Michiganite

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Michiganite

Winter, 1992 VOLUME XXVI, NUMBER 4

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PRESIDENT'S COLUMN

FROM THE DESK OF .....

Michael Labadie

A QUESTION OF CREDIBILITY?

As I understand it, the Governor's "Build Michigan" program essentially ensures that all federal funds available for Michigan will have the appropriate match. I have also learned that the amount of the match equates to approximately three cents per gallon gasoline tax increase. Most road agencies say they need the equivalent of a six cents per gallon gasoline tax increase, but are politically thankful for any increase in funding. Why is this amount (six cents per gallon) not forthcoming? Why is the Governor's plan not permanent? Why is it not obvious that so many of Michigan's roads and bridges are suffering from lack of maintenance, age or congestion problems and that the amount of funding planned is inadequate? Politics. That is what most of us believe. We just cannot understand why, with gasoline prices so low, six cents per gallon is so difficult to come by. True, politics (and perhaps a weakened economy) is the reason, but I believe that we have played a major role in the decision making that currently is taking place. Credibility, or the lack of it, in the private and public sectors of our profession is a problem that continues to fester.

The issues that are involved are too numerous to discuss in detail here; however, I would like to point out a few that come to mind for the private and public sectors:

Private Sector Credibility Issues

- Unqualified personnel performing engineering studies, preparing design plans, etc.
- Representing a client's position even if it is contrary to accepted engineering practice.
- Claiming to be an expert in the field of transportation engineering when all you really have is a membership in ITE.

Public Sector Credibility Issues

- Unqualified personnel performing engineering studies, preparing design plans, etc.
- Failure to treat the public, elected officials, businesses, developers, etc. in a way consistent with a "service" organization.
- Failure to take appropriate efficiency measures to ensure that the service continues to be provided.

If I am correct about any of the above, it's no wonder that we do not have a tidal wave of support for our cause. With the considerable amount of monies available to our profession through the Intermodal Surface Transportation Efficiency Act of 1991, transportation activities of all types will be increasing. We should take steps to ensure the qualifications of our professionals through appropriate licensing, certification, experience, etc. Additionally, we should more carefully scrutinize new members (and perhaps existing members). Finally, remember that all of us are expendable and that we perform a service to the public which is requiring more accountability of us.

New Officers and Outgoing President; (from L to R) Bill Hartwig, Director; Sam Lawson, VP; Ken Tsuchiyama, Outgoing President; Mike Labadie, President; Dave Allyn, Secretary; Joe Meszaros, Treasurer.

MICHIGANITE

Official Publication of the
MICHIGAN SECTION
Institute of Transportation Engineers

1992 EXECUTIVE BOARD

TREASURER'S REPORT

1. INCOME *(since Dec. 11, 1991 Report)*	
Dues	$2,419.00
Interest	96.30
November Meeting	- 15.00
December Meeting	66.00
February Meeting	1,237.00
Adjustment to Income	- 7.98
Other Income	97.23
Total Income	**$3,892.55**
2. EXPENSES *(since Dec. 11, 1991 Report)*	
Postage and printing	225.61
Michiganite	700.00
Feb. Meals, etc.	1,029.39
Total Expenses	**$1,955.00**
Balance as of Dec. 11, 1991	$2,659.67
Balance as of March 13, 1992	$4,597.22
EDUCATION FUND	
Balance as of Dec. 11, 1991	$3,280.00
Contributions	$ 537.00
Balance as of March 13, 1992	$3,817.00
Incident Management Fund Balance (from Nov. Conf)	$ 4,583.65

Respectfully Submitted,
Joseph Meszaros, Treasurer, Michigan Section ITE

1992 COMMITTEE CHAIRPERSONS

Technical Program: Ken Johnson	517/373-9570
Nominating: Ken Tsuchiyama	616/966-3343
Hospitality: Jerry Carrier	313/477-8700
Herb Henry	313/721-4040
Technical Projects:	TBA
Membership: Adiele Nwanko	313/961-4256
Legislative: Matt DeLong	517/373-2110
Public Relations: Mort Fenner	517/335-2977
Program: Samuel Lawson	313/833-7294
Awards: David Bacon	313/477-8700
Student Chapters: Bill Savage	517/482-0854
Michiganite Editor: Michael Kobran	313/695-8942
Assistant Editors: Robert Lariviere	517/373-4923
B.D. Agrawal	517/335-2997
Second Past President: Roger Walther	517/752-6140
ITE U.S. Legislative: Thomas Krycinski	517/373-6287

MICHIGANITE is published quarterly by the Michigan Section of the Institute of Transportation Engineers. It is distributed to more than 300 ITE members and over 100 cities and counties in Michigan. Address communications regarding the Michiganite to the Editor, Michael F. Kobran, 1312 Kings Coach Circle, Grand Blanc, Michigan 48439; 313/695-8942.
Send change of address to: Barton-Aschman Associates, 26261 Evergreen, Suite 480, Southfield, Michigan 48076-4480.

