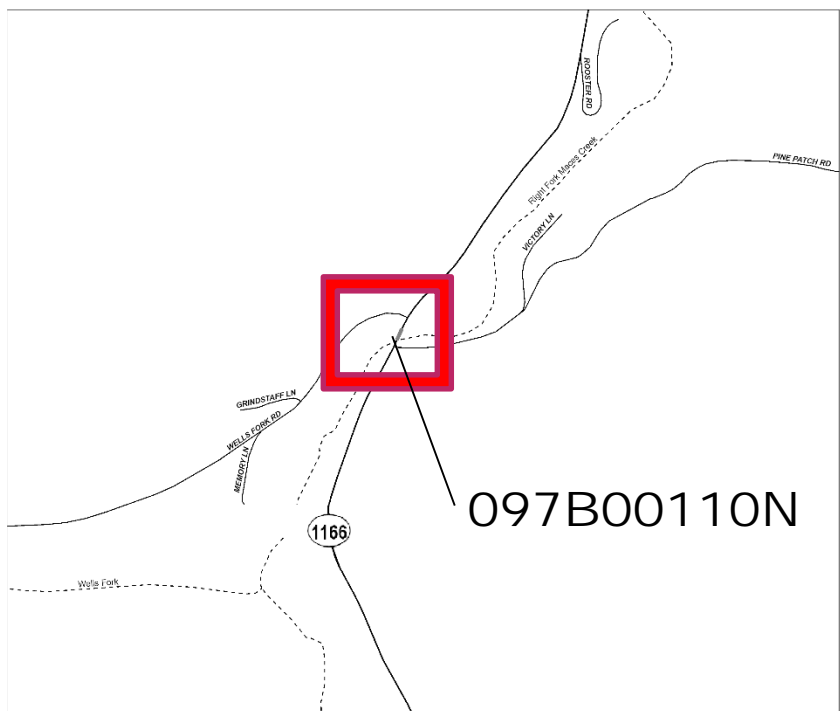
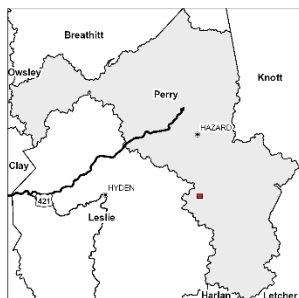
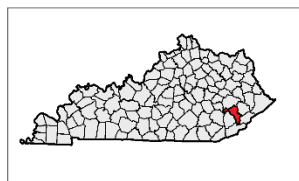


# Data Needs Analysis



## Scoping Study



KY 1166, Perry County  
Bridge Replacement  
Item No. 10-8910.00

Prepared by  
KYTC District 10

June 2016



I. PRELIMINARY PROJECT INFORMATION			
<b>County:</b>	Perry	<b>Item No.:</b>	10-8910
<b>Route Number(s):*</b>	KY 1166	<b>Road Name:</b>	Right Fork of Maces Creek
<b>Program No.:</b>		<b>UPN:</b>	FD52    97    1166    000-001
<b>Federal Project No.:</b>		<b>Type of Work:</b>	Bridge replacement
2016 <b>Highway Plan Project Description:</b>			
REPLACE BRIDGE ON KY-1166 OVER RT. FK. MACES CREEK. SR=26.8			
<b>Beginning MP:</b>	0.6	<b>Ending MP:</b>	0.7
<b>Project Length:</b>	0.1		
<b>In TIP:</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <a href="#">Reconcile Project Information in Clearview</a>		
<b>State Class.:</b>	<input type="checkbox"/> Primary <input checked="" type="checkbox"/> Secondary		
<b>Functional Class.:</b>	<input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural    Collector		
<b>MPO Area:</b>	Not Applicable		
<b>ADT (current):</b>	759    2013		
<b>Access Control:</b>	<input type="checkbox"/> None <input checked="" type="checkbox"/> Permit <input type="checkbox"/> Fully Controlled <input type="checkbox"/> Partial    Spacing:		
<b>Median Type:</b>	<input checked="" type="checkbox"/> Undivided <input type="checkbox"/> Divided (Type):		
<b>Existing Bike Accommodations:</b>	Shared Lane    Ped: <input type="checkbox"/> Sidewalk		
<b>Posted Speed:</b>	<input type="checkbox"/> 35 mph <input type="checkbox"/> 45 mph <input checked="" type="checkbox"/> 55 mph <input type="checkbox"/> Other (Specify):		
<b>KYTC Guidelines Preliminarily Based on :</b>	35 MPH Proposed Design Speed		
<b>COMMON GEOMETRIC</b>			
<b>Roadway Data:</b>	<b>EXISTING</b>	<b>PRACTICES**</b>	
No. of Lanes	2	2	<a href="#">Existing Rdwy. Plans available?</a> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No    Year of Plans:
Lane Width	11	11	
Shoulder Width	0-2	5	
Max. Superelevation***	NA	4%	
Minimum Radius***	NA	420	
Maximum Grade	NA	9%	
Minimum Sight Dist.	NA	250	
Sidewalk Width(urban)	NA	NA	
Clear-zone <sup>†</sup>	NA	18	<input type="checkbox"/> Mapping/Survey Requested    Date Requested:
Project Notes/Design Exceptions?			Proposed Design Speed should be adequate. Exceptions for shoulder width.
<b>Bridge No.:<sup>‡</sup></b>	097B00110N    (Bridge #2)		<a href="#">Existing Geotech Data Available?</a> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No    Detour Length(s): NA
Sufficiency Rating	26.8		
Total Length	32.2		
Width, curb to curb	22		
Span Lengths	30		
Year Built	1975		
Posted Weight Limit	NA		
Structurally Deficient?	Y		
Functionally Obsolete?	Y		
Existing Bridge Type	Single Span Side by Side Box Beam		
*If more than one road is included in the project, include additional sheets. **Based on proposed Design Speed ***AASHTO's A Policy on Geometric Design of Highways and Streets †AASHTO's Roadside Design Guide ‡If more than two bridges are located on the project, include additional sheets.			

