A scant four years ago, there was an article in the Chronicle about the Intelligent Transportation System (ITS) aspects of planning for a football stadium to be built at the Adriaen’s Landing redevelopment in Hartford, Connecticut. In the four years since then, a lot has happened. After the Patriots decided to stay in the Bay State after a short teasing of Connecticut, “the” stadium location was moved across the river to East Hartford, at the former Pratt & Whitney (P&W) airfield on land donated to the State of Connecticut by P&W. Rentschler Field is a 38,000 seat open air stadium and home to the University of Connecticut (UCONN) Division 1 Football team for 6-8 games per year and other special events such as Bruce Springsteen concerts and State Games of America held recently.

This stadium is the largest venue in Connecticut for these types of events and is in the midst of the inaugural season. The official stadium opening for UCONN football was August 30, 2003. This inaugural season did not come without a significant amount of planning and traffic management preparation. This article summarizes the efforts conducted in planning for the management of traffic for a Saturday afternoon football game. Traffic management plans for special events are a unique traffic engineering exercise that is not usually part of the traffic engineer’s every day work tasks. While special events drawing thousands of spectators are commonly held in Connecticut, from UCONN Basketball National Championship parades to air shows and fireworks displays, developing a traffic management plan for a football stadium was not. The phrase “traffic management plan” was conceived from the beginning efforts to be a document which provides written and plan descriptions for the implementation of temporary traffic control measures on the adjacent roadway network to handle the significantly increased pedestrian and vehicular traffic generated by a large stadium.
CONTINUING EDUCATION UPDATE
— — — — — — — — — — —

The Section held a Walkable Community Workshop at the NE/MAITE joint meeting September 17, in Waltham, MA. The ½ day workshop was presented by Mark Fenton, Physical Activity Manager of the University of North Carolina’s Pedestrian and Bicycle Information Center, and consisted of a presentation of the tools available to create more walkable settings, a walking audit, and group problem solving sessions. During the walking audit participants visited a site in Waltham and looked for features in need of improvement. When they returned to the classroom the participants worked in groups and applied walkability concepts to develop solutions to improve features of the site they visited.

At the NEITE Annual Meeting December 1 in Warwick, RI the Section will hold a six hour training course on Red Light Running: Identification, Evaluation, and Countermeasures. Gabe Brazao from the Federal Highway Administration (FHWA) and Christopher Hunter from the University of Rhode Island will present the workshop. Reduction of red-light running has been identified as a priority by ITE and FHWA. This course will demonstrate measurement of red light running and provide participants processes to develop countermeasures using the 3 E’s (education, engineering, and enforcement). The engineering countermeasures focus on roadway design, signal timing, and geometric improvements. Additional course and registration information is included in this issue of the Chronicle and on our website at www.neite.org. All participants will receive six Professional Development Hours.

This will be the third and final training course the Section will host this year. Thank you to all the instructors and people who helped put on these courses. We look forward to presenting more interesting courses next year and would like to know what topics are of interest to you.

Please contact John Mirabito, PE, PTOE, the Continuing Education Subcommittee Chair at jrmirabi@bigdig.com or (617) 951-6259 with your suggestions and comments.

NEWS & INFORMATION

Position Papers for the 2004 New England Section of the ITE Executive Board officer candidates have been posted on the NEITE.org website. Please review before casting your vote due on or before December 1st

December 1st: NEITE Section Annual Meeting – Crowne Plaza at the Crossings, Warwick, RI

Seminar: Red Light Running 9 AM – 4:30 PM
Tech Sessions: 3:30 – 4:30 PM
Cocktail Hour & Dinner to follow
As I sit here typing this edition of the Editor’s Corner in between watching Sunday afternoon football, I reflect back to the point at which two years earlier I accepted this job. At that time, President-elect Gary Hebert approached me about taking over the editor’s position for the coming year. I asked to think it over before jumping into things, but knew that I was honored to be considered for the job. I looked at the position as a means to meet a larger group of fellow New England ITE members than I was already acquainted with through my position at the MassHighway Department. But more importantly, I saw the editor’s position as a chance to give something back to my profession.

Now, with my last issue as editor of the CHRONICLE almost complete, I have come to realize that I have enjoyed my tenure in this position. It has been challenging and requires a significant time commitment, but the pride you feel when your colleagues give you compliments outweighs the work effort. I am encouraged that we have a few people interested in taking the job over, and I am looking forward to providing them all the support and assistance that I can to continue the success of the CHRONICLE.

