Develop Recommended Transportation Strategies Report (Task 5.1)

THE GRAND VISION™

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1.0 Introduction

1.1 Purpose

The overarching purpose of the Grand Vision study was to develop a fifty year vision for coordinated growth in the Grand Traverse region that was widely supported by a broad cross-section of the community. From this comprehensive statement, several more specific purposes can be identified.

The purpose of the Grand Vision was to coordinate transportation and land use planning efforts. Rather than a separate planning process for land use and transportation, the Grand Vision was designed to consider the connection between the two systems during a single planning process. Public involvement opportunities asked for input on land use growth patterns and transportation systems and options. The Grand Vision expanded beyond those two planning systems and made connections to economic development, housing choices, energy consumption, and the preservation of agriculture and water resources.

The purpose of the Grand Vision was to offer a citizen-led planning process. Rather than having a group of professionals create a plan and then introduce it to the public, the Grand Vision got the public involved at the beginning. It was the citizens who made the decision about how the region should grow based on community values, personal preferences and technical data provided during the input activities. Central to this approach is the belief that people are capable of making good choices about their future when they have information upon which to base their decisions.

The purpose of the Grand Vision was to create a regional vision for the future that was widely supported. The public outreach and public involvement opportunities were the primary focus of the project as the regional vision was developed. Workshops were held around the region to provide access to residents in each of the six counties. A project website was developed to make current project information available through the internet. The Vision Decision polling process was coordinated with the public school systems to connect with tomorrow's decision makers and their parents. The Grand Vision offered the opportunity for people from all walks to life as well as a variety of interest groups to work cooperatively to create a regional vision.

The purpose of the Grand Vision is to shift from planning to implementation and move the community agenda forward. With a broad base of support for a common vision, the region can make implementation decision with a common measuring stick. It is a starting point for conversation among citizens and the decision makers who represent them in the public process. The broad base of support offers many practical implementation opportunities. A broad base of support can bridge municipal boundaries to implement complementary land use policies. A broad base of support can invest time and resources to move in a common direction. A broad base of support can elect candidates who take action toward the community vision. A broad base of support can be leveraged to earn financial support from public and private funding sources.

The Grand Vision, however, was not a single planning study with a beginning and end point. Now the regional vision has been defined and implementation work groups have started to take action. Over time, the fifty year vision will continue to provide direction to local decision makers regarding long-term community goals. As the Grand Vision takes on a life of its own, its purpose becomes one of economic prosperity, social equity, and resource conservation. Jim MacInnes, CEO and President of Crystal Mountain Resort offered this Op-Ed in the Traverse City Record Eagle:

> The people of northwest Michigan have developed a vision and it's built upon a common understanding that it makes sense to grow in a way that protects what makes this place so special. It's a vision we created together around a powerful set of principles: we need to grow economic activity and housing in our existing cities and villages, and connect these towns with an integrated transportation system that expands public transit, walking, and biking. And we need to push this vision forward with special consideration to use energy wisely, protect natural resources, and grow our farm economy.[1]

Marsha Smith, *Executive Director of Rotary Charities of Traverse City volunteer Chair of the Grand Vision CORE Committee,* offers this observation about the future purpose of the Grand Vision in a recent column in the Glen Arbor Sun:

> The Grand Vision provides a framework for dialogue between citizens and government officials: private and public sector community leaders concerning future growth and transportation investments. It will be implemented by all of us — the citizens, business owners, planning commissioners and students that live and work here. It will take a lot of time, will happen in numerous township and village halls, corporate board rooms and community group events.[2]

1.2 Study area

The study area for the Grand Vision was initially defined by the TC-TALUS transportation boundary and was then expanded to a six-county region. TC-TALUS is an acronym for Traverse City Transportation and Land Use Study. Its creation and history is presented in more detail in **Section 1.3**.

The geographic boundaries of TC-TALUS include the City of Traverse City and the nine surrounding townships. Specifically, these townships are Acme Township, Blair Township, Green Lake Township, Whitewater Township, Peninsula Township, Garfield Township, East Bay Township, Long Lake Township, and Elmwood Township. The TC-TALUS boundary falls within Grand Traverse County except for Elmwood Township that is located in Leelanau County. When the study area was limited initially to the TC-TALUS boundary, the term “area of influence” was also used in the project scope. The area of influence was defined as Grand Traverse County, Leelanau County, Benzie County, Wexford County, Kalkaska County, and Antrim County. These six counties became the project study area. Because the

[1] *Forum: Making the Grand Vision a reality.* Jim MacInnes, Traverse City Record Eagle, May 6, 2010.
[2] *The Grand Vision, A Shared Commitment*. Marsha Smith, Glen Arbor Sun, July 29, 2010.

Grand Vision study was funded through action by the federal government, the new study area definition literally required an act of Congress.

Initially, the areas of influence were to be included in the Grand Vision as a contributing influence on the study area. As an area of influence, the six-county area was originally included in the scope in several ways. The public values survey was to include residents from all six counties. Public notices about the scenario planning workshops and meetings were to be posted in newspapers around the region. Socioeconomic data from the six-county region was to be included for scenario models and reports related to economic analysis.

Before the scenario planning workshops were completed, the study area was expanded to include the six-county area. As a result, the focus of the Grand Vision shifted to a regional scale. Workshops and public meetings were held in each county throughout the region. At those meetings, materials were developed that were county specific such as base maps. At the transportation workshop, participants could choose from three different base maps. Each of the three maps included two counties and most participants chose to work on the map of their county of residence. Results of socioeconomic data and survey results were compiled for the region as a whole and responses were also broken out by county.

The original study area, the TC-TALUS boundary, is also the geographic limit of the Travel Demand Model (TDM). As a result, many of the transportation deliverables that address specific evaluations of the transportation system are still limited to the TC-TALUS boundary area. General policy statements such as transportation goals and objectives are applicable to the six-county regional study area.

1.3 History

The Grand Traverse Area Transportation Task force was established in 1988 by the Grand Traverse County Commission and the Grand Traverse County Road Commission (GTCRC). The original charge of the group was to investigate a bypass or beltline route around Traverse City. A preliminary alignment was established for planning purposes. Then, the group began working with MDOT on a TDM for the area.

In early 1990, MDOT proposed that the group transition to TC-TALUS and act as a transportation study area since the region was quickly approaching the population and density triggers for an 'Urbanized Area' designation. The status of "Urbanized Area" is defined by federal transportation funding legislation and shifts some planning and funding responsibilities from the state to the regional level in cooperation with MDOT. With support from MDOT, the task force officially became TC-TALUS in August 1990. To date, the region has not passed the population threshold of 50,000 but TC-TALUS has continued to function as a regional transportation planning agency with a director supported by the GTCRC and other task force members. Among other activities, a long range transportation plan was developed for the region in 1995. A summary of TC-TALUS studies and supporting documents is provided in the Grand Vision Task 1 Report titled *Past/Existing Transportation and Land Use Trends Report* dated November 2007.

TC-TALUS is just one of the agencies that have addressed transportation planning in the region over the past 35 years. Early consideration of regional transportation infrastructure was included in the 1977 City Plan for the City of Traverse City. Regional transportation plans were created beginning in the 1980s. Regional transportation ideas were shifted from study to implementation through a regional bond initiative in the late 1980s. The ballot proposal to fund a package of transportation improvements was defeated by voters in Grand Traverse County. The list of transportation projects remained in the queue for funding through the federal and state funding streams. One of these projects was a bridge connecting Hartman and Hammond Roads across the Boardman River Valley. As the GTCRC moved forward in the environmental permitting process for the bridge, public opposition organized in 2003. The project was eventually stalled although transportation funds had already been dedicated for the construction project.

The Grand Vision is the positive result of the conflict from the bridge project and the larger community debate about transportation investment and the associated regional growth strategies. Recognizing a need to reach agreement about how the region should grow, community leaders came together in search of more collaborative solution to addressing the region's growth pains. The project webpage, www.thegrandvision.org tells the rest of the story this way:

> For more than two years, a highly diverse group of 34 leaders representing local and state government, business, environmental interests, and social services worked by consensus to develop a work plan and recruit a team of the best consultants in the country to conduct a two year planning and implementation project. When an opportunity arose to reallocate the federal transportation funds once earmarked for the highway and bridge project to this community planning process, regional leaders collaborated with Senator Carl Levin, Senator Debbie Stabenow and Representative Dave Camp to make it happen.

The Grand Vision study became a reality when contract documents were signed in August 2007. The study continued through September 2010. The first half of the project focused on public involvement and the creation of a regional growth strategy. The second half of the project shifted to the creation of technical reports along with implementation tools and strategies. A complete list of Grand Vision study reports is included here as **Appendix A**.

2.0 Executive summary

The Grand Vision is a study that has resulted in a long-term vision for the region along with a series of reports to support its implementation. The Grand Vision was designed and executed as a citizen-led process where residents of the region participated in the creation of a preferred future growth pattern. The question was not centered on whether the region should grow or how much the region should grow but rather how the region should grow over the next fifty years. The Grand Vision was also a coordinated transportation and land use planning process. The process recognized that the two are inexorably connected and cannot be planned or implemented separately.

The Vision document presented the regional growth preferences. It includes building blocks for the land use pattern, an illustrative map of the conceptual growth pattern, and guiding principles for growth. The guiding principles address economic development; transportation; unique village development patterns; housing; food, farming and rural development; protecting and preserving the region's natural resources and beauty; and sustainable energy. This document is the capstone transportation report for the Grand Vision study. It combines policy direction with a technical traffic analysis along eleven corridors selected for further study during the process.

The policy direction is guided by the Vision document and applied more specifically to long-range transportation planning through a series of regional goals, policies and objectives. They are included in **Section 4.0** of this report. To support the regional vision, there are two separate transportation strategies to address capacity improvements. One is for areas that are part of urban development nodes and the other is for facilities that connect those nodes to each other. One series of goals, policies and objectives addresses a balanced investment strategy to support the regional vision. In addition to a balanced approach to infrastructure investment, there is a balance between competing interests impacted by transportation decisions such as economic development, housing and environmental protection. The transportation goals also include a complete streets approach to the design of transportation corridors and facilities, a coordinated approach to land use and transportation, a multi-modal transportation system, and support of regional economic growth.

The corridor selection began as a result of the *Task 3.4 Travel Demand Methodology Report* with the identification of major transportation corridors with projected level of service (LOS) ratings below a "D" rating in 2035. It was further refined through local knowledge with the direction of the Technical Committee subcommittee of the TALUS Board. Once the corridors were selected, the Grand Vision's transportation report focused on those eleven "Corridors of Significance."

Just as the Grand Vision seeks to coordinate between all of the transportation and land use agencies in the six-county region, the State of Michigan has a State Long Range Transportation Plan (SLRTP). It is the federally mandated policy document that outlines goals, strategies and actions for addressing transportation issues and needs. The words of the published SLRTP (and the associated technical reports) and the Grand Vision are well aligned. Several prime examples are the emphasis placed on the coordination of land use and transportation planning, opportunities for public transit in non-metropolitan areas, and regional planning efforts.

The Grand Vision represents the combined ideas and input from approximately 15,000 people in the six-county region. Public involvement was the first part of the Grand Vision process, which was important to it being a citizen-led process. A brief summary of the public involvement activities is provided in **Section 6.0** and the activities are described in more detail in the *Task 3.2 Socio-Economic Report* dated August 2009. The public involvement process began with a series of eleven scenario planning workshops, two of which were focused specifically on transportation. From this input, a series of four possible future scenarios were developed including a Trend Scenario showing business as usual, a Rural by Design Scenario showing development concentrated in rural clusters, a Villages Scenario showing development spread around the region in existing cities and villages, and a City Focused Scenario showing new growth concentrated in the two largest cities (Traverse City and Cadillac). Citizens of the region were presented with information about each scenario including a description of what life would be like in each. Indicators were created to quantify transportation, land use and environmental measurements of each scenario. Citizens participated in the Vision Decision process and the result was the regional vision, which included not only an illustrative concept about physical growth but guiding principles for growth.

Socio economic data was used to create current conditions in the land use and transportation models as well as future projections for regional population and economic growth. The data that was used is summarized briefly in **Section 7.0** of this document and in detail in the *Task 3.2 Socio-Economic Report* dated August 2009. In addition to population and economic growth, the Grand Vision included a housing needs analysis that identified the gaps in the future housing stock for both owner- and renter-occupied housing at different price points.

This added another dimension to the discussion of regional growth. The region is not only growing—it's changing. The population overall is getting older as the "baby boom" generation reaches retirement age. The labor pool is shrinking. Household sizes continue to shrink. With changes in technology, people can work anywhere in the world from home. As a result, the demand for housing types and transportation choices is changing.

There is an existing transportation network in place that is made up of roads, non-motorized facilities, a transit system, rail and a commercial airport. A brief overview of these systems is provided in **Section 8.0** of this report. Website references are provided for specific organizations and initiatives. The summary recognizes that the transportation network is a combination of all of the systems.

A Travel Demand Model (TDM) is a computerized tool that allows the evaluation of existing travel patterns and forecast the future of travel based on projections of land use and socio-economic data. It is then used to project future transportation volumes and patterns and can be used to test "what if" questions about proposed development. As part of the Grand Vision study, the regional TDM was updated to reflect 2007 conditions and then used as a tool to test the four possible future scenarios. The data from that modeling process was shared with the public in terms of transportation indicators such as vehicle miles travelled and gallons of fuel wasted. Later, the consulting team worked with MDOT and TALUS transportation staff to adjust the model for use in the TC-TALUS region. Information is provided in this

report about the TDM in **Section 9.0** and in detail in the *Task 3.4 Travel Demand Methodology Report* dated June 2010.

