



## Wisconsin Department of Transportation

Tommy G. Thompson  
Governor

Charles H. Thompson  
Secretary

OFFICE OF THE SECRETARY  
P. O. Box 7910  
Madison, WI 53707-7910

June 29, 1994

Governor Tommy Thompson  
Room 115 East, State Capitol  
Madison, WI 53702

*MP  
file*

Dear Governor Thompson:

I am transmitting with this letter an early release copy of the Department of Transportation's review and update of the Corridor's 2020 Plan. This review was conducted using the latest socio-economic, travel and transportation data. The review also uses preliminary data from the Translinks 21 multimodal planning process to assess the impact of other transportation modes on the system. This "Corridors 2020 Update" confirms the initial plan concept transmitted to you in March 1989 and updated again in July 1990.

Sincerely,

*Charles H. Thompson*

Charles H. Thompson  
Secretary

cc: Sen. Alan Lasee                      Rep. John Gard  
      Rep. Donald Hasenohrl            Rep. Antonio Riley  
      Rep. David Brandemuehl ✓      Rep. John Ryba  
      Sen. Joseph Andrea              David Bugher  
      Sen. Roger Breske                Jack Pelisek  
      Sen. Joanne Huelsman            Herman Ripp  
      Sen. David Zien

# **CORRIDORS 2020 UPDATE**

**TRANSLINKS 21 MULTIMODAL PLANNING PROGRAM**

**WISCONSIN DEPARTMENT OF TRANSPORTATION**

**June, 1994**

## ACKNOWLEDGEMENTS

This publication was prepared by the Wisconsin Department of Transportation, Division of Planning and Budget. The principal authors of this document were Kwame Arhin, Highway Planning Unit, and Dawn Krahn, Highway Planning Unit. Randall Wade, Chief of the Statewide System Planning Section provided overall project direction.

Others providing significant input for this document include the following: Ron Atkinson, Highway Planning Unit; George Gundersen, Director of the Bureau of System Planning; Doug Dalton, Chief of the Urban System Planning Section; David Cipra, Supervisor of the Highway Planning Unit; Dan Yeh, Multimodal Planning Unit; and Bernard van de Kamp, Highway Planning Unit.

Computer graphics for maps in this document were provided by Sandra Anderson, Statewide System Planning, David Beyer, Statewide System Planning, and Kelly Schieldt, Statewide System Planning.

## Preface

This report documents a review and update of the Corridors 2020 Plan for a statewide highway network designed to provide essential links to key centers throughout the state. The purpose of the Corridors 2020 Update is to use the latest available data to confirm or make adjustments to the Corridors 2020 system which was last updated in July 1990. This Update is conducted as an element of the Translinks 21 Multimodal Transportation Plan. Because the Translinks 21 planning process is an ongoing one, the findings that follow may be refined as the Translinks 21 Plan is finalized.

In March 1993, the Wisconsin Department of Transportation (WisDOT) initiated Translinks 21. This long-range planning process will shape a comprehensive, integrated, multimodal transportation blueprint to set the framework for our future policies, programs and investments. Translinks 21 will guide the development of our transportation system into the 21st century. It will address the highways, airports, railroads, waterports and urban transportation systems that carry people and goods throughout Wisconsin and to the nation and the rest of the world.

As an element of the Translinks 21 Multimodal Transportation Plan, this Update of the Corridors 2020 Plan provides the highway linkages for a multimodal system that will provide safe, dependable access to and from Wisconsin communities and help promote regional and statewide economic development.

The Corridors 2020 Plan was introduced by Governor Thompson on August 3, 1988 as a new long-range highway and economic development plan. It was promptly endorsed by the public at hearings throughout the state and then by the State Legislature. It was subsequently updated by the Department in

July 1990. This plan was designed to enhance Wisconsin's future economic development and to meet our mobility needs into the next century. Since transportation affects nearly every aspect of life in Wisconsin, the plan will have major impacts for our businesses and citizens.

The updated Corridors 2020 highway system described herein is based on socio-economic factors such as the location of urban population concentrations, manufacturing centers, and tourism, agricultural and forestry activity, as well as other highway planning concerns such as capacity needs and existing and forecasted commercial traffic. The underlying criteria and data used to develop this update are even more compelling today than in 1988. The overall traffic volumes are higher today than they were in 1988 and forecast to be even higher in the future. Also, this Update recognizes that the Corridors 2020 network is a component of the National Highway System (NHS) and provides linkages to this critical national system.

In addition to the economic development benefits realized from Corridors 2020, individual users of the corridors will also benefit from these proposed improvements. The motorist traveling for weekend recreation or personal business will enjoy improved travel time, safer roads and improved connections to other modes. For example, Mrs. Miller can drive from Platteville to Madison on a multilane backbone highway -- U.S. 151 -- to link with a proposed Amtrak terminal in Madison for a train trip to Milwaukee. A freight transporter from Shawano may move materials on Hwy 29 -- a Corridors 2020 route -- to Green Bay intermodal terminals to connect with intermodal freight trains in a seamless process.

## THE CORRIDORS 2020 PLAN

As confirmed by this review and update, the Corridors 2020 Plan is a statewide network of improved and existing facilities comprised of two elements: 1) a 1,550 mile backbone system of multilane divided highways interconnecting all regions and major economic centers in the state and tying them to the national transportation network; and 2) a 2,100 mile system of two and four lane high quality connectors directly linking other significant economic and tourism centers to the backbone system. Together, these two components will create a 3,650 mile network linking Wisconsin communities to the nation's Interstate and multilane highway systems for improved access to national and world markets. Nearly all cities and villages in Wisconsin with a population over 5,000 will be within five miles of either a backbone or connector route. Furthermore, Corridors 2020 will also link the communities with intermodal connections throughout the state.

### Multilane Backbone System

As shown in Fig. A, the completed multilane backbone system will consist of 1,550 miles of interconnected freeways and expressways. Today, 1,200 miles are completed and the remaining 350 miles are programmed to be completed by the year 2005. This 1994 Corridors 2020 analysis shows that all of the previously designated backbone routes again meet the criteria for multilane backbone routes. Thus, there are no changes in the highways designated as part of the backbone system. A fundamental core of our completed backbone network is the 640 mile Interstate system. Sufficient funding must be devoted to preserve the utility of this critical core.

The most significant of the backbone corridors left to be completed are:

- Highway 29 providing an east-west link across the center of the state;
- Highway 10 providing an east-west link serving the Fox Cities;
- Highway 151 serving the southwestern region of Wisconsin and linking the Fox Valley with growing markets in the southwestern part of the country;
- Highway 53 linking northwestern Wisconsin to the Interstate system and the central part of the state;
- Highway 41 serving the northeastern region of Wisconsin;
- Highway 41 linking Milwaukee to Green Bay and the Fox Valley, converted to freeway.

Newly constructed portions of the backbone corridor system will generally be built as high quality four-lane expressways, designed to provide most of the safety and service characteristics of a freeway but at a lower cost, and with fewer environmental impacts. Typically, these highways will provide interchanges at high volume intersecting highways, with most highways intersecting at grade. Turning lanes will be provided at most intersections. Although some direct residential access to the highway may remain, commercial access will be available only through intersecting public roads. Bypasses of communities are planned where necessary to maintain constant highway speeds, but these bypasses will be built as close as possible to existing development. As future traffic needs warrant, some sections of the backbone system may be converted to freeways.

**Backbone categories.** The backbone routes were separated into two categories under the 1994 update.

- Backbone routes. These backbone routes are either existing two lane routes meeting the criteria for multilane backbone construction, or they are current multilane routes without predicted congestion problems to the year 2020.
- Existing multilane backbone routes with congestion problems projected between now and year 2020, to be addressed by the Congestion Management System. Federal transportation legislation (ISTEA) requires that each state develop by October 1, 1996 a Congestion Management System (CMS) which addresses highway congestion problems from a comprehensive perspective. The CMS will consider alternative intercity and urban modes, demand management techniques such as employee trip reduction and new technologies such as Intelligent Vehicle Highway Systems (IVHS), as well as conventional highway improvements. In urbanized areas, the CMS will be developed jointly with designated metropolitan planning organizations (MPOs).

**MAP B**

**Backbone Ties to the Nation Map**

## The Connector System

The primary purpose of the 2,100 mile connector system is to link other significant economic and tourism centers to the backbone system, thus better integrating them into the statewide and national transportation systems. The connector system will be designed as high quality two lane facilities providing the highest standards of roadway width, passing opportunities, safety and driving comfort.

Additional passing, turning, and hill-climbing lanes will be provided where needed. Bypasses will be built around communities if needed. To improve community visibility, larger signs will be provided to direct motorists to villages and cities served by each route. Currently, about 60 percent of the connectors are existing or programmed as multilane, or will be evaluated for multilane improvements under the Congestion Management System. Some segments of the connectors may be recommended for expansion to four-lane highways when traffic requires more than two lanes.

**Connector route changes.** There have been three changes to the connector system as the result of the 1994 analysis.

- Highway 29 from Green Bay to Kewaunee is no longer classified as a connector. In the previous update, this segment was included as a connector as it provided highway access to the carferry service from Kewaunee across Lake Michigan. However, because this ferry service now leaves from Manitowoc, this segment did not qualify as a connector and the designation was removed.
- Highway 8 -- from Hwy 53 to Hwy 51 and from Hwy 45 to Hwy 141 -- will be classified as a connector. This

segment provides an important east-west link across the northern part of the state. These new segments met the following criteria for connectors: service to trade centers, service to recreation-tourism counties and service to forestry counties. Like other Corridors 2020 routes this route is also part of the designated National Highway System (NHS).

- Highway 11 from Hwy 151 to Monroe. This corridor was included as it is an important route serving a significant agricultural area in the state. Similarly, this route is also part of the designated NHS.

### Connector routes no longer under study.

There were several routes which were designated as "under study" in the July 1990 update which are no longer considered under study for Corridors 2020.

- Highway 76 and portions of Highway 110 near Appleton are no longer classified as connectors. Intercity travel will be adequately served by the planned rerouting of Hwy 45 (over Hwy 110 and County Hwys D and W). Therefore, the remaining portions of Hwy 110, a portion of Hwy 45 and Hwy 76 near Appleton do not need to be part of the Corridors 2020 system as they would only provide parallel routes in that area.
- Highway 11 and Highway 81 west of Janesville and Beloit were shown as "under study" in the 1990 update, because at that time the region was being evaluated in the *Rock County Regional Transportation Study*. The Rock County study -- completed in December of 1991 -- recommended a bypass south of Janesville and a bypass

south of Beloit (which will be primarily in Illinois). Therefore, Hwy 11 (from Monroe to Janesville) and Hwy 81 (from Monroe to Beloit) have been confirmed as connectors on the Corridors 2020 system.

- Highway 12 from Madison to the Illinois state line has been included as a connector with congestion problems to be addressed by the Congestion Management System.

**Connector categories.** The connector routes were separated into three different categories under the 1994 update.

- Existing and enumerated multilane connectors. These connectors have already been built to multilane connector specifications or have been approved by the legislature for multilane construction.
- Connectors with predicted congestion problems to the year 2020, to be addressed by the Congestion Management System.
- Other connectors. These connectors typically lack congestion problems for significant lengths of highway.

## HOW WILL OTHER INTERCITY TRANSPORTATION MODES IMPACT CORRIDORS 2020?

The Translinks 21 planning process responds to federal mandates in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), and considers the impacts of the various passenger and freight modes on each other as well as the changing economic, mobility and environmental needs of Wisconsin. Preliminary data from the Translinks 21 multimodal planning process have been analyzed to provide an initial indication of how a multimodal investment strategy could impact the Corridors 2020 designation.

Travel on Wisconsin highways is expected to increase 1.5% annually over the next 25 years. Of principle interest is the degree to which the promotion of alternative modes of transportation may reduce congestion by diverting some passenger vehicles and commercial trucks off various Corridors 2020 highways.

The highway diversion map (Fig. C) shows a preliminary analysis of potential *passenger* travel diversions from highways to other intercity transportation modes. These passenger diversion estimates are based upon analyzing the impact of adding additional intercity bus, conventional and high speed rail service as called for under the most expansive Translinks 21 multimodal plan alternative. These diversion estimates are preliminary and based upon an intercity multi-modal trip model. This data does not reflect the impact of alternative freight modes nor diversions in urban areas resulting from improvements in urban transit, bicycle/pedestrian usage or demand management techniques such as employee trip reduction.

The following examples illustrate the use of

the diversion analysis for intercity passenger trips. The Translinks 21 multimodal alternative for the Interstate 94 corridor from Milwaukee to Madison features an ambitious array of additional passenger service. This includes the addition of 12 round trips/day of high speed rail (125 mph), and 4 round trips/day of additional bus service. This additional service results in a diversion of approximately 750 auto trips. On a typical rural portion of this corridor 750 autos represents only a 3.4% diversion of intercity trips. When truck and local trips are accounted for, the diversion represents only 2.7% of all trips.

Other Corridors 2020 routes show similar diversion results. On the Highway 29 corridor west of Shawano, alternative mode improvements considered in the Translinks 21 planning process include the addition of conventional passenger rail service between Green Bay, Stevens Point and the Twin Cities on a so-called "northern route", as well as additional intercity bus service. These alternative passenger mode additions result in the diversion of about 50 auto trips, or about 2.0 % of intercity passenger travel or 1.3 % of total travel.

On the Highway 151 corridor near Platteville, the addition of intercity bus as well as feeder bus service connecting to high speed rail service in Madison, results in a diversion of only 75 auto trips, which is 1.7% of intercity passenger travel or 1.3% of total travel.

