This is your program for the 2001 Western Bridge Engineers’ Seminar

Innovative Solutions for Bridge Engineering Challenges

September 24 - 26

Doubletree Hotel Sacramento
Sacramento, California
WELCOME
The 16th Biennial Seminar is sponsored by the DOT's in the Western States and the Federal Highway Administration.

The seminar provides a forum for the exchange of information between Government Agencies, Consultants, Contractors, Educators, and Industry on subjects of current importance to those engaged in the Design, Construction, and Operation of Highways, Bridges, and Structures.

REGISTRATION HOURS

Sunday September 23 4:00 pm - 8:00 pm
Monday September 24 7:30 am - 5:00 pm
Tuesday September 25 7:30 am - 5:00 pm
Wednesday September 26 7:30 am - 11:00 am

EXHIBITS

Sunday night Ice Breaker Reception 7:00 - 8:00 pm
Monday September 24 7:30 am - 5:00 pm
Tuesday September 25 7:30 am - 5:00 pm
Wednesday September 26 7:30 am - 10:00 am

EXHIBIT BOOTH FLOOR PLAN

WESTERN BRIDGE ENGINEERS' SEMINAR
2001 NUMERICAL BOOTH LIST

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<th>Booth #</th>
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<td>Acrow Corporation</td>
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<td>216 &amp; 217</td>
<td>The D.S. Brown Company</td>
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<td>B.E.R. Underbridge Equipment Rentals</td>
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<td>Malcolm Drilling Co., Inc.</td>
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<td>ADSC: The Intl. Assn of Foundation Drilling</td>
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Table Tops Exhibit Level:
1. Ivy Steel & Wire
2. Watson Bowman Acme Corp.
3. Con Span Bridge Systems

Table Tops – Meeting Room Level
A. L.B. Foster Company
B. Schrader Company
C. ChemiRex, Inc.
D. Williams Form Engineering Corp.
E. Mezure
F. Scougal Rubber
G.&H. Automatic Power
I. Reinforced Earth
J. Hydro Conduit
Sunday / September 23, 2001
4:00 pm to 8:00 pm REGISTRATION (Foyer near meeting rooms)
Sponsored by: Acadia Corporation

ICEBREAKER RECEPTION (in exhibit hall)
Sponsored by: Acadia Corporation
ABS, Dallas, Texas

Monday / September 24, 2001
7:30 am REGISTRATION (Foyer near meeting rooms)

8:00 am CONTINENTAL BREAKFAST (Exhibit Areas)
Sponsored by: Reinforced Earth Co., Vienna, VA

8:30 am to 10:00 am OPENING SESSION Capitol Ballroom
Moderator: Eldon Davison, Caltrans
Welcome and Opening Remarks
Introduction of Opening Session Speaker(s)
Eldon Davison, Seminar Chairman and Bridge and Structures
Engineer, Caltrans

8:45 am KEYNOTE ADDRESS
James Roberts, CALTRANS - Technical Advisor to the Director

9:15 am
Moderator: Richard Land, Caltrans
SEISMIC DESIGN SPECIFICATIONS NCHRP 12-49 PROJECT
Ian Friedland, Applied Technology Council
Ron Mayes, Consultant

Break - 10:00 am to 10:30 am
Sponsor: Acadia Corporation of America-Booths 201-202

10:30 am to 12:00 noon GENERAL SESSION
Moderator: Richard Land, Caltrans,
SEISMIC DESIGN SPECS NCHRP 12-49 PROJECT (continued)
Ian Friedland, Applied Technology Council
Ron Mayes, Consultant

CALTRANS SEISMIC DESIGN CRITERIA
Mike Keeves, CALTRANS

Luncheon - 12:00 noon to 1:30 pm

1:30 pm to 3:00 pm TECHNICAL SESSIONS
Moderator: Myint Lwin, FHWA

1A. BRIDGE AESTHETICS
Origins of Inspiration: An Organic Approach to Modern
Contextual Highway Structures Aesthetics
H. Javier Chavez, CALTRANS

Signature Bridge Developed w/City of St. Paul Art Committee
Thomas A. DeHaven, Figg Bridge Inspection, Inc.

Wes Smith Steel Tied Arch Bridge
Gerald Dorn and Yang Jiang, HNTB Corporation

1B. DESIGN INNOVATIONS
Moderator: Matt Farrar, Idaho DOT
Design and Construction of the National Park Service’s
Foothills Parkway “Missing Link”
Ms. Hala Elgaaly, Federal Highway Administration
Shoukry Elnahal, Federal Highway Administration

Design of Curved Steel Girder Bridge with Integral Concrete
Pier Caps, City of Seattle
Mark Johnson & Mike Baratholomew, CH2M Hill

C-Bent Design: Squeezing Braid Bridge into a Congested Site
Stanley Ryer & Yuhe Yang, Parson Brinckerhoff

1C. BRIDGE MAINTENANCE
Moderator: Linda Newton, Caltrans
Stainless Steel Applications for Extended Service Life of a
Reinforced Concrete Arch Bridge in Marine Environment
Jim Bollman, Oregon DOT

Wyoming Overweight Load Analysis Program
Keith Fulton, Wyoming DOT

Economic Impact of Magnesium Chloride on Montana Bridges
Nigel Mends, Montana DOT
Paul Carter, Earth Tech, Inc.

