International Scan Identifies Innovative Approaches to Increase Pedestrian and Bicycle Safety

Pedestrian and bicyclist deaths accounted for 14 percent of U.S. highway fatalities in 2008, according to the Federal Highway Administration (FHWA). In an effort to identify and assess effective approaches to improve pedestrian and bicyclist safety and mobility, the FHWA, the American Association of State Highway and Transportation Officials (AASHTO), and the National Cooperative Highway Research Program (NCHRP) sponsored a scanning study of five European countries.

In May 2009, a team of 12 transportation professionals from the United States visited Denmark, Germany, Sweden, Switzerland, and the United Kingdom — countries that were chosen because of their innovative approaches to non-motorized transportation, as well as the potential transferability of their policies and practices. The team gathered information on strategies and approaches in the areas of engineering, education, enforcement, encouragement, and evaluation. They learned that many of the countries studied have established an urban street user hierarchy that gives the highest priority to walking, biking, and public transit.

Some countries, like Denmark, experienced an increase in car use in the 1960s and 1970s, and subsequently reoriented their transportation policy to give priority to bicycling and walking. The team met with the foreign hosts and often went on guided field visits by bike and by foot to

Many Against Speed Cameras in Phoenix, But Accidents are Down

Speed-Related Injury Accidents Reduced by 48%

Redflex Traffic Systems created the first statewide highway speed monitoring program in Arizona in 2008, but now the system is generating an intense backlash, particularly in the city of Phoenix. Many are asking what went wrong with a program designed to improve traffic safety.

According to Redflex, mistakes were made in implementing the Arizona program in 2008, but the program itself is a success in terms of safety. Currently there are 76 photo enforcement speed cameras on Arizona highways — 36 fixed cameras in the Phoenix area and 40 mobile cameras on the side of highways throughout the state. Just ask law enforcement about the program, said Shoba Vaitheeswaran, Redflex’s Director of Communications. “They will tell you that the program has improved safety.”

Vaitheeswaran told UTM that in the first nine months of the statewide photo enforcement program — in the metro
The Bipartisan Policy Center’s National Transportation Policy Project (NTPP) is recommending a new approach to federal transportation funding decisions. The recommendation is based on an analysis of the Federal Transit Administration’s New Starts program to identify the lessons learned and components that might be relevant to new competitive programs, particularly with respect to federal funding decisions. The analysis was conducted by Donald Emerson and Jeffrey Enser of Parsons Brinckerhoff for the NTPP and resulted in a document entitled “New Starts: Lessons Learned from Discretionary Federal Transportation Funding Programs.”

The New Starts program is one of the few discretionary, metropolitan-focused transportation grant programs that attempts to use performance criteria. NTPP has recommended new and larger competitive programs with broader investment goals through which federal transportation resources can be allocated based on results and outcomes. In its recent report, “Performance Driven: A New Vision for U.S. Transportation Policy,” NTPP recommends moving towards a transportation system that is structured around the achievement of specific national goals: economic growth, national connectivity, metropolitan accessibility, energy security and environmental protection, and safety. The NTPP report proposes that 25 percent of all federal transportation funding be allocated through mode-neutral competitive programs.

While the long application and approval process of the New Starts program and some of its criteria have been criticized, the researchers highlight several features of this program that are worth emulating in a competitive grant program, including a comprehensive evaluation process using multiple criteria, shared decision-making between the executive and legislative branches, and incentives for a large local funding match. NTPP suggests that these features are essential for the design of an effective, competitive, and performance-based program.

The report also outlines challenges with the New Starts program. For example, the New Starts process has become a large and cumbersome burden for potential grant recipients, perhaps discouraging worthy proposals. Also, the evaluation criteria have become too narrow, thus discouraging potential innovations. NTPP suggests that any new competitive grant program should be designed to avoid the problems New Starts has experienced.

Other findings include:

- Federal decisions about New Starts funding go through an effective shared decision-making process between the legislative and executive branches of government. The U.S. DOT receives and rates local project proposals and makes specific recommendations based on analytic criteria, and Congress retains final approval over funding decisions. This process is an excellent model for future competitive grant programs.

- New Starts features a prescribed planning and project development process, combined with a rigorous and comprehensive federal review and rating of proposed projects, through which FTA seeks to minimize risk and evaluate projects in a fair and transparent manner.

In the early years of the New Starts program, federal evaluators compared projects in relative terms, separating them into groups according to their worthiness for federal investment. Over time, the evaluation has changed to emphasize an absolute score of each project’s costs and benefits. Rather than a competition, successful projects are those that can survive a protracted process and satisfy FTA funding criteria.

The New Starts program has broad investment objectives, but relatively narrow eligibility. It only funds fixed guideway mass transit projects, plus a few corridor-based bus improvement programs. A mode-neutral competitive program, as recommended by NTPP, would have broader eligibility.

The NTPP, a project of the Bipartisan Policy Center, was launched with the goal of bringing fresh dialogue and approaches to transportation policy. It is co-chaired by former Senator Slade Gorton (R-WA), former Congressmen Sherwood Boehlert (R-NY) and Martin Sabo (D-MN), and former Mayor of Detroit Dennis Archer. In June, NTPP released its blueprint for surface transportation reform. It is the product of a broad, bipartisan coalition of transportation experts, and business and civic leaders.

For more information, the full paper is available for download at: http://www.bipartisanpolicy.org/sites/default/files/New%20Starts%20Paper%20Jan%202010.pdf.
UK to Spend $3 Billion on Expanding the Use of Freeway Shoulders as Traffic Lanes

 Builds on Success with Pilot Programs; Active Traffic Management Applied

The U.K. Highways Agency has awarded a national framework contract for up to £2 billion ($3 billion) to deliver “Managed Motorways” schemes, including opening the hard shoulder (outside shoulder) to traffic at peak times, to reduce congestion, improve safety and make journey times more reliable on key sections of England’s motorways (freeways).

The agency announced February 16 that four contractors have been appointed to deliver the first phase of these innovative schemes, bringing together companies from across the industry under one framework to ensure value for cost at a project and program level. U.K. Transport Minister Chris Mole said, “Managed Motorways use a range of innovative technology to improve traffic flow during busy periods. Features such as variable speed limits and opening up the hard shoulder to traffic at peak times provide more reliable journey times, reduced congestion, and safer journeys.”

Plans to extend the successful Hard Shoulder Running (HSR) program are a major aspect of the framework contract. Traffic using the hard shoulder at peak times is expected to deliver improvements more quickly than motorway widening. In addition to providing more reliable journey times, it will add capacity at a lower cost than a more conventional road widening scheme, and with fewer environmental impacts. Other schemes that improve capacity and traffic flow, utilizing technology to make journey times more reliable, improve safety and provide driver information, could also be delivered under this framework contract.

Hard shoulder running is already in action on the M42 between J7 and J3a (the pilot scheme) and on the M6 between J5 and J4 (opened to traffic in December 2009). Emergency refuge areas (ERAs) are installed on both schemes at regular intervals, approximately every half-mile. ERAs are wider than the hard shoulder to provide additional safety to anyone working on a vehicle during a breakdown. In addition, the ERA is equipped with detection equipment, which allows the Regional Control Centre to be alerted to any vehicle that enters the area. Each ERA also has an emergency telephone with a direct connection to the Regional Control Centre. The phones are positioned behind safety fencing and are at a height suitable for disabled road users.

“The safety of road users on our motorways is of paramount importance and all of the Managed Motorways with hard shoulders are designed to do as much as possible to reduce accidents,” said Mole.

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Intelligence

Wilmington to Use White Spaces Network for Traffic Monitoring; Network Uses Frequencies Made Available by Switch to DTV

Wilmington, NC

Traffic cameras are not new to the city of Wilmington and the surrounding area, but these cameras will be transmitting video information in a new and experimental way — using the TV white spaces spectrum.

Wilmington and the surrounding county of New Hanover are among the first regions to be chosen to test wireless applications using the white spaces created when broadcasting went digital. The city and county have partnered with TV Band Service LLC and Spectrum Bridge Inc. to become the first-in-the-nation “smart city” to launch a wireless network trial using these white spaces.

TV white spaces are the open frequencies in the TV band that were made available by the recent transition from analog to digital TV. In 2008, the Federal Communications Commission (FCC) opened up this unused broadcast TV spectrum for unlicensed use – similar to WiFi. The FCC selected the Wilmington/New Hanover County area for the trial network because this region was the first major U.S. TV market to convert from analog to digital TV broadcasting.

In the beginning, the network will be used for three specific applications. First, traffic cameras will use the network to provide real-time traffic monitoring for the Department of Transportation to reduce congestion, fuel consumption and travel time, support local law enforcement, and assist with hurricane and disaster evacuations.

Second, the white spaces will be used to improve public safety and WiFi access at community parks by delivering real-time video monitoring to local law enforcement. Third, the city and county will use the experimental network to remotely monitor and manage wetland areas, eliminating the costs associated with physically driving or boating to the monitoring stations to collect data required by the Environmental Protection Agency (EPA).

“White spaces technology can open the door to future Smart Network applications by providing government more real-time information at a lower cost to our citizens and environment,” said Bill Saffo, Mayor of the city of Wilmington. “This is an example of technology offering us the tools to operate the city more efficiently and effectively. For example, our Traffic Division can use the technology to manage signals and monitor vehicle flow without the costs and disruption of running additional fiber or cables.”

According to Spectrum Bridge, additional white spaces network applications could include water pump station monitoring and control, expanded Internet connectivity for local schools, and medical monitoring.

Wireless signals in the TV band can travel over large distances, and are particularly useful in sending signals across difficult terrain. In terms of Wilmington and New Hanover County, the unique geographical challenges of the coastal community and surrounding wetlands were perfectly suited for white spaces, said Spectrum Bridge officials. TV white spaces allow a robust network to be deployed with fewer towers than were required for previously available unlicensed frequencies, reducing costs and impact to the environment.

“We expect to learn a lot about the technology and the uses of the TV white spaces through this trial,” said Dr. John Chapin, consultant to TV Band Service. “Here in Wilmington we’re pulling together a variety of radios and applications. We’re excited to grow the trial network and invite future participation by radio vendors, government organizations and potential users.”

To ensure that the white spaces network does not cause interference with licensed television broadcasts and other protected TV band users, the system operates under the control of Spectrum Bridge’s intelligent TV white spaces database. This database dynamically assigns non-interfering frequencies to white spaces devices, and adapts in real-time to new TV broadcasts, as well as other protected TV band users operating in the area. “The valuable data and know-how gained from real-world network deployments greatly increases our understanding of how TV white spaces and database-driven spectrum access can cost-effectively address the increasing demand for wireless bandwidth,” said Peter Stanforth, CTO and co-founder of Spectrum Bridge.

TV white spaces availability can be found for any location in the U.S. by using the free search tool at Spectrum Bridge’s ShowMyWhiteSpace.com website, or by downloading the company’s free Show My White Space iPhone application from the Apple App Store.

TV Band Service LLC is a privately held company headquartered in Wilmington that provides wireless communication services to government and enterprise operations. Spectrum Bridge, Inc. (SBI), a privately held company headquartered in Lake Mary, FL, delivers software and services to wireless service providers and equipment manufacturers.

For more information, visit www.tvbandservice.com or www.spectrumbridge.com, or contact malissa.talbert@wilmingtonnc.gov.

OHSU Opens Electric Car Charging Station

Portland, OR

Oregon Health & Science University has installed its first electric car charging station, allowing patients, visitors and staff to recharge their green vehicles while at the university.

The charging station, which is located on the fifth floor of the large parking structure across from OHSU Doernbecher Children’s Hospital, can charge up to four electric vehicles at the same time.
same time on a first-come, first-served basis, according to a February 23 OHSU press release.

The level-1 charging station is the first at OHSU. Level 1 charging in the United States typically uses a 120-volt standard electrical outlet. The university said it may add additional capacity for electric car charging if demand increases.

The car-charging station was made possible through OHSU funds and a generous donation by Robert Buys, M.D. Buys has worked with OHSU’s Casey Eye Institute for more than two decades, and he drives an electric vehicle.

“I have always been a proponent of electric cars,” said Buys in an OHSU press release. “I saw this as an opportunity to help OHSU become even more green.”

