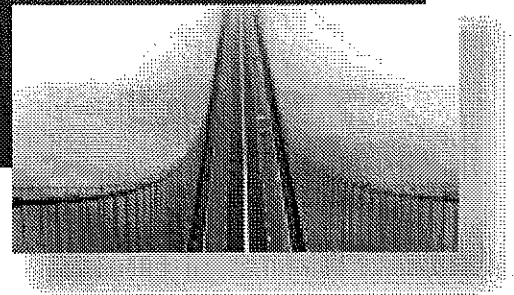


MDOT 201:



AN INTRODUCTION
TO TRANSPORTATION
ISSUES
IN MICHIGAN



FROM THE DIRECTOR



This is an exciting time to be at MDOT! We have solidified the future of our transportation systems by obtaining necessary increased revenues, and in FY '99 we will invest \$1.23 billion on state roads and bridges—another record year. And, because we have listened to our customers, we will invest over 90 percent of our budget on our existing highway system and we'll keep fixing the worst roads first.

The future of our state rides on our transportation system. We have a strong economy today due, at least in part, to our good roads. We also have a strong Governor and a sound, consistent transportation policy to keep moving forward. During the past year, we have laid the foundation to assure that the preservation of our multi-modal systems will continue to support our growing economy.

As I travel our roads and freeways, it is comforting to know that the same system I'm using today to visit my children and grandchildren will serve them well into the next century. They will go to work, and take vacations, on the very roads we are preserving today. It gives me great pride to be at MDOT and to be a part of the process that will make my grandchildren's future better.

This document "MDOT 201: An Introduction to Transportation Issues in Michigan" will introduce you to the Michigan Department of Transportation, our people and our programs. If you have any questions about what we're doing at MDOT, please feel free to contact me at 1-888-294-4JIM (4546) or through E-mail at mdotdirector@mdot.state.mi.us.

*MDOT is improving
Michigan's total
transportation system by
efficiently delivering
transportation products,
services and information.*

A handwritten signature in black ink that reads "James R. DeSana". The signature is written in a cursive, flowing style.

James R. DeSana
Director
Michigan Department of Transportation



CONTENTS

MEET MDOT

MDOT ORGANIZATIONAL CHART 1

WHO TO CONTACT AT MDOT

Executive Staff 5

COMMISSIONS

State Transportation Commission 7

Office of Commission Audit 8

Michigan Aeronautics Commission 9

ORGANIZATION

OPERATIONS 11

Highway Operations 11

Highway Technical Services 11

Transportation Planning 11

MDOT Regions and
Transportation Service Centers 11

ADDITIONAL HIGHWAY PROGRAMS 21

Adopt-A-Highway Program 21

Michigan Historic
Heritage Routes Program 21

Michigan Carpool Parking Lot Program 24

BUREAU OF AERONAUTICS 25

BUREAU OF URBAN AND
PUBLIC TRANSPORTATION (UPTRAN) 27

MDOT SUPPORT SERVICES 30

Bureau of Finance and Administration 30

Office of Human Resources 30

Office of Communications 30

Office of Governmental Affairs 30

Office of Equal Opportunity 30

Office of Quality and Reengineering 31

Office of Information Management 31

FUNDING

TRANSPORTATION FUNDING IN MICHIGAN 33

ECONOMIC DEVELOPMENT FUND 36

STATE INFRASTRUCTURE BANK 37

BUILD MICHIGAN PROGRAM

BUILD MICHIGAN 39

MDOT'S FIVE-YEAR
ROAD & BRIDGE PROGRAM 45

FAQS AND DEFINITIONS

FREQUENTLY ASKED QUESTIONS 69

GLOSSARY OF TRANSPORTATION TERMS 77



For additional detailed information, please refer to the recent edition of "Michigan Transportation Facts & Figures."

INTRODUCTION

Since the establishment of Michigan's state road improvement agency in 1905, the Michigan Department of Transportation (MDOT), as it is known today, has remained a leading authority and innovator in the development of safe roads and roadside services. From construction of the nation's first mile of concrete highway in 1909, to the invention of the white traffic line in 1911, to development of the nation's first roadside park in 1919, to installation of the world's first four-way traffic signal in 1920, to the creation of a department-wide total quality plan, to implementation of Governor Engler's *Build Michigan II* plan in 1997, MDOT has maintained a long-standing commitment to innovation and quality evidenced by our national reputation.

MDOT's director, James R. DeSana, was appointed by Governor Engler in 1997. He works together with the Michigan Transportation Commission to formulate strategies and policies for Michigan's multi-modal transportation systems. The Transportation Commission is comprised of six members appointed by the governor. They are Barton W. LaBelle, Lowell Jackson, Jack L. Gingrass, John C. Kennedy, Betty Jean Awrey and Ted B. Wahby.

The internal structure of the department is comprised of six bureaus: Aeronautics, Finance and Administration, Highway Operations, Highway Technical Services, Transportation Planning and UPTRAN (Urban and Public Transportation). Each bureau is headed by a Deputy Director who oversees the work of the divisions and sections of the bureau.

The state is divided into seven geographic regions: Metro, Grand, University, Bay, Southwest, North, and Superior. Each region handles transportation construction, maintenance and programs within its geographic boundaries. The Region Engineer oversees and manages the

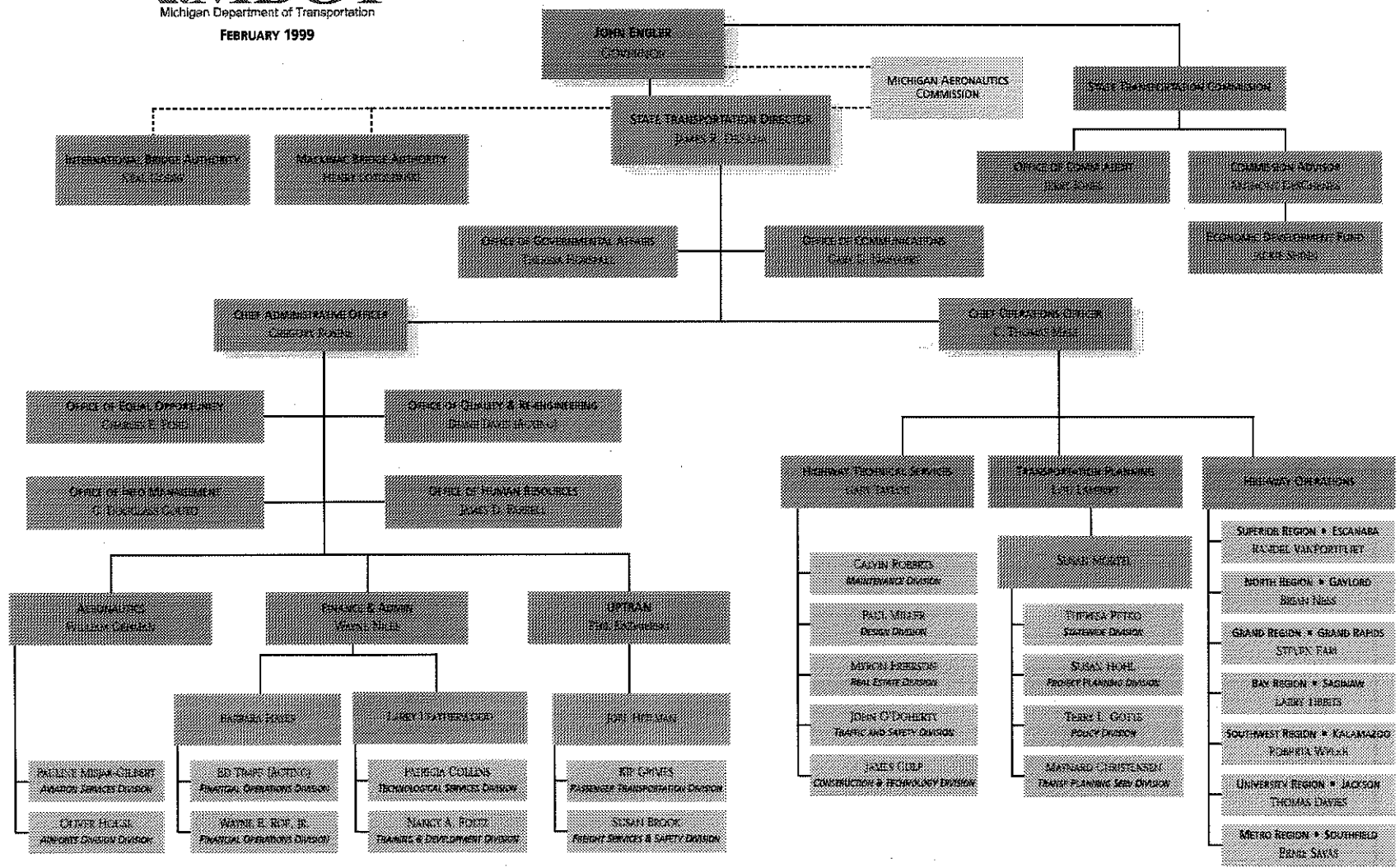
transportation activities and programs within the region.

Today MDOT continues to creatively address transportation issues and effectively manage one of the finest highway systems in the nation. Michigan's 9,600-mile state highway system, comprised of all the I-, US- and M-numbered highways, is the backbone of the state's 119,113-mile highway, road and street network as it carries more than half of all the traffic in the state.

In addition to operating the state highway system, MDOT maintains 70 modern rest areas which serve over 50 million travelers a year. MDOT also administers a number of other important state transportation programs ranging from aeronautics and passenger and rail freight, to local transit services and non-motorized transportation.

Indeed, MDOT's proud record of accomplishments is indicative of the great strides the Department will continue to make as we head into the 21st century. One of the greatest milestones witnessed thus far was achieved in 1992, when the last 14 miles of Michigan's 1,241-mile Interstate system was opened on I-69 southwest of Lansing. Michigan's portion of the Interstate system had been 36 years in the making and was by far the biggest undertaking in department history.

The future continues to hold tremendous challenges for MDOT as we work to meet increasing transportation demands and expectations. However, with MDOT's commitment to excellence and to providing the highest quality transportation services for economic benefit and improved quality of life, the Department will indeed meet the challenges ahead and continue to deliver superior transportation products and services to the millions of citizens and visitors who travel in the Great Lakes State.



WHO TO CONTACT AT MDOT

OFFICE OF GOVERNMENTAL AFFAIRS
LEGISLATIVE ADMINISTRATOR

Theresa Horsfall
517-373-3946
horsfallt@mdot.state.mi.us



OFFICE OF GOVERNMENTAL AFFAIRS
LEGISLATIVE ANALYST

Doris Byers
517-373-3946
byersd@mdot.state.mi.us



OFFICE OF GOVERNMENTAL AFFAIRS
LEGISLATIVE ANALYST

Ed Noyola
517-373-3946
noyola@mdot.state.mi.us



OFFICE OF GOVERNMENTAL AFFAIRS
OFFICE MANAGER

Barb Wickerham
517-373-3946
wickerhamb@mdot.state.mi.us



WHO TO CONTACT AT MDOT

DIRECTOR

James R. DeSana
517-373-2114
desanaj@mdot.state.mi.us



DEPUTY DIRECTOR

BUREAU OF HIGHWAY TECHNICAL SERVICES

Gary D. Taylor
517-373-1884
taylorgd@mdot.state.mi.us



CHIEF ADMINISTRATIVE OFFICER

Gregory Rosine
517-373-0718
rosineg@mdot.state.mi.us



DEPUTY DIRECTOR

BUREAU OF FINANCE AND ADMINISTRATION

Wayne R. Niles
517-373-2117
nilesw@mdot.state.mi.us



CHIEF OPERATIONS OFFICER

C. Thomas Maki
517-373-4656
makit@mdot.state.mi.us



DEPUTY DIRECTOR

BUREAU OF AERONAUTICS

William E. Gehman
517-335-9943
gehmanw@mdot.state.mi.us



DEPUTY DIRECTOR

BUREAU OF TRANSPORTATION PLANNING

Louis H. Lambert
517-373-0343
lambertl@mdot.state.mi.us



DEPUTY DIRECTOR

BUREAU OF URBAN AND PUBLIC TRANSPORTATION

Philip F. Kazmierski
517-373-2282
kazmierskip@mdot.state.mi.us



WHO TO CONTACT AT MDOT

OFFICE OF COMMUNICATIONS DIRECTOR OF COMMUNICATIONS

Gary G. Naeyaert
517-335-3084
naeyaertg@mdot.state.mi.us



OFFICE OF QUALITY & RE-ENGINEERING ADMINISTRATOR (ACTING)

Diane Davis
517-373-2292
davisd@mdot.state.mi.us



OFFICE OF HUMAN RESOURCES ADMINISTRATOR

James D. Farrell
517-373-1680
farrellj@mdot.state.mi.us



OFFICE OF EQUAL OPPORTUNITY ADMINISTRATOR

Charles Ford
517-373-6732
fordc@mdot.state.mi.us



OFFICE OF INFORMATION MANAGEMENT CHIEF INFORMATION OFFICER

C. Douglass Couto
517-335-3277
coutod@mdot.state.mi.us



OFFICE OF GOVERNMENTAL AFFAIRS LEGISLATIVE ADMINISTRATOR

Theresa Horsfall
517-373-3946
horsfallt@mdot.state.mi.us



STATE TRANSPORTATION COMMISSION COMMISSION ADVISOR

Anthony J. DesChenes
517-372-2110
deschenesa@mdot.state.mi.us



COMMISSIONS

STATE TRANSPORTATION COMMISSION

The State Transportation Commission, as established in the Michigan Constitution, is a non-partisan, six-member panel appointed by the Governor. The Commission is charged by the constitution to set transportation policy in the state. In addition, the Commission is also charged with providing Michigan citizens with an adequately funded, integrated, multi-modal, balanced transportation network that will meet the current and anticipated needs of transportation users.

TRANSPORTATION COMMISSIONERS

CHAIRMAN

Barton W. LaBelle
Mt. Pleasant
Term ends, '99



VICE CHAIRMAN

Jack L. Gingrass
Iron Mountain
Term ends, '99



COMMISSIONER

John C. Kennedy
Kentwood
Term ends, '98



COMMISSIONER

Betty Jean Awrey
Plymouth Township
Term ends, '98



COMMISSIONER

Ted B. Wahby
St. Clair Shores
Term ends, '00



COMMISSIONER

Lowell B. Jackson
Northport
Term ends, '00



Commission Advisor Anthony J. Des Chenes 373-2110
Executive Secretary Vickie A. Plummer 373-2110

1999 REGULAR MEETING SCHEDULE

January 28	July 29
February 25	August 26
March 16*	September 23
April 22	October 28
May 27	November 18
June 24	December 16

*The March meeting is a joint meeting with the Aeronautics Commission

Meetings of the State Transportation Commission are held in the Bureau of Aeronautics Auditorium, 2700 East Airport Service Drive, Lansing, Michigan, beginning at 9:00 a.m.

Special meeting dates and locations will be announced.

For further information about the agenda, minutes or the meetings, please contact the executive secretary at P.O. Box 30050, Lansing, Michigan 48909. 517-373-2110.

OFFICE OF COMMISSION AUDITS

The Office of Commission Audits' basic responsibilities are to develop and maintain an ongoing, comprehensive audit program to assure the State Transportation Commission, the Director, and the public that program results are being achieved, resources are economically and efficiently utilized, laws and regulations have been complied with, financial statements are fairly presented, contractual charges are supported, and obligations are fulfilled.

The Office of Commission Audits is comprised of three divisions and a technical section. Their responsibilities are as follows:

- The **Highway Audit Division** performs audits of county and municipal maintenance and non-maintenance agreements, public utilities related to highway construction or safety projects, and charges submitted by local governmental agencies for federal-aid and economic development projects.
- The **Operations Audit Division** audits the internal operations of the Department to provide assurances that program results are being achieved, resources are economically and efficiently utilized, and laws and regulations have been complied with. They also conduct special audits or investigations.

- The **Transportation Audit Division** performs audits of all public transportation, railroad, consultant, and planning agreements. These include rail agreements related to capital improvement projects, maintenance of state owned right-of-way, highway construction or safety projects; the comprehensive transportation fund and FTA capital grants, operating grants, and special study agreements; regional planning agencies and airport projects financed by both state and federal funds. This division also reviews proposed Department agreements and conducts pre-award reviews of negotiated agreements as required.

- The **Technical Section** was established to perform audits of MDOT's information systems, provide technical expertise in information system security and control to OCA, and assist OCA in the automation of audit processes and operations.

For more information, please contact:

Jerry Jones
517-373-2384

COMMISSIONS

MICHIGAN AERONAUTICS COMMISSION

The Michigan Aeronautics Commission is responsible for the general supervision of all aeronautics within the state. It is empowered by state law to make rules and regulations governing all airports, flight schools, and other aeronautical activities. Appointments to the commission are made by the Governor and are subject to the advice and consent of the Senate.

In addition to five members appointed to four-year terms, the commission consists of four statutory members which include the directors of the departments of Transportation, Natural Resources, State Police, and Military Affairs. Additionally, the Transportation Department deputy director for Aeronautics is designated director of the commission.

Regular meetings of the Michigan Aeronautics Commission are held bimonthly in January, March, May, September, and November. The November, January, and March meetings are normally held in Lansing, while the other meetings are held at other locations across the state.

MEMBERS OF THE MICHIGAN AERONAUTICS COMMISSION

Chair	John K. Boerema Grand Rapids
Vice Chair	Alice J. Gustafson Pontiac
Commissioner	Lowell E. Kraft Pigeon
Commissioner	Arnold P. Saviano Harbor Springs
Commissioner	Joseph M. Pietro Ishpeming
James R. DeSana, Director	Michigan Department of Transportation
Capt. Jeffery J. Steffel	Michigan Department of State Police
Brig. General Ronald L. Seely	Michigan Department of Military Affairs
Guy Gordon	Michigan Department of Natural Resources
William E. Gehman, Director	Michigan Aeronautics Commission

OPERATIONS

The operational area of the department includes three bureaus: highway operations, highway technical services, and transportation planning.

Our **Bureau of Highway Operations** includes MDOT's front line workers, delivering transportation products and services in the field. They are responsible for managing road and bridge construction projects, maintaining existing roads and structures, and various liaison and coordination activities with local agencies. Highway operations is made up of the seven regions and 25 Transportation Service Centers (TSCs.)

MDOT's **Bureau of Highway Technical Services** provides program development and technical support to the people in the field. They are responsible for developing statewide standards and guidelines to ensure quality and uniformity. They work as highly skilled technical consultants to support successful program delivery, including design, safety and real estate.

The **Bureau of Transportation Planning** sets transportation priorities and develops policies and plans to meet long range transportation needs. They monitor the performance of MDOT's transportation system, develop investment strategies that drive the capital program, and conduct data collection and planning activities to make sure MDOT and local governments continue to qualify for federal aid. The bureau also works closely with local government and urban planning organizations to establish priorities and coordinate program delivery.

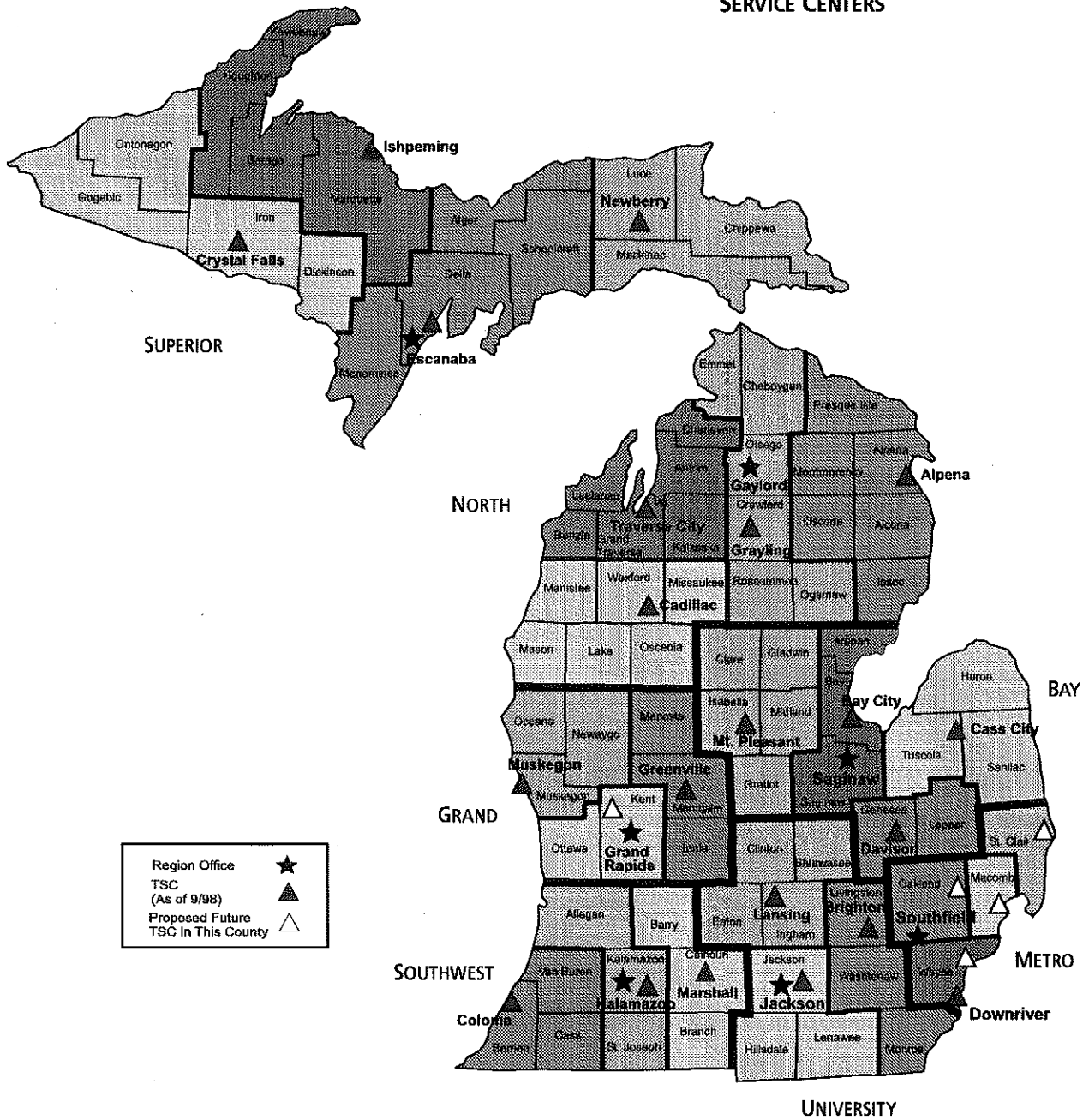
MDOT REGIONS AND TRANSPORTATION SERVICE CENTERS

MDOT has seven regional offices (Superior, North, Bay, Grand, Southwest, University and Metro) throughout the state that direct our day-to-day highway maintenance, traffic engineering, construction projects and other activities. Each region has one or more Transportation Service Centers, or TSC's, which are located within an hour's drive of every Michigan citizen. TSC's provide personalized service to communities, serving their unique transportation needs.

