

The Institute of Transportation Engineers, to Recognize Distinguished Achievement In Transportation Engineering By Its Younger Members, Is Accepting Technical Papers For Its Annual

Past Presidents' Award Competition

Deadline: April 30, 1979

Eligibility Requirements: Any nonstudent member of the Institute who has not reached his or her 35th birthday by the closing date of the competition is eligible. A candidate must have conducted or been a principal participant in an original study or project in the field of transportation and traffic engineering. The study or project a) must have been completed within two years of the closing date for the competition; b) may have been financed with public or private funds, by contract or not; c) may have been previously reported to another group or publicized in other media; and d) may be an expansion or revision of a paper that has been previously submitted to the Institute in the Past Presidents' Award competition.

Manuscript Requirements: The manuscript describing the study or project shall be a) typewritten, double-spaced on

paper approximately 8 1/2" x 11"; six legible copies shall be submitted; b) not more than 5,000 words in length; c) accompanied by an abstract of not more than 300 words; and d) shall have attached to all copies a statement clearly indicating the candidate's relationship to the study or project in terms of design, conduct of the work, analysis of data and authorship of the report. The copies should be sent to: Past Presidents' Award, 1979, Institute of Transportation Engineers, Box 9234, Arlington, Va. 22209 and must be post-marked no later than April 30, 1979.

The award winner will be invited to the Institute's 49th Annual Meeting in Toronto, Canada, September 23-27, 1979 to receive a specially designed and inscribed plaque. Expenses will be reimbursed up to \$400. The award-winning paper may be published in one or more ITE publications.

(Continued from page 9)

for ITE than most other technical societies.

The morning program on October 6 began with Dave Gibson from the Federal Highway Administration Washington Office describing the *Caltrans 170 Intersection Controller*. He noted that this minicomputer, which meets Caltrans specifications, is likely to become the standard California intersection controller. This presentation provided a logical introduction to the panel which followed on *The Future of Intersection Controllers*. This panel included Dave Gibson from Federal Highway Administration, Dave Haver from Crouse - Hinds, Al Reinehr from Automatic Signal, Bob Budd from Eagle Signal and a representative from Honeywell.

Following this discussion, George Swede from the Southeastern Michigan Transportation Authority described the *Pitfalls in Expanding Your Local Transit System*. One problem facing regional transit authorities is that they have so many different publics to please. Local governments have one set of concerns, various citizen groups have other concerns, and the federal government has requirements which may change during the course of planning for implementation of a large project.

The technical session adjourned at noon, October 6, to allow out-of-state visitors to return home. General comments on the program were quite favorable.

Richard F. Beaubien, P.E.
District III Technical Chairman

(Continued from page one)

A session planned for Calvin College beginning early in February was cancelled due to unforeseen circumstances.

Persons who had planned to attend are welcome to enroll in the March session at Michigan State University.

The course is funded by the Michigan Office of Highway Safety Planning and the United States Department of Transportation, Federal Highway Administration. There is no charge for tuition or luncheons.

Registration forms may be obtained by writing Traffic Engineering Short Course, Highway Traffic Safety Center, Kellogg Center for Continuing Education, Michigan State University, East Lansing, Michigan 48824.

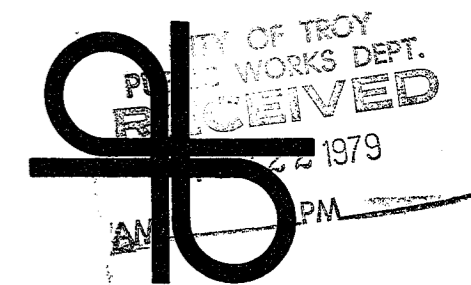
MICHIGANITE

OFFICIAL PUBLICATION

VOLUME 14 NUMBER 1 WINTER 1978

MICHIGAN SECTION

INSTITUTE OF TRANSPORTATION ENGINEERS



PRESIDENT'S COLUMN

It has been an honor to serve as President of the Michigan Section and a pleasure to work with the Executive Board in planning and administering Section activities during a year that was an especially good one for the Section. There was a substantial increase in membership - There were some excellent, well attended, technical sessions and dinner meetings - It did not rain at the golf outing - And for the first time in several years you didn't need a dog sled to get home from the Annual Meeting. The Committee on "Traffic Engineering on School Sites" brought honor and recognition to our Section by receiving the 1978 Section Technical Award at the Annual Meeting in Atlanta and the New Products Technical Session introduced this year was well received by the membership and participating firms.



MELVIN

I would like to take this opportunity to thank the Executive Board, Committee Chairmen and Committee Members for their assistance this year and on behalf of the entire membership, I extend our sincere appreciation to the Michiganite Editor and to the Commercial Affiliates that sponsored our social activities. Last, but certainly not least, a hearty "Thank You" to all the members that attended the meetings this year and a reminder to those that didn't to get it in gear next year and support the Michigan Section through meeting attendance.

I look forward to my last year on the Executive Board with anticipation of another exciting year. Plans are being made now for two District III Meetings and a full schedule of Section Meetings that will afford everyone an opportunity to meet old friends, make new friends, have some fun and continue your professional growth.

Gordon E. Melvin
1978 President

HIGHWAY SAFETY

SURFACE TRANSPORTATION FEDERAL AID ACT OF 1978

For the first time, Federal-aid highway, highway safety, and public transportation programs are covered in one comprehensive Act. Items of interest to traffic engineers in this Act are:

1. *Completion of Interstate System.* Beginning with FY 1980-I funds, no funds shall be made available for projects to expand or clear zones immediately adjacent to the paved roadway of routes designed prior to February, 1967.

(Continued on page 5)

NEW SERIES OF MSU

ENGINEERING SHORT COURSES

Michigan State University's Highway Traffic Safety Center, Lifelong Education Programs is offering a consolidated and completely updated short course for city and county officials who encounter traffic engineering problems as part of their duties, in early 1979.

