

Wednesday, May 4, 2016
9:00 AM

Bearing Pads for Bridges and Vibration Control

Speaker(s): Steve McCuiston, Fabreeka International

Lussi A

PDH: (PE)

The presentation will begin discussing the pre-formed cotton duck bearing pad and the random oriented fiber pad and its characteristics and differences in application. The application and design considerations of the PTFE slide bearing will then be discussed. The third part will be a general discussion on principals of vibration control.

Adirondack Northway, Exit 4 Project

Speaker(s): Angelo Trichilo, NYSDOT Region 1
Lee Ecker, CHA Companies

Lussi B

PDH: (PE/LA)

This presentation will discuss the Engineering, environmental and economic challenges shaping the Interstate 87, Exit 4 Reconstruction project. The proposed project involves access improvements between I-87, also known as the Adirondack Northway, Wolf Road, and the Albany International Airport.

Challenges of Designing & Implementing Bridge Maintenance Repairs, (Part 1)

Speaker(s): Ricky Hunkins, NYSDOT Region 7

Lussi C

PDH: (PE)

Within the transportation network, there exists a wide variety of different bridge types, age, conditions, and details. Maintenance and repairs to these present many varied challenges with respect to proper corrective actions to fit the circumstances, limiting existing conditions and details, as well as the design and implementation of repairs. Maintenance actions are inherently constrained in funding with competing work needs resulting in unique and often atypical solutions.

Cost Effective Engineering Techniques for Environmental Benefit

Speaker(s): Sarah Piecuch, NYSDOT Region 4

Legends

PDH: (PE/LA)

While not always obvious, transportation projects offer opportunities to incorporate environmental enhancements that provide environmental benefits for wildlife and humans. This presentation will provide a basic guide and give several regional examples of how this was done on transportation projects

Wednesday, May 4, 2016

10:15 AM

Innovations and Accelerated Bridge Construction in Design Build

Speaker(s): Brian Byrne, Lochner

Lussi A

PDH: (PE)

This presentation will discuss innovations for two very different design-builds... the \$580M Route 1 Gateway project in New Brunswick, Canada and the \$3.6M Lardo Bridge replacement in McCall, Idaho. For both projects, the use of accelerated bridge construction techniques helped to reduce construction schedules, minimized impacts to motorists and reduced project costs. For the Route 1 Gateway project, innovations included the use of large diameter bored caissons and Simple for Dead Load Continuous for Live Load (SDCL) detailing of two steel plate girder river crossings. Benefits and potential difficulties associated with SDCL and the deciding factors that resulted in the selection of the bored caissons and the details used at four of the river crossings will be discussed. Ultimately, the project was finished 8 months ahead of schedule, in part due to the use of SDCL and the foundation type selection. For the Lardo Bridge replacement project, Slide-in Bridge Construction technology was used to replace a 5-span bridge carrying SH-55 over the outlet of Payette Lake. A 155-foot single-span precast concrete girder bridge and its abutments were slid in place as part of Idaho Transportation Department's (ITD's) first use of slide in technology. Accelerated Bridge Construction was not specifically required for this project, but met the project's objectives and schedule, and ultimately helped to reduce overall costs.

Goethals Bridge Replacement Project

Speaker(s): Thomas Spoth, Parsons

Lussi B

PDH: (PE)

The Port Authority of New York and New Jersey is replacing the 1928 Goethals Bridge through a Public Private Partnership (P3). The replacement crossing is a dual-span, state-of-the-art cable-stayed bridge connecting Elizabeth, NJ and Staten Island, NY. The bridge will consist of a 7,306 ft long structure including a 1,635 ft cable stayed bridge with a 900 ft main span over the Arthur Kill. The new bridge will be a dual-span structure consisting of three eastbound lanes, and three westbound lanes with a pedestrian/bicycle path. Consistent with the economic vitality and planned growth in the region, the initial-build maintains a 29 ft clear width corridor between the dual-span structures for potential transit use. The main bridge is designed to receive the potential transit build-out without the need of strengthening the towers, superstructure or foundations. The towers of the dual-spans together form a "double V" configuration. This configuration was selected such that the stay cables diverge from the roadway, providing both an "open" driving experience and an aesthetically pleasing form that fits the context of the surrounding area. The superstructure of the cable stayed spans features a unique structural framing system that provides the level of redundancy and overall structural resiliency necessary to meet project requirements.

