PROGRAMMATIC SECTION 4(f) EVALUATION

HISTORIC BRIDGES

PROJECT NUMBER J3P2155 RTE.	47 COUNTY Franklin/Warren
SECTION 4(f) RESOURCE <u>Washington Bridg</u>	e No. K0969
REVIEWED BY	TITLE
APPROVED BY	DATE

This project and its impacts have been determined to meet the following criteria for a Programmatic Section 4(f). Sufficient documentation exists in the project file to support this determination. Note: Any response in a bracket requires additional information prior to approval. Consult Programmatic 4(f) Evaluation signed July 5, 1983 by FHWA's Office of Environmental Policy.

APPLICABILITY

		Yes	No
1.	Will the bridge be replaced or rehabilitated with Federal funds?		[]
2.	Will the project require the "use" of an historic bridge which is on or eligible for listing on the National Register of Historic Places?		[]
3.	Will the project impair the historic integrity of the bridge either by demolition or rehabilitation?		[]
4.	Has the bridge been determined to be a National Historic Landmark?	[]	
<u>AL</u>	TERNATIVES CONSIDERED		
1.	The do nothing alternative has been studied and is considered not to be feasible and prudent for reasons of maintenance and safety.		[]

		Yes	No	
2.	The building on new location alternative without using the old bridge has been studied and has been determined to be not feasible and prudent for reasons of terrain; and/or adverse social, economic or environmental effects; and/or engineering and economy.		[]
3.	Rehabilitation of the existing bridge without affecting the historic integrity of the bridge has been studied and has been determined to be not feasible and prudent for reasons of structural deficiency and/or geometrics.		[]
4.	Relocation of the existing bridge has been studied and found to be not feasible and prudent because either the bridge's historic integrity would be adversely affected or no responsible party could be found to accept responsibility for the bridge.		[]
MI	EASURES TO MINIMIZE HARM			
1.	For bridges that are to be rehabilitated, the historic integrity of the bridge is preserved, to the greatest extent possible, consistent with unavoidable transportation needs, safety, and load requirements.		[]
2.	For bridges that are to be rehabilitated to the point that the historic integrity is affected or that are to be moved or demolished, the FHWA has ensured that fully adequate records are made of the bridge in accordance with the Historic American Engineering Record (HAER) standards, or other suitable means developed through consultation.		[]
3.	For bridges that are to be replaced, the existing bridge is made available for an alternative use, provided a responsible party agrees to maintain and preserve the bridge.		[]
4.	For bridges that are adversely affected the FHWA, SHPO, and ACHP have reached agreement through the Section 106 process on Measures to Minimize Harm and those measures are incorporated in the project.		[]

MEMORANDUM OF AGREEMENT FOR MITIGATION OF ADVERSE EFFECTS DRAFT

TO HISTORIC PROPERTY: Washington Bridge (K0969) on Missouri Route 47 over the Missouri River and the Union Pacific Railroad in Franklin and Warren Counties, Missouri. **UNDERTAKING:** Build a new bridge adjacent to the existing Washington Bridge, either upstream or downstream, and remove the existing bridge. Franklin/Warren County, Route 47, MODOT project J3P2155. **STATE:** Missouri. **AGENCY:** Federal Highway Administration.

WHEREAS, the Federal Highway Administration (FHWA) has determined that the replacement of Washington Bridge (K0969) will have an adverse effect on the bridge, which has been determined eligible for inclusion to the National Register of Historic Places (NRHP), and has consulted with the Missouri State Historic Preservation Office (SHPO) pursuant to the regulations (36 CFR Part 800) implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470f); and

WHEREAS, the FHWA has notified the Advisory Council on Historic Preservation (Council) of its adverse effect determination and the Council has chosen not to participate in this Memorandum of Agreement (MOA); and

WHEREAS, the Missouri Highways and Transportation Commission (MHTC), acting by and through the Missouri Department of Transportation (MODOT), has been invited to participate in the preparation of and be a signatory to this MOA; and

WHEREAS, to the best of the FHWA's knowledge and belief, no human remains, associated or unassociated funerary objects or sacred objects, or objects of cultural patrimony as defined in the Native American Graves Protection and Repatriation Act (25 U.S.C. 3001), are expected to be encountered; and

NOW, THEREFORE, FHWA and the SHPO agree that the undertaking shall be implemented in accordance with the following stipulations.

STIPULATIONS

FHWA shall ensure that the following measures are carried out:

1. The MHTC, acting by and through MODOT, shall develop archival documentation to the following specifications:

- a. 8X10 inch high-resolution black and white digital images printed on archival paper sufficient to fully document overall views and details of the historic bridge. Photographs will be taken and processed according to standards for photographs accompanying NRHP documentation. Digital compact discs with all views will be provided.
- b. A historic narrative and technical descriptions for the historic bridge.
- c. A copy of the original construction plans for the historic bridge.

The final documentation shall be provided to the SHPO along with archival digital discs containing the TIFF images and report PDF. Additional copies shall be provided to appropriate local historical groups, and retained by MODOT. Bound copies and/or CDs of the final documentation also will be available to others upon request.

The final documentation shall be provided to the SHPO along with archival digital discs containing the TIFF images and report PDF. Additional copies shall be provided to appropriate local historical groups, and retained by MODOT. Bound copies and/or CDs of the final documentation also will be available to others upon request.

2. Advertisement for Adaptive Reuse (or waiver):

The MHTC, acting by and through MODOT, shall consult with the SHPO to determine the appropriate approach and method for marketing Bridge K0969 as per the Surface Transportation and Uniform Relocation Assistance Act of 1987 (STURAA) Section 123(f). A waiver of advertisement also shall be discussed. The MHTC, acting by and through MODOT; the SHPO; and the FHWA shall agree to the approach and method prior to implementation.

If ownership of the bridge (or a portion thereof) is transferred to another party, the transfer deed may include preservation covenants that require the new owner to move and maintain the bridge in accordance with the "Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitation of Historic Buildings." The proposed reuse plan and specifications will be forwarded to FHWA for review and approval in consultation with the SHPO; and MHTC, acting by and through MODOT. If no party is found to take possession of the existing bridge, it may be removed.

3. If modifications to the project activities result in an adverse effect to any NRHP eligible archaeological site, the FHWA shall consult with the SHPO and appropriate Indian Tribes to resolve the adverse effects, consistent with guidance provided in 36 CFR § 800.6, through the implementation of an Archaeological Data Recovery Plan(s) developed in accordance with the Council "Recommended Approach for Consultation on the Recovery of Significant Information from Archaeological Sites" (64 FR 27085-87 published in the Federal Register on May 18, 1999), the Council's Handbook on Treatment of Archaeological Properties, and the Secretary of the Interior's Standards for Archaeological Documentation; and

- 4. Within one year after carrying out the terms of the MOA, the FHWA shall provide to all signatories a written report regarding the actions taken to fulfill the terms of the agreement.
- 5. If any signatory proposes that this agreement be amended, the FHWA shall consult with the other parties of this agreement. Said amendment shall be in writing, governed in accordance with 36 CFR 800.6, and executed by all parties to the Memorandum of Agreement.
- 6. If any signatory determines the terms of the MOA cannot be carried out, the signatories shall consult to seek amendment. If the MOA is not amended any signatory may terminate it. If the MOA is terminated, the FHWA shall execute a new MOA or request the comments of the Council.
- 7. Three (3) copies of this signed MOA will be provided, one to each signatory. One (1) signed copy will be transmitted to the Council for inclusion in their files.
- 8. Failure to carry out the terms of this MOA requires that the FHWA again request the comments of the Council in accordance with 36 CFR Part 800. If FHWA cannot carry out the terms of the agreement, it shall not take or sanction any action or make any irreversible commitment that may affect historic properties until such time as the Council has been given the opportunity to comment on the full range of project alternatives which might avoid or mitigate any adverse effects.
- 9. This agreement shall commence upon having been signed by the FHWA and SHPO and shall be null and void if its terms are not carried out within eight (8) years from the date of its execution, unless the FHWA and SHPO agree in writing to an extension for carrying out its terms.

