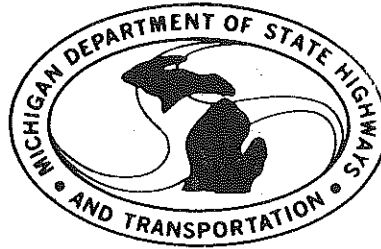


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# **NORTHWEST REGIONAL TRANSPORTATION STUDY**



**Michigan Department Of State Highways And Transportation**

**PLEASE SEE INSIDE FRONT COVER FOR PUBLIC MEETING SCHEDULE**

This brochure contains the findings and/or professional opinions of the Michigan Department of State Highways and Transportation staff and does not represent an official opinion of the Michigan Highway Commission.

These contents represent a summary of the Northwest Regional Transportation Study report. If more detailed information is needed, copies of the complete report are available at the following locations:

- a) County Planning offices within the Region.
- b) The Northwest Michigan Regional Planning and Development Commission office in Traverse City.
- c) The Michigan Department of State Highways and Transportation district office in Cadillac.

or by writing directly to:

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Michigan Department of State Highways  
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P.O. Box 30050  
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# **NORTHWEST REGIONAL TRANSPORTATION STUDY**

**PREPARED BY:  
MICHIGAN DEPARTMENT OF STATE HIGHWAYS AND TRANSPORTATION**

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**AUGUST 1978**

# PLANNING

## SYSTEMS PLANNING

Determines Need & Priorities for General Project Location

## PROJECT PLANNING

Deals with Specific Locations and Types of Facility Designs

### STATEWIDE SYSTEMS PLANNING

Deals with State & National Transportation Needs – Results in Broad Policy Determination

#### STATE MODAL PLANS

1. Airports
2. Busses
3. Highways
4. Railroads
5. Waterways

### REGIONAL SYSTEMS PLANNING \*

Relates Statewide Planning to all Regions to Insure Consideration of Local Goals

#### REGIONAL TRANSPORTATION STUDIES

1. Northeast Michigan Region
2. Northwest Michigan Region
3. East Central Michigan Region
4. etc.
5. etc.

### CORRIDOR LOCATION STUDIES

Required When Facility must be Relocated or Major Problems Anticipated. Determines General Corridor Location

### DESIGN STUDIES

Evaluates Specific Locations and Facility Types Within the General Corridor



THE CONCERN OF THIS STUDY

## INTRODUCTION

The constitution and statutes of the State of Michigan make the Michigan Highway Commission responsible for planning, building and maintaining a transportation system for the state.

To fulfill these responsibilities, the Michigan Department of State Highways and Transportation has developed a planning process to guide the state and its governmental units in analyzing the adequacy of existing transportation systems and in preparing plans for future systems and facilities.

Traditionally, the planning process has been divided into two phases: systems planning and project planning. Systems planning consists of analyzing transportation system needs and developing proposed networks designed to satisfy these needs. The process begins with the analysis of existing systems and facilities and their relationship to goals and objectives of the governmental units of the state and extends through establishments of a set of priorities for the improvement of the system by capital investment projects. Systems planning studies provide a general overview of how all modes of transportation interact in a given area. They address the physical and functional components of the various transportation systems and consider the probable general impacts to its users and non-users.

A detailed environmental impact statement (E.I.S.) is not required at this stage due to the general nature of the study and the broad scope of issues. The contents of this brochure represent a summary of a systems planning study as it relates to the Northwest Region.

Project planning is the process of analyzing the proposed construction or improvements of specific transportation facilities to a point where all but one of the practical alternatives are eliminated. Because project planning deals with specific facility location and design, an E.I.S. may be required, depending on the extent of improvements and the intensity of impacts.

## STUDY AREA

The geographical area considered in this study coincides with the ten-county jurisdiction of the Northwest Michigan Regional Planning and Development Commission. (The counties comprising the region are Manistee, Wexford, Benzie, Missaukee, Grand Traverse, Kalkaska, Antrim, Charlevoix, Leelanau, and Emmet.)

The Northwest Michigan Regional Planning and Development Commission has been designated by the Governor's office as a multi-county regional planning agency for this area. In so doing, the Governor has requested that all state agencies cooperate with the regional agency when planning various programs and to develop those programs to be consistent with regional goals and objectives. The Northwest Regional Transportation Study represents the Department of State Highways and Transportation's pledge to meeting this objective.

## PURPOSE OF THE STUDY

The Northwest Regional Transportation Study was initiated as a "pilot project" in 1972. When the project got underway, the plan was to be developed only to facilitate the flow of one mode of transportation -- highway travel. Shortly after the project had begun, however, the Governor charged the Department of State Highways and Transportation with the task of providing adequate transportation by all modes of travel in the state. Consequently, the Northwest Regional Transportation Study became a multi-modal transportation planning effort. The scope of the project was expanded to include integrated planning of rail, air, public transportation, water and non-motorized travel as well as highway facilities.

## TRANSPORTATION ISSUES

Two years ago, the study team distributed more than 2,000 brochures that outlined the current status of the Northwest Regional Transportation Study. In addition, seven public meetings were held throughout the region that were attended by nearly a thousand people. Comments received during and after these meetings represented the greatest amount of public interest ever expressed since this study was initiated.

One objective of the meetings was to seek public input on the study team's intent to reduce the fifteen proposed highway corridor alternatives being considered in the area to a lesser and more manageable number for analysis. Although this objective was achieved, there were also many other important transportation related issues raised.

### MAJOR TRANSPORTATION ISSUES

As a result of the brochures distributed and the seven public meetings held in the region, several major transportation issues surfaced and included: The need for freeway development, protection of the natural environment, improvement of existing facilities, population and economic growth and alternative modes of transportation.

In reviewing these issues, there are some definite trends indicated in the concerns or preferences of the region as a whole.

Environmental concerns dominated most public meetings and subsequent correspondence received and supports the Department's intent to conduct a detailed environmental analysis for most major transportation projects.

Another major concern expressed throughout the region was the need to improve the existing highway system. This indicates that there are several segments of highways throughout the region that have various kinds of operational deficiencies. Included are poor riding surfaces, passing sight distance restrictions, traffic congestion, frequent accidents and inadequate traffic lane widths. Correcting these deficiencies has recently been emphasized as a Department priority.

The "growth" and "freeway" issues are interrelated and were usually quite controversial in some areas of the region. For example, most pro-freeway interest was expressed in the Cadillac and Kalkaska meetings. Cadillac residents were particularly concerned with potential traffic increases caused by the present US-131 freeway facility terminating just south of the city. They recommended continuation of the freeway facility around Cadillac. In general, most pro-freeway interest supported development of a freeway in order to encourage economic growth, control strip commercial development, promote tourism and provide a safer means of highway travel.

Anti-freeway comments expressed the concern that resulting growth caused by constructing a freeway would place excessive development pressure on the area's natural resources. This, in turn, would lead to a condition already characteristic of downstate areas and thus destroy the unique beauty of the region.

Several persons expressed concern about ways to control the increasing development of the North. Because transportation facilities can sometimes influence desired growth patterns, the Department will be working more closely with various local communities to solve their transportation needs.

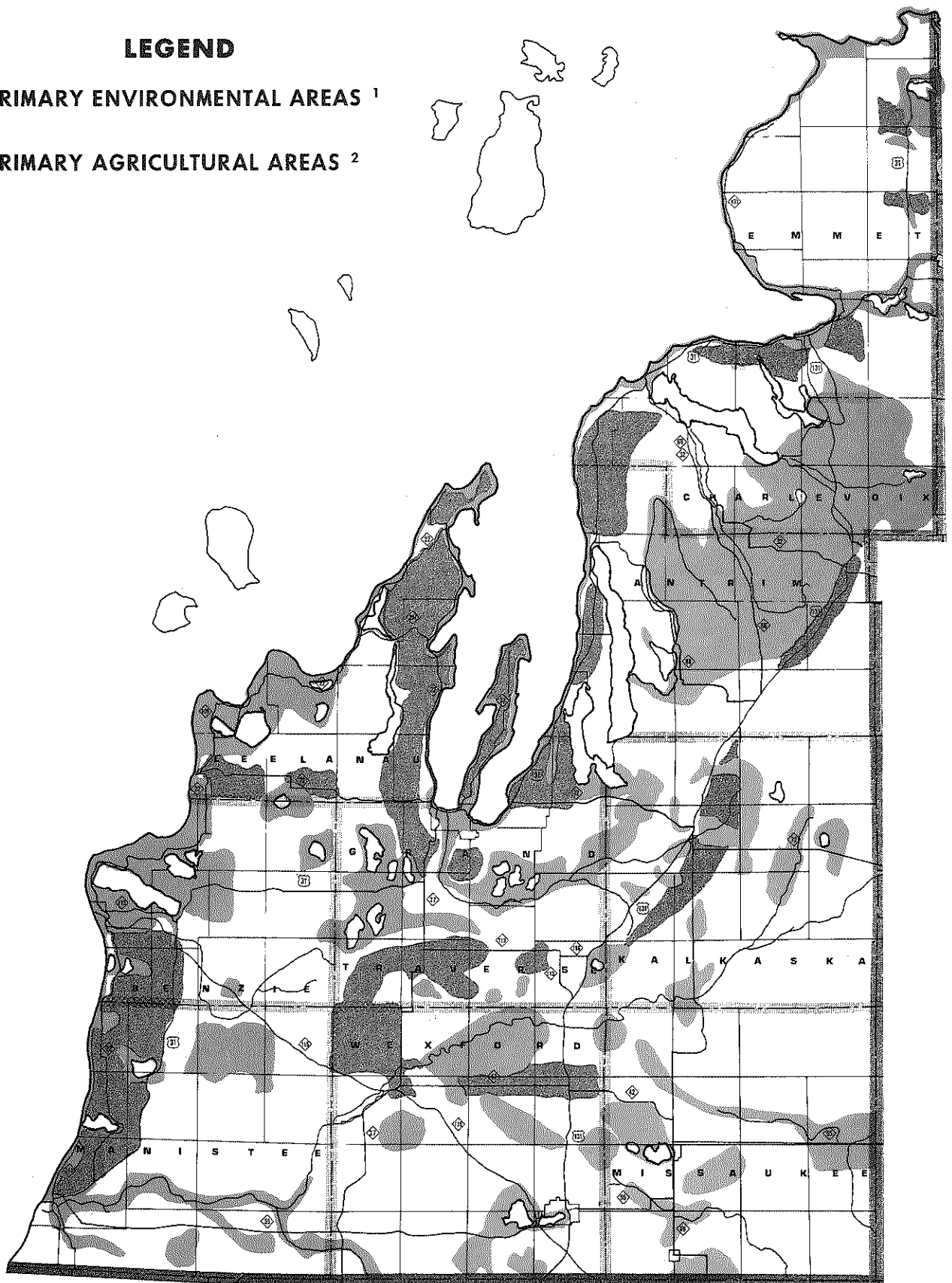
The concern for future energy availability was mentioned at all meetings. These concerns presented a new issue that had not been considered in the study originally. Therefore, because the future energy situation could have a significant impact on future transportation proposals, the study was revised to address this issue. In addition, the revision also offered the study team an opportunity to consider alternative multi-modal solutions to the transportation problems of the region and incorporate various growth possibilities.

Other issue categories such as safety, costs, railroads, etc. represent recurring transportation concerns. The railroad issue is an even greater concern now due to possible abandonment of the Chessie System tracks north of Manistee. As the study progresses, the issue identification process will continue as a means to insure proper development of future transportation plans.

# ENVIRONMENTALLY SENSITIVE AREAS GENERALIZED

## LEGEND

-  PRIMARY ENVIRONMENTAL AREAS <sup>1</sup>
-  PRIMARY AGRICULTURAL AREAS <sup>2</sup>



1. Primary Environmental Areas are those that have unusual aesthetic quality or ecological character of particular importance or fragility. These include lakes, streams, wetlands, coastal areas, steep topography, parks, wildlife refuge, and historical features. Lakes and streams are considered sensitive features even if they are not included in an area depicted on the map as sensitive.
2. Primary Agricultural Areas are those areas which have either the best existing or potential agricultural production in the region.

# EXISTING TRANSPORTATION SERVICES

## AVIATION

The Department's role in air transportation is to insure an orderly and timely development of the State's Aviation System. To assist in this task, the Michigan Aeronautics Commission in 1974, adopted a Michigan Airport System Plan (MASP) for the years 1975, 1980 and 1990.

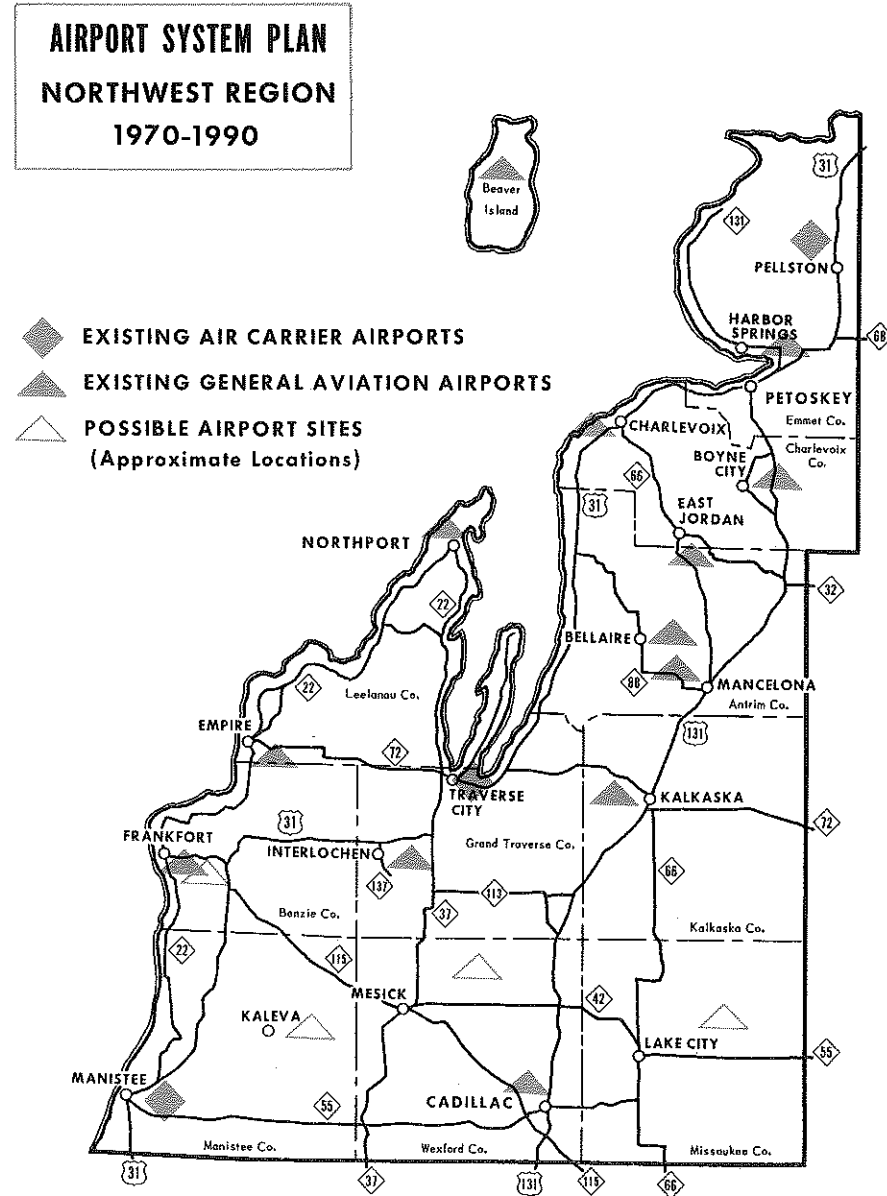
A major purpose of the plan is to show various communities their projected level of aviation demand for future time periods. This will enable them to begin an assessment of potential community and environmental impacts associated with airport development. And, depending on the extent of these improvements, these considerations can be addressed in more detail as local airport master plans are prepared or updated.

