

ENVIRONMENTAL ASSESSMENT
PFC Abraham G. Sams Memorial Bridge
(Camp Creek Truss Bridge)
Replacement

State Project: S308-4/5-2.95, Federal Project: BR-0045(036)D

Clay County, West Virginia

Federal Highway Administration

West Virginia Department of
Transportation



February 2015

APPROVAL SIGNATURES

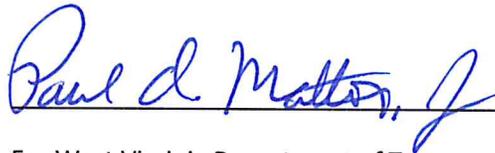
PFC ABRAHAM G. SAMS MEMORIAL BRIDGE (CAMP CREEK TRUSS BRIDGE) REPLACEMENT

CLAY COUNTY, WEST VIRGINIA

STATE PROJECT S308-4/5-2.95 FEDERAL PROJECT NO. BR-0045(036)D

ENVIRONMENTAL ASSESSMENT

Submitted Pursuant to 42 USC 4332(2)(C) by the U.S. Department of Transportation, Federal Highway Administration and West Virginia Department of Transportation, Division of Highways



For West Virginia Department of Transportation



Date of Approval



For Federal Highway Administration



Date of Approval

The proposed project consists of the replacement of a one-lane truss bridge originally constructed in 1925 across the Elk River in Clay County, WV with a new, two-lane bridge adjacent downstream that meets current design standards.

FOR INFORMATION CONTACT

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PUBLIC COMMENT PERIOD

The public comment period for this document ends March 30, 2015. Written comments on this document can be submitted through the engineering project website (<http://go.wv.gov/dotcomment>) or by mail to the following address:

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A public hearing for this project will be held at the H.E. White Elementary School in Bomont, WV on February 26, 2015 from 4:00 PM to 7:00 PM, with a presentation beginning at 6:00 PM.

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LIST OF ACRONYMS AND ABBREVIATIONS

BMP	best management practice
CAA	Clean Air Act
CFR	Code of Federal Regulations
EA	Environmental Assessment
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
ROW	Right-of-Way
SHPO	State Historic Preservation Office
USC	United States Code
USFWS	United States Fish and Wildlife Service
WVDEP	West Virginia Department of Environmental Protection
WVDNR	West Virginia Division of Natural Resources
WVDOH	West Virginia Division of Highways
WVDOT	West Virginia Department of Transportation

INTRODUCTION

The West Virginia Department of Transportation’s Division of Highways (WVDOT), in cooperation with the Federal Highway Administration (FHWA), proposes to replace the PFC Abraham G. Sams Memorial Bridge (AGSM Bridge), formerly known as the Camp Creek Truss Bridge. This bridge carries Clay County Route (CR) 4/5 from its intersection with WV State Route 4 (WV 4) over the Elk River in the town of Prociou in Clay County, West Virginia (WV) (Figure 1).

The AGSM Bridge was constructed in 1925 and renovated in 1978. The bridge is not listed in, nor is it eligible for listing in, the National Register of Historic Places. Deterioration of the AGSM Bridge has warranted the placement of increasingly strict weight limits for vehicles using the bridge, and currently it is posted for carrying no more than seven (7) tons. Additionally, the structure’s narrow width restricts traffic flow to one direction at a time. These restrictions limit the function of the bridge and require vehicles larger than light commercial trucks to detour. To access either side of the river without the bridge requires an approximately 16-mile detour.

The proposed project consists of constructing a new bridge that meets current design standards immediately downstream (west) of the existing bridge, constructing new approaches to the bridge, and demolishing the existing bridge.

WHAT IS THE PURPOSE OF THE PROJECT?

The purpose of the project is to replace the existing AGSM Bridge so that the replacement meets current design standards to efficiently and effectively serve the transportation needs of first responders (e.g., fire trucks, ambulances, and hazardous materials response vehicles), through travelers, and the residents of the nearby community.

Figure 1 Location map

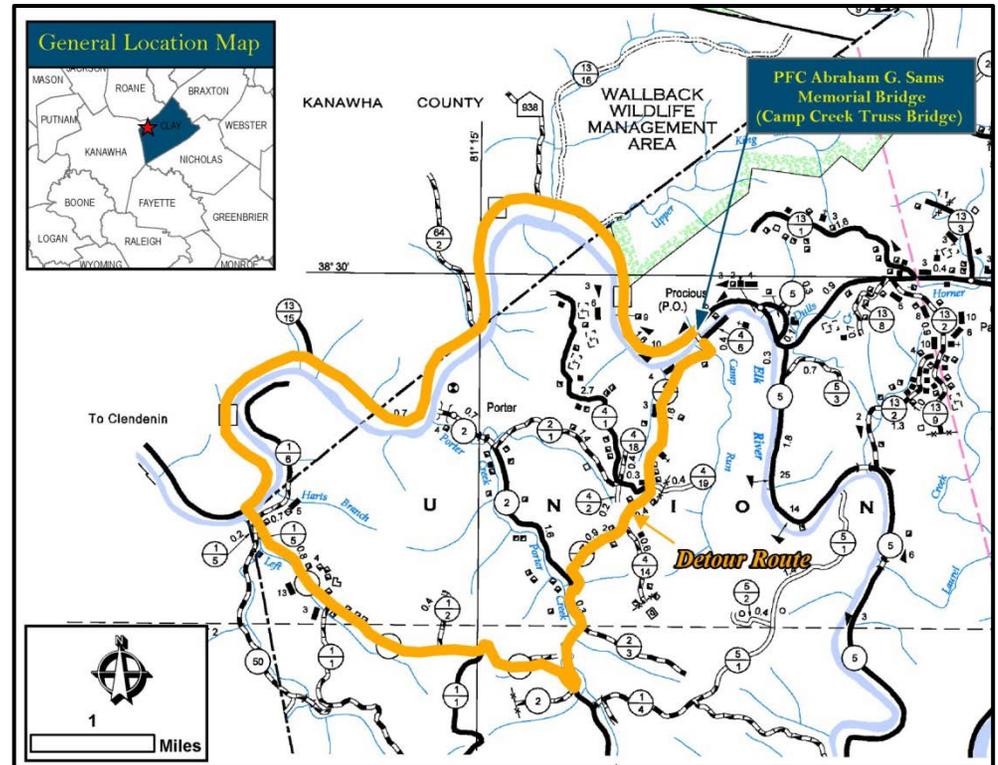


WHAT ARE THE NEEDS FOR THE PROJECT?

