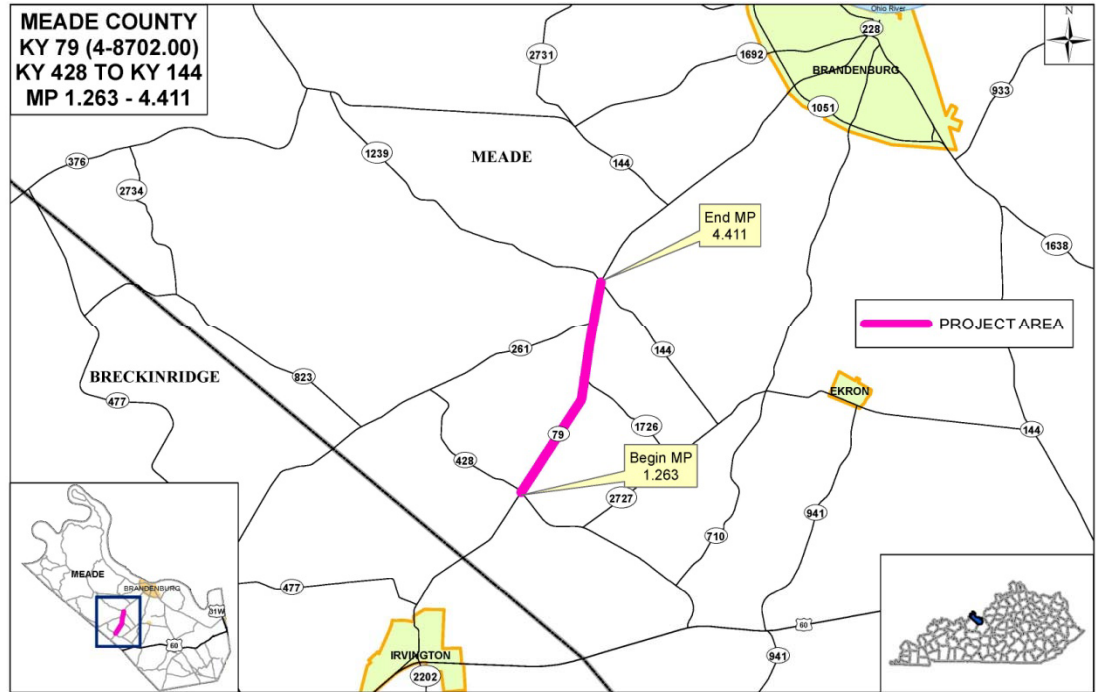


**D**ata

**N**eeds

**A**nalysis



## Scoping Study



KY 79, Meade County  
Brandenburg-Irvington Rd  
Reconstruction

From KY 428 to KY 144  
Item No. 4-8702.00

Prepared by KYTC  
District 4-Charlie Allen

August 2015



**I. PRELIMINARY PROJECT INFORMATION**

<b>County:</b>	Meade	<b>Item No.:</b>	4-8702.00
<b>Route Number(s):*</b>	KY 79	<b>Road Name:</b>	Brandenburg-Irvington Rd
<b>Program No.:</b>	906820	<b>UPN:</b>	FD04 082 0079 001-005
<b>Federal Project No.:</b>	N/A	<b>Type of Work:</b>	Reconstruction

2014 **Highway Plan Project Description:**

RECONSTRUCT KY 79 FROM KY 428 TO KY 144.

<b>Beginning MP:</b>	1.263	<b>Ending MP:</b>	4.411	<b>Project Length:</b>	3.148
<b>In TIP:</b>	<input type="checkbox"/> Yes <input checked="" 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>Route is on:</b>	<input type="checkbox"/> NHS <input type="checkbox"/> NN <input type="checkbox"/> Ext Wt		
<b>Functional Class.:</b>	<input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural Arterial	<b>Truck Class.:</b>	AAA	<b>% Trucks:</b>	8.5
<b>MPO Area:</b>	Radcliff/Elizabethtown	<b>Terrain:</b>	Rolling		
<b>ADT (current):</b>	<a href="#">2436</a> 2014				
<b>Access Control:</b>	<input type="checkbox"/> None <input checked="" type="checkbox"/> Permit <input type="checkbox"/> Fully Controlled	<input type="checkbox"/> Partial	Spacing: <input type="text"/>		
<b>Median Type:</b>	<input checked="" type="checkbox"/> Undivided <input type="checkbox"/> Divided (Type):				
<b>Existing Bike Accommodations:</b>	Shared Lane	<b>Ped:</b>	<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): <input type="text"/>			
<b>KYTC Guidelines Preliminarily Based on :</b>	55 MPH Proposed Design Speed				