MSU CIVIL ENGINEERING STUDENTS ATTEND TRB ANNUAL MEETING IN WASHINGTON, DC

By William F. Savage, Chapter Advisor

Dr. Tom Maleck was quoted in a Michigan State University publication recently as saying "There is no doubt in my mind that these trips have had a major positive impact upon our national reputation. Walking through the conference hotel lobby with forty students gets noticed. Our students are expected to dress and act properly, stay atop of their studies and attend as many sessions as possible."

This year's Transportation Research Board meeting from January 12-16, 1992 was led by Tom Maleck and I. Last year we had 38 students; our number has been increasing every year. Once again, the MSU delegation was the largest student group at the meeting by far!

The trip wouldn't be possible, however, except for people who donated $1,350 toward the trip. This made it possible for each student to pay only $70 for room, transportation and registration. This meant that all interested students could afford to attend the meeting.

Attending the meeting this year was:

Roslyn VanGuilder	Lori Heron
Kim Lillibridge	Tariq Mahmood
Danielle Denault	Debbie Hornbeck
Kathy Jorgensen	Shamshad Khan
Marie Pullins	Beth Gmerk
Julie VanDenbosche	Hamid Mukhtar
Mohammed Saif	Chad Gamble
Brad Wieferich	Steve Galindo
Robert Pratt	Brent Schriner
Fred Nazar	Eric Tripi
Sam Castranovo	Aris Drakopolis
Gary Poitrowicz	Mike Walsh
Gil Mosseri	Chris Howard
Michael Smith	Matt Brown
Khaled Al-Sahili	Jungtaek Lee
Chronis Stamatiadis	Brad Snyder
Jeff Brown	Thomas Nelson
John Walz	Ken Kucel
Roger Marks	Ramez Butros
John Lacina	Martin Kane - Student Chapter President

Thank you to all the Michigan Section ITE members who donated to the education fund, and to the following contributors:

Jerry Carrier of Carrier & Gable, Inc.
Herb Henry of Unistrut Corporation
Ed Swanson of Ed Swanson & Associates
Jim Livingston of National Sign and Signal
Dr. Bill Taylor of MSU
Dr. Don Smith of MSU
Sam Castranovo of MDOT
Ken Tiffany of MDOT

In case you have not yet made a voluntary contribution to the Education Fund, another opportunity is provided below.

The group got to the Days Inn Hotel on Sunday night, January 12th and all registered for the conference that night. By Monday morning each member was ready to attend the session of his/her choice. The highlights, besides the many good technical sessions, were the ITE reception on Tuesday night and the Annual Tom and Bill Pizza Party on Wednesday night (when everyone is broke). The group got back to East Lansing Thursday night, tired but happy.

It may also be of interest that, at the March Section Board Meeting, the recommendations of the Education Committee to charge students only $5 to attend any section technical session (including the meal) and to award a $500 scholarship for the 1992-1993 academic year, was unanimously approved.

YES! I want to contribute $___ to the ITE Michigan Section Education Fund to help attract students to the Transportation Engineering profession.

Name: _____

Address: _____

Send to: Joseph Meszaros, Traffic & Safety Division
Michigan Department of Transportation
P.O. Box 30050
Lansing, MI 48909

HIGHWAY SAFETY PROGRAMS OFFERED BY OHSP

By Thomas R. Krycinski, P.E.
Chief Deputy Director, OHSP

The Michigan Office of Highway Safety Planning (OHSP) is currently offering several highway safety programs to local engineering agencies in Michigan. Following is a description for each:

Risk Management Training

A two-tiered program offered through Wayne State University (WSU) and Michigan State University (MSU) directly in the community requesting it. WSU is providing the first course aimed at agency policy makers and takes one to two hours. MSU is providing the second aimed at road supervisors and employees which takes four hours. A risk management notebook is provided and the intent of the training is to put highway safety considerations into the management process. Contact Dr. Tapan Datta of WSU at 313/577-3803 or James Neve of WSU at 517/353-1790.

Risk Management Follow-up Assistance

Two follow-up programs are being provided to local communities once they commit to adopting a risk management program. The first is conducted by MSU to familiarize agencies with the processes necessary to implement risk management. The second is in the form of hands-on assistance from WSU to begin the actual processes involved. Contact the same two individuals names above for information.

Basic Traffic Engineering Training

The program is available through MSU and provides basic traffic engineering training aimed at non-engineering staff who must handle traffic engineering duties in line with their job responsibilities. The program takes 10 days to complete and is offered one day a week for ten weeks. It is offered at various locations across the state. Contact James Neve for more information.

Advanced Traffic Engineering Training

This program is available through WSU and provides specialized training tailored to a community's requested needs. Once a community specifies the training needed, WSU designs it and brings it directly into the community. Contact Dr. Tapan Datta.

Traffic Engineering Assistance to Local Communities

This assistance is available through the Michigan Department of Transportation (MDOT) and the Southeastern Michigan Council of Governments (SEMCOG). If a community has need for such assistance as an analysis of high-crash sites, they may contact Kurt Kunde of MDOT at 517/335-2993 for the out-state areas or Adiele Nwanki of SEMCOG at 313-961-4266 for Wayne, Oakland, St. Clair, Monroe, Washtenaw, Livingston and Macomb counties.

All of these programs are provided at no cost to local units of government because they are funded with federal highway safety funds. Additionally OHSP is working with Michigan Technological University (MTU) and MDOT on the development of a crash data assistance program through MTU's Transportation Technology Transfer Center. The program, expected to be available May 1, 1992, will make traffic crash data directly accessible to local communities from the Michigan State Police traffic crash data base.

OHSP also continues to host a Traffic Engineering/Enforcement Coordinating Committee (TEECC) which meets four times a year at the OHSP offices. The current chair is Robert Carroll of the Kalamazoo County Road Commission, vice-chair is William Lebel of MDOT and the secretary is Gary Holben of OHSP. Membership consists of representatives from the County Road Association, the Municipal League, the Michigan Sheriffs' Association, the Michigan Association of Chiefs of Police, the Traffic Improvement Association of Oakland County, the Traffic Safety Association of Michigan , SEMCOG, MSU, WSU, MTU, the Michigan Section of ITE, the International Municipal Signal Association, private traffic engineering consultants, the Federal Highway Administration, MDOT, Michigan State Police, and OHSP. The intent of the committee is to provide coordination to traffic engineering activities effecting highway safety, gain "grass roots" input into the highway safety planning process, and provide appropriate feedback to the committee on highway safety activities in Michigan. Representatives are expected to provide feedback to the agencies they represent.

POSITION AVAILABLE

ELECTRICAL ENGINEER/ TRAFFIC ENGINEER

The Road Commission for Oakland County has an immediate opening for the position of Electrical Engineer. This position requires a Bachelor's Degree in Electrical Engineering, Electronic Engineering, or Traffic Engineering with three to five years of progressively more responsible experience. It is essential to have a thorough knowledge of traffic signals, electrical overhead, and underground construction procedures along with good human relations, communication and writing skills.

The salary range is from $38,629-$43,910, plus a full benefits package. Send resume to:

Road Commission for Oakland County
Personnel Department
31001 Lahser Road
Beverly Hills, MI 48025
Attn: Sherman Beeler

The Road Commission for Oakland County is an equal opportunity employer.

Michigan Section - Institute of Transportation Engineers 1992 Meeting Schedule

DATE	LOCATION	HOST	COMMENTS
May 21	Bogie Lake G.C.	R. Walther and others	Benefit Golf Tournament
July 2	East Lansing	Tom Maleck	Dinner/Technical Session
August 9-12	Washington D.C.	International ITE	Annual Meeting
Sept. 10	Saskatoon, Alto	Gere Meredith	Golf/Dinner
Nov.	Indianapolis, IN	Indiana Section	District III Annual Meeting
Nov. 5	Battle Creek	Max Phares/John Start	Lunch/Technical Session
Dec. 10	Metro Detroit	Open	Lunch/Technical Session and Section Annual Meeting

Michigan Section - International Municipal Signal Association

DATE	LOCATION	HOST	COMMENTS
April 23	Grand Rapids	Ron Dressander/Lowell Baker	Technical Meeting
June 4	Lansing	Norm Hettinger/Dean Derks	Technical Meeting
July 17-19	Mt. Pleasant	Board of Directors	Family Weekend
August 1-8	Cherry Hill, NJ		International Meeting
Aug. 15	Coldwater		Board Meeting
Oct. 6-9	Cadillac	Fall Conference	Vendor Demonstration and Signal Certification
Dec. 3	Ann Arbor	Art Cuendet Gary Fitzgerald Herb Henry	Annual Meeting

