



06

Recommendations

06

The culmination of the long-range planning process lies in the meticulous curation of projects and policies. This decision draws upon insights from preceding chapters, public participation, consultations with stakeholders, and thorough scenario analyses. These elements collectively lead to the subsequent recommendations that will keep Michiana on the move.

MACOG has synthesized the requirements of the transportation system and formulated a series of recommendations, each supported by corresponding actions, for every mode of transportation. Most of the recommendations focus on utilizing and optimizing what we already have. The ideas are based on studying trends in the transportation network right now, past and into the future.

The exploration of these recommendations are structured according to the topics and modes presented below. The recommendations are organized as follows:

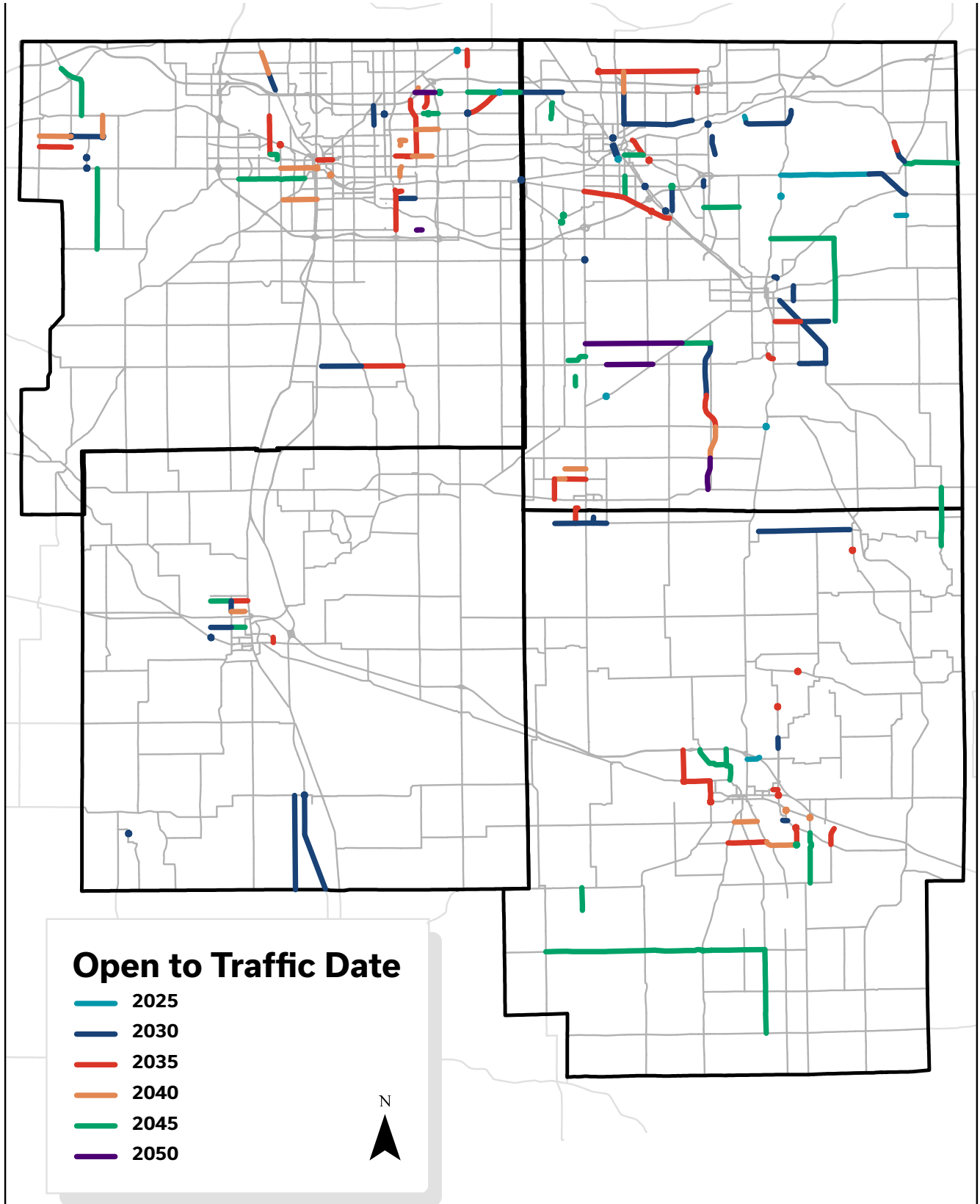
- Roadways
- Active Transportation
- Public Transit
- Freight
- Electric Vehicles
- Connected and Autonomous Vehicles

Roadways

The 2050 Transportation Plan recommends a program of projects and strategies intended to reduce existing and projected congestion, support increased mode choice, and address deficiencies within the network. The fiscally reasonable roadway recommendations will improve the existing and future network by upgrading or adding new roadways. A map of the roadway transportation project is shown below and a full listing of the projects can be found in Appendix A. Implementing these recommendations will help the region achieve the goals, objectives, and performance targets discussed in previous chapters. However, future deficiencies cannot always be precisely or accurately modeled or predicted. Therefore, the 2050 Transportation Plan is a dynamic document, one that will undergo future updates to reflect changing conditions and needs. This is why MACOG continually monitors the transportation network and works to implement short-term improvements.

Additionally, MACOG is committed to prioritizing safety in order to reduce the risk of death and serious injury that result from incidents on transportation systems in our region. MACOG was selected for a Safe Streets for All grant. MACOG is soliciting proposals from qualified consultants to provide professional planning services for the preparation of the Regional Safety Action Plan. This plan will assist MACOG and local governments in planning and programming to foster and build a safe transportation system for all users of all modes with the ultimate goal of reducing crash related fatalities and serious injuries. Recommendations should be structured around the Safe Systems Approach, which provides the framework to help agencies get to zero fatalities by addressing safer roads, safer road users, safer speeds, safer vehicles, post-crash care, equity, and culture.

