

## I. PROJECT INTRODUCTION

The Kentucky Transportation Cabinet (KYTC) has undertaken a corridor planning study for a portion of a proposed new interstate route, Interstate 69 (I-69), which is proposed to travel from Indiana through Kentucky and into Tennessee. The study area for this section of I-69 includes portions of Lyon, Caldwell, Hopkins, Webster and Henderson Counties in Kentucky. As shown in **Figure 1**, the corridor under study follows along the Wendell H. Ford (Western Kentucky) Parkway from its southern terminus at I-24 near Eddyville in Lyon County to the Edward T. Breathitt (Pennyrile) Parkway, hereinafter referred to as the Ford Parkway and Breathitt Parkway, respectively. I-69 would then follow along the Breathitt Parkway to its northern terminus in Henderson at or near the Henderson Bypass (KY 425) in Henderson County.

Prior to all public meetings held for this study, a notice was placed in major state and local newspapers. A copy of this public notice is included in **Appendix A – NEPA Public Notice**. This notice announced that:

- The study had begun;
- All meetings for the study would be part of a scoping process as defined in the National Environmental Policy Act of 1969;
- Input was being sought on project issues, impacts, and alternates related to the proposed project; and
- Any input and information from the study may be used in future decisions on the proposed project.

The primary purpose of the study is to review existing conditions along the Ford Parkway and the Breathitt Parkway to:

- Identify locations where either one or both of the Parkways may not meet AASHTO highway design guidelines;
- Evaluate the degree to which the Parkways meet or fall short of those guidelines, if problem areas are found;
- Identify options for making improvements to the Parkways to address any identified problem areas; and
- Make recommendations regarding the suitability of routing I-69 along the Ford and Breathitt Parkways.

In undertaking this planning-level analysis, only a limited amount of new, primary source data was generated through limited field reviews and/or new data collection. This review of existing conditions is based primarily on the following sources of information:

- As-built construction plans for the Parkways, which were provided by KYTC Highway Districts 1 and 2;
- The KYTC Highway Information System (HIS) database, which includes systems, geometric, and operations data; and
- National I-69 studies undertaken for the Federal Highway Administration (FHWA).