The accompanying map illustrates the 1990 recommended airport system for the Northwest Region as contained in the MASP. These airports are classified into two basic service related categories: Air Carrier Airports and General Aviation Airports.

## COMMERCIAL HARBORS

Port development in the state is associated with two specific types of harbor: (1) Recreational harbors and harbors of refuge (emergency harbors) and (2) Commercial harbors. Within state government, the responsibility for recreational harbors and harbors of refuge is vested primarily in the Michigan Waterways Commission of the Department of Natural Resources. The overall planning responsibility for commercial harbors lies within the Michigan Department of State Highways and Transportation.

A commercial harbor within the Great Lakes - St. Lawrence Seaway Transportation System is defined as a port with one or more commercial dock facilities with a minimum water depth of 18 feet. Most of the commercial harbors in the Northwest Region were established in the mid to late 1800's to provide raw



materials such as sand and lumber products to the growing population centers of Chicago, Detroit and Cleveland. As the Michigan timber resource declined, other industries moved into the commercial harbors and became the economic base for development of the region's shoreline cities.

The commercial harbors of the Northwest Region face changing conditions that require continued assessment and planning to be dealt with effectively. Historic trade patterns have essentially reversed themselves and the region's harbors are now mainly used to receive rather than ship raw materials. Shoreland has become a limited and precious resource that is desired for many non-port uses. Related to this is the fact that recreational water activity has far exceeded commercial activities.

With the opening of the St. Lawrence Seaway in 1959, a new dimension was added to the Great Lakes transportation system. This event provided the Great Lakes with accessibility to many international markets. However, ocean vessels require a controlling water depth of 27 feet and often use containerized cargoes. Therefore, because the region's harbors cannot accept these vessels, they must restrict their operations to traditional domestic or interlake commerce.

Another factor affecting port operations is the change occurring in the fleet of Great Lakes ships. Fewer but larger vessels are gradually replacing the smaller ships. As a result, there is a decreasing number of ships available that can serve the ports located in the shallower harbors. One possible remedy to this problem is the integrated tug-barge in which the barge and tug are connected into a single vessel for operation but can be separated for loading and unloading. This vessel has recently evolved from technological advancements gained during the Alaskan oil pipeline project. Although barges have traditionally operated in calm waterways, these newer vessels can operate over open water and do not require a deep water port facility. Thus, these vessels may some day be seen crossing Lake Michigan.

## HIGHWAYS

Defense and stage coach travel stimulated the first roads in Michigan. In fact, the first road of statewide importance was built around 1819 by the Army.

It extended from Detroit to Saginaw. The demand for lumber gave further emphasis to road construction in order to move logs and lumber from regions not accessible by boat.

Many of the state's early roads were actually constructed along routes formerly used as overland Indian trails. Although the trails have long since disappeared, their replacement highways have remained. Some of these have evolved into such roads as US-12, I-94, I-96, I-75 and US-23. Thus, many of today's major state highways merely duplicate statewide travel patterns established long before the invention of the automobile.

From those early days, responsibility for the state's highways has shifted among several agencies leading to legislation in 1905 establishing the State Highway Department. In 1973, the Department was designated the Michigan Department of State Highways and Transportation charged with the responsibility of administering all modes of transportation development for the state.

### Department's Function

One of the Department's foremost functions with regard to maintaining an adequate highway system is to provide sufficient right-of-way throughout the state to permit a reasonable level of accessibility. By virtue of these continuous strips of public land, essentially every area of the state is made accessible to the general public.

The constitution and statutes of the State of Michigan charge the Department with the responsibility for planning, designing and maintaining highway facilities within these rights-of-way. Construction, although supervised by the Department, is carried out by private contractors. This system of highways, now totalling 9,454 miles, offers virtually unlimited toll-free usage by public and private vehicles alike.

Public highways in Michigan have two basic service functions:

1. Provide access to property.
2. Accommodate the movement of through traffic.



Local rural roads and local residential streets serve the first function and major highways and freeways primarily serve the latter. Between these two extremes are a substantial number of highways, roads and streets that serve a dual function.

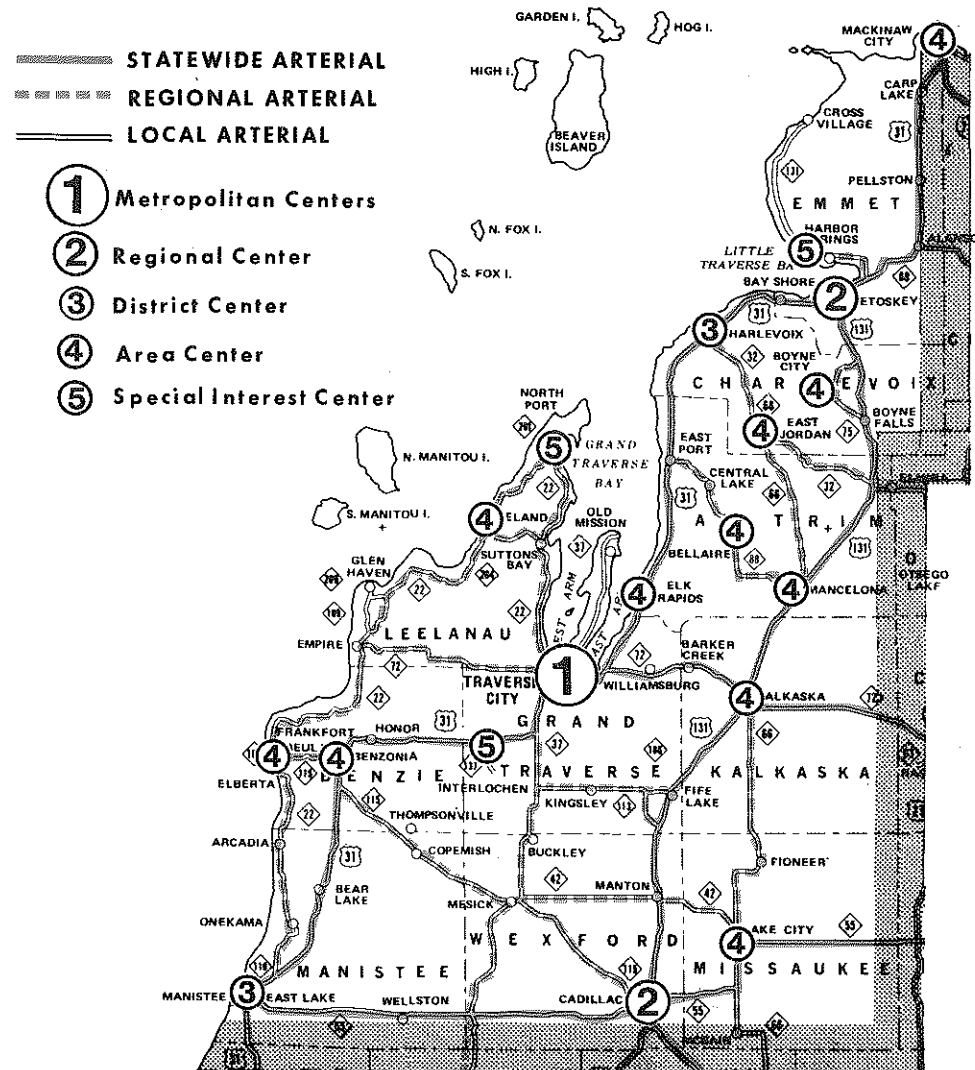
In order to properly plan and develop a state highway system, the Department has established a State Trunkline Highway Plan. From this plan, various highway segments have been classified according to their functional usage. The major categories or classifications include: a. Statewide arterials (principal and others). b. Regional arterials. c. Local arterials, often called "collectors". Only the state trunklines are the concern of the Northwest Regional Transportation Study. And then, emphasis will only be placed on major arterial routes. However, local road and street improvements, initiated by local governmental agencies, should be integrated with improvements resulting from this study.

#### Department's New Approach

On November 16, 1977, Michigan's State Highway Commission approved a revised approach to highway development. The significance of this revision is to shift emphasis from new highway route development to management of the existing system. Reconstruction and rehabilitation of existing highways has become the top priority. This does not mean, however, that expansion or relocation of existing highways will not be pursued. Where monitoring of the highway system clearly indicates a need, and where a detailed planning process defines that need, relocations of existing highways or addition of new highways will be undertaken.

Within the reconstruction concept, it is imperative that problem areas be carefully defined and analyzed to determine the degree of improvement necessary. In some areas, the deficiencies go beyond the remedial benefits of minor reconstruction and require more extensive work such as building additional lanes. Whether new lanes should be added to the existing facility or built on a new location is the concern of more detailed project level studies. The first step, and the main concern of the Northwest Regional Study, is to determine where the major problem areas are located and the degree of magnitude they represent.

## STATE HIGHWAY CLASSIFICATION



## Accident Analysis

One of the primary goals of the Department of State Highways and Transportation is to provide a safe means of travel. An increase of highway accidents in the Northwest Region in recent years provides one indication that there is a need to make safety improvements on some roads in the region.

## Highway Funding

Establishment of the Motor Vehicle Highway Fund by the legislature in 1951, providing money by a tax on motor vehicle weights and gasoline and diesel fuel, is allocated to the state, the 83 counties and to municipalities on the basis of a formula established by the state legislature. Although revised numerous times, this legislation remains the basic legal framework for developing and financing the state's total road and street system.

Highway construction and maintenance projects in the 10-county Northwest Region are expected to total nearly \$40 million over the next five years. Included are over \$560,000 for related projects such as bridge repairs, railroad crossings, a travel information center, etc.

## NON-MOTORIZED TRANSPORTATION

The state legislature directed the Highway Commission to begin planning and building facilities for non-motorized transportation when it passed a package of transportation bills late in 1972. All planned highway projects now are routinely reviewed to determine whether non-motorized facilities are warranted. In addition to highway projects, the Department is also considering the acquisition of abandoned railroad rights-of-way for possible use as combination hiking, bicycle and equestrian trails.

Since the non-motorized transportation program was initiated, most of its projects have been built to accommodate bicycle travel. Use of the bicycle for both transportation and recreation has been increasing continuously since the late 1960's. Today, it is estimated that there are over 3,500,000 bicyclists in Michigan. A recent survey by the Michigan Department of Natural Resources

indicated that bicycling is the most popular activity in the state in terms of hours of participation.

In the Northwest Region, the pursuit of recreational activities is a prime objective of both its residents and visitors. Therefore, it is becoming a common occurrence to see many bicycle travelers enjoying the natural beauty of the area. All of the region's roads and streets, with the exception of limited access highways, can be legally used for bicycle travel. Paved roads are, of course, the most suitable for riding. Some roads are more desirable for riding than others if they have characteristics such as low traffic volumes, paved shoulders, low speed limits and special bicycle lanes. Of the state highway system in the region, approximately 80 miles of roadway have paved shoulders with another 110 miles planned for future construction.

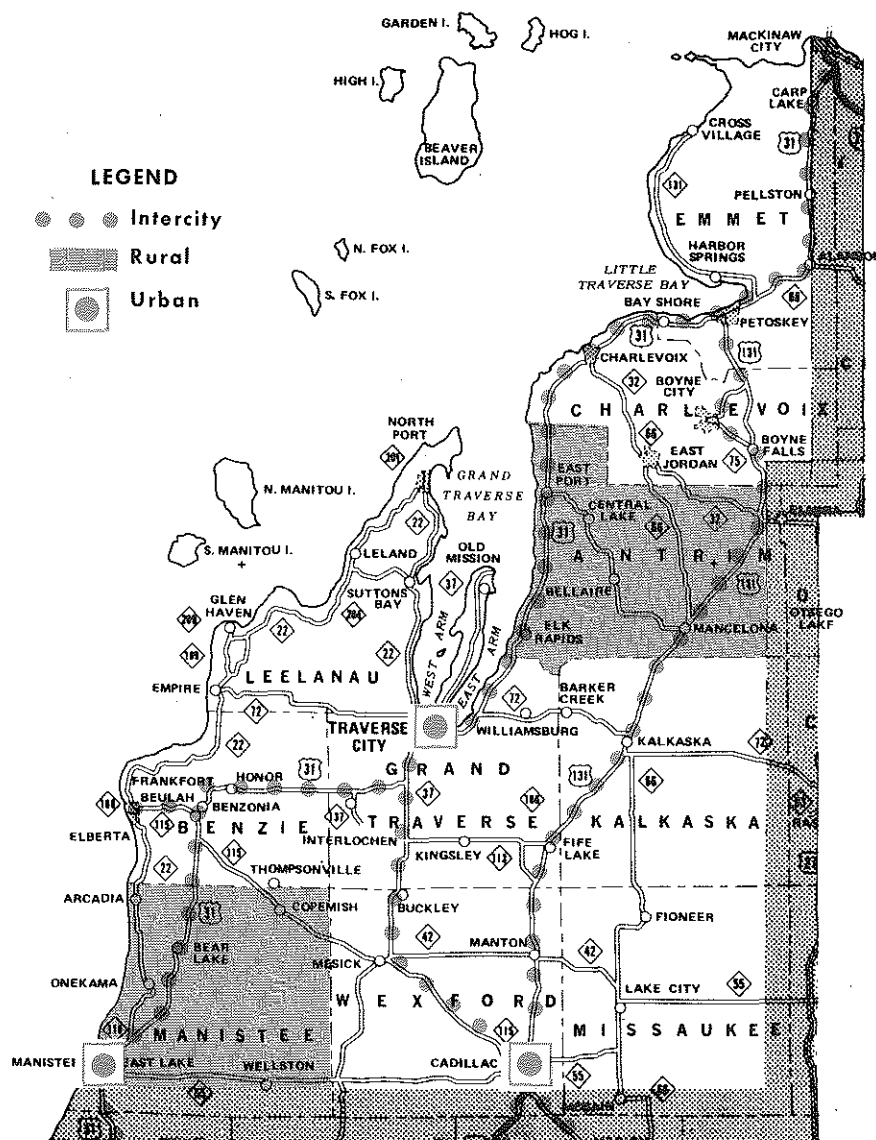
Two highway projects that have been specifically constructed to accommodate non-motorized transportation, involved the paving of shoulders along 6.2 miles of M-22 near Frankfort (cost \$82,700) and 2.8 miles of M-137 between US-31 and Interlochen (cost \$29,600). Other non-motorized projects are presently being considered as part of local bikeway systems for Traverse City, Petoskey, Frankfort and Cadillac.

