

RESOURCES FOR CONCRETE BRIDGE DESIGN AND CONSTRUCTION

Catalog of Resources from AASHTO, FHWA, Members of the National Concrete Bridge Council, and Selected Other Sources



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AASHTO | NCBC COLLABORATION

American Association of State Highway and Transportation Officials
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PREFACE

This document is a listing of resources for the concrete bridge practitioner that are made available by the American Association of State Highway and Transportation Officials (AASHTO), the Federal Highway Administration (FHWA), the members of the National Concrete Bridge Council (NCBC), and selected other relevant sources.

This document is intended to be a catalog or “bookshelf” of important resources for the design and construction of concrete bridges from these organizations. However, the list of resources is not exhaustive, just as the sources included are also not exhaustive. The list of potentially beneficial resources for bridge design and construction practitioners, considering all possible sources, such as research reports, journal articles, or other publications, would certainly be more than could be listed in a document of reasonable length. So, this listing is limited to the sources listed as a good place to begin.

This document is the first product resulting from the collaboration between AASHTO and NCBC that has recently been formalized, following a long-standing informal relationship. It is anticipated that other documents will follow.

The main body of this document introduces each organization for which resources are listed, then provides a list of manuals of practice and specifications, additional references, training resources, and certification programs available from that organization. Links are given from which the resources may be obtained where available.

The National Concrete Bridge Council

The National Concrete Bridge Council is a council of allied industry organizations dedicated to quality concrete bridge construction. NCBC pursues this goal by:

- Promoting quality in concrete bridge construction and preservation;
- gathering and disseminating information on design, construction, and condition of concrete bridges;
- establishing and maintaining communication with Federal and state departments of transportation, city and county public works departments, and consulting engineers; and
- providing information on behalf of the concrete industries to codes and standards groups.

NCBC has been working toward these goals since it was organized in 1987. The formation of the council was spearheaded by the Portland Cement Association (PCA). In addition to PCA, the initial members of the council included the National Ready Mixed Concrete Association (NRMCA), the Precast/Prestressed Concrete Institute (PCI), and the Post-Tensioning Institute (PTI). NCBC maintains a website <https://nationalconcretebridge.org>, which provides information and links to its members’ websites. Several NCBC members have also supported the publication of ASPIRE, the concrete bridge magazine, which has been published quarterly since 2007. All issues are available on the ASPIRE website (<https://aspirebridge.com>).

Shortly after it was organized, NCBC had its first meeting with FHWA in September 1988, and it has been meeting regularly with FHWA ever since. A product of this collaboration was the joint publication of an informational newsletter: HPC (High Performance Concrete) Bridge Views, which later became Concrete Bridge Views. Eighty issues of the newsletter were published from 1999 to 2016, and all issues are still available online at <https://concretebridgeviews.com>.

Since its formation, NCBC has also provided informal support for the Technical Committees of the AASHTO Committee on Bridges and Structures, especially the Technical Committee on Concrete Design (T-10). In 2022, NCBC formalized that support by entering into a collaboration agreement with AASHTO that will enable joint development of publications to benefit the concrete bridge industry.

The membership of NCBC has varied over time. The following organizations are current members:

- American Segmental Bridge Institute (ASBI)

- Concrete Reinforcing Steel Institute (CRSI)
- Epoxy Interest Group of CRSI (EIG)
- Expanded Shale, Clay and Slate Institute (ESCSI)
- National Ready Mixed Concrete Association (NRMCA)
- Precast/Prestressed Concrete Institute (PCI)
- Post-Tensioning Institute (PTI)
- Silica Fume Association (SFA)
- Wire Reinforcement Institute (WRI)

This document lists resources from AASHTO, FHWA, and NCBC in Sections 1, 2 and 3 respectively. This is followed by resources from each NCBC member organization listed above in alphabetical order, in Sections 4 through 12. Finally, a listing of resources from other industry organizations not part of NCBC, but relevant to bridge design, are provided in Sections 13 through 16. These organizations in order are:

- American Concrete Institute (ACI)
- ASTM International (ASTM)
- National Cooperative Highway Research Program (NCHRP)
- Portland Cement Association (PCA)

DISCLAIMER: Many descriptions in this document are taken from the websites of the respective organizations and are reproduced here with an understanding of fair use.

INTRODUCTION

For each agency or organization, information and resources related to concrete bridge design and construction are in the categories listed below:

ORGANIZATION DESCRIPTION

A brief description of the organization and its mission;

MANUALS OF PRACTICE AND SPECIFICATIONS

Industry-developed manuals of practice and guide or standard specifications;

ADDITIONAL REFERENCES

Selected other reference or informational documents produced by the organization or which are relevant to its products and processes;

TRAINING

Available training opportunities offered by the organization;

CERTIFICATIONS

Certifications available from the organization for products and processes, and also for plants and personnel.