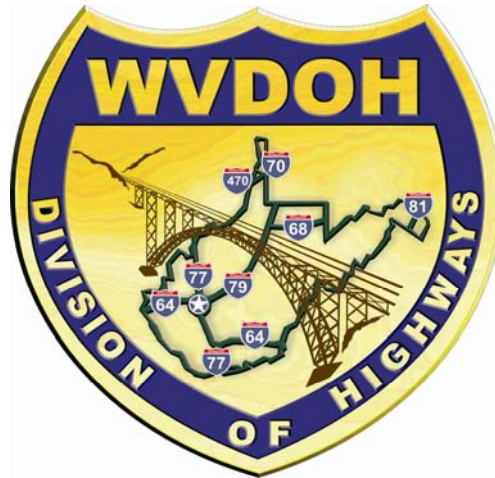


Informational Workshop Public Meeting

Kanawha Falls Bridge Project



**WV Department of Transportation
Division of Highways
in Cooperation with the
Federal Highway Administration**

**State Project S310-13-0.02 00
Federal Project BR-0013(028) E**

**Falls View WVDOH Substation
Fayette County
Tuesday, January 31, 2012**



The existing Kanawha Falls Bridge (Fayette County Route 13) is on the list of historic bridges and connects US 60 to the communities of Boonesborough and Kanawha Falls in Fayette County, West Virginia. The bridge was originally operated as a toll facility and was purchased by the WVDOH in 1977, renovated in 1979, and then again in 1999. The bridge carries 2 lanes of traffic, but presently has a thirty ton weight limit posting that permits one truck to cross at a time. The bridge spans a Norfolk Southern Railroad track from the west, the Kanawha River, a CSX Corporation track, and Fayette County Route 13/2 (CR 13/2) from the east. The average daily traffic (ADT) for the year 2005 is 450 vehicles per day and is projected to increase to 550 vehicles per day in 2025.

This project study consists of looking at several alternatives for the replacement or rehabilitation of Kanawha Falls Bridge. There are two upstream and one downstream from the existing Kanawha Falls Bridge location. The other alternatives studied replace the bridge on the existing alignment or rehabilitating the existing structure.

Alternative 1 will provide a new bridge approximately 50' upstream from the existing bridge location. This location spans the Norfolk Southern Railroad, Kanawha River, CSX Railroad, and CR 13/2. Access to the Kanawha Falls/Boonesborough area is similar to the existing access at CR 13. The new bridge is approximately 980' in length. A left turn lane on US 60 will be added to provide access for the new bridge. Traffic will be maintained on the existing bridge while the new bridge is constructed.

Alternative 1A is in the same location as Alternative 1 except the new Kanawha Falls Bridge would be a single span truss over the Kanawha River. All other details are the same as Alternative 1.

Alternative 2 provides a new Kanawha Falls Bridge approximately 2000' upstream from the existing Kanawha Falls Bridge. This location spans the Kanawha River while neither spanning nor crossing either of the two railroad systems. This alternative provides at-grade connections at both US 60 and CR 13/2. The new bridge is approximately 1290' in length. A left turn lane on US 60 will be added to provide access for the new bridge. Traffic is maintained on the existing bridge while the new bridge is constructed.

Alternative 2A is the same as Alternative 2 with the addition of a US 60 bridge spanning the Norfolk Southern Railroad and additional roadway north and south of the proposed Kanawha Falls Bridge. This new bridge spans approximately 750' over the railroad and the additional roadway is approximately 3000' in length. Alternative 2A is no longer being considered due to the extensive costs involved in constructing a second bridge and increased length of roadway.

Alternative 2B is the same as Alternative 2 with the addition of a new US 60 bridge spanning the Norfolk Southern Railroad and additional roadway south of the proposed Kanawha Falls Bridge. This new US 60 bridge is 131' in length, 40' clear width, and replaces the current existing US 60 at-grade railroad crossing. The US 60 design speed used for alternative 2B is 25 mph, similar to the existing roadway. The WVDOH Maintenance Depot #2 facility will need to be relocated to facilitate the construction of alternative 2B. The WVDOH Maintenance Depot is a potential hazardous waste impact. Lane closures of US 60 are necessary in order to construct the new US 60 bridge. CR 13 traffic would be maintained on the existing Kanawha Falls Bridge while the new Kanawha Falls Bridge is constructed.