BENEFIT GOLF TOURNAMENT ANNOUNCED; MICHIGAN SECTION ITE

The first biannual golf tournament of the Michigan Section of ITE will be held on May 21, 1992 at the Bogie Lake Golf Club in northwestern Oakland County. The tournament will be a four person scramble and is open to both members and guests. The proceeds of the tournament will go to the section educational fund for:

- Providing free attendance at Section meetings for student members.
- Providing awards for student paper competitions.
- Providing assistance for defraying student costs to attend ITE or TRB national meetings.
- Providing a student scholarship fund.

ite
Educational Fund

The cost of $47.50 includes 18 holes of golf and a cart, lunch at the turn, dinner, prizes and awards, and a donation to the educational fund. The committee members are: Jerry Carrier, Dan Carrier, Herb Henry, Joe Marson, Tim DeWitt, Bill Savage, Don Wiertella, Vicki Holland, Lyle Nustad, Roger Walther, Chairman.

Widespread support is anticipated for what promises to be a fun-filled and beneficial event. The golf tournament will be repeated in even-numbered years with the Vendor's Show scheduled for the odd-numbered years.

ANNUAL MEETING IN NOVI

by Mike Kobran

The Annual Meeting and Technical Session of Michigan Section of ITE was held December 5, 1991 in Novi at the Sheraton Oaks Hotel. The hosts were Joe Marson of Barton-Aschman Associates and Kevin McCarthy and James Cubera of the City of Farmington Hills. A snowy morning did not prevent a fairly good turnout for what proved to be an informative meeting. The following is a brief summary of the presentations:

Adams Road Corridor Study

Steve Dearing, Traffic Engineer for the City of Rochester Hills, stated the purpose of the corridor study was to modify the Rochester Hills master thoroughfare plan which had been first done in 1974 and revised in 1984 and 1986. There were several constraints imposed by a citizens' study advisory committee as follows:

- No six-lane roads in the city.
- Acceptance of daily congestion.
- Diversion of through traffic movements.
- Identification of priority projects.
- Use of demand management and alternative modes.

The committee designed certain roads, including Adams, as those that could not be changed because of environmental sensitivity. The committee finally got to the point of understanding that the lack of improvements on main roads was a primary cause of cut-through traffic. They also blamed the City of Auburn Hills for the traffic problems in Rochester Hills and decided they would not widen Adams Road but would solve their problem by having Auburn Hills widen Squirrel Road.

An estimate by the consultant of $80-100,000 to do this study was decided to be too expensive and the Mayor decided the city staff could do it in 3 months for $10,000. The work was to justify a planning decision to improve Adams to a boulevard cross-section on a 120 ft. wide right-of-way. The staff decided to use safety as a study focus since sections of Adams Road showed higher than average accident rates.

The right-of-way required the acquisition of 17 parcels of which two or three belonged to Oakland University. The project cost was estimated to be $20 million for widening 4 miles of Adams Road exclusive of property acquisition costs. There was an estimated cost premium of 40% for the boulevard cross-section. Also driving up the costs were two river crossings and an excess of earthwork because of the rolling terrain. The city council was shocked at the cost estimate. Mr. Dearing commented that two items seemed to cause confusion when presented to the citizens and the council. They were the concept of design speed and the use of distorted vertical scale for the cross-sections. The latter seemed to indicate massive cuts and fills.

The end result was that Adams Road, previously considered untouchable, was added to the master plan of thoroughfares as a four-lane artery. Now the challenge is to find the funds to build it.

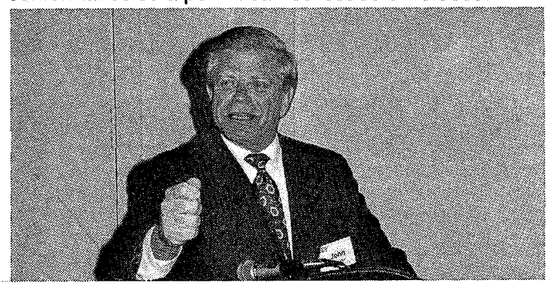
Air Quality Analysis for Southeast Michigan

Chuck Hersey, Environmental Planner for the Southeast Michigan Council of Governments (SEMCOG) explained what the new Clear Air Act will mean to Southeast Michigan which is a moderate non-attainment area for ozone. The goal is a 15% reduction in hydrocarbon emissions from mobile and industrial sources for the time period from 1990-1996. There are two trends that are making this a problem. First is the increased vehicular miles of travel (VMT) leading to more emissions even as the vehicles continue to improve their emissions (a trend which has started to flatten) and the second is the increased amount of travel on congested roads leading to more time traveled for the same trip, more congestion, and more emissions.