**COMMON GEOMETRIC**

Roadway Data:	EXISTING	PRACTICES**	
No. of Lanes	2	2	<a href="#">Existing Rdwy. Plans available?</a> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Lane Width	9'	12' min	
Shoulder Width	3'	8	Year of Plans: 1930
Max. Superelevation***	Field Measure	6%	<input checked="" type="checkbox"/> <a href="#">Traffic Forecast Requested</a>
Minimum Radius***	820'	1065'	Date Requested: 7/2/2015
Maximum Grade	Field Measure	5%	<input type="checkbox"/> Mapping/Survey Requested
Minimum Sight Dist.	Field Measure	495 ft	Date Requested: <input type="text"/>
Sidewalk Width(urban)	N/A	NA	Type: <input type="text"/>
Clear-zone <sup>†</sup>	30'	30'	

Project Notes/Design Exceptions?

<b>Bridge No.:#</b>	(Bridge #1)	(Bridge #2)	
Sufficiency Rating			<a href="#">Existing Geotech Data Available?</a> <input type="checkbox"/> Yes <input type="checkbox"/> No
Total Length			
Width, curb to curb			Detour Length(s): <input type="text"/>
Span Lengths			
Year Built			
Posted Weight Limit			
Structurally Deficient?			
Functionally Obsolete?			
Existing Bridge Type			

\*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**

The following funding was listed in the 2014 General Assembly's Enacted Highway Plan. The only funding available in the current biennium is for Design.

<i>Funding</i>	<i>Phase</i>	<i>Year</i>	<i>Amount</i>
SPP	D	2016	\$1,040,000
SPP	R	2017	\$3,100,000
SPP	U	2017	\$1,700,000
SPP	C	2018	\$9,500,000

**B. Project Status**

Design funds have been requested. There are multiple six year plan projects along this corridor including one that is in the R/W phase from KY 144 to KY 1051 (4-8705). There is a project to reconstruct from KY 477 to KY 428 (4-8703) as well which does have reliable funding for Design. There is also a project in the current highway plan (4-394) on US 60 in Irvington that will affect the intersection of KY 79 and US 60. This project is currently in the R/W phase.

**C. System Linkage**

This segment of KY 79 connects the cities of Irvington and Brandenburg. The classification of the roadway is rural arterial and is not likely to change as a result of this project. The Meade County Riverport opened in 2014 and KY 79 is a likely route for farmers from the west who wish to access the new grain operation located at this site.

**D. Modal Interrelationships**

There are no dedicated bicycle and pedestrian facilities or no known bicycle and pedestrian planning for this area. No railroads along this corridor. However, a new riverport has been built in Brandenburg and a grain operation opened for business in 2014. This could increase truck traffic especially grain trucks along this route. This is not a part of the freight intermodal network.

**E. Social Demands & Economic Development**

There has not been any significant growth along this corridor and is not expected to grow much in the near future. Most of the growth is isolated to KY 1051 in Brandenburg.

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

**F. Transportation Demand**

The last actual count for this section of roadway ranges from 2436 in 2014 near KY 428 to around 3911 in 2012 near KY 144 in Midway.

**G. Capacity**

There are no capacity issues along this corridor with VSF around 0.29.

**H. Safety**

The CRF ranges from 0.375 near KY 428 to 0.596 near KY 144. There were 7 total collisions from July 2012 until June 2015 with 4 of those being injury crashes and no fatalities. The majority of the collisions were single vehicle crashes. Please refer to **Exhibit 2** for crash locations.