On the Highway 41 corridor near Lomira, the addition of four round trips per day of conventional passenger rail service between Green Bay and Milwaukee along with additional intercity bus frequencies results in the diversion of 150 auto trips which is 1.3% of intercity passenger trips or 0.8% of total trips.

In summary, intercity passenger transportation services -- such as conventional Amtrak trains, high speed rail, or intercity buses -- have only limited potential to divert significant percentages of traffic off most Corridors 2020 routes.

Less detailed information is currently available from the Translinks 21 multimodal planning process with regard to freight diversion from truck to rail. On a statewide basis, increased intermodal truck/rail activity shows a maximum possible diversion of 6 - 9% of total forecast truck traffic by year 2020. It must be emphasized that this is preliminary data and that actual diversion amounts will be focused on specific high density intercity corridors where the development of additional truck/rail intermodal service is most feasible.

In conclusion, there may be some modal diversion resulting from the further development of alternative transportation modes, but it is not likely to have significant impact on future highway capacity needs. It must be cautioned that these are preliminary estimates, and the final Translinks 21 multimodal plan will present a more refined picture of modal diversion. Other analysis of future highway capacity needs -- the most significant being associated with ISTEAM mandated Congestion Management System (CMS) -- will be conducted by the Department of Transportation to provide even more detailed information. The CMS analysis will be conducted by WisDOT in cooperation with metropolitan planning organizations (MPOs) in order to provide the most balanced multimodal approach for further addressing future highway needs in Wisconsin.

MAP C  
Map Showing Multimodal Diversion

## HOW WERE THE CORRIDORS 2020 ROUTES DETERMINED?

Corridors 2020 is a strategic investment plan that was developed to assess individual highway segments and place them in the broad perspective of a state highway network. Objective criteria were applied to each highway under consideration using a combination of several operational and economic factors. Meeting one Corridors 2020 criterion is not sufficient for a highway segment to become part of the system; instead, the Corridors 2020 network is based on a composite of all factors studied.

### The Backbone System

Seven criteria were used to determine the backbone system. Each of the maps below identifies the candidate highway segments or counties meeting those criteria.

**Multilane Capacity Needs.** Included as candidates for the backbone system were current multilane highways and existing two lane highways with projected traffic volumes sufficient to require additional lanes by 2020, as determined by a capacity analysis process. Only larger segments which require capacity improvements over most of their length, or current multilane segments are shown on the map (Fig. D). Refer to Fig. B for current and emerging congestion problems on existing multilane backbone routes which will be evaluated under the Congestion Management System.

#### MAP D

Current multilane highways and highways with capacity needs map

**Service to Trade Centers.** Updating the Corridors 2020 plan required an update of the *Wisconsin Place Classification for Transportation Planning*. This document serves as a sub-component of the Corridors 2020 plan update because it establishes a ranking system for trade, employment, economic diversity, and population. By establishing ten primary activity centers throughout the state, a more efficient system of trade and interaction could be defined. After determining the influence of the largest cities upon their surrounding regions, local trade activity and its linkages to the national and international economy could be established. The *1994 Wisconsin Place Classification for Transportation Planning* was crucial in determining the trade center classification for Wisconsin communities.

Trade center classification was determined using the following factors:

- Population
- Employment
- Diversity of employment types
- Property valuation
- Service receipts
- Retail trade
- Wholesale trade

Those highways interconnecting the most significant trade centers (Metropolitan, Urban, and Regional) became backbone candidates (Fig. E).

When comparing 1988 to 1994 trade center criteria the following changes occurred:

- 1) Communities no longer considered Urban centers are: Fond du Lac and Manitowoc/Two Rivers;
- 2) Communities now classified as Regional centers: Fond du Lac, Manitowoc/Two Rivers, Ladysmith, Shawano, Portage, Baraboo, Burlington, Lake Geneva, Oconomowoc, Watertown, West Bend, Sturgeon Bay, Marinette/Menominee, Winona, Red Wing and Hudson;
- 3) Communities no

longer classified as Regional Centers: Sparta and Tomah.

#### MAP E

Trade Center map (based on place classification)

**Service to Manufacturing Centers.** "In many respects, manufacturing represents the most important sector in the Wisconsin economy."<sup>1</sup> The value of Wisconsin's industrial manufacturing output is \$94.44 billion (in 1992 dollars), which is over 40% of Wisconsin's Gross State Product.<sup>2</sup> Wisconsin has retained a significant proportion of its manufacturing activity, despite a national shift towards a service-based economy. This is desirable, because a diverse economy is better able to weather economic fluctuations than a specialized or non-diverse one. However, while the state houses an active manufacturing base, the nature of these industries is rapidly changing, as evident in the emergence of "just in time" production. Manufacturing today is more dependent upon a reliable surface infrastructure, as interstate truck travel is essential to both importing and exporting goods and services.

Manufacturing centers were designated through a county by county assessment of the following considerations:

- Manufacturing employment
- Value added by manufacturing in dollars
- Number of manufacturing firms

Highways considered as candidates for the backbone system were those connecting the

most important manufacturing counties (Tier 1) to their major market areas. All of the Tier 1 counties in the 1994 report were included as Tier 1 counties in the 1990 report (Fig. F).

#### MAP F

Service to Manufacturing Center map

#### **Service to Agricultural Counties.**

Agricultural activity is very important to Wisconsin's economy and culture. The state's agricultural community produces more products than the state consumes, thereby acting as an export industry. Furthermore, Wisconsin is the top producer in the nation of many agricultural commodities, and among the top for several others.<sup>3</sup> Wisconsin's cash receipts from agriculture products was \$6.20 billion (in 1992 dollars), which ranks 8th in the nation.<sup>4</sup> For these reasons, particular attention to the transportation needs of the agricultural community is important.

Agricultural counties were ranked with respect to their productivity, which was measured through the use of the following statistics: vegetables, grain, milk, cattle, hogs, sheep and poultry.

Agricultural activity and production is concentrated in the central and southern portions of the state, as shown by the map (Fig. G). Highways considered as candidates for the backbone system were those connecting the most important agricultural counties (Tier 1) to the markets.

When comparing the 1990 analysis to the 1994

analysis, the following counties were changed from Tier 2 to Tier 1 (now included for backbone and connector agricultural criteria): Pierce, Kewaunee and Columbia. Also, the following counties changed from Tier 1 to Tier 2 (included for connector agricultural criteria rather than backbone): Polk, Waupaca, Calumet, Monroe, Richland and Washington.

highways connecting the most important forestry (Tier 1) counties (Fig. H). When comparing the 1990 to the 1994 forestry criteria the following counties changed from Tier 2 to Tier 1: Oconto and Wood. Also, the following counties changed from Tier 1 to Tier 2: Douglas, Ashland, Iron, Florence, Menominee, Washburn, Rusk and Taylor.

### MAP G

#### Service to Agricultural Counties map

### MAP H

#### Service to Forestry Counties map

**Service to Forestry Counties.** Forestry related industries and activity in Wisconsin have been growing in recent years.<sup>5</sup> Moreover, the majority of the forestry growth and activity takes place in the northern half of the state, although there is also significant processing along the Mississippi River. Because this economic sector is growing at a steady rate, and shows continued promise in the future, a first-class surface transportation infrastructure is crucial to move freight products to the marketplace.

The forestry counties were ranked using the following indicators:

- Pulpwood
- Number of pulp mills
- Saw timber
- Number of sawmills
- Wood consumption

Included as backbone candidates were

**Service to Recreation-Tourism Counties.** Recreation and tourism have been major components of Wisconsin's economy for decades and continue to grow. "A major sector of Wisconsin's service industry exports is the Hospitality, Recreation, and Tourism (HRT) industry. With over 10,000 lakes, 2,000 streams, 49,000 campsites, and almost 5 million acres of hunting land, Wisconsin is a recreational haven for residents and visitors alike. Business related activities (including business trips, conferences, and conventions) also attract thousands of visitors to the state annually."<sup>6</sup> The tourism industry, in short, is important to the state's aggregate economy.

Recreation and tourism, are highly dependent upon highway transportation for safe and convenient travel to recreational attractions and vacation areas. Therefore, service to the state's most significant concentrations of recreation/tourism is an important factor in

determining the Corridors 2020 system. Using the standardized ranking method, the following fifteen factors were used to determine the routes most critical to the recreation/tourism industry:

- Number of recreation/tourism related firms
- Number of recreation/tourism related employees
- Number of seasonal restaurants
- Number of lodging firms
- Number of Lodging rooms
- Number of campgrounds
- Number of campsites
- Number of seasonal dwellings
- Number of marina berths and harbors
- Number of state parks and state forests
- State park and state forest visits
- Number of downhill ski runs
- Miles of cross county ski trails
- Miles of snowmobile trails
- Cities with sport teams of statewide significance

When comparing the 1988 and the 1994 recreation/tourism criteria, Marinette and Columbia counties changed from Tier 1 to Tier 2. Waukesha county changed from Tier 2 to Tier 1.

Included as backbone candidates are highways connecting the most important recreation/tourism (Tier 1) counties to the greatest source of visitors (cities with populations greater than 100,000). (Fig. I) When comparing the 1988 analysis to the 1994 analysis the following counties changed form Tier 1 to Tier 2: Marinette, Winnebago, and Columbia.

**Truck Volume.** Truck traffic is a measure of the extent to which a highway serves regional industrial and agricultural needs. Included as candidates for the backbone system are highway segments with current or predicted average daily truck volumes greater than 1,250 in 1994 or segments which will have volumes greater than 2,100 by 2020 (Fig. J). The 1994 truck volumes thresholds are based on those used in 1988, adjusted to reflect changes in forecasted truck volumes.

MAP J  
Truck Volume map

MAP I  
Service to Recreation-Tourism Counties map

## The Connector System

The connector system is intended to tie the next level of economic and tourism centers to the backbone system. Therefore, similar criteria are used in the evaluation of candidates for connector routes. These include: service to trade centers, truck volume, service to manufacturing centers, service to recreation /tourism, centers service to agriculture, and service to forestry counties.

**Service to trade centers.** Connectors were chosen in order to serve District Centers as well as any Metropolitan, Urban or Regional Centers not served by the backbone corridor system (Fig. K).

When comparing the 1988 and 1994 trade centers the following additional communities were included as District Centers: Platteville, Mondovi, Stoughton and Whitewater. Also, the following communities are no longer included as District Centers: Lancaster, Spooner, Ladysmith, Barron, Portage, River Falls and Hudson.

### MAP K

#### Service to Trade Center Map

**Truck volume.** Included as connector candidates were highway segments with current or predicted average daily truck volumes of greater than 625 in 1994 or greater than 1,050 by 2020 (Fig. L).

### MAP L

#### Truck Volume Map

**Service to manufacturing centers.** The connector routes are intended to provide direct service to the second tier of manufacturing counties, both in the state and in nearby counties of adjacent states, as well as any Tier 1 counties not served by the multilane backbone system (Fig. M).

When comparing the 1988 and 1994 manufacturing criteria, Chippewa county changed from Tier 3 to Tier 2. Outagamie county changed from Tier 2 to Tier 3.

### MAP M

#### Service to Manufacturing Centers

**Service to recreation/tourism centers.**

Connector candidates provide direct service to Tier 2 counties (in Wisconsin and in nearby counties in neighboring states) as well as any Tier 1 counties not served by the backbone routes (Fig. N). When comparing 1988 to 1994 criteria Burnett, Washburn, Iron, Rock, Racine, Kenosha and Waushara counties changed from Tier 2 to Tier 3.

MAP N

Service to Recreation/Tourism Centers

**Service to agricultural counties.** Connector routes were chosen to include connections connecting the Tier 2 counties in addition to any counties not served by the backbone routes (Fig. O).

When comparing the 1990 and 1994 analysis Rusk, Adams and Ozaukee counties changed from Tier 2 to Tier 3. Also, Taylor, Oconto, Buffalo, and La Crosse counties changed from Tier 3 to Tier 2.

MAP O

Service to agricultural counties

**Service to forestry counties.** Connectors were also chosen to serve Tier 2 forestry counties as well as the Tier 1 counties not served by the backbone routes (Fig. P).

When comparing the 1990 and 1994 analysis, the following counties changed from Tier 2 to Tier 3: Polk, St. Croix, Eau Claire and Brown. The following counties changed from Tier 3 to Tier 2: Barron, Dunn, Trempealeau, Monroe, Juneau, Portage, Waushara, Outagamie, Vernon, Crawford and Richland.