The possible sources of mobile source emission control are: vehicles (improved emissions), auto emissions testing, alternate fuels, high occupancy vehicles, parking costs, improved signal timing, management of VMT through ride share, transit, work-at-home.

The new law requires penalties for failure to make a submittal of the State Implementation Plan (SIP), EPA disapproval of the plan, or failure to implement an approved plan. The penalties include withholding federal highway aid and bumping up the requirements of the existing classification. For example, southeast Michigan, which is classified a moderate non-attainment area for ozone with resultant achievements expected, could be moved up to severe, serious, or extreme with consequently more ambitious achievements in reduction expected.

The basic policy issue confronting the region is whether to focus on industry or the individual for the required reductions. Also, with a conformity procedure required by November, 1993, SEMCOG must decide how a road or development project is to be determined in conformance or non-conformance so a permit can be issued or refused.



John Grubba, Managing Director, Road Commission for Oakland County.

IVHS-Oakland County

John Grubba, Managing Director of the Road Commission for Oakland County, started by stating that in the decade of 1990-2000, Oakland County had $1.09 billion in road needs. Since this amount of new construction is not financially feasible, alternative ways have to be found to meet the travel demands that will be placed on the roadway system of the county. Oakland County has decided to place $2 million in seed money to see whether the automated traffic monitoring system (ATMS) and automated travel information system (ATIS), elements of what are usually considered to be Intelligent Vehicle Highway Systems (IVHS), can make a dent in the problem.

The response to and clearance of an incident is managed so as to preserve and protect human life, maintain a reasonable level of safety for all participants, fulfill legislative requirements, minimize delay to the traveling public and minimize property damage. Successful management is facilitated by inter-agency coordination, education, and on-site personnel. The District Traffic Operations Centre is the focus of all the freeway management activities since it receives all COMPASS information as well as all road condition, construction, and maintenance activity reports and is open 24 hours a day, 365 days a year.

Clearance is aided by an emergency road patrol service which patrols a regular route and can also be dispatched. These half-ton pickups are equipped with push bumpers, gasoline, water, booster cables, fire extinguishers, simple tools, traffic cones, and a lighted arrow board. Private towing vehicles also have access to the freeway and a voluntary 24-hour dispatch service has been organized. Dedicated on-call service is used by the Ministry in certain areas such as constricted construction zones. The Ontario Provincial Police (O.P.P.) are also active in incident management with cruisers equipped with push bumpers and arrow boards. A police constable is stationed in the operations center to coordinate with O.P.P. dispatchers and provide police authorization in certain situations.

The COMPASS system uses 13 changeable message signs at strategic diversion points to advise motorists. The signs display three lines of text using low maintenance light emitting diode displays. The central computer recommends a specific set of signs and messages based on the location and nature of the incident. An operator reviews and approves the response plan before the messages are sent out to the signs. For incidents of prolonged duration, it is possible to deploy portable changeable message signs. The operations center staff also operates a traffic and road information system which has incident information enters into a database and automatically faxed to the media on a regular and emergency basis.

A study done for the Ministry of Transportation estimates that delay related to non-recurring congestion can be reduced by up to 75% by a freeway management system with an effective incident management response. The benefits of this are a savings in time, money, and reduction in accident potential, driver frustration, pollution emissions, and gasoline consumption. COMPASS has also served as a catalyst to focus attention on incident management and motorist advisory activities. Future plans for the system include the following:

- Enhancement of changeable message sign system to include general congestion information and graphics.

- Extension of the system over most of the Greater Toronto freeway network.

- Use of Highway Advisory Radio in the new upper portion of the AM band.

- A pilot project for cellular telephone users.

Kurt Kunde, of Michigan DOT's Traffic and Safety Division, presented a paper at the forum on the use of pre-planned detours as an element of incident management. He described predetermined traffic management plans to accommodate traffic during random roadway closing incidents. The effort was designed to be integrated with other elements of incident management and involves local teams to identify needs and resources for the development of documented action plans, including interagency communications to effect such detours.

MDOT's first such plan has been in operation since 1979 and covers 100 miles of I-75 in Genesee through Arenac Counties. Another plan covers about 125 miles of I-94 in Berrien through Calhoun Counties. The latest effort involves US-31 from M-45 to I-96 in Ottawa and Muskegon Counties. In the case of I-75, detour sign kits are retained at the State Police posts and are installed by the police as pre-planned. On I-94, the pre-planned detour routes are designated by permanently installed "Emergency" and "To" supplemented route signing. The signing strategy for US-31 involves pre-installed, manually operated changeable message signs.

