

# **BELT LINE ROAD EXTENSION**

## **PROGRAMMING STUDY**

***Item Number 11-110.00***

**Middlesboro, Bell County, Kentucky**

**December 2011**



Executive Summary  
Belt Line Road Extension Programming Study  
Middlesboro, Bell County, Kentucky  
Item Number 11-110.00

This study was conducted to identify and evaluate a potential corridor for a new route from the junction of KY 441 (Belt Line Road), KY 3486, and Archer Drive to US 25E in Middlesboro. The study area is shown in [Exhibit ES-1](#). The study is intended to help define the location and purpose of the project and to lay the groundwork toward meeting Federal requirements regarding consideration of environmental issues, as defined in the National Environmental Policy Act (NEPA).

*Kentucky's FY2010-FY2012 Enacted Biennial Highway Plan* includes State Construction (SP) funds in the amount of \$400,000 for the Design phase in 2010, \$620,000 for the Right-of-Way phase and \$490,000 for the Utilities phase in 2011, and \$6,400,000 for the Construction phase in 2012. The total amount for all phases listed in the *Biennial Highway Plan* is \$7,910,000. A project team approach was used in the development of this planning study, with project team members including representatives from Highway District 11 and the Central Office Division of Planning.

This report provides a general introduction and description of the project, documents the planning study process, identifies the proposed improvements, presents environmental, geotechnical, and existing and future traffic information for the study area under build and no-build scenarios, summarizes the input of the project team and resource agencies, and provides recommendations for the project. Goals and objectives established for the project include:

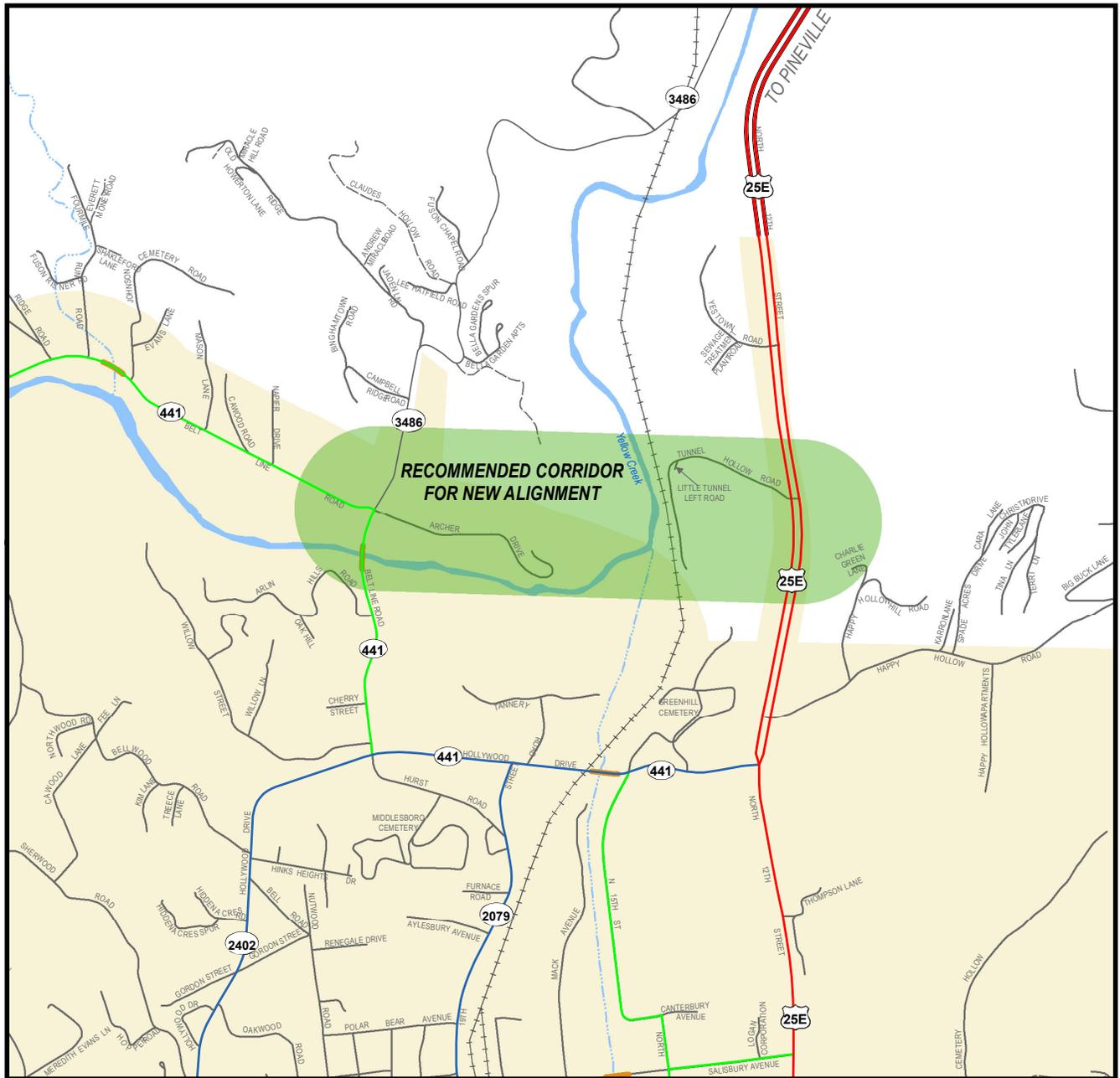
- Improve access between US 25E and western Middlesboro, and provide alternate access to such attractions as the Southeast Kentucky Community and Technical College, the Appalachian Regional Healthcare Hospital, the Middlesboro-Bell County Airport, the Middlesboro Middle School, the Middlesboro Country Club, and residential areas;

- Alleviate congestion in the commercial area along existing KY 441 between 19<sup>th</sup> Street and US 25E, which includes a Wal-Mart and several smaller retail stores;
- Provide improved connectivity for the Middlesboro area; and
- Improve safety for the traveling public in the project area.

The recommendation resulting from this study is to construct a new two-lane facility from the KY 441 / KY 3486 / Archer Drive intersection to US 25E near the Tunnel Hollow Road intersection north of Middlesboro as shown in [Exhibit ES-1](#). The new facility's primary function should be to serve through traffic, and control of access to the new facility is recommended to reduce the potential for degradation of traffic flow and safety due to future roadside development. Phased cost estimates for the recommended build option were prepared by Highway District 11 and are summarized in [Table ES-1](#).

Phase	Estimated Cost (Year 2010 Dollars)
Design	\$775,000
Right-of-Way	\$750,000
Utilities	\$375,000
Construction	\$4,700,000
Total	\$6,600,000

Table ES-1: Cost Estimates



Functional Classification	
	Rural Interstate
	Rural Principal Arterial
	Rural Minor Arterial
	Rural Major Collector
	Rural Minor Collector
	Urban Interstate
	Urban Freeways & Expressways
	Urban Principal Arterial
	Urban Minor Arterial Street
	Urban Collector Street
	Rural & Urban Local
	CS-0000 Functionally Classified Road No.
	Bridge
	Railroad
	Stream
	City/Town
	Federal Aid Urbanized Area 2000
	Incorporated Area
	Lake
	State Park
	National Park or Recreation Area
	Defense Facility
	Wildlife Area
	Geological Area
	State, National, or Private Forest



**BELT LINE ROAD EXTENSION  
MIDDLESBORO, BELL CO., KENTUCKY**

*EXHIBITES-1*

**PROJECT LOCATION  
& RECOMMENDED CORRIDOR**



Division of Planning



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## 1.0 INTRODUCTION

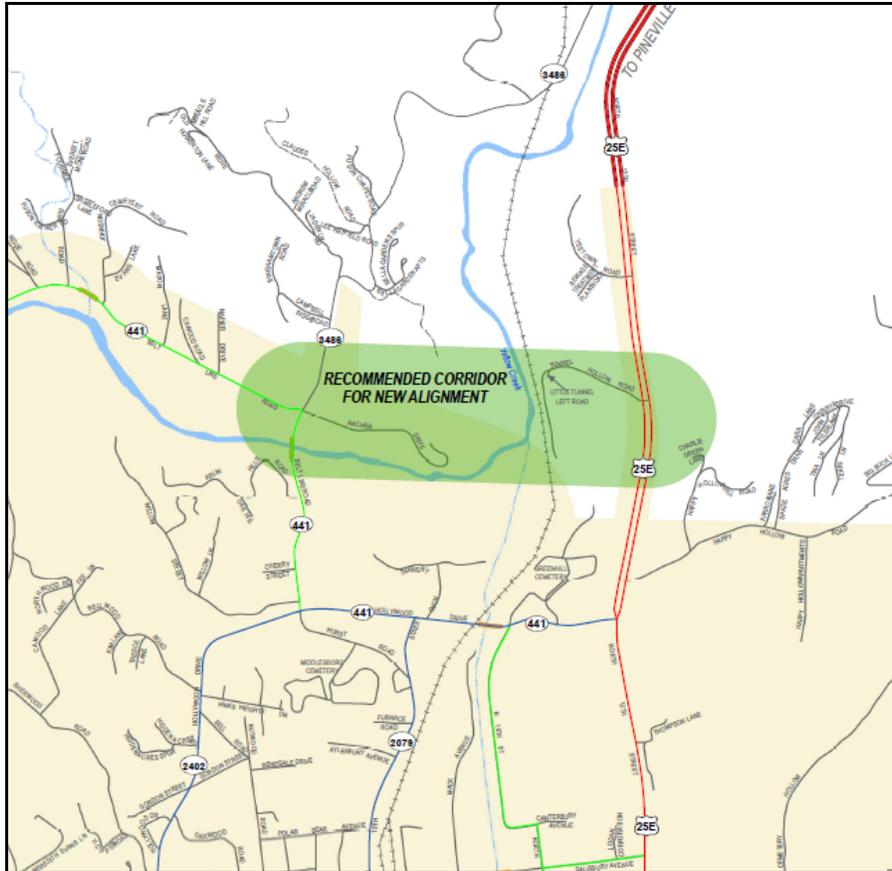
### 1.1 Study Purpose

The purpose of the Belt Line Road Extension Programming Study is to identify and evaluate the feasibility of a potential corridor for construction of a new route from the junction of KY 441, KY 3486, and Archer Drive to US 25E in Middlesboro, Bell County. KY 441 begins at KY 74 west of Middlesboro and forms a loop around the north side of the city known as Belt Line Road. At the Archer Drive/KY 3486 intersection, instead of continuing directly to US 25E, KY 441 turns south and then east, passing through residential and commercial areas before intersecting with US 25E.

This study is intended to help define a corridor and purpose for the project and lay the groundwork for meeting Federal requirements regarding consideration of environmental issues, as defined in the National Environmental Policy Act (NEPA). This report provides a general introduction and description of the project, including the beginning and ending points of the project corridor; documents the planning study process; identifies project goals and objectives; provides an overview of environmental concerns, geotechnical issues, and existing and projected traffic information for the study area; summarizes the input of the project team members and resource agencies; and identifies a recommended alternative.

### 1.2 Project Location

The proposed highway project is located in northeastern Middlesboro, in Bell County, beginning at the intersection of KY 441, KY 3486, and Archer Drive and continuing east to US 25E as shown in [Appendix A, Exhibit 1](#) (reproduced in [Figure 1](#) below).



**Figure 1: Project Location**

The study area for the corridor includes the existing routes of KY 441, KY 3486, US 25E, Archer Drive and Tunnel Hollow Road. Located in the southeastern corner of the state, Middlesboro borders Virginia to the southeast and Tennessee to the south. Bell County is located in the Cumberland Valley area of the state. Middlesboro is Bell County’s largest city. The Cumberland Gap National Historical Park and Pine Mountain State Resort Park are located within minutes of Middlesboro.

### 1.3 Termini and Length

The project is identified in *Kentucky’s FY2010-FY2012 Enacted Biennial Highway Plan* as “construct a new route from KY441 to US 25E in Middlesboro.” The project location is shown graphically in [Appendix A, Exhibit 1](#). The western terminus is Milepoint 3.827 at the KY 441 / KY 3486 / Archer Drive intersection, and the eastern terminus of the proposed corridor is near the Tunnel Hollow

Road / US 25E intersection. The eastern terminus of existing KY 441 is Milepoint 4.897 at the US 25E intersection. The proposed corridor is approximately 0.8-mile in length.

#### 1.4 Project Goals and Objectives

The following goals and objectives were established for this project:

- Improve access between US 25E and western Middlesboro, and provide alternate access to such attractions as the Southeast Kentucky Community and Technical College, the Appalachian Regional Healthcare Hospital, the Middlesboro-Bell County Airport, the Middlesboro Middle School, the Middlesboro Country Club, and residential areas;
- Alleviate congestion in the commercial area along existing KY 441 between 19<sup>th</sup> Street and US 25E, which includes a Wal-Mart and several smaller retail stores; and
- Improve safety for the traveling public in the project area.

#### 1.5 Programming and Schedule

The project addressed in this study was listed in *Kentucky's FY2010-FY2012 Enacted Biennial Highway Plan* as Item Number 11-110.00, with a description of "construct new route from KY 441 to US 25E in Middlesboro." The *Biennial Highway Plan* includes State Construction (SP) funds in the amount of \$400,000 for the Design phase in 2010, \$620,000 for the Right-of-Way phase and \$490,000 for the Utilities phase in 2011, and \$6,400,000 for the Construction phase in 2012. The total amount for all phases listed in the *Biennial Highway Plan* is \$7,910,000. Additional *Biennial Highway Plan* information for this and other projects programmed for Bell County is included in [Appendix B, Table 1](#).

## 2.0 STUDY AREA CHARACTERISTICS

Characteristics of the study area and the major highway network are identified in the following sections. These characteristics include transportation facilities, traffic and geometric data, bridges, crash data, and other *Biennial Highway Plan* projects in the study area. Features of the existing highway routes were obtained from the KYTC Highway Information System (HIS) database and verified during field visits where possible. Maps and tables containing this data can be found in [Appendix A](#) and [Appendix B](#), respectively. Photos of the project area can be found in [Appendix C](#).

### 2.1 Highway Systems

Data for the highway systems within the study area is summarized in [Appendix B, Table 2](#). Information provided includes the Functional Classification, State Highway System, National Truck Network, National Highway System, and Truck Weight Class. Scenic Byway and Bike Route Systems are also listed for the corridor routes. The following is a summary of significant highway systems information:

- State maintained roads in Kentucky are classified into four categories under the state system, ranging from Supplemental Road to State Primary. KY 441 is classified as a State Secondary Route and US 25E is classified as a State Primary Route.
- State-maintained roads are assigned to one of twelve functional classification categories. KY 441 is functionally classified as an Urban Minor Arterial from KY 2402/Hurst Road to US 25E, and as an Urban Collector in the remainder of the study area. US 25E is functionally classified as an Urban Principal Arterial.
- US 25E is on the Defense Highway Network.
- US 25E is on the National Highway System (NHS). The NHS, a system of nationally important roads, was established in the Intermodal Surface

Transportation Efficiency Act (ISTEA). It includes the Interstate Highway System and other significant principal arterial roads important to the nation's economy, defense, and mobility.

- The National Truck Network includes routes that have been specifically designated for use by trucks with increased dimensions (widths of 102 inches, heights of 13 ½ feet, and trailers up to 53 feet long, not to exceed two 28-foot trailers per truck). US 25E is on the National Truck Network and KY 441 is not.
- The Kentucky Revised Statutes require weight limits on the state-maintained highway system. With the exception of permits for over-dimensional or over-gross-vehicle-weight-classification-limit vehicles issued by the Kentucky Transportation Cabinet, Division of Motor Carriers, there are three weight classification limits:
  - AAA – 80,000 pounds gross vehicle weight;
  - AA – 62,000 pounds gross vehicle weight; and
  - A – 44,000 pounds gross vehicle weight.

The Truck Weight Classification is A for KY 441, and AAA for US 25E.

- US 25E in Bell County is designated as a Coal Haul route and is on the Extended Weight system. No portion of KY 441 is designated as a Coal Haul route or is on the Extended Weight System.
- US 25E in Bell County forms a portion of the Wilderness Road Heritage Highway Scenic Byway System.
- A segment of the Southern Lakes Bicycle Tour is located north of the study area, starting at the US 25E / US 119 intersection and proceeding north along US 25E to the US 25E / KY 92 intersection.

## 2.2 Existing Geometric Characteristics

KY 441 is a two-lane highway with a posted speed limit of 35 MPH in the project area. There are no truck lanes or passing lanes, but there is a two-way left-turn lane from approximately 19<sup>th</sup> Street (KY 2079) to US 25E. Lane widths range

from 9 to 12 feet, and paved shoulder widths range from 0 to 2 feet. There is a curb-and-gutter section from approximately 15<sup>th</sup> Street (CS 2004) to US 25E.



**Figure 2: KY 441 near Wal-Mart**



**Figure 3: KY 441 near Hurst Road**

US 25E is a four-lane divided highway with a posted speed limit of 55 miles per hour (MPH) except for a few sections where the speed limit is reduced to 45 MPH. Typical lane widths are 12 feet. Shoulder widths range from 0 to 10 feet and vary in composition.



**Figure 5: US 25E at KY 441**

Posted speed limits for various routes within the study area are shown graphically in [Appendix A, Exhibit 2](#).

### 2.3 Bridges

Bridge data for KY 441 is listed in [Appendix B, Table 3](#). Bridges can be rated as structurally deficient and/or functionally obsolete. None of the bridges located on the existing corridor route are listed as structurally deficient. One bridge, B00124, is functionally obsolete. A bridge with a sufficiency rating less than 50.0 is considered to be eligible for replacement with federal funds under the Federal-Aid Highway Bridge Replacement and Rehabilitation Program.

### 2.4 Crash Analysis

Crash data from the Kentucky State Police along KY 441 from the Archer Drive intersection to the US 25E intersection was initially examined for a four-year period from January 1, 2000 through December 31, 2003, and was subsequently examined for a three-year period from January 1, 2008 through December 31, 2010. This data was used to calculate crash rates for both one-tenth-mile spots and for longer segments of roadway. The longer segments were chosen based on changes in traffic volumes and roadway characteristics. The calculated crash rates were then compared to statewide critical crash rates based on the type of roadway (in this case, either two-lane urban or three-lane urban), using the methodology outlined in the Kentucky Transportation Center's *Analysis of Traffic Crash Data in Kentucky (1998-2003 & 2005-2009)*. The ratio of the actual crash rate to the critical crash rate is called the critical rate factor (CRF). A CRF of 1.00 or higher indicates that there is a high probability that crashes at a particular location are not occurring simply due to random chance.

During the initial analysis of crash data for the 2000-2003 time period, one 0.1-mile spot was identified with a CRF between 0.90 and 1.00. This spot was located at the KY 441 / KY 2402 / Hurst Road intersection. However, this location was not identified as a high-crash location in the analysis of more recent crash data for the 2008-2010 time period. Information on 0.1-mile spot calculations for the 2000-2003 data is included in [Appendix B, Table 4a](#).

For the subsequent analysis of the 2008-2010 crash data, KY 441 was broken into two segments, one beginning at Archer Drive and ending at Hurst Road, and the other beginning at Hurst Road and ending at US 25E. The segment between Archer Drive and Hurst Road has a two-lane cross-section and carries less than half the volume of the segment between Hurst Road and US 25E, which consists mostly of a three-lane cross-section. A total of 46 crashes were recorded during the analysis period, but neither segment was found to have a CRF above 0.90. Critical rate factors were then calculated for 0.1-mile spot locations along KY 441 between Archer Drive and US 25E. Two locations having CRF's above 0.90 were identified:

- A 0.1-mile spot along KY 441 near the KY 3486/Archer Drive intersection had a CRF of 0.99. Five crashes were recorded at this location during the analysis period. Three of these crashes were single-vehicle collisions; there was also one sideswipe collision and one collision involving an opposing left-turn. KY 441 makes a 90-degree turn at its intersection with KY 3486 and Archer Drive; the Archer Drive and KY 3486 approaches are stop-controlled. Three injuries occurred as a result of the opposing left-turn collision, but the remaining crashes were non-injury collisions. A photograph of this location is provided in [Figure 5](#) below.
- The 0.1-mile spot along KY 441 near the US 25E intersection had a CRF of 2.43. About two-thirds of crashes at this location were rear-end and angle collisions. Based on the distribution of crash types, it is likely that the combination of traffic congestion and closely-spaced intersections is contributing to the high crash rate at this location. The collisions at this location were primarily non-injury, with only one injury collision being recorded during the analysis period. A photograph of this location is provided in [Figure 6](#) below.



**Figure 5: KY 441 at KY 3486 & Archer Drive**



**Figure 6: KY 441 at US 25E**

The locations of the 0.1-mile spots discussed above are mapped in [Appendix A, Exhibit 3](#) and in [Figure 7](#) below. The location and manner of collision for each individual crash along the KY 441 corridor between Archer Drive and US 25E is also mapped in [Appendix A, Exhibit 3](#). Additional information on 0.1-mile spot calculations for the 2008-2010 data is included in [Appendix B, Table 4b](#).



**Figure 7: 0.1-Mile Spots with CRF > 0.90**

## 2.5 Traffic and Level of Service

Recent traffic count data was obtained from the Division of Planning for KY 441, plus select intersecting routes, from just west of the Archer Drive/KY 3486 intersection to the US 25E intersection. These traffic counts were used to estimate existing (Year 2011) Average Daily Traffic volumes. Default truck percentages based on similar functional classification were assumed for locations where truck percentages were needed for Volume to Capacity and Level of Service (LOS) calculations but where actual classification counts were not available. Turning movement counts at intersections along KY 441 from 19<sup>th</sup> Street (KY 2079) to US 25E were obtained from Highway District 11. These turning movement counts, along with trip generation rates from the Institute of Transportation Engineers *Trip Generation* manual, were used to estimate the amount of traffic on KY 441 that would be diverted to the proposed extension of Belt Line Road from KY 3486 / Archer Drive to US 25E and to re-calculate traffic volumes on segments of existing KY 441 from KY 3486/Archer Drive to US 25E under the build scenario. Traffic volumes and truck percentages for Year 2011 under both the build (with construction of the Belt Line Road Extension) and no-build (without construction of the Belt Line Road Extension) scenarios are provided in [Appendix A, Exhibit 4](#) and in [Figure 8](#) below.

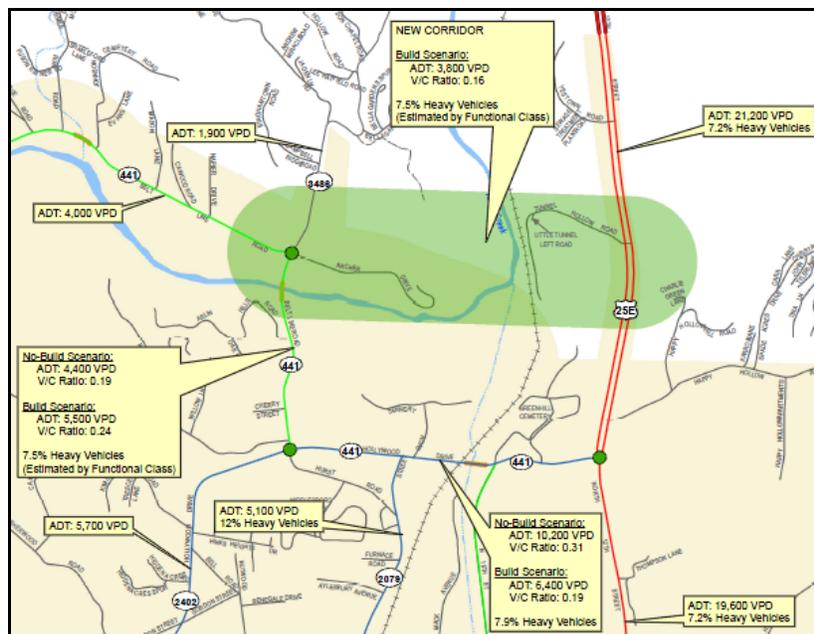
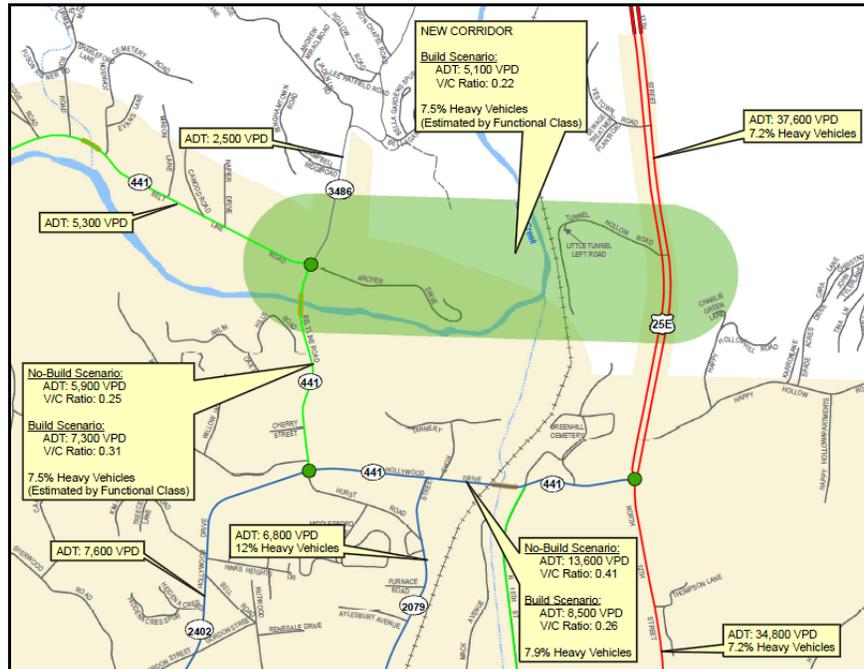


Figure 8: 2011 Traffic Volumes & V/C Ratios

Traffic volumes for both the build and no-build scenario were then projected to Year 2040 using assumed annual growth rates based on an analysis of both statewide and area-specific historical growth rates. Traffic volumes for Year 2040 under both the build and no-build scenarios are provided in [Appendix A, Exhibit 5](#) and in [Figure 9](#) below.



**Figure 9: 2040 Traffic Volumes & V/C Ratios**

Due to the low free-flow speeds on KY 441, Level of Service could not be calculated using the two-lane methodologies presented in the *Highway Capacity Manual 2000*. Therefore, Volume to Capacity (V/C) ratios were chosen as an alternate measure of congestion and were calculated for segments of existing KY 441 under both the build and no-build scenarios in Year 2011 and Year 2040. V/C ratios were also calculated for the proposed Belt Line Road extension in Year 2011 and Year 2040, assuming a two-lane cross-section. Under the no-build scenario, the highest V/C ratio would be 0.41, in Year 2040, on the section of existing KY 441 from KY 2402/Hurst Road to US 25E. This is considered to be a low level of congestion, but the V/C measure assumes uninterrupted traffic flow and doesn't take into consideration the effects of delays at intersections. The V/C ratio is expected to be reduced by approximately 40% for this portion of

existing KY 441 under the build scenario for Year 2011 and Year 2040. The V/C ratios are provided in [Appendix A, Exhibit 4](#) and [Figure 8](#) above for Year 2011, and in [Appendix A, Exhibit 5](#) and [Figure 9](#) above for Year 2040.

Turning movement counts for Year 2011 were used to calculate existing Levels of Service at each of the four major intersections along KY 441 between 19<sup>th</sup> Street (KY 2079) and US 25E:

- 19<sup>th</sup> Street (KY 2079);
- 15<sup>th</sup> Street (CS 2004);
- Greenhill Cemetery Road / Wal-Mart Entrance; and
- US 25E

Turning movement volumes for these intersections were also estimated for the Year 2011 build scenario (with construction of the Belt Line Road Extension) as well as the Year 2040 build scenario and no-build scenario (without construction of the Belt Line Road Extension) using similar procedures to those that were used to estimate Average Daily Traffic volumes for existing sections of KY 441. These projected turning movement volumes were used in conjunction with Highway Capacity Software to calculate Levels of Service (LOS) at each of the four intersections listed above under both the build and no-build scenarios for Year 2011 and Year 2040. For this analysis, it was assumed that traffic signal timings would be adjusted to better accommodate the new traffic volumes, but that no other improvements would be made at these intersections. The results of this analysis are shown in [Appendix A, Exhibit 6](#) and [Figure 10](#) below for Year 2011, and in [Appendix A, Exhibit 7](#) and [Figure 11](#) below for Year 2040.



Entrance, and US 25E) under both the build scenario (with construction of the Belt Line Road Extension) and the no-build scenario (without construction of the Belt Line Road Extension) for two analysis years (2011 and 2040). These charts summarize the information contained in [Appendix A, Exhibit 6](#); [Appendix A, Exhibit 7](#); [Figure 10](#); and [Figure 11](#). The numbers in the charts represent the total number of lane groups at all four intersections along existing KY 441 near Wal-Mart that would be expected to operate at a given Level of Service under each scenario. An examination of the chart for the 2040 analysis year reveals that while some congestion is anticipated in Year 2040 for the portion of KY 441 between near Wal-Mart even under the build scenario, the number of lane groups operating at LOS A or B is expected to increase from five to eight, and the number of lane groups operating at LOS D, E, or F is expected to decline from six to three, with the construction of the Belt Line Road Extension. These charts are also provided in [Appendix A, Exhibit 8](#).

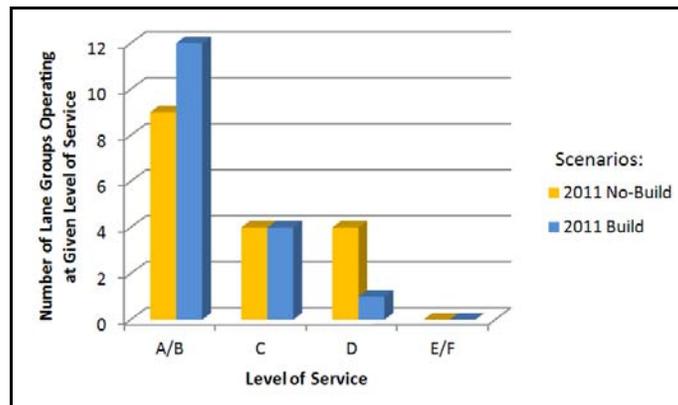


Figure 12: 2011 Levels of Service Under Various Scenarios

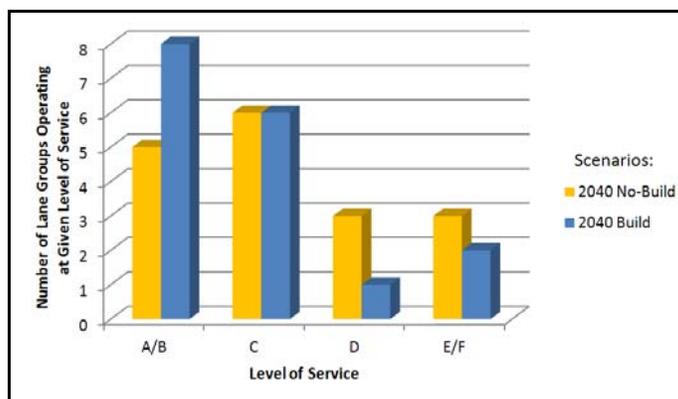


Figure 13: 2040 Levels of Service Under Various Scenarios

### 2.6 Improvements Listed in the Biennial Highway Plan

Eight Bell County projects are listed in *Kentucky's FY2010-FY2012 Enacted Biennial Highway Plan*. Information for these projects is included in [Appendix B, Table 1](#). With the exception of the Belt Line Road extension project itself (Item No. 11-110.00), none of the projects are located in the immediate project area.

## 3.0 ENVIRONMENTAL & SOCIOECONOMIC CONSIDERATIONS

### 3.1 Environmental Footprint

The Division of Planning developed an Environmental Footprint which is provided in [Appendix A, Exhibit 9](#). Environmental impacts are not anticipated with the No-Build Option. Environmental impacts for the Build Option will need to be examined in greater detail during the Design phase, but will likely include impacts to wetlands. Other environmental and socioeconomic issues are discussed below.

### 3.2 Socioeconomic Impacts

The build option would improve regional access for existing industry, truck traffic, and higher education. A new or improved roadway would enhance travel efficiency for area residents, commuters and through traffic by reducing travel times, increasing capacity, and improving connectivity. The build option would provide a more efficient means of transporting raw and finished materials to and from industrial sites.

### 3.3 Relocations

Low numbers of residential or commercial relocations are anticipated for the build option. Actual numbers of relocations would be determined during future design phases.

### 3.4 Environmental Justice

An Environmental Justice & Community Impacts Report was prepared by the Cumberland Valley Area Development District (CVADD) and is included in [Appendix D](#) of this report. The findings of the Environmental Justice & Community Impacts report are summarized in this section.

Following a comprehensive review of demographic data from the U.S. Census Bureau, discussions with local officials regarding community features, and field observations, the Cumberland Valley Area Development District staff concluded that a defined Environmental Justice community does not exist within the study area for the proposed construction of a new route from KY 441 to US 25E in Middlesboro.

Analysis of racial composition data resulted in two Census Block Groups being identified in and around the study area that contained a percentage of minorities exceeding national and/or state averages. Following a comprehensive review of Census Block data and discussions with local officials, no minority concentrations were discovered within or surrounding the immediate study area.

The percentages of persons in the study area below the poverty level are quite high; 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 support for the proposed project and anticipate that it will provide an economic benefit by improving access and reducing congestion.

Age analysis indicates that the distribution of elderly residents in the study area slightly exceeds the national and state averages, but 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.

#### 4.0 GEOTECHNICAL CONSIDERATIONS

Geotechnical characteristics and potential issues in the area have been identified and summarized in the following paragraphs, and will require further consideration throughout future phases of this project. A Geotechnical Overview was prepared by the Kentucky Transportation Cabinet Geotechnical Branch and is included in [Appendix E](#) with other resource agency coordination documents.

The project study area is situated within the Middlesboro Basin. The Middlesboro North Geologic Quadrangle map indicates that the study area is underlain by Quaternary Alluvium. The Alluvium thickness ranges from 0-30 feet. The bedrock Formation within the study area is Mingo and Hance Formations. These formations contain Sandstone, Shale, Siltstone, Underclay and Coal. Faults are located throughout the Middlesboro Basin, which are considered an “Impact Structure.” These occur in a circular pattern as shown on the geologic map in the Geotechnical Branch’s report in [Appendix E](#). Most of the faults can be avoided by locating any new alignments in the alluvium and as embankment sections. The bedrock within the area of the basin is highly fractured, folded and deformed. The geologic map in [Appendix E](#) indicates the dip of the bedrock in the Basin to range from 9 degrees to 90 degrees and the dip direction varies greatly throughout the study area.

The geotechnical comments and concerns for the study area are as follows:

- Foundations in alluvium for a bridge over Yellow Creek may require deep foundation types (piles or drilled shafts) if the alluvium is greater than 20 feet thick. A structure over Yellow Creek would be located within 500 feet

- of a mapped fault and approximately within two miles of the Rocky Face Fault (not shown on Map). The structure should be designed accordingly.
- In areas where the bedrock dips into a cut section, cut slopes will need to be evacuated along the bedding plane from the ditch line to the top of the ground line. This may require extra right of way in areas where the dip is less than 26 degrees.
  - Coal mines (surface or underground) are not anticipated to be encountered.
  - The Geotechnical Branch recommends all cut sections be kept to a minimum if possible to reduce the amount of bedrock exposed by adjusting the grades or alignments. An alignment to be considered is shown on the geologic map in [Appendix E](#).

## 5.0 CABINET AND PUBLIC INVOLVEMENT ACTIVITIES

Through the course of this study the Kentucky Transportation Cabinet Central Office personnel have met with personnel from Highway District 11 and sent an Agency Coordination letter to representatives of federal, state and local agencies, and other special interest groups who were given an opportunity to provide input on the proposed project. Minutes for the project team meetings are included in [Appendix F](#). Responses from resource agencies and other communications are included in [Appendix E](#).

### 5.1 Project Team Meetings

An initial project team meeting was held on July 13, 2004, at the Kentucky Transportation Cabinet (KYTC) Department of Highways District 11 Office in Manchester, Kentucky. The purpose of the meeting was to discuss the purpose, goals, objectives, and issues of the proposed project, and to review data on existing conditions for the study area. Participants at the meeting included representatives from Highway District 11 and the KYTC Division of Planning. A second project team meeting was conducted on June 17, 2010 to update and

clarify information for the final report. This meeting was also held at the Highway District 11 Office in Manchester and included representatives from Highway District 11 and the KYTC Division of Planning. Minutes for the project team meetings are included in [Appendix F](#).

### 5.2 Resource Agency Coordination

Many local, state, and federal resource agencies, with diverse areas of public responsibility, were included in the planning process. Input was solicited from these agencies through written requests. Each agency was sent a copy of the project purpose and goals statement, existing and future traffic data, and a project location map. This section summarizes the input received from these agencies. The letter that was sent to the agencies requesting their input, along with the agencies' responses, are included in [Appendix E](#).

- **Local Comments:** The City of Middlesboro supports the project. The project will enhance economic opportunities through improved access, increased capacity, reducing delays, improving emergency response times, creating a safe facility for the driving public, and decreasing coal truck traffic on Cumberland Avenue in downtown Middlesboro. [Note: KY 441 is not currently on the coal-haul route system.]
- **State Comments:**
  - **Kentucky Department of Highways, Division of Materials, Geotechnical Branch** - Provided comments which were listed in Section 4.0. Their report on geotechnical considerations for this project is contained in [Appendix E](#).
  - **Kentucky Department of Agriculture** - Has no specific concerns or issues concerning the project.
  - **Kentucky Airport Zoning Commission** - Has reviewed the proposed project area and found that it will have no hazardous effect to air navigation. However, if construction equipment used on this project exceeds 200 feet in height, a permit will have to be

obtained through the Kentucky Airport Zoning Commission. An attachment describing their jurisdiction was included.

- **Kentucky Department of Military Affairs** – Have no issues or concerns that impact their agency.
- **Kentucky Justice and Public Safety Cabinet, Department of Vehicle Enforcement** - Sees neither negative impact nor specific concerns.
- **Kentucky Environmental and Public Protection Cabinet** – Has no permitted/bonded areas within the boundaries of this project.
- **Kentucky Environmental and Public Protection Cabinet, Department for Environmental Protection, Division for Air Quality** – Gave standard comments for air quality regulation.
- **Kentucky Environmental and Public Protection Cabinet, Division of Conservation** – There are no agricultural districts established in the project area, therefore no land enrolled in Agricultural District Program to be mitigated. They would like to see the issue of the loss of farmland addressed. Both prime farmland and farmland of statewide importance could be impacted by this project. They recommend that best management practices (BMPs) be utilized to prevent non-point source water pollution.
- **Kentucky Environmental and Public Protection Cabinet, Department for Natural Resources** – The **Division of Forestry** has looked at the project from two access points. The current impediments are six-plus residences, Little Yellow Creek and the railroad parallel to the creek. The creek runs through an uninhabited flood plain north of an industrial area. There are residences located east and west of the proposed route. A hill protrudes southeasterly in the flood plain. The creek has characteristics of a drainage canal rather than of natural origin, with poor aesthetic quality (rock walls and joining grasslands). They do not envision additional detrimental impacts to Yellow Creek with the

proposed road, since the new bridge will traverse the railroad and creek and not functionally impact the flood plain. The **Division of Oil and Gas Conservation** states that the project is located in an area of known oil and gas exploration activity. Oil and gas wells may be encountered in this area and the oil and gas operators may need to be contacted in order to work out any possible impact. The Kentucky Geological Survey can provide map overlays with the wells plotted.

- **University of Kentucky, Kentucky Geological Survey** – Geologic concerns for the study include: Physiographic Region, Middlesboro Impact Structure, Karst Potential, Landslide Potential, Unconsolidated Sediments, Resource Conflicts, Materials Suitability, Fault Potential, and Earthquake Zone.
- **Kentucky Commerce Cabinet, Department of Parks** – The project will not directly impact any of their facilities.
- **Kentucky Commerce Cabinet, Department of Tourism** – Since no known historical sites or sensitive wildlife and natural resource areas exist in the project area, it does not appear that this project will negatively impact activities related to the Department of Tourism.
- **Kentucky Commerce Cabinet, Department of Fish and Wildlife Resources** – Provided a list of federal and state threatened and endangered species that are known to occur in the study area, and provided recommendations for minimizing impacts to the species. Noted that the project may impact wetland habitats, and provided recommendations for working within waterways and wetland habitats.
- **Kentucky Cabinet for Health and Family Services** – Does not anticipate any significant impact to their offices or daily operations due to this project.

- **Federal Comments:**
  - **United States Department of Health & Human Services** – While they have no project specific comments to offer at this time, they do recommend that the topics listed below be considered during the NEPA process along with other necessary topics, and addressed if appropriate: Air Quality, Water Quality/Quantity, Wetlands and Flood Plains, Hazardous Materials/Wastes, Non-Hazardous Solid Waste/Other Materials, Noise, Occupational Health and Safety, Land Use and Housing, and Environmental Justice.
  - **United States Department of Homeland Security/United States Coast Guard** – Have reviewed the information provided and determined that the project will not involve a waterway under the jurisdiction of the Coast Guard, therefore a bridge permit is not required.
  - **United States Department of Agriculture, Natural Resources Conservation Service (NRCS)** – Are concerned with potential impacts that the 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 will need to be submitted to the local NRCS office.

### 5.3 Public Involvement

The only public involvement for this study was sending letters to resource agencies as part of the resource agency coordination process. Further public involvement will be required during the Design Phase, and the details will be determined by the Design project team.

## 6.0 PROJECT TEAM RECOMMENDATIONS

### 6.1 Options Considered

Two preliminary build options and a no-build option were initially considered. One of the build options would follow a new corridor from the KY 441 / KY 3486 / Archer Drive intersection and would intersect with US 25E north of the existing KY 441 / US 25E intersection. The other build option would approximately follow the existing alignment and would intersect US 25E at the existing US 25E / KY 441 intersection. The existing corridor build option was eliminated from consideration, however, for the following reasons:

- Revising the two 90-degree curves on the existing KY 441 alignment at the Hurst Road / KY 2402 intersection and at the Archer Drive / KY 3486 intersection would involve significant floodplain impacts. Revising the curve at the Hurst Road / KY 2402 intersection would also involve impacts to a large industrial site, in addition to the floodplain impacts.
- Widening KY 441 enough to provide adequate capacity in the area near Wal-Mart (between 19<sup>th</sup> Street and US 25E) would be impractical due to the limited width available for construction between the two commercial areas on either side of KY 441.
- Following the existing alignment would involve construction over a longer distance (approximately 1.1-miles for the existing corridor option compared to 0.8-mile for the new corridor option).

The final build option considered for the KY 441 study was identified and refined through the study process. Corridor needs and input from local officials and resource agencies were considered in the corridor development process. The resulting build option is a new two-lane facility, which would be an extension of Belt Line Road from the Archer Drive / KY 441 / KY 3486 intersection to US 25E near the Tunnel Hollow Road intersection north of Middlesboro. The new facility's primary function should be to serve through traffic, and control of access to the new facility is recommended to reduce the potential for degradation of

traffic flow and safety due to future roadside development. The location of the corridor for the final build option is shown in [Appendix A, Exhibit 1](#).

There were four important considerations in recommending a preferred option:

- Meet the project goals as determined from the study process
- Public support
- Cost to construct
- Traffic volumes

The no-build option was evaluated by the project team. The benefits of the no-build option include no expenditure of funds, except for routine maintenance; no impact to environmental resources; no impact to farms; and no residential or commercial relocations. In spite of these benefits, however, a conclusion was reached that without some corridor improvements, the project goals that relate to congestion, safety, and regional access and mobility could not be met for the following reasons:

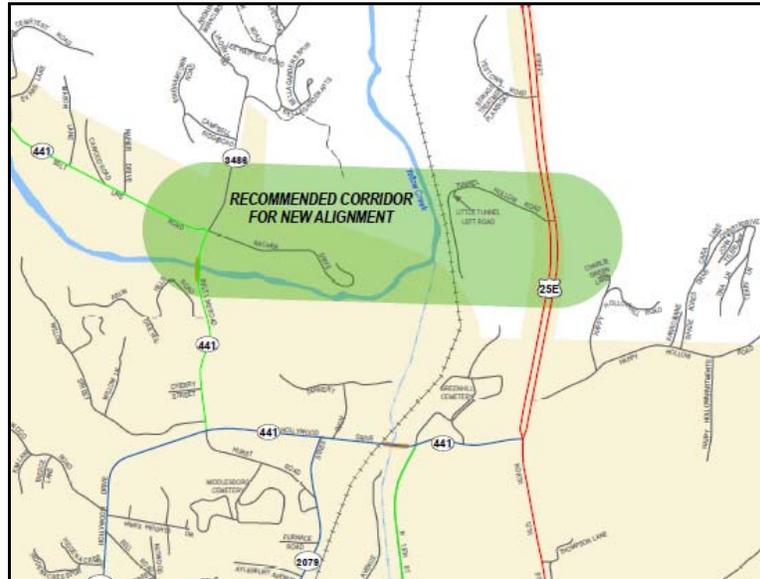
- The existing route currently experiences some congestion in the area between 19<sup>th</sup> Street (KY 2079) and US 25E, with several lane groups (primarily on intersecting routes) operating at Level of Service C and D based on Year 2011 traffic volumes. It is anticipated that extending Belt Line Road to US 25E would reduce existing traffic volumes on KY 441 sufficiently to improve current Levels of Service (LOS) to LOS B or higher for most lane groups, including an increase in Level of Service from LOS D to LOS C for the US 25E/KY 441 intersection.
- Traffic volumes are expected to increase significantly by Year 2040, resulting in lower Levels of Service for several lane groups under the no-build scenario. In particular, the left-turn movement from 15<sup>th</sup> Street (CS 2004) is expected to operate at LOS F, and the US 25E/KY 441 intersection is expected to operate at LOS E. It is anticipated that extending Belt Line Road to US 25E would reduce existing traffic volumes on KY 441 sufficiently to enable both the left-turn movement from 15<sup>th</sup> Street and the US 25E/KY 441 intersection to operate at LOS D. In

addition, the number of lane groups operating at LOS A or B is expected to increase by 60% under the build scenario versus the no-build scenario in Year 2040.

- The build option would allow motorists traveling between US 25E and existing Belt Line Road to avoid traveling through several intersections and two ninety-degree turns, including two locations which were identified as having high crash rates. The build option would also reduce travel distance by as much as 50% for vehicles traveling to or from points to the north along US 25E. This reduced exposure would be expected to improve safety for the traveling public in the project area. Reduced congestion at the high-crash spot along KY 441 near the US 25E intersection would likely reduce the crash rate at this location, and changes to the intersection of KY 441, KY 3486, and Archer Drive resulting from the extension of Belt Line Road would be expected to improve safety at that high-crash location as well.
- The build option would improve access to western Middlesboro, which can be accessed via Belt Line Road, by reducing the distance required for vehicles to travel from US 25E to Belt Line Road and by allowing vehicles traveling to western Middlesboro to bypass congested intersections along KY 441 near and at the US 25E intersection. This would reduce delays for through traffic traveling to western Middlesboro, as well as for the residual traffic that would continue to use KY 441 between KY 2402/Hurst Road and US 25E.
- The no-build option would do nothing to improve access between US 25E and western Middlesboro, to decrease delays, or to improve safety, all of which were listed as project goals.

The project team therefore recommended the build option to alleviate congestion, improve safety, and provide improved access to western Middlesboro. The recommended corridor begins at the intersection of Archer Drive, KY 441, and KY 3486, and continues east to US 25E near the Tunnel Hollow Road intersection, crossing the CSX railroad tracks and Yellow Creek. The

approximate location of this new corridor is shown in [Appendix A, Exhibit 1](#) and in [Figure 14](#) below.



**Figure 14: Recommended Corridor**

Probable design criteria for the new route include the following characteristics:

- Functional Classification of Rural Major Collector
- Approximate length of 0.8-mile.
- Design Speed of 45 Miles Per Hour
- Typical Section consisting of two 12-foot lanes with 8-foot shoulders
- Turn lanes at the US 25E intersection and others as required

## 6.2 Estimated Costs

Cost estimates for the recommended build option were prepared by Highway District 11 in 2010 and are summarized below.

Phase	Estimated Cost (Year 2010 Dollars)
Design	\$775,000
Right-of-Way	\$750,000
Utilities	\$375,000
Construction	\$4,700,000
Total	\$6,600,000

### 6.3 Project Development Considerations

Below is a summary of important findings that will need to be addressed in the next phase of project development:

- Further fieldwork and coordination with the United States Fish and Wildlife Service will be necessary in future project phases to determine if the federally listed endangered Indiana bat, gray bat, fanshell mussel, clubshell mussel and rough pigtoe (mussel) and the federally threatened bald eagle and Eggert's sunflower exist within right of way limits, and the potential for adverse impacts.
- For streams and wetlands, analyze specific impacts in future project phases, evaluate avoidance and minimization options, and determine permitting and, if appropriate, mitigation requirements.
- Historic and archaeological surveys will need to be conducted to determine/confirm the presence of historic or archaeological sites and potential to avoid or minimize project impacts.
- Environmentally sensitive sites, parks and exemplary natural areas will need to be considered in future project phase decisions.
- Determine whether Section 4(f) or Section 6(f) evaluations will be necessary for future project phases.
- Determine numbers of residential and commercial relocations and farmland impacts.
- For potential hazardous materials and underground storage tank sites, confirm presence at facilities such as service stations, automobile repair shops, and auto salvage yards and assess avoidance and mitigation options.
- Modeling of potential air and noise impacts will be necessary in future project phases to determine if mitigation considerations are necessary.

#### 6.4 Construction Considerations

A number of issues were identified through the course of this study that should be considered in the future construction phase of this project. Potential construction issues related to the recommended corridor include:

- Erosion Control: Measures to control erosion and sedimentation during and after construction activities should be utilized. The construction of this project will initially increase the amount of sediment that ground and surface water sources receive. There will also be an increase in sheet-flow pollution when this project is completed. Careful consideration must be given to erosion control methods to minimize the amount of pollution that reaches surface and ground water.
- Floodplains: The construction of this project may impact floodplains in the project area, including those floodplains associated with Bennetts Creek/Yellow Creek and Little Yellow Creek. Floodplains in the project area are shown in the Environmental Footprint, which is included as [Appendix A, Exhibit 9](#), and on several maps published by the Federal Emergency Management Agency (FEMA):
  - Flood Insurance Rate Map (FIRM) Number 21013C0239D provides coverage of the likely new corridor alignment and a portion of the existing KY 441 alignment, while FIRM Number 21013C0352D provides coverage of the remaining portion of the existing KY 441 alignment within the project area. FIRMette maps portraying the portions of these FIRM maps near the project area are included as [Appendix A, Exhibit 10](#) and [Appendix A, Exhibit 11](#).
  - Flood Boundary and Floodway Map Community-Panel Number 215190 0005 provides coverage of the project area within the City of Middlesboro, while Community-Panel Number 210010 0020 provides coverage of the project area within the unincorporated area of Bell County.

Detailed hydraulic analysis must be performed to maintain current flood stages without increasing them by more than one foot in uninhabited

areas. The construction of this project must not increase the flood hazard within the project corridor or drainage area.

- Air Quality: Construction period air quality impacts need to be evaluated to examine the potential short-term effects of site preparation, demolition, materials storage, and other construction activities to determine if any appropriate mitigation commitments are to be incorporated into the plans.
- Environmentally Sensitive Areas: A number of environmentally sensitive areas will be encountered during the construction of this project. When construction activities are being performed in these areas, every precaution should be taken to minimize the disturbance to these areas.

## 7.0 CONTACT INFORMATION

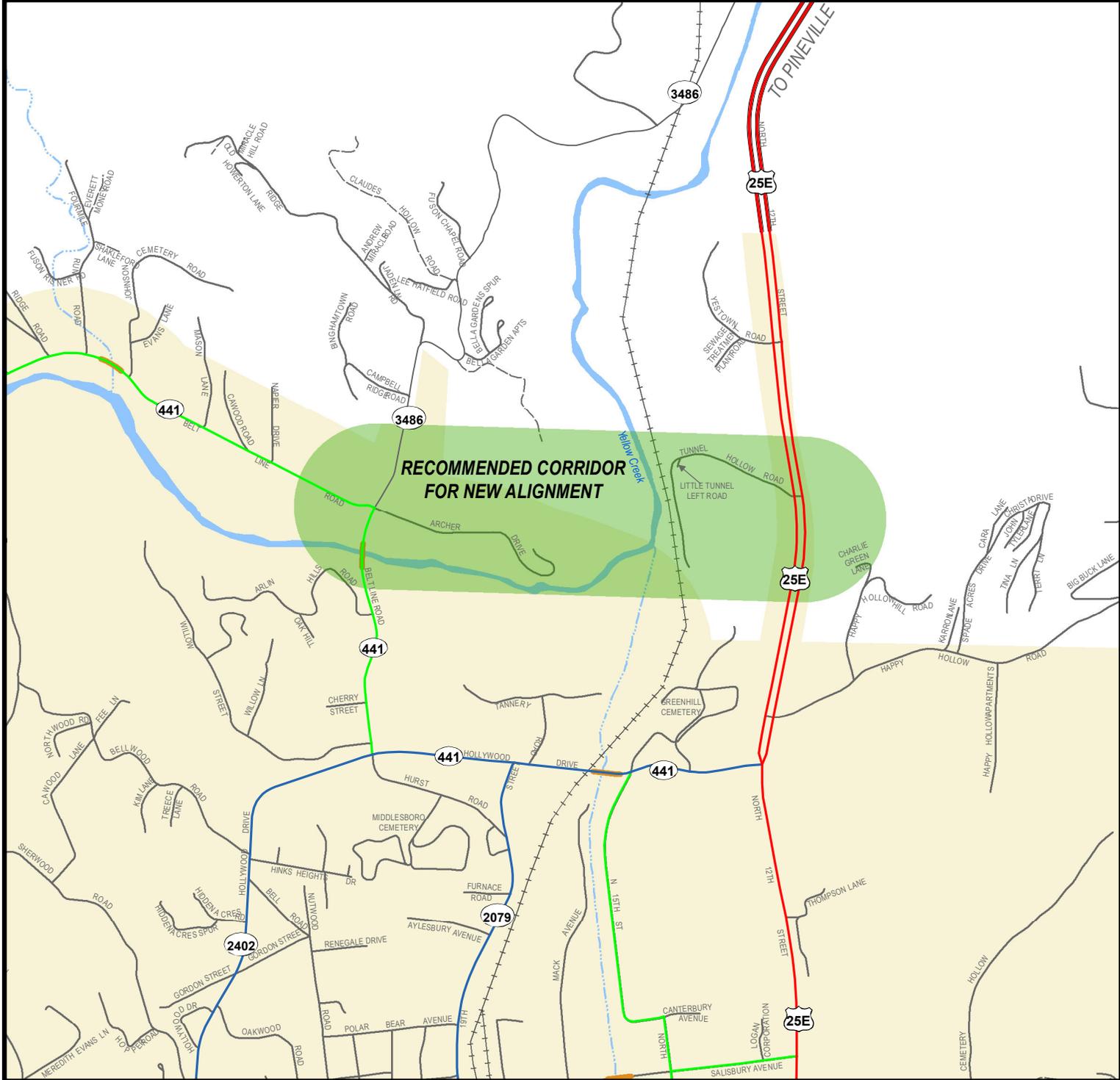
Written comments may be addressed to:

Keith R. Damron, P.E., Director  
Kentucky Transportation Cabinet  
Division of Planning  
200 Mero Street, 5<sup>th</sup> Floor West  
Frankfort, KY 40622

Or visit our website at: [transportation.ky.gov/planning](https://transportation.ky.gov/planning).

## **APPENDIX A**

### **Exhibits**



- Functional Classification**
- Rural Interstate
  - Rural Principal Arterial
  - Rural Minor Arterial
  - Rural Major Collector
  - Rural Minor Collector
  - Urban Interstate
  - Urban Freeways & Expressways
  - Urban Principal Arterial
  - Urban Minor Arterial Street
  - Urban Collector Street
  - Rural & Urban Local
- CS-0000 Functionally Classified Road No.
- Bridge
  - + + + Railroad
  - ~ ~ ~ Stream
  - City/Town
  - + Federal Aid Urbanized Area 2000 Incorporated Area
  - + Lake
  - + State Park
  - + National Park or Recreation Area
  - + Defense Facility
  - + Wildlife Area
  - + Geological Area
  - + State, National, or Private Forest



**BELT LINE ROAD EXTENSION  
MIDDLESBORO, BELL CO., KENTUCKY**

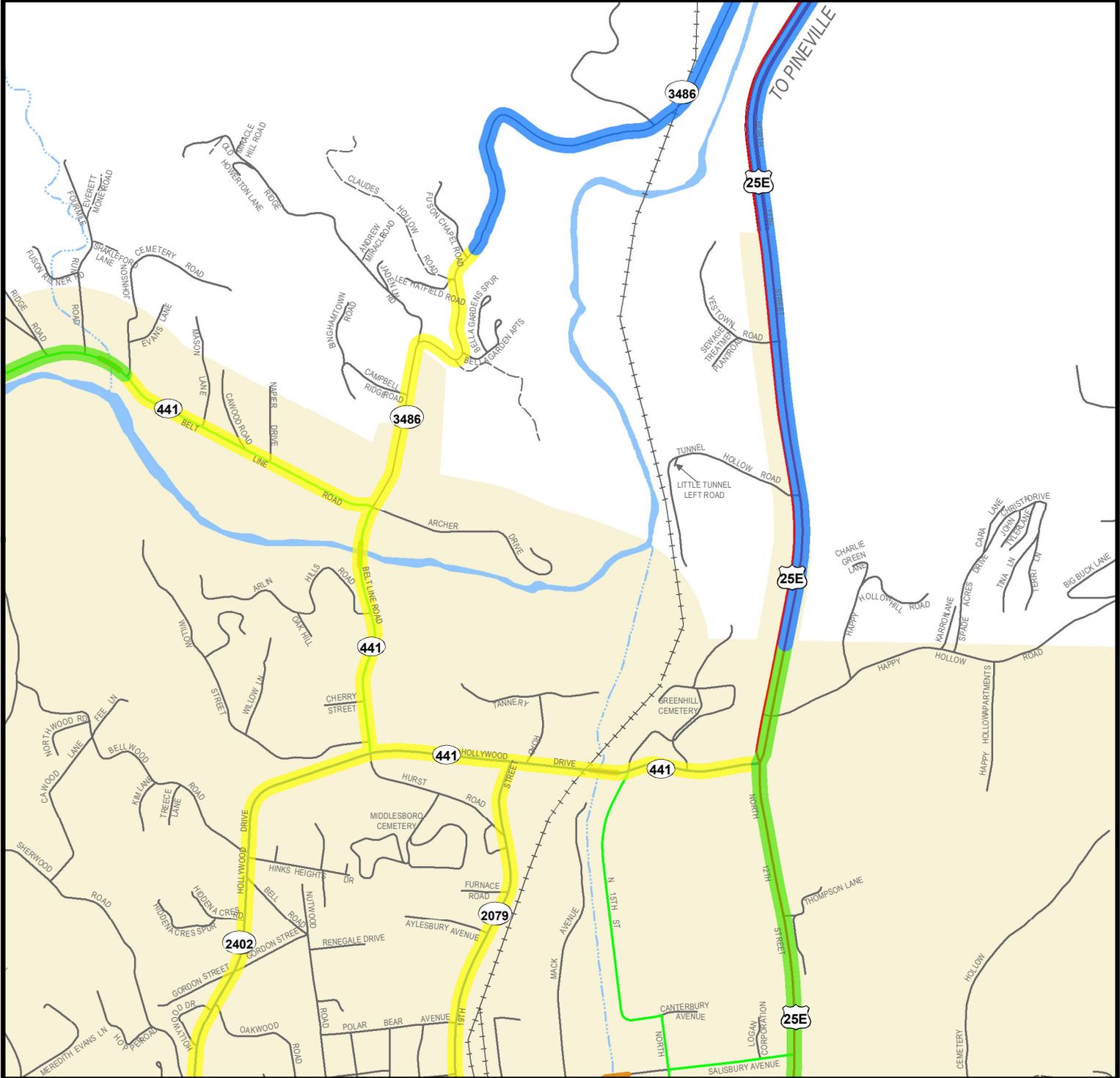
**EXHIBIT 1**

**PROJECT LOCATION  
& RECOMMENDED CORRIDOR**



Division of Planning





- Functional Classification**
- Rural Interstate
  - Rural Principal Arterial
  - Rural Minor Arterial
  - Rural Major Collector
  - Rural Minor Collector
  - Urban Interstate
  - Urban Freeways & Expressways
  - Urban Principal Arterial
  - Urban Minor Arterial Street
  - Urban Collector Street
  - Rural & Urban Local
- CS-0000** Functionally Classified Road No.
- Bridge
  - + + + Railroad
  - ~ ~ ~ Stream
  - o City/Town
  - + Federal Aid Urbanized Area 2000
  - + Incorporated Area
  - + Lake
  - + State Park
  - + National Park or Recreation Area
  - + Defense Facility
  - + Wildlife Area
  - + Geological Area
  - + State, National, or Private Forest



**BELT LINE ROAD EXTENSION  
MIDDLESBORO, BELL CO., KENTUCKY**

**EXHIBIT 2  
SPEED LIMITS**

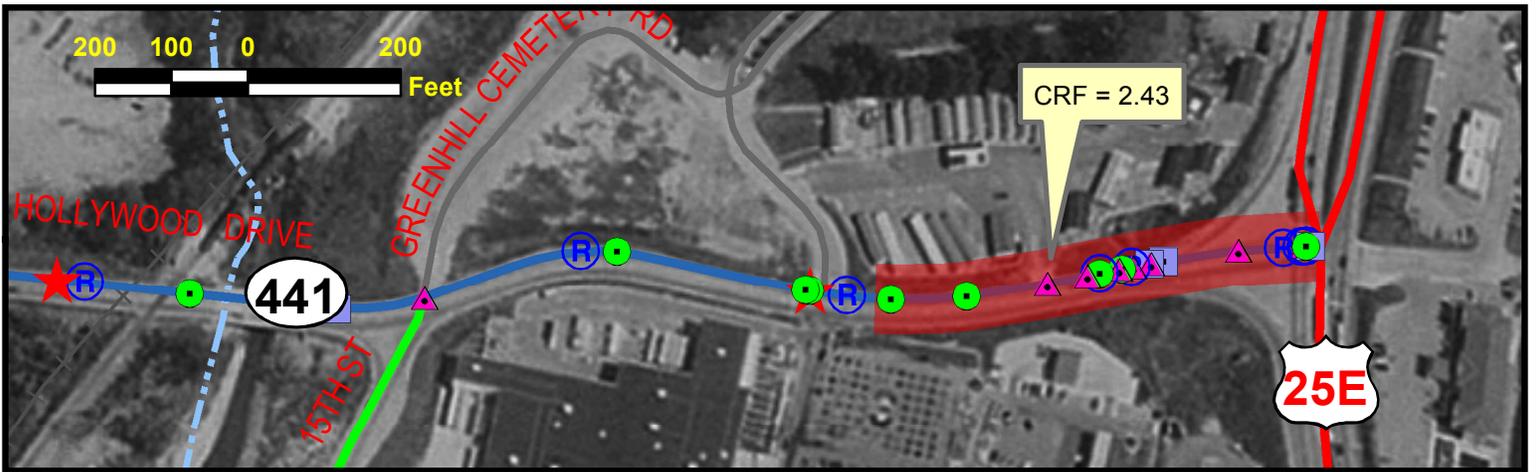
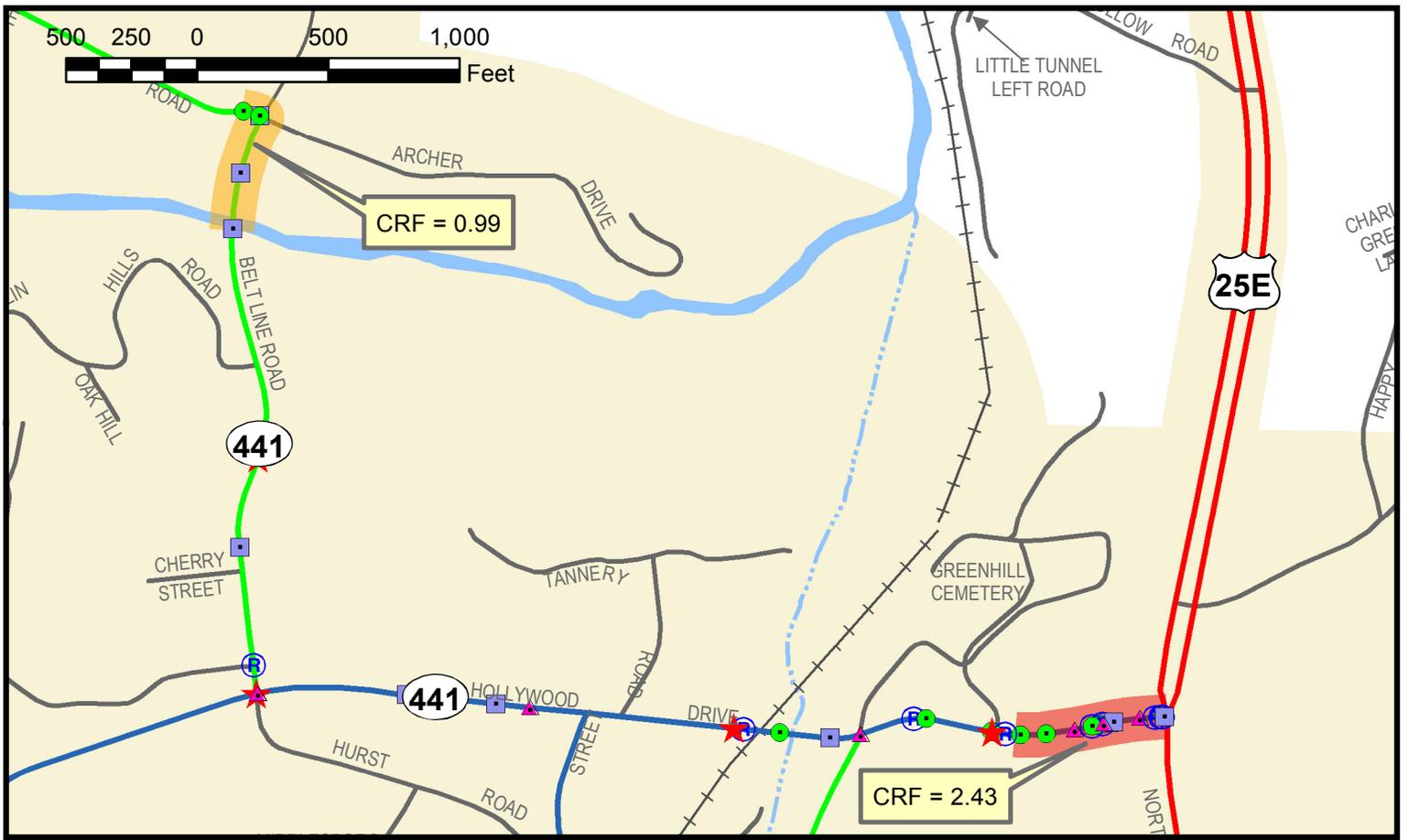
**Speed Limits (Miles Per Hour)**

- 25
- 35
- 45
- 55



Division of Planning





**Functional Classification**

- Rural Interstate
- Rural Principal Arterial
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector
- Urban Interstate
- Urban Freeways & Expressways
- Urban Principal Arterial
- Urban Minor Arterial Street
- Urban Collector Street
- Rural & Urban Local

- + + + Railroad
- ~ ~ ~ Stream
- City/Town
- + Federal Aid Urbanized Area 2000 Incorporated Area
- Lake
- State Park
- National Park or Recreation Area
- Defense Facility
- Wildlife Area
- Geological Area
- State, National, or Private Forest

**BELT LINE ROAD EXTENSION  
MIDDLESBORO, BELL CO., KENTUCKY  
EXHIBIT 3  
HIGH-CRASH LOCATIONS**

0.1-Mile Spot with Critical Rate Factor from 0.90 to 0.99

0.1-Mile Spot with Critical Rate Factor  $\geq 1.00$

Critical Rate Factor (CRF)  
for Spot Locations

**Manner of Collision:**

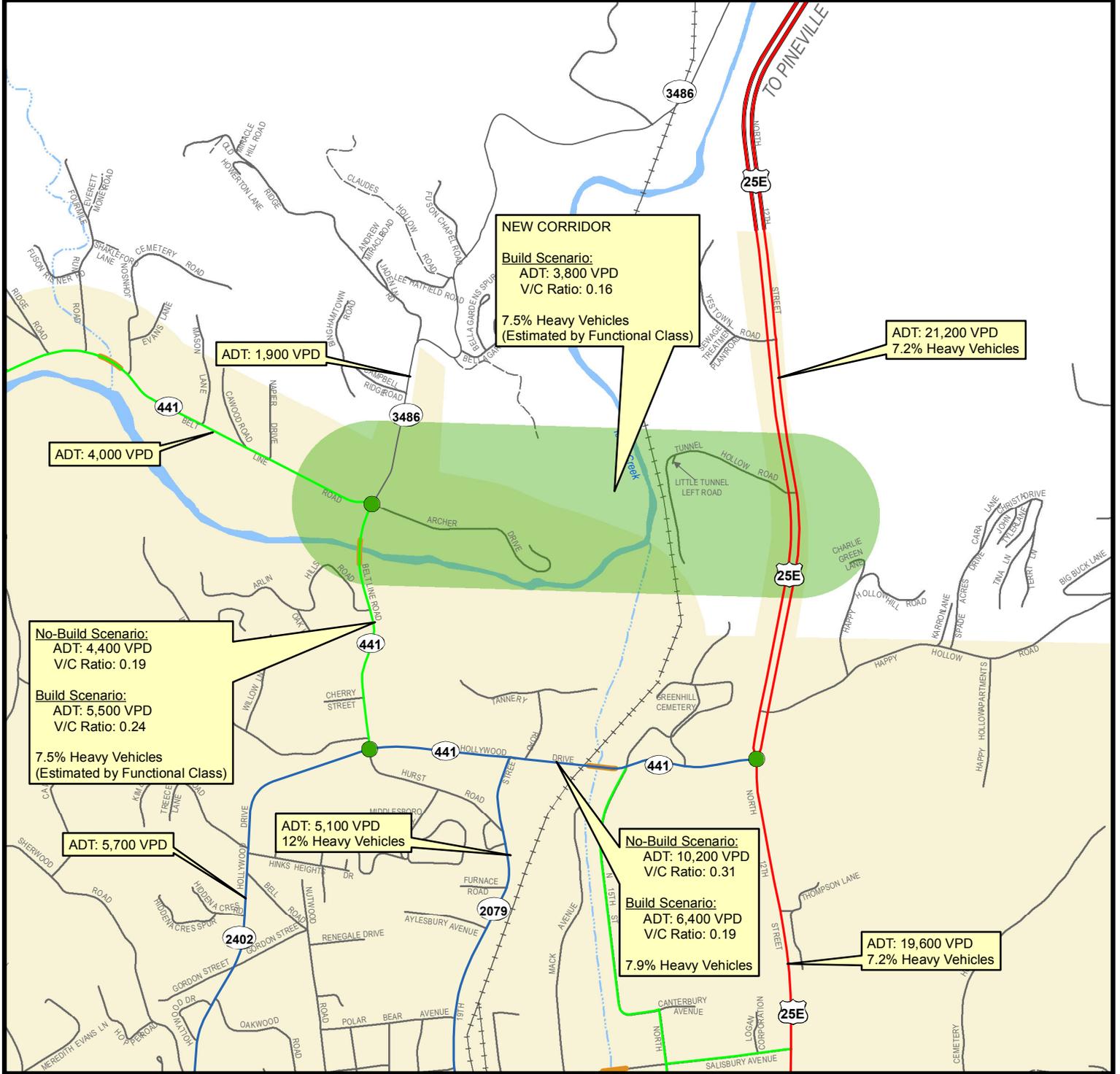
- ★ Head-On
- ▲ Angle
- Ⓡ Rear-End
- Single Vehicle
- Other

*NOTE: Crash analysis based on data from Kentucky State Police, 2008-2010.*



Division of Planning





- Functional Classification**
- Rural Interstate
  - Rural Principal Arterial
  - Rural Minor Arterial
  - Rural Major Collector
  - Rural Minor Collector
  - Urban Interstate
  - Urban Freeways & Expressways
  - Urban Principal Arterial
  - Urban Minor Arterial Street
  - Urban Collector Street
  - Rural & Urban Local
  - CS-0000 Functionally Classified Road No.
  - Bridge
  - Railroad
  - Stream
  - City/Town
  - ⊕ Federal Aid Urbanized Area 2000
  - ⊕ Incorporated Area
  - ⊕ Lake
  - ⊕ State Park
  - ⊕ National Park or Recreation Area
  - ⊕ Defense Facility
  - ⊕ Wildlife Area
  - ⊕ Geological Area
  - ⊕ State, National, or Private Forest



**BELT LINE ROAD EXTENSION  
 MIDDLESBORO, BELL CO., KENTUCKY**

**EXHIBIT 4  
 2011 TRAFFIC DATA FOR SEGMENTS**

Recommended Corridor for New Alignment

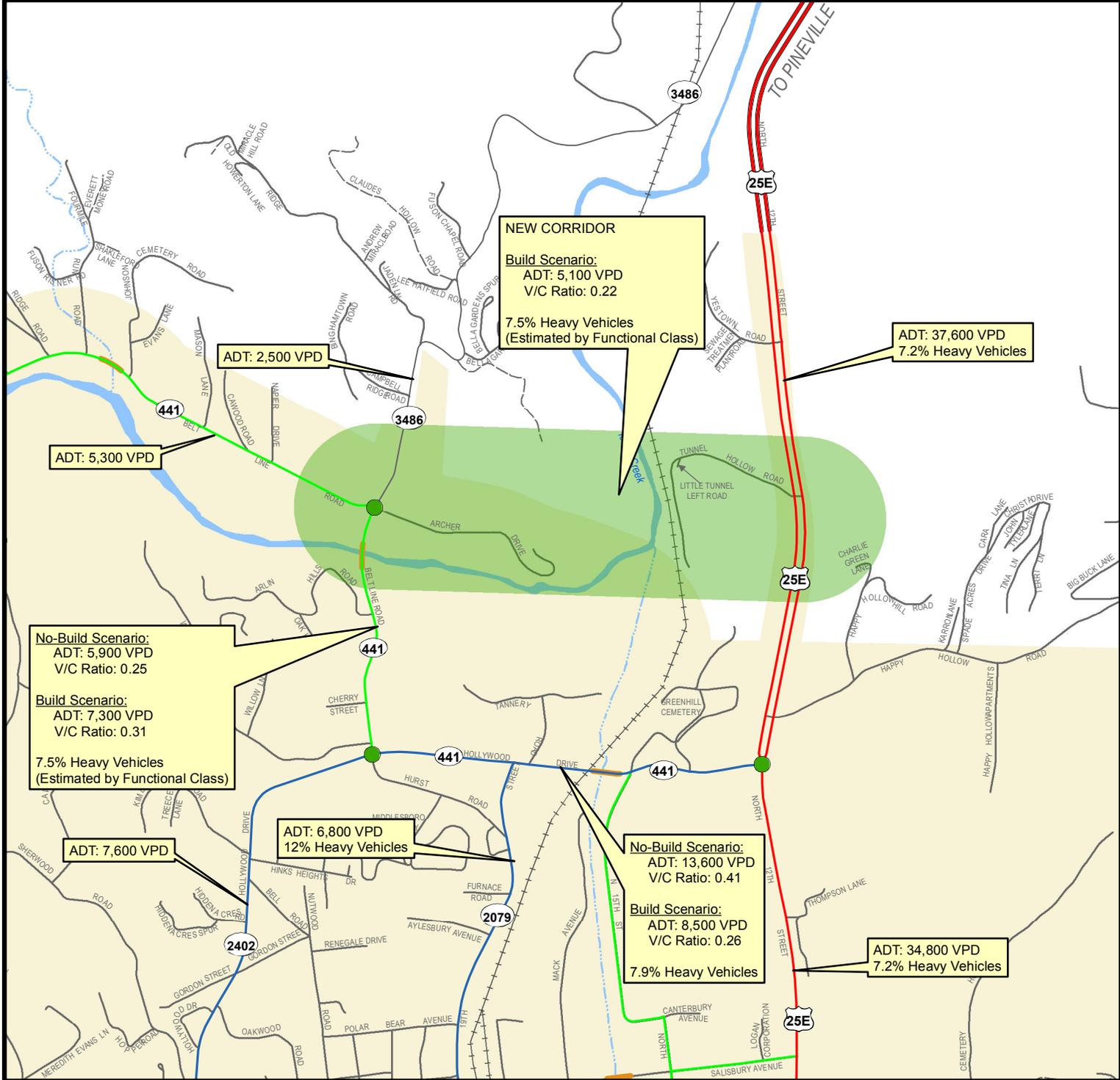
ADT: Average Daily Traffic (Vehicles Per Day)  
 V/C: Volume to Capacity Ratio  
 Percent Heavy Vehicles (actual counts unless otherwise noted)

Traffic Break Point



Division of Planning





- Functional Classification**
- Rural Interstate
  - Rural Principal Arterial
  - Rural Minor Arterial
  - Rural Major Collector
  - Rural Minor Collector
  - Urban Interstate
  - Urban Freeways & Expressways
  - Urban Principal Arterial
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  - Lake
  - State Park
  - National Park or Recreation Area
  - Defense Facility
  - Wildlife Area
  - Geological Area
  - State, National, or Private Forest



**BELT LINE ROAD EXTENSION  
 MIDDLESBORO, BELL CO., KENTUCKY**

**EXHIBIT 5  
 2040 TRAFFIC DATA FOR SEGMENTS**

Recommended Corridor for New Alignment

ADT: Average Daily Traffic (Vehicles Per Day)  
 V/C: Volume to Capacity Ratio  
 Percent Heavy Vehicles (based on actual counts and assumed to remain constant unless otherwise noted)

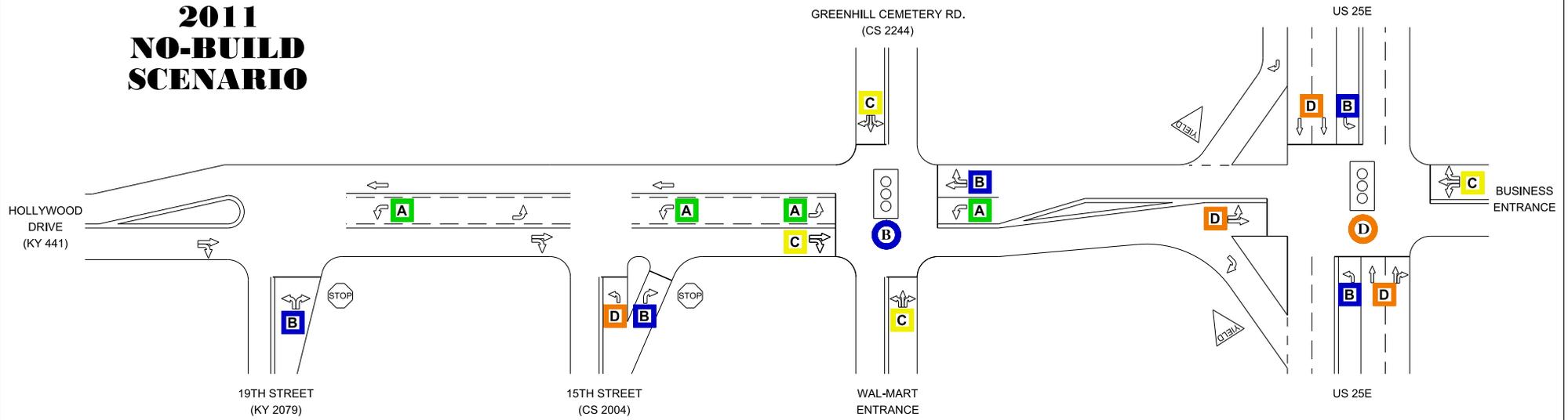
Traffic Break Point



Division of Planning

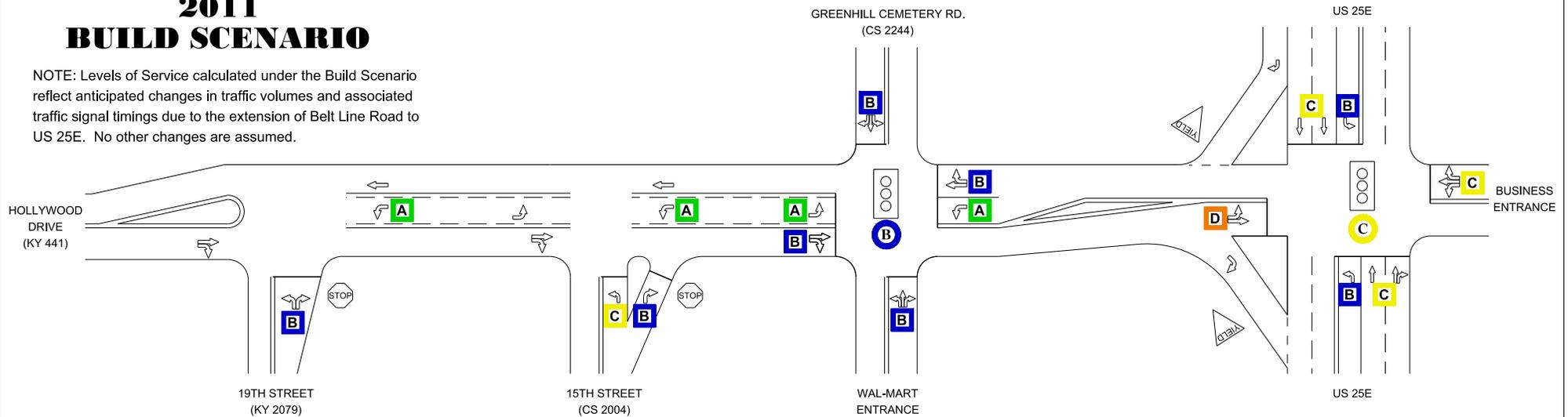


# 2011 NO-BUILD SCENARIO



# 2011 BUILD SCENARIO

NOTE: Levels of Service calculated under the Build Scenario reflect anticipated changes in traffic volumes and associated traffic signal timings due to the extension of Belt Line Road to US 25E. No other changes are assumed.



NOT TO SCALE

BELT LINE ROAD EXTENSION  
MIDDLESBORO, BELL CO., KENTUCKY

## EXHIBIT 6

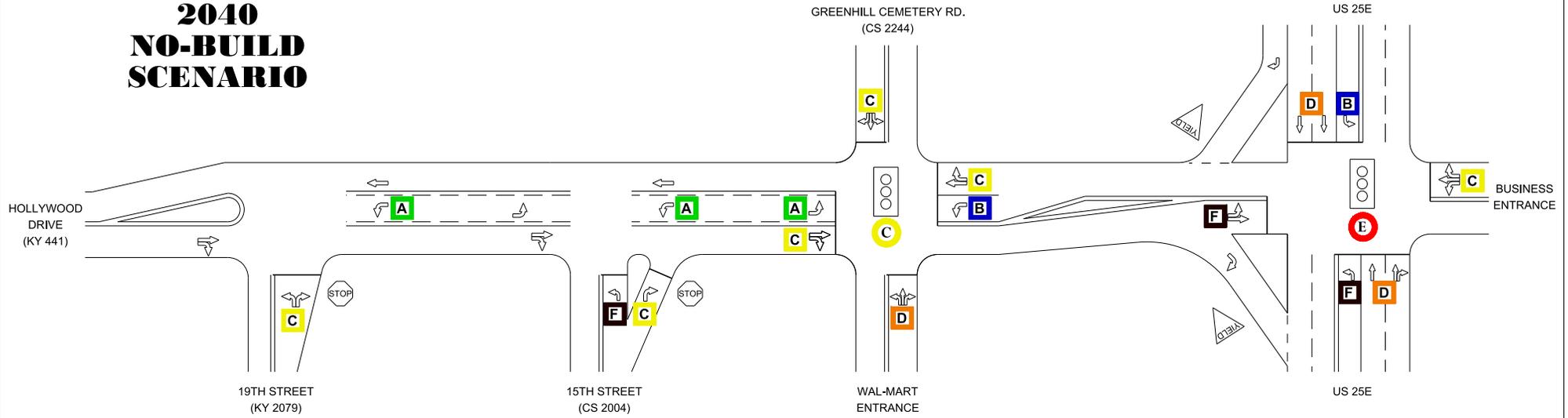
# 2011 INTERSECTION LEVELS OF SERVICE

- SIGNAL-CONTROLLED INTERSECTION
- STOP-CONTROLLED APPROACH
- YIELD-CONTROLLED APPROACH
- ALLOWABLE MOVEMENTS FROM LANE

- LANE GROUP LEVEL OF SERVICE
- INTERSECTION LEVEL OF SERVICE (SIGNALS ONLY)
- LEVEL OF SERVICE COLOR CODING

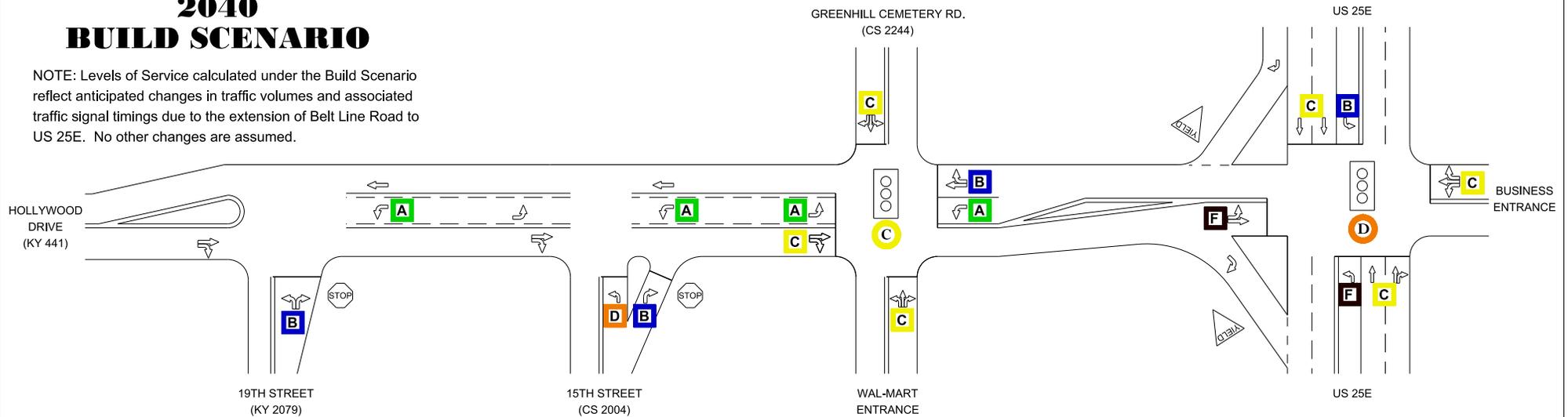


# 2040 NO-BUILD SCENARIO



# 2040 BUILD SCENARIO

NOTE: Levels of Service calculated under the Build Scenario reflect anticipated changes in traffic volumes and associated traffic signal timings due to the extension of Belt Line Road to US 25E. No other changes are assumed.



NOT TO SCALE

BELT LINE ROAD EXTENSION  
MIDDLESBORO, BELL CO., KENTUCKY

## EXHIBIT 7

# 2040 INTERSECTION LEVELS OF SERVICE

-  SIGNAL-CONTROLLED INTERSECTION
-  STOP-CONTROLLED APPROACH
-  YIELD-CONTROLLED APPROACH
-  ALLOWABLE MOVEMENTS FROM LANE

-  LANE GROUP LEVEL OF SERVICE
-  INTERSECTION LEVEL OF SERVICE (SIGNALS ONLY)
-  LEVEL OF SERVICE COLOR CODING



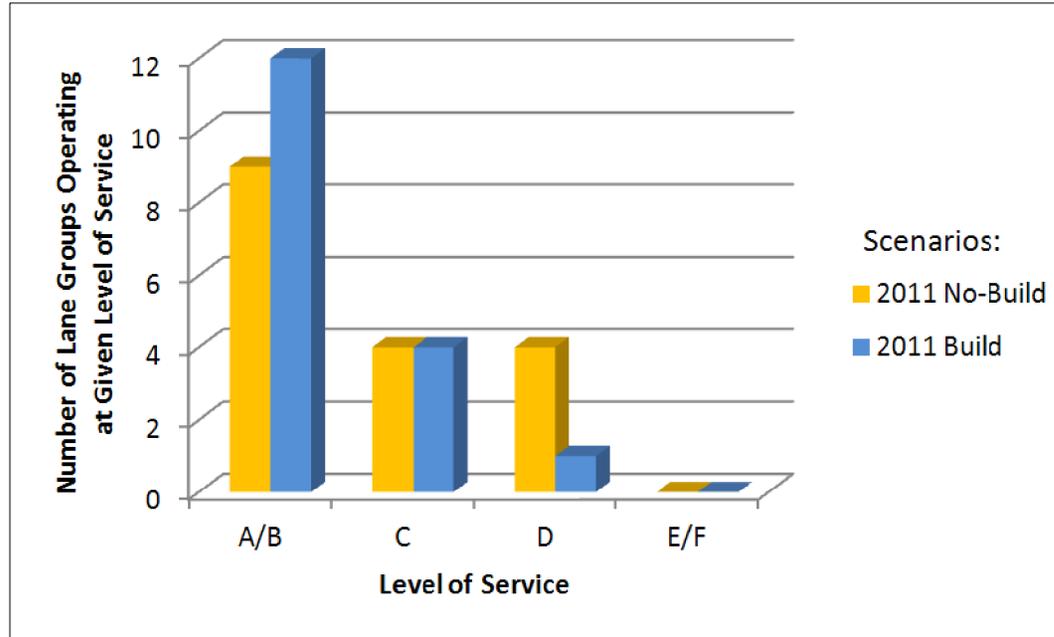


BELT LINE ROAD EXTENSION

MIDDLESBORO,  
BELL COUNTY,  
KENTUCKY

**EXHIBIT 8**

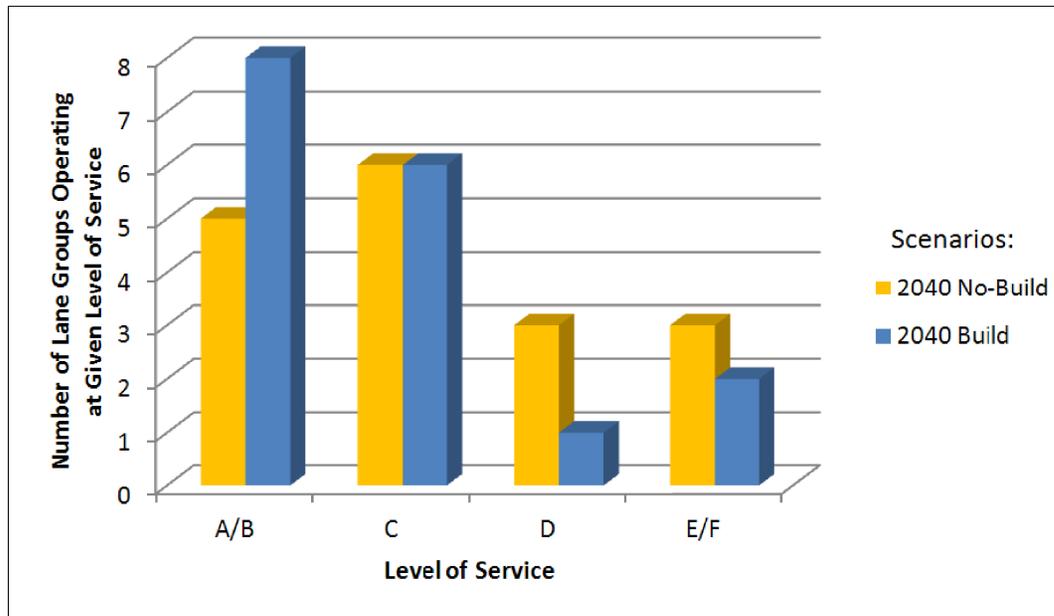
**COMPARISON OF  
LEVELS OF SERVICE  
UNDER  
VARIOUS SCENARIOS**



EXPLANATION: These charts provide a summary of the operating conditions for the four intersections along existing KY 441 near Wal-Mart:

- 19th Street (KY 2079)
- 15th Street (CS 2004)
- Greenhill Cemetery Road / Wal-Mart Entrance
- US 25E

Levels of Service were calculated for the various lane groups at each of these intersections for two analysis years (2011 and 2040) under both the Build Scenario (with construction of the Belt Line Road Extension) and the No-Build Scenario (without construction of the Belt Line Road Extension).



The numbers in the charts represent the total number of lane groups at each intersection along the portion of existing KY 441 between 19th Street and US 25E operating at a given Level of Service. The Levels of Service for individual lane groups under the Build and No-Build scenarios are provided in Exhibit 6 for Year 2011 and in Exhibit 7 for Year 2040.

NOTE: Levels of Service calculated under the Build Scenarios reflect anticipated changes in traffic volumes and associated traffic signal timings due to the extension of Belt Line Road to US 25E. No other changes are assumed.



**Environmental Legend**

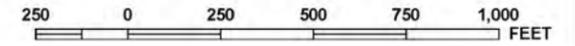
- Project Study Area
- Interstate
- Parkway
- US Highway
- State Road
- Local Road
- Bridge
- Active
- Abandoned/Removed
- Abandoned Rail (LRC)
- County Line
- City/Town Area
- Airport
- Bus Station
- Coal Tipples
- Other
- Passenger Rail
- Rail
- Riverport
- Airport Runways
- Cemetery
- Church
- Civil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



**PROPOSED KY 441 STUDY  
ENVIRONMENTAL FOOTPRINT  
BELL COUNTY MIDDLESBORO  
EXHIBIT 5**

Kentucky Transportation Cabinet  
Department of Highways  
Division of Planning





BELT LINE ROAD EXTENSION  
MIDDLESBORO, BELL CO., KENTUCKY

**EXHIBIT 10**

FIRMette 21013C0239D

NFIP

PANEL 0239D

**FIRM**

**FLOOD INSURANCE RATE MAP  
BELL COUNTY,  
KENTUCKY  
AND INCORPORATED AREAS**

**PANEL 239 OF 360**

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

**CONTAINS:**

COMMUNITY	NUMBER	PANEL	SUFFIX
BELL COUNTY	210010	0239	D
MIDDLESBORO, CITY OF	215190	0239	D

Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.

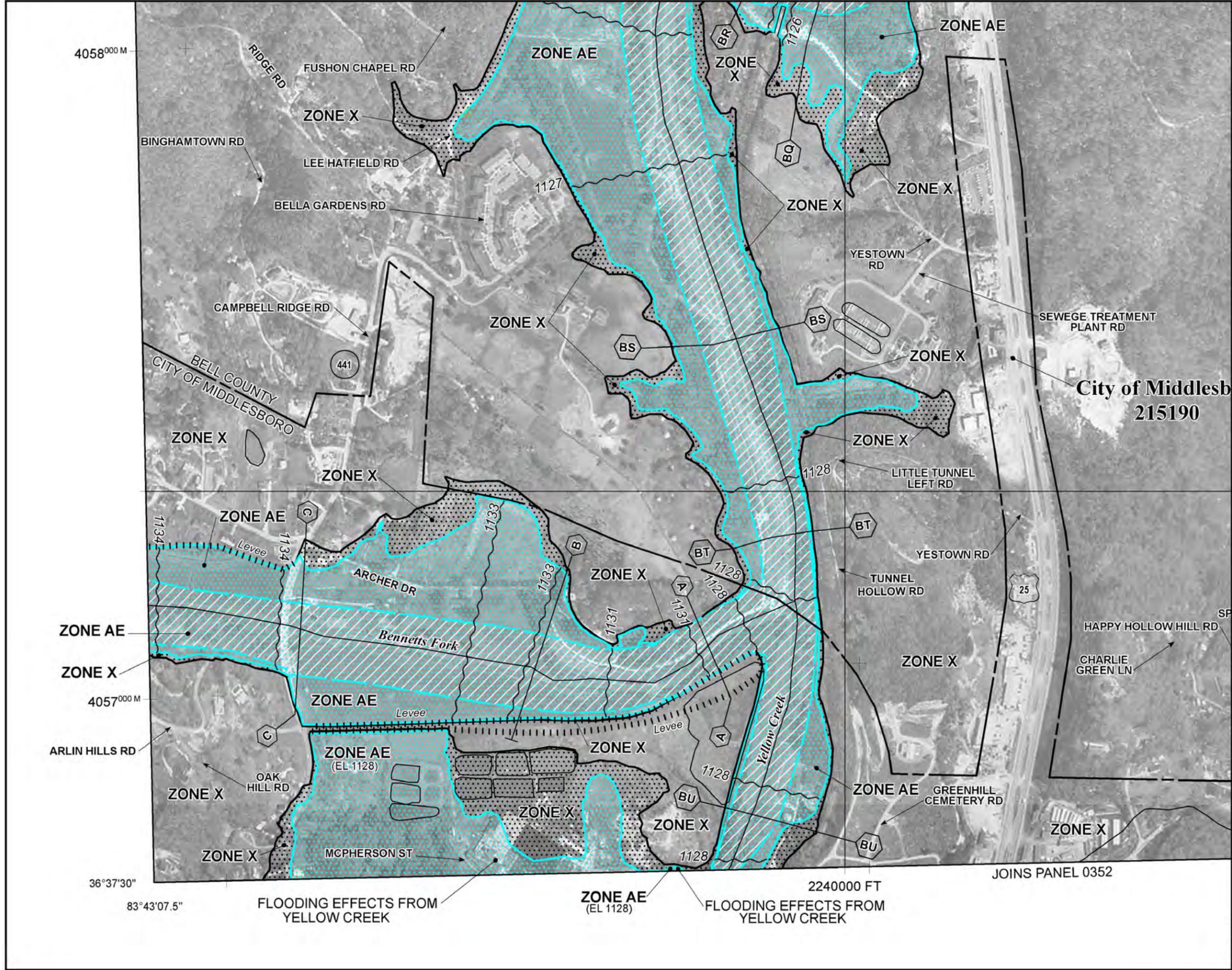


**MAP NUMBER  
21013C0239D**

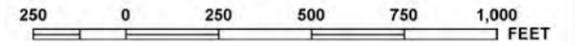
**EFFECTIVE DATE  
SEPTEMBER 29, 2006**

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM



This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)



BELT LINE ROAD EXTENSION  
MIDDLESBORO, BELL CO., KENTUCKY

EXHIBIT 11

FIRMette 21013C0352D

NFIP PANEL 0352D

**FIRM**  
FLOOD INSURANCE RATE MAP  
BELL COUNTY,  
KENTUCKY  
AND INCORPORATED AREAS

PANEL 352 OF 360  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BELL COUNTY	210010	0352	D
MIDDLESBORO, CITY OF	215190	0352	D

Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.

**MAP NUMBER**  
21013C0352D

**EFFECTIVE DATE**  
SEPTEMBER 29, 2006

Federal Emergency Management Agency



This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

## **APPENDIX B**

### **Tables**



# Table 1 - Highway Plan Improvements for Bell County

Source: Kentucky's FY2010-FY2012 Enacted Biennial Highway Plan, July 2010

COUNTY	ITEM NO. & PARENT NO.	ROUTE	LENGTH	DESCRIPTION	FUND-SCHEDULING INFORMATION			
BELL	2004 11 . 102.01	-	.500	CONSTRUCT ROADWAY APPROACHES FROM 1.1 MILES EAST OF US-119 TO THE ASHER INDUSTRIAL SITE. (04CCN)(06CCR)(2006BOPP)(08CCR) Milepoints: From: To: Purpose and Need: ECONOMIC DEVELOPMENT / NEW ROUTE(O)	FUNDING	PHASE	YEAR	AMOUNT
	SPB				R	2010	\$30,000	
	2000 11 . 102.00				SPB	U	2010	\$60,000
					SPB	C	2010	\$8,430,000
					Total			\$8,520,000
BELL	2000 11 . 110.00	KY-441	.800	CONSTRUCT NEW ROUTE FROM KY 441 TO US 25E IN MIDDLESBORO. (08CCR) Milepoints: From: To: Purpose and Need: RELIABILITY / NEW ROUTE(O)	FUNDING	PHASE	YEAR	AMOUNT
	SP				D	2010	\$400,000	
	2000 11 . 110.00				SP	R	2011	\$620,000
					SP	U	2011	\$490,000
					SP	C	2012	\$6,400,000
					Total			\$7,910,000
BELL	1996 11 . 217.00	KY-66	.900	RECONSTRUCT KY-66 FR 500' S OF NCL PINEVILLE TO KY-221 Milepoints: From:7 To:1.557 Purpose and Need: RELIABILITY / RECONSTRUCTION(O)	FUNDING	PHASE	YEAR	AMOUNT
	SP				R	2010	\$2,220,000	
	1996 11 . 217.00				SP	U	2010	\$830,000
					SP	C	2012	\$7,980,000
					Total			\$11,030,000
BELL	2004 11 . 1063.00	US-25E	.100	REPLACE BRIDGE AND APPROACHES ON US-25E OVER TURKEY CREEK SLOUGH (B02). (SR=29.5); (007B00002N) Milepoints: From:15.994 To:15.999 Purpose and Need: RELIABILITY / BRIDGE REPLACEMENT(P)	FUNDING	PHASE	YEAR	AMOUNT
	BRO				R	2010	\$290,000	
	2004 11 . 1063.00				BRO	U	2010	\$220,000
					BRO	C	2011	\$680,000
					Total			\$1,190,000
BELL	2010 11 . 1079.00	KY-2011	.100	REPLACE BRIDGE ON KY-2011 (MP 8.498) OVER RED BIRD CREEK; .55 MI SOU. OF JCT KY 66; (NOT DEFICIENT, SR=3.5) 007B00074N Milepoints: From:8.448 To:8.548 Purpose and Need: RELIABILITY / BRIDGE REPLACEMENT(P)	FUNDING	PHASE	YEAR	AMOUNT
	BRX				D	2012	\$150,000	
	2010 11 . 1079.00				Total			\$150,000
BELL	2010 11 . 1083.00	CR-1327	.100	REPLACE BRIDGE ON CR-1327 (MP 0.014) OVER LEFT FORK STRAIGHT CREEK; .10 MI W OF JCT KY 66; (STRUCTURALLY DEFICIENT, SR=2) 007C00048N Milepoints: From:0 To:1 Purpose and Need: RELIABILITY / BRIDGE REPLACEMENT(P)	FUNDING	PHASE	YEAR	AMOUNT
	BRZ				D	2012	\$250,000	
	2010 11 . 1083.00				Total			\$250,000
BELL	2008 11 . 8505.00	KY-1534		SPOT IMPROVEMENTS SHIFTING THE EXISTING CENTERLINE ALLOWING PROPER CLEARANCE FOR GUARDRAIL. OVERLAY PAVEMENT THROUGHOUT THE PROJECT. PROVIDE MINOR DITCH IMPROVEMENTS AND REMOVE OBSTRUCTIONS FROM THE CLEAR ZONE. (08CCN) Milepoints: From: To: Purpose and Need: RELIABILITY / SPOT IMPROVEMENTS(O)	FUNDING	PHASE	YEAR	AMOUNT
	SPB				R	2010	\$100,000	
	2008 11 . 8505.00				SPB	U	2010	\$100,000
					SPB	C	2010	\$976,000
					Total			\$1,176,000
BELL	2008 11 . 8507.00	KY-1534		CONSTRUCT ROADWAY ON RAILROAD RIGHT OF WAY AND CONSTRUCT A NEW RAILROAD CROSSING AT THE END OF THE CUMBERLAND RIVER BRIDGE. (08CCN) Milepoints: From:5.7 To:5.84 Purpose and Need: SAFETY / SAFETY-RR SEPARATN(P)	FUNDING	PHASE	YEAR	AMOUNT
	SPB				D	2010	\$10,000	
	2008 11 . 8507.00				SPB	R	2010	\$90,000
					SPB	U	2010	\$20,000
					SPB	C	2010	\$820,000
					Total			\$940,000

**TABLE 2 - HIS DATA****Bell County****KY 441****M.P. 3.827 to 4.897****(KY 3486 to US 25E)**

System	Item	Begin M.P.	End M.P.
Appalachian Development Highway System	No		
Average Right-of-Way Width (based on examination of available highway plans)	40 feet 80 feet	3.827 4.526	4.526 4.897
Bike Route System	No		
Bridges	2		
Coal Haul	No		
Defense Highway Network	No		
Extended Weight System	No		
Forest Highway System	No		
Functional Classification System	Urban Collector Urban Minor Arterial	3.827 4.257	4.257 4.897
National Highway System	No		
Pavement Type	Mixed Bituminous	3.827	4.897
Scenic Byway System	No		
State System	Rural Secondary State Secondary	3.827 4.526	4.526 4.897
STAA - National Truck Network	No		
Truck Weight Class	A	3.827	4.897
Type of Terrain	Rolling	3.827	4.897

Table 3 - Bridge Data

Route	Bridge MP	Bridge No.	Bridge Length	Bridge Width	Horizontal Clearance	Sufficiency Rating	Structural <sup>1</sup> Function	Feature Intersected
KY 441	3.884	B00124	153	38	30	74.9	F	Yellow Creek Bypass
KY 441	4.618	B00132	123	43.3	40	97.1		Yellow Creek

<sup>1</sup> S – indicates Structurally Deficient; F – indicates Functionally Obsolete  
 Source: KYTC's *Highway Information System (HIS)* database

Table 4a - Crash Calculations for 0.1-Mile Spots (2000-2003 Data)

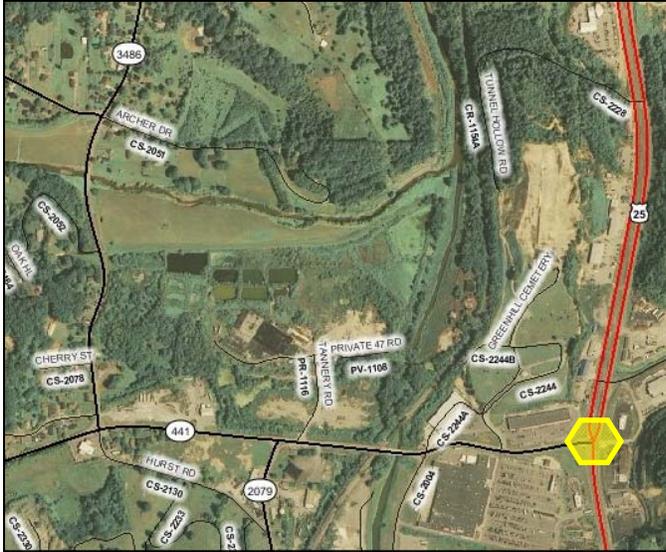
Route	0.1 Mile Midpoint	AADT	Functional Class Rate	Total No. Crashes	Begin Milepoint	End Milepoint	Million Vehicle Miles	Critical Rate	Total Crash Rate	Critical Rate Factor
KY 441	3.827	5810	0.29	6	3.777	3.877	8.48	0.83	0.71	0.86
KY 441	4.257	8720	0.29	9	4.207	4.307	12.73	0.72	0.71	0.98
KY 441	4.629	13500	0.29	11	4.579	4.679	19.71	0.63	0.56	0.89

Table 4b - Crash Calculations for 0.1-Mile Spots (2008-2010 Data)

Route	0.1 Mile Midpoint	AADT	Functional Class Rate	Total No. Crashes	Begin Milepoint	End Milepoint	Million Vehicle Miles	Critical Rate	Total Crash Rate	Critical Rate Factor
KY 441	3.863	4300	0.31	5	3.813	3.913	4.71	1.08	1.06	0.99
KY 441	3.85	10000	0.31	21	4.800	4.900	10.95	0.79	1.92	2.43

## **APPENDIX C**

### **Photos**



# KY 441 at US 25E

 *Camera Location*



Photo 1: Facing North



Photo 2: Facing South

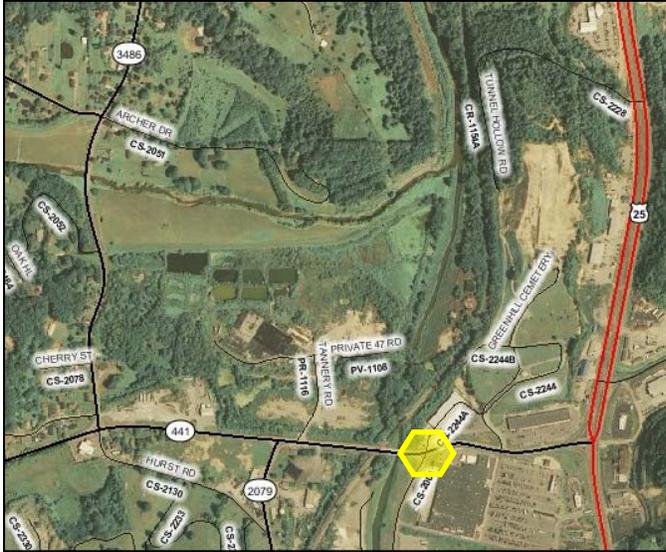


Photo 3: Facing West



Photo 4: Facing East





# KY 441 at 15th Street

 *Camera Location*



Photo 9: Facing West



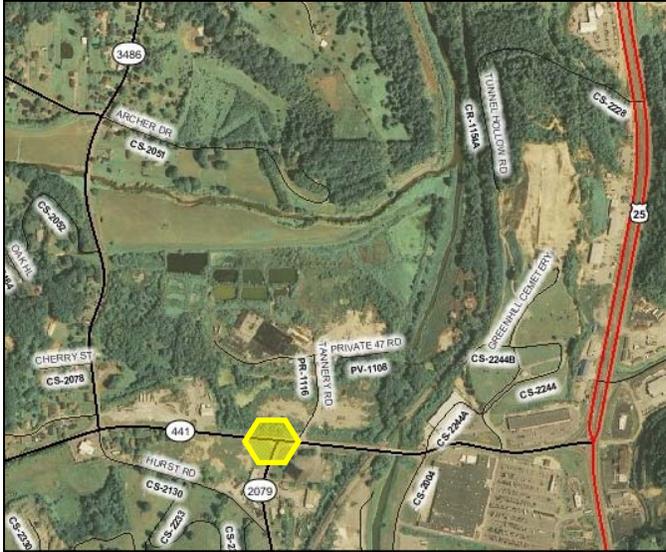
Photo 10: Facing East



Photo 11: Facing North



Photo 12: Facing North



# KY 441 at KY 2079

 *Camera Location*



Photo 13: Facing West



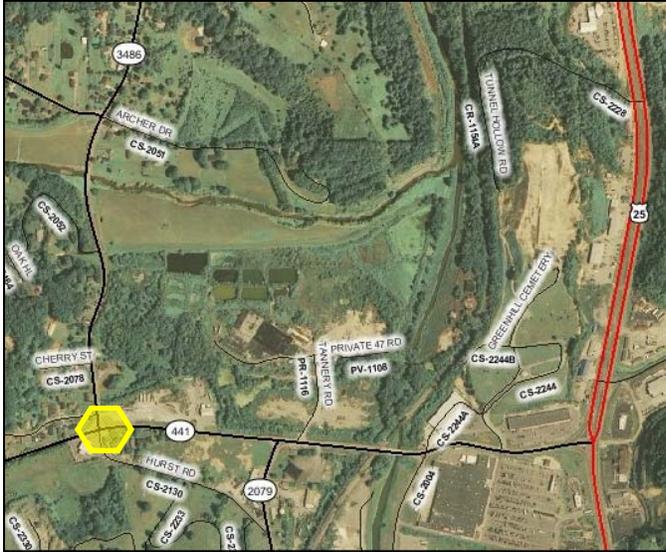
Photo 14: Facing East



Photo 15: Facing East



Photo 16: Facing North



KY 441 at KY 2402

 Camera Location



Photo 17: Facing West



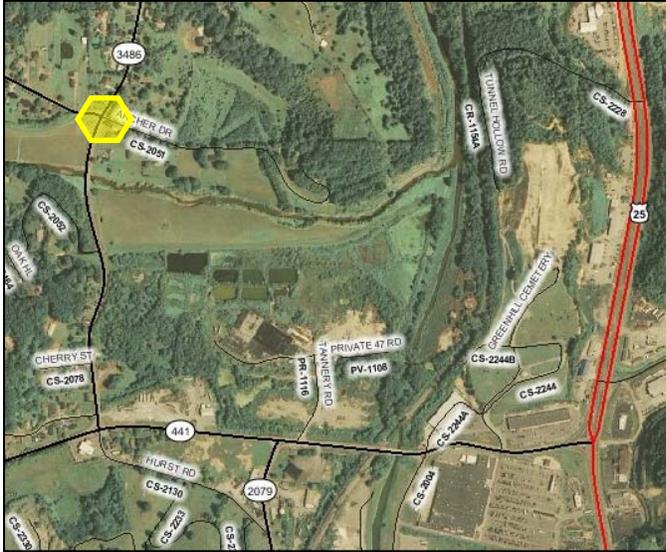
Photo 18: Facing South



Photo 19: Facing North-East



Photo 20: Facing East



## KY 441 at Archer Drive

 *Camera Location*



Photo 21: Facing North



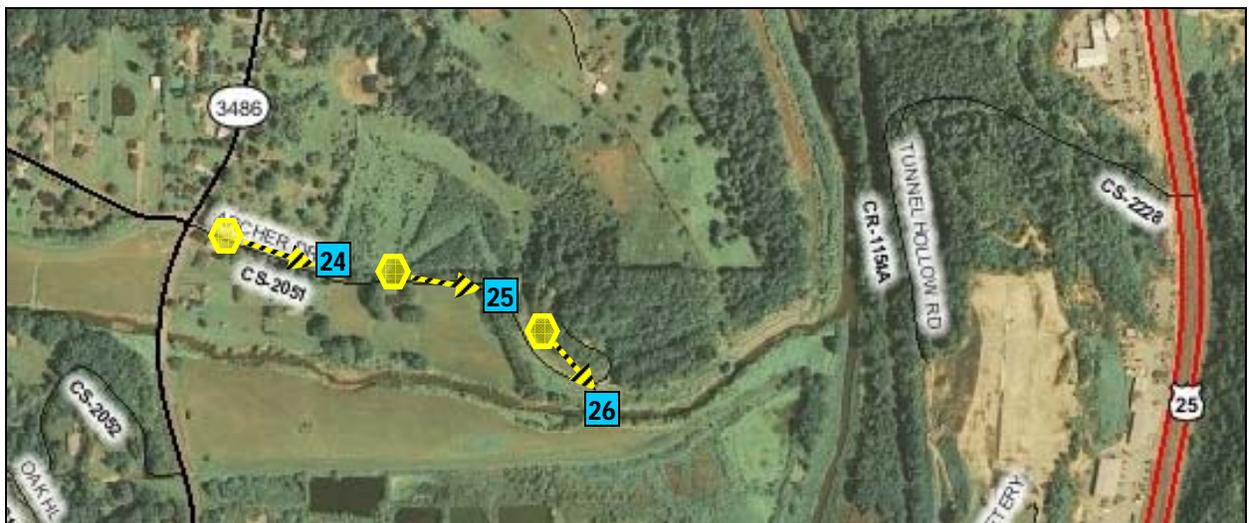
Photo 22: Facing South



Photo 23: Facing East

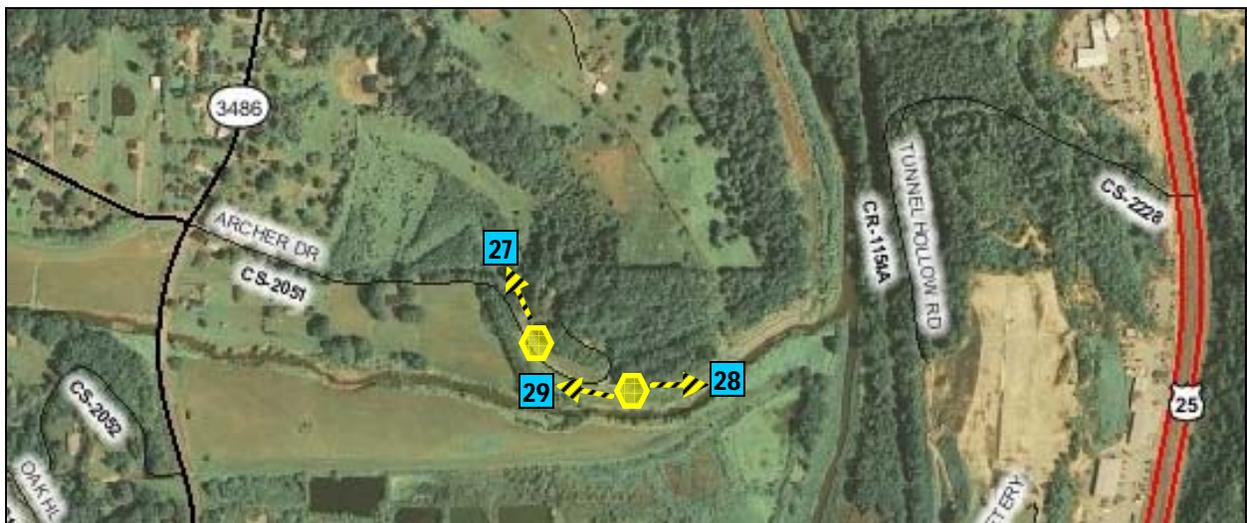
# Archer Drive

-  Camera Location
-  Camera Orientation
-  Photo Number



# Archer Drive (continued)

-  Camera Location
-  Camera Orientation
-  Photo Number



# Views from Green Hills Cemetery

 Camera Location

 Camera Orientation

 Photo Number



# Views from Nissan Dealership

 Camera Location

 Camera Orientation

 Photo Number

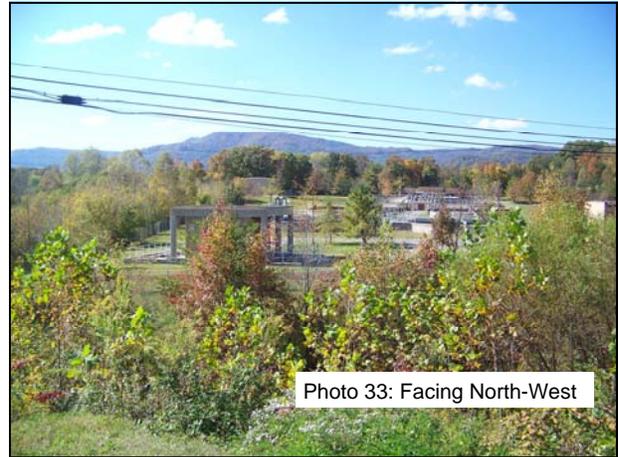


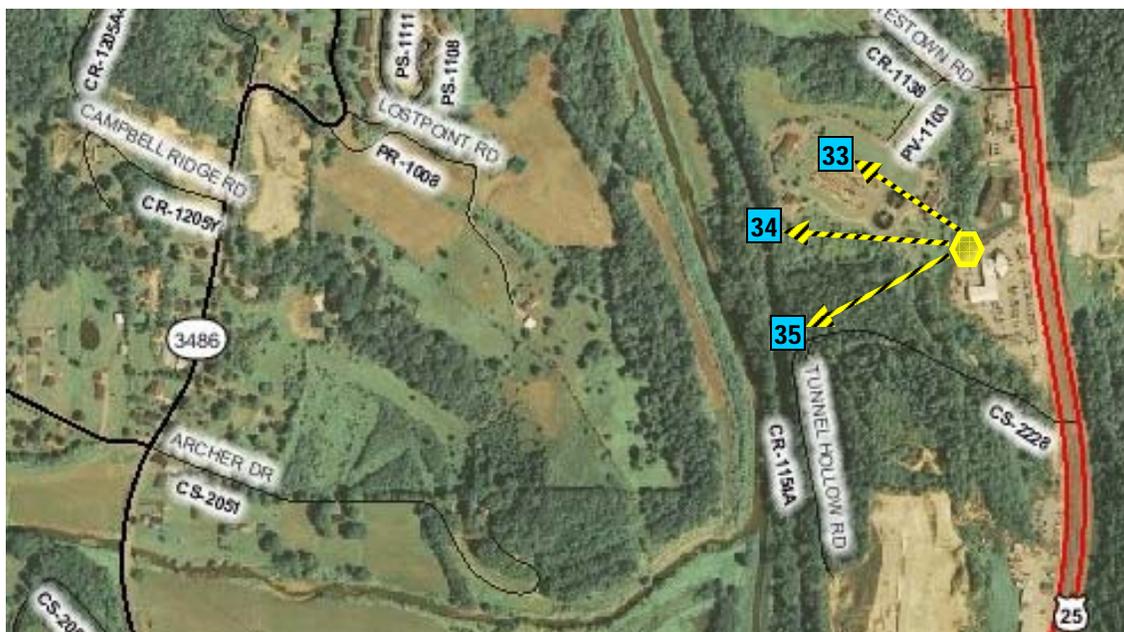
Photo 33: Facing North-West



Photo 34: Facing West



Photo 35: Facing South-West



Views from  
Nissan Dealership  
(continued)

 Camera Location

 Camera Orientation

 Photo Number



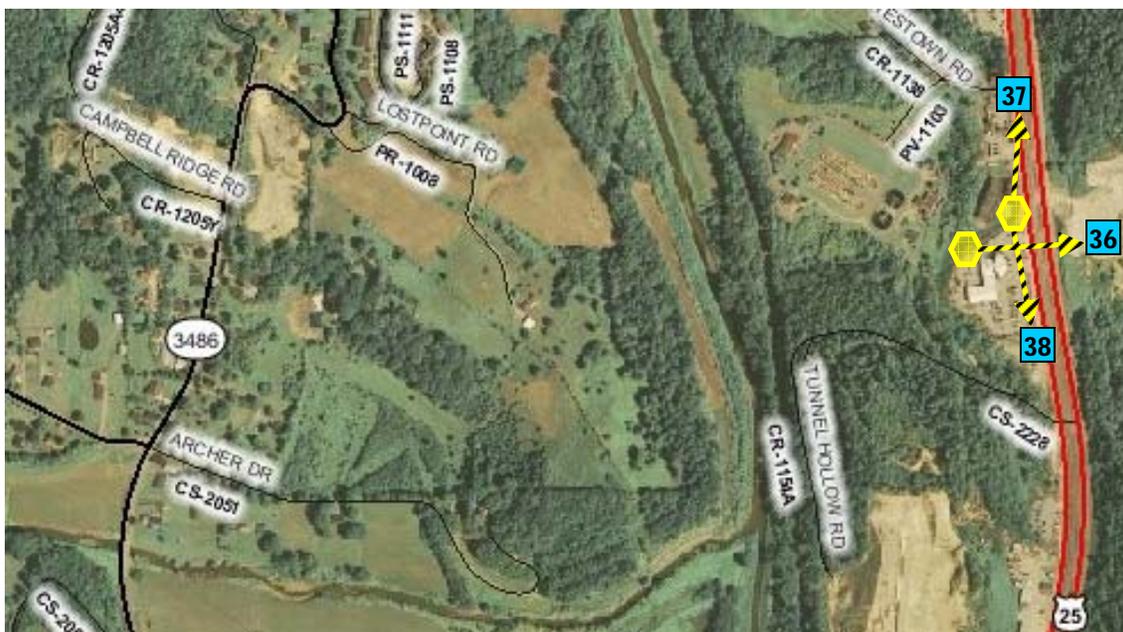
Photo 36: Facing East



Photo 37: Facing North



Photo 38: Facing South



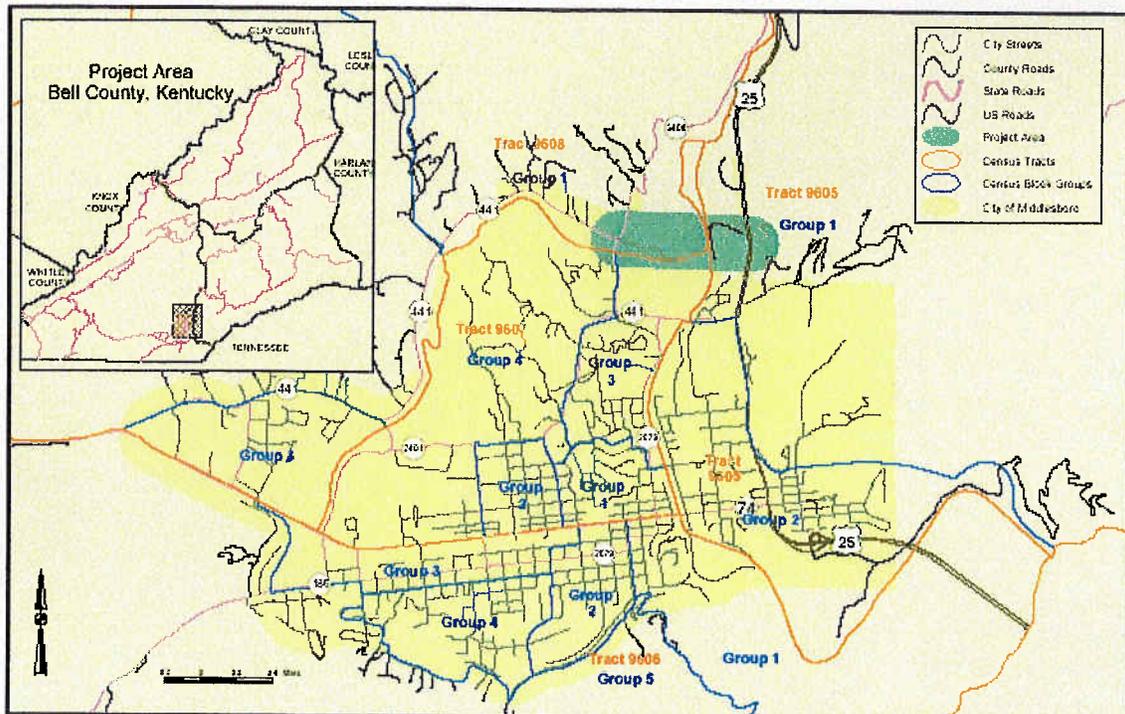
**APPENDIX D**

**Environmental Justice &  
Community Impacts  
Report**



# Proposed KY 441 – Middlesboro Pre-Design Scoping Study Bell County, Kentucky

Six-Year Plan Item No. 11-110.00



## 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



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III.	Definitions	3
IV.	Methodology	3
V.	Census Data Analysis	4
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	B. Population Below Poverty Level	13
	C. Population By Age	15
VII.	Conclusion	17

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Figure 6.	Population Below Poverty Level By Age (1999)	14
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## Appendices

Appendix A.	Planning Study Contact List
Appendix B.	Methodology for Assessing Environmental Justice Concerns



## **I. INTRODUCTION**

The following Environmental Justice report is an assessment of community demographics and characteristics related to a defined study area for the proposed construction of a new route from KY 441 to US 25E in Middlesboro. The project is listed as item number 11-110.00 in the Kentucky Transportation Cabinet's 2003-2008 Approved Six-Year Highway Plan and scheduled for design in 2005.

The study area is composed primarily of undeveloped land with a limited number of commercial entities located near US 25E, and a few residential structures located adjacent to KY 3486. 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, Bell County, Middlesboro, 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.

## **II. 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

---

<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...”

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

### **III. 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 USDOT 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.

### **IV. 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.

## **V. 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, Bell County, Middlesboro, and Census Tracts and Block Groups located in and around the study area.

## **VI. 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 proposed construction of a new route from KY 441 to US 25E in Middlesboro (Six-Year Plan Item No. 11-110.00). 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 ten (10) Census Tracts and twenty-eight (28) Block Groups that encompass the population of Bell County. Figure 1 presents the population totals for each of these Census divisions. Accompanying Figure 1 in this report are two maps, the first of which displays each Census Tract and Block Group in Bell County (Figure 2), while the second map displays the Census divisions located in and around the study area (Figure 3).

Evaluation of the study area consisted of compiling and analyzing Census data for three (3) Tracts and four (4) Block Groups within those Tracts directly intersected by the study area. These Census divisions are as follows:

- Tract 9605 – Block Group 1
- Tract 9607 – Block Groups 3 & 4
- Tract 9608 – Block Group 1

Comparative data from five (5) Tracts and eight (8) 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 9603 – Block Groups 1 & 2
- Tract 9605 – Block Group 2
- Tract 9607 – Block Groups 1 & 2
- Tract 9608 – Block Groups 2 & 3
- Tract 9609 – Block Group 2

**Figure 1 - Bell County Census 2000 Population Totals**

<b>Total Population:</b>	<b>30,060</b>
<b>Census Tract 9601</b>	<b>2,866</b>
Block Group 1	764
Block Group 2	1,181
Block Group 3	921
<b>Census Tract 9602</b>	<b>5,723</b>
Block Group 1	1,292
Block Group 2	1,526
Block Group 3	1,225
Block Group 4	1,680
<b>Census Tract 9603</b>	<b>2,404</b>
Block Group 1	1,582
Block Group 2	822
<b>Census Tract 9604</b>	<b>1,899</b>
Block Group 1	871
Block Group 2	1,028
<b>Census Tract 9605</b>	<b>2,428</b>
Block Group 1	1,535
Block Group 2	893
<b>Census Tract 9606</b>	<b>4,874</b>
Block Group 1	548
Block Group 2	879
Block Group 3	1,002
Block Group 4	946
Block Group 5	1,499
<b>Census Tract 9607</b>	<b>2,974</b>
Block Group 1	584
Block Group 2	634
Block Group 3	654
Block Group 4	1,102
<b>Census Tract 9608</b>	<b>3,745</b>
Block Group 1	1,190
Block Group 2	1,530
Block Group 3	1,025

<b>Census Tract 9609</b>	<b>2,167</b>
Block Group 1	705
Block Group 2	1,462
<b>Census Tract 9610</b>	<b>980</b>
Block Group 1	980

Figure 2 – Map of Bell County Census Tracts and Block Groups

# Bell County Census Tracts and Block Groups

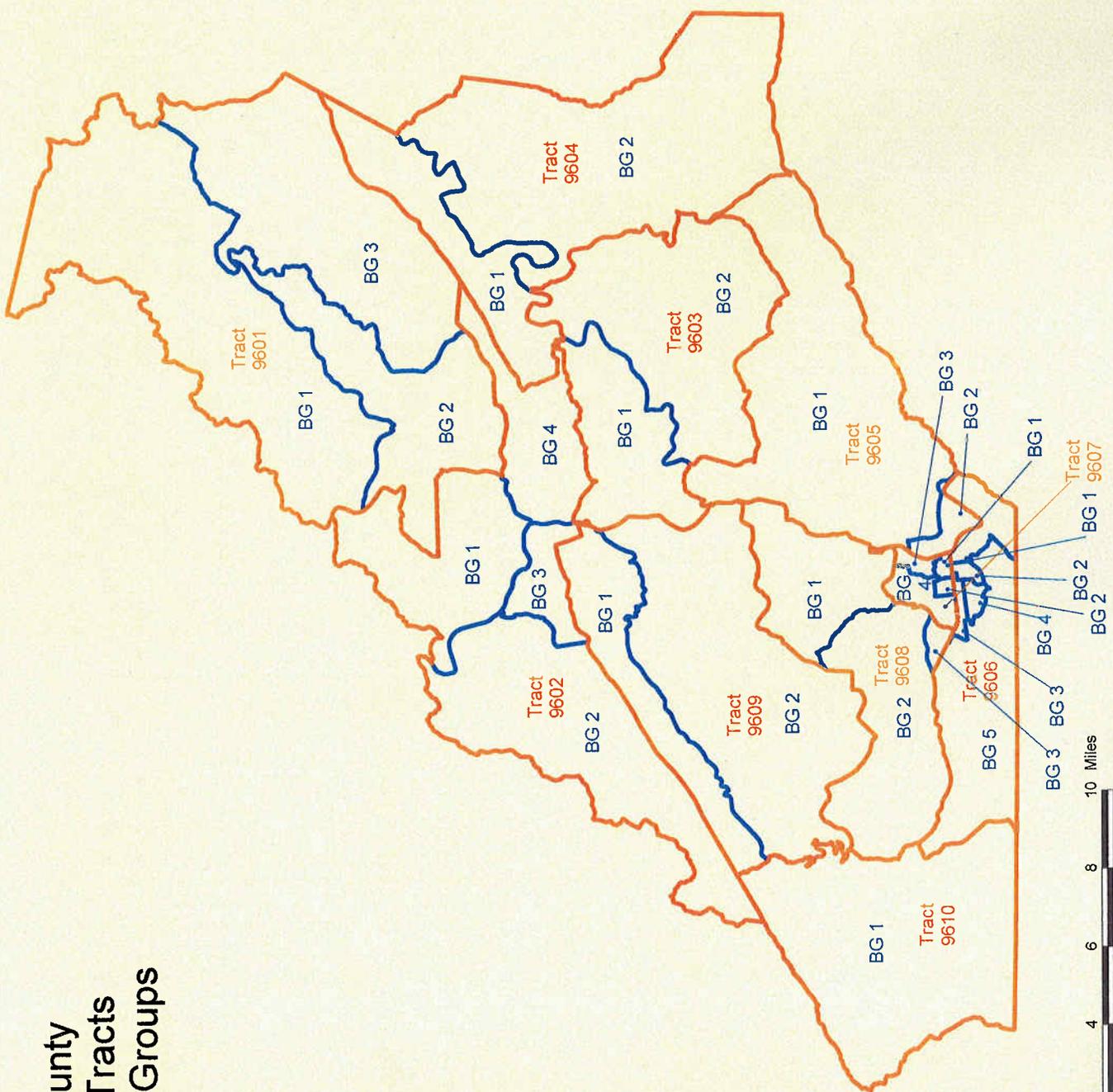
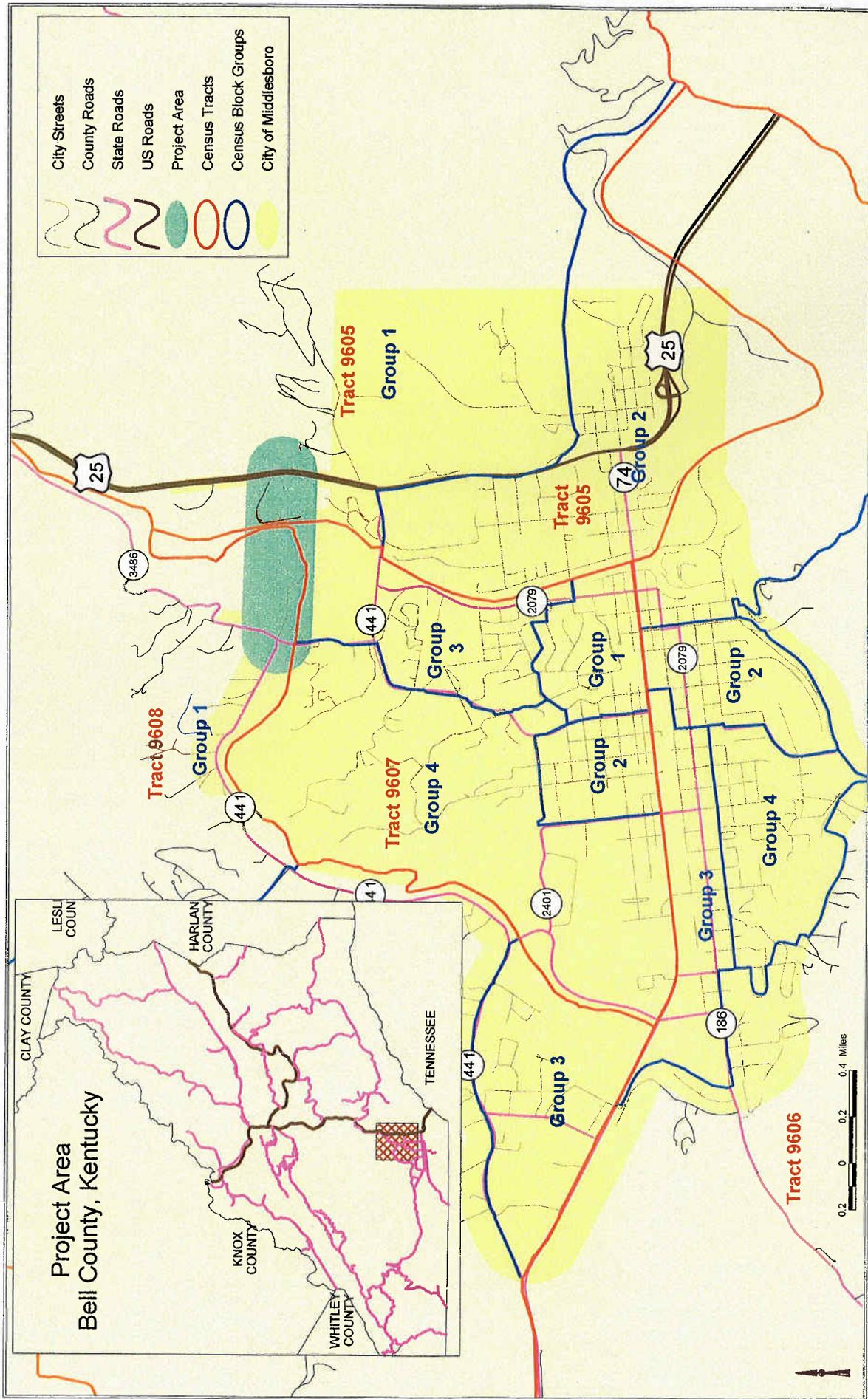


Figure 3 – Map of Project Area



## **A. Population by Race**

Figure 4 illustrates that a majority of the Census Tracts and Block Groups that directly intersect and surround the study area contain a population that is not significantly diverse when compared to national and state statistics for population by race. Percentages for White individuals in and around the study area typically exceed the state and national averages, which in turn result in the percentage of minority population being considerably less than state and national averages.

A couple of exceptions to the preceding discussion are Block Groups 3 and 4 in Census Tract 9607. Block Group 3 in this Tract encompasses a significant percentage (15.4%) of Black individuals, while Block Group 4 contains a percentage of Asian population (1.7%) that exceeds the state average. A comprehensive review of Census Block data and meetings with local officials resulted in the determination that the minority population in these Block Groups was not located within the study area for the proposed project. Figure 5 displays the population by race data for the sixteen (16) Census Blocks that are located within the defined study area boundary, which indicate that minority concentrations do not exist in the study area.

Discussions with local elected officials and community members has led to the conclusion that concentrations of minorities are not located in and/or surrounding the study area; therefore, it is anticipated that the implementation of this project would not have a disproportionate impact on minorities. 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 4 - 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
Bell County	28,864	96.0%	720	2.4%	75	0.2%	105	0.3%	194	0.6%	296	1.0%	30,060
Middlesboro	9,641	92.8%	509	4.9%	39	0.4%	65	0.6%	82	0.8%	130	1.3%	10,384
Tract 9605	2,341	96.4%	43	1.8%	6	0.2%	11	0.5%	22	0.9%	27	1.1%	2,428
Block Group 1	1,472	95.9%	36	2.3%	1	0.1%	9	0.6%	10	0.7%	17	1.1%	1,535
Tract 9607	2,712	91.2%	170	5.7%	13	0.4%	37	1.2%	29	1.0%	42	1.4%	2,974
Block Group 3	541	82.7%	101	15.4%	3	0.5%	1	0.2%	2	0.3%	8	1.2%	654
Block Group 4	1,053	95.6%	13	1.2%	0	0.0%	19	1.7%	9	0.8%	17	1.5%	1,102
Tract 9608	3,011	96.1%	89	2.8%	6	0.2%	2	0.1%	38	1.2%	24	0.8%	3,132
Block Group 1	1,158	97.3%	8	0.7%	6	0.5%	13	1.1%	11	0.9%	5	0.4%	1,190
Tract 9603	2,365	98.4%	1	0.0%	7	0.3%	0	0.0%	6	0.2%	31	1.3%	2,404
Block Group 1	1,552	98.1%	0	0.0%	7	0.4%	0	0.0%	2	0.1%	23	1.5%	1,582
Block Group 2	813	98.9%	1	0.1%	0	0.0%	0	0.0%	4	0.5%	8	1.0%	822
Tract 9605	2,341	96.4%	43	1.8%	6	0.2%	11	0.5%	22	0.9%	27	1.1%	2,428
Block Group 2	869	97.3%	7	0.8%	5	0.6%	2	0.2%	12	1.3%	10	1.1%	893
Tract 9607	2,712	91.2%	170	5.7%	13	0.4%	37	1.2%	29	1.0%	42	1.4%	2,974
Block Group 1	517	88.5%	37	6.3%	8	1.4%	14	2.4%	13	2.2%	8	1.4%	584
Block Group 2	601	94.8%	19	3.0%	2	0.3%	3	0.5%	5	0.8%	9	1.4%	634
Tract 9608	3,651	97.5%	22	0.6%	13	0.3%	23	0.6%	38	1.0%	36	1.0%	3,745
Block Group 2	1,499	98.0%	4	0.3%	2	0.1%	9	0.6%	8	0.5%	16	1.0%	1,530
Block Group 3	994	97.0%	10	1.0%	5	0.5%	1	0.1%	19	1.9%	15	1.5%	1,025
Tract 9603	2,070	95.5%	75	3.5%	4	0.2%	7	0.3%	4	0.2%	11	0.5%	2,167
Block Group 2	1,376	94.1%	74	5.1%	3	0.2%	0	0.0%	2	0.1%	9	0.6%	1,462

Source: US Census Bureau, 2000 Census

<sup>1</sup>Census Divisions directly intersecting the defined study area

<sup>2</sup>Census Divisions surrounding the defined study area

**Figure 5 - Population By Race (Blocks in Study Area)**

Census Tract	Census Block	Total Pop.	One Race										Two or More Races	
			Pop. of One Race	White Alone	Black or African American Alone	American Indian & Alaska Native Alone	Asian Alone	Native Hawaiian & other Pacific Islander Alone	Some Other Race Alone	Pop. of Two or More Races	Hispanic or Latino Origin			
960500	1023	217	215	212	1	0	0	2	0	0	0	0	2	3
960500	1029	1	1	1	0	0	0	0	0	0	0	0	0	0
960500	1032	43	43	43	0	0	0	0	0	0	0	0	0	0
960500	1033	0	0	0	0	0	0	0	0	0	0	0	0	0
960500	1034	6	6	0	0	0	0	6	0	0	0	0	0	0
960700	3000	0	0	0	0	0	0	0	0	0	0	0	0	0
960700	3002	0	0	0	0	0	0	0	0	0	0	0	0	0
960700	3012	0	0	0	0	0	0	0	0	0	0	0	0	0
960700	4000	226	217	217	0	0	0	0	0	0	0	0	9	6
960800	1010	229	226	225	0	1	0	0	0	0	0	0	3	0
960800	1027	28	28	28	0	0	0	0	0	0	0	0	0	0
960800	1028	51	51	51	0	0	0	0	0	0	0	0	0	0
960800	1029	96	96	91	1	4	0	0	0	0	0	0	0	3
960800	1034	0	0	0	0	0	0	0	0	0	0	0	0	0
960800	1035	0	0	0	0	0	0	0	0	0	0	0	0	0
960800	1036	29	29	29	0	0	0	0	0	0	0	0	0	0

Source: US Census Bureau, 2000 Census

## **B. Population by Poverty Level**

The population below the poverty level for Bell County, the City of Middlesboro, and all Census divisions in and around the study area, significantly exceeds national and state averages. The percentage of persons below poverty level in the evaluated Census Tracts and Block Groups displayed in Figure 6 ranges from a low of 13.5% to a high of 42.9%. A majority of the Census divisions contain percentages that are at least twice as high as the national average of 12.4% and significantly greater than the state average of 15.8%.

