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From the 1996 Michiganite Editor; Lee Liston



This issue of the MICHIGANITE includes the membership directory. The next issue will be out around Christmas.

I had an opportunity to attend the ITE annual meeting in Minneapolis last month. It was an excellent chance to hear the latest thinking on many subjects. I was amazed at the interest in traffic calming. Seems that we all have similar problems. Even the states with a 30 mph residential limit are battling speeding on their streets. The most effective tool is still police enforcement. The European residential area is very different from what we have in the United States, especially away from the northeast. Most of what works in Europe does not apply in the U.S. due our spread out lifestyle and lack of public transportation alternatives.

Here's something to think about: The Minneapolis MPO is seriously looking into charging vehicles to drive on the downtown freeways during the peak periods as a means of congestion management. This is called congestion pricing. It will all be done electronically. Watch San Diego to try it also next year for non HOV vehicles.

Food for thought: Can we charge people to use the roads they have already paid for? Isn't the over concentration of destinations a function of poor planning? What is the point of having a great downtown like Minneapolis if you have to charge to get in on the freeway? The system is expected to make money with the funds going to enhancing other modes of commuting. Let's hear what you think.

Thanks for your contributions. Call me at (810)858-4829.

The State of Michigan Trunk Line Story

*by Stan Lingeman; Lingeman and Associates,
1996; 43 pp, illus.; softcover*

\$10 plus \$2.60 shipping and Michigan sales tax.

This brief-history publication presents a historical look at Michigan's state transportation system. It looks at such topics as former Indian trails that became state roads, U.S. and super highways, the trunk line during the Depression, expressways and freeways, highway deaths and injuries and the effects of the economy, gasoline tax, construction costs and inflation on the trunk line. Order from the publisher, 1665 Burrows Street, Apartment 73, East Lansing, MI 48823.

From ITE Member; Stan Lingeman P.E.

A review of the Motor Vehicle Traffic deaths in Michigan's shows a long term pattern of improvement by implementing a statewide speed limit. Between the years 1933 and 1996, there were 107,685 highway deaths in the State, with an annual average of 1,709. Major fatality accidents peaked in 1937, 1941, 1955, 1969 and 1988.

In 1937 during the great depression, 2,175 highway deaths occurred, an increase of 897 over the 1933 statistic of 1,278. There was no established statewide speed limit in effect, however the increase may have been due to the increased travel on the recently opened U.S. highway system.

With the improved economy and increased travel due World War II, highway deaths peaked again in 1941 at 2,133. No passing zone signs were installed on the Trunk Line System in 1941. A temporary statewide speed limit of 35 MPH was established in 1942 to conserve gasoline for the war effort. This also proved effective in reducing highway deaths. The year 1943 showed a total of 992 deaths, which was a 53% reduction over 1941.

In the post war period, highway deaths continued to increase. In 1955, 2,016 deaths occurred. To some extent, these deaths were caused by the auto industries' desire to sell 140 MPH automobiles to the public. This period became known as the Horse Power Race. On February 3, 1956, the legislature placed a statewide speed limit of 65 MPH daytime and 55 MPH at night on Michigan highways. By 1958, highway deaths were reduced to 1,382.

With the gradual completion of the state's 1,850 mile limited access freeway system, highway deaths peaked at 2,487 in 1969. A statewide speed limit of 70 MPH was established for the freeway system. The U.S. Congress passed the Highway Safety Act of 1966 to improve freeway safety. A reduction of the statewide speed limit to 55 MPH in 1974 due to the energy crisis reduced highway deaths to 1,811 in 1975. Further freeway improvements completed under the Highway Safety Act of 1966 and a nationwide economic recession combined to reduce highway deaths to 1,331 in 1983. An increase of the statewide speed limit on freeways to 65 MPH increased highway deaths by 373 in 1988.

Michigan State Police estimate that raising the freeway speed limit to 70 MPH will increase annual highway deaths by 250.

