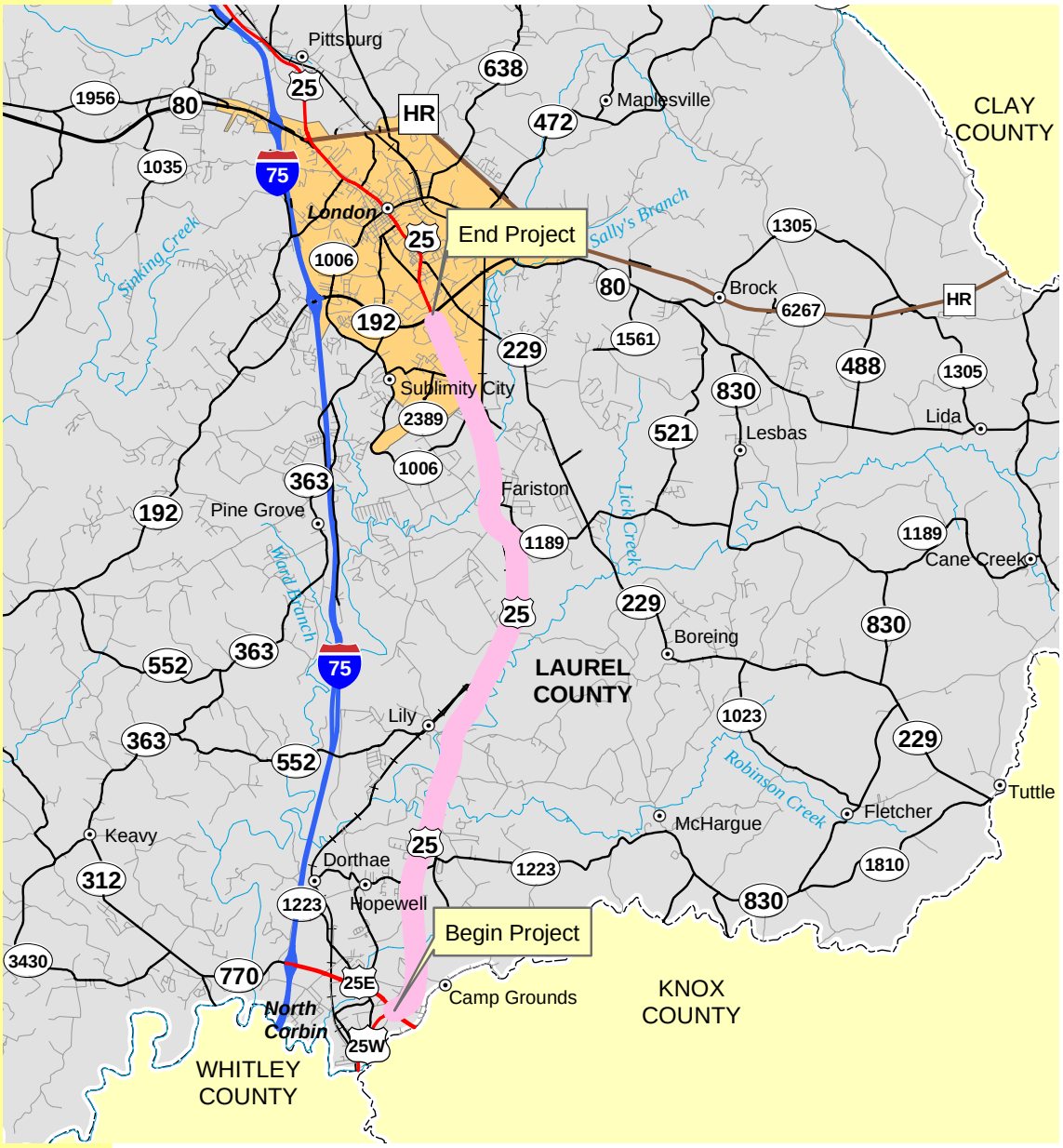
SCOPING STUDY

US 25; ITEM 11-8201

LAUREL COUNTY

FROM CORBIN TO LONDON



FINAL REPORT

July 2006

Prepared by:
Kentucky Transportation Cabinet
Division of Planning

Kentucky UNBRIDLED SPIRIT

KENTUCKY TRANSPORTATION CABINET

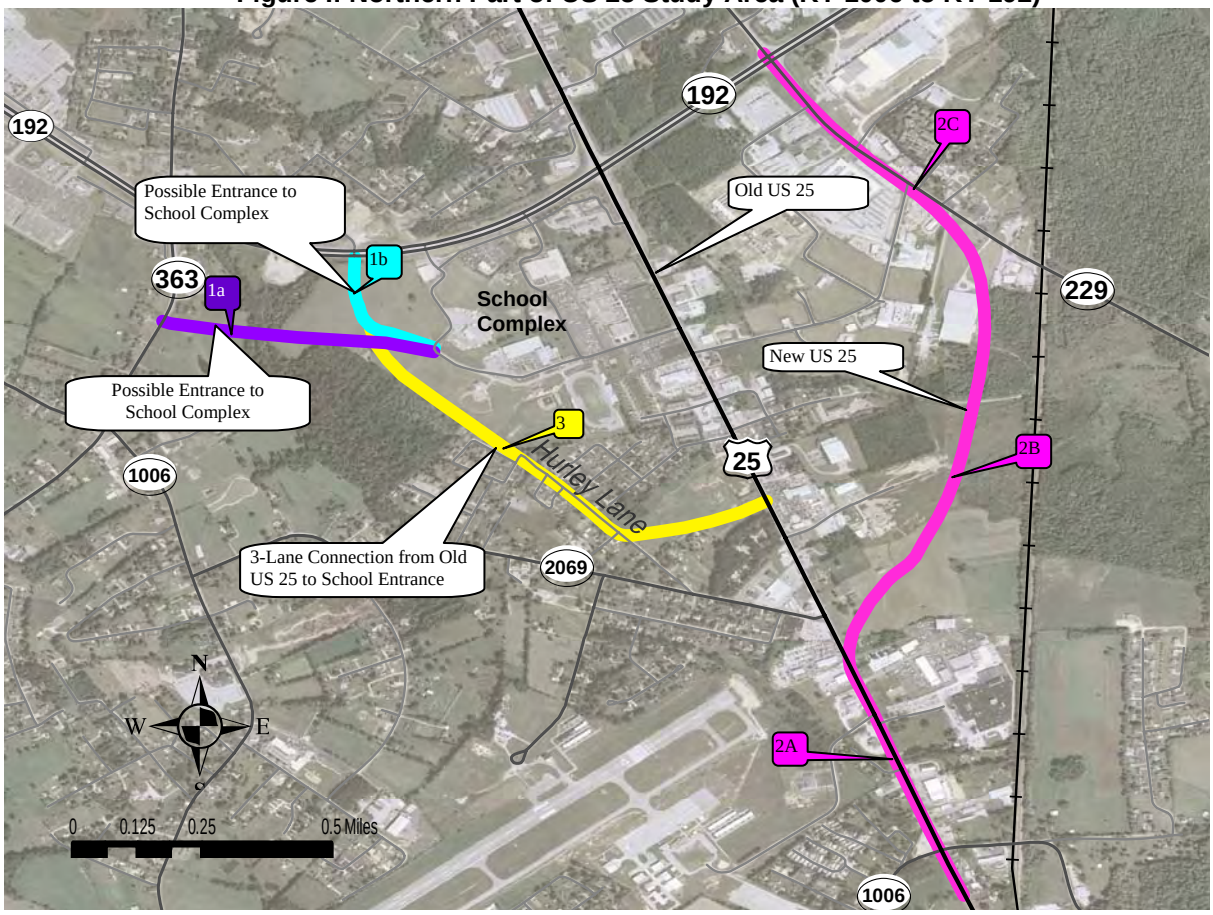
EXECUTIVE SUMMARY
SCOPING STUDY
LAUREL COUNTY
US 25 CORBIN TO LONDON
ITEM NO. 11-8201.00

The primary goals of this project are to address highway capacity and growth needs in Laurel County, improve safety by providing an improved route that complies with current design standards, and provide an alternative route during incidents or closures on I-75.

The project termini are defined as US 25 from milepoint 0.000 (US 25E in North Corbin) to MP 10.505 (KY 192 in London). Current year traffic ranges from about 13,000 vehicles per day near Lily to 25,000 vehicles per day near South Laurel High School (shown on map below as "School Complex"). Projected average daily traffic volumes, in the future year (2030), range from about 21,300 vehicles per day to 41,000 vehicles per day. Several areas with crash problems were identified during the study with the worst being on US 25 from the South Laurel High School Entrance to KY 192 Bypass.

Several different improvement concepts were developed as part of this study, resulting in five recommended priorities (Priorities 1, 2, and 3 are shown on Figure I below and all five priorities are shown on Figure II).

Figure I: Northern Part of US 25 Study Area (KY 1006 to KY 192)



Recommendations in order of priority are:

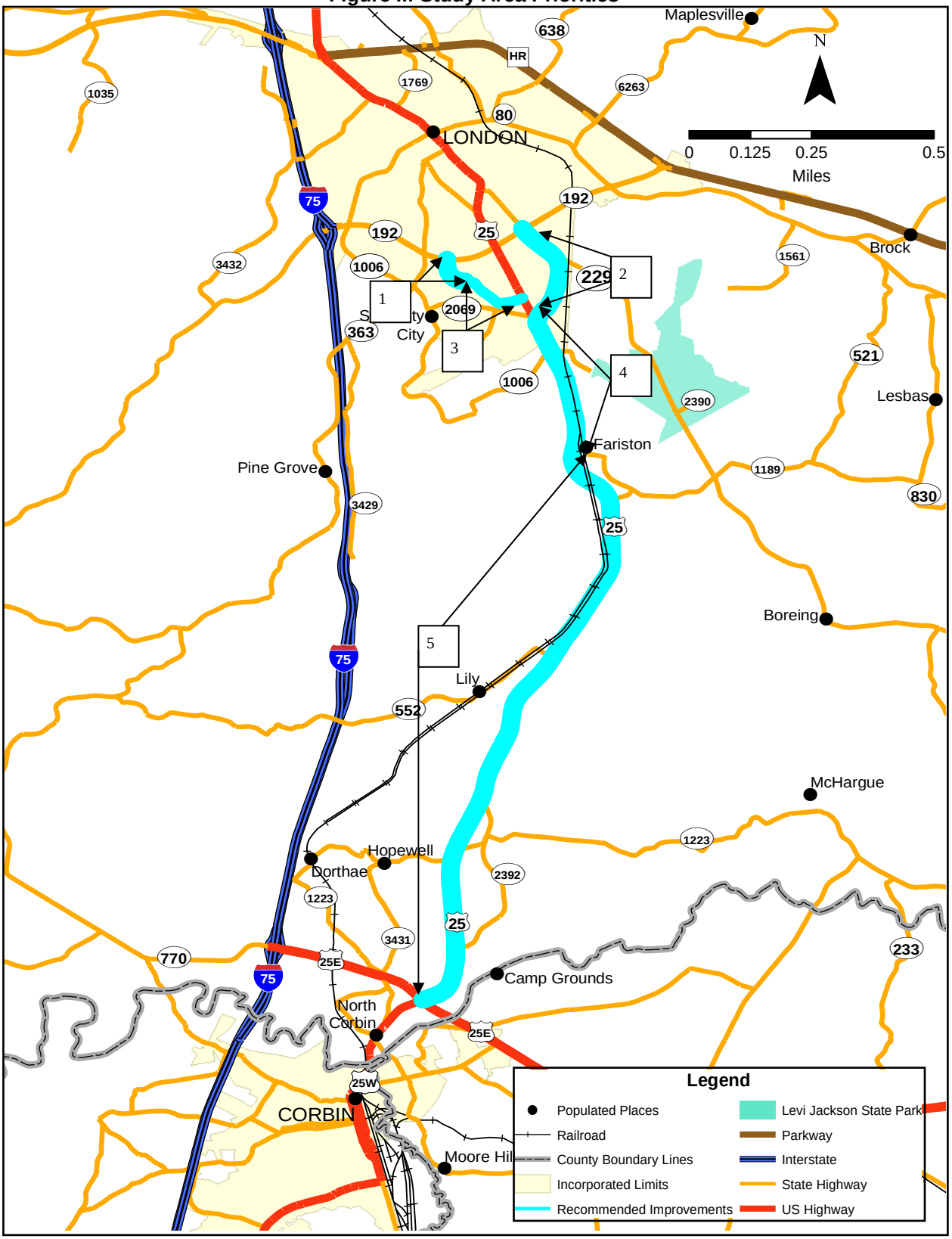
1) Construct back entrance to the school complex connecting the school to either (a) KY 363 or (b) KY 192. (Determining whether this connection should be made with KY 363 or KY 192 needs to be determined at the design phase after consultation with the schools and the public. At the time of the report, the schools have not responded to letters or phone calls requesting their input. Origin-Destination information provided by the schools is vital to providing the correct access to the schools.)
2) Reconstruct/ Reroute US 25 from KY 1006 to KY 192
    A. Improve US 25 From KY 1006 to KY 2069
    B. Reroute US 25 from KY 2069 to KY 229
    C. Improve KY 229 from the intersection with new US 25 to KY 192
3) Provide a new connection between the school and old US 25 by using part of Hurley Lane and an undeveloped plot of land adjacent to US 25. This priority should be evaluated thoroughly after priorities 1 and 2 have been constructed. Priorities 1 and 2 by themselves may reduce congestion enough to make priority 3 a lower priority.
4) Expand US 25 between KY 1189 and KY 1006 to a four-lane rural highway.
5) Expand US 25 between US 25E and KY 1189 to a four-lane rural highway

Estimated costs by priority segment are:

Priority Segment	Length (miles)	Cost in Thousands					
		Design	ROW	Utilities	Construction	Cost/ Mile	Total
1	0.25	$500	$250	$100	$900	$7,000	$1,750
2	1.75	$2,325	$1,200	$475	$4,250	$4,714	$8,250
3	0.50	$1,000	$500	$200	$1,800	$7,000	$3,500
4	2.10	$1,500	$2,900	$1,000	$8,000	$6,381	$13,400
5	7.00	$4,000	$5,000	$3,000	$23,000	$5,000	$35,000
Total	11.60	$9,325	$9,850	$4,775	$37,950	$5,336	$61,900

Note: These cost estimates assume that priority one will connect the school complex to KY 192. If it is decided that the school should connect to KY 363 instead of KY 192, approximately $2 million should be added to the total cost of priority one in order to account for increased project length, utility expenses, and improvements to KY 363.

Figure II: Study Area Priorities



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I. INTRODUCTION

A. Study Purpose

The purpose of this scoping study was to: (a) evaluate US 25 from Corbin to London and determine possible alternatives to improve safety and traffic flow that can be used for future programming documents; (b) provide data to be used when and if the project enters the design phase; and (c) provide background information that can be utilized in the National Environmental Policy Act (NEPA) documentation for the project. Tasks undertaken as part of this effort included:

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

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

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

The collected information was evaluated to accomplish the following:

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

B. Programming and Schedule

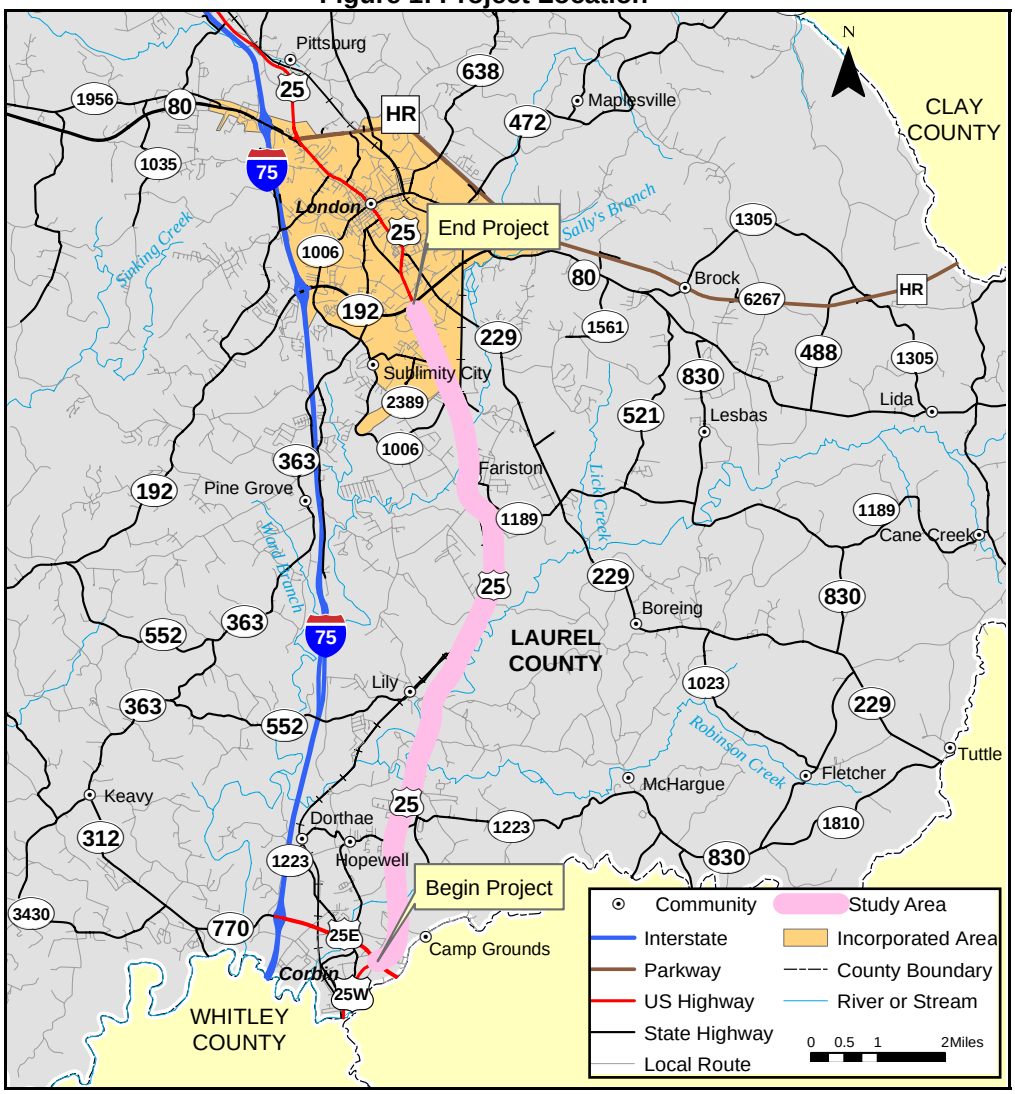
The project is described in the addendum to the February 2004 Recommended Six-Year Highway Plan (FY 2005-2010) as a “Scoping Study- US 25 between Corbin and London.” No future project phases are defined or scheduled at this time.

II. PROJECT LOCATION, EXISTING CONDITIONS, AND TRAFFIC

A. Project Location

The project termini are from US 25E at MP 0.000 in Corbin to KY 192 (London Bypass) at MP 10.505 in London. The entire study area is within Laurel County.

Figure 1: Project Location



B. Existing Highway Features

Data on the existing conditions along US 25 were taken from the Division of Planning's Highway Information System (HIS) database. The US 25 corridor is located in generally rolling terrain. Seventy percent of the study area has sufficient passing sight distance. There is only one horizontal curve along this roadway segment greater than 3.5 degrees. This horizontal curve is from milepoint 0.132 to 0.401. Further, there are four

vertical curves along this roadway segment with grades steeper than 2.5% as shown in the table below.

Table 1: Vertical Curve Information

County Name	Route	Begin MP	End MP	Percent Grade (Range)
Laurel	US 25	0.474	1.042	2.5 - 4.4%
Laurel	US 25	1.042	1.610	2.5 - 4.4%
Laurel	US 25	1.989	2.747	2.5 - 4.4%
Laurel	US 25	3.088	3.258	4.5 - 6.4%

US 25 in the study segment is mostly a two-lane rural highway. The northern 1.5 miles of the study area are in the incorporated area of London. There are several short sections of US 25 with either a center two-way-left-turning-lane (TWLTL) or truck climbing lane. A breakdown of the lane configurations for the US 25 corridor between the Cumberland Gap Parkway (US 25E) and the London Bypass (KY 192) are shown below in Table 2.

Table 2: Lane Configurations

Milepoints	No. of Lanes	Description
0 to 0.1	4	2 thru, 2 left, and 1 right for a short distance
0.1 to 0.3	2	
0.3 to 0.85	3	2 thru, truck lane for south bound
0.85 to 1.05	2	
1.05 to 1.9	3	2 thru, one TWLTL
1.9 to 2.2	4	2 thru, one TWLTL, and one north bound truck lane
2.2 to 2.9	3	2 thru, south bound truck lane that is also used as left turn lane at two spots
2.9 to 3.4	2	
3.4 to 4.1	3	2 thru, TWLTL
4.1 to 4.2	2	
4.2 to 4.4	3	2 thru, left turn
4.4 to 4.7	2	
4.7 to 4.9	3	2 thru, left turn
4.9 to 7.0	2	
7.0 to 7.1	3	2 thru, left turn at KY 1189
7.1 to 7.5	2	
7.5 to 7.8	3	2 thru, TWLTL, TWLTL becomes a left turn lane at Fariston Road
7.8 to 9.028	2	
9.028 to 10.4	3	2 thru, TWLTL
10.4 to 10.5	4	2 thru, 2 left

Table 3 gives general route information.

Table 3: General Route Information

From	To	% Trucks	Lane Width (Feet)	Shoulder Width (Feet)	Posted Speed Limit
US 25E	KY 1223	18.9	12	10 (Earth)	55
KY 1223	KY 552	18.9	12	10 (Earth)	55
KY 552	KY1189	17.3	12	10 (Earth)	55
KY 1189	KY 1006	15.5	12	10 (Earth)	55
KY 1006	S. Laurel HS	9.3	11	Curbed	45
S. Laurel HS	KY 192	9.3	11	Curbed	45

There are five bridges inside the study area. Four of these bridges exceed 100 feet in length, with the longest being 245 feet. These same four bridges are also listed as being functionally obsolete. The Federal Highway Administration, Bridge Division's, *National Bridge Inventory Database* defines functionally obsolete bridges as "those with deck geometry (e.g., lane width), load carrying capacity, clearance, or approach roadway alignment that no longer meet the criteria for the system of which the bridge is a part." Table 4 shows information for the bridges inside the US 25 study area.

Table 4: Bridge Information

Bridge No	Milepoint	Features Intersected	Bridge Length	Bridge Width	Sufficiency Rating	Location
B00026	1.040	HORSE CREEK	23	30.0	95.0	.25 MI N OF S-JCT KY 2392
B00024	3.275	ROBINSON CREEK	144	26.2	58.7	.40 MI N OF N-JCT KY 2392
B00027	4.140	LAUREL RIVER AT LILY	129	35.4	78.2	.65 MI SOU. OF JCT KY 552
B00022	7.190	CSX RAILROAD	245	31.1	65.2	.20 MI N OF JCT KY 1189
B00025	8.435	LITTLE LAUREL RIVER	132	31.1	77.1	.50 MI S OF S-JCT KY 1006

C. Highway Systems

US 25 in the study area includes segments of different functional classifications. The functional classes for each segment are shown below in Table 5.

Table 5: Functional Classes

Begin MP	End MP	Urban Area	Functional Classification	Description
0.000	0.677	Corbin	Urban Principal Arterial	From US 25E to the NUL of Corbin at Hanes Baker Road
0.677	9.028	Rural	Rural Major Collector	From the NUL of Corbin at Hanes Baker Road to SUL of London at KY 1006
9.028	10.505	London	Urban Minor Arterial Street	From SUL of London at KY 1006 to KY 192

D. Vehicle Crash Analysis

On US 25 in the study area, a total of 809 vehicle crashes were recorded with valid reference points during the five year period between January 1, 2001 and December 31, 2005. 208 of the crashes produced injuries to at least one person, while nine crashes resulted in fatalities. Table 6 shows a segmental analysis of US 25 in the study area.

Table 6: Segment Critical Rate Factors

January 1, 2001 to December 31, 2005 Crash Data for Segments							
Begin MP	End MP	ADT	Crashes				CRF**
			Fatal	Injury	PDO*	Total	
0.000	2.097	15500	2	53	127	182	1.033
2.098	4.821	14000	2	59	107	168	0.824
4.822	6.952	13000	3	12	34	49	0.322
6.953	9.027	14000	1	36	78	115	0.723
9.028	10.161	21000	0	32	128	160	0.635
10.162	10.505	25000	1	16	118	135	1.349

* PDO- Property Damage Only

** CRF- Critical Rate Factor- The critical rate factor is the quotient of the crash rate for a roadway spot or segment divided by the critical crash rate for roadway spots or sections based on the roadway type, number of lanes, and median type. The critical crash rate is the sum of the average crash rate for a given roadway type plus a factor which measures the exposure (vehicle miles of travel) to possible crashes. A critical rate factor greater than one is indicative of the statistical probability that crashes are not occurring randomly at that spot or segment.

A spot crash analysis was done for very 0.1 mile spot along the entire study area to pinpoint the location of crash problems. Crashes between January 1, 2003 and December 31, 2005 were used for this analysis. Twelve spots were identified as having a critical rate factor greater than one. Specific crash data summaries were then prepared for each of the spots. Tables 7 and 8 show the result of this analysis. The spots highlighted in yellow have either been recently improved or are scheduled in the Six-Year Highway Plan to be improved. These spots should continue to be evaluated to see if the improvements have lowered the Critical Rate Factors.

Table 7: Spot Critical Rate Factors

ID	Begin MP	End MP	ADT	Crashes				CRF
				Fatal	Injury	PDO	Total	
Spot 1	0.000	0.099	15500	0	6	22	28	1.750
Spot 17	1.600	1.699	15500	0	4	4	8	1.118
Spot 21	2.000	2.099	14000	1	3	7	11	1.640
Spot 33	3.200	3.299	14000	0	5	5	10	1.096
Spot 37	3.600	3.699	14000	0	6	6	12	1.790
Spot 42	4.100	4.199	14000	0	5	6	11	1.206
Spot 70	6.900	6.999	14000	0	3	7	10	1.096
Spot 76	7.500	7.599	14000	0	2	6	8	1.193
Spot 90	8.900	8.999	14000	0	2	8	10	1.096
Spot 91	9.000	9.099	21000	0	4	10	14	1.160
Spot 102	10.100	10.199	25000	0	8	23	31	1.349
Spot 106	10.500	10.599	25000	1	7	58	66	4.315

Note: Spot location definitions are shown below, and a full route log for the US 25 study area can be found in Appendix G.

Spot Locations

Spot 1: US 25E
Spot 17: Powers LN
Spot 21: KY 1223
Spot 33: Robinson Ck
Spot 37: Echo Valley/Lily Sc RD
Spot 42: Slate Ridge/S Lily RD
Spot 70 : KY 1189
Spot 76 : Fariston RD
Spot 90: S of KY 1006
Spot 91: KY 1006
Spot 102: Schools
Spot 106: KY 192

These high crash spots were then analyzed to determine patterns due to weather, roadway conditions, manner of collision and light condition. This analysis can be seen in Table 8. As an example to interpreting the table:

At Spot 1 (US 25E), 23 of the 28 crashes occurred in clear weather on dry roads, and 24 were in daylight. A total of 19 of the 28 crashes were rear-end crashes.

Table 8: Spot Crash Analysis

Crash Factor	Spots											
	1	17	21	33	37	42	70	76	90	91	102	106
Weather												
Clear	23	5	5	8	7	6	5	7	4	9	23	41
Cloudy	2	2	4	1	3	4	1	0	3	4	5	21
Rain	3	1	1	1	2	1	2	1	2	1	2	4
Snow/Sleet/Hail/Sandstorm	0	0	1	0	0	0	2	0	1	0	1	0
Roadway												
Dry	23	6	8	8	9	9	7	5	6	11	26	57
Wet	4	2	3	2	3	2	3	2	3	2	2	8
Ice/Other	1	0	0	0	0	0	0	1	1	1	3	1
Manner of Collision												
Angle	4	3	6	1	6	6	3	4	1	4	9	3
Backing	0	0	0	0	0	0	0	0	0	0	2	0
Head-on	1	0	0	0	0	0	0	1	0	0	0	0
Opposing Left Turn	0	0	1	0	0	0	0	0	0	0	1	0
Rear End	19	4	4	7	4	2	4	0	8	10	16	60
Sideswipe	2	0	0	0	2	3	2	2	0	0	3	3
Single Vehicle	2	1	0	2	0	0	1	1	1	0	0	0
Light Condition												
Dark	4	2	3	1	1	4	0	2	0	2	1	8
Dawn/Dusk	0	2	0	0	0	0	0	1	0	1	2	5
Daylight	24	4	8	9	11	7	10	5	10	11	28	53

E. Traffic and Level of Service

The average daily traffic volume (ADT) in the Year 2005 varied from about 13,000 vehicles per day (vpd) to 25,000 vpd. Projected future year (2030) average daily traffic volumes, based on traffic forecasts run on the London traffic model performed by KYTC traffic forecasters, range from 21,300 vpd to 41,000 vpd for the no build scenario. (The entire traffic forecast including turning movements at major intersections can be found in Appendix E.)

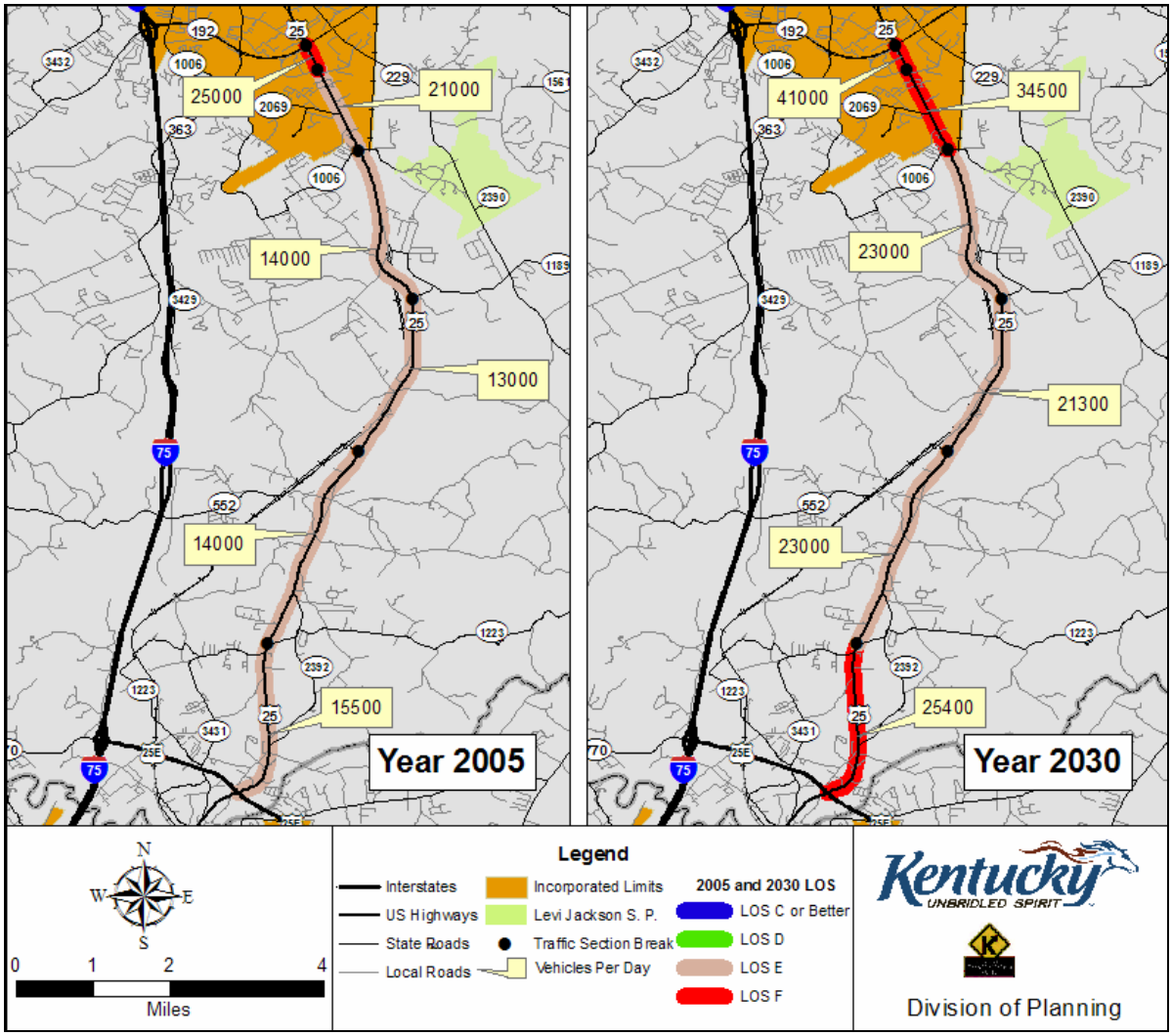
Level of Service (LOS) is a measure of the quality of traffic service provided by a specific highway facility. It ranges in scale from A to F, with A being the best and F being the worst. LOS C is considered stable flow and is acceptable in most situations. LOS in the study area is at an E for most of the study area in both the current and future year. LOS from the South Laurel High School entrance (MP 10.162) up to the London Bypass (KY 192 at MP 10.505) is operating at a LOS F in the current year (2005). LOS F generally represents gridlock during the peak hour of the day. Table 9 shows traffic and LOS for the US 25 study area.

Table 9: Traffic and Level of Service

From	To	2005 ADT	2005 LOS	2030 ADT	2030 LOS
US 25E	KY 1223	15500	E	25400	F
KY 1223	KY 552	14000	E	23000	E
KY 552	KY1189	13000	E	21300	E
KY 1189	KY 1006	14000	E	23000	E
KY 1006	S. Laurel HS	21000	E	34500	F
S. Laurel HS	KY 192	25000	F	41000	F

Figure 2 depicts traffic conditions in the current year (2005) and future year (2030).

Figure 2: 2005 and 2030 Traffic and Level of Service



Due to the current Level of Service (LOS) F (Shown in Figure 2) and crash history (shown in part D of this section) of the segment of US 25 between KY 1006 and KY 192, much of the study focused on this northern segment of the US 25 study area.

III. CABINET, PUBLIC, AND AGENCY INPUT

A. First Project Team Meeting

A scoping study project team meeting was conducted on September 7, 2005. The purpose of the meeting was to discuss the project and to assist in determining issues and concerns needed to be addressed by the study. A copy of the minutes is included in Appendix A. The project team developed a list of problems associated with the existing roadway. These included:

- Slower drivers impede traffic and other drivers take chances trying to pass them, creating a dangerous situation.
- There are a large number of trucks in the area. Major truck generators include AISIN, a waste management site, and many other businesses along US 25 and the surrounding area. AISIN supplies Toyota and most of their outgoing shipments probably go north.
- The intersection of US 25 and the bypass backs up and does not adequately handle the traffic.
- US 25 is the only alternative corridor for I-75 shutdowns between Corbin and London. Crashes frequently occur during inclement weather on I-75 at the Laurel Creek Bridge, forcing the interstate to close down and divert traffic onto US 25.
- Nine highway fatalities have occurred along the study area over the past five years. Many of these have involved trucks. Speed has also been a contributing factor in many of the crashes.

The team also discussed benefits to improving US 25 between Corbin and London. These included:

- If there is an incident on I-75, an improved corridor between Corbin and London is needed to handle the detoured traffic.
- Safety improvements especially near the schools are needed.
- Increased capacity could help relieve the congestion and delay along US 25.

After discussing problems throughout the study area and benefits to improving US 25, the team developed a preliminary list of goals and objectives a project in the area should accomplish. These goals and objectives include:

1) Increase Capacity,
2) Improve Safety, and
3) Provide a relief route for I-75.

B. Local Officials Meeting

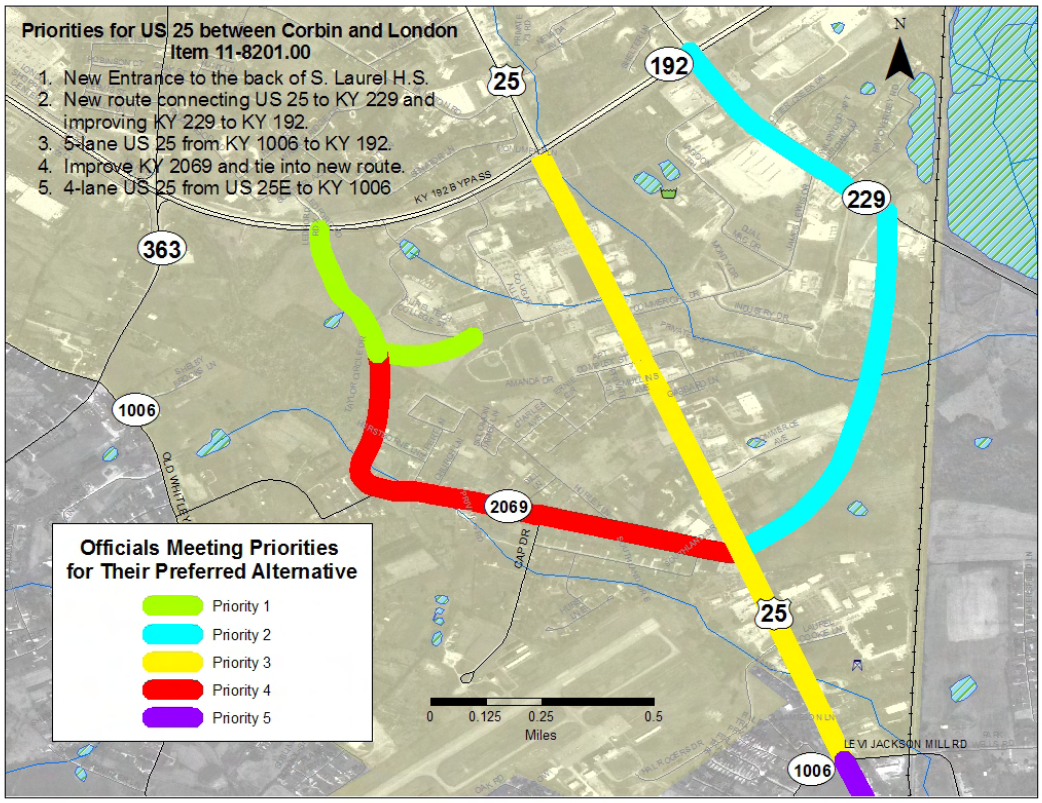
A local officials meeting was held November 30, 2005 at the Cumberland Valley Area Development District. Eighteen local officials and five KYTC associates were present for the meeting. A copy of the minutes is included in Appendix B.

Officials decided that a combination of expanding existing US 25, providing a back entrance into the school complex, a new eastern connection to KY 229, and a new connection from KY 2069 to KY 192 were all needed to handle the projected US 25 traffic.

The priorities for US 25 between Corbin and London as developed by the local officials are as follows (see Figure 3):

1. Back entrance to school complex connecting to KY 192.
2. Eastern connection from US 25 to KY 229 and improving existing KY 229 up to KY 192.
3. Five-lane US 25 from KY 2069 up to KY 192. Seven-lane US 25 (Two right turn lanes, four thru lanes, and a two-way-left-turning lane) from KY 1006 up to KY 2069.
4. Improve KY 2069 and connect into new route to the back of the school complex.
5. Improve the remainder of the US 25 study area (from US 25E up to KY 1006) to a four-lane rural highway.

Figure 3: Officials Meeting Top Priorities



C. Resource Agency Coordination

Since no further project development phases were funded at the time of this study, public meetings were not held during the course of the study. However, early agency coordination letters were sent out to various resource agencies, interested organizations, local officials, and internal Cabinet offices to obtain input and comments on the study area. The purpose of the letter was to obtain opinions and evaluate the potential impacts associated with this project. Copies of the request letter, mailing list, and the responses are included in Appendix D. Issues identified and concerns raised as a result of this process include:

- Aisin Automotive Casting, LLC
  Aisin representatives shared the following observations:
  - There are days when overweight trucks will avoid the scales on I-75 and this restricts the usefulness of the local highway as well as makes travel more dangerous;
  - There are occasional traffic problems on I-75 and vehicles take US 25 to bypass the problem. The potential for more crashes is realistic with continued growth; and
  - The schools from Hunter Hills to South Laurel High School need our protection and the continued growth of Aisin will further burden the present traffic flow.

  Options Aisin Automotive have recognized include a 5-lane highway including turn lane, 4-lane with traffic light(s) at both schools and/or the intersection of US 25 and KY 552, and a 3-lane highway including a full turn lane from Corbin to London.

- London-Corbin Airport Board
  The airport board suggested that a traffic light be installed at the intersection of US 25 and Hal Rogers Drive. Traffic exiting from the London-Corbin Airport is forced to wait for extended periods. This often leads to vehicles pulling to the center turning lane in an effort to get onto US 25. The airport board stated that this has caused some crashes and numerous near misses.

- London Downtown
  Concerns and inputs from London Downtown are as follows:
  - Consider 4-laning the entire section from London to Corbin with additional turn lanes and with additional acceleration lanes at the exits for the cookie factory, ACS, and South Laurel High School.
  - Traffic lights are necessary to control traffic and reduce the accident rate.
  - Main Street traffic, in downtown London, already has a large volume of vehicles. When I-75 is blocked between London and Corbin, additional traffic uses US 25 and adds to the already

heavy load. London Downtown recommends that a bypass be developed around London using the Hal Rogers Parkway and KY 192 to alleviate the traffic congestion on Main Street.
    - London Downtown recommends that the Kentucky Transportation Cabinet seek and plan additional roads to allow traffic access to and from South Laurel High School.

- Kentucky Cabinet for Health and Family Services; Department for Public Health
  The Department for Public Health does not find any specific issues or concerns regarding the development of this project.

- Kentucky Commerce Cabinet; Department of Fish & Wildlife Resources (KDFWR)
  The Kentucky Fish and Wildlife Information System indicates that no federally threatened or endangered (T&E) fish and wildlife are known to occur in the Lily and London 7.5 minute USGS quadrangles. The database is dynamic and only represents current knowledge of the various species distributions. The KDFWR recommends the following for the portions of the project that cross intermittent and perennial streams:
    - Development/excavation during a low flow period to minimize disturbance,
    - Preservation of tree canopy overhanging the stream,
    - Use of a comprehensive sediment control plan consisting of silt barriers, diversion ditches, and immediate seeding, and mulching of disturbed areas during and upon completion of the project,
    - Excavation of stream channel for placement of bridge piers should be kept at a minimum, and
    - The existing corridor should be used as the main crossing of streams during bridge construction, if possible, in order to minimize impacts to the aquatic resources.

- Kentucky Commerce Cabinet; Department of Parks
  The proposed highway will impact Levi Jackson State Park. The Park is located approximately one mile driving distance from US 25. The Cumberland Gap Trail is in the vicinity of US 25. The Parks Department and the Department of Transportation are coordinating a Transportation Enhancement (TE) Grant to improve part of the trail. The Department of Parks also has a recently reconstructed location sign next to US 25 near Fariston, Kentucky. The sign is constructed of mortared stone and would most likely be in the construction area of the proposed route. At this time, the Department of Parks cannot determine whether the project will impact the Levi Jackson State Park's grounds.

- Kentucky Education Cabinet
  The Education Cabinet had no comment other than to ensure that a notice was, and is routinely, sent to the affected local school district.
- Kentucky Environmental and Public Protection Cabinet; Division for Air Quality
  The Division for Air Quality stated that 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 the United States Code, and meet Kentucky Division for Air Quality Regulations 401 KAR 63:010 and 401 KAR 63:005. The Division also suggests an investigation into compliance with applicable regulations in the local governments.
- Kentucky Environmental and Public Protection Cabinet, Division of Conservation
  The Division of Conservation states 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. The Division of Conservation would like to see the issue of the loss of farmland addressed. They also would like erosion and sedimentation controlled once earth-disturbing activities have begun. Best management practices are recommended to be utilized to prevent nonpoint source water pollution.
- Kentucky Environmental and Public Protection Cabinet, Division of Forestry
  Potential impacts for proposed highway improvements are minimal along US 25 from US 25E to KY 192. The Division of Forestry observes that US 25 crosses Laurel River and Robinson Creek. Both of these water crossings have two-lane bridges that, if expanded, will need to address fill dirt and/or erosion issues that will directly affect water quality. In addition, the portion of highway improvements from the Laurel River crossing south to Fariston is low lying on the west side of US 25 and acts as a flood plain for Laurel River during heavy rainfall events. If fill dirt is used, erosion and water quality issues will need to be addressed. This highway project will have minimal impacts on timber, wildlife, and recreation.
- Kentucky Environmental and Public Protection Cabinet; Division of Mine Reclamation and Enforcement
  The mine permit #863-8005 is an active coal preparation plant located near Fariston. The plant and associated facilities do not entail coal removal activities. Review of records associated with the ‘mined-out’ coal beds does not indicate the presence of any abandoned or active underground mines within the area of interest.
- Kentucky Justice and Public Safety Cabinet, Department of Kentucky Vehicle Enforcement

The Department of Kentucky Vehicle Enforcement agrees with the desire to improve US 25, especially for closures of I-75 as well as attempting to lower crash and fatality rates. One issue they would like to see addressed is truck traffic utilizing a bypass route around the weigh station in Laurel County. If the trucking industry learns that a bypass route around the scales is accessible and in good condition, it creates an open invitation to "go around" the scales. Other than that issue, they see no great problems this would cause Kentucky Vehicle Enforcement.

- Kentucky Transportation Cabinet; Geotechnical Branch
  The Geotechnical Branch completed an office review of the project study area. A project in the study area will encounter quaternary alluvium consisting of sand, sandy silt, and clay, and is found mainly along the larger stream valleys. The Alluvium ranges from 0 to 10 feet in depth. Bedrock to be encountered is mainly sandstone, siltstone, shale, and coal of the Breathitt Formation and the Corbin Sandstone Member of the Lee Formation.

  The only commercial coal bed that is anticipated to be encountered is the Lily Coal Bed of the Breathitt Formation. The thickness ranges from 0 to 42 inches. The Lily Coal Bed has been strip mined and underground mined.

  Geotechnical Concerns Include:
  - Underground mines may be encountered in the Lily Coal Bed on the East side of the Laurel River in the vicinity of Lily. The approximate thickness of the mined coal bed is 36 inches. Any mine openings encountered in cuts will require back-stowing of the mine openings to support the above cut slopes. Extra right-of-way may be required. Mines encountered below grade may require over excavating the grade and back-filling with select granular embankment or back-stowing.
  - Sandstone for use in rock roadbed may be in short supply from roadway excavation if encountered in the Breathitt Formation.
  - Sandstone from the Corbin Sandstone may be in abundant supply when the formation is encountered in excavations, but the quality of the material may not meet the specifications for rock roadbed. The sandstone is generally poorly cemented and friable.
  - Spread footings should be suitable for the structures as deep overburdens are not anticipated.

- Kentucky Transportation Cabinet; Permits Branch
  The permits branch offered the following comments:
  - Classify this project as a partially controlled access facility.
  - Access points should be set on the plans in accordance with 603 KAR 5:120.

- New deeds for all adjoining property owners need to be executed to identify the access control.
- Design speed should be the same as anticipated posted speed.
- Access control fence should be installed with the project.
- Notify the permits branch if this roadway is to be placed on the National Highway System.

- Scenic Kentucky

  Scenic Kentucky believes that improvements to US 25 between London and Middlesboro have the potential to make the area one of the premier scenic sites in the state and the Southeast. The drive slowly invites motorist to savor the natural beauty of the mountains. This rare experience can become a memorable one if the following suggested elements are incorporated in the redesigned roadway.
  - Entry points outside each city should be clearly evident by creating stunning stands of native hardwood trees and vegetation at the entrances,
  - Interpretive pull-off areas are readily available,
  - Uniform fences reflecting the rural history of the surrounding landscape are required,
  - Rusticated guardrails or steel backed timber guardrails are used throughout the roadway,
  - Billboards are not allowed along the scenic highway. Billboards currently in place, e.g. Barbourville are phased out or removed, and
  - An environmentally sensitive designed bikeway will attract increased visitors to the area.

  In summary, a parkway design that completely focuses on the area's natural beauty will serve as a magnet for the traveling public. The KYTC's leadership in context sensitive design related to parkways will provide a rare opportunity to make a statement that will be a lasting legacy for our citizens.

- University of Kentucky; Kentucky Geological Survey

  Comments include:
  - Physiographic Region: The study area is in the Eastern Kentucky Coal Field physiographic region, which is underlain by sandstone, siltstone, shale, coal, underclay, sand, silt, and clay.
  - Karst Potential: A project in the study area should not encounter any karst features such as sinkholes or caves.
  - Landslide Potential: A project in the study area probably will encounter pre- or post-landslide hazards.
  - Unconsolidated Sediments: A project in the study area will encounter unconsolidated sediments at or near stream drainage, such as sand, silt, and clay.
  - Resource Conflicts: A project in the study area should not encounter any resource conflicts such as prior ownership of oil and gas wells or coal property for mining.

- Materials Suitability: A project in the study area will not encounter any material suitable for construction stone.
- Fault Potential: A project in the study area should not encounter faults.
- Earthquake Ground Motions: A project in the study area has probable peak ground acceleration (PGA) due to earthquake ground motion of 0.09g. There would be a low potential for liquefication or slope failure in the strata within this structure and with unconsolidated sediments at or near streams caused by earthquake bedrock ground motion.

- U.S. Department of Agriculture; Natural Resources Conservation Service (NRCS)
  NRCS is concerned with potential impacts that the proposed highway project might have upon prime farmland soils and additional farmlands of statewide importance.

- U.S. Department of Homeland Security; United States Coast Guard
  Pursuant to the Coast Guard Authorization Act of 1982, it has been determined there is not a waterway in the US 25 study area over which the Coast Guard exercises jurisdiction for bridge administration purposes. A Coast Guard bridge permit is not required.

- U.S. Department of the Army; Nashville District, Corps of Engineers
  Based on a review of the proposed study area on the Corbin and Lily U.S. Geological Survey Quadrangle maps, the highway improvements would likely involve stream construction activities in or over Horse Creek and tributaries, Robinson Creek and tributaries, Laurel River, Little Laurel River, Whitley Branch and tributaries, and several other unnamed steams in the London vicinity. The Laurel River is considered a Navigable Water of the United States (NWUS) up to the head of slack waters of Dorothea Lake (just southeast of the Cumberland Memorial Gardens Cemetery). They strongly encourage avoidance of impacts to the Laurel River. If a bridge is necessary, it must be adequately designed so as not to interfere with navigation.

  A cursory desk review by the Corps did not reveal the presence of jurisdictional wetlands. However, they suggest additional surveys to determine if federally regulated wetlands exist and the extent of potential impacts. Any wetlands found adjacent, bordering, or contiguous to streams are also considered Wetlands of the United States (WUS) and thus fall under the Corps' jurisdiction. Please note that the Corps' permit review includes application of the Section 404(b)(1) Guidelines.

IV. ENVIRONMENTAL AND SOCIOECONOMIC OVERVIEW

A. Environmental Overview

The Division of Planning developed an environmental overview to identify issues that may require particular consideration in subsequent project development phases. This environmental overview identifies the following US 25 project issues likely to require consideration during any US 25 roadway improvements. (See Figure 4: Environmental Footprint).

Culturally Sensitive Locations

- Two cemeteries
- Numerous churches
- Eight Schools
- Numerous businesses of varying size
- Levi Jackson State Park

Historical Overview

At this time there are no known concerns regarding properties listed on or eligible for the National Register of Historic Places; however, the project area will need to be surveyed and if historic structures are identified, a baseline study will need to be developed. Although this is not the original alignment of US 25, the potential exists for the presence of structures older than fifty years, especially in the vicinity of Fariston and Lily. There is also a drive-in theater north of Lily that, depending on its condition, may be potentially eligible for the National Register. A search of the GIS database revealed one previously surveyed site near Levi Jackson State Park. However, no recommendations can be made without further investigation.

Archaeological Overview

No known significant archaeological sites are located within the US 25 project area's corridor. Very little archaeological work has been conducted within the corridor, and few archaeological sites have been recorded in the vicinity. Most surveys were the result of industrial parks or residential development. No significant sites were identified.

A number of significant sites are located within two kilometers of the corridor. These include a Woodland Mound complex adjacent to Laurel River and the McNitt Party Massacre (1786) site and segments of the Wilderness Road, both located in The Levi Jackson State Park.

Historic archaeological sites may be present within the corridor. Archival research and a historic structures survey would be beneficial in identifying significant historic resources early in project development.

Prehistoric archaeological sites may also be present within the corridor. If present, significant sites would likely be located in alluvial areas adjacent to Laurel River, Horse Creek, and Robinson Creek. There are no known areas that contain sink holes, springs, or rock shelters.

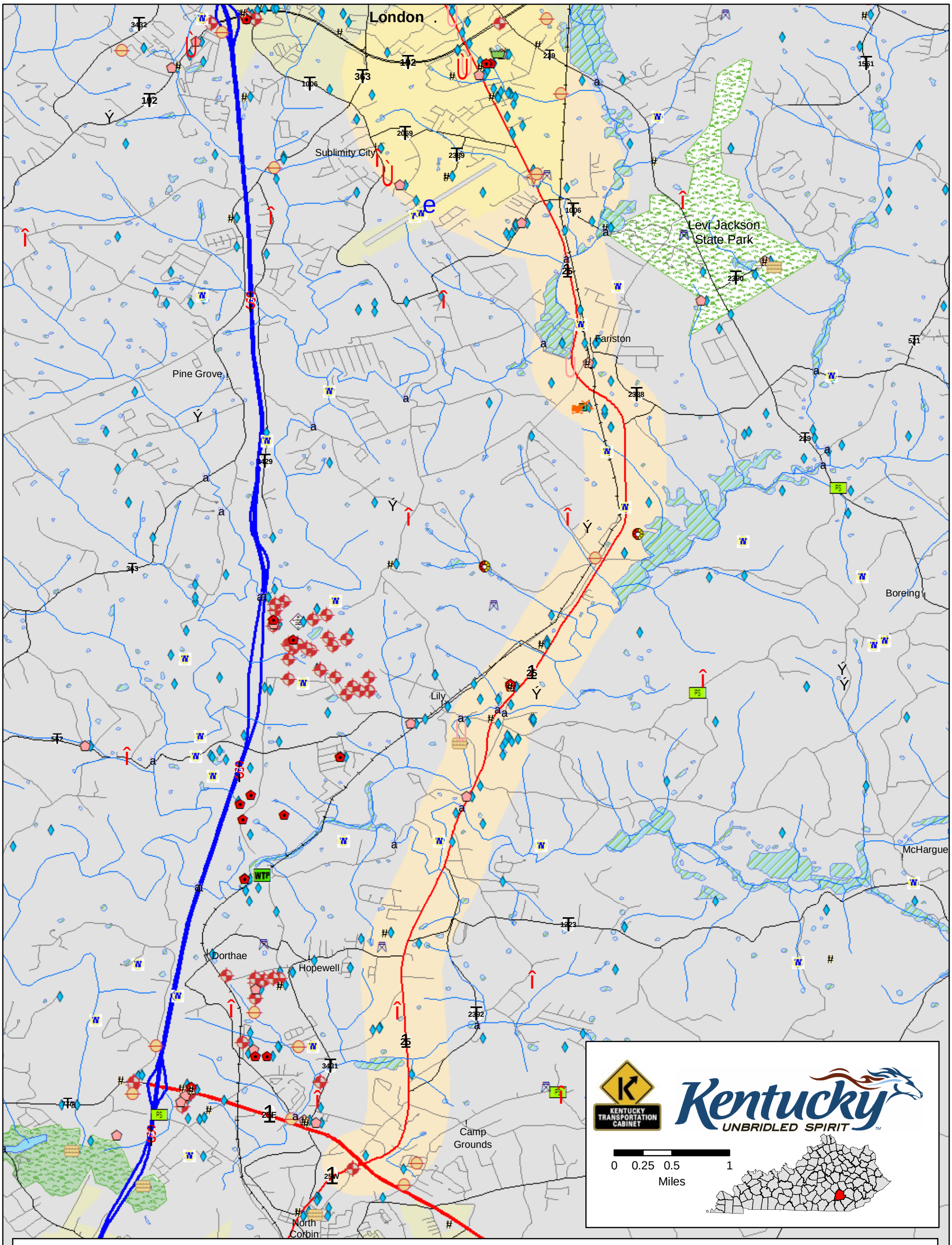


Figure 4: Environmental Footprint
US 25 Corbin to London; Item: 11-8201

Study Area	City	Cemetery	SuperFund Site	Water Treatment Plant	KPDES Outfall
Incorporated Area	Populated Place	Church	Coal Mine	Sewer Treatment Plant	KPDES Facility
Interstate	Non Public School	NREPC Facility	DSMRE Silt	Package Treatment Plant	Land Stewardship
US Highway	Public School	UST	GW Monitoring Well	Water Meter	DBNF Boundary
State Road	Bridge	Landfill	GW Well	Pump Station	Lake
Local Road	Airport	Old Landfill	Lift Station	Water Purchase Source	Wetland
Stream	Water Tank	Old Tire Dump			

In summary there are no known significant sites. Little work has been done in the area, but there is a potential for significant sites. At this stage no recommendations can be made for avoidance or alignment selection.

Aquatic Resources, Wetlands, and Ponds

- The Division of Forestry observes that US 25 crosses Laurel River and Robinson Creek. Both of these water crossings have two-lane bridges that, if expanded, will need to address fill dirt and/or erosion issues that will directly affect water quality. In addition, the portion of highway improvements from the Laurel River crossing south to Fariston is low lying on the west side of US 25 and acts as a flood plain for Laurel River during heavy rainfall events. If fill dirt is used, erosion and water quality issues will need to be addressed.
- Proposed highway improvements would likely involve stream construction activities in or over Horse Creek and tributaries, Robinson Creek and tributaries, Laurel River, Little Laurel River, Whitley Branch and tributaries, and several other unnamed steams in the London vicinity. The Laurel River is considered by the U.S. Army Corps of Engineers to be a Navigable Water of the United States (NWUS) up to the head of slack waters of Dorothea Lake (just southeast of the Cumberland Memorial Gardens Cemetery). The Corp strongly encourages avoidance of impacts to the Laurel River.
- Numerous wetlands are located in and around the study area and can be seen in Figure 4: Environmental Footprint.
- The Corps of Engineer's Review of the project area did not reveal the presence of federal jurisdictional wetlands. However, the Corps suggested additional surveys to determine if federally regulated wetlands do exist and the extent of potential impacts. Any wetlands found adjacent, bordering, or contiguous to streams are also considered Wetlands of the United States (WUS) and fall under the Corps' jurisdiction.
- No nationally or state listed wild and scenic rivers are located within the study area.

Threatened and Endangered Species

The Kentucky Fish and Wildlife's Information System indicates that no federally threatened or endangered (T&E) fish and wildlife are known to occur in the Lily and London 7.5 minute USGS quadrangles which includes the project area.

Managed Land Areas

The proposed highway may impact Levi Jackson State Park. The Park is located approximately one mile from US 25. The Cumberland Gap Trail is also in the vicinity of US 25. The Parks Department and the

Department of Transportation are coordinating a Transportation Enhancement (TE) Grant to improve part of the trail.

Farmlands

The Division of Conservation states that 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.

Air Quality

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 the United States Code, and meet Kentucky Division for Air Quality Regulations 401 KAR 63:010 and 401 KAR 63:005. The project is not expected to adversely impact air quality in the region.

Traffic Noise

The study area is mixed, mostly rural in nature, with more urbanized areas at each end. Several schools, churches, and cemeteries are located within the study area. Development in many places along the roadway is dense. If US 25 improvements are implemented, traffic noise may be an issue depending on the alternative chosen, but a need to maintain road access may render noise barriers ineffective.

Other Concerns

This highway project will have minimal impacts on timber, wildlife, and recreation.

Review of records associated with the 'mined-out' coal beds does not indicate the presence of any abandoned or active underground mines within the area of interest.

The only commercial coal bed that is anticipated to be encountered is the Lily Coal Bed of the Breathitt Formation. The thickness ranges from 0 to 42 inches. The Lily Coal Bed has been strip mined and underground mined.

Eleven known underground storage tanks (USTs) are located directly in the study area. Numerous other USTs are located just outside the study area. These USTs can be seen in the Figure 4: Environmental Footprint.

Geology

The Geotechnical Branch of the Kentucky Transportation Cabinet completed an office review of the project study area. They determined that the study area will encounter Quaternary Alluvium consisting of sand, sandy silt, and clay, and is found mainly along the larger stream valleys. The alluvium ranges from 0 to 10 feet in depth. Bedrock to be encountered is mainly sandstone, siltstone, shale and coal of the

Breathitt Formation and the Corbin Sandstone Member of the Lee Formation. Geotechnical Concerns Include:

- Underground mines may be encountered in the Lily Coal Bed on the east side of the Laurel River in the vicinity of Lily. The approximate thickness of the mined coal bed is 36 inches. Any mine openings encountered in cuts will require back-stowing of the mine openings to support the above cut slopes. Extra right-of-way may be required. Mines encountered below grade may require over excavating the grade and back-filling with select granular embankment or back-stowing.
- Sandstone for use in rock roadbed may be in short supply from roadway excavation if encountered in the Breathitt Formation.
- Sandstone from the Corbin Sandstone may be in abundant supply when the formation is encountered in excavations, but the quality of the material may not meet the specifications for rock roadbed. The sandstone is generally poorly cemented and friable.
- Spread footings should be suitable for the structures as deep overburdens are not anticipated.

In addition to the Geotechnical Branch's review of the study area, the Kentucky Geological Survey at the University of Kentucky also reviewed the project area. They made the following comments:

- Physiographic Region: The study area is in the Eastern Kentucky Coal Field physiographic region, which is underlain by sandstone, siltstone, shale, coal, underclay, sand, silt, and clay.
- Karst Potential: A project in the study area should not encounter any karst features such as sinkholes or caves.
- Landslide Potential: A project in the study area probably will encounter pre- or post-landslide hazards.
- Unconsolidated Sediments: A project in the study area will encounter unconsolidated sediments at or near stream drainage, such as sand, silt, and clay.
- Resource Conflicts: A project in the study area should not encounter any resource conflicts such as prior ownership of oil and gas wells or coal property for mining.
- Materials Suitability: A project in the study area will not encounter any material suitable for construction stone.
- Fault Potential: A project in the study area should not encounter faults.
- Earthquake Ground Motions: A project in the study area has probable peak ground acceleration (PGA) due to earthquake ground motion of 0.09g. There would be a low potential for liquefication or slope failure in the strata within this structure and with unconsolidated sediments at or near streams caused by earthquake bedrock ground motion.

B. Environmental Justice

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

Following a comprehensive review of demographic data from the U.S. Census Bureau, discussions with local officials regarding community features, and field observations, the CVADD staff has concluded that a defined Environmental Justice community does not exist within the study area.

Analysis of racial composition data resulted in one census block being identified in and around the study area that contained a percentage of minorities exceeding national and/or state averages. Following a comprehensive review of census block data and discussions with local officials, the minority concentration within the immediate study area would not be negatively impacted. The percentages of persons in the study area below the poverty level are quite high; however, discussions with local officials and a field review led to the conclusion that no concentration of individuals below the poverty level will be disproportionately affected by this project. Community leaders have expressed support for the proposed project and anticipated that it will provide an economic benefit by improving access and reducing congestion. Age analysis indicates that the distribution of elderly residents in the study area slightly exceeds the national and state averages, but no specific concentrations of elderly residents were discovered during the compilation of this report.

CVADD staff will continue to monitor the progress of this project and reevaluate the Environmental Justice Review to document any demographic and/or socioeconomic changes that may occur in and around the study area throughout the development of the project. Table 10 shows the results of CVADD's Environmental Justice Review. Detailed maps can be found in Appendix F.

Table 10: Census Data

Census Unit		% Minority Persons	% Low Income	% Elderly Persons
Tract	Block			
9705	3	4.2%	36.6%	21.5%
9706	3	4.6%	20.4%	18.9%
	4	4.4%	11.3%	16.3%
9707	1	4.6%	14.0%	9.5%
	2	2.7%	16.0%	17.7%
	3	2.9%	19.1%	14.1%
9710	1	1.4%	29.7%	10.7%
	2	2.4%	20.8%	24.1%
	3	2.4%	20.5%	13.2%
	4	0.8%	33.8%	14.3%
	5	0.9%	17.7%	12.5%
Kentucky		10.0%	15.8%	12.0%
United States		25.0%	12.4%	12.0%

V. PROJECT GOALS

As articulated by the Project Team, three goals were envisioned to be achieved by the completion of this project:

- Address highway capacity and growth needs in Laurel County,
- Improve safety by providing an improved route that complies with current design standards, and
- Provide an alternative route during incidents or closures on I-75.

In terms of meeting federal (FHWA, CEQ) and KYTC guidance for development of a purpose and need statement for subsequent project development phases, these three draft project goals reflect, respectively, the factors of capacity, safety/roadway deficiencies, and system linkage.

VI. ALTERNATIVES

Due to crash history and poor level of service (as discussed in Section II parts D and E) of the northern segment in the study area (US 25 from KY 1006 to KY 192) and the expected high price of right of way in this area, several alternatives were considered. For the remainder of the study area (US 25E to KY 1006), local officials and the project team agreed that the most feasible and beneficial alternative would be widening US 25 to a 4-lane rural highway.

In determining the recommended improvements to US 25 from KY 1006 to KY 192, the project team evaluated a no build alternative and five build alternatives before making a final recommendation. The build alternatives included:

1. Widen existing US 25,
2. Improve existing KY 2069, build new route from KY 2069 to KY 192, and build back entrance into the school complex,
3. Construct a new eastern route connecting US 25 to KY 229, and improve KY 229 up to KY 192,

4. Alternatives 2 and 3 combined, and
5. Turn US 25, from KY 2069 to KY 192, into one-way couplet system with 3-lanes in each direction.

Each alternative was evaluated by traffic modelers at the Kentucky Transportation Cabinet. Traffic modelers looked at two different models, the Kentucky Statewide Model with a base year of 2003 and the London Small Urban Area Model with a base year of 1995. It was determined that the London model yielded better results in the urban area. The London Model was used and synthesized (parameters such as travel time were adjusted) to run each alternative. The future year for the London model was 2020 and synthesized up to 2030.

These model runs considered effects that improving routes in the area may have. The roadways in and around this area were evaluated with the model to see the effect that particular improvements would be expected to have. The results of the model runs for each alternative are shown in the following sections.

A. No Build

The first model run considered the no-build option.

A traffic model run of the existing roadway geometry in the year 2030, shows US 25 operating at a LOS F, or gridlock conditions if no improvements are made. The LOS of each segment of roadway in the area can be seen in Table 11. This alternative shows a very poor roadway performance in the year 2030 if roadway improvements are not implemented.

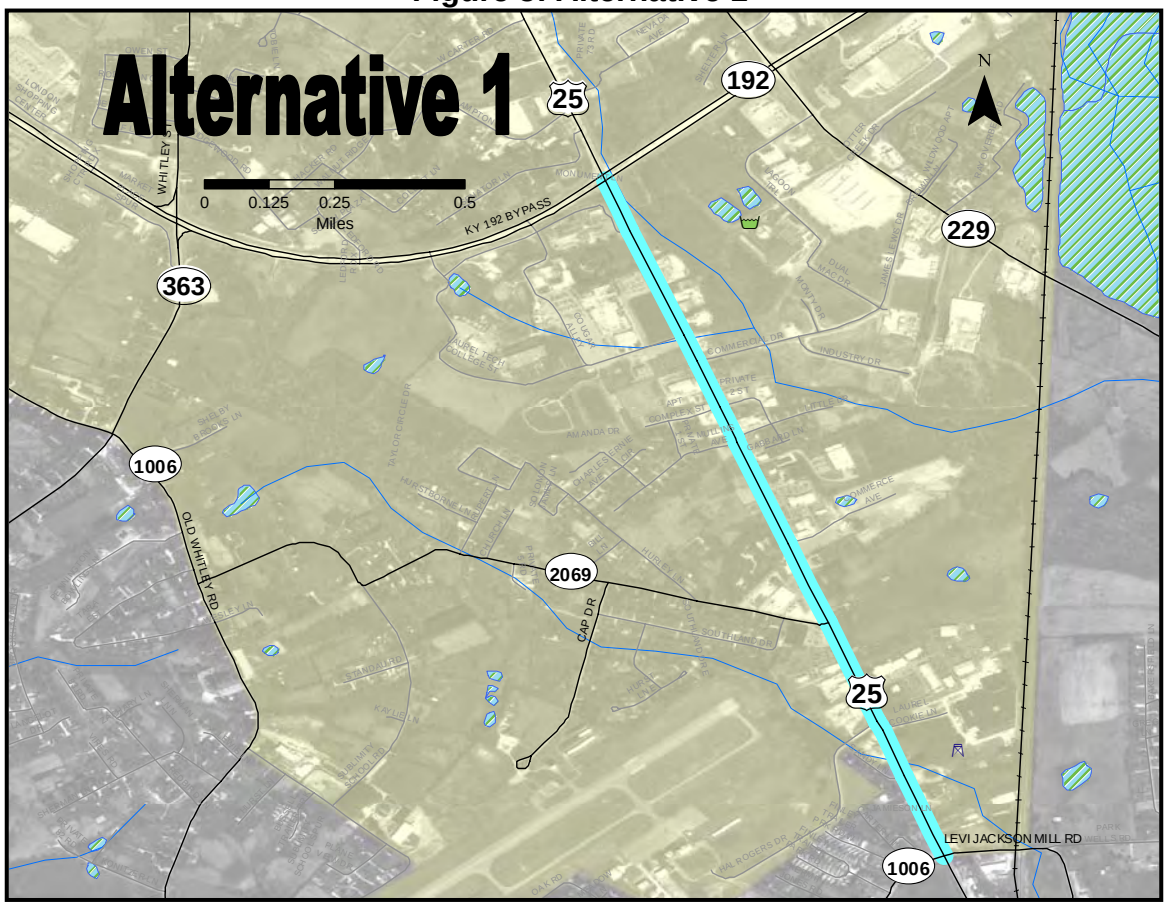
Table 11: No Build Scenario Synthesized Model Output

Route	From	To	No-Build 2030 ADT	No Build 2030 LOS
US 25	KY 192	School	41000	F
US 25	School	KY 2069	34500	F
US 25	KY 2069	KY 1006	34500	F
KY 2069	US 25	New Northern Route	4920	C
KY 2069	New Northern Route	KY 1006	4920	C
KY 229	New Eastern Route	James Lewis Dr	17800	E
KY 229	James Lewis Dr	KY 192	17800	E

B. Alternative 1

Alternative 1 consists of widening US 25 (See highlighted portion of Figure 5).

