing bridge
Using an existing bridge
Creates a direct line and flow across river using an existing bridge area; good entry pool from US-31/M-37
This works too
No. Too many accidents and not wide enough
I like using an alternative that not Airport Rd
No
No
Doesn't seem plausable
Best of three routes
A direct option
Still too close to town
May help, but not needed
Building a road in new land is unnessessary
Neutral
I think this route would have problems with the curve on the 31 side
nothing
Functional but temporary
Strait east-west passage to US-31 with connection to Silver Pines
Existing and requires farther crossing
Cass Rd Crossing - school bus garage busy
Best plan - takes advantage of new bridge (esp if 2nd bridge is added next to it) and work work. Avoid Hartman exit location.
Good solution re where it will come onto 31
Broad-Draka Homes x 8? Expense
Support improving Cass from S Airport to Chum's Corner staying on west side of River
Cass Rd already exists
Cass Rd seems to be moving the congestion point
Prefer expansion of existing bridge over construction of additional crossing
Use of existing infrastructure. Lesser impact to existing residential areas
Would be fine
Nothing - not practical
Best idea for traffic if you can connect well to 31/37
These options zig-zag the driver through the area. It is nice because the bridge already exists
Disrupts too many homes
No new bridge
Utilizes existing bridge and straight to US-31
North/south is our issue and this route is not needed
None of these would help me.
Maybe
Utilizes existing new bridge. The public is adjusted to the new roadway
Closest corridor with least impact.
Hammond Rd is already 4 lane to Keystone Rd. Turn left on Keystone, head south, go up Beitner Hill to Chum's Corner
Too late
This option also does the proposed outcome as well as Route B.
Inventive! Great solution!
If chossen A, B & C all need to be built and it will create more development that we need.

Any improvement to Keystone (if the Hammond Rd crossing is not happening) is essential.
Utilizes existing roads
This option destroys the historic Robbins farm property.
Disturbs undeveloped natural area.
Nothing
No roundabouts
Nothing
waste of money
Ok
Cass is a good 2nd choice w all of a,b,c options available
Uses existing bridge is best asset but would not unload airport road as much as Hartma to Hammond direct
Not much
uses existing bridge over the Boardman
same as above
access is directly from US31
Nope
Good; rather use existing bridge than new one; cautious about careful implementation to protect river
With the Hammond Road crossing improved, I believe the only need at Cass south of Hartman is to widen and improve for non-car users (walk, bike, transit, etc.)
I like the direct connection to US 31
LOTS of disruption for very little gain
Adding a new route to US31 will be the most helpful both now and for future use.
Diverts traffic from S Airport
Not sure
I think this is a great option BUT it may force people too far south of their commute/destination to make this the most beneficial and utilized solution. I believe making this connection to US-31 IN ADDITION TO the Hartman-Hammond Bridge is the BEST way to set our booming area up for a true long-term East/West solution!
Another route south of town--different from what we have now.
I'm not sure of the differences between the three choices, but I'm not in favor of a new bridge, only one which makes the old bridge slightly wider
"
Provides another access point to/from US-31.
""
Not ideal since it's more out of the way than Hammond, but the most logical for cutting across to US-31.
This design seems like it woud have a similar result as extending Hammond Rd. Fine idea, but I like the idea of extending Hartman Rd. better.
Neutral
Too close to TC
It would offer more option for east-west movement, especially if a problem on a different route.
It is a real alternative to in town east-west corridors.
Connects existing road without treacherous curves and
Nothing.
Eases traffic where actually needed
It uses existing bridge
not sure
It's an alternative to building the Hartman connector. I don't think anyone will use it.
Not a good route at all
Nothing
More cost effective access across town

Tolerable
More options
I like that it goes straight to US-31.
Need to pull traffic from South Airport
Yes! This is would be well worth it!
A good solution for alternate route
.
Least intrusive on environment
Logical next step as development moves south. I am anti “sprawl”, but clearly we are moving in that direction, so we need the road infrastructure to support safe transit.
Same
allows an alternative to 31 from the other side of town
Most direct way to connect to existing infrastructure. Also
Direct, natural next step after Hartman Hammond crossing
Minimal new road construction.
OK
Uses the existing bridge, fewer environmental impacts
nothing
No road built
Too far south
like direct route east, take pressue off keystone
Seems like a logical extension.
Seems like the less invasive to the land/watershed
Nothing. It is just not a convenient route.
Uses Cass bridge crossing
Better solution than South Airport redesign.
Does seem to help somewhat with east/west flow
I'm Neutral with this
ummm
Good alternative
No round abouts
Another east west road that is needed in the city. May alleviate some traffic on keystone
futher from South Airport
Takes advantage of existing (albeit too small) bridge
May be reasonable to improve Cass Rd crossing connections using new or existing roads and consider a wider bridge deck
It would provide a good bypass around the city/reduce downtown traffic
Seems like an easy and quick way to move cars east and west
Nothing
Love the bridge idea!
limited roundabouts
Either could work
Clear up congestion
Presumably cheaper, since a bridge over the river won’t have to be built, & somewhat direct access to 31
extend to US-31
Pros listed
NA
Separates intersections of S. Airport and Route A

Best in my opinion.
Using existing bridge is a good idea but not sure that we need more traffic out here.
gets area more east west options
Makes better use of new bridge. Two lane bridge can carry the projected traffic.
minimal change in existing roads
reasonably direct
nothing
I like the new route as long as it doesnt impact alot of people
Not sure
Nutral
Nothing
N/A
easy to see it helps
Gets something done
another way to get to/from US-31
Keep off of Hammond
no new bridge
Addresses some traffic concerns using existing roads and little new construction
Adds another East-West road that is lacking in Traverse City and Grand Traverse County.
Furthers the spread of sprawl in the GT region
Nothing
possible as it uses existing roads?
are you kidding me
Same as above
Provides an additional crossing
Too congested
It gets traffic to US-31 faster than using Keystone / Beitner.
direct route, no new river crossing
Relieves traffic pressure from S. Airport and opens up a new corridor.
pretty straight away
good
Nothing
this seems to be the best plan B
Low cost
n/a
Adds another route to get across town
gives a southern alternate to get mid way across town
Access
Outside of city design road to handle traffic not a retrofit of existing road
Not workable as bypass
I like the new access point to 31
I hate the roundabouts, the are diffcult to use in winter
Offers a new solution w/ an existing bridge
Oppose
Next closest to town, gets traffic most of the way across town
much more developable connection to US31
Straightest option of ABC

Nothing
Ok
nothing
na
Best option if you're not going to build a bridge.
Seamless access from Keystone to Rt31
using existing river crossing
Nothing; too far south to make a difference.
I like it that this connects to m-37 on a more level area and it isn't so close to S. airport rd as Hartman rd would be as a major intersection
Great way to avoid South Airport Rd and Traverse City
Nothing fix all the roads we already have
Adds flexibility
Nothing
Bridge already in place
Utilizes bridge already present, though expansion needed. Avoids additional bridge and river pollution.
Uses existing bridge on Cass. Roundabouts help move traffic.
no need for expensive/contentious new bridge; seems like a good, direct additional east-west route
No new corridors!
Provides some congestion relief for Airport and Keystone Roads.
Alternate way to get to 31 using existing bridge.
This option has a negative environmental impact due to the tree clearing and grading which would need to be done. This route has a lot of topography to deal with.
Another way to get to 31.
Not too fond of this one either.
Nothing.
intersections at m-37 are not convenient and will not promote bypass traffic
This would be the best option for me going back & forth to work!
This is nice because it uses a bridge that's already built, and doesn't involve too much "backtracking" to the north if you need to go towards Chums (from the north/east).
Help alleviate traffic on Beitner
Again, this plan builds on roadway alrady established and attempts to add onto it to alleviate traffic.
Bulding roadway along the River (Route B) is a terrible idea, so this is marginally better as a direct route from the bridge to 31 and it exposes the river to less impact from runoff and erosion ala Route B.
difficult terrain
Can put a light on M37. Will greatly relieve evening traffic on Beitner which backs up for 20-30 minutes down keystone.
Would give a nice alternative to traveling Hartman or Beitner
N/A
Utilizes existing bridge, creates a new direct access point to US-31 along an East-West Corridor
apposed
NA
That bridge was just built Hartman doesn’t need that much traffic especially going onto 31/37
Love any and all cross town improvements south of S. Airport
it looks cool
nothing
seems like an option to investigate - no new bridge, could work
I don't see how it helps, explain
a lot

Nothing
I don't
uses existing bridge
nope
The more E/W options the better.
use existing roadway and bridge
na
Keeps traffic south of town
All these Cass crossing ideas seem to complicated.
better than the other "Cass Road Crossing" options, but not as good as "Hammond Road Crossing" options. This option doesn't seem to be easiest route to travel
Next best thing to a true bypass
Don't like
zero
straighter than B & C
good route to US-31 from TC
no different than whats there. Too far south
would allow for that additional EW connection south of Airport Rd
Nothing
No roundabouts. Ease traffic
nothing
Seems to have make the best solution to the EW
Out of the way
This would get large volumes of traffic off Keystone over to 31
The best of A, B, C. If your are just trying to get across town
Best for congestion
Both these would provide another crossing to aleviate some overcrowding on the exisitng infrastrucutre while keeping costs down due to existing bridge, which is underutilized.
Proposals not yet apparent. At some point a plan may be needed to merge with Keystone Rd West
Keep traffic away from downtown and busier areas of TC
Too complex
Not the most direct route but a viable alternative to Hammond Rd crossing
I like the new bridge over the Boardman River
Efficient and direct route to US-31. Would take some pressure off Chums Corner.
WAY OUT OF YOUR WAY
Makes sense
Doesn't alleviate east west traffic
no - through residential area with no traffic control
You don't need to go all the way south on Cass, when Hammond/Hartman is already almost done.
Same as above.
no comment
Like it but wonder about the ROW.
least amount of land acquisition and new road construcion
most, a little farther out, simple, efficient, uses hammond
uses the Cass bridge
gives another crossing south of town

The most important thing is to focus on reducing car traffic, inviting more in electric transit and educating the public on how healthy it is to take transit, walk or bike. There needs to be departures from the outlying communities at least every 20 minutes at commute times and maybe every 30 on elk-ends, so people will use transit for their daily commutes and to visit outlying areas. We need to get off fossil fuel now to maintain a livable world. With leadership and education, we can change and become a city that others can emulate. Keep downtown walkable. Do not spend any more money on new roads. Spend funds of managing the roads we do have intelligently and safely.
would be direct to 31 but expensive
nothing
nothing
seems relatively direct re. traffic flows
Do NOT like
Nothing.

Cass Rd Crossing - B
Uses railroad ROW - least amount of habitat destroyed
Uses an existing RR ROW for new road bed and connects to newer underused road to a cross-town traffic route
I like the alignment with Rennie School Rd (which comes through to E Silver Lake = possbile use). Also like connector to existing Cass Rd Bridge and the creation of two possible alternatives routes down each side of the river into Downtown. Would like to see Cass to Hammond as a boulevard for higher traffic handling - possibly with Michigan lefts. This route also allows for more direct routing from bayside hotels to Interlochen Center for the Arts, the ball fields, and other entertainment venues.
This works too
No
No
No
Doesn't seem plausable
Another good option even though it needs more intial work.
Still too close to town
Not needed
Same as above
Neutral
Although a bit longer I think this would be the safest route
Nothing
Cass Rd Crossing - school bus garage busy
Way south.
RR - Bottleneck at Beitner with steep hill to climb. Trucks?
Use of the RR ROW
Direct route west
Cass Rd seems to be moving the congestion point
Uses existing right of ways, little private home disruption, straight access to south
Prefer expansion of existing bridge over construction of additional crossing
Use of existing infrastructure. Lesser impact to existing residential areas
Would be fine
Nothing - not practical
Good plan and effective
These are pretty much the same
This uses existing state owned property and get cars out of the congested area to the US31
Least intensive. More direct to US31 w/o major expense.
No new bridge
None of these would help me.
Need to connect to Rennie School Rd with US31 roundabout
Access from Rennise Rd and Cass Rd parallel route on both sides of river.
These propose less environmental impact and citizen adjustment.
Closest corridor with least impact.
Parallel route on both sides of river into town
Impact of new roadway on flow
Too late
This option appeals to me the most. It brings traffic across to/from 31 at a reasonable spot.
Almost as good as above!
If chossen A, B & C all need to be built and it will create more development that we need.
A roundabout at Cass would help elivate Keystone congestion.

NOTHING
Disturbs undeveloped natural area.
Nothing
No roundabouts
Nothing
no
Ok
good 2nd choice w all of a,b,c options available
Won’t help much unless also do C
same as above
uses an existing bridge
Nope
Good; rather use existing bridge than new one; cautious about careful implementation to protect river
The expasion of Williams Road is nice, but I think this is the least necessary of the alternatives.
LOTS of disruption for very little gain
Route A is preferred, but route B is acceptable.
Diverts traffic from S Airport
Not sure
Is more of a true bypass. Best of the Cass options for keeping traffic out of congested areas
"
Offloads some traffic from US-31 to back-side corridors
"
I don't like this solution.
This proposal doesn't seem to address the east-west/west-east corridor improvement
Neutral
Too close to Tc
It would offer more option for east-west movement, especially if a problem on a different route.
It is a real alternative to in town east-west corridors.
Allows an additional connection from Bietner Rd to connect to west side if Boardman River
Nothing.
It uses existing bridge
not sure
Alternative to building Hartman bridge
Not a good route at all
Nothing
Allows quick access across town
Tolerable
The eviation of traffic on Bitener RD
I like that it connects to Rennie School Rd. then you can take that to 31 into Chums Corners.
Need to pull traffic from South Airport
This would make the road more useful to more people and increase connectivity
Gives alternate routes
.
Not as good as Cass A. No reason to consider
Same
At least recognizes a possible crossing.
Minimal new road construction.

Ok
Uses the existing bridge, fewer environmental impacts
nothing
More efficient route
too far south
like direct route south, take pressue off keystone
Unsure, but might help
I'm concerned about the watershed here
No comment.
Uses Cass bridge crossing
Better solution than South Airport redesign.
Does seem to help somewhat with east/west flow
I'm Neutral with this
ummm
Good alternative
No round abouts
Help provide another east west road
same
Straight shot through to 131
Good alternative to route A if the homeowners would not agree
Nothing
Good second option
nothing to like about this option
Either could work
not sure
Presumably cheaper, since a bridge over the river won't have to be built
extend to US-31
Pros listed
NA
Nothing
nothing
If you build it they will come. Why do you want people to come out here.
gets area more east west options
Protect the rail ROW for rail. A parallel road to the river will be noisy and diminish the enjoyment of the trails that are also along the river.
nothing
Could live with this route
Not sure
Better than nothing.
Conecting Cass to Rennie School RD. with a Round about at 31 and Rennis School allows for more traffic to head South out of town. Avoiding South Airport all together.
Nothing
N/A
good route
Gets something done
Keep off of Hammond
Addresses traffic concerns using existing roads and little new construction
Adds another East-West road that is lacking in Traverse City.

Furthers the spread of sprawl in the GT region
Nothing
if this is the railroad right of way, maybe
nothing
Same as above
Provides an addiitonal crossing
NOTHING
Too congested
Nothing.
OK route, relieves current congestion on airport
Relieves traffic pressure from S. Airport and opens up a new corridor.
good
Nothing
nothing
Low cost
n/a
Adds another route to get across town
Practical and easily aligned with 31
gives a southern alternate to get mid way across town
Access
Outside of city design road to handle traffic not a retrofit of existing road
I like the new access point to 31, it will help clear congestion on Keystone and Chums corner
I hate the roundabouts, the are diffcult to use in winter
Oppose
bad wasted time connection to US 31
It utilizes fairly flat terrain and an existing railroad corridor
Nothing
Ok
utilizing an existing ROW; rail ROW could be used for bike/pedestrian traffic
na
Next best option to building a bridge
Offers connection west across US31 and to the north/southh.
Nothing
using existing river crossing
Nothing; too far south to make a difference.
This could be ok , but is the RR row going to be useable? if so this may
Great way to avoid South Airport Rd and Traverse City. I like where this comes out on 31 on the west side of town
If you have to waste our money this is most feasible
Providing a new connector Cass Road south to Williams Road, and East-West option via Rennie Road. Should include minimum / very limited corridor commercial development, if any, coming/going from South Airport and Garfield roadways.Should include minimum / very limited corridor commercial development, if any, coming/going from South Airport and Garfield roadways. Should include minimum or no commercial development along a new Cass Road southern connection.
Adds flexibility
Nothing
sames
Uses existing bridge on Cass. Roundabouts help move traffic.
No new corridors!

Accesses 31 at the top of the hill near McRae Hill Rd where existing development is sparse so the costs of creating an intersection there would be reduced.
Provides some congestion relief for Airport and Keystone Roads.
This is a good route due to the flat terrain and existing railroad that could be reused for the alignment.
Don't like.
Don't care for this option either.
Nothing.
intersections at m-37 are not convenient and will not promote bypass traffic
Same reason I like A, perhaps a little more because it's a more direct route to Chums.
Same as other Cass
I don't like this option
Prefer A, but can use more existing infrastructure.
I think this is a creative solution, possibly using existing right-of-ways. Having Rennie more accessible would be a nice alternative to the Chums Corner intersection, which is a part of my daily commute.
Another route to head North/South. Could relieve congestion from South Airport to 37, keystone and possibly Chums Corner provided Hoosier Valley Road is improved.
Utilizes existing bridge
apposed
NA
That bridge was just built Hartman doesn't need that much traffic especially going onto 31/37
Love any and all cross town improvements south of S. Airport
it looks cool
nothing
nothing
I don't see how it helps
a lot
Nothing
I don't
nope
The more E/W options the better.
uses existing bridge
na
Keeps traffic south of town
Nothing
All these Cass crossing ideas seem to complicated.
nothing
Don't like
zero
It will help move traffic out of town and away from businesses only
can use Robbin's Bridge
no different than whats there. Too far south
NA
This would have been a better solution than the new bridge. A lot of people have always thought this was a needed road
No roundabouts. Ease traffic
nothing
Out of the way
Nothing

Just a little better than A - still no relief for Hammond and a little relief for Beitner
Proposals not yet apparent. At some point a plan may be needed to merge with Keystone Rd West
Keep traffic away from downtown and busier areas of TC
This would be my 2nd option but takes people too far south
I like the new bridge and how it connects to US 31. This will avoid a lot of backed up traffic!
Nothing.
It avoids more destruction of natural areas. And can use right of ways.
WAY OUT OF YOUR WAY
Destroys the Robbins farm (RUDE)
no - through residential area with no traffic control
Same as above, route A.
This is liveable.
no comment
Especially like it if new road is designed right.
don't like, waste of money.
most, farther out, not as simple or efficient. uses hammond
uses the Cass bridge
same as above
The most important thing is to focus on reducing car traffic, inviting more in electric transit and educating the public on how healthy it is to take transit, walk or bike. There needs to be departures from the outlying communities at least every 20 minutes at commute times and maybe every 30 on elk-ends, so people will use transit for their daily commutes and to visit outlying areas. We need to get off fossil fuel now to maintain a livable world. With leadership and education, we can change and become a city that others can emulate. Keep downtown walkable. Do not spend any more money on new roads. Spend funds of managing the roads we do have intelligently and safely.
too close the Boardman River I think. Too much traffic and Noise
nothing
fairly direct route, moves work away from town
nothing
practical with existing facilities
Do NOT like
I don't support anything about this solution

Cass Rd Crossing - C
Uses existing bridge and existing road
This works too
No
No
No
Doesn’t seem plausable
Too close to town, same as Hammond
This could be improved to help E-W flow
It takes two minutes to drive from Hammond to Hartman across the new Cass Bridge. Then use us the existing Hartmand Rd/
Neutral
Prefer B
Better
Cass Rd Crossing - school bus garage busy
Ok but not very helpful. Downhill on 31N to Hartman light? Sounds dangerous in winter.
Does not relieve congestion at Keyston.
Support improving Cass from S Airport to Chum's Corner staying on west side of River
Don’t think this moves traffic enough. I don’t think adding lanes will get people home faster, it will just move the congestion
Same as B. Adds to the routes to receive some US31 congestion. Acts as central route into TC
Prefer expansion of existing bridge over construction of additional crossing
Use of existing infrastructure
Would be fine
Nothing - not practical
Send traffic the wrong way?
These are pretty much the same
Good idea, uses existing roads
Cass Rd certainly could use the improvement due to heavy traffic.
No new bridge
None of these would help me.
Closest corridor with least impact.
Wonder about feasibility of bridge
Too late
Too long up and around the lake.
This has more 'issues'
If chossen A, B & C all need to be built and it will create more development that we need.
See above.
Use of existing road infrastructure
Southern portion of Cass was not designed for its current traffic amounts
Disturbs undeveloped natural area.
Nothing
No roundabouts
Could work with minimal improvements
no
Ok
good 2nd choice w all of a,b,c options available
Not much
same as above

uses an existing bridge
Nope
Good; rather use existing bridge than new one; cautious about careful implementation to protect river
The roundabout at Cass -that stoplight is a pain to have to sit through when no one is turning of Cass to Keystone.
LOTS of disruption for very little gain
This is already in place, so not sure why this is asked?
Diverts traffic from S Airport
Not sure
Is more of a true by pass
"
This is what is currently done, and offers no improvements
Would permit additional movement of traffic with minimal impact on existing landowners
"
This solution doesn't change anything.
The benefit this proposal is that there would be little to no alteration of the route of travel. The roundabouts would speed up traffic bit.
Neutral
The roundabouts are nice.
It is a real alternative to in town east-west corridors.
Provides roundabout to ease traffic flow
Nothing.
It uses existing bridge
not sure
Nothing new to build on the west side of town.
Not a good route at all
Nothing
Allows quick access across town
Tolerable
It's the same as what we are used to. It works.
Need to pull traffic from South Airport
This would make the road more useful to more people and increase connectivity
Gives alternate routes
I don't like it
Not as good as Cass A. No reason to consider
Same
At least recognizes a possible crossing.
Using existing roads.
Ok
Uses the existing bridge, fewer environmental impacts
nothing
too far south
already there
Improving current roads is a priority.
minimal roundabouts
No comment.
Uses Cass bridge and existing roads
Better solution than South Airport redesign.
Already exists, nothing good to say

I'm Neutral with this
ummm
Good alternative
No round abouts
May help traffic flow on keystone
same
Ok alternative to A&B
Nothing.
No additional right-of-way required.
good use of available space
Nothing
extend to Us-31
Pros listed
Nothing
nothing
Again, connection is nonsensical here.
gets area more east west options
Existing Road. Minimal environmental impact
nothing
Not sure
Better than nothing
Nothing
N/A
could work
Gets something done
nothing
Keep off of Hammond
Utilizes existing roads to improve traffic flow
This option would create more congestion on US 31.
Furthers the spread of sprawl in the GT region
Nothing
maybe it would relieves some congestion, but not for inter-area traffic
Same as above
Provides and additional crossing
NOTHING
To congested
There would be no new bridge.
OK route, relieves airport bypass tyraffic
Relieves traffic pressure from S. Airport and opens up a new corridor.
good
Nothing
nothing
Low cost
Adds another route to get across town
nothing new needed
Access
Outside of city design road to handle traffic not a retrofit of existing road

N/A
I hate the roundabouts, the are diffcult to use in winter
Oppose
could livve with it
This creates another north-south corridor to help traffic flow along Keystone road
enhances traffic flow on an existing roads
Nothing
Ok
utilizing an existing ROW
na
Seems kind of silly to have to go back North...just build a bridge!
Nothing
using existing river crossing
May improve capacity on that road, but that is not a particular issue even if traffic increases. Route loops too far south and adds significantly to travel time and congestion on Keystone.
No benefit and not a real solution
Nothing fix all the roads we already have
Simply maintaining the new Cass Road and bridge connection to Keystone and Beitner North+South roadway with existing right of waysy
Adds flexibility
Nothing
same
Adding roundabouts.
No new corridors!
Provides some congestion relief for Airport and Keystone Roads with minimal cost.
This is a good options becuase we are looking at improving an existing cooridore and not creating new routes.
Don't like.
Same as above.
Nothing.
intersections at m-37 are not convenient and will not promote bypass traffic
This route already exists but flow would be so much better with improvements, but that would have to include Keystone Rd too
It's still utilizing an existing bridge like A and B, which is nice, but isn't as convenient.
Same as other Cass
No new right away needed, uses existing bridge
I don't like this option
It exists.
Route exists
Connects to existing alignments
N/A
Utilizes existing bridge
apposed
NA
That bridge was just built Hartman doesn’t need that much traffic especially going onto 31/37
Love any and all cross town improvements south of S. Airport
it looks cool
nothing
I do not see the point
a lot

Nothing
I don't
nope
The more E/W options the better.
na
Keeps traffic south of town
All these Cass crossing ideas seem to complicated.
Not much good for travel
Don’t like
zero
Like nothing about this plan
Can make use of railroad and should go all the way to Beitner
no different than whats there. Too far south
No
nothing
Out of the way
Nothing
Nothing
Nothing. This exists now and is not used. Increase the capacity would not change motorists mind
Proposals not yet apparent. At some point a plan may be needed to merge with Keystone Rd West
Keep traffic away from downtown and busier areas of TC
I like the new bridge that would connect to US 31 (route A) as this would really help to move the traffic and take a lot of congestion out of the smaller roads!
Nothing.
It avoids more destruction of natural areas. And can use right of ways.
WAY OUT OF YOUR WAY
Doesn’t make sense
no - through residential / natural area with no traffic control
Same as above, route A
This is liveable.
nocomment
Need the improvement for the industrial corridor.
don't like, waste of money.
little
Improves the existing infrastructure
same as above
The most important thing is to focus on reducing car traffic, inviting more in electric transit and educating the public on how healthy it is to take transit, walk or bike. There needs to be departures from the outlying communities at least every 20 minutes at commute times and maybe every 30 on elk-ends, so people will use transit for their daily commutes and to visit outlying areas. We need to get off fossil fuel now to maintain a livable world. With leadership and education, we can change and become a city that others can emulate. Keep downtown walkable. Do not spend any more money on new roads. Spend funds of managing the roads we do have intelligently and safely.
uses existing roads
nothing
nothing
practical with existing facilities
Do NOT like
This would not require new ROW, and provide connection requiring about a mile of travel.

Beitner Rd Crossing
Existing alignment, real bypass
Poor solution
Uses existing bridge and existing road
No!
This could be an option
No
Yes. This is the main route to get around TC.
Lots of use of existing road
No additional habitat fragmentation (unless there is significant disturbance)
Too far south to help solve traffic
Yes
Support; Will enhance Keystone River and Beitner while moving traffic east -> west & south
Now is VERY congested during soccer season so not likely to help much.
Uses existing roads
Not needed after we get Hammond-Hartmand east-west connect
Doesn't solve the problem for close in traffic
Makes great sense - a new crossing of the river will be environmentally good for the river.
Widen to 4 lanes, unless large enough, the roundabouts will only bottleneck and slow traffic down even more.
Good to get to Chum's Corner
Not really useful
Ridiculous
This makes sense - please try something new.
Excessive travel south to reach E-W road.
Existing - need additional road to easy traffic
Ok but far south.
Moves the traffic to the south
Least amount of infrastructure and new pavement.
4 Mile - Chum's Corner to Garfield and Hammond would help.
Expanded use of roundabouts
Road exists
Roundabouts will keep traffic moving. Hard to tell impact of a roundabout when tarffic wont be backed up.
Existing. I use this every day. Could be re-aligned and widened with little private disruption. Helps direct traffic across the south end of TC to all major routes into TC.
Seems like the most reasonable as an overflow option since it keeps traffic to the south.
Cost effective use of existing infrastructure
I really like the idea of replacing the Beitner Rd Bridge over the river and making the road useful for trucks passing through town.
Good. Needed for increaseing south county traffic
Benefits east-west mobility, relieves pressure from A. Airport & 8th. Uses existing roadway. Would serve as true by-pass which is needed.
Best plan for me. I live on South end of river road and roundabouts is welcome onto Keystone/Beitner
It will allow more public discussion of mixed use zoning and a better understanding of the design failures of suburban sprawl and auto dependent land use
Cost is lowest
Good plan using existing roads
This would help get people to bypass TC
Looks good.
Would love to see boulevard with roundabouts

Many people already use this route
Already used.
North/south mobility.
I would use this regularly to go Menards, other businesses, and Interlochen
Yes
Not much
too crowded
Beitner to Keyston to S. Airport
Why bother putting a road out as far. Not exactly a bypass.
What are you doing with the hill's grade that the state won't accept?
I think this concept is more more practical as it is more of a straight shot
Too far out of TC.
Yes! Build it!
Would be a tie for my favorite option if its built divided with roundabout the full length.
I think the traffic needs to be moved as far south of town as possible with minimal environmental damage
I do not use this section regularly so I have no opinion.
Improves existing. Roads
Roundabouts generally seem efficient
Focuses traffic along already heavily travelled roadways
Disturbs undeveloped natural area.
Nothing
No roundabouts , fix the current roads
Existing thoroughfare that could use improvement
Someday but not now
Best one in the long run.
Ok
Easy fix. Not a great long term impact. Slight help
Not straight across enough
I think the round snouts would help move traffic more efficiently but need signage to advertise as TC by pass to 31N and 72 W
It's a good route if Chums corner can handle the traffic
uses existing roads
use of existing roads. provides a way to bypass going into the city.
potential to alleviate some issues
Really think this would be the best first step, then Hammond
Good; question whether it would relieve traffic, but cost and harm appear low to even small relief may be worthwhile
Need to get traffic OFF Beitner, hills are a hazard as are hidden drives. Too much congestion at Chums Corners.
This is my biggest area of concern. Increased ease of traffic flow.
The roundabouts located at River Road, Hoch, and Cass. It is hard to turn onto Keystone/Beitner during peak hours. I've seen cars sit at River and Hoch Road for 10/15 min+ trying to turn onto Keystone/Beitner, with 10+ cars behind waiting to do the same thing. I think roundabouts there are a practical soltion at those locations.
What's the point, really?
Roundabouts greatly improve traffic flow.
Diverts traffic from S Airport
Not sure
Widens existing route
Round-about okay here.
Mostly looking for a true bypass. I work near Interlochen and livei Elk Rapids. Want to avoid driving into Traverse as much as possible.

this keeps the through traffic the farthest from the downtown
Absolutely nothing
Uses existing infrastructure with minimal impact on existing homeowners.
It takes traffic that is passing TC away from local traffic
Absolutely nothing is good about this design.
This option seems the least practicable because of adding so many round abouts to the existing routes. I don't see how this would divert traffic from South Airport Rd, but at least traffic could continuosly move with the traffic lights eliminated.
No wetland encroachment
Roundabouts increase traffic efficiency. Will be learned quickly by drivers that aren't used to them.
A good start to a real bypass around town, very nice.
It is a real alternative to in town east-west corridors.
Ease of traffic flow from communities west of Traverse City.
I agree with roundabout at Hoch and Keystone but nothing else. Too many roundabouts. Too disruptive during construction.
We need something desperately!!
Improved traffic flow
Nothing
not sure
I like the roundabouts
Slows traffic down. Would be great if 4 lanes divided for the entire corridor and no roundabouts.
Decent, and would work good with the first 3 options
Least intrusive, and it's the best route around the city
Keeps the flow of traffic moving
This is already the main southern bypass, but desperately must be improved and expanded.
Round About at River and Hoch
I like that there are roundabouts at River Rd. and Hoch Rd.
Good bypass option from Grawn
I believe this is one of the best solutions to get traffic out of traffic.
Need to pull traffic from South Airport
I think this is worth exploring costs for connectivity. It seems like it would be worth it.
Nothing
.
Prefer the roundabouts, as they move traffic along better than redlights.
Logical next step as development moves south. I am anti “sprawl”, but clearly we are moving in that direction, so we need the road infrastructure to support safe transit.
Same
I like that the road is widened.
I feel the widening of the bridge at the river and widening keystone would make traffic backups much less than they are now. If you've traveled this corridor at 5 pm then you know what I mean.
Like it. Think it needs to be done in conjunction with a few other practical solutions. WOuld hope Hammond would have a median installed from Lafranier to 4 mile rd..
Minimal new road construction. Roundabouts.
Ok
No bridge construction and a direct route. Good for Keystone congestion.
nothing
too far south
just no!
Improving current roads is a priority.
too many roundabouts

It is only part of the solution.
Not sure
Better solution than South Airport redesign.
nothing
I think if you build this, more development will move south. There is nothing propsed to eliminate the congestion on Grandview Prkwy or East Front/Munson. Buildings have been allowed to build too close to the exisitng street so no planningfor widening the street was done to begin with so anyone that HAS to pass thru those areas is screwed.
Fits with current traffic patterns with commuters trying to south and west of Traverse City
really is just removing lights and adding roundabouts
Roundabout at River Rd
Good alternative
Roundabouts keep traffic flowing and reduce accident injuries. Using existing roads has less impact to environment.
Easier and cheaper to provide initial solution
No round abouts
Roundabouts on keystone may help the backups
gets rid of the most congestion
Traffic will flow better during rush hour
even better if Beitner hooked directly to Houch
I think you widen 3 mile and go to Hoch Road. Round abouts are too small. Ask any plow or semi driver. The representative from Livonia told us they were not too small. How much snow does Livonia get? Does he live and drive here everyday? I do not favor someone from Livonia telling us what is ! Live it and he has not a clue!
New lanes will be helpful
It would provide a good bypass around the city/reduce downtown traffic
May be better than what we have
Nothing
nothing to like about this option
Long term solution
Nothing
the roundabout at keystone road & river road
Opposed
Not a good location
Gets all traffic out and around town, uses existing routes
Widen Beitner if nothing else this is the first that I would do along with the Hammond Road Crossing.
Again, not a bad idea to connect the dots. No Roundabouts.
gets area more east west options
Provides for a route around town connecting into 31, increased lanes will provide additional capacity
It's fine. Works with existing street network
easy to accomplish
trying to get onto Beitner/Keystone currently is very difficult in the morning coming from River Rd.
good, if in combination with other options
follow the current traffic flow and improve the roads
Protect the natural beauty of our heritage of Boardman River best
absolutely nothing
Could also live with this route
Existing roadways
Better than nothing
Uses existing right of ways

The least intrusive alternative
N/A
least amount of environmental damage
Too far south
Roundabouts at key accident intersections would allow for safe continuous travel. Targets future traffic considerations and preempts inevitable infrastructure needs.
Gets something done, too long
a roundabout at the intersection of Keystone and Hoch.
Keep off of Hammond
The main flow of traffic is from US 31 and M37 and this route would funnel the flow around tc
Keeps those who do not want to get anywhere near tc away
Utilizes improvements to existing roads to improve traffic flow
This option does not improve traffic flow.
Furthers the spr3ad of sprawl in the GT region
Nothing
this would be my idea of a bypass if that was the goal instead of better in-town relief
2nd best choice, definitely will move traffic fastest thru town
I believe this would alleviate the most traffic and truly get it to the south and east side of the grand traverse area
Uses little additional ROW. I believe there is more than 4-6% of the traffic he that would bypass most of the city. What is with all the roundabouts.
NOTHING
Best option but see issues with grade from chums corner to rr tracks, otherwise a very acceptable option.
It would eliminate hitting all the stop lights. It keeps traffic moving.
relieves bypass traffic, no new river crossing
Use of existing major intersection at Chums corners and best route for US 31 and US 37 traffic.
Could be used to send truck/thru taffice around TC. This would be a good thing
Uses existing route. Needs to widened to 4 lane from Birmley to Chums
good
Gets the traffic out of town
round abouts require smart drivers, also doesnt add the needed extra road
This does not solve the problem, I see little to like.
n/a
Roundabouts better than stop lights
No new bridge
more lanes much needed to avoid so many traffic back-ups.
Access
not effective
Outside of city design road to handle traffic not a retrofit of existing road
Too far south
N/A
Most the traffic that would be using any of the bypass are going to the cums corner intersection. Making keystone 4 lanes is the biggest bang of our buck and move the most traffic out of the city, MDOT is already looking into increasing traffic out of the cums corner location with lane increases
the road expansion, and a way to avoid TC
existing route easier to expand
Oppose
Might move traffic going around town to the east, doesn't help much with traffic in town
fastest most connected for all of GT county
The fact you are improving and existing corridor.

enhances traffic flow on an existing road
Nothing
Ok
uses an existing corridor and makes improvements; helps manage congestion present on Keystone
na
Not much to like on this...
Nothing
improves on existing infrastructure
This gives drivers a chance to avoid the S Airport and 31 intersection at the mall
using existing river crossing, improving existing infrastructure
Nothing; too far south and too many roundabouts.
usess the existing roads even if they would need to be upgraded and widened
No benefit and not a real solution
Nothing fix all the roads we already have
Nothing
A much better east + west and north + south "roundabout" option with room and distance for future growth when compared to the Hammond Road Crossing. Should include minimum / very limited corridor commercial development, if any, coming/going from South Airport and Garfield roadways.
This will help and be an easy piece to add to the needed Hammond Crossing option
Nothing
More area to build a wider roundabouts
no new river crossing needed
I like the idea of going further south of TC
Adds roundabouts and uses existing roads.
is already in use, just beefs it up to handle more traffic efficiently
Uses existing corridor and river crossing which are good from a conservation standpoint.
Roundabouts would reduce congestion on Keystone Rd at minimal cost. This design would likely provide some congestion relief on Airport Rd and perhaps other major roads in the TC area.
Bridge already exists.
This is a good options becuase we are looking at improving an existing cooridore and not creating new routes.
Uses existing bridge.
This makes the most sense, with improvements to Keystone Rd with connections to Hammond. The roundabouts seem to be working well on M72 near Acme, and I think they will work well here to ease traffic flow around to the north and east, away from the congestion on S. Airport.
Keeps traffic well south of current high flow areas; roadways are already existence.
This is a good adder and should be done with the Hammond road crossing
Roundabouts would help traffic flow. Need two through east-west lanes on US31/Beitner.
I really like this because I think Hammond in general needs a lot of traffic flow improvement. Traffic gets jammed up at the lights everyday (which I think roundabouts could help with), and the left turn "nodes" are clearly a makeshift solution that feel dangerous at times. The lack of sidewalks/bike lanes is also disappointing for those who wish to commute by bike. Improving the flow on this corridor would also help alleviate congestion on South Airport.
This is a very busy road for two lanes, would be beneficial as I travel this route frequently
No bride construction or reconstruction needed
I don't like this option
Leverages existing roads and provides alternative to US31/Division Street.
Roundabouts keep traffic moving and should reduce risk of accidents
to far out from TRAVERSE City
Utilize existing infrastructure and provides room for future growth
Not much

I like that there wouldn't be any bridge construction, and roundabouts could provide some relief to dangerous intersections; rush hour commutes can get quite congested
5 Lanes is amazing and has been needed for years. Would help relieve congestion from South Airport Rd.
Nothing. Too far from where majority of people are ultimately going (Traverse City) to be effective.
apposed
Nothing
Seems like a solid solution to the Keystone congestion
Already existing. Need a new east/west connector.
This uses existing structure
Love any and all cross town improvements south of S. Airport
it looks cool
nothing
o
Connects areas of anticipated traffic increase. Seems to be solution that could best accomodate cyclists and pedestrians along the route.
It could help keep traffic moving. Unlikely to take a large percentage of traffic though.
seemingly easy solution on existing roads
The best solution
a lot
Nothing
I don't
doesn't help the areas of congestion enough
The more E/W options the better.
redirects traffice before it gets into town, uses exist roads
No new crossing and no added development.
commonly used corridor for travel that with lane improvement would help offset S. airport rd
Already have bridge over Boardman but need another
No bridge construction and maintenance
Finally the bypass that’s needed
The further from the heart of commercial activity, the better I think traffic will flow.
Better traverse city bypass, hook up with three mile
An alternative route makes most sense.
nothing
True bypass - which goes to 4 Mile
Don’t like
Reasonable, low cost proposal providing reduction in cross-town traffic for northeast bound US-31
Like nothing about this plan
More direct connections to Chum's Corner. Easiest crossing of Boardman River
too many roundabouts
NA
Its closest to my idea of what we need, except why go to 4 Mile Road, use 3 Mile. Hammond is wide to there and would take less work to make it a 4 or 5 lane back to the bay
No
The roundabouts are just a dumb thing
too many roundabouts
The Keystone/Cass intersection would be greatly improved with a roundabout. Keystone/Beitner should be made 4 lanes
I like most of the roundabouts on this project
The only solution

This would allow for some percentage of thru traffic to bypass the already congested interior corridors. Roads would need to be 4 or 5 lanes.
Could have same impact at the Hartman proposal
This corridor is already so busy and should be another main corridor
Could be part of a future bypass solution with improvements to 3 Mile, Hoch/Potter, etc
Best route to divert traffic around the city
the 4 lane road would help to move traffic much more efficiently!
The roundabouts here make more sense than the putting 10 of them along S. Airport Road.
It avoids more destruction of natural areas. And can use right of ways.
WAY OUT OF YOUR WAY
Keep the traffic moving
Makes sense
Does nothing to help east west traffic
widen lanes to allow traffic for ingress and egress (lanes that can multi purpose -ie change direction - based on time of day, morning commute traffic use lane to take traffic into town - afternoon commute traffic - take traffic out of town - additional lanes on beitner was also supported by a study by networks northwest traffic study 5 - 10 years ago...
Way too many roundabouts!! You could use street light signals, instead!
Utilizes existing roads and improves travel speeds. This is reasonable to route truck traffic past the most congested parts of town if they are moving from South to East and can support those who choose to not visit downtown.
easist to expand, best route for traffice flow east / west
using existing road and disturbs less of environment. lots of space to work with alongside railway already there.
All of it. Besides the S.A. renovations this is the next best!
possibly a good short term solution, but I don't believe it will solve the long term
little
Greatly improves the existing infrastructure
Best design / fit for real traffic flow, meeting up with existing highways and travel patterns
Already a major route to go west, just expand to five lanes!!!
be good to upgrade this route
The most important thing is to focus on reducing car traffic, inviting more in electric transit and educating the public on how healthy it is to take transit, walk or bike. There needs to be departures from the outlying communities at least every 20 minutes at commute times and maybe every 30 on elk-ends, so people will use transit for their daily commutes and to visit outlying areas. We need to get off fossil fuel now to maintain a livable world. With leadership and education, we can change and become a city that others can emulate. Keep downtown walkable. Do not spend any more money on new roads. Spend funds of managing the roads we do have intelligently and safely.
would move traffic from east south west quickly
seems direct
direct route, moves work away from town, keeps traffic out of town
nothing
appears to facilitate better traffic flow from west to east, and if used by trucks as state trunkline, could divert substantial traffic out and around Traverse CIty
best use of area to get around town
Uses existing roadway and would not require a bridge to be built
This uses existing roads. This is the route I use now.

What Do You Dislike About Each Practical Solution?

S. Airport Rd - Boulevard
The scope of this project is too small! Why are we not considering Acme, M72, & US23 north?
Road too narrow as it is
Too much of a bottleneck
Not practical
Makes no sense - additional volume is coming.
Worst thing to address the problems with airport
Could live with any/all solutions involving S Airport. As density increases, wonder about thjis as the best long term?
Too much room to take up
ROW acquisition would be difficult and expensive. Corridor is already developed
Would have negative impact on existing businesses and environment
Study did not take in real picture of moving traffic around TC
Too much real estate
Takes too much space
Difficult to build due to additional ROW
Turning disadvantage
Too many stop lights
Of the 2 S Airport options, I could support this. The problem comes to lane widths.
Do not like Michigan Lefts. If they were effective they would just be in Michigan!
Wont address much
Maybe not enough calming as round but still like it
Worried about traffic calming
Still stops traffic at inefficient lights. Waiting to make MI left more frustrating w/o roundabout. Increased footprint of roadway associated with increased costs.
Not enough room to limit access
Will create traffic jams
They are all destructive of the limited natural areas we have left. Opening on to M-37 south are all very dangerous. We need public transit that works for everyone.
Traffic lights
More roads bring more cars!
Major construction on Airport will take years and be a major headache
Less user friendly than traffic circles
Waste of money. Let the bike riders open up their own wallet instead of gas tax money
NO. Creating maintenance and wasted space
Please fix existing roads before building new roads.
Is Airport wide enough along the entire length to support widening
Cost. Right of way
Cost of right of way
No cost estimate
Is there political will?
Uses 3 Mile Rd
Likes option
Everything. Too much traffic on an over used road
Current river crossing totally inadequate
The area is already congested. It really doesn't represent a future plan
Airport road should not be considered an alternative route is needed
Boulevard creates snow problems, line of sight problems, pedestrian issues
No need for it
Might have difficulty acquiring required ROW
Take forever to go left after the Michigan turn during rush hour and all summer long
Takes up more road area
Limited ability to expand road and may destroy some wetlands
Michigan lefts
Not the best configuration
If the Michigan lefts do not have traffic lights then I am worried about the easy of turning left.
Probably not really necessary
So wide! Would ONLY support if the new ROW had stacked use of ecological stormwater management
Already heavily travelled road could become even more busy
This doesn't seem like it will move traffic well enough.

Will it move the traffic? If yes, this is the best
Leave the current design alone and just maintain south airport
Costs
big price tag and no increase in capacity
Dont like the idea.
Taking an already badly congested road and making it a nightmare with more confusing turns, massive construction.
Concerned may not be enough space
Already congested
turning left may be difficult
Already too many curb cuts
could still result in long back-ups
Nothing really if you can synchronize traffic signals to improve flow
Although a great improvement, visually as well, it strikes me as status quo - no real change in how we view cars and the important role of non-motorized transportation in our community
Would much prefer to see the divided with roundabouts.
Michigan lefts
Cost
I like most of this, but like the idea of roundabouts better for smoother and quicker traffic flow.
Turning left with this design using Michigan lefts will cause congestion when making lefts.
Seems like it would alleviate traffic backups and improve the corridor for all transportation modes
There isn't enough ROW to execute this option properly
South Airport is a busy cross town road. We need to keep traffic moving, not pretty it up. This is not a scenic area and should be modeled for traffic efficiency. Kind of like 8th Street: trying to make a critical cross town road open to bicycles when the Tart Trail for bikes is only a quarter of a mile away.
They all tend to end up at four mile and that will have to be improved
The turn-around lanes, as installed at Logan's Landing, do not help truckers traverse the city
How much of the problem would this solve?
The Michigan left
Traffic management while under construction
Just too much traffic if you have business on that road
There may be an increase in accidents, as people are very impatient on South Airport.
Not sure how this would change the traffic flow - wouldn't it be similar what we have now?
Too close to TC--get it out of town
Without roundabouts all of the Michigan lefts are going to be painful
Would make it look like some streets in Grand Rapids, confusing and possibly more congested..
It just makes Airport a busier thoroughfare. We need an additional corridor.
No room to expand
Too disruptive during construction. Will do nothing to improve ease of travel across town.
I don't believe it's even possible to expand the roadway this much
A mess.
No lights to help you get out into traffic from businesses
whole redesign
Doesn't lesson the traffic
the center median turn arounds
Only deals with one road, doesn't increase capacity to handle more traffic or steer traffic around TC that doesn't want to go through TC
Nothing
Tough left turns
Too many roundabouts. Side roads can get blocked out
No left turn
Nothing
Too hard to turn--makes it tough on businesses
Not sure if this is focused on walking and biking if so I like it, if not I feel this should be a focus
Will slow traffic
.
No relief for heavy traffic periods
Works as is
Don't really care for the Mich. lefts
Doesn't seem to be have as much impact as a soltuion, rather a band-aid to minimally alleviate existing traffic and congestion
How will this fit, especially with bicycle and ped needs?

Ramps leading to “Michigan Lefts” must be long enough.
still to congested
Will it do enough?
I like everything except the potential costs.
Not practical
Make it seem like a highway
doesn't solve the problem, no new corridor is created.
nothing
Is still super wide with numerous conflict points and the focus remains moving us in cars at high speeds.
it'll take more time to get to businesses on other side of the street
Only part of the solution.
May not improve criss town traffic
Doesn't allow for an alternative east/west traffic solution, which seems to be needed
Think we need lanes not beauty
it takes up a bunch of space and is too much like other congested urban areas, yuck.
turn arounds
everything
Lack of traffic circles.
Too much. Unnecessary.
will add more traffic
SOUTH AIRPORT IS MAXED OUT NOW
Too big and expensive. You wouldn't need to do this if we could have another route around S. Airport.
Crossing the road, plowing, complete streets difficult
Need to be explicit about walkers and bikers in design.
the need for another lane
Seems slightly inconvenient
Nothing.
would be too much disruption of existing infrastructure and taking of property for needed ROW.
cost and lack of progress
nothing
Doesn't provide enough improvement in traffic flow.
Does not solve the traffic issue
The turn-around. Would prefer a left turn lane
The turn-arounds & signage would be too confusing
Cons listed
Nothing
Too much traffic on this route already and will only increase
No Roundabouts
NO MICHIGAN LEFTS. THEY SUCK
minimally solves east/west issues
difficult to imagine acquiring adequate ROW - reducing parking in almost every business fronting Airport Rd.
I wonder how difficult this will be for people pulling travel trailers ect. when wanting to access a business on the opposite side of the road.
Very costly and more land accusation may not be available.
More ROW needed
Not much.
To Much traffic to allow cars to make the left turn at your MI. U turns.
Needs to be 6 lanes each way for slower traffic , slower drivers and right turns into the many businesses on the road.
nothing
Too much traffic already
No roundabouts.
Does nothing, waste money
does not add capacity
nothing, this is where the traffic is and should be
Too busy
Michigan lefts could lead to more accidents on south airport road. Could also lead to more traffic backups. Also does not solve the traffic issue that is caused by all of the major businesses on south airport.
It assumes that changes to South Airport will improve traffic flow, it will not improve traffic flow.
everything

Could lead to traffic congestion
Everything
I wonder if it will soon look like 28th st in Grand Rapids, yuk
too many roundabouts,trucks should be moved further from downtown
Waste of tax dollars to put more traffic in that area
Will provide no relief from existing crossings and will complicate S. Airport traffic
It does not eliminate stop lights. It does not keep traffic moving.
short term solution
Only postpones the problem. S. Airport is already at capacity and this doesn't really improve that much. Will just place more pressure on all of the intersections and backups will continue. Interferes with Mall traffic as well. Just a band-aid.
Provides limited improvement
To busy
Does not provide an additional route
Too congested already
still heavy traffic
everything s airport is maxed out
Limited improvement to the problem.
Will help this route only, doubt it we'll reduce congestion elsewhere
I don't think it will help in the long term solution needed
It would take too long to construct
Already too congested
too much traffic now
Too busy to be considered a bypass
Does not solve the problem
more difficult to navigate
Na
don't like same traffic thru constricted area
still using s. airport
it will not reduce the number of cars
I feel like it's not solving the issue.
Not enough row.
N/A
doesn't offer long term volume solution, band aid
Only aims to move cars, not people
In the summer you can't move on airport. I can't get into and out of businesses on this stretch. Need to take car away from this route.
Does not address the root problem by increasing East West capacity
Nothing
concerned about traffic congestion
Building this would be a mess during traffic times
Too many Roundabouts for typical citizen or visitor to navigate.
Nothing
south airport at 125% usage
doesn't accomplish enough on its own
costly
Potentially makes it more difficult to access businesses along S. Airport.
too wide
South Airport is already too busy.
This doesn't solve the problem
Everything
Everything
If leaving Logan's Landing or Logan Place West and needing to actually turn left (which means turning right first then having to merge into the left lane in order to get into the turnaround), there isn't enough room or time to get into the left lane . The traffic is too heavy, especially at the peak times.
No major dislikes
Will leave too many poorly timed traffic lights in place.
Likely still forces east/west traffic further into town
Wast of money!
learning curve for drivers navigating left turns
Some concern about amount of traffic

Missing roundabout at US-31. Just moves more cars on an already busy road (vs. the other solutions that give more options to the South via Hammond).
not enough of an improvement to be worth the effort/expense
Nothing.
Would look good but would be very expensive to purchase enough right of way to implement.
Not as effective as roundabouts.
Not sure how much it will help.
No dislikes
Nothing.
Too many houses and businesses would be negatively affected - seems like this would be a difficult option (both monetarily and from a ROW perspective).
Doesn't give a second path for traffic to reduce congestion and doesn't do enough for safety improvements
Would require alot of Michigan Lefts
Traffic signals would still be in place and I think they cause a lot of the congestion due to "log jamming".
won't reduce traffic flow enough
None
I am not sure it will alleviate the problemn. It doesn't seem substantial enough to eliminate the current problem.
Does not take load off Division and might increase load on Silver Lake.
Michigan Left turns. If predictions of increased autonomous vehicle traffic over the coming years are correct, this seems a less desireable flow structure than roundabouts.
expensive
Not a huge improvement
Allows commercial development along "bypass"
Would this alleviate traffic better than roundabouts?
More ROW acquisition
Need additional ROW, signalized intersections not improved enough to address safety issues, fear it will lack public support from property owners, very expensive
no room for the thought, trying to get more out of a road that is at 125% capacity now
Expanding the road width seems very difficult
Too congested with multiple business access points
Would not help with congestion
Not much these are good options
Further congestion and slowing down of traffic than exists
people can die
everything
Expense, nightmare while under construction. Also, there would still just be one route across town (8th and Front are not for getting anywhere efficiently).
boulevards aren't great
I don't see how it improves traffic
0
Nothing
Area businesses would be compromised.
pretty good bang for the buck but ONLY when coupled with the Hammond Road crossing bridge
Need to limit access
not really a by-pass, road already over used
too disruptive to all parties
Too many business entrances to help traffic flow
Michigan turns are a nightmare. just look at high traffic areas in the Metro Detroit area at rush hour. This is not a situation we want to create for Traverse City.
Road design is good currently, we dont need to make it more difficult for traffic, turns, and visibility, also would be more difficult to plow in the winter.
Will not work. Will feel like Novi, total cluster, not a forward solution, southern michigan. No michigan left please.
Does this levitate turning traffic?
Beauty is placed above practical items, it's a busy road we don't need boulevards
Seems like this would take a long time to work on. Plus that road was just redone...
This plan doesn't alleviate the pressure on South Airport
Neither S.A. ideas provide alternatives to bypass TC.
Not a real long-term solution - need additional lanes to truly resolve traffic flow issues
Tight ROW and doesn't address timeliness for EW travel
Only planned 2 land each way. Need 3 lanes. Look at Holland, MI lefts
Too congested already, especially during peak traffic times. Will cause a great deal of inconvenience to busineses and traffic during construction. Need another route/road for emergency planning. No additional lanes to handle traffic.
Not a practical solution
Costs

Everything. Too much traffic on S Airport from 31 to Garfield as it is
HATE Michigan lefts
Non-synchronization of traffic light systems
ROW too narrow already congested ROW. Too confusing to most motorist not familiar with this area.
Too busy
Everything
No relief for S Airport Rd - may help calm traffic. Lots of money just for that
Doesn't address the issue - get traffic out of TC
I do not see this design as feasible. Businesses are too well established, too close in proximity to the existing road through this corridor
The idea
Everything
The costs already spell out the dislikes. Its simply not practical
nothing! It's great!
Does not allow for area growth.
Unsure that this increases traffic capacity.
It will mean a lot more construction and planning. People will need to get accustomed to Michigan lefts.
NOT MUCH HELP FROM WHAT WE HAVE
not sufficient right-of-way
Doesn't matter to me
no one likes michigan left turns - backs up traffic if not allowing space for cars waiting to turn
You don't need to add more traffic onto Airport!
Michigan lefts are simply dumb. Utilize left turn signaling with generous and adaptive timing, dedicated lanes that allow left turning vehicles to make lefts at roads and improve the parking cuts so that vehicles are not making mad dashes into driveways.
no dislike
None of it.
too expensive, waste of money
everything, impractical and too congested, bad for businesses
Expensive - flow not as good as with roundabouts
The most important thing is to focus on reducing car traffic, inviting more in electric transit and educating the public on how healthy it is to take transit, walk or bike. There needs to be departures from the outlying communities at least every 20 minutes at commute times and maybe every 30 on elk-ends, so people will use transit for their daily commutes and to visit outlying areas. We need to get off fossil fuel now to maintain a livable world. With leadership and education, we can change and become a city that others can emulate. Keep downtown walkable. Do not spend any more money on new roads. Spend funds of managing the roads we do have intelligently and safely.
not appropriate for a quick cross town route
just leave it alone!!!!
OK
seems like it would not address core issues of congestion and there is limited space available
traffic ends up at an already beyond capacity intersection.
Neutral

S. Airport Rd - Roundabouts
The scope of this project is too small! Why are we not considering Acme, M72, & US23 north?
Get dizzy thru all the roundies
Too much of a bottleneck
Using a lot of space to further congestion
the roundabouts!!!!
Could live with any/all solutions involving S Airport. As density increases, wonder about thjis as the best long term?
Like roundabouts
Don't like roundabouts especially in winter
Would be a serious disruption to a significant commercial corridor. Too many roundabout would limit access
NO!!!! Too many roundabouts. Take the citizens age into consideration. Also there are large buses, RV trailers, boats, etc
Too many roundabouts - 2-3 better
Waste of $
congestion
No roundabouts
Expands the utilization of roundabout
A lot of roundabouts needed
Too many roundabouts
Too many roundabouts
Don't support roundabouts
Did not like this option at all
Too many roundabouts. I think this could be very confusing to visitors and elderly drivers
Same as above
Like it
Still don't think we need roundabouts in city traffic
Challenges to address such as snow removal, semi truck access - but surmountable
Hearing people complain about roundabouts
Too small roundabouts
Roundabouts are too frequent
Not workable
More roads bring more cars!
Roundabouts with heavy traffic clog up because non-frequent users wont really know how/what to do and will go very slow.
No. Dangerous proposition.
This could work
Roundabouts
Too many roundabouts
Will roundabouts speed up traffic compared to traffic lights?
Cost. Right of way
Not needed
Is there political will?
Roundabouts can be confusing. Uses 3 Mile Rd
More dangerous for bikes
Could be too stop and go
Too many roundabouts. Roundabouts very difficult to maintain/travel in wintertime
10 roundabouts - with our snow and ice conditions, when salt and sand don't work these will be a disaster.
I see roundabouts as troublesome. I don't like the few we have already.
Although roundabouts are safer than traffic signals, real estate along S. Airport would be an issue
Roundabouts on Airport would be a disaster and make a bad situation much worse
No - snow/semi trucks/people in the midwest do not know how to drive roundabouts
Roundabouts are confusing
10 roundabouts might be too much for drivers to navigate
Crazy idea! The expense of multiple units.
Do not like them. People don't know how to use them.
Slow, confusing, tight space for large vehicles
Several roundabouts, people just need to become familiar with them
High construction cost
I am hesitant about a roundabout at the bottom of the hill at Cass.
Existing "Congestion" is not severe and does not warrant expene