Alternative 2C is the same as Alternative 2 with the addition of a bridge spanning the Norfolk Southern Railroad and US 60 with additional roadway north and south of the proposed Kanawha Falls Bridge. This new bridge spans approximately 900' over the railroad and the additional roadway length is approximately 2000' in length. Alternative 2C encroaches on an existing park and additional properties. This alternative is no longer being considered due to the extensive costs involved in constructing a second bridge and increased length of roadway.

Alternative 3 provides a new Kanawha Falls Bridge approximately 3400' downstream from the existing Kanawha Falls Bridge. This location provides an at-grade tie-in for US 60 and an at-grade crossing for the Norfolk Southern Railroad. Alternative 3 spans the Kanawha River and CSX Railroad and connect to CR 61/29 at-grade. The new Kanawha Falls Bridge is approximately 830' in length. A left turn lane on US 60 will be added to provide access for the new bridge. Lane closures of US 60 are necessary in order to excavate and lower the road surface nearly 2 feet in the area of the turning lane to achieve the at-grade railroad crossing. CR 13 traffic will be maintained on the existing bridge while the new bridge is constructed.

Alternative 3A provides a new Kanawha Falls Bridge approximately 3400' downstream from the existing bridge at the same location as Alternative 3. This location spans US 60, Norfolk Southern Railroad, Kanawha River and CSX Railroad and connects to CR 61/29 at-grade. This provides an at-grade intersection at US 60. The design speed for the circular bridge approach from US 60 is 25-mph. Lane closures of US 60 are necessary in order to construct tie-in and spanning of US 60. CR 13 traffic will be maintained on the existing Kanawha Falls Bridge while the new Kanawha Falls Bridge is constructed.

Alternative 3B is the same as Alternative 3 with the addition of a new US 60 bridge spanning the Norfolk Southern Railroad. This new bridge is 131' in length, 40' clear width, and replaces the current US 60 at-grade railroad crossing, similar to the bridge proposed in Alternative 2B. Lane closures of US 60 are necessary in order to construct the new US 60 bridge. CR 13 traffic will be maintained on the existing Kanawha Falls Bridge while the new Kanawha Falls Bridge is constructed.

Alternative 3C provides a new Kanawha Falls Bridge approximately 3400' downstream from the existing bridge at the same location as Alternative 3. This location spans US 60 Eastbound, Norfolk Southern Railroad, Kanawha River and CSX Railroad and connects to CR 61/29 at-grade. The new Kanawha Falls Bridge is approximately 940' in length. Two lane traffic will be maintained on US 60, however short term lane closures of US 60 is necessary in order to construct tie-in and spanning of US 60. CR 13 traffic will be maintained on the existing Kanawha Falls Bridge while the new Kanawha Falls Bridge is constructed.

***Preferred Alternative 4** will rehabilitate the existing Kanawha Falls Bridge in the current location. The intersections at each end of the new bridge will be designed for a Single Unit vehicle with 50 foot turning radius. A left turn lane on US 60 will be added to provide access for the rehabilitated bridge.

Rehabilitation of the bridge requires closing the structure to traffic. A temporary bridge is not anticipated for Preferred alternate; therefore traffic is rerouted approximately 18 miles for the duration of the scheduled repairs. The detour routes traffic over CR 61/29, WV 61, WV 6, and US 60. The 3.1 miles of CR 61/29 requires some improvements. This detour was used in 1999 when the partial rehabilitation of the existing structure was completed. There are two closure options. Option I is closure only during summer months, for two summers. Option II is a six to eight month closure time April through December during one year.

Alternative 4A is the total replacement of the existing Kanawha Falls Bridge superstructure, using the existing substructure in the current location. The intersections at each end of the new bridge will be designed for a Single Unit vehicle with 50 foot turning radius.

The new Kanawha Falls Bridge is approximately 994' in length, utilizing the existing river piers and new abutments. The bridge is comprised of three continuous spans of 266.5', 403' and 324.5'. This option was initially considered to minimize impacts to the Kanawha River caused by construction of new substructure units. However, there are several issues with this option. The existing bridge main span of approximately 403' is reaching the limit for steel plate girders. In addition, the relatively short approach span gives a poor span balance which could result in uplift at Abutment 1.