Challenges of Designing & Implementing Bridge Maintenance Repairs, (Part 2)

Speaker(s): Ricky Hunkins, NYSDOT Region 7

Lussi C

PDH: (PE)

Within the transportation network, there exists a wide variety of different bridge types, age, conditions, and details. Maintenance and repairs to these present many varied challenges with respect to proper corrective actions to fit the circumstances, limiting existing conditions and details, as well as the design and implementation of repairs. Maintenance actions are inherently constrained in funding with competing work needs resulting in unique and often atypical solutions.

Complete Streets

Speaker(s): Josy Delaney, Alice Hyde Medical Center

Legends

PDH: (PE/LA)

The Malone Complete Streets Partnership was established in 2009 and became the Malone Complete Streets Advisory Board in 2014. This presentation will address a variety of policy, planning and infrastructure improvements made in the Malone community through Complete Streets strategies, the processes we went through, and next steps proposed. A myriad of examples will be given of design and engineering elements utilized in Complete Streets initiatives to improve safety and access. An overview of national programs that incorporate Complete Streets principles, and recommendations for additional resources, will also be provided. The Complete Streets "movement" is gaining traction nationally. We are all pedestrians, and value safety for ourselves and our families. Additional benefits of Complete Streets include economic vitality, especially for downtowns; improved community & environmental health; and even social equity. There is something in it for everyone!

**Wednesday, May 4, 2016
11:30 AM**

Design Challenges of the I-81 Viaduct Project

Speaker(s): Mark Frechette, NYSDOT Region 3

Lussi A

PDH: (PE/LA)

The I-81 Viaduct project in Syracuse is one of the largest single transportation projects that DOT has ever had to address. There are many challenges to provide a new transportation system that will address multiple deficiencies but also provide a solution that enhances the livability, sustainability, and economic vitality of greater Syracuse.

Patroon Island Bridge, I-90 / I-787 Interchange

Speaker(s): Angelo Trichilo, NYSDOT Region 1

Dave Vieni, HDR

Jeff Pangburn, Creighton Manning

Lussi B

PDH: (PE)

This \$146 million NY Works project rehabilitated 7 bridges, including full reconstruction of 18 piers, while maintaining full traffic capacity during peak hours by using the first roll out of Governor Cuomo's Driver's First program.

Patterson Street Reconstruction Project

Speaker(s): Luke Morenus, Barton & Loguidice

Lussi C

PDH: (PE/LA)

The presentation is a synopsis of the \$10 million Federal-Aid project to reconstruct Patterson Street in the City of Ogdensburg New York. The project serves as an excellent example of how foresight and planning can provide win-win infrastructure improvements that extend beyond the roadway surface. The pass-through project dove-tailed nicely with a parallel project to enhance access to the adjacent Port of Ogdensburg, giving the roadway project a vital temporary access point to the Port during construction while simultaneously providing the Port itself with a long-term solution for accommodating large-scale trucking and railroad maneuvers. Concurrent with that, the full-depth roadway reconstruction also allowed the City to bring forth another phase of their Long Term Control Plan related to Combined Sewer Overflows into the St. Lawrence River, and allowed further compliance with the City's Local Waterfront Revitalization Plan, Strategic Management Plan, and Main Street Assessment.

Vegetation Control for Outdoor Advertising

Speaker(s): Marian Tompkins, NYSDOT Region 1

Legends

PDH: (PE/LA)

There have been many technological changes in signs that were unforeseen when highway scenic rules were originally created. This makes reviewing vegetation removal even more important than in the past. Learn about the history of outdoor advertising, the Highway Beautification Act, and laws controlling vegetation on highways.

**Wednesday, May 4, 2016
2:00 PM**

I-81 / NY 17 Interchange, Binghamton, Phase 2

Speaker(s): Mark McAnany, Bergmann Associates
Dominic Fekete, Bergmann Associates

Lussi A
PDH: (PE)

An overview of the technical aspects of design and constructability associated with the second phase of the I-81/NYS 17 Interchange Reconstruction project located in the City of Binghamton, NY where I-81 and NY 17 converge alongside and across the Chenango River. The presentation will focus on the diverse challenges associated with the Phase 2 improvements, including the reconstruction and reconfiguration of the interchange with NYS Route 7 and the operational and safety improvements envisioned for the overlap section of I-81 and NY 17 within and approaching this high-speed directional interchange. The project includes 7 bridges, reconstruction of NYS Route 7 and US 11, noise walls, retaining walls, new traffic signals, lighting, a multi-use path, and extension of ITS features throughout the project limits. The project is scheduled to be awarded in late spring 2016.

**The I-81 Viaduct Project:
Urban Design Approaches to Meet the Project's Second Goal**

Speaker(s): Kathryn Wolfe, Trowbridge Wolf Michaels Landscape Architects
Jonathan Peet, Trowbridge Wolf Michaels Landscape Architects

Lussi B
PDH: (PE/LA)

To present an overview of NYSDOT's I-81 Viaduct Project's second project goal related to context, livability, visual quality, sustainability, and economic vitality. The presentation will touch on some of the potential benefits and challenges of working in an urban context, and specifically in Downtown Syracuse.

The New NY Bridge: Replacement of the Tappan Zee Bridge

Speaker(s): Tom McGuinness, NYS Thruway Authority

Lussi C
PDH: (PE)

A photographic chronicle of the New, New York Bridge (Tappan Zee) construction to-date. The Tappan Zee Bridge replacement project is a \$4B effort to improve a critical transportation link across the Hudson River, just north of NYC. This presentation will provide a project overview and cover activities completed to-date from design, environmental commitments, dredging, test pile program and pile installation, concrete substructure, towers, structural steel, deck panels, health and safety monitoring and overall progress.

Rehabilitation of CMP Arch Structure via Sliplining with Smooth Steel Pipe

Speaker(s): Cullom Walker III, Precision Pipe & Products, Inc.

Legends
PDH: (PE)

A failing CMP Arch pipe under Interstate 465 in Indianapolis was slip lined with a smooth steel liner that was 184" X 111" by over 200 linear feet. Our case study will be a review of the process to find a solution working with the owner, complete with Load bearing calculations by the engineer and some details of the install.

Wednesday, May 4, 2016

3:15 PM

Accelerated Bridge Construction (ABC) in New York State

Speaker(s): Wahid Albert, NYSDOT Main Office Structures

Lussi A

PDH: (PE)

Class will provided an overview of ABC projects in New York State, especially projects constructed in the past 3 years using innovative materials and new construction details. I will go over lessons learned from the over 40 bridges that were constructed.

Graphic Communication in Landscape Architecture

Speaker(s): Zac Boggs, Trowbridge Wolf Michaels Landscape Architects

Lussi B

PDH: (LA)

To present an overview of graphic communication within the landscape architecture field including; theory of graphic design, the standardized workflow process between computer programs, the value of hand graphics and examples of plan and perspectives renderings.

Public Private Partnerships – Beyond Design Build

Speaker(s): Ruth McMorrow, Parsons

Lussi C

(No CEU's)

This course will provide design professionals and project managers from both the public sector procuring agency and their potential contracting partners with an understanding of how a public-private partnership (PPP or P3) project delivery will differ from design-build and design-bid-build.

Understanding ADA Specifications & Applications for Sidewalk & Access Products

Speaker(s): Craig Coggins, EJ

Legends

PDH: (PE/LA)

This course will teach the important facts of ADA Standards when applied to steel fabricated and cast iron access products. At the conclusion of the course, the participant will be better equipped to make informed specification decisions as to infrastructure access coverings, gratings, hatches, etc. as they apply to the ADA standard.

**Thursday, May 5, 2016
8:30 AM**

**I-75 / University Drive, Diverging Diamond Interchange,
(DDI) Design Build, Michigan DOT**

**Lussi A
PDH: (PE)**

**Speaker(s): Rick Chelotti, Bergmann Associates
Mario Quagliata, Bergmann Associates
Lori Swanson, Michigan Department of Transportation, MDOT**

An overview of the technical aspects of design and constructability associated with the recently constructed I-75/University Drive Diverging Diamond Interchange (DDI) in Auburn Hills, Michigan for the Michigan Department of Transportation (Owner). The presentation will focus on the diverse challenges associated with the interchange improvements, including the project delivery method (Design-Build), Alternative Technical Concepts (ATC's) developed in order to reduce project costs for a winning bid, community/stakeholder involvement, traffic modeling and current operations, 3D modeling and its impact on the design/costs, bridge foundation considerations, Construction Engineering, etc. Construction of the project was completed in early November of 2015.

NYSDOT's Travel Corridor Unit Management Planning in the Adirondack Park

**Lussi B
PDH: (PE/LA)**

Speaker(s): Ed Frantz, NYSDOT Main Office

Transportation in all forms has played a large role in the Adirondacks bold and colorful history. Most visitor's primary experience of the Adirondack Park is from the travel corridors. NYSDOT is currently moving forward Travel Corridor Unit Management Planning (TCUMP) within the Adirondack Park which integrates the needs of a functional transportation system while meeting social, economic and environmental needs where feasible. This presentation will give an overview of the current schedule and key highlights of the TCUMP's including: knowledge and communication improvements, desired outcomes, recommendations, asset management, current outcomes, and how TCUMP's will benefit future transportation decisions in the Park.

Why do Concrete Bridge Decks Crack?

**Lussi C
PDH: (PE)**

Speaker(s): Bob Curtis, NYSDOT Region 7

The course will provide an explanation of the bridge decking problem that bridge builders have experienced in the last 20 or more years. Knowledge of the behavior of the concrete and steel in bridge superstructures will lead to an understanding of the mechanics of the bridge deck cracking. Recommendations to minimize cracking will be discussed.

HS20 Loading Requirements of Grating and Manhole Covers

**Legends
PDH: (PE)**

Speaker(s): Craig Coggins, EJ

This course will teach the important facts of AASHTO Bridge codes when applied to fabrication and cast products designed for highway loadings. At the conclusion of the course, the participant will be better equipped to make informed specification decisions as to infrastructure access coverings, gratings, hatches, etc., with respect to proper, and current industry material and performance specifications.

Thursday, May 5, 2016

9:45 AM

Kosciuszko Bridge Project, New York City

Speaker(s): Robert Adams, NYSDOT Region 11

Lussi A

PDH: (PE)

The speaker will present an overview of the NYSDOT's ongoing Design-Build (DB) project to construct twin cable-stayed bridges to replace the existing Kosciuszko Bridge over Newtown Creek in New York City, focusing on the benefits of the DB project delivery method, innovative design elements incorporated, and the progress and challenges faced during construction. At \$555 million, the Phase 1 DB contract is the largest single contract in the history of NYSDOT and the new cable-stayed bridge will be the first of its kind in New York City.

Remote Wetland Mapping in Adirondack Park

Speaker(s): Mark Rooks, Adirondack Park Agency

Lussi B

PDH: (PE/LA)

The New York State Adirondack Park Agency (APA) administers the Adirondack Park Agency Act and Freshwater Wetlands Act within the Park. The Agency has had watershed-level wetland mapping for over 30 years; recently we have implemented lot-specific air photo interpretation for jurisdictional determinations and to assist with project planning and permitting. This air photo interpretation uses digital, high-resolution, stereo, color-infrared imagery viewed with specialized hardware and software. Heads-up digitization results in GIS maps showing wetlands in relation to a project site. Several case studies of the use of this information are presented. The specifics of the hardware and software are briefly discussed.

