

FEDERAL INTEREST IN TRANSPORTATION EFFICIENCY

John Sweek, P & R Engineer

Within the past few years, especially since the "energy crisis" of 1974, there has been increasing public discussion about the need for overall transportation efficiency. Congress has held hearings about it, and a number of official Federal pronouncements at "some of the highest levels" have indicated the need for a strong Federal interest in this matter. It would appear that we have suddenly found a new national interest in the Federal transportation field.

Concern about transportation efficiency, although heightened by the recent energy shortage, has been an important factor in Federal transportation for a number of years. As early as 1950 Federal transportation officials recognized the transit vehicle as "...a much more efficient user of street space than the private auto..." in congested areas. By the 1960's it was the official position of the Bureau of Public Roads (now the FHWA) that reservation of highway lanes for exclusive or preferential transit use would be justified if the usage by passengers exceeded the number of persons that might normally be moved in passenger cars.

The efficient movement of traffic was one objective of the TOPICS (Traffic Operations) officially funded by Congress in 1968). This program emphasized improved flow of transit vehicles as well as private autos. At the same time the use of car-pools and other high occupancy vehicles is being promoted as a partial answer to roadway congestion.

Energy conservation, mandated by the realization that energy resources are finite, is an important byproduct of efficient utilization of transportation facilities. More recently, improved air quality has been recognized as an additional benefit.

Federal Highway Administration support of activities to enhance transportation efficiency include funding of programs to identify and link commuters for vehicle pooling, construction and designation of

parking lots and special highway lanes for high occupancy vehicles, and preferential treatment of transit vehicles in urban areas.

Newly promulgated planning regulation by FHWA/UMTA require, as a prerequisite to Federal highway and transit aid in urban areas over 50,000 population, the preparation of a Transportation Systems Management (TSM) element. The purpose of this activity is to identify those actions local officials may initiate which will ensure the efficient use of roadway space.

The Energy Policy and Conservation Act signed by the President on December 22, 1975 requires state energy conservation plans to include programs for vehicle pooling as a condition for Federal assistance. State plans much also, where practicable, include laws or regulations allowing motorists to turn right on a red signal after stopping. The provisions of this act will be administered by the Federal Energy Administration, the government agency established to monitor our energy programs.

Secretary of Transportation Coleman has stated in the "Statement of National Transportation Policy" that it is the Department of Transportation's policy to: "increase efficiency in the utilization of energy in the transportation sector..." Since measures to improve the efficient movement of people and good will also help to meet the goals of energy conservation, Federal emphasis on actions to better utilize existing transportation facilities will continue to be in the national interest.

Ever hear his horn oink?

Enticing spring weather which beckons many a city motorist to the open road is apt to bring forth many stories like the one about the motorist who had killed a farmer's pig with his automobile. Said the motorist: "Don't worry. I'll replace your pig." To which the farmer quickly retorted: "You can't. You ain't fat enough!" We know the type. We've heard him squeal his brakes like a traffic-stuck driver.



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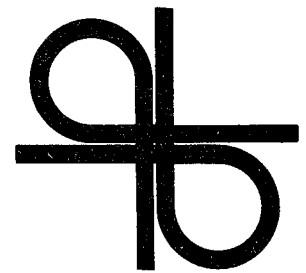
OFFICIAL PUBLICATION

VOLUME 11 NUMBER 1

SPRING 1976

MICHIGAN SECTION

INSTITUTE OF TRANSPORTATION ENGINEERS



PRESIDENT'S COLUMN

I would like to share with you several thoughts concerning the Institute of Transportation Engineers that relate to the Michigan Section.

The beginning of this Bicentennial Year 1976 ushers in new horizons for the Institute of Transportation engineers. The name change as approved by the membership late last year confirms the Institute's goal of broadening its scope, including those involved in all transportation disciplines.



BLOST

I anticipate improved communications and informational exchange among all concerned, thus strengthening and improving our total transportation effort.

During the year I believe you, as individual members, and your Board of Direction should be working with others in the transportation industry and actively encouraging their participation in the many activities of the Michigan Section.

A particular problem which I intend to address this year is the need for improved public awareness of the many activities of the transportation industry, particularly with respect to traffic engineering.

Most of you are aware of the pressures encountered in evaluating traffic controls at intersections and establishing reasonable speed zones and parking controls. I believe that improved communications and increased awareness by the general public will assist our efforts in these areas.

Unfortunately, the traffic engineer often assumes a defensive position while reacting to some problem. More effort should be directed toward informing the public about traffic engineering principles and about those projects which might affect them in an effort to enlist their support and improve our image and credibility for future decisions. While progress in this area will be difficult, I am confident that our public relations committee will face this issue with optimism.

Another related problem involves transportation legislation. In past years when a House or Senate Bill was being considered, little input to legislative committees or individual legislators was generated by the traffic engineering profession.

KENNETH H. LAYER

Kenneth H. Layer, executive director of the Institute of Transportation Engineers, died suddenly early Friday morning, February 27, at his home in Falls Church, Virginia. Mr. Layer, 50, served as executive director of the ITE since June of 1970, coming to the Institute from the Hotel Association of America. He is survived by his wife, Patricia and two sons, Mark and Eric.

