



Considerations for Restoring Structural Integrity of Covered Bridge Members

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Target audience?



United States
Department of
Agriculture

Forest Service

Engineering Staff

June 1990

EM 7700-8



Timber Bridges

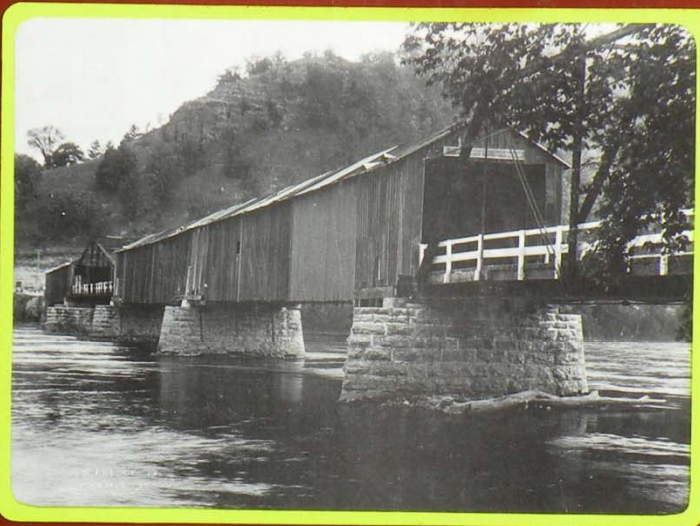
Design, Construction, Inspection, and Maintenance

bridges
ed?

and
that
manages
to give
you
ready?

