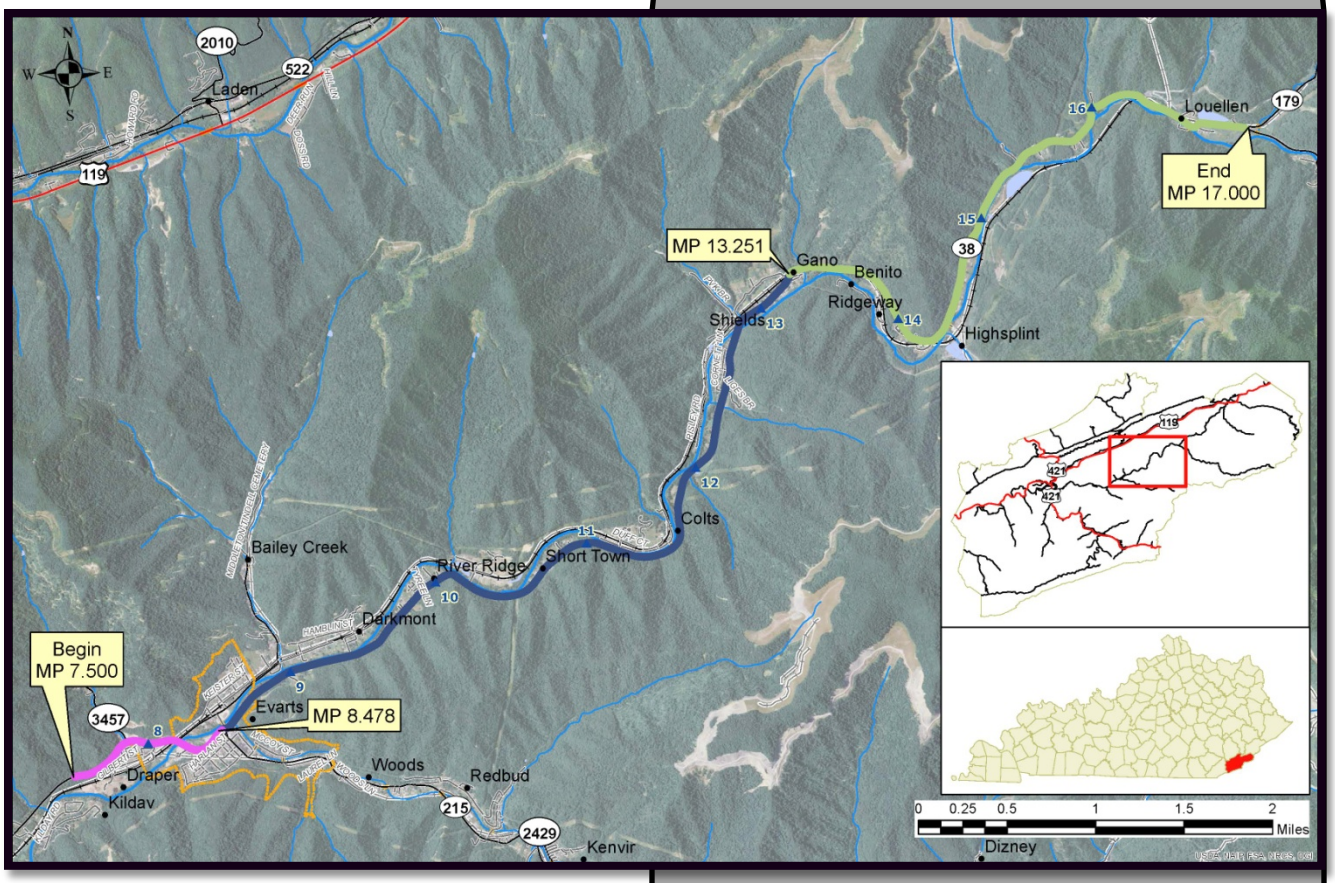

Programming Study

KY 38, Harlan County
From west of KY 3457 to
east of KY 179

Prepared by the KYTC
Division of Planning and
KYTC District 11

September 2013

KENTUCKY
TRANSPORTATION
CABINET

Executive Summary

The KY 38 programming study was undertaken as a result of requests from Congressman Hal Rogers and several local officials to identify improvements along the rural collector in Harlan County, east of the city of Harlan. The study area extends from just west of KY 3457 (MP 7.500), to just east of the KY 179 intersection (MP 17.000) (see **Figure ES-1**). A project team was assembled and included participants from the Kentucky Transportation Cabinet's (KYTC) Central Office Planning and Geotechnical Branches, the KYTC District 11 Manchester office's Project Development Branch (Highway Design and Environmental Analysis), District 11 Project Development & Preservation Branch, and the Cumberland Valley Area Development District. No local officials/stakeholders meetings or public meetings were held as a part of this study. Through analysis of the existing roadway geometrics, crash data, site visits, and discussion with the project team, several needs were identified:

- KY 38, east of Evarts, has a narrow roadway template with several horizontal curves that do not meet current design standards.
- There is a collision history at many of the horizontal curve locations causing the CRF to be greater than 1, therefore crashes may not be occurring at random.
- KY 38 connects the community of Evarts and many other communities along the route to the city of Harlan to the west and the state of Virginia to the east.