Too many roundabouts to maintain flow of traffic - plowing and maintenance may also be issues
Nothing.
Moves traffic along nicely
No roundabouts, divided will make it more difficult to access businesses
Costs
I hate round abouts in winter-why did MSU take theirs out
Roundabouts slow down traffic. Where is the money coming from?
Nightmare. Stop with the round abouts. Use sparingly
Concerned flows may be too great.
Roundabouts
may have too many roundabouts and be confusing
roundabouts
people are not adept at roundabouts; worse when slippery
Too many roundabouts
Concern about pedestrian crossing busy round-abouts connecting TART trail to south Boardman River (by south Y)
Roundabouts will impact business access at each location, and I am deeply concerned about the inclusion of sidewalks and crosswalks as well as the accessibility overall with traffic moving freely and rarely impeded
Way to many roundabouts - it will be confusing to those that are not familiar with them
Too many roundabouts. Take a few out for a total of 6 or 7.
Roundabouts don't seem great on a busy road
People suck at using roundabouts. More community education will have to be provided for this to be successful.
What about pedestrians? I see numerous individuals walking along S Airport
I dislike the use of roundabouts!! They will ultimately cause more congestion and confusion.
My lease favorite option Hate the roundabouts near Meijer and absolutely don't want more. This is too many on one stretch of road.
"
Don't like roundabouts
Roundabouts would need to be far too tight to allow for truckers to utilize, and may even cause problems for work vehicles with trailers
roundabouts
Too many roundabouts where are many necessary access drives for homes and bussinesses
People don't handle roundabouts very well-too confusing
Too many semi trucks use South Aiport and there's no room to make wide roundabouts with existing buildings.
I'm not a huge fan of roundabouts when a heavy volume of traffic is invovled
Roundabouts
Too close to TC--get it out of town
Large semi-trucks might have problems getting through the roundabouts if not made correctly.
It just makes Airport a busier thoroughfare. We need an additional corridor.
Too many roundabouts close together
Too disruptive during construction. Will do nothing to improve ease of travel across town.
Not a solution, cause too many problems
Too many roundabouts
Impedes access to businesses.
Roundabouts
whole redesign
Doesn't lessen the traffic
love everything about this one
Slows traffic down, doesn't address handling more traffic.
Nothing
Too many roundabouts
Too many roundabouts. Side roads can get blocked out
People don't know how to properly drive at 4-way stops so introduce roundabouts? Might work.
Too many round abouts
All the roundabouts
Way too many roundabouts
Roundabouts confuse people and seem to be hard to plow if 72 is any indication
I don't think roundabouts are good.
Not wide enough for roundabouts tocbe used well
Yes I don't see a downside..its a big project but worth it! Traffic will always be moving!
Traffic roundabouts are obnoxious and cumbersome and will cause accidents

Roundabouts
I don't like it
Roundabouts
Not necessary, put a bypass around city
too many roundabouts
I'm not opposed to some roundabouts, but that's ALOT!
Roundabout overkill. Everyone looking to avoid using
The number of roundabouts in such a short distance
Roundabouts are fine, just not 10 in a row.
Too many roundabouts.
still no enough
Is the traffic volume too high for these?
Roundabouts are bad in the ice and snow, which we have for 6 months. People have a lot of anxiety about roundabouts meaning this will have a lot more opposition.
not practical
Two lane roundabouts are tough for tourists
roundabouts will never be approved, I love them but americans are afraid of them
roundabouts
Is still super wide with numerous conflict points and the focus remains moving us in cars at high speeds.
all the roundabouts, people dont have them figured out yet so lets start small with just a few
Roundabouts.
Believe it will be difficult for the average driver to navigate roundabouts
Some people don't know how to use roundabouts
Too many unnecessary roundabouts and doesn't allow for another east/west traffic solution
Nothing
Roundabouts are horrible...
I am concerned about pedestrian crossings but not that much.
Too many roundabouts at busiest intersections
everything
Too many roundabouts
Round abouts
Confusion involved with roundabouts combine with the tourists is a scary thought!
too busy already
NO GROWTH SOLUTION-NO ON ROUNDABOUTS
Doesn't give people a new route around S. Airport.
all roundabouts
Not big enough. Roundabouts purposed are too small. Snow and semi too small
Too many roundabouts
Roundabout makes me nervous and harder for walkers and bikers
nothing
too many roundabouts- takes time
Too many roundabouts. Icy roads make straight driving difficult. Semis take 2 lanes. How do pedestrians get across??
Too many roundabouts
cost and lact of progress
Cost
Probably worse traffic flow than with lights. Elderly will be very confused. They already make many mistakes with the inconsistent left turn lights in the area.
Does not solve the traffic issue
Too many roundabouts
The least partical of all of them and too disruptive.
n/a
All
Land acquisition & Construction will be way too costly, same as above
Too confusing
Roundabouts
NO ROUNDABOUTS. WE ARE NOT ENGLAND. THEY ARE A HAZARD.
minimally solves east/west issues
Same as above. Plus, though I like roundabouts in general, they can be challenging on a busy four lane road.
it may be difficult to find an opening in traffic to pull out of a business.

slows traffic flow too much and creates confusion and uncertainty
too may roundabouts
to much traffic for a round about and would likely cause more accidents.
Learning curve for drivers
Too many round abouts.
I do not feel this will solve the issue of moving traffic. There continues to be many drivers that do not manuever correctly through the roundabouts. Either they dont know how to or refuse to stay in the correct lane. Frustrating.
Round abouts are designed way to small. Put your self into a semi and try to stay in one lane. I don't care what the enginers feel it takes. Hands on is the true test. Good Luck I dare you.
Roundabouts are confusing and seem to slow down trafic
Needs to prohibit foot and bike traffic at each roundabout for safety and traffic flow.
Too many roundabouts. Will slow traffic at peak times.
too many roundabouts
Roundabouts aren't good
Too much traffic, dangerous turns
10 roundabouts in 2 miles? Way too many!
same
Scary for pedestrians. Difficult to plow
Roundabouts will turn south airport road into even more of a traffic nightmare than it is already. Most people have no idea how to drive through these things and it will ultimately lead to more traffic problems and accidents in that area.
Adding roundabouts will not improve traffic flow. If it was a good idea, the City of Traverse City would have them on Munson, 8th Street and Division.
Roundabout
everything
Use of roundabouts would eliminate additional congestion
Everything
too many roundabouts for the amount of traffic
too many roundabouts
Same as above
Will provide no relief from existing crossings and will complicate S. Airport traffic
people cant navigate roundabouts and with trucks the disign is too small
TOO MANY ROUNDABOUTS-SLOWS TRAFFIC TOO MUCH
No dislikes.
expensive for new road construction
While it will improve flow I doubt that the addition of traffic circles will offer enough relief long term. We will still need a second corridor long term.
Way to many roundabouts. Not ideal for an ambulance with a patient in back. Will plows be able to keep them clear of snow and ice?
Round abouts. My opinion is that these are more difficult for trucks and this road gets a lot of trucks. Also, too many R-A-B's can really slow traffic.
To busy
Does not provide an additional route
Too congested already
still heavy traffic
Too confusing.
everything s airport is maxed out
potential confusion for drivers
This will not solve the problem but helps. It should be implemented independently of any other solution chosen.
These are accidents waiting to happen...also not practical for snow plows
Will help this route but doubt it will decrease congestion anywhere else
n/a
It would take too long to construct
your worst idea
Too busy to be considered a by pass
Ridiculous
roundabouts are more difficult to navigate
They don’t work
don't like same traffic thru constricted area
still using s. airport
Already too much traffic. Do prefer mine left to roundabouts
it will not reduce the number of cars
think the roundabouts will cause more issues and driving frustrations

the obsession with roundabouts, not semitruck/ Plow friendly
doesn't offer long term volume solution, band aid
Only aims to move cars, not people
In the summer you can't move on airport. I can't get into and out of businesses on this stretch. Need to take car away from this route.
Does not address the root problem by increasing East West capacity
Roundabouts impede traffic flow and TC residents can't handle them
pedestrian/bike access
Too many roundabouts
Too many roundabouts. People still get confused with them
Difficult for people to navigate. Focus on other roads.
roundabouts will not solve the proble, what about large trucks
See no benefits of roundabouts
south airport at 125% usage cost of one roundabout $1M
too many roundabouts
costly
Too many roundabouts; this is absolutely not the solution.
See above - and round-abouts are insane on this road
Hate roundabouts
Everything
Everything
If leaving Logan's Landing or Logan Place West and needing to turn left, there isn't enough room or time to get into the left lane in order to get to the turnarounds. With Roundabouts, the traffic pauses from the Lights at Cass Rd and/or at Keystone/Park Dr, although slight, will be eliminated, making is even harder to turn left.
No major dislikes
Roundabouts are too close together/too many
Likely still forces east/west traffic further into town
very costly and would be a quagmire
Are you kidding me? 10 roundabouts! Nobody would use it!
Too much traffic for roundabouts, especially during rush hours
learning curve for drivers learning roundabouts
Too many roundabouts may increase accidents, especially in high tourist periods. Try spacing 2 or 3 roundabouts.
see above
Missing roundabout at US-31. Just moves more cars on an already busy road (vs. the other solutions that give more options to the South via Hammond).
not enough of an improvement to be worth the effort/expense
Nothing.
Will get dizzy to many roundabouts
When traffic is heavy, since the "rule of the road" is that vehicles already in the roundabout have the right of way, traffic on the side streets will never find an opening to enter the flow.
Nothing.
Not every traffic light needs to be replaced.
No dislikes
Too many roundabouts.
This helps with flow and safety but still doesn't divide up traffic or provide an alternate route
Too many roundabouts = slower traffic = more congestion
I could see public opposition to roundabouts as being "difficult to use," but I think with time people get used to them. Yoopers in Marquette are much more comfortable with them now than when they were first installed.
will cause multiple accidents, esp. at busy intersections (Cass, LaFranier/Barlow)
Some people do not know how they work and slow down traffic.
I am not sure it will alleviate the problemn. It doesn't seem substantial enough to eliminate the current problem. Round-abouts are a little tricky, especially for vistiors unfamiliar with where they are going.
Does not take load off Division and might increase load on Silver Lake.
My only worry about roundabouts is that they be done WELL. They're better than intersections and bouldevard/reverse turns but they have to be designed will and facilitate non-motorized travelers/users.
expensive
Not a huge improvement
Allows commercial development along "bypass"
I support roundabouts, but do wonder about the learning curve for others, and how that would effect entering/exiting businesses along S. Airport.
I like the round-abouts, however many Michigan drivers do NOT know how to properly use them.
Roudabouts will be a challenge for drivers

Fear improperly designed roundabouts will make non-motorized traffic unsafe at intersections
no room for the thoughts, trying to get more out of a road that is at 125% capacity now
Confusing for many drivers.
Will not alleviate east/west traffic wantingto by-pass town
Ditto
Not much these are good options
Absoluitely hate roundabouts, cause too much confusion
people can die
everything
Do not see how pedestrians and cyclists will safely cross road at roundabouts.
Roundabouts near the hills (Veterans, Cass, LaFraniere) would be difficult. We have a relatively older population that could be extremely challenged by these. Again, it wouldn't add an additional route and would be awful during construction.
love the roundabouts - will safely move traffic
people will complain, but they always do if something is European. Call it Russian and that might help
0
Roundabouts seem to work well when people know how to use them properly, but it appears that too many drivers don't
Too many roundabouts. This area is already developed and local businesses would be compromised
could be a disaster
Too many roundabouts.
Limit access. Too many roundabouts. No mention that roundabouts take up a lot of real estate.?
same as above plus adding 10 traffic circles
too disruputive to all parties
Too many business entrances to help traffic flow
I do not support the roundabouts this road works ok, if lights are timed, the road lines are marked, and people don't drive like idiots. Maybe lower the speed limit along the busy areas
Road design is good currently, we dont need more roundabouts, especially in this location. Will also be difficult to plow in the winter. Traffic lights that are there now are good.
Itll make the problem worse, but not as bad as michigan lefts.
Too many roundabouts. Limit to just high traffic intersections.
Roundabouts are too confusing for TC.
Too many round abouts in a row
Ten of them? No... They are hard to get through, hard to plow, will be icy messes in the winter.
The round abouts
lots of roundabouts in one stretch
too many roundabouts
The roundabouts are too much and would cause frustration for drivers
Roundabouts
There are too many businesses. To enter and leave them a break in traffic is necessary. Without any traffic lights there is no break. The current timing of the lights to exit Logan's Landing is frustrating and at times a 10 minute wait to do so.
Not a real long-term solution - need additional lanes to truly resolve traffic flow issues
Tight ROW and doesn't address timeliness for EW travel
Too many
Traffic would be disrupted during construction on roundabouts would be confusing due to volume of traffic
Same as above. Don't like roundabouts. Have to consider winter snow plowing of medians and roundabouts.
Not a practical solution
Hill and curves mixed with dense business to not work safe and efficient with roundabouts
Expensive alternative which will only add more traffic and confusion
Roundabouts confuse pedestrian and bicycle traffic. Also the cost of real roundabouts at these dense locations could be astronomical.
Too many drivers stuggle with even low volume roundabouts
I worry about people using public transportation being able to cross to the bus stops safely
Additional cost and possible problems at peak traffic times
Narrow ROW - too much cost in acquiring additional ROW
Too much confusion
Everything
Too many roundabouts. No @ George St, Garfield, Logan's Landing, Cass. Doesn't give relief to S Airport Rd
Doesn't address the issue - getting traffic out of TC. Need a bypass
See above. Also would limit left turn into businesses even more than boulevard design
its just stupid

Everything
Winter maintenance
As the cons already spell out, there simply isnt room to expand. Too many roundabouts will confuse and frustrate the public.
Roundabouts are not safe! Totally against this idea!
Does not allow for area growth.
Too many roundabouts, and some are very close together. I think this will be messy in the summer when traffic volumes peak.
It will mean a lot more construction. Roundabouts seem to be difficult for strangers to the area, and Michigan lefts take getting used to.
TOO MANY ROUNDABOUTS
too many roundabouts...
not sufficient right of-way at proposed intersections
Roundabouts are stupid, cause a lot of accidents, people don't understand them, causes confusion
large trucks to navigate space - right of way and space restrictions - automobiles do not leave space for safe truck navigation of round abouts (need two lanes)
Too much land use, do not like roundabouts!
Im tired of hearing old people complain about round abouts. I guess I can tolerate that.
Roundabouts...
Learning curve for roundabouts
None of it.
too expensive, waste of money
everything, impractical and too congested, bad for businesses
nothing
roundabouts work well
should be done regardless of what is chosen winter a problem for plowing?
none of them!!!!
Acme area drivers are struggling to adapt to roundabouts apparently 😒
sounds expensive, just rebuilt roadway
OK
keeps lots of traffic close to town
flow ends up at an already beyond capacity intersection.
Roundabouts could be challenging for some. Would need to consider placements related to businesses.

Hammond Rd Crossing
Connect a new road from Lauter Rd south to Hammond. Use Lautner roundabout to direct traffic south and west. Using 3 and 4 Mile Roads has not natural flow, it will fail. Work with mother nature, not fight it.
These options are a workable solution except for the hill
Having traffic cross Dracka Rd is absolutely ridiculous. From m-31 to Dracka there are wetlands and this hasn't changed since 2001
Too little too late
Nothing
So busy with 5 schools at that intersection
Environmental impacts of Boardman Crossing. These can be minimized.
Would be very expensive as would have to build up over river.
This would not help me get to businesses on 31, nor to Menards, nor to Interlochen.
No way!
I dislike that this was not built 30 years ago
Adding an unneccessary bridge over river, when two are so close
New bridge needed
Environmental concerns
Too expensive. Its been discussed ad nauseam. Why is it still an option?
Liked this option best
Disrupt river's natural area
No new bridges over the Boardman River
Concerned about Doves
Building a new crossing would open the area to much more traffic and development. It does nothing about the root cause.
Expense. Environmental impacts to river. May inject heavy traffic into residential area.
Cost along with environmental impacts
$. Too close to Airport Rd, doesn't provide a good cross route
$$$
Way too expensive and unncecessary
Location of connection to 31 is not where the traffic comes from. The bridge is a last resort after lower cost improvements has been made.
Expense
More roads bring more cars!
In the winter the Hartman intersection w/ 31 would require traffic coming down the hill to slow/stop on slick roads
Too long to execute. Too many risks of project stoppage/halt, cost overruns.
Likely will add more sprawl to our growing region
Building and maintenance nightmare and money sucker - Put in tubs
That it's not done yet.
Please reject and find other options! Must look at environmental impacts - wetlands present
The Bridge
OK
The only way to fix problem
Seems like the straight shot, but the wetlands are here. Will be contentious to be sure. Cost of bridge.
Cost - use $30 Million for existing roads
What's the cost? How will it articulate with M37? Stop sign as presently used at Hartman/M37 wont do.
I agree with the listed pros and cons. We need this road connection!!!
Big concern - too close to city. Accidents at Hartmand and highway. Defeats intent
No environmental
Roundabouts
2 Roundabouts - see above
Utterly financially unsustainable. Will induce sprawl.
Totally unnecessary.
Not a problem
A natural solution with good bridge design
River impacts and option B fragments and destroys habitat
Expense. Property acquisition
Access roads - do not make Hammond another S. Airport
Does nothing to alleviate existing congestion around S. Airport and the mall area.
Should not empty into existing Hartman Rd because entry point to Hartman from US-31 is a bad intersection. Would require new road to connect to US31
Will keep semi out of town and off S. Airport and passing thru town traffic
4 Mile is not wide enough for four lanes.

Large amount of wetlands destroyed and expensive to construct bridge
Traffic light at US-31 and Hartman is essential. This is a very dangerous intersection.
Nothing
Cut through traffic on Hartman is already heavy, dangerous and detrimental to those living off Hartman
I not sure we would be able to purchase the land rights to make this solution feasible.
Does not provide any value, acceptable alternate routes exist
Skeptical of new bridges
I dislike nothing about this option
Disturbs undeveloped natural area.
Don't love the idea of a new bridge over the Boardman River, but probably like this marginally better than the next 4
Bridge please
Non starter. Ludicrous amount of infrastructure and potential environmental threats for little improvement
nothing to dislike
Ok
Nothing
This is the only fix that actually creates a new logical crossing that helps elevate traffic out of already congested roads. And I'm a liberal environmentalist to boot!
I think this is best solution for the long term and may even unload airport road and allow others solutions there to work
Nothing
would have to build a bridge
already too many curb cuts. Should be designed with interconnected driveways with access at intersections. Or perhaps bite the bullet and pay for a service road and make Hammond access more limited.
new bridge required
Nothing
Environmental impacts & sprawl spread
The expense, I don't think B is necessary
There is nothing to dislike about this solution. It needs to happen!
Nothing. Love it.
Residents nixed this idea a longtime ago. Must history repeat itself?
A new river crossing
Too many wetlands here. Absolutely do not want roundabouts at 3 and 4 Mile.
Expense of adding a bridge over the Boardman river. Adding roundabouts on 3-mile and 4-mile would be pointless, and just make people speed even more than they already do down Hammond
Cost and likelihood of just more sprawl that will end up just like S. Airport Rd.
Too much new construction
The expense of a new bridge, but this may be the best solution regardless.
environmental concerns have been an issue for many years - have these issues been resolved/addressed?
Bridge
Wetland encroachment
It would cause a lot of problems with traffic entering and exiting US-31 on a hill. Not much gained in traffic reduction around town.
Nothing.
Traffic flow increase
I like this idea. There is nothing I dislike.
Increased traffic coming onto 37, light?
It is a lot of roundabouts still
Expensive, but worth it.
New bridge
Bridge could change the area dramatically
I think option A is more practical than B
Will never be built. Too much howling from a few loud voices.
Nothing
New bridge
Too many roundabouts. Widely unnecessary
Really no improvement
Never!
Nothing
best solution
Closer to town.
So many problems with this plan and so few real benefits.

Nothing to dislike
Potential environmental concerns
.
Not worth the cost environmentally or in dollars.
Environmental impact and extensive construction requirement.
Works as is, put a bypass around city
dont like, to close to town, airport rd. and residential on hartman
Scenario A - that Hartman is almost a residential road
Intersections @ 31 & Cass must keep traffic moving.
best
you have to build new a new road and why have an other main inter section a !/2 mile from S. Airport
New bridge and environmental impacts. Protect the Boardman!!!!!
The misery of dealing with the Groundworks, NMEAC, & Watershed weirdos.
Expensive
This will increase traffic on Hammond but the road is ready for it, it is already four lanes. Maybe widen Hammond a bit?
nothing
Expensive new infrastructure without associated development/tax capture to support it.
B: more work and less land use for other things
I like this solution. Would like to see it go west and connect into the Bugai Road and Leelanau County as planned years ago
Cost and habitat loss
Makes the most sense.
I really don't care for the 4 mile roundabout
Nothing
Fits with the plan of extending the Hammond / Hartman flow and the expenses already incurred to widen Hammond Road.
why? I dont see that this is going to help anything, and it needs a bridge. no
Don't support building another new bridge
nothing
Bridge requirement would negatively impact environment. Does not include roundabouts at all major intersections.
bridge expense
STRATEGIC TO BYPASS TC
Nothing.
Increases road intrusion in rural area
Same as above
Dangerous crossings as is! Very busy and not good for east bay township
A NEW BRIDGE OVER BOARDMAN IS NOT NEEDED YET.
nothing
nothing
Dislike intruding on virgin land.
no dislikes for this solution
nothing
May be most expensive choice due to bridge construction
The most expensive of them of all because of the bridge crossing the Boardman River
n/a
Nothing
Intersection at 31/37 at steep grade and close to S. Airport
Nothing
This will only increase traffic overall. More road = more traffic, not less cars. Now you just offered an new place for traffic to flow and sprawl to follow to feed the flow.
continual delay in getting something done
Would be very costly and outlets close to S Airport Road, don't believe it would do much for traffic trying to skip town
Impacts on the river. Will likely promote urban sprawl.
I share the environmental concerns of others, and would need assurance that the impact would be considered and minimized.
don!t need another bridge and create another traffic nightmare on US 31
Messes with Boardman River with fall off, fumes, oils, views
I would prefere option A it seems logical and direct
too far south. I wouldn't use it.
Too much residential development in route A
Potential wildlife/environmental impact

Not much.
Once again you are not showing the solution of when you dump the traffic onto 31S. As I have heard it said that's the MDOTS problem not ours.
Environmental impact on wet lands; Moves TC traffic problems to Garfield Township
I worry about over development of affected lands and don't see the need for another bridge.
Creates higher traffic loads at US -31 which already is congested from normal and Mall traffic.
The bridge
Environmental impact. Not enough roundabouts. Expense.
That it should have been b
Heavy traffic now
Hammond cant take the additional traffic, keep it where it belongs
a newe bridge
Don't care for the roundabouts. Drivers don't know how to handle them. Also too many environmental impacts on the river and surrounding wetlands. Also creates a new intersection with US31 in a very dangerous location in the middle of Mccrae Hill. Traffic coming down that hill in inclement weather conditions will not be able to stop for the traffic signal that would have to be placed there. I drive that stretch everyday and people come down that hill are sometimes going well over 65 miles an hour. It is dangerous how it is now. This would only make it worse.
This would add to already congested US 31/ South Airport traffic congestion.
Sprawl
Nothing
development in the natural areas
looks good
It would be out of most people's way to get on the entrance to this route
No dislikes.
new bridge overe river, encourage Hammond development
Environmental concerns. There was such a big deal made out of removing the dams and now this would cross over that precious "natural" river. I thought we wanted to keep the river as natural as possible to attract tourism. Traffic noise and congestion seems to be self defeating for that purpose.
Not in favor of the roundabouts at 3 &4 mile.
Looks more expensive and perhaps more ROW would be required. (B)
Direct route
nothing
nothing, this is the idea that is correct, build the bridge, it will get traffic off 8th street and off division and put it out here, s airport will become less traffic and thus a better road
environmental impact
This is probably the most expensive solution but the one with best chance of actually solving the problem.
n/a
Nothing
the only option
It's not built yet
no downfall
Na
Time line
nothing
The expense and the possibility of displacing people
the roundabouts not semitruck/ Plow friendly
Only aims to move cars, not people
I dislike to negative affect to wetlands and river
strong negative environmental impacts on the river corridor
Nothing
Nothing
huge impact to undeveloped ecosystems; high cost; impending development
cost of bridge and new road?
Seems like the least problems with this.
Excellent opportunity for a workable solution.
best way to get traffice off of south airport road
Roundabouts would create even more difficulty for cyclists and runners, I would rather see expanded shoulders for bicycles runners and improved access to tart trail systems
new construction over boardman; increased sprawl
No data to support that this will do anything to alleviate traffic at other crossings for any significant amount of time. Other crossings need improvement at lower cost and impact

Would need to be mindful of environmental impacts around the Boardman, but this is by far the most logical and useful solution. The Hartman to Hammond connection makes most sense.
Roundabouts
another new bridge seems wasteful- the eco types will be strongly against it due to wetland issues
I don't dislike this plan. This is only a positive solution to the current problem
Everything
Like this plan the best
I am interested where it connects with US-31 S because it is close to the S Airports Intersection. Maybe this is a good location for a roundabout.
Environmentally poor choice, simply adds more traffic a very short distance just south of the US31 + South Airport major intersection, does not significantly reduce the primary north + south corridor to/from downtown TC, Beitner Road Crossing is a superior traffic management and "roundabout" alternative.
Nothing, should have happened years ago.
Nothing
Nothing
Nothing, it's ideal
object to bridge over the river for environmental reasons
Hartman Rd. is residential, can't handle increased traffic, an d prohibits ability to have more affordable housing close to TC
Missing roundabouts at US-31, Cass and Keystone; Would need to understand more about how the bridge can be designed to minimize environmental impacts on Boardman.
requires another expensive/controversial bridge
Involves development of a brand new corridor and bridge which disrupts the aesthetic of the valley, destroys habitat for wildlife, and is costly in terms of construction and O&M.
We can't afford to maintain the roads we already have. We shouldn't be spending a large amount of money on an unnecessary bridge. Airport Rd congestion can be addressed more effectively and without the large financial and environmental costs of a bridge. Lastly, the Hammond/Garfield intersection will become a major problem.
Too much of an environmental impact.
Nothing
Why would you (read: us) spend money on a bridge when roadways (that can be utilized to alleviate the traffic flow problems) already exist? Bad for finances, bad for the environment, bad planning - use the road we already have!
Great benifit
Another crossing to US31 isn't going to cure the problem since most traffic is running to US31 south and west.
I personally don't see a massive benefit in investing in a new bridge over other options presented, but I do think it would still improve traffic flow.
more expensive, but may be worth it
None
I wonder if Hartman can handle the influx of traffic this would create. Certainly, widening of Hartman would have to occur. Also, the curve at the end of Hartman (near 31) would have to be reworked.
Bridge and Four Mlle Rd
Severe impact on Boardman River and land west of it, only partially unloads US 31.
There is nothing new to make the case for this "solution" any more compelling now than it was when it was rejected the last time. That people want their personal convenience to be more important than the river valley is not sufficient to overcome the public trust responsibility to protect the river and its riparian environs for future generations. With the road will come development and with that, degradation of one of the most precious and unique resources of the region. I totally "get" the "connect the dots" thinking that drives people to want to connect the two roadways but what is protected by NOT connecting them is far more valuable and unique than the ability to move more cars through the valley.
nothing
Cost/Impact
Allows commercial development along "bypass"
I worry about the cost and environmental impacts. We shouldn't be destroying habitats to make travel easier.
Cost and Maintenance of the bridge.
Cost of new bridge, induced sprawl along Hammond Rd
nothing to dislike makes the most sense
Nothing
Nothing to like about this one, expensive bridge that leads to a road that would need to be redone leading to a dangerous inlet to 31/37. Folks are flying down that hill.
That it doesn't go through to Hartman yet
people can die
everything
Do not like the environmental impact of this solution.
Don't ruin this beautiful section of undeveloped river. It's a treasure so close to town.
Environmental concerns. Idiots trying to turn left onto or from US 31 (no chance of a light there, halfway up McKrae
environmental impacts to the Boardman River

Too many reasons to list. This has been studied and studied. Plus, there is not yet a destination that needs this bridge, but if built, it WILL develop. Adding more congestion. It only benefits developers
0
Nothing
maybe the cost is too high
it is common sense. Build the east-west connector bridge
Building a new road and bridge through sensitive wetlands, the potential for sprawl.
Should extend all the way to Secor Rd.
needs new bridge, already curves and big hills
Too far to away from downtown to help
New crossing and added development.
Nothing
Costly for making it five lanes
No round about or Michigan turns we don't need fancy landscaping, which tends to block views and add expense to upkeep
Disruptions to boardman river. Cover the bridge with a sound proof tunnel like is done in Japan.
Environmental impact unclear
this might create more traffic and hartman and division, which is already very congested
Option A is ok for the most part. Option B - I am afraid that the southern loop, beginning at the River/Bridge would be quite expensive (new ROW/easements) and many wetlands/swamps depending on route selected
Would take a little time to accomplish. Should have started ROW purchasing some
People will still use S Airport. Hammond recent pavement suck and shows whats to come.
Too much land crossing and to close to TC
Roundabout at 3 Mile and 4 Mile. Hard to get out on Hammond fromm Chartwell when in residential area or Centre Ice. Roundabouts would not allow a break in traffic that the lights currently provide.
Environmental impact will severly diminish value to area by replacing desireable, attractive, and irreplaceable parkland with business/commerical development. *Dangerous intersection with US-31*
I would think a smoother connection at the east (somewhere between Holiday Road and/or S Aiport) would improve the bypass concept
Expensive
Too many intersections too close together, especially during the school drop off/pick up times. Turning left onto Hammond away from a roundabout would be nearly impossible
Directs traffic into congested areas increasing gridlock. Most expensive plan with environmental concerns
The 'A' approach would not gain much distance from Airport Rd. People look for shortest route and Airport Rd would most likely be a shorter route for what would be gained by Hartman at A
Nothing
Connects H.H. Must build new bridge - but connect Hammond to 31. Bring out on B Road
Should have been done 20 years ago.
Nothing - this is a great solution. This should be done with Hammond/Hartman made into a boulevard from 4 Mile to 31
too much roundabout
Roundabouts
Has good potential. Needs a few more additions and conserations. Has a few bad flaws but can be addressed
Roundabouts are not safe! Totally against this idea!
I feel this solution would be beneficial to the largest number of people.
Alignment A is not so direct, and has quite a few hills and curves.
It would mean another major road to build and maintain. It means more road oil and salt runoff into the river and destruction of habitats. It reduces the peace and quiet of natural areas.
GREAT IN ALL WAYS
excellent crosstown and by-pass town arteries
I like everything about this solution
need bridge design that does not impact wetlands/environmental area as significantly as historical design. traffic control at hartman us-31 intersection
The best solution! The route is almost done! It would take less money , time, & resources to get the rest of the route finished!
Expensive today and expensive tomorrow. Also unnecessary. Development should be pursued in a manner that preserves natural lands and encourages humans to live densly.
Causes too much traffic near Sam's Club
Uses old solution which destroys environment.
All of it. Leave the Boardman River alone.
nothing I dislike about solution, long over due
nothing, it is perfect, good for both people north or south wishing to bypass
expensive and invasive to the environment, without really fixing the problem

do not need another bridge across the river
do not spend money (that we do not even have) on creating a "bypass" that is not needed. Implement ways to reduce traffic instead.
environmental impact, not a traffic solution
expense another bridge
most direct
Still further south of the city than S Airport
cost of building bridge and has major enviromental concerns
a new bridge
bridge & environmental issues; requires ROW acquisition, cost of which is unclear
need to continue to the west if used.
Everything

Cass Rd Crossing - A
Not much to dislike in A & B. Im sure the property owners and buffalo would have objections
Extremely expensive with widening and multiple river crossings. Wetlands affected.
The proximity to downtown is convenient but improving this corridor looks expensive.
North/south is an issue, not east/west
Will not help enough
Too far south
Too close to existing S Airport. Comes out on a hill. Doesn't connect to W side of 31 to anything.
I'd be ok with this as we already use this option already.
Possible conflict with topography, existing land owners
Not practical - we have existing road with Beitner-Keystone
Doesn't solve enough of the issues
I don't like the idea of using a rail corridor for vehicles.
Environmental impacts -> higher relative cost to acquire ROW
Cost of ROW acquisition
Too close to Airport Rd. Enters US-21 halfway down a hill.
Rebuilding a new bridge
New connection to 31
Expense
More roads bring more cars!
Roundabouts at Cass/Keystone and Keystone/Hammond
Temporary solution
Please, no new roads
Not real sure how any of these will help much. Lots of turns. Would need to be widened.
Using virgin bend is unnecessary
Too far south
Impact on Buffalo farm. Too close to town - access to highway
Will induce sprawl.
Bridge just put in. Seems wasteful to widen it. It also has to route traffic north before heading east-west again.
Too complex
Fragments and destroys habitat
Alignment aren't conducive to heavy commercial vehicles.
Keystone needs major improvements to avoid traffic backups
Too narrow
Construction of a long stretch of new road across to US31
Habitat destruction and fragmentation to build new road
Why would I drive south to get to the west side of town?
New alignments, new ROW needed
bad flow
You cant just build one of the 3 Cass Routes. All 3 need to be built to best aid traffic flow
I don't believe the Cass Rd crossings would ease Airport Rd traffic.
Skeptical of new roads
Destroys a historic farm and creates need for additional acquisitions in order for this new "road" west of Cass to be built
Disturbs undeveloped natural area.
Seems like a big workaround
No roundabouts, widen the Cass road to four lanes
Huge infrastructure costs for little improvement
bad idea
Ok
Not supportive of right way taking of property
If this is alternative to Hammond to Hartman think it is not adequate. If added to a new bridge is OK
Two lane bridge
would have to build a new road
Not sure about the road realignment
disturbs natural area?
Not an easy route
nothing
Too far out

Slightly out of the way of main/central TC
Get rid of the roundabouts
"
Does not allow for streamlined travel across the city it it requires going southbound to get to US-31. As well, the roundabouts on 3-mile and 4-mile would provide no benefit
too far, roundabouts
Too much new construction
The roundabouts are unnecessary.
less practical than just extending Hartman Rd because this solution still increases traffic on Beitner Road
Move it out of town
Hills if the grade is not reduced enough.
It is too far south.
Construction of new road with unknown variables
Too disruptive during construction. Will do nothing to improve ease of travel across town.
This is what people already do every, take cass to Hartman, it's not a new idea
You'll never acquire all the ROW needed, or acquisition will be too expensive.Too far south to relieve congestion.
Roundabouts
low yield? need to acquire access
Complicated
I don't drive in this area enough to justify putting in these extra roads
Adds a road but roundabouts slow traffic down too much
Using Cass road instead of a direct bridge.
New bridge
Too many roundabouts. Widely unnecessary
Very costly with little improvement
Nothing
This comes after roundabouts and other existing road improvements before expanding is my vote
Nothing
Potential environmental concerns
.
Too far to alleviate S Airport traffic
Works as is, put a bypass around city
nothing, I like it.
Intersection @ 31 requiring smart development.
too far around
I don't like having people lose land to right of way acquisition. It decreases property values.
little impact, topography challenging
too far south, doesnt' interface with Grandview Parkway/South Airport/ Acme area through 3/4/5 mile
still nothing to assist intown crossing
New infrastructure is hard to support without new approach to land use that seeks a better real ROI on public investments. .
will people and businesses be displaced?
Too inconcvenient.
Believe it will be difficult for the average driver to navigate roundabouts
Cost
Too far south
Not new, won't help with existing problems.
Nothing
Creates too many intersections / turns needed to flow east and west and would impede on the pedestrian usage of Dracka and Broad Road.
What is this supposed to fix? I dont get it.
New road to be built
good alternative
Bridge requirement would negatively impact environment. Does not include roundabouts at all major intersections.
environment
WASTE OF MONEY
Doesn't solve the problem.
Cost and disruption with ROW acquisition
its too far south for intown traffic
nothing

Too much new infrastructure, 3 times the length of the Hartman Hammond design.
alignment for new roadway
Nothing
Keystone cannot handle more traffic
Use of too much land/new road construction
Not as direct as the Hammond Rd Crossing option & too many roundabouts
The county have to purchase land to advance towards US-31
Encroachment and impact on undeveloped land, river, wildlife
NA
Too costly and not any better than Beitner
Less complicated
not necessary
continual delay in getting something done
Would be costly and doesn't tie into any other major E/W route on the West end
Cuts a new corridor through the rural lands.
Too far south, extensive new road construction
Leave Boardman River alone
location is not convient for east west flow. many people will use this to get north south in and out of tc without every using the hartman crossing. Having this will only add to the congestion
I wouldn't use it.
Probably the cost
To costly and would need to reconstruct the new bridge already.
Potential wildlife/environmental impact
Better than nothing
concerned with wetlands throughout all the Cass road options. Keep Traverse city traffic in TC rather rerouting it through beautiful wetlands that is home to many animals. Let us not forget the Buffalo FarmAny of the Cass Road options would not be desirable to me.
Why build another road coming down the Hill on 31 S. Cars have enough problems getting up and down the hill in the winter time.
Environmental impact on wet lands; Moves TC traffic problems to Garfield Township
If this is not a bypass for US-31 through TC these 3 routes are too far south to help.
not a very straight shot
does not increase the number of vehicles that can cross the Boardman River
same
Very difficult to find and navigate
Don't really care for the roundabouts. They seem to cause more problems than they solve because drivers don't know how to handle them correctly.
This is a good option (not excellent).
Roundabouts
everything
Sprawl
Everything
how much does it help relieve airport?
traffic will move around town slower than Hammond/Beiter alternatives
Same as above
Farther from T.C. than Hammond-Hartman
Its not as direct as the Hammond or Beitner options.
expensive ROW
Looks more costly than B or C.
To far south.
Not a direct route
still heavy traffic
this idea seems to have merit, not much to dislike
cost
It does not really help the problem.
Too far out
Cost would appear to be higher than Hammond Rd
nothing
see above
Least likely to be used as by pass
no downfall

Na
Should have expanded bridge when reconstructed in anticipated future expansion - cost
Too complex many turns will discourage truckers
not efficient travel - routing is too indirect
think the roundabouts will cause more issues and driving frustrations
cost, roundabouts not semitruck/ Plow friendly, not direct
Only aims to move cars, not people
Might to too far from town to help much
I dislike to negative affect to tree cover and disturbance of steep slopes.
requires construction of new roadways
Does not address the root problem by increasing East West capacity
Nothing
impacting undeveloped lands; negative impacts from development
too long
Lot more road building here.
Not as good as "B" in my view.
Roundabouts would create even more difficulty for cyclists and runners, I would rather see expanded shoulders for bicycles runners and improved access to tart trail systems
new construction; increased sprawl
potential for infill development in rural area
still not a direct route
Too far south.
concerns about routing the new road extension through private property that prove to be very difficult to cross
I don't dislike this plan. It is a real solution to the current problem
Everything
Expensive. Right-of-way acquisition and construction cost
I don't like any solution that involves stop and go traffic and hills.
Adding a new connector and roadway access point north of the current US31 + Beitner intersection
Keystone will be too congested if lanes aren't added, it'll be backed up into Hammond
Doesn't alleviate congestion and won't be used as heavily
takes you out of your way to the south if you're going to Long Lake or north of there
The use and effectiveness…
unknown
Missing roundabout at connection with US-31.
Involves development of brand new corridor.
I don't think the existing new bridge over the Boardman River is wide enough for 4 or 5 lanes. You'd probably end up having to build a second similar size bridge beside that one.
Not enough benefit and the connector road.
Too much of an environmental impact.
Multiple turns will have to be made to get around town.
Too far down
intersections at m-37 are not convenient and will not promote bypass traffic
This doesn't provide as much of a direct route to Chums as Route B would.
too far south
I doubt this would improve traffic flow and it is far out from where the main traffic is
None
I am not sure this would alleviate the current traffic congestion. It seems too far south to help the problem.
Impact on land west of Boardman River, only partially unloads US 31.
Four lane bridge expansion and chewing up real estate to build the extension to 31.
terrain
Cost/Impact
Allows commercial development along "bypass"
The Cass Road Crossings I find most intriguing. And I have more questions, rather than dislikes. With design A, where would this road come out on 31? Would it create further problems there?
Using existing bridge is still very out of the way
Not necessary at this time. I believe road section A would not provide as much benefit as other solutions. Does not seem like good money well spent at this time. If other improvements were already in place then my position may be different.
New intersection at US-31 may dangerous due to high speeds and northbound traffic going downhill

will create larger issues
Too far south.
Too many turns
Not direct
That bridge was just built Hartman doesn't need that much traffic especially going onto 31/37
people can die
everything
seems ok - so long as property owners are ok
you still have to go around the lake
Unnecessary
0
Seems unlikely to significantly reduce S Airport congestion
Too far south, many turns
traffic is still a mess
Added congestion on Beitner, unless Hammond crossing is installed.
workable, some land acquisitions
Too far away from downtown
New crossing and added development.
not a good flow for traffic
Costly for making it five lanes
No round about or Michigan turns we don't need fancy landscaping, which tends to block views and add expense to upkeep
Land acquisition may be a problem as it is going through a residential area on Dracka Road
Again, likely to be quite expensive with all the new ROW /easements from Cass Road Bridge to US-31. Would still need to build another bridge to make it 4 lanes. For travel with roundabouts at 3 and 4 Mile Roads are problematic for traffic leaving centre ice. Current Chartwell subdivisions, newly planned apartments with no light there will be no break in traffic to enter from Chartwell.
I think this route would be far too south to be a worthy connector for citizens trying to go back to the north of Silver Lake and such
Everything, no different than whats happening
Too far south - have to consider where majority of traffic is headed. Keystone Road congestion would be relieved with Hammond Crossing. Silver Pines is halfway up McCree Hill. Not good for winter stops and starts
Not a practical solution
Dangerous intersection with US-31
Way too complicated and likely would be __ especially by truck traffic.
Impact to natural environment at Cass and Keystone
Good straight forward design
Too many things have been buried where this is planned
Should have built the bridge to handle 4 lanes in the first place
Makes the most sense for this survey
Most of the traffic that make it to Cass/Keystone intersection is going South/west from Chums Corner. This option could be better achieved with Hammond bridge of Beitner improvements
its ok
Roundabouts
The bridge is brand new, to expand is crazy
Roundabouts are not safe! Totally against this idea!
Too far south.
Nothing.
Many right of ways will be needed to build it. I'm note sure people would use it as much as other roads.
TOO FAR SOUTH - OUT OF YOUR WAY
Puts too much traffic in a residential area
thru residential - assume less costly to improve existing right of way
I ride my bike and walk on these roads, new traffic and bigger roads would be horrible for me and my neigbors
People enjoy walking and riding bikes on the roads in this area
Too complicated & too much work, money, & resources!
Lets just blast a road through this historic farmland.
Nothing, goes nowhere
no comment
Why no Hartman Road improvements?
Don't like anything
nothing

a little far out to help people north of town getting across town
new ROW needed
No solution at all
Doesn't help at all, just creates goofy traffic flows
The most important thing is to focus on reducing car traffic, inviting more in electric transit and educating the public on how healthy it is to take transit, walk or bike. There needs to be departures from the outlying communities at least every 20 minutes at commute times and maybe every 30 on elk-ends, so people will use transit for their daily commutes and to visit outlying areas. We need to get off fossil fuel now to maintain a livable world. With leadership and education, we can change and become a city that others can emulate. Keep downtown walkable. Do not spend any more money on new roads. Spend funds of managing the roads we do have intelligently and safely.
ditto
expense
nope
Too far south
ROW costs
new bridge
ROW acquisition costs potentially high
Everything

Cass Rd Crossing - B
Not much to dislike in A & B. Im sure the property owners and buffalo would have objections
Extremely expensive with widening and multiple river crossings. Wetlands affected.
Will not help enough
Too far south
Meandering 2 lane instead of straight shot to US-31
A little out of the way
Make the most sense for "cross town" traffic congestion relief.
Possible conflict with topography, existing land owners
Doesn't solve enough of the issues
I don't like the idea of using a rail corridor for vehicles.
Potential loss of use by pedestrians and cyclists. Environmental impacts along river corridor when parallel road exists.
Would prefer ROW for non-motorized traffic
Too much land purchasing
Dead ends at South
More roads bring more cars!
Rennie School Rd and Williams can't handle the added traffic
Excesive southbound driving to reach E/W road
Everything is to secondary roads
Not real sure how any of these will help much. Lots of turns. Would need to be widened.
Too far south
Impact on Buffalo farm. Too close to town - access to highway
Too complex
Rail grade is too steep and too close to river - impact
Alignment causes traffic by youth soccer fields - safety issues
Too narrow
Access to new route is a little further out of town along 31
Some destruction of habitat to build
Why would I drive south to get to the west side of town?
Keep ROW intact for future rail
bad flow
You cant just build one of the 3 Cass Routes. All 3 need to be built to best aid traffic flow
See above.
Expense
Skeptical of new roads
Keeps too much traffic along West side of river - there is already a heavily travelled road (Keystone) on the East side.
Disturbs undeveloped natural area.
Seems like a big workaround
No roundabouts Woden Cass road to four lanes
Huge infrastructure costs for little improvement
another bad idea
Ok
No real fix. Diversion of traffic.
Prefer Hammond to Hartman but better tha nothing
Two lane bridge
same as above
property acquisition
disturbs natural area?
too many curves
I don't think it's necessary - solutions
nothing
Too far out
Slightly out of the way of main/central TC
No roundabouts please!
"
Rennie School road is no designed for optimal travel with the sharp hill and curves. Roundabouts on 3-mile and 4-mile add nothing to traffic flow
too far, roundabouts
Too much new construction

The route is too long and the roundabouts are unnecessary.
doesn't seem as helpful as a Hammon Rd extension because it would require expansion of Cass St bridge for traffic to flow though that narrow section of road. I could see hugh bottlenecks forming despite the addiditon of roundabouts
Move it out of town
The grade of the hill on Rennie School Road leading up to 31 needs to be reduced.
It is too far south.
Possibility of added cost of maintenance due to proximity to water and wetlands
Too disruptive during construction. Will do nothing to improve ease of travel across town.
Not practical
It appears that the ROW via RR may not even be feasible. Why is this possibility even listed? Too far south to relieve congestion.
Roundabouts
low yield? need to acquire access
Cimplicated
I don't drive in this area enough to justify putting in these extra roads
Next to river means environmental howling. Won't be built or used.
Using potentially valuable railroad right of way.
New bridge
Too many roundabouts. Widely unnecessary
Costly with little improvement
Nothing
Nothing
Potential environmental concerns
.
Too far to alleviate S Airport traffic
Poor Cass Road option
Works as is put a bypass around city
taking away from pedestrians and biking
Not direct - would work as a work-around, make shift solution.
Not direct.
Rennie School & Beitner roads would also need improving
same as above
Not accessible to bikes. Might now really decrease traffic.
little impact, duplicates two existing corridors
too far southtoo far south, doesnt' interface with Grandview Parkway/South Airport/ Acme area through 3/4/5 mile
still nothing to assist intown crossing
New infrastructure is hard to support without new approach to land use that seeks a better real ROI on public investments. .
It follows the water, I'm concerned over erosion and pollution
No comment.
Believe it will be difficult for the average driver to navigate roundabouts
Habitat loss
Too far south
Not new, won't help with existing problems.
Nothing
Ruins the tranquility of Broad Road and the pedestrian use of Dracka / Broad for running, walking and biking. Too many small children in this area to even consider such an option.
What is this supposed to fix? I dont get it.
New road along west side of BoardmannRiver
good alternative
Bridge requirement would negatively impact environment. Does not include roundabouts at all major intersections.
same
NO
Doesn't solve the problem.
THe map looks like this just dead ends in the woods
longer than route a
Doesn't help the majority of traffic going north and west.
alignment for new roadway along rail ROW
nothing
Keystone cannot handle more traffic

As above
Not as direct, connects to 31 at a more southerly pt than the Cass Rd Route A & the Hammond Rd Crossings, & too many roundabouts
The county have to purchase land to advance towards US-31
Encroachment on undeveloped land, river, wildlife
NA
Too many turns and worse than Beitner
everything
not necessary. waste of tax $
continual delay in getting something done
Would be costly and would need to upgrade Rennie School as well.
Noise next to the river and trails.
Too far south, uncertainty about rail ROW
indirect
location is not convient for east west flow. many people will use this to get north south in and out of tc without every using the hartman crossing. Having this will only add to the congestion
ditto
Cass road is not an alternative at this point
Potential wildlife/environmental impact
Better than nothing
Dislike--see above
You Should be adding an Round About at Rennie School Rd. and US 31. Alot of flat area and alot Semi traffic. O yeah you want to leave it up to MDOT. Work together.
Environmental impact on wet lands; Moves TC traffic problems to Garfield Township
same as above
not a very straight shot
does not increase the number of vehicles that can cross the Boardman River
same
Not intuitive to find
Don't really care for the roundabouts. They seem to cause more problems than they solve because drivers don't know how to handle them correctly.
This is a good option (not excellent).
Roundabouts
everything
Sprawl
Everything
new road
same as A
Same as above
Farther from T.C. than Hammond-Hartman
ENOUGH TRAFFIC ON RENNIE SCHOOL RD+HILLS
Its not as direct as the Hammond or Beitner options.
not direct route
Puts pressure on Rennie School Rd with no proposed improvements.
To far sought
May be too far south so drivers might not use
Not a direct route
still heavy traffic
not really adding anything new to our clogged roads
cost
It does not really help the problem.
Too far out
Cost would appear to be higher than Hammond Rd
nothing
see above
Least likely to be used as a bypass
no downfall
Na
Should have expanded bridge when reconstructed in anticipated future expansion - cost
not efficient travel - routing is too indirect

Possibly displacing people or property
cost, the roundabouts not semitruck/ Plow friendly, not direct
not much better than existing Beitner
Only aims to move cars, not people
Might to too far from town to help much, not a very direct route.
requires construction of new roadways
Does not address the root problem by increasing East West capacity
Nothing
negative impacts from development;
too long
Seems out of the way...
Offers options: traverse across US 31 or north/south on 31.
Roundabouts would create even more difficulty for cyclists and runners, I would rather see expanded shoulders for bicycles runners and improved access to tart trail systems
new construction; increased sprawl
potential for infill development in rural area
still not a direct route
Too far south.
not much different than the beitner option - quite south of tc
I don't dislike this plan. This has real solutions to the current problem
Nithing as long as plan doesn't change
Expensive. Right-of-way acquisition and construction cost.
I don't like any solution that involves stop and go traffic and hills.
Cass Road Route C offers a simpler short term connection to Keystone intersection.
Keystone will be too congested if lanes aren't added, it'll be backed up into Hammond
Doesn't alleviate congestion and won't be used as heavily
takes you out of your way to the south if you're going to Long Lake or north of there
of roundabouts is …
unknown
Of the 3 Cass Rd. choices, this one runs along the river for the longest length and consequently will have the greatest negative impact on the river from runoff.
Seems like Rennie and/or Williams would also need upgraded.
connection to US 31 is too far south
See above.
I don't think the existing new bridge over the Boardman River is wide enough for 4 or 5 lanes. You'd probably end up having to build a second similar size bridge beside that one.
Not enough benefit and using the railroad ROW.
Not sure how much it will help.
No dislikes
Don't see much benefit.
Too far down
intersections at m-37 are not convenient and will not promote bypass traffic
Too far south to help South Airport
I could see the railroad getting in the way.
too far south
I doubt this would improve traffic flow and it is far out from where the main traffic is
None
This seems way too far south to help the problem.
Impact on land west of Boardman River, only partially unloads US 31.
Same problems as A and the added harm of a 4-lane road running parallel to the river to Rennie School Road.
Cost/impact
Allows commercial development along "bypass"
The Cass Road Crossings I find most intriguing. And I have more questions, rather than dislikes. With design B, what would the impact of expanding the bridge be? And how accessible is the rail right of way?
N/A
Doesn't do enough to address East-West travel issues
will create larger issues
Too far south.
Too many turns

Ditto
That bridge was just built Hartman doesn't need that much traffic especially going onto 31/37
people can die
everything
Would rather rail right of way be used for multiuse pathway.
Cutting a new road. Issues with US31
railway should be used for pedestrian or bike corridor, not cars
you still have to go around the lake
Unnecessary
0
Seems unlikely to significantly reduce S Airport congestion
out of the way
Too far south, many turns
traffic is still a mess
Added congestion on Beitner, unless Hammond crossing is installed.
possible
Too far away from downtown
New crossing and added development.
not a good flow for traffic
Costly for making it five lanes
No round about or Michigan turns we don't need fancy landscaping, which tends to block views and add expense to upkeep
Coming out at Rennie where Alpers comes out would be awful.
Land acquisition may be a problem with the old railway. It would make a great bike path or linear park
Railroad ROW will be difficult to get without "TART Trails" requireing substantial concessions for bike travel. Also the railroad ROW are quite narrow and will need to be expanded
Too far south
Too far south. Too many miles of unneccesary roads through some beautiful country land - would require current and future maintenance costs.
Not a practical solution
Dangerous intersection with US-31
Would require improvements to 2 roads, not a direct route. Bottlenecks at Cass Road bridge
A, B, C take traffic too far south
Impact to natural environment at Cass and Keystone
Not a good route
Better. B would be better but still would have lots of traffic on Beitner
Better - but you have a traffic jam at Rennie School Rd and or Beitner
this would do very little to allievaite congestion and could be better accomplished with other proposed fixes
Route A makes more sense
Roundabouts
Getting close to Beitner Rd where traffic already goes
I needed addition but Beitner should also be reconstructed at the same time
Roundabouts are not safe! Totally against this idea!
Too far south.
Not direct. Zig-zags around too much. Not much reason to use route.
I'm note sure people would use it as much as other roads.
TOO FAR SOUTH - OUT OF YOUR WAY
Rennie School Road
Don't you are destroy the Robbins historic farm
residential & expense - assume less costly to improve existing right of ways; underground springs/water
I ride my bike and walk on these roads, new traffic and bigger roads would be horrible for me and my neigbors
People enjoy walking and riding bikes on the roads in this area
Same as answer on Route A.
Tolerable solution.
Nothing, goes nowhere
no comment
ROW and design considerations
Not good idea
too much land acquisition and new road construction
a little far out to help people north of town getting across town

new ROW needed
No solution at all
Doesn't help at all, just creates goofy traffic flows
The most important thing is to focus on reducing car traffic, inviting more in electric transit and educating the public on how healthy it is to take transit, walk or bike. There needs to be departures from the outlying communities at least every 20 minutes at commute times and maybe every 30 on elk-ends, so people will use transit for their daily commutes and to visit outlying areas. We need to get off fossil fuel now to maintain a livable world. With leadership and education, we can change and become a city that others can emulate. Keep downtown walkable. Do not spend any more money on new roads. Spend funds of managing the roads we do have intelligently and safely.
ditto
that area should be left for recreation
nope
Too far south
new bridge
rennie school / williams roads as feeders seem indirect and not optimal from traffic flow perspective, but that is just anecdotal
Everything

Cass Rd Crossing - C
The lake is in the way
Bridge impact could be significant
Will not help enough
Too far south
Needs improvement (from the new bridge to Hartman)
Not doing much, already use
Doesn't solve enough of the issues
I don't like the idea of using a rail corridor for vehicles.
Is most/enough E/W traffic going north along this route to warrant N bend? Moves heavy traffic to residential areas.
For some people I could see this causing frustration of going 'around' the lake
Too much land purchasing and traffic goes south to parallel Keystone - why bother
Meets Keystone at a dead end
More roads bring more cars!
Will overload Hartman
Everything is to secondary roads
Not real sure how any of these will help much. Lots of turns. Would need to be widened.
Sensisible option
Too far south
Same issues as Hammond. Accidents/congestion at highway.
It is an up and down route. Needs to be more direct.
Not very direct - going back north. Doesn't make sense.
Ridiculous circuitry
Poor alignment for bypass
Too narrow
Entry point at Hartman Rd is bad at US31. Plus the large swing south before you cross the river seems excessive.
Why would I drive south to get to the west side of town?
New ROW needed
bad flow
You cant just build one of the 3 Cass Routes. All 3 need to be built to best aid traffic flow
See above.
Expense
Focuses too much traffic on a residential/agricultural area
Disturbs undeveloped natural area.
Seems like a big workaround
No roundabouts
May create adverse environmental issues for Boardman River valley.
a third bad idea
Ok
No real fix
Only if do A and B
Two lane bridge
not as direct
same as above
not direct enough
too curvy
nothing
Too far out
Slightly out of the way of main/central TC
No roundabouts please!
"
Existing roadways with added roundabouts in places where they would not improve traffic flow (3-mile and 4-mile)
too far, roundabouts
With the number
The route is too long and the roundabouts are unnecessary.
I don't see how this would help calm the busy east-west traffic on South Airport Rd.
Move it out of town
Makes no sense, already exists and nobody uses it. A long go around.