The major concern with this option is a conflict with the railroad clearance envelope for the Norfolk Southern Railroad. With an estimated superstructure depth of 12', the available clearance is approximately 17' over the tracks. Like other options, it was considered to place a simple span over the tracks; however, this reduces the span length from 266.5' to approximately 191.5'. This reduction in span length makes the span ratios worse, resulting in significant uplift at the pier adjacent the tracks. A left turn lane on US 60 will be added to provide access for the rehabilitated Kanawha Falls Bridge.

Replacement of the bridge requires closing it to traffic. A temporary bridge is not anticipated for alternative 4A; therefore traffic is rerouted approximately 18 miles for the duration of the scheduled works. The detour routes traffic over CR 61/29, WV 61, WV 6, and US 60. The 3.1 miles of CR 61/29 requires some improvements. This detour was used in 1999 when the partial rehabilitation of the existing structure was completed.

Alternative 4B is the complete replacement of the existing Kanawha Falls Bridge in the current location. The intersections at each end of the new bridge will be designed for a Single Unit vehicle with 50 foot turning radius.

The new Kanawha Falls Bridge is approximately 980' in length. A left turn lane on US 60 will be added to provide access for the rehabilitated bridge. Replacement of the bridge requires closing it to traffic. A temporary bridge is not anticipated for alternative 4B; therefore traffic will be rerouted approximately 18 miles for the duration of the scheduled repairs. The detour routes traffic over CR 61/29, WV 61, WV 6, and US 60. The 3.1 miles of CR 61/29 requires some improvements. This detour was used in 1999 when the partial rehabilitation of the existing structure was completed.

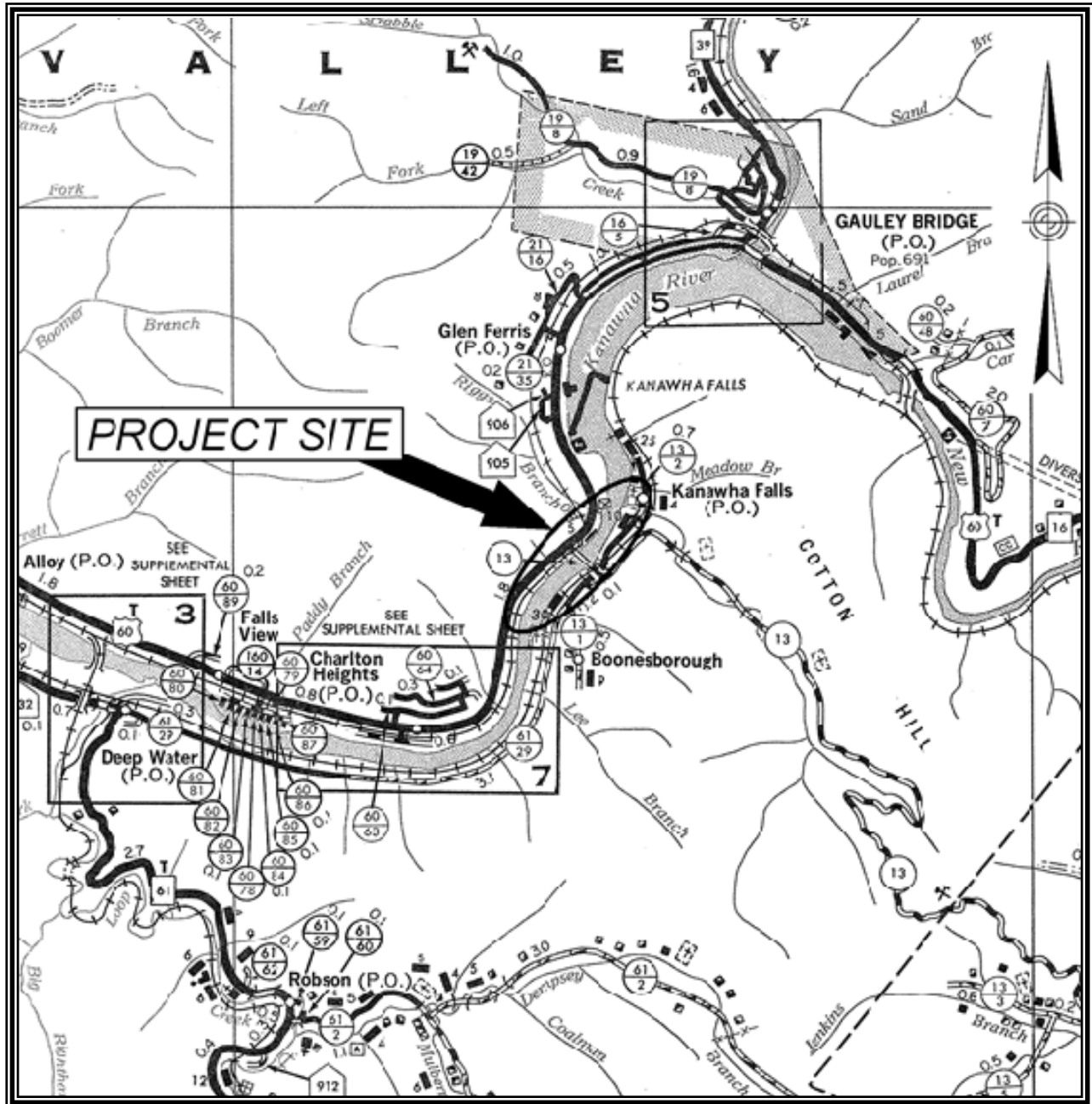
The NO BUILD Option is not feasible with the superstructure and substructure both receiving a poor rating, this No Build option would soon result in the bridge being closed to traffic. With the closing of the bridge, traffic, including emergency services, will be permanently detoured onto CR 61/29, WV 61, WV 6, and US 60. This detour is approximately 18 miles in length. Considering the length and low running speed of the permanent detour, the no build option is not feasible.