The Executive Committee of the Board of Direction expressed official condolences to the family, initiated action toward a fitting memorial and appointed Tom Brahms, current Director of Technical Affairs, as Acting Executive Director.

I believe that we, as a professional society, should avail ourselves to the Legislature and actively promote thoughtful and responsive legislative action. Our legislative committee will be working on this issue.

Last, but not least, the future of the transportation profession is dependent on our young people considering and actively pursuing courses of study leading to employment in the transportation industry. The Institute of Transportation Engineers can bridge the gap between our educational institutions and the industry and assist in the development of effective education programs.

I believe that vigorous Student Chapter activities are vital and have formed a special committee to determine ways in which we can promote the transportation profession and improve our assistance to the various Student Chapter advisors that would be of value in administering to the needs of the traffic engineering student.

Of course, our *Michiganite* and general meetings will continue to be of paramount importance to our organization. A newly established areawide editor system and continued support of the technical session type of meeting will continue to be the backbone of our membership contact.

I look forward to talking to many of you from time to time throughout the year and, if you have any comments or suggestions concerning Institute activities, please get in touch with me.

Richard L. Blost
President

Guidelines for Influencing Legislation

Recent correspondence I received as a member of another tax-exempt organization contained advice relative to members influencing legislation and tax-exempt status under the Internal Revenue Service Code. I repeat pertinent guidelines here for members of ITE as I was requested to do by the Board of Direction.

1. Correspondence to elected senators and representatives to influence passage or defeat of a particular bill should *not* bear the name of the Institute anywhere in the correspondence or in the letterhead. Such correspondence should be on an individual citizen-influence basis.

2. Providing of factual information in testimony or to legislators on aspects of legislation in the name of the Institute is a legitimate activity of the Institute under our tax exempt status.

3. The Institute name and letterhead is appropriate on issues and decisions being determined at the executive level of government. They are appropriate on any issue or decision not being made by the legislative process. The final approach or veto of a bill by the President or Governor, however, is still part of the legislative process.

The above guidelines are forwarded to you for information and guidance as to use of the Institute name and letterhead in correspondence on legislative matters.

Harold L. Michael
Immediate Past President

OCTOBER DISTRICT SESSION

Some preliminary arrangements have been set for the October 1976 District III Technical Session. Per District III Board request, we are planning a one-day seminar to be held on Thursday, October 21, at the Hospitality Inn in Ft. Wayne, at the junction of I-69 at SR 3. A block of rooms will be reserved in advance, but members must obtain their own reservations. A luncheon and dinner will be set up with a registration fee to cover both meals (not to exceed \$15.00). Our arrangements committee is composed of John Cary, chairman, Walt Stout, and Larry Smith. Our Technical Chairman is George Reyman who will be coordinating the Technical Session.

Daffy Definition —
SYNCHRONIZE: To do something evil on time!

MICHIGANITE

Official Publication
Michigan Section

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



**MINUTES OF MICHIGAN SECTION
ITE MEETING
JANUARY 15, 1976**

The meeting was held at Walli's Supper Club in Flint with 55 persons in attendance. Following a buffet dinner, the meeting was called to order by President Richard Blost.

President Blost welcomed those present and introduced the Section Officers for 1976. Guests were introduced and the members were asked to stand and introduce themselves.

Past Treasurer Melvin gave a summary of the Section's revenues and expenditures during 1975.

President Blost announced that the next meeting would be the Annual Ladies Night Meeting and would be held at Weber's Inn on April 2, 1976.

It was also announced that the Michigan Department of State Highways and Transportation intended to mount the "No Right Turn on Red" signs on span wires and that the sign size would be 30" x 30".

Gerald Geile, Chief of Bus Transit Division, Michigan Department of State Highways and Transportation was introduced as the speaker and gave a very interesting and informative talk on Bus Transit programs.

Thanks were extended to Mr. Wilson and Mr. VanHine for providing the meeting facilities and program.

There being no further business, the meeting was adjourned.

Gordon E. Melvin
Secretary

NEED INPUT FOR 1980 CENSUS

The decennial census is a major national undertaking, and census data are widely used in many important government, private, and community programs. You have an important stake in the decennial census, both as a member of I.T.E. and as an American citizen.

The Census Bureau is now actively working on plans for the 1980 census and important decisions have to be made in the relatively near future. For example, the full content of the basic census questionnaire must be determined by the spring of 1977 so that further preparatory steps can be accomplished successfully.

Although there are many constraints on the census in terms of what and how much information can be collected and tabulated, the Bureau believes that it is very important to obtain and review the recommendations of as wide a range of users and potential users of decennial census data as possible. The Census Bureau is therefore anxious to have the ideas of traffic and transportation engineers.

If you have any suggestions, questions, or comments on the 1980 census, please send them to:

Director
U.S. Bureau of the Census
Washington, D.C. 20233

CONTROLLER WORKSHOPS

Carrier & Gable, Inc., in conjunction with I.T.E. and I.M.S.A., will sponsor two 3-day workshops on controller maintenance the week of May 3, 1976 at the Hospitality Motor Inn, East Lansing, Michigan.

