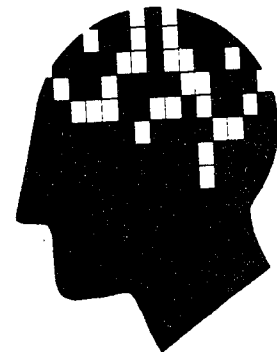


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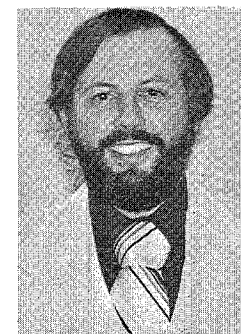
MICHIGANITE

VOLUME XX, NUMBER 1



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

POLISHING YOUR PUBLIC IMAGE



PRESIDENT'S COLUMN

FROM THE DESK OF...

BY BOB LARIVIERE

In March, 1984, the International Board of Direction initiated the "8500 by 1985 Membership Campaign." The following is a status report for the campaign:

	Target	As of Jan. 1, 1985	Addit. Members to Attain Goal by Dec. 31, 1985	Goal Attained
Student Members	661	667		941
Institute Affiliates	1,000	59		552
Voting Members	6,696	6,144		

Since the membership goals were not attained in all three membership classifications the campaign has been extended through 1985. The two classifications requiring the most attention during 1985 are the New Institute Affiliate class and the regular Voting Member of the Institute.

The International Board established the grade of Institute Affiliate for those persons not otherwise eligible for Institute membership or who may be accumulating experience towards Institute membership. The Institute Affiliate may be engaged in a transportation or traffic engineering related field or be engaged in commerce or industry and come into contact with transportation and/or traffic engineers. Yearly dues for the Institute Affiliate are \$40 and entitle the individual to all the privileges of membership except the right to vote and hold office.

Along with the emphasis on the new Institute Affiliate grade the International Board has reaffirmed the current Charter Section 3.3 (1) which prohibits persons who are eligible to be a member of National ITE from being a Local Section Affiliate. The names and addresses of all Local Section Affiliates shall be submitted annually to the Institute headquarters prior to February 1. The Michigan Section has a rather large number of Section Affiliates who are eligible for National membership but have chosen for various reasons not to become regular members of the Institute. This situation could become an issue in the near future as the Institute may require us to purge these individuals from our membership roles so that we are not in violation of our Section Charter.

The Michigan Section Executive Board encourages each Section Affiliate who is eligible for National membership

BY RICHARD F. BEAUBIEN, P.E.,
DISTRICT III DIRECTOR

The Institute of Transportation Engineers has taken some major steps during the past year to help you polish and improve your public image. In an effort to improve public understanding of and respect for Transportation Engineers, the Institute has:

1. Prepared a video tape describing how Transportation Engineers make travel safer and more efficient.
2. Emphasized public relations and public understanding at the technical sessions in San Francisco. The San Francisco meeting included sessions on Selling Transportation Engineering and Public Understanding of Transportation Engineering.
3. Prepared an Education Foundation Seminar entitled "The Transportation Profession and the Media." This seminar helps the participants become more effective in communicating their programs to the public and within their own organization.
4. Hired a public relations consultant to review current perceptions of Transportation Engineers and to recommend actions to improve the public perception of Transportation Engineers.

I believe these public relations activities are important for the advancement of our profession, and I will work to see that they are continued and expanded during my three years as District III Director. As your representative on the International Board of Direction during the next three years, I will welcome your suggestions about how the Institute can be more effective in serving its members.

District III could be made a stronger force for professional growth of our members if contacts between Sections were increased. We should continue to emphasize a high quality technical program at the District Annual Meeting as a means of encouraging this contact. The 1985 Annual Meeting will be held October 21-23 in Detroit in conjunction with the ASCE National Convention. The three days of top quality technical programs planned for this meeting should be one of the most comprehensive District technical programs in many years.

Better contacts between Sections will be particularly important as District III prepares to host the International Meeting in Indianapolis during September, 1986. Other objectives for District III during the next three years should include:

1. Continuing the practice of having the District Director attend at least one meeting per year in each Section.
2. Preparing the next District Director for office by encouraging involvement and familiarity with District activities.
3. Encouraging more District III members to get involved in National Committees - particularly Technical Committees.

Cont'd. on page 3

Cont'd. on page 2

4. Encouraging submissions from District III for the Section Technical Award and the Student Paper Award.

I look forward to meeting with each of you during the coming year. Please feel free to call me with your suggestions about how the Institute can be more effective in serving its members.

1985 SEAT BELT LEGISLATION

Michigan Senate Bill No. 6, requiring front seat occupants of most vehicles to buckle up, was introduced on January 10, 1985. It received Senate approval (25-9) and was forwarded to the House on January 24. The earliest the law could become effective is July 1, 1985.

Provisions of the bill include:

- Enforcement only as a secondary action when stopped for some other suspected violation.
- Violation would be a civil infraction carrying no driver's record penalty points.
- The fine for violation shall not exceed \$10.00 until January 1, 1986; thereafter the fine and court costs shall be \$25.00.
- Failure to wear . . . may be considered evidence of negligence and may reduce the recovery for damages arising . . . by not more than 5 percent.
- Continued compliance of the child restraint law (P. A. 117).
- Exemptions include; vehicles manufactured before January 1, 1965, buses, motorcycles, mopeds, written physician verification of physical or medical reasons, vehicles not required to be equipped with safety belts under federal law, and commercial or U.S. Postal Service vehicles which make frequent stops for pickup or delivery of goods or services.

By: Kurt Kunde.

Editor Note: On February 20, 1985, Senate Bill 6 was approved by the House of Representatives by a vote of 64-41. Governor Blanchard is scheduled to sign the bill into law on March 8, 1985, with an effective date of July 1, 1985.



MICHIGAN SECTION ITE - TREASURER'S REPORT

Balance: November 30, 1984	\$ 456.53
Receipts:	
Dues and Interest	\$1,639.71
Michiganite Ads	595.00
Meetings	1,333.00
	<u>\$3,567.71</u>
Expenses:	
Meetings	\$1,135.93
Printing (Michiganite)	569.23
Postage	50.44
1984 District 3 Contribution	75.00
	<u>\$1,830.60</u>
Balance: February 15, 1985	<u>\$2,193.64</u>
Treasurer, Don Wiertella	

MICHIGANITE

Official Publication of the
Michigan Section
Institute of Transportation Engineers

1985 Executive Board

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Traffic and Safety Division, MDOT
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Michiganite:	
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MICHIGANITE is published quarterly by the Michigan Section of the Institute of Transportation Engineers. It is distributed to more than 300 ITE members and over 100 cities and counties in Michigan. Address communications regarding the Michiganite to the Editor, Weldon Borton, 1014-B Montevideo, Lansing, Michigan, 48917 (Telephone (517) 321-5457).

