

Construction Practices Handbook for Concrete Segmental and Cable-Supported Bridges

How-To Guide for Construction of Segmental Concrete Bridges

Purpose: *This Handbook was developed by a 25 member ASBI Committee with the purpose of providing comprehensive coverage of the state-of-the-art for construction and inspection practices related to all types of segmental concrete bridges.*

This handbook...

- Describes and illustrates construction practices for:
 - Precast span-by-span bridges
 - Precast balanced cantilever bridges
 - Cast-in-place balanced cantilever bridges
 - Incrementally launched segmental bridges
 - Concrete cable-supported bridges
- Provides detailed guidance for setting up casting yards for precast segmental bridges, as well as each step in the process of producing and erecting segments.
- Contains comprehensive description of procedures for post-tensioning and grouting of tendons, including up-to-date recommendations for corrosion protection.
- Includes construction inspection guidelines.

Handbook Organization

Two sections contain all the relevant information for construction and inspection of segmental Concrete bridges:

- I. **"Construction Practices Handbook for Concrete Segmental and Cable Supported Bridges"** — 425 pp
(See reverse side for Chapter titles)
- II. **"FHWA Post Tensioning Tendon Installation and Grouting Manual"** — 161 pp
(See reverse side for Chapter titles)



Organizational Members **\$125**

Professional Members **\$150**

NonMembers **\$175**

(plus 8.25% sales tax and shipping outside the United States)

Second Edition June 2008

Don't Delay – Order Your "Construction Practices Handbook for Concrete Segmental & Cable -Supported Bridges" Today!

Name _____

Company _____

Address (if p.o. box, also give street address for shipping) _____

City _____ State _____ Zip Code _____ Country _____

Telephone _____ Fax _____

E-Mail _____ Shipping Account Number _____

PAYMENT INFORMATION

U.S. Checks, Credit Cards, or Wire Transfer (contact info@asbi-assoc.org to obtain credit card form or wire transfer instructions).

SHIPPING INFORMATION

Within the United States, Handbooks will be shipped via the U.S. Postal Service. Outside the United States, DHL charges will apply based on the address to which they are shipped. Please provide ASBI with your shipping address to determine DHL charges. You may provide your own shipping account information to avoid payment of shipping costs to ASBI.



American Segmental Bridge Institute

142 Cimarron Park Loop, Suite F
Buda, Texas 78610-2837
tel: 512-523-8214 ■ fax: 512-523-8213

e-mail: info@asbi-assoc.org ■ website: www.asbi-assoc.org

CONSTRUCTION PRACTICES HANDBOOK FOR CONCRETE SEGMENTAL AND CABLE-SUPPORTED BRIDGES

Section I **Construction Practices Handbook for Concrete Segmental and Cable Supported Bridges** — 425 pp

- Chapter 1 Introduction and Overview of Segmental Construction
- Chapter 2 Terminology
- Chapter 3 Construction of Precast Span-by-Span Bridges
- Chapter 4 Construction of Precast Balanced Cantilever Bridges
- Chapter 5 Construction of Cast-in-Place Balanced Cantilever Bridges
- Chapter 6 Incremental Launching of Segmental Bridges
- Chapter 7 Special Requirements for Construction of Concrete Segmental Cable-Stayed Bridges
- Chapter 8 Segmental Substructures
- Chapter 9 Production of Precast Segments
- Chapter 10 Procedures for Handling, Transporting and Erecting Precast Segments
- Chapter 11 Erection Details
- Chapter 12 Epoxy Jointing, Duct Coupler Devices, and Prepackaged Grout
- Chapter 13 Geometry Control
- Chapter 14 Bearings and Expansion Joints
- Chapter 15 Lessons Learned
- Chapter 16 Construction Engineering Inspection of Segmental Construction
- Chapter 17 Construction Inspection Guidelines for Segmental Concrete Bridges

Section II **FHWA Post Tensioning Tendon Installation and Grouting Manual** — 161 pp

- Chapter 1 Introduction
- Chapter 2 Post-Tensioning System Materials and Components
- Chapter 3 Post-Tensioning Duct and Tendon Installation
- Chapter 4 Grouting of Post-Tensioning Tendons
- Appendix A Terminology
- Appendix B Personnel Qualifications
- Appendix C Further Examples of Post-Tensioning Tendon Applications
- Appendix D Corrosion Protection of Post-Tensioning Tendons
- Appendix E Bibliography



American Segmental Bridge Institute

142 Cimarron Park Loop, Suite F
Buda, Texas 78610-2837

phone: 512-523-8214 ■ fax: 512-523-8213 ■ e-mail: info@asbi-assoc.org ■ website: www.asbi-assoc.org