Los Angeles to Hire Artist to Help Reduce Traffic Deaths

Designs Aimed at Protecting Pedestrians, Bicyclists

The city of Los Angeles hopes art can make the city’s streets safer for pedestrians and bicyclists.

The city has launched an artist-in-residence program through its Department of Cultural Affairs. These artists will work with various city departments on “innovative ways” to connect Los Angeles residents with Mayor Eric Garcetti’s vision for a “safer, more sustainable, and dynamic Los Angeles.”

The Department of Transportation is the first agency to receive an artist in residence. The artist will be charged with designing a campaign that engages residents with Vision Zero, a citywide goal to eliminate all traffic deaths within 10 years. Outside-the-box-thinking is essential, according to the mayor.

“Art has the power to transform our perceptions, attitudes, and behaviors,” the mayor said. “We have an important message to deliver: traffic deaths and injuries are not inevitable, and we can save lives through better planning, design, and enforcement. The Creative Catalyst Artist in Residence Program will help engage and educate Angelenos by pairing the creative genius that thrives in Los Angeles with critical initiatives to improve quality of life in Los Angeles.”

The first Creative Catalyst Artist in Residence will serve as an ambassador for L.A.’s “vibrant creative workforce,” while working within the Department of Transportation to make its services “more appealing, enjoyable, safe, and personable.”

“Art has the ability to startle people out of their everyday to remind them that they are traveling through the heart of a neighborhood and to spark their imagination no matter how they move through our city,”

Green Trips Reduce Congestion, Pollution Around Chattanooga

Participants Are Rewarded for Not Driving Solo

Another successful MoveRight Challenge has been completed in the Chattanooga, Tenn., where local businesses are doing their part to ease traffic congestion and help the environment.

The challenge is part of GreenTrips, the Chattanooga-Hamilton County Regional Planning Agency’s (RPA) award-winning transportation program that rewards participants for avoiding single occupant vehicle trips. Twenty local employers competed to see whose workforce could log the most “Green Trips” between Aug. 1 and Sept. 30. “Green Trips” help reduce the number of cars being used to transport only one person.

GreenTrips uses public outreach and education, along with fun contests and prizes, to encourage participants to walk, bike, carpool, use public transit, telecommute or work flexible schedules. Members log their “Green Trips” to earn points that can be redeemed for rewards. Qualifying trips begin or end in a four-county area comprised of all of Hamilton and Catoosa counties and the northern part of Walker and Dade counties.

The MoveRight Challenge is one of the highlights of the GreenTrips program, which was awarded the 2015 Governor’s Environmental Sustainability Award for Environmental Education and Outreach. During this year’s competition, over 800 individuals at competing companies logged nearly 14,000 alternative trips.

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Winners of the Chattanooga MoveRight Challenge. (Photo: Courtesy of Green Trips)
New Personal Rapid Transit System Being Tested

MagLev Technology Applied

A new high-speed personal rapid transit (PRT) named skyTran is being tested in Tel Aviv, Israel.

The system employs magnetic levitation technology that allows it to move passengers in a “fast, safe, green and economical manner.”

For the past five years, the Mountain View, Calif.-based company developing skyTran (also named SkyTran), has been preparing a test track which will run for about 900 feet on the campus of Israel Aerospace Industries (IAI). IAI partnered with skyTran to develop the PRT system. The first demonstration will be completed in December this year, and the system will be operational in January 2016, according to skyTran CEO Jerry Sanders. Just one car will run on the track to start, although skyTran hopes to add several more cars to the pilot project.

The use of maglev technology makes SkyTran unique said Sanders. He added that SkyTran’s system is more economical compared to other systems, costing about $10 million a mile, in contrast to about $1 billion per mile for the Chinese maglev system. SkyTran vehicles can travel up to 150 miles per hour, and while cars can hold two or four passengers, most will hold two. The car running during the pilot project in Israel will hold four passengers and travel up to 60 mph. Sanders has said that if all goes well with the pilot project, skyTran will be expanded to at least three other Israeli cities and some cities in the United States by 2018.

Passengers just jump into a pod and enjoy the ride. There are no drivers to talk to, no discussing routes or destination. “Basically, it is just like an elevator - get in, push your floor button and ride,” according to Sanders.

The system is driven by a dedicated proprietary command and control system, the back-bone of which has been in use in Morgantown, W.Va., for 30 years without accident, Sanders said. On-board batteries supply the power but an alternative for grid

powered vehicle could be made available. The system will start out at a minimum headway of one second between vehicles but will drop down to half-second spacing in a year or two, Sanders said. SkyTran allows switching of lines.

If the system breaks down or there is another emergency, the vehicles can be towed or lifted off the track, or passengers can be extracted with a cherry picker. Additionally, the auxiliary power system in each vehicle is adequate to get it to the next closest station.

As for costs, basic pods will cost about $30,000, and can be custom made and tailored to individual specifications. The average equipment cost per station will depend on local requirements, regulations and customs. As an example, small stations with hardware only cost $250,000 to $500,000. SkyTran believes stations should be inside buildings wherever possible, and preferably, stations should be no more than 800 feet apart. As for the cost of running the system, Sanders puts it at about 25 percent of revenue compared to 85 percent of revenue for other public transportation systems.

To help visualize the system, Sanders compared it to the Ultra PRT system at London’s Heathrow Airport. He said the airport system is “basically an elevated automated golf cart.” With a maximum speed of 30 mph, mechanical systems and small rubber tires, it’s good for an airport or a corporate campus but it can’t get you to London.

By comparison, skyTran is a next generation PRT system Sanders claims, that benefits from the lessons of other systems, like the ones in Morgantown and Heathrow. SkyTran believes that the use of wheels is a “major technical weakness in PRT design” because of maintenance costs and limits on the safest maximum speed. That’s where SkyTran’s maglev technology has an advantage.

In skyTran’s maglev system there is no physical contact between the vehicles and the guideway so there is nothing to wear out or fail, according to the company’s website.

“When combined with a tested and proven high performance linear synchronous motor, skyTran’s maglev system makes safe, reliable high speed travel possible at up to 150 mph. This speed makes it possible for large local, regional, and national networks to be built.”

For more information, visit: www.skytran.com
Product and Industry News

Using Technology to Avoid Pedestrian Accidents

*Bosch developing system to help motorists*

You’re driving down the road when suddenly a pedestrian steps into your path. Too often, you can’t stop in time to avoid hitting the person. Now technology is being developed to help drivers prevent such collisions.

Bosch Group, a leading supplier of technology and services, is developing a pedestrian protection system that helps drivers brake and take evasive action to avoid collisions with pedestrians. Bosch says the goal is to protect pedestrians more effectively and “help make the goal of injury- and accident-free driving a reality.”

If braking alone can’t prevent a collision, the driver assistance system instantaneously computes an evasive maneuver. As soon as drivers start taking evasive action, the system kicks in to support the steering maneuver. Provided the driver reacts at least half a second before a potential collision, the assistance system can help avoid an accident in 60 percent of cases, says Lutz Bürkle, the project manager.

The research is being conducted at Bosch’s research campus in Renningen, Germany. Bosch plans to start production of the system in 2018.

Accidents involving pedestrians are a problem in both Germany and the United States. Bosch describes pedestrians as “the most vulnerable road users.” In 2014, 523 pedestrians died on German roads, accounting for 15.5 percent of all road deaths in Germany, according to Bosch. In the United States, the National Highway Traffic Safety Administration said 4,735 pedestrians were killed in crashes in 2013, accounting for 14 percent of all traffic fatalities, with another 66,000 pedestrians injured.

Bürkle’s team has built a research vehicle to test the technology. Its central component is a Bosch stereo video camera of the kind already in use. Mounted behind the windshield near the rear-view mirror, the camera provides a 3D image of the area to the front of the vehicle and can detect pedestrians and oncoming traffic as well as obstacles on the road ahead. A computer in the trunk of the research vehicle analyzes the information. If a pedestrian suddenly appears in the stereo video camera’s field of vision, the system computes the likelihood of a collision as well as the route that must be taken to avoid it. All this happens at lightning speed.

The correct interpretation of the images from the camera and the specific driving situation is particularly complex, according to Bosch. “To plan the new trajectory as precisely as possible, we have to do things such as predict where the pedestrian is likely to be in a second’s time,” Bürkle explains. The team’s work focuses on developing the algorithms this requires.