“OHSU has a proud history of supporting green transportation alternatives,” said Roger Cole, OHSU Sustainability Manager and a member of OHSU’s Green Team, a committee of employees dedicated to addressing environmental issues at the university. “This electric car-charging station is our latest effort to be a leader in responding to concerns about fossil-fuel-burning cars.”

Examples of environmental leadership at OHSU include:

- Almost 60 percent of OHSU employees use public transportation, carpool or another alternate means to travel to work rather than driving in single-occupant vehicles.
- OHSU supports bicycle commuting by providing several bike parking options at various locations. The Portland Ae-

![The OHSU car charging station. (Photo. Courtesy of Oregon Health & Science University)](image)

### Personal Air Transport System Project Started in Europe

**France**

PPLANe, a visionary project being undertaken by a consortium of 13 international partners, has announced its launch of the Personal Air Transport System (PATS), a new paradigm in air transport.

The project, which is funded by the European Union, is poised to revolutionize travel and ease congestion through the creation of this new paradigm. Like a private car, the PPlane personal air vehicle will deliver the benefits of speed and routing efficiency only possible through direct-to-destination flight.

The project emphasizes environmentally responsible design, including noise and gas emission reduction, green propulsion, and energy efficiency, and is expected to increase savings and sustainability on one hand, and decrease overall traffic environmental impact on the other, resulting from a more efficient travel.

EC project officer Jose M. Martin Hernandez says that PPlane is part of the FP7 (7th framework project) strategy of "pioneering" and "revolutionary" aeronautics projects that will pave the way for future European air transport systems.

Ambitious targets have been set to deliver drastic reductions of noise and emissions, substantial increases in fuel efficiency, a safety level comparable to that of conventional airliners, and low cost.

The PPlane consortium is led by France’s ONERA and includes organizations from 11 European countries, representing industry, research and academia. Project partners will identify those concepts found to yield the greatest social, environmental, and economic benefit for future European Research and Technical Development (RTD) funding.

Additional contributions will be made by external regulatory experts who will assist the consortium with strategic decisions and dissemination of findings.

The duration of this European Commission (EC) 7th framework project is 30 months with a total budget of 4.4 M Euro divided among its 13 partners, according to information posted by The National Aerospace Laboratory (NLR) one of the participating organizations. NLR is the central institute for aerospace research in the Netherlands.

The successful introduction of Personal Air Transport Systems in Europe will ensure mobility of people and goods, stimulating safe and secure commuting, while reducing the unwanted effects of traffic congestion, including environmental damage, social exclusion and unnecessary costs, according to the EC website.

For more information on PPlane, visit http://ec.europa.eu/research/infocentre/index_en.cfm, and the project website www.pplane-project.org.
MassDOT Announces Challenge to Develop Applications of Real-Time Bus Information

Goal is to Make Real-Time Information Available Anywhere, Anytime; A New Business Model: Releasing Public Data and Allowing Software Developers and Citizens to Improve Customer Service at No Cost to Taxpayers

The Massachusetts Department of Transportation (MassDOT) announced the opening of its Developers Real-Time Challenge, which calls on developers to create both software applications and physical installations using the real-time feed of Massachusetts Bay Transportation Authority (MBTA) bus locations and arrival predictions. The goal of the Challenge is to make real-time information available anywhere, anytime.

The challenge has two categories, with a $500 cash prize for the winner in each.

Software Applications Challenge: This challenge calls on developers to create applications using the MBTA Real-Time XML Trial Feed accessible through the Internet, mobile phones, land-line phones, text messages, software applications and any widely accessible software platform. Examples include: smartphone applications, web applications, websites, computer applications, SMS services, and phone-based IVR (interactive voice response) systems.

Physical Installation Challenge: This challenge calls on developers to create physical installations making information from the MBTA Real-Time XML Trial Feed accessible in public locations. These solutions must be installed along at least one of the five MBTA Routes for which the feed is available on non-MBTA property. Examples include: LED countdown signs in businesses or other locations along the route, LCD countdown signs in businesses or other locations along the routes, bus arrival indicators, physical signs informing users of the existence of real-time data through the phone or on the web, or the inclusion of the MBTA real-time bus information in existing installations along the MBTA bus routes.

The Challenge began on February 18, and applications and installations can be submitted through 5 p.m. on March 19, 2010. Developers are required to use real-time information provided through the beta MassDOT Developers page, www.eot.state.ma.us/developers, which was created in the summer of 2009. Data released through the page includes MBTA and RTA route and schedule data, an RSS feed for MBTA service alerts, Highway Division planned construction event data, RMV branch wait-time feeds, and a variety of other information. Third-party developers have used this data to create applications that benefit users of the transportation system, all at no cost to the MBTA.

The current Real-Time Challenge builds on MassDOT’s November 2009 Developer Challenge and Conference, which spurred the creation of more than six applications using the MBTA’s trip planning data. In fact, within one hour of releasing the Real-Time XML Trial Feed for five MBTA bus routes at the MassDOT Developers Conference in November, a developer had built an application to display the location of the buses on Google Earth. In the next two months, at least eight third-party applications were built using the real-time feed. These applications operate on numerous platforms including any phone by call or SMS text messaging, basic websites, desktop widgets, the iPhone, Android devices, and even an LED sign.

On January 26, MassDOT and the MBTA announced that MBTA riders on five of the T’s busiest bus lines can now track the locations of their buses in real-time on the MBTA website, MBTA.com. It is called the T-Tracker.

“These third-party applications and our Developers Page represent a new business model for MassDOT and the MBTA: releasing public data and allowing software developers and citizens to improve customer service at no cost to taxpayers,” said MassDOT Secretary and CEO Jeffrey Mullan in a press release. The real-time information and T-Tracker website is part of an MBTA pilot project. At the conclusion of this pilot program, the MBTA will determine the best way to make the real-time information available for more bus routes.

The next step came on January 29-30, when the Center for Future Civic Media at the Massachusetts Institute of Technology hosted the MassDOT and MBTA Developers Hackathon. According to MassDOT Director of Innovation Chris Dempsey, more than 20 developers gathered to work on both software applications and hardware installations to make real-time information available. The session began with a brainstorming session about applications of real-time bus location and arrival information. Over the next two days, attendees completed work on an LED countdown sign using the MBTA real-time feed. In addition to countdown information, the signs were configured to display messages such as “Next 39 bus in 6 minutes, come in now for hot coffee.” As a result of the work completed at the Hackathon, this sign is likely to be displayed in a local business along one of the routes in the coming weeks. Dempsey said. Developers also began working on other innovative projects -- apps and websites that will provide automated updates to riders about next bus arrivals during pre-selected time windows.

For more background on this initiative and applications developed to date, visit www.massdotdevelopersconference09.com and www.eot.state.ma.us/developers, or contact MassDOT Public Affairs spokesman Colin Durrant at tel. (617) 973-7870 or by e-mail: Colin.Durrant@state.ma.us.

An iphone app providing next bus information. (Photo: Courtesy of Catch the Bus, http://catchthebus.com/)
New California Bikestations Create Network
Two Bikestations on the Same LA Metrolink

In February, Mobis Transportation/Bikestation opened new bicycle parking facilities in Claremont and Covina, California. These facilities are aimed at making it easier for people to bicycle not only in the local community but also as a means to access transit. Located on the same Metrolink line, Bikestation Claremont and Bikestation Covina represent the first bicycle and alternative transportation center network in the country.

Bikestation Covina is a secure bike module that simply provides safe indoor bike parking.

In contrast, Bikestation Claremont provides a variety of amenities that make bicycling more secure and convenient, including secure bicycle parking, restrooms, retail accessory sales, and bike repair and rental services.

“By providing convenient and economical bike-transit services at major transit lines and within close proximity to urban destinations, Bikestation can play a primary role in educating the public about the benefits and the ease of using public transportation and other alternative modes,” said Andrea White-Kjoss, president and CEO of Mobis Transportation/Bikestation in a press release, “Bikestation bike transit centers make biking to and from public transportation safe and convenient, addressing the common concerns people have about riding bikes, convenience and fear of theft, and enabling more people to use alternative transit more often.”

The new Bikestation Covina Secure is a 250-square-foot bike module within about a quarter mile of the Covina Metrolink station. The high-tech, “green” design makes available the 36 electronically secured indoor parking spaces, which are able to accommodate up to 80 users, 24 hours a day, seven days a week. Users can sign up at www.Bikestation.com or over the phone, and their digital access key fob will allow them not only to use Bikestation Covina but any Bikestation in the United States.

A partnership with Covina Valley Cyclery, adjacent to the Covina Metrolink station in downtown Covina, will provide retail discounts to Bikestation Covina users and a bicycle repair valet service for an additional charge. While Covina will start with a single Secure Bike Module, the LEED 3.0-compliant design is scalable, allowing the city to add to the facility or add new modules when required, according to the Mobis/Bikestation press release. According to White-Kjoss, funding to build the Covina station came from the city.

Unlike Covina, the Bikestation in Claremont is built into a refurbished depot in the city’s downtown. It is located at the historic Claremont Depot transit center, a 1927 Spanish Colonial Revival building that’s been newly renovated with funding from Caltrans. Caltrans also funded the installation of the Bikestation. The depot serves as a transit center for Metrolink commuter trains and a regional bus system, making it an ideal location for connecting bicycling into the mix for getting to and from the station. The location also provides convenient access to the Metrolink station, other public transit options, businesses and communities, and the campuses of the Claremont colleges.

Bikestation Claremont is 600 square feet and offers members 37 electronically secured indoor bicycle parking spaces, 24 hours a day, seven days a week. The facility also has a restroom and a changing room with lockers, a water fountain and vending machines, a repair stand and tools for bicyclists to use to repair their own bikes, and retail accessory sales. Valet repair service and bike rentals are available through an operating partnership with JAX Bicycle Center, located across the street. Access is limited to members and users can choose from a range of membership options ranging from daily to annual plans.

“Bikestation Claremont is located in our Bike Priority Zone, a two square mile area encompassing the Claremont Colleges, the Claremont Depot, mixed use retail, and residential neighborhoods, where we’ve created safe bike routes and parking to promote walking, cycling and alternative transportation,” said Brian Desatnik, Housing and Redevelopment Manager, city of Claremont.

Mobis Transportation Alternatives, headquartered in Long Beach, CA, is a consulting and management firm that helps clients plan, develop and operate multimodal transportation systems. It was founded with the goal to reduce traffic congestion and vehicular emissions, improve access to mass transit and offer meaningful mobility choices. Mobis operates a network of innovative transportation systems through the Bikestation, Citywheels and Citybikeshare brands.

For more information, visit www.bikestation.com or contact Bikestation staff at (877) 572-BIKE or by e-mail at info@bikestation.com.
City Can be Liable if Enforcement to Keep a Reasonable Sight Distance at an Intersection is Compromised, Even if Obstruction (Vegetation) is on Private Property

In May 2006, a seven-year-old boy was killed when, cycling south through a “T” intersection, he was struck in the middle of the intersection by a motorist traveling east and driving left of center of the cross road. The driver’s blood alcohol level shortly after the collision was above the legal limit, and he pled guilty to involuntary manslaughter.

On the northwest corner of the intersection, there was a retaining wall and evergreen ground cover. On the south side was an automobile body repair business. At his deposition, the motorist stated that he was driving down the center of the road because the vehicles belonging to the body repair shop were parked into the side of the road, impeding his view of the intersection.

Plaintiff, the boy’s mother, brought suit against multiple defendants, including the city for its alleged negligence in violating various safety statutes and municipal ordinances regulating the maintenance of its streets, obstructions to vision and traffic, and parking regulations.

In its motion for summary judgment, the City asserted that plaintiff’s suit was barred by governmental immunity and the public duty doctrine. The trial court denied city’s motion for summary judgment, which it then appealed.

In November 2009, the Court of Appeals affirmed the earlier ruling holding that:

1. The public duty doctrine did not apply to shield city from liability for failing to enforce its municipal code by not requiring the landowner to remove or trim the vegetation on his property; and

2. Material issues of fact did exist which had precluded the court from granting summary judgment. There were questions regarding whether the vegetation and parked cars constituted obstructions and whether the city had actual or implied notice of these obstructions.