The replacement of the AGSM Bridge is necessitated by its current condition, as detailed in the most recent bridge inspection (Appendix A). The AGSM Bridge is 15'9" wide, providing one lane of traffic. The existing bridge does not meet current bridge and roadway design standards. Deterioration of the AGSM Bridge has warranted the placement of a 7-ton weight restriction. Eventually, deterioration will likely result in the closing of the AGSM Bridge, necessitating detours. The next nearest bridge over the Elk River lies at Queen Shoals, approximately eight (8) miles to the west along narrow, winding roads. The detour to reach WV 4 on the other side of the AGSM Bridge requires approximately 16 miles (Figure 2). In order to access downtown Clay to the east, where County offices and the Middle and High Schools are located, the quickest route will be to use this detour, adding approximately 25 minutes to the trip each way.

Additionally, because an endangered mussel species (*Lampsilis abrupta*, "pink mucket") was found in the Elk River in the vicinity of the bridge, any work in the river requires close coordination with the United States Fish and Wildlife Service (USFWS). During project scoping, both USFWS and the West Virginia Division of Natural Resources (WVDNR) expressed concern for mussel resources (Appendix B). The selection of an alternative must incorporate measures to avoid and minimize disturbance in the Elk River. Allowing the bridge to deteriorate and crumble into the river in an uncontrolled manner would harm the mussels. Therefore, removing the bridge in a controlled manner and coordination with USFWS are also important components of this project.

Figure 2 Detour route

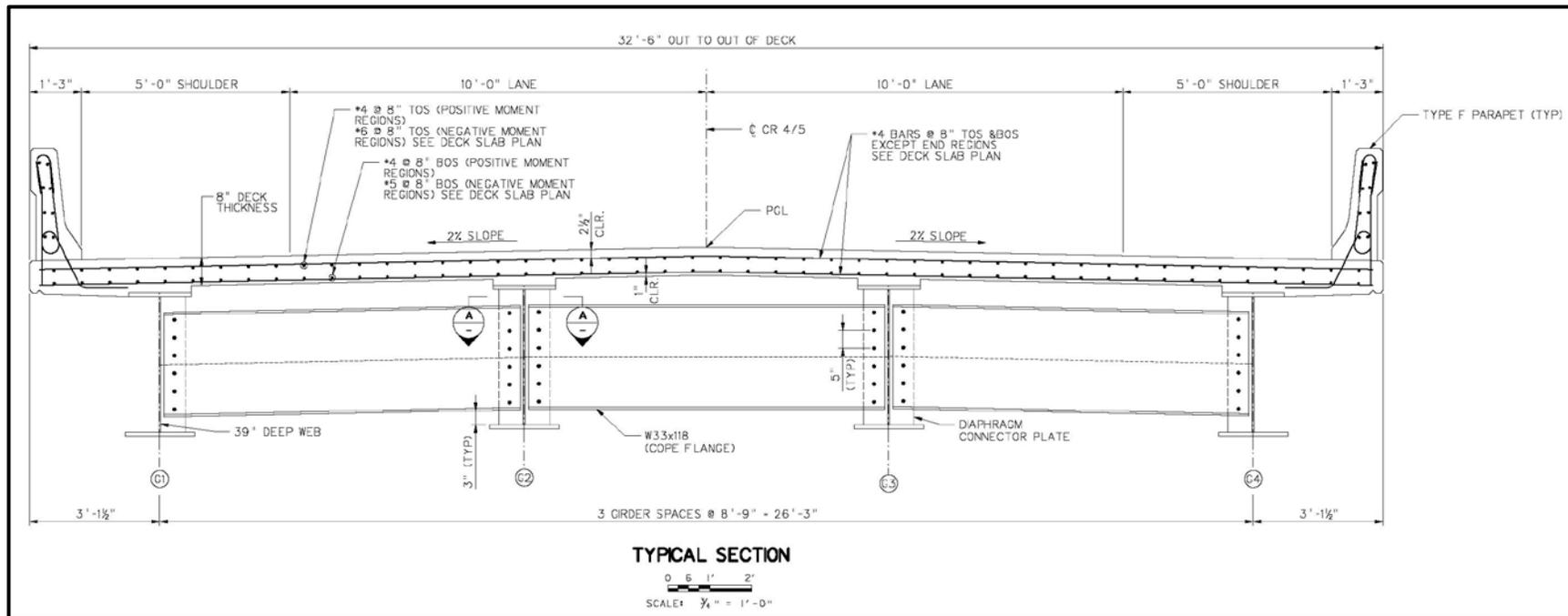


WHAT IS THE PREFERRED ALTERNATIVE?

From a range of alternatives developed and considered for this project, as detailed in Appendix C, WVDOH and FHWA are proposing Alternative 2C as the Preferred Alternative. Preferred Alternative 2C will replace the existing bridge downstream and adjacent to the existing location. The existing bridge remains open to traffic during construction, thus avoiding the need for a prolonged detour (Figure 3). After the new bridge is built, the old bridge will be removed. During this process, the new bridge will be available to use as a platform for dismantling the old bridge without dropping it into the river. This method is detailed in the Alternatives Analysis provided in Appendix C. Preferred Alternative 2C will cost approximately \$3.4 million, including ROW, and will take approximately 10 months to complete.