**I. Roadway Deficiencies**

This section of roadway has not been upgraded except for the addition of milled rumble stripes that were added in 2011. This section was built with 9 foot lanes and 3' earth shoulders. KYTC's Common Geometric Practices for Rural Arterials recommends 2-12' lanes with 8 foot earth shoulders. There appears to be one deficient horizontal curve and possibly some vertical curves not meeting stopping sight distance requirements. No significant drainage issues along this corridor.

**III. PRELIMINARY ENVIRONMENTAL OVERVIEW**

**A. Air Quality**

Project is in:  Attainment area  Nonattainment or Maintenance Area  PM 2.5 County  
STIP Pg.#:  TIP Pg.#:

**B. Archeology/Historic Resources**

Known Archeological or Historic Resources are present

The archaeological database showed no previous surveys or known sites occur within the project area. If a USACE permit is required a survey will be required within the permit area for archaeological and historic properties.

**C. Threatened and Endangered Species**

There are listed species within the project area. If a USACE permit is required the entire corridor will need a Habitat Assessment and possibly a BA.

**D. Hazardous Materials**

Potentially Contaminated Sites are present  Potential Bridge or Structure Demolition

The properties within the corridor were mostly residential or agricultural. There do not appear to be any potentially contaminated sites present. Any structures acquired will be assessed for asbestos containing material.

**E. Permitting**

Check all that may apply:  Waters of the US  MS4 area  Floodplain Impacts  Navigable Waters of the US Impacts  
Are 401/404 Permits likely to be required?  Yes  No Impacts to:  Wetlands  Stream/Lake/Pond  
 ACE LON  ACE NW  ACE IP  DOW IWQC  Special Use Waters

A USACE permit is not likely to be needed to construct this project. All waters would be isolated waters.

**F. Noise**

Are existing or planned noise sensitive receptors adjacent to the proposed project?  Yes  No  
Is this considered a "Type I Project" according to the [KYTC Noise Analysis and Abatement Policy?](#)  Yes  No

No noise analysis will be required for this project

**G. Socioeconomic**

Check all that may apply:  Low Income/Minority Populations  Relocations  Local Land Use Plan available

There are no socioeconomic concerns, since this is a wholly state funded project the Environmental Justice EO does not apply.

**H. Section 4(f) or 6(f) Resources**

The following are present on the project:  Section 4(f) Resources  Section 6(f) Resources

There are no Section 4(f) or 6(f) Resources known within the project corridor.

Anticipated Environmental Document: None (Completely State funded) ▼

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

**A. Scoping & Need:**

KY 79 from KY 428 to KY 144 at Midway has very narrow lanes and little to no shoulder. The corridor has a narrow right of way and numerous entrances to farms and residences. The horizontal and vertical curvature meets design standards in a majority of the corridor with only one horizontal deficiency. The primary need would be to widen the lanes and shoulders to better facilitate truck traffic.

**B. Draft Project Purpose:**

The purpose of this study is to improve the safety, mobility and connectivity between Irvington and Brandenburg.

**V. PROJECT ESTIMATE & METHODOLOGY**

<b>Estimate Methodology:</b>	<b>Current Estimate</b>	
The cost estimates are derived from the adjacent project 4-8705.00 assuming the exact same typical section and cost/mile. I used the following cost estimates/mile: D=\$320,000/mile R=\$925,000/mile U=\$530,000/mile and C=\$3,500,000/mile.	<u>Phase</u>	<u>Estimate</u>
	Planning	
	Design	\$1,000,000
	R/W	\$2,900,000
	Utilities	\$1,700,000
	Const	\$11,000,000
	<b>Total</b>	<b>\$16,600,000</b>

**VI. UTILITIES POTENTIALLY AFFECTED - CONTACT INFORMATION**

Company Name -	Meade County RECC
Contact -	David Poe
Address -	PO Box 489, Brandenburg, KY 40108
Phone No. -	270-422-2162
Company Name -	Brandenburg Telecom, LLC
Contact -	Kyle Dalton
Address -	200 Telco Drive, Brandenburg, KY 40108
Phone No. -	270-422-2121
Company Name -	Time Warner Cable
Contact -	Deno Barbour
Address -	4701 Commerce Crossing Drive, Louisville, KY
Phone No. -	502-357-4400
Company Name -	Meade County Water District
Contact -	Joe Bartley
Address -	1003 Armory Place, Brandenburg, KY 40108
Phone No. -	270-422-5006
Company Name -	
Contact -	
Address -	
Phone No. -	
Company Name -	
Contact -	
Address -	
Phone No. -	