PEOPLE in the news

BOB DECORTE BEGINS NEW CAREER

Bob DeCorte, a past president of the Michigan Section, has left the field of transportation engineering to begin a new career as a manager in the insurance industry. Bob was one of six people chosen by the Automobile Club of Michigan out of 200 applicants to participate in a two year training program. During the two years Bob will be exposed to every facet of AAA's entire operation. At the end of the training program Bob will be assigned as a manager in AAA's organization. Bob has spent the last ten years working in the Safety and Traffic Engineering Unit of AAA's Community Relations Section. During that time he was very active in ITE activities culminating with his term on the Executive Board. In addition, he spent the last four years as Editor of the Michiganite and to a great extent is responsible for its organization and professional appearance. The Michigan Section thanks Bob for the many hours he contributed to ITE and to Transportation in Michigan. We wish Bob much success in his new position.
By Bob Lariviere

KEN SHACKMAN ACCEPTS NEW POSITION

Ken Shackman, Traffic Engineer for the City of Battle Creek resigned in February, 1985, to accept an engineering position in the sunny southwest. Ken will be employed by the Pima County Department of Transportation and Flood Control District in Tucson, Arizona where his primary responsibilities will be traffic engineering design. Ken had been employed by the City of Battle Creek for over six years. In addition to his traffic engineering duties, he was recently given the responsibility of administering the City parking system.
Since coming to Michigan, Ken has assisted the Michigan Section Board by hosting several monthly meetings in Southwestern Michigan. The section wishes Ken well in his new position.

WELDON BORTON RETIRES

Weldon L. Borton, veteran state traffic engineer, retired January 26 after 39 years with the Michigan Department of Transportation (MDOT).
Weldon will leave his post as engineer in the Traffic and Safety Division's Reflective Systems Unit, where he has been instrumental in many studies and programs concerning traffic signs, signals and pavement markings throughout the state.
He has worked extensively updating and revising the Michigan Manual of Uniform Traffic Control Devices, the "bible" of standard traffic signs and signals used on all roads in Michigan as mandated by state law.
Weldon joined MDOT as a draftsman in the former Planning and Traffic Division in 1946. He received a bachelor's degree in business administration from Northwood Institute in Midland, and a certificate in highway engineering from the International Correspondence Schools.
MDOT's loss is the Michigan Section's gain as Weldon has agreed to spend some of his retirement time as editor of the Michiganite.
Congratulations Weldon on your retirement and your new position as Michiganite Editor.
By Bob Lariviere

KEN OPIELA MOVES TO VIRGINIA

Mr. Kenneth S. Opiela, Ph.D., P.E. formerly of Goodell-Grivas, Inc. is leaving Michigan to take a Senior Transportation Engineer position with the Alexandria, Virginia office of J.H.K. and Associates. His new address will be Senior Transportation Engineer - 4660 Kenmore Avenue, Suite 1112, Alexandria, Virginia 22304. His plans will include keeping active in ITE with the Washington, D.C. section.
The Michigan Section wishes Ken well in his new position.

SAVED BY THE BELT



Southwestern State Employees Credit Union of Kalamazoo receives a "Buckle-Up" award Friday for its work in promoting safety belt use by employees and credit union members. And the program has already paid off, according to Michigan State Police Sgt. Burl Ghastin, because two credit union employees recently involved in serious traffic accidents qualified for "Saved By The Belt" awards. Seen here are (from left) Ghastin and Ruth Messer, Director of the Kalamazoo Seat Belt Task Force, presenting Saved By The Belt awards to Kathy Rann and Patti Vesey, and the "Buckle-Up" award to Eileen McNee, credit union manager.

ST. JOHN'S METER ADS MAKE MONEY

Parking meters can earn their owners a pretty penny in addition to fines and the nickels, dimes, and quarters motorists deposit when they park. This extra revenue is guaranteed by contract and comes from leasing meter heads, double and single, for advertising.

Already this year, a handful of Canadian municipalities have signed with Parkstall Inc., of Rosseau, Ontario. The city of St. John's, Nfld., became the first to lease its meters when their contract took effect March 20, 1984.

"What municipality cannot use more money?" asks Damina Ryan, deputy city clerk of St. John's. "Remember that we continue to own the meters, the hardware, and must approve the ads and meter decals. Our contract is only three years and if the lessee doesn't comply, we can always terminate."

Parkstall (parking stall marketing systems) is a Canadian-owned company. It was founded in September 1983 by onetime broadcaster and sales representative Rick Trask and partner Denis Tasker, former manager of the Parry Sound, Ont., Chamber of Commerce.

"The idea originated in Britain, in the City of Westminster, in 1979, and came to the U.S. about two years ago," President Trask explains. "Meter advertising was launched in Canada when Parkstall signed a contract in St. John's this year."

Provisions of the St. John's contract are typical of others signed, or pending, Trask reports. The term is three years and the number of meters "leased" is set for 12 months at the start of each contract year. St. John's receives \$27 per meter per year for 900 (of 940) meters. Parkstall remits to the city according to an agreed payment schedule once every two months.

The contract provides for an increase in the payment per meter when more than half the leased meters are carrying advertising. Overall revenue will also increase as meter numbers increase. St. John's could have 1000 instead of 900 at the start of the second contract year, Ryan says.

Under the St. John's contract with Parkstall Inc., the company agrees to place public service advertising on 10 percent (90) of the leased meters without extra charge or penalty.

"In St. John's the city clerk and I exercise the right to approve all proposed meter ads," Ryan says. "We decided not to permit ads on cigarettes, beer or spirits." Ryan says he has received no reports of vandalism or negative comments about downtown meters carrying silk-screened vinyl ads. "There have been no problems and we are assured by Parkstall that one merchant's advertising decals will not be placed outside the premises of a competitor. Further, Parkstall, not the city, is responsible for replacing decals before they become dog eared and unsightly."

When Parkstall sells a client meter advertising the client buys a package of meter spaces and signs a one year contract. Either the client supplies the decals or Parkstall does at extra cost. Parkstall hires a local representative to place the decals on the meter head on the parking or street side.

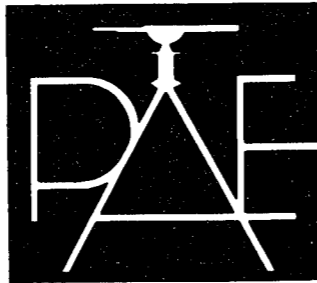
Advertising clients can be local or national or both. Trask says Parkstall tries to sell local business first-to give them first choice to advertise in their trading areas.

"Meter heads vary in size and shapes so we have to have decals that fit," Trask explains. "Double headed meters count as two but we can decal the connecting frame as well as each of the two heads. We can use any part of the head, including sides, ends and tops but we usually use the side facing the street. Good taste is very important and we don't want meters to look too cluttered," Trask comments.