The purpose of this informational workshop public meeting is to afford participants an opportunity to ask questions and state their views and opinions on the Kanawha Falls Bridge Project. Highway personnel will be available to answer any questions. **There will be no formal presentation.**

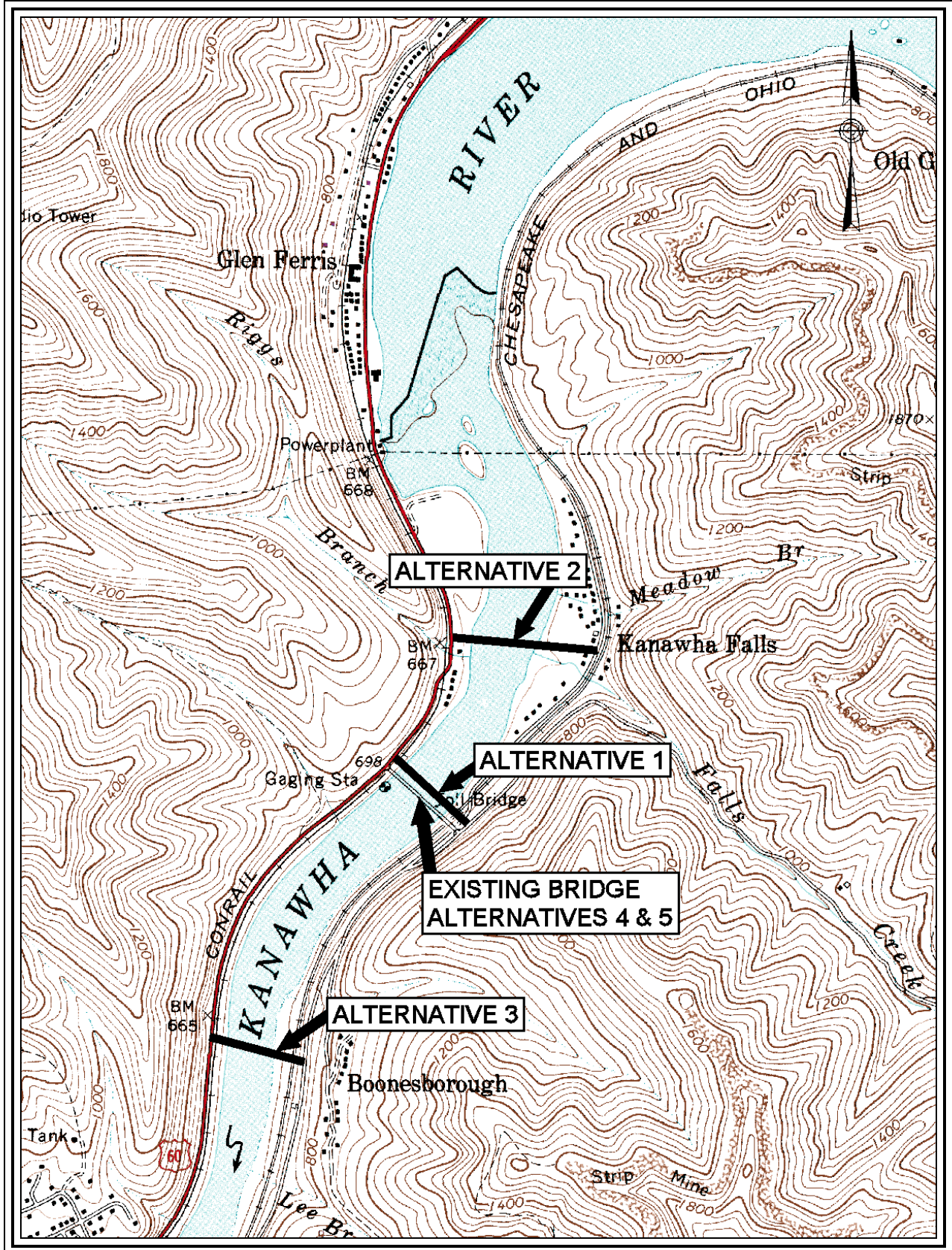
Those wishing to file written comments may send them to Gregory Bailey, P.E., Director, Engineering Division, West Virginia Division of Highways, Capitol Complex Building Five-Room 317, 1900 Kanawha Boulevard East, Charleston, WV 25305-0430 or www.transportation.wv.gov **on or before Wednesday, February 29, 2012.**

