KY 9 (AA Highway) Widening Study
Campbell, Pendleton, Bracken, and Mason Counties

Kentucky Transportation Cabinet
Six Year Highway Plan
Item No. 9-165.00

Prepared for:
Kentucky Transportation Cabinet
Division of Planning
Frankfort, Kentucky

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EXECUTIVE SUMMARY

The KY 9 Widening Study has been prepared to assist the Kentucky Transportation Cabinet in defining the scope and extent of improvements that would best suit both the immediate and future needs of the facility. The identification of these needs was based on four primary concerns as identified by local officials, stakeholders, and the general public. First and foremost, the existing roadway facility will not provide adequate capacity for projected Design Year (2025) traffic volumes. Second, though this portion of KY 9 has a lower crash rate than other 2-lane rural highways in the state, the total number of crashes at intersections is relatively high. Third, existing roadway geometry restricts sight distance in numerous locations, potentially affecting the number of accidents along the corridor. Finally, speed differentials are a problem along the corridor, especially at truck-climbing lane merge and diverge points. These concerns served to provide direction for the development of project goals, which in turn drove the development of possible alternatives.

Establishment of the goals for the project included an active public involvement process. This involved inclusion of a variety of project stakeholders, such as local public officials, area residents, Transportation Cabinet staff from the Central Office, District 6 and District 9, and planning personnel from the Northern Kentucky Area Development District and the Buffalo Trace Area Development District. Jointly, they formulated the following project goals:

- **Provide adequate capacity to support Design Year 2025 traffic volumes.**
- **Improve existing roadway geometrics to address sight-distance concerns.**
- **Reduce the number of crashes along the route and improve intersection safety.**
- **Reduce speed differentials by improving truck-climbing lane merge and diverge points.**

Based upon project goals established by the project stakeholders, the following four alternate actions were considered:

- **Do Nothing**
- **Safety / Operational Improvements**
- **Widening of KY 9 to a 4-lane partially controlled highway**
- **Widening of KY 9 to a 4-lane fully controlled highway**

The Do Nothing alternate does not meet any of the project goals, nor did it receive any public support. The Safety/Operational improvements as a stand-alone option do not fulfill all of the project goals; specifically, it does not meet the goal of providing adequate capacity for Design Year 2025 traffic. However, many of the improvements were recommended and supported by the public and should be considered as interim measures to improve the corridor.

Widening of KY 9 to a 4-lane fully controlled highway, though meeting the project goals, carries a high construction cost, $478,662,000, as well as potential impacts to cultural historical and archaeological sites, and wetlands. Modest support from the public was received for this alternate.

By far the most publicly supported alternate was the widening of KY 9 to a 4-lane partially controlled highway and was selected as the preferred alternate. It was preferred because it meets all project goals, and does so in a way that minimizes potential impacts to cultural

historical and archaeological resources, relocations and wetlands. The total cost of this alternate is estimated to be $178,098,000. There are three recommended priority sections for implementing this alternate. Priority One is from KY 19 in Bracken County to KY 10 in Mason County. Priority Two is from 0.5 miles north of the Campbell-Pendleton County line to KY 1109 in Bracken County. Priority Three is the middle section from KY 1109 to KY 19 in Bracken County.

Alternate 3 4-Lane Partially Controlled Highway	**4-Lane Partially Controlled Depressed Median**	**Priority Section One** (KY 10 to KY 19)	**Priority Section Two** (KY 1109 to 0.5 Miles North of Campbell Co. Line)	**Priority Section Three** (KY 19 to KY 1109)
Section Termini	N/A	Mason Co. MP 13.99 to Bracken Co. MP 5.55	Bracken Co. MP 13.59 to Campbell Co. MP 0.5	Bracken Co. MP 5.55 to Bracken Co. MP 13.59
Length	28.11 Miles	8.96 Miles	11.11 Miles	8.04 Miles
Design	$12,887,000	$4,112,000	$5,091,000	$3,684,000
Right of Way	$3,589,000	$1,096,000	$1,343,000	$1,150,000
Utilities	$540,000	$160,000	$280,000	$100,000
Construction	$161,082,000	$51,399,000	$63,639,000	$46,044,000
TOTAL	**$178,098,000**	**$56,767,000**	**$70,353,000**	**$50,978,000**

*Note: Due to rounding, the total cost for all the priority sections does not necessarily equal the total cost indicated for the entire project.

The *Approved 2000-2002 Biennial Highway Construction Program and Identified Preconstruction Program Plan for FY 2003 Through 2006,* also known as the Six-Year Highway Plan (SYP), does not identify funding for any further phases of this project. Anticipated construction costs, by phase, for implementation of the recommended alternative are shown.

1.0 INTRODUCTION

The Kentucky Transportation Cabinet initiated the KY 9 Widening Study to determine improvement strategies that address both the current and future needs of the facility. Located in the northeastern part of the state, the portion of KY 9 under study extends from the KY 10 intersection west of Maysville in Mason County (3.4 miles east of the Bracken County line) to 0.5 miles north of the Campbell/Bracken County line. Also known as the AA Highway because of its termini near Ashland, Kentucky and Alexandria, Kentucky (hence "A-A"), KY 9 is the primary rural principal arterial for Northern/Northeastern Kentucky, linking those cities to the surrounding region as well as numerous communities in between. The study area is shown in **Figure 1**.

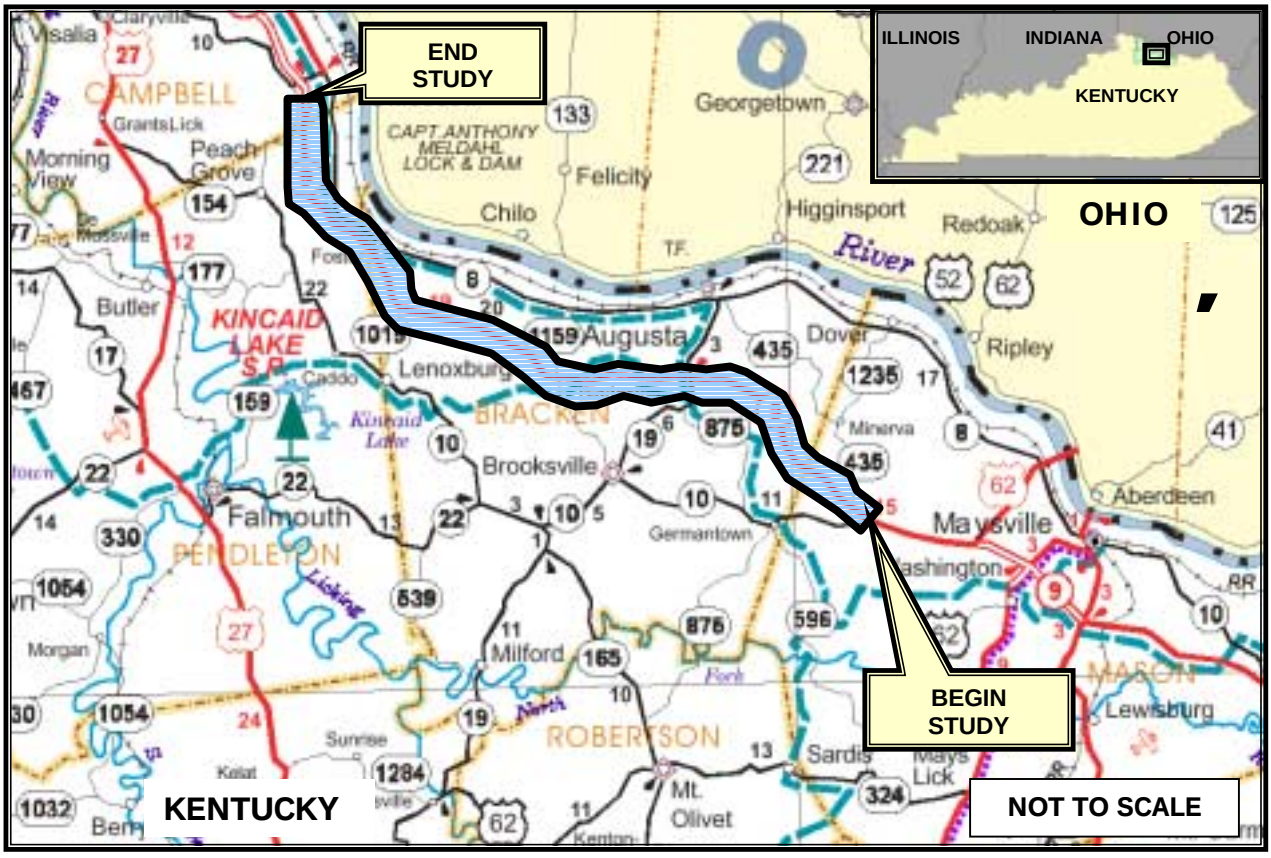

FIGURE 1 – PROJECT STUDY AREA

Recognizing the community's desire to improve the route, the *Approved 2000-2002 Biennial Highway Construction Program and Identified Preconstruction Program Plan for FY 2003 Through 2006,* also known as the Six-Year Highway Plan (SYP), identified funds for a Scoping Study of this highway segment. In April of 2001, the study was initiated with an assessment of existing conditions. This included the following:

- a review of existing reports and plans
- an analysis of the existing and design year 2025 traffic conditions
- an analysis of the crash history of the road
- an environmental review/footprint highlighting known environmentally sensitive areas and resources

1.1 Study Purpose

The purpose of this study is to identify and gather critical information about the project corridor in order to define possible roadway improvements that might better serve the residents of Mason, Bracken, Pendleton and Campbell Counties. This may include, but may not be limited to, the widening of this segment to four lanes. In order to provide direction for the Study, draft study objectives were presented at the first Team Meeting, as well as the first round of Local Official and Stakeholder meetings. The final, recommended objectives of this study include the following:

- Discussing project goals and issues with public officials, government agencies, concerned citizens and other groups with interest in the project
- Defining project goals and issues based on this input
- Identifying known environmental concerns
- Exchanging information with the public
- Producing and evaluating alternates
- Developing final recommendation(s)

Recommendations that result from this study will be geared towards possible future inclusion in the Six-Year Highway Plans.

1.2 Corridor Issues

Critical issues currently identified along the existing KY 9 corridor include both perceived safety problems and increasing traffic volumes (particularly truck traffic). The overall crash rate for this portion of KY 9 is lower than average for two-lane rural roads in Kentucky, but the public perceives the crash rates as being much higher. The severity of the head-on collisions and the frequency of the intersection crashes occurring in this corridor contribute to this perception. Some of the most evident issues include the following:

- The existing road is on rolling terrain and many of the intersections are located at the top or bottom of hills. Traffic turning onto KY 9 often merges with high-speed traffic at the bottom of hills, causing problems due to speed differentials and limited sight distances.

- There is a low level of light resulting in reduced visibility for nighttime driving conditions, particularly during periods of rain/precipitation. Lighting has been recently provided for most of the major intersections.
- Truck traffic, at approximately 17% of the overall traffic in 2000, is relatively high on KY 9 and seems to be increasing.
- Turning lanes are not provided at many intersections, which results in a lack of safe storage for drivers wanting to make left turns, and a higher likelihood of rear end collisions as drivers turn onto the side roads. Also, vehicles turning right often use the shoulder as a turn lane to avoid rear-end collisions.
- Truck-climbing lanes are available throughout the corridor, but often begin or end near intersections causing potential conflicts with merging traffic. Also, the lanes frequently begin within a vertical curve, lessening their effectiveness due to vehicular deceleration before the vehicle can diverge from the traffic lane. Many end abruptly just beyond the crest of the hill.
- Dense fog causes visibility problems about 60 days per year. This may be the cause of many crashes at intersections.
- Driver behavior, such as inattention, speeding, and driving while drowsy, is a major cause of crashes along the corridor.
- High volumes of deer-related crashes occur in many areas along the corridor.
- Widening of KY 9 could result in steeper approach grades on side roads because of rolling terrain. This may increase the cost of a reconstruction alternative because these side roads at the intersection of KY 9 would also need partial reconstruction.
- Sight-distance problems exist at many intersections in the corridor due to guardrail placement or embankments.

1.3 Statement of Project Goals

The following Project Goals have been identified for the KY 9 Widening Study:

- Provide adequate capacity to support Design Year 2025 traffic volumes.
- Improve existing roadway geometrics to address sight-distance concerns.
- Reduce the number of crashes along the route and improve intersection safety.
- Reduce speed differentials by improving truck-climbing lane merge and diverge points.

2.0 EXISTING CONDITIONS

As previously stated, the segment of KY 9 under study is functionally classified as a Rural Principal Arterial, linking the City of Maysville, Kentucky and western Mason County to Campbell County and destinations in the Northern Kentucky/Cincinnati area. There are currently no planned or committed projects in the study area that would have an impact on the corridor. However the economic feasibility study for an I-74 corridor could have an impact on the nature or level of future improvements to KY 9. I-74 has been proposed as a two to four lane roadway extending from the Markland Dam in Gallatin County to the Ohio River near Maysville. Mason, Bracken, and Pendleton Counties could be directly impacted by the corridor. The current Six-Year Highway Plan does not include any additional phases for this project beyond a planning-level study.

2.1 Roadway Characteristics

Table 1 summarizes the existing roadway characteristics as detailed in the KYTC Highway Information System (HIS) database. The study portion of KY 9 is a rolling, two-lane facility with 12-foot lanes, having various segments with truck-climbing lanes. Immediately north of the study corridor terminus in Campbell County, KY 9 becomes a divided, four-lane highway that connects to I-275 in Northern Kentucky. The majority of the facility has 10 to 12 foot paved shoulders. The entire route is on the National Highway System (NHS) and the National Truck Network (NTN). KY 9 serves a great deal of commercial vehicle traffic, with some portions of the roadway having up to 17% trucks. The study portion of KY 9 traverses areas of farmland and light residential development. Commercial land uses are present at both ends of the study corridor, with a small commercial development near the northern terminus at California (Campbell County) and various developments immediately west of Maysville.

2.2 Crash Analysis

One of the primary goals of any highway improvement process is to provide a safe and efficient roadway. The Kentucky Transportation Center (KTC) at the University of Kentucky conducted a study entitled *The KY 9 Safety Study* that investigated recent crash history (1995-1999) along the entire KY 9 route from Ashland to Alexandria, Kentucky. The study's findings indicate that the crash rate on KY 9 is not appreciably higher than the statewide average for rural two-lane roads. A summary of the crash history along KY 9, broken down by county, is shown in **Table 2**. There were a total of 239 crashes reported in the four–year study period. Fatal crash rates in Mason County were higher than the statewide average for rural two-lane roads, with the crash rates for the remaining three counties (Campbell, Pendleton and Bracken) being lower. Angle crashes at intersections, on the other hand, represent a higher percentage of fatal crashes than the statewide average.

Because the data indicates a higher number of intersection crashes, each intersection along the project route was investigated to determine if geometric or signage improvements were required. This field review included those intersections identified in the KTC Study report as experiencing a high number of crashes. Those intersections are identified in **Table 3**. From these site visits, recommendations for improvements were made. Recommendations that arose from this analysis are located in **Section 6.3: Alternate Two - Safety/Operational Improvements**.

Table 1: Roadway Characteristics

Type of Roadway	Functional Classification	Rural Principal Arterial
	State System Class	State Primary
	Type Road	Undivided Highway
	Scenic Byway System	No
	National Highway System	Yes
	National Truck Network	Yes
	Defense Highway	Yes
	Truck Weight Class	AAA
	Extended Weight System	Yes
Geometrics	Average Right-of-Way Width (Feet)	75 - 175
	Lane Width (Feet)	12
	Driving Lanes	2, 2+1
	Shoulder Width (Feet)	10 - 12
	Percent Passing Sight Distance	50-100
	Number of Bridges	2
	Type of Terrain	Rolling
Volumes	Year 2000 Traffic Volume (Vehicles per Day)	6,140 – 15,900
Speeds	Speed Limit (Miles per Hour)	55
Pavement	Surface Type	High Flexible
	Last Year Surfaced	1989 - 1990

Table 2: Annual Crash Rates by County

County	Rate (per 100 MVM)			Statewide Rate*			Percent Difference		
	Total	Injury	Fatal	Total	Injury	Fatal	Total	Injury	Fatal
Campbell**	150	40	2.51	252	89	3.1	-40.5	-55.1	-19.0
Pendleton	86	33	0.00	252	89	3.1	-65.9	-62.9	-100.0
Bracken	45	17	2.37	252	89	3.1	-82.1	-80.9	-23.5
Mason**	118	34	3.30	252	89	3.1	-53.2	-61.8	+6.5

*** Statewide rate (per 100 Million Vehicle Miles, or MVM) is for two lane roads.**

**** These rates are for all of KY 9 in Campbell and Mason counties, not just the study area.**

Table 3: Intersections Having the Highest Number of Crashes between 1995 and 1999

County	Intersection	Number of Crashes
Pendleton	New Hope	2
Bracken	KY 875	4
	KY 19	8
Mason	Slack Pike	3
	KY 10	4
	KY 435	7

2.3 Traffic Volume and Level of Service

In order to evaluate traffic volumes and level of service, KY 9 was divided into 10 segments within the corridor. **Table 4** describes each of the these segments and also lists the 2025 traffic volume forecasts for KY 9 as estimated by HNTB based on an annual growth rate of 3.1%. The table also includes 2000 traffic volumes, as counted or estimated by the KYTC Division of Planning. The 2000 estimates are included to provide a baseline for the determination of 2000-2025 annual growth rates.

Table 4: Traffic Volume Forecasts

KY 9 Segments (Mileposts)	2000[1]	2025[2]
Segment A: West Ivor Road to Campbell/Pendleton County Line (0.691 - 0.000)	8,420	18,100
Segment B: Campbell/Pendleton County Line to Pendleton/Bracken County Line (4.339 - 0.000)	7,630	16,400
Segment C: Pendleton/Bracken County Line to KY 1109 (19.857 - 13.585)	8,800	18,900
Segment D: KY 1109 to KY 1159 (13.585 - 10.259)	8,010	17,200
Segment E: KY 1159 to Augusta-Berlin Road (10.259 - 9.449)	7,360	15,800
Segment F: Augusta-Berlin Road to KY 19 (9.449 - 5.546)	8,490	18,200
Segment G: KY 19 to Bracken/Mason County Line (5.546 - 0.000)	5,720	12,300
Segment H: Bracken/Mason County Line to Walton Pike Road (17.402 - 17.154)	5,720	12,300
Segment I: Walton Pike Road to KY 435 (17.154 - 14.926)	5,870	12,600
Segment J: KY 435 to KY 10 (14.926 - 13.987)	6,700	14,400

1. Source: KY Transportation Cabinet Highway Information System (HIS) Database
2. Source: HNTB Corporation

The existing (Year 2000) and forecasted 2025 traffic volumes are shown graphically in **Figure 2**. In Campbell County, the daily volume forecast is 18,100 vehicles per day. The forecast for the Pendleton County segment is 16,400. The highest 2025 traffic volume (18,900 vehicles per day) expected for KY 9 is on the segment from the Pendleton/Bracken County line to KY 1109 in Bracken County. For the other segments in Bracken County, the 2025 daily volume forecasts range from 12,300 to 18,200 vehicles per day. For Mason County, the forecasts range from 12,300 to 14,400.

Using the 2025 traffic forecasts and the 2000 traffic volumes, existing and future Level of Service (LOS) was calculated. Level of Service is an alphabetic description of the traffic flow for a roadway segment. Similar to school letter grades, calculated values range from LOS A with completely free flowing traffic to LOS F with severely congested traffic. From the results, which are summarized in **Table 5**, it is apparent that the roadway is currently approaching capacity. Segments A-D, corresponding to the study portion between the project terminus in Campbell County and KY 1159 in Bracken County, and Segment F (Augusta-Berlin Road to KY 19 in Bracken County), currently operate at LOS E, suggesting that the segments experience periods of heavy congestion. The remainder of the study corridor operates at LOS D with moderate congestion. With respect to future capacity, only segments G, H and I have a 2025 LOS value better than F. All other segments result in a LOS F. These results show the current highway will not be able to support 2025 Design Year traffic, evidenced by the LOS F (indicating severe congestion) on over 72% of the corridor.

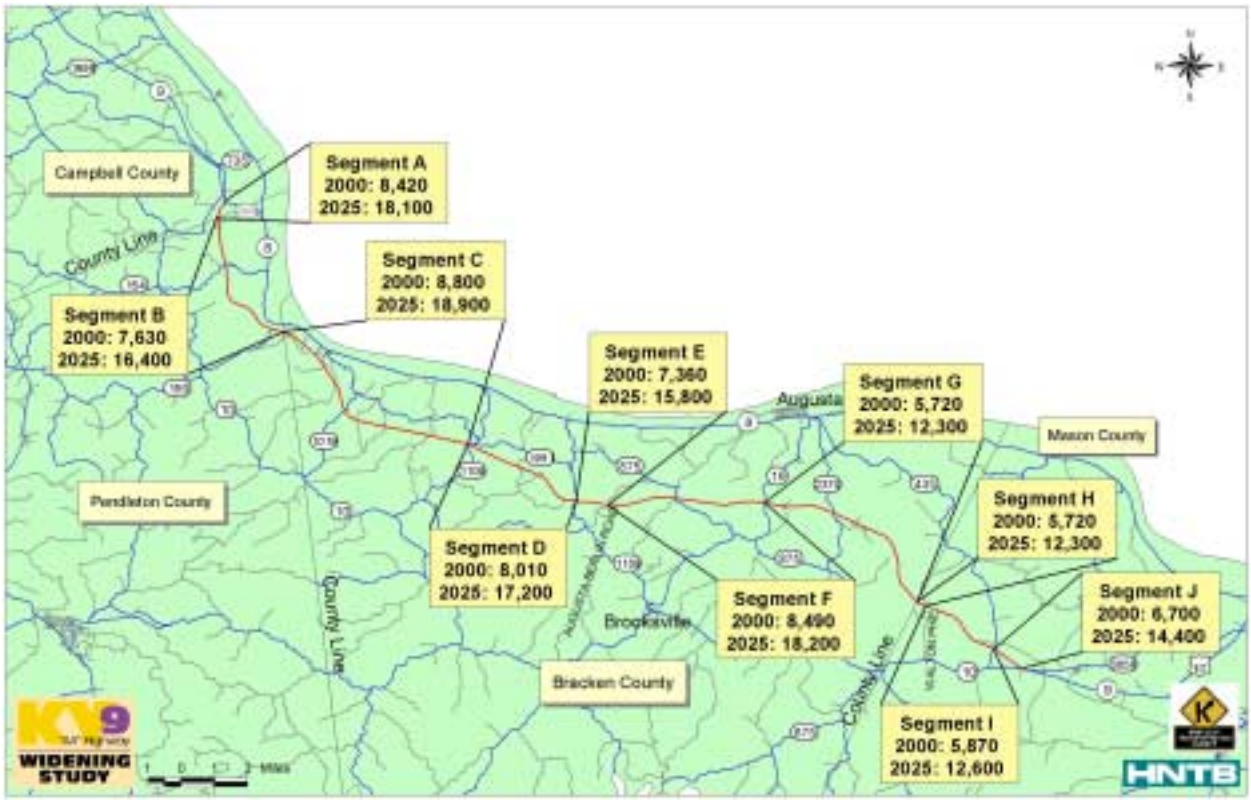

FIGURE 2 - EXISTING AND 2025 TRAFFIC VOLUMES

Table 5: Level of Service (LOS) Analysis

Year	Segment									
	A	B	C	D	E	F	G	H	I	J
2000	E	E	E	E	D	E	D	D	D	D
2025	F	F	F	F	F	F	E	E	E	F

3.0 KENTUCKY TRANSPORTATION CABINET, PUBLIC AND AGENCY INPUT

3.1 Project Team Meetings

Five (5) Project Team Meetings were held during the course of the study. The purpose of the first meeting was to discuss the project and gain information about known issues and concerns. At the second team meeting, the results of the first public information meeting and potential alternatives were discussed. The second and third team meetings dealt basically with preparations for the second round of public meetings. The third team meeting also included a presentation of the refined alternates. The fourth team meeting was used to review public comments and develop a final recommendation. The fifth and final Team meeting was held to discuss the final recommendation and to prioritize possible construction sections. Meeting minutes for each of the team meetings are included in **Appendix A.**

3.2 Local Official and Stakeholder Input

At two sets of meetings with stakeholders and local officials, the attendees were encouraged to complete a comment form and return it to the study team for consideration in the development of alternates. Twenty-one (21) comment forms from these meetings were received, and are included in **Appendix B**. Individuals and officials representing the following agencies and companies provided comments:

- Bracken County Schools
- Bray Trucking Inc.
- Castellini Companies
- City of Maysville
- Pendleton County Planning Commission
- City of Falmouth
- University of Kentucky Cooperative Extension/Tourism Interest
- Mason County
- Bracken County EMS
- KY State Senator Ed Miller
- Maysville / Mason County Emergency Management
- Pendleton County Sheriff / Emergency Management
- Eastern Campbell County Volunteer Fire Department
- Maysville Industrial Development
- Kentucky State Representative Mike Denham

The attendees were asked to identify the perceived problems and offer possible solutions. Recommendations included: providing better enforcement to minimize dangerous driving (including

speeding); adding turn lanes, acceleration lanes and "stop ahead" signs to increase safety at intersections; relocating guardrail to improve sight distance; providing a limited access facility with ramps to increase intersection safety; adding signs and lengthening slow/truck climbing lanes to improve merging; relocating stop signs further back on side roads; improving driveway markings; installing a divider along the highway; improving lighting at intersections; providing advance warning of intersections with flashing lights; and adding more/longer passing lanes.

The attendees were also asked to identify locations where they had specific concerns. The following locations were mentioned:

- KY 1996 intersection
- Slack Pike/Gas Station area
- KY 19 intersection (several responses)
- Dutch Road area
- KY 1449 intersection
- KY 1237 Rootsville intersection
- KY 735 (needs signing to warn of fire trucks entering the road)
- All passing lanes

Other comments included the problems with fog (particularly relative to school bus traffic), concerns over increasing truck traffic, and the need to educate drivers on proper merging and existing laws.

3.3 Public Involvement

Two public information meetings were conducted as part of the public involvement process. The meetings were hosted by the KYTC-Division of Planning, District 6 (Covington), District 9 (Flemingsburg) and HNTB Corporation.

The intent of these meetings was to accomplish the following:

- To let the community know about the study
- To identify and address community concerns and issues
- To identify sensitive areas that should be avoided
- To explore alternatives and discuss impacts
- To create a project that benefits the community and gains its support

The first public involvement meeting, involving a formal presentation of the study, was held in the Bracken County High School on July 12, 2001. Approximately 70 people were in attendance, excluding Cabinet and Consultant personnel. Attendees were asked to assist in the confirmation of existing conditions and to express any concerns that they had relative to potential improvements or the need for improvements to KY 9.

An informal "tent meeting" format was adopted for the second public meeting, held over two days on September 25, 2001 and September 26, 2001. One day was spent at a gasoline station on each end of the corridor, allowing the public to stop by and browse the information informally as they re-fueled their

vehicles or visited the convenience store. The tent meetings were well attended by local officials and residents, totaling over 250 people for the two days. Additionally, over 400 informational handouts were distributed. On each day, the attendants participated in the study development process by discussing options with the Project Team and by submitting a comment form provided to them at the locations. Their efforts included confirmation of existing conditions presented at the first public meeting and participation in the development of several enhancement options. These enhancement options range from simple, low-cost improvements such as improved signage and lighting, to improving sight distance, to more elaborate schemes that call for the reconstruction of the facility to modern design standards that will accommodate future traffic volumes. A summary of the public meetings is included in **Appendix C.**

3.4 Resource Agency Coordination

The Division of Planning sent letters to several agencies asking for input and comments on the KY 9 Widening Study in order to address their concerns early in the project development process. Thirteen (13) agencies responded and their responses are included in **Appendix D**. The agencies responding to this request, and their general comments, are as follows:

- U.S. Department of Commerce – no comments or concerns.
- U.S. Department of Energy – no specific comments.
- U.S. Department of Housing and Urban Development (HUD) – no apparent impact on HUD-funded programs.
- Kentucky Cabinet of Economic Development – project will positively impact several available industrial sites and buildings.
- Federal Aviation Administration – there are no public use airports in the vicinity of the project.
- Kentucky Department of Fish and Wildlife Resources – potential negative impacts to aquatic resources in the study corridor can occur; recommendations included suggestions on how to minimize impacts during construction and returning habitats to original condition upon completion of construction.
- Kentucky State Police – concerns about advance warning for construction and road closures, maintenance of traffic during construction.
- Kentucky Cabinet for Workforce Development – project does not affect Cabinet or its agencies.
- Kentucky Transportation Cabinet, Division of Construction – no comments at this time.
- Kentucky Transportation Cabinet, Division of Multimodal Programs – intersections with designated bicycle routes should maintain route connectivity.
- U.S. Department of the Interior – discussions of permitting issues with the U.S. Army Corps of Engineers (regulatory wetland requirements) and efforts to minimize impacts to blue-line streams and potential endangered species habitats.
- Appalachian Regional Commission – project should not have any adverse effect on the Appalachian Development Highway System.
- Kentucky Transportation Cabinet, Division of Environmental Analysis - provided some comments regarding elements that should be considered in future project phases, if any.

4.0 ENVIRONMENTAL OVERVIEW

An environmental overview was completed to compile a general summary of the social, economic and environmental framework of the project. The findings were used in evaluating improvement for their potential impact on the environmental resources in the study area. The environmental review included an area 1000 feet each side of the existing centerline of KY 9 within the limits of the study. A detailed Environmental Overview Report dated April 2002, which includes resource agency letters and contacts, has been prepared and was submitted to the Cabinet under separate cover. **Figures 3 and 4** show the locations of potential cultural historic sites and wetlands. A brief summary of each of the issues discussed in that report is included below.

4.1 Socioeconomics

The project area is rural in nature, predominantly farmland, with scattered residences and farming structures located along KY 9. With respect to Environmental Justice considerations, there do not appear to be any identifiable minority or low-income neighborhoods or community units located in the project corridor. That being the case, these types of relocations are expected to be minimal. The number and intensity of relocations is dependent on the alternative chosen, in addition to the design requirements of vertical and horizontal alignments. Total relocation activities would probably be limited to approximately four (4) residents for a partially controlled 4-lane facility but up to 95 residences for a fully controlled, 4-lane facility. More specific information related to Environmental Justice is located in **Appendix E.**

4.2 Air Quality

Located at the northwest edge of the project area, Campbell County is in an air quality non-attainment area for levels of ozone by the Environmental Protection Agency (EPA). Therefore, this section of the project corridor will require specific air quality impact assessments. Pendleton, Bracken and Mason Counties have been designated by the EPA to be in conformity for all transportation related pollutants.

With the exception of the area located in Campbell County, this project is primarily located in an area that will not require transportation control measures. Based on a windshield inspection of the project corridor, no air quality sensitive land uses or susceptible sites were noted.

4.3 Highway Noise

Given the rural context of the area, highway noise levels are not expected to be a major concern on this project. The majority of the adjacent land is undeveloped farmland.

4.4 Aquatic and Terrestrial Ecology

One hundred and sixteen (116) National Wetland Inventory (NWI) sites were mapped within the study area. Ninety-one (91) were diked ponds that are part of farming operations. Wetlands indicated by NWI mapping, and the presence of hydratic soils, need to be field verified in subsequent project phases, if any, to determine their presence or jurisdictional status.

The project falls within the range of several federally listed endangered and threatened species. Suitable habitat for the Indiana bat is scattered along the length of the project corridor. Suitable habitat for Running Buffalo Clover occurs within the project corridor. In addition, the presence of the Bald Eagle has been reported in Bracken County, and an example of its preferred habitat has been located less than 1

mile from the corridor. These issues must be further examined in subsequent project phases, if any, to determine any adverse impacts.

