# THE COMPREHENSIVE

THE GREEN MACHINE: SUSTAIN-ABILITY IN FORM, FUNCTION AND

**VOLUME 53 ISSUE 1** 

**NEWSLETTER OF THE ILLINOIS SECTION** INSTITUTE OF TRANSPORTATION ENGINEERS.

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#### PRESIDENT'S MESSAGE

by Sara Disney Haufe



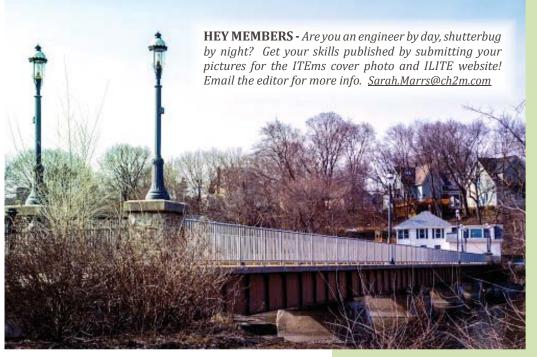
The beginning of the year is always a busy time for ITE - and 2014 is no different! Here's just a brief peek at what the Illinois Section has been up to so far this year.

#### **Annual Banquet**

The Section's Annual Banquet was held in mid-January at Moretti's Banquets in Chicago's Edison Park neighborhood. The evening began in a very transportation-appropriate way with a group Metra ride from Ogilvie to the site of our festivities. All who joined us on that snowy evening were rewarded with a delicious dinner, great company, and a spirited auction to benefit our scholarship fund. The Annual Banquet always brings out enthusiastic young members and our most

venerated veteran members alike, and we greeted one of each with special honors. Dave Zavattero, Deputy Director of the Chicago Department of Transportation, was presented with the Past Presidents Award for his contributions to the industry and to the transportation systems we use in our daily lives, while Chris DeRosia was presented with the Young Member Award just before officially beginning his term as our new Vice President! International Director Shawn Leight (of the MOVITE Section) flew up from St. Louis to join us for the evening, and to describe him as impressed by our Section would be an understatement!

At the conclusion of the evening, we had a new Executive Board in place: Chris DeRosia (VP), Mike Phan (Secretary), Tracy Shandor (Treasurer), Jessie Slaton (Activities), Erik Cempel (Public Affairs), John Wirtz (Operations), Ryan Jacox (Student Affairs), Josh Harris (Technical), and - last but not least - our Immediate Past President, Chad Hammerl. The work that Chad has done to bring regional and national exposure to the Illinois Section is no secret, with his immensely successful oversight as the co-chair of the 2012 Midwestern District Conference & TRB Urban Streets Symposium in Chicago. Luckily for us, he will continue



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#### **Railroad Technologies** Geared for Sustainability and Innovation

By Joe Mullich / for the Dow Jones advertising department

Railroads have always lubricated the sides of tracks to reduce wear and tear on wheels and locomotives, but sometimes when a train was chugging up a steep hill, the lubricant would cause the wheels to spin and stall. The solution: Solar-powered dispensers pump a different substance—a friction modifier-- on the tracks as a train approaches.

"This new technique reduces wear but also provides adequate friction so the wheels don't slip," explains Wick Moorman, CEO of Norfolk Southern Corporation, one of the nation's largest freight railroads. "There are technology projects—big and small—in the freight rail industry that are contributing to more and more efficiency."

While some might think of trains as "old fashioned," the reality is the rail industry has been a pioneer of the

digital age and a leader in technological advances, such as sensors that can detect when wheels and tracks are about to give out from stress. Railroads were an early adopter of technologies like radio frequency identification (RFID), which uses tags and radio waves to track the flow of trains and cargo. Now, the industry is jumping on developments like wireless sensors to provide better information on train movements to improve efficiency and safety, while reducing greenhouse emissions.

"The freight rail renaissance is in full flower. A lot of it is being driven by IT and the ability to have better planning tools by using real-time information," says Tony Hatch, a transportation analyst for more than a quarter century.

For example, locomotive engineers can now turn to an onboard, GPS-based computer system that tells them the optimum throttle, speed and brake settings to achieve maximum fuel efficiency. This system takes into account the train's length and weight and provides recommendations on how to operate the train based on

Continued on page 3

#### DOT chief: Increase, not 'level off,' highway funding

#### By Keith Laing. www.thehill.com/blogs

February 20, 2014, 03:30 pm. Transportation Secretary Anthony Foxx said Thursday that lawmakers should stop focusing on trying to refill the trust fund that pays for road and transit projects.

Instead, Foxx said in a speech to the U.S. Chamber of Commerce, lawmakers should train their efforts on coming up with a new funding source for transportation projects altogether.

"For years, our national dialogue has focused on how to get the Highway Trust Fund leveled off," Foxx said. "To translate that into business terms, we've been trying to reach the same level of sales revenue and expenditures as the last year instead of growing revenue and expenditures to meet customer demand."

Foxx said the problems that have led to an approximately \$20 billion annual shortfall in transportation funding will only get worse as the U.S. population increases and cars become even more fuel efficient.

"The plain fact is that the gas tax is spinning off less and less revenue," the Transportation chief said. "Meanwhile, we're anticipating 100 million new people in the country and 4 billion more tons of international freight to move around America by 2050. Less revenue, more people, more freight, more gridlock. This is not a good formula for success.

"We should stop aiming just to get the Highway Trust Fund level again," he continued, "We should aim to cut into a bigger piece of our infrastructure deficit by investing more — now."

Foxx was speaking at a "Transportation Infrastructure Summit" that was hosted by the Chamber of Commerce in Washington.

The summit was hosted as Congress is debating a renewal of the 2012 surface transportation bill that is scheduled to expire in September. The measure is traditionally funded by money from the 18.4 cents-per-gallon federal gas tax, but the expiring version contained nearly \$20 billion in annual infrastructure spending than the approximately \$34 billion

> per year that is brought in by the gas tax. The chamber has pushed Congress to increase the gas tax for the first time since 1993, joining with labor groups in a rare show of agreement.

#### President's Message continued from page 1

to represent us well into 2014 as a member of the inaugural class of LeadershipITE. Not only will he be sharing his wisdom from this leadership congress with us quarterly in ITEms, but he'll also continue lending his advice and expertise to the Illinois Section's planning committee for the 2016 Midwestern District Conference, chaired by Erik Cempel. (And between you and me, I think they have a few other tricks up their collective sleeve that will be revealed to us in good time - stay posted!)

#### E-Week and Student Outreach

ITE members have been focusing more and more on reaching out to young students in order to pass on the good word about engineering and STEM careers. As a part of the Illinois Section's sponsorship of the Excellence in Transportation Safety and Operations Award at the Chicago-area Future City Competition, Chris DeRosia and Garrett Vandendries helped judge the competition on January 25th, which you can read more abou page 13. New member Kelly Dunne was able to draw on ILITE resources to present to students on transportation engineering at DuPage Engineers Week on February 22nd, detailed on page 11 Meanwhile, I was lucky to represent the Section at the Chicagoland Engineering Awards Benefit. This year's event was a



Chicagoland Engineering Awards Benefit. Left to right: Tracy Shandor, Chris DeRosia, Bill Nye, Erik Cempel and Sara Disney Haufe.

popular one, owing largely to the presence of the guest of honor and Washington Award recipient Bill Nye, The Science Guy. In his acceptance speech, he spoke about the importance of engineering in changing the world for the better, as well as his platform issues of climate change and the importance of perpetuating science education. His inspirational speech captivated professionals, but was mostly aimed at the several dozen elementary, middle, and high school students in attendance that evening. The chance to promote the transportation engineering

industry and support the students who would pursue it is a basic tenet of our organization. If you should ever encounter an opportunity to further this goal, please get in touch with your Illinois Section Board to let us know what we can do to help!