Execution of this Memorandum of Agreement, and carrying out its terms, evidences that the FHWA has afforded the Council an opportunity to comment on the removal of the Washington Bridge (K0969) and its effects on historic properties, and that FHWA has taken into account the effects of the project on historic properties, in accordance with Section 106 of the National Historic Preservation Act.

Signed:

FEDERAL HIGHWAY ADMINISTRATION:

By:	Date:
Title:	
THE MISSOURI STATE HISTORIC	PRESERVATION OFFICE:
By:	Date:
Title:	
MISSOURI HIGHWAYS AND TRAN	SPORTATION COMMISSION:
By:	Date:
Title:	
Attest:	Approved as to form:
Commission Secretary	Commission Counsel

INFORMATION TO ACCOMPANY THE MEMORANDUM OF AGREEMENT FOR MITIGATION OF ADVERSE EFFECTS DRAFT

TO HISTORIC PROPERTIES: Washington Bridge (K0969) on Missouri Route 47 over the Missouri River and the Union Pacific Railroad in Franklin and Warren Counties, Missouri. UNDERTAKING: Build a new bridge adjacent to the existing Washington Bridge, either upstream or downstream, and remove the existing bridge. Franklin/Warren County, Route 47, MODOT Project J3P2155. STATE: Missouri. AGENCY: Federal Highway Administration.

I. <u>Project Description</u>

Missouri Department of Transportation (MODOT) Project No. J3P2155 is an Environmental Assessment (EA) undertaken to consider alternatives for improving the safety and efficiency of the Route 47 crossing over the Missouri River and the Union Pacific Railroad, by replacing the existing historic bridge with a new bridge located either upstream or downstream of the current location. (Appendix A). Historic Bridge K0969 is nearing the end of its service life. It was rehabilitated in 1996 and again in 2009. The last rehabilitation is expected to add only seven to eight years of service life. The FHWA and MODOT began developing an Environmental Impact Statement (EIS) in 2008 so that a solution could be selected, completed, and usable before the existing bridge requires rehabilitation again. Because of the reduced project scope, lack of controversy, and generally minor impacts, the two agencies decided to rescind the Notice of Intent to prepare an EIS, in favor of an EA.

II. <u>Public Involvement</u>

<u>Public Meeting of June 3, 2008; 4:30-6:30PM, City Hall, Washington, MO:</u> Excluding MODOT personnel, 26 people attended the public meeting to review displays, visit with knowledgeable staff, ask questions and submit comments. The Project Manager gave a presentation at 5 p.m. summarizing the purpose of an environmental impact study, and explained the process. Those in attendance were invited to share comments that evening or online at <u>www.modot.org/northeast</u>.

Advertisements and news releases were placed in the Warren Co. Record, the Washington Missourian, and the Marthasville Record; and submitted to several radio stations and MODOT E-Update subscribers. The MODOT Northeast and St. Louis Districts worked together to promote the public meeting. All displays and handouts from the meeting were posted online, including the opportunity to submit comments online, the advertisement, and the news releases. Participants who provided their email addresses were added to the project E-Update subscription. (Appendix B).

Comments from the public meeting included support for keeping the historic bridge where it is because of medical and emergency services, schools, business interests, industrial infrastructure

and jobs, and the airport. Medical and educational services are built around the existing bridge site. However, concern was expressed about bringing higher speed traffic over a four-lane bridge with the hospital situated nearby.

One comment suggested rehabilitating the historic bridge and building a new one from Route 47/94 at Marthasville across the river to Route 100 in order to take excess traffic off the city streets. Another comment suggested building the new bridge to the east into St. Charles County to accommodate those who use Augusta Bottoms Rd. Some suggested using Route 185 as a location for a new river crossing.

Preferences regarding placement of the new bridge to the east or west of the existing bridge were split. Some suggested rehabbing the old bridge and adding a new bridge next to it to provide four lanes.

The comment form included a question about improving Route 47 on the north side of the river. Responses stressed the importance of improving the reliability of Route 47 north of the river in order to open up the area for development. One suggestion was to build an elevated roadway like that at the Page Avenue extension.

Several comments reminded MODOT staff of the need for a connector route between I-70 and I-44, and that Route 47 would be an excellent choice. Many commented that it was vital to maintain a crossing during construction, and that a separate protected bicycle/pedestrian facility would be needed across the bridge and to the KATY Trail.

The airport manager of Washington Aviation Inc. voiced strong support for keeping the existing bridge in its present location, but favored rerouting Route 47 through the floodplain on new alignment to the east extending it directly to Route 94 east of Dutzow. He pointed out that there would be no need for Augusta Bottom Road if Route 47 connected with Route 94 at that location. He also stated that recent development has occurred around Route 94 in the area suggested for the relocated Route 47 tie-in, so relocating 47 there would open up the area to new development.

<u>Public Meeting of November 20, 2008; 4:30-6:30PM, St. John's Mercy Hospital, Washington,</u> <u>MO:</u> Excluding MODOT personnel, 44 people attended the public meeting to review displays, visit with knowledgeable staff, ask questions and submit comments regarding alternatives that had been eliminated and alternatives that were still being considered. The Highway 47 Bridge Committee met with the MODOT Project Manager at 4 p.m., prior to the public meeting. The Committee highly encouraged the consideration of a four-lane bridge alternative.

Advertisements were placed in the Warren Co. Record, the Washington Missourian, and the Marthasville Record; and a news release was submitted to several radio stations and MODOT E-Update subscribers. Advertisement flyers were posted at all polling places in Washington for the November 4th election, and St. John's Mercy Hospital made oversized posters for placement at each of their entrances. The MODOT Northeast and St. Louis Districts worked together to promote the public meeting. The St. Louis District Area Engineer provided a handout outlining the rehabilitation project that will occur on the bridge next summer. All displays, advertisements

and news releases from the public meeting were posted online, and provided the opportunity to submit comments. Participants who provided their email addresses were added to the project E-Update subscription. (Appendix B).

Thirteen comments were submitted. They including personal letters from the Washington Chamber of Commerce and the Economic Development Corporation, suggested a four-lane bridge, suggested replacing the historic bridge with a new bridge on either side of the existing bridge, and suggested replacing the old bridge with a new bridge in the existing location. Some comments suggested including bicycle/pedestrian access on the new bridge. Within two weeks of the meeting, reply letters were sent to each person who commented.

<u>Public Meeting of December 15-18, 2009; 4-6PM, Washington West Elementary School,</u> <u>Washington MO:</u> Advertisements for the third public meeting were placed in the Warren County Record and the Washington Missourian, and an E-Update was sent to the 225 subscribers of the Route 47 Bridge project. (Appendix B). Displays were provided entitled "How are we narrowing our options", "Environmental", "What will happen next", and a map was provided for the two alternatives being considered (build upstream or downstream). In addition, a handout was provided at the public meeting and online.

Eleven MODOT staff attended the public meeting including representatives from the St. Louis District, Northeast District and Central Office. Forty-four people came to the public meeting and included about 25 members of the local Route 47 Bridge Committee who held a separate meeting prior to the main event. At the Committee meeting, MODOT staff went over the screening criteria in the matrix, and copies of the technical matrix were later made available to the public. In addition, there were 165 visitors to the Virtual Public Meeting web page during a period extending from December 15 to December 18, 2009.

Five comments were received from the public meeting, and five additional comments were received from the virtual meeting. Three supported building the bridge upstream and three supported building the bridge downstream. Three other comments related to the need for a new bridge and safety concerns. One comment supported putting a new bridge on either side, but asked that MODOT include an upgrade to Augusta Bottoms Road. One comment encouraged building a four-lane bridge, and another wanted to ensure MODOT provided a bicycle/pedestrian path regardless of width.

