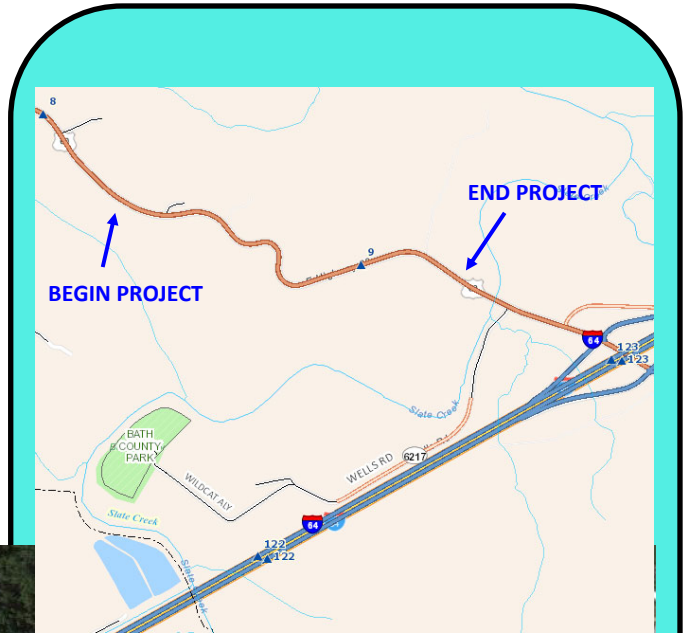
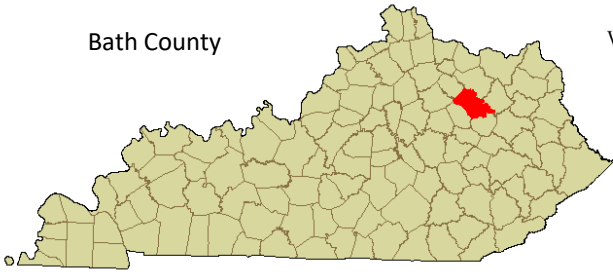


Bath County



Data

Needs

Analysis



Scoping Study

US 60
Bath County

Realign Roadway on US 60 near Owingsville beginning in the vicinity of Rose Bush Lane and ending at Wells Road near I-64 Exit 123. (MP 12.4 to MP 13.5)

Item No. 09-80250.00

Prepared by KYTC
District 9

March, 2023



I. PRELIMINARY PROJECT INFORMATION

County:	Bath	Item No.:	9-80250
Route Number(s):*	US 60	Road Name:	US 60
Program No.:		UPN:	(Function) 006 0060 008-009
Federal Project No.:		Type of Work:	Realignment

2022 **Highway Plan Project Description:**

Realign Roadway on US 60 near Owingsville beginning in the vicinity of Rose Bush Lane and ending at Wells Road near I-64 Exit 123.

Beginning MP:	8.4	Ending MP:	9.2	Project Length:	0.8
In TIP:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Reconcile Project Information in Clearview		
State Class.:	<input type="checkbox"/> Primary <input checked="" type="checkbox"/> Secondary		Route is on:	<input type="checkbox"/> NHS <input type="checkbox"/> NN <input type="checkbox"/> Ext Wt	
Functional Class.:	<input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural Collector		Truck Class.:	AAA	% Trucks: 8.85
MPO Area:	Not Applicable		Terrain:	Rolling	
ADT (current):	2207	2019			
Access Control:	<input type="checkbox"/> None <input checked="" type="checkbox"/> Permit <input type="checkbox"/> Fully Controlled <input type="checkbox"/> Partial		Spacing:		
Median Type:	<input checked="" type="checkbox"/> Undivided <input type="checkbox"/> Divided (Type):				
Existing Bike Accommodations:	Shared Lane		Ped:	<input type="checkbox"/> Sidewalk	
Posted Speed:	<input type="checkbox"/> 35 mph <input type="checkbox"/> 45 mph <input checked="" type="checkbox"/> 55 mph		<input type="checkbox"/> 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Lane Width	10'	11'	
Shoulder Width	3'	6'	Year of Plans: _____
Max. Superelevation***	7.80%	8%	<input type="checkbox"/> Traffic Forecast Requested
Minimum Radius***	185'	960'	Date Requested: _____
Maximum Grade	8%	7%	<input type="checkbox"/> Mapping/Survey Requested
Minimum Sight Dist.	<495'	495'	Date Requested: _____
Sidewalk Width(urban)	N/A	N/A	Type: _____
Clear-zone [†]		14'-30'	
Project Notes/Design Exceptions?			