Transportation Service Centers exemplify MDOT's efforts to become a customer focused organization. Our customers include every resident and business in the State of Michigan. Tourists, businesses and shippers from out of state are also customers because they use our transportation system. While the needs and concerns of our various customers differ, they all rely on our transportation system and services to provide them with safe, efficient travel. Our customers define quality at MDOT and they determine the value of our products and services.



MDOT REGIONS AND TRANSPORTATION SERVICE CENTERS



OPERATIONS

SUPERIOR REGION

SUPERIOR REGION OFFICE

RANDEL VANPORTLIET, REGION ENGINEER

1601 Ludington St.
P.O. Box 355
Escanaba MI 49829
906-786-1800
FAX: 906-789-9775



CRYSTAL FALLS TSC

Mike Premo, Manager
120 Tobin-Alpha Rd.
Crystal Falls MI 49920
906-875-6644
FAX: 906-875-6264

ESCANABA TSC

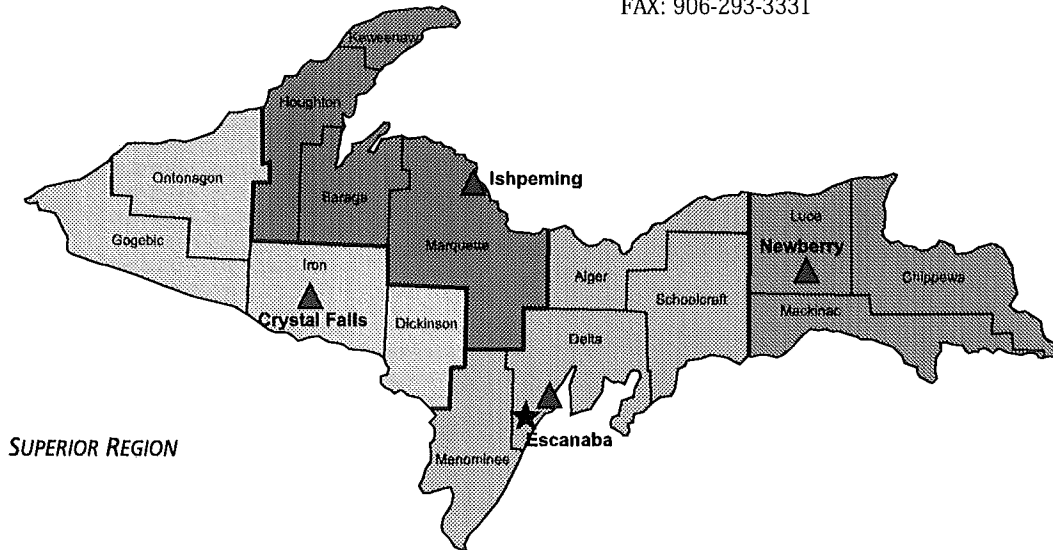
Valerie Mellon, Manager
816 Clark Dr.
P.O. Box 390
Gladstone MI 49837
906-428-9322
FAX: 906-428-3066

ISHPEMING TSC

Andy Sikkema, Manager
100 S. Westwood Dr.
Ishpeming MI 49849
906-485-4270
FAX: 906-485-4878

NEWBERRY TSC

John Batchelder, Manager
Junction M-28 & M-123
P.O. Box 395
Newberry MI 49868
906-293-5168
FAX: 906-293-3331



OPERATIONS

NORTH REGION

NORTH REGION OFFICE

BRIAN NESS, REGION ENGINEER

2927 D & M Drive
Gaylord MI 49735
517-731-5090
FAX: 517-731-0536



ALPENA TSC

Paul Steinman, Manager
3022 South US-23
Alpena MI 49707
517-356-2231
Fax: 517-254-4142

CADILLAC TSC

Bob Sweeney, Manager
100 E. Chapin
Cadillac MI 49601
616-775-2733
FAX: 616-775-0301

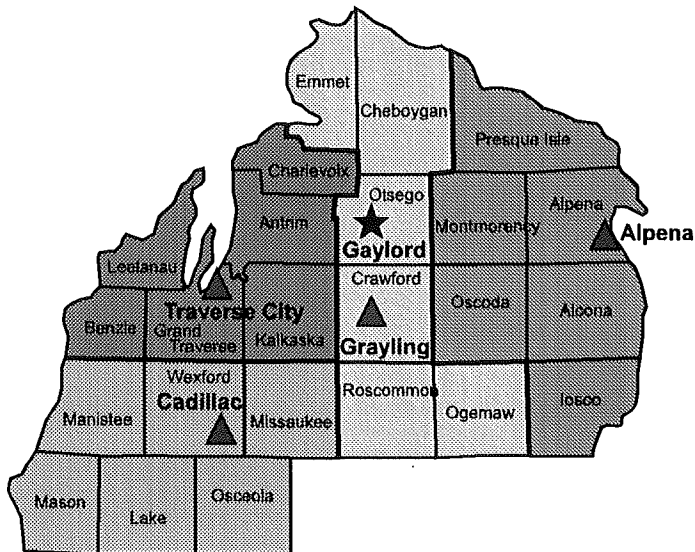
GRAYLING TSC

Bonnie Bussard, Manager
2600 US-27
Gaylord MI 49735
517-732-6773
FAX: 517-731-1791

TRAVERSE CITY TSC

Rise Rasch, Manager
3491 Hartman Rd.
P.O. Box 6520
Traverse City MI 49696
616-941-1986
FAX: 616-941-8914

NORTH REGION



OPERATIONS

GRAND REGION

GRAND REGION OFFICE

STEVEN J. EARL, REGION ENGINEER

1420 Front Avenue, N.W.
Grand Rapids MI 49504
616-451-3091
FAX: 616-451-0707



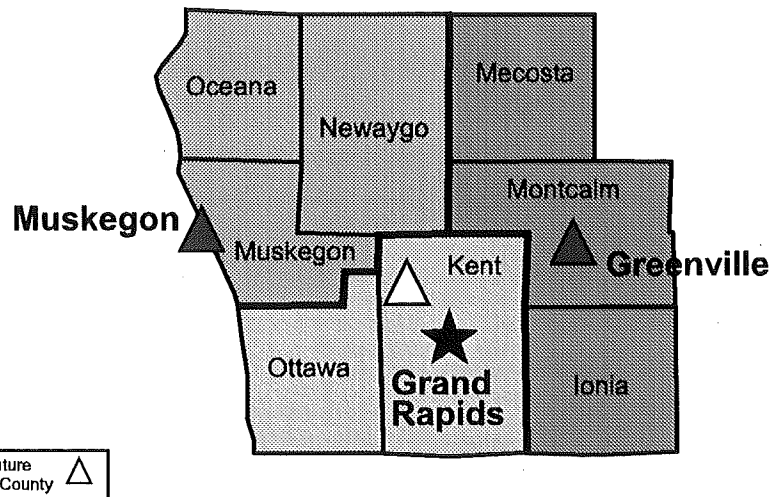
MUSKEGON TSC

Rod Wyns, Manager
2225 Olthoff Drive
Muskegon MI 49444
616-777-3451
FAX: 616-777-3621

GREENVILLE TSC

Karl Koivisto, Manager
919 W. Washington
Greenville, MI 48838
616-754-3619
Fax: 616-754-3544

GRAND REGION



OPERATIONS

BAY REGION

BAY REGION OFFICE

LARRY E. TIBBITS, REGION ENGINEER

55 E. Morley Drive
P.O. Box 14949
Saginaw MI 48601
517-754-0878, extension 103
FAX: 517-754-8122



BAY CITY TSC

John Friend, Acting Manager
2590 E. Wilder Road
Bay City MI 48706
517-671-1535, extension 305
FAX: 517-671-1530

CASS CITY TSC

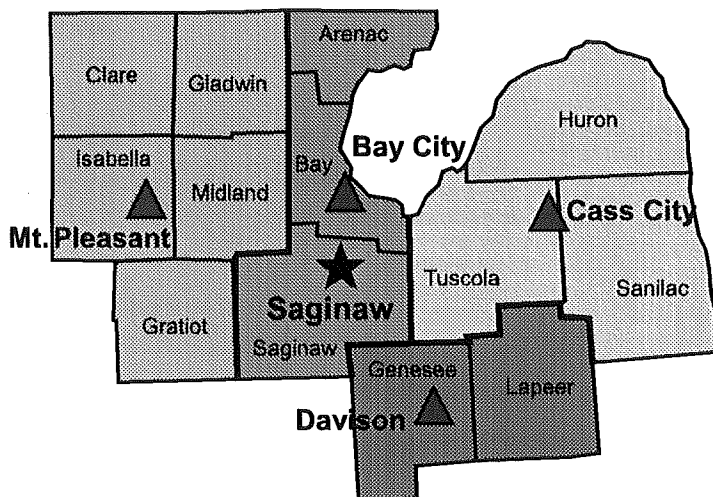
Doug Wilson, Manager
6240 W. Main Street
Cass City MI 48726
517-872-3007
FAX: 517-872-4464

MT. PLEASANT TSC

Terry Stepanski, Manager
1601 N. Mission Street
Mt. Pleasant MI 48858
517-775-6104, extension 302
FAX: 517-775-6329

DAVISON TSC

Mike Hemmingsen, Manager
9459 Lapeer Road
Davison MI 48423
810-658-4029, extension 301
FAX: 810-653-1248



BAY REGION

OPERATIONS

SOUTHWEST REGION

SOUTHWEST REGION OFFICE

ROBERTA A. WELKE, REGION ENGINEER

1501 E. Kilgore Road
Kalamazoo MI 49001
616-337-3900
FAX: 616-337-3909



KALAMAZOO TSC

Greg Johnson, Manager
1501 Kilgore Road
Kalamazoo MI 49001
616-337-3900
FAX: 616-337-3909

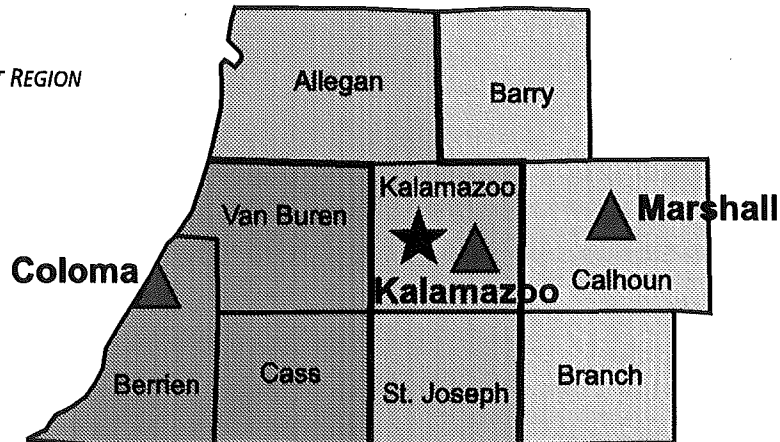
MARSHALL TSC

Kitty Rothwell, Manager
P.O. Box 47
Marshall MI 49068
616-789-0676
FAX: 616-789-0688

COLOMA TSC

Phil Reid, Manager
3880 Red Arrow Hwy.
Benton Harbor, MI 49022
616-849-1165
FAX: 616-849-1195

SOUTHWEST REGION



OPERATIONS

UNIVERSITY REGION

UNIVERSITY REGION OFFICE

THOMAS E. DAVIES, REGION ENGINEER

301 E. Louis Glick Hwy.
Jackson MI 49201
517-780-7500
FAX: 517-780-7825



MATTHEW DELONG, REGION ADMINISTRATOR

301 E. Louis Glick Hwy
Jackson MI 49201
517-780-7500
FAX: 517-780-7825

BRIGHTON TSC

Brenda O'Brien, Manager
10321 E. Grand River
Suite 500
Brighton MI 48116
810-227-4681
FAX: 810-227-7929

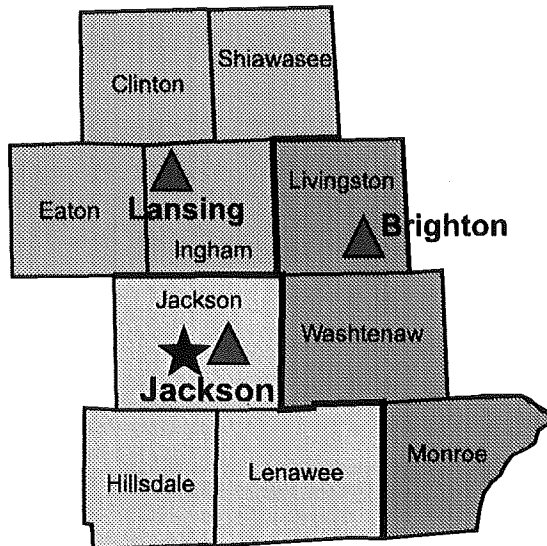
JACKSON TSC

Kirk Branson, Manager
2750 N. Elm Rd.
Jackson MI 49001
517-780-7540
FAX: 517-780-5454

LANSING TSC

Terry Anderson, Manager
1019 Trowbridge Rd
East Lansing MI 48823
517-324-2260
FAX: 517-324-0294

UNIVERSITY REGION



OPERATIONS

METRO REGION

METRO REGION OFFICE

ERNEST SAVAS, REGION ENGINEER

18101 W. Nine Mile Rd.
Southfield MI 48075
248-483-5100
FAX: 248-569-3103



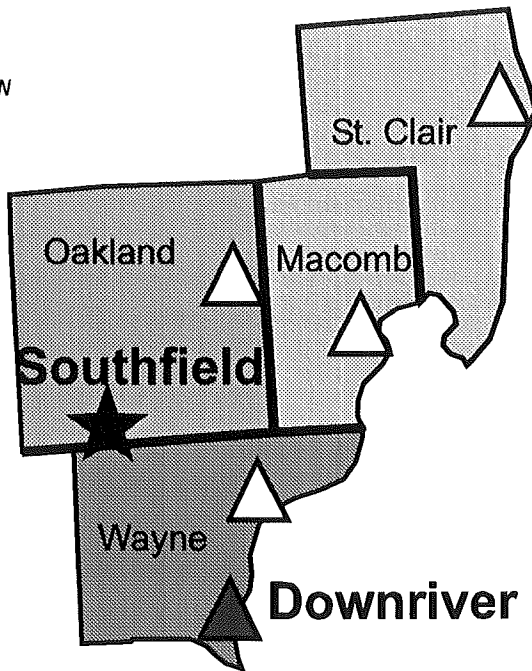
DOWNRIVER TSC


Cheryl Gregory, Manager
18101 W. Nine Mile Rd.
Southfield MI 48075
248-483-5100
FAX: 248-569-3103

KIRK STEUDLE, DEPUTY REGION ENGINEER

18101 W. Nine Mile Rd.
Southfield MI 48075
248-483-5100
FAX: 248-569-3103

METRO REGION



Proposed Future
TSC in This County 

ADDITIONAL HIGHWAY PROGRAMS

ADOPT-A-HIGHWAY PROGRAM

MDOT's Adopt-a-Highway Program was established in 1990 to improve the beauty of our highway roadsides with community help. Sponsoring groups participate in litter pickups along their "adopted" stretch of roadway three times per year. MDOT provides the groups with training, trash bags, orange safety vests and MDOT arranges for pick up of the filled bags. Since 1990, Adopt-a-Highway local groups have collected over a million bags of trash. Currently, 3,000 groups are participating in the program and have adopted over 6,900 miles of Michigan highways.



MICHIGAN HISTORIC HERITAGE ROUTES PROGRAM

Created by legislation in 1993, the program emphasizes cooperation among local residents, their government officials, landowners and interested groups to preserve unique scenic, historic, or recreational highways. The Heritage Route Program is a grass roots program, requiring involvement by local residents to ensure that their highway and its roadsides remain in their natural and unspoiled conditions. Michigan's residents have an opportunity as individuals, groups, or entire communities to become involved in this important effort to preserve Michigan's roadsides with scenic, historic, and/or recreational qualities.

There are three categories of heritage routes:

- SCENIC
A state highway having outstanding natural beauty.
- HISTORIC
A state highway having outstanding historic buildings and resources along its length.
- RECREATIONAL
Maintained not only to serve the recreational driver, but also to capture the recreational setting of the facility or area itself and to set the mood for the recreational experience.

BENEFITS

PRESERVATION BENEFITS

- Identifies, preserves, and enhances Michigan's Scenic, Historic and Recreational resources.
- Promotes a greater awareness of and appreciation for those resources.
- Provides an opportunity for growth management within a corridor by encouraging appropriate development.

ADDITIONAL HIGHWAY PROGRAMS

- Provides an opportunity to manage the traveler/tourist impact on resources.

ECONOMIC BENEFITS

- Attracts visitors, who bring additional revenues, enhancing economic activity in the region.
- Attracts new businesses.
- Enhances existing jobs and creates new jobs.

COMMUNITY BENEFITS

- Provides a vision for the future—uniting those who share that vision.
- Enhances the local, regional and state image on a national level.
- Identifies, promotes and preserves community uniqueness enhancing community appeal.
- Enhances the quality of life in the community.

EDUCATION BENEFITS

- Provides an education for future generations, by example.

- Opportunity to share ideas, information, research, and lessons.
- Provides an effective hands-on teaching tool.
- Establishes an education network.

APPLICATION PROCESS

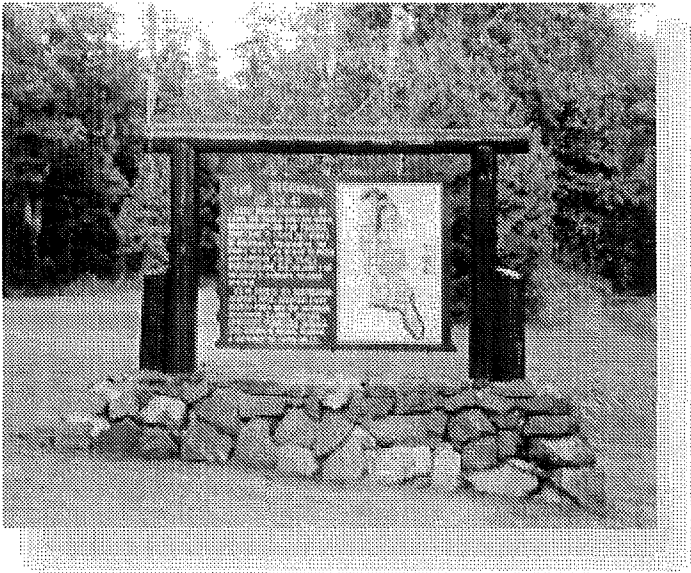
The application process for heritage route designation consists of two steps. First: the sponsor must prepare a preapplication. Among other things, the preapplication will require listing the noteworthy scenic, historic, and/or recreational qualities of the route and verifying that the route is on the state road system. Second: after MDOT's initial review of the route eligibility and potential, MDOT will supply the sponsor with a full application packet. This in-depth application requires maps, photos, detailed mile-by-mile inventory of resources and qualities seen from the road, and a collaborative management plan specifying how the integrity of those resources will be maintained.

Once designated, the local community can then promote the route and its corridor to enhance tourism. Signs will be installed to identify the distinctive characteristics of the Heritage Routes, linking recreational or cultural features with a common theme, such as the historic iron ore mining in the Upper Peninsula or perhaps a scenic and recreational link in another part of the state. Additionally, future editions of Michigan's official map will identify the Heritage Routes.

DESIGNATED ROUTES

■ MICHIGAN'S SCENIC HERITAGE ROUTES

The first road designated as a Scenic Heritage Route was the 18-mile segment of US-41 from Mine to Copper Harbor in Keweenaw County in the Upper Peninsula. The uniqueness of this road is its forest



ADDITIONAL HIGHWAY PROGRAMS

and how the trees, some as close as three feet from the edge of the pavement, form a complete canopy over most of the entire length of the Heritage Route. This road provides access to such recreational resources as Lake Superior beaches, Copper Harbor, Historic Fort Wilkins State Park, hunting, fishing, and fall color touring.



