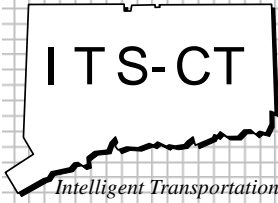


# Intelligent Transportation Society of Connecticut

July 2010 Vol 11 No. 2

its-ct.org



Intelligent Transportation  
Society of Connecticut

## MESSAGE FROM THE PRESIDENT

~ Kristen Solloway

Thanks to all who attended our Joint ITE/ITS Winter Meeting in New Haven on January 26, 2010. We had a wonderful turnout of about 85 attendees. This was one of our best attended meetings – we all like to see so many people take an active role in their profession. The afternoon program began with a technical presentation by David Fabry, Mark Makuch, and Robin Waterman from the Connecticut Department of Transportation. The trio did an excellent job in discussing the important changes to the new *2009 ConnDOT Traffic Control Signal Design Manual*. After a delicious buffet dinner, ConnDOT's Robert Kennedy spoke about the state's ITS activities and upcoming enhancements to the current ITS system.

The evening was capped off by a comprehensive update on the progress and schedule for on the Q Bridge project. I think everyone enjoyed hearing Tony Moretti, of PB, and Brian Mercure, Assistant District Engineer, ConnDOT discuss many of the details of Connecticut's largest infrastructure project. Given the schedule that was discussed, there will be opportunities in the future for further updates!

Sincere thanks go out to all our presenters and ITE for co-sponsoring this great event!

Included in this newsletter is a "*Save the Date*" for our Fall event on September 27th. We hope to see you there.



Kristen Solloway

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### The ITS-CT Spring Reception

~J.A. Koolis, Jr.

On Wednesday, April 28, 2010, the Intelligent Transportation Society of Connecticut held a social networking reception at the exciting new Connecticut Science Center overlooking the Connecticut River in Hartford.



The two-hour event was attended by more than 50 people who toured the 6<sup>th</sup> level Gallery of the Center and were able to interact with featured exhibits that included Smart Energy, Planet Earth and The River of Life.

Attendees were also able to stroll the newly planted rooftop garden and take in sweeping views of the Connecticut River from an unusual cantilevered glass enclosure that is a signature part of the Science Center's unique and stunning architecture.

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ITS-CT President Kristen Solloway welcomed guests saying “This is an evening for socializing with fellow ITS professionals and enjoying all that this wonderful new facility has to offer.”

The event was catered by Catering by Restaurant Associates, the Science Center’s official caterer. Passed hors d’oeuvres included risotto cakes with mushrooms, ham and brie, chicken empanadas, California rolls and beef and pork tenderloin. Parking in the Science Center’s garage was provided as part of the reception’s registration which was a nominal \$15.

The event was organized by the ITS-CT Program Committee which is chaired by Jay Koolis. Other members of the committee include Hal Decker, Lia Huang, Gene Hunt and Ewa Zofka.

The committee is now in the process of planning the organization’s Annual Meeting which will be held on September 27, 2010 at the Crowne Plaza Hotel in Cromwell, Connecticut. The all-day event will feature technical sessions and vendor displays. Anyone interested in making a presentation at the event or having a vendor display should contact Jay Koolis at 860-815-0271 or [koolis@pbworld.com](mailto:koolis@pbworld.com).



## Honoring Our ITS-CT Members: Call For Award Candidates

At its Annual Meeting, ITS-CT presents awards to members whose work demonstrates excellence and innovation. Whether you are from the private sector, from government, or from the non-profit or academic communities, ITS-CT wants to recognize what you have done to use ITS to improve the transportation system and to improve the quality of life.