The Traffic Engineering Short Course has been completely redesigned and expanded to meet current field needs. Subjects from past years have been updated and combined into eight daily sessions over a four week period. The consolidated format provides lectures, discussions, and problem solving experiences formerly offered in two separate courses.

New subjects will cover arterial street and subdivision systems, driveway location, design and control and public relations techniques for traffic engineers.

One complete day will be devoted to the 1978 Manual of Uniform Traffic Control Devices including the added sections and changes in signs, signals, and markings.

Locations for this year's short course are: Eastern Michigan University, Ypsilanti, Wednesday and Thursday, February 7-8, 14-15, 21-22 and February 28 and March 1; Western Michigan University, Kalamazoo, Mondays and

STATUS OF "3-R" STANDARDS

The 1976 Federal-aid Highway Act redefined the term "construction" to include "Resurfacing, Restoration, and Rehabilitation" of highways. The purpose was to provide greater flexibility in the use of Federal funds to obtain maximum use of our existing facilities. At the same time, the FHWA as well as all other governmental bodies involved in highway construction and operations, has an interest and responsibility in maximizing safety within funding limitations.

The establishment of national standards for 3-R projects has been very difficult and extremely controversial because of the necessity of balancing costs and safety without extensive definitive data on the sensitivity of design criteria on safety, and the vast differences existing between various highway systems across this country.

After receiving much adverse comment on earlier proposals based on accepting the AASHTO "Purple Book", FHWA rewrote proposed standards and published them in the Federal Register "for comment". The period for comment was extended but will end January 4, 1979. Shortly after that, a team of FHWA engineers from both field and Washington offices, will evaluate the comments and determine whether extensive or minor changes will be needed.

It is possible that we may have new "3-R" standards within the next few months. Until they are promulgated, however, the FHWA Michigan Division and the Local Government Division of the Michigan Department of State Highways and Transportation have mutually developed design guidelines that are to be applied within Michigan on a case-by-case basis.

- Dave Merchant

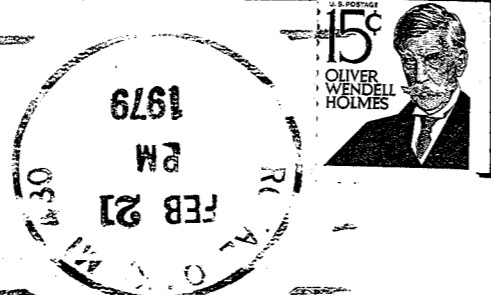
Tuesdays, March 5-6, 12-13, 19-20 and 26-27; Oakland University, Rochester, Wednesdays and Thursdays, March 7-8, 14-15, 21-22 and 28-29; Michigan State University, East Lansing, Tuesdays and Thursdays, April 3 & 5, 10 & 12, 17 & 19 and 24 & 26.

(Continued on page 10)

MICHIGANITE

Official Publication
Michigan Section

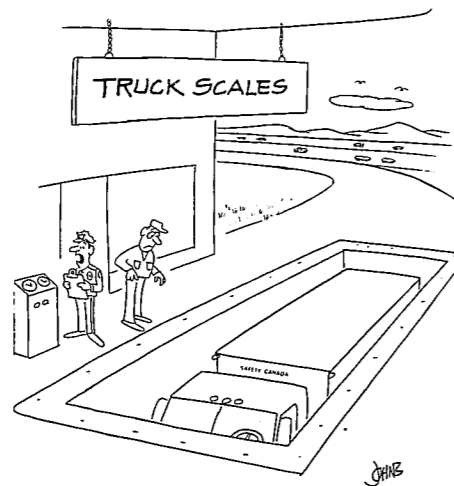
310 Veterans Memorial Building
151 West Jefferson Avenue
Detroit, Michigan 48226



Richard Beaubien
City of Troy
500 West Big Beaver
Troy, Michigan 48084

Welcome To Our New Members

- WILLIAM J. FOGNINI
Oak Park, MI 48237
- ALBERT E. KLAIS
Reid, Cool & Michalski
Transportation Engineer
- DAVID A. MORENA
Federal Highway Admin.
- THOMAS E. MYERS
Haslett, MI 48840
- KENNETH A. SHACKMAN
City Traffic Engineer
- JOHN LOUIS SIMON
The Taubman Company
Director, Traffic Planning
- JOHN P. STILLMAN
Traffic Safety Bureau
Taylor Police Dept.



"BOY! ARE YOU OVERWEIGHT!"

SAFETY CANADA

MICHIGAN SECTION I.T.E. 1979 MEETING SCHEDULE

DATE	PLACE	HOSTS
Feb. 15	Jackson (Dinner Meeting)	Don Maxwell
March 22	Macomb County (Technical Session)	John Gray
May 4	Ann Arbor (Ladies Night)	Henry, Carrier, Robbins
May 24	Saginaw/Bay City (Dinner Meeting/Student Papers)	Johnson, Walther
June 15, 16 & 17	Pokagon, Indiana (District III Meeting)	District Tech. Comm.
June 28	Southfield (Technical Session, W/IMSA, New Products)	Tom Vukonich
Sept. 13	Grand Rapids (Golf Outing/Dinner Meeting)	Meredith
Sept. 23-27	Toronto (International Meeting)	
Oct. 11 & 12	Ft. Wayne (Dist. III Meeting)	Indiana
Nov. 15	Detroit (Technical Session & Annual Meeting)	Leighton, Gross

CARRIER & GABLE, INC.

