

Paducah Small Urban Area Study

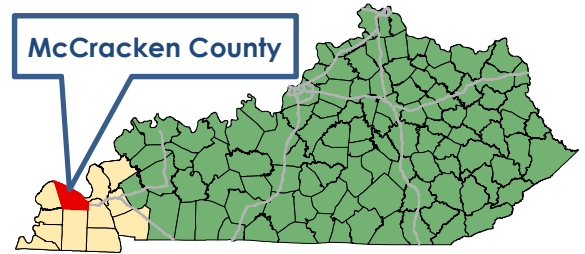
McCracken County
KYTC Item No. N/A

May 2019



Paducah Small Urban Area Study Executive Summary

The Kentucky Transportation Cabinet (KYTC) initiated a Small Urban Area (SUA) study for the city of Paducah, Kentucky in McCracken County in April 2018. The goal of the study is to identify and examine highway and multimodal transportation issues related to safety and congestion in Paducah and the surrounding area. The study area includes the city limits of Paducah and some surrounding portions of McCracken County, totaling 91.1 square miles. The City of Paducah requested the development of an urban transportation study for the Paducah area, as the last Paducah-McCracken County Transportation Study was completed in 2002. This SUA planning study was funded with Federal Statewide Planning and Research (SPR) funds.



The basic elements accomplished under this SUA study include the following:

- Inventory and evaluate existing conditions, crash history, and geometric deficiencies to identify possible safety improvements.
- Evaluate existing traffic and forecast future traffic volumes on state-maintained and other major routes within the study area to evaluate capacity needs of the transportation network.
- Work with an Advisory Committee of local stakeholders and public officials to identify problem areas and improvement concepts.
- Produce a list of short-term recommendations which KYTC, City of Paducah, McCracken County, and/or private developers can take for further project development and implementation.
- Address long-term concerns by examining the future transportation needs and determining options for future improvement projects.

The first Advisory Committee meeting was held on June 27, 2018 in Paducah. At the meeting, attendees were asked to identify locations: 1) where congestion is an issue, 2) where there are trouble spots related to safety, 3) areas where growth is anticipated, and 4) locations for possible highway and multimodal transportation improvements. The Advisory Committee identified 23 locations with possible congestion issues, 36 trouble spots related to safety, 16 growth areas, and 17 locations for possible transportation and multimodal improvements.

The project team developed 25 improvement concepts, as shown in **Figure ES-1**, based on a combination of a review of the existing conditions, traffic analyses, field reconnaissance, and input from the Advisory Committee. Cost estimates were prepared for each improvement concept, shown in **Table ES-1**. KYTC District 1 assisted in this effort by providing right-of-way and utility cost estimates.

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Figure ES-1: Improvement Concepts

- Short-Term
- Short-Term / Long-Term
- Long-Term
- Local Project

ID	Route	Short-Term / Long-Term	Improvement Type
A	Kentucky Ave (US 45X)	Short-Term	Road Diet
B	Joe Clifton Drive (US 45)	Short-Term	Road Diet
C	Intersection at Joe Clifton Drive and US 60	Short-Term	Dual Left Turn Lanes
D	H C Mathis Drive (US 45)	Short-Term	Road Diet
E	Martin Luther King Jr Drive and Park Avenue (US 60X & US 45X)	Short-Term	Pavement Striping
F	Paducah Convention Center Entrance (US 45X / US 60X)	Long-Term	Intersection Reconfiguration
G	3rd Street and 4th Street (US 45X and US 60X)	Short-Term	Pavement Striping
		Long-Term	Two-Way Conversion
H	Southern Split (US 60X)	Long-Term	Intersection Reconfiguration
I	Jefferson Street and Broadway Street	Local Project: Short-Term	Pavement Striping
		Local Project: Long-Term	Two-Way Conversion
J	Friendship Road (KY 1286)	Short-Term	High Friction Pavement
		Long-Term	Reconstruction
K	Olivet Church Road (KY 998)	Long-Term	Minor Widening
L	Berger Road (KY 1310)	Long-Term	Sidewalk on One Side
			Reconstruction
M	South Friendship Road (KY 1286)	Long-Term	Minor Widening or Reconstruction
N	Intersection at Jackson Street and Lone Oak Road (US 45 & US 62)	Long-Term	Right Turn Lane on Jackson Street
		Long-Term	Major Widening of US 62
O	Lone Oak Road (US 45)	Long-Term	Sidewalks and Driveway Consolidation
		Long-Term	Reversible Lanes
P	Cairo Road (KY 305)	Long-Term	Major Widening and Reconstruction
Q	KY 731 including Intersections at Broadway Street	Long-Term	Major Widening and Intersection Reconfiguration
R	New Holt Road	Local Project: Long-Term	Major Widening
S	Clarks River Ferry Road	Local Project: Short-Term	Road Closure

