

**PROGRAMMATIC AGREEMENT  
AMONG  
THE FEDERAL HIGHWAY ADMINISTRATION,  
THE INDIANA DEPARTMENT OF TRANSPORTATION,  
THE INDIANA STATE HISTORIC PRESERVATION OFFICER,  
AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION  
REGARDING  
MANAGEMENT AND PRESERVATION OF INDIANA’S HISTORIC BRIDGES**

**WHEREAS**, the Federal Highway Administration (FHWA) has determined that the construction and improvement of highways and bridges with Federal Aid Highway funds (Federal-aid) may have an effect on bridges that are listed in the National Register of Historic Places (NRHP), or may be determined to be eligible for listing, hereafter referred to as “historic bridges”; and

**WHEREAS**, historic bridges may be rehabilitated through several Federal-aid programs, such as the Transportation Enhancement Program, the Surface Transportation Program, and the Highway Bridge Replacement and Rehabilitation Program provided the appropriate eligibility criteria are satisfied; and

**WHEREAS**, this Programmatic Agreement (Agreement) is applicable to Federal-aid projects that result in the rehabilitation or replacement of historic bridges in Indiana; and

**WHEREAS**, FHWA has consulted with the Advisory Council on Historic Preservation (Council) and the Indiana State Historic Preservation Officer (Indiana SHPO) pursuant to 36 CFR 800.14(b) of the regulations implementing Section 106 of the National Historic Preservation Act of 1966 (Section 106) (16 U.S.C. 470f); and

**WHEREAS**, FHWA formed a Historic Bridge Task Group (Task Group), including representatives from the Council, Indiana SHPO, Indiana Department of Transportation (INDOT), Indiana Local Technical Assistance Program (LTAP), Historic Landmarks Foundation of Indiana (HLFI), Historic Spans Task Force, Indiana Association of County Highway Engineers and Supervisors (IACHES), Indiana Association of County Commissioners (IACC), and Senator Richard Lugar’s Office, to assist in the development of this Agreement and monitor its success upon implementation of the Agreement; and

**WHEREAS**, this Agreement defines a process to identify historic bridges that are most suitable for preservation and are excellent examples of a given type of historic bridge, hereafter referred to as “Select Bridges” and also identify those historic bridges that are not considered excellent examples of a given type of historic bridge or are not suitable candidates for preservation, hereafter referred to as “Non-Select Bridges”; and

**WHEREAS**, FHWA will not consider demolition to be a “prudent” alternative for any Federal-aid project involving a Select Bridge and FHWA will not participate in a project that would result in the demolition of a Select Bridge; and

**WHEREAS**, FHWA may participate in the demolition of a Non-Select Bridge provided there are no feasible and prudent alternatives to demolition of the Non-Select Bridge; and

**WHEREAS**, the Task Group recognizes that historic bridges are an important part of the history, culture and surface transportation system of the State of Indiana and its local units of government; and

**WHEREAS**, economic development and tourism benefits have been recognized from preserving historic bridges; and

**WHEREAS**, the rehabilitation, reuse and preservation of historic bridges constructed of a wide variety of materials can be facilitated with good information and procedures that encourage consideration of context sensitive design solutions and address this public interest; and

**WHEREAS**, it is understood that new bridge construction and routes may ultimately be required to address local and state transportation needs; and

**WHEREAS**, FHWA, in consultation with the Council and the Indiana SHPO, have invited INDOT to be a signatory to this Agreement; and

**WHEREAS**, FHWA in consultation with the Council and the Indiana SHPO have invited the LTAP, HLF, Historic Spans Task Force, IACHES, and IACC to be concurring parties to this Agreement;

**NOW, THEREFORE**, FHWA, INDOT, the Indiana SHPO, and the Council agree that the following stipulations will be implemented for FHWA undertakings in the State of Indiana that involve historic bridges.

## **STIPULATIONS**

FHWA shall ensure that the following stipulations are carried out:

- I.** INDOT will implement the following actions or program updates within one (1) year of executing this Agreement:
  - A.** INDOT will develop and include “Standards for Rehabilitation of Bridges on Low-Volume Roads” in the INDOT design manual, which will be utilized to evaluate if rehabilitation of a given historic bridge for vehicular use is feasible and prudent. Standards that define “feasibility” relate to the ability of an alternative to meet certain engineering requirements, such as structural capacity. Standards that define “prudent” relate to cost effectiveness of an alternative. The Task Group will be provided an opportunity to review and comment on the Standards before they are finalized and prior to any updates.

- B.** INDOT will inform the applicants for Federal-aid funds for any bridge project in the award letter that the scope of the bridge project (rehabilitation or replacement) will be determined by FHWA through the National Environmental Policy Act (NEPA) process and Section 4(f) of the Department of Transportation Act. The award letter will state that laws, regulations and design standards may ultimately dictate that the bridge be rehabilitated if the bridge is determined to be historic and FHWA concludes that rehabilitation is feasible and prudent.
- C.** INDOT will classify and label all historic bridge projects as “Bridge Project – Scope Undetermined” until after FHWA has identified a preferred alternative for the project. The classification and labeling will apply to award letters to federal-aid applicants, the Indiana Statewide Transportation Improvement Program and in electronic tracking systems maintained by INDOT. This generic classification for bridge projects will ensure that federal-aid applicants and the public do not have false expectations that the bridge will be replaced before the NEPA process is completed. The classification or label for the bridge project may be updated to reflect the scope identified in the approved NEPA document.
- D.** INDOT will work with the Transportation Enhancement Committee to develop and implement a scoring system that gives funding priority to Select Bridges within the historic projects category.

## **II. BRIDGE SURVEY**

INDOT will complete a statewide survey of bridges on public roads and on public right-of-way (Bridge Survey) that were built in or before 1965. INDOT will gather the appropriate data to develop a historic context for bridges in Indiana, make NRHP eligibility recommendations, and recommend preservation priorities for historic bridges in accordance with “Attachment A - Scope of Services for the Development of a Historic Bridge Inventory (Appendix A of Consultant Contract)” of this Agreement. INDOT will collect data on all types of bridges (metal truss, concrete, masonry and timber), and will provide adequate opportunities for input to the Task Group and the public in completing the requirements of Attachment A and Stipulations II.A and II.B. Key points where INDOT will seek public comment include: NRHP eligibility, draft Select and Non-Select prioritization criteria, and the draft list of Select and Non-Select Bridges. Each notice requesting public comment will be mailed directly to the County Commissioners so bridge owners will be able to comment at each stage of the process.