In addition to the continuation of public meetings and involvement, and with the review and approval of the Missouri State Historic Preservation Office (SHPO), marketing letters will be sent out to regional planning organizations, county commissioners, city mayors, state and federal agencies, and other groups; with information packets containing location maps, photographs, and historic and structural information for the existing historic Washington Bridge K0969. The letter will inform the groups that the bridge has been determined eligible for the National Register of Historic Places and that MODOT is proposing to replace it. (The Surface Transportation and Uniform Relocation Assistance Act of 1987 (STURAA) Section 123(f) states: "prior to the

demolition of a historic bridge, the State shall market (sell or donate) the bridge to a State or local government, agency or responsible private entity"). As part of this mitigation process, and pending ACHP review of the corresponding MOA documents, MODOT will make Bridge K0969 (or portions thereof) available for adaptive reuse, to any government or group willing to move, re-erect, maintain, and assume financial responsibility for the structure.

III. <u>Summary of Previous Work</u>

By February of 1993 Clayton Fraser's Missouri Historic Bridge Survey had inventoried the Washington Bridge which had been determined NRHP eligible in his 1989 Preliminary Determinations of Eligibility study. In 1996, MODOT altered the bridge truss sway bracing in order to increase the vertical clearance for high-profile vehicular traffic. Archival photos were taken to document the change in truss configuration for the SHPO's records. In 2002 the Route 47 Major Transportation Investment Analysis (MTIA) identified bridge and floodplain improvement needs and recommended replacement of the historic bridge at Washington. A Notice of Intent to prepare an Environmental Impact Statement (EIS) was published in the Federal Register on April 22, 2008. The first public meeting was held in Washington on June 3, 2008. The first MODOT Core Team Meeting for the Route 47 EIS was held on August 4, 2008. The second public meeting was held in Washington on November 20, 2008. The Washington Bridge was again rehabilitated in the winter of 2009 mainly to repair and correct rust damage to the bottom chord and adjacent members below the bridge deck. (On November 14, 2009, the SHPO had concurred that the rehabilitation job would have "no adverse effect" on the historic bridge). The third public meeting was held in Washington on December 15 through 18, 2009. A Section 106 review was performed by MODOT staff for the EIS study, and on February 26, 2010 the SHPO concurred with MODOT's finding that Bridge K0969 is the only historic property on the project that will be adversely affected. The SHPO looked forward to reviewing the MOA for mitigation, and the project would be covered under a nationwide Programmatic 4(f) Evaluation. On June 1, 2010 a notice rescinding the Notice of Intent to prepare an EIS was published in the Federal Register, and the project was approved as an Environmental Assessment (EA). (Appendices B and C).

IV. Description of the Historic Property

Bridge K0969 is a steel, five-span rigid-connected cantilever through truss with two Warren deck truss and two steel deck girder approach spans. It measures 2,562 feet in length with a roadway width of 22 feet. The substructure consists of concrete abutments and spill-through piers with Moderne detailing. Built 1934-36 by the Missouri State Highway Department (MSHD), it is considered a superlative example of large-scale truss bridge construction at an important crossing of the Missouri River. It is on the Missouri Historic Bridge List and is NRHP eligible as per the corresponding Programmatic Agreement signed on October 1, 2003. It is eligible under Criterion C in the Area of Engineering and possibly under Criterion A in the Area of Transportation. (Appendices C and D).

V. <u>Adverse Effect on the Historic Property</u>

This project will result in building a new bridge adjacent to the existing Washington Bridge, either upstream or downstream, and remove the existing bridge. The bridge is eligible for the NRHP, and this action constitutes an "adverse effect" to the structure as described in 36 CFR 800.3 (b) (1) (4) of the National Historic Preservation Act.

VI <u>Summary of Alternative Courses of Action</u>

The alternatives initially considered included a No-Build Alternative, two build alternatives that would reuse at least part of the existing bridge, and eight alternatives that would construct a new bridge. Three alternative courses of action were retained for this project. These include the No-Build Alternative, the Adjacent Upstream Alternative, and the Adjacent Downstream Alternative. The No-Build Alternative, offers a baseline for evaluating the proposed build alternatives, and the two adjacent alternatives are being retained because the public overwhelmingly favors a bridge that quickly ties back into the existing roadway and has fewer environmental and socioeconomic impacts than a bridge farther upstream or downstream. Also, the two retained build alternatives would cost less and take less time to build.

The **No-Build** Alternative would retain the existing historic bridge and would make no improvements beyond normal bridge maintenance. Normal maintenance includes washing the bridge twice a year to remove de-icing chemicals, sealing the bridge deck every three to five years, sealing and replacing the expansion joints as needed, and replacing minor portions of the steel and concrete that have deteriorated. This alternative would not include any new major construction. With the No-Build Alternative, when the bridge deteriorates to a point where normal bridge maintenance is no longer sufficient to ensure safe operation, it would either need another major rehabilitation or be subject to weight restrictions and/or closure. However, due to the age and condition of the existing bridge, even routine maintenance and rehabilitation would be very costly and only serve as a short-term solution. The No-Build Alternative fails to meet the project needs and address existing deficiencies.

The **Adjacent Upstream** Alternative (\$46 million estimated total cost) would replace the existing, deficient, historic bridge with a new two-lane bridge approximately 50 feet upstream from the current location. The Adjacent Upstream new bridge would be roughly the same length as the existing bridge, which would be removed. Once the old bridge is out of the way, the rest of the new bridge would be built and traffic would be shifted to the proper lane locations. This alternative would meet the project needs and address existing deficiencies. It would provide a Missouri River crossing that is not deficient; meets MODOT's standards for lane width, shoulders, and commercial vehicle load; and safely accommodates bicyclists and pedestrians.

The **Adjacent Downstream** Alternative (\$46 million estimated total cost) would replace the existing, deficient bridge with a new two-lane bridge approximately 50 feet downstream from the current crossing. The new bridge would be roughly the same length as the existing bridge, with the downstream levee controlling placement of the northern abutment. The existing bridge would then be removed. Once the old bridge is out of the way, the rest of the new bridge would be built and traffic would be shifted to the proper lane locations. This alternative would meet the project needs and address existing deficiencies. It would provide a Missouri River crossing that is not

deficient; meets MODOT's standards for lane width, shoulders, and commercial vehicle load; and safely accommodates bicyclists and pedestrians.

The Adjacent Upstream Alternative has been identified as the **Preferred** Alternative, and the most responsible and cost effective way to solve the transportation problems associated with the Route 47 Bridge. This alternative would replace the existing, deficient bridge with a new two-lane bridge approximately 50 feet upstream from the current location. This alternative would include slight roadway realignment beyond the bridge limits to tie into existing Route 47. It would result in removal of the existing historic bridge after construction of the new structure. The Preferred Alternative was identified through public and agency involvement along with assessment of socioeconomic and environmental consequences.

Regardless of which build alternative is chosen, removal of the historic bridge will be accompanied by mitigation of the adverse effect to the historic bridge with data recovery, through photographic and historical documentation as determined in consultation with the Missouri SHPO and FHWA. Also, the bridge will be marketed and advertised as available for adaptive reuse at a new location. This mitigation will be initiated well in advance of the commencement of construction project activities.

VII. <u>Proposed Action</u>

FHWA shall ensure that the following measures are carried out:

- 1. The MHTC, acting by and through MODOT, shall develop archival documentation to the following specifications:
 - a. 8X10 inch high-resolution black and white digital images printed on archival paper sufficient to fully document overall views and details of the historic bridge. Photographs will be taken and processed according to standards for photographs accompanying NRHP documentation. Digital compact discs with all views will be provided.
 - b. A historic narrative and technical descriptions for the historic bridge.
 - c. A copy of the original construction plans for the historic bridge.