Take care and enjoy a happy and healthy holiday season. Thanks!

Neil Boudreau, Editor

NEITE TECHNICAL COMMITTEE

The New England Section Traffic Committee has distributed our Draft Countdown Pedestrian Signal Study, and has solicited comments that were due by the fifteenth of October. These comments will then be reviewed and incorporated into a Final Document. This project is another success story due to the commitment from almost 40 members!

The next project on our schedule is the development of a set of guidelines for Accessible Pedestrian Signals (APS). Our first meeting for this project will be held shortly after completion of the Final Countdown Pedestrian Signal Study. An announcement for this meeting will be sent to all.

It is our hope to have participation from all six New England States on this project. We are aware that travel to these meetings is not possible for everyone, but we have had great success with members contributing remotely. Research into existing APS guidelines from other areas, personal knowledge, access to sight impaired relatives/friends to gain their perspective can all be done locally, and the information can then be forwarded to the Committee. Please give some thought to this project and forward any information/thoughts to Ken Petraglia, Committee Chair, by phone at (617) 357-7755 or email at kpetragl@hdrinc.com.

DESJARDINS SCHOLARSHIP

At the Joint Massachusetts Chapter/New England Section meeting on September 17 in Waltham, Emily Knapp, a junior Civil Engineering student from Northeastern University in Boston, was announced as the 2003 Thomas E. Desjardins Memorial Scholarship winner. Ms. Knapp is very involved at Northeastern and in the local professional community. She is a member of Tau Beta Pi, the secretary of Chi Epsilon, the ASCE Program Coordinator and a WTS Student Member. Emily has co-op experience on her resume with McMahon Associates and Howard/Stein-Hudson.

Emily receiving the scholarship check from Rod Emery

Each year the Desjardins Scholarship is given to a college junior or senior student(s) of high moral character and with high academic achievement who also has involvement in extracurricular activities. Applicants should demonstrate a strong commitment to the discipline of Transportation Engineering in their coursework and outside activities. Funding for the annual scholarship award is raised through donations and an annual golf tournament held in May at the Sandy Burr Country Club in Wayland, Massachusetts.

For more information, contact Committee Chair Rod Emery, P.E., PTOE at (617) 242-9222.
The TMP as it came to be known would serve as an evolving plan from each event forward, modified, revised, and updated as necessary.

In preparing for any unique project or task, initial research is the first consideration. In preparing for this project, an extensive research effort was conducted to determine which universities had prepared traffic management plans (or did they even call them traffic management plans) for similar venues. This research included contacting similar University programs and naturally, ITE. After this initial research, it became very clear that there was a limited number of traffic management plans prepared for similar events from which to draw upon or even obtain copies of.

It was determined that the University of Louisville was going through the same expansion as UCONN through the construction of a similar open-air stadium. As part of their planning for the new stadium, a document was initially prepared summarizing the traffic management plans for the handling of game day traffic. Consultations and visits were made to the University of Louisville and a copy of their initial plan was obtained. In addition, the Tennessee Titans National Football League team opened a brand new 68,000 seat stadium in Nashville. As detailed in an ITE Journal article, a traffic management plan was developed for what was then Adelphia stadium. That article described the successful plans that were prepared to handle a substantial amount of vehicular and pedestrian traffic. In planning for the Rentschler Field traffic, these plans were reviewed and a site visit conducted in the field as the plans were being implemented during an NFL Exhibition game.

Prior to the start of the traffic management planning efforts for Rentschler Field, an exhaustive traffic impact study and public hearing process had been completed. This process was in conducted in conformance with the Connecticut Environmental Policy Act (CEPA) because State of Connecticut taxpayers were funding the stadium. In that traffic impact study, the primary recommendation to mitigate the impact of traffic on game day was to prepare a traffic management plan. This plan would detail the temporary traffic control measures needed to temporarily provide increased capacity on the adjacent roadway network to accommodate the stadium traffic without constructing significant off-site physical improvements.

