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IBC 2013 Technical Program by Session

Keynote
Monday, June 3, 2013
Chair: William J. (Jay) Rohleder, Jr., P.E., S.E.
International Bridge Conference® 2013 General Chair
FIGG Bridge Engineers, Inc. Exton, PA

WELCOME REMARKS
Thomas E. Donatelli, P.E., ESWP President, Michael Baker Jr., Inc., Pittsburgh, PA
Rich Fitzgerald, Allegheny County Chief Executive, County of Allegheny, Pittsburgh, PA

THE WAY FORWARD
Frank DePaola, P.E., MassDOT Highway Administrator, Massachusetts DOT, Boston, MA

TRANSPORTATION FINANCE
Barry J. Schoch, P.E., Secretary of Transportation, Commonwealth of Pennsylvania, Harrisburg, PA

IMPACT OF MAP-21 ON BRIDGES AND TUNNELS
M. Myint Lwin, P.E., S.E., Director, Office of Bridge Technology, FHWA, Washington, DC

DESIGN-BUILD PROCUREMENT AND BEST PRACTICES
Michael Flowers, P.E., President and CEO, American Bridge Company, Coraopolis, PA

THE FEDERAL ROLE IN TRANSPORTATION
The Honorable Bill Shuster, Chairman, U.S. House Transportation & Infrastructure Committee (PA 9th District), Hollidaysburg, PA

TRANSPORTATION AT A CROSS ROADS-MAP 21 AND BEYOND
Michael P. Lewis, Director, Rhode Island Department of Transportation, 2013 AASHTO President, Providence, RI
SUCCESSFULLY IMPLEMENTING INNOVATION, A PRESENTATION INCLUDING ACCELERATED BRIDGE CONSTRUCTION CASE STUDIES & LESSONS LEARNED
Thomas P. Donald, P.E., Director of Bridge Project Management

INNOVATIVE BRIDGE SOLUTIONS IN MASSDOT'S NEW BRIDGE MANUAL
Alexander K. Bardow, P.E., Massachusetts State Bridge Engineer

COMMUNICATING ABOUT ACCELERATED BRIDGE CONSTRUCTION — CASE STUDIES AND RESOURCES
Eliza Partington, Bridge Technical Coordinator

MANAGING ACCELERATED BRIDGE CONSTRUCTION
Victoria Sheehan, Accelerated Bridge Program Manager

MASSDOT'S MAJOR PROJECTS
Joe Pavao, MassDOT Project Manager
**Proprietary Session**

Monday, June 3, 2013

Session Chair: Rachel Stiffler, Vector Corrosion Technologies, McMurray, PA

**IBC 13-01**
ACCELERATED RAILROAD BRIDGE CONSTRUCTION TO SUPPORT HISTORICAL TRANSPORTATION MODES
Quentin Rissler, P.E., Larson Design Group, Lititz, PA
Stephen Weaver, Strasburg Rail Road Company, Strasburg, PA
Jeffrey Given, P.E., Loftus Construction, Inc., Cinnaminson, NJ
Kevin Grant, CONTECH Engineered Solutions LLC, Denver, PA

**IBC 13-02**
THE QUEST FOR 100 YEAR BRIDGE COATINGS IN JAPAN
Winn Darden, AGC Chemicals Americas, Exton, PA

**IBC 13-04**
SCOUR AND SHM ON THE FRONTERA BRIDGE
Stephen Schorn, E.I.T., Advitam Inc., Sterling, VA
Francois Callewaert, Advitam Inc., Sterling, VA
Gilles Hovhanessian, Advitam Inc., Sterling, VA

**IBC 13-05**
UNDERSTANDING BUCKLING BEHAVIOR AND USING FE IN DESIGN OF STEEL BRIDGES
Stephen Rhodes, Beng, MSc, Ceng, MICE, LUSAS, New York, NY
Terry Cakebread, BSc(Hons), CEng, MICE, LUSAS, New York, NY

**IBC 13-89**
VERIFICATION OF QUALITY AND PERFORMANCE OF MODULAR EXPANSION JOINTS – AMERICA’S LEADING ROLE IN FULL-SCALE PRODUCT TESTING
Thomas Spuler, Mageba SA, Bulach, Switzerland
Gianni Moor, Mageba USA LLC, New York, NY
Colm O’Suilleabhain, Mageba SA, Bulach, Switzerland
IBC 13-06  THE INNOVATIVE DESIGN AND CONSTRUCTION OF NEW STEEL TRUSSES WITHIN THE EXISTING ICONIC WASHINGTON AVENUE BRIDGE IN MINNEAPOLIS, MN
John Milius, P.E., AECOM, Philadelphia, PA
Mike Pamperin, P.E., Ames Construction, Inc., Burnsville, MN