### **A. NRHP Eligibility Determinations:**

- 1.** INDOT will provide NRHP eligibility recommendations to the Task Group, County Commissioners, and the public for a 60 day comment period. INDOT’s recommendations will include the NRHP criterion, or criteria, that qualify the bridge for listing in the NRHP. INDOT will also list the bridges that are determined not to be eligible for the NRHP. INDOT will forward their final recommendations, along with any Task Group and public comments to FHWA and the Indiana SHPO for an eligibility determination.

2. FHWA, in consultation with the Indiana SHPO, will issue NRHP eligibility determinations for each bridge surveyed by INDOT. Bridges determined not to be NRHP eligible require no further consideration by INDOT and FHWA, unless later determined eligible for the NRHP in response to a nomination, or based on additional information or changed circumstances.
3. INDOT will make available to the public the NRHP eligibility determinations made by FHWA. The list will also include those bridges that FHWA determines not to be eligible for the NRHP.

**B. Prioritization:**

1. INDOT will develop criteria to identify each historic bridge as either Select or Non-Select in accordance with the process outlined in “Attachment A - Scope of Services for the Development of a Historic Bridge Inventory (Appendix A of Consultant Contract).”
2. INDOT will seek input from the Task Group and the public on the evaluation criteria for classifying historic bridges as Select and Non-Select. The Task Group, County Commissioners, and the public will have thirty (30) days to provide comments to INDOT on the criteria.
3. FHWA, in consultation with the Indiana SHPO, will review the comments from the Task Group and the public, modify the criteria as appropriate, and approve the criteria in cooperation with INDOT.
4. INDOT will apply the Select and Non-Select Bridge criteria to each historic bridge identified in the Bridge Survey. INDOT will seek comments from the Task Group and the public on the draft list of Select and Non-Select Bridges. For each bridge, the rationale for including the bridge on the Select list or Non-Select list will be described. The Task Group, County Commissioners, and the public will have sixty (60) days to provide comments to INDOT on the Select and Non-Select Bridges list.
5. INDOT will provide FHWA and the Indiana SHPO with the list of Select and Non-Select Bridges and the comments received from the Task Group and the public. FHWA, in consultation with the Indiana SHPO, will review the comments received and make appropriate changes to the list, if any. FHWA, in consultation with the Indiana SHPO, will ultimately approve the list of Select and Non-Select Bridges when both parties are satisfied with the classification of each bridge.
6. INDOT will make available to the Task Group and the public the final list of Select and Non-Select Bridges, the final criteria used to evaluate bridges as Select or Non-Select, and the rationale for the classification of each bridge.

### **C. Re-Evaluation of Historic Bridges**

- 1.** In unusual circumstances, a Select Bridge may no longer meet the Select Bridge criteria. Examples of unusual circumstances may include, but are not limited to, the bridge collapsing due to a flood or an overweight vehicle. A bridge owner may request that FHWA and the Indiana SHPO re-evaluate the Select Bridge determination if an unusual circumstance occurs. The following process will be followed to determine if re-classification of the Select Bridge is appropriate:
  - a.** The bridge owner must submit the request in writing to INDOT. The bridge owner should describe the unusual circumstance that has occurred and explain why the Select Bridge criteria no longer apply to the bridge.
  - b.** If INDOT determines the request has merit, then INDOT will notify FHWA, the Indiana SHPO, the Task Group, and the public of the request to re-classify the Select Bridge. INDOT will accept comments from the Task Group and the public for thirty (30) days.
  - c.** INDOT will provide a copy of all comments received to FHWA and the Indiana SHPO. FHWA and the Indiana SHPO will consult to evaluate the request and consider the comments received from the Task Group and the public.
  - d.** If FHWA and the Indiana SHPO agree on the classification of the bridge, then FHWA will notify INDOT of the decision within 30 days after receiving the documentation from INDOT. INDOT will notify the bridge owner, the Task Group and all individuals that provided comments on the bridge of the decision. If FHWA and the Indiana SHPO do not agree on the classification of the bridge, then the parties will invoke the Dispute Resolution provision, Stipulation IV.B. If necessary, INDOT will update the Select/Non-Select list by removing the Select Bridge from the list.
- 2.** At least every ten (10) years, FHWA, INDOT, and the Indiana SHPO will consult to determine if conditions have changed that would require updating the list of bridges eligible for the NRHP, the criteria for identifying Select and Non-Select Bridges, and the list of Select and Non-Select Bridges. Any signatory may request that an update be completed more frequently if there have been substantial changes to the population of bridges identified in the Bridge Survey. If FHWA, INDOT and the Indiana SHPO agree that conditions have changed and an update is required, then the survey will be completed as described in Stipulation II of this Agreement. The FHWA, INDOT and the Indiana SHPO will consult to determine if the survey should be expanded to include bridges built after 1965. If FHWA, INDOT and the Indiana SHPO determine the existing survey is still valid, then INDOT will notify the Task Group, County Commissioners, and the public of the decision.

### **III. PROJECT DEVELOPMENT PROCESS FOR HISTORIC BRIDGES**

FHWA will satisfy its Section 106 responsibilities for undertakings involving Select and Non-Select Bridges by completing the following processes. FHWA recognizes that additional historic properties, other than the historic bridge, may exist within the project's Area of Potential Effect (APE). To satisfy FHWA's Section 106 responsibilities for other historic resources that may be in the APE, FHWA will comply with the requirements of 36 CFR Parts 800.3-800.6.

Consulting parties shall be invited to consult pursuant to 36 CFR Part 800.3 and be notified that consultation with respect to the historic bridge will be completed in accordance with the Programmatic Agreement for the Management and Preservation of Indiana's Historic Bridges.

