

APPENDIX A

County	Route	Beginning MP	Beginning Feature	Ending MP	Ending Feature	Length	Functional Class	State System	NHS ?	NTN ?	Truck Weight Class	# of Through Lanes	Lane Width (ft)	Shoulder Width (ft)	Percent Passing Sight Distance >1500 ft
WOLFE	KY 15S	0.000	KY 191/KY 15	0.195		0.195	Principal Arterial	State Primary (Other)	Y	F	AAA	2	12	10	60
		0.195		0.935		0.740									
		0.935		1.045	Mountain Parkway Overpass	0.110									
WOLFE	KY 15	0	Breathitt County Line	1.732	KY 1261	1.732	Principal Arterial	State Primary (Other)	Y	F	AAA	2	12	10	60
		1.732	KY 1261	8.870	Elkins Road	7.138									0
		8.870	Elkins Road	9.515	KY 191 and KY 15S	0.645									
BREATHITT	KY 15	0.000	Perry County Line	5.989	1.75 mile south of KY 476	5.989	Principal Arterial	State Primary (Other)	Y	F	AAA	2	11	10	40
		5.989	1.75 mile south of KY 476	7.737	KY 476	1.748									
		7.737	KY 476	8.330	0.6 miles north of KY 476	0.593									
		8.330	0.6 miles north of KY 476	8.837	Begin 12' wide lanes	0.507									
		8.837	Begin 12' wide lanes	14.644	KY 1089/KY 1812	5.807									
		14.644	KY 1089/KY 1812	16.329	Roark Ridge Road	1.685									
		16.329	Roark Ridge Road	17.446	KY 1812E	1.117									
		17.446	KY 1812E	17.936	KY 1812	0.490									
		17.936	KY 1812	18.465	KY 30	0.529									
		18.465	KY 30	21.052	Begin 4 Lanes	2.587									
		21.052	Begin 4 Lanes	24.475	Resume 2 Lanes	3.423									
		24.475	Resume 2 Lanes	26.446	Wolfe County Line	1.971									
PERRY	KY 15	14.512	Morton Blvd	15.968	KY 267	1.456	Principal Arterial	State Primary (Other)	Y	F	AAA	3/4/3	12	4	61
		15.968	KY 267	16.798	Capitol Hill Drive	0.830									
		16.798	Capitol Hill Drive	20.335	0.4 miles south of KY 28	3.537									
		20.335	0.4 miles south of KY 28	25.179	Breathitt County Line	4.844									