Figure 6 clearly demonstrates that the project area contains a high percentage of individuals below the poverty level. It should be noted that these percentages are comparable to several surrounding counties located in southeastern Kentucky. This section of the Commonwealth is often classified as economically distressed due to high unemployment rates that are typically attributed to a lack of available employment opportunities. These detrimental factors destabilize the local economy and decrease the quality of life for residents.

The proposed construction of a new route from KY 441 to US 25E in Middlesboro is viewed by many local officials and community members, some of whom are listed in Appendix A, as a project that will potentially further economic growth and development in the area; thereby, improving conditions for the local residents that are currently below poverty level. Following selection of a preferred method of approach for this proposed reconstruction, CVADD staff recommends that a subsequent review of poverty data within affected Census divisions be undertaken to determine if specific concentrations of population below the poverty level exist in the study area; and if so, proactive measures be undertaken to ensure that these groups are not disproportionately affected by the project.

Fig. 6 - Population Below Poverty Level by Age (1995,

	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.
United States	11,746,858	4.3%	18,865,180	6.7%	3,287,774	1.2%	33,899,812	12.4%	273,882,232
Kentucky	203,547	5.2%	350,072	8.6%	67,477	1.7%	621,096	15.8%	3,927,047
Bell County	3,057	10.4%	5,205	17.8%	843	2.9%	9,105	31.1%	29,303
Middlesboro	975	9.5%	1,645	16.0%	265	2.6%	2,885	28.1%	10,251
Tract 9605	188	7.7%	356	14.6%	94	3.8%	638	26.1%	2,445
Block Group 1	137	8.8%	257	16.5%	66	4.2%	460	29.5%	1,561
Tract 9607	164	5.5%	350	11.8%	55	1.9%	569	19.2%	2,962
Block Group 3	72	11.5%	136	21.8%	18	2.9%	226	36.2%	625
Block Group 4	45	4.0%	84	7.6%	21	1.9%	150	13.5%	1,112
Tract 9608	364	10.0%	603	16.5%	83	2.3%	1,050	28.8%	3,651
Block Group 1	156	12.5%	244	19.6%	0	0.0%	400	32.1%	1,247
Tract 9603	284	11.7%	404	16.6%	75	3.1%	763	31.4%	2,433
Block Group 1	156	9.8%	273	17.2%	38	2.4%	467	29.5%	1,586
Block Group 2	128	15.1%	131	15.5%	37	4.4%	296	35.0%	847
Tract 9607	164	5.5%	350	11.8%	55	1.9%	569	19.2%	2,962
Block Group 1	18	3.2%	54	9.5%	16	2.8%	88	15.4%	571
Block Group 2	29	4.4%	76	11.6%	0	0.0%	105	16.1%	654
Tract 9608	364	10.0%	603	16.5%	83	2.3%	1,050	28.8%	3,651
Block Group 2	76	5.1%	208	14.0%	42	2.8%	326	21.9%	1,490
Block Group 3	132	14.4%	151	16.5%	41	4.5%	324	35.5%	914
Tract 9609	208	11.3%	407	22.1%	32	1.7%	647	35.1%	1,842
Block Group 2	186	14.8%	329	26.3%	22	1.8%	537	42.9%	1,253

Source: US Census Bureau, 2000 Census

\*Census Divisions directly intersecting the defined study area

\*\*Census Divisions surrounding the defined study area

### **C. Population by Age**

2000 Census data indicates that Bell County and the City of Middlesboro encompass a population of persons age sixty-two and over that surpasses the state and national averages, albeit slightly. Figure 7 illustrates that the percentages of the total population of persons age 62 and over in the study area ranges from a low of 11.5% to a high of 24.7%. Following a review of census data and subsequent discussions with the Bell County Senior Citizens Center Director, Bell County Judge Executive, and Mayor of Middlesboro, a determination was made that no significant concentrations of persons age 62 and over are located in 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 and/or around the defined study area.

Fig. 7 - Population by Age

	Age 0-17	% of Population	Age 18-61	% of Population	Age 62-Over	% of Population	Total
United States	72,293,812	25.7%	174,136,341	61.9%	34,991,753	12.4%	281,421,906
Kentucky	994,818	24.6%	2,542,158	62.9%	504,793	12.5%	4,041,769
Bell County	7,329	24.4%	17,778	59.1%	4,953	16.5%	30,060
Middlesboro	2,451	23.6%	5,872	56.5%	2,061	19.8%	10,384
Tract 9605	642	26.4%	1,419	58.4%	367	15.1%	2,428
Block Group 1	442	28.3%	890	57.0%	203	13.0%	1,561
Tract 9607	708	23.8%	1,627	54.7%	639	21.5%	2,974
Block Group 3	185	28.3%	366	56.0%	103	15.7%	654
Block Group 4	237	21.5%	593	53.8%	272	24.7%	1,102
Tract 9608	964	25.7%	2,179	58.2%	602	16.1%	3,745
Block Group 1	337	28.3%	716	60.2%	137	11.5%	1,190
Tract 9603	583	24.3%	1,450	60.3%	371	15.4%	2,404
Block Group 1	388	24.5%	965	61.0%	229	14.5%	1,582
Block Group 2	195	23.7%	485	59.0%	142	17.3%	822
Tract 9605	642	26.4%	1,419	58.4%	367	15.1%	2,428
Block Group 2	200	22.4%	529	59.2%	164	18.4%	893
Tract 9607	708	23.8%	1,627	54.7%	639	21.5%	2,974
Block Group 1	160	27.4%	315	53.9%	109	18.7%	584
Block Group 2	126	19.9%	353	55.7%	155	24.4%	634
Tract 9608	964	25.7%	2,179	58.2%	602	16.1%	3,745
Block Group 2	396	25.9%	937	61.2%	197	12.9%	1,530
Block Group 3	231	22.5%	526	51.3%	268	26.1%	1,025
Tract 9609	497	22.9%	1,374	63.4%	296	13.7%	2,167
Block Group 2	298	20.4%	939	64.2%	225	15.4%	1,462

Source: US Census Bureau, 2000 Census

\*Census Divisions directly intersecting the defined study area

\*\*Census Divisions surrounding the defined study area

## VII. CONCLUSION

Following a comprehensive review of demographic data from the U.S. Census Bureau, discussions with local officials regarding community features, and field observations, the Cumberland Valley Area Development District staff has concluded that a defined Environmental Justice community does not exist within the study area for the proposed construction of a new route from KY 441 to US 25E in Middlesboro.

Analysis of racial composition data resulted in two Census Block Groups being identified in and around the study area that contained a percentage of minorities exceeding national and/or state averages. Following a comprehensive review of Census Block data and discussions with local officials, no minority concentrations were discovered within or surrounding the immediate study area.

The percentages of persons in the study area below the poverty level are quite high; 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 support for the proposed project and anticipate that it will provide an economic benefit by improving access and reducing congestion.

Age analysis indicates that the distribution of elderly residents in the study area slightly exceeds the national and state averages, but 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

Hon. William Kelley  
Bell County Judge Executive  
P.O. Box 339  
Pineville, KY 40977

Mayor Ben Hickman  
City of Middlesboro  
P.O. Box 756  
Middlesboro, KY 40965

Mrs. Betty Jordan, Director  
Bell County Senior Citizens Center  
P.O. Box 64  
Middlesboro, KY 40965

Mr. James Pursifull  
Public Safety Officer  
City of Middlesboro  
P.O. Box 756  
Middlesboro, KY 40965

Mrs. Teresa Massengill, City Clerk  
City of Middlesboro  
P.O. Box 756  
Middlesboro, KY 40965

Mrs. Bertha Partin  
Cumberland Valley ADD  
P.O. Box 1740  
London, KY 40743

Mr. Clay McKnight  
Cumberland Valley ADD  
P.O. Box 1740  
London, KY 40743



## **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

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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 E**

### **Resource Agency Coordination**



**Resource Agency Correspondence**

1	Transportation Cabinet, Division of Planning (Initiation Letter with Mailing List and Attachments)
2	Bell County Schools (Transcription of Telephone Comments)
3	Department of Military Affairs
4	City of Middlesboro
5	Kentucky Department of Agriculture
6	Kentucky Vehicle Enforcement
7	Environmental and Public Protection Cabinet, Division for Air Quality
8	Airport Zoning Commission
9	Transportation Cabinet, Geotechnical Branch
10	Kentucky Geological Survey
11	United States Department of Health & Human Services
12	United States Coast Guard
13	Department of Fish & Wildlife Resources
14	Division of Conservation
15	Natural Resources Conservation Service
16	Department for Natural Resources
17	Department of Parks
18	Department of Tourism
19	Transportation Cabinet, Division of Environmental Analysis
20	Cabinet for Health and Family Services
21	Environmental and Public Protection Cabinet, Division of Mine Reclamation & Enforcement
22	Transportation Cabinet, Division of Planning (Letter to Representative Nelson)





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

ERNIE FLETCHER  
GOVERNOR

MAXWELL C. BAILEY  
SECRETARY

January 12, 2005

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

Dear «Letter\_Title» «Last\_Name»:

Subject: Pre-Design Scoping Study  
Bell County  
KY 441, Construct a New Route from the junction  
of KY 441/KY 3486 to US 25E in Middlesboro  
Item No. 11-110.00

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 has assembled a study team to evaluate the proposed relocation from the junction of KY 441/KY 3486 to US 25E. 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 identification of potential 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 February 15, 2005, 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 and the general public, 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» «First\_Name» «Last\_Name»«Suffix»

Page 2

January 12, 2005

Other Transportation Cabinet offices or consultants working on behalf of the Transportation Cabinet 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:

- A draft statement of Study Purpose and Project Goals
- Project Location Map
- Year 2003 Traffic and Level of Service Map
- Year 2030 Traffic and Level of Service Map
- Crash Information by Accident Severity Map

We appreciate any input you can provide concerning this project. Please direct any comments, questions, or requests for additional information to Ted Noe of the Division of Planning at 502/564-7183 or at Ted.No@ky.gov. Please address all written correspondence to Annette Coffey, P.E., Director, Division of Planning, Kentucky Transportation Cabinet, Station W5-05-01, 200 Mero Street, Frankfort, KY 40622.

Sincerely,



Annette Coffey, P.E.  
Director  
Division of Planning

AC:TN:NH

Enclosures

c: Jose Sepulveda (w/e)  
Glenn Jilek (w/e)  
Greene Keith (w/e)  
Joel Holcomb (w/e)  
Brad Eldridge  
David Waldner  
Dean Croft

Ms. LaVerne Reid  
District Manager  
Airports District Office, Federal Aviation Administration  
2862 Business Park Drive #G  
Memphis TN 38118-1555

American Association of Truckers  
P.O. Box 487  
Benton KY 42025

Mr. Donald C. Storm  
Adjutant General  
Department of Military Affairs  
Boone Nat'l Guard Ctr., 100 Minuteman Pky.  
Frankfort KY 40601

Mr. George Ward  
Commissioner  
Department of Parks  
10th Floor, Capital Plaza Tower  
500 Mero Street  
Frankfort KY 40601

Mr. George Crothers  
Director, Office of State Archaeology  
Dept. of Anthropology, University of Kentucky  
211 Lafferty Hall  
Lexington KY 40506-0024

Mr. William Straw, Ph.D.  
Regional Environmental Officer  
Federal Emergency Management Agency, Region IV  
3003 Chamblee-Tucker Road  
Atlanta GA 30341-4130

Ms. Margie Shouse  
Independent Hauler Association  
905 Nebo Road  
P.O. Box 178  
Madisonville KY 42431

Mr. Jack Fish  
President  
Kentuckians for Better Transportation  
10332 Bluegrass Parkway  
Louisville KY 40299

Kentuckians for The Commonwealth  
105 Reams Street  
P.O. Box 1450  
London KY 40743

Mr. James Holsinger  
Secretary  
Kentucky Health Services Cabinet  
275 East Main  
Frankfort KY 40601

Mr. John Houlihan  
Kentucky Airport Zoning Commission  
Transportation Office Building, W3-09-02  
200 Mero Street  
Frankfort KY 40622

Mr. Bob Arnold  
Executive Director  
Kentucky Association of Counties  
380 King's Daughters Drive  
Frankfort KY 40601

Mr. Ken Oilschlager  
President  
Kentucky Chamber of Commerce Executives, Inc.  
464 Chenault Road  
Frankfort KY 40601

Mr. Richie Farmer  
Commissioner  
Kentucky Department of Agriculture  
Capitol Annex, Suite 188  
Frankfort KY 40601

Mr. Lloyd Cress, Sr.  
Commissioner  
Kentucky Department of Environmental Protection  
14 Reilly Road  
Frankfort KY 40601

Mr. C. Thomas Bennett  
Commissioner  
Kentucky Department of Fish and Wildlife Resources  
Arnold L. Mitchell Bldg., #1 Game Farm Rd.  
Frankfort KY 40601

Ms. Susan Bush  
Commissioner  
Kentucky Department of Nat'l. Resources  
663 Teton Trail  
Frankfort KY 40601

Mr. Stephen A. Coleman  
Director  
Kentucky Department of Nat'l. Resources, Division of  
Conservation  
663 Teton Trail  
Frankfort KY 40601

Mr. Mark Miller  
Commissioner  
Kentucky Department of State Police  
919 Versailles Road  
Frankfort KY 40601

Mr. Keith Smith  
Acting Director  
Division of Mine Reclamation and Enforcement  
# 2 Hudson Hollow  
Frankfort KY 40601

Kentucky Disabilities Coalition  
P.O. Box 1589  
Frankfort KY 40602-1589

Mr. John Lyons  
Director  
Kentucky Division of Air Quality  
803 Schenkel Lane  
Frankfort KY 40601

Ms. Leah W. MacSwords  
Director  
Kentucky Division of Forestry  
627 Comanche Trail  
Frankfort KY 40601

Mr. Greg Howard  
Commissioner  
Kentucky Department of Vehicle Enforcement  
Transportation Office Building, Suite T-500  
200 Mero Street  
Frankfort KY 40622

Mr. Tony Hatton  
Acting Director  
Kentucky Division of Waste Management  
14 Reilly Road  
Frankfort KY 40601

Mr. Jeff Pratt  
Director  
Kentucky Division of Water  
14 Reilly Road  
Frankfort KY 40601

Mr. Marvin E. Strong, Jr.  
Secretary  
Kentucky Economic Development Cabinet  
Capital Plaza Tower, 24th Floor  
500 Mero St.  
Frankfort KY 40601

Mr. John Bird  
Executive Director  
Kentucky Forward  
464 Chenault Road  
Frankfort KY 40601

Mr. Jim Cobb  
State Geologist & Director  
Kentucky Geological Survey, University of Kentucky  
228 Mining and Mineral Resources Bldg.  
Lexington KY 40506

Mr. David L. Morgan  
Executive Director  
Kentucky Heritage Council  
300 Washington Street  
Frankfort KY 40601

Mr. Kent Whitworth  
Director  
Kentucky Historical Society  
100 W. Broadway  
Frankfort KY 40601

Kentucky Industrial Development Council, Inc.  
109 Consumer Lane, Ste. A  
Frankfort KY 40601-8489

Ms. Sylvia L. Lovely  
Executive Director  
Kentucky League of Cities, Inc.  
101 East Vine Street, Ste. 600  
Lexington KY 40507

Mr. Ned Sheehy  
President  
Kentucky Motor Transport Association  
617 Shelby Street  
Frankfort KY 40601

Ms. LaJuana Wilcher  
Secretary  
Kentucky Natural Resources and Environmental Protection Cabinet  
Capital Plaza Tower, 5th Floor  
Frankfort KY 40601

Mr. Donald S. Dott, Jr.  
Executive Director  
Kentucky Nature Preserves  
801 Schenkel Lane  
Frankfort KY 40601

Ms. Vickie Bourne  
Executive Director  
Kentucky Office of Transportation Delivery  
Transportation Office Building, W3-10-01  
200 Mero Street  
Frankfort KY 40622

Mr. Beecher Hudson  
Executive Director  
Kentucky Public Transit Association  
c/o Louisville Red Cross  
P.O. Box 1675  
Louisville KY 40201

Ms. Marcheta Sparrow  
President  
Kentucky Tourism Council  
TARC, 1100 US 127 S., Bldg. C  
Frankfort KY 40601

Mr. W. James Host  
Secretary  
Kentucky Commerce Cabinet  
Capital Plaza Tower, 24th 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

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

Lt. Colonel Byron G. Jorns  
District Engineer  
U. S. Army Corps of Engineers, Nashville District  
P.O. Box 1070  
Nashville TN 37202-1070

The Honorable Daniel Mongiardo  
Kentucky State Senator  
Kentucky State Legislature  
200 Medical Center Drive, Suite 2N  
Hazard KY 41701

The Honorable Rick Nelson  
Kentucky State Representative  
Kentucky State Legislature  
Rt. 3 Box 686  
Middlesboro KY 40965

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

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

The Honorable William Kelly  
Bell County Judge/Executive  
Courthouse Square  
P.O. Box 339  
Pineville KY 40977

Mr. Bruce Bennett  
Bell County Sheriff  
P.O. Box 448  
Pineville KY 40977

Ms. Geraldine Wilder Jeffers  
Bell County PVA  
P.O. Box 255  
Pineville KY 40977

Mr. Bruce Nunn  
Bell County Road Supervisor  
Bell County Fiscal Court  
Attn: Road Department  
P.O. Box 339  
Pineville KY 40977

Ms. Judy Lefevers  
Bell County Health Center  
310 Cherry Street  
Pineville KY 40977

The Honorable Ben Hickman  
Mayor  
City of Middlesboro  
P.O. Box 756  
Middlesboro KY 40965

Mr. Jeff Sharpe  
Police Chief  
City of Middlesboro  
P.O. Box 601  
Middlesboro KY 40965

Mr. Tim Wilder  
Fire Chief  
City of Middlesboro  
P.O. Box 396  
Middlesboro KY 40965

Mr. J. C. Meredith  
Planning and Zoning  
City of Middlesboro  
P.O. Box 756  
Middlesboro KY 40965

Mr. Leeman Moyers  
Public Works/Street Department  
City of Middlesboro  
P.O. Box 756  
Middlesboro KY 40965

Mr. George W. Thompson  
Superintendent  
Bell County Schools  
211 Virginia Avenue  
P.O. Box 340  
Pineville KY 40977

Ms. Lorraine Brock  
Pupil Transportation  
Bell County Schools  
211 Virginia Avenue  
P.O. Box 340  
Pineville KY 40977

Mr. Darryl Wilder  
Superintendent  
Middlesboro Independent Schools  
220 N. 20th Street  
P.O. Box 959  
Middlesboro KY 40965

Ms. Gale Parke  
Pupil Transportation  
Middlesboro Independent Schools  
220 N. 20th Street  
P.O. Box 959  
Middlesboro KY 40965

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

The Honorable Harold Rogers  
United States Representative - District 5  
U. S. House of Representatives  
551 Clifty Street  
Somerset KY 42503

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  
1227 Wilkinson Boulevard, C-5  
Frankfort KY 40622

Mr. Duane Thomas  
Acting Director  
KYTC, Division of Traffic Operations  
Transportation Office Building, E3-04-03  
200 Mero Street  
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, 2nd Floor  
Frankfort KY 40601

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

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

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

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

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

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

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

# STUDY PURPOSE, ISSUES, AND PROJECT GOALS

## KY 441 SCOPING STUDY

**Bell County**  
**Item No. 11-110.00**

### Study Purpose

The purpose of the KY 441 Scoping Study is to identify and evaluate potential corridors for construction of a new route from KY 441 to US 25E in Middlesboro. The study is intended to help define the location and purpose of the project and better meet Federal requirements regarding consideration of environmental issues, as defined in the National Environmental Policy Act (NEPA). Items involved with this study include:

- Discuss project needs and issues with the Project Team
- Define project goals, needs, and issues;
- Define the beginning and ending points of the project corridor;
- Identify any known environmental concerns; and
- Identify and evaluate alternate corridors.

### Issues

Major issues and concerns have been identified within the study area that will be addressed in the Scoping Study. These include:

- Lack of good access to 25 E
- A need to improve economic and tourism opportunities in Bell County
- Poor geometrics, including narrow lane widths, narrow shoulders, substandard horizontal/vertical alignments, poor sight distance (no passing lanes), and access type;
- A need to improve capacity in Bell County

### Draft Project Goals

For the KY 441 Scoping Study project, several goals and objectives were identified. These include:

- Improved economic opportunities;
- Improved horizontal/vertical alignments to provide adequate sight distances and control of access;
- Improved highway capacity in certain locations; and,
- Decreased delays through communities; and,
- Improved emergency response times.

### Project Schedule

The current schedule for the project is:

Phase	Fiscal Year	Funding <sup>1</sup>
Design	2005	600,000
Right-Of-Way Acquisition	Not Scheduled	-----
Utilities	Not Scheduled	-----
Construction	Not Scheduled	-----

<sup>1</sup>From the *Kentucky Transportation Cabinet (KYTC) "Approved Kentucky Six-Year Highway Plan for FY 2003 through 2008"*

### **Contacts**

Address written comments to:

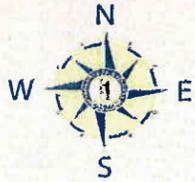
Or, you may contact by phone or e-mail:

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

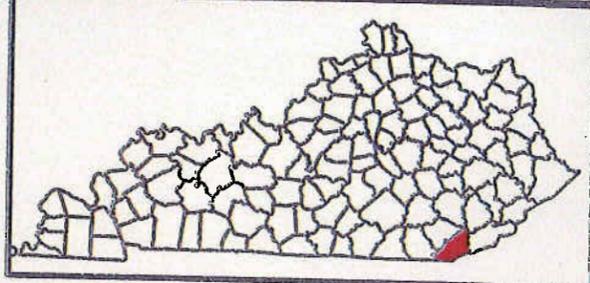
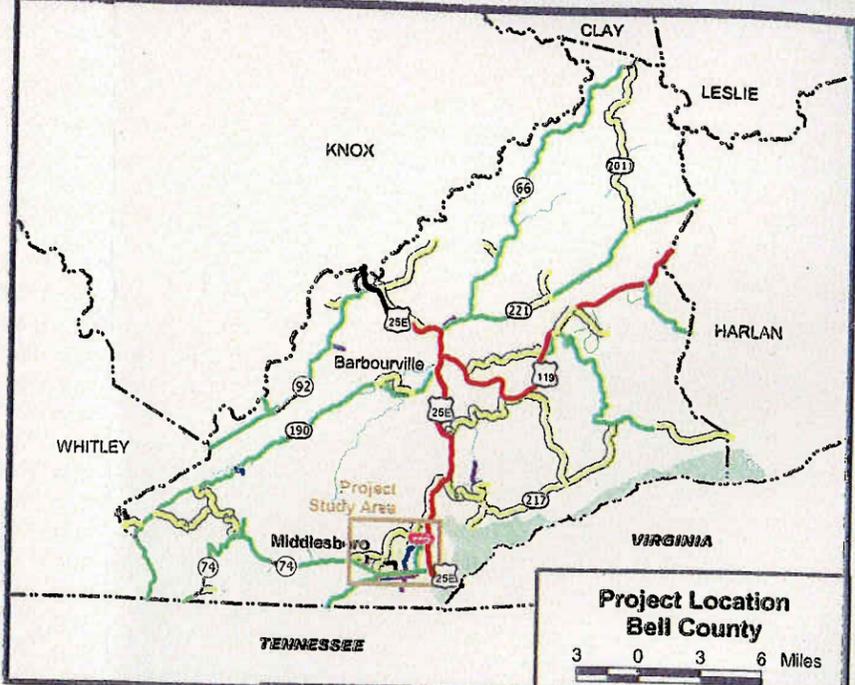
Ted Noe  
 Project Engineer  
 Kentucky Transportation Cabinet  
 Division of Planning  
 (502) 564-7183  
[ted.noe@mail.state.ky.us](mailto:ted.noe@mail.state.ky.us)

Visit our web page at: <http://www.kytc.state.ky.us/planning/index.htm>





# PROJECTED NEW CONSTRUCTION AREA



- State Primary Road System**
- Interstate
  - Parkway
  - Other State Primary
  - State Secondary
  - Rural Secondary
  - Supplemental Road
- Local Road System**
- Unimproved
  - Crushed Stone or Gravel
  - Paved
- Other Features**
- Rivers, Streams & Creeks
  - Railroad
  - Bridge
  - City/Town
  - Incorporated Area Boundary
  - Lake
  - Wildlife Management Area
  - State Park
  - State Forest
  - National Park
  - National Forest
  - Nature Preserve

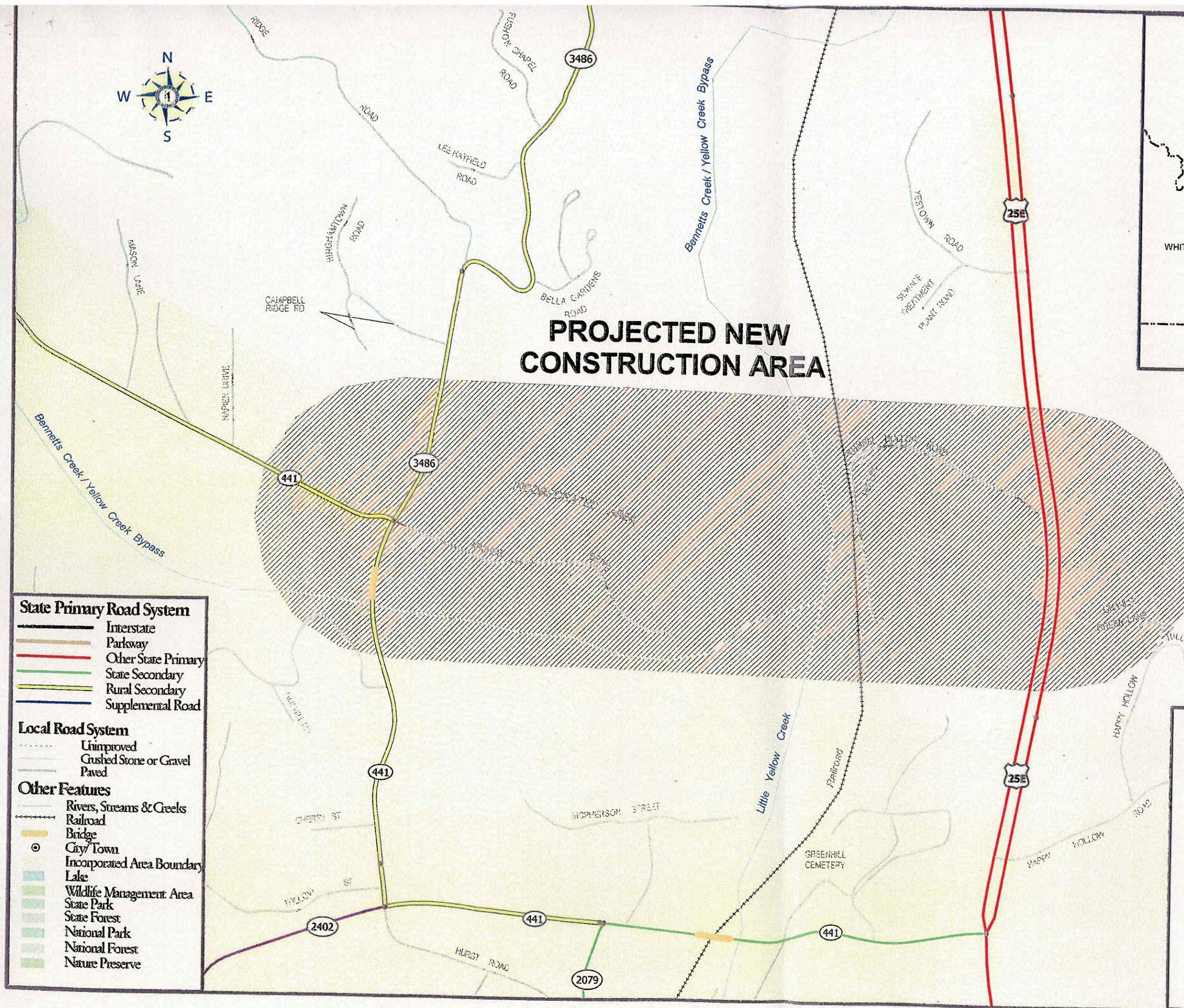
**PROPOSED KY 441  
MIDDLESBORO  
BELL COUNTY  
KENTUCKY**

**State Primary Road System**  
Last Map Revision: 03/04/04  
Last Official Order Change: 10/27/03

**Kentucky Transportation Cabinet  
Department of Highways  
Division of Planning**

400 0 400 800 Feet

Kentucky State Plane Coordinate System (NAD-83)  
Road centerlines collected using GPS technology