LAWSON NAMED TO ITE FUTURE DIRECTIONS COMMITTEE

Samuel C. Lawson, Jr., Detroit's City Transportation Engineer and current ITE Michigan Section Vice President, has been named by Alan T. Gonseth, ITE International President to serve on a special ad-hoc advisory committee to address the future directions of ITE. Lawson is one of fifteen members nationwide asked to serve on the committee. The committee will meet in early April and complete its work before the August, 1992 Annual Meeting in Washington, DC.

The ad-hoc advisory committee will be asked to respond to the following questions:

- How will the transportation profession change as a result of the growing international trend to make transportation decisions in the context of a broader framework of social issues including environmental concerns, momentum toward a global economy, and the recently enacted ISTEA?

- To what extent will "non-traditional" ITE disciplines be providing input to transportation decisions and what disciplines will be emerging in that context?

- What opportunities do these changes offer the Institute and its membership?

- What organizational or programmatic changes are necessary to assure that the Institute stays relevant in these changing times?

GREATER DETROIT INCIDENT MANAGEMENT FORUM

On November 13, 1991, the Michigan Section of ITE co-sponsored an incident management forum at the Engineering Society of Detroit. Other sponsors were the Automobile Club of Michigan; the International Bridge, Tunnel and Turnpike Authority; the American Trucking Association; and the Michigan Office of Highway Safety Planning (through the Wayne County Traffic Safety Council). Somewhat under two hundred traffic management professionals attended the forum. The following themes emerged:

Pat Nowak, director of the Michigan Department of Transportation (MDOT), welcomed the group to Michigan and explained that broad-based cooperation is necessary for incident management planning and that the forum would be an opportunity to explain incident management to those who have had little exposure to it. The goal of the conference, according to Nowak, were to:

1) Create an awareness of incident management problems and needs.

2) Clearly define the basic elements of an effective, coordinated incident management program and to identify program elements already in place in Michigan.

3) To encourage participants to volunteer to become active in follow-up activities.

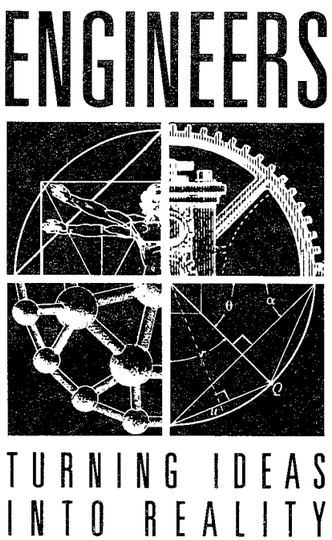
Director Nowak pointed out that, in the Detroit area alone, more than 4,000 lane-blocking incidents were reported the previous year just during daylight hours on weekdays. It is estimated that the total cost of congestion delays is over $1 billion per year in Greater Detroit. Accordingly, MDOT is developing an incident response plan that will be integrated into their comprehensive transportation management philosophy. This views the roadway, vehicle and driver as components of the total transportation system rather than autonomous systems within themselves. They will work to improve the removal of injured motorists and cleaning up accident sites. In addition they will work to include advanced technology to monitor roadway conditions and in-vehicle or roadside devices to deliver readily understood information to motorists.

Carlton C. Robinson, Executive Vice President of the Highway Users Federation, spoke on the importance of freeways to economic vitality. He pointed out that traffic congestion is a serious and growing problem and the freeway incident management is one way to reduce that congestion. He also said that some of the reason for the congestion was that the work force of 1990 in the United States was double the work force of 1956, when we began building the Interstate system. We also have twice as many households as back then and the gross national product is 2.5 times that of 1956, in constant dollars. In the same time period, we cut our annual expenditure needed to support that travel growth from 4.5 cents per vehicle-mile in 1960 to 3 cents per vehicle-mile in 1990, again in constant dollars.

Robinson also pointed out some interesting statistics in terms of urban areas by citing the figures for freeway lane-miles per capital. The leader is Kansas City, MO, followed by Atlanta, Dallas, St. Louis, and Cincinnati. Los Angeles, by contrast, is in the bottom 25% of large urban areas in this measurement. This is by way of saying to use Los Angeles as an example of why freeways don't work in urban areas is drawing the wrong conclusion. By looking at freeway use, in terms of freeway vehicle miles per capita per day, high density and transit-oriented cities such as New York City and San Francisco actually use freeways more than Phoenix or Los Angeles.

