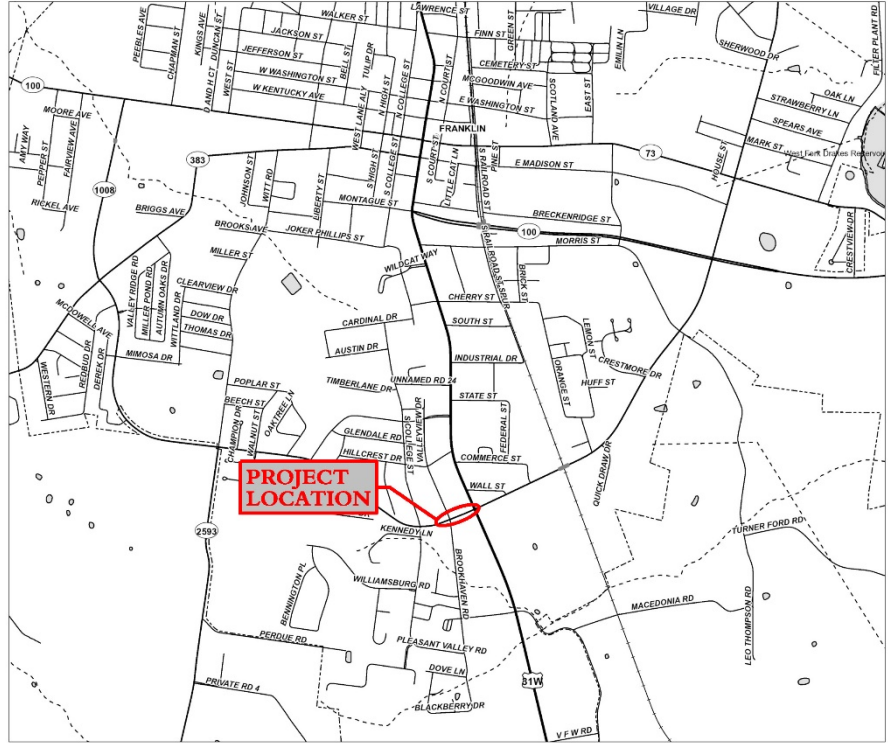
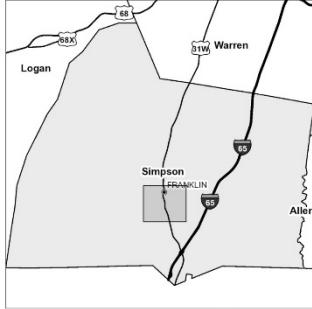
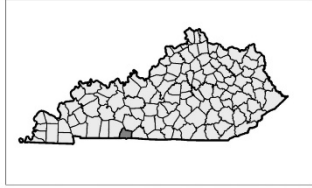


Data

Needs

Analysis



Scoping Study



KY-1008 at US-31W
Simpson County
Item No. 3-80106.00

Prepared by the
KYTC District 3

November 2021



I. PRELIMINARY PROJECT INFORMATION

County:	Simpson	Item No.:	3-80106.00
Route Number(s):*	KY-1008	Road Name:	Bluegrass Road
Program No.:	13536	UPN:	FD04 107 1008 002-003
Federal Project No.:	STP 9031041	Type of Work:	Congestion Mitigation

2020 **Highway Plan Project Description:**

ADD A TURN LANE AT THE INTERSECTION OF KY 1008 AND US 31W (2020CCN)

Beginning MP:	2.1	Ending MP:	2.4	Project Length:	0.3
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 checked="" type="checkbox"/> Urban <input type="checkbox"/> Rural Arterial	Truck Class.:	AA	% Trucks:	14.872
MPO Area:	Not Applicable	Terrain:	Rolling		
ADT (current):	5176 2018	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		
Posted Speed:	<input checked="" type="checkbox"/> 35 mph <input type="checkbox"/> 45 mph <input type="checkbox"/> 55 mph <input type="checkbox"/> Other (Specify):	Ped:	<input type="checkbox"/> Sidewalk		
KYTC Guidelines Preliminarily Based on :		35 MPH Proposed Design Speed			