A typical cross-section of the new bridge is shown in Figure 3. The bridge will have two 10-foot lanes and two 5-foot shoulders. The new bridge will meet current design standards and will not require a posted weight restriction upon completion of construction.

Figure 3 Build Alternative Typical Section



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Preferred Alternative 2C is shown in Figure 4; the existing bridge is visible just upstream (to the right) of the proposed new bridge in this aerial photograph. The new bridge is closely aligned with the existing CR 4/5 roadway (Camp Creek Road) and thus avoids substantial right-of-way (ROW) impacts. Preferred Alternative 2C constructs new roadway approaches. The construction will require 0.26 acre of new permanent ROW and no relocations of residences, businesses, or community facilities. Two utility poles will require relocation.

Like the existing bridge, the new bridge will have two piers (bridge supports); however, the new piers are shifted toward the southeastern bank. This change moves the southeastern pier out of the normal pool of the river and moves the northwestern pier farther away from suitable mussel habitat. The three span widths will be approximately 85 ft-150 ft-85 ft. Although all possible planning is occurring to minimize impacts to the mussels, Preferred Alternative 2C is likely to adversely affect some endangered mussels; therefore, formal consultation with USFWS has begun and will be completed prior to finalizing the alternative selection. Many commitments to mitigate impacts have already been incorporated into the project and are summarized later in this document.

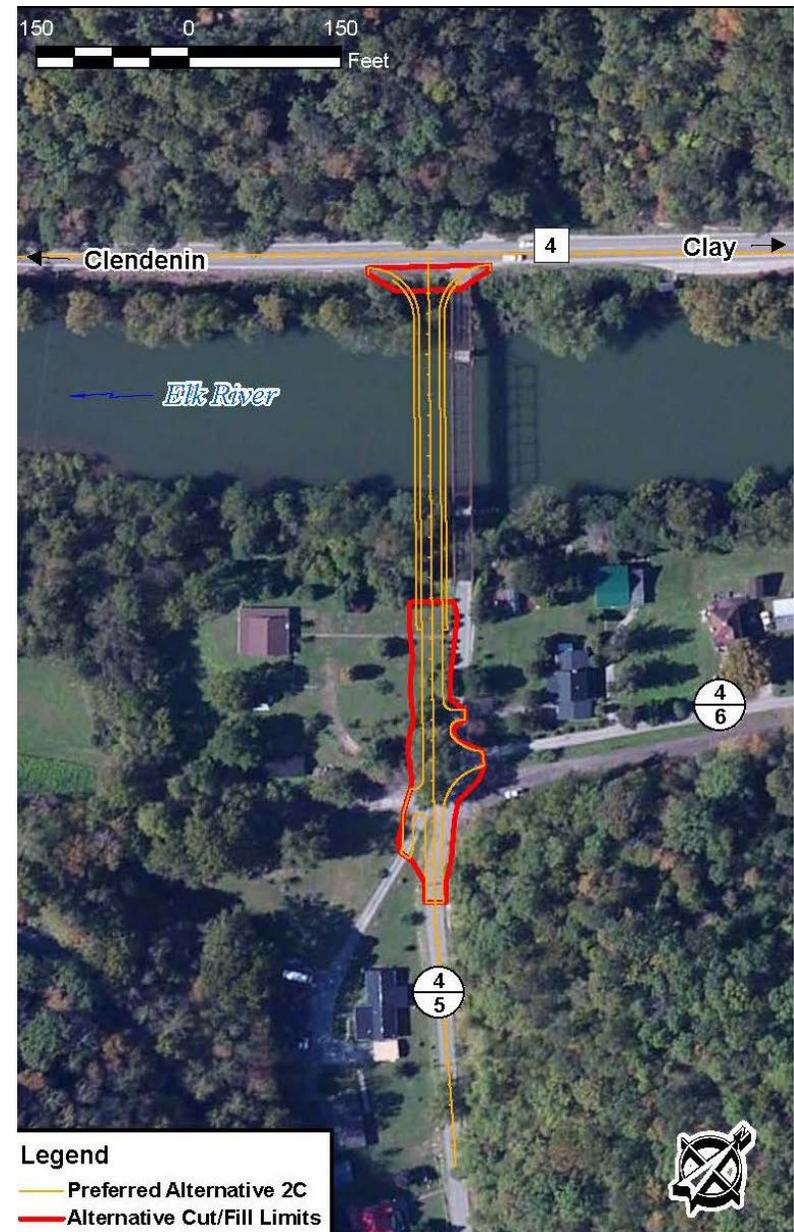
WHAT WILL HAPPEN IF THE PREFERRED ALTERNATIVE IS NOT IMPLEMENTED?

The No Build Alternative involves taking no action other than routine maintenance activities, allowing the AGSM Bridge to continue to operate under existing conditions. Allowing the deterioration to continue will eventually result in posting additional weight restrictions on the bridge and ultimately its permanent closure. To cross the river will require an approximately 16-mile detour (Figure 2).

The No Build Alternative does not provide a structure that meets current design standards and is not able to maintain or improve the services the bridge currently provides travelers. Therefore, the No Build Alternative does not meet the project purpose and need. However, environmental regulations require that it be retained in the environmental assessment process as a basis for comparison.

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Figure 4 Preferred Alternative 2C



HOW WELL DO THE NO BUILD ALTERNATIVE AND PREFERRED ALTERNATIVE MEET THE PURPOSE AND NEED?

As described in the previous section, the No Build Alternative will not meet the purpose and need of the project. Preferred Alternative 2C will fulfill all elements of the purpose and need for the project. Table 1 summarizes the specific project needs and how they are addressed by the No Build Alternative and Preferred Alternative 2C.

