

## 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](http://www.aspirebridge.org).

### IN THIS ISSUE

[http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp\\_rpt\\_603.pdf](http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_603.pdf)

This is a link to NCHRP Report 603 *Transfer, Development, and Splice Length for Strand/Reinforcement in High-Strength Concrete* which is mentioned in the LRFD article on page 52.

[http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp\\_rpt\\_595.pdf](http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_595.pdf)

This is a link to NCHRP Report 595 titled *Application of the LRFD Bridge Design Specifications to High-Strength Structural Concrete: Flexure and Compression Provisions* which is mentioned in the LRFD article on page 52.

<http://www.fhwa.dot.gov/publications/research/infrastructure/bridge/13061/13061.pdf>

This is a link to FHWA Publication No. FHWA-HRT-13-061 *Lightweight Concrete: Mechanical Properties* which is mentioned in the LRFD article on page 52.

[http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp\\_rpt\\_579.pdf](http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_579.pdf)

This is a link to NCHRP Report 579 *Application of LRFD Bridge Design Specifications to High-Strength Structural Concrete: Shear Provisions* which is mentioned in the LRFD article on page 52.

<http://www.fhwa.dot.gov/everydaycounts/>

This link is to the webpage for FHWA's Every Day Counts initiative which is mentioned in the Partner Spotlight article on page 25.

[http://www.pci.org/uploadedFiles/Siteroot/Education/Related\\_Content/Related\\_Content\\_Files/Big-Beam-Rules-2015.pdf](http://www.pci.org/uploadedFiles/Siteroot/Education/Related_Content/Related_Content_Files/Big-Beam-Rules-2015.pdf)

This is a link to the official rules for the PCI's Big Beam Contest 2015 which is mentioned in the Professor's Perspective article on page 32.

<http://www.fhwa.dot.gov/bridge/construction/pubs/hif13026.pdf>

This is a link to FHWA Publication No. FHWA-NHI-13-026 *Post-Tensioning Tendon Installation and Grouting Manual* which is mentioned in the FHWA article on page 36.

[http://www.nhi.fhwa.dot.gov/training/course\\_search.aspx?course\\_no=130053](http://www.nhi.fhwa.dot.gov/training/course_search.aspx?course_no=130053)

This is a link to the description of NHI Course No. FHWA-NHI-130053 *Bridge Inspection Refresher Training* which is mentioned in the FHWA article on page 36.

<http://www.fhwa.dot.gov/bridge/seismic/nhi130093.pdf>

This is a link to FHWA Publication No. FHWA-NHI-15-004 *LRFD Seismic Analysis and Design of Bridges Reference Manual* which is mentioned in the FHWA article on page 36.

[https://www.nhi.fhwa.dot.gov/training/course\\_search.aspx?tab=0&key=130093&course\\_no=130093&res=1](https://www.nhi.fhwa.dot.gov/training/course_search.aspx?tab=0&key=130093&course_no=130093&res=1)

This is a link to the description of NHI Course No. FHWA-NHI-130093 *LRFD Seismic Analysis and Design of Bridges* which is mentioned in the FHWA article on page 37.

[https://www.nhi.fhwa.dot.gov/training/course\\_search.aspx?tab=0&key=130096&course\\_no=130096&res=1](https://www.nhi.fhwa.dot.gov/training/course_search.aspx?tab=0&key=130096&course_no=130096&res=1)

This is a link to the description of NHI Course No. FHWA-NHI-130096 *Cable-Stayed Bridge Seminar* which is mentioned in the FHWA article on page 37.

[https://www.nhi.fhwa.dot.gov/training/course\\_search.aspx?tab=0&key=130081D&course\\_no=130081D&res=1#course\\_search.aspx?tab=0&key=130081&sf=0&course\\_no=130081](https://www.nhi.fhwa.dot.gov/training/course_search.aspx?tab=0&key=130081D&course_no=130081D&res=1#course_search.aspx?tab=0&key=130081&sf=0&course_no=130081)

This is a link to the description of NHI Course No. FHWA-NHI-130081 *LRFD for Highway Bridge Superstructures - Concrete* which is mentioned in the FHWA article on page 37.

[http://www.pci.org/uploadedFiles/Siteroot/Publications/PCI\\_Journal/2011/DOI\\_Articles/JL-11-WINTER-10.PDF](http://www.pci.org/uploadedFiles/Siteroot/Publications/PCI_Journal/2011/DOI_Articles/JL-11-WINTER-10.PDF)

This is a link to the *PCI Journal* article by Tadros, Fawzy, and Hanna "Precast, Prestressed Girder Camber Variability" that was cited in the Concrete Bridge Technology article on page 38.

[https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/25442/Davison\\_washington\\_02500\\_12723.pdf?sequence=1](https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/25442/Davison_washington_02500_12723.pdf?sequence=1)

This is a link to the Master's thesis by Davison "Prediction of Time-Dependent Stresses and Deflections in Prestressed, Concrete Girders: From Start of Fabrication to End of Service Life" that was cited in the Concrete Bridge Technology article on page 39.

[http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp\\_rpt\\_496.pdf](http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_496.pdf)

This is a link to NCHRP Report 496 *Prestress Losses in Pretensioned High-Strength Concrete Bridge Girders* that was cited in the Concrete Bridge Technology article on page 39.

[http://www.dot.ca.gov/hq/esc/earthquake\\_engineering/sdc/documents/Seismic-Design-Criteria-\(SDC-1.7-Full-Version,-OEE-Release\).pdf](http://www.dot.ca.gov/hq/esc/earthquake_engineering/sdc/documents/Seismic-Design-Criteria-(SDC-1.7-Full-Version,-OEE-Release).pdf)

This is a link to the latest version of the *Caltrans Seismic Design Criteria* (version 1.7) that was mentioned in the Riego Road Project Profile on page 14.

### Bridge Technology

**NEW** <http://onlinepubs.trb.org/Onlinepubs/trnews/trnews295rpo.pdf>

This is a link to the article "Second-Generation, Full-Depth, Precast Concrete Deck System" in the November–December 2014 edition of *TR News*. It reports how the Nebraska Department of Roads used a new precast concrete deck system to improve constructability and cost-effectiveness.

**NEW** <http://www.astmnewsroom.org/default.aspx?pageid=3646>

This link announces the new ASTM C1778 "Standard Guide for Reducing the Risk of Deleterious Alkali-Aggregate Reaction in Concrete" that provides recommendations for identifying the potential for deleterious alkali-aggregate reactions in concrete construction and selecting appropriate preventive measures to minimize the risk of deleterious reaction.