

# PRE-DESIGN SCOPING STUDY

US 421/KY 80 FROM HAL ROGERS PARKWAY TO KY 149

MANCHESTER, CLAY COUNTY  
ITEM NO. 11-8003.00



**FINAL**



Prepared by the  
KENTUCKY TRANSPORTATION CABINET  
DIVISION OF PLANNING

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# **PRE-DESIGN SCOPING STUDY**

## **US 421/KY 80 FROM HAL ROGERS PARKWAY TO KY 149 MANCHESTER, CLAY COUNTY ITEM NO. 11 - 8003.00**

### **I. INTRODUCTION**

#### **A. Study Purpose**

The purpose of this Pre-Design Scoping Study was to: (a) develop information for corridor improvements along US 421/KY 80 from the Hal Rogers (formerly Daniel Boone) Parkway to the intersection with KY 149; (b) provide data to be used when and if the project enters the design phase; and (c) provide background information that can be utilized in the National Environmental Policy Act (NEPA) documentation for the project. Tasks undertaken as part of this effort included:

- Identifying project goals and issues
- Defining the need for the project
- Determining project termini and potential alternatives
- Describing the conditions along the existing roadway
- Identifying preliminary environmental concerns
- Estimating the project costs
- Identifying priority segments for future phase activities
- Initiating contact with public officials and agencies

One of the steps in this process was the collection of technical and resource agency input concerning the project. This was accomplished by:

- Compiling information from existing data and reports
- Establishing a project team to provide direction and review for the study
- Coordinating with resource agencies and local officials

Information thus collected was evaluated to accomplish the following:

- Evaluate the project description and logical termini
- Address the geometrics, level of service, vehicle crashes, and other issues that are influencing the project
- Address, in general terms, the project design criteria
- Document known environmental concerns
- Develop a draft statement of project issues and goals

#### **B. Programming and Schedule**

The project is described in the 2002 Kentucky Six-Year Highway Plan (FY 2003-2008) as a “Pre-Design Scoping Study to widen US 421/KY 80 to three



lanes from the Daniel Boone Parkway, mile point 15.751, south to KY 149 (Lockards Creek Road), mile point 13.692". This project is state funded and is scheduled for design in 2005.

## II. PROJECT LOCATION, EXISTING CONDITIONS, AND TRAFFIC

### A. Project Location

The project termini, as originally described in the 2002 Kentucky Six-Year Highway Plan (see previous paragraph), were fairly general and did not logistically coincide with the project's realized intentions. The project team thus determined that the study area for the project would be better defined as follows:

**US 421/KY 11/KY 80/KY 2076 intersection at milepoint 16.915  
southeast to KY 149 (Lockards Creek Road) at milepoint 13.692.**

The project area is shown in Exhibit 1 in Appendix A. The project termini were more specifically redefined as that above. Several photographs of the project area are shown in Appendix B.

### B. Existing Highway Features

Data on the existing conditions along US 421 and the nearby road network were taken from the Division of Planning's Highway Information System (HIS) database.

The US 421 corridor is classified as being located in mountainous terrain; however, the section of roadway in the project area is relatively flat with little horizontal curvature. Passing sight distance is minimal, approximately six percent, and the volume of traffic makes passing almost impossible.

US 421 in the study segment is an undivided two-lane highway with ten to twelve-foot wide lanes with two to eight-foot shoulders as shown in Table 1. The driving surface is high flexible with the most recent resurfacing date also shown in Table 1.

**TABLE 1  
ROADWAY CROSS-SECTION**

<b>Beginning MP</b>	<b>Ending MP</b>	<b>Lane Width</b>	<b>Shoulder Width</b>	<b>Year Resurfaced</b>
13.692	15.307	10 Feet	2 Feet	2000
15.307	16.576	11 Feet	2 Feet	1997
16.576	16.680	12 Feet	2 Feet	1997
16.680	16.915	12 Feet	8 Feet	1997

Source: Highway Information System (HIS) Database

US 421 in the study segment contains only two structures. Table 2 depicts detailed information about each of these structures. As noted therein, the structure, B00009, over Horse Creek at the north end of the study segment is listed as functionally obsolete with narrow lanes and deteriorating concrete. It is noted herein for emphasis that functional obsolescence describes a condition wherein the roadway geometrics do not meet current design standards and is separate and distinct from a condition of structural deficiency. Additionally this bridge, which was built in 1933, may have historical significance. The other structure, B00096, built in 1983 is in “better than minimum condition” but may need modification if additional lanes are to be constructed for this project.

**TABLE 2  
BRIDGES**

<b>MP</b>	<b>Bridge Number</b>	<b>Length</b>	<b>Width</b>	<b>Feature Crossed</b>	<b>Sufficiency Rating</b>	<b>Other Information</b>
15.520	B00096	233'	33.3'	Goose Creek	81.3	Better than Minimum
16.577	B00009	66'	26.8'	Horse Creek	69.5	Functionally Obsolete

Source: Kentucky Bridge Inventory System (KBIS) Database

Significant intersections with crossroads along the study segment of US 421 are shown in Table 3. In addition to those listed therein, there are multiple access points along the corridor in addition to the two railroad crossings. The rail line is operated by CSX Transportation and the segment crossing US 421 is a lightly utilized rail line in Kentucky with a freight traffic density of less than 5 million gross ton-miles per mile annually.

More information about this rail line can be found in the Kentucky Transportation Cabinet’s 2002 Kentucky Statewide Rail Plan at this website: <http://transportation.ky.gov/Multimodal/railsystems.asp>.

**TABLE 3  
MAJOR CROSSROADS**

<b>MP</b>	<b>Description</b>
13.692	KY 179
14.055	Wade Hacker Road
14.281	Sevier-Airport Road (CR 1180)
15.259	Taylor Smith Road
15.307	KY 1999
15.329	CSX Railroad Crossing
15.520	Goose Creek Bridge – B00096
15.751	KY 11
16.451	CSX Railroad Crossing
16.577	Horse Creek Bridge – B00009
16.600	KY 3480
16.723	KY 3481
16.915	KY 80/KY 11/ KY 2076

Source: Highway Information System (HIS) Database

### C. Highway Systems

US 421 in the study segment is functionally classified as a Rural Major Collector. This functional classification is used to describe highway segments that:

- Serve trips that are of relatively short distance
- Are of regional, rather than statewide or interstate, significance
- Serves both access and mobility functions
- Provides connections to county seats

For maintenance purposes, it is classified as a state secondary route. US 421 in the study segment has a Truck Weight Class of “AAA” (80,000 pounds gross weight limit) and is part of the Coal Haul and Extended Weight Systems. It is not part of the National Highway System, the National Truck Network, the Forest Highway System, the Appalachian Development Highway System, the Bicycle Route System, or the National or Kentucky Scenic Byway System.

### D. Vehicle Crash Analysis

A total of 78 vehicle crashes were recorded with valid reference points on US 421 in the study segment during the three year and eight month period between January 1, 2000 and August 31, 2003. Thirty-three of the crashes produced injuries to at least one person, while there were no crashes resulting in fatalities. More than half of the crashes were “rear-end” collisions with sideswipe and angle crashes accounting for most of the remaining crash types. These crash types are indicative that turning movements are the major factor influencing the crash situation.

Both segment and spot crash analyses for the study segment of US 421 were conducted as depicted in Tables 4 and 5. One of the analysis segments showed a crash critical rate factor (CRF) over 1.0 as shown in Table 4. Six spot locations, both 0.1 mile and 0.3 mile lengths, produced a CRF over 1.0 with two other spots approaching the 1.0 CRF threshold. The Kentucky Transportation Center identified the US 421/KY 11/KY 2076 intersection as having a CRF of 1.50 in their research report, Crash Rates at Intersections, KTC-03-21/SPR258-03-21, dated August 2003.

**TABLE 4**  
**SEGMENT CRASH ANALYSIS 2000 - 2003**

<b>Begin MP</b>	<b>End MP</b>	<b>Segment Length</b>	<b>Functional Class Rate</b>	<b>Number of Crashes</b>	<b>HMVM</b>	<b>RC</b>	<b>Crash Rate</b>	<b>Critical Rate Factor</b>
13.692	15.751	2.059	244	78	0.3262	314	228	0.73
15.751	16.577	0.826	244	46	0.1625	344	270	0.78
16.577	16.915	0.338	244	43	0.0600	412	683	<b>1.66</b>

Source: Highway Information System (HIS) Database, KYTC and Analysis of Traffic Accident Data in Kentucky (2000 – 2003) Kentucky Transportation Center, September 2004

**TABLE 5  
SPOT CRASH ANALYSIS 2000 – 2003**

<b>Begin MP</b>	<b>End MP</b>	<b>Spot Length</b>	<b>Functional Class Rate</b>	<b>Number of Crashes</b>	<b>MVM</b>	<b>RC</b>	<b>Crash Rate</b>	<b>Critical Rate Factor</b>
13.7	14.0	0.3	0.73	16	15.84	1.31	1.01	0.77
14.0	14.3	0.3	0.73	20	15.84	1.31	1.26	<b>0.96</b>
15.0	15.3	0.3	0.73	21	15.84	1.31	1.33	<b>1.01</b>
13.9	14.0	0.1	0.24	12	15.84	0.59	0.76	<b>1.29</b>
15.0	15.1	0.1	0.24	12	15.84	0.59	0.76	<b>1.29</b>
15.3	15.4	0.1	0.24	10	15.84	0.59	0.63	<b>1.07</b>
15.5	15.6	0.1	0.24	10	15.84	0.59	0.63	<b>1.07</b>
15.6	15.7	0.1	0.24	10	15.84	0.59	0.63	<b>1.07</b>

Source: Highway Information System (HIS) Database, KYTC and Analysis of Traffic Accident Data in Kentucky (2000 – 2003) Kentucky Transportation Center, September 2004

**E. Traffic and Level of Service**

The average daily traffic volume (ADT) in the year 2002 varied from about 12,400 vehicles at the southern most section of the project to around 14,000 vehicles at the US 421/ KY 11/ KY 2076 intersection (Table 6 and, in Appendix A, Exhibit 2). Projected future year (2030) average daily traffic volumes, based on an annual growth rate of three percent, range from about 20,000 vehicles at the southern most section to 23,000 vehicles at the northern termini (Table 7 and, in Appendix A, Exhibit 3). Current and projected future year truck volumes are approximately twelve percent of total vehicular traffic.

**TABLE 6  
CURRENT (2002) AND PROJECTED FUTURE YEAR (2030)  
AVERAGE DAILY TRAFFIC VOLUMES**

<b>Route</b>	<b>Begin Point</b>	<b>Begin MP</b>	<b>End Point</b>	<b>End MP</b>	<b>2002 ADT</b>	<b>2030 ADT</b>
US 421	KY 149	13.692	KY 11	15.751	12,400	20,100
US 421	KY 11	15.751	Horse Creek Bridge	16.577	15,400	24,900
US 421	Horse Creek Bridge	16.577	KY 11, KY 80, & KY 2076	16.915	13,900	22,500

Source: Highway Information System (HIS) Database, KYTC

For purposes of Level of Service (LOS) determination, the study segment of US 421 is considered to be a Class I highway. As shown in Table 7, the LOS is defined in terms of the percent of time spent by one vehicle following another.

**TABLE 7  
LOS CRITERIA FOR TWO-LANE HIGHWAYS IN CLASS I**

<b>Level of Service</b>	<b>Percent Time-Spent-Following</b>
A	< 35
B	>35 but <50
C	>50 but <65
D	>65 but <80
E	>80
F	Flow rate exceeds the segment capacity

Given the high traffic volumes along the study segment of US 421, one would expect a relatively poor LOS and that indeed is the case. Tables 8 and 9 indicate the current year (2002) and future year (2030) LOS for US 421.

**TABLE 8  
EXISTING LEVEL OF SERVICE (2002)**

<b>Section</b>	<b>Begin MP</b>	<b>End MP</b>	<b>Segment Length</b>	<b>Average Travel Speed*</b>	<b>Percent Time Spent Following*</b>	<b>V/C</b>	<b>LOS</b>
1	13.692	15.751	2.059	33.2	72.1	0.45	E
2	15.751	16.577	0.826	28.1	79.4	0.55	E
3	16.577	16.915	0.338	29.4	76.0	0.50	E

Source: Highway Capacity Manual 2000 Chapter 20 (See LOS Criteria in Table 7)

\* Based on BFFS of 50 mph and 20 access points per mile (Section 1 = 10 access points per mile)

**TABLE 9  
FUTURE LEVEL OF SERVICE (2030)\*\***

<b>Section</b>	<b>Begin MP</b>	<b>End MP</b>	<b>Segment Length</b>	<b>Average Travel Speed*</b>	<b>Percent Time Spent Following*</b>	<b>V/C</b>	<b>LOS</b>
1	13.692	15.751	2.059	26.4	87.1	0.72	E
2	15.751	16.577	0.826	19.6	92.0	0.90	F
3	16.577	16.915	0.338	21.8	89.7	0.81	E

Source: Highway Capacity Manual 2000 Chapter 20 (See LOS Criteria in Table 9)

\* Based on BFFS of 50 mph and 20 access points per mile (Section 1 = 10 access points per mile)

\*\* Without corridor improvements

### **III. CABINET, PUBLIC, AND AGENCY INPUT**

#### **A. Project Team Meeting**

A pre-design scoping study project team meeting was conducted on April 6, 2004. The purpose of this meeting was to discuss the project and to assist in determining issues and concerns to be addressed in the study. A copy of the meeting minutes is included in Appendix C. Issues and concerns discussed by the team with observations and conclusions are as follows:

- The consensus of the team was that the general project area should be expanded to include the section between the Hal Rogers Parkway overpass to the US 421/ KY 11/KY 2076 intersection.
- The primary goals are to address safety and traffic flow problems created by unlimited access points and dangerous intersections. The short sight distances, narrow cross section, and increasing congestion problems of the roadway increase these problems.
- Potential benefits of the project include:
  - Improved safety resulting from increased sight distance, increased stopping sight distance, and a wider roadway cross section.
  - Improved safety by limiting access and the construction of turning lanes throughout the corridor.
  - Better access from Barbourville via KY 11 to the Hal Rogers Parkway.
  - Potentially improved access to areas of economic growth if the US 421 corridor were improved.
- KYTC will solicit the assistance of the Cumberland Valley Area Development District in obtaining information pertaining to Environmental Justice.
- No previous reports have been found, and improvements are needed even though the bypass project has been deauthorized and other projects impacting this corridor have been put on hold.
- The Environmental Footprint Area will be an approximate 1000-foot band around the corridor as agreed on by the team. There seems to be limited historical and cultural impacts within this boundary.
- After discussion relating to probable design criteria within the corridor, the team agreed to recommend design criteria as follows:
  - The functional classification of US 421 in Clay county is currently a rural major collector. The project team does not expect this to change as a result of improvements to the roadway.
  - The design year for this study will be 2030. The maximum traffic in 2030 is estimated to be in the range from 20,000 to 25,000 ADT and 740 to 920 DHV.
  - The expected design speed will be 45 mph to match the posted speed limit.
  - The typical cross-section for rural collector roads with an ADT of 2000 or greater is 12-foot lanes with 8-foot shoulders. The team agreed that due to the unlimited access characteristic

of the current traffic on US 421, a curb and gutter cross section with sidewalks would be recommended to control the access.

➤ The restricting points in this corridor are the two bridges and the Hal Rogers Parkway overpass; however this bridge overpass will likely have to be retrofitted to accommodate any future lane configurations. The other two bridges will need reconstruction also.

- The team did not identify an applicable ITS solution for this project.
- The team agreed that any needs for bicycle/pedestrian traffic would be provided for by the cross sections of 10 foot paved shoulders and/or the sidewalks in the school areas.

## **B. Local Officials and Stakeholder Meetings**

No public meetings were held during the course of this study until further project development phases are funded. Communication through the local officials and stakeholders was obtained through the resource agency mailings.

## **C. Resource Agency Coordination**

Early agency coordination letters were sent to various resource agencies, interested organizations, local officials, and internal Cabinet offices to obtain input and comments regarding the potential impacts associated with this project. Copies of request letters, mailing list, and the responses are included in Appendix D. Issues identified and concerns raised as a result of this process include:

- Geotechnical Engineering Branch, KYTC Division of Structural Design (formerly under Division of Materials): underground mining has occurred along the existing US 421/KY 80 route; widening of cut sections should be held to a minimum to avoid existing mines and adits; backfilling of any mine adits encountered during construction; special construction techniques in the cut areas such as lined limestone ditches and detention basins will likely be necessary if existing mines and/or adits are encountered; embankment benching may be required in existing fill sections if new fill material is placed over existing embankments.
- Kentucky State Nature Preserves Commission, Natural Resources and Environmental Protection Cabinet: the potential presence of Appalachian rosinweed (*Siliphium wasiotense*) listed as a KSNPC-monitored plant.
- Natural Resources Conservation Service, U.S. Department of Agriculture: expressed a general concern about potential impacts on prime farmland soils and farmlands of statewide importance.

- Division of Air Quality, Department for Environmental Protection: noted general concerns about Fugitive Emissions, open burning, and air quality conformity. (Note: Clay County is not currently listed as a non-attainment area).
- Division of Conservation, Environmental and Public Protection Cabinet: expressed a general concern about loss of farmland and control of erosion and sedimentation, recommend use of best management practices (BMPs).
- Kentucky Geological Survey, University of Kentucky: general comments, similar to those of the Geotechnical Engineering Branch of the KYTC Division of Materials.
- Permits Branch, KYTC Division of Traffic Operations: urges that if roadway is significantly reconstructed it be as a partially controlled access facility and discusses procedural requirements if this happens; recommends that design speed used in subsequent project development phases be the same as anticipated posted speed; recommends construction of access control fence; recommends early notification if proposed roadway is to be on the National Highway System (N.H.S.).
- KYTC Department of Vehicle Enforcement: support concept of project and accommodation for large commercial vehicles.
- Kentucky Department of Travel: preserve all historical and natural assets to ensure that such properties of interest are not negatively impacted.
- United States Fish and Wildlife Service: information on internet site identifies the Indiana Bat, *Myotis sodalis*, as an endangered species candidate.
- Kentucky Airport Zoning Commission: requires a permit if any construction exceeds 200 feet in height.
- Centers for Disease Control and Prevention, Public Health Service, U. S. Department of Health and Human Services: outlined issues that they want considered as a part of future project development phases, including air quality, water quality and quantity; wetlands and floodplains, hazardous materials and wastes, non-hazardous solid wastes and other materials, noise, occupational health and safety, land use and housing, and environmental justice.
- Clay County Fiscal Court: supported concept of project to improve overall transportation system, outlined potential economic benefits



for the area, concerned with safety issues with nearby schools and potential for additional accidents without improvements.

- The following agencies responded to KYTC’s solicitation for comments, but indicated that they had none at this time:
  - Department for Surface Mining Reclamation and Enforcement
  - United States Coast Guard
  - Department of Fish & Wildlife Resources
  - Department of Agriculture
  - Department of Natural Resources
  - Department for Workforce Investment
  - Department of Parks
  - Kentucky State Police

## **IV. ENVIRONMENTAL AND SOCIOECONOMIC OVERVIEW**

### **A. Environmental Footprint**

The Division of Planning developed an Environmental Footprint as shown on Exhibit 5 in Appendix E. The Division of Environmental Analysis has not completed their review of identifying issues possibly requiring particular consideration in subsequent project development phases. Once that information becomes available, it will be added to this report as a supplemental document.

### **B. Environmental Justice**

The Cumberland Valley Area Development District (CVADD) conducted a review of the 2000 Census data for the purpose of identifying environmental justice and community impact issues. The purpose of this review was to assist the Kentucky Transportation Cabinet in meeting the requirements of Federal Executive Order (EO) 12898, which states that “...each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations...” and hence to ensure equal environmental protection to all groups potentially impacted by the US 421 project. Although EO 12898 does not specifically address consideration of the elderly population, the U. S. Department of Transportation encourages the consideration of this demographic subset in Environmental Justice discussions. A copy of CVADD’s Environmental Justice and Community Impact Report is included in Appendix F.

The CVADD study concludes that the potential for disproportionately high and/or adverse affects on minority populations impacted by the US 421 project is very small. A significant concentration of minority persons exists in Census Tract 9503 which is attributed to those individuals incarcerated in the Federal Correctional Institute of Manchester. An additional concentration of minority population was discovered in Census Tract 9503, Block Group 5,

however, it is anticipated that the area will not be impacted by the proposed project.