One common thread in the stadiums reviewed with successful traffic management was the partnership between all the stakeholders involved. This was the key ingredient in ensuring the successful game day implementation. For Rentschler Field, this partnership was proposed in the traffic impact study recommendations. Acknowledging that Rentschler Field could have a potentially significant impact on traffic operations on the adjacent roadways in the Town of East Hartford, the traffic impact study recommended that a Traffic Management Team (TMT) be assembled to develop and oversee the implementation of the traffic management plan. This TMT would eventually be made up of many stakeholders, including the Towns of East Hartford/Manchester engineering, public works, economic development, public safety and emergency services. State level agencies were also involved, including Departments of Transportation, Public Transit, Public Safety, and the Office of Policy and Management. Other stakeholders that served on the team included Regional planning agencies, Madison Square Garden (Stadium operator), Fuss & O’Neill (traffic consultant), Pratt & Whitney, Laz Parking (parking operator) and in the last meetings, the contractor deploying the temporary controls.

While a traffic impact study had been prepared and approved by the State as required by the CEPA
process, the recommended traffic management plan had not yet been developed. With the stadium being constructed in a two-year construction schedule, the TMT commenced its first meeting in August 2002, one year prior to the opening of the stadium. The TMT met monthly, with typically over 25 stakeholders attending each meeting to review the development of the traffic management plan document. It should be noted that despite the prior approval of the traffic impact study, the initial meetings of the TMT revealed skepticism on the part of some stakeholders on the deployment of a traffic management plan for Rentschler Field. This initial uncertainty was the direct result of the lack of a traffic management plan for addressing game day traffic.

**A Successful Event at Rentschler Field**

The traffic management plan was developed through the TMT monthly meeting process, with each meeting having new issues raised and discussed and old issues resolved. These TMT meetings were sometimes grueling, requiring extensive discussion and presentation of the traffic management plan options. Synchro Simtraffic simulations coupled with roadway photo logs in a Powerpoint presentation format were routinely used by the traffic engineer to graphically present the information to the TMT in a clear and concise manner. Simtraffic was utilized to show stakeholders that certain ideas for temporary traffic control were not feasible and that other considerations were. In addition, visual aids such as 1-meter traffic cones were brought in to the meeting to display the types of temporary traffic controls proposed as part of the traffic management plan. These cones would prove to be the workhorse of the temporary traffic controls deployed in the field.

The traffic management plan document was finalized and accepted by the TMT three months prior to the opening kick-off. The document was prepared in a standard letter size format for ease of use by field personnel on game day but included a substantial amount of information. The document included a listing of Traffic Management Team members, Key Contacts on game day, Football Game Schedule 2003, Overall Traffic Management Plans for Inbound (Before Game/Halftime) and Outbound (After Halftime/Game) conditions, Intersection Summaries, Temporary Traffic Control Plans, Temporary/Permanent Signing, Overall Parking Plan, Site Parking/Circulation/Signing and miscellaneous details.

The Intersection Summaries and the Temporary Traffic Control Plans were the backbone of the document, with the summaries describing in writing the specific instructions for deploying the temporary controls, locations of police control and times of deployment as well as any special instructions for both the Inbound and Outbound conditions. The traffic control plans were 80 scale plans of each intersection and/or roadway with the temporary traffic controls detailed, temporary signing shown, temporary signal phasing and timings listed and dimensions for all temporary controls for the contractor. These plans were heavily used by the field personnel.

Temporary and permanent signing was developed for the plan and shown on an overall plan as well as each intersection plan. Special hinged signs were used for permanent installations with the option of blanking out the sign during non-events and every day traffic. Portable Variable Message Signs (VMS) were recommended in the plan to augment the proposed temporary controls and signing.

It should be noted that the traffic management plan relied heavily upon the Connecticut Department of Transportation’s (ConnDOT) Hartford Area Incident Management System (IMS) to monitor game day traffic and the temporary traffic control measures. The IMS was nearing completion prior to game day, with CCTV cameras, Highway Advisory Radio (HAR), permanent over the highway VMS and traffic flow monitors available to assist with the management of traffic into and out of Rentschler Field on game days. This equipment was monitored remotely at the Department’s Highway Operations

Center via an extensive fiber optic cable network.

With all of the planning that was conducted prior to game day, it was reassuring to note that the traffic management plan was successfully implemented for the opening day football game in August. While there were some internal parking and pedestrian issues identified on game day, those issues have since been resolved and have not reappeared in subsequent games. As expected from the initial concepts of the traffic management plan, the traffic management plan document is now being revised as a result of the experience gained with each subsequent event at Rentschler Field. These revisions are considered to be minor in terms of the overall traffic management plan and the TMT continues to meet this fall to review the traffic management plan and after each event held on Rentschler Field.