Figure 5: Alternative 1



This alternative was evaluated first as a 5-lane urban section (2 northbound lanes, 2 southbound lanes, 1 two-way-left-turning-lane (twltl)) and then as a 7-lane urban section (3 northbound lanes, 3 southbound lanes, 1 twltl). The traffic model gave the following synthesized output for US 25 where Alt 1A represents the 5-laning of US 25 and Alt 1B represents the 7-laning of US 25:

Table 12: Alternative 1 Synthesized Model Output

Route	From	To	Alt 1A 2030 ADT	Alt 1A 2030 LOS	Alt 1B 2030 ADT	Alt 1B 2030 LOS
US 25	KY 192	School	45990	E	46600	C
US 25	School	KY 2069	41710	E	42090	C
US 25	KY 2069	KY 1006	42790	E	43180	C
KY 2069	US 25	New Northern Route	5900	C	5900	C
KY 2069	New Northern Route	KY 1006	5240	C	5240	C
KY 229	New Eastern Route	James Lewis Dr	14070	E	13980	E
KY 229	James Lewis Dr	KY 192	17800	E	17550	E

Widening US 25 to five lanes still gave a poor LOS. Widening US 25 to seven lanes did give an adequate LOS, but upon discussions with

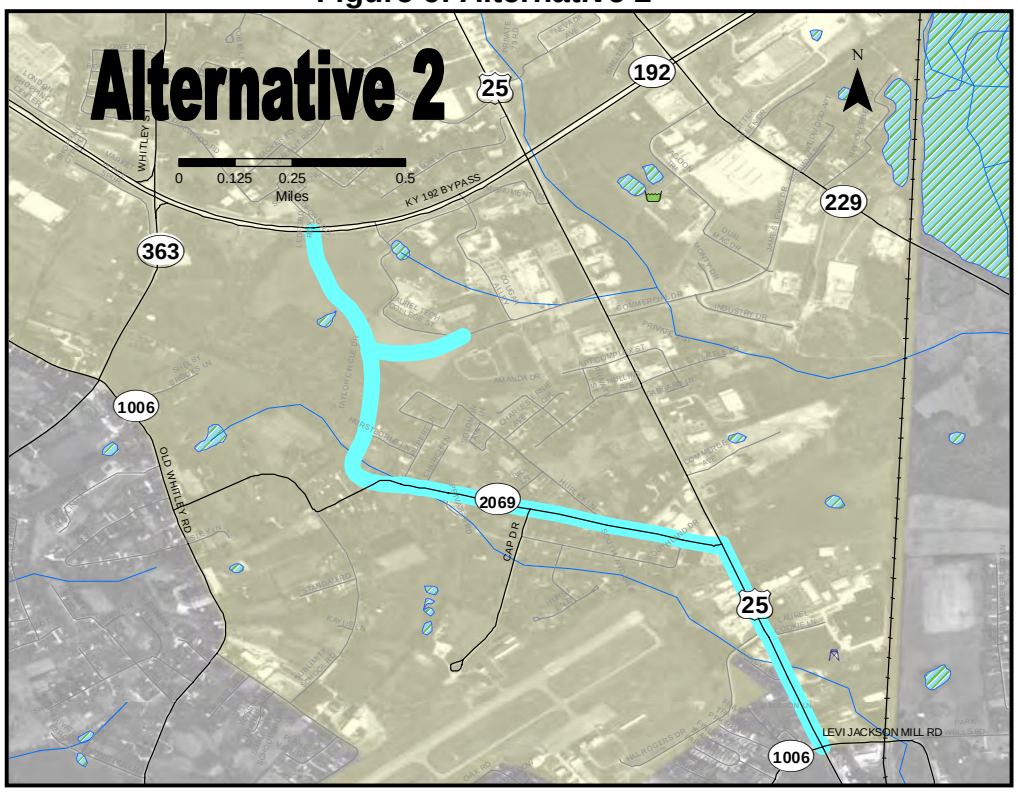
local officials and field visits, it was determined not feasible due to a high number of displacements and high cost of right-of-way.

C. Alternative 2

Alternative 2 possible improvements include (See highlighted portion of Figure 6):

- Improve existing KY 2069
- New highway from KY 2069 to KY 192
- New entrance to schools
- Widen US 25 from KY 1006 to KY 2069

Figure 6: Alternative 2



This alternative was evaluated four different ways, with each evaluation shown in Table 13.

- Alt 2A
  - Widen KY 2069 to 3 lanes,
  - New 3-Lane Section from KY 2069 to School,
  - New 5-Lane Section from School to KY 192,
  - New entrance to schools, and
  - Widen US 25 to 7-lanes from KY 1006 to KY 2069.
- Alt 2B
  - Widen KY 2069 to 5 lanes,
  - New 5-Lane Section from KY 2069 to KY 192,
  - New entrance to schools, and

    - Widen US 25 to 7-lanes from KY 1006 to KY 2069.
- Alt 2C
    - Widen KY 2069 to 3 lanes,
    - New 3-Lane Section from KY 2069 to School,
    - New 5-Lane Section from School to KY 192,
    - New entrance to schools,
    - Widen US 25 to 5-lanes from KY 2069 to KY 192, and
    - Widen US 25 to 7-lanes from KY 1006 to KY 2069.
- Alt 2D
    - Widen KY 2069 to 5-Lanes,
    - New 5-Lane Section From KY 2069 to KY 192,
    - Build new entrance to schools,
    - Widen US 25 to 5-lanes from KY 2069 to KY 192, and
    - Widen US 25 to 7-lanes from KY 1006 to KY 2069.

Table 13: Alternative 2 Synthesized Model Output

Route	From	To	Alt 2A 2030 ADT	Alt 2A 2030 LOS	Alt 2B 2030 ADT	Alt 2B 2030 LOS	Alt 2C 2030 ADT	Alt 2C 2030 LOS	Alt 2D 2030 ADT	Alt 2D 2030 LOS
US 25	KY 192	School	18760	E	18520	E	27470	C	29060	C
US 25	School	KY 2069	16200	E	15920	E	22740	C	25160	B
US 25	KY 2069	KY 1006	36700	E	36510	C	46460	C	25360	C
KY 2069	US 25	New Northern Route	25240	F	26150	C	26000	E	23940	C
KY 2069	New Northern Route	New School Entrance	26340	F	25930	C	23670	E	19960	C
KY 2069	New School Entrance	KY 192	32900	C	32890	C	26800	C	23660	C
KY 2069	New Northern Route	KY 1006	3320	B	3300	C	3800	C	4090	C
KY 229	New Eastern Route	James Lewis Dr	17340	E	17370	E	12470	E	12930	E
KY 229	James Lewis Dr	KY 192	19540	E	19670	E	16910	E	16520	E

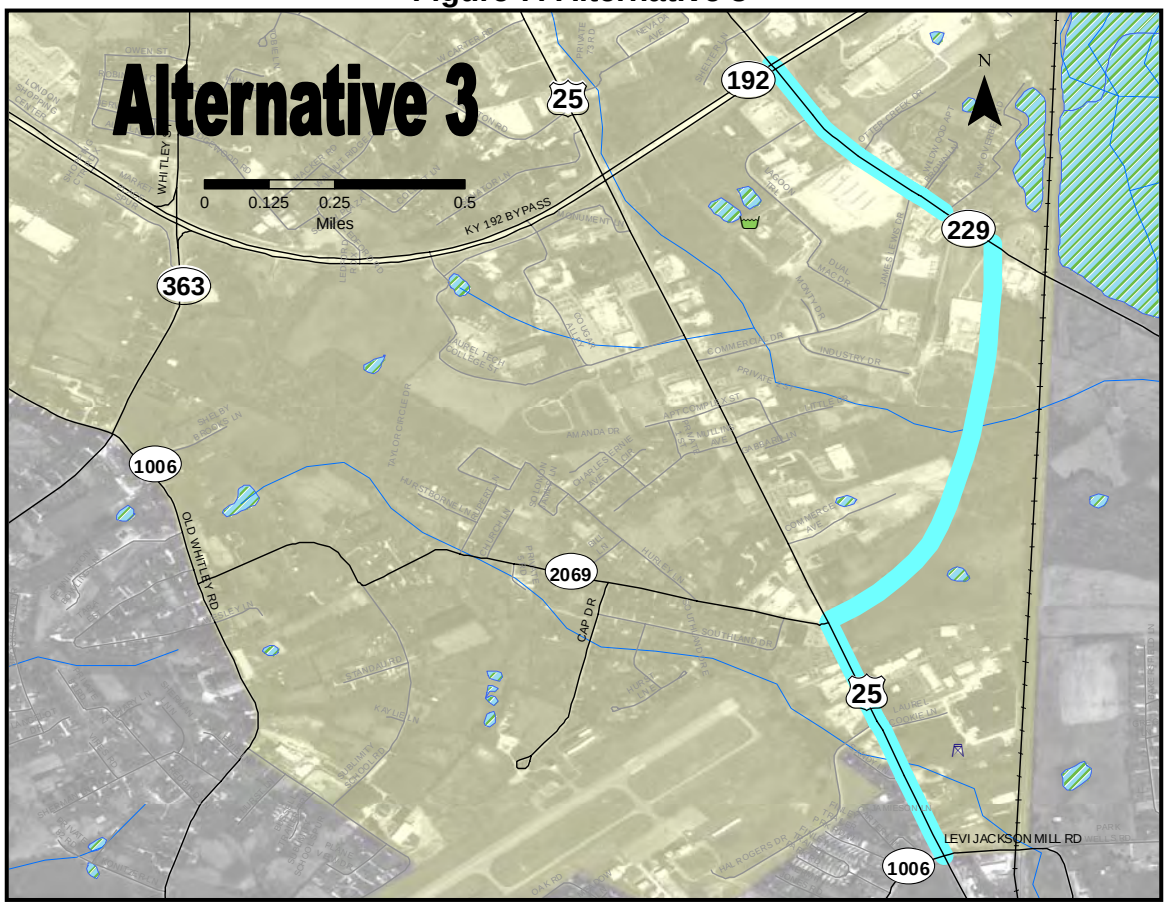
This alternative does make a significant impact to the congestion on US 25 after both KY 2069 and US 25 have been widened and KY 2069 tied in directly to KY 192. Widening of KY 2069 would require numerous relocations and would also change the residential characteristic of the roadway. Local officials stated that they expect residents in the area to be in favor of upgrading KY 2069 to a three-lane section, but residents would be against widening to five lanes. Officials also stated that their top priority was improving traffic conditions at the school complex, and were in favor of providing a back entrance to the school. Due to the large volume of traffic entering and leaving the school complex, a new back entrance should be included with any improvements to US 25 in the area.

D. Alternative 3

Alternative 3 possible improvements include (See highlighted portion of Figure 7):

- Widen US 25 from KY 1006 to KY 2069,
- New highway from US 25 to KY 229, and
- Widen KY 229 from New Route to KY 192.

Figure 7: Alternative 3



This alternative was evaluated two different ways, with both evaluations shown in Table 14.

- Alt 3A
  - Widen US 25 to 5-lanes from KY 1006 to KY 2069,
  - New 3-Lane Section from US 25 to KY 229, and
  - Widen KY 229 to 5-lanes from New Route to KY 192.
- Alt 3B
  - Widen US 25 to 5-lanes from KY 2069 to KY 192,
  - Widen US 25 to 7-lanes from KY 1006 to KY 2069,
  - New 3-Lane Section from US 25 to KY 229, and
  - Widen KY 229 to 5-lanes from New Route to KY 192.

Table 14: Alternative 3 Synthesized Model Output

Route	From	To	Alt 3A 2030 ADT	Alt 3A 2030 LOS	Alt 3B 2030 ADT	Alt 3B 2030 LOS
US 25	KY 192	School	32950	F	37110	D
US 25	School	KY 2069	28450	F	29530	C
US 25	KY 2069	KY 1006	35350	B	42050	C
KY 2069	US 25	New Northern Route	6100	C	6070	C
KY 2069	New Northern Route	KY 1006	5360	C	5290	C
KY 2069	US 25	KY 229	8700	D	10390	D
KY 229	New Eastern Route	James Lewis Dr	24330	C	24260	C
KY 229	James Lewis Dr	KY 192	28030	C	27270	C

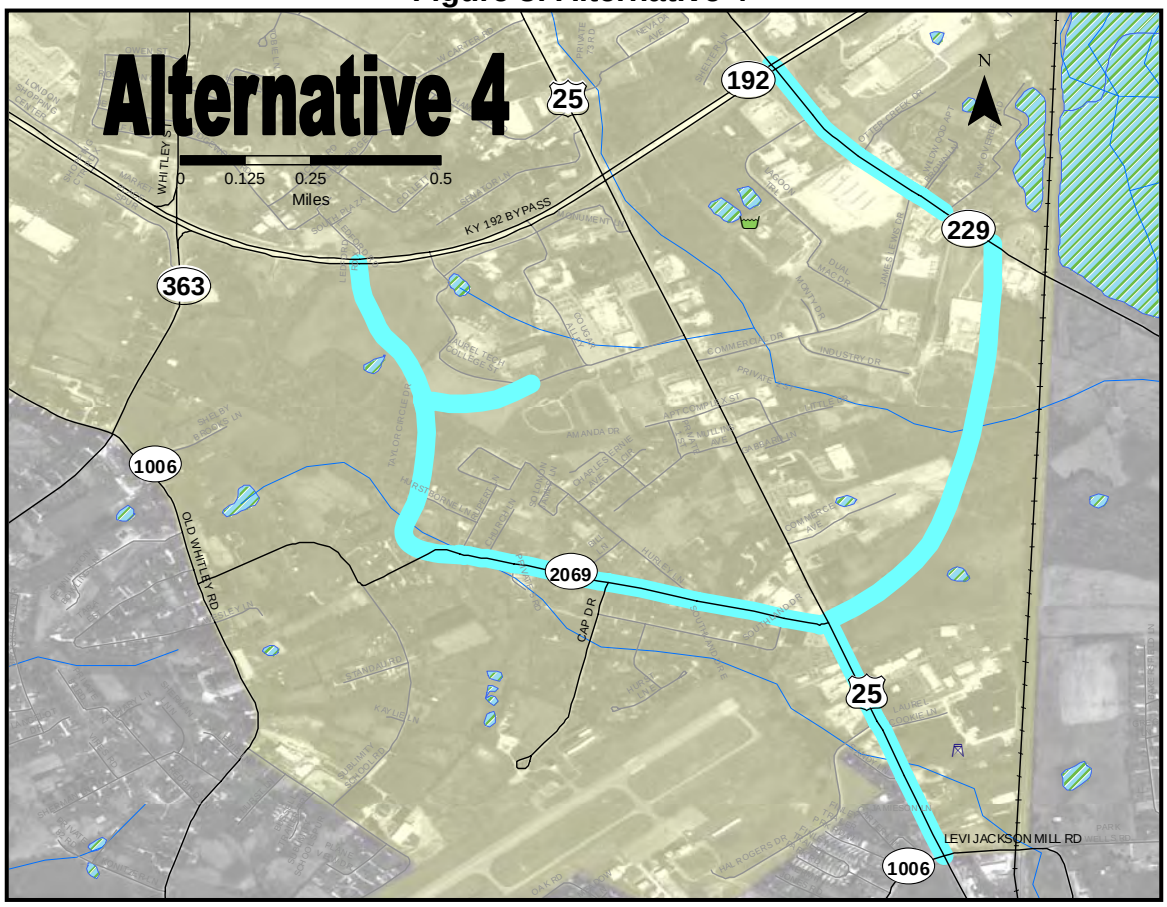
According to the model, Alternative 3 does significantly improve the traffic flow in the project area. Building a new easterly route that connects US 25 directly to KY 229 with a new three-lane route seems to be a very feasible and beneficial alternative. This new route is expected to require very few, if any, displacements. This alternative does not significantly improve the traffic situation at the school complex, but certainly should be considered.

E. Alternative 4

Alternative 4 possible improvements include (See highlighted portion of Figure 8):

- Widen KY 2069
- New highway from KY 2069 to KY 192
- New entrance to schools
- Widen US 25 from KY 1006 to KY 2069
- New highway extending KY 2069 northeasterly to KY 229
- Widen KY 229 from the new route to KY 192

Figure 8: Alternative 4



This alternative was evaluated four different ways, with each evaluation shown in Table 15.

- Alt 4A
  - Widen KY 2069 to 3 lanes,
  - New 3-lane section from KY 2069 to rear school entrance,
  - New 5-lane section from rear school entrance to KY 192,
  - New entrance to schools,
  - Widen US 25 to 7-lanes from KY 1006 to KY 2069,
  - New 3-lane section extending KY 2069 northeasterly to KY 229, and
  - Widen KY 229 to 5-lanes from new route to KY 192.
- Alt 4B
  - Widen KY 2069 to 5-lanes,
  - New 5-Lane section from KY 2069 to KY 192,
  - Build new entrance to schools,
  - Widen US 25 to 7-lanes from KY 1006 to KY 2069,
  - New 3-lane Section from US 25 to KY 229, and
  - Widen KY 229 to 5-lanes from new route to KY 192.
- Alt 4C
  - Widen US 25 to 5-lanes from KY 2069 to KY 192,

    - Widen US 25 to 7-lanes from KY 1006 to KY 2069,
    - Widen KY 2069 to 3-Lanes,
    - New 3-lane section from KY 2069 to rear school entrance,
    - New 5-lane section from rear school entrance to KY 192,
    - Build new entrance to schools,
    - New 3-lane section from US 25 to KY 229, and
    - Widen KY 229 to 5-lanes from new route to KY 192.
- Alt 4D
    - Widen US 25 to 5-lanes from KY 2069 to KY 192,
    - Widen US 25 to 7-lanes from KY 1006 to KY 2069,
    - Widen KY 2069 to 5-Lanes,
    - New 5-lane section from KY 2069 to KY 192,
    - Build new entrance to schools,
    - New 3-lane section from US 25 to KY 229, and
    - Widen KY 229 to 5-lanes from new route to KY 192.

Table 15: Alternative 4 Synthesized Model Output

Route	From	To	Alt 4A 2030 ADT	Alt 4A 2030 LOS	Alt 4B 2030 ADT	Alt 4B 2030 LOS	Alt 4C 2030 ADT	Alt 4C 2030 LOS	Alt 4D 2030 ADT	Alt 4D 2030 LOS
US 25	KY 192	School	19390	E	15040	E	23430	C	24920	C
US 25	School	KY 2069	12080	E	10910	E	16850	C	19410	B
US 25	KY 2069	KY 1006	35530	B	35090	B	44340	C	44350	C
KY 2069	US 25	New Northern Route	21990	E	22790	C	22970	E	21450	C
KY 2069	New Northern Route	New School Entrance	23160	E	23600	C	22750	E	19700	C
KY 2069	New School Entrance	KY 192	26950	C	27750	C	25650	C	23660	C
KY 2069	New Northern Route	KY 1006	3550	C	3770	B	4040	C	4180	B
KY 2069	US 25	KY 229	7040	D	7470	D	6730	D	6820	D
KY 229	New Eastern Route	James Lewis Dr	20820	B	21100	C	17810	B	17950	B
KY 229	James Lewis Dr	KY 192	22270	B	24740	C	21500	B	21620	B

Alternative 4 does significantly improve the traffic flow on US 25 between KY 1006 and KY 192. This alternative moves traffic off the main route to routes east and west. This alternative also greatly improves the traffic flow at the school complex by not only decreasing the congestion on US 25, but also providing a back entry into the schools. Alternative 4D requires widening existing KY 2069 to 5-lanes, which is undesirable due to the residential nature of the street. Alternative 4C is preferred since it only requires 3-laning KY 2069, but another alternative should be looked at to avoid using KY 2069 for development. Alternative 4C, modified to not include improving KY 2069, but still building a back connection from the school complex, is the preferred alternative.

F. Alternative 5

Alternative 5 improvements include (See highlighted portion of Figure 9):

- Turn US 25 into one-way couplet system from KY 2069 to just south of KY 192, with 3-lanes in each direction
- Widen US 25 to 7-lanes from KY 1006 to KY 2069

Figure 9: Alternative 5

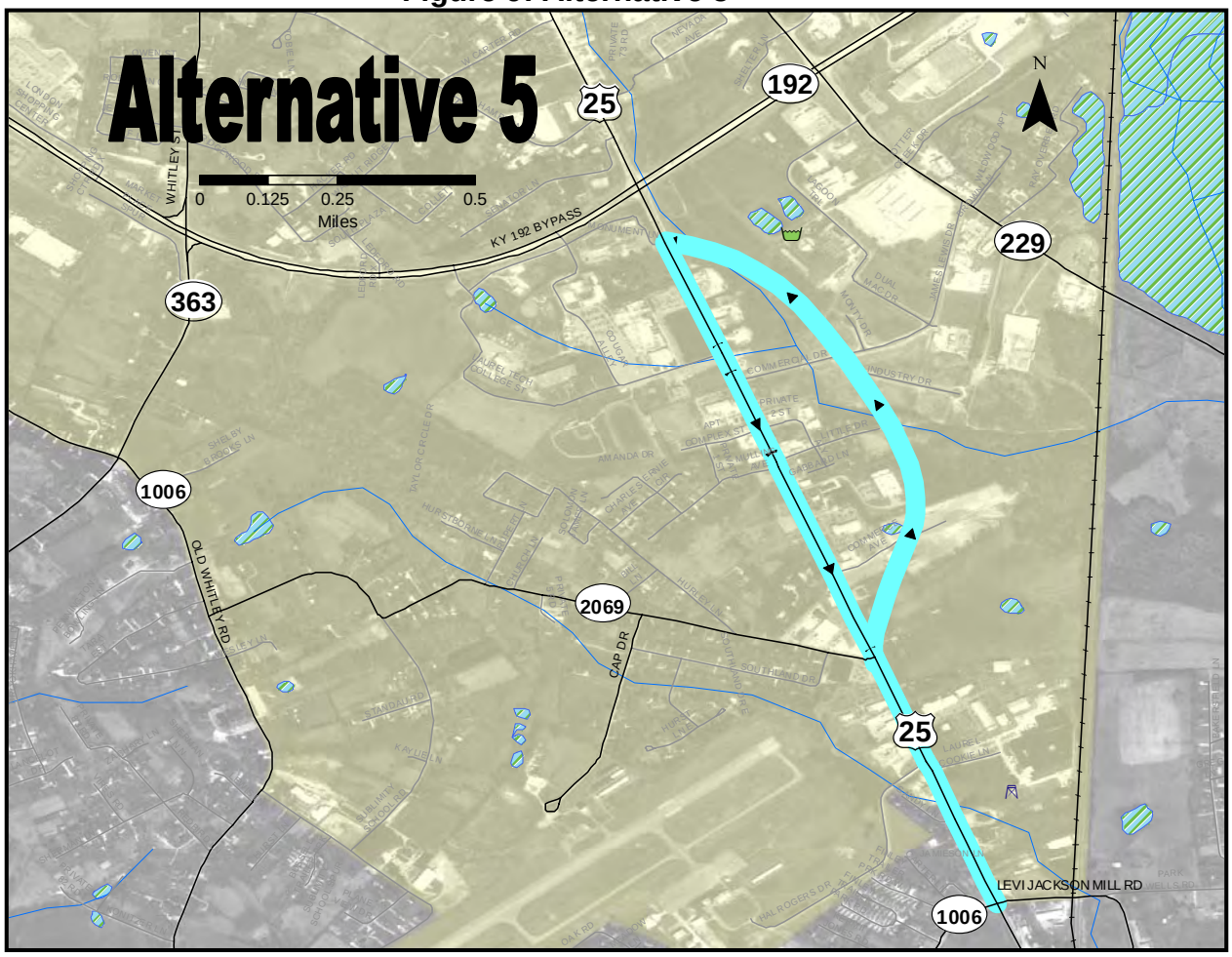


Table 16: Alternative 5 Synthesized Model Output

Route	From	To	Alt 5 2030 ADT	Alt 5 2030 LOS
US 25	KY 192	School	N-23630/S-22750	C
US 25	School	KY 2069	N-22080/S-19770	C
US 25	KY 2069	KY 1006	42760	C
KY 2069	US 25	New Northern Route	5850	C
KY 2069	New Northern Route	KY 1006	5170	C
KY 229	New Eastern Route	James Lewis Dr	14110	E
KY 229	James Lewis Dr	KY 192	17620	E

Alternative 5 does greatly improve the traffic flow along US 25, but was not desirable to local officials. The local officials present at the officials meeting did not want to separate the traffic, and they believe businesses in the area will be against Alternative 5. This alternative would also be highly complicated, expensive, and difficult to build due to the recent and planned future expansions of the sewage treatment plant just east of US 25.

VII. RECOMMENDATIONS

A. Project Team Recommendations

On December 15, 2005, the project team met for the final team meeting. A copy of the minutes is included in Appendix C. The team made the following observations:

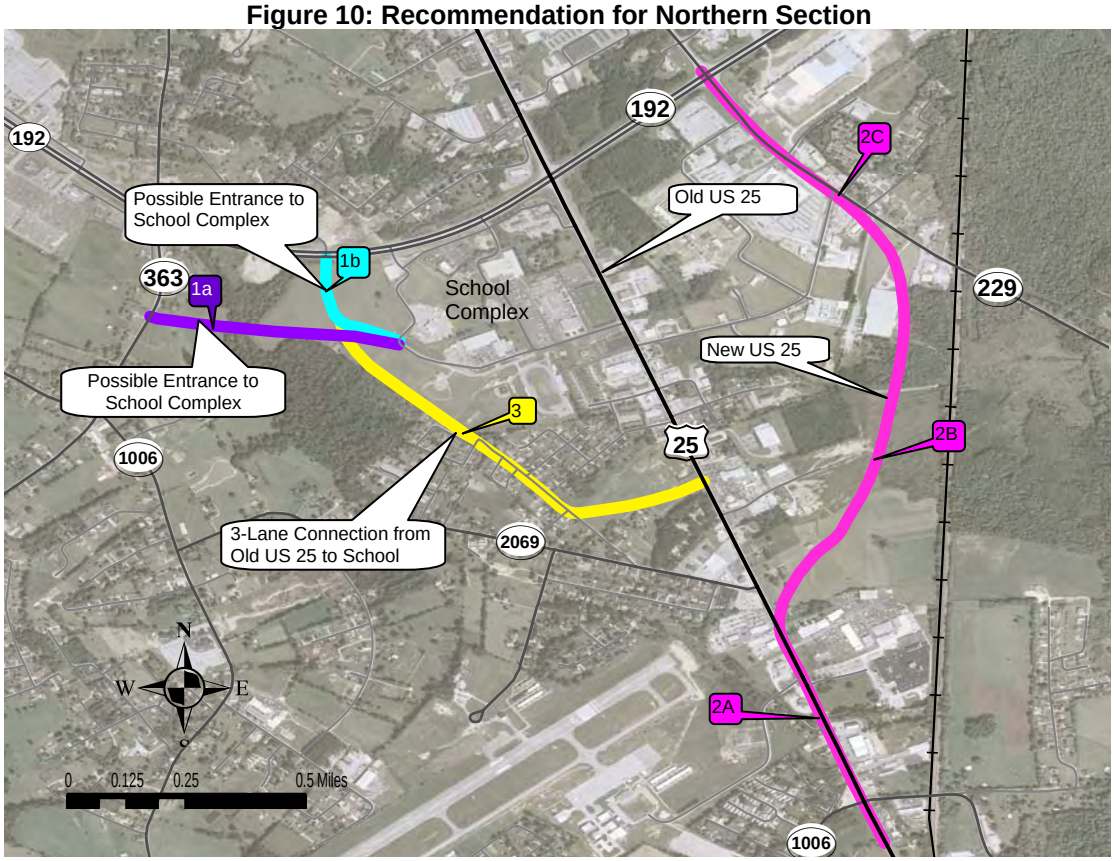
- The northern section of the project (KY 1006 to KY 192) is the most critical portion of the project.
- A 7-lane section from KY 1006 to KY 192 would be needed to handle the traffic, but is not feasible due to the current development in the area.
- The design year for this study will be 2030. The projected average daily vehicular traffic in 2030 ranges from 21,300 to 41,000 vehicles per day, with the highest volumes being between South Laurel High School and KY 192.

The team made the following recommendations:

- Coordination attempts should be made with the local city and county planners to develop an access management ordinance to maintain and improve access conditions on US 25, KY 192, KY 229, KY 2069, and KY 1006.
    - Develop an access management plan specifying medians, median opening location and design (both current and future), intersection design at full-median openings, current access points, future access points, and future access roads to be built along with future development.
    - Establish an advisory team made up of local roadway users, residents, and business owners to make access-related recommendations to the KYTC Design Team.
    - Develop a Memorandum of Understanding (MOU) between KYTC, the City of London, and Laurel County that will legally establish the access management plan as policy rather than simply guidance. The MOU will also establish procedure for review and decision making of access requests.
- The design speed should be 45 mph in the urban areas and 55 mph in rural areas.
- US 25 from US 25E to KY 1006 should be expanded to a 4-lane rural highway that meets current design standards.
- Bikeways/Pedways should be provided in urban areas and in the vicinity of the schools. Shoulders that meet current design standards can be used as bikeways for the rural sections of US 25.
- The functional classification of the highway should be a minor arterial throughout. The section of highway between KY 1006 and KY 192 would be classified as an urban minor arterial highway and the remainder classified as a rural minor arterial highway.

- For the northern section of the project (KY 1006 to KY 192), the recommendations and priorities from the officials meeting were generally agreed upon with a few minor changes (see Figure 3 for recommendations from the officials meeting). The following are the teams recommendations (see Figure 10 for clarification):
    1. Construct a back entrance to the school complex connecting the school to either the KY 192 Bypass or to KY 363 (Shown in Figure 10 as 1a and 1b). This connection needs to be determined after consultation with the schools and the public. At the time of the report, the schools have not responded to letters or phone calls requesting their input. Origin-Destination information provided by the schools is vital to providing sufficient access to the schools.
    2. Reconstruct/reroute US 25 from KY 1006 to KY 192
        a. Improve US 25 From KY 1006 to KY 2069:
            - Widen to 4 thru lanes
            - Add a non-traversable median with controlled left turns and U-turn capabilities (see Appendix H, Median Guidelines)
            - Add right turning lanes for both the North and Southbound lanes
        b. Reroute US 25 with a new route from KY 2069 to KY 229
            - New 4-lane access controlled highway
            - Rework US 25/KY 2069 to provide a “T” intersection
            - Realign KY 229 to create a “T” shaped intersection with the new US 25.
        c. Widen KY 229 from the new intersection with US 25 to KY 192
            - Improve to a four-lane access controlled highway.
    3. Provide a new connection between the school and old US 25 by using part of Hurley Lane (approximately 0.3 miles) and an undeveloped plot of land adjacent to US 25. (This alternative was not discussed at the officials meeting, but due to their concerns over expanding KY 2069 this was evaluated after the meeting. Using this connection will give access to the back entrance of the school complex from US 25 and cause much less of a negative impact than using KY 2069 to make this connection.)

Figure 10: Recommendation for Northern Section

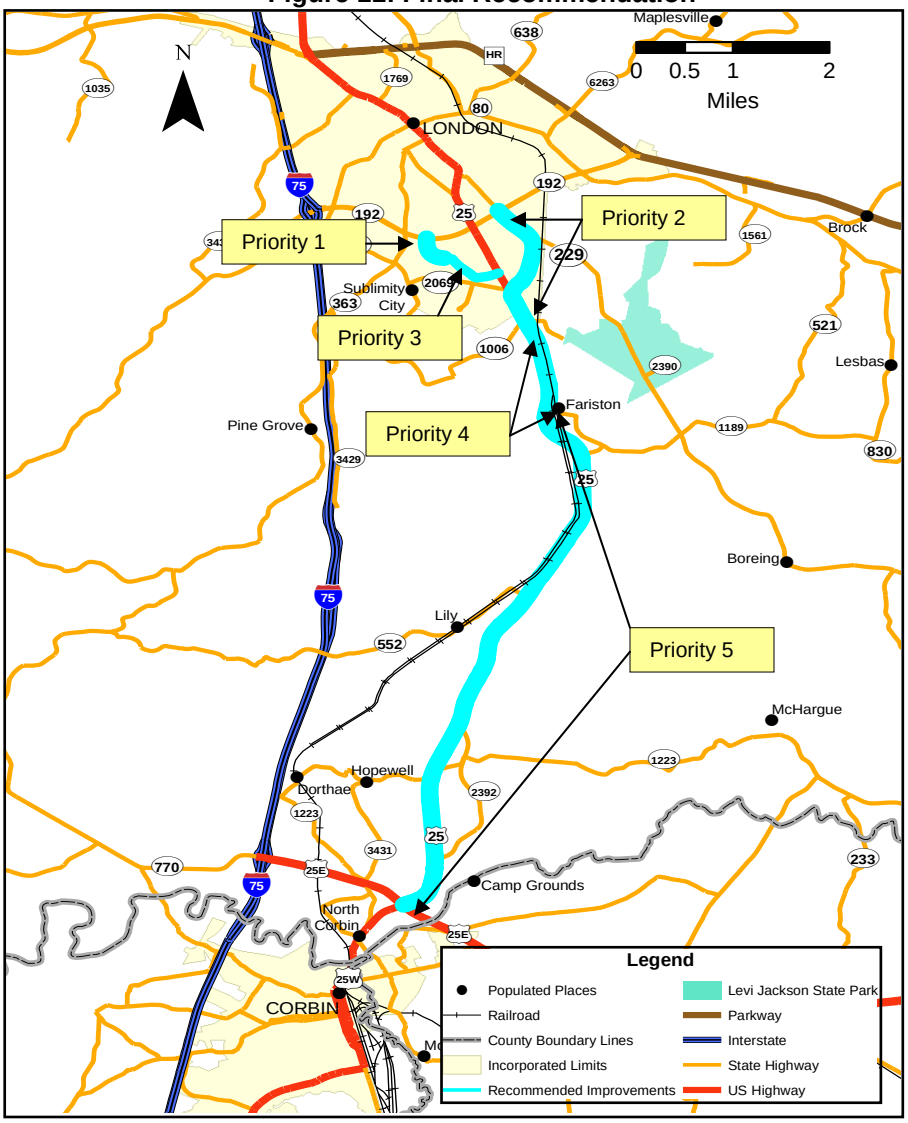


B. Priority Segments and Cost Estimates

It is recommended that the priorities for subsequent project development phases of this project be as follows:

1) Construct back entrance to the school complex connecting the school to KY 192 or KY 363.
2) Reconstruct/reroute US 25 from KY 1006 to KY 192 as shown in Figure 10.
3) Provide a new connection between the school and old US 25 by using part of Hurley Lane and an undeveloped plot of land adjacent to US 25.
4) Expand US 25 between KY 1189 and KY 1006 to a 4-lane rural highway.
5) Expand US 25 between US 25E and KY 1189 to a 4-lane rural highway.

Figure 11: Final Recommendation



C. Programming Estimates

For programming purposes, priority segments one and two are recommended to be grouped together and moved forward as one project at an estimated total cost of $10,000,000. After these improvements have been made, priority Segment Three should be reevaluated to determine if the priorities have changed. It should be determined at that time if priority Segment Three is still needed, and if the priorities are still the same.

Table 17: Programming Estimates

Cost Data by Priority Segment							
Priority Segment	**Length (miles)**	**Design**	**ROW**	**Utilities**	**Construction**	**Cost/ Mile**	**Total**
1	0.25	$500,000	$250,000	$100,000	$900,000	$7,000,000	$1,750,000
2	1.75	$2,325,000	$1,200,000	$475,000	$4,250,000	$4,714,286	$8,250,000
3	0.50	$1,000,000	$500,000	$200,000	$1,800,000	$7,000,000	$3,500,000
4	2.10	$1,500,000	$2,900,000	$1,000,000	$8,000,000	$6,380,952	$13,400,000
5	7.00	$4,000,000	$5,000,000	$3,000,000	$23,000,000	$5,000,000	$35,000,000
Total	11.60	$9,325,000	$9,850,000	$4,775,000	$37,950,000	$5,336,207	$61,900,000

Note: These cost estimates assume that priority one will connect the school complex to KY 192. If it is decided that the school should connect to KY 363 instead of KY 192, $2 million should be added to the total cost of priority one in order to account for increased project length, utility expenses, and improvements to KY 363.

VIII. CONTACTS

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

- Daryl Greer, Director, Division of Planning
- Steve Ross, Transportation Engineer Branch Manager, Strategic Planning Activity Center, Division of Planning
- Jim Wilson, Team Leader, Strategic Planning Activity Center, Division of Planning
- Joe Tucker, US 25 Corbin to London Scoping Study Project Manager, Strategic Planning Activity Center, Division of Planning

The following address and phone number may be used:

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

Appendices

Appendix A
Project Team Meeting Minutes

Minutes
Scoping Study – First Project Team Meeting
Laurel County US 25, Item No. 11-8201.00

Meeting Location: **Corbin City Hall**
Meeting Date: **September 7, 2005**

1) Introduction

The meeting began at 10:00 a.m. local time. Handouts were distributed and introductions were made. Those present were:

Quentin Smith	D-11 Planning
Dean Croft	D-11 Environmental
Joel Holcomb	D-11 Pre-Construction
Phillip Howard	D-11 Construction
Michael West	D-11 Traffic
Josh Callihan	D-11
Chris Phillips	CO Design
Tom Napier	CO Traffic
Jim Wilson	CO Planning
Steve Ross	CO Planning
Brent Sweger	CO Planning
Joe Tucker	CO Planning

The study was described as a legislative addition to the February 2004 Recommended Six-Year Highway Plan FY 2005-2010. The Six-Year Highway Plan describes the project as a "scoping study- US 25 between Corbin and London" with $100,000 set up for the study. No other phases for the project are currently listed in the Six-Year Highway Plan.

2) Project Data

a) Project Area and Logical Termini

The study area is in Laurel County with termini at the US 25E/25W/25 intersection in Corbin and the US 25/KY 192 Bypass intersection in London.

b) Available Data and Reports

i) Traffic Data

The current year traffic for the study area ranges from 14,000 to 24,000 vehicles per day (vpd). The expected year 2030 traffic ranges from 22,000 to 36,000 vpd.

ii) Accident Data

There are 12 spots and 2 segments along the study area that have been identified as potentially high crash locations. It was stated that several of these high crash areas have been addressed by recent improvements. These improvements included 5 or 6 locations where turn lanes were added and intersections improved. The roadway surface was refinished and other minor improvements

were also made. The district believes these improvements have helped both safety and capacity.

It was noted that analysis of the Hunter Hill area, before and after the improvements, show a significant decrease in crashes due to the improvements made there. Other data is not yet available since the improvements were finished in July, 2005.

iii) Available Reports

A Small Urban Study for Laurel County entitled London- Laurel County Transportation Study was completed in June 2001 by Presnell Associates Inc. for the Kentucky Transportation Cabinet. The study recommended for US 25 "from KY 1189 to KY 1006 (2.1 miles), widen this two-lane section to a four-lane rural highway, and realign the KY 1189 approach to eliminate the skewed alignment at the intersection," and "from KY 1006 to KY 192 (1.5 miles), widen this three-lane section to a five-lane curb and gutter, urban roadway."

c) Problems with Existing Roadway

- Differences is driving speeds are a problem. Many times, slower drivers impede traffic and others take chances trying to pass them, creating a dangerous situation.
- There are a large number of trucks in the area. The stated percentage of 12% trucks seems to be low. Major truck generators include AISIN, a waste management site, and many other businesses along US 25 and the surrounding area. AISIN supplies Toyota and most of their outgoing shipments probably go north. The team is not sure which direction their incoming supplies come from.
- The intersection of US 25 and the bypass backs up and doesn't adequately handle the traffic.
- US 25 is the only alternative corridor for I-75 shutdowns between Corbin and London. There are numerous crashes during inclement weather on I-75 at the Laurel Creek Bridge, forcing the interstate to close down and divert traffic onto US 25.
- Nine highway fatalities have occurred along the study area over the past five years. Many of these have involved trucks and speed has been a contributing factor in many of the crashes.

d) Benefits of Proposed Project

- If there is an incident on I-75, an improved corridor between Corbin and London is needed to handle the detoured traffic.
- Safety improvements especially near the schools are needed.
- Increased capacity could help relieve the congestion and delay along US 25.

e) Additional Information Needed

- The district will check with Revitalization of London to find the limits of their work and incorporate them into the study if applicable.
- Sandy Rudder may be able to help in developing a list of local officials to meet with.

f) Environmental Justice

The Cumberland Valley Area Development District (CVADD) will provide an Environmental Justice Report for the area. CVADD is currently in the process of hiring a new transportation planner, so the report may be delayed.

g) Other

Design funds may be available as early as next month for the section of US 25 from KY 1006 to KY 192 bypass. It is important to meet with elected officials as soon as possible to get their input.

The KY 192/ US 25 intersection is vital to any improvements on this route. A grade separated interchange may be an option here.

An interchange on I-75 for KY 552 would relieve much of the truck traffic as well as overall traffic on US 25. Truck traffic generators such as the waste management site and AISON are located in the area and would have a more direct connection to I-75 and not be forced to use US 25 if there were an interchange.

I-66 is also tentatively expected to come through the project area at some time in the future. I-66 would run east-west through the southern part of Laurel County. An interchange with I-75 is expected to be just north of where KY 552 currently goes under I-75.

3) Purpose and Project Goals and Objectives

Defining the main purpose of the project is an issue that must continue to be debated and needs to go before the local officials before it is determined. It was discussed that many believe the main purpose of the project is to move commuter traffic and through traffic through the area as quickly as possible, while others believe the main purpose is allowing for and continuing economic development in the area. Portions of the study route are currently classified as arterial and other sections classified as collector to further complicate the issue of whether this road is a route to provide service to through traffic or provide land access service. The team decided to leave the overall purpose open at this time and discussed the following goals and objectives:

- Increase Capacity- Capacity is the biggest complaint the district has heard.
- Improve Safety- Although some improvements were recently made mostly at intersections, their impact on safety is yet to be determined. There are many safety issues along the route, including the large number of fatalities, slow moving drivers, numerous driveways and entrances, and the large volume of traffic for a two-lane roadway.
- Provide a relief route for I-75.

4) Possible Alternatives

<u>From US 25E to KY 1006</u>

- No build
- Continuous 3-lane urban section
- Continuous 5-lane urban section

- 4-lane rural section

From KY 1006 to KY 192 Bypass

- No build
- Five-lane section
- Seven-lane section
- New corridor east of existing route (4 or 6 lanes)
- New corridor east of existing route- one way couple with existing road (2 or 3 lanes)
- New or improved connections west of existing road to improve traffic flow around school complex
- New 4 or 6 lane alternative with right-in-right-out and turn lanes at specified locations with provisions for left turns

5) Environmental Footprint

The Environmental Footprint will be done in-house by the Division of Planning with assistance from the Division of Environmental Analysis. The footprint area includes the route from US 25 E to the bypass with a 2000 foot buffer throughout. The footprint will be widened at the northern end of the project to include any alternatives that come off of the existing alignment and other alternatives for the school complex near the bypass.

6) Probable Design Criteria

a) Functional Class

Currently the functional class goes from urban principal arterial to rural major collector to urban minor arterial. The purpose of the roadway needs to be addressed to determine a consistent functional class of an improved roadway.

b) Design Speed

Design speed will be determined after the highway is broken down into urban and rural sections and the access control has been set.

c) ITS/ Public Transit

Possible future ITS solutions for incident management on I-75 could direct traffic onto US 25.

Park-and-Ride facilities should be considered. Other public transit was discussed. It was noted that public transit issues and possible solutions should be discussed with local officials.

d) Bicycle/Pedestrian/ Other Modal Facilities

Sidewalks will be needed throughout most of the project. Bike trails should be considered as opposed to highway shoulders being used as bikeways. Due to the number of schools in the project area, a large number of children would be expected to use the bike lanes.

e) Estimate Project Cost

Project cost estimates from project identification forms (PIFs) were developed by the CVADD. They assumed a five-lane improvement throughout the study area with a

total cost of $58 million. The cost estimate will need to be adjusted for each alternative the team decides to carry forward.

Costs associated with relocating businesses, buying right of way, and relocating utilities could be prohibitive for the northernmost section. At $9.5 million for the section from KY 1006 to the bypass, the cost estimates are most likely too low and need to be looked at.

f) Access Management

The numerous driveways and business entrances create both safety and capacity problems along the route. Access management must be carefully considered along with any improvements to the roadway.

7) Agency Coordination Needs

An agency coordination letter will be sent out in a few weeks. Those to include in the mailing list that may not have otherwise been included are:

- Local office of the US Forest Service
- AISIN
- Local Airport
- School Boards

8) Public Involvement Needs

Public officials should be met with as soon as possible. No public meetings are planned at this time, but may be held if the project moves forward.

Appendix B
Officials Meeting Minutes

Minutes

Scoping Study Officials Meeting
Laurel County, US 25, Item No. 11-8201.00
10:30 A.M., November 30, 2005
CVADD Conference Room

1) Introductions and Purpose

Those in attendance included:

- Amos Hubbard, Jr. KYTC, District 11, Planning
- Bill Dezarn City of London
- Bruce Daeger Aisin Automotive Casting, Inc.
- Buddy Westbrook London Downtown
- Charles L. Siler KY State Representative, 82nd District
- Charles Pennington LLCIDA
- David Hamilton KYTC, Central Office, Planning
- Dennis Karr LLCIDA
- Greene Keith KYTC, District 11, Chief District Engineer
- Jason Hawkins CVADD, Transportation Planner
- Jim Handy KTA
- Joe Tucker KYTC, Central Office, Planning
- Joel Holcomb KYTC, District 11, Pre-Construction
- John Strojan USFWS, Daniel Boone N.F.
- Ken Harvey Tourism Commission
- Ken Smith City of London
- Lawrence Kuhl Laurel County Judge Executive
- Marie Rader KY State Representative, 89th District
- Noah Baker Laurel County
- Roy Crawford Laurel County Magistrate
- Steve A. Edge City of London
- Steve Ross KYTC, Central Office, Planning
- Tom Baker Laurel County

The project was described as being listed in Addendum to the Recommended Six-Year Highway Plan 2005-2010 as "Scoping Study- US 25 between Corbin and London," with $100,000 set up for the study. No other phases are currently scheduled.

The purpose of the study is to evaluate roadway improvement options, prioritize projects for future programming documents, and provide input for the statewide transportation plan.

2) Project Goals and Objectives

a) The following handouts were distributed and discussed:
   i) Traffic data
   ii) Accident data
   iii) LOS Scenarios for Northern Section of the Study Area
   iv) Traffic projections for possible alternatives
b) Problems and issues with the existing roadway and network were discussed. Some points that were made by the officials included:

- Aisin plant is planning an expansion which would generate a 40% growth. They now have 700 employees.
- An interchange with I-75 for KY 552 was discussed. This interchange would have a positive effect on US 25 by reducing truck traffic. This scoping study is not looking at the interchange, but a future interchange justification study should be done.
- Trucks are currently using US 25 to bypass the weigh station on I-75.
- I-66 is very important to the area and should be funded as soon as possible.
- 200 trucks per day go to the landfill.
- Focus should be on economic development and safety.
- Prioritizing sections of some of the alternatives as stand-alone sections may allow for at least some of the work to be done in the near future.
- Sidewalks and bike paths should be considered and incorporated wherever feasible.
- There is great concern for the increased traffic in front of the school complex. Widening US 25 would make it even more difficult for students turning left out of the school.

3) PRIORITY SEGMENT- KY 2006 TO KY 192

The majority of the rest of the meeting focused on the northern section of US 25 between the Levi Jackson State Park Entrance (KY 1006) and the London Bypass (KY 192). This section had the highest traffic, the most crashes, and was already operating at Level of Service (LOS) F. The officials believed that the section of US 25 from US 25 E to KY 1006 should be improved to a four-lane rural highway, but this should be done after the northern section is improved.

4) POSSIBLE ALTERNATIVES AND CORRIDORS

A PowerPoint presentation was given showing possible alternatives, projected traffic for each alternative, and the corresponding LOS. Five different alternatives with different variations of each were displayed; including no build, expansion of existing route, western connection, eastern connection, and a one way coupling.

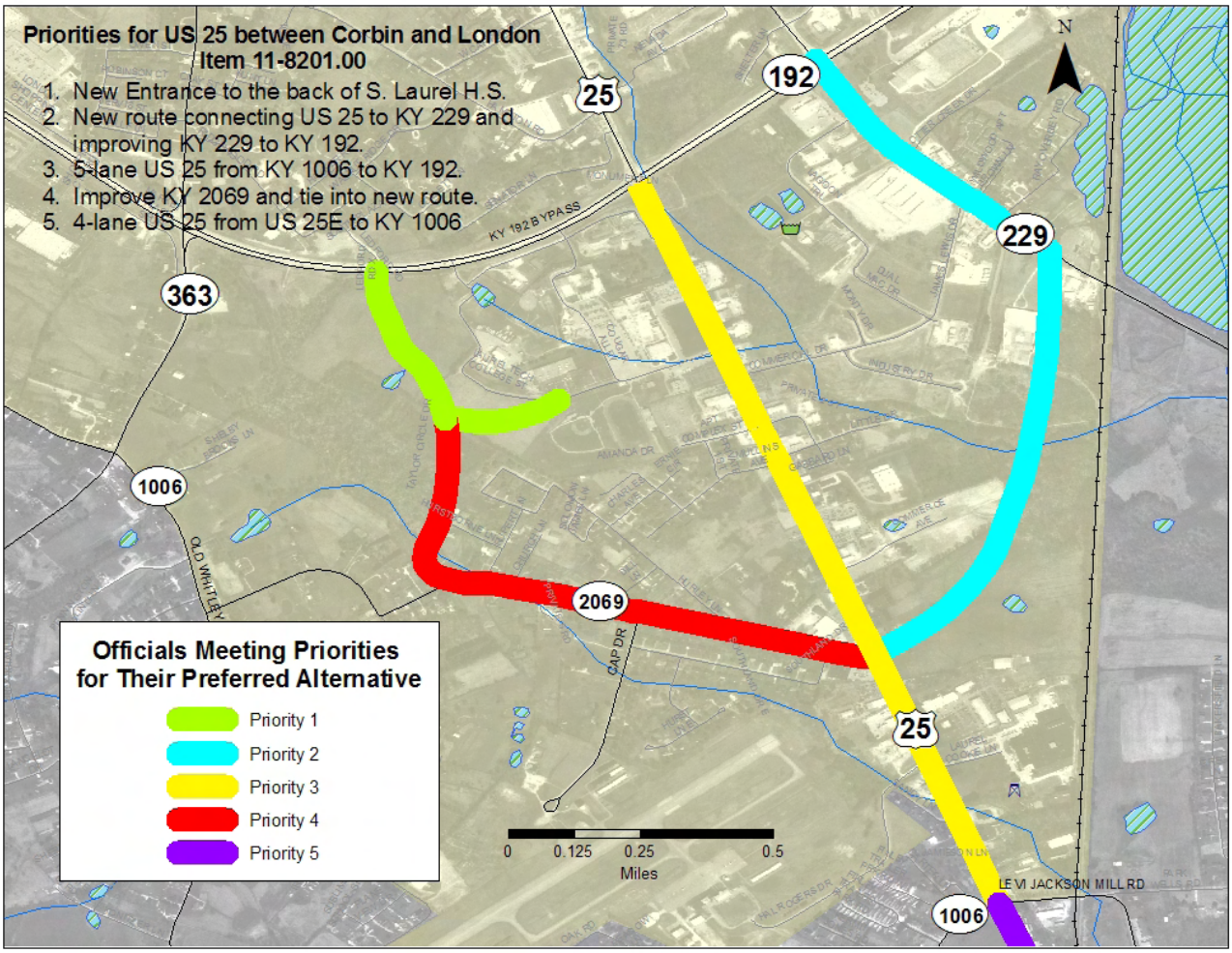
The officials did not like the one-way coupling system and said it should be eliminated from consideration. It was also decided that a seven-lane section from KY 1006 to KY 192 was not feasible due to the development of the area. There were reservations about increasing traffic on KY 2069 which is a residential area. The officials don not believe expanding KY 2069 to five lanes is desirable.

5) PRIORITIES

Officials decided that a combination of expanding the existing US 25, providing a back entrance into the school complex, a new eastern connection to KY 229, and a new connection from KY 2069 to KY 192 were all needed to handle the projected US 25 traffic.

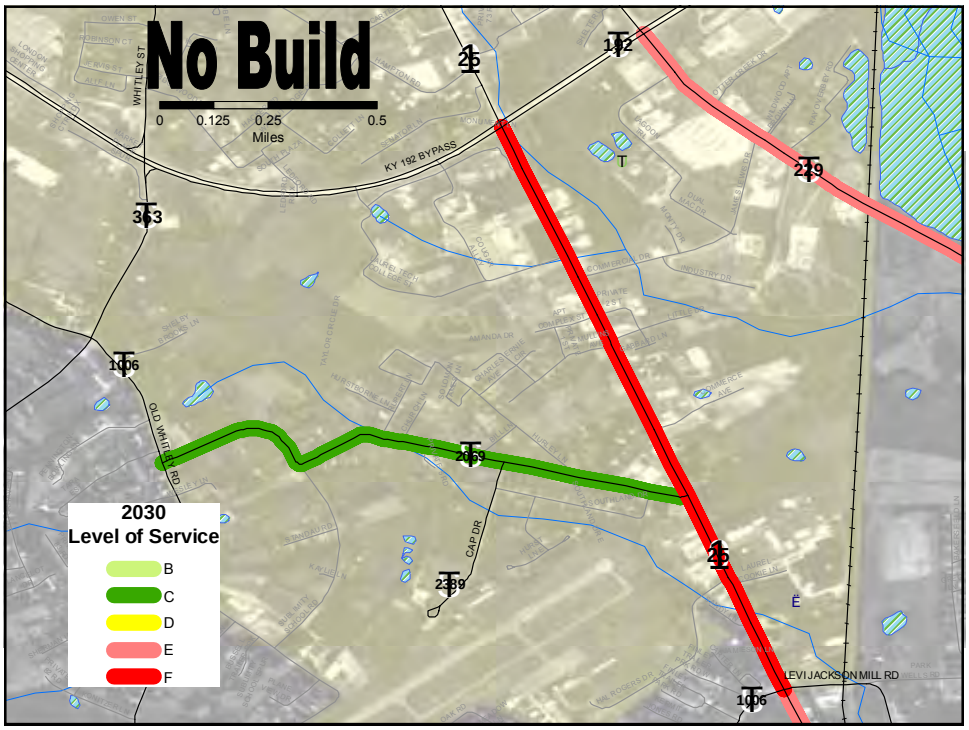
The priorities for US 25 between Corbin and London as developed by the local officials are as follows (see the following map):

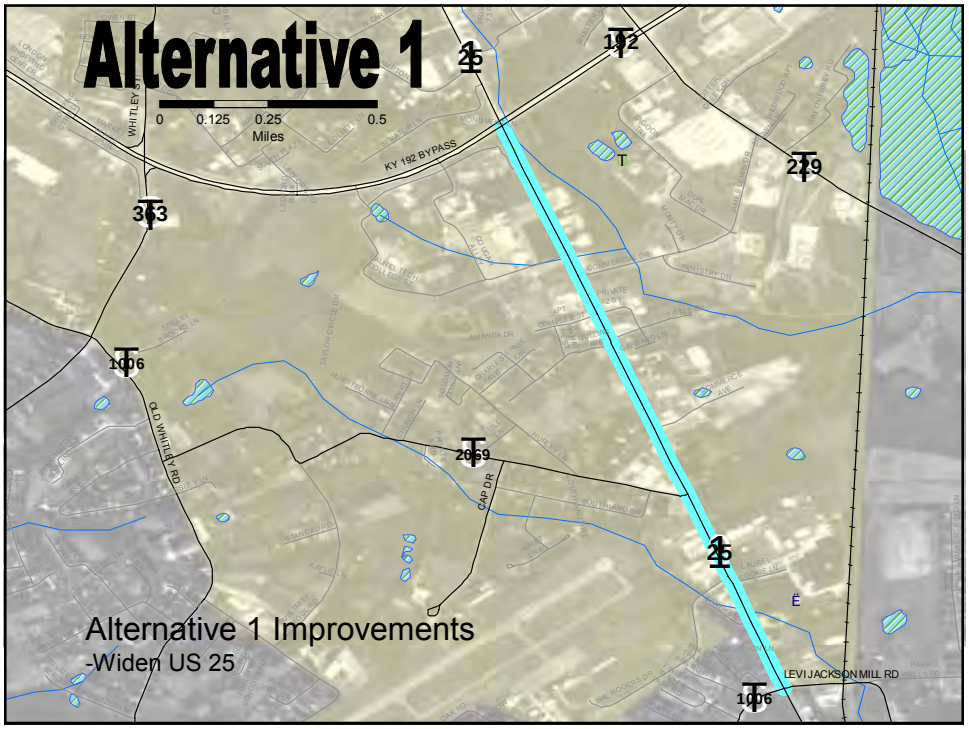
1. Back entrance to school complex connecting to KY 192.
2. Eastern connection from US 25 to KY 229 and improving existing KY 229 up to KY 192.
3. Five-lane US 25 from KY 2069 up to KY 192. Seven-lane US 25 (Two right turn lanes, four thru lanes, and a two-way-left-turning lane) from KY 2006 up to KY 2069.
4. Improve KY 2069 and connect into new route into the back of the school complex.
5. Improve the remainder of the US 25 study area to a four-lane rural highway.

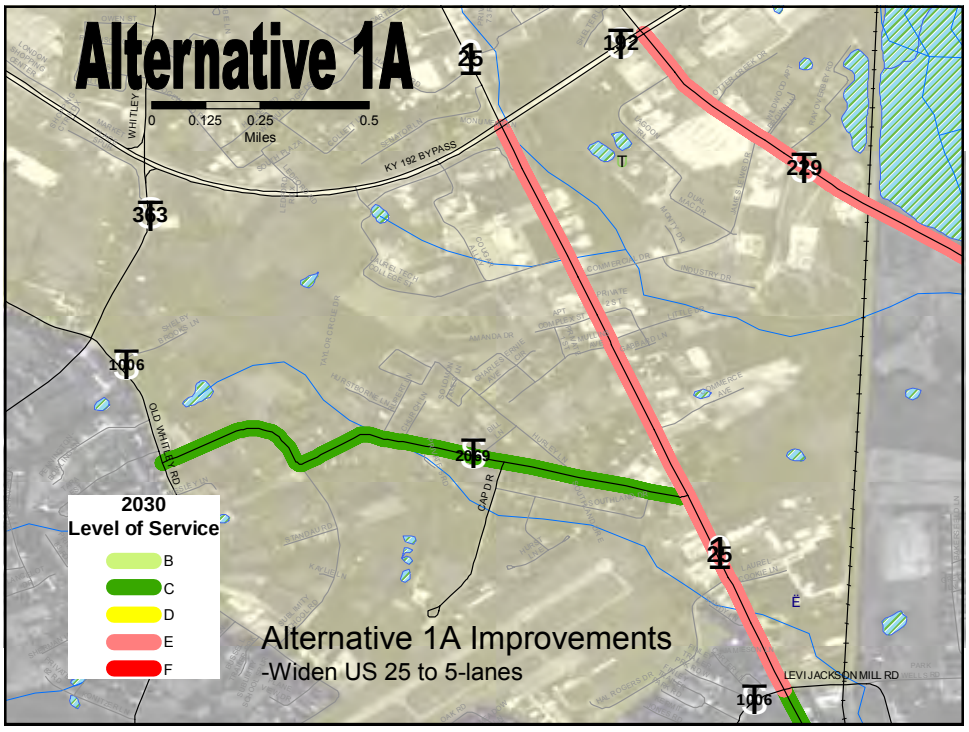


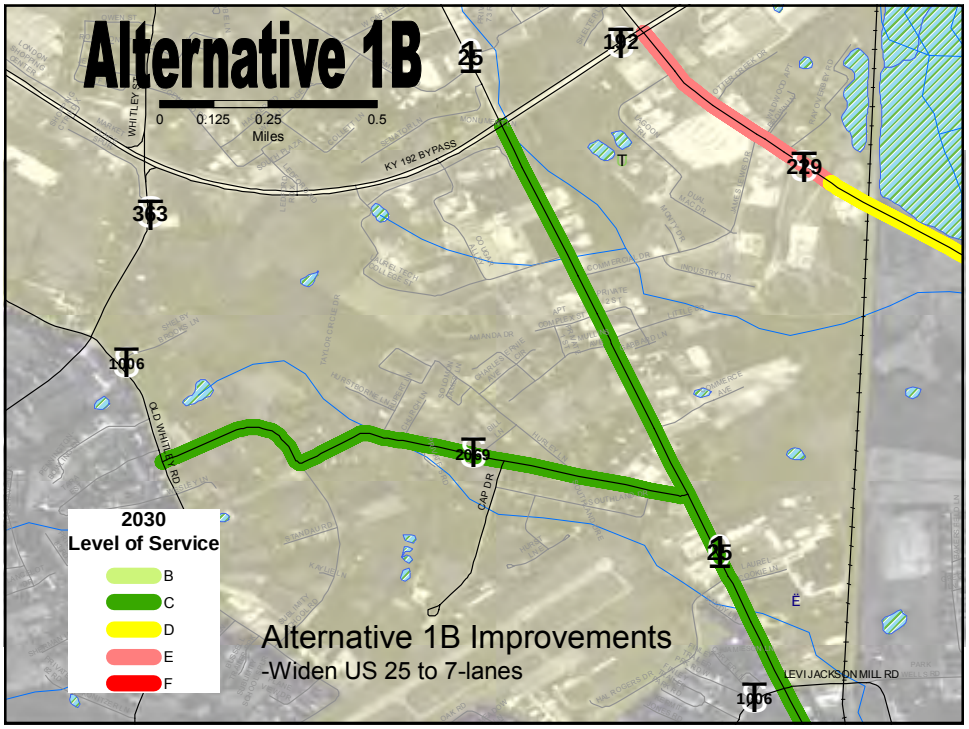
Officials Meeting Presentation & Traffic Projections for Draft Alternatives


Existing
0 0.125 0.25 0.5
Miles
KY 192 BYPASS
BARBOURVILLE ST
OLD WHITLEY RD
MIDDLEGROUND WAY
CAP DR
LEVI JACKSON MILL RD
25
192
279
363
1006
2069
2389


No Build
0 0.125 0.25 0.5
Miles
KY 192 BYPASS
OLD WHITLEY RD
CAP DR
LEVI JACKSON MILL RD
2030
Level of Service
B
C
D
E
F
25
192
279
363
1006
2069
2389


Alternative 1
0 0.125 0.25 0.5
Miles
KY 192 BYPASS
WHITLEY ST
OLD WHITLEY RD
CAP DR
LEVI JACKSON MILL RD
25
192
229
363
1006
2069
Alternative 1 Improvements
-Widen US 25


Alternative 1A
0 0.125 0.25 0.5
Miles
KY 192 BYPASS
WHITLEY ST
OLD WHITLEY RD
CAP DR
LEVI JACKSON MILL RD
25
192
229
363
1006
2069
2030
Level of Service
B
C
D
E
F
Alternative 1A Improvements
-Widen US 25 to 5-lanes


Alternative 1B
0 0.125 0.25 0.5
Miles
KY 192 BYPASS
WHITLEY ST
OLD WHITLEY RD
CAMP DR
LEVI JACKSON MILL RD
25
192
229
363
1006
2069
2030
Level of Service
B
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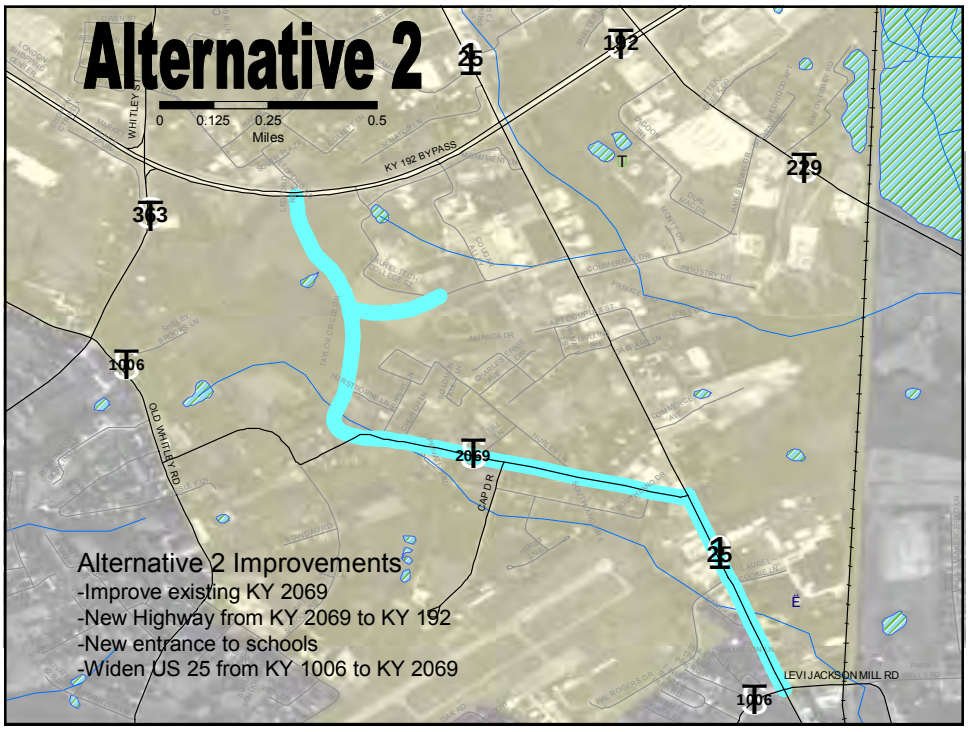
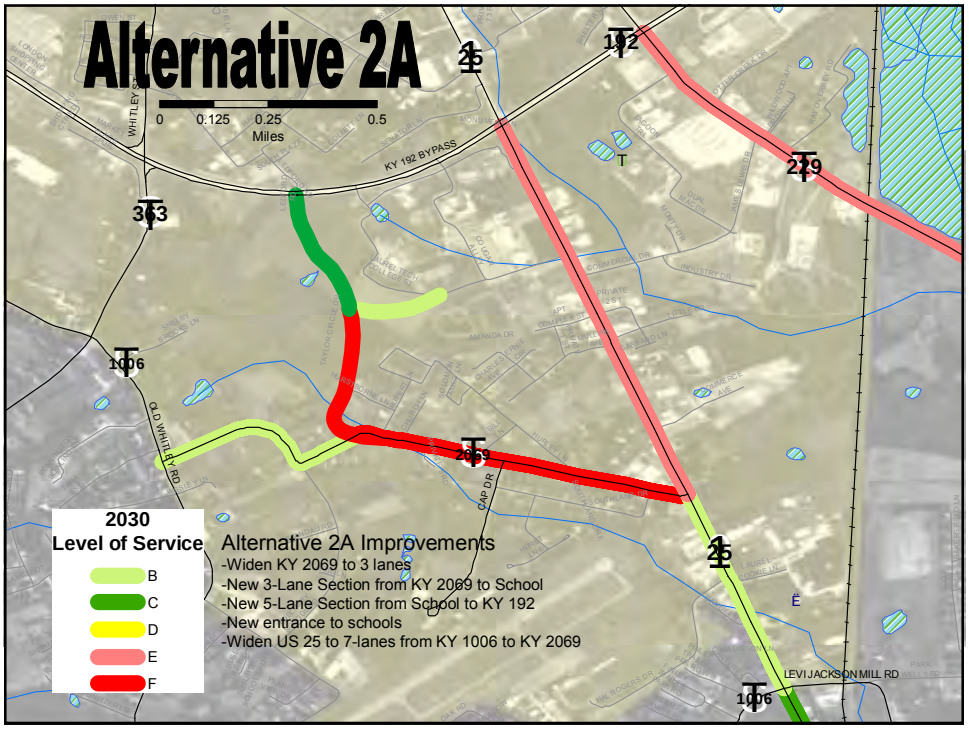
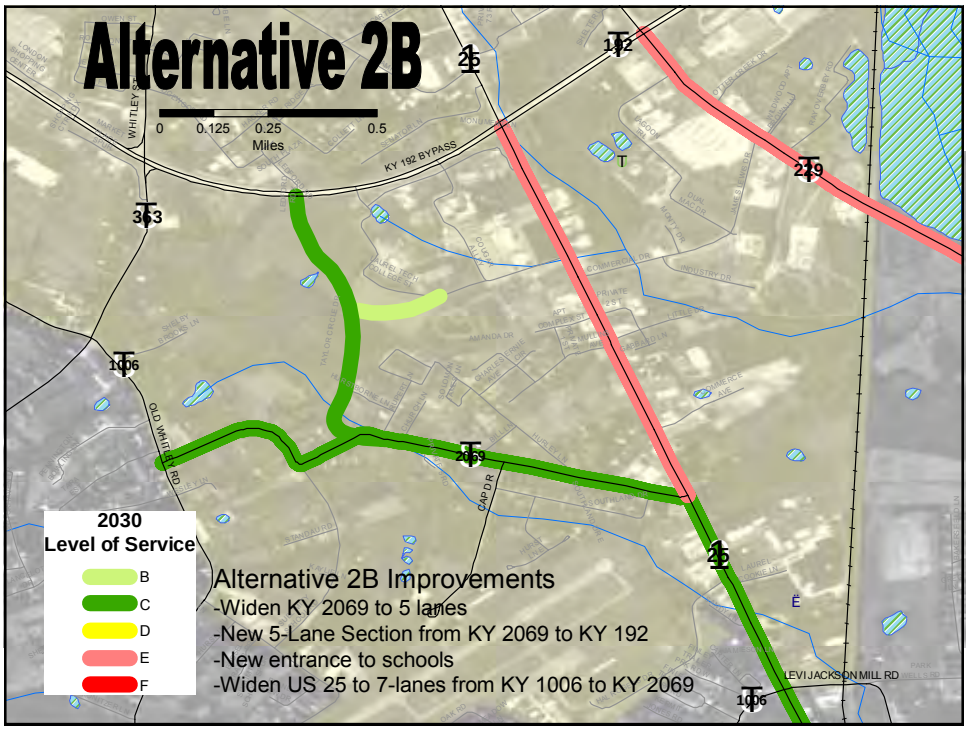
D
E
F
Alternative 1B Improvements
-Widen US 25 to 7-lanes