Figure 6-1: Roadway Projects



Active Transportation

Our transportation network is more than just roads for vehicles. It also incorporates sidewalks, bike lanes, trails and other facilities for pedestrians, bicyclists, and transit users. Active transportation is human-powered transportation that engages people in healthy physical activity while they travel from place to place. People walking, bicycling, pushing strollers, using wheelchairs and other mobility devices, skateboarding, and rollerblading are all forms of active transportation. Everyone is a pedestrian in each trip they take, whether that means walking from the transit stop to work or walking across the parking lot.

The MACOG region boasts more than 800 miles of trails, bike lanes, and bicycle routes. MACOG continues to foster a region-wide commitment to accessible and efficient active transportation. In 2016, the Active Transportation Plan was adopted into the Michiana on the Move: 2040 Transportation Plan. This plan identified needs and resources to improve and increase walking and bicycling in the region and serves as a comprehensive strategy to ensure that all users of the transportation network are able to move around in a safe, connected, and accessible environment.

In 2019, MACOG adopted a Regional Complete Streets Policy to guide projects receiving funds allocated for transportation projects in the South Bend and Elkhart-Goshen Urbanized Area.

A map of the active transportation projects is shown below and the full project listing for the Active Transportation Plan can be found in Appendix B.

Active Transportation Plan Policy Objectives

Make improvements to better connect residents and visitors to each of the major communities and destinations within and surrounding the region

Improve connectivity between bicycling, walking, public transit and other modes of transportation.

Integrate transportation and land use policies to encourage sustainable growth that encourages walking, bicycling, and transit.

Form, maintain, and grow public and private partnerships to encourage development and connectivity of active transportation facilities.

Create an active transportation network and programs that will make the Michiana region known as a walk- and bike-friendly destination.

Work with partners to ensure that outreach efforts have a consistent message to educate community members on safe and courteous walking, bicycling, and driving habits for children and adults.

Utilize national best practice guides in network planning, infrastructure design, project management, and maintenance procedure to ensure that facilities provide an accessible transportation network.

Work with partners to build awareness about the personal and community benefits and advantages of using active transportation with public transit, especially for everyday trips

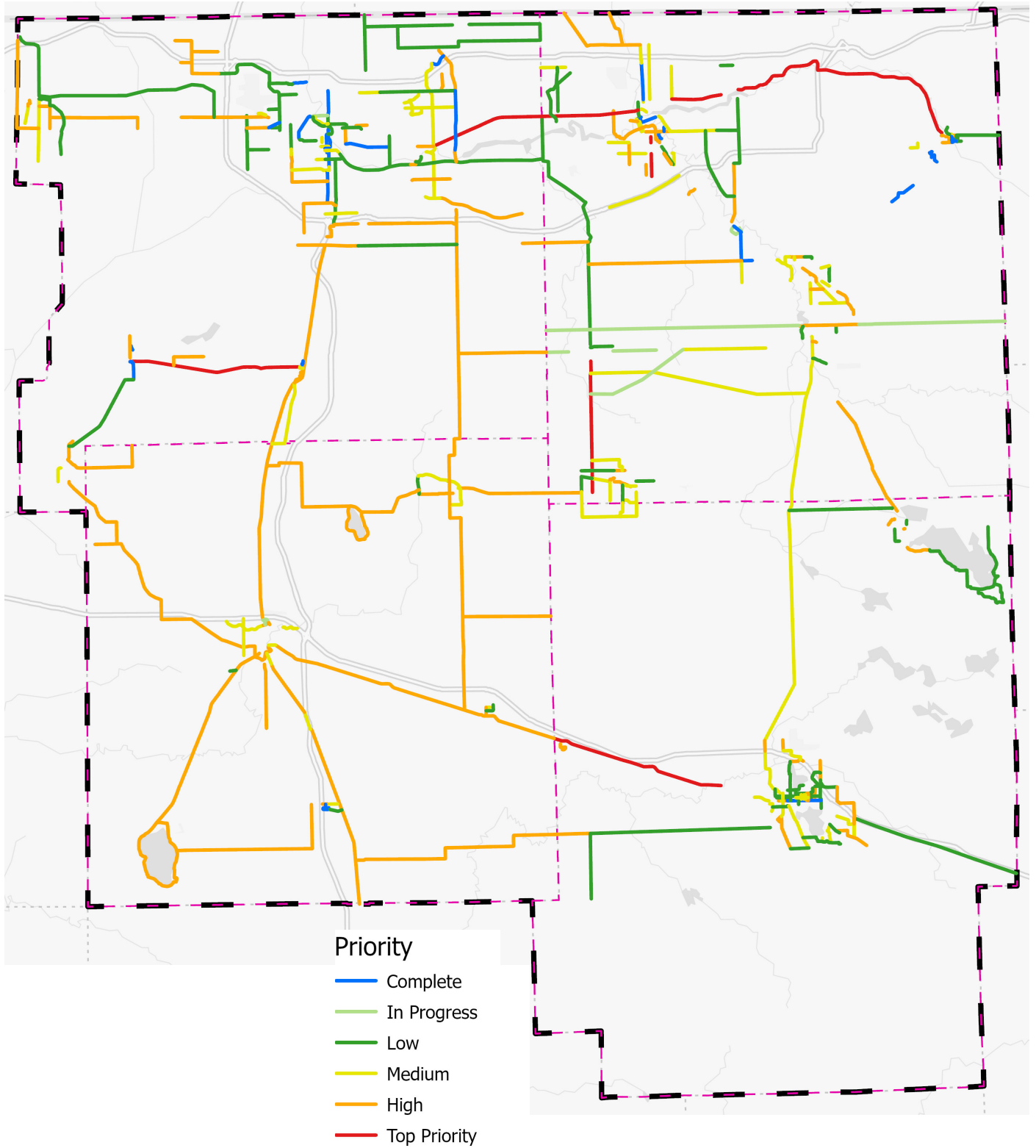
Promote the accessibility and availability of destinations using active transportation, particularly in areas with a higher demand for walking, bicycling, and public transit.

