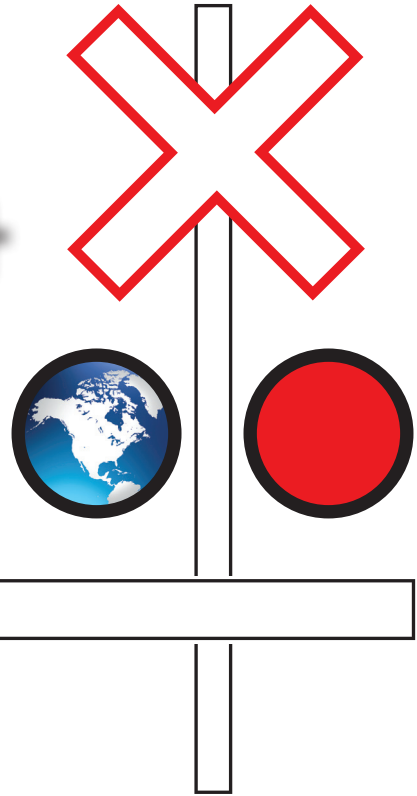


# GLXS 2014

## 2014 Global Level Crossing Safety and Trespass Prevention Symposium

University of Illinois at Urbana-Champaign



View Schedule on your phone here: [tinyurl.com/GLXS2014](http://tinyurl.com/GLXS2014)

# 2014 SYMPOSIUM SUPPORTERS

## Grade Separation Supporters

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## Quad Gate Supporters

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## Crossbuck Supporters

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## 2014 SYMPOSIUM SPONSORS



## 2014 SYMPOSIUM EXHIBITORS

Bayco Products Inc.  
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Railroad Chaplains

Signal Tech  
Transpo Industries  
WaveTrain Systems AS

# 2014 SYMPOSIUM OVERVIEW

View Schedule on your phone here: [tinyurl.com/GLXS2014](http://tinyurl.com/GLXS2014)

## Sunday 3 August

Symposium & Exhibitor Registration	1:00 PM	–	5:00 PM
GLXS Organizing Committee Meeting (Illini room 217)	4:00 PM	–	5:00 PM
Welcome Reception - Illini Union South Lounge	5:00 PM	–	7:00 PM

## Monday 4 August

Opening Session (continental breakfast – 7am)	8:30 AM	–	10:00 AM
Andreas Cangelaris – Dean, College of Engineering, University of Illinois at Urbana-Champaign			
Michael Stead – Rail Safety Program Administrator, Illinois Commerce Commission			
Joseph Szabo – Administrator, Federal Railroad Administration			
Norman Carlson – Director, Metra Commuter Rail Board			
Concurrent Sessions	10:30 AM	–	12:00 PM
Lunch	12:00 PM	–	1:30 PM
Concurrent Sessions	1:30 PM	–	3:00 PM
Concurrent Sessions	3:30 PM	–	5:00 PM

## Tuesday 5 August

Concurrent Sessions (continental breakfast – 7am)	8:30 AM	–	10:00 AM
Concurrent Sessions	10:30 AM	–	12:00 PM
Lunch	12:00 PM	–	1:30 PM
Joseph Shacter – Director of Public and Intermodal Transportation, Illinois Department of Transportation			
Concurrent Sessions	1:30 PM	–	3:00 PM
Concurrent Sessions	3:30 PM	–	5:00 PM
GLXS 2014 Reception	5:00 PM	–	7:00 PM
Little Obie Rides (meet at the front of the Illini Union)	5:00 PM	–	7:00 PM
Banquet & Keynote Address	7:15 PM		
Kris Habermehl – Airborne Reporter, WBBM-TV Chicago (CBS2)			

## Wednesday 6 August

Concurrent Sessions (continental breakfast – 7am)	8:30 AM	–	10:00 AM
Concurrent Sessions	10:30 AM	–	12:00 PM
Lunch	12:00 PM	–	1:30 PM
Concurrent Sessions	1:30 PM	–	3:00 PM
Concurrent Sessions	3:30 PM	–	5:00 PM

## Thursday 7 August

Bus departs from Illini Union for Technical Tour* (see page 16)	8:30 AM		
Bus departs for Chicago InterContinental Hotel**	10:30 AM		
Technical Tour Arrives at InterContinental Hotel Chicago	5:00 PM		
1st Bus departs InterContinental Hotel for Reception	5:00 PM		
2nd Bus departs InterContinental Hotel for Reception	5:30 PM		
Reception at Chicago History Museum	5:30 PM	–	9:00 PM
Sponsored by DuPage Railroad Safety Council			
Bus runs continuously between Hotel and Museum	6:00 PM	–	9:15 PM

## Friday 8 August

Technical Tour* (see page 16)	8:00 AM	–	4:00 PM
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\*Advance registration needed for Technical Tours

\*\*Advance registration needed for bus to Chicago

# 2014 SYMPOSIUM ORGANIZING COMMITTEE

## SYMPOSIUM CO-CHAIRS

Christopher Barkan, University of Illinois–RailTEC

Michael Stead, Illinois Commerce Commission

## ORGANIZING COMMITTEE CO-CHAIRS

Conrad Ruppert, Jr., University of Illinois–RailTEC

Steve Laffey, Illinois Commerce Commission

## ORGANIZING COMMITTEE

Marco daSilva, Volpe National Transportation Center  
 Alan Davies, Rail Safety and Standards Board  
 Jason Field, Moffatt & Nichol Engineers  
 Isabelle Fonverne, International Union of Railways  
 LB Frye, University of Illinois – RailTEC  
 Hilary Konczal, Metra Commuter Railroad  
 Alok Kumar, Indian Ministry of Railways  
 James Kveton, Elmhurst, Illinois Police Department  
 Paul Lorton, Illinois Department of Transportation  
 Mike Martino, Association of American Railroads

Aidan Nelson, Community Safety Partnerships, Ltd.  
 Kirsi Pajunen, Finnish Transport Safety Agency (Trafi)  
 Ron Ries, Federal Railroad Administration  
 Ian Savage, Northwestern University  
 Kim Schlichting, University of Illinois – RailTEC  
 John Sharkey, Campbell Technology Corporation  
 Terry Spicer, RLX Safety  
 Angie Stanford, University of Illinois – RailTEC  
 Emma Trapp, University of Illinois – RailTEC  
 Lanny Wilson, DuPage Railroad Safety Council

**Meeting Location** The Symposium will be held in the Illini Union - 1401 W. Green St., Urbana, IL 61801.

Click here for a map including hotels: [tinyurl.com/GLXS-Map](http://tinyurl.com/GLXS-Map)

View schedule on your phone here: [tinyurl.com/GLXS2014](http://tinyurl.com/GLXS2014)

## Registration Desk Hours and Contacts

Registration will be held in the Illini Union hallway outside Illini Rooms ABC using the below schedule. All persons attending the conference will be required to register, and pay the appropriate fee for registration. Please wear your badges to all sessions and activities.

