

PROGRAMMING STUDY

US 62 FROM LEITCHFIELD TO CLARKSON

GRAYSON COUNTY

ITEM NUMBER 4-8303.00

Kentucky Transportation Cabinet
Division of Planning
August 2008



EXECUTIVE SUMMARY

Programming Study

Grayson County – Item Number 4-8303

US 62 from Leitchfield to Clarkson

This programming study was conducted to develop and evaluate alternatives for improving US 62 in Grayson County, starting at KY 3155 in eastern Leitchfield and ending approximately 2.5 miles west at KY 224 in Clarkson. This study was developed using a project team approach, with the project team being composed of personnel from the Kentucky Transportation Cabinet's Central Office and Elizabethtown Highway District Office, and the Lincoln Trail Area Development District. The process of developing this programming study included analyzing existing roadway and traffic conditions; developing a draft purpose and need statement; coordinating with resource agencies to identify their concerns related to transportation improvements in the area; investigating environmental concerns in the area, including environmental justice and community impacts; and developing and evaluating potential improvement alternatives. No public involvement was included as part of this study.

This segment of US 62 serves a large number of vehicles traveling between Leitchfield and points east, as well as local traffic that uses the route to access the extensive commercial, industrial, and residential developments in the area. The existing two-lane rural route currently handles approximately 11,000 vehicles per day, 7% of which are heavy vehicles, and is expected to carry between 18,000 and 20,000 vehicles per day in Year 2030. This equates to current and future levels of service of D and E, respectively. Several high-crash locations were identified along the route, and there are parking and drainage concerns in the Clarkson area. The goals established for this project are to improve safety, address parking and drainage issues in Clarkson, improve pedestrian access, and reduce delays for through traffic.

Several alternative improvement strategies were identified, including spot improvements and operations projects. Two spot improvements were

considered: Realigning the S-curve near the midpoint of the project and rebuilding the segment of US 62 in the built-up area of Clarkson. However, due to the short length of the project and concerns about abrupt changes in cross-section, the project team recommends rebuilding the entire route at once rather than making spot improvements. Two operations projects were recommended to be carried forward, including making shoulder improvements in the S-curve and at improving sight distance at the KY 88 intersection in the Clarkson area. For a long-term improvement, the project team recommends reconstructing the entire route with an urban cross-section, which would have a total estimated cost of \$15.4 million. Phased cost estimates for the build alternatives that were considered are presented Table ES-1, with the recommended alternative highlighted.

Table ES-1: Cost Estimates for Build Alternatives; Recommended Alternative Highlighted

		Length (miles)	Phased Costs (\$)				Total Cost (\$)
			Design	Right-of-Way	Utilities	Construction	
Rural Per-Mile Costs		1	538,000	1,000,000	880,000	3,500,000	6,000,000
Urban Per-Mile Costs		1	588,000	1,000,000	880,000	4,000,000	6,500,000
Alternative 1: 3-lane urban cross section throughout project	Entire Corridor	2.5	1,470,000	2,500,000	2,200,000	10,000,000	16,300,000
	Clarkson Area	0.7	411,600	700,000	616,000	2,800,000	4,600,000
	S-Curve	0.6	352,800	600,000	528,000	2,400,000	3,900,000
Alternative 2: Mostly 3-lane rural cross section; 3-lane urban section in Clarkson	Entire Corridor	2.5	1,380,000	2,500,000	2,200,000	9,100,000	15,400,000
	Clarkson Area	0.7	411,600	700,000	616,000	2,800,000	4,600,000
	S-Curve	0.6	322,800	600,000	528,000	2,100,000	3,600,000

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1.0 INTRODUCTION

1.1 Study Purpose

The purpose of this programming study is to develop and evaluate alternatives for improving the segment of US 62 in Grayson County from KY 3155 in eastern Leitchfield to KY 224 in Clarkson. This study is intended to provide an estimate of funding needs for potential improvements within the study corridor and to provide information that can be used when and if these improvements are carried forward to the design phase. This study is also intended to satisfy requirements of the National Environmental Policy Act (NEPA) regarding consideration of environmental issues.

The following items were included in the development of this study:

- Analyze existing roadway and traffic conditions, and identify concerns that should be addressed;
- Coordinate with resource agencies to identify their concerns related to transportation improvements in the study corridor;
- Develop a draft Purpose and Need Statement;
- Investigate environmental concerns in the study area, including environmental justice and community impacts;
- Develop and evaluate potential improvement alternatives; and
- Recommend improvements to be carried forward.

1.2 Study Process

This study was conducted using a project team approach. The project team included representatives from the Kentucky Transportation Cabinet (KYTC) Central Office, the KYTC Elizabethtown Highway District Office, and the Lincoln Trail Area Development District (LTADD). In addition, agency coordination was conducted to solicit input from a variety of resource agencies.

Two project team meetings were conducted. At the initial project team meeting held on May 1, 2007, existing conditions were reviewed, issues and concerns

were identified, and goals and objectives were defined. At the second project team meeting held on February 28, 2008, a draft purpose and need statement was developed, several improvement alternatives were discussed, environmental and community concerns and resource agency responses were reviewed, and a final recommendation was made. Complete minutes for these meetings are included in Appendix B.

1.3 Programming

This study was funded in the *Enacted Six-Year Highway Plan 2007-2012* as Item Number 04-8303.00, "Reconstruct US-62 from Leitchfield to Clarkson," with beginning and ending mile points of 23.000 and 25.463, respectively. No funding is programmed for future project phases at this time. On the Unscheduled Projects List, improving US 62 between Leitchfield and Clarkson is ranked as the top local priority, the second highest regional priority, and the fifth highest priority at the district level.

2.0 EXISTING CONDITIONS

2.1 Project Location

The project begins at the intersection of KY 3155, the William Thomason Byway, in eastern Leitchfield and continues in an easterly direction to the intersection of KY 224, East Main Street, in Clarkson. The total length of this corridor is approximately 2.5 miles. Exhibit 1 in Appendix A contains a map showing the project location.

Land use along the study corridor consists of a mixture of residential, commercial, and industrial developments. In general, the western portion of the study corridor contains primarily low-density residential development. Several industrial and commercial developments are concentrated near the midpoint of the project. The eastern end of the project, near Clarkson, is the most heavily developed and consists of a mixture of residential and commercial properties. Farms and undeveloped land are scattered throughout the area.

2.2 Roadway Characteristics

Data related to the existing roadway characteristics for this section of US 62 was obtained from the Division of Planning's Highway Information System (HIS) database. Additional information on existing conditions was obtained from field visits and meetings with personnel from the Highway District Office in Elizabethtown. Exhibit 2 in Appendix A contains photographs illustrating the existing conditions.

This section of US 62 is classified in the State System as a state secondary route. The portion of the route within the Leitchfield city limits is functionally classified as an urban minor arterial street, and the remainder is functionally classified as a rural major collector. The truck weight class is AAA, and the route is not on the National Highway System. The speed limit is 55 miles per hour (MPH), except in the Clarkson area at the eastern end of the project, where it is reduced to 35 MPH.

The terrain in this area ranges from flat to rolling, with vertical grades exceeding 2.5% in only one quarter-mile segment, where they fall within the 2.5% to 4.4% range. Horizontal curvature is generally mild; the main exception is an S-curve near the Walter T. Kelley Company Beehive Factory. The Oak Wood Lane intersection is located at the western end of this curve. This curve was identified by the project team as a significant safety concern.

The existing cross section consists primarily of two ten-foot through lanes, with two-foot paved shoulders. Left-turn lanes exist at the KY 3155 intersection and in the S-curve near the Beehive Factory. In the Clarkson area, the shoulders have been widened to accommodate on-street parking. However, this additional paved area combined with the generally flat terrain has led to drainage problems in the area. Isolated sidewalks exist along US 62 in the Clarkson area, but they do not provide good continuity for pedestrian traffic. Outside of Clarkson, a

railroad track runs parallel to US 62. US 62 diverges away from the railroad track near the S-curve and in the Clarkson area.

Due to the extensive roadside development, the access point density outside of Clarkson is quite high at approximately 30 access points per mile. Within the Clarkson area, the access point density is even higher. A high access point density can adversely affect traffic operations and safety.

2.3 Traffic Characteristics

Two traffic count stations are located within this section of US 62. Station 321 covers the section from the beginning of the study limits at MP 23.000 to the outskirts of Clarkson at MP 25.249. Station C07 covers the remainder of the study area. Average daily traffic (ADT) for these two count stations, measured in vehicles per day (vpd), were obtained from the Division of Planning's Traffic and Equipment Management Branch. ADT values were available from 1978 to 2005 for Station 321, and from 1980 to 2004 for Station C07. This historic data was used to calculate growth rates for each station and to estimate current (Year 2007) and future (Year 2030) ADT values for each station. The results of this analysis are presented in Table 1.

Table 1: Traffic Volumes and Levels of Service

Segment Description		KY 3155 (MP 23.000) to KY 88 (MP 25.249)	KY 88 (MP 25.249) to KY 224 (MP 25.463)
Count Station		321	C07
Year 2007	ADT (vpd)*	10,600	11,000
	DHV (vph)†	1,220	Not Calculated
	LOS‡	D	Not Calculated
Annual Growth Rate		2.3%	2.6%
Year 2030	ADT (vpd)*	17,900	20,100
	DHV (vph)†	1,790	Not Calculated
	LOS‡	E	Not Calculated
Notes:			
* Average Daily Traffic, which has units of vehicles per day			
† Design Hour Volume, which has units of vehicles per hour			
‡ Level of Service			

A special traffic count was performed as part of this planning study to determine the percentage of heavy trucks in the traffic stream. Based on data obtained on April 25, 2005, heavy trucks make up 7% of the peak hour traffic. Data obtained from this traffic count is provided in Appendix C.

The segment from KY 3155 to KY 88 includes over 90% of the length of the study corridor. For this segment, the Average Daily Traffic (ADT) volumes were factored to obtain Design Hour Volumes (DHV) for both 2007 and 2030. These Design Hour Volumes were then used in combination with known roadway and traffic characteristics to calculate the level of service (LOS) for both the existing and future design hours. LOS is a subjective measurement of how well a transportation facility is operating, and ranges from A, which indicates free-flow conditions, to F, which indicates that the traffic demand exceeds the capacity of the facility. A design hour level of service of C is considered acceptable in rural areas, while a level of service D is acceptable in urban areas. For rural two-lane highways such as US 62, level of service is based primarily on percent time spent following. Using the HCS+ computer program for two-lane highways, the 2007 design hour level of service was found to be D. The 2030 design hour level of service is expected to drop to E if no improvements are made. Printouts containing the details of the LOS analysis are included in Appendix C.

The segment of US 62 from KY 88 to KY 224 includes less than 10% of the study corridor. The land adjacent to this short segment is heavily developed, and there are numerous access points, including a signalized intersection at KY 224. For this reason, it would be inappropriate to perform a rural two-lane highway level of service analysis for this segment. Instead, level of service will be controlled primarily by intersection delays. Because the information required to perform such an analysis was not readily available, and because of the short length of this segment in relation to the remainder of the project, no design hour volumes or levels of service were calculated for this segment. However, intersection level of service should be taken into consideration during the design phase when turning movement volumes are available.

Traffic information is presented graphically in Exhibit 3 in Appendix A.

2.4 Safety

Crash data was used to calculate critical rate factors in accordance with the procedure described in *Analysis of Traffic Crash Data in Kentucky (2001-2005)*, published by the Kentucky Transportation Center. A critical rate is the crash rate for a given type of roadway at which it can be said with 99.5% certainty that crashes are not occurring at random. A critical rate factor (CRF) is the ratio of the actual crash rate at the location of interest to the critical rate; therefore, a CRF approaching or greater than 1.00 indicates that there is a high probability that crashes are due to some factor other than random chance. The data used in this analysis was obtained from the Collision Reports Analysis for Safer Highways (CRASH) database maintained by the Kentucky State Police for the time period beginning on January 1, 2004 and ending on December 31, 2006.

Critical rate factors for relatively long segments of the study corridor were calculated to determine the overall level of safety throughout the corridor. The study corridor was divided into three segments based on changes in functional classification and traffic volumes. The results of this analysis are presented in Table 2. The only segment of concern is the segment between KY 88 and KY 224 in the Clarkson area, which has a CRF of 0.99. This segment of the study corridor has a number of closely spaced intersections, including a signalized intersection at KY 224, as well as on-street parking.

Table 2: Summary of Crash Data for Segments

Segment Begin Point	Segment End Point	Average Daily Traffic (vpd)	Number of Crashes on Segment (Jan. 2004 - Dec. 2006)				Segment Total Crash Rate (per HMVM)	Critical Crash Rate	Critical Rate Factor
			Fatality Crashes	Injury Crashes	Property Damage Only	Total Crashes			
MP 23.000	MP 23.777	10,110	0	6	15	21	244	392	0.62
MP 23.777	MP 25.249 (KY 88)	10,110	0	8	21	29	178	329	0.54
MP 25.249 (KY 88)	MP 25.463 (KY 224)	10,410	0	4	8	12	492	499	0.99

Critical rate factors were also calculated for one-tenth-mile spots along the corridor. Three spots were found to have a CRF greater than 1.00. One of these spots is located near the western limits of the study area, while the other two are located in the Clarkson area. In addition, the spot from MP 24.0 to MP 24.1, which is located in the S-curve near the Beehive Factory, has a critical rate factor approaching 1.00, indicating that this is a potentially high-crash location. A summary of the crash data for high-crash spots is presented in Table 3.

Table 3: Summary of Crash Data for High-Crash Spots

Milepoint Range	Intersecting Road(s)	Average Daily Traffic	Number of Crashes at Spot (Jan. 2004 - Dec. 2006)				Spot Total Crash Rate	Critical Crash Rate	Critical Rate Factor
			Fatality Crashes	Injury Crashes	Property Damage Only	Total Crashes			
23.1 to 23.2	Entrance	10,110	0	3	5	8	0.7	0.68	1.06
24.0 to 24.1	Commercial Entrance; Driveways	10,110	0	4	3	7	0.6	0.65	0.98
25.2 to 25.3	KY 88	10,260	0	0	11	11	1.0	0.64	1.52
25.37 to 25.47	KY 2191 S. PATTERSON ST. SPRING STREET KY 224	10,410	0	4	4	8	0.7	0.64	1.10

Detailed crash information for the high-crash spots is presented in Table 4 and summarized below:

- The spot from MP 23.1 to MP 23.2 is located near the western limit of the study area and has a CRF of 1.06. Nothing stands out as a contributing factor at this location. Crashes are almost evenly split between single-vehicle, rear-end, and angle crash types.
- The spot from MP 24.0 to MP 24.1 is located in the S-curve near the Beehive Factory and has a CRF of 0.98. While this is the lowest CRF among the identified high-crash spots, the majority of the crashes at this location involve injuries. Single-vehicle crashes are the most common crash type at this location, indicating that the curvature of the roadway may be a contributing factor.
- The spot from MP 25.2 to MP 25.3 is located at the KY 88 intersection in Clarkson. With a CRF of 1.52, this spot has the highest crash rate among the identified high-crash spots. There are a number of very closely spaced access points at this location, and sight distance is obscured by

utility poles adjacent to the route. Angle crashes make up the majority of crashes at this location.

- The spot from MP 25.37 to MP 25.47 includes the KY 224 intersection and has a CRF of 1.10. A traffic signal was installed at this location in January of 2005, and the on-street parking was converted from angled spaces to parallel spaces. A review of crash data before and after installation of the traffic signal indicates that the crash rate at this intersection was reduced considerably.

Table 4: Crash Details for High-Crash Spots

Milepoint Range		23.1-23.2	24.0-24.1	25.2-25.3	25.37-25.47
Intersecting Road(s)		Entrance	Commercial Entrance; Driveways	KY 88	KY 2191 S. PATTERSON ST. SPRING ST. KY 224
CRF		1.06	0.98	1.52	1.1
Crash Factors		Number of Applicable Crashes at Spot			
Weather	Clear	5	5	5	6
	Cloudy	0	2	4	1
	Rain	2	0	2	1
	Other	1	0	0	0
Roadway Condition	Dry	5	7	7	7
	Wet	2	0	4	1
	Ice/				
	Other	1	0	0	0
Manner of Collision	Angle	3	1	6	1
	Backing	0	0	1	0
	Head-on	0	1	1	1
	Opposing Left Turn	0	0	1	1
	Rear End	2	1	2	3
	Sideswipe	0	0	0	1
	Single Vehicle	3	4	0	1
Light Condition	Dark	2	1	0	1
	Dawn/ Dusk	0	2	1	0
	Daylight	6	4	10	7

Exhibit 4 in Appendix A contains a graphical presentation crash information, including the locations of the high-crash spots noted above.

3.0 PURPOSE AND NEED

As part of the State Secondary Highway System, this section of US 62 serves a large number of vehicles traveling between Leitchfield and points east including the town of Clarkson and the Western Kentucky Parkway. The portion of the route within the Leitchfield city limits is functionally classified as an urban minor arterial, while the remainder is classified as a rural major collector.

The existing cross-section consists primarily of two ten-foot-wide travel lanes with narrow shoulders. Extensive development along the corridor has resulted in numerous closely-spaced access points. This causes delays for through traffic and creates a safety hazard in the built-up area of Clarkson. A sharp S-curve near the midpoint of the study corridor has also been identified as a high-crash location. Sidewalks exist only in a few isolated locations. This discourages pedestrian access to homes and business adjacent to the route. In addition, paved parking areas adjacent to US 62 in Clarkson combined with generally flat terrain have created drainage problems in that area. Construction of KY 3155 (the William Thomason Byway) around the east side of Leitchfield has led to increased truck traffic using US 62 to travel between the Western Kentucky Parkway and the industrial park on the north side of Leitchfield. This has created a need to better accommodate trucks, particularly at the KY 224 intersection.

The goals established for this project are to:

- Improve safety;
- Address parking and drainage concerns in Clarkson;
- Improve pedestrian access; and
- Reduce delays for through traffic.

4.0 ENVIRONMENTAL CONCERNS

4.1 Environmental Overview

Information on potential environmental concerns was obtained through coordination with the KYTC Division of Environmental Analysis (DEA). DEA

completed a checklist addressing concerns related to archaeology; cultural and historic resources; socioeconomic, air quality and noise concerns; underground storage tanks and hazardous waste; ecology; and the need for special permits. This checklist is provided in Appendix D.

The KYTC Division of Planning prepared an environmental footprint based on available data. The environmental footprint, along with a list of environmental features occurring within 500 feet of the existing centerline is provided in Appendix D.

4.2 Environmental Justice and Community Impacts

Environmental justice is required by Executive Order 12898, which was signed on February 11, 1994. This Executive Order states that "...each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations...." The KYTC also considers elderly populations when evaluating environmental justice.

In order to identify potential environmental justice concerns, an *Environmental Justice and Community Impact Report* was prepared by the Lincoln Trail Area Development District (LTADD) to assess the community demographics within the study area. This report is included in Appendix E. LTADD found no communities that would be adversely affected by a transportation improvement project in this area. However, LTADD will continue to monitor the study area for environmental justice concerns throughout the development of the project.

5.0 AGENCY COORDINATION

The KYTC Division of Planning solicited input regarding this Programming Study from a variety of agencies. Their responses are included in Appendix F and are summarized below.

U.S. Coast Guard: A Coast Guard permit is not required.

U.S. Department of Agriculture, Natural Resources Conservation Service (NCRS): The agency is concerned about potential impacts to prime farmland soils and additional farmlands of statewide importance. If federal money is used to convert important farmlands from agricultural to non-agricultural use, a form must be submitted to the local NCRS office. The agency provided GIS shapefiles containing basic soils information for Grayson County. KYTC used these shapefiles to generate a map showing basic soils information for the study area. This map is included with the response letter from NCRS.

U.S. Environmental Protection Agency (EPA), Region 5: The agency noted that Kentucky is located in Region 4, and stated that future project communications should be directed to that EPA office.

Kentucky Cabinet for Health and Family Services, Facilities Management Division: The agency does not own or lease property in the area and therefore does not have any concerns related to the project.

Kentucky Commerce Cabinet:

- **Department of Fish & Wildlife Resources:**
 - No federal/state threatened and/or endangered fish and wildlife species are known to occur in the project area.
 - The project has the potential to impact wetland habitats. Appropriate avoidance and/or mitigation measures should be taken.
 - The U.S. Army Corps of Engineers and the Kentucky Division of Water should be contacted prior to any work within waterways or wetland habitats.
 - The agency provided recommended practices for portions of the project that impact streams.
- **Department of Parks:** None of the Department's facilities will be impacted by the study.

Kentucky Department of Agriculture: No specific issues or concerns were identified.

Kentucky Department of Military Affairs: No specific issues or concerns were identified.

Kentucky Environmental and Public Protection Cabinet (EPPC):

- **Department for Environmental Protection:** The Department requested input from several agencies through the State Environmental Review Process. Responses were received from the EPPC Division of Water, Division of Waste Management, Division for Air Quality, and Department for Natural Resources. The comments received from these agencies are summarized individually.
- **Department for Natural Resources:** This agency provided comments both through the State Environmental Review Process and to the KYTC Division of Planning directly. The agency notes that the project is located in an area of known oil and gas exploration activity, and the agency provided a map from the Kentucky Mine Mapping Web site showing several oil and gas wells in the area.
- **Division for Air Quality:** The agency calls attention to Regulation **401 KAR 63:010** and Regulation **401 KAR 63:005**, which relate to fugitive emissions and open burning, respectively. The project 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. An investigation into compliance with applicable local government regulations is also suggested.
- **Division of Conservation:** There are no agricultural districts established along the project area. However, the agency would like to see the issue of loss of farmland addressed and has listed resources for identifying farmland designations. In addition, the agency has concerns about erosion and sedimentation during and after earth-disturbing activities and

recommends that best management practices be utilized to prevent nonpoint source water pollution.

- **Division of Waste Management:** Solid waste generated by the project must be disposed of at a permitted facility. If encountered, underground storage tanks, asbestos, lead paint, and other contaminants must be properly addressed.
- **Division of Water:** The agency endorses the project. The project is located in karst terrain, and the agency has provided measures that should be taken to protect the area's groundwater. No floodplain or dam safety issues were identified.

Kentucky Justice and Public Safety Cabinet

- **Kentucky State Police:** The agency provided a summary of collisions on US 62 in the study area from January 1, 2006 to July 31, 2007 which shows that there were a total of eleven injury collisions during this time period. The agency notes that the area is heavily traveled due to the presence of schools and factories, with the heaviest daily travel periods from 7:00 to 8:00 A.M. and from 3:00 to 4:30 P.M. A list of factories using US 62 was also provided.
- **Kentucky Vehicle Enforcement:** The agency did not identify any concerns related to the project.