Table A-1, Part 1: Existing Conditions

County	Route	Beginning MP	Beginning Feature	Ending MP	Ending Feature	Median	Access Control	Annual Tons of Coal	Latest ADT	Year of Latest ADT	Traffic Growth Rate	Unrounded Forecast 2035 ADT	Forecast 2035 ADT	CCRF*	Composite Adequacy Rating	Composite Adequacy Rating Percentile		
WOLFE	KY 15S	0.000	KY 191/KY 15	0.195	Mountain Parkway Overpass	15' Raised Mountable	None	460,324 northbound	6,776	2,009	1.00%	8,777	8,800	0.308	95.00	74.84		
		0.195		0.935		None												
		0.935		1.045		30' Depressed												
WOLFE	KY 15	0	Breathitt County Line	1.732	KY 1261	None	None	461641 northbound	4183	2009	0.50%	4,762	4,800	0.426	89.60	47.84		
		1.732	KY 1261	8.870					Elkins Road	5358	2010	0.00%	5,358	5,400	0.393	92.30	63.18	
		8.870	Elkins Road	9.515					KY 191 and KY 15S	6905	2011	0.00%	6,905	6,900	1.041	76.25	14.87	
BREATHITT	KY 15	0.000	Perry County Line	5.989	1.75 mile south of KY 476	None	None	634,119 northbound	5943	2010	1.00%	7,621	7,600	0.351	89.60	47.84		
		5.989	1.75 mile south of KY 476	7.737	KY 476			954,055 southbound	6057	2011	1.00%	7,621	7,600	0.239				
		7.737	KY 476	8.330	0.6 miles north of KY 476			465,008 northbound	6580	2009	0.50%	7,491	7,500	0.555				
		8.330	0.6 miles north of KY 476	8.837	Begin 12' wide lanes			622,946 northbound	7480	2010	0.50%	8,473	8,500	0.364			81.10	24.21
		8.837	Begin 12' wide lanes	14.644	KY 1089/KY 1812													
		14.644	KY 1089/KY 1812	16.329	Roark Ridge Road													
		16.329	Roark Ridge Road	17.446	KY 1812E													
		17.446	KY 1812E	17.936	KY 1812													
		17.936	KY 1812	18.465	KY 30													
		18.465	KY 30	21.052	Begin 4 Lanes			14	12624	2009	0.50%	14,372	14,400	1.202			53.50	0.55
		21.052	Begin 4 Lanes	24.475	Resume 2 Lanes													
		24.475	Resume 2 Lanes	26.446	Wolfe County Line													
		18.465	KY 30	21.052	Begin 4 Lanes			None	16422	2009	0.50%	18,696	18,700	0.247			51.20	0.37
21.052	Begin 4 Lanes	24.475	Resume 2 Lanes	32														
21.052	Begin 4 Lanes	24.475	Resume 2 Lanes	32	4183	2009	0.50%	4,762	4,800	0.322	92.30	63.18						
24.475	Resume 2 Lanes	26.446	Wolfe County Line	None														
PERRY	KY 15	14.512	Morton Blvd	15.968	KY 267	None	None	377,174 northbound	18,400	2011	2.00%	29,595	29,600	2.034	54.70	0.64		
		15.968	KY 267	16.798	Capitol Hill Drive			578,383 northbound	11,390	2,009	2.00%	19,060	19,100	0.609	76.00	14.81		
		16.798	Capitol Hill Drive	20.335	0.4 miles south of KY 28			2,076,326 southbound										
		20.335	0.4 miles south of KY 28	25.179	Breathitt County Line			592,721-648,454 northbound	8013	2011	1.00%	10,174	10,200	0.349				

Table A-1, Part 2: Existing Conditions

APPENDIX B
PROJECT TEAM MEETING MINUTES

AGENDA

Project Team Meeting #1 KY 15 Programming Study Breathitt, Perry, and Wolfe Counties

Date: April 12, 2012
Time: 10:00 a.m.
Location: KYTC District 10, Jackson, KY

- I. Introductions
- II. Work Accomplished Prior to This Meeting
 - a. Traffic Forecasts
 - i. Analysis Sections Identified
 - ii. Growth Rates for Each Section Approved by KYTC
 - b. Consultants Who Performed Prior Planning, Environmental, and Design
 - i. WMB
 - ii. GRW
 - iii. Vaughn & Melton
 - iv. *THE* Engineers
- III. Purpose of This Meeting: Summary of Previous Work
- IV. Next Steps
 - a. Obtain and compile HIS data, traffic data, crash data
 - b. Calculate current and future year V/C ratios
 - c. Project team meeting to present and discuss this information





Architecture

Engineering

Construction

MEETING MINUTES

Project: Programming Study for KY 15 Breathitt, Perry, and Wolfe Counties
Mountain Parkway Interchange in Wolfe County to MP 16.8 in Perry County

Purpose: Project Team Meeting #1

Place: District 10 - Jackson

Meeting Date: April 12, 2012
10:00 a.m. EST

Prepared By: Annette Coffey

In Attendance:

Jill Asher	KYTC, Division of Planning
Shane Tucker	KYTC, Division of Planning
Corbett Caudill	KYTC, District 10 – Jackson
Jason Blackburn	KYTC, District 10 – Jackson
Darren Back	KYTC, District 10 – Jackson
Darren Stamper	KYTC, District 10 – Jackson
Aric Skaggs	KYTC, District 10 – Jackson
Jeff Allen	KYTC, District 10 – Jackson
Keith Caudill	KYTC, CO Highway Design
Eunice Holland	Kentucky River Area Development District
Taylor Kelly	Qk4
Annette Coffey	Qk4
Bruce Siria	Qk4

The objective of the meeting was to present a summary of work that was previously performed on this corridor. The meeting started with introductions and meeting handouts consisting of: an agenda, spreadsheet of annual growth rates to be used for future tasks, a corridor map divided into sections, and maps of preferred and previously studied alignments within the corridor, and detailed information regarding previous work performed on each section. For district use, flash drives were given to the Project Manager with the presented information and appropriate design files. The meeting was turned over to Bruce Siria with Qk4 to present a summary of previous corridor efforts and Qk4 work to date.