Approximately 27 miles of M-119 in Emmet County were designated as a Scenic Heritage Route. This segment of M-119 extends from Little Traverse township at Pleasant View Road. It passes through West Traverse township, the City of Harbor Springs, and Friendship, Readmond, and Cross Village townships. The route ends at the north limit of Cross Village. This serpentine and narrow route provides wonderful views of different meadows, wooded areas, Little Traverse Bay, and Lake Michigan.

Another Scenic Heritage Route already in the system is the 27-mile portion of M-123 that runs from County Road 500 to about eight miles south of Paradise at the southern limits of the Tahquamenon Falls State Park. This route transverses the Tahquamenon Falls State Park, the Lake Superior State Forest, the Village of Paradise and through McMillan and Whitefish townships in Chippewa and Luce counties.

The five-mile long Mackinac Bridge is also a Scenic Heritage Route. It is the longest suspension bridge in the United States and links the two peninsulas, providing magnificent views of both Lake Huron and Lake Michigan. The bridge itself is a wonderful sight, especially at night when it is all lit up.

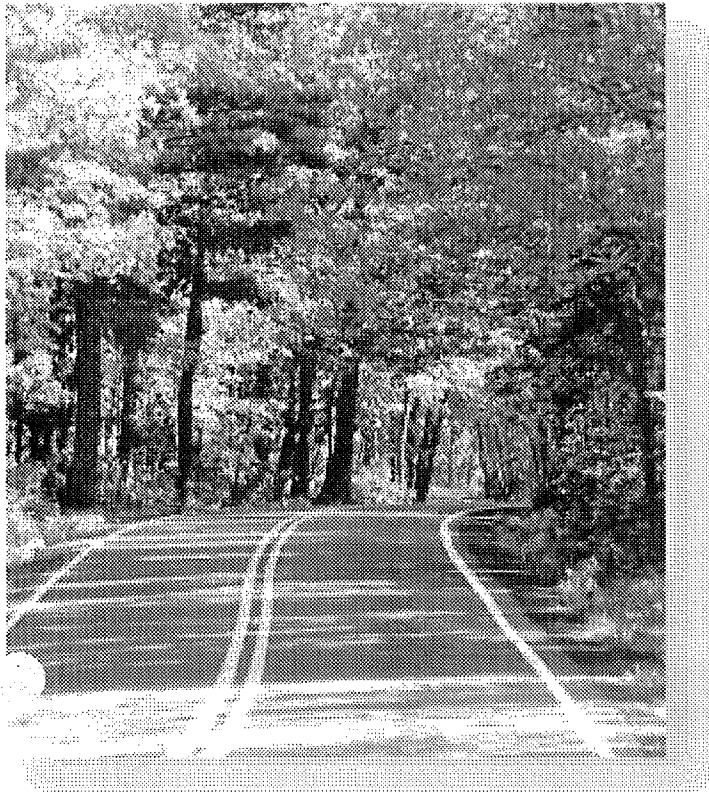
■ MICHIGAN'S HISTORIC HERITAGE ROUTES

M-125 through the City of Monroe was designated as a Historic Heritage Route. The City of Monroe in conjunction with MDOT nominated the portion of M-125 which runs through the Old Village Historic District, and is contiguous to the East Elm-North Macomb Historic District, and the Custer Equestrian Monument.

M-25 through Bay City was designated as a Historic Heritage Route. The City of Bay City in conjunction with MDOT nominated the 1.5 miles long portion of M-25 which runs from Madison Avenue to Livingston Avenue. Visible from the road is the Bay County Building, which is on the National Register for Historic Places. The area also contains 48 pre-1900 and 32 1900-1929 structures, which are also on the National Register as part of the Center Avenue Historic District.

■ MICHIGAN'S RECREATIONAL HERITAGE ROUTES

One route is in the process of being nominated.



MICHIGAN CARPOOL PARKING LOT PROGRAM

The Michigan Carpool Parking Lot Program was initiated during the energy crisis of the early 70s. At that time, the scarcity of fuel accompanied by rising transportation costs encouraged many motorists to begin carpooling on a wide-scale basis. Lacking adequate and convenient parking facilities, carpoolers parked alongside roads, on private property or in commercial parking lots. Potential safety problems associated with roadside parking prompted the development of the Michigan Carpool Parking Lot Program, an effort to provide safe and convenient

parking facilities for Michigan's carpoolers. With the establishment of this program, the department made a commitment to the conservation of limited energy resources while responding to the needs of the state's travelers. Subsequent concern with air quality and congestion has led to continued program expansion and the systematic improvement of existing facilities.

The Michigan Carpool Parking Lot Program began as a pilot program in 1974 with 11 carpool parking lots. Today there are 216 carpool parking lots located across the state providing over 8,000 parking spaces.

Approximately 2,500 vehicles park in these facilities on an average weekday. The program is continuing to grow and expand as new lots are constructed and existing lots are improved.

USING CARPOOL LOTS

Please park at your own risk. MDOT cannot assure the security of you, your vehicle, or the contents of your vehicle. If you are concerned for your safety or your vehicle's safety we encourage you to use facilities that are lighted and in higher traffic areas. There are no restrictions on how long you may leave a vehicle at a carpool parking facility. If a vehicle appears abandoned, however, it may be tagged and towed by the state police.

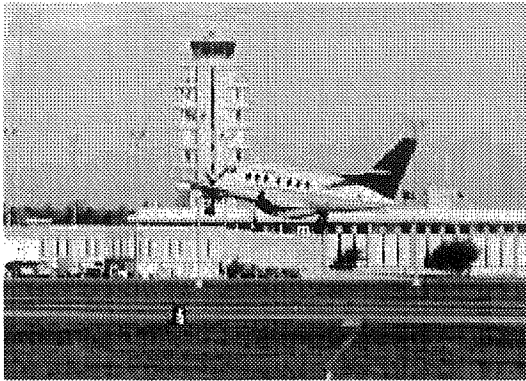
LOCAL RIDESHARE OFFICES (LROs)

LROs provide matching services for those interested in carpooling or vanpooling for the work commute. The 10 LROs in Michigan are identified separately. If you are interested in finding others to carpool or vanpool with, please contact the agency closest to your work destination.

BUREAU OF AERONAUTICS

The Bureau of Aeronautics provides overall administration and direction for aviation programs, airport development, and new programs to further development of aviation and assist communities in aeronautical matters, including air service coordination and development efforts in the state. The State Aeronautics Fund is derived from a three-cent-per-gallon aviation fuel tax, aircraft registration fees, miscellaneous revenues, interest, and federal grants.

In addition to the State Transportation Commission, the Bureau of Aeronautics is responsible to the Michigan Aeronautics Commission (see page 7.) This Commission, made up of nine members appointed by the Governor, has general supervision over aeronautics with the state. The authorities, responsibilities, and functions of the Commission and the Bureau of Aeronautics are found in the Aeronautics Code, Sections 259.1—259.823 MCLA.



AIRPORTS DIVISION

The Airports Division administers the state airport development program which provides project management for the programming, planning, design, safety evaluation, and construction of airports throughout Michigan. The intent of the program is to

encourage, foster, and participate with political subdivisions to provide a balanced, safe system of airports which enhance air transportation and the commerce of the state by implementing the State Airport Systems Plan, including the preservation of the existing system and expansion to meet aviation demands. The state airport development program is closely tied to programs of the individual counties and municipalities that own and operate airports.

The activities and services are prioritized to return to Michigan the maximum federal dollars to meet airport needs. In FY 1996, more than 90 grants to Michigan airports were processed. This includes \$2.25 million in state, and \$54 million federal funds. Michigan is one of nine block grant states. This designation allows the Bureau of Aeronautics to directly administer distribution of federal funds to airports. The Airports Division also maintains responsibility for licensing and/or registering airports, flight schools, aircraft, and aircraft dealers.

Each of Michigan's 243 public-use airports is inspected annually. There are currently 114 flight schools, 190 aircraft dealers, and 6,900 aircraft registered in the state. The Michigan Aeronautical Chart and Michigan Airport Directory are published annually. A copy of the chart is mailed free of charge to each of Michigan's 18,000 pilots. A copy of the directory is provided to each aircraft owner. Additional copies are available for sale. The division maintains an active pilot safety and education program. Pilot seminars are held across the state and are presented with the intent of encouraging pilots to remain current in the latest techniques, regulations, and safety information. Each year approximately 4,000 pilots attend bureau-sponsored safety seminars.

Aviation education efforts by the Airports Division involve programs for both teachers and

students. Aviation career information is presented through a variety of publications, audio-visual presentations, and personal appearances. Teachers are provided with a variety of curricula and demonstration aids to help them incorporate aviation concepts into daily classroom activities. Safety publications include the bimonthly magazine Michigan Aviation, the quarterly newsletter Michigan Aviation School Notes, and the annual Pilot Information Card.

AVIATION SERVICES DIVISION

Helping communities attract and retain quality airline services that provide links to national and global markets is a high priority at the bureau. Grants are available to air carrier airports for capital improvement, carrier recruitment and retention, and airport awareness activities. Of Michigan's 243 public-use airports, 19 are served by scheduled air carriers. An active airport preservation program seeks to assist airports at risk of closure.

The Bureau of Aeronautics works closely with sponsors to find innovative solutions to problems which threaten their airports. In recent years, bureau

efforts are responsible for saving several airports. As part of the bureau's all-weather access program, pilot information systems are located at 28 airports. These units enable pilots to access weather information, including near real-time radar images.

Eighteen state-owned Automated Weather Observing Stations (AWOS) provide continuous weather information to pilots via voice, telephone, and computer. Bureau technicians maintain these systems as well as four state-owned navigation aids. The bureau maintains and operates a fleet of eight airplanes for transport of state personnel on official business. Due to Michigan's large size, this service affords passengers maximum efficiency and significant cost savings. Safety of flight operations is of paramount importance. Regular recurrent pilot training, preventive maintenance, and modern equipment are hallmarks of this safety commitment.

For more information contact:

Bill Gehman
Deputy Director
517-335-9943

BUREAU OF URBAN AND PUBLIC TRANSPORTATION (UPTRAN)

The Bureau of Urban and Public Transportation (UPTRAN) is responsible for implementing and administering public transportation and regulatory programs. Public transportation includes operating and/or capital support for: urban and non-urban local bus service, specialized services, rail freight, rail passenger, intercity bus, and ferry service. In addition, UPTRAN licenses limousine companies and intercity bus companies and regulates rail grade crossing safety.

Michigan's program of state assistance for public transportation started in 1972 and is designed to provide a safe and balanced statewide network of public transportation. This network gives Michigan citizens an enhanced quality of life by providing a basic level of mobility to access services necessary for their economic, physical and social well being. The Michigan Transportation Fund (MTF) created by Public Act 51 of 1951 provides up to 10 percent of the fuel tax revenue, vehicle registration fees collection and a portion of the auto-related sales tax to the Comprehensive Transportation Fund (CTF).

LOCAL PUBLIC TRANSIT

Local transit systems operate in 81 of Michigan's 83 counties, providing vital links with jobs, education, shopping, medical care and other needed services. Also included in Local Public Transit is the specialized services program, which provides transportation services primarily for senior citizens and persons with disabilities.

INTERCITY BUS

Intercity bus operations link nearly 160 towns and cities in Michigan and serve over 400,000 passengers each year. Through the division's "bus loan" and terminal development programs, equipment is purchased to modernize fleets and station facilities

are made attractive, safe and cost effective. Certain regularly scheduled routes are funded from time to time under the intercity bus operating assistance program to prevent community isolation. The private transportation of passengers "for hire" by intercity bus is an industry licensed by the department. The department is responsible for verifying insurance compliance, driver/vehicle safety inspections/verifications and enforcement for the 120 passenger carriers that operate 3,000 motor coaches in Michigan.



LIMOUSINE SERVICE

The department licenses an estimated 850 private limousine carriers of passengers "for hire" operating 2,600 vehicles state-wide. Responsibilities include insurance compliance and safety verification.

RAIL FREIGHT

UPTRAN's Freight Services and Safety Division carries out three primary responsibilities with respect to Michigan's rail freight network. The state owns and contracts with private companies to operate 701 miles

BUREAU OF URBAN AND PUBLIC TRANSPORTATION (UPTRAN)

of active rail line, providing essential freight services to over 100 shippers. The rail freight economic development program provides assistance to railroad companies and shippers for rail infrastructure improvements. Through the railroad safety program the department establishes rail grade crossings, closes rail grade crossings, and determines the appropriate safety warning devices at rail grade crossings. The division reviews conditions at public grade crossings and participates in diagnostic study teams to determine how best to provide for public safety, investigates railroad employee safety concerns, and participates in Operation Lifesaver education efforts.

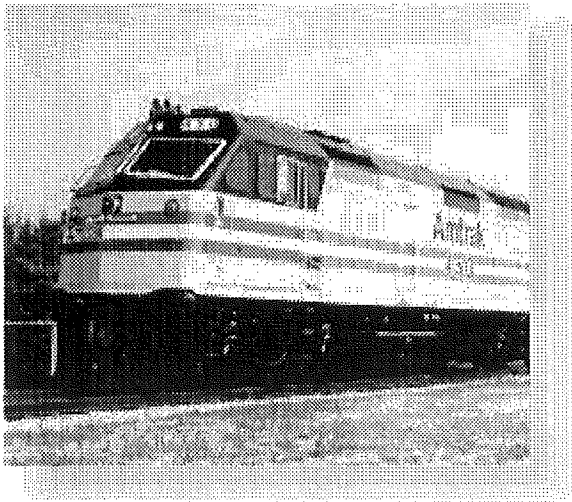
RAIL PASSENGER SERVICES

Amtrak rail passenger service currently links 22 Michigan cities along three rail passenger corridors and carries 600,000 annual intercity passengers. UPTRAN provides capital support to improve stations and passenger train equipment, as well as to upgrade rights-of-way in support of higher train speeds. These investments contribute to improved operating and economic performance levels for Michigan's rail system. The bureau's operating program provides financial support to state-assisted Amtrak service linking Grand Rapids with Chicago and Port Huron, Flint and Lansing with both Chicago and Toronto.



BUREAU OF URBAN AND PUBLIC TRANSPORTATION (UPTRAN)

These two routes serve over 185,000 annual travelers. The Bureau also financially supports capital improvements on the Federally designated High Speed Rail Passenger corridor between Detroit and Chicago.



MARINE PASSENGER PROGRAM

The Marine Passenger Program funds are used primarily to match Federal funds and/or Local funds for Ferry boat and dock construction and improvement projects. This program has financed ferry and dock projects at Sugar, Neebish and Drummond Islands, through the Eastern Upper Peninsula Transportation Authority. Ferry boat and dock projects at Beaver Island have also been financed through this program.

For more information about UPTRAN contact:

Phil Kazmierski
Deputy Director
517-373-2282

MDOT SUPPORT SERVICES

BUREAU OF FINANCE AND ADMINISTRATION

The Bureau of Finance and Administration manages MDOT's day-to-day accounting and purchasing functions, and oversees the management of legal contracts. The bureau also holds bid lettings, awarding multi-million dollar contracts to road builders. Leasing and management of office space and mail delivery are also handled by this bureau. For more information, please contact Tom Gonzalez at 517-373-3885.

OFFICE OF HUMAN RESOURCES

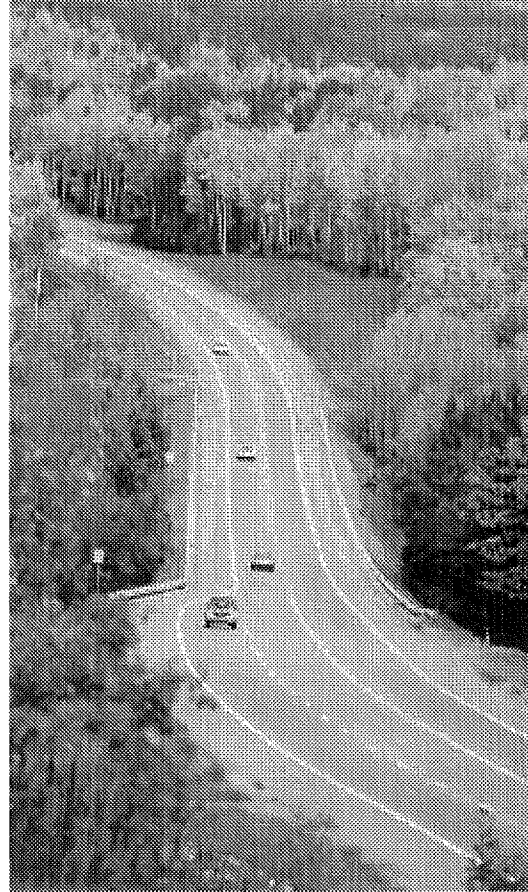
The Office of Human Resources is divided into two main areas: employee and personnel services. OHR is the source of information for all personnel transactions from paychecks and benefits to job opportunities, labor relations, disability, safety and health concerns. For more information, please contact Beth Ragla at 517-373-1620.

OFFICE OF COMMUNICATIONS

The Office of Communications disseminates information to the media and the public in regards to transportation issues such as road closures, construction work and snow removal. We also establish and maintain all print materials for MDOT, like Michigan maps and other historical brochures. For more information, please contact Gary G. Naeyaert at 517-335-3084.

OFFICE OF GOVERNMENTAL AFFAIRS

The Office of Governmental Affairs represents MDOT's interest as new or amendatory legislation is developed or moving through the legislative process. The office also works directly with Legislators' offices regarding state and local transportation constituent concerns. For more information, please contact Theresa Horsfall at 517-373-3946.



OFFICE OF EQUAL OPPORTUNITY

The Office of Equal Opportunity (OEO) administers the statewide planning, development, implementation, and promotion of the Department's external and internal civil rights programs. Primary responsibilities include: U.S. DOT's Disadvantaged Business Enterprises (DBE) program; Equal Employment Opportunity (EEO) contract compliance: Title VI; On-the-Job Training (OJT); DBE Supportive Services; and department, state, and federal internal EEO. For more information, please contact Charles Ford at 517-373-6732.



OFFICE OF QUALITY AND REENGINEERING

The Office of Quality and Reengineering is an internal consultant office within MDOT, specializing in Total Quality and Reengineering areas. OQR assists MDOT's senior leadership with their total quality and reengineering efforts including the implementation of the MDOT Scorecard, statewide customer satisfaction survey and provides support for MDOT's Management Team. For more information, please contact Germaine Kowatch at 517-373-2184.

OFFICE OF INFORMATION MANAGEMENT

The Office of Information Management (OIM) is responsible for designing, purchasing, programing and maintaining the MDOT computer system and software. OIM is also spearheading the Y2K efforts to assure MDOT computers are 2000 compliant. Additionally, training for MDOT employees is conducted by the OIM staff. For more information, please contact Kristie Cheadle at 517-335-3277.

TRANSPORTATION FUNDING IN MICHIGAN

Revenue for the Michigan Transportation Fund (MTF) comes from a variety of sources. The major source is the state-imposed tax on gasoline and diesel fuel. Other funding sources include car and truck registration fees, a portion of the auto-related sales tax, and a portion of drivers' license fees. This revenue funds the majority of the department's operations.

The MTF dollars are distributed according to Public Act 51 of 1951, as amended, to the state, counties, cities and villages, after first deducting monies for administration and collection services and several special programs including the Comprehensive Transportation Fund (public transportation), Transportation Economic Development Fund (TEDF), Local Program Fund, Recreation Improvement Fund, Rail Grade Crossing and the Critical Bridge Fund. Additionally, under the Transportation Equity Act for the 21st Century (TEA-21), federal gas revenue is returned to the state for work on state and local roads.

The Bureau of Aeronautics also receives federal funds derived from airline passenger ticket tax and the aviation fuel tax. State dollars are used to match federal funds, usually with 80 percent federal and 10 percent state. Up to 10% of the MTF can go toward the Comprehensive Transportation Fund (CTF) to finance various modes of public transportation; and the CTF is supplemented by revenue from the vehicle-related sales tax.

Governor Engler's *Build Michigan II* plan, passed in 1997, resulted in an increase in transportation funds of more than \$300 million annually. This financial infusion, plus \$825 million in federal highway funds from TEA-21 (up from \$515 million per year in ISTEA), enabled MDOT to announce a record 1998 investments of more than \$1 billion for state road and bridge repair and rebuilding. Also, \$861 million was allocated to local units of government for local roads from the MTF in 1998.

Transportation funding increases approved or enacted in 1997 total \$307.6 million and comprise the following:

- A modest four-cent-per-gallon tax increase, yielding about \$190 million
- Reform of the so-called "spillage" or "shrinkage" allowance, nearly \$4 million
- Increased truck registration fees, about \$36 million
- Increase in one-time (i.e., one-trip) permit fees for oversize or overweight trucks, more than \$7 million
- Elimination of the diesel fuel discount, \$28 million
- General Fund offset (for the first time) to other state departments for administrative services, \$43 million

A recent legislative attempt to raise another \$31 million by increasing diesel fuel taxes by an amount comparable to the gasoline tax hike passed in the state House of Representatives, but failed in the state Senate.

Needless to say, transportation funding is complex. The state revenue sources include motor-fuel taxes (gasoline and diesel), vehicle-registration fees (based on weight of commercial trucks and the value of passenger cars) and various other taxes and fees. Most of this funding goes into the Michigan Transportation Fund (\$1.4 billion in 1996-97 and a projected \$1.7 billion for 1997-98).

Grants are made from the Michigan Transportation Fund for such programs as rail grade-crossing construction and maintenance, critical bridges maintenance, debt services, and the Recreation Improvements Fund—an allocation to the

TRANSPORTATION FUNDING IN MICHIGAN

Michigan Department of Natural Resources for park roads and other transportation-related projects.