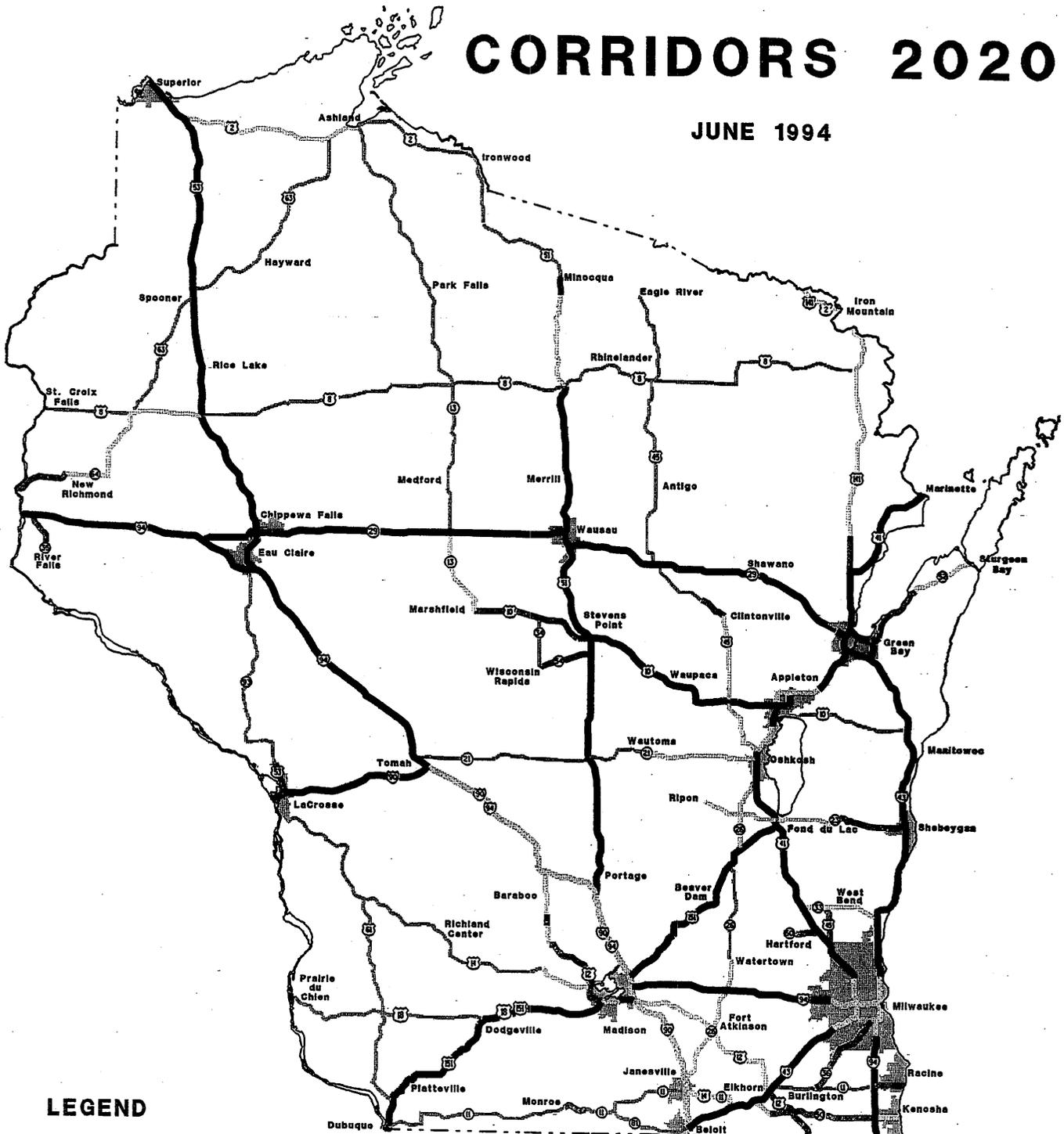
MAP P

Service to forestry counties

1. Wisconsin Department of Development. *An Economic Analysis of Wisconsin Regions*. (WisDOT, Division of Policy, Research and Information Services, Office of Science and Technology. May, 1993). p.25.
2. Regional Economic Models, Inc. (REMI), Amherst, Massachusetts.
3. Wisconsin Department of Agriculture, Trade, and Consumer Protection and National Agricultural Statistics Service, USDA. *Wisconsin Agricultural Statistics, 1993*. (DATCP, June, 1993). p.5.
4. Wisconsin Blue Book 1991-1992. How Wisconsin Ranks among the States in Agriculture, 1989, p. 568.
5. United States Department of Agriculture. *Wisconsin Timber Industry--An Assessment of Timber Product Output and Use, 1990*. (North Central Forest Experiment Station, 1993). et. al.
6. Wisconsin Department of Development. *An Economic Analysis of Wisconsin Regions*. (WisDOT: Division of Policy, Research, and Information Services, Office of Science and Technology. May, 1993). p. 30.

# CORRIDORS 2020

JUNE 1994



## LEGEND

**Backbone**

**Existing Multilane Backbone with Congestion Problems to be addressed by Congestion Management System**

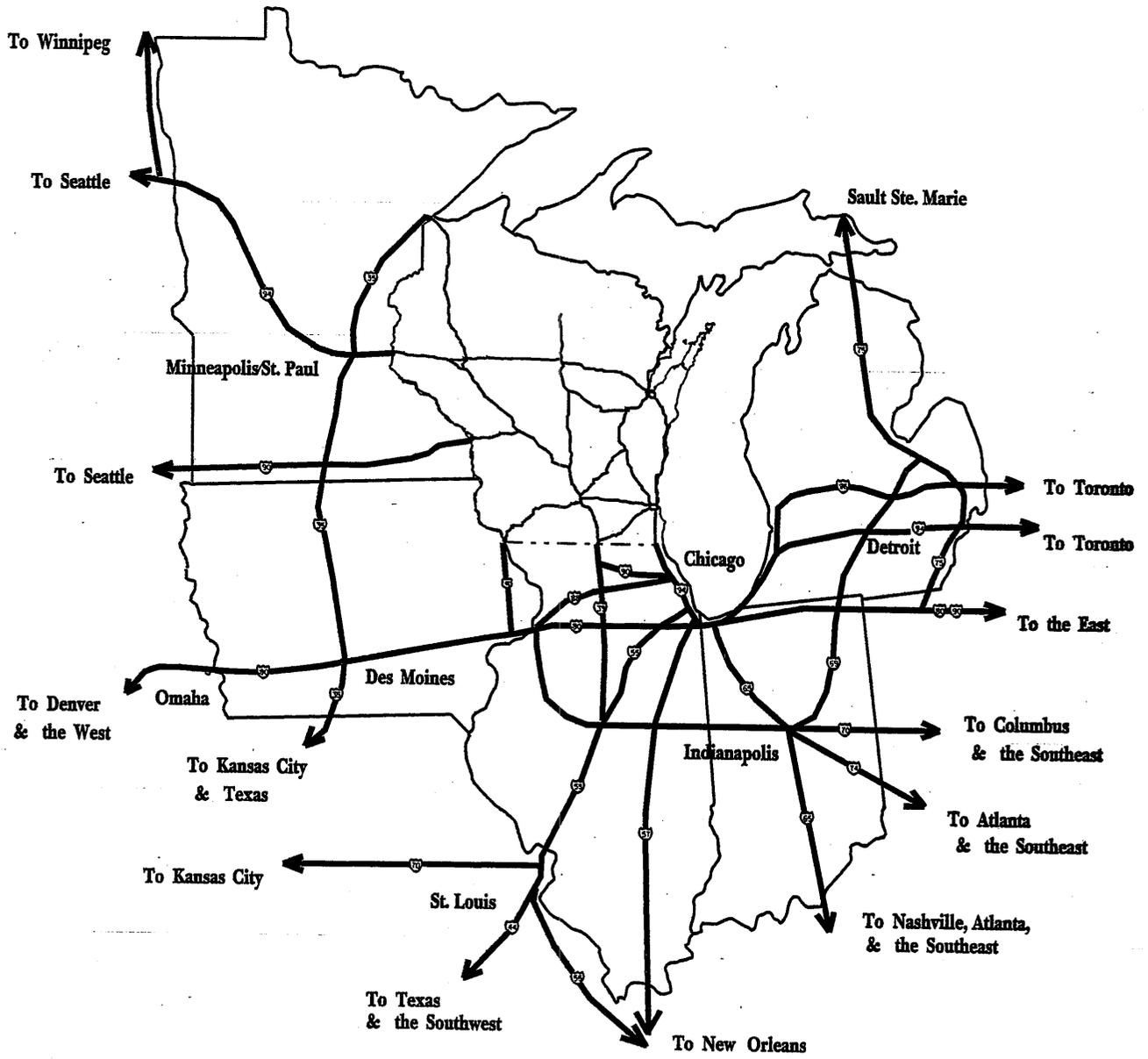
**Existing & Enumerated Multilane Connectors**

