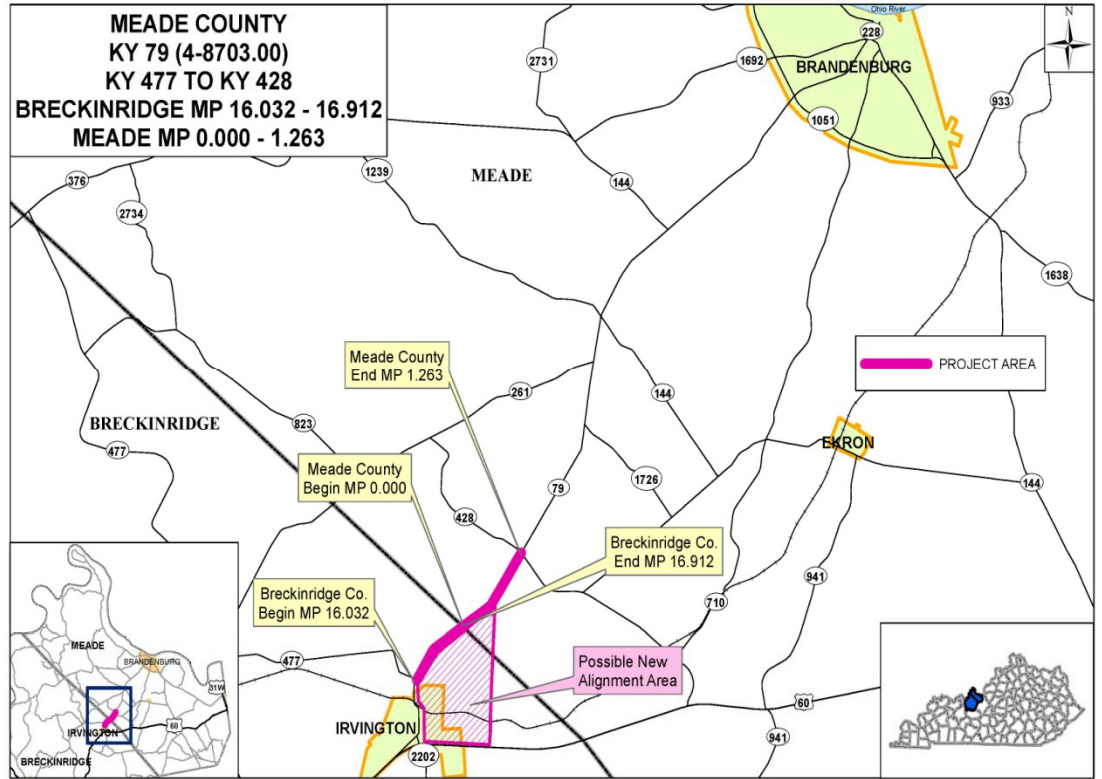


Data Needs Analysis



Scoping Study



KY 79
Breckinridge/Meade County
Brandenburg-Irvington Rd
Reconstruction

From KY 477 to KY 428
Item No. 4-8703.00

Prepared by KYTC
District 4-Charlie Allen

August 2015



I. PRELIMINARY PROJECT INFORMATION

County:	Breckinridge/Meade	Item No.:	4-8703.00			
Route Number(s):*	KY 79	Road Name:	Brandenburg-Irvington Rd			
Program No.:	906810	UPN:	FD04	014	0079	016-017
Federal Project No.:	N/A	UPN:	FD04	082	0079	000-002

2014 **Highway Plan Project Description:** Type of Work: Reconstruction

RECONSTRUCT KY 79 FROM KY 477 TO KY 428.