#### **Making ILITE Your Own**

As you may have noticed, the Illinois Section Executive Board distributed a brief membership survey at the end of last month. We are asking for your feedback on how the Illinois Section has been working for you – and how we can do it better.

our organization."

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Things change fast in our industry, as we were reminded during an excellent ILITE luncheon presentation on Connected and Autonomous Vehicle Technology by Steve Kuciemba on February 20th. Steve's cutting-edge presentation brought so many new faces and a stimulating question-and-answer session, and it inspired us to make sure the entirety of our Section provides you that level of value and motivation. If you haven't already, please tell us how we can make the Illinois Section work for you by filling out the survey at this link (https://www. surveymonkey.com/s/WY2DRLC). This is just the first step in my overall goal of improving the Section's connection to its members – be on the lookout for what we do next!

In the meantime, come join us at our next events: a presentation on the Cook County Long-Range Transporta-SAVE THE DATE! tion Plan on March 20th (a joint event with ISPE and ASCE) and our Annual Student Day Event at IIT on March 28th. I hope to see you there!





2014 Annual ILITE Banquet.

Foxx did not specifically endorse the proposal to increase the gas tax, but he said the Chamber of Commerce's President Tom Donohue had "guts" for suggesting it to Congress during a recent hearing.

"Your president, Tom Donohue, went up to the Hill last week and told Congress what a lot of people in this town don't have the guts to tell Congress — that it was time to show a little courage," Foxx said.

Republicans have criticized Foxx, as well as his predecessor, Ray LaHood, for calling for increasing transportation funding without offering specific ideas for providing the revenue, as Donohue told lawmakers last week raising the gas tax would do.

Foxx said he and President Obama believe enough money can be found to pay for more transportation funding through tax reform, but he said he was also open to other ideas like Donahue's gas tax proposal.

"Now, at DOT we happen to believe that we could pay for infrastructure with the savings from tax reform," Foxx said. "But I would much rather see a national debate about how — rather than whether — we're going to tackle our infrastructure deficit. That's why I'm glad Tom is standing up — we absolutely agree that Congress is going to have to show a little political courage to fix this problem. Their courage increases when core constituencies like all of you tell them it's OK to figure this out. It's actually the fiscally responsible thing to do."

Foxx told his audience at the Chamber that it was important for Congress to not simply reauthorize the current transportation bill, which is known as Moving Ahead for Progress in the 21st Century (MAP-21).

"We have a surface transportation bill that will expire, and we need to go further than technical corrections to MAP-21, we need a bill that reshapes the transportation landscape for the 21st Century, building on MAP-21 but going further."

The expiring transportation bill was passed by Congress in 2012 after a series of short-term extensions of the prior road and transit funding package was scheduled to expire in 2009.

MAP-21 was shorter than most federal transportation bills have been. Congress used money from other areas of the federal budget to close the gap between gas tax revenue and the amount of infrastructure spending that was deemed necessary in 2012, but lawmakers were only able to cobble together enough funding for two years, instead of the five or six years that have historically been the duration of federal transportation bills.

Transportation advocates have pushed to return to a longer measure this year, arguing that a five- or six-year bill would provide certainty to state and local governments that plan their infrastructure projects based on the possibility of receiving federal money to help with high costs.

The Congressional Budget Office has projected that it will require \$100 billion in addition to the \$34 billion that is brought in annually by the gas tax to enact a six-year transportation bill this year.

#### Railroad Technologies continued from page 1

hilly terrain, curves and other track conditions.

"We've always known the questions we'd like to have answered quickly, but they were enormously complex questions," Moorman says. "As the cost and memory of computing resources approach zero, we can bring an enormous amount of technology to bear and get meaningful answers to these kinds of problems."

Consider the RailEdge Movement Planner, the railroad industry's version of a next-generation air traffic control system. It gathers data about train schedules, traffic control systems and the movement of trains relative to each other over a huge span of tracks. By crunching all that information, the system can optimize travel plans for the train, down to telling the engineer the best speed to travel at any given moment to keep the best overall flow.

As a result, freight trains increase their average speed as much as four miles an hour. That might seem a trivial amount, but in the freight world every one mile-per-hour translates into \$200 million a year in capital and expense savings. Another way of looking at it: a railroad running 20 trains a day between New York and Washington, D.C. could increase that to 23 trains a day with RailEdge simply by better utilizing the existing track more productively.

Moorman paints this picture: "When you get on a plane, fly into a terminal and make the connection on an airline, all they have to do is get you there on time and provide the flight number and gate number. When you have freight cars going into a yard from four different directions, the logistics are much more complicated." He equates the situation to "effectively running an assembly line 20,000 miles long out-of-doors," adding, "We rely on technology to find the most effective ways to move freight cars with the least amount of fuel burned."

Not all innovations in rail are technological, however. As in all industries, some efficiency solutions rely on innovative thinking and good common sense. For example, trains that transport paper products from mills have historically returned to the mills empty. A Norfolk Southern pilot project found a cost-effective, eco-friendly way to make better use of those returning trains: loading them with scrap paper that the mills use in their recycled paper.

# Highway Interchanges to Public: "Sustainably Size Me!" By Robert Bielaski, P.E.



Expressway Interchange. Artist unknown.

Our infrastructure projects need to deliver a product that serves our needs and performs its function as space efficiently as possible. If an airport needs 1,000 acres to be functional, then it shouldn't be given a 10,000 acre home. If 2-car trains can carry the peak demands of the morning commute, then the transit agency shouldn't run 20-car trains just because it can. Similarly, an interstate highway interchange should not be allotted 150 acres when it can be functional with much less.

The side by side, same scale comparisons of three interstate highway interchanges in the Chicagoland area illustrates the vast differences in land consumption associated with the interchange ramps.

All three are all-directional interstate highway interchanges that accommodate all vehicles. So, in theory, any of the geometries could have been implemented at any of these locations. (Acknowledging that current stormwater management ordinances require detention and BMPs for new projects that previous generation interchanges did not need to accommodate)

Interchange A resides on 137 acres more than Interchange C. Those 137 acres are now on the public books, will generate no tax money, and will require public maintenance in perpetuity. It is, in essence, a public liability that needs to be funded. Had the interchange been reduced in size, these 137 acres could have been kept as private land, put on the tax rolls, and generated property tax instead.

It is understood that the benefit used to justify the geometry of Interchange A is that motorists will have the ability to safely navigate the ramps of the interchange without the need to slow the vehicle significantly to make the maneuver. The AASHTO manual, and therefore design decisions, have prioritized maximizing speeds and reducing delays above all else. While these objectives are very worthy (and no doubt have financial value), they need to be balanced with analysis by politicians and high level decision makers who understand that the value of increased speed at highway interchanges comes at a cost. The cost of 70mph highway interchange ramps is lost money (money paid to acquire an additional 137 acres), increased maintenance liability, and lost property tax revenue. That's a huge cost to pay, but nobody actually makes an active decision to pay the cost. "70mph Ramps" was chosen by default due to the structure of the decision making process.