**Connectors with Congestion Problems to be addressed by Congestion Management System**

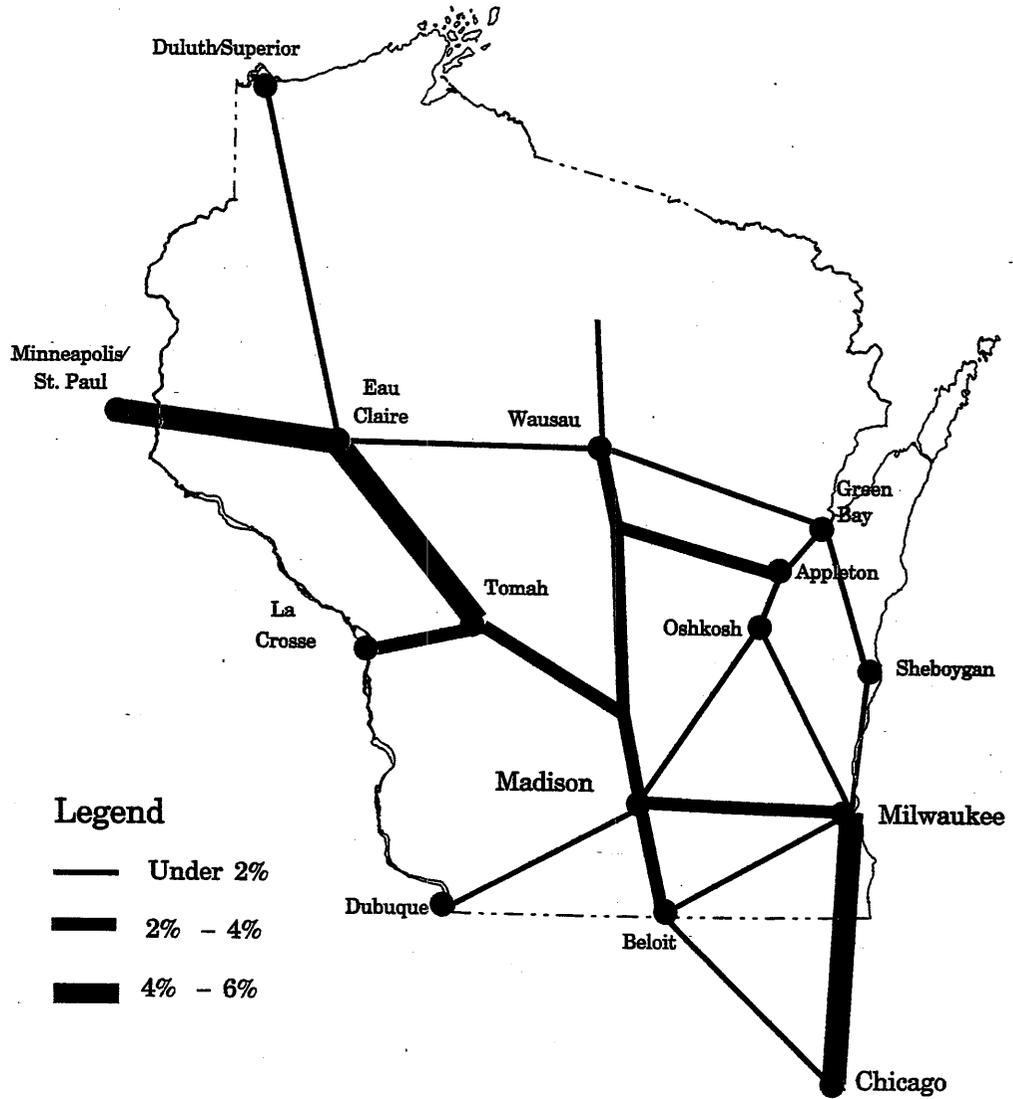
**Other Connectors**

**Urbanized Areas**

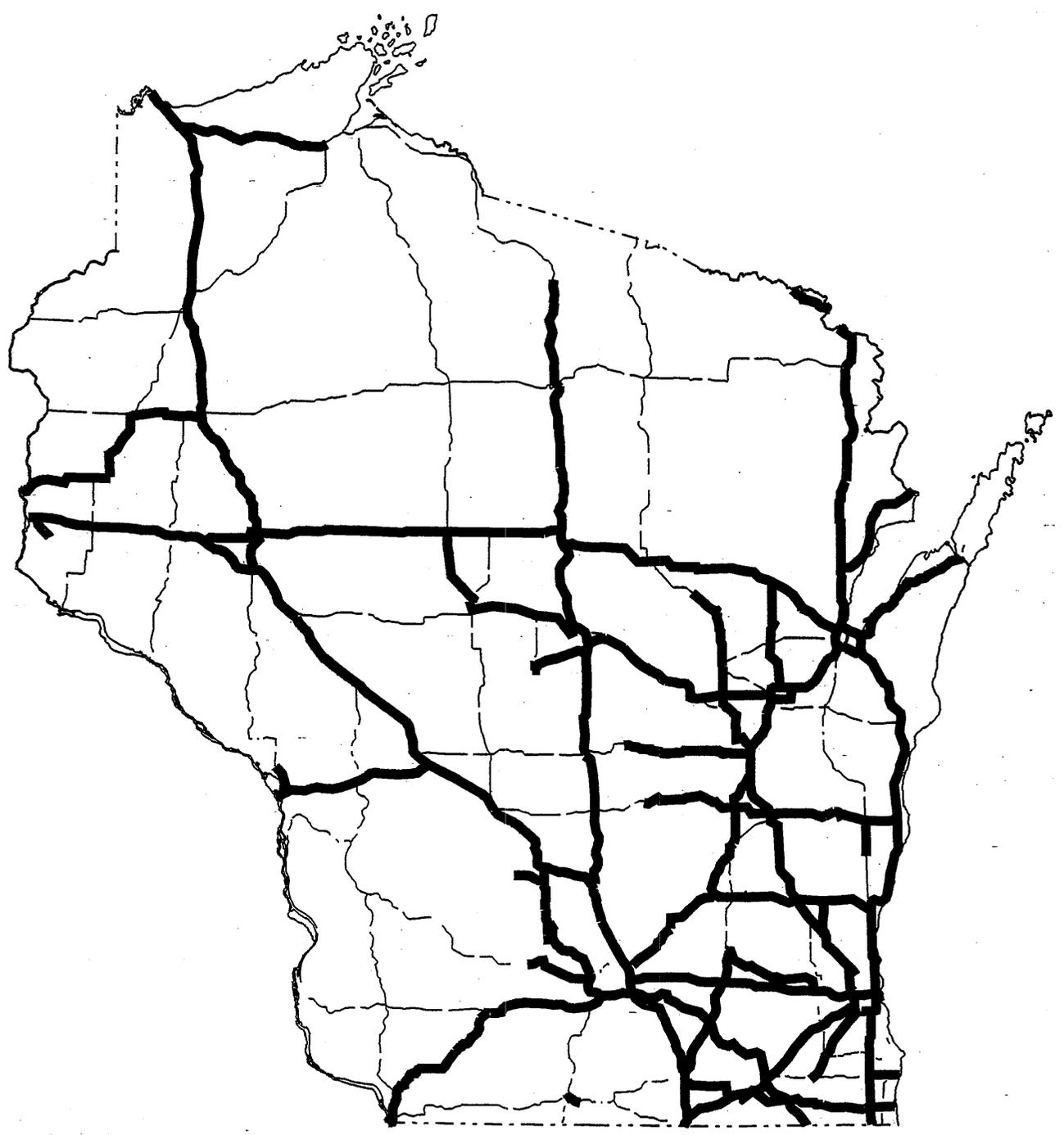




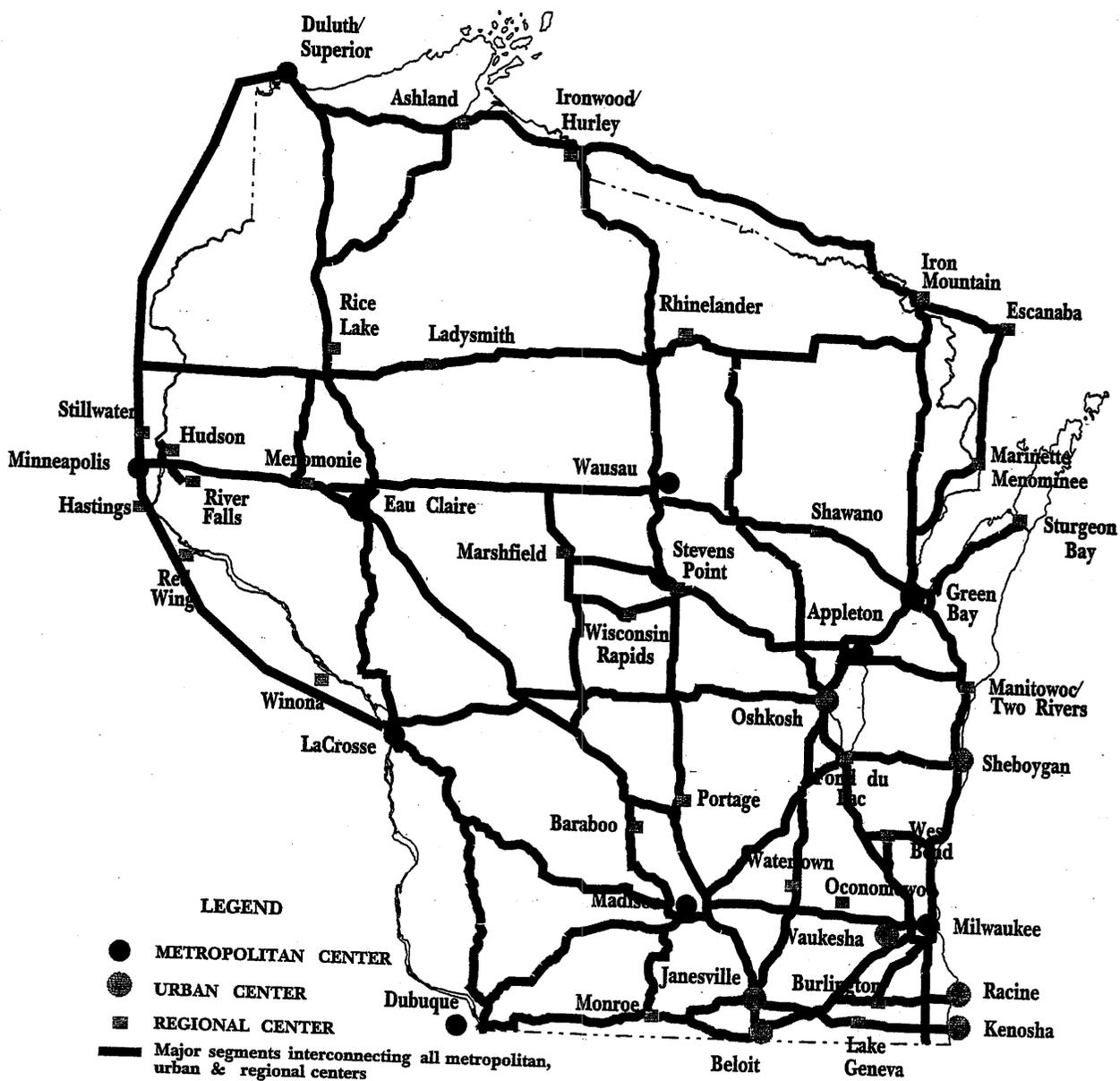
# Intercity Passenger Trip Diversion



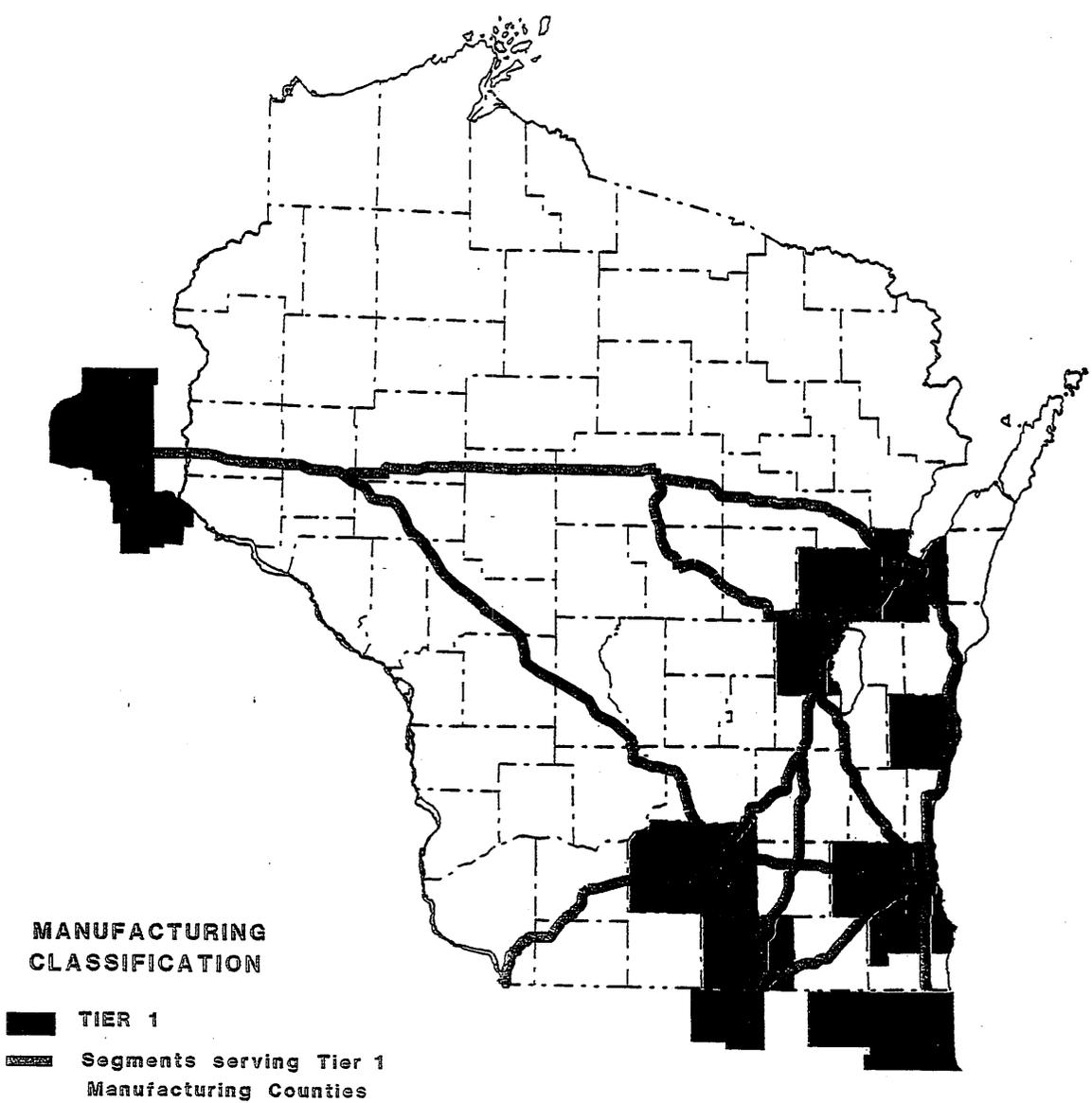
**TWO LANE HIGHWAYS WITH CAPACITY NEEDS  
AND EXISTING MULTILANE HIGHWAYS - BACKBONE**



