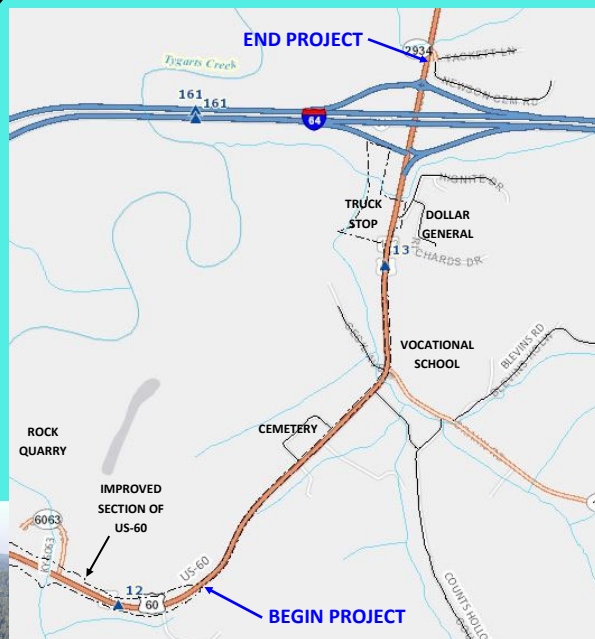


Carter County



# Data Needs Analysis

## Scoping Study

US 60  
Carter County

Improve US 60 geometry beginning  
termini at new construction at Olive Hill  
extending 1.1 miles to I-64 Exit 161.  
(MP 12.4 to MP 13.5)

Item No. 09-80050.00

Prepared by KYTC  
District 9

October, 2022



## I. PRELIMINARY PROJECT INFORMATION

County:	Carter	Item No.:	9-80050.00
Route Number(s):*	US-60	Road Name:	US-60
Program No.:	1528101	UPN:	FD52 022 0060 012-014
Federal Project No.:	STP 6000212	Type of Work:	Reconstruction

## 2022 Highway Plan Project Description:

IMPROVE US-60 GEOMETRY BEGINNING TERMINI AT NEW CONSTRUCTION AT OLIVE HILL MP 12.4  
EXTENDING 1.1 MILES TO I-64 EXIT 161.

Beginning MP:	12.4	Ending MP:	13.5	Project Length:	1.1
In TIP:	<input type="checkbox"/> Yes <input type="checkbox"/> No <a href="#">Reconcile Project Information in Clearview</a>				
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: 5.324
MPO Area:	Not Applicable ▼		Terrain:	Rolling ▼	
ADT (current):	5874 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 checked="" type="checkbox"/> 45 mph <input type="checkbox"/> 55 mph <input type="checkbox"/> Other (Specify):				
KYTC Guidelines Preliminarily Based on :	50 MPH Proposed Design Speed				

## COMMON GEOMETRIC

Roadway Data:	EXISTING	PRACTICES**	
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'	12'*	
Shoulder Width	0'-10'	6'	<input type="checkbox"/> <a href="#">Traffic Forecast Requested</a> Date Requested:
Max. Superelevation***	8%	8%	
Minimum Radius***		758'	<input type="checkbox"/> Mapping/Survey Requested Date Requested:
Maximum Grade	7.46%	7%	
Minimum Sight Dist.	<758'	425'	Type: ▼
Sidewalk Width(urban)	N/A	N/A	
Clear-zone <sup>†</sup>	Deficient	12'-26'	
Project Notes/Design Exceptions?	*Trucks from Mountain Materials near rock crusher curve on 60		

Bridge No.:#	(Bridge #1)	(Bridge #2)	
Sufficiency Rating			<a href="#">Existing Geotech Data Available?</a> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Total Length			
Width, curb to curb			Detour Length(s):
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

As shown in the 2022 enacted Highway Plan; Senate District 18, House District 96.