Provide training and best practice information to law enforcement and public officials to enforce and enact pedestrian and bicycling friendly laws and policies throughout the region.

Promote the proper use and installation of safety equipment, such as lights, helmets, and reflective clothing.

Organize and support programs and events that promote safe active transportation year-round.

Figure 6-2: Active Transportation Projects



Public Transit

MACOG in partnership with Transpo created the Connect Transit Plan. It outlines a vision and blueprint for enhancing public transit in the Region. This multi-year study started in Summer 2021, and was adopted by the Transpo Board of Director plus the MACOG Policy Board in Spring 2023. This plan identifies a short-term network that is cost-neutral, except for the implementation of two new bus routes in Goshen that have already been fully funded. The Additional Funding Network presents an aspirational network for what public transit could be with an 80-85% increase in funding.



Hospital and Goshen College. Route 50 also has a new deviation to serve the new County Courthouse location and to save time for this deviation, Route 50 only serves the south side of Concord Mall.

Short Term Network Changes

The Short Term Network recommends changes that would slightly shift the priorities of transit investment toward goals that support higher ridership and better access for most people, within the current transit budget. The outcomes of the proposed changes would improve service for many, but also have trade-offs. A few key differences from today's network include:

Elkhart-Goshen

- All routes are numbered. With the addition of two new routes, color-coded route naming does not work well.
- Routes 32 and 33 each have small routing tweaks to connect shopping centers and other destinations more efficiently.
- Route 35 (Orange Line) no longer serves Concord Mall since activity in that area is much lower as the mall is mostly closed. With the time savings from not serving the mall, Route 35 now serves more of the industrial areas along Middlebury Street, Toledo Road, Eastland Drive, and County Road 17.
- In Goshen, new Route 52 serves West and North Goshen, reaching Roxbury Park, Arbor Ridge Apartments, and the Chamberlain Neighborhood.
- New Route 53 serves parts of South Goshen including Historic Southside, Reith Park, Greencroft, all the way to Winchester Trails.
- With the new Route 53, Route 50 (Red Line) is shifted to Main Street to directly serve Goshen

South Bend-Mishawaka

- Route 1 is slightly simplified to operate via Colfax, Jacobs, to McKinley. It is also extended to Southwood and Reverewood, to take over the eastern part of existing Route 11.
- New Route 2 serves the Orange and Washington corridors, the Excel Center, and the Far Northwest, but only hourly.
- With no new funding, the addition of Route 2 means that Route 3 is now entirely hourly. It remains mostly on Portage.
- With the addition of Route 2, Route 4 is now simplified and remains on Lincolnway, instead of deviating to serve College, Orange, and Olive Streets.
- Route 5 would operate the same limited schedule. It is straightened to stay on Michigan Street instead of deviating to Iroquois. The loop at the north end has been extended to serve Clay High School.
- Routes 6 and 8 are revised in how they serve the Michigan, Fellows, and Miami corridors. Route 6 now serves Irish Hills Apartments, and continues to run every half hour, while Route 8 is reduced to every hour. Route 8 is extended farther south to Jackson Road, where Route 6 runs today.
- Route 7 is extended to serve Walmart and other big box stores, St. Joseph Regional Medical Center and along Main Street to connect to Mishawaka Transit Center. Its path through Notre Dame has also been adjusted to be simpler and faster. With this revision Route 15A is no longer needed and does not exist anymore. This also provides a doubling of

- frequency on Main Street in Mishawaka.
- Route 9 is replaced by Route 30, which provides a one-seat ride between Downtown South Bend and Downtown Elkhart, with faster travel times of under one hour. Route 30 also remains on Mishawaka Avenue from Logan to Main before turning south to Downtown Mishawaka.
- Route 10 would run similar to today, except be extended further west to the Martin's Grocery store on Mayflower.
- Route 11 would be mostly similar to today except that the eastern portion serving Southwood Manor and Reverewood would now be part of Route 1 and be served once per hour.
- Route 12 has been adjusted to run two-way along Main then run one-way on Indiana, Olive, Ewing, Kemble, Calvert.
- Route 13 has been extended to Main Street to make a direct connection to Route 15. It has also been adjusted near downtown
- Route 15 would replace Route 15B and be changed to travel in both directions on Grape Road from University Mall to McKinley, before following follows Logan to Lincolnway to Downtown Mishawaka, with Route 7 replacing route 15A now providing a 30 minute connection along Main Street between Mishawaka Transit Center, the St. Joseph Regional Medical Center, and University Park Mall
- Route 16 has been revised to operate via Portage from Downtown to Bendix and Cleveland, since Route 2 now provides all-day, two-way service to the industrial areas north of the airport. Route 16 has been extended north along Dylan Drive to serve new destinations like FedEx, Amazon and the LOGAN Distribution Center.

Transpo and MACOG staff will develop revised schedules, booklet maps, system maps, and other materials as well as conduct the necessary internal changes necessary to implement the route changes in the Short-Term Network. Some changes may be made very soon, while others may take many months before they can be implemented. For example, new service in Goshen will require new vehicles, which will take a number of months to procure from a manufacturer.

Additional Funding Network

The Additional Funding Network presents transformative changes that would substantially grow ridership through new investment in transit. The outcomes of which would more greatly effect residents and businesses access to transit and to jobs across the region.

Elkhart-Goshen

- Improved 30-minute frequency of service on two corridors in Elkhart: Cassopolis with a simplified Route 33 and to the southwest with a new Route 36 serving South 6th Street and Oakland Avenue.
- A new hourly Route 34 serving Osolo Road, the Industrial Park along CR 6, ending near CR 17 at the under construction Amazon Facility.
- Every 30-minute service on the new Route 52 in West Goshen and the new Route 53 in southern Goshen, Rieth Park, and Greencroft.
- Route 50 (Red Line) is extended farther south to provide 30-minute service to Winchester Trails.
- A revised, simpler service to North Main Street and Arbor Ridge Apartments with hourly service on Route 51A.
- A new hourly service through the Chamberlain neighborhood and East Goshen on Route 51B.
- With better service in southwest Elkhart, the looping pattern for Route 35 (Orange Line) is reversed to travel clockwise, simplifying and speeding service.

South Bend-Mishawaka:

- Frequent (15-minute service) on Western Avenue (Route 10), Mishawaka (Route 30), Portage (Route 3), Michigan (Route 6) and part of South Bend Avenue (Route 7).
- Revised Route 7 with frequent service between Downtown South Bend and Notre Dame.
- Route 7 maintains its 30-minute service between Notre Dame, University Park Mall, St. Joseph Medical Center and Downtown Mishawaka.
- Route 8 improves to every 30 minutes on Fellows to Donmoyer where it shifts into two hourly services to Walmart and Erskine Village.
- Route 13 now has a bi-directional loop.
- Routes 1, 2, 12, and 14 are improved to every

30 minutes and Route 18 is added, providing direct service to the Pokagon Community, Four Winds Casino, and adjacent areas.

- Routes 5 and 16 are improved to all-day services with hourly service.

To see some or all of the Additional Funding Network recommendations, local partners, like cities, counties, businesses, institutions or others would need to come to the table with additional funding to support improved services. These local dollars can be extended with some federal grant funding for certain kinds of improvements, but long-term, it is essential to have local sources of funding to ensure that expanded services can be operated

Fixed route transit service is not the only tool to support access to jobs and opportunity for those without cars or those who cannot drive. Vanpool and carpool programs are a commonly used approach to help connect people to major employment centers. In South Bend, Mishawaka, Elkhart, and Goshen there are many industrial parks and large areas of manufacturing, logistics, and warehousing operations, particularly on the periphery of the urban areas. Newer facilities are being built regularly, and those on the edge of the developed areas are particularly hard to serve with fixed route transit. MACOG is working to implement a regional vanpool.

The Connect Transit Plan can be read in full at www.connecttransitplan.com.