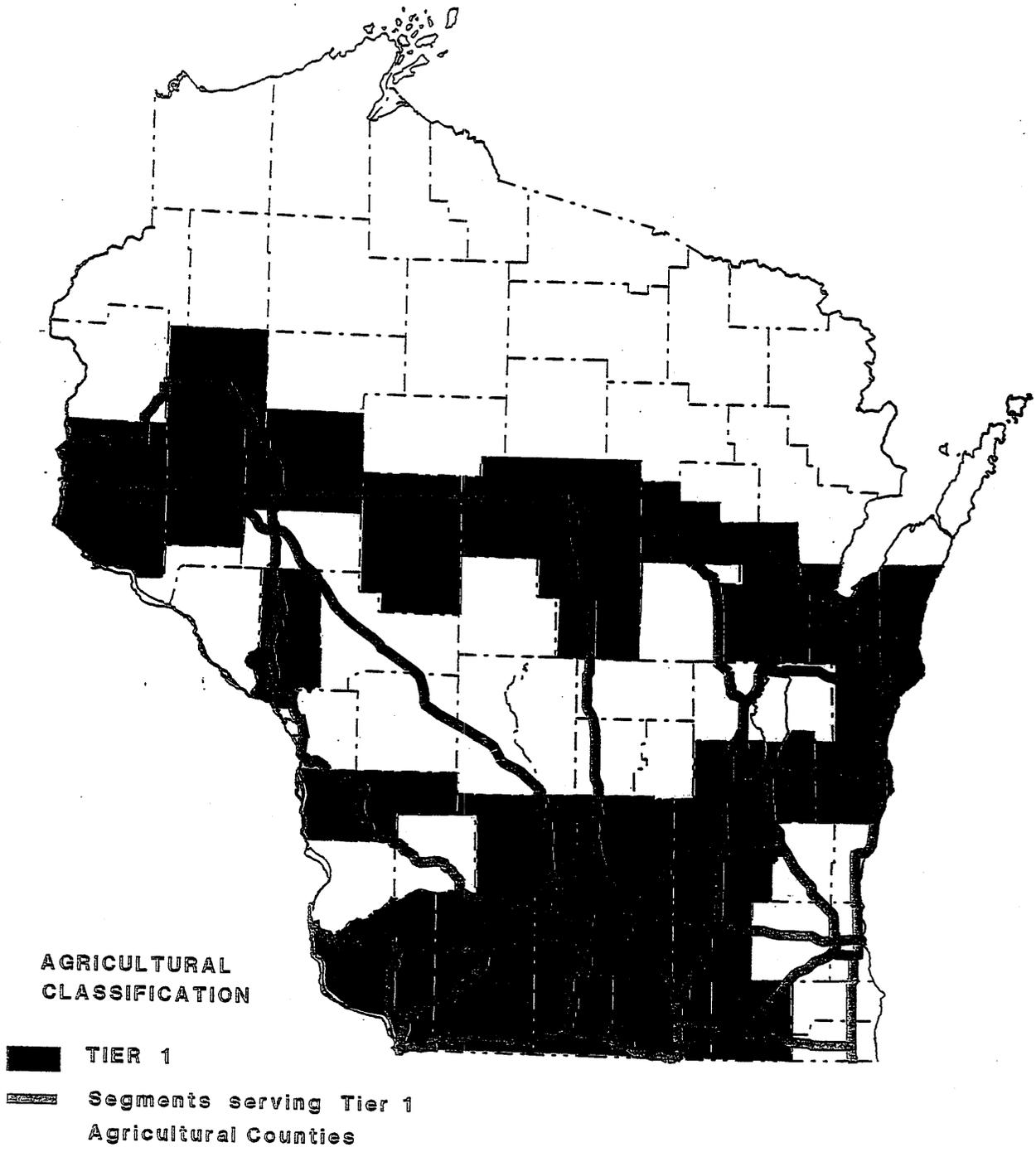
### SERVICE TO TRADE CENTERS - BACKBONE



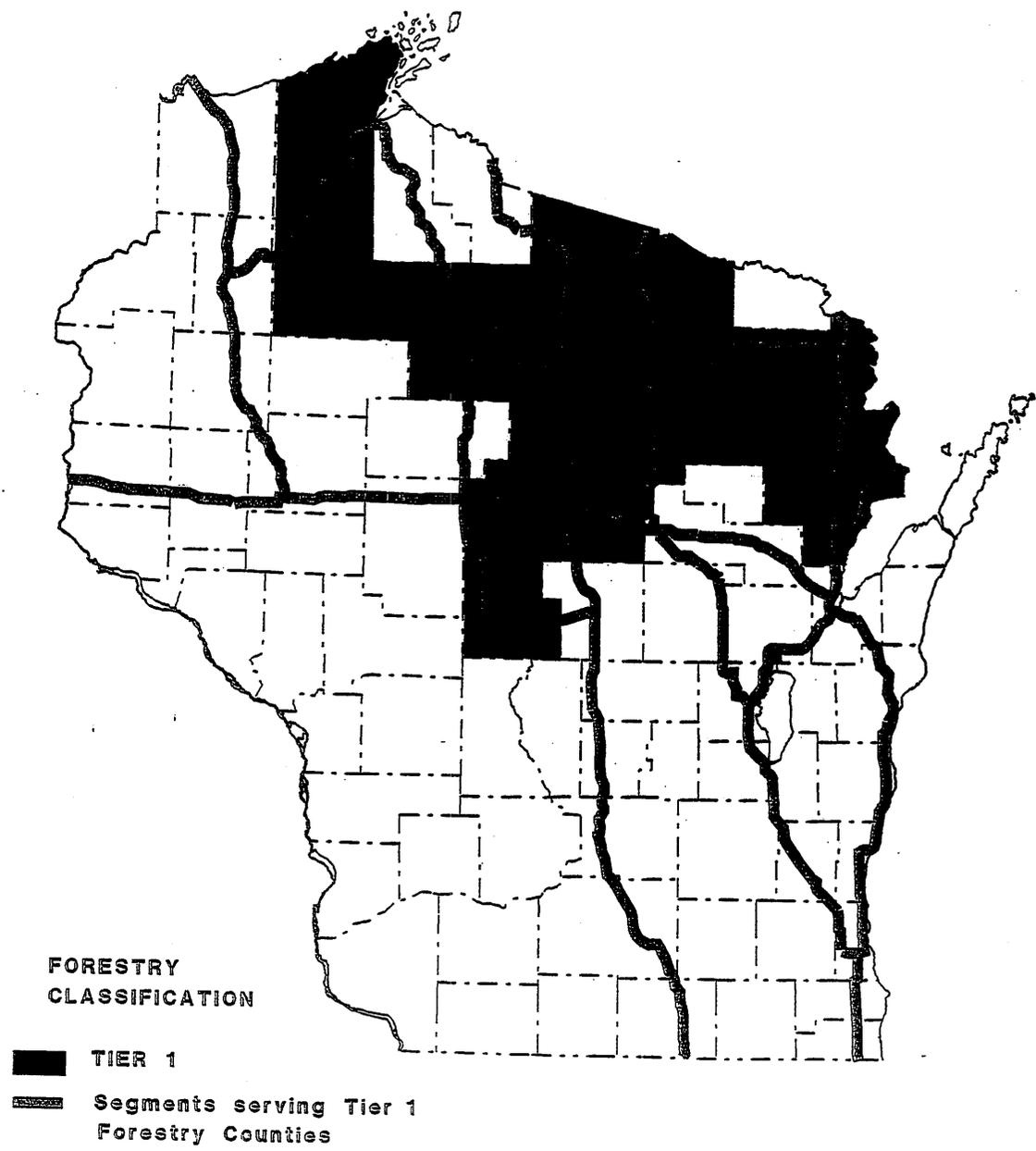
### SERVICE TO MANUFACTURING CENTERS - BACKBONE



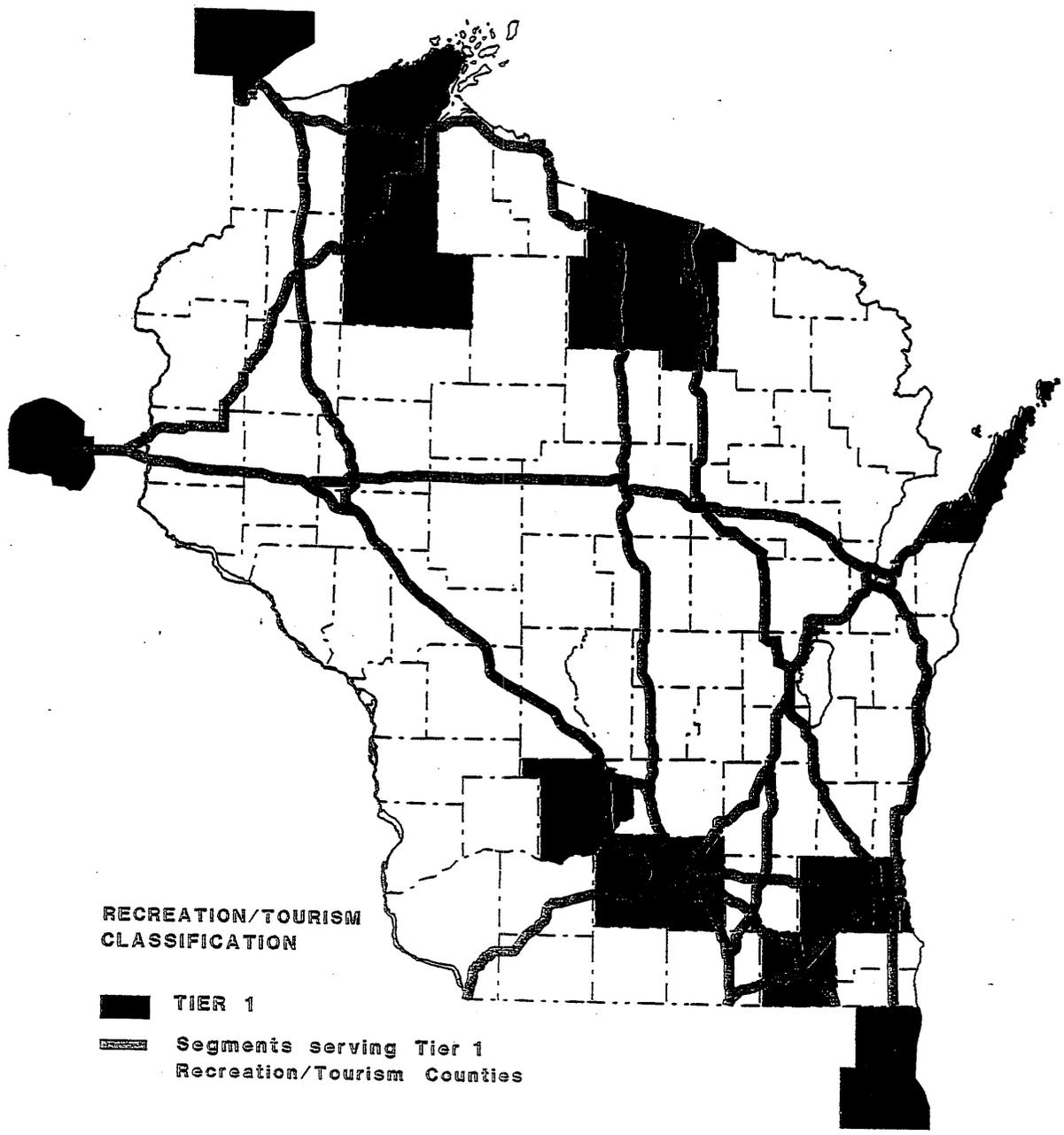
# SERVICE TO AGRICULTURAL CENTERS - BACKBONE



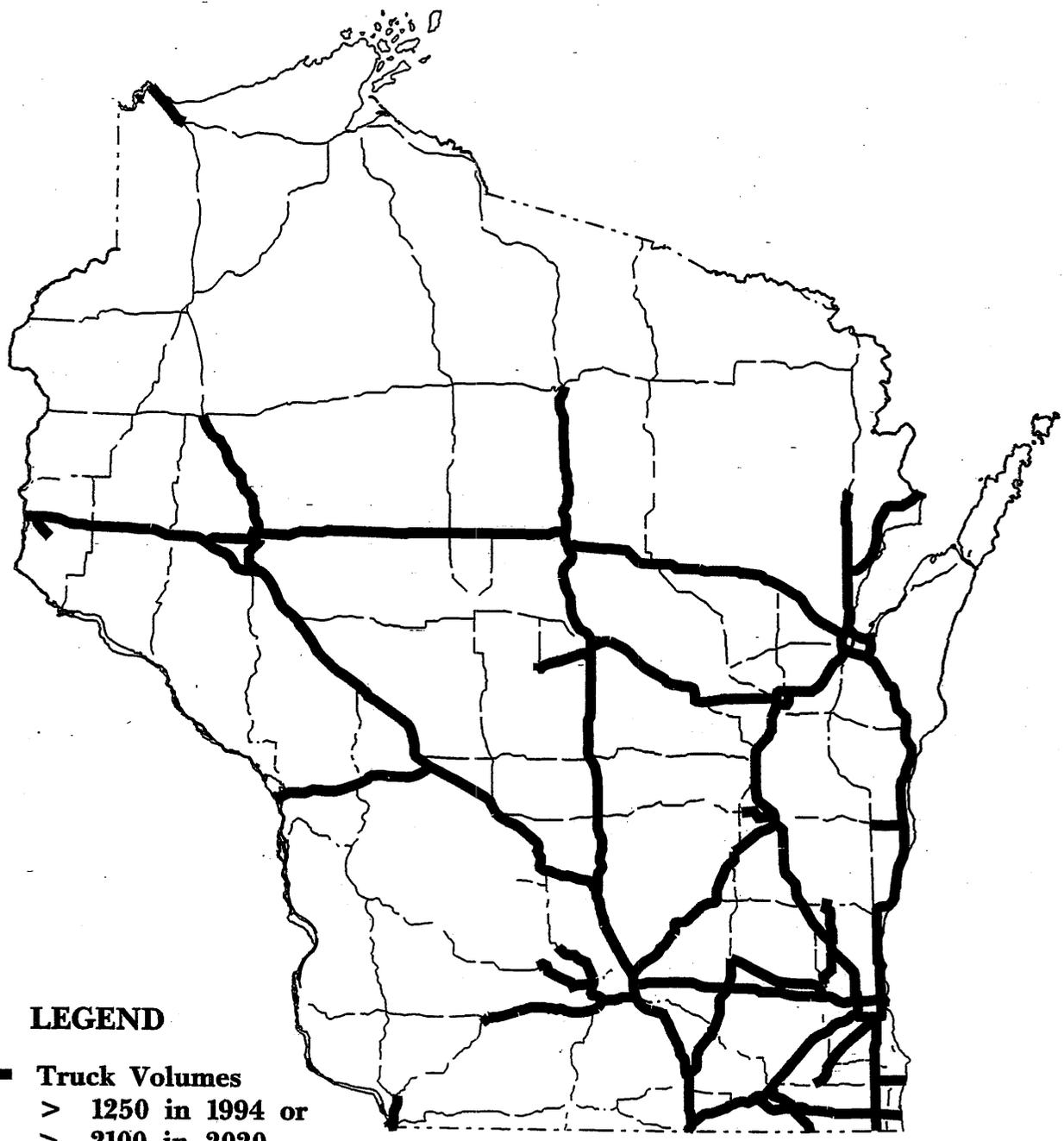
# SERVICE TO FORESTRY COMPOSITE - BACKBONE