<i>Funding</i>	<i>Phase</i>	<i>Year</i>	<i>Amount</i>
STP2	D	2023	\$1,440,000
STP2	R	2025	\$1,320,000
SPP	U	2026	\$1,760,000
SPP	C	2027	\$8,780,000

### B. Project Status

The project was first put in the 2018 Highway Plan showing: Design (\$1.9M FY22 SPP), Right of Way (\$2.75M FY24 SPP), Utilities (\$2.3M FY24 SPP) & Construction (\$7.5 FY24 SPP). With no funding in the biennium the project did not move forward. The 2020 plan once again included all phases of the project with the funding listed as FED instead of SPP but with none in the biennium so no movement occurred. All phases of the project were included in the 2022 plan with federal STP2 design funding located within the biennium which has been authorized and allowing the project to be advertised for consultant services in the fall of 2022.

### C. System Linkage

US-60 serves as a direct commercial and commuter route to I-64 and Grayson to the east and KY-32 in Morehead to the west. This segment serves as one of the primary routes that connects the City of Olive Hill to I-64. It also provides direct access to the interstate for other areas of Carter, Rowan and Elliott County. The route also serves as the detour for I-64 in the area when it has to be shut down.

### D. Modal Interrelationships

This segment of US-60 will pick up where the previous project (9-159.00), which improved US-60 conditions from Olive Hill to Rock Crusher Curve at approximately MP 12.3, left off in 2010. This will complete the upgrade of US 60 from Olive Hill to I-64 by correcting any remaining geometric deficiencies within this segment.

### E. Social Demands & Economic Development

This project will provide safer more efficient access to both West Carter Middle and High Schools as well as Olive Hill Elementary which all currently use US 60 for their primary access. The Carter County School System is also proposing combining East and West Carter High Schools and building at a new location along US 60 to the East of this project. This would make this segment the primary route for the western half of the county to access the new/proposed school. Minor development has also occurred near the I-64 interchange in recent years adding to the traffic volumes and turning movements in the area. US 60 to the East of this section also serves as the primary route to Carter Caves State Park.

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

### F. Transportation Demand

There was a decrease in the ADT on this segment of US-60 from the 1990's into the early 2000's but since then volumes have remained relatively consistent, hovering between 5,000-6,000. The truck traffic on this section is also around with 5.3%. A large portion of these are likely trucks going from the Mountain Enterprise's quarry to the interstate.

### G. Capacity

US-60 operates below critical capacity and with ADT's staying fairly consistent since the early 2000's, additional through lanes shouldn't be necessary. Improving this segment of US-60 by widening lanes/extending shoulders, possibly adding appropriate turn lanes, and correcting geometric deficiencies will increase the efficiency and safety of the route.

### H. Safety

In the 5 years from 2016-2020, there were 14 reported crashes within the project limits according to CDAT. Overall, the whole section has an EEC (Excess Expected Crashes) of -5.7 which indicates an LOSS (Level of Service of Safety) rating of 2. Overall, these numbers imply that this section of US 60 is generally considered as a safe section of roadway when compared to roads of the same class and character within the state.

### I. Roadway Deficiencies

There are multiple horizontal and vertically deficient curves within the project limits as well as issues with sight distance and clear zone. The road currently has 11' lanes with minimal shoulders throughout a large portion of the corridor.

**III. PRELIMINARY ENVIRONMENTAL OVERVIEW****A. Air Quality**Project is in: ☒ Attainment area ☐ Nonattainment or Maintenance Area ☐ PM 2.5 County

STIP Pg. #: FY 21-24, Sect. A-5, Pg 12

TIP Pg. #:

**B. Archeology/Historic Resources**☐ Known Archeological or Historic Resources are present

There are no standing structures within the project limits that are currently listed on the National Register of Historic Places (NRHP). However, a windshield survey indicates that several buildings likely meet the age criteria for consideration of eligibility to the NRHP. It is recommended that early in design an eligibility report be prepared to identify properties where impacts should be avoided and/or minimized. The presence of archaeology sites within the project area is unknown, however, a review of historic topographic maps from 1950, 1962 and 1970 revealed the presence of residences, a school, a cemetery, a drive-in theater, and a church along this stretch of US 60 during those time periods, some still existent, which could indicate that there is potential for the project corridor to contain historic archaeology sites. It is expected that an Archaeology Overview will be prepared in early design and a Phase I archaeology survey will be conducted later on the preferred alignment.