It found that, under statute, the municipality had authority to regulate the use of its streets and sidewalks and was under a positive duty to keep them in proper repair.

City had contended it was entitled to summary judgment because plaintiff’s claim that it had failed to protect her son from the “wrongful, criminal acts of others” was barred by the public duty doctrine.

The Court of Appeals found that the North Carolina Supreme Court had first adopted the public duty doctrine in North Carolina in 1991, providing that “a municipality and its agents act for the benefit of the public” and therefore, there is no liability for .... “failure to prevent every criminal act.” Nevertheless, it noted that the court, on various occasions, had reiterated it had never expanded “the public duty doctrine to any local government agencies other than law enforcement departments ....” It found plaintiff had not claimed that the city failed to prevent the criminal acts of the driver, property owner and body repair shop and/or failed to protect her son from the criminal acts by these parties. Instead she alleged the city of Winston-Salem had breached its duty of care on the day of the fatal collision and alleged a number of specific acts of negligence per se in violations of state safety statutes and sections of the Winston-Salem Municipal Code, including:

a. Failure to keep the public streets in proper condition;

b. Failure to establish an appropriate policy and procedure to inspect and to keep its streets in a safe and proper condition, free from unnecessary obstruction due to overgrown vegetation and to vehicles parked in prohibited areas, i.e. 25 feet of intersecting curb lines;

c. Failure to keep the public streets free from unnecessary obstructions, including untrimmed vegetation, shrubs and bushes within the right-of-way, that obstruct the vision of motorists, pedestrians and bicyclists;

d. Failure to erect and maintain appropriate signs giving proper notice to motorists of the parking limitations and prohibitions on the street;

e. Failure to insure that cars were parked facing the appropriate direction.

Plaintiff also claimed the city knew or should have known that the vegetation at the intersection caused a “blind intersection,” creating a dangerous and hazardous condition for the public, and it failed to take any action to warn the public of the existence of the dangerous condition.

In addition, plaintiff alleged city had failed to enforce the safety statutes of the Municipal Code in that it failed to require the property owner to remove or trim the vegetation, shrubs and bushes located on his property within the right-of-way that could obstruct the view of motorists, pedestrians and bicyclists.

The court found that the Winston-Salem Municipal Code places the burden of removing vegetation on the owner, tenant or occupant of lots bordering the street or, failing him/her, on the “assistant city manager/public works or his designee”.

It found plaintiff’s allegation was not against a failure on the part of a law enforcement agency and therefore the public duty doctrine did not apply to shield the city from liability for this claim. It held that the public duty doctrine was also inapplicable to the remaining allegations of plaintiff, in alleging city negligently failed to comply with its own municipal safety ordinances and various provisions of state statutes.
The city further contented it was immune from suit under the doctrine of governmental immunity, and that it had not waived its governmental immunity because it had not purchased liability insurance covering the claims. However the court noted that plaintiff alleged the city had violated the statute that gives a municipality authority to regulate the use of its streets and sidewalks and imposes a positive duty upon the municipality to keep them in proper repair, in a reasonably safe condition, and free from unnecessary obstructions. It found the city had negligently breached the statutory duties so imposed.

City also argued it was entitled to summary judgment because, as a matter of law, there were no genuine issues of fact as to the existence of any obstruction, it had not had notice of a dangerous condition at the relevant intersection that any obstruction was a proximate cause of the collision and the deceased’s death.

However the court found that both the vegetation and parked cars could constitute obstructions which might violate statutory requirements. It also agreed with plaintiff that the city had actual notice of the obstructions, because city itself had planted the vegetation in the 1970s, and had commissioned a curb usage study by its own Traffic Engineering Division in 1987 which showed that parking on both sides of the street obstructed the travel lanes to a point that emergency vehicles would not be able to use the road. It also accepted plaintiff’s claim that the evidence gives rise to an inference that city had implied notice based on the length of time the alleged obstructions had been present. Therefore it concluded there were genuine issues of material fact as to whether or not the city had actual or implied notice of the obstructions.

The court also disagreed that city was entitled to summary judgment because there was no genuine issue of fact that the alleged obstructions were a proximate cause of the boy’s death. It found it was reasonably foreseeable that obstructions to vision, and obstructions necessitating a driver to drive in the center lane, could cause a traffic accident of some sort.

Finally, it rejected city’s claim that the criminal acts of the motorist driving while under the influence and on the wrong side of the road were intervening causes which severed the causal chain between its alleged negligence and the accident.

For these reasons, it affirmed that the trial court had correctly denied city’s motion for summary judgment.

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Phoenix area alone — there were 2,247 fewer property damage collisions, 933 fewer injury collisions and 13 fewer lives lost than in the same period in the previous year. The study, conducted by the Arizona Department of Public Safety (DPS), also found that in the first nine months of the program statewide there were 2,940 fewer property damage collisions, 1,189 fewer injury collisions, and 24 fewer lives lost. DPS officers statewide spent 9,224 less hours investigating 4,891 fewer collisions in the same nine-month period. According to Vaitheeswaran, this reduction in work investigating collisions gave the officers more time for other important tasks. During this nine-month period, the officers made 52,791 more total arrests — including 52 more arrests of impaired drivers — than in the previous period.

If safety is improving, then why is there a backlash? According to Vaitheeswaran, there are two reasons why the public, particularly in Phoenix, has not accepted the speed camera program. The first reason, she said, has to do with how the fines are executed.

In the state of Arizona, the fine for being caught by a speed camera is $181 with no points assessed to the driver’s license. The first notice of the fine is mailed to the owner of the auto photographed by the speed camera. That person has 30 days to respond and he can pay online or contest the ticket in court saying he was not speeding or he was not the driver. But, Vaitheeswaran stressed, if a speeder ignores the first notice in the statewide program, the second speeding ticket will be hand delivered to the auto’s owner by a process server. Arizona is the only state that insists on process serving tickets for photo enforcement traffic violations, she said. For example, California has a red light camera system in which a violator receives a much stiffer penalty — points and a criminal charge — but the first ticket notification and subsequent reminders are all sent as first class mail. Vaitheeswaran suggested that much of the backlash may be due to the humiliation of being process served at home or at work.

Moreover, according to media reports, Arizona law stipulates that if a driver doesn’t pay a speeding ticket issued by an officer in person, such as a process server, that person’s driver’s license will be suspended until the fine is paid. Some drivers say they have been stopped while driving and told that they need to give up their license due to an unpaid ticket issued for a violation recorded by the speed camera system.

Vaitheeswaran said that the second reason drivers are unhappy with the Arizona statewide speed camera program is that the program was put together and the cameras installed very quickly and in great number. “A slower pace and better education campaign from the Department of Public Safety would have helped greatly,” she said.

Redflex was the technology provider for a nine-month study conducted by the Arizona Department of Public Safety on Arizona Highway Loop 101, where the freeway speed-enforcement cameras were shown to reduce the average speed of all vehicles by nine mph. Single vehicle collisions were reduced by 63 percent and speeding-related injuries were down 48 percent. The program was also credited with saving $16.5 million per year, due to reduced property damage, medical expenses and insurance costs.

For more information, visit www.redflex.com or contact Shoba Vaitheeswaran at tel.: (623) 207-2403 or shoba@redflex.com.
International Scan Identifies Innovative Approaches to Increase Pedestrian and Bicycle Safety

better understand and experience the design and operation of various walking and bicycling facilities. According to the team’s report, field visits were invaluable for documenting the facilities, observing traffic behavior, and experiencing firsthand how well a design or operational strategy worked.

The team gathered much information that could be used to improve pedestrian and bicyclist safety and mobility in the United States. But, the report cautions, implementing foreign practices in the United States will require a careful, evidence-based approach.

The team determined that, in the host countries, higher levels of walking and biking safety and mobility are due to a deliberate combination of policies, approaches, and influences including:

- Integration of transportation and land use policy;
- Transportation planning and design policies that are mode neutral or that give priority to vulnerable road users;
- Political support at all levels, including elected officials, government staff, and the general public;
- Provision and pricing of motor vehicle parking;
- The high costs of owning and operating a private motor vehicle (sales tax, annual registration fees, gas, parking, fines for moving violations, etc.);
- A comprehensive, continuous, integrated approach that includes such elements as integration with and widespread public transit; connected on-street and off-street walking and biking networks; ongoing promotional campaigns; traffic safety education for children; prohibition against right turn on red except where specifically permitted, routine photo enforcement.

The team found that many of the foreign hosts have established an urban street user hierarchy that gives the highest priority to walking, biking, and public transit. They also observed innovative traffic signal features and design practices that could improve U.S. pedestrian safety, including:

- Passive detection of pedestrians in crosswalks to truncate, extend, or cancel the pedestrian phase at traffic signals;
- Near-side traffic signals that reduce motorist encroachment on the pedestrian crosswalk;
- Near-side pedestrian signal heads placed to encourage pedestrians to view oncoming traffic;
- Raised crosswalks at unsignalized pedestrian crossings;
- Crossing islands, even if limited space requires the use of smaller islands;
- Railing used to direct pedestrian movements to defined crossing locations.

The scan team observed several approaches and design practices that could improve U.S. bicyclist safety:

- Methods to address right-turn crashes, such as advance stop lines for bicyclists, specialized motor vehicle-based mirrors, bike boxes, leading green phase for bicyclists, and right-turn-on-red restrictions for motorists;
International Scan Identifies Innovative Approaches to Increase Pedestrian and Bicycle Safety

- Separated facilities, such as cycle tracks, separated bike lanes, and shared-use paths with delineated space for pedestrians and bicyclists;
- Bicycle-specific traffic signals to reduce turning conflicts at signalized intersections;
- Pavement markings, such as dashed bike lanes through intersections, colored lanes at conflict points, and longitudinal bike symbols at driveways and stop-controlled cross streets.

The scan team observed the use of low-speed street designs in both residential and commercial areas that were especially conducive to walking and bicycling. For example, the city of Bristol, England, has implemented 20 mph (32.1 kilometer per-hour) “home zones” in its new residential development. Several cities in Sweden, Germany, and Switzerland also have implemented low-speed streets in residential and commercial areas. However, several foreign hosts indicated that, for these low-speed street designs to operate properly, speeds of the different modes should be similar, volumes of users should be similar, and “see and be seen” is a critical design element.

The scan team observed close integration of bicycling and walking considerations with public transit (including intercity rail) that makes longer intermodal commutes by bike practical as well as safer and more convenient, including:
- A variety of bike parking solutions at stations;
- Policies that permit bikes on trains and buses, even during peak times;
- Bike rental or sharing programs located in or near train or bus stations;
- Channels or ramps on stairways that make it easier to use steps while pushing a bike;
- Public taxis with quick-mount bike racks for passengers.

For more information, the full report and the executive summary are located at: [http://international.fhwa.dot.gov/links/pub_details.cfm?id=662](http://international.fhwa.dot.gov/links/pub_details.cfm?id=662).

UK to Spend $3 Billion on Use of Freeway Shoulders as Traffic Lanes

shoulder running schemes we deliver will be equipped with Emergency Refuge Areas at regular intervals,” a Highways Agency spokesman said. “Experience on the M42 has shown that it is very rare that a driver does not make it to a refuge area if he needs to stop whilst the hard shoulder is being used as a running lane. Driving at 60 mph … you’d pass one of these ERAs on average every 30 seconds.”

According to the Highways Agency, red crosses shown in the overhead gantries also allow the Regional Control Centre staff to inform road users in advance of any lane closures (including the hard shoulder) for safety reasons. The agency can also slow traffic down and improve traffic flow by using the variable speed limits displayed on the electronic signs on the overhead gantries.

The Managed Motorways concept builds upon the success of the Active Traffic Management Pilot which was held on the M42. Sensors were used to detect the buildup of traffic, which triggered sign boards instructing drivers to slow down and use the extra lane. After 12 months of operation, benefits of HSR on the M42 included an increase in journey time reliability of 22 percent and a decrease of personal injury accidents from an average of 5.1 per month to 1.8 per month.