#### **A. Project Development Process for Select Bridges**

1. FHWA will work with INDOT, and the bridge owner if the historic bridge does not belong to INDOT, to develop a draft purpose and need statement (P&N) and alternatives analysis. Rehabilitation for vehicular use must be thoroughly evaluated before other alternatives are considered. Rehabilitation alternatives must include a one-way pair alternative that involves rehabilitating the existing bridge and constructing a new parallel bridge. If rehabilitation is not feasible and prudent, then the Select Bridge must be bypassed or relocated for another use. FHWA will not participate in a project that involves demolition of a Select Bridge.
2. If the bypass alternative is not feasible and prudent, relocation of the bridge will be required. INDOT will work with the bridge owner, if the bridge does not belong to INDOT, to identify a new location for the Select Bridge. Preference will be given to locations closest to the original location of the bridge. The NEPA document must include the proposed new location, description of how the new bridge will be utilized, and evaluate the associated impacts, in addition to those resulting from the bridge replacement.
3. Upon completion of the draft P&N and alternatives analysis, INDOT will forward to the consulting parties a copy of the draft P&N and alternatives analysis (including relocation proposal, if applicable) and give the consulting parties at least thirty (30) days to provide comments before the P&N and alternatives analysis are finalized.
4. FHWA will work with INDOT, and the bridge owner if the historic bridge does not belong to INDOT, to revise the P&N and alternatives analysis based on comments received. FHWA will identify a preferred alternative based on the P&N and alternatives analysis. INDOT will provide the revised P&N, alternatives analysis (including updated relocation proposal, if applicable), and preferred alternative to all consulting parties. The submittal to the Indiana SHPO will request concurrence with the FHWA preferred alternative.
5. If the Indiana SHPO objects to the preferred alternative within thirty (30) days of receiving the request for concurrence, FHWA will continue to consult with the

Indiana SHPO, INDOT, the bridge owner if the historic bridge does not belong to INDOT, and the consulting parties. If the Indiana SHPO and FHWA cannot reach agreement with respect to the preferred alternative, then FHWA will comply with the dispute resolution stipulation of this Agreement.

6. If the Indiana SHPO concurs with FHWA's preferred alternative, then the standard treatment approach, described in Attachment B (Standard Treatment Approach for Historic Bridges) will be initiated. The Indiana SHPO, the Council, and FHWA agree that implementation of the standard treatment approach for rehabilitation (rehabilitation is required for the Select Bridge) includes all possible planning to minimize harm to the historic bridge and fulfills all consultation requirements under Section 106.
7. The bridge owner will hold a public hearing prior to completion of NEPA. The bridge owner will notify consulting parties by letter or e-mail (if available) of the public hearing and the availability of the environmental documentation. The environmental document, Section 106 documentation for other resources in the APE, and preliminary Section 4(f) evaluation, if one is required, will be made available prior to and at the public hearing for public review and comment.
8. If the preferred alternative includes transferring ownership of the historic bridge, then INDOT will initiate an agreement between INDOT, the bridge owner if the bridge does not belong to INDOT, the Indiana SHPO, and the proposed new bridge owner. The agreement shall include all applicable commitments required in Attachment B. INDOT will execute the agreement prior to NEPA approval.
9. FHWA and INDOT will work jointly so that all measures to minimize harm to the historic bridge are incorporated into the project as part of the environmental commitments made in documentation required pursuant to NEPA.
10. If there is no agreement ultimately regarding the preferred alternative, FHWA will comply with the dispute resolution stipulation of the Agreement.

## **B. Project Development Process for Non-Select Bridges**

1. FHWA will work with INDOT, and the bridge owner if the bridge does not belong to INDOT, to develop a draft P&N and alternatives analysis. Rehabilitation for vehicular use must be thoroughly evaluated before other alternatives are considered. Rehabilitation alternatives must include a one-way pair alternative that involves rehabilitating the existing bridge and constructing a new parallel bridge.
2. If rehabilitation alternatives are not feasible and prudent, the bridge owner shall market the historic bridge for re-use. Proposals will be accepted for the immediate rehabilitation and reuse or for its storage for future reuse. Proposals will also be accepted for the salvage of elements that may be stored for future repair of similar historic bridges. At a minimum, the following activities will be completed:

- a. The bridge owner shall place a legal notice in a local newspaper and a statewide newspaper at a minimum six (6) months in advance of the public hearing to notify interested parties of the historic bridge availability for re-use. The advertisement should describe, at a minimum, the historic bridge length, width, height, condition, and availability.
  - b. The bridge owner shall place signs at both approaches to the historic bridge at a minimum six (6) months in advance of the public hearing to notify users that the historic bridge will be replaced. The signs will remain in place until completion of NEPA.
  - c. The bridge owner shall provide INDOT and HLF I with the information needed to post the historic bridge on INDOT's historic bridge marketing website and HLF I website, respectively, at a minimum six (6) months prior to the public hearing.
3. If no responsible party steps forward either prior to or during the public hearing to assume ownership of the Non-Select Bridge, then the bypass and relocation alternatives will be deemed not prudent and, therefore, Indiana SHPO, the Council, and FHWA agree that the bridge may be demolished.
4. FHWA will identify a preferred alternative based on the P&N and alternatives analysis. The standard treatment approach, described in Attachment B (Standard Treatment Approach for Historic Bridges) will be initiated. The Indiana SHPO, the Council, and FHWA agree that implementation of the standard treatment approach includes all possible planning to minimize harm to the historic bridge and implementation of the standard treatment approach fulfills all consultation requirements under Section 106.
5. The bridge owner will hold a public hearing for the project, prior to completion of NEPA. The bridge owner will notify consulting parties by letter or e-mail (if available) of the public hearing and the availability of the environmental documentation. The environmental document, Section 106 documentation for other resources in the APE, and preliminary Section 4(f) evaluation, if one is required, will be made available prior to and at the public hearing for public review and comment.
6. If the preferred alternative includes transferring ownership of the historic bridge, then INDOT will execute an agreement between INDOT, the bridge owner if the bridge does not belong to INDOT, the Indiana SHPO, and the proposed new bridge owner. The agreement shall include all applicable commitments required in Attachment B. INDOT will execute the agreement prior to NEPA approval.
7. FHWA will ensure all measures to minimize harm to the historic bridge are incorporated into the project as part of the environmental commitments made in documentation required pursuant to NEPA.