The successful implementation of the traffic management plan by the TMT is the result of the close coordination by all stakeholders through the TMT monthly planning process up to and after game day. This success of the plan allowed the TMT to accommodate a two-day concert event by Bruce Springsteen at Rentschler Field.

Joseph Balskus, P.E., P.T.O.E is a Senior Project Manager with the Connecticut Office of Fuss & O’Neill Inc.

LETTER TO THE EDITOR

RE: Broad Street Roundabout—Position Paper September 2003 Issue

Roundabouts are not a panacea for all traffic problems. They have application in some limited situations where right of way is available, speeds and volumes are low, and there are few adjacent controlled intersections. With the few installations so far in the United States, it is far too early to make any conclusions regarding their relative benefit to other forms of control.

Massachusetts has many rotaries that meet all the criteria listed in the article for a modern roundabout except for size. These rotaries process great volumes of traffic fairly well, but many of them suffer from long queues and severe congestion during peak hours. Many of these rotaries are continuously listed on the States High Crash Location Report Listing.

Single lane roundabouts in rural areas with low volumes compare favorably to other forms of control in terms of safety. As discussed in the FHWA roundabout manual, the safety benefit of roundabouts is lost when rotary volumes approach capacity and when there are 2 or 3 lanes on the approaches.

Pedestrians have no positive guidance in crossing a roundabout. Crossing a 2 or 3 lane roundabout approach with heavy volumes and no gaps is virtually impossible. Pedestrians with physical and visual difficulties report problems finding the crosswalks and navigating the crossing. The U.S. Access Board, a federal agency that deals with handicapped access, has proposed guidelines for public projects which would require signalization of roundabout crosswalks to meet the needs of disabled pedestrians. This would add great cost to roundabout projects and reduce any advantage of roundabouts versus other methods of intersection control.

Bicycle safety is also questionable as some studies cited in the FHWA Roundabout Guide have shown worse safety for bicyclists in roundabouts versus other intersection controls.

In addition, giving priority to emergency or transit vehicles is not possible with roundabouts as it is with traffic signals.

Unlike signalized intersections, it is very difficult to add capacity to a roundabout intersection to accommodate future growth since adding approach lanes is awkward and degrades safety. As discussed in the FHWA manual, roundabout operations breakdown rapidly when the v/c ratio is above 0.85. This makes their use questionable in most urban areas where most intersections are at capacity during peak hours.

Roundabouts should be considered when appropriate as one traffic improvement option; but for all the above reasons will probably only have application in a limited number of situations. We should be cautious making statements condemning longstanding forms of traffic control and making premature conclusions about an option whose effectiveness is uncertain.

Submitted by: Jeffrey G. Freudberg, P.E., PTOE, Senior Traffic Engineer, Earth Tech
The Connecticut Chapter of ITE held their fall meeting on October 28, 2003 at Rentschler Field in East Hartford. The meeting theme was a tailgate/barbecue, with tours of the field, and presentations on the UCONN Athletic program and current traffic operations at the field. Rentschler Field is the new home of the University of Connecticut (UCONN) football team, and serves as a large facility for sporting events and concerts. Jeff Hathaway, UCONN Athletic Director, Joe Balskus, Senior Transportation Engineer for Fuss and O’Neill, and Phil Cohen, Senior Transportation Engineer for the Connecticut Department of Transportation made presentations at the meeting on the UCONN athletic program, as well as the traffic management plan for Rentschler Field. The next meeting will be a joint meeting with ITS-Connecticut in late January. The program venue and details are still being worked out; check the NEITE web site for further program listings.

The Vermont ITE Chapter held its annual fall meeting on October 29, 2003 at the Vermont Agency of Transportation in Montpelier. The meeting was attended by thirty transportation professionals from several consulting firms, the Vermont Agency of Transportation, and the Chittenden County Metropolitan Planning Organization. The meeting was sponsored by Resource Systems Group, Inc. of White River Junction, Vermont and the Vermont Agency of Transportation. A short business meeting was held to review the status of planning efforts underway for the 2004 District Annual Meeting to be held in Burlington, Vermont from May 19-21. The local arrangement committee has been busy coordinating the logistics and technical program for the conference.