VII. TABLES AND EXHIBITS

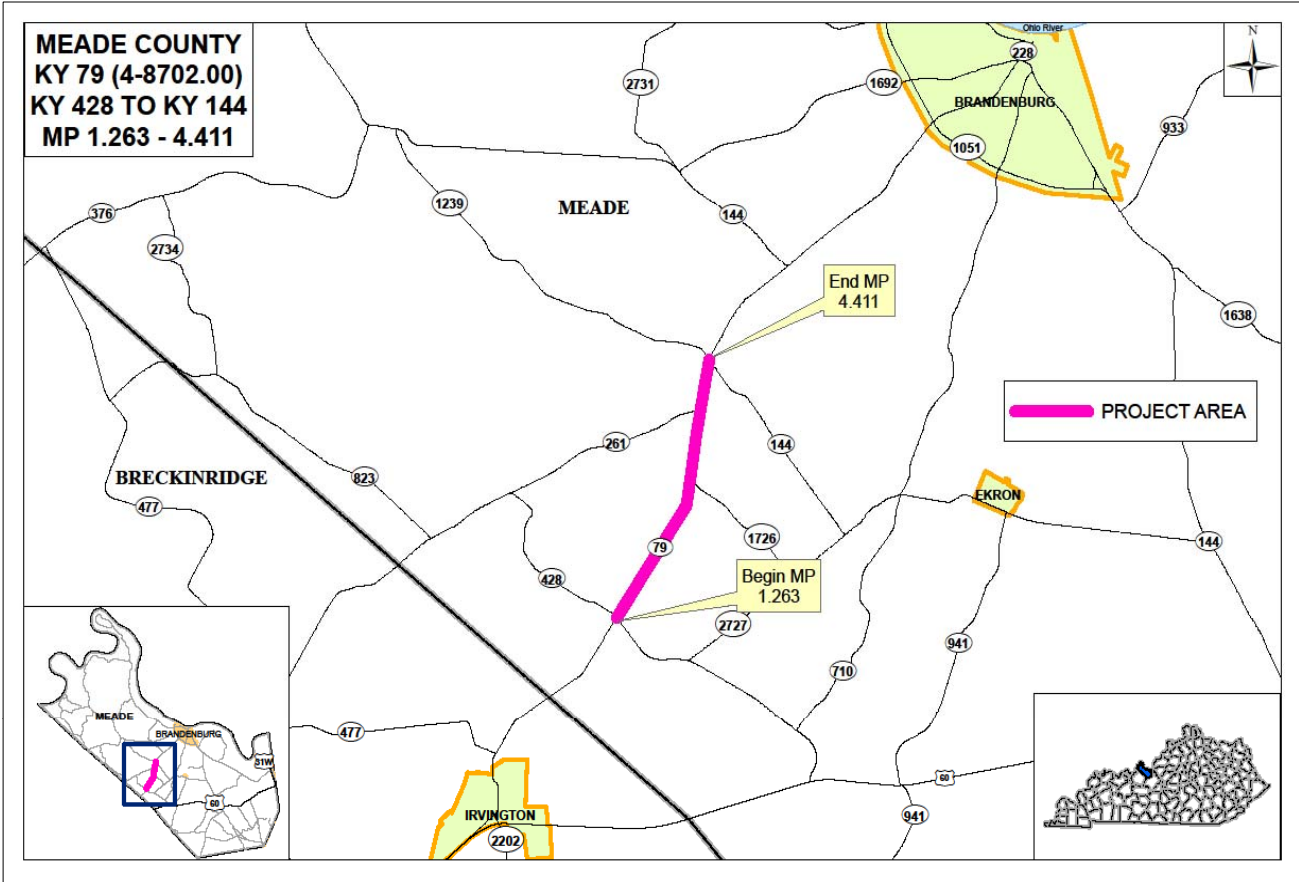


EXHIBIT 1: PROJECT LOCATION MAP