Covered Bridges of the Middle West

Richard Sanders Allen



OHIO MINNESOTA MICHIGAN
ILLINOIS WISCONSIN IOWA
INDIANA MISSOURI KANSAS

Covered Bridge Manual

PUBLICATION NO. FHWA-HRT-04-098
APRIL 2005

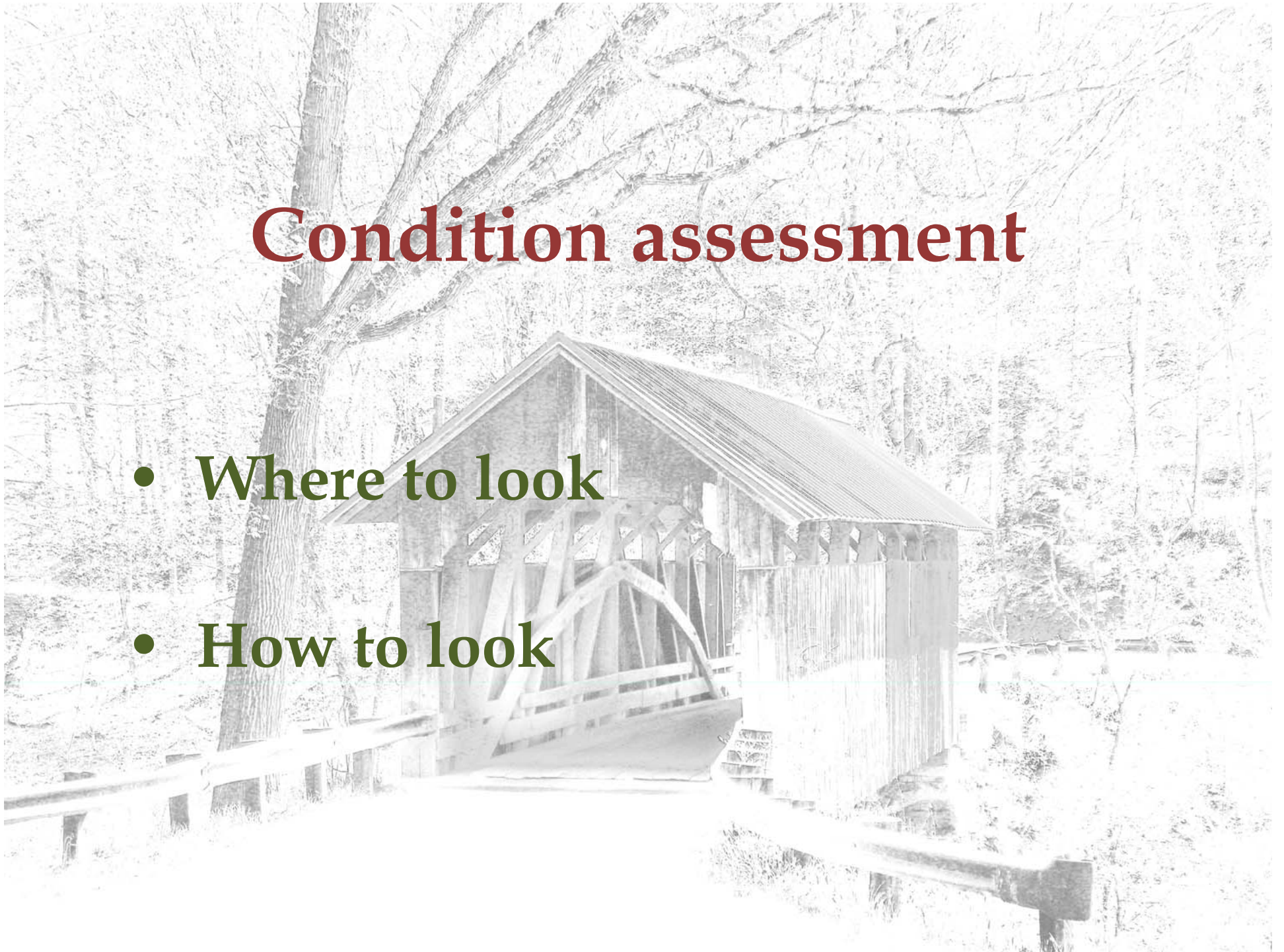


U.S. Department of Transportation
Federal Highway Administration

Research, Development, and Technology
Turner-Fairbank Highway Research Center
6300 Georgetown Pike
McLean, VA 22101-2296

Condition assessment

- Where to look
- How to look



Engineering analysis



General Theory of Bridge
Construction: Containing
Demonstrations of the Principles
of the Art and Their Application
to Practice; Furnishing the
Means of Calculating the Strains
Upon the Chords, Ties, Braces,
Counter-braces, and Other Parts
of a Bridge