4.5 Cultural Historic Resources Evaluation

A file search of the Kentucky Heritage Council identified seventeen (17) properties located within the project corridor that had been previously documented. Two sites are on the National Register of Historic Places, the Immaculate Conception Catholic Church and Cemetery, and the Walcott Bridge near the KY 1159 intersection. The Walcott Bridge was dismantled in May, 1999. The bridge is currently being relocated approximately 500 feet upstream from its original location, with the original historical abutments remaining in place. A windshield survey of the project corridor located twenty (20) additional potential cultural historic properties. Thirteen (13) of the sites appear to be potentially eligible for inclusion in the National Register of Historic Places. A final determination of eligibility and National Register boundaries was beyond the scope of the current study.

4.6 Archaeological Resources Evaluation

Based on a review of existing and historical documents, eight (8) previously recorded archaeological sites are located within the study area but only four (4) of those sites are located within the area of potential effect. Any unrecorded sites would most likely be prehistoric open habitation sites without mounds on historic farms or properties. Since there have been relatively few archaeological surveys completed in the project area, it is likely that intact historic and prehistoric deposits that will qualify for listing in the National Register are present. Since there is a strong likelihood of encountering significant sites during this project, coordination efforts need to proceed as soon as practicable during future project phases, if any.

4.7 UST/Hazmat Considerations

A search of government records and a preliminary screening/windshield survey was conducted to locate any sites or facilities that may harbor substances or underground storage tanks (UST). No unregistered or abandoned UST locations, illegal waste sites or other suspicious areas that would harbor hazardous materials were observed. No underground storage tank locations or above ground storage/heating oil tanks were encountered during the initial survey of the project corridor. In addition, no significant hazardous materials or underground storage tank issues are anticipated for this project, regardless of the alternate selected.

5.0 GEOTECHNICAL OVERVIEW

The project area is located within the eastern portion of the Eden Shale Belt Subsection and has a characteristic topography of predominantly steep slopes and sinuous ridges separated by closely spaced narrow valleys. Limestone and shale underlie the majority of the soils within the project corridor. The dominant soil association is the Lowell-Faywood-Nicholson that is found on limestone and shale ridges and is composed of soils that are deep to moderately deep, well drained and have clayey sub-soils. Streams in the project area are generally perennial and are either direct tributaries to the Ohio River or the Licking River watershed. These conditions would result in large quantities of cut/fill required for any widening improvement; reductions could be achieved by use of retaining walls where applicable. No geotechnical conditions were found that would preclude the widening of KY 9. A summary of the geotechnical findings is located in **Appendix F**.

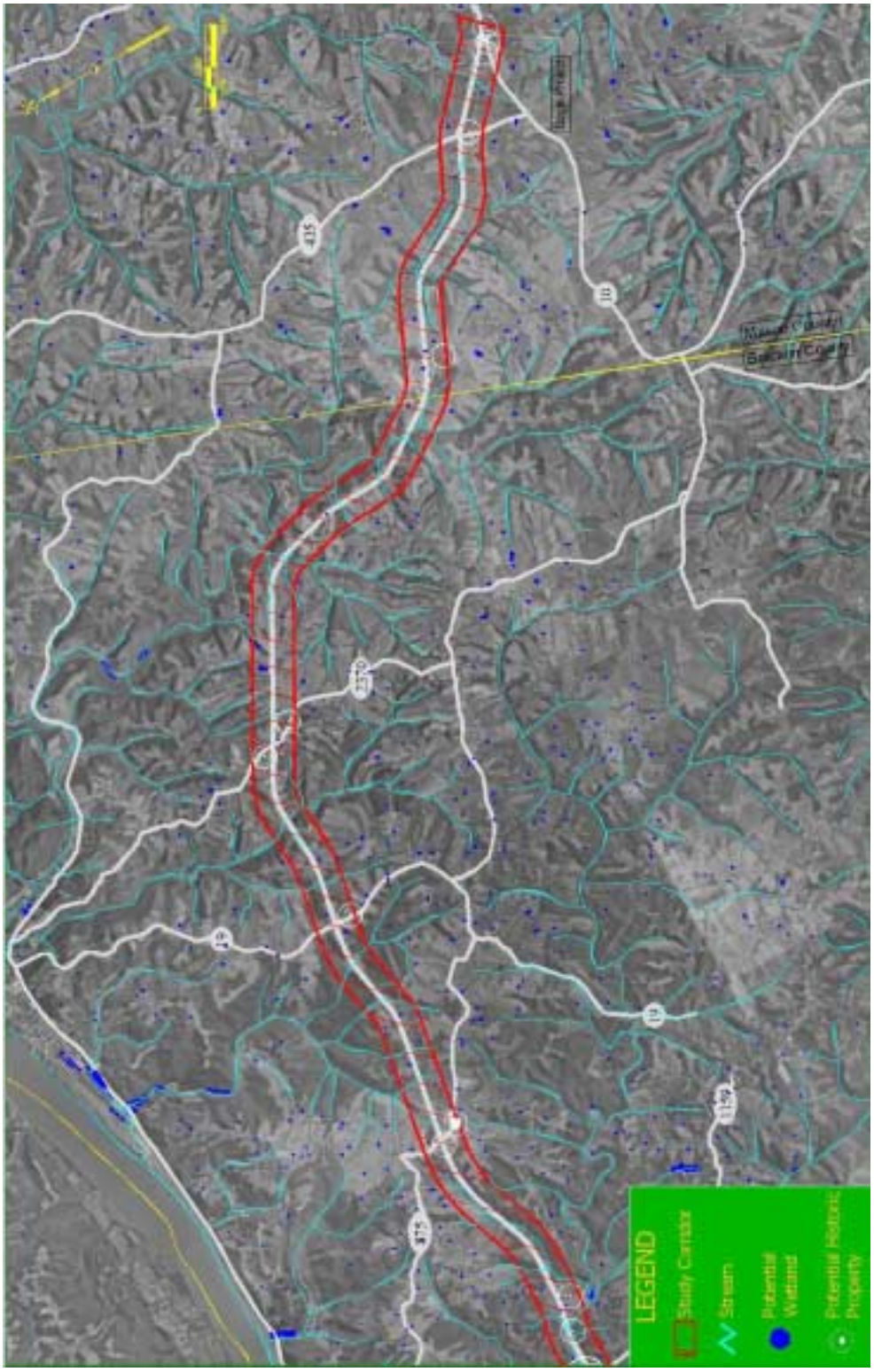

FIGURE 3 – ENVIRONMENTAL OVERVIEW
EAST-SIDE OF CORRIDOR

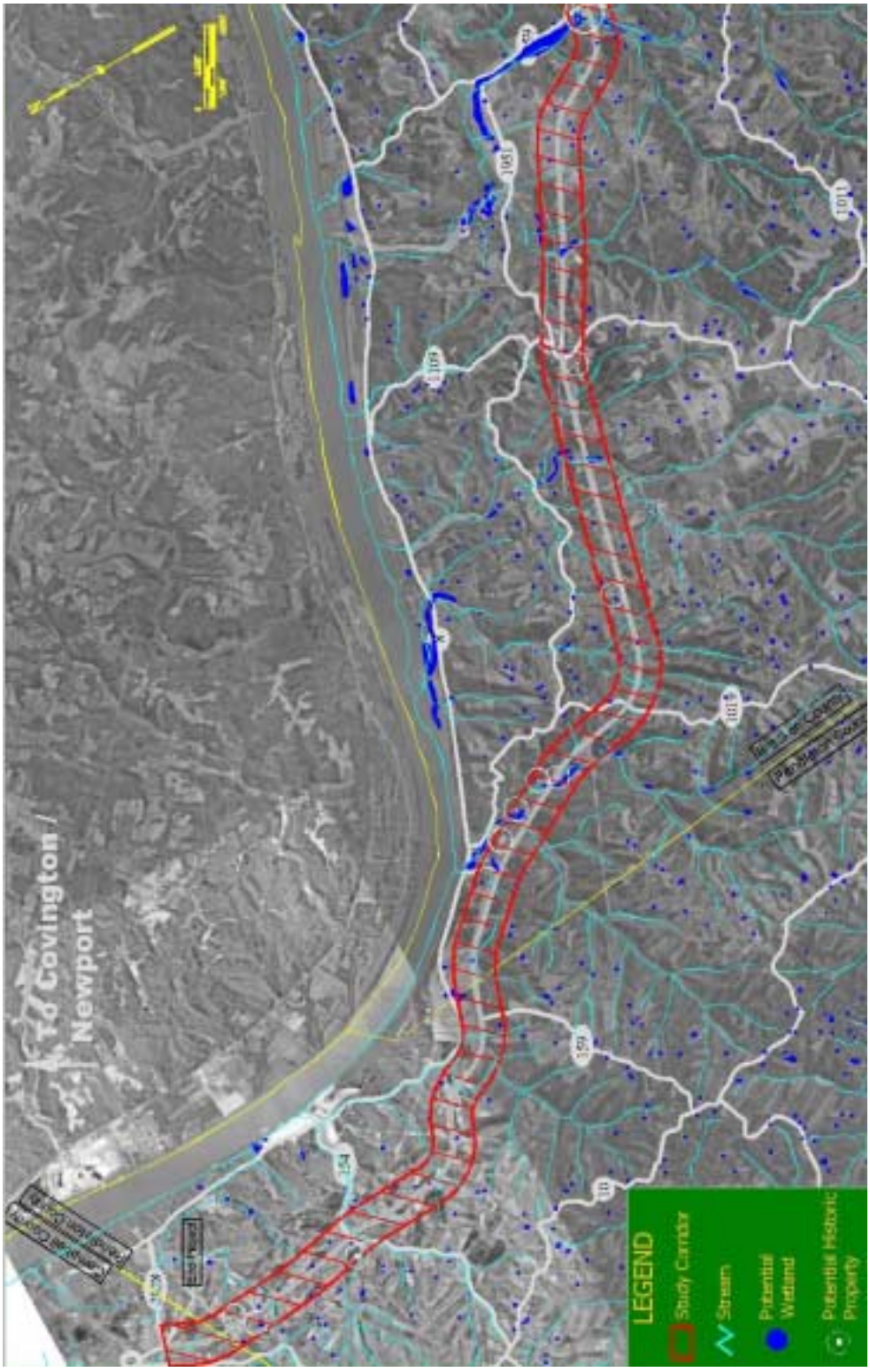

FIGURE 4 – ENVIRONMENTAL OVERVIEW
WEST-SIDE OF CORRIDOR

6.0 STUDY ALTERNATES/IMPROVEMENT OPTIONS

Through discussion with local officials, stakeholders and the public, it was apparent that there were several needs to be addressed with the study alternatives. Many people were concerned about intersection safety, while others discussed issues such as the high volume of traffic and lack of passing opportunities. The alternates described in this section incorporate those comments as well as the extensive field reviews conducted as part of this study. The range of alternates developed include the following:

- Alternate One: Do Nothing/No-Build
- Alternate Two: Safety/Operational Improvements
- Alternate Three: Four Lane Facility with Limited Access
- Alternate Four: Four Lane Facility with Fully Controlled Access

6.1 Proposed Geometrics

Standard cross-sections were developed at the onset of this study for use in cost estimating. Any decision or recommendation about the actual geometrics of any future improvements will be decided during future project phases, if any.

The existing four lane segments adjacent to the project area have typical sections with mountable medians. Current Transportation Cabinet design standards do not recommend the use of mountable medians on highways in rural corridors. Therefore, two median types were considered for the project: a concrete barrier wall and a depressed grass median. Twelve (12) foot lanes and twelve (12) foot shoulders were utilized with either median option. Due to the high speed of travel, access control with a minimum spacing of 1200 feet is also recommended for the limited access alternate.

The typical cross-section with a concrete barrier wall is shown below in **Figure 5**. There are two (2) 12 foot driving lanes (24 feet total in each direction) with 12 foot shoulders on either side. A concrete barrier separates the two directions of traffic.

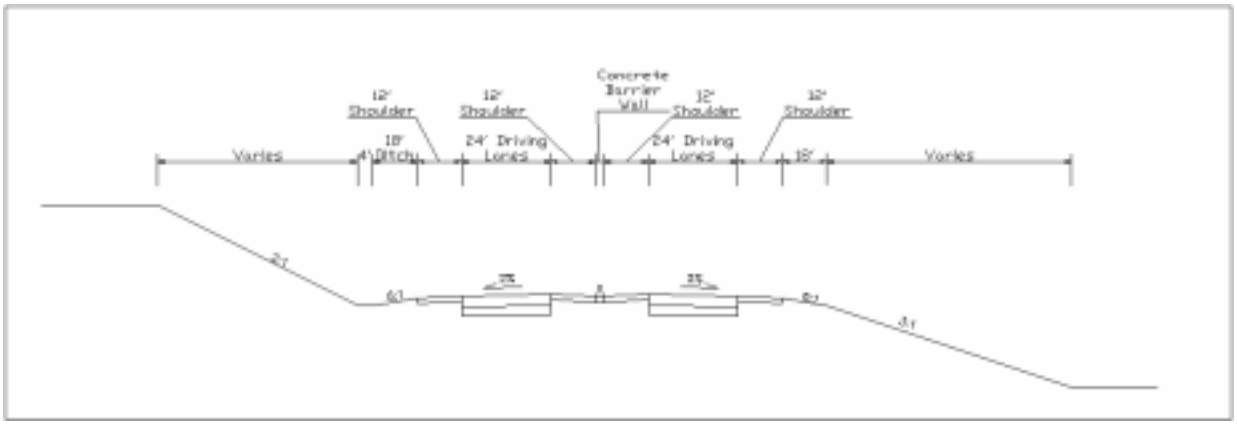

FIGURE 5 – TYPICAL CROSS SECTION WITH A CONCRETE BARRIER WALL

The typical cross section developed for a grass median is shown below in **Figure 6.** As with the concrete barrier wall, there are two (2) 12 foot driving lanes (24 feet total in each direction) with 12 foot shoulders on either side. A 40 to 60 foot grass depressed median separates the two directions of traffic.

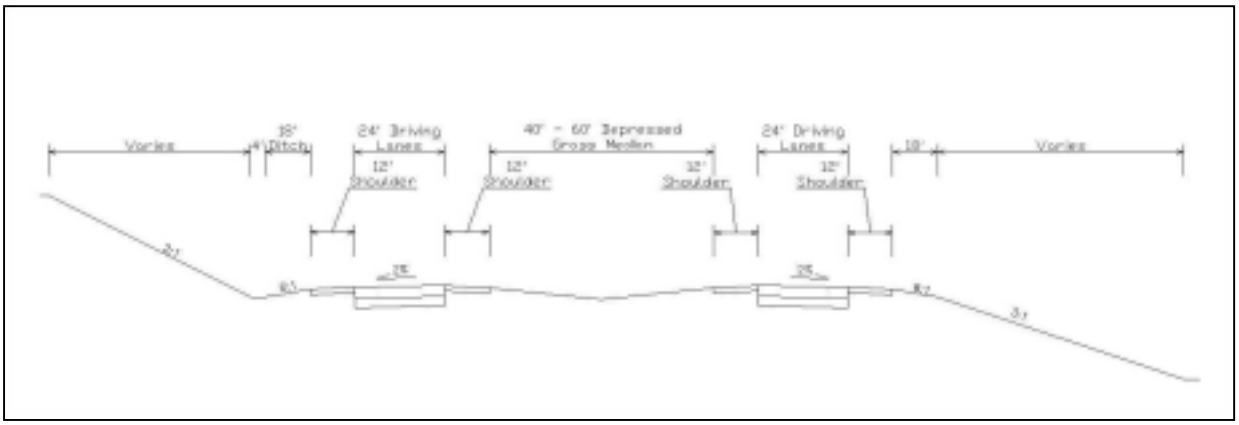

FIGURE 6 – TYPICAL CROSS SECTION WITH A GRASS MEDIAN

6.2 Alternate 1 - Do Nothing/No Build

This alternate involves no action to improve the facility other than routine maintenance, such as resurfacing and re-striping the roadway. It was presented to and discussed among the project stakeholders. The stakeholders were not in favor of this alternate since it does not address any of the project goals established. Design Year 2025 traffic would operate at an LOS of E or F for the entire corridor. Sight distance, intersection safety, and speed differential problems would remain.

6.3 Alternate 2 - Safety/Operational Improvements

A thorough field investigation was performed to identify potential low cost improvements along the KY 9 corridor. One purpose of the field visit was to determine consistency of design throughout the corridor, including the treatment of intersections and private drives. The issues found are addressed specifically in the sections below.

A. Rumble Strips

The KY 9 corridor has an unusually large percentage of vehicle collisions with guardrails. This safety improvement could reduce these types of crashes by alerting the inattentive driver that he/she is leaving the roadway. This also can potentially reduce the occurrence of drivers using the shoulders to pass vehicles because the audible and physical vibration would cause driver discomfort. The Cabinet is currently conducting a field evaluation of center-line rumble strips. Based on the results of that experimental installation, further use of this technique may be considered. Such centerline strips, when properly designed and placed, do not interfere with snow removal or passing opportunities on the road. During rainy conditions, the visibility of the centerlines of the road is enhanced by the angle of the reflective painting on the strips. Rumble

strips across the traffic lanes could also be explored at high-speed locations to alert motorists to slow for an upcoming intersection.

B. Field Entrances

Over 30 field entrances were observed within the project area. It is apparent, because of the overgrowth of grass/shrubbery or the extreme grading, that many of the field entrances along the KY 9 corridor are used infrequently. A large number of entrances are located very close to one another, but cannot physically be combined due to the topography. Depending on the land use, these entrances might be modified to enhance control of access. Entrances with poor sight distances should be considered for elimination. This may reduce crashes at these locations by eliminating merging / diverging traffic at these points along the roadway.

C. Driveways

The study portion of KY 9 contains over a dozen commercial drives or subdivision entrances and that number is expected to increase with the addition of the new Industrial Park in Bracken County. Most of these driveways have insufficient radii with guardrail placed close to the edge of pavement. It is recommended that the guardrail be placed at the edge of the shoulder, at a minimum. The new subdivision just east of Hooke Lane in Bracken County is a specific example of the typical driveway problems along KY 9. It should have a right-turn lane into the subdivision as well as appropriate signing, adequate width and an appropriate clear-zone.

D. Truck-Climbing Lanes

Because of the grade of the roadway, a truck-climbing lane is needed for westbound traffic near the 2.0 mile marker in Bracken County. This lane should be extended through Hooke Lane. The truck climbing lane at the 4.0 mile marker in Bracken County does not start until the middle of the grade, and should begin earlier to prevent a reduction in operating speed. The placement of the advance warning signs for the truck lanes should be placed further back in order to suggest and induce patience in those wishing to pass vehicles. At some locations, such as at Iler Road, the truck climbing lanes end too close to the existing intersections. Delineators also need to be placed at more appropriate distances from the merge points to provide more time for the traffic to merge.

E. Entrance Signs

The placement of entrance signs along the corridor is inconsistent. Roadway intersections are marked either with a cross-road sign, a route junction sign or a combination of the two. Not all intersections are marked with a cross-road sign. The recommendation is that signing should be assessed periodically to confirm compliance with the MUTCD.

F. Turn Flares

Numerous locations along the corridor have sufficient pavement to improve the turning radius onto the side roads, but are not striped accordingly. It is recommended that these intersections be re-striped to provide safer turning movements. Caution should be taken to make these delineations in a manner that adequately distinguishes the turning lane from the through traffic lane.

G. T-Intersection Signage

Many of the T-intersections on routes approaching KY 9 are signed only with a black-on-white double arrow sign showing the route designation. The Cabinet may consider the addition of black-on-yellow double arrow warning signs at these intersections to alert motorists of the route's junction with KY 9.

H. Fog

There are a limited number of feasible alternates to deal with the heavy fog that plagues the area on over 60 days each year. A public education campaign including safety brochures, heavier traffic enforcement patrols during heavy fog and radio and television announcements may help both reduce operating speeds and keep operating speeds uniform on the corridor during these events. Visibility sensors and weather stations along the corridor would help increase early notification of these events. Highway Advisory Radio messages may also prove beneficial.

Another alternative is the use of an automated lane indication system. By utilizing existing airport technology, this system uses a sensor to predict heavy fog conditions. Lighting installed in the pavement outlining the lane edges is activated automatically when the heavy fog conditions are sensed. By having the lanes outlined, the lights greatly increase visibility conditions in times of heavy fog, thus creating safer operating conditions. Additionally, these lights are recessed into the pavement so as not to hinder snow removal operations. Since they are used at virtually every commercial airport in the United States, the lights are readily available and qualified installation services are easily attainable. This type of system has been used successfully in many locations, including I-64 near Charlottesville, Virginia.

Finally, the safest approach is to get vehicles, particularly heavy trucks, off the road during these time periods. Rest areas along the corridor may provide a safe haven for these vehicles during these times.

I. Lighting

A few intersections along the KY 9 corridor are currently without overhead lighting; however, many complaints from the public have centered on what is perceived as an overall lack of lighting in the corridor. Roadway lighting can reduce the ratio of night-to-day crashes. Given that many crashes on KY 9 are occurring during night hours this would likely result in a high benefit/cost ratio for the corridor. Those intersections without lighting should be reconsidered for lighting, as studies have shown it can reduce night crashes by 45%.

J. Driver Fatigue

KY 9 has experienced numerous crashes that can likely be attributed to driver fatigue. The Kentucky State Police Accident Database rarely codes crashes as fatigue related, but most likely the fatal crossover crashes are the results of drivers falling asleep at the wheel. There are three countermeasures to consider for this problem: public awareness, rumble strips and rest areas. In some locations, the public awareness campaigns have been targeted specifically toward shift workers. A monthly blitz has been used at other locations to inform citizens of the dangers of falling asleep at the wheel. Landscaping, improved lighting, roadside and pavement reflective markings, and billboards (including some targeted toward drowsy drivers) have also been credited for increasing driver awareness in other corridors in the state. Rumble Strips, as discussed above, may reduce the number of crashes related to driver fatigue by alerting the motorists of the impending danger if their driving is not immediately corrected. An option that would reduce the number of cross-over crashes is the installation of median barriers, with costs ranging from $80,000 to $1,000,000 per mile, depending on the need to widen the road to accommodate the barrier.

K. Truck Traffic

Currently, a heavy volume of truck traffic is observed on KY 9. Truck traffic may be using KY 9 as an alternate route to avoid safety checks or heavier speed enforcement. Developing weigh stations along the corridor may decrease the volume of truck traffic and increase safety inspections, thereby making the route safer for automobiles.

L. Collisions with Deer

One of the primary causes of crashes, particularly in the Pendleton County area, is collision with deer. Deer reflectors have proven to work successfully in other parts of the country where white tail deer are problematic to vehicular travel. It is proposed that the Cabinet install deer reflectors throughout the project area. Because deer access to the roadway is prohibited in several areas due to the rolling terrain, the entire corridor would not need to be equipped with the reflectors. At a cost of less than $8,000 per mile and minimal maintenance needs, the cost/benefit ratio of this alternative could be recovered with a reduction of fewer than 10 crashes over the life of the equipment.

Furthermore, only one deer warning sign exists along the corridor. This is for eastbound traffic just entering Pendleton County. The Cabinet should consider the addition of a similar sign placed for westbound traffic. This would increase driver awareness of the deer problem on the roadway in this area.

M. Intersection Delineation

Currently, pavement markings on the side of KY 9 are rarely seen at intersections. The white stripe either abruptly stops or curves with the radii of the intersecting road. This prevents drivers, especially in nighttime and fog conditions, from clearly seeing the driving lanes. Skip reflectors should be continued through the intersections to delineate the KY 9 roadway lane from the adjoining road. This will allow motorists to clearly see the driving lanes at all times through the intersection, and allows vehicles approaching the highway to determine the edge of KY 9.

Alternate 2 would only partially meet the project goals for the improvement of KY 9 as determined in this study. These improvements would increase the safety of the roadway by increasing the awareness of the motorists. It would also increase safety by improving the existing sight distances at intersections and during adverse weather conditions with improved lighting. This alternate may also reduce the speed differentials by improving the existing truck climbing lanes to make them more effective. However, this alternate does not address the first project goal: to provide adequate capacity for design year traffic (2025). This alternate received considerable support from the project stakeholders as an interim solution to their needs.

6.4 Alternate 3 - Four Lane Facility with Limited Access

Alternate 3 considers the widening of the roadway throughout the study area with an additional travel lane in both directions. It can be accomplished using either a concrete barrier wall or a depressed grass median. Four (4) 12' lanes and 12' shoulders are utilized with either median option. Access points would be kept to a minimum spacing of 1200'.

With either scenario, the access as provided today for driveways and intersections would be revised for this alternate. Several access points in each County would be either closed or relocated to ensure the 1200' minimum spacing. **Table 6** shows a summary of access points, broken down by county, which are proposed to be either closed or relocated. **Figures 7** and **8** show the locations of the closed/relocated access points.

Table 6: Number of Closed or Relocated Access Points

	Campbell County	Pendleton County	Bracken County	Mason County
Closed Access Points	1	3	7	0
Relocated Access Points	0	3	16	0

To help maintain access to KY 9, frontage roads may be used to link driveways that currently have KY 9 access. The utilization of these frontage roads would maintain consistency of the 1200' minimum spacing of access points to control the locations of incoming/outgoing traffic on KY 9.

Relocation impacts are minor, with approximately 4 residential homes to be relocated. Approximately 295 acres of additional right-of-way would be purchased for this alternate. This alternate has potential impacts to numerous potential cultural historic and archeological resources.

This alternate meets all of the project goals. It will provide adequate capacity for the design year (2025), improve roadway geometrics, and eliminate the sight-distance concerns. Alternate 3 also would reduce the number of crashes along the corridor by improving the intersections with KY 9 and the side roads. Finally, it would reduce the speed differentials created by merging and diverging traffic in truck lanes and intersections. These goals will be accomplished because faster moving traffic would not have to wait for a passing zone or a truck lane to pass the slower moving traffic. Also, merging and diverging traffic at intersections would have a lane to turn into without fear of an impending rear-end collision.

See **Section 6.6 Estimated Costs** for estimated costs of this alternative.

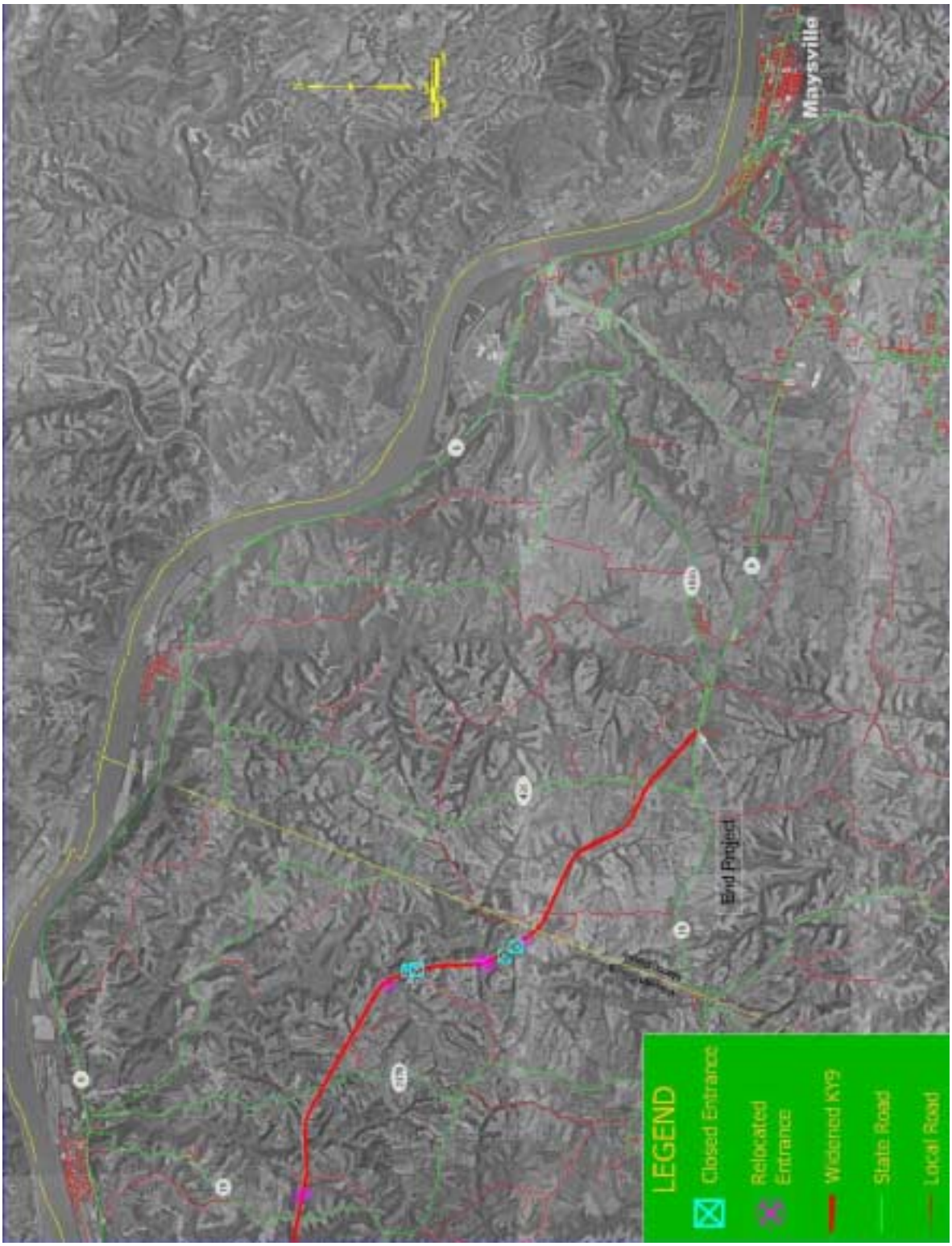

FIGURE 7 – 4-LANE PARTIALLY CONTROLLED ACCESS EAST-SIDE OF CORRIDOR

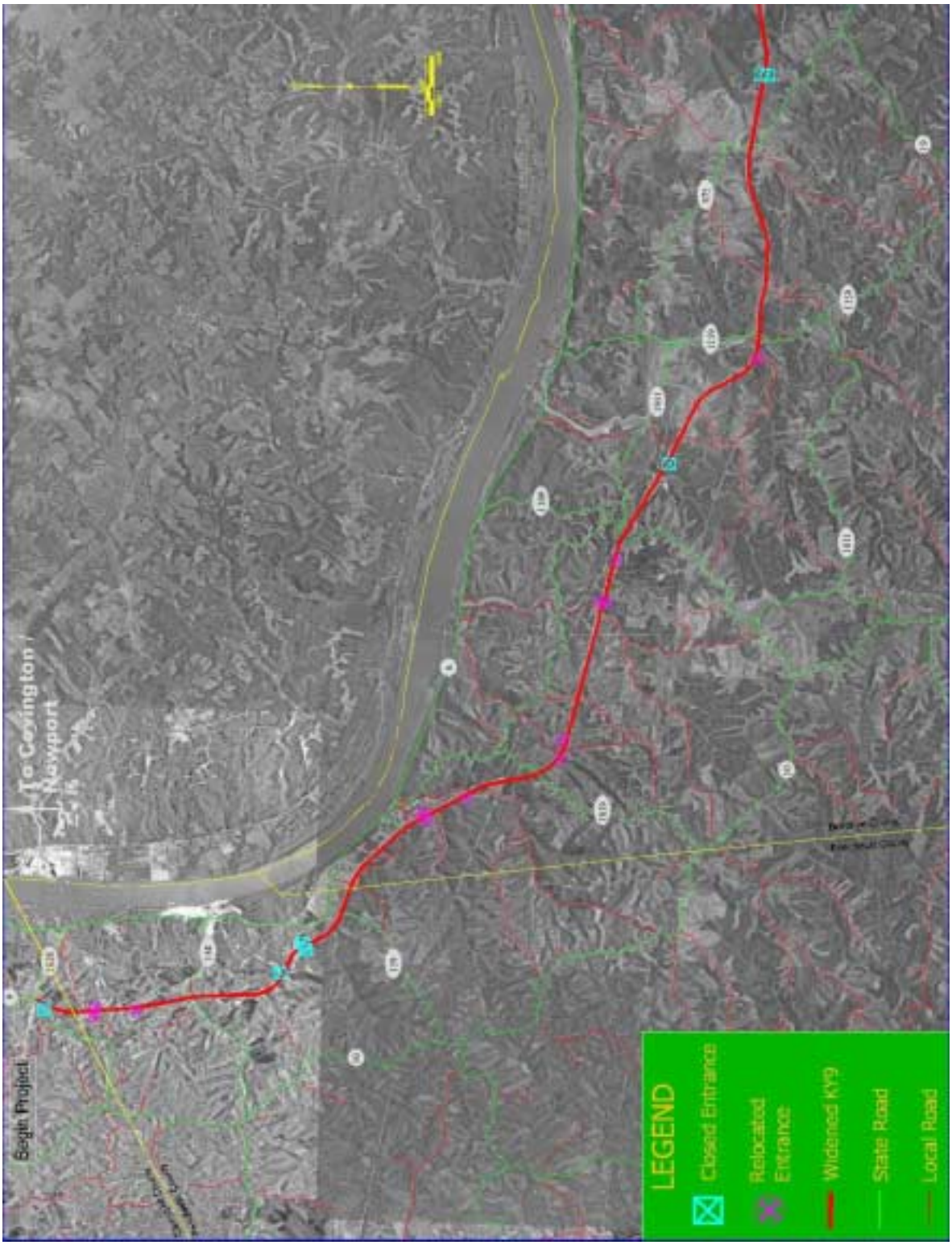

FIGURE 8 – 4-LANE PARTIALLY CONTROLLED ACCESS WEST-SIDE OF CORRIDOR

6.5 Alternate 4 - Four Lane Facility with Fully Controlled Access

Similar to Alternate 3, Alternate 4 considers widening throughout the corridor. However, unlike Alternate 3, Alternate 4 calls for a fully controlled access highway, or a freeway type facility. The design includes two (2) 12 foot driving lanes in each direction, for a total of four (4) lanes with 12 foot shoulders on each side. In order to reduce the amount of right-of-way width required for this alternate, a 30 foot median with a concrete barrier should be considered. This will provide the safety aspects of a median, without the added right-of-way width required for a 60 foot depressed grass median. This cross section is the same as the concrete barrier wall as described in **Section 6.1 Proposed Geometrics**.

