Eligibility Requirements: Any nonstudent member of the Institute who has not reached his or her 25th birthday by the closing date of the competition is eligible. A candidate must have worked in a project that has been a part of an ongoing 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 grant; c) may have been previously reported to another group or published 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: Manuscripts describing the study or project shall be typed, double-spaced on paper approximately 8½" x 11"; six legible copies shall be submitted; no more than 5,000 words in length; c) accompanied by an abstract of not more than 300 words; and d) conform to the standards and statements of the Committee on the relation of 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 grant; c) may have been previously reported to another group or published 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.

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The Missouri State University’s Highway Traffic Safety Center, Lifelong Education Program offers a consolidated and completely updated short course in traffic safety and recently introduced Traffic Engineering programs as part of their duties, in early 1979. The Traffic Engineering Short Course has been completely redesigned and expanded to meet current field needs. Subsequent past years of traffic engineering problems and converged into eight daily sessions over four weeks. The traffic engineering field provides lectures, discussions, and problem solving experiences offered in two separate courses.

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

One complete day will be devoted to the 1976 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, Monay, and April 3 & 5, 10 & 12, 17 & 19 and 24 & 26.
MICHIGANITE
Official Publication
Michigan Section
Institute of Traffic Engineers

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Detroit, Michigan 48226

Prepared by the
Traffic Safety Association of Detroit

MICHIGAN SECTION I.T.E.
TREASURER’S REPORT
November 7, 1978 – December 13, 1978

Balance Forward 11-7-78
Savings Account $1,301.20
Checking Account 1,016.12 $2,112.72

Receipts:
Dues $66.00

Section Annual Meeting
(11-16) 682.00

Bank Account Interest 14.56 % 760.06

Expenditures:
Printing, Envelopes (November) $45.28
Printing, Postage (Holmberg) 33.75

Section Annual Meeting
(11-16) 199.39

Data, 3 (Profile from Nov. 22.64 $ 869.36

Balance on Hand 12-13-78
Savings Account $1,318.26
Checking Account 893.16 $2,013.42

Hospitality Fund Balance $296.35
William T. Lebel, P.E.
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I.T.E. MICHIGAN SECTION
FALL 1978 TECHNICAL SESSION
The program opened at 1 p.m., October 5, with Waldon Horton from the Michigan Department of State Highways and Transportation introducing the I.T.E. Series Program on Accident Analysis. These two slides and cassette tape presentation are aimed at improving the engineering, testing, and analyzing, 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. All 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 Cruise –インド. 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, Nel Bunn, National President of the Institute of Transportation Engineers, explained What Makes I.T.E. So Dynamic. He pointed out the activities of the Institute and the composition of the membership. One of the significant points was that membership participation in I.T.E. activities is much higher than among other professional engineering organizations. (Continued on page 10)
Send in Nominations

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

It has been customary for the JTE 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.

This 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 IV
W. C. Nelson, Jr.
Asst. State Traffic
Traffic Engineer
V.A. Dept. Highways &
Transportation
1231 East Broad
Richmond, Va. 23219

District V
Donald C. Morgan
Asst. City T.E.
City of Phoenix
221 West Washington
Municipal Bldg., Rm 600
Phoenix, Ariz. 85003

District VI
Frank Walker
Asst. Director
Traffic Operations
Albany Trans., Dept.
100 S. Pearl St.
Albany, N.Y. 12227

District VII
John M. Frantsen
Traffic Engineer
Frankenfield & Associates
13 V2, Socias-Artins
Athens, 158, Greece

I.T.E. MICHIGAN SECTION
ANNUAL BUSINESS MEETING

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

The next speaker was Stephen Lebl from the Tri-County Bicycle Association (Lansing). Lebl spoke on Bicycle Safety and pointed out design errors which have occurred on 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. Franks Deon from the Michigan State Police followed this presentation with a discussion of how traffic engineers and police agencies work more closely together for mutual benefit. He suggested that traffic engineers inform police what they are considering important on the UT-10 accident report form and that they consider 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 65 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 proposals 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 prescribes minimum training and other standards for school crossing guards. State Legislator 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, MDSSAT; Robert DeCorte, Auto Club; Gerald Holberg, Oakland County Road Commission; John Brown, Detroit Police Department; John Gray, McNichol Road Commission, and Dr. Ann Johnson, Michigan Department of Education.

This dinner meeting was followed by a presentation by Brett Burt 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 the impact 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. Bentheim, P.E.
Technical Committee Chairman

LEGISLATION

I am sure you are all aware by now of the passage of Proposal M in the recent elections. 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 vehicles in general be used exclusively for other transportation purposes (a new comprehensive transportation fund for local and intercity bus systems, 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 the 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 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.

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 Langeman, 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 Herceg, M-DOT; Robert DeCorte, Automobile Club of Michigan Safety and Traffic Engineering Division, and Gerald Holzberg, Oakland County Road Commission traffic engineer and newly elected president of the Michigan Section.

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

Richard Bambino, Troy traffic engineer and Sectional Technical Committee chairman opens the Technical Session.

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

Topam Cottel of Goodell & Greece and Wayne State University helps Stan Groves, 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, misses from the picture.

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

Pam Donohue, Michigan State Police tells how traffic engineers and police agencies can work more closely together.
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 signallization 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 $7.2 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 continued 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 oversized 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.
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. Area-wide 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 Blust 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 Blust 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 Lariviére 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 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: