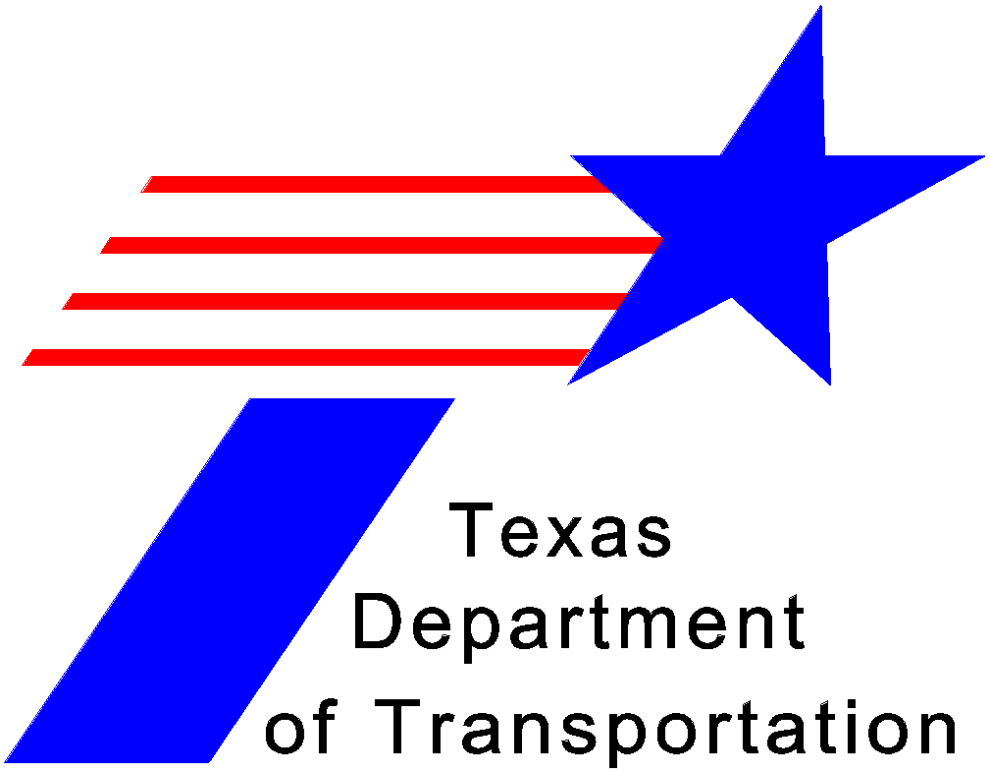
Historic Bridge Manual



March 2014

Manual Notice 2014-1

From: Gregg A. Freeby, P.E., Director, Bridge Division

Manual: *Historic Bridge Manual*

Effective Date: March 12, 2014

Purpose

This manual contains procedures to facilitate moving historic bridge projects through the project development process.

Contents

This revision constitutes a re-write of this manual and it is organized as follows:

- Chapter 1—About this Manual.
- Chapter 2—Working with Historic Bridges. Overview of historic bridge terminology and legislation, and programs and mechanisms available to help fund historic bridge preservation, types of historic bridges, and preservation options.
- Chapter 3—Procedures and Sequence—Steps for developing a historic bridge project.
- Chapter 4—Developing the Agreement. Overview of the Adaptive Use Proposal and agreement development and responsibilities.

Supercedes

This revision supercedes version 2006-1.

Contact

For more information about any portion of this manual, please contact the TxDOT Bridge Division.

Archives

Past manual notices are available in a pdf archive.

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Chapter 1 — Introduction

Contents:

Section 1 — About This Manual

Purpose

This manual contains procedures to facilitate moving historic bridge projects through the project development process. These procedures minimize project delays by:

- Outlining procedures to be followed when potential projects impact historic bridges.
- Serving as a reference regarding the applicable laws, regulations, policies, and guidelines that have been put in place to ensure the most feasible and prudent project, involving a historic bridge, is developed.
- Providing brief discussions on the funding programs the state uses or has used in working with historic bridges. For more information see Chapter 2.

Manual Revision History

Version	Publication Date	Summary of Changes
2001-1	October 2001	New manual.
2005-1	January 2005	Revision updating information about Unified Transportation Program funding categories and authorization levels, adding information about the Statewide Transportation Enhancement Program-funded Historic Bridge Preservation Program, and correcting minor editorial errors.
2006-1	March 2006	Revision updating the name of the federally funded Bridge Program and adding an index to the manual.
2013-1	November 2013	Manual rewrite.

Historic Bridge Project Activities

Complete the following planning activities for a project containing a historic bridge:

- Request a historic bridge condition assessment. Consult with the TxDOT Bridge Division Project Manager.
- Integrate public involvement required for Section 106 with National Environmental Policy Act public involvement requirements. Consult with the TxDOT Environmental Affairs Division (ENV) Historian for guidance based on the outline provided for the development of a public involvement campaign; public meeting handouts are also available.
- Analyze alternatives under Section 4(f) as specified by Federal Highway Administration regulations under the heading of programmatic evaluations for historic bridges. Base analysis on the findings of the historic bridge condition assessment.

- Determine preservation options, based on the findings of the historic bridge condition assessment. This determination may be made using the guidance presented in TxDOT's Historic Bridge Programmatic Section 4(f) Guidelines and Standards of Uniformity.
- Market bridges that must be displaced due to a federally funded project.
- Develop and execute necessary legal agreements.

Historic Bridge Team

A Historic Bridge Team (HBT) is an interdisciplinary team established for any project that has the potential of affecting a historically significant bridge. The team is made up of individuals with varied experiences and expertise in working with historic bridges. See Chapter 3, Section 1 for details concerning HBT formation and members.

Funding

Although the state has several funding programs available for project development, there are only limited funding programs available for the rehabilitation and adaptive use of historic bridges. Federal funds, however, are limited to the historic bridge's estimated demolition costs when the historic bridge has been determined unsuitable for continued vehicular service. This manual outlines the process to determine the appropriate work items for rehabilitating the historic bridge within the federally mandated funding constraints.

Agreements

When there is "no feasible and prudent alternative" to the removal of a historic bridge, the bridge must be made available to responsible recipients as mandated by federal statute (bridge marketing). Standard Advanced Funding Agreements (AFAs) and Agreement Amendments have been developed for projects involving local governments as recipients of a historic bridge. AFAs are needed for on-system and off-system historic bridge projects. The AFAs are available on the Contract Services Office internal web site.

NOTE: Access to the internal web site is available only to TxDOT personnel.

Manual Organization

This manual is organized as follows:

- Chapter 1—About this Manual
- Chapter 2—Working with Historic Bridges. Overview of historic bridge terminology and legislation, and programs and mechanisms available to help fund historic bridge preservation, types of historic bridges, and preservation options.

- Chapter 3—Procedures and Sequence—Steps for developing a historic bridge project.
- Chapter 4—Developing the Agreement. Overview of the Adaptive Use Proposal and agreement development and responsibilities.

Program Changes

Agreements between TxDOT and the Federal Highway Administration (FHWA) regarding environmental approvals are pending. Delegation to the states of some duties under the National Environmental Protection Act (NEPA) may restructure aspects of the historic bridge project procedures outlined in this manual. This manual will be revised accordingly.

Feedback

Direct any questions or comments on the contents of this manual to the Director of the Bridge Division, Texas Department of Transportation.

Chapter 2 — Working with Historic Bridges

Contents:

Section 1 — Overview

General Discussion

Federal and state statutes recognize the importance of preserving significant elements of our cultural and engineering heritage. Historic bridge rehabilitation projects are required to meet the standards outlined in *Secretary of the Interior's Standards for Historic Preservation Project* (36 CFR Chapter 1 Part 67) and creative tools and advancements in technology allow for effective preservation of historic bridges. Due to limitations in available funding and engineering challenges inherent to these unique structures, TxDOT works collaboratively and creatively with local, state, and federal partners to make prudent choices and implement processes that will maintain and preserve these important parts of our transportation heritage.

NOTE: **Costs incurred by TxDOT, a locality, or a private entity to preserve a historic bridge proposed for demolition due to a federally funded project but that has been found suitable for non-vehicular traffic are limited to the cost of demolition. In addition, any historic bridge preserved using federal funds for non-vehicular use is not eligible for any other federal funds.** (MAP-21 Section 1111; 144 USC 23(g)(4)(B))

Historic Bridge Definition

Historic bridges are defined as bridges listed or eligible to be listed on the National Register of Historic Places (NRHP). A bridge that is rare in type, unusual from an engineering perspective, or historically significant because of its location or association with an important event or person may be deemed a historic bridge. This determination is made by the TxDOT Environmental Affairs Division (ENV) in consultation with the State Historic Preservation Officer (SHPO). Texas has many examples of historic truss bridges.

Historic Bridge Database Coding

TxDOT's Bridge Inspection Database contains bridge inventory, inspection, and appraisal data for each bridge class structure on public roadways in Texas. This includes a bridge's historical significance which is maintained and updated by ENV. The following coding practices are used to identify historic bridges within the database:

Historical Significance - Item 37

Code	Description
1	Bridge is ON the National Register of Historic Places (NRHP)
2	Bridge is ELIGIBLE for the NRHP
3	Bridge is NOT ELIGIBLE for the NRHP

Historical Significance - Item 37

Code	Description
4	Bridge is at least 40 years old; historical significance has not been determined
5	Bridge is less than 40 years old

Applicable Federal Laws

Section 106 regulations (36 CFR 800) ensure that effects to historic properties, such as bridges, are appropriately considered during the project planning process. This includes an adequate public involvement process which consists of consultation with the SHPO and other consulting parties such as county historical commissions. The results of the Section 106 coordination process are integrated into the Section 4(f) documentation and process discussed below.

Section 4(f) regulations (23 CFR 774) ensure the project planning process considers feasible and prudent avoidance alternatives to the demolition of historic bridges. They also ensure efforts to minimize harm to the historic bridge are considered in project development. FHWA approval is required of historic bridge projects undergoing the Section 4(f) process.

Federal surface transportation funding legislation (MAP-21 Section 1111; 144 USC 23(g)) requires TxDOT to inventory all off- and on-system bridges to determine the historic significance of the bridges. It encourages TxDOT to retain, rehabilitate, adaptively use and study historic bridges. The monies available for preservation of historic bridges that can no longer be used for vehicular traffic, but are found suitable for adaptive uses such as a monument or pedestrian bridges, are limited to a reasonable estimated demolition cost. In addition, the regulations require marketing of historic bridges prior to their demolition, making them "available for donation to a State, locality or responsible private entity." Once FHWA determines Section 4(f) standards have been met, marketing efforts are initiated. For historic bridges with little preservation potential (such as concrete spans, masonry spans, or bridges with serious structural deficiencies), the marketing effort may be relatively brief. It should be noted that any historic bridge preserved using federal funds is **not** eligible for any other federal funds pursuant to Title 23 of the United States Code.

Applicable State Law

Antiquities Code regulations (Texas Natural Resource Code, Chapter 191) protect historic bridges belonging to the State. TxDOT is required to notify the Texas Historical Commission (THC) and work cooperatively with them on projects utilizing state funds that impact a bridge listed on the NRHP. Removal of these bridges requires a public hearing per the Texas Parks and Wildlife Code, Chapter 26.02.

On-System and Off-System

Roadways on the designated state highway system are referred to as "on-system" (such as interstate highways, US highways, state highways and farm-to-market roads). Other public highways, roads, and streets are referred to as off-system (such as city streets and county roads).

On-System historic bridges being considered for rehabilitation may remain in vehicular service if one of the following conditions is met:

- The historic bridge is rehabilitated or improved to meet applicable design standards.
- The historic bridge is granted a design exception for its deficiency and is able to maintain its historic integrity. This condition requires coordination of the TxDOT Design Division (DES) in addition to the TxDOT Bridge Division (BRG) and ENV.

Off-System historic bridges being considered for rehabilitation may remain in vehicular service if one of the following conditions is met:

- The historic bridge is rehabilitated or improved to meet applicable design standards.
- The historic bridge is granted a design exception for its deficiency and is able to maintain its historic integrity.
- The historic bridge meets specific geometric, safety and load capacity criteria that supports the retention and preservation of the bridge as defined in the following table:

Minimum Criteria to Support Continued Use by Vehicular Traffic Off-System

Current Average Daily Traffic (ADT)	Minimum Clear Roadway Width[a]		Minimum Load-Carrying Capacity (Operating Rating)	
	One-Lane, Two-Way Operations[b]	Two-Lane, Two-Way Operations	Alternate Route Available[f]	Alternate Route Not Available
ADT 100 or less	10 feet (3.0 m)	18 feet (5.4 m)	HS 5	HS 12[g]
ADT 101 to 250	10 feet (3.0 m)	18 feet (5.4 m)	HS 8	HS 12
ADT 251 to 400	Not applicable[c]	18 feet (5.4 m)	HS 15	HS 15
ADT greater than 400	Not applicable[d]	Not applicable[e]	HS 15	HS 15

a. For a minimum roadway length of 50 feet (15 meters) adjacent to the bridge end, roadway crown should match clear width across the structure plus additional width to accommodate guard fence if necessary.

b. One-Lane, Two-Way operations are assumed to allow for sight distance across the entire length of the structure. In cases where sight distance across the length of the structure is not available, the allowable minimum clear roadway width shall be the allowable minimum for Two-Lane, Two-Way operations.

c. For ADT greater than 250, One-Lane, Two-Way operations on a structure are not permissible.

d. For ADT greater than 250, One-Lane, Two-Way operations on a structure are not permissible.

e. For ADT greater than 400, use design standards as appropriate for the class of highway as shown within appropriate sections of the *Roadway Design Manual.*

f. To allow these values, the identified alternate route must add no more than 5 miles (8 kilometers) to a trip for essential services such as school buses, and emergency fire and medical access. All bridges on the identified alternate route must have a minimum load rating of HS 12. Historic bridges which do not meet the state legal load limit shall be posted.

g. HS 12 load rating was selected because it represents a typical minimum value for vehicles essential for educational, medical, and fire suppression services.

Historic bridges being analyzed for possible pedestrian use must meet the design live load as prescribed in the AASHTO Guide Specification for Design of Pedestrian Bridges, Section 3.1.

Section 2 — Funding Programs

Highway Bridge Program

Limited federal funds are available for the specific purpose of replacing or rehabilitating structurally deficient or functionally obsolete bridges on public roadways. TxDOT uses the Highway Bridge Program (HBP) to manage these limited federal funds. The funds are managed by BRG to ensure the federal and state requirements and performance measures are met. For more information on the HBP and its eligibility requirements, see Chapter 2, Section 2, of the Bridge Project Development Manual.

The HBP funds may be used to maintain and rehabilitate historically significant bridges located either off-system or on-system; however, the projects are subject to additional funding limitations as described in Section 3 of this manual.

Transportation Enhancement Program

Transportation Alternative (TA) activities set forth within the federal Surface Transportation Program (STP) outline eligibility criteria for non-standard surface transportation project categories and funding. TxDOT used the Transportation Enhancement (TE) to facilitate these federally funded projects. DES oversees the TE program and ensures the Texas Transportation Commission rules and all federal requirements are met.

Projects for the preservation and rehabilitation of historic bridges for non-vehicular use may be eligible for TE funds. Consult the TxDOT website for additional information on the TE program.

Other Programs

Other federal and state funding categories may be used to perform maintenance or rehabilitation on historic bridges. To ensure the work does not adversely affect the historical significance of the bridge, coordination with BRG and ENV is required.

Section 3 — Funding Limitations

General Discussion

On-system and off-system historic bridge projects are funded using either federal or state funds or a combination. Only when the legislature designates a specific project or bond funds are approved by the voters, can state funds alone be utilized for off-system historic bridge projects.

Limits on Rehabilitation for Continued Vehicular Use

Federally funded projects for rehabilitating a historic bridge for continued vehicular use are limited to the reasonable costs associated with the preservation of the historic bridge as long as the load capacity and safety features of the historic bridge are adequate to serve the intended use for the life of the bridge.

State funded projects for rehabilitating a historic bridge for continued vehicular use, including maintenance projects, typically do not have limits on funding.

Coordinate all on-system bridge projects, **including maintenance projects**, affecting a historic bridge with BRG and ENV.

This coordination effort:

- Ensures federal and state regulatory compliance.
- Ensures the work proposed does not adversely affect the historic integrity of the bridge or cause programmatic issues.
- Provides ENV the opportunity to collaborate with other jurisdictional agencies, such as the Corp of Engineers, when federal permits are needed.

Limits on Preservation for Non-vehicular Use

Federally funded projects for preserving a historic bridge for non-vehicular use are limited to the cost of demolition. In addition, the historic bridge will no longer be eligible for any additional federal funds for preservation activities regardless of the entity developing the project. This includes TxDOT, local governments, or private entities (MAP-21 Section 1111; 144 USC 23(g)).

State funded projects for preserving a historic bridge for non-vehicular use typically do not have limits on funding.

Section 4 — Preservation Alternatives

General Discussion

Projects that require a historic bridge to be demolished, relocated, or otherwise negatively impacted are required to undergo an alternative analysis, if federal funds are used to fund all or a portion of the project. These federally funded projects fall under the provisions of Section 4(f) of the Transportation Act of 1966 (23 CFR 774). This law requires the project planning process to include consideration of all feasible and prudent alternatives that do not require the historic bridge to be demolished or relocated for non-vehicular use.

NOTE: **If during the planning process it is determined that the historic bridge is to be left in its original location, as either a monument or pedestrian facility, and its integrity and value will be maintained, FHWA has stated Section 4(f) does not apply.**

Determinations concerning Section 4(f) are made by FHWA. However, prior to rendering a final Section 4(f) decision, FHWA takes into consideration the information and results gathered through the Section 106 coordination process.

Each Section 4(f) alternative must be examined, evaluated, and thoroughly documented before any decision is made to demolish a historic bridge or to market it for non-vehicular use.

Section 4(f) alternatives include:

- No build.
- Build a new bridge at a different location without affecting the historic integrity of the structure.
- Rehabilitate the bridge without affecting the historic integrity of the structure.

TxDOT considers the following alternatives for each historic bridge project to minimize harm to the structure while meeting the need and purpose of the project:

- No build.
- Rehabilitate the historic bridge for continued use.
- Rehabilitate the historic bridge for use as part of a one-way pair.
- Bypass the historic bridge using an alternative alignment.
- Replace the existing historic bridge.

Each alternative is evaluated as being feasible and prudent using the *Standards, Policies, and Guidelines Relating to Highway Bridge Design* of the American Association of State Highway and Transportation Officials (AASHTO). TxDOT has developed policies and standards such as the

Minimum Criteria to Support Continued Use by Vehicular Traffic for Off-System Historically Significant Bridges (see Section 1 of this Chapter) as a way to preserve historic bridges meeting department and national safety standards.

An alternative is deemed not **feasible** if:

- It cannot be built as a matter of sound engineering judgment.

An alternative is deemed not **prudent** if:

- It results in safety or operational problems.
- It does not effectively address impacts through reasonable mitigation.
- It results in significant additional construction, maintenance or operational costs.
- It involves multiple factors listed above that, while individually minor, cumulatively cause significant problems.

NOTE: **Vertical clearance restrictions caused by portal or other bracing on historic truss bridges should be carefully evaluated to ensure passage of essential service vehicles. In addition, it may be challenging or not feasible to provide a crash-tested rail on a historic bridge and delineation of obstructions and bridge members located at the roadway level is required. In either case, coordination with BRG is required to determine the best course of action.**

No Build

The No Build alternative generally does not meet a project's need and purpose. A detailed evaluation of the project's functional (geometric, hydraulic) and structural deficiencies is required. The evaluation outlines the safety needs driving the decisions for developing and funding the project. The engineering-based structural information needed for this alternative would be obtained in the Historic Bridge Team (HBT) Report (see Chapter 3 Section 1).

For example, bridges unable to safely carry a 3-ton load must be removed from vehicular service until rehabilitated or replaced. The No Build alternative analysis would describe the structural elements causing the low load carrying capacity and why rehabilitation or replacement is necessary to allow the structure to once again function as a vehicular bridge.

The No Build alternative must clearly demonstrate the consequences of failing to rehabilitate or replace the bridge. It must also provide additional discussions concerning the social, economic and environmental impacts and the constructability, safety and design issues facing the historic bridge, **if the project is not developed**. The intent is to provide documentation showing that the No Build alternative is neither prudent nor feasible if it fails to meet the project's overall need and purpose.

Rehabilitating the Historic Bridge for Continued Vehicular Use

Rehabilitating a historic bridge for continued vehicular use may meet a project's need and purpose. The following items are required in the *Rehabilitating the Historic Bridge for Continued Vehicular Use* write-up:

- Refer to the functional and structural deficiencies provided in the No Build alternative. Discuss how the deficiencies impact, influence or relate to the historic bridge being rehabilitated for continued vehicular use.
- Explain the constructability, safety and design project issues created or resolved by rehabilitating the historic bridge for continued vehicular use. Include the required structural rehabilitation efforts as outlined in the HBT Report. These may include:
  - right-of-way constraints and needs
  - traffic demands and types
  - roadway geometric constraints and needs
  - location advantages and disadvantages
  - load capacity
- Explain the social, economic and environmental project impacts created or resolved by rehabilitating the historic bridge for continued vehicular use. These may include:
  - archaeological impacts
  - wetlands
  - endangered species
  - business and residential displacements
  - funding limitations
- Estimate the cost for the entire project to rehabilitate the historic bridge for continued vehicular use.

Rehabilitation for Use as Part of a One-way Pair

Rehabilitating a historic bridge for use as part of a one-way pair may meet a project's need and purpose. The following items are required in the *Rehabilitating the Historic Bridge for Use as Part of a One-way Pair* write-up:

- Refer to the evaluation of the functional and structural deficiencies provided in the No Build alternative. Discuss how the deficiencies impact, influence or relate to the historic bridge being rehabilitated for use as part of a one-way pair.
- Explain the constructability, safety and design project issues created or resolved by rehabilitating the historic bridge for use as part of a one-way pair. Include the required structural rehabilitation efforts as outlined in the HBT Report. These may include:

- right-of-way constraints and needs
- constructing up or down stream of the existing structure
- traffic demands and types
- roadway geometric constraints and needs
- location advantages and disadvantages
- load capacity

◆ Explain the social, economic and environmental project impacts created or resolved by rehabilitating the historic bridge for use as part of a one-way pair. These may include:

- archeological impacts
- wetlands
- endangered species
- business and residential displacements
- funding limitations

◆ Estimate the cost for the entire project to rehabilitate the historic bridge for continued vehicular use as part of a one-way pair.