Alternative 2
0 0.125 0.25 0.5
Miles
KY 192 BYPASS
WHITLEY ST
OLD WHITLEY RD
CAMP DR
LEVI JACKSON MILL RD
25
192
229
363
1006
2069
Alternative 2 Improvements
-Improve existing KY 2069
-New Highway from KY 2069 to KY 192
-New entrance to schools
-Widen US 25 from KY 1006 to KY 2069


Alternative 2A
0 0.125 0.25 0.5
Miles
KY 192 BYPASS
WHITLEY RD
OLD WHITLEY RD
CAMP DR
LEVI JACKSON MILL RD
363
1006
2069
192
279
25
2030
Level of Service
B
C
D
E
F
Alternative 2A Improvements
-Widen KY 2069 to 3 lanes
-New 3-Lane Section from KY 2069 to School
-New 5-Lane Section from School to KY 192
-New entrance to schools
-Widen US 25 to 7-lanes from KY 1006 to KY 2069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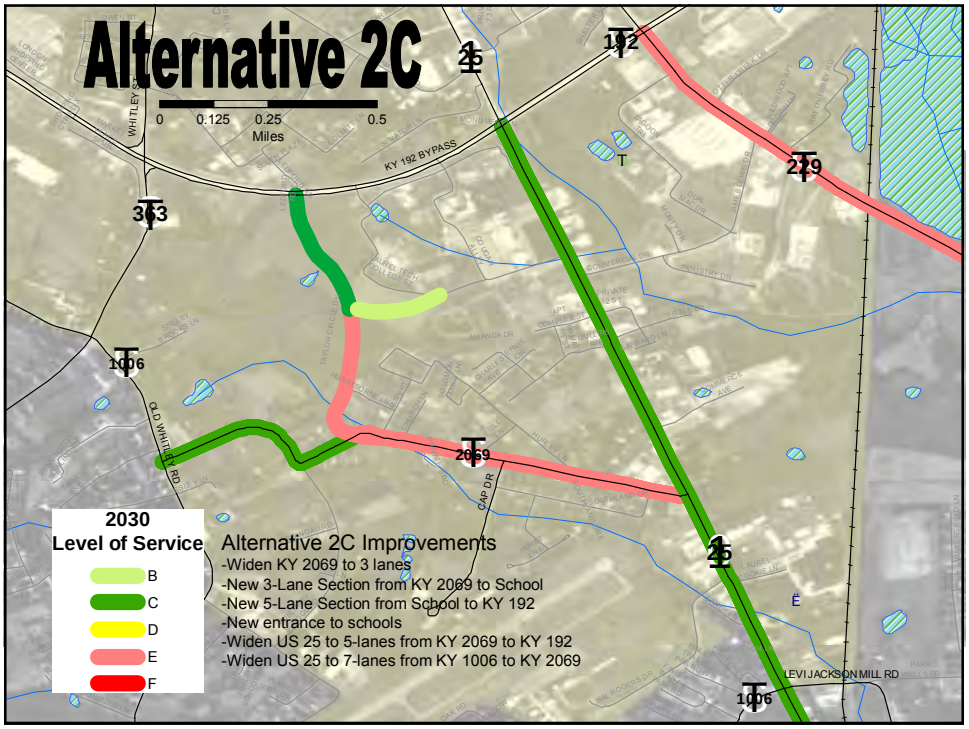
0 0.125 0.25 0.5
Miles
KY 192 BYPASS
WHITLEY RD
OLD WHITLEY RD
CAMP DR
LEVI JACKSON MILL RD
363
1006
2069
192
279
25
2030
Level of Service
B
C
D
E
F
Alternative 2B Improvements
-Widen KY 2069 to 5 lanes
-New 5-Lane Section from KY 2069 to KY 192
-New entrance to schools
-Widen US 25 to 7-lanes from KY 1006 to KY 2069


Alternative 2C
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Miles
KY 192 BYPASS
WHITLEY RD
OLD WHITLEY RD
CAMP DR
LEVI JACKSON MILL RD
25
192
229
363
1006
2069
2030
Level of Service
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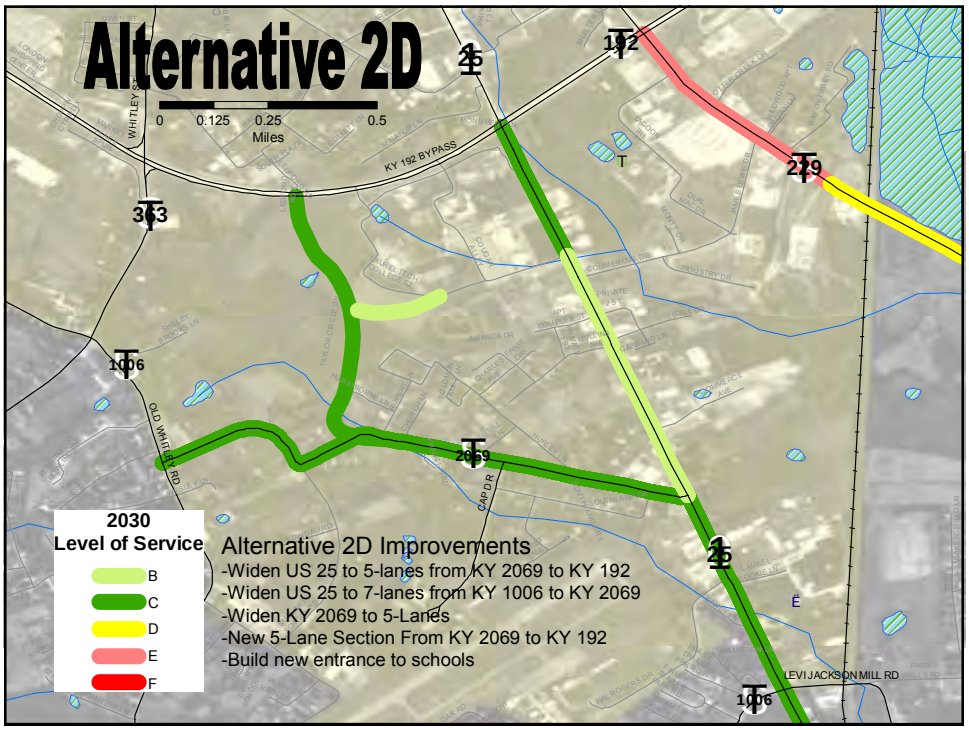
F
Alternative 2C Improvements
-Widen KY 2069 to 3 lanes
-New 3-Lane Section from KY 2069 to School
-New 5-Lane Section from School to KY 192
-New entrance to schools
-Widen US 25 to 5-lanes from KY 2069 to KY 192
-Widen US 25 to 7-lanes from KY 1006 to KY 2069


Alternative 2D
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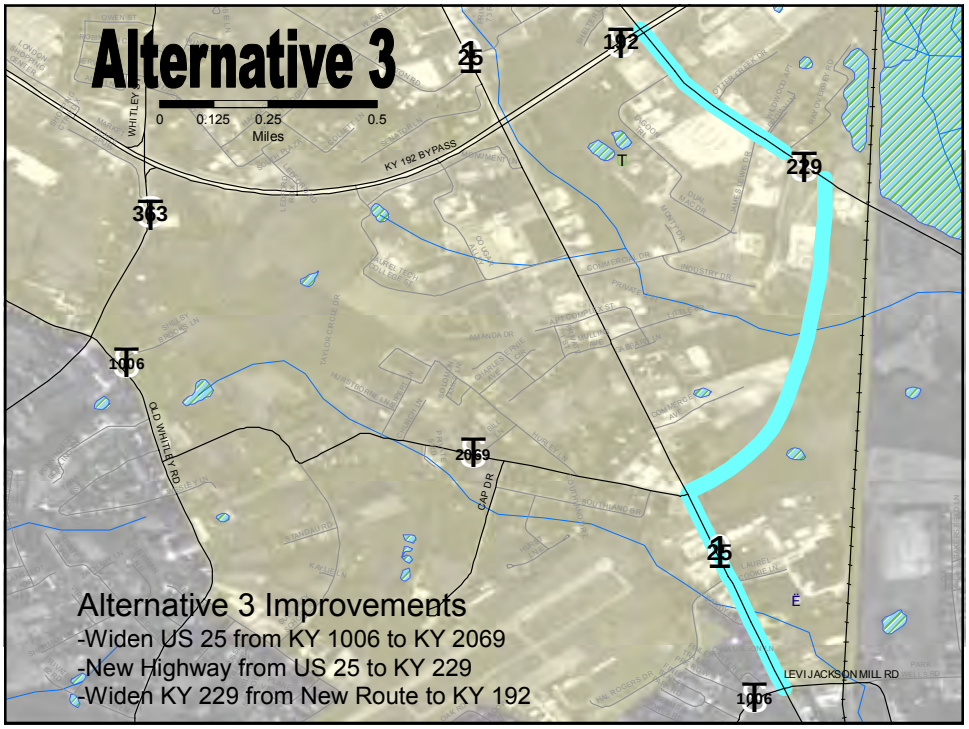
Miles
KY 192 BYPASS
WHITLEY RD
OLD WHITLEY RD
CAMP DR
LEVI JACKSON MILL RD
25
192
229
363
1006
2069
2030
Level of Service
B
C
D
E
F
Alternative 2D Improvements
-Widen US 25 to 5-lanes from KY 2069 to KY 192
-Widen US 25 to 7-lanes from KY 1006 to KY 2069
-Widen KY 2069 to 5-Lanes
-New 5-Lane Section From KY 2069 to KY 192
-Build new entrance to schools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Miles
KY 192 BYPASS
WHITLEY ST
OLD WHITLEY RD
CAP DR
LEVI JACKSON MILL RD
25
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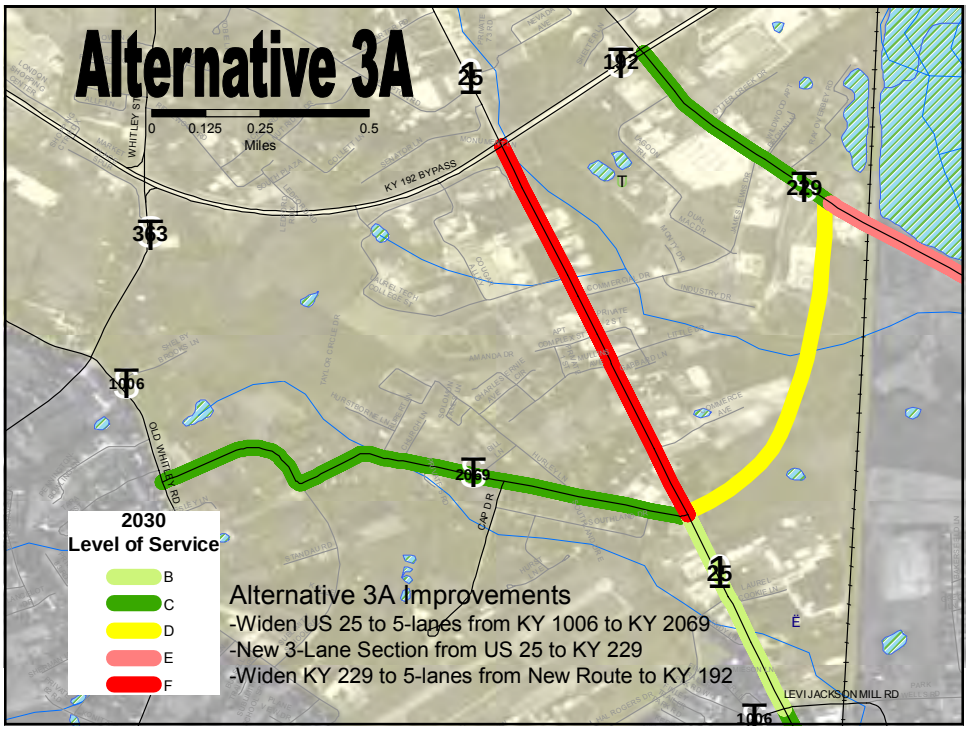
2069
Alternative 3 Improvements
-Widen US 25 from KY 1006 to KY 2069
-New Highway from US 25 to KY 229
-Widen KY 229 from New Route to KY 192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Miles
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WHITLEY ST
OLD WHITLEY RD
CAP DR
LEVI JACKSON MILL RD
25
192
229
363
1006
2069
2030
Level of Service
B
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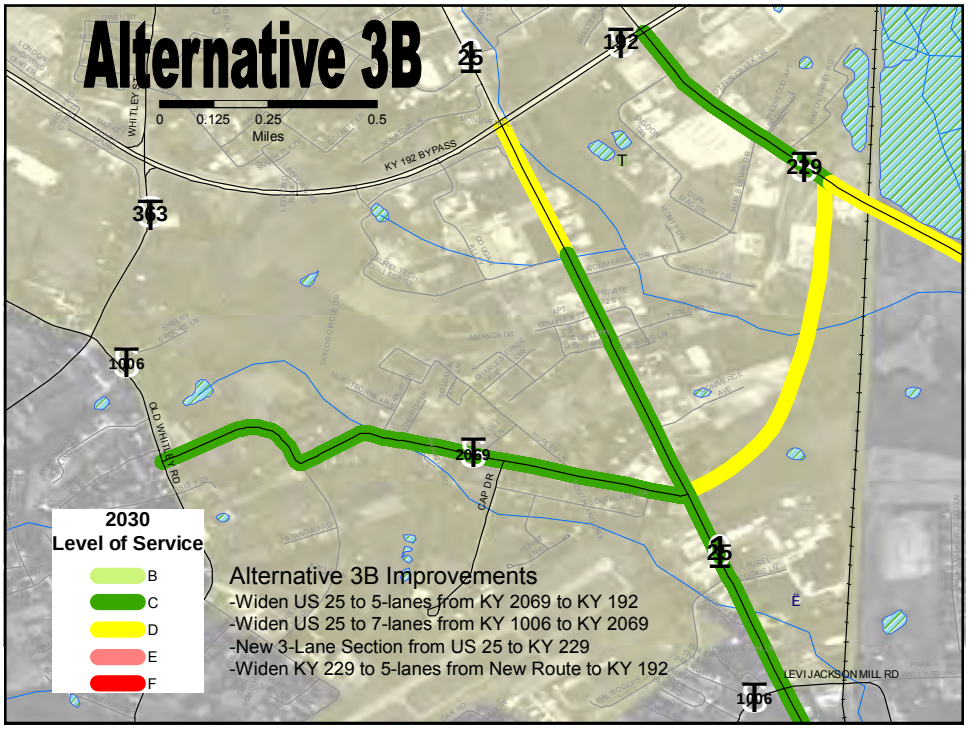
F
Alternative 3A Improvements
-Widen US 25 to 5-lanes from KY 1006 to KY 2069
-New 3-Lane Section from US 25 to KY 229
-Widen KY 229 to 5-lanes from New Route to KY 192


Alternative 3B
0 0.125 0.25 0.5
Miles
KY 192 BYPASS
WHITLEY ST
OLD WHITLEY RD
CAMP DR
LEVI JACKSON MILL RD
25
192
229
363
1006
2069
2030
Level of Service
B
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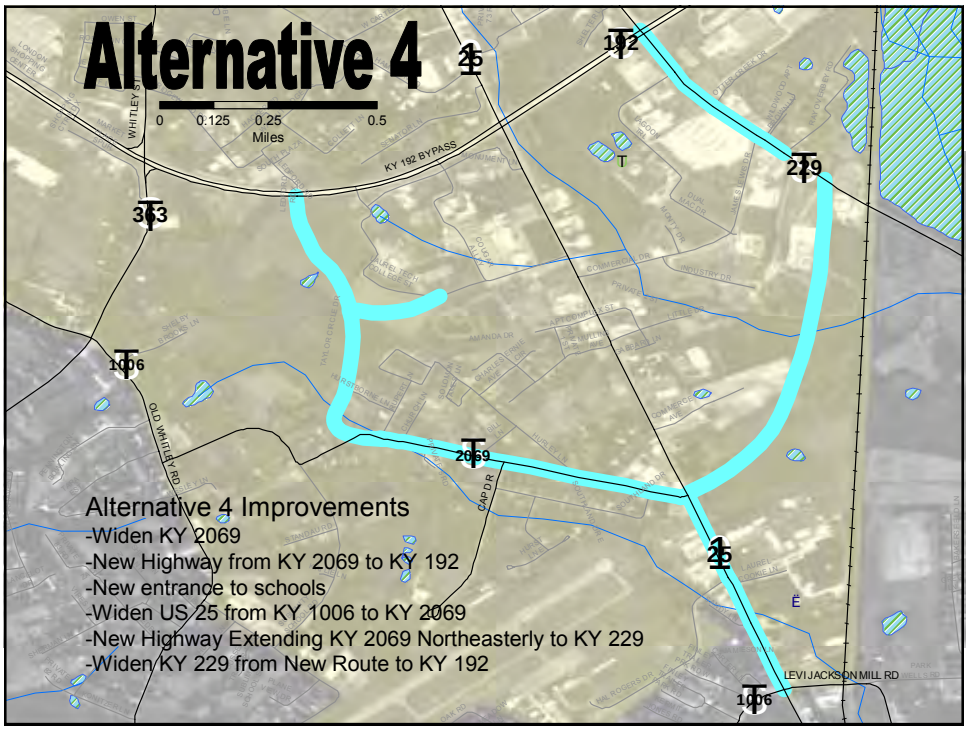
F
Alternative 3B Improvements
-Widen US 25 to 5-lanes from KY 2069 to KY 192
-Widen US 25 to 7-lanes from KY 1006 to KY 2069
-New 3-Lane Section from US 25 to KY 229
-Widen KY 229 to 5-lanes from New Route to KY 192


Alternative 4
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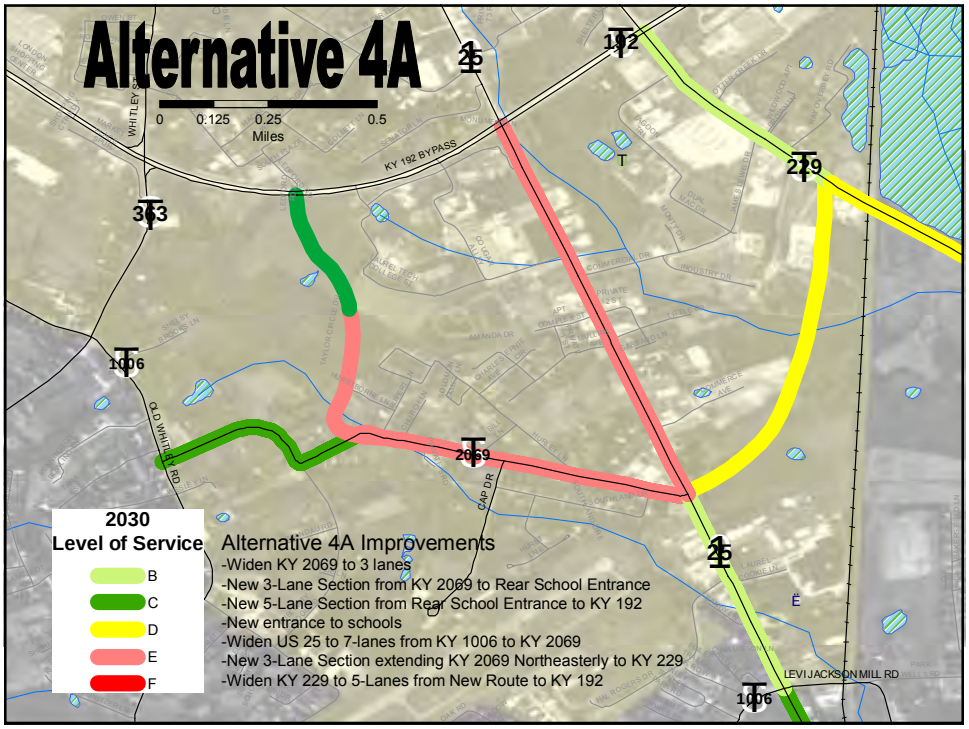
Miles
KY 192 BYPASS
WHITLEY ST
OLD WHITLEY RD
CAMP DR
LEVI JACKSON MILL RD
25
192
229
363
1006
2069
Alternative 4 Improvements
-Widen KY 2069
-New Highway from KY 2069 to KY 192
-New entrance to schools
-Widen US 25 from KY 1006 to KY 2069
-New Highway Extending KY 2069 Northeasterly to KY 229
-Widen KY 229 from New Route to KY 192


Alternative 4A
0 0.125 0.25 0.5
Miles
KY 192 BYPASS
363
1006
2069
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192
229
OLD WHITLEY RD
CAMP DR
LEVI JACKSON MILL RD
2030
Level of Service
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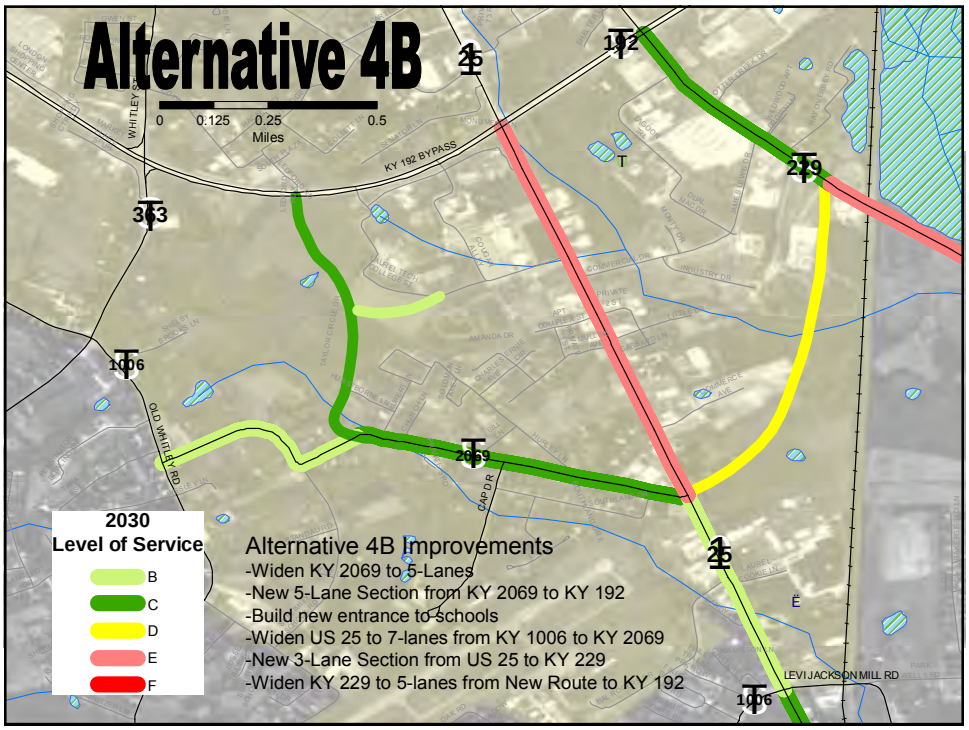
F
Alternative 4A Improvements
-Widen KY 2069 to 3 lanes
-New 3-Lane Section from KY 2069 to Rear School Entrance
-New 5-Lane Section from Rear School Entrance to KY 192
-New entrance to schools
-Widen US 25 to 7-lanes from KY 1006 to KY 2069
-New 3-Lane Section extending KY 2069 Northeasterly to KY 229
-Widen KY 229 to 5-Lanes from New Route to KY 192


Alternative 4B
0 0.125 0.25 0.5
Miles
KY 192 BYPASS
363
1006
2069
25
192
229
OLD WHITLEY RD
CAMP DR
LEVI JACKSON MILL RD
2030
Level of Service
B
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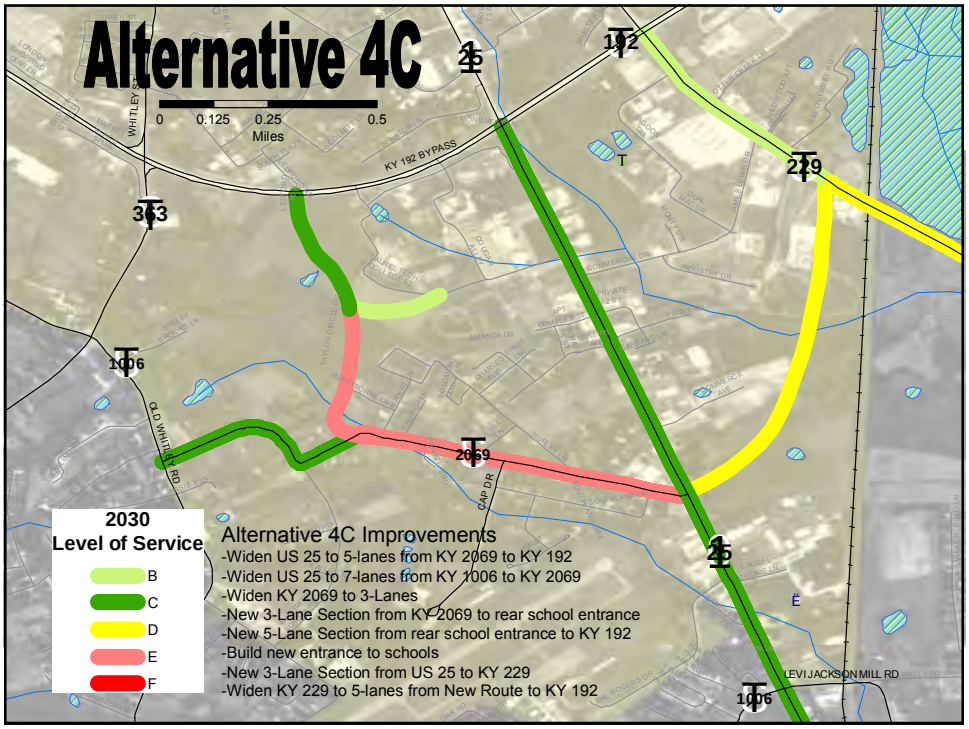
D
E
F
Alternative 4B Improvements
-Widen KY 2069 to 5-Lanes
-New 5-Lane Section from KY 2069 to KY 192
-Build new entrance to schools
-Widen US 25 to 7-lanes from KY 1006 to KY 2069
-New 3-Lane Section from US 25 to KY 229
-Widen KY 229 to 5-lanes from New Route to KY 192


Alternative 4C
0 0.125 0.25 0.5
Miles
KY 192 BYPASS
WHITLEY RD
OLD WHITLEY RD
CAP DR
LEVI JACKSON MILL RD
363
1006
2069
192
229
25
2030
Level of Service
B
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D
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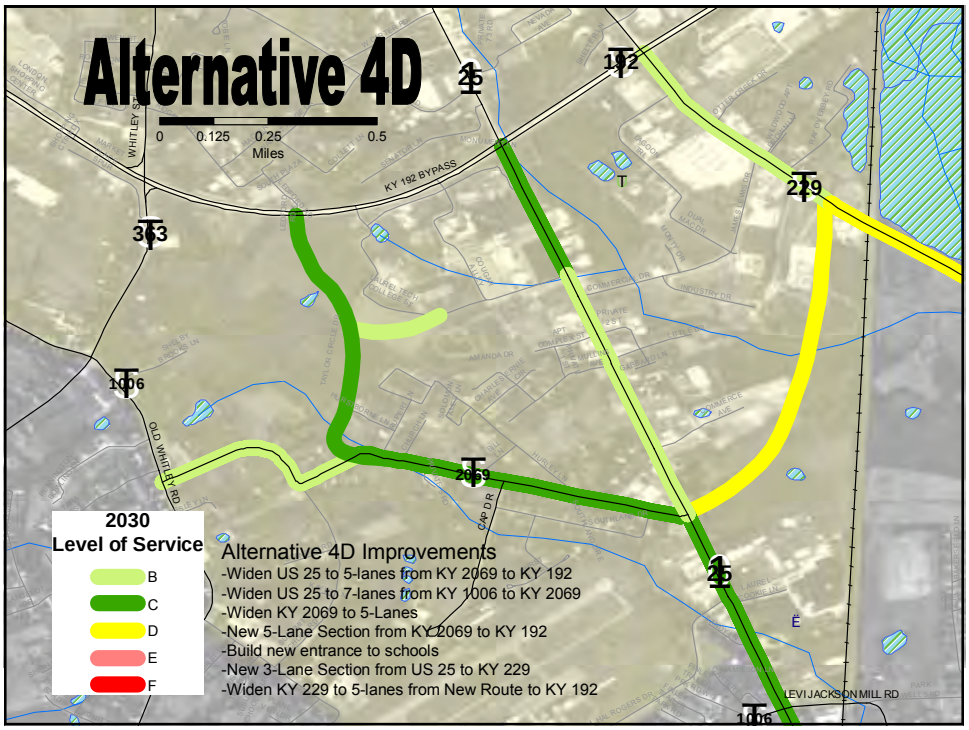
F
Alternative 4C Improvements
-Widen US 25 to 5-lanes from KY 2069 to KY 192
-Widen US 25 to 7-lanes from KY 1006 to KY 2069
-Widen KY 2069 to 3-Lanes
-New 3-Lane Section from KY 2069 to rear school entrance
-New 5-Lane Section from rear school entrance to KY 192
-Build new entrance to schools
-New 3-Lane Section from US 25 to KY 229
-Widen KY 229 to 5-lanes from New Route to KY 192


Alternative 4D
0 0.125 0.25 0.5
Miles
KY 192 BYPASS
WHITLEY RD
OLD WHITLEY RD
CAP DR
LEVI JACKSON MILL RD
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2069
192
229
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2030
Level of Service
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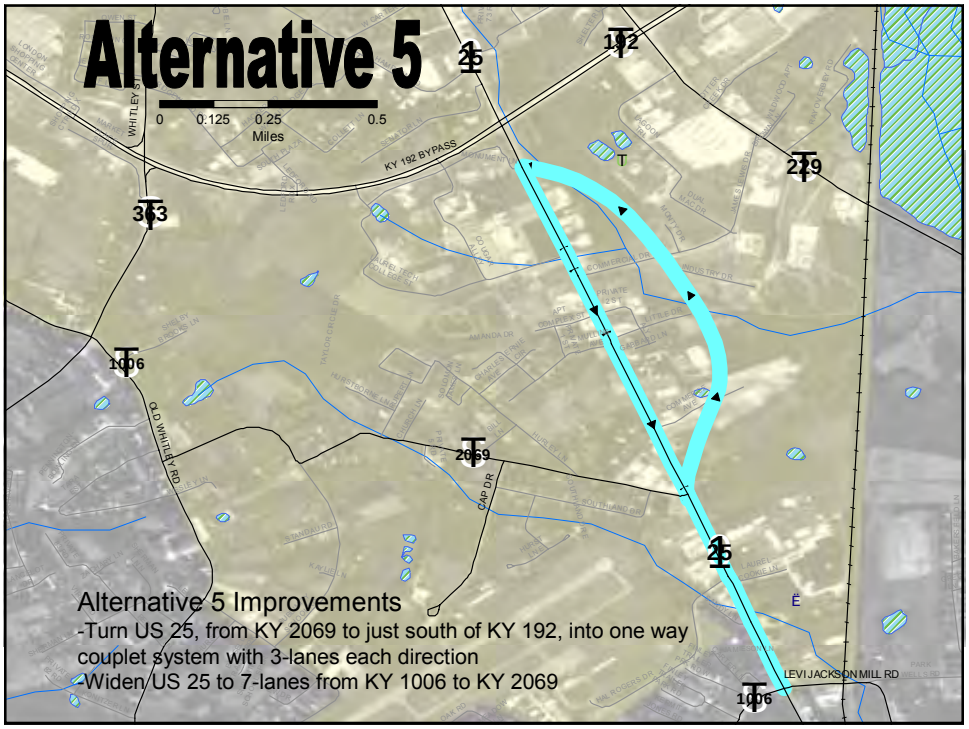
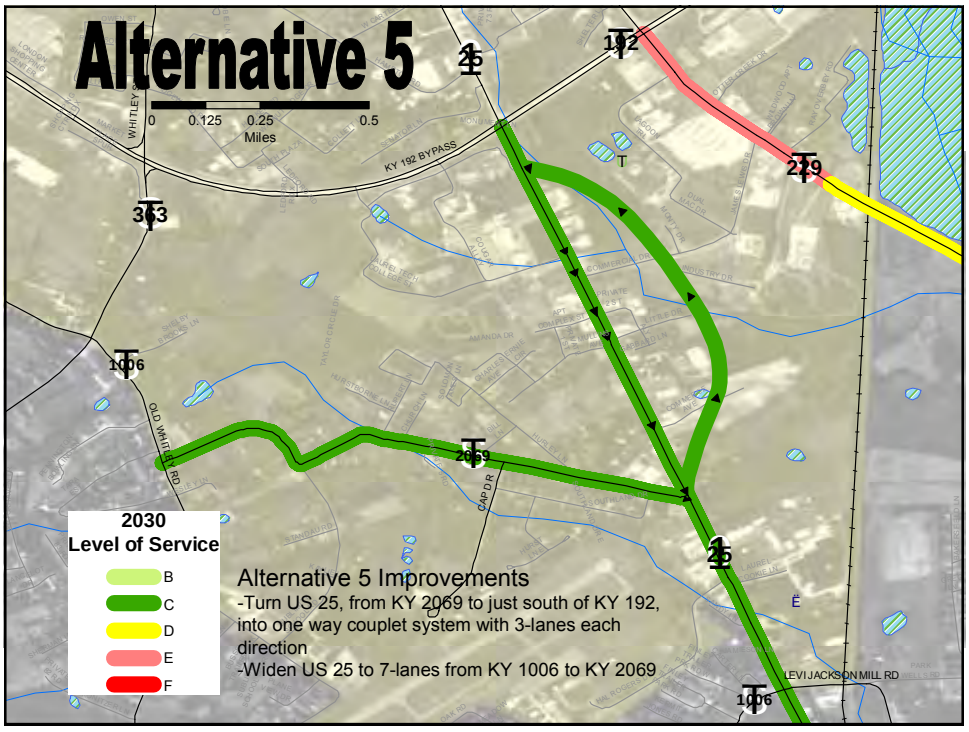
Alternative 4D Improvements
-Widen US 25 to 5-lanes from KY 2069 to KY 192
-Widen US 25 to 7-lanes from KY 1006 to KY 2069
-Widen KY 2069 to 5-Lanes
-New 5-Lane Section from KY 2069 to KY 192
-Build new entrance to schools
-New 3-Lane Section from US 25 to KY 229
-Widen KY 229 to 5-lanes from New Route to KY 192


Alternative 5
0 0.125 0.25 0.5
Miles
KY 192 BYPASS
WHITLEY ST
OLD WHITLEY RD
CAMP DR
LEVI JACKSON MILL RD
25
192
229
363
1006
2069
Alternative 5 Improvements
-Turn US 25, from KY 2069 to just south of KY 192, into one way couplet system with 3-lanes each direction
-Widen US 25 to 7-lanes from KY 1006 to KY 2069


Alternative 5
0 0.125 0.25 0.5
Miles
KY 192 BYPASS
WHITLEY ST
OLD WHITLEY RD
CAMP DR
LEVI JACKSON MILL RD
25
192
229
363
1006
2069
2030
Level of Service
B
C
D
E
F
Alternative 5 Improvements
-Turn US 25, from KY 2069 to just south of KY 192, into one way couplet system with 3-lanes each direction
-Widen US 25 to 7-lanes from KY 1006 to KY 2069

US 25 Laurel County- Item 11-8201.00
2030 Traffic Projections for Draft Alternatives

Segment	Route	From	To	Forecast 2030 NO BUILD	ALT 1A 2030 Projection	ALT 1B 2030 Projection	ALT 2A 2030 Projection	ALT 2B 2030 Projection	ALT 2C 2030 Projection	ALT 2D 2030 Projection	ALT 3A 2030 Projection	ALT 3B 2030 Projection	ALT 4A 2030 Projection	ALT 4B 2030 Projection	ALT 4C 2030 Projection	ALT 4D 2030 Projection	ALT 5 2030 Projection
1	US 25	KY 192	School	41000	45990	46600	18760	18520	27470	29060	32950	37110	19390	15040	23430	24920	23630/22750
2	US 25	School	KY 2069	34500	41710	42090	16200	15920	22740	25160	28450	29530	12080	10910	16850	19410	22080/19770
3	US 25	KY 2069	KY 1006	34500	42790	43180	36700	36510	46460	25360	35350	42050	35530	35090	44340	44350	42760
4	US 25	KY 1006	KY 2388	23000	27340	27430	23380	23380	29080	28590	22690	26380	22480	22260	27380	27390	27270
5	US 25	KY 2388	KY 1189	23000	27400	27490	23130	23120	29220	28700	22390	26330	22130	21910	27370	27390	27310
6	KY 2069	US 25	new KY 2069	4920	5900	5900	25240	26150	26000	23940	6100	6070	21990	22790	22970	21450	5850
7	KY 2069	new KY 2069	School ENT	-	-	-	26340	25930	23670	19960	-	-	23160	23600	22750	19700	-
8	KY 2069	School ENT	KY 192	-	-	-	32900	32890	26800	23660	-	-	26950	27750	25650	23660	-
9	KY 2069	new KY 2069	KY 1006	4920	5240	5240	3320	3300	3800	4090	5360	5290	3550	3770	4040	4180	5170
10	KY 2069	US 25	KY 229	-	-	-	-	-	-	-	8700	10390	7040	7470	6730	6820	-
11	KY 229	new KY 2069	James Lewis	17800	14070	13980	17340	17370	12470	12930	24330	24260	20820	21100	17810	17950	14110
12	KY 229	James Lewis	KY 192	17800	17800	17550	19540	19670	16910	16520	28030	27270	22270	24740	21500	21620	17620
13	KY 229	new KY 2069	Conley Rd	17800	14070	13980	17340	17370	12470	12930	18850	15440	19050	19060	14570	14420	14110

Alternative 1A - 5 Lane US 25
Alternative 1B - 7 Lane US 25
Alternative 2A - Extend KY 2069 North West to KY 192
Alternative 2B - Extend KY 2069 North West to KY 192 + make Existing KY 2069 3 lane from US 25 to School Entrance
Alternative 2C - 5 Lane US 25 + Extend KY 2069 North West to KY 192 + make Existing KY 2069 3 lane from US 25 to School Entrance
Alternative 2D - 5 Lane US 25 + Extend KY 2069 North West to KY 192 + make Existing KY 2069 5 lane from US 25 to School Entrance
Alternative 3A- Extend KY 2069 East to KY 229
Alternative 3B - 5 Lane US 25 + Extend KY 2069 East to KY 229
Alternative 4A - Extend KY 2069 North West to KY 192 + Extend KY 2069 East to KY 229+ make existing KY 2069 3 lane from US 25 to School Entrance
Alternative 4B - Extend KY 2069 North West to KY 192 + Extend KY 2069 East to KY 229 + make existing KY 2069 5 lane from US 25 to School Entrance
Alternative 4C - Extend KY 2069 North West to KY 192 + Extend KY 2069 East to KY 229 + make existing KY 2069 3 lane from US 25 to School Entrance + Widen US 25 to 5 lanes from KY 2069 to KY 19
Alternative 4D - Extend KY 2069 North West to KY 192 + Extend KY 2069 East to KY 229 + make existing KY 2069 5 lane from US 25 to School Entrance + Widen US 25 to 5 lanes from KY 2069 to KY 19
Alternative 5 - Make US 25 One Way Couplet

*** Alternatives 2 through 5 all assume widening US 25 to 7-Lanes between KY 1006 and KY 2069**

The shown alternatives are only draft ideas. The intended purpose of showing these draft alternatives is to eliminate undesirable/ unfeasible altneratives and produce a refined list that will be evauated in more detail.

Appendix C
Final Team Meeting Minutes

Minutes

Scoping Study
Final Team Meeting
Laurel County, US 25, Item No. 11-8201.00
December 15, 2005
CVADD Conference Room

Those in attendance included:

• Amos Hubbard, Jr.	KYTC, District 11, Planning
• Brent Sweger	KYTC, Central Office, Planning
• Cass T. Napier	KYTC, Central Office, Traffic Operations
• David Hamilton	KYTC, Central Office, Planning
• Dean Croft	KYTC, District 11, Environmental
• Greene Keith	KYTC, District 11, Chief District Engineer
• Joe Tucker	KYTC, Central Office, Planning
• Joel Holcomb	KYTC, District 11, Pre-Construction
• Lois Hubbard	KYTC, District 11, Right-of-Way
• Mike Calebs	KYTC, District 11, Traffic
• Quentin Smith	KYTC, District 11, Preconstruction
• Steve Ross	KYTC, Central Office, Planning

Priorities and alternatives developed during the November 30, 2005 Officials Meeting were discussed.

<u>The team made the following observations:</u>

- The northern section of the project (KY 1006 to KY 192) is the most critical portion of the project.
- A 7-lane section from KY 1006 to KY 192 would be needed to handle the traffic, but is not feasible due to the current development in the area.
- Connecting the schools directly to KY 363 would most likely be the best choice for the connection to the school, but cost will be an issue.
- HES funding may be able to be used on some parts of the study area.
- Two thru lanes at each intersection (US 25/KY 192 and US 25/KY 229 will be needed to decrease the cycle time.

<u>The team made the following recommendations:</u>

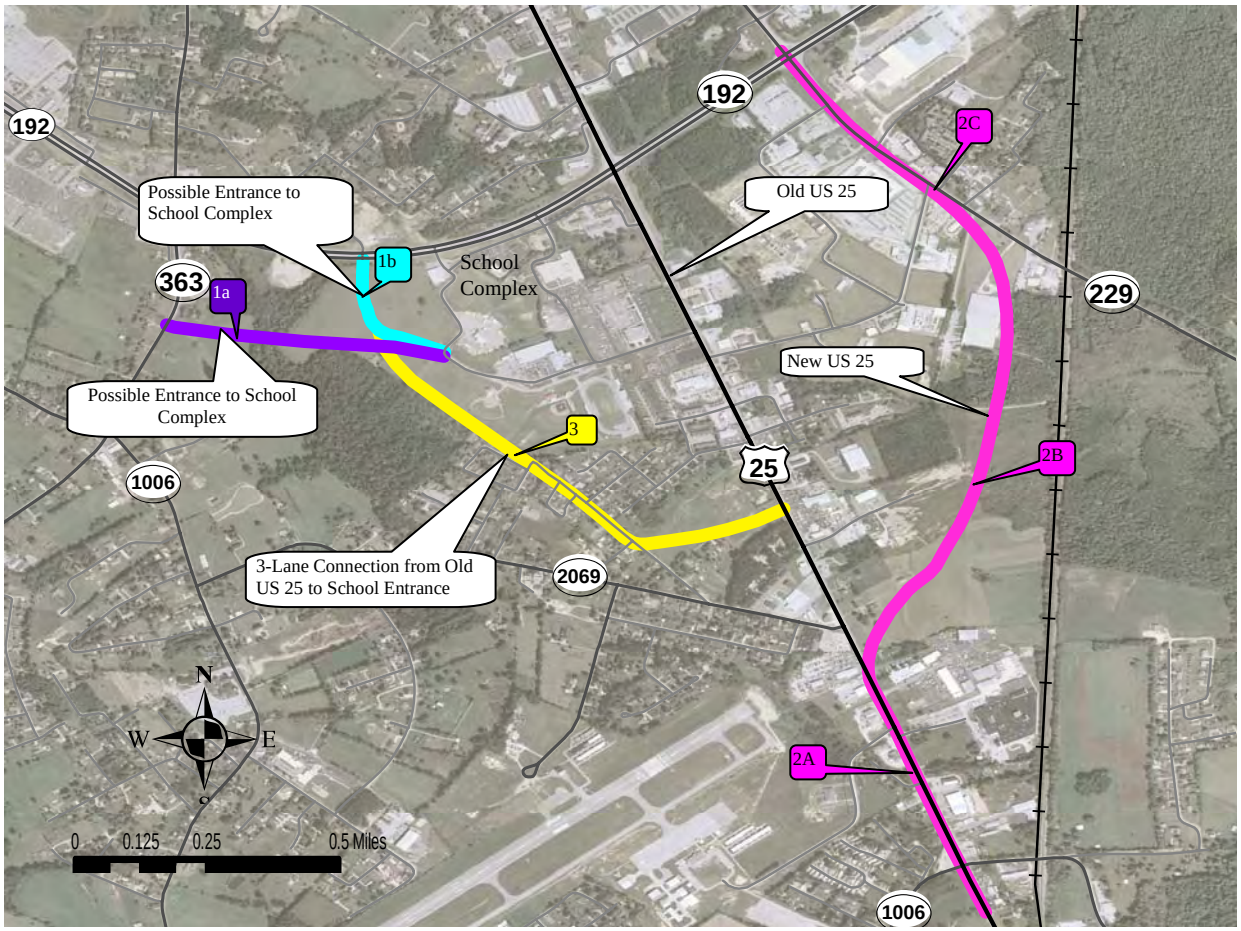
- Coordination attempts should be made with the local city and county planners to develop an access management ordinance to maintain and improve access conditions on US 25, KY 192, KY 229, KY 2069, and KY 1006.
- The design speed should be 45 mph in the urban areas and 55 mph in rural areas.
- US 25 from US 25E to KY 1006 should be expanded to a 4-lane rural highway that meets current design standards.

- Bikeways/Pedways should be provided in urban areas and in the vicinity of the schools. Shoulders that meet current design standards can be used as bikeways for the rural sections of US 25.
- The functional classification of the highway should be a minor arterial throughout. The section of highway between KY 1006 and KY 192 would be classified as an urban minor arterial highway and the remainder classified as a rural minor arterial highway.
- For the northern section of the project (KY 1006 to KY 192), the recommendations and priorities from the officials meeting were generally agreed upon with a few minor changes. The following are the teams recommendations (see following map for clarification):

    1. Construct a back entrance to the school complex connecting the school to either (a) KY 192 Bypass or (b) KY 363. This connection needs to be determined after consultation with the schools and the public. At the time of the report, the schools have not responded to letters or phone calls requesting their input. Origin-Destination information provided by the schools is vital to providing sufficient access to the schools.

    2. Reconstruct/reroute US 25 from KY 1006 to KY 192
        A. Improve US 25 From KY 1006 to KY 2069:
            - Widen to 4 thru lanes
            - Add a non-traversable median with controlled left turns and U-turn capabilities (see Appendix H, Median Guidelines)
            - Add right turning lanes for both the North and Southbound lanes
        B. Reroute US 25 with a new route from KY 2069 to KY 229
            - New 4-lane access controlled highway
            - Rework US 25/KY 2069 to provide a “T” intersection
            - Realign KY 229 to create a “T” shaped intersection with the new US 25.
        C. Widen KY 229 from the new intersection with US 25 to KY 192. Improve KY 229 to a 4-lane access controlled highway.

    3. Provide a new connection between the school and old US 25 by using part of Hurley Lane (approximately 0.3 miles) and an undeveloped plot of land adjacent to US 25. This alternative was discussed due to the officials concerns over expanding KY 2069. Using this connection will give access to the back entrance of the school complex from US 25 and cause much less of a negative impact than using KY 2069 to make this connection.)


192
192
Possible Entrance to School Complex
1b
School Complex
363
1a
Possible Entrance to School Complex
1006
3
3-Lane Connection from Old US 25 to School Entrance
2069
Old US 25
2C
229
New US 25
25
2B
2A
1006
N
W
E
0
0.125
0.25
0.5 Miles

Appendix D

Resource Agency Coordination Letters

Ernie Fletcher
Governor

TRANSPORTATION CABINET
Frankfort, Kentucky 40622
www.kentucky.gov

Bill Nighbert
Acting Secretary

Marc Williams
Commissioner of Highways

October 24, 2005

«Mailing_Title» «First_Name» «Last_Name»«Suffix»
«Title»
«Organization»
«Address1»
«Address2»
«City» «State» «Zip»

Dear «Letter_Title» «Last_Name»:

Subject: Planning Study
Laurel County
US 25 from Corbin to London
Item No. 11-8201.00

We are requesting your agency's input and comments on a planning study to determine the need and potential impacts for a proposed highway project. The Kentucky Transportation Cabinet has assembled a study team to evaluate the proposed improvements to US 25 in Laurel County from US 25 E (Cumberland Gap Parkway) to KY 192 (London Bypass). The study is currently in the initial data-gathering stage.

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

We respectfully ask that you provide us with your comments by December 1, 2005, to ensure timely progress in this planning effort.

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

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

- A draft statement of Study Purpose and Project Goals
- Project Location Map
- Year 2005 Traffic and Level of Service
- Year 2030 Traffic and Level of Service
- Vehicle Crash Information
- Topographic Environmental Footprint

We appreciate any input you can provide concerning this project. Please direct any comments, questions, or requests for additional information to Joe Tucker of the Division of Planning at (502) 564-7183 or at joseph.tucker@ky.gov. Please address all written correspondence to Daryl Greer, P.E., Acting Director, Division of Planning, Kentucky Transportation Cabinet, 200 Mero Street, Mail Code W5-05-01, Frankfort, KY 40622.

Sincerely,

Daryl J. Greer, P.E.
Acting Director
Division of Planning

DJG/JLT/NH

Enclosures

c: Jose Sepulveda
Anthony Goodman (w/e)
David Whitworth
Andy Meadors
David Waldner
Greene Keith
Joel Holcomb
Amos Hubbard (w/e)
Quentin Smith
Chris W. Phillips
David Harmon
Tom Napier

STUDY PURPOSE, ISSUES, AND PROJECT GOALS

US 25 CORBIN TO LONDON
LAUREL COUNTY

STUDY PURPOSE

The purpose of the US 25 Corbin to London Scoping Study is to identify and evaluate potential improvements between the Cumberland Gap Parkway (US 25E) and the London Bypass (KY 192). The study is intended to help define the location and purpose of the project and better meet Federal requirements regarding consideration of environmental issues, as defined in the National Environmental Policy Act (NEPA). Items involved with this study include:

- Discuss project needs and issues with the Project Team,
- Define project goals, needs, and issues,
- Identify any known environmental concerns, and
- Identify and evaluate different alternatives.

ISSUES

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

- US 25 between London and Corbin is a highly congested highway that operates at a less than desirable level of service. Several intersections with US 25 including the bypass, South Laurel High School, KY 1006, and others do not adequately handle the traffic volumes. There are a large number of trucks in the area adding to highway capacity problems.
- Nine highway fatalities have occurred along the study area over the past five years. Many of these crashes have involved trucks. Speed was also a contributing factor in the severity of many of these crashes.
- US 25 is the only alternative corridor for I-75 shutdowns between Corbin and London. There have been numerous crashes during inclement weather on I-75, forcing the interstate to close down and divert traffic onto US 25.

DRAFT PROJECT GOALS

For the US 25 Corbin to London project, several goals and objectives were identified. These include:

- Address highway capacity and growth needs in Laurel County,
- Improve safety by providing an improved route that complies with current design standards, and
- Provide an alternative route during incidents or closures on I-75.

CONTACTS

Address written comments to:

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

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

Joe Tucker
Project Engineer
Kentucky Transportation Cabinet
Division of Planning
(502) 564-7183
joseph.tucker@ky.gov

Visit our web page at: http://transportation.ky.gov/planning

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

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

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

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

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

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

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

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

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

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

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

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

Mr. Richie Farmer
Commissioner
Kentucky Department of Agriculture
32 Fountain Place
Frankfort KY 40601

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

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

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

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

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

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

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

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

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

Mr. Greg Howard
Commissioner
Kentucky Department of Vehicle Enforcement
125 Holmes Street
Frankfort KY 40601

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

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

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

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

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

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

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

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

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

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

Mr. Derrick Ramsey
Deputy Secretary
Kentucky Commerce Cabinet
Capital Plaza Tower, 24th Floor
500 Mero Street
Frankfort KY 40601

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

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

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

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

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

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

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

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

Mr. Wesley Glass
Director
KYTC, Division of Materials
1227 Wilkinson Boulevard, C-5
Frankfort KY 40622

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

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

Ms. Virginia Fox
Secretary
Education Cabinet
Capital Plaza Tower, 2nd Floor
Frankfort KY 40601

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

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

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

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

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

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

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

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

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

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

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

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

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

Mr. Buddy Yount
Kentucky Division Administrator
Federal Motor Carrier Safety Administration
300 West Broadway
Frankfort KY 40601

Mr. Bill Lally
Executive Director
Kentucky Household Goods Carrier Association Inc.
P.O. Box 22204
Louisville KY 40252-0204

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

Ms. Sherri Mosley
Manager
London Downtown Preserve America Community
501 South Main Street
London KY 40743

Mr. John Strojan
District Ranger
USDA Forest Service- London Ranger District
761 South Laurel Road
London KY 40744

Mr. Walter T. Hulett
Superintendent
Laurel County Schools
275 South Laurel Road
London KY 40741

Mr. Kenji Tsujimura
President
AISIN Automotive Casting, Inc.
4870 East Hwy 552
London KY 40744

Mr. Ken Harvey
Director
London-Laurel County Tourism Commission
140 West Daniel Boone Parkway
London KY 40741

Mr. Randy Smith
Executive Director
London/ Laurel County Chamber of Commerce
529 South Main Street
London KY 40741

Laurel Cookie Factory
P.O. Box 988
London KY 40743

ACS
P.O. Box 140
London KY 40743

Laurel Ridge Landfill, Inc.
P.O. Box 1364
Corbin KY 40702

The Honorable Lawrence Kuhl
Judge/Executive
Laurel County
Laurel County Cthse Rm 204
101 South Main Street
London KY 40741

Mr. Gene Hollon
Sheriff
Laurel County
Laurel County Cthse Rm 204
101 South Main Street
London KY 40741

Mr. William R. Azbill
Councilmember
City of London
402 Azbil Street
London KY 40741

Ms. Sharon J. Benge
Councilmember
City of London
870E 4th Street
London KY 40741

Mr. John Bruner
Councilmember
City of London
501 South Main Street
London KY 40741

Mr. Bill Dezarn
Councilmember
City of London
518 Cornett Drive
London KY 40741

Mr. Danny Phelps
Councilmember
City of London
310 North Main Street
London KY 40741

Mr. Troy Rudder
Councilmember
City of London
1585 Barbourville Street
London KY 40741

The Honorable Ken Smith
Mayor
City of London
501 South Main Street
London KY 40741

Mr. Elijah D. Hollon
Police Chief
City of London
503 South Main Street
London KY 40741

The Honorable Marie L. Rader
Kentucky State Representative, 89th District
Kentucky State Legislature
P.O. Box 323
McKee KY 40447

The Honorable Charles L. Siler
Kentucky State Representative, 82nd District
Kentucky State Legislature
3570 Tackett Creek Road
Williamsburg KY 40769

The Honorable Jim Stewart
Kentucky State Representative, 86th District
Kentucky State Legislature
141 KY 223
Flat Lick KY 40935

The Honorable Tommy Turner
Kentucky State Representative, 85th District
Kentucky State Legislature
175 Clifty Grove Church Road
Somerset KY 42501

The Honorable Tom Jensen
Kentucky State Senator, 21st District
Kentucky State Senate
303 South Main Street
London KY 40741

Mr. Robert Blakeman
Manager
London Corbin Airport
P.O. Box 9
London KY 40743

Mr. Carl Patton
President
Laurel County Historical Society
P.O. Box 816
London KY 40741

London Laurel Community Foundation, Inc.
501 South Main Street
London KY 40741

AISIN

AISIN AUTOMOTIVE CASTING, LLC (AAC)

4870 East Highway 552, London, KY 40744
TEL: (606) 878-6523 • FAX: (606) 862-0430
PLANT 1 FAX: (606) 878-6522
PLANT 2 FAX: (606) 878-7193

November 17, 2005

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

Dear Mr. Greer:

Subject: Item No. 11-8201.00

Thank you for your request for input on the improvement proposal for US 25 from Corbin to London.

Observations that we have made over the past several years during our company expansions include:

1. There are days when overweight trucks will avoid the scales on I-75 and this obviously will restrict the usefulness of the local highway as well as make travel more dangerous;

2. There are occasional traffic problems on I-75 and vehicles take US 25 to bypass the problem. The potential for more accidents is realistic with our continued growth and no one is interested in another fatality;

3. The schools from Hunter Hills to South Laurel High School need our protection and the continued growth of Aisin will further burden the present traffic flow.

Options we've recognized include a 5-lane highway including turn lane, 4-lane with traffic light(s) at both schools and/or the intersection of US 25 and KY 552, and a 3-lane highway including a full turn lane from Corbin to London.

Mr. Greer, thank you for giving consideration to our observations.

Sincerely,

Bruce Daeger

Bruce Daeger
Senior Manager Human Resources & General Affairs

LONDON-CORBIN AIRPORT BOARD
566 Hal Rogers Drive, PO Box 9
London Kentucky 40744
606-878-9100 fax: 606-878-9101

October 25, 2005

DIV OF PLANNING
2005 OCT 26 A 9:56

Daryl Greer, P.E.
Acting Director
Division of Planning
Kentucky Transportation Cabinet
200 Mero Street Mail Code W5-05-01
Frankfort, Kentucky 40622

Dear Mr. Greer:

Subject: Planning Study
Laurel County
US 25 from Corbin to London
Item No. 11-8201.00

After reviewing your information of October 24, 2005, we would like to suggest the great need for a traffic light at the junction of Highway 25 and Hal Rogers Drive.

With the factories in this area, traffic exiting from the London-Corbin Airport is forced to wait for extended periods, often pulling to the center turning lane in an effort to get onto Highway 25. This practice has caused some accidents and numerous near misses.

We appreciate your consideration in this matter and should you have questions, please contact me.

Sincerely,

Robert Blakeman
Airport Manager

London Downtown

November 30, 2005

Input for Ky Transportation Cabinet
Planning Study
US 25 London to Corbin
Item No. 11-8201.00

The London Downtown Organization is pleased to be invited to provide input to the Kentucky Transportation Cabinet in regard to the improvements to US Highway 25.

Our concerns and inputs are as follows:

1. We ask that you consider 4-laning the entire section from London to Corbin with additional turn lanes and with additional acceleration lanes at the exits from the cooky factory, ACS and South Laurel High School.

2. Traffic lights are necessary to control traffic and reduce the accident rate.

3. Downtown London, Main Street traffic. When I-75 is blocked between London and Corbin the additional traffic on US 25 adds to the already heavy load we recommend that you develop a bypass around town using the Hal Rogers Parkway and Ky 192 to alleviate the traffic congestion on main street.

4. Seek and plan additional roads to allow traffic to access to and from South Laurel HS

Thank you for the opportunity to participate in this hearing.

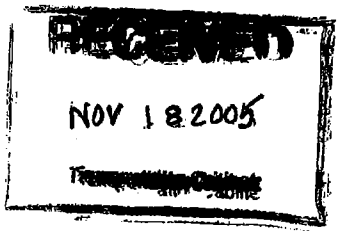
London Downtown Transportation Committee

Jim Handy, Glenn H. "Buddy" Westbrook

ERNIE FLETCHER
GOVERNOR

CABINET FOR HEALTH AND FAMILY SERVICES
DEPARTMENT FOR PUBLIC HEALTH
275 EAST MAIN STREET, HS1GWA
FRANKFORT, KENTUCKY 40601
(502) 564-3970 (502) 564-9377 FAX

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



November 14, 2005

Daryl J. Greer, PE, Acting Director
Division of Planning
Transportation Cabinet
200 Mero Street
Frankfort, Kentucky 40601

Dear Mr. Greer:

Thank you for your letter to Secretary James Holsinger regarding the proposed improvements to US 25 in Laurel County from US 25E to KY 192. Secretary Holsinger has forwarded your study to me for review and response.

The Department for Public Health does not find any specific issues or concerns regarding the development of this project.

Thank you for the opportunity to review this study. If we may be of further assistance, feel free to contact my office at (502) 564-3970.

Sincerely,

William D. Hacker, MD, FAAP, CPE
Commissioner

KENTUCKY COMMERCE CABINET
DEPARTMENT OF FISH & WILDLIFE RESOURCES

Ernie Fletcher
Governor

#1 Game Farm Road
Frankfort, Kentucky 40601
Phone (502) 564-3400
(800) 858-1549
Fax (502) 564-0506
www.kentucky.gov

W. James Host
Secretary

Dr. Jonathan W. Gassett
Commissioner

November 15, 2005

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

Re: Threatened/Endangered species review: Planning Study, US 25 from Corbin to London, Item No. 11-8201.00, Laurel County, Kentucky

Dear Mr. Greer:

The Kentucky Department of Fish and Wildlife Resources (KDFWR) has received your request for the above-referenced information. The Kentucky Fish and Wildlife Information System indicates that no federally threatened or endangered (T&E) fish and wildlife are known to occur in the Lily and London 7.5 minute USGS quadrangle(s). Please be aware that our database system is a dynamic one that only represents our current knowledge of the various species distributions.

The KDFWR recommends the following for the portions of the project that cross intermittent and perennial streams:

1. Development/excavation during a low flow period to minimize disturbance;

2. Preservation of tree canopy overhanging the stream;

3. The applicant use a comprehensive sediment control plan consisting of silt barriers, diversion ditches, and immediate seeding and mulching of disturbed areas during and upon completion of the project;

4. Any excavation of stream channel for placement of bridge piers should be kept at a minimum;

5. The existing transportation corridors should be used as the main crossing of the stream during bridge construction if possible to minimize impacts to the aquatic resources.

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

Sincerely,

Marla Barbour Callaghan

Marla Barbour Callaghan
Fisheries Biologist III
Assistant Project Leader, Environmental Section

cc: Environmental Section File

COMMERCE CABINET
DEPARTMENT OF PARKS

Capital Plaza Tower, 11th Floor
500 Mero Street
Frankfort, Kentucky 40601-1974
Phone (502) 564-2172
Fax (502) 564-9015
www.parks.ky.gov

Ernie Fletcher
Governor

W. James Host
Secretary

George Ward
Commissioner

October 31, 2005

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

Re: Planning Study
Laurel County
US 25 from Corbin to London
Item No. 11-8201.00

Dear Mr. Greer:

The Department of Parks has reviewed your correspondence to the Commerce Cabinet regarding the subject. The proposed highway will impact Levi Jackson State Park. 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.

The Park is located approximately one mile driving distance form US 25. As you may know the Cumberland Gap Trail is in the vicinity of US 25. The Parks Department and the Department of Transportation are coordinating a Tea Grant to improve part of the trail. The Department of Parks also has a recently reconstructed location sign next to US 25 near Fariston, Kentucky. The sign is constructed of mortared stone and would most likely be in the construction area of the proposed route. The documents that you transmitted are not detailed enough to determine whether the project will impact the Parks grounds.

I appreciate you seeking our Agency's comments and look forward to working on the project should it progress.

Sincerely:

Mr. George Ward, Secretary
Kentucky Commerce Cabinet

C: John Drake

Tucker, Joseph (KYTC)

From: Harman, Charles L (Education Cabinet)
Sent: Wednesday, November 09, 2005 10:05 AM
To: Tucker, Joseph (KYTC)
Subject: RE: Item No. 11-8201.00

Thanks Joe.

With that said, the remainder of the Education Cabinet has no other comments at this time.

ch

From: Tucker, Joseph (KYTC)
Sent: Wednesday, November 09, 2005 10:00 AM
To: Harman, Charles L (Education Cabinet)
Subject: RE: Item No. 11-8201.00

Mr. Harman, yes the superintendent of the local school district is also sent a letter. In this case Mr. Walter Hulett, was sent a letter. For the subject project area, the most critical traffic area is in front of a 3 school cluster (the high school, middle school, and tech college), so the schools input on solving the traffic problem with the least amount of negative impacts to the schools is a very important part of this study.

Thanks
Joe

From: Harman, Charles L (Education Cabinet)
Sent: Wednesday, November 09, 2005 9:48 AM
To: Tucker, Joseph (KYTC)
Subject: Item No. 11-8201.00

Joe – I am inquiring for the Education Cabinet on the subject planning study. I need to know if this notice was and is routinely sent to the affected local school districts.

Thanks.

ch

ERNIE FLETCHER
GOVERNOR

LAJUANA S. WILCHER
SECRETARY

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

November 17, 2005

Mr. Daryl Greer, P.E.
Acting Director, Division of Planning
Kentucky Transportation Cabinet
200 Mero Street
Mail Code W5-05-01
Frankfort, Kentucky 40622

Dear Mr. Greer,

The Division has reviewed the planning study for evaluating proposed improvements to US 25 in Laurel County from US 25 E (Cumberland Gap Parkway) to KY 192 (London Bypass), Item Number 11-8201.00. The following Kentucky Administrative Regulations apply to this proposed project:

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

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

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.

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

Sincerely,

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

JEG/jmf

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

Ernie Fletcher
Governor

Division of Conservation
375 Versailles Road
Frankfort, Kentucky 40601
Phone (502) 573-3080
Fax (502) 573-1692
www.conservation.ky.gov

LaJuana S. Wilcher
Secretary

Stephen A. Coleman
Director

December 2, 2005

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

Subject: Planning Study for US 25 from Corbin to London

Dear Mr. Greer:

As requested, the Division of Conservation has reviewed the proposed study to improve US 25 beginning at the Cumberland Gap Parkway and ending at KY 192, London Bypass. 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 Laurel and Rockcastle Counties* (NRCS 1981), and *Important Farmland Soils of Kentucky* (NRCS 1981). Both documents are available through this office. The soil survey information can also be downloaded at the following web site: http://soildatamart.nrcs.usda.gov/.

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

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

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

Sincerely,

Stephen A. Coleman, Director
Kentucky Division of Conservation

SAC/MD/aeh

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
DEPARTMENT FOR NATURAL RESOURCES

Ernie Fletcher
Governor

2 Hudson Hollow
Frankfort, Kentucky 40601
Phone (502) 564-6940
Fax (502) 564-5698
www.naturalresources.ky.gov
www.kentucky.gov

LaJuana S. Wilcher
Secretary

Susan C. Bush
Commissioner

November 28, 2005

Daryl J. Greer, P.E.
Acting Director
Division of Planning
Kentucky Transportation Cabinet
200 Mero Street
Mail Code W5-05-01
Frankfort, Kentucky 40622

RE: Planning Study
Laurel County
US 25 from Corbin to London
Item No. 11-8201.00

Dear Mr. Greer:

Thank you for the opportunity to comment on the proposed highway project in Laurel County. The Department for Natural Resources has examined the documentation for the above Planning Study and The Division of Forestry offers the following comment. Potential impacts for proposed highway improvements are minimal along US 25 in Laurel County from US 25 E (Cumberland Gap Parkway) to KY 192 (London Bypass). The Kentucky Division of Forestry observes that US 25 crosses Laurel River and Robinson Creek. Both of these water crossings have two-lane bridges that, if expanded, will need to address fill dirt and/or erosion issues that will directly affect water quality. In addition, the portion of highway improvement from the Laurel River crossing south to Fariston is low lying on the west side of US 25 and acts as a flood plain for Laurel River during heavy rainfall events. If fill dirt is used, erosion and water quality issues will need to be addressed. This highway project will have minimal impacts on timber, wildlife, and recreation.

Please contact Linda Potter in the Commissioner's Office at (502) 564-6940 if you need additional information.

Sincerely,

Susan C. Bush

Susan C. Bush, P.G.
Commissioner

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.naturalresources.ky.gov
www.kentucky.gov

LaJuana S. Wilcher
Secretary

Susan C. Bush
Commissioner

November 4, 2005

Daryl Greer, P. E.
Acting Director
Division of Planning
Kentucky Transportation Cabinet
200 Mero Street
Mail Code W5-05-01
Frankfort, KY 40622

Subject: Planning Study
Laurel County
US 25 from Corbin to London
Item No. 11-8201.00

Dear Mr. Greer:

Thank you for the opportunity to comment on the referenced potential highway project located in Laurel County.

Your Draft Enviromental Footprint map indicates an active mining operation within the Study Area depicted in your correspondence of October 24, 2005. The specific details of the operation are outlined below and on the attached map.

Transrail Properties Inc. Permit # 863-8005
Latitude 37.06194; Longitude 84.0575
Permittee Address: PO Box 5051 400 South Main Street
London, KY 40745
Phone: (606) 864-2263

The mine permit is an active coal preparation plant and associated facilities, and does not entail coal removal activities.

Review of records associated with the 'mined' out coal beds in the footprint of your proposed project does not indicate the presence of any abandoned or active underground mines within the area of interest.

I appreciate the notification and the opportunity to comment on the proposal. If you have any questions regarding this correspondence, please contact Pam Carew at (502) 564-2340.