This alternate removes all existing access points to KY 9 and replaces them with either a frontage road or interchange. The figures on the following pages, **Figures 9** and **10,** show the proposed placement of the frontage roads as well as potential interchange locations. For the purposes of this study, simple diamond interchanges were used for estimating costs and impacts. No decision or recommendation has been made in this study phase about the actual geometrics of any future improvements.

Alternate 4 requires approximately 476 acres of additional right-of-way. This amount is much higher than Alternate 3, due to the footprint of the proposed interchanges. This also increases the number of relocation impacts to approximately 95 residences and 1 business, and requires the closure or relocation of approximately 30 driveways/entrances. This alternate has potential impacts to numerous potential cultural historic and archaeological sites.

Like Alternate 3, Alternate 4 meets all the project goals as stated earlier in this report. The design year traffic (2025) capacity would be met and roadway geometrics would be improved, eliminating the sight distance problems and minimizing the high speed differentials. It would also lessen the number of crashes at intersections by eliminating all at-grade intersections with KY 9 except those at the proposed interchange locations.

Although Alternate 4 meets all project goals, it does so at a much higher cost than Alternate 3 (see **Section 6.6 Estimated Costs**). The public reception of this alternate was not as favorable as it was to Alternate 3. The reasons cited for this were the higher costs, the large number of relocations, and limited access. The potential impacts to the area, including relocations, cultural-historic, archaeological and environmental sites, are much higher than Alternate 3.

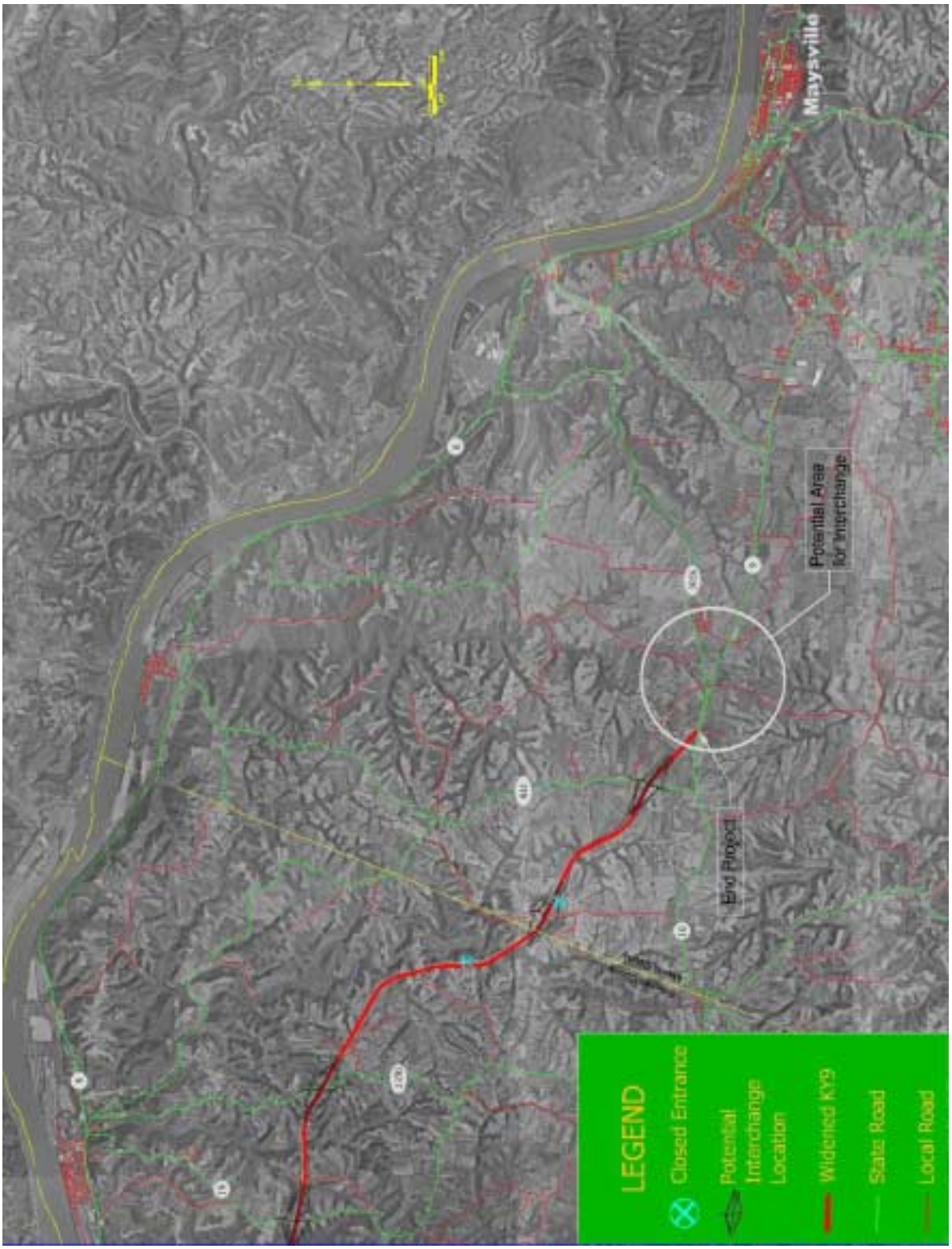

FIGURE 9 – 4-LANE FULLY CONTROLLED ACCESS EAST-SIDE OF CORRIDOR

*It is estimated that 6 to 8 interchanges will be sufficient in this corridor.

*It is estimated that 6 to 8 interchanges will be sufficient in this corridor.

FIGURE 10 – 4-LANE FULLY CONTROLLED ACCESS WEST-SIDE OF CORRIDOR

6.6 Estimated Costs

Engineering cost estimates were developed for each of the alternates. These are shown in **Appendix G**. In order to estimate the amount of earthwork required, quantities were calculated from cross sections at intervals along the project corridor. Initial attempts to utilize contours derived from digital USGS topographic quadrangle maps produced elevations inconsistent with as-built plans and geotechnical reports. By interpolating between key cross sections, the amount of earthwork for the entire corridor was estimated. The itemized costs were developed using 2001 unit bid prices from the Kentucky Transportation Cabinet - Division of Construction. **Table 7** shows the potential impacts and costs (by phase) associated with each alternate studied.

Table 7: Potential Impacts and Cost Comparison of Alternates

	Alternatives			
	1	**2**	**3**	**4**
Length (miles)	28.11	28.11	28.11	28.11
Description	No Build; Make no changes to the existing 2 lane roadway.	Safety and Operations Improvements Only; Keep existing 2 lane roadway, but make improvements to increase safety.	Partially Controlled 4-lane Road with two additional 12' lanes and a 60' depressed median. Access points kept to 1200' spacing.	Fully Controlled 4-lane Road with two additional 12' lanes and a 30' median with concrete barrier. Access provided at new interchanges only.
Potential Relocation Impacts	None	None	Approximately 4 residences	Approximately 95 residences and 1 business
Potential Right of Way Acquisition	None	None	Approximately 295 acres	Approximately 476 acres
Potential Geotechnical Impacts	None	Some earthwork anticipated to address slides that may occur (future maintenance costs).	Major earthwork anticipated to accommodate widening and to meet 2:1 cut slope and 3:1 fill slope recommendations. Benching should be anticipated to avoid slides.	Major earthwork anticipated to accommodate widening and to meet 2:1 cut slope and 3:1 fill slope recommendations. Benching should be anticipated to avoid slides.
Potential Environmental Impacts	Potential impact to air and noise quality	Widening for truck lane extensions and turning lanes has potential to impact threatened or endangered species and possibly wetland areas. Potential impact to air and noise quailty.	Has potential to impact threatened or endangered species. May impact 82 wetland areas. Possible (secondary) impact to 34 cultural historic sites.	Possible impact to 6 potentially significant cultural historic sites, a recorded archaeological site, and 27 potentially historic sites (1 site on the National Register of Historic Places). Also has potential to impact threatened or endangered species and 82 wetland areas.
Future Level of Service	D-F (varies with location)	D-F (varies with location)	A	A
Conceptual Cost Estimate by Phase		Depending upon the improvement strategies selected, the costs could range from less than $100,000 for signing alone to approximately $30,000,000 if rest areas and weight stations are constructed along with all of the other proposed improvements.		
Design	$0		$12,887,000	$33,860,000
Right of Way	$0		$3,589,000	$19,410,000
Utilities	$0		$540,000	$2,140,000
Construction	$0		$161,082,000	$423,252,000
Total	$0		$178,098,000	$478,662,000
Relation to Project Goals	1. Does not provide adequate capacity to support Design Year 2025 traffic volumes 2. Does not improve existing roadway geometrics to address sight distance concerns 3. Does not reduce the number of crashes along the route by improving intersection safety 4. Does not reduce speed differentials by improving truck climbing lane merge and diverge points.	1. Does not provide adequate capacity to support Design Year 2025 traffic volumes 2. Does improve some existing roadway geometrics to address sight distance concerns 3. May reduce the number of crashes along the route by improving intersection safety 4. May reduce speed differentials by improving truck climbing lane merge and diverge points	1. Does provide adequate capacity to support Design Year 2025 traffic volumes 2. Does improve some existing roadway geometrics to address sight distance concerns 3. May reduce the number of crashes along the route by improving intersection safety 4. May reduce speed differentials by improving truck climbing lane merge and diverge points	1. Does provide adequate capacity to support Design Year 2025 traffic volumes 2. Does improve some existing roadway geometrics to address sight distance concerns 3. May reduce the number of crashes along the route by improving intersection safety 4. May reduce speed differentials by improving truck climbing lane merge and diverge points

7.0 FINAL RECOMMENDATIONS

A Project Team Meeting was held on November 21, 2001. At this meeting, the alternates were discussed and a recommended alternate was selected using the information found in **Table 7**.

No overwhelming environmental or geotchnical bases were present to differentiate between the alternatives. Therefore, the geotechnical and environmental impacts were not critical decision factors. The no-build alternative (Alternate 1) was evaluated to the same degree as the build alternates (Alternates 2, 3, and 4) but it did not meet the study goals nor did it receive support from the stakeholders. Design Year 2025 traffic would operate at an LOS of E or F for the entire corridor. Sight distance, intersection safety, and speed differential problems would remain. It was decided that Alternate 3 (4-lane highway with partial control of access) would be recommended as the preferred improvement to be carried forth. Alternate 3 received the most public support and has less potential impact to right-of-way, environmental, cultural historic and archaeological resources. This alternate will allow the roadway to maintain a rural feel by allowing access points, yet controlling their spacing for safety and traffic control purposes.

Alternate 4, the only other alternate that meets all the project goals, was also recommended to be carried forth in the next phase, if any, of the project. However, this alternate, with a estimated cost of $478,662,000, is far above the estimated $178,098,000 for Alternate 3 and did not receive as much public support as Alternate 3. Therefore, Alternate 4 was not considered to be the preferred alternate.

Considering the substantial cost of implementing either Alternate 3 or 4, it was also agreed at the team meeting that the implementation of many elements of Alternate 2 (Safety and Operational Improvements) would be beneficial as cost-effective, interim measures. Though truck traffic may be reduced by the addition of weigh stations, that option was not recommended. It was agreed that a rest area would be valuable, since the rural, isolated nature of the area tends to induce driver fatigue. The majority of the points outlined in Alternate 2 can be accomplished through maintenance and minor construction activities, including improving signage and intersection lighting throughout the corridor. The lengthening of truck climbing lanes and addition of turn lanes should also be considered as funding allows.

At the Final Team Meeting on March 19, 2002, it was recommended that Alternate 3 be phased in over time using priority sections. The recommended priority sections, shown graphically in **Figure 9**, are as follows:

- Priority One – KY 10 in Mason County to KY 19 in Bracken County
- Priority Two – KY 1109 in Bracken County to 0.5 miles north of the Campbell-Pendleton County Line
- Priority Three – West of KY 19 in Bracken County to KY 1109 in Bracken County

Given that all three sections are predicted to operate at low levels of service by Year 2025 and crash rates were low for this type of facility (two land rural roads) in all sections, the priorities were based on local support. Strong support for and interest in the widening was conveyed in both Mason and Bracken Counties. Little immediate support or interest in the project was offered in Pendleton and Campbell Counties.

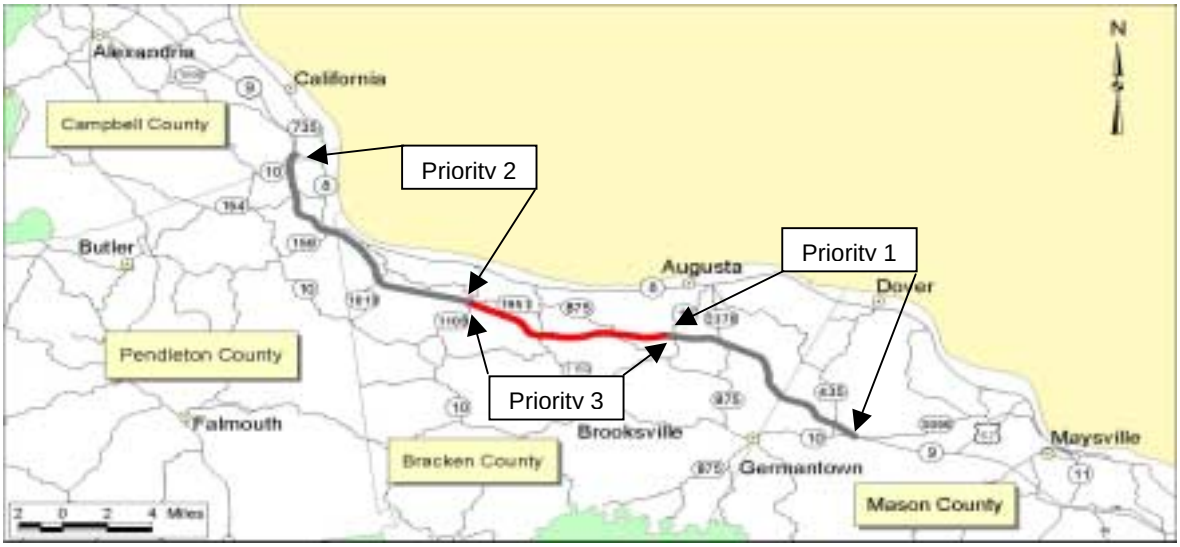

FIGURE 9 - PRIORITY SECTIONS

The approximate costs of the Preferred Recommended Alternate, a 4-lane limited access highway, including costs for each of the Priority Sections, are listed below.

TABLE 8 – PREFERRED ALTERNATE COSTS BY PRIORITY SECTION

	4-Lane Partially Controlled Depressed Median	**Priority Section One** (KY 10 to KY 19)	**Priority Section Two** (KY 1109 to 0.5 Miles North of Campbell Co. Line)	**Priority Section Three** (KY 19 to KY 1109)
Section Termini	N/A	Mason Co. MP 13.99 to Bracken Co. MP 5.55	Bracken Co. MP 13.59 to Campbell Co. MP 0.5	Bracken Co. MP 5.55 to Bracken Co. MP 13.59
Length	28.11 Miles	8.96 Miles	11.11 Miles	8.04 Miles
Design	$12,887,000	$4,112,000	$5,091,000	$3,684,000
Right of Way	$3,589,000	$1, 096,000	$1,343,000	$1,150,000
Utilities	$540,000	$160,000	$280,000	$100,000
Construction	$161,082,000	$51,399,000	$63,639,000	$46,044,000
TOTAL	**$178,098,000**	**$56,767,000**	**$70,353,000**	**$50,978,000**

*Note: Due to rounding, the total cost for all the priority sections does not necessarily equal the total cost indicated for the entire project.

Appendix A – Team Meeting Minutes

STATEWIDE CORRIDOR PLANNING SERVICES

KY 9 TEAM MEETING #1 MINUTES

TO: Annette Coffey, P.E.
Director
KYTC Division of Planning

FROM: Larry D. Chaney, P.E., L.S.
Director of Transportation
HNTB-Louisville

DATE: May 3, 2001

SUBJECT: Statewide Corridor Planning
KY 9 Widening Study
Item No. 9-0165

The first team meeting was held May 2, 2001 in the District 9 office to discuss the KY 9 project. Those in attendance were:

Jim Wilson	Division of Planning
Bruce Siria	Division of Planning
Rick Omohundro	KYTC District 9
Wayne McCleese	KYTC District 9 - Traffic
Darrin Eldridge	KYTC District 9 - Design
Karen Mynhier	KYTC District 9 - Environmental
Jack Litten	KYTC District 9 - Right of Way
James Simpson	KYTC - C.O - Highway Design
Bob Yeager	KYTC District 6
Brent Sweger	FHWA
Amy Kennedy	Buffalo Trace ADD
Doug Lambert	Palmer Engineering
Liz Bullock	Palmer Engineering
Henry Mathis	H.C. Nutting
Karen Mohammadi	HNTB Corporation
Larry Chaney	HNTB Corporation

1) Introductions

Mr. Siria opened the meeting by explaining that the project is in the Six-Year Highway Plan as a study of widening the AA Highway from the four lane section in Maysville to just inside the Campbell County line. He also mentioned that there was an overlap in the Six-Year Plan with a design project to widen the AA Highway in Mason County, which would reduce the study length by three and a half miles. He then asked for introductions, and said that the project would have two main elements – technical and public involvement. The public may feel that they were promised four lanes, and may want the widening regardless of the results of the study.

2) Project Overview

Mr. Chaney then led the attendees through the agenda. He explained that the project area has good geometry and low traffic volumes. Accident rates along the corridor are generally lower than the statewide

average for a two-lane road. The only exception to this is the fatality rate in Mason County. Right angle accidents at intersections and collisions with deer are the main types of accidents. Four of the fatal accidents in the project area were the result of drivers falling asleep at the wheel. We will look at solutions like chatter bars in the median as one possible solution to this problem. Speeding does not appear to be a significant problem relating to accidents, according to the Kentucky Transportation Center (KTC) report. However, Mr. Sweger reminded the group that the recent Drive Smart blitz resulted in almost 1,000 citations being issued.

3) Preliminary Alternatives

Mr. Chaney stated that we will look at safety improvements such as lighting, fencing, and deer reflectors along the corridor to reduce certain accident types. Most of the lighting along the corridor is not high mast lighting, and therefore may not provide enough visibility for drivers on the AA Highway. Some of the problems may also be addressed by looking at access control. Currently there is an average of one access point per mile, and that is already lower than the State's requirement of access spacing every 1,200 for this facility type. There are generally no deceleration lanes or flare outs at the intersections. Mr. McCleese stated that he felt there should be more flares and that lighting was not as critical of a concern. Mr. Chaney concurred and added that there are a large number of accidents involving guard rail, and that some of the guardrail may need to be moved further back from the driving lanes. Mr. Chaney then asked the group whether they wanted to consider a mountable median such as that used in Campbell County. The reply was that a depressed median would be preferable. Mr. Chaney stated that a median type should be decided before we begin looking at the four-lane section.

Mr. Simpson told the group that the Mountain Parkway extension is using rumble strips in the center of the road, and suggested that HNTB contract Jeff Wolfe in Central Office Traffic to get more details on the effectiveness of that project.

Mr. Siria stated that the public hearing for the KTC study may be integrated with the public meetings for this project since the projects are related. He added that the KTC study found fault with the drivers and not with the road geometry. The Drive Smart blitz and a public relations campaign are being aimed at the operators to address this.

Mr. Sweger asked if this study would lead to an early Purpose and Need for an Environmental Study. Mr. Siria responded that it would lead to a set of project goals. Safety and capacity will likely be the main goals.

Mr. Eldridge asked if the project would move forward to widening if the capacity needs are meet with the current two lanes. Mr. Siria stated that they were unsure, since public sentiment may still push for four lanes. Mr. Chaney added that addressing the need for access control and control of speed differentials may necessitate four lanes. He added that some of the existing problems would worsen with four lanes, such as deer accidents, right angle accidents and access from driveways.

Mr. Siria noted that the project likely got into the Six-Year Plan as a response to safety concerns. Also, some people may feel that a four-lane facility was promised and they may want the wider road simply for that reason. The project was not apparently put in the Six-Year Plan by a specific legislator.

Mr. Siria continued by stating that the KTC was currently working on a study to compare the benefits of upgrading a two-lane road to an improved two-lane section versus a four-lane section. Their initial results suggest that the improvements have similar impacts on safety.

Mr. Eldridge asked what would be done at the intersections if the AA Highway is widened. The consensus was that a fully controlled access facility may need to beconsidered. Mr. Sweger suggested something between a fully controlled facility and the current facility be studied. It was decided that HNTB would look at adding two lanes and at converting the facility to a fully controlled access facility.

Mr. Eldridge questioned whether this study would look at a high speed facility. Mr. Siria stated that it would, not but that the results of the proposed I-74 corridor from the Markland Dam to the Maysville Bridge may be useful in this study.

4) Geotechnical Overview

Mr. Mathis asked if there were any accidents or problems with falling rock in cuts along the corridor. The group was unaware of any incidents, and Mr. Mathis stated that he would follow up with the Maintenance staff in both districts.

5) Environmental Overview

The project limits will be 1000' on either side of the existing edge of pavement. The environmental footprint needs to be completed before the first set of public meetings.

6) Public Involvement

The meetings will all be broken down by ADDs. Campbell County and Pendleton County meetings will be arranged by Scott Boone in the Northern Kentucky ADD. Ms. Kennedy will arrange meetings for Bracken and Mason counties. It was suggested that the local officials meetings be arranged for 10:00 AM and that the stakeholders meetings be arranged the same afternoon at 1:00 PM.

HNTB was asked to include the Mayor of Maysville and Senator Charlie Borders to the list of officials. Stakeholders to be invited to the meetings may include representatives from the Chambers of Commerce, emergency services, school boards, industrial foundations, transit agencies, trucking companies, low income or minority group leaders, tourism and the Community Action Agency. The information provided at the Team Meeting will be sufficient to present at the local officials and stakeholders meetings.

7) Documentation

Meeting minutes for all types of meeting will be provided to the entire team.

8) Next Meetings

Scott Boone and Ms. Kennedy will arrange the local officials and stakeholders meetings. The second team meeting will be held after the first public meeting.

STATEWIDE CORRIDOR PLANNING SERVICES

KY 9 PROJECT SUB-TEAM MEETING MINUTES

TO: Annette Coffey, P.E.
Director
KYTC Division of Planning

FROM: Larry D. Chaney, P.E., L.S.
Director of Transportation
HNTB-Louisville

DATE: June 29, 2001

SUBJECT: Statewide Corridor Planning
KY 9 Widening Study
Item No. 9-0165

A meeting was held June 21, 2001 in the first floor conference room in the State Office Building Annex to discuss the upcoming initial public meeting for this project. Those in attendance were:

Carl Dixon	Division of Planning
Bruce Siria	Division of Planning
Bob Yeager	KYTC District 6
Karen Mohammadi	HNTB Corporation
Larry Chaney	HNTB Corporation

Bruce Siria explained that the purpose of this meeting was to ensure that the entire management team had a similar understanding about the project prior to the first public meeting.

The material to be presented at the first public meeting will be basically the same as given to the local officials and stakeholders, with the addition of an environmental footprint map. Mr. Siria requested that the forecasted traffic and corresponding methodology be sent to Multimodal Programs, and a decision would be made, subsequent to their review, as to whether to distribute this information at the public meeting. It may be feasible to develop the information stations by County, if that would appear helpful to clarify the information. HNTB should prepare media packets as well, including important elements of the PowerPoint presentation. The handouts should also include survey forms. The Cabinet feels that providing surveys at the Local Officials and Stakeholder's meetings, and sending the meeting materials to absent invitees at those meetings, has been very beneficial to the project.

The meeting will be held at the Bracken County High School from 4:00 PM to 8:00 PM, and District 6 will arrange to have Variable Message Signs (VMS) up on KY 9 throughout the day. We are expecting 200-300 people at the public meeting and, due to the number of people expected and to the access to the cafeteria/gym, the Cabinet intends to have three sign-in stations. All team members should be at the school by 2:30 PM. Shortly after 4:00 PM, a formal presentation will be made. Additional presentations may follow, depending on the size of the crowds and the time they arrive. Bob Yeager will contact the school to obtain advice regarding directing parking at the school, since vehicle can not pass one another along the rear driveway. The Cabinet will provide the projection screen, easels and refreshment bins. Mr. Dixon stated that the presentation must be prepared to address two of the public's most common questions: 1) Is this project going to take my property, and 2) When will the construction take place?

The Cabinet has invited the Kentucky Transportation Center to attend the meeting. Either Jerry Pigman or Ken Agent will be present, and any questions at the public meeting regarding the safety study should be directed to them. The formal presentation should make it clear that this widening study is not directly associated with the safety study. The Cabinet is meeting on July 10th to discuss the public hearing on the safety study. The Cabinet will contact Doug Gabbert with Jordan-Chiles about the meeting on the 10th, and will determine if the materials being prepared for the public education program will be appropriate for distribution at the first KY 9 public meeting.

Mr. Yeager then mentioned that HNTB had requested information about plans for the new Industrial Park on KY 9, but that his department has no current information. None of the work is being done on State right of way at this time.

Mr. Siria questioned whether Sheriff Mike Nelson in Bracken County had been upset about being left off the mailing list for the Stakeholder's Meeting. Karen Mohammadi answered that the Sheriff was not upset, just unaware that the meeting had taken place. Mr. Yeager stated that he would call the Sheriff, and that he would make sure that he is included for the next meeting. He also stated that he would coordinate with District 9 to ensure that there would be no duplication of efforts by the Districts in contacting elected officials and stakeholders.

The time frame for the remaining meetings was discussed. Mr. Siria asked when alternatives and costs could be ready. HNTB should be able to furnish those estimates near the end of August, but we are in need of direction from the Cabinet as to their preferred median type. It was agreed that most of the remaining project meetings would take place in August, with the final public meeting occurring in September.

STATEWIDE CORRIDOR PLANNING SERVICES

KY 9 TEAM MEETING #2 MINUTES

TO: Annette Coffey, P.E.
Director
KYTC Division of Planning

FROM: Larry D. Chaney, P.E.
Director of Transportation
HNTB-Louisville

DATE: September 11, 2001

SUBJECT: Statewide Corridor Planning
KY 9 Widening Study
Item No. 9-0165

The second team meeting was held August 27, 2001 in the District 6 office to discuss the KY 9 project. Those in attendance were:

Jim Wilson	KYTC Division of Planning
Bruce Siria	KYTC Division of Planning
Brad Eldridge	KYTC Division of Design
Rick Omohundro	KYTC District 9 – Pre-Construction
Bill Madden	KYTC District 6 – Traffic
Brian Donnelly	KYTC District 6 – Traffic
Mike Bezold	KYTC District 6 – Design
Bob Yeager	KYTC District 6 – Planning
Bob Hill	KYTC District 6 – Planning
Mike Emark	KYTC District 6 – Maintenance
Scott Boone	Northern Kentucky ADD
Doug Smith	H.C. Nutting
Karen Mohammadi	HNTB Corporation
Larry Chaney	HNTB Corporation

Mr. Chaney opened the meeting by explaining what tasks had been accomplished to date: the traffic and accident analyses have been completed, the environmental footprint is complete, and the first public meeting has been held. He then began the review of the agenda and handouts (see attached).

Ms. Mohammadi explained the accident statistics for the corridor. The accident rates are lower than statewide averages for two lane roads, although angle crashes and deer-related accidents are higher than average. Mr. Yeager noted that two key factors affect the local concerns of the safety of the road: 1) there is a higher than average chance of an accident involving injuries, and 2) the accidents often involve a local person well-known throughout he community. Ms. Mohammadi next presented an exhibit of current and projected traffic volumes. The current volumes result in levels of service (LOS) varying from D to E. Future volumes will result in LOS ranging from E to F. The forecasted volumes have not received final approval from Multimodal Programs. They will likely be reduced slightly, but this is not expected to impact the overall LOS.

Mr. Chaney then discussed the alternatives. The next step beyond the No-Build Alternative is the Operational Improvement Alternative. These recommendations included:

- Rumble strips for the shoulders and centerline
- Removal of some field entrances
- Improvements to radii and guardrail at some driveways and streets
- Lengthening and better signing of truck climbing/slow lanes
- Striping of shoulders for additional turn lanes
- Development of weigh stations
- Improvements of intersection signs, additional intersection lighting
- Installation of deer reflectors and more deer warning signs
- Skipline reflectors at intersection
- Development of rest areas
- Installation of a fog warning system

Mr. Madden stated that he felt weigh stations on KY 9 would be ineffective, since trucks could bypass the stations by using side roads. He also noted that the District is currently testing deer reflectors in Pendleton County.

Mr. Hill expressed concern on the need for separate left-turn lanes in the area of truck climbing lanes, to get turning vehicles out of the travel lanes.