Table 1. Purpose and Need Summary for the No Build Alternative and Preferred Alternative 2C

Project Needs	No Build Alternative	Preferred Alternative 2C
Replaces AGSM Bridge	No.	Yes.
Bridge meets current design standards	No.	Yes.
Increases efficiency	No. Single-lane bridge that does not allow vehicles over 7 tons is an inefficient system. Inefficiency will increase when bridge is closed in the future, forcing all travelers to take a detour on windy, steep roads.	Yes. Traffic can use two lanes for more efficient travel. Use of a detour is avoided by removal of weight limit.
Serves needs of first responders, through travelers, and residents of the nearby community	No. Vehicles over 7 tons (e.g., school buses and fire trucks) are currently restricted from using the bridge, and all vehicles will be restricted when the bridge is closed in the future. They will have to use a long detour on windy, steep roads.	Yes. All first responder vehicles can use the bridge.

WHY ARE FHWA AND WVDOH RECOMMENDING THE PREFERRED ALTERNATIVE?

FHWA and WVDOH are recommending Preferred Alternative 2C only after careful consideration of a range of alternatives and of comments received from the public and resource agencies during project outreach. The analysis leading to the selection of Preferred Alternative 2C is summarized below, and Appendix C provides a complete analysis of all the alternatives developed for the project.

For improving conditions of the AGSM Bridge crossing, WVDOH developed nine preliminary Build Alternatives, each with the same general typical section (Figure 3). Each of the Build Alternatives was presented at a public scoping meeting in the project area held on May 16, 2013. Comments received prior to and after that meeting were considered in the selection of Preferred Alternative 2C.

It is noteworthy that a relatively large number of comments were received in opposition to Alternative 2C (173 commenters). Responses to comments are discussed in more detail later in this EA. However, those comments, submitted on one of three similar form letters, summarized their concern by stating Alternative 2C posed a poor alternative “by creating an unsafe roadway, by destroying mussel habitat, the river habitat and displacing a long term resident.” However, as detailed in the Alternatives Analysis (Appendix C), Preferred Alternative 2C:

- provides a direct crossing of the river in line with the existing roadway;
- has the least amount of impact on the mussels and river habitat; and
- does not displace any residences.

Figure 5 Views within the project area



Top: Burke Memorial United Methodist Church, which is a community resource but not a historic property, within the Project Area.

Bottom: View of bridge along Camp Creek Rd (CR 4/5) from southeast. The Preferred Alternative will impact the lawn to the left.

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As explained below, the principle factors in development of alternatives and selection of a Preferred Alternative for this project are:

- impacts to the floodplain;
- impacts to residences; and
- impacts to mussels and mussel habitat.

Floodplain: The neighborhood of Camp Creek lies within the 100-year floodplain Figure 6. Any alternative carried forward had to be assured of not increasing the 100-year elevation. Hydraulic and hydrologic analyses were conducted on various alternatives to eliminate such alternatives as a single-span bridge and other potential span arrangements (Appendix C). Preferred Alternative 2C will not increase the base flood elevation.

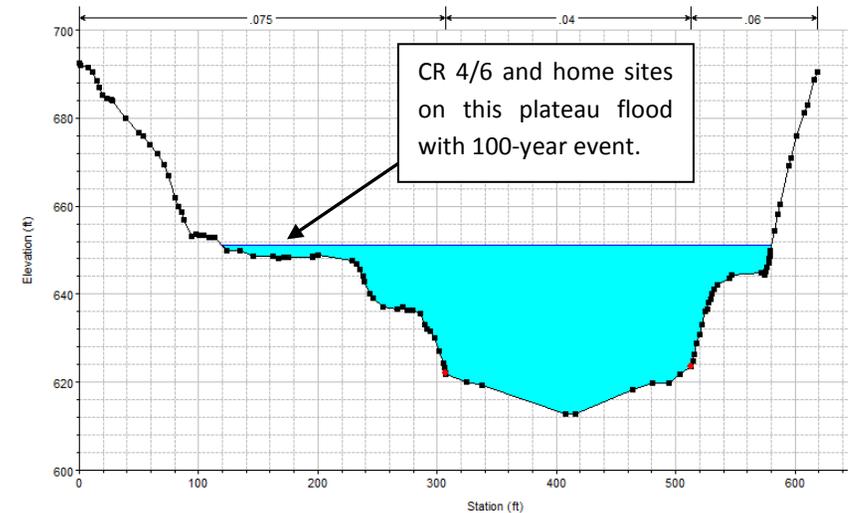
Residences: WVDOT prefers to avoid relocating residences. Particularly in small, condensed neighborhoods, any relocation could have a substantial effect on the community. With Preferred Alternative 2C, impact to residential property is limited to a 0.26-acre, narrow strip of vacant ROW across two driveways and a front lawn. This area is shown within the red boundary, on the left side of the Preferred Alternative 2C outline in Figure 4 and in the second photo in Figure 5.

Mussels: A Federally listed endangered species of mussel is known to inhabit the Elk River in the vicinity of the project, and there is possibility that more endangered species of mussels could live in the high quality habitat found in the vicinity. Consequently, the alternatives analysis has included extensive consultation with USFWS.

The Endangered Species Act (ESA) requires the action agency (in this case FHWA) to further the goal of conserving Federally listed endangered and threatened species. For this project, these efforts include incorporating measures to

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Figure 6 Sensitive issues in project area



Top: Cross section of the Project Area valley in a 100-year flood condition, showing inundated Scenic River Road (CR 4/6).

Bottom: Pink mucket mussel (*Lampsilis abrupta*), found in the Project Area (Photo by EnviroScience biological resource specialist).

minimize the “take”¹ of mussels. Because take of an endangered species cannot be avoided with any of the project’s alternatives, FHWA and WVDOH have entered into formal consultation with the USFWS. As detailed in Appendix C, the alternatives analysis for this project concluded that Preferred Alternative 2C results in the least amount of river and mussel habitat disturbance, as well as the least amount of endangered species take. USFWS concurred with this finding in their letter dated May 19, 2014 (Appendix B). Therefore, the alternative carried forward in this EA along with the No Build Alternative is Preferred Alternative 2C.