Transverse Cracking of Composite Bridge Decks

Speaker(s): Levon Minnetyan, Clarkson University

Lussi C

PDH: (PE)

The problem of bridge deck cracking is complex in nature and for economical bridge design cracks may not be avoided. We will use models to assess residual stresses in composite bridge decks due to temperature and shrinkage, finite element analysis for the added live load stresses, and results of a composite deck load test as the development of cracking is observed.

Monitoring and Condition Assessment of Bridges

Speaker(s): Kerop Janoyan, Clarkson University

Legends

PDH: (PE)

Development of diagnostic and prognostic routines for application to in-service measurements from highway bridges necessitates analysis of experimental measurements from in-service highway bridges under natural or prescribed induced damage. This is generally limited to the unique opportunity of investigating end-of-service life bridges prior to reconstruction and consequently only a limited library of such case studies exist. This presentation reviews a field test of an end-of-service bridge span with prescribed progressive damage to a bearing as well as several diaphragm connections. Thirty dual-axis accelerometers were distributed across the bridge span with data acquisition and transmission facilitated by a real-time lossless wireless sensor network. A highway department service truck applied traffic excitation to the structure through routine passes on a consistent lane of traffic. Output-only system identification was applied to the baseline time history response to develop a state-space model of the bridge dynamics used for forward prediction. Simple statistical evaluation of the prediction error in the model demonstrates the variance can be used to localize and generally quantify the degree of damage in the structure.

Thursday, May 5, 2016
11:00 AM

Properties and Performance of Alkali Activated Fly Ash Slag Cement Concrete

Lussi A

Speaker(s): Sulapha Peethamparan, Clarkson University

PDH: (PE)

Portland cement concrete is the most widely used construction material, but the production of portland cement contributes about 5-8 % of industrial carbon dioxide emissions. Alkali-activated concrete mixtures based on industrial byproducts like fly ash and blast-furnace slag are a promising solution to this problem, and can reduce carbon emissions significantly. As the required service life for new structures approaches 100 years or more, it is necessary to characterize the mechanical performance and long-term durability of novel structural concrete materials. This presentation will discuss ongoing work to that end.

Green Infrastructure Solutions in transportation Projects

Lussi B

Speaker(s): Brian Gyory, NYS Environmental Facilities Corporation
Jeff Lebsack, Mott MacDonald

PDH: (PE/LA)

Presentation will focus on Green Infrastructure projects built specifically within roadway projects. Green Streets, including porous pavements, storm water, street trees, and bioretention will be highlighted.

New Trends in Mitigating Road Impacts on Small Animals

Lussi C

Speaker(s): Tom Langen, Clarkson University

PDH: (PE/LA)

Roads and road traffic can negatively impact small animals, and there is increasing effort to design, test, and implement innovative technologies and best practices to mitigate these impacts. In this presentation, I will review ways in which roadside habitat management, wildlife barriers, and wildlife passage structures are being used to benefit small animals, especially reptiles, amphibians, and small mammals. Many effective management options are simple to implement and relatively inexpensive; their use is likely to increase in coming years.

Non-Destructive Testing & Evaluation of Bridge Decks

Legends

Speaker(s): Khiem Tran, Clarkson University

PDH: (PE)

This presentation will showcase an emerging innovative seismic method (waveform tomography) that utilizes the full wave-field of collected seismic data and compares the measured responses to the responses of forward model of the anticipated conditions through an inversion process. The method has the potential to overcome limitations common to surface refraction seismic where stiffer layers overlie softer layers, and to resolve targeted features well at depth. Case studies where this evolving method has been used to identify sinkholes and abandoned underground mine workings under roadways for Florida DOT and Ohio DOT, respectively, will be presented. Capability of the waveform tomography will also be presented for evaluation of concrete bridge decks.