Administrative costs are paid to other state departments for services rendered to the MDOT (e.g., license fee collection by the Michigan Department of State on behalf of the MDOT).

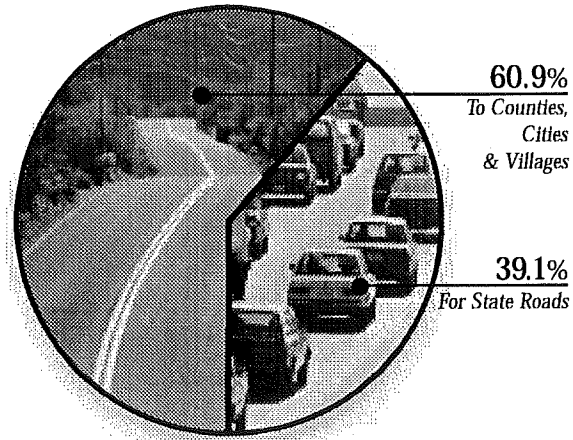
An allocation is made to the Economic Development Fund to finance road projects in support of economic development efforts; and this is supplemented by a percentage of the vehicle-related sales tax.

The balance (\$1.2 billion in 1997-98) is divided between MDOT, county road commissions, and cities and villages. State law (Public Act 51 of 1951) dictates that these funds be distributed according to the following formula:

- 39.1 percent for use on state roads
- 60.9 percent to counties, cities and villages

In addition to the Michigan Transportation Fund, a substantial sum is received from the federal government, which allocates to the states a share of the 18.3-cent federal tax on gasoline. For Michigan, this came to an average of \$515 million for roads during the ISTEA years. With passage of TEA-21,

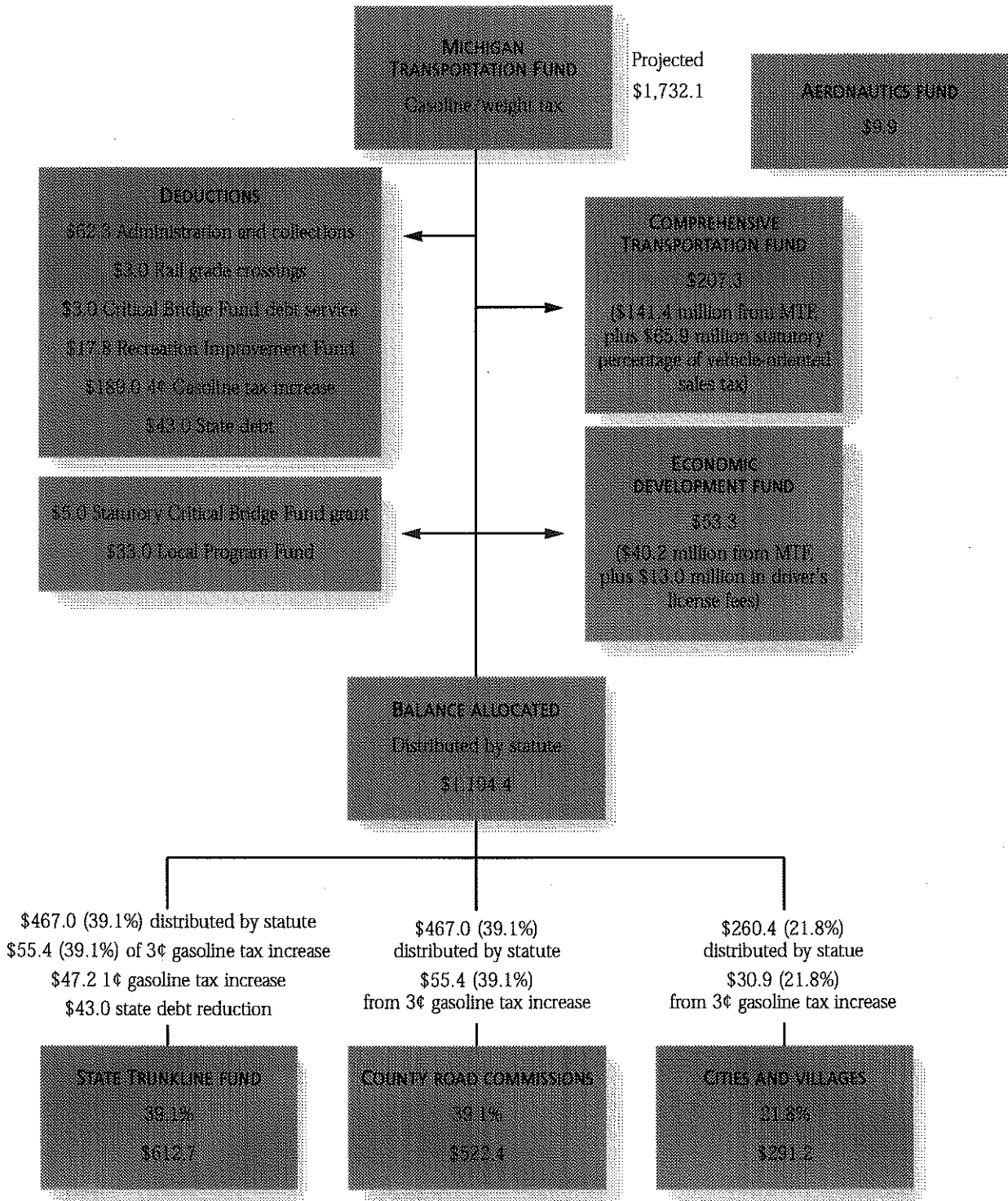
MTF DISTRIBUTION



Michigan will be receiving an average of \$825 million per year for 1998-2003, an increase of \$310 million per year. Federal dollars are divided with 75% going to MDOT and 25% to local road agencies to fund improvements to federal-aid-eligible roads under local jurisdiction.

STATE TRANSPORTATION FUNDING

FY 1997-98 (MILLIONS)



TRANSPORTATION ECONOMIC DEVELOPMENT FUND

The Transportation Economic Development Fund (TEDF) was created in 1987 to assist in the funding of highway, road, and street projects necessary to support economic growth. The program mission is to enhance the ability of the state to compete in an international economic, to serve as a catalyst for economic growth of the state, and to improve the quality of life in the state. Specifically, the program is designed to create or retain jobs and encourage private sector investment in Michigan.

The fund, administered through the Michigan Department of Transportation Office of Economic Development, in conjunction with the president of the Michigan Strategic Fund, provides a means for state government, local agencies and business to work together to meet the often extensive and urgent demands placed upon the transportation system by economic development throughout the state. There are several types of TEDF grants available overall, but MDOT is only eligible for funds through Category A: "Road projects related to target industry development and redevelopment opportunities." Category A projects are intended to:

- Improve the network of highway services essential to economic competitiveness
- Improve accessibility to target industries as a catalyst for economic growth
- Support private initiatives that create or retain jobs
- Encourage economic development and redevelopment efforts that improve the health, safety, and welfare of Michigan citizens



PROJECT SELECTION

The TEDF sponsors an annual call for Category A projects. Project applications are reviewed by TEDF staff and assessed based on the transportation need and the direct impact of meeting that need on the state and local economy. Criteria for assessing economic impact include the number of non-speculative jobs to be created or retained and the dollar amount of non-speculative private sector investment anticipated as a result of the project. Implementation of the project can also be a factor in awarding grants. There is a two year time limit for initiation of a project. If, after two years, implementation of the project is not begun, its viability is reassessed and the grant may be withdrawn or extended.

For more information contact:

Jacqueline Shinn
517-335-1069

STATE INFRASTRUCTURE BANK

One of Michigan's more innovative programs has been the development of a State Infrastructure Bank (SIB). This is a creative new financing mechanism that gives the department more options to assist public and private partners in expediting vital transportation improvement projects. The SIB will allow projects to move off the drawing board and into development faster by providing low-interest loans and credit options to encourage businesses and government agencies to develop, finance and possibly operate various transportation-related initiatives.

Michigan's SIB strategic objectives include:

- Accelerate projects by providing financial assistance that otherwise would not be available in the short term.
- Reduce overall project costs by providing flexible financing options.
- Attract public/private investment.
- Establish a revolving loan fund that promotes the "recycling" of transportation funds for financing of future projects.

Recent changes to the SIB program in TEA-21 are being reviewed for their impact on Michigan, and we will continue to pursue this program.

For more information contact:

Kris Wisniewski
517-335-2614

BUILD MICHIGAN PROGRAM

The Build Michigan program was initiated in 1992 to lay the groundwork for a series of vital, large-scale road improvements. These projects were sorely needed to address growth, economic development needs, and traffic congestion. Some had been discussed for a decade or more, but had not been seriously pursued due to lack of funding.

In 1997, the increase in the state gas tax provided much-needed revenue for preservation of our existing system. The reauthorization of the federal-aid highway and transit programs in 1998 provided additional funding for capacity improvements. Over the next 10 years, through, construction will begin on

priority improvement projects across the state; the projects included here represent the first half of that planned construction program.

Many issues surround the selection and prioritization of capacity projects, including safety, congestion, economic factors, travel delay, local commitment, local public involvement and financial resources. Because of the economic diversity and the variety of local issues and priorities throughout the state, objectives for improving the operation of the transportation system are cooperatively established with regional and metropolitan planning agencies depending upon the distinct needs and priorities of these geographically defined areas. These objectives are outlined in the urban area long range transportation plans and the State Long Range Plan.

In October 1992, Governor Engler signed into law an exciting transportation strategy to rebuild our state. The purpose of the Build Michigan program was to strengthen Michigan's infrastructure while supporting thousands of jobs at the same time.

Build Michigan was based on three overriding principles: Match all federal aid, eliminate waste and redundant spending, and increase transportation funding to all cities and counties.

To assure all federal aid was matched, MDOT sold \$230 million in bonds in the fall of 1992 at a 13-year low rate of six percent. In fiscal years 1992-1993 and 1993-1994, the first two years of Build Michigan, MDOT successfully matched all regular federal aid and captured additional federal dollars not obligated by other states.

The Build Michigan bond sale also helped assure continuation of public transportation services to all Michigan citizens, particularly to those who depend on it most—seniors, physically challenged, youth and job holders who are without automobiles.



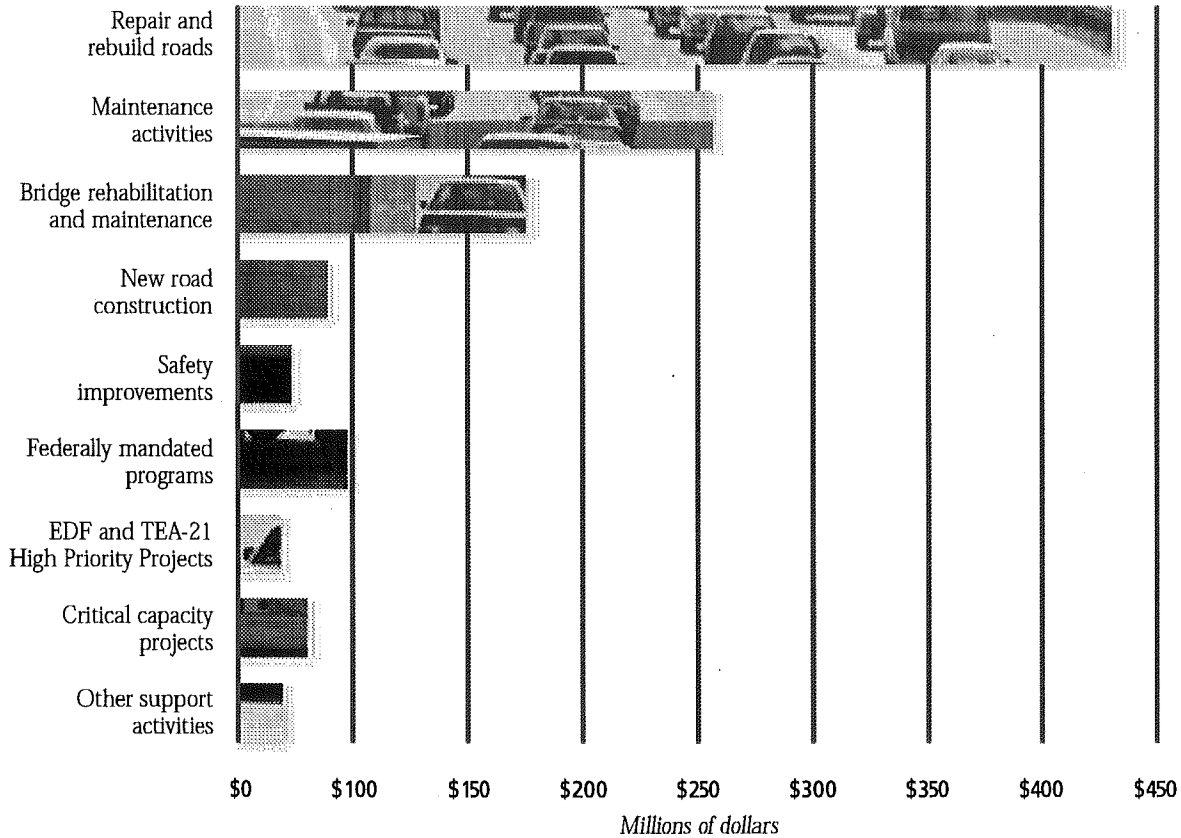
BUILD MICHIGAN II

In August of 1997, Governor Engler signed into law the bipartisan-supported *Build Michigan II* program. The Governor's continued commitment to repairing, maintaining and rebuilding Michigan's roads and bridges is demonstrated in his fiscal year 1999 budget recommendation for the Department of Transportation. The recommended budget totals over \$2.6 billion as state and local road agencies embark on the most significant program yet for improvement of Michigan's transportation infrastructure.

In 1999, MDOT will have another record-setting year for road and bridge improvements in Michigan, as \$1.233 billion will be invested to repair and rebuild 1,625 miles of road and rehabilitate 310 bridges on the state highway system while dedicating only seven percent of the 1999 budget for new road construction. MDOT is fixing the worst roads first and our plan will bring 90 percent of Michigan's roads to a good condition by 2007.

In 1996, based on surface condition, 65 percent of state trunkline roads were rated as good. MDOT's current investment strategy and our

FY 1999 ROAD AND BRIDGE INVESTMENTS





recommended "mix of fixes" will enable us to reach the 90 percent goal by 2007 while minimizing motorist inconvenience. We will also continue to increase the number of long-term fixes (20+ years) in our construction program, as 30 percent of the miles to be improved in the "repair and rebuild" road category for 1999 will be receiving a 20-year fix or greater. This compares to only 10 percent of the miles from 1992-95.

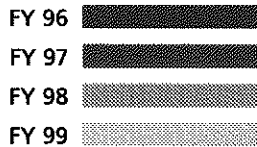
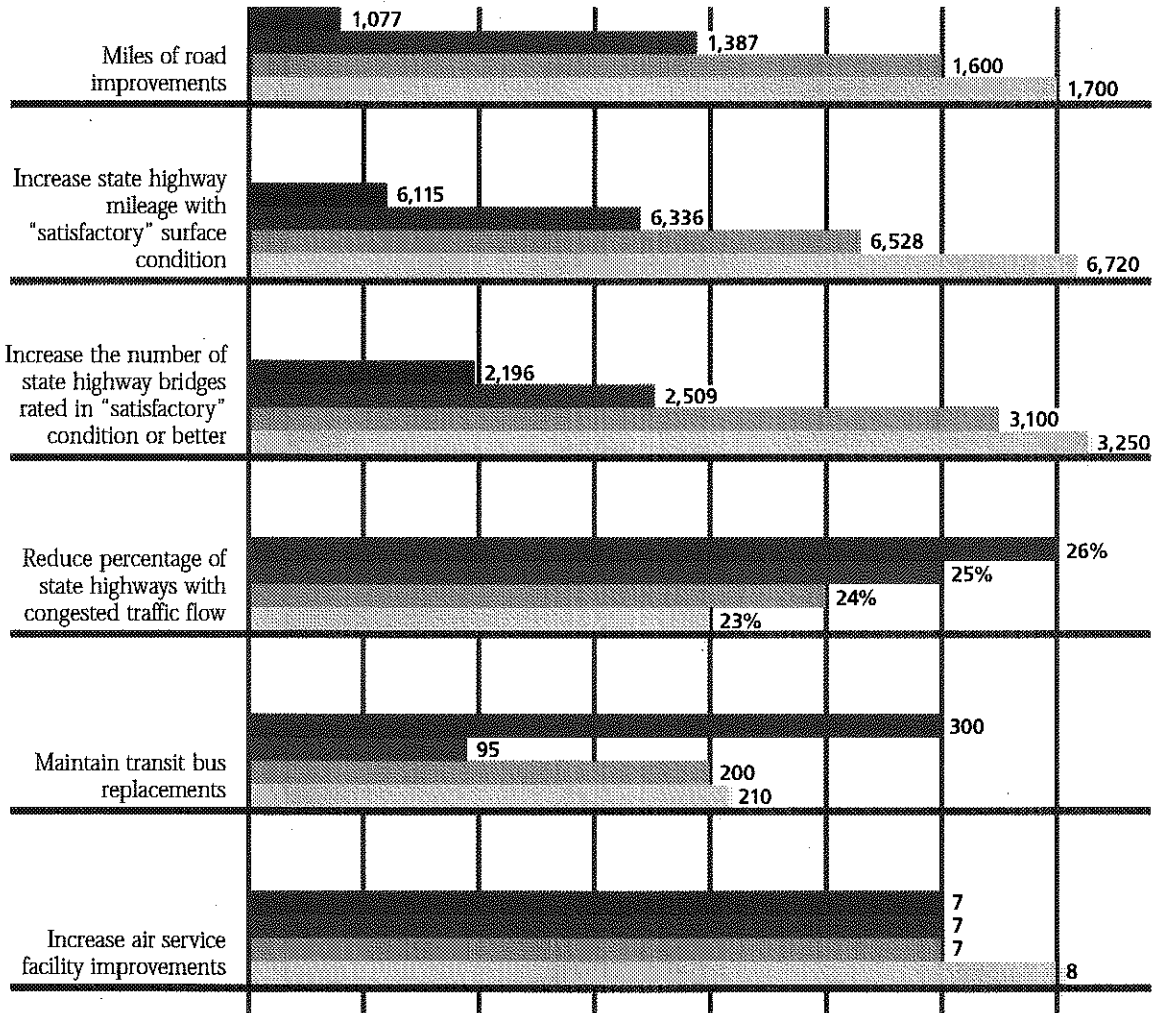
Road and bridge investments for 1999 include: \$434 million to repair and rebuild roads; \$258 million for maintenance activities (routine and capital preventive maintenance); \$175 million in bridge rehabilitation and capital preventive maintenance on bridges; and \$88 million in new road construction. The balance of the budget will be invested in safety improvements (\$41 million); federally mandated programs (\$97 million); economic development

fund and TEA-21 High Priority Projects (\$36 million); the completion of the state's critical capacity projects (\$66 million); and other support activities (\$38 million).

This aggressive program can be attributed to \$300 million in new revenue from the passage of the *Build Michigan II* plan and the recently-passed federal transportation bill (TEA-21) which provides Michigan with an average of \$825 million per year to fund road and bridge improvements. This represents a federal increase of \$310 million over the state's average annual return under ISTEA. MDOT's continuing reorganization and staff reductions have also contributed to an increase in available funds for road repair.

State funding for local roads will reach \$885 million for the first time in 1999. This is an increase of \$137 million (22 percent) compared to 1997

PROGRAM OUTCOMES



BUILD MICHIGAN PROGRAM

funding levels. State funding for local roads does not include \$210 million in federal road funds that goes to locals, bringing total funding for local roads to more than \$1.1 billion in 1999. This is a 70 percent increase when compared to 1990, when local road funding was only \$645 million. This increase is more than double the rate of inflation during this time period.

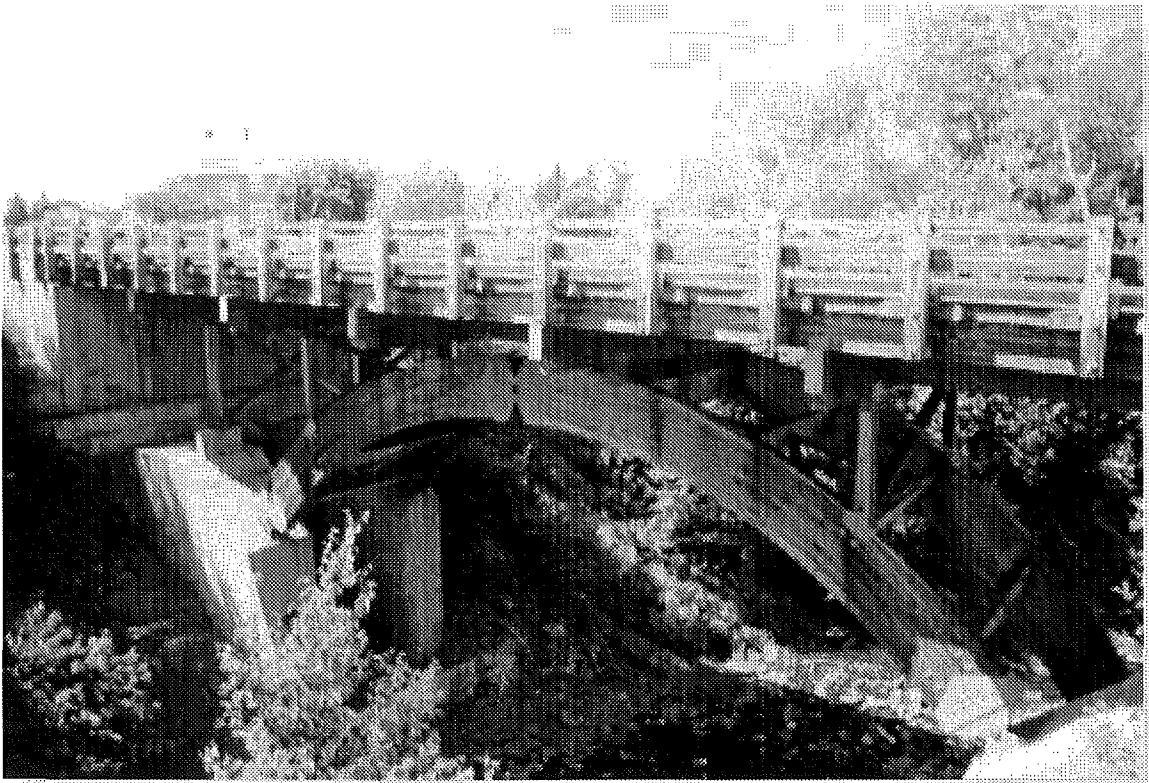
FISCAL YEAR 1999 BUDGET RECOMMENDATION

The Governor's fiscal year 1999 budget continues the most aggressive effort to repair and rebuild Michigan's roads in over 50 years. The Governor's budget recommendation reflects the additional funding and focuses this investment

on road repair and maintenance. The fiscal year 1999 recommendation invests more than \$662 million in road repair and maintenance, resulting in rebuilt roads, extended pavement life, increased routine maintenance, and enhanced seasonal roadside services.