Bosch researchers also are heavily involved in the development of automated driving. By 2020, it is expected that the Bosch highway pilot will enable highly automated freeway driving without the need for constant driver supervision. Among other things, this automation will be based on various sensors that provide a precise image of the vehicle’s surroundings.

According to Bosch, an estimated 1.3 million people worldwide are killed in road accidents each year, with 90 percent of these accidents caused by human error.

Bosch will launch a range of driver assistance systems, including image analysis and the ability to compute new trajectories that could be used in an assistance system that guides vehicles through tight spaces. That would be of particular use in cities where roads are often clogged by cars parked on both sides and a delivery truck double parks. The images from the stereo video camera can provide crucial information that allows the assistant to control the power steering and enable the car to pass by without mishap, even when there is little room.

“The examples show how Bosch is using sensors, software, and expertise in image processing to make mobility safer,” says Michael Bolle, head of corporate research and advance engineering.


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England, Netherlands Cooperate To Modernize Traffic Management; Kapsch TrafficCom To Supply Advanced Traffic Management Systems

England and the Netherlands selected Kapsch TrafficCom to modernize and consolidate traffic management on their highways. Kapsch has been awarded two contracts to supply the Advanced Traffic Management System (ATMS), DYNAC® for the Common Highways Agency Rijkswaterstaat Model (CHARM). CHARM is a collaboration between Highways England, and Rijkswaterstaat, the Dutch national roads authority.

The CHARM program aims to move toward an open, modular ATMS format that is integrated, flexible and scalable. Highways England and Rijkswaterstaat seek to improve customer service and provide faster, richer travel information by implementing a future-proof traffic management system that makes roads safer and enables a quicker response to real-time events. Kapsch says Highways England and Rijkswaterstaat have chosen DYNAC® because of its proven, highly configurable ATMS capabilities. DYNAC® helps operators work more efficiently and lowers maintenance costs, while improving the safety of road users.

Kapsch will deliver and install DYNAC® in two national traffic management centers, one in England and one in the Netherlands, with installation to be completed in a little over two years from the start date. CGI, the fifth largest independent information technology and business process services firm in the world, has been selected as the main partner in this project. CGI is responsible for the design, build, test and implementation of interface software that allows Highways England and Rijkswaterstaat to reuse existing interfaces and devices in combination with the DYNAC® software.

In addition to the national centers, DYNAC® systems will be installed in seven regional centers in England and five regional centers in the Netherlands. The total contract is valued at around $66.7 million. That includes the provision of product-level support services for a period of up to 13 years after the successful installation of the DYNAC® Advanced Traffic Management System. Installation is expected to begin in 2016 and completed in 2018.

Rijkswaterstaat and Highways England are moving toward a new generation of traffic management systems in order to integrate a wide range of functions and manage the existing large quantity of different devices. Furthermore, the open, scalable and modular architecture of DYNAC® allows the addition of new applications, resulting in a single system which has the capability of incorporating future solutions that have not yet been implemented.

“We want to make our traffic management centers more efficient and innovative,” said Perry van der Weyden, Chief Information Officer at Rijkswaterstaat. “The implementation of this existing, proven system DYNAC® is part of our information strategy that aims to replace dozens of applications with an integrated system.”

Neil Widdop, Services Procurement Team Leader at Highways England, said: “The new system will allow us to improve our operational efficiencies through use of a modern, national, integrated system. As we improve our operational efficiency, we can expect road users to benefit from quicker responses to incidents leading to improved safety and greater convenience for our customers.”

In each country, Kapsch will be responsible for the delivery, installation and testing of one new traffic management center.

“Future traffic management is all about integration,” said Georg Kapsch, CEO of Kapsch TrafficCom. “Whether aligning traffic management across borders, different technological solutions or different transportation areas like highways and cities – road users will ultimately experience more safety, more efficiency, and more convenience along their whole route.”

DYNAC® is an integrated software suite that will monitor and control traffic, passenger safety, and facilities management assets and processes. The software allows operators to detect and respond to congestion, incidents, emergency situations, and other conditions. Kapsch’s ATM services include more than 40 systems based on DYNAC, ranging from systems that provide a complete overview of traffic situations to those that aid decision makers during emergencies.

Kapsch TrafficCom is a provider of intelligent transportation systems in the solution segments of road user charging, urban access and parking, traffic management, road safety enforcement, commercial vehicle operations, electronic vehicle registration and V2X cooperative systems. For more information, visit: www.kapschtraffic.com

The DYNAC® incident response manager display.

(© THE URBAN TRANSPORTATION MONITOR, NOVEMBER 27, 2015, VOL. 29 NO. 9)
A Swiss software company has been honored for developing an iPhone app to help public transportation users get around the San Francisco Bay area.

Taktil Software Ltd. of Zurich took the $10,000 grand prize in the Hack My Ride 2.0 international competition. In addition to the grand prize, Taktil won awards for the best data visualization application and ridership and retention.

The “Departures SF Bay” app uses augmented reality, which uses technology to overlay digital information on an image of something being viewed through a device such as a smartphone camera.

The app displays real-time departure times of public transportation in and around San Francisco. By simply holding up an iPhone, a virtual view of the nearest transportation station appears on the display panel. Users can then make their way to a stop by following the route on the built-in map. Routes can also be immediately changed during times of peak traffic without the hassle of typing in a destination.

And just for fun, users can track the nearest rocket in space by holding the iPhone up to the sky.

“Departures SF Bay” is not only persuasive for its real-time features, practicality and playful elements, the app is also conveniently linked to the city’s various transport systems, including VTA, Caltrain and Bart,” said Tobias Gemperli, co-founder of Taktil Software.

“Departures SF Bay” follows Taktil’s success with its previous iPhone apps, “Departures NYC” and “Departures Switzerland.” According to the company’s website, “Departures NYC” shows the departure times for all bus stops in New York City “in an innovative and attractive 3D view,” while “Departures Switzerland” shows departure times for all public transportation networks in the country. No typing is necessary to use the app. Users are told to hold their iPhone in the direction of the desired station or stop and the respective destination board will be displayed. The service provides live information about delays and service alerts and works on iPhone 4S and later models as well as on iPads.

The Hack My Ride 2.0 competition challenged contestants to create technology that transforms how commuters get around in Silicon Valley. Microsoft, the Santa Clara (Calif.) Valley Transportation Authority and the Knight Foundation were among the sponsors of the contest, which asked competitors to “help us create working apps and tools that will make it easier for people to plan trips, connect with their surroundings, and enrich their transportation experience.”

Entrants were asked to “go beyond transit trip planners—there are already many apps out there that help people plan their trips—and create innovative user experiences that haven’t been tried before. Think about beacons, wearables, mashing up VTA data with other non-transit data, and brilliant data visualizations.”

“We were impressed by Departures SF Bay’s one-of-a-kind user interface and we think augmented reality has a good chance of helping us grow our transit ridership, one of our major goals at VTA,” said Codi Kraatz, VTA administrator of digital communications and manager of Hack My Ride 2.0. “It’s an engaging and fun way to discover transit options, with a ‘wow’ factor that will appeal to many people. We look forward to promoting Departures SF Bay to our customers and exploring ways this approach could be incorporated into apps VTA is considering building.”

Gemperli said to his knowledge, Departures is the only app that displays public transportation stops and departure times in augmented reality. “We believe our app has been successful due to the sheer convenience of this augmented reality feature. There’s true added-value for the user,” he said. “We don’t know of many augmented reality apps that have been able to retain its users for long.”

For more information, visit: https://taktil.ch/ http://departuresapp.com or http://hackmyride2.devpost.com/
National League of Cities Explore Technology’s Role in Transportation Planning for 2020, Beyond

Driverless Cars Seen as Having Big Impact

Looking at the future of transportation, cities have moved from Deloreans to driverless cars in what seems like the blink of an eye, according to a report from the National League of Cities (NLC) that explores trends in mobility and technology and what cities can do to move seamlessly and efficiently into the future.

The report finds widening gaps between innovation in the private sector, the expressed preferences of citizens and the visions of city planners when it comes to investing in transportation.

“City of the Future: Technology & Mobility,” explores how transportation will change in 2020 and then again in 2030 and beyond with coming technological disruptions. It draws on knowledge from leading experts in the field and delves into city and regional transportation planning documents from the 50 most populous cities, as well as the largest cities in every state.

The report reveals how technology is rapidly shaking things up, and how this will impact cities’ future decision making about land use and infrastructure planning.