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

As shown in the 2022 enacted Highway Plan; Senate District 28, House District 74.

<i>Funding</i>	<i>Phase</i>	<i>Year</i>	<i>Amount</i>
SPP	D	2023	\$1,000,000
SPP	R	2025	\$3,465,000
SPP	U	2027	\$745,200
SPP	C	2028	\$9,744,000

B. Project Status

This project first appeared in the 2022 highway plan with SPP design funding in the biennium. The other remaining phases were listed in the out years. No work has been completed on the project to date.

C. System Linkage

US-60 serves as one of the primary east west routes in Bath connecting to Morehead in the east and Mount Sterling to the west. This section serves as one of two primary routes that connect the City of Owingsville to Interstate 64. It is also a primary route used by the Bath County School District to serve its schools.

D. Modal Interrelationships

This route currently has approximately 9% trucks. It also serves as the detour to the interstate and is the primary east/west corridor in the area for trucks when the interstate is shut down.

E. Social Demands & Economic Development

This project will benefit the Bath County School system by providing a safer more direct route between their schools. Crossroads Elementary is located to the east of the project while the middle and high school are in Owingsville to the west. A portion of Crossroad's region that students attend from is also located to the west of this project with buses travelling through it daily. This portion of roadway is also located between the high school and Bath County Sports Park where their baseball and softball teams practice and play.

II. PROJECT PURPOSE AND NEED (cont.)

F. Transportation Demand

There was a decrease in the ADT on this segment of US-60 from the late 1990's into the early 2000's but since then volumes have remained relatively consistent, hovering just over 2000. The truck traffic on this section is also around with 8.9% with the majority of these being single unit trucks.

G. Capacity

This section of US-60 operates below critical capacity and with ADT's staying fairly consistent for the last twenty years, additional through lanes shouldn't be necessary. Improving this segment of US-60 by correcting the geometric deficiencies will increase the efficiency and safety of the route.

H. Safety

In the 5 years from 2017-2021, there were 11 reported crashes within the project limits according to CDAT. Overall, the whole section has an EEC (Excess Expected Crashes) of 4.2 and a LOSS (Level of Service of Safety) rating of 3. The KAB LOSS rating is 3 and the CO LOSS is 3. This indicates that as a whole, this section of US 60 is generally experiencing more crashes than expected and safety should be improved.

I. Roadway Deficiencies

All the curves located within the project limits are horizontally deficient and do not meet the posted 55 mph speed limit. This has led to inadequate sight distance in places as well. The current lane and shoulder widths are also less than ideal for this classification of roadway.

III. PRELIMINARY ENVIRONMENTAL OVERVIEW

A. Air Quality

Project is in: Attainment area Nonattainment or Maintenance Area PM 2.5 County

STIP Pg.#: [Redacted]

TIP Pg.#: [Redacted]

Project is state funded so it is not listed in the current STIP. If federal funds are utilized, a STIP Modification will be required.