IBC 13-07  INCREMENTAL LAUNCH METHOD FOR STEEL TRUSS BRIDGE ERECTION
Jerry M. Pfuntner, P.E., S.E., FINLEY Engineering Group, Inc., Tallahassee, FL

IBC 13-08  NCHRP REPORT 725: RECOMMENDATIONS FOR CURVED AND SKEWED STEEL GIRDER BRIDGE CONSTRUCTION ENGINEERING
Brandon Chavel, Ph.D., P.E., HDR Engineering, Inc., Cleveland, OH
Domenic Coletti, P.E., HDR Engineering, Inc., Raleigh, NC
Donald White, Ph.D., Georgia Institute of Technology, Atlanta, GA
Andres Sanchez, Ph.D., E.I.T., HDR Engineering, Inc, Pittsburgh, PA

IBC 13-09  INTEGRATED JACKING & SHORING SUPPORT SYSTEM FOR THE REHABILITATION OF ALEXANDER-HAMILTON BRIDGE
Gary M. Dinmore, P.E., Halmar International, LLC, Nanuet, NY
Genguo Ju, China Construction America, Inc., Jersey City, NJ
Kaizan Huang, Ph.D., P.E., China Construction America, Inc., Jersey City, NJ

IBC 13-10  ALEXANDER HAMILTON BRIDGE REHABILITATION OF APPROACH SPANS SUPERSTRUCTURE
Roger Haight, P.E., Parsons Brinckerhoff, New York, NY
Gary Dinmore, P.E., Halmar International, Pearl River, NY
Michael Abrahams, P.E., Parsons Brinckerhoff, New York, NY

IBC 13-11  MNDOT APPROVED SUPPLIER PROGRAM
Todd Niemann, Minnesota DOT, Oakdale, MN
Anna Petroski, DOT Quality Services, Chicago, IL

NOT AVAILABLE AT TIME OF PUBLICATION
**Design, Part 1**

Tuesday, June 4, 2013  
Session Chair: Gerald J. Pitzer, P.E., Consultant, Pittsburgh, PA

**IBC 13-12**  
THE BENEFITS OF USING SEISMIC ISOLATION BEARINGS ON THE SR 520 WEST APPROACH BRIDGE  
Greg Knutson, P.E., S.E., HDR Inc., Seattle, WA

**IBC 13-13**  
PENNSYLVANIA'S SEGMENTAL BRIDGES  
William Johnson, IV, P.E., S.E., FIGG, Exton, PA  
Ken Heil, P.E., FIGG, Exton, PA

**IBC 13-14**  
BRANCHING OUT FROM CONVENTIONAL DESIGN: HARBOURSIDE WEST PEDESTRIAN OVERPASS  
Schaun Valdovinos, M.S., P.Eng., Hatch Mott MacDonald, Vancouver, British Columbia, Canada

**IBC 13-15**  
800' CONTINUOUS STEEL GIRDER STRUCTURE – CURVED AND FULLY JOINT-LESS  
Michael Liona, P.E., Hardesty and Hanover, New York, NY  
Rasmin Kharva, P.E., Hardesty and Hanover, New York, NY  
Zhi Wen, P.E., Hardesty and Hanover, New York, NY

**IBC 13-16**  
SEISMIC DESIGN OF BRIDGES FOR INCREASED RELIABILITY  
Roy Imbsen, Earthquake Protection Systems, Inc., Vallejo, CA  
Anoop Mokha, Earthquake Protection Systems, Inc, Vallejo, CA  
Victor Zayas, Earthquake Protection Systems, Inc., Vallejo, CA  
Stanley Low, Earthquake Protection Systems, Inc., Vallejo, CA

**IBC 13-17**  
US ROUTE 29 GAINESVILLE, VA INTERCHANGE  
Christopher Lowe, P.E., Virginia DOT, Richmond, VA  
Mark Unterkofler, P.E., Dewberry, Inc., Fairfax, VA
**Rehab/Preservation, Part 1**