MANUFACTURERS' REPRESENTATIVES

ONE NORTHLAND PLAZA - SUITE 908
20755 GREENFIELD RD.
SOUTHFIELD, MICHIGAN 48075

TELEPHONE (313) 275-5230

TRAFFIC CONTROL

- Signals
- Controllers
- Poles
- Electrical Signs
- Detectors
- Systems

HIGHWAY SAFETY

- Motorist Aid
- Impact Attenuators
- Pavement Markings
- Cones & Signs
- Fire Alarm

PARKING CONTROL

- Meters
- Gates
- TV Surveillance
- Revenue Control
- Deck Resurfacing
- Illuminated Parking Signs

MICHIGANITE

Official Publication
Michigan Section
of the
Institute of Traffic Engineers

1979 EXECUTIVE BOARD

- Gerald M. Holmberg, P.E. **President**
Director, Traffic Department
Oakland County Road Commission
(313) 858-4832
- David A. Merchant, P.E. **Vice President**
Division Administrator
Federal Highway Administration
(517) 373-2094 (Lansing)
- William T. Lebel, P.E. **Secretary**
Legal Co-Ordination Engineer, MDSH&T
(517) 373-9323
- Robert V. DeCorte **Treasurer**
Traffic Engineer
Automobile Club of Michigan
(313) 336-1407
- Alan Richardson, P.E. **Director**
Civil Engineer
Wayne County Road Commission
(313) 962-5700 X441
- Gordon E. Melvin, P.E. **Past President**
Assistant City Engineer, East Lansing
(517) 337-1731 X236

Address communications regarding the Michiganite to the Editor:

W. Howard Cox
313-962-3202
Traffic Safety Association of Detroit
310 Veterans Memorial Building
Detroit, Michigan 48226
Prepared by the
Traffic Safety Association of Detroit

**MICHIGAN SECTION ITE
TREASURER'S REPORT**

November 7, 1978 - December 13, 1978

Balance Forward 11-7-78		
Savings Account	\$1,106.20	
Checking Account	1,016.52	\$2,122.72
Receipts:		
Dues	\$ 64.00	
Section Annual Meeting (11-16)	682.00	
Bank Account Interest	14.06	\$ 760.06
Expenditures:		
Printing, Envelopes (Merchant)	\$ 15.58	
Printing, Postage (Holmberg)	33.75	
Section Annual Meeting (11-16)	599.39	
Dist. 3 (Profit from Nov. Dist. Meeting)	220.64	\$ 869.36
Balance on Hand 12-13-78		
Savings Account	\$1,120.26	
Checking Account	893.16	\$2,013.42
Hospitality Fund Balance \$ 296.35		
William T. Lebel, P.E. Treasurer		

I.T.E. MICHIGAN SECTION

FALL 1978 TECHNICAL SESSION

The program opened at 1 P.M., October 5, with Weldon Borton from the Michigan Department of State Highways and Transportation introducing the *ITE Series Program on Accident Analysis*. These two slide and cassette tape presentations are aimed at traffic engineering technicians, and they describe procedures for correcting deficiencies at high accident locations.

Next, Dave Gibson from the Washington Office of the Federal Highway Administration described a *Signal Operation Analysis Program* which uses computer technology to arrive at more efficient timing patterns for signal systems.

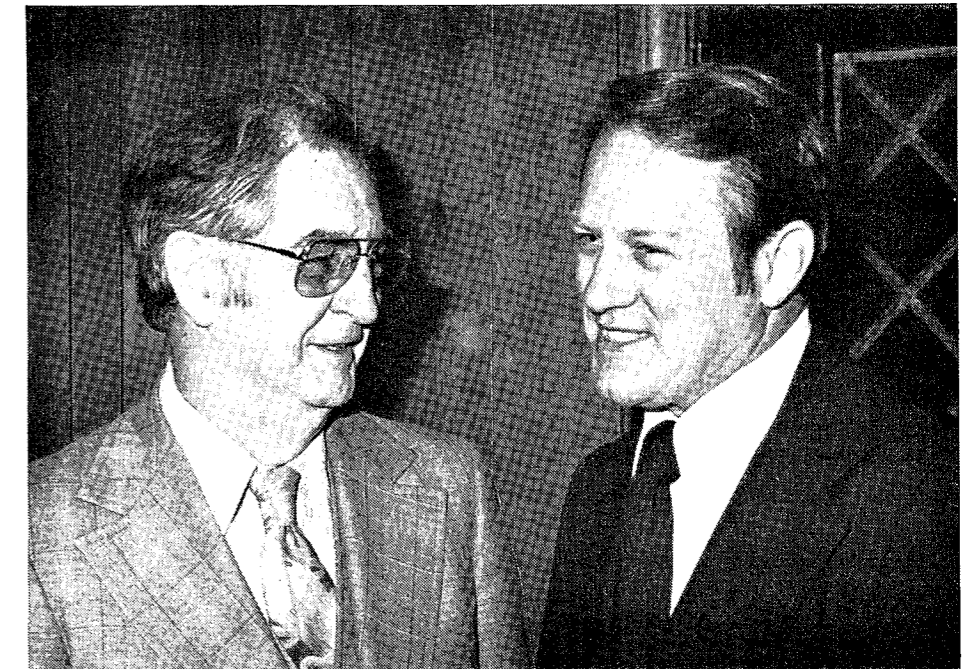
Ali Sevin, also from the Washington Office of the Federal Highway Administration, explained the *Clean Air Act Amendments - Their impact on Transportation*. He described the interaction between the Environmental Protection Agency and the Federal Highway Administration in developing reasonable air quality guidelines relating to transportation. He noted that states will be asked to document the effectiveness of transportation system limitations on air quality, and he stated that he did not expect transportation facility construction to be significantly affected by air quality requirements.

The final speaker of the afternoon was Dave Haver from Crouse - Hinds. His topic was *Minicomputers for On-Street Traffic Control*, and he described the progress made in programming minicomputer "chips" for intersection controllers. Although this new technology is available today, he believes that electro-mechanical controllers will be around for many years to come.

