Tentative Program

Wednesday, August 23, 2017

11:00 – 12:15 pm	**Registration** (Foyer) **Lunch on your own**
11:00 – 6:00 pm	**Trade Show / Refreshments** (Ballroom IV and Foyer)

Ballroom I, II and III

12:15 pm	**Welcome & Kick-Off** *Many thanks to the conference committee for their assistance in providing the presentations contained in this program.* *Scott Coleman, PE, PS, Logan County Engineer, CEAO Bridge Committee Co-Chair* *Warren Schlatter, PE, PS, Defiance County Engineer, CEAO Bridge Committee Co-Chair*
12:20pm - 1:10pm	**A New Bridge over Big Darby Creek – Balancing Environmental Impacts with Long-Term Cost Effectiveness (Pickaway-CR22-6.95 Scioto-Darby Road)*** *Anthony Neff, PE, PS, Chief Deputy Engineer, Pickaway County Engineer's Office* *Brooks Vogel, PE, LEED AP, Partner, Korda/Nemeth Engineering, Inc.* *Brian Metz, Assistant Vice President, TranSystems* *Joe Warino, PE, Senior Director of Ohio Construction Management, Prime AE Group, Inc.* In replacing the existing one-lane, two-span, 105 year old structure over National Scenic Big Darby Creek, providing Pickaway County with a cost-effective, low maintenance solution that improved safety remained a priority. The presentation will summarize the project approach, engineering, environmental, and construction challenges, and lessons learned in successful completion of the project.
1:10pm – 2:00pm	**Bridge Rehabilitation and Cost Effective Methods for Addressing Bridge Deterioration*** *Siva Venugopalan, Siva Corrosion Services, Inc.* Deterioration from salt application, poor concrete quality, or low concrete cover can be quantified using a combination of NDT and service life modeling allowing one to identify if and when repairs/rehabilitation are to be performed to have the most repair options at the least cost. This presentation will discuss this methodology and how we developed repair recommendation for 18 bridges in a highway corridor.
2:00pm - 2:15pm	**Statewide Historic Bridge Preservation Awards** *Matt Shamis, Chief Bridge Engineer, Federal Highway Administration, Ohio Division* *Mary Ogle, Project Reviews Manager, State Historic Preservation Office* *Diana Welling, Department Head, Resource Protection & Review, State Historic Preservation* *Erica Schneider, Assistant Administrator, ODOT's Office of Environmental Services* *Susan Gasbarro, Team Leader, Cultural Resources, Office of Environmental Services, ODOT* *Tom Barrett, Historic Bridge Program Manager, Scenic Byways Coordinator, Office of*

***All technical sessions (excluding Historic Bridge Preservation Awards) have been recommended for CPD credit for a maximum of **7.25 CPD hours**. Please note that the final determination of what qualifies for CPD credit ultimately lies between the license holder and the State Board of Registration for Professional Engineers & Surveyors.*

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Environmental Services, ODOT
Monica Bruns, Staff Historian Office of Environmental Services, ODOT
Heidi Harendza, Staff Historian, Office of Environmental Services, ODOT

The Ohio Department of Transportation, FHWA, and the State Historic Preservation Office will present the annual Historic Bridge Preservation Awards. The agencies will honor recent efforts that rehabilitate historic bridges, keep historic structures in service, or reuse and preserve them at a new location. Context-sensitive bridge designs and sustainable practices which incorporate aesthetic elements and components of older bridge types are also eligible for the award.
The Historic Bridge Awards are part of the *Section 106 Programmatic Agreement* which streamlines the environmental process for all types of common federal transportation projects. It also incorporates identification, and protection of historically significant resources, including the preservation of historic bridges.

2:15pm – 2:50pm **Break** – **Trade Show** (Ballroom IV and Foyer)

2:50pm – 3:40pm **Credit Bridge Program Success Stories***
Nichole Wade, Program Manager, Office of Local Program, ODOT
Ronald Meyer, II, PE, PS, Deputy Engineer, Allen County Engineer's Office
James Wiechart, PE, PS, Mercer County Engineer

This presentation will consist of a brief overview of the credit bridge program including which structures are eligible and the process that must be followed in order for FHWA to issue the credit. Then real life examples will be provided to highlight successes in earning credit, successes in using credit, lessons learned, and advice for future projects.

3:45pm – 4:15pm **Licking County 5-Year Bridge Program: Managing and Replacing 158 Deteriorated Structure Assets***
Michael Bline, PE, Bridge Engineer, Licking County Engineer's Office
Daniel Kent, Jr., PE, Senior Structural Engineer, Gannett Fleming Engineers and Architects, P.C.