PR/pbc

Attachment

Sincerely,

Paul Rothman, Director
Division Of Mine Reclamation and Enforcement

JUSTICE AND PUBLIC SAFETY CABINET

Ernie Fletcher
Governor

Kentucky Vehicle Enforcement
Frankfort, Kentucky 40601

Lt. Gov. Stephen B. Pence
Secretary

Gregory G. Howard
Commissioner

December 20, 2005

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 to a proposed highway project on US 25 from Corbin to London (Item No. 11-8201.00).

After having my staff research the matter, we agree with the desire to improve US 25 especially for road closures of I-75 as well as attempting to lower crash and fatality rates. The only issue that would concern us is the increase of truck traffic utilizing a bypass route around the weigh station in Laurel County. If the trucking industry learns that a bypass route around the scales is accessible and in good condition, it could create an open invitation to "go around" the scales. Other than that minor issue, we can see no great problems this would cause Kentucky Vehicle Enforcement.

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-005-2005**

TO: Daryl Greer, PE
Acting Director
Division of Planning

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

BY: Michael Blevins, PG
Geotechnical Branch

DATE: November 29, 2005

SUBJECT: Laurel County
FD04 063 0025 000-011 D
US 25 from Corbin to London
Item # 11-8201.00
Mars # 7808101D
Planning Study – Geotechnical Concerns

The Geotechnical Branch has completed an office review of the project study area. The study area will encounter Quaternary Alluvium consisting of sand, sandy silt and clay and is found mainly along the larger stream valleys. The Alluvium ranges from 0 to 10 feet in depth. Bedrock to be encountered is mainly Sandstone, Siltstone, Shale and Coal of the Breathitt Formation and the Corbin Sandstone Member of the Lee Formation.

The only commercial coal bed that is anticipated to be encountered is the Lily Coal Bed of the Breathitt Formation. The thickness ranges from 0 to 42 inches. The Lily Coal Bed has been strip mined and underground mined.

GEOTECHNICAL CONCERNS

1. Underground mines may be encountered in the Lily coal bed on the East side of the Laurel River in the vicinity of Lily. The approximate thickness of the mined coal bed is 36 inches. Any mine openings encountered in cuts will require back-stowing of the mine openings to support the above cut slopes. Extra right-of-way may be required. Mines encountered below grade may require over excavating the grade and back-filling with select granular embankment or back-stowing.

2. Sandstone for use in rock roadbed may be in short supply from roadway excavation if encountered in the Breathitt Formation.

3. Sandstone from the Corbin Sandstone may be in abundant supply when the Formation is encountered in excavations, but the quality of the material may not meet the specifications for rock roadbed. The sandstone is generally poorly cemented and friable.

4. Spread footings should be suitable for the structures as deep overburdens are not anticipated.

If there are any questions, please advise.

cc: Joe Tucker (Div. Of Planning)

Ernie Fletcher
Governor

TRANSPORTATION CABINET
Frankfort, Kentucky 40622
www.kentucky.gov

Bill Nighbert
Acting Secretary

Marc Williams
Commissioner of Highways

MEMORANDUM

TO: Daryl J. Greer
Acting Director
Division of Planning

FROM: Ed Cummins
Permits Branch

DATE: October 28, 2005

RE: Planning Study
Laurel County
US 25 from Corbin to London
Item No. 11-8201.00

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

1. We urge the Cabinet to classify this project as partially controlled access facilities.

2. Assuming the project is partial control access, **we encourage that 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, assuming the access control is partial control, 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. In addition, we would like to make every effort possible to have the design speed to be the same as anticipated posted speed when the project is complete.

5. We would like to see access control fence installed with the project.

6. Please notify this office if the proposed roadway is to be placed on the National Highway System (NHS). This information is needed to assist this office in regulating the installation of any outdoor advertising device. If the proposed roadway is to be on the NHS, 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.

ELC

SCENIC KENTUCKY
An Affiliate of Scenic America

November 29, 2005

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

Dear Director Coffey:

We believe that improvements to Highway 25 between London and Middlesboro have the potential for the roadway to become one of the premier sites in the state and the Southeast. The drive slowly invites motorists to savor the natural beauty of the mountains. This rare experience can become a memorable one if the following suggested elements are incorporated in the redesigned roadway.

-Entry points outside each city should be clearly evident by creating stunning stands of native hardwood trees and vegetation at the entrances.
-Interpretive pull-off areas are readily available.
-Uniform fences reflecting the rural historic of the surrounding landscape are required. ---
-Rusticated guardrails or steel backed timber guardrails are used throughout the roadway.
-Billboards are not allowed along the scenic highway. Billboards currently in place,e.g. Barbourville are phased out or removed.
-An environmentally sensitive designed bikeway will attract increased visitors to the area.

In summary, a parkway design that completely focuses on the area's natural beauty will serve as a magnet for the traveling public. The Kentucky Transportation Cabinet's leadership in context sensitive design related to parkways will provide a rare opportunity to make a statement that will be a lasting legacy for our citizens.

Sincerely yours,

Keith P. Eiken, Ed.D.
Executive Director

Post Office Box 2646 Louisville, Kentucky 40201 www.scenickentucky.org FAX 502-459-5278 502-459-9497

UNIVERSITY OF KENTUCKY

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

November 11, 2005

Daryl J. Greer, P.E.
Acting Director
Division of Planning
Kentucky Transportation Cabinet
Station W5-05-01
200 Mero Street
Frankfort, Kentucky 40622

Dear Mr. Greer:

This letter is to summarize any geologic concerns for the planning study:
Laurel County
U.S. 25 from Corbin to London, Ky.
Item No. 11-8201.00.

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

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

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

Unconsolidated Sediments
The planning study will encounter unconsolidated sediments at or near stream drainage, such as sand, silt, and clay.

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

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

Fault Potential
The planning study should not encounter faults.

KGS

Earthquake Zone

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

Sincerely,

Richard A Smath

Richard A Smath
Geologist

cc Mike Blevins

United States Department of Agriculture

NRCS Natural Resources Conservation Service

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

DIV OF PLANNING

2005 OCT 28 A 9:24

October 27, 2005

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

Dear Mr. Greer:

In regards to the planning study for the proposed improvements to US 25 in Laurel County from US 25 E (Cumberland Gap Parkway) to KY 192 (London Bypass), Item No. 11-8201.00, the USDA-Natural Resources Conservation Service (NRCS) is concerned with potential impacts that the proposed highway project might have upon prime farmland soils and additional farmlands of statewide importance. If federal dollars are to be used to convert important farmlands from agricultural uses to non-agricultural uses a Form AD-1006 (or Form NRCS-CPA-106 if the project is a corridor type project) must be submitted to the local NRCS office. These forms may be obtained from the local NRCS office and are also available as electronic forms on the web at http://www.nrcs.usda.gov/programs/fppa/pdf_files/AD1006.PDF and http://www.nrcs.usda.gov/programs/fppa/pdf_files/CPA106.pdf .

The contact person is:

Jeffrey Moore, District Conservationist
USDA-Natural Resources Conservation Service
85 South Laurel Rd. Ste 3
London, KY 40744-8300 phone: (606) 864-2180

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

To further assist with the planning efforts, I am enclosing a CD containing ArcView GIS shapefiles of basic soils information for the project study area. The GIS shapefiles are in UTM projection, nad83, zone 16. The soil database table includes a column for "farmland classification-all components" (farmclac) that identifies prime farmlands and soils of statewide importance. The AV legends subdirectory contains a legend (farmland_classif.avl) for prime and statewide important farmland that can be added to the soils shapefile.

Sincerely,

acting for

DAVID G. SAWYER
State Conservationist

cc: Jeffrey Moore, District Conservationist, London, KY
Robert Bradley, Area Conservationist, Mount Sterling, KY

U.S. Department of Homeland Security

United States Coast Guard

Commander
Eighth Coast Guard District

1222 Spruce Street
St. Louis, MO 63103-2832
Staff Symbol: obr
Phone: (314)539-3900, x2379
Fax: (314)539-3755
Email: eric.washburn@uscg.mil

16591.1/15.0 Laurel River
December 19, 2005

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

Subj: U.S. 25 IMPROVEMENTS, MILE 15.0, LAUREL RIVER

Dear Mr. Greer:

We have reviewed the information provided in your letter of October 24, 2005. Pursuant to the Coast Guard Authorization Act of 1982, the Laurel River at the bridge site is not a waterway 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. Eric Washburn at the above extension. We appreciate the opportunity to comment on the project.

Sincerely,

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

DEPARTMENT OF THE ARMY
NASHVILLE DISTRICT, CORPS OF ENGINEERS
Regulatory Branch
3701 Bell RD
Nashville, TN 37214

November 28, 2005

Regulatory Branch

SUBJECT: File No. 200502346; Planning Study for Proposed Highway Improvements to US 25, From US 25E (Cumberland Gap Parkway) to KY 192 (London Bypass), in Laurel County, Kentucky (KYTC Item No. 11-8201.00)

Daryl J. Greer, P.E.
Acting Director, Division of Planning
Kentucky Transportation Cabinet
200 Mero Street (W5-05-01)
Frankfort, Kentucky 40622

Dear Mr. Greer:

This concerns your request for comments regarding the potential effects of the subject proposal on areas of interest or programs administered by our agency. Please reference File No. 200502346 in future communications with us about this work.

The regulatory authorities and responsibilities of the Corps of Engineers (Corps) are based mainly on two laws: Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) and Section 404 of the Clean Water Act (33 USC 1344). Section 10 prohibits the obstruction or alteration of navigable waters of the United States (NWUS) without a Corps permit. Section 404 requires a Corps permit for any discharge of dredged or fill material into waters of the United States (WUS).

Based on a review of the proposed study area on the Corbin and Lily U.S. Geological Survey Quadrangle maps, the highway improvements would likely involve stream construction activities in or over Horse Creek and tributaries, Robinson Creek and tributaries, Laurel River, Little Laurel River, Whitley Branch and tributaries, and several other unnamed streams in the London vicinity. The Laurel River is considered a NWUS up to the head of slack waters of Dorothea Lake (just southeast of the Cumberland Memorial Gardens Cemetery). We strongly encourage your avoidance of impacts to the Laurel River. If a bridge is entirely necessary, it must be adequately designed so as not to interfere with navigation.

Our cursory desk review did not reveal the presence of jurisdictional wetlands. However, we suggest additional surveys to determine if federally regulated wetlands exist and the extent of potential impacts. Any wetlands found adjacent, bordering, or contiguous to streams are also considered WUS and thus fall under our jurisdiction.

Please note that our permit review includes application of the Section 404(b)(1) Guidelines. As such, the design of the project must avoid impacts or adverse modification to WUS to the extent practicable. Constructing bridges or bottomless culverts that completely span streams, limiting approach fills to areas above the ordinary high water mark, and avoiding stream relocations and wetland fills whenever practicable are options that must be considered. Documentation of avoidance, minimization, and mitigation efforts should be provided with the permit application package.

Thank you for including us in your scoping process. We are available to discuss our permit requirements in detail as well as efforts to avoid or minimize the project's aquatic resource impacts. I may be reached at the above address, telephone (615) 369-7519. My email address is jose.r.hernandez2@us.army.mil.

Sincerely,

J. Ruben Hernandez
Project Manager
Operations Division

Appendix E
Traffic Forecast

Laurel County Traffic Forecast
No-Build and Build US 25 Widening
Item # 11-8201.00

Division of Planning

November 7, 2005

Table of Contents

Traffic Forecast
Executive Summary

PROJECT DESCRIPTION

The purpose of this project is to analyze traffic on the proposed widening of US 25 in Laurel County. The project begins at the US 25E/25W/25 Intersection and ends at KY 192. This project assumes widening from 2 lanes to 4 lanes for the build scenario along the US 25 corridor for the entire project area.

TYPE of FORECASTS

The following types of forecasts were developed:

- Average daily traffic (ADT) and design hourly volume (DHV) forecasts were developed for US 25 for the Build and No-Build scenarios. These forecasts were developed for current year 2005 and design year 2030.
- Current year 2005 and design year 2030 ADT and DHV turning movement forecasts were provided along US 25 at the intersections of KY 2392S, Powers Lane (CR 1215B7), KY 3431, KY 1223, KY 2392N, Lily School Rd/Echo Valley Road (CR 1223D / CR 1194), Slate Ridge Road/South Lily Road (CR 1200 / CR 1223D), KY 552, KY 1189, Fariston Rd (CR 1224), KY 1006, KY 2069, South Laurel High School Road (CS 1134), and KY 192. These turning movements were developed for the Build and No-Build scenarios.
- Truck forecasts (ADT, DHV, light/heavy) were also provided for this project.

TRAFFIC VOLUMES / GROWTH RATES

Current year 2005 volumes were based on historical counts in Laurel County as well as special counts performed in September 2005. Extensive trend line analysis was conducted along US 25 and the intersection legs in which turning movements were developed. A growth rate of 2% was determined from this analysis for the entire project for the No-Build scenario. To get volumes for the Build to four lane scenario, traffic models were used. The Kentucky Statewide Model and London Urban Area model were both used to determine growth factors for US 25 and intersections for the Build scenario. These factors varied along the project length.

DESIGN HOUR VOLUMES

Design Hour Volumes for the turning movements and the US 25 corridor were determined by analyzing the most recent hourly counts performed. The high AM count and PM count were used to develop a daily K-factor. 2% was added to this number to get a yearly DHV. AM and PM DHV directional factors were determined straight from the peak hour special turning movement counts.

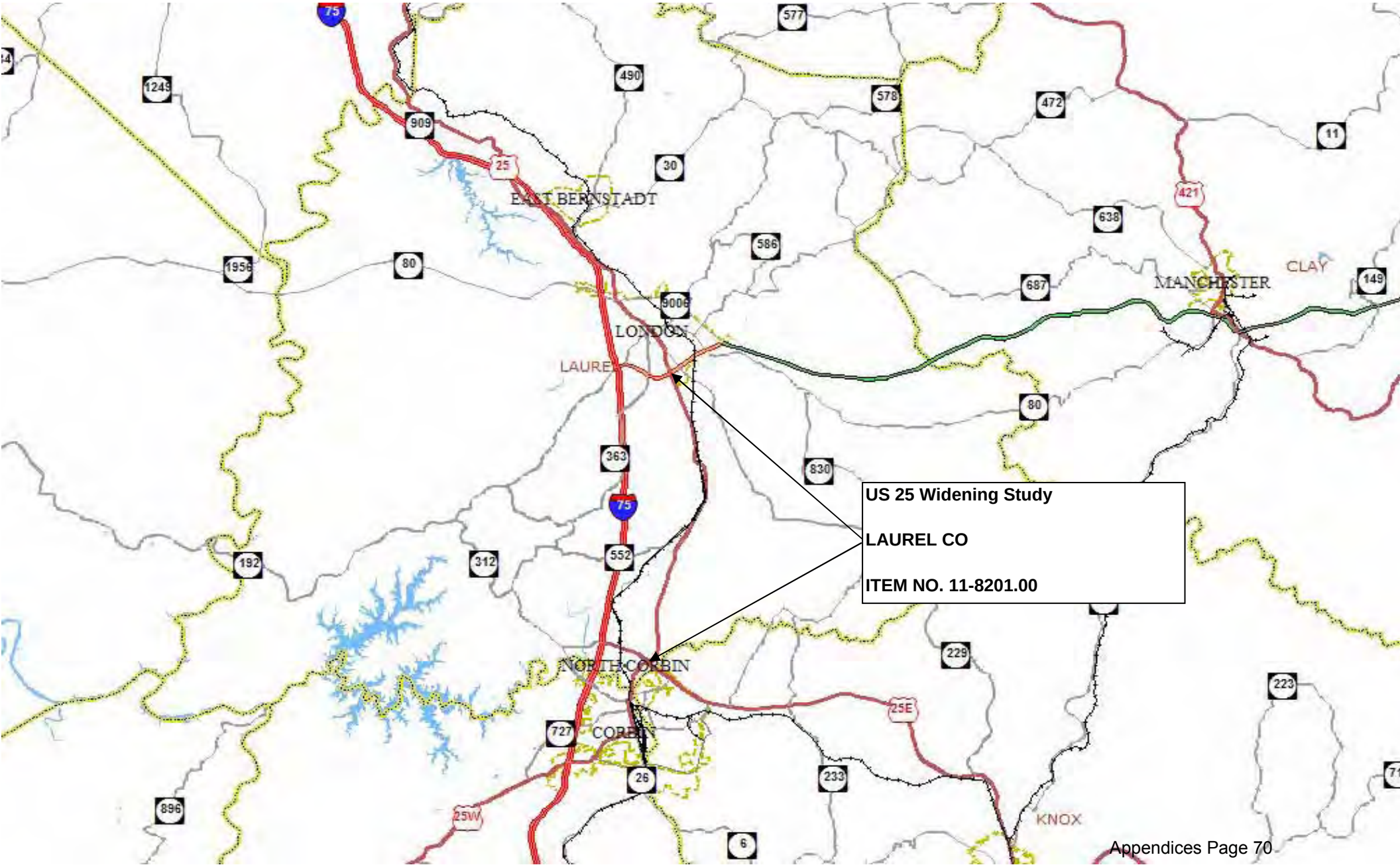
TURNING MOVEMENTS

Turning movements were developed from the volume and DHV methods mentioned above. Also special turning movements were made and grown to reflect ADT turning movements. Appropriate growth factors were applied to develop (No-Build current and 2030 / Build current and 2030) ADT and AM/PM DHV turning movements.

TRUCK PERCENTAGES

Special counts performed in September and historical classification counts were used to obtain truck percentages for the project. The truck percentages were determined to be variable along the US 25 corridor. The percentage of heavy trucks was determined to be 46% and light trucks was determined to be 54% along the entire US 25 project length. For individual stations along US 25, a 2005 truck percentage was determined and a 1.5% annual growth rate was used to produce 2030 truck percentages. The DHV truck percentage was taken to be two-thirds of the daily truck percentage.

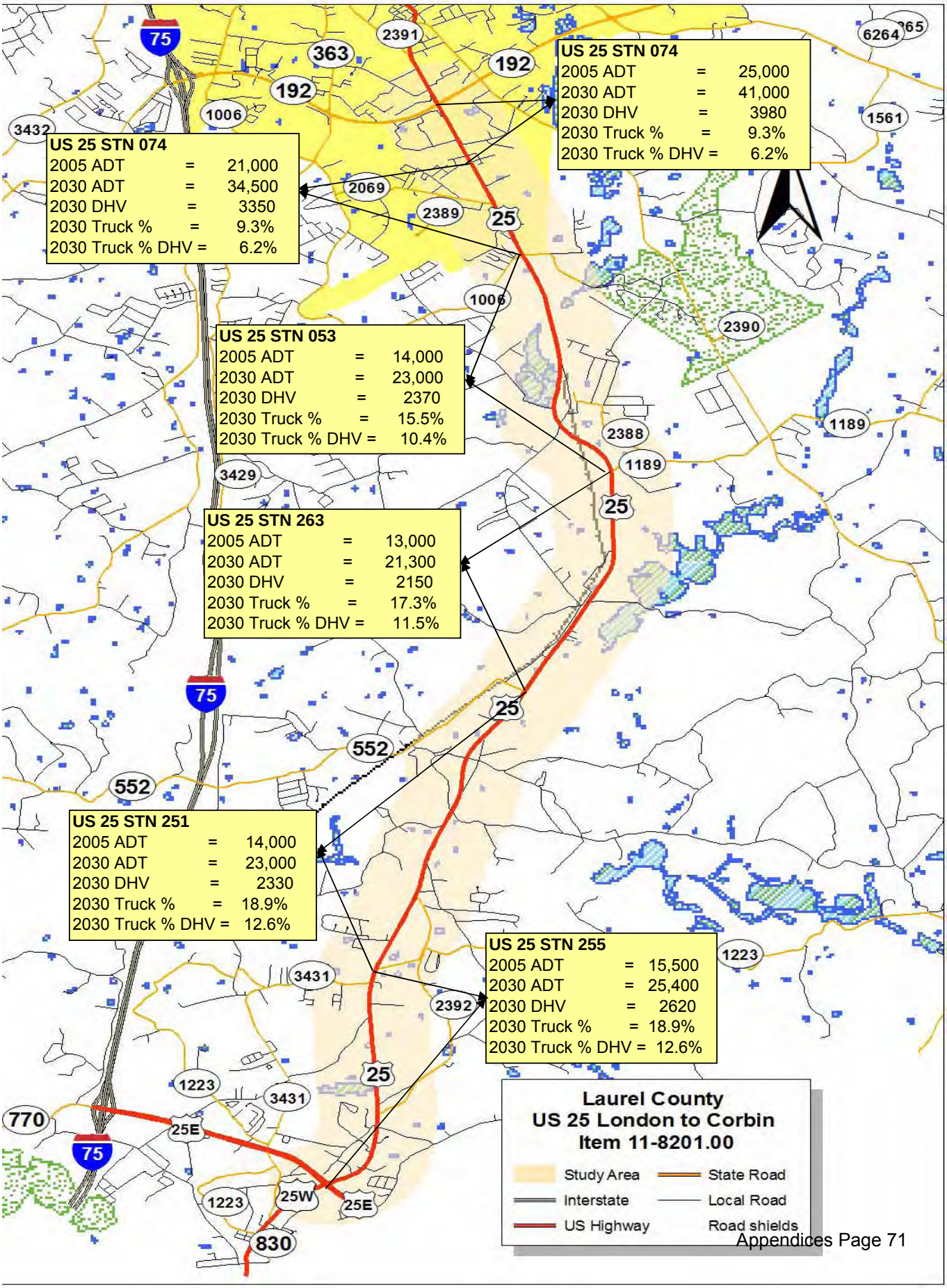
Division of Planning
Laurel County: US 25 Widening study from 2 to 4 Lanes
Traffic Forecast Vicinity Map



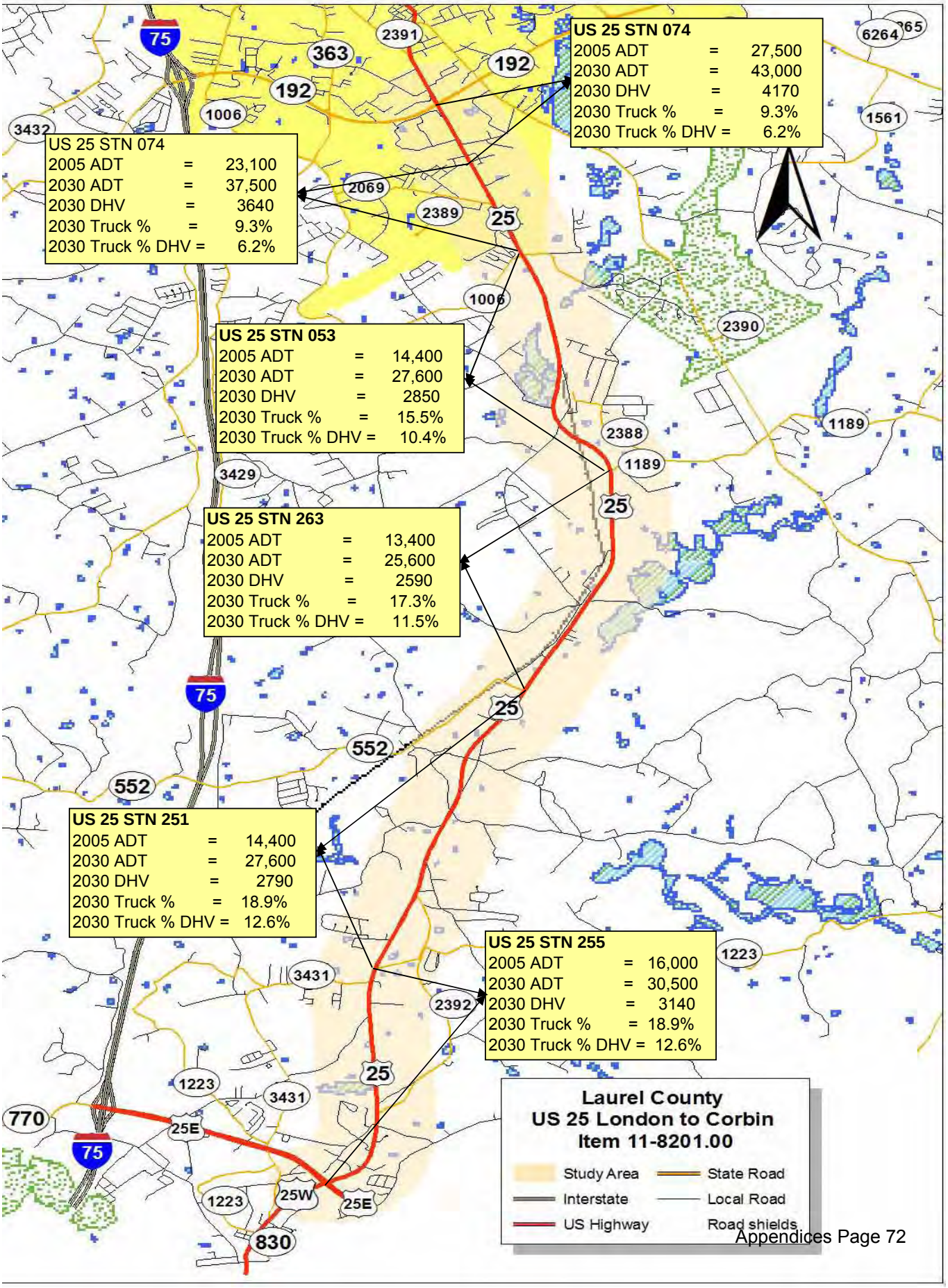
Division of Planning

US 25: Widen from 2 to 4 Lanes from US 25E / US 25W to KY 192

Traffic Forecast Summary Map For the No-Build Scenario



Division of Planning
US 25: Widen from 2 to 4 Lanes from US 25E / US 25W to KY 192
Traffic Forecast Summary Map For the Build Scenario



Truck Percentage

estimated

County	Route	Station	Location	BEG MP	END MP	FC		2030 Truck %	2005 Truck %	2004 Truck %	2002 Truck %	2001 Truck %	1996 Truck %	1995 Truck %	1992 Truck %
Laurel	US 25	255	US 25E - KY 1223	0.000	2.098	7		18.9%	13.0%						13.4%
				2.098			DHV	12.6%							
Laurel	US 25	251	KY 1223 - KY 552	2.098	4.822	7		18.9%	13.0%						
				2.724			DHV	12.6%	(6% heavy)						
Laurel	US 25	263	KY 552 - KY 1189	4.822	6.953	7		17.3%	11.9%						
				2.131			DHV	11.5%							
Laurel	US 25	053	KY 1189 - KY 1006	6.953	9.028	7		15.5%	10.7%	10.5%	9.6%		6.2%		
				2.075			DHV	10.4%		(4% heavy)	(5.1 % heavy)				
Laurel	US 25	074	KY 1006 - KY 192	9.028	10.505	16		9.3%	6.4%						
				1.477			DHV	6.2%	(2.9% heavy)						
Laurel	US 25	A35	KY 192 - KY 2391	10.505	10.972	16		7.3%	5.0%	4.9%					2.7%
				0.467			DHV	4.8%		(1.2% heavy)					

Assume 46% heavy truck / 54% light truck along project segment

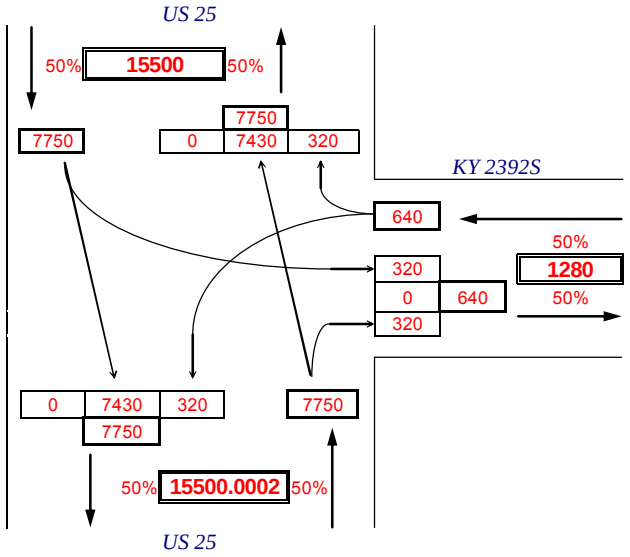
TURNING MOVEMENTS

Turning Movements with US 25		# legs
T1	KY 2392 S	3
T2	Powers Lane (CR 1215B7)	3
T3	KY 3431	3
T4	KY 1223	4
T5	KY 2392 N	3
T6	Lily School Rd / Echo Valley Road (CR 1223D / CR 1194)	4
T7	Slate Ridge Road / South Lily Road (CR 1200 / CR 1223D)	4
T8	KY 552	3
T9	KY 1189	3
T10	Fariston Rd (CR 1224)	4
T11	KY 1006	4
T12	KY 2069	3
T13	South Laurel High School (CS 1134)	4
T14	KY 192	4

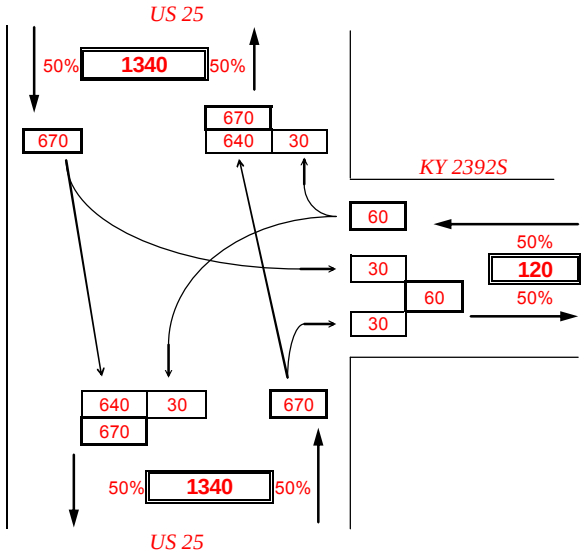
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE:
ANALYST: D. Hamilton
SCENARIO: **2005 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 2392S

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

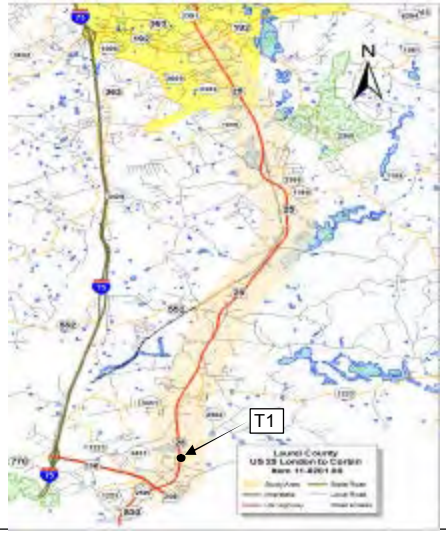
2005 ADT



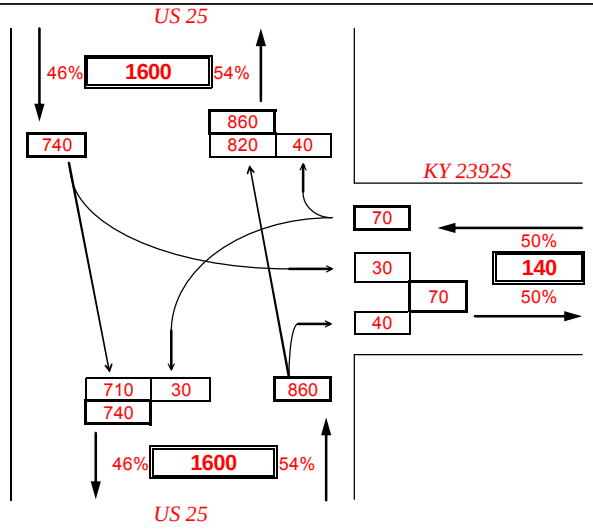
2005 AM Design Hour



Location Map



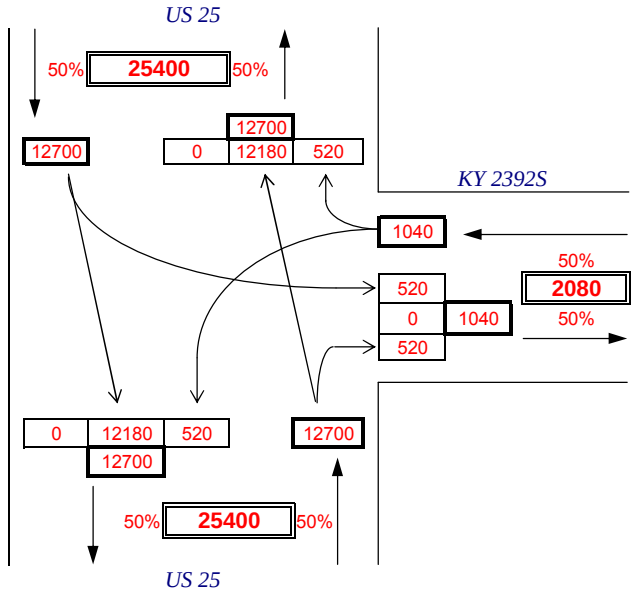
2005 PM Design Hour



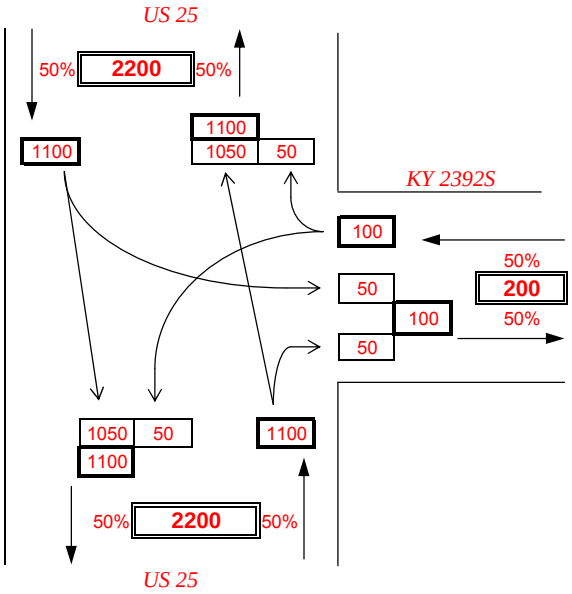
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2030 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 2392S

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

2030 ADT

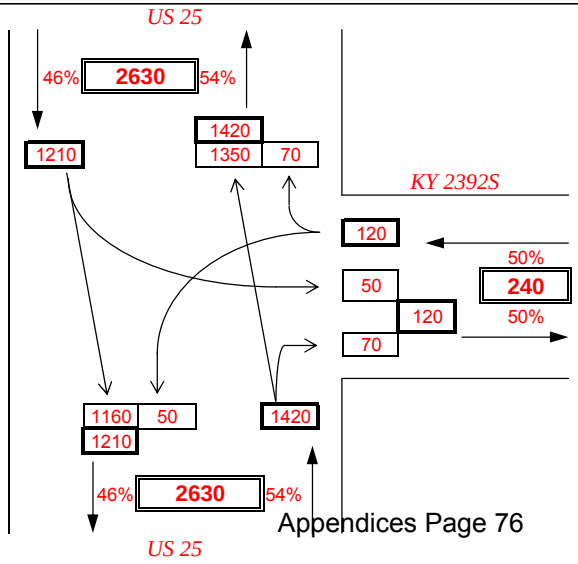


2030 AM Design Hour



Location Map

2030 PM Design Hour



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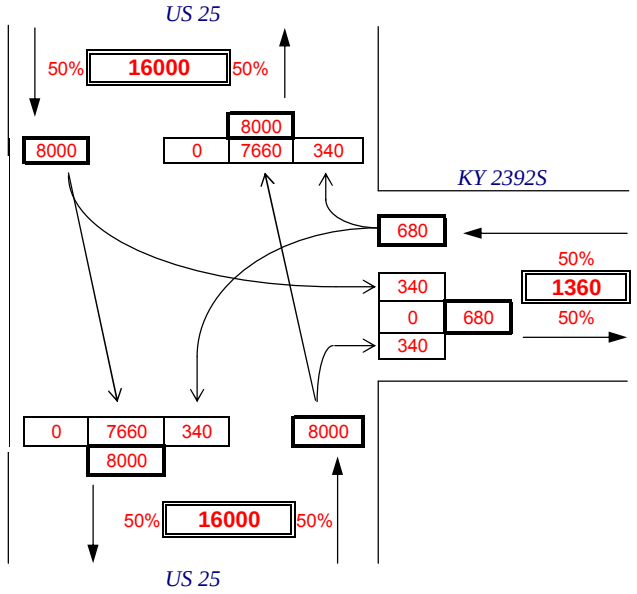
2005 ADT



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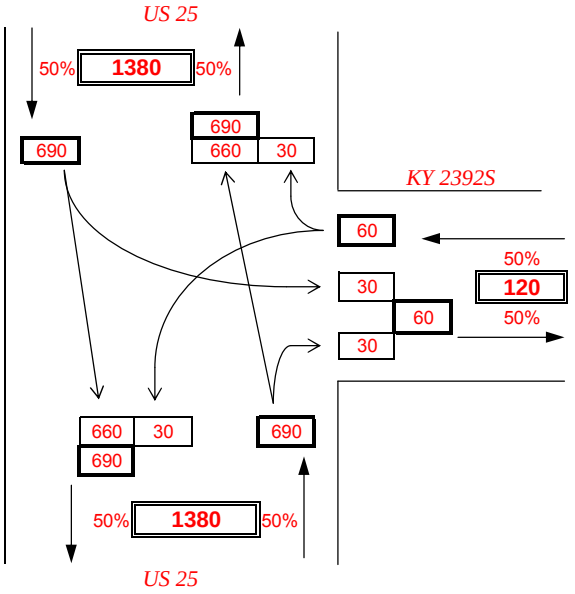

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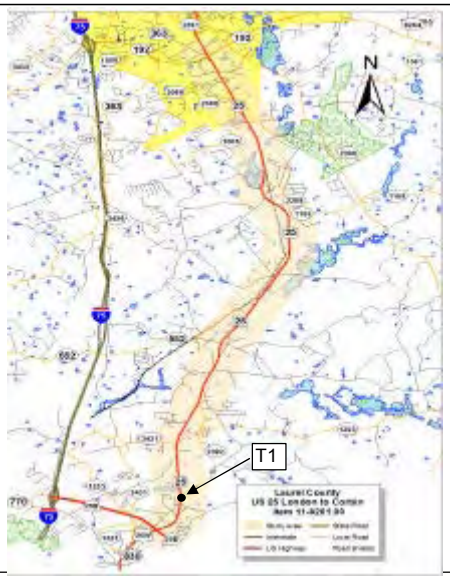

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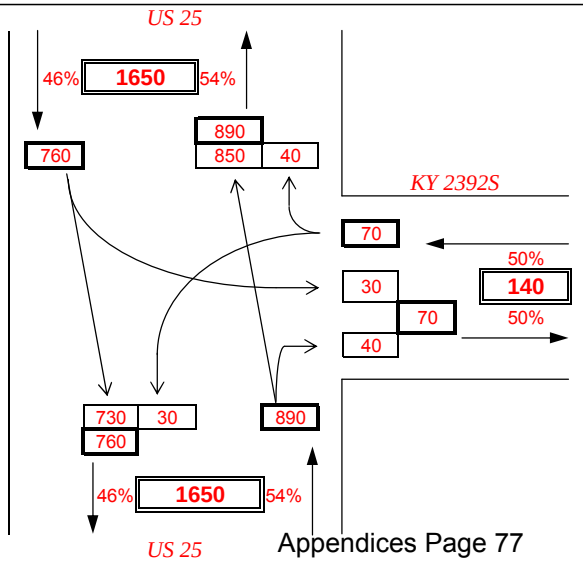

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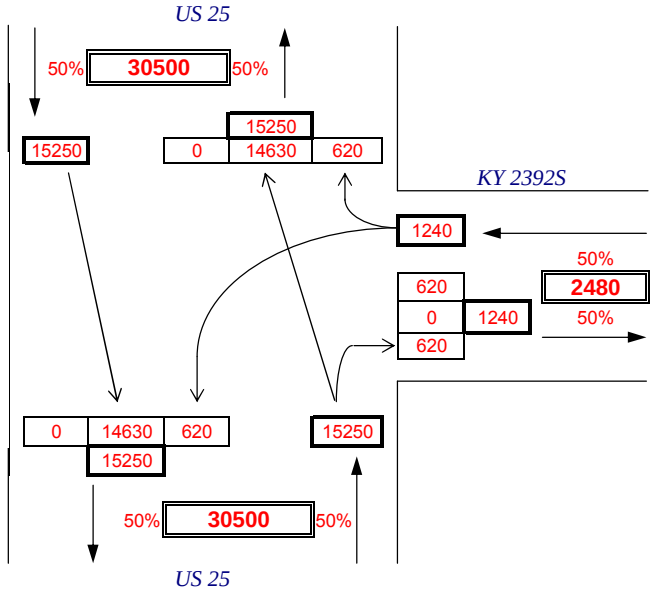
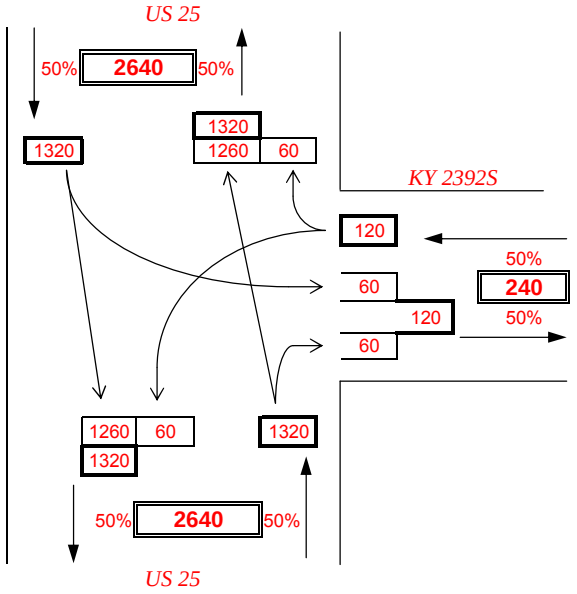
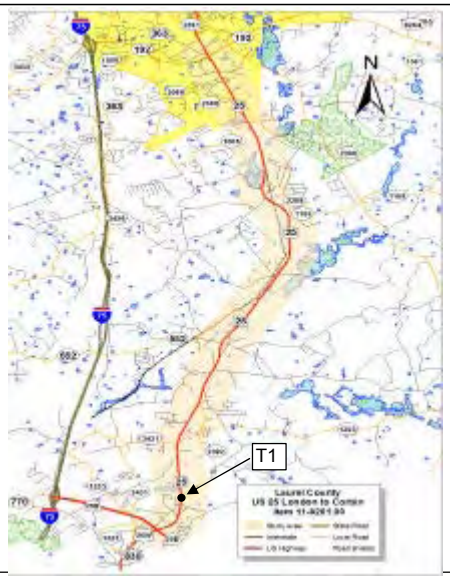


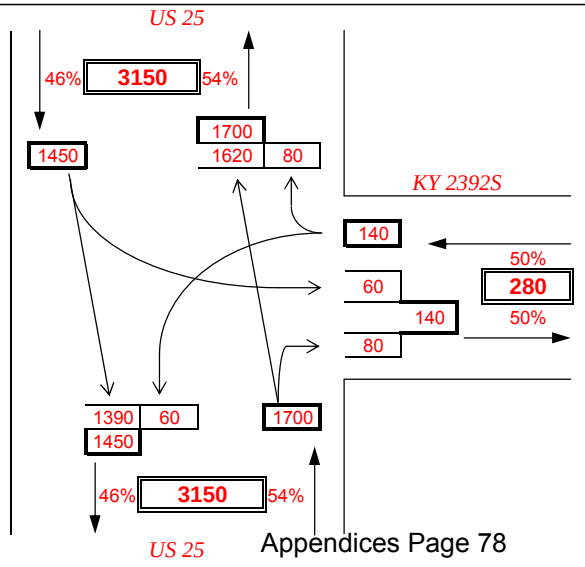
2030 AM Design Hour



Location Map



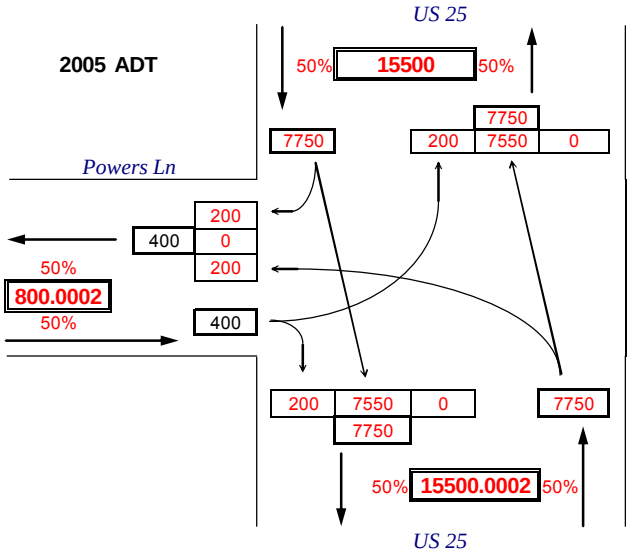
2030 PM Design Hour



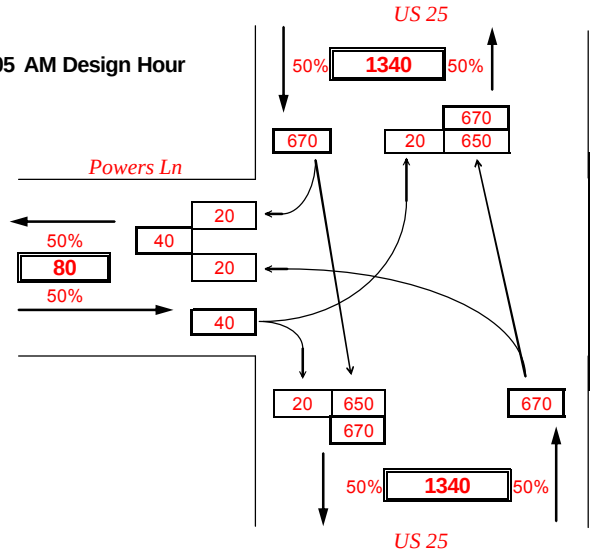
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE:
ANALYST: D. Hamilton
SCENARIO: **2005 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ CR 1215B7 (Powers Ln)

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

2005 ADT

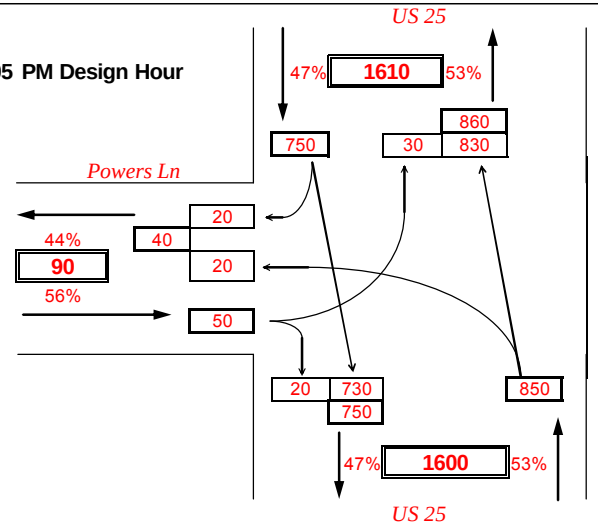


2005 AM Design Hour



Location Map

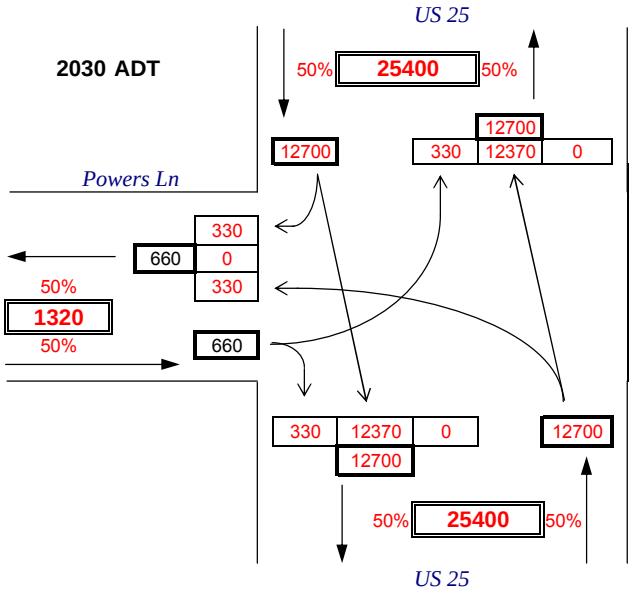
2005 PM Design Hour



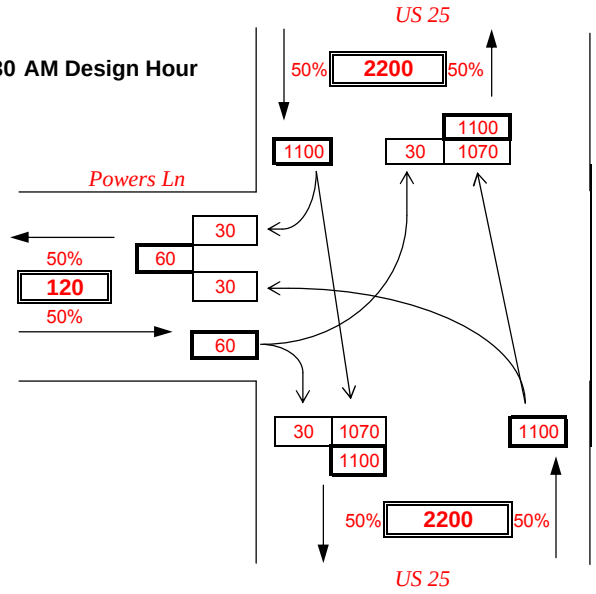
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2030 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ CR 1215B7 (Powers Ln)

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

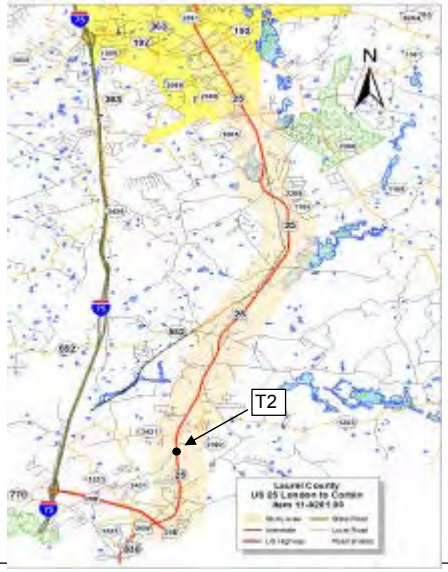
2030 ADT



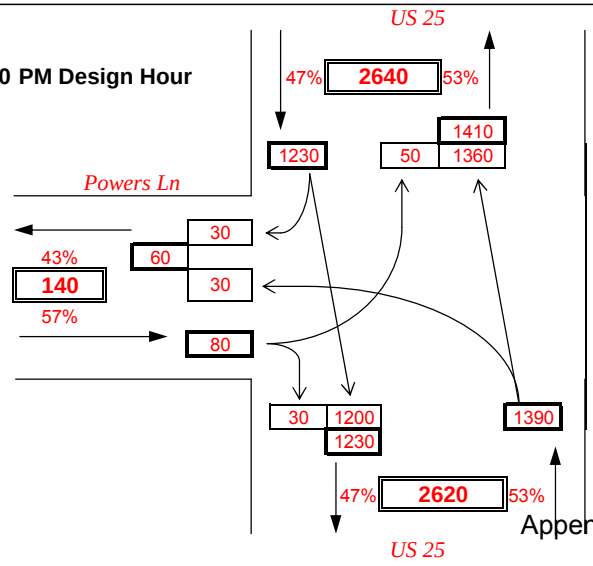
2030 AM Design Hour



Location Map



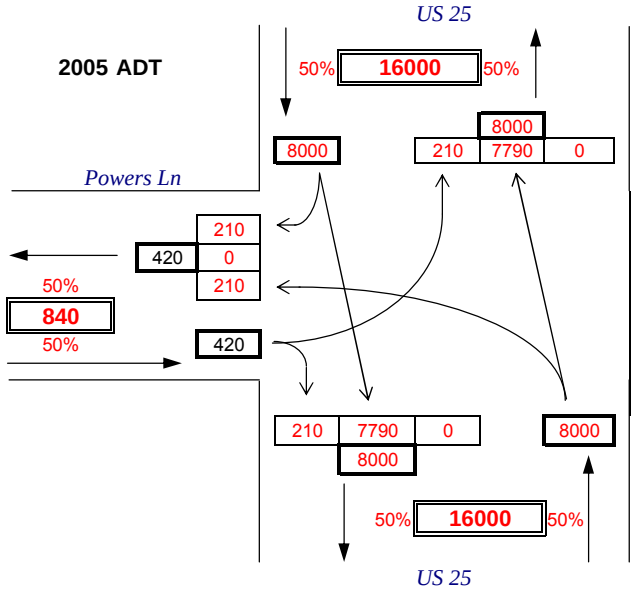
2030 PM Design Hour



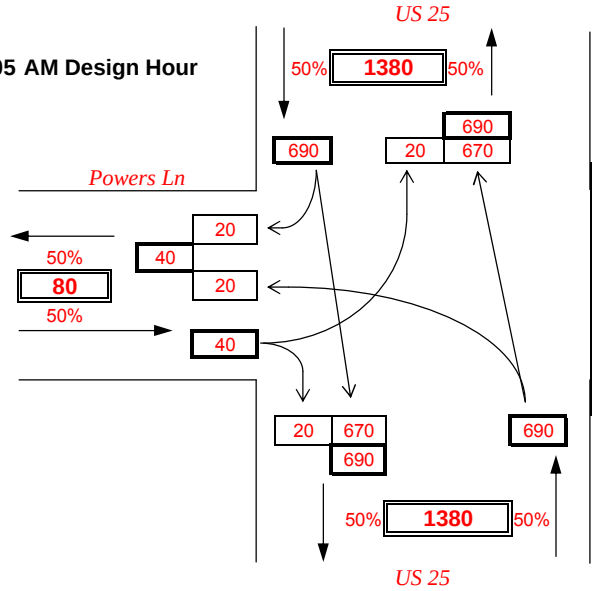
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2005 Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ CR 1215B7 (Powers Ln)

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

2005 ADT

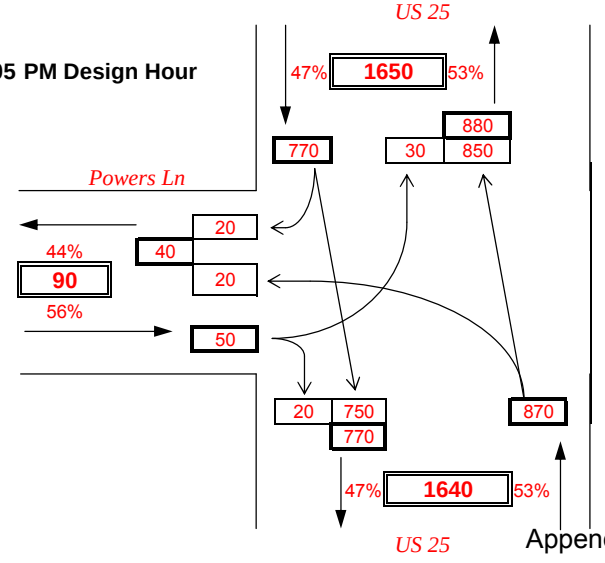


2005 AM Design Hour



Location Map

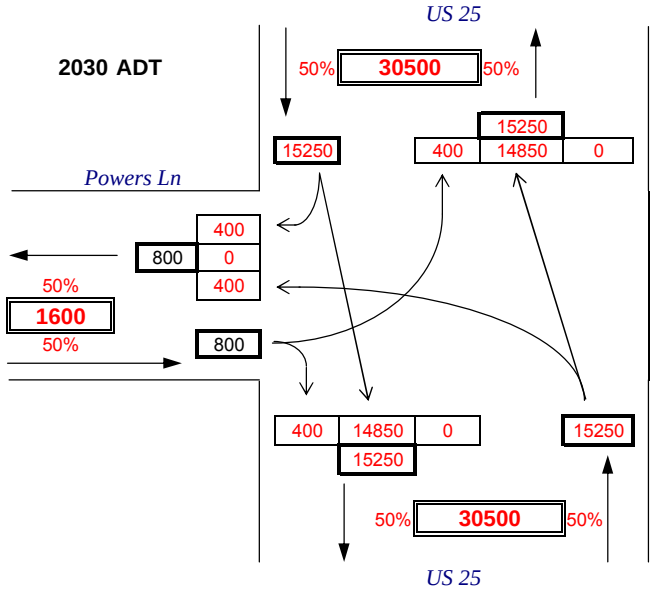
2005 PM Design Hour



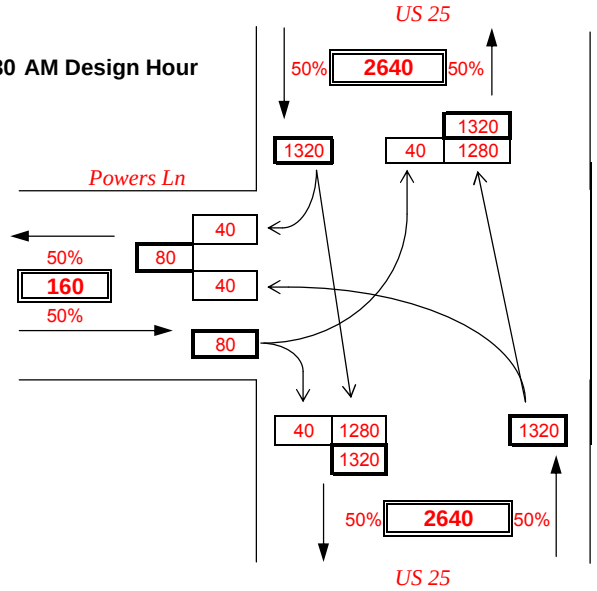
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2030 Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ CR 1215B7 (Powers Ln)

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

2030 ADT

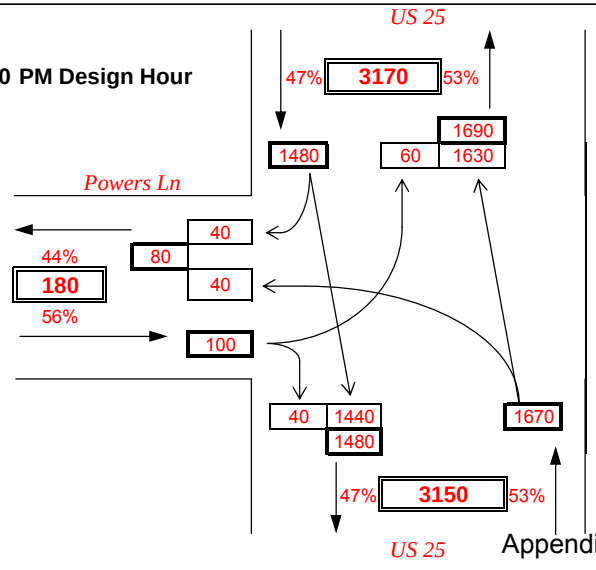


2030 AM Design Hour



Location Map

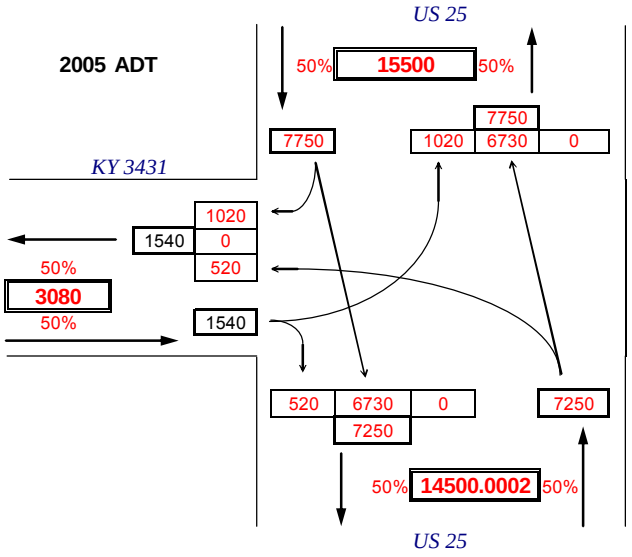
2030 PM Design Hour



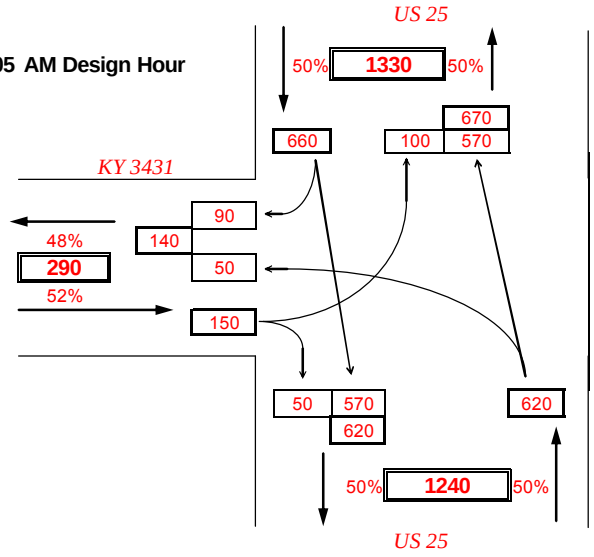
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE:
ANALYST: D. Hamilton
SCENARIO: **2005 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 3431

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

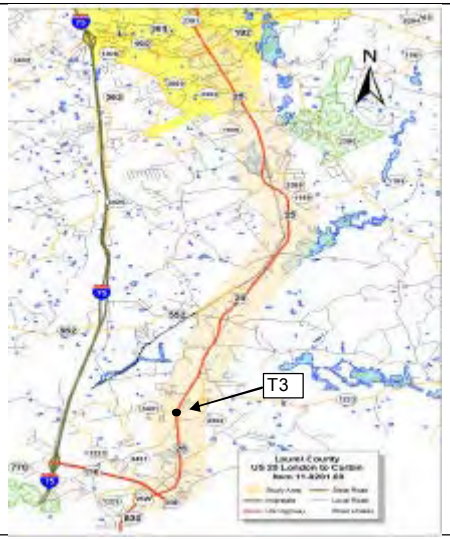
2005 ADT



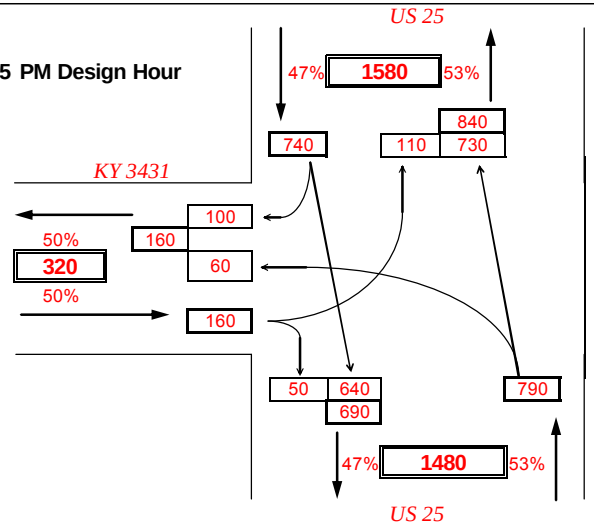
2005 AM Design Hour



Location Map



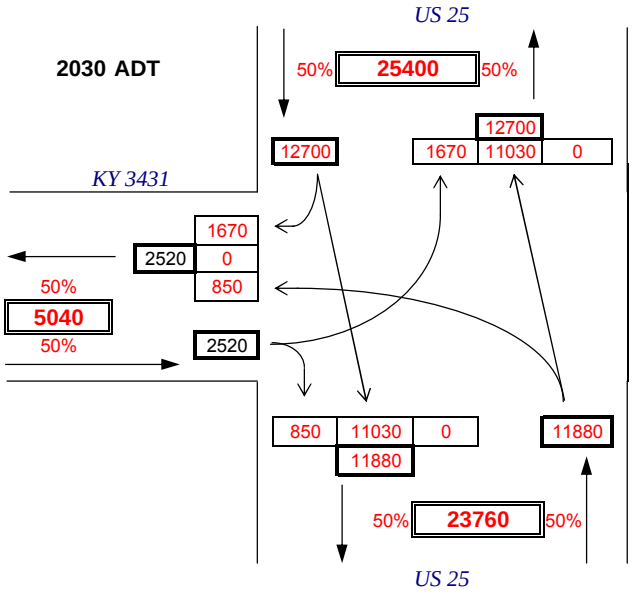
2005 PM Design Hour



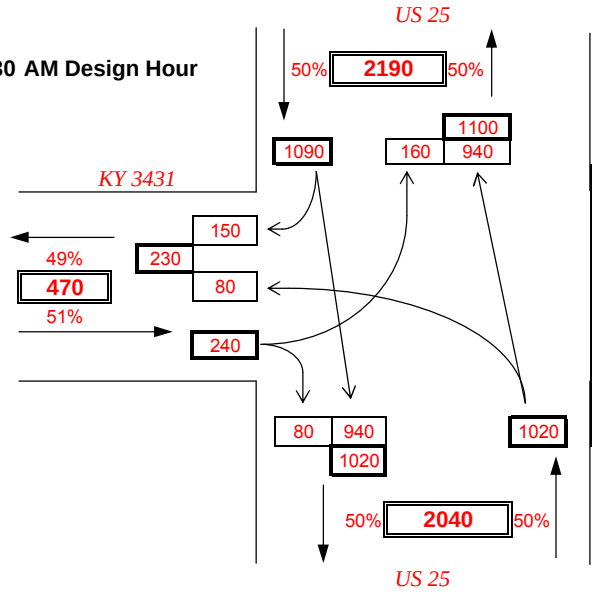
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2030 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 3431

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

2030 ADT

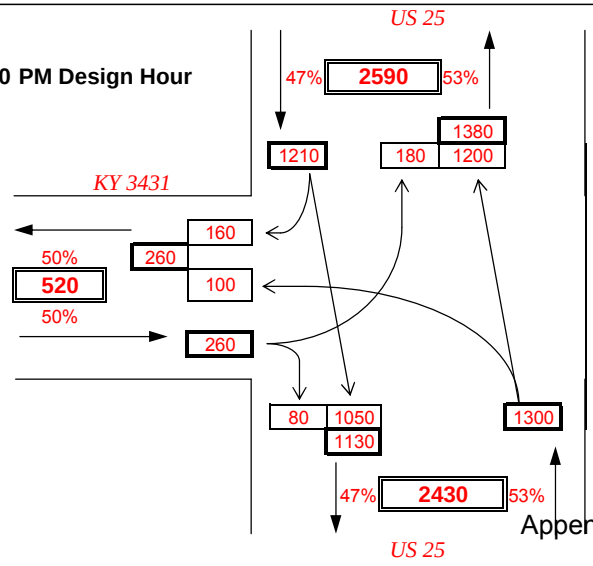


2030 AM Design Hour



Location Map

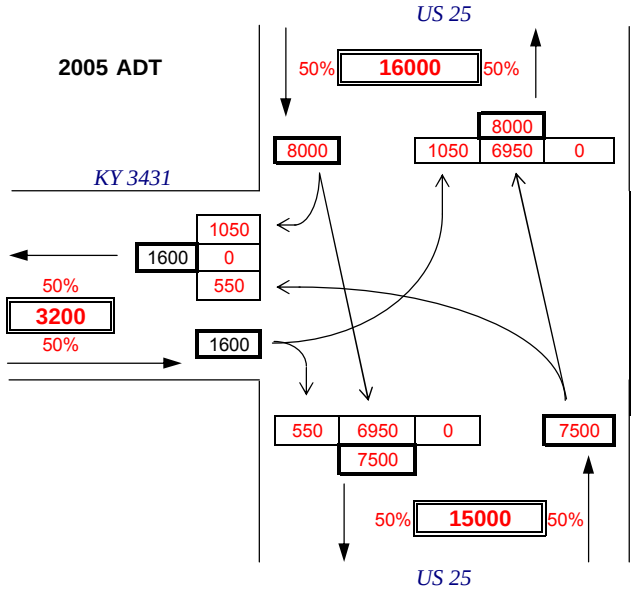
2030 PM Design Hour



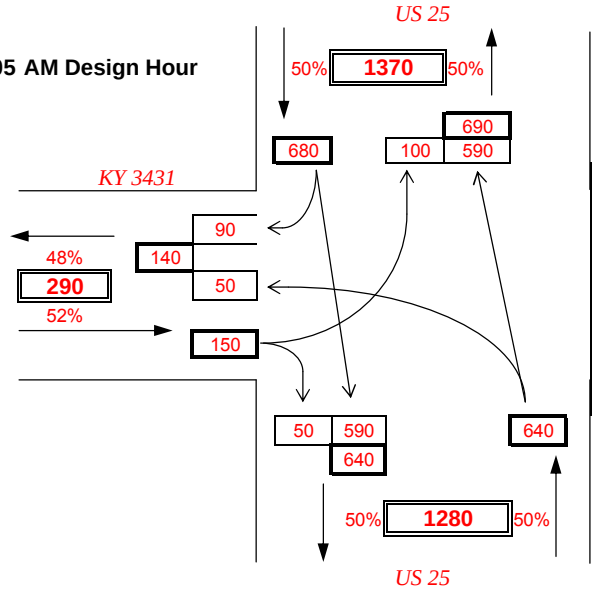
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2005 Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 3431

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

2005 ADT

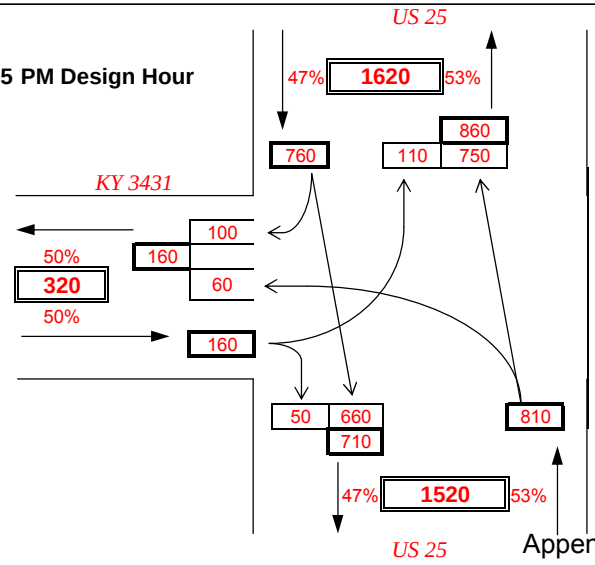


2005 AM Design Hour



Location Map

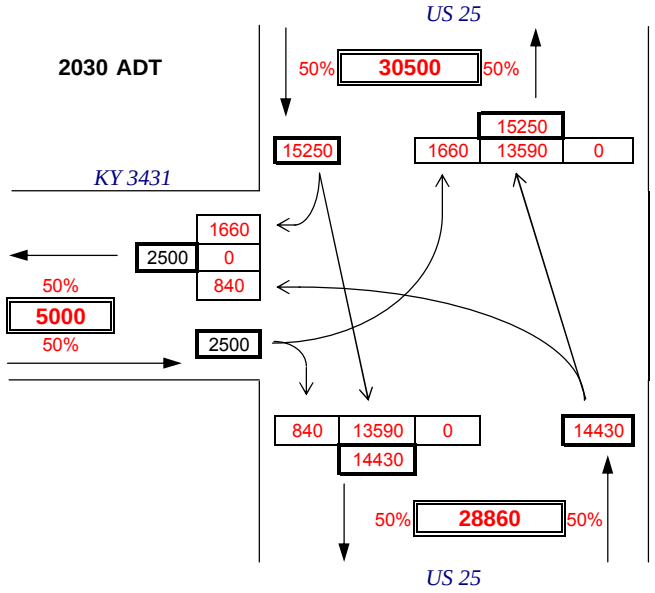
2005 PM Design Hour



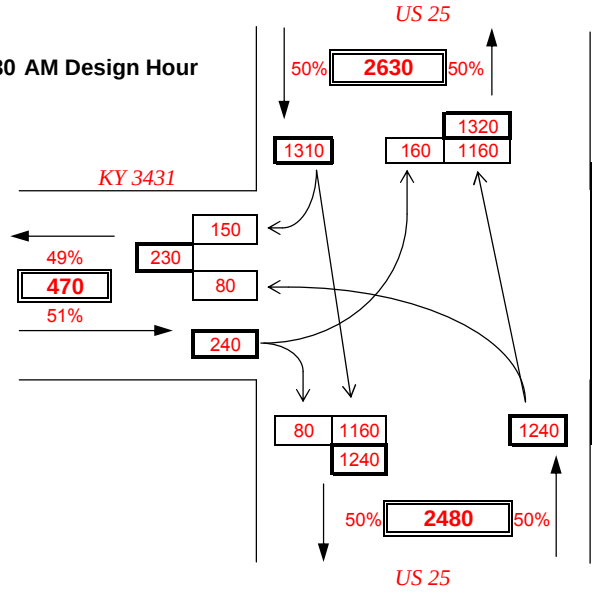
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2030 Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 3431

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

2030 ADT

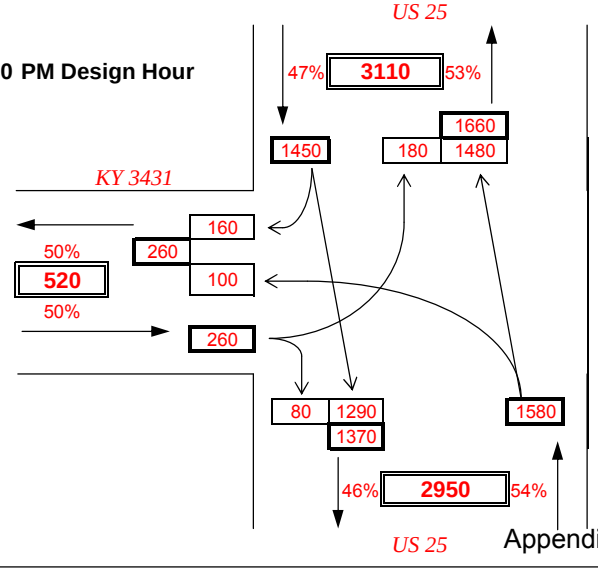


2030 AM Design Hour



Location Map

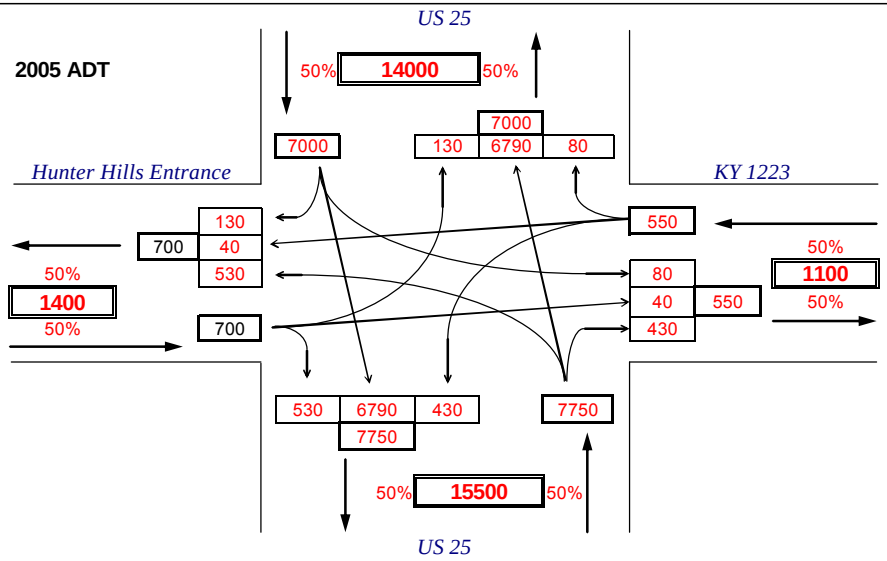
2030 PM Design Hour



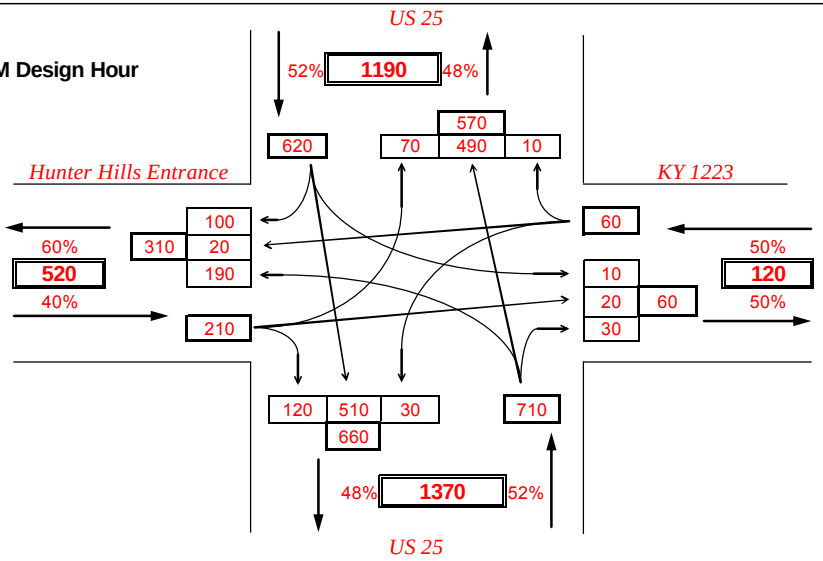
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE:
ANALYST: D. Hamilton
SCENARIO: **2005 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 1223 / Hunter Hills Elementary School Entrance

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts.