It is too far south.
Keeps current traffic pattern with curves and rail crossings
Too disruptive during construction. Will do nothing to improve ease of travel across town.
Not an improvement
Not practical
Very convoluted route. Again, too far South to be helpful
Roundabouts
low yield? need to acquire access
Complicated
I don't drive in this area enough to justify putting in these extra roads
Only slows down traffic, doesn't increase capacity. Already well traveled by locals and people that know.
Doesn't make sense to build this route.
New bridge
Too many roundabouts. Widely unnecessary
Not helpful with quick access across town
Nothing
Nothing
Potential environmental concerns
I don't like it
Too far to alleviate S Airport traffic
Same
Not direct enough
Nothing, but it alone isn't enough - combine it with Route A
Not direct.
Added mileage traveling North & South.
same as above
Might not actually decrease traffic.
little impact, do nothing approach
too far southtoo far south, doesnt' interface with Grandview Parkway/South Airport/ Acme area through 3/4/5 mile
inconvient
Potentially creating another low value, dangerous, superwide road.
not effective now, not much will change
No comment.
Believe it will be difficult for the average driver to navigate roundabouts
Nothing
Too far south
This already exists and won't help with the traffic flow
Nothing
Creates too many intersections / turns needed to flow east and west and would impede on the pedestrian usage of Dracka and Broad Road.
What is this supposed to fix? I dont get it.
No improvement to Hammond between Cass & US31, and no flow onto US31
good alternative
Bridge requirement would negatively impact environment. Does not include roundabouts at all major intersections.
same
NO
Doesn't solve the problem.
This route exists today. Its not an improvement apart from the roundabouts on Hammond
Its just too far south to come back north
longer than route a & b
Currently in place, improvement would have to include widening all of Cass.
Too many turns/intersections between US-31 and Cass Road Bridge to impede traffic flow
nothing
Keystone cannot handle more traffic
As above
Not efficient (since you'll be driving south & then north to go around the river) & too many roundabouts
The county have to purchase land to advance towards US-31
Encroachment on undeveloped land, river, wildlife
NA

Too many turns and already available route
everything
again, not necessary. waste of tax $
continual delay in getting something done
Doesn't provide much for additional capacity above the existing route, would need to improve Hartman intersection with M-37
Too far south, too many turns
indirect
location is not convient for east west flow. many people will use this to get north south in and out of tc without every using the hartman crossing. Having this will only add to the congestion
ditto
Doesnt make sense to zig zag up and down
same as above
Inefficient routing
Better than nothing
Dislike--see above
Need to carry it all the way into South Airport with Left turn lanes
Environmental impact on wet lands; Moves TC traffic problems to Garfield Township
same as above
not a very straight shot
does not increase the number of vehicles that can cross the Boardman River
same
Not intuitive ...will be used by locals only
Don't really care for the use of roundabouts. They seem to cause more problems than they solve because drivers don't how to handle them.
This option will not reduce congestion.
N. Roundabouts
everything
Sprawl
Everything
new road
maybe be 3rd best choice for moving traffic thru town fast
Same as above
Farther from T.C. than Hammond-Hartman
SAME OLD SAME OLD
Its not as direct as the Hammond or Beitner options.
not direct route
Concern with safety given the terrain of Hartman Rd.
To far south
Not a direct route
still heavy traffic
not really adding anything new to our clogged roads
cost
It does not really help the problem.
Too far out
Cost would appear to be higher than Hammond Rd
pointless you still have to double back
see above
Less likely to be used as a bypass
this is not needed, already exists
Na
Should have expanded bridge when reconstructed in anticipated future expansion - cost
not efficient travel - routing is too indirect
Possibly displacing people or property
cost, the roundabouts not semitruck/ Plow friendly, not direct
too much north south to get east west
Only aims to move cars, not people
Might to too far from town to help much, not a very direct route.
Does not address the root problem by increasing East West capacity
Nothing

pedestrian/bike access
too long
Seems out of the way... again!
Roundabouts would create even more difficulty for cyclists and runners, I would rather see expanded shoulders for bicycles runners and improved access to tart trail systems
new construction; increased sprawl
doesn't accomplish enough on its own
stil not a direct route
Too far south / adds extra travel time and increases congestion on Keystone.
I travel this now- it's frustrating to go mile south on cass to turn around and go a mile north on beitner/keystone to get to Hammond
This doesn't solve the problem
Everything
I don't like any solution that involves stop and go traffic and hills.
Keystone will be too congested if lanes aren't added, it'll be backed up into Hammond
Doesn't alleviate congestion and won't be used as heavily
takes you out of your way to the south if you're going to Long Lake or north of there
highly over rated!
unknown
Doesn't seem to add the needed connection to 31.
too circuitous, won't get used much
See above.
I don't think the existing new bridge over the Boardman River is wide enough for 4 or 5 lanes. You'd probably end up having to build a second similar size bridge beside that one.
Not enough benefit.
No dislikes
Don't see much benefit.
Too far down
intersections at m-37 are not convenient and will not promote bypass traffic
I'm not a huge fan of this solution, as it would involve "backtracking" to Hartman if you want to go towards Chums. I could see people being discouraged from using this corridor due to this.
too far south
I doubt this would improve traffic flow and it is far out from where the main traffic is
None
This seems way too far south to help the problem.
Impact on land west of Boardman River, only partially unloads US 31.
Improvement is minor
Allows commercial development along "bypass"
The Cass Road Crossings I find most intriguing. And I have more questions, rather than dislikes. With design C, I'm not quite sure I understand the zig-zag back down to Hartman.
This suggestion does not have near the potential as other solutions. Other solutions presented would be better.
Doesn't do enough to address East-West travel issues
will create larger issues
Too far south.
Too many turns
Ditto
That bridge was just built Hartman doesn’t need that much traffic especially going onto 31/37
people can die
everything
nothing
you still have to go around the lake
Unnecessary
Seems unlikely to significantly reduce S Airport congestion
too far
Too far south, many turns
traffic is still a mess
Added congestion on Beitner, unless Hammond crossing is installed.
how to get to starting point of C
Too far away from downtown
New crossing and added development.

not a good flow for traffic
Costly for making it five lanes
No round about or Michigan turns we don't need fancy landscaping, which tends to block views and add expense to upkeep
Not enough impact.
This solution doesn't seem to be alleviating the traffic congestion
Too much change of direction which don't appear to be improved to allow any additional traffic
What we currently have and doesn't really provide any relief…
Too far south
Too far north to Hammond to get to US-31 for southbound traffic
Route is out of the way. It is quicker to move traffic from point A to point B in a straight line.
Not a practical solution
Costs plus environmental disruption
This is currently being used. Not an efficient way to divert traffic
Illogical loop
Impact to natural environment at Cass and Keystone
People already under utilize this and it exists. Most people, by conscience, will not travel out of the way or deviate to this extent. By the time they do this, they might as well continue on the congested, more direct route.
Joke
Is existing - doesn't work
Useless
Completely useless
Route A makes more sense
Everything
poinless to backtrack
Why?
Roundabouts are not safe! Totally against this idea!
Too far south.
Not direct. Zig-zags around too much. Not much reason to use route.
I'm note sure people would use it as much as other roads.
TOO FAR SOUTH - OUT OF YOUR WAY
Hartman Road
Doesn't make sense
residential & expense - assume less costly to improve existing right of ways
I ride my bike and walk on these roads, new traffic and bigger roads would be horrible for me and my neigbors
People enjoy walking and riding bikes on the roads in this area
Same as above!
Tolerable solution.
Nothing, goes nowhere
no comment
ROW and design considerations
Bad option
too much land acquisition and new road construction
a little far out to help people north of town getting across town, not efficient
nothing
No solution at all
Doesn't help at all, just creates goofy traffic flows
The most important thing is to focus on reducing car traffic, inviting more in electric transit and educating the public on how healthy it is to take transit, walk or bike. There needs to be departures from the outlying communities at least every 20 minutes at commute times and maybe every 30 on elk-ends, so people will use transit for their daily commutes and to visit outlying areas. We need to get off fossil fuel now to maintain a livable world. With leadership and education, we can change and become a city that others can emulate. Keep downtown walkable. Do not spend any more money on new roads. Spend funds of managing the roads we do have intelligently and safely.
ditto
are we really gaining much more than we already have
nope
Too far south
have to go south to go east or reverse
new bridge
forces some backtracking
Everything

Beitner Rd Crossing
This will work but go east past 4 Mile Rd
Too far away from TC.
The hill could be tricky.
Major grading problems to satisfy "state" problems.
Beitner will to closed. So congested peak times.
I don't think this will accomplish the overall goals of the project.
Neutral but it is a way south of town that increases budgeting for gas, time for transit
If east/west was the issue, this wouldn't help
Will not help enough
Too far south
Nothing except making it a boulevard
A little out of the way
Too far south, too many roundabouts
Too far out.
Too far away
This also has too many roundabouts - don't know if it would relieve any congestion.
Need to widen Beitner especially at Chum's Corner. Too many roundabouts.
Best solution
No concerns
Same as S Airport Rd roundabouts.
I assume most traffic to TC is coming from the southh so would this option actually drive some people away from businesses.
Too far away from traffic flow
Homes disrupted
Least amount of change to existing road.
Still don't like roundabouts but would relieve the daily afternoon traffic jam.
Need a light at Beitner and River Rd
Please try something NEW instead of returning to Hammond-Hartmand. It will result in commercial sprawl.
A little far away
Good option
Roundabouts that could be too small
Improve the roads but too far out to improve traffic flow
Too far south
Love this.
Roundabouts - too many!
Travels too far south and too many roundabouts.
Too far from town to help with east/west flow.
Too far south -to cross town I don't want to end up at Chum's Corner
Concerned about gas plume under road, about sinking place on road, about mail delivery.
Would require serious stormwater controls to do this right. How much road corridor disturbances would be required to increase road capacity.
The exisitng hills are too steep
The hill on Beitner is a problem! It is dangerous in the winter.
May work
Too far south of town. Rural character still in place would be compromised.
Keystone is already heavy congested during rush hour.
Too far south to help
May prompt sprawl along corridor.
bad flow
The roundabouts are the wrong design solution for this route. Needs to be divided with roundabouts.
Too far south
Disturbs undeveloped natural area.
Beitner Road by River Road is a pocket of rural paradise
No roundabouts
Will increase traffic along a scenic area (river, and hillside)
too far out to benefit local transit
Ok
Not a real long term fix. It will help a bit but that's it.
Might be more efficient at some intersections

Winter time elevations
nothing
too far south
people are not adept at roundabouts; worse when slippery
Nothing
Question whether the impact is sufficient to justify costs
nothing
Way too far out
Out of the way of main/central TC
Will take people too far out of town to help with traffic congestion.
No roundabouts please!
"
Too many roundabouts that would limit travel for truckers and work vehicles with no benefit to travelers who obey speed limits. Would encourage more people to speed as they would not need to stop for traffic lights.
Possible costs to side the bridge over the Boardman
too far, roundabouts
Too many roundabouts where are many necessary access drives for homes and bussinesses
Adding a bunch of roundabouts to this road seems highly impractical.
Seems impractical to rebuild so many intersections. Also, road would need to expanded (adding a lane or two) to acommodate the traffic.
Roundabouts

Nothing, it's good.
It its way too far south.
Too far south to be a viable relief of traffic congestion
Too disruptive during construction. Will do nothing to improve ease of travel across town. Too many roundabouts.
None
Increased traffic at Chums intersection
Not helpful for the problems at hand
We're trying to relieve TC traffic, not Grawn's. Too far out of town.
Roundabouts
low yield? need to acquire access
Complicated
Roundabouts. Get rid of them.
The hills could pose a challenge with roundabouts on beitner.
Nothing
Too many roundabouts. Widely unnecessary
This would slow down commute
Expand this route to accommodate the traffic using these roads.
Too many round abouts
All the roundabouts
Doesn't seem like it will solve anything
Too far to alleviate S Airport traffic
Same
too many roundabouts
Too far south to make an impact
Many accidents on Beitner now. Replace bridge? River parks are heavily used with people crossing roads
Nothing, I like it.
Begins too far south of TVC.
to far from tc not far enough for a south bypass
See other comments about roundabouts. Far away from where congestion is happening.
topography, river contamination, sprawl inducing
too far southtoo far south, doesnt' interface with Grandview Parkway/South Airport/ Acme area through 3/4/5 mile
it does nothing to assist in crossing town.
Not much to dislike. It is what it is.
too many roundabouts too close together once on hammond. traffic will jam with people that dont know how to use them
No comment.
Believe it will be difficult for the average driver to navigate roundabouts
Unknown

Too far south
Too many roundabouts, and doesn't seem to help with another alternative for east/west flow
Nothing
Eliminate the roundabouts and simply widen Keystone / Beitner
i dont think all of the roundabouts are really necessary. the corner at 31/37 and beitner is what causes the backups
good alternative
Chums corner will need improved flow
nothing
TOO FAR SOUTH FOR BYPASS
Only expands an existing road without giving people an alternative route.
Go 3 mile to Hoch road
Not much of an improvement. Don't see need for roundabouts at Hoch and Townline Roads.
it is too far south for intown traffic
Longer than cass road crossings
Doesn't address traffic going north/west. TOO many roundabouts. When roads are pure ice, as they have been the last 2 months, negotiating turns will end up in more traffic snarls and fender benders. How do pedestrians get across?
Too far south.
Cost
Keystone cannot handle more traffic
Too far from South Airport
Too many roundabouts & not a very direct route to 31
The most Practical of all of them
Five lane highway concept for this road and its impact on property owners along the road.
Not the right location
Hills on Beitner would need cut for reasonable grade
Time it would take to widen bridge.
no roundabouts
continual delay in getting something done
Too far south
not useful if it is the only option
not needed bad location
ditto
This makes some sense but definitely needs a turning lane and more lights for roads that empty onto Beitner and Keystone
Route less likely to be used by those wanting to travel from east to northwest
Better than nothing
You should be carring this all the way to Hock and Potter RD. Build it they will come.
Moves TC traffic problems to Garfield Township
same as above
Nothing
Too far south
too many roundabouts
same
Not intuitive.
Too many roundabouts would cause major traffic headaches on keystone and hammond roads.
This option will not reduce congestion.
Roundabouts
everything
Sprawl
Everything
it isn't being considered, and how much inner area traffic would it relieve
too many roundabouts suggested for Hammond
I think it would be nice if it could go on more of a diagonal to intersect Hammond at lafrainer
Will provide no relief from existing crosssings
WAY TOO MANY ROUNDABOUTS
No dislikes.
not direct
Potential Cost and disruption of rural areas.
Does not provide an additional route

Too far South to be of use.
still heavy traffic
Too congested.
roudabouts require smart people, this route is already maxed out, not really adding anything new to our clogged roads
not a good location to carry substantial amount of traffic
It does not really help the problem.
Too far out
Cost would appear to be higher than Hammond Rd
It would take too long to construct
Too complicated
see above
no bridge over the river
no downfall
not effective
Should have expanded bridge when reconstructed in anticipated future expansion - cost
Makes use of roads that really don't need the development
not efficient travel - routing is too indirect, too far south
I think the roundabouts will cause more issues and driving frustrations
the roundabouts not semitruck/ Plow friendly
Only aims to move cars, not people
The route already exists and is too far south for any incentive to use it to get across town quickly.
Don't hep with in town traffic problems
Does not address the root problem by increasing East West capacity
Nothing
negative impacts from development; congestion might not be relieved
ridiculously out of the way
Once again...roundabouts!
Roundabouts would create even more difficulty for cyclists and runners, I would rather see expanded shoulders for bicycles runners and improved access to tart trail systems
increased traffic around boat launch and pedestrian street crossing
too many roundabouts?
still not a direct route
Too far south / too many proposed roundabouts.
too far south to help with the congestion from the cass rd dam north into tc
This road is unsafe. My husband recently totaled our car because of ice build-up on that road.
This doesn't solve the problem
Everything
To many roundabouts
I don't like any solution that involves stop and go traffic and hills.
No major dislikes
Still needs another way over the river.
Doesn't address any issue as it's too far south
oo far south
Too far south.
learning curve for roundabouts
This option runs the greatest distance along the river and would therefore negatively impact the water quality due to runoff from road building/maintenance and traffic. Also, consider if it is too far out to relief Airport and at "rush hours" it is already backed up.
Missing connection between 31 and Keystone in the vicinity of the new bridge on Cass. Missing roundabout at US-31. Brings more cars along parallel to the Boardman River.
Nothing.
Expanding Keystone & Beitner to more lanes (I think you need at least 4, better to have 5 with a turn lane) will be expensive.
Not enough Airport Rd congestion relief.
Beitner/Keystone needs more lanes not just roundabouts.
No dislikes
Don't see much benefit.
Too far down
Not enough on it's won as it is too far south for a lot of west side traffic to make use of
Too many roundabouts - yuck!

I could see this corridor being less convenient for those starting from/going to closer to the city. I can also see that Beitner could become more congested, but if it's expanded as proposed I think it would be able to handle the traffic fine.
way too far south
None
This seems way too far south to help the problem.
Should focus on intersection improvements before widening.
Again, the number and quality of the roundabouts is the issue. I like the roundabout solution to make that traffic flow and to provide a good east-west alternative to Airport.
opens up to much commercial potential far from TC
Need to expand keystone to 4 lanes to handle increased traffic
it already backs up at
Allows commercial development along "bypass"
I think roundabouts at each intersection might be a bit much through here.
Roundabouts
Too far out of the urban core area to effectively address mobility issues. Will still be left with many transportation difficulties on roads such as S. Airport and Hammond
will create larger issues
Too far south and won't solve the objective.
Too many turns
Not a new connection
Not much these are good options
people can die
everything
Would only relieve a small portion of traffic.
nothing
it is far out of town and some people won't want to use it
Seems unlikely to significantly reduce S Airport congestion
too far
Too far south
too far south to positively impact
Added congestion on Beitner, unless Hammond crossing is installed.
too many traffic circles
4 mile should be left alone since too far out
nothing
More rural easy to construct 5 lanes
Yes bring traffic here or further south to prevent people passing through from even getting to TC, ie those going out Leelanau way
Not enough impact.
Beitner is too narrow.
Too far south to access majority of shopping and restaurants in mall area
The grade on Beitner is very steep and the number of roundabouts may not be effective or necessary
Roundabouts
No real solution here - too many roundabouts, no real changes to carry any additional traffic
While some intersection and capacity improvements could help it wouldn't really help at providing EW time improvements or help at all for those living west of US-31/M-37 around and north of Silver Lake and all
Too many roundabouts
Would require work over river - could not handle traffic the way it is. Too far south - majority of traffic is not that which is getting out of town. 9 roundabouts??? Get real. One would be a challenge for the majority of drivers. Take it from someone who has driven these roads and roundabouts outher places for many years
Not a practical solution
Keystone should connect directly to S Airport without Park St snake. Also potter rd to 3 Mile/Garfield would be better.
Too many roundabouts
part of a future program
Too far south to alleviate local shopping traffic
I believe this already exists and does not move fast enough. Certain parts of the day are far too congested.
Focus should be upon east-west flow along Keystone Rd. The intersections at 31/37 and possible feasible plans southward.
Bridge not big enough
Second best option
Too many roundabouts - eliminate Garfield Rd and LaFrainier
Too many roundabouts
Nothing - this solution needs to happen. 4 lanes with roundabouts to slow traffic along Keystone/Beitner

Cass Route A makes more sense. No roundabouts
Roundabouts
everything
Goes to far east, stop at 3 Mile. It doesn't include widening Keystone to 4 lanes with turn lanes all the way to Airport Rd
Winter maintenance on roundabouts not easy
Roundabouts arent bad! I do like roundabouts but too many roundabouts here.
Roundabouts are not safe! Totally against this idea!
Too far south.
Nothing.
I'm note sure people would use it as much as other roads.
TOO FAR SOUTH - OUT OF YOUR WAY
too far south
Doesn't help with east west traffic
hill at chums corners; bypass thru hoosier valley? - need to continue additional lanes to light at chums
Way too many roundabouts!!! They take too much land space & people don't understand them!
This improvement makes sense to me.
uses existing roads, does not cut through as much precious environment.
None of it.
Too far out
would provide smoother access in and out of town during peak travel times
a little far out to help people north of town getting across town, very far out
nothing
Eliminate the roundabouts and it's a great solution!
The most important thing is to focus on reducing car traffic, inviting more in electric transit and educating the public on how healthy it is to take transit, walk or bike. There needs to be departures from the outlying communities at least every 20 minutes at commute times and maybe every 30 on elk-ends, so people will use transit for their daily commutes and to visit outlying areas. We need to get off fossil fuel now to maintain a livable world. With leadership and education, we can change and become a city that others can emulate. Keep downtown walkable. Do not spend any more money on new roads. Spend funds of managing the roads we do have intelligently and safely.
ditto
infrastructure in place
too many roundabouts
Too far south
new bridge. too far south
not sure about effects of widening river crossing on Beitner
If roundabouts are used, the could be challenging for some.

What potential Practical Solutions do you think we have missed?
Not a good solution but S. Airport need continuous sidewalks. The are walkers in the road especially in winter are scary.
Let people detour around TC
Bridge to connect Rennie School to Hoch to 3 Mile
A freeway with on and off ramps able to cross town with ease
River Road?
Either 1) Beitner - Hammond - 4 Mile, 2) Hammond-Hartman - 4 Mile, 3) Put large roundabouts on S Airport Rd at Mall light, at Veterans or E Cass St, E Park St, E Barlow Ave, E Garfield Rd, E Townline Rd, and E 3 Mile Rd.
Significant work has already been done to improve the wetlands along the Boardman River. Hammond bypass could also improve the existing wetlands
Most major cities as they grow they build a bypass - do it now while the space is there - worry about city streets as need
Tunnel from Chum's Corner to Acme with key access points. Nice, eh?
Great job. All options explained well.
Would asking the State to reroute US-31 along Beitner Rd to Hammond to 4 Mile help remove east-west traffic in town?
Too many.
Our winters can be long and hard. When salt and sand don't work because of temporature these roundabouts will be terrible. Cars and trucks traveling at 35 to 45 mph in a circle can spell trouble!
Something out to 72 - west side
If you chose the Hammond-Hartman bridge, name it Unity Bridge or do a high school naming contest.
Maintain existing roads; let road capacity limit demand. High-volume roads encourage more driving.
Lots of good choices
Dropping out at Four Mile/Bay is too close to Metro area. Consider further east - even closer to US-131
A mix of incremental fixes on the whole of the existing system.
Do nothing. Required by federal NEPA and State of Michigan PA17 of NREPA, PA 457 of 1994 as amended
Putting the river in culverts. Continue Airport Rd to 4 Mile
Need more public input!
Take 3 Mile over to 4 Mile City bypass from Chum's Corner to Bates Tubes instead of bridges
Timing of street lights according to traffic flow.
Beitner -> Hoch -> 3 Mile. Yes this would be a bypass
I question future traffic counts increasing as projected for 2025 and beyond. Maybe we will get started and drive less, or maybe our area will become less attractive because of growth.
Getting people out of cars - commercial traffic still need to be considered (trains, possibly)
Despise roundabouts. Do not use Four Mile as a bypass. It is all residential and already problematic, especially vehicles coming off 31 North speeding. We live on Oak Drive, hard to get out now. Quagmire - Speedway & mini mall across, RR tracks, bike path, and hotel coming using back exit.
Hoch Rd - Rennie School Rd. Limited homes disrupted - use county property north of Hoch
Starting with the taxpayers! Where is the need? Where are the traffic studies to show need?
Turn lanes, traffic flow timing. Public transit. Hoch Rd connection to 4 Mile
I think incorporating roundabouts will help slow traffic and keep it moving. Backups on Keystone feel like they occur with poorly timed lights.
Strong emphasis on signal timing, no stop right turns, lack of right turn arrows on existing intersections.
What would the combination of Cass options C and B look like? I saw the volume of traffic, but what direction (north or south) are people heading once they cross the river?
Possible combo of B/C Cass Rd
If there were more efforts to provide people with more options for getting around, then you could reduce the amount of vehicles on the road and free up road space.
Maybe a more southern bypass?
Possible floating bridge over Lake Boardman?
Make any high traffic count roads private access free and change from separate use zoning to mixed use
Options for sidewalks on 3 Mile as there are so many schools on this road
Fix and improve existing roads
Why are you not studying a total bypass to the south so folks can access Interlochen and Elk Rapids w/o going through TC?
Moving farther south - Hoch-Potter to 4 Mile and completing 4 Mile to the bay
More mass transit - commuter rail from W-Burg, Suttons Bay, and Interlochen

Collaboration with TC and other municipal units of government
1. Origin/destination data as part of study. 2. Incorporating traffic aware routing/navigation 3. Population/traffic past 2035.
Connecting to Williamsburg
Keystone to S. Airport. Should work with other counties as this isnt something that GT County can resolve alone
More mass transportation during heavy use, Cherry Festival, etc. Use industrial land not being used. Make large parking lot. Route is from only parking lot outside town to designated area in town, close enough for pedestrians to walk to local shops.
Mass transit
Go south
Extend Keystone to S Airport, widen S Airport from Garfield to 3 Mile, use Beitner, Cass as feeder routes to S. Airport
Exceptional process - suspect that those with different takes on this issue will have ample opportunity to be heard.
Educate the vocal majority that a birdge can be built without the percieved impacts. Span the floodplain/wetland with minimal footprint
None that would make a change in traffic
Stay further south to avoid steep grades and local worker traffic
The description of the River bed and the unpleasant environment on both sides of river where Hammond/Hartman is proposed = other areas the river is more sensitive
Looking to Acme, M72, and US23. Build a new road from Hammond/6 Mile to Lautner.
Something still needs to be done with the Division & Parkway intersection which would remain a bottleneck.
Beitner Needs to be divided with roundabouts. Cass route needs all 3 options built if chosen.
Fix and maintain existing roads, improved traffic light timing. I do not experience congestion or difficulty travelling east/ west. The concept of a bypass was discarded but this is what I hear most people wish for.
Closing TC to car traffic. Haha
I think you need to think more long term and focus on how to get traffic as far west as M-72.
I think you’ve covered everything.
I think you've thought them through. Why are any of these needed though? My understanding is that only 5% of traffic is trying to bypass TC anyway.
Maintain the current roads and stop trying to reinvent the wheel
Noninfrastructure improvements. Education. Congestion-timing solutions with assistance from businesses to change start-end times. The congestion problems seem to be exaggerated, especially since most are time-limited.
Connect Grey Rd to Hammond. No spare capacity in TC during summer to give emergency vehicles quick access
?
Just fix airport paving
None at this time
Better timing of lights to work in a coordinated way. They have improved but traffic could be significantly improved this way. Too many sensors as opposed to timed lights. Also, The overuse of shaped curbs has caused significant hassles in the winter when it comes to snow and shoulders. Basically you are trying to over engineer everything. The harder you try To fix every potential road engineering problem you end up causing twice as many unintended consequences. Keep it simple. Despite the environmental impact of a new bridge I feel it would elevate the environmental pressure of idling vehicles stuck in traffic. It’s non intuitive but I think it makes sense at this point. Growth is not stopping. I suggest you plan accordingly.
Need fifth lane for left turns on Munson from Garfield to Grandview. Need more room for turn lanes on Grandview after union.
None
I don't have any new ideas
What ever you do, please stop relying on roundabouts to improve traffic flow. Confused drivers are not safe drivers. And the benefit is outweighed by the amount of land needed. What ever is built needs to move traffic....motorized traffic. Not Bikes, Not pedestrians. That should be the focus. Have you even considered closing curb cuts and building either a service road or at the very least, connected parking lots/driveways so there are fewer places where traffic must slow.
more mass transit

Easiest and cheapest thing right now is to sychronize traffic signals to allow better flow. Then make right and left turn lanes at every light. Reduce the hours traffic signals are working. Lights at mall and crossings don't need to be on early morning or late at night. Many lights could be reduced in this manner to flashing red and yellow.
It seems the options assume one-car, one-person will continue or increase. We have to find ways to get people out of cars, esp at peak times. car pooling (higher parking fees), public transit, off-peak commuting, remote work, reverse lanes, and more. These can work, and the costs to implement and maintain have to be less than new infrastructure.
Improvements to the East-West routes will be a benefit to the community at large. It seems that access points to the routes, not simply the eastern and western entrance points, will need to be modeled and slated for improvement as well. (i.e. some of the primary North-South corridors will perhaps become more popular access points to the East-West routes).
Use Rennie school rd to connect to 31, traffic signal will be there already for Blains for traffic going north. Use Hoosier Valley rd. To connect to 37 for traffic going south. Too much congestion at Chums.
I think the ideas suggested/studied are fantastic options
The intersection of Hoch and Garfield. I've seen several people almost get hit trying to make it across when traffic is heavy. I think a roundabout there would be a practical solution to keep traffic flowing and result in less accidents.
.
None, let's do this already!
Create a "local" road and a "by-pass" road, wherein motorists who want to CROSS town can use one roadway, and motorists who want to be IN town can use another. I live in Empire and work in Acme, and using the bay is the fastest and most practical solution. There should be a similar idea for the more "in town" folks who also need to cross east-west. Alternatively, we just straight up need a highway. We already have 4 lanes (2 per way) and it isn't working. We need at least 3 lanes apiece in all directions.
Raise S Airport Rd above the BoardmanRiver so a tunnel can connect the Boardman Lake Trail to the south!
Start over and think outside the box. I see the same issues that surfaced in the 60s when forward thinkers suggested South Airport. The land use and environmental groups shot that down. The same is happening now... Of course expansion will occur. Of course their will be an impact on the environment. However, the things those groups fear will happen. South Airport is proof positive. The studies are based on 2025 traffic????? Really??? That means that any project will be unable to handle future traffic. Garfield County needs to be planning this with the City and State. If the forward thinkers would have been listened to in the 60s, the right of way via South Airport would have been secured. Not going to happen now. Hammond still possible..... Contact the engineers and planners in San Luis Obisbo, CA. There is a college town with a population similar to Garfield Township/Traverse City. They have high speed access to and through the area..... Sooner or later, somebody will have to accept the fact that the TC area will expand in spite of environmental and land use groups.
Just wanting a Traverse City bypass to take people from theInterlochen/Chums Corner area to the Kalkaska or Elk Rapids regions without going into Traverse City.
You need to consider east to west from Leelanau County especially with vehicles coming from I-75 to the Dunes. They all have to go down grand Ave.
Increase the amount of time lights remain green for the higher-traffic directions along the S.Airport corridor. Install traffic cameras as deterrents to the excessive speeding, as well as having a presence of police in the area to help limit the amount of stupid driving maneuvers that I see on a daily basis.
I applaud the GTCRC for recognizing that something needs to be done. However, there are countless places where right turn lanes could be put in that would help move traffic. As an example at Garfield and S. Airport if you are seeking to make a right turn and one person in front is going straight all the people in that lane are stuck. These are not cheap fixes, but they would increase traffic flow substantially.
With traffic already backed up on 3 Mile during rush hour, how great of an impact will the east/west bypass have? Can 3 Mile absorb more traffic heading north? Can the traffic lights on 3 Mile and 4 Mile be adjusted to accommodate the added traffic, particularly during the rush hour and after school hours? As both of those intersections also lead to beaches and motels, will better pedestrian crossing lights be implemented? Or, a better solution in my opinion, could another footbridge or two be added along the "miracle mile" for pedestrians to safely traverse from restaurants to beaches/hotels to help compensate for the added traffic at those intersections?
?
Incentives and options for carpooling and improved mass transit
It'd be a huge bridge, but what about connecting Silver Lake Rd to Parsons Rd?
I can't think of any other potentially helpful solutions
Add a roundabout to the start of Grandview parkway and downtown front street. Add a roundabout to the intersection of M-72 and Elk Lake/Williamsburg road.
Possible extending S. Airport to 4 Mile. Extending or looping Hammond all the way to Lautner Road and connect it to M-72.

None
None that I can think of
Addressing the hoch keystone intersection. Also a Garfield to 131 way that is easier would be much better
Unknown
None
None, unless you have not explored the environmental impact of a bridge for the HH connection thoroughly enough.
The sentiments of local population. The confusion roundabouts cause. The need to keep traffic slow on South airport because of so many businesses
I'm deferring to your expertise. No additional solutions evident,
Potter rd
You indicated that Hoch Rd was under consideration but gave no alternatives including it. Upgrading that road along with connections to 3 and 4 mile, combined with a Hammond-Hartman connector upgrades capacity, is forward-looking, and helps address the future increase in traffic as more people move into the area.
If the Hammond Hartman route is used, have enough right of way and stand back for businesses so that this could become a divided expressway in the future when traverse City needs a good loop expressway.
Division should be a divided highway as well as S. Airport
None
Public forums, publicize the forums for input. We don't need another stupid 8th/Woodmere lanes debacle!
A bypass around Traverse City
Possible traffic lights on Beitner at River Rd. and Hoch Rd. instead of roundabouts. These traffic lights could be timed at high traffic times. During low traffic times, they could be blinking red or yellow lights. This could be a quick low cost solution.
non
I do think Hammond needs a left turn lane almost all the way from Keystone to 3 Mile.
Fixing the huge potholes around town
Unknown
An Express way on Hammond
This still won't solve the traffic issue and it needs to be done in coordination with the city and state. There needs to be a regional master plan - not these piecemeal solutions   I would also not support any solutions that take roadway to accommodate bike traffic. It is non-existent and unusable 4-5 months a year. Tart trails and other opportunities exist. This is a vehicle based community and it will continue to grow. We need a solid master plan or we will wind up like Austin, TX with horrible commute times and no express bypass
Change 8th St back to 4 lanes
Add an option of Hock Rd connecting to 4 Mile, and 4 Mile connect thru to Hammond w/ roundabouts at Garfield, 3 Mile,and Hammond
None
What about all the traffic flowing to and from Leelanau County on M22 and Bugatti Road? How is that integrated into the current plans? I get that we cannot solve everything at once, but I am missing master plan concept for a big source or east west traffic.
We have enough bike and walking trails. No need to make an unnecessary and unsafe system that includes more bike paths within driving lanes.
More divided roadways. Seem to work in bigger city's with the flow of traffic.
If you could time the lights for better traffic flow that would be nice.
Can't think of any
Don't believe you have.
still need a south bypass to get drivers out that are not going to T.C around huservalley vary limited access
No ideas.
?????
Adjusting the traffic light timing so that someone can go the speed limit and make it from division to Garfield without stopping.
None, Hammond Rd is the answer
short of elevated freeway across town, nothing.
I'm waiting for a demand management analysis tied to productive growth instead of mostly focusing on high-speed mobility. Where is the densification strategy for Garfield Township?
Is there potential to connect Hoch to the Williams/Rennie School rd intersection? (without disrupting homes)
I think the best solution is the one ptrsented yea s ago—a crossing over the Boardman River. I think that it should be a combination of some of the proposals. Along with the Hammond-Hartman I would support improvements to South Airport Road that do not include Roundabouts.

Connecting 4 Mile between Hammond & Potter
None
The practical part that includes common sense. South Airport shouldn’t even be an option. We need to alleviate traffic on South Airport not add to it.
Do something with Eigth st for an in city east west corridor
None that I can think of currently. I do know that something needs to be done about the east/west traffic flow.
Not planning for widening lanes in current areas because of commercial buildings being allowed to be built right up to the roads now.
Simply expand Keystone / Beitner to 5 lanes in the future and tie in to 5 lane light at Chums Corner. NO NEED for ridiculous roundabouts. That's the solution and you haven't even suggested it as an option.
Beitner and Keystone becoming 3 or 4 lanes between Hammond and Chums Corners would be great. Could do a flex lane, northbound morning, southbound evening, passing when not busy. Roundabout or merge/yield crossing at Cass would be good, the light causes major backups at 5+PM most days.   Also, US31 south of chums could use some flow improvements, such as two southbound lanes through Chums Corners intersection as traffic backups on the steep hills are dangerous in the winter and very common. I DO NOT support the Hartman/Hammond style projects as the extra traffic light needed on 31 would be bad for flow and at the bottom of a hill, a problem in the wintertime.   Airport Road becoming Michigan Left divided between Garfield and 31 intersection would be fantastic, copy Marquette, the divided 41 works great 99% of the time, even for tourists.
Why not any emphasis on Keystone to S. Airport?
none
Nothing
Widening keystone
none
US 31 NEEDS REROUTING. HAMMOND CROSSING TO 4 MILE. TC HAS ONLY 3 LANES FOR EAST WEST TRANSIT. TWO BOULEVARD/E FRONT AND ONE 8TH ST. NOT ENOUGH FOR FUTURE GROWTH. S AIRPORT CAN'T HANDLE ANY MORE. S AIRPORT AND 31 SAID TO BE SECOND BUSIEST INTERSECTION IN STATE
Connect 4 mile road between Hammond and Potter Roads. This will help alleviate traffic congestion on 3 mile and Hammond. The intersection of Potter and 3 mile is always a mess during rush hour because people can't take 4 mile all the way through.
There are no complete 5 lane roads from east to west. Airport and hwy 72 come close but then at the last minute they change back to 3 or 4 lane highways. Usually right when 5 is needed the most.
Making Beitner a two-lane road both ways
Simply improve existing roadways to enhance safety; discourage sprawl, which always follows new roads and higher traffic counts.
3 mile to Hoch road!
Placing too much emphasis on walkability and bikeability along most of the roadways in the study. Only needed in high residential or retail areas.
Continue to include other mobility solutions (BATA, carpooling, park-and-ride, bikes). Better integrate the newly improved Cass Rd.bridge into the east-west network. Focus on significantly upgrading those east-west roads that have the worst backups (S. Airport and Beitner-Keystone). Be sure to think of non-motorized users as equal in rights to those who are motorized. Don't spend our tax $ on a new road/bridge project without fulling improving our existing roadways. Thanks.
Im not very creative. I think south airport needs to let traffic flow better for in town traffic. I think a bridge connecting hartman and hammond would remove some traffic from south airport. I think a third route south of town like beitner to hammond would get traffic that wants to go around the city off south airport.
none
Please do not see rouandabouts as the solution. Britain, Lansing are taking them out. Pedestrians, bicyclists have a difficult time crossing. Michigan Uturns are time tested and liked in areas like Metro Detroit. The boulevards add beauty as an additional plus. A six lane would be ideal, it would allow for left, right and straight through driving.
no comment
none
Nothing
Elevated express lanes over portions of South Airport. The natural topography lends itself to a bridge over Cass, extending all the way past Park Dr. Additionally, Lafrainer/Barlow could be an elevated flyover eliminating a stop on S. Airport. Add medians and provisions for more Michigan lefts as was done around Logan's landing. Finally, an elevated interchange of some sort using the under-utilized Cherryland Center could eliminate the long stop at Garfield Ave.
Looks well thought out
Connecting and expanding Mayfield Road with Supply road and extending it towards M-37. Or, look at Blair Township Road.

None I can think of.
So many travel on Supply, need more police presence and a better wider road.
None
I don't see other options that are viable. But sh++ or get off the pot already. Years of money on studies just listen to the people.
Left turn lanes really work. Timed lights on S. Airport would really help. Sometimes saving 30 seconds off someone's commute it not worth the $ and the destruction to the envoronment. Creating multiple for traffic to spread out, city grid style or service road style is more important than creating or enlarging big arteries. If there was a way for people to get from one parking lot to another, say on S. Airport, then motorists would not have to put their car on the big arterial street just to skip over a quarter of a mile.
having a beltline and by pass farther out around TC
Smaller internal street connectivity. Too much focus on major road corridors. Many subdivisions are disconnected with adjacent subdivisions forcing longer trips and trips on busy roads. More focus should be on small network of two lane streets to take pressure off major roads.
I haven't thought of any.
Make 8th street a boulevard. Currently, I avoid 8th street like the plague. 8th street was always a quick way to avoid right downtown. I avoid almost all businesses on that street except Juniors.
follow the traffic currently and improve these roads
best options we have had yet. good work.
Bypass everything with 31 far south of TC so that all the tourists and people going farther north do not have to drive through TC along the bad. Local traffic is bad enough, especially in summer. The people travelling farther north just add a lot of congestion to what we already have.
None
Wondering why improvements to US 31/Division isn't part of the discussion.
building a true bypass around Traverse City similar to the Parkway project of the early 1950's
Quit spending money on studies and do something.
I feel you are ignoring the roads that are pre-existing. That you could put the money into to move the traffic. Example Hock rd. to Potter to Four mile. Give the traffic a opportunity to move North and South before they need to go East and West. Example going from Three mile Rd. and Parsons. How do I get to Menards.
None that I can see
-Three mile to Potter to Hoch to Rennie School. this is a true bypass. - Need to have Truck Lanes for the uphill grades on any of these proposals or one slow vehicle slows the whole plan
I think these were very well thought out.
If there are traffic signals, it is imperative to synchronize to move traffic efficiently.
combinations of some of the proposed alternatives.
Many of your solutions are not practical. Hammond goes through a nice rural area, please do not destroy it. Only on practical solution
Heavy signage directing those who want to miss tc in new ways around.
None.
1) Make Beitner a 4 lane boulevard; 2) Connect 4 mile, Potter, Hoch and Rennie School Road; 3) Any bypass should use 4 mile not 3 mile because the US 31/3 mile intersection is already excessively congested; and 4) Since future traffic will increase, not decrease consider one or more East-West routes South of City limits.
Timing of all stop lights in the county. No roundabouts
I am a member of NMEAC and feel that Hartman/Hammond bridge is by far the best route.
Quit wasting time and money and build the only practical solution for future growth in the region.
I would favor a Harmon-Hammond bridge, and taking out the Cass Road bridge. That would swap one bridge for another.
I wish I knew. But, if new development allowed people to do their business closer to home instead of traversing such a big area, it would be nice.
Why not make a loop around town outside these boundaries restrictions?
Not sure
None
I am not sure that one of these options alone would help all that much. I think a couple of these done together may help. For instance: Do Beitner Rd Crossing with round abouts, with Hammond Rd option A or B and South Airport crossing with traffic circles. It gives more options, increases traffic flow by eliminating traffic lights and gives more drive lanes.
do nothing, let traffic be slow - should improve eventually with driverless vehicles
A through road from the area of South Airport & Cedar Valley that would curve around Lowes and empty on 31 & Market Place Circle.

Some areas, especially new developments, may be able to use a designated and defined entry lane to reduce drivers stopping to turn into a shopping area. Consider an express lane for point to point areas;once in, you can't get out until the next "exit". Aside from going up and over certain areas I think options have been explored.
Making Keystone/Beitner roads 4 lane from Chums Corners to at least Birmley Rd.
None
You will need clear signage.
non
None.
I have lived here over 30 years, I am a local, as always the LOUD and VOCAL concerns of a few continue to drowned out the majority, the community supports building the Hammond Hartmann bridge. Until our county adds extra surface area to our counties roads, things like 8th St and Division will continue to be a problem. Stop catering to the few and fix our transportation system. What you are missing is everybody wants the bridge but you are being held hostage by a MINORITY not a MAJORITY. No one will get voted out of a job if you build the bridge, its what the county wants
None, you have identified the most practical solutions.
I think that extending South Airport Road East past 3 mile road should be considered. None of the solutions presented address the congestion that results when the east-west South Airport Road traffic ends up on US 31 east of the end of South Airport Road. Extending South Airort Road East to Acme should be considered connecting it to M-72 East of the Myers development. This would relive the traffic on US 31 between Acme and downtown Traverse City.
I think you have addressed what could be addressed
The time frame this has all taken
None
Before any new roads or bridges are built SMART TRAFFIC LIGHTS LIGHTS MUST BE installed at All intersections to keep traffic moving during rush hours and the other 20 hours a day of normal traffic. Pave ALL roads in Michigan BEFORE BUILDING EVEN ONE MORE ROAD OR BRIDGE. MAINTAIN WHAT WE HAVE PLEASE !!!
you're thirty years to late, build the bridge on Hammond
making a beiter a five lane hwy.
Can't think of one
Time machine, go back, build Hammond-Hartman 20 years ago
potter/ Hoch rd strait through to rennie school rd.
Build a 4 lane highway from chums corner to m 72
None
none come to mind, with the exception of maybe something south of Hammond, but that would be too far south to make a difference
Light Timing is very poor, going to east to west/west to east. flow isn't timed right. and into the the downtown area timing is off.
This was billed as an "E-W Transportation Study". Where is the data to support these solutions? Where is the study in the economic, social, land-use/zoning factors that influence where people live and work in the region and how those factors influence our transportation habits/choices? Where is the information on the environmental and economic impacts of these various alternatives? I see very little "study" here and instead proposals of extensive road projects that will only induce more single occupancy vehicle trips and perpetuate the very problems these solutions aim to solve. Where are the robust transit investments in reliable/efficient public transit? Where are the robust investments in active transportation?
I think 8th street should have stayed 4 lane. Please do something soon! Don't study forever and kick the can down the road.
Need to widen Hammond between 3-Mile & 4-Mile to 4 lanes each way with turn outs
None
Build the bridge
The study has defined some good options, except the traffic circles are not advisable.
Those that support mass transit
Improvements to 31 and grandview pkwy in addition to an alternate route
I think the most practical solution is to just build the bridge!
I wonder if reversing lanes on US 31 during rush hour is an option. Other cities do this, but I have no current knowledge if this is a possible solution here in Traverse City.
none
I would like see expanded shoulders and bike lanes for bicycles runners use and improved access to tart trail systems
co-ordination with M-DOT but that is not your fault
More traffic circles
n/a

Realizing that if one wants the amenities and services of a larger municipality, one must accept the influx of activity/traffic that comes with it (if you build it, they will come). Yes, commutes can be congested. That is to be expected, with so many parents driving children to school rather than bussing, and folks living far outside of town in order to afford to live in the area. It's unreasonable to expect to travel non-stop, in 10 minutes form one side of town to the other. We are lucky enough to have a beautiful water resource in the midst of our town, plus a giant body of water to our north, effectively eliminating 1/4 of the traffic grid from the get go. Maybe we ought to appreciate those facts, appreciate that we have such a booming economy, and stop being so darned impatient.
A mixed solution. Traffic flow into town in addition to east/west flow is difficult to achieve. 8th and 14th street need to be improved in order to aid east/west flow.
?
Improvements need to be made to both 3 and 4 Mile Roads. Even though you didn't look at 5 Mile Rd but there could be some improvements there too to help the flow of traffic.
Fixing all the roads properly with our taxes before any of these ideas should be considered. Roads fixed and chipped last year are already cracking. This isnt very impressive
Not sure.
Anticipating near term future mobility changes and needs already underway including BATA public transit expansion, increased drive sharing incentives, autonomous vehicle self-managed improved safety and traffic flow impact, roundabout traffic safety and calming improvements, walkway/biking path additions and space options, traffic flow and "congestion" mapping and mobile app alerts + alternative routing via mobile phones/personal devices... Hope and trust that most Practical Solutions will begin with the simple, near-term, and least impact + investment options and "pilot / trial" options implemented first!
I understand the local agency reps and stakeholders limited OHM's study area to avoid a TC "bypass" further south Chums Corners, but that should have been on the table. Also should have considered a 14th Street bridge across Boardman Lake. A 14th Street bridge would only be a little shorter than the Hammond bridge would be and offer some pretty cool pedestrian opportunities.
None
possible Hammond Hartman to about 31-South just north of Silver Pines Rd and having an interchange with traffic under S-31 for westbound to southbound and southbound to eastbound traffic... more bridges, but free flowing
Define 'practical.' There are limited situations where roundabouts not only make sense but actually work. Throwing 10 onto South Airport Rd is just nuts for the amount of traffic you anticipate — especially for seasonal drivers. What seems to have been missed is a thorough investigation of traffic light control. GT County's system seems woefully out of date. Even with the implementation of any of the suggested proposals, the network of traffic control needs a serious update.
unknown
1. Consider a few roundabouts along Airport and/or Hammond to test the safety, success in removing snow, and citizens' ability to navigate. 2. Synchronize traffic lights throughout the impacted area. Contact Macatawa Area Coordinating Council in the greater Holland, MI area for information on their successful implementation of the synchronized lights through multiple districts. 3. Consider if your projections to 2025 is sufficient to plan extensive road changes. It seems that the projections should have a longer time period.
IDK
Upgrading Hoch, Potter and 3 Miles Roads.
Improvements to 8th Street right in town.
Just go ahead and do a true by-pass across the area further south (where it's more rural and cheaper to purchase right of way). As an example, River Road already gets a lot of traffic from trucks heading towards 31 at Chumm's Corner. I think a road connecting 31, Garfield, 3 mile, 4 mile, and 5 mile would allow traffic to zip across to the north-south road that would get them closest to their destination and love it.
None.
Adding lanes on Keystone/Beitner. It's ridiculous how kids' soccer games in the summer jam up Keystone so much. It's too major of a route to have that happen.
No other options known
4 lane limited access freeway bypass around town.
BUild a Bridge we need more East-West movement for access avoiding downtown, especially in the summer
None. Beitner Road seems the most practical.
None
I think a connection from Hammond farther West and North up to Silver Lake and North long Lake and Cedar Run and M-72 should be in the big picture planning. also I think 4 mile should be connected from Potter to Hammond to also make Hock and Potter a bypass from Keystone to 4 Mile and up to the Parkway. Probably some more round-abouts would be required to make this safe.
Roundabout or signal at Hoch/Garfield. I'd use this east-west route if I didn't have to cross Garfield with it's high speeds and no signal.

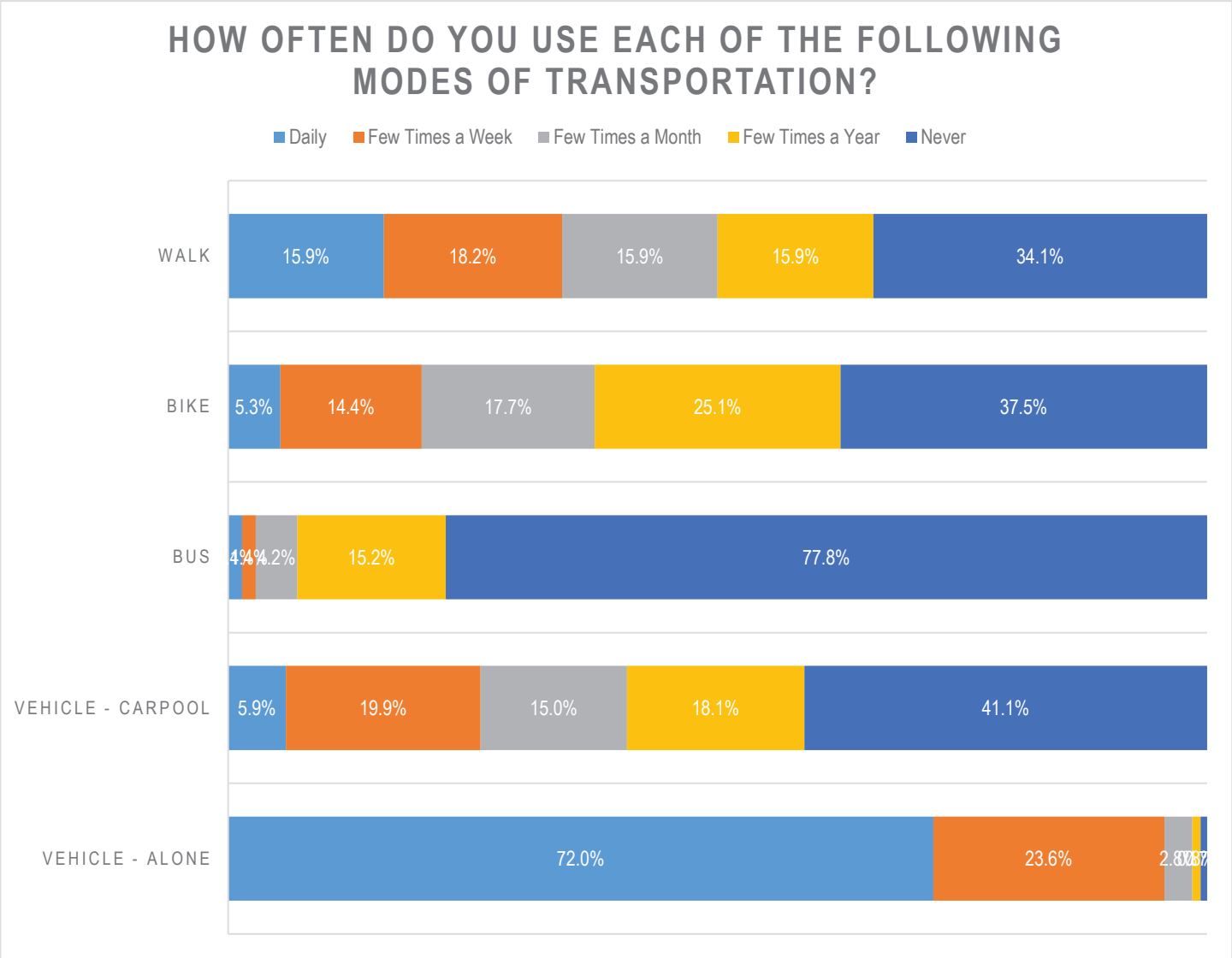
I would love to see at least some of the proposed improvements implemented from the SA - Divided with Roundabouts and Beitner Road Crossing solutions implemented, because I think both Hammond and SA serve as valid corridors for a lot of people depending on where they're coming from/going to. Improving both would also prevent any major new infrastructure from needing to be built/maintained. SA improvements would really benefit a lot of businesses on the corridor, freshen up the appearance of it for visitors to the area (first impressions are lasting), and provide much needed accessibility for pedestrians and cyclists. Hammond at the very least needs a consistent center turn lane and intersection improvements (especially at Garfield) as the corridor develops and more people are using it. Those intersection improvements could be something as simple as a right turn lane or going as far as new roundabouts (most ideal in my opinion).
none
Expanding Cass to 5 lanes to South Airport to relieve some east-west congestion. Make Veterans Dr a faster road and improve the intersection at South Airport to entice people to take that route vs US 31.
I think you have presented several good options here. I don't see any that you have missed.
Possibly finishing Three Mile Rd to Hammond
Design and build the least cost, lowest impact solution to helping CURRENT traffic move better without torturning budgets and landscapes, and water to accommodate INCREASING numbers of cars. That is, design and build the finest, most attractive, easiest to maintain roadways using roundabouts to keep traffic moving constantly, smoothly, and safely. Focus on a solution that is easy to maintain, that decreases negative and increases positive roadway impacts on the land and water, and that provides all users of the roadway with a pleasant, calming, travel experience. Practically speaking, why commit the current and future assets of the community to transportation solutions that are already outdated?
none good report
Expand keystone to 4 lanes
None
Building a real bypass that is limited access with no commercial development along its length. Use 113 east to 186 to 131. That actually bypasses Traverse City
A connection from m72 to Hammond that avoids going around east bay. The amount of traffic in acme around east bay is horrible for the environment and the lake and there have been several fatal accidents from people not paying attention, driving too fast. It's the only access from 72 to traverse city
Possibly look at connecting Rennie School Rd to Hoch.
Greater investment in technology solutions (smart intersections, syncing, etc.), public transit and non-motorized facilities. These appear to be the cheaper, low hanging fruit.
none   the most obvious is Hammond Road
Many of the solutions seem to be way south of the congestion of the east-west streets, the Parkway, 8th and S. Airport. Without traffic models showing us where the demand is highest, it leaves us to our perceptions. Most of my perceived congestion, 8th St could be relieved by a solution not mentioned. Thus this possiblity- From Three Mile Road, widen Parsons Road/Hannah Street to Boardman Lake. Build a BEAUTIFUL bridge across the north end of the lake to the west, at about 11th Street, then use the railway ROW and the "Y" radius to connect with 14th St. Then connect to a widened 14th Street. This route would allow for an express east-west corridor in town, taking the load off from 8th and S. Airport. Create round-abouts at the major intersections. Thank you
NA
None, just make a straight east/west corridor
I would like to see more signs outside the area that help to direct traffic before it gets to be a problem. For example letting drivers know that there are many different routes around town depending on where you are coming from and where you are going.
i don't know
nothing
In general, I don't think you have approached this with the mind set that improving routes for mass transit, cyclists and pedestrians would decrease traffic volume. Those are the solutions I would like considered.
Adding LOTS of public transportation and car parks. Better bike routes. Ask why we need to move FASTER through TVC? Many cities are congested and people adapt.
none
Build new east west road with no curb cuts or traffic lights
combine both S. Airport options
None
Two things: 1. Concentrate on the best east/west S. Airport upgrades and 2. implement the Hammond Road crossing bridge. Fix the east/west arteries and people will find a way with their own north/south short cuts to where they want to go into or out of the city. Develop good arteries that people can get to, that actually impact traffic patterns into and out of the various commercial and recreational zones. Don't let TC roads go unplanned like many other US cities and suffer with suburban commuting problems (like the northern suburbs of Atlanta, GA where they converted old cow paths into 2 lane roads and have hours-long traffic jams.)
Whatever solution is chosen, we need to be sure that it includes more and better transit routes, bike lanes, sidewalks, lighting, and street trees.
I think we need to look at the bigger picture and look at extending Hammond Rd. to Williamsburg Rd. Also Going from Secor to US-31

Seems greatest focus should be to catch and divert traffic before it gets to far into town.
3 mile should be widened the rest of the way to hammond
Upzoning within the urban area of TC and downzoning without that area. Added transit/ped/bike connections.
Chums corners to 4 mile new 'bypass' for travel not planning to go to TC
Nothing - good job. Unless you want to make a very wide bypass similar to going around a large metropolitan area.
Better timing of lights, lowering speed limits, taking down vegatation ., etc. that blocks views good example is the Don Orr fence which impedes sight lines at 3 Mile if you made the turn lights a little bit longer, more traffic would get through
Leaving things as they are, not all problems need a large construction solution.
Make Beitner/Keystone 4 lanes to Hammand and have the road naturally curve onto Hammond. Then have Hammond curve onto 4 Mile with 4 Mile being upgraded to 4 lanes.
Alpers
We need a bypass and to finally connect US 31 diectly to TC
Most locals who know the area coming north from further south will bypass m113 through kingsley. Businesses in Grawn an TC may not like it, but this alternative should be more widely advertised.
Using electric power line corridor to extend cass road from the new bridge to garfield road and possibly further.
I don't know if I think there are truly practical solutions, but it's a necessity. All of these have reasons for someone to object.
Chums corner to Beitner-Keystone-Hammond to 3 Mile. 4 Lane with turn lanes. No roundabouts
Roundabouts do not solve the problem
4 lanes from Chums to Hammond
A more direct route from Hammond to US-31 (4 lanes) would make most sense if you ask me
I think they've been identified and the solution is a combination of many. Hartman/Hammond bridge made into a boulevard from 4 Mile to US-31. Keystone/Beitner 4 lane with roundabouts and Airport 5 lanes Garfield to 3 Mile
You didn't address moving traffic away from TC. None of these address current traffic problem, just more bottle necks
If you improve Hoch Rd - you relieve traffic on Hammond and you could connect it right to Rennie School Rd - new bridge. But most of these are requesting a new bridge as well
I like Beitner to Keystone to Hoch/Potter Rd then N on 4 Mile through to East Bay. Not a lot of commercial stuff - not high density, need to keep commercial development out
?
A crossing in the City at Parsons then to 14th Street….
Keystone Rd east /west corridor and the resulting 31/37 intersection
None
Future. Where is the next level of consideration. Might look to Potter/Hoch/Keystone/Beitner as a future consideration
We need to construct roads just like they do in any big city (and whether we want to admit it or not, Traverse City IS a big city, especially since it is a tourist town and since we have a National Cherry Festival with people here from all over the world!) There needs to be two routes constructed: a bypass highway where people can go around Traverse City and a business route where people can go into town! This is the most practical solution that we could ever make that would last for a VERY long time! We REALLY need this! Thank you for the opportunity to offer input on our road situation from someone who has lived here all of my life of 57 years!
Did you consider the potential for use of Hoch and Potter roads?
None I know of
You are completely ignoring that sidewalk access is not maintained along major corridors in winter, and is poorly maintained during other seasons. I regularly see people walking in the road way because we cannot spare a small amount of funds to keep them clear. There is a small percentage of people who would use that alternative but it is not an option. Transportation solutions are paid for by people, for people. Not cars. Cars do not pay taxes.
NONE
None
flex lane for incoming and outgoing commuter traffic on Beitner;
In anything you plan, keep the bikes OUT of the roadway! Give them a bike lane, if you have to, but keep them out of traffic! They DO NOT pay for any upkeep of the roads or highways, & until they do, should not be allowed on roadways! Also, as I mentioned before, the Hammond road solution is the most feasible!

