

SAFETY COMMISSION LEGISLATIVE PRIORITIES

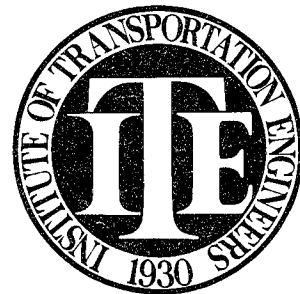
The Michigan State Safety Commission, at their February meeting, approved legislative priorities for the coming year. The number of priorities was restricted to four items of broad significance to the state and includes proposals to:

1. Enact legislation requiring mandatory seat belt use.
2. Enact legislation reflecting a number of changes in drunk driving and alcohol statutes.
3. Support a section-by-section recodification of the vehicle code, primarily the "Rules of the Road" section.

4. Support legislation initiatives to assure continued adequate funding for, and availability, of driver education programs in public schools.
- In addition, the Safety Commission will continue support for current legislation involving the motorcycle helmet law and the impending child restraint law.

It is apparent that there will be considerable legislative action involving the first two of the Safety Commission priorities. In order for such legislation to become law, support and hard work will be required of organizations such as our Michigan Section that are concerned with improved safety to the motorist. Let's insure that we have a voice in these issues.

By Bob Lariviere



MICHIGANITE



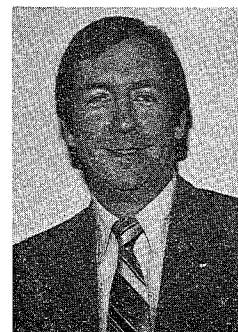
SPRING, 1982

VOLUME XVII NUMBER 1

OFFICIAL PUBLICATION OF THE MICHIGAN SECTION OF THE INSTITUTE OF TRANSPORTATION ENGINEERS

CHILD PASSENGER PROTECTION AT LAST

PRESIDENT'S COLUMN



DeCorte

All of you are aware of the many challenges facing the entire transportation engineering discipline. Decreasing revenues in the face of increasing costs is probably the most urgent problem faced today by everybody. The transportation area feels it especially hard because there are so few to solve the problem for so many. The obvious answer is to increase tax revenues so we can continue to improve and preserve the existing transportation system. There

have been several bills introduced into the legislature to do this. In the meantime, we should take this opportunity to sort through our projects, determine which ones have been the most cost-efficient and refine them even more. Those that have been less productive should be "shelved". Many of the more cost-efficient projects are often those that are least expensive; the safety patrollers at the school crossing instead of a traffic signal, the education of residents instead of the installation of Stop signs to control speed, etc.

Sometimes I wonder why we engineers and technicians have such a difficult job selling the least expensive of several alternatives. Perhaps we are not selling but rather dictating. Perhaps we know we are correct. After all, every thing we rely on indicates we are correct. We've studied the computer-model, graphs, Manual, Code, phasing, synchronization, vehicular volume and mix and even the mating habits of the nearby wild life and still Mr. & Mrs. Taxpayer agree with Mr. & Mrs. Motorist that we don't know what its like in their neighborhood. It is different there you know. Why? Because they live there. They don't live in the computer room or your office where you've discovered the answer to their problem.

We have to make a concerted effort, as individuals and as an Institute, to meet with the P.T.A. members and homeowner groups. To listen to their problems and help them understand that traffic engineering is a specialized field that is sensitive to their needs and can help them in our most difficult job.

We all know when budgets are reviewed and reductions are imminent, "traffic" is one of the luxuries that is the first to go. If we are to survive we must sell ourselves as the experts we are and convince the public that they cannot do without us and our expertise.

New Law Makes Restraints Mandatory . . .

(LANSING)---April Fool's Day will have a serious side this year. That will be the day when a new Michigan traffic law goes into effect, and traffic safety experts are excited about the prospects. Known as the Child Passenger Safety Law, Public Act 117 of 1981 states that each driver transporting a child in a motor vehicle shall properly secure each child in a safe child car seat if the child is under age four. A child under one year of age will be required to be properly buckled into a Federally approved safety seat regardless of where they ride as passengers. Children one year of age but less than four will need to be in a safe car seat if they ride in the front of a motor vehicle. However, as back seat passengers, this age group is permitted to use the vehicle's regular seat belt alone.

While the law is a first in the Great Lakes State, ten other states have already adopted or recently instituted similar laws protecting young passengers from their #1 health threat. Despite massive attempts to eradicate all childhood health problems through immunization programs, parents continue to ignore the biggest hazard children face each day. The automobile kills and injures more children each year than does any disease or other type of accident. The solution is simple.

The proper use of safe child car seats have demonstrated their ability to reduce the threat of injury by about 80% and reduce the chance of death by about 90%. These durable, laboratory-tested devices absorb the punishment that would otherwise be taken by a child's body in a car crash.

And it doesn't take much to hurt an unsuspecting and unprotected toddler or infant. A sudden swerve into a traffic lane, a mere tapping of the brakes when something darts in front of your car, a green light that turns to amber can send a small child tumbling into the dashboard filled with radio knobs, air conditioning switches and gear shift levers.

So Michigan legislators have passed (and Governor Milliken has signed into law) Public Act 117. It all begins April 1, 1982.

Educating the motoring public of Michigan is a monstrous project, spearheaded by the Michigan Office of Highway Safety Planning (OHSP) in Lansing. Billboards, radio and TV public service announcements, restaurant placemats, automobile glove box stuffers, payroll stuffers, posters and more are all part of a statewide campaign to inform the public about the law and its potential for saving lives and preventing unnecessary pain.

Some of the most requested pieces of information come in the form of a child car seat fact book and a question/answer guide on the law. The fact book is a complete review of child passenger safety. Everything from top tether straps to installation to booster seats are discussed. There's a picture review of currently marketed safety seats in Michigan, with names and phone



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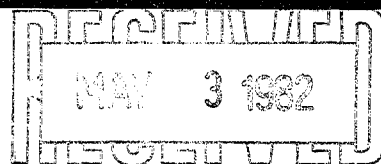
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**DRIVER'S EDUCATION . . .
to be or not be . . .**

EDITOR'S NOTE: Following is a condensation of an article which appeared in the Fall, 1981, "Journal of American Insurance." We publish it, not as an indictment of driver training, but to focus attention on the issue and some of its elements. The MICHIGANITE invites your comments on driver education in Michigan.