Tuesday, June 4, 2013

Session Chair: Jeremy Shaffer, Ph.D., PMP, Bentley Systems, Incorporated, Pittsburgh, PA

**IBC 13-18** REHABILITATION OF THE PENNDOT STRUCTURES SURROUNDING AMTRAK’S 30TH STREET STATION

Joseph Sullivan, P.E., Ammann & Whitney, Philadelphia, PA
Joseph L. Sirignano, P.E., Alfred Benesch & Company, Allentown, PA
David P. Didier, P.E., AECOM, Philadelphia, PA
Henry Berman, P.E., PennDOT, King of Prussia, PA

**IBC 13-19** WEARING SURFACES FOR ORTHOTROPIC STEEL DECKS IN THE UNITED STATES

Charles Seim, P.E., Consulting Bridge Engineer, El Cerrito, CA

**IBC 13-20** INVESTIGATION AND REPAIR OF THE DIEFENBAKER BRIDGE FRACTURE

Reed M. Ellis, Ph.D., P.E., Stantec Inc., Edmonton, Alberta, Canada
Robert Connor, Ph.D., P.E., Purdue University, West Lafayette, IN

**IBC 13-21** A BRIDGE INSPECTORS GUIDE TO NDT

Jason Stith, Ph.D., P.E., S.E., Michael Baker Jr., Inc, Louisville, KY
Michael Baron, P.E., Michael Baker Jr., Inc., Louisville, KY
George Gorrill, P.E., S.E., Michael Baker Jr., Inc., Chicago, IL

**IBC 13-22** SOUTH STREET BRIDGE RECONSTRUCTION – A MULTI-MODAL LINK TO UNIVERSITY CITY, PHILADELPHIA, PA

Richard Kemper, Gannett Fleming, Inc., Audubon, PA
William E. Gural, P.E., City of Philadelphia, Philadelphia, PA
Thomas Piotrowski, AIA, SARP, H2L2, Philadelphia, PA
Bruce Chamberlin, H2L2, Philadelphia, PA

**IBC 13-23** M2 MOTORWAY UPGRADE, SYDNEY, AUSTRALIA: BRIDGE LENGTHENING, WIDENING AND OTHER MODIFICATIONS UNDER TRAFFIC

Henry E. Ah-Cann, Ph.D., B.E., MIEAust, AECOM Australia, Sydney, New South Wales, Australia
Darrell Meyers, B.E., MIEAust, NPER3, MIABSE, AECOM Australia, Sydney, New South Wales, Australia
**Evaluation & Analysis, Part 1**

**Tuesday, June 4, 2013**

**Session Chair:** Kenneth J. Wright, P.E., HDR Engineering, Inc., Pittsburgh, PA

**IBC 13-24** IMPROVED ANALYSIS OF STEEL I-GIRDER BRIDGES USING 2D-GRID MODELS
Andres Sanchez, Ph.D., HDR Engineering, Inc., Pittsburgh, PA
Donald White, Ph.D., Georgia Institute of Technology, Atlanta, GA

**IBC 13-25** EXPERIMENTAL EVALUATION OF HYBRID FRP-CONCRETE BRIDGE TRUSS GIRDER OF DIFFERENT SPANS
Mamdouh El-Badry, Ph.D., P.Eng., University of Calgary, Calgary, Alberta, Canada
Mohammad Hadi Aghahassani, University of Calgary, Calgary, Alberta, Canada
Mohammad Hossein Moravvej Hamedani, University of Calgary, Calgary, Canada

**IBC 13-26** LOAD RATING ANALYSIS OF THE HISTORIC ALBERTUS L. MEYERS BRIDGE
Eric Martz, P.E., KCI Technologies, Mechanicsburg, PA
James McGee, P.E., PennDOT, Allentown, PA
Richard Schoedel, P.E., Michael Baker Jr., Inc., Moon Township, PA

**IBC 13-27** A PROPOSED MARKUP LANGUAGE FOR FINITE ELEMENT ANALYSIS DATA EXCHANGE
Lubin Gao, Ph.D., P.E., FHWA, Washington, DC
M. Myint Lwin, P.E., S.E., FHWA, Washington, DC