HIGHWAY MAP

Kanawha Falls Bridge



Alternatives Map Kanawha Falls Bridge

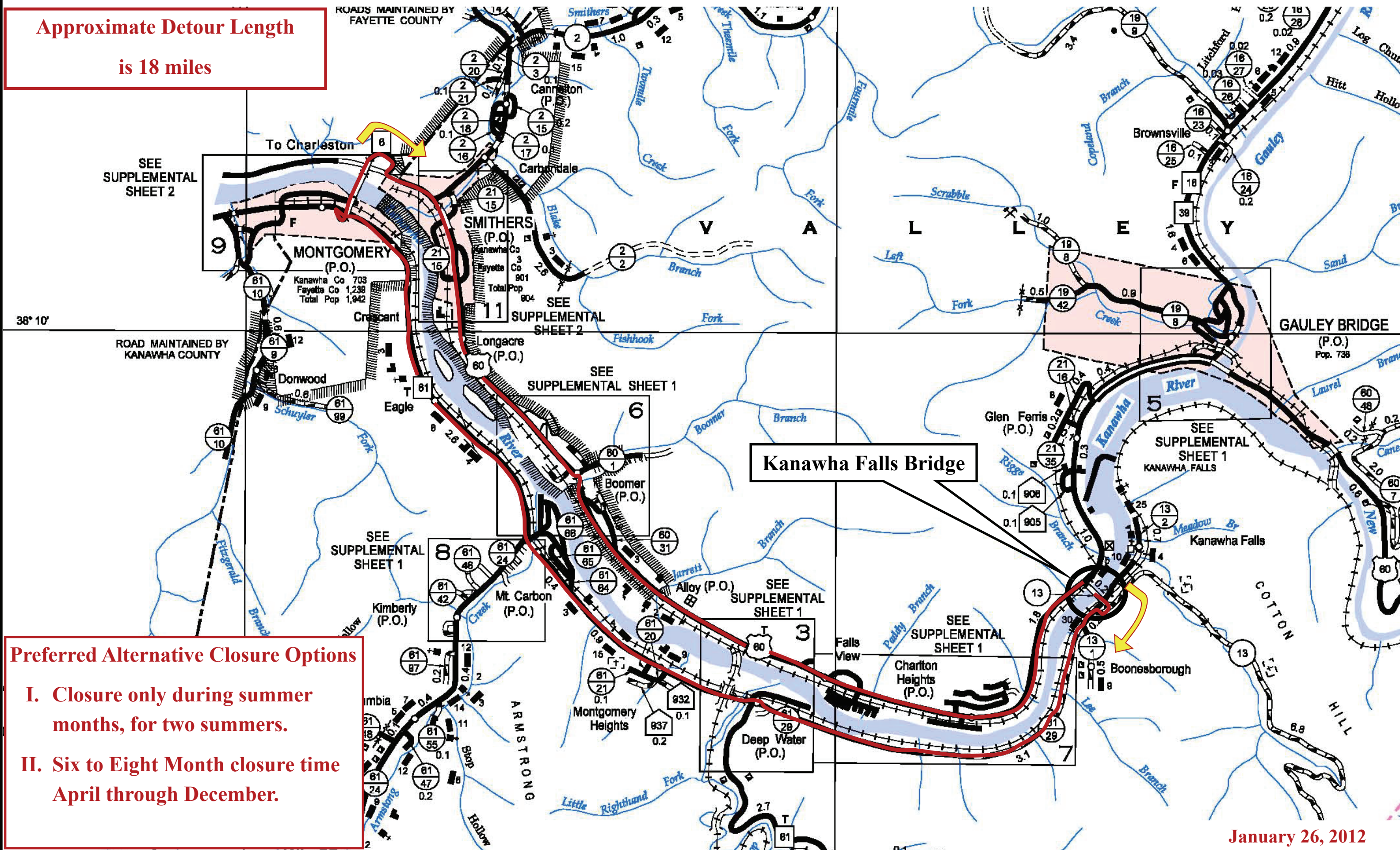


	Alternative 1		Alternative 1A		Alternative 2		Alternative 2B		Alternative 3		Alternative 3A		Alternative 3B		Alternative 3C		Alternative 4*		Alternative 4A		Alternative 4B		No Build Option			
	50 ft Upstream		50 ft Upstream		2000 ft Upstream		2000 ft Upstream		3400 ft Downstream		3400 ft Downstream		3400 ft Downstream		3400 ft Downstream		PREFERRED Rehab Existing Bridge		Replace Superstructure on Existing Alignment		Total Replacement on Existing Alignment		No Build			
	CR 13	US 60	CR 13	US 60	CR 13	US 60	CR 13	US 60	CR 13	US 60	CR 13	US 60	CR 13	US 60	CR 13	US 60	CR 13	US 60	CR 13	US 60	CR 13	US 60	CR 13	US 60		
Railroad Tracks Spanned	2	0	2	0	0	0	0	1	1	0	2	0	1	1	2	0	2	0	2	0	2	0	2	0		
Railroad Crossing At Grade	0	1	0	1	0	1	0	0	1	1	0	1	1	0	1	0	1	0	1	0	1	0	1	0	1	
Residences Displaced	0		0		1		1		0		0		0		0		0		0		0		0			
Probability for Pre-Historic Sites	NO		NO		YES		YES		NO		NO		NO		NO		NO		NO		NO		NO			
Potential Impact to Endangered Species	YES		YES		YES		YES		YES		YES		YES		YES		YES for Scour Protection		YES		YES		YES When Bridge is Demolished			
Potential Hazardous Waste Impacts	NO		NO		NO		YES		NO		NO		YES		NO		NO		NO		NO		NO			
Utilities Impacted	4		4		3		3		2		2		3		2		4		4		4		0			
CR 13 Bridge Length	980 ft		980 ft		1290 ft		1290 ft		830 ft		960 ft		830 ft		940 ft				994 ft		980 ft		-			
US 60 Bridge Length	-		-		-		131 ft		-		-		131 ft		-		-		-		-		-			
Engineering and Construction Cost	\$10,100,000		\$15,600,000		\$12,100,000		\$14,700,000		\$10,700,000		\$12,400,000		\$12,900,000		\$28,500,000		\$14,800,000		\$11,100,000		\$11,500,000		\$750,000 for Bridge DEMO			
Environmental Cost	\$2,000,000		\$2,000,000		\$4,500,000		\$4,500,000		\$2,000,000		\$2,000,000		\$2,000,000		\$2,000,000		\$500,000		\$1,000,000		\$1,000,000		\$1,000,000			