When a municipality agrees to sign with Parkstall, it will remove any non-essential instruction or information stickers, plates or fixtures from its meters. "The only modifications we made was the removal of the number on our meters," says Ryan. "Nobody seems to know why the numbers

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were there in the first place since they perform no useful function."

Ryan suggests that a municipality should: "Go for that extra revenue from meter advertising." He recommends that an informal committee of two or three persons be established to examine proposed commercial ads and suggest public service ads. "The city has the final say and should exercise that right."

Parkstall is now working on another innovative idea of interest to municipalities. The company plans to supply and lease heavy duty die cast aluminum litter receptacles for outdoor use. They would carry advertising on three sides and this revenue would reduce the annual leasing charge. According to Rick Trask, at the end of five years, the leasing municipality would own the receptacles.

Reprinted from Civic Public Works, August 1984

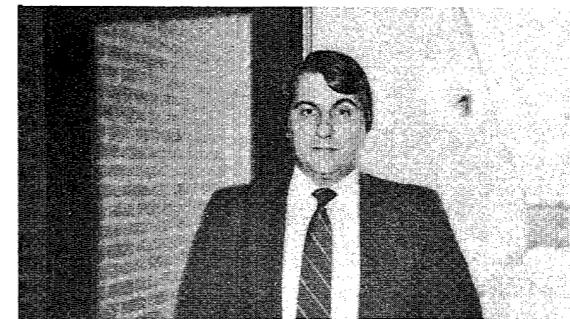
JANUARY ITE LUNCHEON MEETING

On January 24, 1985, the January meeting of the Michigan Chapter of ITE was held at the Oakland Community College in Farmington Hills. The guest speaker was John Simon of the Taubman Corporation. His topic for discussion was that of "Mixed Use Land Development." John's background in this type of work is well experienced, as he is in charge of project and traffic planning for site development east of the Rockies. In addition, he previously worked for Alex Vorheiss Associates and Barton Ashman Associates.

In his discussion, John centered on the blend of Mixed Use Land Development. He stated that each site, with its own uniqueness, has a different ratio of commercial, office, retail and hotel use, to be successful. One highlight of this type of development was that it is most successful in urban areas where the project can be easily identifiable with the immediate location surrounding it, including the local business community. There was a substantial differentiation between this concept and the standard mall concept.

John, also, keyed on the amount of planning that is necessary for each individual type of mix and noted, again, that there is no master key mix which can be used for all sites.

The discussion continued on the problems and benefits that arise out of these types of development with particular emphasis on the parking layout and shared parking concepts. In general, John mentioned that if they are properly planned, they can be successful in many urban areas, large, as well as small.



JOHN SIMON

Cont'd. from page 1

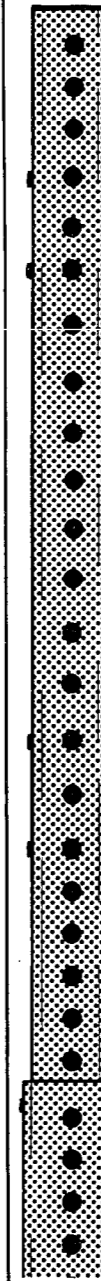
either as a regular voting member or as an Institute Affiliate to strongly consider becoming a member of the Institute. As a National member of ITE you can benefit from:

- technical programs presented by experts in all aspects of the transportation field
- the ITE Journal, which brings professional ideas, news, meeting notices, job opportunities etc. to you on a monthly basis
- discounts on Institute publications including quarterly news letters, technical reports and standards.
- the opportunity to participate on professional, policy-shaping ITE committees and councils
- communication and information exchange with fellow professionals through Institute activities
- An opportunity to develop professionally through up-to-date intensive continuing education seminars
- Participation in the Institute's Life Insurance Program at very economical rates

In the near future all Section Affiliates will receive an application for either the New Institute Affiliate grade or for regular Institute membership. We encourage you to take a few minutes and complete your application so that you can benefit from membership in the Institute of Transportation Engineers.

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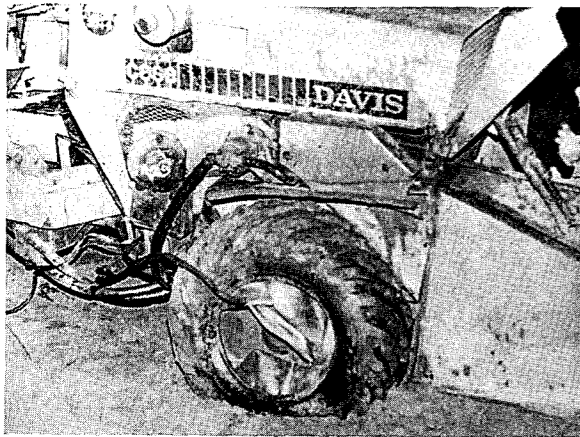
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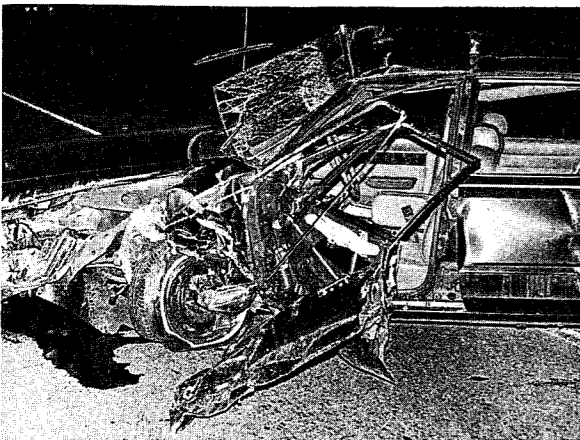
Evanston, Illinois



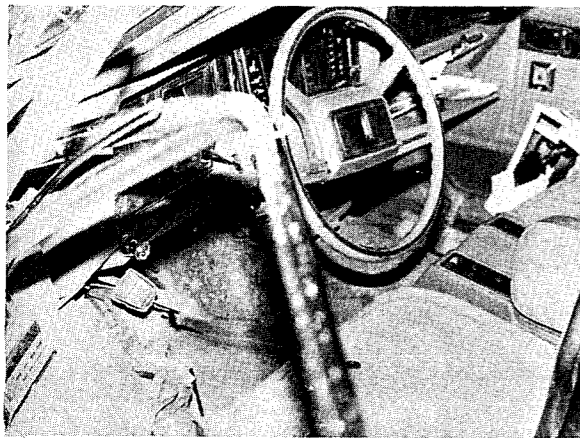
ROOM TO LIVE



This Case tractor with a cable trenching unit attached was traveling west to east across Sprinkle Road between 7 and 8 p.m. in January 1985. The Case tractor did not have lights or reflectors and was virtually invisible at this time of evening.



This new Ford station wagon was headed south on Sprinkle Road at 50-55 mph and collided with the Case tractor. The driver was alone and **WAS WEARING HIS SEAT BELT!!** At the scene he complained of a sore knee and neck and was taken to the hospital where he was examined and released.