Along the eleven corridors of significance, each was analyzed for projected capacity issues on a segment-by-segment basis. Segments that had projected level of service D or worse in 2035 were identified as transportation gaps. Other factors were brought in to complete the evaluation including information about sensitive environmental areas and the community vision. Through this combination of technical analysis, environmental restraints and community preferences, a list of physical improvements necessary to fill the transportation gaps within each corridor were identified. Corrective actions were also proposed for high crash concentration locations where applicable. For details on the crash analysis methodology, refer to the *Task 3.1.6 Crash Analysis Report*. A brief overview of this process is provided in **Section 10.0** of this report including a map to illustrate the gap areas.

Once the gaps were identified, the next step was to identify projects to fill the gaps. The prioritized list of projects is presented for the first time in **Section 12.0**. The project selections identified in this report represent a major shift from the "Trend" or business as usual approach to transportation project selection. Although there are gap areas identified in the urban core area of the TC-TALUS model area, there are no road widening projects proposed in those areas. The Grand Vision sets the stage for a different approach to congestion management in the core urban area. In the densest urban areas around the region, capacity issues are handled through land development policies, mode shift incentives and travel demand strategies. Information on these ideas is provided in the *Task 4.3 Multi-Modal Transportation System Plan Report*. That being said, this is a transportation study and it does address areas where safety and capacity improvements are needed. This is not in conflict with the Grand Vision but supports the Grand Vision by providing a safer and more efficient road system. In addition to providing a prioritized list, projected costs for each project are provided to assist in strategic transportation planning efforts.

This report sets forth an agenda for transportation investment for the near future and decision making for the next fifty years. Writing the report is just the first step in making it happen. **Section 13.0** of this report explores and explains how it can be implemented. Communication is essential to making it happen. Successful implementation will include communication between transportation agencies themselves, communication between transportation agencies and land use decision makers, and communication between the public and the decision making boards. Implementing public policies and strategies will be the collective effort of interested parties working toward the Grand Vision.

3.0 The Grand Vision

3.1 Introduction

The Grand Vision is just that—a vision of how the residents of the six-county region would like to see the region grow over the next 50 years. What is that vision? The vision is built on regional values. The vision recognizes that the six-county area that includes Antrim, Benzie, Kalkaska, Grand Traverse, Leelanau and Wexford Counties is a special place. The vision recognizes and welcomes growth for all the benefits it brings including opportunities for a stronger regional economy and a more diverse population. At the same time, the vision addresses tough questions about how to manage the growth. It answers questions about where growth will occur and how people will travel around the region. The location of new homes and new jobs is inextricably intertwined with regional transportation patterns and investment in transportation infrastructure is directly connected to the location of new development. Here's the text from the Executive Summary section of the Vision document which provides a concise overview:

What will the region be like in 2035?

We know what's important to us and our vision is built on our values. We know this place is special and we want to keep it that way. Growth is coming to the region and our vision makes room for more people and more houses and more jobs. We want transportation options and our vision keeps the roads safe and gives us more choices about how to move around. We enjoy knowing people around us and seeing them in our neighborhoods and parks and cafes. We care about people in our region—even people we don't know—and we want everyone to have access to affordable housing and a stable job. The vision map on page 10 paints the picture and these six action statements are ways to get there:

- Create a group of unique villages and cities that are active and charming places with a main street or a downtown.

- Provide more variety in housing choices to match peoples' needs and preferences for lower cost, higher efficiency, central location and low-maintenance lifestyle options.

- Strengthen the local economy with more jobs offering security and a living wage in cities and villages around the region. Train the workforce for Michigan's new economy with a quality education and opportunities for lifelong learning.

- Maintain and improve the existing road system and place new investment in public transportation, bicycling and pedestrian infrastructure to provide choices in mobility, support energy conservation and maximize system efficiencies.

- Protect and preserve the open spaces, agriculture, natural resources and scenic beauty of the region.

- Make decisions today that support sustainable development for the environment, the economy and the community for tomorrow and next year and the next fifty years.

This is our Grand Vision. Our vision describes what we want this place to be in fifty years. It's built on the things we value and the things that are important to us. We put our ideas on a map and into words and then we figured out what we need to do to get there.

3.2 Building blocks

The larger vision is made up of a series of individual development types called building blocks. The Grand Vision report presents a collection of building blocks including a picture and a written description. The building blocks are grouped into these categories: walkable compact community, the rural landscape, suburban and rural housing, auto-oriented retail and auto-oriented employment. These blocks are a reference to help decision-makers understand that every land use type has an associated set of characteristics related to transportation. The building blocks also provide a common vocabulary to use in discussions of regional growth.

The building block categories run the gamut from uses that seem to fall in line with the goals of the Grand Vision to those that seem completely at odds with them. They are all in the Grand Vision report because they all exist in the region and there will be a demand for all of them in the future.

3.3 The Vision map

The Vision map is an illustrative map. It's a conceptual representation of the preferred regional development scenario. It includes land use information in the form of pink and purple colors representing the cities and villages that combine to form the six-county region. It uses blended green shading to show the rural landscape that is a combination of agriculture, conservation areas and other rural areas. The map also includes transportation information by including major road corridors and existing railroad lines. The map key provides additional information about travel modes that exist in each area.

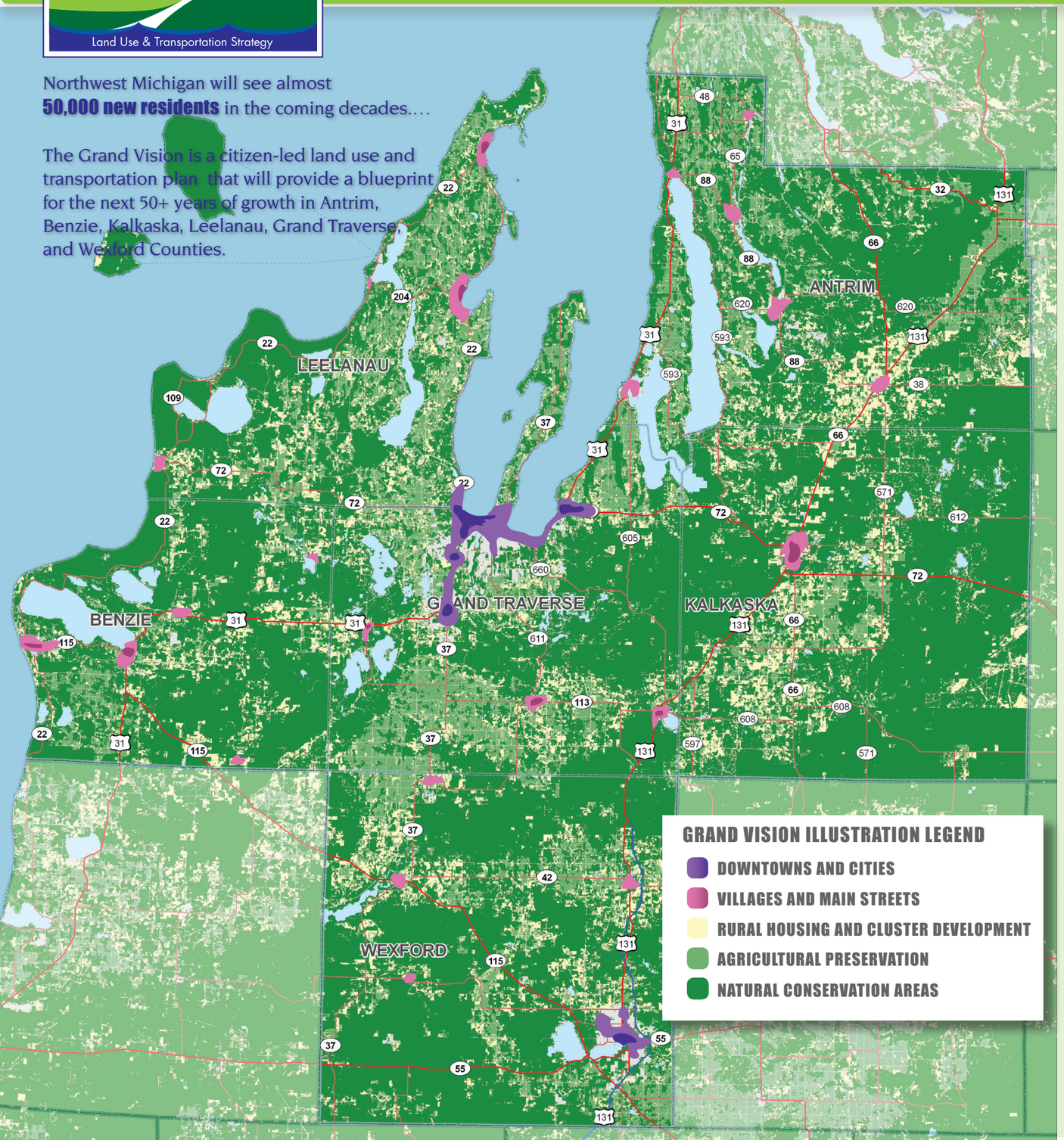
It is important to remember that as an illustrative map, this is not a parcel specific map. It is not intended to provide a specific demarcation between urban and rural areas or to distinguish between downtown and surrounding urban area. It is presented to present the growth concept in a graphic format. The map appears on the next page.

GROWTH HAPPENS. See your Grand Vision.

THE GRAND VISION™
Land Use & Transportation Strategy

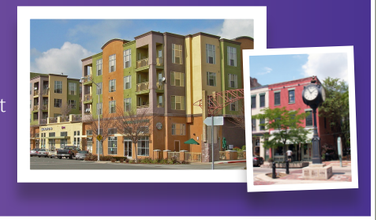
Northwest Michigan will see almost **50,000 new residents** in the coming decades….

The Grand Vision is a citizen-led land use and transportation plan that will provide a blueprint for the next 50+ years of growth in Antrim, Benzie, Kalkaska, Leelanau, Grand Traverse, and Wexford Counties.



Downtowns and Cities

The Grand Vision identfies downtown areas with lots of people and lots of activity, such as Traverse City and Cadillac. More than a village or main street, downtowns stretch over multiple blocks in several directions. They play host to regional services and entertainment attractions, act as a major employment area, and provide a diverse mix of housing and employment options. Dense development patterns put central activities in walking distance of each other and space is at a premium. Buildings may reach six or more stories in height.



Villages and Main Streets

The Grand Vision identifies village and main street areas that provide walkable centers for small community or neighborhood services. These areas provide jobs in small scale retail, office, manufacturing or processing businesses. Interlochen, Kingsley, Frankfort, Suttons Bay and Elk Rapids provide good examples. Buildings are one and two stories tall and can include mixed uses including live-work developments. Village areas often center around their main streets and include residential development.

Rural Housing and Cluster Development

The Grand Vision identifies rural areas outside of towns and villages where housing development is clustered and concentrated on a small portion of a parcel in order to conserve natural resources such as prime agricultural land, environmentally sensitive land, a wildlife corridor or unique natural features. Other rural housing consists of single family homes on lots that average one house per five to ten acres with some lots being considerably larger. These parcels may be used for hobby farming or to keep livestock.

Agricultural Preservation

The Grand Vision identifies agricultural areas that the community wishes to protect from conversion to other uses. These areas are currently used for agriculture and may have prime or unique soil characteristics or unique micro-climates. Agricultural Preservation areas are single large parcels or a patchwork of smaller parcels that together create a block of agricultural land. Landowner's have indicated an interest in keeping the land in agricultural use. These area are likely to be selected for permanent preservation measures.

Natural Conservation Areas

The Grand Vision identifies natural conservation areas with unique environmental features or scenic beauty (view sheds) that the community wishes to preserve in a natural state. These areas include land already protected through the state and national forests and national shoreline protection programs, county and local parks and areas already protected by a conservation easement. They also include environmentally sensitive areas. Some examples include sensitive areas around water resources.

3.4 Guiding principles

The Grand Vision contains a series of guiding principles that were listed briefly earlier in this section. This section will provide central concepts to each of them.

Our Grand Vision is…increasing employment opportunities and economic security.
Economy prosperity is at the center of the regional vision. As the region grows, strategic investments in the transportation system and the creation of livable communities will support regional economic growth. Additional principles include an emphasis on new economic opportunities, support for economic development through technical infrastructure and education, increased employment in cities and villages and support for existing and new industrial activity in the region.

Our Grand Vision is… improving the region's transportation network.
The Grand Vision began with a question about investment priorities in the region's transportation network. The transportation network serves as a type of skeleton for the regional growth framework. Transportation investment is guided by these four principles. Maintain and improve the existing road network. Increase public transportation services regionally and in the cities. Expand the transportation infrastructure serving pedestrians and bicyclists. Prepare for passenger rail service to Cadillac and Traverse City.

Our Grand Vision is… a group of unique villages, that together form a region.
Public investment and new growth will be directed to cities and villages in the region. New growth should be directed to areas where urban development already exists. Density increases in these areas. Investment in cities and villages is guided by these principles. Local elected officials know the public's preference. Money is spent effectively to improve Main Streets and city centers. People like to walk and bike in village centers. Many people live in and near the city and village centers.