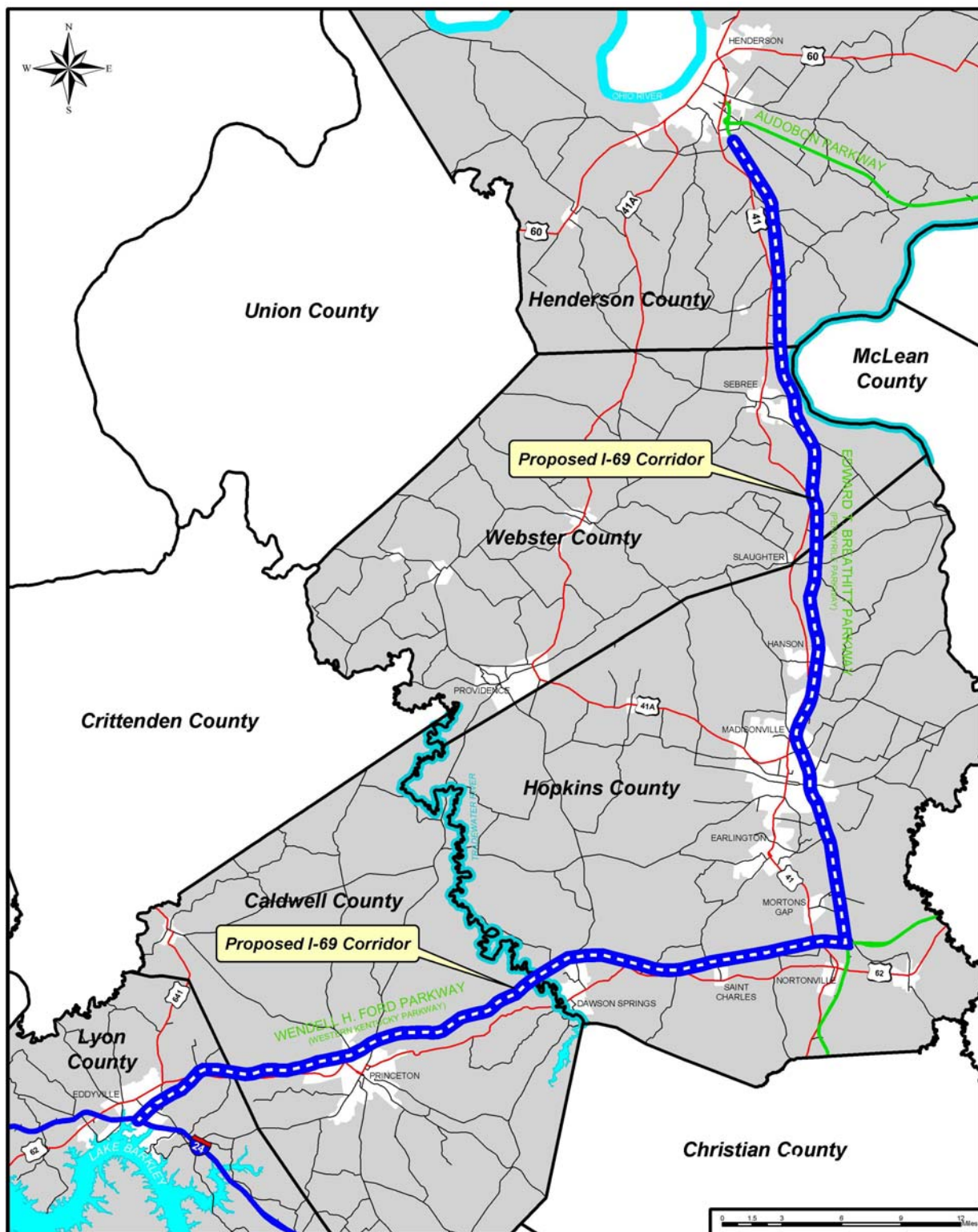


Figure 1. Study Area: I-69, Eddyville to Henderson

The study also addresses the need and justification for alternatives to upgrade the Parkways to achieve interstate highway design guidelines, where necessary, while giving consideration to associated environmental factors, social/economic conditions, and engineering considerations, as well as comments, suggestions, and insight from the public and local/elected officials.

### **A. Background of I-69 Corridor**

I-69 (Corridor 18) was one of several Priority Corridors first identified by the U.S. Congress as part of the federal Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and continued in subsequent federal transportation legislation. A national feasibility study was completed in 1995 by the Federal Highway Administration, which concluded that the future construction of I-69 from Canada to Mexico was economically feasible. It would consist of an extension of existing I-69 at Indianapolis, thus, resulting in an I-69 highway which would start at Port Huron, Michigan, on the Canadian border, run through eight states (Michigan, Indiana, Kentucky, Tennessee, Mississippi, Arkansas, Louisiana, and Texas), and end at the Texas/Mexico border.

The Corridor 18 Special Issues Study, completed in 1997, identified a Representative Corridor which best serves the purposes of Corridor 18 and yields the most benefits relative to facility costs. In Kentucky, the Representative Corridor is defined as follows:

- The Breathitt Parkway from Henderson, Kentucky to the interchange with the Ford Parkway;
- The Ford Parkway to the interchange with I-24;
- I-24 to the interchange with the Julian M. Carroll (Purchase) Parkway; and,
- The Purchase Parkway to the Tennessee state line.

One of the primary justifications for the I-69 route is its anticipated role in truck freight movement connecting Canada and Mexico and points in-between. Because of this, it has been designated by Congress as a “North American trade route” and a “NAFTA corridor.” The latter refers to the increased trade (and truck traffic) expected between Canada, the United States, and/or the countries of Latin America due to the passage of the federal North American Free Trade Act (NAFTA).

The initial set of national goals for I-69 include:

- The movement of goods;
- The provision of more job opportunities to local communities; and
- System linkage.