**IBC 13-29** RE-EVALUATING THE EFFECT OF CONNECTION LENGTH IN RIVETED STEEL CONNECTIONS
Bo-Shiuan Wang, Ph.D., University of Washington, Seattle, WA
Jeffrey W. Berman, Ph.D., University of Washington, Seattle, WA
Saura Jost, E.I.T., Meyer Borgman Johnson, Minneapolis, MN
Charles W. Roeder, Ph.D., P.E., University of Washington, Seattle, WA
Dawn E. Lehman, Ph.D., University of Washington, Seattle, WA
IBC 13-30  I-90 TRACK BRIDGE – THE CHALLENGE OF TAKING LIGHT RAIL VEHICLES ON TO THE HOMER M. HADLEY FLOATING BRIDGE Thomas Cooper, P.E., P.Eng., Parsons Brinckerhoff, Denver, CO Andy Foan, BSc, C.Eng., FI MechE, FPWI, Andy Foan, LTD, Sandiacre, Nottingham, UK Travis Thornstad, University of Washington, Seattle, WA


IBC 13-33  FOUNDATION DESIGN AND CONSTRUCTION CHALLENGES OF 100-YEAR OLD SAUGUS RIVER RAILROAD BRIDGE EMERGENCY REHABILITATION Aravinda Ramakrishna, P.E., Hardesty & Hanover, LLC, West Trenton, NJ Andrew Coates, P.E., Hardesty & Hanover, LLC, New York, NY Raymond Mankbadi, P.E., Hardesty & Hanover, LLC, West Trenton, NJ

IBC 13-34  DETAILED ENGINEERING FACILITATES RAPID CONSTRUCTION OF HYBRID ROAD/RAIL GRADE SEPARATION IN TIGHTLY CONSTRAINED URBAN SETTING WITHOUT INTERRUPTION TO ROAD OR RAIL TRAFFIC John Stephenson, M.Eng., P.Eng., P.E., Region of Waterloo, Kitchener, Ontario, Canada Peter Johnson, P.Eng., AECOM, Mississauga, Ontario, Canada Ted Brumfitt, P.Eng., IBI Group, Toronto, Ontario, Canada Michael Sampson, IBI Group, Waterloo, Ontario, Canada
Long Span

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Session Chair: Herbert M. Mandel, P.E., GAI Consultants, Inc., Homestead, PA

IBC 13-35  HIGHWAY 61 MISSISSIPPI RIVER BRIDGE DESIGN & CONSTRUCTION
David Dahlberg, P.E., Minnesota DOT, Oakdale, MN
Todd Niemann, P.E., Minnesota DOT, Oakdale, MN
Nancy Daubengerger, P.E., Minnesota DOT, Oakdale, MN

IBC 13-36  CONTRACTOR PROPOSED DESIGN AND VECP CHANGES – IRONTON RUSSELL CABLE-STAYED BRIDGE OVER THE OHIO RIVER
Craig Finley, Jr., P.E., FINLEY Engineering Group, Inc., Tallahassee, FL
Thomas M. Hesmond, P.E., Brayman Construction Corporation, Ironton, OH

IBC 13-37  COMPLETE STAY CABLE REPLACEMENT FOR THE LULING BRIDGE, FIRST OF ITS KIND IN NORTH AMERICA
Armin Mehrabi, Ph.D., P.E., MBA, Bridge Engineering Solutions, Lewiston, NY
Paul Fossier, Louisiana DOT and Development, Baton Rouge, LA

IBC 13-38  KATUN RIVER BRIDGE - DEVELOPMENT OF AERODYNAMIC SOLUTIONS TO CONTROL VORTEX-SHEDDING, GALLOPING AND FLUTTER
Pierre-Olivier Dallaire, M.A.Sc., ing., RWDI, Bromont, Québec, Canada
Stoyan Stoyanoff, Ph.D., ing., P.Eng., RWDI, Bromont, Québec, Canada
Evgenii Timofeev, Transmost, Saint Petersburg, Russia
Vladimir Verholina, Transmost, Saint Petersburg, Russia

IBC 13-39  COMPARISON OF LONG-SPAN GIRDER BRIDGES VERSUS EXTRADOSED BRIDGES BUILT IN BALANCED CANTILEVER
Juan Sobrino, Ph.D., P. E., P.Eng., PEDELTA Inc., Coral Gables, FL
Javier Jordan, P.E., PEDELTA Inc., Coral Gables, FL
Testing & Instrumentation

Tuesday, June 4, 2013
Session Chair: Donald W. Herbert, P.E., Pennsylvania Dept. of Transportation, Uniontown, PA

