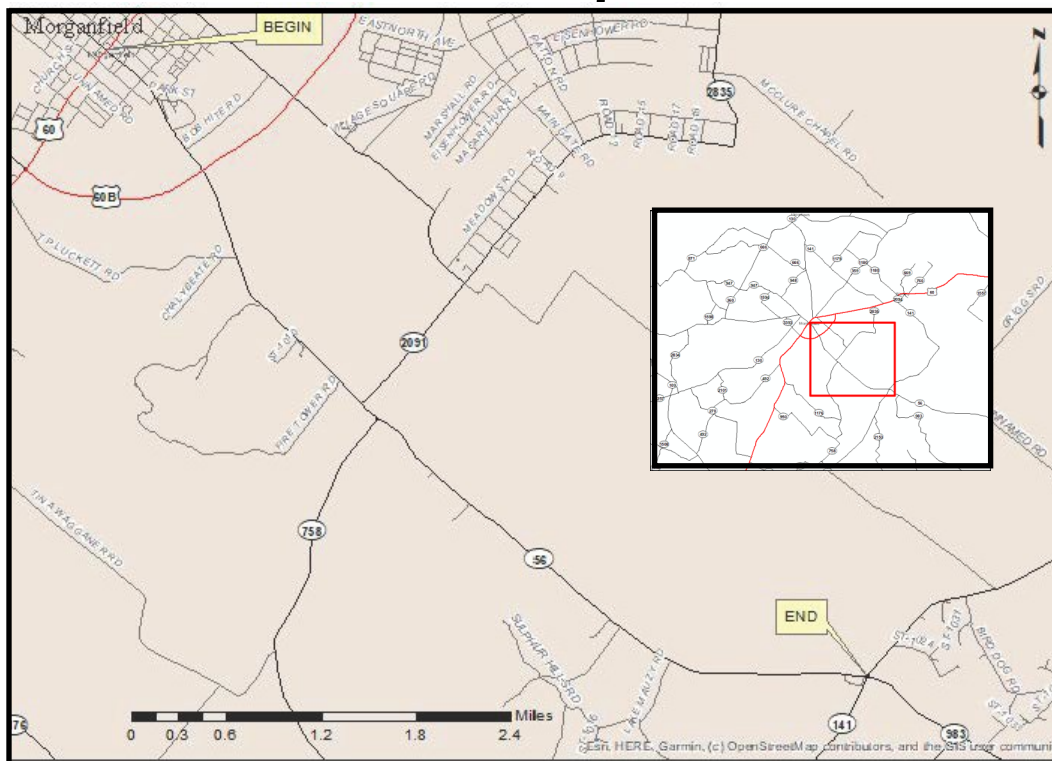
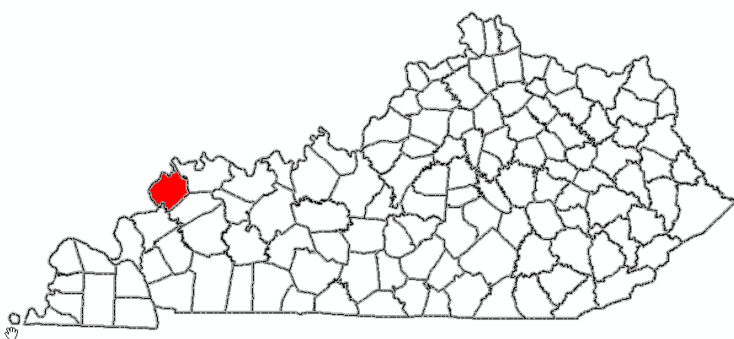


Data
Needs
Analysis



Scoping Study



KY 56 from Morganfield to
KY 141

Union County

Item No. **2-80203.00**

Prepared by

KYTC District 2 Planning

August 2022



Union

I. PRELIMINARY PROJECT INFORMATION

County:	Union	Item No.:	2-80203			
Route Number(s):*	KY 56	Road Name:				
Program No.:	15236	UPN:	FD52	113	KY 56	013-020
Federal Project No.:	STP 5049007	Type of Work:	Safety			

2022 **Highway Plan Project Description:**

Address the service, safety and condition of KY 56 from Morganfield to KY 141.