The workshops, taught by David C. Bacon of Carrier & Gable, Inc., and Gary Christopherson of Eagle Signal, will consist of a 2-day school on pretimed controller maintenance followed by a 1-day session on loop detectors and their installation.

There will also be a panel discussion on maintenance around the state with speakers from Detroit, Michigan Department of State Highways, Oakland County, Downing Electric, Macomb County and Eagle Signal.

Advance reservations are required as a class size must be limited to twenty due to room size and materials. There will be a fee of \$30.00 per person to cover coffee breaks, lunch and materials for three days. For further information and reservations, please contact Carrier & Gable, Inc. at 275-5230.

Dave Bacon

DON'T USE PAINT TO COVER MARKINGS

According to FHWA Notice N 5160.14 of 12/5/75, a notice concerning avoidance of hazardous highway conditions that may result from inadequate removal or obliteration of inappropriate pavement markings, the overpainting of markings is a common and ineffective method and should be discouraged.

During the practice of detouring traffic around construction and maintenance areas it frequently becomes necessary to obliterate the old markings on the highway. If this is not done properly, the original marking can direct the motorists toward the closed portion with great danger to both the drivers and the workmen.

The currently acceptable and effective methods for removal or obliteration of old pavement markings are:

1. Sand blasting using air or water,
2. High pressure water,
3. Mechanical devices such as grinders, sanders, scrapers, scarifiers and wire brushes.
4. Solvents and chemicals.

Where the markings have been obliterated, nighttime inspections are needed to verify the continued effectiveness of the method used.

Where temporary stripes are required, a product such as a removable tape may be used in lieu of paint where appropriate.

These considerations are applicable to highway construction both on and off the Federal-Aid System. City and county highway agencies and contractors, take note.

For further information consult the FHWA Notice N 5160.14 and Highway Safety Program Standard 12.

The Michiganite is prepared in cooperation with the Traffic Safety Association of Detroit and distributed through the courtesy of the Safety and Traffic Engineering Department of the Automobile Club of Michigan.

MICHIGANITE

Official Publication
Michigan Section
of the

Institute of Transportation Engineers

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The following persons have agreed to serve as assistant editors of the Michiganite. Each will have a definite area of editorial and reportorial responsibility. Any member having material for publication should contact the editor listed below who is concerned with the activity of his interest:

Cities Editor	Stanford P. Gross
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FEDERAL-AID HIGHWAY ACT OF 1975

by Tapan K. Datta, Ph.D., P.E.

The provisions in the Federal-Aid Highway Act of 1975 have created concern among Traffic Engineers at all levels of government and private enterprises.

The bill are quite lengthy and not the concern of this paper in its entirety. The basic purpose of this paper is to analyze the impact of the House and Senate versions on the off-Federal aid roadway systems safety programs.

The categorical safety programs of Highway Act of 1973 have been eliminated from both the House and Senate versions of the bills. However, the House Bill would, as reported limit use of safety construction funds to the Federal-aid system, with the exception of funds earmarked for eliminating rail-highway crossing on off-Federal aid system. In addition, at the discretion of the Secretary of Transportation, funds for the improvement of highway pavement markings could be used by the states on roadways on off-Federal-aid system. The House version provides an allocation of \$169 million for rail-highway crossing program.

The Senate version, claiming local flexibility, has abolished the categorical safety construction programs established by the 1973 act - rail-highway crossings, identification of high hazard locations, elimination of roadside obstacles, pavement marking, bridge replacement and a safer roads demonstration program for the 2.8 miles of road that are on the off-Federal aid system. Instead, the Senate Bill incorporates the first four categories into one "Federal-aid safer roads System" and would make a total of \$950 million for a two year period available to the States in carrying out those safety measures. And approximately \$281 million can be used for the replacement of unsafe and substandard bridges.

The SB 8151 (b) states "Not later than September 30, 1976, each state shall identify projects on all public roads in such State, including projects to eliminate roadside obstacles, to correct high-hazard locations, to eliminate hazards at railroad-highway grade crossings, and to improve highway marking and signing, identified by accident reports, traffic records, and hazard analysis systems established in accordance with standards promulgated under subsection (a) of this section. Each state shall assign priorities for and undertake the systematic correction of identified hazards, to provide for the most effective improvement in highway safety."

Some experts claim that this section allows funds for off Federal aid systems also. The concerns raised by others can be summarized as follows:

1. Off-Federal aid systems will hardly gain higher priority over Federal-aid system in any state if the current methods of project prioritization is continued.
2. It is difficult to change a prioritizing procedure at state level in a manner which will place the off-Federal aid

MORGANTOWN PRT SEMINAR

The Michigan Section ITE Student Chapter at Wayne State University is presenting a technical seminar by Dr. David Miller, senior associate at Boston-Aschman Associates, entitled "Evaluation of Alternatives for the Morgantown PRT System". Dr. Miller will describe the recently completed study in which the various options available from scraping the project to completing it for the nation's first Personal Rapid Transit System.

The presentation will take place at 7:00 p.m., Monday, May 17, 1976, in the Engineering Building on the campus of Wayne State University.

All ITE members are invited to attend.

For further information call Ken Oppler at 577-3842.

