



COURSE NUMBER

FHWA-NHI-130096

COURSE TITLE

Cable-Stayed Bridge Seminar

The National Highway Institute's (NHI) one-day Cable-Stayed Signature Bridge Seminar is intended to provide participants with an introduction to planning, design, and construction of long-span, cable-stayed bridges. The seminar provides an overview of the features of cable-stayed bridges; their construction and maintenance considerations; and analyses needed to design these highly redundant structures including special aerodynamic studies.

This seminar will engage participants through Instructor-led presentations, discussions, Q&A, group activities, and walkthrough examples. Participants will review a case study to help them understand how the curriculum can be applied to making basic design decisions. Major topics covered include: bridge configurations, construction methodology, component details, analysis, aerodynamics, design methodology, construction engineering, and maintenance and inspection. As part of the seminar, participants will receive a copy of FHWA Design Guidelines for the Arch and Cable-Supported Signature Bridges.

As a result of the seminar, participants will become familiar with the features of, construction and maintenance considerations; and analyses needed to design cable-stayed bridges.

OUTCOMES

Upon completion of the course, participants will be able to:

- Describe the benefits of the cable-stayed bridge as a structure type over other alternatives
- Identify possible span and cable arrangements
- Compare steel, concrete or composite superstructure types
- Select possible pylon shape
- Define the general approaches for erecting steel and concrete cable-stayed bridges
- Define the roles and responsibilities of the owner, contractor and construction engineer
- Identify the needs for aerodynamics studies, testing and evaluation, and discuss practical solutions to mitigate wind effects

TARGET AUDIENCE

The primary target audience includes bridge engineers with 10 to 30 years of experience.

TRAINING LEVEL: Basic

FEE: 2016: \$645 Per Person; 2017: \$645 Per Person

LENGTH: 1 DAYS (CEU: .6 UNITS)

CLASS SIZE: MINIMUM: 20; MAXIMUM: 30

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