Beginning MP:	13.100	Ending MP:	19.800	Project Length:	6.700
In TIP:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Use PDP/CHAF to Verify Project Data		
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	Arterial	Truck Class.:	A	% Trucks: 7.1-22.56%
MPO Area:	Not Applicable		Terrain:	Rolling	
ADT (current):	1590-2015 (2020-2021)				
Access Control:	<input type="checkbox"/> None <input checked="" type="checkbox"/> Permit <input type="checkbox"/> Fully Controlled		<input type="checkbox"/> Partial	Spacing: <input type="text"/>	
Median Type:	<input checked="" type="checkbox"/> Undivided <input type="checkbox"/> Divided (Type): <input type="text"/>				
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 checked="" type="checkbox"/> Other (Specify):	see Notes	
KYTC Guidelines Preliminarily Based on :	55 MPH Proposed Design Speed				

Roadway Data:	COMMON GEOMETRIC PRACTICES**		
	EXISTING		
No. of Lanes	2	2'	Existing Rdwy. Plans available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Year of Plans: 1929/1930 <input type="checkbox"/> Traffic Forecast Requested Date Requested: NA <input type="checkbox"/> Mapping/Survey Requested Date Requested: <input type="text"/> Type: <input type="text"/>
Lane Width	10'-12'	12'	
Shoulder Width	0'-10'	6'	
Max. Superelevation***		8%	
Minimum Radius***		960'	
Maximum Grade	8%	5%	
Minimum Sight Dist.		495'	
Sidewalk Width(urban)	*4'	5'	
Clear-zone [†]		36'	
Project Notes/Design Exceptions?	*The first 0.65 miles is urban w/SW and C&G (35 MPH)		

Bridge No.: [‡]	113B00021N	113B00019N	Existing Geotech Data Available? <input type="checkbox"/> Yes <input type="checkbox"/> No Detour Length(s): 23.100
Sufficiency Rating	94.2	94.2	
Total Length	24.9	27.9	
Width, curb to curb	NA	NA	
Span Lengths	11.2	12.1	
Year Built	1930	1930	
Posted Weight Limit	none	none	
Structurally Deficient?	No	No	
Functionally Obsolete?			
Existing Bridge Type	DBL RCBC	DBL RCBC	

*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.

Union

II. PROJECT PURPOSE AND NEED

A. Legislation

This project was funded in the 2022 enacted plan as shown.

<i>Funding</i>	<i>Phase</i>	<i>Year</i>	<i>Amount</i>
STP1	D	2024	\$2,800,000
STP1	R	2025	\$3,500,000
STP1	U	2026	\$3,800,000
STP1	C	2027	\$20,000,000

B. Project Status

This project is expected to be advertised in September 2022.

C. System Linkage

This route connects to the US 60 Bypass in Morganfield, US 60 in downtown Morganfield, and KY 141. This route provides connection to services in Morganfield as well as the section of KY 56 that has a river crossing at the Shawneetown bridge.

D. Modal Interrelationships

This route does not provide direct access to any riverport , airport or other intermodal facility.

E. Social Demands & Economic Development

This route appears to serve mostly residential and agriculture based businesses along with the Higginson-Henry Wildlife Management Area.

II. PROJECT PURPOSE AND NEED (cont.)

F. Transportation Demand

Historical counts show a fairly stable ADT for the last few years. The latest count for station 113282 was done in 2020 With an ADT of 1795. However, The ADT ranges from 1590 (2020) to 2015 (2021) along this route and adjoining station information has also been provided as part of the documentation at the end of the DNA study.

G. Capacity

This project is not expected to add capacity. Other than the 0.65 miles of urban typical section, this route currently has two lanes ranging from 10' to 12' with little shoulders. There is no known issue with capacity on this route.

H. Safety

There were 74 crashes on this route from 2017-2022. Of those crashes, 12 were rear ends, 7 were sideswipes and 40 were single vehicle crashes. This included 15 animal collisions and 8 roadway departure crashes. The 7 sideswipes could be attributed in part to the narrow lanes. The lack of shoulders may have contributed to some of the vehicular run offs. Using the CDAT data from 2016-2020, this section of KY 56 had an Excess Expected Crashes (ECC) of 7.2, and a Level of Service of Safety (LOSS) of 3.

I. Roadway Deficiencies

The first 0.65 miles of this route within the city limits of Morganfield from MP 13.1 to MP13.75 has an urban typical section. The lanes are narrow. Some of the sidewalks have been replaced but here may be other spots that need addressing. There are multiple access points at an odd intersecton at Park Street (MP 13.5) that needs further review for potential improvements. The rural section also has narrow lanes and little to no shoulders. There is a "y" intersection at KY 758 that would need addressing. There appears to be a slide issue on the banks at at the Boxville Odd Fellows cemetary (near MP 19.05). There are some horizontal and vertical deficiencies that should be reviewed for potential improvement along with traffic flow issues at the intersection with KY 141.