Mr. Chaney then began the discussion of widening alternatives. Given the existing problem of drivers crossing the centerline, it was felt that the alternatives should include some sort of separation of traffic and that a mountable median was not suitable. Mr. Bezold added that the mountable median does not meet current design standards in a rural section of highway. This left the option for a non-mountable raised median or a depressed median.

A discussion was held as to the type of access currently allowed on the road. It was decided that the road is considered partially controlled, although several entrances originally built with the highway violate the 1200' spacing. Additional access may be granted if the entrances meet sight distance and spacing requirements. In order to avoid this situation completely, the only other alternative is a fully controlled roadway. A fully controlled road is considerably more expensive than a partially controlled one, due to the need for frontage roads and interchanges rather than at-grade intersections. After a brief discussion, it was decided that the number of interchanges could be reduced to ten (10) by eliminating all local road access, and that the exact location of interchanges would be decided during the design phase should this alternative move forward.

Mr. Siria noted that in the final study report it should be mentioned that some individuals have asked that the spacing be increased from 1200', but that there is no legal authority for the Cabinet to increase the distance. Also, the final report should state why the mountable median received no further consideration, since other existing segments of KY 9 currently have this type of section.

The next topic was presentation of the materials to the public. It was decided that exhibits showing the typical sections with photographs would be most effective. The environmental footprint will also be presented.

Priority sections were discussed, and it was determined that they should be part of the recommendation. The probability of beginning the construction at either end of the corridor as opposed to the middle was stressed. The sections should also ideally be broken into $25-$30 million construction sections.

A comparison of the alternatives was next discussed. It was noted that the cost per interchanges should be increased to $20 million each. A revised comparison sheet will be sent to all of the meeting attendees.

The final topic of discussion was the public involvement program. Mr. Yeager offered to arrange Local Officials and Stakeholder meetings for Friday, September 7, 2001. It was decided that these meetings could be combined and held at two locations: Peach Grove Fire Department (10:00 AM Meeting) and the Bracken County Library (2:00 PM Meeting). A public meeting will be held at the Marathon Station near the Pendleton and Campbell County line in California, Kentucky. It will last from 11:00 AM to 7:00 PM. An additional meeting will be held in Mason County at the BP Station near the Bracken County Line on September 26, also from 11:00 AM to 7:00 PM. Both meetings should be advertised as open format public meetings to distribute information and receive input.

HNTB will provide the Cabinet with the public meeting handouts at least one week prior to the meeting. They will include a matrix to allow the comparison of the alternatives. The information should also include a realistic time frame for the construction of the facility. The survey form should be unique enough to allow weighing of the opinions expressed, including such questions as "How often do you drive on KY 9 and for approximately how many miles each trip?" The survey may even consider asking if people are willing to pay a toll to finance the widening.

Mr. Yeager noted that those persons who attended the last public meeting should be sent notifications of the upcoming public meetings. It was agreed that they would be sent a packet of information. He also agreed to see that variable message signs (VMS) are placed on the corridor at least one week prior to the meetings.

The HNTB Companies

STATEWIDE CORRIDOR PLANNING SERVICES
KY 9
TEAM MEETING #3

TO: Annette Coffey, P.E.
Director
KYTC Division of Planning

FROM: Larry D. Chaney, P.E.
Director of Transportation
HNTB-Louisville

FINAL

DATE: February 7, 2002

SUBJECT: Statewide Corridor Planning
KY 9 Widening Study
Item No. 9-0165

The third Project Team meeting for the subject study was held November 21, 2001 in the District 6 office. Those in attendance were:

Jim Wilson	KYTC Division of Planning
Bruce Siria	KYTC Division of Planning
Richard Wilson	KYTC Division of Materials
Brad Eldridge	KYTC Division of Design
Steve Halloran	KYTC Division of Construction
Ron Rister	KYTC Division of Operations
Rick Omohundro	KYTC District 9 – Pre-Construction
Sharon Laycock	KYTC District 6 – Environmental
Bill Madden	KYTC District 6 – Traffic
Mike Bezold	KYTC District 6 – Design
Bob Hill	KYTC District 6 – Planning
Amy Kennedy	BTADD
John Moss	HNTB Corporation
Jim Lemons	HNTB Corporation
Larry Chaney	HNTB Corporation

Bruce Siria opened the meeting by announcing that the final step in this project, the close-out public announcement, was tentatively set for the board meetings of the two Area Development Districts (ADD) involved. The dates discussed were February 19, 2002, for the Buffalo Trace ADD and February 21, 2002, for the Northern Kentucky ADD.

The meeting was then turned over to Larry Chaney for a recap of the public meetings. Mr. Chaney discussed the format of the meetings (tent meeting with handouts, boards and flip charts). He also noted that over 50 handouts were returned. He reviewed the types of alternatives proposed: a Fully Controlled Four-Lane Facility, a Partially Controlled Four-Lane Section, and an Operational and Safety Improvements Alternative. The Operational and Safety Improvements Alternative is considered to be a set of interim solutions.

Mr. Siria mentioned that KY 9 seems to be generally used for longer trip lengths than comparable roadways. This supports the concept of adding rest areas with truck parking. Many comments were made by the public about this route being a "long, boring trip". It was further stated that a rest area would be a better solution than a weigh station. The team felt that the rest area concept should be a priority. However, it was also mentioned that the trucks may be using KY 9 to save time by effectively bypassing all the weigh/odometer stations.

The issue of how much existing right-of-way is actually available was mentioned, and it was determined that the amount would need to be clarified and checked against the costs estimated for purchase.

The question as to whether KY 9 should become a toll road was raised. It was explained that there was likely not enough traffic to warrant a toll road.

There appears to be minor resistance to the project from some people in Pendleton County. They are not necessarily against it, but do not see it as a priority over other possible road improvements in their County.

Priority Sections were discussed next. It was determined that the sections should be pursued as follows:

Priority One - Campbell County to KY 1109

Priority Two – East of KY 19 to Mason County

Priority Three – Middle Section (east of KY 1109 to west of KY 19)

Mr. Chaney mentioned that HNTB's recommendations would be Alternate #3, the partially controlled access 4-lane highway. There was consensus among the attendees, and acknowledgement that some additional issues need to be addressed pertaining to safety at the intersections. Also, some of the enhancements of Alternate #2 (Operational and Safety Improvements) need to be pursued as interim measures, particularly extensions of truck lanes and additions of turning lanes. Some of the reasons cited for supporting Alternative #3 were the lower costs, ability to resolve safety issues, ability to maintain a rural feel to the road, to curb sprawl, to address access issues and intersection problems, and to lessen right-of-way impacts. Points mentioned in favor of the fully controlled facility (Alternative #4) were that it would better address safety problems resulting from median crossings, and that it and would better support the through traffic volumes.

Mr. Siria concluded the meeting by stating that the next steps are to prepare the report for the study and to make the public announcement of the recommendations in February.

STATEWIDE CORRIDOR PLANNING SERVICES
KY 9
TEAM MEETING #4

TO: Annette Coffey, P.E.
Director
KYTC Division of Planning

FROM: Larry D. Chaney, P.E.
Director of Transportation
HNTB-Louisville

DATE: April 9, 2002

SUBJECT: Statewide Corridor Planning
KY 9 Widening Study
Item No. 9-0165

The fourth Project Team Meeting for the subject study was held at 10:00 a.m. March 19, 2002 in the District 6 Conference Room. Those in attendance were:

Jim Wilson	KYTC Division of Planning
Bruce Siria	KYTC Division of Planning
Joe Tucker	KYTC Division of Planning
Brad Eldridge	KYTC Division of Design
Bob Yeager	KYTC District 6 – Planning
Bill Madden	KYTC District 6 - Traffic
Richard Guidi	KYTC District 6 - Design
Mike Bezold	KYTC District 6 - Design
Rick Omohundro	KYTC District 9 - Pre-Construction
Amy Kennedy	BTADD
Scott Boone	NKADD
Karen Mohammadi	HNTB Corporation
Larry Chaney	HNTB Corporation

Bruce Siria opened by stating that a lengthy discussion was held at the last Team Meeting regarding the preferred alternative, and that priority sections were also discussed. The priority sections decided at that meeting are as follows:

1st: Existing Four-Lane Segment in Campbell County to KY 1109 in Bracken County
2nd: KY 10 in Mason County to KY 19 in Bracken County
3rd: Bracken County: KY 1109 to KY 19

Bruce also stated that officials from both Mason and Bracken Counties have shown interest in the project. Only one-half of a mile is in Campbell County, and representatives of Pendleton County have stated that there are higher priority transportation projects for their county than the widening of KY 9.

Considering the opinions of local officials, the Cabinet decided to hold an additional

Project Team Meeting to determine the validity of the sections and the priorities.

Bill Madden stated that fatigue-related accidents are more prominent in southern Bracken County and in Mason County. These types of accidents have often resulted in fatalities in this area.

Bob Yeager added that KY 19 is being rebuilt in Bracken County to provide better access to Maysville. Building the KY 10 to KY 19 section first would definitely enhance that connection. He felt it was also a logical progression of improvement in respect to the Cabinet's widening project in Mason County. He also noted that, in his opinion, there is little political support from Pendleton or Campbell County for widening KY 9 at this time.

Amy Kennedy added that the Buffalo Trace Transportation Committee agrees with the statement made by Bob Yeager. Completing KY 19 and the AA Highway on the Bracken/Mason end is important to that group, and they have ranked the KY 9 widening project as one of the ADD's top priorities. A wider KY 9 in this area would also better serve the new industrial park in Bracken County.

Scott Boone stated that the NKADD Transportation Committee is not strongly supportive of any widening of the AA Highway on the northwestern end.

Mr. Siria asked if there were any technical reasons against starting the widening on the southeast end. That led to a brief discussion of 2000 and 2025 traffic volumes. While traffic volumes are higher on the northwest section, all sections will be operating at poor levels of service by 2025. Also, as Mr. Madden pointed out, the fatigue-related accidents are occurring more often in the southeast sections. Karen Mohammadi added that KY 19 is the intersection with the highest number of accidents in the project area.

Mr. Siria summarized that there are clear technical benefits to the northwestern section being built first, but that those benefits do not appear to be so overwhelming that the decision should be made solely on that basis. Public support seems to indicates a preference that the southeastern section be completed first. Mr. Siria offered the following revised priority sections for discussion:

1st: KY 10 in Mason County to KY 19 in Bracken County
2nd: Existing Four-Lane Segment in Campbell County to KY 1109 in Bracken County
3rd: Bracken County: KY 1109 to KY 19

Those Project Team members present were in agreement with this new ranking of priority sections.

Ms. Mohammadi then asked for comments on the recommendations for Safety and Operational Improvements. The following comments were received:

- Deer reflectors and rumble strips are being implemented by the District.
- Truck/slow lane extensions should be recommended on the northwestern end.
- The County governments should handle roadway or intersection lighting.

The meeting adjourned at 11:30 a.m.

Appendix B - Local Officials and Stakeholders Comment Forms and Meeting Minutes

Comment Survey
KY 9 Scoping Study
Item No. 9-0165.00
Mason-Bracken-Pendleton-Campbell Counties

The Kentucky Transportation Cabinet requests that you provide comments on this form concerning the proposed project. All comments will be given due consideration during the development of potential alternatives for highway improvements along the KY 9 corridor. Please return this form to a Transportation Cabinet representative prior to leaving this meeting, or mail it back at a later date. Postage will be paid by the Kentucky Transportation Cabinet.

All comments are welcome! We appreciate your participation!

Name: David Barnett, Supt.
Representing: Bracken Co Schools
Phone (optional): (606) 735-2523
Address: P.O. Box 26
Brooksville, KY 41004

In your opinion, are there any problems within the existing KY 9 route? If so, how could those problems best be resolved?

I agree that many accidents are a result of driver error. I travel KY 9 twice daily in Mason County. Very rarely do I see a trooper. I've been passed twice by someone driving on the shoulder. I only travel the Mason Co portion of AA, but it seems drivers are free to drive as the want.

Are there any locations along the KY 9 corridor where you have specific concerns? What are those concerns?

The intersection of AA and KY 11 (from Flemingsburg) is dangerous. I worked with a lady who was killed there. I turn onto AA there every day & have see large trucks run a red light on more than one occasion. Can cameras be installed to get pictures of those who run a red light? I know flashing lights & rumble strips have been installed, this helps some. But, when drivers continually endanger others' lives, additional steps must be taken.

Are there any environmentally sensitive areas along the KY 9 corridor of which the project team should be aware?

I'm not aware of any.

Additional Comments:

Bracken Co Schools have several buses that cross AA every day. Some places allow for sufficient line-of-site. Others should be improved. Fog sometimes plays havoc... (Can you solve the fog problem?!) Anything that will allow our drivers to see further in either direction when crossing AA would be a step in the right direction. If AA is widened to four lanes, there must be a median which would allow for crossing the road ½ at a time.

David Barnett

Comment Survey
KY 9 Scoping Study
Item No. 9-0165.00
Mason-Bracken-Pendleton-Campbell Counties

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All comments are welcome! We appreciate your participation!

Name: DALLAS BRAY
Representing: BRAY TRUCKING INC.
Phone (optional): 859-635-5680
Address: PO BOX 8
ALEXANDRIA KY. 41001

In your opinion, are there any problems within the existing KY 9 route? If so, how could those problems best be resolved?
AT MAJOR INTERSECTION TURN LANES AND ACCELERATION LANES ARE NEEDED TO IMPROVE SAFETY AND TO MOVE TRAFFIC FASTER.

Are there any locations along the KY 9 corridor where you have specific concerns? What are those concerns?
NONE

Are there any environmentally sensitive areas along the KY 9 corridor of which the project team should be aware?
NOT AWARE OF ANY

Additional Comments:
AS TRUCK TRAFFIC CONTINUES TO INCREASE I CAN SEE THE NEED FOR 4 LANES. GREAT TO SEE YOU PLANNING AHEAD.

Comment Survey
KY 9 Scoping Study
Item No. 9-0165.00
Mason-Bracken-Pendleton-Campbell Counties

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All comments are welcome! We appreciate your participation!

Name: Judith Anne Foster
Representing: UK Cooperative Extension/Tourism Interest
Phone (optional): 606-735-2141
Address: 1120 Brooksville-G-town Rd.
Brooksville, Ky. 41004

In your opinion, are there any problems within the existing KY 9 route? If so, how could those problems best be resolved?

passing — resolved by making #9 a 4-lane highway as 1st proposed.

INTERSECTIONS — too much crown — resurvey & regrade many more especially intersection @ #19.

Are there any locations along the KY 9 corridor where you have specific concerns? What are those concerns?

Intersection at Rt. 19 & Dutch Road -

Are there any environmentally sensitive areas along the KY 9 corridor of which the project team should be aware?

Deer — encourage longer & more tolerant hunting season.

Limit advertising by business — increase Ky. (the brown & green State) signage to better guide tourist → billboards etc.

Additional Comments: Beautify Park & Pool areas.

KENTUCKY TRANSPORTATION CABINET

Comment Survey
KY 9 Scoping Study
Item No. 9-0165.00
Mason-Bracken-Pendleton-Campbell Counties

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All comments are welcome! We appreciate your participation!

Name: David C. Caldwell
Representing: Castellini Company / Dave Caldwell
Phone (optional): 859-635-2692
Address: 195 RR#1 - California, Ky 41007

In your opinion, are there any problems within the existing KY 9 route? If so, how could those problems best be resolved?

A lot of intersections when looking to see if traffic is coming, as your vision is blocked by the guardrails. Move the guardrails back to improve vision. This should decrease some of the accidents caused by pulling into traffic

Are there any locations along the KY 9 corridor where you have specific concerns? What are those concerns?

1996 — I live @ this intersection and it is one of the most dangerous places to pull onto the highway — The reason is because of the problem I described above

Are there any environmentally sensitive areas along the KY 9 corridor of which the project team should be aware?

Not that I am aware of. Throughout the region it is heavily populated w/[illegible].

Additional Comments:

The AA Highway is a great help to the N Ky [illegible] Economy. The [illegible] at certain intersections needs some study to determine what can be done

Comment Survey
KY 9 Scoping Study
Item No. 9-0165.00
Mason-Bracken-Pendleton-Campbell Counties

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All comments are welcome! We appreciate your participation!

Name: DAVID CARTMELL
Representing: CITY OF MAYSVILLE
Phone (optional): 606-564-9411
Address: 216 BRIDGE ST.
MAYSVILLE KY 41056

In your opinion, are there any problems within the existing KY 9 route? If so, how could those problems best be resolved?

DIRECT ACCESS FROM COUNTY ROADS - COULD BE CORRECTED BY ON & OFF RAMPS.
LIMITED MERGING TIME WHEN GOING 3 LANES TO 2 - COULD BE CORRECTED BY 4 LANEING AND LIMITED ACCESS

Are there any locations along the KY 9 corridor where you have specific concerns? What are those concerns?

CONGESTION AT KY 9 & BLACK PIKE
MARATHON TRUCK STOP COULD BE CORRECTED BY WIDENING OR 4 LANEING

Are there any environmentally sensitive areas along the KY 9 corridor of which the project team should be aware?

Additional Comments:

WE would prefer that any future planning for the KY 9 CORRIDOR INCLUDE FURTHER RESTRICTION OR LIMITING OF ACCESS to the highway.

Comment Survey
KY 9 Scoping Study
Item No. 9-0165.00
Mason-Bracken-Pendleton-Campbell Counties

The Kentucky Transportation Cabinet requests that you provide comments on this form concerning the proposed project. All comments will be given due consideration during the development of potential alternatives for highway improvements along the KY 9 corridor. Please return this form to a Transportation Cabinet representative prior to leaving this meeting, or mail it back at a later date. Postage will be paid by the Kentucky Transportation Cabinet.

All comments are welcome! We appreciate your participation!

Name: Owen Collins
Representing: Pendleton Planning Commission
Phone (optional): 859-472-6245
Address: 520 Bosse-Dunaway Rd.
Butler, Ky. 41006

In your opinion, are there any problems within the existing KY 9 route? If so, how could those problems best be resolved?

I have traveled Ky. 9 several times & find the Highway to be well laid out with adequate passing lanes. Unlimited access may cause some of the problems as well as persons in too big of a hurry.

Are there any locations along the KY 9 corridor where you have specific concerns? What are those concerns?

No.

Are there any environmentally sensitive areas along the KY 9 corridor of which the project team should be aware?

Not that I am aware.

Additional Comments:

Comment Survey
KY 9 Scoping Study
Item No. 9-0165.00
Mason-Bracken-Pendleton-Campbell Counties

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All comments are welcome! We appreciate your participation!

Name: GENE FLAUGHER
Representing: MAYOR - CITY FALMOUTH
Phone (optional): 859-654-6937
Address: 220 MAIN ST
FALMOUTH KY 41040

In your opinion, are there any problems within the existing KY 9 route? If so, how could those problems best be resolved?

SPEED CREAT MUST PROBLEMS.
STOP SIGNS TOO CLOSE TO HIGHWAY - NEED SIGN SAYING STOP AHEAD.

Are there any locations along the KY 9 corridor where you have specific concerns? What are those concerns?

SIDE ROADS NOT WELL MARKED.

Are there any environmentally sensitive areas along the KY 9 corridor of which the project team should be aware?

NOT KNOWN

Additional Comments:

KENTUCKY TRANSPORTATION CABINET

Comment Survey
KY 9 Scoping Study
Item No. 9-0165.00
Mason-Bracken-Pendleton-Campbell Counties

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All comments are welcome! We appreciate your participation!

Name: James L. "Buddy" Gallenstein
Representing: MASON County Fiscal Court
Phone (optional): 606-564-6706
Address: 219 Court Street
Maysville, Kentucky 41056

In your opinion, are there any problems within the existing KY 9 route? If so, how could those problems best be resolved? YES
Some Intersection Required Grade Separation. To many access to A&A When You Have a secured Rd. like old 10 & Stone Lick You Don't need the extra access - We need to look at this Problem. - Site & Sign are [illegible] Problem. 4 Lane From Mason to N Ky will Help.

Are there any locations along the KY 9 corridor where you have specific concerns? What are those concerns?
Ky 11 & A&A
1237 Rectorville & A&A
7449 & A&A

Are there any environmentally sensitive areas along the KY 9 corridor of which the project team should be aware? No

Additional Comments:
Longer Notice to turning off Lanes

Comment Survey
KY 9 Scoping Study
Item No. 9-0165.00
Mason-Bracken-Pendleton-Campbell Counties

The Kentucky Transportation Cabinet requests that you provide comments on this form concerning the proposed project. All comments will be given due consideration during the development of potential alternatives for highway improvements along the KY 9 corridor. Please return this form to a Transportation Cabinet representative prior to leaving this meeting, or mail it back at a later date. Postage will be paid by the Kentucky Transportation Cabinet.

All comments are welcome! We appreciate your participation!

Name: Betty McClanahan (Director)
Representing: Bracken Co. EMS
Phone (optional):
Address:

In your opinion, are there any problems within the existing KY 9 route? If so, how could those problems best be resolved?
A divided between lanes would help. Some areas have this. Lots of driveways onto AA are not marked.

Are there any locations along the KY 9 corridor where you have specific concerns? What are those concerns?
At Rt. 19 in Bracken Co. you do not see traffic on AA soon enough, because of the rises in AA Highway.

Are there any environmentally sensitive areas along the KY 9 corridor of which the project team should be aware?
No that I know of.

Additional Comments:

Comment Survey
KY 9 Scoping Study
Item No. 9-0165.00
Mason-Bracken-Pendleton-Campbell Counties

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All comments are welcome! We appreciate your participation!

Name: ED MILLER
Representing: 30th DIST. KY STATE SENATE
Phone (optional): 502-564-8100 EX 710
Address: 115 BRADFORD DRIVE
CYNTHIANA KY 41031-1796

In your opinion, are there any problems within the existing KY 9 route? If so, how could those problems best be resolved?

THERE ARE CITIZEN CONCERNS EVEN THOUGH STATISTICS DON'T SHOW THAT KY 9 IS AN ESPECIALLY DANGEROUS HWAY.

Are there any locations along the KY 9 corridor where you have specific concerns? What are those concerns?

KY 9 & KY 19 APPEARS TO BE VERY DANGEROUS

Are there any environmentally sensitive areas along the KY 9 corridor of which the project team should be aware?

NONE THAT I KNOW OF

Additional Comments:

Comment Survey
KY 9 Scoping Study
Item No. 9-0165.00
Mason-Bracken-Pendleton-Campbell Counties

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All comments are welcome! We appreciate your participation!

Name: Wayne Muse, Director
Representing: Maysville/Mason Co. Emergency Management
Phone (optional): 606-759-5835
Address: 668 Kenton Sta. Rd.
Maysville, Ky. 41056

In your opinion, are there any problems within the existing KY 9 route? If so, how could those problems best be resolved?

The Ky 9 Highway has no problems other than the drivers.

Are there any locations along the KY 9 corridor where you have specific concerns? What are those concerns?

Intersections of Ky 11 and U.S.68 seem to be problem areas as well as rural intersections. Again, the problems seem to be drivers try to beat signal lights or drivers pull out in front of other drivers on Ky.9

Are there any environmentally sensitive areas along the KY 9 corridor of which the project team should be aware?

I am not aware of any enviromental issues.

Additional Comments:

In my opinion drivers need more education on the proper procedure of merging with traffic at intersections and obey exsisting traffic laws...

Comment Survey
KY 9 Scoping Study
Item No. 9-0165.00
Mason-Bracken-Pendleton-Campbell Counties

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All comments are welcome! We appreciate your participation!

Name: CRAIG PEOPLES
Representing: PENDLETON Co Sheriff / PENDLETON Co Emergency Mgmt
Phone (optional): 859-654-4511
Address: 233 Main St
Falmouth Ky 41040

In your opinion, are there any problems within the existing KY 9 route? If so, how could those problems best be resolved?
YES, needs Repavement, Lights at intersections? Flashing red/yellow side roads before coming to intersection?

Are there any locations along the KY 9 corridor where you have specific concerns? What are those concerns?

Are there any environmentally sensitive areas along the KY 9 corridor of which the project team should be aware?

Additional Comments:

Comment Survey
KY 9 Scoping Study
Item No. 9-0165.00
Mason-Bracken-Pendleton-Campbell Counties

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All comments are welcome! We appreciate your participation!

Name: RAY SHIELDS (CHief)
Representing: EASTERN Campbell County Vol. Fire Dept.
Phone (optional): 859-635-0818
Address: 6443 F RT 3 California, Ky. 41007

In your opinion, are there any problems within the existing KY 9 route? If so, how could those problems best be resolved?
I feel that if there were lighting at all intersection it would cut down on some of the accidents at night.

Are there any locations along the KY 9 corridor where you have specific concerns? What are those concerns?
Yes at route 735 I feel there should be some kind of caution put up for the Fire Dept approaching the Highway. Due to having trouble getting on the Highway for calls. This is getting to be a safety factor for the fire dept responding.

Are there any environmentally sensitive areas along the KY 9 corridor of which the project team should be aware?
N/A

Additional Comments:
Why can't a warning light or a Fire Dept warning sign be put up for the Fire dept at Rt. 735 letting the public know there is a Fire Dept in the area. There is nothing up at this time.

Comment Survey
KY 9 Scoping Study
Item No. 9-0165.00
Mason-Bracken-Pendleton-Campbell Counties

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All comments are welcome! We appreciate your participation!

Name: GENE WEAVER
Representing: Industrial Development
Phone (optional): 606-564-2510
Address: 216 1/2 Stanley Keen Ct.
Maysville Ky 41056

In your opinion, are there any problems within the existing KY 9 route? If so, how could those problems best be resolved?
Very Good Road but not enough Passing Lanes.

Make Ky 9 4-Lane Increase Speed Limit to 65

Are there any locations along the KY 9 corridor where you have specific concerns? What are those concerns?
Passing Lanes - you run out of Road before you know it.
Entrance/exits - motorist need more education on how to exit from intersections.

Are there any environmentally sensitive areas along the KY 9 corridor of which the project team should be aware?
Not to my knowledge

Additional Comments:

Comment Survey
KY 9 Scoping Study
Item No. 9-0165.00
Mason-Bracken-Pendleton-Campbell Counties

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All comments are welcome! We appreciate your participation!

Name: Ray Young
Representing: City of Maysville
Phone (optional): (606) 759-5835
Address: 216 Bridge St
Maysville, KY 41056

In your opinion, are there any problems within the existing KY 9 route? If so, how could those problems best be resolved?
Yes- The route is poorly lighted, has too many entrances, And not enough passing lanes

Are there any locations along the KY 9 corridor where you have specific concerns? What are those concerns?
Between Maysville And Rt. 8 Bracken Co there are not Enough Passing Lanes

Are there any environmentally sensitive areas along the KY 9 corridor of which the project team should be aware?
(No)

Additional Comments:
A 4 lane highway with limited Access would help prevent the accidents caused by human error

Comment Survey
KY 9 Scoping Study
Western Mason County to Southern Campbell County
Item No. 9-0165.00
Mason-Bracken-Pendleton-Campbell Counties

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All comments are welcome! We appreciate your participation!

Name: Mike Denham **Date:** 9/5/01
Representing:
Phone (optional): 606-564-4001
Address: 306 Old Hill City Road
Maysville, Ky 41056

1. Do you feel that KY 9 needs to be widened? ☑ Yes ☐ No

Why?

2. If a decision is made not to widen KY 9, which alternate approach do you prefer?

☐ **ALTERNATIVE 1 - No Build (Make no changes to the existing two-lane roadway.)**

Why?

☑ **ALTERNATIVE 2 - Safety and Operational Improvements (Keep existing two-lane roadway, but make improvements to increase safety and capacity, such as additional lighting at intersections, adding turning lanes, improving sight distance at intersections, extending the length of truck lanes, etc.)**

Why? Safety - Safety - Safety
Add Accleration & Decleration Lanes

Comment Survey
KY 9 Scoping Study
Western Mason County to Southern Campbell County
Item No. 9-0165.00
Mason-Bracken-Pendleton-Campbell Counties

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All comments are welcome! We appreciate your participation!

Name: James L. "Judy" Hollandsworth **Date:** Oct. 4, 2001
Representing: Mason County Fiscal Court
Phone (optional): 606-564-6706
Address: 219 County Street
Maysville, Ky. 41056

1. **Do you feel that KY 9 needs to be widened?** ☑ Yes ☐ No

   Why? The current road is Dangerous. Four lanes would help improve safety.

2. **If a decision is made not to widen KY 9, which alternate approach do you prefer?**

   ☐ **ALTERNATIVE 1 - No Build (Make no changes to the existing two-lane roadway.)**

   Why?

   ☑ **ALTERNATIVE 2 - Safety and Operational Improvements (Keep existing two-lane roadway, but make improvements to increase safety and capacity, such as additional lighting at intersections, adding turning lanes, improving sight distance at intersections, extending the length of truck lanes, etc.)**

   Why? It is a better alternative.

3. If a decision is made to widen KY 9, which alternate do you prefer?

☑ ALTERNATIVE 3 - Partially controlled four-lane roadway with two additional 12-foot lanes and a 60-foot depressed median. Access points kept to spacing of 1200 feet.

Why? Controlled Highway are much safer. Controlling Access Points. Fewer Stops. will eliminate possible James

☐ ALTERNATIVE 4 - Fully controlled four-lane roadway with two additional 12-foot lanes and a 30-foot median with a concrete barrier. Access provided at new interchanges only.

Why?

4. Are there are any alternatives that you feel should be dismissed from further consideration by the Cabinet? ☑ Yes ☐ No Which one(s), and why?

Alt #1 & 2

5. What change(s) would you propose for any, or all, of the proposed alternatives that would help them better serve the needs of the KY 9 roadway user?

Build Alt #4 If we Had the Funding

Additional Comments:

X

If you fail to receive a postage paid envelope, you may send your written comments to:

Ms. Annette Coffey, PE
Director, Division of Planning
Kentucky Transportation Cabinet
125 Holmes Street
Frankfort, KY 40622

Mr. Bruce Siria, PE
Project Manager
Division of Planning
Kentucky Transportation Cabinet
125 Holmes Street
Frankfort, KY 40622

Comment Survey
KY 9 Scoping Study
Western Mason County to Southern Campbell County
Item No. 9-0165.00
Mason-Bracken-Pendleton-Campbell Counties

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All comments are welcome! We appreciate your participation!

Name: Ed McCandless **Date:** 9-20-01
Representing:
Phone (optional): 859-654-2500
Address: PO Box 337, Falmouth, Ky 41040

1. Do you feel that KY 9 needs to be widened? ☐ Yes ☑ No

Why? Volume of traffic does not warrant this. The proposed Outer Loop corridor (I-74) will relieve traffic through Northern Kentucky and render widening unnecessary.

2. If a decision is made not to widen KY 9, which alternate approach do you prefer?

☐ **ALTERNATIVE 1 - No Build (Make no changes to the existing two-lane roadway.)**

Why?

☑ **ALTERNATIVE 2 - Safety and Operational Improvements (Keep existing two-lane roadway, but make improvements to increase safety and capacity, such as additional lighting at intersections, adding turning lanes, improving sight distance at intersections, extending the length of truck lanes, etc.)**

Why? Safety concerns, especially turning lanes.

Comment Survey
KY 9 Scoping Study
Western Mason County to Southern Campbell County
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Mason-Bracken-Pendleton-Campbell Counties

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All comments are welcome! We appreciate your participation!

Name: EDDIE MONROE **Date:** 9/20/01
Representing:
Phone (optional):
Address: 11162 ED MONROE RD
FALmouth KY 41040

1. Do you feel that KY 9 needs to be widened? ☒ **Yes** ☐ **No**

Why? It has such a great volume of heavy truck traffic.