For more information, visit [www.highways.gov.uk](http://www.highways.gov.uk) or contact the Highways Agency press officers Alex Barnett and Kelly Logan at Alex.Barnett@highways.gsi.gov.uk and kelly.logan@highways.gsi.gov.uk respectively.
Pedestrian Space at Times and Herald Squares in New York City to be Permanent

Analysis Shows Mobility, Safety, Satisfaction Improvements

New York City Mayor Michael Bloomberg has announced that the Midtown pedestrian plazas that were created in a pilot program last year will be made permanent—even though they have only partially met the city’s goals for combating traffic congestion.

The pilot project was based on a feasibility analysis that indicated the plazas would improve traffic flow on 6th and 7th Avenue and improve traffic safety along Broadway. Through an evaluation of extensive traffic data collected before and after the pilot, the New York City Department of Transportation (NYCDOT) found that northbound trips on Sixth Avenue are now 17 percent faster, while southbound trips down Seventh Avenue have slowed 2 percent. Overall, however, the city concluded that the pedestrian plazas have achieved project goals — improving mobility, safety and satisfaction.

The NYCDOT undertook the “Green Light for Midtown” project to simultaneously improve mobility and safety in the Midtown Manhattan core, and ultimately to make the area a better place to live, work and visit. The mayor announced the project in February 2009, and NYCDOT began implementation in late May 2009. The work created new pedestrian areas on Broadway in Times Square (47th to 42nd Streets) and Herald Square (35th to 33rd Streets). Extensive safety improvements were also made along the Broadway corridor between Columbus Circle and Madison Square.

Asked about the impacts of the pedestrian plazas on deliveries, a NYCDOT spokesman said that deliveries will continue in the same way in the future as during the pilot, which utilized side streets. He added that there are no entrances to parking garages where the plazas are located.

In order to evaluate Green Light for Midtown as a pilot, NYCDOT collected extensive data on travel times, traffic volumes, pedestrian volumes and traffic accidents in the months just prior to and just following project implementation. According to this data, the project is delivering on its expectations.

The NYCDOT collected extensive data from GPS units in taxis. Analysis of the data shows that the project has improved mobility by increasing overall motor vehicle travel speeds and accommodating growing travel volumes. The data also show enhanced safety in the project area with reductions in injuries to pedestrians and motorists.

According to the NYCDOT’s “Green Light for Midtown Evaluation Report” of January 2010:

- Travel speeds for northbound trips throughout West Midtown improved 17% from fall 2008-2009, compared with 8% in East Midtown.
- Travel speeds for southbound trips in West Midtown fell by 2% while East Midtown showed an increase of 3%.
- The speed of eastbound trips increased by 5% and westbound trips by 9% over the same time period.

- Bus travel speeds increased by 13% on 6th Avenue and fell by 2% on 7th Avenue.
- Injuries to motorists and passengers in the project area are down 63%.
- Pedestrian injuries are down 35%.
- 80% fewer pedestrians are walking in the roadway in Times Square.

The project has greatly improved satisfaction with the Times and Herald Square areas among residents, workers and visitors. The number of people walking along Broadway and 7th Avenue in Times Square is up 11% and pedestrian volume is up 6% in Herald Square. In fact, 74% of New Yorkers surveyed by the Times Square Alliance agree that Times Square has improved dramatically over the last year.

Now that the pedestrian plazas will be made permanent, NYCDOT will begin a capital project to design and build the plazas and corridor treatments with permanent, high quality materials. In terms of next steps, the spokesman said that he expects that there will be a design competition for temporary enhancements and the selection of a design team for permanent enhancements.


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This Month’s Survey Results (Survey 1)

Experiences with the Application of Complete Streets

Last month, *The Urban Transportation Monitor* conducted a national survey to obtain information from local jurisdictions where existing streets were converted to completed streets. E-mails with a web link to a questionnaire were sent to jurisdictions. Replies were received from 9 cities. The results of the survey are published here.

Application of Complete Streets: Contacts

<table>
<thead>
<tr>
<th>ORGANIZATION NAME</th>
<th>CONTACT NAME</th>
<th>ADDRESS, TELEPHONE</th>
<th>E-MAIL</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
</tr>
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<td></td>
</tr>
<tr>
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<td>Hong Liu</td>
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<td></td>
</tr>
<tr>
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<td>Philip R. Lindsay</td>
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<td></td>
</tr>
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<td>City of Des Moines, Iowa</td>
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<td></td>
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<td>City of Lansing, Michigan</td>
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<td>219 N. Grand Avenue Lansing, Michigan 48933 (517) 483-4248 <a href="mailto:akilpatr@lansingmi.gov">akilpatr@lansingmi.gov</a></td>
<td></td>
</tr>
<tr>
<td>City of Bloomington, Indiana</td>
<td>Adrian Reid</td>
<td>401 N. Morton Street Bloomington, Indiana 47404 (812)349-3417 <a href="mailto:reida@bloomington.in.gov">reida@bloomington.in.gov</a></td>
<td></td>
</tr>
</tbody>
</table>
## Experiences with the Application of Complete Streets

<table>
<thead>
<tr>
<th>Name of city/local jurisdiction?</th>
<th>City of Boulder, Colorado</th>
<th>City of Iowa City, Iowa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where did you convert existing streets to complete streets? Please provide name of city and locations in city.</td>
<td>Boulder, Colorado. Applied city wide. Example projects include Broadway and 28th Street.</td>
<td>Many streets and all new streets within the City of Iowa City.</td>
</tr>
<tr>
<td>When did you start the conversion to complete streets? Please provide year.</td>
<td>1996</td>
<td>Updated policy in 2007, updated code in 2008.</td>
</tr>
<tr>
<td>Approximately how many miles of complete streets have been implemented thus far - where existing streets were converted to complete streets?</td>
<td>5+ miles at various levels of completion</td>
<td>More than 40 miles (including sidewalks, trails, etc.)</td>
</tr>
<tr>
<td>Which elements of complete streets were implemented?</td>
<td>Narrower travel lanes, road diets, smaller corner curb radii, raised medians, median landscaping, on-street parking, curb bulb-outs, pedestrian signals, pedestrian countdown clocks.</td>
<td>Narrower travel lanes, road diets, smaller corner curb radii, on-street parking, curb bulb-outs, pedestrian signals, pedestrian countdown clocks.</td>
</tr>
<tr>
<td>What type of funds was used for the conversion of existing streets to complete streets (e.g. developer contributions, city general fund, state funds, etc.)</td>
<td>Dedicated city transportation sales tax, excise tax, developer contribution, state and federal funds.</td>
<td>Developer contributions, city general fund, state funds, federal funds, road use tax.</td>
</tr>
<tr>
<td>Which of the following has your city adopted for completed streets?</td>
<td>Policies, design guidelines</td>
<td>Ordinance, policies</td>
</tr>
</tbody>
</table>

### What do you consider as the best resources for the design and implementation of completed streets?

- Internal design practices and public involvement.
- FHWA (design), AASHTO (criteria), and SUDAS

### How has the following changed after to changed existing streets to complete streets? If data is not available, please provide your best judgment.

- **Traffic flow:** The city has a mature street network. Our Transportation Master Plan has the goal to provide sustainable transportation options by completing our alternative transportation systems (pedestrian, bike, transit). Our objective is to keep growth in vehicle miles traveled (VMT) flat. Investments to enhance motor vehicle traffic flow are strategic efficiency improvements to address bottle-necks in the system. We have significant historic vehicle system metrics (counts, LOS, travel times).
- **Traffic accidents:** In the city of Boulder signalized intersections are the primary location for traffic accidents. We approach our complete streets planning and implementation with a review of historic accidents and develop mitigation strategies. Before and after studies available for specific projects.
- **Pedestrian safety:** Every trip begins and ends as a pedestrian. Significant efforts have been put into creating a more “walkable” street system. This includes enhancing facilities and the experience walking along and being able to cross major arteries. Enhancing accessibility and crossing opportunities by increasing the frequency of crossing locations. Standards include creating crossing options on 1/8 mile spacing. Enhanced crossing standards developed through Pedestrian Crossing Treatment Guidelines. Significant ongoing review of safety related impact of implementation of the guidelines.
- **Bicycle safety:** Currently cycling in Boulder is competitive from a time perspective with driving. Significant effort put into making the city “bikeable.” Our thinking related to cycling is very similar to the pedestrian section above. Based on average cycling trip length it is more critical to have a robust cycling network then with walking. Similar to walking it is critical to address not only travel along a corridor but also being able to cross major arteries. Boulder has significantly invested in creating a completely grade-separated multi-use path system with our greenways path network. A significant focus has been to create a system that provides both on-street and path options to address all user types. We have significant amounts of data and analysis about use and safety.
- **Transit operations:** For the transit element the city’s focus has been to work with our transit district to change the system from a traditional hub/spoke to our Community Transit Network grid of services. Elements of the Community Transit Network include schedule-free, higher frequency branded service, universal access bus pass going after the “choice rider.” We have incorporate transit priority elements such as queue-jump lane and bus-only lanes into select projects. We have significant amounts of data on the growth in use.
- **Attractiveness of area:** Improved when maintained

### What advice can you provide to those cities contemplating the conversion of existing streets to complete streets?

- Not cookie cutter (one size does not fit all). Involve the public and property owners. It needs to be part of a system and not stand-alone. Get started.
- Stay flexible, different solutions should be considered for different locations, no “one size fits all” solutions

### Any further comments?

N/A
# Experiences with the Application of Complete Streets (continued)