Specifically, while 50 percent of cities surveyed have explicit plans for new highway and infrastructure construction and maintenance, only 6 percent take into account the potential effects of driverless technology. Additionally, only 3 percent are considering the impact of private transportation network companies such as Uber and Lyft, despite the fact that they operate in 60 of the 68 markets included in the study.

“Transportation is critical for our cities,” said Clarence E. Anthony, CEO and Executive Director of the National League of Cities. “By exploring mobility and the impact technology is having on how we all get around, NLC is highlighting specific issues that will help cities anticipate changes in the urban landscape and prepare accordingly.”

While 50 percent of cities plan new highway construction, others are cutting back. Twenty percent of cities plan “road diets” or other plans for reducing road capacity or long-term maintenance costs, while 12 percent clearly state that no new highways are under consideration.

The report also outlines a forecast for 2020 and beyond.

By 2020, the authors predict extensive demographic and workforce changes that will impact transportation networks, mainly driven by Millennials who eschew cars and continue to show preferences for other modes of transportation. Cities will have to adapt to changing commuting choices and factor those into office location and workspace changes. As traditional nine-to-five jobs are increasingly replaced by contract jobs and white-collar jobs trend toward telecommuting, there will be significant changes in travel and commuting patterns and a likely redistribution of demand away from rush hours.

The authors also foresee a continued decrease in vehicle miles traveled. As a result, Vehicle Miles Traveled (VMT) fees will continue to gain traction to replace the struggling gas tax, and more cities will turn to paid road models.

“In the year 2020 the idea of paying for road usage will be more readily accepted,” the report states.

Also, more states will establish infrastructure banks to help fund projects and public-private partnerships to finance mobility projects.

Cities will have more modal and transit options available, such as optimized bus lines and integration of apps and fare payment systems.

Transportation network companies will enjoy continued growth and become “mainstream” modes of personal and freight transportation in cities of all sizes. The authors say cities are beginning to regard these companies as “significant parts” of their transportation networks.

And finally, they predict that driverless cars will be on the road and an increase in electric cars.

The authors point out that five years may not seem like a long time, and that the basic transportation infrastructure of America’s cities will remain largely unchanged. However, “five years ago the iPhone was not nearly ubiquitous as it is today, and Uber was not a verb,” reminds that “it is easy to forget that many of the transportation and technology norms we live by today are relatively recent – and it is difficult to imagine how new technology will change mobility.”

As they look to 2030 and beyond, the authors expect driverless vehicles to be a sea change in transportation. “One of the most transformative, exciting and potentially disruptive technologies almost certain to be deployed by 2030 will be the driverless vehicle,” the report said. “As they come online, cities of all sizes should actively consider that driverless technology will not only challenge their transportation policy, but their existing zoning, land use and regulatory frameworks as well.”

One prediction is that public transportation will begin to go driverless.

The authors see continued growth in urban areas, changing commuting patterns fueled by younger generations and their preference for alternative transportation. Rush hours will be dispersed over longer periods of time.

Cities also will see a reduction in single occupancy vehicles. Commuting by bicycle will become more attractive, thanks to electric assist technology. And high-speed rail systems will be constructed along the East and West Coasts. Additionally, inner-city rail and air travel will expand.

A national infrastructure bank and other public/private financing options will change the way transportation projects are evaluated.

“Our collective thoughts on the future of transportation have moved from Deloreans to driverless cars in what seems like the blink of an eye,” said Brooks Rainwater, one of the authors of the report and director of the NLC Center for City Solutions and Applied Research. “With the mobility environment rapidly changing, cities are central and leading the effort toward better, more seamless and equitable transportation systems.”

For more information, visit: http://www.nlc.org/Documents/Find%20City%20Solutions/Research%20Innovation/City%20of%20the%20Future/City%20of%20the%20Future%20Final%20EB.pdf
Solar Carport Estimated to Save $30k Annually

Made Use of Connecticut Legislation That Provides Access To a New Form of Financing for Energy Upgrades.

The Jewish Community Center (JCC) of Greater New Haven, Ct., has installed a solar parking carport to cut energy costs and help the environment. The largest solar carport in the state of Connecticut was installed by Solaire Generation, which claims to be the market leader for innovative solar parking solutions.

The JCC will see immediate savings in its electric bill from the 750 kW system, with no upfront cost.

According to Solaire, parking canopies were the ideal solution for the JCC, which has limited space for a rooftop photovoltaic (PV) system. The Solaire 360 D™ and Long Span 360 D™ models at the JCC will generate roughly 900,000 kilowatt hours of clean electricity per year – about half of the building’s annual electricity requirements or the equivalent used in 90 homes - without reducing the number of available parking spaces.

“We are very excited to be able to save money and cut down on our energy consumption,” said Scott Cohen, Chief Operating Officer of the JCC of Greater New Haven. “If electricity purchase rates continue to rise, the carports and solar panels will significantly reduce our costs over their lifetime.’’

This is the first carport project to take advantage of the Connecticut Green Bank’s low-cost C-PACE-secured PPA structure, according to Solaire. In 2012, Connecticut passed legislation that gives property owners access to a new form of financing for building energy upgrades. Commercial & Industrial Property Assessed Clean Energy (C-PACE), is a financing program that allows Connecticut building owners to access cleaner, cheaper, and more reliable energy. The Connecticut Green Bank, formerly known as the Clean Energy Finance and Investment Authority, was empowered by legislation to administer the program. Although the JCC is a non-profit entity, by using C-PACE financing it was able to benefit from the full range of available incentives, including the federal solar investment tax credit. Solaire Generation initially secured a Zero Emissions Renewable Energy Credit contract for the project before partnering with Bullrock Deutsche Eco Solar Ventures, who further facilitated the agreement with the JCC and the Connecticut Green Bank.

An important consideration for New England winters, Solaire’s patented dual incline canopy designs prevent snow and ice from sliding onto people or cars below by directing the snow toward the center of the structures where it safely melts. The canopies feature a corrosion resistant, marine grade paint finish and are structurally designed to outlast the 25-year production guarantee of the PV panels they support.

The solar carport is an outgrowth of the JCC’s efforts to find creative ways to save on utility costs and reduce its carbon footprint. The JCC also has negotiated favorable utility rates and installed energy efficient lighting systems and a co-generation unit.

The JCC expects to see modest savings in the first year of the system, while it anticipates savings could average out to approximately $30,000 a year over 20 years. The JCC will purchase the energy that the system generates at a discount from its current rate as part of its agreement with the Clean Energy Finance and Investment Authority (CEFIA) of the State of Connecticut. The JCC would have had to purchase the electricity at a higher rate from its electric company if it had not erected the solar carport.

The JCC chose a carport design over a rooftop solar array in part because funding for the project was contingent on a larger array than the rooftop could accommodate. The size of the carport is the largest allowed under the funding scheme.

The JCC says the carport will be lit underneath for safety purposes and maintained by a company hired by CEFIA, at no cost to the JCC.

For more information, visit: www.solairegeneration.com.
Asian Cities Home to the World’s Busiest and Biggest Metros

Ridership Continues to Grow Worldwide

Cities around the world are turning more and more to metro systems to move people in a way that eases congestion and helps the environment.

That is the conclusion of a new report, “World Metro Figures,” compiled by the International Association of Public Transport (UITP). The report is a comprehensive study on the current state of the world’s metro networks and highlights potential future developments.

Based on 2014 figures, 156 cities have metro systems, and Asian cities dominate the ranking of the world’s biggest and busiest metro systems. Nearly two-thirds of the systems are in Asia and Europe.

The world’s busiest metro system is in the Tokyo metropolitan area, with almost 3.6 billion passenger trips per year. That is a 10 percent increase since the last report in 2012. Chinese metro systems also have seen significant growth, with Beijing and Shanghai coming in at second and third respectively. Beijing reports 3.4 billion passenger trips, an increase of 25 percent since 2012, and Shanghai reports 2.8 billion trips, an increase of 39 percent since 2012. Beijing reports 3.4 billion passenger trips per day, an increase of 7.9 percent since 2012, with Asia accounting for nearly half the world total.

Asian cities also are on top when it comes to the world’s longest metro networks. Shanghai is number one with 340 miles of lines, followed by Beijing with 330 miles of lines. London is third with 270 miles. In 2014 alone, more than 300 miles of new lines were added around the world, the report finds.