Following a dinner attended by 95 persons, Nels Burns, National President of the Institute of Transportation Engineers, explained *What Makes ITE So Dynamic*. He pointed out the activities of the Institute and the composition of the membership. One of the significant points was that member participation in activities is much higher
(Continued on page 10)



Institute of Transportation Engineers, Michigan Section, 1979 Executive Board. From the left, David Merchant, vice president; Gerald Holmberg, president; Alan Richardson, director; Robert DeCorte, treasurer; William Lebel, secretary, and Gordon Melvin, immediate past president.



Outgoing District III Director Arthur C. Gibson, manager, Safety and Traffic Engineering Department, Automobile Club of Michigan (left) and Elmer N. (Nels) Burns, Traffic Control Engineer, Design Services, Ohio-DOT and 1979 president of the Institute of Transportation Engineers, strike a friendly pose at the annual meeting of the Michigan Section of ITE November 1978.

Goodell-Grivas, Inc.
17320 West Eight Mile Rd.
Southfield, Michigan 48075
Telephone 313-569-0300

TRAFFIC & TRANSPORTATION ENGINEERING SERVICES

REID, COOL & MICHALSKI, INC.
Traffic Engineering Consultants

COMPREHENSIVE STUDIES
AND SERVICES

29623 NORTHWESTERN HWY.
SOUTHFIELD, MICHIGAN 48076
(313) 356-3515

Send in Nominations

The ITE Nominating Committee is actively soliciting nominations at this time for its officers to the International Board of Direction. Selections and nominations are to be made for the office of *President* and *Vice-President* in 1979.

It has been customary for the ITE Vice-President to run for President without opposition. It has likewise been customary for the office of Vice-President to be filled on a competitive basis with at least two candidates presented to the membership. Upon a few occasions three nominees have been on the final slate.

A Nominating Committee composed of one representative from each District is shown below. We urge that all members address themselves to these committee members and make appropriate suggestions for suitable candidates for office. Please contact the District Representative with your suggestions.

List by District

District I
Harvey B. Boutwell
Traffic Engineer
Highway Traffic
Consultants
30 Bates Drive
Cheshire, CT 06410

District II
Robert G. Doughty
Director, Bureau
Traffic Engineering
PA Dept. of Highways
Transportation Safety
Building
Harrisburg, PA 17120

District III
Arthur C. Gibson
Manager, Safety &
Traffic Engineer
Automobile Club of MI
Auto Club Drive
Dearborn, MI 48126

District IV
Sheldon J. Johnson
Senior Associate
Barton-Aschman Assoc. Inc.
10 Cedar Square W.
1610 South 6th St.
Minneapolis, MN 55404

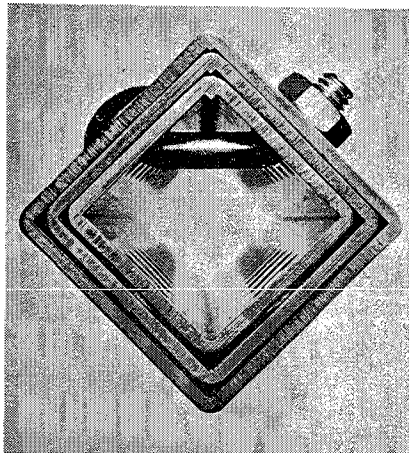
District V
W. C. Nelson, Jr.
Asst. State Traffic
& Safety Engineer
VA Dept. Highways &
Transportation
1221 East Broad St.
Richmond, Va. 23219

District VI
Donald C. Morgan
Asst. City T.E.
City of Phoenix
251 West Washington
Municipal Bldg. RM 800
Phoenix, AZ 85003

District VII
H. Keith Walker
Asst. Director
Traffic Operations
Alberta Trans. Dept.
Highways Building
106 St. & 97 Avenue
Edmonton, Alberta 98663

District VIII
John M. Frantzeskakis
Trans. & Traffic Consultant
Frantzeskakis & Associates
10 Vas. Sofias Avenue
Athens, 138, Greece

The TELES^{PAR} Idea: SIGN SUPPORT



SQUARE IS BETTER

TELES^{PAR} sign supports are better to begin with. Better because their square shape provides four mounting surfaces instead of two. High resistance to torsional stress. Consistent bearing surface between sign and post. High strength to weight ratio because of the classic box structure. And predictable three-side break-away on impact.

The TELES^{PAR} sign support system includes a full range of compatible hardware and fittings. The result is unmatched flexibility, easier installation, fewer parts to stock and handle.

TELES^{PAR} components are used to support single signs, sign clusters, temporary barricades, parking meters, mobile signs and markers of all kinds. Fully proven in municipal, county, state and Federal programs nationwide. For complete details and specification data, ask for brochure TEL-101.



UNISTRUT DETROIT SERVICE COMPANY
4045 SECOND STREET
WAYNE, MICHIGAN 48184
PHONE: (313) 722-1400

I.T.E. MICHIGAN SECTION ANNUAL BUSINESS MEETING

The I.T.E. Michigan Section Annual Business Meeting and Technical Session was held at Topinka's Restaurant in Detroit on November 16, 1978. The Technical Session began at 1:00 P.M. with an explanation of *Project Bear - Citizens Band Emergency Aid System* by Larry Tibbits from the Michigan Department of State Highways and Transportation. Project BEAR - Broad Emergency Assistance Radio - aids motorists along I-94 between Grand Rapids and Detroit by monitoring CB Channel 9 reports of stranded motorists, traffic accidents and hazardous road conditions. The experimental system has proven effective because approximately 50% of the vehicles now traveling on I-96 are equipped with CB radios.