2. If a decision is made not to widen KY 9, which alternate approach do you prefer?

☐ **ALTERNATIVE 1 - No Build (Make no changes to the existing two-lane roadway.)**

Why?

☒ **ALTERNATIVE 2 - Safety and Operational Improvements (Keep existing two-lane roadway, but make improvements to increase safety and capacity, such as additional lighting at intersections, adding turning lanes, improving sight distance at intersections, extending the length of truck lanes, etc.)**

Why? SO much traffic AND limited sight AT Some Intersections. ALSO agree such a factor, maybe more enforcement or truck Scales on the road.

✓

3. If a decision is made to widen KY 9, which alternate do you prefer?

☒ ALTERNATIVE 3 - Partially controlled four-lane roadway with two additional 12-foot lanes and a 60-foot depressed median. Access points kept to spacing of 1200 feet.

Why? Some businesses would be hurt if their entrances were moved or limited. Would need traffic lights AT the busiest intersections.

☐ ALTERNATIVE 4 - Fully controlled four-lane roadway with two additional 12-foot lanes and a 30-foot median with a concrete barrier. Access provided at new interchanges only.

Why? _____

4. Are there are any alternatives that you feel should be dismissed from further consideration by the Cabinet? ☐ Yes ☒ No Which one(s), and why?

5. What change(s) would you propose for any, or all, of the proposed alternatives that would help them better serve the needs of the KY 9 roadway user?

Many of the side roads have such limited sight if that could be improved. FOG CAN be SO bad AT Times, maybe more warnings of upcoming intersections.

Additional Comments:

More enforcement of speed and proper following distance would save many lives.

If you fail to receive a postage paid envelope, you may send your written comments to:

Ms. Annette Coffey, PE
Director, Division of Planning
Kentucky Transportation Cabinet
125 Holmes Street
Frankfort, KY 40622

Mr. Bruce Siria, PE
Project Manager
Division of Planning
Kentucky Transportation Cabinet
125 Holmes Street
Frankfort, KY 40622

KENTUCKY TRANSPORTATION CABINET

Comment Survey
KY 9 Scoping Study
Western Mason County to Southern Campbell County
Item No. 9-0165.00
Mason-Bracken-Pendleton-Campbell Counties

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All comments are welcome! We appreciate your participation!

Name: Donna Wood **Date:** 9-20-01
Representing:
Phone (optional):
Address: 1044 J H Godman Road
Falmouth Ky 41040

1. Do you feel that KY 9 needs to be widened? ☐ Yes ☑ No

Why?

2. If a decision is made not to widen KY 9, which alternate approach do you prefer?

☑ **ALTERNATIVE 1 - No Build (Make no changes to the existing two-lane roadway.)**

Why?

☐ **ALTERNATIVE 2 - Safety and Operational Improvements (Keep existing two-lane roadway, but make improvements to increase safety and capacity, such as additional lighting at intersections, adding turning lanes, improving sight distance at intersections, extending the length of truck lanes, etc.)**

Why?

KENTUCKY TRANSPORTATION CABINET

Comment Survey
KY 9 Scoping Study
Western Mason County to Southern Campbell County
Item No. 9-0165.00
Mason-Bracken-Pendleton-Campbell Counties

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All comments are welcome! We appreciate your participation!

Name: Jack Wright **Date:** September 18, 2001
Representing: Pendleton County Industrial Authority
Phone (optional): 859-654-4332
Address: PO Box 213
Falmouth Ky 41040

1. Do you feel that KY 9 needs to be widened? ☐ Yes ☑ No

Why? Because the stretch of the highway being considered is already adequately serves the needs of transportation. And, when it comes to transportation needs of Southern Campbell and Pendleton Counties there simply are much higher and more critical needs which should be addressed with the limited amount of funds available to the Transportation Cabinet.

2. If a decision is made not to widen KY 9, which alternate approach do you prefer?

☐ **ALTERNATIVE 1 - No Build (Make no changes to the existing two-lane roadway.)**

Why?

☑ **ALTERNATIVE 2 - Safety and Operational Improvements (Keep existing two-lane roadway, but make improvements to increase safety and capacity, such as additional lighting at intersections, adding turning lanes, improving sight distance at intersections, extending the length of truck lanes, etc.)**

Why? Although I believe the existing two lane roadway is adequate, there are safety and operational improvements which should be addressed.

✓

STATEWIDE CORRIDOR PLANNING SERVICES

KY 9 LOCAL OFFICIALS MEETING #1 MINUTES
(BRACKEN & MASON COUNTIES)

TO: Annette Coffey, P.E.
Director
KYTC Division of Planning

FROM: Larry D. Chaney, P.E., L.S.
Director of Transportation
HNTB-Louisville

DATE: May 21, 2001

SUBJECT: Statewide Corridor Planning
KY 9 Widening Study
Item No. 9-0165

The first meeting for local officials in Mason and Bracken Counties was held May 16, 2001 in the Watson Building in Brooksville to discuss the KY 9 project. Those in attendance were:

Mike Denham	State Representative
Dwayne Jett	Bracken County Judge Executive
James Gallenstein	Mason County Judge Executive
Leslie Newman	Bracken County Magistrate
David Cartmell	Maysville Mayor
Amy Kennedy	Buffalo Trace ADD
Steve Miller	Buffalo Trace ADD
Jim Wilson	Division of Planning
Bruce Siria	Division of Planning
Bob Yeager	KYTC District 6
Rick Omohundro	KYTC District 9
Darrin Eldridge	KYTC District 9 - Design
Karen Mohammadi	HNTB Corporation
Larry Chaney	HNTB Corporation

Bruce Siria opened the meeting by explaining that the project is in the Six-Year Plan as a study of widening the AA Highway from the four-lane section in Maysville to just inside the Campbell County line. Information gathered from the local officials, stakeholders and public meetings will be used to develop recommendations for the project. Jim Wilson added that the current Six-Year Highway Plan only includes funding for the study, and not for any future improvements.

Larry Chaney then addressed the handouts. HNTB will assign costs to any recommendations that are developed for this project, and may include priority sections in the recommendations. The geometry of the existing road is up to current standards, and above what you would expect for a facility carrying the types of traffic volumes it does today. The accident sheet indicates critical rate factors for each county by type of road. This offers a way of comparing accident rates on the AA Highway against accident rates on other two lane facilities in the Commonwealth. The accident rates in Mason County are slightly higher for fatalities than statewide averages, but all other accident rates are lower than state averages. (Note: The Mason County rates are for the entire county and not just the part of Mason County being studied under this project). The accidents in the corridor are largely due to human error and to collisions with deer.

A public relations program for highway safety that the Cabinet is planning for this summer will address these concerns. Mr. Siria informed the group that the Kentucky Transportation Center recently completed a KY 9 accident study for the Cabinet, which resulted in a series of recommendations. Some of those recommendations have already been implemented and others are currently under consideration. One such recommendation was the Drive Smart blitz that just occurred on the corridor.

Mr. Chaney continued by saying that the team has assembled traffic counts and traffic projections for the corridor. These will be used in conjunction with other pertinent data to determine the need for widening. Karen Mohammadi explained the concept of using level of service as a tool to determine whether the road should be widened. She said that based on the projected values, it would not appear that the entire road would need to be widened based on capacity alone. Representative Mike Denham questioned why he was told at another meeting that the volumes on KY 9 were similar to I-64. Ms. Mohammadi explained that some segments outside our project area might contain volumes like those found on the interstate. Darren Eldridge added that the Cabinet would be designing a project in the near future to widen KY 9 from KY 10 to the existing four-lane section in Mason County.

Representative Denham informed the group that he drives the corridor every day and has seen a serious problem with people slowing down to 5 mph to turn onto side roads, and with people merging with the KY 9 traffic from the side roads at very low speeds. Mr. Chaney agreed that speed differentials cause a significant amount of problems on the road, particularly rear-end collisions. Representative Denham continued saying that the abruptness of 3 lane sections back into 2 lane sections also causes problems. He said that truck drivers need to go down the hills at 85 mph in order to go up the hills at 25 mph, and that a serious problem can occur when an intersection is located at the bottom of the hill. Bob Yeager informed Representative Denham that there was a potential to address all of his concerns without necessarily widening the road. Mayor Cartmell said that the project should at least look at the need for acceleration and deceleration lanes.

Steve Miller questioned if the growth rates used for projecting the future volumes were too conservative. Mr. Siria responded by saying that the state average is about 3% and 5% is considered pretty aggressive. The forecasts for this project average around 4.5%. Representative Denham stated that if a new connector road from the bridge in Maysville to the Appalachian Highway in Ohio is constructed KY 9 will be impacted. Additionally, there have apparently been discussions about the truck traffic growing “tenfold” on KY 9. Mr. Siria explained that truck traffic is increasing all over the Commonwealth, mainly due to increases in just-in-time deliveries and improvements to the roads. Mr. Miller added that there is a lot of economic growth occurring in Mount Sterling that could affect this project. Mr. Yeager stated that the I-74 Corridor Study currently being completed by the Cabinet could provide some insight into those types of concerns.

Mr. Yeager asked the officials what kind of opposition they would expect if the Cabinet chose to restrict access on the road. Mayor David Cartmell said he favors restricting access. Representative Denham expressed concern over how these restrictions may impact economic development. Mr. Yeager explained that an interstate type facility with frontage roads and interchanges could be proposed. Mr. Chaney replied that a four-lane facility should only be looked at with limited access. Mayor Cartnell said they were not interested in a road like the Appalachian Highway.

Mr. Yeager stated that to widen the highway would require considerable right-of-way acquisition in Bracken and Pendleton Counties. Mr. Rick Omohundro added that the same would be true in Mason County. Mr. Yeager continued that the District office would be implementing some improvements at the intersections to add turn lanes and push guardrail back. Mr. Eldridge reminded the officials that widening the highway could also serve to exacerbate the safety problems. Intersections would be wider and require longer times to cross, and speeds on KY 9 would likely increase.

Mr. Chaney noted that the road is already a partially controlled access. It is access by permit, but entrances may only be where indicated on the plans. Partial control can be obtained by using frontage roads, although in many cases that may be physically impossible. The access points need to be at least 1200' apart to meet current Cabinet requirements. Intermediate points could conceivably be converted to right in right out intersections. No access would be taken without providing it through another means, or by compensation for the loss.

Mayor Cartmell asked if access could be denied. Darren Aldridge replied that it could not if sight distance and spacing requirements (1200' rural/600' urban) were met. Representative Denham expressed a desire to see the spacing requirements increase. He was told that the requirements were based on statutes, and could not be arbitrarily decided for each project.

Representative Denham asked if there was a road designed that may be similar to a widened KY 9. KY 127 south of Frankfort between Frankfort and Lawrenceburg was recommended as a comparable facility.

The meeting ended with Mr. Wilson asking if any of the officials knew of any environmental concerns, minority or low-income populations or major developments. He was told that the Walcott Bridge and the Bracken County Industrial Park met such criteria.

STATEWIDE CORRIDOR PLANNING SERVICES

KY 9 STAKEHOLDERS MEETING #1 MINUTES
(BRACKEN & MASON COUNTIES)

TO: Annette Coffey, P.E.
Director
KYTC Division of Planning

FROM: Larry D. Chaney, P.E., L.S.
Director of Transportation
HNTB-Louisville

DATE: May 21, 2001

SUBJECT: Statewide Corridor Planning
KY 9 Widening Study
Item No. 9-0165

The first Stakeholders Meeting for community leaders in Mason and Bracken Counties was held May 16, 2001 in the Watson Building in Brooksville to discuss the KY 9 project. Those in attendance were:

Mike Minor	FirstStar Bank
David Appleman	Bracken County Industrial Board
Sally Cobb	Bracken County School Board
Amy Kennedy	Buffalo Trace ADD
Bruce Siria	Division of Planning
Jim Wilson	Division of Planning
Rick Omohundro	KYTC District 9 – Pre-Construction
Darrin Eldridge	KYTC District 9 - Design
Bob Yeager	KYTC District 6 - Planning
Karen Mohammadi	HNTB Corporation
Larry Chaney	HNTB Corporation

Bruce Siria opened by explaining that the main purpose for the meeting was to share information and to get feedback from the stakeholders. He informed the attendees that HNTB has been engaged to assist the Cabinet in a scoping study to access the need to widen the AA Highway from the KY 9/KY 10 split to Campbell County.

Mr. Siria explained the work done to date and future work to be completed. If a need for widening is identified, priority sections will most likely be identified, since the Cabinet does not generally widen 30 miles of a route at the same time. The project team would like to have the stakeholders' assistance in determining what goals the Cabinet should address, and what environmental concerns and minority/low income concerns might be present. There will be a recommended course of action at the end of the study, with estimated costs that will allow the project to be evaluated for inclusion in the next Six-Year Highway Plan.

Larry Chaney then discussed the handout. The first page explained the existing geometry of the road, and indicated that KY 9 is currently a high-type, two-lane facility with better geometry than most other two-lane roads in the area. Driver error, therefore, is widely considered the cause of most of the accidents. There are not a lot of distractions along the corridor, which may explain why drivers tend to fall asleep. It is

a commuter route, as well, which may also induce drivers who are very familiar with the road to fall asleep at the wheel. The second page of the handout showed that the traffic volumes do not indicate a definitive need to widen the road. However, other factors will also be evaluated, such as percentage of trucks, speed differentials, etc.

The study will examine a range of improvements, from maintenance-type improvements, to turning lanes, to high-end improvements like upgrading the facility to an interstate-type route. Improvements evaluated will also consider comments received from the stakeholders and from the public.

The stakeholders were then asked if they had any specific spots or intersections that they felt were problematic. They were also encouraged to fill out the surveys and to send them to the Cabinet with the pre-paid mailers. Environmentally sensitive concerns such as affected minority/elderly/poor communities in the project area, locations of storage tanks, locations of cultural or historical sites, etc., should also be noted on the forms.

David Appleman expressed the need to provide good access and turning lanes into the Industrial Park. Hook Lane provides a secondary access road to the Park. MSE is the engineer for the Park, but the layout plans are not yet available. Mr. Appleman, who serves on the Bracken County Volunteer Fire Department, also stated that, if a driver is on a road connecting to KY 9, they should not pull out if they see any vehicles approaching, since it is very difficult to judge their speed.

Mike Minor asked if there had been any consideration given to cutting the grades. Mr. Chaney responded that the issue will be studied. Mr. Minor also noted that the embankments on the side roads block the view of KY 9. Sally Cobb was concerned about the crest of the hill on KY 9, when making left turns onto Hilton Lane. She also stated that between Mason County and KY 1159 there are not enough passing opportunities, and this causes people to make poor decisions regarding passing other vehicles. Amy Kennedy added that on foggy days the intersection lights are not strong enough to overcome the loss of sight distance. Mr. Minor added that under normal conditions the lights do help drivers notice vehicles on the cross streets.

Ms. Cobb mentioned that the school buses cross KY 9 four times a day, and that these are very important concerns for them. Mr. Appleman added that under foggy conditions the bus drivers actually try to listen for trucks before crossing KY 9. Mr. Chaney asked if bus drivers stop on KY 9, whether they use the shoulders, and if they have any operational problems to report. Ms. Cobb replied that they do currently make stops on KY 9, and that she would take additional survey forms to distribute to the bus drivers to answer these other questions.

Mr. Appleman discussed the problem that the Fire Department faces when rerouting traffic after an accident on KY 9 requires shutting down both lanes of traffic. He stated that small trucks and cars are easily diverted, but that semi-trailer trucks queue up on KY 9 rather than attempt the narrow and curvy alternate routes. He feels that four lanes would reduce the frequency and severity of this occurrence.

Mr. Siria stated that the scheduled benchmark for this study is to have enough information by this Fall to provide input into the new Six-Year Highway Plan. Bob Yeager added that the Cabinet also hopes to gain from the study a gauge of public support for the project.

STATEWIDE CORRIDOR PLANNING SERVICES

KY 9 LOCAL OFFICIALS MEETING #1 MINUTES
(PENDLETON & CAMPBELL COUNTIES)

TO: Annette Coffey, P.E.
Director
KYTC Division of Planning

FROM: Larry D. Chaney, P.E., L.S.
Director of Transportation
HNTB-Louisville

DATE: May 23, 2001

SUBJECT: Statewide Corridor Planning
KY 9 Widening Study
Item No. 9-0165

The first meeting for local officials in Pendleton and Campbell Counties was held May 23, 2001 in the Peach Grove Fire Station to discuss the KY 9 project. Those in attendance were:

Katie Stine	Kentucky State Senator
David Browing	Representing Pendleton County Judge Bertram
Scott Boone	Northern Kentucky ADD
Robert Hargott	North Pendleton Volunteer Fire Department
Don Willis	North Pendleton Volunteer Fire Department
Jim Wilson	Division of Planning
Bruce Siria	Division of Planning
Bob Yeager	KYTC District 6
Karen Mohammadi	HNTB Corporation
Larry Chaney	HNTB Corporation

Bruce Siria opened the meeting by explaining that the project is in the Six-Year Plan as a study of widening the AA Highway from the four-lane section in Maysville to just inside the Campbell County line. Information gathered from the local officials, stakeholders and public meetings will be used in the development of recommendations for the project. Some general questions regarding the corridor were asked by Senator Stine. She was concerned as to who would be responsible for maintaining the widened facility, and if the reflectors would be replaced now that paving has ended. Senator Stine was told that the Cabinet would maintain the facility and that the District office would look into her concerns over the reflectors.

Larry Chaney then addressed the handouts distributed at the beginning of the meeting. He explained that the geometry for the road is very good, yet acknowledged that there may be areas where spot improvements could be beneficial. He informed the attendees that it might be possible to make some low-cost improvements to the road under the existing paving contract. Next, Larry addressed the accident history of the road. The accident rates are lower for almost all types of accidents in all counties within the study area. The exception is fatal accidents in Mason County, which represent a slightly higher rate than the statewide average. This also reflects the rate for the entire county and not just the project area.

One of the causes of concern on this route is drivers falling asleep at the wheel. The geometry and the fact that this is a commuter route allow drivers to be easily lulled to sleep. There are also problems with the speed differentials of the vehicles particularly with trucks on the road encountering cars that have just

entered the road. There are a number of angle crashes, which can be related to both speed and sight distance problems.

Senator Stine asked about the adding signage at the approaches, and was informed that this would be addressed in the study. The base alternative will include low-costs improvement such as signs. The other alternatives will look at four-lane facilities and different median types. Changes to the median type will involve access issues.

Funding for the low-cost alternative may be partially through State maintenance efforts and a variety of other funding types. Widening would require major funding. Mr. Siria added that it is intended for the project to be far enough along this fall for possible inclusion of the recommendation into the Six-Year Highway Plan. However, the study could also recommend widening at a later date, in which case no immediate projects would be recommended. Mr. Chaney added that costs and priorities will be completed by this Fall.

An initial look at the existing volumes reveal that a four-lane facility is not warranted today based on capacity alone. The study will look at future volumes, but they will not be the only factor used in deciding whether to recommend widening.

Mr. Chaney then reviewed the survey form and encouraged the officials to fill it out and attach additional sheets as necessary. He also encouraged them to share it with other officials. Those invited but not present at the meeting will be sent the handout materials, including the survey forms. The floor was then opened for questions and comments.

Robert Hargett expressed concern over the way bus drivers pull half-way across KY 9 when waiting for a gap to turn. Mr. Chaney said that Bracken County Schools had similar concerns, and that widening the road could either improve or possibly exacerbate the problem. Jim Wilson related the problem Bracken County Schools were having with fog at the intersections. Senator Stine asked if additional or better lights could be installed. She added that the biggest issue for the public is lights. Mr. Chaney pointed out that the lights may not be useful with fog.

Don Willis suggested that deceleration and acceleration lanes be added. Bob Yeager informed the attendees that approaches to KY 9 could become more dangerous if the road is widened, which may result in the approach slopes on the cross roads increased. Mr. Yeager also discussed possible benefits of limiting access on KY 9. Mr. Hargett agreed, saying that there are many roads with access to KY 9 that only serve a few homes, and that it may be better to provide them with access to KY 10 in some cases.

Mr. Wilson asked if there were any know environmentally sensitive areas or specials interest groups in the Corridor, including minority and low income populations. The group was unaware of any areas or groups.

Senator Stine asked if the proposed shopping center at US 27 would have an impact on traffic on KY 9. She was informed that the increase in truck traffic is probably a bigger concern than the increase in passenger cars. Mr. Siria mentioned that trucks may be using KY 9 to bypass weigh stations on I-64, and that the truck traffic would increase on KY 9 if the road were widened.

Mr. Siria then closed the meeting by stating that another meeting with the local officials would be held when the recommendation are being finalized, so that they may be discussed. He also told them that a Stakeholders Meeting would be held that same afternoon, and that public meetings would be held in four to six weeks.

Any recommendations for encouraging people to attend the public meeting are welcome. Senator Stine suggested that the City Council members be informed of these meetings, particularly John Stein. The Council members in Wilder and Cold Springs should be contacted as well.

STATEWIDE CORRIDOR PLANNING SERVICES

KY 9 STAKEHOLDERS MEETING #1 MINUTES
(PENDLETON & CAMPBELL COUNTIES)

TO: Annette Coffey, P.E.
Director
KYTC Division of Planning

FROM: Larry D. Chaney, P.E., L.S.
Director of Transportation
HNTB-Louisville

DATE: June 21, 2001

SUBJECT: Statewide Corridor Planning
KY 9 Widening Study
Item No. 9-0165

The first Stakeholders Meeting for community leaders in Pendleton and Campbell Counties was held May 23, 2001 in the Peach Grove Fire Station to discuss the KY 9 project. Those in attendance were:

Joe Jennings	No. KY Chamber of Commerce	859/441-1532
Ralph Baker	Castellini Company	859/442-4657
David Tackett	Pendleton County Schools	859/654-6911
Robert Hargett	North Pendleton VFD	859/472-5127
David Hill	Fire District Trustee	859/654-2465
Jack Wright	Pendleton Co. Econ. Dev.	859-654-4332
David Feagan	Dravo Lime/Black River Opr.	859-472-8100
Keith Hill	Campbell Co. PD	859-635-3316
Bob Petracco	Brentwood Landscape & Supply	859/635-0711
Scott Boone	Northern Kentucky ADD	859/283-1885
Mark Paine	OKI	513-651-6300
Jim Wilson	Division of Planning	502/564-7183
Bruce Siria	Division of Planning	502/564-7183
Bob Yeager	KYTC District 6	859/341-2700
Karen Mohammadi	HNTB Corporation	502/581-0985
Larry Chaney	HNTB Corporation	502/581-0985

Bruce Siria opened the meeting by explaining that the Cabinet is just starting this study to determine the need to widen the AA Highway from the 4 lane section in Campbell County to the 4-lane section in Mason County. The purpose of this meeting is to solicit the stakeholders' concerns and issues. One or two public meetings will also be held in the early stages of the project. As the study team focuses on recommendations, another set of Stakeholders Meetings will be held.

The study also hopes to determine whether any anticipated improvements are considered immediate or future needs. No funding is identified for improvements in the current Six-Year Highway Plan. The study team hopes to have a recommendation ready for entry into the next Six-Year Plan this Fall.

Ralph Baker asked if there is any reason or goal to widen other than economic development. Mr. Siria responded that there is already a widening project in place in Maysville. Economic development is driving that project, but so are commuter traffic and safety concerns.

Joe Jennings stated that there are a lot of complaints regarding approaching traffic and the darkness of the intersections. Mr. Siria replied that these issues may be addressed as stand alone projects, and also in conjunction with any widening plans.

Bob Petracco asked if the study will look at additional traffic and the need for turn lanes and signals. Mr. Siria answered that a 4-lane section will not represent an end to all safety problems. Widening will likely increase truck traffic. David Feagan added that truck traffic does not seem as significant in the 4-lane section of Campbell County as in the 2-lane section in Pendleton.

Mr. Jennings added that he has watched the traffic increase since the opening of the AA Highway, and has noticed a large increase in out-of-state license plates. If an improvement is going to take ten years, he feels certain that widening is necessary. He wanted to know when it might be approved and built. Mr. Siria stated that nothing is scheduled, and therefore it cannot be predicted if and when a project may be in the Six-Year Plan.

Jack Wright asked if there were not other studies that show the safety needs of a two-versus a four-lane road based on truck traffic. He feels that widening is needed now, and that a delay of 10 to 15 years will make this a critical problem.

Larry Chaney then discussed the handouts distributed at the beginning of the meeting. He stated that input from the stakeholders is a critical part of the data collection for this study. We are looking for the types of information that will not show up in our records. For example, there may be places where there are perceived safety problems, but they do not show up in our records because accidents are barely avoided. We are also concerned where future development is planned.

Our study will begin by looking at minor improvements such as turn lanes, signage, and guardrail improvements. The study will also look at truck climbing lanes and their tapers. These will serve as the baseline improvement scenario.

Keith Hill questioned whether the 4-lane section would benefit from these improvements as well. Bob Yeager responded that the Cabinet may find elements of the study to use in Campbell County outside of the project area. Mr. Chaney added that the study will look at transition areas between the 2 and 4 lane sections very closely.

Mr. Chaney said that after the baseline improvements the study will look at widening options and the resulting access options. Adding two driving lanes and a 40 foot median may actually decrease safety in some instances, and if the road has controlled access other access points may be necessary.

The stakeholders were asked if they knew of any environmental concerns (plant, animal or community), knew of any planned developments, or had any indication as to what the community will support.

Mr. Baker stated that the construction of the AA Highway has helped his company with finding and retaining employees. Mr. Jennings agreed that this road is very important to commuters.

Mark Paine asked if the accidents are increasing or decreasing. It was noted that visibility of striping along the road is poor at night. Mr. Chaney said there was a minor decrease in accidents with a small increase in volumes, therefore the rates are dropping.

David Hill stated that a problem exists at the KY 1019 intersection where the passing lane starts. Drivers must cross three lanes to make a left turn. Since this intersection is close to the river, there are over 60 days per year where dense fog causes visibility problems. Vapor lighting was suggested to alleviate this problem. Mr. Hill also stated that a big increase in traffic has occurred since Indiana opened up gambling across from Northern Kentucky. He recommended closing Eden Ridge, since it is close to KY 1019 and has poor sight distance. Mr. Siria ended the meeting by stating that once the recommendations were complete a second Stakeholders Meeting would be held.

STATEWIDE CORRIDOR PLANNING SERVICES

KY 9 LOCAL OFFICIALS AND STAKEHOLDERS MEETING #2 MINUTES (PENDLETON AND CAMPBELL COUNTIES)

TO: Annette Coffey, P.E.
Director
KYTC Division of Planning

FROM: Larry D. Chaney, P.E.
Director of Transportation
HNTB-Louisville

DATE: September 12, 2001

SUBJECT: Statewide Corridor Planning
KY 9 Widening Study
Item No. 9-0165

The second meetings for local officials and stakeholders in Pendleton and Campbell Counties were combined and held September 7, 2001 at the Peach Grove Fire Department at 10:00 a.m. to discuss the KY 9 project. Those in attendance were:

Henry Bertram	Judge Executive, Pendleton County
Gene Flaughen	Mayor, City of Falmouth
Jack Wright	Pendleton Industrial Authority
Scott Boone	Northern Kentucky ADD
Mark Paine	OKI
Jeremiah Williams	NPCV Fire Department
Jim Wilson	Division of Planning
Bruce Siria	Division of Planning
Bob Yeager	KYTC District 6
Bob Hill	KYTC District 6
Karen Mohammadi	HNTB Corporation
Larry Chaney	HNTB Corporation

Bruce Siria opened the meeting by relating the work that has been accomplished since the last meeting with the local officials and stakeholders. Using the feedback from the public and from the previous meetings with these groups, HNTB has developed several alternatives. He told the group that this meeting was being held to give information to the attendees and to get a sense of their preference toward the alternatives. The team will then take the information to the public in the last week of September. Additionally, a Public Hearing has been scheduled for September 11, 2001 at the Maysville College to discuss the Safety Study for the AA Highway being done by the Kentucky Transportation Center and the Cabinet.

Larry Chaney then began a review of the handouts (see attached). The projected traffic volumes and their associated levels of service indicate that a widening of the road is warranted. He also informed the group that the accident statistics are a bit skewed, since they do not reflect the fact that KY 9 has better geometry than most of the other two-lane rural roads to which it is compared using the statewide rates.

Mr. Chaney then discussed the Operational Improvements Alternative explaining that this was a step above the No Build Alternative. Each operational improvement item was addressed in detail.

Mr. Chaney described the typical sections for both the existing sections of KY 9 and the proposed alternatives. Mountable medians currently exist in the 4-lane sections outside of the study area, but they do not provide positive separation and do not meet the Cabinet's current criteria for a 55 MPH design. This type of section is not recommended for the study area.

A raised median is another option for the typical section but cannot be used unless 8-foot wide inside shoulders are used in conjunction. In lieu of this section, a depressed median was studied. This will give the appearance of an interstate facility, but could continue to allow the road to be partially controlled with 1200-foot spacing of access points. Another option would be to make the facility a fully controlled roadway. Interchanges would replace some of the at-grade intersections, and a series of frontage roads would provide access to the remaining roads and to some of the driveways. This would significantly reduce conflict points on KY 9. The initial analysis looked at 10 interchanges, but a substantial analysis would be required to justify each interchange if this alternative is selected.

Judge-Executive Bertram questioned whether improvement to US 27 and the possible addition of I-74 were included in the traffic forecasts. He was informed that funded projects were included. Mr. Siria also stated that the growth rates have been discounted for historical diversion of traffic from KY 8 and KY 10 to KY 9.

Jack Wright and Judge-Executive Bertram stated that funding of US 27 and then I-74 were priorities for them before the widening of KY 9, and that construction of I-74 would relieve congestion on KY 9. They did, however, fully support the Operational Improvements Alternative.

Mayor Flaughen stated that there is no other good route besides KY 9 from Maysville to Northern Kentucky. He does not feel that truck drivers wanting to avoid the weigh stations on I-64 and I-75 are using the route. He believes that the majority of the trucks are local. Mr. Chaney commented that the origination and destinations of the trucks were unknown to the study team.

STATEWIDE CORRIDOR PLANNING SERVICES

KY 9 LOCAL OFFICIALS AND STAKEHOLDERS MEETING #2 MINUTES (MASON AND BRAKEN COUNTIES)

TO: Annette Coffey, P.E.
Director
KYTC Division of Planning

FROM: Larry D. Chaney, P.E.
Director of Transportation
HNTB-Louisville

DATE: September 12, 2001

SUBJECT: Statewide Corridor Planning
KY 9 Widening Study
Item No. 9-0165

The second meetings for local officials and stakeholders in Mason and Bracken Counties were combined and held September 7, 2001 at the Bracken County Library at 2:00 p.m. to discuss the KY 9 project. Those in attendance were:

Dwayne "Pie" Jett	Judge Executive, Bracken County
James Gallenstein	Judge Executive, Mason County
David Cartmell	Mayor, Maysville
Perry Poe	Bracken County Chamber of Commerce
Mike Denham	State Representative
Amy Kennedy	Buffalo Trace ADD
Jim Wilson	Division of Planning
Bruce Siria	Division of Planning
Rick Omohundro	KYTC District 9 Pre-Construction
Bob Hill	KYTC District 6 Planning
Bob Yeager	KYTC District 6 Planning
Karen Mohammadi	HNTB Corporation
Larry Chaney	HNTB Corporation

Bruce Siria opened the meeting by discussing the public meeting held at Bracken County High School on the project, and by informing the group that a range of alternatives had been developed based on comments received. Larry Chaney then discussed the handouts (see attachment). He explained that traffic projections had been done for the project, and that future levels of service indicate that the road warrants widening. The accident patterns indicate that it is a good road, but that there are a higher rate of angle accidents and deer related accidents than on other State maintained two-lane rural roads.