The final documentation shall be provided to the SHPO along with archival digital discs containing the TIFF images and report PDF. Additional copies shall be provided to appropriate local historical groups, and retained by MODOT. Bound copies and/or CDs of the final documentation also will be available to others upon request.

2. Advertisement for Adaptive Reuse (or waiver):

The MHTC, acting by and through MODOT, shall consult with the SHPO to determine the appropriate approach and method for marketing Bridge K0969 as per the Surface Transportation and Uniform Relocation Assistance Act of 1987 (STURAA) Section

123(f). A waiver of advertisement also shall be discussed. The MHTC, acting by and through MODOT; the SHPO; and the FHWA shall agree to the approach and method prior to implementation.

If ownership of the bridge (or a portion thereof) is transferred to another party, the transfer deed may include preservation covenants that require the new owner to move and maintain the bridge in accordance with the "Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitation of Historic Buildings." The proposed reuse plan and specifications will be forwarded to FHWA for review and approval in consultation with the SHPO; and MHTC, acting by and through MODOT. If no party is found to take possession of the existing bridge, it may be removed.

- 3. If modifications to the project activities result in an adverse effect to any NRHP eligible archaeological site, the FHWA shall consult with the SHPO and appropriate Indian Tribes to resolve the adverse effects, consistent with guidance provided in 36 CFR § 800.6, through the implementation of an Archaeological Data Recovery Plan(s) developed in accordance with the Council "Recommended Approach for Consultation on the Recovery of Significant Information from Archaeological Sites" (64 FR 27085-87 published in the Federal Register on May 18, 1999), the Council's Handbook on Treatment of Archaeological Properties, and the Secretary of the Interior's Standards for Archaeological Documentation.
- 4. Within one year after carrying out the terms of the MOA, the FHWA shall provide to all signatories a written report regarding the actions taken to fulfill the terms of the agreement.

VIII. List of Appendices

- A. Location Maps for the Washington Bridge Project.
- B. Public Involvement.
- C. Correspondence and Coordination.
- D. Photographs of the Washington Bridge.

Appendix A Location Maps for the Washington Bridge Project.

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RTE. 47 BRIDGE STUDY AREA





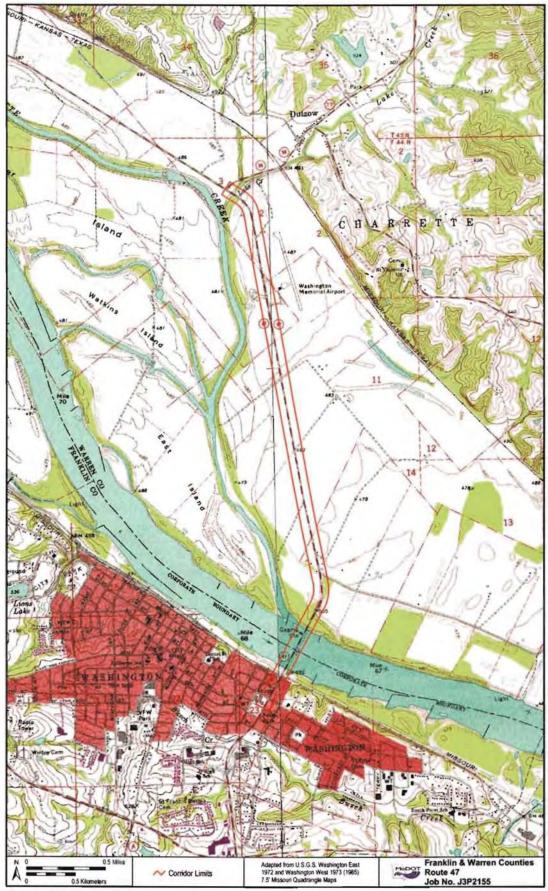
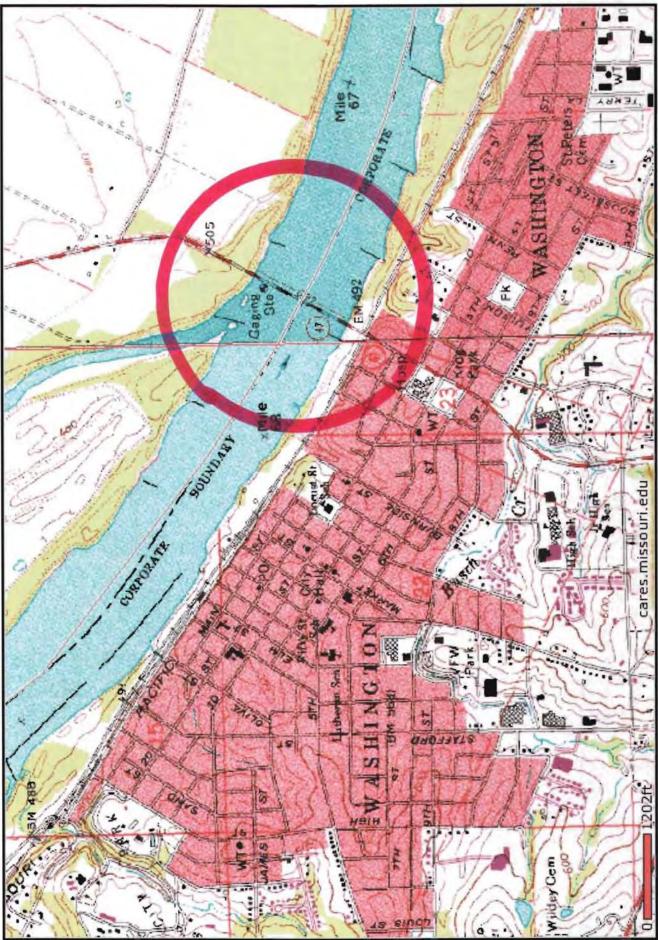


Figure 1. Study Corridor Limits.





Appendix B Public Involvement.

ROUTE 47 BRIDGE at Washington Environmental Impact Study

hank you for coming to our first public meeting. This meeting is one of the very first steps toward improving the Route 47 bridge over the Missouri River near Washington. The focus of tonight's meeting is to help us learn from you the environmental and cultural issues in the area that might be impacted should a new bridge be constructed. Please keep in mind there is no funding for a new bridge. However, MoDOT will continue to keep those interested informed through public involvement including meetings, media, personal visits, and email.

YOUR INPUT IS IMPORTANT TO THIS PROCESS!

After hearing tonight's presentation, reviewing the displays, and discussing the various topics with MoDOT representatives, please share with us any thoughts and ideas you have about environmental and cultural issues. along with thoughts about a new bridge. Comments sheets are available at the meeting, or you can submit a comment online at www.modot.org/northeast.



If you have email and would like to receive updates on this project, please subscribe to our free eupdate system by visiting our website at modot.org/ northeast or call us, and we'll subscribe for you!



PO Box 1067-Hannibal, MO 63401 1-888 ASK MODOT (1-888-275-6636) www.modot.org/northeast

WHAT IMPROVEMENTS ARE NEEDED?

While MoDOT is excited to continue to improve Missouri's transportation system, rest assured the Route 47 bridge is safe. Since a new bridge is unlikely for several years, MoDOT is rehabilitating the existing bridge next summer, and these improvements will allow the bridge to remain safe. As traffic increases and the bridge ages, the existing structure eventually will need to be replaced. A new bridge will improve safety, add capacity, improve reliability and contribute to the continued growth in the area.

HOW LONG WILL IT TAKE TO GET A **NEW BRIDGE?**



Because of several factors that contribute to bringing an "idea to reality," it is impossible

to predict how long it will be before a new bridge is built. MoDOT is just beginning the environmental and location studies on the bridge. Before a project can move forward, MoDOT works with key stakeholders, area residents, planning partners, and the Federal Highway Administration to determine the environmental and cultural impacts to the area should a new bridge be built. Another significant issue is how to pay for the bridge. Senator Christopher "Kit" Bond earmarked three million dollars to help support the project, but most of this money has been used for rehabilitation of the existing bridge, to keep it usable until sufficient funds become available for the bridge's replacement. There is about \$200,000 remaining.