As our nation's infrastructure ages, emphasis is placed on inspection and remediation of bridges. How do engineers and county officials work together to ensure the safety of the public? This presentation describes the 5-year bridge program that the Licking County Engineer developed to manage, repair and replace aging county owned structures. This session highlights the findings of the program, including successful repair and replacement of a large number of Licking County owned bridges.

4:15pm – 6:00pm **Trade Show and Reception** (Ballroom IV and Foyer)
We encourage you to visit our exhibitors and thank them for their support of our conference. Refreshments will be served.

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Thursday, August 24, 2017

7:30am – 8:30am	**Continental Breakfast** – Foyer
8:30am – 8:45am	**Bridge QA/QC Updates*** *Mark Stockman, Bridge QA/QC Engineer, CEAO* This session will cover the good (inspections are getting better being on time), the not so good (load posting signs are often incorrect), and other updates from recent county bridge inspections.
8:45am– 9:45am	**ODOT Office of Structural Engineering Hot Topics*** *Tim Keller, PE, Administrator, Office of Structural Engineering, ODOT* Tim will be discussing a variety of topics that affect the bridge industry in Ohio.
9:45am-10:00am	**Break**
10:00am-10:30am	**Taylor Creek Culvert Extension*** *Dave Wormald, PE, AICP, Senior Project Engineer, Transportation, AECOM* *Joe Hauber, PE, Senior Project Manager, Geotechnology, Inc.* Taylor Creek Culvert outlets to the Ohio River in Newport, Kentucky. Scour resulted in failure of apron slab and wing wall which lead to failure of embankment. Final design involved a pile-supported foundation for the precast culvert and a tied-back combination pile wall to support nearly 20 feet of fill.
10:30am-11:00am	**ORIL Project – Load Capacity of Concrete Slabs without Plans*** *Richard Miller, PE, FPCI, Professor, Department of Civil and Architectural Engineering and Construction Management, University of Cincinnati* Bridges without plans cannot be accurately rated as many properties are unknown. Flow charts are presented for the use of non-destructive or minimally invasive testing methods to determine these properties for concrete slab bridges. The accuracy and suitability of each test method is also assessed.
11:00am-11:30am	**Load Rating Concrete Arches with Graphic Statics*** *Bill Vermes, Senior Bridge Engineer, Pennoni Associates* Before 1940, concrete arch bridges were designed using graphic statics and hand-calculated tables. Recent load ratings using finite element analysis and spreadsheets show that these structures have high rating factors despite heavier truck loads. Load ratings for several older concrete arches using a regeneration of the original design methods with contemporary trucks will be compared to that of current practices, leading to a better understanding of the original design and performance of concrete arch bridges.

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11:30am-12:00pm

TUS-36-12.05 Bridge over the Tuscarawas River – The Replacement of a Deficient Historic Bridge Becomes an Opportunity for Innovation*

Matthew O'Donnell, PE, Project Manager and Senior Bridge Engineer, Gannett Fleming Engineers and Architects, P.C.
Waseem Khalifa, PhD, PE, District Bridge Engineer/Program Manager, ODOT District 11

Built in 1949 by the American Bridge Co. as one of ODOT's last through-truss structures, the original TUS-36-1205 Bridge used a very large amount of steel, emblematic of the material's availability after World War II. These characteristics had placed it on Ohio's Historic Bridge Inventory, so efforts to address its deficiencies began with an extensive study of rehabilitation vs. replacement options. Once rehabilitation was found unfeasible, the replacement project became part of ODOT's strategic initiative to implement new technologies.
After extensive coordination with various government and community agencies, the new 5-span steel plate girder bridge was built in one construction season. It includes a shared-use path and sufficient clearance for a future shared-use trail underneath.
The presentation will explore the successful solutions that resolved the numerous project constraints and challenges, and allowed construction to be completed in a demanding timeframe.

12:00pm

Lunch – Pavilion

12:15pm-12:45pm

Luncheon Key Note: Ironton Russell Cable Stay Bridge*

David Bame, PE, Transportation Engineer 4, ODOT District 9
Thomas M. Hesmond, PE, Project Manager, Brayman Construction

This session will focus on the construction of the New Ironton Russell Bridge including the demolition of the existing structure. The various stages of construction and construction methods will be reviewed as well as challenges and lessons learned throughout the project.

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