**Sunday:** 4pm - 6pm

**Monday:** 7am - 5pm

**Tuesday:** 7am - 6pm

**Wednesday:** 7am - 5pm

**Thursday:** 7am - 9am

### GLXS Contacts:

Angie Stanford • 217-300-8544

Emma Trapp • 217-244-4600

LB Frye • 217-244-4999

Kim Schlichting • 217-244-0841

**Meeting Room** Need a meeting room? Illini Room 217 is available if you need to set-up a meeting with fellow conference attendees. The room comes equipped with a teleconference phone. Please sign-up to use the room at the registration desk.

**Champaign-Urbana Transportation** Shuttles are provided for GLXS attendees staying at the following hotels: Hampton, Holiday Inn, and Hawthorn Suites. **See page 17** for full shuttle information. Conference attendees (with their GLXS badge) can travel the Champaign-Urbana Mass Transit District (MTD) bus system for free. Use this site to plan your trip:

<http://www.cumtd.com/maps-and-schedules/trip-planner>



**Reception and Banquet - Tuesday 5 August** All conference attendees and guests are encouraged to take the opportunity to meet and discuss ideas with industry peers at the Symposium Reception and Dinner. The Symposium Reception will be held on Tuesday, 5 August from 5:00 to 7:00 PM in the Illini Union South Lounge. The Symposium Banquet Program will be held immediately following the reception from 7:15 PM to 9:00 PM in Illini Union Ballroom. Symposium Reception and Banquet tickets are provided to Full Symposium Registrants with your name badge. Additional tickets for the Symposium Reception and Banquet may be purchased for \$50 at the registration desk.

**Little Obie** Canadian National Railway is bringing their "Little Obie" Safety Train to the UIUC campus on Monday and Tuesday, August 4 & 5, 2014 as part of GLXS 2014. "Little Obie" is a scale model of a CN freight train whose mission is to promote rail safety by educating children (and adults) about the dangers of playing on or near the railroad tracks — in a fun and informative way. "Little Obie" will be giving rides around the Bardeen Quad (located between Engineering Hall and Grainger Library) on Monday from 2:00 PM - 4:00 PM and Tuesday from 5:00 PM - 7:00 PM.

<https://www.cn.ca/en/delivering-responsibly/community/health-safety/obie>



## Technical Tours

### Thursday 7 August – Technical Tour

Included in this ticket price is transportation from Urbana, IL to Chicago, IL via charter bus. As the tour will include sites with restricted access, tour participants must travel via the charter bus and will not be able to travel separately. Lunch is included in the ticket price. Additional information on **page 16**.

### Friday 8 August – Technical Tour

Additional information on **page 16**.

**Transportation to Chicago** A separate charter bus will be departing the Illini Union at 10:30 AM on Thursday 7 August and traveling directly to the InterContinental Hotel in downtown Chicago. This bus is for conference attendees and guests who would like to travel to Chicago but are not participating in the technical tour. Advance reservations are required. Please check with the registration desk if you would like to purchase a ticket (\$40).

**DuPage Railroad Safety Council Reception - Thursday 7 August** Please join us to celebrate the 20th anniversary of the DuPage Railroad Safety Council on 7 August. The reception will feature a buffet style dinner and drinks highlighting various Chicago neighborhoods. The [Chicago History Museum](http://chicagohistorymuseum.org) will be open just for our reception Thursday evening from 5:30 PM to 9:00 PM. We will have full access to the standing exhibit *Chicago: Crossroads of America* and special access to the Jack Delano Homefront Photography exhibit. There is no cost to attend but advance registration is required. Bus transportation will be provided for GLXS attendees staying at the InterContinental Hotel to and from the DuPage Railroad Safety Council Reception (**see page 15 for schedule**). Please check with the registration desk if you would like to attend.

**Travel in Chicago** Conference attendees can travel the Chicago Metra Commuter Rail system for free.

Pick-up your free pass at the registration desk. Use this site to plan your trip: <http://metrarail.com/>

(note: this is not the same as the Chicago Transit Authority (CTA) line)



**Attire** The recommended dress for the Symposium is "business casual".

**Publications** Please visit <http://ict.uiuc.edu/railroad/GLXS/overview.php> for conference proceedings. Proceedings will be available after the Symposium.



**View Schedule on your phone here:** [tinyurl.com/GLXS2014](http://tinyurl.com/GLXS2014)



# MONDAY 4 AUGUST

8:30 - 10:00

PLENARY

## Session I - Welcome & Keynote Speakers

Room: Illini Room B • Moderator: Chris Barkan - University of Illinois at Urbana-Champaign

*Andreas Cangelaris – Dean, College of Engineering, University of Illinois at Urbana-Champaign*  
*Michael Stead – Rail Safety Program Administrator, Illinois Commerce Commission*  
*Joseph Szabo – Administrator, Federal Railroad Administration*  
*Norman Carlson – Director, Metra Commuter Rail Board*

10:00 - 10:30

## Break - Exhibit Hall - Illini Room C

10:30 - 12:00

## Session 2A - Regulatory Approaches to Safety

Room: Illini Room B • Moderator: Orest Dachniwsky - BNSF Railway

Grade Crossing Safety: An Overview of the Statutory & Regulatory Framework in the U.S. (USA)  
*Orest Dachniwsky - BNSF Railway*

An Analysis of the Effect of Implementation of Title 49 Code of Federal Regulations Part 224 on Auto Road Crossing Accidents (USA)  
*Tom Blankenship – Federal Railroad Administration*

The Economic and Social Impact of Railroad Incidents (USA)  
*Hilary Konczal – Metra Commuter Railroad*

Enforcement Issues Around Level Crossings: Indian Scenario (India)  
*Vinod Bhatia, Sunil Kumar – Ministry of Railways*

10:30 - 12:00

## Session 2B - Driver Behavior & Accidents at Crossings

Room: Illini Room 314 • Moderator: Missy Rudin-Brown - Transportation Safety Board