## PUBLIC TRANSPORTATION

Public transportation in Michigan and the nation has recently emerged from a long period of decline. Ever since World War II, public transportation ridership has been steadily decreasing. This decrease was mainly attributed to a shift in travel habits towards the automobile and airline transportation modes. As transit ridership decreased, the corresponding loss in revenues caused many private and public transit operators to either cut back on services or else go out of business entirely. By the early 1970's, the only remaining public transit operating in the Northwest Region was that of the intercity carriers of Northstar and Greyhound bus lines. There were essentially no urban public transit systems operating at that time.

As a result of this condition, many social groups were experiencing a transportation disadvantage in not being able to gain reasonable access to such community opportunities as employment, education, shopping, health care and

## PUBLIC TRANSPORTATION SERVICES



other basic human service needs. Initially, these social groups were usually made up of the poor, the young, the elderly and the handicapped who were either unable or else could not afford to own and operate an automobile. However, since the 1973-74 Mideast Arab oil embargo, it has become apparent that future energy supplies may cause public transportation to take on a more active role for all of our society.

In recognition of these public transportation needs, the Michigan legislature passed Act 327 and Act 195 in 1975. These acts have provided new funding sources for various public transportation improvements and directed the Michigan Department of State Highways and Transportation to be the state agency responsible for administering these programs.

One of the Department's objectives in developing public transit plans is to insure that an adequate level of public transit service will exist for both residents and visitors to the Northwest Region. In most cases, this means developing an overall system of public transportation services that offer a balanced mix of urban, rural, regional and intercity operations.

### RAILROADS

The 1970 bankruptcy of the Penn Central Railroad caused widespread concern about the financial condition of the nation's railroads. The Ann Arbor Railroad declared bankruptcy in 1973. Together, these companies represented a possible loss of 2,100 miles of track that served a large number of community and industrial interests in Michigan's lower peninsula.

Although these bankruptcies were perceived as a sudden occurrence by the general public, persons working closer to the railroad industry knew that rail service had been declining for many years. A major reason for this decline was attributed to the development of competing transportation modes.

At the beginning of this century, the railroads offered the principal means of intercity freight and passenger travel. Then, during the early 1920's and 30's, the automobile and airline industries began their development. After World War II, these new industries greatly expanded their services and caused the competitive position of the railroad to deteriorate. Revenue passenger miles

declined 80 per cent from 1947 to 1976 in spite of explosive growth in passenger travel. During the same period, the railroad's share of intercity freight declined from nearly 66 per cent to 39 per cent. Although the railroad continues to be the biggest carrier of freight in terms of ton miles, the industry can no longer compete with the level of service offered by the trucking industry in transporting commodities over short and medium distances. The railroads are still very competitive carrying bulk cargoes over long distances.

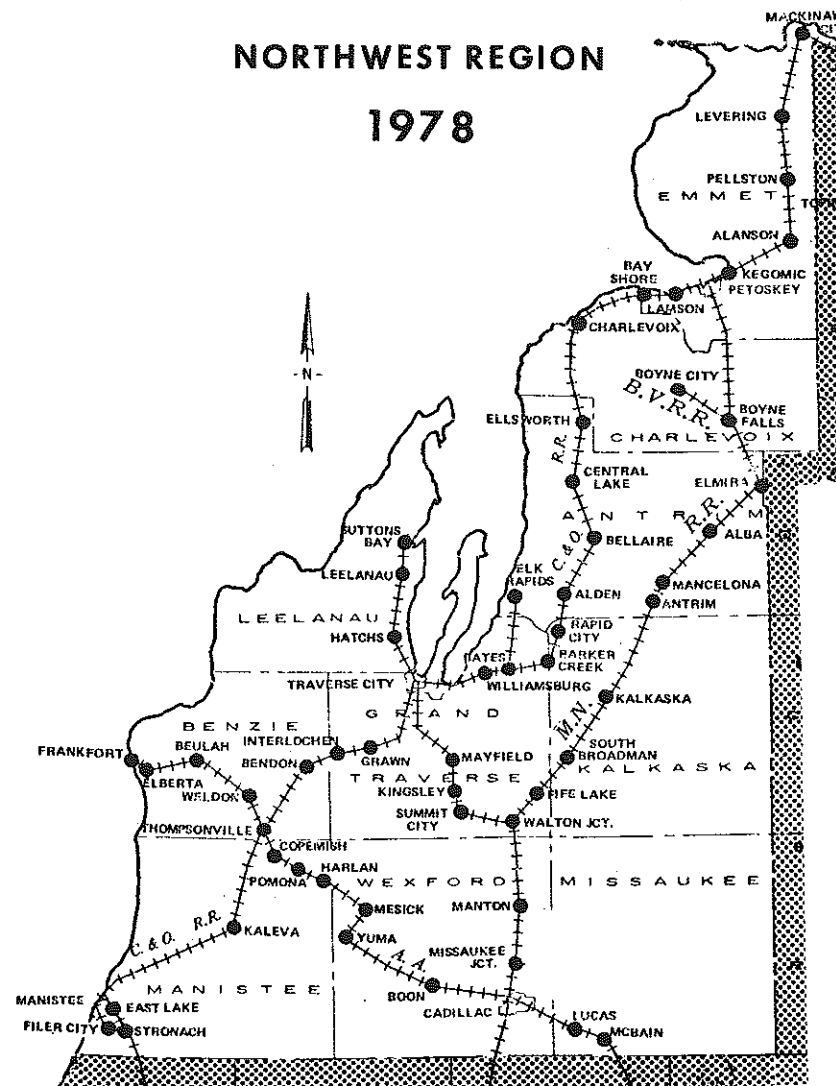
The railroad situation in the Northwest Region is critical. Virtually all the communities in the region are faced with the prospect of railroad abandonments. The Penn Central and Ann Arbor Railroads have already gone bankrupt and their operations are currently being maintained on a year-to-year basis through government subsidy.

At the present time, the Chessie System is still a solvent carrier. However, in an effort to reduce some of their expenses, they have applied to the Interstate Commerce Commission (ICC) for permission to abandon all their track operations north of Manistee.

Recognizing the potential social-economic impacts associated with rail abandonments, the federal and state governments have enacted legislation to provide financial assistance for certain rail operations. At the federal level, the Regional Rail Reorganization (RRR) Act of 1973 provided legislation to preserve and improve rail service. A major item in this legislation was the plan for reorganization of seven Midwest/Northeast bankrupt railroad lines into a new Consolidated Railroad Corporation (ConRail). However, ConRail did not include all of the 2,100 miles of Penn Central and Ann Arbor track located in Michigan. Responding to this critical situation, the Michigan legislature enacted the State Transportation Preservation Act of 1975 to enable the state to maintain an adequate statewide rail network.

The Michigan act represented the first time that the Michigan Department of State Highways and Transportation has become actively involved in the railroad business.

## EXISTING RAILROAD SYSTEM



## FUTURE TRANSPORTATION ALTERNATIVES

A major objective of this study is to insure that an adequate regional transportation system is developed to meet current and future needs of the Northwest Region.

To accomplish this objective, the study team has recognized two principal factors that will significantly affect the character of future transportation systems. They are:

1. The availability of liquid fuels.
2. The continuing changes in settlement patterns of our population.

Both factors fundamentally lie outside the control of transportation planning and policymaking. In any event, both will proceed independently unless conscious public policy tries to relate them to a greater degree than has been the case in the past.

### ENERGY AVAILABILITY

The availability of liquid fuels, either in the form of synthetic substitutes or in the discovery of new resources, will define the costs and much of the character of future transport services. Today the fuel supplies are apparently adequate to meet the current travel demands. However, these supplies were severely limited during the 1973-74 Mideast oil embargo.

The embargo had a significant impact on the various transportation systems. Service stations were closed on weekends in some areas and many motorists waited in long lines to fill their gasoline tanks. Commuters discovered that car pools provided a substantial economic savings in making their daily work trip and others shifted to local transit services. In some cases, the number of work trips were reduced due to employers experimenting with four-day work weeks.

Another impact of the embargo was felt by the commercial airline industry. The fuel shortages caused many flight schedules to be reduced and advance reservations were required to insure a seat on a fully loaded flight.

Although the oil embargo lasted only a few months, some of its effects are still with us and most everyone has now become more energy conscious.

The possibility of reduced fuel supplies can have a major effect on future transportation planning actions. Questions of concern being asked in the light of an expected energy crunch include: Should we continue expanding the highway system? Should we be considering more transit options? Are we going to need additional airports or will the existing facilities be adequate? Should the railroads be permitted to abandon their service? Will the region's ports be involved in transporting western coal into the Midwest? It is because of these kinds of questions that the study team has identified the "energy" issue as a central concern of future planning efforts.

### GROWTH AND DEVELOPMENT

Changes in settlement patterns will also significantly define the character of the demand for future transportation services. These population shifts, including declining urban densities, suburbanization and rural migration are often accompanied by changes in lifestyle. As communities begin to grow and develop, their various social and economic activities require an increase in many public services. In order to accommodate this growth, some local communities are faced with the prospect of extending water, sewer, gas and electric power lines. In addition, some transportation systems will also have to be expanded or improved to accommodate travel increases.

While some communities are experiencing "growing pains", others are struggling economically due to lack of growth. These areas are sometimes characterized by a high unemployment rate, low tax base, low income, etc. Thus, in order to improve these conditions, government assistance programs provide the dollars for such facilities as industrial parks, port development, airport improvements, education and convention centers, plus low interest loans for various housing and industrial projects.

From an economic standpoint, a growing community establishes a favorable business climate that can attract additional private investments. Socially, these investments can be beneficial by providing increased personal income and employment. In addition, a broader tax base can be used to support better educational and cultural facilities. However, from an environmental standpoint, a growing community can sometimes cause significant increases in air and water pollution levels. Land use changes can occur that will detrimentally affect environmentally sensitive areas such as parks, forests, lakes and primary agricultural lands.

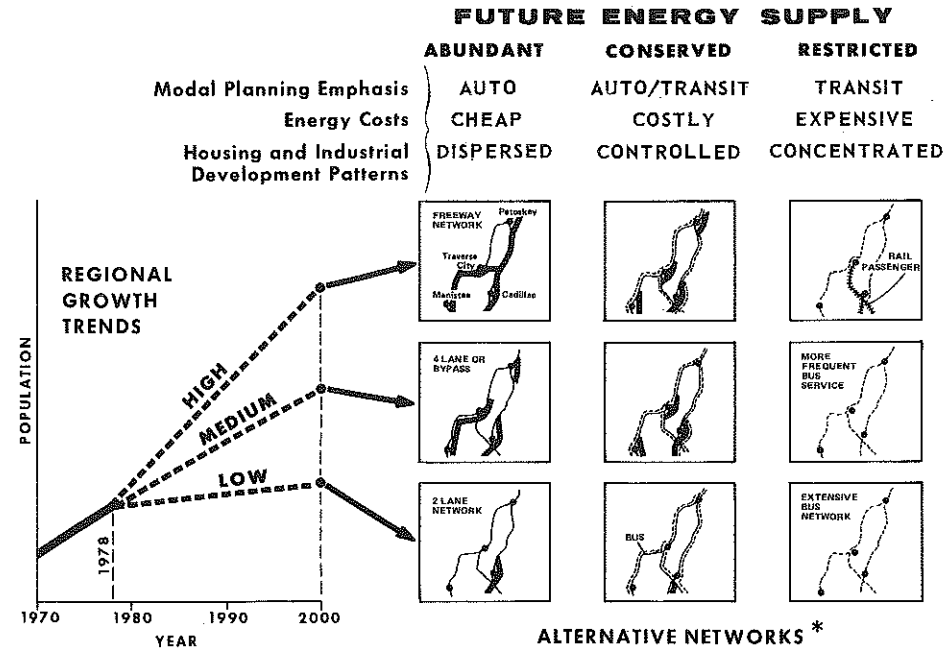
After many decades of disordered development, we are now witnessing a nationwide counter movement of public pressure that is attempting to check, if not reverse, past growth trends. Some communities are starting to fashion new master plans calling for a ceiling on future growth and prescribing precise definition of settlement patterns. In view of the potential for future energy shortages, these growth management policies may not only be a desirable option, they may also become a mandatory planning action. Therefore, the future of transportation development will also depend on the rate of growth that is permitted to occur.

### FUTURE TRANSPORTATION DEVELOPMENT STRATEGY

Numerous factors, other than energy availability and population change, will also influence the region's future transportation system needs. Economic conditions, governmental influence, incentive programs, available leisure time, and desirable lifestyles will all play an important part. Though considered in developing descriptions of the various futures, energy and population were selected as the dominant factors.

The study team has developed a planning strategy based upon these two dominant factors. It considered the possible occurrence of several future conditions based upon variations of energy supply and population growth. The alternative energy supply futures are identified as "abundant", "conserved" and "restricted". The population growth futures are described as "low", "medium" and "high". Combinations of these factors yield nine possible situations, or futures, which are conceptually illustrated at right.

