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BIRM

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16. Abstract

This document, the *Bridge Inspector's Reference Manual (BIRM)*, is a comprehensive manual on programs, procedures, and techniques for inspecting and evaluating a variety of in-service highway bridges. It is intended to replace the *BITM 90* which was first published in 1991 to assist in training highway personnel for the new discipline of bridge safety inspection. *BITM 90* replaced *BITM 70* which had been in use for 20 years and has been the basis for several training programs varying in length from a few days to two weeks. Comprehensive supplements to *BITM 70* have been developed to cover inspection of fracture critical bridge members, and culverts are now covered in the *BIRM*.

The *BIRM* is a revision and upgrading of the previous manual. Improved Bridge Inspection techniques are presented, and state-of-the-art inspection equipment is included. New or expanded coverage is provided on culverts, fracture critical members, cable-stayed bridges, prestressed segmental bridges, and underwater inspection. Previous supplemental manuals on moveable bridge inspection, and nondestructive testing are excerpted and referenced. These supplemental manuals are still valid supplements to *BIRM*.

A three-week comprehensive training program on bridge inspection, based on the *BIRM*, has been developed. The program consists of a one-week course, NHI Course No 130054, "Engineering Concepts for Bridge Inspectors," and a two-week course, NHI Course No 130055, "Safety Inspection of In-Service Bridges." Together, these two courses meet the definition of a comprehensive training program in bridge inspection as defined in the National Bridge Inspection Standards. The one-week course is optional for technicians, inspectors, or engineers who have an adequate background in bridge engineering concepts.

The catalogue for NHI Courses including the schedule, description and course request form can be found on the National Highway Institute web site: www.nhi.fhwa.dot.gov/home.aspx

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