- system's projects at a higher priority than Federal-aid-systems carrying higher traffic volumes with a higher frequency and also higher rate of roadway accidents.
3. To make a priority analysis technique sensitive to off-Federal-aid systems, considerable amount of data will be necessary besides development of extremely well designed and scientific analysis procedure.
 4. Most states are facing budget restraining problems and their staffs are over-committed and most probably cannot afford additional manpower and expertise to do an equitable project programming.
 5. It is also possible to increase the time requirements for project programming and approval procedure.
 6. Off-Federal-aid system can be forgotten also in some states.

The above are just a few of the concerns related to the Senate version of the bill. The following efforts by the local traffic engineers (transportation engineers) may solve potential problems in the State of Michigan.

1. Obtain a copy of the provisions of the Senate Bill 8151.
2. Identify your projects.
3. Discuss developing equitable prioritization procedure within your County.
4. Make efforts to bring your problems to State Highway Engineers.
5. Assist them in the development of fund allocation and Statewide priority analysis procedure.
6. Collect engineering data to clearly understand your community's safety needs and present your data to County and State officials.

The above are some of my thoughts on the subject. It will probably create more questions than providing answers.

The purpose of this article is to generate interests among the traffic engineers to develop thoughts and means of handling the issue when confronted with it.

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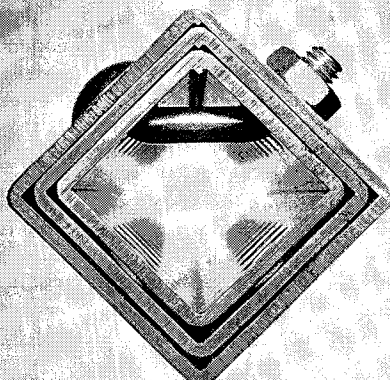
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46TH ITE ANNUAL MEETING IN BALTIMORE

Baltimore is a city which provides both resident and visitor alike with an image that mirrors this country's 200-year history.

Baltimore is a city of contrasts. It is a city alive with the future. Alive with the people of a 100 ethnic backgrounds. And alive with the qualities that have made this city and country a great place in which to live and work.

But Baltimore is also a quiet city. Quiet with the old-world charm three centuries of history give a city. Quiet with a determination not to let the quest for the future destroy the past. And quiet with the sense that man must have the time to rest and reflect in a quiet and relaxed way.

Baltimore is this and so much more, for it is as diverse and different as its people. It is a hub of American industrial and commercial life. It is the historic cornerstone of American railroading. It is a major port city serving passenger as well as cargo traffic.

Baltimore is a cultured city with its quiet corners of culture and charm. It is the Walters Art Gallery and Baltimore Museum of Art. It is the famous Johns Hopkins Hospital and University. It is the one-time home of Edgar Allan Poe, H. L. Mencken, F. Scott Fitzgerald and Babe Ruth.

Baltimore is a city in the process of realizing her dreams. You see a metropolis in the midst of its renaissance, one that began cosmetically but has gone on to include her spirit as well. The rebuilt heart of downtown, the Charles Center, with its gleaming towers and spacious plazas, seems to say, "Here find inspiration!"

Within the Charles Center area are the Hopkins and Center Plazas, which for the past several years have been the setting for outdoor events -- "people" happenings that make a city alive and exciting.

Facing Hopkins Plaza, in this city that gave us such greats as blues singer Billie Holiday and opera star Rosa Ponselle, is the Morris Mechanic Theatre, the first legitimate theatre built in this country in the last 25 years. Here, annually, thousands thrill to concerts and Broadway musicals.

Within easy walking distance of the downtown hotels are the fine boutiques of Charles Center and the famous restaurants of

Baltimore -- and no city likes to eat better than Baltimore!

New York Times food editor Craig Clairborne once wrote, "Baltimore is a city worth visiting for the food alone for here one can enjoy some of the best continental and American cuisine in the country, and definitely the best seafood."

Baltimore's famed seafood arrives daily in the Inner Harbor, now undergoing a \$500 million face lifting. The focal point of this development is the United States Frigate "Constellation", the oldest ship in the United States Navy still afloat.