REBUILDING MICHIGAN'S BRIDGES

Fiscal year 1999 also marks the fourth year of a significant multi-year program to address critical safety and preservation needs for the state's bridges, including an aggressive plan to repair nearly 300 bridges per year on the state trunkline system. The fiscal year 1999 budget earmarks \$165 million for bridge repairs and preventative maintenance.





LIMITED NEW ROADS

In addition to the investments in critical bridge preservation and road repair, the budget recommendation reflects a very modest program increase for expanding and constructing new roads. This portion of the state transportation program represents less than seven percent of the total state highway program.

LOCAL FUNDING INCREASES

The state shares transportation revenues with local units of government. These revenues have been enhanced by the program and will provide \$885 million for investment in local roads and bridges in fiscal year 1999. The fiscal year 1999 distribution of Michigan Transportation Funds includes revenues

appropriated to local governments according to the historical formula and are therefore allocated as follows: 39.1% to the State Trunkline Fund, 60.9% to counties, cities and villages.

While increased funding for fiscal year 1999 follows historical funding patterns, it is the intent of the department to continue to seek voluntary agreements with local units regarding an updated commercial backbone system with responsibilities appropriately allocated. In addition to the formula distribution, local units of government will also be eligible to receive an estimated \$68.6 million in state-supported revenues through the local program fund, the transportation economic development fund, and the critical bridge program.

ADDITIONAL REVENUE

The Governor's fiscal year 1999 recommendation assumed an additional \$31.0 million from a four-cent increase in the diesel fuel tax. Legislative action on a diesel fuel tax increase would rectify the inequity created by the recent passage of the four cent gasoline tax increase by ensuring that all motor vehicles, whether gasoline or diesel powered, provide equal support to Michigan's transportation system. The Governor also strongly supports additional tort reform and the department's effort to pursue a wrap-around insurance policy for workers' compensation protection that will result in an estimated \$30 million in project savings for reinvestment in Michigan's roads and bridges.

MDOT FIVE YEAR ROAD & BRIDGE PROGRAM

AN OVERVIEW

In light of the transportation revenue increases included in the *Build Michigan II* plan and the federal TEA-21 bill, there has been increasing public demand for better roads and accountability. To this end, Governor John Engler, MDOT Director James DeSana and the State Transportation Commission have directed the Michigan Department of Transportation (MDOT) to develop a specific program of road and bridge projects to improve Michigan's highway system.

For the first time, MDOT has prepared and published a "Five Year Road & Bridge Program." This document illustrates both the current investment strategies of our program as well as lists the specific road and bridge projects to be undertaken each year between 1999 and 2003.

All transportation improvements included in the plan are prioritized based on need, with a specific focus on fixing the worst roads and bridges first. MDOT's balanced program includes a combination of long term fixes (reconstruction), intermediate fixes (resurfacing), an aggressive Capital Preventive Maintenance program, and increased routine maintenance of the system.

Highlights of MDOT's Five Year Road & Bridge Program include the following:

- **Repair and rebuild an average of 370 miles each year** for the next five years, with a total investment of \$1.7 billion on road preservation. Based on 1997 data, 75 percent of freeways and 67 percent of non-freeways were in good condition. Following this plan, 90 percent of freeway miles and 75 percent of non-freeway miles will be in good condition by the end of 2003. This will bring us significantly closer to MDOT's goal to have 95 percent of freeways and 85 percent of non-freeways in the state trunkline system in good condition by 2007.
- **Extend the life of an average 1,000 miles of pavement each year** through a five year investment of nearly \$300 million in Capital Preventive Maintenance activities.
- **Invest \$1.1 billion in routine maintenance** like seasonal snow plowing, pothole filling, grass mowing and sweeping, both through MDOT's direct forces and new performance-based contracts with local road agencies.
- **Relieve congestion by making \$870 million in capacity and operational improvements** over five years along those state highways that are most important to Michigan's economy. The great majority of these projects have been ready for construction and will be undertaken now because of recent funding increases.
- **Invest \$915 million to repair and rebuild more than 1,400 bridges** during this five year period using a "worst first" approach and capital preventive maintenance. Based on 1997 data, roughly 78% of the state's 3,314 freeway bridges and 80% of the state's 1,700 non-freeway bridges are in good condition. This five year program will address every single structure on our "high priority" list and will bring MDOT significantly closer to our goal of having 95 percent of freeway structures and 85 percent of non-freeway structures in good condition by 2007.
- **Provide \$487 million in new road construction** to expand the trunkline system in areas where it is essential to Michigan's continuing economic vitality, where system continuity is an issue or where the need to relieve existing facilities warrants expansion.

MDOT FIVE YEAR ROAD & BRIDGE PROGRAM

MDOT'S FIVE YEAR ROAD & BRIDGE PROGRAM BUDGET

The Michigan Department of Transportation (MDOT)'s Five Year Road & Bridge Program maintains the nearly 9,600 mile state trunkline system through winter and summer maintenance programs. The capital program provides Michigan travelers with an average of nearly 370 miles of improved roads in each of the coming five years, as well as repairs to an average of 280 bridges per year. We will also manage our system by extending the life of an average 1,000 miles of pavement each year through the Capital Preventive Maintenance program. The costs of the Five Year Road & Bridge Program totals more than \$6 billion over the period. Category funding for road and bridge improvements during the next five years are as follows:

	ANNUAL AVERAGE	5 YEAR TOTAL
REPAIR AND REBUILD ROADS AND BRIDGES		
REPAIR AND REBUILD ROADS		
Preserve Road Surface and Base*	\$324 million	\$1,621 million
Passing Relief Lanes*	\$10 million	\$50 million
Capacity Improvements*	\$174 million	\$870 million
Research Capacity Improvements	\$6 million	\$29 million
TOTAL REPAIR AND REBUILD ROADS	\$514 million	\$2,570 million
MAINTENANCE ACTIVITIES		
Routine Maintenance	\$223 million	\$1,116 million
Capital Preventive Maintenance (CPM)—Road	\$59 million	\$295 million
TOTAL MAINTENANCE	\$282 million	\$1,411 million
BRIDGES (REHABILITATION* AND CPM)	\$183 million	\$915 million
NEW ROADS		
New Road Construction*	\$97 million	\$487 million
Research New Roads	\$5 million	\$23 million
TOTAL NEW ROADS	\$102 million	\$510 million
OTHER		
Safety Programs	\$41 million	\$205 million
Federal Mandates ⁺	\$69 million	\$345 million
TEDF/TEA-21 High Priority Projects [*]	\$42 million	\$208 million
State Programs [†]	\$33 million	\$165 million
TOTAL OTHER	\$185 million	\$923 million
TOTAL FIVE YEAR TRUNKLINE PROGRAM	\$1.266 billion	\$6.329 billion

* Project lists included in the Five Year Road & Bridge Program document.

⁺ Includes CMAQ, Enhancement and other programs.

^{*} TEDF is the Transportation Economic Development Fund; TEA-21 is the Transportation Equity Act for the 21st Century, the federal highway authorization act.

[†] State programs include the Michigan Institutional Roads program; Non-discretionary "M" Program; State Railroad Crossing program; Program Development and Scoping; and Jurisdictional Transfers.

MICHIGAN'S HIGHWAY AND BRIDGE TRANSPORTATION SYSTEM

MDOT has jurisdiction over approximately 9,600 miles of state highways, which is comprised of state, U.S. national and interstate highways, or "M," "US" and "I" routes. Current system goals relate to the trunkline in terms of freeway and non-freeway components. While the 9,600 mile state highway system represents only about 8% of the state's 118,000 miles of road, it carries approximately 53% of total travel and 71% of commercial travel in Michigan.

Further, the amount of total travel on the state trunkline system over has increased 24% since 1986, while the number of lane miles to support this traffic has increased by only 1.8%.

FREEWAY NETWORK

Freeways are a subset of the highway network that includes all Interstate highways as well as other limited-access state highways. There are 1,870 miles of limited access freeways in Michigan and 3,134 freeway bridges.



MDOT FIVE YEAR ROAD & BRIDGE PROGRAM

NON-FREWAY NETWORK

The remaining 7,730 miles of MDOT highways and 1,170 bridges are considered non-freeway routes, and they are not limited-access.

Beyond the distinctions of Freeway and Non-Freeway systems, there are other important sub-systems that serve certain types of travel, are built to specific standards, or are eligible for particular types of federal funding. They are:

INTERSTATE HIGHWAYS

Interstate highways are part of a nationally-designated system of high-volume highways that are vital to interstate travel and the national defense.

National Highway System: The National Highway System (NHS) is a Congressionally-designated network of highways and other principal arterial routes that carry interstate and regional travel. MDOT currently has jurisdiction over 4,436 out of Michigan's 4,753 NHS miles.

PRIORITY COMMERCIAL NETWORK

The Priority Commercial Network (PCN) is an MDOT-designated system composed of freeway and non-freeway routes that are considered the most important to Michigan's economy. Routes on the PCN are selected according to their relative importance in serving agriculture, forestry, wholesale trade, manufacturing and tourism. They are built to different

design standards to accommodate truck traffic and facilitate commerce and industry. There are 4,284 miles of state highway on the PCN.

BRIDGES

There are roughly 4,300 bridges on the state highway system, with just over 3,100 located on freeways and nearly 1,200 on non-freeways.

When discussing highway improvements, there are three ways of assessing mileage. These distinctions are important to keep in mind, particularly when discussing urban freeways or interstate highways. Unless otherwise specified, the mileage figures in this document refer to route miles only. These distinctions are:

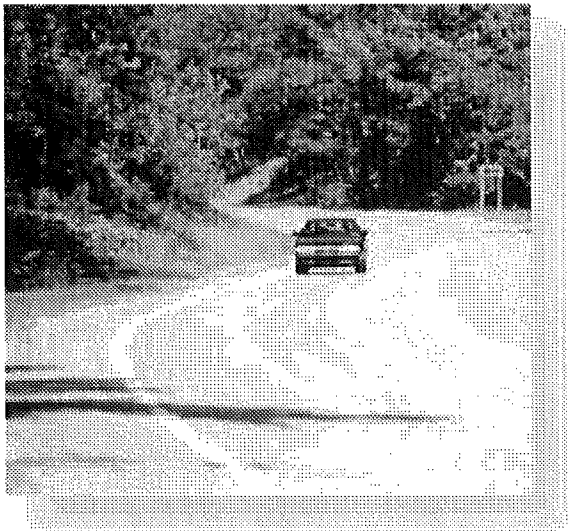
- Route miles refer simply to the distance traveled from point to point. There are approximately 9,600 route miles in the state highway system.
- Directional miles count each route mile of divided freeway as two directional miles—one bound in one direction and one bound in the other. There are approximately 12,000 directional miles in the state highway system.
- Lane miles take into account the number of lanes for each mile of roadway. There are approximately 27,000 lane miles in the state highway system.

STATEWIDE STRATEGIES

MDOT's first Five Year Road & Bridge Program is based on thoughtful investment strategies, sound asset management principles and extensive customer feedback. New technology makes it possible to combine long-term program goals with current condition data to generate a five year roster of projects, as well as integrate the data to coordinate road and bridge improvements and achieve new investment efficiencies.

Based on 1996 data, an average of 64% of Michigan highways were in good condition. By 1997, 70% were in good condition, as were 78% of all freeway bridges. The combination of highway and bridge projects included in this plan represent a coordinated effort to achieve the following specific long-term goals:

- Highways: To have 95% of trunkline freeways and 85% of trunkline non-freeways in good condition by 2007.
- Bridges: To have 95% of freeway bridges and 85% of non-freeway bridges in good condition by 2007.



REPAIRING AND REBUILDING ROADS

MDOT evaluates road surface condition based on standard criteria (pavement condition, ride quality, friction and rutting) and describes it as good or poor. MDOT's primary goal for road repairs and rebuilding is to increase the amount of pavement in good condition. Because it is much more cost effective to correct minor deficiencies early in a pavement's life rather than wait until a road has major problems in need of costly rehabilitation or reconstruction, we will extend the life of some pavements through the Capital Preventive Maintenance program.

The project selection strategy is developed by applying the Road Quality Forecasting System model (RQFS), which predicts the condition of the trunkline system based on various levels of investment and the most appropriate improvement types selected. Recommended projects are prioritized based on factors such as traffic, cost, ride quality, surface condition, safety, user savings and maintenance savings. These priorities are then translated into a yearly program of projects by type of improvement.

Also included in this category of projects are passing relief lanes. In rural areas, two-lane roadways can become congested as traffic stacks up behind a slower moving vehicle such as a truck or mobile home; passing relief lanes provide an opportunity for faster traffic to safely pass slower moving vehicles.

CAPACITY IMPROVEMENTS

MDOT's program of capacity improvements focuses on relieving urban congestion and improving service along state trunklines which are most important to Michigan's economy. Capacity Improvements are typically projects that widen more than half a mile of road and also involve resurfacing or reconstructing the existing roadway. By making capacity improvements, MDOT strives to maintain



reasonable access for residents, businesses, and industries and to improve safety and increase mobility by relieving congestion on both freeways and non-freeways. The department will focus spending on the most-traveled portions of the highway network, and within existing right of way wherever possible. The vast majority of the capacity projects included in this program were identified in the early 1990s to solve specific problems and were waiting for available funding to move to construction.

NEW ROADS

This category of projects includes construction of new roads on new alignments, and the goal of the new roads program is to expand the trunkline system in areas where it is essential to continuing Michigan's economic vitality, where system continuity is an issue or where the need to relieve congestion on existing facilities warrants expansion.

RESEARCH FOR CAPACITY IMPROVEMENTS AND NEW ROADS

Research funding is dedicated to ensure that the most viable, cost-effective capacity improvements and/or expansion solutions are selected to move forward to the project prioritization/project selection process. Although funds are used to assess the viability of a project, this does not constitute a formal commitment by MDOT to construction. This process

brings the project to a stage where a formal decision by MDOT can be made on whether to move forward to design and eventually to construction.

CORRIDOR AND FREEWAY STUDIES

The department conducts corridor studies to determine capacity deficiencies on existing trunklines. These studies develop potential alternatives and coordinate capacity improvements with pavement and structure rehabilitation. Two major corridor studies are part of the effort to modernize the freeway system. These are the 46 1/2 mile I-75 Corridor in Oakland County and the 100 mile I-75 Corridor in the Bay Region. Freeway studies in Ann Arbor, Grand Rapids and Kalamazoo are currently underway. Additional corridor and freeway studies are included in the Five Year Program.

REGION STRATEGIES

To accomplish the statewide strategies, each of MDOT's seven regions developed action strategies to implement the projects necessary to achieve the statewide trunkline goals. The overall program is based on achieving condition goals within annual investment targets, but the projects reflect each region's careful efforts to coordinate road and bridge work, preserve the existing system, address access and safety needs and make the most effective use of anticipated revenue.

MDOT FIVE YEAR ROAD & BRIDGE PROGRAM

SUPERIOR REGION

The Superior Region includes all 15 counties in the Upper Peninsula: Keweenaw, Houghton, Ontonagon, Gogebic, Iron, Baraga, Marquette, Dickinson, Menominee, Delta, Alger, Luce, Schoolcraft, Mackinac, and Chippewa. Major state trunklines include I-75, US-2, and M-28. The region is home to the International Bridge in Sault Ste. Marie, a significant gateway to Canada and the only Michigan US-Canada border crossing north of Port Huron.

Superior is experiencing growth with its successful year-round tourism industry and as midwestern retirees head to the Upper Peninsula in search of waterfront property. One identified need is to upgrade the north-south corridor from Marquette to Menominee. The very successful passing relief lane program will be continued to further alleviate congestion problems associated with trucks and recreational vehicles that can occur on two-lane highways, with more than 25 miles of passing relief lanes planned for the next five years. To better serve residents and the tourism industry we will improve sanitary facilities at roadside rest areas as well as move to keep nearly all rest areas open year-round to service winter tourists. The department will emphasize both preservation and the need to address safety and operational problems within the region. MDOT will try to beautify and improve entryways into the region from both the east and west and address the congestion and mobility problems in the region's major urban centers, especially Iron Mountain.

Five Year Program road preservation and capacity improvement work will upgrade 256 of the Superior Region's more than 1,800 miles over the next five years. In addition, capital preventive maintenance projects, programmed annually, are anticipated for a significant number of pavements that do not yet require more extensive repairs, to improve the condition and extend the life of those pavements.

Additionally, two major improvements in the fifteen county Superior Region are scheduled during this 5 year planning period:

- MDOT officials are evaluating alternatives for US-41 between Vivian and Franklin in the City of Houghton. Once all public comments are considered and discussions with the city are complete, the Department will be closing out the early preliminary engineering phase.
- Plans for replacing the aging M-64 swing bridge over the Ontonagon River in Ontonagon County are underway. Major repairs were made to the bridge in 1991 to allow time to consider alternatives. The department is working with the community and area legislators to determine the most suitable alternative. A schedule for construction will be developed when the preferred alternative is identified.

SUPERIOR REGION RESEARCH

- US-2 in Dickenson County, Iron Mountain. Study of roadway alternatives will be completed in 1999.
- M-129 in Chippewa County, 3 Mile Road to I-75BL. Design plans for widening this segment to 4 lanes will be completed in 1999.

MDOT FIVE YEAR ROAD & BRIDGE PROGRAM

NORTH REGION

The North Region is comprised of 24 counties in the northern Lower Peninsula. These include Emmet, Cheboygan, Presque Isle, Alpena, Montmorency, Otsego, Antrim, Charlevoix, Leelanau, Benzie, Grand Traverse, Kalkaska, Crawford, Oscoda, Alcona, Iosco, Ogemaw, Roscommon, Missaukee, Wexford, Manistee, Mason, Lake, and Osceola counties. Major state trunklines include I-75, US-27, US-23, US-131, and US-31.

A primary concern of the North Region is to provide transportation services to its highly successful year-round tourism industry. The preservation of the existing system will be emphasized and the very successful passing relief lane program will be continued, with more than 36 miles of passing relief lanes planned for the next five years. Identified needs include capacity improvements to the north/south linkages serving tourism such as I-75, US-23 and US-131. The need for current and future capacity improvements to the M-72 and M-10 corridors will be evaluated. MDOT will develop a strategy to address operational problems and remove "choke points" to ensure that traffic continues to flow smoothly. The department will continue to address recreational and daily congestion problems in specific locations such as Cadillac, Gaylord, Grayling, Oscoda, Petoskey, and Traverse City.

Five Year Program road preservation and capacity improvement work will upgrade 329 miles of the North Region's nearly 1,970 miles over the next five years. In addition, two studies will examine the need for improvements on M-72 west of Grayling and M-65 north of US-23. Capital preventive maintenance projects, programmed annually, are also anticipated for a significant number of pavements that do not yet

require more extensive repairs, to improve the condition and extend the life of those pavements.

In addition to the many preservation, bridge, and CPM projects scheduled, five capacity improvements or new roads in the 24 county North Region are underway or scheduled for construction to begin in the next 5 years.

- Phased construction of the US-131 Cadillac Bypass and US-131 from north of Cadillac to north of Manton will continue during the next 5 years. During the next 10 years, annual average daily traffic is expected to double through this corridor. Completion of these projects will reduce future traffic delays and congestion, providing better service to long distance commercial traffic and motorists traveling through the region. \$2,250,000 in TEA-21 High Priority Project funding have been earmarked for the construction of the Cadillac Bypass, and completion of the bypass is anticipated in 2001. The next phase, to north of Manton, is expected to be completed by 2004. Estimated cost to complete this project is \$107.8 million.
- The Department has allocated \$3.0 million in locally committed congressional high priority funding plus \$1.0 million in critical bridge funds to replace a deficient structure over the Boardman River and to improve the east-west mobility through Grand Traverse County. A draft Environmental Impact Statement is being developed by the Grand Traverse County Road Commission and is expected to be completed this year. At the completion of this environmental document, the department will review the identified corridors in the Traverse City Bypass Feasibility Study to determine

MDOT FIVE YEAR ROAD & BRIDGE PROGRAM

which corridor will be advanced to the early preliminary engineering phase.