#### IV. ADMINISTRATIVE STIPULATIONS

- A. Review – The Council and Indiana SHPO may monitor activities carried out pursuant to this Agreement and will review such activities, if so requested. FHWA and INDOT will cooperate with the Council and the Indiana SHPO in carrying out their review responsibilities.
- B. Dispute Resolution – Should any signatory or invited signatory to this Agreement object at any time to any actions proposed or the manner in which the terms of this Agreement are implemented, FHWA shall consult with the objecting party(ies) to resolve the objection. If FHWA determines that such objection(s) cannot be resolved, FHWA will:
1. Forward all documentation relevant to the dispute to the Council in accordance with 36 CFR Section 800.2(b)(2). Upon receipt of adequate documentation, the Council shall review and advise FHWA on the resolution of the objection within thirty (30) days. Any comment provided by the Council, and all comments from the parties to the Agreement, will be taken into account by FHWA in reaching a final decision regarding the dispute.
  2. If the Council does not provide comments regarding the dispute within thirty (30) days after receipt of adequate documentation, FHWA may render a decision regarding the dispute. In reaching the decision, FHWA will take into account all comments regarding the dispute from the parties to the Agreement.
  3. FHWA's responsibilities to carry out all other actions subject to the terms of this Agreement that are not the subject of the dispute remain unchanged. FHWA will notify all parties of its decision in writing before implementing that portion of the undertaking subject to dispute under this stipulation. FHWA's decision will be final.
- C. Annual Reporting – INDOT will maintain the list of bridges evaluated under Stipulation II and include at least the current status of eligibility, priority (Select or Non-Select), current owner, and scope of Federal-aid projects processed under this Agreement. INDOT will prepare an annual report that will include a list of Select and Non-Select Bridges that have been processed during the previous calendar year pursuant to this Agreement and the scope of each project. INDOT will submit this report on or before January 31 of each year to the Task Group.
- D. Amendments and Noncompliance – If any signatory to this Agreement, including any invited signatory, determines that its terms will not or cannot be carried out or that an amendment to its terms must be made, that party shall immediately consult with the other parties, as well as the Task Group, to develop an amendment. The amendment will be effective on the date a copy is signed by all of the original signatories. If the signatories cannot agree to appropriate terms to amend the Agreement, any signatory may terminate the Agreement in accordance with the Termination stipulation. In the event FHWA does not carry out the terms of this Agreement, FHWA will comply with 36 CFR Part 800 with regard to individual undertakings covered by this Agreement.

- E. Termination** – The Council, Indiana SHPO, INDOT, or FHWA may propose to terminate this Agreement by providing thirty (30) calendar days notice to the other parties and explaining the reason(s) for the proposed termination. The Council, Indiana SHPO, FHWA, and INDOT will consult during this period to seek agreement on amendments or other actions that would avoid termination. In the event of termination, FHWA will comply with 36 CFR Part 800 with regard to individual undertakings covered by this Agreement.
- F. National Historic Landmarks** – National Historic Landmarks shall be treated in accordance with 36 CFR 800.3–800.6, and 800.10 rather than the terms of this agreement.
- G. Anticipatory Demolition** – If FHWA or Indiana SHPO determine a bridge owner intentionally demolishes or otherwise diminishes the historic integrity of a Select Bridge under the bridge owner’s jurisdiction with non-Federal-aid funds, then FHWA will comply with 36 CFR Part 800 for any future federal-aid bridge project proposed by that bridge owner. After the next Bridge Survey update is completed in accordance with Stipulation II.C.2, FHWA may process federal-aid projects in accordance with this Agreement for that bridge owner.

Section 110(k) of the National Historic Preservation Act prohibits FHWA from providing Federal-aid funds for a given project, where the bridge owner, with the intent to avoid the requirements of Section 106, has intentionally adversely affected the historic bridge prior to completion of NEPA (see 36 CFR 800.9(c)).

- H. Transition of existing projects** – Until such time as the initial survey and prioritization of historic bridges called for in Stipulation II.B has been carried out, or for those projects that fall outside the scope of this agreement, projects must comply with the requirements of 36 CFR Part 800. Projects that have completed compliance with 36 CFR Part 800 shall not be reevaluated, provided the scope of work of the project and the mitigation measures, if any, are fully implemented as they were identified during the NEPA evaluation.
- I. Duration** – This Agreement shall become effective upon execution by FHWA, Indiana SHPO, INDOT, and the Council and shall remain in effect until December 31, 2030.
- J. Option to Renew** – No later than December 31, 2029, FHWA will consult with the Indiana SHPO, INDOT and the Council to determine interest in renewing this Agreement. The Agreement may be extended for an additional term upon the written agreement of the signatories.

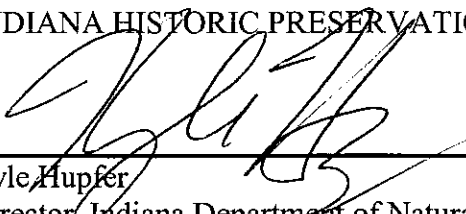
Execution of this Agreement and implementation of its terms evidences that FHWA has considered the effects of its Federal-aid program on Indiana’s historic bridges and afforded the Council a reasonable opportunity to comment.

**SIGNATORIES**


FEDERAL HIGHWAY ADMINISTRATION

  
\_\_\_\_\_  
Robert F. Tally, Jr., P.E. 8/2/06  
Division Administrator Date

INDIANA HISTORIC PRESERVATION OFFICER

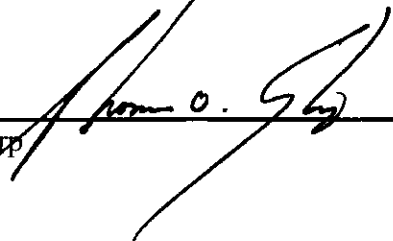
  
\_\_\_\_\_  
Kyle Hupfer 7/21/06  
Director, Indiana Department of Natural Resources Date  
Indiana State Historic Preservation Officer

ADVISORY COUNCIL ON HISTORIC PRESERVATION

  
\_\_\_\_\_  
John M. Fowler 8/1/06  
Executive Director Date

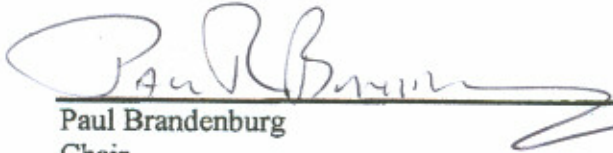
**INVITED SIGNATORY**

INDIANA DEPARTMENT OF TRANSPORTATION

  
\_\_\_\_\_  
Thomas O. Sharp 7/21/06  
Commissioner Date

**CONCURRING PARTY**

**HISTORIC SPANS TASK FORCE**



Paul Brandenburg  
Chair

22-Aug-2006  
Date

**CONCURRING PARTY**

HISTORIC LANDMARKS FOUNDATION OF INDIANA



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Marsh Davis  
President

*October 23, 2006*

Date

# **ATTACHMENT A**

## **Scope of Services for the Development of a Historic Bridge Inventory (Appendix A of Consultant Contract)**

## Appendix "A"

### **Information and Services to be furnished by the CONSULTANT:**

The CONSULTANT will be responsible for the study of publicly owned bridges that exist in the National Bridge Inventory (NBI) and were built through 1965 in the State. The work will be accomplished following all of the relevant Federal Highway Administration regulations and guidance documents, as well as other federal and state requirements and Indiana Department of Transportation (INDOT) Procedural Manual for Preparing Environmental Studies. The work will be assigned and reviewed by the Office of Environmental Services (OES) Administrator. The completed study along with the appropriate number of copies will be transmitted for distribution to the OES.