Improves left turn lanes and signaling across the East-West routes already in existence. I grew up elsewhere and the utter lack (and inconsistency when present) in left turn signaling is a feature I will not adapt to. By improving intersections so that left turning vehicles are out of the flow of traffic and know they have a dedicated turn (could also be used for U turns on S. Airport) then they are less likely to jut across flowing traffic and cause issues. Also signaling and small lane improvements are significantly less expensive to implement than any of these plans. Cooperate with the city government to include their E-W routes in this signal improvement.
Simply expand Keystone / Beitner to 5 lanes with no roundabouts. Have you seen the traffic during soccer / lacrosse games on Keystone? Now just imagine having no break in traffic because of roundabouts and try to turn in to or out of the soccer complex. Also it's the best route to go east / west / south of town and easiest to expand.
Strongly suggest look at Parsons Rd from 3 mile rd. to Garfield. Underutilized. Already Tart Trail path....widening could allow better flow cross town to Garfield. With rt turn to redone 8th St.....easy way to east west access. Roundabout at Garfield and 8th? Maybe way to help difficult crashes site.
Hartman Road and Birmley Road improvements
no, think the Hammond Road bridge is the best long term solution and long overdue.
none
nothing
Simply make Keystone in to 5 lanes - the perfect solution!
None really, just improve Beitner/Keystone to five lanes. this is pretty simple!
Is there anything more to the south? and have you focused on the east side of each solution?
The most important thing is to focus on reducing car traffic, inviting more in electric transit and educating the public on how healthy it is to take transit, walk or bike. There needs to be departures from the outlying communities at least every 20 minutes at commute times and maybe every 30 on elk-ends, so people will use transit for their daily commutes and to visit outlying areas. We need to get off fossil fuel now to maintain a livable world. With leadership and education, we can change and become a city that others can emulate. Keep downtown walkable. Do not spend any more money on new roads. Spend funds of managing the roads we do have intelligently and safely.
increase the cost to park cars, improve mass transit, walking and cycling,
I don't know . . . .through Kingsley for some folks????
EFFICIENT east, west bus transportation
unknown
none
not sure I can come up with any
Need an Bypass around town.
Repaving and widening current roads with more turn lanes.
No comment

How Often Do You Use Each of the Following Modes of Transportation?

	Daily		A Few Times per Week		A Few Times per Month		A Few Times per Year		Never		Total
Vehicle - Alone	72.0%	430	23.6%	141	2.8%	17	0.8%	5	0.7%	4	597
Vehicle - Carpool	5.9%	30	19.9%	101	15.0%	76	18.1%	92	41.1%	209	508
Bus	1.4%	7	1.4%	7	4.2%	21	15.2%	75	77.8%	385	495
Bike	5.3%	28	14.4%	76	17.7%	93	25.1%	132	37.5%	197	526
Walk	15.9%	83	18.2%	95	15.9%	83	15.9%	83	34.1%	178	522



How Often Do You Use Each of the Following Modes of Transportation?
Comments
The system is too small in scope. Go east/north to include Acme/US31/M72
This session is a definite plus
Hopefully we are all aware of how important a walkable and rideable community is. So lets get the non-community traffic routed farther south of Traverse City
Choose Hammond and get a better legal team in place before hand
Very thorough - obviously much study and planning have gone into this effort. Expect that good solutions will follow
In a wheelchair - waiting for sidewalks
I commute to downtown. Once downtown I walk or ride my bike.
More left turn lanes on busy roads. Ensure proper drainage is in place to prevent flooding and flow of contaminants into the bay. Water treatment plant.
Bikers need to have proper shoulder
Rideshare with my wife multiple times per week
Not designed for non-motorized traffic
This whole thing got started again because Chuck Korn wants the Hartman Hammond
I'd love to see paved bike paths around Spider Lake. I know that's not in your jurisdiction but I'd like to see Traverse City more bike friendly. I'd also like to see the speed limit on 72 going towards Acme by 45 mph. Right now it is 55 mph which is too fast. It is so hard to get out of businesses there.
Enjoy beavors on river area near Beitner and Natural area. I would be disappointed if access or roads take over the best thing other that beaches TC has got.
Good job laying out the information boards to make sense of the process
I would like to see more emphasis on providing more transportation options. This effort is very focused on moving vehicles around and not addressing the root cause of traffic
I think it is critical to acknowledge all modes of transport - so many people walk in unsafe conditions particularly in the winter. I think the bayline and ridesharing are both opportunities where some traffic flow could drop significantly.
Scope is too small, doesn’t take into account flow of traffic will reach those roads. Very short sighted.
What is the dollar per second in efficiency an improved east/west traffic flow will accomplish. What is the goal?
Fix the roads we have before spending money on new roads that will just create more traffic
More thought and $ should be put into public transportation, transfer station, railways. The future is with the idea of getting folks out of independent single person transportation.
I generally think it would be useful to have a community DISCUSSION. What efforts are being made to use traffic demand management tools. Thinking outside of the the box, encourage ride share, stagger start times, transit, park in outlying areas. And havent we done this whole process before? I feel like we are trying to be worn down.
Need to consider a larger estimate of population growth of TC MSA. I was told 10-15% pop growth in 10 years. TOO LOW. Need to consider (separately) major 131 to 31 highspeed roadway for future development.
Hope to have bus, sidewalk and trail improvements included
Quit wasting MY gas road tax money on bike paths and sidewalks. Those may be good ideas, but let them pay with their own money and not mine.
Just problem to solve. People will never be satisfied
Cost-benefit - spread the resources around the system. If H-H connection is built it should span the river valley, use the existing Hartman Rd, the virgin land is environmentally sensitive and zoned planned commercial. If built it would create another congested corridor
I want to see a zoning overlay for each alternative: Agricultural, residential, commerical
The US is uniquely committed to sprawl. We call it "development". I call it exploitation. The City of TC encourages urban residentail uses instead of turning the city into a short-term rental Disneyland
I live too far out
Thank you for your efforts
If this route becomes the TC bypass, truck traffic (large trucks) can be much heavier and a direct (as much as possible) makes the most sense
Use Keystone several times/wk
Very few people in our county can realistically use bikes or walking as a mode of transportation. I'm tired of hearing people advocate for bike lanes or sidewalks as a solution to congestion. It's not practical, realistic, or helpful to the problems we have today or the growing one we will have in 20-30 years
I think the Hammond Rd Bridge makes the most sense. I love to fish, boat. Bridges work well if built correctly. With little damage to surrounding wetlands. The best option
Would like to see emphasis on Boardman River ecology front and center in evaluation criteria. There is much more than wetland and new __ acres. Also impacts related to habitat fragmentation. We have strong science around this that would help your evaluation. Do you want to tap into that?
We need a bridge to move traffic flow. Hammond Bridge would help. A bypass would help a lot. It would allow fast crossing.
I do believe there are other ways to address congestion. Park and ride lots on outside of town with bus service to retail/work/entertainment corridors. A bus pass system could be implemented where employers could offer these passes as a benefit to employers. Safe biking corridors need to be implemented as well as pedestrian routes - especially in business/retail corridors such as 8th St, Airport Rd, and US-31. Some areas dont even have sidewalks!
Traverse City could become the city of roundabouts!

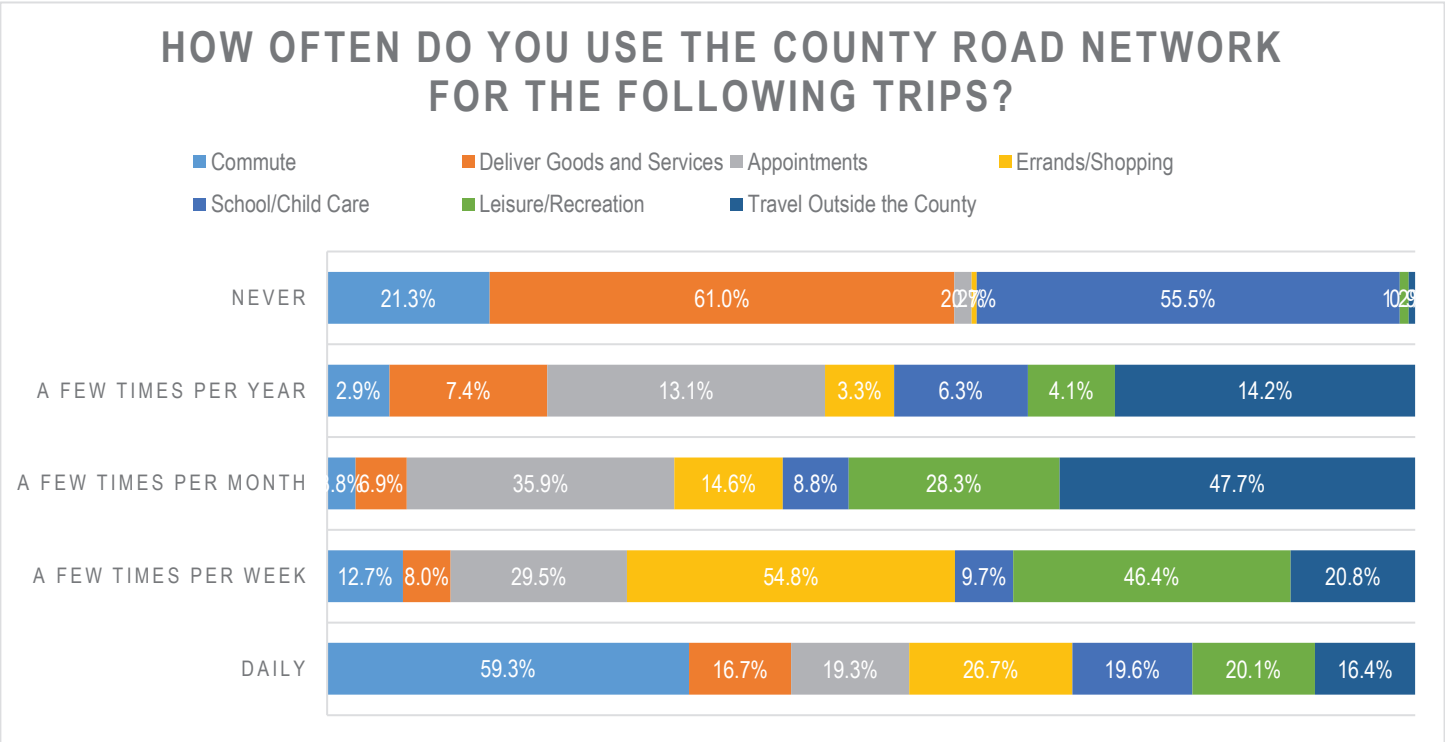
I prefer alternatives that would provide the most benefit and minimize destruction of the wetlands. Michigan has lsot far too many wetlands and they save money by preventing expensive flood damage
TART Trail has made it possible to bike into town.
Please incorporate non-motorized trail crossings, common routes in designs.
Biking and walking seasonal.
No biking when heavy snow on the ground
Why does the sidewalks from Cass/south airport bata up the hill towards Walmart not get cleared of snow during the winter months. People are forced to walk through snow 2 feet high and most of the time they are walking in the traffic lane. Someone is not doing there job?
I would use south airport more on bike and foot if there were sidewalks, crosswalks, and speed considerations.
I would bike a lot more (not in winter) if roads had better shoulders. The bus is probably good and I support BATA but it's just not convenient for me yet. Also, route maps and times don't seem easily readable. Info on routes and cost needs to be quick and fast. Every time I try to look it up I end up getting annoyed at bad info. Also, takes too long to get to destinations. SOV are obviously the problem but that is a challenge for every community. Only thing that works is to make it expensive and then you piss off the people that can't afford it which is like everyone because wages of many folks are barely livable.
Would use bike more if continue to build safer infrastructure
I'm self employed and live in Kingsley. Not much use for bus, bike or walking.
I live in town so that non-car commuting is particularly viable.
We live on the east side of Long Lake, so are quite near town, yet communiting via walk, bike, or even bus from our home would be difficult and unsafe given the current state of the roads/shoulders, intersection infrastructure, driver behavior, and lack of nearby BATA access points. I would like to see all of these things improve as our two young children will be attending school soon and I'd rather not have my only options be to drive them ourselves or have them take the bus. It would be great if I and they felt comfortable about their safety if choosing to bike or walk to school.
Trying to use BATA more, should and will use bike more (city needs more bike paths)
I live in Empire (near Lake Ann). Biking on 72 is impractical. However, I would LOVE a bike route from East to West in TC. That would encourage more people to bike. Right now, it is terrifying (used to live 4 mile and Hammond. Biking to TC West was terrifying except for in town where they have controlled for bike routes).
Live too far out of town for any of the options except own car
Bike and walk within Traverse City but there is is easy public tansportation from Elk Rapids to Interlochen
Only reason I do not carpool is that I drive out of county for work, must change location several times a day, and no one else works with me. Would be great to have a large public transport network within and between counties!!
I live just south of Chums Corner. Walking or riding bike not practical or safe. BATA routes to slow into and out of town.
I work in Home Care and must travel alone to do my job.
bike, walk weather permitting outside of winter travel
I teach driver education in TC. I see a lot around town that could be looked into. Ashley, Owner of Drive My Way Driver Education
We believe in multiple modes of transportation at our house, primarily for exercise and healthier lifestyles.
While I drive for work, I also bike and walk and want to see better design on these major roadways. I see so many people unsafely trying to walk and bike on these roads. This should be a priority, safe roads
Hammond connects everywhere! A connection to 31 from Hammond will solve this issue best
We need a bypass build the Hartman-Hammond bridge! I grew up here and the roads system is pretty much the same as it was when I graduated from Traverse City high School in 1980 when we were a small town. That obviously is not the case anymore. It is crazy trying to go west-east and vice versa in this town anymore. We need a bypass please build the Hartman-Hammond bridge it is sorely needed and should have been passed years ago.
Since TC is now a destination, must move traffic effectively
I Live southwest of Interlochen, and work/fly at the airport. Traffic delays cost me 20+ minutes per day that I work in TC.
I am a biker on trails but not when its snowy. REMEMBER WINTER!
bike daily in the nonwinter months
People live too far away from TC to use alternative means of transportation.
I am lucky to live in TC. It is a conscious choice to live near where I work, shop, and play.
When not icy, I walk more. Love BATA and use regularly. Rarely use our car. I would use bike if it didn't mean having to mix with motorized traffic.
SO many people live in the oulieing counties and commute to traverse for work, TC is a car town. I know there is a recent influx of outsiders who want to make traverse a waling/biking city, but IDK how that can be possible with all the traffic. Unless the county and bata find parking for all the cars, and timely trapsortation directly to people's work places, we arent going to get rid of the traffic congestion
Home to work is too far to bike or walk
More bike-friendly and walk friendly situations would help alleviate traffic problems. -especially for teens as well as for those who think unsafe and those who have no safety and etiquette knowlege.
When I lived in town I would ride a bike frequently, many of us don't live in town and thus need to drive if we work there.
buses are moving nothing but air as long as you're subsidizing offer free rides and actually you may transport some people
Different uses in summer and winter months
I'm retired. I just go from Foxcraft Estates to stores on Garfield, Costco, Library, Meijer, and Sam's Club. I actually drive as little as possible and try to go in a circle. I have to cross the river twice in most trips, but never in some.
Something needs to be done. The area is still growing

We should always have a shoulder for bikers and walkers. But we should be inforcing the rules of the road on them as well. Walking facing traffic, riding with traffic and lights on all bicycles and reflective clothing.
If the idea is to improve traffic flow E -W the proposed roadways should be limited to vehicle traffic only and have foot and bike paths incorporated in the plan.
I do not feel roundabouts are a solution as they don't add any additional resources to help crossing the Boardman. Also, most people in this area do not know how to utilize them, so they really don't help with efficiency. The Hammond road bridge would be the best option in my opinion
Stay off of Hammond
This is the first year I noticed anyone riding a bike on 8th street. I have not seen anyone ride a bike in the winter on South Airport, 8th street, Division, Munson, 3 Mile, 4 Mile. Walking/Bike paths are fine, but tax the users for snow plowing and other maintenance.
LIVE WEST OF TC-BENZIE CO
None
Depends on the weather.
The bike argument drives me crazzy, people living in Lake Ann cant ride a bike to work by the airport. Stop it. We dont live in a village in Germany with trains to take us everywhere.
I live north of Traverse City (9 miles north on OMP) so use of a vehicle is a must.
we are retired
bike paths are a waste of money.
Roundabout do not work
cyclists should be off the road
With our winters, 95% of people will not walk, bike and use the bus hardly at all. Summer traffic is huge and only getting worse.
I would enjoy having a walkable community - but I don't have that today.
I live in Garfield township and must commute.
I would have liked Vehicle - alone - 4-5 days a week asked.
live out of town and work in town, mass transit is useless to me
Bike and walk modes of transportation are seasonal and mostly recreational. However, if pathes were available into town, I would use them more in warm seasons.
Walkability depends on weather
It doesn't bother me to have to sit in traffic a few extra seconds if the integrity of the landscape surrounding town can to some extent be protected from getting more screwed up than it already is.
My biking response refers to non-winter months.
for daily work a car on the roads, bike and walk for pleasure on trails
Please, please, please make a safe walk-way/bike route to school near Three Mile and Hammon Road
I often drive or bike downtown, park my vehicle and then walk. Does that count walking as a mode of transport?
My daily commute is from the Chum's Corner area to Supply Road. I would love to utilize BATA and/or do more biking, but it simply isn't convenient and/or safe.
I do not live in an area that is conducive to public transportation or walking/biking.
My commute mainly consists of travel on M-37, South airport and Hammond. No place I would like to ride a bike nor have bikers. I belive its too dangerous to mix bikes and vehicles.
Thank you!
I live in Antrim Co. now. Lived in Acme Twp. For 40 years
I would use the bus more if it had more frequent stops and routes
Keeping alternative routes (for pedestrians/cyclists) open in the winter time needs to be considered in whatever solution is settled on.
yeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeet
would use BATA if it ran practical routes
we are a vehicle society.
No viable alternatives to ones car
In terms of the study area, I commute from Kalkaska to work daily on LaFrainer. A 25 mile drive takes approximately 1 hour.
I bike regularly, but will not share the roadway with vehicles. I see people biking along River Road, and think this is very unsafe. As are some of the shared roadways closer to town that are part of the TART system.
The go-to solution in Michigan seems to have been to build more roads, and that seems expensive and outdated. Vehicle technology to help drivers braking, along with traffic technique to keep a steady flow of traffic seems more innovative. This is a community that benefits financially from preserving our natural areas.
The county must start clearing sidewalks in winter.
While i appreciate a complete streets perspective and inclusion in the planning process; i stress separating the non motorized traffic from motorized traffic. Safety is a concern for all. Large trucks have blind spots, and seasonal weather makes sharing the road challenging. transportation of good and services into and out of Traverse City will continue.
I have in the past and plan to be again a full time bike commuter.
except for winter, spent in car, I do use bike other seasons and duringF ilm Festival buses

I believe personal vehicle traffic numbers are grow, other modes of transportation may offset some the vehicle use, but I don't believe that most people will be willing to give up the convenience of their own vehicle. I also think the Road Commission needs to come with a long term road plan based on projected growth with periodic reviews and be more proactive instead of waiting till the road system is overwhelmed as it has been for 20 plus years.
i live out where there are no sidewalks and a great distance that a bike and walking impractical to get anywhere
I bike and walk for pleasure regularly in good weather. A few times a month is not a question that really is realistic in northern michigan. Survey results will not be valid or reliable. I
Fair-weather walker/biker in Traverse City limits where I feel safest.
I drive very short distances, mostly in town. I try to carpool when possible.

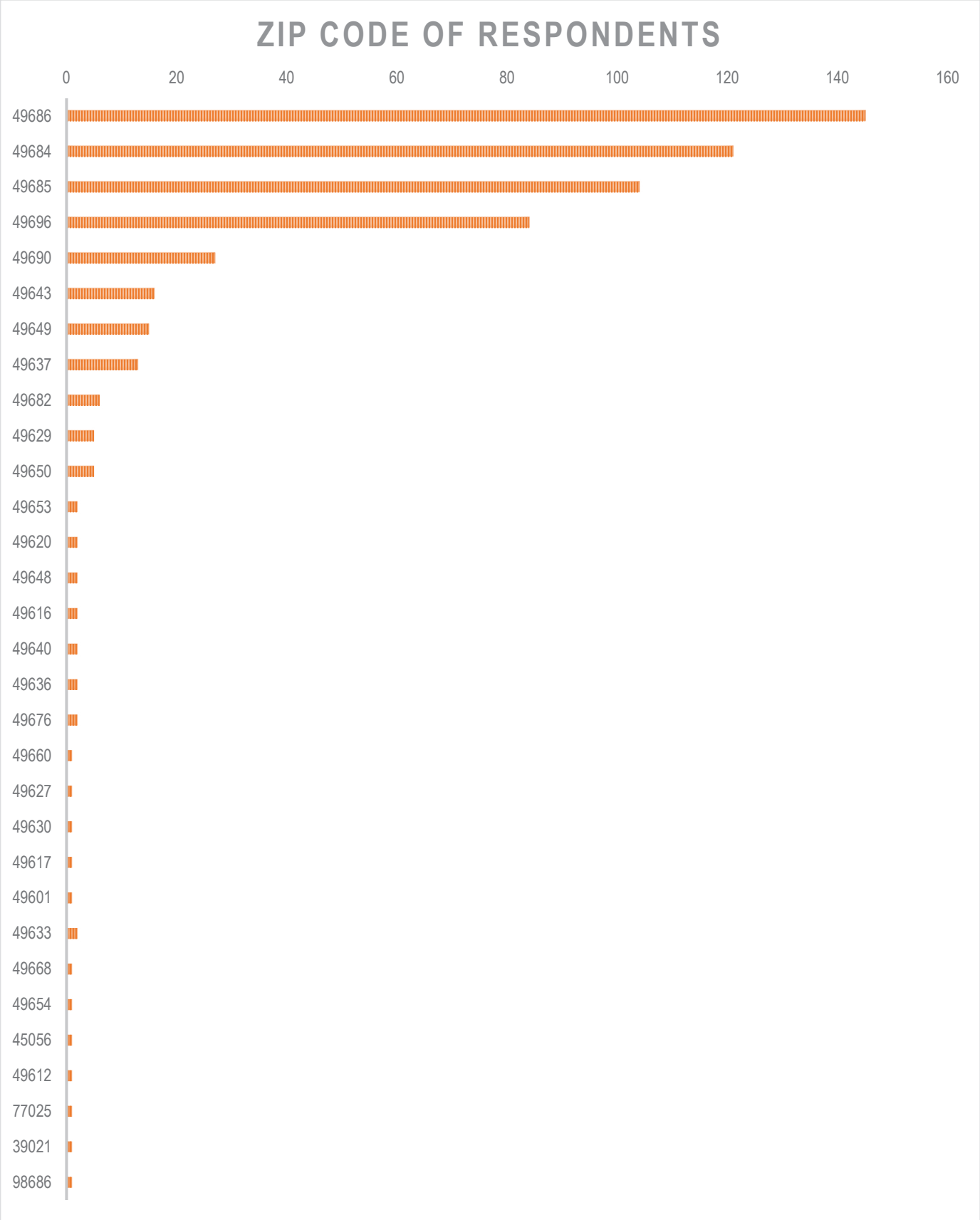
How Often Do You Use the County road network for the following purposes?

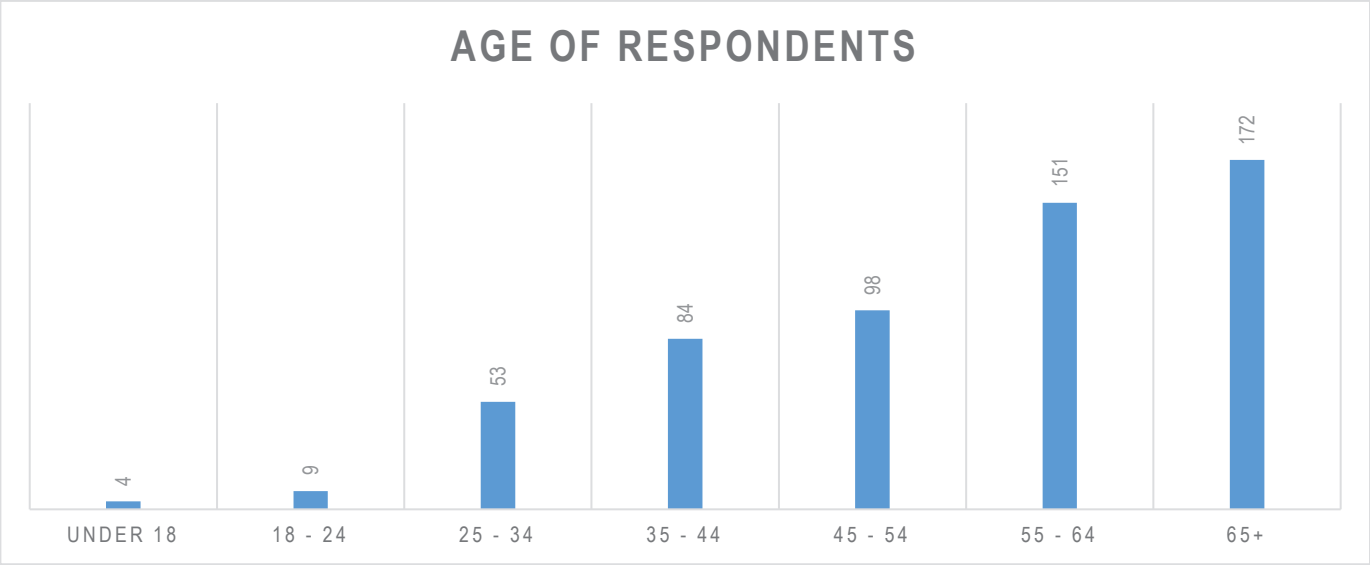
	Daily		A Few Times per Week		A Few Times per Month		A Few Times per Year		Never		Total
To get to work/commute	59.3%	342	12.7%	73	3.8%	22	2.9%	17	21.3%	123	577
To deliver goods and services, industry related shipping and distribution	16.7%	92	8.0%	44	6.9%	38	7.4%	41	61.0%	336	551
To get to appointments	19.3%	112	29.5%	171	35.9%	208	13.1%	76	2.2%	13	580
To run errands/shop	26.7%	156	54.8%	320	14.6%	85	3.3%	19	0.7%	4	584
To get to school/take family members to school or child care	19.6%	109	9.7%	54	8.8%	49	6.3%	35	55.5%	308	555
To get to leisure or recreation destinations	20.1%	122	46.4%	282	28.3%	172	4.1%	25	1.2%	7	608
To get to locations outside of Grand Traverse County	16.4%	94	20.8%	119	47.7%	273	14.2%	81	0.9%	5	572

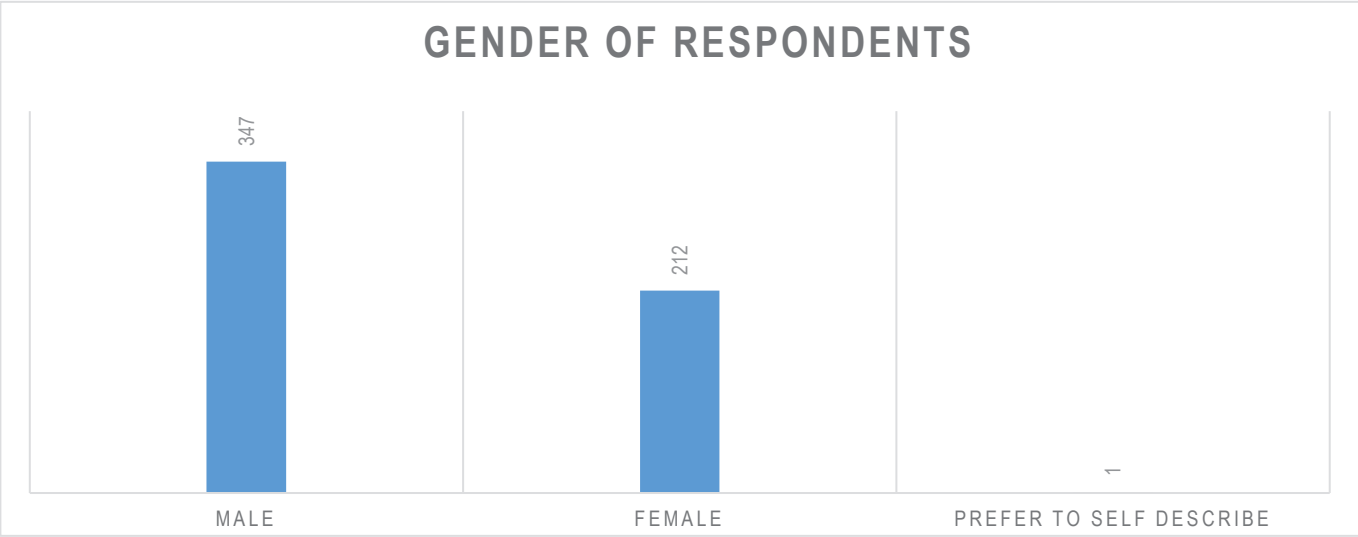


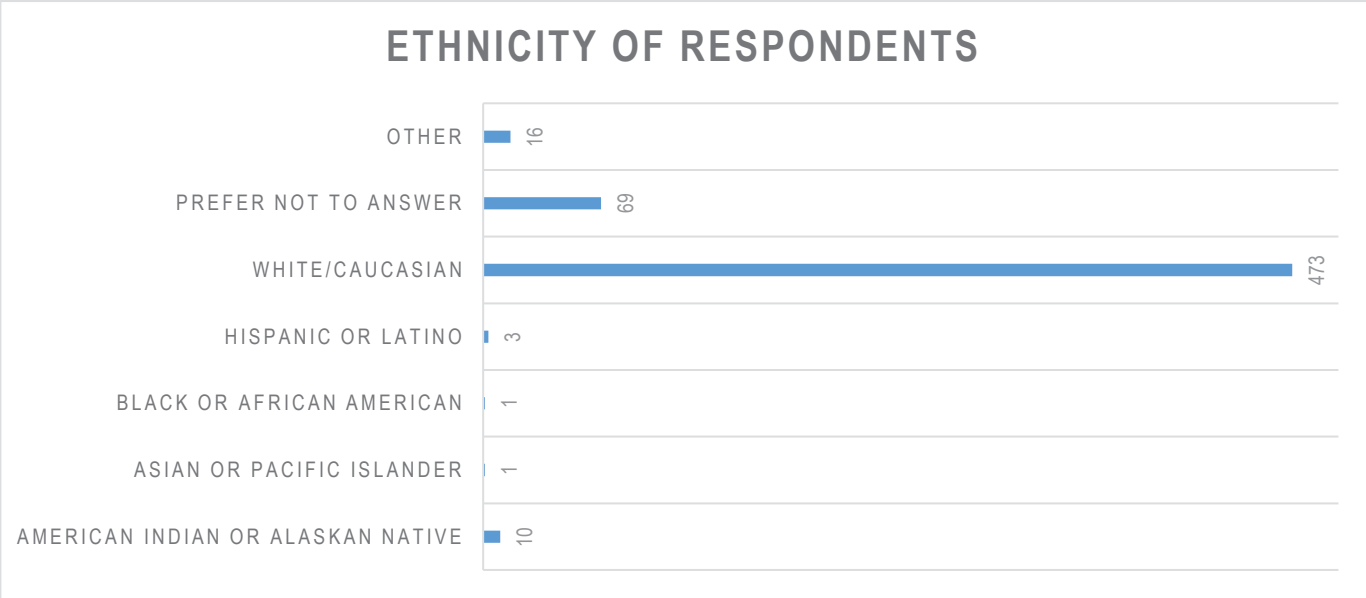
How Often Do You Use the County road network for the following purposes?
Comments
Thank you for the opportunity
S Airport is overloaded and getting more congested. So not let the city folks to tell us what to do. Ask them to visit S Airport at 4-6 pm
Why don't you consider improving the existing roads
Build and maintain the roads we have and be willing to look further south for a true TC bypass
John Nelson is a pretentious con
I live north of Grand Traverse County and commute into TC
Good luck!! It's a tough job
Use 3 Mile Rd as the connector to 31 North. Will pick up Kingsley traffic too. 4 Mile is a dead end to the south.
I represent 6 other adults in GTC with the same views
Thank you for all you do! Thanks for getting our input.
I am in favor of design changes in transportation/land use that brings our destinations back into our neighborhoods and is therefore more walkable and bikeable
Timed lights in TC would help with road rage, time, and money
Beitner-Keystone is the best possible solution for east-west mobility. We should not build more roads where not needed. As in Hartman-Hammond and Cass. Lets use the roads we already have and preserve our environment so we don't end up looking like another pavement city!
Thanks for being so up front and open in this process
Should have contracted, supported, involved younger members of the community. LOTS of gray hair here!
Would just like to know where people are going to figure out the best solution
With an aging population, better public transit is badly needed.
You are a ROAD commission not a transportation department - start acting like it.
Please fix and repair existing roads. Need more public involvement before narrowing alternatives.
John Nelson should butt out of public comments
Thank you. The detailed boards and the presenters were very informative and helpful
Hammond Bridge seems like the best option to me.
It is true that visitors who are coming to the area want to get to the city and downtown but the heavy traffic along our waterfront detracts greatly from the beauty of the area. Residents need good E-W corridors for safety and quality of life issues - sitting in traffic jams or going miles out of your way to avoid a congested area is wasteful in terms of time and resources.
I ride bike to work and errands daily on city streets and roads
Not exactly sure which roads are county, township, city, state, etc. I drive down the old mission peninsula into town for work. Take 72 and various other outlying roads in both directions to get to shopping and recreation.
I am confused on the meaning of "County road network." I use 8th Street often but it is a City street, I'm not sure if it is included in the County road network.
Family lives on East side. Work on West side.
I avoid going into TC, especially during "rush hour"
I commute to and from Cadillac and have taught driver ed for 4 years in TC.
recreation
I commute to and from downstate locations twice a week.
bata just doesnt provide timely transportation, and they limit the cargo people can carry so getting groceries, and other carry on shopping done using bata is impractical
County population is growing, same roads for last 40 years, pretty simple build the bridge, lower the presure on other raods
Work around the county
I depend on the county road network every day.
A good part of my business involves traveling around primarily GTC, but I have down state meetings and training I attending every quarter.
I live in Houston, TX but own property in the TC area and visit a few times a year. I am an avid bicyclist and I strongly support multimodal transportation alternatives being provided in whatever design and corridor is selected. The traffic in TC is not bad most of the year, and when it is it is generally during festivals when people are trying to get downtown anyway, not bypassing the city. We don't need Houston-style highway solutions to solve TC's relatively moderate traffic issues. Any solution must respect and preserve the natural beauty that attracts people to the area to visit and live, as well as provide safe, convenient alternatives to driving.
yeeeeeeeeeeeeeeeeeeeet

Please heed the consumer/taxpayer wishes too many time that is all ignored look at the poll in the record eagle, most do not want round abouts and Michigan turns since so many out of towners take over the roads each summer, please keep things EASY michigan turns need a lot of space to work, and i think S Airport will be a nightmare with them i would guess you would find backups like there is at the grandview left turn to division please, no Michigan turns!!!!


ZIP CODE OF RESPONDENTS
0
20
40
60
80
100
120
140
160
49686
49684
49685
49696
49690
49643
49649
49637
49682
49629
49650
49653
49620
49648
49616
49640
49636
49676
49660
49627
49630
49617
49601
49633
49668
49654
45056
49612
77025
39021
98686


AGE OF RESPONDENTS
4
9
53
84
98
151
172
UNDER 18
18 - 24
25 - 34
35 - 44
45 - 54
55 - 64
65+


GENDER OF RESPONDENTS
347
212
1
MALE
FEMALE
PREFER TO SELF DESCRIBE


ETHNICITY OF RESPONDENTS
OTHER
16
PREFER NOT TO ANSWER
69
WHITE/CAUCASIAN
473
HISPANIC OR LATINO
3
BLACK OR AFRICAN AMERICAN
1
ASIAN OR PACIFIC ISLANDER
1
AMERICAN INDIAN OR ALASKAN NATIVE
10

F

BOOMERANG Catapult LLC
Traverse City, Michigan
BoomerangCatapult.com

RECEIVED
MAR 12 2019
GRAND TRAVERSE COUNTY ROAD COMMISSION

11 March 2019

Mr. Jason Gillman, Chairman
and Commissioners
Grand Traverse County Road Commission
1881 LaFranier Road
Traverse City, MI 49696

Dear Chairman Gillman and Commissioners:

Thank you for your service to our community and for engaging our public and inviting comments on transportation improvements for our region.

I am involved in a concentrated and collaborative effort to start, grow and retain high value creating enterprises in our region. The direct result of these efforts and successes is the continual creation of year-round, solid jobs. In addition, we are working hard to transform our local economy to be a center of health and wellness as well as of Great Lakes / fresh water technology and policy. This is, in turn, drawing presence and participation from major research universities here. Recently we entered into a Memorandum of Understanding with Michigan Technological University that I believe will have a great positive impact on our economy. All in all, I believe that this is the engine for our long term economic and cultural prosperity.

At the same time, our existing transportation system is insuffieient. Traffic congestion in and around Traverse City is severe and getting worse.

I believe we need to prioritize reducing the number of vehicles entering Traverse City and also fixing our existing roadway corridors. Upgrades of South Airport and Cass Roads should be priority number one. On top of current increasing traffic trends, much of the area of these corridors has been designated an Opportunity Zone which will likely lead to new investment in mixed-use commercial, retail and multi-family in these areas. This, of course, is bound to increase traffic even moreso.

I believe South Airport and Cass Roads should be modernized to improve capabilities to handle significant traffic volumes, support high frequency transit and be aggressively bike and pedestrian friendly.

Mr. Jason Gillman, Chairman
and Commissioners
Page 2
11 March 2019

I also believe that regional groups can align and work together on a new plan for improving South Airport and Cass. Please prioritize upgrading and improving these roadways.

Thank you for your time and attention.

Yours truly,

Casey Cowell
Principal

Suite 10
236 ½ E. Front Street * Traverse City, Michigan 49684
caseycowell@gmail.com * 561-310-7167

Investing in Traverse City area companies that create high value through intellectually intensive effort and export it to the World

Attachment:

Of all the options presented the Hammond Crossing to Hartman Road (A & B) are the best solutions, with the Hammond Crossing Option "A" being my absolute first choice.

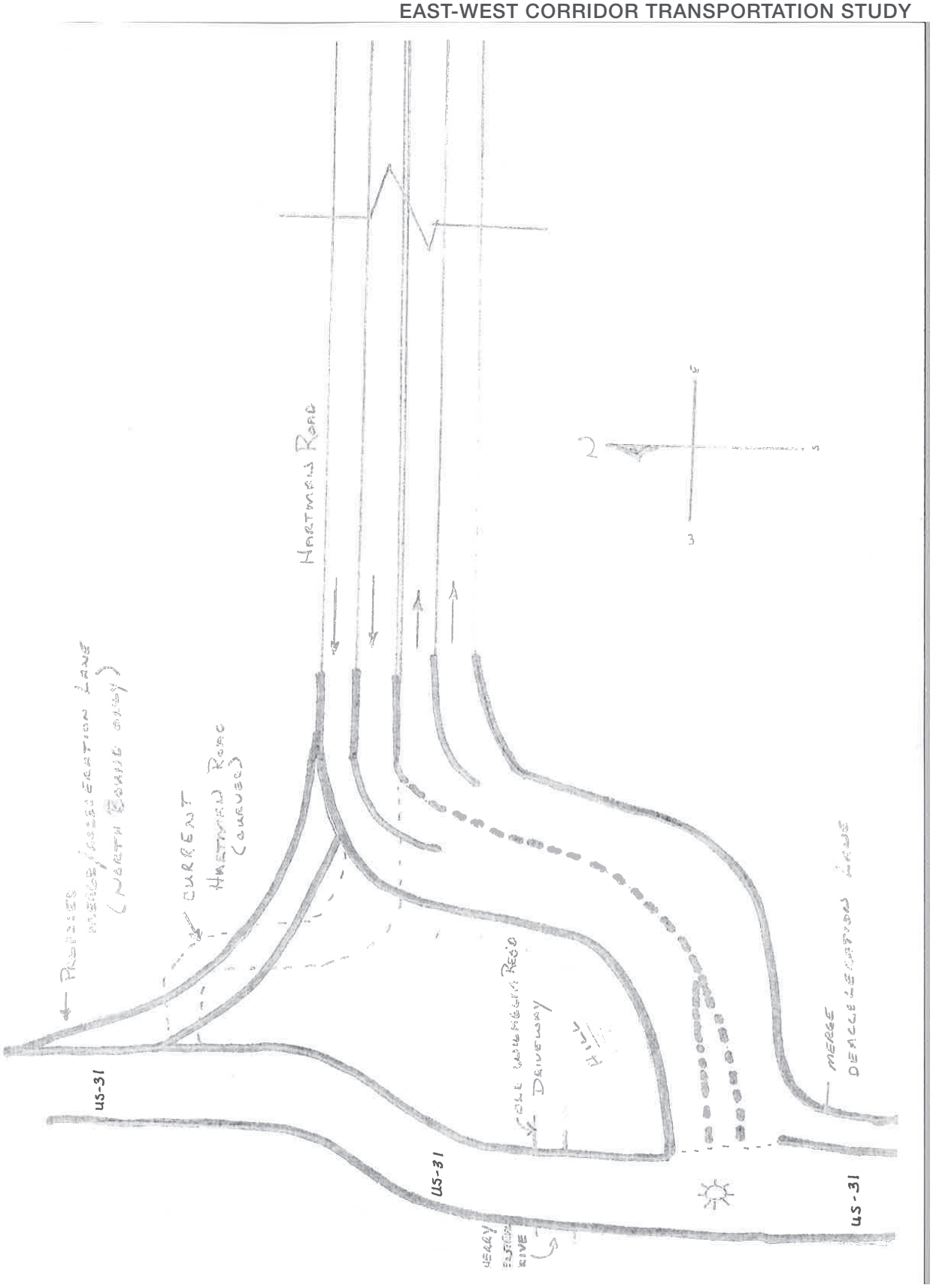
- I like this option because it is a straight road with the "shortest" road build and the least road reconstruct distances of any of the options, therefore reducing costs.

- Also, I like the connection of Hartman Road to U.S.-31 with the sweeping curve being redesigned toward the south of its current location.

    - My hope and recommendation would be to have this west connection of Hartman to U.S.-31 be located just south of the current Cherry Central drive (on the west) and the old Wilhelm residence driveway (on the east), but north of the Silver Pines intersection. At this point of U.S.-31, the "hill" is a plateau making this connection point a nice flat location for a possible new traffic signal with more than adequate line of sight, appropriate distance giving traffic from both directions time to stop or accelerate on relatively level ground. Also by using this new signal location the distance from the South Airport and U.S.-31 intersection signal is increased making a more manageable distance for all drivers between the two signals.

    - In addition, I would recommend redesigning the current Hartman Road curves (to the North) into a merge lane for all vehicles heading north into town, to businesses on U.S.-31 or 14th Street as well as the emergency vehicles going to the hospital. This would affect the flow of traffic by reducing the traffic pressure at the new signal because of most of the north bound traffic has already been redirected to this merge lane. The current Hartman Road right-of-way is already owned by the county, again saving some money. In addition, this road would markably reduce the pressure on all of South Airport Road too.

    - Both of these curves at the west end of Hartman Road would need to be more gradual & sweeping, allowing traffic to enter at a higher speed and safely reduce their speed as they near the signal to the south or point of merger going north.


HARTMAN ROAD
CURRENT
HARTMAN ROAD
(CURVED)
US-31
US-31
US-31
DRIVEWAY
MERGE

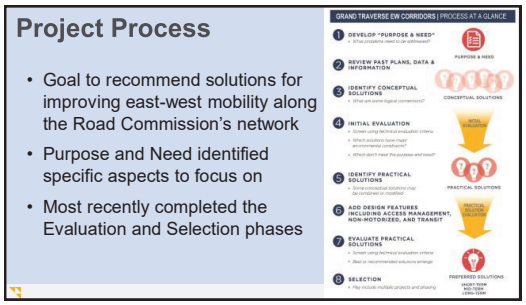
TO GT ROAD COMMISION —
RE: EAST-WEST CORRIDOR T-S-
3/4/19 FROM – Va BROWNE
REC. EAGLE PO Box 81
OM, MI 49673

Of the 5 Proposals, I vote for Bridge over Boardman River for the following reasons —

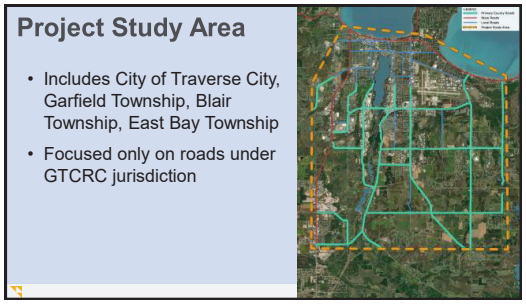
1- it keeps the flow of traffic steady & CONSISTENT —
2- no obstructions — nor confusion for drivers.
3- Will provide view of the river valley.
4- Less intrusion + disruption to the land.
5- Easier for plow in the winter.
6- Lessens vehicle collision-accidents


EAST-WEST CORRIDOR
TRANSPORTATION STUDY
RECOMMENDED SOLUTIONS PUBLIC MEETING
April 30, 2019
GRAND TRAVERSE COUNTY ROAD COMMISSION

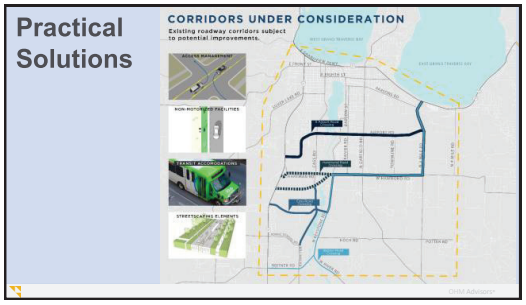
1


Project Process
• Goal to recommend solutions for improving east-west mobility along the Road Commission's network
• Purpose and Need identified specific aspects to focus on
• Most recently completed the Evaluation and Selection phases
GRAND TRAVERSE EW CORRIDORS | PROCESS AT A GLANCE
1 DEVELOP "PURPOSE & NEED"
2 REVIEW PAST PLANS, DATA & INFORMATION
3 IDENTIFY CONCEPTUAL SOLUTIONS
4 INITIAL EVALUATION
5 IDENTIFY PRACTICAL SOLUTIONS
6 ADD DESIGN FEATURES INCLUDING ACCESS MANAGEMENT, NON-MOTORIZED, AND TRANSIT
7 EVALUATE PRACTICAL SOLUTIONS
8 SELECTION
PURPOSE & NEED
CONCEPTUAL SOLUTIONS
INITIAL EVALUATION
PRACTICAL SOLUTIONS
PRACTICAL SOLUTION EVALUATION
PREFERRED SOLUTIONS

2


Project Study Area
• Includes City of Traverse City, Garfield Township, Blair Township, East Bay Township
• Focused only on roads under GTCRC jurisdiction

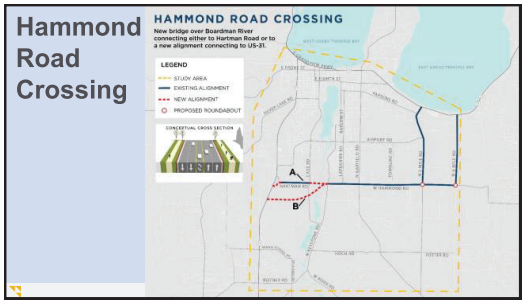
3


Practical Solutions
CORRIDORS UNDER CONSIDERATION
Existing roadway corridors subject to potential improvements.
ACCESS MANAGEMENT
NON-MOTORIZED FACILITIES
TRANSIT RECOMMENDATIONS
STREETSCAPING ELEMENTS

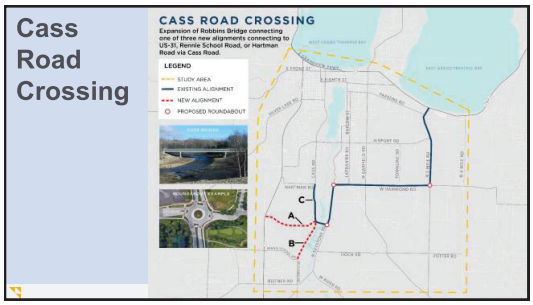
4


S. Airport Road Corridor
S. AIRPORT ROAD CROSSING
Either a full width boulevard with center median and turn-arounds or 4 lane divided road with roundabouts.
LEGEND
STUDY AREA
EXISTING ALIGNMENT
ROUNDABOUT UNDER CONSIDERATION

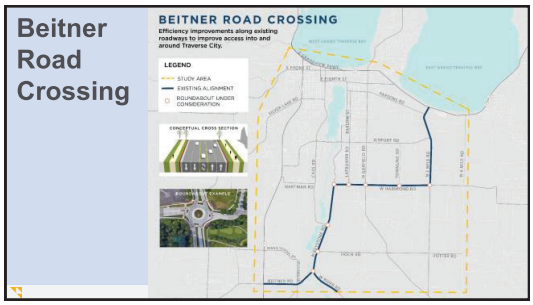
5


Hammond Road Crossing
HAMMOND ROAD CROSSING
New bridge over Boardman River connecting either to Hartman Road or to a new alignment connecting to US-31.
LEGEND
STUDY AREA
EXISTING ALIGNMENT
NEW ALIGNMENT
PROPOSED ROUNDABOUT
CONCEPTUAL CROSS-SECTION
A
B

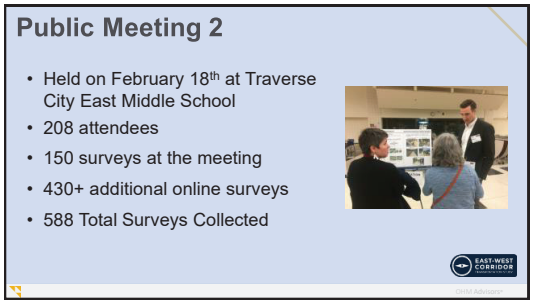
6


Cass Road Crossing
CASS ROAD CROSSING
Expansion of Robbins Bridge connecting one of three new alignments connecting to US-31, Rennie School Road, or Hartman Road via Cass Road.
LEGEND
STUDY AREA
EXISTING ALIGNMENT
NEW ALIGNMENT
PROPOSED ROUNDABOUT
A
B
C

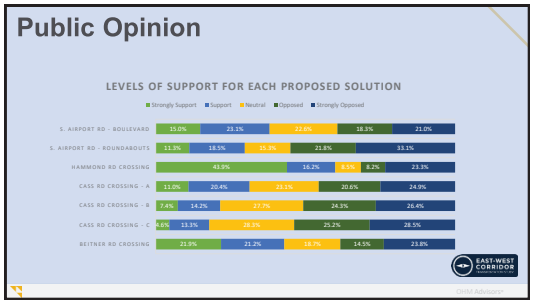
7


Beitner Road Crossing
BEITNER ROAD CROSSING
Efficiency improvements along existing roadways to improve access into and around Traverse City.
LEGEND
STUDY AREA
EXISTING ALIGNMENT
ROUNDABOUT UNDER CONSIDERATION

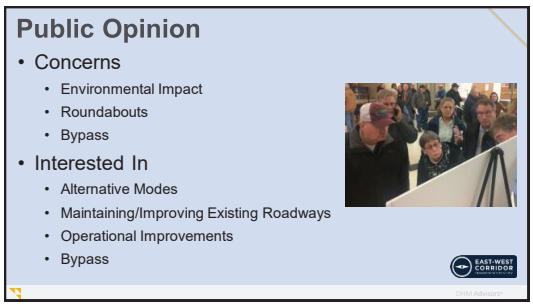
8


Public Meeting 2
• Held on February 18th at Traverse City East Middle School
• 208 attendees
• 150 surveys at the meeting
• 430+ additional online surveys
• 588 Total Surveys Collected
EAST-WEST CORRIDOR

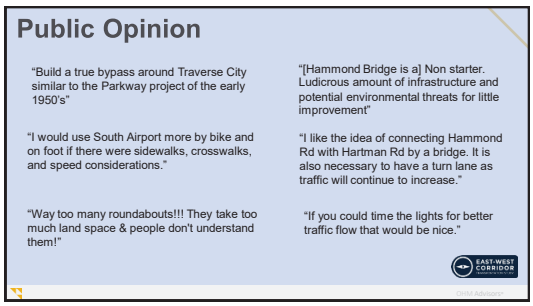
9


Public Opinion
LEVELS OF SUPPORT FOR EACH PROPOSED SOLUTION
Strongly Support
Support
Neutral
Opposed
Strongly Opposed
S. AIRPORT RD - BOULEVARD 15.0% 23.1% 22.6% 18.3% 21.0%
S. AIRPORT RD - ROUNDABOUTS 11.3% 18.5% 15.3% 21.8% 33.1%
HAMMOND RD CROSSING 43.9% 16.2% 8.5% 8.2% 23.3%
CASS RD CROSSING - A 11.0% 20.4% 23.1% 20.6% 24.9%
CASS RD CROSSING - B 7.4% 14.2% 27.7% 24.3% 26.4%
CASS RD CROSSING - C 8.6% 13.3% 28.3% 25.2% 28.5%
BEITNER RD CROSSING 21.9% 21.2% 18.7% 14.5% 23.8%
EAST-WEST CORRIDOR

10


Public Opinion
• Concerns
• Environmental Impact
• Roundabouts
• Bypass
• Interested In
• Alternative Modes
• Maintaining/Improving Existing Roadways
• Operational Improvements
• Bypass
EAST-WEST CORRIDOR

11


Public Opinion
"Build a true bypass around Traverse City similar to the Parkway project of the early 1950's"
"I would use South Airport more by bike and on foot if there were sidewalks, crosswalks, and speed considerations."
"Way too many roundabouts!!! They take too much land space & people don't understand them!"
"[Hammond Bridge is a] Non starter. Ludicrous amount of infrastructure and potential environmental threats for little improvement"
"I like the idea of connecting Hammond Rd with Hartman Rd by a bridge. It is also necessary to have a turn lane as traffic will continue to increase."
"If you could time the lights for better traffic flow that would be nice."
EAST-WEST CORRIDOR

12

Evaluation Criteria

- 6 Overarching Criteria for Evaluating Practical Solutions based on Purpose and Need

Roadway Operations | Safety | Environmental Impacts

Land Use Plans | Equitable Access | Fiscal Impact

13

Evaluation Criteria

- High level analysis of each Solution using a diverse group of measures
- Helped determine which Solutions would have most impact to Region
- Determined if any 'Red Flags' were present
- Helped understand pros and cons of each Solution

14

Traffic Modeling Results

- Modeling showed all solutions reduce Regional Vehicle Hours of Travel (VHT)

Between 2015 and 2025 TOTAL REGIONAL VHT is Projected To Increase By **12,550** HOURS if No Solutions Are Implemented

With the S. Airport Rd Corridor
Total VHT Could Be **287** HOURS LESS Than the 2025 No Build Option
And Localized Along S. Airport Rd

With the Hammond Rd Corridor
Total VHT Could Be **412** HOURS LESS Than the 2025 No Build Option
And Localized Along Hammond Rd

With the Beitner Rd Corridor
Total VHT Could Be **439** HOURS LESS Than the 2025 No Build Option
And Localized Along Keystone Rd

15

Average Evaluation Scores

- Criteria scored 1 – 3 and color coded
  - 3 has most positive impact,
  - 1 has least positive impact
- All Solutions very similar in potential impacts
- S. Airport performs well due to proximity to Traverse City and Existing Amenities
- Affirms that aspects of each Solution may be necessary to have greatest impact

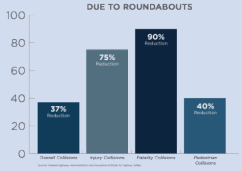
	Roadway Operations	Community Land Use Plans	Environmental Responsibility	Safety	Economic Development	Equitable Access
S. Airport Road Corridor - Boulevard	2.0	1.7	2.5	2.5	2.0	3.0
S. Airport Road Corridor - Roundabouts	2.0	2.0	2.8	2.8	2.5	3.0
Hammond Road Corridor - A	1.7	3.0	2.0	2.3	2.0	1.7
Hammond Road Corridor - B	1.7	3.0	1.7	2.3	2.0	1.7
Cass Road Corridor - A	2.3	2.0	1.6	2.3	2.5	1.7
Cass Road Corridor - B	2.3	2.0	1.7	2.3	2.5	1.7
Cass Road Corridor - C	2.3	1.7	1.9	2.3	2.5	2.0
Beitner Road Corridor	2.0	2.3	1.8	2.8	2.0	1.3

16

Advantages of Roundabouts

Significant Safety Improvements

REDUCTION IN COLLISIONS DUE TO ROUNDABOUTS



Lower vehicle speeds, one-way travel, and no head-on left turns help reduce the likelihood and severity of collisions

Improved Traffic Flow

Allow for a continuous flow of traffic

20% Reduction in Delays

56% Reduction in Vehicle Stops

Maintenance Savings

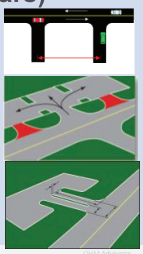
$5K - $10K Annual Savings Over Traditional intersection

Elimination of hardware, maintenance and electrical costs associated with traffic signals

17

Short Term Solutions (1-5 Years)

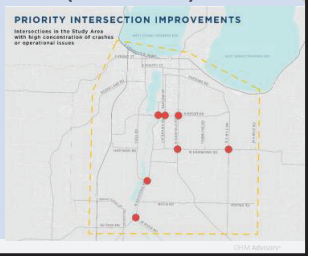
- Access Management Improvements
  - S. Airport Rd– implement gradually as redevelopment occurs
  - Develop an Access Management Plan for roads south of Airport Road
- Traffic Signal Optimization
  - Retime signals on S. Airport Rd Corridor
  - "Fine tune" GTCRC signals relative to recently completed improvements



18

Short Term Solutions (1-5 Years)

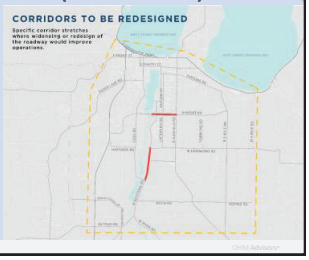
- Improve Intersections with Crash or Operational Issues
  - S. Airport at Garfield
  - S. Airport at Barlow
  - Garfield at Hammond
  - Hammond at 3 Mile
  - S. Airport at Park
  - Cass at Keystone
  - Beitner at Keystone



19

Long Term Solutions (5-10 Years)

- Widen/Redesign Specific Corridor Stretches
  - S. Airport from Barlow to Garfield: 4-Lane narrow median
  - S. Airport from Logan's Landing to Barlow: 4-Lane narrow median
  - Keystone from Hammond to Cass: 5 Lane road



20

Potential Future Solutions (10-25 Years)

- Additional crossings of Boardman River may need further investigation
  - Hammond Road Crossing

    OR
  - Cass Road Crossing
- Solutions **may be warranted** in the future if traffic issues continue

21

Next Steps:

- Phase I
  - Develop Final Report summarizing recommended solutions
  - Present Final Report to GTCRC Board
  - Make Final Report available to public
- Potential Next Steps
  - GTCRC considers recommended solutions and determines projects and action steps
  - GTCRC implements short- and long-term projects

22

23

WELCOME!