Mr. Chaney continued with a discussion of the alternatives. It was explained that the first alternative for any study is the No Build or existing conditions. The next step is Alternative 2, the Operational and Safety Improvements. Mr. Chaney discussed each of the operational and safety improvement recommendations. Bob Yeager noted that the operational improvements are a really good idea, since it is useful to have some type of improvement between a No Build Alternative and a major construction project.

Next, Mr. Chaney described the typical sections for both the existing sections and for the proposed alternatives. Mountable medians are being used in the 4 lane sections outside the study area, but they do not

provide positive separation and do not meet the Cabinet's current criteria for a 55 MPH design. This type of section is not recommended for the study area.

A raised median is another option for the typical section, but cannot be used unless 8-foot wide inside shoulders are used in conjunction. In lieu of this section, a depressed median was studied. This will give the appearance of an interstate facility, but could continue to allow the road to be partially controlled with 1200-foot spacings of access points. Another option would be to make the facility a fully controlled roadway with interchanges replacing some of the intersections. A series of frontage roads would provide access to the remaining roads and to some of the driveways. This would significantly reduce conflict points on KY 9. The initial analysis looked at 10 interchanges, but a more substantial analysis would be required to justify the location of interchanges in the study area.

Representative Denham questioned how this project and the AA Highway Safety Study were related. Mr. Siria indicated that the focus of the KY 9 widening study is not on safety, although that is a big element of this study.

Representative Denham asked if the operational improvements could be done now. Rick Omohundro replied that some of the improvements are being acted upon now. Bob Yeager elaborated by stating that deer reflectors and rumble strips are being implemented in some parts of the corridor.

The likelihood of funding the project was questioned by Representative Denham and Perry Poe. Bob Yeager replied that the project would be funded in priority segments, but it is anticipated that no new projects would be proposed in the next Six-Year Highway Plan. Given that, Representative Denham stated that he felt the most practical option was Alternative 2 (without the weigh stations and rest areas), but that Alternative 3 should be pursued as an ultimate improvement. He added that he receives calls daily for items that would be covered under the operational improvements, and felt this should be done as early as possible. Representative Denham thought Alternative 4 (Fully Controlled) was not practical and should not be pursued. He also noted that it would be tough to find local support for closing roads and for the number of acres and property takings that would be required for Alternative 4. Mr. Omohundro stated that there would be some safety concerns in switching the road from a partially controlled facility to a fully controlled facility and back again as drivers moved along the corridor. Judge-Executive Gallenstein stated that Alternative 4 would still be preferable if safety were the only factor in deciding on a recommendation, but did not endorse that alternative.

Mr. Poe questioned the effectiveness of the speed limit enforcement campaign for KY 9 conducted recently. Mr. Siria stated that is was really only effective during the campaign. Mayor Cartmell noted that there were no fatalities on KY 9 during that time period.

Appendix C - Public Information Meeting Summaries

STATEWIDE CORRIDOR PLANNING SERVICES

PUBLIC MEETING #1

TO: Annette Coffey, P.E.
Director
KYTC Division of Planning

FROM: Larry D. Chaney, P.E.
Director of Transportation
HNTB-Louisville

DATE: July 13, 2001

SUBJECT: Statewide Corridor Planning
Item No. 9-0165.00
KY 9

The first public meeting was held Thursday, July 12, from 4:00 p.m. until 8:00 p.m. at Bracken County High School concerning a study of possibly widening KY 9. Approximately 70 people were in attendance, excluding Cabinet and consultant personnel. A list of those in attendance is attached.

Purposes for the meeting, as stated in the presentation were:

- To let the community know about the project, to identify and address community concerns and issues
- To clearly identify project termini
- To establish a clear purpose and direction for the project
- To identify sensitive areas that should be considered
- To create a project that would benefit the community and gain its support

The meeting began at 4:00 p.m., and included a presentation at 4:15 p.m. by Bruce Siria, Jim Rummage and Larry Chaney. The presentation began with a discussion of the road building process. Mr. Chaney explained that the Cabinet has identified over $50 billion dollars worth of projects on their Unscheduled Needs List. With an anticipated annual budget of approximately $800 million, it is evident that many projects must wait a number of years to be implemented. Funding has been identified in the State's current Six-Year Highway Plan to conduct this study of KY 9 to determine costs and priority sections for possible improvements from KY 10 in Mason County to KY 2828 in Campbell County.

Mr. Siria explained that there is currently no other funding earmarked for the project beyond the study phase. The schedule for completing a major reconstruction project, when funding is available for all phases of that project, is an average of approximately 10 years - from the planning stage until construction is complete. Smaller scale projects are generally finished in a shorter timeframe, and conversely, more complicated projects, like the widening of KY 9, often take longer to complete.

Preliminary goals for the KY 9 study include:

- Providing adequate highway capacity to support Design Year 2025 traffic volumes,
- Improving existing roadway geometrics to address sight distance concerns
- Reducing the number of accidents along the route by improving intersection safety, and
- Reducing speed differentials by improving truck-climbing lane merge and diverge points.

Safety is one of the concerns to be addressed with this study, but the accident rates on KY 9 are not considered high, when compared to Kentucky statewide statistics for other two-lane facilities. According to the Kentucky Transportation Center's Safety Study of KY 9, fatal crash rates in Mason County are higher than the state average, but fatal crash rates in the remaining project area are lower than the average. The crashes in Mason County include the entire County, and not just the area under study. Angle crashes at intersections represent a higher percentage of KY 9 fatal crashes compared to state averages. There are also a higher percentage of deer-related crashes on KY 9 as compared to state averages.

The volume of traffic using, and forecasted to use KY 9 in the next 25 years, will be a major issue in deciding the need to widen. Current daily traffic volumes for each of the counties within the project area are as follows: Campbell County has 8,420 vehicles per day; Pendleton County has 7,630 vehicles per day; Bracken County has between 5,720 - 8,800 vehicles per day; and Mason County has between 5,720 - 5,870 vehicles per day. Based on these volumes, the existing two-lane road has adequate capacity for today's traffic.

Other project issues raised at the meeting included restricted sight-distance at intersections, speed differentials between vehicles, nighttime driving conditions, lighting, increasing truck traffic, use of truck climbing lanes, fog and driver inattention, speeding and drowsiness.

Following the presentation, attendees were directed to an open exhibit area, where maps of the project area and potential environmental issues were on display. Representatives of the Cabinet, the Federal Highway Administration, Buffalo Trace ADD and the HNTB consultant team were on hand to answer questions and to receive input from those who attended the meeting.

STATEWIDE CORRIDOR PLANNING SERVICES

KY 9 - SECOND PUBLIC MEETING

TO: Annette Coffey, P.E.
Director
KYTC Division of Planning

FROM: Larry D. Chaney, P.E.
Director of Transportation
HNTB-Louisville

DATE: October 30, 2001

SUBJECT: Statewide Corridor Planning
Item No. 9-0165.00
KY 9 Widening Study

The Second Public Meeting for the KY 9 Widening Study was actually held in two different locations on different days. On Tuesday, September 25th the meeting was held in a tent in the parking lot of the Marathon Gas Station on KY 9 in California, near the Campbell County/Pendleton County line. On Wednesday, September 26th the meeting was held in a tent in the parking lot of the BP Gas Station on KY 9 near the Mason / Bracken County line. On Tuesday, 172 people visited the tent and 240 handouts with comment forms were distributed to people visiting the convenience store. On Wednesday, there were 79 attendees and 178 handouts were distributed. For Tuesday's meeting, two (2) Variable Message Signs (VMSs) were placed on KY 9 just north and south of the public meeting site by the District Office. The VMSs were set up 24 hours prior to the meeting, and served to both inform and remind the public of the meeting and its hours of operation. VMSs were unavailable for Wednesday's meeting.

The tent was open from 11:00 a.m. to 7:00 p.m. on each day. Representatives from the Cabinet, the Northern Kentucky ADD, the Buffalo Trace ADD, and HNTB greeted attendees and explained the project through the use of the two sets of exhibits in the tent. Pizza, snacks, and other refreshments were secured from local vendors, and were served throughout both days to the public. Materials from the KY 9 Safety Study Public Awareness Campaign were distributed along with the project handouts. The handouts included the study purpose, discussion of project issues and goals, a survey form, and exhibits. The exhibits included an Environmental Footprint, Typical Sections (for all proposed alternatives), Safety and Operational Improvements, and a Comparison of Alternatives.

Proposed improvement alternatives for KY 9 presented to the attendees were:

- A 4-lane divided highway with depressed median
- A 4-lane divided highway with concrete barrier wall median
- A 4-lane fully-controlled access highway with frontage roads and interchanges
- Operational and safety improvements
- Do Nothing

The Operational and Safety Improvements were generated to address many of the issues identified through the study process. Some of these issues are restricted sight-distance at intersections, speed differentials between vehicles, nighttime driving conditions, lighting, increasing truck traffic, use of truck climbing lanes, fog, driver inattention and drowsiness, and speeding.

The informal atmosphere of the meeting allowed the attendees to converse freely with the hosts. They were encouraged to ask questions or to voice concerns about the project. Some of the concerns raised and recorded at the meeting were as follows:

Comments from Flip Charts at the September 25th Meeting

- Sign "Passing Lane Ahead" so people not familiar with road will know a passing opportunity is coming up.
- Need rumble strips at KY 1019/KY 9 Intersection.
- Improve sight distance at KY 1109/KY 9 and KY 1019/KY 9.
- Too many intersections.
- Needs to be limited access.
- Use tolls if necessary.
- Need to foster growth and development in this corridor.
- Strobe lights to help mark stop lights and make them more visible in fog.
- Turn lanes, acceleration lanes.
- Location of signs obstructs vehicles.
- Concerned that highway improvement would lead to loss of rural lifestyle.
- Need overpasses at major crossroads.
- Oversize advance notice signs at crossroads.
- Intersection at Walcott (turn lanes).
- High speed of trucks.
- People turning onto AA from entrances.
- KY 2370 – hard to see.
- Speed limit should be 65.
- Need emergency telephones along route.
- Vehicles slow or stop to turn in driving lane (trucks who follow must stop).
- 4-lane allows continuous passing lane and provides some safety for turning movements.
- Ponding of water at bridge ends and other "dips" in the pavement.

Comments from Flip Charts at the September 26, 2001 Meeting

- Need advance signal warning for northbound truck traffic at KY 11.
- Widen for safety – need passing opportunities.
- Widen from Cincinnati to Huntington – I-74 corridor extension.
- Heavy truck traffic – being diverted from US 52 in Ohio.
- Consider improved connection for KY 9 to US 23 and points south.
- Use 3-lane typical with 4-mile long reversible truck climbing lanes.
- Identify lanes with lane reflectors.
- Farm machinery on road – slow moving, safety problem.
- School bus traffic cues up everything behind them, and everybody has to stop.

- Caution light at KY 1019.
- Needs to be a 4-lane.
- Enforce passing lane laws.
- Enforce speed limits.
- Extend truck lanes/make them more obvious as “through” lane.
- Often get crowded off road where truck lanes end and two lanes merge to one.
- Everyone travelling highway is speeding.
- If it’s going to take 20-25 years to finish it needs to be an interstate-type highway.
- More pavement reflectors – helps in fog.
- Advance flashers need to be “more advanced”.
- Favors construction but are concerned about delays during construction.

Subsequent to our receipt of the comment forms returned to the Cabinet, a summary of the opinions and suggestions gathered from the public meetings will be presented to the Project Team at a final Team Meeting.

Appendix D - Resource Agency Responses

UNITED STATES DEPARTMENT OF COMMERCE
Economic Development Administration
Washington, D.C. 20230

JUL 9 2001

RECEIVED

JUL 27 2001

HNTB

Ms. Annette Coffey, P.E.
Director, Division of Planning
Kentucky Transportation Cabinet
125 Holmes Street
Frankfort, KY 40622

Dear Ms. Coffey:

Thank you for your letters to Secretary of Commerce Donald Evans requesting comments on planning studies being conducted to evaluate the needs and potential impacts resulting from the widening of KY 9 from western Mason County to southeastern Campbell County, and the proposed access from the Daniel Boone Parkway to the Clay-Leslie County Industrial Park, including a new interchange at the Daniel Boone Parkway.

We do not have any comments or concerns that will affect the studies that are being proposed. However, I am forwarding your letters and attached documents to the Economic Development Administration's (EDA) Atlanta Regional Office, which is responsible for EDA program activities in the State of Kentucky. They will share the information with EDA grantees in the affected areas to identify any possible issues and concerns they may have. Future requests for comments on potential impacts on highway projects should be submitted to Mr. William Day, Regional Director, Atlanta Regional Office, 401 West Peachtree Street, N.W., Suite 1820, Atlanta, GA 30308-3510.

Thank you for keeping EDA informed with regard to proposed highway improvement projects.

Sincerely,

David L. Temple, Jr.
Deputy Assistant Secretary
for Program Operations

RECEIVED
TRANSPORTATION CABINET
DIVISION OF PLANNING
JUL 17 10 46 AM '01

PAUL E. PATTON
GOVERNOR

CABINET FOR WORKFORCE DEVELOPMENT
OFFICE OF THE SECRETARY
CAPITAL PLAZA TOWER, 2nd FLOOR
500 MERO STREET
FRANKFORT, KENTUCKY 40601
PHONE (502) 564-6606 FAX (502) 564-7967

ALLEN D. ROSE
SECRETARY

July 13, 2001

Annette Coffey, PE
Director
Division of Planning
Kentucky Transportation Cabinet
125 Holmes Street
Frankfort, Kentucky 40601

Dear Ms. Coffey:

The Cabinet for Workforce Development appreciates the opportunity to comment on the proposed widening of KY 9 from western Mason County to southeastern Campbell County, the possible interchange at the Daniel Boone Parkway to allow access to the Clay-Leslie County Industrial Park, and improvements to KY 1159 between Brooksville and the AA Highway (KY 9). At this time, the proposed projects do not affect the Cabinet and its agencies.

Again, thank you for the opportunity to comment.

Sincerely,

Allen D. Rose
Secretary

ADR/SGS

EDUCATION PAYS

Department of Energy
Washington, DC 20585

RECEIVED
TRANSPORTATION CABINET
DIVISION OF PLANNING
JUL 12 10 03 AM '01

JUL 10 2001

Ms. Annette Coffey, P.E.
Director
Division of Planning
Transportation Cabinet
Commonwealth of Kentucky
Frankfort, KY 40622

RECEIVED
JUL 27 2001
BUREAU

Dear Ms. Coffey:

Thank you for your letters of June 18 and June 20, 2001, requesting input from the U.S. Department of Energy on widening of KY 9 and planned access to the Daniel Boone Parkway, respectively.

We have evaluated the material you sent regarding these projects, and we have no specific comments at this time.

If you have any questions or if we can provide you with any further information, please contact Mr. Kent Hancock, Acting Director, Office of Transportation, (301) 903-2102.

Sincerely,

David G. Huizenga
Deputy Assistant Secretary
for Integration and Disposition
Office of Environmental Management

U. S. Department of Housing and Urban Development
Kentucky State Office
Office of the State Coordinator
601 West Broadway Room 110
Louisville, KY 40202
502-582-5251 Fax 502-582-6074
KY TDD Relay Service 800-648-6056
www.hud.gov/local/lou/

July 2, 2001

Ms. Annette Coffey, P.E.
Director, Division of Planning
Kentucky Transportation Cabinet
125 Holmes Street
Frankfort, KY 40622

Dear Ms. Coffey:

This letter is in reply to your request of June 18, 2001, for comment on a study of the potential consequences resulting from the proposed widening of AA Highway (KY 9) from western Mason County to southeastern Campbell County. The Kentucky State Office of HUD is pleased to have the opportunity to respond.

Based on the materials and information you provided, there are no apparent impacts on HUD-funded programs.

Please contact Stephen Schneller at 502-582-6163, ext. 233, if you have other questions. Thank you for allowing us to review your project in its preliminary stages.

Sincerely,

John Milchick, Jr.
Kentucky State Coordinator

MEMORANDUM

TO: Drew Dennis

FROM: Tom Bailey

DATE: July 5, 2001

RE: Road improvements for KY 9

I have nothing but positive comments to say about the proposed improvements on KY 9 from Mason County to Campbell County. Having a four lane highway in Northeast Kentucky will help us in marketing Mason County, Bracken and Pendleton counties. This improvement will positively impact several available industrial sites and buildings.

U.S. Department
of Transportation
**Federal Aviation
Administration**

Airports District Office, FAA
3385 Airways Blvd., Suite 302
Memphis, Tennessee 38116-3841
(901) 544-3495 FAX: (901) 544-4243
Email: 9.aso-mem-ado@faa.gov

June 25, 2001

Ms. Annette Coffey, P. E., Director
Division of Planning
Kentucky Transportation Cabinet
125 Holmes Street
Frankfort, KY 40622

Dear Ms. Coffey:

This is in response to your letter to Ms. LaVerne Reid dated June 18, 2001 requesting information on any impacts concerning the widening of KY 9 from western Mason County to southeastern Campbell County, Kentucky.

There are no public use airports in the immediate vicinity of this proposed project. As long as construction activities do not exceed 200 feet in height above ground level, there will be no impacts on Federal Aviation Administration programs and no Notice of Proposed Construction will be required.

Thank you for the opportunity to review the proposal.

Sincerely,

Michael L. Thompson
Program Manager

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF FISH AND WILDLIFE RESOURCES
C. THOMAS BENNETT, COMMISSIONER

June 28, 2001

Annette Coffey, P.E.
Director, Division of Planning
Kentucky Transportation Cabinet
125 Holmes Street
Frankfort, KY 40601

Re: Threatened/Endangered species review; Early Project Coordination, Project Goals and Issues, KY 9 (AA Highway) Widening Study from Mason County to Campbell County, Kentucky

Dear Ms. Coffey:

The Kentucky Department of Fish and Wildlife Resources (KDFWR) has received your request for the above-referenced information. The Kentucky Fish and Wildlife Information System indicates that federally threatened or endangered species are known to occur in Bracken, Campbell, Mason, and Pendleton Counties (see attached sheets). Please be aware that our database system is a dynamic one that only represents our current knowledge of the various species distributions.

KDFWR has determined that potential negative impacts to the aquatic resources can occur in the project area and offers the following recommendations:

1) crossing should be designed and constructed to accommodate high flow conditions;
2) development in or near streams only during low flow periods to minimize disturbances;
3) culverts should be placed even with substrate to allow aquatic organisms to move freely within stream channel;
4) proper placement of erosion control structures below disturbed areas to minimize entry of silt to stream;
5) replanting of disturbed areas after construction, including stream banks and right-of-ways, with native vegetation for soil stabilization and enhancement of fish and wildlife populations;
6) return of disturbed instream habitat to its original condition upon completion of construction in the area;
7) avoidance of tree canopy overhanging streams; and
8) return all right-of-ways to original elevation.

I hope this information will be helpful to you. Should you require additional information, please contact me at (502) 564-7109, ext. 367.

Sincerely,

Maila T. Barbour
Fisheries Biologist III

cc: Environmental Section File
Alex Barber

Federally Threatened & Endangered Species Reported from Bracken County

Common Name	Scientific Name	Status Code	Reference
bald eagle	Haliaeetus leucocephalus (Linnaeus, 1766)	223,101,121,601,102	Reference

KFWIS HOME

Federally Threatened & Endangered Species Reported from Campbell County

Common Name	Scientific Name	Status Code	Refers
fanshell	Cyprogenia stegaria (Rafinesque, 1820)	101,601,223	Refere
tubercled (subsp: torulosa) blossom	Epioblasma torulosa torulosa (Rafinesque, 1820)	101,501,223	Refere

KFWIS HOME

Federally Threatened & Endangered Species Reported from Pendleton County

Common Name	Scientific Name	Status Code	Refere
fanshell	Cyprogenia stegaria (Rafinesque, 1820)	101,601,223	Refere
tubercled (subsp: torulosa) blossom	Epioblasma torulosa torulosa (Rafinesque, 1820)	101,501,223	Refere
clubshell	Pleurobema clava (Lamarck, 1819)	101,601,223	Refere
rough pigtoe	Pleurobema plenum (I. Lea, 1840)	101,601,223	Refere

KFWIS HOME

COMMONWEALTH OF KENTUCKY
KENTUCKY STATE POLICE
919 VERSAILLES ROAD
FRANKFORT 40601

PAUL E. PATTON
GOVERNOR

ISHMON F. BURKS
COMMISSIONER

July 2, 2001

Ms. Annette Coffey, P.E.
Director, Division of Planning
Kentucky Transportation Cabinet
125 Holmes St.
Frankfort, KY 40622

Ms. Coffey,

My concerns in reference to the Proposed Highway Project KY 9, are concentrated with the flow of traffic. A large percentage of Bracken Co. residents use the AA highway to go to work in northern Kentucky and Cincinnati. The most congested times (rush hours) are from 0500 hours to 0730 hours in the morning, and 1600 hours to 1830 hours in the evening, during the workweek. On the weekends, traffic is moderate to heavy, between 1030 hours and 1800 hours, varying with the season and holidays.

Commercial traffic is a major concern. Dravo Mine, in Pendleton County receives a lot of truck traffic from eastern Kentucky. Traffic evolving from commercial trucks is moderate to heavy at all times.

Another concern is educating the public on this project. The local residents should be informed, in advance, of road closures and possible delays. I think it is extremely important to utilize the local media, newspapers, radio, etc., in order to keep the public abreast of where the construction zones are going to be. Also, keeping all police agencies informed of when and where the work zones (possible delays) are going to be. The use of signs will be very beneficial to the motorists.

Typically, keeping the line of communication open for everyone involved, which includes the construction workers, police agencies, and motorists, will contribute to the most proficient flow of traffic.

Please do not hesitate to call us, if we can be of any assistance.

Sincerely,

Captain Al Rich,
Commander Post 6
859-428-1212

AR/rr

A-2

Commonwealth of Kentucky
Transportation Cabinet
Frankfort, Kentucky 40622

James C. Codell, III
Secretary of Transportation

E. Jeffrey Mosley
Deputy Secretary

Paul E. Patton
Governor

MEMORANDUM

TO: Annette Coffey, P.E.
Director
Division of Planning

ATTN: Bruce Siria, P.E.
Trans. Engr. Spec. - Planning

FROM: S. R. Halloran, P.E. S.R.H.
Trans. Engr. Spec. - Construction

DATE: June 28, 2001

SUBJECT: Mason to Campbell County
KY 9 (AA Highway) Widening Study
Item No. 9-0165.00

This office has reviewed the information packet sent from your office concerning the above subject widening study for KY 9 from Mason to Campbell County.

This office has no comments concerning this proposed project at this time. Should this office have comments or suggestions, we will forward this information to your office.

If you have questions or require assistance please contact this office.

Commonwealth of Kentucky
Transportation Cabinet
Frankfort, Kentucky 40622

James C. Codell, III
Secretary of Transportation

Clifford C. Linkes, P.E.
Deputy Secretary

Paul E. Patton
Governor

MEMORANDUM

TO: Annette Coffey, Director
Division of Planning

FROM: Michael L. Hill, Director
Division of Multimodal Programs

DATE: July 9, 2001

SUBJECT: Item No. 9-165.00
KY 9 Widening Study
Mason and Campbell Counties

Thank you for the opportunity to comment on the intermediate planning study for this Mason County and Campbell County project.

This project has no known issues or problems in connection with Small Urban Areas or Metropolitan Planning Organizations.

The coordination and connectivity of bicycle and pedestrian facilities is important in the early planning and design stages of projects. Design Guidance from the United States Department of Transportation in February, 2000, states "bicycling and walking facilities will be incorporated into all transportation projects unless exceptional circumstances exist."

This corridor is in reasonable proximity to KY 8, a designated bicycle route. Please note any intersections with designated bicycle routes within the project limits to ensure connectivity. Please contact Paula Nye of this Division, at (502) 564-7686, for information or questions about bicycle and pedestrian concerns.

The Division of Planning's efforts to streamline construction projects by involving all stakeholders in the project development phases are commendable. We look forward to working with your Division to facilitate your study efforts in our SUA and MPO areas, and by increasing awareness of bicycle and pedestrian issues.

MLH/LJS/AJT

EDUCATION PAYS

United States Department of the Interior

FISH AND WILDLIFE SERVICE
446 Neal Street
Cookeville, TN 38501

July 3, 2001

Ms. Annette Coffey
Director, Division of Planning
Kentucky Transportation Cabinet
Frankfort, Kentucky 40622

Re: FWS #01-2886

Dear Ms. Coffey:

Thank you for your letter and enclosures of June 18, 2001, regarding the Kentucky Transportation Cabinet's (KTC) proposed Kentucky Highway 9 Widening Project in Campbell, Pendelton, Bracken, and Mason counties, Kentucky. The KTC proposes to widen approximately 30.0 miles of Kentucky Highway 9 from near Ivor Road to State Route 10 as shown on the attachments to your correspondence. Fish and Wildlife Service (Service) personnel have reviewed the information submitted and we offer the following comments.

Information available to the Service indicates that wetlands may exist in the vicinity of the proposed project. This information is provided for your convenience. Our wetlands determination has been made in the absence of a field inspection and does not constitute a wetlands delineation for the purposes of Section 404 of the Clean Water Act. The Corps of Engineers should be contacted regarding the presence of regulatory wetlands and the requirements of wetlands protection statutes.

We note that the proposed project may require stream crossings. Perennial streams should be bridged rather than culverted. Further, we recommend that silt barriers be put in place when working adjacent to all streams to prevent runoff of sediment. If a stream crossing is necessary, it should be accomplished during low flow periods and the streambanks reseeded with native vegetation beneficial to wildlife immediately following completion of the stream crossing.

According to our records, the federally endangered Indiana bat (*Myotis sodalis*) is known to occur in the vicinity of the project. This species normally uses exfoliating (i.e., with loose bark) trees greater than six inches in diameter at breast height as maternity and roost sites. If any portion of the proposed project involves the removal of any trees greater than six inches in diameter at breast height, and tree removal can be accomplished between October 15 and March 31, we believe that the project is not likely to adversely affect this species. If the above recommendation regarding tree size and removal dates is accepted as a project condition and is stringently enforced, then we believe

that the requirements of Section 7 of the Endangered Species Act will be satisfied. However, obligations under Section 7 of the Act must be reconsidered if (1) new information reveals impacts of the proposed action that may affect listed species or critical habitat in a manner not previously considered, (2) the proposed action is subsequently modified to include activities which were not considered during this consultation, or (3) new species are listed or critical habitat designated that might be affected by the proposed action. **If this recommendation is not acceptable, the project should be delayed and consultation with this office should continue.** Please provide us a written response relative to our recommendation.

Thank you for the opportunity to comment on this proposed action. If you have any questions regarding the information which we have provided, please contact Wally Brines of my staff at 931/528-6481, extension 222.

Sincerely,

Lee A. Barclay, Ph.D.
Field Supervisor

APPALACHIAN REGIONAL COMMISSION
A Proud Past, A New Vision

July 5, 2001

Ms. Annette Coffey, P.E.
Director Division of Planning
Kentucky Transportation Cabinet
125 Holmes Street
Frankfort, KY 40622

Dear Ms. Coffey:

Thank you for your June 18, 2001 letter offering the Appalachian Regional Commission (ARC) an opportunity to comment on the proposed widning of KY 9 from western Mason County to southeastern Campbell County.

The proposed project should not have any adverse effect on the Appalachian Development Highway System.

Should you have any questions please do not hesitate to contact me at (202) 884 7706.

Sincerely:

Edward A. Terry, Jr. P.E.
Senior Transportation Advisor

Cc: Mr. Jose M. Sepulveda - FHWA

1666 CONNECTICUT AVENUE, NW, SUITE 700 WASHINGTON, DC 20009-1068 (202) 884-7799 FAX (202) 884-7691

Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, West Virginia

Appendix E - Environmental Justice

ENVIRONMENTAL JUSTICE REPORT
FOR THE KY 9 WIDENING STUDY
BRACKEN, CAMPBELL, MASON, and PENDLETON COUNTIES

INTRODUCTION

This report presents a review of the community and environmental conditions existing in and around the proposed KY 9 improvements in Bracken, Campbell, Mason, and Pendleton Counties in Kentucky. The data in this report was collected from a number of sources, including the U.S. Census Bureau, local elected officials, local stakeholders, and local residents. The information and data in this report is intended to aid the Kentucky Transportation Cabinet (KYTC) and others in engaging all groups potentially impacted by this project.

According to the U.S. Environmental Protection Agency (EPA), "the goal of environmental justice is to ensure that all people, regardless of race, national origin or income, are protected from disproportionate impacts of environmental hazards." Environmental justice communities include minorities and/or low-income groups.

METHODOLOGY

Data was collected by reviewing the Census Data, conducting interviews, and conducting field reviews. All data was then compiled and analyzed to develop this report. The population and race Census Data used in this report were taken from the following sources:

- Profiles of General Demographic Characteristics 2000 Census of Population and Housing Kentucky
- Census 2000 Population by Race and Hispanic Origin for Census Blocks
- U.S. Census State and County Quick Facts

For the purposes of income analysis, 1990 data was used since 2000 data was unavailable. Interviews and field surveys did not reveal any minority or low-income groups in the project area. That information was substantiated by the findings from the Census data and is discussed in the Census Data section.

INITIAL FINDINGS

Businesses/Organizations

There are three (3) businesses located in the KY 9 study area: a bank, a martial arts studio and a convenience store/gas station. Heading westbound from Mason County, this is the only gas available along the corridor for thirty (30) miles. There are no churches or schools located in the study area. There is an industrial park, but no tenants currently occupy it. No complaints were received regarding traffic problems in these areas, although the area near the convenience store experiences a high rate of crashes.

Residences

Depending on the design alternative chosen, anywhere from zero (0) to ninety-five (95) residences and zero (0) to one (1) business may need to be purchased for construction. With careful alternative selection, taking of most of the residences and the one business along the corridor for construction might be avoided.

Communities

No other communities, towns, neighborhoods and associated facilities, and community centers are within the project area.

CENSUS DATA

Since this project would impact four (4) counties, the census data section will be separated by county.

MASON COUNTY

Mason County is divided into twenty-five (25) Census Tracts and the project area is composed of 14 Census Blocks. The KY 9 improvement project in Mason County is located in one tract. See **Figure 1**.

The data on minorities, poverty rates, and age are shown in **Tables 1, 2,** and **3**, respectively. Census data on minorities was available at the Census Tract and Census Block levels. However, Census data for poverty rates and age were only available at the county level. Key characteristics from the 1990 Census data for Mason County are as follows:

Population by Race

- Mason County is predominantly a white community (over 90%). There are very few members of other races and no concentration of members of any race, including Hispanics, in the study area.
- The percentages of most minority groups were at or below the Commonwealth percentages. The percentage of Hispanics in the county was almost twice the percentage of those for the Commonwealth, indicating a high percentage of Hispanic population outside the study area.

Poverty Rate and Age Groups

- Poverty rates for the county were 0.88% above those for the Commonwealth.
- Children in poverty were 3.39% higher for the county than the Commonwealth and although female headed households in poverty were 2.16% lower than the Commonwealth.
- Mason County has a 3% greater percentage of population of persons over 65 years of age than the Commonwealth but persons over 65 in poverty were 3.32% lower than those for the Commonwealth.
- The percent population of children aged 0-18 was 1.92% greater that those from the Commonwealth.
- Northwestern Mason County is a rural county with numerous employment centers.