The population below poverty level for Clay County and all Census Tracts and Block Groups in and around the study area significantly exceeds national and state averages. No areas with a potential concentration of persons age 62 and over along the US 421 corridor were identified.

Economic distress is the most important issue affecting Clay County today. The county continues to experience significant unemployment, low income levels and high poverty rates. While the population below poverty level in surrounding southeastern Kentucky counties also exceeds state and national averages, a comparison of the data shows that Clay County is an extreme case.

## **V. TERMINI AND LENGTH**

As indicated above, the project termini were defined to be the intersection of US 421, KY 11, KY 80, and KY 2076 on the north and the intersection of US 421 and KY 149 on the south, a distance of 3.2 miles along the existing route.

## **VI. DRAFT PROJECT GOALS**

The existing and projected future traffic volumes along the study segment of US 421 indicate systemic congestion problems, and it does appear that additional lanes of travel are needed. Currently, the LOS for the study segment is E. Traffic flow conditions are congested with frequent platooning of vehicles and added interruptions from the existing minimal access restrictions throughout the study corridor. This has resulted in a high number of crashes with 70% of those being rear end or angle type collisions.

The somewhat unique mixture of vehicular traffic composition traveling on the existing unrestricted access and narrow lanes creates a roadway environment of less than optimal safety conditions. Therefore, improving safety for all roadway users and improving congestion are the principal project goals.

## **VII. RECOMMENDATIONS**

### **A. Geometric Design Features**

Probable design criteria were discussed by the US 421 project team, which agreed to the following recommendations:

- The functional classification of US 421 in Clay County is currently rural major collector. The project team does not expect this to change as a result of improvements to the roadway.

- The design year for this study will be 2030. The average projected daily vehicular traffic in 2030 ranges from about 20,000 vehicles just north of KY 149 to about 25,000 vehicles near the main intersections of US 421, KY 80, KY 11, and KY 2076 (Table 6 and, in Appendix A, Exhibit 3) with design hour volumes (DHV) of approximately 740 to 920, respectively.
- The expected design speed will be 45 mph to match the posted speed limit.
- The typical cross-section for rural collector roads with an ADT of 2000 or greater is 12-foot lanes with 8-foot shoulders. The US 421 project team agreed that, due to the unique character of the traffic on US 421, a curb and gutter section similar to a section north of town towards McKee would be recommended. A 3-lane section would continue south throughout the project study area until you reached the Save-A-Lot store in the vicinity of the airport. It would then be tapered to a 2-lane section with paved shoulders and a turn lane constructed at the KY 149 intersection. Also, 4 and 5-lane sections would be analyzed for constructability and cost.

## **B. Priority Segments**

The US 421 project team recommended that the priority segments should begin at the intersection of US 421, KY 80, KY11, and KY 2076 and extend to the south. This coincides with the termini of the proposed Manchester Bypass. There are two options for the first segment. Cost estimates for these segments and alternatives are depicted in Table 10.

## **C. Cost Estimates**

For study purposes, three alternative cost estimates for the priority section (Segment 1) were considered. One of these estimates is for a 3-lane section with a continuous left turn option with paved shoulders. As shown in Table 10, the phase cost estimates for this alternative are as follows:

### Segment 1, 3-Lane Option

Design:	\$1,000,000
Right-of-Way:	\$4,500,000
Utilities:	\$1,000,000
Construction:	\$8,000,000
 Total:	 \$14,500,000

For the 4-lane option construction cost estimate for segment 1, no decision was made at this stage regarding the retrofitting of the 2 bridges on this segment. This decision would be made during the Design phase. The study cost estimate, however, assumes that these 2 bridges would be rebuilt to current design standards. Further, since no public meetings or hearings were conducted as a part

**TABLE 10  
COST ESTIMATES BY SEGMENT**

Segment Number	SEGMENT DESCRIPTION		TYPE OF IMPROVEMENT	APPROXIMATE LENGTH (MILES)	PHASE COST ESTIMATES (Millions)				Total Cost Estimate (Millions)	Estimated Cost per Mile (Millions)
	NORTHERN TERMINUS	SOUTHERN TERMINUS			Phase II Design	R/W	Utilities	Construction		
1	KY 11 / KY 2076	US 421 - MP 14.79	Widen to 3-Lane section with continuous turning lane	2.1	\$1.00	\$4.50	\$1.00	\$8.00	\$14.50	\$6.81
1	KY 11 / KY 2076	US 421 MP - 14.79	4-Lane Section Reconstruction	2.1	\$1.00	\$5.00	\$1.00	\$9.00	\$16.00	\$7.51
1	KY 11 / KY 2076	US 421 MP - 14.79	5-Lane Section Reconstruction	2.1	\$1.00	\$6.00	\$1.00	\$10.00	\$18.00	\$8.45
2	US 421 MP - 14.79	KY 149	Widen to 3-Lane section with continuous turning lane	1.1	\$0.50	\$2.00	\$0.50	\$3.00	\$6.00	\$5.45
2	US 421 MP - 14.79	KY 149	2-Lane with full paved shoulders with turning lane at KY 149	1.1	\$0.50	\$1.50	\$0.50	\$2.50	\$5.00	\$4.55

of this limited analysis, an assumption is made that US 421 would be reconstructed along the existing alignment. This, too, is a decision that would be made during the Project Planning/Location Approval phase of any subsequent project development activities. The cost estimate is as follows:

Segment 1, 4-Lane Option

Design:	\$1,000,000
Right-of-Way:	\$5,000,000
Utilities:	\$1,000,000
Construction:	\$9,000,000
Total:	\$16,000,000

The 5-lane section would pose various issues in constructability under the Hal Rogers Parkway and increased construction cost for the two existing bridges. The configuration would also require a substantial amount of right-of-way and encroach on numerous businesses and property owners. The cost estimate for this alternative is as follows:

Segment 1, 5-Lane Option

Design:	\$1,000,000
Right-of-Way:	\$6,000,000
Utilities:	\$1,000,000
Construction:	\$10,000,000
Total:	\$18,000,000

One of the alternatives for priority segment 2 is similar to the first alternative on segment 1, which is based on a 3-lane section with a continuous left turn option. This segment is approximately 1 mile in length. As shown in Table 10, the phase cost estimates for this alternative are as follows:

Segment 2, Full 3-Lane Option

Design:	\$500,000
Right-of-Way:	\$2,000,000
Utilities:	\$500,000
Construction:	\$3,000,000
Total:	\$6,000,000

The other priority segment 2 estimate is based on a 2-lane section with paved shoulders and a left turn lane at the KY 149 intersection. As shown in Table 10, the phase cost estimates for this alternative are as follows:

### Segment 2, Full 2-Lane Option

Design:	\$500,000
Right-of-Way:	\$1,500,000
Utilities:	\$500,000
Construction:	\$2,500,000
Total:	\$5,000,000

#### **D. Recommendation**

The original project length was 2.1 miles; however, the project team decided to extend the northern termini to a more logical location at the intersection with KY 11/KY 2076 for a total length of 3.1 miles. The project team agreed that the typical section for priority segment 1 should be a 3-lane curb and gutter configuration with sidewalks. The continuous turning lane should accommodate those making turning movements throughout the highly congested developed area thus possibly reducing the high number of crashes that are occurring. Additionally, right turn lanes would be constructed at the KY 11 intersection. Table 10 shows the estimated cost of this section to be \$14,500,000, including reconstruction of the 2 existing bridges. Priority segment 2 would be a 2-lane section with full paved shoulders and construction of turn lanes at the KY 149 intersection. Table 10 shows the estimated cost of this section to be \$5,000,000.

The 3-lane recommendation should enhance the existing facility, avoid extensive relocations, and minimize additional right of way acquisition. Restricting access with the curb and gutter sections will reduce the entrance points throughout the corridor. This configuration is expected to significantly reduce the number of crashes and conflict opportunities. The center turn lane should also help to alleviate the potential for congestion and improve service flow into the design year. The LOS for a 3-lane section can not be determined empirically, however, providing for turning lanes and storage capacity should be beneficial in reducing congestion and providing an improvement in safety.

### **VIII. ACKNOWLEDGEMENTS**

Appreciation is herewith expressed to Greene Keith, Joel Holcomb, Quentin Smith, Arthur Smallwood, Adam Knuckles, Dean Croft, Michael West, and Sandy Rudder of District 11, to Clay McKnight of the Cumberland Valley Area Development District, to Charlie Spalding with the Division of Planning, and the Division of Environmental Analysis for their participation in the Project Team meeting and field inspection, providing cost estimates, preparation of graphics for this report, environmental footprint, and for development and reporting of environmental justice and community impact information.

## **IX. CONTACTS**

The following persons may be contacted if additional information is needed concerning the project or the pre-design scoping study process:

- Daryl J. Greer, P.E., Director, Division of Planning
- Jim Wilson, P.E., Team Leader, Strategic Planning Activity Center, Division of Planning
- David Martin, P.E., Project Manager, Strategic Planning Activity Center, Division of Planning

The following address and phone number may be used:

Division of Planning  
Kentucky Transportation Cabinet  
Transportation Office Building  
200 Mero Street, Station W5-05-01  
Frankfort, KY 40622  
Phone: (502) 564-7183

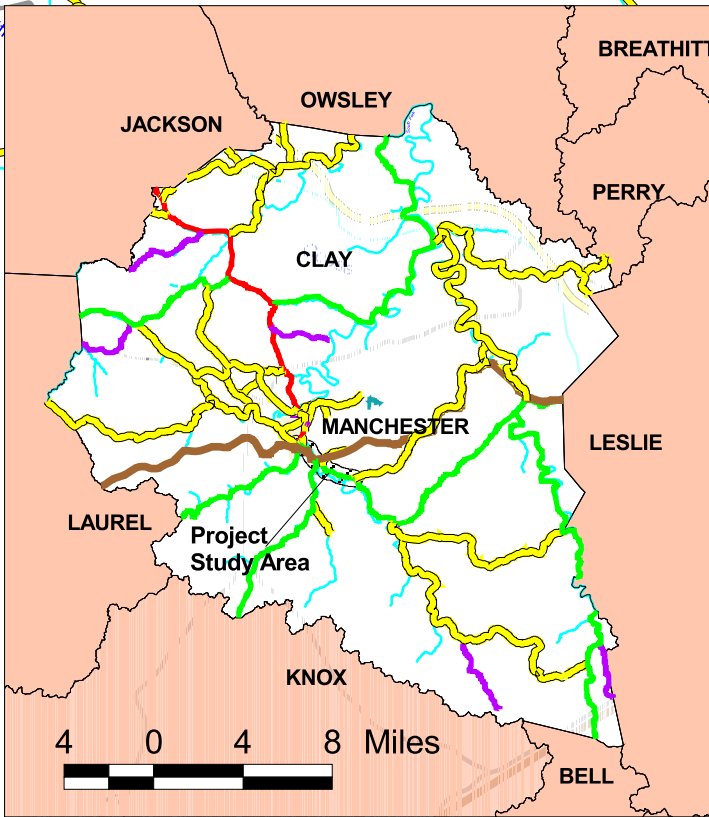
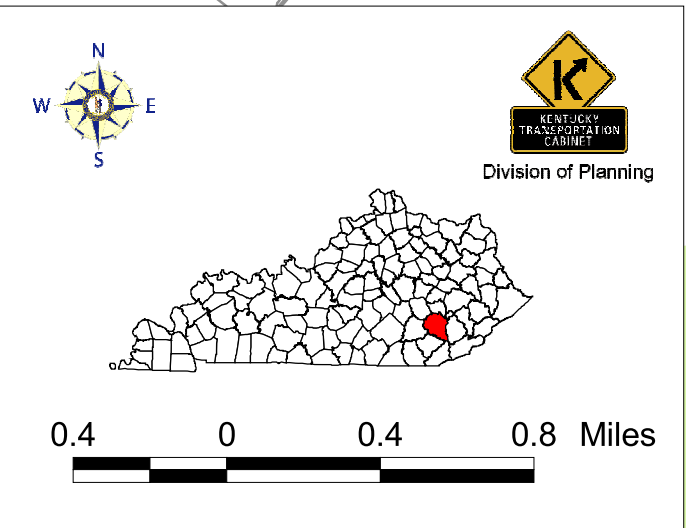
# Project Location

Clay County

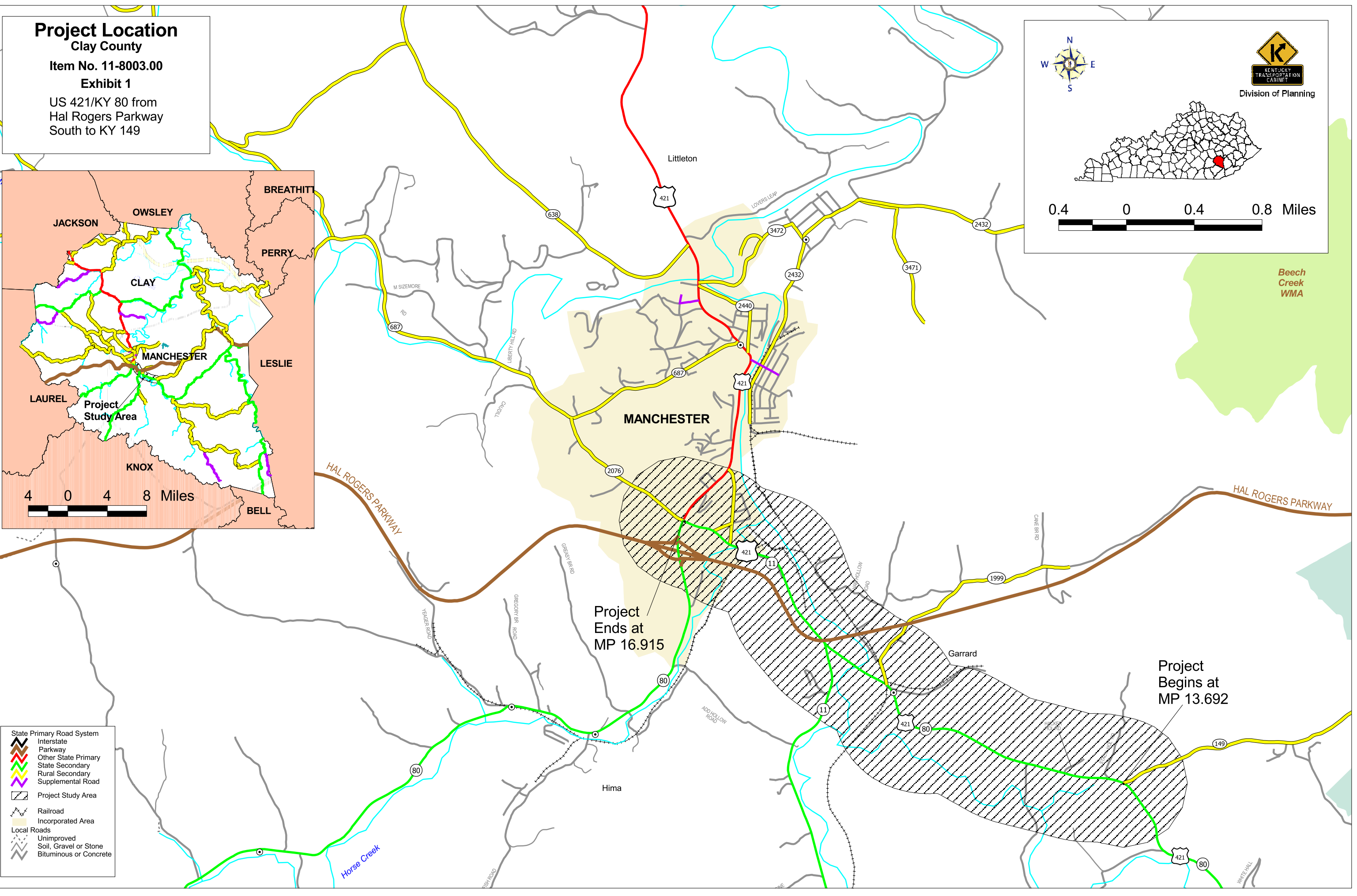
Item No. 11-8003.00

Exhibit 1

US 421/KY 80 from  
Hal Rogers Parkway  
South to KY 149



- State Primary Road System
  - Interstate
  - Parkway
  - Other State Primary
  - State Secondary
  - Rural Secondary
  - Supplemental Road
- Project Study Area
- Railroad
- Incorporated Area
- Local Roads
  - Unimproved
  - Soil, Gravel or Stone
  - Bituminous or Concrete





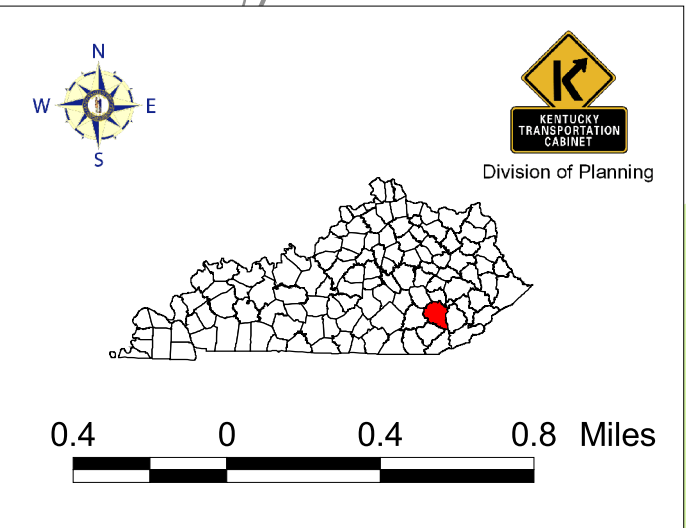
# Year 2002 Traffic and Level of Service

Clay County

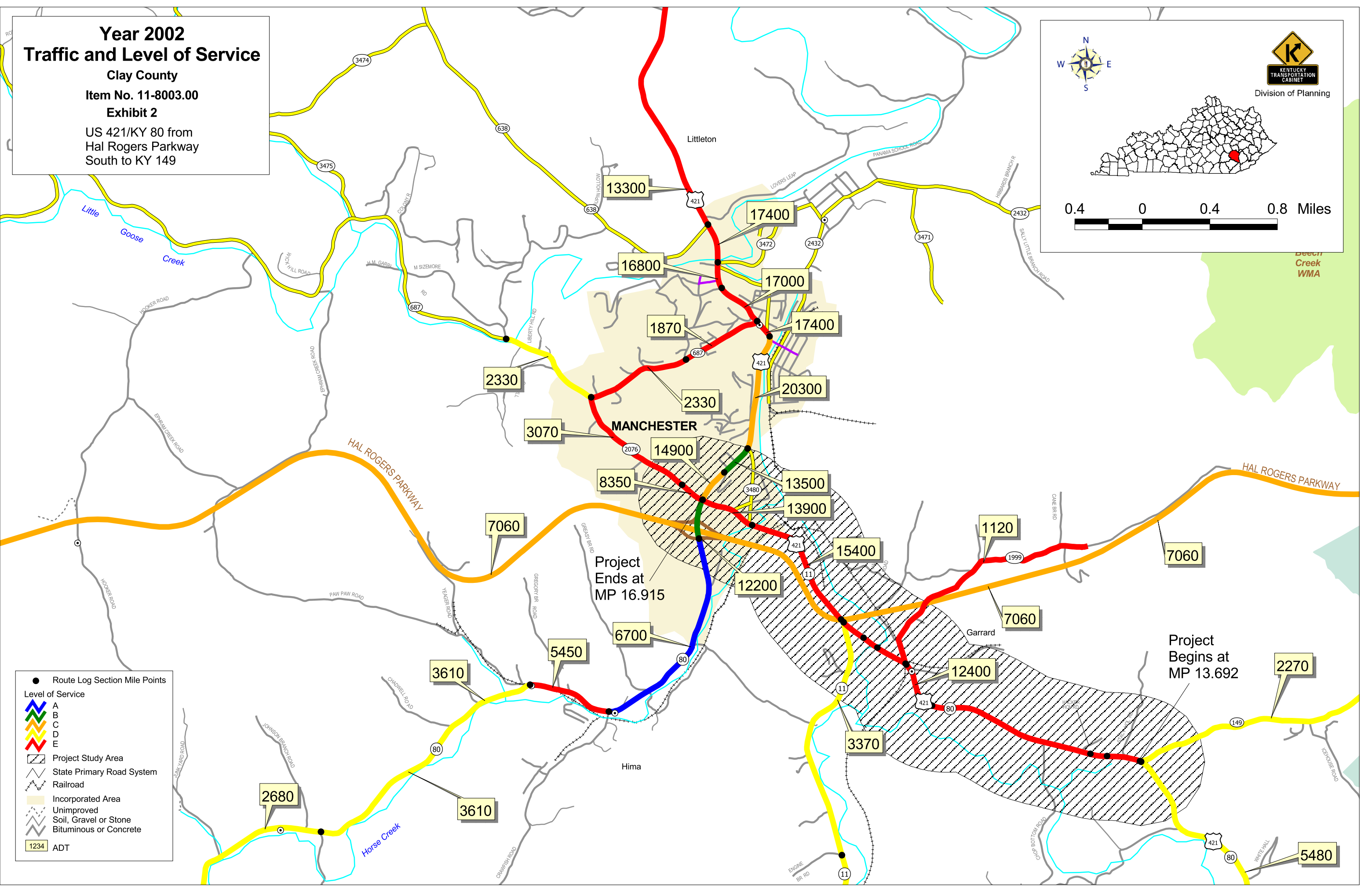
Item No. 11-8003.00

Exhibit 2

US 421/KY 80 from  
Hal Rogers Parkway  
South to KY 149



- Route Log Section Mile Points
- Level of Service
  - A (Blue line)
  - B (Green line)
  - C (Yellow line)
  - D (Orange line)
  - E (Red line)
- ▨ Project Study Area
- State Primary Road System
- Railroad
- Incorporated Area
- ▨ Unimproved
- ▨ Soil, Gravel or Stone
- ▨ Bituminous or Concrete
- 1234 ADT