**C. Threatened and Endangered Species**

Gray Bat, Indiana Bat, Northern Long-eared Bat, Virginia Big-eared Bat, Snuffbox Mussel, and Critical Habitat for Indiana Bat are listed for the project area on the USFWS IPaC website. Streams crossed by existing US 60 are intermittent unnamed tributaries to Tygarts Creek, which do not appear capable of supporting mussels. Mapping does not indicate the presence of caves or cave-like structures in the immediate project area, but a portal search may be needed to determine if habitat for bats exists. Additionally, it is expected that the 2020 Programmatic Biological Opinion will be used to address impacts to potential summer habitat for Indiana Bat, with tree clearing restrictions and a payment to the Imperiled Bat Fund. The Threatened 4(d) rule may be applied for potential impacts to Northern Long-eared Bat.

**D. Hazardous Materials**☒ Potentially Contaminated Sites are present☒ Potential Bridge or Structure Demolition

A windshield survey identified the following sites that could potentially have contaminated soils and/or underground storage tanks: 1. Active gas station on the eastern end of the project; 2. Steel fabrication business with potential petroleum products and equipment stored on-site; 3. Structure in the NE quadrant of Pleasant Valley Ave (historic gas station/store?) and 4. Business/lot in the SE quadrant of KY 182. A records check will be completed early in design to determine if monitoring wells or UST systems may exist within the corridor. There is potential that standing structures will require acquisition and demolition. Prior to demolition inspection for asbestos containing materials and abatement, if needed, will be done.

**E. Permitting**Check all that may apply: ☒ Waters of the US ☐ MS4 area ☐ Floodplain Impacts ☐ Navigable Waters of the US ImpactsAre 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

Two intermittent unnamed tributaries to Tygarts Creek are currently crossed by and run adjacent to existing US 60. Additionally, intermittent unnamed tributaries run adjacent to and are crossed by KY 182 and Cecil Avenue. An existing pond may require draining if impacted. It does not appear to have wetland vegetation around the rim currently, but will need to be assessed later to determine if wetland conditions exist. No wetlands are identified on National Wetland Inventory mapping within the immediate vicinity of existing US 60. Stream and wetland impacts and permit requirements will be more accurately assessed and defined when alternates are developed, but for now, it is expected that a USACE Nationwide Permit with a KDOW General Water Quality Certification will be applicable.

#### 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 [KYTC Noise Analysis and Abatement Policy?](#) ☒ Yes ☐ No

There are potential receptors from Activity Categories B (residences), C (cemetery & church), D (vocational school), and F (gas station) within the project area. It is likely that the project impacts will meet the criteria for a Type I Project and will require a noise study.

#### G. Socioeconomic

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

Several homes are located directly adjacent to US 60 and could require relocation. A Screening Tool for Equity Analysis of Projects review within a 2 square mile area surrounding the project reported no minority populations. The report identified that 18% of the population within the 2 square mile area are living in poverty. There is potential to have impacts to low income populations. A detailed socioeconomic analysis and Environmental Justice report (if warranted) will be prepared as part of the NEPA documentation during the design phase of the project.

#### 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 public parks or recreation areas within the limits of the project. It may be possible that there are historic properties that are eligible for the NRHP are present so Section 4(f) could apply if there are impacts to these resources. There do not appear to be any properties that have received Land Water Conservation Funds so there should be no Section 6(f) impacts.