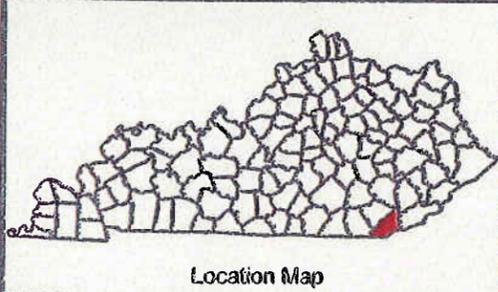


# CRASH INFORMATION BY SEVERITY

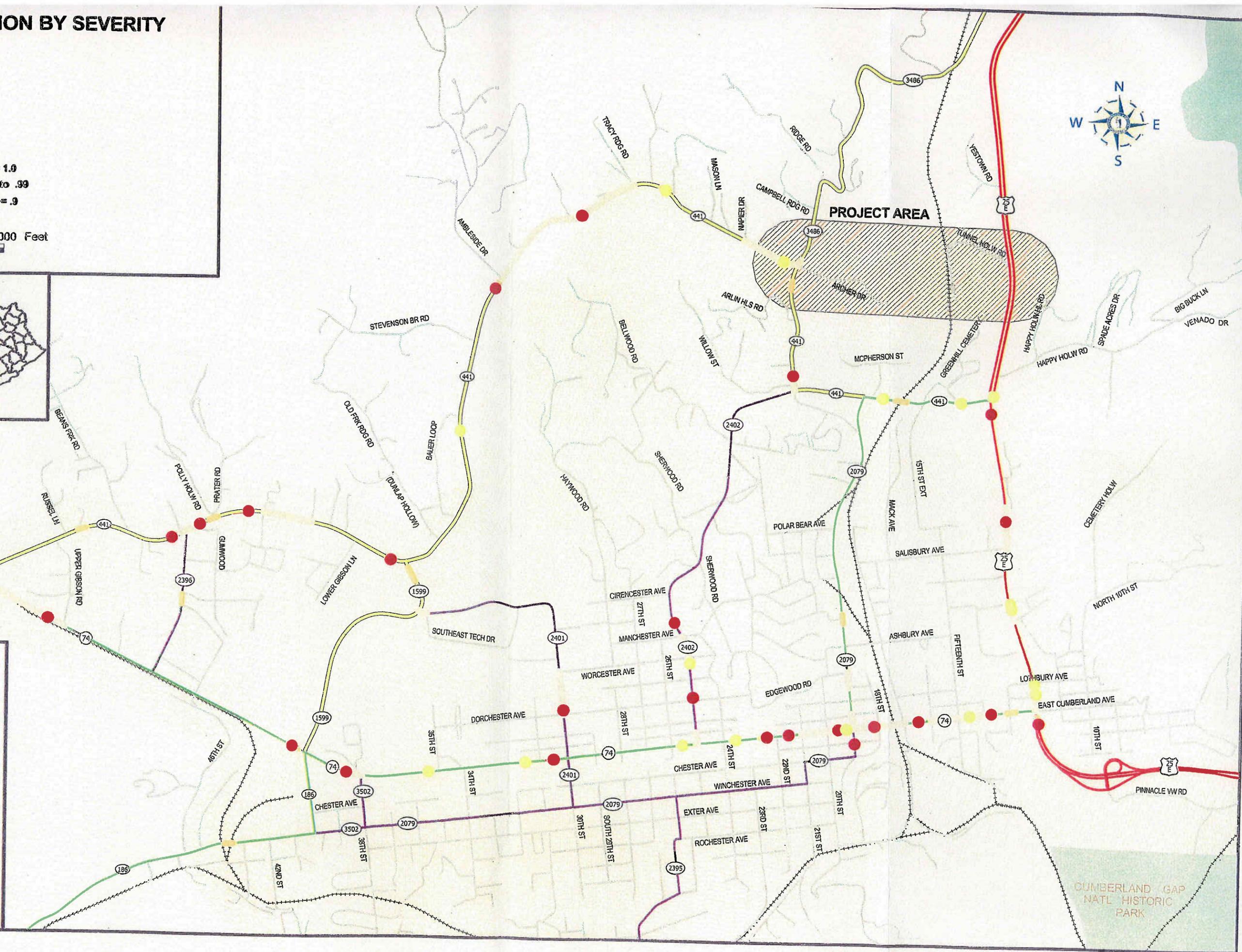
PROPOSED KY 441  
 MIDDLESBORO  
 BELL COUNTY  
 KENTUCKY

## High Crash Locations

- Critical Rate Factor --  $\geq 1.0$
- Critical Rate Factor -- .9 to .99
- Road Segment with CRF  $\geq .9$



- ### State Primary Road System
- Interstate
  - Parkway
  - Other State Primary
  - State Secondary
  - Rural Secondary
  - Supplemental Road
- ### Local Road System
- Unimproved
  - Crushed Stone or Gravel
  - Paved
- ### Other Features
- Rivers, Streams & Creeks
  - Railroad
  - Bridge
  - City/Town
  - Incorporated Area Boundary
  - Lake
  - Wildlife Management Area
  - State Park
  - State Forest
  - National Park
  - National Forest
  - Nature Preserve



## Comments by Telephone

On: February 11, 2005  
Time: 2:15 p.m.  
From: Agency Coordination Letter  
For: KY 441 Pre-Design Scoping Study  
By: Ms. Lorraine Brock  
Bell County Schools  
Pupil Transportation Director  
211 Virginia Ave., P.O. Box 340  
Pineville, KY 40977  
Phone (606) 337-7051

### Comments:

- Ms. Brock said that the new connector would not affect the flow of buses for the Bell County School System.
- Ms. Brock said that a new connector would benefit the School System more than it would hurt them.

Transcribed By: Ted Noe  
Project Manager  
Kentucky Department of Highways  
Division of Planning  
Frankfort, KY





COMMONWEALTH OF KENTUCKY  
**DEPARTMENT OF MILITARY AFFAIRS**



OFFICE OF THE ADJUTANT GENERAL  
BOONE NATIONAL GUARD CENTER DIV OF PLANNING  
FRANKFORT, KENTUCKY 40601-6168

2005 JAN 20 A 9:39

January 18, 2005

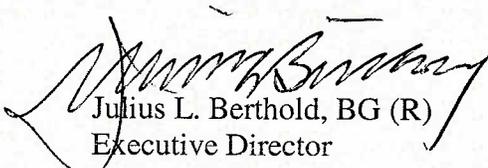
Annette Coffey  
P.E. Director  
Division of Planning  
Kentucky Transportation Cabinet  
200 Mero Street, Station W50-05-01  
Frankfort, Ky. 40622

Dear Ms. Coffey,

Subject: Pre-Design Scoping Study  
Bell County KY 441, Construct a New Route from the junction of KY  
441/KY3486 to US 25E in Middlesboro  
Item No. 11-110.00

Pursuant to your January 12, 2005 letter, we have reviewed the project. There are no issues or concerns that impact this agency.

Sincerely,

  
Julius L. Berthold, BG (R)  
Executive Director  
Office of Management and Administration  
Department of Military Affairs

C: Joseph Sanderson



# City of Middlesborough

P.O. Box 756  
Middlesboro, Kentucky 40965  
(606) 248-5670  
Fax (606) 248-1202

DIV OF PLANNING

2005 JAN 20 A 9: 42

BEN HICKMAN  
Mayor

January 18, 2005

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

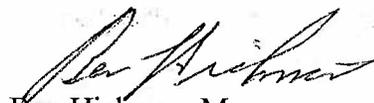
Re: New Route from KY 441 to US 25E in Middlesborough

Dear Ms. Coffey:

Please accept this letter as my full support of the above-referenced project. It is my belief that upon successful completion this project will greatly benefit the City of Middlesborough and surrounding areas. The project will enhance economic opportunities through improved access, increase capacity to reduce congestion and delays, improve emergency response times, create a safe facility for the driving public and decrease coal truck traffic on Cumberland Avenue (KY '74) in downtown Middlesborough.

I appreciate being afforded the opportunity to comment on this matter and if I can be of further assistance with this project, please do not hesitate to call me.

Sincerely,



Ben Hickman, Mayor  
City of Middlesborough

cc: Clay McKnight, CVADD

BH/br



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

January 18, 2005

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  
Bell County  
KY 441, Construct a New Route from the Junction  
of KY 441/KY 3486 to US 25E in Middlesboro  
Item No. 11-110.00

Dear Ms. Coffey:

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

Yours truly,

A handwritten signature in cursive script that reads "Ann Stewart".

Ann Stewart  
Staff Assistant





ERNIE FLETCHER  
GOVERNOR

COMMONWEALTH OF KENTUCKY  
**JUSTICE AND PUBLIC SAFETY CABINET**  
KENTUCKY VEHICLE ENFORCEMENT  
FRANKFORT, KY 40601

LT. GOV. STEPHEN B. PENCE  
SECRETARY

GREG HOWARD  
COMMISSIONER

January 14, 2005

Ms. Annette Coffey, P.E.  
Transportation Cabinet  
Division of Planning  
200 Mero Street  
Frankfort, KY 40622

DIV OF PLANNING  
2005 JAN 19 A 10:22

SUBJECT: Pre-Design Scoping Study, Bell County  
KY 441, Construct a New Route from the junction of KY 441/KY 3486 to  
US 25E to Middlesboro  
Item No. 11-110.00

Dear Ms. Coffey:

After having my staff review the packet you sent to us on the above referenced study, Kentucky Vehicle Enforcement can see no negative impact nor any specific concerns or effects the project might have for us.

If you have any questions, please contact us.

Sincerely,

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

Greg Howard  
Commissioner  
Department of Kentucky Vehicle Enforcement

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

Ms. Coffey,

Concerning you pre-design study of KY 441 in Bell county. We can see no negative impact, nor any specific concerns or effects the project might have for Kentucky Vehicle Enforcement. If we can be of any further assistance in this matter, please do not hesitate to contact us.

Respectfully,

Greg Howard  
Commissioner,  
Kentucky Vehicle Enforcement



COMMONWEALTH OF KENTUCKY  
ENVIRONMENTAL AND PUBLIC PROTECTION CABINET  
DEPARTMENT FOR ENVIRONMENTAL PROTECTION  
DIVISION FOR AIR QUALITY  
803 SCHENKEL LN  
FRANKFORT, KY 40601-1403

January 21, 2005

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 Pre-Design Scoping Study for evaluating the proposed highway project of KY 441 from the junction of KY 441/KY 3486 to US 25E in Middlesboro in Bell County, Item Number 11-110.00. 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).

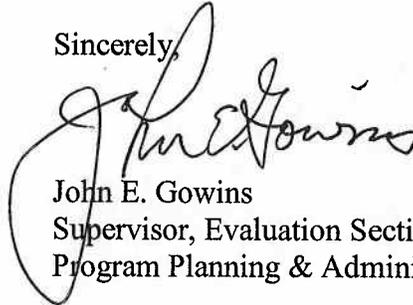
Finally, the projects listed in this document must meet the conformity requirements of the Clean Air Act as amended and the transportation planning provisions of Title 23 and Title 49 of United States Code.



Ms. Annette Coffey Letter  
January 21, 2005  
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 black ink, appearing to read "John E. Gowins". The signature is written in a cursive style with a large, looping initial "J".

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

JEG/jmf

## Noe, Ted (KYTC)

---

**From:** Houlihan, John (KYTC)  
**Sent:** Friday, January 14, 2005 2:59 PM  
**To:** Noe, Ted (KYTC)  
**Subject:** Pre-Design Study Item No. 11-110.00

Mr. Noe,

I have reviewed the proposed construction site and found it will have no hazards effect to air navigation. However if the construction equipment use on this project exceed 200' in height, you will have to obtain a permit through the Kentucky Airport Zoning Commission. I have attached a page the describes our jurisdiction. If you have any questions let me know.



CopyOfKAR50030.doc

Thank you.

***It's official; mark your calendar:  
Kentucky Aviation Conference  
September 21-23, 2005  
Frankfort Holiday Inn***

**602 KAR 50:030. Jurisdiction of the Kentucky Airport Zoning Commission.**

RELATES TO: KRS 183.861, 183.865, 183.867, 183.870

STATUTORY AUTHORITY: KRS 183.861

NECESSITY, FUNCTION, AND CONFORMITY: KRS 183.867 specifies that the commission has jurisdiction over zoning for all public use and military airports. This administrative regulation defines the areas over which the Kentucky Airport Zoning Commission has jurisdiction for the purpose of zoning in accordance with KRS Chapter 183 and specifics when the owner or person who has control over a structure which encroaches on the jurisdiction of the Kentucky Airport Zoning Commission shall apply for a permit.

Section 1. The commission has zoning jurisdiction over that airspace over and around the public use and military airports within the Commonwealth which lies above the imaginary surface that extends outward and upward at one (1) of the following slopes:

(1) 100 to one (1) for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of each public use and military airport with at least one (1) runway 3,200 feet or more in length; or

(2) Fifty (50) to one (1) for a horizontal distance of 10,000 feet from the nearest point of the nearest runway of each public use and military airport with its longest runway less than 3,200 feet in actual length.

Section 2. The commission has zoning jurisdiction over the use of land and structures within public use airports within the state.

Section 3. The commission has jurisdiction from the ground upward within the limits of the primary and approach surfaces of each public use and military airport as depicted on Airport Zoning Maps approved by the Kentucky Airport Zoning Commission.

Section 4. The commission has jurisdiction over the airspace of the Commonwealth that exceeds 200 feet in height above ground level.

Section 5. The owner or person who has control over a structure which penetrates or will penetrate the airspace over which the commission has jurisdiction shall apply for a permit from the commission in accordance with 602 KAR 50:090. (KAV-9-1; 1 Ky.R. 807; eff. 5-14-75; Am. 2 Ky.R. 306; eff. 3-10-76; 5 Ky.R. 599; eff. 3-7-79; 10 Ky.R. 445; eff. 1-4-84; 14 Ky.R. 267; eff. 9-10-87; 19 Ky.R. 800; eff. 11-4-92; 27 Ky.R. 2228; 2774; eff. 4-9-2001.)

**MEMORANDUM**

**P-2-05**

**TO:** Annette Coffey, PE  
Director  
Division of Planning

**FROM:** William Broyles PE  
Geotechnical Engineering  
Branch Manager  
Division of Materials

**BY:** Michael Blevins PG *MB*  
Geotechnical Branch

**DATE:** February 10, 2005

**SUBJECT:** Bell County  
KY 441 Extension to US 25E  
Item # 11-110.00  
Scoping Study

The Geotechnical Branch has reviewed the project study and the following comments are provided.

**GEOLOGY**

The project study area is situated within the Middlesboro Basin. The Middlesboro North Geologic Quadrangle map indicates that the study area is underlain by Quaternary Alluvium. The Alluvium thickness ranges from 0 - 30 feet. The bedrock Formation within the study area is Mingo and Hance Formations. These formations contain Sandstone, Shale, Siltstone, Underclay and Coal.

Faults are located throughout the Middlesboro Basin, which is considered as an "Impact Structure". These occur in a circular pattern (See attached Map). Most of the faults can be avoided by locating any new alignments in the alluvium and as embankment sections. The bedrock within the area of the basin is highly fractured, folded and deformed. The attached geologic map indicates the dip of the bedrock in the Basin to range from 9 degrees to 90 degrees and the dip directions varies greatly throughout the study area.

**GEOTECHNICAL CONCERNES  
AND COMMENTS**

- A. Foundations in alluvium for a bridge over Yellow Creek may require deep foundation types (piles or drilled shafts) if the alluvium is greater than 20 thick. A structure over Yellow Creek would be located within 500 feet of a mapped fault and approximately within 2 miles of the Rocky Face Fault (not shown on map). The structure should be designed accordingly.
- B. In areas where the bedrock dips into a cut section, the cut slopes will need to be excavated along the bedding plane from the ditchline to the top of the groundline. This may require extra right-of-way in areas where the dip is less than 26 degrees.
- C. Coal mines (surface or underground) are not anticipated to be encountered.
- D. The Branch recommends all cuts sections be kept to a minimum if possible to reduce the amount of bedrock exposed by adjusting the grades or alignments. An alignment to be considered is shown on the attached Geologic Map.

If there are any questions, please advise.

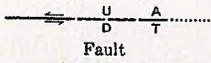
- Qal  
Alluvium
- Qt  
Terrace deposits
- Qc  
Colluvium
- Pm  
Mingo Formation  
hl, Harlan coal bed

- Ppha  
Hance Formation  
Inter tongues with Lee Formation  
Ppha, upper sandstone member  
pf, Path Fork coal bed  
hn, Hance coal bed  
ma, Mason coal bed  
Pphm, middle sandstone member  
sp, Spitsream coal bed  
cf, Clear Fork coal bed  
Pphay, Yellow Creek Sandstone Member  
n, Nasse coal bed

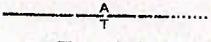
Pmhs  
Mingo and Hance Formations  
intensely deformed  
Pmhs, sandstone beds mapped  
locally.  
c, coal beds mapped locally

**Contact**  
Dashed where approximately located;  
dotted where concealed

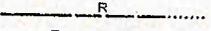
**Coal bed**  
Dashed where approximately located;  
dotted where concealed



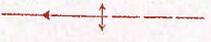
**Fault**  
Dashed where approximately located; dotted where concealed. Arrows show relative horizontal movement. U, upthrown side; D, downthrown side. In cross section: T, movement towards observer; A, movement away from observer



**Thrust fault**  
Dashed where approximately located; short dashed where inferred; dotted where concealed. T, upper plate. In cross section; A, movement away from observer



**Reverse fault**  
Dashed where approximately located; dotted where concealed. R, upthrown side



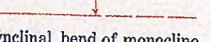
**Anticline**  
Showing position and plunge of crestline. Dashed where approximately located



**Syncline**  
Showing position of troughline. Dashed where approximately located



**Anticlinal bend of monocline**  
Showing trace of axis. Dashed where approximately located



**Synclinal bend of monocline**  
Showing trace of axis. Dashed where approximately located

Strike and dip of beds

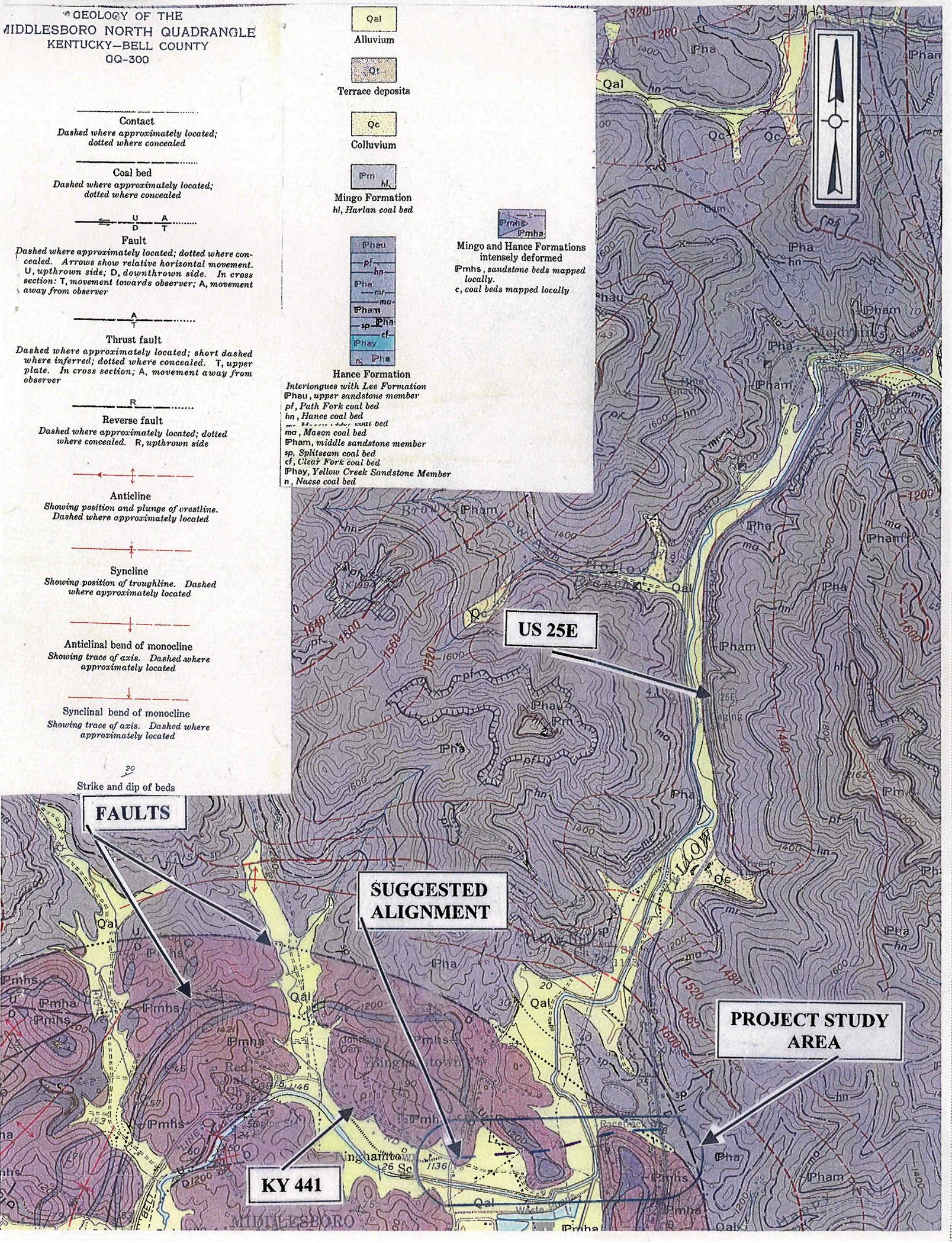
**FAULTS**

**SUGGESTED ALIGNMENT**

**PROJECT STUDY AREA**

**KY 441**

**US 25E**







UNIVERSITY OF KENTUCKY

DIV OF PLANNING

2005 FEB -1 A 11: 02

Kentucky Geological Survey  
Research  
228 Mining & Mineral Resources Bldg.  
Lexington, KY 40506-0107  
Phone: (859) 257-5500  
Fax: (859) 257-1147  
[www.uky.edu/kgs](http://www.uky.edu/kgs)

January 26, 2005

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:

Bell County

Ky. 441, Construct a new route from the junction of Ky. 441/Ky. 3486 to

U.S. 25E in Middlesboro.

Item No. 11-110.00.

**Physiographic Region**

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

**Middlesboro Impact Structure**

The study will be within this structure and will encounter rock strata that will be highly deformed (including faulting, fracturing, folding, and brecciation), and have a number of bed dip changes.

**Karst Potential**

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

**Landslide Potential**

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

**Unconsolidated Sediments**

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

**Resource Conflicts**

The study should not encounter any resource conflicts such as prior ownership of oil and gas wells or coal property for mining.



**Materials Suitability**

The study will not encounter any material suitable for construction stone.

**Fault Potential**

The study probably will encounter faults.

**Earthquake Zone**

The study area has a probable peak ground acceleration (PGA) due to earthquake ground motion of 0.19g. Considering the physical characteristics of the strata in this location, there is a good probability that the peak ground acceleration could be higher. There would be a moderate potential for liquefaction or slope failure in the strata within this structure and with unconsolidated sediments at or near streams caused by earthquake bedrock ground motion.

Sincerely,

A handwritten signature in black ink that reads "Richard A. Smath". The signature is written in a cursive style with a large initial "R".

Richard A Smath  
Geologist

cc Mike Blevins



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

February 4, 2005

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

Dear Ms. Coffey:

This is in response to your letter of January 12, 2005 requesting our agency's input and comments on the proposed construction of a new route from the junction of KY 441/KY 3486 to US 25 E in Middlesboro, Item Number 11-110.00. 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

2005 FEB -9 A 9:51  
DIV OF PLANNING

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

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 x 4  
Fax: (314) 539-3755  
Email:

DIV OF PLANNING

2005 MAY 25 A 10:13

16591.1/KY  
May 19, 2005

Ms. Annette Coffey, P.E.  
Director, Division of Planning  
Kentucky Transportation Cabinet  
200 Mero Street  
Frankfort, KY 40601

Subj: BELL COUNTY, KY 441/KY 3486 TO US 25E IN MIDDLESBORO,  
ITEM NO. 11-110.00

Dear Ms. Coffey:

We have reviewed the information provided in your letter of January 12, 2005 and determined that the subject project will not involve a waterway under jurisdiction of the Coast Guard, therefore a bridge permit is not required for this project.

We appreciate the opportunity to comment on the project.

Sincerely,

A handwritten signature in blue ink that reads "R. Wiebusch".

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





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

W. JAMES HOST  
SECRETARY, COMMERCE CABINET

C. TOM BENNETT  
COMMISSIONER

February 15, 2005

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

2005 FEB 18 P 1:23  
DIV OF PLANNING

RE: Threatened/endangered species, critical habitat review, and potential environmental impacts associated with the proposed construction of a new route from the junction of KY 441/KY 3486 to US 25E in Middlesboro.  
Item No. 11-110.00

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 (KFWIS) indicates that federal and state threatened and endangered species are known to occur within the corridor study area (see attached lists). Please be aware that our database system is a dynamic one that only represents our current knowledge of the various species distributions.

Based on this information, KDFWR makes the following recommendations:

- In areas in which Indiana bats are known to occur, any wooded areas, fencerows, or livestock pastures that may be impacted by the proposed project should be examined for the presence of Indiana bat habitat. Indiana bats form maternity colonies and roost under the bark of trees in both riparian and upland areas. Therefore, disturbance of trees with exfoliating bark, dead limbs, or cavities should be avoided during the time of year when Indiana bats are active.
- In areas where gray bats are known to occur, caves that exist within the project area should be surveyed for potential use by gray bats. Because gray bats are cave residents year-round and maternity colonies are generally found in close proximity to rivers, streams, and lakes, any caves within the project area could offer potentially valuable habitat. Impacts to caves should be avoided.
- To minimize impacts to bat foraging areas strict erosion control measures should be developed and implemented prior to construction to minimize siltation into waterways located within the project area. Such erosion control measures may include, but are not limited to silt fences, staked straw bales, brush barriers, sediment basins, and diversion ditches. Erosion control measures will need to be installed prior to construction and should be inspected and repaired regularly as needed.

For more information on how to proceed with the threatened/endangered species surveys please contact the US Fish and Wildlife Service Kentucky Field Office at (502) 695-0468 or this office at (502) 564-7109 Extension 366.

It appears that the proposed project has the potential to impact wetland habitats. KDFWR recommends that you look at the appropriate US Department of Interior National Wetland Inventory Map (NWI) and the appropriate county soil surveys to determine where the proposed project may impact wetlands. Additionally, field verification may be needed to determine the extent and quality of wetland habitats within the project area. Any planning should include measures designed to eliminate and/or reduce impacts to wetland habitats. If impacts cannot be avoided, mitigation should be properly designed and proposed to offset the losses. KDFWR will recommend, at a minimum, a 2:1 mitigation ratio for any permanent loss or degradation of wetland habitats.

KDFWR recommends that you contact the appropriate US Army Corps of Engineers office and the Kentucky Division of Water prior to any work within the waterways or wetland habitats of Kentucky. Additionally, KDFWR recommends the following for the portions of the project that crosses intermittent or perennial streams:

- Channel changes located within the project area should incorporate natural stream channel design.
- Development/excavation during low flow period to minimize disturbances.
- Proper placement of erosion control structures below highly disturbed areas to minimize entry of silt to the stream.
- Replanting of disturbed areas after construction, including stream banks and Right-of-Ways, with native vegetation for soil stabilization and enhancement of fish and wildlife populations.
- Return all disturbed instream habitat to its original condition upon completion of construction in the area.
- Preservation of any tree canopy overhanging the stream.
- Return all right-of-ways to original elevation.

I hope this information proves helpful to you. If you have any questions or require additional information, please call me at (502) 564-7109 Extension 366.

Sincerely,



Doug Dawson  
Wildlife Biologist III

Attachments

Cc: Environmental Section File

State T & E Species That Could Be Impacted By The Proposed Project

<u>Scientific Name</u>	<u>Common Name</u>	<u>Federal Status</u>	<u>KSNPC Status</u>
<i>Phoxinus cumberlandensis</i>	BLACKSIDE DACE	LT	T
<i>Sorex cinereus</i>	CINEREUS SHREW	N	S
<i>Corvus corax</i>	COMMON RAVEN	N	E
<i>Myotis leibii</i>	EASTERN SMALL-FOOTED MYOTIS	N	T
<i>Myotis sodalis</i>	INDIANA BAT	LE	E
<i>Myotis grisescens</i>	GRAY BAT	LE	E
<i>Clethrionomys gapperi maurus</i>	KENTUCKY RED-BACKED VOLE	N	S
<i>Empidonax minimus</i>	LEAST FLYCATCHER	N	E

Federal T & E Species That Could Be Impacted By The Proposed Project

<u>Scientific Name</u>	<u>Common Name</u>	<u>Federal Status</u>
<i>Phoxinus cumberlandensis</i>	BLACKSIDE DACE	LT
<i>Myotis grisescens</i>	GRAY MYOTIS	LE
<i>Myotis sodalis</i>	INDIANA BAT	LE



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](http://www.kentucky.gov)

LAJUANA S. WILCHER  
SECRETARY

STEPHEN A. COLEMAN  
DIRECTOR

February 15, 2005

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

**Subject:** Pre-Design Study for KY 441

Dear Ms. Coffey:

As requested, the Division of Conservation has reviewed the scoping study for the proposed relocation of a highway from the junction of KY441/KY 3486 to US 25E in Middlesboro and would like to provide the following comments and express concerns that may be helpful in this initial evaluation stage.