Herman Haupt

Repairs

- Rehabilitation
- Load upgrades



Construction details









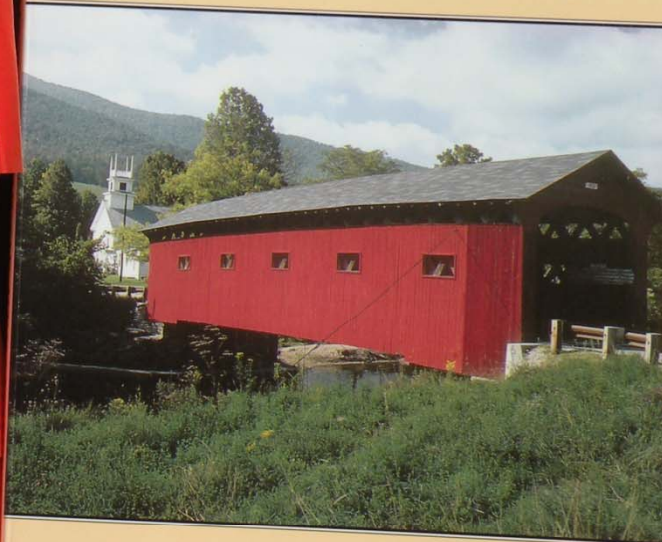


THE LAST
of the
COVERED BRIDGE
BUILDERS



Milton S. Graton

COVERED
BRIDGES
OF VERMONT



ED BARN A

Repairs

- Replace in-kind
- Timber augmentation











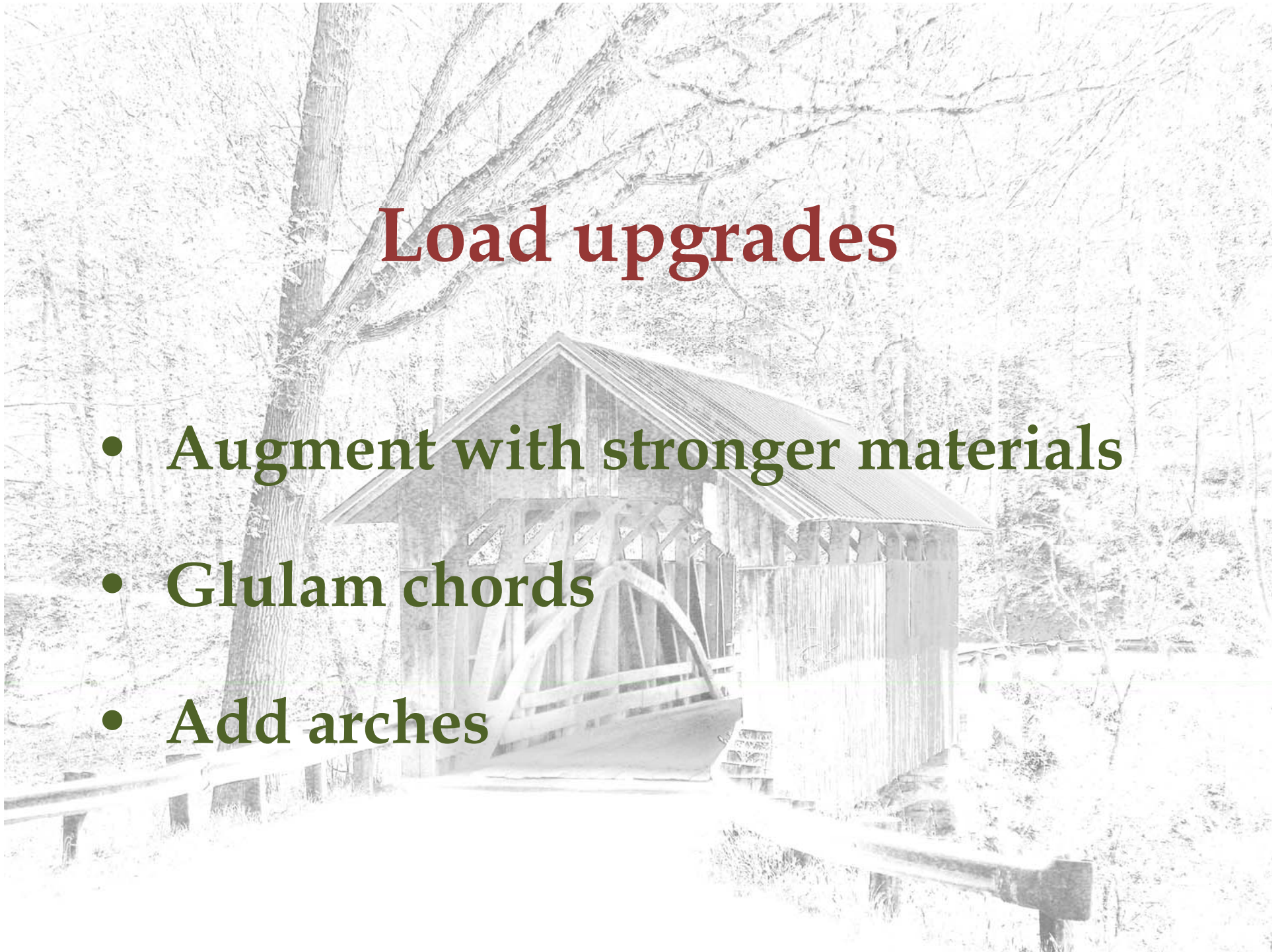






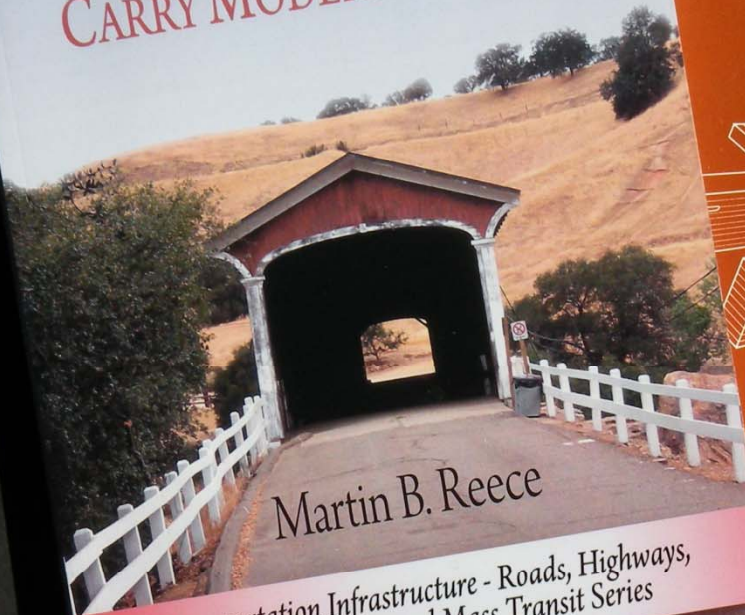
Load upgrades

- Augment with stronger materials
- Glulam chords
- Add arches



TG375
.R44
2010

STRENGTHENING HISTORIC COVERED BRIDGES TO CARRY MODERN TRAFFIC



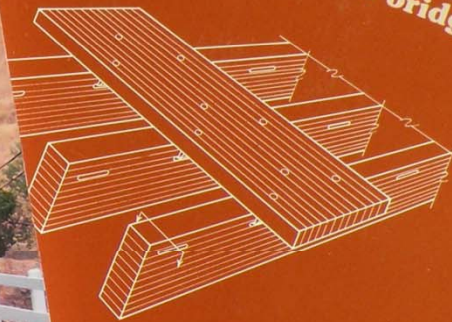
Martin B. Reece

Transportation Infrastructure - Roads, Highways,
Bridges, Airports and Mass Transit Series

Novinka

Weyerhaeuser glulam wood bridge systems

Technical manual
about new and
rehabilitated bridges









Repairs

- Traditional repairs – Gilpin's Falls Bridge (Tim Andrews)
- In-place preservative treatment (Stan Lebow)
- Combination repairs – Goodpasture Bridge (OBEC)

Repair logistics

- Shoring and cribbing
- Moving the bridge





