

Protected Bike Lanes in Seattle Reduces Serious Bicycle Collisions by 79%

Accidents on Regular Bike Lanes Resulted in Claims Against City

A regular bike lane on Second Street in downtown Seattle, OR experienced a number of serious bicycle accidents (involving an injury or fatality) which, in turn, resulted in claims against the City of Seattle. Recently the City paid \$3.5 million in a settlement of a fatal bicycle accident claim. A second claim went to litigation and a third was eventually closed since the claimant either chose not to further pursue the claim or was unresponsive when the City of Seattle tried to gather more information for the investigation.

The City of Seattle responded to the bicycle accidents by changing the bike lane on Second Avenue to a two-way protected bike lane (PBL) located between the curb and on-street parked vehicles. Bicycle signals were added and left turns were changed to dedicated left turns.

After the PBL installation the rate of bicycle collisions dropped by 82% and the

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*A bike signal along the reconfigured Second Street bike lanes in Seattle indicate that cyclists need to wait for a green signal, protecting cyclists from left turn vehicles.
(Photo: Courtesy of the City of Seattle)*

San Diego MTS Partners with Uber to Increase Transit Access

Initially, Partnership Limited to MLB All-Star Game and Comic-Con International Special Events

Thousands of spectators to the Major League Baseball (MLB) All-Star Game and visitors to Comic-Con International (a convention to create awareness of, and appreciation for, comics and related popular art forms) made use of uberPOOL, the carpooling version of Uber to attend these two major events in San Diego earlier this

month. Many also used a \$5 discount for an Uber ride to access transit to these two events.

Before the events, Paul Jablonski, chief executive officer of San Diego Metropolitan Transit System (MTS) explained "uberPOOL can be used as critical first-mile service to break down one of the barriers for people to access transit. With this partnership, people can leave their car at home and get where they need to go easily and affordably. It will be a great way to enjoy all the action downtown for the next few weeks."

MTS and Uber selected 20 transit

centers throughout the MTS service territory as places to pick up and drop off riders taking advantage of the partnership. uberPOOL riders enter the code UBERMTS and the discount is applied if they are picked up or dropped off at one of the participating transit centers.

The MTS will analyze the results of this effort to determine the feasibility of using a similar arrangement with Uber to ease access to and from transit stations, and therefore increase transit ridership. Looking forward, the SDMTS will not necessarily partner only with Uber but will,

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Most Important Factors for Increasing Ridership and Satisfaction Identified

Three Focus Groups and a Survey of 3,000 People Conducted

The TransitCenter (a foundation) recently completed a large study drawing on results from three focus groups and a survey of 3,000 people in 17 U.S. metropolitan areas. The study found that developing transit in walkable areas and offering frequent, fast bus and rail service are key factors for increasing urban transit ridership. The resulting report, “Who’s On Board 2016: What Today’s Riders Teach Us About Transit That Works” was published earlier this month.

The metropolitan areas used in the study had varying levels of transit development and ridership. The study also builds on the findings from TransitCenter’s first *Who’s On Board* report released in 2014—the largest-ever attitudinal survey of transit riders—which showed that Americans from coast-to-coast think about and use public transit in remarkably similar and often unexpected ways. For the 2014 study, a large online survey (11,842 respondents) was conducted across 46 Metropolitan Statistical Areas (MSAs) in the United States. The results of this survey reveal that the most important factors in de-

termining whether someone is at least an occasional transit user were:

- High population density of home neighborhood
- Being employed or a student
- Being an ethnic minority
- High-quality local transit
- High income

All of the factors had a positive influence on transit ridership, except the last factor (high income) which had a negative effect on transit ridership.

Who’s On Board 2016 also found the following:

“There are three common patterns of transit use: occasional riders who take transit once in a while, commuters who take transit regularly but only for work, and all-purpose riders who take transit regularly for multiple purposes. Transit agencies should strive to grow this third category of rider, as they are the most reliable and financially efficient customers to serve. All-purpose riders are more prevalent where it’s easy to walk to transit, and where transit is frequent and provides access to many destinations.”

Transit riders are sensitive to transit quality, not “captive” to transit. For decades, transportation professionals have talked about two kinds of transit riders: car-owning “choice riders” who use transit when it meets their needs, and car-less “captive riders” who will use transit regardless of its quality. *Who’s On Board 2016* finds that the “captivity” of car-less riders is severely overstated. People who live and work near better transit ride transit more often, whether or not they own cars. When transit becomes functionally useless, there are very few people who will continue to use it; agencies can take no one for granted.”

Who’s On Board 2016 offers several recommendations for local governments and transit agencies to improve transit service, including creating dedicated lanes to reduce travel time; improving frequency

on routes with high ridership potential; and zoning to concentrate development around transit corridors.

“There’s no magic bullet for transit, but there are some simple rules. Make it easy for people to walk to transit, put it close to important destinations, and make transit frequent, fast, and reliable,” said Steven Higashide, Senior Program Analyst for TransitCenter and leader of the foundation’s opinion research program. “Transit lines that don’t follow these rules—like commuter rail with parking lots at every station or slow streetcars that don’t connect to other transit—tend to perform poorly. Frequent transit networks in walkable neighborhoods reduce reliance on cars, spark economic growth, and create vibrant urban places.”

For more information, contact Katie Andriulli on (917) 438-4605 or at kandriulli@mrss.com.

The report is available for download here: <http://transitcenter.org/publications/whos-on-board-2016/>

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San Diego Metropolitan Transit System Successfully Partners with Uber

according to Rob Schupp, a spokesperson for the SDMTS, “integrate as many first-mile/last-mile ride-share options with transit into a seamless one point-of-purchase experience for passengers who utilize mobile ticketing.”

For more information, contact Rob Schupp, Director of Marketing and Communications, MTS, at tel. (619) 557-4511, email: rob.schupp@sdmts.com

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Columbus Wins Smart Mobility Challenge: Region Positions Itself as a Smart Mobility Center

City and 11 County Regions Are Transforming Into High-Tech Hub and Research Center for Smart Mobility and Transportation Advancements

Last month the U.S. Department of Transportation (USDOT) announced Columbus, OH had been selected as the winner of its Smart City Challenge. Columbus will receive up to \$40 million from USDOT and up to \$10 million from Paul G. Allen's Vulcan Inc. to supplement the \$90 million that the City of Columbus has already raised from other private partners. Using these resources, Columbus will, according to the USDOT "work to reshape its transportation system to become part of a fully-integrated city that harnesses the power and potential of data, technology, and creativity to reimagine how people and goods move throughout their city."

Winning this Smart City Challenge is just one of many initiatives the City and broader 11 county Region have undertaken to transform Central Ohio into a high-tech hub and research center for smart mobility and transportation advancements. Recent developments across the Region in smart mobility include:

Communities form Northwest Route 33 Innovation Corridor within the Columbus Region

The cities of Dublin and Marysville, as well as Union County, are working together to develop a 28-mile section of U.S. Route 33 to be the testing ground for autonomous and connected vehicles. Phase one (of three) – the installation of the fiber infrastructure – is scheduled to begin within the next three to six months. The fiber will be available to educational institutions and business owners along the corridor, and will also be the backbone for phase two of the initiative, the actual testing of the autonomous and connected vehicles.

Ohio State University Center for Automotive Research (CAR) Partners with Innova EUV to put 2-passenger EV City Car on Campus

Ohio State is one of several universities that will make the 2-passenger Innova



*A section of downtown Columbus, OH at the Scioto River.
(Photo: Courtesy of the City of Columbus)*

EUV available to students, reducing the need for fleet vehicles and reducing carbon footprint. Innova EUV is a manufacturer of small electric vehicles based in Burr Ridge, IL, a suburb of Chicago. Ohio State is also providing their technical expertise to assist in make the Innova UEV an autonomous vehicle. The first phase of this program has already been initiated and was demonstrated at the Global City Teams Challenge Expo in Austin, TX in June this year. The first phase completion is targeted for the end of 2016.

Honda R&D Americas Pledges "Enthusiastic Support" for Columbus' Smart City Plans

In addition to pledging its support, Honda R&D Americas is prepared to supply the City with electric and plug-in hybrid vehicles for tests and will study autonomous and connected vehicles along Route 33 between Columbus and East Liberty. Honda will help with data integration, autonomous

vehicles, connected vehicles and implementing advanced sensors and cameras at intersections, as well as provide advice on electric vehicle charging requirements and stations.