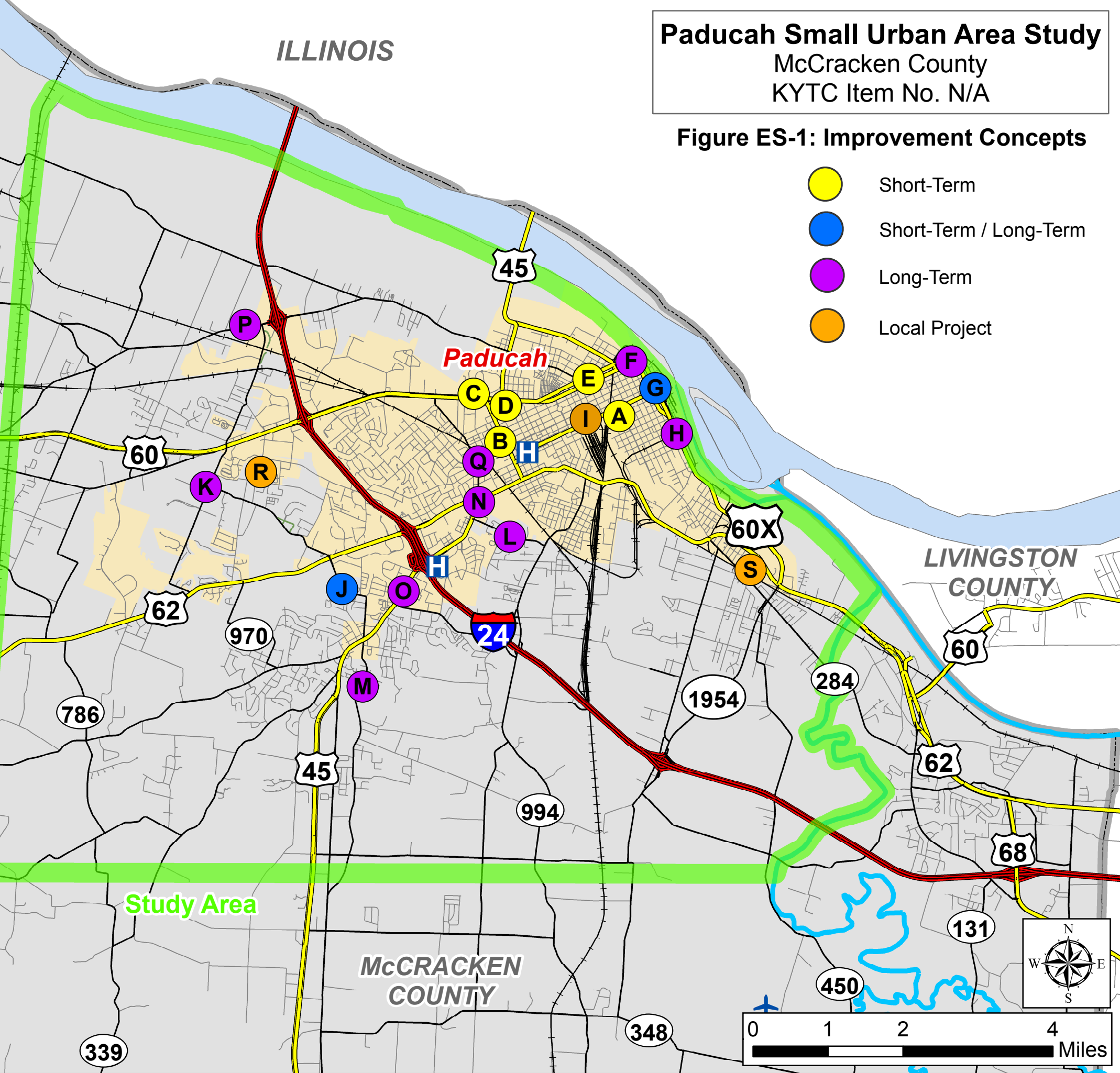


Table ES-1: 2018 Cost Estimates

ID	Route	Improvement Type	2018 Cost Estimates				
			Design	Right-of-Way	Utility Relocation	Construction	Total Cost
A	Kentucky Ave (US 45X)	Road Diet	\$100,000	\$0	\$0	\$300,000	\$400,000
B	Joe Clifton Drive (US 45)	Road Diet	\$100,000	\$0	\$0	\$500,000	\$600,000
C	Intersection at Joe Clifton Drive and US 60	Dual Left-Turn Lanes	\$20,000	\$0	\$0	\$80,000	\$100,000
D	H C Mathis Drive (US 45)	Road Diet	\$20,000	\$0	\$0	\$130,000	\$150,000
E	Martin Luther King Jr Drive and Park Avenue (US 60X & US 45X)	Pavement Striping	\$100,000	\$0	\$0	\$900,000	\$1,000,000
F	Paducah Convention Center Entrance (US 45X / US 60X)	Intersection Reconfiguration	\$400,000	\$3,000,000	\$6,000,000	\$1,800,000	\$11,200,000
G	3rd Street and 4th Street (US 45X and US 60X)	Pavement Striping	\$100,000	\$0	\$0	\$600,000	\$700,000
		Two-Way Conversion	\$300,000	\$0	\$0	\$1,300,000	\$1,600,000
H	Southern Split (US 60X)	Intersection Reconfiguration	\$300,000	\$800,000	\$500,000	\$1,300,000	\$2,900,000
I	Jefferson Street and Broadway Street	Pavement Striping	\$100,000	\$0	\$0	\$700,000	\$800,000
		Two-Way Conversion	\$300,000	\$0	\$0	\$1,400,000	\$1,700,000
J	Friendship Road (KY 1286)	High Friction Pavement	\$10,000	\$0	\$0	\$40,000	\$50,000
		Reconstruction	\$1,900,000	\$5,000,000	\$4,600,000	\$17,600,000	\$29,100,000