March Technical Session Notes

by Shirley Wollner, Ed Swanson & Associates

Directional Median Left Turn Lanes Work

by Mike Scheuer and Dave DeBerardino,
MDOT Traffic and Safety

Dave began the presentation discussing the operation and capacity advantages of the indirect left turn strategy. He compared the average travel time for a five lane section, a boulevard with direct left turns and a boulevard with indirect left turns. When looking at both the network average travel time and the average travel time per left turn vehicle, the indirect strategy has the lowest overall delay.

Mike discussed the differences in crash rates between roadway types; boulevard with direct left turns and a boulevard with indirect left turns. This included a before and after accident comparison where a boulevard segment was constructed. The results of the comparison show that boulevards are significantly safer than five lane roads. Mike also showed the results of a comparison between directional and bidirectional crossovers. The study showed that directional crossovers are significantly safer than bidirectional crossovers.

US-23 Freeway Extension Beyond Standish

by Bill Bailey, Consultant/MDOT Planning Manager Ermeritis

Bills presentation focused on how the type of facility and route selection process evolved for the US-23 Freeway extension.

Lifelong membership was presented to John Robbins, Bob Larson, and Dave Merchant.

Current Hot Topics in Traffic Engineering

by Bob Make, MDOT District 1

Bob Make was recently transferred to MDOT District 1 after four years as the director of Traffic Safety. Bob's talk covered various safety issues and feels that the revitalization of the State Safety Committee should be a number one issue. A more dynamic committee is necessary since directors involved in the committee often don't attend monthly meetings. Bob suggests a new format where every other month the steering committee chooses the format for the next meeting when the discussions are held on those topics.

Bob sees a resurgence of interest occurring in traffic safety. For an example he points to a more proactive approach on legislation such as the recent discussions over the speed limit issue. Bob provided a history of the two bills currently being considered and stated that they have evolved to the point that they are much closer to what MDOT can live with.

The 1st Annual Michigan Traffic & Safety Summit will be held May 14-16 at the Sheraton Hotel in Lansing (located at Creyts and I-496) Bob stated that a package of proposals will be presented for the attendees to critique. Bob closed by saying he hopes that the decline in the fatality rate and in total crashes continues.

Developing Michigan's Statewide Planning Network Using Transcadd

by Glen Robinson, MDOT Planning

Glen's presentation detailed the development of the Statewide Travel Demand Model - a two year effort that was just completed. Michigan has more components to its model than most other states. The old State model was a passenger model only containing 547 zones and 5000 links that was stored on the old mainframe. It was difficult to obtain output in a timely and efficient manner. When MDOT made the change from a mainframe to a PC environment, it was decided to change the strategy of the model to a multi-modal one.

Many players were involved in the development of the new model including; MDOT, MPO's, Regions, and the Rural ISTEPA Task Force. One goal for the new model was to have it incorporate GIS so that visual manipulation of data could occur. TransCAD was used as an Urban Manager. 2391 zones were developed that included Mexico and Canada. The new model also contains 20,000 links and approximately 10,000 nodes. Urban area cordons are used as entry points to merge statewide and urban data. The various modes incorporated into the new model are passenger, truck, passenger rail (Amtrak), bus, commodity flow structure. The new model uses a common road referencing system based on the MALI system. It includes a large number of county roads

Computer Generated Graphics In Engineering

by Bob Rayl, Orchard, Hiltz, and McCliment

Bob gave an interesting presentation of how computer generated graphics can be used in the development of engineering projects. Rendering is a term used to refer to the development of realistic pictures from a graphical model. Rendering is used to help model design projects. Common objects are incorporated into the drawing to show how the new design will fit in with existing features. Rendering can be used with before and after slides to show how a project may change the feel of an area.

Two different methods can be used. One is a 3D model in AutoCAD and combine rendering to produce the project area background. The other method is to use all rendering. Projects can be illustrated either by a Walk-through or a Fly-by. Both methods involve an animated simulation of the project area. A description is provided of the path the camera would take going through the project. Many different frames are incorporated into the presentation for a walkthrough or fly-by.

Computer generated graphics can be used in many ways. One use is for accident reconstruction. The vehicles are shown before, during and after the accident. The graphics can be used in court, provided to news media, and used to aid in funding applications.