Leading Transportation Research Center (TRC)

This 4,500 acre center, with an affiliation to Ohio State University, acts as an independent automotive proving ground, allowing automakers and suppliers to work hand-in-hand with the National Highway Traffic Safety Administration (NHTSA), establishing standards and communization of new technology. It is the only site in the country that has NHTSA on-site at all times. TRC most recently worked with NHSTA on connected vehicles, testing multiple suppliers.

For more information, contact Julia F. Watts, Development Counsellors International, tel. (212) 444-7115, email julia.watts@aboutdci.com.

The Advantages of Providing and Leveraging Real-Time Transit Data

By Brandon Rivenburg, Cambridge Systematics

Information tends to drive the decision-making process in every industry or discipline, including public transit. Even the smallest agencies that are constantly squeezed economically must rely on up-to-date information to provide the best service to their ridership, while trying to increase ridership numbers at the same time. For small and large agencies alike, the best and most affordable option to accomplish these goals is GPS-based, real-time information. Readily available and easily accessible from today's web and mobile applications, agencies and riders can use this information to determine exactly where a bus is and how long it will take to arrive at a given stop, which is vital for customer satisfaction, current operations and future planning.

One of the best examples of this technology is OneBusAway (OBA), an open source software platform that provides key benefits to transit agencies. First, they can take advantage of the software without having to pay burdensome license fees or engage in long-term commitments. Sec-



Brandon Rivenburg, software development project manager for Cambridge Systematics, Cambridge, MA

ond, they can customize the app to their unique transit environment. Third, bus arrival information is available in real-time based on actual vehicle locations instead

of scheduled arrival times that can be inaccurate on a daily basis. To satisfy the needs and expectations of riders and agencies, this relatively low-cost option helps maintain and increase passenger numbers.

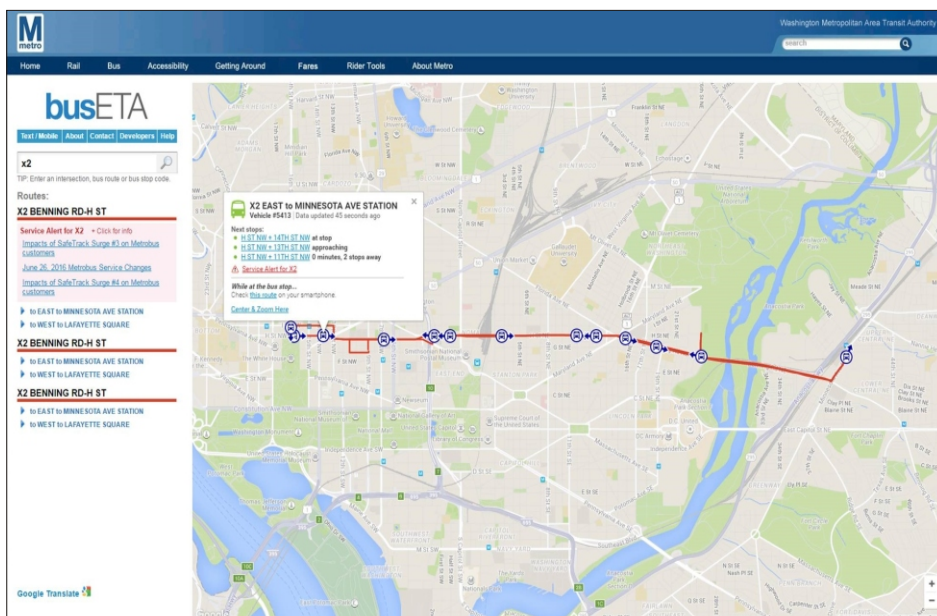
Making service more attractive

Real-time software such as OBA is one of three options available to agencies and transit companies for improving service. The other two, however, are more costly and no doubt prohibitive for many.

Option #1: Increase bus capacity. Increasing bus capacity requires agencies to purchase newer or larger buses, always a major expenditure. Aside from cost, other important factors to consider include size of the vehicle, highway geometry and regulatory limits. Any one or more of those factors could rule out the viability of increasing bus capacity regardless of need. For smaller to mid-sized agencies, option #1 often is too costly. Affordability is frequently the deciding factor for this option.

Option #2: Provide additional service. Many of the caveats listed for option #1 apply here as well. Bottom line costs will increase because added service means more drivers and likely more buses. Once again, this option results in a considerable capital outlay—a difficult proposition for agencies with limited funding resources.

Option #3: Provide better and immediate information for riders and operators. This clearly presents the lowest-cost option, and it offers invaluable, accurate and up-to-the-minute information for providers and riders. Anyone with a smart phone knows the value of GPS and the data it provides. An agency can use a GPS-based system to track the location of vehicles and other relevant data pertaining to its transit system. Also, operators can use the data for comparative analysis on time between stops, to determine whether that time should be adjusted and the resulting impact on the transportation schedule. If the software used is open-source, agencies can



A screenshot providing the estimated time of arrival of a specific bus along a Washington Metropolitan Area Transportation Authority route.. (Image: Courtesy of Cambridge Systematics)

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The Advantages of Providing and Leveraging Real-Time Transit Data

modify code to access the features they want without the burden of expensive and perhaps excessive fees associated with changes to proprietary software.

Riders can take advantage of the app to learn where the buses are and when to expect arrivals so they can plan when to come to the stop without enduring a long wait. The app is a time-saver for them and for the provider.

The impact of real-time data

“The Impact of Real-time Information on Bus Ridership in New York City” is one of several studies in some of the biggest metropolitan areas detailing how investments in information systems have yielded a “significant impact” on bus ridership. Authors Candace Brakewood, Gregory Macfarlane and Kari Watkins reported “a median increase of 1.7 percent of weekday route level ridership attributable to providing real-time information” through mobile and web-based apps. Although the percentage might appear to be modest, the authors found that “on aggregate, these increases exert a substantial positive effect on fare box revenue.”

A transit operation need not be the size of New York’s to experience similar results. One example can be found in a study conducted in Tampa, FL in 2014. Tampa, which is part of the Hillsborough Area Regional Transit Authority (HART), uses modified open-source software as the information source for its riders and the agency. The study examined use of an app for bookmarking, problem reporting and service alerts, all in real time. According to the study, 26 percent of its control group reported spending less time waiting, leading the authors to call it “a significant improvement in the waiting experience.”

Shannon Haney, intelligent information systems coordinator for HART, notes that responses remain positive from riders and the agency, which continues to grow its ridership numbers. “OneBusAway users in Tampa reported waiting nearly two minutes less than those without real-time information (and also) had significant decreases in level of anxiety and frustration

when waiting for the bus,” Haney said. “Additionally, our customer service department experienced fewer calls about ‘where is my bus’ and were able to spend more time addressing other customer needs.”

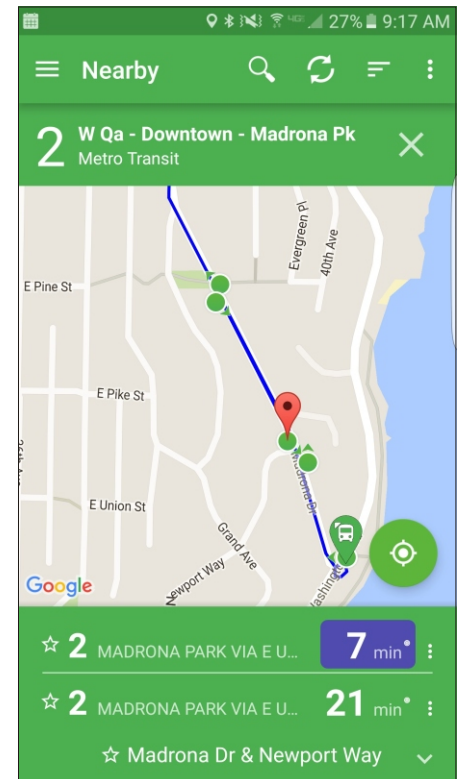
There are two factors at work here, transparency and perception, which result in a positive impact. The latter is a result of the former. As the New York and Tampa experiences document, feedback has been overwhelmingly favorable because of data accessibility, which explains its acceptance and growing use by passengers. For riders, agency transparency represents the ability to access real-time information about bus arrivals as well bus locations along the route.