WHAT ARE THE IMPACTS ASSOCIATED WITH THE NO BUILD ALTERNATIVE AND THE PREFERRED ALTERNATIVE?

The No Build Alternative and Preferred Alternative 2C have been evaluated for impacts to various resources present within the project area. Table 2 provides a summary of impacts to these resources for the No Build Alternative and Preferred Alternative 2C. For more detailed information on the impacts, see the corresponding technical documentation in the appendices. In this table, direct and indirect effects are described as applicable.²

Table 2. Environmental Impacts of the No Build Alternative and the Preferred Alternative

Resource	Context	No Build Alternative	Preferred Alternative 2C	Mitigation No. in Table 3
Land Use	The project area encompasses areas on both sides of the Elk River, with only transportation land use on the northwest side and a rural residential neighborhood on the southeast side.	No direct changes. When the bridge is closed in the future, the roadway approaches will be blocked off from use for transportation.	Approximately 0.26 acre will be permanently converted from residential to transportation land use. Additionally, approximately 0.16 acre of residential land will be temporarily used during construction. Because of the small scale and remote location of this project, no indirect development is anticipated with this project. Also, no suitable vacant land is available adjacent to the improved bridge.	See “Right-of-way” for addressing transfer of property.

¹ The United States Code (USC) defines “take” in the context of listed species as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” 16 USC 1532(19)

² As defined in the Code of Federal Regulations (CFR), direct effects are caused by the action and occur at the same time and place, and indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. 40 CFR § 1508.8

Resource	Context	No Build Alternative	Preferred Alternative 2C	Mitigation No. in Table 3
Transportation Resources	The existing bridge condition limits travel across the Elk River in this location. Only one lane of traffic may cross at a time, and vehicles greater than 3 tons must use an approximately 16-mile detour to cross to the other side of the river in this location.	The bridge will be closed for safety reasons in the future and all traffic will be required to use the detour, including emergency vehicles, school buses and commuters.	Improved safety and transportation resources through the upgrade of the road to having two lanes and no weight restriction. The new bridge includes two 5-ft shoulders that will offer a safer crossing of the river for pedestrians and bicyclists as well as vehicles. Traffic will be maintained throughout construction except for one full day closure and brief closures from time to time for safety reasons. At other times, before the project is complete, the new bridge will be temporarily restricted to one-lane of travel.	1
Right-of-Way	Lands in the project area are already within ROW or overlap the Elk River and private residential properties.	No impact.	No relocations are required. Approximately 0.26 acre of land acquisition is required across two residential properties along the southwestern side of the new bridge approach road (CR 4/5). To reattach a driveway, 0.02 acre is required of one property, and to realign/widen CR 4/5, a 0.24-acre strip of land will be acquired from the 1.5-acre property closest to the river (Figure 4 and Figure 5).	2
Floodways & Floodplains	According to Federal Emergency Management Agency (FEMA) mapping, the project lies within floodplain of the Elk River designated as Zone AE, which are areas for which base flood elevations have been determined. Because of potential for flooding in the project area, detailed	No impact.	No impact. The river crossing will be designed so as to ensure no increase in the flood elevation.	NA

Resource	Context	No Build Alternative	Preferred Alternative 2C	Mitigation No. in Table 3
	hydraulic/hydrologic analyses were conducted as part of the alternatives development.			
Water Quality	The project crosses the Elk River. The Elk River is a 172-mile tributary of the Kanawha River, which drains into the Ohio River. It drains an area of 565 square miles. The Elk River has a Total Maximum Daily Load (TMDL) established for fecal coliform and iron. ³	No impact.	Construction will temporarily affect sedimentation in the river; however, no substantial water quality impacts are anticipated.	3
Wetlands/Waters of the US	A field review of the project area for waters of the U.S. was undertaken and the project area was found to contain no streams or wetlands other than the Elk River itself.	No impact.	<p>The project requires work within the Elk River. Preferred Alternative 2C will remove two deteriorating bridge piers and replace them. One of the new piers will be relocated above the ordinary high water mark. The other pier will permanently impact approximately 78 square feet, or less than 0.002 acre, of the streambed. Approximately 60 square feet of new riverbed area will be exposed upon removal of the two existing piers.</p> <p>For construction and demolition of the existing bridge, temporary causeways will be constructed in the river. Their impacts total 0.130 acre in the riverbed.</p>	4

³ WV Department of Environmental Protection (WVDEP). 2012. 2012 Final West Virginia Integrated Water Quality Monitoring and Assessment Report. Available through www.dep.wv.gov. A TMDL is designed to restore and maintain a waterbody's designated uses.

Resource	Context	No Build Alternative	Preferred Alternative 2C	Mitigation No. in Table 3
Fish & Wildlife	<p>Primarily, the project area consists of existing transportation ROW and a portion of the Elk River.</p> <p>The WVDNR was consulted early in the alternatives development process, and the agency expressed concern for impact to mussels.</p>	<p>No direct impact. Indirectly, this alternative will impact the habitat in the river, such as fish breeding ground and mussel beds, because the bridge will gradually or catastrophically fall into the river.</p>	<p>No substantial impact to upland species or habitat; approximately 0.26 of new ROW is required for the project, and land cover in this area is residential driveways/walkways and lawn.</p> <p>Fish breeding ground in the project vicinity will experience temporary direct and indirect effect from the causeways used for construction and demolition and from the associated temporary ponding, sedimentation and scour.</p> <p>The project will affect mussel s, including those not Federally listed as threatened and endangered. Impacts to all mussels are addressed through avoidance, minimization, and mitigation measures detailed for the threatened and endangered species (next resource).</p>	5
Threatened/ Endangered Species	<p>One Federally listed endangered species has been found in the project area. A Biological Assessment and West Virginia Coordination Document was prepared for five (5) mussel species and one fish species. Formal consultation with the USFWS is ongoing and will be completed before a final decision is rendered by FHWA and WVDOH.</p>	<p>No direct impact. Indirectly, this alternative will impact habitat for Federally listed mussel species in the Elk River because the bridge will gradually or catastrophically fall into the river.</p>	<p>Temporary direct impact to suitable habitat will be approximately 2,180 square feet (0.05 acre). Preferred Alternative 2C results in the least amount of impact to the mussels and mussel habitat among the project alternatives. USFWS concurred with this finding in their letter dated May 19, 2014 (Appendix B).</p> <p>Temporary indirect effects from ponding, sedimentation and scour to adjacent mussel populations and suitable habitats may occur during construction.</p> <p>Overall, the project may affect and is likely to adversely affect Federally listed mussel species, including: Pink Mucket, Clubshell, Rayed Bean, Northern Riffleshell, and Snuffbox. The project</p>	6