Kentucky Transportation Cabinet

- **Geotechnical Branch:** The branch provided an overview of the geological formations present in the study area. It was noted that most of the project is underlain by the Leitchfield Formation and will probably require a chemically modified roadbed. The branch also noted that a fault is present in the study area which may require special measures. A map was provided by the branch showing geological features within the study area.

- **Kentucky Airport Zoning Commission:** If any construction equipment exceeds 200 feet above ground level, a permit will have to be obtained prior to use.
- **Office of Special Programs:** The office notes that the shoulders are currently two feet wide and recommends a minimum of four feet of paved shoulders beyond any rumble strips to accommodate cyclists. The office also recommends placing “Share the Road” signs to alert motorists to the possible presence of cyclists.
- **Permits Branch:** The branch provided a list of encroachment and recycler permits issued since 1994. The branch provided recommendations for implementing partial access control, if applicable, and requested to be notified if portions of the project are designated as partial control access or if the proposed roadway is to be placed on the National Highway System.

University of Kentucky, Kentucky Geological Survey: The agency provided a summary of geologic concerns in the study area. The main concerns appear to be karst features and faulted areas.

6.0 ALTERNATIVES CONSIDERED

The project team considered several alternatives for the section of US 62 between Leitchfield and Clarkson, including the no-build alternative. These alternatives are discussed in detail below. Cost estimates for the design, right-of-way, utilities, and construction phases for each of the build alternatives are provided in Table 5. The assumed cross-sections that were used to generate these cost estimates are presented in Exhibit 5 in Appendix A.

6.1 No-Build Alternative

This alternative would involve no reconstruction within the study corridor. This alternative would be the least expensive in terms of up-front costs and would have the least community and environmental impacts. However, this alternative would not adequately address the project goals of improving safety, addressing

parking and drainage concerns in Clarkson, improving pedestrian access, and reducing delays for through traffic.

6.2 Long-Term Improvements

Two long-term alternatives to improve the entire corridor were considered. These alternatives are discussed in detail below and are presented graphically in Exhibits 6 and 7 in Appendix A.

- Alternative 1: In this alternative, the entire route would be reconstructed with a three-lane urban cross-section consisting of one through lane in each direction, a two-way left-turn lane, sidewalks, and curb and gutter. The reconstructed route would generally follow the existing route, with the exception of the S-curve near the Walter T. Kelley Company Beehive Factory, which would be built on a new alignment. This alternative would provide good pedestrian access throughout the project, improve drainage in the Clarkson area, and reduce delays. Parking needs in the Clarkson area would also be addressed depending on the available right-of-way. The improved cross-section, the realignment of the S-curve, and the improved drainage in the Clarkson area should improve safety, and intersections with US 62 would be improved to meet current standards of sight distance and turning radii. The total estimated cost for this alternative is \$16.3 million.
- Alternative 2: This alternative is identical to Alternative 1, except that the portion of US 62 outside of the Clarkson area would be constructed with a three-lane rural cross-section instead of a three-lane urban cross-section. This alternative would provide good pedestrian access and improved drainage in the Clarkson area, and would reduce delays throughout the corridor. Parking needs in the Clarkson area would be addressed depending on the available right-of-way. Pedestrian access outside of the Clarkson area could be provided either on wider shoulders, which were assumed in calculating the cost estimates, or on a separate multi-use path. The improved cross section, the realignment of the S-curve, and the

improved drainage in the Clarkson area should improve safety, and intersections with US 62 would be improved to meet current standards of sight distance and turning radii. The total estimated cost for this alternative is \$15.4 million dollars.

6.3 Short-Term Improvements

Two potential short-term improvement locations were identified: The S-curve near the Walter T. Kelley Company Beehive Factory and the downtown Clarkson area. These alternatives are described in detail below, and their locations are shown in Exhibit 8 in Appendix A.

- S-Curve: This improvement would begin at approximately MP 23.6 and would end at approximately MP 24.2. This improvement would address safety problems, including the high-crash spot from MP 24.0 to MP 24.1. The realigned curve, including a short approach road to access the existing route, would have a length of approximately 0.6 mile and would cost an estimated \$3.9 million if rebuilt with a three-lane urban cross-section, or \$3.6 million if rebuilt with a three-lane rural cross-section.
- Clarkson Area: This improvement would begin at approximately MP 24.8 and would end at the KY 224 intersection at approximately MP 25.5. This section would be rebuilt with a three-lane urban cross-section with curb and gutter and sidewalks. Parking would be considered depending on the available right-of-way, and intersections would be improved to meet current standards of sight distance and turning radii. This improvement would reduce delays, address the drainage and parking issues in Clarkson, improve safety at two high-crash spots (the KY 88 and KY 224 intersections), and improve truck access at the KY 224 intersection. This project has a length of approximately 0.7 mile and an estimated cost of \$4.6 million.

Table 5: Cost Estimates for Build Alternatives

		Length (miles)	Phased Costs (\$)				Total Cost (\$)
			Design	Right-of-Way	Utilities	Construction	
Rural Per-Mile Costs		1	538,000	1,000,000	880,000	3,500,000	6,000,000
Urban Per-Mile Costs		1	588,000	1,000,000	880,000	4,000,000	6,500,000
Alternative 1: 3-lane urban cross section throughout project	Entire Corridor	2.5	1,470,000	2,500,000	2,200,000	10,000,000	16,300,000
	Clarkson Area	0.7	411,600	700,000	616,000	2,800,000	4,600,000
	S-Curve	0.6	352,800	600,000	528,000	2,400,000	3,900,000
Alternative 2: Mostly 3-lane rural cross section; 3-lane urban section in Clarkson	Entire Corridor	2.5	1,380,000	2,500,000	2,200,000	9,100,000	15,400,000
	Clarkson Area	0.7	411,600	700,000	616,000	2,800,000	4,600,000
	S-Curve	0.6	322,800	600,000	528,000	2,100,000	3,600,000

7.0 RECOMMENDATIONS

7.1 Long-Term Improvements

The project team recommends that Alternative 1 be carried forward as a long-term improvement strategy for the US 62 corridor. While this alternative is expected to be slightly more expensive than Alternative 2, the project team feels that reconstructing the entire route with an urban cross-section will provide better pedestrian access throughout the corridor and would better compliment the rapid development that is occurring in the area. While the no-build alternative would be the least expensive and would have the least community and environmental impacts, this alternative would not adequately address the project goals of improving safety, addressing parking and drainage concerns in Clarkson, improving pedestrian access, and reducing delays for through traffic.

7.2 Short-Term Improvements

While the short-term improvement alternatives could provide some relief, the project team feels that it would be more practical to reconstruct the entire route at once. If both short-term improvements were built, the cost of these improvements would be approximately \$8.5 million, or half the cost of rebuilding

the entire route, and would result in several transitions between improved and unimproved sections that could create new safety problems.

7.3 Operations Improvements

KYTC has recently made improvements at two of the high-crash locations. A turn-lane was added at the S-curve, which may have reduced the safety problem at this location. A signal was added at the KY 224 intersection, and nearby on-street parking was changed from angled to parallel spaces. A review of crash data before and after the signal installation indicates that crash rates in this area have declined significantly.

The project team recommends that the following additional operations improvements be made:

- At the KY 88 intersection, limited sight distance appears to be a factor in the high crash rate. The Elizabethtown Highway District Office will request HSIP funds to improve sight distance at this location by moving utility poles.
- The Elizabethtown Highway District Office has requested Highway Safety Improvement Program (HSIP) funds to increase shoulder widths at the S-curve. This should improve safety by providing a recovery area for vehicles that leave the roadway.

8.0 ACKNOWLEDGEMENTS AND CONTACT INFORMATION

Appreciation is extended to the following individuals who served on the project team and provided valuable information and assistance throughout the development of this planning study:

- Kevin Cartwright, Highway District 4 Design
- Patty Dunaway, Highway District 4 Chief District Engineer
- John Edwards, Highway District 4 Utilities
- Joseph Ferguson, Highway District 4 Environmental Coordinator
- Jude Filiatreau, Highway District 4 Maintenance

- Josh Hornbeck, Highway District 4 Planning
- E. L. Lewis, Highway District 4 Traffic
- Dean Loy, Highway District 4 Right-of-Way
- Michael Malham, Lincoln Trail Area Development District
- John W. Moore, Highway District 4 Design
- Paul Sanders, Highway District 4 Construction
- Gary Valentine, Highway District 4 Pre-Construction

The following individuals from the Kentucky Transportation Cabinet's Division of Planning may be contacted if additional information is required:

- Thomas Witt, E.I.T., Project Manager, Strategic Planning Activity Center
- David Martin, P.E., Team Leader, Strategic Planning Activity Center
- Steve Ross, P.E., Branch Manager, Strategic Planning Activity Center

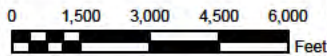
APPENDIX A

EXHIBITS

**PROJECT
LOCATION MAP**

Grayson County
US 62
Leitchfield to Clarkson
Programming Study






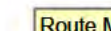
Source: KYTC Highway
Information Systems
Data (HIS) 6/13/2007



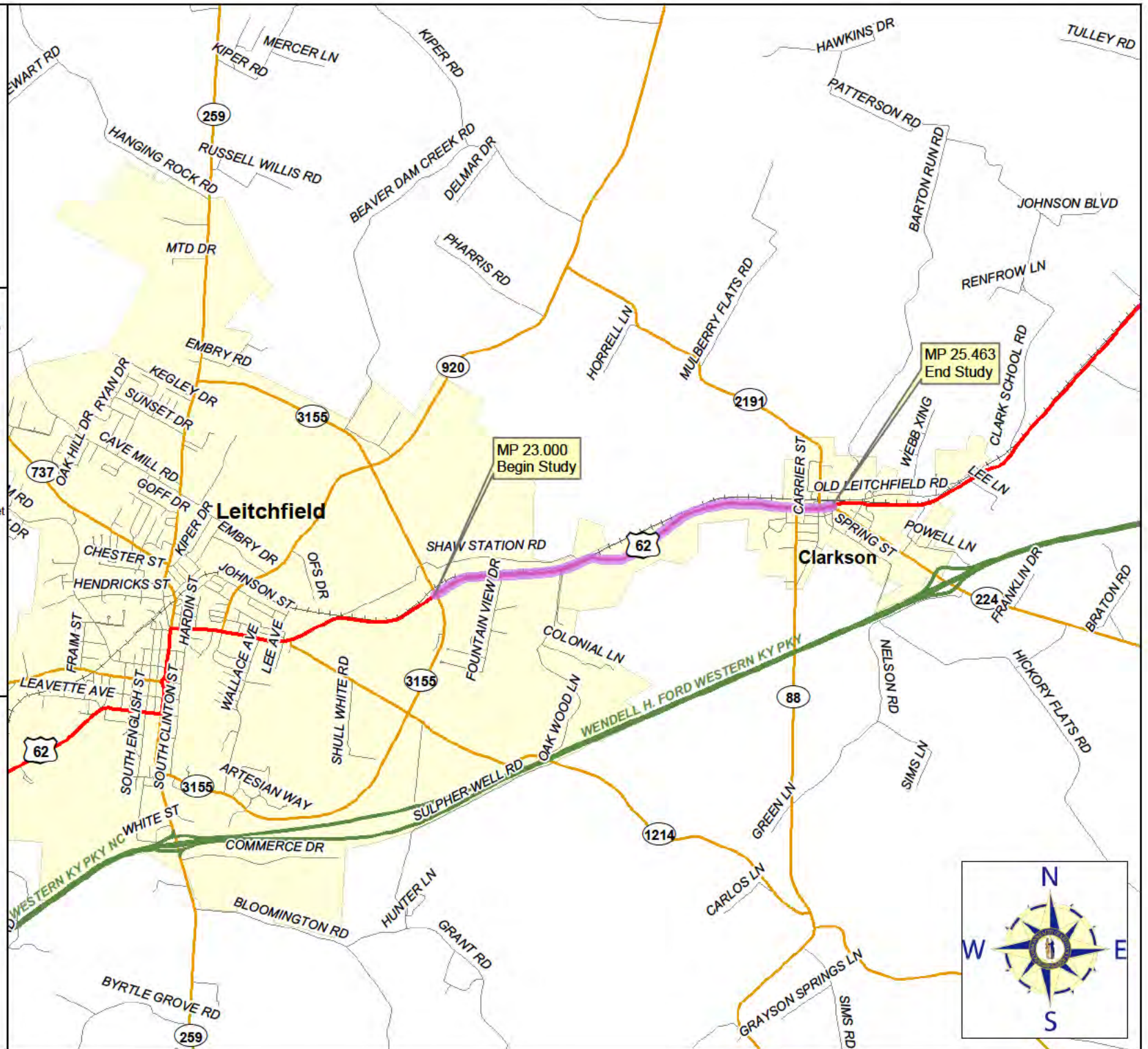
KENTUCKY
TRANSPORTATION
CABINET

Division of Planning

Legend

-  Study Corridor
-  Parkway
-  US Highway
-  State Highway
-  Local Road
-  Railroad
-  City

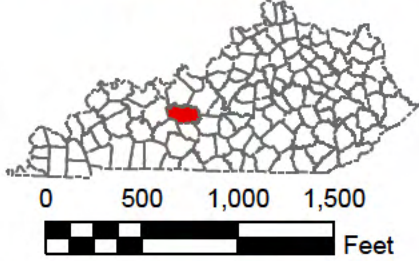
Route Milepoints
and Events









EXISTING CONDITIONS

Grayson County
US 62
Leitchfield to Clarkson
Programming Study

Source: KYTC Highway
Information Systems
Data (HIS) 6/13/2007



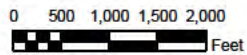
Legend

-  Study Corridor
-  Parkway
-  US Highway
-  State Highway
-  Local Road
-  Railroad



TRAFFIC VOLUMES & LEVELS OF SERVICE





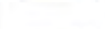

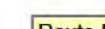
Grayson County
 US 62
 Leitchfield to Clarkson
 Programming Study
 Source: KYTC Highway
 Information Systems
 Data (HIS) 5/11/2007



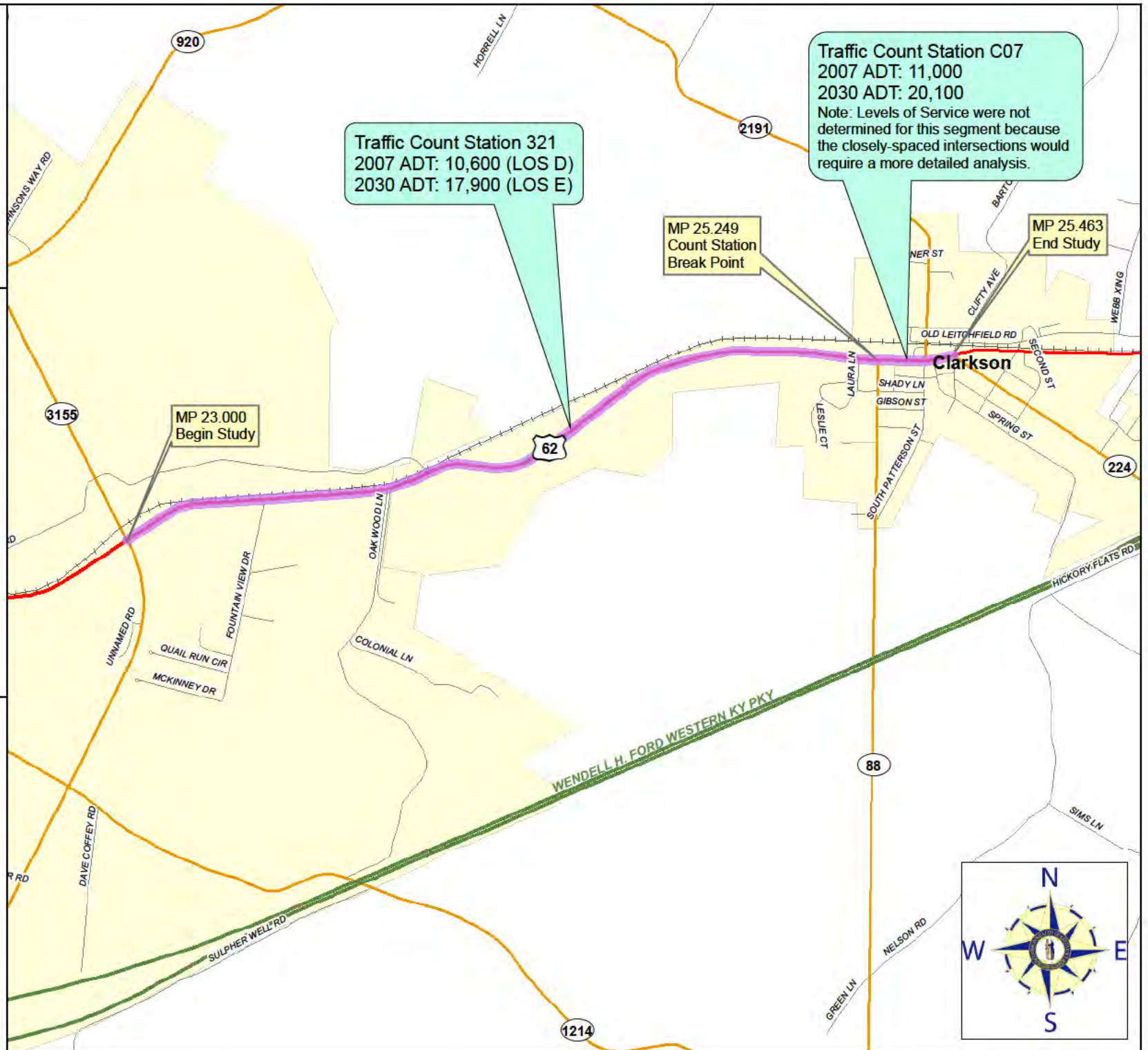
KENTUCKY
 TRANSPORTATION
 CABINET

Division of Planning

Legend

-  Study Corridor
-  Parkway
-  US Highway
-  State Highway
-  Local Road
-  Railroad
-  City

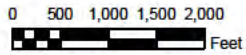
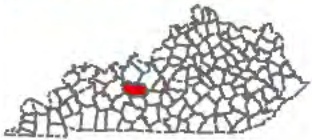
Route Milepoints
 and Events



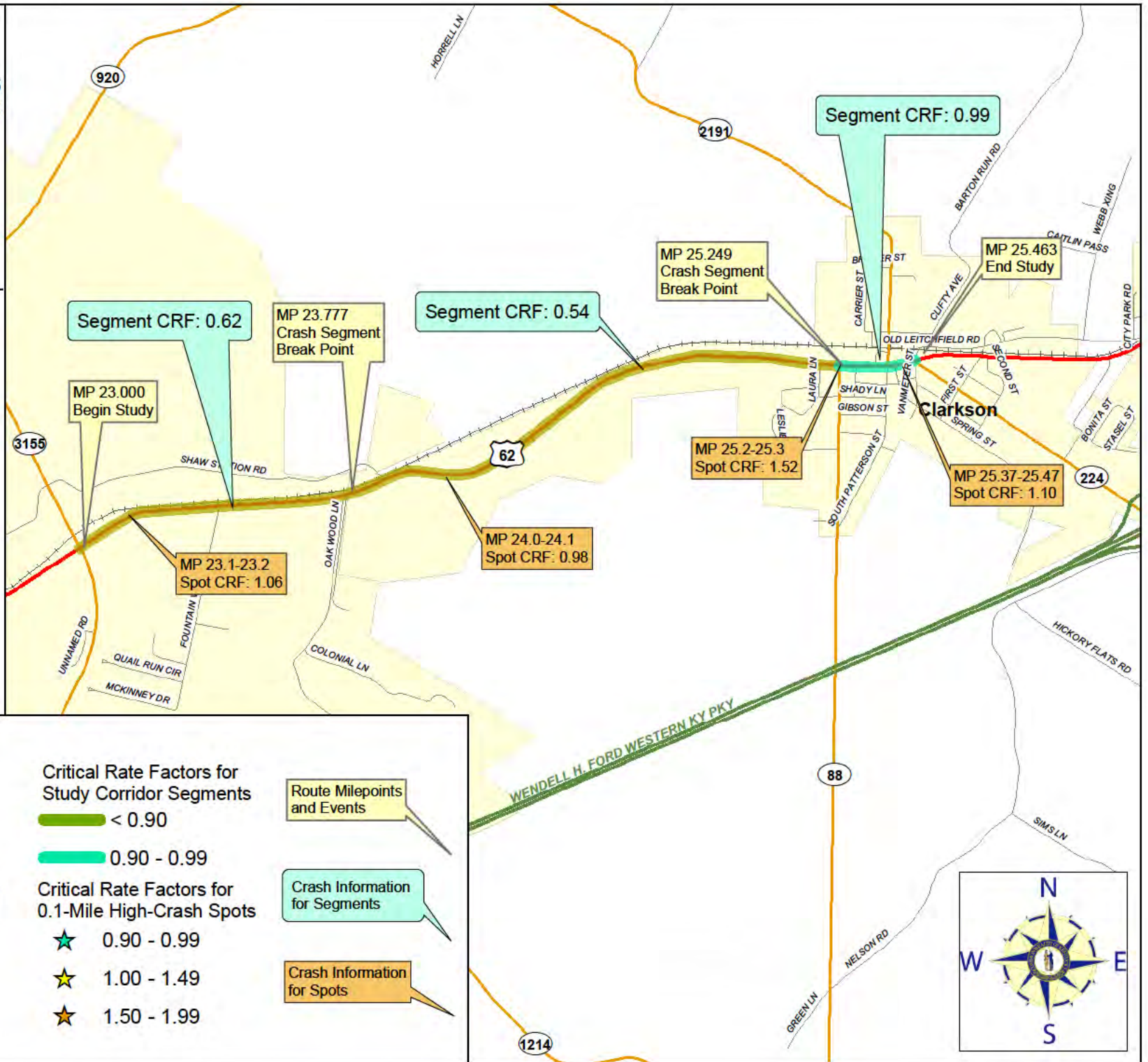
CRITICAL RATE FACTORS FOR SEGMENTS & SPOTS