### Awarded in 2009

Greater Bridgeport Transit Authority

### Description of Award

GBT, in conjunction with the Connecticut Department of Transportation, has implemented a bus transit ITS project with the twin goals of improving efficiency and customer service through better management of in-service vehicles. The ACS, as it is known, is Global Positioning System (GPS) based and includes Automatic Vehicle Location (AVL), Automatic Passenger Counters (APCs), on-board audio and visual announcements for riders and On-Street real-time arrival and departure signage inside the GBT's bus terminal and outside at all 17 bus berths. The system has been installed on 55 fixed route buses and 26 paratransit buses and all GBT support vehicles. The project recently passed its availability test and GBT staff are currently using the many features of the system. It is anticipated that the system will be fully accepted soon. Going forward, GBT is working with the vendor to bring real-time trip information along with trip planning to its website early this winter.

*Please send nominations to:*

Matt Edelman, Awards Committee Chair, TRANSCOM  
111 Town Square Place – suite 605, Jersey City, NJ 07310

[Edelman@xcm.org](mailto:Edelman@xcm.org)

T: 201-963-4033 (F: 201-963-8376)

*It is important to remember that members should feel free to nominate work being done by their own organizations. Don't be modest! If you are unsure about whether or not to suggest a candidate, don't hesitate to call Matt to discuss it.*

## SOURCES OF ITS TRAINING:

### The ITS Professional Capacity Building Program

<http://www.pcb.its.dot.gov/>

### ITS Curriculum of Courses

[http://www.pcb.its.dot.gov/le\\_search.asp?SearchRequested=True&PageID=res\\_currlic&ExpandInfo=](http://www.pcb.its.dot.gov/le_search.asp?SearchRequested=True&PageID=res_currlic&ExpandInfo=)

### Local ITS Professional Capacity Building

[http://www.pcb.its.dot.gov/deliv\\_local.asp](http://www.pcb.its.dot.gov/deliv_local.asp)

### T3 Webinars

[http://www.pcb.its.dot.gov/res\\_t3.asp](http://www.pcb.its.dot.gov/res_t3.asp)

### Educational Websites

[http://www.pcb.its.dot.gov/le\\_ew\\_sites.asp](http://www.pcb.its.dot.gov/le_ew_sites.asp)

### FHWA Office of Operations Training Website

[http://ops.fhwa.dot.gov/int\\_its\\_deployment/standards\\_imp/training.htm](http://ops.fhwa.dot.gov/int_its_deployment/standards_imp/training.htm)

### National Highway Institute (NHI)

<http://www.nhi.fhwa.dot.gov/home.aspx>

### Intelligent Transportation Systems (ITS) Courses

[http://www.nhi.fhwa.dot.gov/training/list\\_catalog.aspx?cat=t&key=&num=137&loc=&sta=&tit=&typ=&lev=&ava=&str=&end=&drl=](http://www.nhi.fhwa.dot.gov/training/list_catalog.aspx?cat=t&key=&num=137&loc=&sta=&tit=&typ=&lev=&ava=&str=&end=&drl=)

### Design and Traffic Operations Courses

[http://www.nhi.fhwa.dot.gov/training/list\\_catalog.aspx?cat=t&key=&num=133&loc=&sta=&tit=&typ=&lev=&ava=&str=&end=&drl=](http://www.nhi.fhwa.dot.gov/training/list_catalog.aspx?cat=t&key=&num=133&loc=&sta=&tit=&typ=&lev=&ava=&str=&end=&drl=)

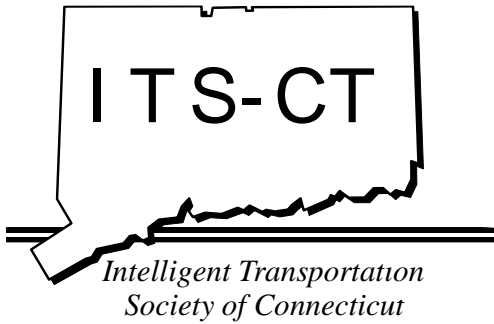
### Consortium of ITS Training and Education (CITE) - CITE Training On-Line Web-Based Transportation Courses

<http://www.citeconsortium.org/>

### FHWA Work Zone Safety Grant Training Courses Offered by ATTSA

[http://www.workzonesafety.org/training/fhwa\\_wz\\_grant/atssa](http://www.workzonesafety.org/training/fhwa_wz_grant/atssa)

# Intelligent Transportation Society of Connecticut



## Dues Notice/Membership Application

I hereby apply for or renew membership in ITS Connecticut. I understand that membership, once approved by the board of directors, is payable annually.