Bypassing the Historic Bridge Using an Alternative Alignment

Bypassing a historic bridge using an alternative alignment may meet a project's need and purpose.

NOTE: **If during the planning process it is determined that the historic bridge is to be left in its original location as either a monument or pedestrian facility, and its integrity and value will be maintained, the FHWA has stated Section 4(f) does not apply.**

This alternative looks at two scenarios - rehabilitation for use as a pedestrian bridge in situ and stabilization as a monument in situ.

The following items are required in the *Bypass the Historic Bridge Using an Alternative Alignment* write-up:

◆ Refer to the evaluation of the functional and structural deficiencies provided in the No Build alternative. Discuss how the deficiencies impact, influence or relate to the historic bridge being bypassed as either a monument or pedestrian bridge.

◆ Explain the constructability, safety and design project issues created or resolved by bypassing the historic bridge as a monument or as a pedestrian bridge in situ. Include the required structural rehabilitation and stabilization efforts as outlined in the HBT Report. These may include:

- right-of-way constraints and needs
- constructing up or down stream of the existing structure
- traffic demands and types

- roadway geometric constraints and needs
- location advantages and disadvantages
- load capacity

- Explain the social, economic and environmental project impacts created or resolved by bypassing the historic bridge using an alternate alignment. These may include:
  - archaeological impacts
  - wetlands
  - endangered species
  - business and residential displacements
  - funding limitations
  - practicality of pedestrian use
- Estimate the costs for the entire project to stabilize or rehabilitate the historic bridge as a monument **and** as a pedestrian bridge.

Replacement of the Existing Bridge

Replacing an existing historic bridge on the current alignment generally will meet a project's need and purpose.

This alternative looks at two scenarios - rehabilitation for use as a pedestrian bridge at a new location and demolition.

The following items are required in the *Replacement of the Existing Bridge* write-up:

- Refer to the evaluation of the functional and structural deficiencies provided in the No Build alternative. Discuss how the deficiencies impact, influence or relate to the historic bridge being relocated as a pedestrian bridge or demolished.
- Explain the constructability, safety and design project issues created or resolved by replacing the historic bridge with the new replacement bridge(s) as well as the required structural rehabilitation efforts as outlined in the HBT Report for allowing the structure to be relocated for pedestrian use. These may include:
  - description of the new replacement bridge(s)
  - right-of-way constraints and needs
  - roadway geometric constraints and needs
  - location advantages and disadvantages
  - load capacity requirements
- Explain the social, economic and environmental project impacts created or resolved by replacing the historic bridge. These may include:

- archaeological impacts
- wetlands
- endangered species
- business and residential displacements
- funding limitations

◆ Estimate the costs for the entire project to relocate and rehabilitate the historic bridge as a pedestrian bridge.

Chapter 3 — Procedures and Sequence

Contents:

Section 1 — Process Steps

General Discussion

This section provides a general description of the Historic Bridge Team (HBT), its members and their responsibilities and the HBT Report. It also includes a sequential outline with expected time frames for managing historic bridge projects.

A flowchart of the Procedures for Projects Involving Historically Significant Highway Bridges and a Gantt Chart of the Historic Bridge Project Process are included.

Historic Bridge Team

The purpose of the HBT is to guide historic bridge projects through the project development process and to ensure the most feasible and prudent project alternative is selected. The team is assembled upon identification of a project's potential impact to a historic bridge and is led by a Bridge Division Project Manager (BRG PM).

Core HBT members include:

- **Bridge Division Project Manager** (BRG PM) - responsible for leading the HBT as the main point of contact with the districts, other divisions, and other bridge personnel concerning the funding, programming, and coordination of plan development; developing the structural alternatives analysis also known as the HBT report; developing cost estimates for preservation alternatives; and interpreting the structural features and limitations of the historic bridge to the Federal Highway Administration (FHWA), State Historic Preservation Officer (SHPO), Texas Historical Commission (THC), local entities, and other consulting parties.
- **Bridge Division Design Engineer** (BRG DesE) - responsible for developing design detail plan sheets and developing in-depth structural analysis.
- **Bridge Division Construction and Maintenance Engineer** (BRG C/M) - responsible for conducting historic bridge condition assessments and providing guidance on constructability and maintenance issues including painting systems, repair material selection and structural repairs.
- **District Bridge/Design Engineer** (District BrgE/DesE) - responsible for the overall project development; and provides information concerning roadway alignments and other site specific information.
- **District Environmental Coordinator** (District EC) - responsible for completion of the appropriate National Environmental Policy Act (NEPA) documentation; develops Section 4(f) documentation; coordinates the Section 106 public involvement process; and develops documentation for permit compliance and coordination.

- **Environmental Affairs Division Historian** (ENV HIST) - responsible for leading the HBT through the cultural resource clearance process; assisting in the Section 106 public involvement coordination with THC and other consulting parties; and coordinating the Section 4(f) documents with FHWA.
- **Environmental Affairs Division Project Delivery Manager** (ENV PDM) -responsible for leading the HBT through the environmental clearance process; and serves as the primary point of contact between TxDOT and FHWA.

Auxiliary HBT members include:

- **FHWA** - responsible for reviewing and approving the NEPA documentation as well as providing guidance on preservation funding.
- **Historic Bridge Foundation** (HBF) - responsible for reviewing and commenting on historic bridge projects as a consulting party.
- **Local officials and other consulting parties** - responsible for assisting the core HBT and facilitating the appropriate project agreements, as needed.
- **Texas Historical Commission** (THC)- responsible for reviewing and commenting on historic bridge projects.

Members rarely meet as a formal group. Participation is based on an as-needed basis and depends on the nature, location, and complexity of the historic bridge being evaluated.

Process Overview and Timelines

Process Step	Responsible Party	Action	Duration
1.	District BrgE/DesE and/ or District EC District EC	Confirm bridge's historic status and eligibility with ENV HIST Request historic bridge condition assessment from BRG PM **Provides BRG PM the last two inspection reports including structural member list, channel profiles, load rating calculations, photos, and existing plans, if available** **Relays general project goals: roadway is being realigned or local entity prefers to have bridge rehabilitated, etc.** Develop a tentative project schedule using duration times presented in this table Request statement of historic significance from ENV HIST Develop draft need and purpose statement	15 hours over 1 month

Process Overview and Timelines

Process Step	Responsible Party	Action	Duration
2.	BRG PM	Historic Bridge Condition Assessment ◆ **Off-System Bridges** Request a historic bridge condition assessment consultant work authorization from BRG Inspection Branch. NOTE: Request a condition assessment prior to executing an Advanced Funding Agreement (see Bridge Project Development Manual) with a local government. ◆ **On-System Bridges** Request a historic bridge condition assessment from BRG Construction/Maintenance Branch. Or Request a historic bridge condition assessment consultant work authorization from BRG Inspection Branch.	4 months (+ 3 weeks to obtain work authorization) 3 months 4 months (+ 3 weeks to obtain work authorization)
3.	ENV HIST BRG PM	Develop statement of historic significance and provide to BRG PM and District EC Develop draft HBT Report using findings and results of the condition assessment and routine inspections: ◆ develops estimated construction costs for alternatives ◆ develop estimated demolition cost, if federally funded ◆ submit draft HBT Report to ENV HIST, District EC, and District BrgE/DesE ◆ request a scoping meeting and site visit	2 hours over 2 weeks 40 hours over 1 month