Grayson County
US 62
Leitchfield to Clarkson
Programming Study

Source: C.R.A.S.H. Database
1/1/2004 to 12/31/2006



Division of Planning



Legend

- Parkway
- US Highway
- State Highway
- Local Road
- Railroad
- City

Critical Rate Factors for Study Corridor Segments

- < 0.90
- 0.90 - 0.99

Critical Rate Factors for 0.1-Mile High-Crash Spots

- 0.90 - 0.99
- 1.00 - 1.49
- 1.50 - 1.99

Route Milepoints and Events

Crash Information for Segments

Crash Information for Spots



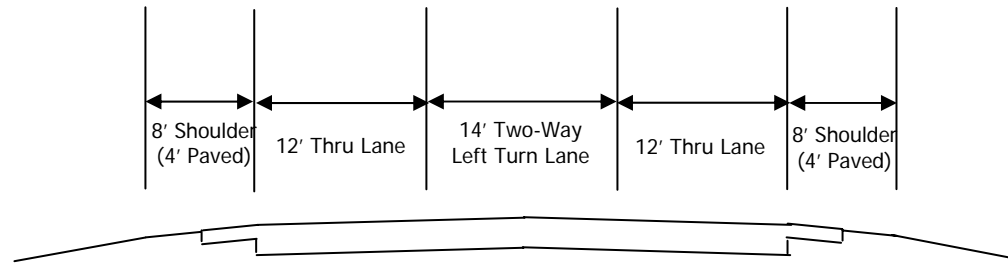
ASSUMED
CROSS-SECTIONS
FOR
COST ESTIMATES

Grayson County
US 62
Leitchfield to Clarkson
Programming Study

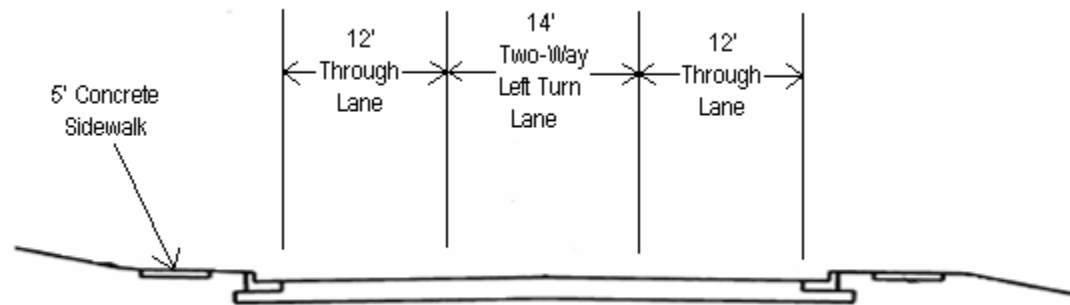


Division of Planning

3-Lane Rural Section



3-Lane Urban Section



ALTERNATIVE 1: URBAN CROSS SECTION THROUGHOUT PROJECT

Grayson County
US 62

Leitchfield to Clarkson
Programming Study

Source: KYTC Highway
Information Systems
Data (HIS) 6/13/2007



0 500 1,000 1,500 2,000
Feet

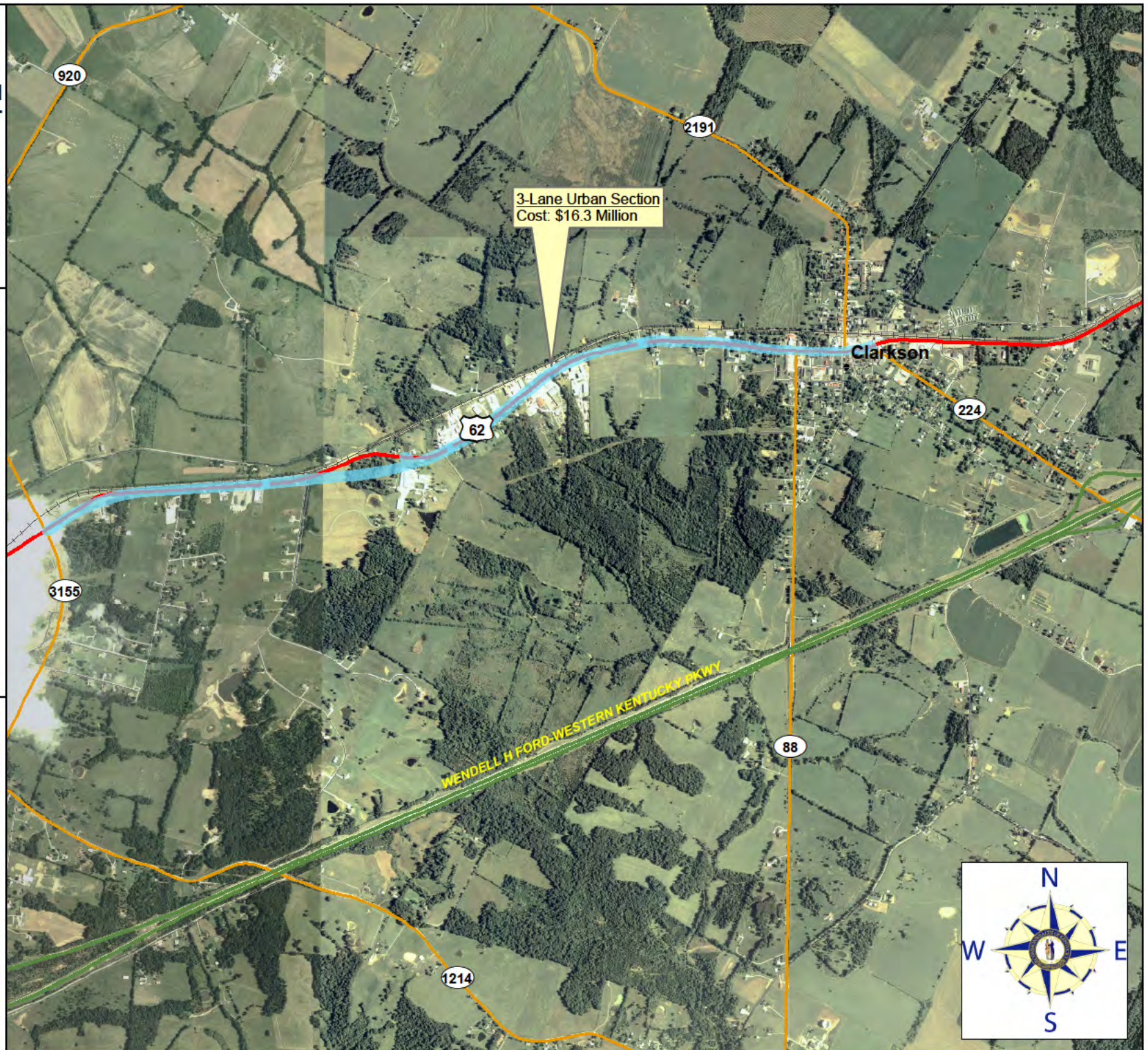


Division of Planning

Legend

- 3-Lane Urban Section
- Parkway
- US Highway
- State Highway
- Local Road
- Railroad

Estimated cost for design,
right-of-way, utilities,
and construction

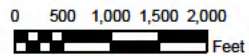


ALTERNATIVE 2: URBAN AND RURAL CROSS SECTIONS

Grayson County
US 62

Leitchfield to Clarkson
Programming Study

Source: KYTC Highway
Information Systems
Data (HIS) 6/13/2007



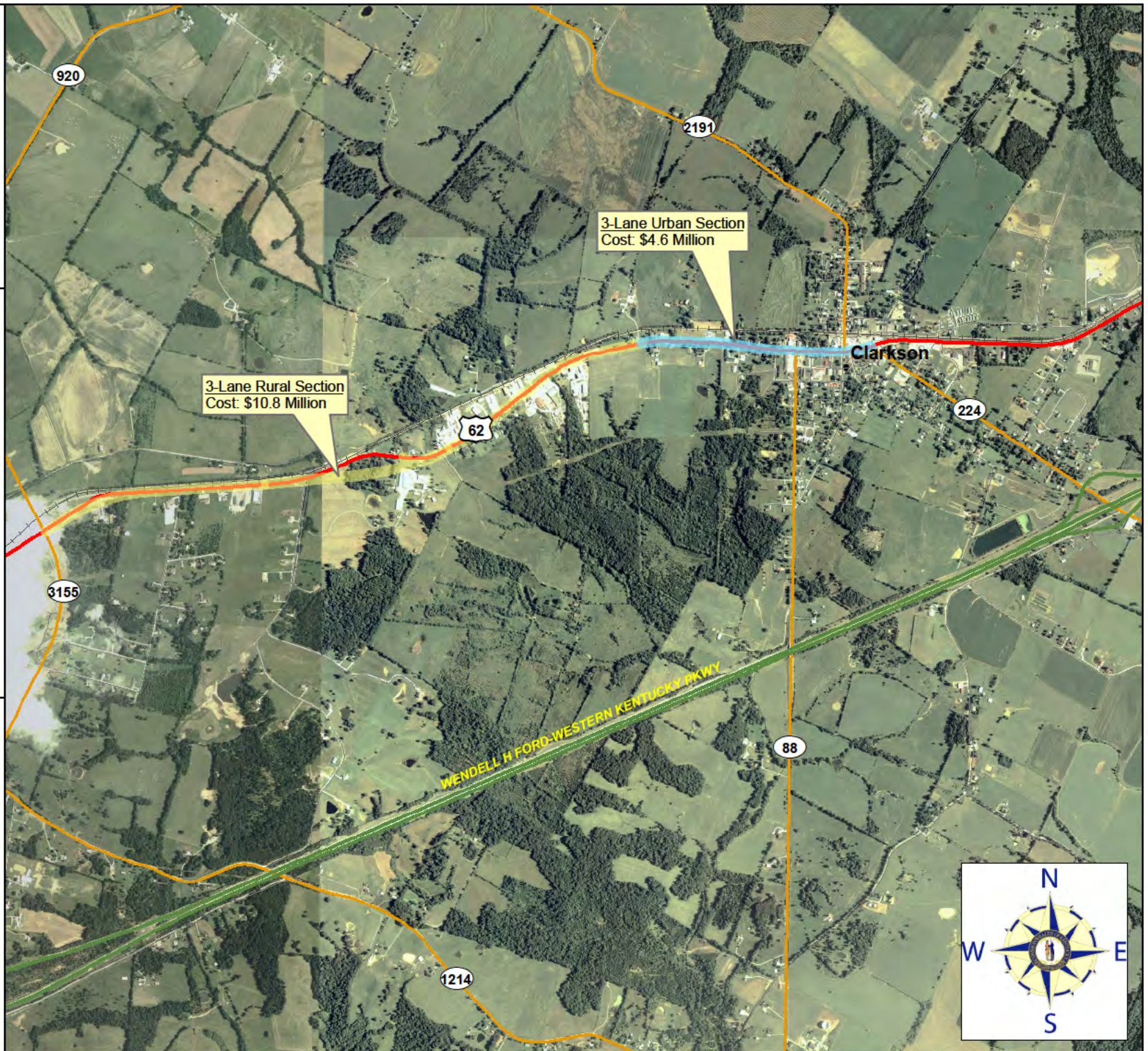
KENTUCKY
TRANSPORTATION
CABINET

Division of Planning

Legend

- 3-Lane Rural Section
- 3-Lane Urban Section
- Parkway
- US Highway
- State Highway
- Local Road
- Railroad

Estimated cost for design,
right-of-way, utilities,
and construction



SHORT-TERM IMPROVEMENTS

Grayson County
US 62
Leitchfield to Clarkson
Programming Study

Source: KYTC Highway
Information Systems
Data (HIS) 6/13/2007



0 500 1,000 1,500 2,000
Feet



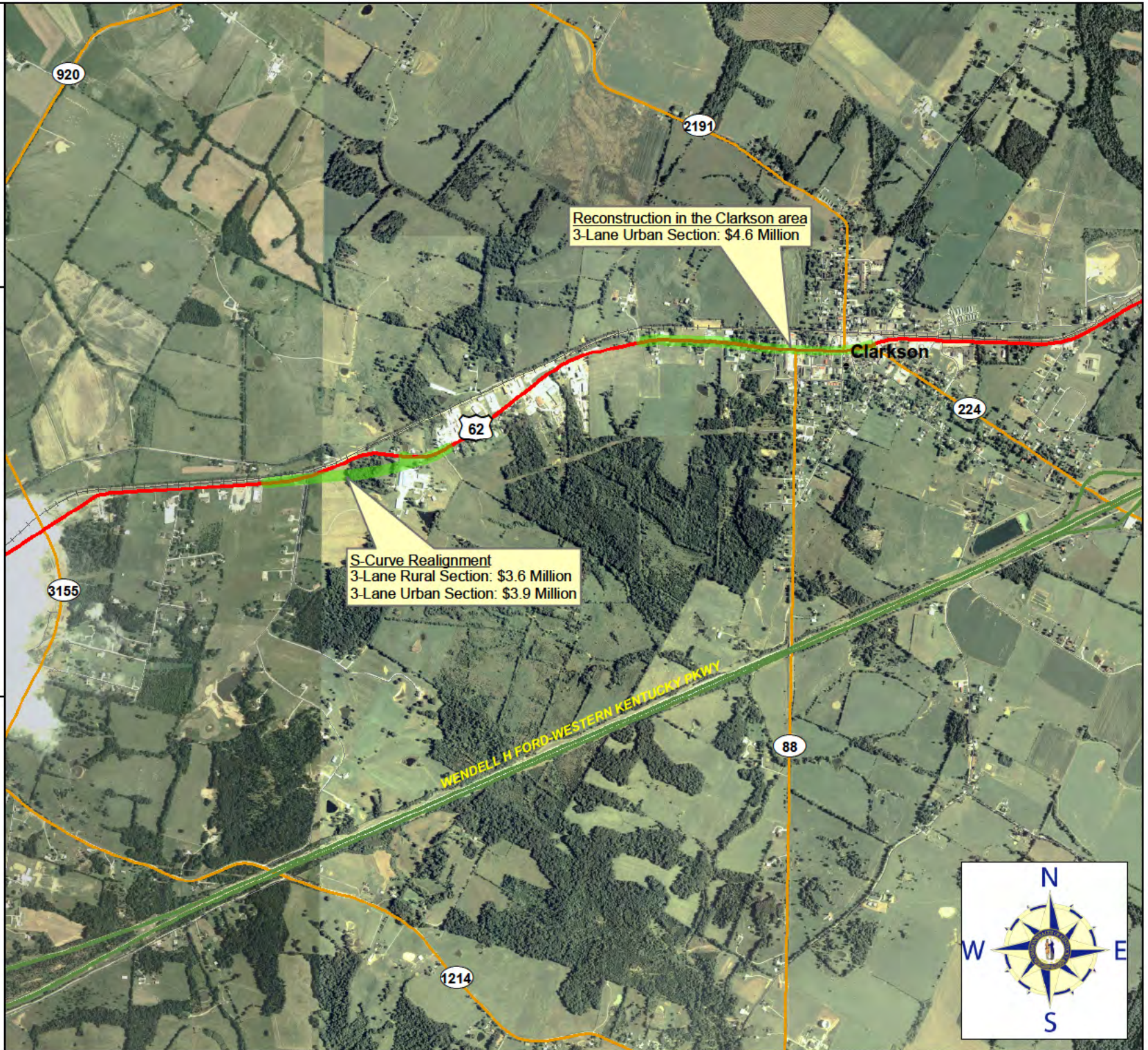
Division of Planning

Legend

- Short-Term Improvement
- Parkway
- US Highway
- State Highway
- Local Road
- Railroad

Spot Improvement Descriptions
and Cost Estimates*

*Total cost for design, right-of-way,
utilities, and construction



APPENDIX B
PROJECT TEAM MEETINGS

Meeting Minutes
Grayson County – Item Number 4-8303
US 62 from KY 3155 to KY 224
May 1, 2007

A project team meeting for the US 62 programming study was held on May 1, 2007 in the conference room of the Highway District 4 Office in Elizabethtown. The meeting began at 1:30 p.m. E.S.T. and ended at approximately 3:00 p.m. The following people attended the meeting:

Patty Dunaway	District 4 Chief District Engineer
Josh Hornbeck	District 4 Planning
John W. Moore	District 4 Design
Kevin Cartwright	District 4 Design
John Edwards	District 4 Utilities
Dean Loy	District 4 Right-of-Way
Gary Valentine	District 4 Pre-Construction
Jude Filiatreau	District 4 Maintenance
Paul Sanders	District 4 Construction
Jim Wilson	Central Office Planning
Thomas Witt	Central Office Planning

The following items were discussed:

Existing Conditions

- The project team feels that while traffic on US 62 is heavy, the current LOS is probably higher than “E.” The factors used to calculate the existing design hour volume may need to be adjusted to obtain a more reasonable existing LOS.
- There is a perceived safety problem at the S-curve near the Beehive factory. Realigning US 62 to eliminate this S-curve is a top local priority.
- Vehicles turning right onto Fountain View Drive from eastbound US 62 must slow down considerably due to the small corner radius and the skew of the intersection. This sometimes results in rear-end collisions.
- There is a private entrance onto US 62 adjacent to Oakwood Lane that could possibly be re-routed onto Oakwood Lane.
- Utility poles at the KY 88 intersection obscure site distance for vehicles attempting to turn onto US 62. This, combined with the presence of several entrances near the intersection, presents a safety hazard. This observation is confirmed by the crash data at the intersection, which has a spot critical rate factor of 1.41.

- The KY 224 intersection is a 5-leg intersection that may have capacity and safety problems. A signal was recently installed at this intersection, and it was suggested that crash data before and after the signal installation should be compared to see if the signal has improved safety.
- Drainage is a problem in the Clarkson area and should be addressed in the design phase.

Other Projects in Area

- Construction of new ramps on the west side of the Western Kentucky Parkway and KY 224 interchange should be completed late this summer. However, the addition of these ramps is not expected to greatly affect traffic patterns on this section of US 62.
- Construction of the eastern section of the Leitchfield Bypass has been completed. This may have affected traffic patterns, so District 4 Planning will obtain new classification counts on US 62.
- Construction of the next section of the Leitchfield Bypass will not directly affect the study area.
- Improving KY 224 from the Western Kentucky Parkway to US 62 in Clarkson is a high priority.

Goals and Objectives

The primary goals and objectives identified by the project team are to improve safety and reduce delay along the corridor and to address drainage and parking needs in the Clarkson area. To meet these objectives, short-term spot improvements should be considered along with long-term solutions.

Design Criteria

- The project team agreed with the project termini identified in the 6-Year Highway Plan.
- Due to the railroad along one side of US 62 and numerous buildings along the other side, it would not be practical to construct anything wider than a 3-lane cross section. If traffic volumes increase to the point where a 3-lane cross section is no longer adequate, projects which would divert traffic away from US 62 should be considered instead of further widening.
- The project team recommends an urban design with curb, gutter, and sidewalk on the south side of US 62. This would provide improved pedestrian access to adjacent properties and would limit future vehicle access points. The north side of US 62 may be constructed with a rural design since the presence of the railroad minimizes the

potential for future access points on that side of the highway. An urban design may be needed on both sides of US 62 in locations where US 62 diverges from the railroad.

- Consultation with Clarkson officials will be necessary to determine a preferred cross section in the Clarkson area. This area is even more heavily developed than the rest of the corridor, and it may ultimately be necessary to bypass this area.
- Impacts to railroad crossings along the corridor need to be considered.
- Due to extensive development along this section of US 62, a design speed of 45 miles per hour should be adequate.

Other Issues

- **Access Management:** Construction of a curb and gutter on the south side of US 62 should reduce the potential for future access points. Access points on the north side of US 62 are already limited by the presence of the railroad.
- **Bicycles and Pedestrians:** Pedestrians should be adequately served by a sidewalk on the south side of US 62. There are currently designated bicycle routes in the area, so special provisions for bicycles will not be necessary.
- No ITS solutions or freight issues were identified.
- No public involvement needs are anticipated at this stage of the project.

Agency Coordination

- Requests for comments should be sent to the usual resource agencies. This will be done by Central Office Planning.
- Coordination with the Transportation Director of the Grayson County Board of Education will be necessary since a new elementary school is being considered in the vicinity of the project.
- The Mayor of Clarkson and the Grayson County Judge Executive should be involved.

Documentation

- An environmental footprint should be developed. This will be done by Central Office Planning.
- An environmental justice report should be prepared by the Lincoln Trail Area Development District.

Meeting Minutes
Grayson County – Item Number 4-8303
US 62 from KY 3155 to KY 224
February 28, 2008

A second project team meeting for the US 62 programming study was held on February 28, 2008 in the construction conference room of the Highway District 4 Office in Elizabethtown. The meeting began at 1:30 p.m. and ended at approximately 3:00 p.m. The following people attended the meeting:

Patty Dunaway	District 4 Chief District Engineer
Josh Hornbeck	District 4 Planning
Rachel Fortson	District 4 Planning
John W. Moore	District 4 Design
E. L. Lewis	District 4 Traffic
Joseph Ferguson	District 4 Environmental Coordinator
Jim Wilson	Central Office Planning
Thomas Witt	Central Office Planning
Michael Malham	Lincoln Trail Area Development District

The following items were discussed:

Existing Conditions:

- The results of the first project team meeting, which was held on May 1, 2007, were summarized. The main issues that were identified at the first project team meeting included drainage problems in the Clarkson area; traffic congestion caused by the high number of access points; and safety concerns in the Clarkson area, particularly at the KY 88 intersection, and at the S-curve near the Beehive Factory.
- The design hour volumes used to calculate the levels of service (LOS) for existing and future traffic conditions were modified based on input received at the previous project team meeting. For the 2007 design hour volumes, the LOS has improved to D. The LOS for the 2030 design hour volumes remains at E. However, it was noted that these LOS measures are only applicable to rural routes, and that the land use adjacent to the US 62 corridor is becoming more urban in nature. Therefore, the future LOS may not actually be as low as indicated by the analysis.
- District Office personnel have noted a significant increase in truck traffic using US 62 since the Leitchfield Bypass was opened two years ago. Trucks are apparently using KY 224, US 62, and the Leitchfield Bypass to travel between the Western Kentucky Parkway and the industrial park north of Leitchfield.
- Angled parking spaces have been replaced with parallel parking spaces in front of K's Restaurant. This may have improved crash rates in the area.

Purpose & Need:

A draft purpose and need statement was presented to the project team. The project team suggested noting that construction of the Leitchfield bypass has led to increased truck traffic on US 62 as commercial vehicles use KY 224, US 62, and the Leitchfield Bypass as a link between the Western Kentucky Parkway and the industrial park north of

Leitchfield. In particular, this has created a need to better accommodate vehicles turning from KY 224 onto US 62. In addition, the project team noted that the flat terrain is a contributing factor to the drainage problems in Clarkson.