## II. PROJECT PURPOSE AND NEED

### A. Legislation

This is a new Project added by the General Assembly into the 2016 Biennial Highway Plan. As listed, only the Design and Right of Way phases are funded in the 2016-2018 Biennial Highway Plan.

<i>Funding</i>	<i>Phase</i>	<i>Year</i>	<i>Amount</i>
BRO	D	2017	\$335,000
BRO	R	2018	\$155,000
BRO	U	2019	\$103,000
BRO	C	2020	\$1,060,000

### B. Project Status

Design Funds are being requested but have not been authorized at this time. There are two other projects located along this roadway. 10-1101 is located approximately 1 mile Northeast of this bridge and is currently under construction. 10-8913 is located at the intersection of KY 1165 and KY 1166 and is also expected to start Design this year.

### C. System Linkage

KY 1166 serves residents of the Right Fork of Maces Creek community. This route connects to the newly constructed section of KY 7 at the Viper Community.

### D. Modal Interrelationships

There are currently no Modal connections in this area. This route once served the coal industry as a haul route.

### E. Social Demands & Economic Development

There are currently no new plans for further commercial or industrial type development in this area. It is anticipated that this route will continue to function as a local residential route.

## II. PROJECT PURPOSE AND NEED (cont.)

### F. Transportation Demand

This section of roadway has a current ADT of 759. The usage demand for this road is expected to stay the same for the foreseeable future.

### G. Capacity

The Volume to Service Flow (V/SF) has not been computed for this roadway. Due to the low volume of traffic, no capacity issues are expected in the future.

### H. Safety

A review of Collision Data since 2010 shows no collisions have occurred at this area. A collision location map is included in the exhibits section below.

### I. Roadway Deficiencies

KY 1166 is a narrow two lane roadway with little to no shoulders. It has numerous substandard horizontal and vertical curves. The bridge is box beam deck two lane structurally deficient structure.