Name of Organization: \_\_\_\_\_

Key Contact Person: \_\_\_\_\_ Title: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail Address: \_\_\_\_\_ Web Site Address: \_\_\_\_\_

Dues: \$ \_\_\_\_\_ Payment by:  Check  Money Order  Purchase Order

Applicant Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Names and email address of other members of your organization who would like to receive ITS-CT announcements:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

### Membership Dues and Schedule

Membership dues are \$100 per year for private sector organizations, free for public sector organizations and \$10 for affiliate members. Please note that affiliate memberships are reserved for individuals who wish to join ITS-CT but are not eligible to join as part of a member organization. (Affiliate members may participate in all ITS-CT activities and discussions, but do not have voting privileges).

Check here if you are an ITS America member and have asked ITS America to credit ITS Connecticut \$100 towards your ITS Connecticut membership.

Please provide any suggestions you might have for names of others to whom a membership application should be sent:

Name: \_\_\_\_\_ Organization: \_\_\_\_\_

Address: \_\_\_\_\_

**Return to: Sharat K. Kalluri, ITS-CT Treasurer, c/o Wilbur Smith Associates, 900 Chapel Street, Suite 1400, New Haven, CT 06510-2802, w: 203.865.2191** Membership application is also available online at [www.ITS-CT.org](http://www.ITS-CT.org)

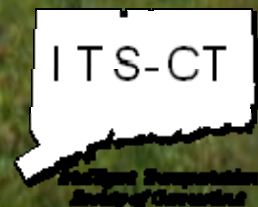
# ***Save the Date***

*ITS - There's an App for that*

*The ITS-CT Annual Meeting  
Monday, September 27, 2010  
Crowne Plaza Cromwell  
100 Berlin Road  
Cromwell, Connecticut*

*For Vendor Display Information  
Contact:*

*Jay Koolis at 860-815-0271 or  
[koolis@pbworld.com](mailto:koolis@pbworld.com)*



## ~Kelly Bertolaccini and Nicholas Lownes, Ph.D.

The University of Connecticut's Transportation Engineering Program continues to be very active in research, service, and educational activities that help solve pressing transportation problems and train future generations of transportation professionals. Several of the professors involved in UConn's transportation program will begin new research projects this Fall. Dr. Nicholas Lownes and Dr. Adam Zofka (assistant professors in transportation engineering) recently received a grant from the New England University Transportation Center (NEUTC) housed at MIT to fund a public transit ITS project investigating the potential of using readily available GPS technologies to provide real time tracking information of public transit to the traveling public. They then hope to assess the impact of real time tracking on public attitudes towards transit. Dr. Zofka will also move into the second phase of the three phase SHRP project which seeks to identify spectroscopic techniques that can be used effectively in the field.

Dr. Norman Garrick, an associate professor in transportation engineering at UConn, and several graduate students conducted research on attitudes toward public transit in Nantucket to understand what system changes may promote higher ridership. This fall Dr. Garrick and Dr. Nicholas Lownes (assistant professor in transportation engineering) will begin another NEUTC project assessing the impact of freeway removal on access and mobility.

CTUP, UConn's University Transportation Center, was very active this summer and looks forward to another exciting semester. This May two graduate students involved in CTUP sponsored projects, Jenna Nichols and Craig Yannes, earned their Master of Science degrees. Jenna Nichols has accepted a job with URS Corporation in Rocky Hill and Craig Yannes has accepted a position with a transportation consultant firm, Dewberry, in New York City. CTUP is also moving into the second full year of its research program, seeing four projects on the center's theme of "Transportation for Smart Growth" move into their second phase.