## ENERGY AND GROWTH FUTURES (PLANNING CONCEPT)



\* FOR ILLUSTRATIVE PURPOSES ONLY. DOES NOT REPRESENT ACTUAL ALTERNATIVES CONSIDERED

Following is a brief explanation of the variations within the energy and growth futures:

### **Growth Futures**

A key indicator of the region's growth potential is often expressed in its forecasted population levels. Because of this, recent trends in the Northwest Region have identified it as one of the fastest growing areas in the state. Since 1960, the region's population has increased 31 per cent, from 139,017 to an estimated 182,700 persons in 1975. Summer population levels reach even greater proportions, often doubling or tripling due to the influx of tourists and seasonal residents.

Transportation facility development is directly related to the expected mobility requirements of current and future population levels. The 1970 census established the region's permanent population at 158,333 persons. Forecasts for the year 2000 have been derived by many different sources, including the University of Michigan Population Studies Center, the Michigan Department of Management and Budget and the Northwest Michigan Regional Planning and Development Commission. These forecasts vary considerably, ranging from 196,000 to 388,000 persons. Because of this wide range of forecasts, the study team has established three possible growth levels from which to base its future planning efforts:

**High Growth** This future assumes that the region's year 2000 population will reach 300,000 persons, a 90 per cent increase since 1970.

**Medium Growth** This future assumes that the region's year 2000 population will reach 250,000 persons, a 58 per cent increase since 1970.

**Low Growth** This future assumes that the region's year 2000 population will reach 200,000 persons, a 26 per cent increase since 1970.

### **Energy Futures**

The study team found that defining three energy futures was a more difficult task. While fuel availability was considered the determining factor, both the fuel cost per gallon and cost per vehicle mile of travel will also certainly affect its future use.

**Abundant Energy** This future assumes that there is no energy crisis. Adequate fuels are available for transportation either through the discovery of new resources or through the development of synthetic fuels. The automobile remains the dominant mode of transportation, reinforcing urban expansion. This future is most typical of recent past and present conditions reflecting today's relative affluent suburban life-style.

**Conserved Energy** This future assumes that energy shortages are a long term reality. Fuel conservation is stressed but still based on voluntary efforts. The price of fuel has risen significantly enough so that it begins to make a real impact on everyday driving habits. The automobile is still the dominant mode but certain trip purposes, like work trips, are shifting to car pools or public transit.

**Restricted Energy** This future assumes that energy for transportation purposes is in very critical supply. Gasoline rationing would be in effect. Strong government programs would be implemented to insure proper utilization of the various modal transportation systems. Public transit development would be very extensive.

## FUTURE TRANSPORTATION NETWORKS

There are nine multi-modal regional transportation networks illustrated on the next six pages of this brochure. These networks were developed by the study team and are based on the previously described energy and growth futures. In addition, these networks were derived from the premise that:

1. The availability of future "energy supplies" determines the type of transportation mode to be developed, and
2. The amount and location of future "growth" determines the extent of transportation system development.

The future multi-modal networks are displayed so they can be compared with the existing transportation services in operation today.

The purpose of the colored modal symbols is to indicate those areas that show the greatest potential need for a major transportation system improvement. Some of the remaining areas may also require future transportation improvements, but of a lesser magnitude (minor system improvements). Typical examples of major and minor system improvements are listed on page 20. This analysis affords the study team the opportunity to focus its attention on those areas that show a common transportation need – regardless of the future conditions.

In reviewing these different transportation networks, several key items are worthy of special attention. These are:

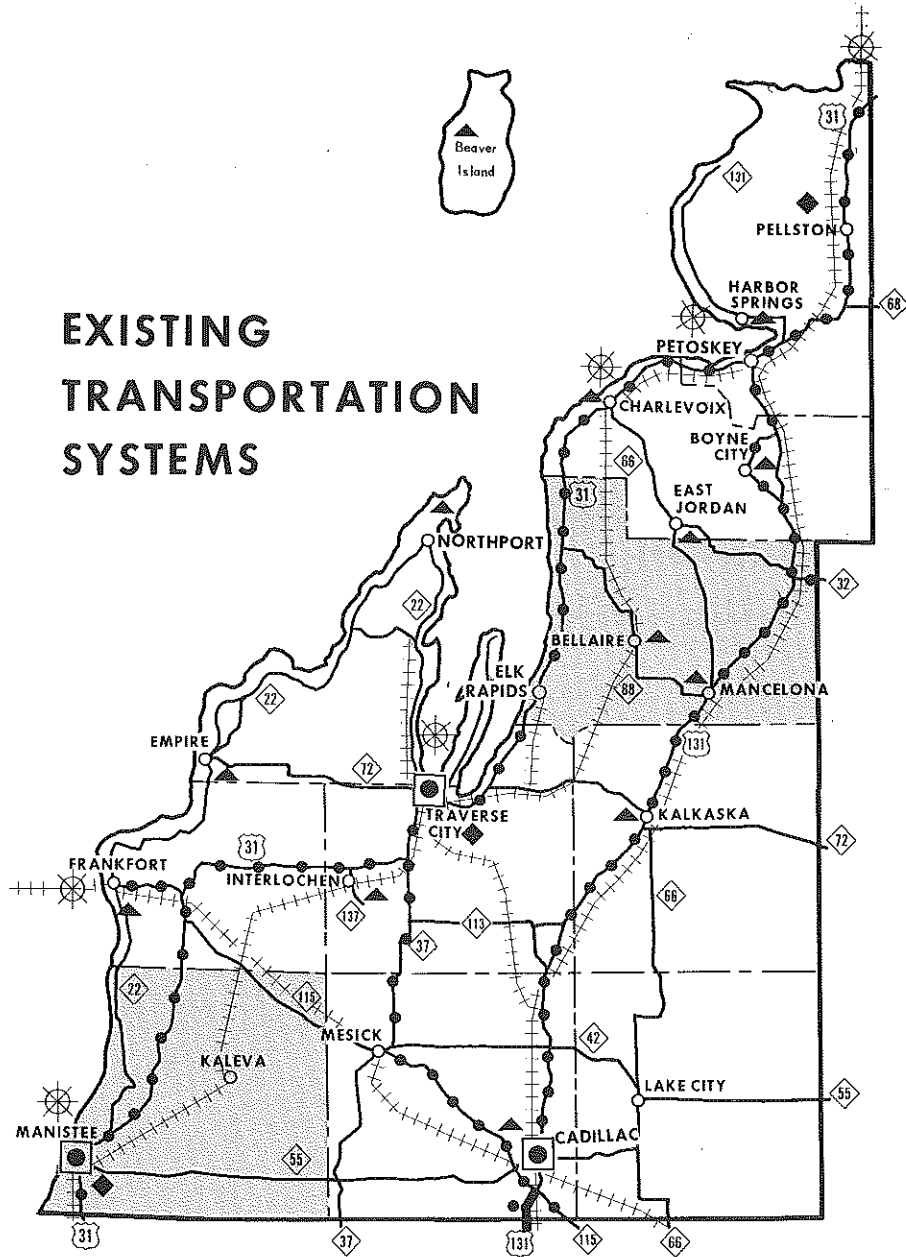
1. All future networks show a potential need for some major highway improvements.
2. All future networks show a potential need for some major transit improvements.
3. All future networks propose rural bus service in every county of the region.
4. All future networks propose that the existing rail freight service to major communities be retained.

5. All future networks propose that the existing system of commercial ports be retained.
6. All future networks propose that the existing system of air carrier airports be retained.
7. Additional general aviation airport facilities are only proposed for the abundant energy futures.
8. The most extensive amount of highway development is proposed for the high growth – abundant energy future.
9. The least amount of highway development is proposed for the low growth – restricted energy future.
10. The most extensive amount of transit development is proposed for the high growth – restricted energy future.
11. The least amount of transit development is proposed for the low growth – abundant energy future.



# LOW POSSIBLE

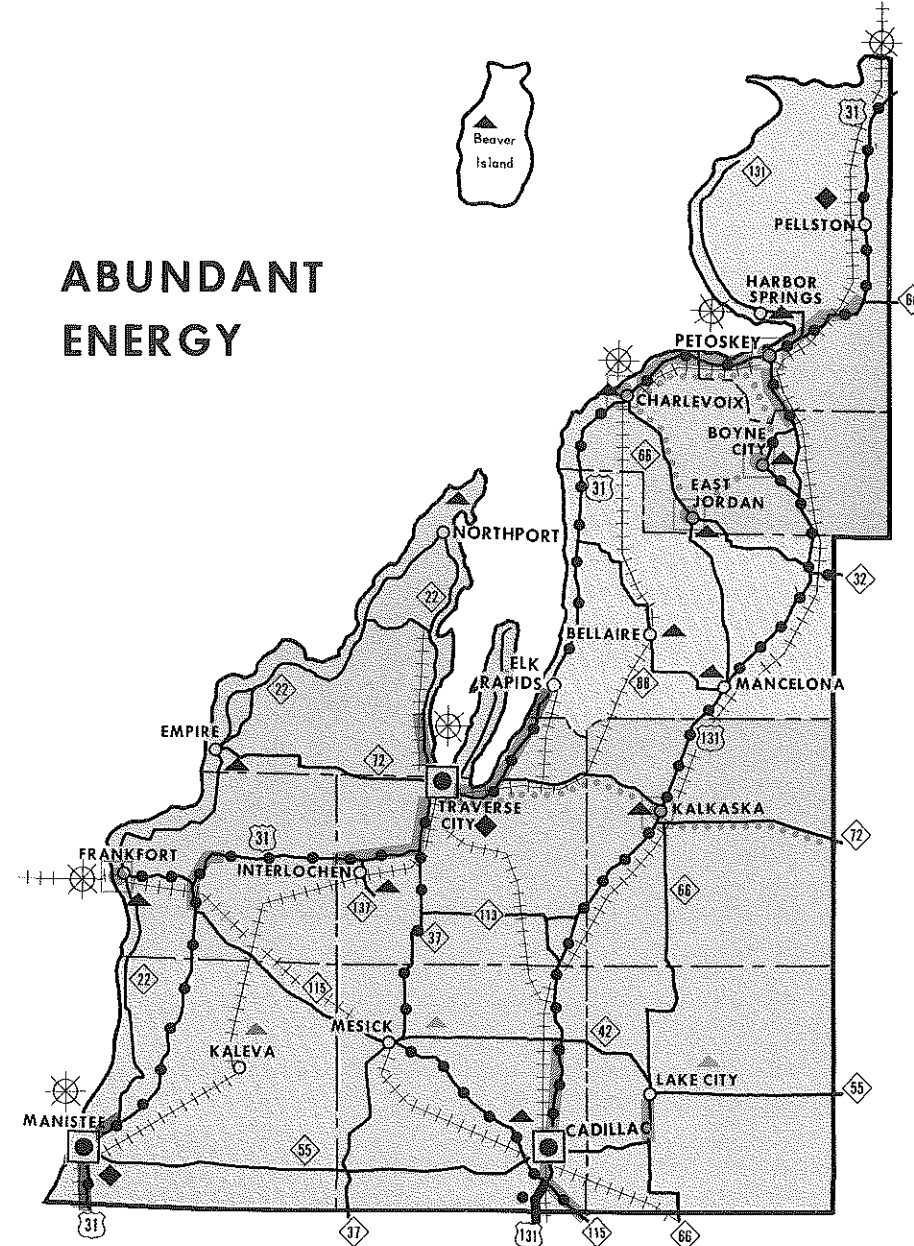
## EXISTING TRANSPORTATION SYSTEMS



### LEGEND

- EXISTING
- POTENTIAL
- AIRPORTS**
- Air Carrier
- General Aviation
- HARBORS**
- Commercial Harbors
- Carferry
- STATE HIGHWAYS**
- Two Lanes
- More than Two Lanes
- PUBLIC TRANSPORTATION**
- Intercity Bus
- Regional Bus
- Local Bus
- Rural Bus
- RAILROADS**
- Freight
- Freight & Passenger