Process Overview and Timelines

Process Step	Responsible Party	Action	Duration
4.	HBT (BRG PM; District BrgE/DesE/ EC; and ENV HIST) THC (as needed)	Attend scoping meeting and site visit to: ◆ discuss findings of the condition assessment and structural alternatives available to the historic bridge ◆ discuss roadway geometrics options/constraints of the site as well as traffic demands/type and local needs ◆ identify additional information for HBT and NEPA documents ◆ develop a plan for moving the project forward through the project development process and establish a project time line and action items (Depending on the historic bridge being evaluated, the BRG DesE, BRG C/M and THC are strongly encouraged to attend scoping meeting and site visit)	1 day (held within 1 month of receipt of HBT report)
5.	District BrgE	Coordinate with local government and explain condition of the historic bridge and its potential structural alternatives Develop and obtain Off-System Advanced Funding Agreement	6 hours over 2 months
6.	District EC and/or ENV HIST	Develop NEPA documentation: District EC ◆ revise "Need and Purpose" statement based on structural and functional project constraints ◆ develop Section 4(f) documentation in tandem for guidance on developing a Section 4(f) evaluation) NOTE: Access to the internal web site is available only to TxDOT personnel. Or, if requested by District ENV HIST: Acquire and manage consultant work authorization for the development of the Section 4(f) documentation **See Chapter 2 Section 4 Preservation Alternatives for the development of the Section 4(f) documentation** NOTE: **If during the planning process it is determined that the historic bridge is to be left in its original location as either a monument or pedestrian facility, and its integrity and value will be maintained, FHWA has stated Section 4(f) does not apply.** (see the 2012 Policy Paper implemented by FHWA)	2 months (+ 18 hours for review) 2 weeks to obtain work authorization + 3 months (+18 hours over the 3 months for ENV HIST to review and comment)

Process Overview and Timelines

Process Step	Responsible Party	Action	Duration
7.	District EC and ENV PDM	Identify other environmental constraints (archeological, biological, water) per National Environmental Protection Act (NEPA) process	10 hours over 2 months
	District EC	Manage the development of the NEPA documentation	18 hours over 2 months
	District EC and ENV HIST	Establish mitigation commitments and schedule Conduct preliminary "marketing" of the historic bridge (with historic bridge owner, other local entities, and if needed utilize the statewide list of interested parties), if structure is unable to meet the minimum criteria for continued vehicular use Develop plan for implementing formal "marketing" efforts, include the use of various media outlets such as newspapers, TxDOT's Internet Site, etc.	36 hours over 2 months
8.	District BrgE/DesE and/ or District EC	Coordinate with historic bridge owner/recipient in the development of Amendment for the Preservation and Adaptive Use of a Historic Bridge Off the State System Two or Three-Party (Amendment) exhibits and mitigation proposal, as required per project Coordinate draft exhibits with BRG PM and ENV HIST, prior to partial execution of Amendment	18 hours over 1 month
	ENV HIST	Conduct informal Section 106/Section 4(f) regulatory coordination process with SHPO, Historic Bridge Foundation (HBF), and other consulting parties (as needed)	15 hours over 3 months
9.	ENV HIST	Perform technical review of Section 4(f) documentation Coordinate partial execution of Amendment and forward to BRG PM	14 working days
	District BrgE/DesE and/ or District EC BRG PM	Coordinate the development of the structural plans based on the scope outlined in the Amendment, HBT report and/or Section 4(f) alternative analysis, as required per project	2 hours over 2 weeks
	BRG DesE	Develop structural details and specifications (as needed)	2 to 6 months based on complexity of historic bridge and extent of rehabilitation

Process Overview and Timelines

Process Step	Responsible Party	Action	Duration
10.	ENV PDM FHWA	Forward preliminary draft 4(f) evaluation to FHWA Review preliminary draft 4(f) Approve release of information to public	30 calendar days (legal sufficiency)
11.	District BrgE/DesE/ EC ENV HIST BRG PM	Provide mitigation proposal, as needed Conduct Section 106 regulatory coordination process with SHPO, Historic Bridge Foundation (HBF), and other consulting parties (as needed) Provide technical support during coordination process including presenting 60% structural plans, as required	30 calendar days (legal sufficiency)
12.	SHPO	Review Section 4(f)	20 calendar days (14 additional days if revisions to Section 4(f) documents is required)
13.	District EC and ENV HIST District EC	Conduct formal "marketing," if required Complete NEPA documentation, integrating outcome of Section 106 coordination process and Section 4(f) findings	15 to 30 calendar days 30 calendar days
14.	ENV PM FHWA	Coordinate NEPA documentation (Section 4(f), etc.) Review final NEPA documentation	30 calendar days
15.	District EC	Finalize NEPA documentation and schedule public meeting/hearing	up to 2 months
16.	FHWA / ENV	Issue project final approval	30 to 60 calendar days

Need and Purpose Statement

The purpose of developing a bridge project is to ensure safety by remedying structural, geometric or other deficiencies. Need and purpose statements outline the specific deficiencies and problems associated with the existing facility. The alternative analysis supports the evaluation of alternatives and serves as the foundation for initiating the necessary environmental and engineering studies for the environmental document(s), Section 106 coordination, Section 4(f) coordination, and project

development. The statement must be specific in describing the condition(s) that result in the deficiencies.

The need and purpose statement justifies why a proposed project is necessary by establishing the objective(s) of the project. Establishing a detailed analysis of the need and purpose statement is vital to the development of the Programmatic Section 4(f) Evaluation since this statement lays the foundation for the alternatives analysis. Furthermore, the need and purpose statement must be parallel to the need and purpose statement in the NEPA document, which will require a coordination of effort.

The most important part of the need and purpose statement is establishing the need for the project since the need outlines the problem that exists and provides the justification for the expenditure of public funds to correct the problem. Conversely, the purpose defines the objective and focuses on the desired outcome for the traveling public. For this reason, this statement is sometimes informally referred to as the need and purpose statement since the need for the project should be established first and the purpose is determined second.

Issues discussed in the need and purpose statement may include:

- narrow width
- increase in traffic
- types of traffic
- number of accidents
- load capacity
- physical deterioration of bridge
- deficient railing

Review an example of a well-defined need and purpose statement.

Historic Bridge Team Report

A Historic Bridge Team report provides a structural alternative analysis of the project's historic bridge. The report outlines the functional and structural limitations of the historic bridge being evaluated as well as describes the rehabilitation requirements needed to comply with the Section 4(f) alternatives (see Chapter 2, Section 4 Preservation Alternatives).

The report is drafted by the BRG PM, but the accuracy of its content is the responsibility of the entire HBT.