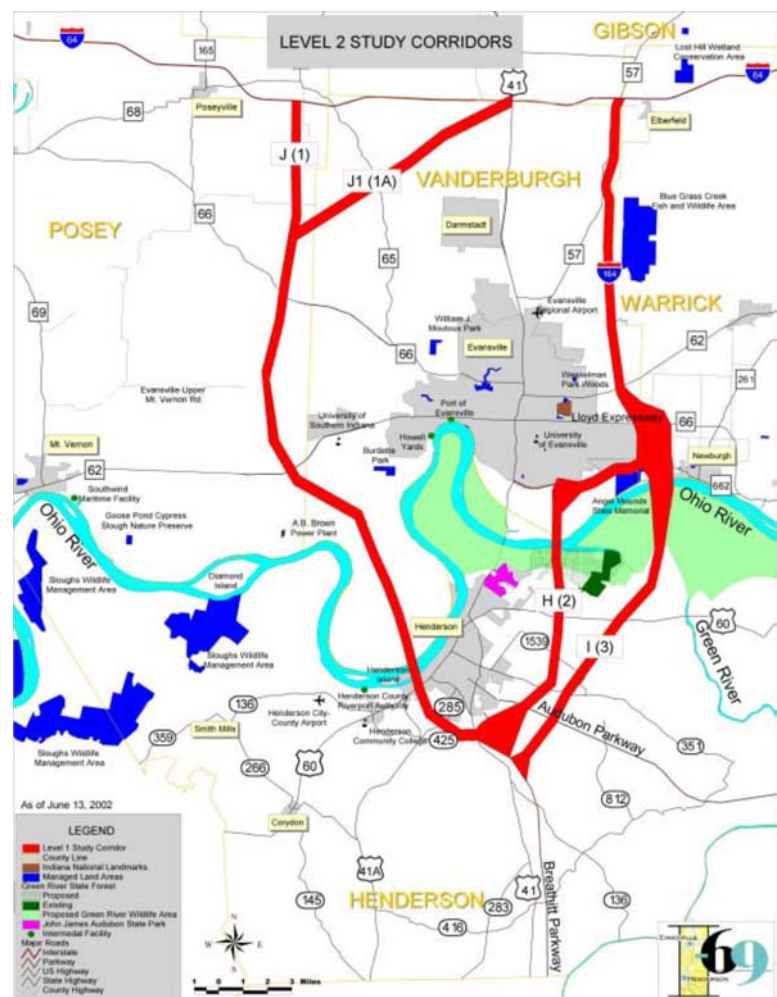
This study has integrated these national goals with the local needs and concerns identified for the Eddyville to Henderson segment. Preliminary project goals for this section of I-69 include:

- Maximize the use of the existing Parkways;
- Serve local industry; and
- Provide an improved facility for increasing truck traffic.

With a total length of over 1,600 miles, the extension of I-69 will require a construction time period of many years. This length makes it impossible to approach I-69 as a single construction project. The types of work to be undertaken vary from location to location and include widening, reconstruction, relocation, and development of entirely new facilities. Therefore, a practical approach has been chosen, i.e., to undertake a series of projects that fit into, and are consistent with, the overall purpose and need for I-69.

As a result, the extension of I-69 from Michigan to the Texas/Mexico Border will require a series of individual linking projects to be undertaken by each of the states involved, as shown in **Figure 2**. The I-69 segment between Eddyville and Henderson is one of 32 such proposed projects that have been designated as Segments of Independent Utility, or SIU's. This segment is denoted as SIU No. 5 in the *I-69 (Corridor 18) Special Environmental Report* completed by the FHWA. When complete, this project will provide a connecting link in the multi-state I-69 corridor.

Work on this proposed segment of I-69 must be coordinated with the ongoing study of the proposed I-69 SIU No. 4 from Evansville, Indiana to Henderson, Kentucky. In February of 2004, the KYTC and the Indiana Department of Transportation (INDOT) announced that the Draft Environmental Impact Statement (DEIS) for the Evansville to Henderson segment has been approved by FHWA. The DEIS identifies Alternative 2 as the preferred alternative, an eastern alignment which will include a new Ohio River crossing and a connection to the Breathitt Parkway south of Henderson, Kentucky.



Alternative 2 has been selected for SIU No. 4 from Evansville, Indiana to Henderson, Kentucky.