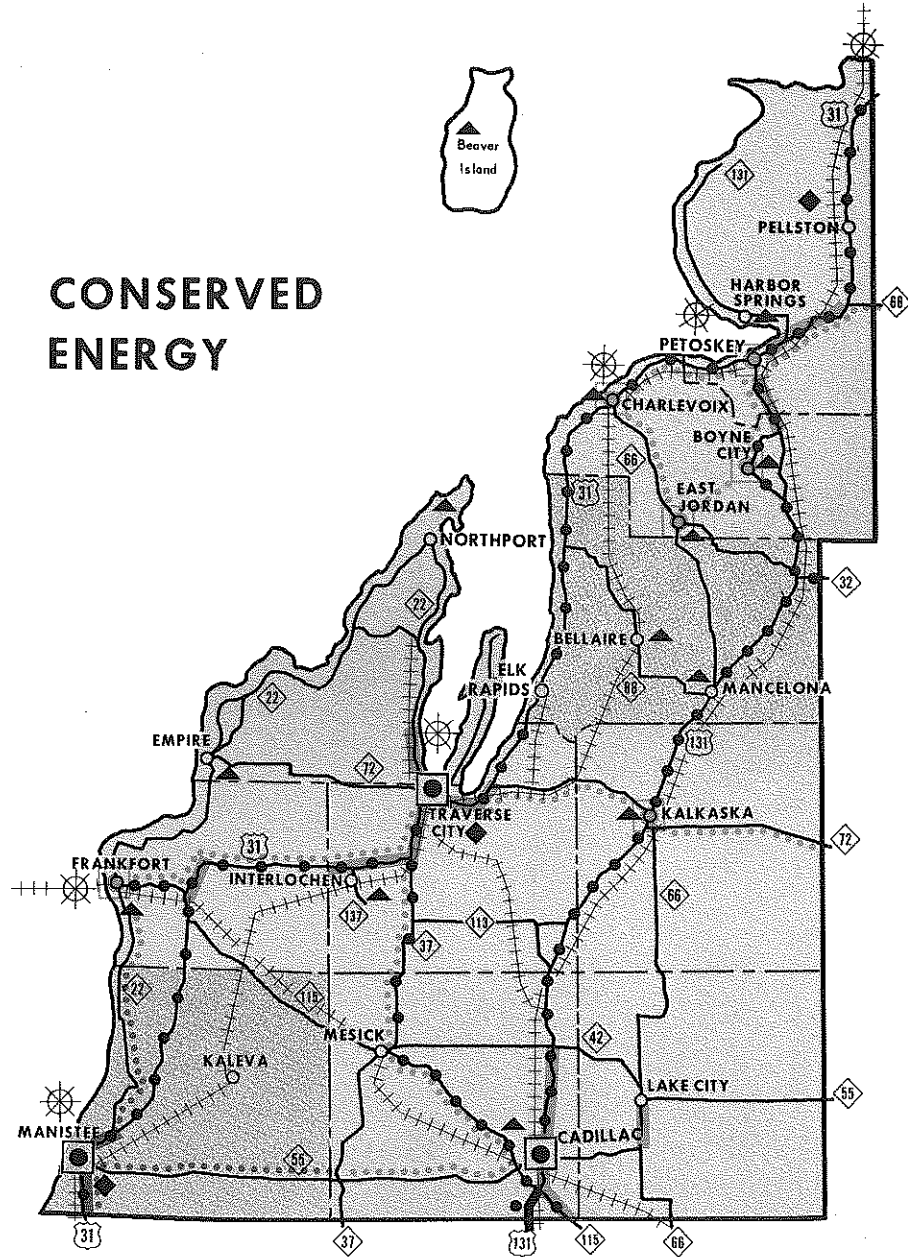
## ABUNDANT ENERGY



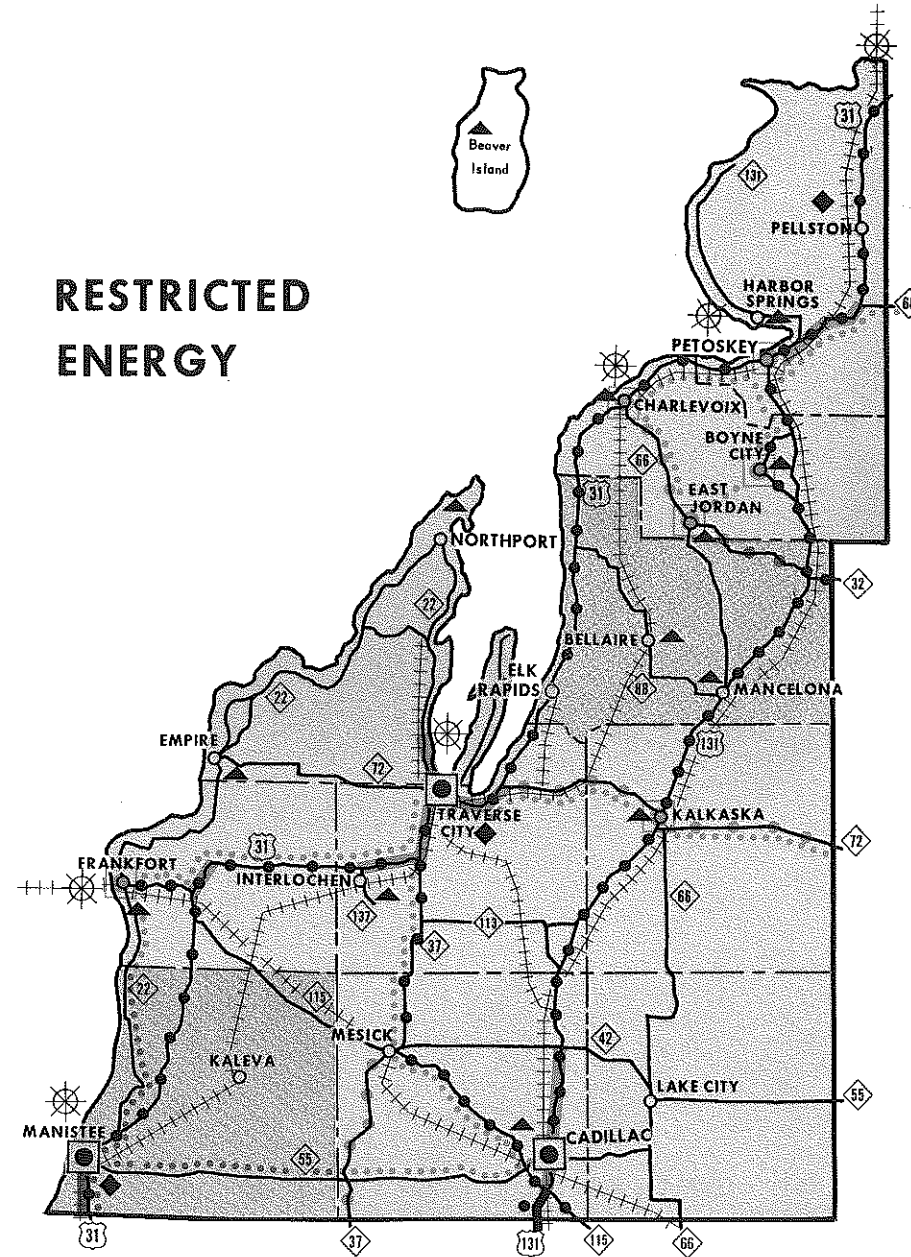
# GROWTH FUTURES

## TRANSPORTATION SYSTEM IMPROVEMENTS

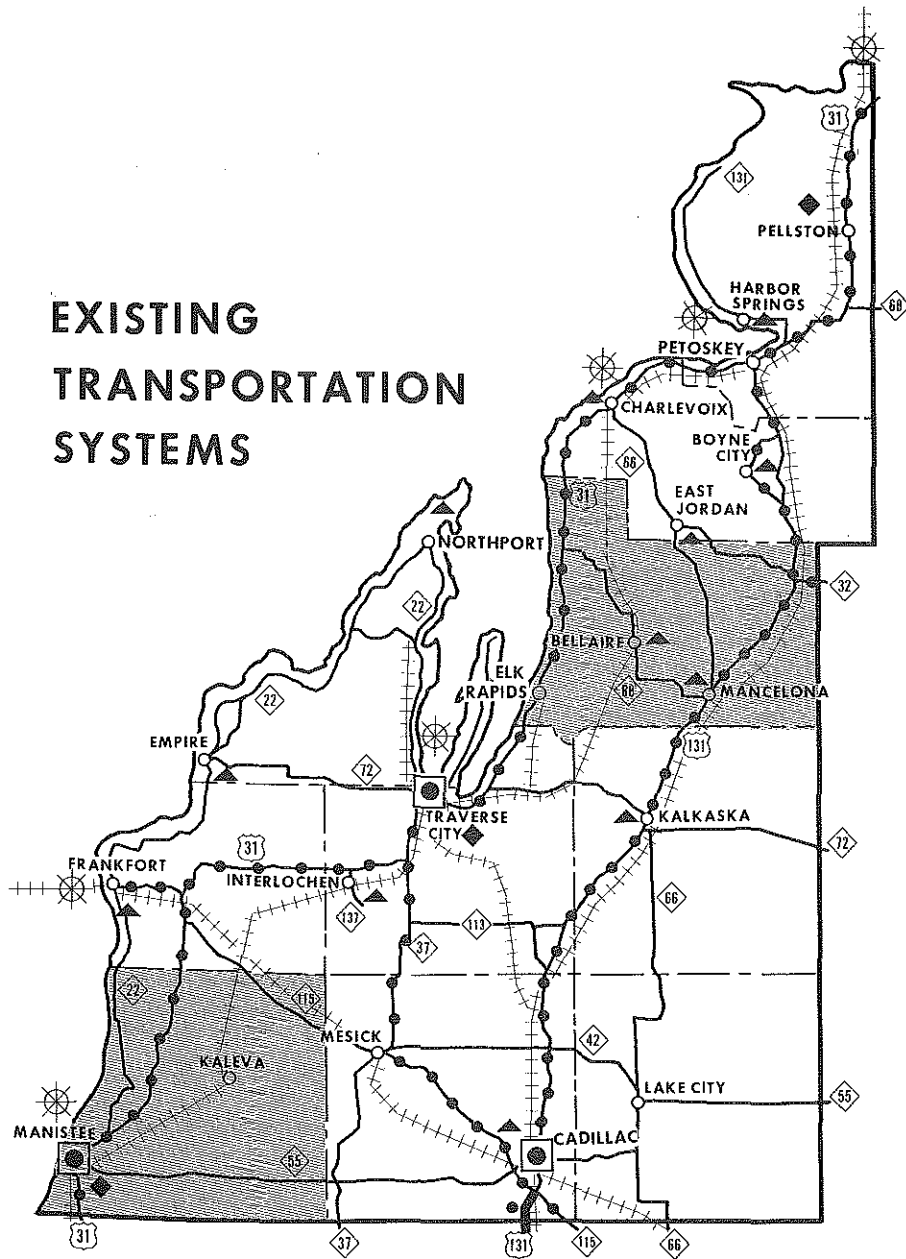
### CONSERVED ENERGY



### RESTRICTED ENERGY



# EXISTING TRANSPORTATION SYSTEMS

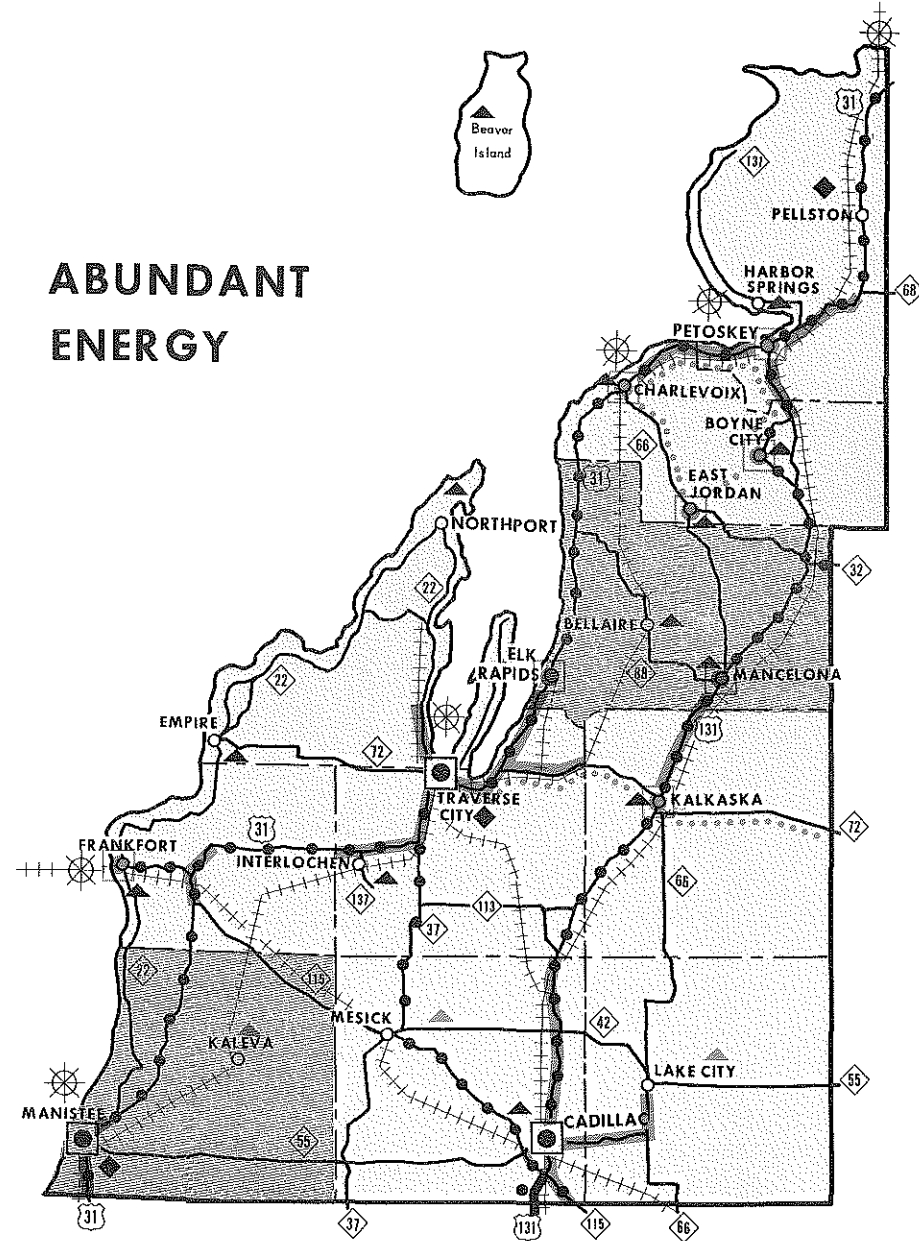


## LEGEND

- EXISTING
- POTENTIAL
  
- AIRPORTS**
- Air Carrier
- General Aviation
  
- HARBORS**
- Commercial Harbors
- Carferry
  
