



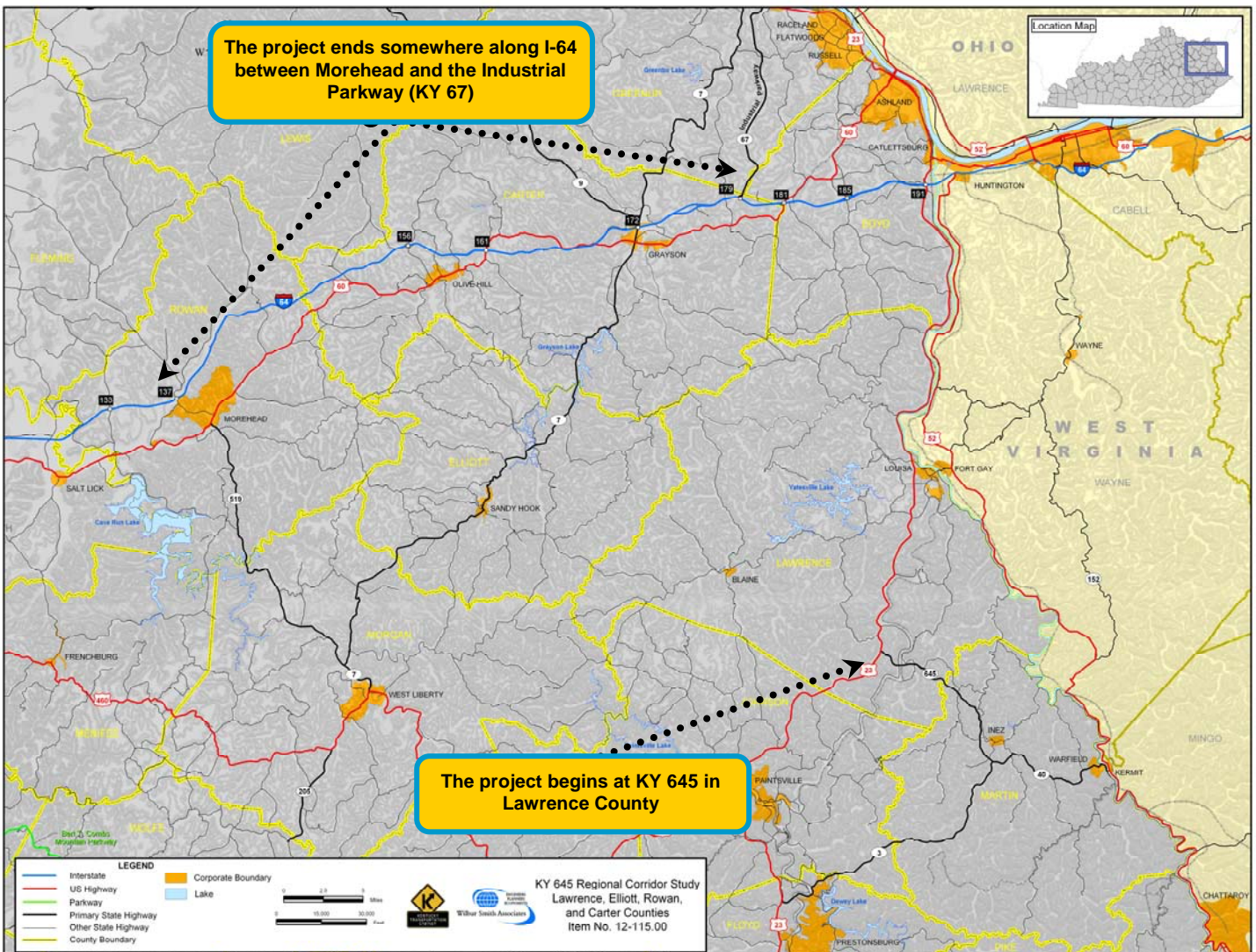
Executive Summary

The Kentucky Transportation Cabinet (KYTC) has undertaken this regional corridor study to consider the extension of KY 645 from US 23 in Ulysses to some location along Interstate 64 between Morehead and the Industrial Parkway (Exit 179) in Carter County. Portions of this new highway could pass through parts of Lawrence, Elliott, Rowan and Carter Counties, providing improved access to employment centers, isolated communities, tourism sites, and other regional corridors. Though a new route would not physically impact Martin County, it could also improve the mobility of Martin County residents to points west.