Student members of the UConn chapter of ITE have been quite active, recently appointing new officers and hosting a successful Fall BBQ that attracted members, prospective members, and alumni. This semester will include a series of guest speakers to discuss different transportation engineering related issues. The chapter is also busy planning for the New England ITE regional student symposium UConn has been selected to help host this coming April.

UConn's transportation faculty members have recently had the opportunity to travel outside of the New England region to share some of their expertise. Dr. Garrick traveled to Atlanta, Georgia to speak to the Center for Disease Control (CDC). In preparation for next year's New Urbanism Summit to be hosted by the CDC, Dr. Garrick made a presentation about the effects of urban form on public health. His presentation specifically touched on the connection between street design and traffic accidents, which relates to work being done by the fourth member of the transportation faculty, Dr. John Ivan. Dr. Ivan recently returned from a sabbatical in Lund, Sweden, where as a visiting researcher, he worked with his Swedish colleagues to develop better traffic

safety models for urban areas.

UConn's transportation program will continue its busy schedule into 2010. There will be a UConn reception at TRB for friends, alumni, and colleagues along with the significant number of presentations UConn students, faculty and researchers will be making at the meeting itself. We will welcome new graduate students, prepare new courses, and continue looking for new and exciting research opportunities. The transportation program is growing very quickly, and will continue to look for opportunities to reach out and collaborate with the transportation community.

## Daktronics VMS to Guide Travelers Near the Arrigoni Bridge

### ~ Koreen Bjorklund

Connecticut DOT's newest four Variable Message Signs (VMS), slated for installation by spring 2010 will help motorists (about 104,000 vehicles per day) decide what route to take when approaching the Arrigoni Bridge, which links Middletown and Portland. The VMS will be located on both approaches to the bridge on both Route 9 and Route 66.

As part of an advanced traffic management system, the VMS will suggest different routes to motorists facing potential delays or incidents on the bridge. Lane control signals and traffic cameras will also direct and monitor bridge traffic.

Four Daktronics Vanguard VF-2120 rear-access displays will be used in the project. The VF-2120 allows maintenance technicians to access the sign components from horizontally-sliding doors located on the back of the display. Rear-access displays can also easily integrate with mounting structures and catwalks to save costs. Three of the VF-2120 models feature 18-inch characters, while one uses 12-inch characters. The 12-inch character model was chosen because traffic speeds on that road won't be fast enough to warrant a larger font.

"Rear-access displays don't necessarily eliminate bucket trucks," says Jesse Coudron, Daktronics project manager in charge of the Arrigoni Bridge VMS. "But they become less obtrusive because the catwalks can be accessed from the roadside. Technicians then have a permanent, stable platform to work from."

Rear-access displays also enjoy an advantage over front-access displays: motorists are less likely to be distracted by technicians working on the display because they're hidden behind the VMS's face.

Purchasing its first Daktronics VMS in 1988, Connecticut DOT now employs more than 100 Daktronics VMS across the state in a multitude of applications, including incident information, travel delays, and AMBER Alerts™. All of ConnDOT's VMS are rear access products.

How does ConnDOT manage such a large network of VMS? One factor is Daktronics' strong presence in Connecticut. In fact, one of the primary reasons Daktronics founded an office in Rocky Hill, Conn. was to provide technical and customer support to ConnDOT's

## Daktronics VMS to Guide Travelers Near the Arrigoni Bridge

(Continued from Page 6)

displays.

“Our Rocky Hill office is only fifteen minutes away from the Newington Traffic Management Center,” says Coudron. “The transportation account manager for the New England region works in Rocky Hill, as well as several technicians.”

A. M. Rizzo Electric won the bid to perform work, including installing the Daktronics VMS, on the Arrigoni project, which has a projected completion date of August, 2010.