This picture shows both the interior of the Ford station wagon which provided "Room to Live" and the seat belt which provided a life line allowing the driver to walk away from this dramatic crash.

DOLE GIVES CONGRESS SPENDING OUTLINE FOR SEAT BELT PROGRAM

Transportation Secretary Elizabeth Dole has sent to Congress a plan outlining proposed spending for an educational campaign to increase seat belt use and obtain state passage of belt use laws.

The proposal, which will be reviewed by the appropriations committees, details spending plans for the \$10 million already authorized by Congress in its 1985 continuing resolution. Dole noted that DOT is seeking a total of \$20 million for fiscal 1985. (See Status Report, Vol. 19, No. 17, November 3, 1984.)

In a letter to Jamie Whitten, head of the House Appropriations Committee, Dole said the effort will "be focused at the state level with funding and technical assistance going to state coalitions, units of government, and other appropriate organizations. Information about passive restraints will be an integral part of this program."

Dole expects private sector sources to provide another \$20 million for a joint government and private sector education program. Congress has released \$2.5 million for immediate expenditure and will release the remaining \$7.5 million following review of Dole's program plans by the appropriations committees.

"The most effective management technique appears to be use of coalitions made up of elected officials, medical, business, and volunteer organizations, similar to the Governors' Task Forces on Drunk Driving," the outline states. "DOT will assist individual state coalitions to develop strategic plans reflecting the needs of that state and furthering the goals of the national program."

Dole said DOT would target 10 states for the initial \$10 million outlay. The document proposes:

- State and local program assistance \$4,685,000
- National organization support \$1,550,000
- Media development \$1,400,000
- Campaign coordination \$ 900,000
- Research and evaluation \$1,465,000

The DOT document also indicates the program would encourage fleet purchases of cars equipped with automatic restraints by private sector companies and local governments.

Reprinted from Status Report

ERRORS IN SECURING CHILD RESTRAINTS CAN MINIMIZE PROTECTION

Tests and real-world experience show that common errors in securing child restraints with seat belts can significantly lower their performance in crashes, University of Michigan researchers have concluded.

In a study released by the university's Transportation Research Institute, Kathleen Weber and John W. Melvin said that educators need to emphasize how child safety seats should be properly secured in cars, and that manufacturers should take steps to help minimize or eliminate potential consumer mistakes.

The researchers also found that retractable seat belts, which are common in front and outboard rear seating positions, can significantly degrade child restraint performance when they are used to fasten the restraints in place. The researchers recommend that devices to tighten the belts be developed, and that manufacturers seek to improve retractors in order to make them more compatible with child restraint use.

In addition, they said child restraints should not be used in side-facing vehicle seats if at all possible, and that rear-facing restraints are generally more effective in crashes than are forward facing systems.

The study was prepared under contract with the National Highway Traffic Safety Administration. Copies of "Dynamic Testing of Innovative Solutions to Child Occupant Protection Problems" may be obtained by writing for DOT HS 806 624 from Dr. Carl C. Clark, Inventor Contact, National Highway Traffic Safety Administration, NRD-12, Washington, D.C. 20590

Reprinted from Status Report

"CENTIPEDE" PORTABLE TRAFFIC BARRIER

The Texas State Department of Highways and Public Transportation, as with all states, has experienced a rise in the number of accidents in construction zones. In one Texas Maintenance District 39 injuries and 12 fatalities occurred among construction and maintenance workers over a two-year period. Analysis of the Texas accidents indicated that most of the accidents occurred at sites where the closed lanes were opened to traffic at the end of the work day. The very nature of the short duration work zones required that traffic control devices be lightweight, very portable, and easily erected and removed. This requirement leads to traffic control devices being knocked over and not replaced or replaced in a different location. The lack of traffic control devices caused confusion to the motorist and increased the accident potential to both the public and the road crews as stray vehicles encroached the work area.

Increased law enforcement, greater efforts to replace traffic control devices, and restricting the work to light traffic periods had marginal effect. The only practical solution, to increase work area safety, was to provide positive barriers at these short duration work sites. Providing, installing, and removing any positive barrier is time-consuming and in some cases takes longer than the roadwork itself.

In an effort to provide the necessary positive barriers the Texas State Department of Highways and Transportation, in cooperation with the Federal Highway Administration, contracted with the Texas Transportation Institute to design, construct, and test a mobile traffic barrier. The prototype "Centipede" consisted of five used station wagons, with three beam guardrail attached to both sides. The prototype satisfied the design requirements of a series of large rigid beams with moment resisting joints (i.e., a portable precast concrete barrier).

A two dimensional computer model developed at TTI was used to predict maximum deflections and forces transmitted at the joints under predetermined load conditions. With a test vehicle of known weight, moving at controlled velocity and impact angle, crash tests of the Texas prototype barrier were conducted to compare computer deflections with actual impact results. The test results compared favorably with the computer model:

IMPACT VELOCITY mph (km/h)	IMPACT ANGLE (deg)	MAXIMUM DEFLECTIONS in. (cm)	
		Computer	Actual
50 (81)	7	0.5 (1.3)	2.0 (5.1)
50 (81)	15	10.0 (25.4)	7.2(18.3)

This was a truly portable, positive construction barrier as it was portable enough for use in maintenance zones of one day or less, has proven crashworthy, and is relatively inexpensive to construct and maintain.

The MDOT "Centipede" project was given approval on June 1, 1983. Based on the Texas experience the Michigan model was to provide an easily transported traffic barrier for maintenance work zones of no more than one day's duration. The barrier was expected to:

1. Reduce the potential for life-threatening accidents for both workers and highway users.
2. Redirect vehicles in a manner similar to a portable concrete barrier.
3. Increase productivity by reducing setup time. The Michigan model has some changes from the prototype built in Texas. They are:
 1. Suburban truck used as the tow vehicle (Texas used five station wagons).
 2. Cooler fitted on tow vehicle to reduce possibility of transmission fluid overheating.
 3. Last automotive axle removed and replaced with a trailer axle and electric brake hookup.
 4. Friction bar connection in last joint to reduce fishtail motion.

The construction of the MDOT "Centipede" was completed in January 1984. The cost to construct including

four 1977 Plymouth Fury station wagons and one 1977 Chevrolet Suburban (the tow vehicle) was \$17,690.64.