Resource	Context	No Build Alternative	Preferred Alternative 2C	Mitigation No. in Table 3
			may affect and is not likely to adversely affect the Diamond Darter and its Designated Critical Habitat. Formal consultation with the USFWS is ongoing and will be completed before a final decision is rendered by FHWA and WVDOH.	
Historic and Archaeological Resources	Consultation was undertaken with the State Historic Preservation Office (SHPO). A Determination of Eligibility Report and a Phase I Archaeological Survey Report were prepared for the respective Areas of Potential Effect (APEs). The APEs contain no historic properties and no archaeological sites.	No impact.	No impact will occur to properties listed in or eligible for listing in the National Register of Historic Places, and no further investigation is necessary. The SHPO concurred with these findings in letters dated September 5 th and 24 th , 2014 (Appendix D).	7
SocioEconomics	From the Camp Creek neighborhood, the closest post offices and schools and quickest access to the Interstate system are via WV 4, on the other side of the bridge.	No direct impact. Indirectly, this alternative will impact the community to the southeast because the bridge will be closed for safety reasons in the future. The community will be more isolated and will have more difficulty conducting social and economic activities.	The removal of the bridge’s weight restriction will allow the community to maintain close connection to WV 4. The new bridge will allow improved access by trucks, buses, and emergency vehicles because the weight restriction will be removed.	NA
Environmental Justice	Impacts to environmental justice populations in the project area are unlikely, although potential exists for impact to a minority or low-income individual. WVDOH is affording multiple avenues and opportunities for learning about the	No direct impact. Indirectly, in the future this alternative may hinder access to jobs for low income residents in the region.	No impact. The most adverse impacts associated with the project are to the riverbed and to one property owner. This property owner will not be displaced and access to the roadway network will not be changed.	NA

Resource	Context	No Build Alternative	Preferred Alternative 2C	Mitigation No. in Table 3
	project and submitting comments. See Appendix E for further analysis.			
Parks/Recreational Resources	There are no designated parks in the project area. The Elk river may be used for recreation, primarily for fishing and possibly for small watercraft (e.g., canoe or kayak).	No direct impact. Indirectly, in the future, because of the bridge’s deterioration, this alternative will pose a hazard to recreational users of the river below the bridge and to potential pedestrians who use the bridge despite its closure.	No permanent or direct impact. There will be temporary impact to use of the river in the vicinity of the project during construction.	8
Air Quality	Clay County is in attainment for air quality standards.	No impact.	There will be temporary air quality impacts associated with dust and equipment emissions from construction.	9
Noise	The project area lies within a generally quiet, rural setting.	No impact. Indirectly, in the future, when the bridge is closed, there will be less traffic noise in the Camp Creek neighborhood.	No impact. See Appendix F for full analysis.	10
Visual Resources/ Aesthetics	The bridge can be viewed by travelers on the area roadways and the small neighborhood adjacent to the project area. The view from the bridge is of the Elk River, WV 4 and a small neighborhood with a church.	No impact. Indirectly, in the future, with bridge closure and/or collapse, the view of the Elk River from the bridge’s vantage point will be gone.	Minor and variable impact, depending on the viewer. The view of the bridge will change to one of a more open and wider structure from one of the older, narrower truss structure. The view from the bridge will remain, but will be improved by the elimination of the truss (steel structure above the decking) in the bridge design.	NA

Resource	Context	No Build Alternative	Preferred Alternative 2C	Mitigation No. in Table 3
Hazardous Materials/Utilities	<p>No hazardous materials sites are known in the project area.</p> <p>No utility lines currently cross the river with the bridge. Utility lines exist along the project area roadways.</p> <p>See Appendix G for more details.</p>	No impact.	No impact anticipated to the project from hazardous materials. Two utility poles require relocation.	11
Cumulative Impacts ⁴	For each resource experiencing impact from the proposed project, a cumulative effects region was considered for impact by other projects within defined temporal and spatial study areas. See Appendix H for analysis.	No impact.	No impact.	NA
Section 6(f) ⁵	There are no properties in the project area purchased using the L&WCF.	No impact.	No impact.	NA
Section 4(f) ⁶	The Project Area does not contain property that qualifies as a Section 4(f) resource.	No impact.	No impact.	NA

⁴ Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to the effects of other past, present, and reasonably foreseeable future actions. For a more thorough definition, see Appendix H.

⁵ In accordance with Federal regulations, projects require coordination with the National Park Service for impacts to land acquired using the Federal Land and Water Conservation Fund (L&WCF). 36 CFR 59.3

⁶ Section 4(f) of the Department of Transportation Act of 1966 provides protections to significant publicly-owned public parks, recreation areas, wildlife and waterfowl refuges, and significant historic sites. 49 USC Section 303, 23 CFR Part 774

MITIGATION COMMITMENTS FOR THE PREFERRED ALTERNATIVE

Additional details regarding the methodology and analysis of impacts and mitigations are found in their respective technical memoranda in the appendices.