Passengers are not the only ones who benefit from transparency. So does the agency, which can leverage prediction data and feedback to improve rider satisfaction. Analysis of real-time data enables the agency to evaluate operational performance metrics such as schedule adherence. Combined with other metrics, schedule adherence gives an agency insight into the effectiveness of its schedule and can help determine whether routes should be modified or if other problems need correction. The transparency of this information proves vital for every facet of an agency’s transit operations.

And that leads us to perception—how the public views the company or agency. As was the case in Tampa, perception proved to be the reality for riders who expressed their appreciation for reduced waiting times by continuing to support the system. Positive perception builds and maintains loyalty as well as reputation. A concentrated effort to support that reputation improves agency performance.

Leverage is key

The ability to leverage real-time data through the use of real-time software is more than simply an affordable choice for even the smallest of agencies. It also offers the best way to encourage and analyze feedback from all stakeholders, which is essential for analytical decision-making. Furthermore, an agency that uses open-source



A screenshot of OneBusAway on a mobile phone. (Image: Courtesy of Cambridge Systematics)

software such as OBA can easily develop a customized real-time solution that fits its unique environment, easily collects and responds to customer feedback, and maintains transparency. As experience has shown, agencies that take advantage of the data do more than maintain their current passenger numbers—they grow them.

About the Author:

Brandon Rivenburg is software development project manager for Cambridge Systematics, Cambridge, MA. Cambridge Systematics leverages technology and ingenuity to advance the world of transportation including movement of people and goods, software design and development of partnerships. Tel: (617) 354-0167, or website: www.camsys.com.

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University of Michigan to Address Access to Transit and Data Generated by Connected and Autonomous Vehicles

Significant Funds Obtained

The University of Michigan (U-M) recently allocated \$2.5 million in grants from the Michigan Institute for Data Science (MIDAS) to conduct two research projects associated with connected and automated vehicles (CV/AV). The first project, “Reinventing Public Urban Transportation and Mobility,” will design and operate an on-demand public transportation system fleet of connected and automated vehicles that will be synchronized with buses and light rail to address access problems to and from transit stations. U-M College of Engineering professor Pascal Van Hentenryck will lead this project. His project has collaborating researchers in the School of Information, Medical School, U-M Transportation Research Institute, Architecture and Urban Planning, and Computer Science.

The second project, “Building a Transportation Data Ecosystem,” will focus on creating a system that allows researchers to access massive, integrated datasets on transportation in a high-performance computing environment. Research associate professor Carol Flannagan at U-M’s Transportation Research Institute (UMTRI) will lead this project. Her project includes researchers from the School of Public Health; College of Engineering; College of Literature, Science and the Arts; UMTRI; and the Institute for Social Research.



*U-M College of Engineering professor
Pascal Van Hentenryck*

The Urban Transportation Monitor interviewed the two project managers; the questions and answers are provided below.

Reinventing Public Urban Transportation and Mobility - questions for Prof. Pascal Van Hentenryck

Question:

What are the main objectives of the project?

Answer:

The goals of the project are as follows: Showing how connected and automated vehicles together with data science are key

enablers to transform urban mobility, giving access to transportation to entire population segments which have limited mobility;

Showing that the future of transportation lies in a multi-modal on-demand transportation systems, which will solve the first/last mile problem, reducing costs and improving service by an order of magnitude;

Showing that on-demand transportation systems can improve the delivery of health-care, addressing a significant issue in health-care delivery in the U.S.;

Demonstrating that on-demand transportation systems can reduce congestion and CO2 emissions by coordinating traffic globally and using appropriate pricing mechanisms;

Showing how on-demand transportation systems and infrastructure assets can be optimized together for short-term operational performance and long-term sustainability;

Understanding how travel modes will change with on-demand transportation systems;

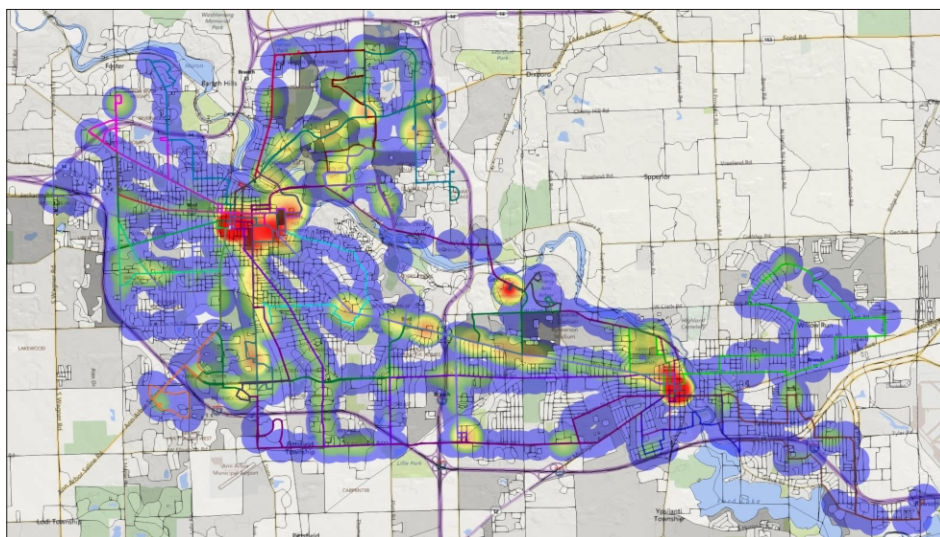
Developing the data science and IT technology to design and operate on-demand transportation systems.

Question:

What percentage of transit passengers have a first and/or last mile problem? Presently many passengers walk and enjoy the exercise, or use bikeshare or other existing transit distribution services.

Answer:

The project will explore several case studies and, in particular, Ann Arbor and Detroit. The bus ridership in Ann Arbor is substantial: about 7.5 million trips a year for the U-M campus alone. Both the University and the Ann Arbor region have well-developed and well-run bus systems. At the same time, there is also a significant number of commuters (about 30,000 cars moving to, and parking on, the campus). Mobility studies indicate a significant first/last mile problem with trips that take about 5 times longer by public transportation than by car. Biking is a transportation mode at some times of the year but student/staff travel is time-constrained



Heat map of the Ann Arbor area showing bus routes and the number of boardings in a typical day. (Image: Courtesy of Advanced Research Computing at U-M)

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University of Michigan to Address Access to Transit, Data

(in between classes) which makes biking not feasible since it will take too long. The U-M campus is organized into three separate campuses [North/South/Central] with students moving between them.

The case study in Detroit is about studying whether we can improve mobility dramatically for entire segments of the population. Car ownership is the best predictor of social mobility, and the project will explore whether new multimodal modes of transportation, combining several types of vehicles, can reduce mobility issues in Detroit for entire population segments. We are currently studying what the best setting for an experiment is in Detroit, which does not have a strong transit system.

Question:

What is the estimated cost of providing a fleet of vehicles to address the first and/or last mile problem? I assume costs include the capital costs, maintenance costs, cost of providing parking for the fleet of vehicles when they are not used, cost of traveling to and from stations, cost of providing short term parking for vehicles at convenient locations next to stations (if convenient space is available) since the arrival time of transit vehicles can vary from day to day, insurance cost, maintenance costs, cost of operational centers to monitor vehicles and respond to breakdowns, accidents, vandalism, snow removal, etc. I assume you have determined these costs and found the charge for the first/last mile service is reasonable?

Answer:

Our analysis shows that on-demand multimodal transportation systems in some prior case studies (e.g. in Canberra in Australia) may improve quality of service, address the first/last mile problem, and reduce costs by better matching the demand and the infrastructure. There is a significant difference in price between a bus and a car and the on-demand nature of the system which ensures the quality of service.

Question:

Who will supply the vehicles for the test? How many vehicles will be used? What will be tested?

Answer:

The vehicles will range from buses, shuttles, and cars to, eventually, automated cars and light rail. The goal is to complement the existing vehicles with several fleets of connected vehicles through col-

laborations with our industrial partners.

Question:

When will the project be completed?

Answer:

This is a three-year project, which will probably extend further given the excitement surrounding these studies and experiments and the commitment to mobility and transportation by the University of Michigan, the Michigan Institute of Data Science, the U-M Transportation Research Institute, and the Mobility Transformation Center.