Build Concepts:

- Several alternative build concepts were presented to the project team. These included both long-range corridor reconstruction alternatives and short-term spot improvements. Estimates for design, right-of-way, utility, and construction costs were provided for the various alternatives.
- Long-range alternatives included rebuilding US 62 with a three-lane urban cross section throughout the study corridor, and with a three-lane urban cross section in the Clarkson area and a three-lane rural cross section outside of Clarkson. Total cost estimates were provided for both of these alternatives. A three-lane rural cross section with a multi-use path was also presented as an example of how pedestrian traffic could be accommodated with a rural cross-section, but no cost estimates were prepared for this option. It was noted that the estimated per-mile right-of-way costs were the same for both the urban and rural cross-sections, and that the right-of-way costs should actually be higher for the rural cross-section. District Office design personnel will provide advice on appropriate modifications.
- Short-term alternatives included rebuilding the S-curve near the Beehive Factory on a new alignment and rebuilding US 62 in the Clarkson area with a three-lane urban cross section. Cost estimates were provided for both of these alternatives.

Environmental Concerns & Agency Coordination:

The environmental considerations checklist prepared by the Division of Environmental Analysis, an environmental footprint of the study area, and summaries of the responses received through the resource agency coordination process were distributed and discussed. The Environmental Justice and Community Impacts Report prepared by the Lincoln Trail Area Development District was also discussed. No issues were identified that would affect the recommendation of any of the proposed build alternatives. The main concern appears to be the presence of potentially historic properties. It was noted that many of these properties are shown in incorrect locations on the environmental footprint.

Recommendations:

- The project team expressed a clear preference for using an urban cross-section throughout the corridor due to the right-of-way constraints and the rapid development in the area.
- Due to the relatively high costs of the proposed spot improvements, the project team decided that it would be better to simply reconstruct the entire route as a single project.
- Short-term safety improvements will be considered for funding through the Highway Safety Improvement Program (HSIP). Specifically, the District Office has requested funds to increase shoulder widths in the S-curve near the Beehive Factory, and funds will also be requested to make sight-distance improvements at the KY 88 intersection in Clarkson.

APPENDIX C
TRAFFIC ANALYSIS

Capacity and Level of Service Analysis

Output from HCS+

No-Build Scenario with Year 2007 Traffic Volumes

Phone: _____ Fax: _____
 E-Mail: _____

-----Two-Way Two-Lane Highway Segment Analysis-----

Analyst Thomas Witt
 Agency/Co. KYTC Planning
 Date Performed 5/15/2007
 Analysis Time Period Weekday Peak Hour
 Highway US62
 From/To MP 23.000 to MP 25.463
 Jurisdiction Grayson County
 Analysis Year 2007
 Description Programming Study

-----Input Data-----

Highway class	Class 2				
Shoulder width	2.0	ft	Peak-hour factor, PHF	0.90	
Lane width	10.0	ft	% Trucks and buses	7	%
Segment length	2.5	mi	% Recreational vehicles	0	%
Terrain type	Level		% No-passing zones	50	%
Grade: Length		mi	Access points/mi	30	/mi
Up/down		%			
Two-way hourly volume, V	1218	veh/h			
Directional split	64 / 36	%			

-----Average Travel Speed-----

Grade adjustment factor, fG	1.00	
PCE for trucks, ET	1.1	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor,	0.993	
Two-way flow rate, (note-1) vp	1363	pc/h
Highest directional split proportion (note-2)	872	pc/h
Free-Flow Speed from Field Measurement:		
Field measured speed, SFM	-	mi/h
Observed volume, Vf	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	55.0	mi/h
Adj. for lane and shoulder width, fLS	3.7	mi/h
Adj. for access points, fA	7.5	mi/h
Free-flow speed, FFS	43.8	mi/h
Adjustment for no-passing zones, fnp	1.1	mi/h
Average travel speed, ATS	32.1	mi/h

-----Percent Time-Spent-Following-----

Grade adjustment factor, fG	1.00	
PCE for trucks, ET	1.0	
PCE for RVs, ER	1.1*	
Heavy-vehicle adjustment factor, fHV	1.000	
Two-way flow rate,(note-1) vp	1353	pc/h
Highest directional split proportion (note-2)	866	
Base percent time-spent-following, BPTSF	69.6	%
Adj.for directional distribution and no-passing zones, fd/np	6.8	
Percent time-spent-following, PTSF	76.3	%

-----Level of Service and Other Performance Measures-----

Level of service, LOS	D	
Volume to capacity ratio, v/c	0.43	
Peak 15-min vehicle-miles of travel, VMT15	846	veh-mi
Peak-hour vehicle-miles of travel, VMT60	3045	veh-mi
Peak 15-min total travel time, TT15	26.3	veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

* These items have been entered or edited to override calculated value

Capacity and Level of Service Analysis

Output from HCS+

No-Build Scenario with Year 2030 Traffic Volumes

Phone: Fax:
E-Mail:

-----Two-Way Two-Lane Highway Segment Analysis-----

Analyst Thomas Witt
Agency/Co. KYTC Planning
Date Performed 5/15/2007
Analysis Time Period Weekday Peak Hour
Highway US62
From/To MP 23.000 to MP 25.463
Jurisdiction Grayson County
Analysis Year 2030
Description Programming Study

-----Input Data-----

Highway class	Class 2				
Shoulder width	2.0	ft	Peak-hour factor, PHF	0.92	
Lane width	10.0	ft	% Trucks and buses	7	%
Segment length	2.5	mi	% Recreational vehicles	0	%
Terrain type	Level		% No-passing zones	50	%
Grade: Length		mi	Access points/mi	30	/mi
Up/down		%			
Two-way hourly volume, V	1793	veh/h			
Directional split	56 / 44	%			

-----Average Travel Speed-----

Grade adjustment factor, fG	1.00	
PCE for trucks, ET	1.1	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor,	0.993	
Two-way flow rate, (note-1) vp	1963	pc/h
Highest directional split proportion (note-2)	1099	pc/h
Free-Flow Speed from Field Measurement:		
Field measured speed, SFM	-	mi/h
Observed volume, Vf	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	55.0	mi/h
Adj. for lane and shoulder width, fLS	3.7	mi/h
Adj. for access points, fA	7.5	mi/h
Free-flow speed, FFS	43.8	mi/h
Adjustment for no-passing zones, fnp	0.8	mi/h
Average travel speed, ATS	27.8	mi/h

Percent Time-Spent-Following

Grade adjustment factor, fG	1.00	
PCE for trucks, ET	1.0	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor, fHV	1.000	
Two-way flow rate,(note-1) vp	1949	pc/h
Highest directional split proportion (note-2)	1091	
Base percent time-spent-following, BPTSF	82.0	%
Adj.for directional distribution and no-passing zones, fd/np	3.7	
Percent time-spent-following, PTSF	85.6	%

Level of Service and Other Performance Measures

Level of service, LOS	E	
Volume to capacity ratio, v/c	0.61	
Peak 15-min vehicle-miles of travel, VMT15	1218	veh-mi
Peak-hour vehicle-miles of travel, VMT60	4483	veh-mi
Peak 15-min total travel time, TT15	43.8	veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Special Classification Count

**Kentucky Transportation Cabinet - Division of Planning
Traffic Count Record**

District # 4

ID # 40062-0251H4

R N N N N S M M M M A P

Route Number: 40062 Station: 0251

Agency: 0251 Project: 0251 Location: 0251 Date: 0251

Add Delete Combine
Must be accompanied by reason

Estimate
 Special
 Index

STA # 043204A2VC1

County Number: 043 Station: 204 Level of Station: A2 Type Record: VC Month: 1

County is counting: 043 Level of Station: A2 Type Record: VC Month: 1

ESTIMATE

of Hours _____ x 10 = _____
of Business _____ x 25 = _____

Total: _____

File # E0700001

County name Gentry

Route US 62

Latitude N 32.49094

Station number 204 Machine # 14772-0015

City name _____

Road/Street name _____

Longitude W 86.24598

Type Record (checkboxes): Volume Class Length

Type Sensor (checkboxes): Tube Loop Radar Other

	Time	Month	Day	Year
Recorder Set Out	<u>11:31</u>	<u>5</u>	<u>7</u>	<u>07</u>
Recorder Picked Up	<u>10:00</u>	<u>5</u>	<u>9</u>	<u>07</u>

Station Location & Description (use back if necessary):

Comments

Field Technician [Signature]

over (more on back)

KENTUCKY TRANSPORTATION CABINET-DEPARTMENT OF HIGHWAYS
 DIVISION OF TRANSPORTATION PLANNING

"PORTABLE TRAFFIC RECORDER REPORT"

ROUTE: US0042 COUNTY: GRAYSON COUNTY STATION 204

DATE:	07	08	09	10	11	12	13	TOTALS
DAY:	MON	TUE	WED	THU	FRI	SAT	SUN	
1- 1 AM		80	75					155
1- 2 AM		34	33					67
2- 3 AM		22	23					45
3- 4 AM		20	33					53
4- 5 AM		47	56					103
5- 6 AM		135	162					297
6- 7 AM		251	275					526
7- 8 AM		346	430					776
8- 9 AM		609	764					1373
9-10 AM		494	618					1112
10-11 AM		463	624					1087
11-12 AM		521	598					1119
12- 1 PM	541	596						1137
1- 2 PM	573	624						1197
2- 3 PM	598	546						1144
3- 4 PM	689	678						1367
4- 5 PM	779	622						1401
5- 6 PM	811	761						1572
6- 7 PM	838	733						1571
7- 8 PM	483	513						996
8- 9 PM	396	516						912
9-10 PM	341	338						679
10-11 PM	261	243						504
11-12 PM	110	124						234
TOTALS:	6200	9634	3691					19525

AVERAGE DAILY TRAFFIC: 9469

MONTHLY FACTOR: 97
 AXLE FACTOR: 100
 TOTAL HOURS: 48
 AM HIGH HOUR: 765 BETWEEN 8- 9 AM ON WEDNESDAY
 PM HIGH HOUR: 822 BETWEEN 4- 5 PM ON TUESDAY
 MILE POINT: 25.1
 COUNTED BY: DIST 4
 DATA SOURCE: CLASS
 ARRAY: 2 TUBES
 LANES COUNTED: ALL LANES

KENTUCKY TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS
 DIVISION OF PLANNING-TRAFFIC SURVEY AND ANALYSIS SECTION
 VEHICLE CLASSIFICATION COUNT

COUNTY: GRAYSON
 DISTRICT: 4
 MILEPOST: 25.100
 ROUTE: US 42
 STATION: 204 BOTH
 TYPE COUNT: AUTOMATIC
 FUNCTIONAL CLASS: 7
 ROAD DESIGNATION: R 9469 JM 2007
 LATEST ADY COUNT: 9469 JM 2007
 LOCATION INFORMATION: BTWN KY 1216 AND KY 88 (SPECIAL COUNT)

TIME PERIOD	DATE	MOTOR CYCLES	PASSENGER CARS	OTHER 2 AXLE VEHICLES	SINGLE UNIT TRUCKS					SINGLE TRAILER TRUCKS				MULTI-TRAILER TRUCKS			TOTAL VEHICLES
					BUSSES	2 AXLE 6 TIRE	3 AXLE	4 OR MORE AXLE	4 OR LESS AXLE	5 AXLE	6 OR MORE AXLE	5 OR LESS AXLE	6 OR MORE AXLE	7 OR MORE AXLE	OTHERS		
05-07AM	5/7/07	3	181	20	2	3	0	0	4	1	0	0	0	0	0	0	205
07-08AM	5/7/07	4	267	90	1	10	0	0	5	7	1	0	0	0	0	0	391
08-09AM	5/7/07	3	511	148	12	16	4	4	11	7	3	0	0	0	0	0	718
09-10AM	5/7/07	7	367	137	4	16	2	2	10	3	0	0	0	0	0	0	560
10-11AM	5/7/07	8	358	137	2	15	6	6	6	7	2	1	0	0	0	0	568
11-12AM	5/7/07	4	377	134	2	14	4	4	6	9	2	0	0	0	0	0	571
12-01PM	5/7/07	8	394	129	2	12	7	7	6	9	3	0	0	0	0	0	590
01-02PM	5/7/07	8	404	138	3	12	3	4	9	9	2	0	0	0	0	0	575
02-03PM	5/7/07	8	405	117	3	11	7	2	10	11	3	0	0	0	0	0	686
03-04PM	5/7/07	7	485	138	4	17	6	3	10	7	3	0	0	0	0	0	804
04-05PM	5/7/07	17	570	168	5	14	9	4	12	8	2	0	0	0	0	0	801
05-06PM	5/7/07	15	525	166	3	13	4	4	12	8	2	0	0	0	0	0	888
06-07PM	5/7/07	12	497	149	1	9	3	3	2	4	2	0	0	0	0	0	501
07-08PM	5/7/07	6	354	110	0	11	4	4	3	3	1	0	0	0	0	0	459
08-09PM	5/7/07	6	339	97	1	5	0	0	3	1	0	0	0	0	0	0	342
09-10PM	5/7/07	4	261	65	0	4	0	0	6	1	0	0	0	0	0	0	244
10-11PM	5/7/07	3	200	35	0	2	0	0	2	1	0	0	0	0	0	0	120
11-12PM	5/7/07	3	86	22	0	0	0	0	1	1	1	0	0	0	0	0	80
12-01AM	5/7/07	2	57	17	0	0	0	0	2	1	1	0	0	0	0	0	34
01-02AM	5/7/07	2	27	7	0	0	0	0	0	0	0	0	0	0	0	0	24
02-03AM	5/7/07	0	16	6	0	0	0	0	0	0	0	0	0	0	0	0	31
03-04AM	5/7/07	1	17	9	0	0	0	0	1	2	0	0	0	0	0	0	33
04-05AM	5/7/07	1	34	9	0	1	0	0	2	4	1	0	0	0	0	0	53
05-06AM	5/7/07	3	182	49	0	2	0	0	1	1	1	0	0	0	0	0	159
TOTAL VEHICLES		130	6882	2130	49	187	90	44	134	120	35	7	0	9	0	9814	
PERCENT OF TOTAL		1.3	70.1	21.7	0.5	1.9	0.9	0.4	1.4	1.2	0.4	0.1	0.0	0.1	0.0	0.0	

% HEAVY TRUCKS = 672/ 9814 = 6.8 %
 AXLES / TRUCK = 2357/ 672 = 3.497
 % TRAILER TRUCKS = 305/ 9814 = 3.1 %
 % TRAILERS 2PK HR = 24/ 804 = 3.0 %
 PEAK HOUR BETWEEN 04-05PM = 804 VEHICLES
 TOTAL HOURS = 24

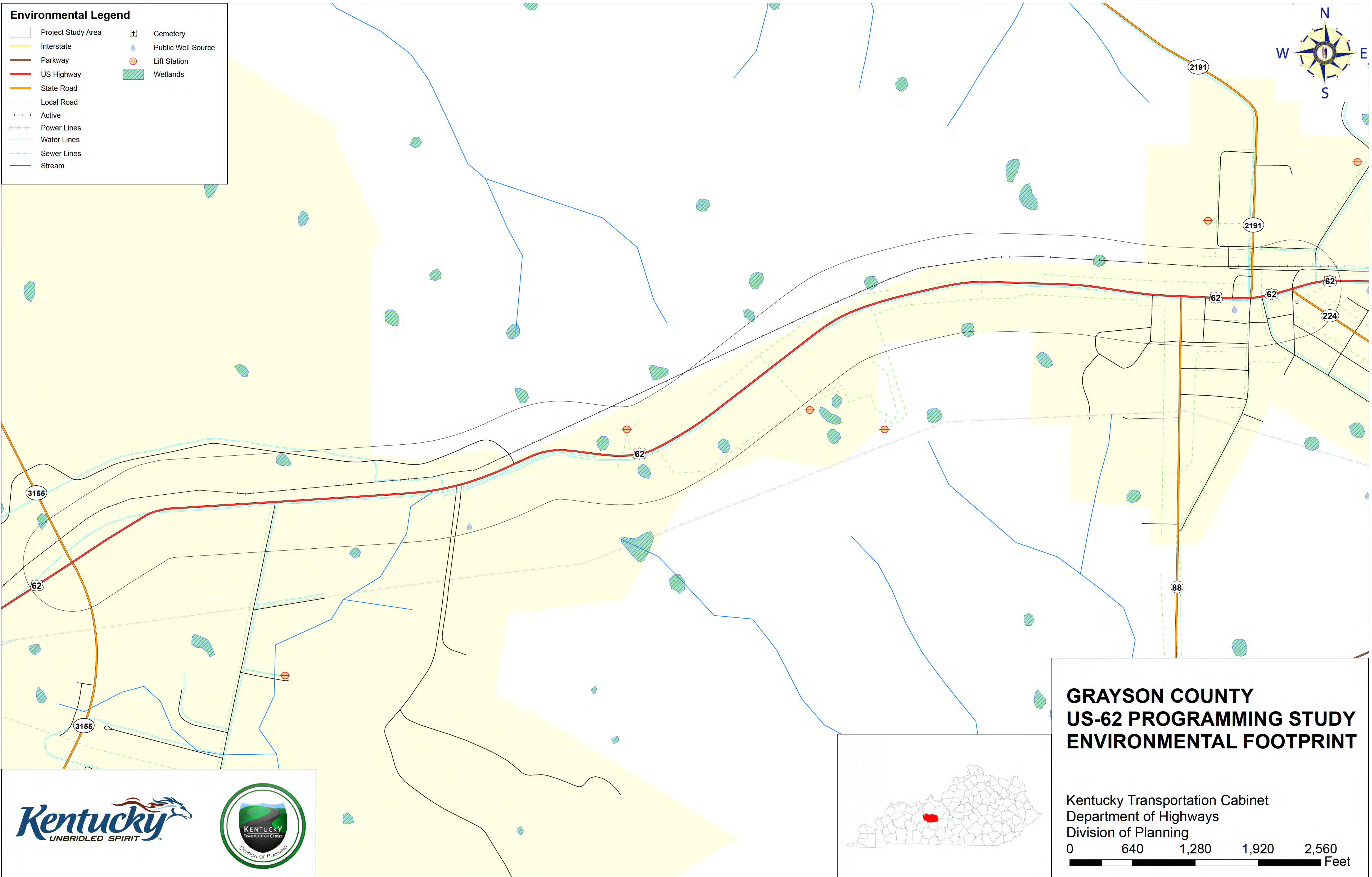
AXLE CORRECTION FACTOR = 0.94
 % SINGLE UNIT TRUCKS = 367/ 9814 = 3.7 %
 % SINGLE UNIT 2 PK HR = 32/ 804 = 4.0 %
 % TRUCKS AT PEAK HOUR = 56/ 804 = 7.0 %

* NOTE: RECOMMENDED OTHERS DISTRIBUTION IS CARS 00 %
 OTHER 2 AXLE 4 TIRE VEHICLES 00 %
 4 OR LESS AXLE SINGLE TRAILER TRUCKS 00 %

APPENDIX D
ENVIRONMENTAL OVERVIEW

Environmental Legend

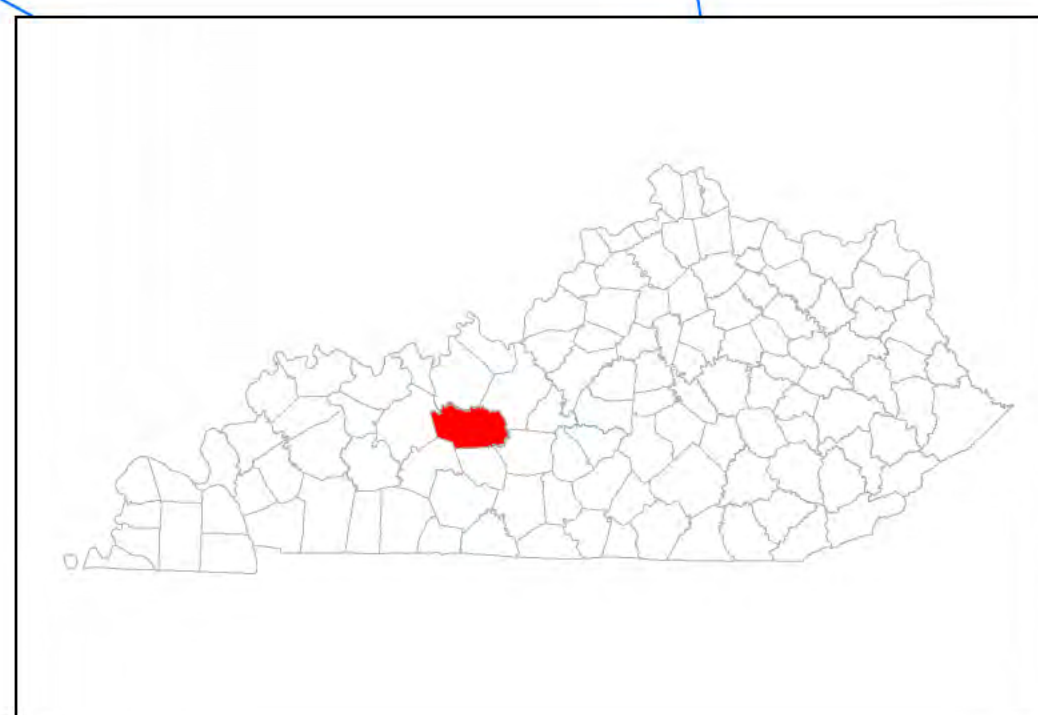
Project Study Area	Cemetery
Interstate	Public Well Source
Parkway	Lift Station
US Highway	Wetlands
State Road	
Local Road	
Active	
Power Lines	
Water Lines	
Sewer Lines	
Stream	



**GRAYSON COUNTY
US-62 PROGRAMMING STUDY
ENVIRONMENTAL FOOTPRINT**

Kentucky Transportation Cabinet
Department of Highways
Division of Planning

0 640 1,280 1,920 2,560 Feet



Environmental Considerations
 Grayson County
 US 62 from Leitchfield to Clarkson
 Programming Study
 Item No. 4-8303.00

Indicate whether the Area/Corridor(s)/Alternatives selection might potentially be influenced by any known information or reasonable extrapolations from available data.		
Y	N	Archaeology
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are there known archaeological sites within the proposed study areas that are either listed or potentially eligible for listing to the NRHP?
<input type="checkbox"/>	<input type="checkbox"/>	What is the distribution of the NRHP listed/potentially eligible archaeological sites within the proposed study areas? N/A (see comments below)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are there study areas that, due to certain landform characteristics, have a higher potential for sites, especially NRHP eligible archaeological sites?
<input type="checkbox"/>	<input type="checkbox"/>	Are there study areas that could be recommended as having a lower potential for sites, especially NRHP eligible archaeological sites? N/A (see comments below)
<input type="checkbox"/>	<input type="checkbox"/>	Does the distribution of sites suggest anything of importance to project location selection? N/A (see comments below)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are there any special concerns/considerations/circumstances that should be considered early in project development, such as a historical structure survey, that would further identify potential issues from an archaeological perspective?
Identify any areas that should be avoided, if possible, to minimize resource impacts. Unless the concerns noted above are equally distributed across all alternatives, corridors or study areas (should be so noted below), provide a specific explanation of varying degrees by which the areas studied would be influenced or affected by the known or potential resource(s).		
Comments: No previously recorded archeology sites have been identified within the project corridor. However, no known surveys have been performed in the proposed area. Upon review of site topography, soils, and available water sources it would be probable that both prehistoric and historic sites will be present.		
Y	N	Cultural Historic Resources
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are there known historic sites, districts, objects or structures within the proposed corridors that are either listed or potentially eligible for listing to the NRHP?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Has historic context of the area been developed that would allow the elimination of any buildings, districts, structures or objects that meet the 50 year old NRHP criterion?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are there study areas that could be recommended as having a lower potential for historic sites, especially NRHP eligible historic sites?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the distribution of sites suggest anything of importance to project location selection?