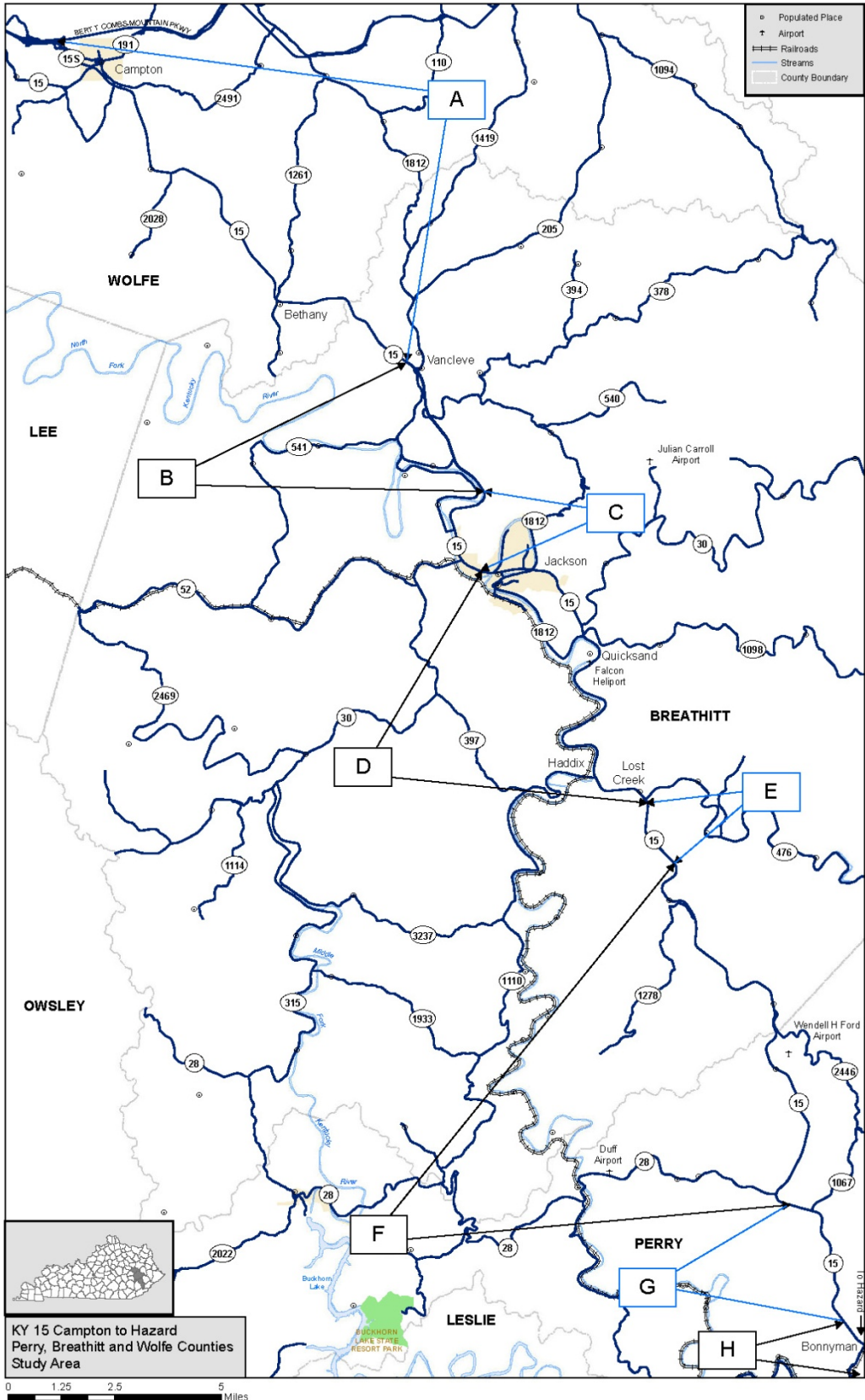
Mr. Siria began his presentation with recognition and appreciation of WMB, GRW, Vaughn & Melton, and THE Engineers for their cooperation in providing Qk4 with the information necessary to complete this task. One of the early tasks for Qk4 was to divide the corridor into logical sections, and propose growth rates to the Division of Planning. Those rates were presented in tabular form and ranged from 0% in Wolfe County to 1.0% in Perry County. Then, each corridor section was presented in detail (see minute attachments).