# SERVICE TO RECREATION/TOURISM CENTERS BACKBONE



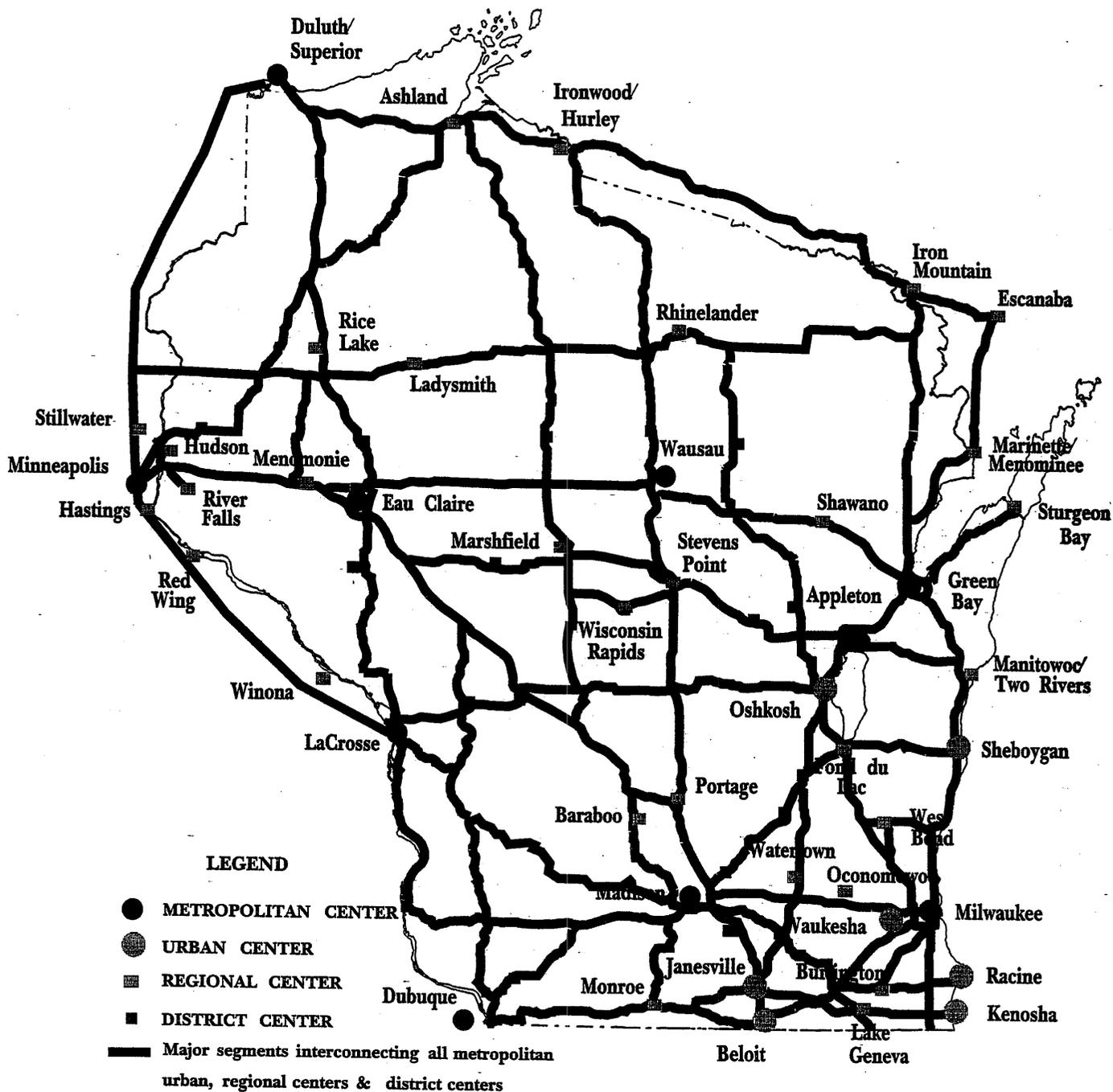
# TRUCK VOLUME - BACKBONE



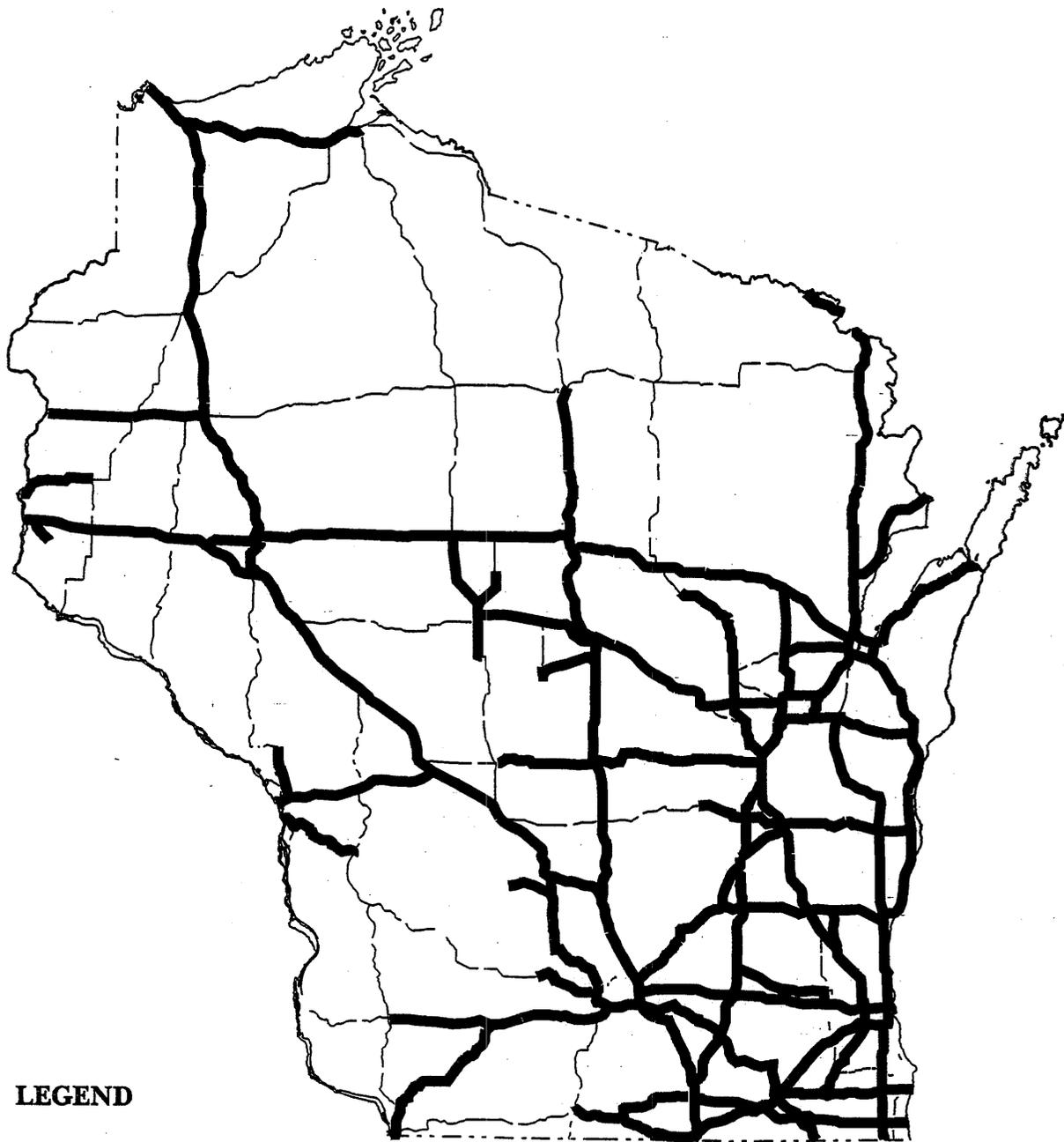
## LEGEND

- Truck Volumes
- > 1250 in 1994 or
- > 2100 in 2020

# SERVICE TO TRADE CENTERS - CONNECTOR



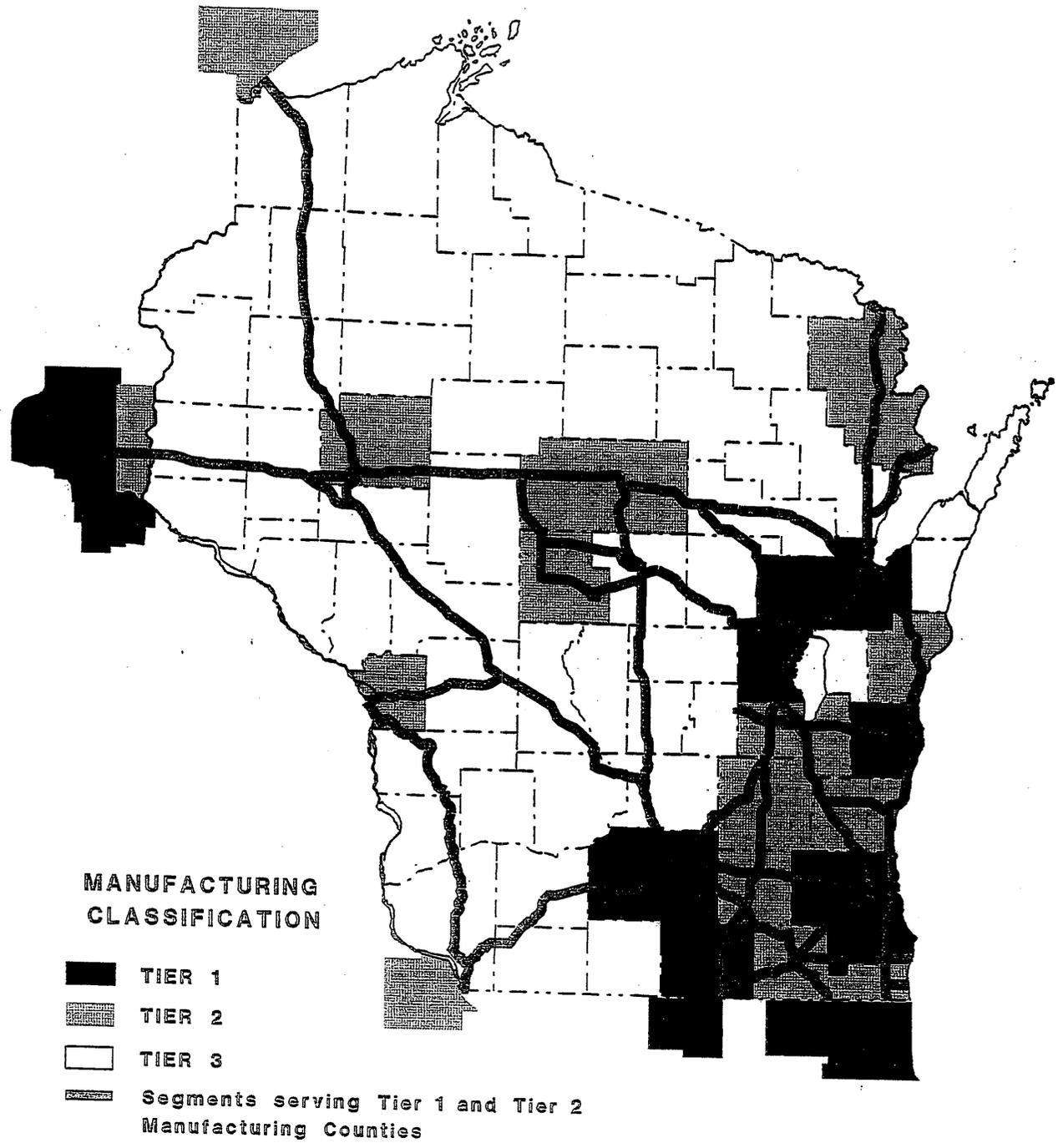
# TRUCK VOLUME - CONNECTOR



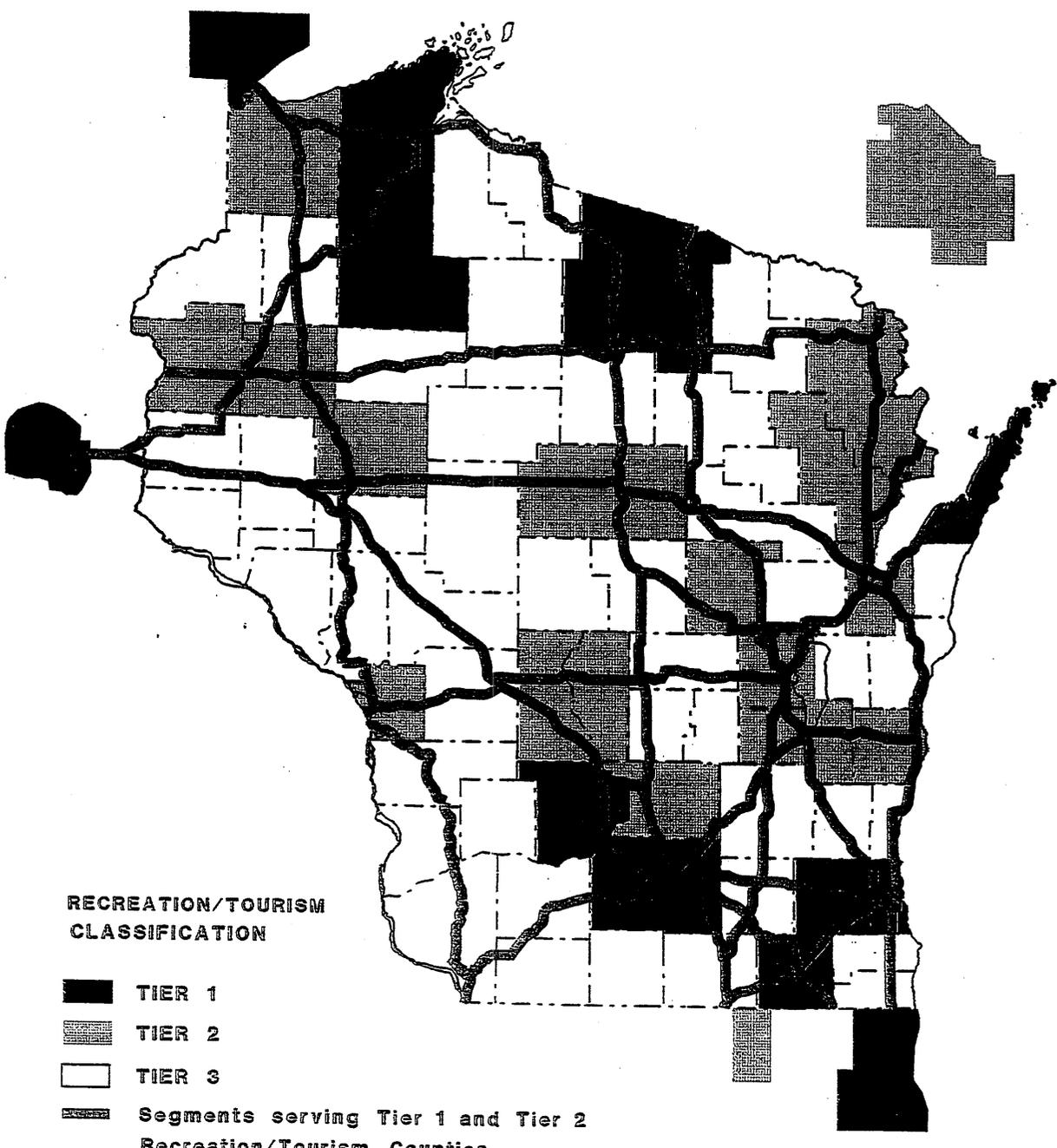
## LEGEND

- Truck Volume
- > 625 in 1994 or
- > 1050 in 2020

# SERVICE TO MANUFACTURING CENTERS - CONNECTOR

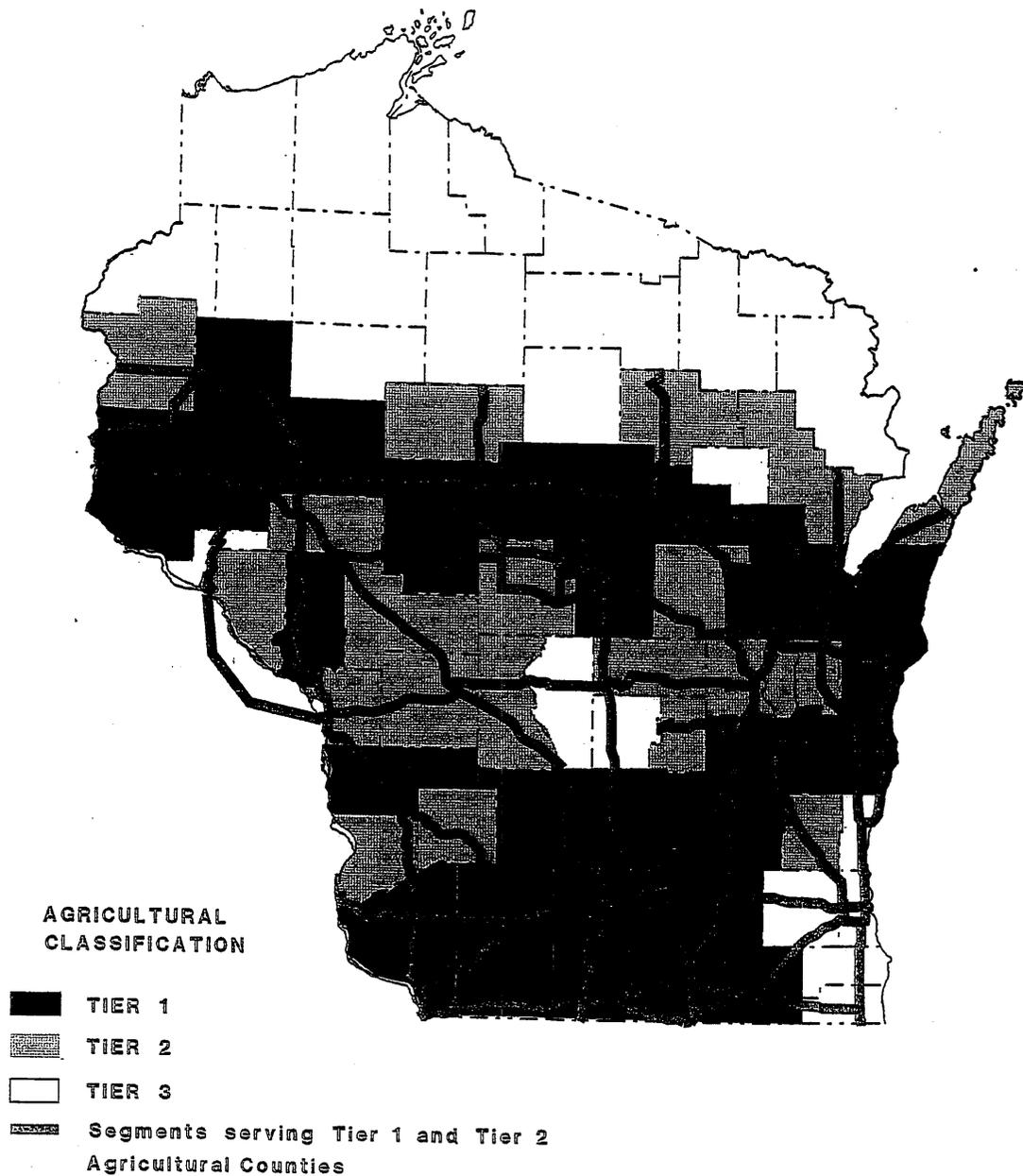


# SERVICE TO RECREATION/TOURISM CENTERS CONNECTOR

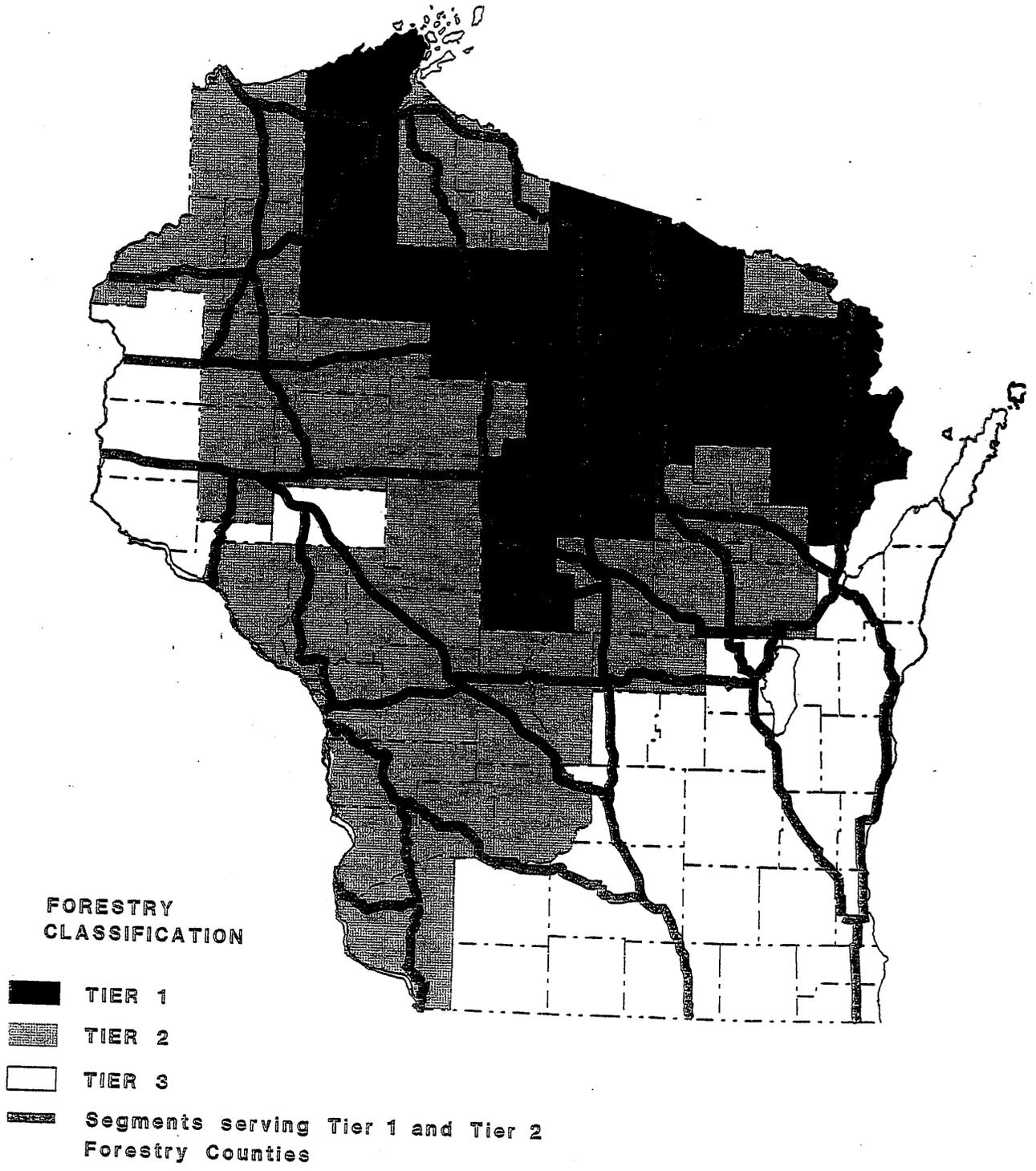


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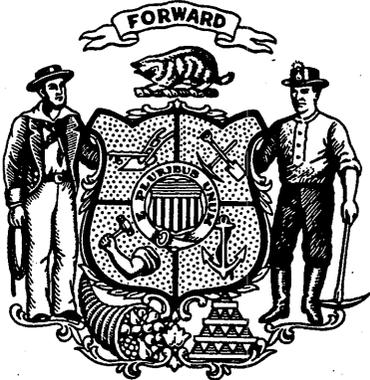
### SERVICE TO AGRICULTURAL CENTERS - CONNECTOR



# SERVICE TO FORESTRY COMPOSITE - CONNECTOR



END



END

30 June, 1994

Sec. Charles Thompson  
Dept. of Transportation  
4802 Sheboygan Ave.  
Madison, WI 53705

SUBJECT: HIGHWAY 53 BYPASS , Eau Claire

Dear Sir:

I am a person who has used Highway 53 between Chippewa Falls and Eau Claire daily for 25 years. There is a serious traffic problem during the main commute times between Chippewa Falls and Eau Claire. In my opinion the problem is greatly amplified by two correctable items:

1. Heavy truck, commercial and tourist traffic
2. Too many access roads and driveways onto Highway 53 without signals, which also permit crossing the highway

A bypass will solve problem No. 1. Stern resolve by the Transportation Dept. in limiting cross roads and access to the highway will solve problem No. 2 in Eau Claire and Hallie. There will be griping and criticism by business owners and local residents over item No. 2. Your engineers should do what is safest for the majority of people and "dammm the torpedoes?"

The bypass should not be built primarily to benefit just the Chippewa Falls - Eau Claire area; it will greatly help more of Northwestern Wisconsin if the path used is the Outer Bypass. I do believe that bypasses are meant to totally bypass urban areas as much as possible. If the inner route is chosen, the same problems will occur in a few years because of urban traffic. We really have two problems, through traffic and urban traffic. Let us at least solve one well.

Sincerely,

Jack E. Ray  
411 Coleman Street  
Chippewa Falls WI, 54729-2205

**For your information**  
**Copies to:**

Gov. Tommy Thompson  
Rm. 115 East, State Capitol  
Madison, WI 53702

Sen. Joseph Andrea  
Rm. 318 South, State Capitol  
Madison, WI 53702

Sen. Roger Breske  
Rm. 409 South, State Capitol  
Madison, WI 53702

Sen. Joanne Huelsman  