(over)

What are our options?

These are OUR ideas to replace the existing bridge ...

1. Build a new bridge as far west as Marthasville on new Route 47 alignment following Route 100. Locating a new Missouri River crossing west of Washington at Marthasville was an option investigated during the Major Transportation Investment Analysis. We could consider any location to the west that minimizes impacts to environmental and cultural resources, while meeting the purpose and need of the project.

2. Build a new bridge on Route 47 alignment as far **east** crossing into St. Charles County following Route 100. Locating a new Missouri River crossing east of Washington into was another option investigated during the Major Transportation Investment Analysis. We could consider any location to the east that minimizes impacts to environmental and cultural resources, while meeting the purpose and need of the project.

3. Build a new bridge adjacent to the existing one.

4. Build a new bridge adjacent to the existing bridge, but replacing the existing bridge's truss with steel girders, so it could continue to be used. The condition and load carrying ability of the concrete piers would need to be evaluated for this use.

We are also considering these ideas to improve the reliability of Route 47 north of the river during flooding by adding lanes from the new bridge across the floodplain...

1. New lanes from either bypass option would likely connect to Route 94.

2. New lanes from an adjacent bridge could either paral-

lel the existing Route 47 alignment, or could extend south of the airport to Route 94.

Please consider other options and share those with us when completing the comment forms provided at the meeting or online. Thank you for your input and your interest!

How MANY VEHICLES CROSS THE BRIDGE EACH DAY?

Traffic on the Route 47 bridge is at a "Level C," which means it's still flowing fairly well with few accidents. About 11,000 vehicles travel over the bridge each day.

How can we MINIMIZE IMPACTS TO THE AREA?

During the environmental and location study, MoDOT needs public input on potential environmental and cultural issues. MoDOT wants to avoid or at least minimize impacts whenever considering a new project, and many times this information comes directly from residents in the area.

WHAT WILL HAPPEN NEXT?



While a lot has already been done locally through the Highway 47 Bridge

Committee, now that MoDOT has begun the environmental and location study process, there will be more formalized meetings and discussions about the potential impacts of constructing a new bridge, what that bridge will look like, and where it will be located. MoDOT will continue to keep area residents informed through mailings, meetings, personal visits, local medial and email.



Washington Bridge (No. K0969)

Construction of a new bridge over the Missouri River at Washington may have an "adverse effect" on existing historic Bridge K0969, which is eligible for the National Register of Historic Places.

Bridge K0969 is a steel, five-span rigid-connected cantilever through truss with a Warren web and Warren deck truss approaches. It measures 2,562 feet in length with a roadway width of 22 feet. The substructure consists of concrete abutments and spill-through piers with Moderne detailing. Built 1934-36 by the Missouri State Highway Department (MSHD), it is considered a superlative example of large-scale truss bridge construction at an important crossing of the Missouri River. Undertaken during the Great Depression, it was one of a series of great river bridges built in the state during the 1920s and 1930s. Similar structures included the Mark Twain Memorial Bridge, the Hermann Bridge, and the Miami Bridge. (Clayton Fraser, Missouri Historic Bridge Inventory, 1996).



A Programmatic Agreement for Historic Bridges in Missouri was signed on October 3, 2003, and obliges all parties (Federal Highway Administration, Missouri Department of Transportation, the State Historic Preservation Office and the Federal Advisory Council on Historic Preservation) to explore alternatives for bridge preservation.

An "adverse effect" to the historic bridge will require, at a minimum, a two-party MOA for mitigation in the form of archival photographs and historic documentation to be submitted to the State Historic Preservation Office (SHPO) for curation. Also, the FHWA may be asked to approve a Programmatic Section 4(f) Evaluation for the bridge. Additional mitigation measures will be discussed in consultation with the SHPO and FHWA.

Contacts:

- Rick Domzalski at 573-248-2579 or richard.domzalski@modot.mo.gov for project information
- Randy Dawdy at 573-526-3591 or randall.dawdy@modot.mo.gov for historic bridge information

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contributions and tailgating are cited as the cause of most crashes in areas where roadwork is under way.

For more information, contact Marisa Brown, Community Relations Manager, 573-248-2502

November 10, 2008 Public Meeting To Show Alternate Locations of New Bridge

HANNIBAL - The public is invited to view alternate locations being considered for a new Route 47 Bridge at Washington during a public meeting on Thursday, November 20 from 4:30 until 6:30 p.m. at St. John's Mercy Hospital in the Tucker Room on 2nd floor. There is no formal presentation planned, and guests can come anytime within the two hours to look at the displays and ask questions.

MoDOT engineers and environmental specialists will be available to answer questions and explain the exhibits, and informational material will be distributed. In addition, MoDOT will have available information about the extensive work that will be done next year on the current bridge.

For anyone interested in the locations and unable to attend the public meeting, maps will be posted on modot.org immediately following the public meeting. Information is also available by calling Rick Domzalski, MoDOT project manager, at 573-248-2579 or 1-888-275-6636.

ROUTE 47 BRIDGE at Washington Environmental Impact Study

Thank you for coming to our second public meeting. Your input will help us in the process to make a final decision on what this project should look like. The focus of tonight's meeting is to discuss the alternatives that are being carried forward for further evaluation. We also want to let you know what alternatives were considered and eliminated from further consideration, and communicate what additional information has been identified since the first meeting to help to shape the direction of the project.

STAY INFORMED!

If you have not already done so and are interested in receiving updates on the project through email, please consider subscribing to our free e-update service. The web pages for the Route 47 Bridge project are updated regularly and can be found at www.modot.org/northeast. Comments sheets are available at the meeting, or you can submit a comment online.



If you have email and would like to receive updates on this project, please subscribe to our free eupdate system by visiting our website at modot.org/ northeast or call us, and we'll subscribe for you!



PO Box 1067-Hannibal, MO 63401 1-888 ASK MODOT (1-888-275-6636) www.modot.org/northeast

Two lanes needed for the foreseeable future



Projections for traffic growth tell us that a two-lane

bridge with full shoulders should be able to handle the traffic needs of the area for the next twenty years. This is based on the criteria of providing stable flow (Level of Service D) during peak hours of traffic. We realize that there is significant uncertainty when trying to project traffic volumes out that far into the future, and also that the bridge is being designed to last many decades beyond that twenty-year period. Because of this, we want to consider options for ultimately accommodating more lanes.

Options Eliminated from Further Consideration

Traffic patterns reveal that a majority of bridge traffic headed for Washington comes down Route 47 from the Warrenton area and down Route T/TT/94 from the Foristell area. To locate a new bridge away from the existing location would force these major volumes of traffic significant distances out of the way. The Washington Airport, located mid-way between Route 94 at Dutzow and the existing bridge, has a direct path to the City, and the hospital in particular. (cont'd on back)

QUESTIONS?

Please call our toll-free number at 1-888-275-6636 or email Transportation Project Manager Richard Domzalski at richard.domzalski@modot.mo.gov. Specific locations eliminated from consideration include:

- A crossing west at Route 185
- A crossing east into St. Charles County.
- Crossings that would terminate in developed areas of the City of Washington were not specifically studied due to the obvious impacts they would have on the City.

Alternates Moving Forward

In addition to the no-build option that is used as a comparison for all other options, several options are moving forward for consideration. All are in the immediate area of the existing bridge and require traffic to be maintained across the river at Washington during construction. They include:

- New two-lane bridge immediately upstream or downstream of the existing with partial reconstruction (superstructure replacement) of the existing bridge. The widest roadway that could likely be built on the existing piers is 26', providing 11' lanes and 2' shoulders.
- New two-lane bridge immediately upstream or downstream of the existing bridge without partial reconstruction (tear down the old bridge).
 The new bridge would be built with the idea that the lanes could be re-striped in the future to accommodate four lanes of traffic.
- New two-lane bridge as close to the existing alignment as possible, built in stages to overlap with the existing structure, much like we did with the new Bond Bridge near Hermann.