- STATE HIGHWAYS**
- Two Lanes
- More than Two Lanes
  
- PUBLIC TRANSPORTATION**
- Intercity Bus
- Regional Bus
- Local Bus
- Rural Bus
  
- RAILROADS**
- Freight
- Freight & Passenger

# MEDIUM POSSIBLE

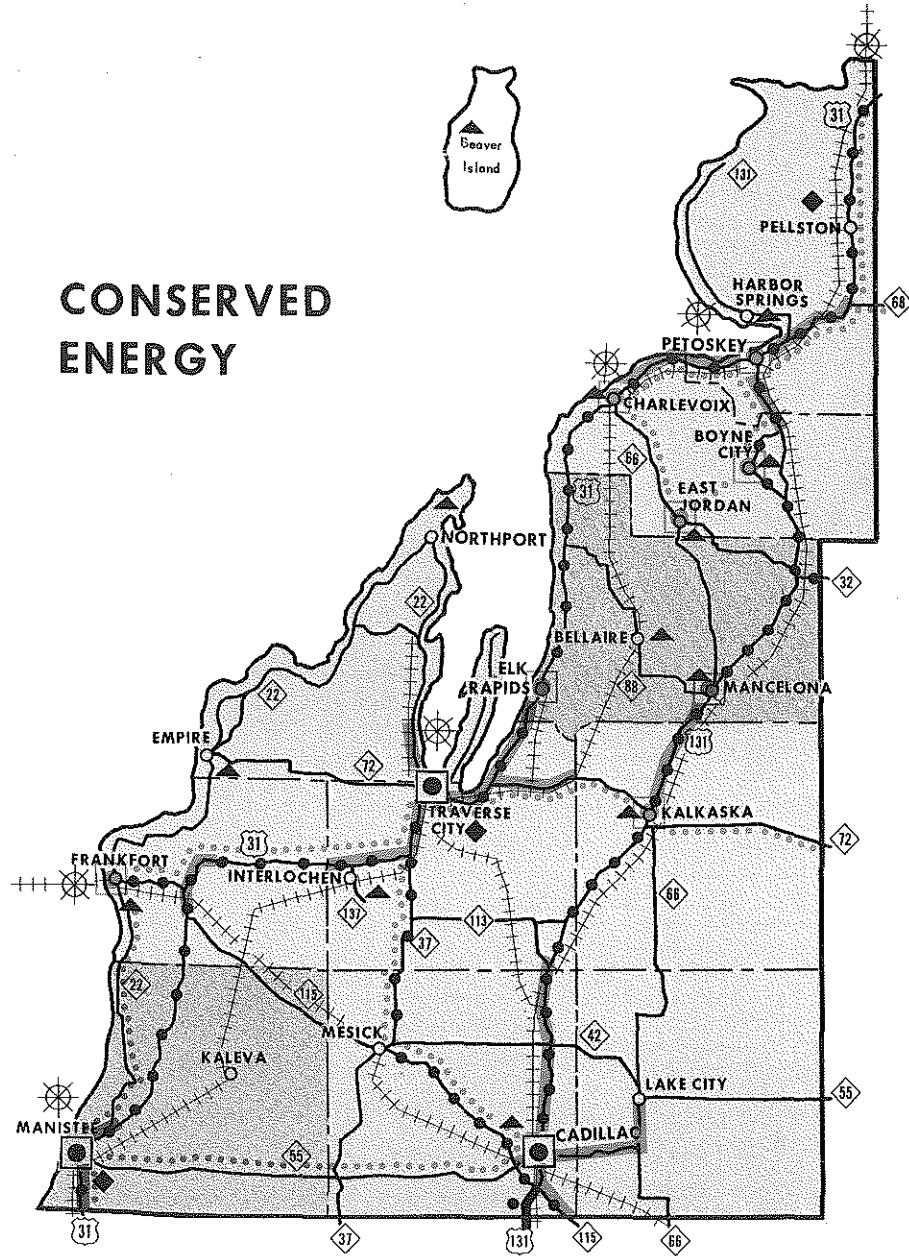
## ABUNDANT ENERGY



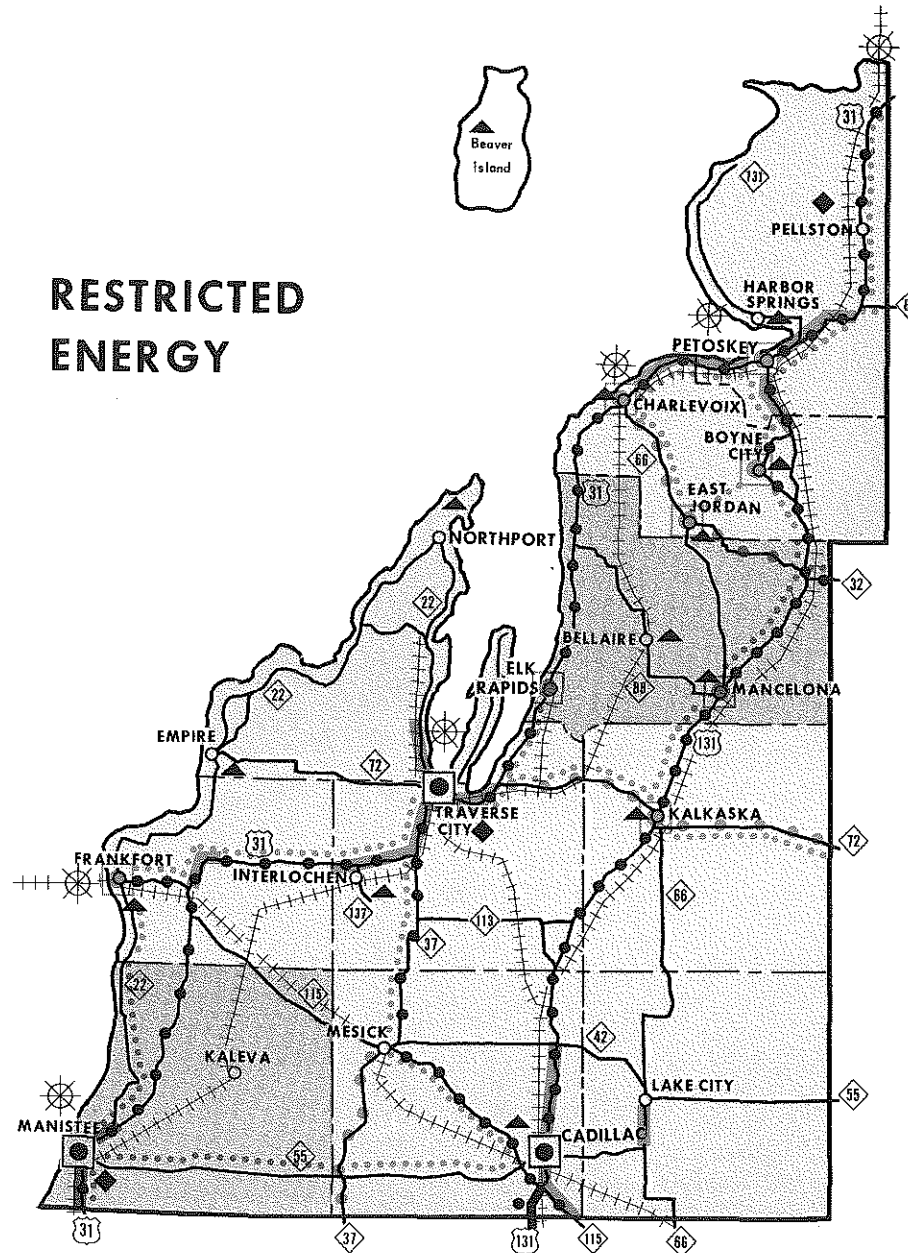
# GROWTH FUTURES

## TRANSPORTATION SYSTEM IMPROVEMENTS

CONSERVED  
ENERGY

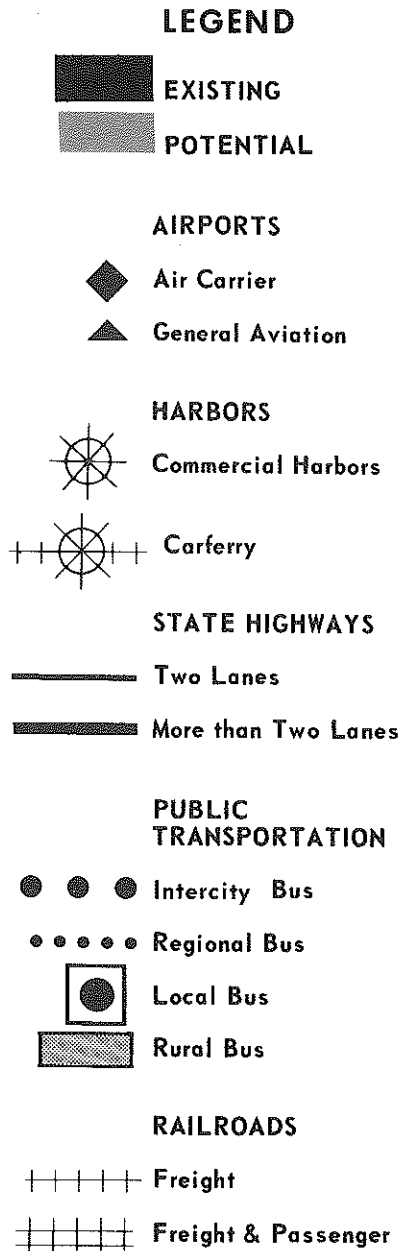
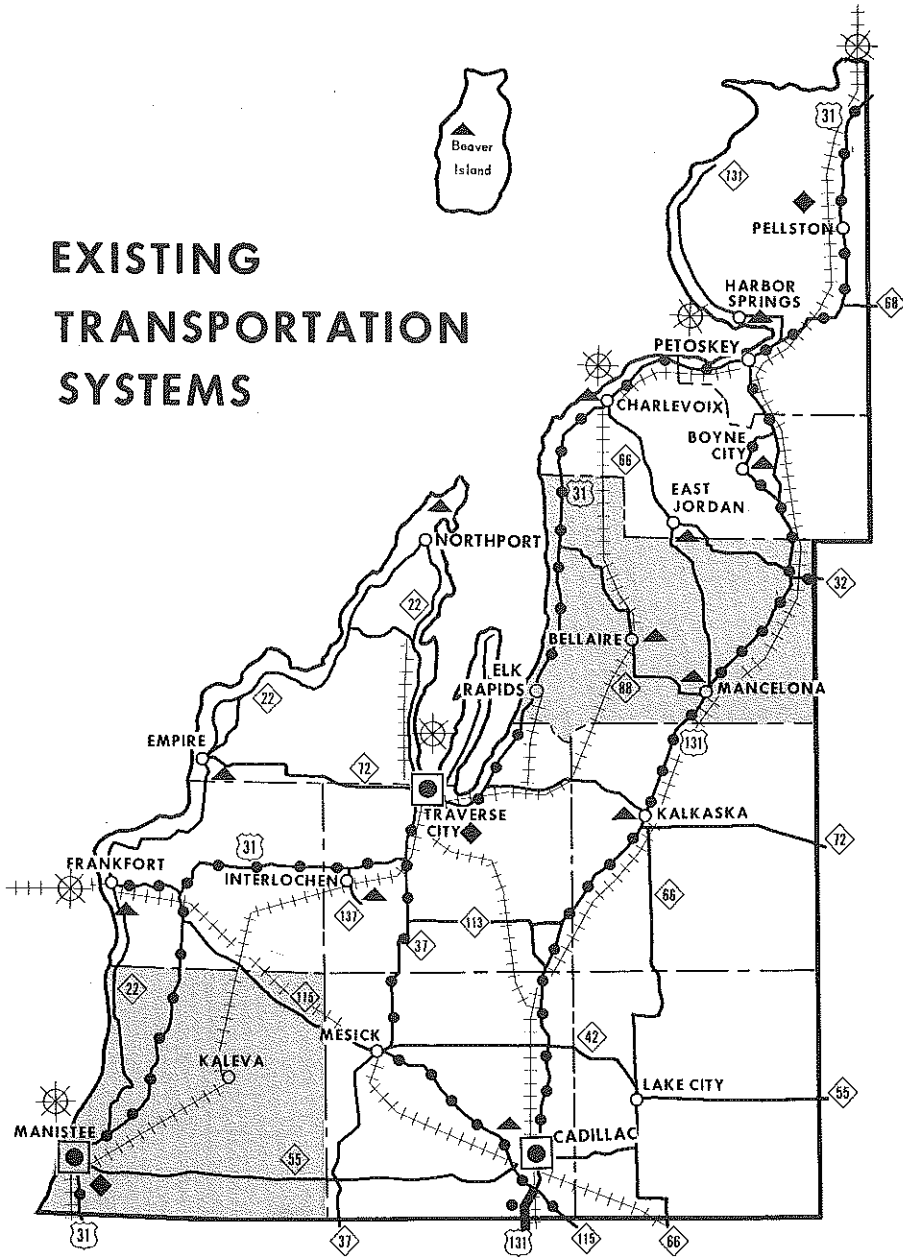