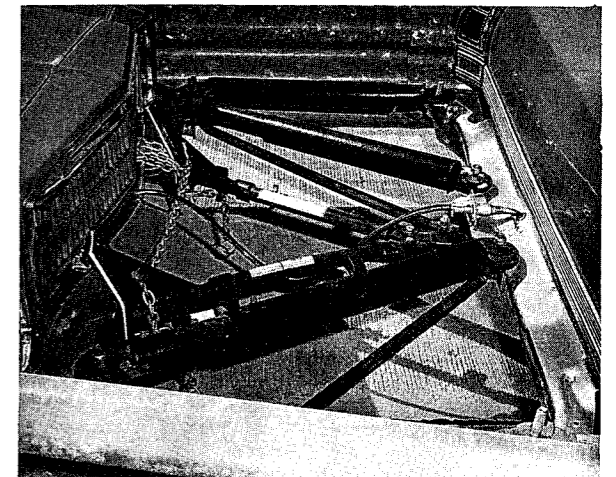
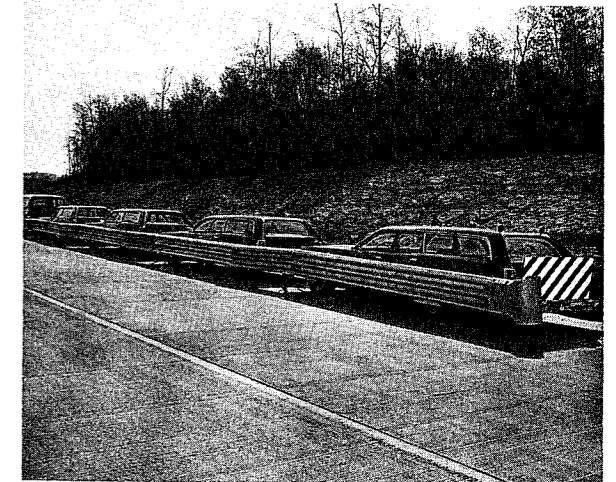
The device will serve as a barricade between moving traffic and workers, in work zones of 100' or less which do not require closures in darkness. It will be used as a supplement to traffic control devices such as signs, arrow bars, and cones for transition.

In its experimental state, the barrier will be limited to the following on freeways and divided roadways:

1. Bridges: railing and beam repair.
2. Roads: guardrail and culvert headwall repair, catch basin reconstruction, shoulder repair, light standard replacement, bituminous and concrete patching.

The MDOT "Centipede" mobile barrier will be deployed for a trial period of approximately 12 months during which its usage will be evaluated by the MDOT Maintenance Division. After the trial period, an evaluation report will be prepared for review by the MDOT Engineering Operations Committee.

The MDOT "Centipede" is located at the Grand Ledge Maintenance Garage. For further information please call Mr. Bruce Benson, Engineer, Automotive and Equipment Section (517) 373-2264.
By Don Wiertella



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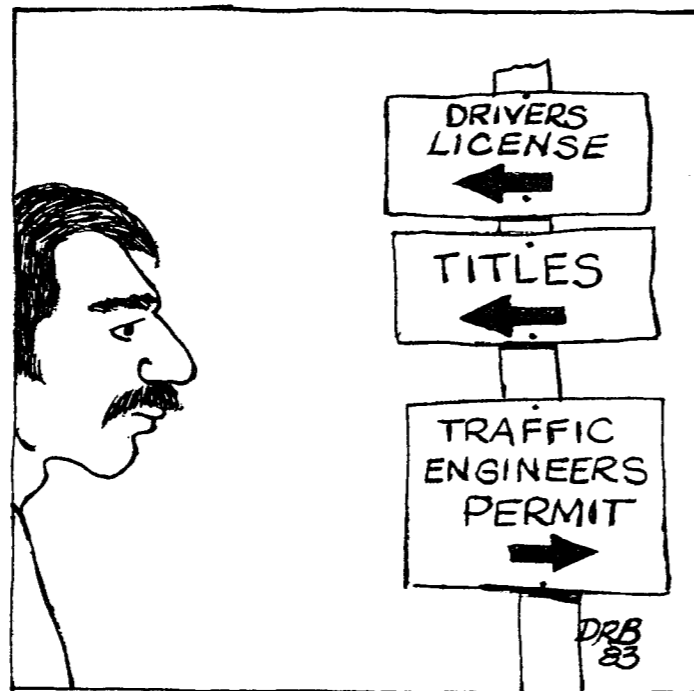
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TONGUE IN CHEEK

Office exercises can wear you out, according to the publication *Indiana Crossroads*. If you're tired at the end of the workday, perhaps you're burning up more "calories" than you think you are. The following is a list of workday exercises and the calories they burn.

Beating around the bush.....	75
Jogging to the memory.....	125
Jumping to conclusions.....	100
Climbing the wall.....	150
Swallowing pride.....	50
Passing the buck.....	25
Grasping at straws.....	75
Beating your own drum.....	100
Throwing your weight around.....	300
Turning the other cheek.....	75
Wading through paperwork.....	300
Eating crow.....	225

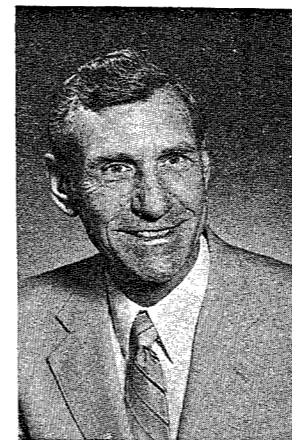
By Don Wiertella



MDOT APPOINTS NEW DEPUTIES

Appointment of William J. MacCreery as deputy director for highways in the Michigan Department of Transportation (MDOT) and G. Robert Adams as deputy for transportation planning was announced by State Transportation Director James P. Pitz. The two veteran department administrators have been serving in their respective jobs in an acting capacity since the retirement of their predecessors in 1984.

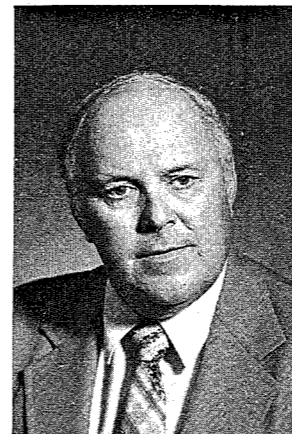
Pitz also announced the promotion of Robert A. Welke and Donald E. Orne, long-time department engineers, as deputies to MacCreery in MDOT's 3,000-member Bureau of Highways. Welke, engineer in charge of the department's Kalamazoo District serving southwest Michigan, will become assistant deputy for operations. His responsibilities will cover highway construction and maintenance and testing and research activities. Orne, who has been chief engineer of highway maintenance, will be the assistant deputy for technical services. His responsibilities will include highway design, traffic and safety programs, right-of-way appraisal and acquisition, administration of state and federal programs dealing with county road and city street systems, utilities and permits activities affecting highways, program administration and engineering services related to drainage systems, railroads and highway litigation.