Building a Transportation Data Ecosystem – Questions for Prof. Carol Flannagan

Question:

What are the main objectives of the project?

Answer:

The project really has three objectives: First, we are developing an integrated transportation data ecosystem on a Big Data platform that enables use of large-scale querying, analytics, computer vision, statistics, data mining, and other Big Data applications. Second, we are developing Big Data statistical methods to identify events of interest and features of the data that are important for safety or other topics. Third, we are developing a few applications based on Big Data analytics, such as personalized route choice modeling (led by Dr. Yi Lu Murphey of U-M Dearborn). The second and third goals feed back into the design of the data and computing architecture so that it will serve the needs of a varied user base. Ultimately, solving problems in transportation (and other fields) requires that we make data more readily available and enable the use of large-scale analytics. In the long run, my goal is to entice smart people to apply their data science expertise to transportation problems in this time of huge change by making it easy to use data while responsibly protecting the privacy of the subjects who helped us in the first place.

Question:

Is the “Transportation Data Ecosystem” limited to the few connected vehicles?

Answer:

The data ecosystem will contain a set of linked and linkable research datasets that will include crash data, driving data, roadway data and other transportation-related datasets. One of these datasets will be derived from a connected-vehicle test that



Professor Carol Flannagan, U-M's Transportation Research Institute

was conducted in Ann Arbor, called the Safety Pilot Model Deployment. USDOT funded the project and Dr. James Sayer, Director of UMTRI, was the principal investigator. The 3,000 vehicles in that study were equipped with the capability to send and/or receive messages using aftermarket devices, so they represented a pilot dataset of future vehicle connectivity.

Question:

What are the most urgent specific data needs that are not available today?

Answer:

Good question. I think for safety, two critical data needs would be: first, the ability to link medical outcome data to crash data at the state level—this is done in some states, but not most, and we are at a point where we need to track more than just fatalities. Preventing serious injury requires knowing what injuries are happening in what types of crashes and this is difficult with current data systems. The second critical data need is to understand what happened before and during a crash. Even the largest dataset of detailed driving data has only 100 or so serious crashes. Especially with increasing automation entering the fleet, we need a better, less expensive way to capture vehicle motions and driver actions just before, during, and after a crash. Black boxes (event data recorders) and telematic data collection offer this possibility.

Question:

What is the estimated cost to maintain the data and keep it current?

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Univ. of Michigan

We are working with research datasets that are generally static, so the ongoing maintenance cost after the infrastructure is built is not high. The more significant costs are in setting up the system in the first place.

Question:

Who owns the data originating from CV/AV vehicles? What are the privacy concerns?

Answer:

The CV dataset is housed at UMTRI. Portions of the Safety Pilot dataset are publicly available now through the FHWA Research Data Exchange.

In our datasets, two types of data are most sensitive: face video and GPS location. Part of the data science being developed in our MIDAS project is a means of measuring how well different GPS privacy measures (distortion, shifting, cutting off endpoints, etc.) successfully protect privacy and also how much they affect the researcher's analysis results. We want to minimize re-identification risk while maximizing the value of analyses using the data. This activity is being led by Dr. Kristine Witkowski from ICPSR, the Interuniversity Consortium for Political and Social Research. GPS privacy protection measures will be implemented in the data system.

Access to face video also has to be carefully controlled and requires specific permissions. However, one means of analyzing large quantities of face video while protecting privacy is to use computer vision to index face video so that researchers can use the annotations (e.g., driver looking forward, driver looking in mirror, driver looking down...) in the data rather than actually looking at the video itself. One of the key goals of our project is to build the Big Data computing infrastructure that enables and supports large-scale computer vision research with these data.

For more information, contact Dan Meisler, Advanced Research Computing at U-M (ARC)

University of Michigan Office of Research, email: dmeisler@umich.edu, tel. (734) 223-5857, website: www.arc.umich.edu

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Protected Bike Lanes in Seattle

rate of serious bicycle collisions dropped by 79%.

An average of 744 people a day now uses the protected bike lane, up from about 188 prior to its installation. A permanent bike counter was installed on Second Avenue in May 2016.

For more information, contact Dawn Schellenberg, Project Development, Seattle Department of Transportation, tel. (206) 684-5189, email: Dawn.Schellenberg@seattle.gov.



A white "ghost bike" leans against a pole memorializing a fatal bicycle accident when a truck turned left and crossed the bicycle lane on Second Street before it was converted to a bicycle track. (Photo: Courtesy of Google, Inc.)



The top photo shows the "old" bike lane along Second Avenue in downtown Seattle. The bottom photo shows the two-way protected bicycle lanes that replaced the bike lanes along Second Avenue. (Photo, Courtesy of the City of Seattle)

Transportation Tort Liability: Case in Review

State DOT Held Liable for Head-on Collision

Motorists who suffered injury in an automobile collision brought action against the Louisiana State Department of Transportation alleging that the highway in question was negligently maintained. The District Court entered judgment in favor of the motorists and the state appealed. The Court of Appeal found no apparent error in the District Courts decision and therefore affirmed the trial court's decision.

The facts of the case show that two motor vehicles were involved in a head-on collision injuring the drivers of both cars. The accident occurred when the driver of one car failed to negotiate a curve, crossed the center line and hit the other car. Both drivers filed suit against the department of transportation alleging its fault in the design and maintenance of the highway. When the liability portion was tried, the trial court found both the DOT and the driver liable for causing the accident and allocated their fault at 75% and 25% respectively.

The plaintiffs in this case alleged that the highway was defectively designed and negligently maintained at the point where the accident occurred. The trial court found that the design of the road, even if defective, was not a cause of the accident. It did find, however, that the DOT is liable to plaintiffs for its failure to maintain a reasonably safe highway. Evidence showed that fog was widespread and dense for the area at the time of the accident. Accident count reports revealed that 35 accidents occurred at the accident location between 1982 and 1992. That report further revealed that of those 35 accidents, approximately 13 were right angle collisions and two were head-on collisions. Additionally, there were several sideswipe collisions. The trial court found it clear that DOT was aware that this particular stretch of highway required attention and, thus, it had notice that the area in question presented a potential hazard to motorists.

As to the condition of the road, the trial court found that the striping at and near the accident location was inadequate. Also, the defendant failed to provide adequate markings for motorists traveling through heavy fog. Therefore, the court concluded that DOT breached its duty to plaintiffs to maintain a reasonably safe highway and

that breach was a contributing factor in causing the accident. The trial court also noted that testimony by both plaintiffs, the investigating officer, and an expert in road safety and design concurred that the paint striping was faded and inadequate and that the lack of reflectors directly contributed to the accident.

Evidence also showed there was a "no passing" sign directed to northbound traffic on the highway in question some distance before the location of the accident

but there was no corresponding solid yellow center line stripe to indicate to motorist that they are traveling in a no passing zone.

The Court of Appeals contended that the trial court's findings that a defect existed in the roadway and that the defendant had actual or constructive notice of the defect are factual finds which should not be reversed on appeal. The Court of Appeals, therefore, affirmed the judgment of the trial court.

New Practical Bike Shelter Launched

A new bike shelter for both long-term and short-term bicycle parking has been introduced by Dero from Minneapolis. The "Bike Depot" comes in fully enclosed and open options. It accommodates Dero's most space-efficient bike racks – two-tiered and vertical parking systems.

The Bike Depot's modular design allows it to meet various space requirements at transit stations and other locations. It can be enclosed with heavy-duty wire mesh and double doors to create a long-term bike station, or it can be kept open for public accessible, short-term parking. Large double doors swing out, creating an aisle to accommodate people entering the shelter with their bicycles.

There is a high-security door latch which locks using a key. A "starter" unit measures 12' by 7'6" with a height of 10'5."

For more information, contact Bri Whitcraft, tel. (651) 789-4254, email: BWhitcraft@dero.com, or visit www.dero.com.



Verticle bike parking in the Dero Bike Depot (top photo) and the Bike Depot (bottom photo). (Image: Courtesy of Dero)

Characteristics of Automated Guideway Transit - Supplement

In the previous issue of *The Urban Transportation Monitor*, we published a survey on Automated Guideway Transit. We received two additional submissions after publication which we provide below.