Union

III. PRELIMINARY ENVIRONMENTAL OVERVIEW

A. Air Quality

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

STIP Pg.#: Need to add STIP

TIP Pg.#:

No air quality impacts are anticipated.

B. Archeology/Historic Resources

Known Archeological or Historic Resources are present

Archaeological and historic resources are nearby the project. Surveys will be required.

C. Threatened and Endangered Species

Potential impacts to T & E species (bats). No Effect all other species.

D. Hazardous Materials

Potentially Contaminated Sites are present Potential Bridge or Structure Demolition

Contaminated soil locations are possible. A Phase 1 site assessment is needed.

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

Minor stream impacts are anticipated. (BNR)

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

No noise impacts are anticipated.

G. Socioeconomic

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

Relocations not anticipated.

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

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

Morganfield Park is adjacent to road project. Section 4(f) impacts may occur as a result of the project.

[Anticipated Environmental Document:](#)

CE Level 2



IV. PROJECT NEED, PURPOSE & SCOPE
A. Need:
The project is needed to provide a safe and reliable route for residential and commercial traffic to and from Morganfield. This section of KY 56 Connects US 60 in downtown Morganfield to the Morganfield Bypass as well as KY 141. It provides the connection to businesses and services in Morganfield as well as residential properties. There is an urban typical section with a 35 MPH speed limit within the city limits of Morganfield from MP 13.1 to MP 13.75. From this point, this roadway is narrow with very little shoulders. A few geometric deficiencies and undesirable intersection layouts occur throughout the corridor. This section of KY 56 also has a few access management issues that needs to be reviewed for potential improvements.
B. Purpose:
The purpose of this project is to improve safety, traffic flow, and operation of KY 56.
C. Scope:
To make necessary improvements to KY 56 from downtown Morganfield (MP 13.1) to the intersection with KY 141 (MP 19.8). This would include addressing geometric deficiencies, improving operational issues, and addressing any other concerns.

V. PROJECT ESTIMATE & METHODOLOGY

Estimate Methodology:	Current Estimate	
Estimate Methodology: Estimate was based on knowledge of similar projects .	<u>Phase</u>	<u>Estimate</u>
	Planning	
	Design	\$ 2,800,000.00
	R/W	\$ 3,500,000.00
	Utilities	\$ 3,800,000.00
	Const	\$ 20,000,000.00
	Total	\$ 30,100,000.00

VI. UTILITIES POTENTIALLY AFFECTED - CONTACT INFORMATION

KU
Contact -Hunter Gipson
Electrical Engineer I
195 Hubert Reid Drive
Earlington, KY 42410
M: 270-841-0354
O: 270-383-6000

Kenergy
Contact: Scott Atherton
P.O. Box 1389
Owensboro, KY 42302-1389
O: 800-844-4832
D: 270-689-6110

AT&T
Contact - Scott Roche
1340 E John Rowan Blvd
Bardstown, KY 40004
502-348-4528

Spectrum
Contact - John Wade
250 Madison Square Dr.
Madisonville, KY 42431
502-253-2710