The purpose of this study was to listen to and share information with local officials, government agencies,

other interested parties, and the public; identify known issues, concerns, and constraints, including social, traffic, environmental, and geotechnical considerations; define project goals; establish the beginning and ending points of the project; develop and evaluate project alternatives based on project goals; and make recommendations.

This project was identified in the KYTC's FY 2000-2006 Six Year Highway Plan as Item No. 12-115.00. Subsequent phases of project development, including Design, Right-of-Way Acquisition, Utility Relocation, and Construction, are not scheduled in the most recent legislatively approved *Kentucky Six-Year Highway Plan FY 2005-2010*.



EXISTING CONDITIONS

Characteristics of KY 645 and other major highways in the study area were analyzed as part of this study, including data and/or information on transportation systems, geometric characteristics, bridges, traffic conditions, crash history, adequacy ratings, environmental features, geotechnical characteristics and planned highway improvements. Consideration of these factors for existing roadways helps to evaluate the need for improved highways in the area.

The existing KY 645 corridor is a four-lane roadway through mountainous terrain with 12-foot lanes and 10-foot shoulders. The speed limit is 55 miles per hour (mph) along the entire length of the route.



This roadway is traveled by coal trucks and other heavy vehicles, as well as the general public. The existing traffic volume along KY 645 in the study area is about 5,860 vehicles per day (vpd), with about 37.1% trucks.

All of KY 645 in Lawrence County operates at acceptable levels; however, several other roadways within the study area operate at unacceptable levels, including portions of US 60, KY 1, KY 7 and KY 32. By the year 2025, additional segments of area roadways are expected to decrease in service to unacceptable levels, including most (95-100%) of KY 7 in Elliott and Carter Counties, 73% of US 60 in Rowan County, and 43% of US 60 in Carter County.

While no “high crash segments” or “high crash spots” were identified along KY 645 in Lawrence County, a number of these locations were identified along portions of I-64, US 60, KY 1, KY 7, KY 32 and other routes.

A preliminary environmental footprint was also developed for the KY 645 project area. This analysis identified potential issues and concerns within and surrounding the defined project area. The following special features are important to this project and were highlighted on the environmental footprint: Daniel Boone National Forest; Sheltowee Trace Trail; Grayson Lake State Park; Grayson Lake Wildlife Management Area; Yatesville Lake State Park; Yatesville Lake Wildlife Management Area; Laurel Creek; Caney Creek; Abandoned Mines; Dry and Abandoned Wells; and Numerous oil wells, gas wells, injection wells, water wells, and quarries.

PROJECT PURPOSE AND NEED

Through the collection of study area data and the public involvement process, the need for an improved highway network has been identified in each of the four study area counties. The goals listed below are based on a compilation of input from highway officials, local government agencies, interest groups, members of the general public, the Citizens’ Advisory Team (CAT) and the project team. These goals address accessibility, economic benefit, connectivity, and operational conditions:

Develop a new or improved highway that provides an improved connection to I-64, while also addressing the following transportation service objectives:

- Enhances regional accessibility and mobility
- Improves access to isolated communities and populations
- Serves as an interstate connector from the I-73/74 corridor near Kermit, West Virginia to I-64

Develop a highway corridor that will serve the most traffic, while also meeting the following traffic-related objectives:

- Diverts traffic from US 23 to reduce congestion on that route
- Optimizes and/or addresses future traffic flow on regional highways
- Provides travel time savings in the region, including the improvement of emergency response times

Develop a corridor that considers all study area interests, including socioeconomic, education, tourism, and the environment, while giving consideration to the following objectives:

- Assists in promoting economic growth and development in areas that have low-income populations
- Increases employment opportunities and gives special consideration to areas with high unemployment
- Provides access to existing employment centers, including area industrial parks
- Expands access to social services such as education and health care
- Provides improved access to key tourist destinations (examples include Grayson Lake, Yatesville Lake and the new golf course in Carter County)
- Avoids or minimizes impacts to environmentally sensitive areas (i.e., the Daniel Boone National Forest, Laurel Creek, and Caney Creek)
- Fits the natural surroundings and considers context-sensitive design

ALTERNATIVES DEVELOPMENT

Throughout the course of this study, the local stakeholders and agency representatives were given opportunities to provide input for the study and to help develop the recommendations. There were two major rounds of coordination activities, including Project Team Meetings, Local Elected Officials Meetings, Local Agencies Meetings, Citizens Advisory Team (CAT) Meetings, Public Involvement Meetings, Public Comment Surveys, and Resource Agency Coordination.

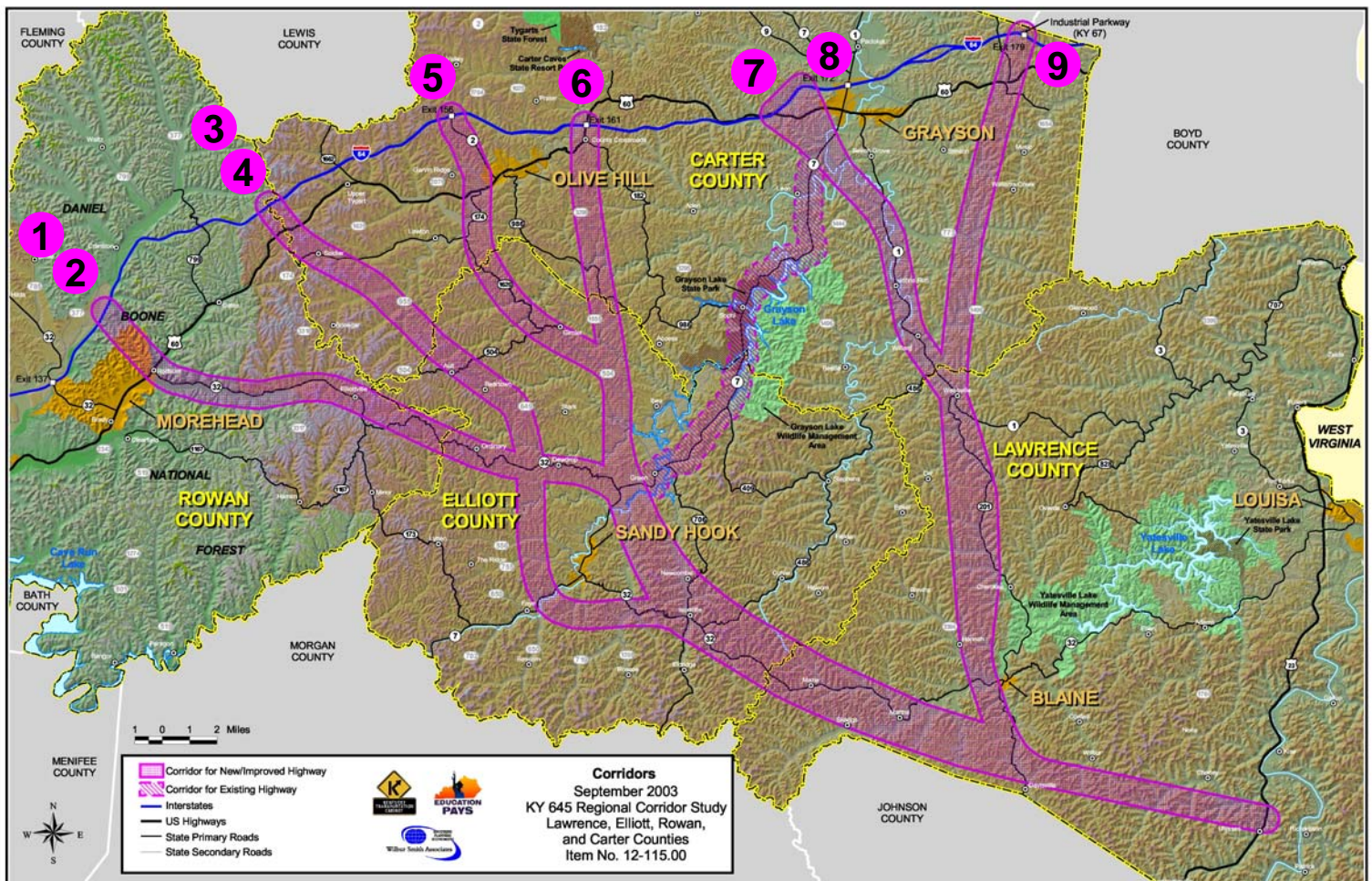
The first round of coordination sought to identify local needs, concerns and ideas for the project. Map drawing exercises allowed the public to identify locations to avoid and/or access with a new route through the region. With input from the public, the CAT and the project team, a total of nine (9) preliminary corridors and the no-build option were developed for consideration, as shown in the map below.