COMMON GEOMETRIC

Roadway Data:	EXISTING	PRACTICES**	
No. of Lanes	2	2	Existing Rdwy. Plans available?
Lane Width	14'	11'	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Shoulder Width	8'	8'	Year of Plans:
Max. Superelevation***	N/A	6%	<input type="checkbox"/> Traffic Forecast Requested
Minimum Radius***	N/A	100'	Date Requested:
Maximum Grade	N/A	8%	<input type="checkbox"/> Mapping/Survey Requested
Minimum Sight Dist.	N/A	250'	Date Requested:
Sidewalk Width(urban)	N/A	4'	Type:
Clear-zone [†]	N/A	14'-16'	

Project Notes/Design Exceptions? N/A

Bridge No.: [‡]	(Bridge #1)	(Bridge #2)	
Sufficiency Rating			Existing Geotech Data Available?
Total Length			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Width, curb to curb			
Span Lengths			
Year Built			
Posted Weight Limit			Detour Length(s): N/A
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 is listed in KY's FY20-FY26 Enacted Highway Plan.

<i>Funding</i>	<i>Phase</i>	<i>Year</i>	<i>Amount</i>
SPP	D	2021	\$250,000
SPP	R	2022	\$350,000
SPP	U	2022	\$300,000
SPP	C	2023	\$1,000,000

B. Project Status

The design funding of \$250,000 was authorized on July 26, 2021.

C. System Linkage

KY-1008 is federally functionally classified as an Urban Minor Arterial that primarily connects the residents of southwestern Simpson County to the city of Franklin.

D. Modal Interrelationships

This is an urban highway that has some modal interrelationships. It is on the Kentucky Highway Freight Network, and the eastern leg of KY-1008 (MP 2.276 - 2.4) is on the National Truck Route Network as a State Designated Truck Route. There is not a fixed route transit service, but KY-1008 is a bus route for area schools. Bicycle and pedestrian facilities are only present on the southern leg of US-31W up to the intersection with KY-1008.

E. Social Demands & Economic Development

This highway provides the primary connection for residents of southwestern Simpson County to the services - business, school, healthcare, government, and recreational activity - of the city of Franklin.

II. PROJECT PURPOSE AND NEED (cont.)

F. Transportation Demand

The last actual traffic count for KY-1008 in Simpson County between MP 2.1 and MP 2.276 (western leg) was 5,176 AADT (2018). These counts have remained fairly consistent over the past two decades. This is a AA route (14.872%) and is vital for the transportation of freight. Just to document, the last actual traffic count for the eastern leg of KY-1008 (MP 2.276 - 2.4) was 9,890 AADT (2019) and is a AAA route (18.707%).

G. Capacity


With continued development and growth in the area, the western leg of KY-1008 does experience some congestion issues. The major contributing factor being the lack of a left turn lane.

H. Safety

In the last five years (2016-2020), there have been 26 reported crashes on the western leg of KY-1008. The majority of them being angle type collisions. The Critical Rate Factor (CRF) for this corridor is 0.738, indicating that crashes may be occurring at a lower rate than on a similar type of corridor in Kentucky. However, it is worth noting that this does not include crashes that were documented as being on US-31W even in instances where a driver on KY-1008 was at fault (55 reported crashes on US-31W at this intersection). Just to document, there were 25 reported crashes on the eastern leg of KY-1008 and its CRF is 1.646.

I. Roadway Deficiencies

This roadway does not have any noteworthy deficiencies.