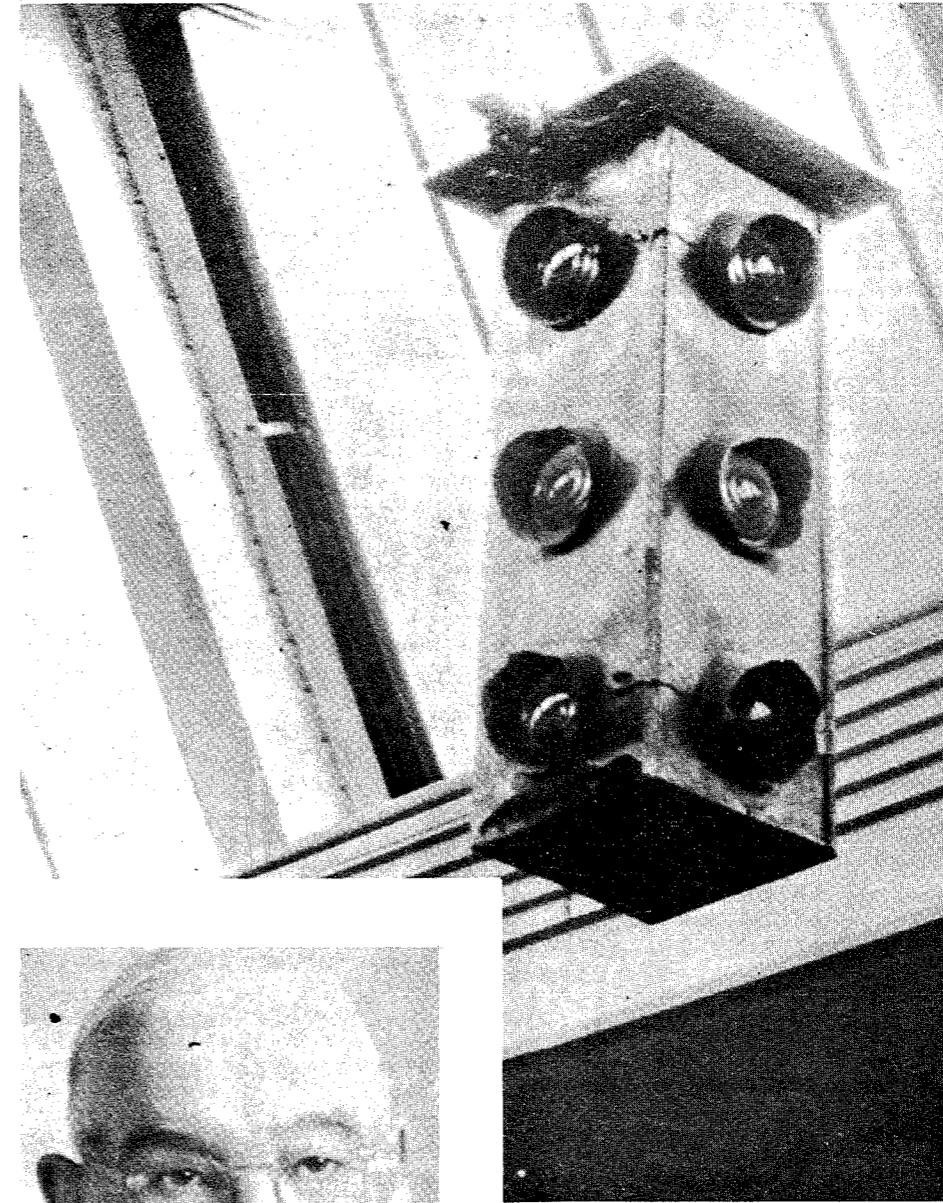
A short walk from Constellation Dock brings the visitor to the Flag House, home of Mary Pickersgill who made the Star-Spangled Banner immortalized by Francis Scott Key. Just north of the Flag House stands the interesting Shot Tower, the only remaining one of its kind in the country. One block south one finds the Carroll Mansion, the town house of Charles Carroll of Carrollton, one of Maryland's signers of the Declaration of Independence.

Perhaps the most famous of Baltimore's historic sites is Fort McHenry where, from the deck of a British man-of-war lying offshore on September 14, 1814, Francis Scott Key watched the rockets' red glare and the bombs bursting in air.

Transportation buffs will want to see the newly refurbished Baltimore and Ohio Transportation Museum featuring the nation's largest exhibit of locomotives in its oldest roundhouse. And they will be enchanted by the recently completed Streetcar Museum that offers rides on turn-of-the-century trolleys.

For those with a little time to spare, Baltimore is within an hour's drive of Annapolis, Maryland's capital. There the visitor will find the oldest state capitol still in use and nearby the United States Naval Academy. Washington is less than an hour away and Philadelphia can be reached in two hours.

Perhaps we can best understand Baltimore if we listen to the words of one of her favorite sons, Henry L. Mencken, who said, "She is not a brazen hussy among cities. For if the truth be known, Baltimore is a perfect lady. Warm and gracious. Ever the perfect hostess. She has, at the bottom, the one great quality which in cities, as in women, survives all the rest. She has the indefinable, irresistible something called charm."



In this year of the Red, White and Blue Bicentennial, it behooves traffic and transportation engineers to reflect on the origin of the Red, Yellow and Green traffic signal. William L. Potts of the Detroit Police Department was jumped from patrolman to inspector for his invention of the traffic signal. Potts, generally credited as the originator of the "red, yellow and green" electric traffic signal as we know it today, adapted his device from railroad semaphores when he was head of the Police Signal Bureau. His directional signal of four inch lenses, still in existence today, was first installed in December 1919 at the intersection of Woodward Avenue and Fort Street.

A.S.C.E. FIELD TRIP TO TORONTO
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SPEND A LONG WEEKEND IN TORONTO!
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- Tour of Traffic Control Center
- Tour of Steel Art Sign Manufacturing Plant
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- Round trip on Canadian National Railroad Line from Windsor to Toronto

Hotel Cost: \$83.00 (plus 7% tax) per couple for three nights, send attached hotel reservation form and deposit for one night's lodging (\$29.60) to Hotel Toronto by April 9.

Train Cost: \$21.20 per person round trip. Send attached train reservation form and check payable to "A.S.C.E. - Southeast Branch" (\$42.40 per couple) to Ramesh Patel, treasurer, A.S.C.E. c/o Giffels Assoc., 1000 Marquette Bldg., Detroit, Michigan 48226 by April 9.