Unfortunately a decision making process where everybody does their job correctly ends with a project that may not be optimal.

- Elected officials trust the DOT (and its hired consultants) to build safe roads for the public.
- The consultant designs an interchange (preferred geometry) that meets the criteria laid out by AASHTO.
- The NEPA process identifies environmental impacts associated with the preferred geometry.
- $\blacksquare$   $\;$  FHWA and IDOT ultimately make design decisions to balance the preferred geometry with impacts.

Everybody does their job right, but not all of the right people are on the job. There is no real estate consultant asking what are the opportunity costs of using the land for an interchange? There is no the public finance consultant asking how much annual tax revenue is being sacrificed by having the land as an expense on the public ledger instead of privately owned land generating revenue.

Why aren't elected public officials presented with options for the interchange?

Governor, we would like to present you with Interchange Options A, B, and C; and here are the benefits and liabilities that come along with each. Here are the safety features, projected

traffic delays, up front construction costs, annual maintenance costs, expected life cycle costs for replacing infrastructure, land consumption, and opportunity costs of using the land as part of the interchange\*.

A parcel of commercial real estate immediately adjacent to Interchange A changed hands for \$130k/acre in 2011. Even using the depressed real "Even using the depressed real estate values of 2011, Interchange A could have been built to look like Interchange B at a savings of \$9.7M or like Interchange C at a savings of \$17.8M in land costs alone."

estate values of 2011, Interchange A could have been built to look like Interchange B at a savings of \$9.7M or like Interchange C at a savings of \$17.8M in land costs alone. Now let's add the \$225K in 2013 property tax revenue that the 17.7 acres of commercial land generated







Interchange Options. Graphic courtesy of Robert Bielaski.

(per DuPage County Assessor). I'm certain that Grade School District 113 appreciated the \$75K that came their way in 2013 from this modest sized parcel alone. At \$12.7k/acre/year of property tax, \$1.74M/year would have been generated with 137 acres of land used for commerce instead of highway ramps. That's \$575K/year that the local grade school could have had at their disposal.

No matter how much biofuel and recycled materials are used during construction, an infrastructure project cannot be considered sustainable if it is wildly overscaled. At present, designers of highway interchanges start with the most overscaled design possible (by doing their job and following the AASHTO guidelines) and only change it if negative impacts are uncovered. I propose that the initial interchange design should be the most economical, land-conserving design while maintaining safety requirements. Then, if enlarging the interchange can be justified after being vetted by economic, environmental, and political processes, so be it. And when it's all said and done, a suburban interchange probably should not be designed with the urban footprint of Interchange C. But there's no reason it needs to use any more land than Interchange B.

"No matter how much biofuel and recycled materials are used during construction, an infrastructure project cannot be considered sustainable if it is wildly overscaled."

\*For the purposes of focusing on land use, I have avoided bringing up the additional construction costs in building, maintaining, and replacing oversized interchanges (the ramp from westbound I-55 to southbound I-355 is a full 1.5 miles long!). These costs will forever loom over the state as the interchange deteriorates and needs repair and replacement.

Members, if an article in ITEms grabs your interest, Send your thoughts to the editor:

Sarah Marrs. Sarah.Marrs@ch2m.com

Refer a friend! The Illinois Section will send a complimentary issue of ITEms to your friend or business acquaintance who may be interested in joining ITE. Email the contact information to the editor at: Sarah. Marrs@ch2m.com. The contact will be provided membership information and acknowledgement of your referral.

Do you have a news-worthy story? Tell ITEms all about it! Send your article submissions to the editor:

Sarah Marrs. Sarah.Marrs@ch2m.com

Robert Bielaski is a site development engineer with SPACECO, Inc. The opinions expressed in this article are his alone and in no way reflect the position of SPACECO.

## **Breaking News**

## Tollway aims for I-90 'smart corridor'

By Marni Pyke. Posted February 19, 2014 to www.dailyherald.com

Come 2016, drivers on the Jane Addams Tollway (I-90) should receive advance real-time information about blocked lanes, crashes and congestion via a series of electronic message signs.

Known as active traffic management or a "smart corridor," the new technology involves gantries placed every half-mile that display short alerts about traffic, speeds and alternate routes.

It will also advise motorists if Pace express buses are using the shoulder or if vehicles can use the shoulder in certain cases.

The improvements are being installed on I-90 between the Kennedy Expressway and Barrington Road as part of the Illinois tollway's widening and rebuilding project on the Jane Addams, officials said Wednesday. It should ease traffic flow and improve safety, officials said.

The changes should allow the tollway to "leverage more capacity of the roadway as a result of building it right," tollway Executive Director Kristi Lafleur said.

Staff at tollway headquarters will check cameras and traffic sensors to "monitor the road more dynamically," Lafleur added.

For example, drivers "might have the opportunity to pass under two to three different signs: first, warning if there's an accident; then, signaling them to get over to the next lane; and finally, there might be a symbol directing traffic not to use that lane at all."

Similar technology has been used in Europe, resulting in an up to 7 percent improvement getting vehicles through congested areas faster. There's also been a 3 to 30 percent decrease in traffic incidents, such as crashes, and an up to 50 percent drop in secondary incidents that typically involve a vehicle hitting another vehicle that's already stopped, officials said.

The tollway picked the Kennedy Expressway to Barrington Road section since it's the most congested area on the Jane Addams, but there's the potential to extend the system to Huntley, Lafleur said. The rollout is expected in late 2016 when the widening project is completed.

"We're going to learn a lot from this," she said, noting that there's interest in expanding the technology elsewhere on the system.

The catch is, installing sensors and cables underground involves tearing up pavement. The agency intends to rebuild portions of the central Tri-State in the near future, which makes it a candidate for a "smart corridor" makeover, Lafleur said.

The messaging will cost about \$17.8 million to install. Annual costs are estimated at about \$757,800 involving \$436,800 for maintenance and \$321,000 for operations, including three additional employees.



# UPS Expands Alternative-Fuel Fleet 32% With 1,000 Propane Trucks

By Mary Schlangenstein. Posted March 5, 2014 4:30 AM CT to www.bloomberg.com

United Parcel Service Inc. (UPS) said it will spend \$70 million to buy 1,000 delivery trucks powered by propane and build 50 fueling stations as it expands one of the largest private alternative-energy fleets in the U.S.

The trucks will replace gasoline- and diesel-powered vehicles in rural areas of Louisiana and Oklahoma, with future expansion to other states, according to plans the Atlanta-based company will make public later today. Propane is cheaper and burns cleaner than those traditional fuels.

The propane trucks will expand by 32 percent the company's global fleet of 3,150 alternative-fuel and advanced-technology vehicles, which includes electric, hybrid electric and compressed and liquefied natural gas models. UPS operates more than 96,000 vehicles to deliver small packages.

"Propane is less volatile than gasoline or diesel, it's nontoxic and is a clean-burning fuel, which is what got us very interested," Chief Operating Officer David Abney said in an interview. "It's really ideal for rural areas and locations where we have smaller fleets."

Propane costs about \$1.25 to \$1.50 a gallon less than gasoline or diesel and gets similar mileage, Abney said. UPS may consider expanding its U.S. propane-vehicle fleet, in part depending on the expense for fueling stations, he said.

The company already operates about 900 propane-fueled vehicles in Canada.