Gaze Direction and Driving Behavior of Drivers at Level Crossings (Germany)  
*Jan Gripenkoven – German Aerospace Center*

Evaluation of Emerging Intelligent Transport Systems to Improve Safety on Level Crossings - An Overview (Australia)  
*Grégoire Larue - Queensland University of Technology*

Mitigating Risky Behaviour of Delayed Road Users at Occupied Highway-Railway Crossings: Review of Research and Issues (Canada)  
*Daniel Blais – Transport Canada, Transportation Development Centre*

e-Learning: Target School Bus Drivers (USA)  
*Wende Corcoran – Operation Lifesaver, Inc.*

10:30 - 12:00

## Session 2C - Making the Case for Grade Crossing Improvements

Room: Illini Room 210 • Moderator: Ian Savage - Northwestern University

Prioritizing and Funding Grade Crossing Safety Projects in the United States; An Overview of the Section 130 Program (USA)  
*James Dahlem – Federal Highway Administration*

National Program of Railway Safety in Urban Areas (Brazil)  
*Mario Dirani – National Department of Transport Infrastructure*

A Perfect Storm (United Kingdom)  
*Aidan Nelson – Community Safety Partnerships Ltd*

12:00 - 1:30

## Lunch - Illini Ballroom - 2nd floor

Supporter Acknowledgement

1:30 - 3:00

CONCURRENT

## Session 3A - Crossing Safety Initiatives in Illinois: CREATE

Room: Illini Room B • Moderator: Jim Kveton - Elmhurst, Illinois Police Department

CREATE Program Overview (USA)  
*Jeffrey Sriver - Chicago Department of Transportation*

Focus on CREATE Grade Separation Projects (USA)  
*Emily Kushto - Illinois Department of Transportation*

Chicago's "911 Critical Crossing" Protocol (USA)  
*Joe Alonzo - Chicago Department of Transportation*

Case Study: 130th/Torrence Grade Separation Project (USA)  
*Soliman Khudeira - Chicago Department of Transportation*

1:30 - 3:00

## Session 3B - Crossing Consolidation & Closure

Room: Illini Room 314 • Moderator: Michael Stead - Illinois Commerce Commission

Efforts of Indian Railway to Reduce Level Crossing Accidents (India)  
*Alok Kumar, Sanjiv Garg - Indian Railways*

Development of Railroad Highway Grade Crossing Consolidation Rating Formula (USA)  
*Phillip Meraz - Iowa State University*

Traffic Separation Studies and Crossing Consolidation (USA)  
*Jason Field - Moffatt & Nichol Engineers*

Planning Methods for Decision-Support on Grade Separation Improvements Program in Southern California (USA)  
*Chiranjivi Sarma Bhamidipati - Cambridge Systematics, Inc.*

3:00 - 3:30

## Break - Exhibit Hall - Illini Room C

3:30 - 5:00

CONCURRENT

## Session 4A - Crossing Safety Initiatives in Illinois: Springfield/HSR

Room: Illini Room B • Moderator: Michael Stead - Illinois Commerce Commission

X-ITCS Implementation on the Chicago-St. Louis HSR Corridor (IDOT) (USA)  
*Tom Hunter - Parsons Brinckerhoff*

Rail Consolidation to Eliminate Level Crossings (USA)  
*Jim Moll - Hanson Professional Services*

Understanding the Transition Behavior of Railroad Track at Grade Crossings on High Speed Rail Shared Corridors (USA)  
*Francesco Bedini - University of Illinois at Urbana-Champaign*

3:30 - 5:00

## Session 4B - Crossing Incident Tracking & Response

Room: Illini Room 314 • Moderator: Jason Field - Moffatt & Nichol Engineers

Emergency Railroad Incident Response and Investigation (USA)  
*Eric T. Graf - CN Railroad Police*

TxDOT Incident Tracking (USA)  
*Brann Greager - Jacobs Engineering, Inc.*

Level Crossing Fatality Rates (United Kingdom)  
*Andrew Evans - Imperial College London*

Predicting Gate Down Violations at Crossings (USA)  
*Robert Rescot - Purdue University, Calumet*

5:00

Sessions Adjourn - Dinner on your own

# TUESDAY 5 AUGUST

8:30 - 10:00		<b>Session 5A - Road Intersections Near Level Crossings (1)</b> Room: Illini Room B • Moderator: John Sharkey – CTC, Inc.  Workshop Session (USA) Rick Cambell – CTC, Inc. Brian Vercruysse – Illinois Commerce Commission Robert Travis – Texas Department of Transportation, Traffic Operations
8:30 - 10:00	CONCURRENT	<b>Session 5B - Improving Railway and Public Safety</b> Room: Illini Room 314 • Moderator: Kurt Topel - DuPage Railroad Safety Council  Two Pilot Tests for the Prevention of Railway Trespassing in Finland (Finland) Anne Silla – VTT  A Case Example on Educating Engineering Students on the Challenges of Urbanized At-Grade Crossings (USA) Leslie McCarthy – Villanova University  Railroad Trespass Abatement using Drone/UAV Technology (USA) Richard Gent – Nevada Operation Lifesaver  Railroad Chaplains - Expressing the Compassion and Care of America's Finest Railroads Andy Bunn – Railroad Chaplains
10:00 - 10:30		<b>Break - Exhibit Hall - Illini Rooms C</b>
10:30 - 12:00		<b>Session 6A - Road Intersections Near Level Crossings (2)</b> Room: Illini Room B • Moderator: John Sharkey - CTC, inc.  Panel Discussion Session (USA) Rick Cambell – CTC, Inc. Brian Vercruysse – Illinois Commerce Commission Robert Travis – Texas Department of Transportation, Traffic Operations
10:30 - 12:00	CONCURRENT	<b>Session 6B - Findings of Accident/Incident Investigations</b> Room: Illini Room 314 • Moderator: Ron Ries - Federal Railroad Administration  Findings & Recommendations of 26 Coronal Investigations from 13 RLX Crashes 2002–2009 in Victoria, Australia (Australia) Terry Spicer – Rail Level Crossing (RLX) Safety Management International Pty Ltd  Level Crossing Crash Taxonomy for Connected Vehicle Safety Research (USA) Adrian Hellman – Volpe National Transportation Systems Center  Combination of Microscopic and Macroscopic Models for Analysis of Accidents at Railroad Grade Crossings (USA) Rahim Benekohal, Juan Medina – University of Illinois at Urbana-Champaign  Applied Simulation for Rail Crossing Economics and Safety Analysis (USA) Hao Zhou – Moffatt & Nichol Engineers
10:30 - 12:00		<b>Session 6C - Evaluation of Grade Crossing Safety and Trespasser Prevention Projects</b> Room: Illini Room 210 • Moderator: Scott Gabree - Volpe Center / Michael Coplen - FRA  FRA R&D Evaluation Framework and Overview of Grade Xing and Trespasser Evaluation Projects (USA) Michael Coplen – Federal Railroad Administration  Potential Countermeasures to Mitigate Suicides on the Railroad Rights-of-Way (USA) Scott Gabree – Volpe National Transportation Systems Center  Global Railway Alliance for Suicide Prevention (GRASP): An International Working Group of Railway Suicide Experts (USA) Michael Martino – Association of American Railroads  Evaluating Community-Based Approaches to Trespass Prevention Starr Kidda – Federal Railroad Administration David Damm-Luhr, Aaron Jette – Volpe National Transportation Systems Center