Email [transportation@daktronics.com](mailto:transportation@daktronics.com) for more information.

## This is Not a Test... The I-95 Corridor Coalition's Groundbreaking Vehicle Probe Project

~Bill Stoeckert

The I-95 Corridor Coalition's Vehicle Probe Project has been operational since July 1, 2008. Since that time, the initial core area (4100 centerline miles) from New Jersey through North Carolina has been expanded to include the entire limited access road network in New Jersey, the entire interstate system in North Carolina, and 1200 miles in South Carolina.

The project is acquiring and providing travel times and speeds for freeways using probe technology to assist member agencies in providing real-time traffic information to travelers in their respective regions and throughout the study area. While the dominant source of data is fleet systems that use GPS to monitor vehicle location, speed, and trajectory, other data sources such as sensors are also used. The INRIX system fuses data from various sources to present a comprehensive picture of traffic flow. Agency members can access data in three different ways: data feed, monitoring site, and traffic tile overlays. The data feed provides real-time speed, real-time travel time, expected (historical) speed, and free flow speed for each defined roadway segment. The site also allows access to an archive of the data previously provided. In addition, traffic tile overlays allow the agencies to directly overlay INRIX traffic flow onto any existing Mercator project map.

The I-95 Corridor Coalition member agencies receive travel time and speed data to support the dissemination of travel information using 511 and websites; display of travel times on variable message signs, traffic management during incidents and performance measurement.

One example of how agencies and travelers benefit as a result of better information was provided by NJDOT's Executive

Director of Statewide Traffic Operations, Jim Hogan, during his presentation at the 2008 ITS World Congress/ITSA Annual Meeting session “Filling the Data Gap.” Mr. Hogan relayed the experience of NJDOT's Operations Center staff during a surprise snowstorm in late October 2008 when they were observing and responding to an incident along I-80 within view of a CCTV. Since the NJDOT Operations Center staff also view the I-95 CC/INRIX monitoring site, they were able to notice another incident involving multiple jack-knifed tractor-trailers also along I-80. As a result, response to the second incident was expedited, delays were reduced and secondary incidents were avoided (Mr. Hogan estimates roughly a one hour reduction in incident detection time which translated into a \$100,000 savings in user delay costs). There was no camera coverage in the area of the second incident; therefore, without the vehicle probe data, the incident would have gone undetected for a foreseeable time since the operators were busy responding to the first incident.

Another example of corridor-wide benefit occurred during the 56<sup>th</sup> Presidential inauguration when an enhanced version of the monitoring site was made available to Coalition members during the entire week of activities. This gave agencies the ability to see traffic data for their state and other states and to plan and operate their respective systems more effectively. Coalition members noted the importance of the multi-jurisdictional traveler information and traffic/incident management coordination and cooperation, exemplified by the Coalition's inaugural week activities.

Another feature of this project is the comprehensive data validation program that began in the fall of 2008. During the initial validation effort, more than 100 miles of highways across Delaware, Maryland, New Jersey and Virginia were examined

## The I-95 Corridor Coalition’s Groundbreaking Vehicle (Continued from Page 7)

**The I-95 Corridor Coalition’s groundbreaking Vehicle Probe project is a collaborative effort among the Coalition, University of Maryland and INRIX providing comprehensive and continuous real-time travel information to Coalition members.**

detail. Using innovative Bluetooth reader technology, the study compared observations of ground-truth vehicle speeds against real-time speed information provided through this project for the same segments. The initial validation concluded that the INRIX data was meeting the specifications of the contract to confidently develop applications to meet the

needs of the Coalition and its members. The validation effort continues on a monthly basis for each state and is revealing similar results. To date nearly 11,000 hours of data have been validated. Contract payment is tied directly to the validation results. All data and analysis are made available to the transportation community for review.

For more information, please visit the Coalition’s website [www.i95coalition.net](http://www.i95coalition.net).

