

CONCRETE CONNECTIONS

Concrete Connections is an annotated list of websites where information is available about concrete bridges. Links and other information are provided at www.aspirebridge.org.

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<https://asbi-assoc.org/wp-content/uploads/2023/07/Box-Girder-Segments-PCIASBIEnglish.pdf>

The Perspective on page 6 highlights efficiency in concrete segmental box-girder design and fabrication. This is a link to the *AASHTO-PCI-ASBI Segmental Box Girder Standards for Span-by-Span and Balanced Cantilever Construction*. The use of standardized shapes could open the door for precast concrete segmental superstructures to be an economical option for more projects.

https://rosap.ntl.bts.gov/view/dot/68881/dot_68881_DS1.pdf

This is a link to download the University of Nebraska–Lincoln report *Truck Platooning Effects on Girder Bridges: Phase II – Service*. The Professor's Perspective on page 38 is the fourth article in a series dedicated to investigating the statistical reliability indices that should be used to accommodate truck platoons.

https://www.pci.org/PCI/PCI/Project_Resources/Project_Profile/Project_Profile_Details.aspx?ID=23546

The project to widen River Road over Harrods Creek Bridge, which is mentioned in the Focus article about Palmer Engineering on page 14, won the PCI Design Award for best rehabilitated bridge in 2011. Palmer Engineering served as specialty engineer for this challenging project to widen an existing one-lane bridge to two lanes while preserving the historic character of the original span across Harrods Creek. This link includes the PCI Design Award profile of the project, with additional photos and an overview video about the bridge.

<https://wsdot.wa.gov/construction-planning/major-projects/north-spokane-corridor>

<https://storymaps.arcgis.com/collections/6e4dff6e5d34705b34a1eadb325403a>

These links provide background information about the North Spokane Corridor (NSC) project, as well as photos and maps of the project. The U.S. Route 395 Spokane River crossing bridge is part of the larger NSC project and is featured in the Project article on page 18. Community engagement and corridor theming were priorities for the Washington State Department of Transportation throughout the project.

<https://www.youtube.com/watch?v=uWxwBzTEgEA>

A video showing the construction progress of the Mount Vernon Viaduct replacement is available at this link from the San Bernardino County Transportation Authority. The new structure, which spans over 3rd Street, four Metrolink regional rail lines, and 18 Burlington Northern Santa Fe railroad lines, is featured in the Project article on page 23. The project team chose precast, prestressed concrete girders for this project based on their efficiency and an outstanding span-to-depth ratio.

https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/research/reports/fdot-bdv29-977-45-rpt.pdf?sfvrsn=e8b04e2f_2

Information about research on the magnetic flux leakage method for damage detection in post-tensioning tendons can be found at this link. The Perspective article on page 8 discusses how artificial intelligence and machine learning can help engineers analyze data and locate damage using the output from this method.

https://www.fhwa.dot.gov/resourcecenter/teams/structures-geotechnical-hydraulics/Structural_Design_UHPC_Workshop_Manual.pdf

The Federal Highway Administration's (FHWA's) *Structural Design with UHPC Workshop Manual* is available at this link. The FHWA article on page 50 focuses on structural design using ultra-high-performance concrete (UHPC).

<https://nationalconcretebridge.org/seminars>

The Perspective on page 10 discusses the ethical implications of the normalization of deviance. The article is derived from ethics lessons shared by the author in the National Concrete Bridge Council's (NCBC's) Concrete Bridge Seminar: Concepts for Extending Spans. This is a link to NCBC's upcoming seminars.



The new Chair of the National Concrete Bridge Council (NCBC) is Tim Christle, Post-Tensioning Institute. Tim and other members of NCBC are excited to welcome the American Concrete Institute (ACI) to its membership of allied industry organizations. ACI's technical expertise and resources align with NCBC's goals to gather and disseminate information on the design, construction, and condition of concrete bridges.



American Concrete Institute

Always advancing

Learn more about this alliance at:

<https://www.concrete.org/newsandevents/news/newsdetail.aspx?f=51745591>.

For more information about NCBC, visit <https://nationalconcretebridge.org/>.