12:00 - 1:30

Lunch - Illini Ballroom - 2nd floor

12:30

Lunch Speaker: Joseph Shacter – Director of Public and Intermodal Transportation,  
Illinois Department of Transportation

1:30 - 3:00

**Session 7A - The Role of Media in Reducing Incidents**

Room: Illini Room B • Moderator: Lanny Wilson - DuPage Railroad Safety Council

Panel Discussion Session (USA)

*Kris Habermehl – WBBM-TV Chicago (CBS2)*

*Marni Pyke – Daily Herald*

*Scott Gabree – Volpe National Transportation Systems Center*

1:30 - 3:00

CONCURRENT

**Session 7B - Planning for Crossing Improvements**

Room: Illini Room 314 • Moderator: Ric Cruz - Tavla Solutions

It's Not a Crossing, It's a Corridor (USA)

*Don Sepulveda - Los Angeles County Metropolitan Transportation Authority*

Optimal Grade Crossing Project Selection for Improved Running Time on Passenger  
Rail Corridors (USA)

*Tyler Dick – University of Illinois at Urbana–Champaign*

Developing a Safety Program at UTA (USA)

*Dave Goeres – Utah Transit Authority*

3:00 - 3:30

Break - Exhibit Hall - Illini Room C

3:30 - 5:00

**Session 8A - Crossing Data Management**

Room: Illini Room B • Moderator: Steve Laffey - Illinois Commerce Commission

Data Management Technology as a Means to Optimizing Grade Crossing Improvements on Transportation Infrastructure (USA)

*Ric Cruz, Dylan Liverman – Tavla Solutions**A.R. (Drew) Thomas – North Carolina Department of Transportation*

Visual Data: 3-Dimensional Laser Scanning (USA)

*Phillip Daum – Engineering Systems Inc.*

Distracted Driving at Highway-Rail Grade Crossings (USA)

*Aemal Khattak – University of Nebraska–Lincoln*

FRA Autonomous Grade Crossing Survey System (USA)

*Soheil Saadat – ENSCO, Inc.*

3:30 - 5:00

**Session 8B - Driver Response & Enforcement**

Room: Illini Room 314 • Moderator: Eric T. Graf - CN Railroad Police

Driver Behavior at Highway-Rail Grade Crossings with Passive Traffic Controls: A Driving Simulator Study (USA)

*Asad J. Khattak – University of Tennessee, Knoxville*

Driver Response to Grade Crossings and the Effects of Different Warning Types (USA)

*Myounghoon Jeon – Michigan Technological University*

Does Enforcement Change User Behaviour (United Kingdom)

*Darren Furness – NetworkRail*

Using Photo Enforcement to Increase Rail Crossing Safety (USA)

*Anthony Parrino, Patrick Howley – Redflex Traffic Systems, Inc.*

CONCURRENT

3:30 - 5:00

**Session 8C - Suicide Prevention**

Room: Illini Room 210 • Moderator: Isabelle Fonverne - International Union of Railways

Analysis of Fatal Train-Pedestrian Collisions in Metropolitan Chicago 2004-2012 (USA)

*Ian Savage – Northwestern University*

Preventing Railway Suicide and Trespass: A Toolbox for Evaluation and Implementation of Measures (France)

*Anne Silla – VTT**Grigore Havarneanu – International Union of Railways*

An Evaluation of a National Suicide Prevention Programme (United Kingdom)

*Ann Mills – RSSB*

A Geospatial Approach to Understanding Suicides at Stations &amp; Level Crossings (United Kingdom)

*Jay Heavisides – RSSB*

5:00

**Sessions Adjourn**

5:00 - 7:00

**GLXS Reception - Illini Union South Lounge and Exhibit Hall**

Little Obie Rides

Canadian National Railway is bringing their "Little Obie" Safety Train to the UIUC campus as part of GLXS 2014. "Little Obie" is a scale model of a CN freight train whose mission is to promote rail safety by educating children (and adults) about the dangers of playing on or near the railroad tracks — in a fun and informative way. Meet at the front of the Illini Union if you are interested in seeing and riding Little Obie.

7:15 - 9:00

**GLXS Banquet - Illini Union Ballroom - 2nd floor****Speaker: Kris Habermehl – Airborne Reporter, WBBM-TV Chicago (CBS2)**

7:00 - 8:00

## TRB Highway/Rail Grade Crossing Committee Meeting

Room: Illini Union Room 314

8:30 - 10:00

## Session 9A - Safety Issues at Private/Agricultural Crossings

Room: Illini Room B • Moderator: Steve Laffey - Illinois Commerce Commission

Panel Discussion Session (International)

*Steven Neubauer – BNSF Railway*

*Kevin Rund – Illinois Farm Bureau*

*Donal Casey – Railway Safety Commission, Ireland*

*Lie Tian – University of Illinois at Urbana-Champaign*

*Steve Laffey – Illinois Commerce Commission*

8:30 - 10:00

## Session 9B - Vehicle/Obstacle Detection (I)

Room: Illini Room 314 • Moderator: Brian Vercruysse - Illinois Commerce Commission

Railroad Vehicle Detection within Four-Quadrant Gate Crossings (USA)

*Dylan Horne – Moffatt & Nichol Engineers*

Radar-Based Vehicle Detection for Four-Quadrant Gate Crossing Warning Systems (USA)