### **HISTORIC BRIDGES INVENTORY:**

The study will be divided into two phases. Phase I of the study will focus on bridges (approximately 3,443 bridges) constructed through 1942. Phase II of the study will focus on bridges (approximately 3,856 bridges) constructed from 1943 through 1965. The Phase I and Phase II evaluations will be completed concurrently. The Phase I evaluations are more critical given that many of these bridges are eligible for the National Register of Historic Places (National Register) and many of these structures have been lost in recent years.

Part 1 of the Agreement will extend through Task 4.2 and will include bridges built through 1965. Tasks 8, 9, and 10 will be completed concurrently with Tasks 1 through 4.2, as appropriate. The scope of work for succeeding tasks, beginning with Task 4.3, will be finalized as Part 2 of the Agreement after the number of bridges requiring inventory has been determined.

The CONSULTANT will provide the following scope of services for the development of a historic bridge inventory:

*Task 1. Develop Contextual Study of Historic Bridges in Indiana* – This task involves developing a historic context report for bridges in Indiana. The report will include a history of settlement and transportation in Indiana with an emphasis on nineteenth-century wagon routes, automobile transportation, and bridge engineering and design. Early road development, significant named highways, the interstate system, and important public works campaigns related to transportation will be addressed. The report will include a context for the historical development of transportation networks and systems at the local, regional, and state levels, as described in secondary literature, historic maps, county historical surveys, and INDOT annual progress reports. The report will also include a history of the evolution of the Indiana State Highway Commission into INDOT.

### Task 1.1 Conduct historical research

The CONSULTANT will conduct research into periods of bridge construction and general events and trends in transportation history in the United States and Indiana to prepare a historic context to assist in the evaluation of bridges through 1965.

Sources to be consulted are expected to include:

- a. Secondary literature related to Indiana transportation history
- b. INDOT's annual progress reports, major planning studies for bridges, and bridge design manuals for the period
- c. Histories of construction and design firms actively working on Indiana bridges during this period
- d. Engineering journals of the period covering the subject bridges, such as *Engineering News-Record* and *Public Roads*
- e. Standard plans and construction drawings for the subject bridges, as needed
- f. INDOT's Bridge Inventory Database
- g. Indiana State Historic Preservation Office's (INSHPO) bridge database
- h. Indiana county atlases and highway maps from the period, including the 1876 atlas of Indiana
- i. Historic contexts for bridges of the period completed by other state departments of transportation and the National Cooperative Highway Research Program
- j. Thematic surveys in the collection of INSHPO, including: *Iron Monuments to Distant Prosperity*, *Indiana's Metal Bridges*; *Artistry and Ingenuity in Artificial Stone*, *Indiana's Concrete Bridges*; *Indiana's Covered Bridges*; and *WPA Recreational Projects in the Hoosier State*
- k. Transportation contexts provided in county and municipal surveys in the collection of INSHPO
- l. Nominations and determinations of eligibility for bridges in the collection of INSHPO
- m. Materials previously gathered by Professor James Cooper for statewide bridge studies and publications
- n. Bridge information collected by the Local Technical Assistance Program (LTAP) in 2003

Research for this task will be conducted in Indianapolis; West Lafayette; and Madison, Wisconsin. Repositories to be visited are expected to include:

- a. INDOT
- b. INSHPO
- c. Indiana State Archives, Indianapolis
- d. Indiana State Library, Indianapolis
- e. Indiana Historical Society, Indianapolis
- f. Stewart Center Libraries, Purdue University, West Lafayette
- g. Online sources
- h. University of Wisconsin Engineering Library (for national journals)
- i. Wisconsin Historical Society Library (collection on U.S. history)



No research for this task is expected to be conducted at the local level of Indiana counties or cities.

#### Task 1.2 Conduct oral history interviews

The CONSULTANT will conduct interviews with up to 10 bridge engineers and transportation historians. The CONSULTANT will select interview subjects based on discussions with INDOT. Selected subjects are expected to include agency and consulting engineers, Purdue University and extension civil engineers, and transportation historians knowledgeable on the period of study. The results of the interviews will be incorporated into the historic context report.

#### Task 1.3 Prepare historic context outline

The CONSULTANT will prepare an outline for the historic context report for concurrent INDOT and INSHPO review. Within 10 days of receipt, INDOT will approve or provide written comments on the outline. If the draft outline requires extensive revision, INDOT and the CONSULTANT will have a teleconference to discuss comments and a revised draft will be submitted for review. The approved outline will be the basis for the draft historic context report.

#### Task 1.4 Prepare draft historic context report

Based on the results of research and interview efforts, the CONSULTANT will prepare the historic context report. The purpose of the report is to define relevant historic contexts that will be used in assessing historical significance and establishing periods of significance for bridges built in Indiana through 1965. These historic contexts will inform the stratification methodology (Task 2) and the Evaluation Criteria (Task 3). The primary historic contexts to be developed are expected to include:

- a. Transportation history (specific to bridges) – Provides a narrative history of transportation in Indiana, including federal, inter-state, county, and municipal public works construction campaigns from the late nineteenth century to 1965. Transportation networks include early roads (as indicated on 1876 atlas), named highways, state-aid highways, and interstate highways. The history of the evolution of the Indiana State Highway Commission into INDOT will be included. In addition, attention will be given to the development of various inter-state highway associations with routes in Indiana, including the National Road, Lincoln Highway, and Dixie Highway. Information on county and municipal public works will be limited to that identified through secondary sources identified as Source k in Task 1.1.
- b. Bridge engineering, innovations, and developments – Includes a history of bridge technology, understanding of bridge typology, including structural configurations and building materials, and identifies bridge types utilized in Indiana, as well as innovations in design, materials, and construction methods found in the state.
- c. Significant engineers, designers, and builders – Identifies important private- and public-sector bridge designers and builders of Indiana bridges constructed in or before 1965. The context for notable people and firms will focus on Indiana. For nationally known figures whose careers are well documented, research will be limited to that necessary to understand the potential significance of their work in Indiana.