What About Flooding?

Route 47 in Warren County closed twice in 1993 and once in 1995 due to flooding, with the closures in 1993 lasting between one and two weeks on average. All of these events were due to the failure of the Missouri River levees. The second closure in 1993 occurred before the levees could be repaired from the earlier failure. To protect Route 47 from this sort of Missouri River flooding would require raising the grade of the roadbed several feet, since those levees to the west are built to a substantially higher elevation.

When investigated in the mid-1990s, raising the grade of Route 47 across the floodplain met serious opposition from



the United States Army Corps of Engineers due to the waterway blockage that would be created by such a roadway. As such, it is likely that an elevated roadway would have to be built as a bridge-type structure, making it prohibitively expensive.

What about bicycles?



Any of the alternatives proposed to move forward include the placement of a protected bicycle lane. Constructing a concrete barrier between the bike lane and the roadway would deter converting part of the bike lane to roadway use in the future.

What Comes Next?

There will be ongoing data collection and evaluation of remaining alternatives over the next several months. The study team will consider public comments gathered tonight to narrow the reasonable range of alternatives to one "preferred" alternative alignment, which will be presented in 2011 or before.

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conterent week are cited as the cause of most crashes in areas where roadwork is under way.

For more information, contact Marisa Brown, Community Relations Manager, at 573-248-2502

December 09, 2009 Public Invited to Route 47 Bridge Meeting

HANNIBAL - MoDOT will hold a public meeting on Tuesday, December 15 from 4 - 6 p.m. at the Washington West Elementary School, 1570 West 5th Street, in the cafeteria, to seek input from the public about replacing the historic bridge across the Missouri River. The focus of the meeting is to solicit comments on alternatives that are proposed. Alternatives adjacent to either side of the existing bridge stand out right now as those to be retained for detailed analysis.

MoDOT Transportation Project Manager Rick Domzalski said consideration is made for each alternative using various screening factors. Some of these factors include costs, engineering and environmental considerations, right of way and purpose and need. "Each of these factors is carefully evaluated by study team members," he explained. "We value the input provided by the community and area residents," he added.

A "virtual meeting" is being added to the public involvement process to allow those who have questions and cannot attend the public meeting the opportunity to receive immediate answers to questions or comments. From 8:00 a.m. until 5:00 p.m. on December 16, 17, and 18, MoDOT staff will participate in the virtual meeting. The public also is welcome to view the on-line displays and comment any time with MoDOT staff replying within the next business day.

MoDOT representatives are also available to answer questions by phone at 1-888 ASK MODOT.

Links to related information:

Route 47 Bridge at Washington

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terreterret thread and the second sec cause of most crashes in areas where roadwork is under way.

For more information, contact Marisa Brown-Ellison, Community Relations Manager, 573-248-2502

April 26, 2010 Route 47 Bridge at Washington Study Indicates Bridge Replacement

HANNIBAL - In the past two years, MoDOT has been working with the Highway 47 Bridge Committee and Washington area residents to gather information for an Environmental Impact Statement (EIS), which is required by the National Environmental Policy Act (NEPA) when significant impacts are expected on transportation projects. However, when the impacts of a project are determined to be minor, the EIS can be reduced to an Environmental Assessment, which can require less time than an EIS. The Federal Highway Administration (FHWA) recently gave that approval.

"This is good news for the project," said MoDOT Transportation Project Manager Rick Domzalski. "Since we have completed a substantial portion of the EIS, we have determined that the project will essentially be a bridge replacement adjacent to the existing location. Thus with a reduced project scope and impacts an Environmental Assessment will document the impacts adequately and require less review time than a full EIS," Domzalski explained.

While it doesn't mean funding is available for a new bridge at Washington, it does mean the environmental aspects required prior to designing a new bridge will be done guicker. "It is our intention to finish the Environmental Assessment later this year, and be ready to start work on plans for a new bridge," Domzalski stated.

Already determined through the EIS process is that the bridge will be replaced just to the west of the existing bridge. Following the completion of the Environmental Assessment, a location public hearing will be held to present the preferred location to the public and to take comment. Once the Environmental Assessment has been approved, and a Finding of No Significant Impact (FONSI) is signed, MoDOT will begin working on plans for a new bridge.

The Route 47 Bridge at Washington was identified as a top need in

the prioritization process by MoDOT and its planning partners. However, there is no funding identified within the next several years to help make the estimated \$45 million structure a reality.

MoDOT has a web page devoted to the Route 47 Bridge at Washington at www.modot.org/northeast. More information can be found there or by calling the toll-free number at 1-888 ASK MODOT.

Links to related information:

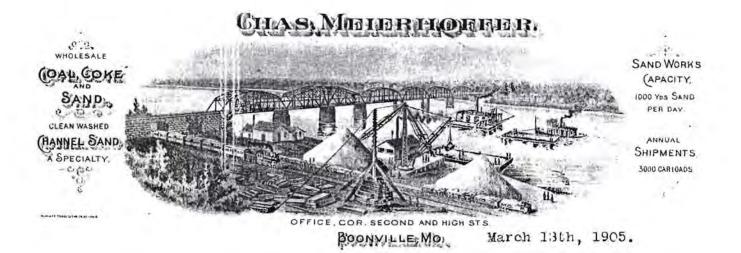
Route 47 Bridge at Washington

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Appendix C Correspondence and Coordination.

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Volume IV



MISSOURI HISTORIC BRIDGE INVENTORY

DRAFT INVENTORY REPORT

submitted to: Missouri Highway and Transportation Department 200 Harrison Street Jefferson City, Missouri 65102

produced by: FRASERdesign 1269 Cleveland Avenue Loveland Colorado 80537

April 1996

Washington Bridge

WARR01

GENERAL DATA

structure no.: county:	K 969 Warren	cadastral grid : highway route: highway distr.:	Washington Missouri River Survey 1647, T44N, R1W State Highway 47 3 Missouri Highway and Transportation Depart- ment

STRUCTURAL DATA

superstructure: steel, rigid-connected, cantilever Warren through truss substructure: concrete abutments and piers with Moderne detailing

span number: span length: total length : roadway width:	5 475.0' 2562.0' 22.0'	good none concrete deck over steel stringers upper chord and inclined end post: 2 built-up channels with cover plate and lacing; lower chord: 2 built-up channels with batten plates; vertical: 2 angles with lacing; diagonal: 2 channels with lacing or batten plates; lateral bracing: 2 angles with lacing; floor beam: I- beam, field-bolted to vertical; guardrail: 2 steel channels

HISTORICAL DATA

erection date:	1934-36
erection cost:	\$802,000.00
designer:	Sverdrup and Parcel, St. Louis MO
fabricator :	Stupp Brothers Bridge and Iron Company, St. Louis MO
contractor:	Stupp Brothers Bridge and Iron Company, St. Louis MO (superstructure) Missouri Valley Bridge and Iron Co., Leavenworth KS (substructure)

reterences: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. K 969; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; "Building Bridge Major Event for City," The (Washington) Missourian, 24 May 1989, page 10; Ralph Gregory, A History of Washington, Missouri, pages 81-82, 88-89; Mari-Anne Messmann, "Desire, Determination Bridge the Missouri," Washington Missourian, 6 February 1975; "Washington Bridge Was 38 Years Old Monday," Washington Missourian, 30 May 1974; "Building of Bridge Major Event for City," Washington Bridge to Begin Soon," Hermann Advertiser-Courier, 15 March 1929; field inspection by Clayton Fraser, 29 June 1994.

sign. rating: 72

evaluation: NRHP determined eligible (superlative example of large-scale truss bridge construction on an important crossing of the Missouri River)

Inventoried by: Clayton Fraser and Michelle Crow-Dolby 22 February 1993

Route 47 Major Transportation Investment Analysis

Draft Executive Summary and Locally Preferred Alternative Report

Franklin, Warren and St. Charles Counties Interstate 44 to Route 94 West

Prepared by the Transportation Corridor Improvement Group

in conjunction with

Bi-State Development Agency East-West Gateway Coordinating Council and Missouri Department of Transportation

with technical assistance from

Wilbur Smith Associates and Harrington & Cortelyou, Inc.