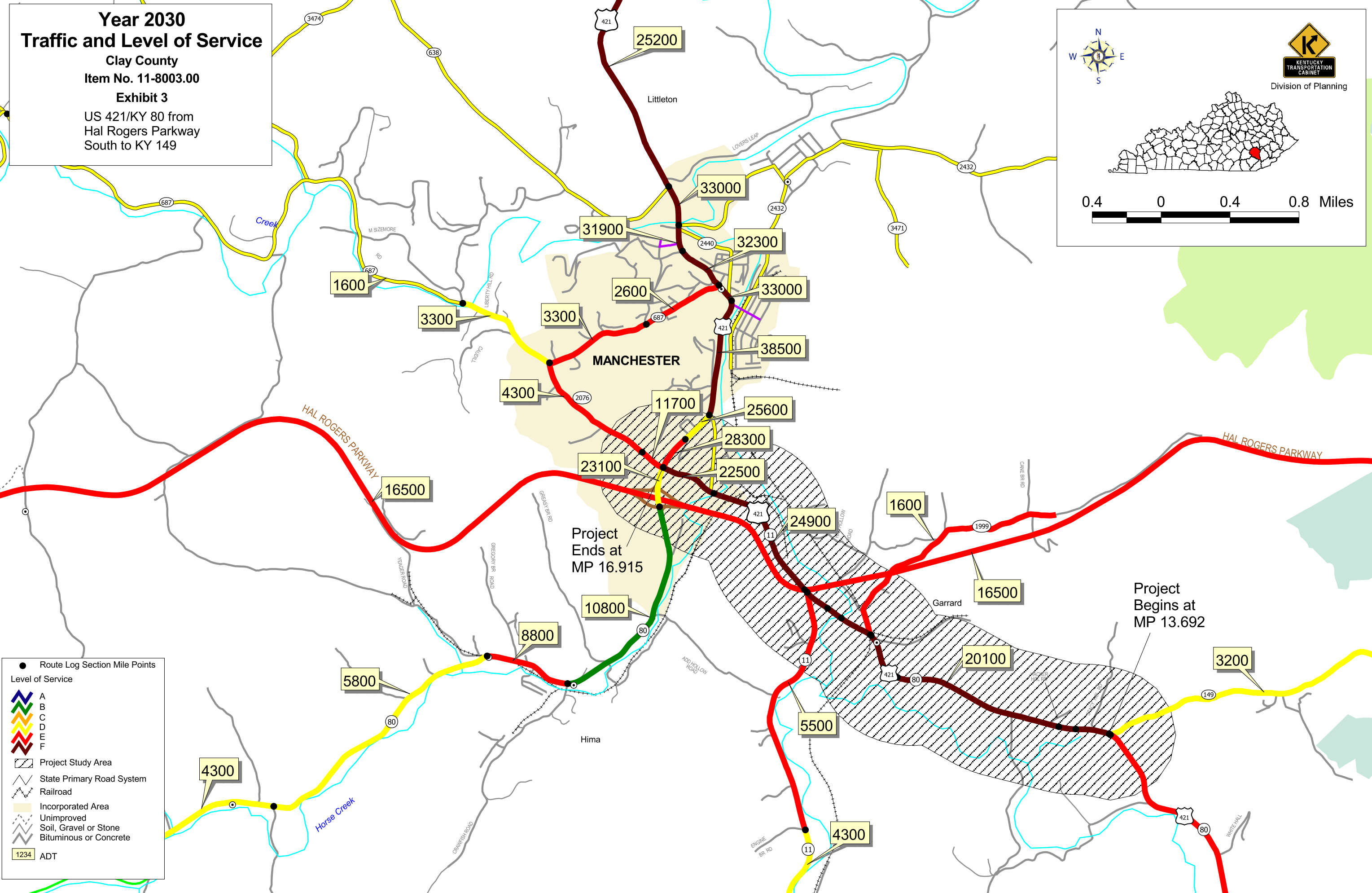
# Year 2030 Traffic and Level of Service

Clay County  
Item No. 11-8003.00

Exhibit 3  
US 421/KY 80 from  
Hal Rogers Parkway  
South to KY 149

Division of Planning

0.4 0 0.4 0.8 Miles



● Route Log Section Mile Points

Level of Service

- A
- B
- C
- D
- E
- F

- Project Study Area
- State Primary Road System
- Railroad
- Incorporated Area
- Unimproved
- Soil, Gravel or Stone
- Bituminous or Concrete

ADT

# Vehicle Crash Information

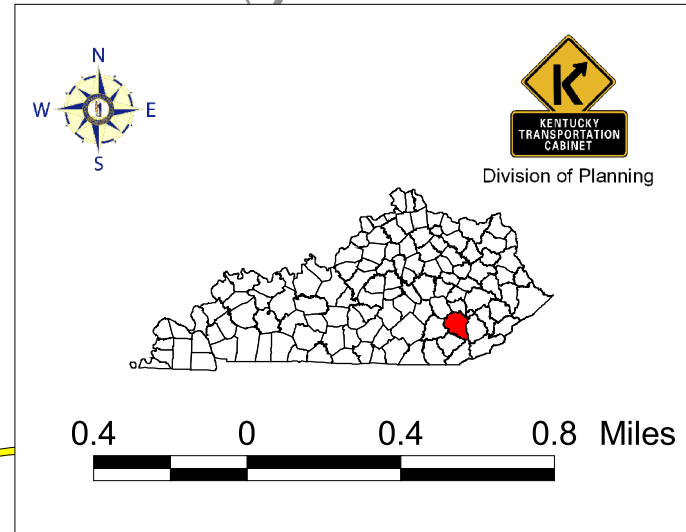
January 2000 - August 2003

Clay County

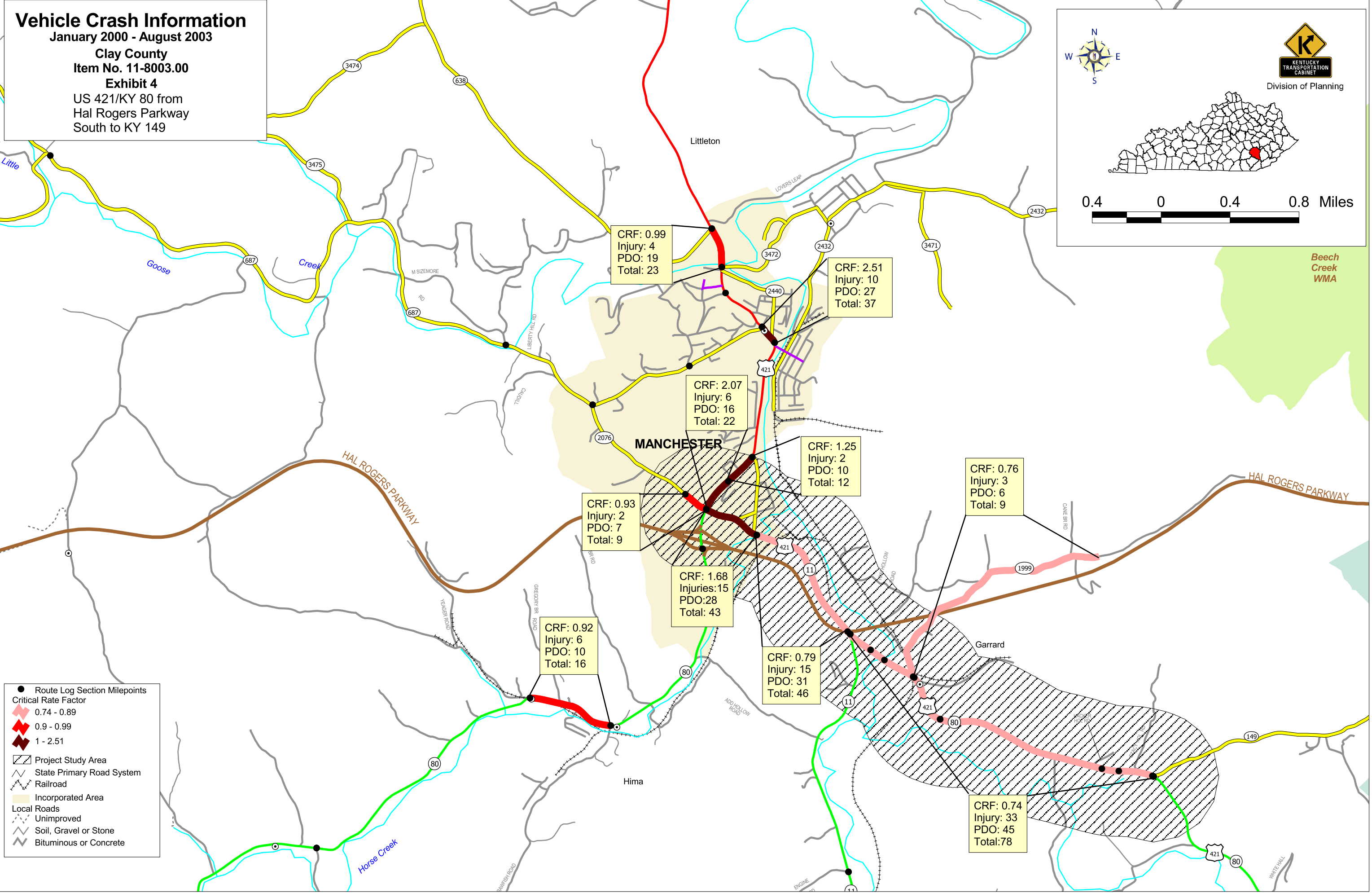
Item No. 11-8003.00

Exhibit 4

US 421/KY 80 from  
Hal Rogers Parkway  
South to KY 149



- Route Log Section Milepoints
- Critical Rate Factor
- 0.74 - 0.89
- 0.9 - 0.99
- 1 - 2.51
- Project Study Area
- State Primary Road System
- Railroad
- Incorporated Area
- Local Roads
- Unimproved
- Soil, Gravel or Stone
- Bituminous or Concrete



Beech Creek WMA

MANCHESTER

Littleton

Hima

Garrard

Little

Goose

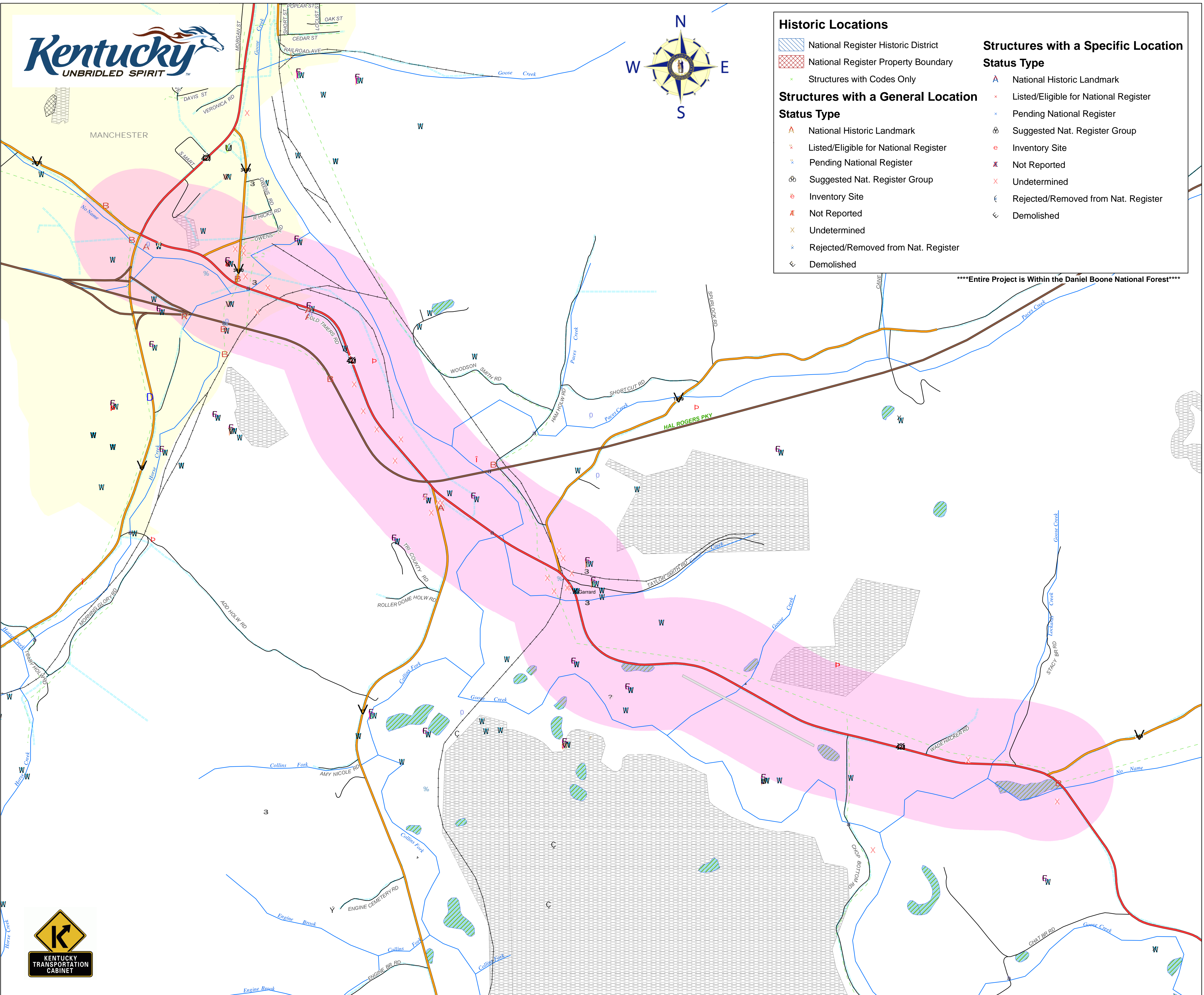
Creek

HAL ROGERS PARKWAY

HAL ROGERS PARKWAY

Horse Creek





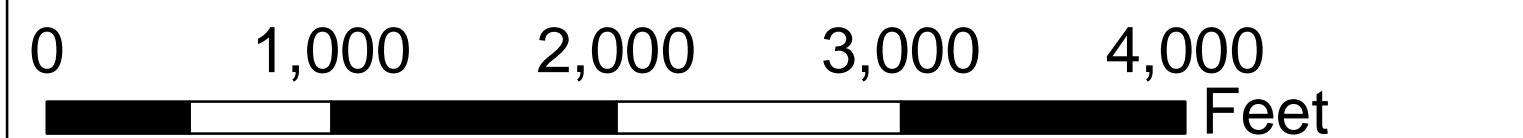
Historic Locations		Structures with a Specific Location Status Type	
	National Register Historic District		National Historic Landmark
	National Register Property Boundary		Listed/Eligible for National Register
	Structures with Codes Only		Pending National Register
Structures with a General Location Status Type			Suggested Nat. Register Group
	National Historic Landmark		Inventory Site
	Listed/Eligible for National Register		Not Reported
	Pending National Register		Undetermined
	Suggested Nat. Register Group		Rejected/Removed from Nat. Register
	Inventory Site		Demolished
	Not Reported		
	Undetermined		
	Rejected/Removed from Nat. Register		
	Demolished		

Environmental Legend			
	Project Study Area		Karst Sites
	Interstate		Water Withdrawals
	Parkway		Outstanding Waters
	US Highway		Karst Sinking Stream
	State Road		KPDES Outfall
	Local Road		KPDES Facility
	Bridge		GW Monitoring Wells
	Active		Small Mining Operations (SOAP)
	Abandoned/Removed		Mine Shaft
	Abandoned Rail (LRC)		Coal Exploration Sites
	County Line		DSMRE Pending Mining Permit
	City/Town Area		DSMRE Active Coal Mines
	Airport		NonCoal Quarry
	Bus Station		Active Mining Operations (Non-Coal)
	Coal Tipple		Acid Mine Drainage
	Other		Coal Mine Permit Boundary
	Passenger Rail		Mined Out Areas
	Rail		HollowFills
	Riverport		Silt
	Airport Runways		Spoil
	Cemetery		Waste
	Church		Hydrologic Investigations
	Dam		Impoundments
	Hospital		USGS Gauges
	Post Office		NREPC KY Facilities Index Site
	Small Community		100 YR Flood
	School		SuperFund Sites
	GW Springs		NREPC KY Facilities Index Facility
	GW Wells		Faults
	Surface Water Source		Oil & Gas
	Public Well Source		Landfill
	Water Tanks		Old Landfill
	Water Treatment Plants		Old Tire Dump
	Lift Station		SuperFund Boundary
	Package Treatment Plants		Stream
	Water Meters		Wetlands
	Pump Stations		Lake
	Water Purchase Source		Wild River
	Sewer Treatment Plants		Karst Lake
	Water Pump		Land Stewardship
	Water Lines		DBNF Declared Boundary
	Sewer Lines		

**US 421 PRE-DESIGN SCOPING STUDY ENVIRONMENTAL FOOTPRINT**

MANCHESTER CLAY COUNTY  
EXHIBIT 5 Item No. 11-8003.00

Kentucky Transportation Cabinet  
Department of Highways  
Division of Planning





NORTHEAST VIEW OF US 421 AND KY 149 INTERSECTION



NORTHWEST VIEW OF US 421 AND KY 149 INTERSECTION



LOOKING NORTH AT KY 1999 INTERSECTION



SOUTHEAST VIEW FROM GOOSE CREEK BRIDGE





KY 11 INTERSECTION WITH HAL ROGERS PARKWAY  
OVERPASS IN BACKGROUND



KY 11 INTERSECTION WITH HAL ROGERS PARKWAY  
OVERPASS IN BACKGROUND



SOUTH VIEW FROM KY 11 INTERSECTION – OLD GAS STATION



PACES CREEK ELEMENTARY SCHOOL ON US 421





POSSIBLE HISTORICAL STRUCTURE



SOUTHEAST VIEW OF HORSE CREEK BRIDGE



NORTHWEST VIEW NEAR HORSE CREEK BRIDGE



US 421/KY 80 INTERSECTION WITH KY 11 AND KY 2076



Final Minutes – Initial Project Team Meeting  
US 421, Item No. 11-8003.00  
April 6, 2004  
District 11 Conference Room, Manchester, Kentucky

The meeting began at approximately 10:30 AM EDT. Those attending were:

Greene Keith	KYTC-District 11-Planning
Joel Holcomb	KYTC-District 11-Pre-Construction
Arthur Smallwood	KYTC-District 11-Construction
Quentin Smith	KYTC-District 11-Design
Adam Knuckles	KYTC-District 11-Design
Dean Croft	KYTC-District 11-Environmental
Michael West	KYTC-District 11-Traffic
Sandy Rudder	KYTC-District 11-PIO
Jimmy Wilson	KYTC-Central Office-Planning
David Martin	KYTC-Central Office-Planning

Introduction / Purpose - David Martin opened the meeting with introductions and described the project as a pre-design scoping study to widen US 421 / KY 80 to three lanes from the Daniel Boone (Hal Rogers) Parkway south to KY 149 (Lockards Creek Road) in Clay County.