East-West Corridor Transportation Study

GRAND TRAVERSE COUNTY ROAD COMMISSION

EAST-WEST CORRIDOR TRANSPORTATION STUDY

1

PROJECT SCOPE AND EXPECTATIONS

EXPECTED OUTCOMES OF THE STUDY

To recommend solutions that address safety and improve mobility, efficiency, and connectivity with a focus to facilitate east-west travel for all users of the Road Commission's network. The high levels of congestion and excessive delay for motorists traveling east and west along the five key road corridors is the main driver of the search for solutions.

STUDY PURPOSE AND NEED

- "Upgrade and maintain a safe and efficient road system."
- Reflect the participation and input from local agencies, stakeholders and public.
- Identify safety and efficiency improvements for all modes of travel
- Create a plan that best responds to the needs of all interests for enhancements and accessibility benefits.
- Provide solutions that consider the context of the study area
- Identify solutions for roads GTCRC has jurisdiction over
- Improve system resiliency for peak seasonal events or incident management
- Provide solutions that consider the potential implications to existing and future land use patterns
- Improve accessibility, routing and connectivity for all modes of travel
- Evaluate and incorporate natural and cultural resource conservation best practices into solutions
- Maintain or improve air quality
- Evaluate a package of solutions that can be adopted based on agency budgets and planned or projected financial resources

2

LOCAL AGENCY AND STAKEHOLDER ENGAGEMENT

Local Agency representatives and stakeholders helped to inform the development of the Purpose and Need and evaluation criteria and provided guidance and feedback on the development of potential options.

Participating Municipalities & Government Services

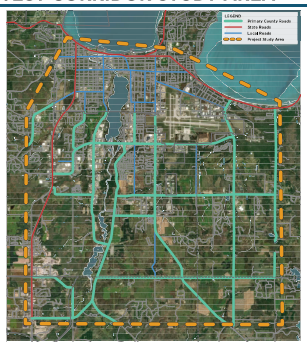
- Acme Township
- Blair Township
- Bay Area Transportation Authority
- City of Traverse City
- East Bay Township
- Elmwood Township
- Fife Lake Township
- Garfield Township
- Grand Traverse County
- Long Lake Township
- Mayfield Township
- Union Township
- Whitewater Township
- Village of Fife Lake
- Village of Kingsley
- Networks Northwest
- Northwest Regional Airport Commission/Cherry Capital Airport Authority
- Michigan Department of Transportation
- Traverse Bay Area Intermediate School District
- Traverse Transportation Coordinating Initiative (TTCI)
- Traverse City Area Public Schools

Participating Non-Profit and Private Stakeholders

- Manufacturing and Wholesale Distribution
- Fire and Emergency Management Services
- Big Box Retail
- Auto Dealers
- Major Employers
- Construction, Development & Realty
- Health & Human Services
- Utilities, Energy and Shipping
- Environment and Natural Resources
- Multi-Modal Transportation
- Events and Tourism

3

EAST-WEST CORRIDOR STUDY AREA



Study Area includes:

- City of Traverse City
- Garfield Township
- Blair Township
- East Bay Township

Study Area Boundaries

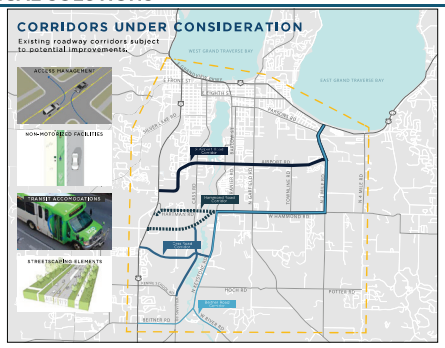
- M-22/US-31 (North)
- Beitner Road (South)
- Silver Lake Road/US-31 (West)
- 4 Mile Road (East)

Significant roadways that may impact the Study's analysis include GTCRC, MDOT, and local roads.

Potential improvement corridors include only roads under GTCRC jurisdiction

4

PRACTICAL SOLUTIONS



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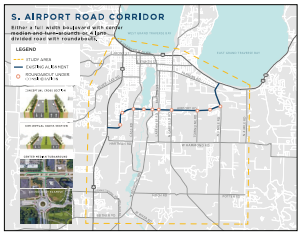
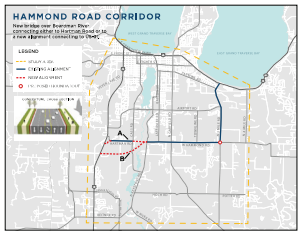
PRACTICAL SOLUTIONS





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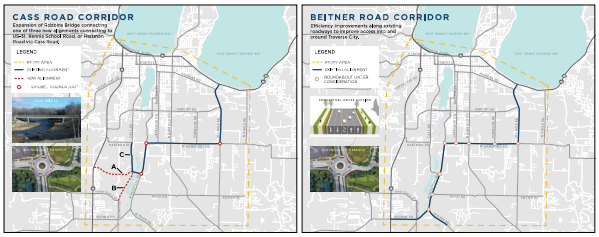
APPENDIX C: PUBLIC INPUT SUMMARY DOCUMENTS

PRACTICAL SOLUTIONS



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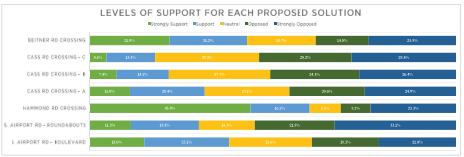
PUBLIC MEETING #2 REVIEW



590 Total Respondents:
150 Paper Surveys & 440 Online Surveys

Concerns
- Environmental Impact
- Roundabouts
- Bypass

Interests
- Alternative Modes
- Maintaining/Improving Existing Roadways
- Operational Improvements
- Bypass

Comments From Surveys

"Build a true bypass around Traverse City similar to the Parkway project of the early 1950's"

"I would use South Airport more by bike and on foot if there were sidewalks, crosswalks, and speed considerations."

"Way too many roundabouts!!! They take too much land space & people don't understand them!"

"[Hammond Bridge is a] Non starter. Ludicrous amount of infrastructure and potential environmental threats for little improvement."

"I like the idea of connecting Hammond Rd with Hartman Rd by a bridge. It is also necessary to have a turn lane as traffic will continue to increase."

"If you could time the lights for better traffic flow that would be nice."

8

EVALUATION CRITERIA

ROADWAY OPERATIONS

EVALUATION CRITERIA

Travel Distance Impact
Projected change in regional Vehicle Miles Traveled (VMT) of Solution compared to 2025 No Build option

Travel Time Impact
Projected change in regional Vehicle Hours Traveled (VHT) of Solution compared to 2025 No Build option

Average Traffic Impact
Projected change in AADT along each solution route compared to AADT from 2025 No Build Option

SAFETY IMPACTS

EVALUATION CRITERIA

Non-Motorized Safety Impact
Potential for improved bicycle and pedestrian safety conditions along each Solution

Motorized Safety Impact
Potential for improved motorized safety based on access management and volume changes

Emergency Response Time
Projected change in regional travel time for each Solution compared to 2025 No Build Option

Potential for Crash Reduction
Total crashes in the past five years along each Solution route

ENVIRONMENTAL IMPACTS

EVALUATION CRITERIA

Historic Resource Impact
Number of cultural or historic properties impacted by each solution.

Parkland Impact
Total acres of parkland and number of parks impacted by the construction of each solution.

Environmental Justice Impact
Measure of disproportionate impact to minority and/or low income communities.

Habitat Fragmentation
Would the proposed Solution bisect an open habitat of wildlife

Right-Of-Way Impact
Total acres of additional land for new right-of-way needed to construct the solution.

Hydrological Resource Impacts
Total acres of wetlands and floodplains impacted, number of stream crossings, and type of crossing of the Boardman River.

LAND USE PLANS

EVALUATION CRITERIA

Consistency With Plans
Probability of a significant change to the planned land use pattern in a corridor.

Impacts to Existing EW Corridors
Projected traffic shifts off of existing east-west routes for each Solution, compared to 2025 No Build option

Residential Area Impacts
Total potential residential relocations based on right-of-way acquisitions for roadway widening.

EQUITABLE ACCESS

EVALUATION CRITERIA

Improvement to Transit Access
Opportunities of each solution to improve transit operations via add-lane/bus shoulder improvements.

Improvement to Pedestrian Mobility
Proximity to existing sidewalk network and the potential for new sidewalks to tie in to that network

Improvement to Bicycle Mobility
Proximity of Solution to existing bicycle facilities and the potential total length of facilities that could connect

FISCAL IMPACT

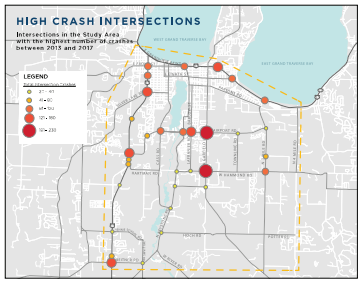
EVALUATION CRITERIA

Estimated Cost
Estimated cost for design, construction of the solution, including bridge work and contingency

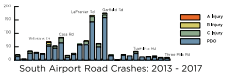
Business Impacts and Relocation
Total number of potential business relocations based on right-of-way acquisitions for roadway expansion

9

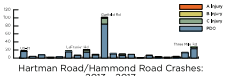
CRASH ANALYSIS



A crash analysis for the entire study area was completed to identify the high crash location in the region. Two example corridors with highest number of crashes are shown below.



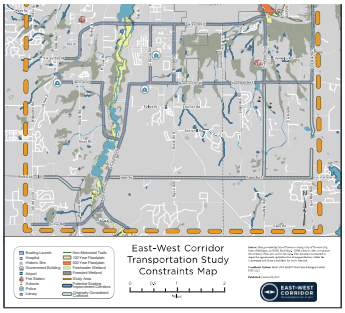
South Airport Road Crashes: 2013 - 2017



Hartman Road/Hammond Road Crashes: 2013 - 2017

- A Injury - Incapacitating Injury: Injury that prevents the injured person from walking, driving, or continuing normal activities
- B Injury - Non-incapacitating Injury: Any injury evident to observers at the scene but that is not incapacitating
- C Injury - Possible Injury: Any injury reported that is not fatal, incapacitating, or non-incapacitating
- PDO Injury - No Injury: No bodily harm was received from the motor vehicle crash

10



11

TRAFFIC MODELING RESULTS

Traffic modeling shows all solutions reduce vehicle hours of travel (VHT)
- Modeling looks only at the macro level
- Further refinement for recommended solutions will help determine specific improvements at intersections and corridors.

Between 2015 and 2025 TOTAL REGIONAL VHT
Is Projected To Increase By
12,550 HOURS If No Solutions Are Implemented

S. Airport Rd Corridor Solution
Total VHT Could Be 287 HOURS LESS Than the 2025 No Build Option
And Localized Along S. Airport Rd

With the Hammond Rd Corridor
Total VHT Could Be 412 HOURS LESS Than the 2025 No Build Option
And Localized Along Hammond Rd

With the Beitner Rd Corridor
Total VHT Could Be 439 HOURS LESS Than the 2025 No Build Option
And Localized Along Keystone Rd

The travel time reduction estimates were projected for each of these Solutions individually. If the solutions are implemented in tandem with one another, additional travel time savings could result.

12

EVALUATION RESULTS

	Roadway Operations			Community Land Use Plans			Environmental Responsibility									Safety				Economic Development		Equitable Access		
	Projected Vehicle Miles Traveled in Build Year (2025)	Projected Vehicle Hours Traveled in Build Year (2025)	Average Impact to Traffic	Consistency with Local Land Use Plans	Impacts on Existing EW Corridors	Impacts on Residential Areas	Impact on Historic Resources	Parkland Impacts - Total Parks	Parkland Impacts - Total Acres	Environmental Justice Impacts	Coverage of Basement Floor	Other Stream Crossings	Total Acres of Wetlands and Floodplain Affected	Habitat Fragmentation	ROW Impacts	Non-Motorized Safety Impact	Motorized Safety Impact	Emergency Response Time	Potential for Crash Reduction	Estimated Design and Construction Cost	Potential Number of Business Relocations	Potential Improvement to Transit Mobility	Potential Improvement to Pedestrian Mobility	Potential Improvement to Bicycle Mobility
S. Airport Road Corridor - Boulevard																								
S. Airport Road Corridor - Roundabouts																								
Hammond Road Corridor - A																								
Hammond Road Corridor - B																								
Cass Road Corridor - A																								
Cass Road Corridor - B																								
Cass Road Corridor - C																								
Beitner Road Corridor																								

EVALUATION RESULTS SUMMARY

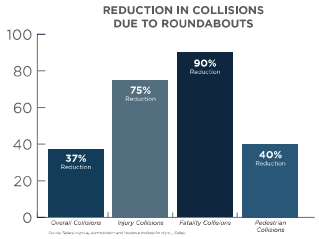
Evaluation Results

- All of the alternatives were very similar in potential impacts
- S. Airport performs well due to it's proximity to Traverse City and existing amenities
- Affirms that aspects of each Solution can help address congestion issues

	Roadway Operations	Community Land Use Plans	Environmental Responsibility	Safety	Economic Development	Equitable Access
S. Airport Road Corridor - Boulevard	2.0	1.7	2.8	2.8	2.0	3.0
S. Airport Road Corridor - Roundabouts	2.0	2.0	2.8	2.8	2.5	3.0
Hammond Road Corridor - A	1.7	3.0	2.0	2.3	2.0	1.7
Hammond Road Corridor - B	1.7	3.0	1.7	2.3	2.0	1.7
Cass Road Corridor - A	2.3	2.0	1.6	2.3	2.5	1.7
Cass Road Corridor - B	2.3	2.0	1.7	2.3	2.5	1.7
Cass Road Corridor - C	2.3	1.7	1.9	2.3	2.5	2.0
Beitner Road Corridor	2.0	2.3	1.8	2.8	2.0	1.3

ADVANTAGES OF ROUNDABOUTS

Significant Safety Improvements



Lower vehicle speeds, one-way travel, and no head-on left turns help reduce the likelihood and severity of collisions

Improved Traffic Flow

Allow for a continuous flow of traffic

20%
Reduction in Delays

56%
Reduction in Vehicle Stops

Maintenance Savings

$5K - $10K
Annual Savings Over Traditional Intersection

Elimination of hardware, maintenance and electrical costs associated with traffic signals

SHORT TERM SOLUTIONS (1 - 5 YEARS)

Access Management

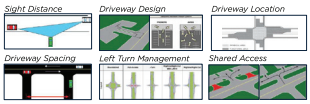
S. Airport Road -

- Access Management standards should be implemented as redevelopment occurs
- Access management improvements can be part of any redesign or reconstruction efforts

Access Management Plan

- Develop an Access Management plan for roads south of S. Airport Rd
- Purchase access rights, limit access locations, include in any ROW purchases

ACCESS MANAGEMENT DESIGN TECHNIQUES

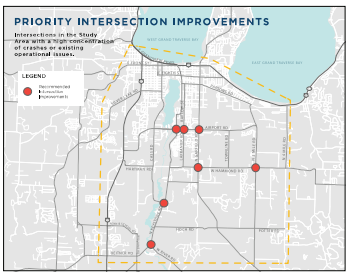


Signal Timing

Traffic Signal Optimization

- Retime signals on S. Airport Rd Corridor
  - Optimize signal lengths, offsets, and green splits for current traffic volumes and patterns
- "Fine tune" GTCRC signals relative to recently completed improvements
- Incorporate GTCRC signals into new MDOT adaptive signal system

SHORT TERM SOLUTIONS (1 - 5 YEARS)

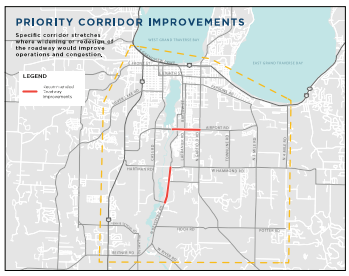


Improve Intersections with Crash or Operational Issues

- S. Airport Rd at Garfield Rd
- S. Airport Rd at Barlow St
- S. Airport Rd at Park St
- Garfield Rd at Hammond Rd
- Hammond Rd at 3 Mile Rd
- Cass Rd at Keystone Rd
- Beitner Rd at Keystone Rd

Intersection improvements could include additional turn lanes, improved signal timing, crossing infrastructure, or the construction of roundabouts.

LONG TERM SOLUTIONS (5 - 10 YEARS)



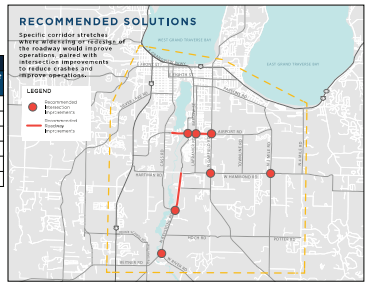
Widen or Redesign Specific Corridor Stretches

- S. Airport from Barlow to Garfield: 4-Lane narrow median
- S. Airport from Logan's Landing to Barlow: 4-Lane narrow median
- Keystone from Hammond to Cass: 5 Lane road

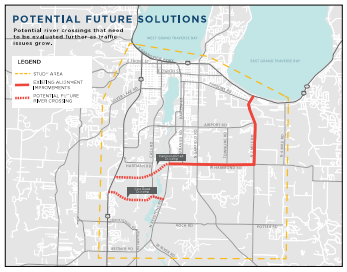
RECOMMENDED SOLUTIONS

Refined Construction Cost Estimates

Recommended Short and Long Term Solutions Costs			
Corridor	*Specific Section*	*Roadway Cost ($2019)*	*Roundabout Cost ($2019)*
S. Airport Road	Barlow St to Garfield Rd	$900,000	$500,000
	Logan's Landing to Barlow St	$1,500,000	$250,000
Keystone Road	Hammond Rd to Cass Rd	$2,200,000	$500,000
Hammond Road	Garfield Rd to 3 Mile Rd	-	$500,000
	Total	**$4,700,000**	**$1,800,000**
	Total Design/Construction Cost	**$6,500,000**	



POTENTIAL FUTURE SOLUTIONS (10 - 25 YEARS)



Additional crossings of the Boardman River need to be investigated further

- Hammond Road Crossing connecting to US-31

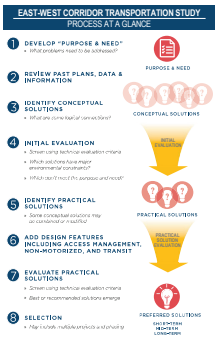
OR

- Cass Road Crossing connecting to US-31

These are solutions that **may be warranted** in the future if regional traffic issues continue, however planning and funding identification can start now.

Hammond Bridge and New Alignment Costs		
Corridor	*Specific Section*	*Construction Cost ($2019)*
Hammond Rd	New Bridge	$41,000,000
	New Alignment from Bridge to US-31	$3,000,000
	Total Design/Construction Cost	**$44,000,000**

NEXT STEPS



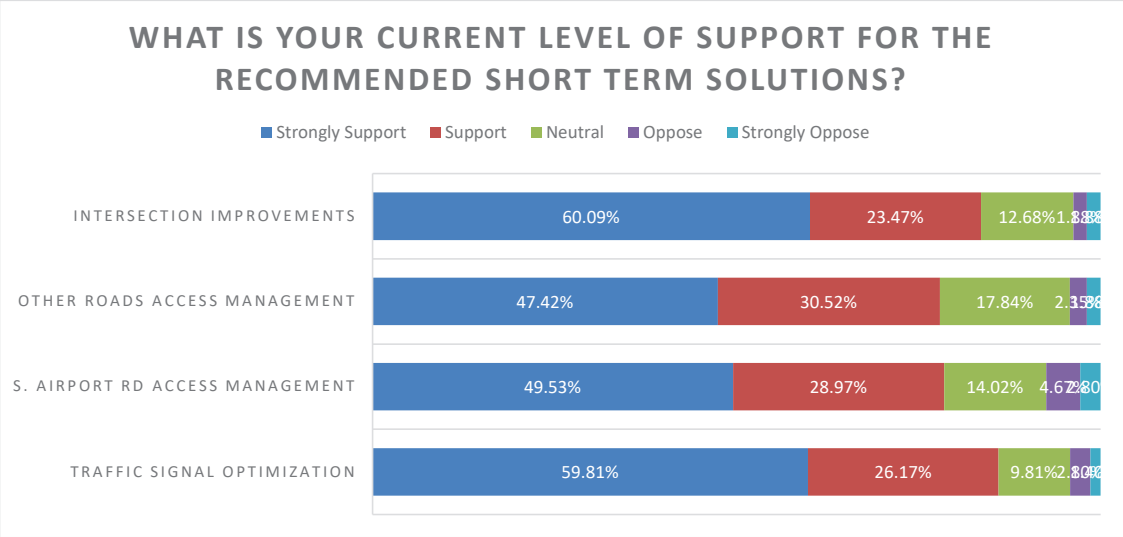
PROJECT NEXT STEPS

- Develop Final Report summarizing the recommended solutions
- Present Final Report to GTCRC Board for approval
- Make Final Report available to public

HOW TO STAY ENGAGED

- Fill out comment cards to give us feedback on the project recommendations
- Sign up for the mailing list

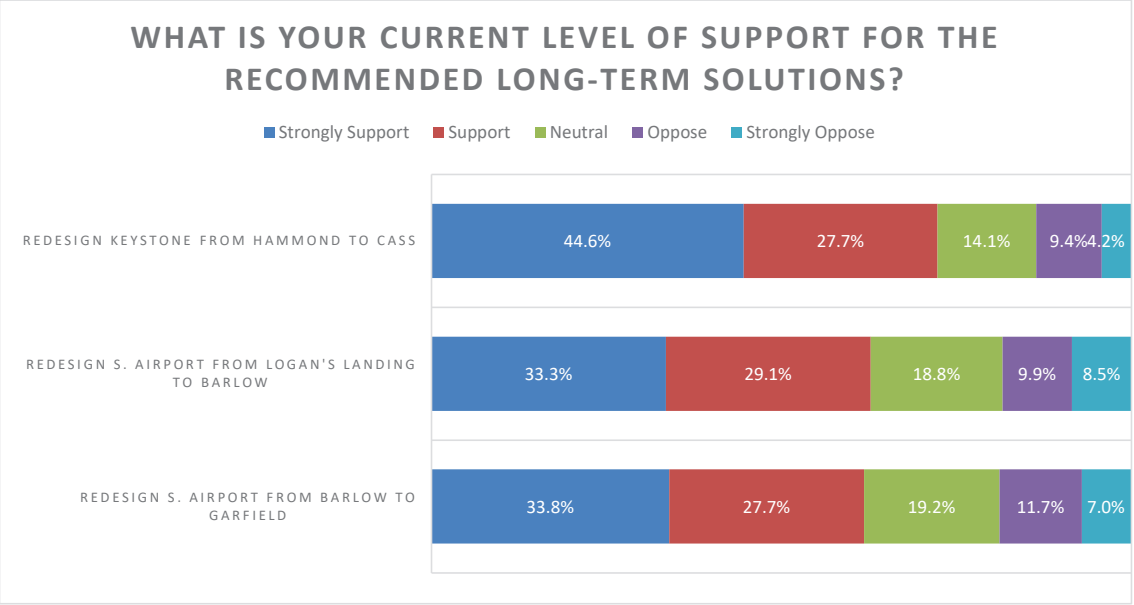
What is your current level of support for the recommended short-term (1-5 year) solutions?												
	Strongly support		Support		Neutral		Oppose		Strongly oppose		Total	Weighted Average
Traffic signal optimization	59.81%	128	26.17%	56	9.81%	21	2.80%	6	1.40%	3	214	4.402
Implement access management improvements for South Airport Road	49.53%	106	28.97%	62	14.02%	30	4.67%	10	2.80%	6	214	4.178
Develop access management plan for roads south of South Airport Road	47.42%	101	30.52%	65	17.84%	38	2.35%	5	1.88%	4	213	4.192
Improve intersections with crash or operational issues	60.09%	128	23.47%	50	12.68%	27	1.88%	4	1.88%	4	213	4.380



What is your current level of support for the recommended short-term (1-5 year) solutions?
Comments
People are uncomfortable with what they are not used to. So most people in the area are not comfortable with roundabouts. But the fact is they are beneficial. Let's start phasing them in on S. Airport and then install them at Division and 14th, Division and Grandview Pkwy, and perhaps Division and 11th.
Why do we need to "improve" access to South Airport when the issues are more driver related than physical? Perhaps we should up enforcement with increased police presence. Get off the accelerator and cell phone and we wouldn't have so many issues.
Round-a-bouts have so many close calls. Please do not use.
I don't drive or have a car. I would really like to see Traverse City as a whole become a more bike friendly town, because even though we claim to be bike friendly, we're not. I absolutely do NOT feel safe in the bike lane of any street except front street in down town and state street in down town. This needs to be remedied.
I don't generally travel too far south of S. Airport beyond heading completely out of the area, so have little opinion on that aspect. However, anything that can improve S. Airport would be very welcome, and I believe that the proposals will do that. I am a fan of roundabouts, and I believe they could be used to good effect here.
Crashes at intersections are the result of drivers' violations of the motor vehicle code...improving intersections will not prevent MVC violations.
NO ROUNDABOUTS on Airport road!! There are too many big intersections and too much traffic for roundabouts! Especially in the summer, the tourists would be a nightmare!
Please NO roundabouts! They aren't the ingenious answer that so called experts think they are.
Put a working light at Blair town hall road. The amount of money wasted on the useless blinking yellow light is astonishing. It does nothing to improve safety or cogestion which is a serious issue on that road. Also quit focusing on marketing for 8th street and just make the road passable. The amount of money being spent trying to make it hip and healthy is silly, the businesses they want to move there aren't foolish enough to do so until the road is fixed for good.
In town they have alleys Why don't they think about putting some in behind like Bob Evans and Wendy's so traffic can use the light
No more round about in traverse. We don't need them .please keep the town small.
South airport through Logan's landing really needs work.
Slow traffic down on Airport to 35mph Set the lights better so traffic does not back up from Logans Landing to Cass - no roundabouts
Would like to see a traffic light at River Road and Keystone. At certain times of the day to even turn right onto keystone is difficult. River Road use to have the right away a long time ago!
I am not in support of improvements to South Airport Road that will negatively impact existing businesses.
If you're going to build roundabouts, please make them bigger. Widen Keystone Rd to 4-5 lanes.
Build the Hammond bridge already and no round abouts!
For lord's sake NO ROUNDABOUTS!!! Nobody knows how to use them, and the people who do know, use them incorrectly. They are just stress causers in an already stressful situation.
Please stop focusing on South Airport. Put your time and attention to Keystone and Hammond/Hartman bypass. Widen Keystone to 5 lanes, put roundabouts on KEYSTONE, not South Airport and build the bypass. We need more East West Roads, not less, not smaller. Making South Airport a boulevard will ruin the businesses. I know when I am on a boulevard it is all about going through; I rarely stop at businesses when I am traveling boulevard designed roads. Take advantage of Keystone NOW before it is ever built up. Make that the pass through traffic road and leave South Airport as a business road. Also, you will need to improve Cass from South Airport to Keystone to help with the flow of traffic - at least make it 3 lanes with shoulders.
Upgrade Keystone and Beitner roads to Hammond road.
The traffic on South Airport Road is simply too heavy to implement a "fix" of traffic signals or roundabouts. This is not the best solution for the "bypass" that residents want.
Nether corridor seems particularly crash prone, nor does traffic entering/leaving businesses provide a significant delay. Its just too many cars for the number of lanes.
What could create a more efficient and safer driving experience now with the above so called upgrades that have not been previously done in the past with timing and or configuration changes? There is just nothing that will make a much needed relief to the East/West movement having the amount of traffic presently on South Airport, so stop spending money on study's and giving into the special interest groups and build the long needed bridge from Hartman to Hammond.
Prioritize 1) safety 2) flow (reducing congestion) 3) non-motorized access. Road commission and consulting experts should care less about public opinion than data. Also it sounds like roundabouts are a good thing

Create bike infrastructure and build sidewalks. More and better public transportation
Don’t forget about the need for a access path south of Airport and 4 Mile Rd improvements
Traffic signal optimization should include safer pedestrian crossing, such as stopping all traffic. At Garfield/S Airport even when the walk signal is active, left turning traffic does not stop. It's very dangerous. Sidwalks needed, shoulders and bike lanes
Access management can now create parking lot congestion like at Walmart, Home Depot. Are tourist and winter weather taken into account, big influx in volume summer, slow slippery travel in the winter.
Strongly support roundabouts
Please consider roundabouts despite the few (strongly voiced) opposition to them. They are the right thing for some intersections and should be evaluated and implemented for all the positive reasons that roundabouts present
Better pedestrian/bike access (sidewalks) along S Airport with fewer driveway crossings
While not the scope of this study, policy changes need to be made with regard to land use. Significant changes in land use policy are necessary to address the stated need.
More enforcement of red light violations
Strongly support these improvements rather than large scale destruction of all that we hold dear in TC (bridge). Can we build our way out of traffic?? I.E. Highways in LA?
Road commission must recognize that a "True TC Bypass" must begin south of Chum's Corners! Example: Vance Rd east to Hoosier Valley Road to Garn Road to Beitner Road intersection with Keystone. A by-pass may be considered to deal with "elivation" concerns.
I support H/H Bridge
I am somewhat surprised that these things are not already being done. This should be a 1-2 year goal. Sooner the better. This is just a bandaid.
What happened to enforcements! Running red lights? Speeding?
I strongly support these modest incremental changes because they can offer improved access for more users, thus reducing demand of automobile use.
Optimizing traffic signals creates speed and more running of red lights
Short-term ideas only, short sighted
We need the Hartman Hammond bypass. We have study this long enough spent thousand of dollars on study its time NOW. It has been over 30 yr study
We need the Hammond to Hartman bi-pass! We have been here 30+ years and this is the ONLY real solution. They have incredible technology and engineering that would save so much of the natural resources people were concerned about. Do the bi-pass!
Hammond to Hartman bi-pass the area is only getting bigger and more populated - this is the only solution that solves all the problems!

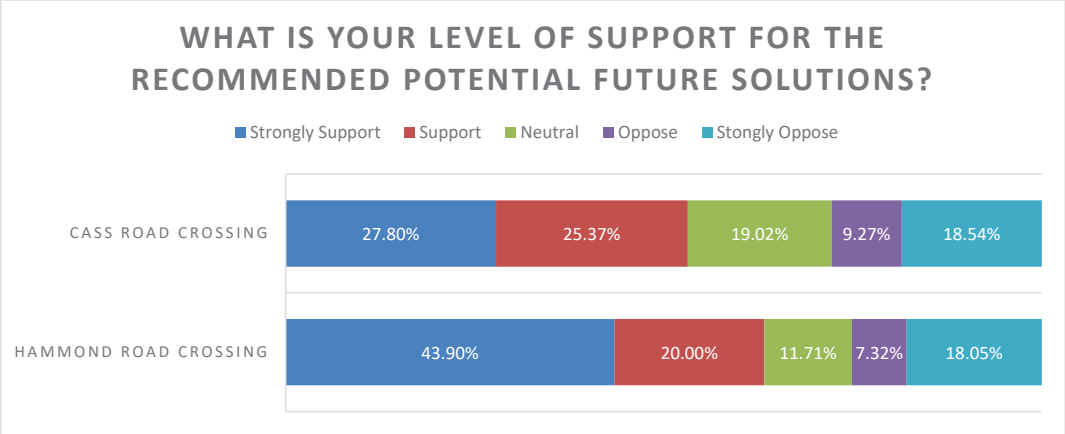
What is your current level of support for the recommended long-term (5-10 year) solutions?												
	Strongly Support		Support		Neutral		Oppose		Strongly Oppose		Total	Weighted Average
Widen/redesign South Airport from Barlow to Garfield (4-Lane with narrow median)	33.80%	72	27.70%	59	19.25%	41	11.74%	25	7.04%	15	212	3.698
Widen/redesign South Airport from Logan's Landing to Barlow (4-Lane with narrow median)	33.33%	71	29.11%	62	18.78%	40	9.86%	21	8.45%	18	212	3.693
Widen/redesign Keystone from Hammond to Cass (5-Lane)	44.60%	95	27.70%	59	14.08%	30	9.39%	20	4.23%	9	213	3.991



What is your current level of support for the recommended long-term (5-10 year) solutions?
Comments
I would hope we would take the money and put it into the bridge
Replan your routes, don't spend millions of dollars on improvements which are only needed for an hour or two a day on these roads.
Continue Keystone with 5 lanes all the way to Chums Corners, or better yet, 2 lanes each way with a grassy median, with “Michigan Left” turnouts for Cass, Hoch, and River Rds. Two lanes to go left from Hammond on to Southbound Keystone.
I don't travel Keystone so have limited experience with it. I do travel S. Airport but try to avoid it due to the traffic issues. I believe these improvements will help, but am open to the potential for better solutions to come along in the future (i.e. within the time frame of 5-10 years).
South Airport Rd is already 5 total lanes including the center turn lane...how much wider can it be? Just optimize the traffic signals so it flows better. Keystone and Beitner on the other hand, especially southbound, certainly could use another lane.
NO ROUNDABOUTS ON AIRPORT,!!
Again NO roundabouts!
Just make the lights on south airport work! :)
That would be great on keystone
These areas are already pedestrian unfriendly, and whenever roads in Traverse have been widened, the crosswalks are neglected and it just gets more pedestrian unfriendly.
Needs widening to US 31
Please improve the existing roads before spending significant funding on a large bridge project. I would widen Keystone all the way to U.S. 31 and replace the Bietner bridge over the Boardman as well.
wasn't there recently considerable work done to S Airport? Would this be rebuilding infrastructure long prior to its expected end of use?
Slow the traffic down to 35MPH Set the lights better - no roundabouts
Adding a median will be require alternative access or intersection roundabouts; I am not in favor of roundabouts.
Adding a median will only make the road harder to navigate
NO Roundabouts though!
Please make Keystone and short term solution. This needs to be worked on now. A median would make south airport MUCH safer, however, I want to see Keystone fixed before South Airport. Please expand on what you mean by a narrow median.... How is anyone supposed to make a U turn in a narrow median? Why would you waste time adding a median from logans landing to Barlow? That is not where most of the left hand turns are from businesses. Also, there is already a median for a good portion of Logan's Landing...
Widen Keystone and Beinter roads from Hammond to Chums corners.
We need more capacity in whatever form it comes, large trucks & heavy equipment cause significant backups on keystone, which 5 lanes would help with.
Also continue widening Keystone Rd. and Beitner Rd. from Chums Corner's(M37/US31 South) to Cass Rd.
Widen Keystone from Hammond to Chums Corner. It can't be any more simple - that's where traffic flows each and every day!!! If there's issues with MDOT and the intersection, then work through those issues!
All those areas need bike/pedestrian lanes
Widen Keystone to US-31
No Roundabouts! Roundabouts are a mess (M-72) and impossible for pedestrians to safely cross
Traffic lanes are wide enough. Add sidewalks and bike lanes.
You can't turn on or off Wysong Rd from Airport. I don’t see a solution presented today that will help
Needs to be done now
Widening only makes the induced demand worse. This does not aleviate congestion but only makes it worse on the rest of the system. Widening improvements are a logical fallacy. Please don't do this!
Don’t stop there! From Chums Corner to Hammond!
How is this an improvement?
S Airport is a problem but more lanes are needed to move more vehicles like using Hammond Road more
S Airport really needs a rethink to prioritze safety and access. The roundabouts are proven to do both.
What about Cass and S. Airport? It's always a choke point for traveling east to west.
Building more roads encourages more traffic. There's no way to build our way out of congestion. We need to encourage more use of transit, cycling, walking
I believe this is taking us in the wrong direction. We have to be proactive and think to the future. Solve the problem!
I support H/H bridge

We need the Hammond Bi-Pass!
S. Airport improvements (Logan's Light) and widening at US-31 West has made tremendous improvement already

What is your current level of support for the recommended potential future (10-25 year) solutions?												
	Strongly Support		Support		Neutral		Oppose		Strongly Oppose		Total	Weighted Average
Hammond Road Crossing	43.90%	90	20.00%	41	11.71%	24	7.32%	15	18.05%	37	207	3.638
Cass Road Crossing	27.80%	57	25.37%	52	19.02%	39	9.27%	19	18.54%	38	205	3.346



What is your current level of support for the recommended potential future (10-25 year) solutions?
Comments
We need to build the bridge now, if we wait 10-25 years what will the cost be then. I would hope we are not going to let a few environmentalist decide what is best for this county.
Anything that gives a viable options to get around town without going through town is welcome.
These need to be done first before any of the other improvements.
I would strongly appreciate your reasoning as to why the Hammond/Hartman is not an option. I realize it will take time and effort to respond to me but I can't understand why it isn't the primary option. My email is efisher@chartermi.net. My name is Edward Fisher. Thank you.
Take the traffic out to chums corner
I'll say I support these, though that comes with a few caveats...I'd like to see that the need is supported by the traffic data. I'd like to see environmental impact studies to determine if these are worth the undoubted environmental cost. I'd have no preference for either option at this point, but would want that decision to be primarily based on minimizing the impacts on the environment and private citizens (e.g. property concerns, etc).
The benefit is not worth the cost for these crossings. Just widen Keystone and then re-assess in 10 years. Good luck! It'll be absolutely impossible to please everybody!
Either one would help! But the Hammond road one would be my choice, especially in summer to bypass the soccer fields
Should had done that years ago
Traverse City and Grand Traverse County are incredibly pedestrian unfriendly, and there needs to be something done about it. There should be more crosswalks, more sidewalks, and more biking options. Living out near Chums there's no way to go anywhere without a vehicle because of lack of sidewalks, and that's the case in a lot of the county.
Build the bridge. It is time. Do it in an environmental friendly way like other communities. We can do that and limit commercial build up in the new corridor working with townships. Nobody wants a congested road. Do it for the special need kid that sits on the bus for two hours because the crossing doesn't exist, do it for the first responder taking a stroke victims to Munson from the east side of town, do it for the mom trying to get her kids to activities across town. Do it since it is the right thing to do for our community.
By no means should the new Cass Road bridge be altered. It is a north-south corridor crossing which is serving the intended purpose very well. Hammond Hartman Crossing is the true solution. It is time for action by our community to support the efforts of the road commission and get this project moving forward. Band-aids on S. Airport Road and widening Keystone are not practical solutions. Widen Keystone with no place to move traffic as they arrive at Chums Corners? Very short sighted idea. The OHM folks must have been drinking the kool-aid with Groundwork's team in downtown Traverse City. Maybe the OHM group should have reviewed the 40 years of previous studies by the road commission and other transportation committees. It would have saved a lot of time and money. Based on comments by OHM in the Ticker and Record-Eagle it appeared OHM made some decisions that should have been the responsibility of the road commission. Did it occur to OHM that the decision on the above timeframes should have been made by the road commission, not the consultants.
Please, please, and more please!!!!!!!
This cannot be a 10 year plan. This is a 5 year plan. This was needed 10 years ago, so you are actually already at 10 years. In 5 years, you will be at 15 years. Traverse City cannot grow if we do not add more East West Roads or more East West Lanes. 8th street was already robbed of 2 lanes, so now the county/city needs to find those 2 lanes somewhere else. We all know grandview cannot get any bigger! Keystone/Hammond/Cass - that is where the attention needs to be given. Also, the website is HORRIBLE. I had to go to the TC Ticker to find out what the results of the study were. Even though your email said I could find it on your website, I could not find the study results ANYWHERE on your site, of the E-W page. And do not even get me started on the E-W page. I am a younger person and had the worst time navigating that page. I feel AWFUL for anyone over 35 years of age trying to figure that page out. To me, that site and these "studies" tell me that the county does not care that we are in the loop. I think this survey is just for formality. You are not listening to what the people NEED. Plus, I am sure if you talked to semi truck drivers, you would find they increasing hate driving in TC. You are looking at easy ways out and spending money on your study friends not the roads.
Either solution will improve traffic flow. A Hammond Road crossing will give a better bypass in avoiding the Cass/Airport and Airport/31 intersections, but it will most likely be more expensive than a Cass Road crossing.
Focus on improving south airport. No more crossings leave boardman river alone. That semi wild river so close to town is a wonderful asset. In 50 years you will be glad it was left alone.
Build Now! Cost's are going up, this was projected at $16 million in the late 1990's
Simply widen Keystone from Hammond to Chums Corner, that's the best solution by far. Making yet another intersection on M-37 would be horrible. Five lanes to Chums Corner is the only way to go long-term!
Whatever makes sense!
Thank you!
Take a long term approach. Follow the 3 Mile -> Hammond -> Keystone -> Beitner -> to Chums Corner. I oppose the Hammond - Hartman Bridge. Why: cost, environment, and too close to S. Airport
These will cause sprawl - we need to preserve and protect our surrounding green belt
Not needed for at least a decade. Prefer improvements to Beitner/Keystone to these options

[Oppose] At this time and in the future. These are very expensive and I prefer the money to be used elsewhere
Fix pot holes
Make the priorities that have major pot holes
Needs to be done now!
Fix all the roads. The potholes are so bad this year.
No new bridges over the Boardman River!
However start now with 3 Mile improvement! 4 Lanes! Do Something! I've been waiting 25 years! Past TC TALUS member! Len Price
Sonner the better
The money for the bridge is a pipe dream. Unless associated increase in property values can pay for it, it doesn't appeal to me as a taxpayer.
These are both environmentally destructive for the river and wetlands and wooded areas. More pavement = more heat/more destruction. We should be planning for sustainabilty for the coming climate crisis.
This is the most logical solution that should be implemented in a much shorter time span. The cost to build the bridge from Hammond to Hartman is not getting any cheaper the longer you wait. Solve the major problem - traffic flow - and shorten the time frame from 10 - 25 years to 2 - 10 years!
Hammond Crossing will alleviate Keystone issues
By the time and money we keep on spending to study this, something could have been built with the dollars wasted studying it.
The only way now
Now

Appendix D:

Access Management Presentation

EAST-WEST CORRIDOR
TRANSPORTATION STUDY

Grand Traverse East-West Corridor

Access Management

January 14, 2019

Project Partners

- Grand Traverse County Road Commission
- Consultants:
  - OHM Advisors
  - MKSK
  - WSP
  - Parallel Solutions LLC

Existing Conditions of the Area

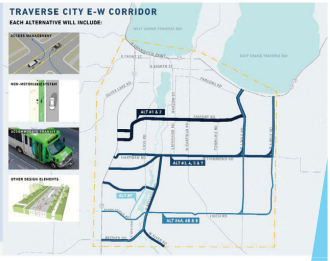
- High levels of congestion and excessive delay for motorists traveling east and west along five key road corridors
- Limited east-west routes in the area due to natural geography
- Intersections with higher than average crash rates
- Non-motorized mobility is also limited

Transportation Study Purpose:

- Recommend alternatives and actions that address safety, improve mobility, efficiency, transportation mode options, and connectivity
- The alternatives and actions will consider the natural environment and enhance positive benefits for adjoining properties, neighborhoods, parks, and businesses

Project Update

- Traffic Modeling
- Conceptual Brainstorming
- Development of Alternative Concepts
- Access Management Overview and Standards

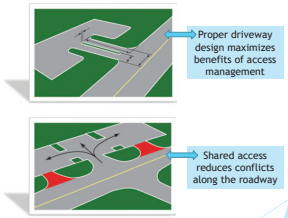


Access Management 101

- Benefits
- Techniques and Standards
- Roles of City/Townships and County Road Commission
- Key implementation features

What is Access Management?

- Standards for the number, location, spacing and design of access points to:
  - Maximize existing street capacity
  - Reduce potential for crashes
  - Improve overall corridor conditions
  - Provide reasonable access to land uses

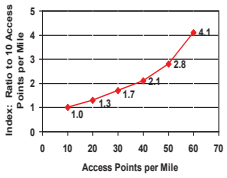


Improves Overall Site Design

Better access designb supports

- Non-Motorized Safety
- Improves streetscape
- Eases wayfinding
- Reduces impervious surface

Access Influences Safety

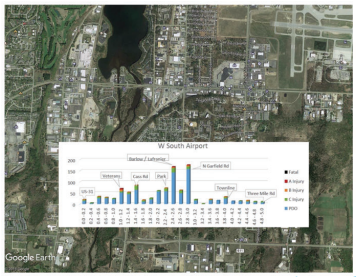


- Direct relationship between number of driveways and number of crashes
- Reduces injuries and damage due to crashes
- Well managed corridors often have 40-50% fewer crashes than poorly managed ones (source: TRB)
- Example: Doubling of access density from 10 to 20 access points per mile can result in a 30% increase in crashes

Access Influences Safety

- Nearly 1/2 of all driveway accidents are left-in turns, while almost 3/4 of all intersection crashes are left-turn movements. **There are many techniques available to prevent crashes or mitigate problems that already exist.**

S. Airport Road – Safety Analysis



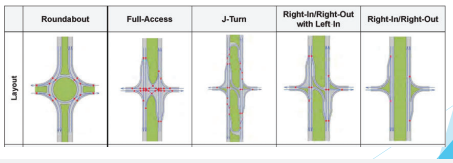
Economic Development Considerations

- **Perception is often that less access= less business**
- Some of the most vibrant commercial districts have among the most aggressive access management
- Access Management can impact businesses depending upon their type and the extent of access management
- Preferred access may not be the design the business prefers, but must provide "reasonable access"
- Cross access between businesses reduces conflicts along the street and can encourage multiple shopping stops
- Well spaced driveways can make it easier for a motorists to access a business.

EXHIBIT 2-17 Effects of travel time on market area (28).

3 Types of Access Management Techniques

1. **Planning and Ordinances**
   - Corridor Plans for Future Access
   - Access Retrofit Strategies
   - Corridor Overlay Zoning District
   - Traffic Impact Studies
2. **Site Access and Design**
   - Driveway Design Standards
   - Promote Shared Access Systems and Connectivity
   - Coordinated Lot Split/ Site Plan Review
3. **Road and Intersection Design**
   - Signal Spacing
   - Two Way Left Turn Lanes
   - Medians
   - Innovative Intersections
   - Roundabouts

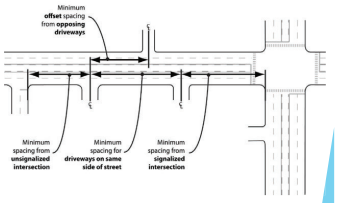


What Different Treatments Can Do

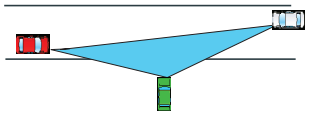
Treatment	Effect
Add continuous two-way left-turn lane	35% reduction in total crashes 30% decrease in delay 30% increase in capacity
Add non-traversable median	≥55% reduction in total crashes 30% decrease in delay 30% increase in capacity
Replace two-way left-turn lane with non-traversable median	15% to 57% reduction in crashes on four-lane roads 25% to 50% reduction in crashes on six-lane roads
Add left-turn bay	25% to 50% reduction in crashes on four-lane roads Up to 75% reduction in total crashes at unsignalized access 25% increase in capacity

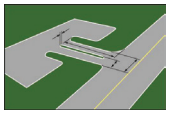
Site Access and Design Components

- Sight Distance
- Number of driveways
- Driveway location
- Driveway spacing
- Offsets
- Shared access
- Driveway geometrics



Site Access and Design: Driveways

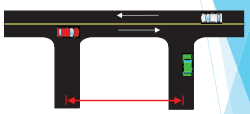




- Driveway design impacts safety and operation
  - Sight distance
  - Width, radii, etc.
  - Driveway grade

Site Access and Design: Driveway Spacing

- Fewer driveways usually means better traffic flow and fewer crashes
- New access should be spaced apart from other access points on the same side of the road
- Urban spacing depends on traffic, existing access, type of use, right-of-way, etc.
- MDOT recommended driveway spacing based on speed:

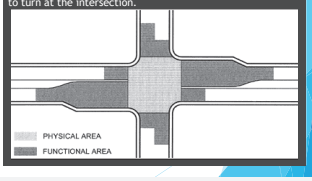


Speed on Roadway (MPH)	MDOT Spacing Guidelines (feet)
25	130
30	185
35	245
40	300
45	350
50	455
55	455+

Site Access and Design: Access Points Near Intersections

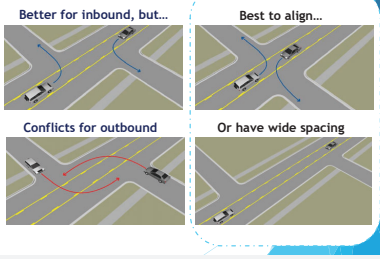
- Driveways near intersections create potential for crashes and congestion
- Access points within the functional area of an intersection are "strongly discouraged"

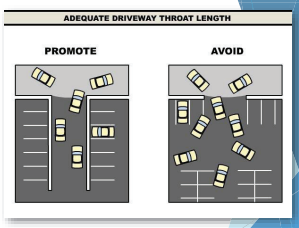
The Functional Area of an intersection varies from intersection to intersection, but it generally encompasses the areas where motorists are actively turning or waiting to turn at the intersection.



Site Access Design: Spacing of Opposing Driveways

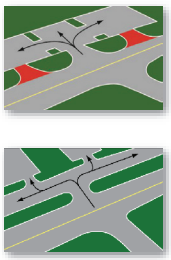
Spacing from driveways across the street can affect traffic flow and safety





Site Access and Design: Provide Adequate Throat Length

- A longer driveway throat distance
- Aides ingress and egress
- Reduces conflicts between drivers
- Helps separate exiting versus entering vehicles

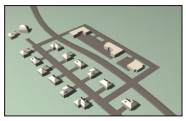


Site Access and Design: Shared Access

- Shared access provides access to more than one property
- Can help meet spacing standards
- Requires a shared access agreement
- May include:
  - Shared driveway
  - Frontage road
  - Rear service drive (backage road)

Planning and Codes: Promote Shared Access

- Separates local from through traffic
- Reduces number of conflict points
- May include:
  - Shared driveway
  - Frontage road
  - Rear service drive (backage road)
- Should have a shared access agreement
- Provisions for future connections if not constructed now



Traffic Impact Studies

- Establish thresholds for when required (MI DOT, ITE)
  - Traffic Impact Study for larger projects
  - Traffic Assessments for smaller projects
  - Some level of analysis for rezonings, change in use, expansions
- ITE moving toward Multi-Modal Transportation Analyses
  - Based on people trips
  - Adjustments for different locations (downtown, corridor)
  - Evaluation of pedestrian, bicycle, transit and safety
- Require evaluation of access incl alternative access systems
- Identify mitigation (improvements needed)
- **Coordinated review by Townships/City and MDOT/County**

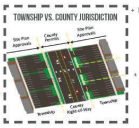
GRAND TRAVERSE: EAST/WEST CORRIDOR

JURISDICTIONAL RESPONSIBILITIES AND COORDINATION OPPORTUNITIES

TOWNSHIPS: ZONING ORDINANCES	SHARED RESPONSIBILITIES	COUNTY ROAD COMMISSION: DRIVEWAY PERMITS

+ First contact with applicant
+ Number of driveways through site plan review
+ Site plan standards to minimize conflict around driveways
+ Requirements for sidewalks, pedestrian and bike systems
+ Require or incentivize shared access, easements
+ Require site plans show driveways on the other side of the road and dimensions of driveway spacing
+ Alert GTCRC about changes in use
+ Parking standards (including bicycle parking)
	+ Driveway spacing standards
	+ Location of driveway to minimize conflicts
	+ Redesign access with changes in use and require transportation impact studies
		+ Number of driveways
		+ Potential traffic signals
		+ Road improvements like passing lanes, center turn lanes, decel tapers
		+ Bus stop locations
		+ Driveway geometrics
		  + Radii
		  + Width
		  + Slope
		+ Can issue driveway permits tied to use

TOWNSHIP VS. COUNTY JURISDICTION



Implementation Opportunities

- Joint Corridor Planning
- Local Regulations and Development Review
- Site Plan Review:
  - Retrofit = Gradual implementation
  - Access improvements through site plan review as businesses change/expand
- Road Projects:
  - Close/consolidate/relocate when road improved
- Communication:
  - Alert County staff of change and vice versa

Change of Use:
- No major increase in traffic
- Require cross-access easement
- Close unsafe driveways

Building Expansion:
- Additional traffic generated
- Require cross-access
- Close most problematic driveways

Full Redevelopment:
- Full compliance required
- Cross-access provided
- Allow temporary access if needed

Recap: Access Management Best Practices

Technique
1. Plan for access in advance of development
2. Place access outside the functional area of intersections
3. Retrofit poorly designed access systems
4. Minimize the number of driveways
5. Use local street (cross street) access
6. Require shared access systems where practical
7. Promote internal circulation and connectivity
8. Provide adequate throat distance and reduce site conflicts around the driveway
9. Ensure access has sufficient width, radii, design
10. Space access adequately from other access points

- Self-Assessment: How many of these have you implemented or considered within your jurisdiction?