Include the following information in the report:

- as-built vehicular load rating

- current state operating vehicular and pedestrian load ratings
- current sufficiency rating
- current and future average daily traffic counts
- general description of the overall structure and its location
- description of the current condition of the historic bridge and surrounding site conditions, including the roadway approaches, channel scour, superstructure elements, and substructure elements
- descriptions of the rehabilitation options in terms of what work is needed on the historic bridge to meet the needs of each of the Section 4(f) preservation alternatives as discussed in Chapter 2 Section 4
- detour length
- estimated cost of demolition
- estimated costs of rehabilitation efforts needed for each of the Section 4(f) preservation alternatives as discussed in Chapter 2 Section 4
- items requiring rehabilitation/replacement/removal
- need and purpose statement
- structure number
- statement of historical significance
- summary providing a clear description of the structural engineering preferred alternative

The **No Build** alternative of the HBT Report provides a detailed structural evaluation of the historic bridge by discussing the following:

- functional deficiencies
  - deck width - how it relates to the location, location's vehicular needs, and current federal and state standards
  - bridge length - how it relates to the location and location's influence on the structure's condition
  - bridge horizontal and vertical clearances - how they relate to the location, location's needs, current federal and state standards, and influence on the structure's condition
  - bridge railing - whether or not it exists and its relation to current standards
- structural deficiencies
  - as-built load carrying capacity - how it relates to current on-system federal and state legal requirements or the Minimum Criteria to Support Continued Use by Vehicular Traffic Off-System

- current load carrying capacity - discuss how it relates to current on-system federal and state legal requirements or the Minimum Criteria to Support Continued Use by Vehicular Traffic Off-System

- maintenance and rehabilitation efforts required to keep or re-open the historic bridge to vehicular traffic while upgrading the bridge to meet federal and state standards. This work may include:
  - lengthening, raising, and/or widening the bridge
  - rehabilitating, replacing, removing or strengthening structural members
  - rehabilitating, replacing, removing the deck and rail
  - rehabilitating, replacing the entire substructure or superstructure
  - painting or other corrosion protection methods
- estimated structural rehabilitation cost needed to keep or re-open the historic bridge to vehicular traffic

The **Rehabilitation for Continued Two-Way Traffic** alternative of the HBT Report provides a structural condition assessment of the historic bridge and discusses how the structural condition can or cannot meet the alternative's needs by discussing the following:

- reference to the **No Build** alternative functional and structural deficiencies and how these deficiencies impact, influence, or relate to the historic bridge being able to be remain in vehicular service for two-way traffic. The deficiencies may or may not include or be limited to:
  - detour length
  - length, vertical clearance, and width of the bridge
  - capacity of or damage to missing structural members
  - constraints of the deck and/or rail
  - capacity of and constraints of damage to the substructure or superstructure
  - scour or other hydraulic issues
  - lack of paint or other corrosion protection methods
- rehabilitation efforts required for the historic bridge to remain in continued vehicular service for two-way traffic. The work may or may not include or be limited to:
  - lengthening, raising, or widening the bridge
  - rehabilitating, replacing, removing, strengthening structural members
  - rehabilitating, replacing, removing the deck or rail
  - rehabilitating or replacing the entire substructure or superstructure
  - channel and scour protection measures
  - painting or other corrosion protection methods

- estimated cost related to rehabilitating the historic bridge to vehicular traffic for two-way traffic

The **Rehabilitation for Use as Part of a One-Way Pair** alternative of the HBT Report provides a structural condition assessment of the historic bridge and discusses how the structural condition can or cannot meet this alternative's needs by discussing the following:

- reference to the **No Build** alternative functional and structural deficiencies and how these deficiencies impact, influence, or relate to the historic bridge being able to remain in vehicular service as part of a one-way pair. The deficiencies may include:
  - length, vertical clearance, and/or width of the bridge
  - capacity of or damage to missing structural members
  - constraints of the deck and/or rail
  - capacity of and constraints of damage to the substructure/superstructure
  - scour or other hydraulic issues
  - lack of paint or other corrosion protection methods
- rehabilitation efforts required for the historic bridge to remain in continued vehicular service for use as part of a one-way pair. The work may or may not include or be limited to:
  - lengthening, raising, or widening the bridge
  - rehabilitating, replacing, removing, strengthening structural members
  - rehabilitating, replacing, removing the deck or rail"rehabilitating or replacing the entire substructure or superstructure
  - channel and scour protection measures
  - painting or other corrosion protection methods
- estimated cost related to rehabilitating the historic bridge to vehicular traffic as part of a one-way pair

The **Bypassing the Historic Bridge Using an Alternative Alignment** alternative of the HBT Report provides a structural condition assessment of the historic bridge and discusses how the structural condition can or cannot meet this alternative's needs by discussing the following:

NOTE: **If during the planning process it is determined that the historic bridge is to be left in its original location, as either a monument or pedestrian facility, and its integrity and value will be maintained, the Federal Highway Administration (FHWA) has stated Section 4(f) does not apply.**

- reference to the **No Build** alternative functional and structural deficiencies and how these deficiencies impact, influence, or relate to the historic bridge being able to remain in situ as a pedestrian bridge. The deficiencies may include:
  - length of the bridge

- location (upstream or downstream) and proximity to alternate alignment
- capacity of or damage to missing structural members
- constraints of the pedestrian walkway on the deck
- capacity of and constraints of damage to the substructure or superstructure
- scour or other hydraulic issues
- lack of paint or other corrosion protection methods

- rehabilitation efforts required for the historic bridge to remain in situ as a pedestrian bridge. The work may or may not include or be limited to:
  - lengthening the bridge
  - rehabilitating, replacing, removing, strengthening structural members
  - rehabilitating, replacing, removing the deck
  - rehabilitating the rail or installing a pedestrian railing
  - limiting the effective width of the walkway to meet pedestrian load carrying capacity
  - rehabilitating or replacing the entire or a portion of the substructure/superstructure
  - channel and scour protection measures
  - painting or other corrosion protection methods
  - placing bollards or other active vehicle/pedestrian deterrents
- estimated cost related to rehabilitating the structure for use as a pedestrian structure, in situ
- reference to the **No Build** alternative functional and structural deficiencies as they relate to allowing the historic bridge to remain in situ as a monument. The deficiencies may include:
  - length of the bridge
  - location (upstream or downstream) and proximity to alternate alignment
  - scour or other hydraulic issues
- protection and stabilization efforts required for the historic bridge to remain in place as a monument. The work may include:
  - removing approach spans, providing fencing, bollards or other actions to deter pedestrians and vehicles from gaining access
  - stabilizing or removing structural members
  - removing the deck
  - tabilizing the substructure or superstructure
  - channel and scour protection measures
- estimated cost related to allowing the structure to remain as a monument

The **Replacement of the Existing Bridge** alternative of the HBT Report provides a structural assessment of the historic bridge and discusses how the structural condition can or cannot meet this alternative's needs by discussing the following:

- reference to the **No Build** alternative functional and structural deficiencies and how these deficiencies impact, influence, or relate to the historic bridge being able to be rehabilitated for use as pedestrian bridge in another location. The deficiencies may include:
  - ability or inability to remove or relocate the bridge
  - capacity of and damage to missing structural members
  - constraints of the pedestrian walkway on the deck
  - capacity of and constraints of damage to the substructure or superstructure
  - lack of paint or other corrosion protection methods
- rehabilitation efforts required for the historic bridge to be rehabilitated for use as a pedestrian bridge. The work may or may not include or be limited to:
  - lifting and moving the bridge
  - rehabilitating, replacing, removing, strengthening the structural members
  - rehabilitating, replacing, removing the deck
  - installing a pedestrian railing
  - limiting the effective width of the walkway to meet pedestrian load carrying capacity
  - rehabilitating or replacing the portions of the substructure/superstructure
  - painting or other corrosion protection methods
- estimated cost related to rehabilitating the structure for use as a pedestrian structure, in another location

Section 2 — Environmental Steps

Public Involvement Plan

Public participation is an integral part of the transportation process and helps to ensure that decisions are made in consideration of public needs and preferences. Early and continuous public involvement brings diverse viewpoints and values into the decision-making process. This process enables agencies to make better informed decisions through collaborative efforts and builds mutual understanding and trust between the agencies and the public they serve. Successful public participation is a continuous process, consisting of a series of activities and actions to both inform the public and stakeholders and to obtain input from them.

Review the TxDOT Historical Studies' Standard of Uniformity (SOU): Section 106 Public Involvement Plan - Review Checklist.