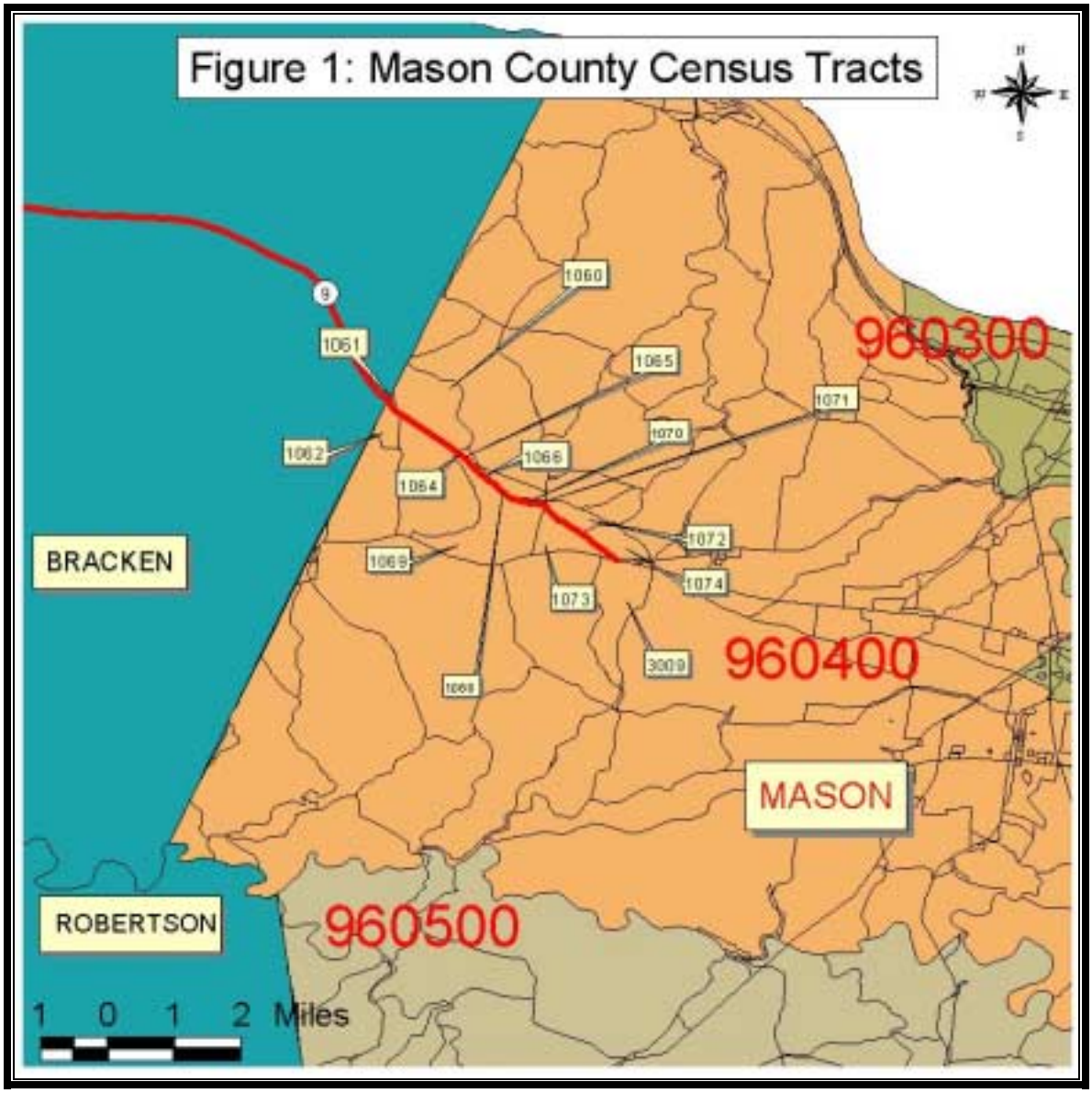
Figure 1: Mason County Census Tracts
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1070
1062
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1069
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1073
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960300
960400
960500
BRACKEN
MASON
ROBERTSON
1 0 1 2 Miles

MASON COUNTY DATA

YEAR 2000 POPULATION BY RACE COMPARISON CHART

TABLE 1	Total Population	White Alone	% of Population	Black or African-American only	% of Population	American Indian or Alaska Native Alone	% of Population	Asian Alone	% of Population	Native Hawaiian & Other Pacific Islander Alone	% of Population	Hispanic or Latino Alone	% of Population	Some Other Race(s)	% of Population
TRACT 9604, BLOCK 1060	25	25	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9604, BLOCK 1062	3	2	66.67%	1	33.33%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9604, BLOCK 1063	14	14	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9604, BLOCK 1064	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9604, BLOCK 1065	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9604, BLOCK 1066	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9604, BLOCK 1067	4	4	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9604, BLOCK 1068	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9604, BLOCK 1069	46	46	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9604, BLOCK 1070	5	5	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9604, BLOCK 1071	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9604, BLOCK 1072	2	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9604, BLOCK 1073	42	41	97.62%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	2.38%
TRACT 9604, BLOCK 1074	17	16	94.12%	1	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Mason County	16,800	15,268	90.88%	1,203	7.16%	25	0.15%	62	0.37%	3	0.02%	160	0.95%	96	0.57%
KENTUCKY	4,041,769	3,640,889	90.08%	295,994	7.32%	8,616	0.21%	29,744	0.74%	1,460	0.04%	22,623	0.56%	22,623	0.56%

YEAR 1990 POVERTY RATE COMPARISON CHART

TABLE 2	Total Persons in Poverty*	Total Persons in Poverty**	Children 0-17	Children 0-17 in Poverty	% of Children 0-17 in Poverty	Female Headed Households	Female Headed Households in Poverty	% of Female Headed Households in Poverty	Persons 65+	Persons 65+ in Poverty	% of Persons 65+ in Poverty
Mason County	2,982	17.75%	4,165	1,160	27.85%	421	242	57.48%	2,591	448	17.29%
KENTUCKY	681,827	16.87%	938,325	229,530	24.46%	86,390	51,519	59.64%	441,885	91,091	20.61%

* 1989 numbers

* 1997 model based estimate

YEAR 2000 AGE GROUP COMPARISON CHART

TABLE 3	Population	0-18	% of Population	19-64	% of Population	65-older	% of Population
Mason County	16,800	4,456	26.52%	9,740	57.98%	2,604	15.50%
KENTUCKY	4,041,769	994,818	24.60%	2,542,158	62.90%	504,793	12.50%

BRACKEN COUNTY

Bracken County is divided into three (3) Census Tracts and the project area is composed of sixty-six (66) Census Blocks. KY 9 improvement project in Bracken County is located in all 3 tracts. See **Figure 2**.

The data on minorities, poverty rates, and age are shown in **Tables 1, 2,** and **3**, respectively. Census data on minorities was available at the Census Tract and Census Block levels. However, Census data for poverty rates and age were only available at the county level. Key characteristics from the 1990 Census data for Mason County are as follows:

Population by Race

- Bracken County is predominantly a white community (over 98%). There are very few members of other races and no concentration of members of any race, including Hispanics, in the study area.
- The percentages of all other minority groups except American Indian/Alaska Natives were below the Commonwealth percentages.
- The American Indian/Alaska Native group was 0.04% higher in Bracken County than in the state.

Poverty Rate and Age Groups

- Poverty rates for the county were 1.80% below those for the Commonwealth.
- Children in poverty were 1.57% higher for the county than the Commonwealth and female headed households in poverty were almost 6% higher than the Commonwealth. The population percentage of children in the county was 3.57% higher than the number in the Commonwealth.
- Bracken County has nearly 1% greater percentage of population of persons over 65 years of age than the Commonwealth but persons over 65 in poverty were 3.51% higher than those for the Commonwealth.
- Bracken County is a rural county with no major employment centers.

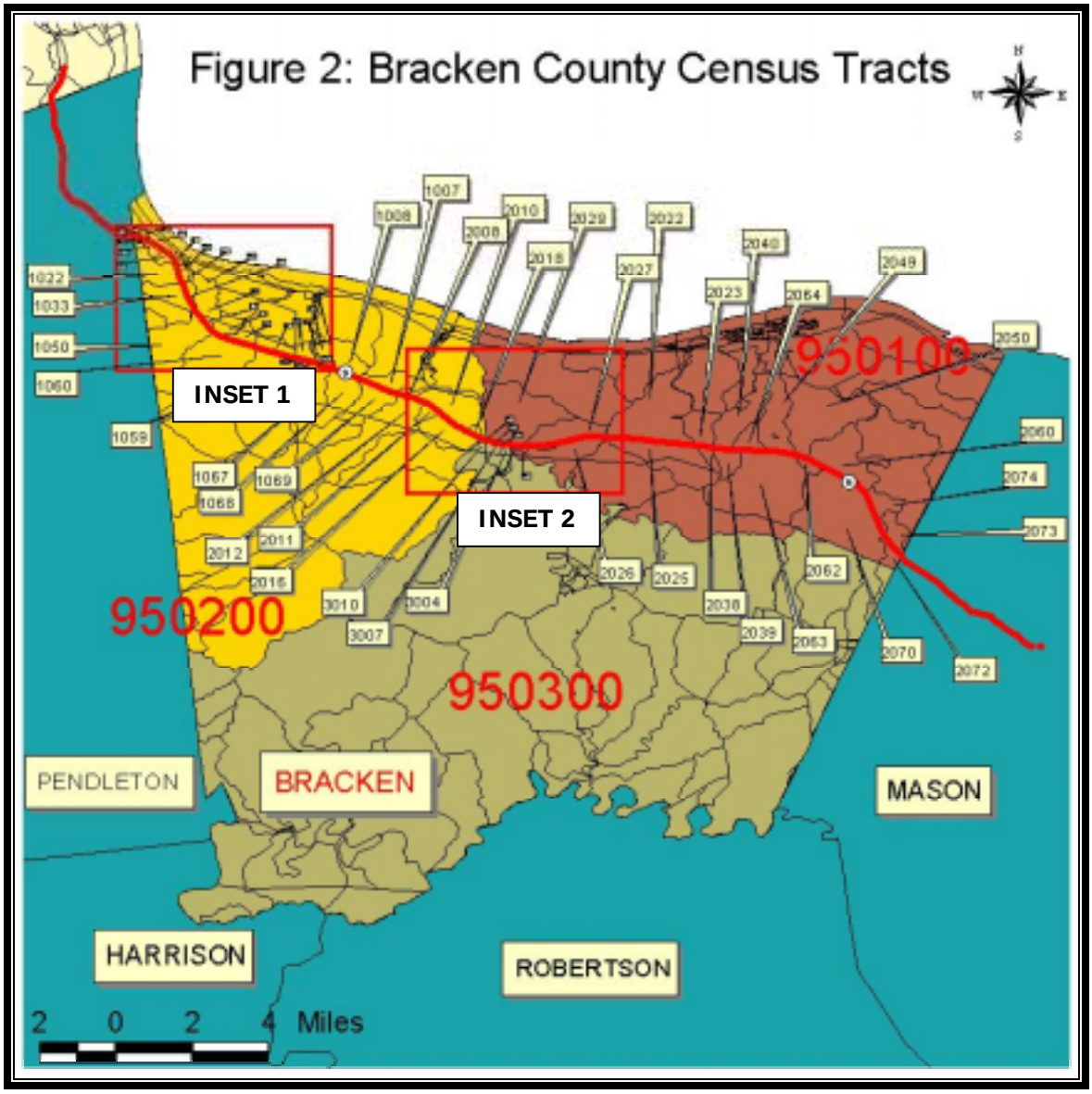
Figure 2: Bracken County Census Tracts
INSET 1
INSET 2
950100
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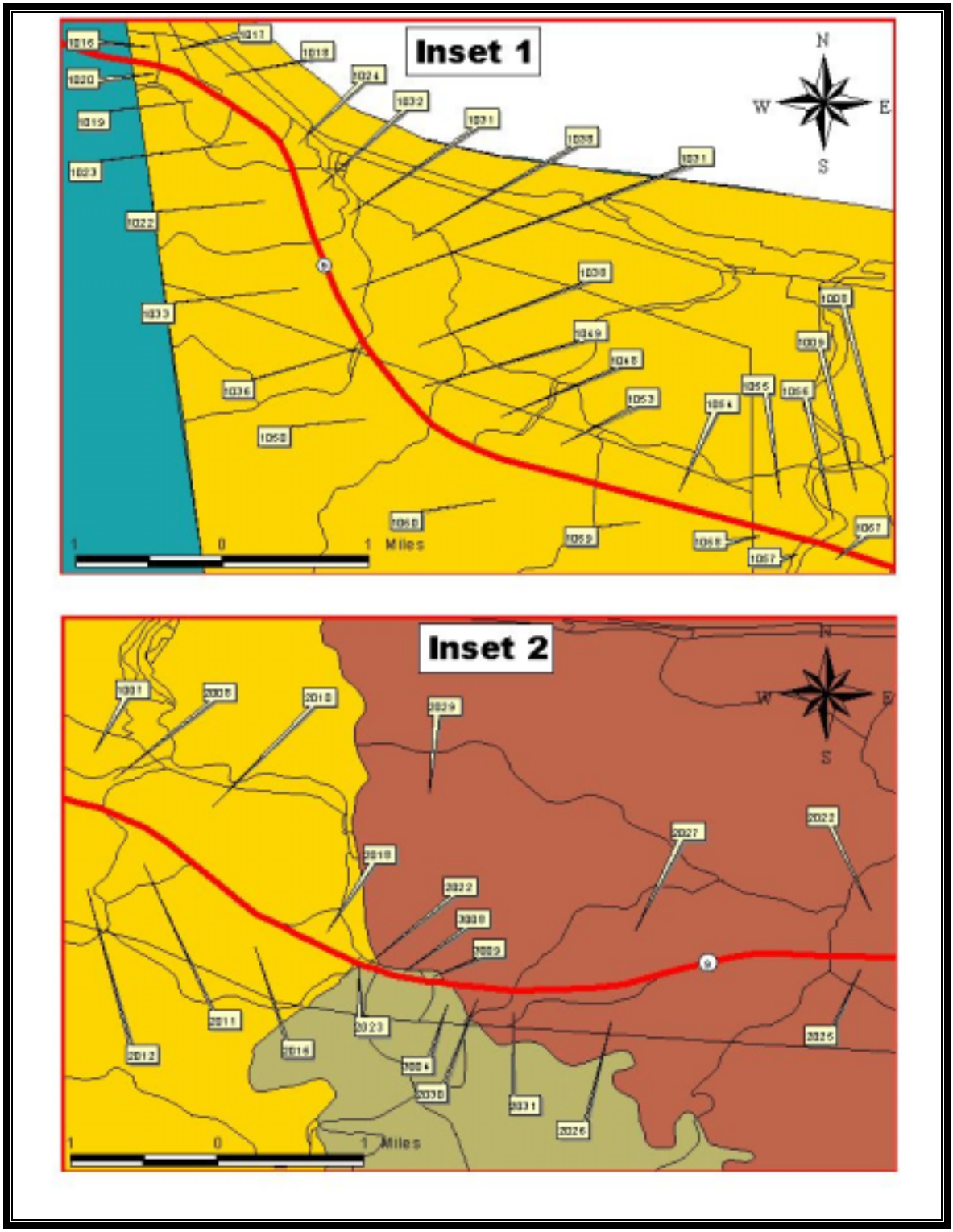
950300
PENDLETON
BRACKEN
MASON
HARRISON
ROBERTSON
2 0 2 4 Miles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1 0 1 Miles

BRACKEN COUNTY DATA

YEAR 2000 POPULATION BY RACE COMPARISON CHART

TABLE 1	Total Population	White Alone	% of Population	Black or African-American only	% of Population	American Indian or Alaska Native Alone	% of Population	Asian Alone	% of Population	Native Hawaiian & Other Pacific Islander Alone	% of Population	Hispanic or Latino Alone	% of Population	Some Other Race(s)	% of Population
TRACT 9501, BLOCK 2022	48	48	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9501, BLOCK 2023	18	18	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9501, BLOCK 2025	11	11	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9501, BLOCK 2026	18	18	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9501, BLOCK 2027	27	26	96.30%	0	0.00%	0	0.00%	1	3.70%	0	0.00%	0	0.00%	0	0.00%
TRACT 9501, BLOCK 2029	52	48	92.31%	0	0.00%	4	7.69%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9501, BLOCK 2030	3	3	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9501, BLOCK 2031	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9501, BLOCK 2038	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9501, BLOCK 2039	15	15	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9501, BLOCK 2040	73	73	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9501, BLOCK 2049	50	48	96.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	4.00%	0	0.00%
TRACT 9501, BLOCK 2050	35	33	94.29%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	5.71%	0	0.00%
TRACT 9501, BLOCK 2060	10	10	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9501, BLOCK 2061	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9501, BLOCK 2062	2	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9501, BLOCK 2063	154	150	97.40%	1	0.65%	0	0.00%	0	0.00%	0	0.00%	3	1.95%	0	0.00%
TRACT 9501, BLOCK 2064	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9501, BLOCK 2070	67	61	91.04%	2	2.99%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	4	5.97%
TRACT 9501, BLOCK 2072	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9501, BLOCK 2073	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9501, BLOCK 2074	15	15	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1007	7	7	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1008	14	14	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1009	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1016	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1017	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1018	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1019	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1020	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1022	30	30	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1023	11	11	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1024	3	3	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1031	5	5	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1032	5	5	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1033	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1036	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1037	6	6	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1038	35	35	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1048	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1049	8	8	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1050	52	52	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1053	15	15	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

TRACT 9502, BLOCK 1054	6	6	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1055	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1056	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1057	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1058	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1059	35	36	102.86%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1060	52	48	92.31%	0	0.00%	2	3.85%	0	0.00%	0	0.00%	2	3.85%	0	0.00%
TRACT 9502, BLOCK 1067	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1068	40	40	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 1069	72	72	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 2008	5	5	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 2010	3	3	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 2011	5	5	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 2012	9	9	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 2016	7	7	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 2018	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 2022	2	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9502, BLOCK 2023	2	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9503, BLOCK 3004	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9503, BLOCK 3007	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9503, BLOCK 3008	3	3	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9503, BLOCK 3009	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9503, BLOCK 3010	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
BRACKEN COUNTY	8,279	8,153	98.48%	51	0.62%	21	0.25%	5	0.06%	3	0.04%	39	0.47%	46	0.56%
KENTUCKY	4,041,769	3,640,889	90.08%	295,994	7.32%	8,616	0.21%	29,744	0.74%	1,460	0.04%	22,623	0.56%	22,623	0.56%

YEAR 1990 POVERTY RATE COMPARISON CHART

TABLE 2	**Total Persons in Poverty***	**Total Persons in Poverty****	**Children 0-17**	**Children 0-17 in Poverty**	**% of Children 0-17 in Poverty**	**Female Headed Households**	**Female Headed Households in Poverty**	**% of Female Headed Households in Poverty**	**Persons 65+**	**Persons 65+ in Poverty**	**% of Persons 65+ in Poverty**
Bracken County	1,290	15.80%	1,986	517	26.03%	128	84	65.63%	1,136	274	24.12%
KENTUCKY	681,827	16.00%	938,325	229,530	24.46%	86,390.00	51,519	59.64%	441,885	91,091	20.61%

* 1989 numbers

* 1997 model based estimate

YEAR 2000 AGE GROUP COMPARISON CHART

TABLE 3	**Population**	**0-18**	**% of Population**	**19-64**	**% of Population**	**65-older**	**% of Population**
Bracken County	8,279	2,332	28.17%	4,447	53.71%	1,117	13.49%
KENTUCKY	4,041,769	994,818	24.60%	2,542,158	62.90%	504,793	12.50%

PENDLETON COUNTY

Pendleton County is divided into three (3) Census Tracts and the project area is composed of eight (8) Census Blocks. The KY 9 improvement project in Pendleton County is located in one tract. See **Figure 3**.

The data on minorities, poverty rates, and age are shown in **Tables 1, 2,** and **3**, respectively. Census data on minorities was available at the Census Tract and Census Block levels. However, Census data for poverty rates and age were only available at the county level. Key characteristics from the 1990 Census data for Pendleton County are as follows:

Population by Race

- Pendleton County is predominantly a white community (over 98%). There are very few members of other races and no concentration of members of any race, including Hispanics, in the study area.
- The percentages of all other minority groups, except Hispanics, were below the Commonwealth percentages. The Hispanic percentage for the county was 0.12% greater than those for the Commonwealth.

Poverty Rate and Age Groups

- Poverty rates for the county were 3.4% below those for the Commonwealth.
- Children in poverty were 1.09% higher for the county than the Commonwealth although female headed households in poverty were 15.55% lower than the Commonwealth.
- The percentage of children aged 0-18 in Pendleton County were 6.35% higher than the Commonwealth.
- Pendleton County has a 2.06% less percentage of population of persons over 65 years of age than the Commonwealth but persons over 65 in poverty were 0.56% higher than those for the Commonwealth.
- Pendleton County is a rural county with no major employment centers.

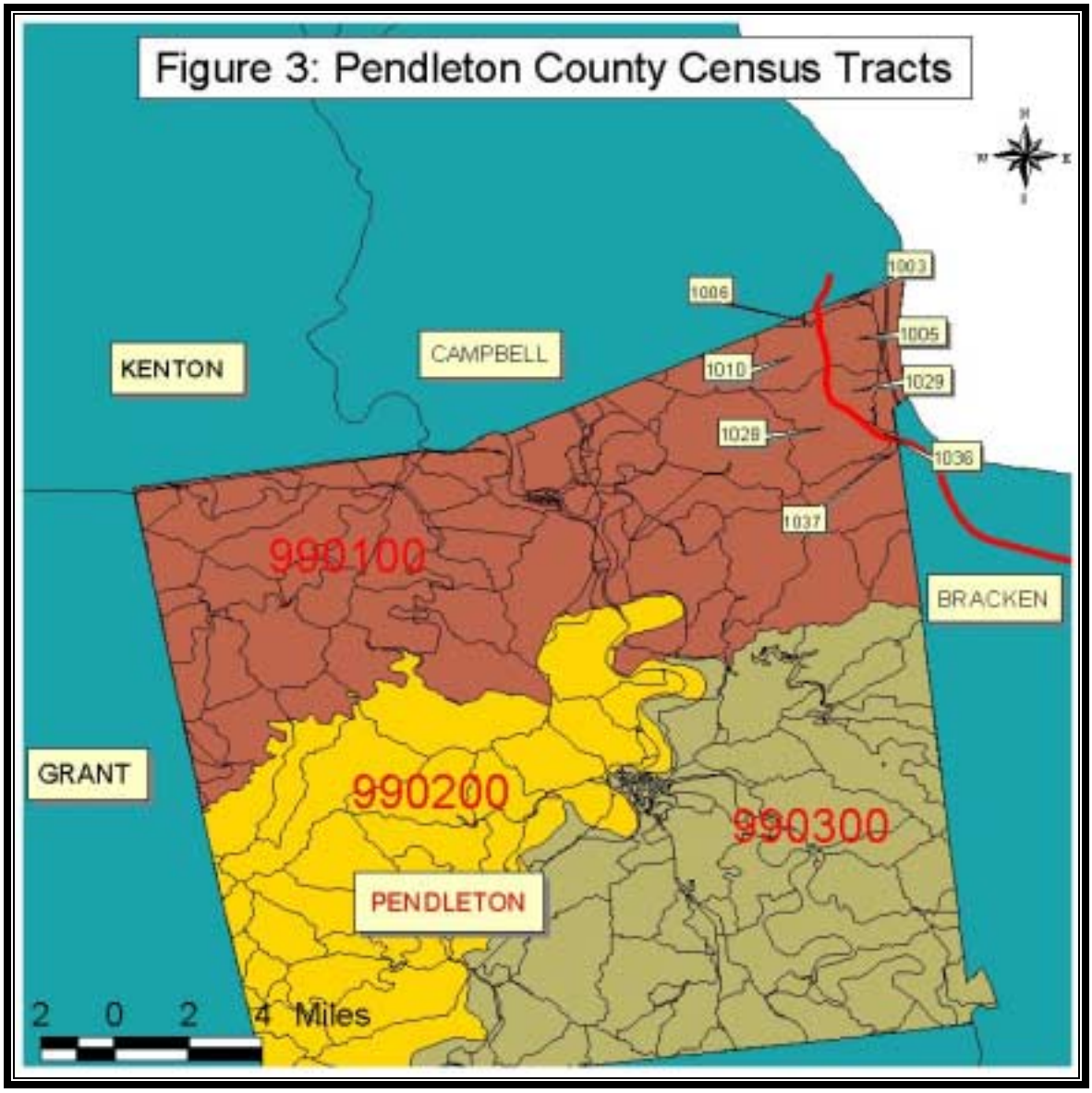


Figure 3: Pendleton County Census Tracts
KENTON
CAMPBELL
BRACKEN
GRANT
PENDLETON
990100
990200
990300
1003
1006
1005
1010
1029
1028
1036
1037
2 0 2 4 Miles

PENDLETON COUNTY

YEAR 2000 POPULATION BY RACE COMPARISON CHART

TABLE 1	Total Population	White Alone	% of Population	Black or African-American only	% of Population	American Indian or Alaska Native Alone	% of Population	Asian Alone	% of Population	Native Hawaiian & Other Pacific Islander Alone	% of Population	Hispanic or Latino Alone	% of Population	Some Other Race(s)	% of Population
TRACT 9901, BLOCK 1003	29	29	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9901, BLOCK 1005	41	41	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9901, BLOCK 1006	16	16	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9901, BLOCK 1010	227	221	97.36%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	6	2.64%
TRACT 9901, BLOCK 1028	187	186	99.47%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9901, BLOCK 1029	20	20	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	5.00%	0	0.00%
TRACT 9901, BLOCK 1036	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 9901, BLOCK 1037	12	12	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Pendleton County	14,390	14,159	98.39%	71	0.49%	28	0.19%	16	0.11%	1	0.01%	97	0.67%	51	0.35%
KENTUCKY	4,041,769	3,640,889	90.08%	295,994	7.32%	8,616	0.21%	29,744	0.74%	1,460	0.04%	22,623	0.56%	22,623	0.56%

YEAR 1990 POVERTY RATE COMPARISON CHART

TABLE 2	Total Persons in Poverty*	Total Persons in Poverty**	Children 0-17	Children 0-17 in Poverty	% of Children 0-17 in Poverty	Female Headed Households	Female Headed Households in Poverty	% of Female Headed Households in Poverty	Persons 65+	Persons 65+ in Poverty	% of Persons 65+ in Poverty
Pendleton County	1,938	13.47%	3,417	873	25.55%	254	112	44.09%	1,365	289	21.17%
KENTUCKY	681,827	16.87%	938,325	229,530	24.46%	86,390	51,519	59.64%	441,885	91,091	20.61%

* 1989 numbers

* 1997 model based estimate

YEAR 2000 AGE GROUP COMPARISON CHART

TABLE 3	Population	0-18	% of Population	19-64	% of Population	65-older	% of Population
Pendleton County	14,390	4,454	30.95%	8,434	58.61%	1,502	10.44%
KENTUCKY	4,041,769	994,818	24.60%	2,542,158	62.90%	504,793	12.50%

CAMPBELL COUNTY

Campbell County is divided into twenty-six (26) Census Tracts and the project area is composed of two (2) Census Blocks. The KY 9 improvement project in Campbell County is located in one tract. See **Figure 4**.

The data on minorities, poverty rates, and age are shown in **Tables 1, 2,** and **3**, respectively. Census data on minorities was available at the Census Tract and Census Block levels. However, Census data for poverty rates and age were only available at the county level. Key characteristics from the 1990 Census data for Mason County are as follows:

Population by Race

- Campbell County is predominantly a white community (over 96%). There are no members of other races and no concentration of members of any race, including Hispanics, in the study area.

Poverty Rate and Age Groups

- Poverty rates for the county were 7.38% lower than those for the Commonwealth.
- Children in poverty were 8.85% less for the county than the Commonwealth although the percentage of population of children was 4.05% greater than those for the Commonwealth, and female headed households in poverty were 11.93% lower than the Commonwealth.
- Campbell County has a 0.10% greater percentage of population of persons over 65 years of age than the Commonwealth but persons over 65 in poverty were 7.77% lower than those for the Commonwealth.
- Southeastern Campbell County is a rural county with no major employment centers near the corridor.

CONCLUSION

No concentrations of minority or low-income groups are present within the four-county project area. The KY 9 improvements would likely impact residents and businesses. Should a fully controlled facility be constructed, a variety of different interchange configurations should be explored to see how impact to homes and business can be minimized.