The report also finds that nearly a quarter of the world’s metro systems have at least one fully automated line. There are 454 miles of automated metro lines in 35 cities around the world, with Dubai (50 miles), Vancouver (42 miles) and Singapore (40 miles) one, two and three.

“Cities have always been at the core of growth and development and will continue to be the main engine of economic activity, entrepreneurship and creativity,” said UITP Secretary General Alain Flausch. “To fully reach this potential, we need to make sure people move seamlessly and can both access and contribute to the wellbeing of their cities. Metros play an instrumental role in helping cities to achieve their potential in today’s fast-changing world.”

UITP defines metros as high capacity urban guided transport systems, mostly on rails, running on an exclusive right-of-way without any interference from other traffic or level crossings and mostly with some degree of drive automation and train protection. These design features allow high capacity trains to run with short headways and high commercial speed. Metros can carry many passengers and constitute the backbone of many public transport systems. Metro lines included in the report run with trains composed of minimum two cars and with a total capacity of at least 100 passengers.

“Cities are turning more and more towards metros as a congestion-busting solution due to their ability to carry large amounts of people in a space and energy efficient way,” said UITP spokesman Andrew Canning. “At UITP we predict, that with rapidly increasing urbanization around the world, this trend will only continue to grow as systems and infrastructure have expanded considerably in the last 15 years, according to the report. A total of 194 metro lines have been inaugurated, with 53 of those systems being new.

In 2014 alone, 319 miles of new metro infrastructure and 355 new metro stations were put into service. New metro systems were opened in Salvador, Brazil, Mumbai, India, Shiraz, Iran, Panama City, Panama, and the Chinese cities of Changsha, Ningbo and Wuxi.

While the four busiest metro systems are in Asia, Moscow is the busiest network outside Asia. In North America, the highest ridership is in New York City, with 1.8 billion passenger trips daily. Mexico City is the busiest network in Latin America, with 1.6 billion journeys. Paris metro has the highest ridership in Europe, with over 1.5 billion trips.

For more information, visit: www.uitp.org
Continued from Page 1

**Los Angeles to Hire Artist to Help Reduce Traffic Deaths**

said Seleta Reynolds, general manager of the city’s Department of Transportation. “Vision Zero is a bold goal: zero traffic fatalities by 2025, which will require conventional tools like engineering and enforcement, as well as unconventional tools like art and storytelling. We plan to infuse art into the design and function of the public realm to create safe, beautiful, great streets.”

While the goal of Vision Zero is to reduce all traffic fatalities within 10 years, its success depends on the city’s ability to shift public perception, attitudes, and behaviors that accept traffic deaths as an acceptable outcome of the transportation system, according to the application guidelines for the Creative Catalyst Artist in Residence. Initially, the focus will be on the most vulnerable users: people walking and biking, particularly the elderly and children.

Reynolds told the Los Angeles Times that the city is not looking for someone to redesign existing materials. Rather, “it’s going much deeper into the way we think about designing the streets,’” adding, “We can infuse unexpected elements into the design of the streets and the way of moving through the streets.”

About 100 pedestrians and bicyclists are killed on Los Angeles streets each year, according to DOT.

The Creative Catalyst Artist in Residence will get a two-year contract with DOT and receive a $20,000 stipend.

For more information, visit: [www.culturela.org](http://www.culturela.org) or [www.lamayor.org](http://www.lamayor.org)

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**Green Trips Reduce Congestion, Pollution Around Chattanooga**

These trips represent over 154,000 miles traveled by alternative modes or avoiding trips by telecommuting or working a compressed workweek.

This year’s winners were City of Chattanooga employees in the large workforce category, Coyote Logistics in the medium category and Rock/Creek in the small category. Coyote Logistics is the local office of a national transportation and logistics company and Rock/Creek is an outdoor clothing and gear retailer. The winners logged over 5,400 “Green Trips” in two months.

“As our communities continue to implement safe and more easily-accessible multimodal facilities, GreenTrips continues to promote, incentivize, and assist users in the use of existing facilities with no user fees,” said Melissa Taylor, director of RPA’s Strategic Long Range Planning department, which runs GreenTrips.

Taylor said the greater Chattanooga area has miles of nationally recognized bicycle friendly streets, the Bike Chattanooga bicycle transit system, public transit services with onboard Wi-Fi and a real-time tracking smartphone app, and plenty of beautiful places to walk.

The challenge has grown since the first one in 2014, in which individuals at 13 participating companies logged over 12,000 green trips. This accounted for over 152,000 fewer miles driven by single drivers.

“These numbers were a great accomplishment in and of themselves, but it is especially rewarding to see the impact grow from year to year with 7 new companies joining the Challenge and a 60% increase in the number of participants,” said Amy Morris, who coordinates the program along with Jonathan Gibbons.

GreenTrips was launched in June 2013 under a Congestion Mitigation and Air Quality improvement grant from the Tennessee Department of Transportation. Since its inception, GreenTrips has grown to nearly 1,300 members who have logged more than 155,000 “Green Trips.” According to GreenTrips, these savings translate to nearly $300,000 saved on automotive wear and tear and fuel and 11.5 million calories burned.

Participants receive points for each trip taken by walking, biking, carpooling, mass transit or telecommuting. Users can use their points to enter random contests, purchase prizes or get automatic milestone rewards. Prizes range from gift certificates for local restaurants and retailers to Amazon gift cards. Winners of the MoveRight Challenge also received additional prizes.

“As we plan for a healthy future and consider travel demand management an integral part of a more effective transportation system, I hope everyone will be able to walk out of their home or business and easily choose a Green Trip,” said Taylor, director of the department that runs GreenTrips.

For more information, visit: [http://greentripscha.org/](http://greentripscha.org/)
Supreme Court of Hawaii Discusses Two Connotations of “Negligence”

Plaintiffs-appellants in this case appealed the trial court’s order granting summary judgment in favor of defendant-appellee City and County of Honolulu, after a girl was injured crossing an intersection where all the lights were stuck on red, except for the lights on one side of one of the crossroads. Some vehicles were proceeding through the intersection against the red lights.

Plaintiff had reached medial strip when she first noticed the traffic light malfunction. After several minutes of waiting, she attempted to cross where the traffic appeared lightest, but midway across the lanes, she was struck by a vehicle whose driver had not realized that the traffic lights were malfunctioning.

Rachelle Shields and her parents sued the City, among others, for damages arising from the accident. Plaintiffs’ theory of liability against the City was based on plaintiffs’ allegation that the City’s negligent failure to properly maintain the traffic signal control box at the intersection was the proximate cause of the accident.

After informal requests by plaintiffs’ attorney, plaintiffs filed and served on the City a formal written request for production of the traffic signal control box. However City instructed a private contractor to remove and destroy the traffic signal control box without plaintiffs’ knowledge or consent.

A judge of the First Circuit Court imposed sanctions against the City, including:

- finding City negligent in that it had a malfunctioning traffic signal control box at the intersection which caused the traffic lights to malfunction on the day of the accident;
- barring City from claiming that the traffic signal control box was defective in design or manufacture or that any such alleged defective condition was the cause of the malfunction; and
- prohibiting City from asserting its claims as to proximate cause, comparative negligence, assumption of risk or other defenses against any other party in this action.

City moved for reconsideration of this order. At a subsequent hearing the judge granted this motion and modified the prior order by ordering that the finding of “negligence” per se be omitted.

The new finding ruled simply that the City failed to properly maintain the traffic signal control box at the subject intersection, causing the traffic lights to malfunction.

In view of this, the judge granted City’s motion for summary judgment, holding that even had City failed to properly maintain the traffic signal control box, there was no legal basis upon which it could be found liable for the accident. Plaintiffs appealed.

The Appeal Court found that it was only fair that sanctions be imposed so that the City did not benefit from its destruction of potentially significant evidence. It reasoned that if the control box had been produced, plaintiffs would have had the opportunity to prove through their experts that the traffic light malfunction was caused by the City’s improper maintenance of the control box.

The court noted that two different connotations could be placed on the word “negligence.” In the narrow sense, it is the failure to do what a reasonable and prudent person would ordinarily have done under given circumstances, as well as not doing what such a person would normally do.

In the broad sense, it includes the notion of proximate causation i.e. the existence of a duty on the part of the defendant to protect the plaintiff from injury; the failure of the defendant to perform that duty; and injury to the plaintiff from such failure of duty by the defendant.