Train leaves from Windsor 8:20 a.m. April 29, return trip begins at 12:00 noon May 2 from Toronto.

Program arranged by Transportation Technical Group, Southeast Branch, Michigan Section, American Society of Civil Engineers.

All A.S.C.E. members (and non-members) are welcome.

Questions? Call Richard Beaubien at City of Troy, 689-4900.

TREASURER'S REPORT MICHIGAN SECTION ITE February 18, 1976 - March 23, 1976

Balance as of February 18, 1976	\$1,067.97
Receipts:	
1975 Dues	\$ 5.00
1976 Dues	210.00
Michigan Advertising	47.25
January Meeting	7.50
Total Receipts	269.75
Expenditures:	
Harry Miller Flowers, Inc.	\$ 27.04
Total Expenditures	27.04
Balance as of March 23, 1976	\$1,310.68*

*Balance includes \$150.29 in Hospitality Fund
*Balance includes \$300.00 promised as loan to National ITE

Location of Funds:
Community National Bank of Pontiac - Checking Account
Gerald M. Holmberg
Treasurer

NEW MEMBERS

Welcome to the following new Michigan Section Members:

- Douglas M. Baehr
- Glen R. Etelmaki
- Dennis L. Hadden
- David Paul Henley
- Clarence M. Hoedeman
- Robert G. Lariviere
- Robert E. Maki
- Joseph Meszaros
- Eugene E. Ferguson
- V. W. Schafer
- Francesco J. Deon
- Donald Walker



46th ITE Annual Meeting
Baltimore
August 16-19, 1976



WSU SEMINAR SERIES

The Department of Civil Engineering of Wayne State University, in cooperation with the Michigan Office of Highway Safety Planning and the U.S. Department of Transportation - Federal Highway Administration, is conducting a series of seminars on Traffic Engineering and Safety in Michigan. Dr. Tapan K. Datta has been designated as the program director and is responsible for coordinating and conducting the seminars in various parts of the state.

The seminar sites are selected by various communities volunteering to host one such seminar. Seminar topics are selected as per the interest and needs demonstrated by the individual host communities. The guest speakers are selected for each seminar depending on their availability and the seminar topic. These are one-day seminars and open to all without charge. Informational fliers for each seminar are sent to the various Traffic Engineering practitioners in the city, county, state and private agencies throughout the state of Michigan. To date, five communities have indicated an interest in hosting a seminar. These are:

1. City of Mt. Pleasant
2. City of Grand Rapids
3. Washtenaw County Road Commission
4. City of Traverse City
5. Macomb County Road Commission

One other seminar will be held on the Wayne State University campus to cater to the needs of the City of Detroit and the counties in the Detroit metropolitan area. The following seminar dates and topics have been finalized at this time:

1. Bicycle facility planning, design and control - Thursday, March 25, 1976, at Mt. Pleasant, Michigan
2. Computerized traffic signal systems Tuesday, April 13, 1976, at Grand Rapids, Michigan
3. Priority programs of highway improvement projects and bicycle facilities planning, design and control - Wednesday, April 21, 1976, at Washtenaw County, Michigan

The initial response (pre-registration) for the Mt. Pleasant Seminar has been tremendous.

Besides these one-day seminars, Wayne State University is conducting a two-day training session on "Conflict Analysis" in cooperation with the Michigan Office of Highway Safety Planning and the U.S. Department of Transportation - Federal Highway Administration; on June 8 and 9, 1976. Mr. William T. Baker, an expert in the field of Conflict Analysis, will be the guest speaker for this session. The initial response (pre-registration) for this session far exceeded any expectation. The current enrollment for this session is 86.

For further information regarding the above seminars, please contact
Dr. Tapan K. Datta, P. E.
Department of Civil Engineering
667 Merrick
Wayne State University
Detroit, Michigan 48202
(313) 577-3789

STOP SIGNS FOR SPEED CONTROL

Richard E. Beaubien, P.E.
Transportation Engineer
Troy, Michigan

INTRODUCTION

The *Manual on Uniform Traffic Control Devices* states that stop signs should not be used for speed control, but citizens concerned with speeding in residential areas are frequently convinced that stop signs can be effective in reducing speeds. Furthermore, their appeals to local elected officials for stop signs they believe are required to reduce speeds are difficult for political decision-makers to deny.

As a result, stop signs are often authorized for placement in residential areas as a means for controlling speed. Recent studies in Troy, Michigan suggest that placing stop signs for speed control tends to increase peak speeds and that these signs are regarded lightly by the motorist.

The result of speed studies conducted on residential streets before and after the installation of stop signs are reported here. The studies were made with a radar unit operated from an unmarked car. The highest speed observed for each vehicle was the speed recorded.

ANVIL DRIVE

Anvil Drive is a collector street in a new residential area. The street is approximately 0.6 miles in length, and it has a curved alignment to emphasize its residential character and discourage speeding.

Residents felt that speeding was a problem, however, and spot speed studies were conducted to determine the extent of the problem.

The average peak speed was 24.1 mph - a typical result for residential streets in Troy.

