Historic Preservation of Priority and Candidate Bridges

Bridge Evaluation and Rehabilitation

Amy Squitieri
March 2, 2016
Purpose and benefits

- Comply with federal historic preservation regulations
- Identify bridges eligible for listing in the National Register
Purpose and benefits

- Identify bridges that are good candidates for future preservation
- Simplify and guide the management of historic bridges
Project steps

1. Historic context study - 2012
2. Evaluate National Register eligibility - 2013
3. Categorize bridges - 2014

Public involvement and consultation
Historic bridge total

- 150 Bridges (3%)
- 4,429 Bridges (97%)

4,579 total bridges

- Determined Eligible or Listed in National Register
- Determined Not Eligible
Historic bridge types

- Concrete Arch: 28
- Concrete Slab, Beam & Girder: 14
- Concrete Rigid Frame: 11
- Culvert Pre-1946: 70
- Movable: 9
- Post-1945 Common Types: 11
- Steel Beam & Girder: 2
- Truss: 5

Total Bridges: 150
Stewardship
Stewardship
Treatment categories

- Preservation Priority: Commitment to maintain and rehabilitate
- Preservation Candidate: Maintain and rehabilitate when prudent and feasible
- Non-Priority: Can remove and replace when needed
Summary of historic bridges by treatment category

- 122 total bridges
- 59 Bridges (48%)
- 30 Bridges (25%)
- 33 Bridges (27%)

Preservation Priority
Preservation Candidate
Non-Priority
Preservation Priority Bridges

- Individual management plans
- Section 106 steps
- Future rehabilitation
Preservation Candidate Bridges

- Complete alternatives analysis
- Section 106 steps
- Rehabilitate if prudent and feasible
- Market for relocation
Non-Priority Bridges

- Continue to maintain in accordance with standard LADOTD practices
- Not ideal candidates for long-term use
- Can be replaced when needed
Management Plan for Historic Bridges Statewide
Statewide Historic Bridge Plan

- Section 1 – Requirements/process
  - Secretary of the Interior’s Standards
  - Collaborative team
  - Assessing preservation alternatives

- Section 2 – Recommended Preservation Activities

- Section 3 – Resources
Statewide Historic Bridge Plan

- Collaborative team

ENGINEER

TRANSPORTATION STANDARDS: AASHTO, DOT

LOAD CAPACITY GEOMETRICS RATINGS

BRIDGE CONSTRUCTION SPECIFICATIONS

HISTORIC BRIDGE

IDENTIFIED HISTORIC BRIDGE

IDENTIFY CHARACTER-DEFINING FEATURES AND ENGINEERING DEFICIENCIES

DETERMINE REHABILITATION ALTERNATIVES

HISTORIAN

PRESERVATION PROCESS: SECTION 106, 4f

NATIONAL REGISTER DOCUMENTS, HISTORIC CONTEXTS & SURVEYS

SECRETARY OF THE INTERIOR STANDARDS, NPS BRIEFS, ESTABLISHED PRACTICES

ASSEMBLE BRIDGE REHABILITATION STUDY
## Statewide Historic Bridge Plan

<table>
<thead>
<tr>
<th>Treatment category</th>
<th>Alternatives to be considered</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preservation Priority</strong></td>
<td>• Rehabilitation – for continued vehicular use on-site</td>
</tr>
<tr>
<td></td>
<td>• Rehabilitation – for use in one-way pair</td>
</tr>
<tr>
<td><strong>Preservation Candidate</strong></td>
<td>• Rehabilitation – for continued vehicular use on-site</td>
</tr>
<tr>
<td></td>
<td>• Rehabilitation – for use in one-way pair</td>
</tr>
<tr>
<td></td>
<td>• Bypass and adaptive reuse – for non-vehicular use</td>
</tr>
<tr>
<td></td>
<td>• Replacement</td>
</tr>
<tr>
<td><strong>Non-Priority</strong></td>
<td>No alternative analysis required</td>
</tr>
</tbody>
</table>
Statewide Historic Bridge Plan

- Section 2 – Recommended Preservation Activities
  - Accepted preventative maintenance and rehabilitation activities (Attachment 5 of PA)
Accepted preventative maintenance and rehabilitation activities
Statewide Historic Bridge Plan

- Section 2 – Recommended Preservation Activities
  - Rehabilitation activities
Statewide Historic Bridge Plan

- Section 2 – Recommended Preservation Activities
  - Superstructure, movable bridges, railings, associated bridge features
  - Cost estimating considerations
Statewide Historic Bridge Plan

- Section 2 – Recommended Preservation Activities
  - Use of design exceptions
  - Guidance for bridges on very low-volume local roads
Statewide Historic Bridge Plan

- Section 3 – Resources
  - Reports, guidelines, and manuals
  - Sources of funding
  - Technical training
Individual Historic Bridge Management Plans
Individual Historic Bridge Management Plans

- Overview of main sections
  - Historical Data
  - Engineering Data
  - Recommendations
Engineering Issues – Rehabilitation
Engineering Issues – Rehabilitation
Engineering Issues – Geometrics
Engineering Issues – Load
Engineering Issues – Detour
Engineering Issues – Navigation Control and Restrictions
Expertise and training

- Qualified professional historian
- Required training
  - In cooperation with the Louisiana Transportation Research Center (LTRC)
  - Required for engineers to perform services for the LADOTD for historic bridge rehabilitation projects
    - April 12 or 13, 2016
    - May 10 or 11, 2016
Historic Bridge Program

- Programmatic Agreement
  - List of historic bridges and treatment categories
  - Section 106 process and flowcharts
- Statewide Historic Bridge Management Plan
- Individual Historic Bridge Management Plans
  - 33 Preservation Priority Bridges
Learn more about Louisiana’s historic bridges
Contact:
amy.squitieri@meadhunt.com

Project website:
http://www.dotd.la.gov/administration/public_info/projects/historicbridges/