Immaturity, inexperience, recklessness, alcohol, and other drugs have long been identified as accomplices in the appalling number of teenagers involved in auto accidents each year. Now some authorities argue that still another factor should be considered - early driver education.

More than two million high school students across 37 states enrolled in driver education courses during the 1978-79 school year. In a majority of states, students who complete the course can drive sooner than those who do not. Is driver education inadvertently creating more teenage accident victims, by putting more teenagers behind the wheel at an earlier age?

At least one traffic safety researcher would answer "yes". Leon S. Robertson, Ph.D., of Yale University's Center for Health Studies, contrasted the licensure and accident rates of teenagers in Connecticut communities without drivers education with those living in communities that retained the program after state funding was eliminated. Robertson's 1980 study, found that since more driver education is related to more licensed teenage drivers, the net result is a higher rate of crash involvement for 16- and 17-year-olds.

Two years following elimination of state funding for driver ed, 5,652 fewer Connecticut teenagers in this age group (or about ten percent) were licensed to drive, according to Robertson. Dropping state funding for the program prompted nine districts to totally eliminate driver ed and forced others to charge students for driver training. Over the same period, Robertson noted a decrease in the crash rate for 16- and 17-year-olds. Decrease driver ed, Robertson concludes, and you decrease teenage accident exposure, resulting in a lower crash rate.

Even though he states that driver ed leads to greater accident exposure for 16- and 17-year olds as a group, Robertson does concede that persons who take high school driver ed are often found to have fewer reported crashes than those who learn to drive by other means. But is it driver training itself that makes the difference? Not necessarily. Statistical controls for miles driven, high school grades, social status and personality characteristics virtually eliminate the differences in crash involvement between those who do and those who do not take the course.

The National Highway Traffic Safety Administration (NHTSA) is currently conducting a study of over 17,000 teenagers in 24 high schools in DeKalb County, Georgia to evaluate the benefits of driver training. Though not yet completed, an interim report does note that those who take the special course are so far getting 16 percent fewer traffic tickets than those without driver ed. However, the study may support Robertson's contention that, whatever the benefits of driver ed to the individual driver, there is a negative effect on society at large because of the greater accident exposure for teens as a group.

Until now, a solution to this problem has focused on two "either/or" possibilities. Discourage teens from driving by dropping driver ed, or prevent them from driving by raising the age of licensure to 18.

Why not discourage them from driving too soon by simply postponing driver ed? At the very least, there ought to be greater flexibility in driver training scheduling. Currently, most high schools offer driver ed to students of a certain age (15 1/2 or 16 1/2).

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MICHIGANITE

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MICHIGAN SECTION ITE, TREASURER'S REPORT

Receipts:	
Dues	\$ 588.00
Interest	16.46
January Meeting	362.50
	\$ 966.96
Expenditures:	
Postage	\$ 20.00
Printing	26.91
February Meeting	286.92
Refund February Meeting	25.50
	\$ 359.33
Balance: February 22, 1982	\$2,869.34

Treasurer, Thomas R. Krycinski, P.E.

This newsletter is distributed to over 300 members and every county office in Michigan. Address communications regarding the Michiganite to the Editor: Robert V. DeCorte, 7441 Emerson Dr., Canton, MI 48187 313/453-3026.

SIGNALIZED INTERSECTION STUDY

The Electronic Systems Unit of the Michigan Department of Transportation has completed a study of intersections that were recently signalized on the state trunk-line system. The purpose of this study was to analyze the impacts that the installation of traffic signals have on safety. Results of the study show the following:

1. Total accidents increased 25 percent.
2. Right-angle accidents decreased 27 percent.
3. Rear-end accidents increased 126 percent.
4. Head-on left-turn accidents increased 86 percent.
5. Injuries increased 16 percent.

Engineering studies show that a traffic signal may be necessary when an accident pattern develops that is considered susceptible to correction by such an installation. This accident pattern normally involves right-angle type collisions. From the above data it is clear that right-angle accidents can be reduced by the installation of signals and, therefore, should be one of the major criteria evaluated when considering the need for signal installation. Certain types of accidents, however, such as the head-on, left-turn, and rear-end types usually increase. Our study results also substantiate this. It is also interesting to note that the number of injuries increased during the after period.

Does this mean that all traffic signals are bad? No; properly designed and engineered traffic signals may reduce certain types of accidents, as shown in the study; provide gaps in the traffic stream; and lend organization to the traffic flow by alternating the right-of-way assignment to crossing streams of traffic. As traffic volumes at an intersection increase there comes a time when delay for motorists can become intolerable without signalization. Poorly designed, ineffectively placed, or improperly operated signals, however, perform just the opposite of what is expected. Intersections become clogged with cars and motorist delay and accident potential is increased. Entire street systems can become creeping parking lots, particularly during rush hours.

There is a common misconception by the motoring public that traffic signals are safety devices that reduce or minimize the potential for accidents at intersections. Therefore, they are considered a cure for all traffic problems. Concern for safety at an intersection following a serious accident often brings about requests for the installation of signals.

In order to assist the public in their understanding of the application of traffic signals to the traffic engineering process, the booklet "Traffic Signals, A Guide For Their Proper Use", has been prepared. This booklet is designed to explain the considerations and procedures which the department follows when analyzing the need for traffic signal control at an intersection. The booklet should clear up many popular misconceptions involving the application of traffic signals and emphasize the importance of having traffic signal decisions based on nationally recognized engineering criteria. Copies of this publication can be obtained by request through the Electronic Systems Unit.

By Glen Etelamaki

WHEELS OF PROGRESS?

The Aberdeen District Council in Scotland is stepping down the performance of one of its recreation department vans to a mere 2 horsepower...and saving about \$2,600 a year in the process. It is replacing the petrol guzzler with a team of clydesdale horses that will live on hay and pull a cart on short hauls. A cost-conscious finance officer has figured the savings to amount to \$2,600 a year.

Reprint from URBAN TRANSPORTATION ABROAD

MURPHY'S LAW: Any tool dropped while repairing a car will roll underneath to the exact center.