Figure 6-3: Elkhart-Goshen Additional Funding Transit Network

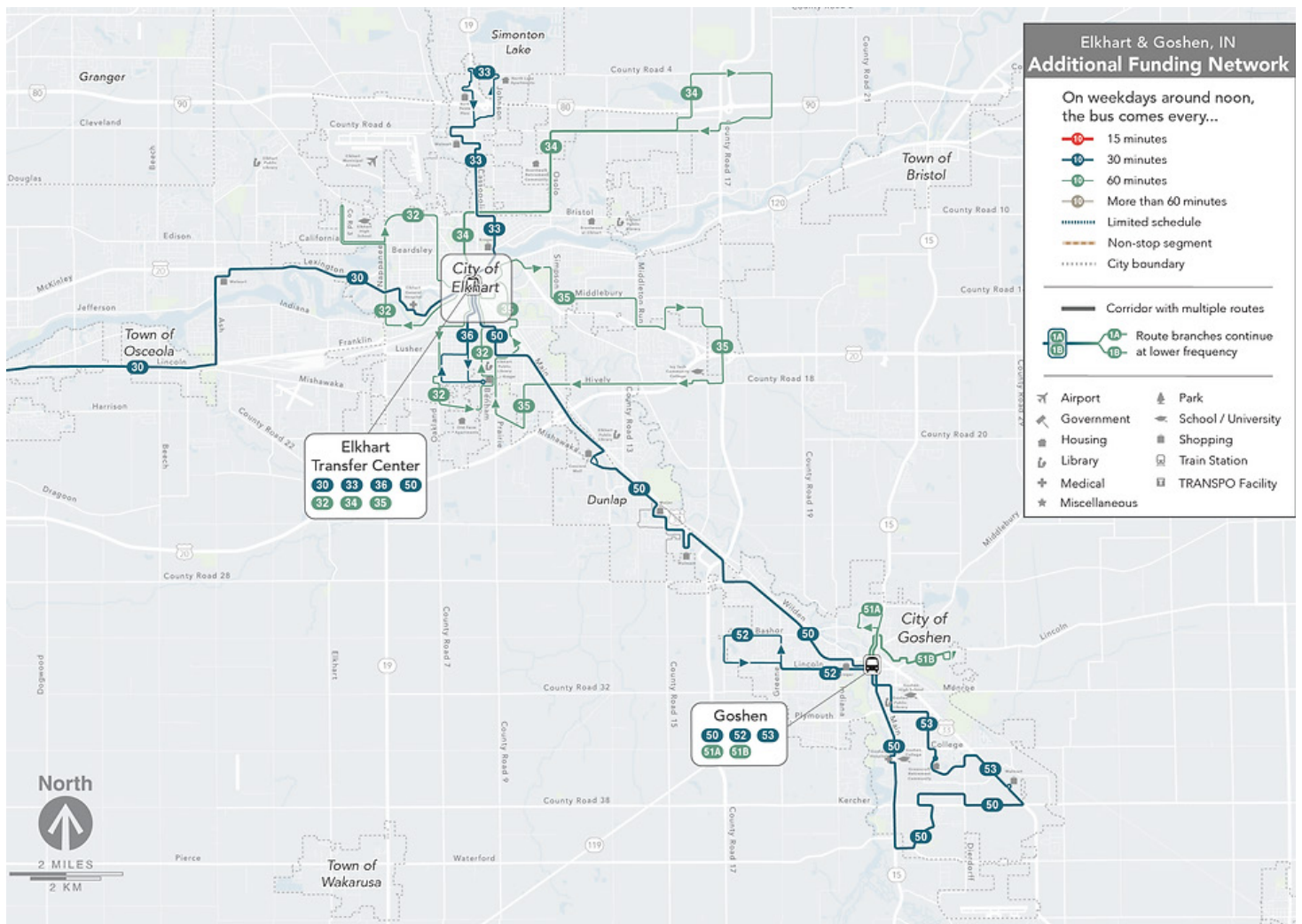
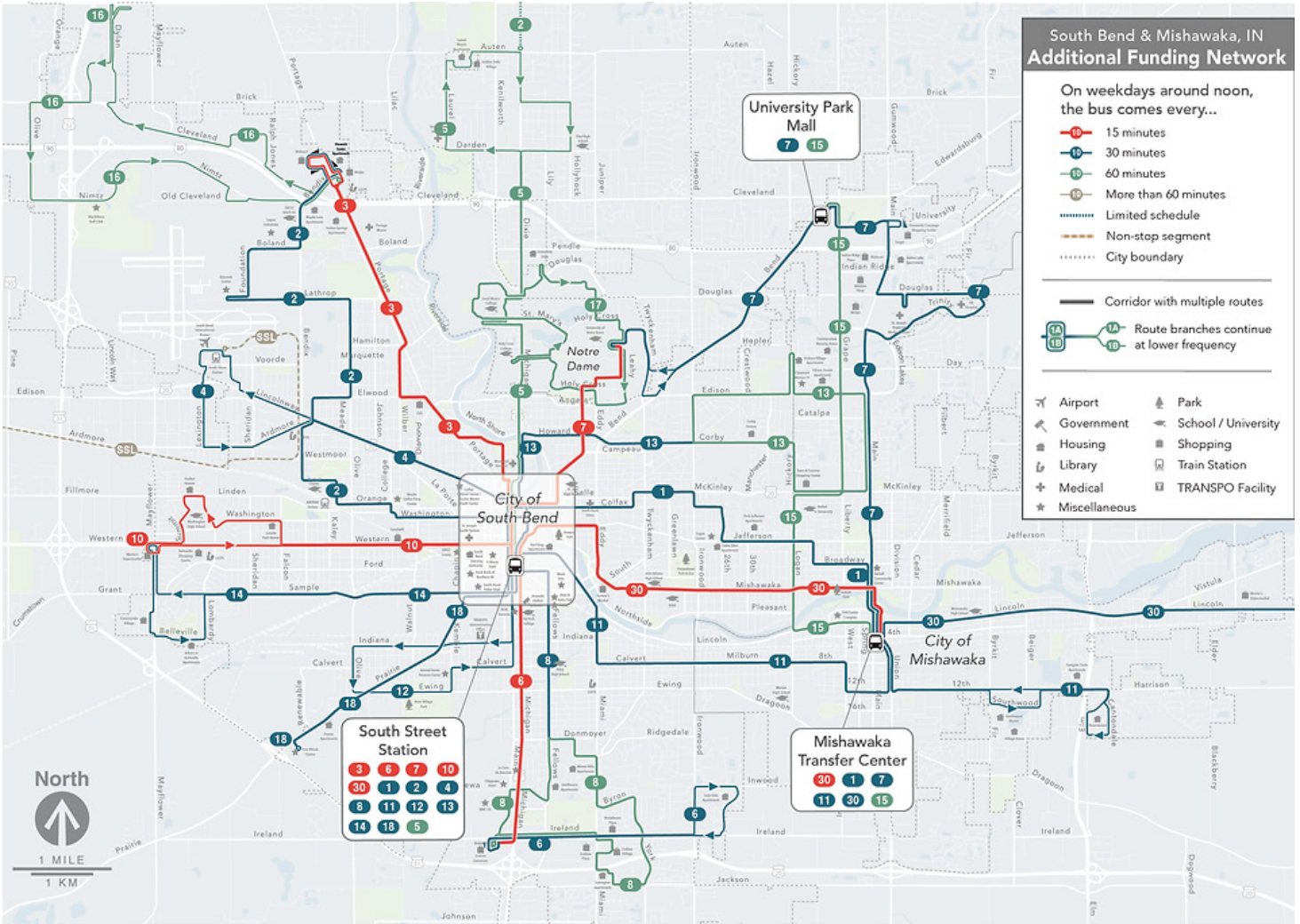


Figure 6-4: South Bend Additional Funding Transit Network



Freight

The region is a manufacturing powerhouse, with one in three jobs in the region related to manufacturing, generating \$15.8 billion in regional Gross Regional Product annually. The movement of freight is crucial to the regional economy, as it involves the transportation of raw materials, intermediate goods, and finished products. Efficient and reliable freight movement is necessary for manufacturers to receive inputs and distribute products to customers and markets both domestically and internationally.