The trucks are being built by Daimler AG (DAI)'s Freightliner unit at a plant in Gaffney, South Carolina. Production will begin by mid-2014 and be completed early next year, UPS said.

#### Test Run

The new vehicles are expected to travel more than 25 million miles (40 million kilometers) and displace about 3.5 million gallons (13.3 million liters) of gasoline and diesel a year, the company said. UPS decided to order the trucks after testing 20 this past winter in Gainesville, Georgia.

"The opportunity to road-test new propane vehicles and fueling equipment with one of the most sophisticated fleets in the country is a major milestone for the propane industry," said Roy Willis, chief executive officer of the Propane Education & Research Council. The Washington-based group joined with UPS and equipment makers to get U.S. Environmental Protection Agency certifications for the project.

The group helped develop the vehicles' engine, fuel platform and chassis, along with Clean-Fuel USA of Georgetown, Texas, and Powertrain Integration of Madison Heights, Michigan.

The use of alternative-fuel and new technology vehicles is part of UPS's effort to reduce emissions and dependence on fossil fuels while improving efficiency.



## 2014 Sustainable Transport Award Finalist: Buenos Aires, Argentina

Avenue 9 de Julio. Photo courtesy of IDTP.

Buenos Aires, the capital and largest city in Argentina with a population of three million, implemented several impressive sustainable transport projects in 2013. For its success promoting urban mobility, reducing emissions, and improving safety, Buenos Aires is a finalist for the 2014 Sustainable Transport Award.

In 2013, the city launched two new corridors of their BRT system, Metrobus: the 23 km corridor of Metrobus Sur and the 3.5 km corridor of 9 de Julio. In addition, the city has transformed dozens of blocks in city center into a pedestrian-friendly environment, encouraging walking and cycling, and plans to continue this process in the next year. These changes are bringing big changes to Buenos Aires and promoting a culture that prioritizes people over cars.

Avenue 9 de Julio, known as the "widest avenue in the world" with more than 20 lanes of car traffic, has undergone an impressive "transit makeover" in the last year. The city replaced car lanes with bus-only lanes and created a high-quality, median-aligned bus corridor with 17 stations, accommodating 11 bus lines and improving travel for 200,000 passengers per day. Although the project was often politically difficult, the results are speaking for themselves: across the board, passengers have reduced their travel time by an average of 30 minutes per bus ride. It used to take more than 40 minutes to cross the city. Now it takes an average of 14.

The 9 de Julio Avenue corridor project is part of a citywide Sustainable Mobility Plan initiated in 2009. The plan includes the pedestrianization of more than 100 blocks of the Microcentro area, an extension of the public bicycle share system, a 300 km bicycle-lane network, interventions prioritizing pedestrian activity and public transport, traffic calming and road safety infrastructure, and a sweeping on-street parking-reform project planned for 2014 that will incorporate best practices from around the world to combat illegal parking and improve traffic flow.

In addition to the 9 de Julio corridor, Buenos Aires opened the Metrobus Sur BRT corridor in September 2013. Metrobus Sur runs in two branches, General Roca and Fernandez de la Cruz, with an interchange Puente La Noria with Constitution transport hub. The BRT has 32 stations, and carries 250,000 passengers per day.

Metrobus Sur's designated lane will benefit 21 other bus lines. Residents of the eight neighborhoods along the corridor have already seen a 20 percent commute time reduction, a reduction in traffic noise and pollution, and the project is expected to have a development impact on these neighborhoods for years to come.

Since 2005, the STA has been given annually to a city that has implemented innovative and sustainable transportation projects in the past year. These strategies must improve mobility for all residents, reduce transportation greenhouse and air pollution emissions, as well as improve safety and access for cyclists and pedestrians.

The 2014 finalists will be honored at a reception at the Washington Hilton International Ballroom on January 14, 2014, during the Transport Research Board annual conference in Washington, DC.

Past winners of the Sustainable Transport Award include: Mexico City, Mexico (2013); Medellin, Colombia and San Francisco, United States (2012); Guangzhou, China (2011); Ahmedabad, India (2010); New York City, USA (2009); London, UK (2008); Paris, France (2008); Guayaquil, Ecuador (2007); Seoul, South Korea (2006), and Bogotá, Colombia (2005).

This article was posted on the Transport Matters Blog of the Institute for Transportation & Development Policy. See it here: <a href="https://go.itdp.org/display/live/2014+Sustainable+Transport+Award+Finalist%3A+Buenos+Aires%2C+Argentina">https://go.itdp.org/display/live/2014+Sustainable+Transport+Award+Finalist%3A+Buenos+Aires%2C+Argentina</a>



## A Review of the ASCE Webinar: Innovative Bicycle **Facility Treatments**

by Josh Harris



On February 19th, the Illinois Section of ITE hosted a Snack and Learn for the ASCE Webinar: Innovative Bicycle Facility Treatments. Charlie Alexander, P.E. and Rick Plenge, P.E., PTOE of Fehr and Peers Transportation Consultants spoke on the newest innovations in the bicycle facility design practice. The downtown Jacobs Engineering office kindly offered the use of a conference room for viewing the webinar.

Mr. Alexander started the webinar by explaining that bicycle facilities could be described into three categories: Traditional, Innovative Corridors, and Innovative Intersections. To understand why innovative bicycle facilities are necessary, one must understand the benefits and importance of bikeways. Using bicycle trips instead of car trips costs less, reduces traffic congestion, increases air quality, improves social equity, enhances regional economics, and promotes a healthy lifestyle for the user. He went on to explain that trip lengths in most of the U.S. are short enough to walk or bike and that countries that have a high percentage of bike trips have a lower percentage of obesity. The problem that studies in the U.S. have found is that most bicycle facility users are not comfortable with the facilities available to them. A designer must use innovative facilities to persuade the interested but concerned user to use the facilities. Innovative bicycle facility guidance can be found in NACTO's Urban Bikeway Design Guide, AASHTO's Guide for the Development of Bicycle Facilities, the Dutch Design Manual for Bicycle Traffic (called the CROW), City Street Design Manuals, and State DOT Bicycle Design Manuals. Some of the material in these guides are considered by FHWA to be in the experimental status.



\*Hey section members, get involved! Open positions are listed on page 19. To volunteer on an IL-ITE committee, contact the group's director.

After discussing the bicycle facility guidance, Mr. Alexander and Mr. Plenge illustrated the bicycle facilities by showing sample bicycle facilities that are located throughout the U.S. As previously discussed, innovative bicycle facilities can be separated into two categories: corridor facilities and intersection treatments. Innovative corridor facilities include bike boulevards, advisory bike lanes, contra-flow bike lanes, left-side bike lanes, buffered bike lanes, and cycle tracks, while intersection treatments include bike signal head, enhanced pavement markings, bike detection, bike boxes, and bike roundabouts. Each facility and treatment has specified design criteria and considerations. It is important to note that all facilities and treatments are tools for design and one design does not fit all circumstances. Designers should use the bicycle facility guidance and make sure that public input is included in the design decisions to ensure the facilities are safe. The thought is that when the public concludes that the bicycle facilities are comfortable and safe to the users, the public will use the facility as a viable transportation option.

At the conclusion of the webinar, members discussed the possibilities of using the innovations discussed and the bikeway design guidance and principles to be used in the Chicagoland region. Although the webinar was scheduled only weeks after the NACTO Webinar and a day before the Section Luncheon, the webinar was well attended. The Section thanks all the participates that joined us.