## STAMFORD URBAN TRANSITWAY ITS

### ~Morteza Hayatgheybi

The City of Stamford along with its project partners CTTransit, the Connecticut Department of Transportation, and the Federal Transportation Administration have been advancing the Stamford Urban Transitway initiative.

Intelligent Transportation Systems (ITS) is a discipline that seeks to deploy advanced IT technology to improve mobility. The following list defines the various ITS treatments that have been included in the project:

- \* CTTransit AVL/CAD (Automatic Vehicle Location/Computer Aided Dispatch)
- \* Bus Transportation Signal Priority (TSP) System to minimize traffic signal delays along the Transitway corridor for mass transit vehicles
- \* Station Advanced Traveler Information
- \* Parking Garage Space Availability

The primary goal of the project is to increase use of mass-transit and to reduce vehicular trips. The CTTransit bus system serving the station and the City of Stamford is the clear

focus of the ITS effort. The AVL/CAD system component provides real-time data on the location of all of the buses to the central dispatcher. This information will be utilized for a variety of purposes including:

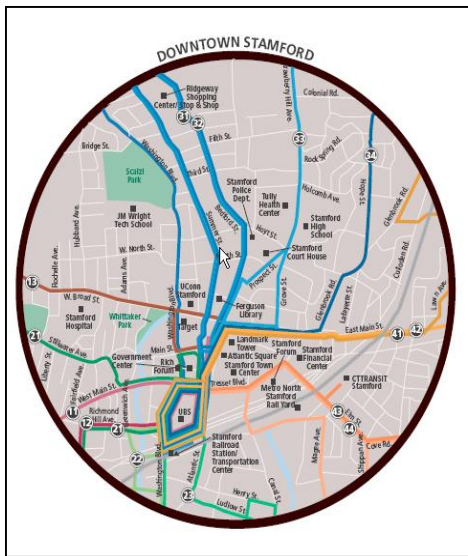
- \* Patron Kiosks displays to disseminate real-time data on bus arrivals at the station terminal and at bus shelters along the Transitway corridor
- \* Updated information to central dispatchers to facilitate routing and dispatching decisions
- \* Updated information to vehicle operators on adherence to schedule
- \* Data to TSP subsystems to coordinate traffic signal operation with the needs of late CTTransit buses approaching the station
- \* Various maintenance and security advantages to the bus operator

The CTTransit bus route network serving the downtown Stamford area originating from the Transportation depot, as it exists today prior to the Transitway, is illustrated on the following map:

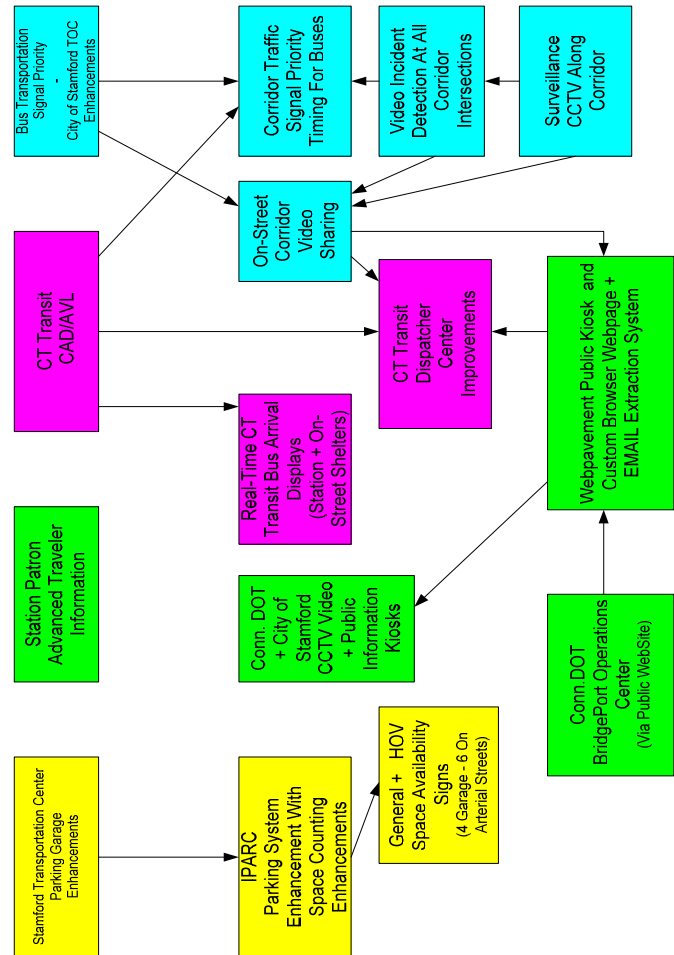
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# STAMFORD URBAN TRANSITWAY ITS