VII. TABLES AND EXHIBITS (cont.)

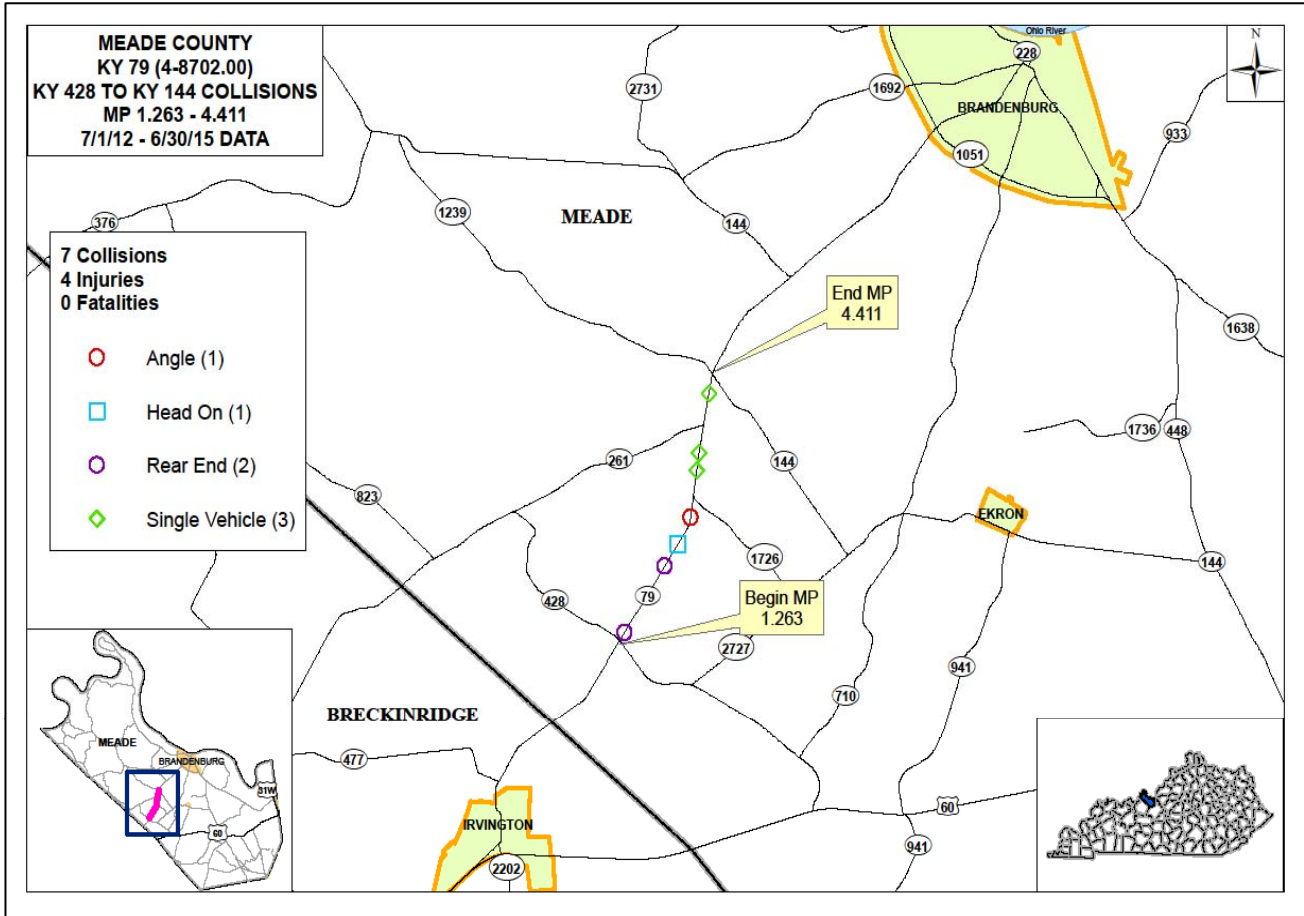


EXHIBIT 2: CRASH MAP