Breck. Co.:	Beginning MP:	16.032	End MP:	16.912	Total Project length:	
Meade Co.:	Beginning MP:	0.000	End MP:	1.263		2.143

In TIP: Yes No [Reconcile Project Information in Clearview](#)

State Class.: Primary Secondary **Route is on:** NHS NN Ext Wt

Functional Class.: Urban Rural Arterial **Truck Class.:** AAA **% Trucks:** 12.9

MPO Area: Radcliff/Elizabethtown **Terrain:** Rolling

ADT (current): 2760 2013

Access Control: None Permit Fully Controlled Partial Spacing:

Median Type: Undivided Divided (Type):

Existing Bike Accommodations: Shared Lane **Ped:** Sidewalk

Posted Speed: 35 mph 45 mph 55 mph Other (Specify):

KYTC Guidelines Preliminarily Based on : 55 MPH Proposed Design Speed

COMMON GEOMETRIC

Roadway Data:	EXISTING	PRACTICES**	
No. of Lanes	2	2	Existing Rdwy. Plans available?
Lane Width	10'	12' min	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Shoulder Width	4'	8	Year of Plans: 1930
Max. Superelevation***	Field Measure	6%	<input checked="" type="checkbox"/> Traffic Forecast Requested
Minimum Radius***	909'	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:
Sidewalk Width(urban)	N/A	NA	Type:
Clear-zone [†]	30'	30'	

Project Notes/Design Exceptions?

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

** Based on proposed Design Speed

***AASHTO's A Policy on Geometric Design of Highways and Streets

† AASHTO's Roadside Design Guide

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	\$1,250,000
SPP	R	2017	\$3,500,000
SPP	U	2017	\$2,000,000
SPP	C	2018	\$10,000,000

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 428 to KY 144 (4-8702) 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. Should the Irvington Bypass portion be constructed there will be a potential railroad crossing. 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 was 2760 in 2013 near KY 477.

G. Capacity

There are no capacity issues along this corridor with VSF around 0.30.

H. Safety

The CRF ranges from 0.120 near KY 477 to 0.381 near downtown Irvington. There were 7 total collisions from July 2012 until June 2015 with 7 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 10 foot lanes and 4' earth shoulders. KYTC's Common Geometric Practices for Rural Arterials recommends 2-12' lanes with 8 foot earth shoulders. There appears to be only minor horizontal curve deficiencies 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. There is a National Register Listed Historic District in Irvington. The boundry is roughly described as bounded by CSX tracks, Third, Caroline and Walnut Sts.

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

There are some sites located in the southern end of the project corridor, such as the salvage yard, which if impacted will require a Phase I survey to determine if any contaminated materials or soils will be impacted.

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

It is not anticipated that a USACE permit will be required.

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

G. Socioeconomic

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

There are no socioeconomic concerns. There are potential high densities of low income within Irvington.

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 Section 4(f) resources within the Irvington Historic Distric.

Anticipated Environmental Document:

None (Completely State funded)



IV. PROJECT SCOPING, NEEDS & PURPOSE

A. Scoping & Need:

KY 79 from KY 477 to KY 428 has narrow lanes and shoulders. The corridor has limited right of way and numerous entrances to farms and residences. The horizontal and vertical curvature meets design standards in a majority of the corridor. The primary need would be to widen the lanes and shoulders to better facilitate truck traffic. The design team should also consider an extension of this project to US 60 to bypass the downtown area of Irvington. See **Exhibit 1** for a description of the proposed bypass area.

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

Estimate Methodology:	Current Estimate	
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. I also assumed that the project would be extended to US 60 via an off alignment option and include a railroad bridge. This option would have a total project length of around 2.5 miles.	<u>Phase</u>	<u>Estimate</u>
	Planning	
	Design	\$1,250,000
	R/W	\$3,500,000
	Utilities	\$2,000,000
	Const	\$10,000,000
	Total	\$16,750,000