For more information on these two systems, please contact: Matthew Potts, Technical Expert - Rail Engineering and Asset Management, Heathrow Airport, The Compass Centre, Nelson Road, Hounslow, Middlesex, TW6 2GW, tel. +44 (0)145 441 4700, mobile +44 (0)7525 162 206, website: heathrow.com



NAME OF SYSTEM, LOCATION	Heathrow Terminal 5 Track Transit System. London Heathrow	Heathrow Pod, (Ultra Personal Rapid Transit), London Heathrow Airport
YEAR SYSTEM STARTED OPERATING?	2008	2011
LENGTH OF PRESENT SYSTEM?	0.42 miles	2.4 miles
NO. OF STATIONS IN PRESENT SYSTEM?	3	3
ARE ANY STATIONS OFF-LINE?	No	Yes
ARE PLATFORM DOORS OR SCREENS USED?	Yes	Yes
TYPE OF PROPULSION?	Electrical	Battery powered vehicles.
METHOD OF MONITORING UNAUTHORIZED ENTRY OF TRACKWAY	Glass station doors preventing access to guideway from the platforms. Doors accessing emergency walkways are monitored via AC2000 system. Alarm signal sent to APOC to initiate response. Control room CCTV monitors platforms and guideways.	Guideway fenced off from passengers. Glass doors at stations prevent entry to guideway via station access. Additionally, control room CCTV monitors guideway
NUMBER OF OPERATIONAL PASSENGER- CAR CARRYING VEHICLES	10	21
SEATING/ CRUSH CAPACITY OF VEHICLES	70/80	4/6
MINIMUM HEADWAY (SEC.)	Variable using Flexiblok system (moving block).	6.4
PRESENT WEEKDAY PASSENGER VOLUME	80,000	1,400
MAXIMUM OPERATING SPEED (MPH)	33	25
AVERAGE OPERATING SPEED IN PEAK PERIOD, STOPS INCLUDED (MPH)	31	11
BASE FARE (CENTS)	free	free (implicit in car park charges)
TYPE OF AGT SYSTEM	Airport transit system	circulator/distributor
TOTAL CAPITAL COST OF SYSTEM AND YEAR OF DOLLARS	N/A (confidential - system is private sector funded)	\$48 million (2011 dollars)
NO. OF SERVICE INTERRUPTIONS /YEAR THROUGH SYSTEM BREAKDOWN	170	68
BEST FEATURES OF SYSTEM	Automated, driverless and effective way of transporting high volume of passengers.	Passengers love the system. It is quick and easy use.
WORST FEATURES OF SYSTEM	Complexity of control system and obsolescence of spares parts.	System is too small - should be expanded.
ADVICE GIVEN TO ANY ORGANIZATION CONTEMPLATING THE IMPLEMENTATION OF AN AGT SYSTEM ?	Best way of transporting high volume of passengers.	PRT offers two-dimensional transit, rather than linear transit.

N/A = not available

* Updated system information not received for this survey

This Month's Survey Results (Survey 1)

Traffic Impact Studies - Current Practices

Earlier this month, *The Urban Transportation Monitor* sent survey questionnaires to city and county traffic engineers to obtain information and opinions on traffic impact studies.

Surveys were sent to 800 agencies. Altogether 46 responses were received, for a response rate of 6%.

The results of the survey are published here.

At present, when does your city/county require traffic impact studies ?(one or more selected)

	Percentage of Respondents
When the development generates more than a certain amount of trips per day	83%
When the city traffic engineer decides	48%
When the state environmental process is triggered	7%
City/county planning and transportation departments decide	17%
Other	35%

Respondents who selected "when the development generates more than a certain amount of trips per day" provided the following information:

The average values for those who indicated they use a threshold of trips per peak hour: 71 trips (range: 10 to 101)

The average values for those who indicated they use a threshold of trips per day: 887 trips (range: 40 to 5,000)

Other reasons/criteria used by respondents to determine if a traffic impact study is necessary (in no particular order):

More than 50 evening peak hour vehicle trips or low LOS intersection operations or known public safety issue.

The need for a study is determined by the engineers in the transportation planning section. The need depends on various factors - site plan, land use, projected traffic, existing roadway network, current operation, etc.

The development impacts an intersection by more than 100 vehicles an hour outside of the evening peak hour (evening peak hour analysis is handled by concurrency analysis conducted by the City), if safety concerns are generated, new or modified traffic control is proposed, or exceptions to city access management standards are proposed.

If the proposed development is beyond what the City has expected and already modeled for impacts, then a traffic impact analysis will be required.

Does your city/county charge a developer in filing fees and/or review fees for a traffic impact study? (one selected)

	Percentage of Respondents
No charge	37%
Yes, the charge is equal or less than \$1,000	15%
Yes, the charge is more than \$1,000 but equal or less than \$2,000	7%
Yes, the charge is more than \$2,000	7%
Other	34%

Which organization controls/specifies the "background" traffic volumes to which site-generated traffic is added? (one selected)

	Percentage of Respondents
City/county/state DOT	52%
Consultant conducting the traffic impact study	31%
MPO	2%
Other	15%

Traffic Impact Studies - Current Practices (continued)

Can consultants adjust this "background" traffic (before adding site-generated traffic)?(one selected)

	Percentage of Respondents
Yes	20%
Yes, with approval	59%
No	21%

Which of the following best describe how the size of a traffic impact study area is determined? (one or more selected)

	Percentage of Respondents
To include streets, intersections where site-generated traffic as a percentage of total traffic is larger than specified minimum	24%
Roughly within a mile from development	17%
Include arterial street and next adjacent intersection in all directions from the development	37%
Other	46%

The following responses were provided by those who selected "other."

Include intersections with 76 or more inbound or outbound trips.

In coordination with City staff within roughly a mile of the site.

Size may be expanded depending on nature of development, specific traffic types generated, concentration of site traffic usage on particular roads/intersections/routes.

Include intersections when project trip generation is 10 or more peak hour trips per any turning movement.

Based on how many trips the development generates, and can include major intersections anywhere from 1/4-mile to 2 miles from the development.

Any intersection at least collector/collector and above where the site adds at least 25 peak hour trips, all proposed site access points, and any intersections directly adjacent to the subject property.

Typically determined on a case-by-case basis.

Scoping meeting is held with the department and the limits are determined.

A VMT-based analysis is used to evaluate projects - study area is essentially citywide.

Intersection and street segment analyses are limited to streets adjacent to the project location and nearby residential areas where such areas are in close proximity.

Have you required the use of simulation as an analysis tool for assessing traffic impact, possibly for a large development with a complicated road situation? (one selected)

	Percentage of Respondents
Yes	71%
No	29%

Traffic Impact Studies - Current Practices (continued)

Please indicate whether your city/county allows reductions in trips generated for each of the following and, where possible, the maximum percentage or amount of reduction allowed:

Type of Trip Reduction	Percentage of Respondents Allowing Trip Reduction	Maximum Percentage Reduction Allowed (range of maximum percentages provided by respondents)
Transit usage	53%	2% - 40%
Passer-by trips	91%	Use ITE recommendations
Bicycle/walking trips	22%	2% - 25%
Transportation demand management	24%	5% - 32%
Internal trips for mixed-use development	87%	Use ITE methodology

Does your city/county follow up later to see if reductions allowed in traffic impact studies actually have been realized? (one selected)

	Percentage of Respondents
Yes	7%
No	84%
Other	9%

Do you allow a reduction in traffic generation rates when redevelopment takes place (eg. deduct the "old" development's trips)? (one selected)

	Percentage of Respondents
Yes	76%
No	11%
Other	13%

How often over the past year have you been forced to relax traffic impact mitigation requirements because of political/economic considerations ("to attract business to the city/county")? (one selected)

	Percentage of Respondents
Never	40%
Sometimes	56%
Frequently	4%

Traffic Impact Studies - Current Practices (continued)

Which of the following measures are mostly applied to mitigate the traffic impact of new developments in your city/county?

Measures	Percentage of Respondents Applying Mitigation Measure
Install traffic signals	86%
Provide additional turning lanes	91%
Access management restrictions	86%
Left turn restrictions	74%
Widening of roads	37%
Develop additional points of access	70%
Transportation demand management programs	37%
Relocation of driveways	72%
Contributions for unspecified street improvements	57%
Limit floor area ratio	24%
Improve transit service	20%
Other	26%

The following responses were provided by those who selected "other."