Rm. 33 South, State Capitol  
Madison, WI 53702

Sen. Alan Lasee  
Rm. 6 South, State Capitol  
Madison, WI 53702

Sen. David Zien  
Rm. 139 South, State Capitol  
Madison, WI 53702

Rep. Antonio Riley  
100 N. Hamilton, Rm. 311  
Madison, WI 53702

Rep. John Ryba  
100 N. Hamilton, Rm. 315  
Madison, WI 53702

Rep. David Brandemuehl  
Rm. 317 North, State Capitol  
Madison, WI 53702

Rep. John Gard  
Rm. 316 North, State Capitol  
Madison, WI 53702

Rep. Donald Hasenohrl  
Rm. 114 North, State Capitol  
Madison, WI 53702

Mr. Jack Pellsek  
100 E. Wisconsin, 33<sup>rd</sup> Floor  
Milwaukee, WI 53202

Mr. Herman Ripp  
2009 N. Douglas St.  
Appleton, WI 54911

END



END

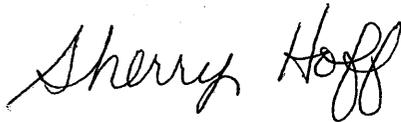
June 30, 1994

Rep. David Brandmuehi  
Rm. 317 North  
State Capitol  
Madison, WI 53702

Dear Mr. Brandmuehi;

As a resident of Eau Claire, I would like to see the State Transportation  
Projects Commission fund the Highway 53 Inner Bypass at this time--now.

Sincerely,

A handwritten signature in cursive script that reads "Sherry Hoff". The signature is written in dark ink and is positioned above the typed name and address.

Sherry Hoff  
3208 Potter Road  
Eau Claire, WI 54703



**INFORMATION PAPER NUMBER 2**

**MAJOR HIGHWAY PROJECTS  
EVALUATION PROCESS**

**PROGRAM DEVELOPMENT SECTION**

**June 1994**

# MAJOR HIGHWAY PROJECTS EVALUATION PROCESS

## INTRODUCTION

This Information Paper describes the process that will be used to evaluate Candidates for Enumeration projects that have been included in the initial "working list" of projects, submitted to the Transportation Projects Commission in the Spring of 1994. Since the Department is not statutorily required to present its major project recommendations to the Commission until September 1, 1994, the purpose of this "working list" is to assist the Department and Commission members in their review and evaluation of the list of projects in the interim, particularly during public hearings this summer.

## Definitions

Candidates for Enumeration - potential major projects that have a demonstrated highway need and have sufficient engineering, environmental and cost analysis completed for accurate evaluation and ranking.

## The Evaluation and Ranking Process for Candidates for Enumeration Projects

The Department has assembled a task force of staff experts, from the Departments of Transportation, Natural Resources, and Development. It includes specialists in highway design, construction, planning, economics, environmental analysis, and economic development to develop and guide the actual evaluation process for major projects.