Our Grand Vision is… expanding housing choices in the region.
The current housing stock in the study region is almost exclusively single-family residential. A housing needs assessment showed that the region will have gaps in the housing stock based on cost and housing type. Policies to expand housing choices are based on these principles. Provide a more diverse mix of housing choices. Provide more affordable housing options. Develop new housing design that fits in with the small town character of the villages and cities. Rural housing is an important part of living in the region.

Our Grand Vision is… celebrating food and farming and rural development as a definitive part of our economy, our culture and our identity.
Although it's growing, the six-county region is still predominantly rural. Outside of the cities and villages, farms and farmland area are a significant part of both the economy and rural character that attract people to the region. Agricultural principles include all of the following. Minimize development pressure and growth in rural areas. Preserve agriculture as a viable economic practice. Increase investment in agriculture and food-related jobs. Strengthen the urban-rural connection.

Our Grand Vision is… protecting and preserving the water resources, forests, natural areas, and the scenic beauty of the region.

The natural resources bring people to visit the region and are highly valued among residents. Some people enjoy looking at the scenic beauty while others take the opportunity to be an active participant. In either case, these principles guide the actions impacting our natural resources. Protect the region's natural resources. Protect our water quality. Preserve the scenic beauty of the region. Provide access to nature. Be a good steward of the forest resources.

Our Grand Vision is… incorporating a sustainable energy focus into building, transportation and economic development.

During the public involvement process, sustainable energy was a topic that rose out of the general interest in protecting the natural environment and preserving resources. It is guided by these principles. Buildings are permitted and encouraged to be energy efficient in their location, their design and their use. Energy efficiency is achieved in transportation by improving road networks, expanding mobility choices and reducing vehicle miles traveled in the six-county region. Green energy development, production and use is a part of the regional economic plan.

3.5 Next steps and working groups

After the Grand Vision document was complete, the Grand Vision project moved on to a series of technical transportation and land use study documents. The technical transportation documents culminate with this report. In between, the consulting team completed land use and transportation gap analysis studies, environmental impact reviews and other reports. A complete list of the reports written during the Grand Vision study along with the final report date is available in list form in the Appendix of this report.

Just as the coordinating group was made up of a diverse group of individuals and interests, the Grand Vision will be implemented by the community through a collaborative approach. The Grand Vision will be implemented through the collective decisions made by transportation and land use agencies around the region. Citizens in the community will provide support for decisions that support the community vision. In addition, existing public and private organizations and interested citizens are stepping forward to contribute their time and talents to working groups that have been created to support each of the Grand Vision's guiding principles.

The Grand Vision's call to action sums up the situation with these words: *Our vision is words on paper with a map and it's printed in a colorful booklet. It feels like we've finished something but this is really just the beginning. The vision on paper is our map. Our trip is planned, our bags are packed and we're ready to go. It's time to get started.*

4.0 Regional goals and objectives

Goal: Adopt a balanced transportation investment strategy that supports the Grand Vision's regional development goals, recognizing that transportation investment also impacts regional goals in areas including economic development, housing, and environmental stewardship and regional values of scenic beauty and access to nature.

Policy: In villages, along main streets and in downtown areas—or areas planned for this type of development in the future—the transportation policy is to improve accessibility. Recognizing community development preferences and physical construction limitations, transportation planning in these areas will place a strong emphasis on developing a balanced and effective multi-modal transportation system. In some areas, there will be vehicle delays and congestion at peak travel times and during special events.

Policy: Between development nodes—villages, main streets, downtown areas or areas planned for this type of development in the future—the transportation policy is to maintain and improve mobility. Recognizing the regional development vision to locate new development in areas that have already experienced growth and the regional goals for economic development, transportation planning along connector corridors will place an emphasis on moving travelers from one destination point to the other with minimal conflict and delay. In an attempt to maintain sense of place and encourage the use of other modes of travel, existing roadways will not be widened beyond two travel lanes in each direction.

Policy: Prioritize and balance transportation investments to support regional values and the Grand Vision's regional development pattern:

Objective: Preserve capacity on the existing road system using the following tools and techniques:

- Prioritized road investments
  - Safety
  - Maintenance of existing roads
  - Operational improvements (access management, signal timing, intersection control)
- Facilitate mode shifts through increased investment in:
  - Expanded non-motorized network
  - Expanded transit service
- Land Use regulations
- Demand side transportation policies

Objective: Prioritize investment in new road infrastructure to support the Grand Vision through:

- New connections within the existing grid or extending the urban grid network

- Connections between nodes involving new infrastructure (additional lane segments, turning lanes)

Goal: Adopt and implement a Complete Streets policy approach which considers all users in the design of new roads and as part of renovation or improvement projects. This includes all travel modes, all ages, and all levels of physical ability.

Policy: Look for opportunities to convert vehicle travel lanes to multi-modal uses if excess road capacity exists and is projected to exist throughout the planning period or if a shift in road design is projected to improve the Level of Service (LOS) rating for the corridor.

Policy: Recognizing that multi-modal trips often include a combination of travel modes, provide infrastructure to support multi-modal travel from origin to destination by connecting travel modes and supporting each part of the trip. Examples include providing sidewalks from bus stops and bike racks at commercial destinations.

Policy: Include aesthetic components in the development of complete streets such as street trees, decorative street lights, benches and kiosks as a tool to create an enjoyable public space that will encourage pedestrian use and strengthen the local economy.

Goal: Coordinate transportation and land use planning activities in the region to support the regional development vision, maximize benefits from transportation investments and create livable communities.

Policy: Take active steps to increase public involvement in the transportation planning process.

Policy: Create a framework to improve communication between transportation providers in the region that will improve the planning process for each individual agency, strengthen the multi-modal transportation system, improve access for all residents of the region and add value to infrastructure investments.

Policy: Create a framework to improve coordination and communication between transportation providers in the region and land use planning of regional agencies and local units of government.

Policy: Create a framework within the transportation planning process to consider impacts on other regional goals including environmental, economic, housing and community values such as scenic beauty and access to nature.

Goal: Create a multi-modal system that is a viable transportation option for all users in every season.

Objective: Support increased transit service as ridership grows.

Objective: Plan for and invest in non-motorized infrastructure that will support the regional development vision. Priority investments include:

- Filling gaps in the existing pedestrian and bicycle system
- Adding infrastructure to support and connect each link in a multi-modal trip
- Areas where development density and congestion levels will encourage people to "park once and walk".

Objective: Recognizing that the northern climate has a direct impact on the non-motorized transportation system, develop systems and policies to support a multi-modal transportation system that as a viable transportation option all year.

Policy: Include plans for maintenance and operations that keep sidewalks, multi-modal pathways and transit stops accessible for all users.

Policy: Consider opportunities to address snow removal through educational outreach and partnerships with residents, the business community and volunteers groups.

Goal: Recognizing that regional economic development is a primary goal of the Grand Vision, transportation investment will consider opportunities to support economic development in the region.

Policy: Consider and support freight movement in the region including air cargo, sea ports, rail and semi-truck transport.

Policy: Consider and support improved connections from the region to the rest of the state, the nation and the world.

Policy: Consider and support transportation initiatives to address congestion associated with peak travel associated with regional events that bring large numbers of visitors to the region.

5.0 Connection to the State Long Range Transportation Plan (SLRTP)

The State of Michigan's Department of Transportation (MDOT) develops a State Long Range Transportation Plan (SLRTP). The SLRTP is the federally recognized transportation plan for the State of Michigan. It is a federally mandated policy document that outlines goals, strategies and actions for addressing transportation issues and needs. The current plan is titled "MI Transportation Plan, Moving Michigan Forward, 2005-2030 State Long-Range Transportation Plan." Just as the Grand Vision seeks to coordinate between local units of government, the MI Transportation Plan accounts for and, as appropriate, integrates the plans and priorities of the regions across Michigan. There are two principal categories of plans of interest: the local long‐range transportation plans (LRTPs) developed by MPOs under federal law; and transportation plans and/or priorities developed by non‐metropolitan or rural regional planning agencies. They are parallel efforts on different geographic scales. In physical locations where the planning overlaps, the efforts should be coordinated. In addition to specific infrastructure planning, the major policy initiatives at the state level will impact investments and programming within each of the planning regions.

One concept presented in the SLRTP is an identification of the state's Corridors of Highest Significance. The route along US-31 from Grand Rapids to Ludington to Traverse City to the Mackinaw Bridge is identified as a corridor of statewide significance. Traverse City is identified as an "activity area." Other corridors are placed in the category of "national and international significance." Section 6.4 of the SLRTP Corridors and Borders report states that, "MDOT will develop in-depth corridor studies/corridor plans for strategic Corridors of Highest Significance that have immediate or near-term system preservation needs." It's is also true that many of the major roads in the six-county region are state highways.

Like the Grand Vision for the six-county region, the purpose of the SLRTP is to provide big picture ideas about the long-term goals of the state's transportation network. A literature review found that the transportation goals created at the regional planning level are in sync with those of the state. Some of the findings of the SLRTP that are especially germane to the Grand Vision are noted here.

Integration and coordination between state and regional transportation planning efforts is one of MDOT's goals. In order to better integrate MDOT and MPO/RPA plans and priorities, MDOT plans to continue enhancing its involvement in regional planning activities and processes. The Grand Vision working groups can support this effort by reaching out to MDOT's state and regional staff.

The MDOT SLRTP includes a series of technical reports to examine in detail a series of topics including finance, transit and environmental topics. One such report is titled the *MPO/RPA Technical Report* and it delves into the topic of coordinating state and regional planning efforts. Recognizing the connection between transportation and land use, the following statement is made in the report's Executive Summary: "The MI Transportation Plan process could be an important platform for expanding the discussion of the

transportation-land use connection across Michigan."[3] Local and regional transportation agencies should expect MDOT staff to include the transportation-land use connection in planning activities.

Another finding of the MPO/RPA report addresses the topic of public transit in rural and non-metropolitan areas. It reads: "The long-term viability of public transit services in rural and non-metropolitan regions of Michigan, as currently structured, is threatened by a lack of funding and support from local officials. There is a need to help maintain service levels on and/or "reinvent" small transit systems to sustain their operational feasibility.[4]" Recognizing the problem may not translate to providing financial support in under our current economic conditions but from a policy perspective, this statement indicates a recognition of the importance of rural transit which may be parlayed into other types of support during planning and funding cycles.

The MPO/RPA Technical report also recognizes that in Michigan, the home rule power structure can be at odds with the execution of regional concepts. Again, the MPOs and RPAs are identified as regional agencies that could provide leadership to regional planning and implementation efforts. MDOT recognizes a need to reach out to County Road Commissions during the planning process to achieve more consistency between the planning and the funding processes.

The words of the published SLRTP (and the associated technical reports) and the Grand Vision are well aligned. As decisions are made about transportation investment and programming in the six-county region, the state's planning goals should also be kept in sight.

[3] p.ii MPO/RPA Technical Report
[4] p.ii MPO/RPA Technical Report

6.0 Public involvement

The first scenario planning workshop was held at the Park Place Hotel in Traverse City, Michigan on October 17, 2007. The focus of the activity was Grand Traverse County and the event was open to the public. Participants were given stickers to represent different types of land use growth and asked to place them on the map. It represented the anticipated growth level and types that would come to the region by 2035. Some residential development types could be traded for more compact residential development types as long as the number of units stayed the same. Markers were provided to indicate areas for preservation and transportation system improvements. The markers were not the primary focus of the activity. Attendance at this event exceeded expectations as 450 people filled the public gathering room.

After planning at the county level, a series of small area workshops were held to explore future growth preferences in more detail. The maps at each workshop were at a smaller scale so participants could think about locating new growth on a specific parcel basis rather than a general development area. People worked in small groups of 6-10 people per map. Parcels with some development could be designated for higher-density or higher-intensity infill development. There was a cross-section activity at each of these workshops as well. Groups were asked to cut and paste vehicle, transit and non-motorized graphics to design a main travel corridor in the area. The meetings were open to the general public but most who attended the workshops were familiar with the subject area. A Central City workshop for downtown Traverse City was held on January 23, 2008, and was attended by 240 people. Small area workshops for Interlochen and Acme were held on January 24, 2008, and were attended by 120 and 144 people respectively.

Two transportation workshops were held on March 20, 2008, at the Civic Center in Traverse City. These workshops were designed to explore opinions and ideas about transportation investment in the region in the future. Participants chose from one of three base maps—each showing two counties (Leelanau and Benzie; Grand Traverse and Wexford; or Antrim and Kalkaska). People worked in groups of 6-10 on a map. An estimated budget for transportation improvements in the region was developed. An envelope of stickers representing a collection of transportation improvements was given to each group. The categories included road improvements, bus service, rail service and non-motorized facilities with several options in each category. Exchanges could be made between investments as long as the dollar value was held constant. If a group wanted to spend more than the established budget, a revenue source needed to be identified. Worksheets were provided for that task. The daytime session attracted 168 participants and the evening session hosted 224.