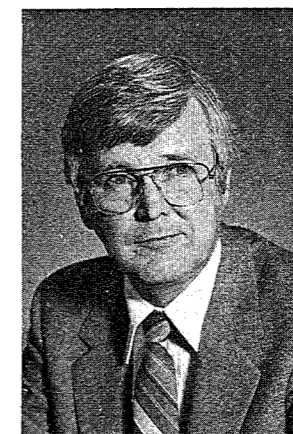
MacCREERY



ADAMS



WELKE



ORNE

MacCreery moved into his present assignment after eight years as chief of the Design Division. He was assigned to the construction division for more than 20 years and for several years was in charge of state highway construction in the Detroit metropolitan area and the entire Upper Peninsula. He also served three years as the engineer of local government, administering distribution of state and federal funds to cities, villages and counties for road and street improvement.

Adams has spent most of his 26 years with the Transportation Department in various phases of planning, the last four as the assistant deputy for planning. Earlier, he headed the Transportation Planning Services Division, and the Environmental and Community Factors Division, responsible for the investigation of social, economic and environmental impacts on proposed highway and transportation projects. He also has worked on highway route location and was in charge of the department's public hearings.

Welke took over the department's nine-county Kalamazoo District in 1983 after seven years as supervising engineer of the Testing and Research Bituminous Unit. He was responsible for specifications and quality control of asphalt pavements throughout the state. Welke has gained considerable national recognition for his work in development of the department's program for recycling asphalt pavement, using existing materials to, in effect, convert old highways into new ones. In the Kalamazoo District, he also has been extensively involved in concrete recycling projects.

Orne had supervised maintenance of the 9,500-mile state highway system since 1980. Earlier, he served six years as the chief engineer of traffic and safety, capping more than 20 years in the Traffic and Safety Division. He also headed the department's testing laboratory, which tests all materials used in the construction or maintenance of transportation projects.

TRAFFIC DEATHS UP IN 1984

Even though the figures are still "provisional", year-end reports from the Traffic Services Division of the Michigan State Police (MSP), indicate that 1984 traffic fatalities will be at least 14% higher than they were in 1983.

By mid-January, with delayed reports still coming in, deaths for 1984 were already at 1,518 compared with 1,331 for all of 1983. Lt. James Downer, MSP analyst, said he expected the final figure would be about 1,530 when the 1984 record books are officially closed. "I'm fairly certain we will record at least 200 more traffic deaths in 1984," Downer noted. "This will end the recent downward trend we've seen during the past several years." Downer also said he didn't expect that the mileage death rate would change significantly since travel (mileage) had increased last year. The rate was 1.8 deaths per 100 million miles in 1984.

Although there was a substantial increase in enforcement activity aimed at drunk drivers in 1984, drinking was still noted as a factor in over 50% of the reported fatalities for 1984. Figures available through September, 1984, indicate 15,000 more drivers were arrested for "OUIL" during the first nine months of 1984, compared with the same time period in 1983. This reflects an increase of more than 33% in enforcement activity statewide. Reprint from TSA of Michigan

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55 MPH COMPLIANCE

Michigan motorists are in compliance in 1984—but just barely—with the national 55-mile-per-hour speed limit.

That was the report recently from Transportation Director James P. Pitz and Col. Gerald L. Hough, State Police Director.

Pitz said statewide checks by the Michigan Department of Transportation (MDOT) showed that 49.7 percent of all vehicles operating on roadways signed for 55 mph are exceeding the speed limit. Last year, 48.5 percent were going over the limit.

If the total exceeds 50 percent, the state faces a loss of up to 10 percent of federal funds allocated for work on primary, secondary and urban systems. Michigan's potential penalty is about \$10 million a year.

"Obviously, we just barely got in under the wire this year," Pitz said. "Highway speeds have been creeping up every year for several years, and it's evident that Michigan will not be in compliance in 1985 if motorists continue to press down on the accelerator."

Hough, under requirements of federal law, said he will certify to the Federal Highway Administration that Michigan is in compliance with the national speed limit adopted during the Arab oil embargo of 1973-74.

The driving speed for Michigan motorists was obtained by averaging data from 862,294 vehicles that passed 44 monitoring sites located throughout the state.

Average driving speeds range from 62.9 miles per hour on rural Interstate freeways down to 52.5 miles per hour on other principal rural arterial highways. The average on urban non-interstate freeways is 59.1 mph.

The proportion of motorists exceeding the limit ranges from 89.8 on rural interstates to 41.8 percent on major rural collector highways.

MDOT Public Information Office

GROOVERS URGE SMOOTH HIGHWAYS

Road rideability is a subject of growing interest among paving contractors, state highway departments, the Federal Highway Administration and the motoring public.

According to the International Grooving and Grinding Association, more and more highway departments in recent years have adopted specifications for road smoothness in both concrete and asphalt pavement. In many states, the accepted profile tolerance varies from seven up to 12 inches per mile.

The association points out that corrective grinding can be used to bring new concrete and asphalt pavement into tolerance quickly and economically. Contractor members of the association are using special machines equipped with diamond blades to shave off bumps without damaging the existing pavement.

Road rideability is especially important because total vehicle traffic and vehicle load have increased significantly since the Interstate system was first designed. As the association points out, a smooth-riding vehicle puts less stress on pavement and on a highway department's maintenance budget.

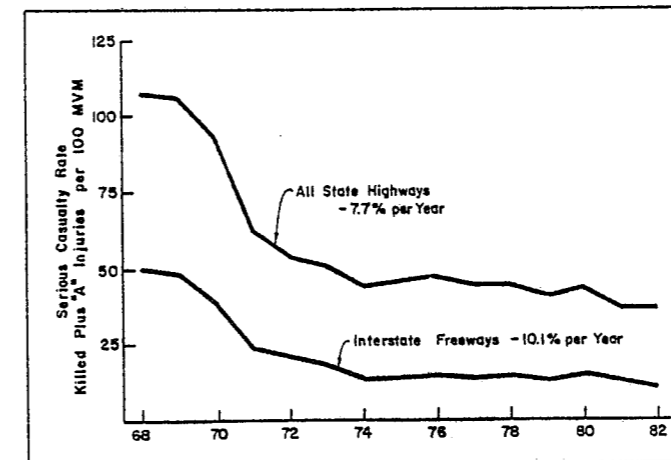
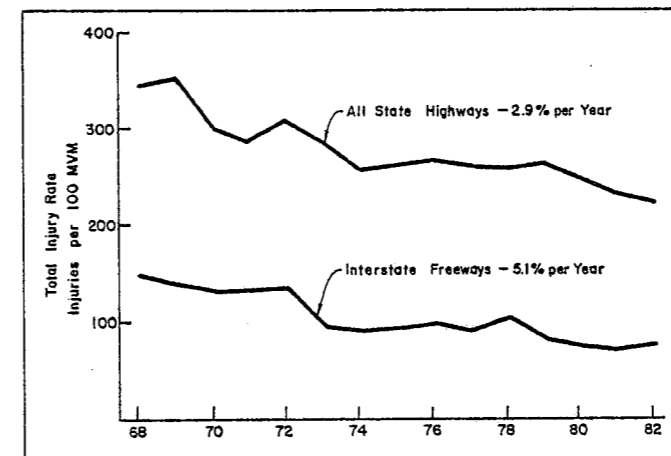
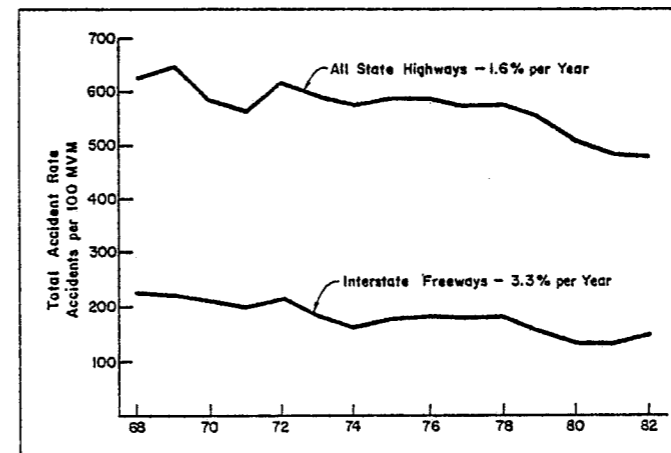
Reprinted from Highway and Heavy Construction



