

THIRD ORTHOTROPIC BRIDGE CONFERENCE

June 26 to June 28, Wednesday to Friday

Sacramento, California, USA.

PRELIMINARY PROGRAM

JUNE 26, WEDNESDAY, MORNING – INTERNATIONAL BRIDGES	
8:00 - 8:15 AM	Welcome Remarks - TBD
8:15 - 9:30 AM	
3OBC-01 Evolution of Orthotropic Steel Bridges in Japan	
<i>Susumu Inokuchi, Teruo Ogasawara, Yoshihiro Natsuaki, Atsunori Kawabata, Japan Bridge Association; and Kentaro Yamada, Central Nippon Highway Engineering, Japan</i>	
3OBC-02 Structural Solutions and Construction Techniques for Steel Orthotropic Bridges Russia	
<i>Seliverstov Vadim, Giprottransmost J.S.Co, Russia</i>	
3OBC-03 Orthotropic Deck Design of Norwegian Suspension Bridges – Experience and New Practice	
<i>Kristian Berntsen, and Henning Lotherington, Norwegian Public Road Administration, Norway</i>	
9:30 -10:00 AM BREAK	
10:00 AM – 11:40 AM	
3OBC-04 Construction Management of Long Span Bridges With Orthotropic Deck	
<i>Dekun Li, PE, MBEC 8th Engineering Co., Ltd. China</i>	
3OBC-05 The Port Mann Bridge: Canadian Icon & North American Orthotropic Bridge First	
<i>Michael J. Roberts, Bittner-Shen Consulting Engineers, Inc, USA.</i>	
3OBC-06 Sundsvall Bridge	
<i>Kjeld Thomsen and Helge Skov Pedersen, ISC Consulting Engineers A/S, Denmark</i>	
BAST Germany - TBD	

11:40 AM - 1:00 PM Wednesday Luncheon Speaker – TBD

JUNE 26, WEDNESDAY, AFTERNOON, PARALLEL SESSIONS	
1:00 - 2:40 PM REHABILITATION 1	1:00 - 2:40 PM FATIGUE DESIGN 1
3OBC-07 Rehabilitation of the Congress Parkway Bascule Bridge over the South Branch of the Chicago River <i>Ahmad M. Hammad, Jamal Grainawi, and Roger Haight, P.E., Parsons Brinckerhof, USA</i>	3OBC-11 Fatigue Resistance of Cost-Effective Rib-to-Floor Beam Connection Details for Steel Orthotropic Bridge Decks <i>Sougata Roy, Xudong Zhao, Soham Mukherjee, Philipp Keller, John W. Fisher and Ben T. Yen, Lehigh University, USA</i>
3OBC-08 The History of the First Orthotropic Bridge in Bulgaria <i>Doncho Partov and Radan Ivanov, VSU "L. Karavelov; Bulgaria and Dobromir Dinev, UACG "L. bul." "H. Smiranski", Bulgaria</i>	3OBC-12 Fatigue Durability Improvement of Welded Joint by Increasing Deck Plate Thickness in Orthotropic Steel Deck <i>S. Saito, Y. Kudo, N. Hayashi, D. Uchid, Japan Bridge Association; and T. Mori, Hosei University, Japan</i>