R/W Cost	\$100,000		\$100,000		\$200,000		\$200,000		\$100,000		\$200,000		\$200,000		\$800,000		\$100,000		\$100,000		\$100,000		\$100,000			
Utility Cost	\$2,000,000		\$2,000,000		\$2,000,000		\$2,300,000		\$1,600,000		\$1,600,000		\$1,600,000		\$1,600,000		\$1,700,000		\$1,700,000		\$1,700,000		\$1,700,000			
Total Cost	\$14,200,000		\$19,700,000		\$18,800,000		\$21,700,000		\$14,400,000		\$16,200,000		\$16,700,000		\$32,900,000		\$17,100,000		\$13,900,000		\$14,300,000		\$3,550,000			
Maintenance of Traffic during Construction	On Existing Bridge		On Existing Bridge		On Existing Bridge		On Existing Bridge		On Existing Bridge		On Existing Bridge		On Existing Bridge		On Existing Bridge		On Existing Bridge		Detour Using Existing Routes Approximately 18 miles		Detour Using Existing Routes Approximately 18 miles		Detour Using Existing Routes Approximately 18 miles		Permanent Closure Detour on Existing Routes Approximately 18 miles	
Reason for Not Carrying Forward with Alternative	Impacts to Endangered Species Impacts to Historic Bridge		Impacts to Endangered Species Impacts to Historic Bridge		Large Impact to Historic Site Large Impacts to Endangered Species At Grade Crossings on Both Sides of the River Impacts to Historic Bridge		Large Impact to Historic Site Large Impacts to Endangered Species Impacts to Historic Bridge		Large Impacts to Endangered Species Historic Bridge Requires New at Grade Crossings with Rail Road		Large Impacts to Endangered Species Impacts Historic Bridge		Large Impacts to Endangered Species Impacts Historic Bridge Requires New at Grade Crossings with Rail Road		Large Impacts to Endangered Species Impacts Historic Bridge		PREFERRED Alternative Rehab Existing Bridge Minor Impacts to Endangered Species Preserves the Historic Bridge		Impacts to Endangered Species Impacts to Historic Bridge		Impacts to Endangered Species Impacts to Historic Bridge		Considering the length and low running speed of the permanent detour, the no build option would not be feasible			