<table>
<thead>
<tr>
<th>Name of city/local jurisdiction?</th>
<th>City of Roanoke, Virginia</th>
<th>Greenville, South Carolina</th>
<th>City of Des Moines, Iowa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where did you convert existing streets to complete streets? Please provide name of city and locations in city.</td>
<td>Citywide</td>
<td>Greenville, SC at Clemson University’s International Center for Automotive Research (ICAR)</td>
<td>Des Moines, IA: Indianola Ave., SE Connector, SE 6th Street, Ingersoll Ave., E. Walnut.</td>
</tr>
<tr>
<td>When did you start the conversion to complete streets? Please provide year.</td>
<td>2008</td>
<td>2005</td>
<td>2008</td>
</tr>
<tr>
<td>Approximately how many miles of complete streets have been implemented thus far - where existing streets were converted to complete streets?</td>
<td>13mi/w bike lanes; 35mi/wide curb lanes.</td>
<td>Approximately 15 miles.</td>
<td>1 mile</td>
</tr>
<tr>
<td>Which elements of complete streets were implemented?</td>
<td>Narrower travel lanes, smaller corner curb radii, raised medians, median landscaping, on-street parking, curb bulb-outs, pedestrian signals, pedestrian countdown clocks.</td>
<td>Narrower travel lanes, road diets, raised medians, median landscaping, on-street parking, curb bulb-outs, pedestrian countdown clocks.</td>
<td>Narrower travel lanes, road diets, smaller corner curb radii, raised medians, median landscaping, on-street parking, curb bulb-outs, pedestrian signals, pedestrian countdown clocks, bike lanes and/or sidepath.</td>
</tr>
<tr>
<td>What type of funds was used for the conversion of existing streets to complete streets (e.g. developer contributions, city general fund, state funds, etc.)</td>
<td>City and state funds.</td>
<td>Enhancement, federal aid, infrastructure grants, public/private partnerships.</td>
<td>Federal, state and city.</td>
</tr>
<tr>
<td>Which of the following has your city adopted for complete streets? Policies Design guidelines</td>
<td>Policies, design guidelines.</td>
<td>Policies, design guidelines, resolution.</td>
<td>Policies</td>
</tr>
<tr>
<td>What do you consider as the best resources for the design and implementation of completed streets? The City complete street design guidelines and policies</td>
<td>Multiple sources including ITE, APWA, AICP, FHWA.</td>
<td>AASHTO, ITE</td>
<td></td>
</tr>
<tr>
<td>How has the following changed after to changed existing streets to complete streets? If data is not available, please provide your best judgment. Traffic flow Traffic accidents Pedestrian safety Bicycle safety Transit operations The attractiveness of the area</td>
<td>Traffic flow: Data not available. Reduced vehicle speed by narrowing lane width and installing center median landscaping. --Traffic accidents: Data not available. --Pedestrian safety: Improve pedestrian safety by installing pedestrian countdowns and curb bulb outs. Data not available. --Bicycle safety: Improved bicycle safety by providing on-street bike lane and wide curb lanes. Transit operations: Data not available. --Attractiveness of area: Installed new street lighting and landscaping.</td>
<td>Traffic flow: No adverse impacts to level of service, safety, and provides built in traffic calming features. It provides multi-modal accommodations for bicycles and pedestrians. --Traffic accidents: Overall, traffic safety has improved under peak hour conditions. However, during non-busy times of the day, speeds tend to increase somewhat. --Pedestrian safety: Reduces exposure when crossing travel lanes because of less distance to travel. --Bicycle safety: Bike lane popularity has increased significantly. Having dedicated bike lanes provides positive guidance. --Transit operations: No comments since the City’s Greenlink Transit System is not reached its full potential. --Attractiveness of area: Greenville is a green city and landscaping elements are definitely a major component of our complete streets program.</td>
<td>Traffic flow: Generally no problems, but some instances of additional congestion due to reduction of lanes. --Traffic accidents: Enhanced safety, especially with 4-lane to 3-lane. --Pedestrian safety: No statistics, but generally enhanced. --Bicycle safety: Again, no statistics, but should be enhanced. --Transit operations: Some minor issues with buses stopping in a single lane, or crossing bike lane. --Attractiveness of area: Enhanced, where streetscape elements included with other elements.</td>
</tr>
<tr>
<td>What do you consider to be the best features of your complete streets? Trees and sidewalks and on-street bike lane</td>
<td>Functionality, walkability, along with bike accommodation.</td>
<td>That it better serves all users, especially bicyclists.</td>
<td></td>
</tr>
<tr>
<td>What do you consider to be the worst features of your complete streets? Streets that do not accommodate bikes</td>
<td>None, except the cost, and the need to sometimes acquire rights of way via grants donations</td>
<td>Difficulty in providing long stretches of continuity, especially for bikers.</td>
<td></td>
</tr>
<tr>
<td>What advice can you provide to those cities contemplating the conversion of existing streets to complete streets?</td>
<td>Develop complete street design guidelines and policies.</td>
<td>Develop alternatives and look at what you have available to work in terms of rights of way, lane widths, traffic volumes, pedestrian and bike connectivity.</td>
<td>Need to communicate and coordinate with neighborhood groups and others to explain the benefits, and pick some relatively &quot;easy&quot; projects to begin with, to build some momentum for some of the more difficult projects that may be encountered.</td>
</tr>
<tr>
<td>Any further comments?</td>
<td>N/A</td>
<td>Come to Greenville and I will be happy to provide a guided tour of our most successful projects!</td>
<td>Complete Streets is just a further evolution of what we have been doing for many years. The basic definition of Traffic Engineering is &quot;the safe and efficient movement of people and goods.&quot; We have been building streets with continuous sidewalks, relatively narrow widths, raised medians on major roadways, pedestrian signals, etc. for many years. The biggest thing we have added for complete streets is on-street bike accommodations, better landscaping, and tying it together into a more complete system.</td>
</tr>
</tbody>
</table>

N/A = Not Applicable / Not Available
## Experiences with the Application of Complete Streets (continued)

<table>
<thead>
<tr>
<th>Name of city/local jurisdiction?</th>
<th>Lansing, Michigan</th>
<th>Bloomington, Indiana</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Lansing, Michigan</td>
<td>Lansing Michigan -- Clippert Street, Wise Road, Haag Road, Edgewood Blvd.</td>
<td>Bloomington/Monroe County MPO</td>
</tr>
</tbody>
</table>

### Questions

**When did you start the conversion to complete streets?**

- Lansing: 2008
- Bloomington: 2009

**Approximately how many miles of complete streets have been implemented thus far - where existing streets were converted to complete streets?**

- Lansing: 4 miles
- Bloomington: 0

**Which elements of complete streets were implemented?**

- Lansing: Road diets, smaller corner curb radii, curb bulb-outs, raised medians, pedestrian countdown clocks.
- Bloomington: MPO (state) funds

**What type of funds was used for the conversion of existing streets to complete streets (e.g. developer contributions, city general fund, state funds, etc.)**

- Lansing: State gas tax revenue
- Bloomington: MPO (state) funds

**Which of the following has your city adopted for complete streets?**

- Lansing: Ordinance, non-motorized network plan.
- Bloomington: Policies

**What do you consider as the best resources for the design and implementation of complete streets?**

- Lansing: Design guidelines

**How has the following changed after to changed existing streets to complete streets? If data is not available, please provide your best judgment.**

#### Traffic flow

- Lansing: No impact.
- Bloomington: Traffic flow: Worsened. A lot of well-intended but misguided advocates for complete streets view the concepts as a way to choke out automobile traffic, or at least make it more difficult for vehicles to use the streets in an effort to create congestion. Commerce, emergency services, and vehicular demands are often overlooked.

#### Traffic accidents

- Lansing: Decreased. Estimated 10% to 20% reduction in accidents when changing roadways from 4 to 3 lanes.
- Bloomington: Traffic accidents: This depends on the project. Roundabout projects will reduce frequency and severity of accidents. Traffic signal projects don’t really change the number of accidents. No roadway reconstructions introducing new modes of transportation have been implemented since the policy was adopted.

#### Pedestrian safety

- Lansing: Pedestrian safety: Increased. No statistics to back this up.
- Bloomington: Pedestrian safety: Better. Bump outs, countdown timers, and separated sidewalks have improved conditions for pedestrians. However, Bloomington had been doing these things anyway since 1997, long before the Complete Streets policy was adopted.

#### Bicycle safety

- Lansing: Bicycle safety: Increased. Since bicycle ridership is low and accidents are concentrated on high volume roadways, safety impacts will only be statistically significant once bike facilities are implemented on a number of higher volume roads.
- Bloomington: Bicycle safety: No change. Regardless of the facilities provided for bicyclists (i.e. multi-use path, bike lanes), many cyclists choose to use the vehicular travel lane, often ignoring the traffic control and/or safer facilities put in place for their safety.

#### Transit operations

- Lansing: Transit operations: N/A
- Bloomington: Transit operations: No change. Projects on bus routes might require a few accommodations such as a pull-off or shelter. City and Transit officials worked together on these issues anyway.

#### The attractiveness of the area

- Lansing: Attractiveness of Area: Improved. In areas when the total roadway width has been decreased, the size of the buffer strip has increased.
- Bloomington: Attractiveness of Area: Slightly better. Addition of tree plots and islands add to the aesthetics if a long-term commitment can be made to maintain these areas.

**What do you consider to be the best features of your complete streets?**

- Lansing: Accommodation of all right of way users, regardless of mode choice, age or ability.
- Bloomington: The concept of complete streets is a great one. The transparency in the development of these ideals on a project is helpful. The policy formalized a lot of things that we were doing anyway.

**What do you consider to be the worst features of your complete streets?**

- Lansing: Based on funding limitations, it will take years to achieve significant implementation.
- Bloomington: Misinterpretation of the intent of the policy and the context of projects. There aren’t specific standards defining the context of a project. Everything seems to be called “urban” although there are truly very few places in Bloomington that do in fact meet the ITE criteria for urban context. This sometimes leads to unnecessary accommodations or redundant facilities, all of which take up funding which could be used on other amenities within the project or on other projects. Subsequently, little consideration is given for the costs, ROW impacts, environmental impacts, etc. for including these accommodations.

**What advice can you provide to those cities contemplating the conversion of existing streets to complete streets?**

- Lansing: Focus on the easy wins and make sure to incorporate complete streets principals into all new construction projects.
- Bloomington: Keep your policy simple, practical, and implementable. Define the various contexts of your city. A good long-term plan should reflect modal priorities within your street network. Complete Streets doesn’t mean build for every transportation mode every time. Plan what you need then follow the plan.

**Any further comments?**

- Lansing: Complete streets is a change in mind set from programming the right of way for vehicles first and dealing with pedestrians and bicyclists if there is room left over to making sure all users are accommodated.
- Bloomington: N/A

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N/A = Not Applicable / Not Available
This Month’s Survey Results (Survey 2)

Commuter Rail in North America

Last month, The Urban Transportation Monitor conducted a national survey to obtain information and opinions on commuter rail systems. Questionnaires were sent to 17 transit agencies with commuter rail systems. Results were received from 11 agencies. The results of the survey are published here.

Commuter Rail Contacts

<table>
<thead>
<tr>
<th>ORGANIZATION</th>
<th>CONTACT PERSON</th>
<th>ADDRESS, TELEPHONE, E-MAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dallas Area Rapid Transit</td>
<td>Wayne L. Friesner</td>
<td>P.O. Box 660163, Dallas, TX 75266-7210&lt;br&gt;(214) 749-3566&lt;br&gt;<a href="mailto:wfriesne@DART.org">wfriesne@DART.org</a></td>
</tr>
<tr>
<td>Southern California Regional Rail Authority</td>
<td>Joanna Capelle</td>
<td>700 South Flower, 26th Floor&lt;br&gt;Los Angeles, CA 90017-4101&lt;br&gt;(213) 247-8049&lt;br&gt;<a href="mailto:capellej@scrra.net">capellej@scrra.net</a></td>
</tr>
<tr>
<td>Marc Commuter Train Service</td>
<td>John Hovatter</td>
<td>1515 Washington Blvd.&lt;br&gt;Baltimore, MD 21230&lt;br&gt;(410) 454-7265&lt;br&gt;<a href="mailto:jhovatter1@mta.maryland.gov">jhovatter1@mta.maryland.gov</a></td>
</tr>
<tr>
<td>Sound Transit</td>
<td>Martin Young</td>
<td>401 S. Jackson St.&lt;br&gt;Seattle, WA 98104&lt;br&gt;(206) 398-5115&lt;br&gt;<a href="mailto:Martin.Young@soundtransit.org">Martin.Young@soundtransit.org</a></td>
</tr>
<tr>
<td>Regional Transportation Authority</td>
<td>James McAteer</td>
<td>130 Nestor St.&lt;br&gt;Nashville, TN 37210&lt;br&gt;(615) 862-6119&lt;br&gt;<a href="mailto:james.mcateer@nashville.gov">james.mcateer@nashville.gov</a></td>
</tr>
<tr>
<td>METRA</td>
<td>Justin Vonashek</td>
<td>457 W. Jackson Blvd.&lt;br&gt;Chicago, IL 60661&lt;br&gt;(312) 322-6547&lt;br&gt;<a href="mailto:jvonashek@metrrrr.com">jvonashek@metrrrr.com</a></td>
</tr>
<tr>
<td>Connecticut Department of Transportation</td>
<td>Eugene J. Colonese</td>
<td>50 Union Ave. - 4th Floor West&lt;br&gt;New Haven, CT 06519&lt;br&gt;(203) 789-7189 ext. 111&lt;br&gt;<a href="mailto:eugene.colonese@ct.gov">eugene.colonese@ct.gov</a></td>
</tr>
<tr>
<td>SEPTA</td>
<td>Harry Garforth</td>
<td>1234 Market Street&lt;br&gt;Philadelphia, PA 19107&lt;br&gt;(215) 580-7976&lt;br&gt;<a href="mailto:hgarforth@septa.org">hgarforth@septa.org</a></td>
</tr>
<tr>
<td>Virginia Railway Express</td>
<td>Christine Hoeffner</td>
<td>1500 King Street, Suite 202&lt;br&gt;Alexandria, VA 22314&lt;br&gt;(703) 684-1001&lt;br&gt;<a href="mailto:choeffner@vre.org">choeffner@vre.org</a></td>
</tr>
</tbody>
</table>
## Characteristics of Commuter Rail in North America