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

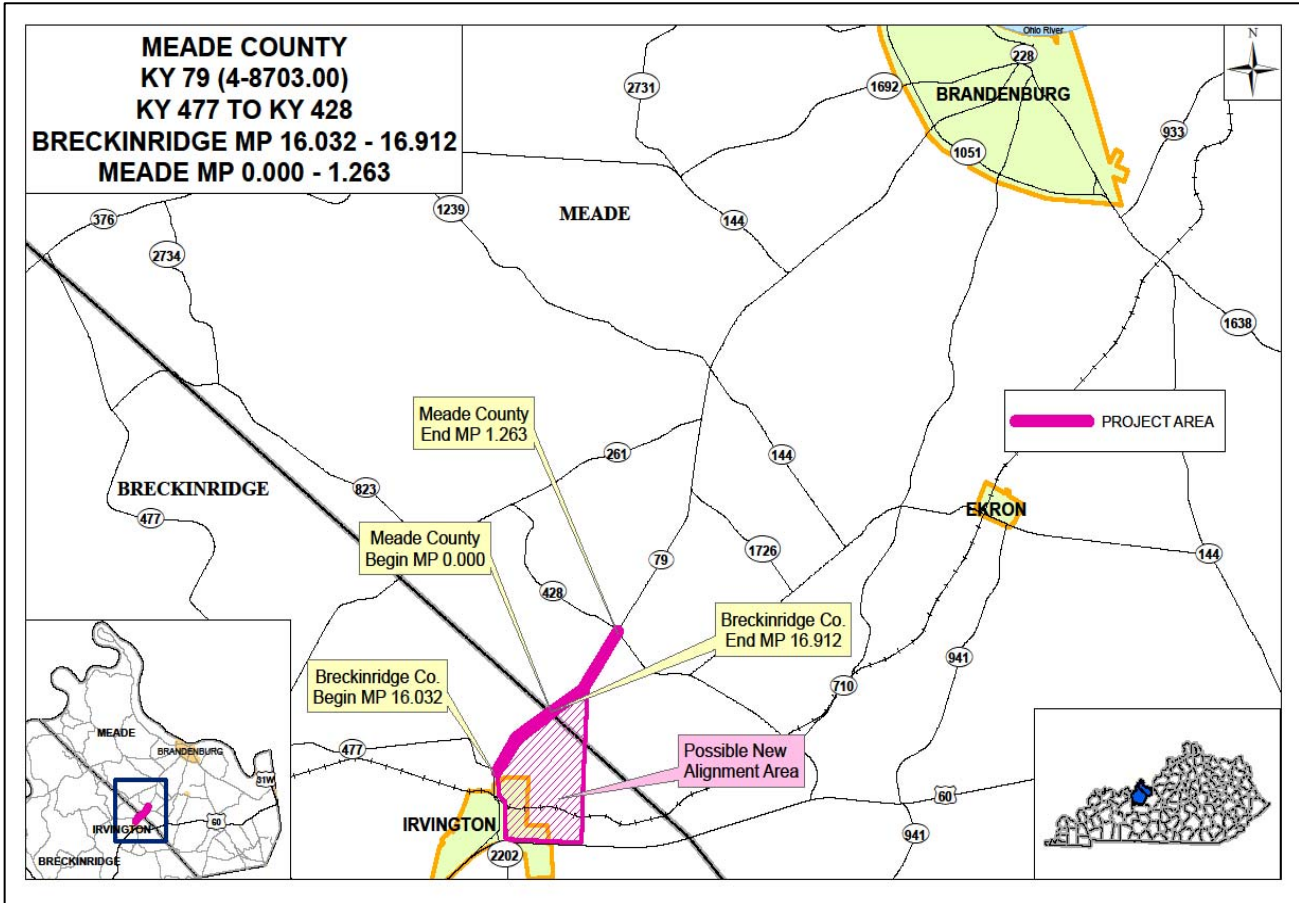