Continue to keep your eyes peeled for upcoming seminars, viewings, and learning sessions hosted by the Technical Group!



#### Transportation Research Board

#### Sustainable & Resilient Infrastructure

TRB ADC60 Committee Waste Management & Resource Efficiency SUMMER WORKSHOP!!



TO REGISTER **PLEASE VISIT** www.trb-adc60.org

Topics Include but not limited to:

"Recovery & Resiliency" "Climate Adaptation" "Sustainability" "Stormwater Management" "Green Infrastructure" "Liability Management" "Sustainable Accounting Standards"

"Environmental Management Systems" "Renewable Energy" "Resource Efficiency" "Waste Management"

"Recycle, Reuse, Repurpose, Regenerate"

"Environmental Training"

Submit ABSTRACTS to davesoltis@verizon.net no later than April 2, 2014. Any questions please contact Thomas Abdallah, P. E. LEED AP Chief Environmental Engineer MTA New York City Transit at Thomas.Abdallah@nyct.com

## **Illinois Section Group Reports**

#### Student Affairs by Ryan Jacox

#### SCHOLARSHIP, STUDENT PAPER, AND STUDENT CHAPTER AWARDS

At this year's Illinois Section Annual Banquet, held on January 17th at Moretti's in Edison Park, Chicago, the Illinois Section presented two general scholarships and a paper award to students pursuing an education in transportation engineering at an Illinois university. The ITE Illinois Section Scholarship is presented annually to encourage students to consider transportation engineering or planning in their studies and as a potential future career. The goal of the scholarship is to provide partial financial support to students who have demonstrated an interest and are likely to work in the transportation field upon graduation. The scholarships, in the amount of \$2,000 each, are provided to one graduate and one undergraduate student matriculating in Illinois to be used as they choose. This year, among many highly qualified applicants, Monica Shei was selected as the graduate winner and Anmol Shrivastava as the undergraduate winner. Monica is a graduate student in Transportation Systems Analysis and Planning at Northwestern University. Anmol is a senior working toward a Bachelor of Science in Civil Engineering at the University of Illinois at Urbana-Champaign.

In addition, the annual ITE Illinois Section Paper Competition was held. The winner of this year's competition was awarded \$1,000 and will have his paper submitted to represent the Illinois Section in the ITE Midwestern District's Daniel Fambro Student Paper Award Competition. Eligible applicants to the Illinois Section's Paper Competition must be student members of ITE, enrolled in a graduate program in Illinois, and must be the sole author of the submitted paper. The paper is evaluated on its originality, potential to contribute to the field of transportation, technical and textual report structure, technical soundness, and capacity for real-world application. This year's Paper Competition winning paper was submitted by Kivanç Avrenli, a Ph.D. student at the University of Illinois at Urbana Champaign. The title of his paper is "From Yesterday's Three- and Four-Engine Airliners to Twin-Engine Airliners: Are Bird Strikes More Hazardous for Today's Twin-Engine Aircraft?"

Finally, the University of Illinois at Urbana-Champaign was presented with the ITE Student Chapter Award. This award is a check in the amount of \$150 presented to the student chapter that has the most scholarship applicants. The award can be used by the ITE Student Chapter in a manner that they see fit, including assisting monetarily in throwing a chapter event. We hope that this annual award will help stimulate participation in the annual Scholarship Competition by all of our student chapters!

#### SAVE THE DATE! ITE Student Day (Friday, March 28, 2014)

The ITE Illinois Section will hold their annual Student Day on Friday, March 28, 2014 at the Illinois Institute of Technology. The event is held each year for local university undergraduate and graduate students in transportation planning and engineering disciplines and is free for students to attend. Student Day consists of a career fair followed by a roundtable luncheon. Students are provided the opportunity to interact with ITE members and other local industry professionals. Professionals are encouraged to share their diverse experiences, answer career questions, and provide valuable advice from their perspectives. Companies desiring to exhibit at the career fair portion of the event can do so for \$50. This includes admission to the luncheon for one employee. Professionals can attend the student lunch for \$20 (ITE Members) or \$25 (Non-ITE Members). Registration for students,

exhibiting companies, and professionals can be done via Eventbrite at the following link:\_https://www.eventbrite.com/e/ite-illinois-section-2014-student-day-tickets-10587408223.

See flyer on page 14.

#### **Activities** by Jessie Slaton

On January 17, 2014 we held our ITE Illinois Section Annual Banquet at Moretti's Banquets in the Edison Park neighborhood of Chicago, Illinois. There were over 50 attendees! ITE International Director Shawn Leight addressed the attendees with news from Headquarters at the district level. Illinois Section Past President John Mick honored the Section by installing the new officers for 2014. In addition to installing our new officers, we distributed two student scholarship awards each in the amount of \$2,000 and a student paper award in the amount of \$1,000.

The 2013 Illinois Section Past President's Award was presented to Mr. Dave Zavattero for his service to the Illinois Section in addition to the transportation engineering profession. The 2013 Illinois Section Young Member Award was presented to Chris DeRosia, and the Illinois Section will sponsor his attendance at either the 2014 Midwestern District Meeting in Rapid City, South Dakota, or the 2014 International Meeting in Seattle, Washington. At the Annual Banquet, the donations of several groups, a raffle, and the live/silent auction raised \$1,705 to help fund future scholarship awards.

#### **Operations** by John Wirtz

It's a new year, which means it's time to renew your ITE memberships. For Affiliate Members, we are behind on sending out invoices because we have been working on a way to pay electronically instead of by mail. We should be getting invoices out in the next couple of weeks, so please look for that. We would also like you to help us recruit new members. Encourage the young transportation engineers in your office to get involved in the Section. An Affiliate membership is a great value (\$20 / year) and an easy way to get started in the Illinois Section before becoming a full member of ITE International. Membership applications are online at <a href="http://www.ilite.org/">http://www.ilite.org/</a> under the "How to Join" link.

As a reminder, the Illinois Section is now broadcasting the technical presentations at Section meetings via GoToMeeting. We really want everyone in the Illinois Section to be able to take advantage of technical activities, even if you can't make it in person, so please look for upcoming meetings in your e-mail.

Speaking of e-mail, we recently transferred all of our contacts to several Google Contacts lists. We think everything went smoothly, but want to be sure. If you are not receiving e-mails from the Section and want to, or if you are receiving e-mails and do not want to, please contact me at <a href="mailto:john.wirtz@jacobs.com">john.wirtz@jacobs.com</a>, and we will edit our lists.

The Operations Group is also beginning work on updating our Section website. In addition to a fresh look, we hope to simplify the navigation and integrate with our existing social media accounts (i.e., Facebook, Twitter, and LinkedIn). The goal is to have something new up and running by the end of March. Please check <a href="http://www.ilite.org/">http://www.ilite.org/</a> for updates.

# A Review of the NACTO Webinar: Urban Street Design Guide - Changing the DNA of City Streets by Garrett Vandendries

Streets Are
Public Spaces

Great Streets are
Great for Businesses

Be Changed

Design for
Safety

Streets are
Ecosystems

Act Now!

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Figure 1. USDG Core Principles.

On January 28th, the Illinois Section of ITE hosted a Lunch and Learn around the viewing of the NACTO Webinar: Urban Street Design Guide - Changing the DNA of City Streets. David Vega-Barachowitz of NACTO, Ryan Russo of NYC DOT, Gary Schatz of the Austin Transportation Department, and Jamie Parks from the City of Oakland spoke on various aspects of the USDG, including the guide's background and motivating principles, various lessons learned, and a new look at design controls. CMAP graciously donated use of a conference room for a centralized webinar viewing in Chicago's Loop.