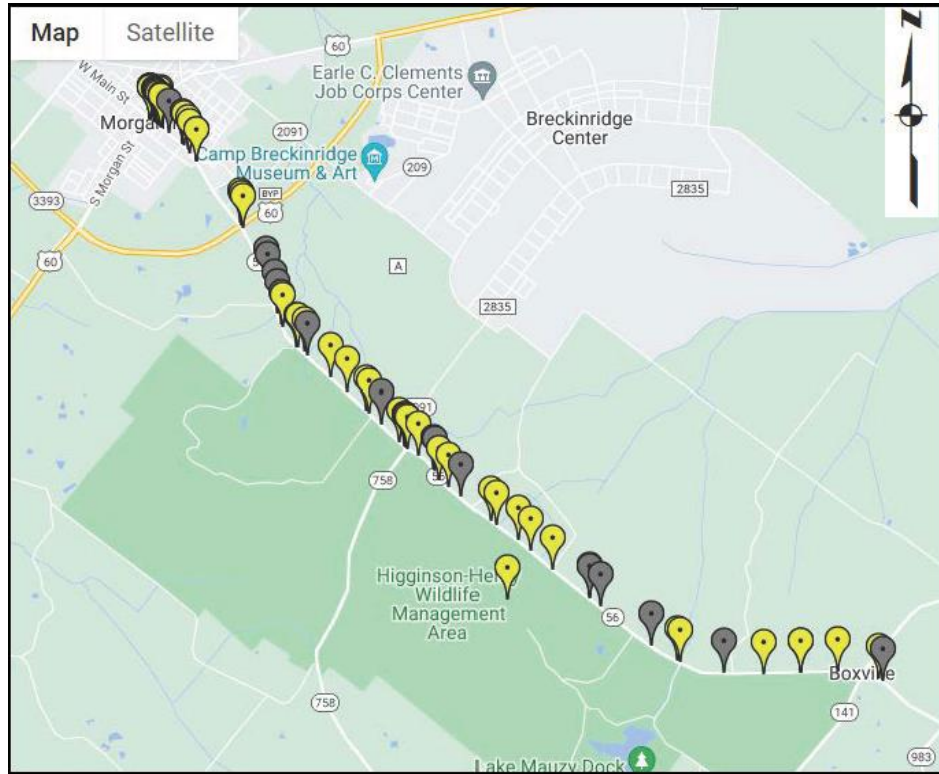
Windstream
Contact -James Galvin
111 South Main Street
Elizabethtown, KY 42701
270-765-1818

Union County Water District
Contact - Gary Sheffer
409 N Court Street
Morganfield, KY 42437
270-389-3868

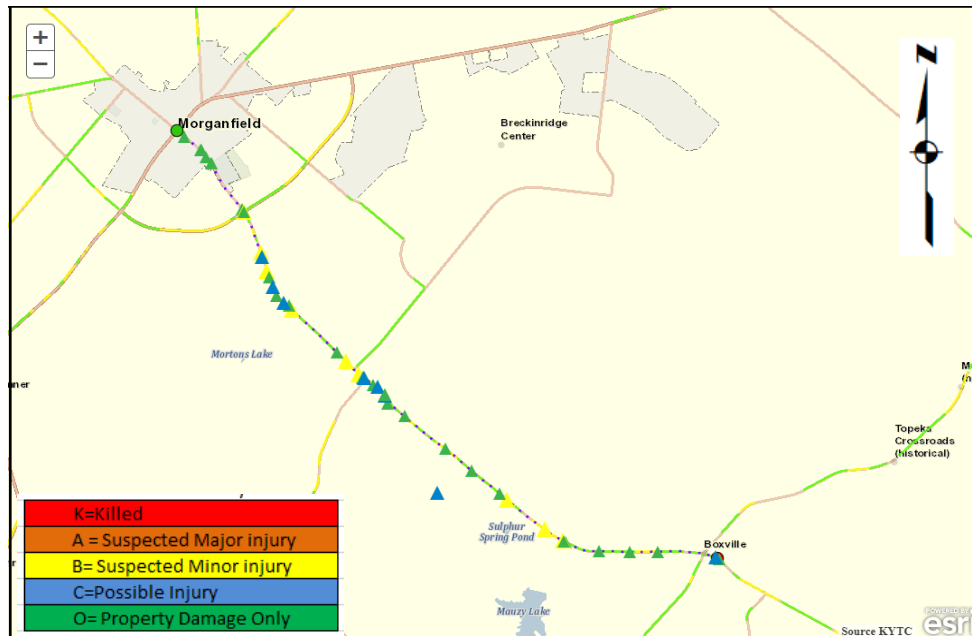
City of Morganfield
Contact: Les Piper
526 N. Court Street
Morganfield, KY 42437
270-389-2186