The Highway 401 COMPASS System was explained by Peter Korpal, Head of the Freeway Traffic Management Section of the Ontario Ministry of Transportation. He stated that approximately 50-60% of Toronto area congestion is due to incidents of which 85% are minor short-duration lane blockages or shoulder occurrences. COMPASS, one of three Toronto area freeway traffic management systems, went into operation in early 1991 and covers 16 kilometers (9.9 miles) of Highway 401 through Toronto's center. This freeway has a unique express/collector configuration with a minimum of 12 lanes. Many sections carry over 300,000 vehicles per day.

COMPASS employs three strategies; detection and confirmation, incident management, and motorist advisory. Detection is accomplished by the use of over 700 wire loop detectors embedded in the freeway pavement. Detector stations are located at intervals of approximately 500 meters (0.3 miles) and transmit data back to a district traffic operations center. The center's computer constantly analyzes the data to detect incidents. The goal is to detect a lane blockage within three minutes of occurrence. An operator is alerted of a suspected incident and confirms it through a closed circuit television camera. These cameras are placed at 100 meter intervals (0.6 miles) with pan, tilt, and zoom capabilities. Once an incident is confirmed, an appropriate response plan is brought into play.



A pilot project has been set up in Troy consisting of 28 intersections along Big Beaver and Rochester Roads. The intersections will be set up with Autoscope advanced traffic sensors and SCATS control software in the system computer. The Autoscope beam, located on a pole above the intersection, counts the vehicles and determines vehicle speed, sending the information to the central computer that then adjusts the traffic signal system depending on the traffic flow at the time. This network is called the Advanced Traffic Management System and the control software, which is a third generation product, interprets the video images, sets signal timing according to real time demand, coordinates all the signals on the system, and provides system diagnostics.

The second part of the project is the ALI-SCOUT system which will consist of two-way infrared communication between beacons placed at major intersections and devices installed initially on a few thousand cars owned by the County, the City of Troy, and such cooperating business as General Motors and Siemens AG, the producer of the infrared devices. The devices in the cars will supply the system with travel and queuing times and the system will provide the driver, through a digitized map in the vehicle, a dynamic route recommendation. The on-board computer will have units for position, navigation, travel time, and destination memory. A major effort will be needed to integrate the two systems, traffic signal control and dynamic routing.

Mr. Grubba said that Congress had appropriated $10 million in the 1991 Surface Transportation Efficiency Act to assist in the project. He believes the technological spin-off from the project will be important and that the U.S. must move ahead quickly to counter the Japanese and European head start in IVHS. He agreed that a training component for system technicians is important to the success of this strategy and said that USDOT is interested in getting some cost/benefit research on this strategy.

Access Control/
Trip Generation Study

Dave Geiger, staff member of the Project and Plan Development /Division of MDOT's Bureau of Transportation Planning described a three-year Federal Highway Administration grant for trip generation and access management study. The trip generation element started with the establishment of a committee consisting of developers and local officials. They are to decide what types of generators to evaluate; the urban locations to study (with concern for size of development compared to the size of the urban area); and how to factor in arterial volumes and pass-by traffic.

Dave Geiger, MDOT Transportation Planning

The access management element will look at the driveway permit process by reviewing the programs in other states; determining the role of roadway function; consider methods of limiting access; the justification required for access; and the legal changes that would be necessary to implement the recommendations.

Site Impact Analysis

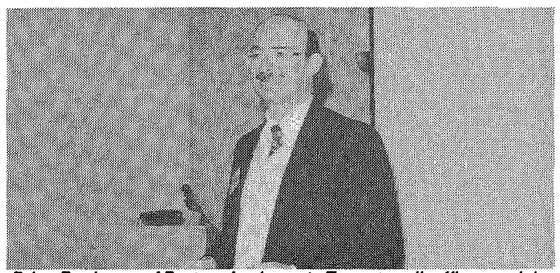
Brian Bochner, Executive Vice-President of Barton-Aschman Associates in Evanston, IL and the Vice Chairperson of the International ITE Technical Council, reviewed for the audience the guidelines for transportation site impact studies. He said the purpose of such studies was as follows;

- provide consistency
- ensure issues are addressed
- provide review guidance
- promote understanding

There are various issues to be considered. Will the site accommodate the proposed development? Will additional transportation improvements be necessary? What is to be the site access? How will improvements be funded? Will there be travel demand management requirements? An advisory committee is recommended as these issues are discussed.

There will be benefits to the community by, for example, pointing out the implications for zoning, assessment of transportation system deficiencies, and prediction of impacts. It will also help the community to keep their plans current and focus on other transportation issues that have to be addressed.

ITE has come up with some warrants for when site impact studies are needed; when volumes in the peak hour direction exceed 100 additional vehicles; or because of local problems, neighborhood sensitivity, driveway locations, or safety reasons. Mr. Bochner suggested that the requirements for the preparers and reviewers include experience in operations, planning, and safety aspects. He described the process as consisting of warrant, issues, criteria, methodology, interim review, reasonable acceptable conclusion, and staff recommendation.