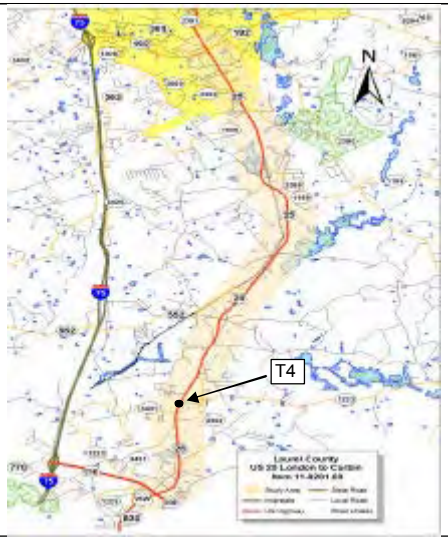
2005 ADT



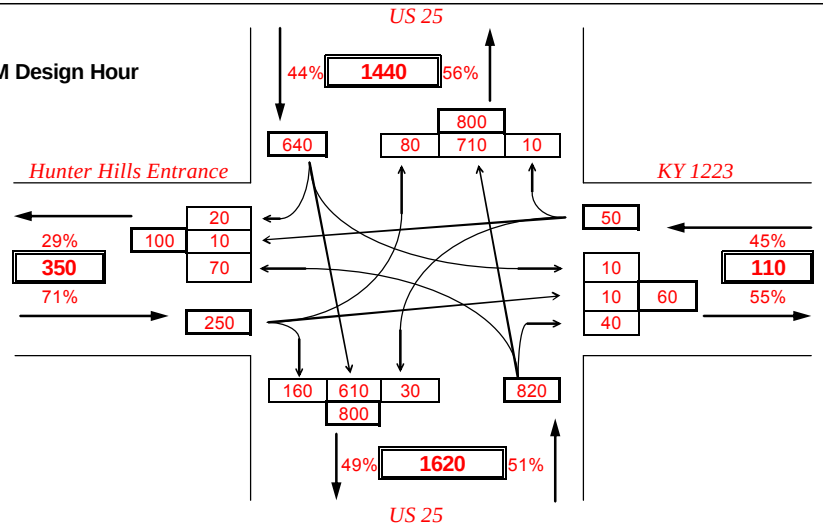
2005 AM Design Hour



Location Map



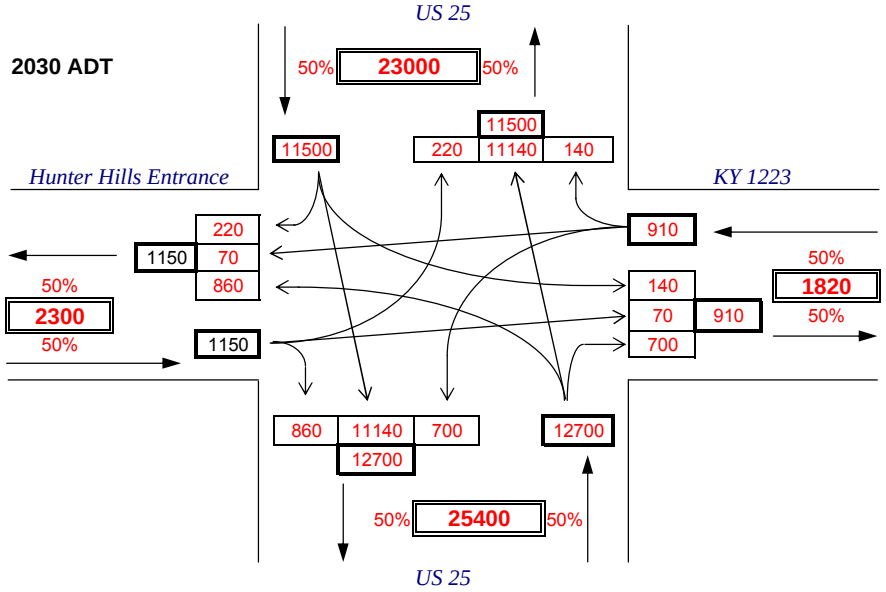
2005 PM Design Hour



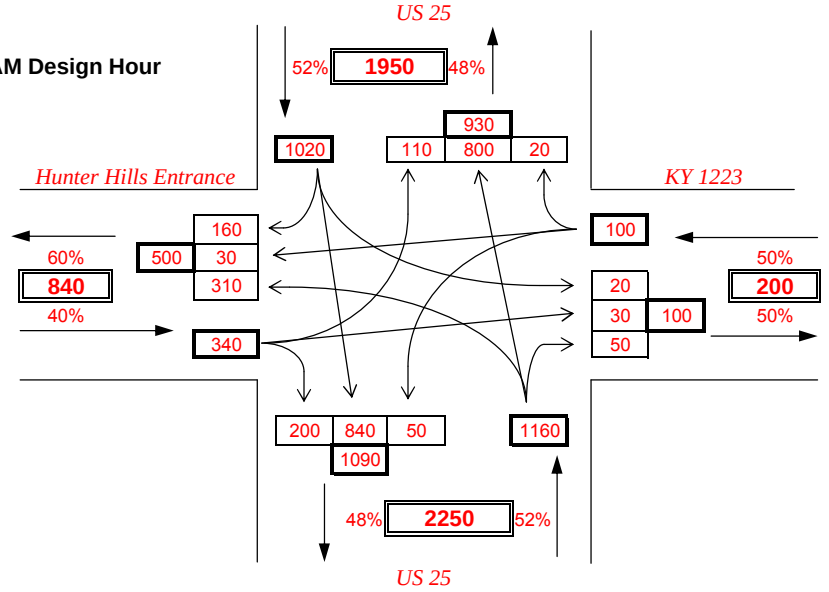
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE:
ANALYST: D. Hamilton
SCENARIO: **2030 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 1223 / Hunter Hills Elementary School Entrance

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts.

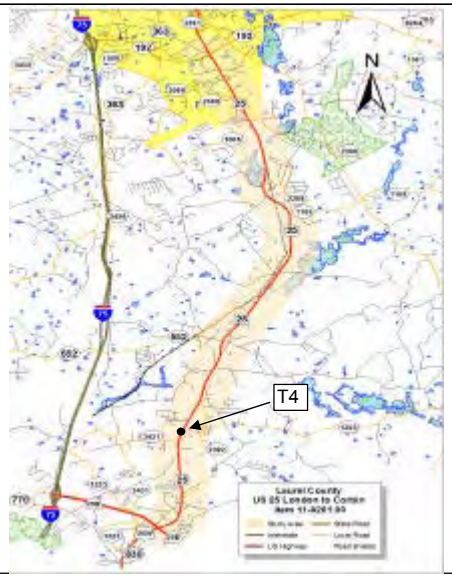
2030 ADT



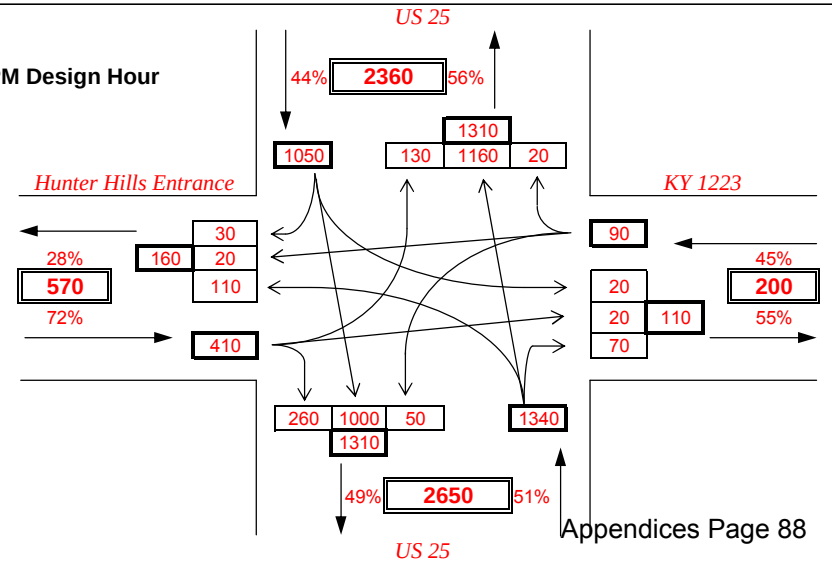
2030 AM Design Hour



Location Map



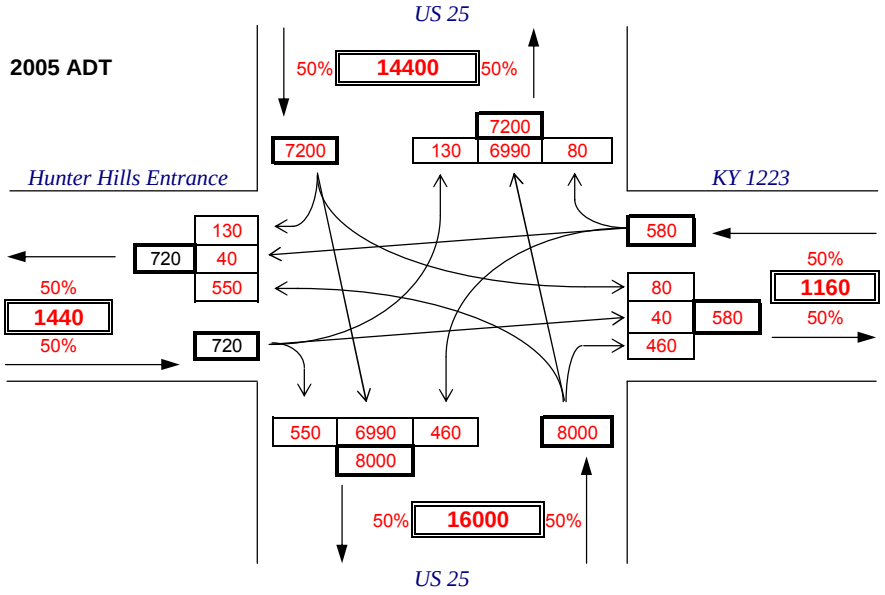
2030 PM Design Hour



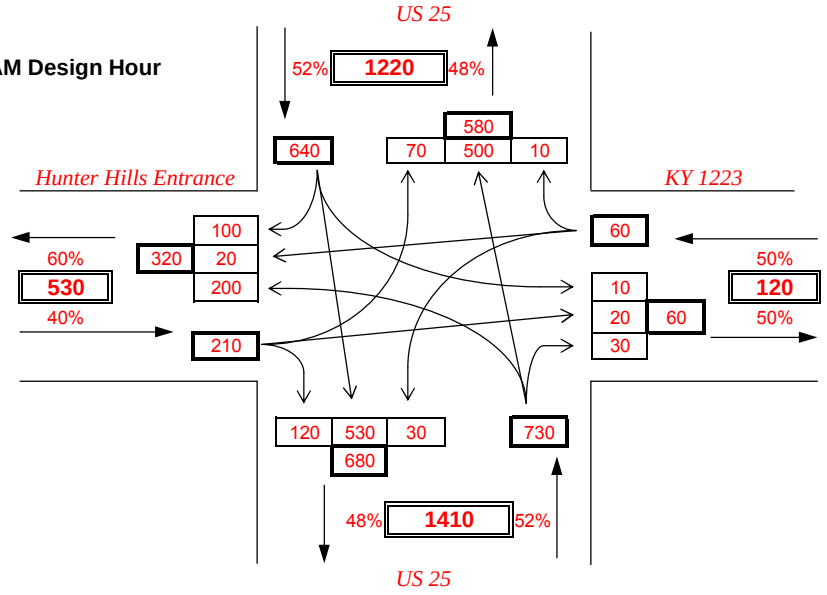
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE:
ANALYST: D. Hamilton
SCENARIO: **2005 Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 1223 / Hunter Hills Elementary School Entrance

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts.

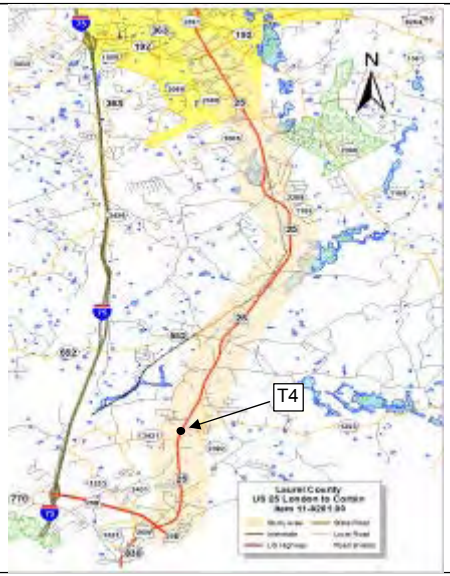
2005 ADT



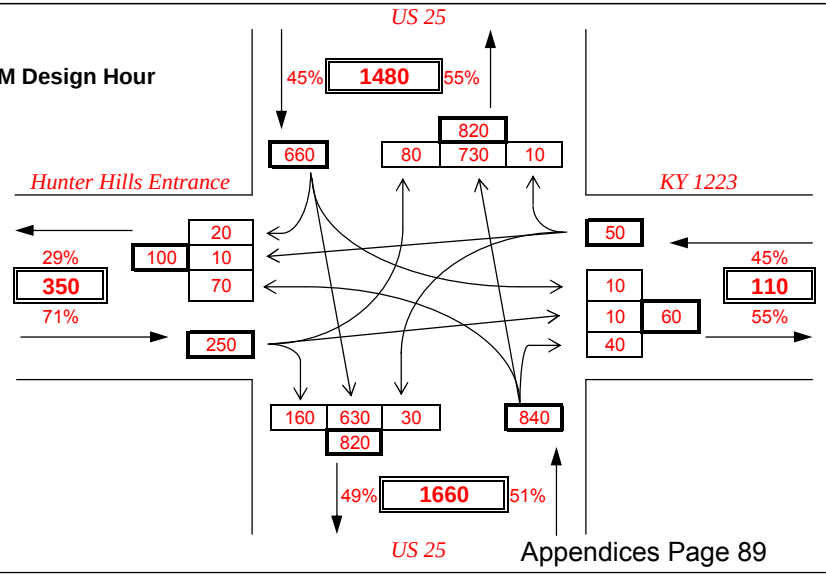
2005 AM Design Hour



Location Map



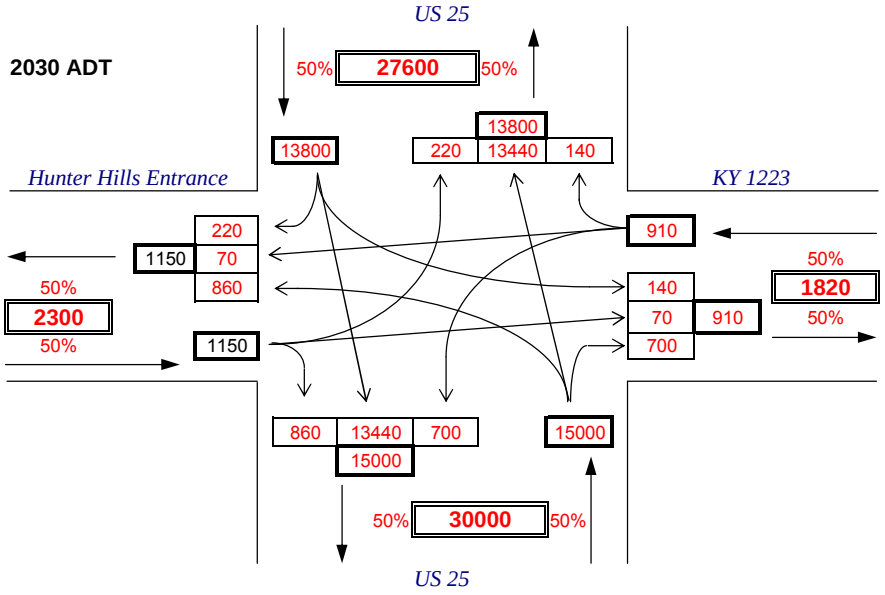
2005 PM Design Hour



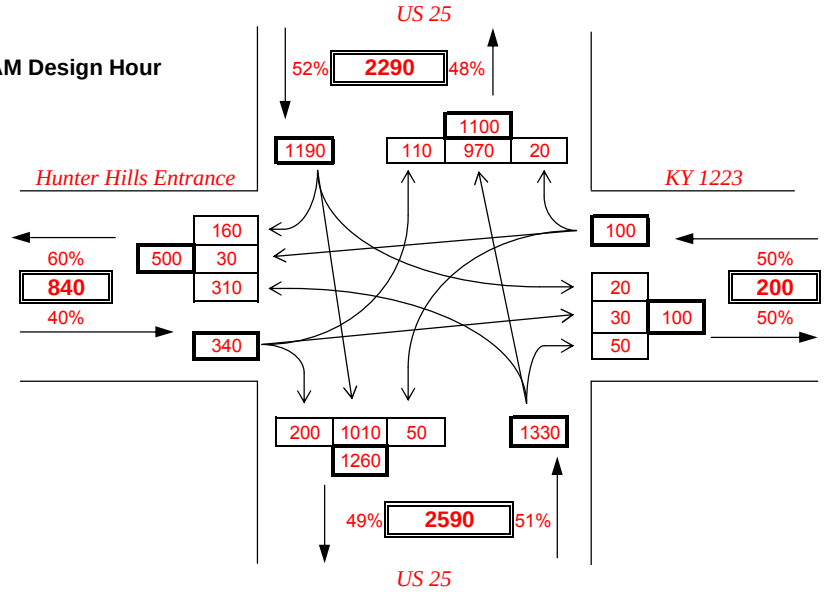
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE:
ANALYST: D. Hamilton
SCENARIO: **2030 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 1223 / Hunter Hills Elementary School Entrance

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts.

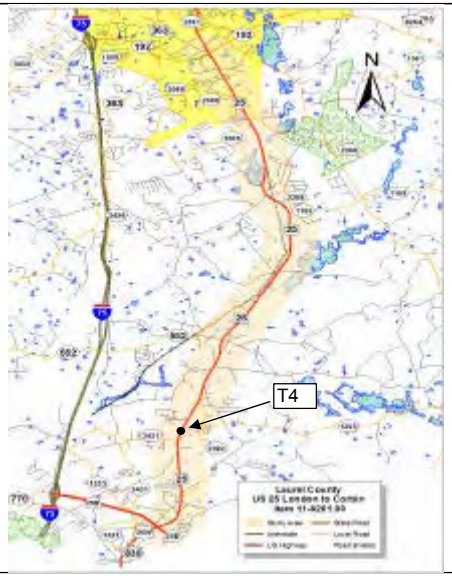
2030 ADT



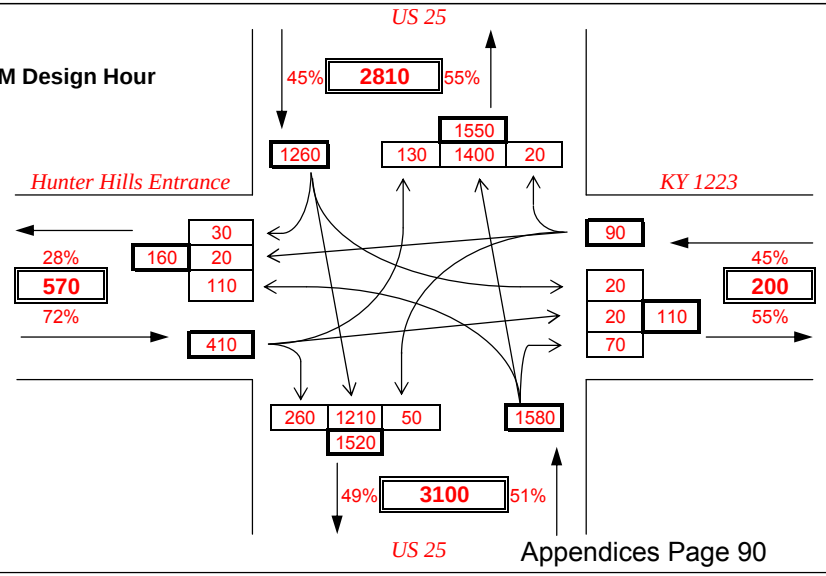
2030 AM Design Hour



Location Map



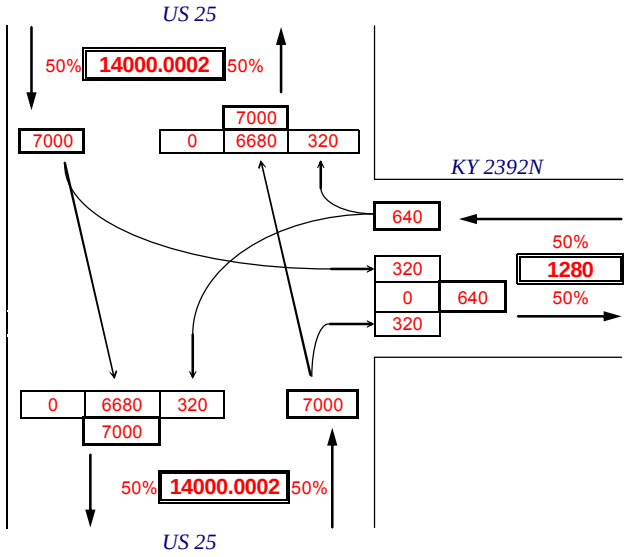
2030 PM Design Hour



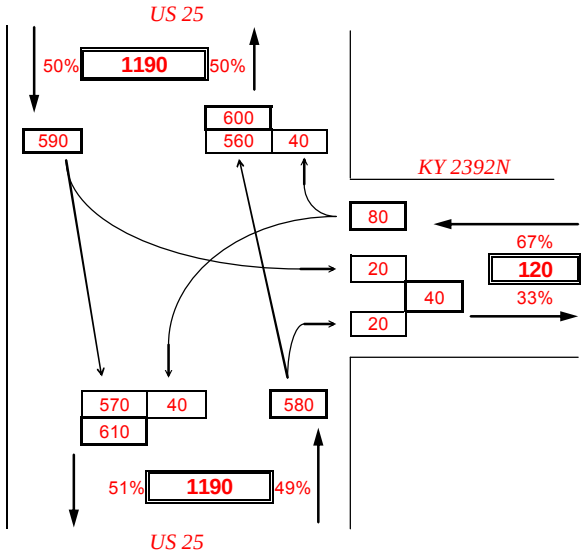
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE:
ANALYST: D. Hamilton
SCENARIO: **2005 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 2392N

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

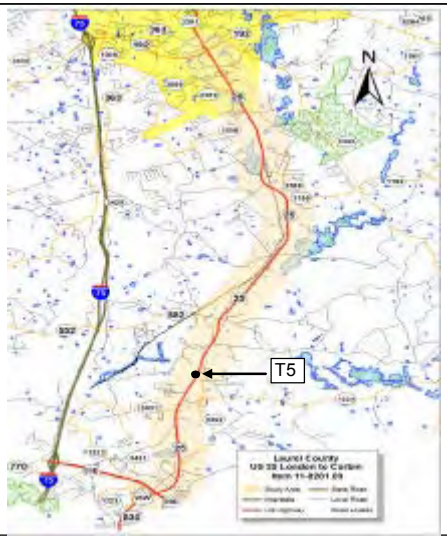
2005 ADT



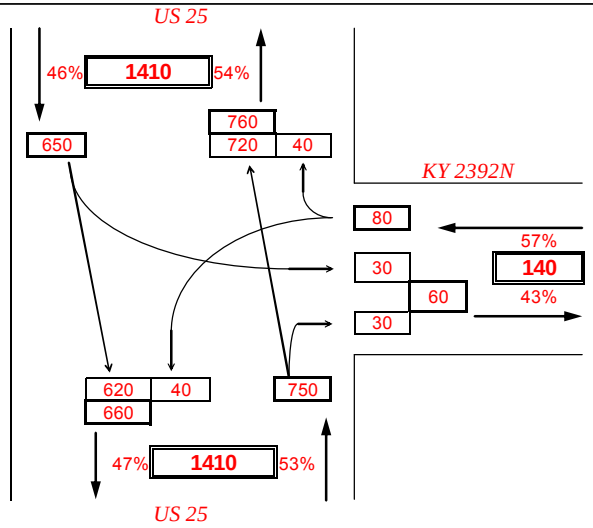
2005 AM Design Hour



Location Map



2005 PM Design Hour

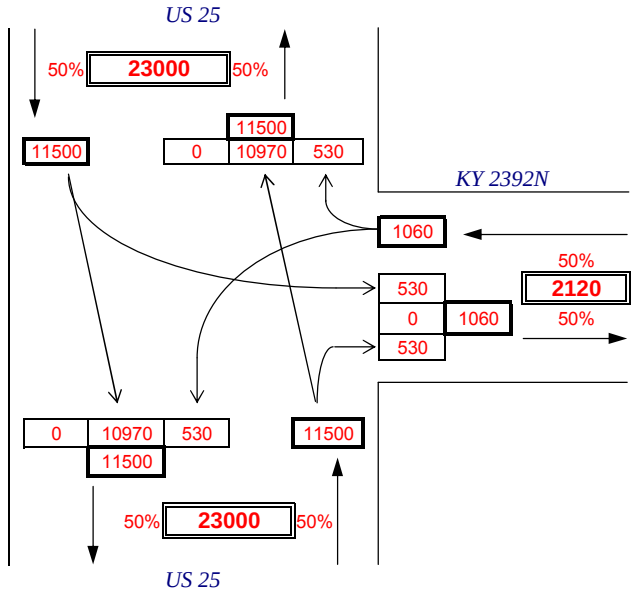


PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2030 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 2392N

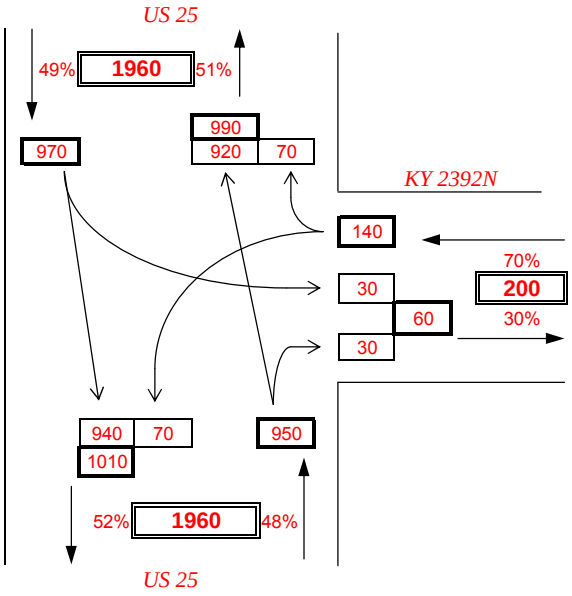
NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

Growth Rate used	2.00%
Current yr	2005
Design yr	2030
Growth Factor	1.640606

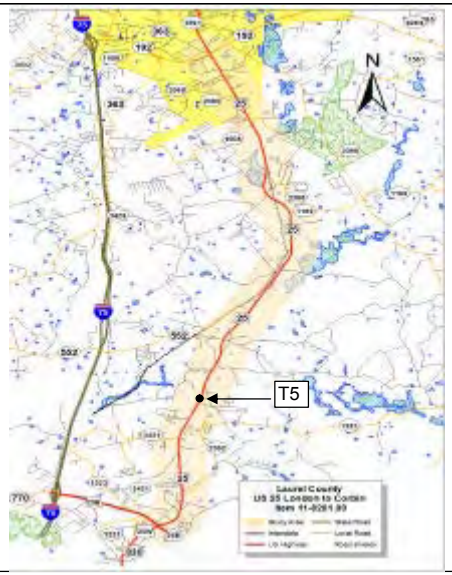
2030 ADT



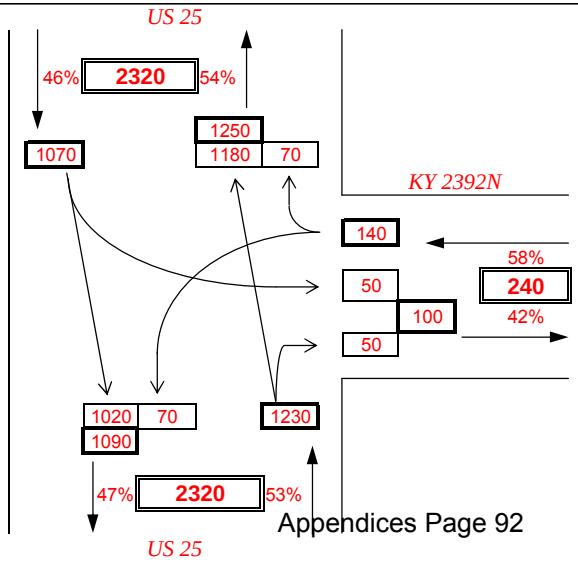
2030 AM Design Hour



Location Map



2030 PM Design Hour



PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
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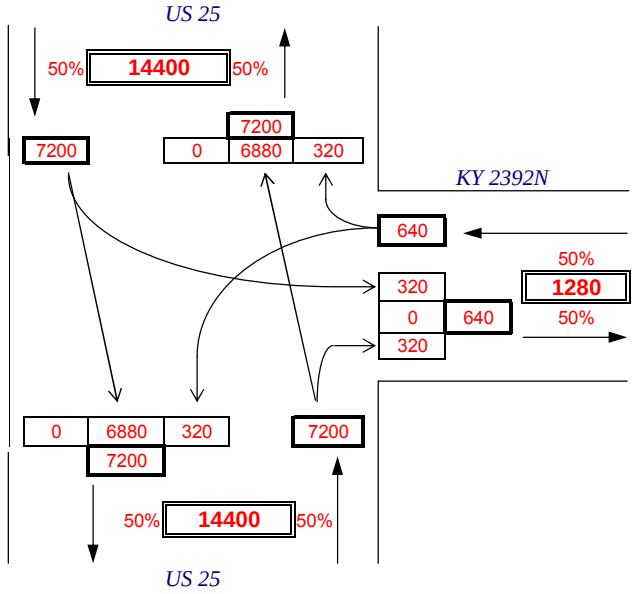
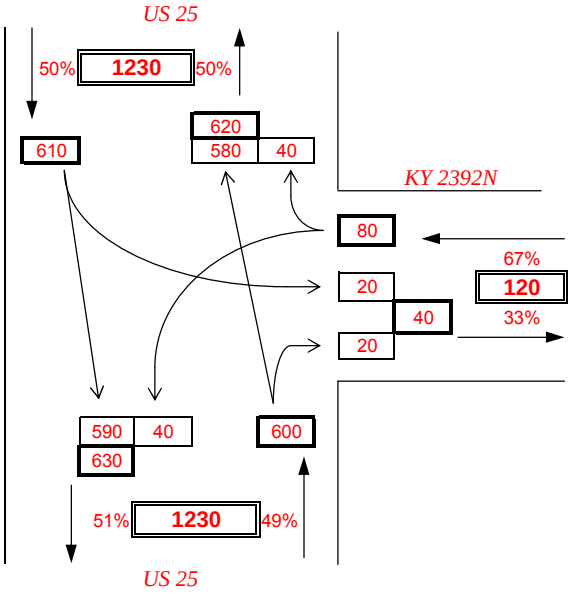
ANALYST: D. Hamilton
SCENARIO: **2005 Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 2392N

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

2005 ADT



2005 AM Design Hour



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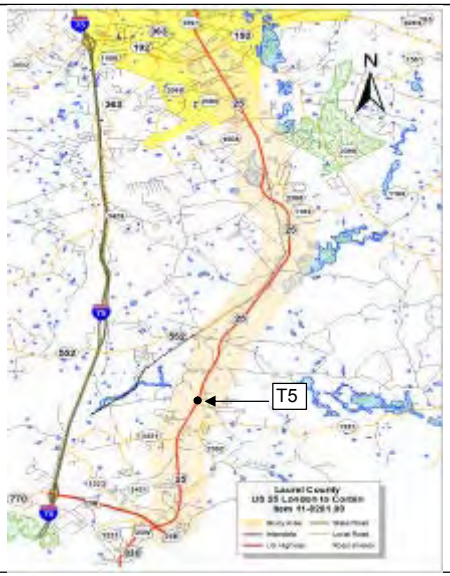
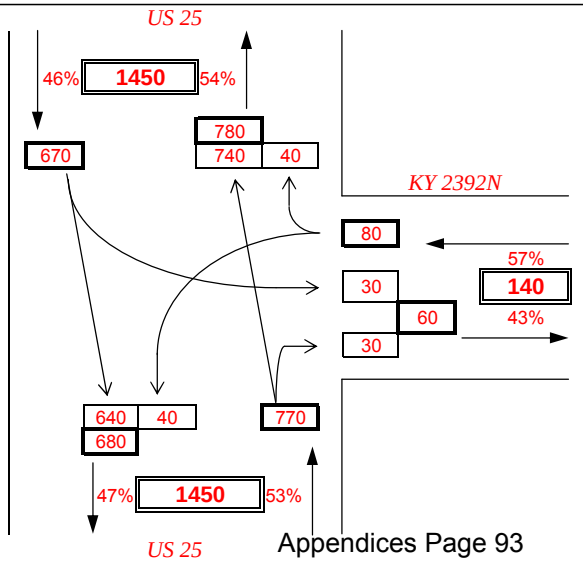


2005 PM Design Hour



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ITEM NUMBER: 11-8201.00
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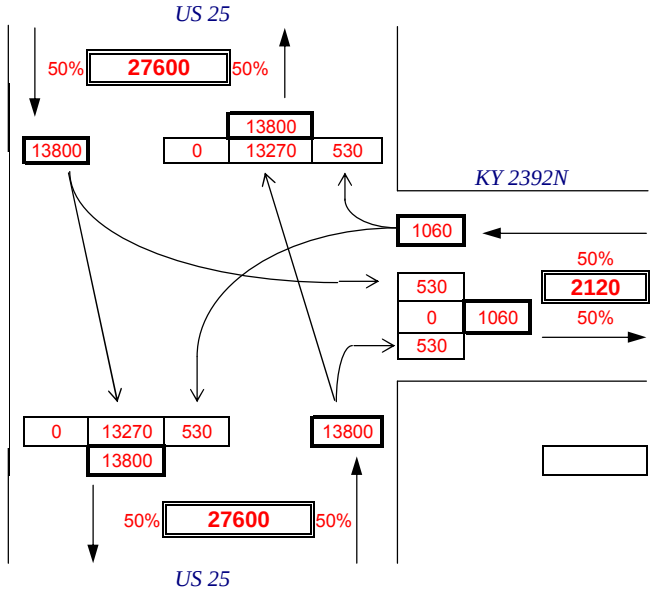
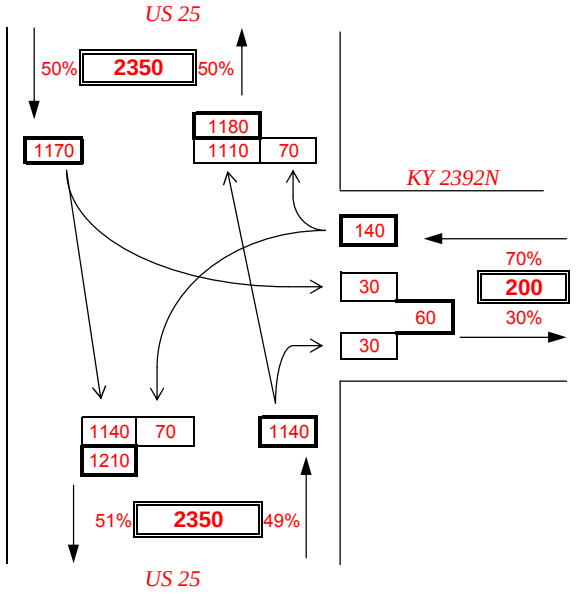
SCENARIO: **2030 Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 2392N

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

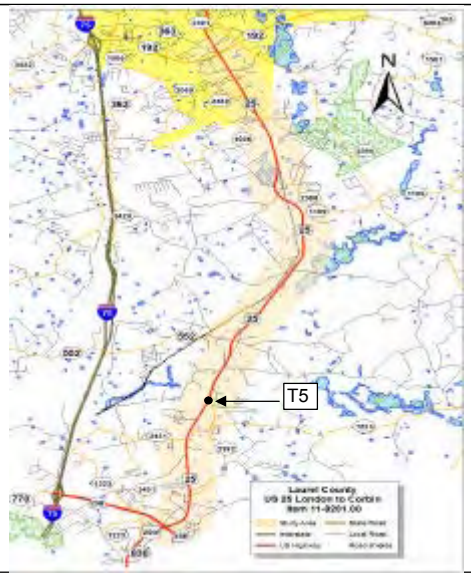
2030 ADT



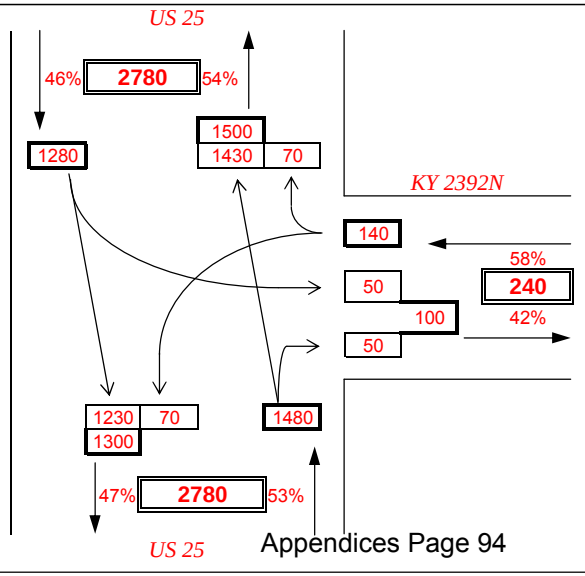
2030 AM Design Hour



Location Map

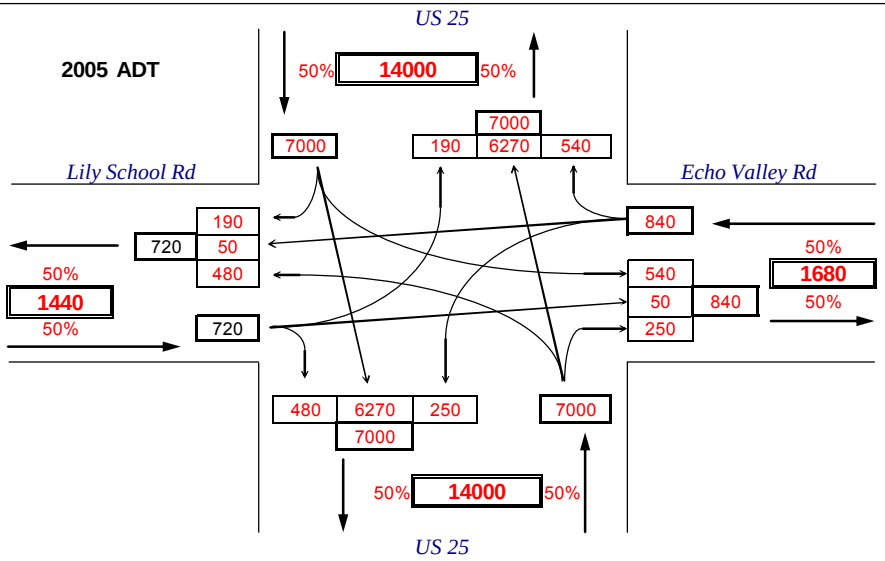


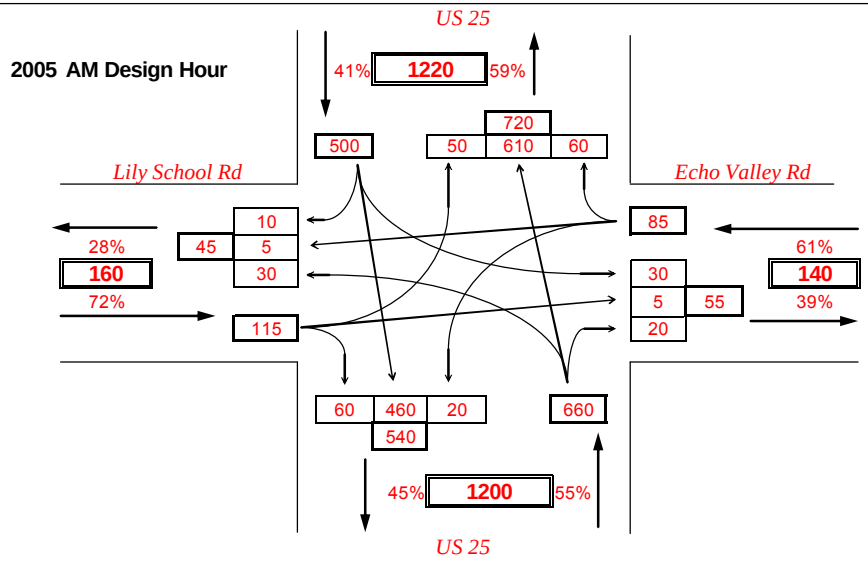
2030 PM Design Hour

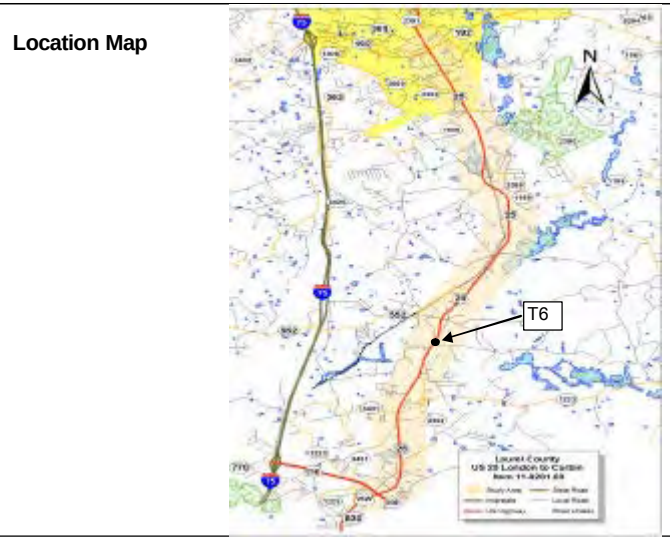


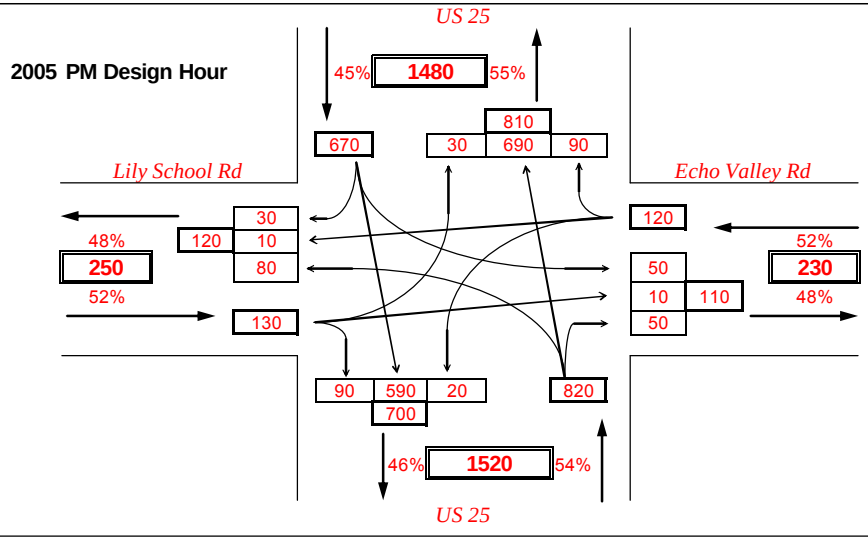
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE:
ANALYST: D. Hamilton
SCENARIO: **2005 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ Lily School / Echo Valley Rd

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts









PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
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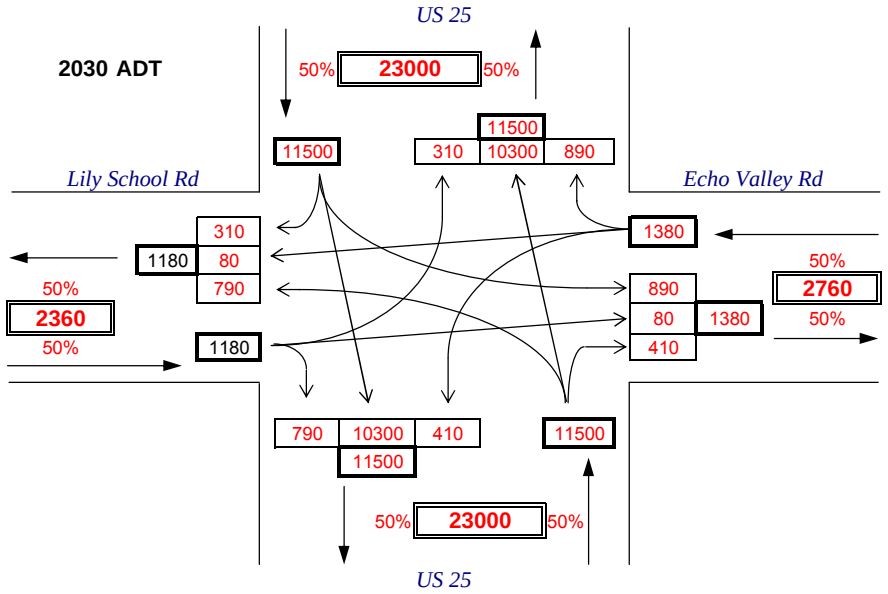
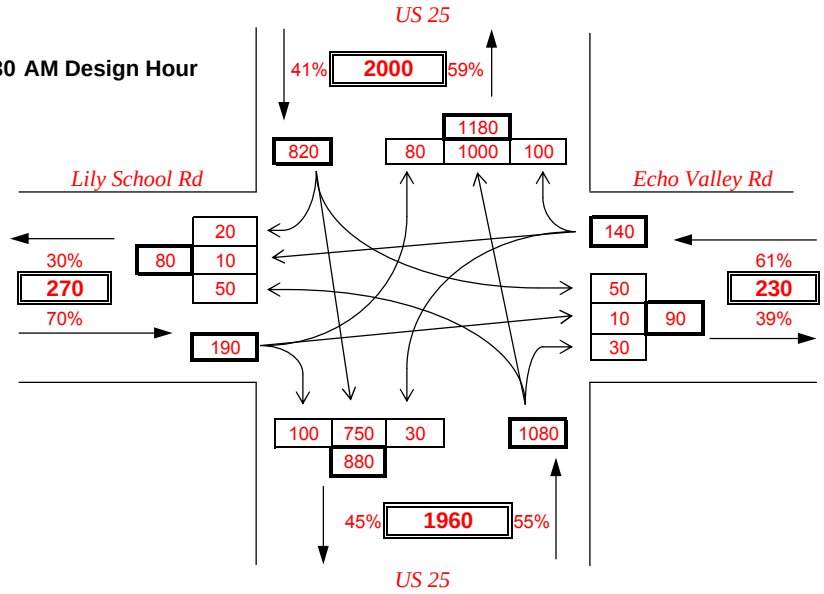
ANALYST: D. Hamilton
SCENARIO: **2030 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ Lily School / Echo Valley Rd

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

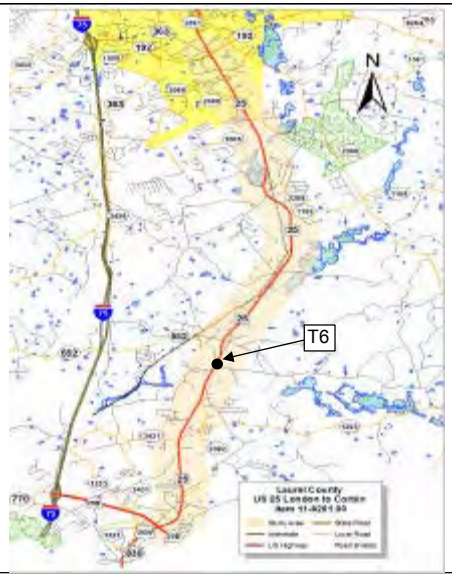
2030 ADT



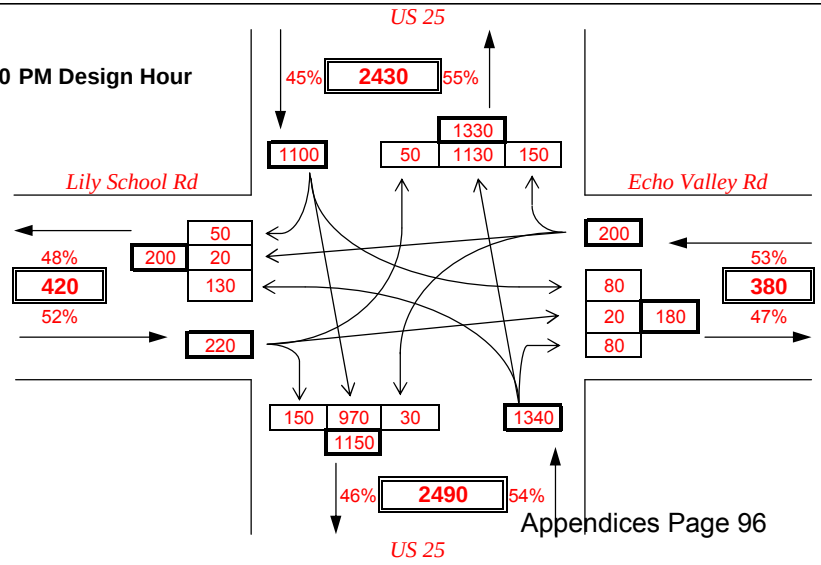
2030 AM Design Hour



Location Map



2030 PM Design Hour



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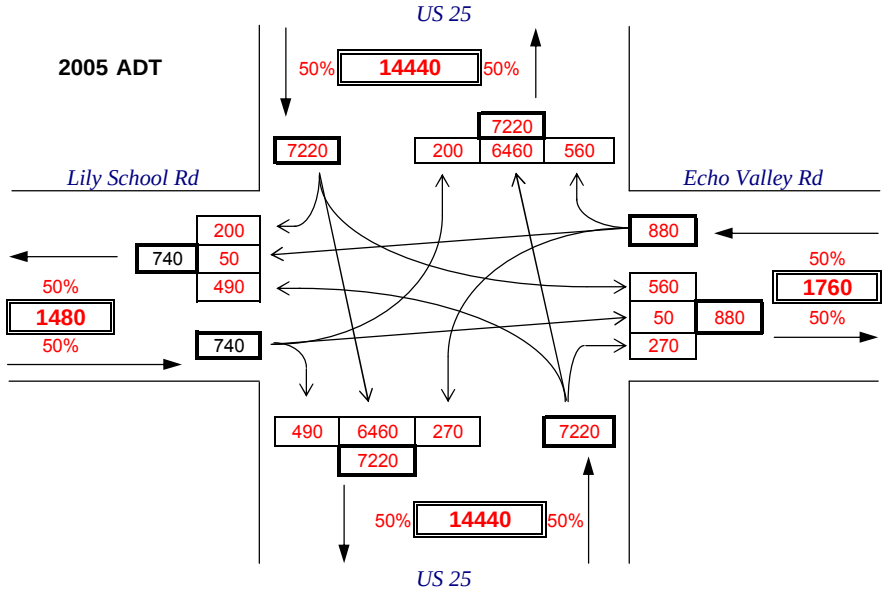
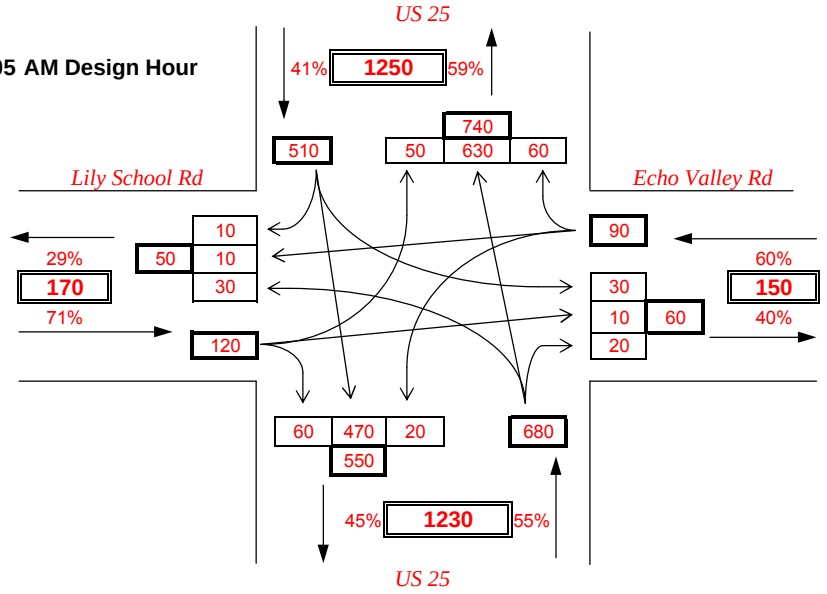
SCENARIO: **2005 Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ Lily School / Echo Valley Rd

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

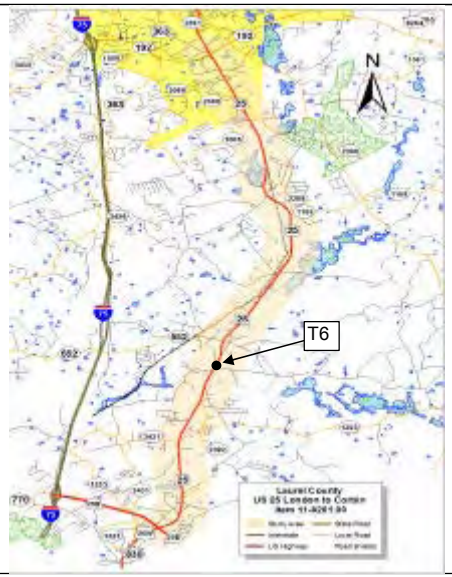
2005 ADT



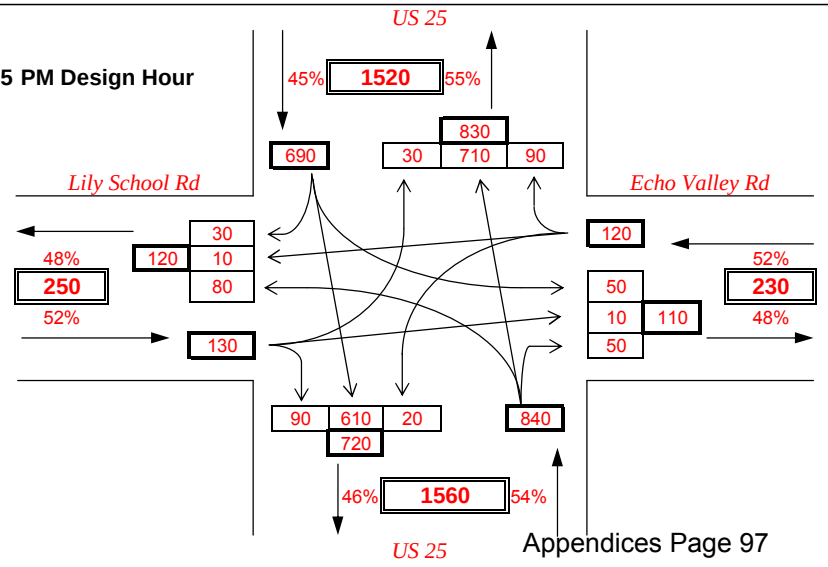
2005 AM Design Hour



Location Map



2005 PM Design Hour



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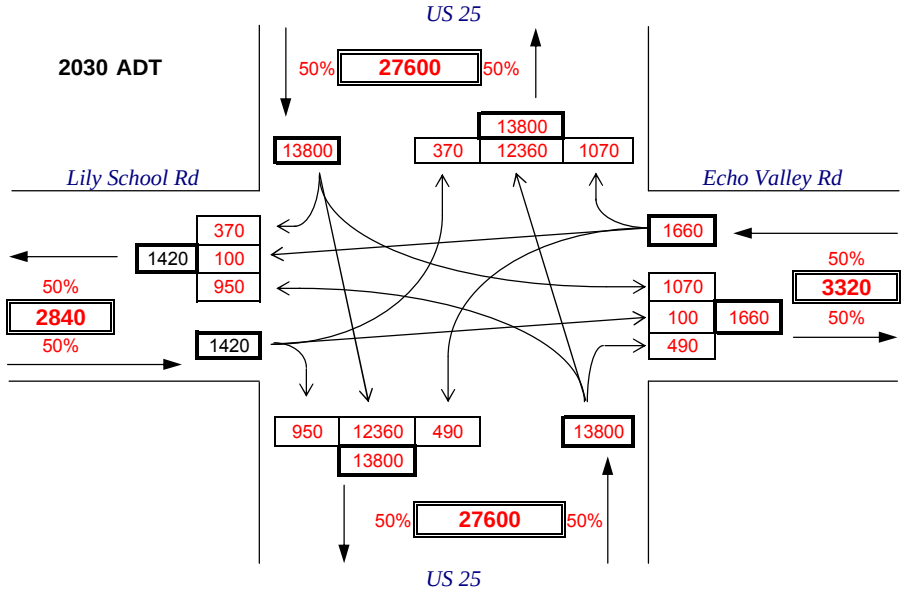
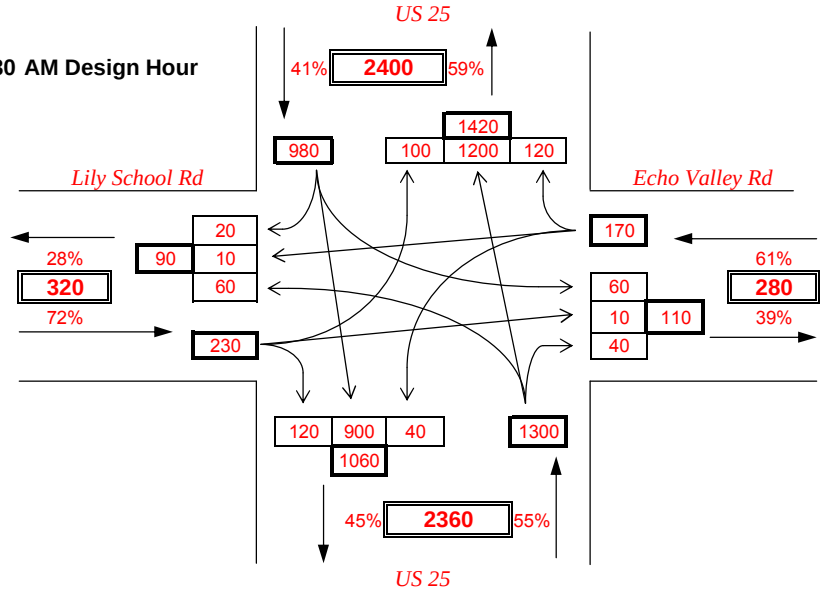
INTERSECTION: US 25 @ Lily School / Echo Valley Rd

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

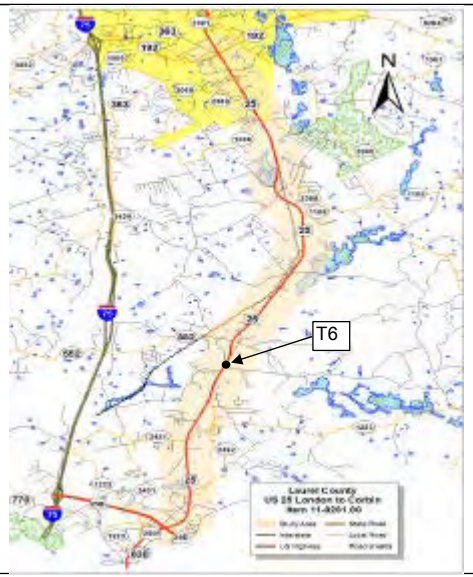
2030 ADT



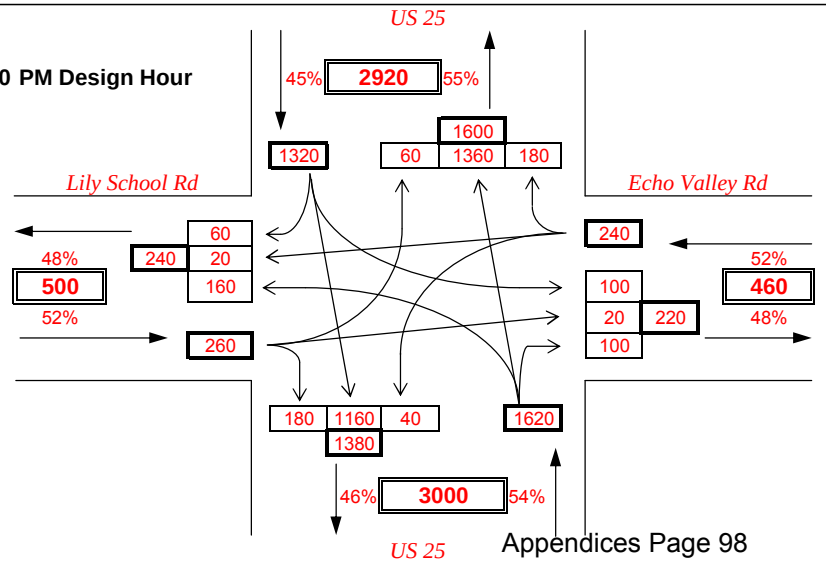
2030 AM Design Hour



Location Map



2030 PM Design Hour



PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
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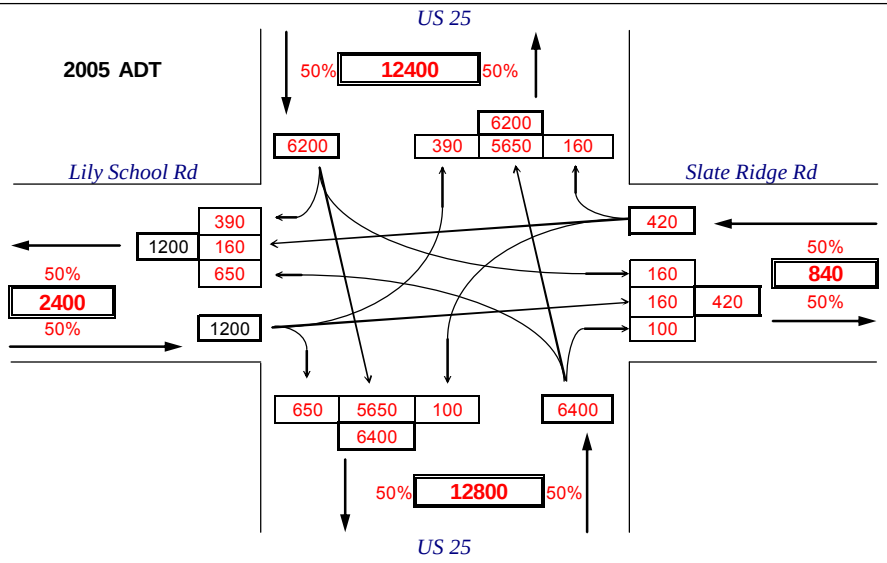
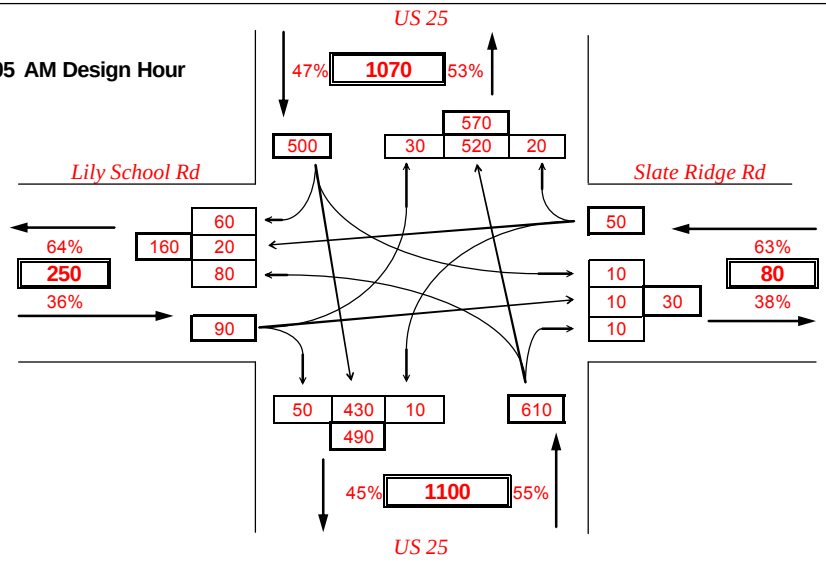
ANALYST: D. Hamilton
SCENARIO: **2005 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ Slate Ridge Road / South Lily Road