GOVERNOR URGES SAFETY BELT USE LAW

In his 14th annual State of the State message, and his last one before retirement from public office, Governor William G. Milliken has urged the legislature to enact a safety belt use law for Michigan motorists.

Citing the need for innovative, yet low cost safety programs, Milliken said, "Just as Ontario, the auto center of Canada, took the lead, so Michigan should lead the United States in passing an occupant restraint use law." The message specifically directs the state Office of Highway Safety-Planning to work with the Department of State and other agencies in drafting legislation to require a three-year trial period for safety belt use by front seat occupants.

The Governor also pointed out that seat belt use... "continues to be indentified as the single action which affords, at no additional cost, the greatest potential for reducing highway injuries and fatalities." The Governor's message noted that a recent study by the University of Michigan's Highway Safety Research Institute showed that the total annual economic loss from traffic crashes in the state amounts to \$1.2 billion including the direct cost to state government estimated to be \$21.5 million.

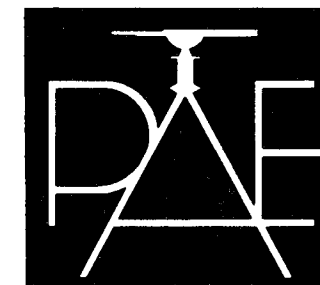
The Office of Highway Safety Planning has said that a safety belt use law in Michigan could immediately save 300 lives a year, and would prevent many thousands of serious injuries.

Reprint from TSA Newsletter

WELCOME

We are happy to announce the following new members of the Michigan Section of ITE:

- Dr. Marie Emery - Michigan State University
- Clifford M. Connelly - Pathmaster
- Robin A. Kasson - 3M Company
- W. Mervin Teague - 3M Company



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MICHIGAN'S IMPROVED TRAFFIC SAFETY RECORD ATTRIBUTED TO TRAFFIC ENGINEERING . . . FINALLY

A significant goal of the Michigan Department of Transportation as well as the traffic safety community at large is to reduce fatalities, injuries, and accidents on Michigan highways and streets. Much was accomplished this past year by all those involved in traffic safety as there were 202 fewer fatalities than in 1980 which is an 11.4 percent reduction. This continues a trend which has seen a 24 percent reduction in fatalities since 1935. There are many engineering activities conducted by the department that are related to the improved safety record.

One of the most important of these activities involved the construction of the more than 1,728 miles of freeways in the state. The 1980 death rate on Michigan's freeways (1.12) was 69 percent lower than on the non-freeway system (3.87). The freeway fatal accident rate is equivalent to about one fatality for every 100,000 trips between Michigan and Orlando, Florida. The freeway system is about three times safer than other state and local roads in Michigan.

Our department also has an aggressive program designed to eliminate, modify, or protect motorists from roadside obstacles along freeways. This program was initiated in 1975 and as of 1980 there has been an annual average reduction of almost 40 percent in freeway fixed-object fatalities. Improvements have nearly been completed on the freeway system and include items such as concrete median barrier, breakaway supports for light poles and larger highway roadside signs, elimination or modification of roadside guardrail, and protection of bridge supports with crash cushions.

The department is involved in many other efforts designed to improve safety on our roadways. For example, the spot safety improvement program provides surveillance

of the entire state trunkline system, identifies accident patterns, and recommends corrective treatments. A recent evaluation of projects identified by this program revealed a 25 percent decrease in fatalities during a three-year "after" period following construction of the improvements.

In addition, the department has sponsored a railroad safety program where \$38 million has been obligated for rail-highway crossing improvements since 1973. The impact of this continuing program and others focusing on railroad safety, such as the Operation Lifesaver public information program has been impressive. The average number of fatalities per year since 1973 has been reduced by nearly 50 percent when compared with the previous seven-year period.

Other contributions to highway safety include improved traffic signal systems which provide safer urban roadway systems, with less delay, congestion, gasoline usage, and pollution. In addition, improved pavement marking techniques and improved signing guide motorists better during darkness and adverse weather conditions.

Even though engineering improvements have made large contributions to improve safety on Michigan's road system, there have been additional contributions from other areas. Enforcement of the 55 mph speed limit, distribution of educational materials and public service safety announcements, and safer designs from the automotive industry for instance, have all played a role in improved highway safety. Future improvements in safety for Michigan motorists is dependent on the continued interaction and development of the so-called three E's of highway safety--Engineering, Enforcement, and Education.

We do not believe that greatly improved safety for our motorists, particularly Michigan motorists, is coincidental. We maintain that large scale engineering, education, and enforcement efforts are the reasons for the saving of lives on our highways. In addition, some credit must go to Michigan motorists who are operating their vehicles in a safer manner which greatly increases the effectiveness of our efforts. This department will continue to maintain and refine existing programs within the framework of available funds to provide increased safety and convenience for the motorist, which we believe will continue the trend toward reduced fatalities and injuries on our road system.

Reprinted from John Woodford's January report to the State Safety Commission

LEGISLATIVE UPDATE

Since the start of the 1982 legislative session, few new bills of any real consequence to traffic and safety have been introduced and there has been little action on bills held over from 1981.

State officials are gearing up for the implementation of the state's new mandatory child restraint law (PA 117) on April 1st, hoping that enough seats will be available to people who need them, but may not be able to afford the purchase price. It is also expected that enforcement of the new law will proceed smoothly with a minimum number of problems. An extensive educational effort is now underway to inform the public about the requirements of the new law.

The battle over the motorcycle helmet law may heat up again this spring when weather conditions will allow demonstrations at the capitol and elsewhere in the state. At this point, there seems to be little support for the repeal campaign.

Alcohol abuse and drunk driving will be key issues in 1982 (and beyond) and it is reported that a number of legislators are having bills drawn up which, on the whole, will provide for tougher penalties for DD violations.

There is also renewed interest in a safety belt use law and a proposal is currently being drafted for introduction in February or early March. The bill would provide for a 3-year "experimental law" covering front seat passengers only with a minimum fine and no points.

By Thomas O. Reel

CHILD PROTECTION MANDATORY APRIL 1ST

cont. from page 1

numbers of manufacturers. Being described as "everything anyone ever wanted to know about child car seats." The fact book is an explicit review of child passenger safety.