RESTRICTED  
ENERGY

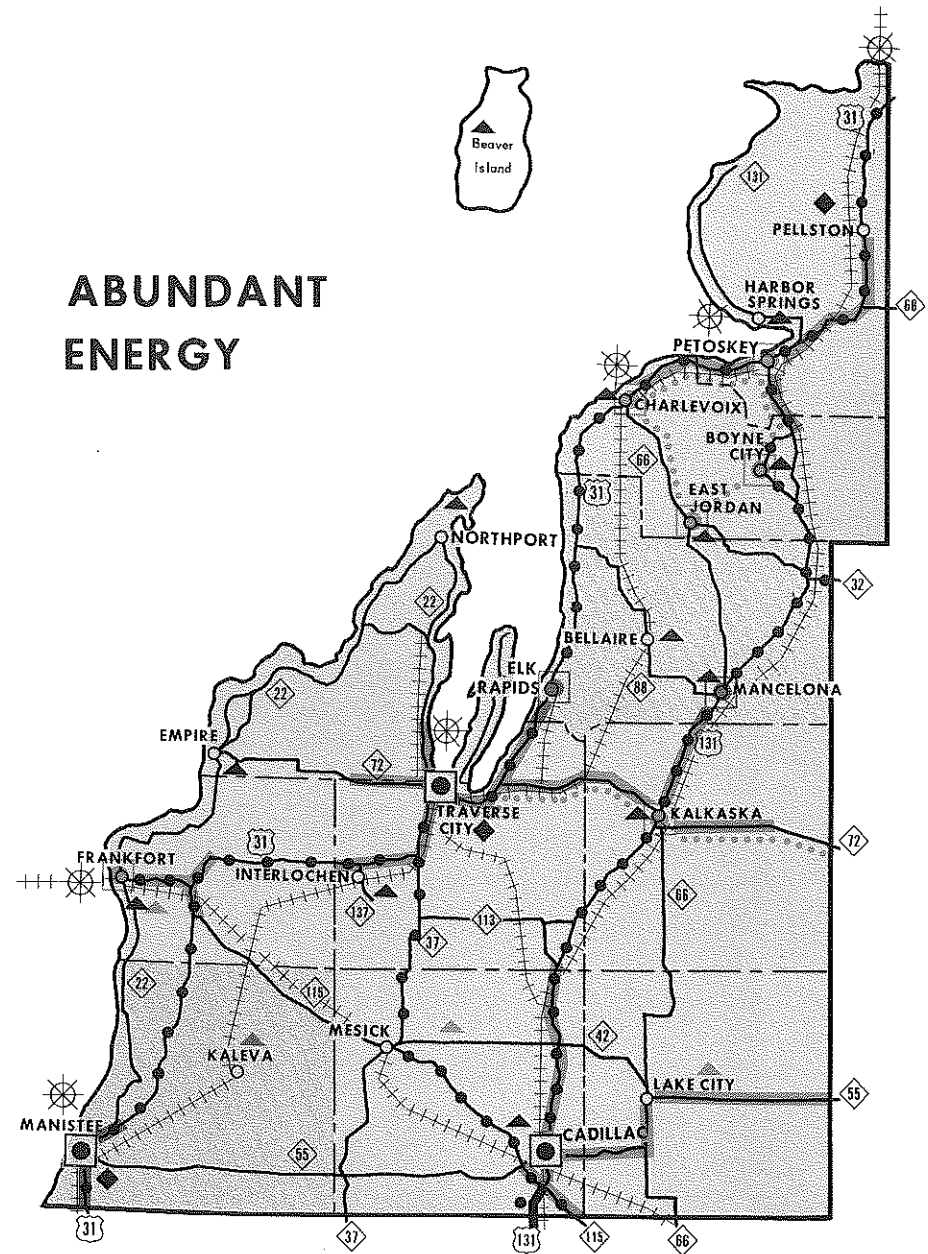


# HIGH POSSIBLE

## EXISTING TRANSPORTATION SYSTEMS



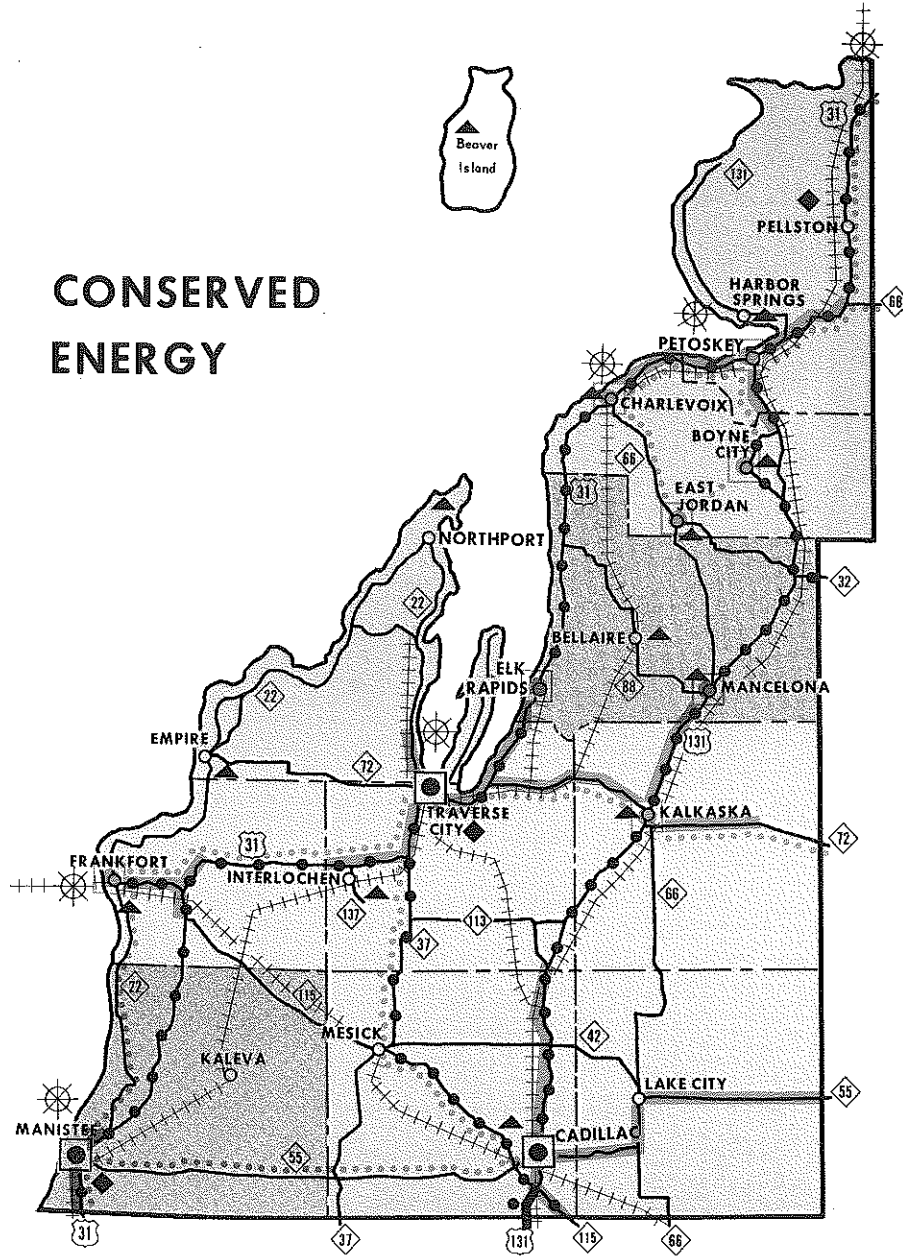
## ABUNDANT ENERGY



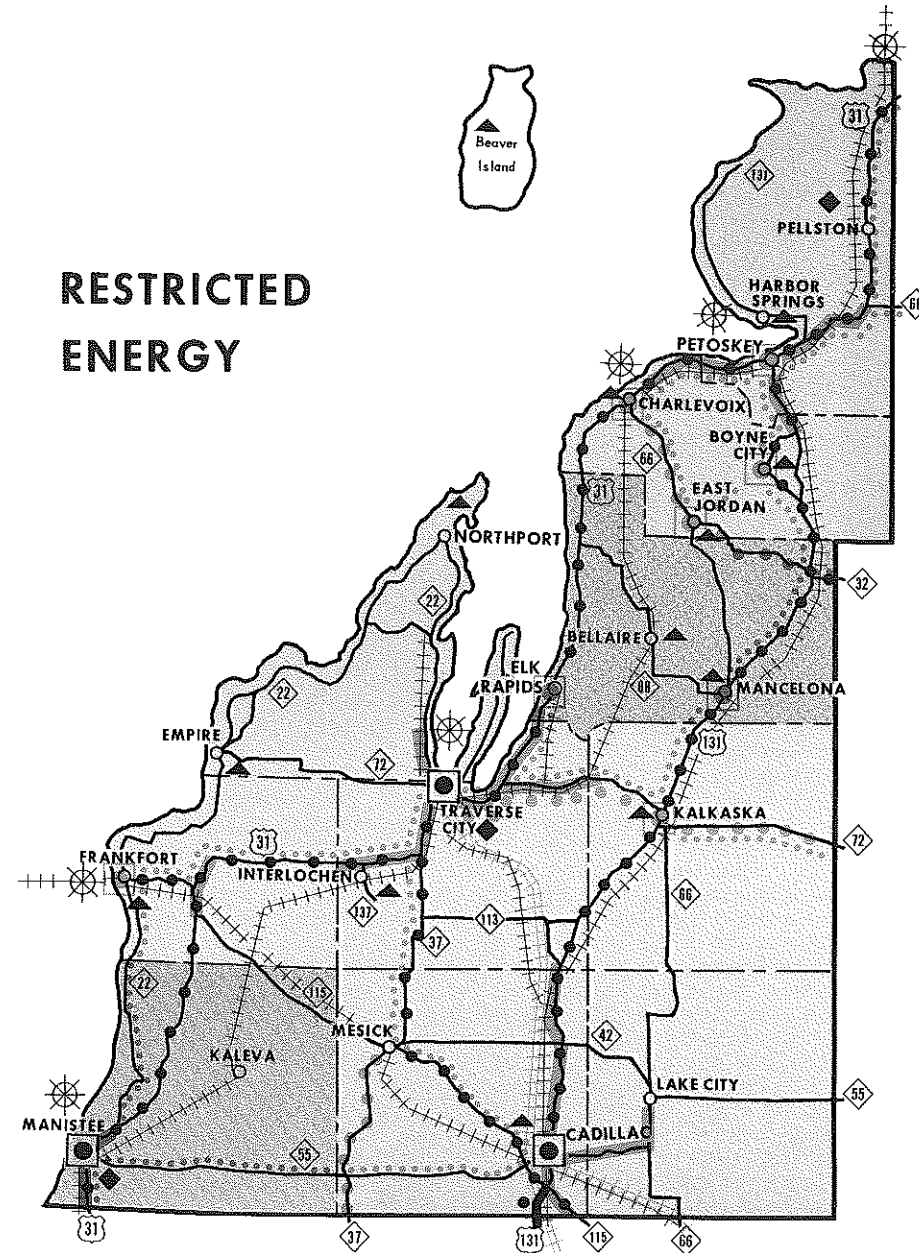
# GROWTH FUTURES

## TRANSPORTATION SYSTEM IMPROVEMENTS

CONSERVED  
ENERGY



RESTRICTED  
ENERGY



MODAL IMPROVEMENT OPTIONS

TRANSPORTATION MODE	DO NOTHING	MINOR SYSTEM IMPROVEMENTS	MAJOR SYSTEM IMPROVEMENTS
Aviation	Maintain Existing Airport Facilities	Resurface Runways Construct New Taxiways, Utility Buildings and Emergency Equipment Install Landing Systems.	New Airports Runway Extensions Additional Runways Implement Scheduled Passenger Service
Commercial Harbors	No Maintenance	Continue Maintenance to Authorized Depth	Increase Harbor and Channel Depths Improve Cargo Transfer Facilities
Highways	Maintain Existing Facilities	Resurfacing Passing Lanes Intersection Improvements Minor Realignments Traffic Control Devices	Widening Existing 2-Lane to 4 or 5 Lanes Construct 4-Lanes Divided on Existing Location Construct 2-Lanes on New Location Construct 4-Lanes on New Location - Free Access - Partial Access Control - Limited Access (Freeway)
Non-Motorized	Maintain Existing Facilities	Pave Shoulders Pavement Markings Install Signs Curb Cuts	Construct Separate Path or Bikeway
Public Transportation	Service and Equipment Maintained by Private or Local Agencies (No State Subsidy)	Continue Current Level of Bus Subsidy Programs Provide Low Interest Loans for Vehicle Purchases	Expansion of Subsidy Programs for: Intercity Carriers Regional Carriers Rural Systems Local Systems Construct New Terminal Facilities
Railroads	Service and Equipment Maintained by Current Owner (No State Subsidy)	Continue Current Level of Rail Subsidy Programs Track Rehabilitation	Institute State Ownership of Subsidized Rail Lines Institute Rail Passenger Service

NOTE: Examples of improvement options were arbitrarily selected.

## MODAL IMPROVEMENT OPTIONS

The accompanying table indicates three categories of transportation improvements. These are:

1. Do Nothing
2. Minor System Improvements
3. Major System Improvements

A few examples are listed beneath each heading. These in no way represent the entire array of options available but should be helpful in associating a category with familiar improvement types.

It should be understood that these three categories of transportation improvements should not be considered interchangeable. Each is intended to satisfy a transportation problem of a certain magnitude. Minor problems should be resolved with minor system improvements. But major problems should warrant improvement alternatives of greater proportions which will solve the problem. And, of course, there exists the option of doing nothing. But, if a transportation problem exists, doing nothing would generally be considered as an irresponsible option toward solving the identified problem. This alternative would also indicate that people have decided to accept or tolerate the probable impacts associated with this option. On the other hand, the do nothing option would be the proper recommendation for those areas not anticipating transportation problems.

As an example, assume a highway transportation problem where the capacity of the existing two lane roadway is clearly inadequate to meet existing and future traffic demands. No amount of work of the type under the category of "Minor System Improvement" will solve the problem because additional lanes are required. Therefore, those options should be ruled out as alternatives for further consideration. But, each of the highway options identified as "Major System Improvements" would become logical candidates for serious consideration.

Likewise, situations may exist where a minor highway capacity deficiency could be resolved by an "up-to-standard" two-lane roadway. Only those im-

provement types, such as those listed under the "Minor System Improvements" category, should then be considered as alternatives to solve the problem.

The point is this – transportation problems should first be identified according to their magnitude. Then, only those options which could solve that particular problem should be considered as realistic alternatives. To seriously consider alternatives which involve either more or less than is conceivably needed would be irresponsible.



## SUMMARY OF SOCIAL, ECONOMIC AND ENVIRONMENTAL IMPLICATIONS

The Northwest Region contains diverse natural environmental attributes which provide a wealth of natural resource and recreational values. It is a predominantly rural region with four urban areas (Cadillac, Manistee, Petoskey and Traverse City) containing the heaviest concentration of public service facilities, commercial and industrial development and job opportunities. The social, economic and natural environment of the region are not static. Shifts in population levels, density and location, changes in service requirements for education, public health, etc., and alterations in the type and level of economic activities are affecting the capability of regional transportation systems to meet travel demand. Uncertainty about energy availability affects future transportation decisions and limited energy could have profound implications to the region. Recent economic trends have raised concern for the long term stability of employment and the improvement of income level for the region's residents. Transportation investment can contribute to an improved situation or to undesirable outcomes. To assure that investment strategies consider a broad range of implications, the social, economic and environmental impacts of various approaches have been evaluated.

The following discussion illustrates general issues to be considered for each of the three modal improvement options: the do nothing, minor system improvement and major system improvement. These considerations include two major categories of potential impact, Primary and Secondary. Primary impacts are those related to the actual construction and operation of transportation facilities and services. Secondary impacts are those social, economic and environmental results of the operation of transportation facilities and services in a particular area. Primary impacts relate to air, water and noise pollution, impacts to wildlife and vegetation, disruption and relocation of private homes and businesses, etc. Secondary impacts include changes in development patterns, shifts in social and economic activity and their implications to the region.

Issues to be considered are dealt with in more detail in the regional report. In very general terms, they are as follows:

### DO-NOTHING ALTERNATIVE

This approach results in the minimum primary social, economic and environmental impacts. The effects of this strategy tend to be long range and subtle. The overall implications are difficult to assess since future conditions are so influenced by energy availability, population growth or non-growth, world and national economic conditions, etc. Increased use of existing transportation facilities and services will contribute to congestion and safety problems which, in turn, contribute to a number of undesirable consequences including:

- Limited mobility which, in turn, limits access to markets, public services, health facilities, etc.
- Shifts to alternative modes, where possible. Past trends have been for mode shift to be to the automobile and truck and away from public transportation and rail.
- The use of alternative local highway routings which distributes the impact of increased vehicular traffic.
- The potential for a slowing of social and economic activity in the region.

### MINOR SYSTEM IMPROVEMENTS

This approach would result in minor regionwide social, economic and environmental impacts but could have localized impacts of a more severe character. The implications, which vary according to the mode under consideration, include:

- Existing social and economic trends would continue.
- Improvements to facilities and services would mitigate minor congestion and safety problems.

- Solutions to major social and economic problems brought about by international or national conditions (such as energy shortages, economic dislocations, etc.) would not be provided.
- Transportation improvement levels would not be adequate to stimulate significant economic growth.

### MAJOR SYSTEM IMPROVEMENTS

Changes in social and economic activity caused by the alteration of transportation delivery systems tend to be marginal and difficult to isolate from other factors in a region which has a modern transportation system. However, an investment strategy which includes major system improvements has the greatest potential for social, economic and environmental impacts. The major improvement approach is the strategy capable of providing alterations to existing trends should the region desire to plan social or economic development programs. The social, economic and environmental implications of major actions include:

- The greatest potential for major primary impacts.
- The greatest potential for major secondary impacts.
- Probable alterations to existing social and economic development trends.
- Substantial investment in non-highway modes if modal shifts are required.
- Improvements to facilities and services would mitigate major congestion and safety problems.