Project Origination - A brief history of the project was discussed and Joel Holcomb believed that Senator Robert Stivers recommended this project for inclusion in the Six-Year Highway Plan (SYP). Discussions on the project revealed that the termini in the SYP did not seem logical in relation to the congestion situation. This could have been either an oversight on milepoint determination or affected by the proposed Manchester bypass project area termination.

As listed in the FY 2003-2008 Six-Year Highway Plan (SYP), this project is state funded for design in FY 2005 with an amount of \$1,000,000. In the new draft SYP right-of-way and utility phases are added in the amounts of \$6,000,000 and \$1,500,000, respectively. This study will be conducted in-house by the Central Office Division of Planning.

#### Project Goals and Objectives

Handouts were provided from central office outlining the following information:

- HIS and Crash Information for Road Network around the Project Area
- Project Location Map
- 2002 Traffic and Level of Service Map
- 2030 Traffic and Level of Service Map
- Vehicle Crash Information Map
- Project Study Area Summary of Crash Types

Final Minutes – Initial Project Team Meeting  
US 421, Item No. 11-8003.00  
April 6, 2004  
District 11 Conference Room, Manchester, Kentucky

David Martin briefly reviewed the handouts and pointed out a few items of interest. It appeared that congestion was a major issue with approximately 12,400 vehicles per day travelling the project area roadway, thus resulting in a Level of Service E, and that accidents were heavy but noting that the Critical Rate Factor (CRF), as a segment, was less than 1.0. However, there were spot accident locations with a CRF greater than 1.0 in various locations as indicated on the tables. The majority of the accidents in the project area were rear-end and sideswipe indicating that turning movements were more than likely the major factor influencing the accident situation.

There are other roadway segments in the proximity of the project area that exceeded the statewide average for crash rates for similar roads.

It was discussed that the KYTC would look at extending the project northward to where improvements for the bypass would end near the US 421 / KY 80 / KY 11 intersection. Also, noting the uncertainty of the future bypass becoming a reality, the need to look at this project all the way to that intersection would prove beneficial.

It was agreed upon to look at extending the project to where improvements for the bypass would end near the US 421 / KY 80 / KY 11 intersection.

Joel Holcomb pointed out that right-of-way (ROW) plans for the Manchester bypass project had been submitted but the financial obligations had been deauthorized. Additionally, the project to improve the US 421 / KY 1999 intersection and railroad crossing was deleted from the current SYP. A copy of the ROW plans for the US 421 / KY 80 / KY 11 intersection under the proposed Manchester bypass was provided to Central Office planning personnel.

It was agreed upon that unlimited access along this project is a problem, but not apparent since crash rates did not indicate that it was a high rate area south of the parkway overpass. However, the CRF for the segment from the Horse Creek bridge to the US 421 / KY 80 / KY 11 intersection was 1.68 and even higher as one travels north into the downtown business area. This unlimited access was discussed and some form of access control should be incorporated. This could be accomplished by curb and gutter sections with sidewalks.

Another intersection identified as having problems was US 421 and KY 11 south towards Barbourville. The intersection CRF was 0.27 but it was noted that turning movements, predominately truck traffic, create congestion from a lack of sight distance and the volume of vehicles present. Trucks have to wait for traffic to clear going both to the parkway and south to Barbourville.

Jimmy Wilson reviewed that the goals of the project which are to increase capacity and improve safety along the route. Everyone concurred with these goals. David Martin

Final Minutes – Initial Project Team Meeting  
US 421, Item No. 11-8003.00  
April 6, 2004  
District 11 Conference Room, Manchester, Kentucky

brought up bike/pedestrian issues and it was agreed to look at sidewalks at least on one side and maybe both sides in the area of Paces Creek Elementary School.

Alternative Issues - Left turning movements are a major problem. They create backups and may be causing the rear end accidents, which show up as the majority of crash types. The left turning movements and traffic volumes are suspected to decrease once you proceed south of the Save-a-Lot store. A 3-lane section could possibly taper to 2 lanes with shoulders from this point with a turn lane constructed at the KY 149 intersection. That intersection would need to be redone to increase sight distance and improve safety. It appears that an old service station is near this intersection.

District 11 has improved a section of US 421 going north of town towards McKee to 3 lanes with curb and gutter, and it is performing well. That section of road is very similar to this project in terms of traffic flows.

It was discussed that the parkway overpass may limit the number of lanes to examine. A 5-lane section will be analyzed if there is a need. The bridges at Horse Creek and near the community of Garrard will also be controlling factors in developing alternatives and associated construction costs.

Environmental Footprint Area - David Martin brought up the environmental footprint/overview area as shown on the project location map. It was mentioned that a 1000-foot corridor around the project could catch anything that may directly impact the study. The Division of Environmental Analysis along with the Dean Croft, District 11 Environmental Coordinator will assist in compiling this environmental information. It was noted that numerous gas stations exist along the project study area. Some of the tanks have been removed while some are still functional and there may still be some unknown tanks present. The station at the intersection of KY 11 and US 421 is known to have been there at least 60 years. There may be other historic structures along the route that need to be researched.

Shopping centers and commercial property along the route were built on coal waste, which may affect geotechnical issues. The District did not know of any deep mines under the roadway area.

Greene Keith pointed out that the railroad spur behind the Paces Creek Elementary School as shown on the project location map might not be there anymore.

The County has expressed an interest in constructing a road from the Clay County Detention Center south along the existing railroad tracks towards KY 80.

The City of Manchester, at one time, considered tapping into a deep mine for a possible water source. The location of this mine was south of Garrard near the existing runway

Final Minutes – Initial Project Team Meeting  
US 421, Item No. 11-8003.00  
April 6, 2004  
District 11 Conference Room, Manchester, Kentucky

and along Lockards Creek. The District further determined that this project would likely not be pursued.

The District has concerns about how to handle 3 lanes at the two railroad crossings. Presently, the existing crossings have no gates and it was pointed out that some trains used to stop for cars at one of these crossings.

The existing two bridges along the route will have to be either redone or retrofitted. The bridge south of Garrard was noted as being approximately 20 (1983) years old while the one over Horse Creek is about 60 years old (1933).

Environmental Justice will be requested from Clay McKnight with the Cumberland Valley ADD. The district noted that there may be some low income areas but that it was probably no different from the rest of the county.

SYP Schedule - The District feels confident that this project will proceed on schedule given the fact that the bypass has been deauthorized.

Item No. 11-108.00; the reconstruction of the grade crossing on KY 1999 at the US 421 / KY 80 intersection, got pulled from the previous plan. The spur that crosses KY 1999 at this location is being redone in places and the startup of coal operations may delay this project. Some of those project objectives may be addressed within this study. The District will assist in getting the names and addresses of those impacted from this project.

Agency Coordination Needs - The typical resource agency requests will be sent out from the central office. David Martin will forward to the district the list of resource agencies so they can add any other contacts that are unique to the area. CSX should be contacted for early input into the potential planning / design impacts at the two crossings within the extended project area.

Public Involvement - Since there will be no formal public meetings setup for this project until the need for one arises considering the current budget situation. The concerns of local officials will be obtained through the resource agency mailings. If there is a need for a separate meeting with local officials, one will be arranged.

Documentation / Reports – Referencing discussion held during the meeting, the study report will examine existing roadway and traffic conditions as well as safety and environmental issues. Cost estimates will be on a typical per mile basis taking into account that reconstruction of the 2 existing bridges may greatly affect construction cost.

Final Minutes – Initial Project Team Meeting  
US 421, Item No. 11-8003.00  
April 6, 2004  
District 11 Conference Room, Manchester, Kentucky

The meeting adjourned at approximately 11:40 AM EDT.

Following the meeting, David Martin and Jimmy Wilson drove the project area in order to make further notes about existing conditions. Photographs were also taken to document conditions.



David Martin



KENTUCKY TRANSPORTATION CABINET  
FRANKFORT, KENTUCKY 40622  
WWW.KENTUCKY.GOV

ERNIE FLETCHER  
GOVERNOR

MAXWELL C. BAILEY  
SECRETARY

May 25, 2004

«Mailing\_Title» «First\_Name» «Last\_Name»«Suffix»  
«Title»  
«Organization»  
«Address1»  
«Address2»  
«City», «State» «Zip»

Dear «Letter\_Title» «Last\_Name»:

SUBJECT: Pre-Design Scoping Study  
Widen US 421/KY 80 to three lanes from the US 421/KY 80/KY 11  
intersection to KY 149, Lockards Creek Road  
Item No. 11-8003.00, Clay County

We are requesting your agency's input and comments on a planning study to determine the need and potential impacts for a proposed highway project. The Kentucky Transportation Cabinet is conducting a pre-design scoping study to evaluate the proposed widening of US 421/KY 80 to three lanes from the US 421/KY 80/KY 11 intersection in Manchester south to KY 149, Lockards Creek Road, in Clay County. The study is currently in the initial data-gathering stage.

We ask that you identify specific issues or concerns of your agency that could affect the development of the project. This planning study will include a scoping process for the early evaluation of proposed alternatives, environmental issues, and impacts related to the proposed project. We believe that early identification of issues or concerns can help us develop highway project alternatives to avoid or minimize negative impacts.

We respectfully ask that you provide us with your comments by July 12, 2004, to ensure timely progress in this planning effort.

During the development of this planning study, comments will be solicited from federal, state, and local agencies, as well as other interested persons, in accordance with principles set forth in the National Environmental Policy Act (NEPA) of 1969. The Federal Highway Administration is partnering with us in these efforts.



«Mailing\_Title» «Last\_Name»

Page 2

May 25, 2004

Other Transportation Cabinet offices may also contact you seeking more detailed data or information to assist them in completing their environmental studies for this phase of the project.

We have enclosed the following project information for your review and comment:

- Study Fact Sheet
- Project Location Map
- Year 2002 Traffic and Level of Service
- Year 2030 Traffic and Level of Service
- Vehicle Crash Information
- Highway Information Systems (HIS) Tables

We appreciate any input you can provide concerning this project. Please direct any comments, questions, or requests for additional information to David Martin of the Division of Planning at 502/564-7183 or at [charles.martin@ky.gov](mailto:charles.martin@ky.gov). Please address all written correspondence to Annette Coffey, P.E., Director, Division of Planning, Kentucky Transportation Cabinet, 200 Mero Street, Station W5-05-01, Frankfort, KY 40622.

Sincerely,



Annette Coffey, P.E.  
Director  
Division of Planning

AC:CDM:RC

Enclosures

c: Jose Sepulveda (w/e)  
Glenn Jilek (w/e)  
David Whitworth (w/e)  
Clay McKnight - CVADD (w/e)  
Kevin Damron  
Joel Holcomb  
Greene Keith  
George Best  
David Waldner  
Tom Koos (w/e)  
Dean Croft  
Sandy Rudder

Ms. LaVerne Reid  
District Manager  
Airports District Office, Federal Aviation Administration  
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American Association of Truckers  
P.O. Box 487  
Benton KY 42025

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Frankfort KY 40601

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Commissioner  
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Commissioner  
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Mr. Pat Simpson  
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Mr. Carl Campbell  
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Mr. John D. Overing  
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Capital Plaza Tower, 24 Floor  
500 Mero Street  
Frankfort KY 40601

Mr. Allan Frank  
Acting Director  
KYTC, Division of Bridge Design  
Transportation Office Building, E3-16-01  
200 Mero Street  
Frankfort KY 40622

Mr. Dexter Newman  
Director  
KYTC, Division of Construction  
Transportation Office Building, W3-06-01  
200 Mero Street  
Frankfort KY 40622

Mr. David Waldner  
Director  
KYTC, Division of Environmental Analysis  
Transportation Office Building, W5-22-02  
200 Mero Street  
Frankfort KY 40622

Mr. Wesley Glass  
Director  
KYTC, Division of Materials  
Frankfort KY 40622

Mr. Chad Larue  
Branch Manager  
KYTC, Permits Branch  
Transportation Office Building, E3-04-03  
200 Mero Street  
Frankfort KY 40622

Ms. Virginia Fox  
Secretary  
Education Cabinet  
Capital Plaza Tower, 3rd Floor  
Frankfort KY 40601

Ms. Helen Cleary  
President  
Scenic Kentucky  
P. O. Box 2646  
Louisville KY 40201

Mr. Heinz Mueller  
Attorney  
U. S. Environmental Protection Agency, Region 4 Office  
13th Floor, Atlanta Federal Ctr.  
61 Forsyth St. SW  
Atlanta GA 30303

Mr. Kenneth W. Holt  
U.S. Dept. of Health & Human Serv., Center for Disease Control,  
Emergency And Environmental Health Services Division  
Mail Stop F-16  
4770 Buford Highway, N.E.  
Atlanta GA 30341-3724

Mr. Roger Wiebusch  
Bridge Administrator  
United States Coast Guard, Bridge Branch  
1222 Spruce Street  
St. Louis MO 63103

Mr. Chuck Knowles  
Director  
KYTC, Division of Traffic Operations  
Transportation Office Building, E3-04-03  
200 Mero Street  
Frankfort KY 40622

Ms. Laura Owens  
Commissioner  
Workforce Investment  
Capital Plaza Tower, 3rd Floor  
Frankfort KY 40601

Mr. James Aldridge  
Director  
Nature Conservancy - Kentucky Chapter  
642 West Main Street  
Lexington KY 40508

Mr. Oscar Geraldts  
Sierra Club  
259 West Short Street  
Lexington KY 40507

Mr. David Sawyer  
State Conservationist  
U.S. Dept. of Agriculture, Natural Resources Conservation Service  
711 Corporate Drive, Suite 110  
Lexington KY 40503

Mr. Lee Andrews  
Field Supervisor  
U.S. Dept. of the Interior, Fish and Wildlife Service  
3761 Georgetown Road  
Frankfort KY 40601

The Honorable Jim Bunning  
United States Senator  
United States Senate  
316 Hart Senate Office Building  
Washington DC 20510

The Honorable Mitch McConnell  
United States Senator  
United States Senate  
361-A Russell Senate Office Building  
Washington DC 20510

Mr. Thomas M. Hunter  
Executive Director  
Appalachian Regional Commission  
1666 Connecticut Ave., NW  
Washington DC 20235

Colonel Robert A. Rowlette, Jr.  
District Engineer  
U. S. Army Corps of Engineers, Louisville District  
P.O. Box 59  
Louisville KY 40201

The Honorable Harold Rogers  
United States Representative - District 5  
U. S. House of Representatives  
2406 Rayburn House Office Building  
Washington DC 20515

Mr. Kevin W. Lawrence  
Planning Staff Officer  
U.S. Dept. of Agriculture, Forest Service, Daniel Boone Nat'l  
Forest  
1700 Bypass Road  
Winchester KY 40391

Mr. John Milchick, Jr.  
Kentucky State Coordinator  
U.S. Department of Housing & Urban Development, Ky. State  
Office  
601 West Broadway  
Louisville KY 40202

Mr. Tom Schomaker  
Director  
KYTC Division of Maintenance  
Transportation Office Building, E3-05-01  
Frankfort KY 40601

The Honorable Daugh K. White  
Mayor, City of Manchester  
239 Memorial Drive  
Manchester KY 40962

The Honorable James G. Garrison  
Clay County Judge/Executive  
303 Main Street  
Manchester KY 40962

Mr. Dennis Rice  
Police Chief  
200 White Street  
Manchester KY 40962

Mr. Charles Weaver  
Fire Chief  
RR 7  
Manchester KY 40962

Mr. Ernest Rice  
Planning & Zoning  
105 Church Street  
Manchester KY 40962

Mr. Mike White  
Water/Sewer Superintendent  
239 Memorial Drive  
Manchester KY 40962

Mr. Edward Jordan  
County Sheriff  
216 Main Street  
Manchester KY 40962

Mr. Charles Marcum  
County Jailer  
Clay County Jail  
115 South Court Street  
Manchester KY 40692

Mr. Stanley Bowling  
Magistrate  
201 Bert Combs Lake Road  
Manchester KY 40962

Mr. Tommy L. Harmon  
Magistrate  
295 Paces Creek Road  
Manchester KY 40962

Mr. Clinton Johnson  
Magistrate  
9211 Hwy N. 421  
Manchester KY 40962

Mr. Johnny Gregory  
Magistrate  
General Delivery  
Hima KY 40951

Mr. Terry Davidson  
Magistrate  
Rt 1 Box 281  
Oneida KY 40972

Mr. Ray Hooker  
County Road Supervisor  
1351 Paces Creek Road  
Manchester KY 40962

Mr. Herman Johnson  
Health Department  
Court House Hill  
Manchester KY 40962

Ms. Marian Marcum  
US Department of Agriculture  
214 Main Street  
Manchester KY 40962

Mr. Joe Swafford  
Chamber of Commerce  
212 Main Street  
Manchester KY 40962

Mr. Doug Adams  
Superintendent  
Clay County Board of Education  
121 Richmond Road  
Manchester KY 40962

Mr. Teddy R. Smith  
PO Box 114  
Garrard KY 40941-0114

**MEMORANDUM**

**P-2-04**

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

**FROM:** William Broyles P. E.  
Geotechnical Engineering  
Branch Manager  
Division of Materials

**BY:** Michael Blevins P. G.  
Geotechnical Branch

**DATE:** July 8, 2004

**SUBJECT:** Clay County  
US. 421/KY.80 Widening  
Item # 11-8003.0

The Branch has reviewed the project and has the following comments:

The project lies upon bedrock in the Breathitt Formation. The Manchester Geologic Quadrangle map indicates that the project should encounter sandstone in the cut sections from Manchester to Garrard which is suitable for constructing embankments and rock roadbed. Shale and siltstone will likely be encountered south of Garrard in cut sections.

The main concern of the Geotechnical Branch is the underground mining that has occurred in the Manchester Coal Bed along the existing 421/80 route. The coal bed out crops at elevation 940(+/-) in the area of Manchester and dips to the southeast down to approximately at elevation 880(+/-) in the area of Garrard. The Branch recommends that any widening through cut sections be held to a minimum so that the existing mines and adits are not disturbed.

Any mines and/or adits that are encountered in the cuts will require pneumatic back stowing to prevent subsidence and also to prevent cut slope failures. Any mines encountered on the east side of the hill sides will likely contain water which would lead to acidic runoff conditions. The mine water runoff may require mitigation measures to eliminate the acidic runoff. This may be accomplished by lining the ditches with Limestone and constructing detention basins.

Embankment benching may be required in existing fill sections if new fill material is placed over existing embankments.

If there are any questions, please advise.



## Martin, David (KYTC)

---

**From:** Blevins, Mike L (KYTC-WSC)  
**Sent:** Wednesday, July 07, 2004 1:04 PM  
**To:** Annette Coffey  
**Cc:** Martin, David (KYTC)  
**Subject:** Clay County 11-8003.00

Attached are the Geotechnical Branch's comments for the subject project. If there are any questions, please advise.



Clay421-80plan.DOC

## Martin, David (KYTC)

---

**From:** Palmer-Ball, Brainard (EPPC, KSNPC)  
**Sent:** Wednesday, June 02, 2004 9:16 AM  
**To:** Martin, David (KYTC)  
**Subject:** KSNPC response to Pre-Design Scoping Study

TO: David Martin, KTC, Div of Planning

FROM: B. Palmer-Ball, Jr., KSNPC

DATE: June 2, 2004

RE: Widening of US 421/KY 80 in Clay Co.

---

KSNPC has reviewed the Pre-Design Scoping plans for this project. There is one KSNPC-monitored plant, Appalachian rosinweed (*Silphium lasiocarpum*, KSNPC Special Concern and US Fish and Wildlife Service Species of Management Concern) that is known to occur in the general vicinity of the project. KTC should include provisions for avoiding populations of this plant during the planning process.

United States Department of Agriculture



Natural Resources Conservation Service  
771 Corporate Drive; Suite 210  
Lexington, KY 40503-5479

Annette Coffey, P.E.  
Director, Division of Planning  
Kentucky Transportation Cabinet  
200 Mero Street, Station W5-05-01  
Frankfort, KY 40622

June 10, 2004

Dear Ms. Coffey:

In regards to the pre-design scoping study for the proposed widening of US 421/KY 80 to three lanes from the US 421/KY 80/KY 11 intersection in Manchester south to KY 149, Lockards Creek Road, in Clay County, the USDA-Natural Resources Conservation Service (NRCS) is concerned with potential impacts that the proposed highway project might have upon prime farmland soils and additional farmlands of statewide importance. If federal dollars are to be used to convert important farmlands from agricultural uses to non-agricultural uses, a Form AD-1006 (or Form NRCS-CPA-106 if the project is a corridor type project) must be submitted to the local NRCS office. These forms may be obtained from the local NRCS office and are also available as electronic forms on the web at

[http://www.nrcs.usda.gov/programs/fppa/pdf\\_files/AD1006.PDF](http://www.nrcs.usda.gov/programs/fppa/pdf_files/AD1006.PDF) and  
[http://www.nrcs.usda.gov/programs/fppa/pdf\\_files/CPA106.pdf](http://www.nrcs.usda.gov/programs/fppa/pdf_files/CPA106.pdf).