Identify any areas that should be avoided, if possible, to minimize resource impacts. Unless the concerns noted above are equally distributed across all alternatives, corridors or study areas (should be so noted below), provide a specific explanation of varying degrees by which the areas studied would be influenced or affected by the known or potential resource(s).

Comments: Historic baseline will be required for the Area of Potential Effect.

Y	N	Socioeconomic
----------	----------	----------------------

<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are there any low-income or minority communities identified within the proposed corridors?
--------------------------	-------------------------------------	--------------------------------------------------------------------------------------------

<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are there Prime Farmland soils identified within the proposed corridors?
--------------------------	-------------------------------------	--------------------------------------------------------------------------

<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are there any communities and/or business districts within the proposed corridors?
--------------------------	-------------------------------------	------------------------------------------------------------------------------------

<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are there any public recreation areas, such as parks or waterfowl refuges, located within the proposed corridors?
--------------------------	-------------------------------------	-------------------------------------------------------------------------------------------------------------------

<input type="checkbox"/>	<input checked="" type="checkbox"/>	Can one or more of the proposed corridors be recommended as having a lower potential for impacts to any of the resources identified above?
--------------------------	-------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------

Identify any areas that should be avoided, if possible, to minimize resource impacts. Unless the concerns noted above are equally distributed across all alternatives, corridors or study areas (should be so noted below), provide a specific explanation of varying degrees by which the areas studied would be influenced or affected by the consideration of this known or potential impact.

Comments: Socioeconomic Baseline will be required to confirm responses.

Y	N	Air Quality
----------	----------	--------------------

<input type="checkbox"/>	<input checked="" type="checkbox"/>	If located in an MPO area, is the project in a conforming plan? (Planning will identify if in a nonattainment area)
--------------------------	-------------------------------------	---------------------------------------------------------------------------------------------------------------------

<input type="checkbox"/>	<input checked="" type="checkbox"/>	Considering the project setting (urban/rural), design features (off ramps, etc.), and locations where traffic flow might be interrupted with signalization or other traffic control devices, is there reasonable potential for the project to have an Air Quality impact?
--------------------------	-------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is it expected that a base study or hot spot analysis will be required?
--------------------------	-------------------------------------	-------------------------------------------------------------------------

Identify any areas that should be avoided, if possible, to minimize air quality impacts. Unless the concerns noted above are equally distributed across all alternatives, corridors or study areas (should be so noted below), provide a specific explanation of varying degrees by which the areas studied would be influenced or affected by the consideration of this impact.

Comments: Air Quality Baseline will be required to confirm responses.

Y	N	Noise
----------	----------	--------------

<input type="checkbox"/>	<input type="checkbox"/>	How many, what type and where are sensitive receptors within proximity to the proposed project? (See comments below)
--------------------------	--------------------------	----------------------------------------------------------------------------------------------------------------------

		Indicate whether a base study will be required based upon the project adding through-lane capacity. (See comments below)
--	--	--------------------------------------------------------------------------------------------------------------------------

<input type="checkbox"/>	<input checked="" type="checkbox"/>	Will further study be required due to areas of the project anticipated to have a significant change in the vehicle types that drive the road? What type of and how much traffic will utilize the road? Is the traffic volume anticipated to be above 20,000 ADT?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Will there be a significant change in the grade of the road with regard to braking noise and downshifting engine noise?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	With the spatial distribution of potential sensitive receptors, can recommendations be made regarding project location selection?
Identify any areas that should be avoided, if possible, to minimize noise impacts. Unless the concerns noted above are equally distributed across all alternatives, corridors or study areas (should be so noted below), provide a specific explanation of varying degrees by which the areas studied would be influenced or affected by the consideration of this impact.		
Comments: Noise Baseline will be required to confirm responses.		
Y	N	Underground Storage Tanks/Hazardous Waste
<input type="checkbox"/>	<input type="checkbox"/>	Are there any known or listed State or Federal Superfund sites within proximity to the project and have they been addressed (closed)? (See comments below)
<input type="checkbox"/>	<input type="checkbox"/>	Are there any known or listed landfills, dumps or scrap yards within proximity to the project? (See comments below)
<input type="checkbox"/>	<input type="checkbox"/>	Have there been any reportable releases of regulated substances in or near the project area and have they been addressed (closed)? (See comments below)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Suggest limited phase 1 work by the consultant (costs = 1,500 to 3,000) including ERD search – attach to planning document for review when submitted to DEA.
<input type="checkbox"/>	<input type="checkbox"/>	When provided by Planning, comment on information from the public with regard specifically to UST/HazMat issues. For example, people may know of situations that have been unreported and that may be of concern such as spills of chemicals, unauthorized storage of discarded tires and materials, abandoned drum piles and above ground tanks etc...(See comments below)
Identify any areas that should be avoided, if possible, to minimize impacts. Unless the concerns noted above are equally distributed across all alternatives, corridors or study areas (should be so noted below), provide a specific explanation of varying degrees by which the areas studied would be influenced or affected by the consideration of this impact.		
Comments: Several sites have been noted within the proposed project area that may be possible impact sites,		
Y	N	Ecology
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is there potential for the project to effect endangered species? Have the USFWS, KSNPC, and KDFWR species lists and/or websites identified any T&E species in the project area?
<input type="checkbox"/>	<input type="checkbox"/>	Would stringent erosion controls and/or stream avoidance be required? (See comments below)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are any outstanding resource, special use waters, etc., present in the project area?

APPENDIX E
ENVIRONMENTAL JUSTICE

US 62 from KY 3155 to KY 224

Grayson County Item No. 4-8303

Environmental Justice and Community Impact Report



August 2007

Prepared By:
Lincoln Trail Area Development District
613 College Street Rd.
P.O. Box 604
 Elizabethtown, KY 42702
(270) 769-2393



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1.0 Introduction

The following document is an assessment of the community demographics and characteristics related to the defined project study area of US 62 from Leitchfield to Clarkson in Grayson County. This project is listed as Item Number 4-8303.00 in the Kentucky Six-Year Highway Plan FY 2007-2012 and is currently in the Planning phase.

The resources used to compile the data contained herein are the U.S. Census Bureau, Kentucky State Data Center, local elected officials, community leaders, and field observations of the study area. The information and results are intended to assist the Kentucky Transportation Cabinet in making informed and prudent decisions in the study area, particularly as it pertains to the requirements of Executive Order 12898¹, to ensure equal environmental protection to all groups potentially impacted by both short and long-term improvement strategies for this section of US 62.

This report includes data tables comparing the populations of the census divisions directly in and around the study area at the county, state, and national levels. Statistics are provided for minority, elderly, and low-income populations for census tracts, block groups, and census blocks except where not available. For ease of analysis, maps are included that highlight areas of interest at the block group and census block level.

2.0 What is Environmental Justice?

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

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

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

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

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

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

2.1 Definitions

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

- **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.

EO12898 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 study includes statistics for persons age 65 and over that are within the study and comparison areas.

3.0 Methodology

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

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

4.0 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 census data tables include percentages for minority, elderly, and low-income populations in the United States, Kentucky, Grayson County, Census Tracts, Block Groups, and Census Blocks located in and around the study area, except where not available. This data was separated into similar geographical census units to obtain accurate measures of demographic data.

5.0 Study Findings

This Environmental Justice and Community Impact Report is to be used as a component of a programming study currently being conducted by the Kentucky Transportation Cabinet Division of Planning for the identification of short and long-term improvement strategies for the defined section of US 62. 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 five (5) Census Tracts and sixteen (16) Block Groups that encompass the population of the defined study area. These are listed below. (See Map 11.1 for geographic location.)

Grayson County Total Population	24,053
Study Area Total Populations	18,091

Census Tract 9501	2,619
Block Group 1	933
Block Group 2	800
Block Group 3	886
Census Tract 9502	3,055
Block Group 1	1,293
Block Group 2	861
Block Group 3	901
Census Tract 9503	3,744
Block Group 1	1,301
Block Group 2	909
Block Group 3	1,534
Census Tract 9504	6,081
Block Group 1	1,339
Block Group 2	1,500
Block Group 3	1,331
Block Group 4	1,235
Block Group 5	676
Census Tract 9505	2,592
Block Group 1	761
Block Group 2	1,831

6.0 Study Findings / Population by Persons of Minority Origin

As described in the census data, the “White Alone” population for the state of Kentucky is 90.1%, which is much higher than the national percentage of 75.1%. The total minority population for the state has been calculated and found to be 9.9%. The minority percentage for Grayson County is much lower than this value at 1.7%, while the percentage for the study area is 2.0%.

An analysis of block groups in the area reveals that BG 2 and 3 in CT 9503 and BG 5 in CT 9504 have a relatively high concentration of minority populations. Census Tract 9503 BG 2 has a percentage of 2.6%, BG 3 has a percentage of 5.5%, and CT 9504 BG 5 has the highest concentration at 6.5%. However, as is evident from Map 10.1, CT 9504 lies outside of the programming study area of interest.

Data at the census block level provides further explanation. In relation to the area defined in the programming study, three census blocks stand out: CT 9503 BG 2 CB 2011 (40%); BG 3 CB 2036 (16.7%); and CT 9502 BG 2 CB 2023 (57.1%). The total population of these blocks, however, are low: 10, 12, and 7, respectively.

In accordance with the USDOT definition of *Minority*, all races were included in the minority concentration analysis. It is worth noting, though, that of the total minority population in Grayson County, 40.6% are of Two or More Races and 28.6% are Black or African American. For the defined study area, 37.9% are of Two or More Races and 31.4% are Black or African American. All of the other races have very low concentrations at the county, census tract, and block group levels. Therefore, the areas indicated are highly representative of the Two or More Races and Black or African American populations in the study area.

Also worth mentioning is the fact that Hispanic or Latino Origin persons may be of any race. When analyzed separately, though, these individuals were found to make up 0.9% of the total population in the defined study area.

Maps 10.2 and 10.2.2 display the minority concentrations geographically.

7.0 Study Findings / Population by Persons 65 and Over

As described in the census data, the population percentage of Persons 65 and Over are very consistent at the national and state levels – 12.4% and 12.5%, respectively. The only variation is at the county level, which has a slightly higher percentage of 14.0%.

When comparing block groups in the area, five groups have percentages equal to or above the Grayson County value of 14.0%: CT 9502 BG 1 (14.7%); BG 2 (14.8%); CT 9503 BG 3 (19.8%); CT 9504 BG 2 (17.5%); and BG 5 (18.5%). The most significant, though, again is CT 9503 BG 3 due to the programming study scope. It has a total population of 1,534, almost 20% of which are 65 and over.

Upon further analysis, six census blocks have high percentages of minority populations: CT 9502 BG 2 CB 2011 (23.1%); CB 2016 (21.4%); CT 9503 BG 2 CB 2000 (20.0%); CB 2004 (30.8%); CB 2012 (33.3%); and CB 2036 (25.0%). The total populations of these blocks are 13, 14, 30, 13, 3, and 12, respectively.

Maps 10.3 and 10.3.2 display the 65 and over concentrations geographically.

8.0 Study Findings / Population by Persons Below Poverty Level

As described in the census data, the percentage of persons below the poverty level in Kentucky is 15.4% and in Grayson County 17.7% – both well above the national level of 12.0%.

As illustrated in Map 10.4 and the Census Data table in Appendix C, eleven of sixteen block groups have percentages well above the state level. Three of those have percentages above the county's level: CT 9503 BG 2 (20.4%); BG 3 (19.7%); and CT

9504 BG 5 (33.6%). Again the two of significance are CT 9503 BG 2 and 3. These have populations of 909 and 1,534, respectively.

Data at the census block level was not available for analysis.

Map 10.4 displays the concentration of persons below the poverty level geographically.

9.0 Conclusion

After a comprehensive analysis of the US 62 study area, there do not appear to be any areas of concern at the Block Group and Census Block level in regard to race, age, and income level. The areas that had elevated percentages have been described in the *Study Findings* sections of this report and can be deduced from the respective maps.

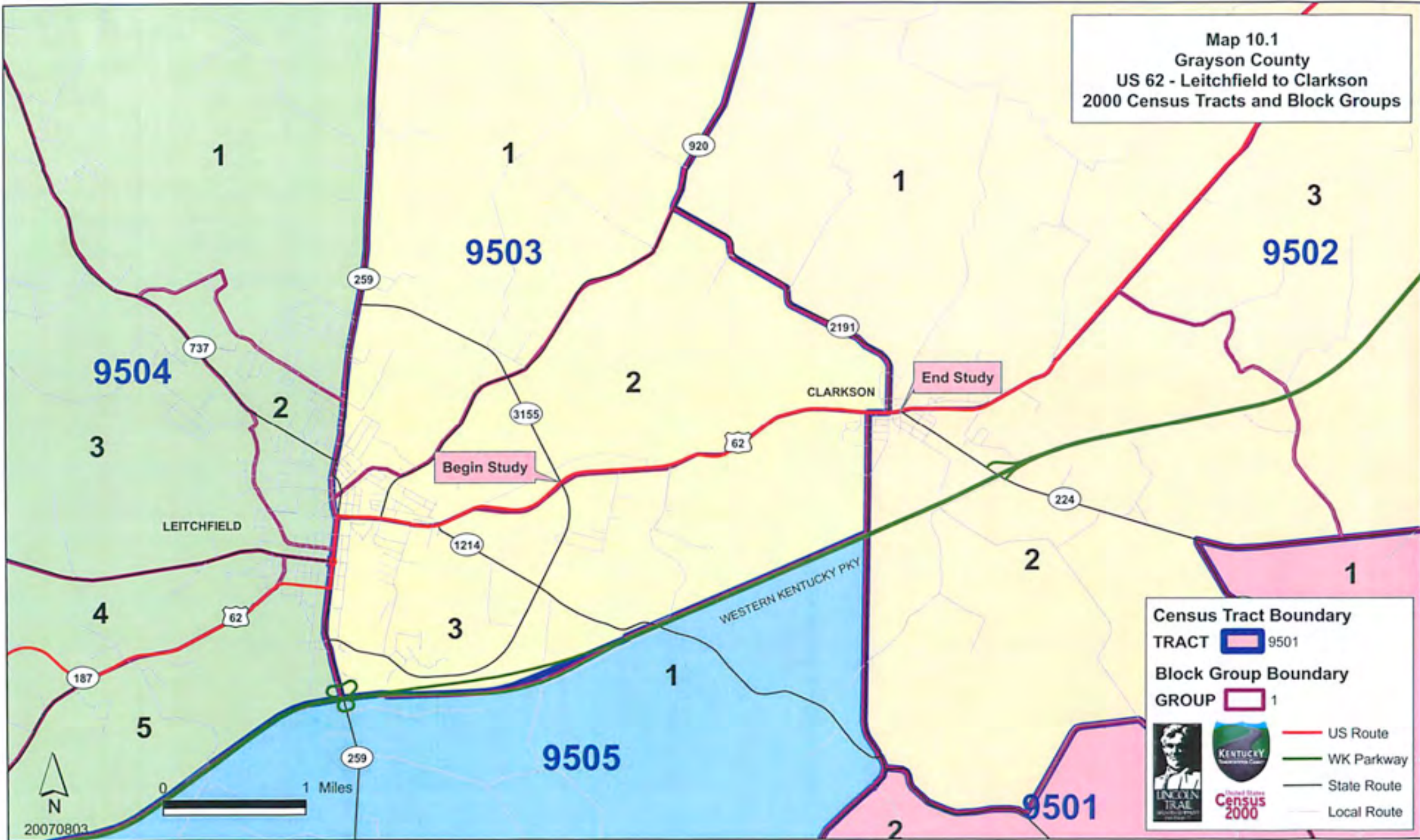
A meeting was held in Leitchfield to find out more information about these areas. In regard to persons of minority origin, the three blocks of interest were found to have very low numbers of minority persons. The same was true of the six blocks with high percentages of persons 65 and over. As data were not available at the census block level for persons below the poverty level, this was not as easily explained.

The two block groups of significance described in section 8.0 were found to have high percentages of about 20%. However, due to the larger geographic area, this was found to include neighborhoods at both ends of the financial spectrum. The prevalence of high poverty within the study area and Grayson County, though, indicates that these people are not confined to any one locale.

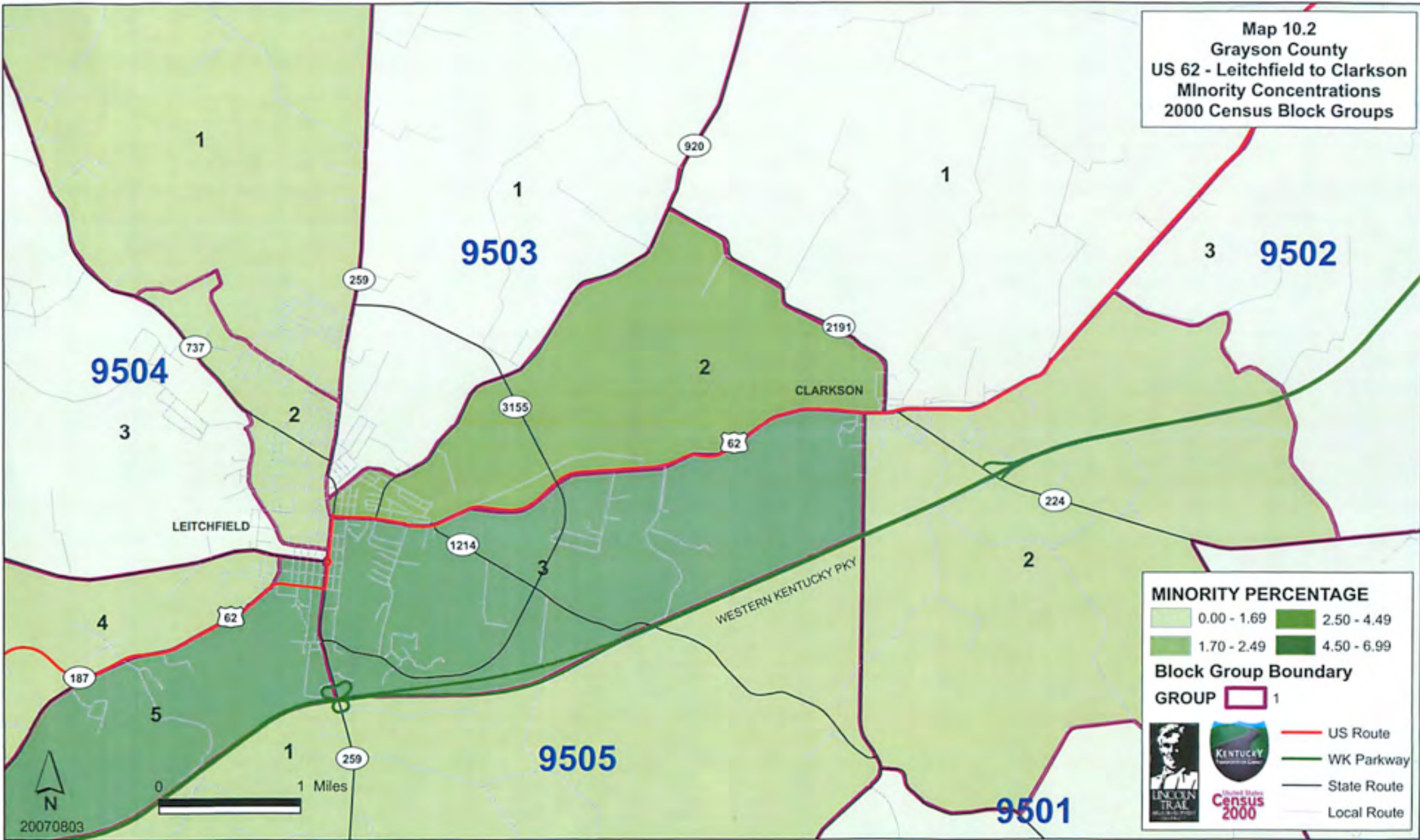
Based on the comments of the local officials and other community members who attended the meeting, a transportation improvement project would not adversely affect any group located along this corridor. Most of the land adjacent to this section of US 62 is of commercial use with more residential properties located closer to Clarkson.

The LTADD staff will continue to monitor those locations indicated on the study area maps, as well as the surrounding study area for demographic and/or socioeconomic changes that may occur throughout the development of the project.