III. PRELIMINARY ENVIRONMENTAL OVERVIEW	
A. Air Quality Project is in: <input checked="" type="checkbox"/> Attainment area <input type="checkbox"/> Nonattainment or Maintenance Area <input type="checkbox"/> PM 2.5 County STIP Pg. #: _____ TIP Pg. #: _____ The SPP design funds was added to the FY19-22 STIP as part of Administrative Mod. 2018.306 on June 16, 2021	
B. Archeology/Historic Resources <input type="checkbox"/> Known Archeological or Historic Resources are present Section 106 will apply and SHPO clearances for archeology and historic will be required. There were no sites observed within the environmental footprint that appear to be eligible for the NRHP.	
C. Threatened and Endangered Species There are no critical habitats at this location. The Gray bat and Indiana bat are endangered species, and the Northern long-eared bat is threatened. Anticipate that seasonal tree clearing restrictions will be required to minimize potential adverse effects to Indiana bats. Expect a subject matter expert to conduct a further survey.	
D. Hazardous Materials <input checked="" type="checkbox"/> Potentially Contaminated Sites are present <input type="checkbox"/> Potential Bridge or Structure Demolition There is a gas station within the corridor.	
E. Permitting 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 Are 401/404 Permits likely to be required? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Impacts to: <input type="checkbox"/> Wetlands <input type="checkbox"/> Stream/Lake/Pond <input type="checkbox"/> ACE LON <input type="checkbox"/> ACE NW <input type="checkbox"/> ACE IP <input type="checkbox"/> DOW IWQC <input type="checkbox"/> Special Use Waters DEA Permit Coordinator will prepare any needed permits.	
F. Noise Are existing or planned noise sensitive receptors adjacent to the proposed project? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Is this considered a "Type I Project" according to KYTC Noise Analysis and Abatement Policy? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No An addition of a turn lane is not a Type 1 Project.	
G. Socioeconomic Check all that may apply: <input type="checkbox"/> Low Income/Minority Populations <input type="checkbox"/> Relocations <input type="checkbox"/> Local Land Use Plan available There are no relocations that will be required for the construction of this project.	
H. Section 4(f) or 6(f) Resources The following are present on the project: <input type="checkbox"/> Section 4(f) Resources <input type="checkbox"/> Section 6(f) Resources There are no 4(f) or 6(f) resources within the direct impact areas.	
Anticipated Environmental Document:	CE Level 1 

IV. PROJECT NEED, PURPOSE & SCOPE

A. Need:

KY-1008 is an urban minor arterial route that connects the southwestern residents of Simpson County to the city of Franklin. The western leg of KY-1008 is a AA truck route that is vital for the transportation of freight. This leg currently experiences 14.872% truck traffic.

B. Purpose:

The purpose of this project is to reduce congestion and improve safety and mobility for drivers on KY-1008 at the intersection with US-31W.

C. Scope:

The estimated improvement to this intersection is to add a left turn lane on the western leg of KY-1008 at the intersection with US-31W. Access management should also be considered in the area, possibly eliminating the two gas station entrances closest to the intersection on the western leg of KY-1008 and the northern leg of US-31W and possibly reducing the length of Hunt Ford's entrance on the western leg of KY-1008. Since this work would be outside of the existing alignment, impacts to right-of-way and utilities can be expected.

V. PROJECT ESTIMATE & METHODOLOGY

Estimate Methodology:	Current Estimate	
The following estimate is based on adding a left turn lane on the western leg of KY-1008 at the intersection with US-31W.	<u>Phase</u>	<u>Estimate</u>
	Planning	
	Design	\$250,000
	R/W	\$350,000
	Utilities	\$300,000
	Const	\$1,000,000
	Total	\$1,900,000

VI. UTILITIES POTENTIALLY AFFECTED - CONTACT INFORMATION

Company - AT&T	Atmos Energy Corporation
Contact - Gary Kidd, Area Manager	Ronnie Benningfield, Operations Manager
Address - 3719 Bardstown Rd, 2nd Fl, Louisville, KY 40218	2850 Russellville Road, Bowling Green, KY 42101
Phone No. - 502-454-4591	270-901-1705
Company - Lumen (Century Link Comm, LLC)	Comcast Cable
Contact - Jeffrey Cannon, Program Manager	Danny Hoover, Supervisor
Address - 2530 Perimeter Place Drive, Nashville, TN 37214	2919 Ring Road, Elizabethtown, KY 42701
Phone No. - 615-263-1128	270-706-0351
Company - Franklin Electric Plant Board	City of Franklin, KY - Water and Sewer Dept
Contact - John Law, Operations Superintendent	Kenton Powell, City Manager
Address - 309 N High St, PO Box 349, Franklin, KY 42135	117 W Cedar St, PO Box 2805, Franklin, KY 42135
Phone No. - 270-586-4441	270-586-4497
Company - Tennessee Valley Authority	
Contact - Williams Mills, Transmission Service Manager	
Address - 6045 Russellville Road, Bowling Green, KY 42101	
Phone No. - 270-846-7049	

VII. TABLES AND EXHIBITS



Photo 1: Western leg of KY-1008 facing east toward the intersection with US-31W

VII. TABLES AND EXHIBITS (cont.)



Photo 2: Eastern leg of KY-1008 facing west toward the intersection with US-31W