February 2002



Federal Highway

Administration

Missouri Division

Allen Masuda, Division Administrator

3220 W. Edgewood, Suite H Jefferson City, Missouri 65109 (573) 636-7104 Fax (573) 636-9283 Missouri.FHWA@fhwa.dot.gov

April 16, 2008

Mr. Raymond Mosley Director, Office of the Federal Register 800 North Capital Street, Northwest 7th Floor, Suite 700 Washington, D.C. 20408

Subject: Notice of Intent Rte 47, Franklin and Warren Counties, Missouri MoDOT Job No. J3P2155 Notice of Intent for Environmental Impact Statement

Dear Mr. Mosley:

I hereby certify that the enclosed diskette contains a true and accurate copy of the three signed paper copies of the notice of intent for publication in the Federal Register.

Sincerely yours,

//original signature//

Peggy J. Casey, P.E. Environmental Projects Engineer

HEPE-1/Owen Lindauer HRC-MW MoDOT/Design/Matt Burcham MoDOT/Environmental Section/Gayle Unruh



AMERICAN

STATE OF MISSOURI Matt Blunt, Governor • Doyle Childers, Director DEPARTMENT OF NATURAL RESOURCES www.dnr.mo.gov

November 14, 2008

Robert L. Reeder Historic Preservation Manager Missouri Department of Transportation P.O. Box 270 Jefferson City, Missouri 65102

Re: Route 47, Job No. J6P2158 (FHWA) Franklin County, Missouri

Dear Dr. Reeder:

Thank you for submitting information on the above referenced project for our review pursuant to Section 106 of the National Historic Preservation Act (P.L. 89-665, as amended) and the Advisory Council on Historic Preservation's regulation 36 CFR Part 800, which requires identification and evaluation of cultural resources.

We have reviewed the Section 106 Bridge Evaluation for the proposed rehabilitation of Bridge No. K0969 over the Missouri River at Washington, Missouri. We concur with your determination that Bridge No. K0960 is eligible for inclusion in the National Register of Historic Places. We also concur that the proposed rehabilitation will have **no adverse effect** as the plans and specifications are in conformance with the Secretary of the Interior's <u>Standards and Guidelines for Rehabilitation</u>

Please be advised that, should project plans change, information documenting the revisions should be submitted to this office for further review. In the event that cultural materials are encountered during project activities, all construction should be halted, and this office notified as soon as possible in order to determine the appropriate course of action.

If you have any questions, please write the State Historic Preservation Office, P.O. Box 176, Jefferson City, Missouri 65102 attention Review and Compliance, or call Judith Deel at 573/751-7862. Please be sure to include the SHPO Log Number (001-FR-09) on all future correspondence or inquiries relating to this project.

Sincerely,

STATE HISTORIC PRESERVATION OFFICE

Carl A Mile

Mark A. Miles Director and Deputy State Historic Preservation Officer

MAM:jd

c Peggy Casey, FHWA Jane Beetem, DNR/OD

Co Recycled Paper

STATE OF MISSOURI Jeremiah W. (Jay) Nixon, Governor + Mark N. Templeton, Director DEPARTMENT OF NATURAL RESOURCES

www.dnr.mo.gov

February 26, 2010

Dr. Robert Reeder MoDOT, Historic Preservation 105 West Capitol Avenue, P.O. Box 270 Jefferson City, MO 65102

Re: SHPO Project Number: 019-MLT-10: Route 47, Job No. J3P2155, Route 47 Bridge, Washington, Franklin and Warren Counties, Missouri (FHWA)

Dear Dr. Reeder:

Thank you for submitting information about the above-referenced project for our review pursuant to Section 106 of the National Historic Preservation Act (P.L. 89-665, as amended) and the Advisory Council on Historic Preservation's regulation 36 CFR Part 800, which require identification and evaluation of cultural resources.

Based on the information provided, we agree that bridge number K0969 is eligible for listing in the National Register of Historic Places. In addition, we agree that Architectural Resources 3, 5, 6, 7, and 8 are not eligible. For Architectural Resource 4, SHPO staff agrees that while this property is unique and interesting, it does not meet the National Register criteria. We hope that due to the recent loss of so many historic properties in Washington, MoDOT staff will either photographically document the property or allow the SHPO to photo document the property should it be slated for demolition as part of this project. In addition, in accordance with the Advisory Council on Historic Preservation's regulation <u>Protection of Historic Properties</u> (36 CFR Part 800), Section 800.5, it is our opinion that the proposed project will have an adverse effect on the National Register of Historic Places eligible bridge. We recommend preparing a Memorandum of Agreement.

In accordance with Section 800.6(a)(1), FHWA or its applicant shall forward the necessary adequate documentation to the Executive Director, Advisory Council on Historic Preservation, the Old Post Office Building, 1100 Pennsylvania Avenue NW, #809, Washington, D.C 20004. Pending receipt of the Council's decision on whether it will participate in consultation, no action shall be taken which would foreclose Council consideration of alternatives to avoid or satisfactorily mitigate any adverse effect on the property in question. Please be sure to copy us on any correspondence to the ACHP.

If you have any questions please write Missouri Department of Natural Resources, State Historic Preservation Office, Attn: Review and Compliance, P.O. Box 176, Jefferson City, Missouri 65102, or call Rebecca Prater at (573) 751-7958. Please be sure to include the SHPO Project Number (019-MLT-10) on all future correspondence relating to this project. If the information is provided via telephone call, please follow up in writing for our files.

Sincerely,

STATE HISTORIC PRESERVATION OFFICE

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Mark A. Miles Director and Deputy State Historic Preservation Officer