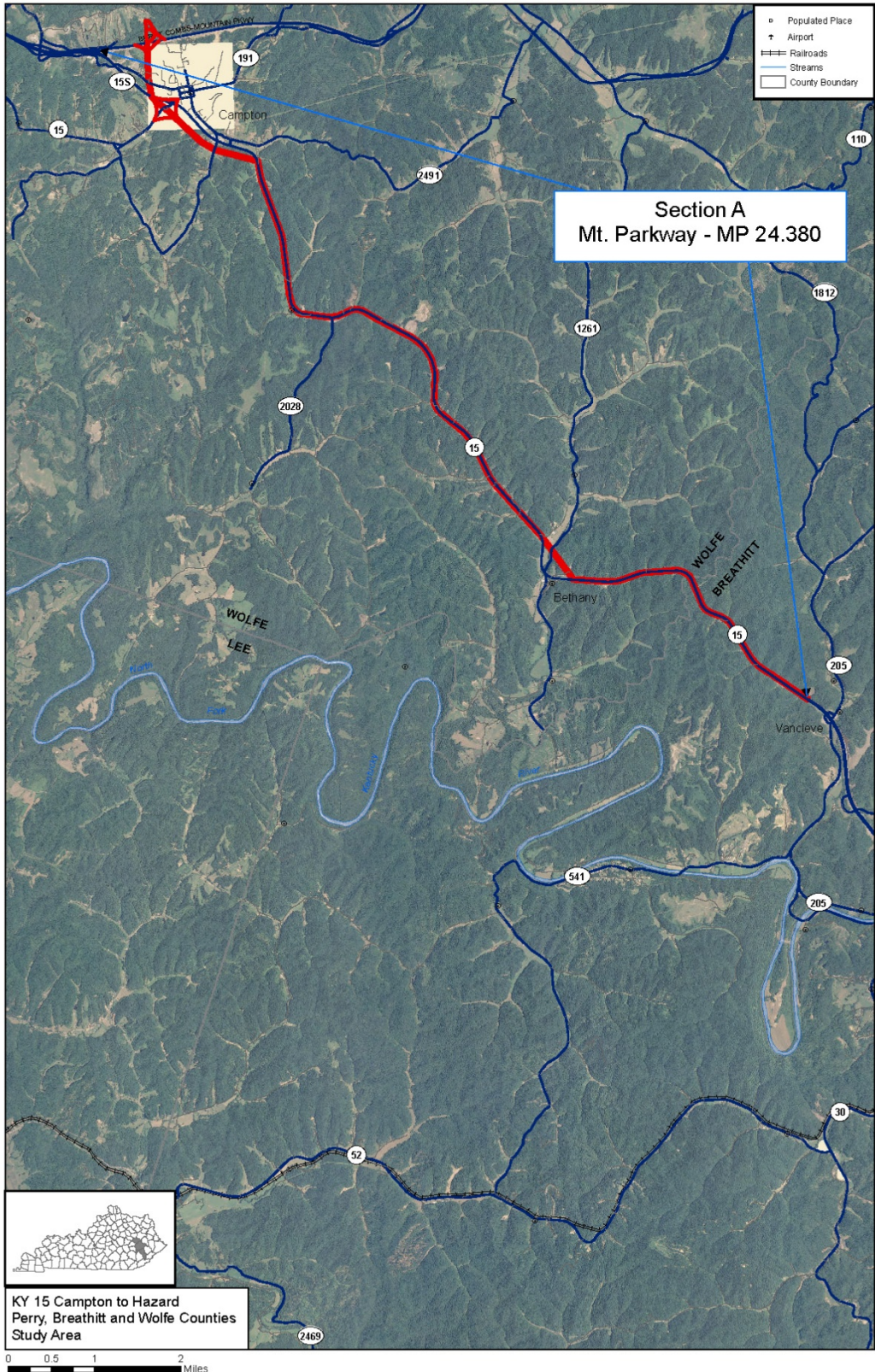
Comments during the presentation regarding sections are summarized below:

1. Section D – there is a current UPL project to widen only KY 15 through Jackson. Local officials support widening KY 15 through town regardless of whether a bypass constructed.
2. To be consistent with constructed sections of KY 15, the design speed for each section should be 60 mph. The typical section for the four-lane constructed segments has a 40 feet separation between directions. The 40 feet is measured from inside white line to inside white line. To be consistent, this should be the maximum typical section for any new improvements investigated.
3. Barrier walls should be considered as typical section modifications are considered.
4. The sections from Jackson (Section D) south should be the focus of Qk4 future work.
5. In Jackson, widening the existing, and an alignment to the east rather than west should be investigated. The previously proposed eastern alignment has very expensive bridge costs in the first mile.
6. Qk4 should concentrate on construction sections of \$40 million or less. To achieve that goal, the district felt that staying close to the existing alignment will have to be re-evaluated.
7. Any focus on Section A should be below the two interchanges. In addition, a bypass of Campton and new interchange with the Mt. Parkway is not desirable and should not be considered.
8. Access control will be an issue if improvements are proposed along the existing roadway.
9. This route provides important regional connectivity from US 23 to the Mountain Parkway.

The next steps for Qk4 will be to present capacity analysis, traffic projections, and crash analysis. District personnel requested that the aforementioned analyses presentation be deferred to the same meeting where new improvements options considering “practical solutions” or other design revisions with corresponding cost estimates for widening of KY 15 are presented.

-----End of Minutes-----





SECTION A

NORTHERN TERMINUS: MT. PARKWAY EXIT 43, WOLFE COUNTY
SOUTHERN TERMINUS: 0.6 MILES NORTH OF KY 205 (MP 24.010), BREATHITT COUNTY
LENGTH: 12.63 MILES