Inefficient or delayed freight movement can lead to disruptions in the supply chain, resulting in increased costs, reduced productivity, and potential losses in revenue. Therefore, an efficient and reliable freight system is critical to attracting and retaining businesses, providing them with a competitive advantage, enabling them to operate more efficiently and at a lower cost than their competitors in other regions.

In the 2023 Indiana Multimodal Freight and Mobility Plan it discusses that trucks dominate the freight movements in Indiana. In 2022, 590 million tons and \$680 billion of freight are estimated to move through Indiana's transportation system. Trucks carry 80% of all freight tonnages and 95% of all freight values to, from, within and through Indiana. Rail is the second largest mode to carry commodities in the state, by accounting for 15% of total tonnages and 3% of total values in 2022. Water carries 5% of total tonnages and 0.4% of total values. Air has an almost negligible effect on the overall state tonnages, however, it represents 1.2% of overall value. This is because air

Figure 6-5: Average Daily Long-Haul Traffic on the NHS: 2015

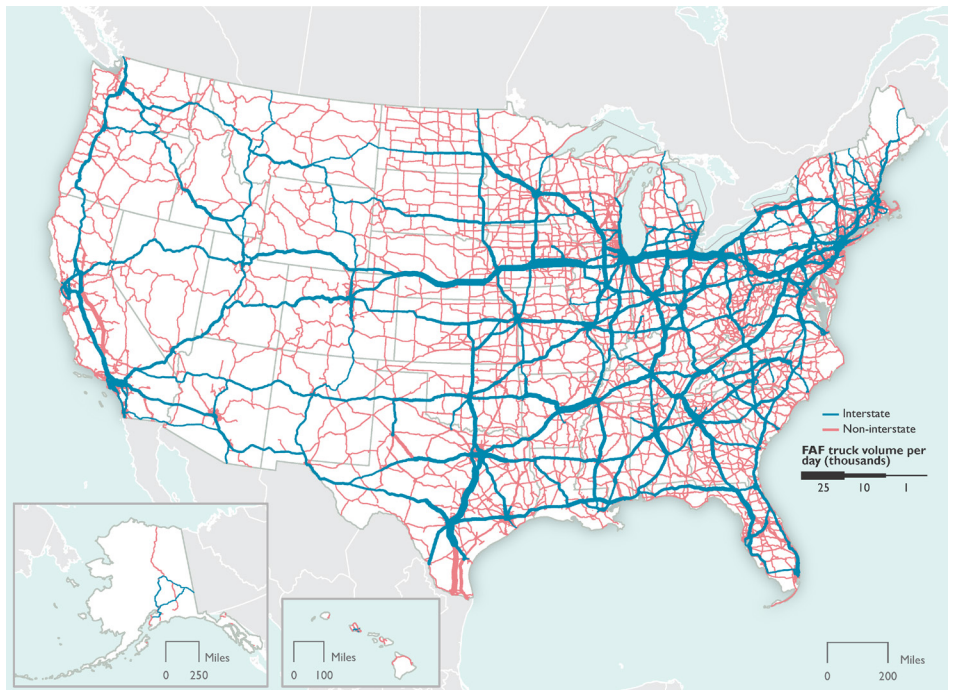
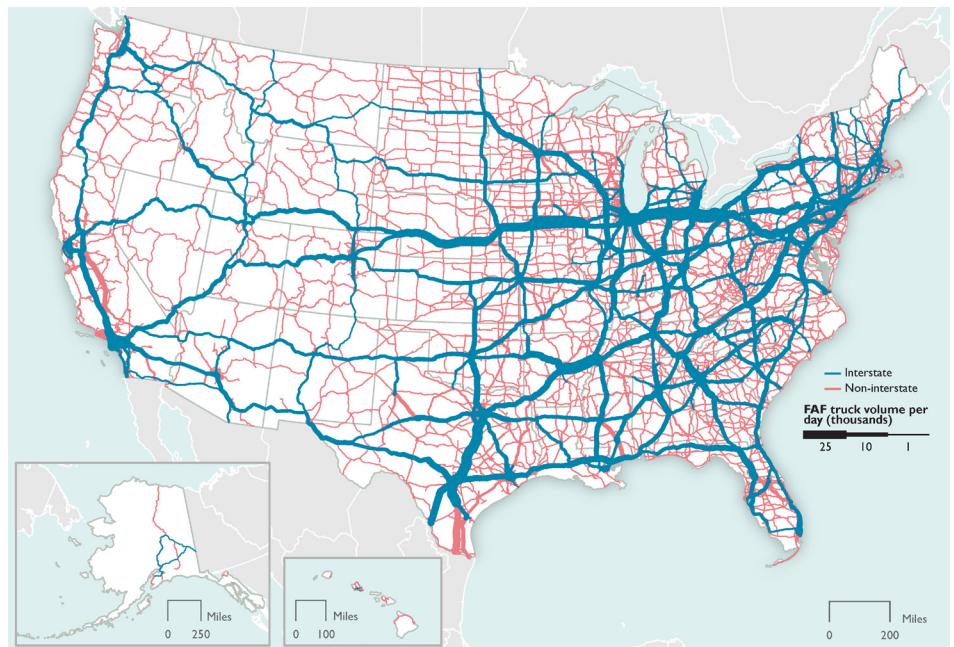


Figure 6-5: Average Daily Long-Haul Traffic on the NHS: 2045



cargo is typically comprised of higher unit cost goods.