In May 2008 a series of county workshops were held in each of the five counties that had officially become part of the project area through a contract revision. Separate base maps were developed for each of the five counties: Antrim, Benzie, Kalkaska, Leelanau and Wexford. The sticker approach that was used in the first regional visioning session needed to be adjusted for these workshops. This was due to the large geographic map area combined with the relatively small population of each county. New stickers were created and the exercise was adjusted to match the projected population and economic growth patterns of these counties with the map scale. Only residential and open space options were represented with chips. Input on commercial, employment, transportation and civic growth or investment

was obtained through an open comment method. During this workshop, attendees also participated in a visual preference survey. This was, again, to gather more specific information while working at the county map scale. The workshop dates and attendance numbers are as follows:

Table 1

County	Meeting Date (2008)	Attendance
Antrim	May 27	150
Benzie	May 28	180
Kalkaska	May 7	195
Leelanau	May 8	205
Wexford	May 27	75

Source: Mead & Hunt

The four possible future scenarios were unveiled on October 7, 2008 and then in each county in the study area over the following week. The presentation included an introduction and description of each of the four scenarios. Animated flyover movies were made to demonstrate each growth pattern. This was the beginning of the next step in the process. It was dubbed the "Vision Decision." The kickoff event at the State Theatre was so widely anticipated that tickets were given away in advance and required for admission. All of the 500 seats were filled. In the week that followed, the same presentation, along with a special video message for each county, was presented in Antrim, Benzie, Kalkaska, Leelanau and Wexford Counties. Attendance was as follows:

Table 2

Location	Date	Attendance
State Theatre	10/7/2008	510
Leelanau County	10/13/2008	65
Kalkaska County	10/9/2008	90
Antrim County	10/14/2008	80
Benzie County	10/14/2008	104
Wexford County	10/13/2008	40

Source: Mead & Hunt

After the scenario choices were presented, residents of the six-county region were asked to respond to the scenarios through a polling process. A "scorecard" was created to introduce readers to the four scenarios. The highly graphic document was folded like a newspaper. It included icons to represent transportation and land use growth statistics associated with each scenario. It also offered a narrative description of the future characteristics of each scenario. The last page was a survey response form. The "Scorecard" was available on paper and on-line at the project website (www.thegrandvision.org). A total of 13,940 responses were received through the response period. A detailed account of the public involvement process can be found in the Task *3.2 Socio-Economic Report* dated August 2009.

As a result of the public input received during the polling process, a final, preferred regional Vision was created graphically and presented to the public. The draft *Vision* document included a regional map and supporting text. Part of the text is a series of building blocks that describe the different types of

development that would make up the fabric of the region as it grows. Another part is the policy section that presents the regional Vision by category in a storytelling fashion. The public provided comments on the draft *Vision* document during an extended comment period that began with an open house event on February 4, 2009. The final *Vision* document was accepted by the TALUS Board on April 21, 2009.

7.0 Socio economic data

Since 1973, the Research Seminar in Quantitative Economics (RSQE) at the University of Michigan has been under contract with the state to provide and maintain an econometric model of the state economy. The program, led by Dr. George Fulton, uses the input/output model of the Michigan economy developed by Regional Economic Models, Inc. (REMI). In January 2008, the 2007 Regional Economic Models, Inc. (REMI) forecast for 2035 was available for the six-county area for population, households, and employment. Once it became available, the 2007 REMI forecast data was used as the basis for growth projections during the Grand Vision scenario planning workshops. The basic demographic numbers are as follows:

Table 3 Population and Employment Control Totals

	Population			Employment		
County	**2005**	**2035**	**Increment**	**2005**	**2035**	**Increment**
Antrim	24,404	26,578	2,174	11,374	12,547	1,173
Benzie	17,574	21,287	3,713	8,611	10,117	1,506
Grand Traverse	83,954	113,587	29,633	65,301	79,791	14,490
Kalkaska	17,199	21,719	4,520	5,722	6,086	364
Leelanau	22,030	26,932	4,902	10,200	11,091	891
Wexford	31,799	38,237	6,438	19,244	20,793	1,549
Total	**196,960**	**248,340**	**51,380**	**120,452**	**140,425**	**19,973**

Source: REMI 2007

Grand Traverse County is by far the most populous county in the region. In addition to having the largest population, Grand Traverse County is also projected to experience the largest amount of growth both numerically and comparatively. Its projected growth over the 30 year window is 35.3% which is almost 10% higher than the next highest increase that is projected for Kalkaska County (26.3%). The next most populated county is Wexford which is home to the City of Cadillac. Wexford County is also project to grow by the second highest numeric increment. Combined, Wexford and Grand Traverse Counties account for 70% of the projected population growth in the region from 2005 to 2035.

The four smallest counties in terms of population are all projected to grow over the 30-year planning horizon. The incremental growth numbers are also smaller as would be expected. The slowest projected growth rate when compared to the base year of 2005 is 8.91% in Antrim County. The other three counties have growth rates between 20% and 26%. The percentage growth rate reflects the amount of change compared to the current conditions. The percentage increases are based on actual increases that average approximately 4,000 residents over the 30 year window. This breaks down to approximately 135 people per year. This amount of population growth will need at least 50 new housing units each year in the county to meeting the growing demand.

The question posed by the Grand Vision was not whether growth was coming but how it would happen. The Grand Vision describes a growth pattern where new housing units are located in village areas where development nodes are already established. In many areas, municipal utilities are already available to

support higher densities. The regional growth vision also includes a variety of housing types including small single family units, multi-family units and mixed-use development types in the villages.

Economic growth is also projected for the region over the 30-year planning horizon. Here again, Grand Traverse County has by far the largest amount of employment growth measured in overall new jobs and percentage growth. With a projected 14,490 new jobs, it far outpaces the other five counties. From a percentage basis, it is also the leader with a projected employment growth rate of 22.19%. Close to this is the employment growth rate projected for Benzie County at 17.49%. Otherwise, although all counties have employment growth projected, they are at rates of 6-10%. In Kalkaska County, there are only 364 projected new jobs over the thirty year time period.

The Grand Vision could cause a change to the projected trend. The regional vision calls for a series of village development patterns that include housing, services and employment around the region. If successfully implemented, this growth pattern would increase the amount of new housing and new jobs in each of the six counties. It might redistribute the overall growth more evenly across the region or it may result in a higher than projected growth rate. The higher density growth described in the Grand Vision would concentrate new growth in a smaller geographic footprint allowing for the preservation of more farmland and natural areas.

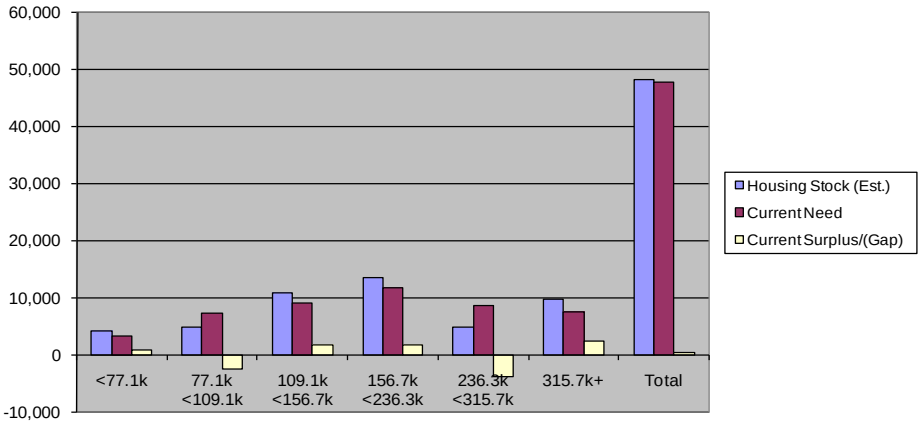
A housing needs assessment was done as part of the Grand Vision study. The analysis looked at the existing housing stock based on type and cost for both owner-occupied and rented properties. It also considered future demand for housing. The research was done for the Traverse City Micropolitan Area based on 2006 data by Fregonese and Associates, Inc. (FAI). The overall number of units was approximately equal to demand. However, the analysis found current gaps in the housing market for both owner and rental housing units.

In the case of owner units, the research found that based on income, many homeowners have the purchasing power to spend more on housing than they are spending. The units are simply not available. There is also a current shortage in housing units for sale priced between $77,100 and $109,100. These would-be purchasers may chose to rent, buy housing that in a different price range or travel outside the area to find other housing options.

Table 4 2006 Housing Balance (Owner Units) for the Grand Traverse Micropolitan area

Ownership units value	<77.1k	77.1k <109.1k	109.1k <156.7k	156.7k <236.3k	236.3k <315.7k	315.7k+	Total	% Ownership units affordable at household income	<$25k	$25k <35k	$35k <50k
Housing Stock (Est.)	4,209	4,837	10,956	13,505	4,802	9,886	48,196	% of estimated housing stock	8.82%	10.13%	22.95%
Current Need	3,356	7,385	9,133	11,828	8,599	7,447	47,747	% of estimated housing need	7.03%	15.47%	19.13%
Current Surplus/(Gap)	854	(2,548)	1,823	1,677	(3,797)	2,440	449	Cum % of estimated surplus/(gap)	1.79%	-3.55%	0.27%

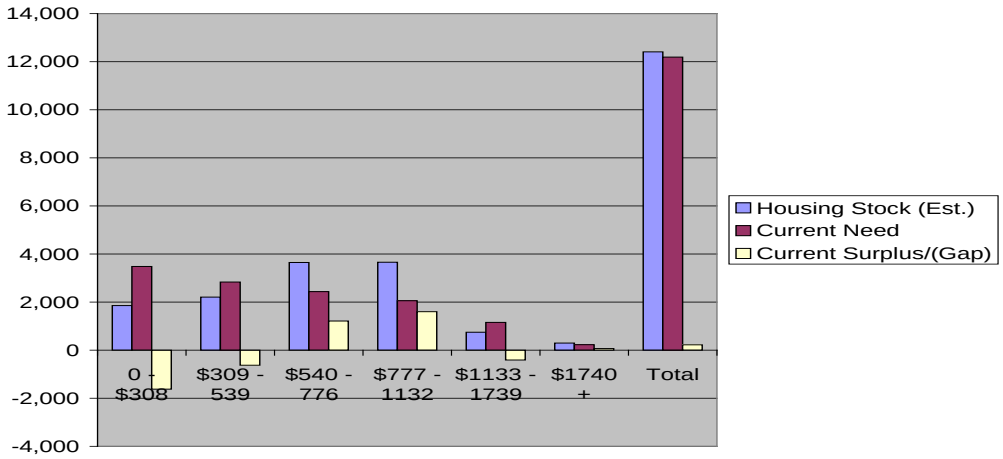
Source: FAI



Source: FAI

Figure 2 2006 Housing Balance (Owner Units) for the Grand Traverse Micropolitan area

The housing needs analysis also identified gaps in the current rental housing market. These were especially noticeable in the two cost categories of less than $540 per month. In this case, one solution is for two families to share housing. Another is to travel outside of the region to find more affordable housing. Also noticeable in the analysis is the shortage of rental units in the range between $1,133 and $1,739 per month. This is a gap that could be closed by new luxury apartments or condominiums.



Source: FAI

Figure 3 2006 Housing Balance (Rental Units) for the Grand Traverse Micropolitan area

Table 5 2006 Housing Balance (Rental Units) for the Grand Traverse Micropolitan area

Rental units monthly rent	0 - $308	$309 - 539	$540 - 776	$777 - 1132	$1133 - 1739	$1740 +	Total	% Rental units affordable at household income	<$15k	$15k <25k	$25k <35k	$35k <50k
Housing Stock (Est.)	1,857	2,207	3,648	3,656	744	298	12,411	% of estimated housing stock	14.97%	17.79%	29.39%	29.46%
Current Need	3,481	2,834	2,435	2,057	1,153	229	12,190	% of estimated housing need	28.05%	22.84%	19.62%	16.58%
Current Surplus/(Gap)	(1,624)	(627)	1,212	1,599	(409)	69	220	Cum % of estimated surplus/(gap)	-13.09%	-18.14%	-8.37%	4.52%

Source: FAI

Population, housing and job growth are trends that steer growth an investment in the regional transportation network. The Northwest Michigan Council of Governments offers a collection of

demographic resources on the data section of their website at www.nwmcog.org. Also, more detailed information about regional demographic trends prepared for the Grand Vision is available in the *Task 3.2 Socio Economic Report* dated August 2009.

8.0 Existing transportation network

Planning exercises follow an established approach that begins with current conditions, looks at future needs, identifies system gaps and develops a strategy to fill the gaps. This section will provide a description of each component of the transportation system. It is intended to take a broad brush approach in order to set the stage for future discussions. Website references are provided for specific organizations and initiatives for readers interested in more information on any one transportation resource.

8.1 Roads

The roadway network in the study area consists of full-access roadways and streets ranging from 2 through lanes to 4 through lanes. Major connections to the rest of the state are located on US-31 at the Benzie County Line, M-37 south of M-113, Garfield Road at M-113, M-72 west of Bugai Road, M-72 near Williamsburg, and US-31 north of Acme Township. The nearest limited access freeways are US-131 at its northern terminus in Wexford County and I-75 in Crawford County, which is outside of the study area. Jurisdictional responsibility for maintenance and roadway construction within the study area is shared by:

- Michigan Department of Transportation – MDOT is responsible for state trunklines within the region, commonly known as the "M" routes, this also includes US highways within the study area.
- City of Traverse City – The city is responsible for all non-trunkline streets within their corporate limits.
- Grand Traverse County Road Commission – The GTCRC is responsible for roadways within Grand Traverse County that are not state trunkline and not within Traverse City corporate limits.
- Leelanau County Road Commission – The LCRC is responsible for roadway within the Elmwood Township portion of the study area, excluding streets within Traverse City corporate limits and state trunkline routes.