In the trial court judgment granting sanctions, “negligence” was apparently used in the narrow sense, in that it found that the City had failed to do what it ordinarily should have done, that is, to maintain the traffic signal control box.

The Supreme Court finding changed the word “negligence” to one where the City had failed to properly maintain the traffic signal control box and consequently was responsible for the traffic light malfunction on the date of the accident.

The Appeal Court held that unless there were cogent reasons to support the second court’s action, any modification of a prior ruling will be deemed an abuse of discretion.

It found no cogent reason for the modification of the prior order of sanctions. Therefore, since the first order was not erroneous and there were no other cogent reasons to justify a departure from the general rule of comity, it reversed the order granting City’s motion for reconsideration.

Regarding the City’s motion for summary judgment, the Appeal Court found that the City’s breach of its duty could not be disputed, nor that the traffic lights were malfunctioning at the time of the accident because of the City’s failure to properly maintain the traffic signal control box.

Therefore, the only remaining issue concerning the City’s negligence was whether its breach of its duty was the proximate cause of the accident.

In this case, it found that reasonable persons could have differed on the issue of proximate cause: it was possible that a reasonable jury could have determined that the City’s improper maintenance of the traffic signal control box and the resulting traffic light malfunction was a substantial factor in causing the accident. However, it was also possible that a reasonable jury could have determined that intervening acts by the other original defendants e.g. the driver of the vehicle which struck appellant, and the manufacturer and distributor of the traffic signal control box, did not relieve the City from liability.

Since reasonable persons could have differed on the issue of proximate cause in this action, the court accordingly reversed the trial court’s order granting the City’s motion for summary judgment.

Transportation Tort Liability: Case in Review
This Month’s Survey Results (Survey 1)

Successful Congestion Reduction Projects

Earlier this month, *The Urban Transportation Monitor* conducted a survey to obtain information from organizations on "Successful Congestion Reduction Projects." E-mails with the questionnaire were sent to 200 transportation professionals. Altogether 6 responded. The results of the survey are published here.

---

Successful Congestion Reduction Projects

<table>
<thead>
<tr>
<th>PROJECT LOCATION</th>
<th>CONTACT NAME, ORGANIZATION NAME</th>
<th>E-MAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bellevue, WA</td>
<td>Raid Tirhi, City of Bellevue</td>
<td><a href="mailto:rtirhi@Bellevuewa.gov">rtirhi@Bellevuewa.gov</a></td>
</tr>
<tr>
<td>Chandler, AZ</td>
<td>Rudolf Kolaja, Traffic Operations Engineering, LLC</td>
<td><a href="mailto:rudy@trafficopseng.com">rudy@trafficopseng.com</a></td>
</tr>
<tr>
<td>Columbia, SC</td>
<td>Dipak Patel, SCDOT</td>
<td><a href="mailto:pateldm@scdot.org">pateldm@scdot.org</a></td>
</tr>
<tr>
<td>Roswell, GA</td>
<td>Thomas Strickland, HNTB Corporation</td>
<td><a href="mailto:kstrickland@hntb.com">kstrickland@hntb.com</a></td>
</tr>
<tr>
<td>Gainesville, FL</td>
<td>Philip Mann, City of Gainesville - Public Works</td>
<td><a href="mailto:mannpr@cityofgainesville.org">mannpr@cityofgainesville.org</a></td>
</tr>
<tr>
<td>El Paso, TX</td>
<td>Kyle Ibarra, Sun Metro/City of El Paso Mass Transit Department</td>
<td><a href="mailto:ibarrakx@elpasotexas.gov">ibarrakx@elpasotexas.gov</a></td>
</tr>
</tbody>
</table>
## Cost-Effective Congestion Reduction Projects

<table>
<thead>
<tr>
<th>Project name</th>
<th>Traffic Engineering Functions in State Governments</th>
<th>Improvements on I-26 at Redmond Road and Aviation Blvd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptive Traffic Signal System - SCATS</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Traffic Engineering Functions in State Governments</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Improvements on I-26 at Redmond Road and Aviation Blvd.</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Agency</th>
<th>Bellevue, WA</th>
<th>N/A</th>
<th>SCDOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>City/metropolitan area</td>
<td>Bellevue</td>
<td>Very few</td>
<td>North Charleston</td>
</tr>
<tr>
<td>Year project was implemented</td>
<td>Five year implementation. Started in 2010</td>
<td>Rarely</td>
<td>Open to traffic in August 2011</td>
</tr>
<tr>
<td>Description of project</td>
<td>Implemented on different corridors and received variable results. A range of 10% to 40% improvement in total stops, and signal delay.</td>
<td>The congestion is growing while billions of dollars are being spent on wrong projects, which provide very little and no improvement the traffic situation. Examples: under-designed freeways, HOV lanes with few HOV vehicles, ineffective transit systems, slow moving light rail system without adequate ridership, etc.</td>
<td>Mitigated 42% of delay costs.</td>
</tr>
<tr>
<td>Amount of congestion reduced (e.g. vehicle hours of delay reduced per day; and/or percent reduction in delay; and/or number/percent vehicles removed from peak period travel, etc.)</td>
<td>Implemented an adaptive traffic signal system citywide.</td>
<td>Following is a link to what needs to be done: <a href="http://community.ite.org/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=328d415ff3c-4ed0-94b9-2eca39e1c368">http://community.ite.org/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=328d415ff3c-4ed0-94b9-2eca39e1c368</a></td>
<td>Completed in 2012, I-26 was widened from six to eight lanes between Ashley Phosphate Road and I-526, which included new collector-distributor ramps for both directions through the West Aviation and Remount Road interchanges.</td>
</tr>
<tr>
<td>Initial (capital) cost of project, year of expenditure</td>
<td>$5.5 M</td>
<td>N/A</td>
<td>Bid price was $66 million.</td>
</tr>
<tr>
<td>Ongoing yearly operational and maintenance cost of project</td>
<td>No increase in annual operation cost.</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Main benefits of the project</td>
<td>Better signal coordination and timing plans that are adaptive to traffic demand.</td>
<td>Contained in my presentation.</td>
<td>The total project delay cost mitigated may be $172,000,000 (based on a 20 year projection).</td>
</tr>
<tr>
<td>Main considerations when applying this type of project elsewhere</td>
<td>Go for it. It is worth it.</td>
<td>Get educated in traffic engineering, transportation planning, and transit design and operations. Appoint competent professionals at transportation agencies, and stop the politics.</td>
<td>N/A</td>
</tr>
</tbody>
</table>
## Cost-Effective Congestion Reduction Projects (continued)