The contact person is:

Jeffrey W. Moore, District Conservationist  
USDA-Natural Resources Conservation Service  
214 Main Street  
Manchester, KY 40962-1295

phone: (606) 598-5132

Mr. Moore can help in identifying important farmlands in the proposed project area.

To further assist with the planning efforts, I am enclosing a CD containing ArcView GIS shapefiles of basic soils information for the project study area. The soil database table includes a column for "farmland classification-all components" (farmclac) that identifies prime farmlands and soils of statewide importance.

Sincerely,

A handwritten signature in black ink, appearing to read "David G. Sawyer".

DAVID G. SAWYER  
State Conservationist

Enclosure

cc: Jeffrey W. Moore, District Conservationist, Manchester, KY  
Robert L. Bradley, Area Conservationist, Mt. Sterling, KY

2004 JUN 15 A 11:06  
DIV OF PLANNING



DIV OF PLANNING

COMMONWEALTH OF KENTUCKY  
ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

2004 JUN -4 A 9:09

DEPARTMENT FOR ENVIRONMENTAL PROTECTION

DIVISION FOR AIR QUALITY  
803 SCHENKEL LN  
FRANKFORT, KY 40601-1403

June 2, 2004

Ms. Annette Coffey, P.E.  
Director, Division of Planning  
Kentucky Transportation Cabinet  
200 Mero Street  
Station W5-05-01  
Frankfort, Kentucky 40622

Dear Ms. Coffey,

The Division has reviewed the Planning Study for evaluating the proposed widening of US 421/KY 80 to three lanes from the US 421/KY 80/KY 11 intersection in Manchester south to KY 149, Lockards Creek Road, in Clay County, Item Number 11-8003.00. The following Kentucky Administrative Regulations apply to this proposed project:

Kentucky Division for Air Quality Regulation **401 KAR 63:010** Fugitive Emissions states that no person shall cause, suffer, or allow any material to be handled, processed, transported, or stored without taking reasonable precaution to prevent particulate matter from becoming airborne. Additional requirements include the covering of open bodied trucks, operating outside the work area transporting materials likely to become airborne, and that no one shall allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway. Please note the Fugitive Emissions Fact Sheet located at [http://www.air.ky.gov/e\\_clearinghouse.html](http://www.air.ky.gov/e_clearinghouse.html).

Kentucky Division for Air Quality Regulation **401 KAR 63:005** states that open burning is prohibited. Open Burning is defined as the burning of any matter in such a manner that the products of combustion resulting from the burning are emitted directly into the outdoor atmosphere without passing through a stack or chimney. However, open burning may be utilized for the expressed purposes listed on the Open Burning Fact Sheet incorporated by reference in 401 KAR 63:005 Section 3, Prohibition of Open Burning. The Fact Sheet is located at [http://www.air.ky.gov/e\\_clearinghouse.html](http://www.air.ky.gov/e_clearinghouse.html).

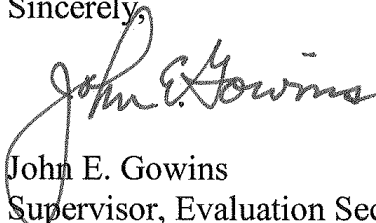
Finally, the projects listed in this document must meet the conformity requirements of the Clean Air Act as amended and the transportation planning provisions of Title 23 and Title 49 of United States Code.



Ms. Annette Coffey Letter  
June 2, 2004  
Page 2

Every effort should be made to maintain compliance with the preceding regulations and requirements. The Division also suggests an investigation into compliance with applicable regulations in the local governments. If there are any questions relating to this matter, please contact me at (502) 573-3382 extension 347.

Sincerely,

A handwritten signature in cursive script that reads "John E. Gowins". The signature is written in black ink and is positioned above the printed name and title.

John E. Gowins  
Supervisor, Evaluation Section  
Program Planning & Administration Branch

JEG/jmf

July 12, 2004 DIV OF PLANNING

2004 JUL 14 P 1:15

Ms. Annette Coffey, P.E.  
Director, Division of Planning  
Kentucky Transportation Cabinet  
W5-05-01  
200 Mero Street  
Frankfort, KY 40622

RE: Pre-Design Scoping Study for Widening of US 421/80 in Clay County

Dear Ms. Coffey:

The accompanying letter from the Division of Conservation outlines their concerns. The other Divisions in DNR had no comment. Thank you. If you have any further questions, please call me at 564-2184 or email me at [Linda.potter@ky.gov](mailto:Linda.potter@ky.gov).

Sincerely,



Linda Potter  
Executive Assistant to the Commissioner  
Kentucky Department for Natural Resources



ERNIE FLETCHER  
GOVERNOR

**ENVIRONMENTAL AND PUBLIC PROTECTION CABINET**

DIVISION OF CONSERVATION  
663 TETON TRAIL  
FRANKFORT, KENTUCKY 40601  
PHONE (502) 564-3080 FAX (502) 564-9195  
www.kentucky.gov

LAJUANA S. WILCHER  
SECRETARY

STEPHEN A. COLEMAN  
DIRECTOR

July 12, 2004

Ms. Annette Coffey, P.E.  
Director, Division of Planning  
Kentucky Transportation Cabinet  
W5-05-01  
200 Mero Street  
Frankfort, KY 40622

**Subject:** Pre-Design Scoping Study for Widening of US 421/KY 80 in Clay County

Dear Ms. Coffey:

As requested, the Division of Conservation has reviewed the proposed study to widen US 421/KY 80 in Clay County and would like to provide the following comments and express concerns that may be helpful in this initial data-gathering stage.

There are no agricultural districts established in the project area, therefore land enrolled in the Agricultural District Program will not have to be mitigated by the Department of Transportation.

We would like to see the issue of the loss of farmland addressed. Every year pressure imposed by utility right-of-ways, urban expansion, and new roads reduce the land available for agricultural use in the Commonwealth. There are two documents that could be utilized to identify these farmland designations: the *Soil Survey Clay County* (NRCS 2003), and *Important Farmland Soils of Kentucky* (NRCS 1981). Both documents are available through this office. The soil survey information can also be downloaded at the following web site: <http://soildatamart.nrcs.usda.gov/>.

One other concern we would like to comment on is the control of erosion and sedimentation during and after earth-disturbing activities once this project begins. We recommend best management practices (BMPs) be utilized to prevent nonpoint source water pollution. This would protect the water quality and aquatic habitat of the perennial and intermittent streams that this project could impact.

Ms. Annette Coffey

July 12, 2004

Page Two

The manual, *Best Management Practices for Construction Activities*, contains information on the kinds of BMPs most appropriate for this project and is available through the Jackson County Conservation District, the Kentucky Division of Water, or this office.

We appreciate the opportunity to comment on this project. If you have any questions, please contact this office any time.

Sincerely,

A handwritten signature in black ink that reads "Stephen A. Coleman". The signature is written in a cursive style with a large, stylized initial "S".

Stephen A. Coleman, Director  
Kentucky Division of Conservation

SAC/MD/eah





DIV OF PLANNING UNIVERSITY OF KENTUCKY

2004 JUN 14 P 12: 00

**Kentucky Geological Survey**

Research and Graduate Studies  
228 Mining and Mineral Resources Building  
Lexington, KY 40506-0107  
Phone: (859) 257-5500  
Fax: (859) 257-1147  
[www.uky.edu/kgs](http://www.uky.edu/kgs)

June 9, 2004

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

Dear Ms. Coffey:

This letter is to summarize any geologic concerns for the pre-design scoping study:

Widen U.S. 421/ Ky. 80 to three lanes from U.S. 421/Ky. 80/Ky. 11  
intersection to Ky. 149, Lockards Creek Road.  
Item No. 11-8003.00, Clay County.

**Physiographic Region**

The pre-design scoping study area is in the Eastern Kentucky Coal Field physiographic region, which is underlain by sand, silt, gravel, clay, sandstone, shale, siltstone, coal, and underclay.

**Karst Potential**

The study should not encounter any karst features such as sinkholes or caves.

**Landslide Potential**

The study area probably will encounter pre- or post-landslide hazards.

**Unconsolidated Sediments**

The study area would encounter unconsolidated sediments at or near stream drainage, such as gravel, sand, and silt.

**Resource Conflicts**

The study area might encounter some resource conflicts such as prior ownership of property for coal mining.

**Mine Hazard Potential**

Near Manchester there may be potential of encountering some old adits and mined out areas in the Manchester coal.



*Materials Suitability*

The study area would not encounter any material suitable for construction stone.

*Fault Potential*

The study area probably would not encounter any faults.

*Earthquake Zone*

The study area has a probable peak ground acceleration (PGA) due to earthquake ground motion of 0.09g. There would be a very low potential for liquefaction or slope failure in the unconsolidated sediments at or near streams caused by earthquake bedrock ground motion.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard A. Smath". The signature is fluid and cursive, with the first name being the most prominent.

Richard A Smath  
Geologist

cc Mike Blevins



KENTUCKY TRANSPORTATION CABINET  
FRANKFORT, KENTUCKY 40622  
WWW.KENTUCKY.GOV

DIV OF PLANNING

2004 JUN -1 A 10:09

ERNIE FLETCHER  
GOVERNOR

MAXWELL C. BAILEY  
SECRETARY

**MEMORANDUM**

TO: Annette Coffey  
Director  
Division of Planning

FROM: M. Chad LaRue *MCL*  
Branch Manager  
Permits

DATE: May 27, 2004

RE: Planning Study – Clay County  
Item No. 11-8003.00

The Permits Branch has reviewed the data provided for subject study site and wish to offer the following.

1. We urge the Cabinet to classify this project and all new projects as partially controlled access facilities.
2. Assuming the project is partial control access, we encourage all possible access points be set on the plans in accordance with 603 KAR 5:120, even if they are not to be constructed at that time.
3. When buying R/W for this and all reconstruction routes, assuming the access control is partial control, new deed for all adjoining property owners need to be executed to identify the access control even if no new R/W is acquired.
4. In addition, we would like to make every effort possible to have the design speed to be the same as anticipated posted speed when the project is complete.
5. We would like to see access control fence installed with the project.
6. If the proposed roadway is to be on the N. H. S., early notification of the final line and grade is needed. This enables us to monitor outdoor advertising devices prior to road construction being completed.
7. Please notify this office if the proposed roadway is to be placed on the National Highway System. This information is needed to assist this office in regulating the installation of any outdoor advertising device.

Thank you for the opportunity to verbalize our concerns.

MCL/jr



DIV OF PLANNING

KENTUCKY TRANSPORTATION CABINETS JUN -4 A 9:09  
FRANKFORT, KENTUCKY 40622  
WWW.KENTUCKY.GOV

ERNIE FLETCHER  
GOVERNOR

MAXWELL C. BAILEY  
SECRETARY

MEMORANDUM

TO: Annette Coffey  
Director  
Division of Planning

FROM: Greg Howard *GD 6-1-04*  
Commissioner  
Department of Vehicle Enforcement

DATE: June 1, 2004

SUBJECT: Pre-Design Scoping Study  
Widen US 421/KY 80, Clay County  
Item Number 11-8003.00

I am in receipt of the information you sent in regards to a pre-design scoping study to widen US 421/KY 80 to three lanes from the US 421/KY 80/KY 11 intersection to KY 149, Lockards Creek Road in Clay County.

After having my staff review the material, we concur it would be beneficial to widen this section of road. Again, as we have stated in the past, please keep in mind the necessity to accommodate large commercial vehicles.

If you need any further information, please let us know.



ERNIE FLETCHER  
GOVERNOR

**KENTUCKY DEPARTMENT OF TRAVEL**  
COMMERCE CABINET  
CAPITAL PLAZA TOWER  
500 MERO STREET, 22ND FLOOR  
FRANKFORT, KENTUCKY 40601-1968  
PHONE (502) 564-4930 FAX (502) 564-5695  
www.kentuckytourism.com

W. JAMES HOST  
SECRETARY  
COMMERCE CABINET  
  
RANDALL L. FIVEASH  
COMMISSIONER  
DEPARTMENT OF TRAVEL

September 1, 2004

Annette Coffee, P.E.  
Kentucky Transportation Cabinet  
Division of Planning  
W5-05-01  
200 Mero Street  
Frankfort, Kentucky

Subject: Lockards Creek Road, Item #: 11-8003.00, Clay County

Dear Ms. Coffee,

Thank you for providing the opportunity to review and comment upon the alternatives being considered for the restructuring of roadways in Clay County

I have reviewed the material provided by your office relating to this project. Based upon the information provided by your office it appears this is an unsafe roadway whose safety issues are projected to escalate in the coming years. This is not a favorable trend when considering a roadway's ability to sustain a viable tourism industry.

It is also important that areas possessing historical and natural assets be preserved if at all possible. With that in mind I ask that the Kentucky Historical Society, Kentucky Heritage Council and the Kentucky Department of Fish and Wildlife be contacted, if this has not already occurred, to insure properties of interest to these agencies are not impacted in a negative manner. As I am sure you understand, this department works closely with these agencies in that properties of interest to them also impact the travel industry.

Your efforts to improve the Kentucky roadways are greatly appreciated. Providing safe and pleasant driving experiences will assist in our efforts to grow the tourism industry within the Commonwealth.

If I may be of further assistance please do not hesitate to contact my office. I can be reached at 564-4930.

Sincerely,

Randall Fiveash  
Commissioner

2004 SEP 13 P 4:03  
DIV OF PLANNING



**U.S. Fish & Wildlife Service**  
Kentucky Ecological Services Field Office

**U.S. Fish & Wildlife Service**  
3761 Georgetown Rd.  
Frankfort, KY 40601  
Phone: 502-695-0468  
Fax: 502-695-1024

Endangered, Threatened, & Candidate  
Species in CLAY County, KY

Group	Species	Common name	Legal* Status	Known** Potential	Special Comments
Mammals	<i>Myotis sodalis</i>	Indiana bat	E	P	

**NOTES:**

\* Key to notations: E = Endangered, T = Threatened, C = Candidate, CH = Critical Habitat

\*\*Key to notations: K = Known occurrence record within the county, P = Potential for the species to occur within the county based upon historic range, proximity to known occurrence records, biological, and physiographic characteristics.

## Martin, David (KYTC)

---

**From:** Houlihan, John (KYTC)  
**Sent:** Thursday, June 10, 2004 12:02 PM  
**To:** Martin, David (KYTC)  
**Subject:** Pre-Design Scoping Study Item No. 11-8003.00 Clay County

Mr. Martin, the proposed roadway will not have any adverse effect to air navigation. However if any equipment used in the construction exceeds 200 feet if height, a permit will be required. If you have any questions, feel free to call or email.  
Thank you.



DIV OF PLANNING

2004 JUL 19 P 12: 31

Centers for Disease Control  
and Prevention (CDC)  
Atlanta GA 30341-3724

July 14, 2004

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

Dear Ms. Coffey:

This is in response to your letter of May 25, 2004 requesting our agency's input and comments on a planning study to determine the need for, and the potential impacts from the proposed widening of US 421/KY 80. We understand the project will run from the US 421/KY 80/KY 11 intersection in Manchester south to KY 149, Lackards Creek Road, in Clay County. We are responding on behalf of the Department of Health and Human Services (DHHS), U.S. Public Health Service.

While we have no project specific comments to offer at this time, we do recommend that the topics listed below be considered during the NEPA process along with other necessary topics, and addressed if appropriate. Mitigation plans which are protective of the environment and public health should be described in the DEIS wherever warranted.

AREAS OF POTENTIAL PUBLIC HEALTH CONCERN:

I. Air Quality

- dust control measures during project construction, and potential releases of air toxins potential process air emissions after project completion
- compliance with air quality standards

II. Water Quality/Quantity

- special consideration to private and public potable water supply, including ground and surface water resources
- compliance with water quality and waste water treatment standards
- ground and surface water contamination (e.g. runoff and erosion control)
- body contact recreation

III. Wetlands and Flood Plains

- potential contamination of underlying aquifers
- construction within flood plains which may endanger human health
- contamination of the food chain



IV. Hazardous Materials/Wastes

- identification and characterization of hazardous/contaminated sites
- safety plans/procedures, including use of pesticides/herbicides; worker training
- spill prevention, containment, and countermeasures plan

V. Non-Hazardous Solid Waste/Other Materials

- any unusual effects associated with solid waste disposal should be considered

VI. Noise

- identify projected elevated noise levels and sensitive receptors (i.e. residential, schools, hospitals) and appropriate mitigation plans during and after construction

VII. Occupational Health and Safety

- compliance with appropriate criteria and guidelines to ensure worker safety and health

VIII. Land Use and Housing

- special consideration and appropriate mitigation for necessary relocation and other potential adverse impacts to residential areas, community cohesion, community services
- demographic special considerations (e.g. hospitals, nursing homes, day care centers, schools)
- consideration of beneficial and adverse long-term land use impacts, including the potential influx of people into the area as a result of a project and associated impacts
- potential impacts upon vector control should be considered

IX. Environmental Justice

- federal requirements emphasize the issue of environmental justice to ensure equitable environmental protection regardless of race, ethnicity, economic status or community, so that no segment of the population bears a disproportionate share of the consequences of environmental pollution attributable to a proposed project. (Executive Order 12898)

While this is not intended to be an exhaustive list of possible impact topics, it provides a guide for typical areas of potential public health concern which may be applicable to this project. Any health related topic which may be associated with the proposed project should receive consideration when developing the draft and final EISs. Please furnish us with one copy of the draft document when it becomes available for review.

Sincerely yours,



Paul Joe, DO, MPH

Medical Officer

National Center for Environmental Health (F16)

Centers for Disease Control & Prevention

CLAY COUNTY FISCAL COURT DIV OF PLANNING

303 Main Street

Manchester, KY 40962

606/598/2071

2004 AUG -4 A 10: 33  
fax: 606/598/7849

Annette Coffey, P.E., Director  
Division of Planning  
Kentucky Transportation Cabinet  
200 Mero Street, Station W5-05-01  
Frankfort, KY 40622

August 3, 2004

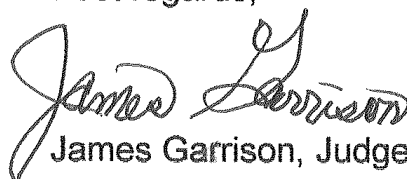
Dear Ms. Coffey:

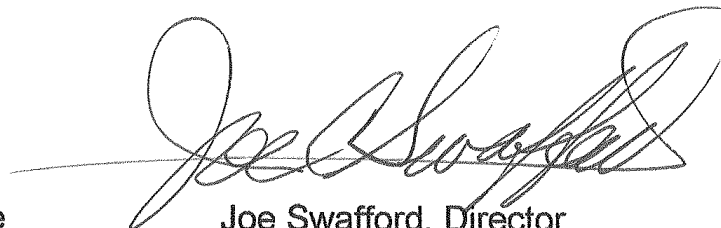
I would like to take this opportunity to address the US 421 Scoping Study for US 421 and KY 80 in Clay County. This is a much-needed project for our community. The area being addressed is the center of commercial growth in and around Manchester and new facilities are being planned and are under construction as we address the project. The number of units traveling the road is much greater than the design for the road. Improvements will improve the community's transportation system as a whole. After looking at the proposed improvements the environmental concerns would be minimal during construction and no adverse effects would occur as a result of improvements. The economic benefits would be beneficial to the community and the proposed project would enhance opportunities for greater economic impacts in the area.

The consideration of no action would not benefit anyone. The congestion will continue to increase and the potential for property damage via accidents will increase without some improvements to the roadway. The three elementary schools located along the route present problems without the additional public agencies located along the route.

Thank you for your consideration of our input and we will be happy to meet with you and your staff to provide specific information not available relating to the commercial, educational and institutional services existing and proposed.