B. Archeology/Historic Resources

Known Archeological or Historic Resources are present

There are no sites within the project area that are listed on the National Register of Historic Places (NRHP). One property (gray two story farm complex near the eastern terminus of the project near the bridge over Slate Creek) has been identified as being potentially eligible for the NRHP. The historic boundary has not been established and further investigations will be done early in design as part of the Section 106 process. A cursory review of other properties in the corridor did not reveal additional sites that appear to be eligible for the NRHP although several meet the age criteria. Further investigations will be conducted as part of the Section 106 process during NEPA documentation. The road alignment of US 60 appears to be relatively unchanged since the nineteenth century and several structures appeared on the 1884 atlas. Additionally, several previously recorded archaeological sites appear in the OSA database that are in close proximity to the project area, principally along the Slate Creek floodplain near the eastern terminus. Potential exists for prehistoric and historic archaeological sites. A Phase I archaeology survey will be performed on the preferred alternate to determine if sites exist.

C. Threatened and Endangered Species

Four bat species and seven mussel species are shown on the USFWS IPaC website as federally threatened/endangered species. If proposed improvements impact Slate Creek or the unnamed tributary to Slate Creek, it is expected that a mussel survey may be required. There are no other streams in the project area. If proposed improvements do not impact Slate Creek or the UT, then it is likely that a No Effect finding could be prepared for the listed mussel species. It is anticipated that the 2020 Programmatic Agreement with USFWS will be used to compensate for impacts to potential Indiana and gray bat habitat. The Threatened 4(d) rule applies to Northern long-eared bat habitat presently, but will likely not be an option when the project is constructed. Impacts will be addressed at that time based on pending protocol being developed now that it has been listed as endangered. Virginia big-eared bat habitat presence will be investigated further during NEPA documentation, but it not expected based on early map review. If not present, then a No Effect finding may be warranted.

D. Hazardous Materials

Potentially Contaminated Sites are present Potential Bridge or Structure Demolition

A car auto sales business with a 2 bay garage is located near Rose Bush lane. A block building near Karrick Lane appears that it could have been a garage at one time and once housed the Bath County DES. Additional investigations will be done later if it is determined that these properties, or others identified during design, are impacted by the project.

<p>E. Permitting</p> <p>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</p> <p>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</p> <p><input checked="" type="checkbox"/> ACE LON <input type="checkbox"/> ACE NW <input type="checkbox"/> ACE IP <input type="checkbox"/> DOW IWQC <input checked="" type="checkbox"/> Special Use Waters</p>	
<p>The majority of the project area lies on a ridge. No blueline or intermittent streams are identified on the USGS topographical map within this area, however, ephemeral streams might be possible. The eastern terminus of the project area crosses Slate Creek which is an Outstanding State Resource Water that is partially supporting uses and has an approved TMDL plan with KY Division of Water. Wells Road crosses an unnamed tributary that appears as a blueline stream on the topographic map. USACE and KDOW permits may be needed if ephemeral streams, the unnamed tributary to Slate Creek, and/or Slate Creek are impacted. Additional coordination with KDOW may be needed for impacts to Slate Creek because of its impairment, special use designation, and the TMDL. FEMA map center identifies Slate Creek and a portion of the unnamed tributary as being in Zone A, which is not a regulated floodway.</p>	
<p>F. Noise</p> <p>Are existing or planned noise sensitive receptors adjacent to the proposed project? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Is this considered a "Type I Project" according to KYTC Noise Analysis and Abatement Policy? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Determination of whether the project is a Type I Project will be made after alternatives are developed. Potential exists to have a substantial horizontal or vertical alteration depending on alignment location and/or addition of lanes. Receptors appear to be single family residences (Activity Category B) or undeveloped land (Activity Category G).</p>	
<p>G. Socioeconomic</p> <p>Check all that may apply: <input checked="" type="checkbox"/> Low Income/Minority Populations <input checked="" type="checkbox"/> Relocations <input type="checkbox"/> Local Land Use Plan available</p> <p>A Screening Tool for Equity Analysis of Projects (STEAP) report revealed that the potential exists for both minority and low-income populations to reside within the project limits. Approximately, 19% of the residents within a 0.1 mile buffer of the project area were reported as living in poverty. This compares to 23% of Bath County and 13% of Kentucky living in poverty. Also, according to the STEAP report, 6% of the residents within 0.1 mile of the project area are reported as minority. This compares to 1% for Bath County and 8% statewide. Residential relocations may be required depending on alternative locations. An Environmental Justice evaluation will be performed, if warranted, once a preferred alternative is chosen.</p>	
<p>H. Section 4(f) or 6(f) Resources</p> <p>The following are present on the project: <input type="checkbox"/> Section 4(f) Resources <input type="checkbox"/> Section 6(f) Resources</p> <p>No publicly-owned recreation areas, parks, wildlife refuges, or LWCF sites are known from within the project area. One property (gray two story home and farm complex) appears to be eligible for the NRHP and will be investigated further to determine whether there would be a Section 4f use of this property.</p>	
Anticipated Environmental Document:	<div style="border: 1px solid black; padding: 2px;"> CE Level 2 ▼ </div>

