

Bijan Khaleghi, PhD, PE, SE

State Bridge & Structures Design Engineer
Washington State Department of Transportation
Bridge & Structures Office
Adjunct Professor
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Professional Experience

State Bridge Design Engineer, 2006 – Present. WSDOT Bridge and Structures Office:

Responsible to administer the statewide structural design program for bridge and tunnel projects from preliminary design through the final PS&E preparation and QC/QA implementation. Provides technical and managerial leadership to a staff of highly skilled professional engineers. Establish design policies directing WSDOT designers, design consultants, design-builders and other bridge divisions in Washington State. Manage research projects for bridges and tunnels incorporating seismic requirements, homeland security, accelerated bridge construction, innovative materials and designs. Serve as project manager and Bridge Office representative for the complex, unique, and monumental bridge projects such as suspension or cable stayed bridges, segmental bridges, movable bridges, challenging and complex interchange or corridor project.

Design Unit manager, 2004 – 2005 WSDOT Bridge Office, Olympia, WA.

Concrete Specialist, Bridge Engineer 7, 1998–2004 WSDOT Bridge Office, Olympia

Senior Bridge Engineer, 1991-1997, WSDOT Bridge and Structures Office Participated in bridge designs and coordinated the design of major projects including: pretensioned, post-tensioned concrete bridges, steel plate and box girder bridges, tunnel rehabilitations, walls. Prepared design memorandums and provided LRFD training classes for bridge engineers. Served as Bridge Technical Advisor for major projects, coordinated research projects with Universities,

Bridge Engineer, 1987 - 1990, Johnson, Mirmiran and Thompson Inc. Fairfax Virginia. Responsible for design of bridges and highway structures.

Adjunct Professor, Saint Martin University, Olympia, WA, 2009-present, Teaching Bridge Engineering and Design, Prestressed Concrete Design, Advanced Concrete, and Earthquake Engineering and Design Courses

Assistant Professor, 1984 - 1987, Tehran Polytechnic University. Taught: Prestressed Concrete Design, Concrete technology, Reinforced Concrete Design, and Matrix Analysis of Structures.

Education

Doctor of Engineering in Concrete Structures, 1985 National Institute of Applied Sciences, Lyon, France

Master of Sciences in Structural Engineering, 1981 National Institute of Applied Sciences, Lyon, France

Master of Sciences in Civil Engineering, 1976 Tabriz University, Iran.
Registration

Professional Civil and Structural Engineer in States of

Memberships

Member of AASHTO Committees: T-8 Moveable Bridges, T-10 Concrete Bridges, and T-20 Tunnels

Member of PCI Bridge Committee, and Chair for PCI Seismic Design Subcommittee

Member of American Segmental Bridge Institute (ASBI) Bridge Committee

Member of TRB Committees: AFN10 Emerging Technology, AFF10 ABC, AFF30 Concrete Bridges, AFF50, Seismic Design

Member and chair for ongoing NCHRP projects and Domestic Scan

Member of Permanent International Association of Road Congress, PIARC

Awards

T.Y. Lin Award, ASCE – March 2014

Charles C. Zollman Award, PCI Journal 2013

Charles C. Zollman Award, PCI Journal 2011

T.Y. Lin Award, ASCE – SEI May 2006

Martin P. Korn Award, PCI JOURNAL Award 2005

Selected Publications

State-of-the-Art Report on Seismic Design of Precast Concrete Bridges, PCI Report SD-01-13, First Edition May 2014

Analytical Investigation and Monitoring of End-Zone Reinforcement of the Alaskan Way Viaduct Super Girders. PCI JOURNAL, Spring 2014, Volume 59, Number 2.

Evaluation of Common Design Policies for Precast, Prestressed Concrete, I-Girder Bridges, PCI JOURNAL, Vol. 58 - 2013

Accelerated Bridge Construction In Washington State – From Research To Practice, PCI JOURNAL, Fall 2012

Making Sense of Minimum Flexural Reinforcement Requirements: Part 1 – Reinforced Concrete Members, PCI JOURNAL, Vol. 55, Number 3, Summer 2010.

Effects of Over-height Truck Impacts on Intermediate Diaphragms in Prestressed Concrete Bridge Girders," V. 55, No. 1, Winter 2010, pp. 58–78.

WSDOT Plan for Accelerated Bridge Construction. Journal of Transportation Research Board No 2200, Bridge Engineering 2010, Volume 1, pp 3-11.

Design optimization For fabrication of pretensioned Concrete bridge girders. PCI JOURNAL, V. 54, No. 4, Fall 2009, pp. 73–111.

Use of Precast Bridge Members in Area of High Seismicity. Journal of Transportation Research Board, No 2131, Structures 2009.

Design and Construction of the Old 99 Bridge — An HPC Spliced-Girder Structure, PCI JOURNAL January—February 2006

Flexural strength of Reinforced and Prestressed Concrete T- Beams. PCI JOURNAL, Vol. 50, January/February 2005

High Performance Pretensioned Girder Concrete Bridges in Washington State. PCI JOURNAL, Vol. 48, March/April 2003

Post-Tensioned Spliced Girder Bridges In Washington, PTI Journal, Vol. 1, June, 2002

Performance of Bridge Structures in 2001 India Earthquake. PCI JOURNAL, November/December 2001 vol. 46, no.6

Proposed Simplified Method for Shear Design of Bridge Girders Using LRFD Specifications - Journal of Transportation Research Board, No 1688, Washington D.C.

Time-Dependent Prestress Losses in Prestressed Girders using High Performance Concrete. Journal of Transportation Research Board, No 1594, Washington D.C.