K	Olivet Church Road (KY 998)	Minor Widening	\$500,000	\$1,100,000	\$700,000	\$4,000,000	\$6,300,000
L	Berger Road (KY 1310)	Sidewalk on One Side	\$70,000	\$3,500,000	\$1,000,000	\$350,000	\$4,920,000
		Reconstruction	\$1,300,000	\$4,200,000	\$3,900,000	\$7,200,000	\$16,600,000
M	South Friendship Road (KY 1286)	Minor Widening	\$900,000	\$5,000,000	\$800,000	\$6,000,000	\$12,700,000
		Reconstruction	\$1,600,000	\$10,000,000	\$5,000,000	\$10,900,000	\$27,500,000
N	Intersection at Jackson Street and Lone Oak Road (US 45 & US 62)	Right Turn Lane on Jackson Street	\$100,000	\$1,500,000	\$3,000,000	\$200,000	\$4,800,000
		Major Widening of US 62	\$2,000,000	\$8,400,000	\$6,600,000	\$9,500,000	\$26,500,000
O	Lone Oak Road (US 45)	Sidewalks and Driveway Consolidation	\$100,000	\$10,000,000	\$2,000,000	\$800,000	\$12,900,000
		Reversible Lanes	\$400,000	\$0	\$0	\$2,000,000	\$2,400,000
P	Cairo Road (KY 305)	Major Widening and Reconstruction	\$1,700,000	\$4,000,000	\$2,000,000	\$11,300,000	\$19,000,000
Q	KY 731 including Intersections at Broadway Street	Major Widening and Intersection Reconfiguration	\$1,300,000 (\$300,000 Planning)	\$4,200,000	\$3,300,000	\$7,900,000	\$17,000,000
R	New Holt Road	Major Widening	\$700,000	\$9,000,000	\$3,500,000	\$3,600,000	\$16,800,000
S	Clarks River Ferry Road	Road Closure	\$0	\$0	\$0	\$10,000	\$10,000