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

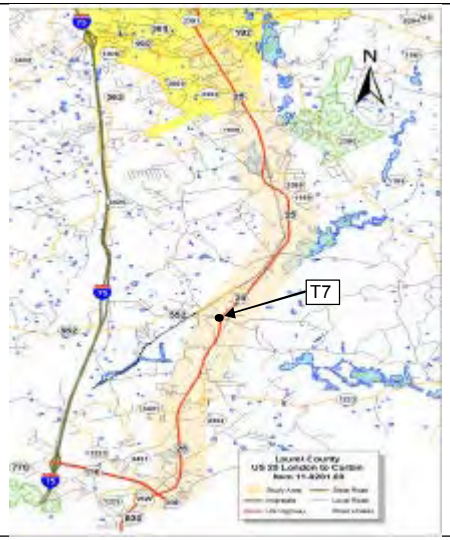
2005 ADT



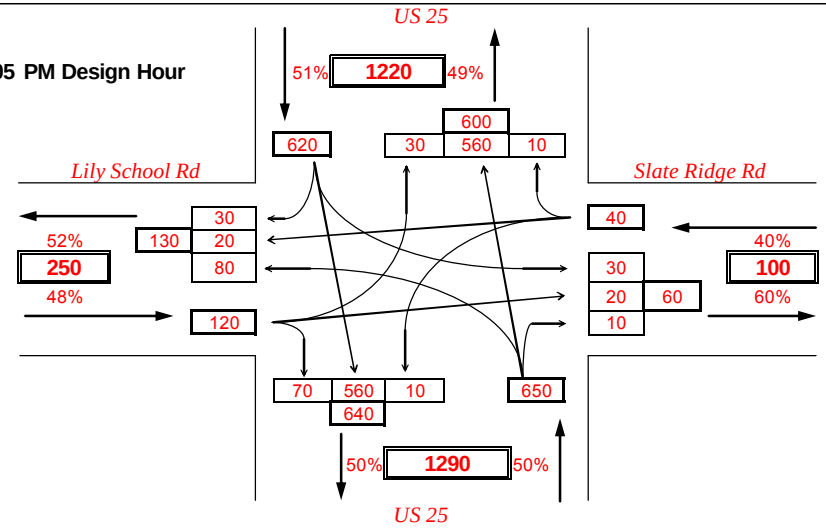
2005 AM Design Hour



Location Map



2005 PM Design Hour



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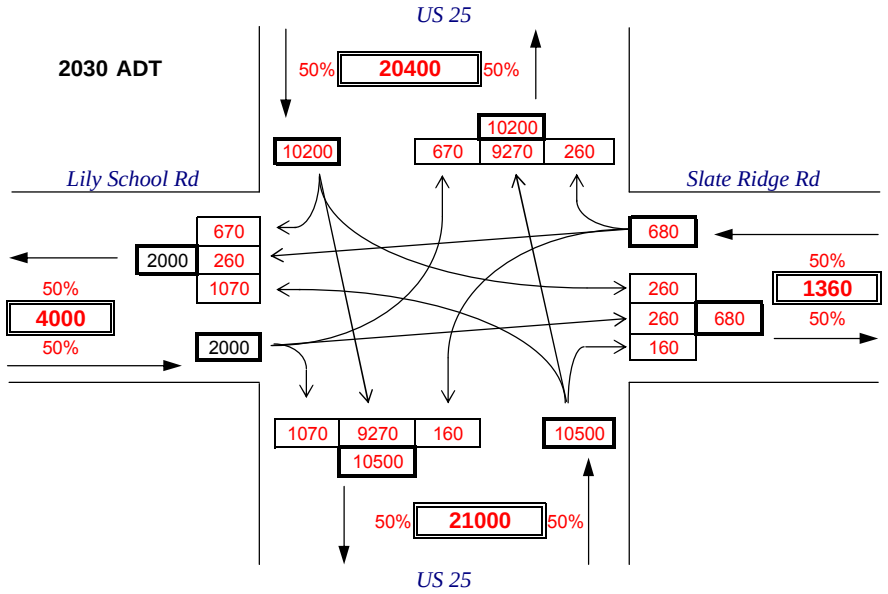
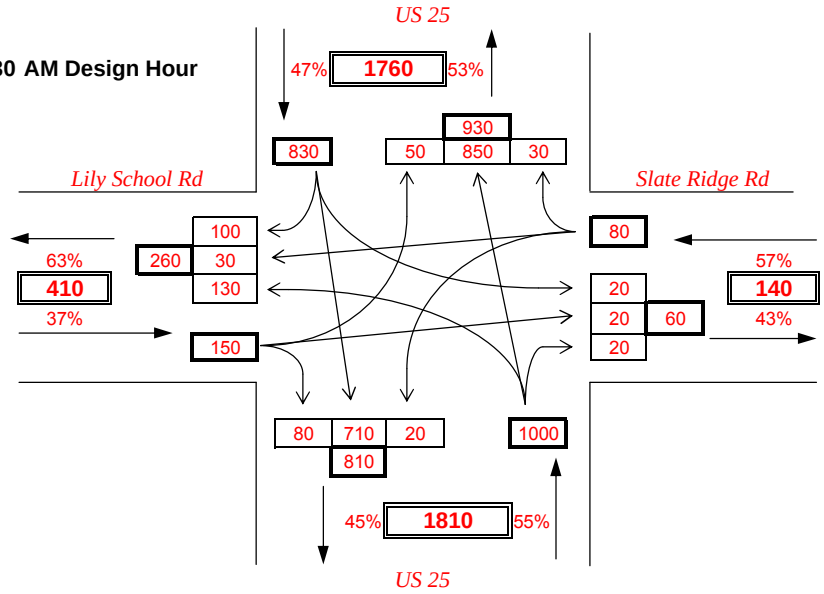
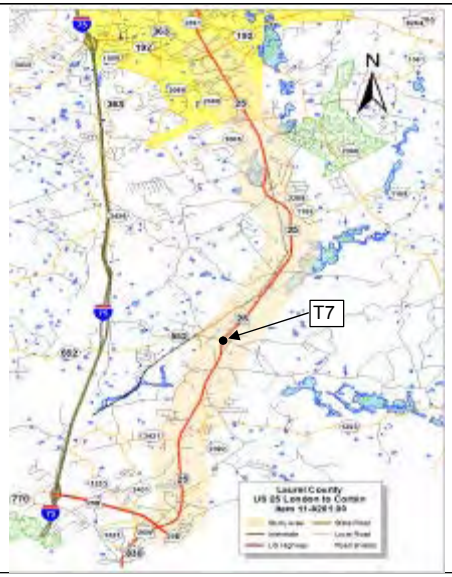


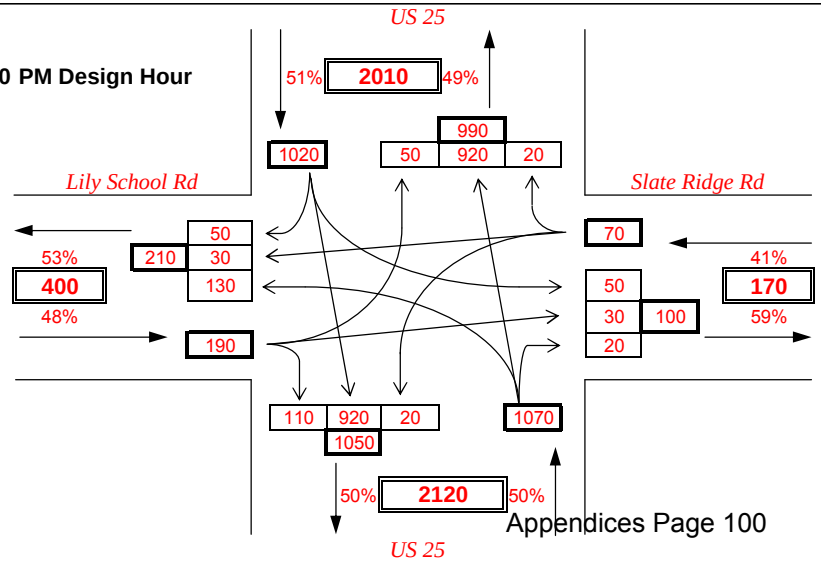
2030 AM Design Hour



Location Map



2030 PM Design Hour



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INTERSECTION: US 25 @ Slate Ridge Road / South Lily Road

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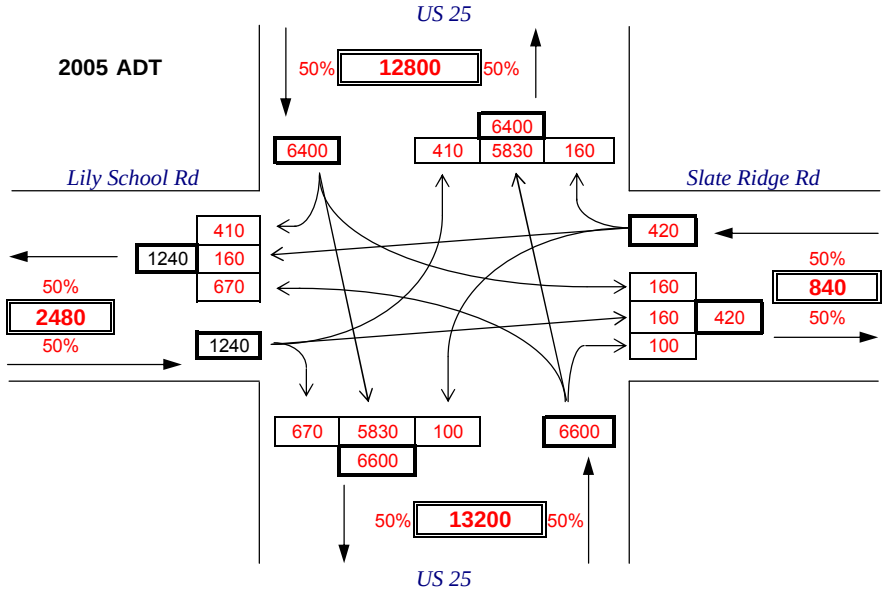
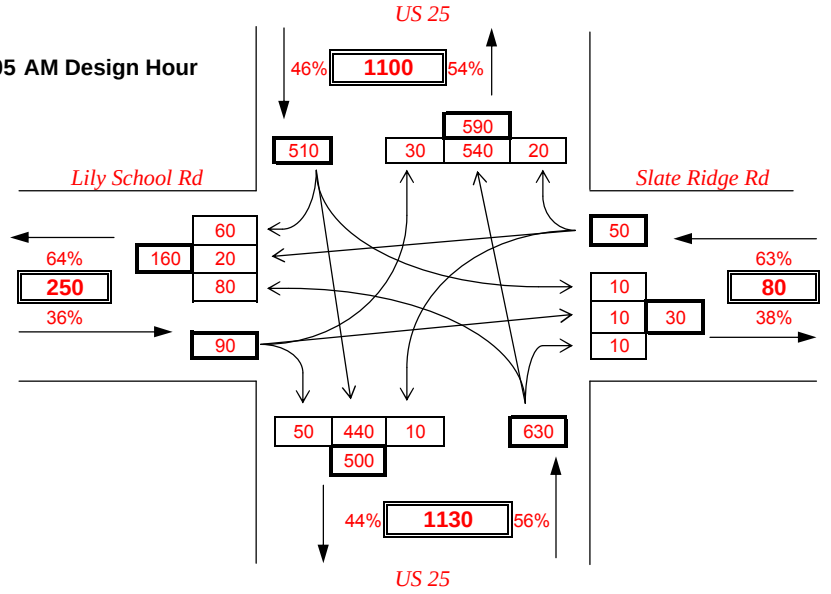
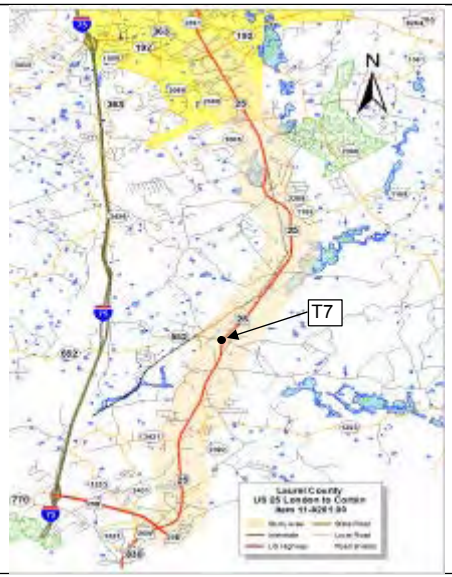
2005 ADT



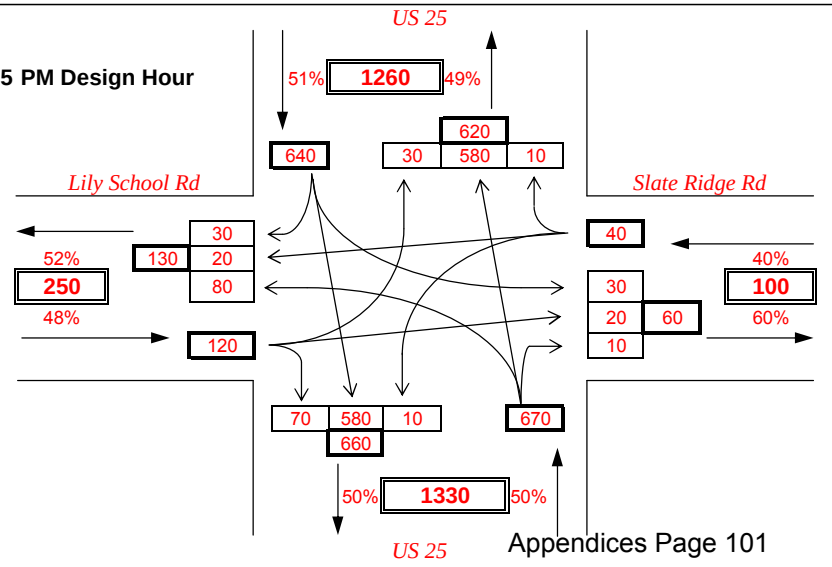
2005 AM Design Hour



Location Map



2005 PM Design Hour



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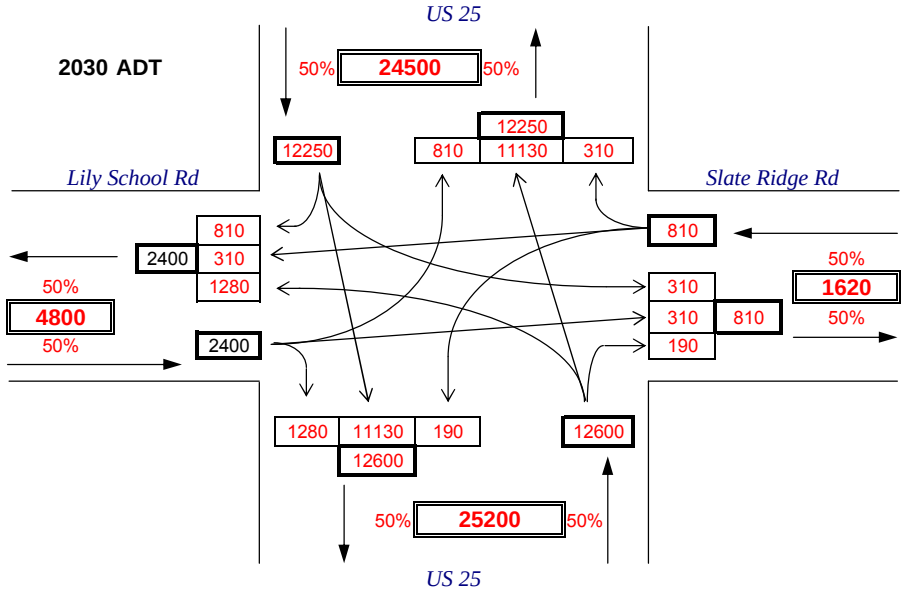
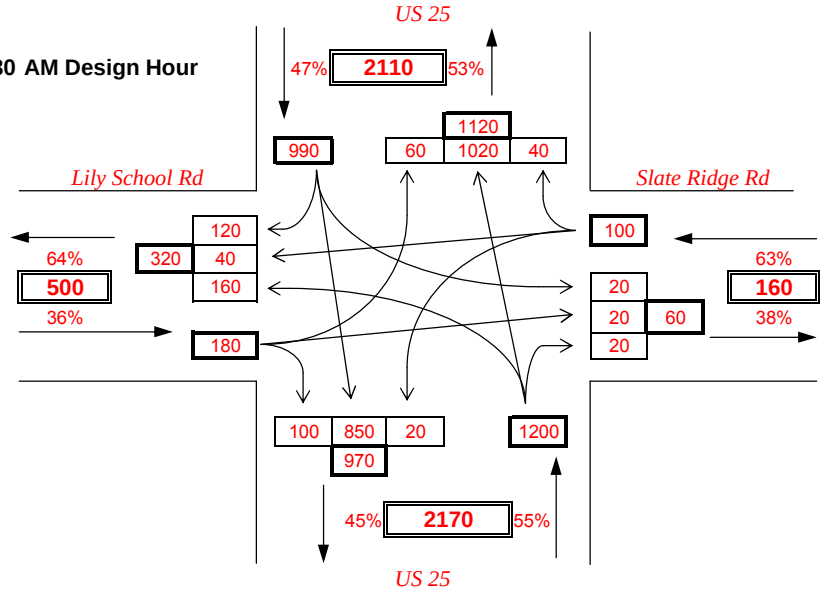
INTERSECTION: US 25 @ Slate Ridge Road / South Lily Road

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

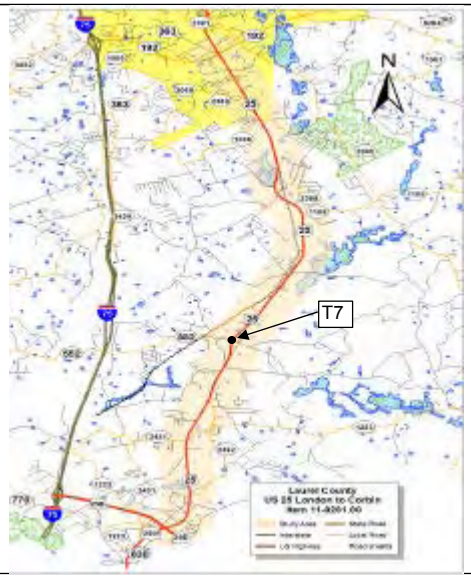
2030 ADT



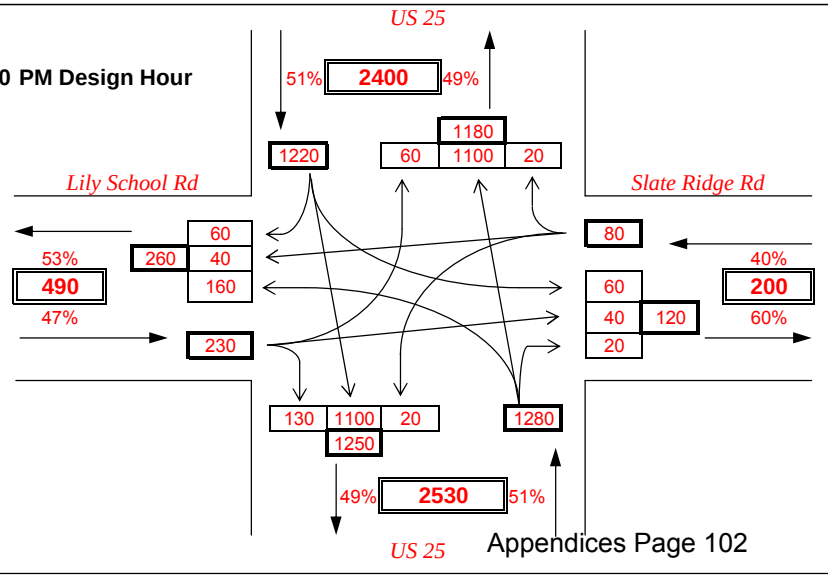
2030 AM Design Hour



Location Map



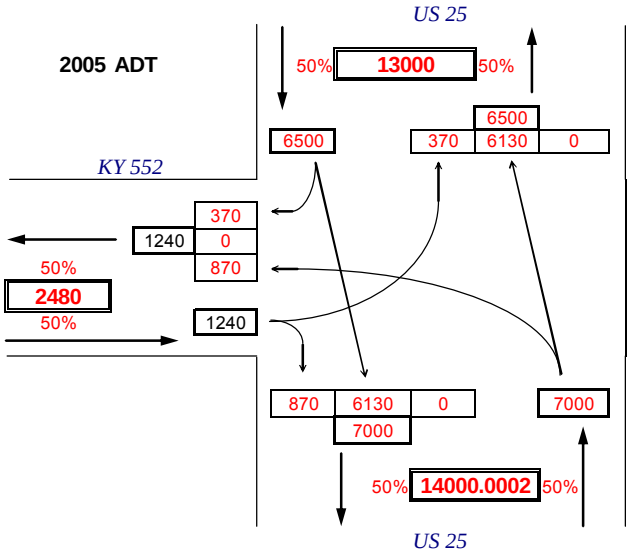
2030 PM Design Hour



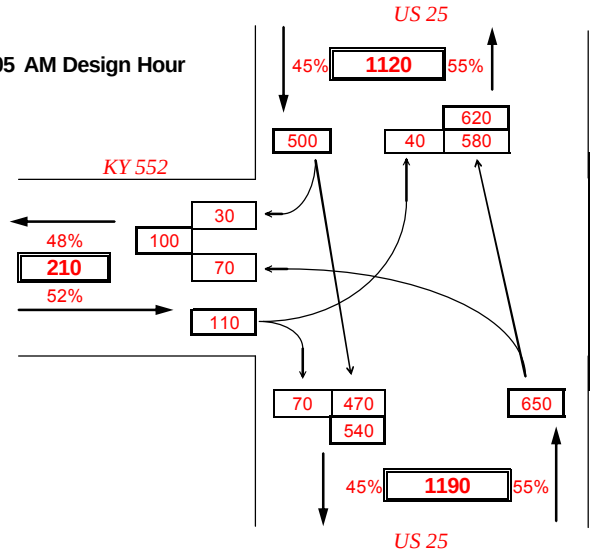
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE:
ANALYST: D. Hamilton
SCENARIO: **2005 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 552

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

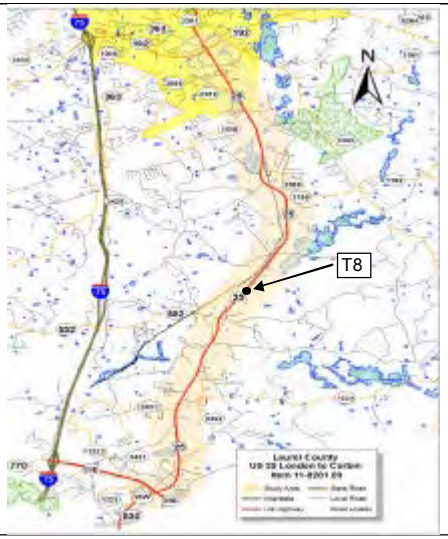
2005 ADT



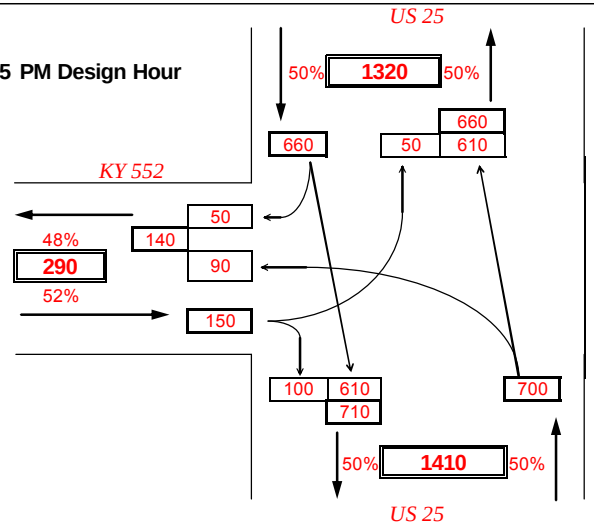
2005 AM Design Hour



Location Map



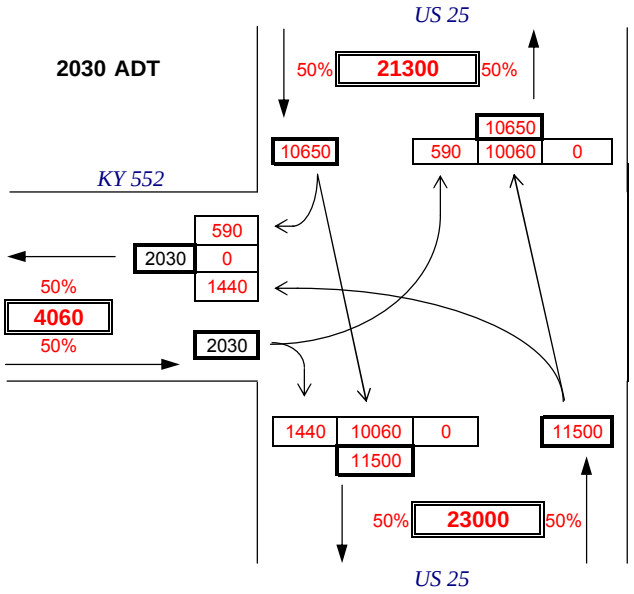
2005 PM Design Hour



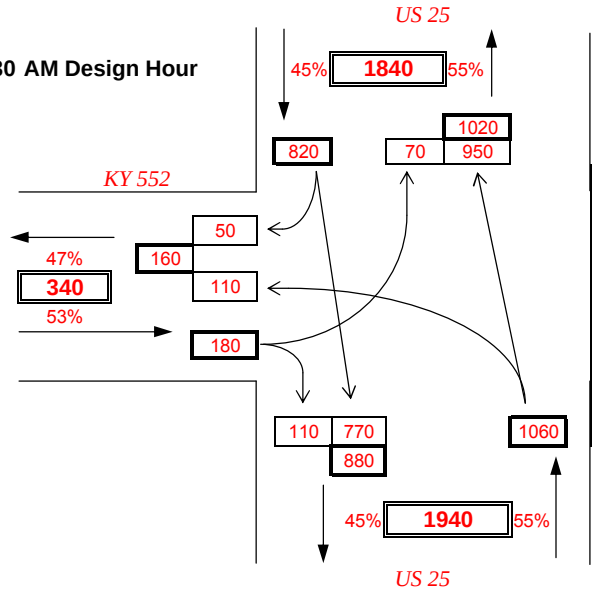
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2030 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 552

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

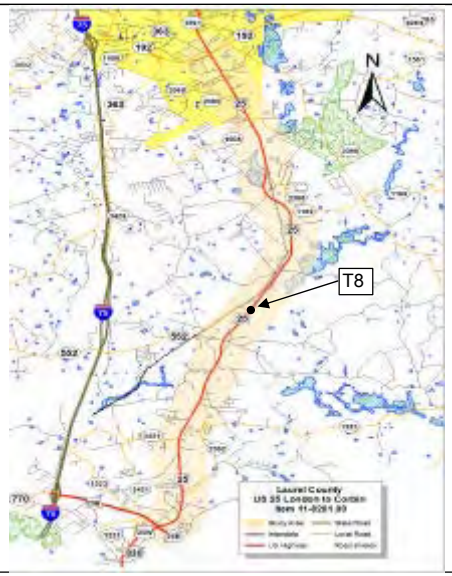
2030 ADT



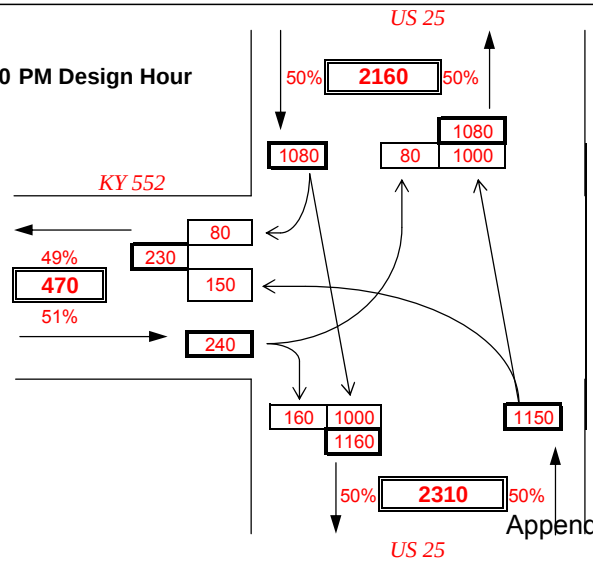
2030 AM Design Hour



Location Map



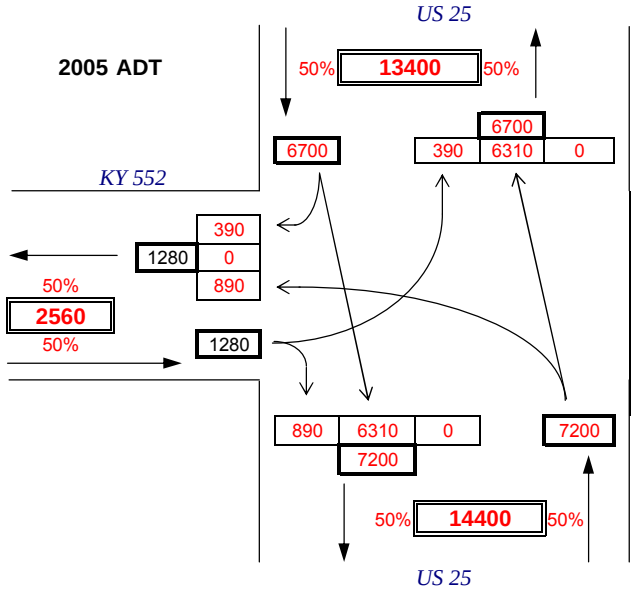
2030 PM Design Hour



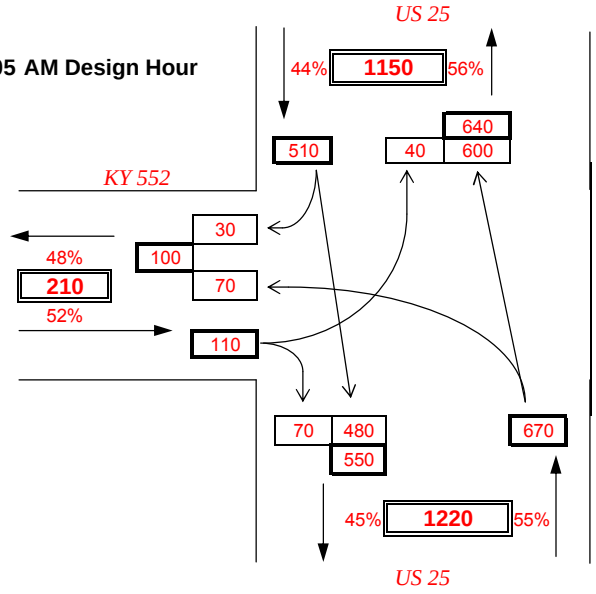
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2005 Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 552

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

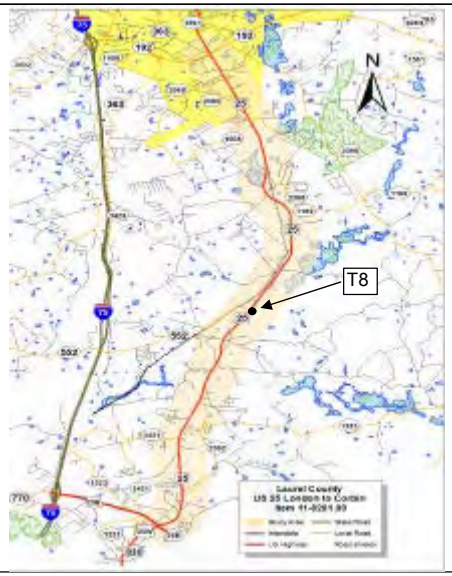
2005 ADT



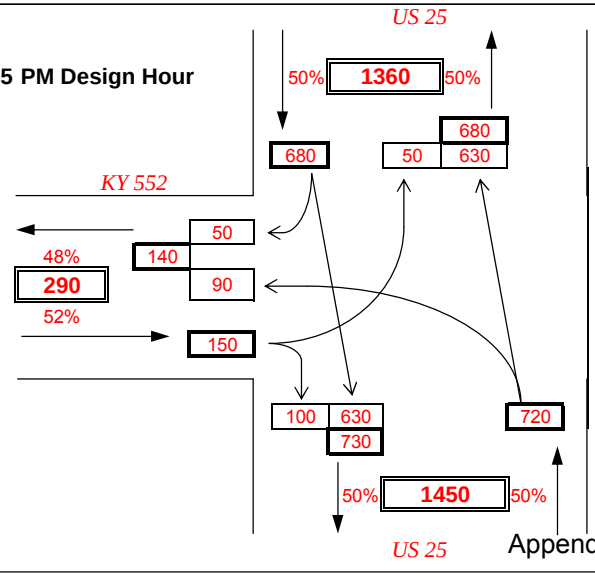
2005 AM Design Hour



Location Map



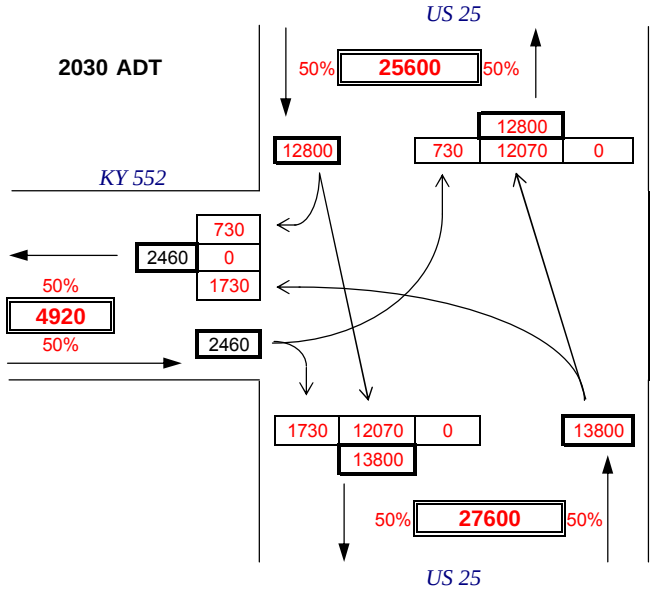
2005 PM Design Hour



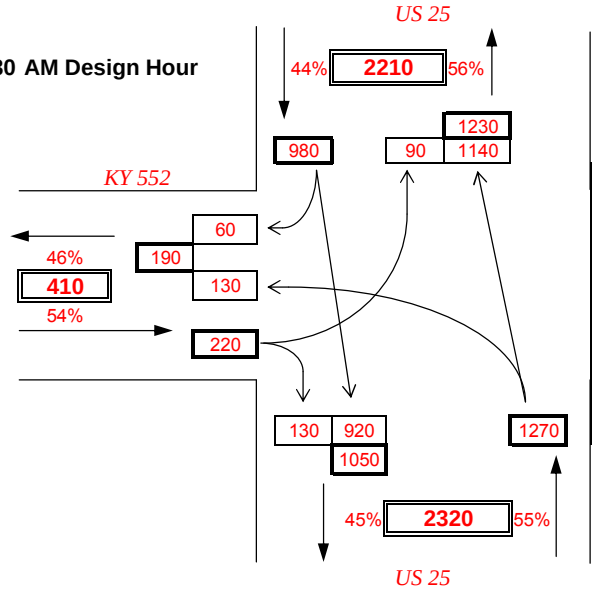
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2030 Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 552

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

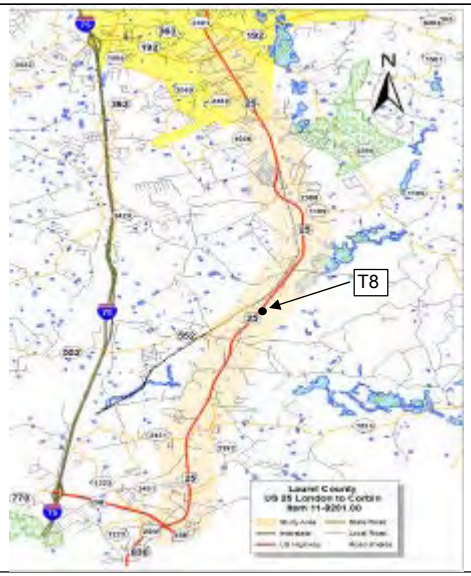
2030 ADT



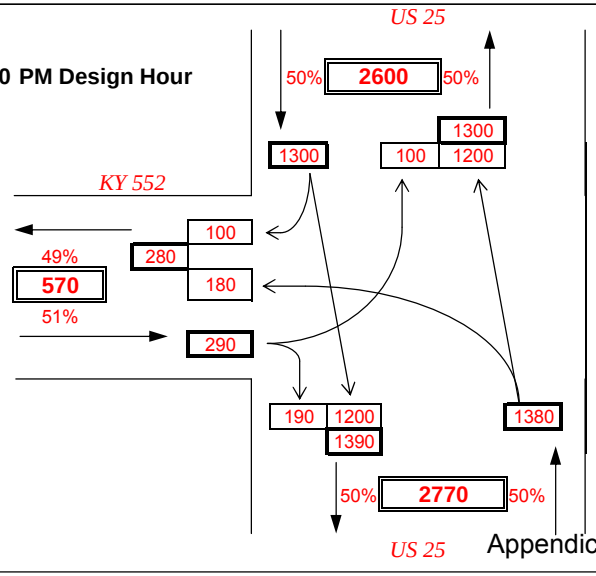
2030 AM Design Hour



Location Map



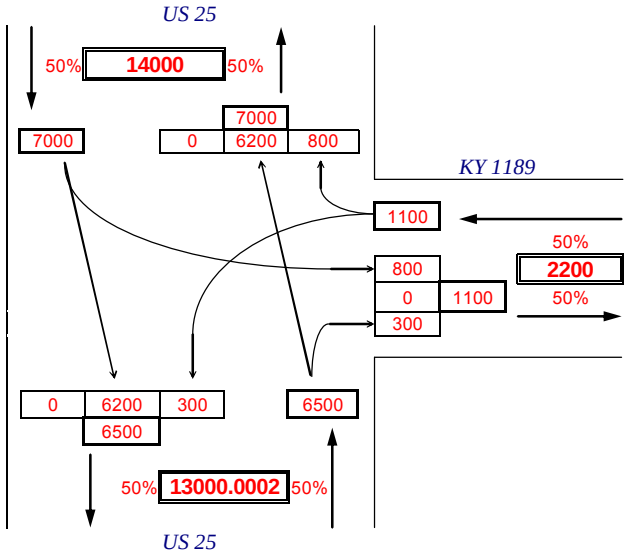
2030 PM Design Hour



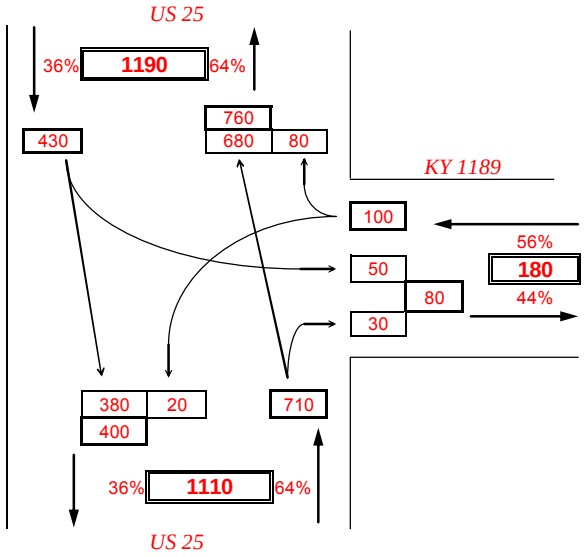
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE:
ANALYST: D. Hamilton
SCENARIO: **2005 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 1189

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

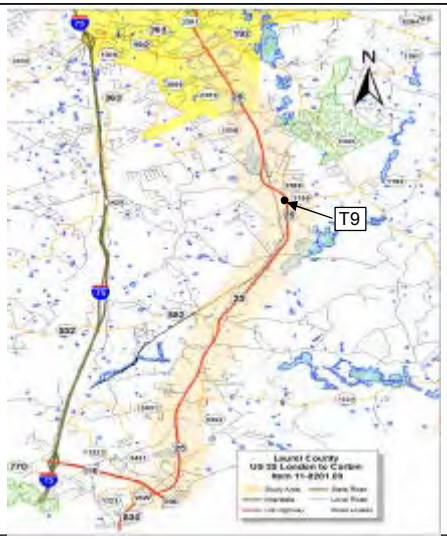
2005 ADT



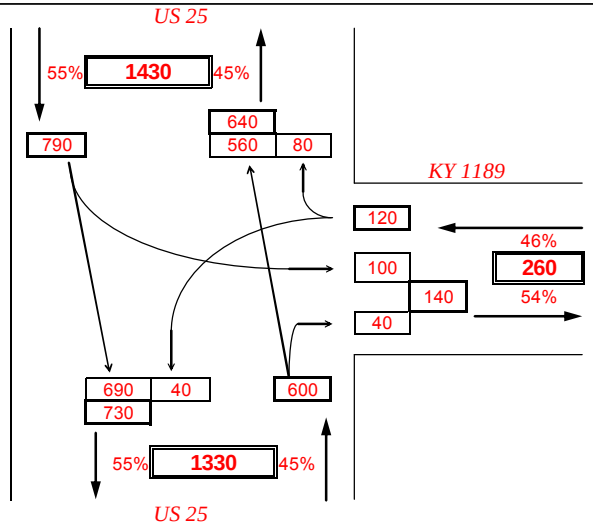
2005 AM Design Hour



Location Map



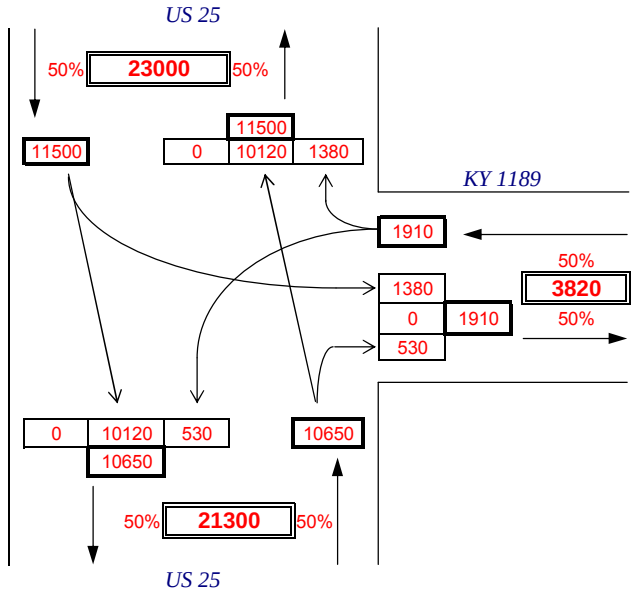
2005 PM Design Hour



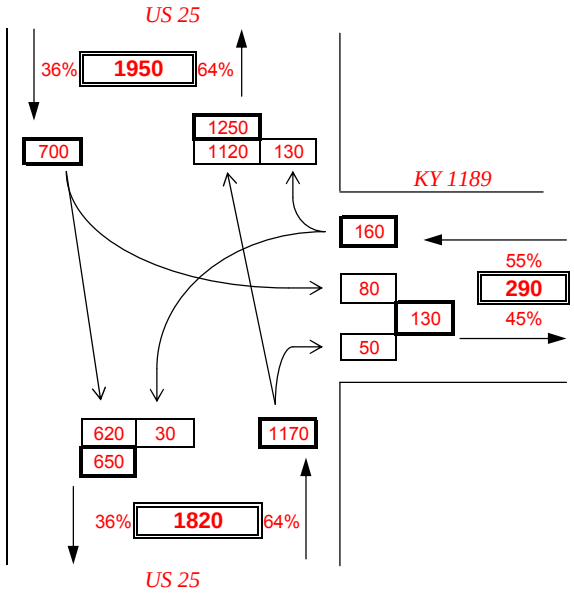
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2030 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 1189

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

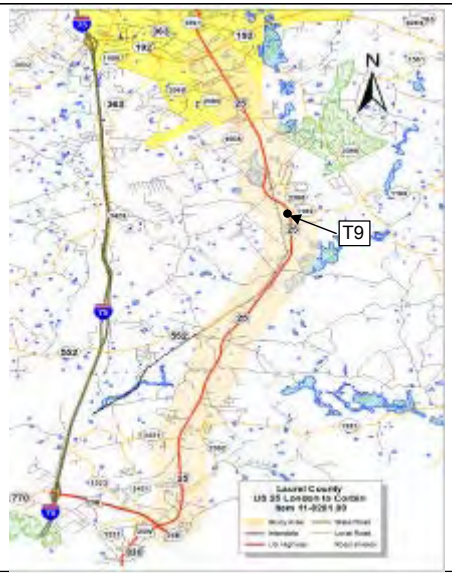
2030 ADT



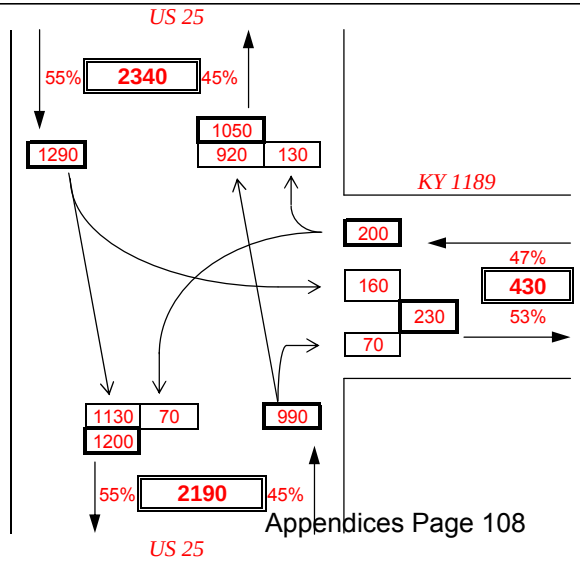
2030 AM Design Hour



Location Map



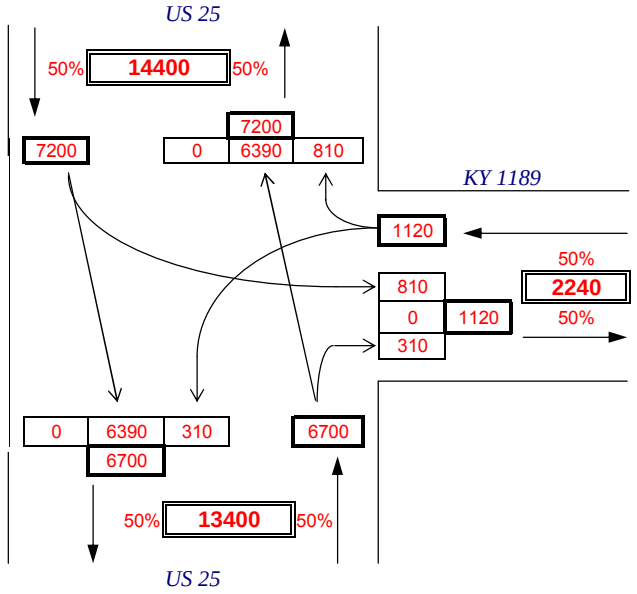
2030 PM Design Hour



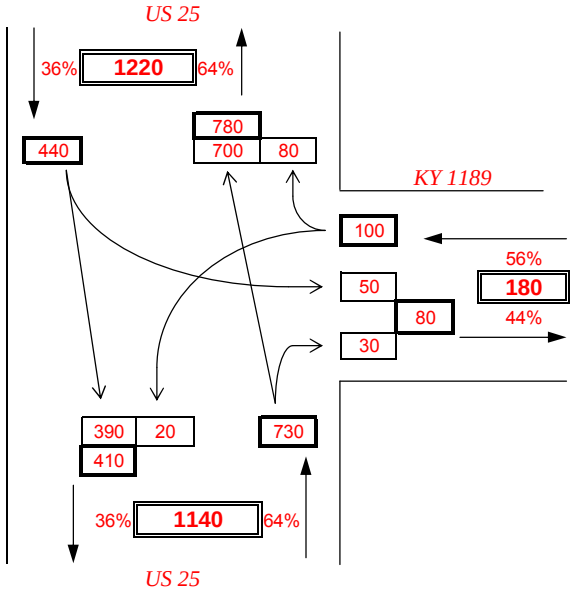
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2005 Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 1189

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

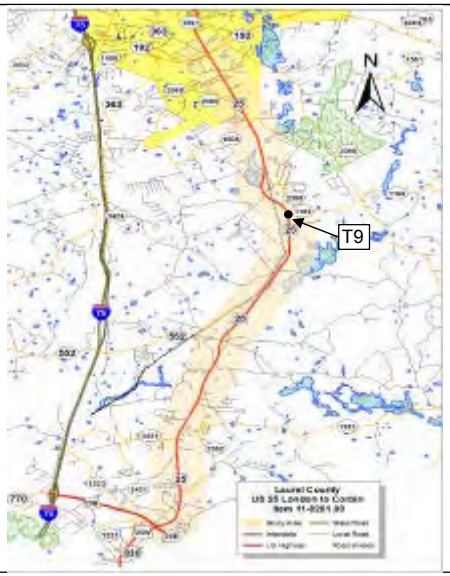
2005 ADT



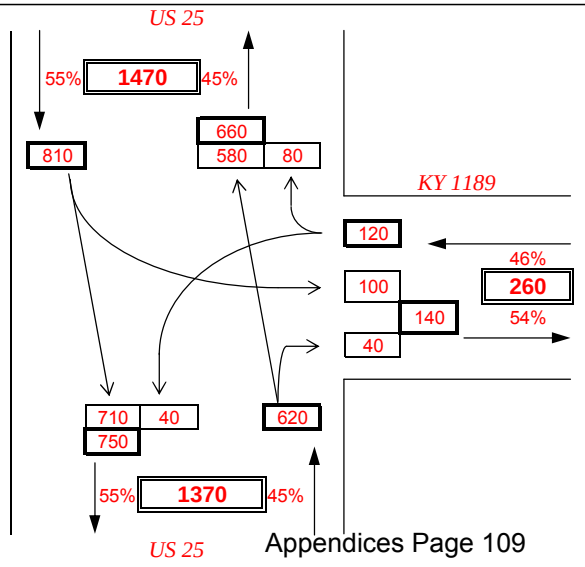
2005 AM Design Hour



Location Map



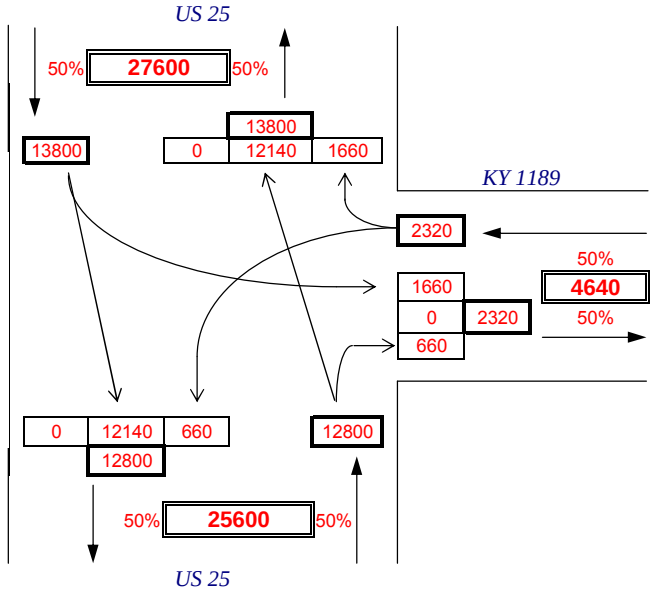
2005 PM Design Hour



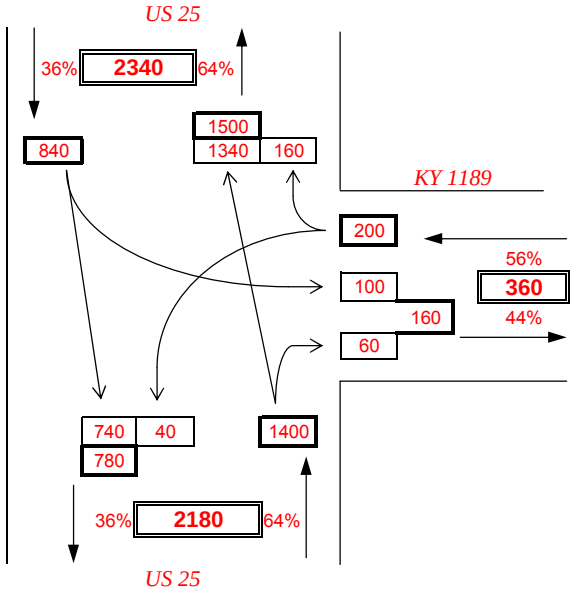
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2030 Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 1189

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

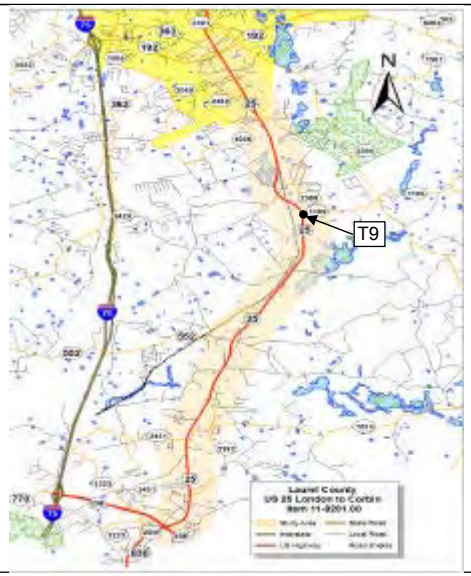
2030 ADT



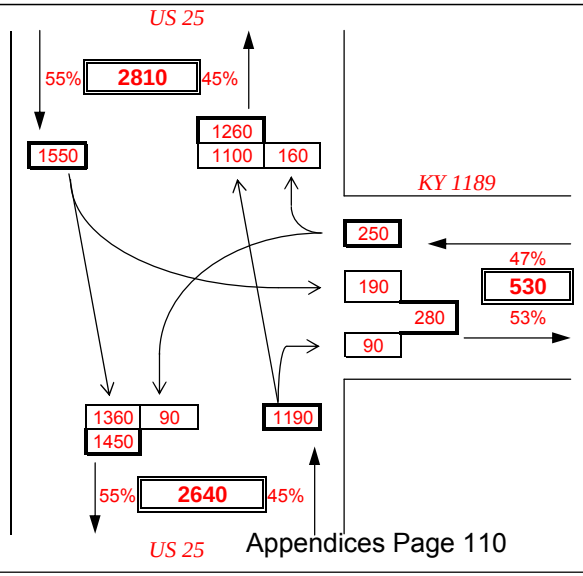
2030 AM Design Hour



Location Map



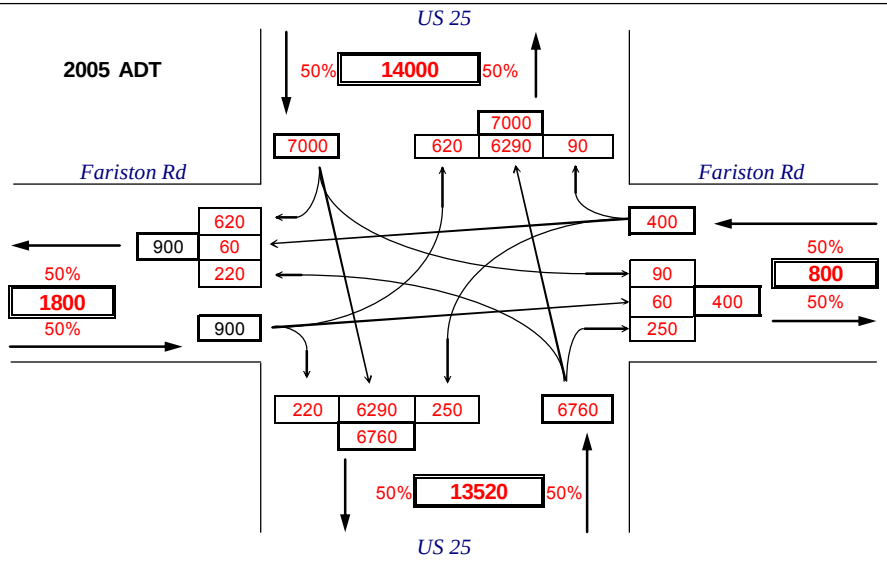
2030 PM Design Hour



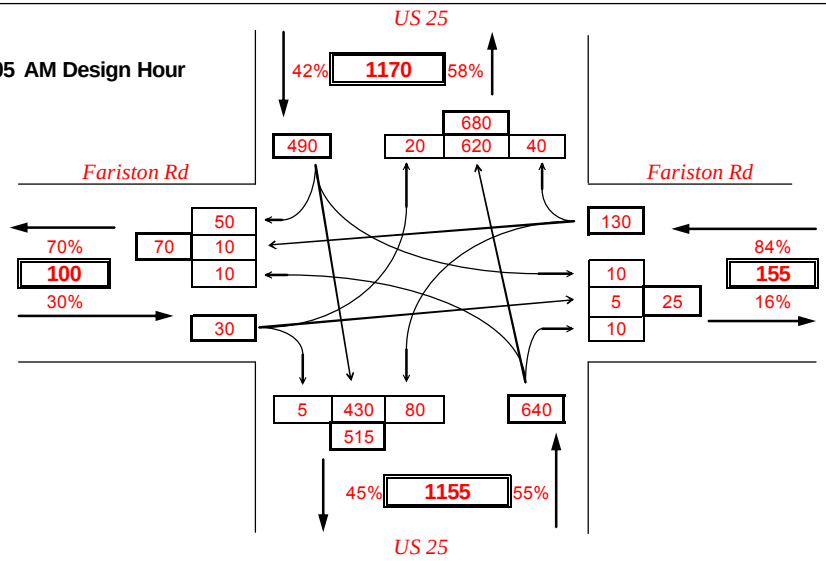
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE:
ANALYST: D. Hamilton
SCENARIO: **2005 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ Fariston Rd

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

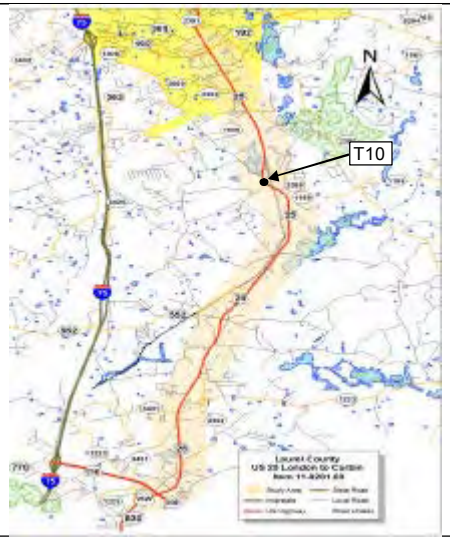
2005 ADT



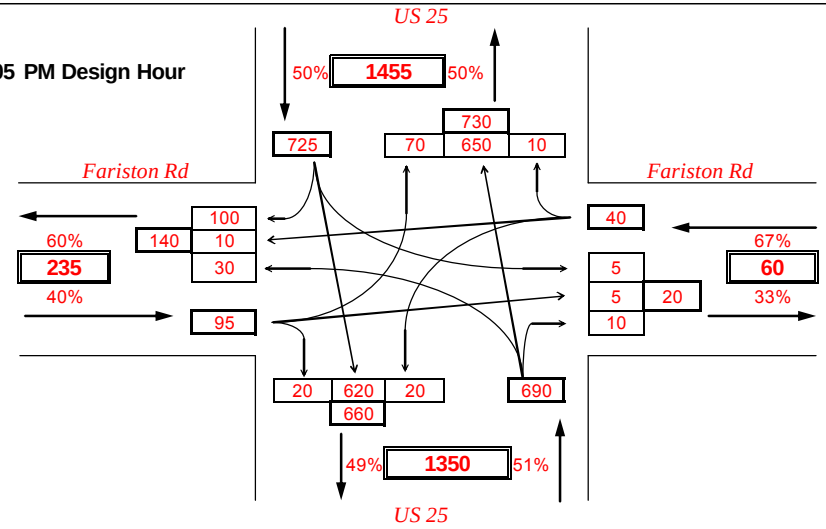
2005 AM Design Hour



Location Map



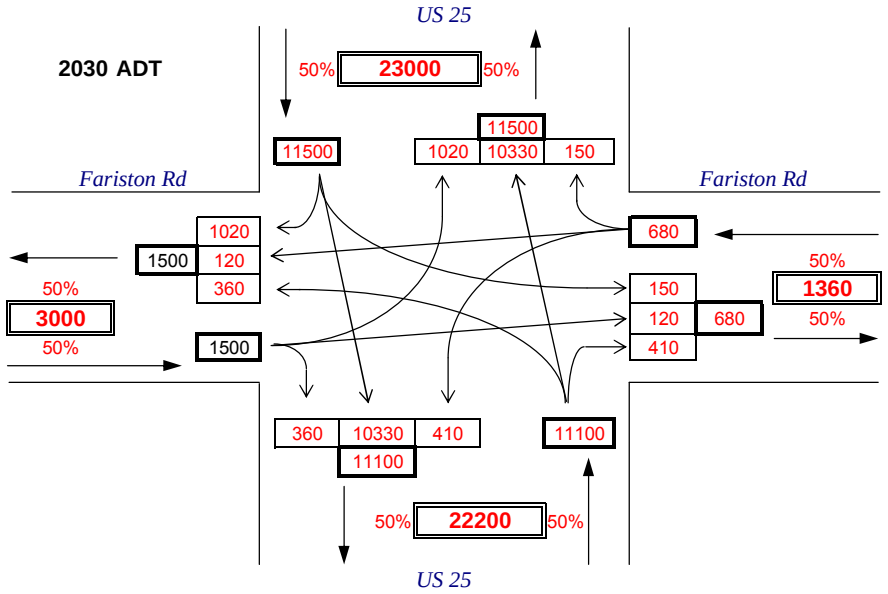
2005 PM Design Hour



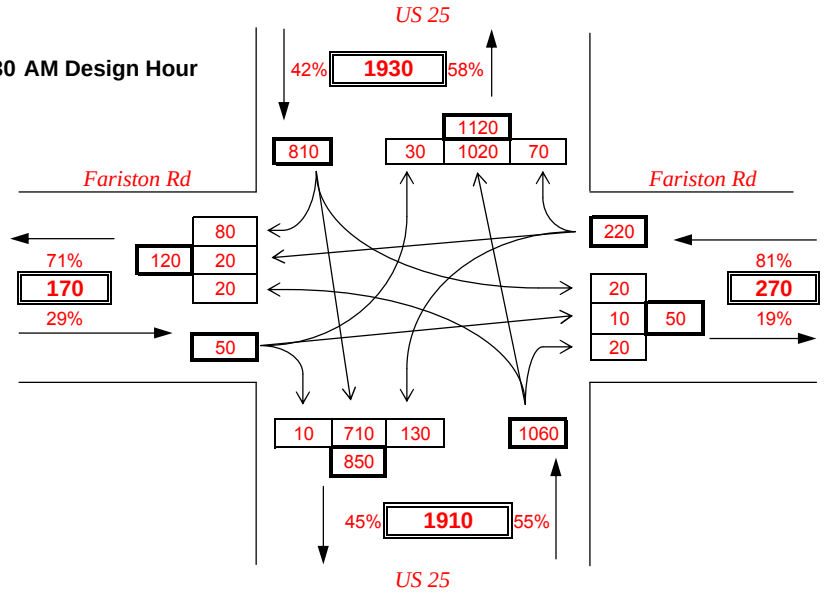
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2030 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ Fariston Rd

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

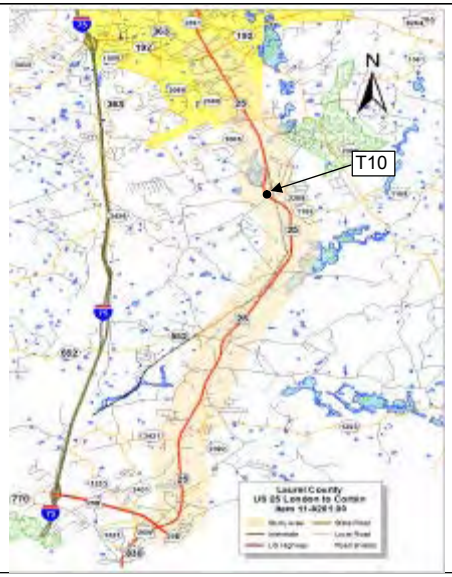
2030 ADT



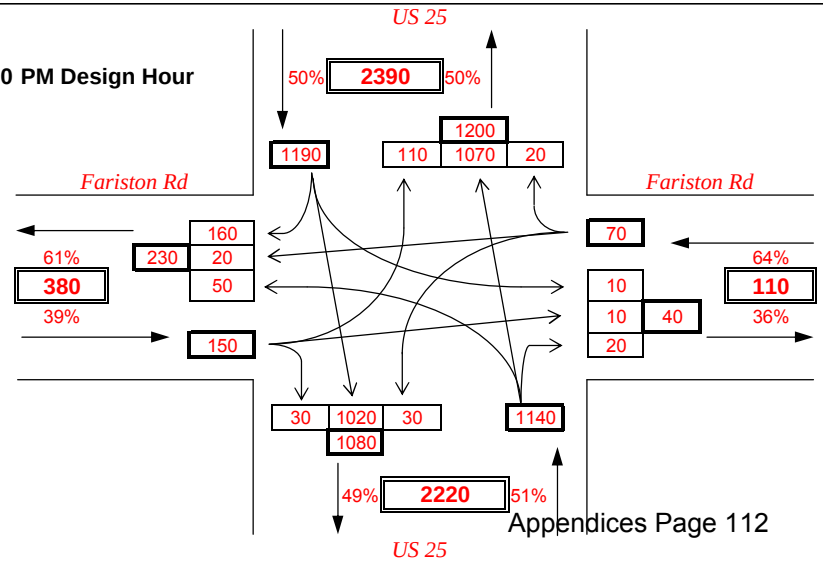
2030 AM Design Hour



Location Map



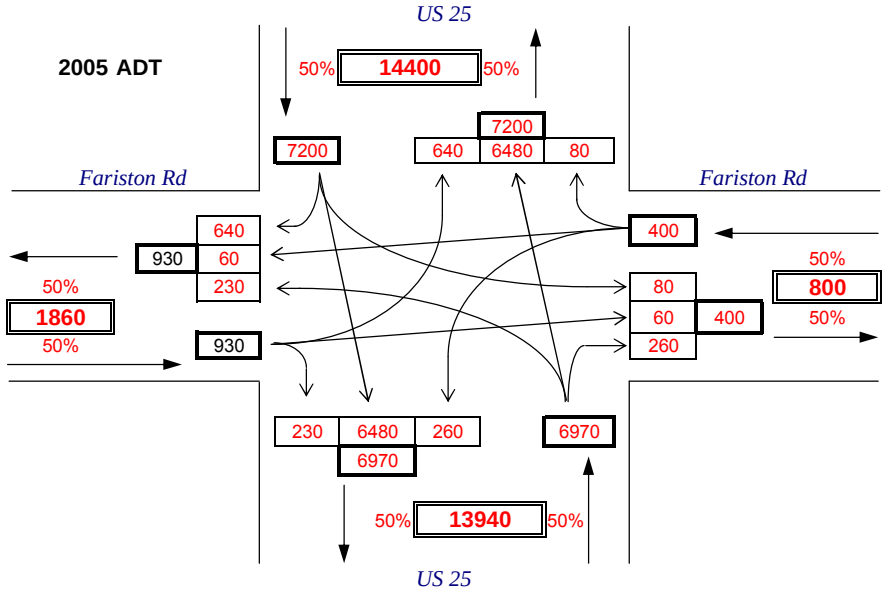
2030 PM Design Hour



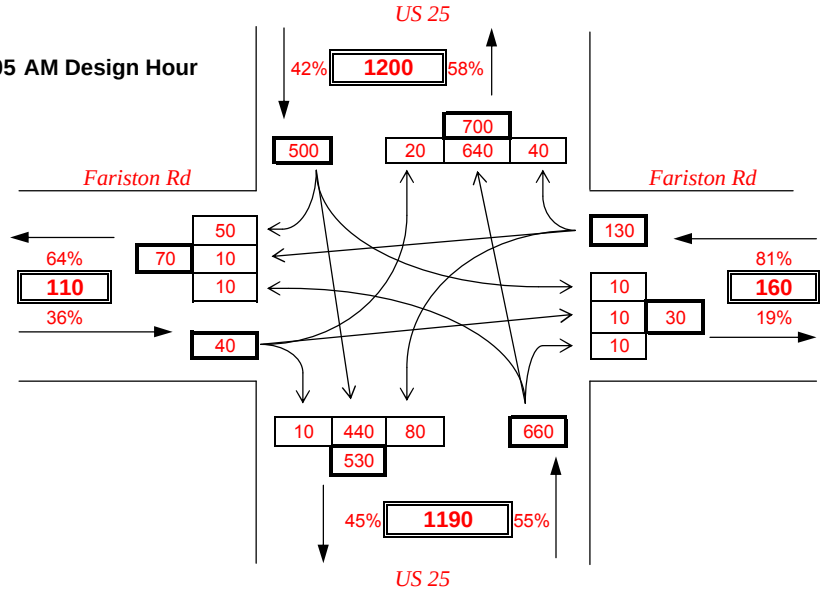
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2005 Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ Fariston Rd