ITEM NUMBER: NONE

LATEST PLANNING/DESIGN WORK: WMB OVERALL CORRIDOR STUDY - 1994

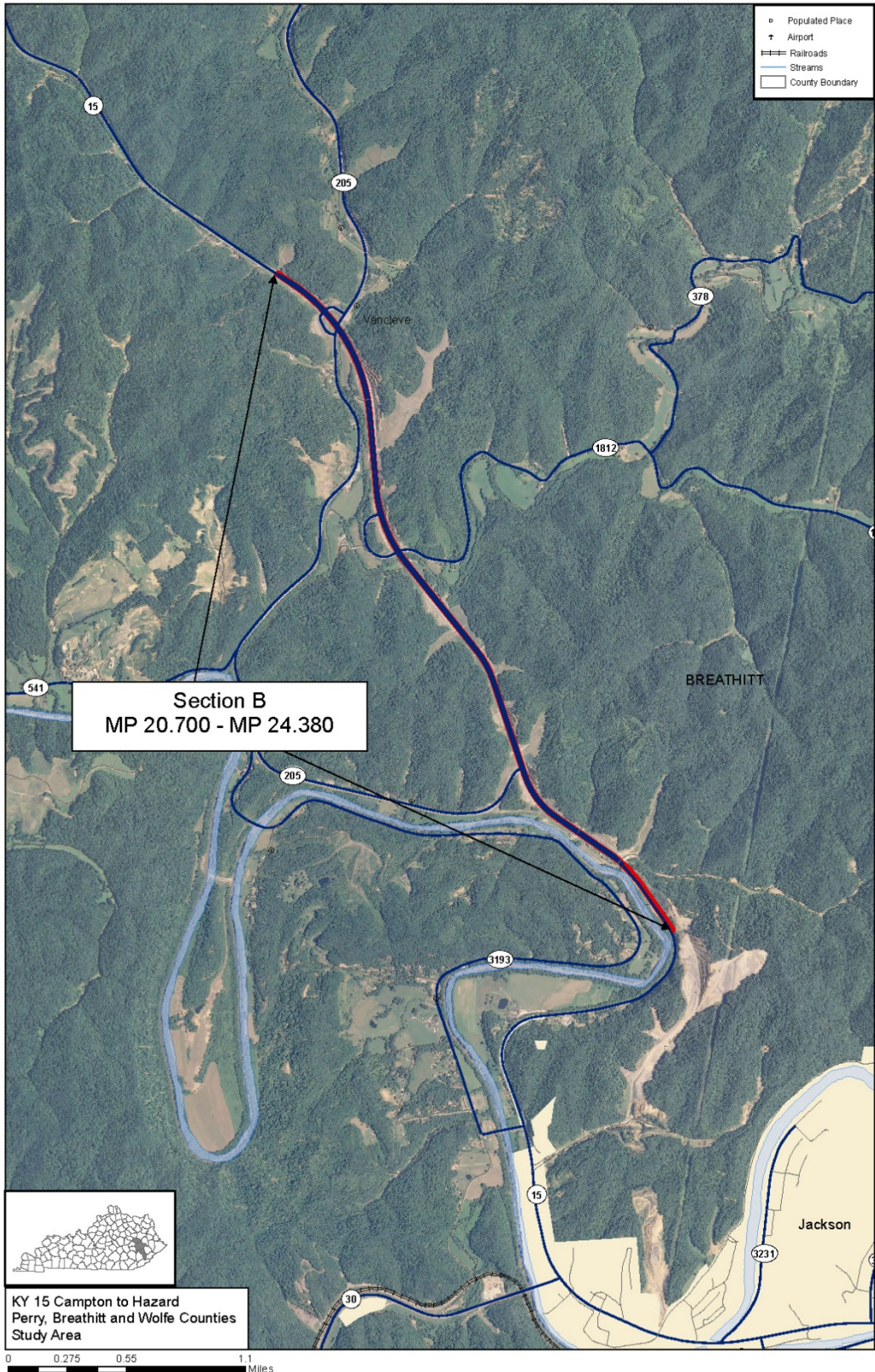
LATEST ENVIROMENTAL STATUS: ENVIRONMENTAL OVERVIEW FROM WMB STUDY

RECOMMENDATION: IMPROVEMENTS TO EXISTING CORRIDOR EXCEPT CAMPTON BYPASS

PROPOSED TYPICAL SECTION: 4 12' LANES, 10' PAVED SHOULDER, 40' DEPRESSED MEDIAN

	1994 COST ESTIMATE	RESIDENTIAL RELOCATIONS	OTHER RELOCATIONS	CEMETERIES	TOTAL PARCELS	OTHER
RECOMMENDED ALTERNATIVE (EXISTING CORRIDOR)	\$126.3 MILLION	62	34	0	163	LOCAL OFFICIALS STRONGLY PREFERRED THAT CAMPTON NOT BE BYPASSED
ALTERNATES D, E, AND F	\$153.1 MILLION	79	8	1	129	NECESSITATES BYPASS OF CAMPTON, NEW INTERCHANGE ON MOUNTAIN PARKWAY, AND MAY IMPACT WATER QUALITY OF CAMPTON LAKE

FROM		TO		Traffic Forecast and Year From Previous Work	Latest Actual Count and Year	Future Annual Traffic Growth Percentage Approved by KYTC
MP	DESCRIPTION	MP	DESCRIPTION			
0.000	KY 15	1.045	Mt. Parkway Exit 43	8600 (2015)	6776 (2009)	1.00%
8.235	Swift Camp Creek Rd	9.515	KY 15S/KY 191	8700 (2015)	5358-6905 (2010-11)	0.00%
1.732	KY 1261N in Wolfe County	8.235	Swift Camp Creek Rd	4500-5400 (2015)	5358 (2010)	0.00%
24.380	0.6 miles north of KY 205	1.732	KY 1261N in Wolfe County	5500 (2015)	4183 (2009)	0.50%



SECTION B

NORTHERN TERMINUS: 0.6 MILES NORTH OF KY 205 (MP 24.010), WOLFE COUNTY
SOUTHERN TERMINUS: JUST SOUTH OF KENNY KING RD (MP 20.700), BREATHITT COUNTY
LENGTH: 3.68 MILES