<table>
<thead>
<tr>
<th>NAME OF SERVICE/AGENCY</th>
<th>Name(s)</th>
<th>DOWNTOWN SERVED</th>
<th>ROUTE MILES</th>
<th>NUMBER OF CARS, LOCOMOTIVES</th>
<th>SCHEDULED TRAIN TRIPS PER WEEKDAY</th>
<th>SEATING CAPACITY AND CRUSH CAPACITY</th>
<th>TYPE OF SYSTEM</th>
<th>TYPE OF ROW</th>
<th>SCHEDULED HEADWAY DURING PEAK PERIODS</th>
<th>AVERAGE WEEKDAY PASSENGER VOLUME/DAY (BOARDINGS)</th>
<th>MAXIMUM OPERATING SPEED</th>
<th>AVERAGE OPERATING SPEED (STOPS INCLUDED)</th>
<th>NUMBER OF STATIONS</th>
<th>YEAR OPERATION STARTED</th>
<th>FACILITIES AT STATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trinity Railway Express</td>
<td>Trinity Railway Express</td>
<td>Dallas and Fort Worth, TX</td>
<td>34 mi.</td>
<td>13 Single-level rail cars, 25 Bi-level rail cars, 6 Diesel electric locomotives.</td>
<td>50</td>
<td>Seating: 150 Crush: 225</td>
<td>CBD to CBD</td>
<td>Operating freight ROW: 95.5%, Non-freight ROW: 4.5%</td>
<td>+/-30 minutes</td>
<td>Presently: 9,000</td>
<td>79 mph</td>
<td>+/-35 mph</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>METROLINK</td>
<td>METROLINK</td>
<td>Los Angeles as well as various cities in Orange County, CA</td>
<td>388 mi.</td>
<td>25 Single-level rail cars, 136 Bi-level rail cars, 52 Diesel electric locomotives.</td>
<td>147</td>
<td>Seating: 140 Crush: 225</td>
<td>Suburb to CBD</td>
<td>Operating freight ROW: 100%.</td>
<td>20-40 minutes</td>
<td>Presently: 42,100</td>
<td>89 mph</td>
<td>41 mph</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MARC Commuter Train Service</td>
<td>MARC Commuter Train Service</td>
<td>Baltimore, MD, and Washington, DC</td>
<td>202 mi.</td>
<td>60 Single-level rail cars, 73 Bi-level rail cars, 10 Diesel electric locomotives, 30 electric locomotives</td>
<td>86</td>
<td>Seating: 135-140 Crush: N/A</td>
<td>Suburb to CBD</td>
<td>Operating freight ROW: 66%, Non-freight ROW: 33%</td>
<td>20 minutes</td>
<td>Presently: 34,000</td>
<td>125 mph</td>
<td>unknown</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sounder Commuter Rail</td>
<td>Sounder Commuter Rail</td>
<td>Tacoma, Puyallup, Sumner, Auburn, Kent, Tukwila, Seattle, Everett, Mukilteo, Edmonds, WA</td>
<td>735 mi.</td>
<td>58 Bi-level rail cars, 11 Diesel Electric locomotives.</td>
<td>26</td>
<td>Seating: 145 Crush: 365</td>
<td>Suburb to CBD</td>
<td>Operating freight ROW: 100%</td>
<td>30 minutes</td>
<td>Presently: 9,300</td>
<td>79 mph</td>
<td>40 mph</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

N/A = Not Available
## Characteristics of Commuter Rail in North America (continued)

<table>
<thead>
<tr>
<th>NAME OF SERVICE/AGENCY</th>
<th>Trinity Railway Express</th>
<th>METROLINK</th>
<th>MARC Commuter Train Service</th>
<th>Sounder</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOWNTOWN SERVED</td>
<td>Dallas and, Forth Worth, TX</td>
<td>Los Angeles as well as various cities in Orange County, CA</td>
<td>Baltimore, MD</td>
<td>Tacoma, Puyallup, Sumner, Auburn, Kent, Tukwila, Seattle, Everett, Mukilteo, Edmonds, WA</td>
</tr>
<tr>
<td>WHAT WERE THE PREVIOUS MODES USED BY YOUR PASSENGERS, BEFORE THEY STARTED USING COMMUTER RAIL?</td>
<td>N/A</td>
<td>SOV: 53% Car/vanpool 14% Other transit mode: 0%</td>
<td>N/A</td>
<td>SOV: 33% Car/vanpool: 8% Didn’t make the trip: 13% Other transit mode: 46%</td>
</tr>
<tr>
<td>USE CONTRACTED OPERATOR? CONTRACT COST PER YEAR</td>
<td>Yes $18.5 million</td>
<td>Yes $24 million</td>
<td>Yes N/A</td>
<td>Yes $7.3 million</td>
</tr>
<tr>
<td>ANNUAL OPERATING BUDGET</td>
<td>$20.7 million</td>
<td>$167.5 million</td>
<td>~$100 million</td>
<td>$36.1 million</td>
</tr>
<tr>
<td>ANNUAL TOTAL REVENUE</td>
<td>N/A</td>
<td>$89.7 million</td>
<td>approx. 55%</td>
<td>$6.7 million</td>
</tr>
<tr>
<td>HAVE DONE OR PLANNING TO DO JOINT DEVELOPMENT AT STATIONS?</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>HOW DO YOUR COMMUTER RAIL PASSENGERS ACCESS COMMUTER RAIL STATIONS OUTSIDE THE CBD?</td>
<td>N/A</td>
<td>Car: 87% Walk/Bike: 4% Bus/other transit: 7%</td>
<td>unknown</td>
<td>Car: 29% Walk/Bike: 28% Bus/other transit: 25%</td>
</tr>
<tr>
<td>WHAT ARE YOU PLANNING/HAVE IMPLEMENTED IN TERMS OF INTEGRATED FARECARDS AND/OR SMARTCARDS?</td>
<td>DART is planning to implement a smartcard technology in the next 5 years and TRE would be part of that implementation.</td>
<td>Working with Los Angeles County Metropolitan Transportation Authority to implement the TAP card.</td>
<td>N/A</td>
<td>One Regional Card for All (ORCA) a smartcard has been implemented, allowing for seamless transfers between seven partnering agencies.</td>
</tr>
<tr>
<td>WHAT ADVICE WOULD YOU GIVE AGENCIES CONTEMPLATING THE IMPLEMENTATION OF COMMUTER RAIL?</td>
<td>Do not just listen to consultants - talk with operators who can give you a realistic picture of operating costs after the service is open. Do not start with the passenger schedule you hope to end up with - start with more limited service and grow into more service. It is easier to add than delete service. Have as much double tracking as possible. Control dispatching if possible.</td>
<td>Own your rights-of-way. Ensure a stable funding source.</td>
<td>Better have lots of money.</td>
<td>Focus on establishing a reliable revenue stream; plan for success (i.e., system growth has required planning for additional parking facilities); implementation schedules for major projects tend to slide, so plan appropriately; importance of relationship/negotiations with the RR cannot be overemphasized.</td>
</tr>
<tr>
<td>WHAT DO YOU THINK ARE THE MAIN UNRESOLVED ISSUES ASSOCIATED WITH COMMUTER RAIL SYSTEMS?</td>
<td>Lack of adequate money for state of good repair maintenance requirements. Unfunded federal mandates such as positive train control and bridge inspections.</td>
<td>Implementation of Positive Train Control Sharing rights-of-way with freight railroads. Ongoing funding for both capital and operations.</td>
<td>Liability and reasonable access charges.</td>
<td>A national model for shared rail use.</td>
</tr>
</tbody>
</table>

N/A = Not Available
### Characteristics of Commuter Rail in North America (continued)

<table>
<thead>
<tr>
<th>NAME OF SERVICE/AGENCY</th>
<th>Music City Star</th>
<th>METRA</th>
<th>Shore Line East</th>
<th>SEPTA Regional Rail</th>
<th>Virginia Railway Express</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOWNTOWN SERVED</td>
<td>Nashville, TN</td>
<td>Chicago, IL</td>
<td>New Haven, CT</td>
<td>Philadelphia, PA</td>
<td>Washington, D.C.</td>
</tr>
<tr>
<td>ROUTE MILES</td>
<td>32 mi.</td>
<td>487.7mi.</td>
<td>50.7 mi.</td>
<td>281 mi.</td>
<td>161.5 mi.</td>
</tr>
<tr>
<td>NUMBER OF CARS, LOCOMOTIVES</td>
<td>5 Bi-level rail cars 2 Diesel electric locomotives.</td>
<td>171 Single level rail cars 841 Bi-level rail cars 146 Diesel electric locomotives.</td>
<td>33 Single level rail cars 14 Diesel electric locomotives</td>
<td>357 Single-level rail cars 6 Diesel electric locomotives 8 Electric locomotives.</td>
<td>101 Bi-level rail cars 21 Diesel electric locomotives.</td>
</tr>
<tr>
<td>SCHEDULED TRAIN TRIPS PER WEEKDAY</td>
<td>6</td>
<td>702</td>
<td>23</td>
<td>459</td>
<td>29</td>
</tr>
<tr>
<td>TYPE OF SYSTEM</td>
<td>Suburb to CBD.</td>
<td>Suburb to CBD.</td>
<td>Suburb to CBD</td>
<td>Suburb to CBD</td>
<td>Suburb to CBD.</td>
</tr>
<tr>
<td>TYPE OF ROW</td>
<td>Operating freight ROW 100%, Non-freight ROW 85%.</td>
<td>Operating freight ROW 100%, Non-freight ROW 15%.</td>
<td>Operating freight ROW 100%</td>
<td>Operating freight ROW 5%, Non-freight ROW 95%</td>
<td>Operating freight ROW 100%.</td>
</tr>
<tr>
<td>SCHEDULED HEADWAY DURING PEAK PERIODS</td>
<td>AM peak: 55 + 45 min. PM peak: 45 + 40min.</td>
<td>20 minutes</td>
<td>30 minutes</td>
<td>3-30 minutes</td>
<td>30 minutes</td>
</tr>
<tr>
<td>AVERAGE WEEKDAY PASSENGER VOLUME/DAY (BOARDINGS)</td>
<td>Presently: 850 N/A</td>
<td>Presently: 300,000</td>
<td>Presently: 1,983</td>
<td>Presently: 123,700</td>
<td>Presently: 15,994</td>
</tr>
<tr>
<td>MAXIMUM OPERATING SPEED</td>
<td>55 mph</td>
<td>79 mph</td>
<td>80 mph</td>
<td>90 mph</td>
<td>79 mph</td>
</tr>
<tr>
<td>AVERAGE OPERATING SPEED (STOPS INCLUDED)</td>
<td>39 mph</td>
<td>31.3 mph</td>
<td>43.8 mph</td>
<td>25-27 mph</td>
<td>33.3 mph</td>
</tr>
<tr>
<td>NUMBER OF STATIONS</td>
<td>5 suburban and 1 downtown terminal.</td>
<td>239</td>
<td>9</td>
<td>153</td>
<td>18</td>
</tr>
<tr>
<td>FACILITIES AT STATION</td>
<td>Lighting, covered waiting area, ticket vending machines, park and ride, restrooms, HVAC waiting facility and security guard</td>
<td>Lighting, covered waiting area, restrooms, telephone, ticket vending machines, park and ride, other vending machines, bicycle racks.</td>
<td>Lighting, covered waiting area, park and ride, bicycle racks.</td>
<td>Lighting, covered waiting area, restrooms, telephone, ticket vending machines, park and ride, other vending machines, permit parking.</td>
<td>Lighting, covered waiting area, telephone, ticket vending machines, park and ride, bicycle lockers.</td>
</tr>
</tbody>
</table>

N/A = Not Available
### Characteristics of Commuter Rail in North America (continued)