Other historic contexts are expected to play a lesser role in the evaluation of the eligibility of subject bridges. Relevant information for these contexts in relationship to bridges of the subject period may be limited. These secondary contexts are expected to include:

- a. Economic development (specific to bridges as components of road networks) – Includes bridges whose construction stimulated economic development of a region or city, if any.
- b. Community planning and development – Includes bridges designed and constructed as part of a comprehensive plan for a community, if any.
- c. Social history – Includes bridges directly associated with significant social programs, if any.
- d. Politics/government – Includes bridges associated with the enactment and administration of state laws, if applicable.
- e. Aesthetics – Considers how bridges reflect design principles of the period.

The CONSULTANT will submit a draft version of the report to INDOT for review. INDOT will complete a quality review of the draft report within 5 days of receipt. If the draft appears satisfactory, it will be submitted for concurrent review by INDOT, INSHPO, and the Federal Highway Administration, Indiana Division (FHWA Indiana). If INDOT provides written comments, the CONSULTANT will revise the report to address and incorporate INDOT's comments and submit a revised draft. INDOT, INSHPO, and the FHWA Indiana will review the CONSULTANT's revised draft within 30 days of receipt. Based on that review, INDOT will compile INDOT, INSHPO, and FHWA Indiana comments and provide the CONSULTANT with one set of comments.

#### Task 1.5 Complete preliminary analysis of NBI

The CONSULTANT will obtain NBI databases for state and county bridges from INDOT. The CONSULTANT will consolidate the databases and conduct a preliminary analysis of relevant data. As addenda to the draft historic context report, the CONSULTANT will prepare a list of bridge types represented in Indiana during the subject period and a list of historic contexts that may be associated with the subject bridges. For each type, the CONSULTANT will present years in use, heyday of use, typical span length, and longest span, based on preliminary analysis of the NBI.

#### Task 1.6 Prepare final historic context report

Based on written comments and the review meeting (see Task 10.2), the CONSULTANT will prepare the report in final form to address and incorporate all comments provided by INDOT. The CONSULTANT will submit the final report to INDOT for review and approval. The final historic context report will be available to the public for review on the INDOT project website (see Task 9.2). INDOT will advise the CONSULTANT regarding which public comments will be addressed in the final historic context. A maximum of 40 hours are budgeted for addressing public comments. The CONSULTANT will work with INDOT to address the comments and not delay subsequent tasks. If this is not feasible, the CONSULTANT will work with INDOT to revise the schedule.

Project Deliverable: Historic context report for historic bridges in Indiana. Final report will be provided in hard copy (5 copies) and on CD in PDF format (10 copies).

*Task 2. Develop Methodology for Bridge Inventory* – Because it is not feasible or practical to field survey all of the bridges built through 1965, the CONSULTANT will develop a method for separating the bridge population into subgroups based upon type/level of data needed for their evaluation.

#### Task 2.1 Develop methodology for stratifying bridge population

After consulting with INDOT and other entities (see Task 10.3), the CONSULTANT will develop a methodology to separate INDOT's pre-1966 bridge population into bridge subgroups. Bridges that have previously been determined eligible or listed in the State and/or National Register will not require further data and will be eliminated from further study. Extant eligible and listed bridges will be reintroduced in Task 7 (to be scoped in the future). Bridges with superstructures replaced after 1965 and any non-bridge structures in the NBI will also be eliminated from further study. Remaining bridges will be separated into subgroups based on type/level of data needed for their evaluation.

#### Task 2.2 Test assumptions of methodology

The CONSULTANT will test assumptions regarding the proposed methodology for stratifying the bridge population by reviewing photographs, maintenance, and inspection files, and construction drawings for up to 100 bridges. These materials will be reviewed to confirm assumptions concerning data needed for evaluation of bridge subgroups.

#### Task 2.3 Prepare draft bridge stratification report with list of subgroups and data needs

The CONSULTANT will identify and present rationale for what type of data will be needed for the evaluation of each subgroup. The CONSULTANT will develop procedures for how the data will be collected and documented for each subgroup.

The CONSULTANT will prepare and submit a bridge stratification report that includes a list of bridge subgroups, data needs for evaluating subgroups, and written procedures for collecting and synthesizing data for each subgroup to INDOT for review. As an appendix, the CONSULTANT will prepare a preliminary list of bridges in each subgroup. INDOT will complete a quality review of the draft bridge stratification report within 5 days of receipt. If the draft appears satisfactory, it will be submitted for concurrent review by INDOT, INSHPO, and FHWA Indiana. If INDOT provides written comments, the CONSULTANT will revise the bridge stratification report to address and incorporate INDOT's comments. INDOT, INSHPO, and FHWA Indiana will review the CONSULTANT's revised draft within 30 days of receipt.

Based on that review, INDOT will compile INDOT, INSHPO, and FHWA Indiana comments and provide the CONSULTANT with one set of comments.

#### Task 2.4 Develop final bridge stratification report

The CONSULTANT will prepare the bridge stratification report in final form to address and incorporate all comments provided by INDOT. The CONSULTANT will revise the list of

bridges in each subgroup to address and incorporate comments. The CONSULTANT will submit the final report to INDOT for review and approval.

Project Deliverables: Final lists and procedures will be provided in hard copy (5 copies) and on CD in PDF format (10 copies).

*Task 3. Develop Evaluation Criteria for National Register Eligibility* – The evaluation criteria will be based on the Historic Context and National Register Criteria for Evaluation. The criteria and considerations will follow the guidelines of *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation* and *National Register Bulletin 16A: How to Complete the National Register Registration Form*. INSHPO's *Guidelines for Assessing the Cultural Significance of Indiana's Extant Metal Truss Bridges (1872-1942)* will also be consulted.

#### Task 3.1 Prepare evaluation criteria

Based on the results of the historic context report and the meeting (see Task 10.4), the CONSULTANT will develop bridge evaluation criteria and implementation procedures for determining which bridges are National Register eligible. These criteria will focus on significance at the state level but will also identify significant local trends and developments found during research. If Indiana played a national role in any innovations affecting the subject structures, possible national levels of significance will also be identified.

Criterion A will be developed to recognize structures that have an important association with significant events, trends or patterns in transportation history. Some structures that are primarily significant for their transportation function may also be associated with secondary themes. Significant secondary themes will be identified as appropriate to clarify the possible significance of structures. Secondary themes may include:

- Community planning and development
- Industry and commerce
- Social history
- Politics/government

Criterion C will be developed to identify structures that are significant representations of:

- Features common to its type, period, or method of construction
- Technological advances
- A variation, evolution, or transition that reflects an important phase in bridge construction
- High artistic value
- The work of a master

It is not anticipated that structures will be evaluated for eligibility under Criteria B or D. The Criteria for Evaluation will explain in detail why Criteria B and D are not expected to apply.