8.2 Non-motorized

There are road agencies at the state, county and local levels. The Michigan Department of Transportation (MDOT) oversees a network of state roads. Each county has a road commission responsible for the associated county road system. Local units of government provide city streets within urban boundaries. Each of these road agencies has the opportunity to design roads for all users including pedestrians, bicycles, transit riders and people with mobility challenges. This has been termed "complete streets" and it has recently become part of Michigan Law. The law requires all Michigan road agencies to adopt a complete streets policy within two years as a condition of receiving transportation dollars. This approach is also part of Context Sensitive Solutions that has already been adopted by MDOT and other road agencies.

The Northwest Michigan Council of Governments (NWMCOG) has developed several comprehensive resources for non-motorized transportation in the region. One is a map of existing non-motorized facilities titled the *Non-motorized Road and Trail Map Guide*. The project was funded by MDOT as part of a statewide initiative to map non-motorized corridors and recreational facilities. Local units of government

provided information and it was compiled into a single resource by staff at the NWMCOG. The maps are prepared in two parts covering thirteen counties and are available at www.nwm.org. NWMCOG also produced the 2008 Regional Non-Motorized Strategy report. This resource was also funded by MDOT and provides a list of non-motorized priority routes for each county in the study region. The list for Grand Traverse County reads:

1. Create a trail from the TART Trail north to Elk Rapids
2. Complete a trail on the West Side of Boardman Lake to connect the completely around the lake and to the TART Trails
3. Work on creating a trail from Cadillac to Traverse City via Kingsley
4. Create a trail as a Lake Ann connector to west side of Traverse City and then to the TART Trails
5. Work on a connection to the Betsie Valley Trail through Interlochen to Traverse City (TART Trails)

TART Trails, Inc. is a regional leader in developing a system of non-motorized travel opportunities. Their mission statement reads: *Enriching the Traverse region by providing a network of trails, bikeways and pedestrian ways, and encouraging their use.* The current TART Trails network currently includes six multi-use trails in Grand Traverse and Leelanau counties as well as a cross-town bike route.

The central paved urban TART Trail is 10.5 mile long and runs between M-72 (Bates Road) in Acme Township and M-22/M-72 intersection in Traverse City. At this point, the trail connects to the 15.5 mile Leelanau Trail that goes north to Suttons Bay—a non-motorized pathway located in former railroad corridors. The Boardman Trail is two miles long and runs along the east side of Boardman Lake. The long-range plan is to continue the trail around the Boardman Lake with a connection to the TART Trail at the library. The VASA Pathway is located in the Pere Marquette State Forest and offers a series of loop trails for recreational use. The Three Mile Trail currently goes along Three Mile Road from the State Park beach on US-31 to South Airport Road. A future phase is planned to continue south to Hammond Road and then coordinate with the schools near that intersection. The Mall Trail runs parallel to US-31 (Division Street) from 14th Street to South Airport Road near the Grand Traverse Mall. This trail connects downtown Traverse City many commercial businesses and restaurants near the Mall.

TART's future plans are shown on a map produced by TART Trails, Inc. and also reflected in part in the Non-Motorized Transportation Strategy noted above. TART has plans to extend trails out from Traverse City in every direction based on the map available on the TART Trails website (www.traversetrails.org). The Leelanau Trail shows a future connection north to Peshawbestown. The Boardman Trail shows a future expansion west to Interlochen, Thompsonville and the Betsie Valley Trail as well as a southern expansion to Cadillac and Grand Rapids. The TART Trail shows an eastward expansion to Elk Rapids, Charlevoix and Mackinaw City.

In addition to the TART Trails organization, there are other trail organizations in the Grand Vision area. The Top of Michigan Trails Council includes Antrim County in future trail routes (http://www.trailscouncil.org). Kalkaska is home to the KART Trail that connects to the TART Trail

system. The Betsie Valley Trail in Benzie County is supported by a "friends group" (http://www.betsievalleytrail.org).

8.3 Transit

The Bay Area Transportation Authority (BATA) provides transit service to Grand Traverse and Leelanau Counties. The organization is making big plans for the future: *Public transit needs to be for the general good and fit into an overall plan that links into economic development and is a key component of what is considered a healthy community. We want all of the stakeholders of BATA to understand why we're here, what we can do for them and how they can work with us to help realize the vision*.

BATA opened its Transit Center on Hall Street in downtown Traverse City during the summer of 2006. It was designed using a "greenbuilt" approach based on Leadership in Energy and Environmental Design (LEED) criteria and serves as the hub for transit service in the Traverse City area. It is an attractive facility with amenities including comfortable waiting areas and wireless internet inside and covered bus bays outdoors. From this central location, BATA coordinates fixed routes service around Traverse City and has recently added a new express route to move people quickly around the core area.

BATA currently offers five fixed routes that collectively serve each quadrant of the urban core and the six Activity Centers identified in the Task 3.5 Report located in the Traverse City urban core area including the Cherry Capital Airport, Northwestern Michigan College, Munson Medical Center, Downtown Traverse City, Grand Traverse Mall, and the Grand Traverse Commons. Outside of the core urban area, Kingsley is connected through the Fife Lake Village Connector and connections to the other Activity Centers—Chums Corners, Acme Town Center and Interlochen—have been identified as future Village Connector service routes. In addition, the Express Route serves major destinations around the core area every hour and increases transfer options.

In addition to regular service, BATA customizes its service to meet special community events and needs. BATA is part of Smart Commute Week where residents are encouraged to try alternative modes of transportation than driving alone. BATA offers extended service hours during major events like the Cherry Festival.

BATA also offers three regional connectors that provide service routes for morning and evening commutes from Fife Lake in southeast Grand Traverse County, from Northport and from Empire in Leelanau County into Traverse City. Since most employment in the six-county Grand Vision study area is located in and around Traverse City, many people travel from outside the urban core and outside the county to work each day. Services like this one directly support connections between communities and the regional development pattern of the Grand Vision.

The Benzie Bus (http://www.benziebus.com) offers connections between villages in the county and also offers service into Traverse City daily. Traverse City stops include Munson Medical Center and the BATA Transfer station. Antrim County Transportation (ACT) offers dial-a-ride service daily within the county and transportation to medical appointments in Traverse City on Tuesdays and Thursdays. Kalkaska Public Transportation offers transit service in Kalkaska County. Cadillac and Wexford County jointly operate the

Cadillac/Wexford Transit Authority (CWTA). It offers dial-a-ride service and is experimenting with some fixed route service. CWTA has opened a new regional bus transfer center in downtown Buckley.

Currently, a proposal is being considered to amend the Michigan Zoning Enabling Act, to require consideration of public transit, and public transportation facilities and agencies in master plans. Another amendment proposal is being made separately that requires a transit evaluation to be part of the site plan review process. As drafted, the main provision reads," …a zoning ordinance of the local unit of government shall require, as part of any site plan review, consideration of the proximity of adequate public transportation to the proposed land use or activity." This practice will set a regulatory framework that prompts better coordination between land use planning and transit service.

8.4 Rail

The Great Lakes Central (GLC) railroad (GLC) provides freight rail service to the Traverse City area on track owned by the State of Michigan. The tracks were purchased by the state in the late 1970s and early 1980s to preserve rail service in the area. A report titled “Preserving Options: Maintaining Rail Corridors in Northwest Michigan” was prepared for the Northwest Michigan Council of Governments in 2002 and a review was included in the Grand Vision’s *Task 1 Report*. A rail map for the State of Michigan is available from the Michigan Economic Development Corporation website showing the rail lines in the six-county region as short line railroads which are also called Class III railroads. Current freight traffic includes fruit and other perishables, scrap metal, and lumber.

Currently, MDOT is beginning its development of a Michigan State Rail Plan. The comprehensive plan will establish state policy involving freight and passenger rail transportation, including commuter rail operations. It will present priorities and strategies to enhance or preserve rail service that benefits the public, and will serve as the basis for future federal and state rail investments in Michigan. Grand Vision working groups have also started to investigate opportunities for expanded rail service in the region.

8.5 Airport

Air service provides an important link in the regional transportation network. It provides an efficient route to and from Traverse City for residents and visitor alike. The Cherry Capital Airport is located in Traverse City on South Airport Drive east of Garfield Road. The airport is served by several commercial airlines including Alaska Airlines, American Airlines, Delta Airlines and United Airlines. Direct service is currently provided to Chicago, Marquette (MI), Minneapolis, Detroit and Denver. According to passenger data from the 2006 Airport Master Plan, there is an average of 35 commercial flights arriving and departing daily. In 2004, there were 200,492 domestic passenger enplanements. Future projections anticipate an increase in passenger enplanement to 315,000 or more by 2025. The terminal building is a design inspired by Frank Lloyd Wright and echoes the openness and natural setting of the region. The airport also provides for general aviation services along Airport Access Road.

The airport is an important transportation link and it is also an important part of the local economy. It provides cargo service to businesses and commercial delivery services including Airborne Express, UPS, FedEx and DHL. In 2004, there were 2.4 million pounds of air cargo moved through the airport according

to the Airport Master Plan. The Master Plan projects that the cargo rate will increase over time at a rate of 7.4% annually. This results in a projected ten million pounds of enplaned air cargo in 2025. Put another way, the amount of air cargo handled at the airport is projected to double every ten years. The airport's website (www.tvcairport.com) reports that the Michigan Department of Transportation has estimated the combined economic impact of the airport on the region to be approximately $200 million annually. This figure includes both business and tourism.

The airport is connected to the community through a variety of ground transportation options. Travelers going to the airport using a personal vehicle will find close-in parking for both short- and long-term needs. For others arriving in the region, there are currently five rental car companies located in the terminal building and several private taxi companies as well. There is bus service to the airport via Route 5 of the BATA transit system serving both air travelers and employees. There is also a bike rack for those arriving on bicycle. The Urban Trail in the TART Trail system runs along Parsons Road north of the airport and then south along 3 Mile Road. It does not provide a direct connection to the airport entrance but reaches the intersection of 3 Mile and S. Airport Road.

9.0 Travel demand model

9.1 Introduction

A Travel Demand Model (TDM) is a computerized tool that allows the evaluation of existing travel patterns and the forecast of future travel based on projections of land use and socio-economic data. The TDM has two main components, the transportation network and transportation analysis zones (TAZs). The transportation network includes the arterial and collector roads in the region. TAZs are small geographic areas for which household and employment data is collected and forecasted. The model then creates trips from the households and employment and then places the trips onto the transportation system connecting them together.

After the TDM is built, it is calibrated to match existing traffic. Once the model is shown to accurately reflect existing conditions in the current transportation system, it can be used to predict future travel patterns. It can also be used to test proposed changes to the transportation system or the land use development pattern. For instance, a TDM could test the impact of a road widening or a new housing development.

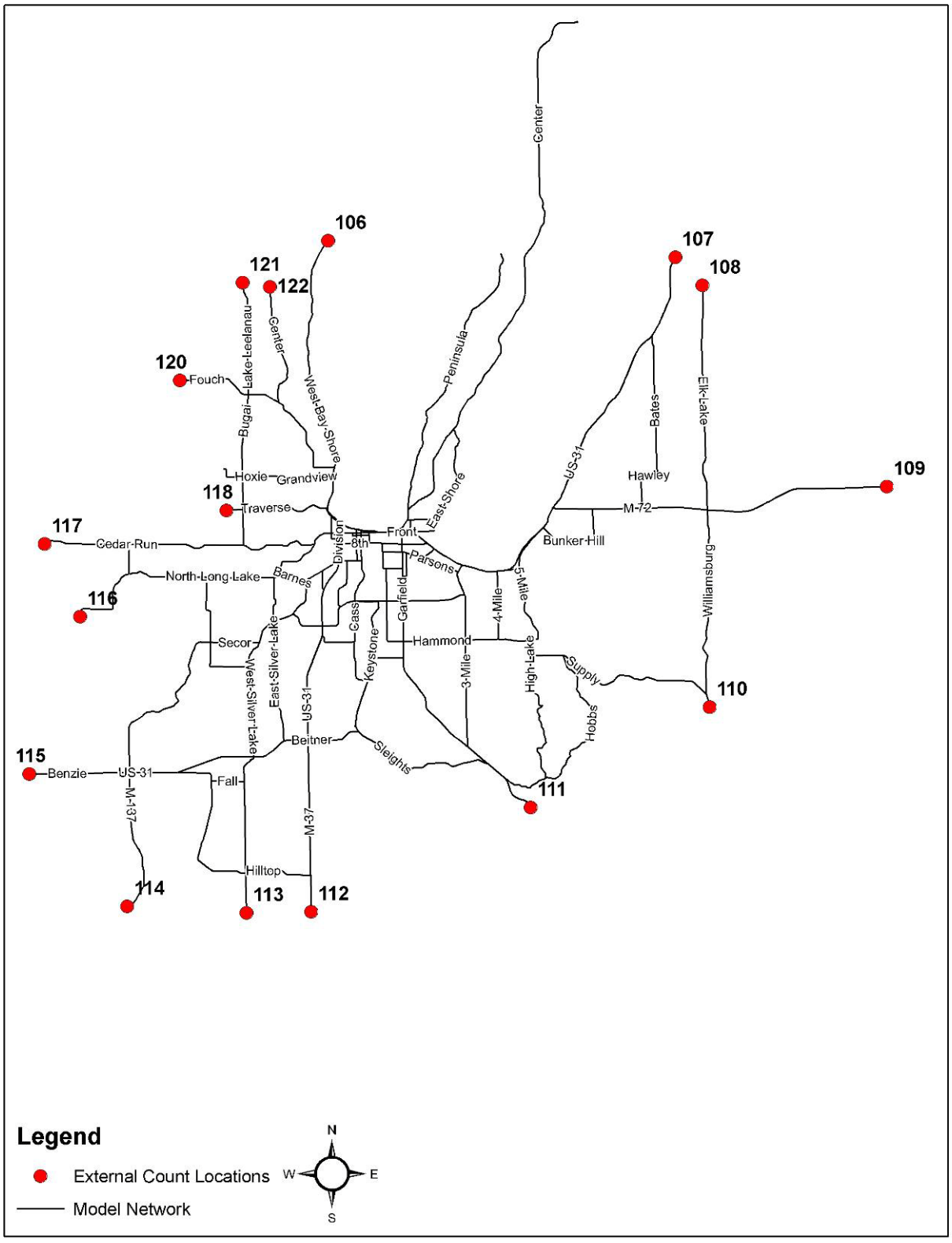
During the Grand Vision project, the TC-TALUS travel demand model (TDM) was updated to reflect existing travel patterns and to anticipate future travel conditions for the Grand Traverse region. Specifically, the primary objective of this update was to refine the existing Michigan Department of Transportation (MDOT) model to reflect 2007 conditions and to provide the community with an accurate tool to predict the future needs for the area. Most of the model update involved the inclusion of new origin destination data collected in 2007 and the latest *MI Travel Counts* household travel survey data.