The question/answer guide leaves no stone unturned about the law. It's a quick reference for the most commonly asked questions. Only children under age four are affected. It applies only to Michigan residents. Penalty to comply is a \$10 fine, no penalty points. Some children are exempt due to body size or physical inappropriateness (body casts, wheelchairs, etc.). Only vehicles required to be equipped with seat belts fall under the law. And much, much more.

Unfortunately, too many people think a flimsy, lightweight feeder carrier will suffice. The law is specific: only child car seats designed and manufactured to be used as child protective devices are adequate. The best way to tell if a certain seat is worthy of entrusting your child's life is to check the date of manufacture. All approved car seats made after January 1, 1981, must meet Federal safety standard #213. That information will be clearly evident on the back of the seat. If a particular model is in question, a review of OHSP's fact book should give you the answer or a phone call to their Lansing office (517-322-1942) will put you in touch with someone who can track down the information.

Getting seats to lower income families will be the most difficult part of OHSP's campaign. Over 150 rental programs are currently operating in Michigan, most of which are set up by Jaycee Auxiliaries. Many hospitals are beginning rental programs (Borgess in Kalamazoo has over 2,000 car seats out in that community). The Office of Highway Safety Planning has compiled a list of rental programs by county. A call to OHSP should lead you to a nearby rental program where a safe car seat can be obtained for literally pennies a day.

Law enforcement agencies are also gearing up for April 1 by conducting training sessions for officers. The success of Public Act 117 will depend largely upon the acceptance by parents to see that their children are using the seats correctly (on every ride) and the officer on the street who serves as ambassador and guardian of safety. It is hoped that as the motoring public of Michigan learns about this new law, the benefits will be recognized in a dramatic reduction of injuries and deaths to small children.

The responsibility for a child's health falls upon the parent. Just as we teach our children not to play in the street, not to play with matches, not to play under the pantry with dangerous poisons, we must teach them that riding in a motor vehicle requires a healthy attitude about our safety. One of the best ways to convince a toddler that car seats are good is to show them how you buckle your own seat belt. Example is a great teacher. By Robert S. Nelson

FEBRUARY 4TH MEETING A SUCCESS

As President DeCorte commented at the February 4th Section Meeting at Oakland Community College, the Board of Directors thought Dick Beaubien was rather "reaching for straws" when he suggested that we listen to tapes of several keynote speakers from this summer's annual ITE meeting in Boston. However, the Board had to eat its words and Bob offered Dick a public apology to that effect. In spite of a winter storm which led to the community college being officially closed, some 43 members braved the elements to attend and had nothing, but praise, for the tapes. Thirty-nine regular members and four student members were in attendance. Members noted that the success of the meeting could be directly attributed to the excellent job of emceeing which Roger Walther did in combination with Dick Beaubien's fine assistance in discussing the tapes since both had been in actual attendance at the summer meeting. It was an excellent "poor man's" way of attending part of the 1981 annual meeting and the lunch was superb. Students came in on their day off to provide and serve lunch and a special thanks goes to Tom Biasell of Farmington Hills who handled arrangements for the meeting.

By Thomas R. Krcyinski, P.E.



Photo courtesy of James Kirchner, contributing editor, Michigan Living Magazine, AAA

CURRENT STATUS OF "402" FUNDING

Final "402" figures have finally hit our office for FY 1982 (year starting October 1, 1981 and ending September 30, 1982) and they are fairly well in line with the cuts I predicted in earlier issues of the Michiganite. There will be a total of \$3,438,235 available for "402" activities. Out of this total \$357,936 will be available for engineering-related (3+) activities. Overall this amounts to a 50% cut in total "402" Funds and nearly a 67% cut in 3+ Funds. Consequently, engineering activities will be restricted to the basic traffic engineering functions, i.e. traffic control device inventories, equipment for sign upgrading and equipment for traffic engineering studies.

For further information contact:

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Michigan Department of State Police
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By Thomas R. Krcyinski, P.E.

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Students who wish to take the course later must request special permission to do so. Clearly, students who are either uninterested or unready to drive, should be allowed to schedule the class whenever they are ready, as they can with most other courses.

Another alternative would be to simply offer driver education later, at age 16 or 17, and let any students with special needs schedule it sooner. This would remove much of the peer pressure and lay the blame for early teenage driving not with the driver ed course itself but with its timing.

Few parents, and safety experts, want driver ed dropped from the schools, even though several communities have already eliminated the program due to funding restrictions. Increasing the minimum driving age to 18 raises another problem: 18-year-olds. If the accident and fatality rates for 16- and 17-year-olds are poor, the rates for 18-year-olds are even worse. More deaths per licensed driver are associated with 18-year-olds than with any other age group, according to 1978 fatality data. Does it make sense to put even more untrained, inexperienced kids on the road at age 18, when they are more likely to be on their own at jobs or in college, out from under the restraining influence of parents, school and church, with a greater access to alcohol and other drugs?

If there is justification for raising the legal driving age to 18, there is just as much justification for raising it to 25. Only at age 25 do accident and fatality rates for young drivers approach a more reasonable level. Obviously, it would be impossible to put off driving until 25.

That is why the best solution at this time may be to simply postpone driver ed, instead of prematurely and perhaps unfairly condemning the course itself, or unrealistically restricting teenage drivers. Without the convenience of early driver ed, young teens will not get their licenses and fewer will die on our highways as a result.

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ITE JOURNAL ARTICLE

Glen R. Etelamaki, Assistant Supervising Engineer, Electronic Systems Unit, MDOT authored an article entitled "When is Left Turn Phasing Justified?" in the February issue of the ITE Journal. The article presents a methodology for justifying the installation of left turn phases based on a comparison (cost/benefit ratio) of reduced accident costs and increased fuel consumption. The Network Simulation Model (NETSIM) is used to determine increased operational costs associated with the proposed changes. Your questions and/or comments on this subject are encouraged.

By Bob Lariviere

TRANSYT-7F AVAILABLE

The Federal Highway Administration recently contracted to have TRANSYT-7, an english signal timing optimization program, "Americanized." That version is known as TRANSYT-7F. Anyone interested in obtaining a copy of the Program and/or User's Manual can do so by using the TRANSYT-7F Request Form below.