- Improve pedestrian connections (e.g., to transit)
- Limit the number of trips a site can generate, "trip cap"
- Impact fee applied
- Implement active transportation improvements
- Provide all-way stop to replace two-way stop control
- Contribution to city capital projects (roundabout)
- Contribute to Tax Increment Financing
- Modify pavement marking and signing
- Participate in neighborhood traffic management programs
- Construct roundabouts
- Install traffic calming
- Modify traffic signal phasing
- Improve bicycle/pedestrian connections
- Provide transit shelters

What major changes if any, have been made to your traffic impact study process during the past few years?

- Minimum queue storage requirements.
- We changed our peak hour factor to 1.0.
- IDOT is now asking for traffic projections prepared by our local MPO to determine growth rates. Depending on the location the MPO model and all future improvements within it are wildly inaccurate / aggressive.
- Require Synchro or HCM analysis for critical lane volumes above 1,600.
- Made TDM the priority mitigation - expanded the menu of TDM choices to include more active transportation choices - required studies to also count pedestrians and bicyclists in addition to cars.
- More emphasis on complete streets now as opposed to purely motorized traffic.
- Vehicle miles traveled and vehicle trips California Environmental Quality Act (CEQA) metrics have been adopted. Level of service (vehicular delay) is no longer analyzed as a CEQA impact.
- Tied TIA to Multimodal Transportation Concurrency requirements.
- We are not asking developers to pay for off-site improvements but asking for transportation impact fees based on square footage.
- Entire process was reorganized in 2015 to reflect change in metrics to use VMT.
- Shifting from pro-rata share mitigation towards 6-year plan improvements to traffic impact fees.
- Studying possible ways to reduce the requirement for TIA's.
- Looking at ways to give traffic engineers more flexibility.

This Week's Survey Results (Survey 2)

Transportation Humor

Earlier this month, *The Urban Transportation Monitor* conducted a survey inviting transportation professionals to describe a humorous incident they may have encountered during the course of their professional work. *The Urban Transportation Monitor* received many replies and wishes to thank those who sent in their stories. Selected submissions are published here. Enjoy!

Please describe a funny situation you can recall during your transportation career. It can be something that took place at a conference, at a citizens meeting, during a consultant interview, during an interview of a candidate for a position, on a field trip, etc.

A new way to reduce cut-through traffic!

In the neighborhood where my wife grew up, an area called Mt. Washington in Baltimore, residents of a particular corner of the neighborhood flat-out refused to have their roads improved because they wanted to reduce (if not eliminate) cut-through traffic through their neck of the woods. What resulted was an area with crumbling roads and increasingly impassable lanes. In the winter the snow ploughs would push the snow just past my in-laws' driveway and wait for the next thaw for traffic to make its way past the snowbank. I used to call the area "the hollow" because of the crumbling infrastructure and the subtropical profusion of plant life, with a stream meandering along the side of the road and under increasingly precarious culverts!

The camera is watching you!

While driving on duty, an operator wrecked her bus when she made contact with an object (never identified) which caused the passenger door and side panel to break and full-length window to shatter. The broken glass fell into the bus as well as on the ground. During all this the operator never stopped driving and apparently did not feel the air coming into the bus after the door and window were broken. Sometime during her shift she stopped to try to figure out how she would explain what happened. She decided to return to the garage and report that the bus was that way when she started her shift, not realizing that her actions were captured on the bus surveillance camera.

Unintended consequences!

One leg of a signalized intersection is a railroad underpass that can flood during heavy rainstorms. The underpass can quickly fill up, before barricades can be installed. To address this concern, the maintenance division hooked up the signal to go into flash when water is detected in the underpass. They installed signs that indicate DO NOT ENTER WHEN FLASHING. For the right turn into the underpass, they installed a sign that says NO RIGHT TURN WHEN FLASHING. One sunny day, I observed a motorist stopped in the right-turn lane at the signal. I wondered why he did not proceed. The motorist behind him honked impatiently. The driver stuck his hand out of the window and pointed to the NO RIGHT TURN WHEN FLASHING sign. Then I observed that the right turn was controlled by a flashing yellow arrow. The law-abiding driver was not turning right on the flashing yellow arrow because that's exactly what we told him to do—no right turn when flashing. We quickly switched out the flashing yellow right-turn arrow with a solid green arrow.

Those citizens!

At a public meeting I had three people telling me about a pedestrian bridge they felt was critical to the success of a project. They expressed how the bridge was a backbone to the project. After concluding my conversation with them I spoke with another citizen less than two minutes and five feet from the first, who said that bridge was the dumbest idea he'd ever heard of!

For this position you might have to be short or young or both!

Years ago, I had a faculty position interview at a highly ranked university on the East Coast. I met students and faculty members and was impressed. I finally reached the dean's office. The dean was a person of short stature. When the dean asked me to be seated, I almost hit the floor because the chair's seat level was near the floor. The dean's eye level was now much higher than mine as we sat. The expression on my face was "You got to be kidding with this psychological symbolism." The first words out of the dean's mouth was a question "Don't you think you're too old for this position?" I'll leave it to your imagination on how the interview concluded!

What all can happen during a long wait at an intersection?

During my time as the City Traffic Engineer in Casper, WY, I noticed a letter to the editor in the local newspaper from a citizen who was commenting on the operation of local signals. He wrote that he could consummate his marriage while he was waiting for the signals to change!

Transportation Humor (continued)

At least he could have shared the chicken!

Literally my first day on the job, I was conducting customer interviews at a major bus stop about service changes and soliciting general comments from the public. A gentleman complained that every evening his bus driver stopped at Church's Chicken to pick up a 12-piece bucket, leaving everyone else on the bus to wait. Astonished and a bit confused, I asked him to clarify; he reiterated the same story and said that it was a daily occurrence on his route.

A traffic engineer with a camera can make some nervous!

Several years ago (pre-9/11) when I was still a junior engineer, I was doing signal field work in Maryland near Fort Meade. I found a convenient place to pull over, grabbed my vest, my clipboard and a camera (Polaroid at the time) and walked over to the traffic signal. It just so happens that this traffic signal was adjacent to the National Security Agency (NSA). They were clearly nervous to see someone with a camera walking around at the entrance to the property because within five minutes of my arrival, I was quickly surrounded by over a dozen officers, all with hands on weapons cautiously approaching me. Once I explained what I was doing, most of the officers left but at least two stayed watching me to make sure I didn't take any pictures towards the property. I remember that the last thing I was told by my boss before I left the office was "Don't forget to bring your ID with you."

Can a charming personality be enough?

During an interview of candidates to supervise a handicapped transportation service, one of the candidates was asked about his experience in providing such a service. The candidate replied he did not have any experience in providing this service, then added that he worked effectively with supervisors who also had no experience, because of his charming personality in providing effective handicapped transportation for everyone!

Putting your foot in it!

One time I stopped to investigate an unauthorized lane closure on a collector roadway. The lane was closed using one cone and one barricade without any advance warning. I wasn't sure why the lane was closed. As I approached the men working on the shoulder I walked onto the sidewalk and immediately my foot sunk into wet concrete. I guess that is why they closed the lane. I didn't give them a citation for the lane closure however; my co-workers' laughter and the laughter from the maintenance crew broke the tension of a potentially serious issue. The only harm done, besides the sidewalk needing to be refinished, was a hurt ego and a soggy shoe!

Observing chickens can lead to a transportation research paper!

My career in transportation engineering started when I was in fourth grade, and I still remember it clearly: My friend Greg said to me, "Why did the chicken cross the road?" I was thunderstruck. I paused, considered carefully. Well, let's figure out the situation here as there must be a rational reason. This is presumably on a farm. The coop is on the other side of the road. The chicken may have crossed over earlier, while foraging for bugs, and perhaps it's time to go back to the coop and lay an egg. I was devastated when Greg punched me, saying "To get to the other side!" and I realized it was a joke. This led to the publication of my research paper "An investigation into avian-vehicular conflicts at unmarked crosswalks."

Bigfoot lives on!

A recent project I have been working on is located in a rural area of Cook County, IL. The project is being overseen by the Illinois Department of Transportation (IDOT) and is replacing a bridge crossing over a waterway. There have been reported 'sightings' of Bigfoot in the area over the course of the last 10 years. This information has been shared with all personnel involved with the project and is now a huge hit with all the IDOT PMs and Director. It is routinely brought up in coordination meetings.