<table>
<thead>
<tr>
<th>Project name</th>
<th>Agency</th>
<th>City/metropolitan area</th>
<th>Year project was implemented</th>
<th>Description of project</th>
<th>Amount of congestion reduced (e.g. vehicle hours of delay reduced per day; and/or percent reduction in delay; and/or number/percent vehicles removed from peak period travel, etc.)</th>
<th>Initial (capital) cost of project, year of expenditure</th>
<th>Ongoing yearly operational and maintenance cost of project</th>
<th>Main benefits of the project</th>
<th>Main considerations when applying this type of project elsewhere</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR 400 Flex Lane Project</td>
<td>Georgia Department of Transportation</td>
<td>Roswell, GA</td>
<td>2012</td>
<td>The project converted the outside paved shoulder to a general purpose travel lane for the SR 400 freeway (SB only) between the interchanges at Holcomb Bridge Road and Northbridge Road. The conversion occurs from 6:30 a.m. to 9:00 a.m. each weekday to relieve peak hour congestion.</td>
<td>A 20 percent reduction in delay during a.m. peak hour.</td>
<td>$500,000, 2012</td>
<td>$100,000, 2012</td>
<td>Congestion reduction</td>
<td>Recommend implementation under the proper circumstances.</td>
</tr>
<tr>
<td>County-wide Traffic Management System</td>
<td>City of Gainesville - Public Works Department</td>
<td>Gainesville, FL</td>
<td>2008 - Implementation ongoing</td>
<td>Implemented a countywide traffic management system to improve traffic signal coordination, congestion management, incident management, emergency vehicle priority and transit priority. Joint funded project by City, Alachua County, University of Florida and Florida Department of Transportation.</td>
<td>Our four worst congested corridors: W. 13th Street: 33% a.m. and 43% p.m. delay reduction. W. 34th Street: 56% a.m. / 45% p.m. delay reduction. SW Archer Road: 14% a.m. and 9% p.m. delay reduction. W. Univ Ave / Newberry Road: 13% a.m. and 22% p.m. delay reduction.</td>
<td>$18.2 million, 2008 to present</td>
<td>$490,000</td>
<td>Reduction in congestion &amp; delay; real time motorist information on traffic conditions and incidents via a website &amp; social media; enhanced coordination of all emergency services and reduced response times; enhanced transit travel times.</td>
<td>Develop a funding partnership of all affected agencies; Explore all the potential benefits and subsidiary benefits to the project and document them to support funding projects.</td>
</tr>
<tr>
<td>Mesa Corridor Rapid Transit System Project</td>
<td>City of El Paso Mass Transit Department/Sun Metro</td>
<td>El Paso, TX</td>
<td>2010</td>
<td>Bus Rapid Transit corridor project with 11 stops in each direction and two terminal points at transfer center hubs. Prepaid amenities, real-time display, automatic vehicle location, safety and security and traffic signal priority are required attributes, and included additional attributes such as wifi on vehicles and at stations.</td>
<td></td>
<td>$22 million, 2010</td>
<td>$3.3 million</td>
<td>Reduce car dependency and as a result, reduce vehicle-miles traveled. Also provide additional expedient service to the existing ridership.</td>
<td>Most cost effective to initiate a program of BRT projects than to initiate each one individually.</td>
</tr>
<tr>
<td>Alameda Corridor Rapid Transit System Project</td>
<td>City of El Paso Mass Transit Department</td>
<td>El Paso, TX</td>
<td>2010</td>
<td>Bus Rapid Transit corridor project with 17 stops in each direction and 2 terminal points at transfer center hubs. Prepaid amenities, real-time display, automatic vehicle location, safety and security and traffic signal priority are required attributes, and included additional attributes such as wifi on vehicles and at stations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Most cost effective to initiate a program of BRT projects than to initiate each one individually.</td>
</tr>
</tbody>
</table>
This Month’s Survey Results (Survey 2)

Traffic/Highway Tort Liability

The Urban Transportation Monitor sent survey questionnaires to city traffic engineers to obtain information and opinions about traffic and highway tort liability lawsuits. A total of 36 cities replied. The results of the survey are published here.

Has your city been involved in traffic/highway tort liability lawsuits during the past 5 years?

<table>
<thead>
<tr>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Not sure / do not know</td>
</tr>
</tbody>
</table>

If you replied “Yes” (in the above question), how many over the past 5 years?

<table>
<thead>
<tr>
<th>Number of lawsuits</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 5</td>
<td>65%</td>
</tr>
<tr>
<td>6 to 10</td>
<td>10%</td>
</tr>
<tr>
<td>&gt;10</td>
<td>25%</td>
</tr>
</tbody>
</table>

In your opinion, how have the settlements ($/lawsuit) of traffic/highway tort liability lawsuits against cities changed over the past two years?

<table>
<thead>
<tr>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased</td>
</tr>
<tr>
<td>Remained the same</td>
</tr>
<tr>
<td>Decreased</td>
</tr>
</tbody>
</table>

Name areas/aspects of your city’s traffic/highway system where you feel your city is most vulnerable to tort lawsuits?

- Work zones
- Signing
- Signals
- Below standard design of older roads
- Roadway design issues
- Sight distance problems

How much do you personally feel at risk?

<table>
<thead>
<tr>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not feel at risk</td>
</tr>
<tr>
<td>Feel somewhat at risk</td>
</tr>
<tr>
<td>Feel highly at risk</td>
</tr>
</tbody>
</table>
Traffic/Highway Tort Liability (continued)

Do you have a risk management program in your city?

<table>
<thead>
<tr>
<th></th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>79%</td>
</tr>
<tr>
<td>No</td>
<td>21%</td>
</tr>
<tr>
<td>Do not know</td>
<td>0%</td>
</tr>
</tbody>
</table>

In your opinion, what effect have lawsuits had on the traffic engineering profession?

<table>
<thead>
<tr>
<th></th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive effect</td>
<td>39%</td>
</tr>
<tr>
<td>Neutral</td>
<td>11%</td>
</tr>
<tr>
<td>Negative effect</td>
<td>50%</td>
</tr>
</tbody>
</table>

Reasons why tort liability lawsuits have a positive or negative effect on the traffic engineering profession.

**Positive effect**
- Provide an incentive to adhere to appropriate guidelines and standards.
- Resulted in more attention to maintenance and repair in a timely manner.
- Safer roads are being designed and built.

**Negative effect**
- Have stifled innovation.
- Have decreased flexibility and cost taxpayer more money.
- Have constrained and intimidated the traffic engineering profession.
- It is too easy to file unjustified lawsuits.
- Many cases are settled out of court irrespective of the merit of the case because it costs less than defending a lawsuit.

What do you feel are the most important unresolved issues in traffic/highway tort liability lawsuits?

- The relationship between immunity and the MUTCD warrants.
- Questions about the integrity of expert witnesses.
- Defining and interpreting design standards as a "most desired approach" and not the law.
- The resources spent on frivolous lawsuits.

Overall, do you feel that the present situation regarding traffic/highway lawsuits is acceptable?

<table>
<thead>
<tr>
<th></th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>24%</td>
</tr>
<tr>
<td>No</td>
<td>76%</td>
</tr>
</tbody>
</table>
## REQUESTS FOR PROPOSALS

### 1. Madison Bus Rapid Transit Community Outreach

**Agency:**
City of Seattle

**Deadline:**
December 10, 2015 at 4:00PM

**Website:**
http://consultants.seattle.gov/2015/11/16/madison-bus-rapid-transit-community-outreach-rfq

**Description:**
Madison Bus Rapid Transit Community Outreach RFQ #SDOT 15-123

The City of Seattle, through Seattle Department of Transportation, requests Statements of Qualifications (SOQs) from qualified engineering firms for SDOT 15-123 Madison Bus Rapid Transit Community Outreach. The purpose of the Madison Bus Rapid Transit (BRT) project is to improve transit capacity, travel time, reliability, connectivity, comfort, visibility and legibility in the Madison corridor, while also making related improvements to pedestrian and bicycle access as well as the streetscape and public realm. Expected costs: community outreach during design, $250,000 – $650,000; community outreach during construction, $250,000 – $650,000.

### 2. Understanding and Using New Data Sources to Address Urban and Metropolitan Freight Challenges

**Agency:**
Transportation Research Board

**Deadline:**
January 19, 2016

**Contact:**
William C. Rogers, Tel: (202) 334-1621, email: wrogers@nas.edu

**Website:**

**Description:**
NCFRP 49 [RFP]

Funds: $600,000

**Contract Time:** 24 months

The rapid explosion of new freight data sources is creating significant opportunities for more effective and well-targeted planning and operation of roadways, particularly in urban and metropolitan areas. Changes in consumer behavior are impacting goods movement everywhere, especially in densely populated areas, where freight distribution is already challenged. For example, e-commerce is reducing passenger trips while increasing delivery vehicle trips. Growing populations are putting pressure on existing road capacity. Nonetheless, few cities or states have funding or space to build additional capacity into urban roads and highways. One consequence is that firms redesign their supply chains, resulting in land-use pattern changes that may add significant long-term costs to both the private and public sectors.

Research is needed to explore how new sources of freight data, including those from smart cities initiatives, crowd-sourcing (e.g., via smartphones, vehicle fleet tracking), sensors (e.g.,vehicle-to-infrastructure, vehicle-to-vehicle), and cameras are being or could be used to inform and implement freight demand management strategies. The use of private sector data from businesses, shippers, and carriers should also be examined. The term “big data” is being applied to some of these new data sources.

The objective of this research is to develop guidance that: (1) provides an understanding of the rapidly emerging data being collected or processed by the private sector for truck freight movement practices in urban and metropolitan areas; (2) outlines approaches, methods, and analytical techniques that enable local agencies, MPOs and state DOTs to better carry out their planning, programming, and operations responsibilities; and (3) identifies and categorizes the use of current and emerging freight data sources for urban and metropolitan freight management strategies. The guidance should be scalable to agencies based on their range of resources and capabilities.

