TTAP Bridge Videos

A Page from the Past…A Bridge to the Future
USDA - Forest Service 29 minutes Video ID # 1
Explains the TIMBER BRIDGE INITIATIVE and the roles given the USDA-Forest Service; i.e.: research and development; utilization and evaluation within the National Forest transportation infrastructure; technology transfer through demonstration and standards development.

Aesthetic Bridge Rails & Guardrails
FHWA / US DOT 1993 8 minutes Video ID # 2
Gives a general overview of how safety and aesthetics are combined in roadside safety hardware. Crash testing is used to demonstrate the effectiveness of steel-backed timber, pre-cast, masonry stone guardrails, and aesthetic bridge rails.

Alumadeck Bridge System
Reynolds Metals Company 1997 19 minutes Video ID # 328
Discusses when, how, and why an Alumadeck bridge system can be used. These new aluminum bridge deck systems can help reduce total construction time, total project costs, civilian inconveniences, and help increase live load carrying capacity of bridges.

Bridges Unbroken: Timber Bridges
FHWA / Univ. of Maryland 1989 20 minutes Video ID # 4
Discusses the problems of timber bridge piling failures. Describes testing procedures for in-place inspection of timber bridge pilings, with emphasis on ultrasonic testing.

Concrete Bridge Railings, Cable Guardrails, Modified Thrie Beam Guardrails
FHWA / US DOT 1993 37 minutes Video ID # 5
The video covers the new AASHTO design guidelines for bridge railings. Reviews bridge railing tests and designs for all classifications in accordance with the new AASHTO guidelines.

Countermeasures for Hydraulic Problems at Bridges
FHWA / US Geological Survey 29 minutes Video ID # 6
A series of slides identifying different types of hydraulic problems at bridges. Indicates the possible countermeasures as well as a testing procedure to help select the proper countermeasure for each case.

Hatchie River Bridge
FHWA 17 minutes Video ID # 207
A 'home video' type production at the site of a failed concrete bridge whose middle section collapsed into the river. It records the process of inspecting the collapsed structure above and below the water, recovery of debris and investigating the cause.
Modern Timber Bridges: A New Return for Old New England
Rhode Island T2  1992  15 minutes  Video ID # 7
Explains the timber bridge demonstration project in the Town of Foster, Rhode Island. Discusses how the use of locally abundant timber can result in cost savings over steel and concrete while achieving the same traffic load bearing capability.

Non-Destructive Testing of Bridges
CalTrans  1988  13 minutes  Video ID # 8
Discuss the role of non-destructive testing in the evaluation of bridges. The following three testing methods are described in detail: liquid penetrant, ultrasonic, and radiography.

Pennsylvania Bridges: Maintaining the Past - Preserving the Future
PENNDOT/FHWA  1988  10 minutes  Video ID # 301
Highlights the concept of performing maintenance activities at the proper time to a particular bridge. Discusses the importance of maintenance and inspection procedures to ensure bridge safety. Illustrates the importance of a solid bridge maintenance schedule, applying proper maintenance procedures to each type of bridge and the consequences of.

Pile Cap Replacement
Oregon T2 / OR DOT  1991  12 minutes  Video ID # 9
Shows the procedure for replacing a timber pile cap beneath a concrete surfaced bridge while the bridge remains open to traffic. Replacement of the cap is aided by the use of rollers mounted on brackets that clamp to the cap's supporting plate.

Prefabrcated Timber Bridge Deck Panels
USDA Forest Service  10 minutes  Video ID # 208
This video illustrates a relatively low cost method for fabrication of timber decks over steel girders using methods developed by county engineer John Smolen.

Pre-Stress Concrete Bridge Inspection
PennDOT  1987  56 minutes  Video ID # 10
Various techniques of bridge inspection for a two-person team. The team checks tools and equipment and organizes a field trip to assigned bridges. The program shows a run-through of a bridge inspection and examples of various bridges prestressed concrete beams.

Scour: The Bridge Engineer's Dilemma
PennDOT  1988  20 minutes  Video ID # 11
Designed to alert bridge inspectors to the problem of scour and its potential for bridge damage. Explains the best remedies for correcting a scour problem.
Steel Truss Bridge Inspection, Intro to Bridge Inspection  
FHWA / Oregon DOT  1978  75 minutes  Video ID # 12  
Step by step explanation of the procedure for inspecting bridges. Discusses the different types of equipment used and reporting form for documenting the inspection process.

Stowell Road Bridge Reconstruction  
Town of Merrimack, NH  1990  21 minutes  Video ID # 214  
Details the use of pre-fabrication to restore the Stowell Road Covered Bridge.

Timber Bridge #2  
PennDOT  1992  28 minutes  Video ID # 14  
Shows how modern timber bridges can be installed by local construction firms or municipal employees at lower cost and in less time than traditional bridge construction.

Timber Bridge Inspection in Oregon  
FHWA / US DOT  1985  50 minutes  Video ID # 15  
The video shows how to inspect a timber bridge. Since many of the bridges are made of concrete rather than timber, there is a lack of expertise in inspecting the timber bridges and in evaluating the results. The additional references (manuals) are also suggested.

Timber Bridges: Build Better & Save with Modern Timber Bridges  
FHWA  1988  22 minutes  Video ID # 13  
 Presents the concept of modern timber bridge construction as an alternative to metal structures. It describes how modern timber bridges differ from the wooden bridges of the past and discusses issues ranging from erection methods to durability.