In spite of some equipment difficulties, Bob was able to provide us with some examples that illustrated how effective the use of computer aided graphics can be for illustrating engineering projects.

SMART Speed Information Trailer

by Lt. Mark O'Donnell,
Eaton County Sheriff's Department
Delta Township Patrol Unit

Mark is a 21 year veteran of the Eaton County Sheriff's Department. In 1993 he took over the Delta Township substation of the Sheriff's Department. Delta Township is located west of the City of Lansing and is an urban township with a population of 20,000. Mark found that one of his biggest problems was traffic. Citizens were requesting stop signs, speed bumps, signals, dead end streets, and anything else they could think of to control traffic in their neighborhoods. Mark soon learned to rely on Warrants and the recommendation of professionals to answer traffic concerns. Unfortunately budget and personnel problems made addressing all requests difficult. One thing that Mark has found that stretches his resources is the SMART Speed Trailer.

The SMART Speed Trailer contains a radar unit identical to those contained in patrol cars. The Trailer is a self contained unit that is battery operated with a solar panel. The trailer is put in areas where citizens are complaining about speeds. They found that speeds tended to go down with the use of the trailer and to stay down after the trailer is removed. The trailer provides a means of voluntary compliance by helping make people aware of how fast they are driving.

The trailers can cost around \$10,000 with optional equipment for obtaining counts increasing cost by about \$3,000. Mark used an innovative approach to obtain funds for the trailer. He contacted a number of insurance companies that conduct business in Delta Township and was able to obtain contributions from three companies; Allstate, AutoOwners, and Farm Bureau. Mark in turn provided them with some advertising by having their logos placed on the trailer.

Community support for the trailer has been strong. When the unit was vandalized the repair costs were donated by local companies. One company even donated an alarm to prevent future incidents.

The trailer frees up officers and is a cost effective alternative for helping control speeds. It quiets complaints since neighbors can see for themselves the speeds that are being registered by the unit. This makes it especially useful for areas where there is a speed perception problem.

Paving the Way for Lugnuts Stadium

by Lenora Jadun, City of Lansing Public Service Director

The effort to develop a home for minor league baseball in the City of Lansing was a fast track project that had its start in October 1994. With an opening day scheduled for April 1996, an extremely short time frame was available to choose a location, design a stadium, provide parking, and build the stadium. It was necessary to hold weekly progress meetings to keep everyone on track and informed. A two month long study by a Feasibility Team was held to choose a location. The chosen site is a 1 block area located between Cedar Street, Larch Street, Michigan Avenue and Shiawassee Street. Construction of Oldsmobile Park began in April 1995.

Attendance for the games was estimated at 6000 persons. With an average of 2.5 persons per car there was a need to accommodate 3000-3500 cars for each game. In a downtown setting this could be quite a challenge. Seating on grass berms in the outfield adds approximately 2000 more cars to the parking demand. The peak hour of parking demand will occur from 6-7 PM. Only three afternoon events are scheduled where parking for those events will compete with parking for downtown workers. A possible shuttle could provide transportation from outlying parking areas for those events. No real addition of parking was needed for the project since existing parking areas will be used. The goal of the City is to attract people to the parking areas instead of to the stadium. This effort is being aided by an educational effort. Way finding signs will be used to direct people to the parking areas. Prepaid parking is being offered that will get people into the parking ramps as quickly as possible.

One of the interesting aspects of the project was that the stadium could not meet league specifications and still fit between Cedar and Larch. This actually is a common problem and the league granted the necessary variance for the foul line lengths.



The first game held in the stadium will be a contest between U of M and MSU on April 3. The Lugnuts will have their home opener on April 5. Good Luck to the City and the Lugnuts for a successful season!

MICHIGAN SECTION ITE 1996 MEETING SCHEDULE

DATE	LOCATION	TYPE	HOST
Nov. 14	Grand Rapids	Tech Session	Tim Haagsma 616-242-6923
Dec. 12	Farmington Hills	Annual Meeting	Kevin McCarthy 810-473-9590



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