*Tom Hilleary – Island Radar Company LLC*

Level Crossing 3D Obstacle Detection (Italy)

*Riccardo Dallara – SelectraVision*

Vehicle Detection at Level Crossings in Illinois: History of Four-Quadrant Gates (USA)

*Brian Vercruysse – Illinois Commerce Commission*

Concurrent

10:00 - 10:30

**Break - Exhibit Hall - Illini Room C**

# WEDNESDAY 6 AUGUST

10:30 - 12:00

## Session 10A - Crossing Safety Advocacy & Awareness

Room: Illini Room B • Moderator: Terry Spicer - RLX Safety Management International Pty Ltd

Twenty Years of Railroad Safety Advocacy ... and Counting (USA)  
*Lanny Wilson – DuPage Railroad Safety Council*

The Positive Effects of the Safety Program - "Train is Always Faster" (Croatia)  
*Danijela Baric – University of Zagreb*

ILCAD, The Unique Worldwide Road/Rail Safety Awareness Campaign (France)  
*Isabelle Fonverne – International Union of Railways*

"See Tracks? Think Train!" Operation Lifesaver's National Safety Campaign Update (USA)  
*Joyce Rose – Operation Lifesaver, Inc.*

10:30 - 12:00

## Session 10B - Vehicle/Obstacle Detection (2)

Room: Illini Room 314 • Moderator: Alok Kumar - Indian Railways

Obstacle Detectors at Level Crossings: Experimental Feedback and Conditions for Success (France)  
*Olivier Cazier - RFF*

Modular Microprocessor Level Crossing Protection System Type RLC23 for Safety Integrity Level SIL4 (Croatia)  
*Darko Barisic, Zvonimir Viduka - ALTPRO d.o.o.*

Vital Inductive Loop Processor Detection  
*Rick Campbell - CTC, Inc.*

Concurrent

10:30 - 12:00

## Session 10C - Risk Analysis at Level Crossings

Room: Illini Room 210 • Moderator: Mike Martino - Association of American Railroads

A New Cost-Benefit Methodology for Highway-Railway At-Grade Crossing Safety Programs (USA)  
*Ali Rezvani – Moffatt & Nichol Engineers*  
*A.R. (Drew) Thomas – North Carolina Department of Transportation*  
*Ric Cruz – Tavla Solutions*

A 'Safe System' Approach to Level Crossings (Ireland)  
*Donal Casey – Railway Safety Commission*

Improving Safety of Rail Operation by Exploring Risk Modeling Analysis of Accidents at Level-Crossing: Case study of Thailand (Thailand)  
*Tongkarn Kaewchalermtong – Chulachomklao Royal Military Academy*  
*Athaphon Kawprasert – State Railway of Thailand*

Highway-Rail Grade Crossing Safety Challenges for Shared Operations (USA)  
*Samantha Chadwick – University of Illinois at Urbana-Champaign*

12:00 - 1:30

Lunch - Illini Union Ballroom - 2nd Floor

1:30 - 3:00

## Session I I A - Education & Outreach

Room: Illini Room B • Moderator: Hilary Konczal - Metra Commuter Railroad

Network Rail: Everyone Home Safe Everyday (United Kingdom)  
*Paul Titterton – NetworkRail*

Education for Level Crossings Passerby (Japan)  
*Taro Kitamura, Takuji Honzawa – East Japan Railway Company*

Evaluation of Education and Outreach Methods and Strategies: A Case Study of a Web-Based Rail Safety Education Initiative (USA)  
*Suzanne Horton – Volpe National Transportation Systems Center*

Changing Attitudes to Change Behaviour (Australia)  
*Leah Waymark, Naomi Frauenfelder – TrackSAFE Foundation*

1:30 - 3:00

## Session I I B - Crossing Safety Technology (I)

Room: Illini Room 314 • Moderator: Michael Stead

An Active and Low Cost System for Rural Level Crossings (Australia)  
*Darren Kelly – Railnet Safety Systems Pty Ltd*

Extending the Approach Zone at Passive Level Crossings: Improving Train Detection and Driver Decision-Making (Canada)  
*Christina Rudin-Brown – Transportation Safety Board*

Preliminary Analysis of LED Enhanced Signs at a Passive Rural Level Crossing (USA)  
*Adrian Hellman – Volpe National Transportation Systems Center*

Cooperative ITS to Improve Safety at Level Crossing (Australia)  
*Jugdutt (Jack) Singh - La Trobe University*

1:30 - 3:00

## Session I I C - Crossing Safety Analysis & Evaluation

Room: Illini Room 210 • Moderator: Lanny Wilson - DuPage Railroad Safety Council

Benchmarking Level Crossing Safety – Why Do We Do It? How Do We Do It? And, Most Importantly, How Can We Apply What We Learn? (USA)  
*Steve Laffey – Illinois Commerce Commission*

An Analysis of the Impact of Quiet Zones on Highway-Rail Crossing Safety in the United States (USA)  
*Ronald Ries – Federal Railroad Administration*

Quantifying Grade Crossing Condition as an Input to Modeling Safety (USA)  
*Teng Wang – University of Kentucky*

Safety Analysis on Rail Highway At-Grade Crossing in Alabama (USA)  
*Jing Li – The University of Alabama*

Concurrent

3:00 - 3:30

**Break - Exhibit Hall - Illini Room C**



3:30 - 5:00

## Session 12A - User Behavior at Level Crossings

Room: Illini Room B • Moderator: Jim Kveton - Elmhurst, Illinois Police Department

Perceptions and Behavior of Non-Motorist Users at Public Railway Grade Crossings in NE Illinois: Implications for Engineering, Education, Enforcement and Evaluation (USA)  
*Paul Metaxatos – University of Illinois at Chicago*

Understanding Community Life Around Indian Level Crossings: Addressing Level Crossing Accidents (India)  
*Vinod Bhatia – Ministry of Railways (Railway Board)*

Effect of Gate Skirts on Pedestrian Behavior at a Highway-Rail Grade Crossing (USA)  
*Marco daSilva – Volpe National Transportation Systems Center*

Increasing Safety at User Worked Crossings – How Can Human Factors Be Considered in a Technical Approach (Switzerland)  
*Daniel Berchtold – Schweizer Electronic AG*