The technical program for the VT ITE October 29, 2003 meeting consisted of three presentations relating to research and application of micro-simulation models. Two of the presentations were provided by graduate students from the University of Vermont, James Agbolosu-Amison and Charles Mark, under the direction of Dr. Adel Sadek, PE. Mr. Agbolosu-Amison summarized his research on the effect of weather conditions on traffic signal operations. Mr. Mark summarized his research on the development of on-line learning systems to improve the prediction of travel times under interrupted flow conditions. Bob Chamberlin, PE and Erica Barnes of Research Systems Group, Inc. provided a presentation on the use of Paramics micros-simulation software to model a grid street network in the City of Burlington. The model will be used to evaluate the transportation effects resulting from planned expansion of several major institutions in the City.

The NHITE Nominating Committee Chair, Steve Pernaw, will be sending ballots for the 2004 elections to all voting members by November 15. Elections for the 2004 slate of officers will be held at the December Annual Meeting (ballots may be mailed in prior to the annual meeting or handed in at the meeting).

The New Hampshire Chapter will host their Annual Business Meeting on December 10, 2003 at the Cat 'N Fiddle Restaurant, Concord, NH. Details will be published soon on the NH Chapter website. The previous meeting presenting “Manchester Airport Runway & Terminal Improvements” was held on Thursday, October 2 at The Highlander Inn, Manchester, NH.
1.0 INTRODUCTION

One of the objectives of the New England Regional Aviation System Plan (NERASP) was to determine passenger distribution of ten major airports in New England and congested vehicle travel times from various locations within the region. This process required estimating average highway travel times from airports in the study area and displaying them as isochrones. An isochrone is a travel time contour that encloses an area in which all highway segments of a network are within a specific impedance of an origin. The primary objective of this task was to calculate congested travel times between airports in the region and display these travel times in the form of isochrones; also report travel times in the form of a matrix.

2.0 METHODOLOGY

2.1 Data

The process of estimating travel times between specific locations and airports involved obtaining data from different sources. The primary data included regional highway network, railroad, and airport locations in the form of geographic files. The data were compiled and assembled using TransCAD 4.0; a GIS based transportation planning software.

The regional highway network comprised three major functional classes of roads and they were:

- Interstates / Freeways – Urban and Rural;
- Principal Arterials – Urban and Rural, and;
- Minor Arterials

The regional highway network included attributes such as length, functional class, posted speed, direction, total number of lanes, and free flow time. The network was checked for any errors such as missing links or high speeds that may have affected estimating actual travel times.

An important component needed to estimate the travel times was the 24-hour ground counts (AADT – Average Annual Daily Traffic) for the region. The most recent and historical traffic count data were obtained from the state transportation agencies and regional Metropolitan Planning Organizations (MPO). To maintain consistency, only permanent/continuous count locations were used. There were a total of 370 permanent traffic count locations in New England area.

2.2 Procedure

The methodology used in this study was based on adopting “Link Performance Functions” to estimate travel times. A link performance function is a mathematical description of the relationship between travel time and link volume (Travel Demand Modeling, TransCAD 4.0). The most-commonly used link performance function is a BPR (Bureau of Public Roads) expression and represents a wide variety of traffic flow-delay relationships. It relates link travel times as a function of the volume to capacity ratio and is formulated as:

\[
t = t_f \left[ 1 + \alpha \left( \frac{v}{c} \right)^\beta \right]
\]

Where:
- \( t \) = congested link travel time
- \( c \) = link capacity
- \( t_f \) = link free-flow travel time
- \( \alpha, \beta \) = calibration parameters
- \( v \) = link volume (ADT)

It was appropriate to use the most common values of 0.15 and 4.0 for alpha and beta, respectively, as no fixed intersection delay or signal time was considered, given the scope of this study.

It was appropriate to use the most common values of 0.15 and 4.0 for alpha and beta, respectively, as no fixed intersection delay or signal time was considered, given the scope of this study.
The above formulation was used to calculate congested travel times for links (highway segments) with traffic counts. The traffic counts were manually entered into the highway network by location. However, as the number of permanent traffic count locations was limited and did not cover all links in the network, a statistical analysis was carried out to determine how well the travel times relative to count locations are distributed. The fundamental statistical check performed was based on cross-classifying links into homogenous groups. The initial homogeneity considered was in groups of two to three variables. For example, by functional class by number of lanes and; by functional class by number of lanes by state. Figure 2.1 illustrates relevant examples of scatter plots.