IV. PROJECT NEED, PURPOSE & SCOPE

A. Need:

This segment of US 60 consists of 2-10' driving lanes with narrow shoulders and a section of horizontally deficient switchback curves resulting in decreased sight distance and an increased risk of accidents. There is also a horizontal curve that does not meet the posted speed limit at the bottom of the 6% downgrade. These factors have led to this segment experiencing more crashes than would be expected and a poor Level of Service Safety.

B. Purpose:

The purpose of this project is to improve safety and connectivity along US 60 between Owingsville and I-64 by correcting the geometric deficiencies and improving the typical section.

C. Scope:

The scope of this project will involve developing multiple alternatives that correct the existing geometric deficiencies. This will most likely involve looking at off alignment sections to correct the switchbacks but may cross or follow the existing as long as it is possible to maintain at least one lane of traffic during construction. We will likely look at both a 45 mph and 55 mph design speed and using an improved typical section to match current standards.

V. PROJECT ESTIMATE & METHODOLOGY

Estimate Methodology:	Current Estimate	
Current estimates were based upon using consultant services for design and in house environmental. Right of way and utility estimates were based upon probable expected impacts. Construction estimates were based on reconstructing this section of US 60 including to correct the geometric deficiencies.	<u>Phase</u>	<u>Estimate</u>
	Planning	
	Design	\$ 1,000,000
	R/W	\$ 3,500,000
	Utilities	\$ 750,000
	Const	\$ 10,000,000
	Total	\$ 15,250,000

VI. UTILITIES POTENTIALLY AFFECTED - CONTACT INFORMATION

Company Name -	Spectrum
Contact -	R. Steven Smith
Address -	1617 Foxhaven Dr., Richmond, KY 40475
Phone No. / Email -	(859) 626-4809 / rsteven.smith@charter.com
Company Name -	AT&T TRANSMISSION
Contact -	William Taggart
Address -	8372 E. Broad Street, Renyoldsburg, OH 43068
Phone No. / Email -	(614) 370-5414 / wt2462@att.com
Company Name -	DELTA NATURAL GAS COMPANY
Contact -	Robert Nellipowitz
Address -	3617 Lexington Road, Winchester, KY 40391
Phone No. / Email -	(859) 744-6171 / rnellipowitz@deltagas.com
Company Name -	BATH COUNTY WATER DISTRICT
Contact -	L. W. Patton
Address -	P.O. Box 369, Salt Lick, KY 40371
Phone No. / Email -	(606) 683-6363 / bathcowater@roadrunner.com
Company Name -	FLEMING MASON ENERGY
Contact -	Brandon Hunt
Address -	PO Box 328, Flemingsburg, KY 41041
Phone No. / Email -	(606) 845-2661 / bhunt@fme.coop
Company Name -	CITY OF OWINGSVILLE SEWER
Contact -	Mayor Gary Hunt
Address -	P.O. Box 639, Owingsville, KY 40360
Phone No. / Email -	(606) 674-6361 / gary.hunt@roadrunner.com
Company Name -	WINDSTREAM
Contact -	Barry Lyons
Address -	154 E 2nd Street, Morehead, KY 40351
Phone No. / Email -	(606) 784-5051 / Barry.E.Lyons@windstream.com