Anticipated Environmental Document:

CE Level 3



#### IV. PROJECT NEED, PURPOSE & SCOPE

##### A. Need:

This segment of US 60 consists of 2-11' driving lanes with narrow shoulders and horizontal and vertical deficiencies throughout resulting in decreased sight distance and inefficient traffic flow. This segment currently begins at the eastern termini of an existing KYTC SYP project, 9-159.00, (Rock Crusher Curve, now completed) and extends to I-64 Exit 161. This difference in design templates of US 60 exists for a 1 mile segment and results in decreased safety and inefficiency of the system.

##### B. Purpose:

The purpose of this project is to improve systems connectivity and increase operational efficiency as well as safety along US 60 between Olive Hill and I-64. This will involve improving the typical section and correcting geometric deficiencies to make it more consistent with the previously reconstructed section of the US 60 corridor between the project limits and Olive Hill.

##### C. Scope:

The project will likely follow the existing alignment due to the relatively short length of the project unless an off-alignment alternative is feasible/economical and avoids major impacts. The roadway will remain two lane with the addition of turn lanes if needed. The project team will consider matching the typical section of the previous project (9-159) but will also consider narrowing down the typical section to possibly avoid impacts.

#### V. PROJECT ESTIMATE & METHODOLOGY

##### Estimate Methodology:

Current highway plan estimates were based upon using consultant services for design. Right of way and utility estimates were based upon probable expected impacts. Construction estimates were based on widening US 60 along or near the existing route using current geometric standards with a 50 mph design speed.

##### Current Estimate

Phase	Estimate
Planning	N/A
Design	\$ 1,440,000.00
R/W	\$ 1,320,000.00
Utilities	\$ 1,760,000.00
Const	\$ 8,780,000.00
<b>Total</b>	<b>\$ 13,300,000.00</b>

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

Company Name -	AT&T Transmission
Contact -	Mike Diedrick (md4141@att.com)
Address -	7555 E Pleasant Valley Rd, Suite 140, Independence, OH 44131
Phone No. -	(216)750-0135
Company Name -	City of Olive Hill
Contact -	Judi Cline (j.cline@cityofolivehill.com)
Address -	225 Roger Patton Dr, Olive Hill, KY 41164
Phone No. -	(606)286-2192 Ext:105
Company Name -	Columbia Gulf Transmission Stanton
Contact -	Paul Higgins (paul1_higgins@Tcenergy.com)
Address -	1675 Muddy Creek Rd, Winchester, KY 40391
Phone No. -	(346)354-7116
Company Name -	Grayson RECC
Contact -	Bradley Cherry (bradley.cherry@graysonrecc.com)
Address -	109 Bagby Park, Grayson, KY 41143
Phone No. -	(606)475-2199
Company Name -	Kentucky Power - AEP
Contact -	Steve Martin (sgmartin@aep.com)
Address -	12333 Kevin Ave, Ashland, KY 41101
Phone No. -	(606)929-1458
Company Name -	Kentucky Wired
Contact -	Cory Speary (cory.speary@ledcor.com)
Address -	2008 Mercer Rd, Lexington, KY 40511
Phone No. -	(512)875-3584
Company Name -	Spectrum Cable
Contact -	R. Steven Smith (rsteven.smith@charter.com)
Address -	1617 Foxhaven Dr, Richmond, KY 40475
Phone No. -	(859)626-4809
Company Name -	Windstream Kentucky Inc.
Contact -	Steve Johnson (steve.johnson@windstream.com)
Address -	130 West New Circle Rd, Lexington, KY 40505
Phone No. -	(859)357-6209



## VII. TABLES AND EXHIBITS

Looking East from beginning of project



Looking West from I-64 end of project





**VII. TABLES AND EXHIBITS (cont.)**

Cemetery and houses located adjacent to US 60



Intersection of US 60 and KY 182





## VII. TABLES AND EXHIBITS (cont.)

Crash Location Map of Project Area