Best regards,

  
James Garrison, Judge Executive

  
Joe Swafford, Director  
Chamber of Commerce



KENTUCKY TRANSPORTATION CABINET  
FRANKFORT, KENTUCKY 40622  
WWW.KENTUCKY.GOV

ERNIE FLETCHER  
GOVERNOR

MAXWELL C. BAILEY  
SECRETARY

May 25, 2004

Mr. Carl Campbell  
Commissioner  
Kentucky Dept. of Surface Mining Reclamation and Enforcement  
# 2 Hudson Hollow  
Frankfort, KY 40601

Dear Mr. Campbell:

SUBJECT: Pre-Design Scoping Study  
Widen US 421/KY 80 to three lanes from the US 421/KY 80/KY 11  
intersection to KY 149, Lockards Creek Road  
Item No. 11-8003.00, Clay County

We are requesting your agency's input and comments on a planning study to determine the need and potential impacts for a proposed highway project. The Kentucky Transportation Cabinet is conducting a pre-design scoping study to evaluate the proposed widening of US 421/KY 80 to three lanes from the US 421/KY 80/KY 11 intersection in Manchester south to KY 149, Lockards Creek Road, in Clay County. The study is currently in the initial data-gathering stage.

We ask that you identify specific issues or concerns of your agency that could affect the development of the project. This planning study will include a scoping process for the early evaluation of proposed alternatives, environmental issues, and impacts related to the proposed project. We believe that early identification of issues or concerns can help us develop highway project alternatives to avoid or minimize negative impacts.

We respectfully ask that you provide us with your comments by July 12, 2004, to ensure timely progress in this planning effort.

During the development of this planning study, comments will be solicited from federal, state, and local agencies, as well as other interested persons, in accordance with principles set forth in the National Environmental Policy Act (NEPA) of 1969. The Federal Highway Administration is partnering with us in these efforts.

Mr. Campbell  
Page 2  
May 25, 2004

Other Transportation Cabinet offices may also contact you seeking more detailed data or information to assist them in completing their environmental studies for this phase of the project.

We have enclosed the following project information for your review and comment:

- Study Fact Sheet
- Project Location Map
- Year 2002 Traffic and Level of Service
- Year 2030 Traffic and Level of Service
- Vehicle Crash Information
- Highway Information Systems (HIS) Tables

We appreciate any input you can provide concerning this project. Please direct any comments, questions, or requests for additional information to David Martin of the Division of Planning at 502/564-7183 or at [charles.martin@ky.gov](mailto:charles.martin@ky.gov). Please address all written correspondence to Annette Coffey, P.E., Director, Division of Planning, Kentucky Transportation Cabinet, 200 Mero Street, Station W5-05-01, Frankfort, KY 40622.

Sincerely,



Annette Coffey, P.E.  
Director  
Division of Planning

AC:CDM:RC

Enclosures

c: Jose Sepulveda (w/e)  
Glenn Jilek (w/e)  
David Whitworth (w/e)  
Clay McKnight - CVADD (w/e)  
Kevin Damron  
Joel Holcomb  
Greene Keith  
George Best  
David Waldner  
Tom Koos (w/e)  
Dean Croft  
Sandy Rudder

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commander  
Eighth Coast Guard District

1222 Spruce Street  
St. Louis, MO 63103-2832  
Staff Symbol: obr  
Phone: (314)539-3900, x2  
Fax: (314)539-3755  
Email:

16591.6/Horse Creek KY  
June 10, 2004

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

Subj: PRE-DESIGN SCOPING STUDY, US 421/KY 80, CLAY COUNTY  
ITEM NO. 11-8003.00

Dear Ms Coffey:

We have reviewed the information provided in your letter of May 25, 2004, and determined that the subject project will not involve bridges over navigable waters of the United States. Therefore a Coast Guard bridge permit is not required for this project.

We appreciate the opportunity to comment on the project.

Sincerely,

A handwritten signature in black ink, appearing to read "R. K. Wiebusch".

ROGER K. WIEBUSCH  
Bridge Administrator  
By direction of the District Commander

DIV OF PLANNING  
2004 JUN 23 A 9:24



ERNIE FLETCHER  
GOVERNOR

**COMMERCE CABINET**  
DEPARTMENT OF FISH & WILDLIFE RESOURCES  
#1 GAME FARM ROAD  
FRANKFORT, KENTUCKY 40601  
PHONE (502) 564-3400 FAX (502) 564-0506  
(800) 858-1549  
www.kentucky.gov

DIV OF PLANNING

2004 JUL -6 AM 9:57 HOST  
SECRETARY, COMMERCE CABINET

C. TOM BENNETT  
COMMISSIONER

June 28, 2004

Annette Coffey, P.E.  
Director, Division of Planning  
Kentucky Transportation Cabinet  
200 Mero Street  
Station W5-05-01  
Frankfort, KY 40622

Re: Threatened/Endangered species review; Pre-Design Scoping Study, Widening of US  
421/KY 80, Item No. 11-8003.00, Clay 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 no federally threatened or endangered (T&E) fish and wildlife are known to occur in the Manchester 7.5 minute USGS quadrangle(s). Please be aware that our database system is a dynamic one that only represents our current knowledge of the various species distributions.

Based on the information provided, KDFWR cannot determine the extent of impacts to fish and wildlife resources without knowing the extent of the proposed project. When further information is available to our agency we can make a final determination regarding environmental impacts.

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

Sincerely,

Marla T. Barbour Callaghan  
Fisheries Biologist III

cc: Environmental Section File

RICHIE FARMER  
COMMISSIONER



OFFICE TELEPHONE  
(502) 564-5126  
FAX: (502) 564-5016  
TTY: (502) 564-2075

COMMONWEALTH OF KENTUCKY  
**DEPARTMENT OF AGRICULTURE**  
OFFICE OF THE COMMISSIONER  
CAPITOL ANNEX, SUITE 188  
FRANKFORT, KY 40601

May 26, 2004

Ms. Annette Coffey, P.E.  
Director  
Division of Planning  
Kentucky Transportation Cabinet  
W5-05-01  
200 Mero Street  
Frankfort, Kentucky 40622

RE: Pre-Design Scoping Study  
Widen US 421/KY 80 to three lanes from the US 421/KY 80/KY 11  
Intersection to KY 149, Lockards Creek Road  
Item No. 11-8003.00, Clay County

Dear Ms. Coffey:

Please be advised that this agency has no specific concerns or issues about the above-noted project.

Yours truly,

A handwritten signature in black ink, appearing to read "Mark Farrow", written over a large, loopy flourish.

Mark Farrow  
Chief of Staff

DIV OF PLANNING  
2004 MAY 28 P 1:48



ERNIE FLETCHER  
GOVERNOR

**ENVIRONMENTAL AND PUBLIC PROTECTION CABINET**

DEPARTMENT FOR NATURAL RESOURCES  
663 TETON TRAIL  
FRANKFORT, KENTUCKY 40601  
PHONE (502) 564-2184 FAX (502) 564-6193  
[www.naturalresources.ky.gov](http://www.naturalresources.ky.gov)  
[www.kentucky.gov](http://www.kentucky.gov)

LAJUANA S. WILCHER  
SECRETARY

SUSAN C. BUSH  
COMMISSIONER

June 7, 2004

Ms. Annette Coffey, P.E.  
Director  
Division of Planning  
Kentucky Transportation Cabinet, W5-05-01  
200 Mero Street  
Frankfort, Kentucky 40622

RE: Pre-Design Scoping Study  
Widen US 421/KY 80 to three lanes from the US 421/KY 80/KY 11 intersection to KY  
149, Lockards Creek Road  
Item No. 11-8003.00, Clay County

Dear Ms. Coffee:

Reference is made to your correspondence of May 25, 2004 regarding a Kentucky Transportation Cabinet pre-design scoping study to evaluate the proposed widening of US 421 / KY 80 to three lanes from the US 421 / KY 80 / KY 11 intersection in Manchester south to KY 149, Lockards Creek Road in Clay County. Department of Natural Resources personnel have reviewed the above referenced document and could not identify any specific issues or agency concerns with any of the proposed construction activity.

Thank you for the opportunity to review and provide comment on this matter. Please let us know if you have any questions or if we can be of further assistance.

Sincerely,

Susan C. Bush, P.G.  
Commissioner

DIV OF PLANNING  
2004 JUN -7 P 2:39



## **Martin, David (KYTC)**

---

**From:** Harman, Charles L (WFD-FK)  
**Sent:** Thursday, June 03, 2004 11:47 AM  
**To:** Martin, David (KYTC)  
**Cc:** Owens, Laura (Education Cabinet); Hamilton, Sally (Education Cabinet)  
**Subject:** Item 11-8003.00 - Pre-Design Scoping Study

David - The Education Cabinet has reviewed the subject study for Clay County. We have not identified any adverse impacts on our operations. This response also addresses the notification sent to Laura Owens, Commissioner, Department for Workforce Investment.

If you need additional information, please contact me at 564-6606 or by e-mail.

ch

**Charlie Harman**  
**Office of Budget and Administrative Services**  
**Education Cabinet**  
**502.564.6606**

This message contains information which is confidential. It is for the exclusive use of the intended recipient(s). If you are not the intended recipient(s) please note that any form of distribution, copying, forwarding or use of this communication or the information in it or attached to it is strictly prohibited and may be unlawful. If you have received this communication in error please return it to me, delete the email, and destroy any copies of it. Thank you.



ERNIE FLETCHER  
GOVERNOR

**DEPARTMENT OF PARKS**  
COMMERCE CABINET  
CAPITAL PLAZA TOWER  
500 MERO STREET, 11<sup>TH</sup> FLOOR  
FRANKFORT, KENTUCKY 40601-1974  
PHONE (502) 564-2172 FAX (502) 564-9015  
parks.ky.gov

DIV OF PLANNING

2004 JUN -4 A 9:08  
W. JAMES HOST  
SECRETARY  
COMMERCE CABINET

GEORGE WARD  
COMMISSIONER  
DEPARTMENT OF PARKS

June 1, 2004

Ms. Annette Coffey, P.E., Director  
Division of Planning  
Kentucky Transportation Cabinet  
W5-05-01  
200 Mero Street  
Frankfort, Kentucky 40622

Re: Pre-Design Scoping Study  
Clay County  
Widen US 421  
Item No. 11-8003.00

Dear Ms. Coffey:

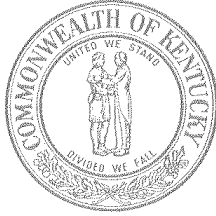
The Department of Parks has reviewed your correspondence to me regarding the subject. The study will not directly impact any of our facilities. I would like to state in general that our Agency's mission is protecting the environment associated with our facilities and we are certainly concerned about environmental impacts for the entire Commonwealth.

I appreciate you seeking our Agency's comments on this project.

Sincerely:

Mr. George Ward, Commissioner  
Kentucky Department of Parks

C: John Drake



DIV OF PLANNING

2004 JUN -7 P 2:39

COMMONWEALTH OF KENTUCKY  
**KENTUCKY STATE POLICE**  
919 VERSAILLES ROAD  
FRANKFORT KY. 40601

ERNIE FLETCHER  
GOVERNOR

MARK L. MILLER  
COMMISSIONER

June 2, 2004

Ms. Annette Coffey, P.E.  
Director, Division of Planning  
Transportation Cabinet, W5-05-01  
200 Mero Street  
Frankfort, Kentucky 40622

Dear Ms. Coffey:

I am in receipt of your correspondence concerning a planning study of widening US 421/KY 80 to three lanes from the US 421/KY 80/KY 11 intersection in Manchester south to KY 149, Lockards Creek Road, in Clay County.

I have forwarded your remarks to Captain Gary Peercy, Commander of the London Post. He can be reached at (606) 878-6622. Thank you for including our input during the planning stages of this development.

Sincerely,

A handwritten signature in cursive that reads "Shelby Lawson, Jr." followed by a stylized initial "SL".

Shelby Lawson, Jr., Major  
East Troop Commander

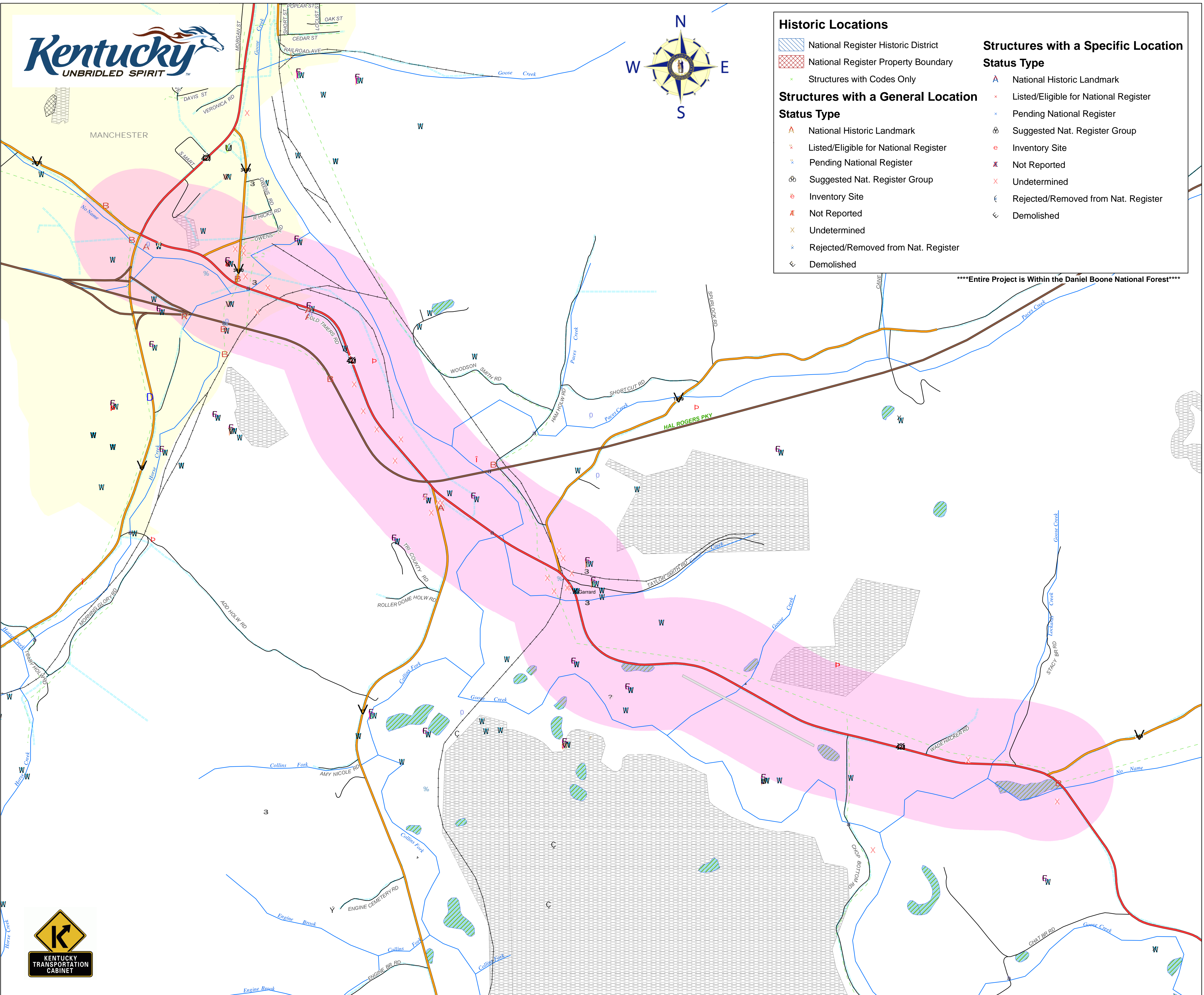
SL:cjh

cc: Mark L. Miller, Commissioner  
Captain Gary Peercy, Post 11



AN EQUAL OPPORTUNITY EMPLOYER M/F/D

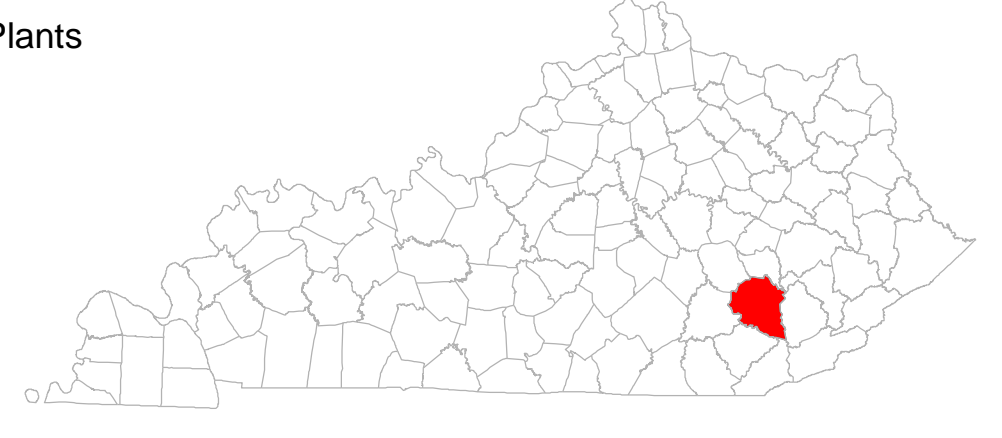




Historic Locations		Structures with a Specific Location Status Type	
	National Register Historic District		National Historic Landmark
	National Register Property Boundary		Listed/Eligible for National Register
	Structures with Codes Only		Pending National Register
Structures with a General Location Status Type			Suggested Nat. Register Group
	National Historic Landmark		Inventory Site
	Listed/Eligible for National Register		Not Reported
	Pending National Register		Undetermined
	Suggested Nat. Register Group		Rejected/Removed from Nat. Register
	Inventory Site		Demolished
	Not Reported		
	Undetermined		
	Rejected/Removed from Nat. Register		
	Demolished		

\*\*\*\*Entire Project is Within the Daniel Boone National Forest\*\*\*\*

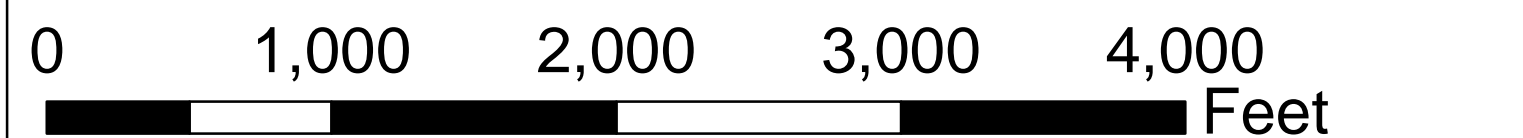
Environmental Legend			
	Project Study Area		Karst Sites
	Interstate		Water Withdrawals
	Parkway		Outstanding Waters
	US Highway		Karst Sinking Stream
	State Road		KPDES Outfall
	Local Road		KPDES Facility
	Bridge		GW Monitoring Wells
	Active		Small Mining Operations (SOAP)
	Abandoned/Removed		Mine Shaft
	Abandoned Rail (LRC)		Coal Exploration Sites
	County Line		DSMRE Pending Mining Permit
	City/Town Area		DSMRE Active Coal Mines
	Airport		NonCoal Quarry
	Bus Station		Active Mining Operations (Non-Coal)
	Coal Tipple		Acid Mine Drainage
	Other		Coal Mine Permit Boundary
	Passenger Rail		Mined Out Areas
	Rail		HollowFills
	Riverport		Silt
	Airport Runways		Spoil
	Cemetery		Waste
	Church		Hydrologic Investigations
	Civil		Impoundments
	Dam		USGS Gauges
	Hospital		NREPC KY Facilities Index Site
	Park		100 YR Flood
	Post Office		SuperFund Sites
	Small Community		NREPC KY Facilities Index Facility
	School		Faults
	GW Springs		Oil & Gas
	GW Wells		Landfill
	Surface Water Source		Old Landfill
	Public Well Source		Old Tire Dump
	Non Community Points		SuperFund Boundary
	Water Tanks		Stream
	Water Treatment Plants		Wetlands
	Lift Station		Lake
	Package Treatment Plants		Wild River
	Water Meters		Karst Lake
	Pump Stations		Land Stewardship
	Water Purchase Source		DBNF Declared Boundary
	Sewer Treatment Plants		
	Water Pump		
	Water Lines		
	Sewer Lines		



### US 421 PRE-DESIGN SCOPING STUDY ENVIRONMENTAL FOOTPRINT

MANCHESTER CLAY COUNTY  
EXHIBIT 5 Item No. 11-8003.00

Kentucky Transportation Cabinet  
Department of Highways  
Division of Planning





# **Widening of US 421/KY 80 to Three Lanes from the Daniel Boone (Hal Rogers) Parkway to KY 149 (Lockarts Creek Road) Pre-Design Scoping Study**

**Clay County Item No. 11-8003.00**



## **Environmental Justice & Community Impact Report**

Prepared by:  
Cumberland Valley Area Development District  
P.O. Box 1740  
London, KY 40743  
Phone: (606) 864-7391  
Clay McKnight, Transportation Planner

## **1. INTRODUCTION**

The following Environmental Justice report is an assessment of community demographics and characteristics related to a defined study area for the widening of US 421/KY 80 to three lanes from the Daniel Boone (Hal Rogers) Parkway to KY 149 (Lockarts Creek Road) in Clay County. The project is listed as item number 11-8003.00 in the Kentucky Transportation Cabinet's 2005-2010 Recommended Six-Year Highway Plan and is scheduled for the design phase in 2005, right-of-way phase in 2007, and utility relocation phase in 2008. The study area is primarily commercial with very few residential structures; however, statistical data from the U.S. Census Bureau's 2000 Census is provided to display population by race, population by age, and population below poverty level by age, for the United States, Kentucky, Clay County, and Census Tracts and Block Groups located in and around the study area.