### Task 3.2 Develop integrity considerations

Based on the results of the historic context report and the meeting (see Task 10.4), the CONSULTANT will develop integrity considerations that may apply to the subject structures. Integrity considerations, especially when inconsistent with the original design, may include:

- Widening the superstructure
- Replacing the superstructure after 1965
- Changing or removing a railing or parapet that is integral to the superstructure
- Replacing or adding main structural member

The CONSULTANT will review the work history field in the NBI database to determine types of alterations that will inform development of integrity considerations. These considerations will be incorporated into the draft and final evaluation criteria report.

### Task 3.3 Prepare Draft evaluation criteria and implementation procedures

The CONSULTANT will submit a Draft Evaluation Criteria and Implementation Procedures report to INDOT for review. INDOT will complete a quality review of the draft report within 5 days of receipt. If the draft appears satisfactory, it will be submitted for concurrent review by INDOT, INSHPO, and FHWA Indiana. If INDOT provides written comments, the CONSULTANT will revise the evaluation criteria and implementation procedures to address and incorporate INDOT's comments. INDOT, INSHPO, and FHWA Indiana will review the CONSULTANT's revised draft within 30 days of receipt. Based on that review, INDOT will compile INDOT, INSHPO, and FHWA Indiana comments and provide the CONSULTANT with one set of comments.

### Task 3.4 Final evaluation criteria and implementation procedures

Based upon that review, INDOT will compile INDOT, INSHPO, and FHWA Indiana comments and provide the CONSULTANT with any additional written comments, and the CONSULTANT will incorporate the comments. The CONSULTANT will submit the final report to INDOT for review and approval.

Project Deliverables: Bridge evaluation criteria and implementation procedures. Final criteria and procedures will be provided in hard copy (5 copies) and on CD in PDF format (10 copies).

## *Task 4. Conduct Bridge Inventory*

### Task 4.1 Develop a historic bridge inventory database template

The CONSULTANT will work with INDOT System's Technology staff to develop a historic bridge inventory database template for all bridges built prior to and in the year 1965. The Database will be developed in Access and will include relevant NBI data elements (approximately 60 item numbers are expected to be included) and additional relevant fields not included in the NBI. The database will be separate from NBI, but compatible with NBI. Additional relevant fields not in NBI are expected to include:

- Historic bridge name (if known)
- Bridge number (County Bridge # or State Bridge #)

- Bridge located in park or on private property
- Bridge type details (especially for trusses not distinguished in NBI)
- Unique bridge number
- Unique design features
- Structural features
- Integrity problems
- Bridge designer and builder (if known)
- Aesthetic treatments
- Historical association
- Indiana Historic Sites and Structures (IHSS) inventory numbers
- National Register eligibility determinations
- “Select/Non-Select” status (this field will be filled after Task 7 is completed)
- Data to back up the “Select/Non-Select” decision (to be determined during Task 6)
- NBI Item 37 for historic significance (with corrected data)

Identification of selected NBI data elements and new data elements not presently in the NBI will be coordinated with INDOT, FHWA Indiana, and INSHPO. The CONSULTANT will submit the draft database template to INDOT. INDOT, INSHPO, and FHWA Indiana will review the draft database template with proposed fields based on NBI elements and other relevant information before any data is collected. Based upon that review, INDOT will provide the CONSULTANT with written comments. The CONSULTANT will incorporate the comments and INDOT will review and approve the final database template.

Project Deliverable: Historic bridge inventory database template recorded electronically in Access with Excel spreadsheet export capability, provided on CD (10 copies)

#### Task 4.2 Populate database

The CONSULTANT will populate the database with NBI data and LTAP data for approximately 7,300 bridges. This task includes quality review of data to identify and address errors, omissions, and inconsistencies.

#### Task 4.3 Incorporate non-NBI bridges into the database

The CONSULTANT, in consultation with INDOT, will incorporate up to 50 non-NBI bridges identified by the public and interest groups during Tasks 8.4 and 9.1 into the database. Not all NBI database fields will be available.

#### Task 4.4 Determine project approach for Part 2

The CONSULTANT, in consultation with INDOT (see Task 10.5), will determine the proposed approach for succeeding tasks. INDOT will receive a memo of understanding outlining the proposed approach for review and comment.

Subsequent items under this task will be completed under a separate work scope.

Task 4.5 Collect bridge inventory data for all subgroups – Reserved (a detailed scope and cost proposal will be developed at a later date).

*Task 5. Analyze Inventory Data to Make Eligibility Determinations* – Reserved (a detailed scope and cost proposal will be developed at a later date).

*Task 6. Develop Criteria for Identification of “Select” and “Non-Select” Bridges* – Reserved (a detailed scope and cost proposal will be developed at a later date).

*Task 7. Analyze Inventory Data to Make “Select” and “Non-Select” Determinations* – Reserved (a detailed scope and cost proposal will be developed at a later date).

*Task 8. Public Involvement* – This task will be undertaken concurrently with Tasks 1 through 4.1, as appropriate. Three public presentations will be made to share information regarding the bridge inventory project, including the proposed methodology and evaluation criteria.

#### Task 8.1 Prepare presentation materials

The CONSULTANT will prepare a PowerPoint presentation and handouts. The CONSULTANT will submit presentation materials and handouts to INDOT for review prior to the meeting. The CONSULTANT will incorporate INDOT comments into the final version of the presentation materials and handouts prior to distribution. The final version will be used for the three presentations.

#### Task 8.2 County Bridge Conference presentation

If invited, the CONSULTANT will make a presentation at the County Bridge Conference, sponsored by the LTAP and Purdue University, to be held in January 2007 in West Lafayette. The CONSULTANT will work with INDOT to obtain an invitation.

#### Task 8.3 Road School presentation

If invited, the CONSULTANT will make a presentation at Purdue Road School, to be held in spring 2007 in West Lafayette. The CONSULTANT will work with INDOT to obtain an invitation.

#### Task 8.4 Public presentation

The CONSULTANT will make three presentations at locations selected in consultation with INDOT. The locations will include Indianapolis, the northern part of the state, and the southern part of the state. The CONSULTANT, in consultation with INDOT and INSHPO, will identify and invite groups, including County Historians, Historic Landmarks Foundation of Indiana and its affiliates, and the Historic Spans Task Force, and individuals with an interest in historic bridges to the meeting. The presentation will be open to the public and advertised through a public notice in the newspaper. The CONSULTANT will solicit information from attendees on bridges not included in the NBI. Such bridges may include bypassed bridges and bridges in parks.