Mr. Vega-Barachowitz opened the session by providing context for the development of the USDG, which was first published in September 2013. A recent and influential catalyst for the guide's development was NACTO's own

Urban Bikeway Design Guide, originally published in early 2011. This publication, one of the first to utilize a 3D design presentation and approach, really paved the way for street design at a city level. While many previous manuals focused in large part on suburban and highway standards, the UBDG sought to balance public space. The success of this guide kindled a focused and refined approach for NACTO's newest publication, the Urban Street Design Guide. Here, design controls are intended to work towards design, not against it. An emphasis is also placed on the criticality of context and a need for designers to both respond to, and understand, their environment.

The USDG is primarily based on six core principles (see Figure 1 above) the first of which is that Streets are Public Spaces. Streets belong to us all, and should be treated in a way that balances benefit and considers all context. Great Streets are Great for Business, and new metrics and measures for streets in the 21st century can help businesses thrive. Streets Can Be Changed. They are opportunities, not roadblocks. The fourth principle is that we must Design for Safety and be mindful of all users of our streets and urban environments. It's also important to recall that Streets are Ecosystems and should embrace the environment and surroundings, not repel them. Finally, we must Act Now! There's no better time than now to set a foundation of future development and to start embracing the urban environment with mindful street design.

Ryan Russo continued the NACTO USDG presentation with an exploration of New York City's lessons learned from projects between 2008 - 2013. The overriding theme here was to Act Now! and remember that urban ecosystems demand complete pedestrian networks. As not only designers but also inhabitants of our urban environments, we must position for future development by laying the groundwork today. According to Russo, quick actions are more important than nicer render-

ings, meaning that it's better to take advantage of an opportunity than to delay while awaiting the perfect moment, complete funding, or finalized design.

Other exemplary design decisions made by NYC DOT included the merging of bike and vehicle turn lanes at Grand Street to enhance visibility across transportation modes,

and the reclamation of dead/lost space on the West Sixth Street project, where a focus was placed on scoping the work to match both "place and street." Designs can be very efficient, and engineers should design for all users at all hours, and do it today. Lastly, take opportunities to repurpose other/extraneous space on the roadway, and find ways to eliminate expendable movements for all means of transport.

The Austin Transportation Department's Gary Schatz delved into a discussion on intersections and how we define a functional roadway. He highlighted the need to recognize and identify the technical variations that occur in the way that different people define a lane's width, what normal operations means, and how using a standard, or "menu," can be helpful in some design cases but a detriment in others.

Gary highlighted that NACTO's guide offers intersection design considerations that can help designers go beyond traditional intersection design methodology by selecting cross sectional and intersection elements based on desired functionality while letting principles and context inform designs. He highlighted a complex Texas intersection, featuring offset roadways, an island, and an angular bisecting railway, to show where "typicals" can fall short and NACTO's USDG can facilitate/encourage innovate design solutions . Gary also continued on to show how Austin has successfully employed a number of different USDG strategies, including the tightening of corner radii at intersections, utlization of interim sidewalk widening and curb extensions, and creating bus bording islands and protected bike lanes.



Jamie Parks concluded the presentation by highlighting the Urban Street Design Guide's Design controls section in the context of his work at the City of Oakland. It's important to note that the Design Controls section is intentionally located at the end of the USDG. Again, this is a part of the USDG's emphasis on design controls working towards your intended outcome, not against it. In order to broaden design objectives, challenge traditional assumptions, and take responsibility for the outcomes of your design, Jamie spoke on the 5 following design controls:

- 1) Design for Safety/Speed: Slow moving objects cannot be eliminated from streets, so we must ensure that in designs these are incorporated and accommodated, not isolated. Higher speeds = higher crash risk = higher injury severity = lower safety.
- 2) Design Vehicle: Because cars and trucks have very different effects on design, the USDG recommends that a standard delivery truck be used for design simulations.
- 3) Design Hour: Peak hour design based on the peak 15 minutes is the most typical analysis period,





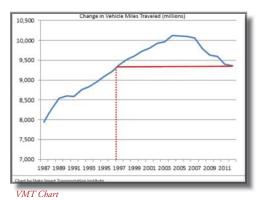
but limits your sample size. NACTO recommends assessing beyond the peak hour or 15 minutes and identifying peak spreading opportunities. Also consider the various transport needs at different hours; mobility in the morning, pedestrian needs during midday/lunch, and a neighborhood emphasis in the evening.

- 4) Design Year: It's time we reassess what we really know about future traffic demands, including the 2040 metric. Recent trends show a steady decline in VMTs over the past 10 years, and that we currently sit at a VMT volume equivalent to 1997. New constraints on vehicle demand seem to be presenting themselves after 20+ years of unconstrained growth. We must adapt our projection methodologies and be sure that we don't design far beyond capacity and ignore policy goals, or as Jamie refers to it, "Designing for Dystopia."
- 5) Performance Measures: What is the definition of failure? The A-F LOS scale obscures the need for balancing many objectives. Traditional methodologies largely forget transit, pedestrian crossing, and bikes, often not accommodating the need for greater delays for pedestrians. They don't consider person delay or other goals. Instead, Jamie proposes potential new/reassessed performance measures such as delay per vehicle, crashes per mile of highway, or mode split targets. Consider measuring the street by safety and places, and recalling that

Design for Safety. safety is complimentary. After all, we are dealing with networks of

transport, not single points of analyses.

At the conclusion of the webinar, members and public sector guests enjoyed a wonderful discussion on the implications of the USDG, practicality and concurrence of its implementation, the rethinking of conventional traffic projections, and the exciting challenges that face us in today's design world. It was another successful ILITE Technical Group webinar, and unfortunately the final one hosted by (now former) Director Erik Cempel. A big thanks to Erik for all his hard work overseeing the group in recent years, and we all look forward to working with Joshua Harris at the helm in 2014 and beyond!



Continue to keep your eyes peeled for upcom-

ing seminars, viewings, and learning sessions hosted by the Technical Group! In the meantime, you can purchase a copy of NACTO's Urban Street Design Guide at many major online retailers and at <a href="https://www.nacto.org/usdg/">www.nacto.org/usdg/</a>. For a limited time through this link to Island Press you can use the promo code 4NACTO for 20% off your purchase of the USDG!

# **DuPage E-Week** by Kelly Dunne



Bob Dunne demonstrates the Barbie Car. Photo courtesy of Kelly Dunne.

Illinois ITE participated in the 30th annual DuPage Area Engineers Week Expo held on Saturday, February 22 at Illinois Institute of Technology's Wheaton campus. This event is geared towards children in K-8th grade and allows young minds the opportunity to experience and explore the many fields of science and engineering through interactive displays and presentations. Professional societies such as the Illinois Society of Professional Engineers, American Institute of Chemical Engineers, American Society of Mechanical Engineers, Institute of Electrical and Electronic Engineers, Society of Manufacturing Engineers, Society of Women Engineers, Structural Engineers Association of Illinois, and several others put on exhibits showcasing their specialties for aspiring young engineers. Other fun and educational presentations included Fun with Physics, ZOOM Into Engineering, Ask an Engineer, Computer History, and the very popular Mr. Freeze Cryogenics Show. Hundreds of children and their families were able to experience a wide breadth of engineering and science thanks to these displays, presentations, and interactive challenges.