Resources used during the compilation of this report include, but are not limited to, the following: the U.S. Census Bureau, Kentucky State Data Center, Kentucky Transportation Cabinet, local elected officials, community leaders, and field observations of the study area. The information and results included herein are intended to assist the Kentucky Transportation Cabinet in making informed and prudent transportation decisions with respect to the study area, particularly with regard to the requirements of Executive Order 12898<sup>1</sup>, to ensure equal environmental protection to all groups potentially impacted by this project.

## **2. WHAT IS ENVIRONMENTAL JUSTICE?**

The U.S. EPA Office of Environmental Justice (EJ) defines EJ as:

“The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including racial, ethnic, or socio-economic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local and tribal programs and policies.”

A disproportionately high and adverse effect on a minority or low-income population means an adverse effect that:

1. is predominately borne by a minority population and/or low-income population, or
2. will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that

---

<sup>1</sup> Executive Order 12898 signed on February 11, 1994 states “...each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations...”

will be suffered by the non-minority population and/or non-low-income population.

### **3. DEFINITIONS**

USDOT Order 5610.2 on EJ, issued in the April 15, 1997 Federal Register defines what constitutes low income and minority populations.

- Low-Income is defined as a person whose median household income is at or below the U.S. Department of Health and Human Services poverty guidelines.
- Minority is defined as a person who is: (1) Black (a person having origins in any black racial groups of Africa); (2) Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race); (3) Asian American (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or (4) American Indian and Alaskan Native (a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).
- Low-Income Population is defined as any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant geographically dispersed/transient persons who will be similarly affected by a proposed DOT program, policy or activity.
- Minority Population is defined as any readily identifiable group of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons who will be similarly affected by a proposed DOT program, policy or activity.

EO 12898 and USOT Order 5610.2 do not address consideration of the elderly population. However, the U.S. DOT encourages the study of these populations in EJ discussions and in accordance with EJ, Title VI of the Civil Rights Act of 1964 and the Kentucky Transportation Cabinet's advocacy of inclusive public involvement and equal treatment of all persons this report includes statistics for persons age 62 and over that are within the study and comparison areas.

### **4. METHODOLOGY**

For this study, data was collected by using the method outlined by the KYTC document, "Methodology for Assessing Potential Environmental Justice Concerns for KYTC Planning Studies" (see Appendix 2).

The primary sources of data used in the compilation of this report were the United States Census Bureau's 2000 Census, the Kentucky State Data Center, local elected officials, community leaders, and field observations. Statistics were collected to present a detailed analysis of the community conditions for the study area.

## **5. CENSUS DATA ANALYSIS**

The U.S. Census Bureau defines geographical units as:

- Census Tract (CT) – “A small, relatively permanent statistical subdivision of a county or statistically equivalent entity delineated for data presentation purposes by a local group of census data users or the geographic staff of a regional census center in accordance with Census Bureau guidelines. CTs generally contain between 1,000 and 8,000 people. CT boundaries are delineated with the intention of being stable over many decades, so they generally follow relatively permanent visible features. They may also follow governmental unit boundaries and other invisible features in some instances; the boundary of a state or county is always a census tract boundary.”
- Block Group (BG) - “A statistical subdivision of a CT. A BG consists of all tabulation blocks whose numbers begin with the same digit in a CT. BGs generally contain between 300 and 3,000 people, with an optimum size of 1,500 people.”
- Census Block (CB) – “An area bounded on all sides by visible and/or invisible features shown on a map prepared by the Census Bureau. A CB is the smallest geographic entity for which the Census Bureau tabulates decennial census data.”

The study and comparison area analysis includes percentages for minority, low-income and elderly populations in the United States, Kentucky, Clay County, and Census Tracts and Block Groups located in and around the study area.

## **6. STUDY FINDINGS**

This Environmental Justice and Community Impact Report is to be used as a component of a pre-design scoping study currently being conducted by the Kentucky Transportation Cabinet’s Division of Planning for the widening of US 421/KY 80 to three lanes from the Daniel Boone (Hal Rogers) Parkway to KY 149 (Lockarts Creek Road) in Clay County (Six-Year Plan Item No. 11-8003.00). This study is intended to help define the location and purpose of the project and meet federal requirements regarding consideration of environmental issues as defined in the National Environmental Policy Act (NEPA).

According to the 2000 Census, there are six (6) Census Tracts and nineteen (19) Block Groups that encompass the population of Clay County. Figure 6.1 presents the population totals for each of these Census divisions and figure 6.2 displays the location of each of the Census Tracts and Block Groups in Clay County. Figure 6.3 illustrates the Census divisions in and around the defined US 421 project area.



**Figure 6.1**

<b>Clay County Total Population (2000 Census):</b>	<b>24,556</b>
<b>Census Tract 9501</b>	<b>2,718</b>
Block Group 1	1,559
Block Group 2	1,159
<b>Census Tract 9502</b>	<b>6,064</b>
Block Group 1	1,711
Block Group 2	1,577
Block Group 3	1,709
Block Group 4	1,067
<b>Census Tract 9503</b>	<b>7,145</b>
Block Group 1	747
Block Group 2	2,792
Block Group 3	887
Block Group 4	1,370
Block Group 5	1,349
<b>Census Tract 9504</b>	<b>3,870</b>
Block Group 1	830
Block Group 2	819
Block Group 3	2,221
<b>Census Tract 9505</b>	<b>3,132</b>
Block Group 1	818
Block Group 2	1,475
Block Group 3	839
<b>Census Tract 9506</b>	<b>1,627</b>
Block Group 1	614
Block Group 2	1,013

Figure 6.2

# Clay County Census Tracts and Block Groups

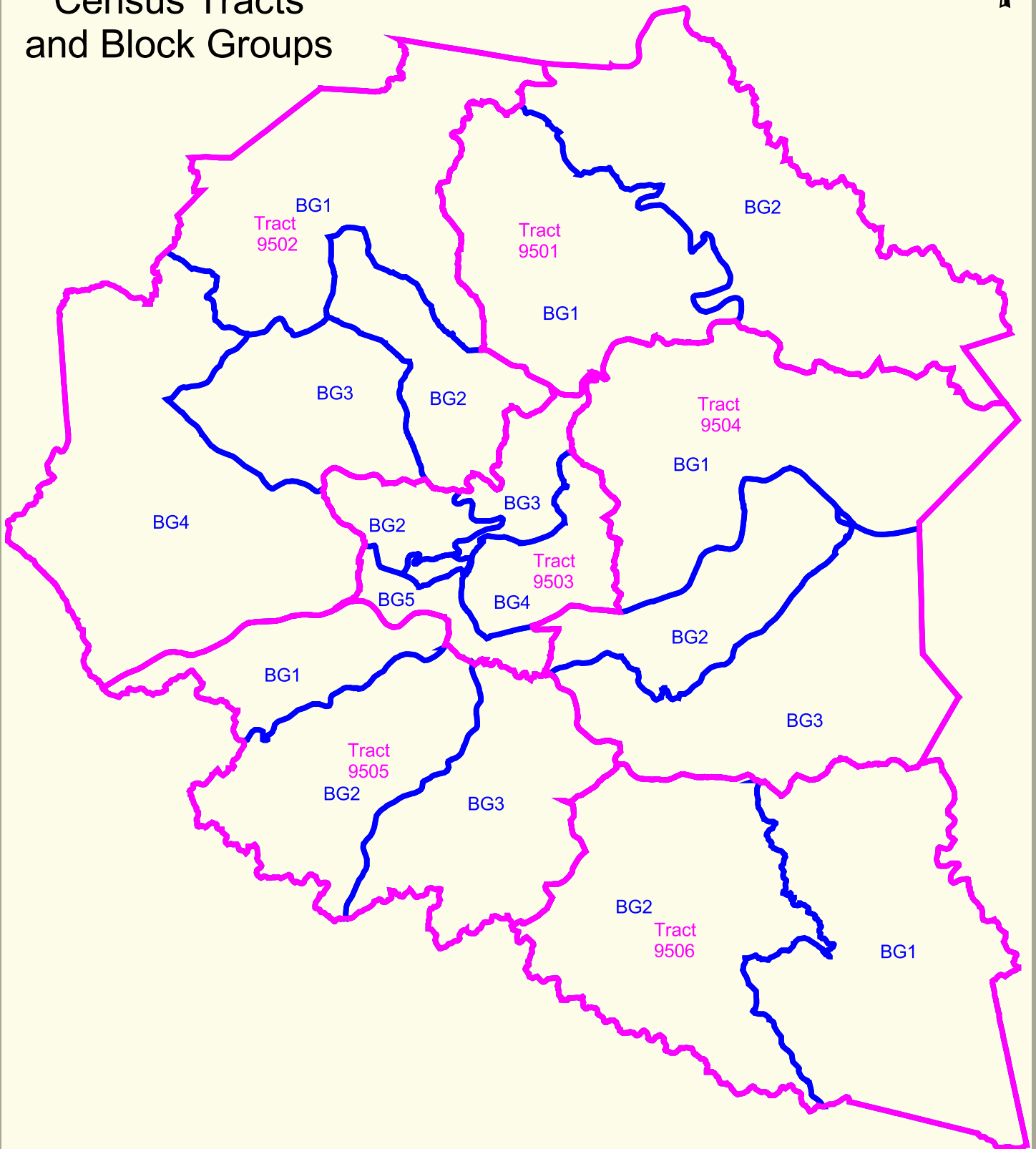







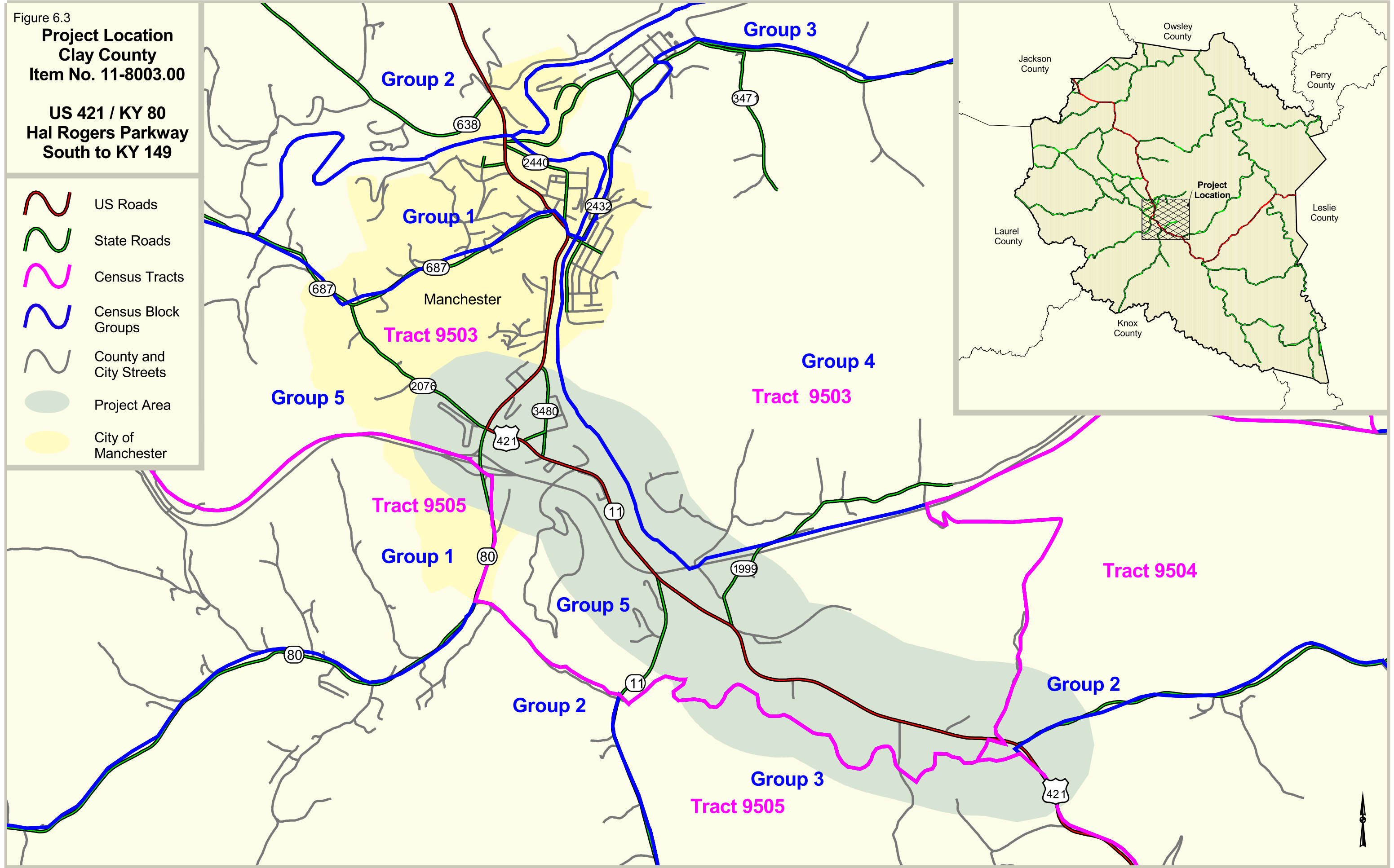


Figure 6.3  
**Project Location**  
**Clay County**  
**Item No. 11-8003.00**

**US 421 / KY 80**  
**Hal Rogers Parkway**  
**South to KY 149**

-  US Roads
-  State Roads
-  Census Tracts
-  Census Block Groups
-  County and City Streets
-  Project Area
-  City of Manchester



Evaluation of the study area consisted of compiling Census data for three (3) Tracts and six (6) Block Groups within those Tracts directly intersecting the study area. These Census divisions are as follows:

- Tract 9503 – Block Groups 4 & 5
- Tract 9504 – Block Groups 2 & 3
- Tract 9505 – Block Groups 1 & 3

Comparative data from five (5) Tracts and seven (7) Block Groups was collected for areas surrounding the study area, but having no direct intersection or inclusion in the area. This data includes the following Census divisions:

- Tract 9502 – Block Group 4
- Tract 9503 – Block Groups 2 & 3
- Tract 9504 – Block Group 1
- Tract 9505 – Block Group 2
- Tract 9506 – Block Groups 1 & 2

## **7. STUDY FINDINGS – Population by Race**

Figure 7.1 indicates a majority of the Census Tracts and Block Groups that directly intersect and surround the study area contain a very homogenous population of white individuals in comparison to national and state statistics for population by race.

One exception to the preceding statement is Tract 9503, which encompasses a significant minority population. Discussions with local officials and a subsequent review of Census Block data resulted in the determination that the increased minority population in Tract 9503 could be directly attributed to the inclusion of individuals currently incarcerated in the Federal Correctional Institute (FCI) of Manchester (see Figure 7.2, Tract 9503-Block 2010). The FCI of Manchester is a medium security facility that currently houses approximately 1,750 males and is located outside of the established study area.

An additional concentration of minority population was discovered in Tract 9503, Block Group 5, in Blocks 5010, 5012, 5014, 5016, and 5017 (see Figure 7.2). A portion of this area, located along Pennington Hill Road in Manchester, is actually within an expanded study area buffer zone; however, it is anticipated that the area will not be impacted by the proposed project (see Figure 7.3).

Discussions with local elected officials and community members resulted in the conclusion that additional concentrations of minorities are not located in the study area; therefore, it is anticipated that the implementation of this project would not have a disproportionate effect on minorities residing in and around the study area. CVADD Staff will continue to monitor racial composition in the study area and report any changes and/or developments that may occur in the future that could alter the findings of this report.

**Figure 7.1 - Population by Race**

	White	% of Population	Black	% of Population	Indian	% of Population	Asian	% of Population	Hispanic <sup>1</sup>	% of Population	Other	% of Population	Population
United States	211,460,626	75.1%	34,658,190	12.3%	2,475,956	0.9%	10,242,998	3.6%	35,305,818	12.5%	22,584,136	8.0%	281,421,906
Kentucky	3,640,899	90.1%	295,994	7.3%	8,616	0.2%	29,744	0.7%	59,939	1.5%	66,526	1.6%	4,041,769
Clay County	23,063	93.9%	1,178	4.8%	51	0.2%	29	0.1%	333	1.4%	235	1.0%	24,556
Tract 9503	5,967	83.5%	1,004	14.1%	30	0.4%	19	0.3%	218	3.1%	125	1.7%	7,145
Block Group 4	1,334	97.4%	28	2.0%	0	0.0%	3	0.2%	12	0.9%	5	0.4%	1,370
Block Group 5	1,267	93.9%	53	3.9%	1	0.1%	5	0.4%	4	0.3%	23	1.7%	1,349
Tract 9504	3,846	99.4%	0	0.0%	0	0.0%	1	0.0%	27	0.7%	23	0.6%	3,870
Block Group 2	818	99.9%	0	0.0%	0	0.0%	0	0.0%	5	0.6%	0	0.0%	819
Block Group 3	2,209	99.5%	0	0.0%	0	0.0%	0	0.0%	17	0.8%	12	0.5%	2,221
Tract 9505	3,011	96.1%	89	2.8%	6	0.2%	2	0.1%	33	1.1%	24	0.8%	3,132
Block Group 1	796	97.3%	18	2.2%	3	0.4%	1	0.1%	4	0.5%	0	0.0%	818
Block Group 3	829	98.8%	2	0.2%	3	0.4%	1	0.1%	8	1.0%	4	0.5%	839
Tract 9502	5,997	98.9%	27	0.4%	9	0.1%	2	0.0%	17	0.3%	29	0.5%	6,064
Block Group 4	1,050	98.4%	9	0.8%	2	0.2%	0	0.0%	0	0.0%	6	0.6%	1,067
Tract 9503	5,967	83.5%	1,004	14.1%	30	0.4%	19	0.3%	218	3.1%	125	1.7%	7,145
Block Group 2	1,825	65.4%	845	30.3%	28	1.0%	10	0.4%	195	7.0%	84	3.0%	2,792
Block Group 3	875	98.6%	6	0.7%	0	0.0%	0	0.0%	3	0.3%	6	0.7%	887
Tract 9504	3,846	99.4%	0	0.0%	0	0.0%	1	0.0%	27	0.7%	23	0.6%	3,870
Block Group 1	819	98.7%	0	0.0%	0	0.0%	1	0.1%	5	0.6%	10	1.2%	830
Tract 9505	3,011	96.1%	89	2.8%	6	0.2%	2	0.1%	33	1.1%	24	0.8%	3,132
Block Group 2	1,386	94.0%	69	4.7%	0	0.0%	0	0.0%	21	1.4%	20	1.4%	1,475
Tract 9506	1,614	99.2%	1	0.1%	0	0.0%	0	0.0%	14	0.9%	12	0.7%	1,627
Block Group 1	606	98.7%	0	0.0%	0	0.0%	0	0.0%	6	1.0%	8	1.3%	614
Block Group 2	1,008	99.5%	1	0.1%	0	0.0%	0	0.0%	8	0.8%	4	0.4%	1,013