Map 10.1
 Grayson County
 US 62 - Leitchfield to Clarkson
 2000 Census Tracts and Block Groups



Map 10.2
 Grayson County
 US 62 - Leitchfield to Clarkson
 Minority Concentrations
 2000 Census Block Groups



MINORITY PERCENTAGE

0.00 - 1.69	2.50 - 4.49
1.70 - 2.49	4.50 - 6.99

Block Group Boundary

GROUP 1

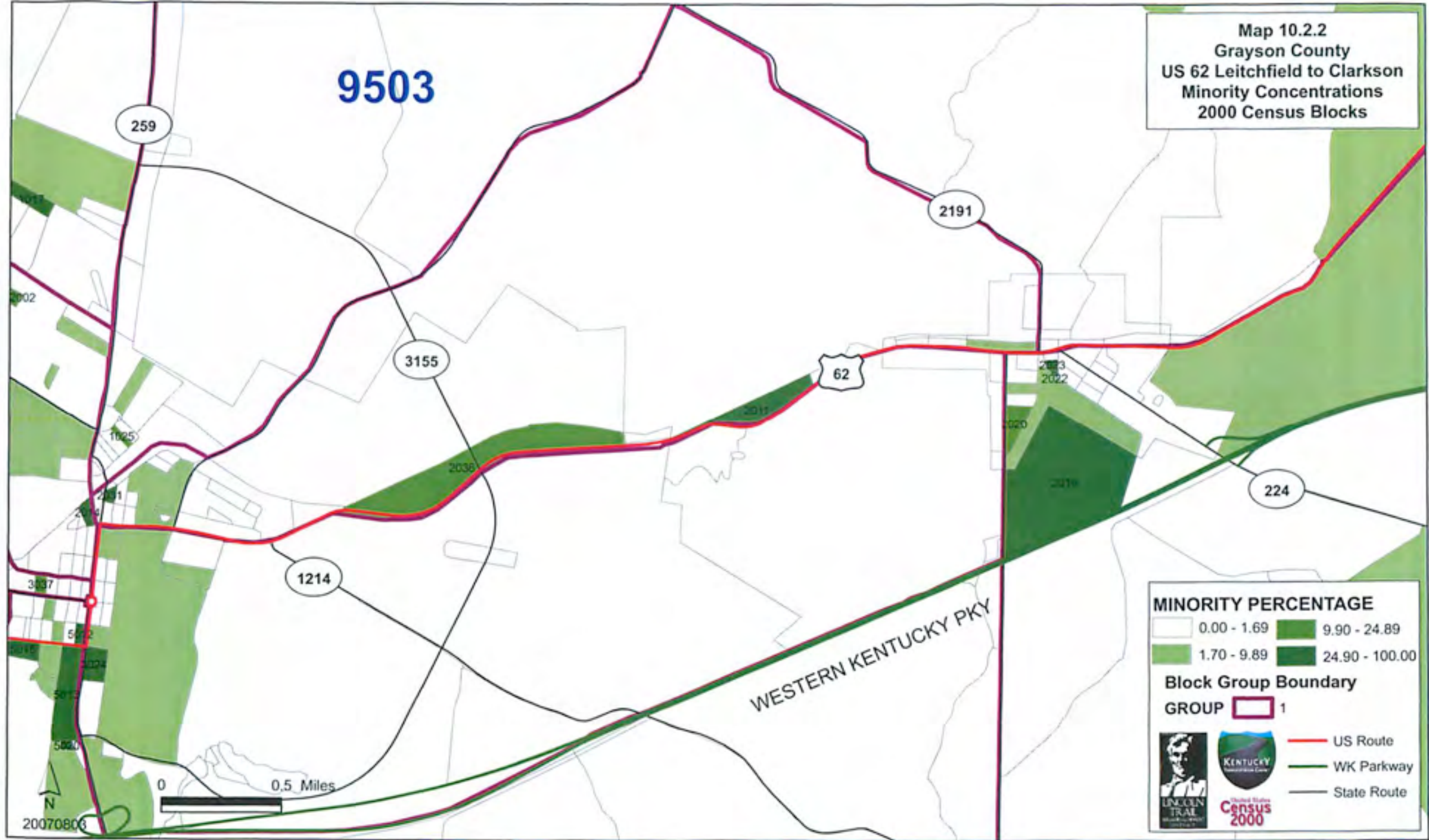
US Route
 WK Parkway
 State Route
 Local Route

20070803

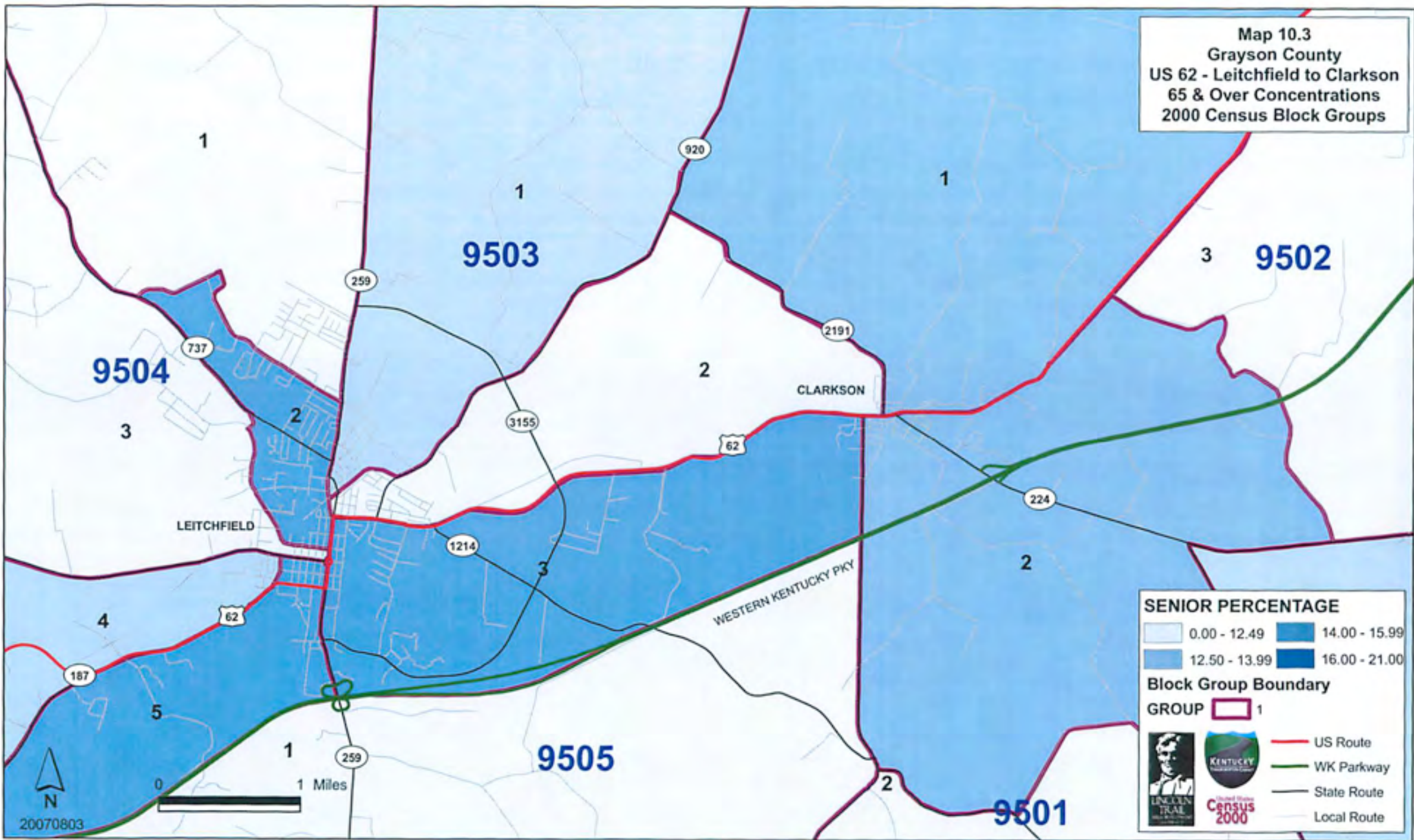
1 Miles

Map 10.2.2
 Grayson County
 US 62 Leitchfield to Clarkson
 Minority Concentrations
 2000 Census Blocks

9503



Map 10.3
Grayson County
US 62 - Leitchfield to Clarkson
65 & Over Concentrations
2000 Census Block Groups



SENIOR PERCENTAGE

0.00 - 12.49	14.00 - 15.99
12.50 - 13.99	16.00 - 21.00

Block Group Boundary

GROUP 1

Road Legend:

- US Route (Red line)
- WK Parkway (Green line)
- State Route (Black line)
- Local Route (Gray line)

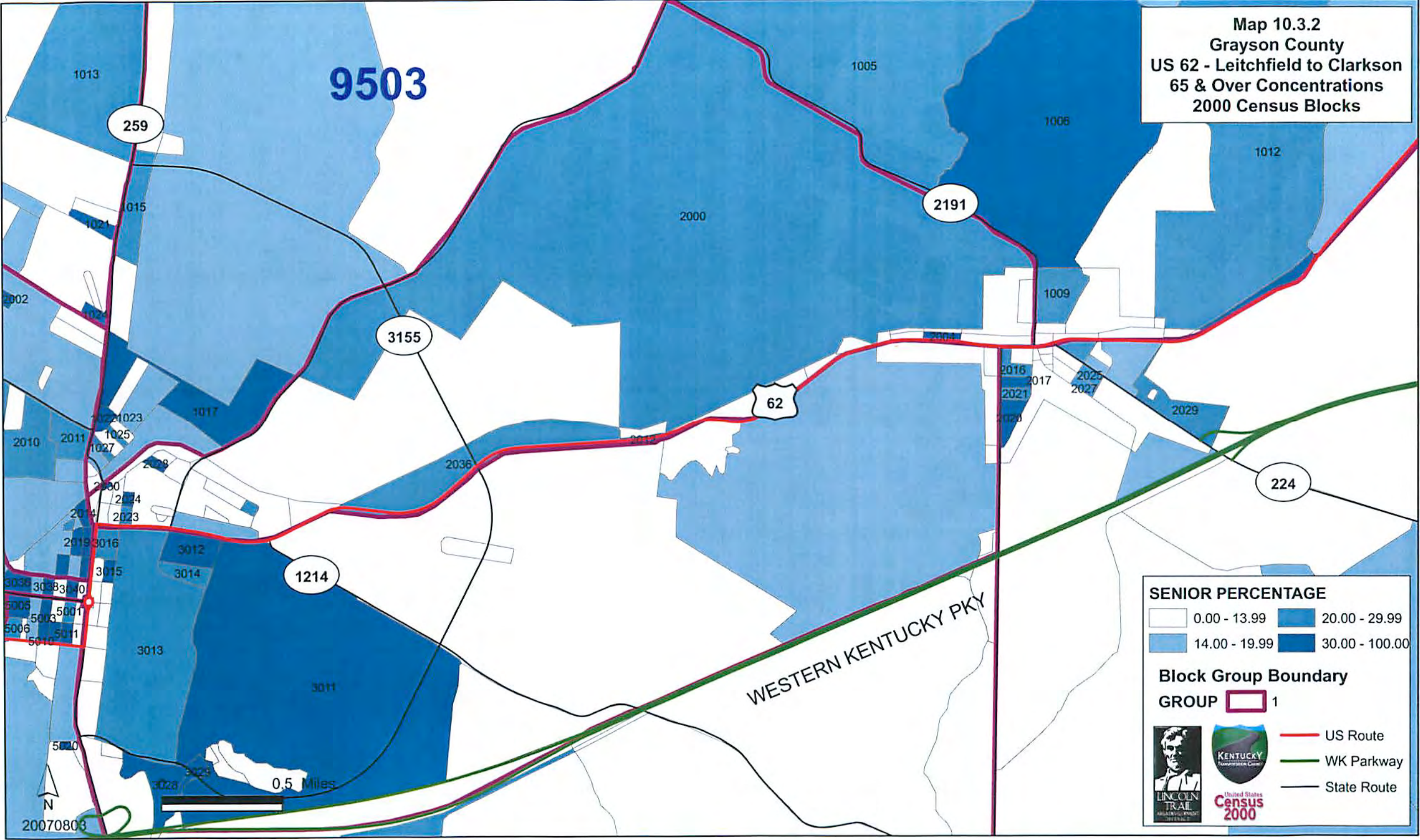
Logos: UNCLE TOM'S COUNTRY, KENTUCKY, United States Census 2000

20070803

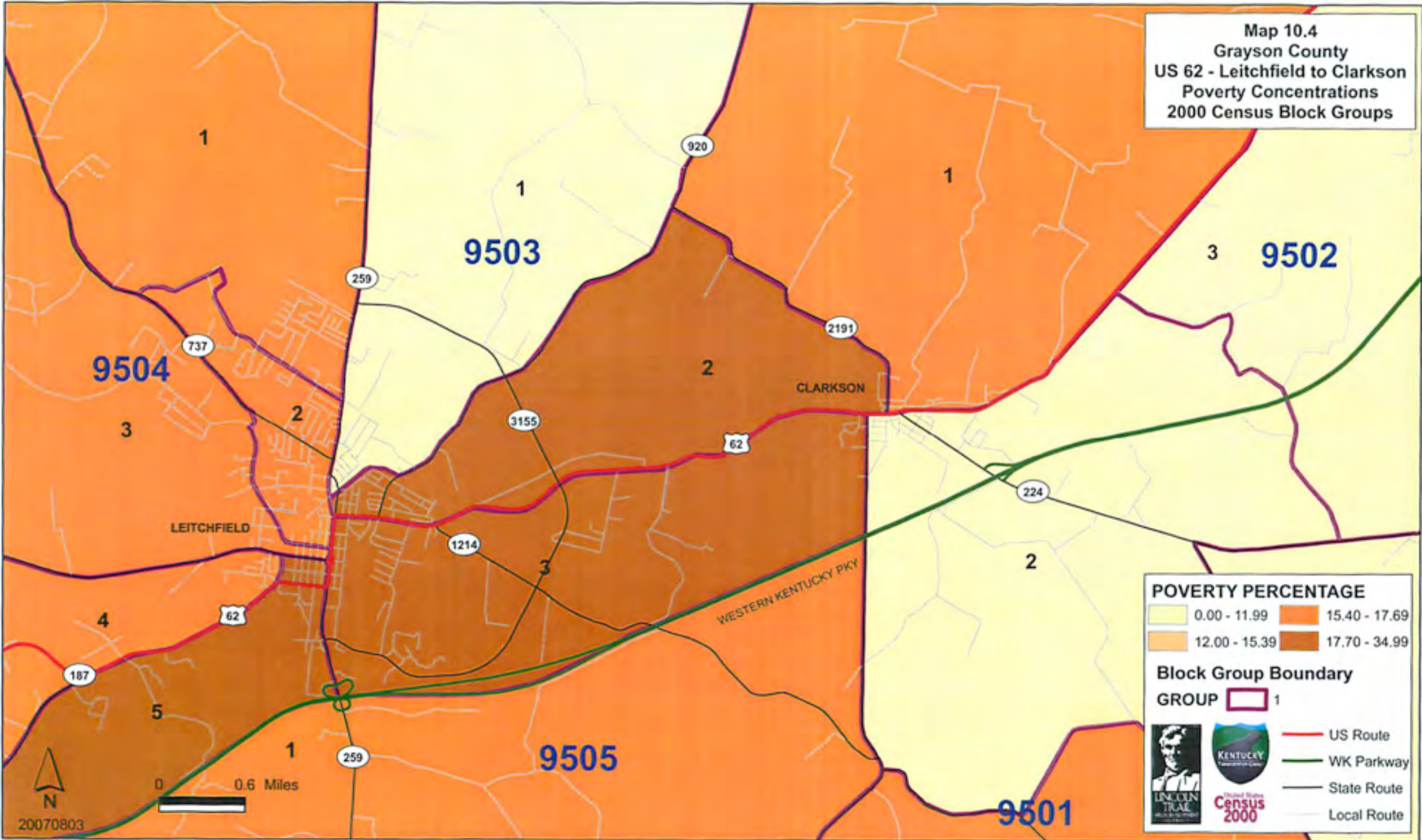
N

1 Miles

Map 10.3.2
Grayson County
US 62 - Leitchfield to Clarkson
65 & Over Concentrations
2000 Census Blocks



Map 10.4
Grayson County
US 62 - Leitchfield to Clarkson
Poverty Concentrations
2000 Census Block Groups



POVERTY PERCENTAGE

0.00 - 11.99	15.40 - 17.69
12.00 - 15.39	17.70 - 34.99

Block Group Boundary
 GROUP 1

	US Route
	WK Parkway
	State Route
	Local Route

Logos for LINCOLN TRAIL and KENTUCKY 2000 Census are included.

20070803

Appendix A: Planning Study Contact List

Honorable Gary Logsdon
Grayson Co. Judge Executive
10 Court Square
Leitchfield, KY 42754
270.259.3159

Mr. Roger Tomes
Grayson Co. PVA
10 Court Square
Leitchfield, KY 42754
270.259.4838

Mr. William H. Thomason
Mayor of Leitchfield
314 W. White Oak Street
P.O. Box 398
Leitchfield, KY 42755-0398
270.259.4034

Mr. Darrell Harrell, Director
Public Works
314 W. White Oak Street
P.O. Box 398
Leitchfield, KY 42755
270.259.4034

Ms. Bonnie Henderson
Mayor of Clarkson
106 Spring Street
P.O. Box 10
Clarkson, KY 42726
270.242.6997

Mr. Kerry White, City Clerk
314 W. White Oak Street
P.O. Box 398
Leitchfield, KY 42755-0398
270.259.4034

Ms. Donna Wilson
Grayson Co. Community Alliance
125 E. Market Street, Ste 3
Leitchfield, KY 42754
270.259.4000

Ms. Kim Farris
Grayson Co. Senior Center
102-B Watkins Woods Dr
Leitchfield, KY 42754
270.259.4885

Mr. Steve Mahurin
Grayson Co. Road Supervisor
655 W. White Oak Street
Leitchfield, KY 42755
270.259.3093

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.

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.

US 62 Study Area Census Data

	Total	White Alone	White Alone	Black or African American alone	Black or African American alone	American Indian and Alaska Native alone	American Indian and Alaska Native alone	Asian alone	Asian alone	Native Hawaiian and other Pacific Islander alone	Native Hawaiian and other Pacific Islander alone
United States	281,421,906	211,460,626	75.1%	34,658,190	12.3%	2,475,956	0.9%	10,242,998	3.6%	398,835	0.1%
Kentucky	4,041,769	3,640,889	90.1%	295,994	7.3%	8,616	0.2%	29,744	0.7%	1,460	0.0%
Grayson Co.	24,053	23,634	98.3%	120	0.5%	40	0.2%	34	0.1%	2	0.0%
Tract 9501	2,619	2591	98.9%	1	0.0%	5	0.2%	1	0.0%	1	0.0%
Block Group 1	933	927	99.4%	0	0.0%	1	0.1%	0	0.0%	1	0.1%
Block Group 2	800	787	84.4%	0	0.0%	2	0.2%	0	0.0%	0	0.0%
Block Group 3	886	877	99.0%	1	0.1%	2	0.2%	1	0.1%	0	0.0%
Tract 9502	3,055	3017	98.8%	1	0.0%	2	0.1%	11	0.4%	0	0.0%
Block Group 1	1,293	1285	99.4%	0	0.0%	0	0.0%	2	0.2%	0	0.0%
Block Group 2	861	843	97.9%	0	0.0%	1	0.1%	9	1.0%	0	0.0%
Block Group 3	901	889	98.7%	1	0.1%	1	0.1%	0	0.0%	0	0.0%
Tract 9503	3,744	3626	96.8%	63	1.7%	12	0.3%	5	0.1%	1	0.0%
Block Group 1	1,301	1291	99.2%	1	0.1%	3	0.2%	2	0.2%	0	0.0%
Block Group 2	909	885	97.4%	4	0.4%	6	0.7%	0	0.0%	0	0.0%
Block Group 3	1,534	1450	94.5%	58	3.8%	3	0.2%	3	0.2%	1	0.1%
Tract 9504	6,081	5934	97.6%	48	0.8%	7	0.1%	11	0.2%	0	0.0%
Block Group 1	1,339	1311	97.9%	14	1.0%	0	0.0%	4	0.3%	0	0.0%
Block Group 2	1,500	1469	97.9%	6	0.4%	4	0.3%	3	0.2%	0	0.0%
Block Group 3	1,331	1314	98.7%	5	0.4%	0	0.0%	2	0.2%	0	0.0%
Block Group 4	1,235	1208	97.8%	3	0.2%	0	0.0%	2	0.2%	0	0.0%
Block Group 5	676	632	93.5%	20	3.0%	3	0.4%	0	0.0%	0	0.0%
Tract 9505	2,592	2554	98.5%	3	0.1%	10	0.4%	3	0.1%	0	0.0%
Block Group 1	761	748	98.3%	1	0.1%	0	0.0%	0	0.0%	0	0.0%
Block Group 2	1,831	1806	98.6%	2	0.1%	10	0.5%	3	0.2%	0	0.0%

US 62 Study Area Census Data

	Some other race alone	Some other race alone	Two or more races	Two or more races	Hispanic or Latino Origin	Hispanic or Latino Origin	Persons 65 and Over	Persons 65 and Over	Persons Below Poverty Level	Persons Below Poverty Level
United States	15,359,073	5.5%	6,826,228	2.4%	35,238,481	12.5%	34,991,753	12.4%	33,899,812	12.0%
Kentucky	22,623	0.6%	42,443	1.1%	56,414	1.4%	504,793	12.5%	621,096	15.4%
Grayson Co.	53	0.2%	170	0.7%	186	0.8%	3,372	14.0%	4,267	17.7%
Tract 9501	6	0.2%	14	0.5%	29	1.1%	382	14.6%	332	12.7%
Block Group 1	2	0.2%	2	0.2%	9	1.0%	119	12.8%	93	10.0%
Block Group 2	3	0.3%	8	0.9%	11	1.2%	86	10.8%	141	15.1%
Block Group 3	1	0.1%	4	0.5%	9	1.0%	177	20.0%	98	11.1%
Tract 9502	7	0.2%	17	0.6%	20	0.7%	411	13.5%	390	12.8%
Block Group 1	1	0.1%	5	0.4%	5	0.4%	190	14.7%	222	17.2%
Block Group 2	0	0.0%	8	0.9%	8	0.9%	127	14.8%	78	9.1%
Block Group 3	6	0.7%	4	0.4%	7	0.8%	94	10.4%	90	10.0%
Tract 9503	8	0.2%	29	0.8%	34	0.9%	562	15.0%	597	15.9%
Block Group 1	3	0.2%	1	0.1%	16	1.2%	165	12.7%	110	8.5%
Block Group 2	3	0.3%	11	1.2%	5	0.6%	94	10.3%	185	20.4%
Block Group 3	2	0.1%	17	1.1%	13	0.8%	303	19.8%	302	19.7%
Tract 9504	21	0.3%	60	1.0%	57	0.9%	847	13.9%	1125	18.5%
Block Group 1	1	0.1%	9	0.7%	5	0.4%	142	10.6%	226	16.9%
Block Group 2	0	0.0%	18	1.2%	18	1.2%	263	17.5%	241	16.1%
Block Group 3	4	0.3%	6	0.5%	16	1.2%	151	11.3%	215	16.2%
Block Group 4	4	0.3%	18	1.5%	9	0.7%	166	13.4%	216	17.5%
Block Group 5	12	1.8%	9	1.3%	9	1.3%	125	18.5%	227	33.6%
Tract 9505	2	0.1%	20	0.8%	19	0.7%	314	12.1%	472	18.2%
Block Group 1	1	0.1%	11	1.4%	2	0.3%	78	10.2%	129	17.0%
Block Group 2	1	0.1%	9	0.5%	17	0.9%	236	12.9%	343	18.7%

APPENDIX F
RESOURCE AGENCY RESPONSES

RESOURCE AGENCY RESPONSES

1. U.S. Coast Guard
2. U.S. Department of Agriculture, Natural Resources Conservation Service
3. U.S. Environmental Protection Agency, Region 5
4. Kentucky Cabinet for Health and Family Services, Facilities Management Division
5. Kentucky Commerce Cabinet, Department of Fish & Wildlife Resources
6. Kentucky Commerce Cabinet, Department of Parks
7. Kentucky Department of Agriculture
8. Kentucky Department of Military Affairs
9. Kentucky Environmental and Public Protection Cabinet, Department for Environmental Protection
10. Kentucky Environmental and Public Protection Cabinet, Department for Natural Resources
11. Kentucky Environmental and Public Protection Cabinet, Division of Conservation
12. Kentucky Justice and Public Safety Cabinet, Kentucky State Police
13. Kentucky Justice and Public Safety Cabinet, Kentucky Vehicle Enforcement
14. Kentucky Transportation Cabinet, Geotechnical Branch
15. Kentucky Transportation Cabinet, Airport Zoning Commission
16. Kentucky Transportation Cabinet, Office of Special Programs
17. Kentucky Transportation Cabinet, Permits Branch
18. University of Kentucky, Kentucky Geological Survey

U.S. Department of
Homeland Security

United States
Coast Guard



Commander
Eighth Coast Guard District

1277 Spruce Street
St. Louis, MO 63103-2802
Staff Symbol: 2806
Phone: (314) 269-2300
Fax: (314) 269-2737
E-mail: petar.sambor@uscg.mil

RECEIVED

16591.1/US HWY 62
August 9, 2007

AUG 15 2007

Mr. Daryl Greer
Director, Division of Planning
Kentucky Transportation Cabinet
200 Metro Street 5th Floor
Frankfort, KY 40622

Subj: US HIGHWAY 62 IMPROVEMENT PROJECT

Dear Mr. Greer:

We have reviewed the information provided in your letter of June 24, 2007 and determined that this project is not a project over which the Coast Guard exercises jurisdiction for bridge administration purposes. A Coast Guard permit is not required.