Concurrent

3:30 - 5:00

## Session 12B - Crossing Safety Technology (2)

Room: Illini Room 314 • Moderator: Steve Laffey - Illinois Commerce Commission

Light Barrier on Level Crossings in the Czech Republic (Czech Republic)  
*Pavel Skládaný, Pavel Tučka – Centrum Dopravního Výzkumu*

Countermeasures for Derailment at Level Crossing in Winter (Japan)  
*Takaki Kubo – East Japan Railway Company*

TraxAlert Railroad Grade Crossing Warning System (USA)  
*David Hauser – Lightguard Systems Inc.*

5:00

**Adjourn - Dinner on your own**

## THURSDAY 7 AUGUST

<b>7:00 AM</b>	Registration desk open.
<b>8:30 AM</b>	Technical tour departs Illini Union via Charter Bus (advance ticket needed). See page 16 for full tour schedule. Arrives at InterContinental Hotel at 5:00pm.
<b>10:30 AM</b>	Bus to Chicago departs Illini Union (advance ticket needed). Arrives at InterContinental Hotel at 1:00pm.
<b>5:00 PM</b>	1st bus departs InterContinental Hotel for Chicago History Museum.
<b>5:30 PM</b>	2nd bus departs InterContinental Hotel for Chicago History Museum (bus will run continuously from 6:00 PM until 9:15 PM).
<b>5:30 PM</b>	<p>DuPage Railroad Safety Council - 20<sup>th</sup> Anniversary Reception  Please join us to celebrate the 20th anniversary of the DuPage Railroad Safety Council. The reception will feature a buffet style dinner and drinks highlighting various Chicago neighborhoods.</p> <p>The DuPage Railroad Safety Council is made of railroad officials, government officials, engineers, educators and private citizens who have a deep concern for safety at railroad crossings. The Council was founded on April 30, 1994 as an outgrowth of a Railroad Safety Conference called by the Chairman of the DuPage County Board. Since that time, the Council has met regularly to examine ways to heighten awareness and improve safety conditions at railroad crossings and to work with civic and railroad leaders to stop preventable accidents along railroad right of ways. The Mission of the DuPage Railroad Safety Council is to prevent deaths and injuries at railroad crossings and along railways. The Chicago History Museum will be open just for our reception Thursday evening from 5:30 to 9:00pm. We will have full access to the standing exhibit Chicago: Crossroads of America and special access to the Jack Delano Homefront Photography exhibit.</p>
<b>9:15 PM</b>	Last bus departs Chicago History Museum for InterContinental Hotel.

## FRIDAY 8 AUGUST

<b>7:45 AM</b>	Meet in lobby of InterContinental Hotel.
<b>8:00 AM</b>	Depart on own for train Station
<b>8:30 AM</b>	Technical tour departs Ogilvie Transportation Center via Metra Train #25 See page 16 for full tour schedule. Tour will return to Ogilvie Transportation Center at 4:00pm.

# TECHNICAL TOUR SCHEDULE

## Thursday 7 August (advance registration required)

- |          |   |   |
|----------|---|---|
| 8:30 AM  | - | Depart Illini Union, Urbana, IL                                     |
| 10:00 AM | - | Arrive Odell, IL (Amtrak Train #302 due by at 10:20)                |
| 10:30 AM | - | Depart Odell, IL  |
| 11:30 AM | - | Arrive BNSF Logistics Park, Elwood, IL                              |
| 12:30 PM | - | Depart BNSF   |
| 12:40 PM | - | Arrive Lunch  |
| 2:00 PM  | - | Depart Lunch  |
| 3:15 PM  | - | Arrive CREATE Project, Chicago, IL (130th Street & Torrence Avenue) |
| 4:00 PM  | - | Depart  |
| 5:00 PM  | - | Arrive Hotel Intercontinental, Chicago, IL                          |



## Friday 8 August (advance registration required)

- |          |   |   |
|----------|---|---|
| 7:45 AM  | - | Meet in lobby of InterContinental Hotel   |
| 8:00 AM  | - | Depart on own for Train Station<br>(Participants to make their own way to the Train Station. The station is walkable from the Intercontinental in about 20 to 30 minutes, or taxi in about 15 minutes for approximately \$15) |
| 8:40 AM  | - | Depart Ogilvie Transportation Center via Metra Train #25  |
| 9:14 AM  | - | Arrive at Elmhurst Metra Station, Elmhurst, IL  |
| 9:30 AM  | - | Crossing Collision Investigation Class by Elmhurst Police Dept.   |
| 12:00 PM | - | Box Lunch   |
| 1:00 PM  | - | Depart Elmhurst for Union Pacific's Proviso Yard via Shuttle Bus  |
| 1:30 PM  | - | Tour Proviso Yard   |
| 3:16 PM  | - | Depart UP Metra Berkeley Station via Metra Train #52  |
| 3:47 PM  | - | Arrive Ogilvie Transportation Center  |



## 2014 TECHNICAL TOUR COMMITTEE

### TECHNICAL TOUR COMMITTEE

Steve Laffey, Illinois Commerce Commission (Chair)  
Lourdes Beard, DuPage Railroad Safety Council  
LB Frye, University of Illinois at Urbana-Champaign  
Eric T. Graf, CN Railway Police  
Adrian Guerrero, Union Pacific Railroad  
Debbie Hare, DuPage Railroad Safety Council