A Level 1 Screening of these corridors included consideration of the preliminary project goals and objectives, potential environmental and community impacts, planning level cost estimates, public input, and transportation and traffic issues. Based on the Level 1 Screening of the corridors, the Project Team

recommended that Corridors 1, 3, 6, 7, and 8 would not move forward and that Corridors 2, 4, 5, and 9, as shown below, and the no-build option, would be advanced for further consideration in the study process.

As part of the further evaluation process, environmental and geotechnical overviews were conducted on the four corridors. The overviews provided additional detail within a more defined area. A Level 2 Screening was also conducted, including: consideration of more detailed cost estimates; estimates of travel savings; cultural and historic occurrences near the corridors; environmental resources within the corridor boundaries, such as water resources, natural or forested areas, wetlands, floodplains, sensitive habitats, monitored sites, soil types, mines, cemeteries, and others; and geotechnical issues.

A second round of coordination gave local citizens, public officials and representatives of government resource agencies the opportunity to review the four corridors, the no-build option, and Level 2 Screening. Of the 664 survey responses, 369 ranked Corridor 5 as the most preferred, followed by Corridor 2 with 244 votes. The no-build option was ranked as the least preferred.



RECOMMENDATIONS

After carefully reviewing all the findings of the study, the Project Team recommended that Corridors 4 and 9 should not move forward for further consideration. The Project Team also recognized the potential benefits of Corridors 2 and 5 as two real needs in the project area, and had a difficult time selecting one corridor over the other.

Corridor 2 has a slight advantage in regional accessibility and mobility; will likely serve more traffic in the future and provides an improved route for existing KY 32; offers better travel time savings; provides access to existing employment centers, including area industrial parks; and expands access to social services such as education and health care.

Corridor 5 has a slight advantage in improving access to isolated communities and populations; promoting economic growth, development, and employment opportunities in areas that have low-income populations and high unemployment; avoids or minimizes impacts to environmentally sensitive areas, such as the Daniel Boone National Forest; and it received the most overall public votes throughout the public involvement process.

Ultimately, the Project Team recommended that two (2) alternatives be advanced for further consideration in the next phase of project development: Corridors 2 and 5. The Project Team also identified priority sections for Corridors 2 and 5, beginning at the existing terminus of KY 645 at US 23 and moving northwest, as shown in the map below. Estimated costs for completion of the recommended corridors is shown by section below, with a total of \$413.1 million for Corridor 2 and about \$363.5 million for Corridor 5.

CONTACT INFORMATION

Additional information regarding the KY 645 Regional Corridor Study can be obtained from the following KYTC Division of Planning staff members: Daryl J. Greer, P.E., Director; Jimmy C. Wilson, P.E., Team Manager; and Ted Noe, P.E., Project Manager.

Contact information: Division of Planning, Kentucky Transportation Cabinet, Station: W5-05-01, 200 Mero Street, Frankfort, KY 40622, Phone: (502) 564-7183, FAX: (502) 564-2865.