The statistical inference showed that cross-classification ‘by functional class-by number of lanes-by state’ was the most appropriate homogenous group. As can be observed above in the scatter plot by functional classification-by lanes-by state, the points converge well and fall in the same range with minimum variability. The links were therefore grouped according to this combination of variables. Factors for each group were calculated based on the ratio of free-flow time and congested travel time. An average of the factors for each group (cross-class of links) was computed. The average was then applied to free-flow time corresponding to the class of links without traffic counts to estimate its congested travel times. Table 2.1 reports the average factors by each homogenous group for the three analysis years.

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<th>TLANCES</th>
<th>SPEED</th>
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<td>MA</td>
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<td></td>
<td>VT</td>
<td>4</td>
<td>65</td>
<td>0.0009</td>
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</tbody>
</table>

| Urban Interstate | CT    | 4       | 55    | 0.0164 |
|                 | MA    | 6       | 55    | 0.1197 |
|                 | ME    | 4       | 55    | 0.1483 |
|                 | NH    | 4       | 55    | 0.0568 |
|                 | RI    | 4       | 55    | 0.3826 |
|                 | VT    | 4       | 55    | 0.0118 |

| Rural Principal Arterial | CT    | 2       | 50    | 0.0019 |
|                         | MA    | 2       | 50    | 0.0007 |
|                         | ME    | 2       | 50    | 0.0004 |
|                         | NH    | 2       | 50    | 0.0022 |
|                         | RI    | 4       | 50    | 0.0000 |
|                         | VT    | 2       | 50    | 0.0001 |

| Urban Principal Arterial | CT    | 4       | 40    | 0.1886 |
|                         | MA    | 4       | 40    | 0.0088 |
|                         | ME    | 2       | 40    | 0.0032 |
|                         | NH    | 2       | 40    | 0.0237 |
|                         | RI    | 4       | 40    | 0.0017 |
|                         | VT    | 4       | 40    | 0.0846 |

| Minor Arterial         | CT    | 2       | 45    | 0.0309 |
|                       | MA    | 2       | 45    | 0.0815 |
|                       | ME    | 2       | 45    | 0.0000 |
|                       | NH    | 4       | 45    | 0.0241 |
|                       | RI    | 2       | 45    | 0.0000 |
|                       | VT    | 4       | 45    | 0.0241 |
Red Light Running:  Identification, Evaluation, and Countermeasures

A One-day Workshop for Engineers, Technicians, Administrators, and Law Enforcement Officials.

One of the primary causes of crashes at signalized intersections involves a vehicle entering the intersection when the red signal is displayed. According to estimates by the Federal Highway Administration for 2001 there were nearly 218,000 red-light running crashes at intersections. These crashes resulted in as many as 181,000 injuries, 880 fatalities, and an economic loss of $14 billion per year. Clearly, red light running, which is reported to be on the rise as with other aggressive driving behaviors, has become a national safety problem.

WORKSHOP CONTENT

This workshop will demonstrate a methodology for the measurement of red light running and provide participants with a process to identify countermeasures in the areas of education, engineering, and enforcement. Countermeasures include:

- Roadway Design
- Signal Timing
- Geometric Improvements

At the completion of this workshop participants will be able to:

- Describe how to measure red light running at an individual intersection
- Analyze red light running at intersections
- Recognize countermeasures to reduce red light running

WHO SHOULD ATTEND?

Engineers, Technicians, and Administrators responsible for placing and maintaining traffic signals, and law enforcement officials.

DATE AND LOCATION

ITE New England Section Annual Meeting
Date:  Monday, December 1, 2003
Time:  9:00am-4:00pm

Location:  Crowne Plaza Hotel, Warwick, RI

INSTRUCTORS

Gabe Brazao, Senior Highway Engineer, Federal Highway Administration

Christopher Hunter, Professor of Civil and Environmental Engineering Department, University of Rhode Island

FEE

The fee for this workshop is $120 and includes lunch and dinner at the NEITE Annual Meeting.

CONTINUING EDUCATION

Six Professional Development Hours will be awarded to the workshop participants.

REGISTRATION

To register for this workshop, please contact:
Mr. Bill McNamara, Ocean State Signal Co.
Phone (401) 231-6780
Fax (401) 431-4930
Email billmc@oceanstatesignal.com

Please, register by November 21.  Space is limited.

For more information visit our website at www.neite.org.