Cont'd. from page 10

subsequent dramatic gasoline price increases. Comparison of the ratio of serious casualties to total casualties for both off-road fixed-object crashes and on-road multi-vehicle crashes seems to confirm, however, that the severity of fixed-object crashes decreased at a more significant rate. This indicates that something other than generally reduced speeds was impacting the severity of those accidents.

Results of this evaluation lead us to conclude that the roadside safety program on Michigan's interstate system has had a significant, positive impact on reducing deaths and serious injuries. We believe that the study confirms the benefits of roadside safety improvement programs and warrants continuation of those efforts on other freeways and on the free access highway system. By Bill Lebel

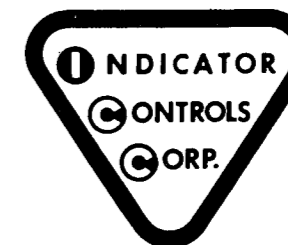


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HAVE A TAXI MEET ME AT THE BUS STOP

A new service offered to all nighttime passengers of Hamburg's bus lines sounds like an idea that merits replication elsewhere. As of November 1, drivers will order taxis over their radio link with central control to meet the requesting passenger at a bus stop of his choice. By the time the bus pulls up to the stop, the taxi is generally waiting for the passenger. The new arrangement responds to growing apprehension by passengers, particularly female passengers, returning from the downtown area to the suburbs late in the evening about being set down in deserted streets, some distance away from their homes. The Hamburg Bus Authority expects that the new service will also help to increase nighttime use of the public transit system.

Reprinted from URBAN TRANSPORTATION

PARK AND RIDE: FLORENCE STYLE

To reduce traffic congestion in the historic inner city of Florence, Italy, local traffic planners have inaugurated a variation of the Park and Ride system. Instead of encouraging motorists to park on a lot adjacent to a commuter rail station and take the train downtown, Florence has installed guarded parking lots on the fringe of the downtown area. Motorists who park their cars in these lots are issued bicycles for their trip into the city center. Two bikes are available for each parked car and there is no extra charge for the rental bike beyond the parking charge for the car. The parking fee includes two hours' use of the bikes. For longer periods a nominal hourly fee is added.

Reprinted from URBAN TRANSPORTATION

EVALUATING ROADSIDE SAFETY IMPROVEMENTS IN MICHIGAN

In the mid-1960s, growing public concern for highway safety focused attention on casualties resulting from off-road crashes with fixed-objects adjacent to the highway. Many of these crashes were with highway-related structures such as guardrails, signs, culverts, bridge piers, and light standards. In response to these concerns, the American Association of State Highway and Transportation Officials (AASHTO) developed guidelines relative to the roadside environment in a 1967 publication entitled "Highway Design and Operational Practices Related to Highway Safety." This publication, more commonly called the "Yellow Book," was the basis for early programs focusing on improving the safety of roadsides.

Michigan's initial implementation of roadside safety improvements began in 1969. Standards for new construction were modified to incorporate the clear or "forgiving" roadside called for by the Yellow Book. Since most new roadway construction in the 1970s involved freeways, those roadways, particularly new interstate freeway, benefited most from the higher roadside safety standards.

Concurrently, in the late 60s and early 70s action was taken to upgrade the roadside environment of freeways built prior to the development of the new standards. Bridge-mounted signs, steel column breakaway supports, breakaway wood posts, and relocation of signs to 30 feet back or more from the pavement edge had evolved by 1970. In general, roadside safety work associated with signs was well underway by 1970.

Full width, paved shoulders were being built along interstate freeways by 1970. Concrete median barrier was being constructed along with high volume Detroit freeways in the early to mid 1970s and, as guardrail standards evolved, new or replacement guardrail reflecting the more up-to-date standards was being installed. Frangible or breakaway light standards were developed in the mid to late 1970s and use of impact attenuators was common by 1980.

In addition to the wide range of improvements catalogued above, a systematic prioritized roadside safety upgrading program on our freeway system was initiated in 1971. First priority was the interstate system. Initially, projects were authorized by maintenance force account procedures using either department or contract county forces. Work was also prioritized by type. Guardrail improvements were to be done first, such as removal, upgrading, or extension of the rail and upgrading of end sections. Subsequent priorities were slope flattening, filling of gore areas, and modifying culvert end sections. Signs and light standards not already upgraded were also targeted for correction.

By 1975 it was decided to let much of the remaining work to competitive bid contract to expedite completion of the roadside safety work. Forty-two percent of the interstate system at that time was up to, or nearly up to, AASHTO roadside safety standards. Improvements on an additional 40 percent of the system were being designed. By 1982, essentially all of the interstate system had been upgraded to the more forgiving roadside safety standards, although authorization of further improvements reflecting the continual evolution and refinement of those standards continues.

Roadside Safety Analysis

Analysis of the impact of roadside safety improvement projects on safety is difficult for several reasons. As outlined above, much of the work was accomplished in stages over several years, and some of the work was included within projects not specifically classified as roadside safety. Analysis is further complicated by lack of adequate accident sample sizes, particularly when attempts are made to segregate ran-off-the-road accidents involving fixed-objects or rollovers and correlate them to specific improvements. Another problem, until recently not clearly recognized, was defining exactly what the safety impacts

of roadside safety projects were; that is, did they reduce total accidents or was there primary impact on injuries and fatalities?

Our initial premise was that these projects do not dramatically impact total accidents. We believed that their primary benefit was minimizing the consequences of an errant vehicle crash rather than minimizing the number of such incidents. Logically, we believed that such projects would reduce casualties (fatalities and injuries). This proved to be true, but of special interest is the fact that more detailed analysis of the injury data disclosed that deaths and the most serious injury (Type A) decreased at a much faster rate than did the less serious (B and C Type) injuries.