- Widening of a 2-mile segment of M-27 from to Lincoln in the City of Cheboygan will begin in early 1999. Along with construction of 3 twelve foot lanes for motorists, this project will provide a bike lane. The estimated cost to complete is \$5.4 million, and completion is anticipated in 2000.
- The existing merge lane will be extended on southbound I-75 from M-72 to 4 Mile Road in Crawford County in 2000. This project will improve safety and reduce delays to motorists entering I-75. The estimated cost to complete this choke point project is \$1.5 million.
- Preparation for the construction of a new M-65 Bridge over the AuSable River in Iosco County is scheduled during the next 5 years. Detailed design and construction are contingent upon obtaining federal environmental clearance for a new structure. The estimated cost to complete this project is \$7.5 million.

NORTH REGION RESEARCH

- I-75/North Down River Interchange in Crawford County. Early preliminary engineering study to determine need for new ramps at this location will be completed in 1999. This is a High Priority Project as designated by TEA-21.
- US-23 in Iosco County, M-55 to north of Oscoda. The initiation of the early preliminary engineering phase for this Project is contingent upon federal approval of the environmental impact statement for the US-23 Freeway recommendation between Standish and M-55.
- US-131 in Kalkaska County, north of M-42 (Manton) to Kalkaska. The early preliminary engineering study will be completed in 1999. This study will include non-freeway alternatives.
- US-31 Relocated in Emmet County, Petoskey Bypass. Early preliminary engineering study of proposed new bypass will be completed in 2000. \$1,125,000 in TEA-21 High Priority Project funds have been earmarked for this project.

MDOT FIVE YEAR ROAD & BRIDGE PROGRAM

GRAND REGION

The Grand Region serves 8 counties in the western part of Michigan. These include Oceana, Newaygo, Mecosta, Montcalm, Ionia, Kent, Ottawa and Muskegon counties. Major state trunklines include I-96, I-196, US-31, and US-131.

The Grand Region is experiencing significant residential and economic development. Project selection strategies will focus on upgrading the system with an emphasis on freeway modernization and safety and operational improvements. MDOT will address system continuity needs of the freeway system caused by growth in the area by constructing the Grand Rapids South Beltline (M-6). MDOT will strive to eliminate local choke points, such as reconstruction and widening of the infamous "S" curve, while improving access to the freeway system and Kent County International Airport. Also, MDOT will begin taking the necessary steps to resolve the pressing traffic issues between Holland and Grand Haven on US-31.

Five Year Program road preservation and capacity improvement work will upgrade 154 miles of the Grand Region's 956 miles over the next five years. In addition, the department will undertake two studies in the area: the Grand Rapids Freeway Study to evaluate the future needs of the area's freeway system, and the I-196 (M-45 to I-96) Project Staging study. Capital preventive maintenance projects, programmed annually, are also anticipated for a significant number of pavements that do not yet require more extensive repairs, to improve the condition and extend the life of those pavements.

In addition to the many preservation, bridge, and CPM projects scheduled, seven capacity improvements or new roads in the eight county Grand Region are underway or scheduled for

construction to begin in the next 5 years. These address congestion and safety problems resulting from economic and population growth in the Grand Rapids area.

- The largest of these projects is phased construction of the new South Beltline (M-6) freeway which will connect I-96 east of Grand Rapids to I-196 on the southwest side of Grand Rapids. \$18,720,000 in TEA-21 High Priority Project funds have been earmarked for this project. Construction of the structures for the eastern phase from I-96 to M-37 began in 1998 and will continue through 1999. The road work for the eastern phase will be completed in 2002. The estimated cost to complete the 20 mile stretch of new freeway is \$423.5 million and completion of the final phases is anticipated by 2008.
- In conjunction with freeway rehabilitation projects, merge and weave lanes will be added at three locations to improve safety and improve traffic flow at entrances and exits from freeways. These improvements will be made in 1999 on I-196 from M-11 to Chicago Drive, on US-131 from I-96 to West River and on US-131 southbound from Leonard to westbound I-196. Estimated cost to complete these three improvements is \$11.5 million and completion is expected in 1999.
- Construction is scheduled to begin in 2000 to replace the bridge carrying US-131 between Wealthy and Pearl Streets in Grand Rapids (also known as the S-curve). Since this project involves adding lanes, an environmental assessment will need to be completed. Completion of the project is anticipated in 2001.

MDOT FIVE YEAR ROAD & BRIDGE PROGRAM

- Boulevard construction began in 1998 on M-45 between Sand Creek and 68th Streets to improve safety along this 6.6 mile portion of M-45 and in anticipation of expansion of Grand Valley State University and university housing. The estimated cost to complete this project is \$82 million, and completion is anticipated in 2002.
- Boulevard construction is scheduled to begin in 2000 on M-37 south of 68th to north of 60th Streets, with completion expected in 2001. This project will be completed just prior to completion of the first phase of the M-6 South Beltline project between I-96 and M-37.
- The I-96 Airport Access Study is being conducted by the Kent County Road Commission and has a tentative construction date beyond the horizon year for this 5 Year Plan. However, right of way acquisition is scheduled to begin in 2002 following preliminary engineering. This study includes several alternative locations, one of which is a Patterson Avenue location. A portion of the study is being funded by TEA-21 High Priority project funds. Both cost and right of way to be acquired are preliminary and subject to further study of alternatives and impacts of a new interchange.
- The early preliminary engineering for a partial interchange at I-196 and Baldwin Road is

scheduled to begin in 1999. CSX trains cause significant delays to traffic exiting to Baldwin Road or entering the freeway from Baldwin Road. This is a serious problem for emergency vehicles serving the Jenison area. The Department will be submitting a Request for Additional Interstate Freeway Access to the Federal Highway Administration. \$2.5 million has been allotted to the study of alternative access to I-96 in addition to the existing Chicago Drive interchange.

GRAND REGION RESEARCH

- I-96 in Kent County, east of Thornapple River. Access study to determine need for and location of proposed new interchange will be completed in 2000. \$11.3 million in TEA-21 High Priority Project funds have been earmarked for this project and other local projects. A portion of these funds will be used for the study of this interchange. This study is being closely coordinated with the I-96 Airport Access study.
- US-31 in Ottawa County, Holland to Grand Haven. Early preliminary engineering study for this project will be completed in the Spring of 1999 and a recommendation will be made to address transportation facility and service problems in this rapidly growing corridor. \$2.25 million in TEA-21 High Priority Project funds have been earmarked for this project.

MDOT FIVE YEAR ROAD & BRIDGE PROGRAM

BAY REGION

The Bay Region includes 13 counties in the Saginaw Bay area: Clare, Gladwin, Arenac, Bay, Midland, Isabella, Gratiot, Saginaw, Genesee, Lapeer, Tuscola, Huron, and Sanilac counties. Major state trunklines include I-75, I-69, and US-27.

In the Bay Region, a priority is to continue to provide transportation services to the region's agricultural industry, among other things preserving its status as a sugar beet producer and worldwide exporter of beans. The highways of the Bay Region also serve the Flint/Saginaw/Bay City industrial triangle. Finally, I-75 is major tourist route from Southeast Michigan to attractions in the north. Project selection strategies in this region will emphasize freeway modernization, with particular attention to I-75, through safety and operational improvements. MDOT will add capacity for north/south recreational traffic while coordinating efforts to preserve the existing system.

Five Year Program road preservation and capacity improvement work will upgrade 403 miles of the Bay Region's more than 1,500 miles over the next five years. In addition, the I-75 Corridor Study will examine the long-term needs one of the region's major interstate arteries. Capital preventive maintenance projects, programmed annually, are anticipated for a significant number of pavements that do not yet require more extensive repairs, to improve the condition and extend the life of those pavements.

In addition to the many preservation, bridge, and CPM projects scheduled, 13 capacity improvements in the 13 county Bay Region are underway or scheduled for construction to begin in the next 5 years. These projects will mitigate anticipated congestion due to economic and population growth in the Region as well as provide

better service to motorists and commercial traffic using the main North/South corridor through the region.

- An overall freeway modernization focus is underway for I-75 from I-69 south of Flint to US-10 in Bay City. Freeway modernization improvements will occur at several locations along this corridor in conjunction with maintenance projects. Cost to complete is estimated at \$34 million. \$500,000 in TEA-21 High Priority Project funds are earmarked for this project.
- Merge and weave lanes will be added to northbound I-75 from the area where US-23 and I-75 merge to the interchange with I-69 south of Flint. The addition of or lengthening of merge and weave lanes represents a significant safety improvement to the existing facility as traffic volumes increase. Estimated cost to complete at \$7 million.
- The I-75 interchange at M-57 west of Clio is being reconstructed to alleviate safety and congestion problems associated with the tight diamond design of the existing interchange and the low bridge clearance as I-75 passes under M-57. The commercial area situated around the interchange is experiencing access problems to M-57 due to congestion. This project is an example a successful joint funding venture combining federal demonstration funds and local dollars to address congestion problems. \$10,500,000 in TEA-21 funds are earmarked for this project. Estimated cost to complete at \$8.3 million.
- Addition of a lane to southbound I-75 between the M-13 Connector and the interchange with

MDOT FIVE YEAR ROAD & BRIDGE PROGRAM

US-10 in Bay City will upgrade the number of lanes to match the corresponding northbound segment of I-75 and accommodate merge and diverge traffic movements for these three routes along this 1.6 mile segment. Estimated cost to complete at \$8 million.

- Construction of a new railroad grade separation will be completed in 1999 on M-121 between I-69 and I-75 in the Flint area. Grade separation at this location reduces congestion and improves safety for all users of this increasingly busy connector between I-69 and I-75 for access to Flint Bishop International Airport. Estimated cost to complete at \$11 million.
- Construction is scheduled to begin in 2003 to widen M-24 from the south county line to I-69 in Lapeer County to address increased congestion along this route. The Department is working closely with the M-24 Corridor Committee, a local citizen group, and with State and Federal environmental agencies to determine the best alternative to implement along this 10 mile segment. \$2,000,000 of TEA-21 High Priority Project funds have been earmarked for this project. Estimated cost to complete at \$46 million.
- Widening of M-57 between I-75 and the Village of Clio is scheduled for completion in 1999. This project is related to the I-75/M-57 interchange improvements described above and addresses the problems of increasing congestion associated with economic growth along this route. Estimated cost to complete at \$5 million.
- A study of the impact of current and anticipated economic activity and associated transportation improvement needs along M-84 between

Saginaw and Bay City received demonstration funds under ISTEA. The project also received demonstration funds of \$13,135,000 under TEA-21 and MDOT will be moving forward to implement some of the improvements along this corridor during the next five years with estimated cost of \$23.1 million to complete.

- Construction will begin in 1999 to upgrade the partial interchange at US-10 and Midland/Bay City Road east of Midland. This project is a joint-venture between the City of Midland and MDOT and includes the use of both demonstration funds and economic development funds. The city is completing the interchange redesign and securing the right-of-way through local revenue sources. MDOT, as part of this venture, will pay for the reconstruction of the interchange of US-10 with Bay City Road. The completion of this interchange will improve access to the newly established Midland Industrial Park. \$3,000,000 in TEA-21 High Priority Project funds have been earmarked for this project. Estimated cost to complete is \$12 million.
- Construction will begin in 2000 to improve the interchange on US-10 and Eastman Road in Midland. This project received \$8,250,000 in demonstration funds through the TEA-21 legislation which will be used to rebuild the bridge and existing ramps for this interchange. The estimated cost to complete all of the improvements to this interchange is \$10 million.
- Construction is scheduled to begin in 2000 on a grade separated interchange at US-27 and M-57 in Gratiot County. This project is part of the overall US-27 corridor improvements which recently received demonstration funds of

MDOT FIVE YEAR ROAD & BRIDGE PROGRAM

\$6,375,000 through TEA-21. The estimated cost to complete this interchange is \$19 million.

- In 2001, the department will widen US-27 dual with US-10 in Clare County. This project will facilitate the flow of recreational traffic. The estimated cost to complete this choke point project is \$10 million.
- Construction is planned for 2001 to widen US-23 from Standish to M-65 to four lanes. Estimated cost to complete this project is \$13.4 million.

BAY REGION RESEARCH

- US-27 in Gratiot County, north of St. Johns to Ithaca. Updating of the early preliminary engineering report from 1983 circa to reflect current traffic conditions will be completed in 1999. This update of the preliminary

engineering report will involve a value engineering assessment of the previously approved project as well as decision on the potential phasing of future improvements.

- US-23 in Arenac County, Standish to M-55. An environmental impact statement has been completed for the segment from Standish to M-55. In 1999, MDOT will forward this document to the FHWA for their approval, but after extensive state review to identify issues surrounding the project, and based on early feedback from federal resource agencies, it is not clear that federal approval will be forthcoming. Because the federal review will likely be a lengthy process, MDOT has proposed a number of improvements along the existing highway to address the current needs of Northeast Michigan drivers.

SOUTHWEST REGION

The Southwest Region serves nine counties in the southwestern part of the state. These include Allegan, Barry, Calhoun, Kalamazoo, Van Buren, Berrien, Cass, St. Joseph, and Branch counties. Major state trunklines include I-94, I-196, I-69, US-31, and US-131.

The Southwest Region is the state's fruit basket, and boasts a significant tourist trade as well. Project selection strategies will emphasize freeway improvements and modernization of I-94, I-69 and US-131. To welcome visitors to Michigan, MDOT will continue efforts to beautify and improve entryways from Indiana. The department will also work to complete the relocation of US-31 and improve mobility along the US-131 corridor from the Indiana border to Schoolcraft. MDOT will work to correct drainage and safety conditions throughout the region.

Road preservation and capacity improvement work will upgrade 209 miles of the Southwest Region's 1,153 miles over the next five years. In addition, several studies will be undertaken in the region including the Kalamazoo I-94 Freeway Study, the US-131 BR. Industrial Corridor Study in Kalamazoo, and the US 131 Schoolcraft Railroad Crossing Grade Separation Study. Capital preventive maintenance projects, programmed annually, are also anticipated for a significant number of pavements that do not yet require more extensive repairs, to improve the condition and extend the life of those pavements.

In addition to the many preservation, bridge, and CPM projects scheduled, four capacity improvements or new roads in the nine county Southwest Region are scheduled within this 5 year planning period:

- Phased construction will continue on the relocation of US-31 in Berrien County. This will

extend the US-31 freeway for eight miles from the existing US-31 northwest of Berrien Springs northerly to Napier Road. The estimated cost to complete this segment is \$76 million and \$13,500,000 in TEA-21 High Priority Project funds have been earmarked for the River Road to Naomi Road section within the eight mile relocation project. This project will be completed and open to traffic in 2003.

- Improvements to the I-94 interchange at Napier Road are scheduled for construction beginning in 1999. The cost to complete this work is \$6 million. This interchange will serve as the interim terminus for the US-31 freeway from the Indiana state line to I-94 in Berrien County. Concurrently, improvements will be made to Napier Road between I-94 and the relocated US-31 freeway. The I-94 interchange and Napier Road improvements are expected to be complete in 2000.
- A study is underway to control access along portions of US-131 between the village of Schoolcraft and the city of Three Rivers. The remaining TEA-21 High Priority Project funds awarded to this project (\$500,000) will be used for this study. In addition, in the Village of Schoolcraft, the department will begin working with the railroad to examine options for the relocation of the existing rail line.
- Construction is scheduled to begin in 2000 to improve the I-94 Business Loop from Dickman Road at I-194 to James Street in Battle Creek. Completion of this segment will improve travel time and maneuvering for trucks and reduce congestion on downtown streets. The estimated cost to complete this project is \$26 million, and completion is anticipated in 2002.

MDOT FIVE YEAR ROAD & BRIDGE PROGRAM

SOUTHWEST REGION RESEARCH

- M-40/M-43 Intersection in Van Buren County.
Early preliminary engineering study is planned for improvements to this intersection. A time frame has not yet been determined.
- US-131 in St. Joseph County, Constantine Bypass. Early preliminary engineering study of proposed bypass will be completed in 2000. MDOT will work with local areas to preserve right-of-way in potential corridors.
- US-31 Relocated in Berrien County, Napier Road to I-94/I-196 Interchange. A review of value engineering recommendations is in progress. The value engineering report addresses environmental, service and cost issues to complete this last segment of the freeway.
- I-94 in Kalamazoo County, at Sprinkle Road. Improvements to ramps at the interchange are under study.

MDOT FIVE YEAR ROAD & BRIDGE PROGRAM

UNIVERSITY REGION

The University Region serves ten counties. These include Clinton, Shiawassee, Livingston, Ingham, Eaton, Jackson, Washtenaw, Monroe, Lenawee, and Hillsdale counties. Major state trunklines include I-96, I-94, I-69, I-75, US-23 and US-127.

Rapid business and residential growth is one of the largest issues effecting transportation in the University Region. Project selection strategies will emphasize freeway modernization through safety and operational improvements. The department will try to beautify and improve entryways from Ohio. MDOT will work to eliminate choke points throughout the region. The department will strive to coordinate capacity, bridge and preservation projects while accommodating growth and improving capacity. There will be improvements to M-59 that have been made possible through ROW preservation efforts that began years ago. The department will continue its improvements from I-96 through to the western Howell city limits and will look for opportunities from east of Howell to US-23.

Road preservation and capacity improvement work will upgrade nearly 193 miles of the University Region's 1,321 miles over the next five years. In addition, the Ann Arbor area Freeway Study will evaluate the area's long-term freeway needs. The department will also begin the justification study for the proposed I-73 corridor. Capital preventive maintenance projects, programmed annually, are also anticipated for a significant number of pavements that do not yet require more extensive repairs, to improve the condition and extend the life of those pavements.

In addition to the many preservation, bridge, and CPM projects scheduled, five capacity improvements in the ten county University Region are scheduled for construction in the next 5 years.

- Construction is scheduled to begin in 1999 to widen the dual portion of M-14 and US-23 north of Ann Arbor to address congestion along this segment; completion is expected in the same year. Estimated cost to complete is \$8 million.
- Widening of I-94 from Mill Creek to M-14 west of Ann Arbor is scheduled for construction in 2000 to address congestion associated with the continuing development of the surrounding area. Estimated cost to complete is \$13 million and completion is expected in the same year.
- Construction could begin in 2000 to widen M-50 from Boardman to North Street in Jackson County pending right of way donation. The project will widen M-50 from 4 to 5 lanes to provide a center left-turn lane. This will address safety issues along this commercial corridor and improve access to adjacent properties. The estimated cost to complete is \$4 million.
- Widening of US-24 from Dunbar to 7th in Monroe is scheduled for construction to begin in 2000. This project addresses access, operational and safety problems by adding 3 lanes along this one mile segment to match the cross-section of Telegraph Road in Monroe County. Estimated cost to complete is \$5.5 million, and completion is expected in the same year.

UNIVERSITY REGION RESEARCH

- I-75BL in Monroe County, Dunbar/LaPlaisance/M-125. Design plans for establishing this new business route will be completed in 1999.
- M-43 in Ingham County, Dobie Road to Cornell Road. Preliminary engineering will be completed in 1999 for widening this segment to 5 lanes.

MDOT FIVE YEAR ROAD & BRIDGE PROGRAM

- Environmental clearance, design and right-of-way acquisition will begin for the segment of M-59 from Grand River Avenue to Michigan Avenue in Howell. The completion of these phases should occur in 2001. Construction of this corridor will be coordinated with necessary improvements to the I-96/M-59 interchange. Local agreement and participation must be resolved at the interchange before construction will proceed.
- US-23/M-59 Interchange in Livingston County. Preliminary engineering will be completed in 2000 for improvements to this interchange.
- M-59 in Livingston County, Michigan Avenue to US-23. Early preliminary engineering study will be completed for this segment in 2000 in conjunction with plans for interchange improvements at US-23.
- I-96/Chemung area in Livingston County. Early preliminary engineering study to determine a location for a new interchange will be completed in 1999.
- US-12 in Washtenaw County, east of Saline to Munger Road. Early preliminary engineering study of improvements to this segment will be completed in 1999.
- US-127 in Jackson County, US-223 to M-50. Early preliminary engineering study of improvements to this segment will be completed in 2000.
- I-94 in Washtenaw County, at Zeeb Road and Baker Road. Interchange improvements are being coordinated with local governments.

METRO REGION

The Metro Region serves 4 counties in southeastern Michigan. These include Oakland, Macomb, St. Clair, and Wayne counties. Major state trunklines include I-75, I-94, I-69, I-696, and I-275.

The Metro Region has the state's largest population and the oldest and busiest freeways carrying 44% of statewide freeway system VMT. The region is also a major gateway to Canada, home to the Ambassador Bridge in Detroit—the busiest commercial border crossing in North America—as well as the Blue Water Bridge in Port Huron and the Detroit-Windsor Tunnel, which carries the most passengers of any crossing on the US-Canada border.

Project selection strategies will emphasize freeway modernization through safety and operational improvements. MDOT will continue to improve international border crossings in the region to facilitate the flow of trade across the Canadian border into Ohio. The department will improve access to support economic development in downtown Detroit and other growing areas in the region. MDOT will work to eliminate choke points in the region, address system continuity issues, and improve east/west corridors in Wayne and Washtenaw counties and north/south corridors in Oakland and Macomb counties. MDOT will begin to investigate corridor improvements along M-53 (VanDyke) north of I-696, particularly in the City of Warren.