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

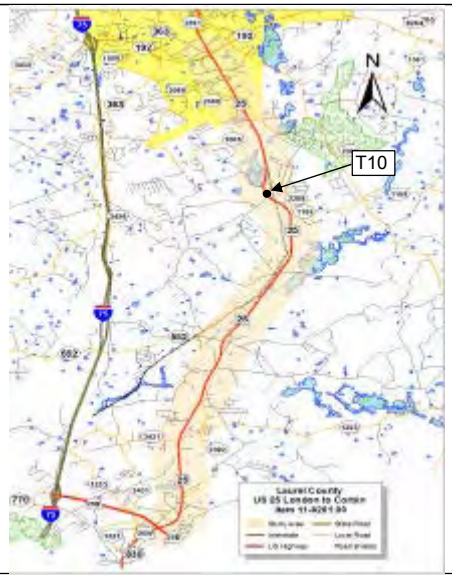
2005 ADT



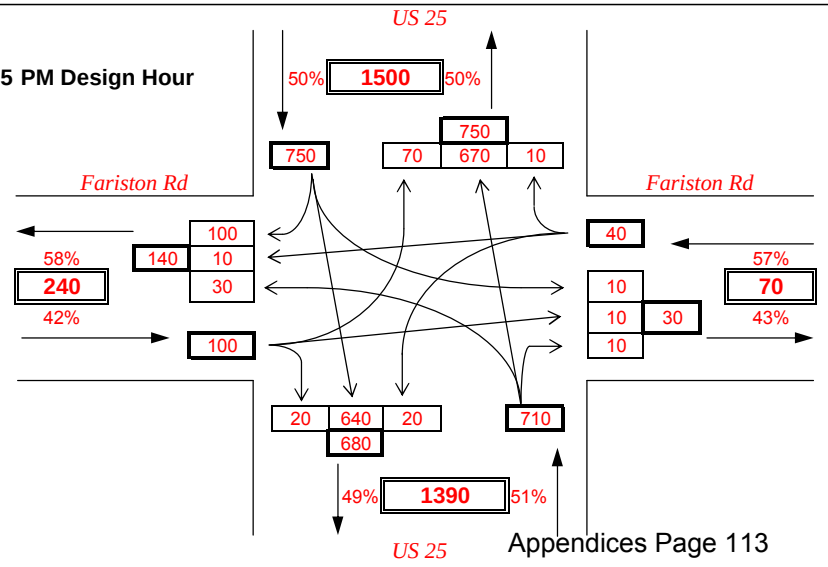
2005 AM Design Hour



Location Map



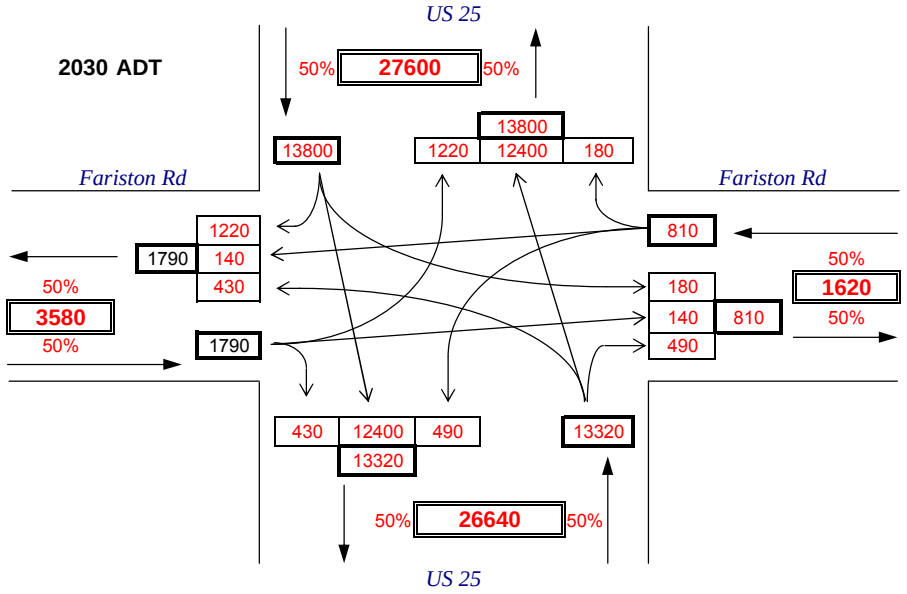
2005 PM Design Hour



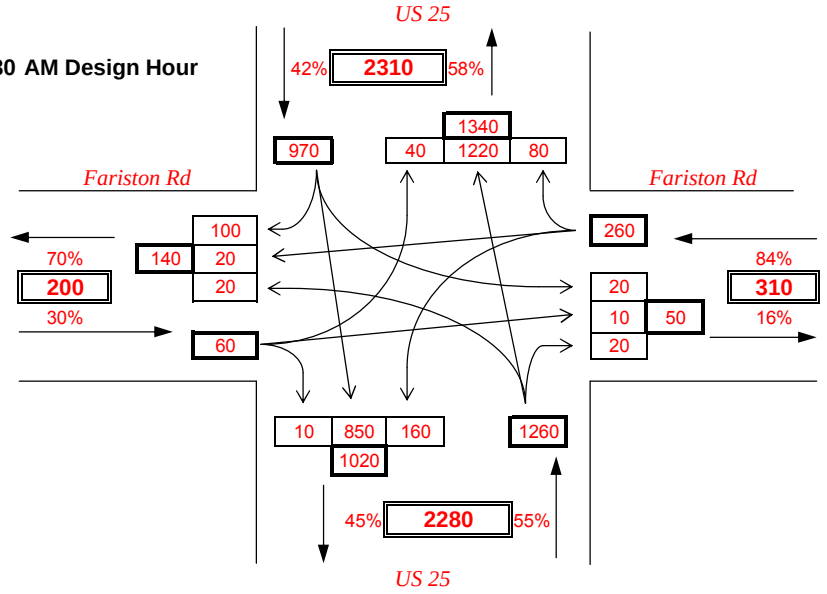
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2030 Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ Fariston Rd

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

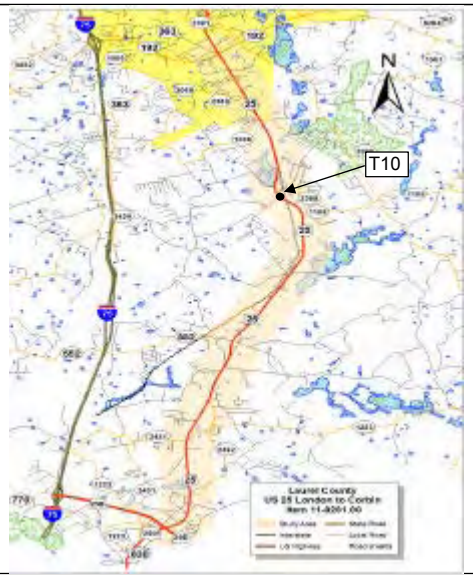
2030 ADT



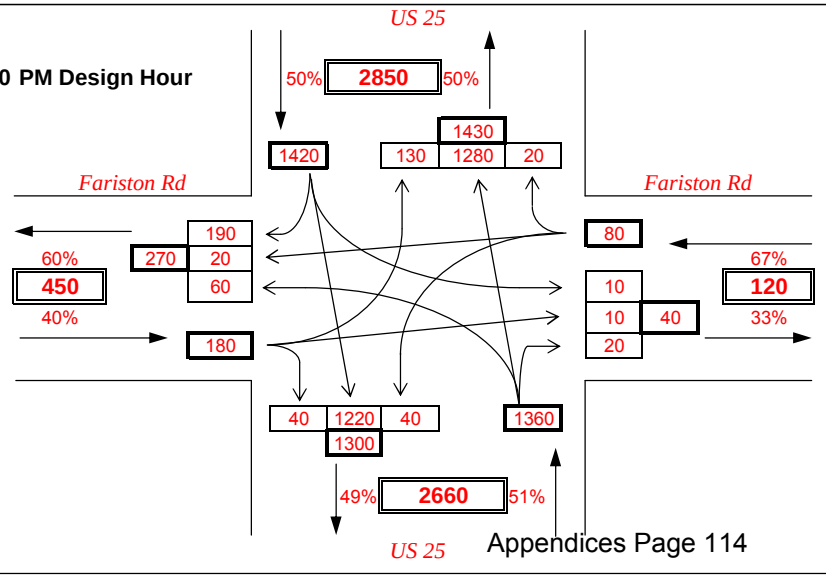
2030 AM Design Hour



Location Map



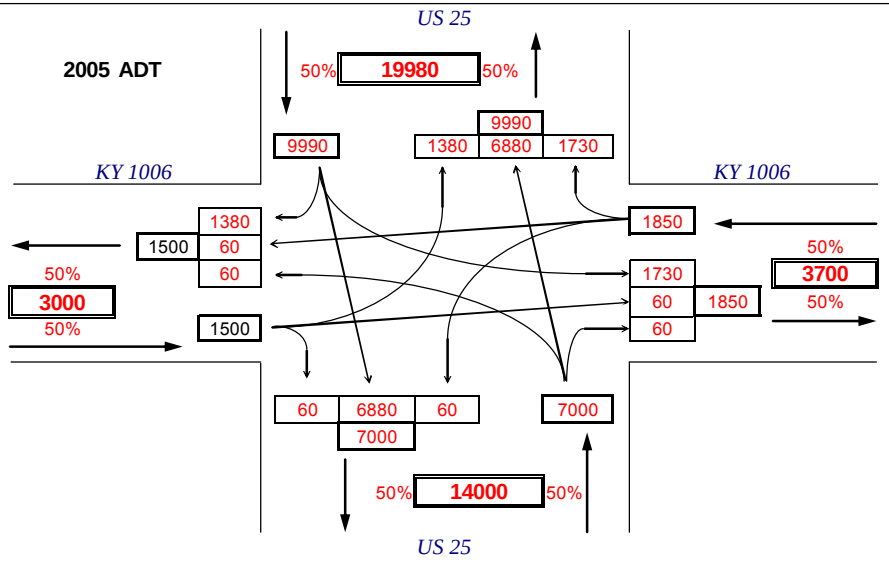
2030 PM Design Hour



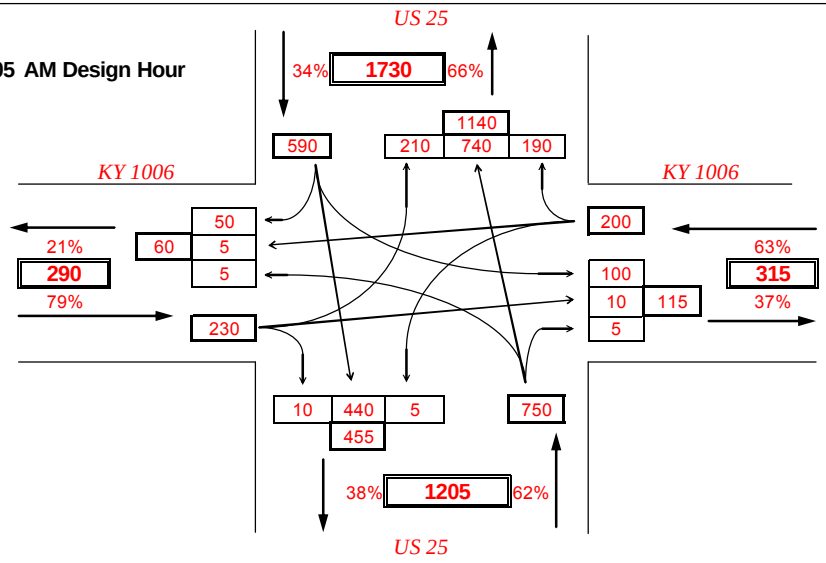
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE:
ANALYST: D. Hamilton
SCENARIO: **2005 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 1006

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

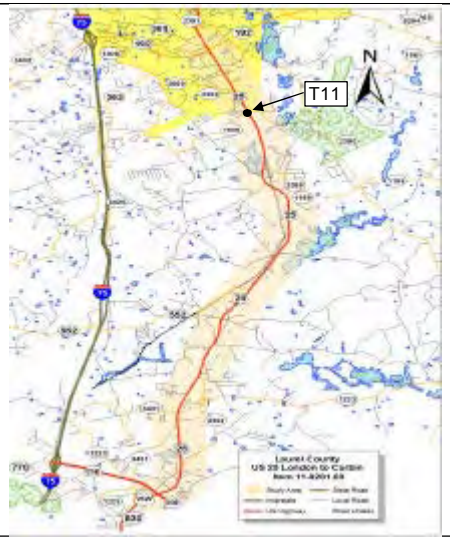
2005 ADT



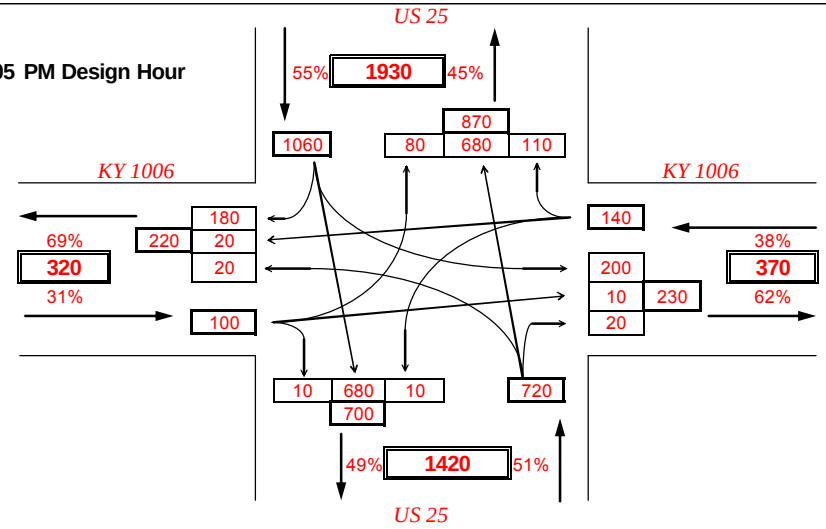
2005 AM Design Hour



Location Map



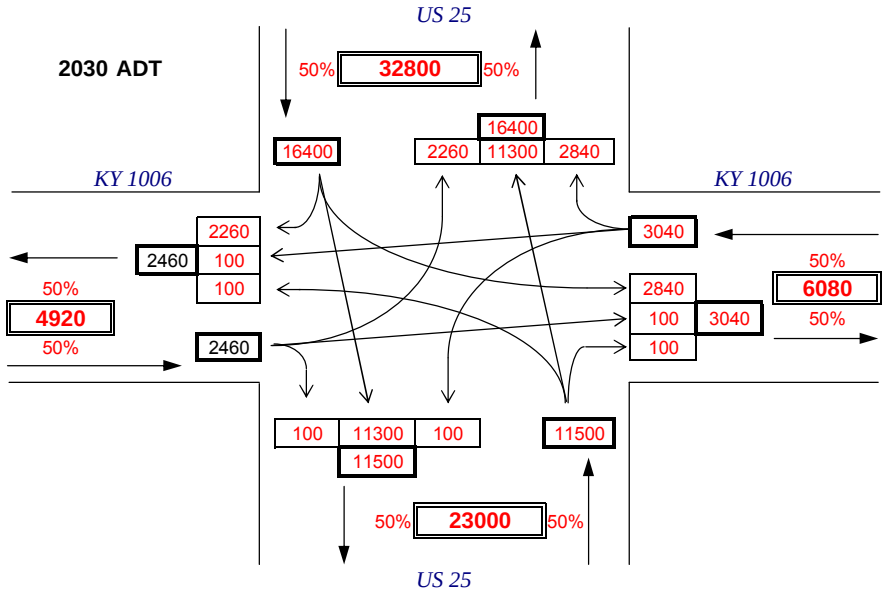
2005 PM Design Hour



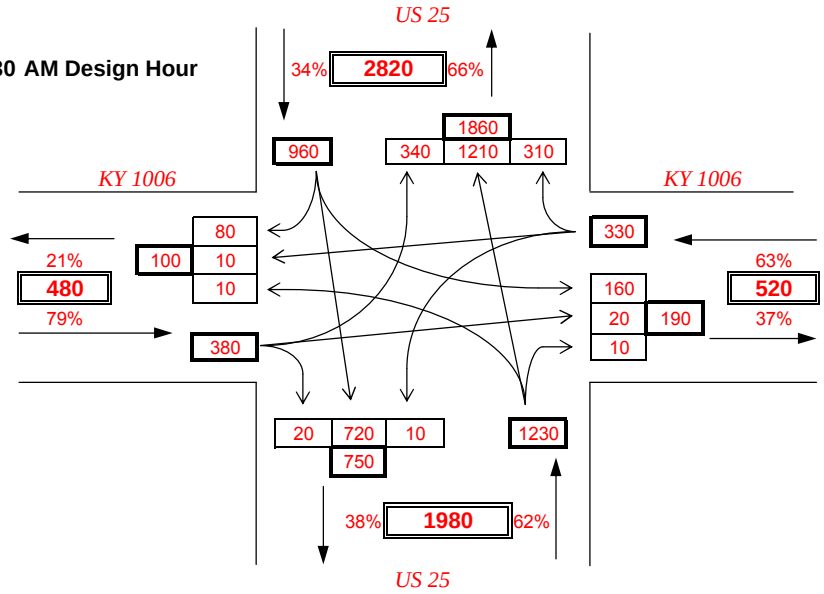
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2030 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 1006

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

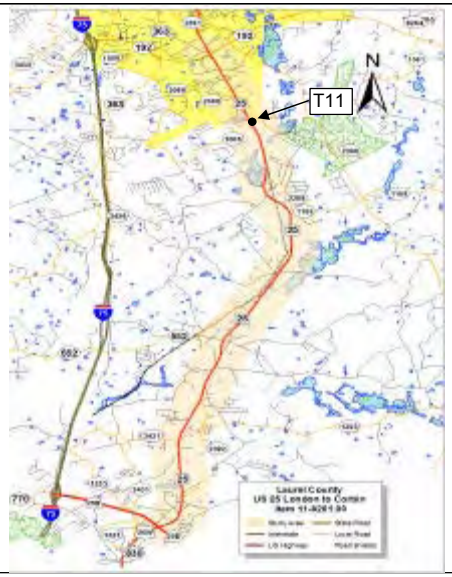
2030 ADT



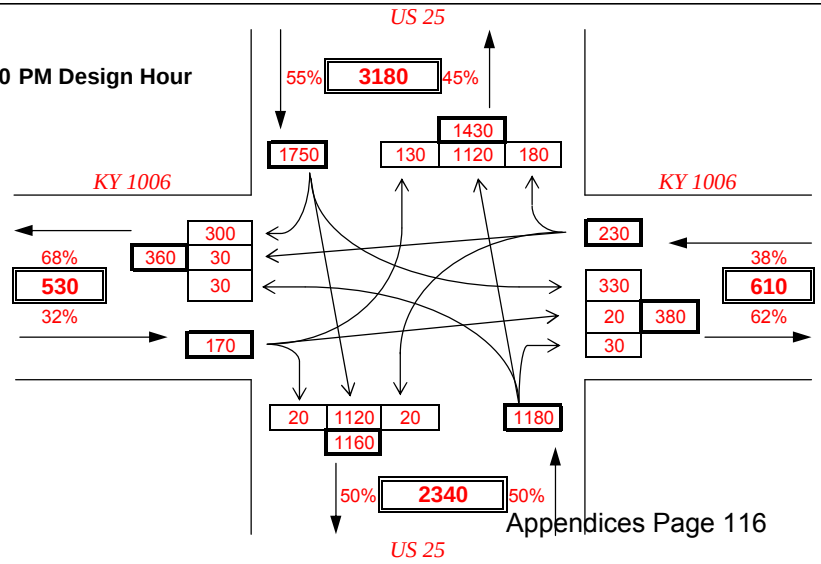
2030 AM Design Hour



Location Map



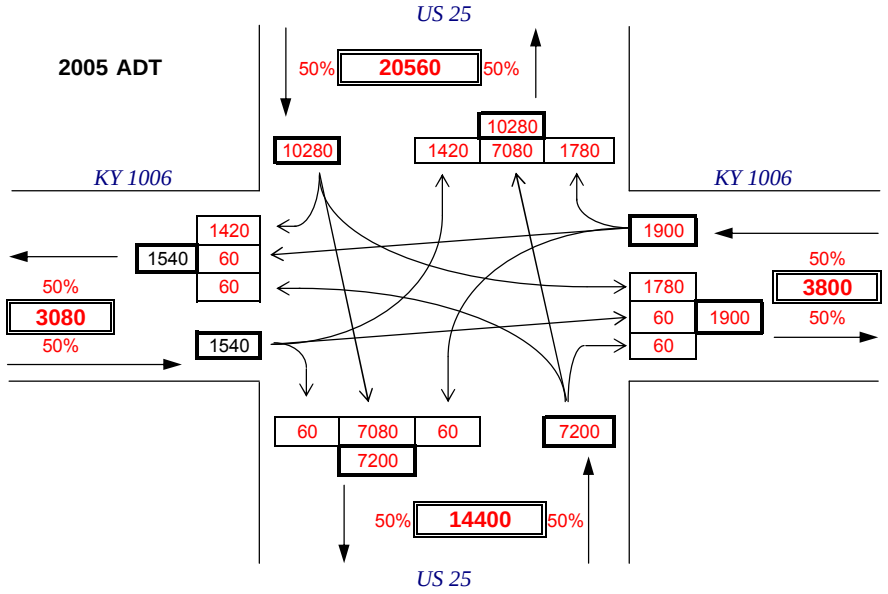
2030 PM Design Hour



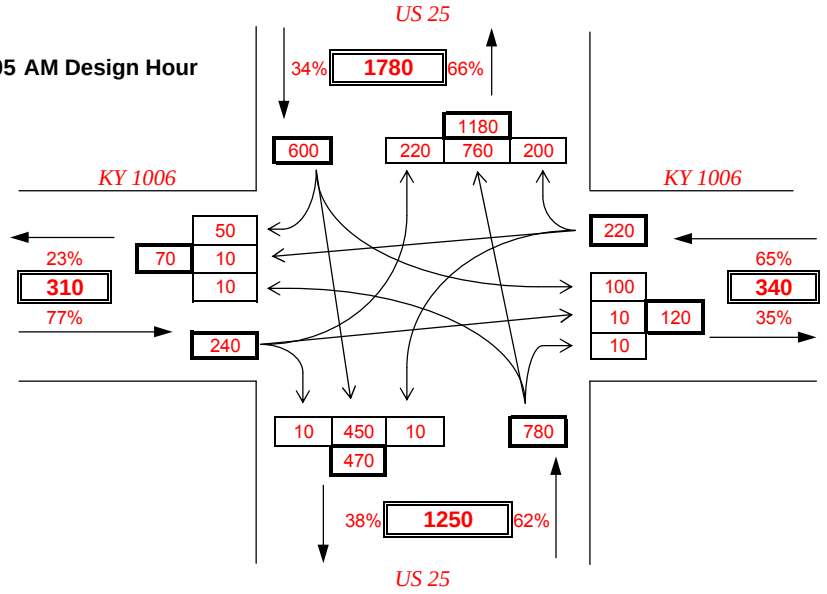
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2005 Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 1006

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

2005 ADT

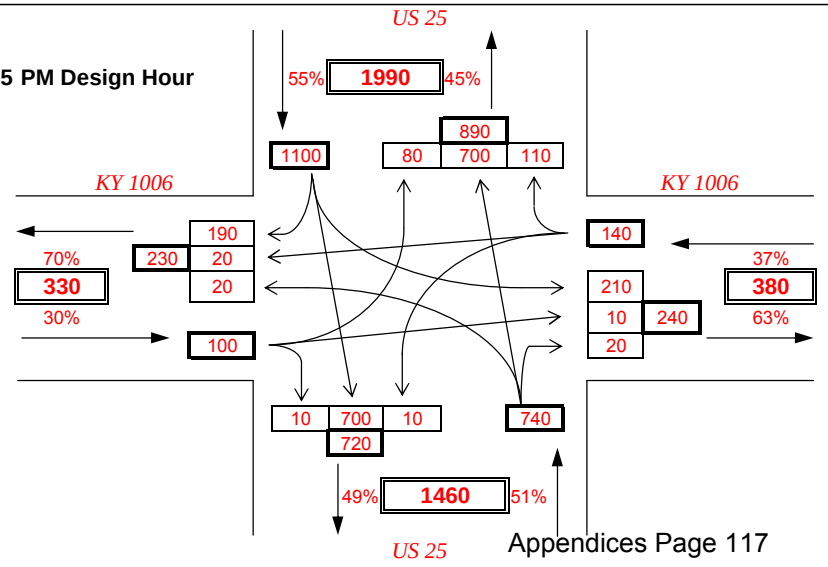


2005 AM Design Hour



Location Map

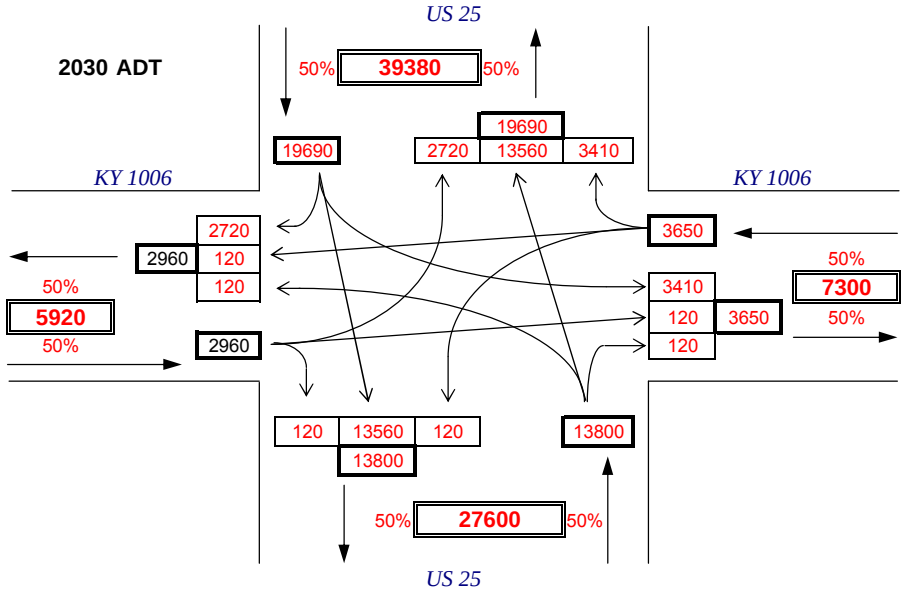
2005 PM Design Hour



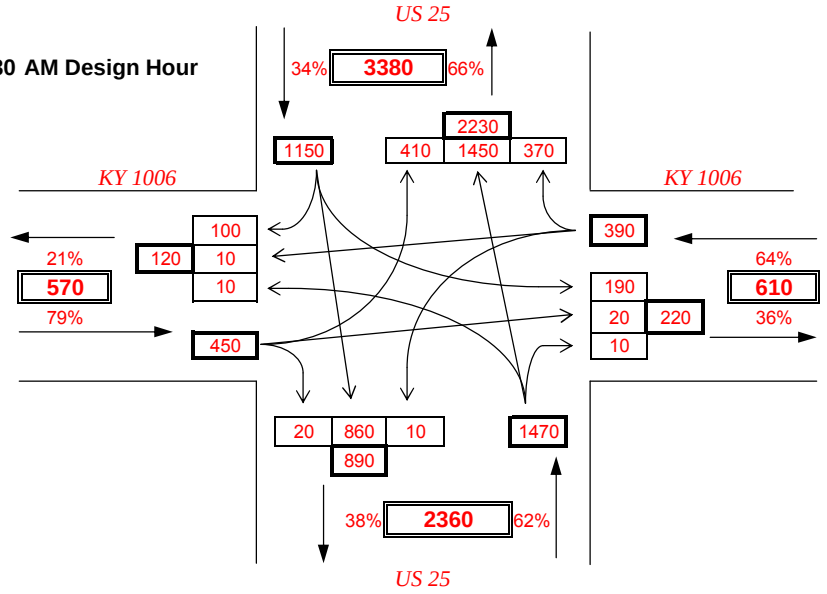
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2030 Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 1006

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

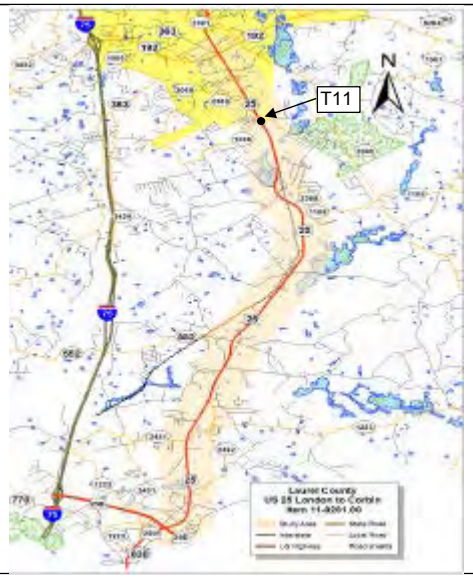
2030 ADT



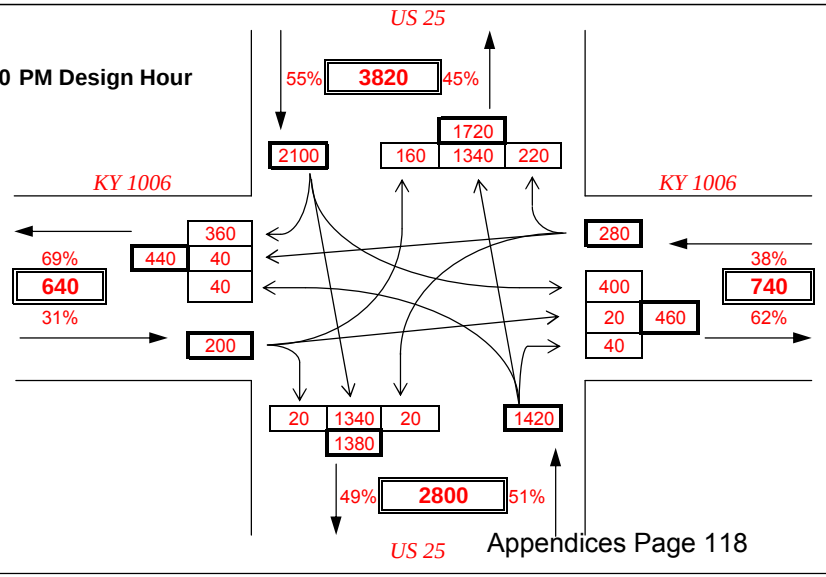
2030 AM Design Hour



Location Map



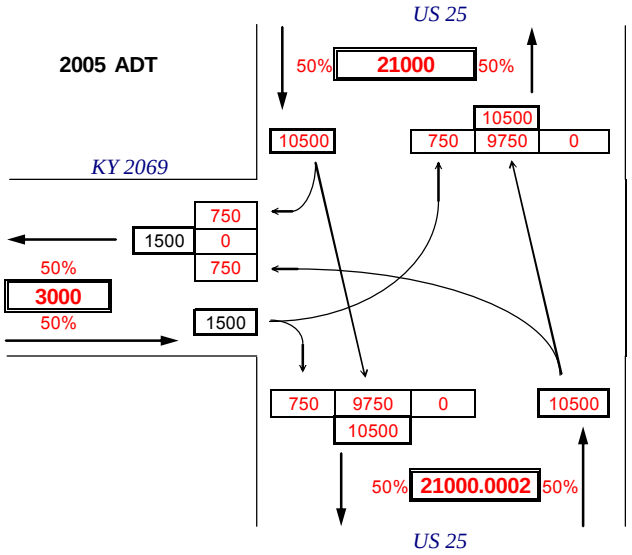
2030 PM Design Hour



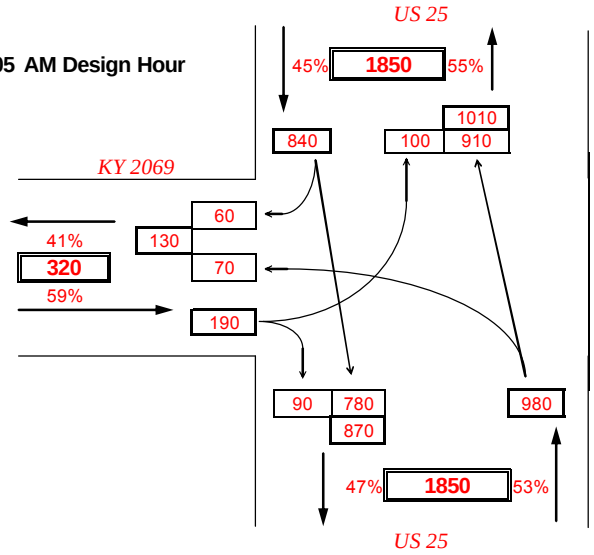
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE:
ANALYST: D. Hamilton
SCENARIO: **2005 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 2069

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

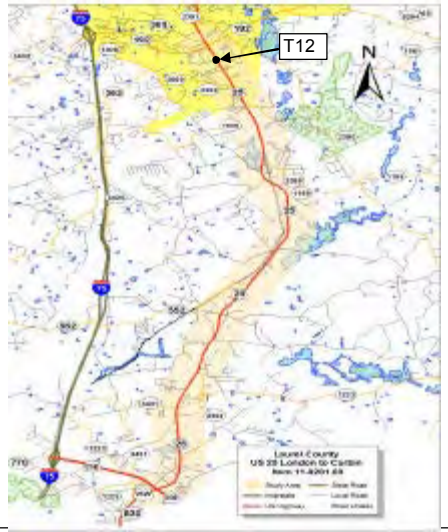
2005 ADT



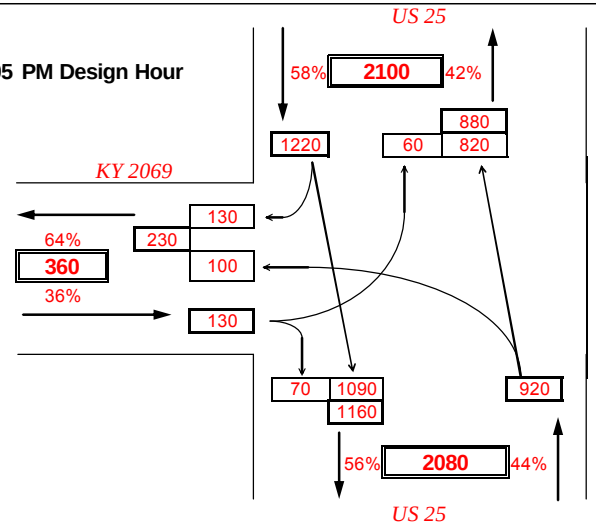
2005 AM Design Hour



Location Map



2005 PM Design Hour



PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
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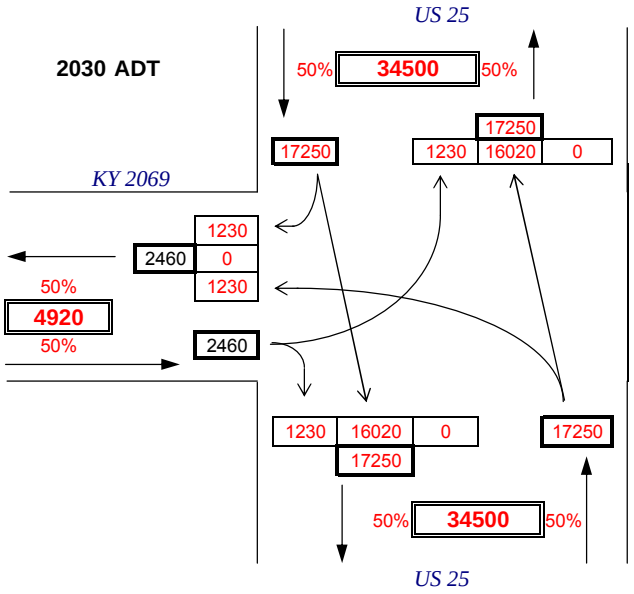
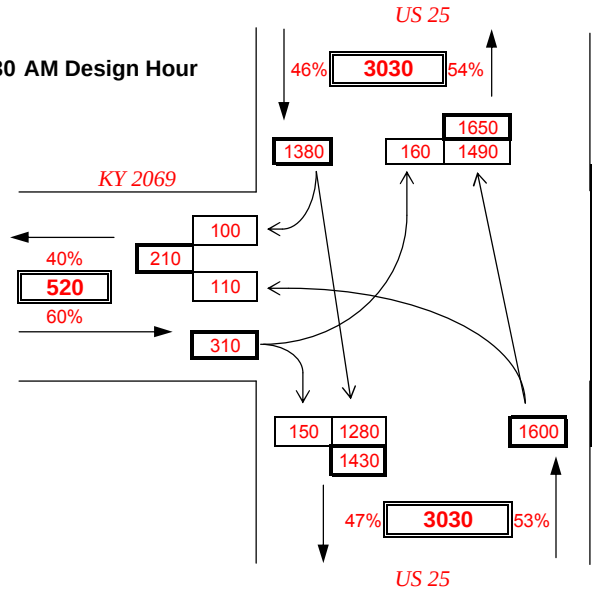
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2030 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 2069

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

2030 ADT

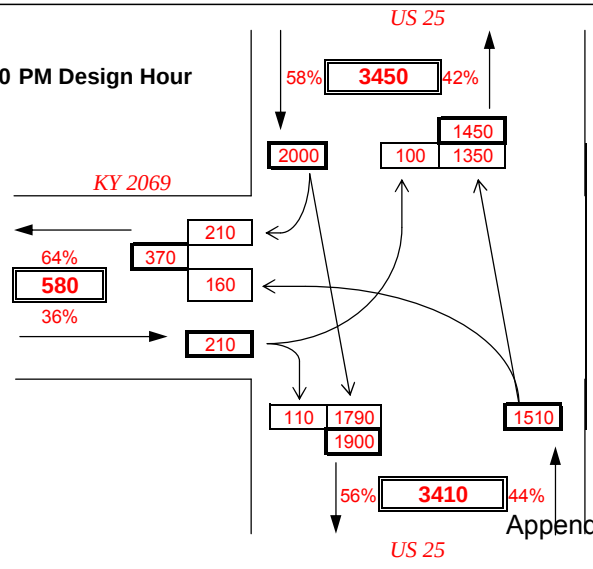


2030 AM Design Hour



Location Map

2030 PM Design Hour



PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
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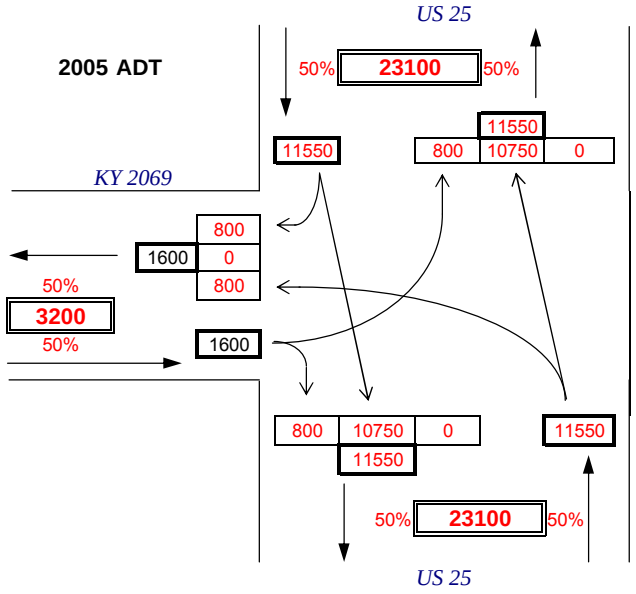
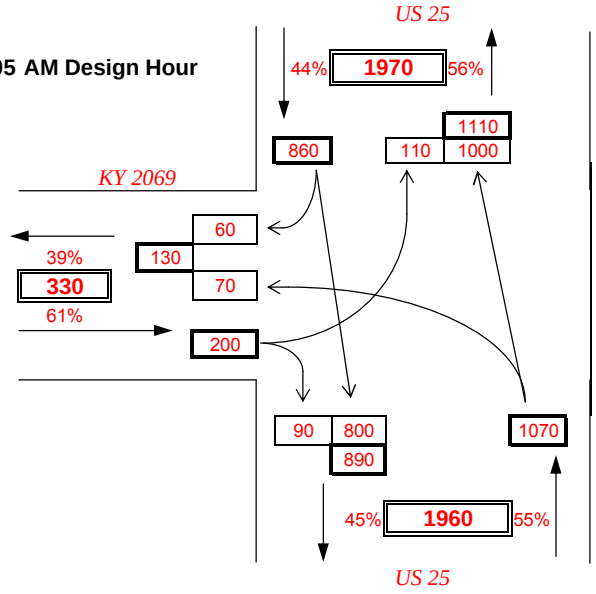
ANALYST: D. Hamilton
SCENARIO: **2005 Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 2069

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

2005 ADT

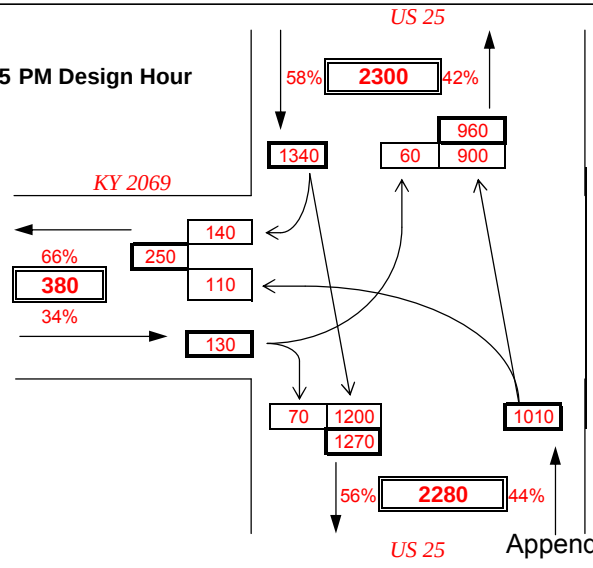


2005 AM Design Hour



Location Map

2005 PM Design Hour



PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
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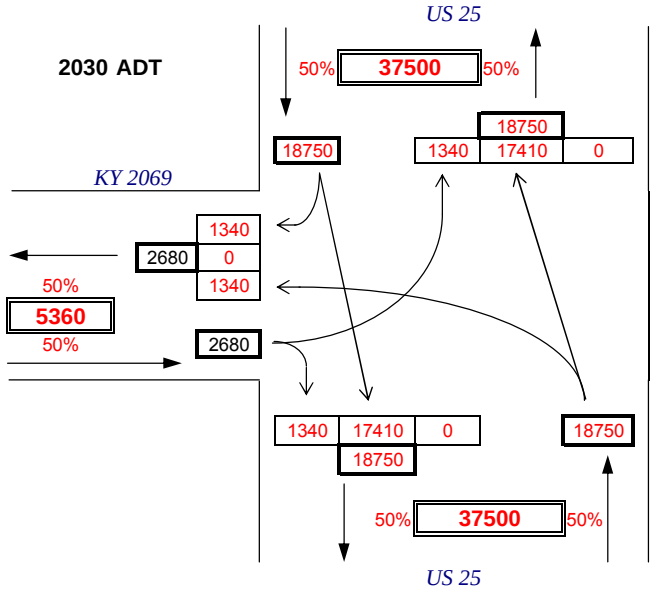
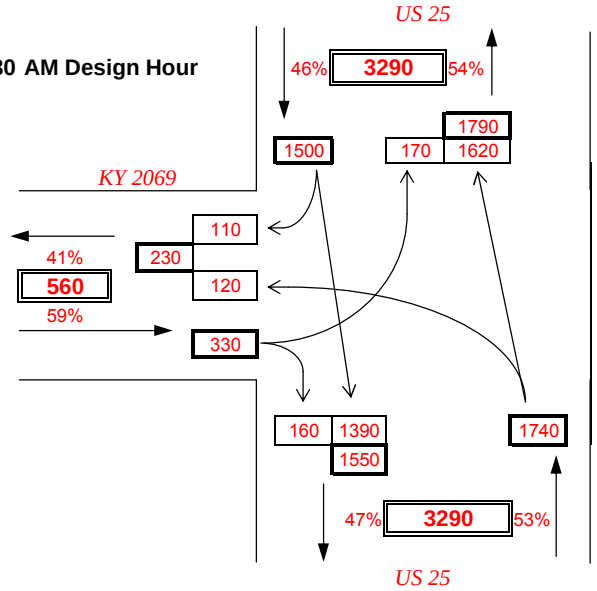
ANALYST: D. Hamilton
SCENARIO: **2030 Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 2069

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

2030 ADT

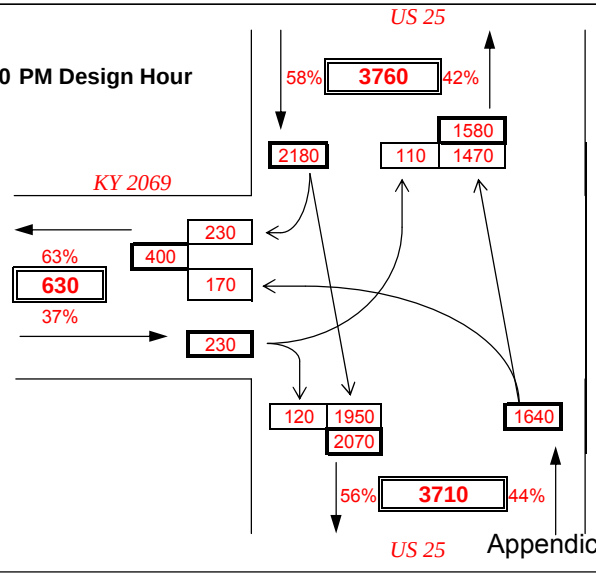


2030 AM Design Hour



Location Map

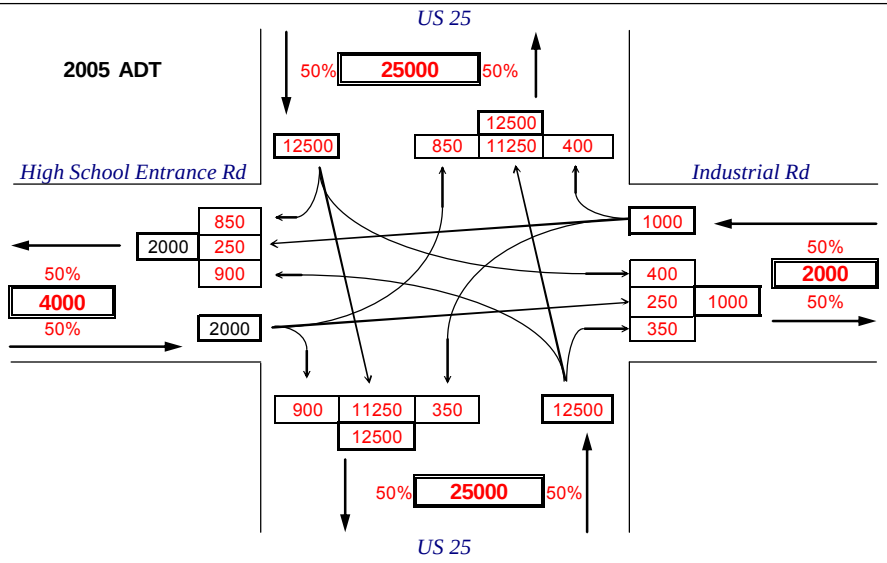
2030 PM Design Hour



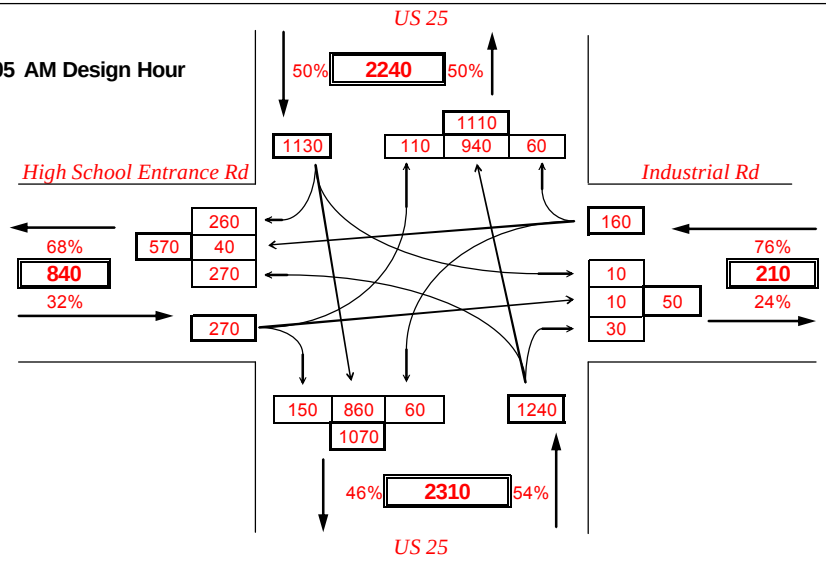
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE:
ANALYST: D. Hamilton
SCENARIO: **2005 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ South Laurel High School (CS 1134)

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

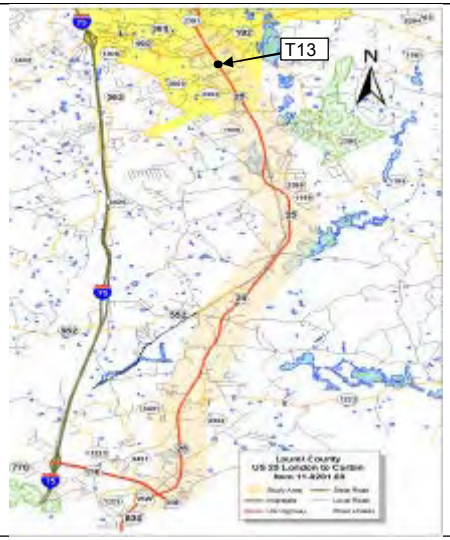
2005 ADT



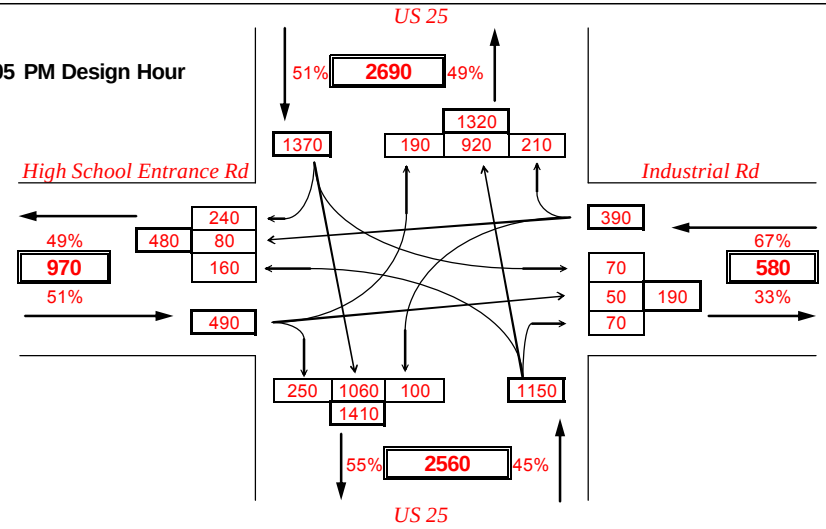
2005 AM Design Hour



Location Map



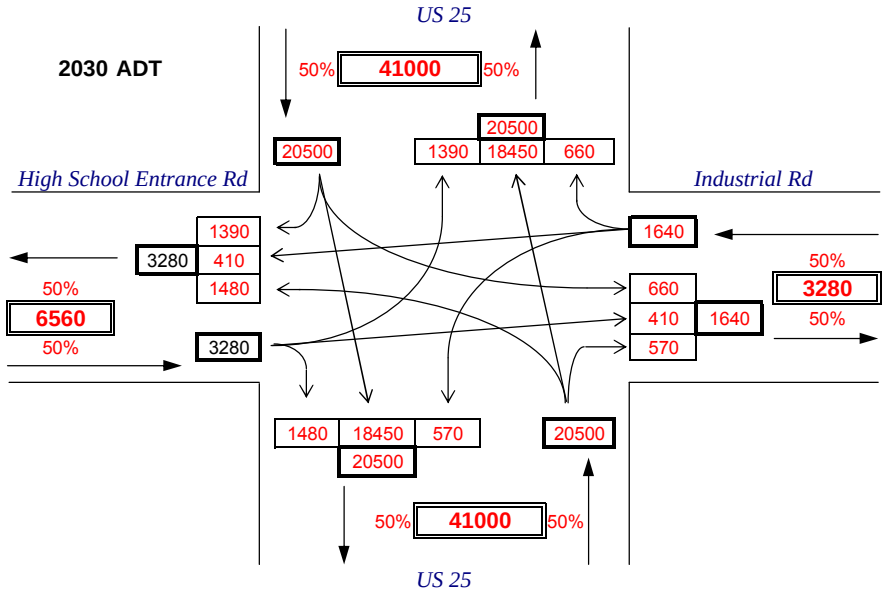
2005 PM Design Hour



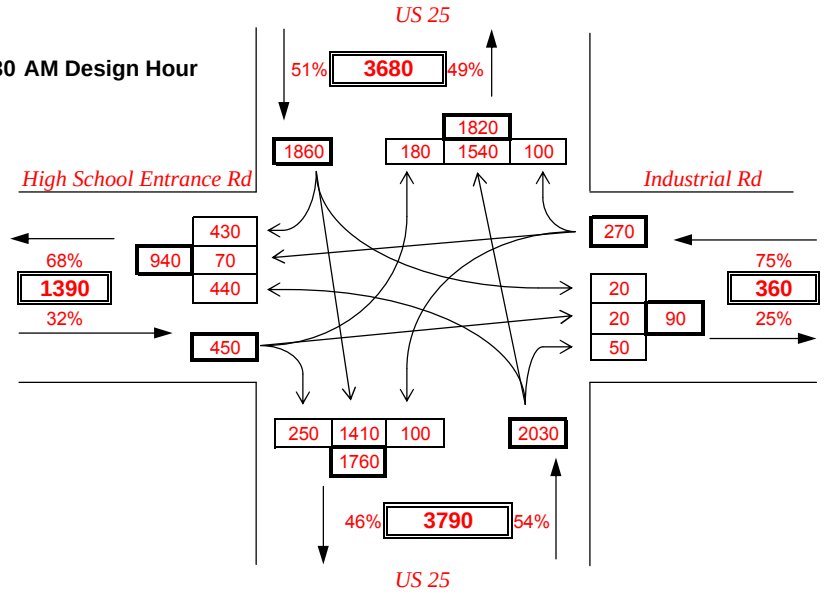
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE: 0
ANALYST: D. Hamilton
SCENARIO: **2030 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ South Laurel High School (CS 1134)

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

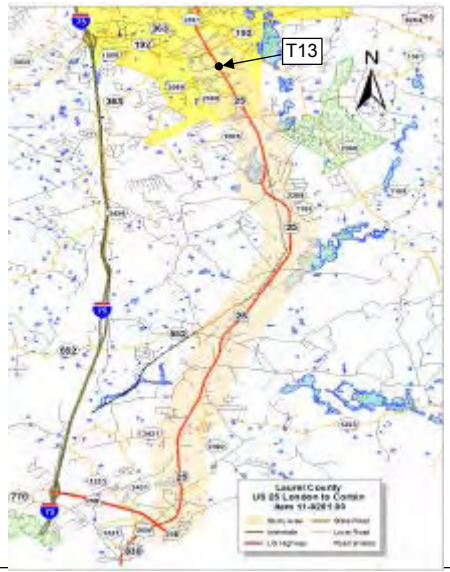
2030 ADT



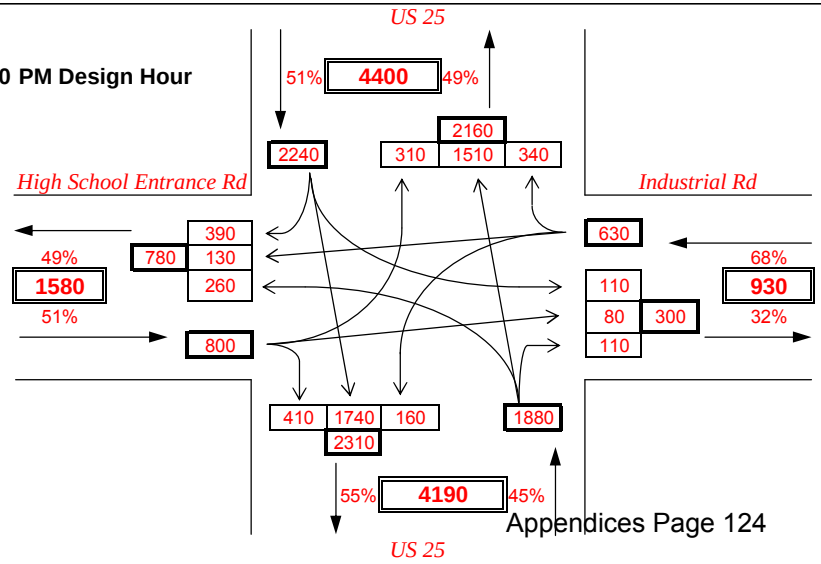
2030 AM Design Hour



Location Map



2030 PM Design Hour



PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
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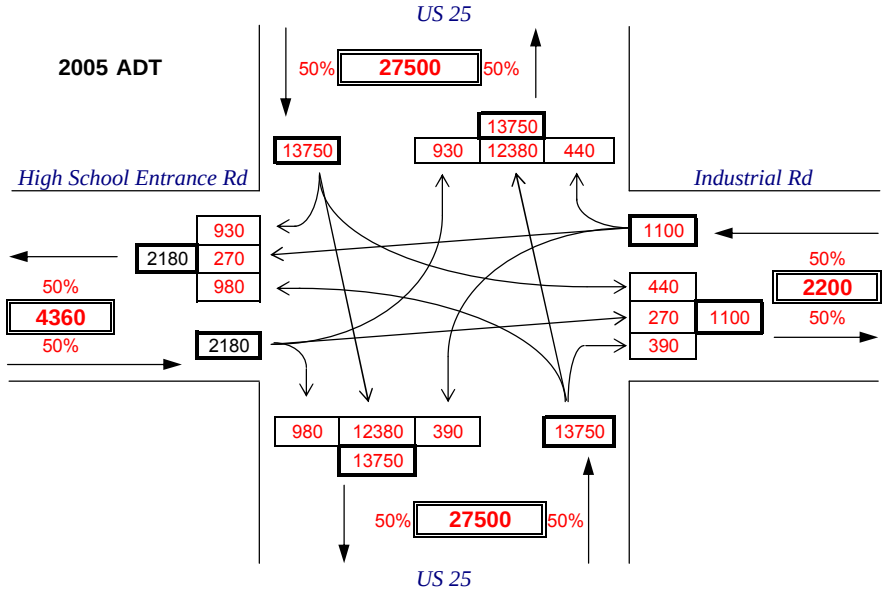
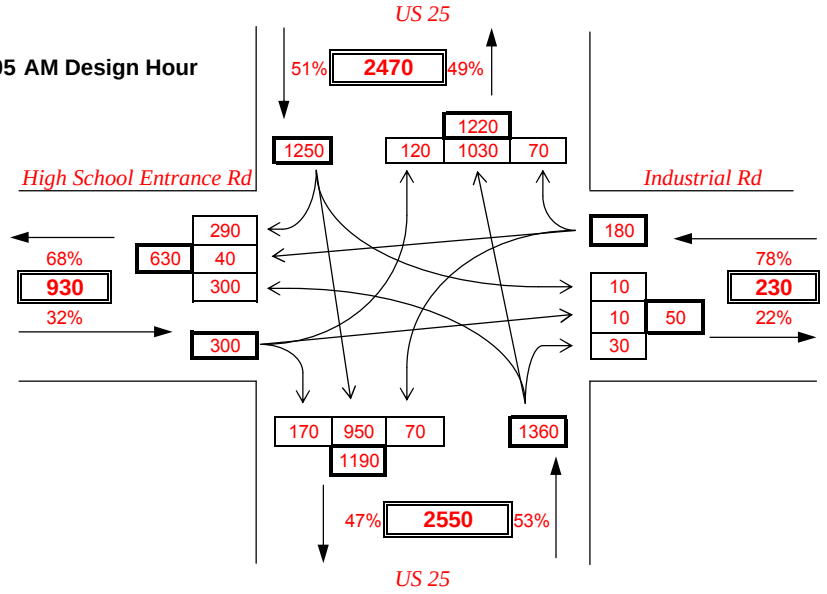
SCENARIO: **2005 Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ South Laurel High School (CS 1134)

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

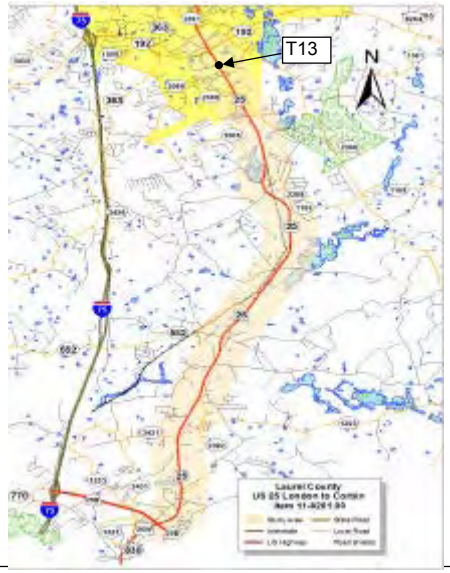
2005 ADT



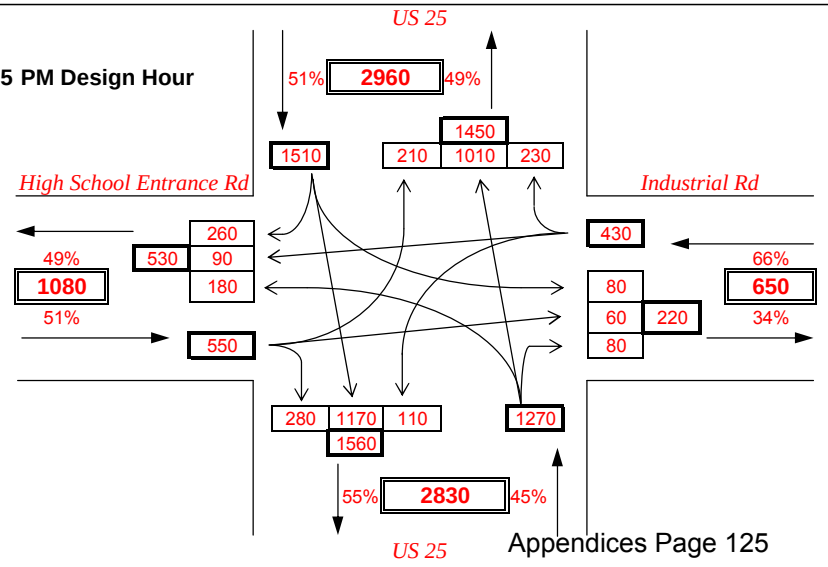
2005 AM Design Hour



Location Map



2005 PM Design Hour



PROJECT: Laurel County, US 25 Planning Scoping Study
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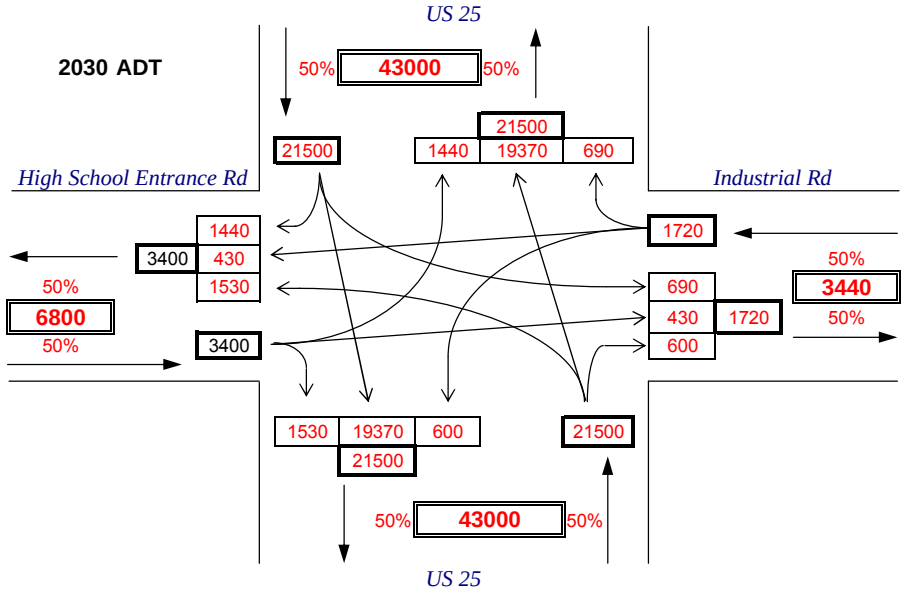
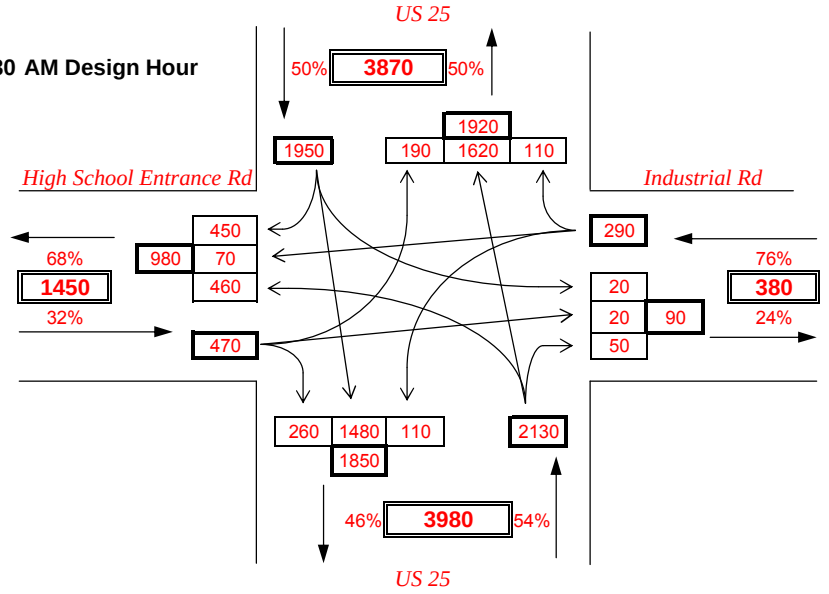
SCENARIO: **2030 Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ South Laurel High School (CS 1134)