3OBC -09 Bronx-Whitestone Bridge Orthotropic Deck-to-Rib Welds: Field Inspection <i>Brian J. Leshko, HDR, USA</i>	3OBC-13 Additional Rules For The Fatigue Strength Of Welded Joints In Orthotropic Bridge Decks <i>M. H. Kolstein, Delft University of Technology, The Netherlands</i>
3OBC-10 Shop and Field Welding Inspection for the Golden Gate Bridge Orthotropic Panel Redecking – A 27-Year Retrospective <i>Paul Hartbower, California Department of Transportation, USA</i>	3OBC-14 Fatigue Life Assessment of Orthotropic Bridge Decks Based on Fracture Mechanics <i>Wim Nagy, Hans De Backer, and Philippe Van Bogaert, Ghent University, Belgium</i>
2:40 – 3:10 PM BREAK	
3:10 – 4:50 PM WEARING SURFACE 1	3:10- 4:50 PM FATIGUE TESTING
3OBC-15 Influence of Wearing Courses on Fatigue Life of Orthotropic Bridge Decks <i>Hans De Backer, Amelie Outtier, Wim Nagy, and Philippe Van Bogaert, Ghent University, Belgium</i>	3OBC-19 Full-Scale Fatigue Test Of Steel Orthotropic Decks <i>Liang Tang, Gao Liu, CCCC Highway Consultants Co., Ltd. China; Chunsheng Wang and Bingning Fu, Chang'an University, China</i>
3OBC-16 Studies For Selecting A Wearing Surfacing For Re-Surfacing The Orthotropic Steel Deck Of The Fremont Bridge In Portland, Oregon <i>John Hinman Donald Wagner and Charles Seim, USA</i>	3OBC-20 Fatigue Performance Evaluation of Replacement Orthotropic Deck for a Signature Bridge by Full-Scale Laboratory Testing <i>Sougata Roy, Nirab Manandhar, Michael A. Molina, R.S. Deo Alapati, John W. Fisher, Lehigh University, USA</i>
3OBC-17 Orthotropic Deck Wear Surface System Selection for the Lions Gate Bridge North Approach Viaduct <i>John Laxdal, AMEC, Canada</i>	3OBC-21 Investigation of Detection Limit of Through-Deck Type Fatigue Cracks in Steel Deck by Self-reference Lock-in Thermography <i>Yui IZUMI University of Shiga Prefecture; Takahide SAKAGAMI, Kobe University; Shiro KUBO, Osaka University; and Takashi TAMAKOSHI, Bridge Division, Japan</i>
3OBC-18 Wearing Surface Performance on Orthotropic Steel Decks -- Implications of Composite Action <i>Vellore S. Gopalratnam, and Ravi S. Chamarthi, University of Missouri-Columbia; and Richard Maggenti, California Department of Transportation, USA</i>	3OBC-22 Experimental Investigation on Composite Orthotropic Bridge Deck <i>Kaili Chen and Shangmeng Zhou, China Zhongtie Major Bridge Engineering Group, China</i>