III. PRELIMINARY ENVIRONMENTAL OVERVIEW	
<b>A. Air Quality</b> Project is in: <input type="checkbox"/> Attainment area <input type="checkbox"/> Nonattainment or Maintenance Area <input type="checkbox"/> PM 2.5 County STIP Pg. #: <input type="text"/> TIP Pg. #: <input type="text"/>	
NA	
<b>B. Archeology/Historic Resources</b> <input type="checkbox"/> Known Archeological or Historic Resources are present	
NA	
<b>C. Threatened and Endangered Species</b> Listed: Indiana Bat, Northern Long Eared Bat, Gray Bat, Kentucky Arrow Darter Though blackside dace is not identified by USFWS as occurring within Perry County, it has recently been discovered within this same stream at another KYTC project location.	
<b>D. Hazardous Materials</b> <input type="checkbox"/> Potentially Contaminated Sites are present <input checked="" type="checkbox"/> Potential Bridge or Structure Demolition	
Existing Structure will be removed.	
<b>E. Permitting</b> Check all that may apply: <input checked="" type="checkbox"/> Waters of the US <input type="checkbox"/> MS4 area <input type="checkbox"/> Floodplain Impacts <input type="checkbox"/> Navigable Waters of the US Impacts Are 401/404 Permits likely to be required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Impacts to: <input type="checkbox"/> Wetlands <input checked="" type="checkbox"/> Stream/Lake/Pond <input type="checkbox"/> ACE LON <input checked="" type="checkbox"/> ACE NW <input type="checkbox"/> ACE IP <input type="checkbox"/> DOW IWQC <input type="checkbox"/> Special Use Waters	
<b>F. Noise</b> Are existing or planned noise sensitive receptors adjacent to the proposed project? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is this considered a "Type I Project" according to the <a href="#">KYTC Noise Analysis and Abatement Policy?</a> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>G. Socioeconomic</b> Check all that may apply: <input type="checkbox"/> Low Income/Minority Populations <input type="checkbox"/> Relocations <input type="checkbox"/> Local Land Use Plan available	
NA	
<b>H. Section 4(f) or 6(f) Resources</b> The following are present on the project: <input type="checkbox"/> Section 4(f) Resources <input type="checkbox"/> Section 6(f) Resources	
NA	
Anticipated Environmental Document:	<input type="text" value="CE Level 1"/>

#### IV. PROJECT SCOPING, NEEDS & PURPOSE

##### A. Scoping & Need:

The project Team has identified the following need for this project: **1.** The bridge replacement is needed to ensure a continued linkage for residents of this community to the rest of the highway system. **2.** Continuation of System wide deficient bridge replacements.

During the Project review, the Team realized that this structure and its location virtually mirrors that of a previous bridge replacement. The previous bridge is item #10-1101 and is located approximately 1.5 miles north along KY 1166. The team felt that the method used to design and construct that bridge was also the best fit for this replacement. The project Team recommends using a Part-Width style construction for this project. The current structure is a box beam bridge and is well suited to this type of construction and will not require any diversions to accommodate traffic.

**The Project Team has identified the following issues/concerns that must be considered during the design process:**

- This stream contains the endangered species - Black Sided Dace, thus the construction method must minimize impacts to the stream.
- Traffic Control will probably require the use of Temporary Traffic Signals.
- Slight re-alignment of the new bridge to better fit the roadway geometry should be considered.

**After reviewing the available data it is recommended that the Part Width Construction Alternative be moved forward to Design.**

##### B. Draft Project Purpose:

Purpose: The purpose of this project is to replace a Structurally deficient bridge to ensure a continued linkage for residents of this community to the highway system.

V. PROJECT ESTIMATE & METHODOLOGY	
Estimate Methodology:	Current Estimate
This estimate is based upon utilizing a part-width construction method. The structure and work to replace it is assumed to be the same as the bridge that is currently under construction 2 miles East of this project.	Phase <u>Estimate</u>
	Planning
	Design \$ 335,000.00
	R/W \$ 50,000.00
	Utilities \$ 25,000.00
	Const \$ 1,000,000.00
	<b>Total \$ 1,410,000.00</b>
VI. UTILITIES POTENTIALLY AFFECTED - CONTACT INFORMATION	
Company Name -	Hazard Utilities
Contact -	Bobby Holland
Address -	700 Main Street, Hazard, KY 41701
Phone No. -	606-436-3171
Company Name -	TVS Cable
Contact -	Kenny Salmons
Address -	PO Box 1410, Hindman, KY 41822
Phone No. -	606-785-3450
Company Name -	Kentucky Power
Contact -	Glen Combs
Address -	1400 East Main Street, Hazard KY 41701
Phone No. -	606-864-2363
Company Name -	Windstream
Contact -	Gary Lady
Address -	719 North Main Street, London, KY 40741
Phone No. -	606-878-3260
Company Name -	
Contact -	
Address -	
Phone No. -	
Company Name -	
Contact -	
Address -	
Phone No. -	



**VII. TABLES AND EXHIBITS**





VII. TABLES AND EXHIBITS (cont.)



VII. TABLES AND EXHIBITS (cont.)