*Task 9. Supply Information for Creation of a Project Website* – This task will be undertaken concurrently with Tasks 1 through 4.1, as appropriate. As part of the public involvement campaign, the CONSULTANT will assist INDOT’s Systems Technology staff, as directed, with

content and format recommendations and provide copy content drafts for INDOT approval. Development, maintenance, and technical management of the project website will be the responsibility of INDOT.

#### Task 9.1 Project information available on project website

On a quarterly basis, the CONSULTANT will provide information on project methodology, milestones, and public meetings to INDOT's Systems Technology staff for posting on the project website. The website will also include a form for the public to identify non-NBI bridges. This form can be printed, completed, and returned. INDOT will review all web information prepared by the CONSULTANT prior to posting and provide written comments. The CONSULTANT will incorporate INDOT comments prior to submittal to INDOT's Systems Technology staff for posting.

#### Task 9.2 Final historic context report available on project website

The CONSULTANT will provide the final historic context report to INDOT's Systems Technology staff in PDF format for posting on the project website.

Project Deliverables: Electronic files containing project information and report in PDF format for public outreach.

*Task 10. Meetings and Project Milestones* – This task will be undertaken concurrently with Tasks 1 through 4.1, as appropriate. The CONSULTANT will meet with INDOT, and any other entities (such as FHWA Indiana) as decided by INDOT, to review the scope of services, schedule, and deliverables for the project. The CONSULTANT will develop a refined schedule with meetings and project milestones outlined. Meetings may be waived by INDOT or reallocated to occur in conjunction with a different task. Additional meetings would be considered extra services. The CONSULTANT will provide INDOT with weekly progress reports via e-mail.

#### Task 10.1 Kick-off meeting

The CONSULTANT will meet with INDOT and other invited entities to gather historical research materials, review the project schedule, discuss the public involvement campaign, and establish the communication protocol between project participants. INDOT's Systems Technology staff will be present to discuss content and format recommendations for the project website. Minutes will be prepared and distributed to participants.

#### Task 10.2 Draft historic context report meeting

The CONSULTANT will meet with INDOT and other invited entities to review and discuss written comments, as provided by INDOT, on the CONSULTANT's revised draft historic context report. Minutes will be prepared and distributed to participants.

#### Task 10.3 Methodology meeting

The CONSULTANT will consult with INDOT and other invited entities at a meeting to discuss a methodology to separate INDOT's pre-1966 bridge population into bridge subgroups. Minutes



that document the decisions on the stratification methodology will be prepared and distributed to participants.

Task 10.4 Evaluation criteria meeting

The CONSULTANT will meet with INDOT, and other entities as decided by INDOT, to discuss how the historic context report will influence the development of criteria for evaluation and integrity considerations. Minutes will be prepared and distributed to participants.

Task 10.5 Project approach meeting

The CONSULTANT will meet with INDOT, and other entities as decided by INDOT, to discuss the proposed approach for succeeding tasks. Minutes will be prepared and distributed to participants.

*Task 11. Development of the Programmatic Agreement – Reserved (a detailed scope and cost proposal will be developed at a later date).*

## ATTACHMENT B

### Standard Treatment Approach for Historic Bridges

#### REHABILITATION

The following standard treatment approach applies to all Select Bridges and when the selected alternative includes preservation of a Non-Select Bridge<sup>1</sup>:

1. The bridge owner will develop plans to rehabilitate the bridge in accordance with the Secretary of the Interior's Standards for Rehabilitation, or as close to the Standards as is practicable.
2. The bridge owner will provide rehabilitation plans to the Indiana SHPO when the design is approximately 30% complete, 60% complete, and when final design plans are complete. If the project involves a bypass of the historic bridge, then the plan submittals will include a site plan and design of the new bridge and the historic bridge. The purpose of these reviews is to evaluate the design and proximity of the new bridge in relationship to the historic bridge (if historic bridge is bypassed), ensure compliance with the Secretary of Interior's Standards for Rehabilitation, and to incorporate context sensitive design features, where practicable.
3. The Indiana SHPO will have thirty (30) days to review and provide comments to the bridge owner and notify them of any photo documentation requirements. If comments are not received within thirty (30) days, the bridge owner may assume agreement from the Indiana SHPO on the plans submitted.
4. The bridge owner will provide a written response to Indiana SHPO comments before the design is advanced to the next phase. The Indiana SHPO comments must be addressed.
5. The bridge owner will ensure that the historic bridge will be maintained for a minimum period of 25 years.
6. If the bridge is currently listed on the NRHP, then INDOT will seek approval of the Department of Interior to keep it on the Register.
7. The bridge owner will complete any photo documentation in accordance with the specifications provided by the Indiana SHPO.

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<sup>1</sup> Applicable whether rehabilitated at existing location or relocated, whether rehabilitated for vehicular or non-vehicular use.

8. The bridge owner will ensure that the above requirements are implemented before INDOT requests construction authorization from FHWA.
9. If there is any disagreement between the Indiana SHPO and the bridge owner in carrying out this standard approach, then FHWA will consult with the Indiana SHPO and the bridge owner to resolve the disagreement. If the disagreement cannot be resolved by FHWA, then FHWA will comply with the dispute resolution stipulation of the Agreement.

## DEMOLITION

The following standard treatment approach applies to Non-Select Bridges when the selected alternative includes demolition of the Non-Select Bridge:

1. The bridge owner will consult with the Indiana SHPO to determine if photo-documentation of the bridge is needed. If needed, the Indiana SHPO will specify the photo documentation standards and distribution requirements. If the Indiana SHPO does not respond within thirty (30) days, the bridge owner may assume the Indiana SHPO does not require any photo documentation.
2. The bridge owner will complete any required photo documentation in accordance with the specifications provided by the Indiana SHPO.
3. The bridge owner will ensure that the above requirements are implemented before INDOT requests construction authorization from FHWA.
4. If there is any disagreement between the Indiana SHPO and the bridge owner in carrying out this standard approach, then FHWA will consult with the Indiana SHPO and the bridge owner to resolve the disagreement. If the disagreement cannot be resolved by FHWA, then the dispute resolution process identified in the Agreement will be followed.
5. Salvage of elements that may be stored and used for future repair of similar historic bridges, if a party was identified during the bridge marketing phase of project development (see Stipulation III.B.2).