Residents petitioned City Council for stop signs, and stop signs were placed on Anvil at Forge, and on Anvil at Kettle as a result of Council action. Kettle and Forge are local streets.

Speed studies were conducted on Anvil between Kettle and Forge 30 days after the stop signs were installed, and the average of peak speeds was 24.6 mph. This result indicates that there was no significant difference in speeds after the stop signs were installed.

Stop sign observance studies were also made at Anvil and Kettle 30 days after the Anvil stop signs were installed.

These studies showed that only 25% of the motorists came to a full stop. This suggests that motorists do not feel that a stop is required at this intersection.

SPEED STUDIES-ANVIL

	WITHOUT Stop Signs	WITH Stop Signs
Low Speed	15 mph	15 mph
Average Speed	24.1 mph	24.6 mph
85th Percentile Speed	29 mph	28.5 mph
High Speed	38 mph	35 mph

STOP SIGN OBSERVANCE-ANVIL

	Number	Per Cent
Full Stop	14	25
Roll Stop	35	64
No Stop	6	11
Total	55	100

NIAGARA DRIVE

Niagara Drive is a collector street in a new residential area. The street is approximately 0.4 miles in length, and it has a curved alignment to emphasize its residential character and discourage speeding.

Residents in the area were concerned about speeding, and they petitioned City Council for installation of stop signs on Niagara at Eagle. Eagle is a local street.

Spot speed studies were made to determine the extent of the problem and the average of peak speeds was found to be 23.8 mph.

Stop signs were installed on Niagara at Eagle, and speed studies were conducted again 30 days after installation.

With the stop signs in place the average of peak speeds was 25.2 mph. This indicates that the stop signs were not effective in reducing speeds.

Stop sign observance studies were made at Eagle and Niagara 30 days after the stop signs were installed on Niagara. These studies showed that 51% of the motorists came to a full stop. This suggests that nearly half of the motorists using Niagara do not feel a stop is needed at Eagle.

SPEED STUDIES-NIAGARA

	WITHOUT Stop Signs	WITH Stop Signs
Low Speed	15 mph	15 mph
Average Speed	23.8 mph	25.2 mph
85th Percentile Speed	26 mph	29 mph
High Speed	34 mph	34 mph

STOP SIGN OBSERVANCE-NIAGARA

	Number	Per Cent
Full Stop	21	51
Roll Stop	14	34
No Stop	6	15
Total	41	100

ROBINWOOD STREET

Robinwood is a collector street in an established residential area. The street is approximately 0.5 miles in length, and its connection with other streets provides a continuous route between Livernois and Rochester - both arterials.

Stop signs were placed on Robinwood at Van Courtland in 1964, creating a three-way stop intersection. The stop signs on Robinwood were placed in response to citizen requests after a child was killed near the intersection.

The accident report indicates that the child was struck by a car going approximately 12 mph at a point approximately 150 feet east of the intersection. The driver was not considered to be at fault.

Speed studies showed an average speed of 24.4 mph, and stop sign observance studies showed that only 26% of the motorists came to a full stop.

The stop sign observance results indicate that over a period of more than eleven years motorists have developed a habit of not stopping for the signs on Robinwood at Van Courtland.

Stop signs were removed on a temporary basis, and speed studies were conducted 30 days after the sign removal. The average of peak speeds was 23.4 mph, so there

was no significant difference in speeds after the stop signs were removed.

SPEED STUDIES-ROBINWOOD

	WITHOUT Stop Signs	WITH Stop Signs
Low Speed	10 mph	13 mph
Average Speed	23.4 mph	24.4 mph
85th Percentile Speed	30 mph	30 mph
High Speed	38 mph	38 mph

STOP SIGN OBSERVANCE-ROBINWOOD

	Number	Per Cent
Full Stop	21	26
Roll Stop	39	48
No Stop	21	26
Total	81	100

CRIMSON STREET

Crimson is a collector street in a new residential area. Many homes are still under construction. It is approximately 0.6 miles long, and it has a curved alignment which reinforces the residential character of the area and discourages speeding.

Residents in the area felt that speeding was a problem, however, and they asked that stop signs be installed on Crimson at Crestline and on Crimson at Lakewood to reduce speeds.

The residents agreed, however, to await the results of an evaluation of a temporary stop sign on Crimson at Crestline before pressing their request for permanent stop signs.

Before and after speed studies were made at locations chosen with the cooperation of the residents. Before-Speed studies were made on both sides of the temporary stop signs, and the results were separated by direction of travel.

After-Speed studies were made 30 days after the installation of temporary stop signs.

Stop sign observance studies were also made 30 days after temporary stop signs were installed. The studies showed that only 9% of the motorists came to a full stop.

This indicates that more than 90% of the motorists do not consider a stop is needed at Crestline.

Results of the speed studies and stop sign observance studies are shown in the tables below.