6:00 – 8:00 PM Wednesday night Banquet Speaker – TBD

JUNE 27, THURSDAY, MORNMING , PARALLEL SESSIONS

8:00 – 9:55 AM FABRICATION 1	8:00 – 9:55 AM FATIGUE DESIGN 2
Announcements	Announcements
3OBC-23 Cost-Effective Fabrication of Orthotropic Bridge Decks <i>Sougata Roy, Lehigh University; Ronald D. Medlock, High Steel Structures Inc., Xudong Zhao, Soham Mukherjee, Philipp Keller, John W. Fisher and Ben T. Yen, Lehigh University, USA</i>	3OBC-27 Fatigue Life Evaluation for Welded Joints between Deck Plate and Trough Rib using Reference Strain <i>S. Hirayama, S. Inokuchi, D. Uchida, and A. Kawabata, Japan Bridge Association, Japan</i>
3OBC-24 Fabrication of Orthotropic Box Girder Segment of HZM Bridge <i>Guangrui Hu, Chinarailway Shanhaiguan Bridge Group Co, Lt, China</i>	3OBC-28 A Review of Fatigue Design and Evaluation Codes in Major Developed Countries and an Issue in Orthotropic Bridge Decks <i>Su Hao, ACII, INC., USA</i>
3OBC-25 Codifying Orthotropic Closed Rib Fabrication <i>Douglas E. Williams, USA</i>	3OBC-29 Stress Intensity Factors for Fatigue Loaded Details between Crossbeams and Trapezoidal <i>Johan Maljaars, TNO, The Netherlands</i>
3OBC-26 Welding Quality Control for HZM Orthotropic Box Girders <i>Zhihu Cheng, CCSI, China</i>	3OBC-30 Fatigue Strength of Typical Welded Joints in Orthotropic Steel Bridge Decks <i>Chun-Sheng Wang, , Lei Tian and Bing-Ning Fu, Chang'an University, China</i>
9:55 – 10:20 AM BREAK	
10:20 - Noon WEARING SURFACE 2	10:20 – Noon FATIGUE DESIGN 3
3OBC-31 Lightweight reinforcement systems for orthotropic bridge decks <i>Sofia Teixeira de Freitas, Henk Kolstein, Frans Bijlaard, Delft University of Technology, Netherlands</i>	3OBC-35 Influence of Remaining Lifting Piece on Fatigue Strength of Orthotropic Steel Decks <i>M.Yamauchi, M.Fujii and Japan Bridge Association; S.Kainuma and H.Hirai, Kyushu University, Japan</i>
3OBC-32 Composite Bridge Deck System with Orthotropic Steel Deck and Compact Reinforced Reactive Powder Concrete Layer <i>Zhe Zhang, Xudong Shao, and Jia Li, Prof., Hunan University, China</i>	3OBC-36 Recent Developments in AASHTO Fatigue Specifications for Evaluation of Steel Bridges <i>Y. Edward Zhou, URS Corporation, Mark D. Bowman, Purdue University, USA</i>
3OBC-33 Challenges in Designing Wearing Surfaces for Orthotropic Bridge Decks <i>Vellore S. Gopalaratnam, Ravi S. Chamathi, University of Missouri-Columbia, USA</i>	3OBC-37 Study on Mechanism of Bead-Through Cracks Initiated from Weld Root between Deck Plate and Trough Rib <i>T. Ogasawara, S. Saito, H. Matsushita, M. Yamauchi, Japan Bridge Association; Y. Izumi, University of Shiga Prefecture; T. Sakagami, Kobe University, Japan.</i>
3OBC-34 Impact of Pavement Systems to Performance of Orthotropic Bridge Decks <i>Shilei Wang, , Qiang Hu, Yong Zhang, Yan Gao, Zhiguang Liang, Li Ba, Jianlei Liu, China Academy of Railway Sciences, China</i>	3OBC-38 Evaluation of Local Stress Based Fatigue Design Guidelines for Orthotropic Bridge Decks <i>Sougata Roy, Yeun-Chul Park, Nirab Manandhar, John W. Fisher, Lehigh University, USA</i>