By 2045, Indiana's freight commodities are estimated to grow to 760 million tons and \$1.09 trillion, with an increase of 28% and 61% respectively. While the mode share is expected to remain similar through 2045, trucks will have an even larger share according to forecasts, by carrying 86% of total tonnages and 96% of total values. Remaining the second largest mode by 2045, rail has a decreased share of commodity shipment by tonnage (10%) and the same share of total commodity value (3%). Goods carried by water and air continue being a small share of total freight in Indiana through 2045,

Long-haul freight truck traffic in the United States is concentrated on major routes connecting population centers, ports, border crossings, and other major hubs of activity. By 2045, long-haul freight truck traffic in the United States is expected to increase dramatically on Interstate highways and other arterials throughout the nation. Additionally, congested highways carrying a large number of trucks substantially impede interstate commerce, and trucks on those segments contribute significantly to congestion, see Figures 6-5, 6-6, 6-7 & 6-8. The increased freight traffic and increased congestion will impact the regional transportation network, especially I-80/90, US 31, US 30 and US 20. Understanding these forecasts and how to address them is critical to the efficiency movement of goods. MACOG is working to finalize a regional Freight Mobility Study by 2024. Any new recommendations from this plan that are endorsed and approved will be amended into this plan.

Figure 6-6: Peak Congestion on High Volume Truck Portions of NHS: 2015

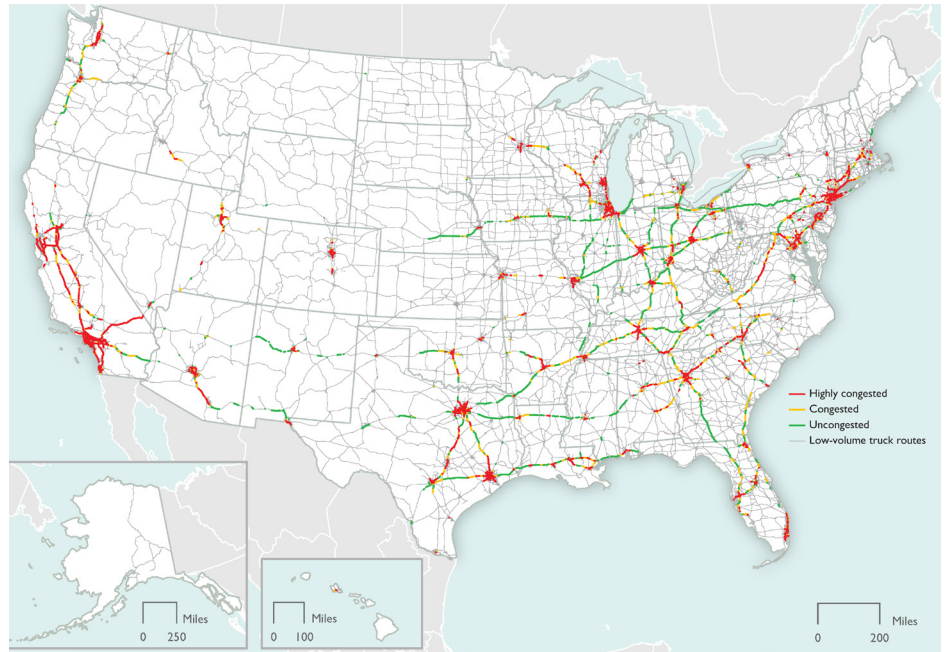
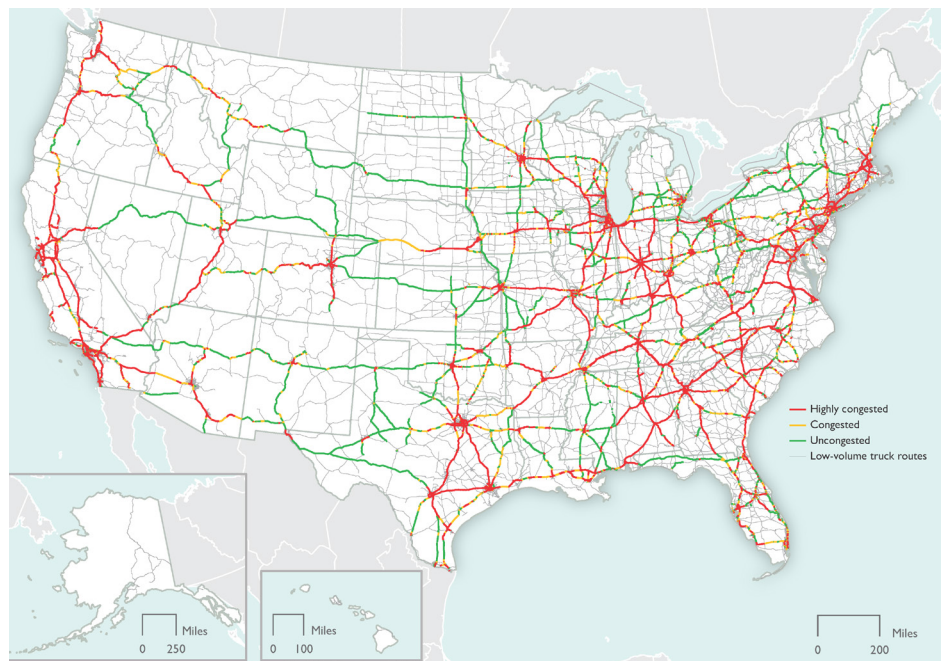