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Office of Traffic Operations (HTO-33)
Federal Highway Administration
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NATIONAL SAFETY COUNCIL

LIFESAVER CONFERENCE

On March 31 - April 2, 1982, the National Safety Council is sponsoring a National Conference on occupant protection and alcohol countermeasures. The two and one-half day conference will be held at Detroit's classic Book-Cadillac Hotel and will focus on two areas most critical to the success of any community's traffic safety program. Each subject will be discussed during two general sessions with the opportunity to share ideas and direction with others on each subject provided during a number of workshop sessions. The occupant protection workshops will focus on legislation, child restraint programs and media involvement. The alcohol countermeasures workshops will focus on enforcement strategies, judicial process, legislation, and citizen involvement. Information forms and registration packets are available by contacting the Michigan Office of Highway Safety Planning at (517) 322-1942.

AFFILIATE MEMBERSHIP

Last year your Executive Board decided to add an additional position, Affiliate Director, to the Board of Directors. I was elected to that position. The new position was created in an effort to get the affiliates more involved. We now have 149 affiliate members. Affiliate memberships are provided in the by-laws as follows:

- 1.2(a) Technical Affiliates
- 1) Those persons who are not eligible to be members of the Institute but who are accumulating experience toward Institute membership,
 - 2) Those persons who are in sub-professional work in transportation and engineering,
 - 3) Those persons who are professionally engaged in related fields,
 - 4) Those persons who are in a position to work with and assist transportation and traffic engineers by virtue of official positions.
- 1.2(b) Commercial Affiliates
Persons engaged in commerce or industry who come into frequent contact with transportation and traffic engineers and who thus have an interest in the profession and are in a position to work with and assist traffic engineers.
- 1.3(c) Student Affiliate Membership
Those persons who are full time students in a recognized engineering school may become Student Members of the Section.

The Technical Affiliates, because of their number, are a very important part of the organization. The goal for these individuals is to become a regular member.

I consider the Commercial Affiliate a real anchor to the organization. The Michigan Section has always had active commercial members. They do an outstanding job in technical sessions, new products seminars and technical help in servicing their products. The social events which they sponsor, such as Ladies' Night and the golf outing, are a great morale builder and provide an opportunity for members to become better acquainted.

The engineering students get involved in competitive writing programs sponsored by the Section and can take advantage of the membership and printed matter such as the Michiganite for reference purposes.

My goal for 1982 is to encourage participation by the affiliate members through increased involvement in technical sessions. An affiliate committee will be appointed which will meet periodically throughout the year to generate new ideas. I need your help to accomplish this goal. Your ideas and assistance would be appreciated. Please send them to me at the following address:

Jack Hoving
City of Grand Rapids
Transportation Department
509 Wealthy, SW
Grand Rapids, MI 49503

SAFETY CONFERENCE TO MEET IN LANSING

"Safety for You in '82" is the theme of the 52nd. Annual Michigan Safety Conference to be held on April 27-28 at the Lansing Civic Center. Persons attending can choose among sessions dealing with industrial safety, fire safety, traffic safety or a variety of other subject areas.

The Traffic Division program is scheduled for 9:00 a.m. on Tuesday, April 27, and will run until approximately 3:30 p.m. Topics will include "Michigan's Improved Fatality Rate", "The Drinking Driver Problem", and the new "Child Restraint Law".

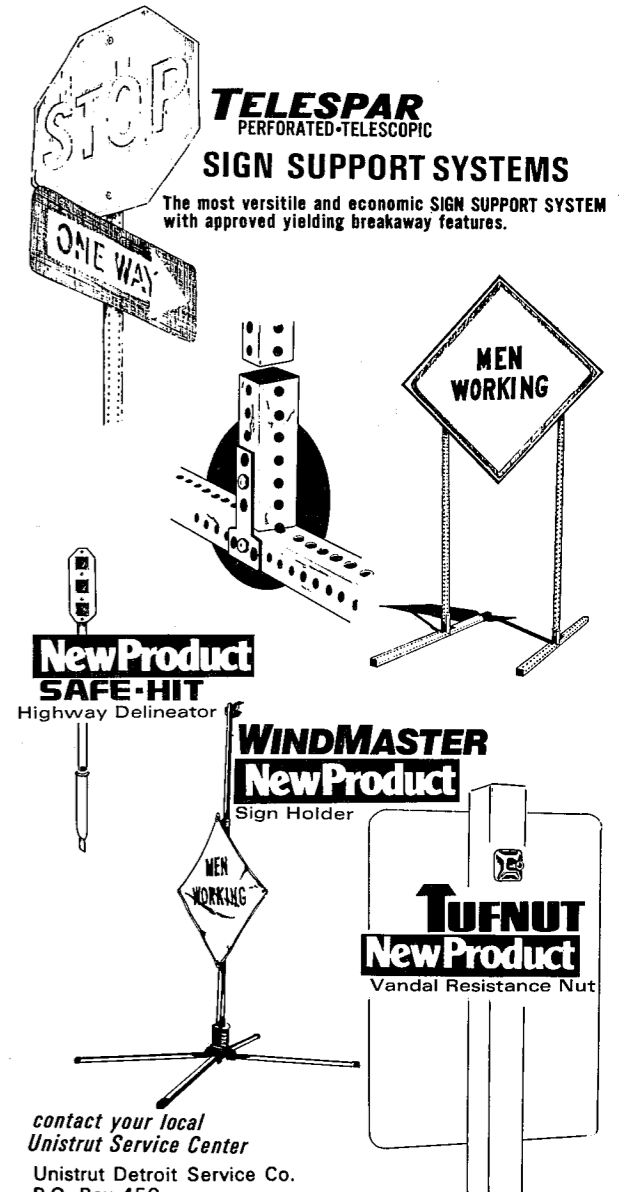
Registration information and pre-registration forms are available from the Detroit (313/962-3202) or Lansing (517/487-8811) office of the Traffic Safety Association.