Implementation Considerations

- Access Management options will be part of the alternative packages
- For developed roadways, application of standards will be gradual
- Purchase of access rights is one method to preserve roadway capacity, reduce crashes and manage traffic impacts of future development
- Communication and flexibility is required for effective and equitable application of the standards

Next Steps

Appendix E: Cost Estimates

	Total Length of Improvement (miles)	Roadway Cost ($1.8M per Mile)	Total Potential Roundabouts	Roundabout Cost ($2M each)	Bridge Cost	Total Estimated Cost
S. Airport Road Crossing - Boulevard	6.0	$43,000,000	10	$20,000,000	$0	$79,000,000
S. Airport Road Crossing - Roundabouts	6.0	$43,000,000	0	$0	$0	$54,000,000
Hammond Road Crossing - A	5.6	$40,000,000	1	$2,000,000	$41,000,000	$94,000,000
Hammond Road Crossing - B	5.8	$42,000,000	1	$2,000,000	$41,000,000	$96,000,000
Cass Road Crossing - A	8.5	$61,000,000	3	$6,000,000	$8,000,000	$92,000,000
Cass Road Crossing - B	9.1	$66,000,000	3	$6,000,000	$8,000,000	$98,000,000
Cass Road Crossing - C	8.7	$63,000,000	3	$6,000,000	$8,000,000	$94,000,000
Beitner Road Crossing	11.2	$81,000,000	8	$16,000,000	$8,000,000	$129,000,000

Appendix F:

Traffic Modeling Analysis Technical Memorandum

MEMO

TO: Matt Wendling, OHM Advisors

FROM: Sudhakar Athuru, PE
Rhett Fussell, PE
WSP USA Inc.

SUBJECT: East/West Corridor Alternatives Analysis

DATE: April 11, 2019

This memo provides the details of the analysis performed for the East/West Corridor Alternatives.

Base year

TTCI Model

The Traverse City TTCI 2015 base year model developed by the Michigan Department of Transportation (MDOT) was used as the analysis tool in the East West corridor study. The 2015 base year run was calibrated and validated by MDOT[1] using TransCAD Version 7. The WSP team setup and tested the TTCI model on WSP's computer to assure the base year model run results match with base year results provided by MDOT. WSP's test run highway assignment results matched the MDOT model run results.

The WSP team reviewed the TTCI travel demand model inputs, outputs and procedures to understand the models applicability for the forecast. The following observations for the TTCI model and the impacts on the forecasts are:

- Trip generation procedures occur outside the TTCI model process. MDOT has an exclusive step by step process that only they can perform. MDOT provided trip generation outputs for the project forecasts.
- The TTCI GISDK model script includes only trip distribution, mode choice and assignment procedures. The model run begins with trip distribution, therefore no ability exists to change land use as a result of the forecast.
- Operating speeds are manually assigned to links using a lookup table based on facility type and area type. Link level travel times are also manually calculated and often seem to be drastically different from the posted speeds along the facilities. For the forecasts, this requires judgement on the parameters to get the proper desired/assumed operating characteristics for the project alternatives.
- Hourly capacities per lane are assigned to all links using lookup tables based on facility type and area type. Capacities for each time period are calculated using capacity factors for four time periods. Capacity calculation procedures are performed manually.

[1] See *"TTCI TDFM Information.docx"* for details on 2015 base year model calibration and validation.

- The TTCI model runs for one iteration and there are no feedback loops involved in the model run. The model relies on operating speeds derived from lookup tables to develop congested skims instead of using standard national procedures involving feedback of the skims into trip distribution and highway assignment to develop true congested skims. This is an issue because speeds on the alternatives are not based on flows and congestion but instead on manual lookup table values.

Network Review

The modeling team reviewed the existing 2015 highway network along the three East West build alternative corridors to make sure the existing network is represented accurately. The project team updated highway network attributes so that the 2015 base network is consistent with existing conditions. These changes also are utilized in the future year forecast runs unless additional improvements were anticipated. Figure 1 shows all the links where network attributes were updated. The list of network changes were:

- The 2015 MDOT highway network shows 2 lanes in each direction on Keystone Rd between Hoch Rd and Cass Rd but this section of the road is a 1 lane in each direction. Lanes changed from 2 to 1 per direction.
- Keystone Rd between Cass Rd and Birmley Rd is changed to have no center turn lane for this portion of the facility. In addition, the center turn lane was removed for Keystone Rd between Dipley Rd and Hoch Rd to represent existing conditions.
- A short segment of Hammond Rd (0.33 miles) just east of N Three Mile Rd is coded as a principal arterial with center turn lane and this is inconsistent with existing conditions. This section of the road was changed to a minor arterial with no center turn lane to be consistent with adjacent sections of Hammond Rd.

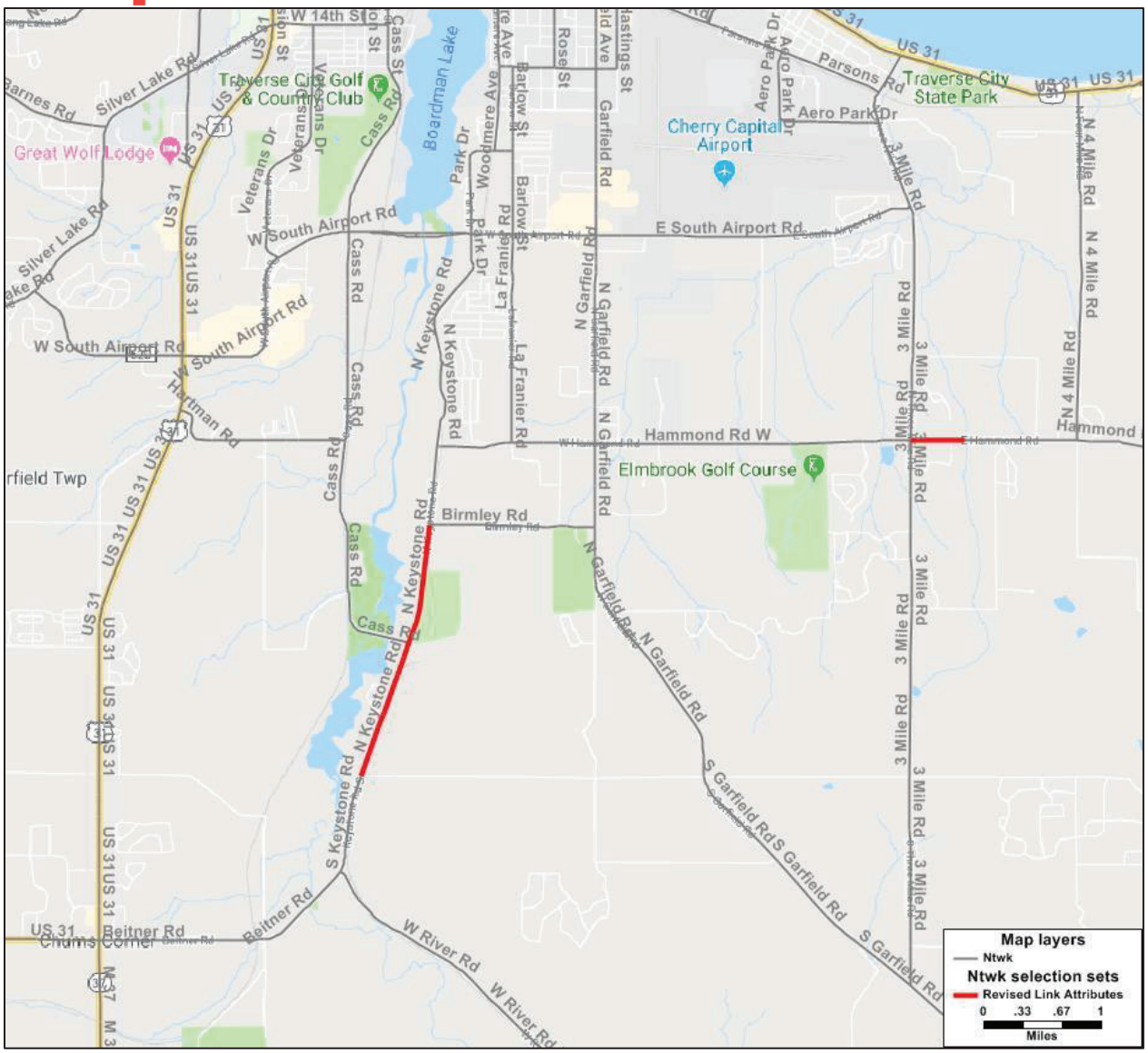


Figure 1: 2015 Base Highway Network Updates

Speeds and Capacities

MDOT[1] model calibration and validation document has lookup tables for link level capacities and operating speeds. Table 1 shows the capacity and operating speed lookup data based on facility type and area type. Several steps outside the model are performed to calculate link travel times. Capacities are calculated for four time periods. These calculations are performed whenever link attributes are updated for all the scenario runs[2].

Table 1: Lookup Tables for Capacities and Operating Speeds

	Capacity (passenger cars per hour per lane)				
	AREA TYPE				
FAC TYPE Operate	CBD =1	Urban=2	Suburban=3	Fringe=4	Rural=5
1	1950	2000	2100	2100	2100
2	1700	1700	1700	1700	1700
3	1200	1200	1200	1200	1200
4	800	800	800	800	800
5	1350	1450	1500	1700	1900
6	1300	1350	1450	1650	1850
7	850	900	950	1350	1800
8	750	800	850	1200	1550
9	700	750	800	1150	1500
10	650	700	750	750	750
11	600	650	700	700	700
12	550	600	650	650	650
13	500	500	500	500	500
14	450	450	450	450	450
15	10000	10000	10000	10000	10000

	Operating Speed (mph)				
	AREA TYPE				
FAC TYPE Operate	1	2	3	4	5
1	55	55	60	65	70
2	50	50	55	55	55
3	45	50	50	55	60
4	22	30	35	45	50
5	22	25	32	43	49
6	23	28	34	47	52
7	24	28	35	42	48
8	21	27	33	40	45
9	23	23	31	38	47
10	17	18	27	34	42
11	16	18	24	30	40
12	17	18	27	34	42
13	14	16	21	27	34
14	15	17	20	25	30
15	14	17	22	28	35

No Build

Due to data availability and project schedule, the project team decided to utilize the 2025 horizon year for the No Build and three project alternatives. MDOT ran the trip generation procedures and provided 2025 trip tables that are used as input into the No Build run. MDOT also provided the preliminary 2025 highway network with inclusion of the FY 2020-2023 STIP development. The 2025 highway network was further updated with all the changes implemented in the 2015 Base network as explained in previous sections of this document. Figure 2 shows the location of project changes in the No Build network.

[2] Capacities and operating times are recalculated on project links as per the build network improvements.

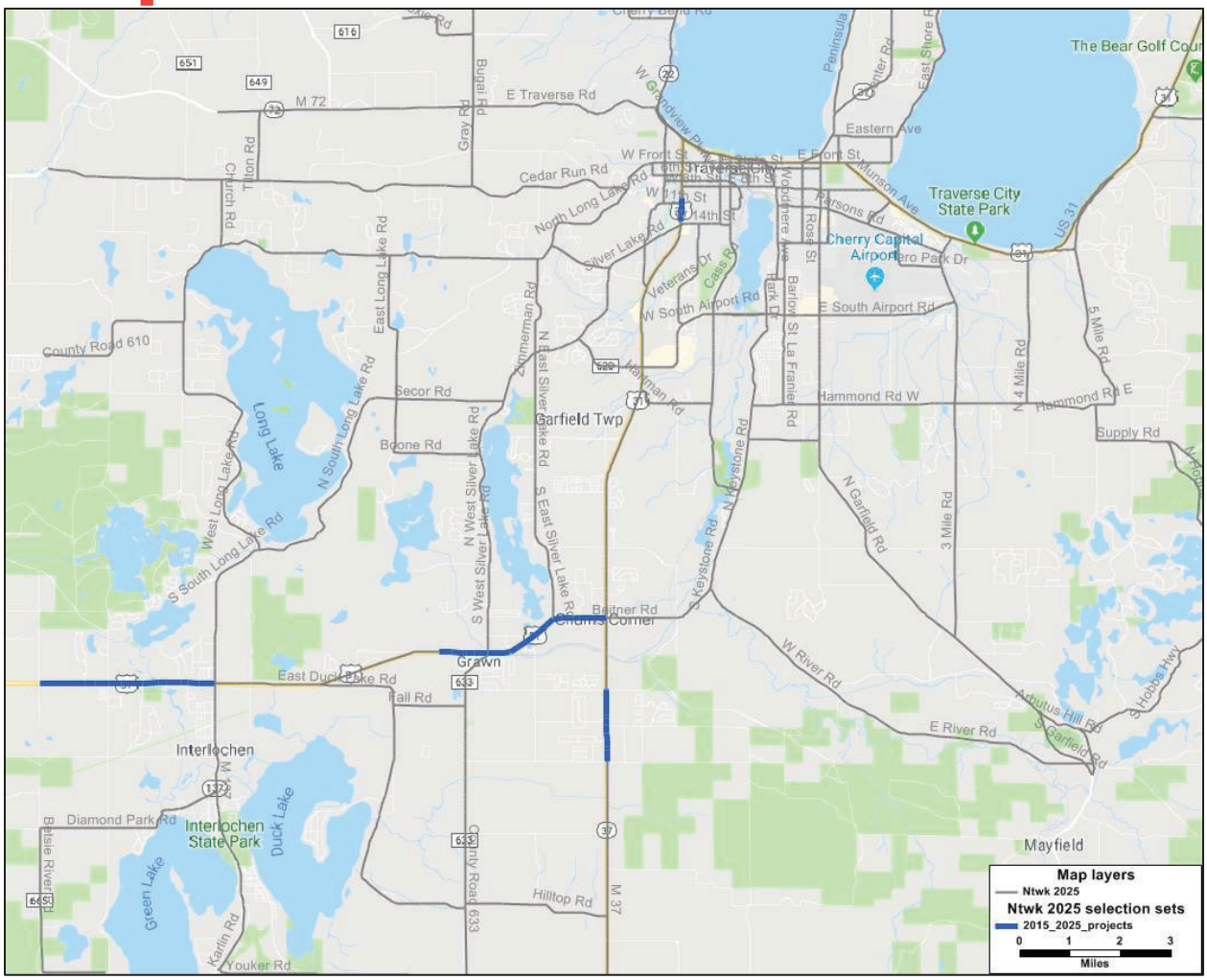


Figure 2: 2015 to 2025 Highway Project Updates in the No-Build Network

Alternative #1-S Airport Road Alternative

S Airport Road build alternative is a 6-mile-long section from US-31 on the west side to the intersection of US-31 and N Three Mile Road on the east side. Figure 3 highlights the project alternative in blue and shows the difference in operating speeds along the project alternative due to proposed project improvements.

Network Updates

S Airport Road between US-31 and N Three Mile Road

In the build alternative, S Airport Road is coded as principal arterial with roundabouts at intersections[3]. The entire project section of the S Airport Road is assumed to operate at 'suburban' conditions which translates into an operating speed of 34 mph between US-31 and N Three Mile Road. The project will remove the existing center turn lane and the entire S Airport Road project section will be a four-lane divided highway.

N Three Mile Road between S Airport Road and US-31

This alternative essentially maintains the attributes found in the No Build. One change near the intersection of S Airport Road was made that increased the travel speed of a small portion of the alternative by nine (9) miles per hour. Figure 3 shows the difference in operating speeds for the N Three Mile Rd alternative.

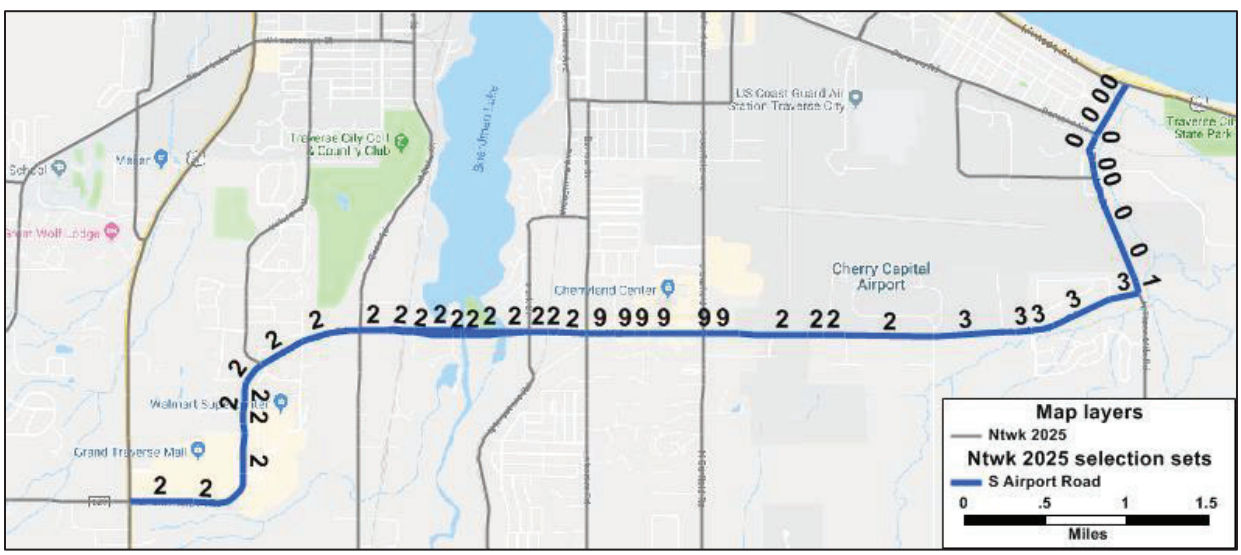


Figure 3: Difference in Operating Speeds for South Airport Road (Build vs No-Build)

[3] Note the TTCI model cannot replicate the impacts of roundabouts through capacity or speed/intersection improvements

Alternative #1 Results

Figure 4 shows the difference in daily link volumes (both directions combined) between the S Airport Road build and No Build runs for 2025. The project shows increased daily link volumes as low as 524 near the intersection of N Three Mile Road and US-31, and a high of 14,346 on S Airport Road west of S Garfield Ave. It is expected that the volume growth is minimal on N Three Mile Road section of the project because this section has no improvements when compared to No Build conditions. The largest change in daily volumes is observed on S Airport Road between Barlow St and S Garfield Ave. Given the increase of nine (9) mph in operating speed on this section of the project, it is expected to have the largest impact.

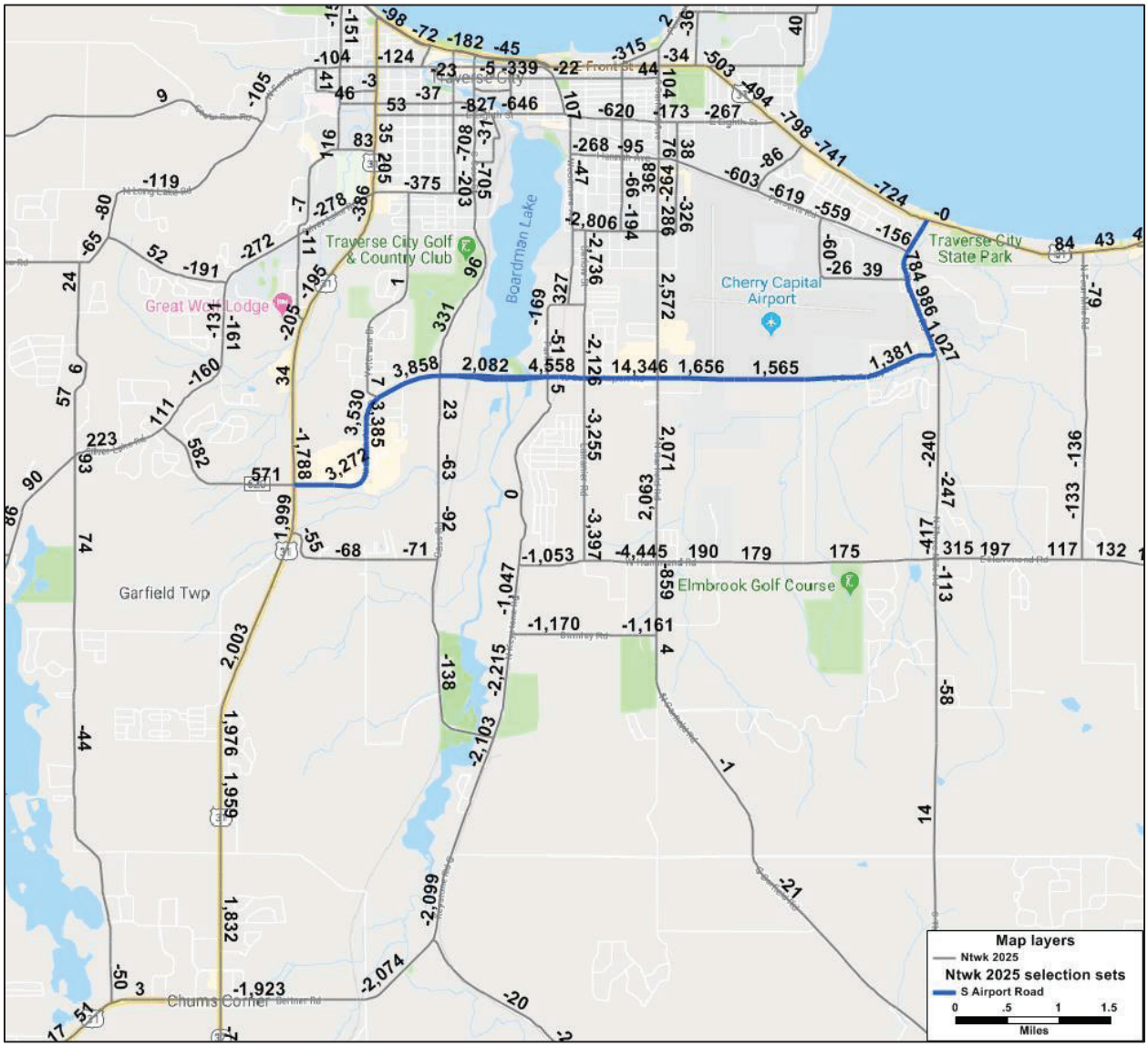


Figure 4: Airport Road Alternative -Daily volume difference (Build vs No-Build)

The modeling team wanted to understand the 14,346 volume increase on the project near S Garfield Ave, so a select link analysis was performed. This analysis isolates the users of a particular roadway segment to understand the travel patterns of those users. Figure 5 shows the location of the regional users of this segment so that understanding of the large increase can be reviewed for logic.

The S Airport Road project shows consistent growth in daily volumes between Barlow St and US-31 ranging from 4,500 to 5,200. Although there are no direct improvements implemented on nearby roadways, the project did result in shifting paths on these facilities. For instance, travelers prefer to use US-31 / S Airport Road in the build alternative instead of traveling on Beitner Rd / Keystone Rd / Hammond Rd / Lafranier Rd for North-South Travel. The build alternative results also show that travelers are shifting paths from Barlow St to S Garfield Ave for North-South travel near the project area. Overall, all these results look reasonable.

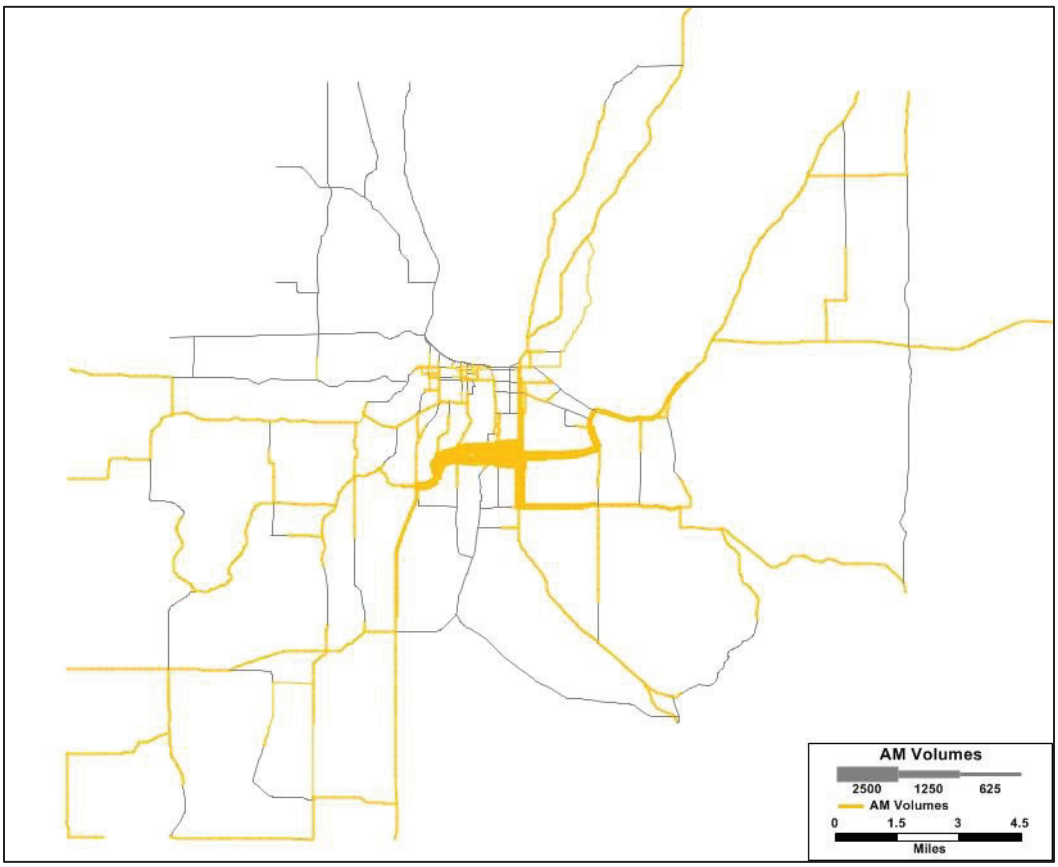


Figure 5: Select Link Volumes for S Airport Alternative

Alternative #2-Hammond Bridge Alternative

Hammond Bridge is the second build alternative extending from the intersection of US-31 and Silver Pines Rd on the west side to the intersection of US-31 and N Four Mile Rd on the east side.

Network Updates

Hammond Rd between US-31 and N Four Mile Rd

The proposed road and bridge between the intersection of US-31 and Silver Pines Rd, and Keystone Rd and Hammond Rd is a critical connection coded in this build alternative(see Figure 6). The entire section of Hammond Bridge corridor is coded as a minor arterial, with center turn lane and an operating speed of 40 mph. Under the No Build conditions, Hammond Rd is operating at 38 mph, therefore producing a two (2) mph improvement as shown in Figure 7. This section is coded as 2 lanes in each direction between US-31 and N Four Mile Rd.

N Four Mile Rd between Hammond Rd and US-31

The N Four Mile Rd portion of the project is upgraded to a 4-lane minor arterial with center turn lane and an operating speed of 40 mph. The no-build operates as a 2-lane collector, with an operating speed of 34 mph, thus this section of the project improves travel by six (6) mph as shown in Figure 7.

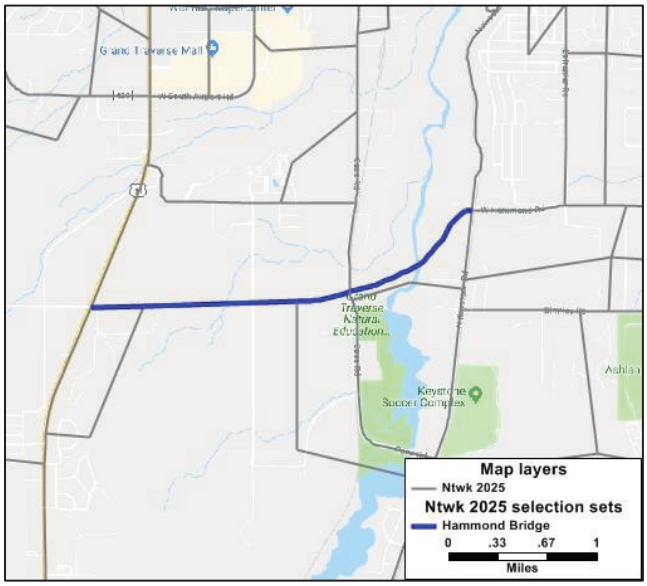


Figure 6: New Segment for the Hammond Road Bridge Alternative

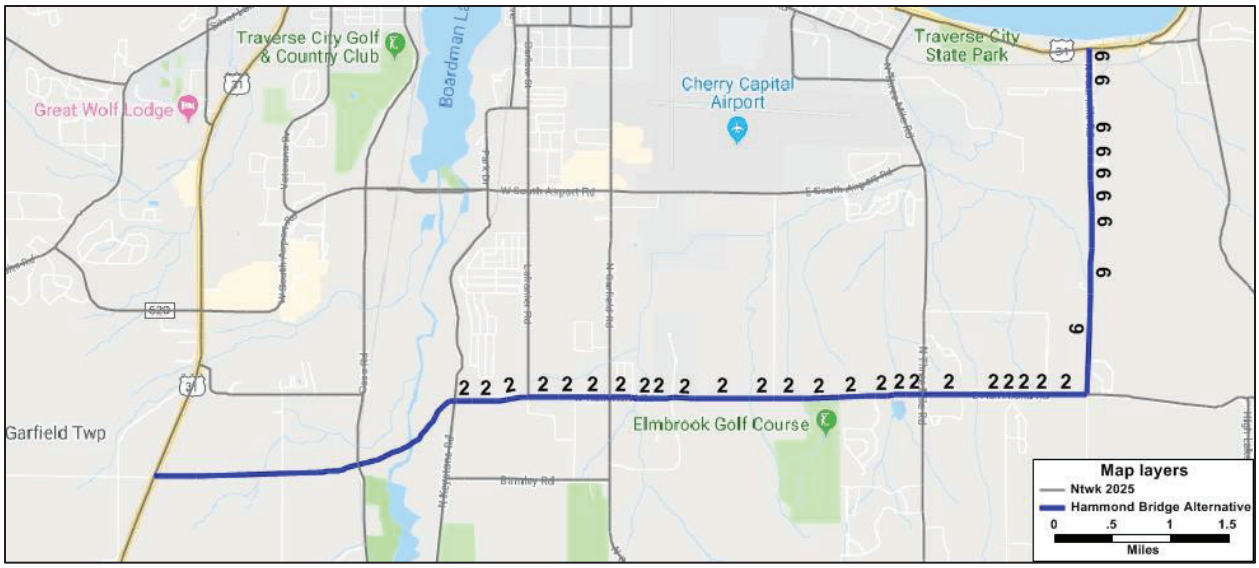


Figure 7: Difference in Operating Speeds for Hammond Bridge Alternative (Build vs No-Build)

Alternative #2 Results

Figure 8 shows the daily volume difference at the link level between the Hammond Bridge alternative and the no-build. The Hammond Bridge East/West corridor shows daily volume increases ranging from 1,052 to 21,026 compared to the no-build run. The new alignment between US-31 and Keystone Rd resulted in higher daily volumes (~21,000), particularly between Cass Rd and Keystone Rd. As expected, the Hammond Bridge connection is critical and results show that travelers prefer to choose this path over any of the other alternatives.

The Hammond Bridge alternative seems to have substantial impact on the volumes nearby roads experience. There is a significant shift in daily volumes from S Airport Rd to the Hammond Bridge alternative. As shown in Figure 8, between US-31 and S Garfield Ave, a volume decrease on S Airport Rd ranges from 4,300 to 8,100 daily travelers. Figure 8 also shows that more than 8,000 travelers shifted to the US-31/Hammond Bridge alternative from Keystone Rd, Cass Rd, and Birmley Rd.

The build alternative shows that Keystone Rd experience an increase in volume of 3,700 vehicles per day. This is likely due to a good portion of travelers shifting from S Airport Rd by using Keystone Rd as better access onto the Hammond Bridge alternative, while an additional 1,400 travelers seem to have shifted paths from N Garfield Ave to Keystone Rd.

The N Four Mile Rd section of the build alternative shows about 1,800 volume increase between Hammond Rd and US-31. A majority of this volume increase is due to travelers choosing N Four Mile Rd for this alternative, instead of choosing N Three Mile Rd as the preferred path in the no-build. Overall, the build alternative results are consistent with roadway improvements.

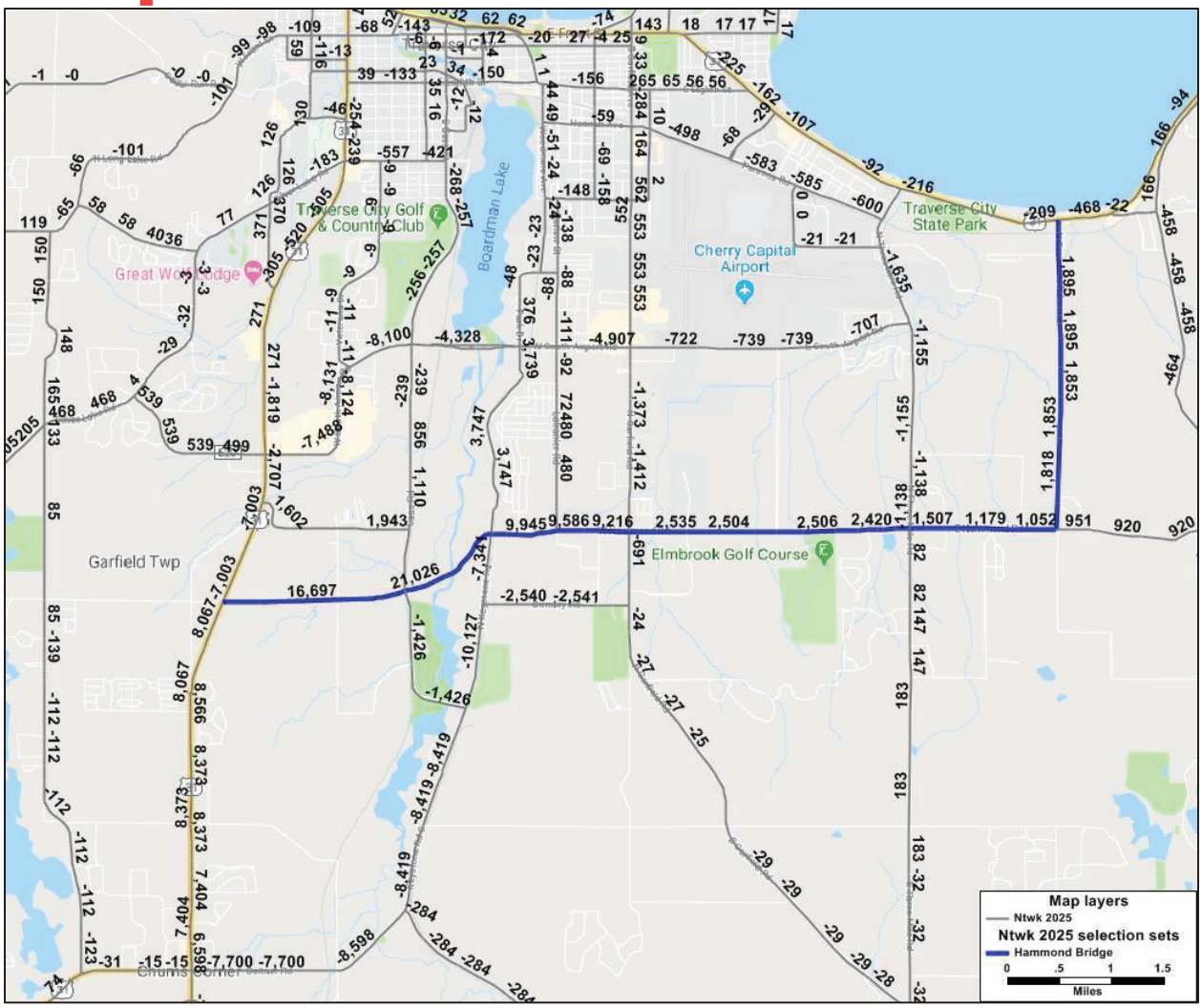


Figure 8: Hammond Bridge Alternative-Daily volume difference (Build vs No-Build)

Alternative #3- Improvements to Existing Roads

This alternative focuses on improving the existing road conditions along the East/West corridor from Beitner Rd at US-31 on the west side to N Four Mile Rd at US-31 on the east side.

Network Updates

Beitner Rd at US-31 to Keystone Rd at Hammond Rd

Beitner Rd from US-31 to W River Rd, as well as Keystone Rd to the intersection with Hoch Rd is upgraded to a 4-lane minor arterial with center turn lane. Keystone Rd between Hoch Rd and Birmley Rd is upgraded from a 2-lane minor arterial with center turn lane under no build conditions, to a 4-lane minor arterial with center turn lane in this alternative. The build alternative has considerable improvement on Keystone Rd between Birmley Rd and Hammond Rd moving to a 4-lane minor arterial with center turn lane from a 2-lane collector. The entire section now operates at 40 mph in the proposed build alternative.

Hammond Rd between Keystone Rd and N Four Mile Rd

The entire section of Hammond Rd corridor between Keystone Rd and N Four Mile Rd is coded as a 4-lane minor arterial with center turn lane at an operating speed of 40 mph. Under the No Build conditions, this section of Hammond Rd operates at 38 mph, thus producing a two (2) mph improvement in speeds along this portion (see Figure 9).

N Four Mile Rd between Hammond Rd and US-31

Similar to the Hammond Bridge alternative, the N Four Mile Rd section of the project is upgraded to a 4-lane minor arterial with center turn lane and an operating speed of 40 mph. This is a six (6) mph increase in speed when compared to the no-build operating speed of 34 mph for a 2-lane collector (see Figure 9).

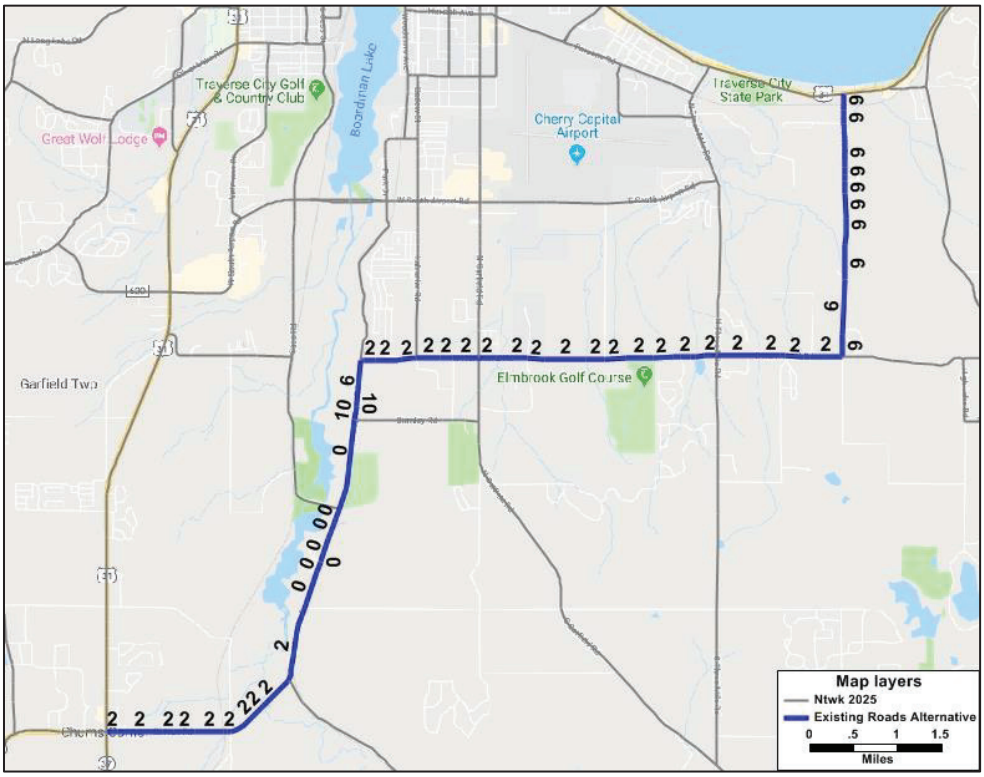


Figure 9: Difference in Operating Speeds for Existing Roads Improvements Alternative (Build vs No-Build)

Alternative Results

Figure 10 shows the daily link level volume differences between the build and No Build alternative runs. As expected the build alternative shows increases in daily volumes of as low as 77 to as high as 6,894 vehicles along the corridor. The build alternative improvements caused a nine (9) mph increase in operating speed on Keystone Rd between Birmley Rd and Hammond Rd compared to No Build conditions and hence highest increase in daily volumes is observed in this section of build alternative.

The travelers in the build alternative consider Beitner Rd and Keystone Rd as a preferred path to US-31 and S Airport Rd in the no-build run. The volume decrease of 4,000 along US-31 and S Airport Rd can be attributed to a shift in volume along Beitner Rd and Keystone Rd. A modest increase of 900 vehicles can be observed on Hammond Rd between Keystone Rd and N Four Mile Rd because the build alternative improvements resulted in a modest 2mph increase in operating speeds. In the build alternative, travelers shift their path from N Three Mile Rd to N Four Mile Rd. As a result, very minimal increase in volumes can be observed on Hammond Rd between N Three Mile Rd and N Four Mile Rd. Overall the build alternative results are reasonable and consistent with improvements in the road network.

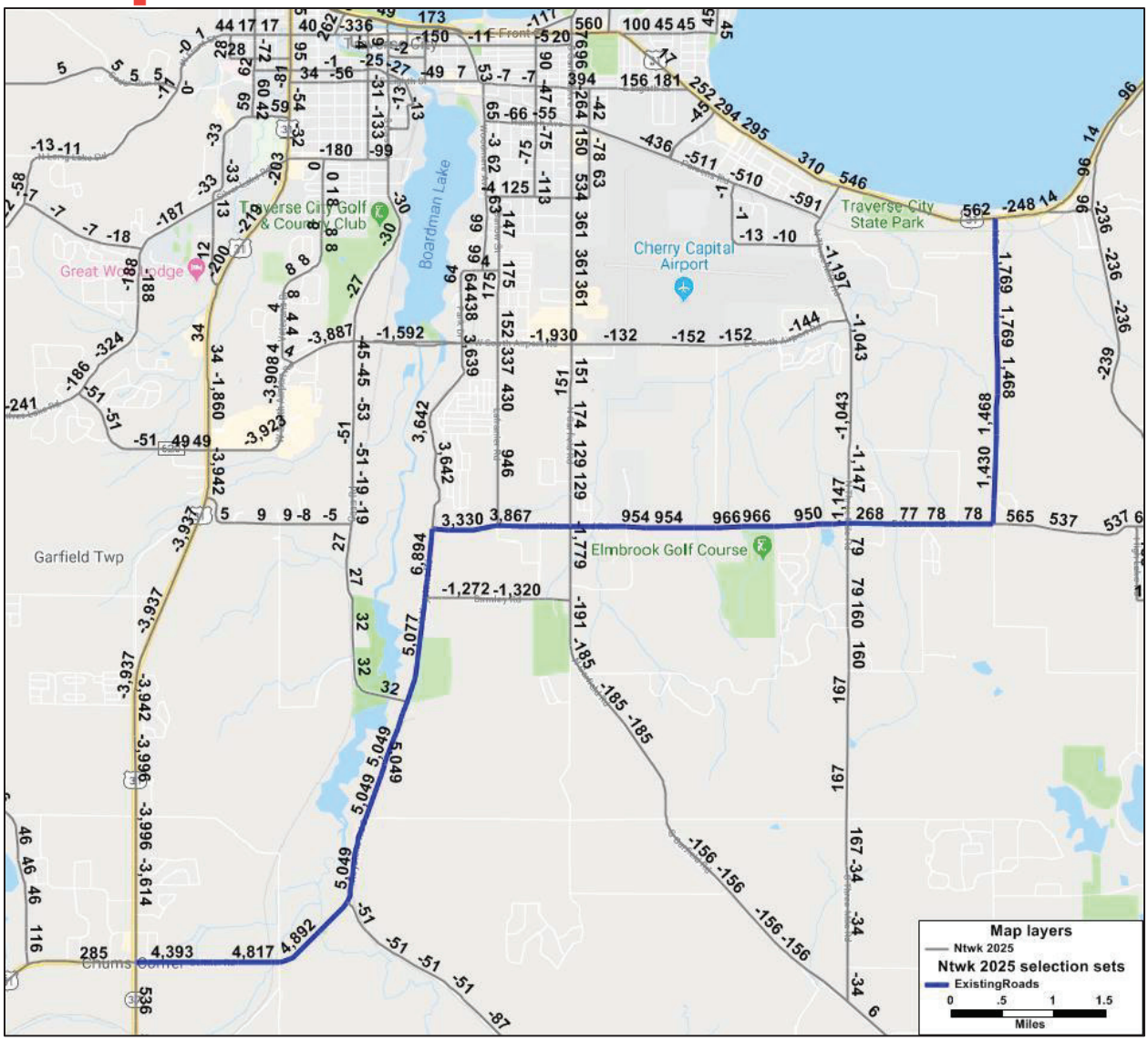


Figure 10: Existing Road Improvements Alternative-Daily volume difference (Build vs No-Build)

Summary

High level comparisons of model outputs can provide additional insight into the benefit potential of the alternatives being tested. However, it should be noted that model outputs are one measure that can be used in the evaluation of projects in a region. The reliance on the actual model result/numbers needs to be in the context of understanding the models ability to fairly evaluate changes to the system and the sensitivity of the model to those changes.

Table 2 and Table 3 highlight the changes in vehicle miles traveled (VMT) and vehicle hours traveled (VHT) at a regional level by time period. Each of the alternatives produce additional VMT but changes in magnitude of VMT between the alternatives are within 10% of each other.

For VHT changes, the Airport Road alternative seems to be the least impactful in relieving congestion with a decrease in daily hours traveled by only 287 compared to the other alternatives that both are over 400 hours. When looking at the AM and PM periods in Table 3, it becomes apparent that the Hammond and Existing roads alternatives are by far more relieve to congestion and travel times. However, it is important to note that the existing road alternative gets most of its impacts from an assumption that a majority of the corridor will receive a 9mph speed increase by changing the speed limit. This change combined with the models ability to truly reflect congestion through feedback of volumes and capacity limits the reliability of that value.

Table 2: VMT Results by Alternative and Time Period

Time Period	2025 No Build	2025 South Airport Rd		2025 Hammond Bridge		2025 Existing Roads Improvement	
	VMT	VMT	Difference	VMT	Difference	VMT	Difference
AM	463,878	464,555	677	464,782	904	464,781	903
MD	1,063,112	1,065,130	2,018	1,065,624	2,513	1,065,251	2,139
PM	751,716	752,842	1,125	753,066	1,349	753,212	1,496
NT	746,401	747,674	1,272	748,325	1,924	747,743	1,342
Total	3,025,108	3,030,200	5,093	3,031,797	6,689	3,030,987	5,880

Table 3: VHT Results by Alternative and Time Period

Time Period	2025 No Build	2025 South Airport Rd		2025 Hammond Bridge		2025 Existing Roads Improvement	
	VHT	VHT	Difference	VHT	Difference	VHT	Difference
AM	13,962	13,915	-47	13,860	-102	13,834	-128
MD	31,002	30,893	-109	30,869	-133	30,874	-128
PM	22,013	21,939	-74	21,894	-118	21,883	-130
NT	21,215	21,158	-58	21,156	-59	21,162	-53
Total	88,192	87,905	-287	87,780	-412	87,753	-439

Table 4 and Table 5 highlight another measure that assists with determining regional impacts of projects to congestion. The volume to capacity ratio is a measure of that congestion (or Level of Service) and those values are reflected in these tables. The project alternatives being proposed do not seem to improve any of the truly congested locations noted in the AM/PM period. This is shown by the very small number of links that improve their V/C ratios of over .80 (less than 10 links in AM and NONE in the PM).

Table 4: Levels of Congestion for AM Period

	2025 No Build	2025 South Airport Rd		2025 Hammond Bridge		2025 Existing Roads Improvement	
AM VOC	Links	Links	Difference	Links	Difference	Links	Difference
below 0.5	1,592	1,591	-1	1,660	68	1,637	45
0.5 to 0.8	557	560	3	507	-50	521	-36
0.8 to 1.0	47	45	-2	37	-10	38	-9
>1.0	4	4	0	4	0	4	0
Total	2,200	2,200	0	2,208	8	2,200	0

Table 5: Levels of Congestion for PM Period

	2025 No Build	2025 South Airport Rd		2025 Hammond Bridge		2025 Existing Roads Improvement	
PM VOC	Links	Links	Difference	Links	Difference	Links	Difference
below 0.5	1,803	1,792	-11	1,849	46	1,841	38
0.5 to 0.8	383	394	11	345	-38	345	-38
0.8 to 1.0	12	12	0	12	0		0
>1.0	2	2	0	2	0	2	0
Total	2,200	2,200	0	2,208	8	2,200	0

The remaining figures (Figure 11 through Figure 18) highlight the congestion using the VOC ratios. Limited changes in color occur between the no-build results and the alternatives at the link level for the periods shown and as highlighted in the preceding tables.