What you experience when you work for a transit agency!

I worked in a city whose NFL team had just won the Superbowl. This team, the St. Louis Rams, was noted for the bob-and-weave whenever there was a touchdown. A week after the Superbowl, there was a downtown parade and celebration that required extensive re-routing of buses. It was bitter cold. I was working as an ambassador with another employee, and we were frozen to the point where we could barely feel our feet. We continued to give bus detour information to people at key bus stops, but at one point five huge guys surrounded us. We didn't know what they were going to do until they grunted and rocked the bob-and-weave with us in the middle. It lasted for about five seconds and they went howling off into the sunset, exuberant in their celebration of the Rams victory.

Transportation Humor (continued)

An unusual location for humor!

I'm on a team that creates safety messages on our Interstate variable message signs. We display a fatality count (not funny) and then a safety message (more often funny). The messages are displayed one day per week, and we have done it for three years now. You might have seen some of our messages on the internet: "GET YOUR HEAD OUT OF YOUR APPS", "MAY THE 4TH BE WITH YOU_TEXT I WILL NOT", "YOUR MOM CALLED, ARE YOU BUCKLED?" The list goes on. In the 150 weeks we have been doing this, we have repeated only two or three messages. Our messages are "one and done". We get satisfaction, and more play on our messages, when we give them to other states to use. We have also done numerous interviews on TV (local and national) as well as presentations to various groups. I can provide the entire list if you call or e-mail me, or Google "Willy Sorenson Message Monday Iowa DOT" and check out previous stories or select images to see our signs. Willy, tel. (515) 239-1212.

Be careful what you ask for!

One funny situation I found myself in was when I was consulting a senior transportation engineer for advice on where to place traffic control devices (i.e. signage), and I ended up receiving lots of redlines on my plan set, suggesting changes to not only the transportation design, but also the civil and electrical design as well!

It is not only how many but how effective!

At a conference on ITS, presentations were given about local ITS systems. Speaker after speaker got up and described their system. They would each say "We have X number of cameras, X number of ramp meters, X number of changeable messages signs" and so forth. Finally a speaker got up and said "What we have here at this conference is a serious case of SYSTEM ENVY.....my system is bigger than your system, but how well do they work???"

It takes a few questions!

I called the local transit company to enquire about renting a bicycle locker at my local station. The discussion with the customer service representative went something like this: Q: Do you have bike lockers for rent at Pleasant Hill station? A: Yes. Q: Do you have one available to rent? A: No. Q: Do you have a waiting list? A: Yes. Q: Could you put my name on the waiting list? A: Yes, but there isn't much point. These lockers very rarely become available. At that point I decided it would not be feasible to ride my bike to the station regularly.

REQUESTS FOR PROPOSALS

1. Traffic Safety Programs for Youth And Older Adults

Agency:

City of San Leandro, CA

Deadline:

August 16, 2016, by 5:00 p.m.

Contact:

Julie Jenkins Purchasing Agent, email: juliejenkins@sanleandro.org

Website:

<http://www.sanleandro.org/civicax/filebank/blobdload.aspx?BlobID=25593>

Description:

RFP NO. 55623

The City of San Leandro was awarded a California Office of Traffic Safety (OTS) grant in spring 2016 and seeks qualified transportation consultants to conduct youth (i.e., K-8 school students) and older adult (i.e., seniors aged 65 or older) traffic safety education programs. Programming for these two populations should begin October 1, 2016 and should conclude by September 30, 2017. Grantees conduct traffic safety rodeos and presentations in an effort to build students' skills and demonstrate proper practical application of those skills. To boost compliance with the law and decrease injuries, safety helmets are properly fit and distributed to children in need for use with bicycles, scooters, skateboards, and skates. There is a special emphasis on programs designed exclusively for the hard-to-reach populations. Additional outreach endeavors include programs targeting the senior population along with a multicultural approach to address safer driving and walking behaviors.

2. Parking and Traffic Study

Agency:

Tri-County Regional Planning Commission, Peoria, IL

Deadline:

August 12, 2016, by 4 p.m.

Contact:

Ryan Harms, tel. (309) 673-9330, email: rharms@tricityrplc.org

Website:

http://www.tricityrplc.org/files/TCRPC_East_Peoria_Four_Corners_RFP.pdf

Description:

Washington Street Four Corners Parking and Traffic Study

Tri-County Regional Planning Commission requests proposals from qualified firms to provide professional planning services for the development of a Parking and Traffic Study for Washington Street in the Four Corners District of East Peoria, Illinois.

Tri-County Regional Planning Commission (TCRPC) is located in Peoria, Illinois and is the Metropolitan Planning Organization (MPO) for the Peoria-Pekin Urbanized Area. TCRPC has delegated its MPO responsibilities to the Peoria-Pekin Urbanized Area Transportation

Study (PPUATS). As the MPO, PPUATS receives transportation planning funds from the US Department of Transportation. A portion of the FY17 allocation has been set aside for this project. The budget for the project is \$28,500. All work related to the project must be completed by June 30, 2017.

The project is a parking and traffic study of the Washington Street corridor in East Peoria, Illinois, beginning at the terminus of the East Peoria Levee District improvements (east of Spinder Dr) and ending at the intersection with Springfield Road. The City wishes to extend the New Urbanism of the Levee District to revitalize the historic urban center. The purpose of the Study will be to define ways to create a pedestrian-friendly, landscaped corridor with improved access to mass transit and improved nearby parking for adjacent businesses around the historic Four Corners District. The Project will identify potential improvements that will:

Serve the mobility needs of motorized and non-motorized users;

Increase safety for motorized and non-motorized users;

Encourage economic growth within an urbanized area;

Promote consistency by continuing the New Urbanism of the Levee District; and

Reduce fuel consumption and air pollution by providing accommodations for pedestrians and cyclists.

3. Non-motorized Wayfinding Study

Agency:

Tri-County Regional Planning Commission, Peoria, IL

Deadline:

August 12, 2016, by 4 pm, CST

Contact:

Ryan Harms, tel. (309) 673-9330, email: rharms@tricityrplc.org

Website:

http://www.tricityrplc.org/files/TCRPC_Tazewell_Co_Wayfinding_RFP.pdf

Description:

Non-motorized Wayfinding Study, Tazewell County, IL

Tri-County Regional Planning Commission requests proposals from qualified firms to provide professional planning services for the development of a Non-motorized Wayfinding Study for four communities in Tazewell County, Illinois: East Peoria, Morton, Pekin, and Washington.

This project is a wayfinding analysis for non-motorized recreation trails within East Peoria, Morton, Pekin, and Washington, Illinois. Planning for pedestrians has become standard for any road construction project and citizens are increasingly finding trails to be a necessity to enhance their quality of life. The analysis from this project will allow for current and future users to more safely and efficiently

use the existing systems, identify potential new routes, and create a brand that can be used throughout the region. Such a wayfinding plan has not been completed in Tazewell County and may serve as a prototype for other areas throughout the state. The project will impact tens of thousands of residents and visitors and will provide a positive impact on economic development.

No GIS services will be required from the selected consultant, as all four co-sponsoring agencies have pledged mapping support from their respective GIS departments.

4. Short Range Transit Plan

Agency:

Tulare County Association of Governments, CA

Deadline:

August 10, 2016, by 5:00 p.m.

Contact:

Kasia Thompson, TCAG Associate Regional Planner, tel. (559) 623-0465, email:

ktompson1@TulareCOG.org

Website:

<http://www.tularecog.org/wp-content/uploads/2016/07/RFP-Porterville-Short-Range-Transit-Plan-2016.pdf>

Description:

2017 City of Porterville Short Range Transit Plan

The Tulare County Association of Governments (TCAG) invites the submission of proposals by qualified consultants to prepare the City of Porterville's 2017 Short Range Transit Plan (SRTP). This plan will provide a framework for the continuing development of transit services in Porterville over the next five years. The SRTP will include an operational analysis including fare structure, fare box ratio, and ridership figures for the system. The SRTP will evaluate future system scenarios and recommend equipment acquisitions while taking into account the economic feasibility, timing and locations of the fixed route service. The SRTP and supporting documents will develop goals, objectives, and performance standards as described in the 2016 Triennial Performance Audit, address any unmet needs, service impacts related to funding sources, or changes in service to meet federal and state requirements. The SRTP will evaluate transit provided and identify and quantify current unmet demands for services. The guiding document will also define the goals, objectives, and service standards of the system for a five-year period, creating a capital and financial plan for the transit system.