### 3. Planning, Design and Implementation of Mobility Hubs

**Agency:**
Broward Metropolitan Planning Organization (Broward MPO), Fort Lauderdale, FL

**Deadline:**
December 14, 2016, at 3 pm

**Contact:**
Lydia Waring, Procurement Officer Broward Metropolitan Planning Organization, email: WaringL@BrowardMPO.org

**Website:**

**Description:**
The Broward Metropolitan Planning Organization (Broward MPO) will retain a consultant for one (1) open-ended contract for services for the planning, design and implementation of Mobility Hubs. The contract will be for a period of three (3) years, with deliverables assigned on an as-needed basis. The maximum amount of the contract will not exceed $2,000,000.

The purpose of the proposed contract is to provide the tools to guide the Broward MPO, partner agencies and municipalities in the targeted investment of funds for Mobility Hubs/multimodal mobility and to encourage private sector investment and (re)development. The Broward MPO is seeking consultant services to revisit the Mobility Hub concept and provide additional services to guide the planning and design at specific Hub locations, and to direct the implementation of Hub improvements.

### 4. Public Transportation Study

**Agency:**
The Midland Area Transportation Study (MATS)

**Deadline:**
December 18, 2015 by 3 p.m.

**Contact:**
Questions regarding this Request for Proposal must be submitted in writing to the following internet address (info@midlandmpo.com) until December 9, 2015.

**Website:**
http://www.midlandmpo.com/notices

**Description:**
The purpose of the Transportation Study is to evaluate and build on the region’s current transportation services, assess and respond to current community needs by developing improvement strategies and implementation plan, augmenting the overall system and promoting connectivity collaboration while mindful of fiscal constraints and other barriers.

FTA Grant Number: MI-80-0004-07

MDOT Project Number: 127703

### 5. Comprehensive Transportation Plan Update

**Agency:**
Town of Morrisville, Morrisville, NC

**Deadline:**
December 8, 2015

**Contact:**
Benjamin Howell, AICP, CZO

**Website:**

**Description:**
The Town desires to contract with qualified consultants with proven experience preparing comprehensive transportation plans to assist Town staff with preparation of a comprehensive update to the Morrisville 2009-2035 Transportation Plan. The Transportation Plan includes elements focusing on roadways, bicycle and pedestrian facilities, as well as future transit routes and facilities.

**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)764-0402 for details.

PUBLIC AGENCIES — RFP notices are published here FREE OF CHARGE — call (703)764-0512 for details and deadline.
## CONFERENCES