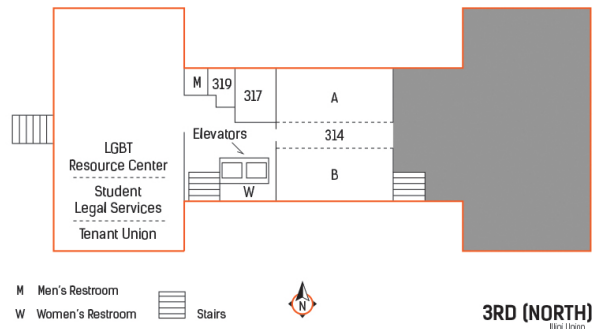
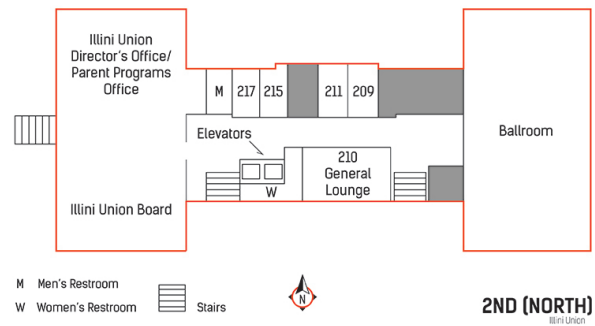
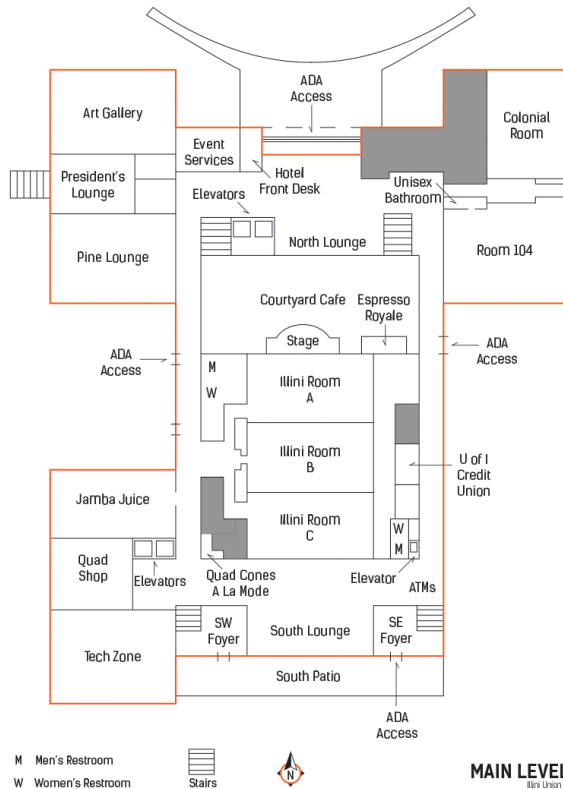
Soliman Khudeira, Chicago DOT  
Jim Kveton, Elmhurst, Illinois Police Department  
Eileen McRae, BNSF Railway  
Paul Nowicki, BNSF Railway  
Bill Thompson, Association of American Railroads  
Dr. Lanny Wilson, DuPage Railroad Safety Council

### PARTICIPATING ORGANIZATIONS

BNSF Railway  
Union Pacific Railroad  
Metra Commuter Railroad

Chicago History Museum  
InterContinental Hotel, Chicago, IL  
Silver Dollar Restaurant, Elwood, IL

# ILLINI UNION MAPS



## CONFERENCE SHUTTLES

Shuttles will be provided by GLXS between these hotels during the following hours:

Sunday, August 3rd	4:00 PM - 8:00 PM
Monday, August 4th	7:00 AM - 6:00 PM
Tuesday, August 5th	7:00 AM - 10:00 PM
Wednesday, August 6th	7:00 AM - 6:00 PM
Thursday, August 7th	7:00 AM - 10:00 AM

### Illini Union - Hotel

1401 W. Green St.  
Urbana, IL 61801  
+1-217-333-3030  
\*conference site  
MTD Stop: Illini Union

### Hampton Inn

1200 W. University  
Urbana, IL 61801  
+1-217-337-1100  
\*walking distance to Illini Union  
MTD Stop: Goodwin and Clark

Please contact Emma +1-217-244-4600 if you have any problems

### Hawthorn Suites

101 Trade Centre Dr.  
Champaign, IL 61820  
+1-217-398-3400  
\*free shuttle to Willard Airport  
MTD Stop: Fox & State

### Holiday Inn

1001 Killarney St.  
Urbana, IL 61801  
+1-217-328-7900  
\*free shuttle to Willard Airport  
\*free shuttle to Illini Union  
MTD Stop: Lincoln & Killarney

## ADDITIONAL CONFERENCE HOTELS

Please use the free shuttle provided by each of these hotels (except Hilton Garden Inn) to travel to the Illini Union. Ask at the hotel front desk for more information. Conference attendees (with their GLXS badge) can travel the Champaign-Urbana Mass Transit District (MTD) bus system for free. Use this site to plan your trip: <http://www.cumtd.com/maps-and-schedules/trip-planner>



### Comfort Suites

2001 N. Lincoln Ave  
Urbana, IL 61801  
+1-217-328-3500  
\*free shuttle to Willard Airport  
\*free shuttle to Illini Union  
MTD Stop: Lincoln & Kettering Park

### iHotel

1900 S. First Street  
Champaign, IL 61820  
+1-217-819-5000  
\*free shuttle to Willard Airport  
\*free shuttle to Illini Union  
MTD Stop: First & St. Mary's

### Hyatt Place

217 N. Neil Street  
Champaign, IL 61820  
+1-217-531-2800  
\*free shuttle to Willard Airport  
\*free shuttle to Illini Union  
MTD Stop: Main & Freemont