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

CONFERENCES

DATES	CONFERENCE AND SPONSOR	CITY	VENUE	MAIN TOPICS	WEBSITE /CONTACT INFO
2016					
July 30-Aug. 3	2016 ACT International Conference	Portland, OR	Hilton Portland & Executive Tower	Wide range of transportation demand management, transportation options, mobility on-demand, shared use mobility, public policy, and commuter transportation services	http://www.actconf.org/index.cfm
Aug. 4-5	Transportation Planning and Air Quality (ASCE, AWMA, FHWA, Minnesota Department of Transportation)		Crowne Plaza Minneapolis Northstar Downtown Hotel	The conference will focus on the theme of "The Changing Landscape of Transportation and Air Quality: Confronting the Challenging at the Global, Regional, and Local Scales." Topics include multimodal passenger transportation and air quality issues, greenhouse gas emissions reduction strategies, emissions and air quality impacts of alternative fuels, innovative vehicle and information technology solutions to transportation air quality, and more.	http://register.extension.iastate.edu/2016tpaq
Aug. 8-11	Mid America Association of State Transportation Officials (MAASTO) Annual Meeting	Minneapolis, MN	Radisson Blu Minneapolis	Measuring the Impact of Transportation Investments; Transportation Finances and Efficiencies; Multi-Modal Approach to Project Planning and Programming Optimizing Freight Networks	http://www.dot.state.mn.us/maasto2016/index.html
Aug. 14-17	ITE 2016 Annual Meeting & Exhibit (Institute of Transportation Engineers)	Anaheim, CA	Anaheim Marriott	Connected Vehicles: Irrelevant in an Autonomous World?; Did You Set Yourself Up for Failure: Making Multimodal Work; Farewell to Level of Service: The California Way; Is a Round Peg Right for a Square Hole?; Creative Concepts in Intersection Design; Measuring Up: Performance Management Tools; Opening a Window into Global Design Practices; Promoting Healthy Communities Through Active Transportation; Ready or Not...Self-Driving Vehicles Coming to a City Near You; Saving the Earth: Making Communities Better through Transit; The Traffic Impact Study is Dead – Long Live the Transportation Impact Study; Vanishing Point: Vision Zero; Do You Need an Alternative (Road) Diet? Complete Streets Choices, and more	http://www.ite.org/annualmeeting/about.asp
Aug. 27-30	Southern Association of State Highway and Transportation Officials (SASHTO) 2016 Annual Meeting	White Sulphur Springs, W.VA	The Greenbrier Resort	Learn new strategies to successful leadership in transportation. Identify the latest industry trends and how to implement them. Share ideas with other innovative transportation experts. Exchange critical insights with your peers in 13 other departments of transportation	http://www.sashto.org/2016-wv.html
Sept. 11-14	American Public Transportation Association's Annual Meeting	Los Angeles, CA	N/A	The American Public Transportation Association holds its annual meeting.	http://www.apta.com/mc/Pages/Future.aspx
Sept. 12-15	"Pro Walk-Pro Bike-Pro Place" Conference	Vancouver, Canada	N/A	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..	http://www.pps.org/walkbikeplaces2016/
Sept. 25-28	2016 Transportation Association of Canada Conference and Exhibition	Toronto, Canada	Sheraton Centre Toronto Hotel	Conference will highlight efficient transportation principles, but a wide variety of topics are covered such as Moving Smarter in Canadian Cities; Safely Managing Road Users; Next Generation Regional Corridor Management; Cross Asset Analysis and Optimization – Solutions for Informed Decision Making; Managing Social Media throughout Project Life Cycle – Opportunities and Challenges.	http://tac-atc.ca/en
Sept. 26-29	Designing Cities 2016 (NACTO)	Seattle, WA	Conference Center, downtown Seattle	Key trends in urban street design and transportation policy.	http://nacto.org/conference/designing-cities-conference-seattle-2016/

DATES	CONFERENCE AND SPONSOR	CITY	VENUE	MAIN TOPICS	WEBSITE /CONTACT INFO
Sept. 26-28	International Conference on Demand Responsive Transportation	Breckinridge, CO	The Village at Breckenridge	The conference will provide an opportunity for paratransit professionals from around world to discuss ideas and trends in the areas of technology and communication, industry partnerships, service concepts, innovation, Americans with Disabilities Act compliance, health and wellness issues, and performance measurement.	http://www.cvent.com/events/international-conference-on-demand-responsive-transportation-paratransit-from-dial-a-ride-to-technol/event-summary-48d24ee261da4c3e97a2d3dc1e32c7e1.a.spx
Oct. 5-7	European Transport Conference (Association For European Transport)	Barcelona Spain	Casa Convalescencia,	The range of topics and the multi-seminar approach makes ETC unique among transport conferences held in Europe. The Conference program covers supra-national issues, national and local policy, and the implementation of projects at a local level. Issues of key importance are picked out each year for special examination and will be introduced in daily plenary sessions.	http://etcproceedings.org/
Oct. 10-14	ITS World Congress 2106 (Hosted by ITS Australia)	Melbourne, Australia		Congress theme will be "ITS – Enhancing Liveable Cities and Communities". The Congress will bring together 7,000 global ITS professionals for a comprehensive program with hundreds of speakers, an exhibition, equipment demonstrations and technical tours.	http://www.itsworldcongress2016.com/
Oct. 25-28	AMPO Annual Conference	Fort Worth, TX	The Worthington Renaissance Fort Worth Hotel	Bicycle / Pedestrian Planning; Coordination and Collaboration with Key Partners; Environmental Justice/Limited English Proficiency Plans (LEP)/Title VI; Disadvantaged Business Enterprise Certification; Freight; Funding and Financing, and other topics	http://www.ampo.org/call-for-presentation-proposals/
Nov. 3	2016 Research Conference (University of Minnesota)	Minneapolis, MN	The Commons Hotel	The conference convenes researchers and practitioners from Minnesota and the Upper Midwest to highlight new learning, emerging ideas, and the latest innovations in transportation. Attendees will learn about research findings, implementation efforts, and engagement activities related to a variety of transportation topics.	http://www.cts.umn.edu/events/conference/2016
Nov. 11-15	AASHTO 2016 Annual Meeting	Boston, MA	Westin Boston Waterfront	One of the industry's most important gatherings of transportation, government and commercial organizations. The Annual Meeting offers transportation executives the opportunity to network and share the latest in industry policies and innovations.	http://www.cvent.com/events/aashto-2016-annual-meeting/event-summary-9344e8b1e22f4b53bf63915679566912.aspx
Nov. 16-19	National League of Cities City Summit	Pittsburgh, PA	David L. Lawrence Convention Center	Smart cities, drones, autonomous vehicles	http://citysummit.nlc.org/
2017					
Jan. 8-12	TRB 96th Annual Meeting	Washington, DC	Walter E. Washington Convention Center,	The meeting program will cover all transportation modes, with more than 5,000 presentations in nearly 750 sessions and workshops,	http://www.trb.org/AnnualMeeting/AnnualMeeting.aspx
April 10-12	International Congress on Transport Infrastructure and Systems (AIIT, the Italian Association for Traffic and Transport Engineering)	Rome, Italy	N/A	The objective of the AIIT International Congress TIS Rome 2017 is to promote transport as a growing industry, and its current significance. The Congress provides a forum for discussion, interactions and exchange among researchers, scientists and engineers whose fields of interest are transport and infrastructure engineering. The congress is organized by the Italian Association for Traffic and Transport Engineering AIIT founded in 1957. The meeting program will cover all transportation modes, with more than 100 presentations in sessions and workshops, addressing topics of interest to policy makers, administrators, practitioners, researchers, and representatives of government, industry, and academic institutions.	http://tisroma.aiit.it/
Sept. 24-29	11th International Conference on Transport Survey Methods	Estérel, Quebec, Canada	L'Estérel Resort in the Laurentians region of Quebec	N/A	http://www.hksts.org/ictsc.htm