Break 3:00 pm to 3:30 pm
Sponsored by: Watson Bowman Acme Corp., Amherst, NY

3:30 pm to 5:00 pm TECHNICAL SESSIONS

2A. INNOVATIVE CONSTRUCTION
Moderator: Jerry Wiegand, Washington DOT
Design & Construction of Route 101 Bridge Over Rock Creek
Thomas Barmard, DMJM & Harris

The New Crooked River Gorge Bridge
Norman Smit, T.Y. Lin International

Union Pacific Railroad Johnson Drive Underpass- Precast/
Prestressed Concrete Girder Bridge Erected In Five Days
Glenn Sutor & Louie Caballero, Parson Brinckerhoff

2B. FOUNDATION DESIGN
Moderator: Richard Pratt, Alaska DOT
New Outfall Bridge Structures at Bonneville Dam Design,
Construction, and Lateral Testing
Amir Asadollah, Inca Engineers

Paksey Bridge Design and Construction - Bangladesh
John Bryston, Parson Brinckerhoff Quade & Douglas

Thrust Block Foundation Design for the Galena Creek Bridge
Ryan Moore, J. Muller International
Matt Griggs, CH2M Hill

2C. FRP COMPOSITE MATERIALS
Moderator: George Imbens, Alaska DOT
Application of Fiber Laminates in Strengthening of Existing Bridges
Amir Malek & Ramin Rashedi, CALTRANS

Design and Installation of Carbon Fiber Shear Strengthening
of the Canyon Road Subway Structure
Scott Nettleton, David Evans Assoc., Inc.

The Use of FRP’s on Oregon Bridges
Guido Portier & Lwin Hwue, Oregon DOT

Tuesday / September 25, 2001
7:30 am Registration

8:00 am CONTINENTAL BREAKFAST (Exhibit Area)
Sponsored by: Jacobs Swerdfuck Civil, Inc., Walnut Creek, CA

8:30 am to 10:00 am TECHNICAL SESSIONS

3A. PEDESTRIAN/BICYCLE BRIDGES
Moderator: Sam Grossberg, Oregon DOT
Design of the Berkeley Pedestrian and Bicycle Overcrossing
Mark Ketchum & Vivian Chang, Opac Consulting Engineers

The Mendenhall River Pedestrian Bridge
Elmer Marx, Alaska DOT

Derek Soden, Alaska DOT

Design and Construction of Grants Pass Pedestrian Bridge
Gary Rayor & Dr. Jiri Strasky, OBE Consulting Engineers

3B. PC/GIRDER DESIGN
Moderator: Martha Nava, FHWA
Designing for Continuity with the Allen Street Bridge
Michael McDonagh & Kevin Hinkley, Enetrono, Inc.

Development of Prestressed U’ Girder Sections for Colorado
Michael McMullen, Colorado DOT

Precast/Prestressed Spliced-Girder Design-The Innovative Solution
David A. Tomley & Toorak Zokaie, Leap Software, Inc.

3C. BRIDGE REHABILITATION
Moderator: Bill Forrester, FHWA
Manette Bridge Composite Rehabilitation - 6 Years Later
Pete Barlow, Contech Systems

Challenging scour Mitigation Projects by Caltrans
Subhendu Mishra & William Lindsey, Caltrans

Underpinning of the McLeod River Bridge Pier
Dale Serink, UMA Engineering

Break 10:00 am to 10:30 am
Sponsored by: HDR Engineering, Inc., Folsom, CA
10:30 am - 12:00 noon TECHNICAL SESSIONS

4A. PRESERVATION vs REPLACEMENT
Moderator: Barry Brecco, FHWA
Arroyo Seco Bridge Reconstruction and Seismic Retrofit
Dennis Drag, Moffatt & Nichol Engineers
Mosier Tunnel Rehabilitation Project
Thomas J. Cossette & Rudy Ruana, HNTB Corporation
Historic Truss Bridge Restoration
Doug Fredericks, CH2M Hill

4B. LONG SPAN BRIDGES
Moderator: Andre Boutros, Caltrans
Two Medicine River Bridge Type Selection
David Korpi & Paul Bott, Sverdrup Civil, Inc.
The New Carquinez Straight Suspension Bridge
Michael Marques, Caltrans
Greg Orsolini & Thomas Spoth, Parsons Transportation Group
Bandra Worli Sea Link Project - Connecting Island and Suburbs of Mumbai, India
Robert Shulock & Paul Bott, Sverdrup Civil, Inc.