There are no agricultural districts established in the projected construction 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. Both prime farmland and farmland of statewide importance could be impacted by this project. 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 of Bell and Harlan Counties* (NRCS 1992), 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 several perennial and intermittent streams that this project could impact.

**Ms. Annette Coffey**  
**February 15, 2005**  
**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 Bell County Conservation District, the Kentucky Division of Water, or this office. Also an electronic version of the *Kentucky Erosion Prevention and Sediment Control Field Guide* is available online at <http://www.water.ky.gov/sw/nps/Publications.htm>

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 cursive script that reads "Stephen A. Coleman".

Stephen A. Coleman, Director  
Kentucky Division of Conservation

SAC/MD/aeH

United States Department of Agriculture



**NRCS** Natural  
Resources  
Conservation  
Service

771 Corporate Drive  
Suite 110  
Lexington, KY 40503-5479  
(859) 224-7371

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

January 26, 2005

Dear Ms. Coffey:

In regards to the planning study for the proposed relocation from the junction of KY 441/KY 3486 to US 25E in Bell County, Item No. 11-110.00, 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:

Jimmy Jones, Acting District Conservationist  
USDA-Natural Resources Conservation Service  
211 Kentucky Avenue, P.O. Box 822  
Pineville, KY 40977 phone: (606) 337-6320 or (606) 573-2838

Mr. Jones 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 GIS shapefiles are in UTM projection, nad83, zone 17. The soil database table includes a column for "farmland classification-all components" (farmclac) that identifies prime farmlands and soils of statewide importance.

Sincerely,

DAVID G. SAWYER  
State Conservationist

Enclosure

cc: Jimmy Jones, Acting District Conservationist, Harlan, KY  
Robert Bradley, Area Conservationist, Mount Sterling, KY

DIV OF PLANNING  
2005 JAN 28 A 10:38





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

February 15, 2005

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

RE: Pre-Design Scoping Study for Bell County  
KY 441/KY 3486 to US 25E in Middlesboro  
Item No. 11-110.00

DIV OF PLANNING  
2005 FEB 18 P 1:24

Dear Ms. Coffey:

The Department for Natural Resources has examined the documentation for the above Planning Study and offers the following comments.

The Division of Forestry looked at this proposed route (connecting KY 441 in an east-west route to US 25E) on the ground from two access points. The current impediments are six plus residences, Little Yellow Creek and the railroad parallel to the creek. The creek runs through an uninhabited floodplain, north of an industrial area (previously a tannery, hence the creek name). There are residences located east and west of the proposed route. A hill protrudes southeasterly into the floodplain. The creek has characteristics of a drainage canal rather than of natural origin, with poor aesthetic quality – rocked sides and adjoining grasslands.

We do not envision additional detrimental impact to the creek with the proposed road, since the necessary bridge would be of height and length to traverse both the creek and railroad, and not impact the functional capacity of the floodplain.

The Division of Oil and Gas Conservation states that the proposed project is located in an area of known oil and gas exploration activity. Oil and gas wells may be encountered in this area and the oil and gas operators may need to be contacted in order to work out any possible impact. The Kentucky Geological Survey can provide map overlays with the wells plotted.

Please contact Linda Potter in the Commissioner's Office at (502) 564-2184 if you need any additional information.

Sincerely,

Susan C. Bush, P.G.  
Commissioner  
Kentucky Department for Natural Resources





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

W. JAMES HOST  
SECRETARY  
COMMERCE CABINET

GEORGE WARD  
COMMISSIONER  
DEPARTMENT OF PARKS

February 7, 2005

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  
Bell County  
KY 441, New Route  
Reconstruction/Relocation

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





**KENTUCKY COMMERCE CABINET  
DEPARTMENT OF TOURISM**

**Ernie Fletcher**  
Governor

Capital Plaza Tower, 22nd Floor  
500 Mero Street  
Frankfort, Kentucky 40601  
Phone 502-564-4930  
Fax 502-564-5695  
www.kentuckytourism.com

**W. James Host**  
Secretary

**Randall L. Fiveash**  
Commissioner

January 21, 2005

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

Subject: Pre-Design Scoping Study – Bell County  
KY 441, Construct a New Route from the junction  
of KY 441/KY 3486 to US 25E in Middlesboro  
Item No. 11-110.00

DIV OF PLANNING  
2005 FEB - 7 P 1:52

Dear Ms. Coffey,

I have received and reviewed the information your office has provided in relation to the above referenced road improvement proposals.

In review of these materials it appears the roadway under consideration is approximately one mile in length. Being none were indicated on the maps provided I will have to presume no historical sites or sensitive wildlife and natural resource areas exist within the boundaries of the area being considered. That being the case it does not appear this improvement will negatively impact activities related to the Department of Tourism.

As is always the case I would ask other agencies in the Commerce Cabinet be contacted directly for their input. These include the Heritage Council and the Department of Fish and Wildlife.

I appreciate the opportunity to participate in this process and look forward to working with you in the future.

Sincerely,

Randall L. Fiveash  
Commissioner



**Shields, Carl (KYTC)**

---

**From:** Shields, Carl (KYTC)  
**Sent:** Wednesday, February 02, 2005 11:07 AM  
**To:** Noe, Ted (KYTC); Harmon, Dave (KYTC)  
**Subject:** 11-110 Bell Scoping Study

Ted and Dave,

I've examined our database and compared it with the project area.

Portions of the proposed project have been previously surveyed in 1992 by UK. Their work related to the Middlesboro Beltline Sewer Project, and is shown as dark blue in the attached images. No archaeological sites were identified during that survey. Other portions of the proposed project have not been surveyed.

No archaeological sites have been recorded within the proposed project boundaries. However, a mound (15B19) has been recorded approximately 1 km to the west of the proposed project, adjacent to Bennetts Creek/Yellow Creek Bypass. Its precise location is not known.

Based on topography and proximity to water, unrecorded archaeological sites may be present. Depending on the depositional nature of the alluvial deposits, deeply buried archaeological sites may be present.

An archaeological survey will be required. Once the scope of the project has been narrowed, I recommend the project area be examined by KYTC archaeologists before any decision is made on utilizing an outside consultant.

Carl

**Carl R. Shields - Archaeologist**  
**Kentucky Transportation Cabinet**  
**Division of Environmental Analysis**  
**200 Mero Street - Station: W5-22-02**  
**Frankfort, Kentucky 40622**  
**phone: (502) 564-7250**  
**fax: (502) 564-5655**  
**Carl.Shields@ky.gov**

Binghamtown

1936

441

441

Industrial Waste Ponds

Bypa

1200



WT

Willow

Sewage Disposal

WT

Projectaunt  
Main Gate

Sewage Disposal

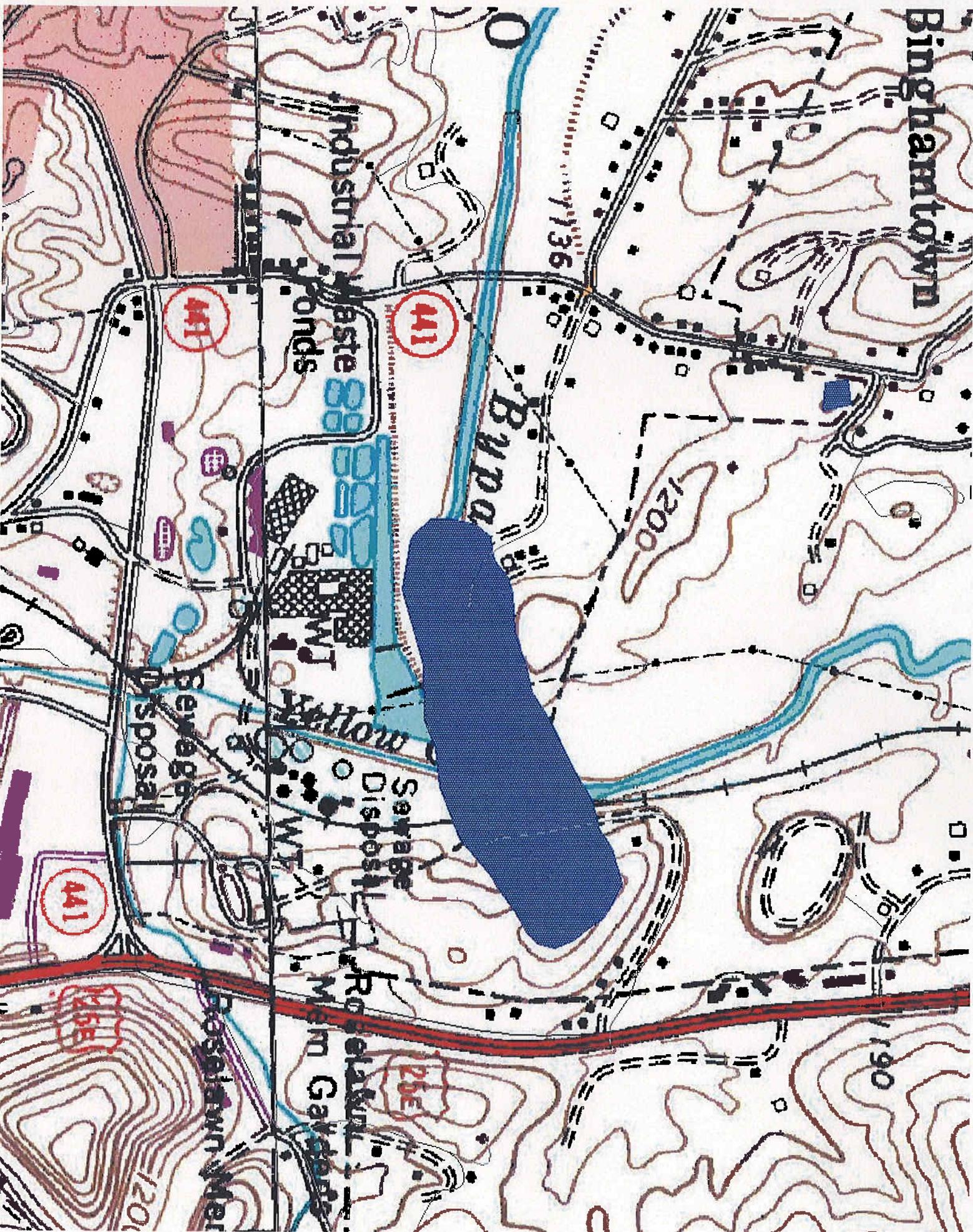
441

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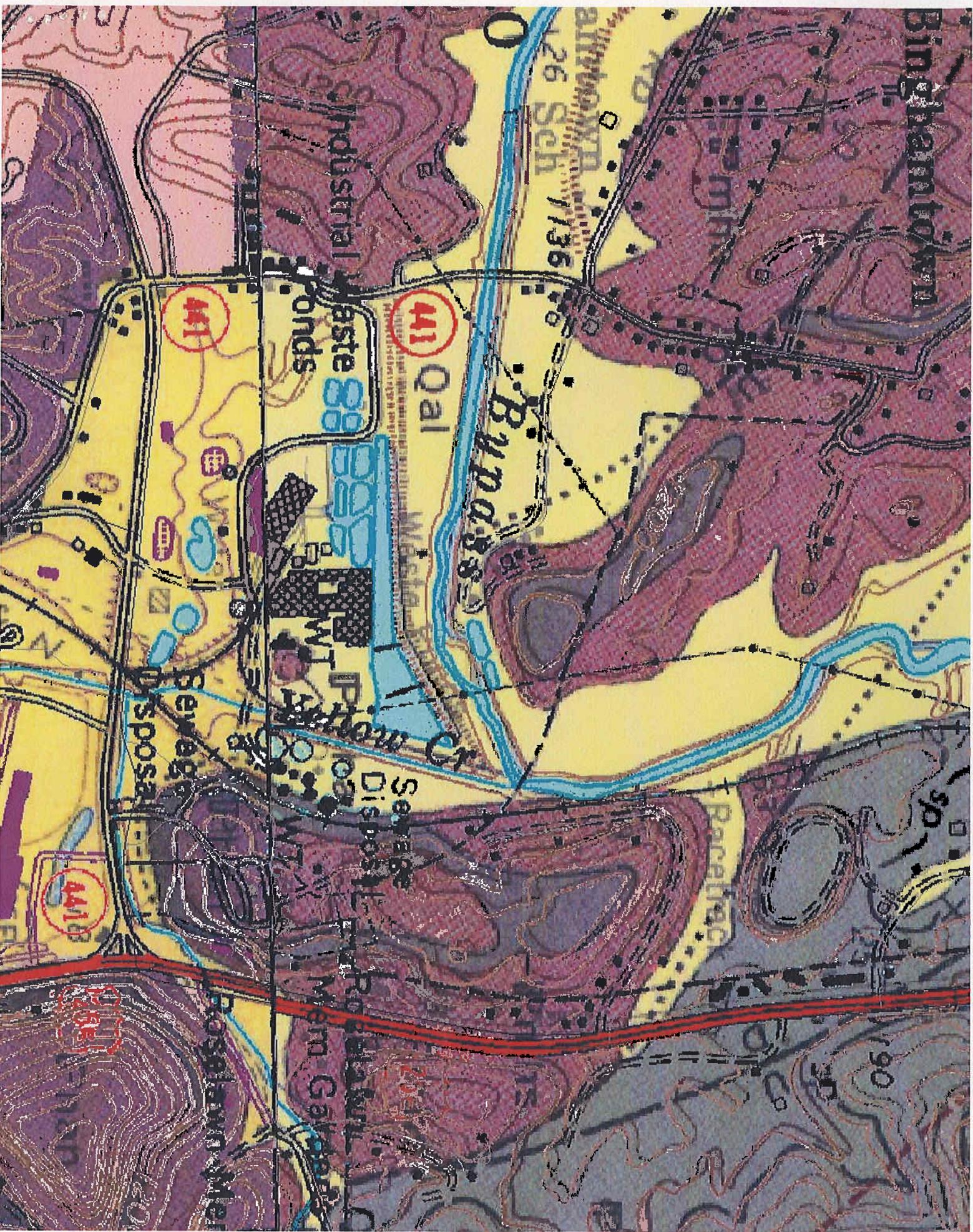
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Bypass

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Industrial Waste Ponds

WWT Plant

Sewage Disposal

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190



ERNIE FLETCHER  
GOVERNOR

**CABINET FOR HEALTH AND FAMILY SERVICES**  
OFFICE OF FISCAL SERVICES  
275 EAST MAIN STREET, 4E-E  
FRANKFORT, KENTUCKY 40621-0001  
(502) 564-7530 (502) 564-6163 FAX

JAMES W. HOLSINGER, JR., M.D.  
SECRETARY

January 24, 2005

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

SUBJECT: Pre-Design Scoping Study  
Bell County  
Item No.11-110.00

Dear Ms. Coffee:

We have reviewed the pre-design scoping study regarding the proposed relocation of the junction at KY 441/KY 3486 to US 25E in Bell County. We do not anticipate any significant impact on our offices or daily operations due to this proposal.

If you have further questions, please call me at 564-6631.

Sincerely,

*Lisa B. Detherage*  
Lisa Detherage, Director  
Division of Facilities Management

LD/rph

cc: James W. Holsinger, Jr., M.D., Secretary  
Cabinet for Health and Family Services



ERNIE FLETCHER  
GOVERNOR



LAJUANA S. WILCHER  
SECRETARY

COMMONWEALTH OF KENTUCKY  
**ENVIRONMENTAL AND PUBLIC PROTECTION CABINET**

DEPARTMENT FOR NATURAL RESOURCES

FRANKFORT, KENTUCKY 40601

**SUSAN C. BUSH**  
COMMISSIONER

March 17, 2005

DIV OF PLANNING  
2005 MAR 21 A 10: 08

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

RE: Pre-Design Scoping Study / Bell County  
KY 441, construct a new route from the junction of KY 441/KY 3486 to US 25E  
in Middlesboro  
Item No. 11-110.00

Dear Ms. Coffey:

As requested by Mr. Keith Smith, Acting Director, Division of Mine Reclamation & Enforcement, members of my staff have reviewed the pre-design scoping study to construct a new route from KY 441 to US 25E.

We have no permitted/bonded areas within the boundaries of this projected new construction area.

If I may be of additional assistance in this matter please feel free to contact me at the Middlesboro Regional Office at (606) 248-6166.

Sincerely,

A handwritten signature in blue ink that reads "Tim Kelley".

Tim Kelley  
Environmental Control Manager  
Division of Mine Reclamation & Enforcement  
Middlesboro Regional Office

TK/dlo

C: Keith Smith





**TRANSPORTATION CABINET**

Frankfort, Kentucky 40622  
www.kentucky.gov

**Ernie Fletcher**  
Governor

**Bill Nighbert**  
Acting Secretary

**Jim Adams**  
Deputy Secretary

**Marc Williams**  
Commissioner of Highways

**Dan Druen**  
Commissioner of  
Administrative Services

**Paul Steely**  
Commissioner of Aviation

**Roy Mundy**  
Commissioner of  
Vehicle Regulation

June 28, 2005

The Honorable Rick Nelson  
Representative 87<sup>th</sup> District  
Kentucky House of Representatives  
RR 3, Box 686  
Middlesboro KY 40965

Dear Representative Nelson:

Subject: Bell County  
Construct New Route from Junction of KY 441/KY 3486  
to US 25E in Middlesboro  
Item Number 11-110.00

Thank you for your inquiry on June 21, 2005, concerning the KY 441 Study. At your request, we have enclosed a copy of our current maps and the Study Purpose, Issues, and Project Goals. We hope this will help with your constituents' questions.

If you have any other questions, please contact Ted Noe, Project Manager, or me at (502) 564-7183.

Sincerely,

Annette Coffey, P.E.  
Director  
Division of Planning

AC/TN/BJH

c/att: Greene Keith  
Joel Holcomb  
Chris Phillips



## **APPENDIX F**

### **Project Team Meeting Minutes**



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# AGENDA

Project Team Meeting  
Pre-Design Scoping Study  
Bell County  
KY 441

Construct New Route from KY 441 to US 25E in Middlesboro

Item No. 11-110.00

July 13, 2004

1:00 p.m.

District 11 Conference Room

- 1) Welcome and Introductions
  - 2) Project History/Origination
  - 3) Discussion of  
Possible Alternatives
    - a) Project Termini
    - b) Design Criteria
  - 4) Purpose and Goals
    - a) Project Purpose and Goals
    - b) Project Issues
  - 5) Public Involvement
    - a) No Meetings (Public, Officials or Agencies)
    - b) Coordination Letters
  - 6) Questions and Answers
  - 7) Adjourn
- 
-



**Project Team Meeting Minutes**  
Pre-Design Scoping Study  
KY 441  
Bell County  
Item No. 11-110.00  
July 13, 2004

A project team meeting for the Pre-Design Scoping Study for KY 441 (Item No. 11-110.00) was conducted on Tuesday, July 13, 2004, at the Kentucky Transportation Cabinet (KYTC) Department of Highways District 11 Office in Manchester, Kentucky. The purpose of the meeting was to discuss the purpose, goals, and objectives of the proposed project, project issues, and to review existing conditions data for the study area. Participants at the meeting included representatives from KYTC District 11 and KYTC Division of Planning. Attendees for the meeting are as follows:

Sandy Rudder	KYTC D-11 Public Information Officer
Joel Holcomb	KYTC D-11 Pre-Construction
Michael West	KYTC D-11 Traffic
Dean Croft	KYTC D-11 Environmental Coordinator
Adam Knuckles	KYTC D-11 Design
Quentin Smith	KYTC D-11 Design
Don Breeding	KYTC D-11
Jim Wilson	KYTC – Central Office Planning
Ted Noe	KYTC – Central Office Planning
Steve Ross	KYTC – Central Office Planning
Sarah Barker	KYTC – Central Office Planning

A summary of the comments and discussion items for this meeting are outlined below.

**Introduction and Project History/Origination**

Initially the project team members were not aware of the project history, but near the end of the meeting Mr. Don Breeding joined and was able to provide some additional information.

Originally, the initial purpose of this project was to provide improved access to a proposed industrial park to be located northwest of the project area. During the development of this industrial park plan, an issue concerning wetland mitigation was encountered and has yet to be resolved. Due to this dispute, the environmental phase of the industrial park plan hasn't been completed. KY 441 is a coal haul route. However, most mines are now shut down and very little coal is currently being hauled. When coal trucks are running, KY 441 provides an alternate route, allowing the coal trucks to avoid KY 74 through downtown Middlesboro. This new project would also allow those coal

trucks to avoid the congested area of KY 441 near Wal-Mart by providing an alternative route to US 25E.

A few years ago the Cabinet improved some of the bridges on KY 441 to help accommodate the coal truck traffic. However, some segments of the route from KY 1599 to Ambleside Drive and from Mason Lane to KY 3486 were built on the U.S. Army Corps of Engineers levee that protects Middlesboro from potential flooding of yellow Creek. Some structures in those areas could use additional improvement.

New residential development off Ambleside Drive is generating additional traffic on KY 441 and adding to the congestion in the Wal-Mart area.

### **Draft Project Purpose**

The purpose of the KY 441 Scoping Study is to identify and evaluate potential corridors for construction of a new route from KY 441 to US 25E in Middlesboro. The study is intended to help define the location and purpose of the project and better meet Federal requirements regarding consideration of environmental issues, as defined in the National Environmental Policy Act (NEPA). Items involved with this study include:

- Define project goals, needs, and issues;
- Define the beginning and ending points of the project corridor;
- Identify any known environmental concerns; and
- Identify and evaluate alternate corridors.

### **Draft Project Issues**

Major issues and concerns have been identified within the study area that will be addressed in the Scoping Study. These include:

- Congestion near Wal-Mart
- Lack of good access to 25E and the proposed industrial park
- Alternate Access to US 25E
- A need to improve economic and tourism opportunities in Bell County
- Poor geometrics, including narrow lane widths, narrow shoulders, substandard horizontal/vertical alignments and poor sight distance (no passing lanes) for KY 441
- Need for KY 441 to be a Truck Route
- Need to Improve the Coal Haul Route Segments of KY 441

### **Draft Project Goals**

For the KY 441 Scoping Study project, several goals and objectives were identified. These include:

- Alleviate the congestion near Wal-Mart
- Improve access to 25E and the proposed industrial park

- Provide Alternate Access to US 25E
- Improve economic and tourism opportunities in Bell County
- Improve poor geometrics, including narrow lane widths, narrow shoulders, substandard horizontal/vertical alignments and poor sight distance (no passing lanes) for KY 441
- Reconstruct KY 441 to be a Truck Route
- Improve the Coal Haul Route Segments of KY 441

### **Study Area**

The project team was in agreement concerning the proposed study area. The project team was provided copies of tables and maps defining existing conditions of the study area. The following tables and maps were included in the handout:

Traffic and Geometric Data tables were compiled for Bell County along the existing corridor route. Data for these tables was obtained from KYTC's *Highway Information System (HIS)* database.

Bridge Data tables were compiled for Bell county in the study area. Data for these tables was obtained from KYTC's *Highway Information System (HIS)* database.

Six Year Highway Plan Improvement tables were compiled for Bell County. The source for this information is KYTC's *Six-Year Highway Plan for FY 2003 through 2008*.

Crash Data Analysis tables for segments and spots were included in the handout. The source for these tables was the CRASH program administered by the State Police.

Maps included in the handout were a Project Location map, 2003 and 2030 Average Daily Traffic (ADT), Level of Service (LOS) maps and a Crash Data map.

### **Project Termini**

The project team discussed the appropriate termini for the project. They agreed that the western termini should be the KY 441/KY 3486 intersection and that the eastern termini should be near the Tunnel Hollow Road and US 25E intersection.

### **Design Criteria**

The design criteria for the project will be for an Urban Minor Arterial Road. The minimum design standards desired by the project team would be two twelve foot lanes with ten-foot shoulders.

### **Public Involvement**

The project team was informed that this study would be done without public involvement unless a need arose to talk to local officials.

### **Additional Comments**

There was \$480,000 set aside to build an industrial park four to five years ago. Wetlands are located in the vicinity of Yellow Creek. A 40,000 gallon human fluid waste disposal site is located at the Green Hill Cemetery.

Middlesboro is an MS4 environmental area.

What are we trying to accomplish with this project? It was described as an economic development project to get trucks out of Middlesboro and keep these trucks out of the Wal-Mart Traffic.

With no further comments, the meeting concluded.

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# AGENDA

Project Team Meeting  
Pre-Design Scoping Study  
Bell County  
KY 441

Construct New Route from KY 3486 to US 25E in Middlesboro  
Item No. 11-110.00

June 17, 2010

10:00 a.m.

District 11 Conference Room

- 1) Welcome and Introductions
  - 2) Project History
  - 3) Update of Goals and Objectives
    - a) Is there still local support for the project?
    - b) Status of the Industrial Park
    - c) Coal Haul routes
    - d) Consistency of recommendations with goals and objectives
    - e) Extent of data to include in report
  - 4) Recommendations
    - a) Upgrade KY 441 to a Coal Haul route?
    - b) Functional classification - currently urban collector/urban minor arterial
    - c) Design parameters
  - 5) Cost estimates
    - a) Were prepared in 2004 based on regional per-mile cost estimates with an adjustment for the bridge based on deck area
    - b) Have been updated to 2009 by applying a 4% cost escalation rate.
  - 6) Adjourn
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Meeting Minutes  
Bell County – Item Number 11-110.00  
KY 441 Pre-Design Scoping Study  
Second Project Team Meeting – June 17, 2010

A second project team meeting for the KY 441 Pre-Design Scoping Study was held on June 17, 2010 at the Manchester Highway District Office. The meeting began at 10:00 a.m. and ended at 12:00 p.m. The following people attended the meeting:

Joseph Mosley – District 11 Project Development  
Dean Croft – District 11 Project Development  
Don Breeding – District 11 Maintenance & Construction  
Michael West – District 11 Traffic & Permits  
Keith Damron – Central Office Planning  
Steve Ross – Central Office Planning  
Tonya Higdon – Central Office Planning  
Thomas Witt – Central Office Planning

After introductions were made, Thomas Witt began the meeting by explaining that the most recent project team for the KY 441 study had been held in 2004, and that the purpose of the current meeting was to update and clarify information for the final report. The following items were discussed:

- The proposed Industrial Park is no longer being considered due to environmental issues related to wetlands in the area. However, there is still strong public support for the project.
- There is very little truck traffic that goes through Middlesboro to access the west side of the city. Although approximately 20,000 tons of coal per day is hauled on KY 74 west of Middlesboro, most of it is transferred to rail before it reaches downtown Middlesboro. There is an industrial park on the south side of Middlesboro which generates a significant number of truck trips, but these trucks would not be diverted from downtown streets by improvements to KY 441. Therefore, references to reconstructing KY 441 as a truck route and improving the coal haul route segments of KY 441 should be removed from the project goals and objectives.
- The revised project goals and objectives should be stated as follows:
  - Improve access between US 25E and western Middlesboro, and provide alternate access to such attractions as the Southeast Kentucky Community and Technical College, the Appalachian Regional Healthcare Hospital, the Middlesboro-Bell County Airport, the Middlesboro Middle School, the Middlesboro County Club, and residential areas;
  - Alleviate congestion near Wal-Mart;
  - Provide improved connectivity for the Middlesboro area; and
  - Improve safety for the traveling public in the project area.

- Due to the revised goals and objectives, it is not necessary to show traffic and crash data for the downtown Middlesboro area in the study document. Traffic and crash data will only be shown for the area near the proposed project.
- Building a direct connection from KY 441 at Archer Drive to US 25E would improve safety for the traveling public by diverting a significant number of vehicles from the existing route to an improved route.
- It is anticipated that KY 441 from KY 1599 to Archer Drive will be improved in the future. Building a direct connection from KY 441 at Archer Drive to US 25E would compliment these improvements to provide overall improved connectivity for the area.
- For the purpose of preparing cost estimates, the project team anticipates that the proposed route will be a collector with a rural cross-section consisting of two 12' lanes and 8' shoulders, with a design speed of 45 MPH. The District Office will check with the railroad coordinator to determine if an overpass or grade crossing should be assumed for the preparing cost estimate. The District Office plans to update the cost estimate by early July.
- Several environmental concerns were noted:
  - Middlesboro is an MS4 area, so construction activities will be subject to stricter erosion control measures, and plan review fees will be required.
  - There is a sewage treatment plant in the project area which could be impacted.
  - An archaeological review will be required.
  - Central Office Planning will check to see if there is environmental data available from the Middlesboro Small Urban Area study and will send an environmental checklist to the Division of Environmental Analysis.