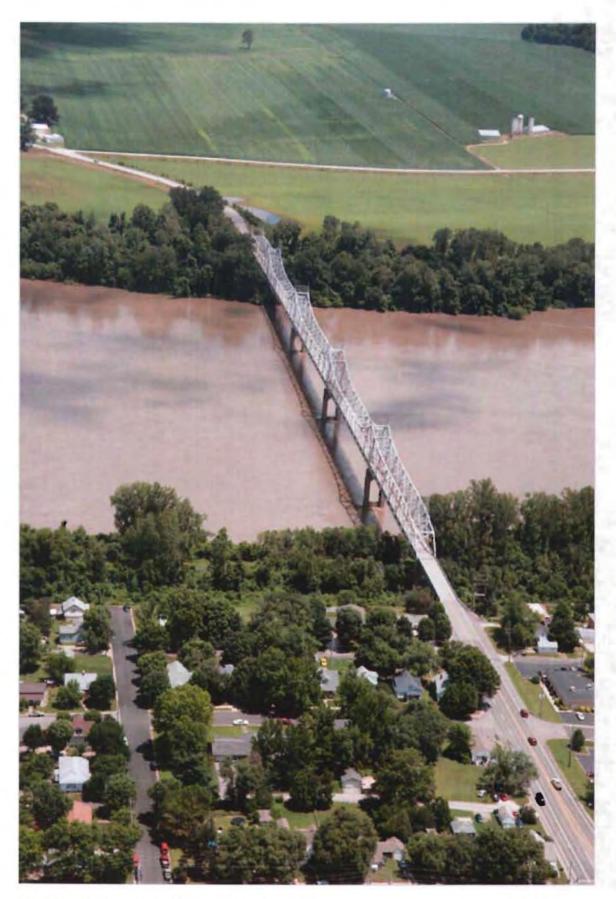
MAM:rp

C: Peggy Casey, FHWA

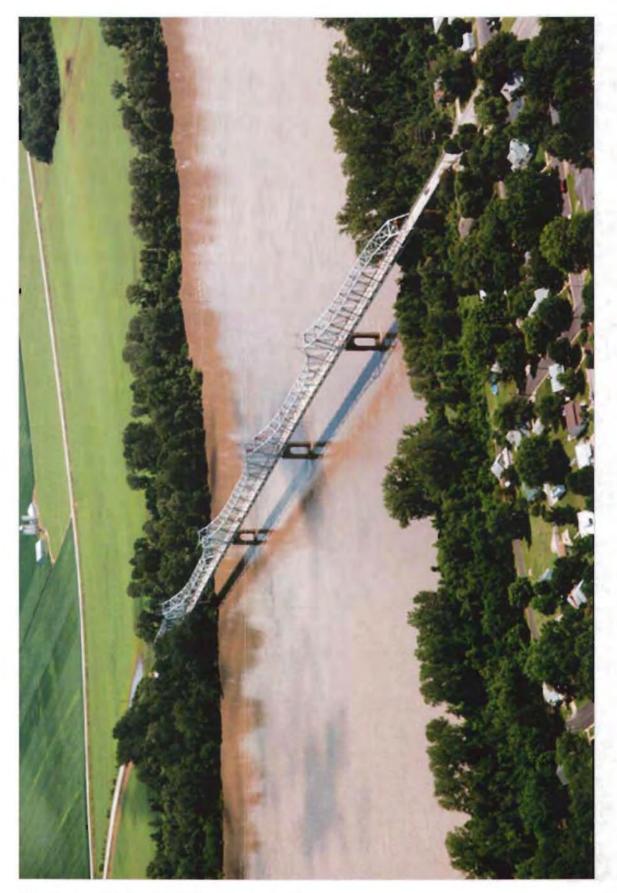
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Appendix D Photographs of the Washington Bridge.

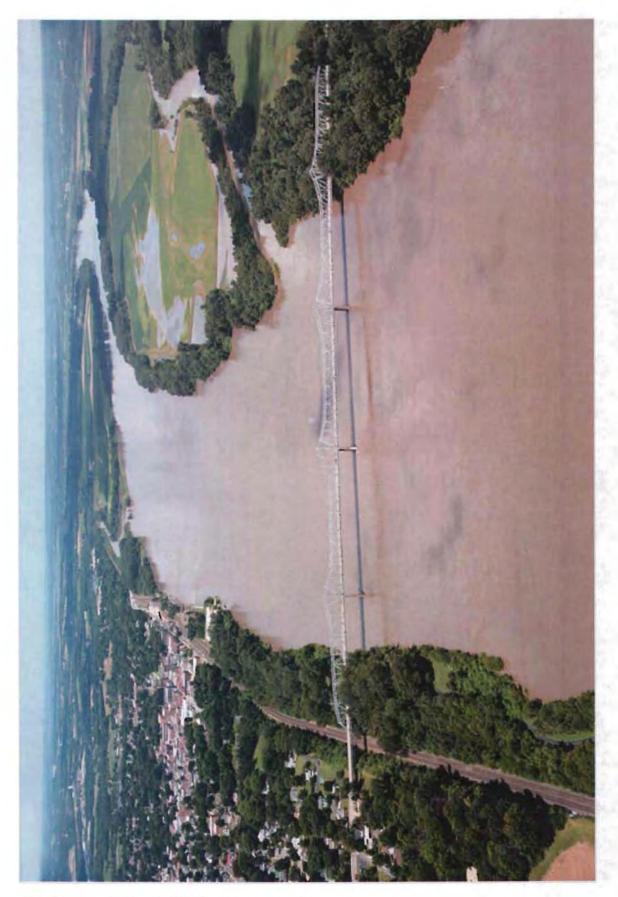
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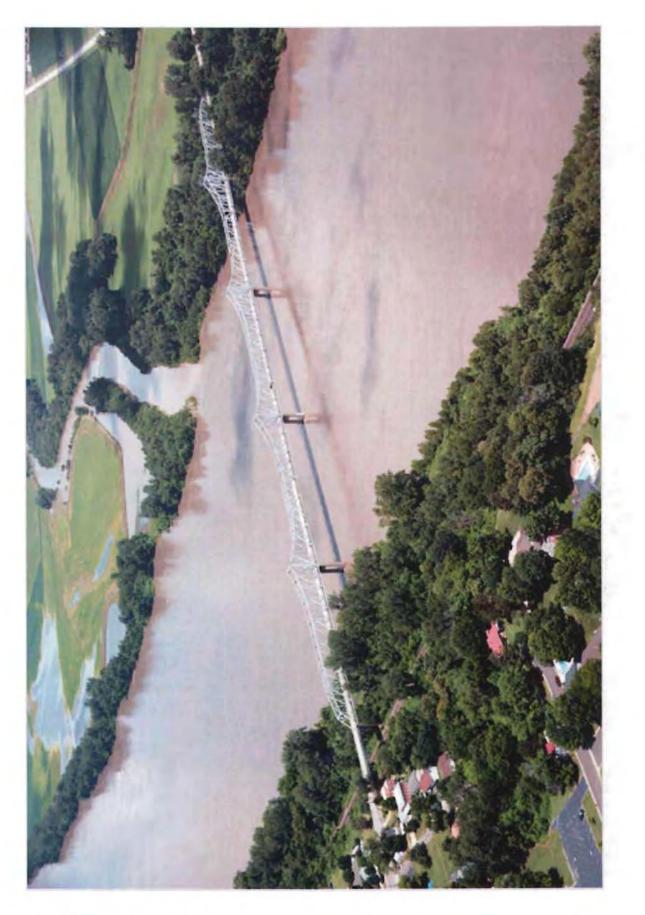
Washington Bridge (K0969). View to north.



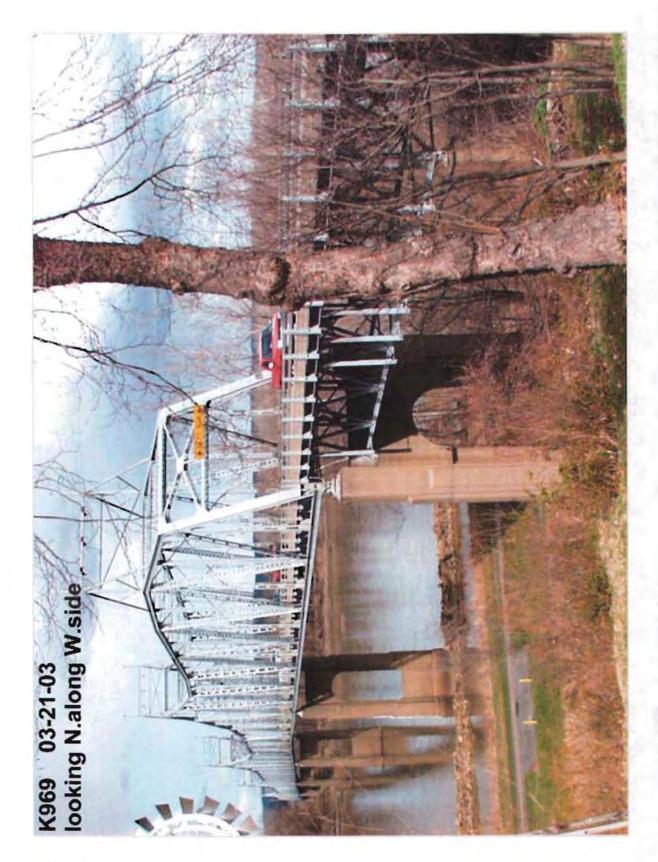
Washington Bridge (K0969). View to northeast.



Washington Bridge (K0969). View to west.



Washington Bridge (K0969). View to northwest.



Washington Bridge (K0969). View to north.