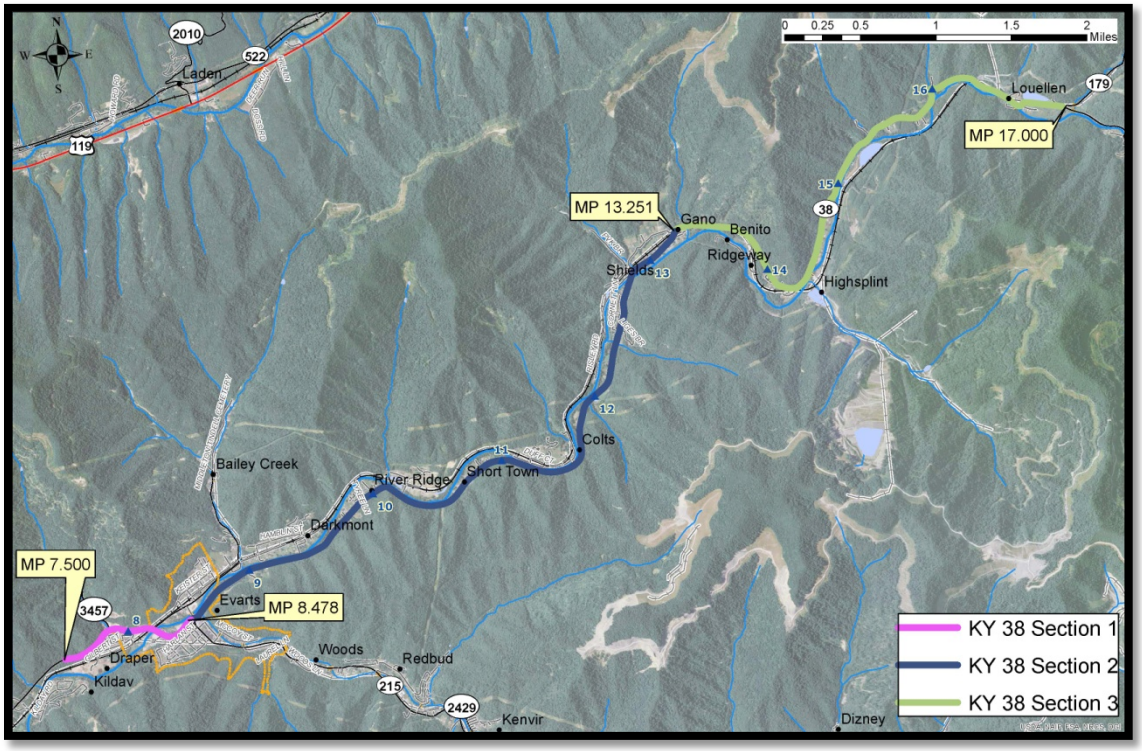

Figure ES-1: Project Location Map

The purpose of this study is to identify potential spot locations along the KY 38 corridor to improve the safety, mobility, and connectivity between Evarts and Louellen. Suggested spot improvements include combining access points, adding advanced warning signage, clearing trees to aid with sight distance, realigning horizontal curve(s), minor widening of the shoulder(s), reconstructing the alignment, replacing a bridge, constructing an auxiliary lane(s), and resurfacing driving lanes with high friction asphalt.

One of the fourteen spot improvements identified by the project team is in the current 2012 Highway Plan, and the description along with the funding information follows:

- **Item No. 11-8704.00, Harlan County**

Funding	Phase	Year	Amount
SPP	D	2013	$550,000
SPP	R	2013	$200,000
SPP	U	2013	$150,000
SPP	C	2014	$1,200,000

IMPROVE SAFETY ON DEAD MAN'S CURVE NEAR MP 10.1. (12CCN)
Purpose and Need: SAFETY/SAFETY (P)

A comprehensive listing of all potential spot improvements identified on KY 38, the brief problem, and their associated cost for the various phases is shown below in **Table ES-1**.

Milepoint (approx.)	Issue	Cost Estimate ($)				
		Design	Right of Way	Utility	Construction	Total
7.800 - 7.950	access management, speeding	$15,000	-	-	$50,000	$65,000
8.100 - 8.500	access management, railroad crossing	$15,000	-	-	$50,000	$65,000
8.400 - 8.600	sight distance, horizontal curve	$100,000	$50,000	$50,000	$750,000	$950,000
9.300 - 9.550	minimal shoulder, approach roads	-	-	-	$100,000	$100,000
10.050 - 10.150	sight distance, horizontal curve	$550,000	$200,000	$150,000	$1,200,000	$2,100,000
10.800 - 11.100	rock slides, adjacent river	$750,000	$750,000	$500,000	$4,500,000	$6,500,000
11.450 - 11.550	sight distance, horizontal curve	-	-	$50,000	$200,000	$250,000
11.850 - 12.050	sight distance, lack of shoulders	-	-	$50,000	$250,000	$300,000
12.800 - 12.950	deficient bridge, narrow approaches	$350,000	$150,000	$100,000	$1,800,000	$2,400,000
13.200 - 13.400	horizontal curve at railroad	$150,000	$50,000	$100,000	$900,000	$1,200,000
14.200 - 14.450	narrow section for turn movements	$150,000	$100,000	$100,000	$1,500,000	$1,850,000
15.350 - 15.750	lack of shoulders	-	-	-	$250,000	$250,000
15.900 - 16.100	horizontal S-curve	$300,000	$150,000	$75,000	$1,000,000	$1,525,000
16.550 - 16.800	horizontal curve	$300,000	$300,000	$75,000	$1,000,000	$1,675,000

Table ES-1: Cost Estimates of 14 Spot Improvements