Road preservation and capacity improvement work will upgrade 315 miles of the Metro Region's 875 miles over the next five years. The extensive amount of work scheduled in the Metro Region is related to the unique problem it faces dealing with its aging Interstate expressways and bridges. Having earlier completed a Detroit Area Freeway Study, MDOT will undertake a study of the long-term

capacity needs of I-75 in Oakland Corridor, with completion expected in 2000. In addition, capital preventive maintenance projects, programmed annually, are anticipated for a significant number of pavements that do not yet require more extensive repairs, to improve the condition and extend the life of those pavements.

In addition to the many preservation, bridge, and CPM projects scheduled, sixteen capacity improvements in the four county Metro Region are underway or scheduled for construction to begin in the next 5 years. Six of these projects are located in Wayne County:

- Construction is scheduled for 2002 to address long term congestion mitigation and direct access improvements between the Ambassador Bridge and I-75 and I-96. The Gateway Project is central to our border crossing strategy and includes reconstruction of the I-75/I-96 mainline from south of west Grand Boulevard to the existing I-96 Interchange. Estimated cost to complete this project is \$103 million, and completion is anticipated in 2004.
- Construction is scheduled in 1999 to reconstruct and improve the interchange at I-75 and Eureka to alleviate existing safety problems. The improvements involve lengthening the SB I-75 off-ramp and widening its terminus to four lanes, making minor improvements to the SB I-75 on-ramp and making median and signalization changes to Eureka Road in the interchange area. Cost to complete is \$1.7 million and completion is anticipated in 1999.
- The scope of improvements to I-94 between I-96 and Conner Avenue is still being determined with a final recommendation to be

MDOT FIVE YEAR ROAD & BRIDGE PROGRAM

made in 1999. \$17.5 million is budgeted to provide design work up to 2002. Following FHWA approval of the environmental document, design could begin as early as 2000. This project is the first phase of a larger project to rehabilitate I-94 between Wyoming Avenue in the City of Detroit and I-696 in Macomb County. A major objective is to maintain truck mobility, as this segment is part of the hub of interstate-to-interstate and international truck travel. This section of I-94 provides a connection for commercial and trans-continental traffic to the two Detroit/Windsor border crossings and the Blue Water Bridge in Port Huron. Structure work to accommodate improvements to mainline I-94 including the Dequindre Yard bridge are expected to occur within this 5 year period.

- Reconstruction and ramp modification to accommodate the new stadiums and theater development in downtown Detroit is scheduled in 1999 on I-75 between I-96 and I-375. Completion is anticipated in 1999.
- A steering committee composed of MDOT, City of Detroit, FHWA and SEMCOG has convened to oversee the East Riverfront Access Study. Consultants are being selected in 1999 to completed the access study. Construction of access improvements could begin in 2002. Estimated cost to complete is \$51 million.
- Implementation of operational improvements are scheduled in 2000 on Jefferson Avenue from Randolph to I-375. Estimated cost to complete is \$3 million.
- Widening of US-24 from Pennsylvania to Vreeland is scheduled to begin in 2000 to include a left turn lane within this 5 mile

segment in order to address anticipated and existing pavement condition, operational and safety issues resulting from increased industrial, commercial and residential development. Estimated cost to complete this widening is \$17 million.

In addition, ten Oakland County capacity improvements are scheduled for implementation:

- Improvements to I-75 in Oakland County include the addition of a merge and weave lane on northbound I-75 from south of Square Lake to M-59. This project is part of a larger concept which would reconstruct and widen I-75 between a point south of South Blvd. and Featherstone Road. Current cost issues with the interchange at M-59 prohibit this concept to be completed as one project. Immediate attention will be given to the section of NB I-75 where a lane drop occurs at the Square Lake Road exit. This improvement will address the traffic congestion occurring at this location. The estimated cost of the additional lanes is \$15 million with construction scheduled for 2001 and completion expected in the same year.
- Construction began in 1998 to provide access to University Drive and northbound I-75 from Chrysler Drive. This project will improve access to the Chrysler Technology Center. Some additional modifications to the University Drive interchange are included to address current operational problems. The estimated cost to complete this project is \$12.5 million and completion is anticipated in 1999.
- Reconstruction of I-96 interchanges at Beck and at Wixom are scheduled for construction in 2002 and 2003 with a combined cost to

MDOT FIVE YEAR ROAD & BRIDGE PROGRAM

complete estimated at \$70 million. \$1,950,000 in TEA-21 High Priority Project funds have been earmarked for this project. These improvements are needed to accommodate traffic generated by current and future development in the area and both should be completed by 2003.

- Construction of a boulevard is scheduled to begin in 2000 for the last 1.5 mile segment of M-5 from 14 Mile to Pontiac Trail. This project is the final part of a larger project designed to provide access to I-96, I-696 and I-275 from the Haggerty Road corridor. \$2,400,000 in TEA-21 High Priority Project funds have been earmarked for this project. The estimated cost to complete this phase is \$31 million.
- Construction began in 1998 to improve the M-5 interchange at Grand River Avenue. This project will relieve congestion at this interchange. Estimated cost to complete this improvement is \$2 million, and completion is anticipated in 1999.
- Three improvements to M-59 are scheduled for construction in 1999 and include a grade separation at M-59 and the GTW railroad crossing in Pontiac. A new interchange is planned at M-59 and Squirrel Road and the interchange at M-59 and Crooks Road will be upgraded. These improvements address growing congestion problems and travel delays along this route and provide service to the Chrysler Technology Park. The combined cost to complete these three projects is \$41.5 million, and all three are expected to be complete by 2002.

Additional region improvement project:

- A project to replace and widen the I-94 bridge over the Black River in St. Clair County is scheduled to begin construction in 2003.

METRO REGION RESEARCH

- M-53 in Macomb County, 27 Mile Road to 34 Mile Road. Preliminary engineering for upgrade to freeway will be completed in 2000.
- M-2 in Wayne and Washtenaw counties, I-75 to US-23. Early preliminary engineering study of proposed new trunkline will be completed in 1999 for the eastern portion from I-75 to I-275.
- Relocation of the M-59 interchange at Adams Road is scheduled to begin in 2001, but remains a research project pending the corresponding realignment of Adams Road by the Road Commission of Oakland County. This project will contribute to improving traffic conditions along the M-59 corridor. The estimated cost to complete is \$23 million.
- M-53 in Macomb County, at 18 Mile and VanDyke. Preliminary design plans for the proposed ramps and five lane cross section of 18 Mile Road are being developed to reconfigure the connection between M-53 and Mound Road.
- M-15 in Oakland County, I-75 to I-69. Early preliminary engineering study to widen this segment to five lanes will be completed in 2000. \$500,000 in TEA-21 High Priority Project funds have been earmarked for this study.
- I-75/University Drive Interchange in Oakland County. Preliminary engineering to upgrade this interchange will be completed in 2000.
- I-75 in Oakland County, south of Chrysler to M-24. Preliminary engineering to improve

MDOT FIVE YEAR ROAD & BRIDGE PROGRAM

this freeway segment will be completed in 2000 in conjunction with design of the University interchange.

- I-75/M-59 Interchange in Oakland County. Early preliminary engineering study for improvements to this interchange is underway.
- I-75 in Oakland County, south of South Boulevard to Featherstone. Early preliminary

engineering study for improvements to this freeway segment will be completed in 1999 in conjunction with the study for the M-59 interchange.

- Northwestern Connector in Oakland County, 14 Mile Road/Orchard Lake Road to M-5 (Haggerty). Early preliminary engineering study will be completed in 1999.

FREQUENTLY ASKED QUESTIONS

ROADS

Q: Where can I get current road condition information for Michigan roads?

A: For current road conditions, call the AAA Hotline at 1-800-AAA-MICH. For up to date construction information in west and southwest Michigan, call MDOT's construction hotline at 616-582-PAVE (7283). In the Metro Detroit area, call 1-800-641-MDOT (6368).

Q: What are the differences between highways that carry the letter "I", "US", and "M"?

A: "I" highways such as I-94, are part of the Dwight D. Eisenhower Interstate highway system which extend through all states. "US" routes extend to two or more states and "M" highways begin and end within the boundaries of Michigan.

Q: Why do the speed limits vary on different parts of the freeway system?

A: In accordance with state law, US and I routes have a 70 MPH speed limit for automobiles. The legislation establishing this limit exempted nearly 200 miles of freeways, particularly those in urban areas. Even many of the exempted miles have since reverted to the 70 mph limit. It is generally densely populated regions with many exit and entrance ramps in close proximity where the speed limit is held to 55 mph for safety reasons. The speed limit for trucks on all highways is never higher than 55 mph.

Q: How are speed limits determined?

A: The Michigan Department of Transportation and the Michigan State Police are jointly responsible for establishing speed limits along all state trunklines. The objective of any speed limit is that it be reasonable, is enforceable and assures a maximum

degree of safety. In determining an appropriate speed limit, MDOT and MSP conduct a speed study and analyze the data with the primary focus being on an arbitrary measurement called the "85th percentile" speed (That speed at or below which 85 percent of the vehicles are traveling). The 85th percentile speed is considered by most agencies nationally to be the appropriate speed limit. It recognizes that most drivers voluntarily adjust their speed to the total roadway/roadside environment (width, alignment, surface condition, roadside development, pedestrian activity, weather, light conditions, etc.)

Q: How much does it cost to build a new highway?

A: A mile of freeway through an urban area can cost as much as \$40 million, while a mile of freeway through a rural area can cost roughly \$8 million.

Q: Who is responsible for plowing snow on state highways?

A: MDOT is ultimately responsible for routine maintenance on all state highways, and these services include snow plowing, pothole filling, grass cutting, street sweeping, guardrail repair and other services. MDOT performs maintenance with direct forces (state employees) in 20 counties throughout the state, and in the balance of the state we contract with county road commissions and cities/villages to perform these services.

Q: What can you tell me about soundwalls?

A: There are two types of soundwalls built adjacent to freeways in the state. Type I soundwalls are required by federal law and these are erected when a freeway is built or widened. Type II soundwalls are discretionary, and the State Transportation Commission has directed MDOT to support the

FREQUENTLY ASKED QUESTIONS

construction of Type II soundewalls until we have brought more of the roads and bridges in the state system to good condition.

BRIDGES

Q: How long do bridges last? Do they receive regular maintenance and what does that maintenance consist of?

A: Bridges are typically designed to provide 30 years of service. Actual length of service depends a lot on the amount of stress the bridge is subjected to. MDOT conducts regular inspections of every bridge on state trunklines. These inspections involve long term wear inspections as well as maintenance inspections to ensure a smooth-riding deck. Typical things we do to extend the life of the bridge include painting the structural steel with a weatherizing sealer, replacing joints, resurfacing the deck to improve ride quality, sealing the deck to prohibit the infiltration of water into the surface, and replace the pins and hangers used to connect the pieces of the bridge.

FUNDING

Q: Why doesn't Michigan have toll roads?

A: It has not been considered economically feasible as Michigan is off the nation's heavily used east/west corridors. A system of toll-free highways has been viewed as important to commerce, industry, tourism, and general economic development.

Q: How much taxes are there on a gallon of gasoline?

A: There is a total of 37.3 cents per gallon tax on gasoline sold within Michigan. There is a 19-cent state tax and an 18.3-cent federal tax. Additionally, the sale of gasoline is subject to the 6 percent Michigan sales tax, which is not used for transportation improvements.

CONSTRUCTION

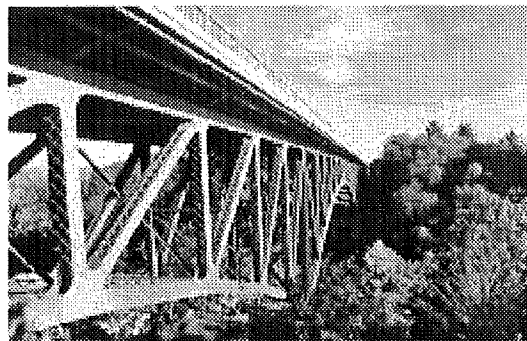
Q: What is the purpose of the blue and orange cables being buried along I-94?

A: The blue and orange pipes you see along I-94 are conduits for fiber optic cables. A telecommunications company is in the process of laying this cable across the state using the I-94 corridor.

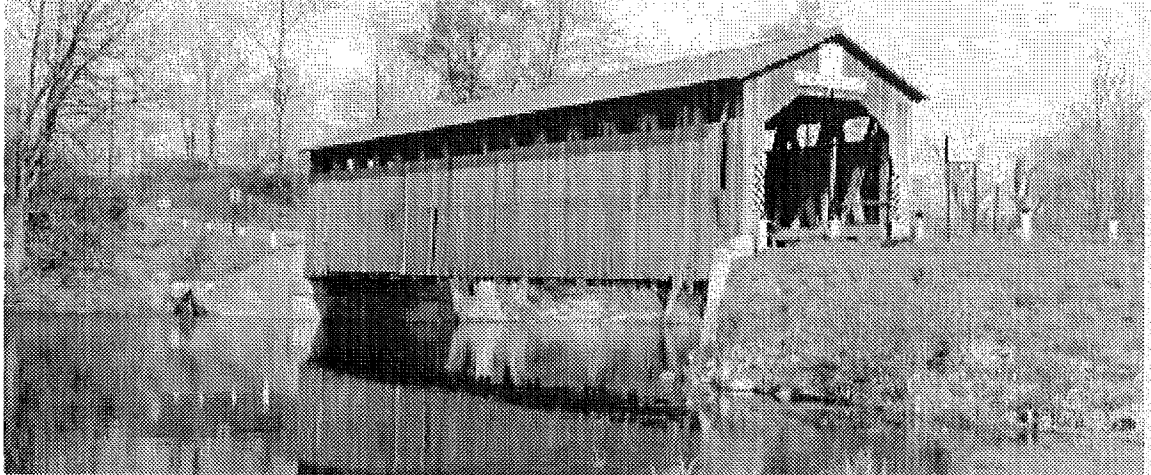
Q: I was stuck in a construction backup for over an hour. Isn't there a better way to do highway work that minimizes delays like this?

A: Yes, there is. On many road construction projects crews will work at night, when there is less traffic, to minimize disruption to motorists. Also, MDOT offers a financial incentive/disincentive plan to contractors so jobs will be finished early and roads and bridges are open faster to motorists. If work needs to be completed during the day, special care is taken so lanes are not closed during peak hours such as morning and afternoon commutes, on weekends, especially during the summer months, and for special events.

Q: Shouldn't road building contractors be required to warrantee their work. Other businesses and manufacturers warrantee their work, why aren't road builders held to the same standard?



FREQUENTLY ASKED QUESTIONS



A: Thanks to the passage of *Build Michigan II*, MDOT has begun investigating the practical use of warranties on road repair and construction projects. Several projects completed in 1998 included 5-year warranties from the contractor. These projects were in the Grand Rapids, Kalamazoo and metro Detroit areas. MDOT is weighing the additional cost involved with warranties against the cost of repairing the roadways ourselves.

Q: The contractors working on the road in front of my home damaged my fence and did not repair it. How do you get restitution for property damage caused by road building crews?

A: To be compensated for either construction or maintenance related damage, you will need to contact your local Michigan Department of Transportation, Transportation Service Center (TSC). TSCs are located throughout the state. Current locations include Southfield, Brighton, Lansing, Jackson, Kalamazoo, Coloma, Grand Rapids, Greenville, Mt. Pleasant, Saginaw, Bay City, Cass City, Davison, Muskegon, Cadillac, Traverse City, Grayling, Gaylord,

Alpena, Newberry, Escanaba, Crystal Falls and Ishpeming. There a complaint will be filed with the claims department.

Q: I own a small construction company and would like to be able to bid on highway jobs. How do I become an approved contractor and receive information about possible jobs I could bid on?

A: Contractors wishing to bid on MDOT projects must be prequalified to meet all the necessary requirements. To obtain a prequalification package, you should contact the Financial Services Division at 517-373-2895.

Q: Why is it that some roads that have been resurfaced only last a year or two before they start to breakup again? Isn't this a waste of taxpayer dollars?

A: MDOT classifies road conditions in two primary categories (Good and Poor). MDOT knows from experience that once a road deteriorates to the point it is classified as "poor," it will take five times more money to upgrade that road to "good" condition than it would have taken if the road had

FREQUENTLY ASKED QUESTIONS

been repaired while still in "good" condition. Therefore, the department will upgrade a road in stages so the road does not continue to deteriorate. The goal is to have 90 percent of all state roads in good condition by 2007.

Q: How long does it take to build a new road?

A: National experience indicates it takes an average of 7 years to construct a new roadway from the time when the route locations is selected. However, it is often difficult to identify the time frame for a new construction project. The construction of a completely new roadway involves a number of complex and involved processes such as land appraisal and purchase, environmental assessments, soil conditions, economic impact concerns and local land use issues. Each of these must be carefully evaluated to assure any adverse impacts are minimized and those person and businesses that will be impacted by the project receive the proper assistance and advice. Additionally, litigations which includes acquisition of right of way and condemnation proceedings often delay projects for years.

Q: When I drive through some construction areas, I see speed limit signs and orange barrels, but no workers. If there is no work going on at the site, why are posted speed limits so low and why are all the barrels still out there?

A: MDOT is working to minimize the adverse affects of highway construction on motorists. One aspect of this program is nighttime construction. You may not see anyone working in these areas until the sun—and traffic volumes—go down. On other projects, contractors are not allowed to work during busy hours. All highways construction work is normally suspended during holidays. Other factors such as

inspection activities, soil conditions, weather factors and production schedule may also give the appearance of minimal activity, but greatly impact the construction of the project.

Q: Are there inspectors out locating and fixing potholes? How do I go about reporting a potholes?

A: Maintenance personnel from MDOT routinely inspect state trunklines, monitoring them for many issues, including the development of potholes. If you spot a pothole forming on an "M," "US," or "I" route, contact your local Transportation Service Center or MDOT Region Office to report it. You can find your local office and the phone number at <http://www.mdot.state.mi.us/regions>. For potholes and other problems related to local roads, contact your local city or county road commission.

Q: How are safety issues addressed in construction zones?

A: Speed limits through constructions areas are reduced (usually to 45 MPH) to assure safety to workers and other motorists. A recently adopted state law doubles fines for speeding in construction zones.

MAPS AND PUBLICATIONS

Q: How can I order state publications?

A: To order transportation-related publications (including up to 25 maps), call 517-322-1676. To order legislative maps (quantifies of 25 or more), call 517-373-3946. Call 517-373-2160 for information about other state publications.

Q: Is there a map available that shows the planned route of the new South Beltline expressway in Grand Rapids?

FREQUENTLY ASKED QUESTIONS

A: The proposed route of the South Beltline (or M-6) is available in a brochure containing the history and construction details. You can also find the map on the department's Internet home page, at www.mdot.state.mi.us. You can print the PDF file there through Adobe Acrobat, which is also available on our site. If you would prefer an original, printed copy, please send your request with your mailing address to MDOTWebInfo@state.mi.us.

Q: I once had a copy of the Michigan Driving Manual. Are these still printed and if so, how can I get a copy?

A: Yes, we still print this manual. You can obtain a copy through the MDOT Office of Communications by calling 517-373-2160.

TRUCKS

Q: I have heard that Michigan truck weight laws are the most liberal in the nation. Is this true?

A: Michigan permits trucks up to 164,000 pounds on the system. However, different than other states, Michigan requires a lower weight per axle which more evenly distributes the load and reduces wear and tear on roads. MDOT engineers have thoroughly studied this issue and the result of this research is that heavier trucks do not cause a disproportionate amount of damage as long as the weight is evenly distributed over an appropriate number of axles. Additionally, trucks over 80,000 pounds make up only less than 5% of all trucks operating on our roads. If Michigan were to reduce its truck weight laws to 80,000 pounds, more damage to the system may occur because of the need to put more trucks on the road. More trucks on the road raise serious questions concerning safety and traffic congestion.

Several other states are currently looking at Michigan's axle weight laws and are considering adopting similar laws.

TRIVIA

Q: Why are the weigh stations on the interstates closed so often?

A: The Michigan State Police Motor Carrier Division is working on current staffing problems that will allow it to beef up law enforcement activities regarding trucks. Many new recruits will be hitting the road in the next two years. Fourteen people have been hired for 1998 and 30 are expected to go through training in 1999. In addition, a recruit school also is planned for 2000. Even with the increase in officers, motorists may still see weigh stations closed more than before. This is because of a pilot program started by the Motor Carrier Division that is having excellent results. The program closes the weigh stations and puts officers out on patrol. This helps catch those trucks which are speeding, are in need of safety repairs and also those which are overweight but traveling on roads other than interstate highways. This system is proving to be quite effective. In 1997, weigh stations issued citations to just one half of 1 percent of trucks that passed through. In the same time period, patrol officers issued citations to more than 14 percent of the trucks they pulled over.

Q: How do I file a claim for damages to my vehicle caused by a pothole?

A: Contact the region office where the damages occurred. MDOT region offices and phone numbers are listed on our web site. The state will only consider an award for damages beyond what has been paid by

FREQUENTLY ASKED QUESTIONS

your insurance company, and the state must have been aware of the pothole for 30 days without repairing in order for reimbursement to be possible.

Q: Who do I contact to obtain research information on transportation issues for an article/interview/story/assignment?

A: Contact Gary G. Naeyaert, director of communications, at 517-335-3084, or use the web site address: MDOTWebInfo@state.mi.us.

Q: When downloading from the MDOT web site, I get a blank screen. What am I doing wrong?

A: This is a fairly common occurrence. If you receive a blank screen and the browser says the PDF file is "done," click on the reload button—it should appear. The publisher of the software is aware of this problem and we are doing what we can to find a solution. If you continue to have the problem, contact Chuck Baird at 517-335-2404.