**IBC 13-40**
DEMONSTRATION OF FIBER OPTIC INSTRUMENTATION SYSTEM FOR PRESTRESSED CONCRETE BRIDGE ELEMENTS
Kent Harries, Ph.D., FACI, P.Eng., University of Pittsburgh, Pittsburgh, PA
Andrew Holford, exp Global Inc., Kitchener, Ontario, Canada
David F. Stevens, STRAEN Inc, Chicago, IL

**IBC 13-42**
FIELD MEASUREMENTS OF PA ROUTE 30 WRIGHTS FERRY BRIDGE DURING PASSAGE OF SUPER LOAD
Sougata Roy, Ph.D., Lehigh University, Bethlehem, PA

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**IBC 13-43**
DEVELOPMENT OF VIRTUAL BRIDGE INSPECTION COMPUTER BASED TRAINING
Mary Rosick, P.E., Michael Baker Jr., Inc., Moon Township, PA
Douglas Blades, P.E., FHWA, Washington, DC
Thomas Ryan, P.E., Michael Baker Jr., Inc., Moon Township, PA
Eric Mann, P.E., Michael Baker Jr., Inc., Moon Township, PA

**IBC 13-44**
USE OF INSTRUMENTATION TO QUANTIFY DYNAMIC MOVEMENTS OF BRIDGE SUBSTRUCTURES
Matthew Pavelchak, Walter P Moore and Associates, Houston, TX
Mark Williams, Ph.D., P.E., S.E., Walter P Moore and Associates, Houston, TX
Rehab/Preservation, Part 2

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Session Chair: Matthew P. McTish, P.E., McTish, Kunkel & Associates, Allentown, PA

**IBC 13-45**
TIE-DOWN REPLACEMENT FOR WEIRTON-STEUBENVILLE VETERANS MEMORIAL BRIDGE
Gregor Wollmann, Ph.D., P.E., HNTB, Blacksburg, VA
James D. Simpson, P.E., HNTB, Scott Depot, WV
Rober L. Blosser, P.E., WVDOH, Charleston, WV

**IBC 13-46**
EXTERNAL POST-TENSIONING OF EXISTING STEEL BRIDGES
Clyde Ellis, VSL, Haute Court, VA

**IBC 13-47**
ROUTE US 190 MISSISSIPPI RIVER BRIDGE REHABILITATION DESIGN, CLEANING, AND PAINTING
John Richard, P.E., TRC Engineers, Inc., Baton Rouge, LA
Durk Krone, P.E., TRC Engineers, Inc., Baton Rouge, LA
Chris Guidry, P.E., Louisiana DOT and Development, Baton Rouge, LA

**IBC 13-48**
MAJOR BRIDGE REHABILITATION USING DESIGN-BUILD DELIVERY

**IBC 13-49**
DETERIORATION OF WEATHERING STEEL BOX CHORD MEMBERS OF THE NEWBURGH-BEACON BRIDGE - SOUTH SPAN
Thomas Cole, P.E., Modjeski and Masters, Inc., Poughkeepsie, NY
William Moreau, P.E., New York State Bridge Authority, Highland, NY
ABC, Part 1

Wednesday, June 5, 2013
Session Chair: Ronald D. Medlock, P.E., High Steel Structures, Inc., Lancaster, PA

IBC 13-50 & 51  MILTON MADISON BRIDGE: DESIGN AND PROCUREMENT INITIATIVES BRING COST BENEFITS AND MINIMIZE TRAFFIC INTERRUPTION
Nedim Alca, P.E., Buckland & Taylor Ltd., North Vancouver, British Columbia, Canada
Tom Bolte, P.E., Burgess & Niple, Inc., Columbus, OH
Murray Johnson, P.Eng., Buckland & Taylor Ltd., North Vancouver, British Columbia, Canada
Peter Taylor, P.E., Buckland & Taylor Ltd., North Vancouver, British Columbia, Canada
Brian Hoppel, P.E., Walsh Construction Company, LaPorte, IN
Douglas Vanslambrook, P.E., Walsh Construction Company, Chicago, IL
Aaron Stover, P.E., S.E., Michael Baker Jr., Inc., Louisville, KY
Terrence Tiberio, P.E., Michael Baker Jr., Inc., Louisville, KY

IBC 13-52  DESIGN AND CONSTRUCTION OF THE BRONCO ARCH BRIDGE
Gregg Reese, Summit Engineering Group, Inc., Littleton, CO