**Thursday, May 5, 2016
2:00 PM**

County Route 48, Franklin Falls Accelerated Bridge

Speaker(s): Bryan Tremblay, Barton & Loguidice

Lussi A

PDH: (PE)

The presentation will provide an overview of the bridge replacement project and the numerous challenges that were overcome throughout the design process. Limited construction funds, a 28-mile long detour and difficult site conditions were only a few of the many challenges presented to the design team. A number of replacement options were considered before determining that an accelerated bridge replacement option was the best suited for the site. The structure was replaced utilizing precast concrete components and a drilled micropile foundation, allowing the bridge to be completely replaced while closing the road to traffic for 19 days.

Section 6(f), Land & Water Conservation Act

Speaker(s): Shelah Laduc, NYSDOT Main Office
Laura Savage, NYSDOT Main Office

Lussi B

PDH: (PE/LA)

This course presents information on Section 6(f) of the Land and Water Conservation Fund Act, including how to evaluate potential project activities to determine whether there is an impact or conversion of LWCF protected parkland.

Building Information Modeling / Asset Management

Speaker(s): Erik Backus, Clarkson University
Bill Olsen, Clarkson University

Lussi C

PDH: (PE)

This presentation will take the audience through the effort to date by the Clarkson University research team working with the Ogdensburg Bridge and Port Authority. BIM, Building Information Modeling, has been used in institutional/commercial building market for several years. Clarkson's team applied this powerful tool to the OBPA's Ogdensburg-Prescott International Bridge in an effort to help the authority better understand and manage this critical piece of North Country infrastructure. The team will highlight the entire process of building a BIM Model to support this effort, from obtaining documentation, through to a virtual flythrough of the bridge. Many lessons were learned along the way, and among them is the value it can bring to asset management.

Finite Element Model Analysis of the Ogdensburg-Prescott International Bridge

Speaker(s): Naru Nakata, Clarkson University

Legends

PDH: (PE)

This study presents a preliminary investigation of structural performance of Ogdensburg-Prescott International Bridge using high-fidelity finite element models. The Ogdensburg Bridge is 1.5-mile, 6-span suspension bridge connecting Ogdensburg, New York in US, to Johnstown, Ontario in Canada. The main span is 1,150.8 ft across the St. Lawrence Seaway. This effort is a part of the collaborative project between Clarkson University and Ogdensburg Bridge and Port Authority (OBPA) in New York on research, technology transfer, education and training. The presentation will address the development of high-fidelity finite element models that capture three-dimensional geometry and curvature of the bridge as well as various bridge components such as cables, trusses, girders, and bearings. The developed computational models are intended to simulate the bridge performance under normal service loads and extreme events.

Thursday, May 5, 2016

3:15 PM

Evaluating the Regional Macroeconomic Impacts of Transportation Investments

Lussi A

Speaker(s): Bill Leung, Regional Economic Models, Inc.

PDH: (PE)

Chris Judson, Regional Economic Models, Inc.

Thomas Eldridge, Regional Economic Models, Inc.

REMI will provide an overview of commonly used tools that analyze the economic, demographic and fiscal impacts of transportation infrastructure analysis on a regional economy. Dynamic economic impact analysis is a growing part of TIGER and other federal and state grant processes to understand the impacts not only of the construction phase, but the long-term impacts to a region by making network improvements. These tools enable transportation departments to score projects and can include the use of economic benefit-cost multipliers accepted by the FHWA.

Constructing ADA Compliant Facilities within the Public ROW

Lussi B

Speaker(s): Jon Adams, NYSDOT Region 7

PDH: (PE/LA)

Steve Gagnon, NYSDOT Region 7

We will provide background on the Americans with Disabilities Act (ADA), and provide technical design and construction guidance on how to comply with accessibility guidelines. The presentation includes a critique of post construction accessibility routes and curb ramps.