The evaluation process is illustrated in Table 1. It is organized according to an overall hierarchy of goals, objectives, and measures. Each goal has one or more objectives, and each objective has a group of measures. Some of the goals and objectives are direct goals, in the sense that their impact falls directly on highway users, and some are indirect goals, in that their impacts are at least as important to non-users of the highway as to users.

Measures for most direct goals are basically objective and quantifiable in nature, derived after engineering and economic analysis. Measures for the indirect goals are more subjective and are difficult to quantify with precision.

The 1994 Evaluation Process will be the same as used in 1992.

The five goal areas are:

1. **Enhance Wisconsin's Economy (40%)**. The transportation infrastructure is vital to a strong economy. Major highway projects improve and strengthen the transportation infrastructure, reducing the cost of travel, while enhancing Wisconsin's ability to maintain and compete for jobs.

The objectives of this goal are "Increase Competitiveness of Existing Business," "Increase Attractiveness to New Business," and "Complete the Corridors 2020 Network."

- a. Increase Competitiveness of Existing Business. Lower travel costs serve to increase the competitiveness of existing businesses by allowing the business to reduce price within existing markets, expand market area, and/or create capital (saved travel cost) that can be reinvested. The reduction of travel costs is measured by quantifying the long-term reduction in travel time, vehicle operating costs, and accidents that will result from each project. These benefits are then compared to the cost of constructing and maintaining the project. The potential of each project to increase competitiveness of existing businesses is measured by the degree to which benefits exceed the project's construction and maintenance costs. The Department will also explore and evaluate the unique circumstances of each project, including its impact on the actual local and regional economy. The public hearing process and other kinds of local input will be used to identify how a project will help businesses using the highway improve their competitiveness.
- b. Increase Attractiveness for New Business. The transportation infrastructure is only one of many factors which influence business location decisions. The evaluation process recognizes this fact by calling on business experts from the Department of Development to evaluate each candidate project's potential for job development in terms of these other business location factors. The factors include the presence of developable lands and needed utilities in areas affected by the project, the strength and past performance of local economic development programs, workforce availability, educational system, and the overall quality of life in the area.

The Department will evaluate how each project can make the communities it serves more likely to achieve their economic potential. Again, public input will be used to identify specific opportunities each project can enhance.

- c. Complete the Corridors 2020 Network. The Department has identified a network of quality highways, which are critical to Wisconsin's economy. This Network will consist of two elements: 1) a statewide backbone (primary) system of multi-lane divided highways connecting all regions and major economic centers in the state to the national transportation network; 2) a system of high-quality routes connecting other significant economic and tourism centers to the multi-lane divided backbone network.

In terms of the process, assuming all other measures being equal, a candidate project on the "Corridors 2020 Network" would be ranked higher than one that was not on the Corridors 2020 Network.

2. Improve Highway Service (20%). The objective of this goal is improved traffic flow, or highway system efficiency. The qualitative measure of traffic flow is "level of service." The latest version of the Highway Capacity Manual recommends the measure

"Level of Service" be used to define the operational conditions of the existing highway. To determine the level of service the existing highway is providing, traffic analyses quantify such factors as traffic density, traffic delay, average speed, type of terrain, and percent of no passing zones.

Six levels of service are defined in the Highway Capacity Manual, with Level of Service A representing the best operating conditions and Level of Service F the worst. The Department considers Level of Service C to be the minimum acceptable tolerable condition for a rural highway and Level of Service D for an urban arterial.

To determine the level of service the present highway is providing, department engineers will follow the procedures and nationally accepted methodology outlined in the Highway Capacity Manual by the Transportation Research Board.

3. **Improve Highway Safety (20%)**. The measure used for highway safety is the forecasted reduction in the total number of accidents for the proposed highway as compared to the actual number of accidents on the existing highway over a three-year period.

In addition, a "severity index", based on the National Safety Council's economic loss factors for property damage, and severe accidents, is used to evaluate each candidate in terms of its potential to prevent accidents. The severity index method is also used by the Wisconsin State Patrol for its Coordinated Accident Reduction Effort (CARE) program.

4. **Minimize Undesirable Impacts (10%)**. The Department's evaluation process recognizes that highway projects could have environmental or social impacts on the regions they serve. It is the goal of the Department to eliminate or minimize the negative effects of these impacts.

The measures related to this goal are less precise and quantifiable than the engineering and economic measures. The Department will call on experts in the various fields to conduct the evaluation of these measures.

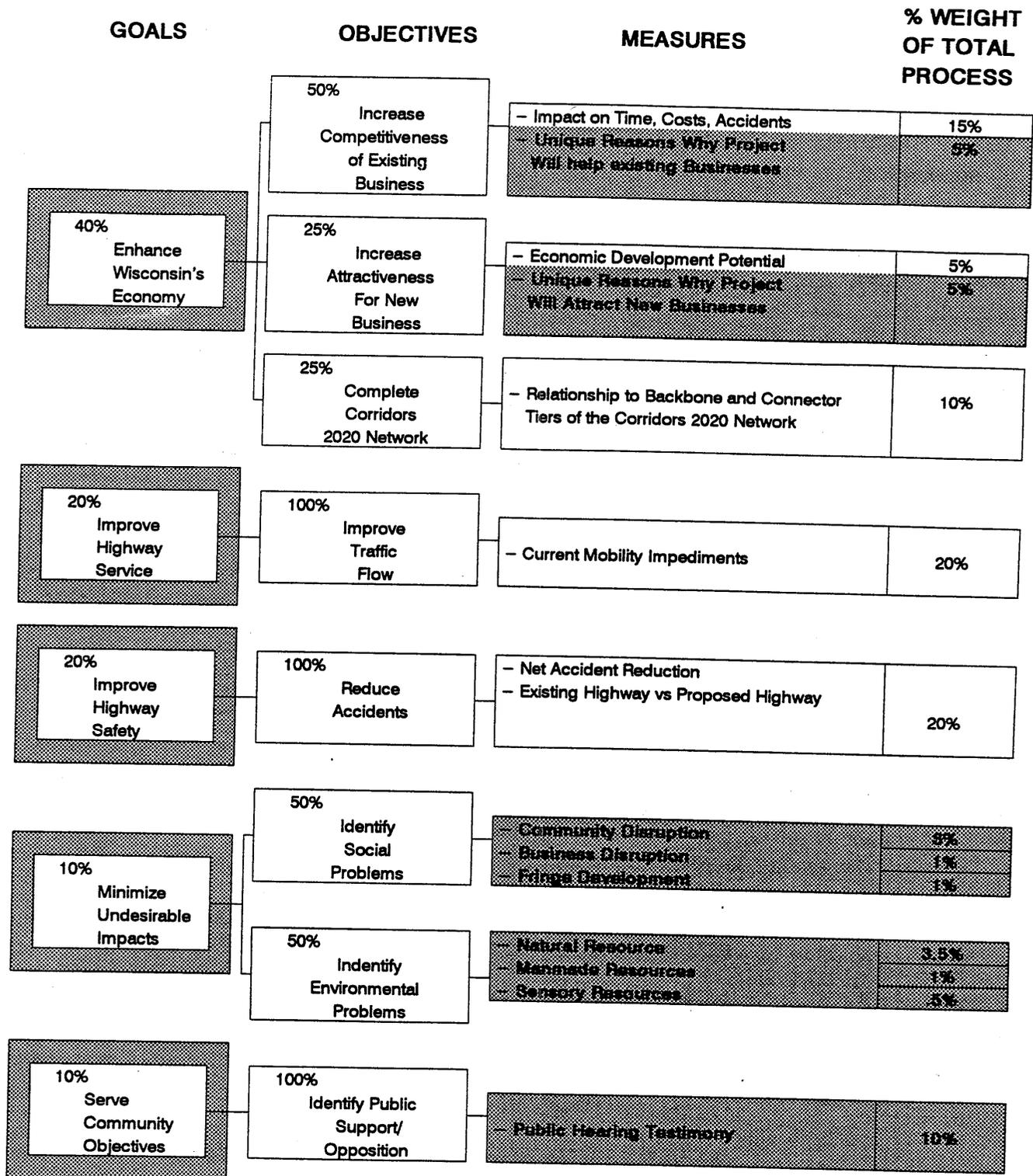
5. **Serve Community Objectives (10%)**. The Department will use a structured approach in its evaluation of public testimony on these projects, in an effort to quantify the public's judgements.

Attachment

June 1994

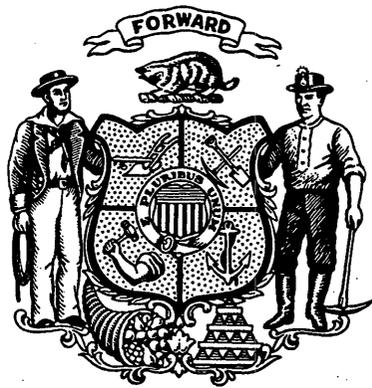
(TPC98)

# 1994 PROCESS USED TO DETERMINE THE RELATIVE MERIT OF CANDIDATES FOR ENUMERATION



Shaded areas will be scored by Evaluation Team

END



END

July 2, 1994

Gerald N. Otto  
1914 Oaklawn Dr.  
Eau Claire, WI 54703-1617

Dear *Rep. David Brandemuehl,*

As a member of the TPC, I am sure you are aware of the controversey in Eau Claire over the outer by-pass and the DOT inner corridor.

Our very fine Senator David Zien has taken on the leadership role for the much needed outer by-pass and should be commended for doing so. Instead he has been openly criticized by fellow TPC member David Bugher.

I think it is an outrage and a definite conflict of interest to even have David Bugher on the TPC. He is not looking out for the interest of the majority of people of Northwestern Wisconsin who want the outer by-pass. He is only looking at the money that is to be made on the sale of property and resale of homes in the area.

The outer by-pass fits in well with Governor Tommy Thompson's corridor 20-20 plan for the State of Wisconsin. The inner corridor would divide the City of Altoona in half and destroy the pristine Otter Creek Valley in the process.

The City of Eau Claire could do a lot to eliminate the local north-south traffic on Hastings Way by building a bridge three blocks west of Hastings Way to connect Starr Avenue on the north to Margaret Street on the south with little disruption to home owners in the area. They could go one step further and connect Margaret Street to Rudolph Road and relocate only one business and maybe three homeowners. They then would have a direct route from Clairemont Avenue on the south to the airport on the north.

I would urge you to listen to Senator David Zien's views on the project as he has studied, taken polls and spoken to hundred of people about this project.

Enclosed are some copies of the views of the majority of people of Northwestern Wisconsin. Would you please take a couple of minutes of your time to read some of them. Thank you for your time.

Yours Very Truly,

*Gerald N. Otto*

Gerald N. Otto

July 3, 1994

Rep. David Brandemuehl  
Rm 317 North, State Capitol  
Madison, WI 53702

Dear Rep. Brandemuehl:

This letter is to express my support for the Hwy 53 bypass of Eau Claire now being proposed by the Wis. DOT.

I am an Eau Claire resident and travel on Hwy 53 at least twice everyday, often more. The congestion is a serious problem that must be addressed, and I believe that the proposed route is the only one that will do so. I know that most of my trips would be made on a bypass that follows the "inner corridor." They would not be made on a so-called "outer corridor."

Please vote to fund this project as currently proposed. Thank you.

Sincerely,

LeRoy J. Tokun

2727 North Lane

Eau Claire, WI 54703

3438 Midway Street  
Eau Claire, WI 54703  
July 3, 1994

Rep. David A. Brandemuehl  
Room 317 N, State Capitol  
Madison, WI 53708-8952

Dear Representative:

I am writing you asking for your support for the Highway 53 inner corridor.

My interest in this proposal stems from the fact that I drive U.S. 53 everyday, and have for the past 22 years.

Several years ago my cousins wife was seriously injured at the Delbert Road intersection (an intersection I use daily) while traveling to work in Eau Claire from Chippewa Falls. Her car was demolished and about every bone in her body was broken. She was lucky to have survived. About two weeks ago while leaving home to go to work I encountered another serious crash at this intersection. A young man had to be pried from the rear seat with the Jaws of Life by our local fire department. These are only two examples of the numerous crashes that take place on this roadway annually.

If building the outer bypass would significantly reduce the hazards that this roadway now presents, I would be one of the first to support it. But I know that is not the case! Because I have traveled this road each day for the past 22 years I have learned who the users of this highway are. They are commuters coming to the Eau Claire area to their jobs, to classes at the University and Technical College, to the various medical clinics, hospitals, malls and etc. I know and I am sure you do as well, that the commuter from Stanley, Bloomer, Cadot, Cornell,

Chippewa Falls and other surrounding areas, is still going to take the shortest route to their destination, they will not make that turn at the proposed Hallie interchange and head towards Fall Creek to get to their destination on the south or west sides of Eau Claire.

Building the outer by pass will not solve the transit problems for this area. It will be great for the truckers who travel from Canada to Chicago (WICAN Highway) and tourists heading north from Illinois, but will do nothing for the residents of the Chippewa Valley.

Opponents of the inner by pass (my opinion) have failed in every respect in their arguments. Not one fact supported by evidence, why the outer by pass is the better route for the citizens of the Chippewa Valley has been cited. Innuendo, threats and questioning ones motives seems to be their modus operandi. Reminds me of another time years ago.

I want to thank you for taking the time to read this letter and ask that you consider the facts the DOT has prepared for you to study. The engineers have arrived at their decision based on sound research and analysis. They have no secret agenda accept to do their very best. Which they are very good at, witness the new North Crossing.

This is an important decision for those of us who live in this part of the state. I have confidence that armed with the facts logic will prevail.

Sincerely,

  
Loren A. Rasmus