VII. TABLES AND EXHIBITS

Crash Data From 2017-2022
74 total Crashes

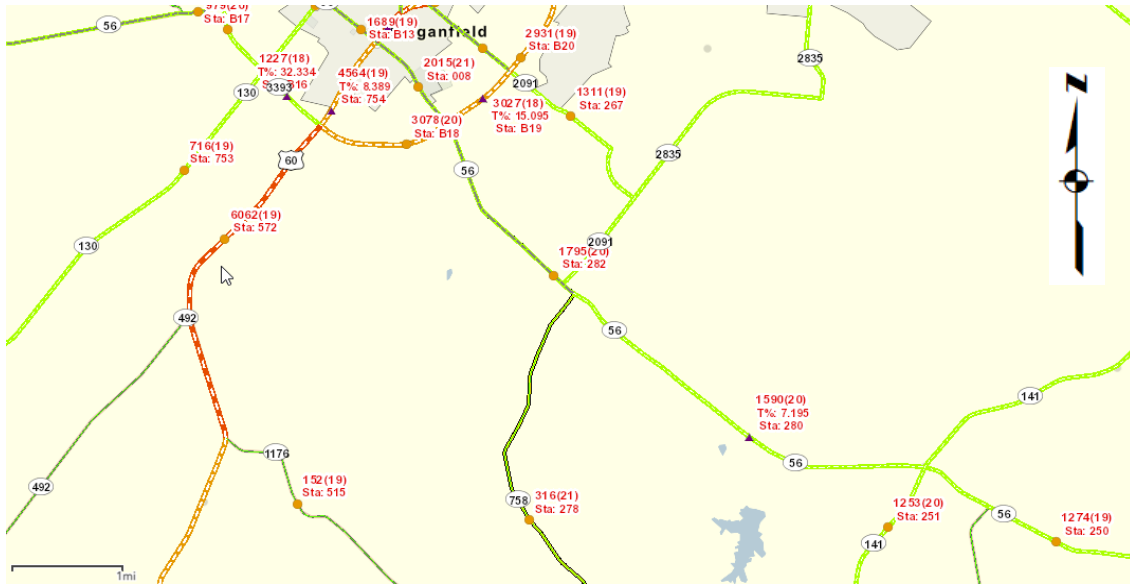


Crash Data Analysis Tool (CDAT)
2016-2020



VII. TABLES AND EXHIBITS (cont.)

Traffic Count Map



Count Station 113282 Details

Search Interactive Map

Print Download Station Details

Historical Traffic Volume Summary
Station Details:

Sta ID:	113282
Sta Type:	Full Coverage
Map:	MapIt
District:	2
County:	Union
Route:	113-KY-0056 -000
Route Desc:	KY-56

Begin MP:	14.0360
Begin Desc:	US 60 BYPASS
End Mp:	15.9990
End Desc:	KY 758
Impact Year:	
Year Added:	

Newest Count:

AA DT:	1795
Year:	2020
% Single:	10.6890
% Combo:	11.8690
K Factor:	11
D Factor:	56

Definitions:

Sta. ID - Three digit county number + station number

MP - milepoint

Impact Year - year of significant change to traffic pattern within station segment

AA DT - Annual Average Daily Traffic - the annualized average 24-hour volume of vehicles on a segment of roadway

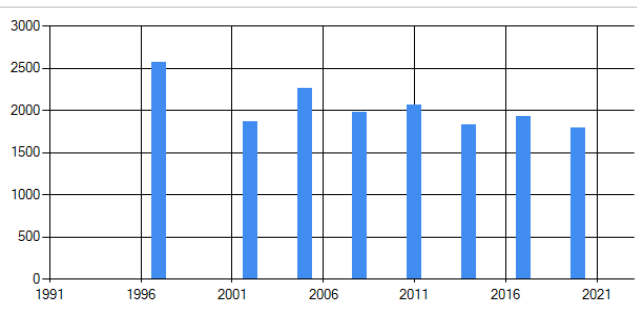
% Single - single unit truck volume as a percentage of the AA DT

% Combo - combination truck volume as a percentage of the AA DT

K Factor - peak hour volume as a percentage of the AA DT

D Factor - percentage of peak hour volume flowing in the peak direction

Year	AA DT	Year	AA DT	Year	AA DT
2022		2012		2002	1870
2021		2011	2060	2001	
2020	1795	2010		2000	
2019		2009		1999	
2018		2008	1980	1998	
2017	1932	2007		1997	2570
2016		2006		1996	
2015		2005	2260	1995	
2014	1834	2004		1994	
2013		2003		1993	



VII. TABLES AND EXHIBITS (cont.)

Additional count station details

Search Interactive Map

[Print](#) [Download Station Details](#)
 Historical Traffic Volume Summary
 Station Details:

Sta ID: 113008	Begin MP: 13.4950	Newest Count: AADT: 2015
Sta Type: Full Coverage	Begin Desc: EAST O BANNON ST/PARK ST	Year: 2021
Map: MapIt	End Mp: 14.0360	% Single: 10.6890
District: 2	End Desc: US 60 BYPASS	% Combo: 11.8690
County: Union	Impact Year:	K Factor: 12
Route: 113-KY-0056 -000	Year Added:	D Factor: 55
Route Desc: EAST MAIN ST+KY-56		