By Thomas O. Reel

MICHIGAN TRAFFIC FATALITIES AT A GLANCE

The number of fatalities recorded in 1981 is the lowest number of fatalities in the last 18 years. The 11.4 percent reduction from 1980 continues a trend which has seen a 24 percent reduction in fatalities in the last three years. This trend is continuing in 1982 as there has been 35 less fatalities than 1981 through February 3 which is a 28 percent reduction. It is obvious that the efforts of the traffic safety community are beginning to pay dividends. Let's continue the fine job!!

MURPHY'S LAW: If more than one persons is responsible for a miscalculation, no one will be at fault.



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FEBRUARY 25, 1982 DINNER MEETING

Tom Brennan from the Washtenaw County Road Commission was host for Michigan Section's February dinner meeting. The Briarwood Hilton in Ann Arbor can be proud of the flavor of the food--too bad it wasn't hot, but dessert was excellent.

The guest speaker was John L. Grubba, Managing Director of the Oakland County Road Commission. His topic was "Managing Under Reduced Budgets".

Mr. Grubba pointed out that today, a managing director's job is not a happy job. In times of increasing revenue all you have to decide is how to split up the juicy pie; what new programs to add. But in times of decreasing revenue, you have to decide which programs to cut and what people to lay off. He does not expect this to change for the next three years. Maintenance and Safety will be the direction Oakland County will take, with no construction. Based on his meeting with the Highway Lobby, the "Forum for Balance Transportation", Mr. Grubba feels there will be no new gasoline user tax bill forthcoming in 1982 in Michigan. If one is passed in 1983, collections would start in 1984 and revenues produced in 1985 for the operating road agencies.

Mr. Grubba said he had talked to the union about accepting a wage freeze and the union talked to him about accepting a strike. Other topics he covered were the "Tooth Fairy Syndrome", the "Forgotten Deal", Productivity, "Cybernetics", Blood-letting between Modes and "Federalism".

TRB IMPRESSED BY SAFETY PROGRAM PROCESSES

Processes developed as part of the Oakland County Road Commission's "Highway Risk Management Program" have impressed the Transportation Research Board (TRB), an affiliate of the National Research Council.

TRB has accepted for publication and presentation to its Annual Meeting in Washington, D. C. during January, 1982, three papers:

* "Selection Process for Local Highway Safety Projects," authored by James C. Barbaresso, Transportation Planner; Brent O. Bair, Transportation Planning Coordinator; and Christopher R. Mann, Transportation Planner, of the Oakland County Road Commission and Gary Smith, Transportation Engineer with the Southeast Michigan Council of Governments.

* "The Use of Computerized Roadway Information Systems in Safety Analysis," authored by Barbaresso and Mark A. Flak of Progressive Consultants Corporation of Southfield.

* "Development of a Priority Program for Roadside Hazard Abatement," authored by Barbaresso and Michael J. Labadie, Rural District Traffic Engineer with the Oakland County Road Commission.

The first paper details a procedure useable by even the smallest agencies to evaluate and rank problem locations and countermeasures by relative cost-effectiveness.

The second paper details how a computerized accident data base can be compared to a roadway characteristics data base to perform a variety of safety analysis functions.

The third paper details how roadside features are inventoried, computerized and ranked for a variety of analyses in a systematic program for enhancing road safety.

"It is very gratifying to learn that our work has impressed one of the most sophisticated organizations in the transportation field," said John L. Grubba, Road Commission Managing Director.

"The processes we have developed will now be passed along for use by other agencies worldwide with the prestige of TRB and the National Research Council behind them," he said.

All three processes are used to determine cost effective means of improving the safety of Oakland's county road system. Several projects in the Road Commission's 1982 work program result from analysis using the processes.

At the meeting with the Forum for Balanced Transportation, Mr. Grubba said the Governor's representative explained the three proposals from the Governor's Office, actually Dr. Miller's.

The first would increase the fuel and weight user fees and drivers license fees. The second proposed was an increase in state income tax from 4.6% to 5%. The third was a fuel-weight user fee increase. All three proposals would produce about the same amounts of revenue but would be tie-barred to another bill calling for a split of 70% highways and 30% transit. The "Forum" did not feel any of the proposals were acceptable. They had a choice to be shot, hung or gassed.

At the March 1-5, 1982 American Road Builders Conference in Phoenix, Mr. Grubba said he would support a five cent increase in Federal gasoline user fees. He felt this had a good chance to pass if it can get over two small hurdles -- Federal Bureaucracy and Congress. The states could be exempted penny for penny if they passed their own tax, up to five cents.

Under the new Federalism, Mr. Grubba said it appeared that the President would allow transportation to be treated separately from other federal programs and everything is negotiable. However, all federal highway programs will be cut except interstate completion and interstate "preservation".

By Ken Underwood

Food For Thought

"People may doubt what you say,
but they will believe what you do".

Anonymous

URBAN TRAFFIC CONTROL SYSTEM

Federal Highway Administration has recently made available the first in a series of documents which will provide documentation for the Urban Traffic Control System (UTCS) Enhanced First Generation Software. The report describes the functional elements of the enhanced software, and the minimum hardware and operating system program requirements necessary to implement the software.

Distribution of the report has been delayed since 1979 to coincide with the successful operation of the software in Broward County, Florida.

Other documents that will be ready for distribution in approximately one year are:

1. System Software Specification
2. Data Base Specification
3. Operator's Manual
4. Applications Manual
5. Software Test Specification

These documents will provide complete documentation of the enhanced software developed in Broward County, Florida.

Final acceptance testing of the software is scheduled for October of 1982, after the software has been installed in the pilot city of Birmingham, Alabama. The pilot city installation will demonstrate portability of the software, and its ability to control at least 250 intersections.

A copy of the report can be obtained by contacting Morrie Hoevel (377-1842) of the FHWA Division Office in Lansing.

MURPHY'S LAW: If you fool around with a thing very long you will screw it up.

SAFETY GROUPS TO COMBINE FORCES

In January 1982, traffic safety in Michigan received a solid boost as two nationally recognized organizations--The Traffic Safety Association of Detroit, established in 1941, and the Michigan Association for Traffic Safety, founded in 1966 as Traffic Safety for Michigan--joined forces to strengthen and improve educational and informational programs under the name of the Traffic Safety Association of Michigan, with more than 100 member companies and offices in both Lansing and Detroit. The consolidation is intended to broaden the scope and influence of the Association and to develop more dynamic activities as membership and funding is enlarged.