Source: US Census Bureau, 2000 Census

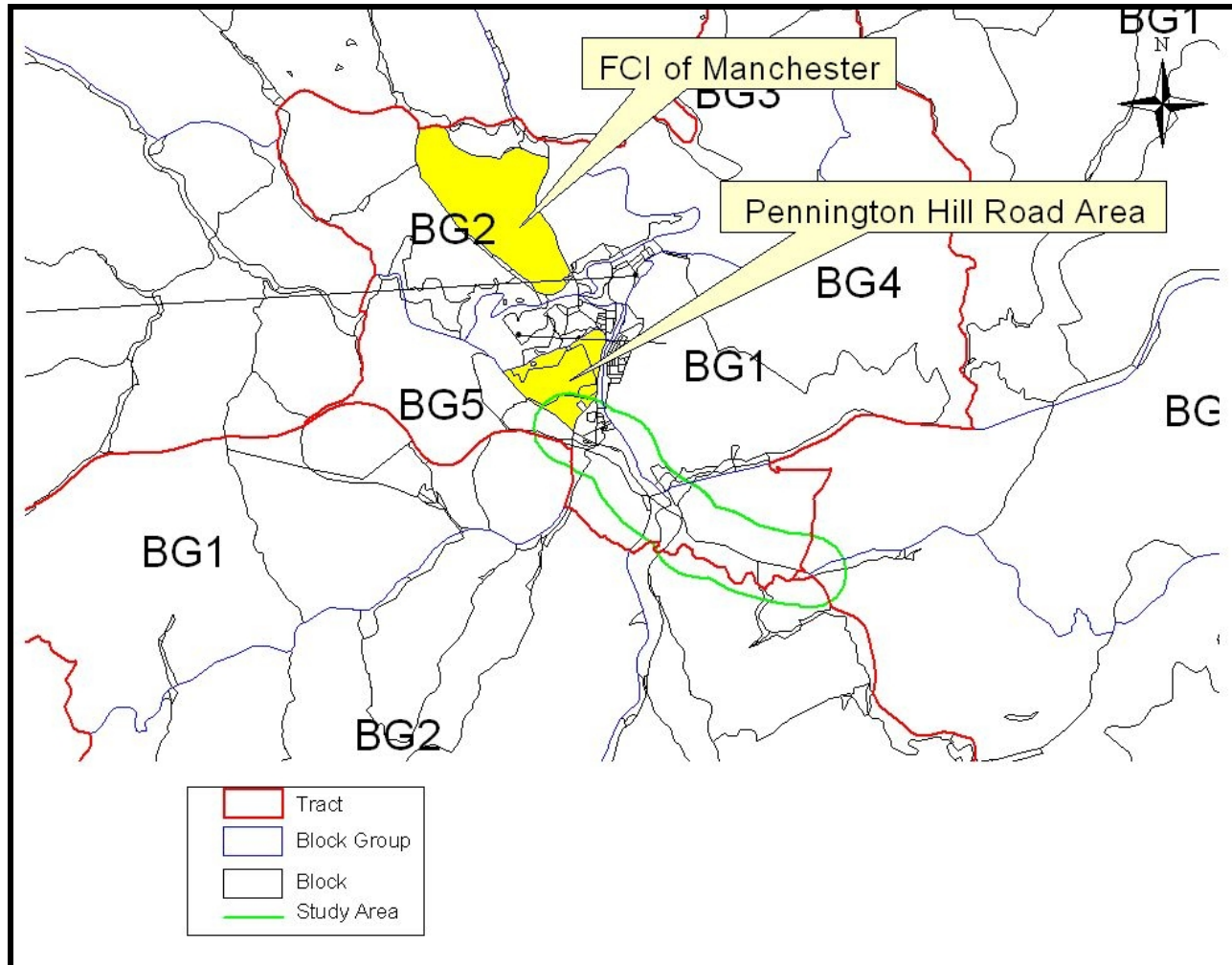
\*Census Divisions directly intersecting the defined study area

\*\*Census Divisions surrounding the defined study area

**Figure 7.2 - Census Block Data for Points of Interest**

Census Tract	Census Block	Total Population	Population of One Race	One Race						Two or More Races		
				White Alone	Black or African American Alone	American Indian & Alaska Native Alone	Asian Alone	Hawaiian & other Pacific Islander Alone	Some Other Race Alone	Population of Two or More Races	Hispanic or Latino Origin	
9503	2010	1984	1953	1036	834	28	10	1	44	31	189	
9503	5010	57	57	54	3	0	0	0	0	0	0	
9503	5012	254	245	232	12	0	1	0	0	9	0	
9503	5014	138	136	121	15	0	0	0	0	2	0	
9503	5016	41	35	21	14	0	0	0	0	6	0	
9503	5017	77	77	71	3	0	3	0	0	0	0	

**Figure 7.3 – Points of Interest**



## **8. STUDY FINDINGS – Population by Poverty Level**

Figure 8.1 illustrates that the population below poverty level for Clay County and all Census Tracts and Block Groups in and around the study area, significantly exceeds national and state averages. The percentage of persons below poverty level in the evaluated Census divisions ranges from a low of 21.2% to a high of 65.5%. A majority of the Census divisions contain percentages that are at least three times higher than the national average of 12.4% and more than two times greater than the state average of 15.8%.

Economic distress is the most important issue affecting Clay County today. The county continues to experience significant unemployment, a limited number of quality job opportunities, low-income levels, and high poverty rates. These detrimental factors destabilize the local economy and decrease the quality of life for residents. While the population below poverty level in surrounding southeastern Kentucky counties also exceeds state and national averages, a comparison of the data shows that Clay County is an extreme case.

Community leaders support the proposed project and view it as an opportunity to provide adequate access for citizens to a substantial commercial district in the community and expand economic growth and development.



**Figure 8.1 - Population Below Poverty Level by Age (1999)**

	Age 0-17	% of Total Pop.	Age 18-64	% of Total Pop.	Age 65-Over	% of Total Pop.	Total Below Poverty Level	% of Total Pop.	1999 Total Pop.
<b>United States</b>	11,746,858	4.3%	18,865,180	6.7%	3,287,774	1.2%	33,899,812	12.4%	273,882,232
<b>Kentucky</b>	203,547	5.2%	350,072	8.6%	67,477	1.7%	621,096	15.8%	3,927,047
<b>Clay County</b>	2,852	12.8%	5,262	23.6%	746	3.3%	8,860	39.7%	22,314
<b>Tract 9503</b>	555	10.3%	1,053	19.6%	193	3.6%	1,801	33.5%	5,379
<b>Block Group 4</b>	152	11.1%	273	19.9%	47	3.4%	472	34.5%	1,369
<b>Block Group 5</b>	173	12.8%	365	27.1%	91	6.7%	629	46.7%	1,349
<b>Tract 9504</b>	616	15.9%	1,112	28.7%	173	4.5%	1,901	49.1%	3,870
<b>Block Group 2</b>	165	20.6%	307	38.3%	52	6.5%	525	65.5%	801
<b>Block Group 3</b>	311	13.7%	580	25.6%	84	3.7%	975	43.1%	2,263
<b>Tract 9505</b>	444	14.4%	857	27.7%	124	4.0%	1,425	46.1%	3,090
<b>Block Group 1</b>	103	12.3%	192	22.9%	48	5.7%	343	41.0%	837
<b>Block Group 3</b>	78	9.9%	188	23.9%	47	6.0%	313	39.9%	785
<b>Tract 9502</b>	694	11.7%	1,297	21.9%	125	2.1%	2,116	35.8%	5,913
<b>Block Group 4</b>	62	5.8%	145	13.6%	19	1.8%	226	21.2%	1,065
<b>Tract 9503</b>	555	10.3%	1,053	19.6%	193	3.6%	1,801	33.5%	5,379
<b>Block Group 2</b>	120	10.9%	142	13.0%	12	1.1%	274	25.0%	1,096
<b>Block Group 3</b>	68	8.0%	143	16.8%	25	2.9%	236	27.7%	853
<b>Tract 9504</b>	616	15.9%	1,112	28.7%	173	4.5%	1,901	49.1%	3,870
<b>Block Group 1</b>	140	17.4%	225	27.9%	37	4.6%	402	49.9%	806
<b>Tract 9505</b>	444	14.4%	857	27.7%	124	4.0%	1,425	46.1%	3,090
<b>Block Group 2</b>	263	17.9%	477	32.5%	29	2.0%	770	52.4%	1,468
<b>Tract 9506</b>	270	16.3%	361	21.8%	72	4.4%	703	42.6%	1,653
<b>Block Group 1</b>	63	10.6%	159	26.8%	31	5.2%	253	42.7%	594
<b>Block Group 2</b>	207	19.5%	202	19.1%	41	3.9%	450	42.5%	1,059

Source: US Census Bureau, 2000 Census

\*Census Divisions directly intersecting the defined study area

\*\*Census Divisions surrounding the defined study area

## **9. STUDY FINDINGS – Population by Age**

Figure 9.1 displays that the age of the population in the Census divisions of Clay County is for the most part consistent with age group composition in the United States and Kentucky; however, the percentage of persons age 62 and over in Tract 9503, Block Groups 3 and 5 exceed, albeit not significantly, national and state percentages. Following a discussion with the Director of the Clay County Old Timers and a review of Census Block data for age dispersion, it was determined that no significant concentrations of persons age 62 are located in the study area.

Additional consultations with community leaders resulted in a conclusion that significant concentrations of persons age 62 and over are not evident in and around the study area; therefore, it is anticipated that the implementation of this project would not have a disproportionate effect on the population of persons age 62 and over residing in the proposed study area.

**Figure 9.1 - Population by Age**

	Age 0-17	% of Population	Age 18-61	% of Population	Age 62-Over	% of Population	Total
<b>United States</b>	72,293,812	25.7%	174,136,341	61.9%	34,991,753	12.4%	281,421,906
<b>Kentucky</b>	994,818	24.6%	2,542,158	62.9%	504,793	12.5%	4,041,769
<b>Clay County</b>	6,232	25.4%	15,231	62.0%	3,093	12.6%	24,556
<b>Tract 9503</b>	1,394	19.5%	4,886	68.4%	865	12.1%	7,145
<b>Block Group 4</b>	372	27.2%	818	59.7%	180	13.1%	1,370
<b>Block Group 5</b>	364	27.0%	775	57.4%	210	15.6%	1,349
<b>Tract 9504</b>	1,083	28.0%	2,344	60.6%	443	11.4%	3,870
<b>Block Group 2</b>	222	27.1%	492	60.1%	105	12.8%	819
<b>Block Group 3</b>	606	27.3%	1,364	61.4%	251	11.3%	2,221
<b>Tract 9505</b>	823	26.3%	1,911	61.0%	398	12.7%	3,132
<b>Block Group 1</b>	195	23.8%	502	61.4%	121	14.8%	818
<b>Block Group 3</b>	233	27.8%	510	60.8%	96	11.4%	839
<b>Tract 9502</b>	1,594	26.3%	3,639	60.0%	831	13.7%	6,064
<b>Block Group 4</b>	261	24.5%	653	61.2%	153	14.3%	1,067
<b>Tract 9503</b>	1,394	19.5%	4,886	68.4%	865	12.1%	7,145
<b>Block Group 2</b>	297	10.6%	2,314	82.9%	181	6.5%	2,792
<b>Block Group 3</b>	208	23.4%	528	59.5%	151	17.0%	887
<b>Tract 9504</b>	1,083	28.0%	2,344	60.6%	443	11.4%	3,870
<b>Block Group 1</b>	255	30.7%	488	58.8%	87	10.5%	830
<b>Tract 9505</b>	823	26.3%	1,911	61.0%	398	12.7%	3,132
<b>Block Group 2</b>	395	26.8%	89	6.0%	181	12.3%	1,475
<b>Tract 9506</b>	441	27.4%	947	58.9%	219	13.6%	1,607
<b>Block Group 1</b>	162	26.4%	358	58.3%	94	15.3%	614
<b>Block Group 2</b>	299	29.5%	589	58.1%	125	12.3%	1,013

Source: US Census Bureau, 2000 Census

\*Census Divisions directly intersecting the defined study area

\*\*Census Divisions surrounding the defined study area

## **10. CONCLUSION**

Following a comprehensive review of demographic data from the U.S. Census Bureau, discussions with local officials regarding community features, and field observations, Cumberland Valley Area Development District staff has concluded that a defined Environmental Justice community does not exist within the study area for the proposed widening of US 421/KY 80 to three lanes from the Daniel Boone (Hal Rogers) Parkway to KY 149 (Lockards Creek Road) in Clay County.

Analysis of racial composition data resulted in a single Census Tract being identified in and around the study area that contained a percentage of minorities exceeding national and state averages. It was noted that the increase in minority population was related to the existence of a federal penitentiary located outside of the study area that would ultimately not be affected by the proposed project. An additional area of minority concentration, Pennington Hill Road, was identified for consideration. Although an expanded study boundary buffer encompasses a portion of this area, no project impact is anticipated in the area.

Extremely high percentages of the population below poverty level in the study area are alarming; however, discussions with local officials and a field review led to the conclusion that no concentration of individuals below the poverty level will be disproportionately affected by this project. Community leaders have expressed optimism that the proposed project will be a tremendous benefit for Manchester and Clay County due to improved access to a substantial commercial district and the potential for expanded economic development.

Age analysis indicates that the distribution of elderly residents in the study area closely resembles the national and state averages, and no specific concentrations of elderly residents were discovered during the compilation of this report.

CVADD Staff will continue to monitor the progress of this project and reevaluate the Environmental Justice Review to document any demographic and/or socioeconomic changes that may occur in and around the study area throughout the development of the project.

# **APPENDIX 1**

PLANNING STUDY CONTACT LIST

**PLANNING STUDY CONTACT LIST**

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## **APPENDIX 2**

*METHODOLOGY  
FOR ASSESSING  
ENVIRONMENTAL JUSTICE CONCERNS*

# Methodology for Assessing Potential Environmental Justice Concerns for KYTC Planning Studies

Updated: February 1, 2002

The demographics of the affected area should be defined using U.S. Census data (Census tracts and block groups) and the percentages for minorities, low-income, elderly, or disabled populations should be compared to those for the following:

- Other nearby Census tracts and block groups,
- The county as a whole,
- The entire state, and
- The United States.

Information from PVA offices, social service agencies, local health organizations, local public agencies, and community action agencies can be used to supplement the Census data. Specifically, we are interested in obtaining the following information:

- Identification of community leaders or other contacts who may be able to represent these population groups and through which coordination efforts can be made.
- Comparison of the Census tracts and block groups encompassing the project area to other nearby Census tracts and block groups, county, state, and United States percentages.
- Locations of specific or identified minority, low-income, elderly, or disabled population groups within or near the project area. This may require some field reviews and/or discussions with knowledgeable persons to identify locations of public housing, minority communities, ethnic communities, etc., to verify Census data or identify changes that may have occurred since the last Census. Examples would be changes due to new residential developments in the area or increases in Asian and/or Hispanic populations.
- Concentrations or communities that share a common religious, cultural, ethnic, or other background, e.g., Amish communities.
- Communities or neighborhoods that exhibit a high degree of community cohesion or interaction and the ability to mobilize community actions at the start of community involvement.
- Concentrations of common employment, religious centers, and/or educational institutions with members within walking distance of facilities.
- Potential effects, both positive and negative, of the project on the affected groups as compared to the non-target groups. This may include, but are not limited to:
  1. Access to services, employment or transportation.
  2. Displacement of persons, businesses, farms, or non-profit organizations.
  3. Disruption of community cohesion or vitality.
  4. Effects to human health and/or safety.
- Possible methods to minimize or avoid impacts on the target population groups.



Methodology for Assessing Potential Environmental Justice Concerns  
for KYTC Planning Studies

Page 2

If percentages of these populations are elevated within the project area, it should be brought to the attention of the Division of Planning immediately so that coordination with affected populations may be conducted to determine the affected population's concerns and comments on the project. Also, with this effort, representatives of minority, elderly, low-income, or disabled populations should be identified so that, together, we can build a partnership for the region that may be incorporated into other projects. Also, we hope to build a Commonwealth-wide database of contacts. We are available to participate in any meetings with these affected populations or with their community leaders or representatives.

In identifying communities, agencies may consider as a community either a group of individuals living in geographic proximity to one another, or a geographically dispersed/transient set of individuals (such as migrant workers or Native Americans), where either type of group experiences common conditions of environmental exposure or effect. The selection of the appropriate unit of analysis may be a governing body's jurisdiction, a neighborhood, census tract, or other similar unit that is to be chosen so as not to artificially dilute or inflate the affected population. A target population also exists if there is (1) more than one minority or other group present and (2) the percentages, as calculated by aggregating all minority persons, exceed that of the general population or other appropriate unit of geographic analysis.

Maps should be included that show the Census tracts and block groups included in the analysis as well as the relation of the project area to those Census tracts and block groups.

## **APPENDIX 3**

*MAPS*

Figure 6.2

# Clay County Census Tracts and Block Groups

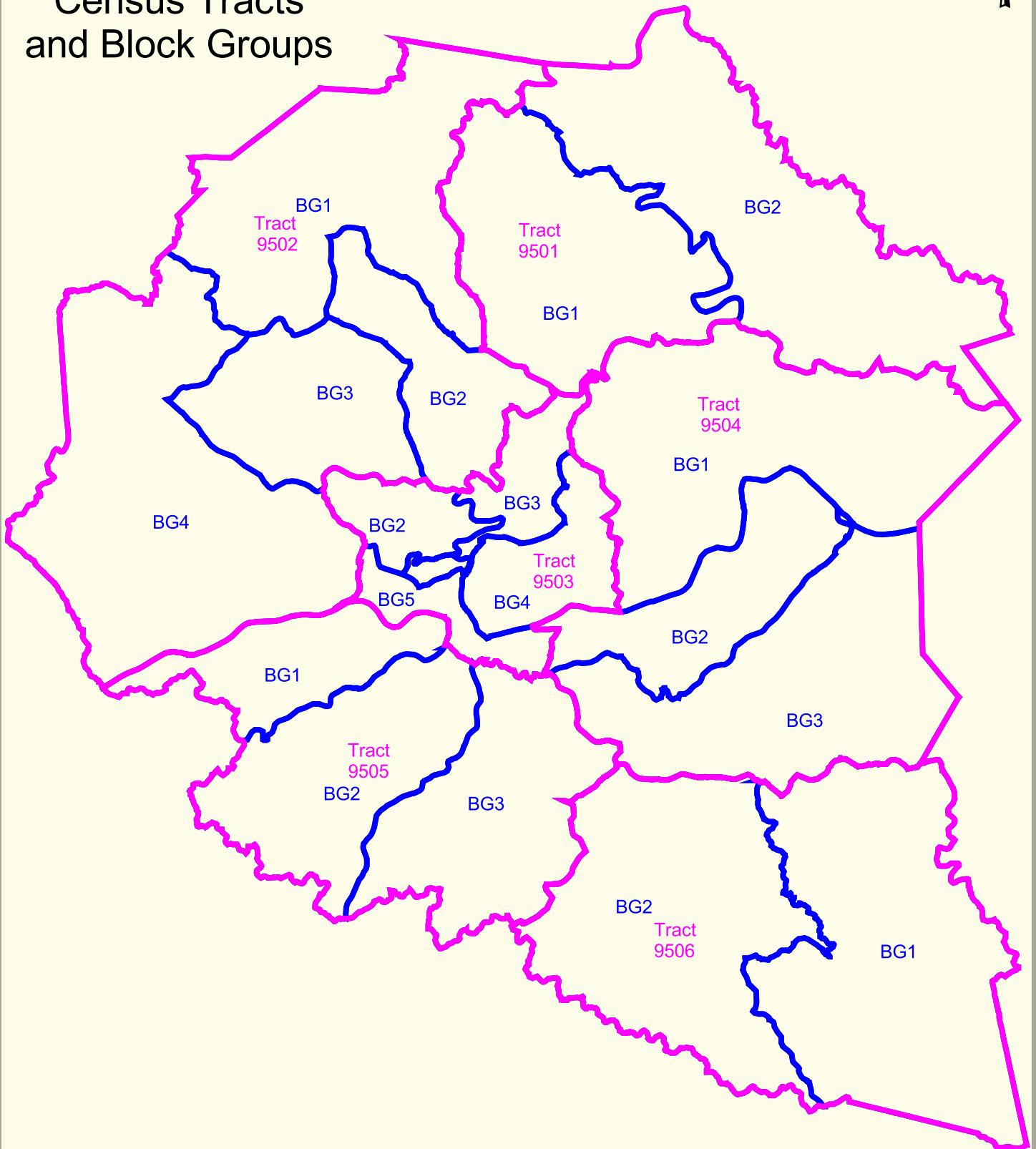









Figure 6.3  
**Project Location**  
**Clay County**  
**Item No. 11-8003.00**

**US 421 / KY 80**  
**Hal Rogers Parkway**  
**South to KY 149**

-  US Roads
-  State Roads
-  Census Tracts
-  Census Block Groups
-  County and City Streets
-  Project Area
-  City of Manchester