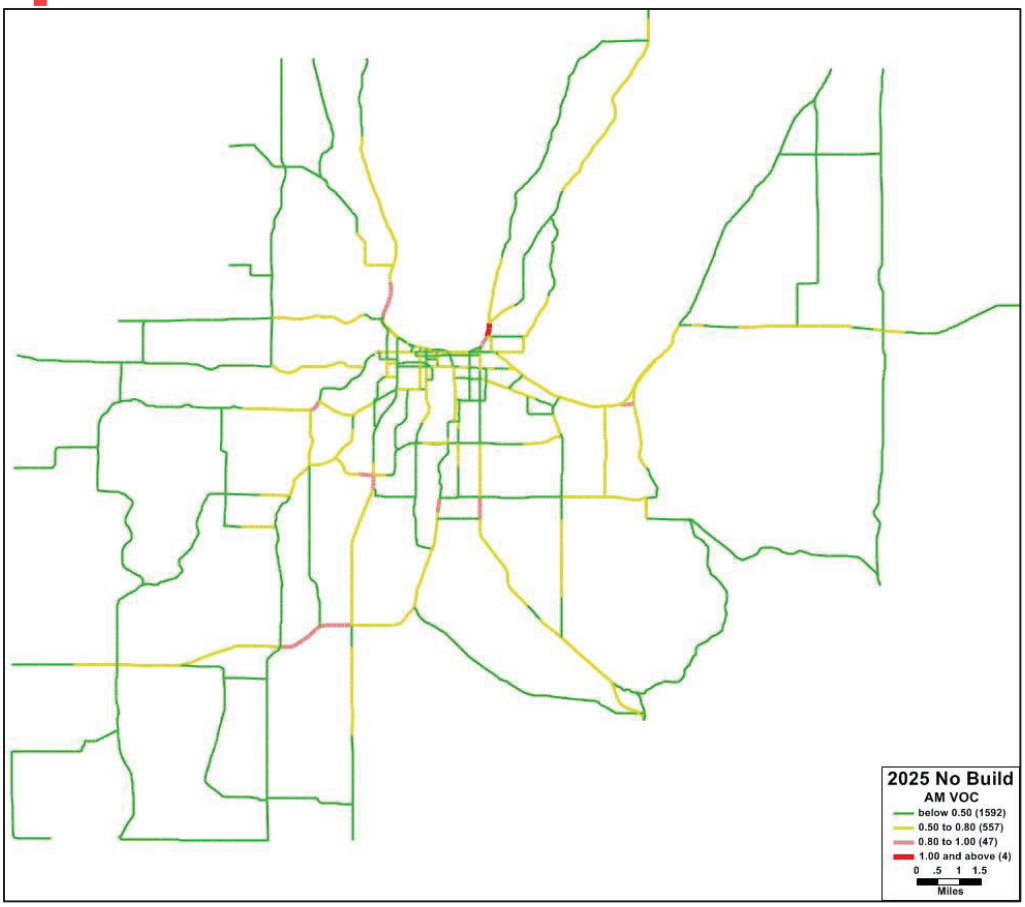


Figure 11: No-build 2025 AM V/C Ratios

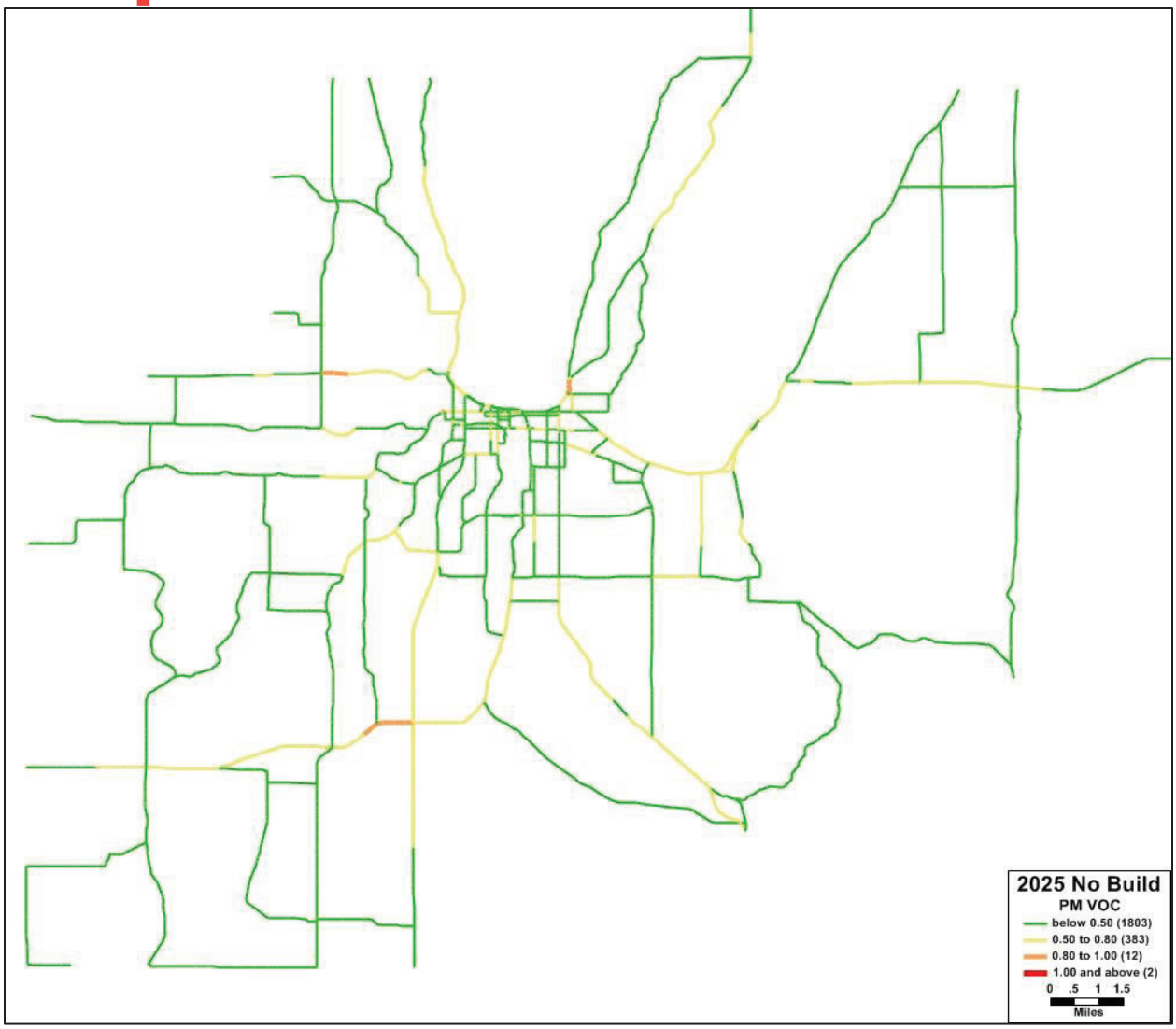


Figure 12: No-build 2025 PM V/C Ratios

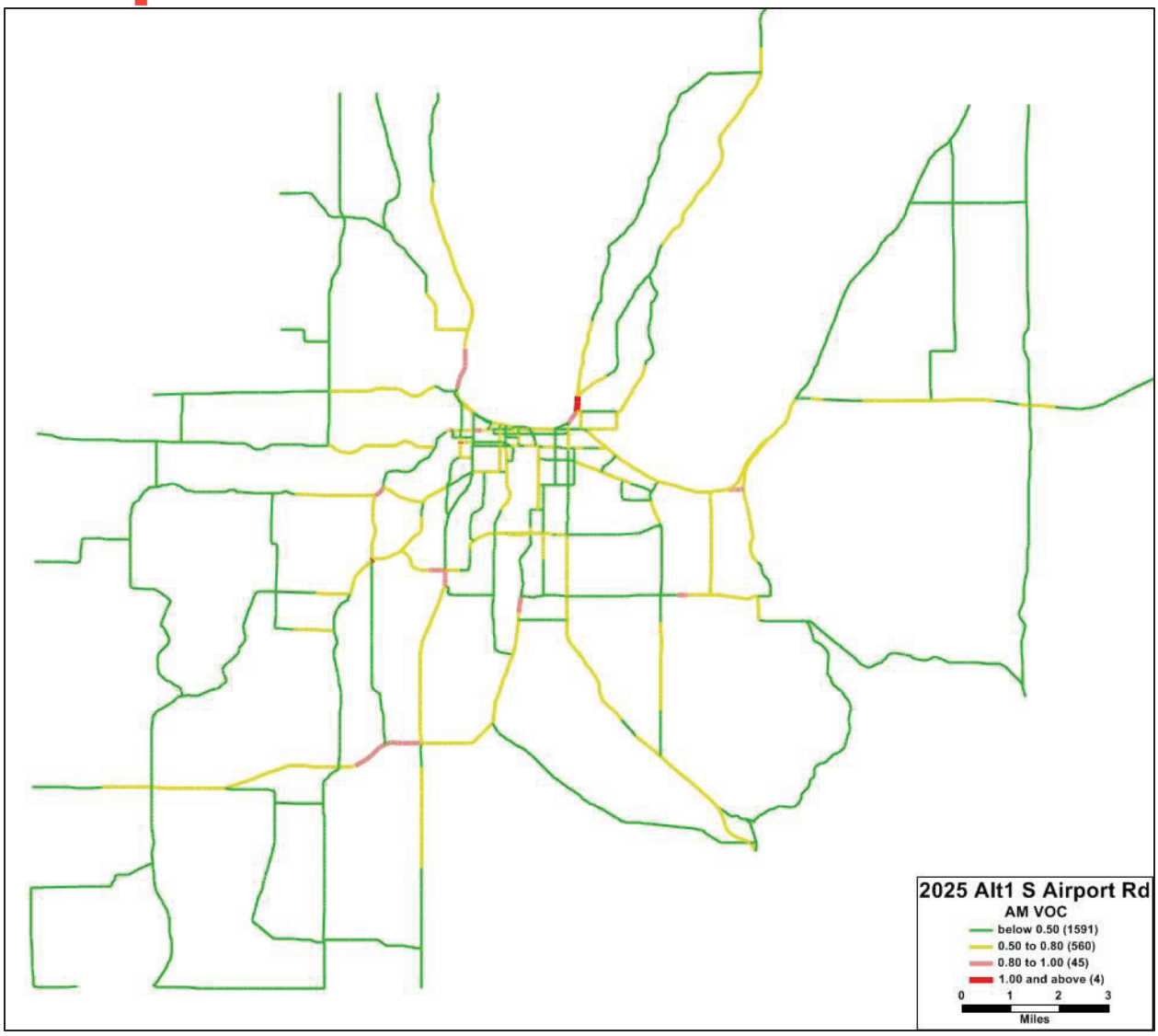


Figure 13: Alt1 2025 South Airport AM V/C ratios

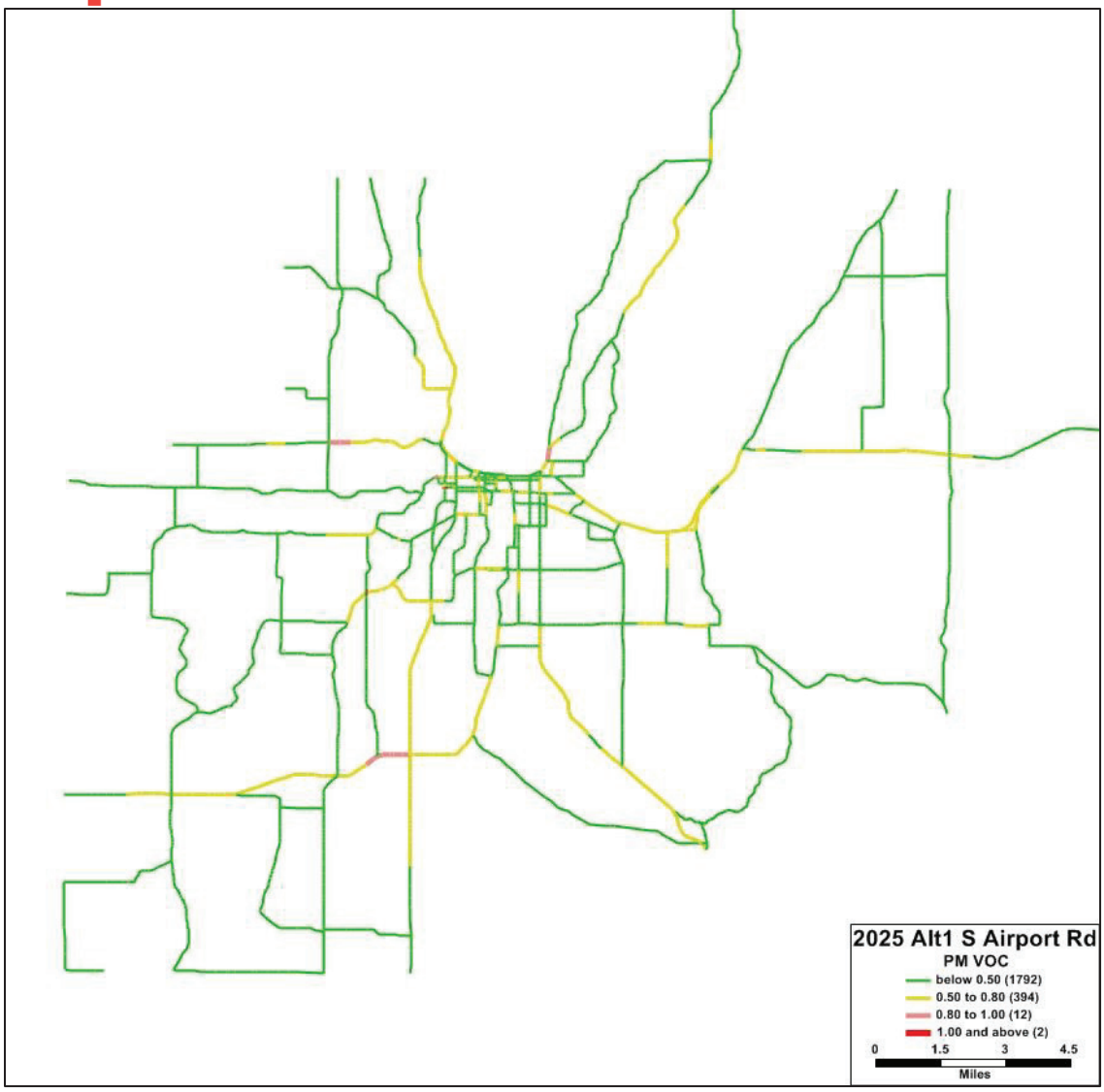


Figure 14: Alt1 2025 South Airport PM V/C ratios

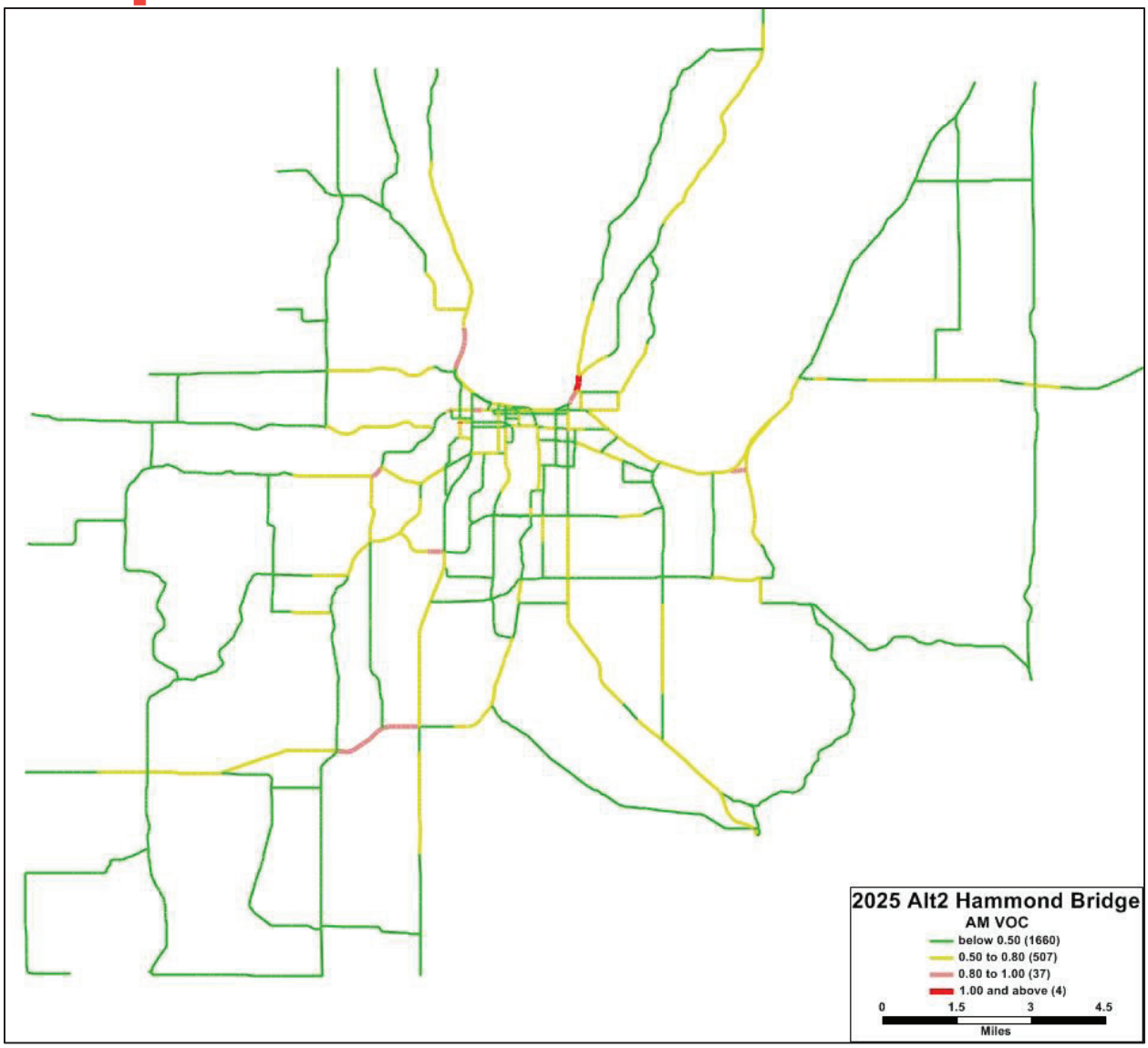


Figure 15: Alt2 2025 Hammond Bridge AM V/C ratios

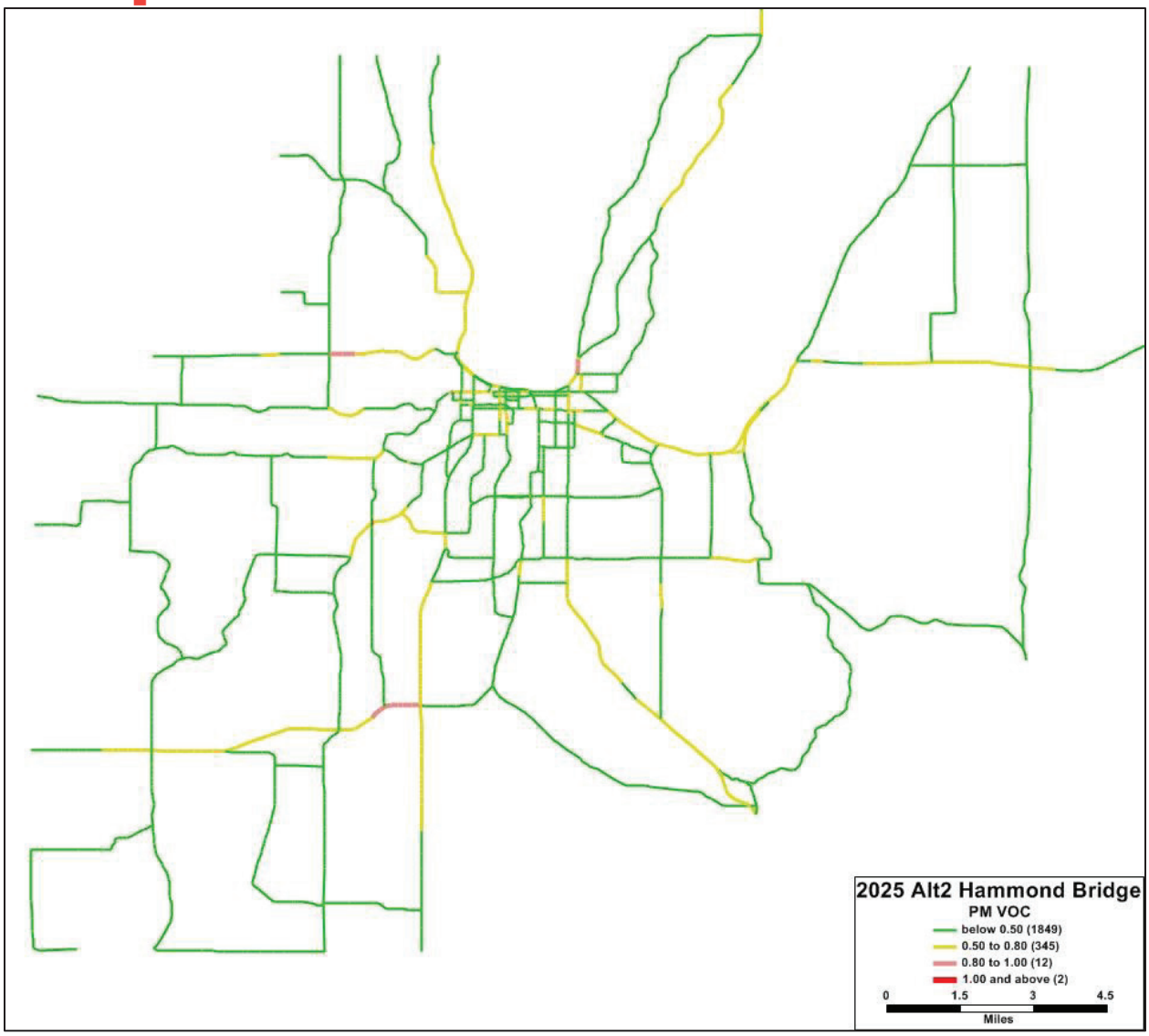


Figure 16: Alt2 2025 Hammond Bridge PM V/C ratios

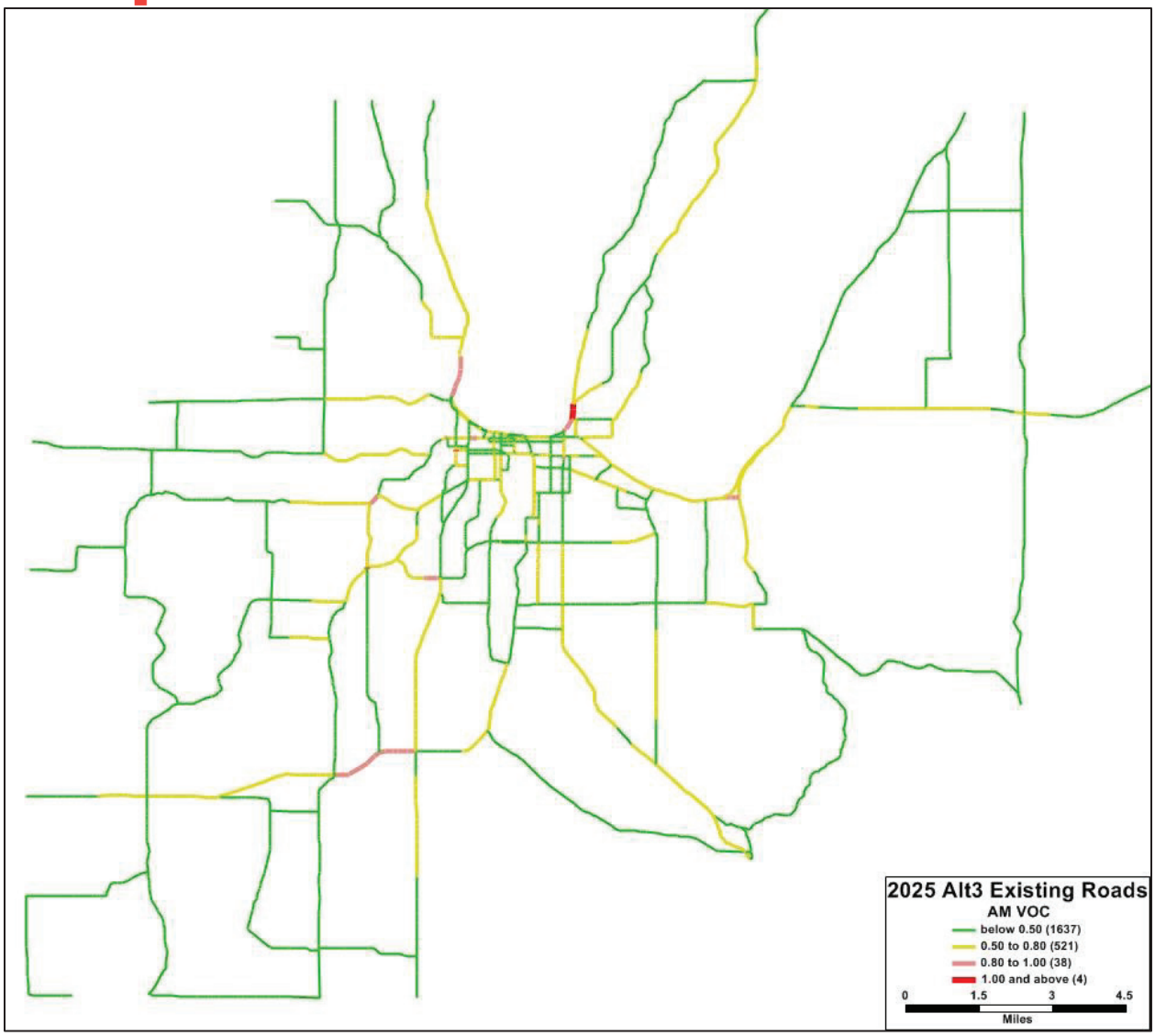


Figure 17: Alt3 2025 Existing Roads AM V/C ratios

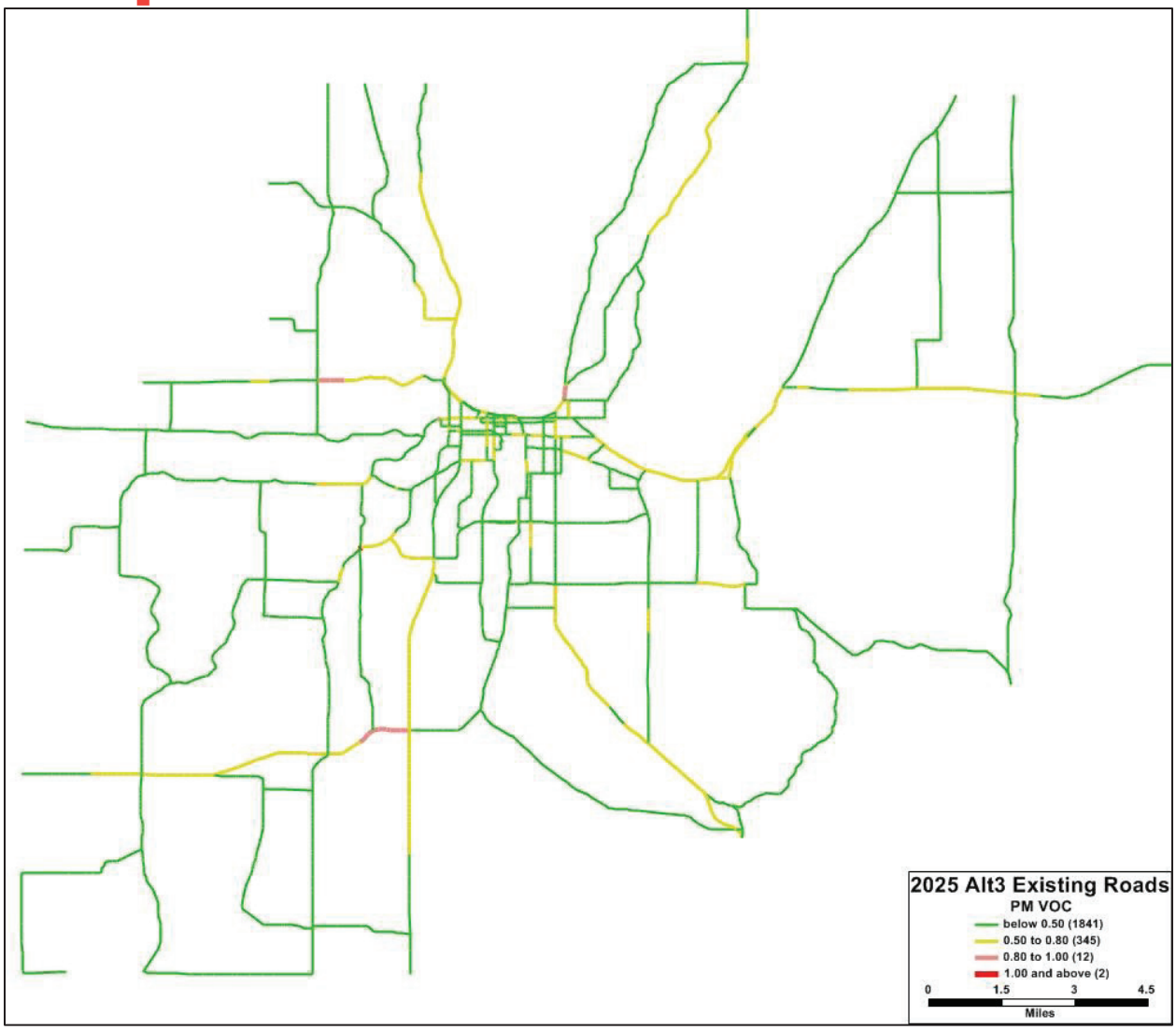


Figure 18: Alt3 2025 Existing Roads PM V/C ratios

Appendix G:

Roadway Safety Analysis Technical Memorandum

Crash Analysis Report

Background

Corridor Safety Analysis was performed for multiple routes within Grand Traverse County. Routes selected for analysis included all or portions of Birmley Rd, Cass Rd, Division Rd, Eighth St, Front St, Garfield Rd, Grandview Pkwy, Hammond Rd, Hartman Rd, Hoch Rd, Keystone Rd, Munson Rd, Park Dr, Potter Rd, Rennie School Rd, South Airport Rd, Three Mile Rd, Williams Rd, and US-31. These routes are highlighted in Figure 1. This analysis was completed to provide assistance to the Grand Traverse Road Commission in identifying high crash locations, recognizing correctable problems, and evaluating potential solutions. A total of **five** years of crash data, from January 1, 2013 through December 31, 2017 was obtained from the Michigan State Police database for Grand Traverse County roads within the project area, and we reviewed the detailed traffic crash reports (UD-10) for any fatal and serious injury collisions.

The analysis procedure consisted of identifying the location, type and severity of each crash. Additional information including weather and pavement conditions for each crash was then identified. Table 1, shown below, notes how the traffic crash analysis focused on certain predetermined traffic crash patterns and types.

Table 1 – Critical Crash Patterns and Issues Related

Crash Patterns	Issues to Evaluate
Head-On	Wrong way and left of center movements, loss of control
Head-On Left Turn	
Rear-end	Congestion, merge & diverge movements, horizontal alignment, lane width, signing, pavement markings
Angle	
Sideswipe	
Single Vehicle	Horizontal alignment, clear zone / safe recovery area
All	Total per year, trend over 5 years

Figure 1 – Study Area with Evaluated Road Segments and Intersections Highlighted

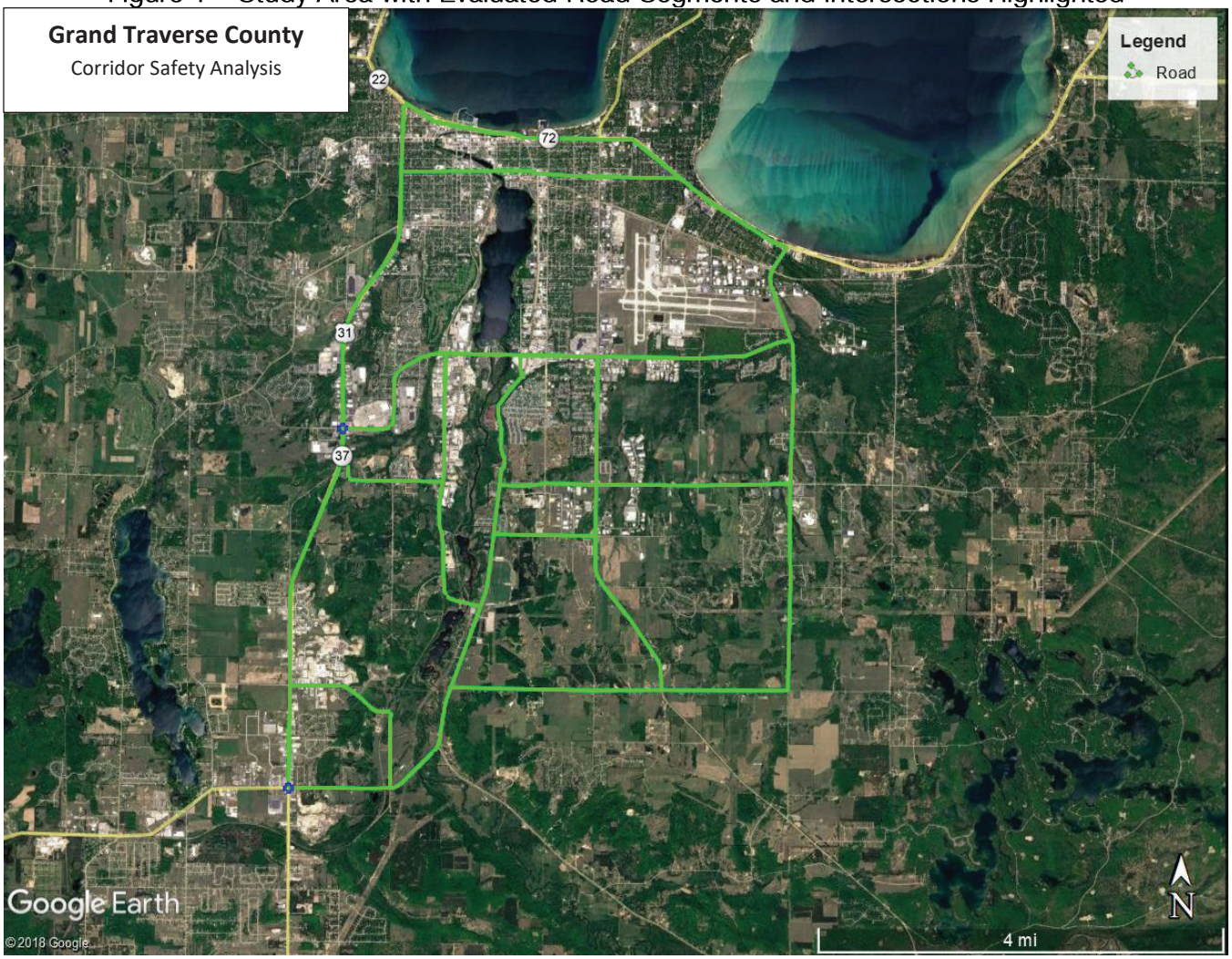


Table 2 –Critical Crash Patterns for the Study Routes
(Years 2013 – 2017)

	Targeted Crash Patterns							5 Year Total for Study Area (All Crash Types)	5 Year Total for Grand Traverse County
	Sideswipe	Head-on	Head-on Left-turn	Angle	Rear-end	Single Vehicle	Other		
All Crashes	748	66	218	1163	2647	876	189	5917	17881
	12.6%	1.1%	3.7%	19.7%	44.9%	14.8%	3.2%		
Fatal / A Injury	4	9	5	18	3	14	0	53	292
	7.5%	17.0%	9.4%	34.0%	5.7%	26.4%	0.0%		

There were 5,917 crashes in the 5-year study period, which represents 33.1% of all the crashes that had occurred in Grand Traverse County during this time frame. The crashes on the road segments under study involved a total of 37 that involved severe casualties. This is 18.2% of all the serious injuries and fatalities that have occurred in the five years for the County.

The four fatalities in the study area were the result of two head-on collisions on straight roads where a vehicle crossed the center line and struck the second vehicle as well as two single vehicle crashes in which one struck a post and the other struck a pedestrian. Grand Traverse County experienced a

total of 54 fatalities from crashes over the last five years. The study area accounted for about 7% of the total.

The annual crash distribution and severity of the study area can be seen in Table 3. The 5,917crashes were relatively well distributed between 2013 and 2017, and do not indicate a trend of increasing (or decreasing) frequency. Type A injuries are defined as any injury that prevents the injured person from walking, driving, or normally continuing the activities which he or she was capable of performing prior to the crash, examples being severe lacerations or visibly broken limbs. Many times, this level of injury require the person to be transported by ambulance to a hospital or critical care unit. Type B injuries are any injuries that are evident at the scene of the crash but do not prevent the individual from operating normally, examples being a lump on the head or abrasions. Injuries at this level are occasionally transported by ambulance. Type C injuries are any that are claimed but not visible, examples being complaints of pain or nausea.

Table 3 –Annual Crash Distribution and Severity for the Total of the Segments within the Study Area (Years 2013 – 2017)

Total Crashes Per Year					Fatal	Type A Injury	Type B Injury	Type C Injury
2013	2014	2015	2016	2017	4	49	187	668
1160	1251	1175	1172	1159				

Segment 'Hot Spots'

Crash data for each study route was analyzed independently. Crash data was organized by location with each study route divided into 0.2-mile long segments. The crash data within these segments were reviewed for patterns and areas of concern. A graphical representation of each study routes crash data can be found in the figures below.

Analysis of segment crash data identified that there were a few locations of higher crash concentration or 'hot spots' on the study corridors. For the purposes of this analysis, 'hot spots' are defined as 0.2-mile long segments where 54 or more crashes occurred during the study period. This threshold represents locations that experienced a standard deviation or more above the average segment crash rate of 28 crashes per 0.2 miles.

The most recurring crash patterns at these "hot spots" are rear-ends, sideswipes, and single vehicle crashes. Where hot spots were identified, they are included in the study route analysis discussion that follows and depicted in Tables 4 through 17.

Figure 2 –Rennie School and Williams Road

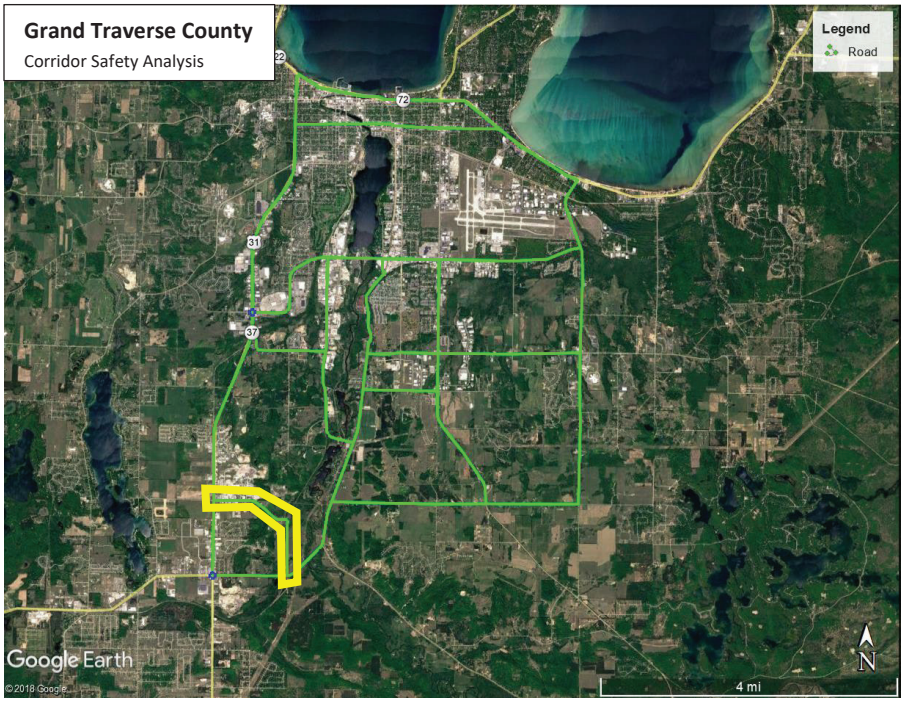
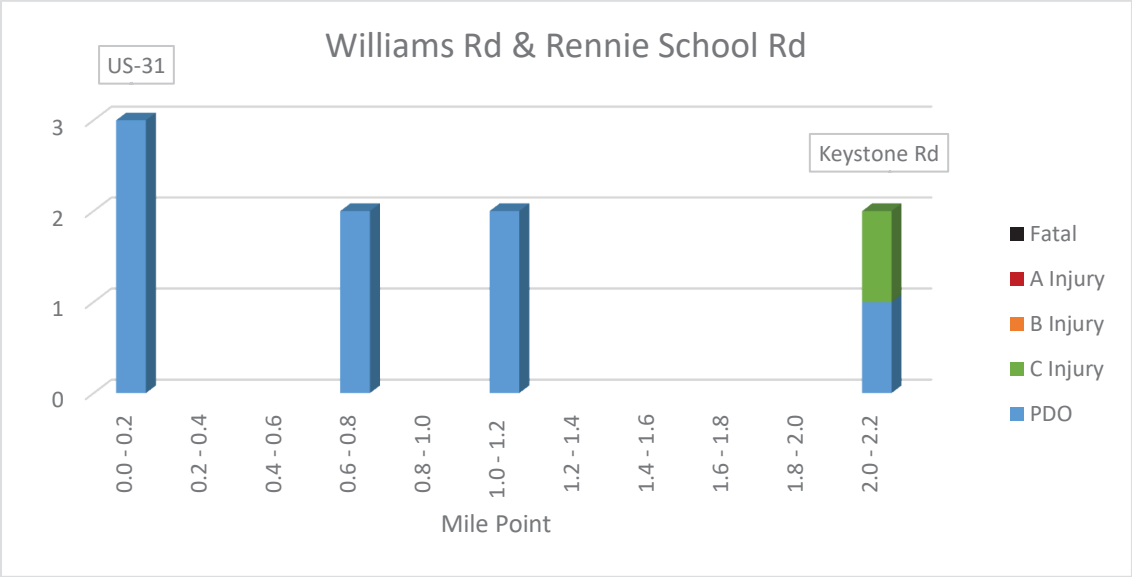


Table 4 – Crash Distributions for Williams Rd & Rennie School Rd



The Williams Road and Rennie School Road Corridor experienced few crashes over the 2 miles between 2013 and 2017. The majority were single vehicles that occurred during the day and dry conditions. This route includes the intersections at US-31 and Beitner Rd, however, there was no observed significant increase in crash concentration at these un-signalized intersections.

The few crashes that occurred were relatively well distributed along the corridor. No 'hot spots' were identified along this route. There were no fatalities, Type A or B injuries and one Type C injury that took place on this segment. No accidents involved pedestrians or bicyclists.

Figure 3 – N Garfield Road

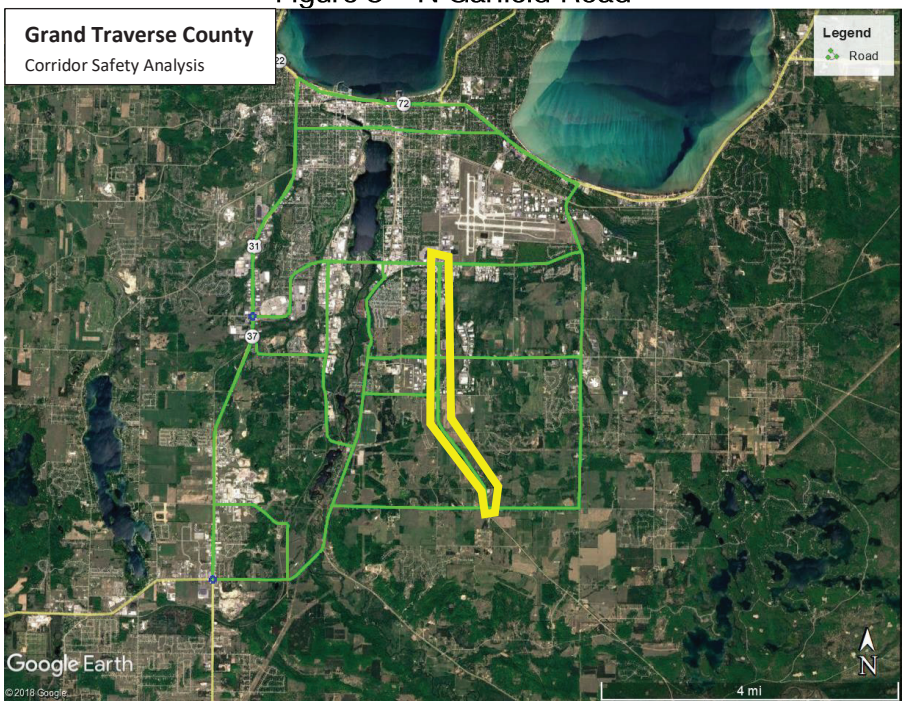
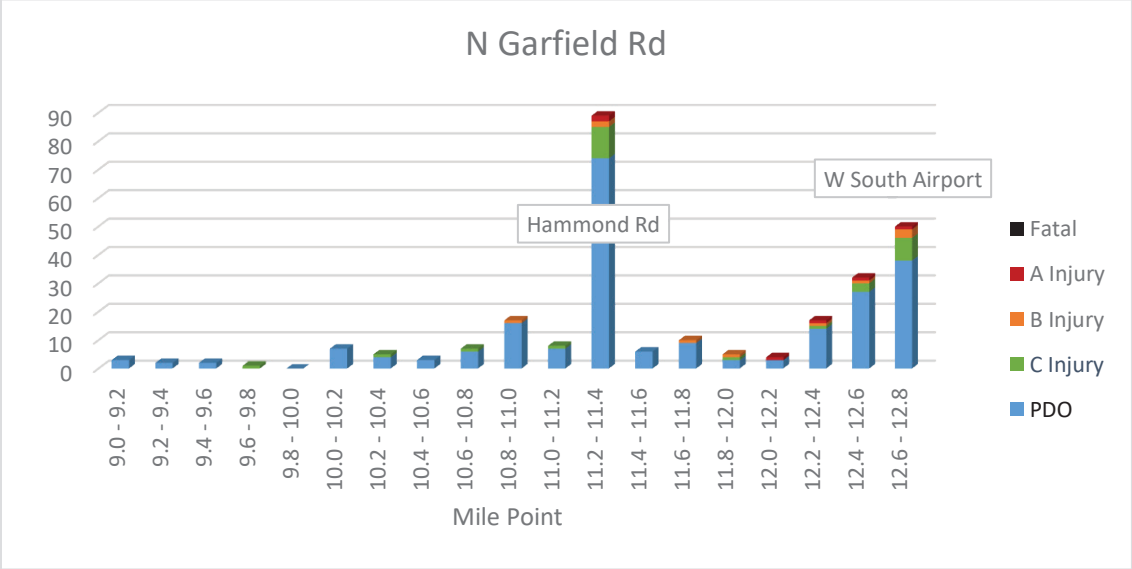


Table 5 – Crash Distributions for N Garfield Rd



N Garfield runs approximately 3 miles from W Potter Road to W South Airport. N Garfield is under traffic signal control where it intersects W Hammond Rd and W South Airport. The majority of the crashes were angle and rear end crashes.

There were no fatalities, 6 Type A, 10 Type B, and 28 Type C injuries resulting from the crashes. The 'hot spots' for the crashes on N Garfield Road took place at mile points 11.2-11.4 and 12.6-12.8 which are located at where N Garfield Rd intersects W Hammond Rd and W South Airport Rd respectively. Where N Garfield intersects Hammond Rd there are gas stations and an apartment complex. Overall the majority of the type A injuries were caused from angle crashes, a head-on left turn and a single vehicle crash where the vehicle struck an intoxicated pedestrian during rain at dusk. N Garfield did not see significant crashes where it intersected with W Potter Rd and Birmley Rd.

Figure 4 – Birmley Road

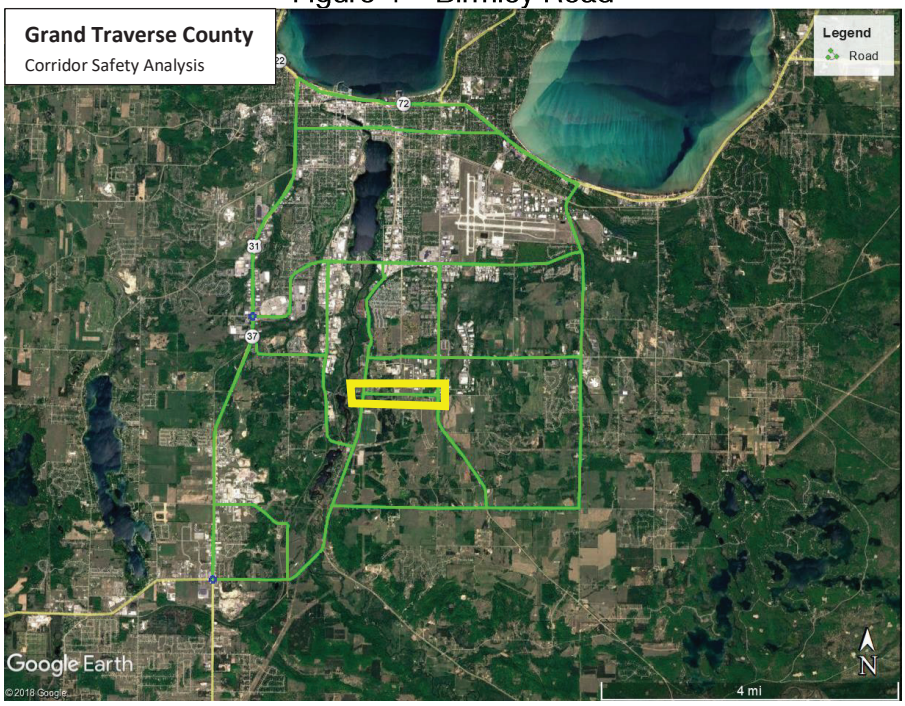
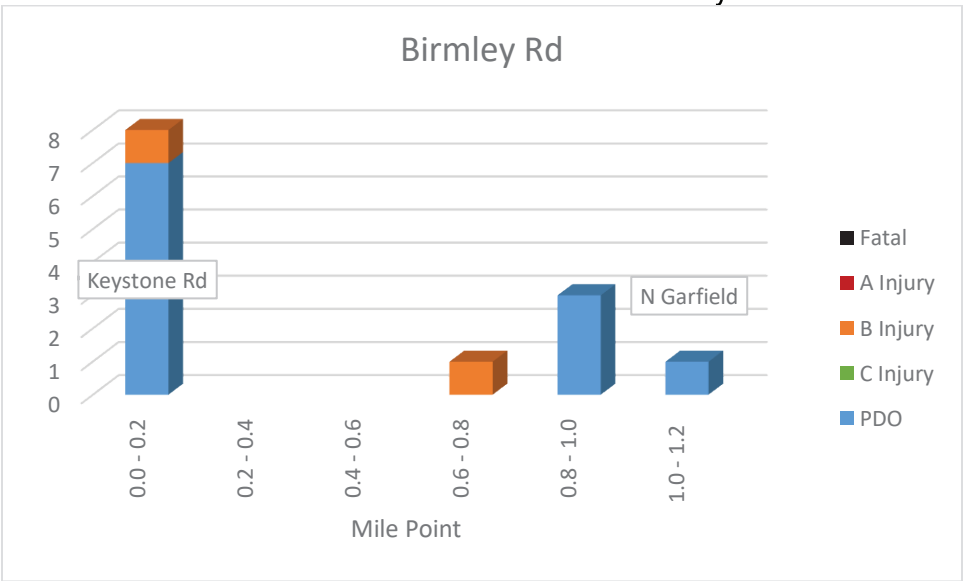


Table 6 – Crash Distributions for Birmley Rd



Birmley Rd intersects with N Keystone Rd and N Garfield Rd. These two intersections are under traffic signal control. The majority of the crashes were rear end and single vehicle crashes.

There are no 'hot spots' on Birmley Rd. The majority of the crashes in this segment take place where it intersects at Keystone Rd at mile point 0.0-0.2. There were no fatalities, Type A or C, and 2 Type B crashes. No crashes involved pedestrians or bicyclists.

Figure 5 – Cass Road

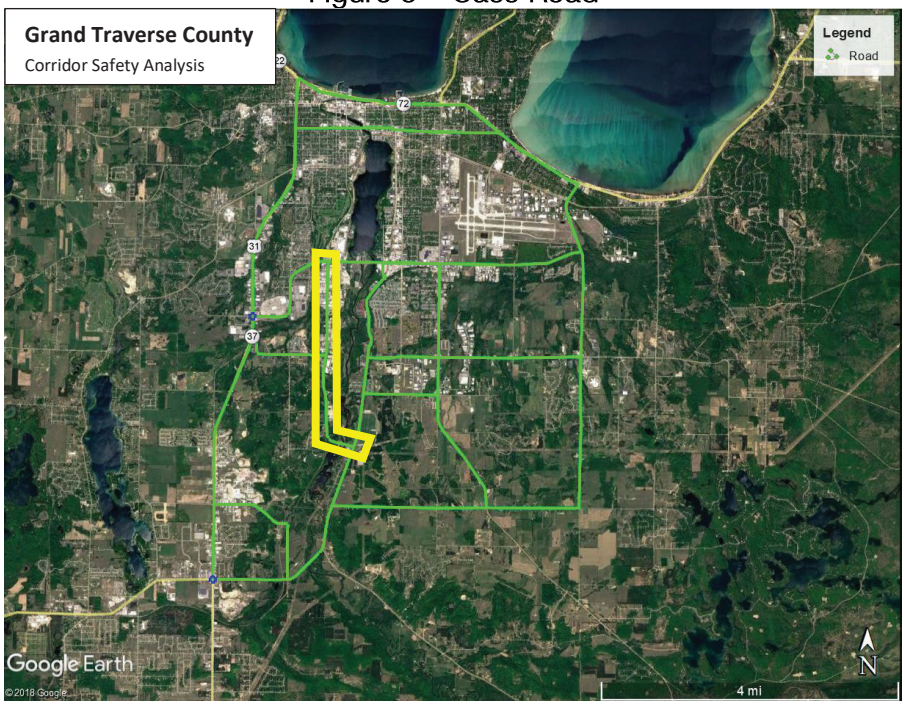
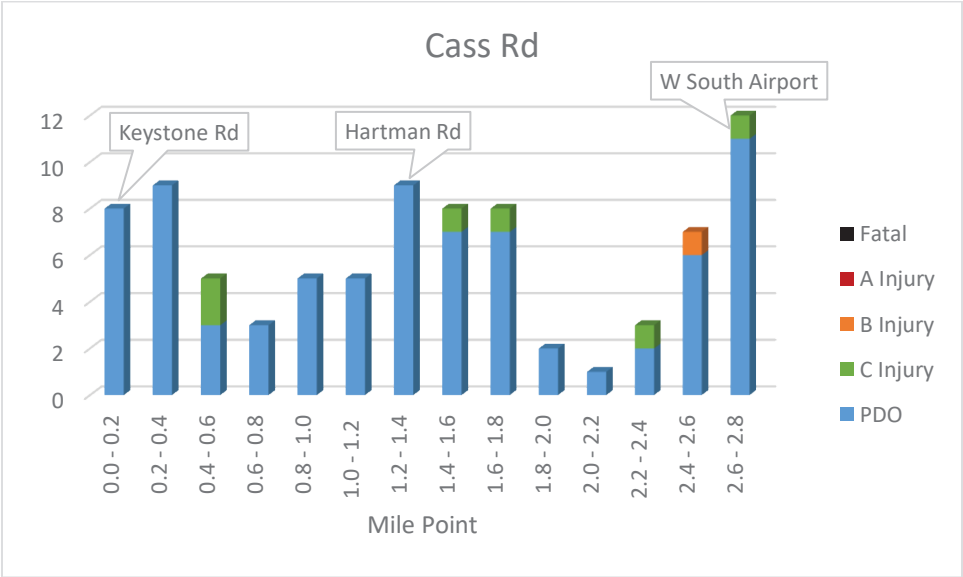


Table 7 – Crash Distributions for Cass Rd



There are no 'hot spots' on Cass Rd; the crashes are evenly distributed. Cass Rd intersects N Keystone Rd, Hartman Rd, and W South Airport Rd. Where Cass intersects W South Airport and N Keystone Rd, the intersections are under traffic signal control.

The majority of crashes were single vehicle crashes. There were no fatalities or Type A injuries and 1 Type B and 6 Type C injuries. No crashes involved pedestrians or bicyclists.

Figure 6 – Hammond Road

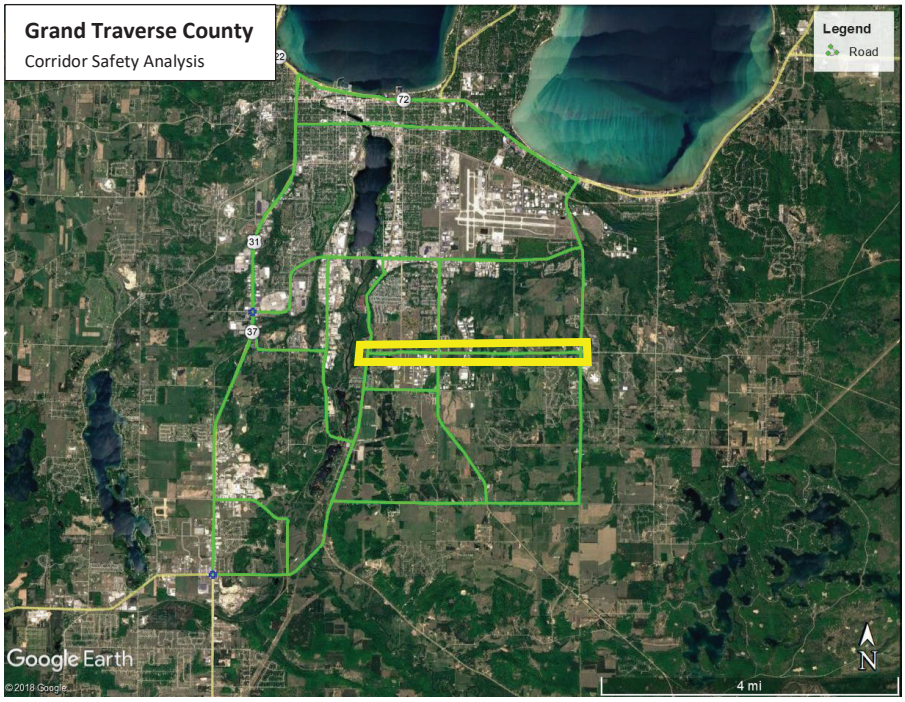
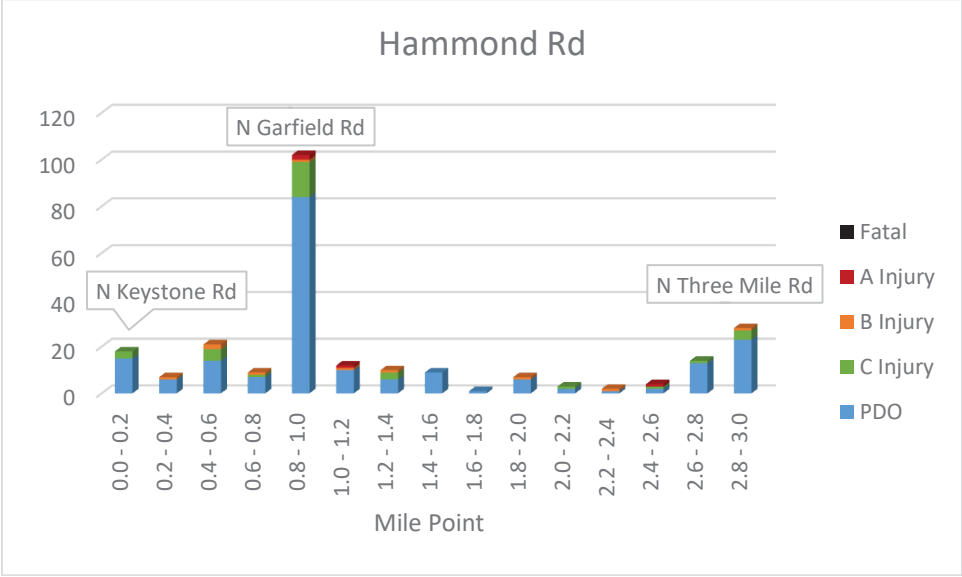


Table 8 – Crash Distributions for Hammond Rd



Hammond Rd has four major intersections, with N Keystone Rd, Lafranier Rd, N Garfield Rd, and N Three Mile Rd. Hammond Rd is under traffic signal control for all of these four major intersections. The greatest amount of crashes were angle, rear end and single vehicle.

The highest number of crashes on Hammond Rd, constituting the one 'hot spot' for this road, occurs in the area around where N Garfield Rd intersected with Hammond Rd at mile point 0.8-1.0. There were no fatalities and there were 4 Type A, 10 Type B, and 34 Type C injuries. The Type A crashes were the result of a head on crash, two angle crashes and a single vehicle crash where the driver lost control in the ice and crashed into a utility pole off the road.

Figure 7 – Hartman Road

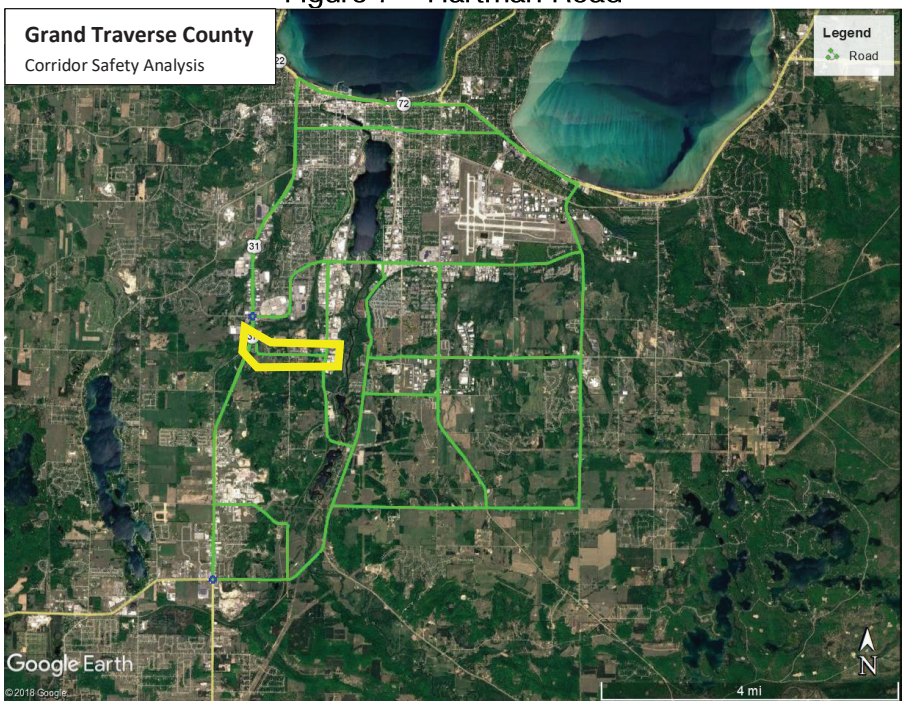
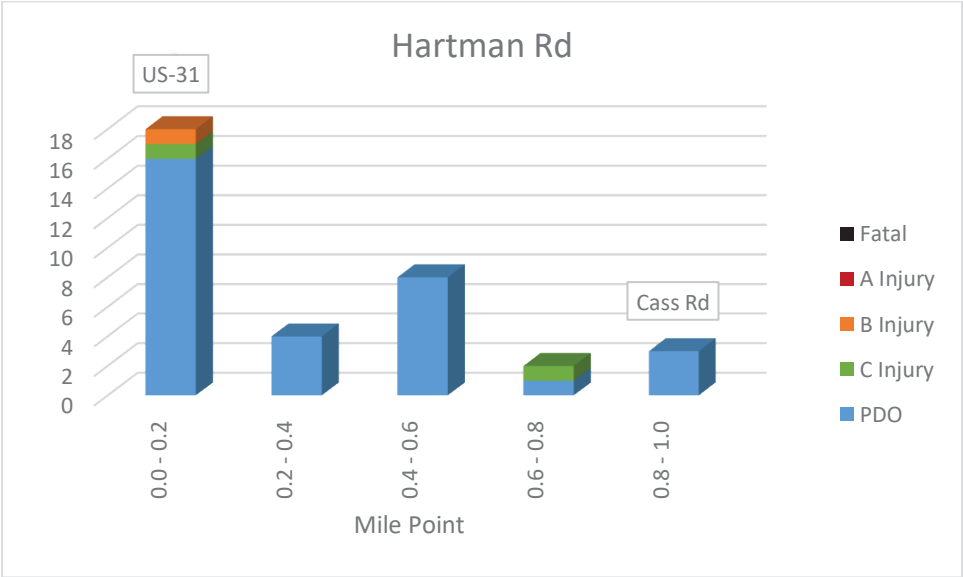


Table 9 – Crash Distributions for Hartman Rd



Hartman Rd intersects with US-31 and Cass Rd. Both intersections are minor-road stop controlled. The majority of the crashes were single vehicle crashes that took place during snow or icy conditions.

The greatest amount of crashes occurred in the area where Hartman Rd intersected with Hartman Rd. But the frequency fall below the threshold for it being a 'hot spot'. There were no fatalities or Type A injuries and there is 1 Type B and 2 Type C injuries. No crashes involved pedestrians or bicyclists.