<table>
<thead>
<tr>
<th>NAME OF SERVICE/AGENCY</th>
<th>MUSIC CITY STAR</th>
<th>METRA</th>
<th>SHORE LINE EAST</th>
<th>SEPTA REGIONAL RAIL</th>
<th>VIRGINIA RAILWAY EXPRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOWNTOWN SERVED</td>
<td>Nashville, TN</td>
<td>Chicago, IL</td>
<td>New Haven, CT</td>
<td>Philadelphia, PA</td>
<td>Washington, D.C.</td>
</tr>
<tr>
<td>WHAT WERE THE PREVIOUS MODES USED BY YOUR PASSENGERS, BEFORE THEY STARTED USING COMMUTER RAIL?</td>
<td>SOV: 83% Carpool/vanpool: 5% Bus: 4% Would not make the trip: 5%</td>
<td>N/A</td>
<td>SOV: 95% Always used commuter rail: 3% Other transit mode: 2%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>USE CONTRACTED OPERATOR? CONTRACT COST PER YEAR</td>
<td>Yes $1.9 million</td>
<td>Yes $186.6 million UPRR $71.2 million BNSF</td>
<td>Yes $18 million</td>
<td>No</td>
<td>Yes ~$22 million</td>
</tr>
<tr>
<td>ANNUAL OPERATING BUDGET</td>
<td>$4.2 million</td>
<td>$613.1 million</td>
<td>$20 million</td>
<td>$255.2 million</td>
<td>~$79 million</td>
</tr>
<tr>
<td>ANNUAL TOTAL REVENUE</td>
<td>$550,000 farebox revenue</td>
<td>$311 million</td>
<td>$2 million</td>
<td>$138 million</td>
<td>~$25.7 million</td>
</tr>
<tr>
<td>HAVE DONE OR PLANNING TO DO JOINT DEVELOPMENT AT STATIONS?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>HOW DO YOUR COMMUTER RAIL PASSENGERS ACCESS COMMUTER RAIL STATIONS OUTSIDE THE CBD?</td>
<td>Car: 38% Walk: 60%; Bike: 1% Dropped off by personal vehicle: 8%; Carpool: 3%</td>
<td>Car: 73% Walk: 21% Bus/other transit: 6%.</td>
<td>Car: 95% Walk: 5%</td>
<td>N/A</td>
<td>Car: 95% Walk: 4% Bus/other transit mode: 1%</td>
</tr>
<tr>
<td>WHAT ARE YOU PLANNING/HAVE IMPLEMENTED IN TERMS OF INTEGRATED FARECARDS AND/OR SMARTCARDS?</td>
<td>There are two dedicated shuttle routes downtown, that passengers board free by showing train ticket. One regular service bus meets the train which passengers may board at no cost. A few train monthly ticket train passengers get a smartcard for the regular fixed route bus system free. We are considering a regional smartcard/pass.</td>
<td>N/A</td>
<td>N/A</td>
<td>There is a new fare payment technology contract out to bid (smartcards).</td>
<td>Exploring requirements to upgrade fare collection equipment to integrate with Washington, DC smartcard in use at other region transit agencies.</td>
</tr>
<tr>
<td>WHAT ADVICE WOULD YOU GIVE AGENCIES CONTEMPLATING THE IMPLEMENTATION OF COMMUTER RAIL?</td>
<td>Develop a good relationship with your local/regional rail freight operators. Ownership of ROW: direct control of train dispatching.</td>
<td>Provide seamless intermodal service at low cost. Minimal half-hourly peak service important for success. Adequate station parking also important.</td>
<td>Read and be sure to understand FRA rules and regulations. Be sure to secure dispatching control over shared territories.</td>
<td>Champion needed to keep project going and build support. Dedicated funding source is needed.</td>
<td></td>
</tr>
<tr>
<td>WHAT DO YOU THINK ARE THE MAIN UNRESOLVED ISSUES ASSOCIATED WITH COMMUTER RAIL SYSTEMS?</td>
<td>N/A</td>
<td>Funding; freight traffic coordination.</td>
<td>Coordination with commercial/residential development (e.g., transit oriented development).</td>
<td>N/A</td>
<td>Funding.</td>
</tr>
</tbody>
</table>

N/A = Not Available
REQUESTS FOR PROPOSALS

1. Regional Transit System Plan and Alternatives Analyses
   Agency: Indian Nations Council of Governments, OK
   Deadline: 2010-04-09 16:00:00
   Contact: Please submit questions in writing to: INCOG Attn: James Wagner Two West 2nd St, Suite 800 Tulsa, OK 74103-3116 Fax: (918) 579-9547 E-mail: jwagner@incog.org
   Description: Please submit questions in writing to: INCOG Attn: James Wagner Two West 2nd St, Suite 800 Tulsa, OK 74103-3116 Fax: (918) 579-9547 E-mail: jwagner@incog.org
   Website: http://www.incog.org/transportation/AARFP.htm

2. Framework for Statewide Roadway Asset Management
   Agency: Michigan Department of Transportation
   Deadline: 2010-03-19 17:00:00
   Contact: Any questions relative to the Research Problem Statement must be submitted by e-mail to: mdot-research@michigan.gov. Questions must be received by March 12, 2010 at Time p.m. EST.
   Description: The Transportation Asset Management Council (TAMC) is seeking a research study that would document the broad spectrum of costs associated with managing road assets in Michigan, for facilities on both the federal-aid and non-federal-aid networks. In essence, what are agencies currently spending to construct, maintain and operate their facilities? Then, assuming the amount currently being spent is inadequate, as indicated by the downward trend in overall condition statewide, answer the question, what amount should be spent?

3. Public Transit/Human Services Transportation Coordination Plan Update
   Agency: Washington State Department of Transportation
   Deadline: 2010-03-25 16:00:00
   Contact: Any questions regarding the submittal process should be directed to the Consultant Services Office, at 360-705-7104. Technical question should be directed to Patrick Babineau, Transportation Planner/Project Manager at 360-357-2675 or babinep@wsdot.wa.gov
   Description: WSDOT and the Peninsula Regional Transportation Planning Organization (Peninsula RTPO) are seeking a consultant to update the Public Transit/Human Services Transportation Coordination Plan for the four-county Peninsula Regional Transportation Planning Organization area. The four counties are Clallam, Jefferson, Mason, and Kitsap. Development of the plan update will include interviews with multiple service providers, community leaders, and stakeholders using, as a base, the Agency Council on Coordinated Transportation (ACCT); Human Services Transportation Plan Update: Template with Instructions.
   Website: http://www.wsdot.wa.gov/Business/Consulting/Ad/s/Open/PublicTransit.htm

4. Multi-Use Trail Corridor Study
   Agency: Sioux Falls Metropolitan Organization, SD
   Deadline: 2010-03-26 14:00:00
   Contact: Questions about the proposal should be addressed in writing or email before 2:00 Central Time, March 19, 2010, to: Ms. Shannon Aussen, PE, Office of Public Works- Engineering, 224 West Ninth Street, Sioux Falls, SD 57104-6407 (605) 367-8601. Email address is aussen@siouxfalls.org. All questions will be posted daily on the City’s website on the Request for Proposals home page. This approach allows all respondents to receive the same information.
   Description: The purpose of this project is to prepare a Corridor Study of multi-use trail alignments for connections to the Sioux Falls Bicycle Trail System from the communities of Tea, Harrisburg and Brandon. The planning process and final proposed corridors will allow the City of Sioux Falls, Tea, Harrisburg and Brandon to involve and inform the public and plan for the future construction of the identified trails.
   Website: http://www.siouxfalls.org/~media/documents/business/rfps/2010/trail_study/rfp_mpo_multi_use_trail_1_study.xlsx

5. “On Call” Planning Support consultant Services
   Agency: Washington Metropolitan Area Transit Authority
   Deadline: 2010-04-09 14:00:00
   Contact: For additional information concerning this project, including submission requirements, call Mr. Krishna P. Nirola, knirola@wmata.com, fax (202) 962-2038, or (202) 962-1336.
   Description: The Washington Metropolitan Area Transit Authority (Metro) desires to secure a professional on-call multi-disciplinary planning consultant to provide services in support of Metro’s diverse transit planning needs. Examples of the types of functions for which Metro may require technical support include regional and systems planning, travel forecasting, operations planning (rail/bus/paratransit), corridor planning and development, capital planning and financing, station area and access planning, and real estate management and development support. The services exclude preliminary engineering and final design of capital projects and the preparation of contract documents, including technical specifications. The contract term is five years. The successful consultant will be required to demonstrate that it possesses the necessary expertise in-house, or that it has the ability to acquire the expertise through sub-consulting agreements. The “on-call” planning consultant will be qualified by the Brooks method, in two steps. The first step is submission of a qualification package addressing the following: (1) demonstrated relevant experience and technical expertise in planning support for transit systems; (2) past performance on contracts with transit authorities and other entities for professional services of the nature required under this contract; (3) demonstrated ability to offer innovative solutions and analysis in support of planning objectives; (4) demonstrated ability to perform fixed-price and reimbursable tasks in a timely manner to adhere to the Metro’s schedule; and (5) location in the general geographic area of the Metro transit system or ability to provide a local office. In the second step, the recommended qualified proposer will be requested to submit their plan to address Metro’s planning needs and requirements, as they arise. A presentation of the plan will also be required. The best qualified proposer will be requested to submit price information.
   Website: http://www.wmata.com/business/procurement_and_contracting/solicitations/view.cfm? solicitation_id=2588

6. 2010 Bike and Pedestrian Master Plan
   Agency: Transportation Agency of Monterey County, CA
   Deadline: 2010-04-05 12:00:00
   Contact: If you need assistance or have any questions, please call Kaki Chen, Transportation Planner, at (831) 775-4413.
   Description: The Transportation Agency requests proposals from qualified consultants for the preparation of a countywide bicycle and pedestrian master plan for Monterey County. The purpose of this project is to work with local agencies and interested individuals to formulate a comprehensive plan that will guide the planning and design of bicycle and pedestrian facilities improvements resulting in a countywide plan that will position the local cities and the Transportation Agency for grants to finance these improvements.
   Website: http://www.tacmonterey.org/environmental_bids_pr op/pdf/2010-Bike-Ped-Master-Plan-RFP.pdf

7. Environmental Impact Statement
   Agency: Virginia Department of Transportation
   Deadline: 2010-04-22 16:00:00
   Contact: Brenda Williams (Brenda.Williams@VDOT.virginia.gov) Phone: 804-786-2777
   Description: The Virginia Department of Transportation is seeking expressions of interest from consulting environmental firms who wish to be considered to provide professional services for completion of an Environmental Impact Statement and supporting studies for consideration of improvements to the existing Interstate 64 Corridor from Interstate 664 in Hampton to Interstate 95 in Richmond.
   Website: http://virginiadot.org/business/resources/rfp_164EI S.pdf

NOTE: If you wish to receive these and other RFP notices IN ADVANCE VIA THE INTERNET OR BY FAX, please call us at tel.(703)764-0512 for details.

PUBLIC AGENCIES — RFP notices are published here FREE OF CHARGE — call
## CONFERENCES