Figure 6-7: Peak Congestion on High Volume Truck Portions of NHS: 2045



Connected and Autonomous Vehicles

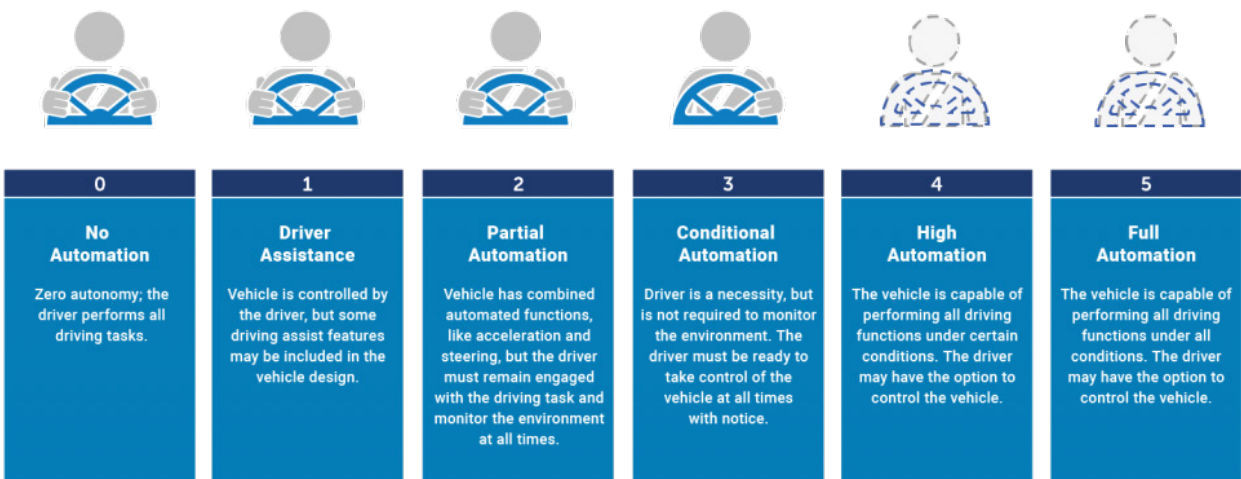
With the adoption and utilization of new technologies, our transportation system is expected to experience significant change in the coming decade. Most significant of these technologies includes Connected and Autonomous Vehicles (CAVs), increased adoption of electric vehicles (EVs), and ridesharing and other Mobility as a Service (MaaS) models such as Lyft, Uber, as well as scooters and bike sharing. The continuing development of these technologies and services will play a considerable role in the future of mobility for people and freight, and as such should be considered in on-going planning efforts in the region.

The U.S Department of Transportation defines vehicle automation as vehicles that have some control functions that are safety-critical, such as steering, throttle, and breaking. There are six levels of vehicle automation that are depicted below. Connected vehicles refer to those that can

communicate with other vehicles or devices along the roadway, while autonomous vehicles are those that can maneuver without driver assistance.

The availability and prevalence of CAVs may require changes to transportation law, policies, current infrastructure design, and access management. While traffic may flow more efficiently with the presence of CAVs, the change in Vehicle Miles Traveled (VMT) could either increase or decrease due to a variety of factors such as mode shifts, impacts on development and commuting patterns, as well as accessibility to non-drivers.

RSG coordinated with Michiana Council of Governments (MACOG) staff to refine three Mobility as a Service (MaaS) and Connected/Autonomous Vehicle (CAV) scenarios to be evaluated for the Long Range Transportation Plan (LRTP). The scenarios represented best and worst case CAV scenarios in 2045 and a MaaS/shared-CAV scenario for an interim year, 2035. The report can be read in full at www.macog.com/docs/transportation/tp/2045_TransportationPlan_Apl.pdf.



Electric Vehicles

The United States automotive industry is going through a transformation and more manufacturers are adding electric vehicles to their lineups. Many automakers have detailed plans to electrify large portions of their lineups over the next decade. MACOG wants to ensure that our region is prepared for this transition.

In the realm of planning and technical assistance, our primary goal is to enhance the accessibility and utilization of electric vehicle (EV) charging infrastructure in the MACOG region. This begins with a comprehensive evaluation of the charging landscape. Through this evaluation, we aim to identify gaps in the network of EV charging stations and other alternative fuel options. This understanding will guide us in prioritizing projects that address these gaps, ensuring that our residents, businesses, and organizations have a broader range of choices when it comes to transportation modes and fuel types. Additionally, we are committed to supporting local governments in providing a basic level of access to public electric vehicle charging to provide residents, businesses, and other organizations with greater choice in their transportation mode and fuel type.

When it comes to Level 2 Destination Charging, MACOG's focus is on addressing charging deserts especially in rural areas and small towns within MACOG. These areas often lack publicly available charging infrastructure are in areas with indicators of potential disadvantage or a high proportion of renters or multi-family residents who may not be able to charge where they live. By concentrating our efforts on these underserved areas, we can work with partners and local governments to strategically deploy Level 2 charging, bridging the accessibility gap and supporting the transition to electric vehicles.

When it comes to Level 3 / DCFC (Direct Current Fast Charging), we are closely monitoring planned public and private investments in DCFC charging infrastructure. This includes initiatives like the Volkswagen program, NEVI Plan, Electrify America network, and Tesla Supercharger network. Additionally, we will continue to advocate for the designation of US-30 as an Alternative Fuel Corridor (AFC) for EV charging. Finally, we recognize the importance of integrating Heavy-Duty Zero Emission Vehicle (ZEV) infrastructure considerations into future Freight Plans.

Through these multifaceted efforts, we are committed to advancing the accessibility, viability, and sustainability of cleaner transportation options in the MACOG region, benefiting our community and the environment.