SHPO Coordination

The Environmental Affairs Division, with the Bridge Division project manager representation as appropriate, consults with the State Historic Preservation Officer (SHPO) on proposed alternatives and whether a finding of an adverse effect is applicable under Section 106. Section 106 compliance is performed under the terms of the programmatic agreement, which allows for both formal and informal consultation, with the SHPO. Section 106 consultation should be completed before seeking concurrence for Section 4(f) findings.

Review copies of formal agreements with the SHPO.

Section 3 — Historic Bridge Marketing

General Discussion

Federally funded projects that propose to demolish a historic bridge are required to make the historic bridge available for donation to a state, locality, or responsible private entity as long as the state, locality, or responsible private entity enters into an agreement (see MAP-21 Section 1111; 144 USC 23 (g)):

- to maintain the bridge and the features that give the historic bridge its historic significance; and
- to assume all future legal and financial responsibility for the historic bridge, which may include an agreement to hold the state transportation department harmless in any liability action.

NOTE: **Costs incurred by TxDOT, a locality, or a private entity to preserve a historic bridge proposed for demolition due to a federally funded project that has been found suitable for non-vehicular traffic are limited to the cost of demolition. In addition, any historic bridge preserved using federal funds for non-vehicular use is not eligible for any other federal funds.** (MAP-21 Section 1111; 144 USC 23(g)(4)(B)).

Experience indicates that typically short to medium span metal trusses make realistic candidates for relocation. If a historic bridge has neither the potential for preservation in place nor potential for relocation for an adaptive use, formal marketing can be limited to 15 days to be in compliance with Title 23 USC Section 144.

The marketing of historic bridges to a responsible party is applied to both non-truss and truss bridges and can only take place after FHWA has reviewed a preliminary draft of the Section 4(f) document. Informal conversations with potential recipients are considered to be efforts to "minimize harm." These conversations can be conducted in an effort to perform "all possible planning" under both Section 106 and Section 4(f). It should be noted that no agreements, whether written or oral, can be made prior to FHWA's approval to begin formal marketing.

Marketing plans are to be prepared by the DIST EC and submitted to ENV HIST for review and approval.

Marketing Non-Truss Pre-1945 Historic Bridges

Not all historic bridges are suitable for adaptive uses; however, there are no mechanisms in the federal regulations allowing agencies, such as TxDOT, to forego marketing. Items that would make a historic bridge unsuitable for adaptive uses may include:

- diminished structural condition of the historic bridge

- physical impossibility of dismantling or moving all or some of the historic bridge, such as concrete arches or other large concrete bridge types
- excessive costs associated with dismantling or moving all or some of the historic bridge, such as long span steel plate girders

FHWA recognizes these limitations and has requested the following conditions be met in order to utilize a streamlined approach:

- ENV HIST is required to review and approve the preliminary draft of the Section 4(f) document;
- ENV HIST is required to review and accept the Bridge Marketing proposal submitted by the District;
- ENV PDM submits approved draft Section 4(f) documentation and Bridge Marketing proposal for review and comment to the FHWA Area Engineer; and,
- District appropriately and adequately addresses Section 4(f) comments, if any, by the FHWA Area Engineer.

Marketing Non-Truss Post-1945 Historic Bridges

At the request of FHWA, the Advisory Council on Historic Preservation (ACHP) has issued a Program Comment. The intent of the Program Comment is to eliminate individual historic review requirements under Section 106 for common post-1945 concrete and steel bridges and culverts. The Program Comment applies to effects of undertakings on certain common concrete and steel bridges lacking distinction, not previously listed or determined eligible for listing on the National Register, and not located in or adjacent to historic districts. The Program Comment obligates FHWA to carry out certain programmatic mitigation to address the potential loss of some historic bridges under its terms.

The Program Comment is not a waiver for completing Section 4(f) or for meeting legal compliance under the law for marketing. It eliminates the case-by-case review of bridges and culverts meeting the criteria while retaining the requirement that FHWA consider the effects of its actions on any other historic properties affected by a proposed project under Section 106 only. Therefore, the same marketing procedures are recommended for this category of bridge as described under Marketing for Non-Truss Pre-1945 bridges.

Marketing Historic Truss Bridges

Historic truss bridges, when found to be suitable for adaptive use, are more likely to be relocated. Finding a location for the bridge that is in the same county or geographical region is recommended and preferred. A preliminary marketing effort with the current owner and other local officials is to

be considered before contacting and coordinating with other potential recipients. District Area Office engineers and ENV HIST are able to assist in these efforts.

If a responsible recipient is not found through these efforts, formal marketing of the historic bridge must take place. ENV-HIST has developed a bridge marketing plan which includes public notices, proof of publication, and other documents that will need to be included in the environmental documentation for the project.

Chapter 4 — Agreements

Contents:

Section 1 — Advance Funding Agreements and Amendments

General Discussion

Advanced Funding Agreements and/or Agreement Amendments (Agreement) are executed when concurrence for project development beyond initial project conception is reached by all the parties. Development and execution of the Agreements are an important part of the project development process and bind all parties contractually to dutifully perform the actions set forth in the Agreement and Agreement Exhibits.

Standardized Agreements were created to assist in the development of projects impacting historic bridges.

They fall under the following categories:

- Advance Funding Agreements for Bridge Replacement or Rehabilitation Off the State System
- Amendments for the Preservation and Adaptive Use of a Historic Bridge Off the State System
- Preservation and Adaptive Use of a Historic On-State System Bridge
- Historic Bridge Enhancement Projects

Advance Funding Agreements for Bridges under Local Government Jurisdiction

For potential federally funded off-system projects that impact historic bridges, it is highly recommended that a historic bridge condition assessment be performed **prior** to obtaining and executing any Agreement. Many local governments are unaware that some of their bridges were determined eligible for historic status and assume the bridges can be rehabilitated or replaced without the additional environmental hurdles. It is only after the execution of the Agreement and the project development process has begun, that the local government becomes aware of a bridge's historic status as well as the additional environmental constraints and structural capacity of the bridge.

Conducting the condition assessment prior to execution of the initial Agreement allows for:

- accurate appraisal of the condition of the historic bridge to be given to the local government; and
- project planning to account for the additional project constraints.

See the Bridge Project Development Manual for more information on the Highway Bridge Program and the development of the *Advance Funding Agreements for Bridge Replacement and Rehabilitation Off the State System*.

Preservation and Adaptive Use Agreements and Amendments

Agreements for historic structures to be preserved for adaptive use purposes are needed when a historic bridge is determined suitable for monument status or rehabilitation as a pedestrian structure. These Agreements fall into the following categories:

- on-system
  - two-party agreement between the state and a recipient
- off-system
  - two-party Advance Funding Agreement Amendment to the existing off-system bridge agreement between the state and the local government (owner/recipient)
  - a three-party Advance Funding Agreement Amendment to the existing off-system bridge agreement between the state, the local government (owner) and another party (recipient)
  - a two- or three-party Advanced Funding Agreement for the use of Transportation Enhancement funds between the state and the local government (owner) or the state, the local government (owner), and another party (recipient).

Standard Agreement forms can be accessed from the Contract Services Office (CSO) internal website or transmitted via email from the Bridge Division Project Manager (BRG PM). For other non-standard Agreements please contact a BRG PM.

NOTE: Access to the internal website is available only to TxDOT personnel.

These Agreements are under the purview of BRG, and it is the responsibility of the BRG PM to ensure the actions to be performed within the Agreement Exhibits:

- are within funding limitations;
- contain, at a minimum, the required structural work to ensure the historic bridge can safely be used for its intended purpose; and
- comply with federal and state requirements.

To assist in insuring long term preservation of the historic bridge, a resolution or ordinance is required and becomes a part of the Agreement, if:

- the owner of the bridge is a local government; or
- the recipient of the bridge is a local government.