Noon – 1:00 PM Thursday Luncheon Speaker –TBD

JUNE 27, THURSDAY, AFTERNOON, PARALLEL SESSIONS	
1:00 – 2:40 PM REHABILITATION 2	1:00 – 2:40 PM FATIGUE DESIGN 4 AND ANALYSIS
3OBC-39 Retrofitting Fatigue Cracks in OSD by ICR Treatment <i>Kentarō Yamada, Central Nippon Highway Engineering, Toshiyuki Ishikawa, Assist. Prof., Kyoto University, and Takumi Kakiich, JFE Engineering Co., Japan</i>	3OBC-43 How Finite Element Modeling Choices Influence The Assessment Of Stress Concentrations At The Rib To Floorbeam Connection <i>Wouter de Corte, Belgium</i>
3OBC-40 Fatigue Damage Assessment of the Lions Gate Bridge North Viaduct Deck <i>David I Harvey, Saeed J Niroumand, Associated Engineering, Canada</i>	3OBC-44 Stress States at Intersection between Crossbeam and Longitudinal Stiffener <i>Eiki Yamaguchi and Hidenori Fujii, Kyushu Institute of Technology, Japan</i>
3OBC-41 Detection of Through-Deck-Type Fatigue Cracks in Highway Steel bridges by Self-reference Lock-in Thermography <i>Takahide SAKAGAMI, Kobe University ;, Yui IZUMI, University of Shiga Prefecture, Takuyo KONISHI, Technology Center of Metropolitan Expressway; and Yohei MATSUOKA, Kobe University, Japan</i>	3OBC-45 Study On The New Steel Bridge Deck Under Multiaxial Fatigue Loading <i>Weizhen Chen, Shunyao Cai, Tongji University, China</i>
3OBC-42 Re-Surfacing The Orthotropic Steel Deck Of The Fremont Bridge In Portland, Oregon <i>Adam V. Markell, Charles Seim, USA</i>	3OBC-46 Local Stress Characteristics at Cross-Beam Web Cutout <i>Takeshi HANJI, Keito KATO, Kazuo TATEISHI, and Sung-Min CHOI, Nagoya University; Shigeyuki HIRAYAMA, Japan Bridge Association, Japan</i>
2:40 – 3:10 PM BREAK	
3:10 -5:15 PM DESIGN	3:10 – 5:15 PM FABRICATION 2 AND MORNTORING
3OBC-47 Odins Bridge <i>Kjeld Thomsen, ISC Consulting Engineers A/S, Denmark</i>	3OBC-52 Fatigue Cracking Monitoring and Evaluation using AE Sensors for Orthotropic Steel Bridge Decks <i>Chun-Sheng Wang, Mu-Sai Zhai, Lei Tian, Yu-Jia Sun, Chang'an University, China</i>
3OBC-48 Application of an Innovative Composite Bridge Deck System <i>Junhui Cao, Xudong Shao, Zhe Zhang; Lijing Xiao; Zhengyu Huang, Hunan University, China</i>	3OBC-53 Ultrasonic Determination of Closed-Rib Partial Joint Penetration Weld Size using Area Amplitude Technique <i>David McClary, AECOM, USA</i>
3OBC-49 Compressive Strength of Orthotropic Deck Panels <i>WanChun Jen, Jacob; WanChun Jen, Lehigh University, USA</i>	3OBC-54 A Long Durability-Targeted Health Monitoring System for a Multi-Span Orthotropic Cable-Stayed Bridge in HZMB <i>Bin Hu, Qin Ma, Lianpin Feng; CCCC, China; Su Hao, ACII Inc., USA</i>
3OBC-50 Influence of load position versus rib location on the wheel print characteristics and the consequences for orthotropic bridge calculations <i>Wouter de Corte, , Belgium</i>	3OBC-55 Welding Challenges facing the Upper Deck Replacement of the Verrazano-Narrows Bridge using Orthotropic Deck Panels <i>Gary M. Dinmore, Gary M. Dinmore, USA</i>
3OBC-51 Izmit Bay Suspension Bridge - Deck design <i>Chris Walker, Chris Murphy, Paul Sanders, Flint & Neill Limited, UK; Lars Jensen, COWI A/S, Denmark</i>	3OBC-56 In-situ Fatigue Stress Measurement and Analysis of Orthotropic Steel Bridge Decks <i>Chun-Sheng Wang, Bing-Ning Fu, Mu-Sai Zhai, Lei Tian, Yu-Jia Sun, Chang'an University, China</i>

JUNE 28, FRIDAY, MORNING, SFOBB-SAS
8:00 – 8:15 AM Announcements
8:15 – 9:45 AM
3OBC-57 The New San Francisco Oakland Bay Bridge – Self Anchored Suspension Bridge <i>Marwan Nader, TY Lin International, Brian Maroney, California Department of Transportation, USA.</i>
3OBC-58 Design of Orthotropic Decks for the San Francisco-Oakland Bay Self-Anchored Suspension Bridge <i>George Baker, Marwan Nader, TY Lin International, Ade Akinsanya, California Department of Transportation</i>
3OBC-59 Controlling Fabrication to Achieve the Orthotropic Design - San Francisco Oakland Bay Bridge <i>Alan Cavendish-Tribe, Hatch Mott MacDonald, USA</i>
9:45 – 10:15 AM BREAK
10:15 – 11:15 AM
3OBC-60 Integration of Fabrication Tolerances, Geometric fit and Design: San Francisco-Oakland Bay Self-Anchored Suspension Bridge <i>Hayat Tazir, George Baker, James Duxbury, TY Lin International; Wenyi Long, California Department of Transportation, USA</i>
3OBC-61 San Francisco – Oakland Bay Bridge Fabrication Quality Control and Quality Assurance <i>Aaron Prchlik, Yiannis Kourakis, Mazen Wahbeh</i>
11:15 – 11:45 AM Open Panel Discussion Closing Remarks, Etc.
11:45 – 12:00 Noon Closing Remarks, Etc.