The next speaker was Stephen Leiby from the Tri-County Bicycle Association (Lansing). Leiby spoke on *Bicycle Safety* and pointed out design errors which have occurred in bicycle routes constructed in the Lansing area. He noted that the transition areas between separate bicycle paths and mixed traffic need special attention to assure the safety of the bicyclist.

Sgt. Frank Deon from the Michigan State Police followed this presentation with a discussion of *How traffic engineers and police agencies can work more closely together for mutual benefit*. He suggested that traffic engineers inform police what information they consider important on the UD-10 accident report form to maximize the usefulness of accident reports in correcting safety hazards. He also suggested that traffic engineers be more aggressive in expressing engineering opinions on public issues. He noted that the heaviest enforcement of the 55 MPH speed limit will be on the freeways, but the highest accident experience is off the freeway system.

The next speaker was Alan Richardson from the Wayne County Road Commission who explained the *Wayne County Signal System Demonstration Project*. This federally funded demonstration project will interconnect an extensive system of signals in Wayne County, and attempt to measure the safety benefits of this interconnection.

After a short break, the program resumed with a panel discussion on two new pieces of state legislation relating to *Safety in School Zones*. One of these laws sets a *prima facie* school zone speed limit at 25 MPH. The other law

Symbols for Safety

Traffic Control Products Division 3M
3M CENTER • SAINT PAUL, MINNESOTA 55101

MINNESOTA MINING AND MANUFACTURING COMPANY
6325 PARK DRIVE, CINCINNATI, OHIO 45227, 513-243-2313

prescribes minimum training and other standards for school crossing guards. Stan Lingeman from the Michigan Department of State Highways and Transportation assembled a large panel to discuss the various aspects of these two laws. The panel included Don Mercer, MDSH&T; Robert DeCorte, Auto Club; Gerald Holmberg, Oakland County Road Commission; Inspector Joe Brown, Detroit Police Department; John Gray, Macomb County Road Commission, and Dr. Ann Johnson, Michigan Department of Education.

This discussion was followed by Brent Bair from the Oakland County Road Commission who explained *Risk Management - An Approach to Accident Liability Claims Against Public Agencies*. The Oakland County Road Commission has made a decision to be self insured for a large share of the accident liability claims against it. They have also decided to give safety projects first priority in the expenditure of road improvement funds. They believe this approach will save insurance premiums and place them in an excellent posture with the court when accident liability claims are considered.

The final speaker was David Merchant, Division Administrator for the Federal Highway Administration. Merchant explained the various provisions of the 1978 *Surface Transportation Act*. The new law provides increased levels of funding for both highway and public transportation projects. The most significant increase is in the area of bridge repair and replacement. (See separate story by Merchant.)

Richard F. Beaubien, P.E.
Technical Committee Chairman

LEGISLATION

I am sure you are all aware by now of the passage of Proposal M in the recent election. Specifically, 'M' accomplishes the following:

1. Provides that at least 90 percent of motor fuel and license plate revenue is to be used exclusively for general road and highway purposes (construction, maintenance, planning, etc.).

2. Provides that up to 10 percent of fuel and license tax revenues and up to 25 percent of the sales tax on motor fuels and on cars, trucks and parts be used exclusively for other transportation purposes (a new comprehensive transportation fund for local and inter-city bus systems support, rail freight programs, and the like). Existing taxes on aircraft and aviation fuel also will go into the fund.

3. Limits bonding for roads, streets, bridges and other transportation purposes to amounts derived from specific motor vehicle taxes and sales taxes on such items.

4. Replaces the existing four member by-partisan State Highway Commission and reduces the terms of the members from four years to three.

5. Renames the Department of State Highways and Transportation the Department of Transportation.

6. Removes the requirement that the Director be "a competent highway engineer and administrator". The legislature will determine how the Director will be appointed. A law passed this fall by the legislature provided for appointment of the Director by the Governor if Proposal M was approved by the voters.

You are also aware of the two cents per gallon increase in the gasoline tax and an increase in the vehicle weight tax. The increased revenues will help all highway agencies to meet rapidly escalating construction and maintenance costs and allow the state to significantly improve the quality, quantity of public transportation services throughout the state.

Recently a petition drive was initiated to postpone these increases, subject to a vote by the public. If this action is successful, monies for general road and highway purposes may actually be reduced since an additional percentage of available revenues was apportioned to other transportation programs as part of the 1978 transportation package passed by the legislature.

- Bill Lebel



Alan Richardson; "Hey, wake up that guy in the back of the room".

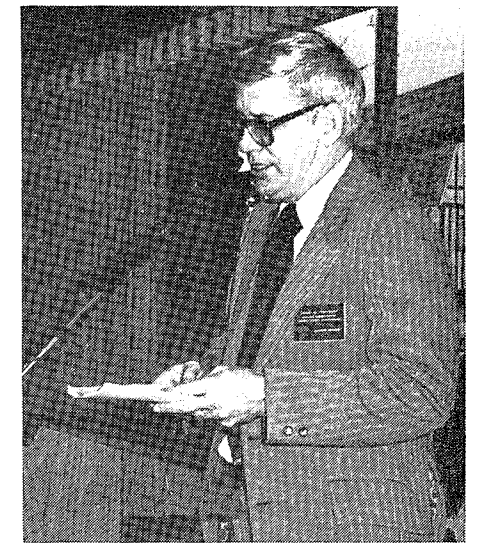




Safety in school zones was discussed by a 7-member panel. From the left in this picture: Stan Lingeman, M-DOT and panel moderator; Inspector Joseph Brown, Detroit Police Traffic Administration Unit; John Gray, Macomb County traffic engineer, and Dr. Ann Johnson, State Department of Education traffic consultant.