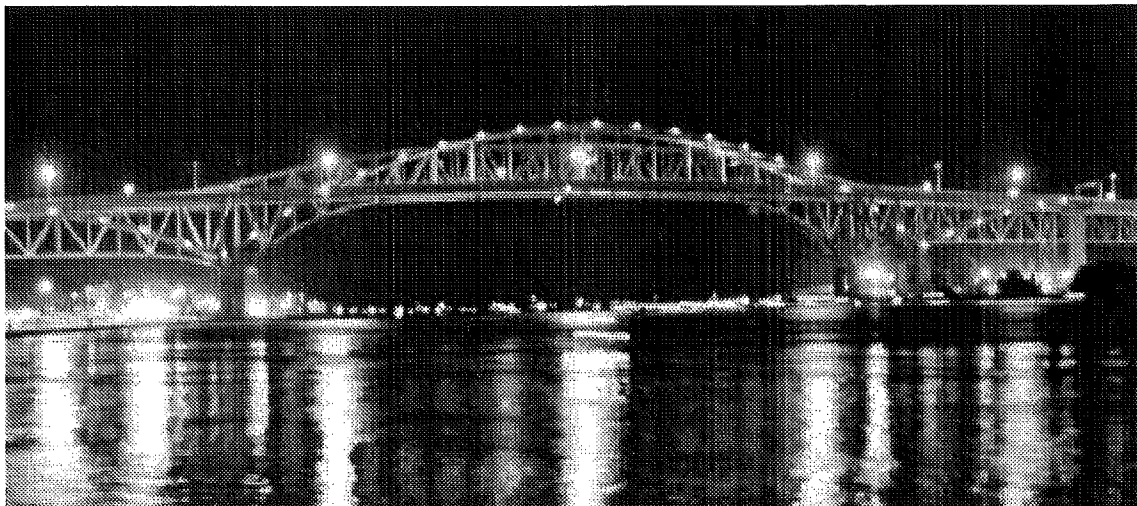
Q: I enjoy getting the construction updates on the web in PDF files, but the pages are 11x17 inches

and I cannot print that size on my printer. I have tried the "shrink to fit" option, but many parts are then unreadable. Is it possible to divide it into 8.5x11 inches pages?

A: No. It would be necessary to re-design the entire document to fit the smaller size. This would be extremely time consuming and would require doing the same product twice because the requirements of the printer would have to be met as well as the for web customers. We will continue to look at this issue and if we can make alterations to meet the requirements of the smaller format we will make the necessary alterations.

Q: Where can I find the EBS files on the MDOT web site. I would like to be able to download the files?

A: The EBS files can be found in the BIDS directory on the BBS Web pages. If you go to MDOT's web page, click on the link to our BBS then log on using the Guest button. Then click on the button for file libraries. Look for the EBS files. They start with EBS...There are program files and data files. The file descriptions should help you.



FREQUENTLY ASKED QUESTIONS

Besides the ebsdata.exe file you must also download the file install.exe the electronic bidding program software. When entering our contractor code you must use 5 digits—add extra zeros at the beginning of your number.

Q: Do you have E-mail addresses for MDOT employees on your web site?

A: Go to <http://www.mdot.state.mi.us/> and at the very bottom of the page there is a place you can click on the E-mail MDOT employees.

Q: I am in the military on duty outside of the country and I need to renew my drivers license. Is there a way I can renew form where I am stationed?

A: If have a vehicles currently registered in Michigan, you can renew the registration by mail. However, the Michigan Department of Transportation does not register vehicles. Vehicle registration is handled by the Secretary of States Office in Michigan. You contact their office at 517-373-2511, or access their web site at <http://www.sos.state.mi.us/>

Q: I purchased a motorcycle from someone who last registered it in Michigan. This person lost the title and has since moved to another state. How do I go about getting a new Michigan title for the motorcycle?

A: Questions concerning the registration of vehicles or drivers license issues should be directed to the Secretary of State's office at 517-373-2511. Their web site address is <http://www.sos.state.mi.us/>

Q: I am currently a resident of another state, how can I acquire a copy of my Michigan driving record?

A: The Michigan Department of State is responsible for maintaining drivers' records in the

state. You can obtain your record by completing a form or call 517-322-1624 to request the record by phone. There is a fee for the service. The form also is available on the internet at <http://www.sos.state.mi.us/dv/index.html>.

Q: I am interested in working for the Michigan Department of Transportation. How do I go about making an employment application with the department?

A: As a state agency, the Michigan Department of Transportation (MDOT) works with the state personnel department called the Michigan Department of Civil Service (MDCS), to interview and fill positions at MDOT. MDCS is responsible for maintaining a qualified workforce pool. As such, they accept applications for positions, schedule exams and created the employment lists from which state agencies, including MDOT, interview and hire employees.

To learn about getting on the appropriate employment lists, which exams are open to whom, and when and where exams are scheduled, check out the MDCS home page. The home page address is: <http://www.state.mi.us/mdcs>.

Q: Who decides where to locate signs along our highway? Couldn't we have more safety and directional signs along our roads?

A: Guidelines for the size, shape, color, wording, symbols and location of traffic signs on state roads are set in the "Michigan Manual of Uniform Traffic Control Devices." Prepared by the Michigan Department of Transportation and the Michigan State Police, the manual sets forth the basic principles that govern the design and usage of traffic control devices. According to the manual, to be effective, a device

FREQUENTLY ASKED QUESTIONS

should "fulfill a need; command attention; convey a clear, simple meaning; command respect of road users; and give adequate time for proper response." Any additional safety and directional signs would have to meet these standards and fall within the specific guidelines for each device. Specific questions concerning signage may be directed to your local MDOT Transportation Service Center or Regional Office.

Q: Are traffic counts available from MDOT?

A: Traffic count data for 1997, the latest available, is on the Michigan Department of Transportation's web site. From the home page, follow the link to "maps." This will take you to a site where Average Daily Traffic Volumes (ADT) are available. The ADT maps are in PDF format, which can be read with the Adobe Acrobat Reader, also available on our web site.

SOME Q'S:

How long is the Mackinac Bridge?

When did they begin to build it?

When was it opened to traffic?

When was the dedication?

SOME A'S:

The Mackinac Bridge is five miles long and crosses the Straits of Mackinac, connecting the upper and lower peninsulas of Michigan. It is the longest suspension bridge in North America.

The building of the Mackinac Bridge began in May 1954 and opened to traffic November 1, 1957.

Dedication was held in June 1958, with Governor G. Mennen Williams attending.

Q: What is the name of the bridge at Sault Ste. Marie?

A: The name of the bridge is the Sault Ste. Marie International Bridge. Most often we shorten it and just call it the International Bridge.

Q: When was it built and when did it open to traffic?

A: Construction began September 16, 1960. The bridge opened to traffic October 31, 1962.

Q: Who paid for the bridge, the US or Canada?

A: Building the International Bridge was a joint effort between the two countries. Federal funds were able to be used because it was tied into the federal freeway system. The International Bridge Authority, a guiding body, sought bonding to finance the remaining 10% (federal funds paid 90% of the cost.) Series B bonds amounting to \$7,850,000 were purchased by the Province of Ontario to facilitate financing. \$8,400,000 in Series A bonds were sold on the US bond market.

Q: Why is the bridge so important?

A: The International Bridge plays a vital role in the well being of the twin Soos, Sault Ste. Marie, Ontario, a city of 85,000, and Sault Ste. Marie, Michigan, population 16,000. It serves an essential transportation link to the steel, paper and forest industries, to the tourism-reliant businesses and to the general public for work or shopping purposes.



GLOSSARY OF TRANSPORTATION TERMS

- ABUTMENTS** The supporting units of a bridge or grade separation which are at each end of the structure, in direct contact with the earth under the ends.
- ALIGNMENT** The course or direction along which a roadway, railway, runway, channel, structures, or objects having length is oriented.
- APPROACH** The construction leading to the end of a bridge, or an intersecting road, street or driveway.
- ASPHALT** A brown to black solid bituminous substance used in paving.
- BASE CRUSHING AND SHAPING** To break up the existing pavement base and reshape the grade.
- BETTERMENT** Construction that results in increased capacity or use of material of higher quality than exists or that would normally be provided. Generally, work beyond that for which MDOT is responsible; thus, requiring the cost to be borne by others.
- BITUMINOUS CONCRETE (BIT.)** A designed combination of dense graded mineral aggregate, filler and bituminous cement, mixed in a central plant and laid and compacted while hot.
- BITUMINOUS PAVEMENT** A dark colored surface composed of crushed stone or aggregate cemented together with a bitumen such as road oil, asphalt or tar.
- BRIDGE** A structure with a total clear span of more than 20 feet measured under bridge seat copings along centerline of roadway, carrying traffic over a stream, watercourse or opening. When used in a general sense, the term "bridge" includes grade separations.
- BYPASS** A highway intended to divert through traffic from a particular area by going around the area.
- CEMENT** The substance used for binding particles of aggregate together to form a pavement structure.
- CENTERLINE** A line marking the center of a roadway on which traffic moves in both directions or dividing the roadway between traffic moving in opposite directions.
- CLIMBING LANE** An auxiliary lane in the upgrade direction intended for use primarily by slow-moving vehicles to maintain capacity and freedom of operation.
- COLD MILLING** To grind up a bituminous surface for the purpose of recycling the material.
- CONCRETE PAVEMENT** A light colored surface composed of a mixture of portland cement aggregate of hard inert particles and water.
- CONTINUOUS REINFORCEMENT** Steel bars or mesh placed in concrete pavement without a break for transverse joints.
- CONTRACT BOND** The statutory bonds executed by the Contractor and the Surety guaranteeing performance of the contract and the payment of all lawful indebtedness pertaining thereto.
- CONTRACTION JOINT** A plane of weakness at which movement due to contraction is localized in concrete pavements.
- CORRIDOR** A strip of land between two points within which traffic, land use, environment and other factors are evaluated for transportation purposes.
- CRACKING AND SEATING** To crack up the pavement in intervals and recompact it.

GLOSSARY OF TRANSPORTATION TERMS

- CULVERT** A structure not classed as a bridge carrying traffic over a stream, watercourse, or opening.
- CURB LINE** The boundary between a roadway and lawn extension or a sidewalk, usually marked by a fixed curb rising above the level of the roadway.
- DECK** The floor of a bridge.
- DESIGN SPEED** A speed selected for purposes of design and correlation of those features of a highway, such as curvature, super elevation and sight distance upon which the safe operation of vehicles is dependent.
- DRAINAGE** 1. Provision for the disposition of water. 2. The mode in which surface water is carried off.
- DUMMY JOINT** In cement concrete pavements, a contraction joint to control cracking.
- ENVIRONMENTAL IMPACT STATEMENT (EIS)**
Disclosure documents that ensure that the policies and goals defined in the National Environmental Policy Act are incorporated into the ongoing programs and actions of the Federal Government. EIS provides full discussion of significant environmental impacts and informs decision makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment.
- EXPANSION JOINT** A separation between two parts of a structure or two pavement slabs filled with an elastic material to provide opportunity for slight end-ways movement.
- EXPRESSWAY** A divided arterial highway for through traffic with full or partial control of access and generally with grade separations at major intersections. When full control of access exists, an expressway is usually called a freeway.
- FLARE LANE** Acceleration/deceleration lane
- FREEWAY** A divided arterial highway for through traffic with full control of access and with all crossroads separated in grade from pavements for through traffic.
- GREENBELTS** An area of lawn or parkways adjacent to an expressway designed to prevent undesirable encroachments. Its purpose is to assist in integrating the highway into the local environment.
- GROOVING** Process of making a series of shallow cuts of uniform width, depth, shape, and spacing in the surface of a pavement which provide low-pressure escape routes for water beneath tires in order to prevent hydroplaning.
- GRUBBING** Removing and disposing of stumps, roots, logs, and brush.
- GUARD RAIL** A protective barrier built along the highway shoulder to prevent vehicles from driving down a hazardous slope or from hitting fixed objects. It is also placed in the median to prevent cross-median collisions.
- HIGHWAY** The entire width between the boundary lines of every way publicly maintained when any part thereof is open to the use of the public for purposes of vehicular travel.
- INTERCHANGE** A system of interconnecting roadways in conjunction with one or more highway grade separations providing for the interchange of traffic between two or more intersecting highways on different levels.

GLOSSARY OF TRANSPORTATION TERMS

- INTERSECTION** The area embraced within the extended pavement lines at points where two highways join or cross.
- JOINT** A break in the general continuity of a pavement.
- LANE CAPACITY** The maximum number of vehicles that can pass a given point during a specific length of time under the prevailing roadway and traffic conditions.
- LEVEL OF SERVICE** One combination of operating conditions that occurs on a given lane or roadway when it accommodates a certain traffic volume. Selected levels are stated in terms of limiting values for major factors such as speed, travel, time, freedom to maneuver, safety, operating costs, etc.
- MAINTENANCE** Routine repair or upkeep. Maintenance is defined in various sections of Act 51 or 1951 for the purpose of using Michigan Transportation Funds.
- MAJOR INTERSECTION** Rural or urban intersection whose general appearance indicates substantial turning or cross-traffic movement.
- MEDIAN** The portion of a divided land highway between the inside left-hand edges of the pavement surfaces.
- MEDIAN LANE** A speed-change lane within the median to accommodate left-turning vehicles.
- NEEDS STUDY** Needs Studies, as the term applies to MDOT, means a method of determining future needs for trunklines, county roads and city streets as determined by traffic, its volume and characteristics.
- OVERLAY** A layer of concrete, bituminous or other approved material which is placed over existing pavements, shoulders or bridge decks for purposes of correcting surface deficiencies or upgrading to a higher surface quality.
- OVERPASS** A structure carrying a road over a railroad or another highway.
- PARALLEL ROUTES** Two routes serving the same area but never converging.
- PARKWAY** An arterial highway for noncommercial traffic (with full or partial control of access) and usually located within a park or a ribbon or park-like development.
- PATCHING** Mending, repairing; particularly pertains to mending the surface of the pavement and shoulder.
- PAVEMENT** That portion of a roadway having a constructed surface to facilitate vehicular traffic.
- PAVEMENT MARKINGS** All lines, patterns, words, colors or other devices, except signs or signals, set into the surface of, applied upon or attached to the pavement or curbing or to objects within or adjacent to the roadway, officially placed for the purpose of regulating, warning or guiding traffic.
- PULVERIZE** To break up pavement with a large hammer.
- RAILROAD GRADE CROSSING** The general area where a highway and a railroad cross at the same level, within which are included the railroad, roadway, and roadside facilities for traffic traversing that area.

GLOSSARY OF TRANSPORTATION TERMS

- RAMP** An inclined plane serving as a way between two different levels.
- REINFORCED CONCRETE** Concrete in which steel reinforcement is embedded so that the steel and concrete act together in resisting stress.
- RESURFACING** The renewal of the surface of a roadway.
- RIDE QUALITY** The degree of smoothness of the road surface.
- RIGHT-OF-WAY** The entire width between the boundary lines of every way publicly maintained when any part thereof is open to the use of the public for purposes of vehicular travel.
- ROAD AGENCY** MDOT, county road commission, city or village with jurisdiction and control over a highway, road or street. The agency receiving a portion of the Michigan Transportation Fund for the maintenance and operation of a specific facility.
- ROADSIDE** That portion of the right-of-way outside of the roadway.
- ROADWAY** That portion of the right-of-way required for construction, limited by the outside edges of slopes and including ditches, channels, and all structures pertaining to the work.
- RUBBLIZE** To break up pavement with vibrating equipment.
- RUT** A track or groove formed on the surface of a pavement by one or more wheels.
- SEAL COAT** A thin asphalt surface treatment used to waterproof and improve the texture of an asphalt wearing surface. Seal Coats may or may not be covered with aggregate.
- SEPARATION** A separation of highway and railroad or another highway grade by a structure and approaches.
- SHOULDERS** That portion of the road bed from the outside edges of the road metal to the inside edges of the ditch slopes or fill slopes.
- SKID PROOFING** Roughening or otherwise altering the pavement surface to increase the coefficient of friction between the tires and pavement to provide for safer stopping with reduced possibility of skidding.
- SLURRY SEAL** A seal coat consisting of a semifluid mixture of asphalt emulsion and fine aggregate.
- SPECIFICATIONS** All written or printed agreements and instructions pertaining to the method and manner of performing the work or the quantities and/or qualities of the materials to be furnished under the contract, including: Standard Specifications, Supplemental Specifications, and Special Provisions.
- SUBSTRUCTURE** All of that part of a structure below the bridge seats or below the skew backs of arches, including back walls, wing walls, and wing protection railings except back walls designed integrally with the superstructure.
- SUPER ELEVATION** The rise of the outer edge over the inner edge of the road surface at curves, expressed in feet per foot, for the purpose of counter-acting centrifugal force.
- SUPERSTRUCTURE** All of that part of a structure not classified as substructure, includes the bridge deck and beams.

GLOSSARY OF TRANSPORTATION TERMS

SUSPENSION BRIDGE A bridge that has its roadway suspended from two or more cables usually passing over towers and securely anchored at the ends.

TRAFFIC CONTROL DEVICE Any sign, signal, marking or other device placed or erected under public authority for the purpose of regulating, warning or guiding traffic.

TRAFFIC MARKINGS See *pavement markings*.

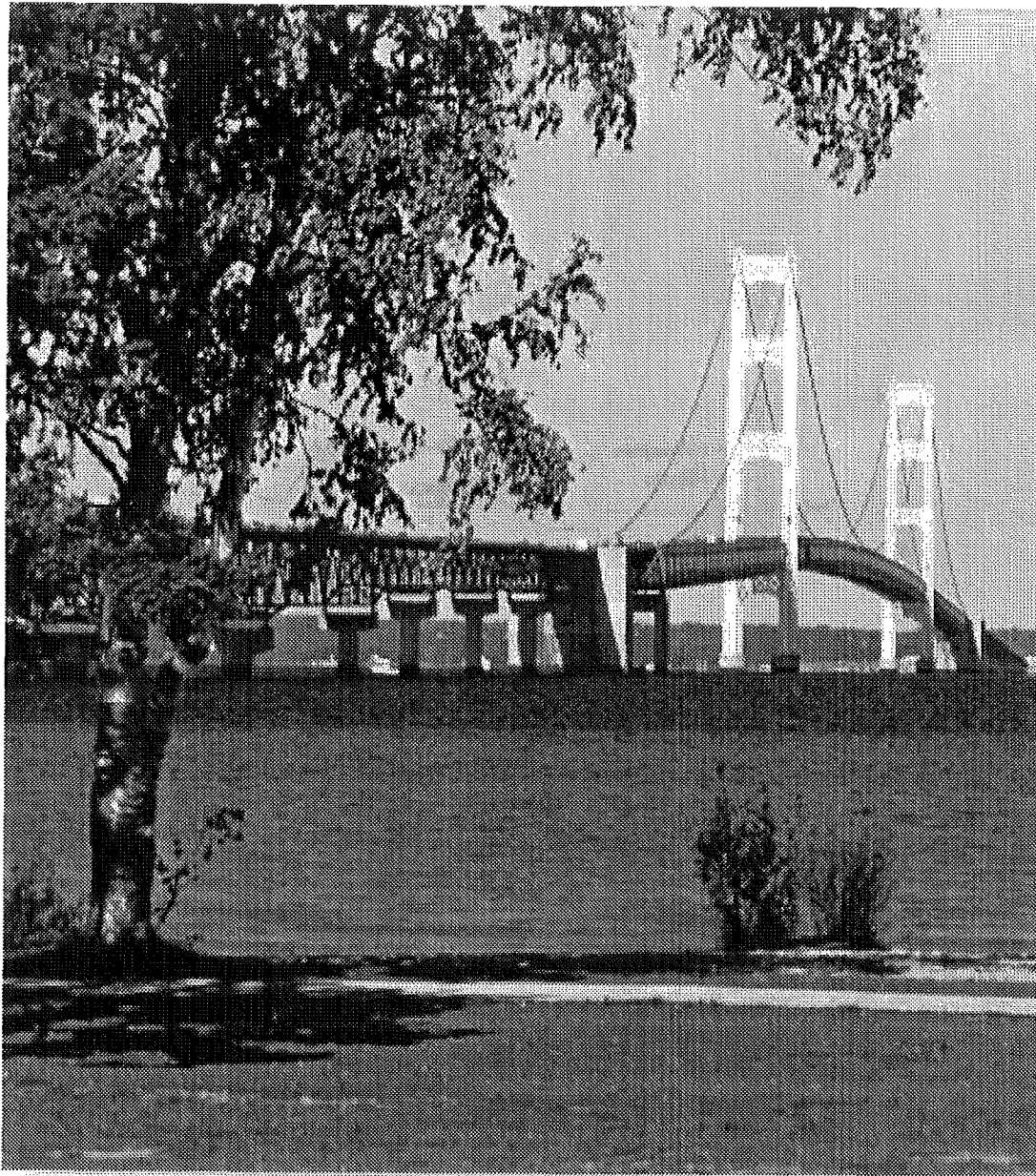
TRUNKLINE Term used to identify portions of the state-operated highway system, including definitions of the entire system, such as the State Trunkline Highway System.


UNDERPASS An opening under a railroad or other highway through which a highway or street may pass.

URBAN AREA That area contiguous to a section of trunkline in which urban conditions exist or that is legally defined as a business or residential area generally within city limits.

WETLANDS Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adopted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.

Y-INTERSECTION A three-leg intersection in the general form of a "Y."



 **MDOT**
OFFICE OF COMMUNICATIONS
P.O. BOX 30050
LANSING MI 48909

517-373-2160 ■ FAX 517-373-8518 ■ www.mdot.state.mi.us