The Illinois ITE exhibit was held in conjunction with the LEGO Robotics event and carried out by ITE member Kelly Dunne and her father, Bob. LEGO Robotics utilized the LEGO Mindstorms kit so that students could build vehicles, equip them with sensors, and program them to travel without any external human control. A modified, self-driving Barbie Car was demonstrated to inspire students with the notion that they were all capable of using their own creativity and ingenuity to design something extraordinary. Participants also viewed a presentation that described the path to a career in transportation planning and engineering, put together with help from Erik Cempel, Tracy Shandor, and the Chicago Engineers Foundation. This presentation highlighted what transportation engineers do, who hires them, the type of work done, a sample project with innovative technology, and scholarship opportunities available from Illinois ITE.

Civiltech Engineering contributed several Phase I exhibits from the preliminary engineering study for a grade separation of U.S. Route 14 at the CN/EJ&E Railway at-grade crossing in Barrington. By seeing the details of an exciting project, the children were able to picture a prospective career in traffic and transportation engineering. Kelly was on hand to answer questions about working as a transportation engineer, the educational path leading up to it, and involvement with ITE. Many parents were interested in connected and autonomous vehicles, a topic covered at the recent February Luncheon.

Next year's DuPage Area Engineers Week Expo will be held on February 28 and Illinois ITE hopes for repeated success and the enrichment of hundreds of aspiring engineers.



#### Future City Competition 2014: Transport in TranCity! by Garrett Vandendries

Each year, in mid-January, the Future City competition's regional finals come through Chicago! Along with that comes the opportunity to witness the future of the infrastructure world. The regional competition is a culmination of months spent by junior high school teams working with an engineering mentor to create a city of the future. They develop a comprehensive presentation. computer model, physical model, and essay to showcase their interests, abilities, and thoughts of how a successful city might operate in the future. Included in their design process is an assimilation of technological advances necessary to compete economically and provisions to promote livability

for residents. Once again, I was fortunate enough to serve as a special awards judge alongside our Section's Vice President, Chris DeRosia, and hand out ITE's Special Award for Excellence in Transportation Safety and Operations.

This year's competition was as challenging to judge as ever, especially with many of the teams so capable of responding thoughtfully to the judges' on-the-spot inquiries. With rapid technological advancements ever-present, students have countless resources at their fingertips. The physical models continue to be the main tool used by students to display their ideas, with the computer models helping to guide new ideas, new methodologies, and forward-thinking presentations. Both mediums helped a number of schools flex their transportation muscles. St. Thomas Middle School's global railway and underground pedestrian system was wellthough out. The Immaculate Conceptions School's "Clearyville" - a utopia named after their inspirational late teacher, Mrs. Cleary - contained varied and robust transportation methodologies. St. Clair Junior High even designed their own car, the PPV 3000!



Future City Competition 2014. Photo courtessy of Bob Johnson.

In the end, we ultimately chose Miles Davis

Magnet Academy's "TranCity" as the winner of the ITE Special Award. The team not only developed and spoke to a broad network of transportation systems, but they considered trip type, length, and destination when getting users safely to their destination. The "TranCity" team specifically wanted their systems to adapt and respond to context, and focused on something that many other teams overlooked: the human element. To them it was critical that their system, and city in general, focused on not only safe transport, but protected transport. They wanted riders of the subway

to enjoy their trips free of harm, to develop roadways that responded to lighting and weather conditions in order to facilitate safe travel, and to ensure that public safety officials set new standards for preventing and repelling public safety issues in the pedestrian network. Ultimately, TranCity was all about optimizing transportation to function for, and in favor of, its citizens.

It was another year to celebrate the great accomplishments and months of hard work by these future engineers, architects, planners and developers. Through mentorship programs such as this, regional youth are able to explore concepts well beyond their years. Their curiosities are piqued with limited constraints, and their minds are free to tackle complex engineering issues. With youth on their side, these students are shaping the future of our cities!

# 2014 Annual TRB Meeting: A Report

by Vig Krishnamurthy

This year, my experience at TRB happened to define itself around one theme: turning point. Though I have attended TRB for a few years now, it was my first as an employed young professional. As a graduate student, TRB was really a place for me to feast on ideas and engage in intellectual debates on the issues. But from the other side of the room I really appreciated the way that TRB brings together the "thinkers" with the "doers," and presents so many opportunities to bring the leading ideas from academia into practice.

The sessions of the this year's conference also marked some big turning points. Young people were in the spotlight at the Tenth Annual Travel Data User Forum which presented a panel on Millennials' Travel Behavior. Presenters led an exciting discussion on the latest data tracking the transportation choices of this demographic cohort who will outnumber Baby Boomers in US by 22 million in 2030. There was an emerging consensus that unprecedented reductions in percapita VMT among young people cannot be simply rationalized as a side effect of the economic slowdown and instead represent a real trend and a changing future. The topic of transformative change was also in the spotlight at the committee meeting for Transportation Issues in Major US Cities. It was a wildly-popular committee meeting this year: standing room only and packed to the gills with prospective friends of the committee. Big agencies also marked major turning points. At a session on the centennial of AASHTO -- which featured a distinguished line up of former DOT directors and AASHTO executives -- the atmosphere was both celebratory of the accomplishments in building America's highways, and also contemplative of the opportunity to adapt to the multi-modal needs and new funding realities of the 21st Century.

Despite all this excitement about the future, my most memorable moment at TRB this year was an opportunity to sit down with some peers for a one-onone coffee break with Mortimer Downey: who held the post of US DOT Deputy Secretary of Transportation from 1993-2001. As a voung professional. I found it very inspirational to hear from a luminary in the field who has helped bring about many positive changes that have shaped the transportation system that my generation enjoys and benefits from today.



Young professionals coffee break with Mortimer Downey. Left to right: Erica Simmons (MIT '13), Vig Krishnamurthy (MIT '12), Mortimer Downey, Yunke Xiang (MIT



#### TRB Event Calendar: March - May

Federal Aerospace Forecast Conference

March 13-14 Arlington, Virginia

Joint Rail Conference\*

April 1-4 Colorado Springs, Colorado

2014 International Transportation Economic Development Conference\*

April 9-11 Dallas, Texas

5th International Conference on Women's Issues in Transportation\*

April 14-16 Paris, France

Transport Research Arena Conference\*

April 14-17 Paris, France

4th International Conference on Roundabouts

April 16-18 Seattle, Washington

NAFTANEXT: Energizing Sustainable Trade Corridors Across North America - The Intersection of Energy, Environment, Jobs, and Growth\*

April 22-25 Chicago, Illinois

Third International Conference on Transportation Infrastructure\*

April 22-25 Pisa, Italy

Data Analysis Working Group Forum on Pavement Performance Data Analysis

April 24 Pisa, Italy

Innovations in Travel Demand Forecasting - 2014

April 27-30 Baltimore, Maryland

10th National Conference on Transportation Asset Management

April 28-30 Miami, Florida

#### WTS Event Calendar: March

WTS Central Region Conference

March 14-15 St. Louis, MO

NEPA Professional Development Event

March 18 DePaul's School of Public Service, 14 East Jackson Boulevard, Chicago

March Luncheon

March 21 Petterino's, Chicago

#### **CMAP Event Calendar: March - May**

Kedzie Corridor Plan Public Meeting

March 27 John Marshall Metropolitan High School, Chicago, IL

Hosted by City of Chicago.