The accompanying graphs document accident/casualty experience on the interstate system from 1968 to 1982. Basically, the data in the early years reflects a "before" improvement condition, and the later years an "after" condition.

Accident Statistics

Total accidents on the interstate system averaged about 15,000 from 1968 through 1975. Accidents increased to over 19,000 by 1978 and dropped back to slightly over 15,000 in 1980, 1981, and 1982. As the interstate system mileage grew and miles driven increased, the accident rate decreased about 3.3 percent a year. During this same period the injury rate decreased 5.1 percent per year. Of more significance, however, was that the fatality and serious injury (Type A) rate decreased substantially faster. The death rate has dropped, more or less consistently, from 3.73 in 1968 to 0.91 in 1982. When coupled with the most serious Type A injury, that casualty rate has decreased at a rate of 10.1 percent per year. By comparison, on all state highways between 1968 and 1982, the total accident rate decreased by 1.6 percent annually, injuries by 2.9 percent, and serious casualties by 7.7 percent per year. Prior to 1971, an average of 35 percent of all casualties on the interstate system were fatalities and Type A injuries. This rate decreased to 21 percent in 1971 and continued to decrease by about a 0.4 percentage point a year.

Since the interstate roadside safety program specifically attempts to reduce the consequences of ran-off-road, fixed-object accidents, the trend of fatalities and serious injuries resulting from that type of crash was also assessed. Injury severity data was available for fixed-object accidents only since 1971. The data shows that the ratio of fatalities and serious injuries to total casualties decreased from 26 percent in 1971 to 20 percent by 1982. For multiple vehicle accidents, which make up most of the remaining crashes, injury severity data was available only for the years 1976 to 1982. In that seven-year period, the "severe" accident ratio remained constant.

Program Results

Since 1976, fixed-object related deaths decreased from 67 to 33 (51 percent). Multiple vehicle deaths dropped from 76 to 53 (30 percent). Corresponding Type A fixed-object injuries decreased from 514 in 1976 to 361 in 1982 (28 percent). Multi-vehicle Type A injuries decreased from 828 to 693 (16 percent). This lends further credibility to the theory that significant serious casualty reductions on the interstate system are to a large degree attributable to the roadside safety improvement program. A statistical analysis of the data confirmed that conclusion.

A significant event that occurred during the study period that could have influenced total accident experiences and accident severity, was enactment of the 55 mph speed limit in 1974 and the oil embargo and the

CHILD SAFETY SEAT RULE CHANGED

In a move to make it easier for parents traveling with small children to use the same child safety seat, the National Highway Traffic Safety Association (NHTSA) and the Federal Aviation Administration (FAA) will modify their child seating regulations to create a common standard.

In announcing the action last August, Secretary of Transportation Elizabeth Hanford Dole stated, "We believe (this) will enhance child safety both in the air and on the highway. This is particularly important since mandatory child restraint laws have been adopted in 49 states and the District of Columbia."

The Administration has issued a final rule amending its child restraint systems standard so that such safety devices can be certified either for use in motor vehicles only, or in both motor vehicles and aircraft. When the standard becomes effective in February of 1985, the FAA will rescind the requirements of its Technical Standard Order (TSO) C100, and take action to permit child restraints certified under the requirements of the NHTSA rule to be used in aircraft.

For more information on the new standard, contact Hal Paris in NHTSA's Office of Public and Consumer Affairs at (202) 426-9550.

Reprinted from TSA Newsletter

PROTECT A SMILE AND A LIFE BY BUCKLING UP FOR SAFETY

A child's smile - is there anything more appealing? And yet many parents risk their children's smiles and indeed, their lives by not buckling them into seat belts or protective car seats. Last year, 800 children under age five died in car accidents and thousands more were injured or disfigured. At least one-third of all traffic accidents result in head and facial injuries, including thousands of broken jaws and teeth.

Dentists and physicians nationwide have joined with the National Highway Traffic Safety Administration on a seat belt safety program. Their goal is to improve the 11 percent seat belt usage rate. For every one percent increase in seat belt use, it is estimated that 172 lives will be saved.

NEW TOLL-FREE ACCESS LINE FOR TRAFFIC SAFETY

Beginning January 1, 1985, a new toll-free access line will give Michigan residents the opportunity to get answers to their questions about traffic safety. The number (1-800-852-0851) will be operated by the Michigan Office of Highway Safety Planning (OHSP).

Since the enactment of the state's child passenger safety law in 1982, the OHSP has recognized that many citizens don't know where to turn for answers to their questions on child car seats, safety belts, and other traffic safety issues. This new toll-free access line will make it possible to get answers at no cost to the caller.

The line will be operated 24 hours a day. Questions will be recorded on an answering machine and will be processed at the beginning of each business day. Calls must be made within Michigan.

While questions on child car seats are those most frequently asked, the toll-free line is intended to process any question related to traffic safety (safety belts, drunk driving, school bus safety, etc.). Reprint from TSA of Michigan

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1985 MEETING SCHEDULE

Date	Location	Host	Event
April 25	Kalamazoo	Jon Start	Dinner/Guest Speaker
May 16	Southfield	Bill Savage/ Bob Northrup	Vendor's Day
Spring	Detroit	Jerry Carrier	Couples Night
June 13	Warren Valley	Lyle Nustad	Golf Outing/Dinner
July 26-27	Mt. Pleasant	Tim DeWitt	Family Weekend
Aug. 18-22	New Orleans	National ITE	Annual ITE Meeting
September 13	Saskatoon	Grand Rapids	Golf Outing/Dinner
October 22	Detroit	Carmine Palombo	ASCE/District III Meeting
November 7	Flint	Don Berry	Lunch Meeting
December	Detroit Area		Annual Meeting/ Technical Session

BARTON-ASHMAN OPENS LOCAL OFFICE

Barton-Aschman Associates, Inc. recently opened a Michigan office in the City of Livonia. The Evanston, Illinois based firm provides consulting services to both the public and private sector in Traffic, Transportation, Transit, and Parking through its 12 offices in the United States and Canada.

Rolf P. Kilian, Principal Associate, and Timothy Haagsma will manage the local office. Their address is:

Barton-Aschman Associates, Inc.
28425 West Eight Mile Road
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(313) 476-6708

GORDON MELVIN PLANS RETIREMENT

The city of East Lansing has announced the retirement of Gordon Melvin, Director of Engineering and Landscaping. Gordon, who is a past president of the Michigan Section of ITE, retires after 28 years of service with the city. He will forsake sunny Florida and reside in the East Lansing area after his retirement on April 30, 1985.

Anyone interested in attending a retirement dinner for Gordon on Saturday, April 27, 1985, should contact Harla Eriksen of the East Lansing Public Works at (517) 337-9459 for additional information.

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