Three classes of improvement concepts were developed. The concepts are categorized as follows:

- **Short-term:** The short-term concepts are typically lower-cost improvements that can be implemented in the near future. These types of improvements should require little or no right-of-way to construct and, in some cases, may be implemented by KYTC as part of other regular activities.
- **Long-term:** The long-term concepts are higher-cost improvements that will require more significant resources to implement. These types of improvements are more likely to require additional right-of-way to construct and will need to be funded through Kentucky's Highway Plan.
- **Local Concepts:** The local concepts are not located on the state-maintained system and would likely need to be funded by the City of Paducah or McCracken County. A private developer may also take on this responsibility.

A second Advisory Committee Meeting was held on December 11, 2018 in Paducah. During this meeting, attendees were asked to indicate their level of support for each of the improvement concepts. Factoring in collected data and input from the Advisory Committee, the project team prioritized the conceptual improvements as high, medium, or low. **Tables ES-2, ES-3, and ES-4** present the improvement concepts based on this prioritization.

Project Team Recommendations

- 11 High Priority Improvement Concepts
- 8 Medium Priority Improvement Concepts
- 5 Low Priority Improvement Concepts
- 3 Improvement Concepts Not Recommended at this time

An additional concept discussed was a road diet along Jackson Street (US 45) and Irvin Cobb Drive (US 60) between Lone Oak Road and Bridge Street (KY 284). Stantec investigated this location further after the meeting. With modest to flat growth expected in the area, one through lane in each direction should be able to accommodate current and future travel demand with two configuration options. Option 1 would be to restripe the existing roadway to one 13.5-foot lane in each direction and a 15-foot two-way left-turn lane (TWLTL). Option 2 would be to restripe the existing roadway to one 10.5-foot lane in each direction, an 11-foot TWLTL, and a 5-foot bike lane in each direction. Because the portion of Jackson Street between Lone Oak Road and 28th Street exceed

daily volumes of 18,000 vehicles per day (VPD), additional analysis should be conducted to better understand the peak travel direction prior to implementing the road diet along this portion of Jackson Street. This concept was not prioritized.

It was noted at the second Advisory Committee Meeting that for Concepts F and H, the intersection improvement does not necessarily have to be a roundabout. Additional intersection alternatives should also be considered. Concepts F, G2, and H will need to be implemented together to make a two-way conversion work.

Table ES-2: Recommended High Priority Improvement Concepts

ID	Route	Location	Length	Short-Term or Long-Term	Improvement Type	2018 Cost Estimate (All Phases)	Priority
A1 and A2	Kentucky Ave (US 45X)	25th Street to 4th Street	1.8 Miles	Short-Term	Road Diet – one 12.5-foot lane in each direction and a 15-foot two-way left-turn lane	\$400,000	High Priority
					Road Diet – one 10.5-foot lane in each direction, an 11-foot TWLTL, and a 4-foot bike lane in each direction		
C	Intersection at Joe Clifton Drive and US 60	Joe Clifton Drive and US 60	13.22 Miles	Short-Term	Restripe to provide dual left-turn lanes on the northbound approach (Joe Clifton Drive)	\$100,000	High Priority
I1 and I2	Jefferson Street and Broadway Street	7th Street to Fountain Avenue	1.00 Miles	Short-Term	Pavement Striping to delineate on-street parking and provide a bike lane	\$800,000	High Priority
				Long-Term	Two-Way Conversion	\$1,700,000	High Priority
J1 and J2	Friendship Road (KY 1286)	US 45 to New Holt Road	2.8 Miles	Short-Term	High Friction Pavement	\$50,000	High Priority
				Long-Term	Reconstruction	\$29,100,000	High Priority
K	Olivet Church Road (KY 998)	KY 1286 to US 60	0.6 Miles	Long-Term	Widening pavement and shoulders	\$6,300,000	High Priority
O	Lone Oak Road (US 45)	KY 1286 to Martin Circle	1.2 Miles	Long-Term	Reversible Lanes and Left-turn signal modifications	\$2,400,000	High Priority
R	New Holt Road	KY 1286 to US 60	1.00 Miles	Long-Term	Major Widening – add one lane each direction with bike lanes and sidewalks	\$16,800,000	High Priority
S	Clarks River Ferry Road	Under US 60X	0.03 Miles	Short-Term	Road Closure – Add Guardrail, Signage, and Striping	\$10,000	High Priority