A comprehensive report titled *Travel Demand Model Methodology Report (Task 3.4)* dated June 24, 2010, was written to document the TDM update process. Information in this section is a summary of the information provided in that report.

9.2 Model inputs

In order to update the TC-TALUS travel demand model (TDM), several areas of the model were refined.

The TDM is based on a specific network of major roads around Traverse City. The graphic on the next page was taken from the Task 3.4 Report and shows the road network included in the TDM.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External Count Locations
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S

Figure 4

As part of the model update, the State Transportation Improvement Plan for the State of Michigan (STIP) was reviewed and it was determined that no changes to the road system were planned in the Grand Traverse area. As a result, all analysis (except of the Gap Analysis, Task 3.6) was based on the existing road network. For the Gap Analysis, the Hammond Road extension between LaFranier and Keystone was included.

Several sets of demographic data were created as part of the Grand Vision. The *Socioeconomic Report-Task 3.2* provides specific details as to how the demographic sets were created. Between 2007 and 2035, household and population levels are projected to increase by 39% and overall employment across the service, retail and other employment is projected to increase by 18% in the model area. Both the 2007 and 2035 socioeconomic data (households and employment) are distributed to the TAZs in the TDM.

An origin-destination study was completed at 16 locations as noted on Figure 2, around the perimeter of the TC-TALUS model area in September 2007 as part of the Grand Vision project and the data was incorporated into the TDM update. Origin and destination studies provide a wealth of travel data. In addition to providing traffic volume counts at specific stations, the study evaluates whether trips are coming into the area, leaving the area or passing through the area.

Another adjustment that was made to the model was to the trip production rates which are a critical element in travel demand modeling. In order to assure the highest degree of accuracy tailored to the local Grand Traverse region, MI Travel Counts data was used to establish new trip production rates.

A set of values called “friction factors” are used to calibrate the average trip lengths in a TDM. There are three trip purposes within the TDM: Home Based Work (HBW), Home Based Other (HBO), and Non Home Based (NHB). For the Grand Traverse region, average trip lengths were established using the MI Travel Counts data for each of the three trip purposes. The average HBW trip was 19.76 minutes.

The MI Travel Counts data was also used to estimate auto occupancy rates by trip purpose within the Grand Traverse region. Within the model, HBW was 1.05 vehicle occupants per trip, HBO was 1.54 and NHB was 1.46. These rates were used as input into the travel demand modeling process.

After the refinement of the above inputs it was necessary to recalibrate the TDM to a 2007 base year. The validation/calibration process involves comparing model generated link volumes with traffic counts at a specific location. There are standard acceptable deviation rates with larger deviations accepted on higher volume roads. Two hundred forty (240) specific links were analyzed within the model to validate the updated data sets. The resulting well calibrated model has produced a more current tool for MDOT and the TC-TALUS region that will assist in the enhancement of their future.

9.3 Modeling scenarios

Scenario modeling was a separate part of the Grand Vision process from the TDM model update discussed so far in this section. During the scenario planning process, a land use and transportation scenario were created for each of four possible future growth patterns presented during the Vision Decision polling event. The purpose of the scenario modeling was to estimate the relative differences in the impacts to the transportation system of the four possible future growth patterns. These transportation scenario models were created through a direct transfer of data from the land use scenario in a GIS environment. The land use scenarios themselves were a result of the Grand Vision's public participation process.

In the transportation scenarios, a calculation was incorporated to adjust for the use of multi-modal transportation system options. Formulas are used to predict the percentage of auto, transit trips, walk and internal trips within the study area. This process is known as the "4D process". The four D's are Density, Diversity, Design, and Distance/Destinations. The calculations associated with the adjustments are based on over 50 national case studies completed by Metropolitan Planning Organizations, Council of Governments, and Federal agencies looking at the effect the 4D's have on transit ridership. Although there are other tools that can be used, the 4D mode choice model was chosen as the most effective tool to develop and evaluate a mode specific model for each scenario within the study area and to include the impacts of different development types on mode choice.

Through the public participation process, four different 2035 land use scenarios were developed to explore growing population concerns in the region. In response to changing land use patterns, the transportation element was developed to marry land use patterns with associated transportation scenarios. As employment and households move and change over time, transportation effects are inevitable. The TDM takes the existing conditions and uses future demographic data to predict future scenarios based on the differing trends in land use. By using the TC-TALUS TDM, transportation professionals can test the consequences of each growth scenario. By using indicators such as vehicle miles traveled (VMT), vehicle hours traveled (VHT), and delay, one can predict future outcomes that may occur in each scenario.

Although the differences in land uses resulted in some changes in traffic patterns in each future land use scenario, there was still extensive overlap between the different scenarios and the streets that will need future focus. Each transportation scenario generated results that indicated where road corridors would be over capacity. The results are general indicators of how each scenario would perform in part because the model has only arterial and collector streets. The report recommends that a specific downtown Traverse City circulation plan be developed before any projects in that area are recommended.

With changes in land use patterns in the region, transit has the potential to function either more or less efficiently depending on the choices made. If households and locations of employment become dense, these nodes create a preferred environment for transit ridership. The scenario transportation models reflect these conditions with the 4D processing discussed previously. Different transit scenarios were developed to coincide with the four different land use scenarios.

9.4 Moving forward

As a result of the transportation scenario models, priority corridors began to emerge based on the overlap noted in the previous section. The model results were combined with a series of evaluation criteria to create an initial list of priority corridors. Each set of criteria used one of these three data types for evaluation: numeric base information, public input, or modeled future. Those road sections that ranked high in multiple areas received priority on the list.

The criteria for selection included these seven categories: public influence; improves regional mobility; improves local mobility (neighborhoods); promoter of alternative travel modes; regional benefit cost; safety; and increased capacity to meet future demand. The Task 3.4 Report includes a discussion of each of these categories. Highlights are provided here. For a project to be distinguished by the public influence criterion, more than ¾ of the maps at the transportation workshop had to include the project. The criterion that improves regional mobility were noted as regional corridors based on traffic volume, existing thoroughfare designation, and preferred scenario land use. One characteristic of a *local mobility corridor* is that it primarily serves to improve the "home to work" or "home to retail" trip even though it may also be a regional corridor. The criterion for *promoter for alternative travel modes* was used to select projects that would allow for regional or local multimodal improvement and focus primarily on transit. The *regional benefit cost* criterion was developed to address the "most bang for the buck" question. The improvement of safety within any corridor is always a priority. This criterion *increased capacity to meet future demand* is based on the technical analysis for future level of service (LOS).

9.5 Recommendations

The *TDM Methodology Report* was produced to document the process for updating the TC-TALUS TDM and the separate process used during the scenario planning activities. It also included a list of recommendations.

One recommendation from the *Task 3.4 TDM Methodology Report* is that a further study be completed analyzing the potential for increased transit in the region. Although preferred routes were generated for each scenario in the transportation scenario models, an implementation strategy that details cost, ridership, and infrastructure will need to be created to explore the question in more detail.

Other recommendations came in the form of an initial list of fourteen priority corridors. These were identified based on the scenario analysis and the seven criterion discussed earlier. The list of corridors was amended by the TC-TALUS technical committee and approved as amended by the TC-TALUS board of directors. The amended list of corridors carried forward for analysis is presented in the Task 3.5 document entitled *Land Use Scenario Environmental Report*.

The role of the TDM in the Grand Vision project was two-fold. First, it provided transportation data for each proposed future scenario. This was based on a process that allowed data from the land use scenarios to be transferred directly into the transportation scenario model. Separate from the transportation scenario model, the updated TC-TALUS TDM has produced a more current and up to date tool for Grand Traverse region that can be used to assist with transportation planning activities in the

region for years to come. Growth rates from the TDM were used to identify segments of the corridors of significance with capacity issues in the Gap Analysis (Task 3.6)

10.0 System deficiencies / gap analysis

Utilizing the Social, Economic, and Environmental (SEE) data compiled in task 3.5 to examine the needs for the region's transportation system, each of the 11 corridors of significance was analyzed for projected capacity issues on a segment-by-segment basis. Segments that had projected level of service D or worse in 2035 were identified as transportation gaps. Then, using the SEE data in conjunction with the community vision established through the public involvement process, physical improvements necessary to fill the transportation gaps within each corridor were identified. The methodology used to identify the transportation gaps are detailed in Section 2 of the *Transportation Gap Analysis and Refined Corridor / Intersection Analysis Report (Task 3.6 / 4.2).* The transportation gaps are detailed in tables 5 and 6 of this report. The recommended mitigation strategies for high crash concentration locations are also proposed where applicable, and identified in the 3.6/4.2 report. For details on the crash analysis methodology, refer to the *Task 3.1.6 Crash Analysis Report*. The corridors were also analyzed at the intersection level. Anticipated levels of service and volume to capacity ratios for key intersections were calculated using Highway Capacity Manual methods along each corridor. The details of the corridor analysis are summarized in Section 18 of the *Transportation Gap Analysis and Refined Corridor / Intersection Analysis Report (Task 3.6 / 4.2).* Details of the intersection analysis are included in *Appendix A* of the 3.6/4.2 report.