W. Howard Cox will be the Executive Director for the Detroit Operations and Thomas O. Reel, the Executive Director for the State Operations. The two offices and directors will have equal status.

Cox, who has a newspaper background, including editor of the *Michiganite*, has been with the Traffic Safety Association of Detroit since 1947, coming to TSA from an automotive public relations post following a four-year stint with the U.S. Navy in Southwest Pacific during World War II. A graduate of University of Michigan, he has a Masters Degree in History and has served as a part-time instructor of the Traffic Control class at Wayne State University.

Reel took over the executive director's post at MATS in 1979, coming from the position of executive director of the Michigan Office of Highway Safety Planning and the Governor's Highway Safety Representative. He was also the executive secretary of the Michigan State Safety Commission. He is a graduate of Michigan State University and has a PhD in Education. He is presently Legislative Committee Chairman for the Michigan Section ITE.

Reprint from FORMATS

FAILURE TO COMPLY WITH GUIDELINES CAN HAVE SERIOUS LEGAL IMPLICATIONS

In a recently released "Research Results Digest" the National Cooperative Highway Research Program (NCHRP) reported that if highway departments failed to comply with standards or guidelines in designing or maintaining roadways, they can be held liable for accidents.

The report by Larry W. Thomas, counsel for Legal Research of the Transportation Research Board pointed out that "standards, guidelines, and the like, which have the force and effect of law, are admissible in evidence. Moreover, those guidelines not having force of law that are sponsored by governmental or non-governmental associations also may be admissible. The recent trend favors the admission of guidelines, assuming they are relevant and the proper foundation is established. If admitted, the guideline ordinarily is evidence of the standard of care that the highway agency should have followed. In some instances, the violation of a standard or guideline may constitute negligence per se." On the other hand, Thomas pointed out that "compliance with recognized or generally accepted guidelines is very persuasive."

This full report may be obtained by writing to the National Cooperative Highway Research Program, Transportation Research Board, 2101 Constitution Avenue, N.W., Washington, D.C., 20418 and asking for Research Result Digest 129-October, 1981.

Reprint from ATSA SIGNAL

MOVABLE SPEED BUMPS MARKETED IN ENGLAND

A new type of movable solid rubber speed bump, which has just come on the market in the U.K., is claiming the attention of planners and architects. Developed by Hazard Warning Systems, Ltd. the speed bump is designed for residential neighborhoods, private roads and cul-de-sacs, parking lots, hospitals and college campuses. The rubber ramps, three inches high and 14 inches wide, have an estimated life of up to 20 years with little maintenance. Unlike concrete bumps which are expensive and time-consuming to install and which permanently damage the road surface the rubber bumps which can be provided in lengths up to 60 feet are simply aligned and quickly affixed to the road surface with bolts to make a permanent installation. However, if the ramp has to be moved, the road surface remains intact except for the small holes made by the bolts.

Treads molded into the rubber face of the bump improve tire grip and a two inch wide yellow reflecting strip, which shows up clearly at night, indicates the presence and length of the speed control device. The reflective strips can be replaced in minutes and the rubber compound, of which the bump is fashioned, is unaffected by weather conditions and never needs painting or treatment of any kind. In the U.K. the movable rubber speed ramps cost approximately \$27 per running foot and they are provided with fixing plates and rawbolts.

Reprint from URBAN TRANSPORTATION ABROAD

FAMILY-TECHNICAL WEEKEND PLANNED AGAIN

Last summer's family-technical weekend at Mt. Pleasant was such a roaring success that several families have already inquired as to when it will be this year. Well, this year's host, Tim DeWitt of 3M, has reserved 35 rooms for the weekend.

The format will remain the same; a technical meeting Friday afternoon and the family relaxation activities Saturday and Sunday. Because of the large interest, this year's arrangements have been made for a hospitality suite for continental breakfasts for the family in the a.m. and refreshments for the adults in the p.m. As last year, swimming, racketball, shuffleboard, golf, frisbie and relaxation will be the unplanned activities.

Mark your calendar now and make your reservations early because we expect a large crowd and we cannot reserve any more rooms.

NEW ATSA GUIDEBOOK BEING PUBLISHED

ATSA is in the process of publishing a new pocket-sized handbook which will be a handy guide for supervisors, project engineers, etc., in setting up traffic control devices for various situations.

The guide will include 27 illustrations of setups for various situations in a pocket-sized format. All material in the book will be in complete conformance with the Federal Manual.

The "ATSA Guide" will be available in early April and can be obtained from ATSA Headquarters, Route 4, Box 18 Stafford, VA 22554

Reprint from ATSA SIGNAL

STEEL COMPANY PROVIDING CHILD SAFETY SEATS

A recent issue of the Network newsletter, published by the National Highway Traffic Safety Administration, noted that the Armco Steel Co. in Kentucky is now providing free child safety seats to its employees. ARMCO Steel employs about 4,000 workers.

When an employee reports a new dependent, he or she receives a company requisition slip which can be exchanged for a seat, the report states. Safety officials in Kentucky hope that the idea will spread to other companies in the state.

Editor's Note: We like the idea, too, and hope that at least a few Michigan-based companies might want to consider such a program for their employees. If you're already providing seats or think you would like to start, let us know so we can help or publicize your efforts.

Reprint from FORMATS

TEXAS STUDY SHEDS NEW LIGHT ON POSITIONING OF ARROW BOARDS

The Texas Transportation Institute recently reported on a study in which they evaluated the effectiveness of placing arrow boards in advance of the work zone rather than at the beginning of the taper or in the closed lane.

The study concluded that when the sight distance to the work zone is less than 1,500 feet, an arrow board should be placed on the shoulder in advance of the beginning of the taper. From the distances evaluated, 2,000 feet in advance of the taper appeared to be the most effective advance placement. Distances greater than 2,500 feet resulted in drivers moving back into the blocked lane.

You may get a full report of the study by contacting the Texas Transportation Institute, Texas A & M University, College Station, Texas. Ask for the report on "Field Evaluation of Flashing Arrow Boards at Freeway Work Zones".