IBC 13-53  RAPID BRIDGE REPLACEMENTS USING LATERAL SLIDES
Jeffrey Smith, P.Eng., McCormick Rankin, Mississauga, Ontario, Canada
Matthew Bowser, P.Eng., McCormick Rankin, Mississauga, Ontario, Canada
James Sherlock, P.Eng., McCormick Rankin, Mississauga, Ontario, Canada

IBC 13-54  RAPID REPLACEMENT OF US 6 BRIDGE OVER KEG CREEK
Bala Sivakumar, HNTB Corp, New York, NY

IBC 13-55  PRECAST INTEGRAL ABUTMENTS AND SUPERSTRUCTURE BRIDGE: A MASSDOT ABC CASE STUDY
Yihui Wu, P.E., CDR Maguire Inc., Providence, RI
Thomas Donald, P.E., Massachusetts DOT, Boston, MA
Morteza Tayarani, P.E., Massachusetts DOT, Boston, MA
Brian Guzas, P.E., CDR Maguire Inc., Providence, RI
Construction, Part 2

Wednesday, June 5, 2013
Conference Session Chair: Lisle E. Williams, P.E., PLS, Consultant, Pittsburgh, PA
Pre-Conference Session Chair: Calvin Boring Jr., Trumbull Corporation, Pittsburgh, PA

IBC 13-56  MULTI-FACETED CONSTRUCTION PROJECT: A UNIQUE APPROACH TO SUPPORTING CONSTRUCTION PHASE SERVICES
Christopher Hylas, P.E., H.W. Lochner, Inc., Rocky Hill, CT
Dean A. Bagdasarian, P.E., H.W. Lochner, Inc., Rocky Hill, CT
Roy Merritt, P.E., H.W. Lochner, Inc., New Haven, CT
Mathew Briggs, Connecticut DOT, New Haven, CT
Ghazi Alsaqri, Connecticut DOT, New Haven, CT

IBC 13-57  CONSTRUCTION OF THE Q-BRIDGE: NEW HAVEN'S EXTRADOSED CABLE-STAYED SIGNATURE BRIDGE
Wade Bonzon, P.E., FIGG, New Haven, CT
John Dunham, P.E., Connecticut DOT, New Haven, CT

IBC 13-58  UNCONVENTIONAL GIRDER ERECTION ON THE MOSES WHEELER BRIDGE
Douglas Whittaker, McNary Bergeron and Associates, Old Saybrook, CT
Joseph Zwain, PCL Civil Constructors, Inc., Tampa, FL

IBC 13-59  CONSTRUCTION OF THE US 281 BRIDGES OVER THE COLORADO RIVER
Robert A. Alonso, P.E., S.E., FINLEY Engineering Group, Inc., Orlando, FL
Eric Hiemke, Archer Western Contractors, Marble Falls, TX

IBC 13-60  TRI-LEVEL INTERCHANGE
Amish Bhatt, AECOM, Chicago, IL
Dan Manojlovski, P.E., AECOM, Chicago, IL
Design, Part 2

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Session Chair: William J. (Jay) Rohleder, Jr., P.E., S.E., FIGG Bridge Engineers, Inc. Exton, PA

IBC 13-62  BRIDGING FROM LAND TO LIGHT
Tammy Heffron, P.E., HDR Engineering, Inc., Denver, CO
Darin Freeman, P.E., HDR Engineering, Inc., Denver, CO

IBC 13-63  CHALLENGES OF DESIGNING AND BUILDING BRIDGES IN ALASKA
Leslie Daugherty, P.E., Alaska DOT & Public Facilities, Juneau, AK

IBC 13-64  INTEGRATING CULTURAL SYMBOLISM INTO BRIDGE DESIGN
Schaun Valdovinos, M.S., P.Eng., Hatch Mott MacDonald, Vancouver, Canada

IBC 13-65  DESIGN AND CONSTRUCTION OF THE RICH STREET BRIDGE IN COLUMBUS, OH
Frederick Gottemoeller, P.E., AIA, Bridgescape, LLC, Columbia, MD
John Shanks, P.E., Burgess and Niple, Columbus, OH
Travis Butz, P.E., Burgess and Niple, Columbus, OH