<table>
<thead>
<tr>
<th>DATES</th>
<th>CONFERENCE AND SPONSOR</th>
<th>CITY</th>
<th>VENUE</th>
<th>MAIN TOPICS</th>
<th>WEBSITE / CONTACT INFO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec. 1</td>
<td>Volpe, The National Transportation Systems, Realizing Self-Driving Vehicles</td>
<td>Cambridge, MA</td>
<td>N/A</td>
<td>Google’s self-driving vehicles have driven over one million miles on highways and suburban and urban streets. Through this journey, Dr. Chris Urmson and his team have learned a lot—not just about how to drive, but about interacting with drivers, users, and others on the road, and about what it takes to bring incredibly complex system to fruition. This event is part of Volpe's newest thought leadership series, Beyond Traffic 2045: Reimagining Transportation. This series will inform the ongoing national dialogue on Beyond Traffic, U.S. DOT’s 30-year framework for the future. Participants may attend via webinar or in person</td>
<td><a href="https://www.planning.dot.gov/events.asp?date=4/28/2016">https://www.planning.dot.gov/events.asp?date=4/28/2016</a> <a href="mailto:ellen.bell@dot.gov">ellen.bell@dot.gov</a></td>
</tr>
<tr>
<td>Dec. 17-20</td>
<td>3rd Conference of Transportation Research Group of India</td>
<td>Kolkata, India</td>
<td>N/A</td>
<td>The conference is designed to facilitate information exchange among transportation researchers, educators, managers, and policymakers from India and all over the world. The conference will address all forms of passenger and freight transport at the urban, regional, inter-city, and rural levels.</td>
<td><a href="http://www.trb.org/Calendar/Blurbs/172017.aspx">http://www.trb.org/Calendar/Blurbs/172017.aspx</a></td>
</tr>
<tr>
<td>Jan. 10-14</td>
<td>Transportation Research Board’s 95th Annual Meeting</td>
<td>Washington, DC</td>
<td>Walter E. Washington Convention Center</td>
<td>This program is expected to attract more than 12,000 transportation professionals from around the world. The meeting program will cover all transportation modes, with more than 5,000 presentations in nearly 750 sessions and workshops addressing topics of interest to all attendees—policy makers, administrators, practitioners, researchers, and representatives of government, industry, and academic institutions. A number of sessions and workshops will focus on the spotlight theme for the 2016 TRB Annual Meeting, Research Convergence for a Multi-Modal Future.</td>
<td><a href="http://www.trb.org/AnnualMeeting/AnnualMeeting.aspx">http://www.trb.org/AnnualMeeting/AnnualMeeting.aspx</a></td>
</tr>
<tr>
<td>Jan. 29-Feb. 2</td>
<td>American Traffic Safety Services Association Annual Convention and Traffic Expo</td>
<td>New Orleans, LA</td>
<td>N/A</td>
<td>ATSSA’s 46th Annual Convention &amp; Traffic Expo is the premier event for more than 3,000 roadway safety professionals and transportation officials from across the USA and around the globe. Celebrating its 46th year, the convention brings together business leaders, government officials, manufacturers, corporate roadway department personnel and all manner of people involved in nearly every aspect of roadway safety.</td>
<td><a href="http://expo.atssa.com/">http://expo.atssa.com/</a></td>
</tr>
<tr>
<td>Feb. 23-26</td>
<td>American Association of State Highway and Transportation Officials 2016 Legislative Briefing</td>
<td>Washington, DC</td>
<td>Washington Court Hotel</td>
<td>The AASHTO Legislative Briefing provides valuable insights and information for members to take to their respective congressional delegation as well as back home to their state officials and constituents. Meetings give important access to the people working with the Administration and Congress on issues that impact state departments of transportation. The conference serves as a unique experience that combines access with information.</td>
<td><a href="http://mmtd.transportation.org/meetings_registration/">http://mmtd.transportation.org/meetings_registration/</a></td>
</tr>
<tr>
<td>April 18-21</td>
<td>6th European Transport Research Conference, sponsored by the Transport Research Arena</td>
<td>Warsaw, Poland</td>
<td>National Stadium</td>
<td>The theme of this biennial conference is &quot;Moving Forward: Innovative Solutions for Tomorrow’s Mobility.&quot; TRA2016 Conference will contribute to innovation in sustainable mobility for Europe, by bringing together all the stakeholders of the transport system. It seeks to reflect the multidisciplinary nature of the transport sector and, for this reason, addresses all stakeholders in both the public and private sectors and all professionals, regardless of their roles (researchers, practitioners, designers, constructors, operators, administrators, policy makers etc.).</td>
<td><a href="http://www.traconference.eu/">http://www.traconference.eu/</a></td>
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<td>April 18-20</td>
<td>Design-Build In Transportation</td>
<td>Charlotte, NC</td>
<td>Charlotte Convention Center</td>
<td>Network with all the major players and design-build teams who will be in attendance. Reach Public and Private Owners and the entire Design-Build Team: -Chief Engineers, Purchasing, Contracts, and other key officials from State DOTs, and the Federal Highway Administration, plus from Bridge, Toll, Rapid Transit, Rail, Port, and Airport Authorities. A high percentage of owner attendees from all segments of the transportation industry, including representation from over 80% of the state Departments of Transportation. All the major players who deliver major civil infrastructure projects -Senior Level Executives – Consulting and Environmental, Civil, Bridge, Transportation, Safety, Quality, and Cost Engineers, Designers, Airport and Port Officials, Planners, Contractors, Specialists, and Solution Providers</td>
<td><a href="https://www.dbtranspo.com/">https://www.dbtranspo.com/</a></td>
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<tr>
<td>April 23-24</td>
<td>Transit Vehicle Technology and Their Impact on Sustainable Transport TVT 2016</td>
<td>Rome, Italy</td>
<td>N/A</td>
<td>The workshop will showcase various transit vehicle technologies and operations that have significant impact on the sustainable development of urban environment. The occasion will bring together researchers, practitioners, and decision makers from all over the world to explore the interaction between transportation, especially urban transit, and nature and built environment, energy consumption and society values.</td>
<td><a href="http://www.vehits.org">www.vehits.org</a></td>
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<tr>
<td>May 1-4</td>
<td>6th Transportation Research Board Conference on Innovations in Travel Modeling</td>
<td>Denver, CO</td>
<td>N/A</td>
<td>The event will facilitate sharing information and experiences on current models and modeling research. The conference will also explore the integration of social factors, land-use, transportation supply, and technology into the modeling process. Attendees will be able to network with local, state, and federal representatives; industry representatives; and vendors of equipment and software. NATMEC is the premier venue for sharing experiences on effectively monitoring traffic flow, whether for operational decision making, planning, or program or performance management.</td>
<td><a href="http://www.trb.org/Calendar/Blurbs/172989.aspx">http://www.trb.org/Calendar/Blurbs/172989.aspx</a></td>
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<tr>
<td>May 1-4</td>
<td>North American Travel Monitoring Exposition and Conference</td>
<td>Miami, FL</td>
<td>Hyatt Regency, Miami</td>
<td>North American Travel Monitoring Exposition and Conference (NATMEC) provides an opportunity for traffic monitoring professionals to exchange and share information related to the collection, management, and use of monitored traffic data in all applications. Attendees will be able to network with local, state, and federal representatives; industry representatives; and vendors of equipment and software. NATMEC is the premier venue for sharing experiences on effectively monitoring traffic flow, whether for operational decision making, planning, or program or performance management.</td>
<td><a href="http://www.cvent.com/events/natmec-improving-traffic-data-collection-analysis-and-use/event-summary-1d5f57d90d4f5793344616323.aspx">http://www.cvent.com/events/natmec-improving-traffic-data-collection-analysis-and-use/event-summary-1d5f57d90d4f5793344616323.aspx</a></td>
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<tr>
<td>May 4-6</td>
<td>15th Transportation Research Board International Conference on Managed Lanes</td>
<td>Miami, FL</td>
<td>N/A</td>
<td>The workshop explores planning, design, and operations of managed lanes as well as emerging research needs related to integrating managed lanes into the transportation system.</td>
<td><a href="http://www.trb.org/Calendar/Blurbs/172007.aspx">http://www.trb.org/Calendar/Blurbs/172007.aspx</a></td>
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<td>May 17-19</td>
<td>Transportation Research Board co-sponsors Road Safety on Five Continents</td>
<td>Rio de Janeiro, Brazil</td>
<td>N/A</td>
<td>The conference provides an international platform to exchange knowledge on road safety and safe mobility. This conference will focus on safety and health associated with road transportation.</td>
<td><a href="http://www.trb.org/Calendar/Blurbs/172451.aspx">http://www.trb.org/Calendar/Blurbs/172451.aspx</a></td>
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<tr>
<td>May 22-25</td>
<td>International Parking Institute (IPI) Conference and Expo</td>
<td>Nashville, TN</td>
<td>N/A</td>
<td>The IPI Conference and Expo is the largest educational and networking event for parking and transportation professionals in the world. Traditionally, more than 2,800 attendees gather for the four days for meetings, keynotes, leadership discussions, networking awards, special events, tours of parking facilities and an exhibit hall with more than 235 exhibitors.</td>
<td><a href="http://www.parking.org/meetings-events/pi-conference-expo.aspx">http://www.parking.org/meetings-events/pi-conference-expo.aspx</a></td>
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<tr>
<td>May 24-26</td>
<td>American Association of State Highway and Transportation Officials Spring Meeting</td>
<td>Des Moines, IA</td>
<td>Des Moines Marriott</td>
<td>The AASHTO Annual Spring Meeting offers transportation executives the opportunity to network and share the latest in industry policies and innovations. Hosted by the home state of the AASHTO President, this meeting includes informational sessions on relevant industry topics.</td>
<td><a href="http://mmsd.transportation.org/meetings_registration/">http://mmsd.transportation.org/meetings_registration/</a></td>
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N/A = Not Available; m = member; nm = non-member. To list your transportation conferences here FREE send all information as above to: The UTM Conference Dept., P.O. Box 12300, Burke, VA 22009-2300, or call (703) 764-0512, or fax (703) 764-0516, or email: editors@lawleypublications.com.
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<td>June 1-2</td>
<td>International Scientific Conference on Mobility and Transport</td>
<td>Munich, Germany</td>
<td>Oskar von Miller Forum</td>
<td>The mobil.TUM 2016 serves as a platform for practitioners and researchers to meet and exchange their observations, experiences, and explanations. International keynote speakers will animate the debate on core ideas and theories. The meeting aims to provide inspiration for future research directions and the implementation of successful solutions for sustainable urban mobility.</td>
<td><a href="http://www.mobil-turn.bgu.tum.de/home/">http://www.mobil-turn.bgu.tum.de/home/</a></td>
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<tr>
<td>June 14-16</td>
<td>2016 International Symposium on Enhancing Highway Performance; 7th International Symposium on Highway Capacity and Quality of Service; 3rd International Symposium on Freeway and Tollway Operations</td>
<td>Berlin, Germany</td>
<td>N/A</td>
<td>The symposium will focus on the latest research and international improvements in highway and transportation capacity, quality of service, and freeway and tollway operations. The symposium is co-sponsored by the Transportation Research Board.</td>
<td><a href="http://www.trb.org/Calendar/Blurbs/171256.aspx">http://www.trb.org/Calendar/Blurbs/171256.aspx</a></td>
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<tr>
<td>June 26-29</td>
<td>American Society of Civil Engineers 2016 International Conference on Transportation and Development</td>
<td>Houston, TX</td>
<td>N/A</td>
<td>The conference co-sponsored by the Transportation Research Board will enable attendees from around the world to discuss transportation and development projects ranging from airports to rail to highways and multi-modal facilities. The conference will consider all aspects of development from planning through design and construction to operations.</td>
<td><a href="http://www.trb.org/Calendar/Blurbs/172452.aspx">http://www.trb.org/Calendar/Blurbs/172452.aspx</a></td>
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<tr>
<td>June 26-29</td>
<td>2016 Western Association of State Highway and Transportation Officials (WASHTO) Annual Meeting</td>
<td>Laramie, WY</td>
<td>N/A</td>
<td>The Western Association of State Highway and Transportation Officials holds its annual meeting.</td>
<td><a href="http://www.washto.org">http://www.washto.org</a></td>
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<tr>
<td>July 11-12</td>
<td>11th National Conference on Transportation Asset Management, organized by the Transportation Research Board</td>
<td>Minneapolis, MN</td>
<td>N/A</td>
<td>The conference is expected to cover a broad range of topics on surface transportation modes of interest to agencies in the early stages of implementation of asset management as well as agencies that are in later stages of the implementation process.</td>
<td><a href="http://www.trb.org/Calendar/Blurbs/171403.aspx">http://www.trb.org/Calendar/Blurbs/171403.aspx</a></td>
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<td>July 22-25</td>
<td>National Association of Counties (NACo) Annual Conference and Exposition</td>
<td>Long Beach, CA</td>
<td>N/A</td>
<td>The Annual Conference provides county officials with a great opportunity to vote on NACo’s policies related to federal legislation and regulation; elect officers; network with colleagues; learn about innovative county programs; find out about issues impacting counties across the country; and view products and services from participating companies and exhibitors.</td>
<td><a href="http://www.naco.org/events/nacoc-81st-annual-conference-exposition">http://www.naco.org/events/nacoc-81st-annual-conference-exposition</a></td>
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<tr>
<td>Sept. 11-14</td>
<td>American Public Transportation Association’s Annual Meeting</td>
<td>Los Angeles, CA</td>
<td>N/A</td>
<td>The American Public Transportation Association holds its annual meeting.</td>
<td><a href="http://www.apta.com/mc/Pages/Future.aspx">http://www.apta.com/mc/Pages/Future.aspx</a></td>
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<tr>
<td>Sept. 12-15</td>
<td>“Pro Walk-Pro Bike-Pro Place” Conference</td>
<td>Vancouver, Canada</td>
<td>N/A</td>
<td>The premier conference in North America for walking and bicycling professionals from the public and private sectors. The 19th Pro Walk/Pro Bike/Pro Place in Vancouver is expected to draw 1,000 city planners, transportation engineers, public health advocates, elected officials, community leaders, and professional walking and bicycling advocates.</td>
<td><a href="http://www.pps.org/walkbikeplaces2016/">http://www.pps.org/walkbikeplaces2016/</a></td>
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