Figure 8 – Hoch and W Potter Road

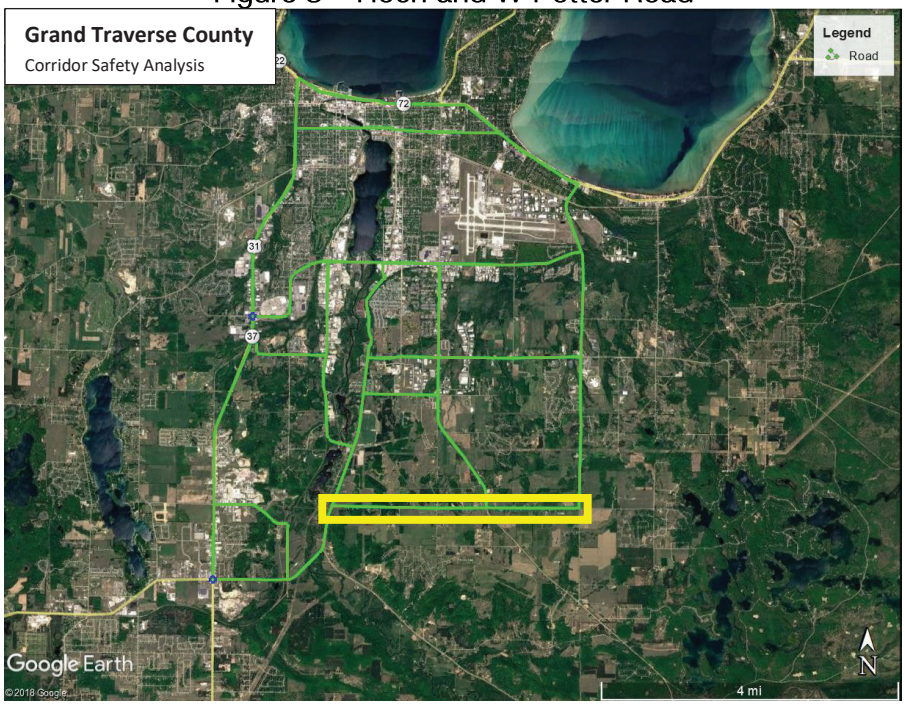
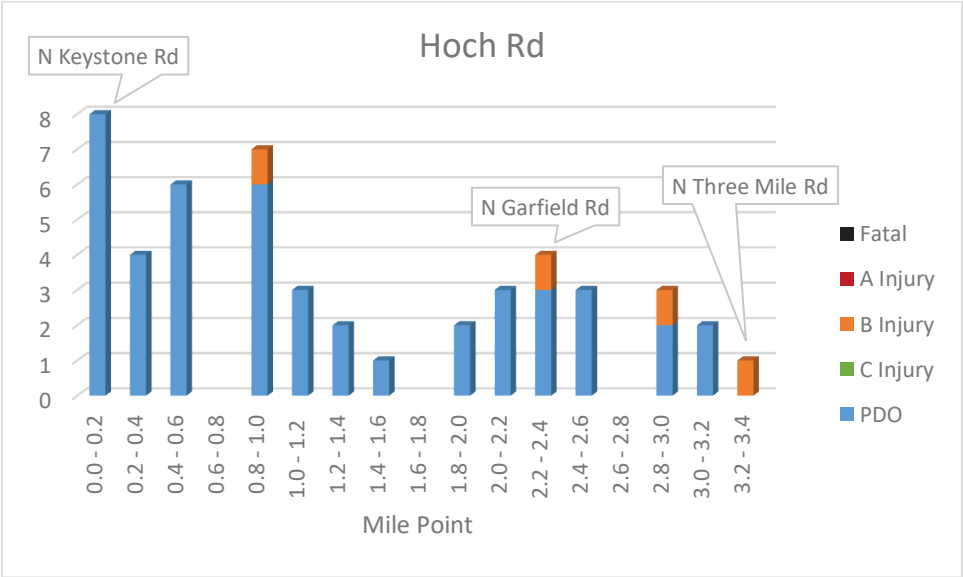


Table 10 – Crash Distributions for Hoch Rd / Potter Rd



Hoch and W Potter Rd intersects with N Keystone Rd, Garfield Rd, and N Three Mile Rd. The crashes were evenly distributed and there are no 'hot spots'. There were no fatalities, Type A, or Type C injuries. There were 4 Type B injuries. The majority of crashes were single vehicle crashes.

Figure 9 – Bietner, Keystone and Park Roads

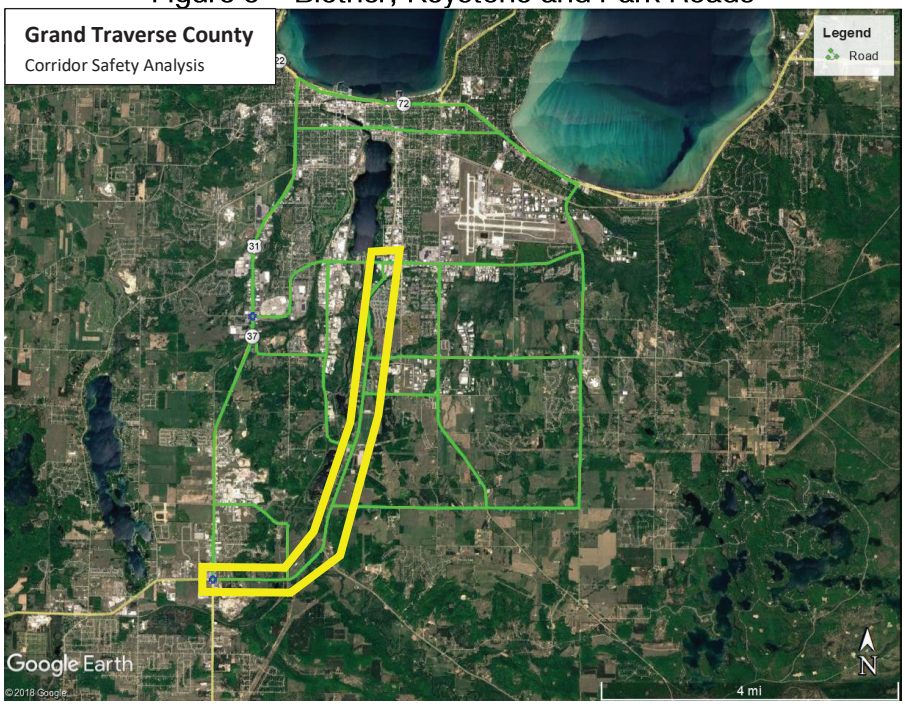
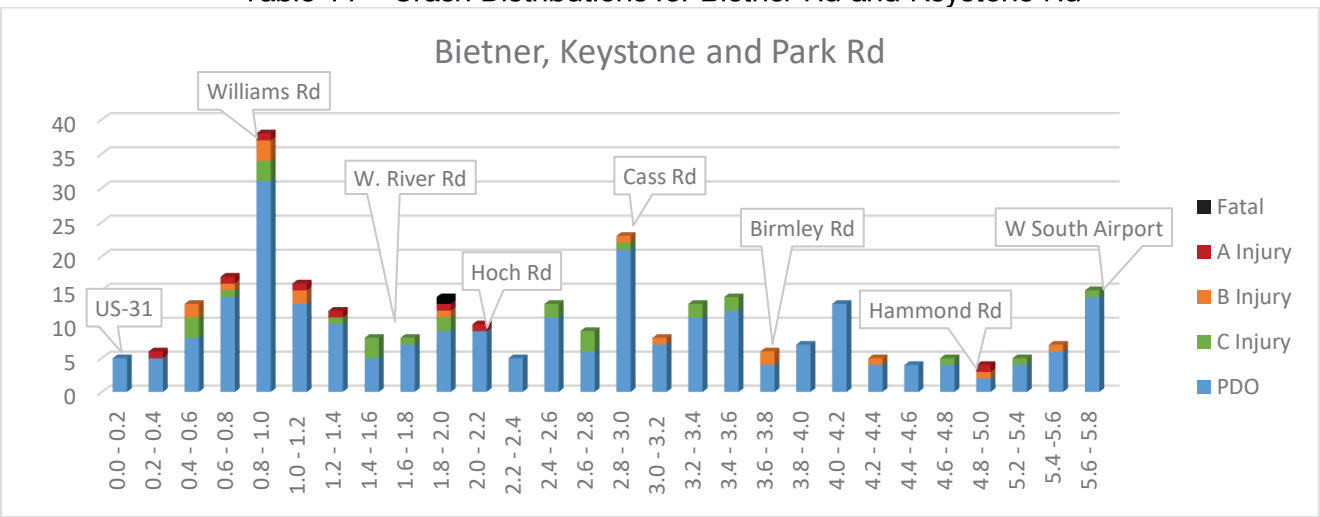


Table 11 – Crash Distributions for Bietner Rd and Keystone Rd



Bietner Rd intersects with US-31, Williams Rd and W River Rd. Keystone Rd begins at W River and intersects with Hoch Rd, Cass Rd, Birmley Rd, Hammond Rd, and Park Dr. And Park Dr intersects with W South Airport. There are no 'hot spots' on this corridor. The crashes are primarily rear end and single vehicle crashes.

The highest concentration of crashes are located where Bietner Rd intersects with Williams Rd, Keystone intersects with Cass Rd, and the Park Dr intersection with W South Airport Rd. There was one fatality, 8 Type A, 16 Type B, and 27 Type C injuries resulting from the crashes. The Type A crashes were comprised of 3 single vehicle crashes where the vehicle struck a pedestrian, a trailer struck a pedestrian and where a vehicle drove into a tree, 2 head on crashes, and two side swipes, and a rear end crash. The fatality was caused by a head on crash during the day while the roads were wet. The driver heading northbound on Keystone Rd drove into the southbound lane.

Figure 10 – N Three Mile Road

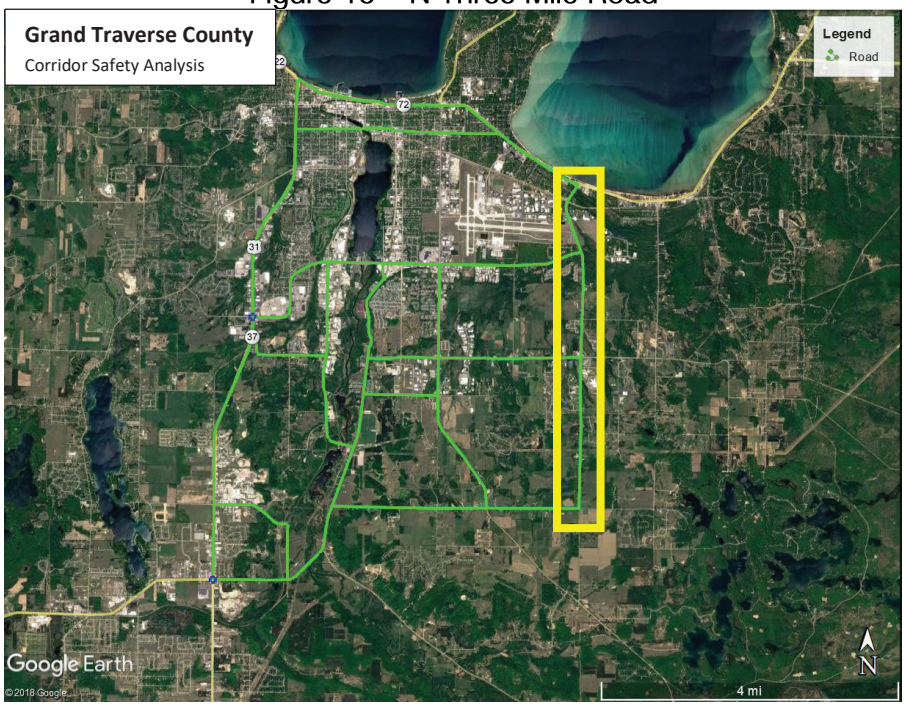
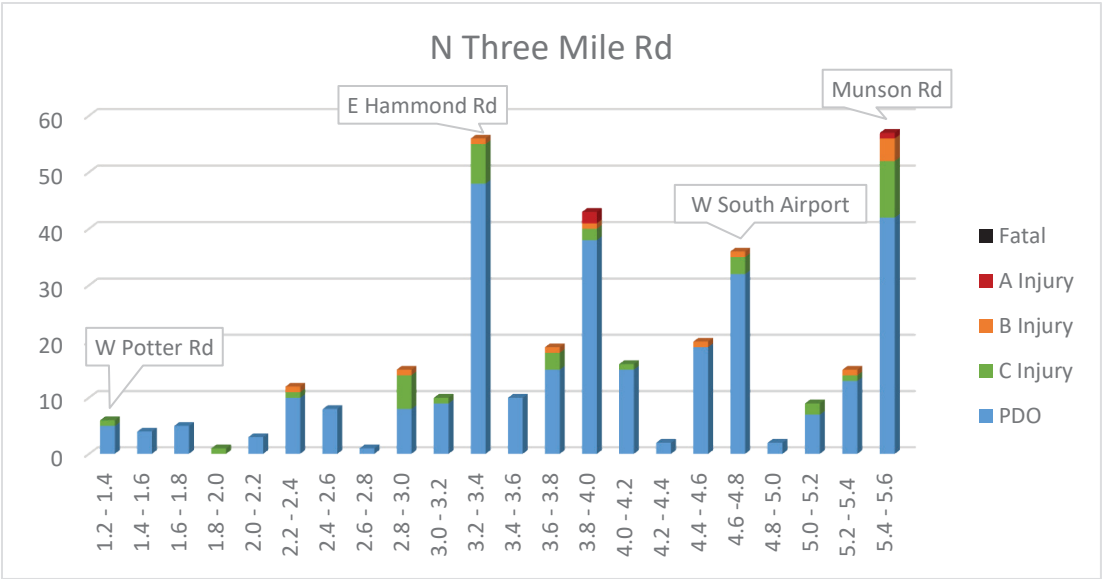


Table 12 – Crash Distributions for N Three Mile Rd



N Three Mile Rd intersects E Potter Rd, E Hammond Rd, E South Airport Rd and US-31 (Munson Rd). The 'hot spots' in this corridor are where N Three Mile Rd intersects E Hammond Rd and Munson Rd.

There is also a significant concentration of crashes to the north of the E Hammond Rd hot spot (3.8 to 4.0). This area is comprised of local churches, an academy, several small businesses and the fire department's administrative offices. The greatest amount of crashes are single vehicle. There are no fatalities, and 3 Type A, 12 Type B, and 39 Type C injuries. The Type A injuries were the result of an angle, head on crash, and a head on left turn crash. No crashes involved pedestrians or bicyclists.

Figure 11 - South Airport Road

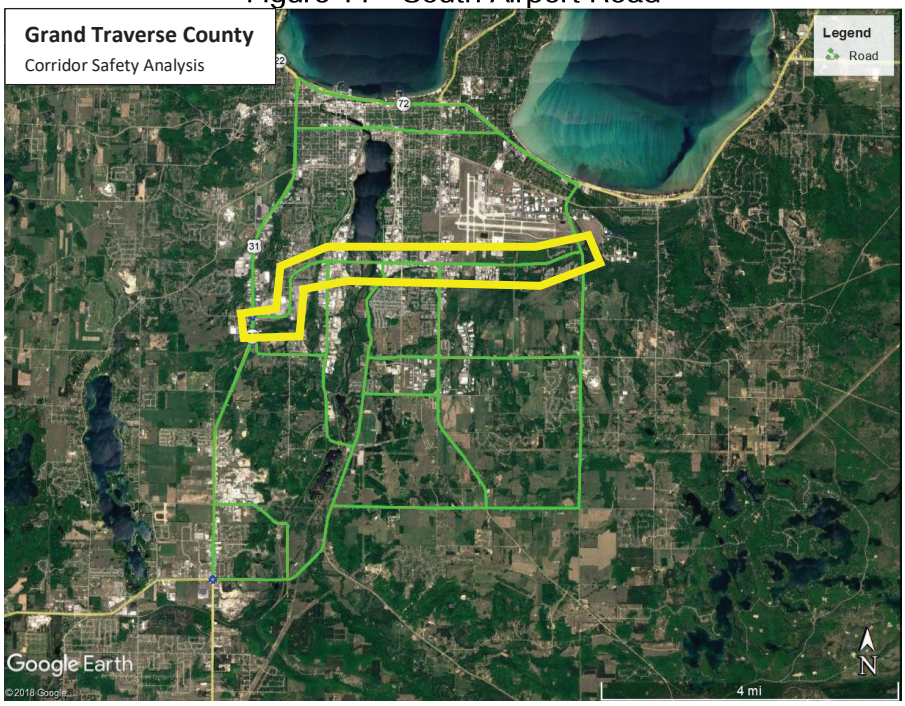
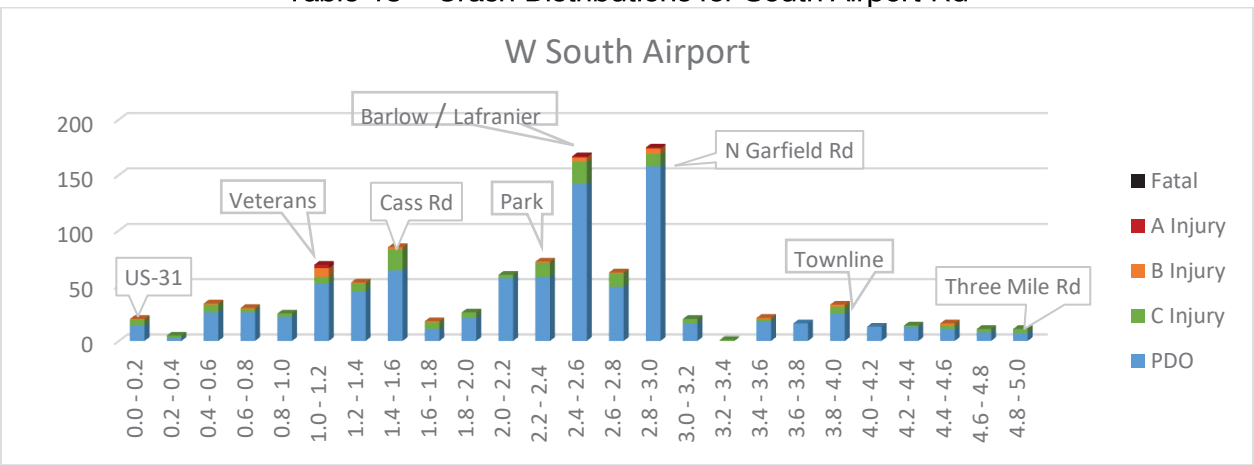


Table 13 – Crash Distributions for South Airport Rd



South Airport has signalized intersections with US-31, Gd. Traverse Mall/Crossing Circle, Veterans Dr, Cass Rd, Park Dr, Racquet Club Dr, Park Dr, Barlow/Lafranier Rd, Garfield Rd, Townline Dr and Three Mile Rd. Rear end crashes were the most common type of crashes, followed by angle crashes.

There are groupings of high crash concentrations located along South Airport Rd. One segment is the stretch between Veterans Dr (1.0) and Cass Rd (1.6). Other than the cluster of small business at the intersection with Cass, this portion of the corridor is dominated by a long horizontal curve and an elevation change, resulting in a significant grade to the roadway. The crashes were also comprised primarily of rear end and angle crashes.

The other stretch is from Racquett Club Dr (2.0) to Garfield Rd (3.0). This area includes a mall complex, small businesses and many fast food restaurants. The crashes were also comprised primarily of rear end and angle crashes. These 0.2 mile segments are practically continuous 'hot spots'. There are no fatalities, and 5 Type A, 31 Type B, and 146 Type C injuries. The Type A injuries were results of an angle, rear end, two head on, and single vehicle where a vehicle pulling out of a private driveway struck a pedestrian.

Figure 12 – US-31 From Beitner Rd to South Airport Rd

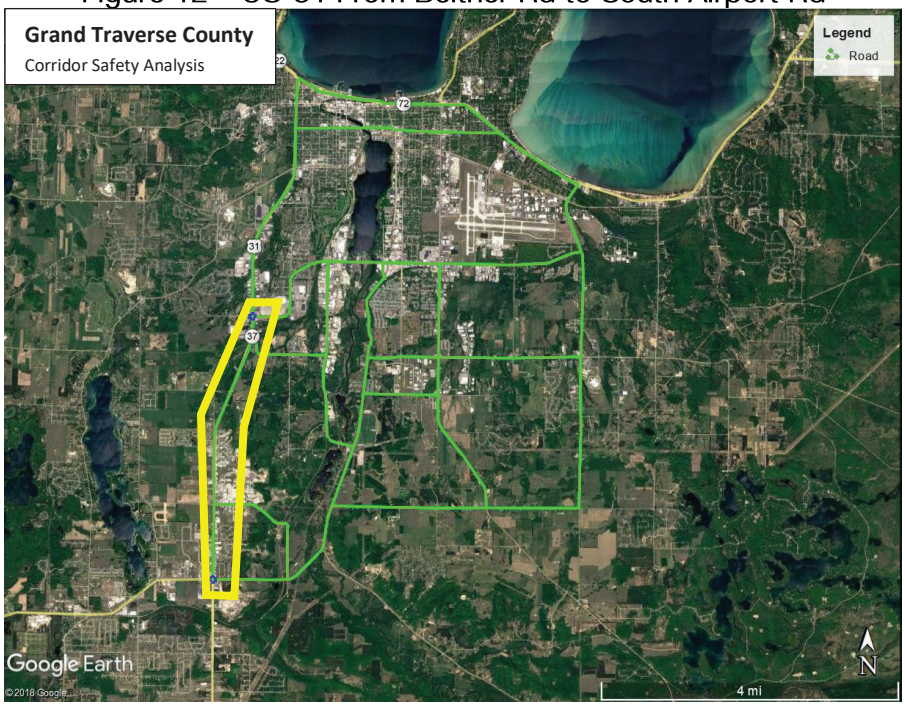
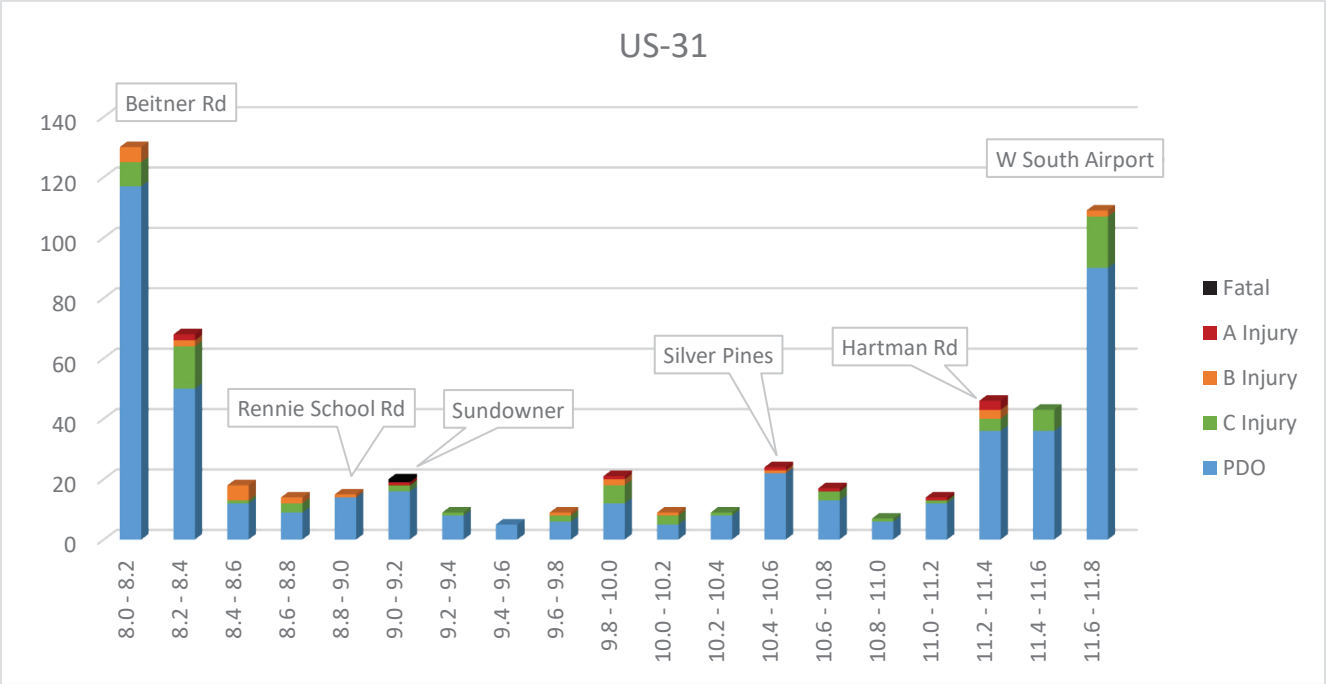


Table 14 – Crash Distributions for US-31 From Beitner to South Airport



US-31 intersects with Beitner Rd, Rennie School Rd, Hartman Rd, and W South Airport Rd. The highest crash concentrations were located where US-31 intersects with Beitner and W South Airport Rd. The majority of the crashes are rear end and angle crashes. There is one fatality, 10 Type A, 25 Type B, and 74 Type C injuries in the report on this segment. The Type A crashes were the result of a head on crash, 5 angle crashes, 3 head on left turn and a rear end crash. The fatality was the result of a head on crash. The road crash took place during the day under dry conditions. The vehicle traveling southbound crossed the centerline and hit the vehicle traveling northbound head on.

Figure 13 – US-31 (S Division St) From South Airport to Grandview Pkwy

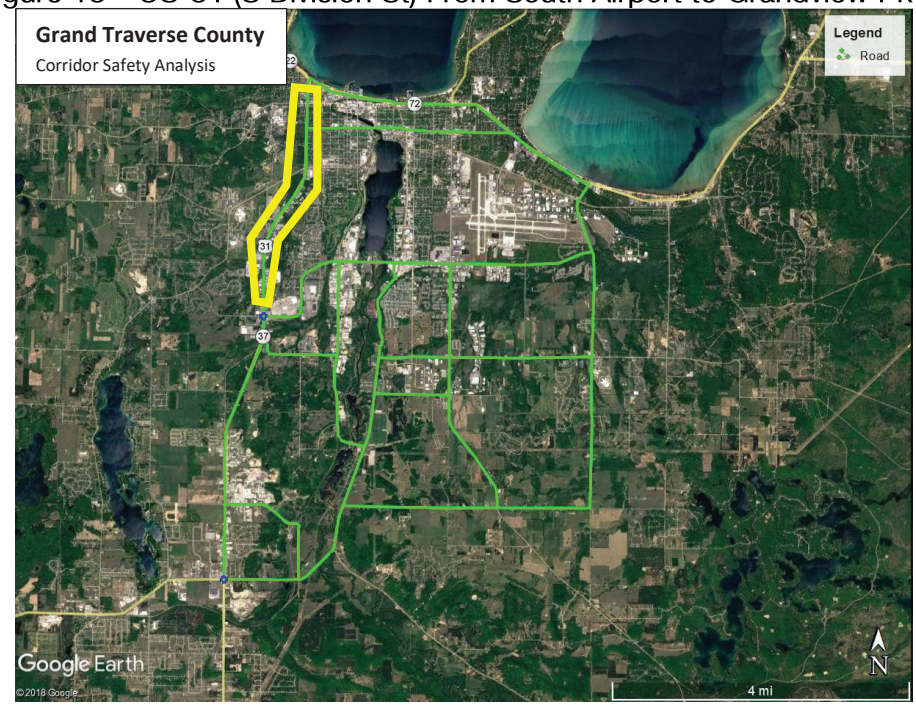
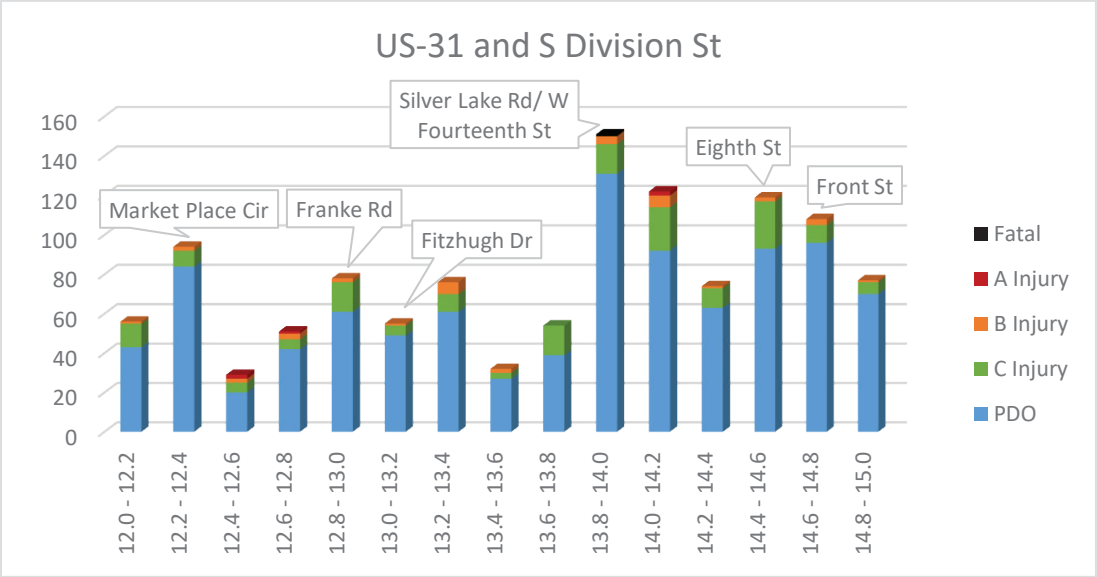


Table 15 – Crash Distributions for US-31 (S Division St) From South Airport to Grandview Pkwy



This area of study extends to cover the length of US-31 and S Division St between the areas included in the intersections of US-31 with W South Airport as well as Division St with W Grandview Pkwy shown in Table 16. US-31 and Division St intersect with Ranke Rd, Silver Lake Rd and Second St to Fourteenth St. The highest crash concentrations were located where Division St intersects with Silver Lake Rd/ W Fourteenth St and overall high concentrations between Eighth and Front St. The majority of the crashes are rear end and angle crashes. There is one fatality, 5 Type A, 38 Type B, and 176 Type C injuries in the report on this segment. The Type A crashes were the result of three angle crashes, a head on crash, and a single motor vehicle involving a pedestrian. The fatality was the result of a vehicle crash with a pedestrian. The road crash took place during the day and rainy conditions near the local grocery store where S Division St intersects with Fourteenth St/ Silver Lake Rd.

Figure 14 – US-31: E Grandview Pkwy, E Front St & Munson

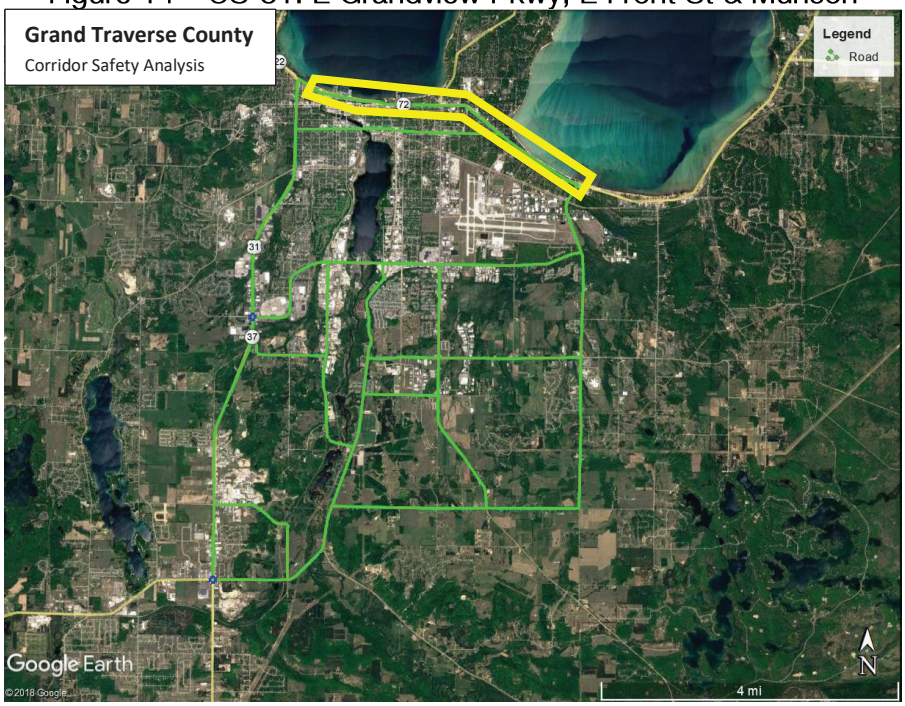
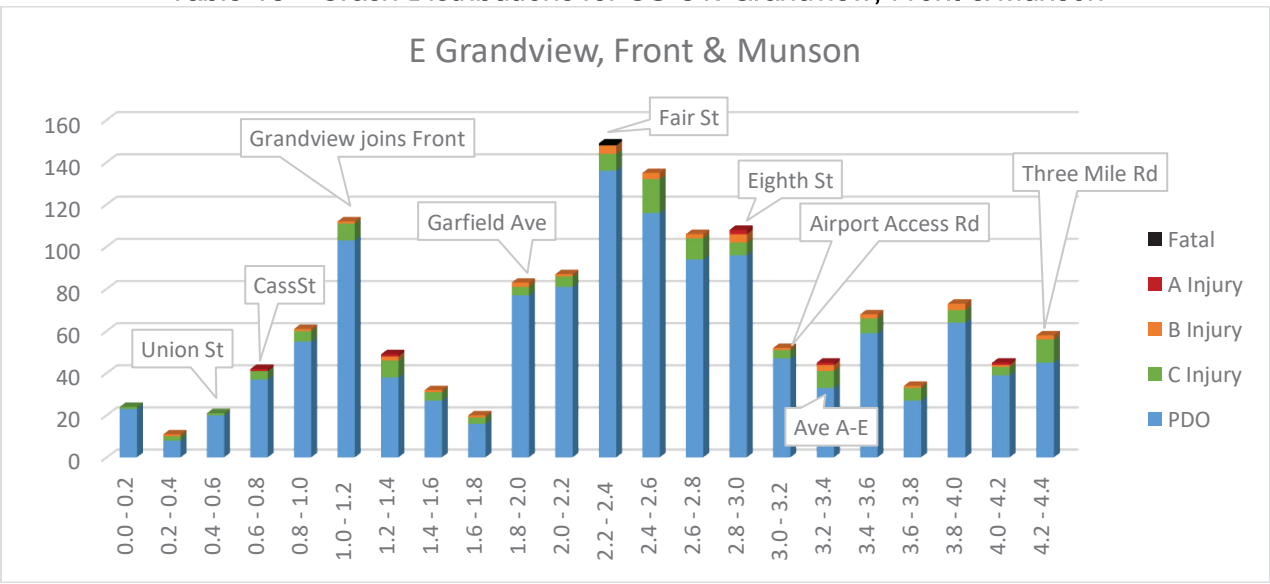


Table 16 – Crash Distributions for US-31: Grandview, Front & Munson



This area of study extends to covers the length of Grandview Pkwy, Front St, and Munson St from the Division St with W Grandview Pkwy shown in table 1 to Three Mile Rd. This section intersects with Cass St, S Garfield, Fair St, Eighth St, Airport Access Rd, and Three Mile Rd. The highest crash concentrations were located where Front St intersects with Grandview and the section between Fair St and Eighth St. The majority of the crashes are rear end and angle crashes. There was one fatality, 8 Type A, 44 Type B, and 164 Type C injuries in the report on this segment. The Type A crashes were the result of an angle crash, a rear end crash, a head on crash, two single motor vehicles involving a pedestrians, one involving a bicyclist, and two side swipe crashes. The fatality was the result of a single vehicle crash near the intersection of Fair St striking a post.

Figure 15 – Eighth St

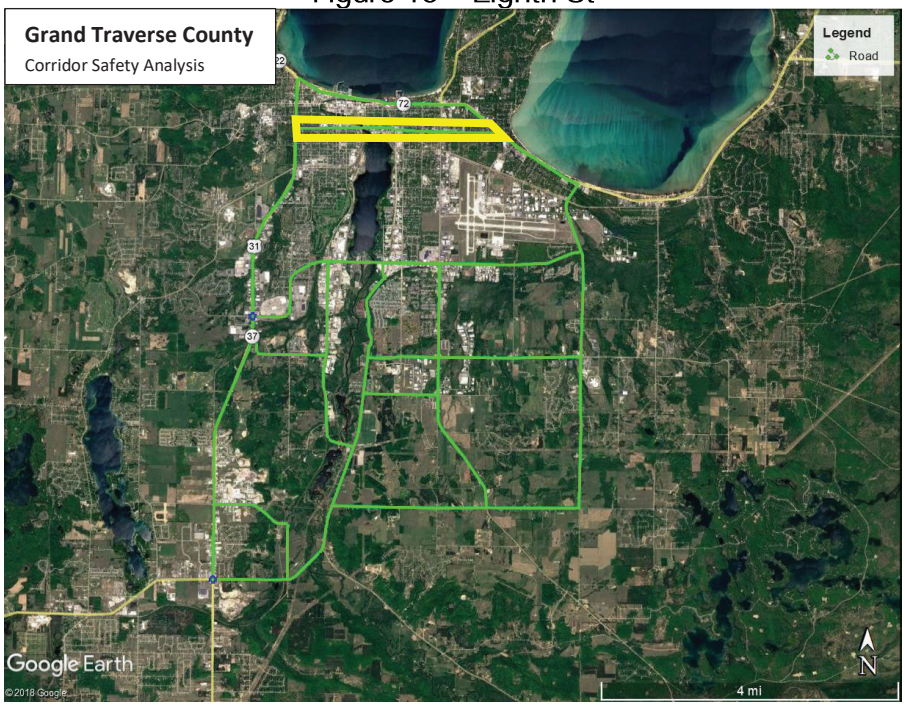
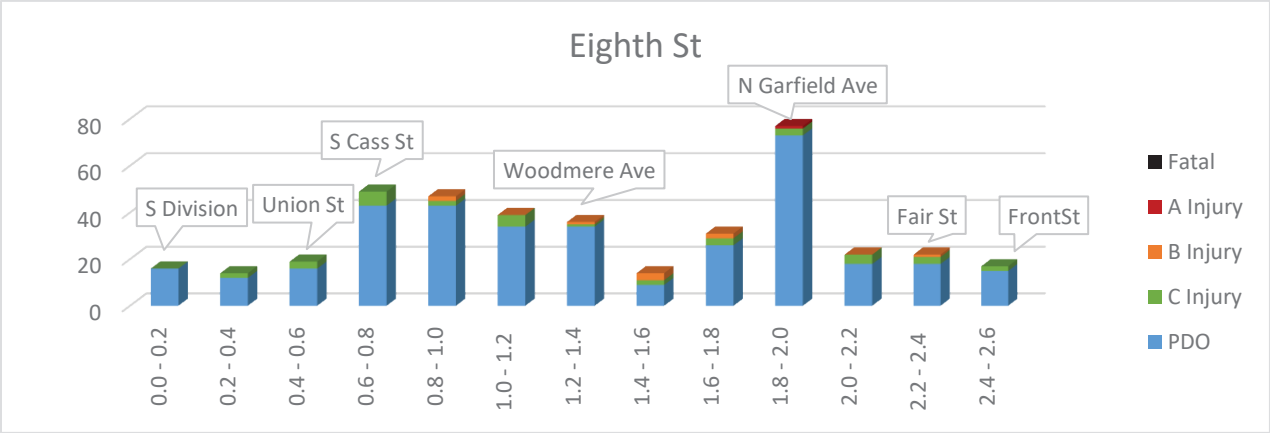


Table 17 – Crash Distributions for Eighth St



The Eighth St intersects with Diversion St, S Union St, Cass St, Woodmere Ave, S Garfield Ave, Fair St, and Munson Ave. The highest crash concentrations were located where Eighth St intersects with S Garfield Ave and near Lake Ave. The majority of the crashes are rear end and angle crashes. There were no fatalities, 1 Type A, 9 Type B, and 36 Type C injuries in the report on this segment. The Type A crash was the result of a motor vehicle striking a pedestrian near N Garfield Ave.

Intersections Crash Data

The two intersections of US-31 with Beitner and with W South Airport were identified as significant concerns that warranted their own study. Both were noted for their high traffic volumes and the close proximity of local businesses. These critical intersections saw a high number of crashes during the study period.

TABLE 1: Summary of Intersection Crash Data (2013-2017)

US-31 intersections with Beitner, W South Airport, and Grandview/ Front												
	Crash Type								Injuries			
Intersection	Side Swipe Sm	Head On	Head On Left Turn	Angle	Rear End	Single Vehicle	Other	TOTAL	Fatal	A-Level (Incapacitating)	B-Level (Non-Incapacitating)	C-Level (Possible)
US-31 and Beitner Rd	45	1	10	85	124	6	1	**272**	0	0	13	38
US-31 and W South Airport Rd	43	1	10	53	202	12	12	**333**	0	0	6	48
US-31 and Grandview Pkwy/ E Front	49	4	23	77	204	20	22	**399**	0	4	9	49
TOTAL	**137**	**6**	**43**	**215**	**530**	**38**	**35**	**1004**	**0**	**4**	**28**	**135**
% TOTAL	**13.6%**	**0.6%**	**4.3%**	**21.4%**	**52.8%**	**3.8%**	**3.5%**	**100.0%**	**0.0%**	**0.4%**	**2.8%**	**13.4%**

The intersection of US-31 and Beitner experienced primarily rear end crashes followed by angle crashes. There were no fatalities or Type A injuries but there were 13 Type B and 38 Type C injuries. No crashes involved pedestrians or bicyclists. The crashes were evenly distributed between all approaches.

The intersection of US-31 and W South Airport experienced primarily rear end crashes followed by angle and sideswipe crashes. There were no fatalities or Type A injuries but there were 6 Type B and 48 Type C injuries. No crashes involved pedestrians or bicyclists. The crashes were evenly distributed between all approaches.

The intersection of US-31 and Grandview experienced primarily rear end crashes followed by angle and sideswipe crashes. There were no fatalities but 4 Type A injuries, 9 Type B and 49 Type C injuries. No crashes involved pedestrians or bicyclists. The crashes were evenly distributed between all approaches.

All the intersections are traffic signal controlled with protected left hand turns for all directions. The majority of crashes were the result of drivers failure to stop approaching the intersections.

Conclusions

The “hot spots,” where there were more than 58 crashes in a fifth of a mile, are located where W South Airport Rd intersects with N Garfield Rd and Keystone Rd, as well as where Hammond Rd intersects N Garfield Rd and N Three Mile. An additional “hot spot” was located on N Three Mile Rd between Hammond Rd and W South Airport Rd near a group of small businesses and a fire station. The segments of US-31/Division Rd, and the Grandview Pwky/Front/Munson experience many high concentration areas.

The fatality taking place on US-31 was the result of a head on crash. The road crash took place during the day under dry conditions. The vehicle traveling southbound crossed the centerline and hit the vehicle traveling northbound head on. The second fatality took place on Keystone and Bietner and was caused by a head on crash during the day while the roads were wet. The driver heading northbound on Keystone Rd drove into the southbound lane. The fatality taking place on Front St was the result of a driver striking a post. The fatality taking place on Division St was the result of a driver striking a pedestrian during rainy conditions.

Appendix H:

Review of Ecological and Environmental Resources

Consulting
Engineers and
Scientists

Technical Memorandum

To: Mr. Matt Wendling, Project Manager, OHM Advisors (OHM)

From: Mr. Stu Kogge, PWS, GEI Consultants of Michigan, P.C. (GEI)

CC: Eric Dyer, Senior Planner, OHM

Date: April 8, 2019

Re: Cursory Ecological and Environmental Perspective for Five (5) of the Traverse City East-West Connector Crossings

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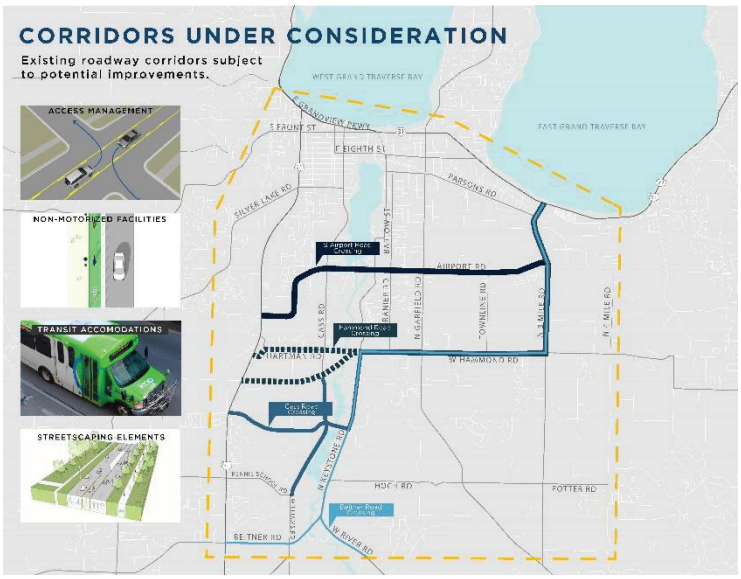
This technical memorandum has been prepared to provide a cursory ecological and environmental perspective of five (5) alternatives that are under consideration for the TC Connector routes, within and surrounding the City of Traverse City, Michigan. The five crossings that were assessed for this technical memorandum are illustrated in the inset below and includes the following:

- South Airport Road Crossing (with either a boulevard or roundabouts)
- Hammond Road Crossing – Alternative A (extending west from Hammond Road to Hartman Road)
- Hammond Road Crossing – Alternative B (extending southwest from Hammond Road and south of Hartman Road)
- Cass Road Crossing – Alternative A (extending west from Cass Road bridge to US-31)
- Beitner Road Crossing



Existing state and federal agency resource databases were used to create resource maps and generate estimates of the potential impacts to wetlands, floodplains, park land, historic resources, and road right-of-ways (ROW) by the various alternative crossings under consideration. This information is summarized in Table 1 at the end of this technical memorandum (courtesy of OHM). This information was used in conjunction with preliminary field assessments of the alternative routes, historic and current knowledge of this geographic area to provide the following cursory ecological and environmental perspectives (and professional opinion based upon the aforementioned information) for the five crossings.

GEI Consultants of Michigan, P.C.
1755 Barlow Street, P.O. Box 6820
Traverse City, MI 49686
www.geiconsultants.com

North Three Mile Road

The approximate 1.0 mile reach of North Three Mile Road, between US-31 Highway and South Airport Road is included in all five of the crossing alternatives. In this reach there is one stream crossing and a relatively minimal amount of wetland and floodplain impact proposed.

The approximate 1.4 mile reach of Three Mile Road, between South Airport Road and Hammond Road is included in all of the alternatives except for the South Airport Crossing alternatives. This reach is associated with the Hammond Road Crossing Alternative A, Hammond Road Alternative B, Cass Road Crossing, and Beitner Road Crossing alternatives. In this reach there are wetlands on both sides of North Three Mile Road that would be impacted by the proposed widening of this roadway for each of the alternatives (discussed individually below). Inset photograph - top right shows the presence of wetlands east of North Three Mile Road north of Hammond Road. Inset photograph – bottom left shows the presence of wetlands west of North Three Mile Road approximately ½ mile south of South Airport Road

South Airport Road Crossing (with either a boulevard or roundabouts)

Use of either boulevards or roundabouts for this crossing alternative would result in the least amount of encroachment into wetlands and defined watercourses (i.e. streams, creeks, rivers) when compared to the other four alternatives. This crossing alternative extends from US-31, to North Three Mile Road, to South Airport Road, and back to US-1. The most visible area of potential impact to wetlands would be at the intersection of Three Mile Road and South Airport Road (see inset photograph) where there are two stormwater catchment basins on either side of South Airport Road and they are now dominated by hybrid cattails (a non-native emergent wetland plant species). All other areas which would need to be encroached upon for the boulevard or roundabouts would be in upland and would not impact wetlands or defined watercourses.

The majority of this corridor is developed with only a few short reaches where there is natural vegetation or trees remaining other than commercial developments or impervious surfaces. One of the few remaining areas where there are trees is adjacent to the existing right-of-way is west of Townline Road (entrance to the Cherryland Airport) on the north side of road (see

inset photograph). All remaining areas associated with this crossing alternative would be along the adjacent commercially developed right-of-way of South Airport Road.

Adding in boulevards and roundabouts at the various intersections proposed could be done to minimize and likely avoid impacts to wetlands, floodplains, and defined watercourses. Ecologically, this alternative has the least amount of wetland and floodplain impact, would not result in the fragmentation of habitats for wildlife, and would only slightly touch upon two county park parcels.

Hammond Road Crossing – Alternative A (extending west from Hammond Road to Hartman Road)

The Hammond Road Crossing Alternative A proposes a straight-line (east-west) connection between Hammond Road and Hartman Road and a re-alignment of the western end of Hartman Road to the south where it connects to US-31. The inset photograph shows where Hartman Road would be relocated to the south through upland.

This alternative would cross the Boardman River and its associated wetlands and floodplains. The eastern end of Hartman Road is approximately 50 feet above the Boardman River Valley (see inset photograph looking east from top of the valley east of Hartman Road). Based on meetings with the MDEQ in 2018, the use of a bridge structure, preferably a clear span bridge with no abutments in the river channel, will be required for the crossing of the Boardman River The bridge structure may also need to span a large portion of the wetlands and floodplains.

In review of Figure 1 and Table 1, Alternative A proposes a shorter crossing of the Boardman River and results in a lower estimated acreage of wetland impact as compared to Alternative B, the Cass Road Crossing and Beitner Road Crossings. Impacts to wetlands may be less and further reduced than what was preliminarily projected in Table 1 following more detailed field assessments, delineations, and meetings with the regulatory agencies to discuss structure and construction alternatives to further minimize wetland and floodplain impacts. This proposed alignment touches upon eight (8) park parcels with the primary ones being within the Boardman River Valley.

Hammond Road Crossing – Alternative B (extending southwest from Hammond Road and south of Hartman Road)

The Hammond Road Crossing Alternative B proposes a diagonal (northeast-southwest) extension off of Hammond Road which would cross Cass Road approximately a quarter-mile south of Hartman Road.

This alternative will also cross the Boardman River and its associated wetlands and floodplains. Preliminary field assessments showed the presence of an additional tributary (unnamed stream) north of the rail road tracks crossing Cass Road. This additional stream is shown in the inset photograph to the right (view northeast from Cass Road north of the rail road tracks) and inset photograph to the right (view southwest from Cass Road)

In review of Figure 1 and Table 1, Alternative B proposes a longer crossing of the Boardman River and results in a higher estimated acreage of wetland impact as compared to Hammond Road Alternative A and the Cass Road Crossing. This proposed alignment also touches upon the same eight (8) park parcels as Hammond Road Crossing Alternative A.

Cass Road Crossing – Alternative A (extending west from Cass Road bridge to US-31)

The Cass Road Crossing Alternative A makes use of the existing Cass Road Bridge crossing of the Boardman River to reduce additional impacts associated with having to construct an entire new bridge crossing elsewhere across the Boardman River Valley (river, wetlands, and floodplains). Inset photograph right is looking east from railroad grade. Despite using the existing bridge crossing there are additional wetland and floodplain impacts associated with other portions (mainly eastern end) of this alternative which results in more wetland and floodplain impacts as compared to the Hammond Road Alternative A crossing. Inset photograph is looking west towards rail road grade and upgradient wetlands. This proposed alignment touches upon ten (10) park parcels with the primary ones again being within the Boardman River Valley and inclusive of the Grand Traverse Nature Education Reserve.

Beitner Road Crossing

The Beitner Road Crossing alternative proposes a widening and use of existing roadways (West River Road, North Keystone Road, and Beitner Road). This alternative, despite not requiring a new bridge crossing of the Boardman River and its associated wetlands and floodplains, shows a larger potential acreage of wetland impact, a larger number of stream crossings, and the greatest number of park parcels (16) that are touched upon by this alternative inclusive of the Grand Traverse Nature Education Reserve. Inset photograph to the right

shows the presence of additional wetlands and stream crossings (west of Williams Road on Beitner Road). At the Boardman River crossing of Beitner Road there are two heavily used river access areas.

Inset photograph to the right is looking west at both river access areas. Increasing the number of vehicles passing through this corridor coupled with a widening of the roadway and apparent narrowing of the publics park use areas may raise additional public safety issues.

Brief Regulatory Summary

Regardless of the alternative or crossing selected, if there are construction related activities that may impact wetlands, streams, floodplains or other resources of the State than the following may or will be required by the MDEQ. A more extensive summary of regulatory requirements and expectations was provided in GEI's March 2018 technical memorandum.

- Impacts associated with defined streams will require a permit pursuant to Part 301, Inland Lakes and Streams, of the Natural Resources and Environmental Protection Act (NREPA)
- Impacts associated with regulated wetlands will require a permit pursuant to Part 303, Wetland Protection, of NREPA.
- Mitigation will be required for wetland and floodplain impacts, however the determination as to whether a proposed crossing is permittable is made in advance and independent of the type, location and size of the proposed mitigation. Mitigation ratios are 2:1 for forested wetlands, 1.5:1 for scrub-shrub and emergent wetland impacts. Currently there are no MDEQ approved wetland banks within the Boardman River watershed.
- Any construction and earth disturbance activities having greater than 1.0 acre of land disturbance will require a NPDES permit and a permit pursuant to Part 91, Soil Erosion and Sedimentation Control, of NREPA
- A threatened and endangered species habitat and species assessment to address any potential state- or federally-listed species or habitats that may be within the geographic area of the project.
- Coordination required with USEPA, pursuant to the MDEQ and USEPA November 9, 2011, Memorandum of Agreement, with respect to assuming authority for Section 404 and 401 of the Clean Water Act.
- Assessment of Farmlands pursuant to Part 116 of NREPA
- Phase 1 Environmental Site Assessments
- Assessment of cultural and historic resources. MDEQ records typically identify these however coordination and review with SHPO is more definitive.

Table 1 (excerpt of larger table, courtesy of OHM)

	Impact on Historic Resources	Parkland Impacts	Hydrologic Impacts					ROW Impacts
	Number of properties impacted	Total Number of Park Parcels touching Solution	Crossing of Boardman River	Other Stream Crossings	Area of wetland within buffer	Area of floodplain within buffer	Total wetlands and floodplain in buffer	Net Additional acres outside of ROW needed to construct solution
Data Source	*NRHP*	*Local Agencies*	*Local*	*Local*	*FEMA Flood Maps, US Fish & Wildlife Service*			*Design Concept*
Assumptions	*300 Foot Buffer*	*Total Number*	New/ Modified/ Unchanged	Total	*300 Foot Buffer*			*5 Lane Cross-section with 12 ft lanes = 120 Feet total ROW*
S. Airport Road Crossing - Boulevard/ Roundabouts	0	2	Unchanged	1	10.17	30.31	40.48	-54.9 / -58.0
S. Airport Road Crossing - Roundabouts	0	2	Unchanged	1	10.17	30.31	40.48	-58.0
Hammond Road Crossing - A	0	8	New	7	49.92	27.75	77.67	-27.7
Hammond Road Crossing - B	0	8	New	8	69.47	26.99	96.46	-32.0
Cass Road Crossing - A	0	10	Modified	7	57.03	33.31	90.35	-47.7
Cass Road Crossing - B	0	11	Modified	7	48.10	26.52	74.62	-41.8
Cass Road Crossing - C	0	11	Modified	9	52.42	26.52	78.94	-32.9
Beitner Road Crossing	0	16	Modified	10	83.49	8.90	92.39	-66.7

Appendix I: Agency Coordination

From: Lippert JR., Robert J. (MDOT) <LippertR@michigan.gov>
Sent: Friday, April 5, 2019 10:54 AM
To: Matt Wendling <Matt.Wendling@ohm-advisors.com>
Cc: Johnson, Al (MDOT) <JohnsonA30@michigan.gov>; Hoeffner, Tim (MDOT) <HOEFFNERT@michigan.gov>
Subject: MDOT railroad corridor along the west side of the Boardman River in Traverse City

Good morning Matt,

Regarding the MDOT owned railroad corridor that runs along the west side of the Boardman River in Traverse City (see attached) we recently discussed.

Currently the corridor is an economically viable railroad shipping route for a scrap facility. And there is the potential of another shipper using the corridor. Therefore at this time MDOT will continue to own this railroad corridor.

Should the corridor ever become un-economical to keep, (no active and no potential shippers), the Department may entertain a property sale to the County.

If you need additional information, please do not hesitate to contact me – Rob

Rob Lippert, Manager
Railroad Infrastructure Section
Office of Rail
Michigan Department of Transportation
Van Wagoner Building
425 W Ottawa Street / PO Box 30050
Lansing, MI 48909

Office: 517-373-7709
Cell: 517-230-4839
lippertr@michigan.gov

APPENDIX I: AGENCY COORDINATION

East West Corridor Transportation Study
Resource Agency Meeting

Monday, January 14, 2019
3:00 – 4:00 p.m.
Location: Traverse Area District Library
610 Woodmere Ave, Traverse City, MI

Meeting Notes

Consultant Team Present: Matt Wendling, Eric Dryer, Stu Kogge

Resource Agency Staff Present: Patti O'Donnell (MDOT), Luke Golden (DEQ), Wayne Schoonover (GTCRC)

Federal agencies were not present due to the ongoing government shutdown.

- Patti asked if alternatives have changed since the LAG meeting. They have not, but they will be combined into practical alternative this week.
- Matt Wendling summarized the project so far for those that had not been involved up to now. A focus is more on traffic operations and efficiency than on providing a bypass around town.
- The purpose of this meeting is to discuss and ID natural constraints and other red flags that could impede implementation of an alternative.
- Patti O'Donnell mentioned that the cost for a Hammond Bridge is the same as it was 25 years ago, even though technology has improved.
- Floodplains were missing from the constraints map and need to be added. A soil condition layer could also be added.
- There is a stream and wetlands at 3 Mile Rd and S Airport Rd. The least amount of impact looks like 4 Mile Rd and Potter/Hoch Rd as a bypass.
- We now know that over 80% of trips are coming into Traverse City, not around it.
- Large trucks are already bypassing the City if they are not coming in.
- The economic development aspect of the project is important to the community. Likely need to avoid the 'bypass' language.
- A question was asked if the goal of the project was to relieve congestion or improve operations on S Airport Rd. Both are goals as S Airport is such an important thoroughfare to the region. GTCRC is looking to add/increase adaptive signals, upgrade technology, and signal timing as well to improve operations.
- There is a significant amount of traffic at Hammond Rd and 4 Mile Rd, so an intersection improvement is needed. Development on Hartman Rd, from Cass to US-31, and time since previous study makes previous EIS non-amendable for a bridge over the Boardman River. A new EA or EIS would be needed if that alternative is recommended. There is the possibility to remove Cass Rd bridge of Hammond Rd bridge is built.
- Significant ROW would be needed for Hammond Rd curves at 3 Mile and 4 Mile Rds. Roundabouts would work better here.

- Patti O'Donnell mentioned that new projects cannot impact the floodplain at all anymore. This is a new FHWA requirement for brand new construction. They do not want piers or embankment in the floodplain. Old bridges are grandfathered in.
- Improvements to Rennie School Rd and Hoch Rd would be needed if Alternative 6 is used. This should be shown on the alternatives maps.
- LaFranier Rd at Hammond Rd should have a roundabout. Significant traffic here.
- There are railroad and land constraints at 3 Mile Rd and Parsons Rd.
- Railroad alignment (Alternative 9) has sticky ownership and leasing issues which might make it hard to take control of. A recycling company it utilizing the railroad at Cass Rd.