Figure 2. I-69 Representative Corridor and Segments of Independent Utility

## B. Highway Segments for the I-69 Corridor Study

The following is a summary of the segments of the Parkways reviewed in this study:

- **Wendell H. Ford Parkway (Western Kentucky Parkway)**

The section of the proposed I-69 corridor that would utilize the Ford Parkway begins at Eddyville in Lyon County. The terminus is at or near the I-24 interchange near Lake Barkley at Milepoint (MP) 0.0. The corridor continues easterly through Caldwell County and into Hopkins County. Evaluation of the existing Ford Parkway ends at or near the interchange with the Breathitt Parkway at MP 38.3. The approximate distance of the proposed I-69 corridor along the Ford Parkway is 38.3 miles.

- **Edward T. Breathitt Parkway (Pennyrile Parkway)**

The section of the proposed I-69 corridor that would utilize the existing Breathitt Parkway begins with the Ford Parkway interchange at MP 34.3, near Nortonville in Hopkins County. The corridor continues northerly through Webster County and Henderson County. The terminus is at or near the KY 425 (Henderson Bypass) interchange at MP 76.3 just south of Henderson. The approximate distance of the proposed I-69 corridor along the Breathitt Parkway is 42.0 miles.

The combined distance of the proposed I-69 corridor along both Parkways is approximately 80.3 miles. A breakdown of the I-69 mileage by county is provided in **Table 1**.

**Table 1 - I-69 Corridor Mileage**

FORD PARKWAY	COUNTY	BEGIN MP	END MP	TOTAL MILEAGE
	Lyon	0.000	5.610	5.610
	Caldwell	5.610	21.764	16.154
	Hopkins	21.764	38.332	16.568
<i>Total</i>				<b>38.332</b>
BREATHITT PARKWAY	COUNTY	BEGIN MP	END MP	TOTAL MILEAGE
	Hopkins	34.271	55.003	20.732
	Webster	55.003	65.305	10.302
	Henderson	65.305	76.258	10.953
<i>Total</i>				<b>41.987</b>
<b>TOTAL PROJECT</b>				<b>80.319</b>

### C. Analysis Considerations

As a part of this study, the existing characteristics of each Parkway have been evaluated based on guidelines in the current editions of “*A Policy on Geometric Design of Highways and Streets, 4<sup>th</sup> Edition*” (American Association of State Highway Officials, 2001), the “*AASHTO Roadside Design Guide*” (American Association of State Highway Officials, 1996), the “*Highway Capacity Manual*” (Transportation Research Board, 2000), the “*Manual of Uniform Traffic Control Devices, Millennium Edition*” (Institute of Transportation Engineers, 2001), and draft “*A Policy on Design Standards Interstate System*” (American Association of State Highway Officials, 2003). For the purposes of this report, all design dimensions will be denoted in U.S. Customary Units (i.e., feet and miles).

The analysis of existing highway conditions has been completed to determine (1) the extent to which the Ford Parkway and the Breathitt Parkway meet current AASHTO highway design guidelines and (2) whether existing conditions on these two Parkways are adequate to satisfy safety and operational concerns that might be expected as part of the conversion of the Parkways to an interstate highway.



An important source of information for this analysis was a review of “as-built” design plans for each of the Parkways, which were provided by the staff of Highway District Offices 1 and 2 of the Kentucky Transportation Cabinet. In addition, crash characteristics, traffic conditions, and other operational elements along the Parkways have also been considered. The following sections of this report address the following areas:

- **Local and Resource Agency Input** – Input from a series of meetings with local officials and the public on issues related to the potential development of I-69, as well as input from environmental resource agencies that may have involvement in future project development activities;
- **Operational Considerations** – Other factors associated with crash history, traffic volumes, and operational levels of service for existing and future traffic conditions;
- **Mainline Geometry** – The characteristics of typical roadway sections (lane widths, shoulders, medians, and clear zones), along with horizontal and vertical alignment;
- **Bridges** – The lateral clearance (width) of bridges, the vertical clearance (height) of bridge overpasses, and the conditions of bridges;
- **Interchanges** – The characteristics of roadway conditions at interchanges, along with horizontal alignment, speed change lanes and weaving characteristics; and

- **Results and Recommendations** – The last three chapters of this document provide a summary of existing conditions along the Parkways, options for future designation as I-69, and recommendations for future phases of work.

These factors have been evaluated throughout the entire length of the portions of the two existing Parkways within the study limits. In addition, other factors have been identified that may need to be included in future analysis of possible needs and alternatives for I-69.