<table>
<thead>
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<tr>
<td>Mar. 10-12</td>
<td>3rd Annual Transportation &amp; Infrastructure Convention (City of Irving, Texas)</td>
<td>Washington, DC</td>
<td>Different locations on Capitol Hill</td>
<td>This event promotes high-level discussion in the development of a national multi-modal transportation policy. It will feature legislators at the local, state, regional and national levels, as well as experts from each mode of transportation, national trade organization officials, and administrators from the USDOT.</td>
<td>300</td>
<td>$350 gov’t</td>
<td><a href="http://www.transportationsummit.com">http://www.transportationsummit.com</a></td>
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<tr>
<td>Mar. 14-16</td>
<td>2010 Legislative Conference (APTA)</td>
<td>Washington, DC</td>
<td>J.W. Marriott Convention Center</td>
<td>Premier meeting for board members/policymakers, transit operators, consultants, manufacturers and suppliers, government relations staff and local coalition members. Covers wide range of legislative issues for public transportation.</td>
<td>750</td>
<td>$675 m</td>
<td><a href="http://www.apta.com/mc/conferences/90days/2010legconf/Pages/default.aspx">http://www.apta.com/mc/conferences/90days/2010legconf/Pages/default.aspx</a></td>
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<tr>
<td>Mar. 14-17</td>
<td>Technical Conference and Exhibit (ITE)</td>
<td>Savannah, GA</td>
<td>Savannah International Trade &amp; Convention Center</td>
<td>The theme is “Meeting Transportation’s 21st Century Challenges.” This conference’s technical content will weave energy, environment and the economy into ITE’s core focus areas of engineering and design, transportation operations, planning and safety.</td>
<td>N/A</td>
<td>Before Feb. 12: $560 m $650 nm After: $610 m $700 nm</td>
<td><a href="http://www.ite.org/conference">http://www.ite.org/conference</a></td>
</tr>
<tr>
<td>Mar 23-26</td>
<td>Intertraffic Amsterdam (Amsterdam RAI)</td>
<td>Amsterdam, The Netherlands</td>
<td>Amsterdam RAI Convention Centre</td>
<td>At this international trade fair for infrastructure, traffic management, safety and parking, innovation is key, with more than 650 exhibitors. The seminar program features technical presentations of products and services, trends, market developments and business cases, as well as pilot project results, tenders and project launches. Themes include mobility management, parking solutions and cooperative systems; road safety, maintenance, &amp; incident management; road pricing &amp; toll systems; green roads; parking information &amp; guidance systems; traffic management.</td>
<td>25,000 visitors and exhibitors</td>
<td>Free with pre-registration. On site: €85.</td>
<td><a href="http://www.interrtraffic.com">www.interrtraffic.com</a></td>
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<tr>
<td>Mar. 28-30</td>
<td>15th International Road Conference -Road Safety on Four Continents Conference (Global Road Safety Partnership, Forum of European Road Safety Research Institutes, TRB, European Conference of Transport Research Institutes)</td>
<td>Abu Dhabi, The United Arab Emirates</td>
<td>Yas Hotel</td>
<td>Organized by the Swedish National Road and Transport Research Institute (VTI) together with the National Transport Authority of UAE. The conference is supported by GRSP (Global Road Safety Partnership), FERSI (Forum of European Road Safety Research Institutes), TRB (Transportation Research Board) and EC-TRI (European Conference of Transport Research Institutes).</td>
<td>N/A</td>
<td>Required by March 10 € 300 – delegate €250- speaker</td>
<td><a href="http://www.vti.se/templates/Page_11111.aspx">http://www.vti.se/templates/Page_11111.aspx</a></td>
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<tr>
<td>Mar. 28-31</td>
<td>2010 Fare Collection Workshop (APTA)</td>
<td>San Diego, CA</td>
<td>Westin Gaslamp Quarter</td>
<td>Event developed to provide fare collection and revenue management professionals with an opportunity to explore the latest and greatest developments in revenue practices, systems standards, fare policy and equipment for the transportation market.</td>
<td>200-250</td>
<td>Before Feb. 26: $475 m After: $525 m $1,025 nm</td>
<td><a href="http://www.apta.com/mc/conferences/allother2010farecoll/Pages/default.aspx">http://www.apta.com/mc/conferences/allother2010farecoll/Pages/default.aspx</a></td>
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<td>Mar 30-Apr 1</td>
<td>ITS Heartland Annual Meeting (ITS America)</td>
<td>Omaha, NE</td>
<td>La Vista Embassy Suites</td>
<td>This meeting is intended to facilitate information sharing for ITS projects and activities to showcase ITS applications in five heartland states, Missouri, Iowa, Kansas, Nebraska and Oklahoma.</td>
<td>N/A</td>
<td>Before Mar 12: $175 m $200 nm After: $200 m $225 nm</td>
<td><a href="http://matc.unl.edu/itsheartland/annualmeeting.php">http://matc.unl.edu/itsheartland/annualmeeting.php</a></td>
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<tr>
<td>April 10-13</td>
<td>Annual National Planning Conference (American Planning Assoc.)</td>
<td>New Orleans, LA</td>
<td>New Orleans Convention Center</td>
<td>Tracks include rules that shape the urban form; transportation and density and others. Also, it will include an international symposium to address issues facing urban areas located in deltas across the world. Presentations will include growth, development and management of cities in river deltas, and highlight solutions for balancing goals: urbanization, port development, industrial development, flood defense, public safety, ecological balance of the estuaries, tourism, and recreation.</td>
<td>4,000-6,000</td>
<td>Before Feb 11: $895 nm $95 nm Before Mar 18: $645 m $945 nm After: $695 m $995 nm</td>
<td><a href="http://www.planning.org/conference.html">www.planning.org/conference.html</a></td>
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<tr>
<td>April 12-14</td>
<td>GIS for Transportation Symposium (AASHTO)</td>
<td>Charleston, WV</td>
<td>Embassy Suites Hotel</td>
<td>Theme: “Mountains of Opportunity.” Persons in government and private industry who are interested in the use of GIS for transportation purposes get together and share experiences, see state-of-art software, and learn more about this field.</td>
<td>400</td>
<td>Before Mar 12 $275 After: $325</td>
<td><a href="http://www.gis-t.org/files/QbMCi.pdf">http://www.gis-t.org/files/QbMCi.pdf</a></td>
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<tr>
<td>April 18-21</td>
<td>Annual Conference (Arizona Transit Association)</td>
<td>Tucson, AZ</td>
<td>University Marriott</td>
<td>The focus this year will be &quot;Transport – Embracing Connectivity.&quot; Highlights include Arizona Department of Transportation is having a “Bus Rodeo” and presentation on Tucson’s modern streetcar.</td>
<td>150</td>
<td>Before April 1 $350 m $375 nm After: $375 m $400 nm</td>
<td><a href="http://www.azta.org/about/events-detail/annual-spring-conference-april-18-20-2009/">http://www.azta.org/about/events-detail/annual-spring-conference-april-18-20-2009/</a></td>
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<tr>
<td>April 20-22</td>
<td>2nd Annual Symposium on Mileage-Based User Fees (Humphrey Institute and Center for Transportation Studies, University of Minnesota, Texas Transportation Institute)</td>
<td>Minneapolis, MN</td>
<td>Humphrey Institute, University of Minnesota</td>
<td>The symposium will focus on methods and approaches to further the development of mileage-based road user fees with an emphasis on: deployment approaches; demonstration projects; political leadership and project champions; public outreach, awareness and acceptance; and transition issues and research needs.</td>
<td>60-80</td>
<td>Before Mar 22: $230 After: $290 On site: $310</td>
<td><a href="http://www.cts.umn.edu/Events/MITBU/index.html/">http://www.cts.umn.edu/Events/MITBU/index.html/</a></td>
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<tr>
<td>April 22-23</td>
<td>11th Annual North America Users Group Meeting (PTV America)</td>
<td>Seattle, WA</td>
<td>Westin</td>
<td>This meeting features presentations by PTV Vision software users and PTV staff on new developments and innovative software applications. The presentations will offer multiple tracks on new developments and applications of VISSIM, VISUM, TRAFFIX, and Traffic Count Management.</td>
<td>100</td>
<td>Before Mar 19: $575 After: $800 (Additional $ for social events)</td>
<td><a href="http://www.ptvamerica.com">http://www.ptvamerica.com</a></td>
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<tr>
<td>April 25-29</td>
<td>Annual Conference (National Association of County Engineers)</td>
<td>Fort Worth, TX</td>
<td>Sheraton Fort Worth Hotel</td>
<td>Event focuses on how to get the most benefit out of scarce local government resources and the latest transportation legislation and regulations.</td>
<td>350</td>
<td>$500 m $575 nm</td>
<td><a href="http://www.countyengineers.com">www.countyengineers.com</a></td>
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<tr>
<td>April 27-28</td>
<td>Annual Transportation Research Conference (CTS)</td>
<td>St. Paul, MN</td>
<td>St. Paul RiverCentre</td>
<td>This is a forum for researchers and practitioners from Minnesota and the Upper Midwest to share their research findings in transportation-related areas. Sessions focus on four categories: Transportation Safety and Traffic Flow, Transportation Infrastructure, Transportation and the Economy, and Transportation Planning and the Environment.</td>
<td>250-300</td>
<td>$180</td>
<td><a href="http://www.cts.umn.edu/Events/ResearchConf/">http://www.cts.umn.edu/Events/ResearchConf/</a></td>
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<td>April 27-29</td>
<td><strong>2010 Spring Conference &amp; Expo</strong> (Pennsylvania Public Transportation Association)</td>
<td>Lancaster, PA</td>
<td>Lancaster Convention Center and Marriott Lancaster at Penn Sq.</td>
<td>The event theme is “Public Transportation: The Vehicle for Sustainability.”</td>
<td>N/A</td>
<td>$195</td>
<td><a href="http://www.ppta.net/conference.html">http://www.ppta.net/conference.html</a></td>
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<tr>
<td>May 2-5</td>
<td><strong>2010 Bus &amp; Paratransit Conference</strong> (APTA)</td>
<td>Cleveland OH</td>
<td>Renaissance</td>
<td>This meeting includes sessions and a showcase featuring the latest bus and paratransit vehicles, products and services.</td>
<td>900</td>
<td>Before Mar. 19: $575 m After: $625 $1,125 nm</td>
<td>Program - Heidi Salati (202) 496-4818 <a href="mailto:hsalati@apta.com">hsalati@apta.com</a> Registration - Jenimma Mawenya (202) 496-4874 <a href="mailto:jmawenya@apta.com">jmawenya@apta.com</a></td>
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<tr>
<td>May 3-5</td>
<td><strong>Annual Meeting and Exhibition</strong> (ITS America)</td>
<td>Houston, TX</td>
<td>George R. Brown Convention Center</td>
<td>This year’s theme is “Connecting Communities through Smart Transportation Solutions.”</td>
<td>N/A</td>
<td>$1,000</td>
<td><a href="http://www.itsa.org/annualmeeting.html">http://www.itsa.org/annualmeeting.html</a></td>
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<tr>
<td>May 5-7 2010</td>
<td><strong>Urban Transport 2010, 16th International Conference on Urban Transport and the Environment</strong> (Wessex Institute of Technology)</td>
<td>Cyprus</td>
<td>Coming soon</td>
<td>Main topics include: transport modeling and simulation, security and safety, technology, land use and transport integration, ITS, public transport systems, road pricing, traffic management, urban transport strategies, environmental impacts and transport sustainability.</td>
<td>N/A</td>
<td>N/A</td>
<td><a href="http://www.wessex.ac.uk/urban2010">http://www.wessex.ac.uk/urban2010</a></td>
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<tr>
<td>May 9-12</td>
<td><strong>3rd Conference on Innovations in Travel Modeling - ITM2010</strong> (TRB, FHWA, FTA, Arizona State University, University of Arizona, AZDOT, Maricopa Association of Governments, Pima Association of Governments, and Valley Metro)</td>
<td>Tempe, Arizona</td>
<td>Tempe Mission Palms Hotel and Conference Center</td>
<td>This conference will examine innovative and promising advances in travel modeling, with an emphasis on bridging the gap between state-of-the-art research and practice. It will focus on an open exchange of ideas regarding recent innovations in travel modeling, opportunities and challenges related to implementation, and directions for further research and development.</td>
<td>220</td>
<td>Before Mar. 31: $345 - speaker $395 - regular After: $445 - regular</td>
<td>John Gliebe Co-Chair ITM 2010 (503) 725-4016 <a href="mailto:gliebej@pdx.edu">gliebej@pdx.edu</a> Maren Outwater Resource Systems Group <a href="mailto:moutwater@rsginc.com">moutwater@rsginc.com</a></td>
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<tr>
<td>May 10-13</td>
<td><strong>Conference &amp; Expo</strong> (International Parking Institute)</td>
<td>Las Vegas, NV</td>
<td>Mandalay Bay</td>
<td>This year’s annual conference boasts more than 65 technical/educational sessions, 3 keynote addresses and numerous networking and social functions. Presenters share expertise and real world experience on important issues through case studies and “how to” knowledge.</td>
<td>N/A</td>
<td>By Jan1: $575 m $770 nm By Feb 28: $640 m $835 nm By April 3: $665 m $860 nm After: $715 m $910 nm</td>
<td><a href="http://www.parking.org">www.parking.org</a> Helen Sullivan (703) 847-9702 (703) 606 7622 <a href="mailto:sullivan@parking.org">sullivan@parking.org</a></td>
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<tr>
<td>May 13-14</td>
<td><strong>Innovations in Pricing of Transportation Systems: Workshop and Conference</strong></td>
<td>Orlando, FL</td>
<td>Royal Plaza Hotel, Walt Disney World Resort at Lake Buena Vista</td>
<td>The workshop and conference will examine innovative market-based approaches designed to encourage a more efficient use of transportation systems and will explore financing schemes that have the potential to improve or enhance these systems.</td>
<td>150</td>
<td>Before Mar 13: $325 After: $425</td>
<td>Cathy Gentilman tel: (352) 392-1701 x238</td>
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