4C. PROTECTIVE COATINGS
Moderator: Mike Johnson, Idaho DOT
Epoxy Coated Rebar Performance in Alberta, Canada
Gary Kriwa, Eco Tech Canada, Ltd.
Performance of Hot Dip Galvanized Rebar in Bridge Decks
Thomas Langill, American Galvanizers Assoc.
New Materials and Advanced Construction Application
Methods Promise Longer Bridge Deck Life Expectancy
Paul Pugh, Bay Area Tech-Centers

Luncheon 12:00 noon to 1:30 pm

1:30 pm to 3:00 pm TECHNICAL SESSIONS

1. LRFD DESIGN
Moderator: Jugesh Kapur, Washington DOT
Warning! LRFD May be Hazardous to Your Bridges’ Health
Martin Burke, Jr., Burgess & Niple, Ltd.
LRFD vs LRFD: Case Studies of Concrete Superstructures
Sue Hida, Caltrans, Sacramento, CA
AASHTOware Virtus and Opis - Project Update
Jeffrey Campbell & James Duray, Michael Baker Jr.
Jay A. Puckett, Bridge Tech, Inc.
Paul Thompson,

5B. SEISMIC RETROFIT
Moderator: Todd Stojanowicz, Nevada DOT
Rocking of Bridge Piers Under Earthquake Loading
Fadel Alamedine, Caltrans
Seismic Retrofitting Challenges Stimulate New Innovations for the Benicia-Martinez Bridge
Moe Amini, Caltrans
Roy Imbsen, Imbsen Associates
Selection of Expansion Joint Systems to Accomodate Large Seismic Movements
Mark Kaczniski, D.S. Brown
Don Clyde, UC Berkeley

5C. HIGH PERFORMANCE MATERIALS
Moderator: Bill Crawford, Nevada DOT
Designing with High Performance Steels
M. Myint Lwin, FHWA, San Francisco, CA
Challenges of Long Span Prestressed Girder Bridges Made
With High Performance Concrete
Bijan Khaleghi, Washington State DOT, Olympia
Concrete Bridge Decks Constructed with FRP Stay-in-Place Forms and FRP Mesh Reinforcing
L. Bank, M. Olivia, J. Russell & D. Dieter, Univ. of Wisconsin

Break 3:00 pm to 3:30 pm
Sponsored by: Agri Foundations, Everett, WA

3:30 pm to 5:00 pm TECHNICAL SESSIONS

6A. COMPUTER APPLICATIONS
Moderator: Frank Nelson, Oregon DOT
Supercharging Spreadsheets with the Washington Bridge Foundation Libraries—Programmable Software Components for Bridge Engineers
Richard Brice, Washington State DOT, Olympia
CTBridge - Bridge Design Software
Clark Verkleer, Caltrans, Sacramento, CA
Ernest Curto, Caltrans, Sacramento, CA
NCHRP 12-50 - Bridge Software Validation Update
Mark Milanski, Michael Baker Jr., Inc.
Jay A. Puckett, Bridge Tech, Inc.

6B. LOCAL AGENCY BRIDGES
Moderator: Mark Hirota, Oregon DOT
Design, Construction, and Field Performance of the South Gila Canal Steel Laminated Timber Bridge in Yuma, AZ
James P. Wacker, USDA Forest Service
The Unalakleet Bridge
Elmer Marx, Alaska DOT
Lake Natoma Crossing: Overcoming Communication Problems. Cost Constraints and High Seismic Performance
Bob Fish & Conrad Bridges, HDR Engineering

6C. BRIDGE JOINTS & BEARINGS
Moderator: Mark Gunter, Nevada DOT
Removable Pipe Seat Extenders for Hinge Retrosfits on Box Girder Bridges
Stephen Sahs, Caltrans
Performance of Bridge Bearings in the 2001 Olympia Earthquake
John VanLund & Ralph Dornise, Washington DOT
Shear Inhibited Disc Bearings: A Performance Review After 25 Years of Service on Bridges
Ronald J. Watson, & J. Watson Inc.

6:00 pm to 7:00 pm No Host Cocktail Hour
7:00 pm to 9:00 pm Banquet & Program (Nice Casual)
Banquet Program: “52 Ways to Have More Fun at Work” Featuring: Claire Berger, Funny Works, Inc.

Wednesday / September 26, 2001

7:30 am REGISTRATION - CONTINENTAL BREAKFAST (Exhibit Area)
Sponsored by: Mezure Corp., Bend, Oregon

8:00 am to 9:00 am GENERAL SESSION
Moderator: Dan Thomas, Caltrans

7. DESIGN/BUILD-Contractor’s View of Design/Build Bridge Construction
Allen Harwood, Construction Consultant
Ted Aadland, Ward, Inc.
Sacagawea Bridge: Record-Setting Span with Unique Design/Build Selection Process
R. Kent Montgomery, Figg Bridge Engineers, Inc.

Break 9:00 am to 9:30 am
Sponsored by: Friends of Western Bridge

9:30 am to 11:00 am GENERAL SESSION
Moderator: Eldon Davison, Caltrans
8. San Francisco-Oakland Bay Bridge East Spans Replacement Project
Brian Maroney, Project Manager, CALTRANS

CLOSING REMARKS
Seminar Chairman, Eldon Davison,
Chief, Office of Structure Design CALTRANS, Sacramento

INVITATION TO 2003 SEMINAR
Bridge Engineer Chairman for 2003

Tour Information and Instructions
ADJOURNMENT 11:00 am
11:30 am to 8:30 pm
OPTIONAL TECHNICAL TOUR