EXHIBIT 1: PROJECT LOCATION MAP

VII. TABLES AND EXHIBITS (cont.)

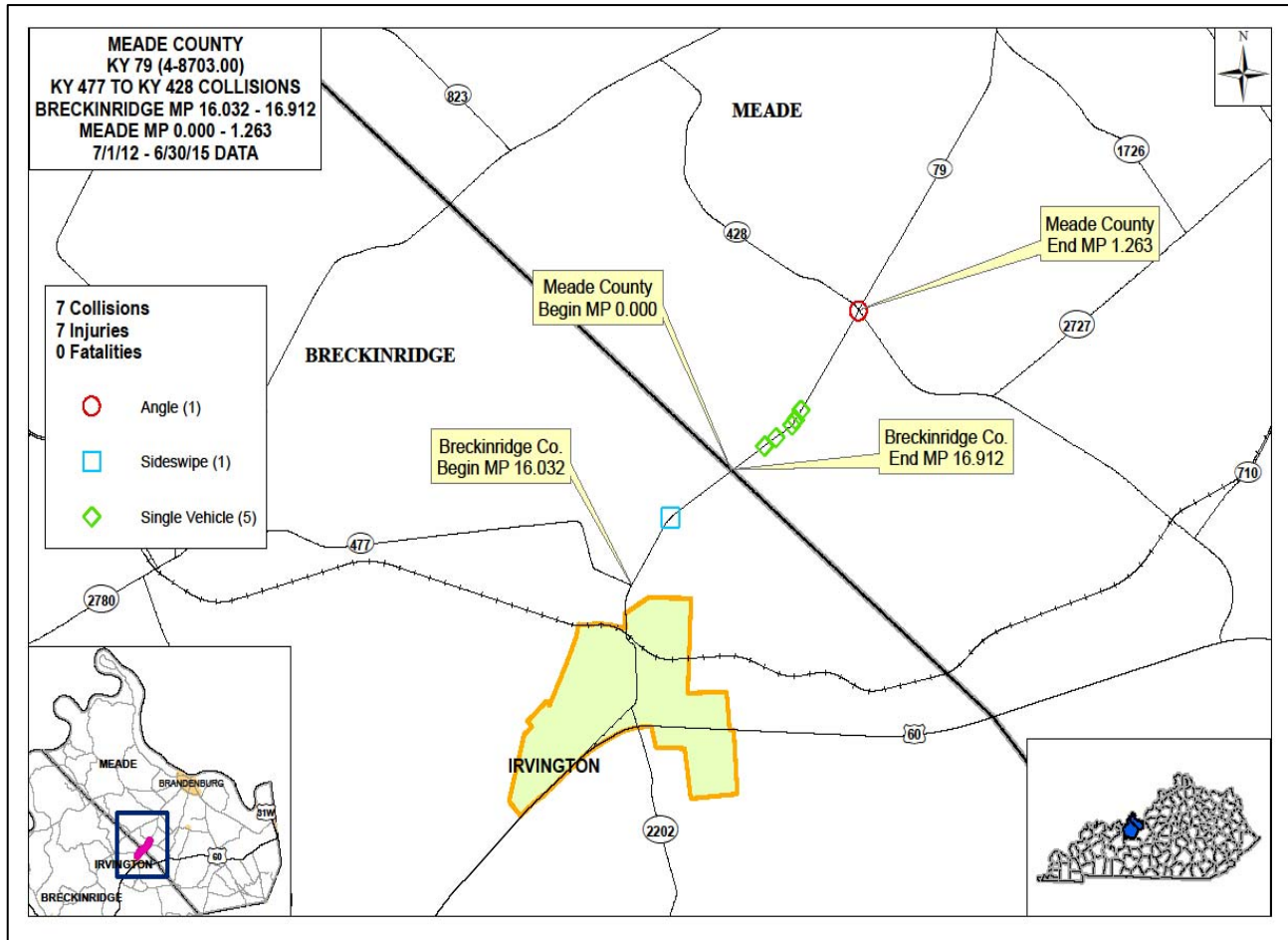


EXHIBIT 2: CRASH MAP