If the local government is the owner of the historic bridge, the resolution or ordinance must indicate the local government is agreeing to:

- all proposed actions as described in the Agreement exhibits; and
- relinquishing possession and responsibility, if not retaining ownership.

If the local government is retaining ownership or is a third party recipient, the resolution or ordinance must indicate the local government is agreeing to:

- maintain the bridge and the features that give the historic bridge its historic significance;
- assume all future legal and financial responsibility for the historic bridge, which may include holding the State harmless in any liability action; and
- all proposed actions as described in the Agreement exhibits.

Historic Bridge Enhancement Project Agreements

Projects for the preservation and rehabilitation of a historic bridge using Transportation Enhancement Program funds may use a Historic Bridge Enhancement Project Agreement or one of the other Off-System Historic Bridge project agreements. Please contact a BRG PM to determine the type of and assistance in developing the appropriate project Agreement.

Section 2 — Adaptive Use Proposal

General Discussion

Adaptive uses for historic bridges are determined during the project planning process and are developed in consultation with BRG and Environmental Affairs Division (ENV); therefore, obtaining a structural assessment, prior to making **any** decisions on adaptive uses, is vital in ensuring the most prudent and feasible preservation alternative is selected.

If the structural assessment **and** project's need and purpose allow for an adaptive use of a historic bridge, the district, **in consultation with ENV**, develops a request for adaptive use proposals through marketing efforts. Selection of the adaptive use proposals are made by ENV and BRG in consultation with the State Historic Preservation Officer.

The entity, whether the current owner or prospective owner, proposing the best adaptive use of the historic bridge is referred to as the recipient. The recipient is responsible for expanding the proposal, as necessary to fit the proposed adaptive use, by including a conceptual plan for preservation of the historic bridge.

The conceptual plan includes:

- a description of the proposed location including a map or sketch, if being relocated;
- a description of the proposed intended use of the historic bridge;
- a description of the proposed rehabilitation work to be performed on the historic bridge by the recipient, if any.

Conceptual plans must be reviewed and approved by BRG and ENV. Once approved, conceptual plans will be presented to the Texas Historical Commission and the other consulting parties for their concurrence. An agreement will then be developed and executed, which is to include the conceptual plan proposal as the Exhibit A thus making it part of the Agreement (see Chapter 4, Section 1).

Section 3 — Agreement Party Responsibilities

Funding Responsibilities of the Parties

In addition to the applicable standard procurement and public purpose provisions that must be adhered to when using federal or state funds, a historic bridge Agreement outlines funding responsibilities and scope of work for each party to the Agreement. Funding limitations for preservation efforts are described in Chapter 2, Section 3.

The funding responsibilities and specific scope of work for each party are described in the Agreement Exhibits as a means of clearly defining what each party is responsible for providing.

Work Responsibilities of the Parties

Work to be performed by the State. Plans, specifications, and estimates (PS&E) conforming to federal and state standards are required for the state to seek bids for and execute a construction contract to perform work on a historic bridge for continued vehicular or for adaptive use. The qualities of uniqueness and rarity that contribute to a structure's historic significance are challenges that must be handled with diligence during the development of the PS&E package. Besides the differences in the details of the historic bridges, the extent and type of damage/deterioration present and the location, either in situ or future site, varies from structure to structure. These elements make developing estimates for the items of work difficult because there are few, if any, average bid costs for unique and unusual repairs required to rehabilitate the structure appropriately.

The scope of work to be performed by the state as part of an adaptive use plan under the Highway Bridge Program (HBP), due to the inclusion of federal funds, is limited to the estimated demolition costs of the historic bridge. This is why it is important to identify the items in need of repair/replacement and determine their individual estimates thus assisting in determining if an alternative adaptive use is feasible and prudent. Since the estimated demolition funds are rarely adequate to include all items of work, the state will attempt to fund as much of the structural work needed until the estimated demolition funding is exhausted so the historic bridge can safely be used for its intended purpose. Therefore, the work to be performed by the state is prioritized by removal, relocation, repair and, when applicable, cleaning to remove lead-based paint.

Example "Exhibit B" items of work to be performed by the State:

- preparing complete PS&E, which may or may not include or be limited to:
  - modifying/repairing/replacing/strengthening structural members
  - repairing/replacing bridge decks
  - installing/repairing/replacing bridge rails and/or pedestrian
  - installing scour protection

- installing vehicle and pedestrian deterrents such as bollards and fencing
- cleaning and painting, as needed (i.e. removal of lead paint)
- preparing the historic bridge for relocation, if required, which may include lifting details and temporary bracing

  If the bridge must be moved to a temporary site, the state has no obligation to further move the bridge to the recipient's designated site, unless specified in the Agreement.

  Removal of the historic bridge from the existing site must be accomplished within a time period specified in writing by the state. If the recipient is to transport the historic bridge to another site, the recipient, with at least 10 calendar days' notice from the state, must have its vehicle or vehicles available at the existing bridge site for loading and transport of the bridge to the relocation site on a date that is consistent with the state contractor's work schedule.
- preparing specifications requiring the state's contractor to lift and set the historic bridge on the recipient's transport vehicle or transport the historic bridge to the permanent or temporary relocation site.

◆ demolition of remaining existing structure

◆ advertising for construction bids, issuing bid proposals, awarding and administering the contact for the construction of the project

◆ providing construction engineering and inspection during the construction

◆ providing final inspection and issuing a "Notification of Completion" upon completing the project

NOTE: For adaptive use projects using federal funds, work performed by the State's contractor is to be based on the estimated demolition cost.

Work to be performed by local entity/recipient. In most cases, the local government and/or recipient will be responsible for necessary work items beyond those provided by the state. The owner/recipient is responsible for 100% of the work beyond the limits defined in the agreement of the existing or relocated bridge as required to develop the monument/pedestrian facilities.

Example "Exhibit C/D" items of work to be performed by the local government/recipient

◆ funding and/or performing any rehabilitation work beyond that performed and/or funded by the State

◆ funding items of work performed that are determined ineligible for federal reimbursement

◆ allowing the State and the State's contractor the necessary access for all construction activities

◆ right-of-way and utility adjustments

◆ site preparation, if structure is being relocated to an alternate location, which may or may not include or be limited to:

  - constructing new foundations (The state may elect to provide engineering drawings for foundations for use by the recipient, at the recipient's request, to promote the use of a safe, substantial, stable, and durable substructure. The Bridge Division is available to prepare detail sheets for the plans and to write the required special specifications and special provisions.)
  - constructing new approach spans and substructure
  - constructing new bridge deck
  - constructing new pedestrian railing
  - providing other appurtenances
- Providing traffic control for the State's contractor, if the historic bridge is to be relocated
- Adhering to the items outlined in the Agreement
  - retaining/accepting ownership upon receipt of "Notification of Completion"
  - maintaining the historic bridge in accordance with the Secretary of the Interior's Standards for Rehabilitation
  - funding the maintenance of the structure at its own costs (See Chapter 2, Section 1 for limitations on the use federal funds)

Examples of the Agreement Exhibits are shown here and here.

Ownership of the Historic Bridge

The owner/recipient retains or assumes ownership of the historic bridge upon completion of the state's project, or as specified in writing by the state.

The owner/recipient (or party acting on behalf of the recipient) of the historic bridge:

- may review the state's bridge plans prior to being released for contractor bids and
- are allowed to monitor and observe any of the preservation work including removal and relocation of the historic bridge as long as such actions are deemed fitting and appropriate safety measures have been taken.

The owner/recipient's review and observation must be coordinated with the state's area engineer and must be without undue delay of the progress of the project.