Other members of the School Zone Safety panel are: Don Mercer, M-DOT; Robert DeCorte, Automobile Club of Michigan Safety and Traffic Engineering Division, and Gerald Holmberg, Oakland County Road Commission traffic engineer and newly elected president of the Michigan Section.



David Merchant, Division Administrator for the Federal Highway Administration and new Section vice president explains the 1978 Surface Transportation Act.



Richard Beaubien, Troy traffic engineer and Section Technical Committee chairman opens the Technical Session.



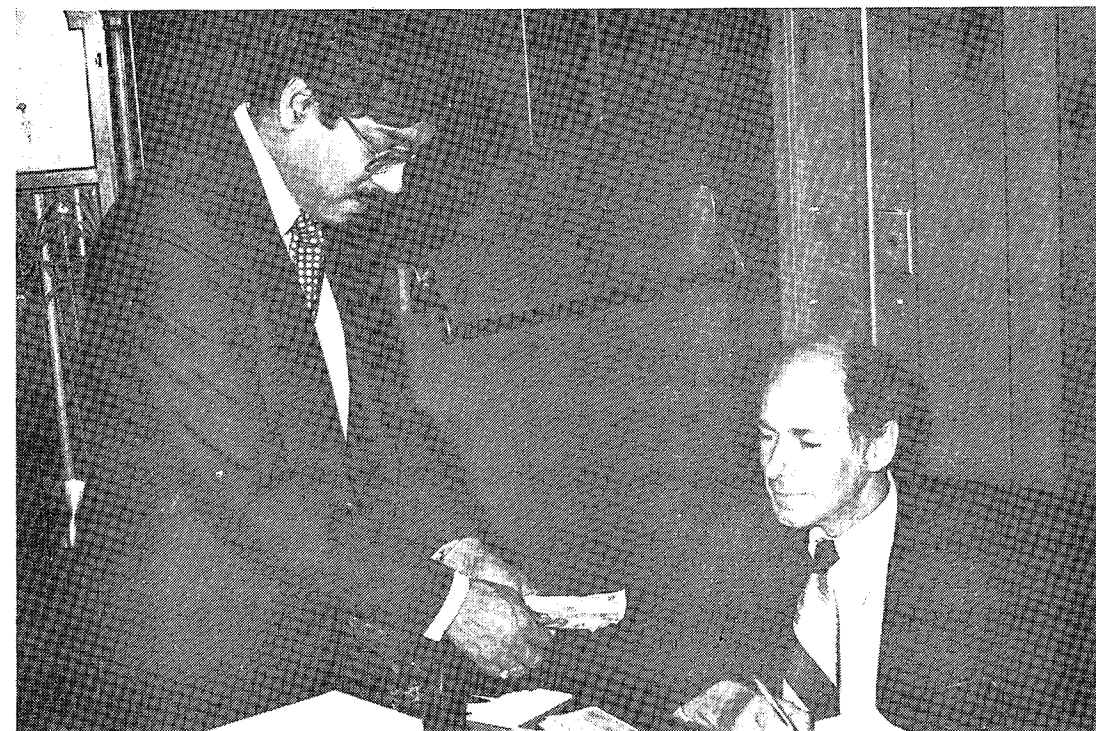
Here, Alan Richardson from the Wayne County Road Commission explains the Signal System Demonstration Project.



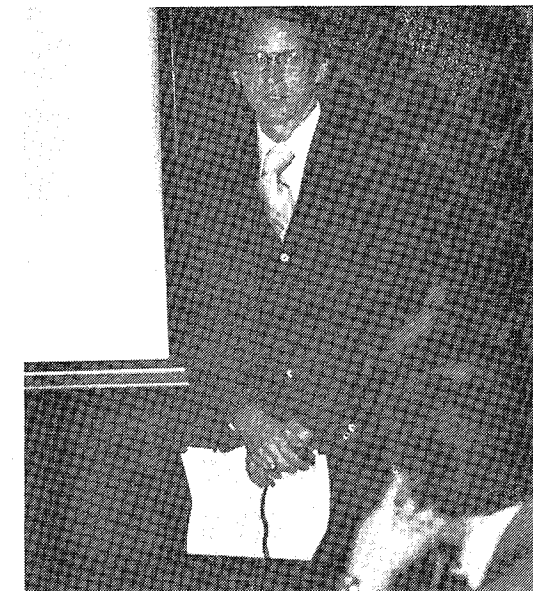
A near standing room crowd of traffic engineers attended the Afternoon Technical Session and Evening Dinner and Business Meeting at the Topinkas Restaurant in Detroit.



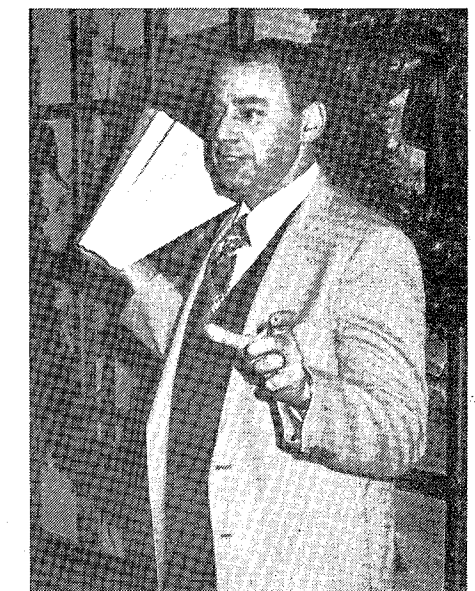
Brent Bair, Oakland County Road Commission, explains Risk Management - An Approach to Liability Claim Against Public Liability.



Tapan Datta of Goodell & Grivas and Wayne State University helps Sian Gross, Detroit's traffic engineer and co-host of the meeting, count the registration fees. Bill Leighton of the city's Traffic Sign Shop, the other co-host missing from the picture.