*Alternatives 2A and 2C are no longer being considered due to the extensive costs involved in constructing a second bridge and increased length of roadway.

Kanawha Falls Bridge Rehabilitation Detour Map for Maintenance of Traffic During Construction

**Approximate Detour Length
is 18 miles**

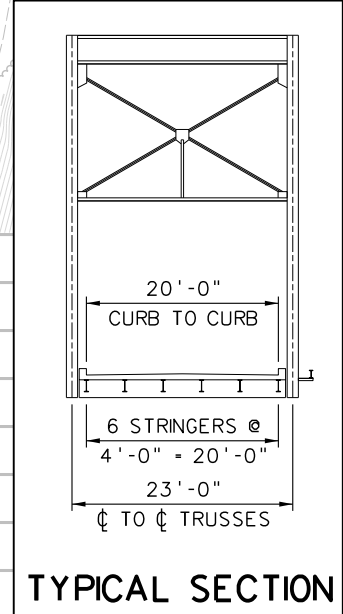
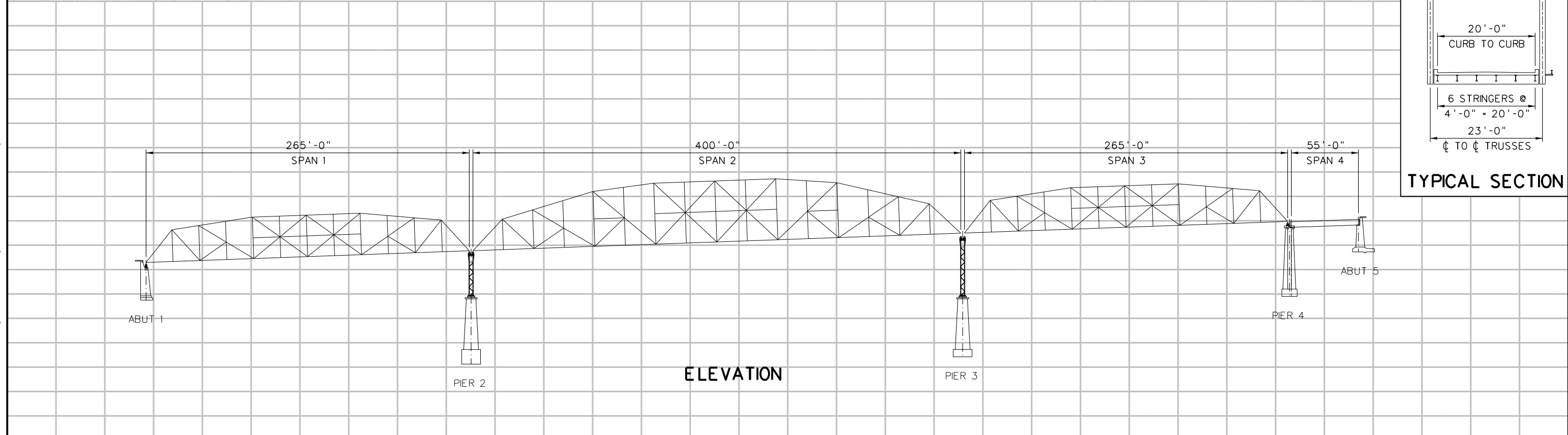
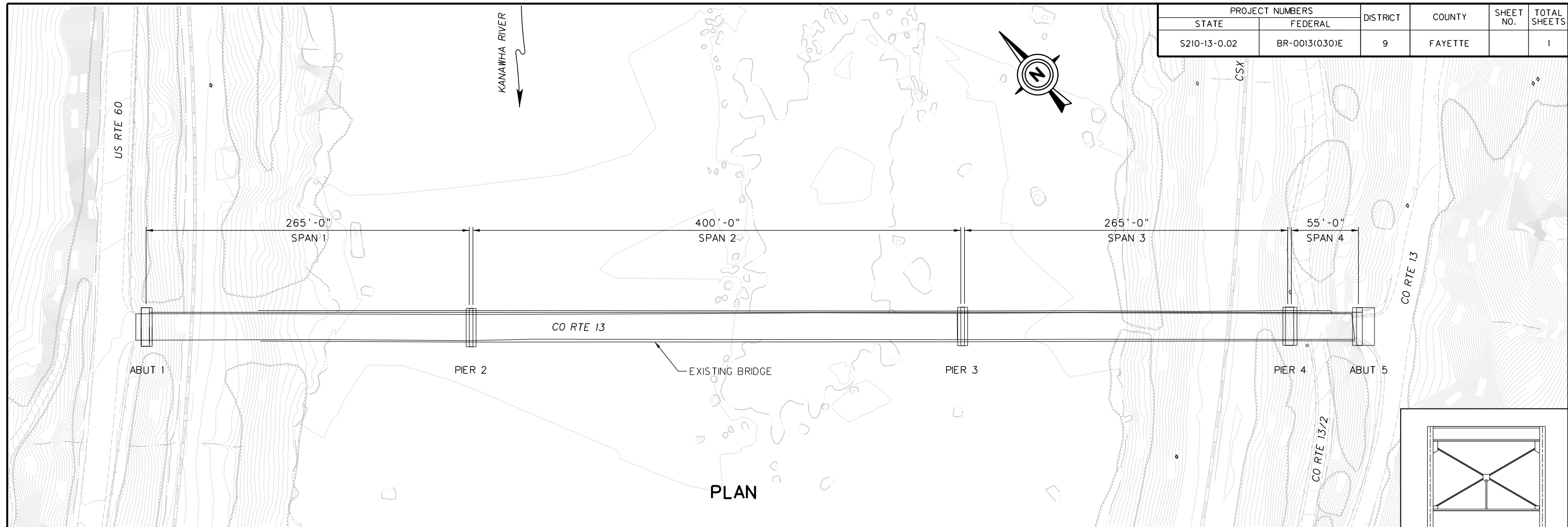


Preferred Alternative Closure Options

- I. Closure only during summer months, for two summers.**
- II. Six to Eight Month closure time April through December.**

01/26/12 01:58:16 PM

PROJECT NUMBERS		DISTRICT	COUNTY	SHEET NO.	TOTAL SHEETS
STATE	FEDERAL				
S210-13-0.02	BR-0013(030)E	9	FAYETTE		1



F:\Trans\WV-462_Kanawha_Falls\Public Meeting\Kanawha Falls GP&E.dgn

NO.	REVISION	DATE	BY	DESIGNED	DRAWN	CHECKED	REVIEWED

WEST VIRGINIA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS



KANAWHA FALLS
BRIDGE

BRIDGE REHABILITATION
OPTION

DESIGN NO.	
BORDER SCALE: 1"=40'	
SHEET	1 OF 1