Annual Meeting Technical Sessions

3:30pm TO 4:30pm

Developing a Refined Traffic Control Device, Centerline Rumble Strips
Presented by Daniel Dulaski of University of Massachusetts - Amherst

It’s all in the Numbers: Using a Statewide Data Warehouse in Traffic Safety Engineering
Presented by Heather Rothenberg of University of Massachusetts - Amherst
CALL FOR ABSTRACTS REMINDER

The Technical Committee invites abstracts from transportation professionals for the 2004 District 1 Annual Meeting whose theme is "SafeTEA for all Seasons". The categories and sample topics are identified below.

<table>
<thead>
<tr>
<th>Safety and Design</th>
<th>Safety and Planning/Policy</th>
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<tr>
<td>• Bicycle and Pedestrian Facilities</td>
<td>• SAFETEA – Overview and what is different</td>
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<td>• Safety Through Context Sensitive Design</td>
<td>• Incorporating Safety in Long Range Plans at the corridor and local, regional, and state-wide levels</td>
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<td>• Intersection Design</td>
<td>• Land Use/Urban Design and Transportation Safety</td>
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<td>• At-Grade Railroad Crossings</td>
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<td>• Improving Safety through Access Management</td>
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<td>• Traffic Calming</td>
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<tr>
<th>Safety and Operations</th>
<th>Safety Analysis and Data Needs</th>
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<td>• Work Zone Safety</td>
<td>• State DOT Safety Management Systems</td>
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<td>• Addressing Safety with ITS</td>
<td>• Tools and Techniques for Safety Analysis and Mitigation</td>
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<td>• Commercial Vehicle Safety</td>
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<td>• Traffic Signal Timing</td>
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The Technical Program Committee will review all abstracts for clarity, technical merit, and relevance to the conference. One page abstracts, a maximum of 250 words in length must be submitted to the address below on or before December 31, 2003. The abstract must contain the title, author(s) name(s), and affiliation, along with fax/telephone and e-mail address of each author. The author will be notified by February 28, 2004.

(E) Mail Abstracts to:
Joe Segale, PE
C/O Resource Systems Group
PO Box 75
Richmond, VT 05477
jsegale@rsginc.com
2.3 Creating Isochrones

An isochrone encloses an area in which all links or nodes on a network are within a certain impedance of an origin. The impedances in this study are the free-flow travel time and congested travel time that are used to generate travel time contours around airports. Free-flow travel time is an inherent attribute of the highway network geographic file or can be calculated by the ratio of distance in miles and posted speed. The congested travel time is calculated using the formulation as explained in the preceding section.

TransCAD 4.0 gives the capability to create isochrones around an origin for any specific maximum impedance. It creates isochrones by generating points along the network at which this maximum impedance is reached and joining them together to draw the border of each isochrone. For this study, isochrones were created at thirty-minute intervals for a maximum impedance of sixty minutes. Hence, every airport is enclosed by two thirty-minute isochrones. Figure 2.1 presents the base year isochrones for the congested travel time.

3.0 CONCLUSION

In the absence of a travel demand forecasting model, this paper presents a simplified method of calculating congested travel times based upon the functional classification, number of lanes and the posted speed limit. Furthermore, the use of isochrones allow a quick assessment of the potential service area given the prevailing congested travel times.

This paper was submitted by Sudhir Murthy, President TrafInfo Communications. Sudhir is a former editor of the New England Chronicle and served on the Executive Board from 1999 to 2002.

Figure 2.1: Base Year Congested Highway Travel Time – Isochrones at 30-Minute Intervals
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JOB POSTINGS

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Our Rocky Hill, CT office is seeking a full-time Civil Engineer to work on transportation and civil/site projects. Applicant must be a highly motivated self-starter with excellent organizational and written communication skills who works well in a team atmosphere. Candidate should have three (3) to five (5) years of experience in the field of transportation and civil/site engineering with an emphasis on Connecticut DOT and/or municipal projects. Working knowledge of AutoCAD and Autodesk Land Desktop required. Knowledge of Microstation is also desirable but not required. Candidate should have a Bachelor of Science Degree in Civil Engineering and Fundamentals of Engineering Registration. If interested, please email your resume to RKelly@BETA-inc.com.

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Burlington, Vermont

Upcoming Events

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<tr>
<td>December 1, 2003</td>
<td>Warwick, RI</td>
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<td>December 10, 2003</td>
<td>Concord, NH</td>
<td>Joint NEITE/NH Chapter Annual Meeting</td>
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<tr>
<td>May 19-21, 2004</td>
<td>Burlington, VT</td>
<td>ITE District 1 Annual Meeting</td>
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