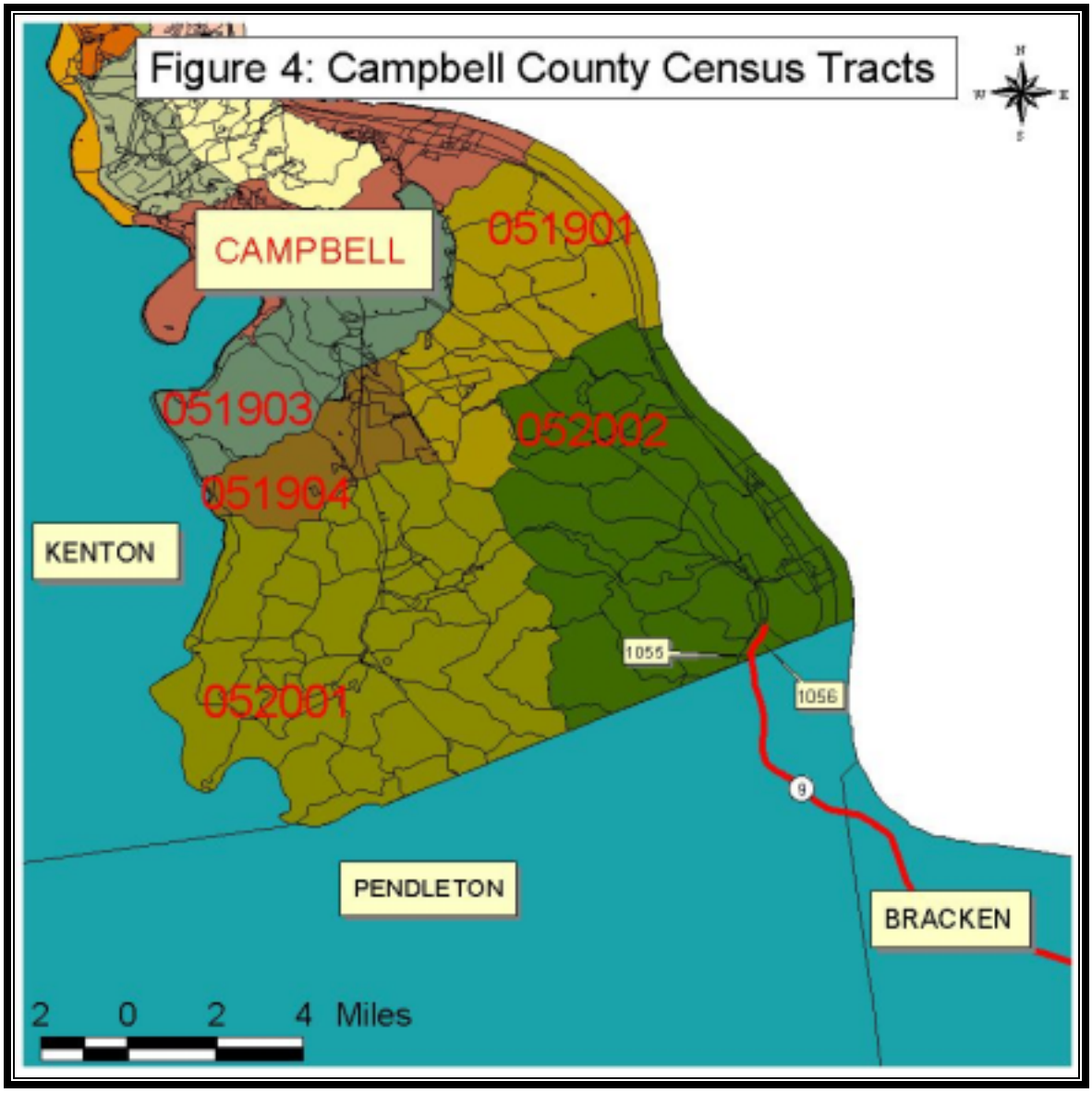


Figure 4: Campbell County Census Tracts
CAMPBELL
051901
051903
052002
051904
KENTON
1056
1056
052001
9
PENDLETON
BRACKEN
2 0 2 4 Miles

CAMPBELL COUNTY DATA

YEAR 2000 POPULATION BY RACE COMPARISON CHART

TABLE 1	Total Population	White Alone	% of Population	Black or African-American only	% of Population	American Indian or Alaska Native Alone	% of Population	Asian Alone	% of Population	Native Hawaiian & Other Pacific Islander Alone	% of Population	Hispanic or Latino Alone	% of Population	Some Other Race(s)	% of Population
TRACT 52002, BLOCK 1055	0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
TRACT 52002, BLOCK 1056	9	9	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Campbell County	88,616	85,636	96.64%	1,394	1.57%	152	0.17%	475	0.54%	13	0.01%	765	0.86%	272	0.31%
KENTUCKY	4,041,769	3,640,889	90.08%	295,994	7.32%	8,616	0.21%	29,744	0.74%	1,460	0.04%	22,623	0.56%	22,623	0.56%

YEAR 1990 POVERTY RATE COMPARISON CHART

TABLE 2	Total Persons in Poverty*	Total Persons in Poverty**	Children 0-17	Children 0-17 in Poverty	% of Children 0-17 in Poverty	Female Headed Households	Female Headed Households in Poverty	% of Female Headed Households in Poverty	Persons 65+	Persons 65+ in Poverty	% of Persons 65+ in Poverty
Campbell County	8,412	9.49%	22,183	3,462	15.61%	2,318	1,106	47.71%	10,294	1,322	12.84%
KENTUCKY	681,827	16.87%	938,325	229,530	24.46%	86,390	51,519	59.64%	441,885	91,091	20.61%

* 1989 numbers
* 1997 model based estimate

YEAR 2000 AGE GROUP COMPARISON CHART

TABLE 3	Population	0-18	% of Population	19-64	% of Population	65-older	% of Population
Campbell County	88,616	25,387	28.65%	52,064	58.75%	11,165	12.60%
KENTUCKY	4,041,769	994,818	24.60%	2,542,158	62.90%	504,793	12.50%

Appendix F - Summary of the Geotechnical Findings

GEOTECHNICAL OVERVIEW

STATEWIDE CORRIDOR PLANNING

CAMPBELL, PENDLETON, BRACKEN, AND MASON COUNTIES

KENTUCKY 9 “AA” HIGHWAY WIDENING STUDY

ITEM NO. 9-165.00

FOR

HNTB CORPORATION

OCTOBER 2001

INVESTIGATION BY

H.C. NUTTING COMPANY

W.O. # 71287.007

INTRODUCTION

The H.C. Nutting Company is pleased to team with HNTB to provide the Geotechnical Overview on this Ky. 9 “AA” Highway widening study for the Kentucky Transportation Cabinet. Henry Mathis, P.E., Senior Consultant, Doug Smith, P.G., Senior Geologist, and Sarah Johnson, Engineering Geologist, and others in the H.C. Nutting Company assisted in the preparation of this overview.

The report format and outline follows the requirements described in the Kentucky Transportation Cabinet’s Geotechnical Manual, section GT-801, page 1. The primary focus of this study is to identify geological conditions that could adversely affect the design and construction of this project. Where adverse geological conditions are noted, site-specific recommendations for construction are provided.

The study begins in Campbell County at 0.5 MP north of the Campbell/Pendleton County line, extends across Plendleton and Bracken Counties and ends at the 13.99 MP in Mason County for a total of approximately 28 miles.

In preparation of this report, Henry Mathis and Sarah Johnson reviewed the alignment in the field utilizing design profiles and embankment cross sections from the original geotechnical reports, and U.S.G.S. Quadrangle Maps. Discussions were held with KTC district construction and maintenance personnel, and Geotechnical Branch personnel concerning past geotechnical problems with the original “AA” highway construction and present maintenance problems. Subsurface investigations, laboratory and engineering analyses were not part of this study.

The Geotechnical Overview includes a description of the geology, recommendations for the embankment slope design, general geotechnical recommendations, and Geological Quadrangle Maps with the KY 9 alignment plotted on the maps. The geologic quadrangles used for this study include the New Richmond, Butler, Moscow, Berlin, Brookville, and Germantown quadrangles.

GEOLOGY

The alignment of this section of KY 9 is underlain by Ordovician-aged shale and limestone bedrock, including the Point Pleasant, Kope, Fairview, and Grant Lake formations, as well as Quaternary alluvial, colluvial, and glacial deposits.

This region of Kentucky lies on the eastern flank of the Cincinnati Arch, which has given rise to a regional dip to the northeast, generally on the order of 1 ft. per 100 to 200 ft. in the study area. However, smaller-scale synclines and anticlines may produce local dips that are contrary to the regional trend.

The bulk of the alignment is underlain by the Kope Formation, which consists predominately of a gray, calcareous, uncemented shale interbedded with 2” to 6”

thick (occasionally up to 9” thick) hard, crystalline, fossiliferous limestone layers. The formation consists of 70 to 90% shale, typically with 2 to 3 ft. intervals of shale between limestone layers. The Kope Formation historically is a poor embankment performer and is subject to slumping and weathering.

The Point Pleasant Formation underlies the Kope Formation, and is found along the lower valley walls of the deeper valleys in the western and central portions of the alignment. The Point Pleasant consists of shale interbedded with 2” to 15” thick limestone layers. The formation is composed of approximately 60% limestone.

Overlying the Kope Formation is the Fairview Formation. In the western and central portions of the alignment, the Fairview is only found in isolated patches on the highest ridge tops. However, as the alignment moves down-dip and towards the east, the formation becomes more prevalent. The Fairview Formation also consists of interbedded shale and limestone, with more abundant and more closely spaced limestone beds than the underlying Kope. Hard, coarsely crystalline or argillaceous limestone layers constitute up to 30-50% of the formation, and occur in ½ to 15” thick layers (typically less than 5”). As with the Kope, the shale is relatively weak.

Above the Fairview, the Grant Lake Formation is found on the higher ridge tops in the eastern portion of the alignment. The Grant Lake Formation consists of relatively thinly bedded, discontinuous, wavy-bedded, rubbly limestone layers up to 6” thick interbedded with calcareous shale. The limestone composes approximately 80% of the formation.

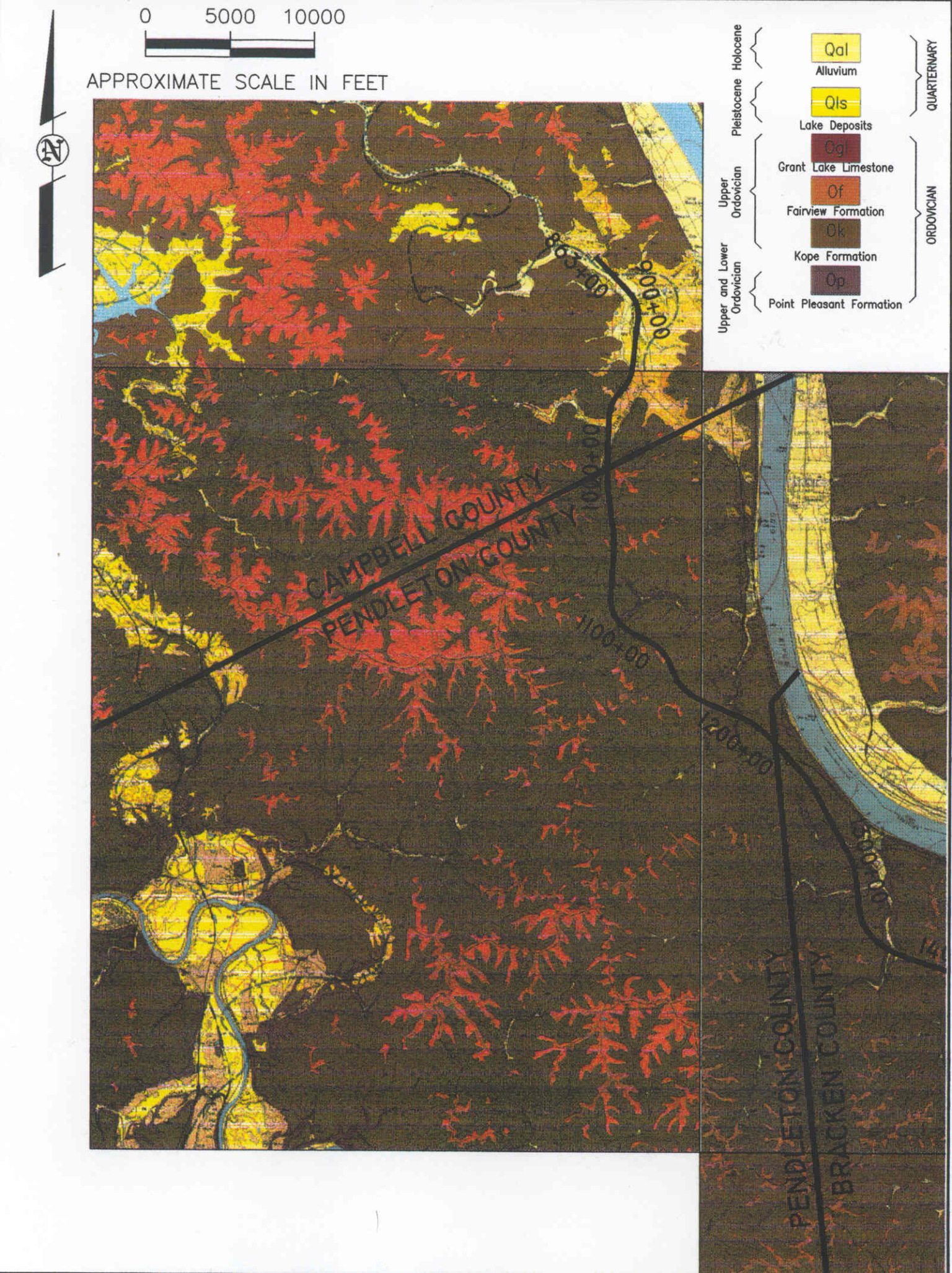
The overburden soils consist primarily of residual soils derived from the shale and limestone bedrock. The residual soils are generally 5 to 10 ft. thick, and are typically stiff to very stiff relatively plastic clays. The depth of the RDZ typically varies from 20 to 25 feet. Previous geotechnical reports indicate that minor amounts of colluvium are found at the toes of slopes. Alluvial deposits consisting of cobbles, gravel, sand, silt and clay are found in floodplains of creeks. In the northern-most section of the alignment, in the vicinity of Flagg Spring Creek, Illinoian-aged lacustrine and glacial outwash deposits are encountered. The lacustrine deposits consist primarily of silt and clay. The outwash deposits consist of sand and gravel with minor silt and clay. An earlier geotechnical study indicated that the glacial and alluvial deposits could range up to 60 ft. in thickness in this stream valley.

GENERAL RECOMMENDATIONS

1. Soil depths in the cuts vary from 5 to 10 feet deep with an estimated average stripping depth of 6". The glacial and alluvial deposits in some stream valleys could range up to 60 feet in depth. A soil shrinkage factor of 2 percent is suggested for the project. This value should be applied as outlined in the current edition of the Design Guidance Manual. The base of the rock disintegration zone (RDZ) is estimated to be 20 to 25 feet below the top of

ground. The rock swell factor is estimated at five percent below the rock disintegration zone. Material in the RDZ should have a zero percent swell.

2. A CBR design value of 3.0 is suggested for the subgrade, if the subgrade consists of soil, shale and limestone rock. If there is sufficient soil free of limestone floaters and rock fragments existing in the cuts, chemical stabilization (lime) should be utilized for the subgrade with a conservative estimated CBR design value of 9.5 assigned to the stabilized soil subgrade.
3. The project is located in Seismic Risk Zone 2, which is defined as an area of some damage due to earthquake activity.
4. Rock outcrop was present in the entire stream crossing; therefore, the culverts probably will be designed for a non-yielding foundation with an estimated allowable bearing value of 8 to 10 TSF (tons / $ft.^2$). The bridges probably will be spread footings on rock, point bearing piles and / or drilled shafts with an estimated allowable bearing value of 8 to 10 TSF. This value may be increased with site-specific laboratory testing on the proposed rock foundations. Scour may control the base of the footing elevations for spread footings on rock.
5. Since springs are likely to be encountered throughout the project it is very important to control the drainage using spring boxes and perforated pipe underdrains especially in areas of side hill cut and fill situations. Springs are very likely to occur at the base of the Fairview Formation, which is the contact between the Fairview and Kope formations.
6. Embankments constructed of non-durable shales (SDI < 95) shall be placed and compacted as specified in the current edition of KTC Standard Specifications for Road and Bridge Construction.
7. Embankments over 30 feet in height shall be constructed on 3 horizontal and 1 vertical slopes.
8. Foundation embankment benching and longitudinal perforated pipe underdrains shall be placed in accordance with the current edition of Standard Drawing RGX-010 and RDP-006 and / or as directed by the Engineer. One foot of Coarse Aggregate for Rock Drainage Blanket meeting the requirements of Section 805 of the KTC Standard Specifications for Road and Bridge Construction shall be placed on all benches. This drainage blanket shall be wrapped with Type IV Geotextile Fabric meeting the requirements of Section 843 of the current standard specifications.
9. Treatment of embankments at bridge end-bent structures shall be in accordance with Standard Drawing No. RGX-104-04 and RGX-105-05 except the pile core shall be constructed of granular embankment with a maximum size rock of 3 inches. Using this granular embankment in-lieu of soil, shale and limestone mixture will permit designing the embankments on a 2 horizontal 1 vertical slope. The side slopes beyond the granular embankments shall be transitioned to flatter slopes (3 horizontal to 1 vertical) for embankments heights over 30 feet.
10. In the areas where side hill fill is to be placed over unstable hillsides, the unstable material shall be removed to rock and the embankment benches, longitudinal perforated pipe underdrains and rock drainage blankets constructed as specified in note eight (8).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APPROXIMATE SCALE IN FEET
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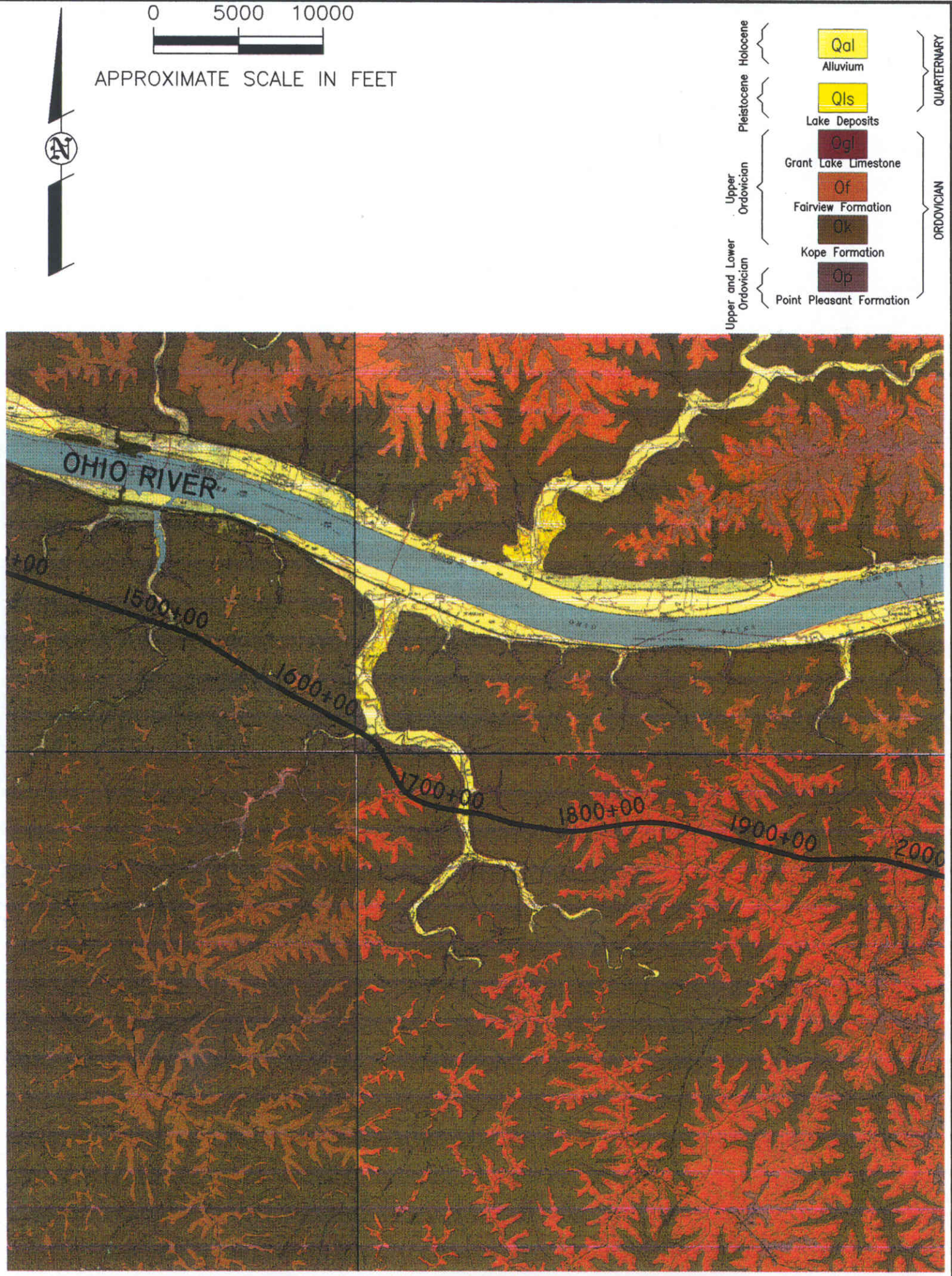
Holocene
Pleistocene
Qal
Alluvium
Qls
Lake Deposits
QUARTERNARY
Upper Ordovician
Ogl
Grant Lake Limestone
Of
Fairview Formation
Ok
Kope Formation
Upper and Lower Ordovician
Op
Point Pleasant Formation
ORDOVICIAN
865+00
900+00
1000+00
1100+00
1200+00
CAMPBELL COUNTY
PENDLETON COUNTY
PENDLETON COUNTY
BRACKEN COUNTY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Pleistocene Holocene
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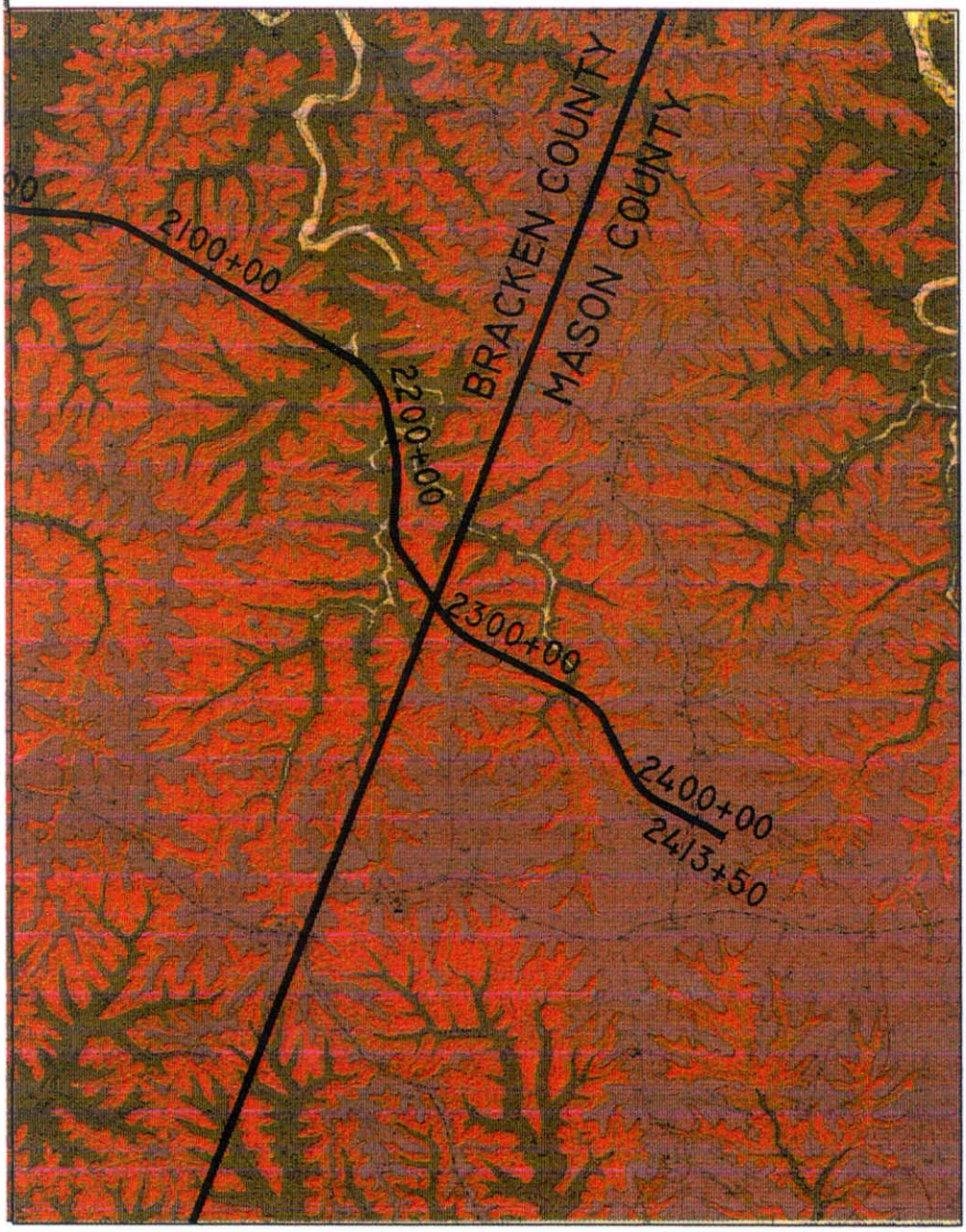
Alluvium
Qls
Lake Deposits
QUARTERNARY
Upper Ordovician
Ogl
Grant Lake Limestone
Of
Fairview Formation
Ok
Kope Formation
Upper and Lower Ordovician
Op
Point Pleasant Formation
ORDOVICIAN
OHIO RIVER
1500+00
1600+00
1700+00
1800+00
1900+00
2000


0 5000 10000
APPROXIMATE SCALE IN FEET
N
Holocene
Pleistocene
QUARTERNARY
Qal
Alluvium
Qls
Lake Deposits
Upper Ordovician
Ogl
Grant Lake Limestone
Of
Fairview Formation
Ok
Kope Formation
ORDOVICIAN
Upper and Lower Ordovician
Op
Point Pleasant Formation
2100+00
2200+00
2300+00
2400+00
2413+50
BRACKEN COUNTY
MASON COUNTY

Appendix G - Engineering Cost Estimates

KY 9 (AA Highway) Construction Cost Estimate

2 lane section to 4 lane section with median
24' salvagable
Need 14' median, 24' for 2 lanes, 24' for 2 shoulders = 62' additional

3 lane section to 4 lane section with median
36' salvagable
Need 14' median, 12' for 1 lane, 24' for 2 shoulders = 50' additional

4 lane section to 4 lane section with median
48' salvagable
Need 14' median, 24' for 2 shoulders = 38' additional

Item	Cost/Unit	Unit	Mountable Median Quantity (Access by Permit)	Mountable Median Costs (Access by Permit)	Depressed Median Quantity (Partially Controlled)	Depressed Median Costs (Partially Controlled)	Median Barrier Quantity (Fully Controlled)	Median Barrier Costs (Fully Controlled)
Pavement								
10" DGA Base								
2 lane section	$15.19	TON	351,366	$5,337,250	362,700	$5,509,413	425,040	$6,456,352
3 lane section	$15.19	TON	185,533	$2,818,246	192,954	$2,930,971	237,280	$3,604,282
4 lane section	$15.19	TON	3,076	$46,724	3,238	$49,185	4,128	$62,712
6" Asph. Base								
2 lane section	$46.00	TON	201,654	$9,276,084	208,159	$9,575,314	243,936	$11,221,067
3 lane section	$46.00	TON	106,480	$4,898,080	110,739	$5,093,994	136,178	$6,264,199
4 lane section	$46.00	TON	1,766	$81,236	1,859	$85,514	2,370	$109,021
6" Asph. Surf.								
2 lane section	$49.31	TON	201,654	$9,943,559	208,159	$10,264,320	243,936	$12,028,496
3 lane section	$49.31	TON	106,480	$5,250,529	110,739	$5,460,540	136,178	$6,714,949
4 lane section	$49.31	TON	1,766	$87,081	1,859	$91,667	2,370	$116,866
Rock Subgrade (Under new pavement), 1'	$12.62	TON	647,970	$8,177,381	670,670	$8,463,855	647,970	$8,177,381
Mountable Median Type 6A	$45.49	SY	230,302	$10,476,438	---	---	---	---
Concrete Median Barrier	$48.00	LF	---	---	---	---	148,051	$7,106,448
Drainage (Depressed Median)	$10.00	LF	---	---	148,051	$1,480,510	---	---
Removing Shoulders	$4.01	SY	394,803	$1,583,160	394,803	$1,583,160	394,803	$1,583,160
Access Point Pavement								
Right Turn Lanes (12' x200') &								
Side Road Approach (75'x24')								
- 10" DGA Base	$15.19	TON	11,806	$179,333	11,806	$179,333	---	---
- 6" Asph. Base	$46.00	TON	6,776	$311,696	6,776	$311,696	---	---
- 6" Asph. Surf.	$49.31	TON	6,776	$334,125	6,776	$334,125	---	---
Connector Roads	$400,000.00	ML	---	---	---	---	1.4	$545,455
Lighting Relocation at Intersections	$2,000.00	EA	34	$68,000	34	$68,000	---	---
New Lighting at Intersections	$15,000.00	EA	18	$270,000	18	$270,000	---	---
New Lighting at Interchanges	$15,000.00	EA	---	---	---	---	64	$960,000
Guardrail Replacement	$10.06	LF	132,575	$1,333,705	132,575	$1,333,705	132,575	$1,333,705
2" Bituminous Overlay over Existing Pavement	$42.26	TON	52,319	$2,211,001	24,398	$1,031,059	52,319	$2,211,001
Excavation	$5.03	CY	7,652,769	$38,493,428	14,997,831	$75,439,090	10,455,695	$52,592,146
Embankment	$4.35	CY	648,554	$2,821,210	843,726	$3,670,208	715,607	$3,112,890
Culvert Replacement	NA	EA	0	$0	0	$0	0	$0
Culvert Widening	NA	EA	0	$0	0	$0	0	$0
Bridge Replacement	NA	EA	0	$0	0	$0	0	$0
Bridge Widening	NA	LS	2	$1,009,470	2	$1,009,470	2	$1,009,470
New Bridge over KY 9	$5,500,000	EA	0	$0	0	$0	5	$27,500,000
Interchanges	$20,000,000.00	EA	0	$0	0	$0	10	$200,000,000
Subtotal				$105,007,736		$134,235,130		$352,709,600
Contingency (20%)				$21,001,547		$26,847,026		$70,541,920
Total				$126,009,283		$161,082,156		$423,251,520

KY 9 (AA Highway) Project Costs

Right of Way

			Partially Controlled Depressed Median		Fully Controlled Median Barrier	
Item	**Cost/Unit**	**Unit**	**Total Number of Units**	**Total Cost**	**Total Number of Units**	**Total Cost**
Residence	$150,000	EA	4	$600,000	95	$14,250,000
Entrances	$5,000	EA	7	$35,000	30	$150,000
Acreage	$10,000	AC	295	$2,953,975	476	$4,760,000
Businesses	$250,000	EA	0	$0	1	$250,000
Subtotal				$3,588,975		$19,410,000

Utilities

			Partially Controlled Depressed Median		Fully Controlled	
Item	**Cost/Unit**	**Unit**	**Total Number of Units**	**Total Cost**	**Total Number of Units**	**Total Cost**
Intersection Areas	$20,000	EA	27	$540,000	27	$540,000
Interchange Areas	$100,000	EA	0	$0	16	$1,600,000
Subtotal				$540,000		$2,140,000

Construction & Design

			Partially Controlled Depressed Median		Fully Controlled	
Item	**Cost/Unit**	**Unit**	**Total Number of Units**	**Total Cost**	**Total Number of Units**	**Total Cost**
Construction Costs				$161,082,156		$423,251,520
Design (8)%				$12,886,573		$33,860,122
Subtotal				$173,968,729		$457,111,641

TOTAL				$178,097,704		$478,661,641

KY 9 (AA Highway) Project Costs by Priority Section for Partially Controlled Depressed Median

Priority 1 East of KY 19 (MP 5.546) to Mason County (MP 13.987)
8.974 miles 8 intersections
Priority 2 Campbell County (MP 0.5) to KY 1109 (MP 13.585)
11.1109 miles 14 intersections
Priority 3 East of KY 1109 (MP 13.585) to west of KY 19 (MP 5.546)
8.039 miles 5 intersections
Total 28.1239 miles 27 intersections

Right of Way

					Priority Section One		Priority Section Two		Priority Section Three	
Item	**Cost/Unit**	**Unit**	**Total Number of Units**	**Total Cost**	**Number of Units**	**Cost**	**Number of Units**	**Cost**	**Number of Units**	**Cost**
Residence	$150,000	EA	4	$600,000	1	$150,000	1	$150,000	2	$300,000
Entrances	$5,000	EA	7	$35,000	1	$5,000	3	$15,000	3	$15,000
Acreage*	$10,000	AC	295.4	$2,953,975	94.1	$940,548	117.8	$1,178,209	83.5	$835,217.63
Businesses	$250,000	EA	0	$0		$0		$0		$0
Subtotal				$3,588,975		$1,095,548		$1,343,209		$1,150,218

*Acreage estimated by assuming 15,000 SF (0.34 AC) per state or local road intersection

Utilities

					Priority Section One		Priority Section Two		Priority Section Three	
Item	**Cost/Unit**	**Unit**	**Total Number of Units**	**Total Cost**	**Number of Units**	**Cost**	**Number of Units**	**Cost**	**Number of Units**	**Cost**
Partially Controlled Depressed Median Intersections	$20,000	EA	27	$540,000	8	$160,000	14	$280,000	5	$100,000
Subtotal				$540,000		$160,000		$280,000		$100,000

Construction & Design

					Priority Section One		Priority Section Two		Priority Section Three	
Item	**Cost/Unit**	**Unit**	**Total Number of Units**	**Total Cost**	**Number of Units**	**Cost**	**Number of Units**	**Cost**	**Number of Units**	**Cost**
Construction Costs				$161,082,156		$51,399,389		$63,638,675		$46,044,093
Design (8%)				$12,886,573		$4,111,951		$5,091,094		$3,683,527
Subtotal				$173,968,729		$55,511,340		$68,729,769		$49,727,620

TOTAL				$178,097,704		$56,766,888		$70,352,978		$50,977,838

KENTUCKY TRANSPORTATION CABINET

KY 9 "AA" Highway

WIDENING STUDY

HNTB