Stephen Leiby of the Tri-County Bicycle Association of Lansing spoke on bicycle safety.



Sgt. Frank Deon, Michigan State Police tells how traffic engineers and police agencies can work more closely together.

(Continued from page one.)

2. SOS projects authorized to be continued at \$200 million a year, but the actual amount is dependent on specific appropriations. Further, at least 50% of SOS funds obligated any given fiscal year must be for highway safety construction projects.

3. Federal-aid Primary and Secondary funds are increased. At least 20% of each fund must now be used for projects for the resurfacing, restoration, and rehabilitation of highways on these systems.

4. Definition of construction is amended to include capital improvements, such as scales and scale installations, which directly facilitate an effective vehicle weight program. Another part of the Act requires the Secretary of Transportation to withhold 10% of a State's Interstate, primary, secondary, and urban system funds if the State fails to certify annually that it is enforcing its weight laws, or if the Secretary determines the State is not enforcing its weight laws.

5. The term "Highway Safety Project" is defined as a project which corrects or improves high hazard locations, eliminates roadside obstacles, improves highway signing and pavement marking, or installs traffic control or warning devices at high accident potential locations.

6. The funding share for most non-Interstate Federal-aid highway projects is increased to 75%, although the Federal share for bridge replacement and rehabilitation projects is increased to 80%. All safety construction projects will be funded at 90%. Interstate 3-R projects, now at 90%, will be funded at 75% Federal share. Projects for traffic control signalization systems shall be for 100% of the cost.

7. Use of Federal-aid funds to finance carpool and vanpool projects is now a permanent program. Specific funds are authorized to be made available for grants and loans to governmental bodies carrying out such programs.

8. Regular Federal-aid Highway funds can be used for bicycle facilities. An additional \$20 million a year is authorized — but not yet appropriated — only for projects to construct new or improved lanes, paths, shoulders, or parking facilities for bicycles. In addition, design and construction standards for bicycle facilities must be developed.

9. The Highway Safety Act of 1978 extends the basic features of existing highway safety programs for four years but amends their operation in several important respects. The Act covers fiscal years 1979, 1980, 1981 and 1982.

Total funding for highway safety is \$7.20 billion over a four year period,

all of which is from the Highway Trust fund.

10. Section 402 Highway Safety Programs — For highway safety programs of the National Highway Traffic Safety Administration, \$175 million is authorized for each of the fiscal years 1979 and 1980, and \$200 million for each of the fiscal years 1981 and 1982. Authorizations for the safety program of the Federal Highway Administration are \$25 million annually for each of the fiscal years 1979-1982.

The Act provides that DOT can amend or waive standards temporarily to evaluate State programs that employ a process of identifying the cause of accidents, adopting measures to reduce the frequency and severity of accidents and evaluating the results. The Act further provides that a State's highway safety program be administered by a highway safety agency and have a program to encourage the use of safety belts.

11. Bridge Replacement Program — The Act makes a number of major changes in the bridge replacement program:

a. Funding is increased from \$180 million in fiscal year 1978 to \$900 million in fiscal year 1979, \$1.1 billion in fiscal year 1980, \$1.3 billion in fiscal year 1981, and \$900 million in fiscal year 1982.

b. \$200 million is set aside each year to be available at the discretion of the Secretary of Transportation for replacement or rehabilitation projects which cost more than \$10 million.

c. Major rehabilitation of unsafe bridges would be permitted for the first time (in addition to replacement).

d. Off-system bridges would be eligible for the first time (at least 15% and up to 35% of a State's bridge funds must be expended on off-system projects).

e. The Federal share is set at 80%.

12. Highway Safety Improvement Program — The Act consolidates two highway safety construction categories, high-hazard locations and roadside obstacles. The pavement marking program is to be continued for three years, then funded under the new consolidated program and the safer off-system road program.

The Act also requires each State to inventory all hazards to motorists and pedestrians on all public roads, identify appropriate countermeasures, and update the information as a basis for a continuing hazard elimination program.

Authorizations for the combined hazard elimination program are \$125 million for fiscal years 1980 and 1981, and \$200 million for fiscal year 1982.

13. Pavement Marking — The pavement marking demonstration program is con-

tinued at 100% participation for three years at \$65 million annually. After that it becomes part of the combined Highway Safety Improvement program.

14. Rail-Highway Crossings — The Act consolidates existing categories of assistance for elimination of rail-highway crossing hazards, both on and off-system and authorizes a total of \$190 million per year. Eligible items include grade separations, highway relocation, and — where the least expensive alternative — relocation of a segment of rail line.

15. Innovative Grants — The Act authorizes the Secretary to make grants to States, agencies of local government and non-private organizations which develop innovative and imaginative approaches to highway safety. A total of \$30 million is authorized for this purpose.

16. Safety Belts — The Act requires each State to expend not less than 2% of its 402 funds each year to conduct programs to encourage the use of seat belts by drivers and passengers of motor vehicles. The Secretary also is required to work through the National Academy of Sciences in developing means of encouraging such use, including financial incentives.

17. Accident Data — This provision authorizes a total of \$20 million from the Highway Trust Fund to advance the National Highway Traffic Safety Administration's accident data system for the acquisition, storage, and retrieval of highway accident statistics, and to advance an accident sampling procedure for the reporting of highway accident nationwide.

18. The Act establishes a graduated system of minimum standards to measure the effectiveness of State speed limit programs, and a sliding scale penalty of 5 to 10% reductions in apportionments to supplement the present sanctions for States failing to meet compliance standards. Any apportionments withheld would be restored at such times as the speeds on the State's public highways have fallen to the level specified for the year in question.

19. Another section of the Act requires a study of outsized vehicles for operation on the highways "constructed in a manner which exceeds the standardized industry configurations (double-bottom tankers). The study is due in six months.