Table 3. Summary of Impacts and Mitigation for the Preferred Alternative

#	Mitigation Category	Impact	Mitigation Commitment From Source Document	Responsible Branch	Timing/Phase that Mitigation will be Implemented
1	Transportation Resources	Temporary disruption to traffic during construction.	<p>A maintenance of traffic plan will be developed and implemented during construction to assure both motorist and construction worker safety. This plan will be developed using guidelines of FHWA, the American Association of State Highway and Transportation Officials, and WVDOT. When possible, instead of complete bridge closure, a single lane will be open on the new bridge during demolition of the existing bridge.</p> <p>The bridge is designed to allow future rehabilitations without requiring bridge closure.</p>	WVDOT	Construction
2	Right-of-Way	Across two different residential properties, a total of 0.26 ac of ROW acquisition is required.	Acquisition and relocation will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended.	WVDOT ROW Division.	Prior to and during construction.
3	Water Quality	Temporary effects from construction activities.	<p>Best Management Practices (BMPs) will be used to control sedimentation and erosion and protect water quality. Runoff from the bridge will be diverted into a vegetative swale prior to being drained to the river. Removal of vegetation from the riparian zone will be kept to the minimum and all disturbed areas will be reseeded with native vegetation.</p> <p>The bridge piers and causeways for construction have been placed to avoid and minimize direct and indirect impacts to the river. Demolition of the old bridge will employ the new bridge to avoid dropping the middle span into the river.</p> <p>The bridge is designed to allow future rehabilitations of the</p>	WVDOT and Contractor	Construction

#	Mitigation Category	Impact	Mitigation Commitment From Source Document	Responsible Branch	Timing/Phase that Mitigation will be Implemented
			<p>bridge to be conducted top down in order to avoid impacting the river.</p> <p>Other BMPs have been drafted for consultation with the USFWS and can be found in Appendix I.</p>		
4	Waters of the US	0.130 acre of area filled temporarily as part of construction/demolition activities.	Mitigation for the temporary impact will be resolved in coordination with the US Corps of Engineers as part of the Clean Water Act permitting process. See also measures listed for #3.	WVDOT	Prior to disturbance activity.
5	Fish and Wildlife	Disturbance in the river could harm aquatic species and their habitat.	In-stream work will only take place outside the period when fish spawn in the river (April 1st-June 30 th). Measures to reduce water quality impacts and endangered species impacts will also reduce impacts to fish (see #s 3 and 6).	WVDOT and Contractor	Prior to and during construction.
6	Threatened/Endangered Species	Impacts to the river bed, including mussel beds, during construction and demolition of the old bridge.	<p>Avoidance and minimization measures have been an on-going priority with project development. For unavoidable impacts, agreements have been drafted and are being finalized with the USFWS. See Appendix B for correspondence and Appendix I for a draft list of measures being implemented on this project to protect the listed species and their habitat.</p> <p>The bridge piers and causeways for construction have been placed to minimize and avoid direct and indirect impacts to the streambed and known mussel beds in particular. Demolition of the old bridge will employ the new bridge to avoid dropping the middle span into the river. The bridge is designed to allow future rehabilitations of the bridge to be conducted top down in order to avoid impacting the river. Runoff from the bridge will be diverted into a vegetative swale prior to being drained to the river. Habitat and depth monitoring will continue for a year following construction.</p>	WVDOT and Contractor	Prior to and during construction.

#	Mitigation Category	Impact	Mitigation Commitment From Source Document	Responsible Branch	Timing/Phase that Mitigation will be Implemented
			<p>A Mussel Salvage Plan will be implemented and any take will be monitored and reported. Salvage will occur during late summer/early fall before construction to assure the best water conditions (low flow and good clarity). WVDOH will provide funding to the WVDNR to aid in repopulation efforts.</p> <p>Contractors will be educated about the environmental commitments and the nature of the mussel resources.</p> <p>See Appendix I for more description of these measures.</p>		
7	Archaeological Resources	No impact anticipated; however contingencies are in place for unforeseen circumstances.	If any unanticipated discoveries are encountered during project implementation, work will be suspended in the area of the discovery until the WVDOH has developed and implemented an appropriate treatment plan in consultation with the WVSHPO pursuant to 36 CFR 800.13(b).	WVDOT	During construction.
8	Parks and Recreation	Disturbance in river could interrupt recreation in the river.	Signage will be used to notify potential anglers and recreational boaters upstream of the project area.	WVDOT	Construction
9	Air Quality	Temporary construction impact.	Air pollution control measures will be included with the project in accordance with the WVDOT's Standard Specifications for Road and Bridge Construction, and applicable regulations of the West Virginia Air Pollution Control Commission.	WVDOT and Contractor	Construction
10	Noise	No permanent impact, as defined in Noise Analysis report. Temporary impact from construction noise.	Control of construction noise will be governed by WVDOT's Standard Specifications for Road and Bridge Construction	WVDOT and Contractor	Construction
11	Hazardous Materials/ Utilities	<p>No impact from hazardous materials anticipated; however contingencies are in place for unforeseen circumstances.</p> <p>Two utility poles will be relocated.</p>	Should hazardous materials be encountered prior to or during the construction phase, any identified waste will be managed according to applicable federal and state laws, ordinances, and regulations. Proper worker and environmental safety protocols will be followed.	WVDOT	Prior to and during construction.

ADDITIONAL CLEARANCES REQUIRED FOR THIS PROJECT

The following clearances are required before project implementation:

- This project requires completion of Formal Consultation with USFWS prior to finalization of the environmental decision document. USFWS is expected to provide a written Biological Opinion and incidental take statement for the project by April 1st, 2015.
- This project requires authorization from the WVDNR for the salvage and relocation of listed and non-listed mussels, which is required to reduce harm to these animals during project activities.

PERMITS REQUIRED FOR THIS PROJECT

The following permits are likely to be required prior to construction, but this list may change during and after final design:

- Clean Water Act (CWA) Section 404 Permit from the U.S. Corps of Engineers.
- CWA Section 401 Certification from the WV Department of Environmental Protection.
- National Pollutant Discharge Elimination System (CWA Section 402) Permit.