Implementing Invasive Plant Best Management Practices along the ROW

Lussi C

Speaker(s): Zachary Simek, Adirondack Park Invasive Plant Program

PDH: (PE/LA)

Invasive species are second largest threat to global biodiversity after habitat loss. However, their impacts are not limited to the environment. Invasive plants also negatively affect human activities and built infrastructure. When established along the right-of-way, invasive plants can increase workload and management costs by millions of dollars annually. This presentation will describe the impacts of terrestrial invasive plants, identify common spread vectors, and summarize common best management practices to prevent and limit new introductions.

Applying Critical Path Method Scheduling to NYSDOT Projects

Legends

Speaker(s): Dan Moore, NYSDOT Main Office

(No CEU's)

Mary Harding, NYSDOT Main Office

Jeremy Kitto, NYSDOT Main Office

NYSDOT Capital Program practices for Critical Path Method (CPM) Scheduling concepts through the life of a Transportation project will be presented, as will the Specification that requires CPM schedules on construction projects. An overview and discussion about using NYSDOT templates to create CPM schedules for use as a project management tool from Planning through Design will provide attendees with an understanding of how a schedule can become more than just a tool to track dates and durations for project activities. NYSDOT's Critical Bridges over Water (CBOW) program is funded by the Federal Emergency Management Agency, which requires specific compliance reporting throughout the design and construction of each bridge. NYSDOT will also discuss the use of CPM schedule data in the Primavera P6 tool to support these requirements.

**Friday, May 6, 2016
8:30 AM**

Rehabilitation of Whiteface Mountain, Veteran's Memorial Highway

Speaker(s): Geoff Wood, NYSDOT Region 1

Lussi A

PDH: (PE)

Learn about the only Adirondack high peak accessible by car, the historic highway leading to the peak, and how design of its rehabilitation was completed one winter in only 61 days. In addition to the design challenges, technical and construction challenges will also be discussed.

Tree Benefits in a Changing Environment

Speaker(s): David Nowack, U.S. Forest Service

Lussi B

PDH: (LA)

This presentation will discuss how: 1) trees can dominate an urban environment, 2) trees in cities affect environmental quality and human health; 3) cities and trees will be changing in the coming years, and 4) to quantify and design for these benefits at the local scale.

**Friday, May 6, 2016
9:45 AM**

NYS Rte 3 & 30, Tupper Lake Reconstruction Projects

Speaker(s): Steve Gagnon, NYSDOT Region 7

Lussi A

PDH: (PE/LA)

This presentation will explore the challenges of designing and constructing highway projects within the Adirondack Park. NYS Routes 3 and 30 intersect in Tupper Lake. The projects included many unique constraints including rebuilding the highway within very tight ROW width, with a mountain on one side and a lake on the other. The environmental issues included wetland mitigation, avoiding forest preserve lands, reducing the mortality rate of turtles along the highway and rebuilding a causeway crossing an environmentally sensitive area. We will also discuss the traffic management challenges within the Village of Tupper Lake.

Watershed Based Analysis of Paved Roads and Sodium and Chloride in Adirondacks Lakes

Speaker(s): Dr. Daniel Kelting, Paul Smith's College

Lussi B

PDH: (PE/LA)

This presentation will introduce the history and extent of road salt use in the Adirondacks, describe relationships found between road salt use, road networks, and lake and stream salinization, discuss potential effects of road salt on aquatic ecosystems and human health, and present initiatives and ideas for reducing the amount of salt in our waters.

**Technical Tour
The Wild Center
Tupper Lake**

Adirondack Tree Identification

Tupper Lake

Tour bus Departs @ 11:00 AM, from the Conference Center

Speaker(s): Daniel Spada, New York Flora Association

PDH: (PE/LA)

This will be a walking tour at the “Wild Center” in Tupper Lake. The class will provide participants with the tools necessary to be able to identify tree and plant species common to the Adirondack Park.