20. Finally, Section 401 of the Act prohibits the Secretary from obligating funds for any projects, unless the materials used in construction are produced in the United States. This applies only to projects whose total cost exceeds \$500,000.

OFFICE OF HIGHWAY SAFETY PLANNING

TRAFFIC ENGINEERING SERVICES SECTION

GENERAL

The following engineering programs are eligible for funding by the Office of Highway Safety Planning through grants from the Federal *State and Community Highway Safety Program* (402 Program):

1. Computerized sign inventories;
2. Manual sign inventories conducted by local governmental units, themselves, as long as it is done with an expansion of staff or through a consultant within a year;
3. Minor sign replacement equipment – such as post pounders, post pullers and cutting torches. Such equipment must be primarily utilized in conjunction with sign upgrading and can not be utilized for maintenance operations only;
4. Attendance at specialized training courses – such as Northwestern University's short courses;
5. Traffic engineers;
6. *Areawide* traffic engineering and school site studies, utilizing consultants;
7. Road network surveillance equipment – such as automated traffic volume counters, manual hand-tally traffic counters, stop watches, hand-held radar units (if utilized for special engineering studies) and distance measuring instruments; and
8. Portable pavement marking equipment.

All of these "402" activities can be funded on a one-year, 70% federal – 30% local reimbursement basis except for traffic engineers. Traffic engineers can be funded on a three-year basis on a sliding federal participation basis. That is, the first year would be on a 70% federal-30% local basis, the second year on a 50% federal-50% local basis and the third year on a 30% federal-70% local basis. It is expected that from the fourth year on the position would be maintained at 100% local cost.

STATE-ADMINISTERED ACTIVITIES

In addition, we have three activities being administered through state agencies which local government units can utilize at no cost. The first has to do with manual sign inventories. State personnel will come on-site to provide training and administrative capabilities for overseeing inventories conducted by local communities, themselves, with existing personnel. If the community has less than 15 miles of roadway under its jurisdiction, state personnel will conduct the inventory for the community.

Secondly, state personnel will study identified high crash sites and recommend improvements. Both of these activities are on a request basis and Richard Blost of the Traffic and Safety Division of the Department of State Highways and Transportation may be contacted for further information. You may write the Traffic and Safety Division at the Department of State Highways and Transportation, Highways Building, 1st Floor, P.O. Box 30050, Lansing, Michigan 48909 or you may phone Blost at 517/373-2310.

The third activity is the completion of a statewide crash locator system being accomplished jointly by the Michigan Department of State Police and the Michigan Department of State Highways and Transportation as well as a consultant. You may contact Robert Lariviere at the same address and phone number for further information on that activity, as well as where your county stands on a priority listing being utilized by a consultant to accomplish a statewide system. This activity has been dubbed "MALI" and can be a real enhancement to your county.

TRAINING

Last, short courses are being offered through Michigan State University and Wayne State University for traffic engineering-related training. There is *no charge* for these courses. A description of these courses follows:

Traffic Engineering Short Course

Dr. Adrian Koert of the Highway Traffic Safety Center at Michigan State University offers a course entitled, *Traffic Engineering Short Course*. This course emphasizes the relationship of fundamental traffic engineering principles and methods to the creation of a workable roadway system in any community or county. Lectures, discussions and some problem solving are utilized. The problem portion of the course concentrates on problem solving as it relates to typical local traffic conditions in relationship to those principles. This course is designed to provide training at a technical level.

Participants with little or no traffic engineering background should register for the course. This course is also designed to meet the needs of those who wish to review traffic engineering fundamentals. The course is held one day a week over an eight week span. You may contact Dr. Koert by writing him at the Highway Traffic Safety Center, Continuing Education Service, Room 58A, Kellogg Center for Continuing

Education, Michigan State University, East Lansing, Michigan 48824 or by phoning 517/355-3270.

Statewide Traffic Seminars

Dr. Tapan K. Datta, Associate Professor with the Department of Civil Engineering for Wayne State University offers two courses – one is a *Statewide Seminar on Traffic Engineering* while the other is a *Traffic Engineering Seminar for Elected Officials*. The first will be held on-site at your "shop" and you design the format for the training. That is to say, you select the contents of the course by noting what training you feel you need. Dr. Datta will then design the course to your needs. It is only requested that you invite surrounding communities since an attendance of 35 is desired. These are normally one-day workshops.

The second seminar is designed to encourage elected officials at the local government level to consider traffic engineering in their decision-making tasks. It is hoped that a knowledge of the current State of the Art in this area will result in more safety-conscious decisions on their part.

These seminars can be held in conjunction with regular council and planning commission meetings, but preferably should be scheduled for a special meeting. The length of the seminar can be designed to suit your needs. You may contact Dr. Datta by writing him at the Department of Civil Engineering, Wayne State University, 667 Merrick, Room 202, Detroit, Michigan 48202 or by phoning him at 313/577-3787.

Specialized Courses

Dr. James Brogan, Assistant Professor with the Department of Civil and Sanitary Engineering at Michigan State University offers a specialized level of technical training. For instance, in 1977-78 courses have been conducted entitled, *Traffic Operations and Highway Safety*. Another session is scheduled for *Capacity Analysis*. These courses are designed for the higher level technician or the practicing engineer and are a week long. For further information, contact Dr. Brogan by writing him at the Department of Civil and Sanitary Engineering, Michigan State University, East Lansing, Michigan 48824 or phoning him at 517/355-2215.

For further information on any of the above, contact:

Thomas K. Krylicinski, Chief, Traffic Engineering Services or Gary R. Holben, Traffic Engineering Specialist at the Office of Highway Safety Planning, 7150 Harris Drive, General Office Building, Lansing, Michigan 48913. Phone 517/322-1942.