If there are any questions, please contact Mr. Peter Sambor at the above extension. We appreciate the opportunity to comment on the project.

Sincerely,

A handwritten signature in black ink that reads "Roger K. Wiebusch".

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



Natural Resources Conservation Service
777 Corporate Drive, Suite 210
Lexington, KY 40503

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AUG 22 2007

August 21, 2007

Mr. Daryl J. Greer, P.E.
Director, Division of Planning
Kentucky Transportation Cabinet
200 Mero Street, 5th Floor
Frankfort, KY 40622

RE: US 62 Reconstruction from KY 3155 in Letchfield to KY 224 in Clarkson, KY
Item No. 4-8203.00

Dear Mr. Greer:

In regards to the planning study to determine the need and potential impacts for the proposed US 62 Reconstruction from KY 3155 in Letchfield to KY 224, the USDA-Natural Resources Conservation Service (NRCS) is concerned with potential impacts that any 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 and http://www.nrcs.usda.gov/programs/fppa/pdf_files/CPA106.pdf.

The NRCS contact person for Grayson County is:
Brent Miller
District Conservationist
115 Commerce Drive
Letchfield, Kentucky 42754
Phone: 270-259-3738 or brent.miller@ky.usda.gov

To further assist with the planning efforts, I am enclosing a CD containing ArcView GIS shapefiles of basic soils information for Grayson County. The GIS shapefiles are in UTM projection, nad83, zone 16. The soil database table includes a column for "farmland classification-all components" (farmelac) that identifies prime farmlands and soils of statewide importance. A legend file has been provided (farmland_classif.avl), which may be used with GIS software to more clearly display the soils that are considered prime farmlands and soils of statewide importance.

Sincerely,

Jacob Kuhn
Assistant State Conservationist

cc:

J. David Stipes, Area Conservationist, Area 2, 103 Lakeview Court, Frankfort, KY 40601
Brent Miller, District Conservationist, 115 Commerce Drive, Letchfield, Kentucky 42754

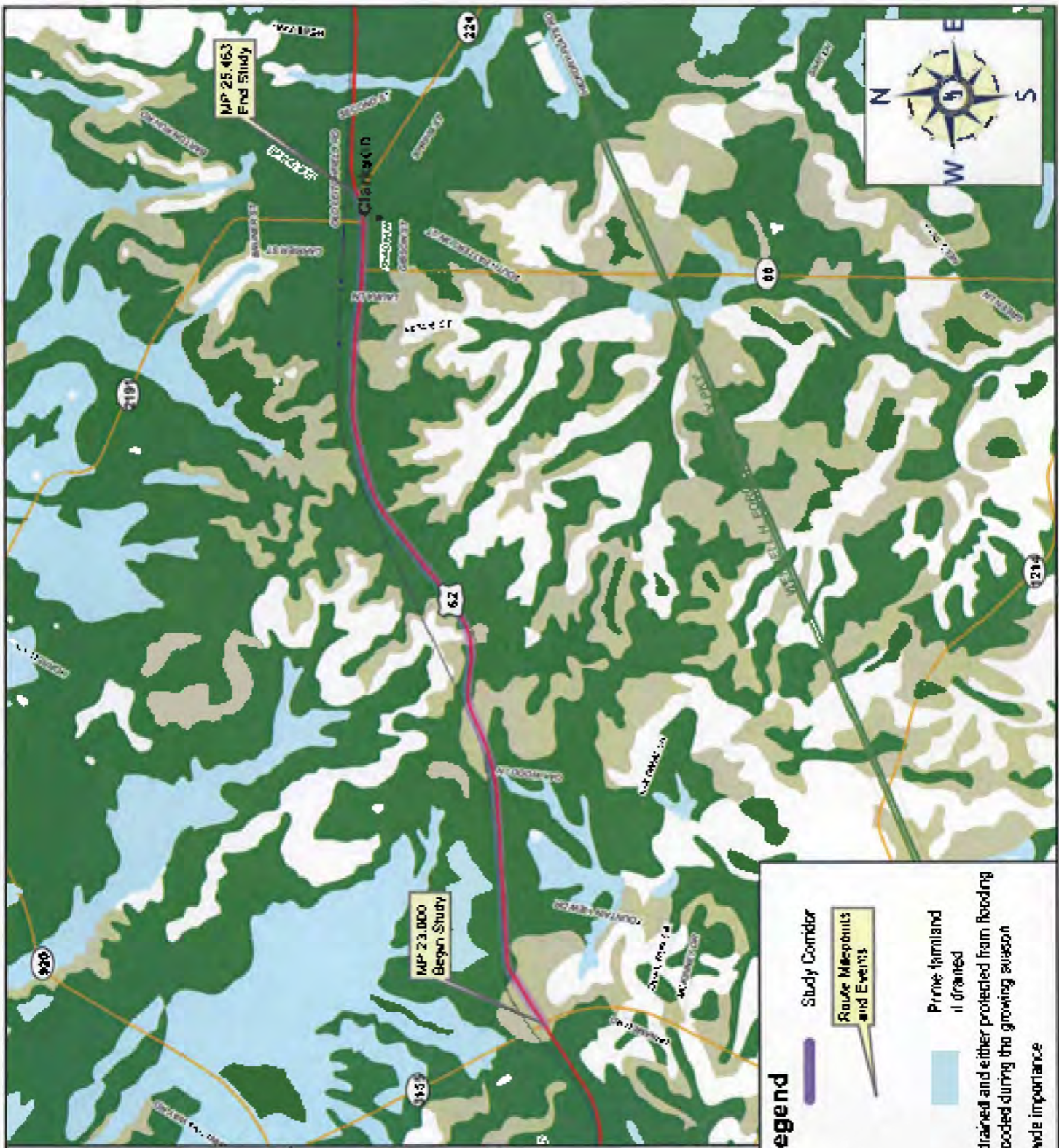
Helping People Help the Land

U.S. #1 Specialty Provider and Employer



**Prime Farmland & Soils
of Statewide Importance**
Grayson County
US 62
Leitchfield to Clarkson
Programming Study

Source: Natural
Resources Conservation
Service 8/21/2007



Legend

- Parkway
- US Highway
- State Highway
- Local Road
- Railroad
- All areas are prime farmland
- Prime farmlands drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance
- Study Corridor
- Route Mileposts and Events
- Prime farmland if drained



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3593

RECEIVED

AUG 09 2007

AUG 13 2007

REF ID: A111410001
mailcode B-19

Daryl J. Greer, P.E.
Director, Division of Planning
Transportation Cabinet
200 Metro Street, 5th Floor
Frankfort, Kentucky 40622

Re: **Request for NEPA comments on US 62 Reconstruction in Grayson County, KY**

Dear Mr. Greer:

The U.S. Environmental Protection Agency (U.S. EPA) Region 5 received your letter of July 24, 2007, seeking early coordination comments regarding a proposed FHWA highway reconstruction project entirely within the state of Kentucky. Our EPA Upper Midwest Region (5) encompasses the six Midwest states bordering the Great Lakes. The State of Kentucky is located in the EPA Southeast Region (4) with offices in Atlanta, Georgia. We have therefore forwarded your letter to Heinz Mueller, NEPA Program Office Chief in that office. Future project communications should be directed to his attention at:

Heinz Mueller, Chief
NEPA Program Office
Office of Policy and Management
U.S. Environmental Protection Agency
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303-8960.

He can be reached at (404)-562-9611.

Sincerely,

Kenneth A. Westlake, Supervisor
NEPA Implementation
Office of Enforcement and Compliance Assurance

Cc: Heinz Mueller



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AUG 03 2007

**CABINET FOR HEALTH AND FAMILY SERVICES
FACILITIES MANAGEMENT DIVISION**

Ernie Fletcher
Governor

275 E. Main Street, 4E-C
Frankfort, KY 40621
(502) 564-6631
Fax: (502) 564-2608
www.chfs.ky.gov

Mark D. Birdwhistell
Secretary

July 30, 2007

Kentucky Transportation Cabinet
Mr. Daryl J. Greer, P.E., Director, Division of Planning
200 Mero Street
5th Floor
Frankfort, Ky. 40622

Subject: Grayson County Planning Study
US 62 from KY 3155 to KY 224

Mr. Greer;

The Kentucky Transportation Cabinet has asked that we identify specific issues or concerns which may affect the development of a road improvement project in Grayson County; the project would involve improvements in the US 62 from KY 3155 to KY 224. We have reviewed the project location map, the existing area highway management system data, geometric and traffic characteristics of the existing highways, and crash analysis provided by your office.

The Cabinet for Health and Family Services does not lease or own property located within US 62 from KY 3155 to KY 224; therefore, we do not anticipate or have any specific issues or concerns with regards to this proposed project.

Thank you for giving consideration to our facilities, staff, and clients.

Sincerely,



Robert W. Wright
Leased Properties Branch

Cc: file



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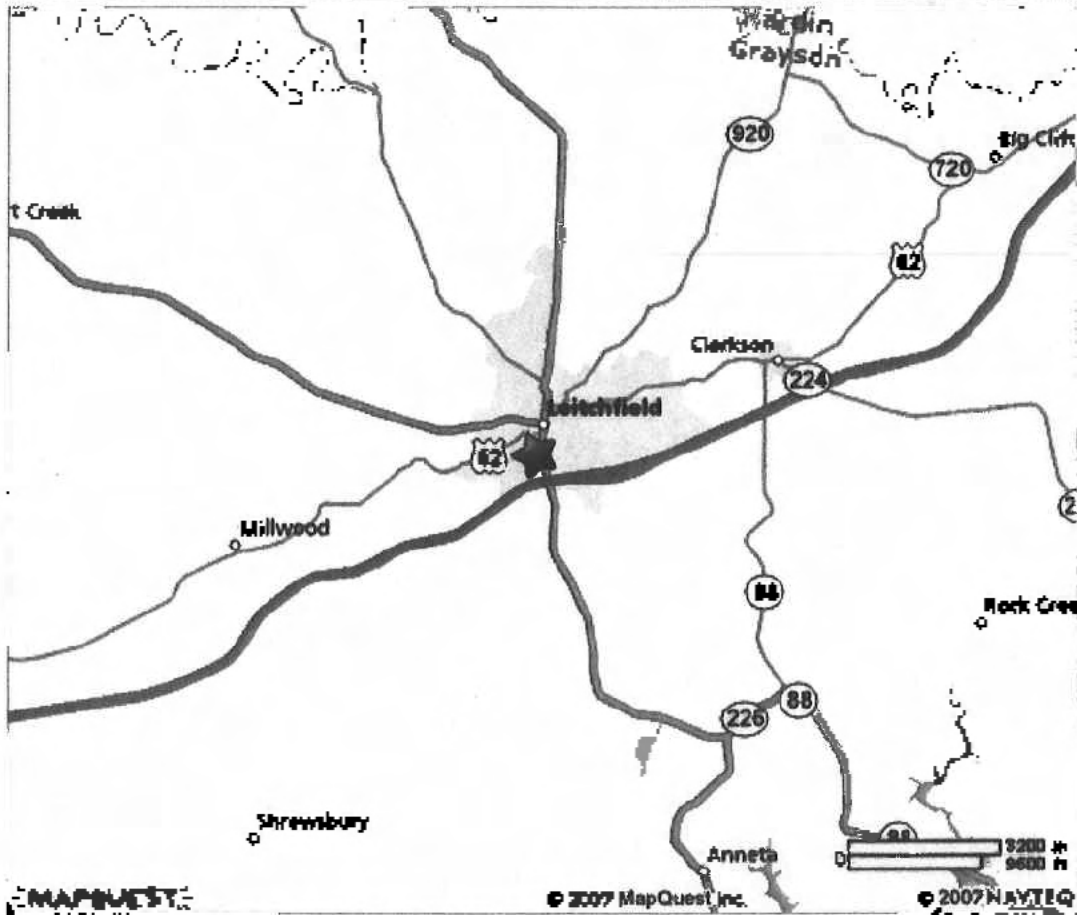


★ 498 S Main St

Leitchfield, KY 42754-1024, US



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SEP 07 2007

KENTUCKY DEPARTMENT OF FISH & WILDLIFE RESOURCES
COMMERCE CABINET

Ernie Fletcher
Governor

#1 Sportsman's Lane
Frankfort, Kentucky 40601
Phone (502) 564-3400
1-800-858-1549
Fax (502) 564-0506
fw.ky.gov

George Ward
Secretary

Dr. Jonathan W. Gassett
Commissioner

September 5, 2007

Daryl J. Greer, P. E.
Director
Division of Planning
Kentucky Transportation Cabinet
200 Mero Street
5th Floor
Frankfort, KY 40622

RE: Planning Study
Grayson County
US 62 Reconstruction from KY 3155 in Leitchfield to KY 224 in Clarkson
Item No. 4-8303-00

Dear Mr. Greer:

The Kentucky Department of Fish and Wildlife Resources (KDFWR) have received your request for the above-referenced information. The Kentucky Fish and Wildlife Information System indicates that no federal/state threatened and/or endangered fish and wildlife species are known to occur within close proximity to the project area. Please be aware that our database system is a dynamic one that only represents our current knowledge of the various species distributions. We recommend that you contact the U. S. Fish & Wildlife Service Kentucky Field Office at 502-695-0468 for consultation under the Endangered Species Act.

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 impact streams:

- Avoidance of impacts to intermittent and perennial streams if it is feasible.
- Channel changes located within the project area should incorporate natural stream channel design.
- If culverts are used, the culvert should be designed to allow the passage of aquatic organisms.
- Culverts should be designed so that degradation upstream and downstream of the culvert does not occur.



- To compensate for unavoidable impacts to streams, we recommend that possible stream mitigation sites be identified on-site or within the Upper Salt River drainage. Restoration of those sites should incorporate natural stream channel design along with the restoration of its associated riparian areas.
- Development/excavation during low flow period to minimize disturbances.
- Proper placement of erosion control structures below highly disturbed areas to minimize entry of silt into area streams.
- Replanting of disturbed areas after construction, including stream banks, with native vegetation for soil stabilization and enhancement of fish and wildlife populations. We recommend a 100 foot forested buffer along each stream bank.
- Return all disturbed instream habitat to a stable condition upon completion of construction in the area.
- Preservation of any tree canopy overhanging any streams within the project area.

I hope this information proves helpful to you. If you have any questions or require additional information, please call me at (800) 852-0942 Extension 366.

Sincerely,



Doug Dawson
Wildlife Biologist III

Cc: Environmental Section File



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AUG 03 2007

KENTUCKY COMMERCE CABINET

Ernie Fletcher
Governor

Capital Plaza Tower, 24th Floor
500 Mero Street
Frankfort, Kentucky 40601
Phone (502) 564-4270
Fax (502) 564-1512
www.commerce.ky.gov

George Ward
Secretary

August 1, 2007

Mr. Daryl Greer, P.E.
Division of Planning Director
Kentucky Transportation Cabinet
200 Mero Street
Frankfort, Kentucky 40622

Re: Planning Study
Grayson County
US 62
Item No. 4-8303.00

Dear Mr. Greer:

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,

George Ward
Secretary

cc: John Drake

Richie Farmer, Commissioner
12 Fountain Place
Frankfort, KY 40601



Phone: (502) 564-5126
Fax: (502) 564-5016
Email: richie.farmer@agr.state.ky.us

Kentucky
Department of
Agriculture

A Consumer Protection And Service Agency

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JUL 26 2007

July 25, 2007

Mr. Daryl Greer, P.E.
Director, Division of Planning
Kentucky Transportation Cabinet
200 Merri Street, Station W5-05-01,
Frankfort, KY 40622

Re: Planning Study
Grayson County
US 62 Reconstruction from KY 3155 in Leitchfield
To KY 224 in Clarkson
Item No. 4-8303.000

Dear Mr. Greer:

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

Sincerely,

Ann Stewart
Staff Assistant



Witt, Thomas (KYTC)

From: Wilson, Jimmy (KYTC)
Sent: Thursday, August 16, 2007 8:27 AM
To: Witt, Thomas (KYTC)
Subject: FW: Planning Study, Grayson County, US 62 Reconstruction from KY 3155 in Leitchfield to KY 224 in Clarkson, Item No. 4-8303.00

-----Original Message-----

From: Wilson, Jimmy (KYTC)
Sent: Thursday, August 16, 2007 10:15 AM
To: Witt, Thomas (KYTC); Wilson, Jimmy (KYTC)
Subject: FW: Planning Study, Grayson County, US 62 Reconstruction from KY 3155 in Leitchfield to KY 224 in Clarkson, Item No. 4-8303.00

BT

-----Original Message-----

From: Wilson, Jimmy (KYTC) [mailto:jwilson@kytc.ky.gov]
Sent: Thursday, August 16, 2007 10:15 AM
To: Witt, Thomas (KYTC)
Subject: FW: Planning Study, Grayson County, US 62 Reconstruction from KY 3155 in Leitchfield to KY 224 in Clarkson, Item No. 4-8303.00

BT

The Department of Military Affairs has not received any copies of the materials that you attached. You should contact the sender of the e-mail.

John R. Williams
Department of Military Affairs
1000 N. Main Street, 2nd Floor
Frankfort, KY 40601
Phone: 502-625-1100
Fax: 502-625-1101
E-mail: jwilliams@kytc.ky.gov



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SEP 10 2007

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

Ernie Fletcher
Governor

DEPARTMENT FOR ENVIRONMENTAL PROTECTION
14 REILLY ROAD
FRANKFORT, KENTUCKY 40601
PHONE (502) 564-2150
FAX (502) 564-4245
www.dep.ky.gov

Teresa J. Hill
Secretary

Cheryl A. Taylor
Commissioner

September 6, 2007

Mr. Daryl J. Greer, P.E., Director
Division of Planning
Kentucky Transportation Cabinet
200 Merri Street
Frankfort, KY 40622

Re: Planning Study Grayson County US 62 Reconstruction from KY 3155 in Litchfield to KY
224 in Clarkson. Item No. 4-8303.00 (SIR) 2007-15

Dear Mr. Greer,

The Environmental and Public Protection Cabinet serves as the state clearinghouse for review of environmental documents generated pursuant to the National Environmental Policy Act (NEPA). Within the Cabinet, the Commissioner's Office in the Department for Environmental Protection coordinates the review for Kentucky state agencies.

The Kentucky agencies listed on the attached sheet have been provided an opportunity to review the above referenced report. Responses were received from 4 of the reviewing agencies that were forwarded a copy of the document. Comments were received from the Kentucky Divisions of Water, Waste Management, and Air Quality, and the Department of Natural Resources.

If you should have any questions, please contact me at (502) 564-2150, ext. 112.

Sincerely,

Larry C. Taylor
State Environmental Review Officer

Inclosures

**COMMONWEALTH OF KENTUCKY
STATE ENVIRONMENTAL REVIEW PROCESS**

Project Number: SERO 2007 -15

Scoping Document

Project Title:

Planning Study Grayson County US 62 Reconstruction from KY 3155 in
Leitchfield to KY 224 in Clarkson. Item No. 4-8303.00

The following Commonwealth of Kentucky agencies make up the State Environmental Review Process. Their response is listed below. Agencies that did not receive the document for review or did not respond are also noted.

REVIEWING AGENCIES:	RESPONSE:
Division of Water.....	COMMENTS ATTACHED
Division of Waste Management.....	COMMENTS ATTACHED
Division for Air Quality.....	COMMENTS ATTACHED
Department for Public Health.....	Not Sent for Review
Cabinet for Economic Development.....	Not Sent for Review
Division of Forestry.....	Not Sent for Review
Department of Parks.....	Not Sent for Review
Department of Agriculture.....	Not Sent for Review
Nature Preserves Commission.....	Not Sent for Review
Kentucky Heritage Council.....	No Response Received
Division of Conservation.....	No Response Received
Department for Natural Resources.....	COMMENTS ATTACHED
Department of Fish and Wildlife Resources....	Not Sent for Review
Transportation Cabinet.....	Not Sent for Review
Department for Military Affairs.....	Not Sent for Review

Division of Water Comments

**Planning Study for the Proposed US 62 Reconstruction from
KY 3155 in Leitchfield to KY 224 in Clarkson**

Endorsement:

A request for review of the Planning Study for the proposed US 62 reconstruction from KY 3155 in Leitchfield to KY 224 in Clarkson was received on July 27, 2007. The Division of Water (DOW) completed this review and found that the information provided warranted an endorsement of this project. Below are the comments that were received.

Water Quality Branch:

No comments. Endorse.