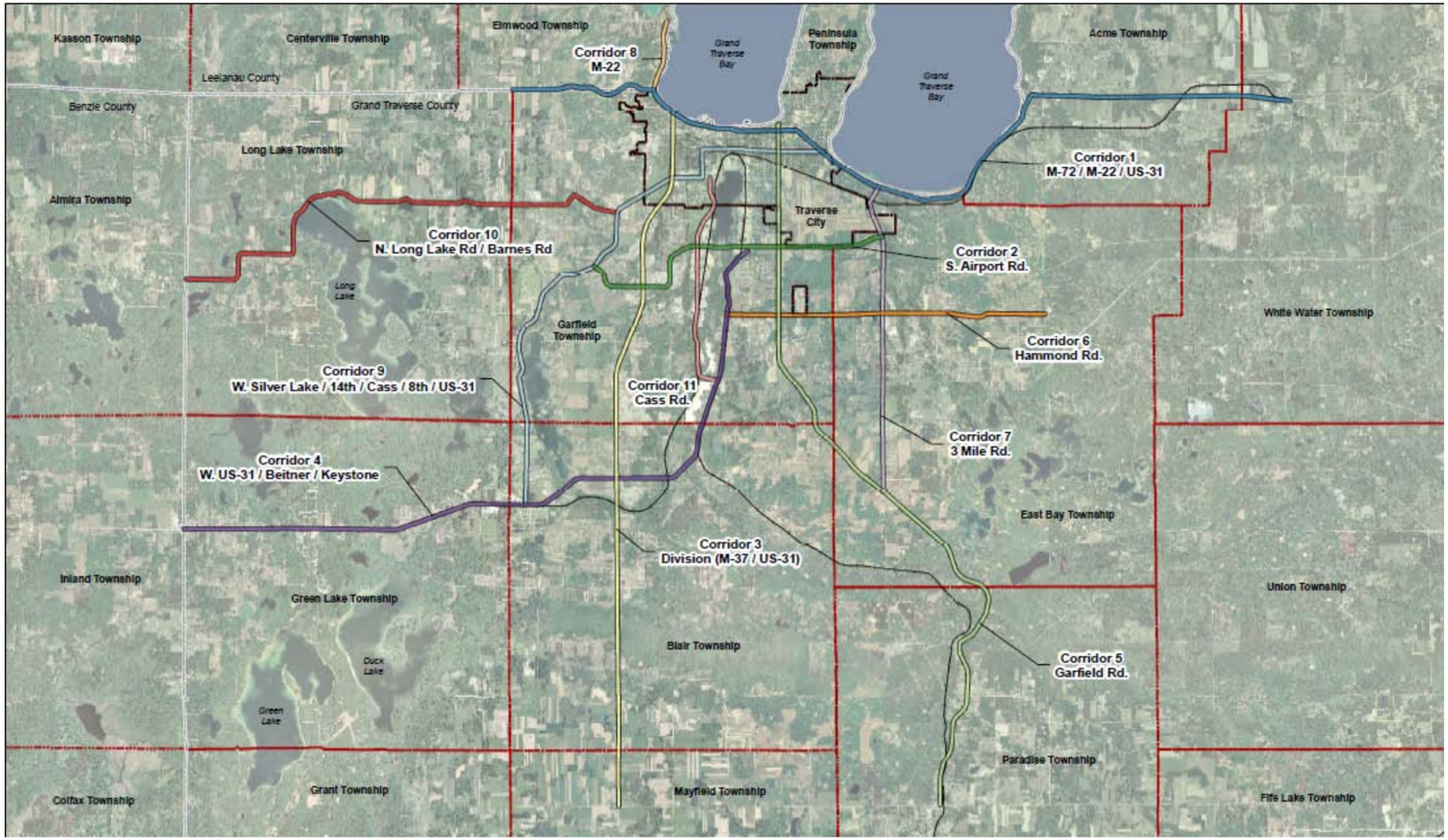
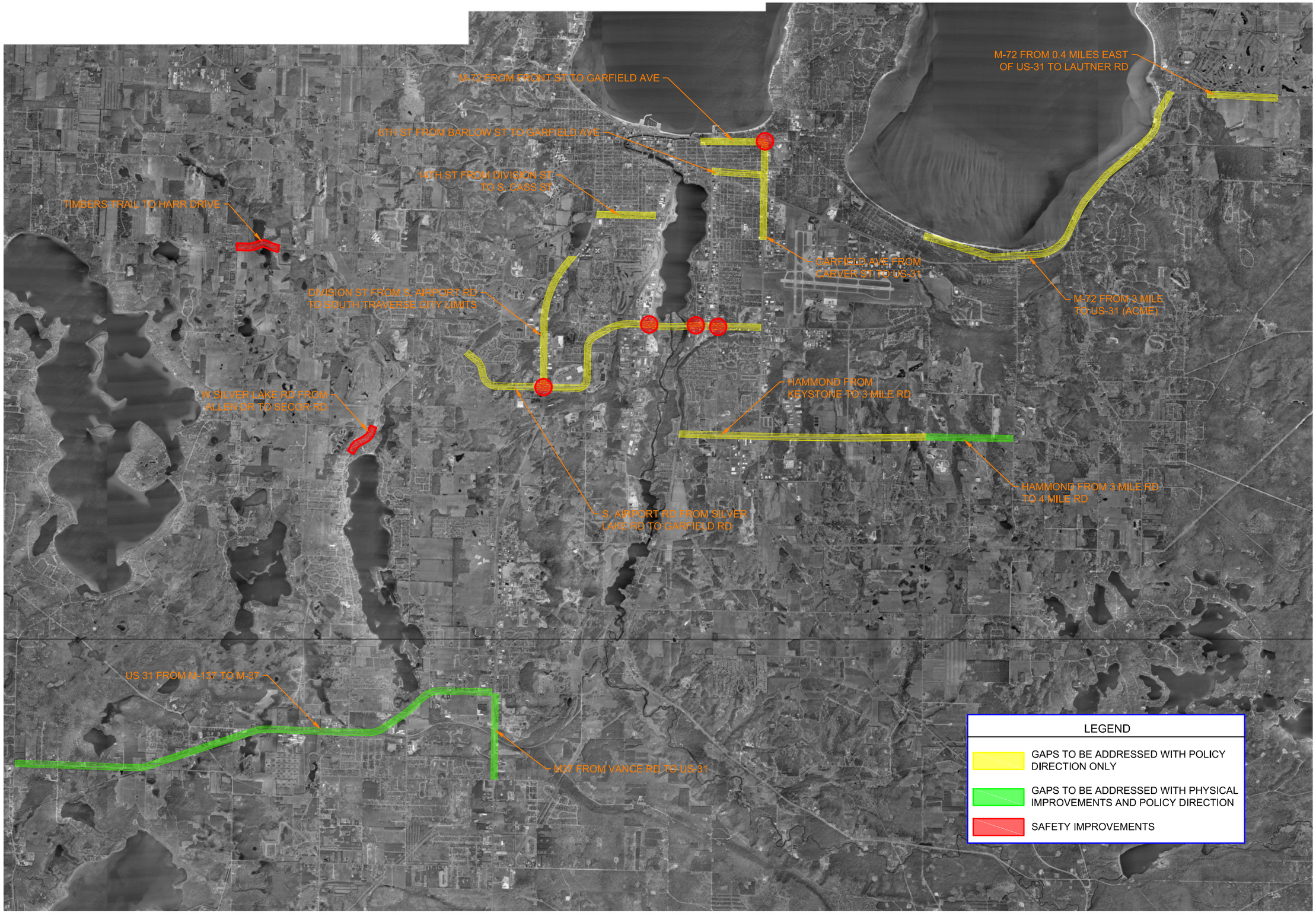


Figure 5 Corridor Index Map



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TC-TALUS
THE GRAND VISION

TRAVERSE CITY, MICHIGAN

REVISION

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CHECKED BY: DVC

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SHEET CONTENTS

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11.0 Alternatives analysis

The project selections identified in this report represent a major shift from the "Trend" or business as usual approach to transportation project selection. For example, there are no road widening projects in the core central city as would have been proposed under the Trend Scenario. This is because the Grand Vision sets the stage for a different approach to congestion management in the core urban area. In the most dense urban areas around the region, capacity issues are handled through increased density and mixed use development patterns; increased transit service; and improved non-motorized infrastructure. Also, in addition to addressing the safety and mobility needs of vehicular traffic, many of these road projects here include improvements to support increased transit service and non-motorized travel options. The highest priority projects are directed toward preserving capacity of the existing infrastructure through access management tools.

That being said, this is a transportation study and it does address areas where roads need to be widened to provide additional capacity for vehicular traffic. This is not in conflict with the Grand Vision but supports the Grand Vision by providing safer and more efficient travel corridors between development nodes. The successful implementation of the Grand Vision in the region will continue to require a coordinated transportation and land use effort

The *Travel Demand Model Methodology Report* identified seven criteria for selection of priority corridors. These seven criteria were carried through to the project evaluation and selection process. In some cases, the criteria have a different application at the project level. This discussion notes the selection criteria and provides a brief discussion of how it applies to project selection.

As in the corridor selection process, the following seven elements were used as evaluation criteria to determine the priority projects. Each criterion used a combination of three data types for evaluation:

- Numeric base information (Level of Service, Traffic Volumes, Crash Rates, Access Points)
- Areas of concern identified at scenario planning workshops and survey activities
- Modeled future (Regional TDM model applied to the villages scenario)

Those that ranked high in multiple areas received priority on the list in the *Recommended Transportation Strategies*. Timing was an important component of project selection with projects supporting more distant future needs given a lower priority. The projects, ranked according to seven key criteria, are summarized in the table at the end of section 12 of this report. The seven criteria are:

> *Considers public influence* – Public influence was critical to the identification of corridors in the *Travel Demand Model Methodology Report*. The projects proposed here are located only in those corridors. Public influence, therefore, defined the limits of the project boundaries and indirectly influenced project selection. However, public influence was not directly responsible for project selection.

Improves regional mobility – Regional corridors connect the nodes of development described in the preferred regional growth scenario of the Grand Vision. Projects were identified to support the regional vision of higher density centers connected by transportation arteries. These projects are lane widening projects along corridors that connect nodes of urban development. None of these projects are located in the central urban core. The adjacent land use along many of these corridors is undeveloped and should remain that way based on the preferred future development scenario of the Grand Vision.

The Travel Demand Model showed that the compact, nodal land use pattern of the Grand Vision will result in higher traffic volumes along regional corridors. These roads will need to carry more vehicles between urban nodes in the future but the accompanying, strip commercial development or sprawling land use patterns need not occur. The preferred regional future is created through coordinated transportation and land use actions. This report addresses the transportation system improvements that will be needed as part of the Grand Vision. Land use policy makers and regulators will need to take action to direct growth to core urban areas and prevent sprawling land use development pattern along the regional corridors.

Improves local mobility (neighborhoods) – This criterion focuses on improved circulation for local residents, improving access to businesses and residences at the local level. One characteristic of a local mobility corridor is that it primarily serves to improve the “home to work” or “home to retail” trip. These projects may have the added benefit of improving regional mobility. They use context sensitive solutions and a complete streets design approach to reflect local use of the road.

These projects are also road widening projects to reduce road congestion. However, the cause of congestion on these corridors is different as are the associated project benefits. On local mobility corridors, congestion is caused by higher turning movements from traffic entering and leaving the road and the associated slowing traffic. The additional lane provides an opportunity to separate turning traffic from through traffic and keep vehicles moving more efficiently along the corridor. The additional lane also supports transit service by allowing a route around bus stops. None of these projects are located in the central urban core.

Promotes alternative travel modes – Part of the transportation component of the Grand Vision is to increase multimodal transportation choices. This criterion was used to select projects that would increase regional or local multimodal travel opportunities. In many cases this criterion focuses on transit as noted above in the local mobility selection criteria. However, this criterion was also used to consider context sensitive solutions and complete streets that address infrastructure for pedestrian and biking activity.

Provides regional cost benefit – As in any region, major infrastructure projects tend to be costly and funding is limited so cost is a consideration. Priority projects were identified that would first make the best use of available implementation funds from the Grand Vision project. Federal dollars cannot be used for match money so those projects were selected based on maximizing the “bang for the buck” from both a timing and completion perspective. Then, based on the land

use pattern of the preferred regional growth scenario, projects were also identified at "choke points" (also referred to as "Gaps" and identified in the *Transportation Gap Analysis and Refined Corridor / Intersection Analysis Report (Task 3.6 / 4.2))* where traffic from different nodes come together and increase congestion. Improvements to the "choke points" would have a regional benefit to the contributing areas. Details of anticipated project costs are included in the corridor-by-corridor discussion in the *Transportation Gap Analysis and Refined Corridor / Intersection Analysis Report (Task 3.6 / 4.2).*

Improves Safety – This criterion always influences the decision making process. The improvement of safety within any corridor is always a priority. Each of the projects selected will have a positive impact on transportation safety through the use of best management practices for mitigating safety concerns. However, the traffic analysis conducted as part of the *Corridors of Significance Draft Environmental Report* did not indicate a need for a project to address specific safety concerns.

Increases capacity to meet future demand – This criterion relates to timing of project need. It is based on the technical analysis for future Level of Service (LOS) in the *Gap Analysis Report*. The Transportation Demand Model of the preferred (Village) scenario identified corridors where the current or future LOS falls below a Level "D" rating. The projects identified in these corridors were prioritized based on whether the need exists currently or whether it is anticipated in the future. Existing needs were given a higher priority. Future needs were given a lower priority. Access management plans were given the highest priority because prompt implementation will maximize project effectiveness.

12.0 Financial analysis / anticipated project costs

12.1 Overall prioritization process

The safety and capacity transportation gaps identified in the *Transportation Gap Analysis and Refined Corridor / Intersection Analysis* Report have been placed into one of 4 categories: Access Management, Safety Improvements, Road Diets, and Capacity Improvements. Each project was then compared to the others with respect to impact timeframe, safety, impact on mobility, and project cost and summarized in the *Recommended Transportation Strategies* table at the end of this section. Each of the transportation gaps is discussed below, including a discussion of why the project has been placed on the list at its current priority.

12.2 Access management plans

The best method for preserving as much roadway capacity as possible is to streamline operations with an access management plan. A detailed access management plan for the corridor will, over time, reduce the number of driveways on the roadway and provide additional inter-parcel connections to reduce conflicting turning movements along the corridor. For segments of corridors that will experience near- or over-capacity conditions as detailed in the *Transportation Gap Analysis and Refined Corridor / Intersection Analysis Report (Task 3.6 / 4.2)*, but are situated in locations within the study area where widening is impractical or not in alignment with the regional vision, it is important to implement an access management plan. The access management plan should be implemented as soon as possible because the results of access management efforts are incremental in nature and take years or even decades to fully develop. The need to start the access management plan soon to experience maximum benefits makes it a high priority.

12.3 Intersection safety improvements

The prevalence of rear-end type accidents at intersections can be effectively mitigated by providing larger and more visible advance warning signs. This project type can easily be implemented because of its low cost and lack of right-of-way acquisition. Intersections that would benefit from this type of safety improvement are:

- S. Airport Road / Division Street (US-31, M-37)
- S. Airport Road / Garfield Avenue
- S. Airport Road / Cass Street
- S. Airport Road / Barlow Street (LaFranier Road)

Another intersection safety mitigation technique is to add channelizing lanes to provide turning traffic an opportunity leave the through traffic lanes when slowing / stopping to make a turning maneuver. Intersections that are near capacity and do not have appropriate right turn and/or left turn lanes, tend to have conflicts between through traffic and turning traffic in the same direction of travel resulting in a prevalence of rear-end type accidents. The Garfield Road / Front Street (US-31) intersection will benefit

from the addition of right-turn lanes on Front Street. This project would require significant right-of way acquisition in the form of a total take, and therefore will take longer to implement, placing it at lower priority level than the other intersection safety improvements that can be implemented sooner. Details of this project and its right of way impacts are in the *Transportation Gap Analysis and Refined Corridor / Intersection Analysis Report (Task 3.6 / 4.2)* report.