GreenTown Chicago

May 21-22 Downtown Chicago, IL

Supported by City of Chicago. Institute of Cultural Affairs and CMAP

#### **ASCE-IL Event Calendar: March - May**

Geo Institute Meeting

April 9 Parthenon, 314 S Halsted St, Chicago, IL, United States

#### **APBP-IL Event Calendar: March - May**

The Future of Bikeshare Transit Systems March 5 | 3:00 to 4:30 p.m. ET

All In: The Value of Investing in Complete and Green Streets March 19 | 3:00 to 4:00 p.m.

Public Health Benefits of Active Transportation April 16

Best Planning and Engineering Practices for School Zones May 21



#### June 29th-July 2nd, 2014 Rapid City, South Dakota

- 120 Technical Presentations
- Vendor Exhibition
- Special 'Working With the Media' Session (Print/Radio/ TV)
- Potential Bicycle and Technical Tours
- 12 PDH Technical Program plus Potential for 7 More PDHs
- Networking opportunity with 200-300 transportation industry leaders from 24 western states.
- 'City of Presidents' MiteY Race
- Kell Student Competition
- Transportation to Mt. Rushmore
- Entertainment at the Banquet
- Three Traffic Bowls
- Early bird registration is now open at \$375 for members to attend the full conference

www.2014ite.com

The Institute of Transportation Engineers - Illinois Section invites you to exhibit at the

# Ninth Annual STUDENT DAY

**Career Fair** 

## Friday, March 28th, 2014

9:30 AM - 12:00 PM Career Fair 12:00 PM -1:30 PM Student/Professional Luncheon

Illinois Institute of Technology in the Gallery Lounge at Hermann Hall

3241 S. Federal Street Chicago, Illinois

Now is the time to come face-to-face with students seeking full-time positions, internships, and coops! Even if your firm isn't currently hiring, IL ITE Student Day is an excellent chance to publicize your firm and its endeavors to both current and future professionals.

Student Day is split into two events, the Career Fair and the Student/Professional Luncheon. Each company participating in the Career Fair will be provided with one six-foot table and two chairs for a registration fee of \$50 for the Career Fair, as well as one free lunch at the Student/Professional Luncheon. Additional lunches can be purchased for \$20 (ITE Member) or \$25 (Non-ITE Member).

Student Day has been attended by Civil Engineering students from universities across the Midwest. Some of the colleges and universities that the students have represented include:

- Illinois Institute of Technology
- **Northwestern University**
- University of Illinois Chicago
- University of Illinois at Urbana-Champaign
- Southern Illinois University at Edwardsville
- Southern Illinois University at Carbondale
- **Michigan State University**
- **University of Wisconsin at Madison**

To register your firm, please register using Eventbrite at the following link:

Click Here to Register for the Career Fair

Please direct any questions to Ryan Jacox, Director of Student Affairs, at illinoisite+studentaffairs@gmail.com or (847)407-5251.

Exhibitors are welcome to begin setting up at 9:00 AM on the day of the event; set-up must be completed before 9:30 AM.

#### **Professional Development Seminars**

TRB Webinar: Using Peer Exchanges to Improve the Effectiveness of a State's Strategic Highway Safety Plan (SHSP)

TRB will conduct a webinar on April 7, 2014, from 2:00pm to 3:30pm ET that will explore the information and tools that states may use to plan and conduct effective peer exchange events. Participants must register in advance of the webinar, and there is a fee for non-TRB Sponsor or non-TRB Sustaining Affiliate employees. A certificate for 1.5 Professional Development Hours (PDHs) will be provided to attendees who register and attend the webinar as an individual.

#### **ITE Web Seminars**

Registration for the ITE web seminars listed below closes three days prior to course date. Visit http://www.ite.org/education/webinars.asp to register. A copy of the presentation and a student supplement are provided two days prior to the web seminar.

#### T3 Webinars

Talking Technology and Transportation (T3) Webinars are designed to help agencies feel confident about deploying ITS technologies as a means to address challenges in their transportation systems. These free, 90-minute, interactive online meetings offer knowledge sharing on topics related to ITS planning, design, procurement, deployment, and operations. T3 current and archived webinars are available at http://www.pcb.its.dot.gov/t3\_webinars.aspx



Get it here: http://www.citvofchicago.org/citv/en/depts/cdot/provdrs/ conservation outreachgreenprograms/news/2013/oct/suig.html

# Sustainable Transportation: State of the Practice Review

An Informational Report of the Institute of Transportation Engineers (ITE)



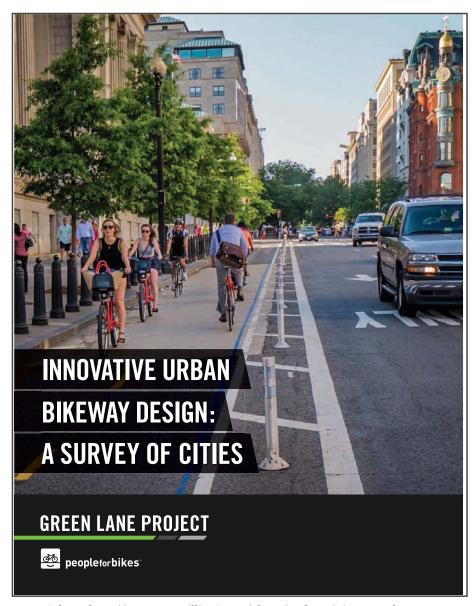




Prepared by the ITE Sustaina bility Task Force Bethany L. Schilleman, P.Eng., Project Manager James W. Gough, P.Eng. Daniel K. Hardy, P.E., PTP



Get it here: <a href="http://www.ite.org/emodules/scriptcontent/Orders/Product-Detail.cfm?pc=IR-136-E">http://www.ite.org/emodules/scriptcontent/Orders/Product-Detail.cfm?pc=IR-136-E</a>



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# March 9-12: ITE Technical Conference Miami, FL

March 20: Illinois Section Monthly Luncheon Harry Caray's, Chicago, IL

March 28: Illinois Section Student Day IIT, Chicago, IL

#### Illinois Section Planner

Please note all dates, locations, and topics are tentative. Check the section calendar in future editions of ITEms or online at http:// www.ilite.org/calendar to verify details.

May Illinois Section Monthly Luncheon

June 29-July 2 ITE Midwestern District Annual

Conference

July ITE Summer Social

August ITE Annual Meeting

and Exhibit

August 4th Annual ITE-WTS

Golf Outing

September Illinois Section Monthly Luncheon

October Illinois Section Monthly Luncheon

November Illinois Section Monthly Luncheon

December Year End Social Event

2015

January 94th TRB Annual Meeting

January ITE Annual Banquet

February Illinois Section Monthly Luncheon

February Future Cities Competition

March ITE Technical Conference

March Illinois Section Monthly Luncheon

March Illinois Section Student Day

April ITS America Annual Meeting

April Illinois Section Monthly Luncheon

May Illinois Section Monthly Luncheon

May 2015 WTS Annual Conference

#### APRII, 2014

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# April 10-11: ITS America Annual Meeting Boston, MA

April: Illinois Section Monthly Luncheon

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# May 14-16: WTS International Annual Conference Portland, OR

May: Illinois Section Monthly Luncheon TBD



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