Table ES-3: Recommended Medium Priority Improvement Concepts

ID	Route	Location	Length	Short-Term or Long-Term	Improvement Type	2018 Cost Estimate (All Phases)	Priority
B1 and B2	Joe Clifton Drive (US 45)	Jackson Street to Ross Avenue	1.04 Miles	Short-Term	Road Diet – one 12.5-foot lane in each direction and a 15-foot two-way left-turn lane	\$600,000	Medium Priority
					Road Diet – one 10.5-foot lane in each direction, an 11-foot TWLTL, and a 4-foot bike lane in each direction		
F	Paducah Convention Center Entrance (US 45X/US 60X)	Martin Luther King Jr Drive and Park Avenue at Convention Center Entrance	0.3 Miles	Long-Term	Intersection Reconfiguration – Roundabout at Park Avenue, Martin Luther King Jr. Drive, 3rd Street, 4th Street, and Convention Center Entrance	\$11,200,000	Medium Priority
G1 and G2	3rd Street and 4th Street (US 45X and US 60X)	5th Street to Adams Street	0.8 Miles	Short-Term	Pavement Striping to delineate on-street parking and provide a bike lane	\$700,000	Medium Priority
				Long-Term	Two-Way Conversion	\$1,600,000	Medium Priority
H	Southern Split (US 60X)	Adams Street to Tennessee Street	0.2 Miles	Long-Term	Intersection Reconfiguration – Roundabout at 3rd Street, 4th Street, and US 60X	\$2,900,000	Medium Priority
N	Intersection at Jackson Street and Lone Oak Road (US 45 & US 62)	Westbound Jackson Street	9.2 Miles	Long-Term	Intersection at Jackson Street and Lone Oak Road (US 45 & US 62) (MP 9.2)	\$4,920,000	Medium Priority
Q	KY 731 including Intersections at Broadway Street	KY 731 from US 62 to Broadway Street	0.45 Miles	Long-Term	Intersection Reconfiguration with drainage improvements, pedestrian accommodations, and access management	\$17,000,000	Medium Priority

Table ES-4: Recommended Low Priority Improvement Concepts

ID	Route	Location	Length	Short-Term or Long-Term	Improvement Type	2018 Cost Estimate (All Phases)	Priority
D	H C Mathis Drive (US 45)	Joe Clifton Drive to US 60	0.24 Miles	Short-Term	Road Diet – one 11-foot lane in each direction and a 14-foot two-way left-turn lane	\$150,000	Low Priority
L1 and L2	Berger Road (KY 1310)	US 45 to KY 994	1.02 Miles	Long-Term	Sidewalk on one side Reconstruction	\$4,920,000 \$16,600,000	Low Priority
N	Intersection at Jackson Street and Lone Oak Road (US 45 & US 62)	Westbound Jackson Street	9.2 Miles	Long-Term	Right Turn Lane on westbound Jackson Street to northbound KY 731	\$4,920,000	Low Priority
P	Cairo Road (KY 305)	Charter Oak Drive to Commerce Drive	1.45 Miles	Long-Term	Major Widening and Reconstruction	\$19,000,000	Low Priority