SPEED STUDIES-CRIMSON

	WITHOUT Stop Signs	WITH Stop Signs
Westbound Crimson East of Crestline	12 mph	15 mph
Low Speed	21.6 mph	23.7 mph
Average Speed	21.6 mph	23.7 mph
85th Percentile Speed	25.3 mph	26.4 mph
High Speed	32 mph	30 mph

	WITHOUT Stop Signs	WITH Stop Signs
Westbound Crimson West of Crestline	7 mph	15 mph
Low Speed	24.0 mph	23.7 mph
Average Speed	24.0 mph	23.7 mph
85th Percentile Speed	29.1 mph	27.7 mph
High Speed	40 mph	32 mph

	WITHOUT Stop Signs	WITH Stop Signs
Eastbound Crimson East of Crestline	10 mph	10 mph
Low Speed	23.5 mph	24.8 mph
Average Speed	23.5 mph	24.8 mph
85th Percentile Speed	26.4 mph	27.8 mph
High Speed	32 mph	34 mph

	WITHOUT Stop Signs	WITH Stop Signs
Eastbound Crimson West of Crestline	8 mph	15 mph
Low Speed	24.5 mph	26.6 mph
Average Speed	24.5 mph	26.6 mph
85th Percentile Speed	31.2 mph	32.6 mph
High Speed	39 mph	36 mph

NEW TECHNICAL COMMITTEES

A number of new technical committees are being formed by the ITE Technical Council. If you are interested in serving on one of these volunteer committees fill in the form and send it to Stan Cool who will pass your name on to the appropriate person.

Committee	Title
4A-3	Application of Driveway Circulation Control Devices
4A-4	Handling Construction - Maintenance Traffic Control in Urban Areas
6A-14	Transportation of the Elderly & Handicapped
6A-15	Treatment of High Occupancy Vehicles
6A-16	Warrants for Bus Lanes
6F-13	Evaluation of Accuracy of Past Urban Transportation Forecasts
6F-14	Impact of the No Growth Concept on Transportation & Traffic
6F-15	Outlook for Practical Alternative Energy Sources for Freewheeling Transportation Vehicles
6Y-12	Effect of Parking on Modal Split
6Y-13	Modal Split: Update on Current State-of-the-Science
6Y-14	Planning for Bicycle Transportation
6Y-15	Successful Techniques for Citizen Involvement

	Number	Per Cent
Eastbound		
Full Stop	2	6
Roll Stop	19	54
No Stop	14	40
Total	35	100
Westbound		
Full Stop	10	10
Roll Stop	42	43
No Stop	46	47
Total	98	100

After seeing these results, the residents agreed that stop sign installation would not be an effective technique for reducing speeds in their area. The temporary stop signs have been removed.

CONCLUSIONS

The before and after speed study results reported above show that stop signs are not effective in controlling speeds in residential areas.

The difference in average speeds is not significant after stop signs are placed, but the general tendency is for a slight increase in speeds after stop signs are placed for speed control.

One might speculate that this increase is the result of motorists speeding up after the sign to make up for lost time. It is interesting to note that the same tendency occurs in reverse when stop signs in place for many years are removed.

After removal there was no significant change in speeds, but speeds were slightly lower without the stop signs.

The stop sign observance studies showed that stop signs placed for speed control are generally disregarded. Approximately half of the motorists made a rolling stop. One quarter of the motorists came to a full stop, and one quarter did not stop at all.

District 3 Executive Board Meeting

Thursday, December 18, 1975
Hospitality Motor Inn
Fort Wayne, Indiana

The 1976 Executive Board of District 3 convened at 12:00 noon at the Hospitality Motor Inn in Fort Wayne, Indiana, with Board Members Gibson, Blost, Clinard, Meredith, and Alternates Melvin and Ziegler in attendance.

Election of Officers for 1976

The following were elected as officers for the 1976 District Board:

Vice Chairman - P. E. Newville
Secretary - J. E. Meredith
Treasurer - C. A. Clinard

1976 Meeting Schedule

The Board scheduled meetings tentatively for May - possibly in conjunction with the Ohio Section Meeting - and October at the District 3 Technical Meeting in Fort Wayne.

Director Gibson has received the 1976 Michigan Section meeting schedule and requested the same from the Ohio and Indiana Sections.

District Boundary

The Board discussed at length the several proposed District realignment schemes and unanimously approved a motion to recommend to the National I.T.E. Board Plan "B", i.e., Michigan; Ohio, Indiana, West Virginia, Wisconsin, Illinois.

Life Members

A motion was adopted authorizing the expenditure of District funds for mounting or framing Life Member's Certificates. Director Gibson will forward the certificates to the Section Presidents and request that they be presented to the Life Members in an appropriate manner.

New Business

The following items were discussed:
a. Director Gibson was requested by the District Board to bring before the National Board for discussion purposes the possibility, desirability and feasibility of requiring each I.T.E. member to belong to a local section and the collection of Section dues by I.T.E. headquarters.

b. Director Gibson is to seek from National I.T.E. membership recruiting guidelines for use by the Districts and Sections. There is considerable interest relative to the impact of the recent name change on membership qualifications, etc.

c. Director Gibson was asked by the Board to determine the Section membership status of A.O.D. representatives, i.e., does A.O.D. membership in I.T.E. constitute membership in one or more Sections?

d. Director Gibson was asked to obtain clarification of I.T.E. magazine subscription requirements.

e. Travel expense in the amount of \$18.00 was approved for C.A. Clinard.

There being no further business, the meeting was adjourned.

Jere E. Meredith
Secretary, District 3