### Hilton Garden Inn

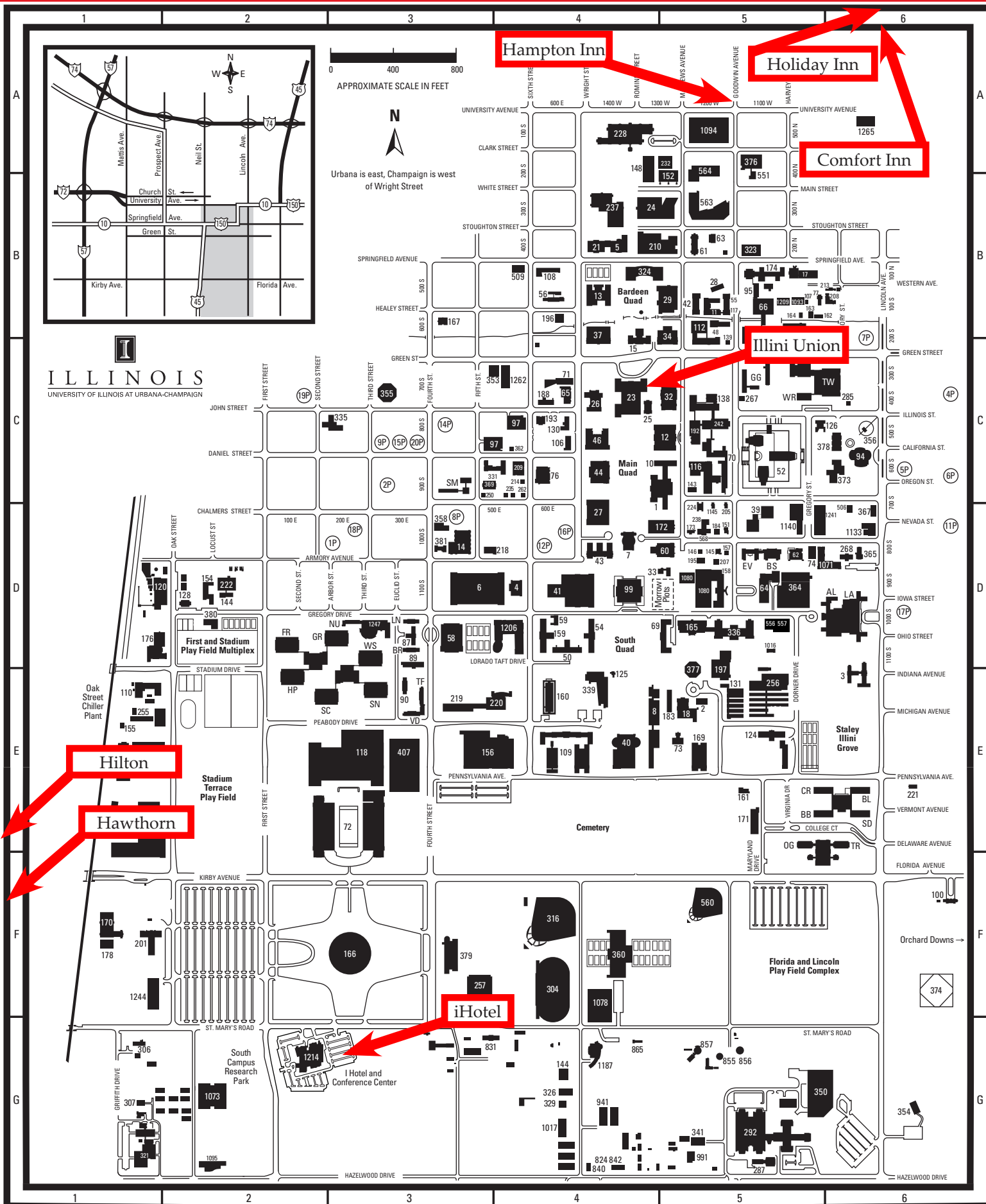
1501 S. Neil St.  
Champaign, IL 61821  
+1-217-352-9970  
\*free shuttle to Willard Airport  
MTD Stop: State & Hessel

## CHICAGO HOTEL

### InterContinental Chicago

505 N. Michigan Avenue  
Chicago, IL 60611  
+1-312-944-4100

# UNIVERSITY OF ILLINOIS CAMPUS MAP





## EMERGENCY INFORMATION



Dial **911** for assistance or **9-911** from a campus phone. The conference location is: Illini Union, 1401 W. Green St., Urbana, IL



**Tornado:** Use the stairs on the north or south side of the building to go to the basement to seek shelter.



**Fire:** Use the doors located on the west side of the building and meet on the southeast side of Altgeld Hall.

### POLICE

#### University of Illinois Police Department (Non-emergency)

1110 W. Springfield, Urbana, IL 61801  
217- 333-1216



#### Carle Foundation Hospital

611 West Park Street, Urbana IL  
217- 383-3311

#### Presence Covenant Medical Center

1400 West Park Street, Urbana, IL  
217-337-2000

## PUBLIC PARKING



Please use the shuttle busses that are provided or use public transportation. Parking on campus is **extremely** limited. Meters are available around the Illini Union that take change and credit cards. GLXS recommends that you use the GLXS Shuttles or public transportation.

## PUBLIC TRANSPORTATION



Conference attendees (with their GLXS badge) can use the Champaign-Urbana Mass Transit District (MTD) bus system for free. See page 5 of the program for stops at all the conference hotels. Use this site to plan your trip: <http://www.cumtd.com>

## USEFUL LOCATIONS

#### Fedex Office

613 South Wright St.  
Champaign, IL 61820  
217-344-2085

#### Expresso Royale Cafe

Illini Union Courtyard  
Cafe (center of Illini Union)  
217-333-7106

#### Starbucks

503 E Green St.  
Champaign, IL 61820  
217-344-8613

#### Walmart

2610 N. Prospect  
Champaign, IL 61822  
217-352-0700

#### Walgreens

407 East Green St.  
Champaign, IL 61820  
217-344-0121

#### Cocomero (frozen yogurt)

709 South Wright St.  
Champaign, IL 61820  
217-328-3888

#### Illini Union Bookstore

809 South Wright St.  
Champaign, IL 61820  
217-333-2050

#### County Market (grocery)

331 E. Stoughton St.  
Champaign, IL  
217-352-4123

## ILLINI UNION WIRELESS INTERNET



- Choose the "UIpublicWiFi" wireless network
- Open a web browser and go to a web site
- Fill out registration form. The University is legally required to collect information from you to provide you with network access.
- When you open a web browser and enter a web site such as [www.illinois.edu](http://www.illinois.edu) (external link), your web browser will be redirected to the UI Public Wireless authentication site, where you are asked to agree to the Terms of Use.
- UI Public Wireless users can contact wireless-related technical support at 217-333-9100.

# Act safely at level crossings

Al passaggio a livello prioritá alla vita  
Aux passages à niveau priorité à la vie  
Κινούμαι με προσοχή στις ισόπεδες διαβάσεις  
Passera plankorsningen säkert  
Los pasos a nivel una prioridad vital  
Nas passagens de nível não arrisque  
Bahnübergänge – Sicherheit hat Vorrang  
Zachowuj się bezpiecznie na przejazdach kolejowych  
Preminavai bezopasno prez gelezoputnite prelezi  
Chovejte se bezpečně na železničních přejezdech  
Respecteer de veiligheid aan overwegen  
Železnice priecestie – správaj sa bezpečne

Опрез! Изабери живот!  
Közlekedj biztonságosan a vasúti átjáróban  
Toimia turvallisesti tasoristeyksissä  
Fii atent la tren viata ta conteaza  
Будь внимателен на переезде  
رباعملا ىوتسم ىلع نامأب لمعت  
在平交道口安全行动  
踏切で安全に行動する  
건널목에서 안전하게 행동  
המא יאבעמב הקטבב לעפל  
सम्पारों पूर सुरक्षति रूप में कार्य  
ทำหน้าที่ได้อย่างปลอดภัยที่ระดับน้ำ



View Schedule on your phone here: [tinyurl.com/GLXS2014](https://tinyurl.com/GLXS2014)