Definitions:
 Sta ID - Three digit county number + station number
 MP - milepoint
 Impact Year - year of significant change to traffic pattern within station segment
 AADT - Annual Average Daily Traffic - the annualized average 24-hour volume of vehicles on a segment of roadway
 % Single - single unit truck volume as a percentage of the AADT
 % Combo - combination truck volume as a percentage of the AADT
 K Factor - peak hour volume as a percentage of the AADT
 D Factor - percentage of peak hour volume flowing in the peak direction

Year	AADT	Year	AADT	Year	AADT
2022	2012	1911	2002		
2021	2015	2011	2001		
2020	2010	2000	1990		
2019	2009	2040	1999		
2018	1511	2008	1998		
2017	2007	1997	1997		
2016	2006	2010	1996		
2015	1965	2005	1995		
2014	2004	1994	1994		
2013	2003	1790	1993		

Search Interactive Map

[Print](#) [Download Station Details](#)
 Historical Traffic Volume Summary
 Station Details:

Sta ID: 113280	Begin MP: 15.9990	Newest Count: AADT: 1590
Sta Type: Classification	Begin Desc: KY 758	Year: 2020
Map: MapIt	End Mp: 19.6620	% Single: 4.5120
District: 2	End Desc: KY 141	% Combo: 2.6830
County: Union	Impact Year:	K Factor: 10.50
Route: 113-KY-0056 -000	Year Added:	D Factor: 62
Route Desc: KY-56		

Definitions:
 Sta ID - Three digit county number + station number
 MP - milepoint
 Impact Year - year of significant change to traffic pattern within station segment
 AADT - Annual Average Daily Traffic - the annualized average 24-hour volume of vehicles on a segment of roadway
 % Single - single unit truck volume as a percentage of the AADT
 % Combo - combination truck volume as a percentage of the AADT
 K Factor - peak hour volume as a percentage of the AADT
 D Factor - percentage of peak hour volume flowing in the peak direction

Year	AADT	Year	AADT	Year	AADT
2022	2012	2002	1560		
2021	2011	1850	2001		
2020	1590	2010	2000		
2019	2009	1999	1999		
2018	2008	1750	1998		
2017	1672	2007	1997	1430	
2016	2006	1996	1996		
2015	2005	1520	1995		
2014	2004	1994	1994		
2013	2003	1993	1993		

Search Interactive Map

[Print](#) [Download Station Details](#)
 Historical Traffic Volume Summary
 Station Details:

Sta ID: 113250	Begin MP: 19.6620	Newest Count: AADT: 1274
Sta Type: Full Coverage	Begin Desc: KY 141	Year: 2019
Map: MapIt	End Mp: 23.2090	% Single: 4.5120
District: 2	End Desc: WEBSTER COUNTY LINE	% Combo: 2.6830
County: Union	Impact Year:	K Factor: 9.40
Route: 113-KY-0056 -000	Year Added:	D Factor: 58
Route Desc: KY-56		

Definitions:
 Sta ID - Three digit county number + station number
 MP - milepoint
 Impact Year - year of significant change to traffic pattern within station segment
 AADT - Annual Average Daily Traffic - the annualized average 24-hour volume of vehicles on a segment of roadway
 % Single - single unit truck volume as a percentage of the AADT
 % Combo - combination truck volume as a percentage of the AADT
 K Factor - peak hour volume as a percentage of the AADT
 D Factor - percentage of peak hour volume flowing in the peak direction

Year	AADT	Year	AADT	Year	AADT
2022	2012	2002	1700		
2021	2011	2001	1700		
2020	2010	1260	2000	1700	
2019	1274	2009	1999		
2018	2008	1998	1998		
2017	2007	1320	1997		
2016	1371	2006	1996		
2015	2005	1995	1995		
2014	2004	1390	1994		
2013	1221	2003	1460	1993	

VII. TABLES AND EXHIBITS (cont.)



KY 56 looking South at US 60



KY 56 looking north at US 60



Looking north at the beginning of the urban section

VII. TABLES AND EXHIBITS (cont.)



KY 56 Looking north at US 60 Bypass



KY 56 looking north at KY 2091



Looking north at the inetersection with KY 758

VII. TABLES AND EXHIBITS (cont.)



KY 758 looking east at KY 56



Looking north at the bank of the cemetery

VII. TABLES AND EXHIBITS (cont.)



Looking north at KY 141



Looking south at KY 141