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

2030 ADT

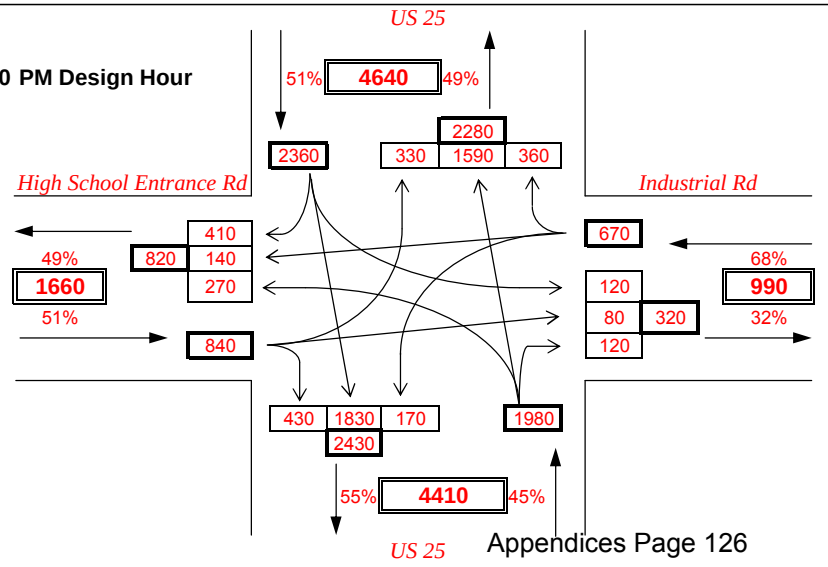


2030 AM Design Hour



Location Map

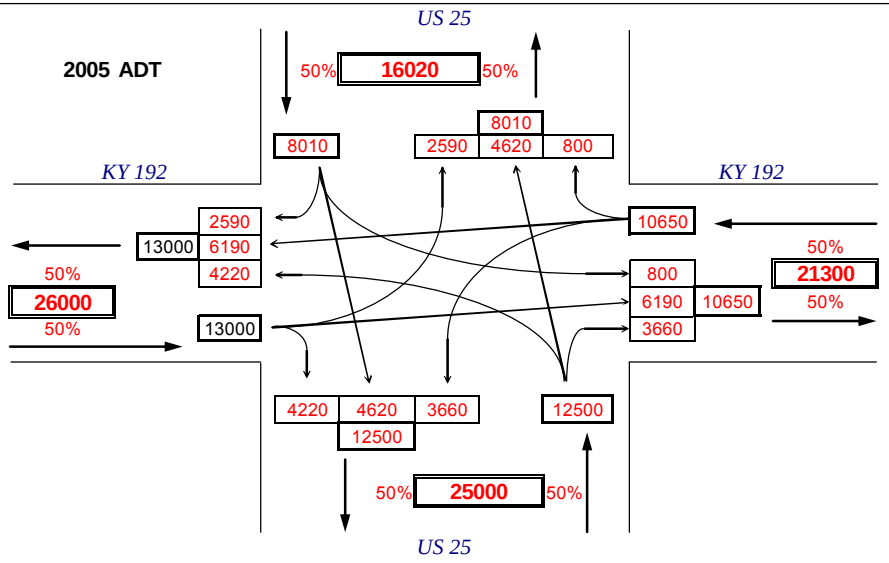
2030 PM Design Hour



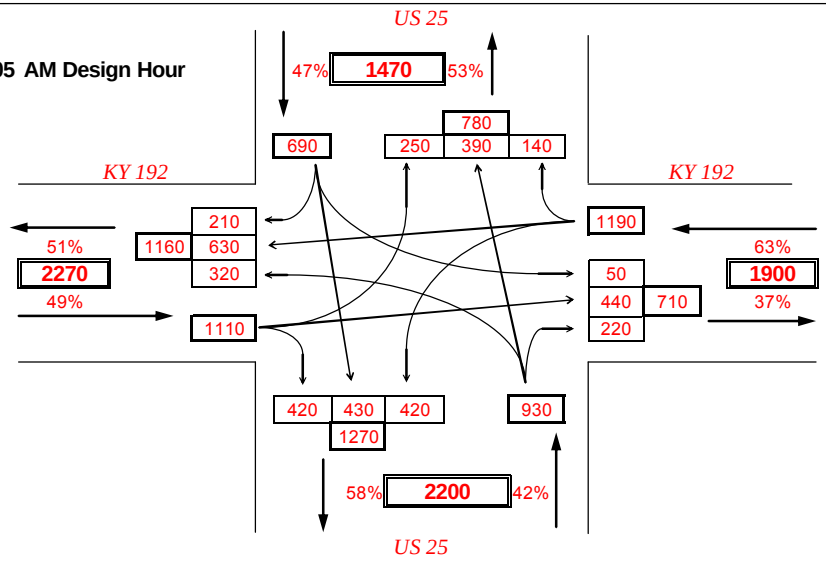
PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
MARS NUMBER: 7808101 D
REQUEST DATE:
ANALYST: D. Hamilton
SCENARIO: **2005 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 192

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

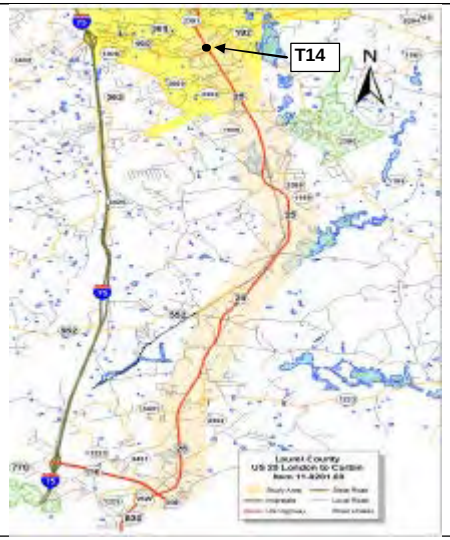
2005 ADT



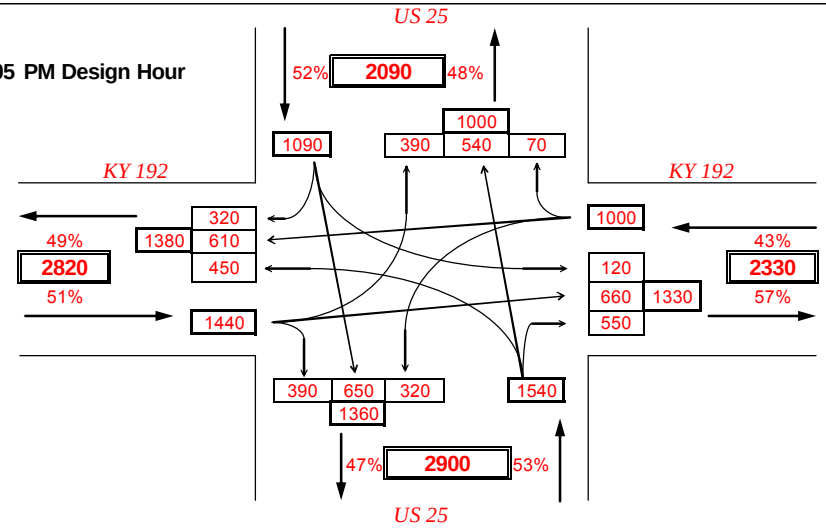
2005 AM Design Hour



Location Map



2005 PM Design Hour



PROJECT: Laurel County, US 25 Planning Scoping Study
ITEM NUMBER: 11-8201.00
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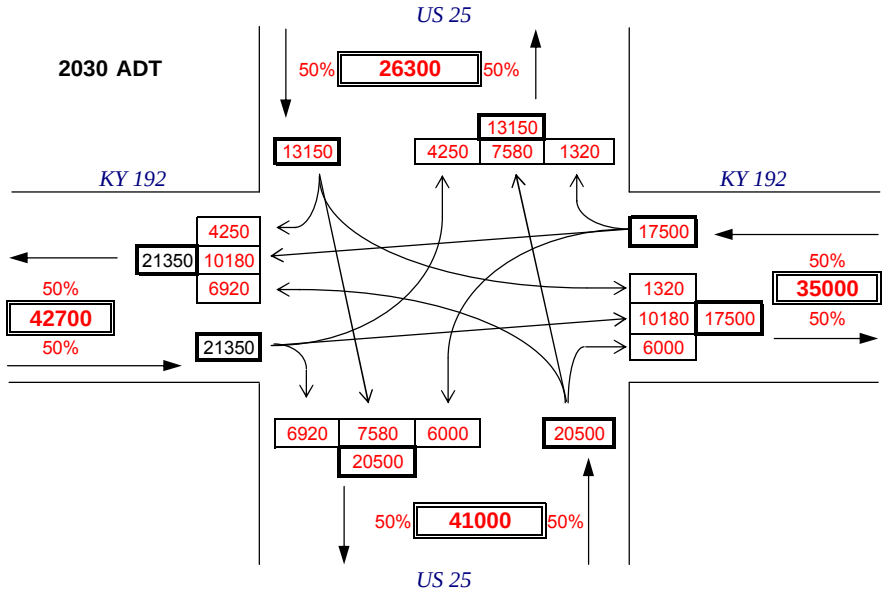
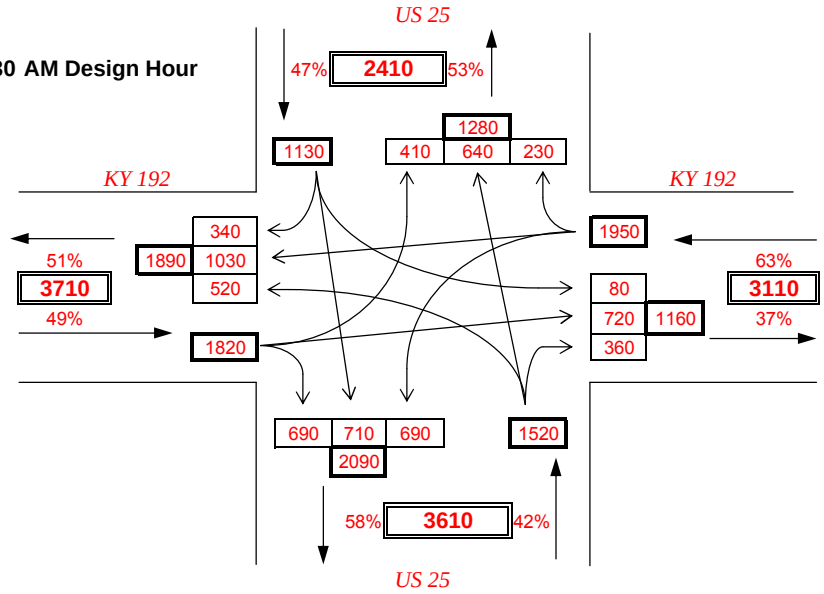
ANALYST: D. Hamilton
SCENARIO: **2030 No Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 192

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

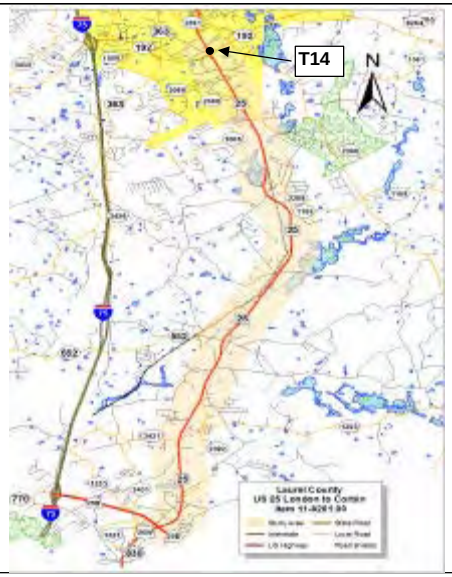
2030 ADT



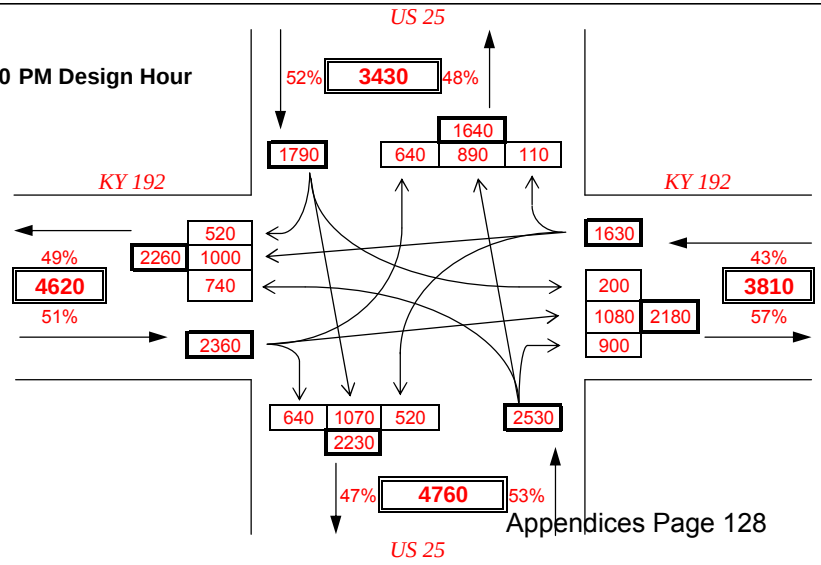
2030 AM Design Hour



Location Map



2030 PM Design Hour



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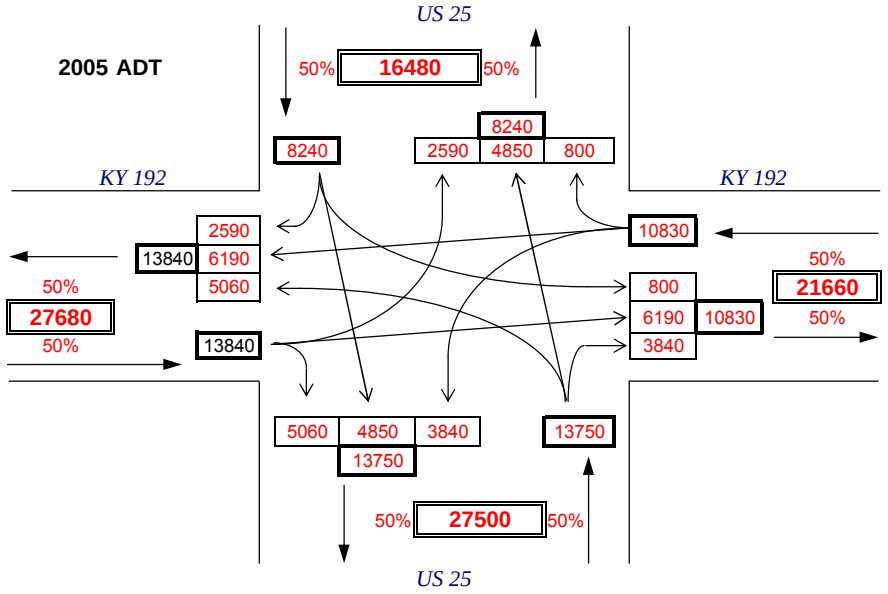
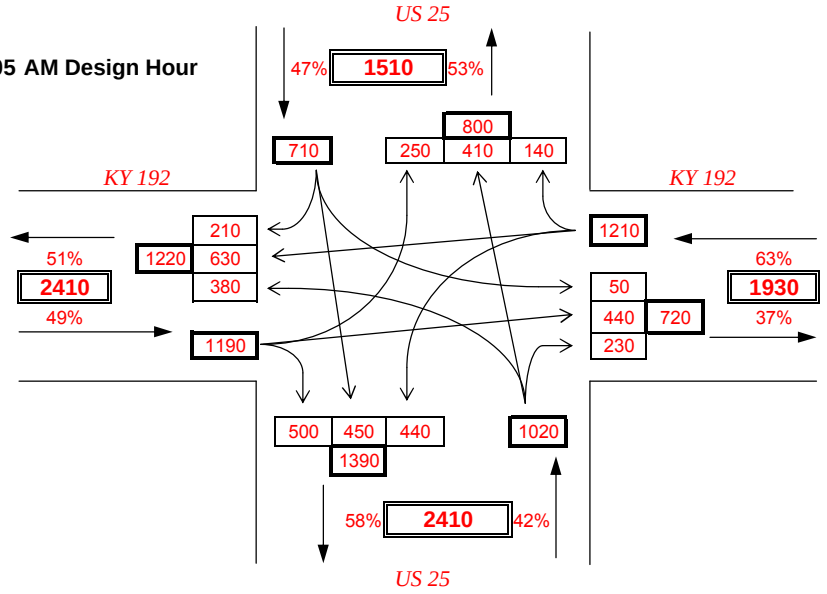
SCENARIO: **2005 Build ADT and Design Hour Volumes**
INTERSECTION: US 25 @ KY 192

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts

2005 ADT

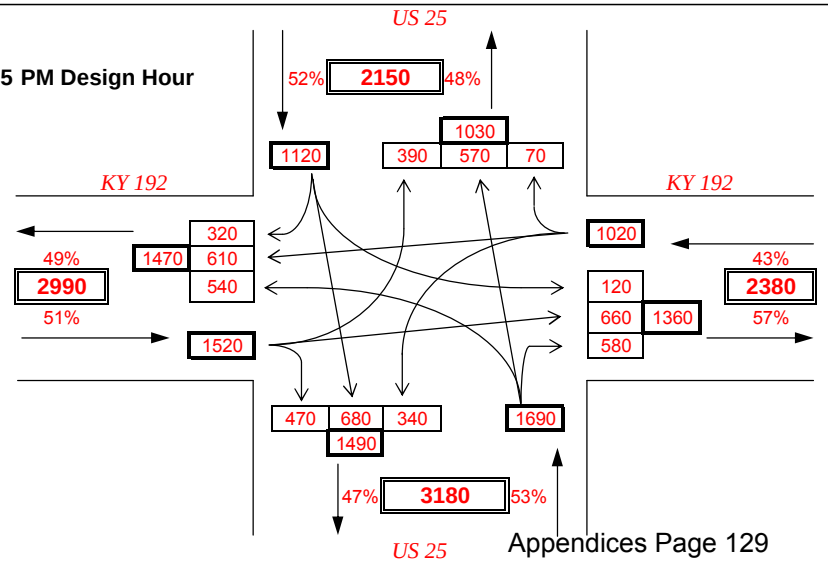


2005 AM Design Hour



Location Map

2005 PM Design Hour



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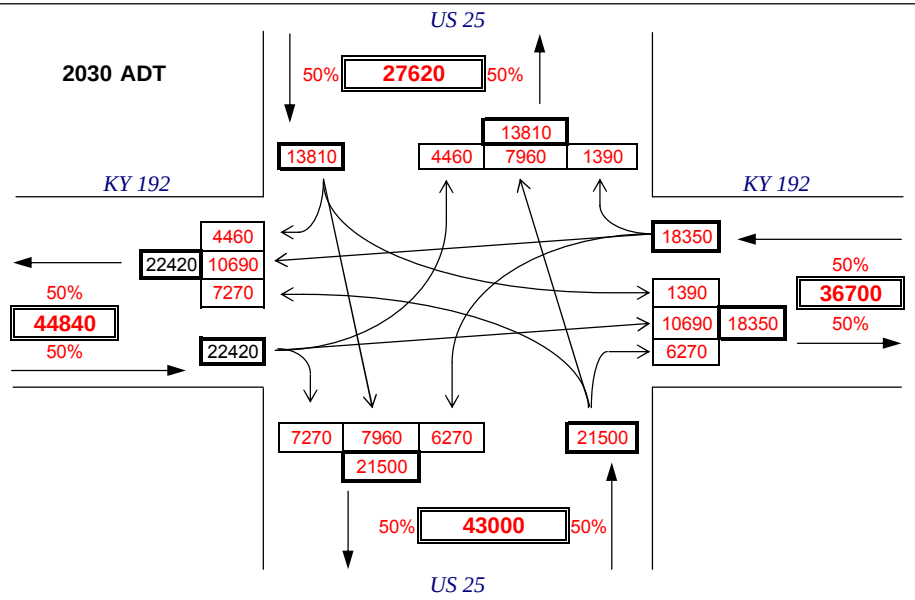
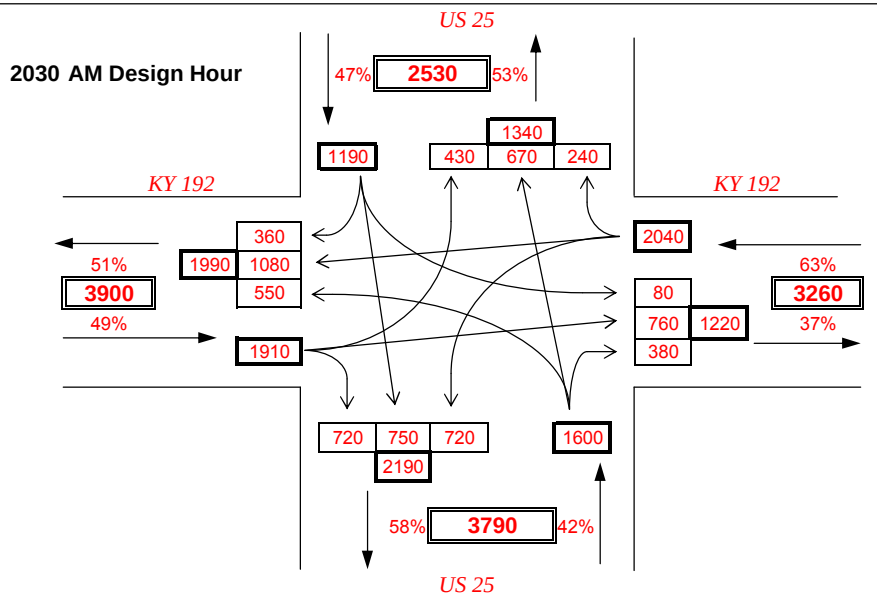
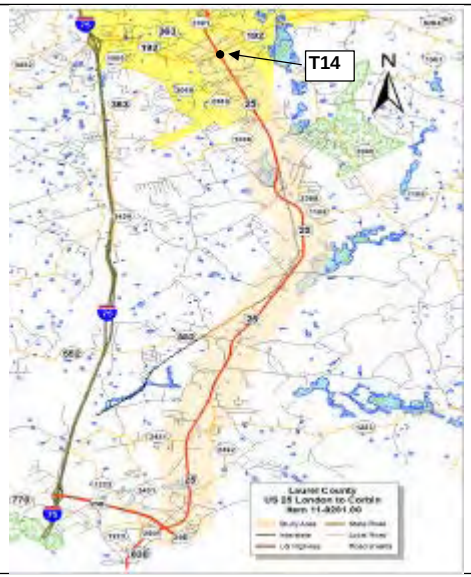
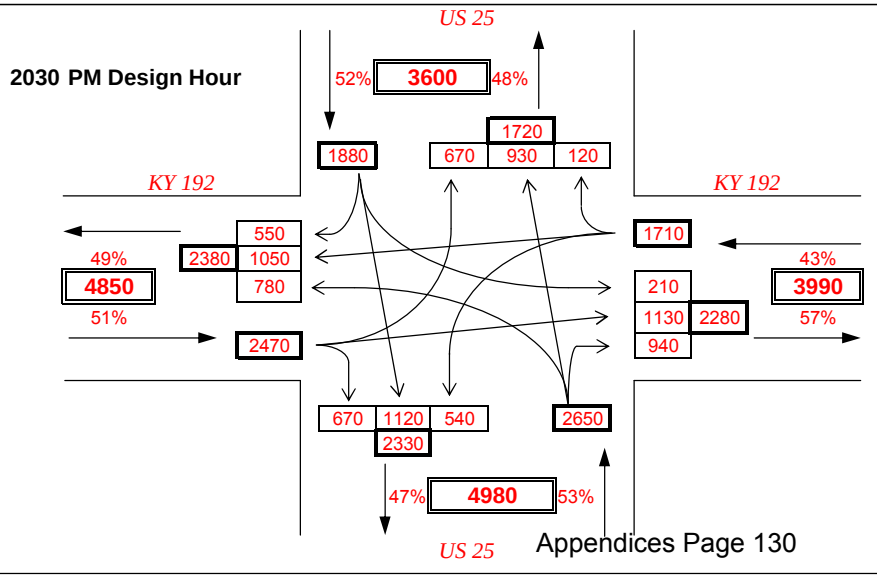
INTERSECTION: US 25 @ KY 192

NOTE: K-Factors and Directional Distributions were determined from 2005 traffic counts









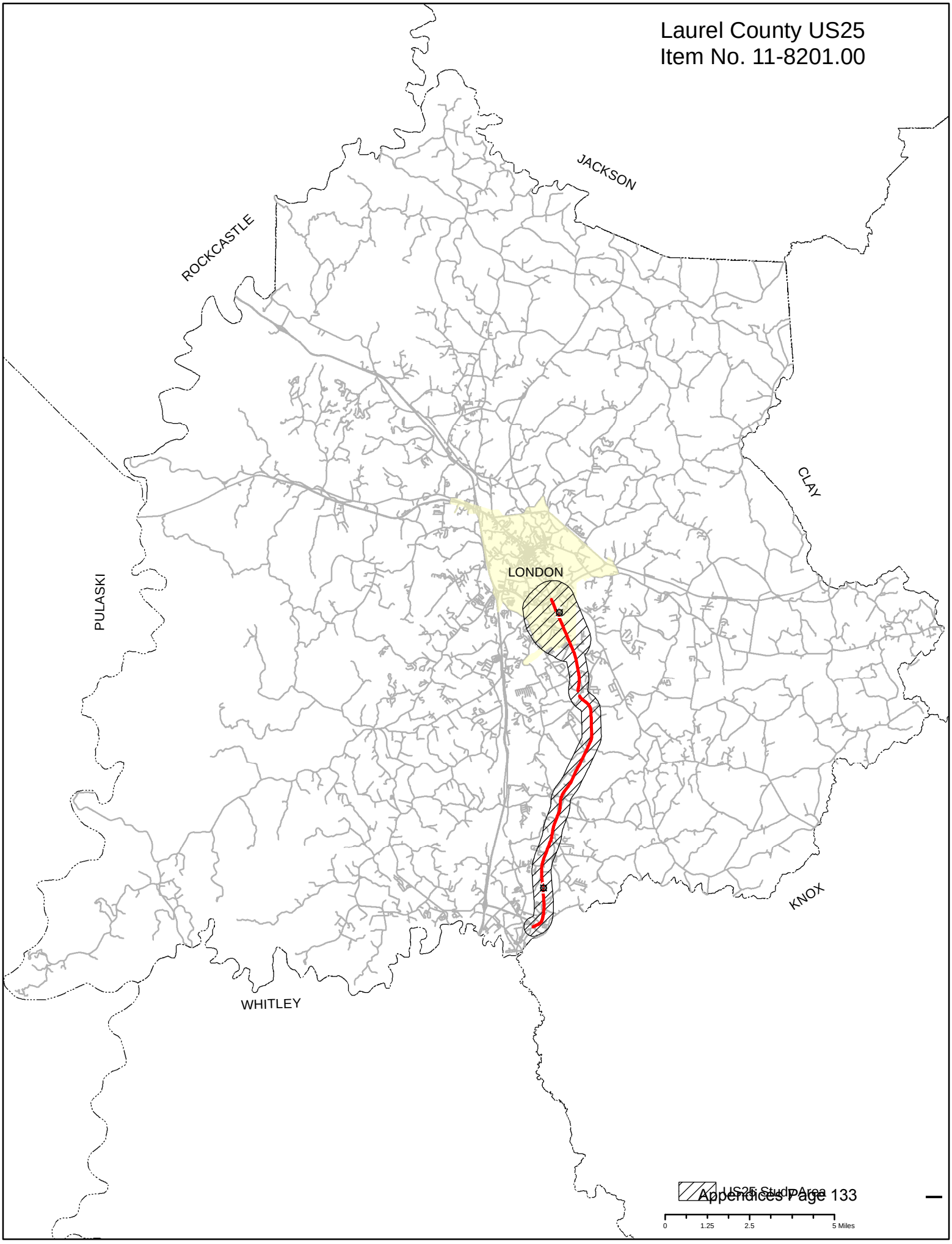
Appendix F
Environmental Justice

US 25 – Between Corbin And London
Pre-Design Scoping Study
Laurel County, Kentucky

Six-Year Plan Item No. 11-8201.00

Environmental Justice & Community Impact Report

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


Laurel County US25
Item No. 11-8201.00
JACKSON
ROCKCASTLE
CLAY
PULASKI
LONDON
KNOX
WHITLEY
US25 StudyArea
0
1.25
2.5
5 Miles

1. INTRODUCTION

The following Environmental Justice report is an assessment of community demographics and characteristics related to a defined study area for the proposed improvements to US 25 in Laurel County from US25E (Cumberland Gap Parkway) to KY 192 (London Bypass). This study is identified as item number 11-8201.00 in the Kentucky Transportation Cabinet's Addendum to the 2005-2010 Six-Year Highway Plan.

The study area is composed primarily of developed commercial land. Traffic along US 25 consists of both commuter and through traffic traveling between London and Corbin. Statistical data from the U.S. Census Bureau's 1999 and 2000 Census is provided to display population by race, by age, and person's below poverty level for the United States, Kentucky, Laurel County and Census Tracts and Block Groups located in and around the study area.

2. WHAT IS ENVIRONMENTAL JUSTICE?

The U.S. EPA Office of Environmental Justice defines Environmental Justice 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 will be suffered by the non-minority population and/or non-low-income population.

3. DEFINITIONS

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

- Low-Income is defined as a person whose median household income is at or below the U.S. Department of Health and Human Services poverty guidelines.

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

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

4. METHODOLOGY

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

The primary sources of data used in the compilation of this report were the United States Census Bureau (1999 and 200), the Kentucky State Data Center, local elected officials, community leaders, and field observations. Statistics were collected to present a detailed analysis of the community conditions for the study area.

5. CENSUS DATA ANALYSIS

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

- Census Tract (CT) – "A small, relatively permanent statistical subdivision of a county or statistically equivalent entity delineated for data presentation purposes by a local group of census data users or the geographic staff of a regional census center in accordance with Census Bureau guidelines. CTs generally contain between 1,000 and 8,000 people. CT boundaries are delineated with the intention of being stable over many decades, so they generally follow relatively permanent visible features. They may also follow governmental unit boundaries and other invisible features in some instances; the boundary of a state or county is always a census tract boundary."

- Block Group (BG) - "A statistical subdivision of a CT. A BG consists of all tabulation blocks whose numbers begin with the same digit in a CT. BGs generally contain between 300 and 3,000 people, with an optimum size of 1,500 people."
- Census Block (CB) – "An area bounded on all sides by visible and/or invisible features shown on a map prepared by the Census Bureau. A CB is the smallest geographic entity for which the Census Bureau tabulates decennial census data."

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

6. STUDY FINDINGS

This Environmental Justice and Community Impact Report is to be used as a component of a scoping study currently being conducted by the Kentucky Transportation Cabinet's Division of Planning for the proposed upgrades to US 25 between London and Corbin. (Six-Year Plan Addendum Item No. 11-8201.00). This study is intended to help define the location and purpose of the project and meet federal requirements regarding consideration of environmental issues as defined in the National Environmental Policy Act (NEPA).

According to the 2000 Census, there are eleven (11) Census Tracts and thirty-six (36) Block Groups that encompass the population of Laurel County. Figure 6.1 presents the population totals for each of these Census divisions. Accompanying Figure 6.1 are two maps, the first of which displays each Census Tract, Block Group and Study Area in Laurel County, while the second map displays the Census divisions located in and around the study area.

Figure 6.1

Laurel County Census 2000 Population Totals

Total Population:	**52,715**
Census Tract 9701	**2,402**
Block Group 1	855
Block Group 2	1,547
Census Tract 9702	**6,397**
Block Group 1	753

Block Group 2	862
Block Group 3	1,705
Block Group 4	1,327
Block Group 5	1,650
Census Tract 9703	**4,001**
Block Group 1	2,160
Block Group 2	1,841
Census Tract 9704	**2,816**
Block Group 1	1,099
Block Group 2	1,717
Census Tract 9705	**3,923**
Block Group 1	1,284
Block Group 2	1,283
Block Group 3	1,356
Census Tract 9706	**3,112**
Block Group 1	815
Block Group 2	699
Block Group 3	952
Block Group 4	646
Census Tract 9707	**5,031**
Block Group 1	2,137
Block Group 2	1,362
Block Group 3	1,532
Census Tract 9708	**4,092**
Block Group 1	586
Block Group 2	1,986
Block Group 3	1,520
Census Tract 9709	**3,255**
Block Group 1	1,951
Block Group 2	1,304
Census Tract 9710	**9,379**
Block Group 1	937
Block Group 2	1,872
Block Group 3	1,987
Block Group 4	2,805
Block Group 5	1,778

Census Tract 9711	**8,307**
Block Group 1	915
Block Group 2	1,725
Block Group 3	2,035
Block Group 4	2,684
Block Group 5	948

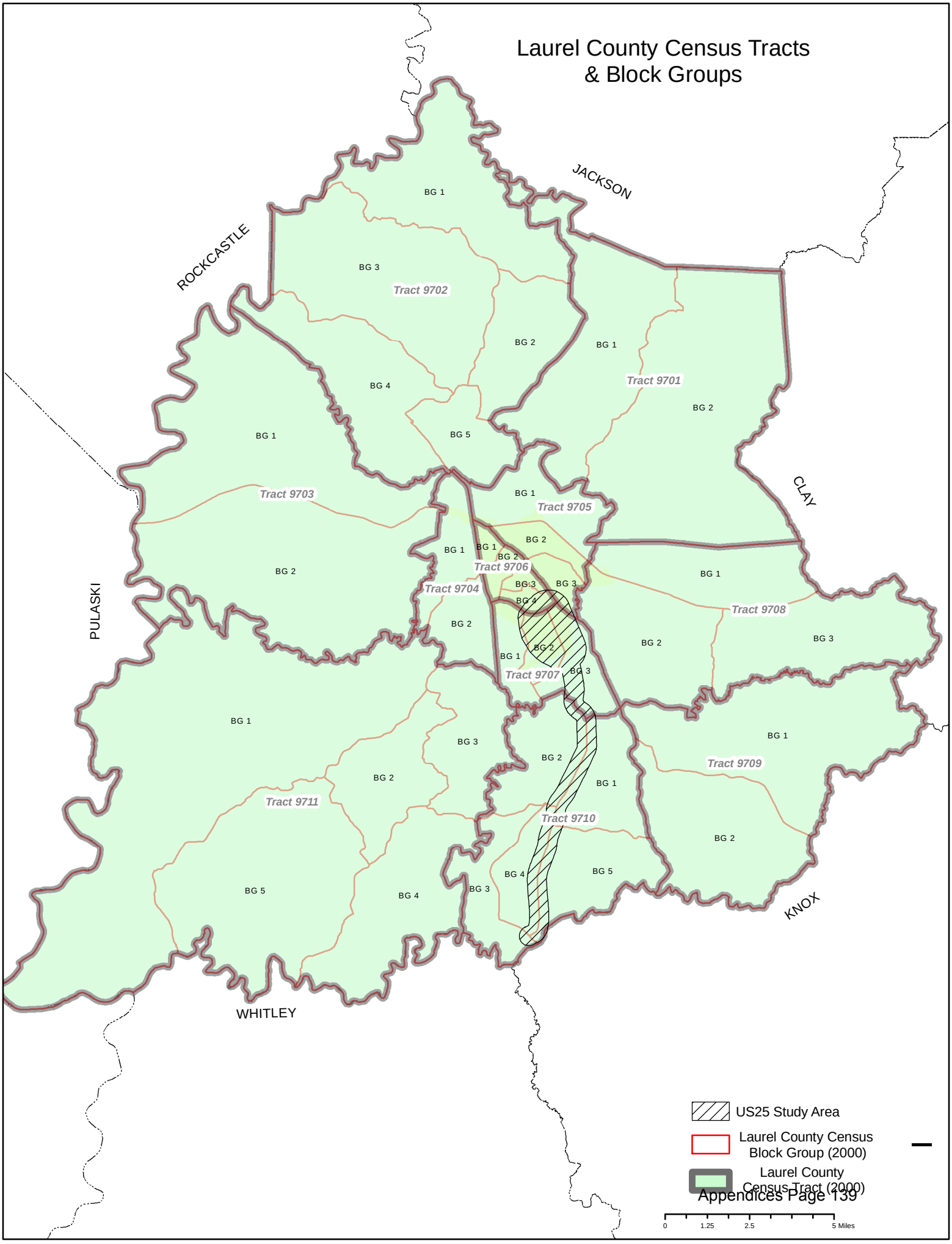
Evaluation of the study area consisted of compiling and analyzing Census data for four (4) Tracts and eleven (11) Block Groups directly intersected by the study area. These Census divisions are as follows:

- Tract 9705 – Block Group 3
- Tract 9706 – Block Groups 3 & 4
- Tract 9707 – Block Groups 1, 2 & 3
- Tract 9710 – Block Groups 1, 2, 3, 4 & 5

Comparative data from six (6) Tracts and nine (9) Block Groups was collected for areas surrounding the study area, but having no direct intersection or inclusion in the area. This data includes the following Census divisions:

- Tract 9704 – Block Group 2
- Tract 9705 – Block Group 2
- Tract 9706 – Block Group 1 & 2
- Tract 9708 – Block Group 2
- Tract 9709 – Block Groups 1 & 2
- Tract 9711 – Block Groups 3 & 4

See Figure 6.2 for Census Tract and Block Group Map


Laurel County Census Tracts
& Block Groups
JACKSON
ROCKCASTLE
CLAY
PULASKI
WHITLEY
KNOX
Tract 9702
Tract 9701
Tract 9703
Tract 9705
Tract 9706
Tract 9704
Tract 9708
Tract 9707
Tract 9709
Tract 9711
Tract 9710
BG 1
BG 2
BG 3
BG 4
BG 5
US25 Study Area
Laurel County Census Block Group (2000)
Laurel County Census Tract (2000)
0
1.25
2.5
5 Miles

7. STUDY FINDINGS – Population by Race

Figure 7.1 illustrates that all of the Census Tracts and Block Groups that directly intersect the study area contain a population that is not diverse when compared to national and state statistics for population by race. Percentages for white individuals in and around the study area exceed the state and national averages. Percentages of the minority population in the study area are below the state and national averages.

One exception is that Tract 9705, Block Group 3; Block 3019 consists of a 27% minority race or 21 persons. This information is identified only because there are a significant percentage of minority individuals that reside on 1 city block inside the study area. A comprehensive review resulted in the determination that the minority population in Census Block 3019 would not be adversely affected by this project.

See Figure 7.2 Location Map regarding this block.

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

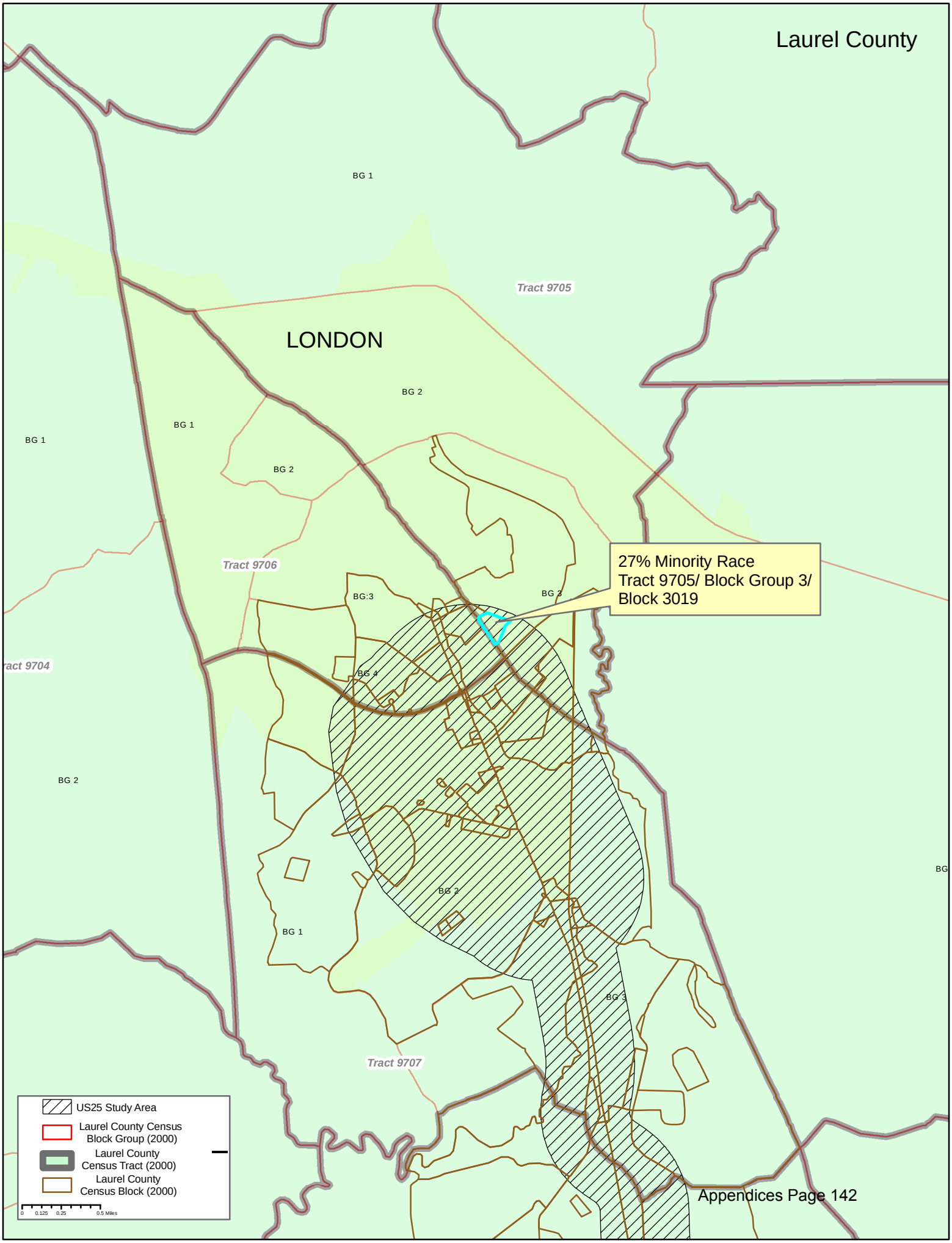
Figure 7.1 - Population by Race

	White	% of Pop	Black	% of Pop	Indian	% of Pop	Asian	% of Pop	Hispanic	% of Pop	Other	% of Pop	Total Population
United States	211,460,626	75.1%	34,658,190	1230%	2,475,956	3.6%	10,242,998	3.6%	35,305,81	12.5%	22,584,136	8.0%	281,421,906
Kentucky	3,640,889	90.0%	295,994	7.3%	8,616	0.2%	29,744	0.7%	59,939	1.5%	66,526	1.6%	4,041,769
Laurel County	51,484	97.6%	331	0.6%	193	0.4%	182	0.3%	291	0.6%	525	0.9%	52,715
Tract 9705	3,796	96.7%	68	1.7%	16	0.4%	18	0.4%	16	0.4%	25	0.6%	3,923
Block Group 3	1,300	95.8%	34	2.5%	5	0.3%	2	0.1%	1	0.1%	15	1.1%	1,356
Tract 9706	2,992	95.8%	56	1.8%	6	0.2%	19	0.6%	15	0.5%	0	0.0%	3,112
Block Group 3	909	95.4%	29	3.0%	4	0.4%	1	0.1%	7	0.7%	9	0.0%	952
Block Group 4	618	95.6%	12	1.9%	0	0.0%	9	1.4%	1	0.2%	7	1.0%	646
Tract 9707	4,854	96.4%	46	0.9%	14	0.3%	46	0.9%	48	1.0%	17	0.3%	5,031
Block Group 1	2,040	95.4%	19	0.0%	8	0.4%	26	1.2%	34	1.6%	44	2.0%	2,137
Block Group 2	1,326	97.3%	10	0.7%	4	0.3%	7	0.5%	7	0.5%	15	1.1%	1,362
Block Group 3	1,488	97.1%	17	1.1%	2	0.1%	13	0.8%	7	0.5%	12	0.7%	1,532
Tract 9710	9,192	98.0%	15	0.2%	55	0.6%	16	0.2%	48	0.5%	101	1.0%	9,379
Block Group 1	924	98.6%	1	0.1%	2	0.2%	0	0.0%	3	0.3%	10	1.0%	937
Block Group 2	1,828	97.6%	1	0.1%	24	1.3%	4	0.2%	18	1.0%	15	0.8%	1,872
Block Group 3	1,940	97.6%	1	0.1%	12	0.6%	0	0.0%	1	0.1%	34	1.7%	1,987
Block Group 4	2,783	99.2%	12	0.4%	9	0.3%	6	0.2%	16	0.6%	23	0.8%	2,805
Block Group 5	1,763	99.1%	0	0.0%	8	0.4%	6	0.3%	10	0.6%	19	1.1%	1,778
Tract 9704	2,735	97.0%	14	0.4%	14	0.4%	33	1.2%	21	0.7%	20	0.7%	2,816
Block Group 2	1,667	97.1%	9	0.5%	1	0.1%	33	1.9%	15	0.9%	7	0.4%	1,717
Tract 9705	3,796	96.7%	68	1.7%	16	0.4%	18	0.5%	16	0.4%	25	0.6%	3,923
Block Group 2	1,242	96.8%	13	1.0%	5	0.3%	14	1.0%	7	0.5%	9	0.7%	1,283
Tract 9706	2,992	96.1%	56	1.8%	6	0.1%	19	0.6%	15	0.4%	39	1.2%	3,112
Block Group 1	779	95.6%	6	0.7%	1	0.1%	9	1.1%	4	0.5%	20	2.5%	815
Block Group 2	686	98.1%	9	1.3%	1	0.1%	0	0.0%	3	0.4%	3	0.4%	699
Tract 9708	4,026	98.4%	3	0.1%	12	0.3%	26	0.6%	23	0.6%	25	0.6%	4,092
Block Group 2	1,953	98.3%	2	0.1%	7	0.4%	18	0.9%	9	0.4%	6	0.3%	1,986
Tract 9709	3,227	99.1%	2	0.1%	5	0.4%	0	0.0%	13	0.4%	21	0.6%	3,255
Block Group 1	1,937	99.2%	2	0.1%	2	0.1%	0	0.0%	7	0.4%	10	0.5%	1,951
Block Group 2	1,290	98.9%	0	0.0%	3	0.2%	0	0.0%	6	0.5%	11	0.8%	1,304
Tract 9711	8,178	98.4%	9	0.1%	30	0.4%	13	0.2%	40	0.5%	77	0.9%	8,307
Block Group 3	2,013	99.0%	4	0.2%	5	0.2%	3	0.1%	8	0.4%	10	0.5%	2,035
Block Group 4	2,620	97.6%	3	0.1%	14	0.5%	2	0.1%	19	0.7%	45	1.6%	2,684

Source: US Census Bureau, 2000 Census

Census Divisions directly intersecting the study area.

Census Divisions directly surrounding the study area.


Laurel County
LONDON
Tract 9705
Tract 9706
Tract 9704
Tract 9707
BG 1
BG 2
BG:3
BG 4
BG 3
BG
27% Minority Race
Tract 9705/ Block Group 3/
Block 3019
US25 Study Area
Laurel County Census
Block Group (2000)
Laurel County
Census Tract (2000)
Laurel County
Census Block (2000)
0 0.125 0.25 0.5 Miles

8. STUDY FINDINGS – Population by Poverty Level

The population below the poverty level for Laurel County and all Census divisions in and around the study area significantly exceeds national and state averages. The percentage of persons below poverty level (1999 census data) in the evaluated Census Tracts and Block Groups displayed in Figure 8.1 ranges from a low of 11.3% to a high of 40.5%. A majority of the Census divisions contain percentages that are at least twice as high as the national average of 12.4% and significantly greater than the state average of 15.8%.

Figure 8.1 clearly demonstrates that the project area contains a high percentage of individuals below the poverty level. It should be noted that these percentages are comparable to several surrounding counties located in southeastern Kentucky. This section of the Commonwealth is often classified as economically distressed due to high unemployment rates that are typically attributed to a lack of available employment opportunities. These detrimental factors destabilize the local economy and decrease the quality of life for residents.

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

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

	Age 0-17	% of Total Pop.	Age 18-64	% of Total Pop.	Age 65-Over	% of Total Pop.	Total Below Poverty Level	% of Total Pop.	1999 Total Pop.
United States	11,746,858	4.3%	18,865,180	6.7%	3,287,774	1.2%	33,899,812	12.4%	273,882,232
Kentucky	203,547	5.2%	350,072	8.6%	67,477	1.7%	621,096	15.8%	3,927,047
Laurel County	3,882	7.5%	5,999	11.6%	1147	2.2%	11,082	21.4%	51,890
Tract 9705	276	7.1%	388	10.0%	116	3.0%	780	20.1%	3,873
Block Group 3	219	16.2%	224	16.6%	52	3.8%	495	36.6%	1,353
Tract 9706	164	5.5%	350	11.8%	55	1.9%	569	19.2%	2,962
Block Group 3	46	6.9%	56	8.4%	33	5.0%	135	20.4%	663
Block Group 4	13	2.1%	49	8.0%	7	1.1%	69	11.3%	610
Tract 9707	256	5.1%	441	8.8%	109	2.2%	806	16.1%	5,020
Block Group 1	110	5.0%	167	7.7%	29	1.3%	306	14.0%	2,182
Block Group 2	90	6.7%	114	8.5%	10	0.7%	214	16.0%	1,338
Block Group 3	56	3.7%	160	10.7%	70	4.7%	286	19.1%	1,500
Tract 9710	804	8.7%	1,328	14.4%	149	1.6%	2,281	24.7%	9,220
Block Group 1	88	9.3%	180	18.9%	14	1.5%	282	29.7%	951
Block Group 2	123	6.6%	239	12.8%	27	1.4%	389	20.8%	1,872
Block Group 3	44	2.2%	230	11.6%	30	1.5%	407	20.5%	1,987
Block Group 4	343	13.1%	506	19.3%	36	1.4%	885	33.8%	2,618
Block Group 5	103	5.7%	173	9.7%	42	2.3%	318	17.7%	1,792
Tract 9704	164	5.5%	350	11.8%	55	1.9%	569	19.2%	2,962
Block Group 2	18	3.2%	54	9.5%	16	2.8%	88	15.4%	571
Tract 9705	364	10.0%	603	16.5%	83	2.3%	1,050	28.8%	3,651
Block Group 2	76	5.1%	208	14.0%	42	2.8%	326	21.9%	1,490
Tract 9706	133	5.1%	244	9.3%	86	3.3%	463	17.7%	2,611
Block Group 1	5	0.6%	36	4.4%	34	4.2%	75	9.2%	815
Block Group 2	69	13.2%	103	19.7%	12	2.3%	184	35.2%	523
Tract 9708	136	3.3%	304	7.4%	66	1.6%	506	12.4%	4,084
Block Group 2	61	3.0%	85	4.2%	32	1.6%	178	8.8%	2,014
Tract 9709	250	7.7%	427	13.2%	58	1.8%	735	22.7%	3,232
Block Group 1	116	6.0%	220	11.3%	48	2.5%	384	19.7%	1,946
Block Group 2	134	10.4%	207	16.1%	10	0.8%	351	27.3%	1,286
Tract 9711	686	8.3%	838	10.1%	142	1.7%	1,666	20.1%	8,298
Block Group 2	204	11.7%	220	12.6%	23	1.3%	447	25.6%	1,749
Block Group 3	199	15.5%	263	20.5%	59	4.6%	521	40.5%	1,286

Source: US Census Bureau, 2000 Census

*Census Divisions directly intersecting the defined study area

**Census Divisions surrounding the defined study area

9. STUDY FINDINGS – Population by Age

2000 Census data indicates that Laurel County has a population of persons age sixty-two and over that surpasses the state and national averages. Figure 9.1 illustrates that the percentages of the total population of persons age 62 and over in the study area ranges from a low of 9.5% to a high of 24.1%. Following a review of census data and subsequent discussions with the Laurel County Senior Citizens Center Director and Laurel County Judge Executive, a determination was made that no significant concentrations of persons age 62 and over are located in the study area; therefore, it is anticipated that the implementation of this project would not have a disproportionate effect on the population of persons age 62 and over residing in and/or around the defined study area.

10. CONCLUSION

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

Analysis of racial composition data resulted in one Census Block being identified in and around the study area that contained a percentage of minorities exceeding national and/or state averages. Following a comprehensive review of Census Block data and discussions with local officials, the minority concentration within the immediate study area would not be negatively impacted.

The percentages of persons in the study area below the poverty level are quite high; however, discussions with local officials and a field review led to the conclusion that no concentration of individuals below the poverty level will be disproportionately affected by this project. Community leaders have expressed support for the proposed project and anticipate that it will provide an economic benefit by improving access and reducing congestion.

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

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

Figure 9.1 - Population by Age

	Age 0-17	% of Population	Age 18-61	% of Population	Age 62-Over	% of Population	Total
United States	72,293,812	25.7%	174,136,341	61.9%	34,991,753	12.4%	281,421,906
Kentucky	994,818	24.6%	2,542,158	62.9%	504,793	12.5%	4,041,769
Laurel County	13,401	25.4%	31,910	60.5%	7,404	14.0%	52,715
Tract 9705	932	23.8%	2,266	57.8%	725	18.5%	3,923
Block Group 3	347	25.6%	718	52.9%	291	21.5%	1,356
Tract 9706	540	17.4%	1,847	59.4%	725	23.3%	3,112
Block Group 3	117	12.3%	655	68.8%	180	18.9%	952
Block Group 4	123	19.0%	418	64.7%	105	16.3%	646
Tract 9707	1,277	25.4%	3,093	61.5%	661	13.1%	5,031
Block Group 1	581	27.2%	1,352	63.3%	204	9.5%	2,137
Block Group 2	308	22.6%	813	59.7%	241	17.7%	1,362
Block Group 3	388	25.3%	928	60.6%	216	14.1%	1,532
Tract 9710	2,525	26.9%	5,657	60.3%	1,197	12.8%	9,379
Block Group 1	272	29.0%	565	60.3%	100	10.7%	937
Block Group 2	501	57.5%	1,161	133.1%	210	24.1%	872
Block Group 3	527	26.5%	1,198	60.3%	262	13.2%	1,987
Block Group 4	750	26.7%	1,653	58.9%	402	14.3%	2,805
Block Group 5	437	24.6%	1,080	60.7%	223	12.5%	1,778
Tract 9704	676	24.0%	1,758	62.4%	382	13.6%	2,816
Block Group 2	406	23.6%	1,077	62.7%	234	13.6%	1,717
Tract 9705	932	23.8%	2,266	57.8%	725	18.5%	3,923
Block Group 2	264	20.6%	759	59.2%	260	20.3%	1,283
Tract 9706	540	17.4%	1,847	59.4%	725	23.3%	3,112
Block Group 1	165	20.2%	470	57.7%	180	22.1%	815
Block Group 2	135	19.3%	304	43.5%	260	37.2%	699
Tract 9708	1,054	25.8%	2,496	61.0%	542	13.2%	4,092
Block Group 2	521	26.2%	1,224	61.6%	241	12.1%	1,986
Tract 9709	872	26.8%	1,989	61.1%	394	12.1%	3,255
Block Group 1	499	25.6%	1,204	61.7%	248	12.7%	1,951
Block Group 2	373	28.6%	785	60.2%	146	11.2%	1,304
Tract 9711	2,176	26.2%	4,988	60.0%	1,143	13.8%	8,307
Block Group 3	535	26.3%	1,239	60.9%	261	12.8%	2,035
Block Group 4	720	26.8%	1,574	58.6%	390	14.5%	2,684

Source: US Census Bureau, 2000 Census

*Census Divisions directly intersecting the defined study area

**Census Divisions surrounding the defined study area

EJ APPENDIX 1

PLANNING STUDY CONTACT LIST

PLANNING STUDY CONTACT LIST

Hon. Lawrence Kuhl
Laurel County Judge Executive
510 Houser Road
London, KY 40741

Mayor Ken Smith
City of London
501 S. Main St.
London, KY 40744

Mrs. Donna Stanifer, Director
Laurel County Senior Citizens Center
426 ½ Street
London, KY. 40744

Mr. Bob Combs
Public Safety Officer
City of London
503 S. Main St.
London, KY 40965

Mrs. Connie McKnight, City Clerk
City of London
502 S. Main St.
London, KY 40744

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

Mr. Jason Hawkins
Cumberland Valley ADD
P.O. Box 1740
London, KY 40743

EJ APPENDIX 2

METHODOLOGY
FOR ASSESSING
ENVIRONMENTAL JUSTICE CONCERNS

Methodology for Assessing Potential Environmental Justice Concerns for KYTC Planning Studies

Updated: February 1, 2002

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

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

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

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

- Possible methods to minimize or avoid impacts on the target population groups.

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

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

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

Appendix G
Route Log for Study Area

US 25 Corbin to London
Route Log

County	Route	Milepoint	Description
Laurel	US 25	0.000	US 25E
Laurel	US 25	0.173	D H CAMPBELL CUT-OFF RD
Laurel	US 25	0.262	PRESTIGE LN
Laurel	US 25	0.277	STEELE LN
Laurel	US 25	0.484	HUTTON LN
Laurel	US 25	0.660	CAMP GROUND RD
Laurel	US 25	0.677	HANES BAKER RD
Laurel	US 25	0.774	KY 2392
Laurel	US 25	0.851	DOW ADKINS RD
Laurel	US 25	1.040	HORSE CREEK CULVERT - B00026
Laurel	US 25	1.656	POWERS LN
Laurel	US 25	1.779	AUTUMN OAKS LN
Laurel	US 25	1.965	KY 3431
Laurel	US 25	1.983	BRUCE LN
Laurel	US 25	2.098	KY 1223
Laurel	US 25	2.368	COR-LON WAY
Laurel	US 25	2.787	KY 2392
Laurel	US 25	2.841	ELMER WILLIAMS RD
Laurel	US 25	3.111	LAUREL WHITLEY RD
Laurel	US 25	3.275	ROBINSON CREEK BRIDGE - B00024
Laurel	US 25	3.480	ROBINSON CRK RD
Laurel	US 25	3.606	ECHO VALLEY RD/LILY SCHOOL RD
Laurel	US 25	3.784	OLD HWY 25
Laurel	US 25	4.105	SLATE RDG RD/SOUTH LILY RD
Laurel	US 25	4.140	LAUREL RIVER BRIDGE - B00027 AT LILY

County	Route	Milepoint	Description
Laurel	US 25	4.311	OLD HWY 25
Laurel	US 25	4.497	ROADEN LN
Laurel	US 25	4.822	KY 552
Laurel	US 25	5.146	FARISTON S RD
Laurel	US 25	5.717	HAPPY HOLW RD
Laurel	US 25	6.234	FRANTZ RD
Laurel	US 25	6.953	KY 1189
Laurel	US 25	7.190	RAILROAD BRIDGE - B00022
Laurel	US 25	7.511	FARISTON N RD/FARISTON S RD
Laurel	US 25	7.662	COURT RD
Laurel	US 25	8.126	FARISTON N RD
Laurel	US 25	8.435	LITTLE LAUREL RIVER BRIDGE - B00025
Laurel	US 25	9.028	KY 1006
Laurel	US 25	9.201	SANDY LN
Laurel	US 25	9.298	LAUREL COOKIE LN
Laurel	US 25	9.318	AIRPORT RD
Laurel	US 25	9.530	KY 2069
Laurel	US 25	9.927	MULLINS AVE
Laurel	US 25	9.938	LITTLE DR
Laurel	US 25	10.004	APT COMPLEX ST
Laurel	US 25	10.107	DUAL MACK INDUSTRIAL PARK ST
Laurel	US 25	10.162	LAUREL TECH COLLEGE ST
Laurel	US 25	10.394	MONUMENT RD
Laurel	US 25	10.505	KY 192

Appendix H
Median Guidelines

Rationale for Median Type Recommendations

The purpose of this technical white paper is to provide a summary of the proposed median type standards for incorporation in the Kentucky Highway Access Management Plan. The proposed standards are based on independent engineering analysis and previous research conducted on median type applications. The results of these studies are presented below.

This standard addresses median types for 2-lane and multi-lane roadways having unsignalized, at-grade intersections. The four primary median treatments considered for inclusion in this standard are:

- Undivided roadway
- Undivided roadway with Left-Turn Lanes
- Flush Median
- Nontraversable Median

Each median type identified above has been shown to have desirable operational, safety or economic benefits. The following sections identify the optimum roadway, traffic volume and access characteristics for each median type. It should be noted that traversable raised medians are not dealt with in this paper (and are not recommended) because they neither facilitate left turns nor do they provide positive control over left-turn movements.

Undivided Roadway - Undivided roadways provide an economical solution, where right of way is limited and there is a limited number of low volume access points to the primary roadway. Undivided roadways should only be considered when left turning vehicles do not interfere with advancing or opposing traffic due to 1) infrequency and low volume of the left turn movement and 2) low volume of advancing and opposing traffic.

Undivided Roadway with Left-Turn lanes - When the volume of turning and through traffic exceeds minimal levels, resulting in increasing delay for through and turning traffic, the construction of an exclusive auxiliary left-turn lane should be considered to remove left turning traffic from the advancing traffic stream.

Warrants should be adopted, based on operational and queuing analysis, identifying minimum volume thresholds that would warrant a left-turn lane.

Left-turn lanes should be constructed with adequate length to provide for 1) storage of queued turning vehicles and 2) deceleration on high speed roadways.

Guidelines should be developed or adopted that address proper storage and deceleration length requirements for left-turn lanes.

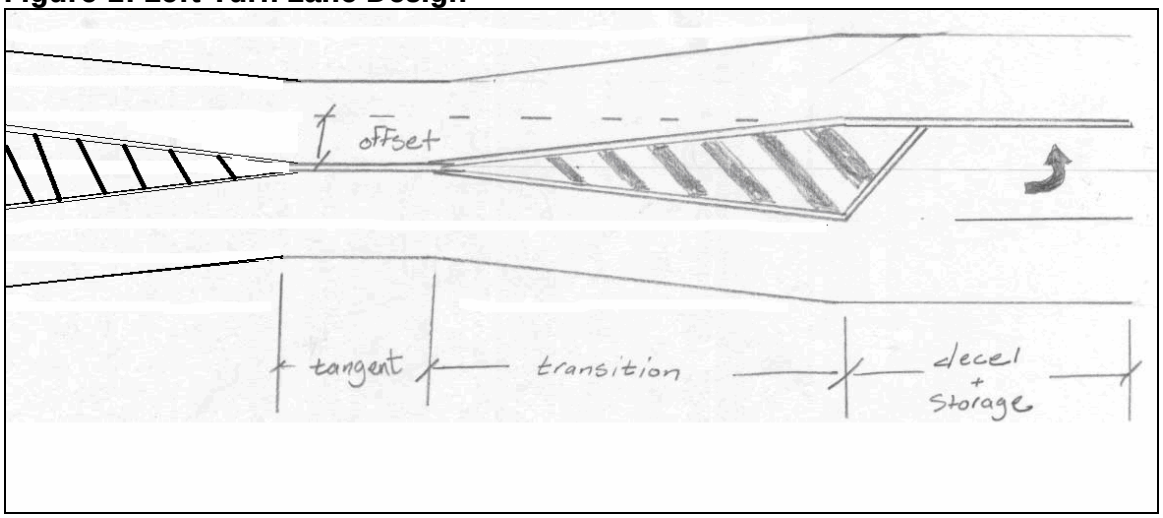
In addition, proper transitions should be used when widening an undivided roadway to provide for a median left-turn lane. Transition lengths can be determined using the Equations 1 and 2, given below (**1**). A minimum tangent length of 100 feet is recommended between transitions.

EQ 1. $L = WS$ (For Speeds greater than or equal to 45 mph)
EQ 2 $L = WS^2/60$ (For Speeds less than 45 mph

Where: L= Length of Transition (ft)
W= Width of Offset (ft)
S= 85^{th} Percentile or Statutory Speed Limit (mph)

Figure 1 shows the various components of the left turn lane design.

Figure 1: Left Turn Lane Design



Flush Median - In order to provide a consistent cross section, a flush median is recommended for roadways with access point densities greater than 10 ap/mi. This density represents the approximate access spacing at which it is impossible to provide proper transitions and tangent lengths as identified in Figure 1 above. At this density a center flush median lane should be considered which can be striped as individual left turn lanes or a Two-Way Left-Turn Lane (TWLTL).

The flush median should be demarcated to provide exclusive left turn lanes when possible. Left turn lanes within a flush median should provide the same storage and deceleration lengths as described above. Transitions and tangent need not be provided between left turn lanes and back to back left turn lanes may be provided. Flush median space not designated as a left turn lane should be demarcated by double yellow lines adjacent to each traffic lane with optional transverse lines in the median.

When access densities increase to the point that it is impossible to provide exclusive left turn lanes with adequate deceleration and storage length, without interfering with adjacent access points, a TWLTL should be considered.

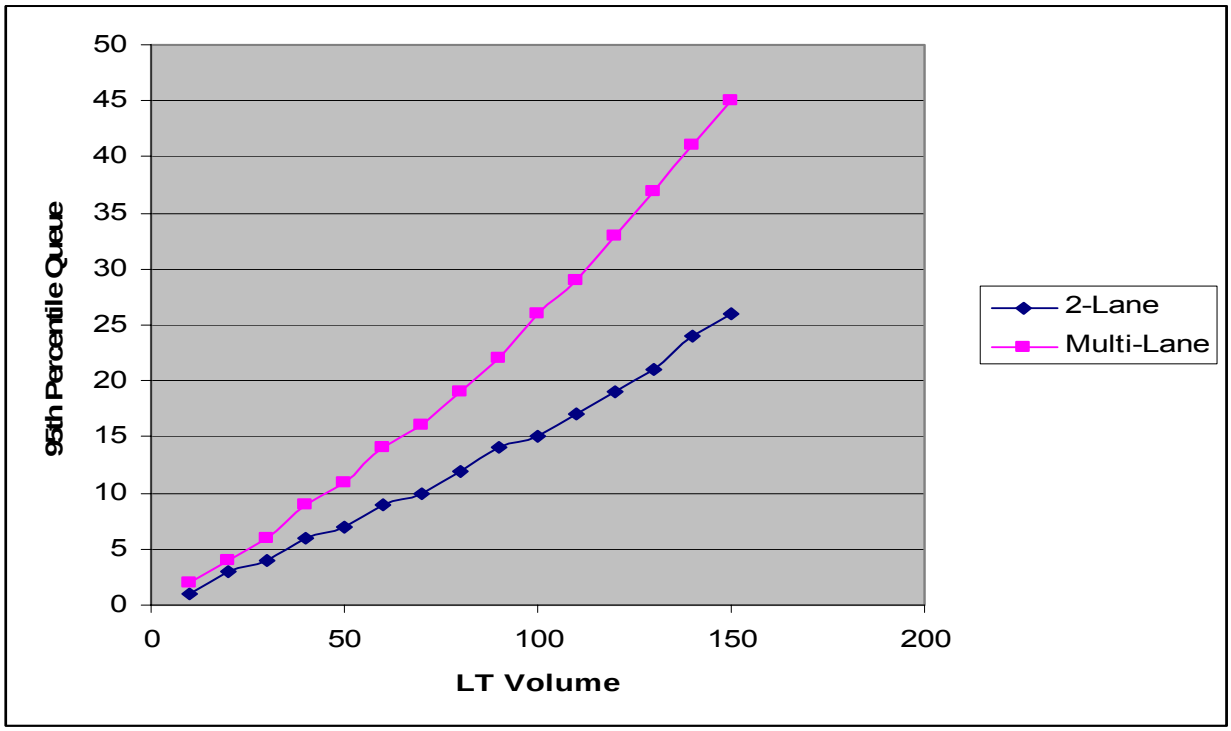
TWLTLs have been shown to provide improvements in safety and operations at moderate traffic volumes with moderate to high access point densities. The primary concern with TWLTLs is the potential for head-on conflicts between turning traffic and queuing conflicts across access points. The following volume and access density thresholds are proposed to ensure the proper operation and safety of TWLTLs.

TWLTLs are not recommended on three lane roadways having an ADT greater than 17,000 and multi-lane roadways having an ADT greater than 24,000 (**2,3**). At higher ADTs the availability of adequate gaps to clear left turning traffic become less frequent, increasing the delay and queuing of left turning traffic and increasing the potential for queuing conflicts and traffic interfering with the through movement.

Additionally, TWLTLs are not recommended on roadways having an access point density greater than 85 ap/mi. This density is based on an average access point spacing of 125 feet, which provides adequate separation of ingress and egress turning movements based on field studies of vehicular turning and lane change behaviors (**4,5**). Higher access densities have the potential to significantly increase the likelihood of conflicts between turning traffic.

TWLTLs are also not recommended at access points serving left turning ingress volumes greater than 100 vph for multi-lane roadways and 150 vph for three lane roadways. These volume thresholds are based on operational and queuing analysis, and represent the volume at which the 95th percentile queue exceeds 1 vehicle (25 ft). This analysis was conducted assuming maximum opposing volume given by the recommended maximum ADT thresholds noted above, and applying K and D factors of 0.10 and 0.6, respectively. Figure 3 illustrates the queuing analysis for two-lane and multi-lane roadways.

Figure 3: Queuing Analysis



Nontraversable Median - A nontraversable median is recommended on all existing roadways in which the ADT, access density and/or turning volumes exceed the maximum thresholds established above for a TWLTL. When the TWLTL thresholds are exceeded the conversion of the access points to Right-In Right-Out (RIRO) movements, has the ability to remove conflict points from turning traffic and improve corridor operations by eliminating left mid-block turning movements.

Nontraversable medians are also recommended for the following general conditions (**3,6**):

- All new multilane arterials
- Existing rural multilane arterials
- Crossroads in the vicinity of interchanges
- Multilane roadways with high pedestrian activity

Summary of Median Type Guidelines

Individual left-turn lanes recommended for:
- Locations where left-turn volume exceeds warrant (to be determined), and
- Access point density <= 10 ap/mi

TWLTL generally appropriate for:
- Urban/suburban 3-lane roadways with:
  - projected ADT<17,000
  - access point density > 10 ap/mi and < 85 ap/mi
  - left-turn volume < 150 vph
- Urban/suburban multi-lane roadways with:
  - projected ADT<24,000
  - access point density > 10 ap/mi and < 85 ap/mi
  - left-turn volume < 100 vph

Nontraversable medians recommended for:
- All new multilane arterials
- Existing roadways where ADT, access density, and/or turning volumes exceed thresholds established above for TWLTLs
- Existing rural multilane arterials
- Crossroads in the vicinity of interchanges
- Multilane roadways with high pedestrian activity

Note: Traversable raised medians are not recommended since they neither facilitate left turns nor do they provide positive control over left turn movements.

References

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