OUTREACH AND OPPORTUNITIES FOR STAKEHOLDER PARTICIPATION

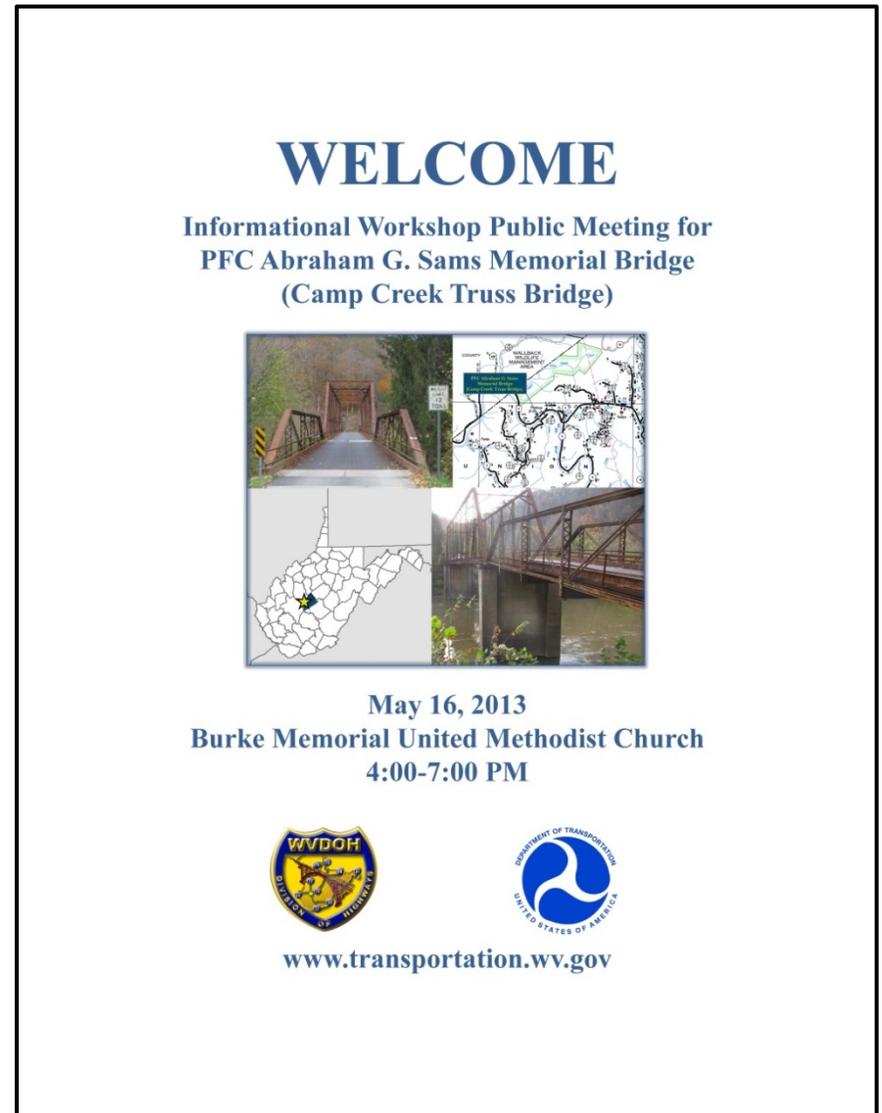
After development of preliminary alternatives and prior to preparation of this EA, an informational public workshop was held within the project area to afford the public an opportunity to view exhibits of the alternatives, ask questions, and provide feedback. The workshop was held at the Burke Memorial United Methodist Church in Prociuous, WV, within a quarter mile of the bridge. Comments could be submitted at the meeting, or through postal mail, email, or the WVDOH website. All these methods were described at the meeting, in the handout provided at the meeting, the cover for which is shown in Figure 7, and on the WVDOH website. A summary of the meeting is provided in Appendix J.

A total of 193 forms, letters, and emails were sent to WVDOH. Responses to comments are provided in Appendix J.

Coordination and consultation will be on-going through completion of the alternative selection process, final design, and construction, as appropriate. A public hearing will be held after approval of this EA, with WVDOH, its consultants, and FHWA personnel available to answer questions.

The public hearing will be held at the H.E. White Elementary School in Bomont, WV on February 26, 2015 from 4:00 PM to 7:00 PM, with a presentation beginning at 6:00 PM. A comment period will extend for at least 30 days after the hearing. Instructions for submitting comments can be found in the introductory pages of this EA and at the engineering project website, accessible through links provided here:
<http://go.wv.gov/dotcomment>.

Figure 7 Cover of May 2013 Public Meeting handout



DISTRIBUTION OF THE ENVIRONMENTAL ASSESSMENT

The following agencies and government representatives have been mailed a copy of this EA prior to the public hearing date:

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Senator Douglas Facemire

Room 213W, Building 1

State Capitol Complex

Charleston, WV 25305

Senator Mike Romano

Room 441M, Building 1

State Capitol Complex

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Delegate Roger Hanshaw

Room 229E, Building 1

State Capitol Complex

Charleston, WV 25305

APPENDICES

APPENDIX A - 2012 BRIDGE INSPECTION REPORT

APPENDIX B - USFWS AND WVDNR CORRESPONDENCE LETTERS

APPENDIX C - DETAILED ALTERNATIVES ANALYSIS

APPENDIX D - SHPO CORRESPONDENCE LETTERS

APPENDIX E - ENVIRONMENTAL JUSTICE ANALYSIS

APPENDIX F - NOISE EFFECTS ANALYSIS

APPENDIX G - HAZARDOUS MATERIALS REVIEW

APPENDIX H - INDIRECT AND CUMULATIVE EFFECTS ANALYSIS

APPENDIX I - DRAFT MITIGATION MEASURES FROM FORMAL CONSULTATION PROCESS FOR IMPACTS TO ENDANGERED SPECIES

APPENDIX J - SUMMARY OF MAY 2013 PUBLIC INFORMATIONAL WORKSHOP AND COMMENT RESPONSES