## STUDY FINDINGS

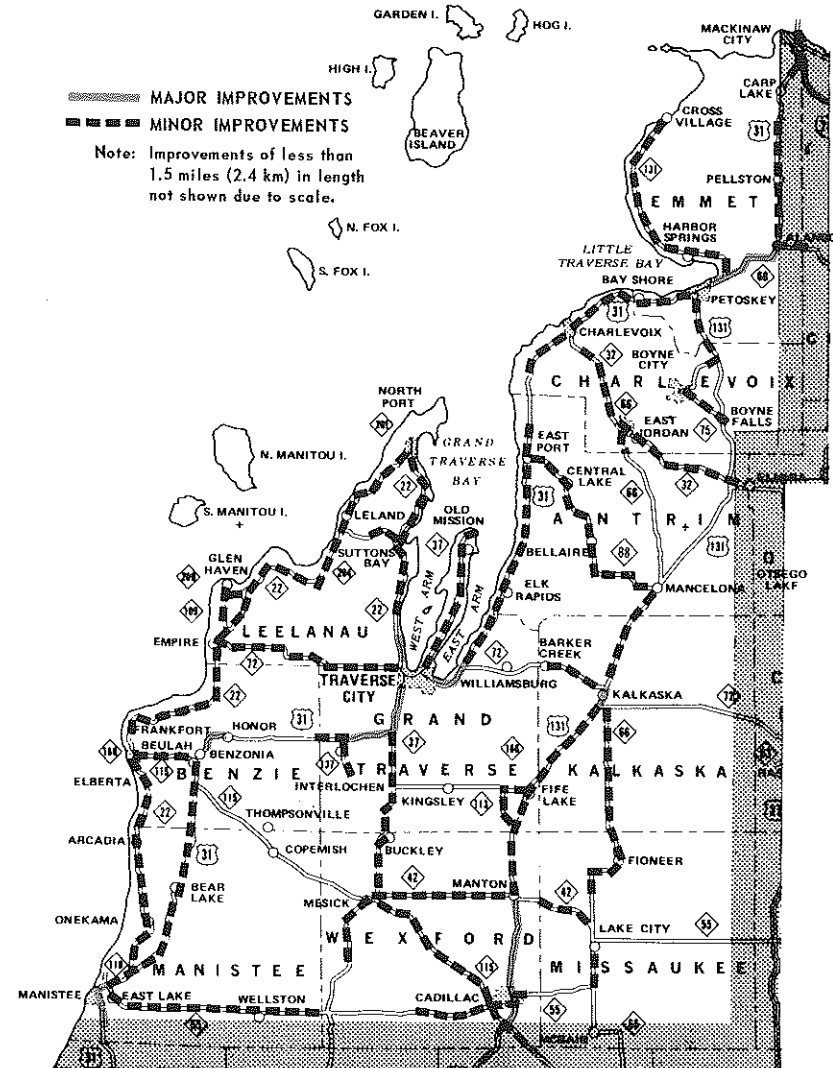
Numerous conclusions have been reached during the course of this study. Obviously, they vary considerably in the degree to which they could affect transportation related decisions. While many of these findings are stated directly within the body of the report, others are less obvious. Therefore, the study team has attempted to objectively state some of those findings which are felt to be most pertinent to the choices before us. It is hoped that they will serve to highlight the major phases of the study and focus attention on the decisions that must be made.

The study findings include:

1. The Northwest Region is predominantly rural, with major concentrations of population and economic activity located in four areas: Cadillac, Manistee, Petoskey and Traverse City.
2. The region is undergoing considerable change, being one of the faster growing areas in the state and country.
3. Natural environmental features provide a wealth of recreational value to the entire state, contributing significantly to the attractiveness and economic base of the region.
4. Travel in the region reflects recreational interests, surging on weekends and during summer months.
5. Existing transportation facilities are experiencing varying degrees of deficiencies, a situation which is expected to worsen if remedial action is not taken.
6. There is a need to make multi-modal improvements to the region's transportation system to satisfy existing and future needs.
7. Future transportation needs are uncertain.
8. Energy and growth are two key variables in determining existing and future transportation needs.

9. Using energy and growth as variables produces a wide range of multi-modal transportation networks, each related to a particular future condition.
10. Numerous transportation system deficiencies occur in each future situation.
11. Some system deficiencies are common to all future situations.
12. There are basically two options to consider in dealing with these existing and future deficiencies:
  - a) Do something to correct the deficiency
  - b) Do nothing
13. Improvement options for correcting deficiencies are identified as major or minor (see page 20).
14. Minor system improvements required to eliminate deficiencies common to all futures include:
  - a. **Aviation**
    - Antrim County Airport: Overlay runway, construct taxiways, install lighting and pavement marking.
    - Cherry Capital Airport: Construct and light taxiway, expand auto parking and purchase snow removal equipment.
    - Emmet County Airport: Install perimeter fencing and purchase snow removal equipment.
    - Wexford County Airport: Construct taxiways, install instrument landing system and install perimeter fencing.
  - b. **Commercial Harbors**
    - None
  - c. **Highways**
    - Minor improvements shown on exhibit on this page.
  - d. **Non-Motorized**
    - Construct Class II Bikeway along M-22 near Frankfort.
  - e. **Public Transportation**
    - Continue present level of subsidy and/or assistance programs for:
      - Rural Bus Service in Antrim and Manistee Counties.
      - Local Bus Service in Traverse City and Cadillac.
  - f. **Railroads**
    - Continue present level of subsidy for rail freight operations.

## HIGHWAY DEFICIENT SEGMENTS REQUIRING MAJOR AND MINOR IMPROVEMENTS



15. Major system improvements required to eliminate deficiencies common to all futures include:

a. **Aviation**

- Purchase 60 acres and construct, light and mark a north-south runway at Wexford County Airport.

b. **Commercial Harbors**

- Promote Integrated Tug-Barge operations at Charlevoix, Petoskey and Traverse City.
- Increase Charlevoix harbor's channel depth to 25 feet .

c. **Highways**

- Major improvements shown on exhibit on previous page.

d. **Non-Motorized Transportation**

- Construct Class I or Sidewalk Bikeways to connect with local systems proposed for Traverse City, Cadillac and Petoskey.

e. **Public Transportation**

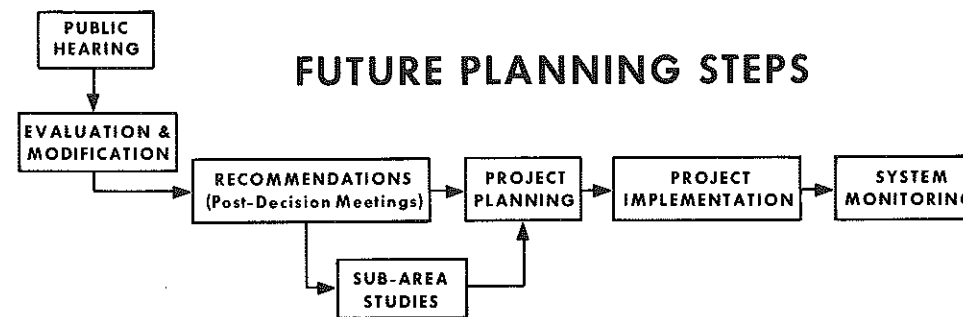
- Establish Regional Bus Service to connect communities of Petoskey, Charlevoix, East Jordan and Boyne City.
- Establish Local Bus Service in Petoskey, Charlevoix, Boyne City, East Jordan, Frankfort and Kalkaska.
- Establish Rural Bus Service in Benzie, Charlevoix, Emmet, Grand Traverse, Kalkaska, Leelanau, Missaukee and Wexford Counties.

f. **Railroads**

- None

## FUTURE PLANNING ACTIVITIES

As previously indicated, an objective of the Northwest Regional Transportation Study is to identify deficiencies and recommend necessary changes to the region's various transportation systems. However, in order for this objective to be fully realized, some additional planning steps are required. These future planning steps are illustrated in the accompanying diagram and discussed below.



### PUBLIC HEARING

#### Purpose

The Northwest Regional Transportation Study has now reached the public hearing stage. The formal public hearing represents a crucial phase in the study since it occurs prior to a decision-making point in the planning process. It is conducted at this time because flexibility still exists to make alterations, adopt new proposals or proceed toward plan implementation. The public hearing will insure that all interested agencies, political jurisdictions, groups and individuals will have the opportunity to make or submit public statements, ask questions,

voice disagreement, offer support, or make suggestions concerning the regional study. Questions and statements will be answered or discussed and a public record made of these proceedings. In order to permit greater public understanding of the issues considered, this brochure is being made available for public review before the hearing.

The previous section summarizes the primary findings of the study. This brings us to a major decision point. Before any further action can be taken, the options available to us must be thoroughly discussed with federal, state and local public and private interests. A public hearing offers this opportunity.

### Decision Point

As mentioned, we have two choices available to us:

1. Do something to correct identified deficiencies.
2. Do nothing.

Both options will have advantages and disadvantages, as pointed out in the impact assessment of this study. Although the option of doing something to eliminate deficiencies implies obvious benefits, it may also cause certain unavoidable impacts. Likewise, the do-nothing alternative may appear to be devoid of negative impacts because nothing would be done to disrupt an area. But, in reality, doing nothing could result in a continuing or worsening travel condition, thereby producing undesirable results.

If a decision is made to do something, we will continue our efforts to resolve those deficiencies which are common to all futures, thus insuring the highest degree of probability for sound investment. As shown on page 20, numerous alternatives are available for satisfying deficiencies of a certain type (major or minor). The Department's efforts would then be directed toward obtaining more detailed information that will assist in selecting alternatives which represent the most desired course of action.

If a decision is made to do nothing, planning efforts will be focused on other areas having identified transportation deficiencies.

But, for now the decision is centered around the question: Shall we do something — or do nothing?

The assistance of the public is needed to help the Department make this decision.

### EVALUATION AND MODIFICATION

After the public hearings have been conducted, the study team will evaluate the public comments received. They will be looking for new transportation related issues or concerns that have not been fully identified in the current planning efforts. Upon completion of this review, necessary process modifications will be made to insure that proper consideration will be given to all pertinent issues before making recommendations.

Modifications to the planning process have been made before. In fact, the current planning process, reflecting future energy and growth concerns, is the result of modifications brought about by past public meetings.

### RECOMMENDATIONS

Post-decision meetings will be held in the region to present the recommendations derived from the Northwest Regional Transportation Study. These meetings, a requirement of the Michigan Action Plan, are important to the public involvement process since they provide an opportunity to view and understand exactly what has been recommended. They also illustrate the logical sequence of the planning process, making key decisions only after extensive studies have been completed. Because of the general nature of the Regional Study, these recommendations will be geared toward intensifying planning activities in areas having identified transportation problems.

As illustrated in the preceding diagram, recommendations can be made to initiate a Sub-Area Study or begin detailed project planning. This decision is dictated by the degree of complexity of the problems identified in the Regional Study. These two planning phases are further explained in the following section.

## Sub-Area Studies

One possible recommendation of the Regional Study is to concentrate planning efforts in one or more geographic areas of the region. These Sub-Area Studies are necessary when an area, identified at the regional level, contains several potential modal projects that can influence one another. In these instances, a sub-area analysis is performed to test alternative solutions and identify specific parts of each modal network which will require project initiation.

Sub-Area Studies interrelate with regional studies but usually emphasize the special transportation needs of a particular community. Therefore, a stronger community involvement is reflected in the multi-modal transportation plans developed for the area.

These studies also include a refinement of various social, economic and environmental impacts associated with various transportation alternatives. And, in some ways, they lay the groundwork for subsequent project planning stages.

Preliminary areas identified as potential candidates for Sub-Area Studies are: Traverse City, Cadillac, Petoskey and Manistee.

## Project Planning

As shown in the diagram, project planning can be recommended from either the Sub-Area Study or directly from the Regional Study. The first situation was discussed under Sub-Area Studies. The latter situation would occur when project needs are identified which would not likely involve another mode or another facility of the same mode.

Project planning consists of performing detailed studies on a specific part of a transportation system. Realistic alternatives for solving an identified problem are analyzed, with the most appropriate alternative being recommended for implementation.

Highway projects represent the most complex form of project planning, especially where new locations are being considered. As a result, additional

highway corridor, alignment and design studies are required as a logical sequence in the project planning stage.

Project planning efforts for other transportation modes are usually not as involved since they have fewer alternatives to consider. At the present time, several modal projects in the region are being planned. The Regional Study will lend support to these projects since they conform with identified transportation problem areas.

The Regional Study will also recommend initiation of some new project planning efforts. These will occur where it has been determined that these projects will be in the best interest of the region and will not significantly affect other transportation proposals.

Listed below are examples of project planning recommendations which could evolve either directly from the Regional Study or through a Sub-Area Study.

1. Subsidizing abandoned Chessie System trackage.
2. Reconstructing M-72 in Leelanau County.
3. Starting a Dial-a-Ride service in Kalkaska.
4. Constructing a bikeway in Petoskey.
5. Port development in Frankfort.
6. Improving air service to Manistee.
7. Rerouting truck traffic around Cadillac.
8. Increasing intercity bus service to Traverse City.
9. Constructing a highway bypass around Cadillac.
10. Widening M-66 south of Lake City.

Etc.

## **PROJECT IMPLEMENTATION**

Recommendations from project planning efforts involve all modes of transportation. Individual projects will be programmed for implementation based upon recommended priorities and available funding. Projects identified at the regional level will compete for construction priority with other projects throughout the state.

## **SYSTEM MONITORING**

In addition to specific project recommendations, the findings of the Regional Study will also be used to guide development of statewide modal transportation plans. The study represents an ongoing planning process, continually monitoring the changes in the region's social, economic and environmental conditions. As these changes begin to affect various transportation systems, the Regional Study will initiate new proposals to adjust these systems accordingly.

## FOR YOUR CONVENIENCE

Your comments relating to the public hearing should be addressed to:

JACK E. MORGAN, MANAGER  
PUBLIC INVOLVEMENT SECTION  
MICHIGAN DEPARTMENT OF STATE  
HIGHWAYS AND TRANSPORTATION  
TRANSPORTATION PLANNING DIVISION  
POST OFFICE BOX 30050  
LANSING, MICHIGAN 48909

Copies of the public hearing transcript may be purchased by contacting:

CURTIS REPORTING CORPORATION  
POST OFFICE BOX 187  
CADILLAC, MICHIGAN 49601

IF YOU HAVE ANY QUESTIONS OR DESIRE ANY INFORMATION ABOUT ANY ASPECT OF THIS PROPOSED HIGHWAY PROJECT, YOU ARE WELCOME TO CALL OUR PLANNING INFORMATION TOLL FREE NUMBER.

**1-800-292-9576**

(CUT ON LINE)

Speaker Identification

NAME

AFFILIATION OR ADDRESS

(Please Print)