IBC 13-66  PERMANENT JACKING AND LENGTHENING OF TWIN STEEL BOX GIRDER BRIDGE
Simon Simon, P.E., Stantec, Laurel, MD
Fred Ochoa, P.E., Florida DOT, Fort Lauderdale, FL
Missak Sisserian, P.E., Stantec, Mechanicsburg, PA

IBC 13-67  COST-EFFECTIVE WELDED CONNECTIONS FOR A MOVABLE BRIDGE ORTHOTROPIC DECK
Sougata Roy, Ph.D., Lehigh University, Bethlehem, PA
Xudong Zhao, Lehigh University, Bethlehem, PA
Soham Mukherjee, Lehigh University, Bethlehem, PA
Ronald Medlock, P.E., High Steel Structures, Inc., Lancaster, PA

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**Evaluation & Analysis, Part 2**

**Wednesday, June 5, 2013**

Session Chair: John C. Dietrick, P.E., S.E., Michael Baker Jr., Inc., Cleveland, OH

**IBC 13-68**  
3D ANALYSIS AND STRUCTURE REHABILITATION OF TDOT’S SR56 DECK TRUSS OVER CANEY FORK RIVER

Todd Stephens, E.I.T., Modjeski and Masters, Inc., Mechanicsburg, PA  
Adnan Kurtovic, P.E., Modjeski and Masters, Inc., Mechanicsburg, PA  
Michael Irwin, P.E., Modjeski and Masters, Inc., Mechanicsburg, PA  
Edward Wasserman, P.E., Modjeski and Masters, Inc., Nashville, TN  
John Kulicki, Ph.D., P.E., S.E., Modjeski and Masters, Inc., Mechanicsburg, PA

**IBC 13-70**  
LOAD RATING STEEL BOX GIRDER BRIDGES WITH LRFR: SPECIAL CONSIDERATIONS

Lubin Gao, Ph.D., P.E., FHWA, Washington, DC

**IBC 13-71**  
ESTIMATION OF THE MAXIMUM VON MISES STRESS IN STEEL TRUSS BRIDGE GUSSET PLATE CONNECTIONS

Bo-Shiuan Wang, Ph.D., University of Washington, Seattle, WA  
Jeffrey W. Berman, Ph.D., University of Washington, Seattle, WA  
Charles W. Roeder, Ph.D., University of Washington, Seattle, WA  
Dawn E. Lehman, Ph.D., University of Washington, Seattle, WA

**IBC 13-72**  
QUICK SCAN METHOD - DUTCH APPROACH FOR THE SHEAR ASSESSMENT OF REINFORCED CONCRETE SLAB BRIDGES

Eva Lantsoght, Delft University of Technology, Delft, The Netherlands  
Cor van der Veen, Ph.D., Delft University of Technology, Delft, The Netherlands  
Joost Walraven, Ph.D., Delft University of Technology, Delft, The Netherlands  
Ane de Boer, Ph.D., Ministry of Infrastructure and the Environment, Utrecht, The Netherlands

**IBC 13-73**  
INFLUENCE LINE BASED LOAD RATINGS FOR OKLAHOMA DOT TRUCK ROUTING AND PERMITTING

Rachel Sharp, P.E., Michael Baker Jr., Inc., Moon Township, PA  
William Edberg, Ph.D., P.E., HNTB Corporation, Boston, MA  
Kenneth Wilson, P.E., S.E., Michael Baker Jr., Inc., Moon Township, PA  
Wes Kellogg, P.E., Oklahoma DOT, Oklahoma City, OK
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**IBC 13-74**  
A SHORT-SPAN TIED ARCH BRIDGE  
Robert Hong, P.E., S.E., P.Eng., H.W. Lochner Inc., Chicago, IL  
Soliman Khudeira, Ph.D., P.E., S.E., Chicago DOT, Chicago, IL

**IBC 13-75**  
CONSTRUCTION AND MOVEMENT OF THE TORRENCE AVENUE TRUSS BRIDGE  
John Boschert, P.E., S.E., Genesis Structures, Kansas City, MO  
Damian Gronsky, P.E., Sarens / Rigging International, Alameda, CA  
Curtis Luecke, P.E., Walsh Construction, Chicago, IL  
Leonard Kapovitch, S & J Construction Co. Inc., South Holland, IL