Brian Bochner, of Barton-Aschman's Evanston, IL office, explains transportation site impact studies.

Revised Traffic Crash Report Form UD-10

Tom Krycinski, Chief Deputy Director of the Office of Highway Safety Planning in the Department of State Police, told the audience that there were approximately 380,000 total traffic crashes in Michigan each year of which 25% were injury crashes. The UD-10 traffic crash report form was 20 years old and had several problems. It was confusing, not machine-scannable, has items that are no longer needed, and is missing items that are needed. All this led to the development of the revised form which was the subject of a separate article in the last issue of the *Michiganite.*

NEW MEMBERS:
Michigan Section I.T.E.

by Mike Kobran

Four new members and two student members were approved at the February 1992 Michigan Section I.T.E. Board meeting following a review of their applications. One new member and one new technical affiliate were similarly approved at the March board meeting. Some information about the new members is listed below as an introduction to the rest of the membership:

Hani Dickow is a graduate of Wayne State University in Civil Engineering. He is a Senior Associate Traffic Engineer for the Detroit Department of Transportation and lives in Detroit. Hani is a registered P.E. in Michigan.

Michael Jones is a Traffic Engineer for the Ottawa County Road Commission in Grand Haven. Michael is a graduate of Michigan State University and Yale University and lives in Grand Rapids. He is also a member of the International I.T.E.

Mohsen Katibai is a Traffic Engineer with the Wayne County Office of Public Services, Roads Department. Mohsen lives in Westland.

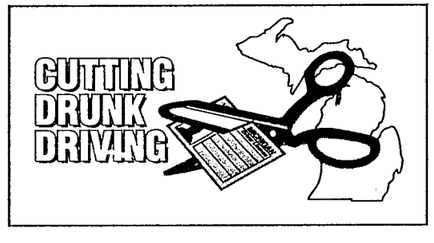
Beth London, a Technical Affiliate, is a Principal Traffic Engineer with the City of Lansing Transportation Division. Beth is a graduate of the University of Michigan and lives in Lansing.

Guillaume (Bill) Schins is a Project Development Engineer with the Local Services Div. of the Michigan Department of Transportation in Lansing. Bill lives in Okemos and is a graduate of the Collegè of Engineering in Heerlen, the Netherlands. He is a registered P.E. in Michigan.

Bob Metko is an Associate Engineer with Barton-Aschman Associates, Inc. of Michigan in their Southfield office. He is a graduate of Penn State University, lives in Wixom and is a member of the International I.T.E.

The following are new student members from Michigan State University: **Kathryn Jergensen; Stephen Galindo.**

Welcome to I.T.E. and may your profession and your careers benefit!



CHANGES ANNOUNCED AT MDOT

Thanks to Joe Meszaros for news of the following appointments at MDOT that should be of interest to Michigan Section members:

Bob Maki has been named Engineer of Traffic and Safety, His division will also include the former Transportation Systems Division which he headed prior to this change.

Larry Brown has been named District Engineer for the Grand Rapids area.

Kunwar Rejenda has been named the Metro District Traffic and Safety Engineer.

Robert Briere has been named the Kalamazoo District Traffic and Safety Engineer.

Rise Risch has been named the Grand Rapids District Traffic and Safety Engineer.

Terry Anderson has been named the Jackson District Operations Engineer.

MICHIGAN SECTION VOLUNTARY FUND DONORS AS OF
February, 1992

The ITE Michigan Section Voluntary Fund was created by the Section Board for the purposes of:

* Providing free attendance at Section meetings for student members.
* Providing awards for student paper competition.
* Providing assistance for defraying student costs to attend ITE or TRB national meetings.
* Providing a student scholarship fund.

The following members have contributed for 1992 to date:

B. D. Agrawal, Dave Allyn, Terry Anderson, Leo L. Arens, Rodney L. Arroyo, Robert A. Briere, Ross Bremer, Larry R. Brown, Judd Doyle, Robert L. Durgin, John Fody, Dwight A. Hornbeck, Sunny Jacob, Harold Jentzen, Brett Kach, Michael Kobran, Linia P. Kostyniuk, Michael Labadie, Samuel Lawson, Jr., Robert Maki, Tom Maleck, Joseph A. Marson, Don Mercer, David A. Merchant, David A. Morena, James P. Neve, Kenneth J. O'Berry, Tom Rathbun, Patricia Schaefer, Rise Risch, Roger Walther.