12.4 Curve safety improvements

Accidents on curved roadway segments with high crash concentrations can be mitigated by installing centerline and shoulder rumble strips, as discussed in the *Transportation Gap Analysis and Refined Corridor / Intersection Analysis Report (Task 3.6 / 4.2)* report. These relatively low cost mitigation techniques can be implemented without acquiring new right-of-way. There are two sections of roadway that will benefit from this type of safety improvement: W. Silver Lake Road from Allen Drive to Secor Road and N. Long Lake Road from Timbers Trail to Hardy Road.

12.5 Road diet

Certain segments of roadway currently have excess capacity and are projected to retain this excess through the entire time horizon of the analysis. One such segment is Garfield Road from Hammond Road to S. Airport Road. This 5 lane section is projected to operate at level of service A-B through 2035. If the roadway section were reduced to one through lane in each direction with a center left-turn lane, it would function at level of service C-D through 2035, still above the acceptable level of service D threshold. Reducing the number of lanes on this segment would provide room for a streetscape and multi-modal facilities within the road right-of-way without causing future capacity concerns. This segment of roadway is a candidate for a road diet because it is currently a 5-lane section and can easily function as a 3 lane section for the duration of the study. This segment of roadway also has adjacent land-use patterns that can benefit from additional multi-modal facilities. Also, aesthetic improvements to this segment of roadway can be implemented to provide a visually pleasing gateway corridor to the core urban center of the region. The signalized intersections at either end of this segment will need to be coordinated to provide for optimum north-south traffic movement.

12.6 Capacity improvements

For segments of roadway that are: 1) going to function as key connections between population centers in the regional development plan, and 2) projected to be over-capacity during the time horizon of the study, the addition of through lanes is warranted. These capacity improvement projects represent major transportation investments. They are identified on the prioritized list as lower priorities because the capacity issues will not occur for another 10 to 20 years. However, since they are large investments, they are on the list so road agencies can plan for funding for the projects.

12.7 Signal Optimization

Signal Optimization projects seek to keep the signal timing programs current with traffic patterns and make the most efficient use of the traffic signal. These projects require detailed traffic counts and turning

movement studies to be completed and used by qualified traffic operations engineers to develop and implement revised traffic signal timing.

Table 6 Prioritized list of transportation improvements by category

Road	Limits	Project Type	Estimated Cost	Right of way required	Public Influence	Improves Regional Mobility	Improves Local Mobility	Promotes Alternative Travel Modes	Provides Regional Cost Benefit	Improves Safety	Increases Capacity to Meet Future Demand
Garfield Road	Birmley to US-31	Access Management	$ 125,000	No	x		x		x	x	
M-37 / US-31	M-113 to 14th Street	Access Management	$ 100,000	No	x		x		x	x	
M-22	M-72 to Cherrybend	Access Management	$ 40,000	No	x		x		x	x	
US-31 / Bietner / Keystone	Benzie County Line to Hammond Road	Access Management	$ 75,000	No	x		x		x	x	
Airport Road	Airport / US-31 Intersection	Safety Improvement	$ 100,000	No	x				x	x	
Airport Road	Airport / Garfield Intersection	Safety Improvement	$ 100,000	No	x				x	x	
Airport Road	Airport / Cass Intersection	Safety Improvement	$ 100,000	No	x				x	x	
Airport Road	Airport / Barlow (LaFranier) Intersection	Safety Improvement	$ 100,000	No	x				x	x	
W. Silver Lake Road	Allen Drive to Secor Road	Safety Improvement	$ 75,000	No	x				x	x	
N. Long Lake Road	Timbers Trail to Hardy Road	Safety Improvement	$ 90,000	No	x				x	x	
Garfield Road	Hammond Road to S. Airport Road	Road Diet	$ 540,000	No	x		x	x	x		
Garfield Road	Garfield / Front Intersection	Safety Improvement	$ 100,000	Yes	x				x	x	
M-37 / US-31	Vance Road to US-31	Capacity Improvement (Widening)	$ 4,350,000	Yes	x	x			x		x
US-31	W. Silver Lake Rd. to M-37	Capacity Improvement (Widening)	$10,295,250	Yes	x	x			x		x
US-31	E. Duck Lake Road to Sullivan Road	Capacity Improvement (Widening)	$ 5,250,000	Yes	x	x			x		x
Hammond Road	3 Mile Road to 4 Mile Road	Capacity Improvement (Widening)	$ 3,975,000	Yes	x	x					x
M-37/US-31	S. Airport Road to Grandview Pkwy.	Capacity Improvement (Signal Optimization)	$ 500,000	No		x	x		x		x
S. Airport Road	W. Silver Lake to Townline	Capacity Improvement (Signal Optimization)	$ 500,000	No		x	x		x		x
M-72 / US-31	M-22 to M-72 (Acme)	Capacity Improvement (Signal Optimization)	$ 500,000	No		x	x		x		x
Garfield Road	Hammond Road to US-31 / M-72	Capacity Improvement (Signal Optimization)	$ 500,000	No		x	x		x		x

13.0 Access to the system—Shaping and implementing policies and strategies

Access to the system can be interpreted in a variety of different ways. Much of this document has addressed access in terms of physical access to a variety of transportation modes which is certainly important to the transportation discussion. Here, we consider access to the system in terms of policy making. We begin with the statement that citizens can and should be an active, vocal part of transportation planning in the community. Further, public and private organizations with an impact on or impacted by the transportation system can and should be involved in the transportation planning process.

All transportation organizations have a planning process that includes an element of public participation. Access to the policy discussions and budget sessions is permitted and even a required part of the process. Legal requirements for posting public meetings and allowing for public comment are met during the process. In practice, however, many efforts by transportation organization to solicit public input might be described as "lackluster." The public is allowed to participate in the transportation planning process but may not understand *when* or *how* or *why*. The solution to this situation can be address from two directions. One is to educate the public and encourage participation. The other is to educate transportation planning professionals and provide tools and techniques to improve outreach and communication efforts.

Much has already been done on public education by the Northwest Michigan Council of Governments (NWMCOG). That organization has developed a booklet titled "A Citizen's Guide to Transportation Planning in Northwest Lower Michigan." It is available for free download online at www.nwm.org. The purpose of the document is to provide the reader with an understanding of the transportation planning system and encourage participation in the process. Explanations are made using simple language that is void of technical jargon. This helps the reader understand the process itself and, as a result, empowers the reader to participate in the planning process. The larger message is that the transportation planning process is an open, public process and that everyone can add value through participation. Also, the reader is informed that transportation planning is a long process and the earlier people become involved, the more effective they can be.

Specifically, the "Citizens' Guide" document presents information about a variety of related topics. First, an overview is provided about the NWMCOG organization and its role in the region. Transportation statistics are provided for the region as well. A short history of transportation planning is followed by an explanation of the transportation planning framework for rural areas which is the system classification for all of the Grand Vision study area. Transportation planning organizations are identified by name and they are described through a combination of brief text descriptions and maps showing geographic boundaries. The list includes:

- MDOT
- NWMCOG and TC-TALUS
- County Planning Offices

- County Road Commissions
- Cities and Villages
- Transit Authorities
- Trail organizations
- Tribal organizations

Next, information is provided about how to get involved in the process including a description of the process itself communicated with flowchart graphics. In the final text chapter, seven transportation challenges are identified along with opportunities to address them. The document wraps up with keys to success, a definitions section and a list of contacts in a variety of offices and agencies. It is a comprehensive guide that meets its stated goal of providing information and encouraging early participation in the transportation planning process. The "Citizen's Guide" is a resource that is available and ready to use. Implementation and policy strategies will begin by considering ways to raise awareness about the guide.

Once a resource or planning document is developed, it needs to be used. It needs to be distributed, read, discussed and understood. It also needs to be updated often enough to stay current on key pieces of information. The book—in this case the "Citizen's Guide" booklet—is a vehicle to share information that can be used to bring about change. There are several ways to help people become more aware of the "Citizen's Guide" and to promote its use.

First, the guide can be made available to citizens through more channels. Since the electronic version can be distributed without the cost of printing and delivering, it offers a distribution venue that is not hampered by budgetary constraints. For instance, the document or a link to the NWMCOG can be posted on the websites of all of the agencies listed in the guide and on the Grand Vision website. Other organizations who are impacted by the transportation system can also be partners in the outreach effort. This may include school districts, health departments, bicycle clubs, chamber of commerce offices, major employers, and conservation organizations to name a few. Additionally, press releases can get information in local newspapers and newsletters around the region. Public service announcements can be created. A speakers' bureau could be developed and made available for presentations to elected officials, community groups and others. The Grand Vision working group or TC-TALUS staff may chose to expand on this list and begin implementation efforts.

Additional outreach opportunities are possible if funding support is available. The "Citizen Guide" booklet can be printed and made available on paper. It can be distributed to local libraries and government buildings as a resource document or it can be included in a packet of training materials at an event or for a newly appointed planning commissioner. A public awareness campaign might be undertaken to reach out to the general public. Posters and flyers located on the bus, in a bicycle shop, in an elementary school or at a trailhead parking area might reach people using the transportation network itself. The ideas and opportunities are unlimited.

At the same time, transportation agencies involved in a planning process can look for ways to get the word out. Staff and volunteers can participate in regional activities to raise awareness of the "Citizen's

Guide" booklet. Also, the staff at public transportation offices can look for ways to conduct more robust public outreach campaigns as part of the transportation planning process.

Traditionally, public input has been accepted in writing or at a public meeting. If these methods are used, it is important to make people aware of the opportunity. Electronic communication allows invitations and information to be sent directly to a wide audience. With some additional effort, the distribution list can be expanded beyond the typical agency list and beyond the typical public hearing notice to include hundreds of individuals, offices, clubs and other organizations. The message can be written in plain English with information and an invitation to participate. It is also important to schedule meetings at times and locations that are accessible to the public.

Beyond the traditional format for inviting input, transportation staff members can reach out directly to area boards and commissions by requesting to be placed on the formal agenda. Other transportation organizations, local elected officials and planning commissions are a good starting point. The opportunity to reach beyond this starting point needs to be balanced with the availability of staff resources. Public opinion surveys present an opportunity for public participation in the planning process outside of the traditional meeting format. Alternative meeting structures such as a walk-through open house or an interactive table activity may also encourage people to attend and provide feedback. The goal of promoting public participation may be the same for each agency but the specific approach for reaching the goal will vary.

There is not one right answer for how to raise public awareness and encourage public participation in the transportation planning process. Regardless of the specific plan, there are some best practice guidelines that can strengthen the effort.

Have a plan. Each transportation agency needs to develop its own outreach and communication plan. It might include a contact list for communication outreach, a standard practice for meeting notices, timeline for outreach activities, and an annual work plan associated with recurring tasks. The plan should be written down and reviewed by the appropriate staff, board or commission. Once the system is in place, continue with it on a rotating or an annual schedule.

Have a goal. Develop a series of metrics to set an initial outreach goal and measure the effectiveness of each effort. For example, a goal may be to visit with one planning commission (or more) each month to provide information about the transportation planning. Public participation goals may include the number participants at public input events or number of surveys returned.

Consider roles, responsibilities and resources. There are lots of good ideas and opportunities to increase involvement in the transportation planning process but there are limits as well. When public involvement strategies are developed, be realistic and creative. The number of staff hours available for new tasks will be limited. Look for opportunities to work efficiently. Holding joint meetings and asking for support from other planning agencies are both options to consider.

Don't wait for a deadline. These things don't happen overnight. Begin now to put the systems in place for the next planning cycle. Continue to build interest and get communication systems in place.

The coordinated planning efforts discussed in this section are an important part of reaching the regional development goals of the Grand Vision. For the most part, transportation dollars all flow from one federal source. The planning process is in place because as a region, decisions need to be made about how to allocate a limited amount of resources. Transportation investments and the resulting multi-modal transportation system impact every aspect of the regional development vision. Everyone has a responsibility for making choices about the regional transportation network. Transportation agencies, land use planning agencies, elected officials, appointed officials, community leaders, non-profit organizations, employers and citizens should all understand and participate in the decision-making process.

Appendix A – Complete list of Grand Vision Reports

Report Title	Date
Past/Existing Transportation and Land Use Trends Report (Task 1)	November 2007
Grand Traverse Land Use Study: Values Research (Task 2)	November 2008
Crash Analysis Methodology (Task 3.1)	September 2010
Socio-economic Report (Task 3.2)	August 2009
"The Grand Vision" Report (Task 3.2)	April 2009
Gap Analysis Report (Task 3.3)	March 2010
Travel Demand Methodology Report (Task 3.4)	June 2010
Land Use Scenario Environmental Report (Task 3.5)	August 2010
Socioeconomic Impact Report (Task 3.5)	February 2010
Transportation Gap Analysis and Refined Corridor/Intersection Analysis Report (Task 3.6 and Task 4.2)	September 2010
Functional Classification Map Update (Task 4.1)	August 2010
Multi-Modal Transportation Systems Plan Report (Task 4.3)	September 2010
Develop Recommended Transportation Strategies Report (Task 5.1)	September 2010
The Grand Vision Community Resource Guide and Toolbox (Task 5.2)	April 2010