**IBC 13-76**  
EGGNER’S FERRY BRIDGE: INNOVATIVE APPROACH TO THE EMERGENCY REPLACEMENT OF A VITAL CROSSING OVER KENTUCKY LAKE  
Chou-Yu Yong, P.E., Michael Baker Jr., Inc., Louisville, KY  
Terrence Tiberio, P.E., Michael Baker Jr., Inc., Louisville, KY  
Jason Stith, Ph.D., P.E., S.E., Michael Baker Jr., Inc., Louisville, KY  
Dennis Baron, P.E., Michael Baker Jr., Inc., Louisville, KY

**IBC 13-77**  
ALTERATION OF GALVESTON CAUSEWAY RAILROAD BRIDGE OVER THE GULF INTRACOASTAL WATERWAY, GALVESTON, TX  
Kamal Elnahal, Ph.D., P.E., U.S. Coast Guard, Washington, DC  
Arvind Patel, P.E., PMP, U.S. Coast Guard, Washington, DC  
Ralph Eppehimer, P.E., Modjeski & Masters, New Orleans, LA

**IBC 13-78**  
IMPLICATIONS OF THE FUNDING GAP: A NEW LOOK AT EFFICIENCIES  
David Cook, STRAEN, Inc, Chicago, IL

**NOT AVAILABLE AT TIME OF PUBLICATION**
APPLICATION OF GRS-IBS BRIDGE DESIGN IN MASSACHUSETTS

Thomas Pechillo, P.E., Collins Engineers, Inc., Dedham, MA
Richard Tobin, P.E., GEI Consultants, Inc., Woburn, MA

NON-DESTRUCTIVE TESTING OF DRILLED SHAFTS - CURRENT PRACTICE AND A NEW METHOD

George Piscsalko, P.E., Pile Dynamics, Inc., Solon, OH
Garland Likins, P.E., Pile Dynamics, Inc., Solon, OH
Ben White, P.E., GRL Engineers, Solon, OH

FORT STREET BRIDGE OVER THE ROUGE RIVER, MOVABLE BRIDGE – MOVABLE FOUNDATION

Jeff Routson, P.E., S.E., F.ASCE, Hardesty & Hanover, Okemos, MI
Jose Garcia, P.E., Michigan DOT, Lansing, MI
Rick Wianecki, P.E., Hardesty & Hanover, Okemos, MI
Anne Zweibel, P.E., Hardesty & Hanover, Defiance, OH

FULL SCALE TEST PROGRAM FOR SUPPORT OF MSE WALLS USING RIGID INCLUSIONS / CONTROLLED MODULUS COLUMNS IN NEW JERSEY

Frederic Masse, DGI-MENARD, Bridgeville, PA
Alex Potter-Weight, DGI-MENARD, Pittsburgh, PA
Sherif Aziz, The Reinforced Earth Company, Vienna, VA
Mike Walker, GEI Consultants, Woburn, MA
Rehab/Preservation, Part 3

Wednesday, June 5, 2013

Session Chair: Stephen G. Shanley, P.E., Allegheny County, Department of Public Works, Pittsburgh, PA

IBC 13-03  LIGHT, SOLID-SURFACE DECKING FOR HISTORIC AND MOVEABLE BRIDGES
Maria Lopez de Murphy, Ph.D., Penn State University, University Park, PA
Amjad Aref, Ph.D., University at Buffalo, Buffalo, NY
Stephen Ayers, Ph.D., P.E., LeTourneau University, Longview, TX
Jerome O’Connor, P.E., BridgeComposites, LLC, Hornell, NY

IBC 13-84  REHABILITATION OF THE HISTORIC RIEGELSVILLE SUSPENSION BRIDGE
Ron Lamb, P.E., Pickering, Corts & Summerson, Inc., Newtown, PA
Kevin Skeels, P.E., Delaware River Joint Toll Bridge Commission, Morrisville, PA

IBC 13-85  EXTENDING THE SERVICE LIFE OF BRIDGES USING SEAMLESS PAVEMENTS
Steve Griffiths, AECOM Australia, Sydney, New South Wales, Australia
Geoff Bowmaker, AECOM Australia, Beecroft, New South Wales, Australia

IBC 13-87  RECONSTRUCTION OF THE NEW JERSEY TURNPIKE AUTHORITY’S EASTERLY HACKENSACK RIVER BRIDGE
Richard Schaefer, P.E., HNTB, Inc., Parsippany, NJ
S. Andrew Kamilaris, P.E., Dewberry Engineers, Inc., Bloomfield, NJ
Kevin Healy, P.E., New Jersey Turnpike Authority, Woodbridge, NJ