Reprint from ATSA SIGNAL

LADIES RETURN TO D.R.C.

Because of the overwhelming response to last year's Ladies Night at the Detroit Race Course, the Hospitality Committee has made arrangements to return on Friday, April 23. Details have not been formulated as yet, but mark your calendar now and watch the mail for the announcement.

DO THE MOTORISTS PAY ATTENTION TO CONSTRUCTION SIGNS?

The Federal Highway Administration recently released a report of tests conducted in Main on how well various construction signing works. Two experiments were conducted to evaluate the effectiveness of three different sign sequences for warning motorists on rural roads of construction and/or maintenance activities ahead that requires a lane closure. Three different sign sequences were evaluated: the standard MUTCD sequence; signs augmented with continuously flashing beacons; the symbol signs. The experiments were conducted on a two lane rural road (US Rt 2) in central Main.

The general results were as follows:

1. The most effective sign sequence in virtually all instances was the flasher augmented standard sequence.
2. The symbol signs were generally at least as effective as the "standard" sign sequence in slowing vehicles.
3. In no instance did any of the signs appear to cause any abrupt motorist reactions which might have been hazardous to those following.

The report recommends that "based on these results, if maximum effectiveness is desired, augmented with flashing beacons should be considered as an effective advance warning device."

The complete report may be obtained from FHWA. Ask for Report No. FHWA/RD80/162 "Alternative Sign Sequence for Work Zone on Rural Roads."

Reprint from ATSA SIGNAL

DISTRICT III NEWS

Jim Musick is our new District III Director. He replaced Bill Fehribach who was our Director from 1979 through 1981. We thank Bill for his leadership and wish him well in the future.

Jim, who will represent our District, Ohio, Indiana and Michigan, on the International Board of I.T.E., is traffic engineer from the City of Columbus, Ohio. Jim presided over his first District Board Meeting in Bowling Green on February 2, 1982 and appointed District Officers and Committee Chairman. Yours truly was appointed as Vice-Chairman. The other major items on the agenda was the approval of the final draft of the District Policies. These have been re-written for clarification and equity of Section reimbursement.

If you have any questions, comments or suggestions regarding any fact of ITE, please let me know and I will see it through the proper channels.

By Robert V. DeCorte

SEEING-EYE ROBOT MAY SOON DIRECT STOCKHOLM TRAFFIC

Seeing-eye robots someday may replace Boy Scouts in the business of helping old ladies safely across the busy streets of Stockholm.

At least that's the hope of computer specialists Erik Oscarsson, Owe Areneholt, and Ingvar Gustavsson. According to a recent article in "Sweden Today," the researchers plan to install a prototype "seeing" computer to control road intersections in the city.

Using a television eye, the computer will count the number of people waiting to cross the street, and will stop traffic when a sufficient number are gathered.

There have been some problems with the idea, the article notes-problems such as distinguishing a woman with a large shopping bag from a woman with a small child, and distinguishing a moving man from a tree moving in the wind.

The researchers solved those problems by reducing the picture on the television screen from 512 lines to 64, allowing the computer to ignore the picture's background and concentrate on moving, solid shapes. They also are considering adding a second television camera to provide a three-dimensional picture to help distinguish people from their shadows.

Reprint from Engineering Times

SOPHISTICATED TRAFFIC SIGNALS HELP REDUCE ACCIDENTS, INJURIES

Fewer people suffer injuries in vehicle collisions at the intersection of Southfield and 12 Mile Roads now.

Collisions are fewer, and those that do occur are less often head-on.

Since the Oakland County Road Commission installed a sophisticated signal system, the number of accidents have come down 55 percent and personal injuries are down 96 percent.

Similar results were obtained previously at the intersection of Southfield and 10 Mile Roads with the same signal system.

Some injury and accident improvement, but not nearly as much, has resulted from the installation at 10 Mile and Greenfield Roads.

The signal system is computer assisted and traffic actuated for stop-go of all movements through the intersections. When a phase, such as left turn "go," is unneeded, the computer skips it and allows more time for other movements.

The injury and accident savings annually are many times the \$63,000 cost of each installation, said John L. Grubba, Road Commission Managing Director.

Studies show that the relatively less severe rear-end collisions and accidents associated with nearby driveway turns tend to be more frequent. Grubba said the Road Commission is working with the City of Southfield to address these problems.

FIFTH ANNUAL PRODUCT TECHNICAL SESSION

MAY 20, 1982

CITY OF SOUTHFIELD, D.P.S. GARAGE

Circle May 20 on your calendar and plan to attend this years Product Technical Session which should be bigger and better than ever.

Last year 20 vendors displayed their products at our best session to date. This year more vendors are expected and a larger crowd should be there because city and county officials and purchasing agents are being invited, in addition to the membership of I.T.E. & I.M.S.A.

Plan on joining us and see the latest developments, equipment and materials in the following areas:

Signal Controls	Maintaining Traffic Devices
Time Base Coordinators	Impact Attenuators
Signal Heads	Parking Lot Control
Signal Pre-emption Equipment	Parking Meters
Signs	Traffic Counters
Reflective Sheeting	Pavement Marking Paints
Sign Posts	Thermo Plastic Markings
Sign Fasteners	Plastic Pavement Markings
Hydraulic Equipment	Pavement Markings

PRODUCT TECHNICAL SESSION AGENDA

MAY 20, 1982

2:00 - Product Session
 5:30 - Hospitality Hour at "The Red Cedars
 Telegraph & Nine Mile Road
 6:30 - Dinner at "The Red Cedars" followed by a sports program

1982 MEETING SCHEDULE

DATE	LOCATION	HOST	EVENT
April 23	Livonia	Jerry Carrier	DRC
May 20	Southfield	Northrup/Savage	New Products
June 17	Marshall	Ken Shackman	Dinner Mtg.
July 30-31	Mt. Pleasant	Tim DeWitt, 3M	Tech.-Family Weekend
Aug. 22-26	Chicago	Illinois Section	National Meeting
Sept. 16	Grand Rapids	Meredith	Golf Outing
Oct. 21-22	Ft. Wayne, Ind.	Indiana Section	Dist. Tech. Mtg.
Nov. 18	Pontiac	Rich Cunard	Section Annual Mtg.