(Continued from Page 8)



Stamford Urban Transitway  
Proposed Intelligent Transportation System (ITS) Treatments



The bus Transit Signal Priority (TSP) component is designed to improve mobility of mass transit vehicles along and approaching the Transitway corridor. The City of Stamford operates a state-of-the-art central traffic system that is capable of accepting the AVL/CAD Bus data for the purpose of implementing traffic signal timing changes that would be intended to improve the on-time performance of the bus system.

The Station Advanced Traveler Information component includes many subsystems that can enhance the patron experience and service provided. The primary recipients of real-time arrival data are bus system passengers at the Transportation Center Bus depot. Motorists exiting the station through the parking garage would have a high interest in current traffic conditions on the various alternative routes leaving the parking garage. Likewise, arriving patrons at the parking garage would be interested in obtaining real-time data concerning Metro-North and other station services.

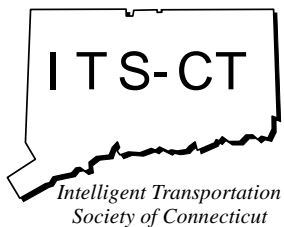
The Parking Garage Space Availability component is designed to foster the use of the garage and to promote HOV car pools. This

component will display the current space availability at the station garage. With this information, approaching vehicles would have the information on parking availability at the train station garage for the driver to choose an alternative location to park the vehicle prior to arrival at the station. This will reduce the congestion on the street network in the vicinity of the SITC facility. The display of HOV space availability could also foster the use of that component, if approaching motorists see that HOV set-a-side capacity is available and they cannot find general population parking convenient to the station.

The graphic titled “Proposed Intelligent Transportation System (ITS) Treatment” is a schematic that illustrates how the various ITS components interface and fit into the physical Transitway infrastructure. In order to support the various ITS subsystems, the project will also include the construction of a Gigabit Ethernet LAN/WAN Network that will allow the various components to communicate with each other efficiently.

## INTELLIGNTRANSPORTAT

c/o IBI Group  
77 Franklin Street, 7th Floor  
Boston, MA 0110



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*The ITS-CT Newsletter is published three times annually by the Intelligent Transportation Society of Connecticut Editor, Carl-Henry Piel. Articles, news items, and photos are welcomed and may be submitted for consideration to the following address:*

Carl-Henry Piel, Editor ITS-CT Newsletter  
c/o IBI Group  
77 Franklin Street, 7th Floor  
Boston, MA 02110  
T 617.450.0701 F 617.450.0702  
e-mail: [c-hpiel@ibigroup.com](mailto:c-hpiel@ibigroup.com)  
subject line: "ITS Connecticut Newsletter"

#### ITS Connecticut Chapter On-Line

Check out the ITS-Connecticut web site at [its-ct.org](http://its-ct.org).  
The site includes the current newsletter, job postings, upcoming events, a listing of the ITS Connecticut officers and directors, the chapter by-laws,

and membership committees. The website will continue to be improved and expanded, so visit often!

There is also an application to join ITS-CT, along with other important links.