Groundwater Branch:

Improvements to US 62 in this area are unlikely to have any permanent detrimental impacts to groundwater. However, because this is karst terrane, which is inherently sensitive to potential pollution from surface activities, the appropriate measures should be taken to ensure that these resources are protected.

Therefore, to protect the area's groundwater, the measures found in the following should be adhered to: KYTC Best Management Practices, the Kentucky Department of Highways Standard Specifications, and the KYTC Generic Groundwater Protection Plan. If, during construction, these measures are found to be inadequate, KYTC is strongly encouraged to consult with the Kentucky Geological Survey and the Groundwater Branch of the Kentucky Division of Water in the development of any new measures that may be necessary.

Water Resources Branch:

There are no floodplain or dam safety issues involved with this project.

Enforcement Branch:

The Division of Enforcement does not object to the projects proposed by the applicants.

Division of Waste Management Comments

Project Number: SERO 2007-15

All solid waste generated by this project must be disposed at a permitted facility. If underground storage tanks are encountered they must be properly addressed. If asbestos, lead paint, and/or other contaminants are encountered during this project, they must be properly addressed.

Division for Air Quality Comments

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/homepage_repository/e-Clearinghouse.htm.

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 located at http://www.air.ky.gov/homepage_repository/e-Clearinghouse.htm.

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.

The Division also suggests an investigation into compliance with applicable local government regulations.

Department for Natural Resources Comments



ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

Ernie Fletcher
Governor

Department for Natural Resources
2 Hudson Hollow
Frankfort, Kentucky 40601
Phone: (502) 564-6940
Fax: (502) 564-5698
www.eppc.ky.gov
www.dnr.ky.gov

Teresa J. Hill
Secretary

Susan C. Bush
Commissioner

August 15, 2007

Department for Environmental Protection
Commissioner's Office
Attn: Larry Taylor
14 Reilly Road
Frankfort, Kentucky 40601

RE: Programming Study
Grayson County
US 62 Reconstruction from KY 3155 in Leitchfield
Item No. 4-8363.002

Dear Mr. Taylor:

Thank you for the opportunity to comment on the planning study to determine the need and potential impacts for improvements on the US 62 highway project in Grayson County. The Department for Natural Resources has examined the documentation.

According to the Kentucky Division of Oil and Gas Conservation, this is an area of known oil and gas exploration activity. Enclosed is a map, obtained from the Kentucky Mine Mapping Web site: <http://mmamaps.ky.gov>, showing several oil and gas wells. The Kentucky Geological Survey can provide an overlay with the wells plotted for this area. Should you have any additional questions or concerns, please call Kim Collings at (502) 573-0147 or Linda Potter at (502) 564-6940.

Sincerely,

Susan C. Bush, Commissioner



ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

Ernie Fletcher
Governor

Department for Natural Resources
2 Hudson Hall
Frankfort, Kentucky 40601
Phone: (502) 564-6940
Fax: (502) 564-5698
www.eppc.ky.gov
www.dnr.ky.gov

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Teresa J. Hill
Secretary

AUG 15 2007

Susan G. Bush
Commissioner

August 15, 2007

Daryl J. Green, P.E., Director
Division of Planning
Kentucky Transportation Cabinet
200 Meru Street
5th Floor
Frankfort, Kentucky 40622

RE: Programming Study
Grayson County
US 62 Reconstruction from KY 3155 in Leitchfield
Item No. 4-8303.00

Dear Mr. Green:

Thank you for the opportunity to comment on the planning study to determine the need and potential impacts for improvements on the US 62 highway project in Grayson County. The Department for Natural Resources has examined the documentation.

According to the Kentucky Division of Oil and Gas Conservation, this is an area of known oil and gas exploration activity. Enclosed is a map, obtained from the Kentucky Mine Mapping Web site, <http://minemaps.ky.gov>, showing several oil and gas wells. The Kentucky Geological Survey can provide an overlay with the wells plotted for this area. Should you have any additional questions or concerns, please call Kim Collings at (502) 573-0147 or Linda Potter at (502) 564-6940.

Sincerely,

Susan C. Bush, Commissioner

Remotely Mine Mapping Interface: Available Maps RMS Viewer - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites Home

Address: http://www.remotelymine.com/remote_mine_mapper/AvailableMaps.aspx?map=KearneyMineMappingInteractive

Available Mine Maps
Remotely Mine Mapping Interface

Layers

- AI Layers
- Keamey Mine Maps
- OUTGAS VETS

- CD - null
- Contaminated water table
- Flow - null
- Drainage basins
- Groundwater monitoring
- Infrastructure
- Vegetation
- DEM
- Base Map
- Base Imagery

Refresh Map

Aerial grayscale, click to pan
 An open area, click to zoom
 Area - null
 Aerial photography, click to make red
 Aerial photography, click to hide
 Aerial layer, click to show
 Aerial layer, click to hide
 Aerial layer, click to show
 Aerial layer, click to hide
 Aerial layer, click to show
 Aerial layer, click to hide

Counties: Selection : eared

Home

Map: 4762104.C1, 3701562.79 - Image: 177, 177 - ScaleFactor: 60-6170864150530

Keamey Mine Mapping Interface



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AUG 20 2007

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

Ernie Fletcher
Governor

Division of Conservation
375 Versailles Road
Frankfort, Kentucky 40601
Phone (502) 573-3083
Fax (502) 573-1692
www.conservation.ky.gov

Teresa J. Hill
Secretary

Stephen A. Coleman
Director

August 17, 2007

Mr. Daryl Greer, P.E.
Director, Division of Planning
Kentucky Transportation Cabinet
200 Mero Street
5th Floor
Frankfort, KY 40622

Subject: Planning Study for US 62 Reconstruction

Dear Mr. Greer:

As requested, the Division of Conservation has reviewed the proposed study to improve US 62 in Grayson County beginning at KY 3155 east of Leitchfield and ending at KY 224 in Clarkson. We would like to provide the following comments and express concerns that may be helpful in this initial data-gathering stage.

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

We would like to see the issue of the loss of farmland addressed. Every year pressure imposed by utility right-of-ways, urban expansion, and new roads reduce the land available for agricultural use in the Commonwealth. There are two documents that could be utilized to identify these farmland designations, the *Soil Survey Grayson County* (NRCS 1972), 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 (BMP's) be utilized to prevent nonpoint source water pollution. This would protect the water quality and aquatic habitat of the perennial and intermittent streams that this project could impact.



Mr. Daryl Greer
August 17, 2007
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 Grayson 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/mps/Publications.htm>

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

Sincerely,



Stephen A. Coleman, Director
Kentucky Division of Conservation

SAC/MD/aeh



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AUG 16 2007

KENTUCKY STATE POLICE

Ernie Fletcher
Governor

919 Versailles Road
Frankfort, Kentucky 40601
www.kentuckystatepolice.org

John (Jack) Adams
Commissioner

August 15, 2007

Daryl J Greer, P.E.
Director, Division of Planning
Kentucky Transportation Cabinet
200 Mero Street 5th Floor
Frankfort, Kentucky 40622

Dear Mr. Greer:

Attached is a printout of the summary of collisions on US 62 mile marker 23.0 to 25.465 for January 1, 2006 to July 31, 2007 with a total of 11 injury collisions.

The proposed construction area is a heavily traveled portion of US 62 based on the location of schools and factories. The heaviest hours of usage are 7:00 AM (CT) to 8:00 AM (CT) and 3:00 PM (CT) to 4:30 PM (CT).

I have provided a list of factories using US 62 with contact numbers.

Clarkson Police Department, (270.242.6997) employs one police officer and Leitchfield Police Department, (270.259.3850) employs 13 police officers. I suggest you contact those departments for more pertinent information that may be helpful.

Sincerely,

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

Lt. David G. Lee
Kentucky State Police Post 4
P. O. Box 1297
Elizabethtown, Kentucky 42702-1297
270-766-5078

DL/bkc

Attachment: Collision Report Analysis
List of Factories - Leitchfield

COLLISION REPORT ANALYSIS FOR SAFER HIGHWAYS

SUMMARY OF COLLISIONS (US 62 23.0 to 25.463mm)

From: 8/1/01/0001 To: 07/31/2007
 Excludes Parking Lot/ Excludes Private Property Collisions

County	Total Collisions	Fatal Collisions	Injury Collisions	Property Damage Only	Number Killed	Number Injured
GRAYSON	16	3	4	10	0	4
35M62	11	3	3	4	0	4
Totals:	26	6	11	14	0	14



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AUG 23 2007

JUSTICE AND PUBLIC SAFETY CABINET

Ernie Fletcher
Governor

Kentucky Vehicle Enforcement
Frankfort, Kentucky 40601

BG Norman E. Arluck
Secretary

Gregory G. Howard
Commissioner

August 20, 2007

Mr. Daryl J. Greer, P.E.
Division of Planning
Transportation Cabinet
200 Mero Street
Frankfort, KY 40622

Dear Mr. Greer:

We are in receipt of your letter requesting any input that Kentucky Vehicle Enforcement might have in regards to a planning study in Grayson County, US 6 Reconstruction from KY 3155 in Leitchfield to KY 224 in Clarkson, item no. 4-8303.00.

After having my staff research the matter, we do not see any concerns as it relates to our agency.

If you need any further information, please do not hesitate to let us know.

Sincerely,

Gregory G. Howard
Commissioner
Department of Kentucky Vehicle Enforcement

MEMORANDUM

P-012-2007

TO: Daryl Greer, PE
Director
Division of Planning

FROM: William Broyles, PE
Geotechnical Engineering
Branch Manager
Division of Structural Design

BY: Michael Blevins, PG
Geotechnical Branch

DATE: August 20, 2007

SUBJECT: Grayson County
FD04 043 0062 023-026 D
Leitchfield to Clarkson (US62)
Item # 04-8303.0
Mars # 7966201P
Geotechnical Overview

The Geotechnical Branch has completed a review of Leitchfield and Clarkson Geologic Quadrangle Maps has the following comments.

GEOLOGICAL OVERVIEW

The project is underlain by bedrock of the Leitchfield Formation, Glenn Dean Limestone and the Hardinsburg Sandstone of the Pennsylvanian System. The Formations are identified on the attached Geologic Quadrangle Map.

Bedrock in the Leitchfield Formation consists of Shale, Siltstone, Limestone and Limestone Conglomerate. The majority of the Formation consists of shale which is usually Non-Durable and requires flatter than normal cut slopes. Extra Right of Way may be required if flatter slopes are needed. The Siltstone occurs as laminations and thin beds. The Limestone is thin to thick bedded and has shale laminations and partings. The Limestone can usually be used for rock roadbed if shale percentages are relatively low.

The Glenn Dean Limestone consists of Limestone and Shale. The Limestone is thin to thick bedded and argillaceous in the upper part. The Formation weathers to rubble or thin slabs. The Shale occurs as partings and beds of variable thickness and can be interbedded with thin Limestone beds in the upper part. The Limestone may be used for roadway applications provided the shale percent is relatively low. Cut slopes may be pre-split or flatter than normal depending on shale percentages.

Memorand
Daryl Greer
August 20, 2007
Page-2-

The Hardinsburg Sandstone contains Sandstone and Shale. The Sandstone is usually friable and Non-Durable and has poor engineering properties. The Shale is normally non-durable and occurs at the top of the unit. Cut slopes are usually flatter than normal.

Most of the project is underlain by the Leitchfield Formation and will likely require a chemically modified roadbed.

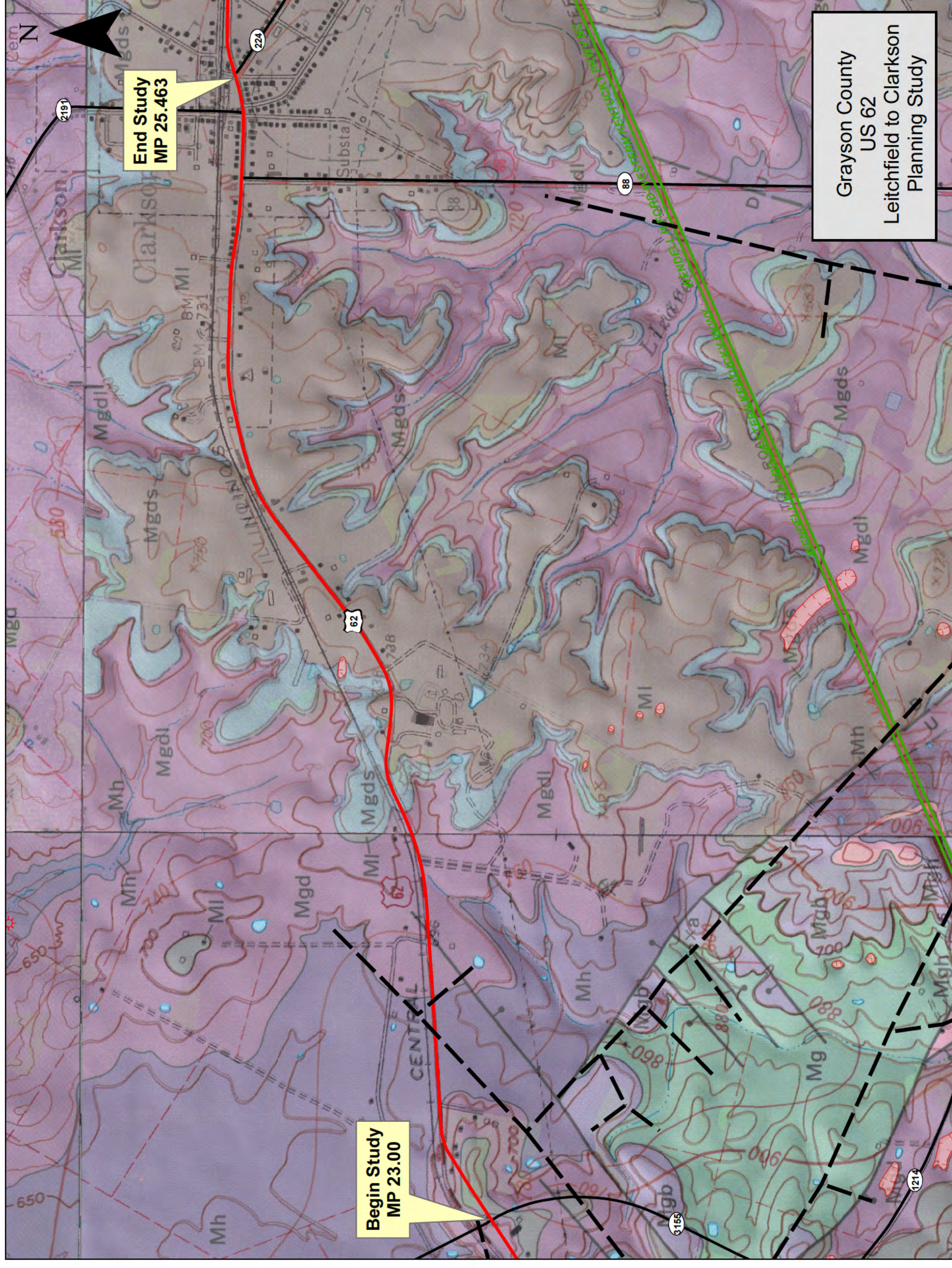
GEOTECHNICAL CONCERNS

A Northwest trending fault is identified (**by dashed lines**) on the attached Geological Quadrangle Map and intersects the proposed project. Bedrock in the vicinity of the fault may be highly fractured. Cut slopes in the faulted area may need to be taken out along the bedding plane to provide a stable cut slope. Cut heights through the faulted area should be kept to a minimum to minimize potential slope stability problems. Embankments through this area should encounter no problems during construction.

If there are any questions, please advise.

Legend

	Hardinsburg Limestone
	Leitchfield Formation
	Glen Dean Limestone
	Shale Member Glen Dean Limestone
	Limestone Member Glen Dean Limestone
	Girkin Formation
	Haney Limestone Member
	Alluvium
	Coal Bed
	Geologic Faults
	Sinkholes
	Parkways
	US Highways
	State Roads



End Study
MP 25.463

Begin Study
MP 23.00

Grayson County
US 62
Leitchfield to Clarkson
Planning Study

Witt, Thomas (KYTC)

From: Houlihan, John (KYTC)
Sent: Wednesday, July 25, 2007 11:24 AM
To: Witt, Thomas (KYTC)
Subject: Item No 4-8303.00 US 62 reconstruction to KY 3155

Mr. Witt

I have reviewed the above proposed project and found this will have no adverse effect on air navigation. However, if any construction equipment exceeds 200 feet above ground level a permit will have to be issued from this office prior to use. If you have any questions, let me know.

Thank you.

Kentucky Airport Zoning Commission
John Houlihan, Administrator
200 Mero Street
Frankfort KY 40622
502.564.9900 Ext. 3854
Fax 502.564.7953
www.transportation.ky.gov/aviation/zoning.htm

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AUG 13 2007

Ernie Fletcher
Governor

TRANSPORTATION CABINET
Frankfort, Kentucky 40627
www.kentucky.gov

Bill Nighbert
Secretary

Crystal Murray Ducker
Deputy Secretary

INTRA-DEPARTMENTAL MEMO

TO: Daryl J. Greer, P.E.
Director
Division of Planning

FROM: Tiffani Jackson
Bicycle and Pedestrian Coordinator
Office of Special Programs

DATE: August 10, 2007

SUBJECT: Comments on Scoping study of US 62 from KY 3155 to KY 224

After reviewing the project information for the scoping study of US 62, I have the following comments that I feel should be taken into consideration when identifying improvements for this stretch of roadway:

- Currently there is a shoulder width of approximately 2 feet. My recommendation is to consider incorporating a minimum of 4 ft of paved shoulder width (after any rumble strips that are installed) to accommodate any cyclists that may choose to use the road to travel from Leitchfield to Clarkson.
- Another recommendation would be to consider placing "Share the Road" signs to alert motorists to the possibility that cyclists may be using that stretch of roadway.


Tiffani Jackson



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AUG 20 2007

Ernie Fletcher
Governor

TRANSPORTATION CABINET

Frankfort, Kentucky 40622
www.kentucky.gov

Bill Nighbert
Secretary

MEMORANDUM

Marc Williams
Commissioner of Highways

TO: Daryl Greer, P.E.
Director
Division of Planning

FROM: Cass T. Napier *CTN*
Branch Manager
Permits

DATE: August 17, 2007

RE: US 62, Grayson County
Scoping Study, Improvements from
MP 23.000 to MP 25.463 (US 62)
Item No. 8-8303.00

The Permits Branch has reviewed the data provided for the subject study site. A search of our permits database revealed that this area has had 16 encroachment permits and 3 recycler permits since 1994 the results of the database review are displayed on the attached tables. In addition, this Branch offers the following comments.

1. Please notify this office should portions of this project be designed as partial control access.
2. In segments where access may be partial control we encourage all possible access points be set on the plans in accordance with 603 KAR 5:120, even if they are not to be constructed at that time.
3. When buying R/W for this and all reconstruction routes, if a segment has partial control access, new deeds for all adjoining property owners need to be executed to identify the access control even if no new R/W is acquired.
4. Please notify this office if the proposed roadway is to be placed on the National Highway System. This information is needed to assist this office in regulating the installation of any outdoor advertising device. Also, if the proposed roadway is to be on the N. H. S., early notification of the final line and grade is needed. This enables us to monitor outdoor advertising devices prior to road construction being completed.

Thank you for the opportunity to verbalize our concerns.

CTN/mlc

Grayson County, US 62 mp 23 to 25.5

Encroachment permit history in vicinity of planning study area:

Total 16:

Permit Number	Permit Type	Mile Point	Permit Issue Date
04-0698-04	Commercial Entrance	25.4	October, 2004
04-0294-03	Utility	23.3	May, 2003
04-0104-02	Street Improvement	23.5	June, 2002
04-0105-02	Utility	23.51	June, 2002
04-0458-01	Utility	25	July, 2001
04-0352-98	Commercial Entrance	25.24	June, 1998
04-0233-93	Commercial Entrance	24.55	April, 1993
04-0580-97	Festival (blocked street side parking)	25.4	September, 1997
04-0507-97	Street Improvement (Drainage)	25.5	August, 1997
04-0374-97	Sidewalk Replacement	25.5	June, 1997
04-0133-94	Commercial Entrance	25.25	April, 1994
04-0256-94	Commercial Entrance	23.1	May, 1994
04-0778-93	Commercial Entrance	24.4	November, 1993
04-0702-93	Utility	2 to 34	October, 1993
04-0209-94	Grading in ROW	24.9	May, 1994
04-0173-94	Commercial Entrance	24.3	April, 1994

Grayson County, US 62 mp 23 to 25.5

Recycler permit history in vicinity of planning study area:

Total 3:

Permit Number	INACTIVE	Mile Point	Permit Issue Date	Permit Expiration Date
RP-04-0003-89	INACTIVE	23.1	December, 1988	June, 1994
RP-04-0002-92	INACTIVE	24.0	May, 1992	June, 1994
RP-04-0001-92	ACTIVE	24.3	June, 1993	June, 2006



UNIVERSITY OF KENTUCKY

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AUG 06 2007

Kentucky Geological Survey
Research
225 Mining & Mineral Resources Bldg
Lexington, KY 40506-0107
Phone: (606) 257-3044
Fax: (606) 257-3111
www.ukgs.uky.edu

July 31, 2007

Daryl J. Greer, P.E.
Director, Division of Planning
Kentucky Transportation Cabinet
200 Mero Street, 5th Floor
Frankfort, KY 40622

Dear Mr. Greer:

This letter is to summarize any geologic concerns for the planning study:

Grayson County
U.S. 62 reconstruction from Ky. 3155 in Leitchfield, Ky., to Ky. 224 in Clarkson,
Ky.
Item No. 4-8303.00

Physiographic Region

The planning study area is in the Mississippian Plateau (Pennyroyal or Pennyrife) Physiographic Region, which is underlain by sandstone (some friable), limestone (argillaceous in parts), and shale.

Karst Potential

The planning study area might encounter karst features such as sinkholes and caves.

Landslide Potential

The planning study area would not encounter any pre- or post- landslide hazard.

Unconsolidated Sediments

The planning study area would not encounter unconsolidated sediments, such as clay, silt, sand, gravel, and chert rubble in the streams.

Resource Conflicts

The planning study area would not encounter resource conflicts such as prior ownership of property for quarrying or mining.



Materials Suitability

The planning study area would not encounter any material suitable for road construction. Some of the thicker shales might have a tendency to expand. The sandstone layers might be poorly cemented in areas.

Fault Potential

The study area would encounter faulted areas.

Earthquake Ground Motions

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

Sincerely,

A handwritten signature in cursive script that reads "Richard A. Smith". The signature is written in dark ink and is positioned above the printed name.

Richard A. Smith
Geologist