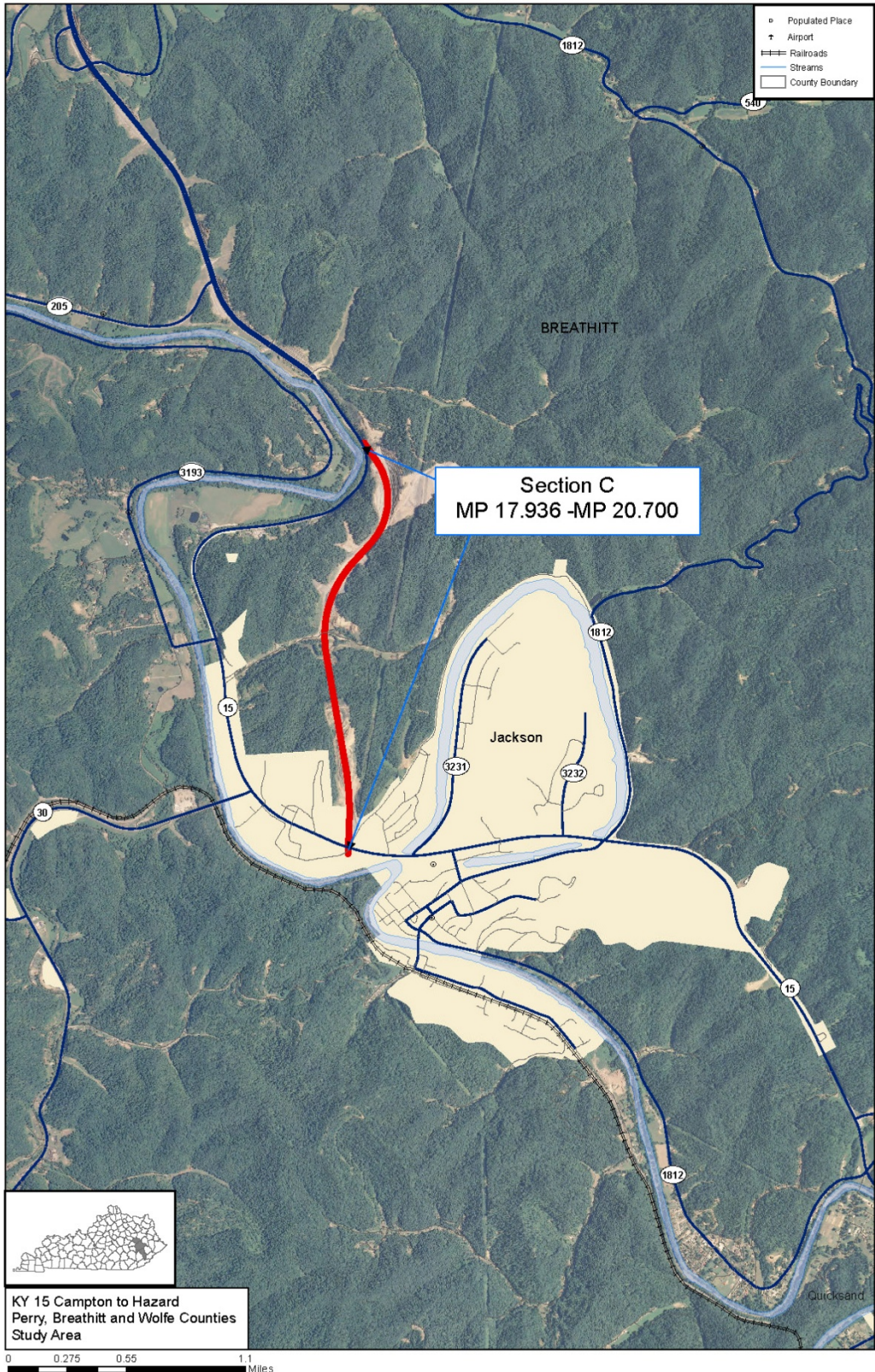
ITEM NUMBER: 270.87; 270.97

LATEST WORK: RECONSTRUCTED IN 2007-2008

TYPICAL SECTION: 4 12' LANES, 10' PAVED SHOULDER, 40' DEPRESSED MEDIAN

TRAFFIC DATA:

LATEST COUNT:	6983 (2010)
LATEST ESTIMATE:	7260 (2011)
2025 FORECAST ADT:	9700
GROWTH RATE USED IN DESIGN PLANS:	1.65% ANNUALLY



SECTION C

NORTHERN TERMINUS: JUST SOUTH OF KENNY KING RD (MP 20.700) BREATHITT COUNTY
SOUTHERN TERMINUS: JUNCTION WITH EXISTING KY 15 @ PANBOWL ROAD (MP 17.936)
LENGTH: 2.76 MILES

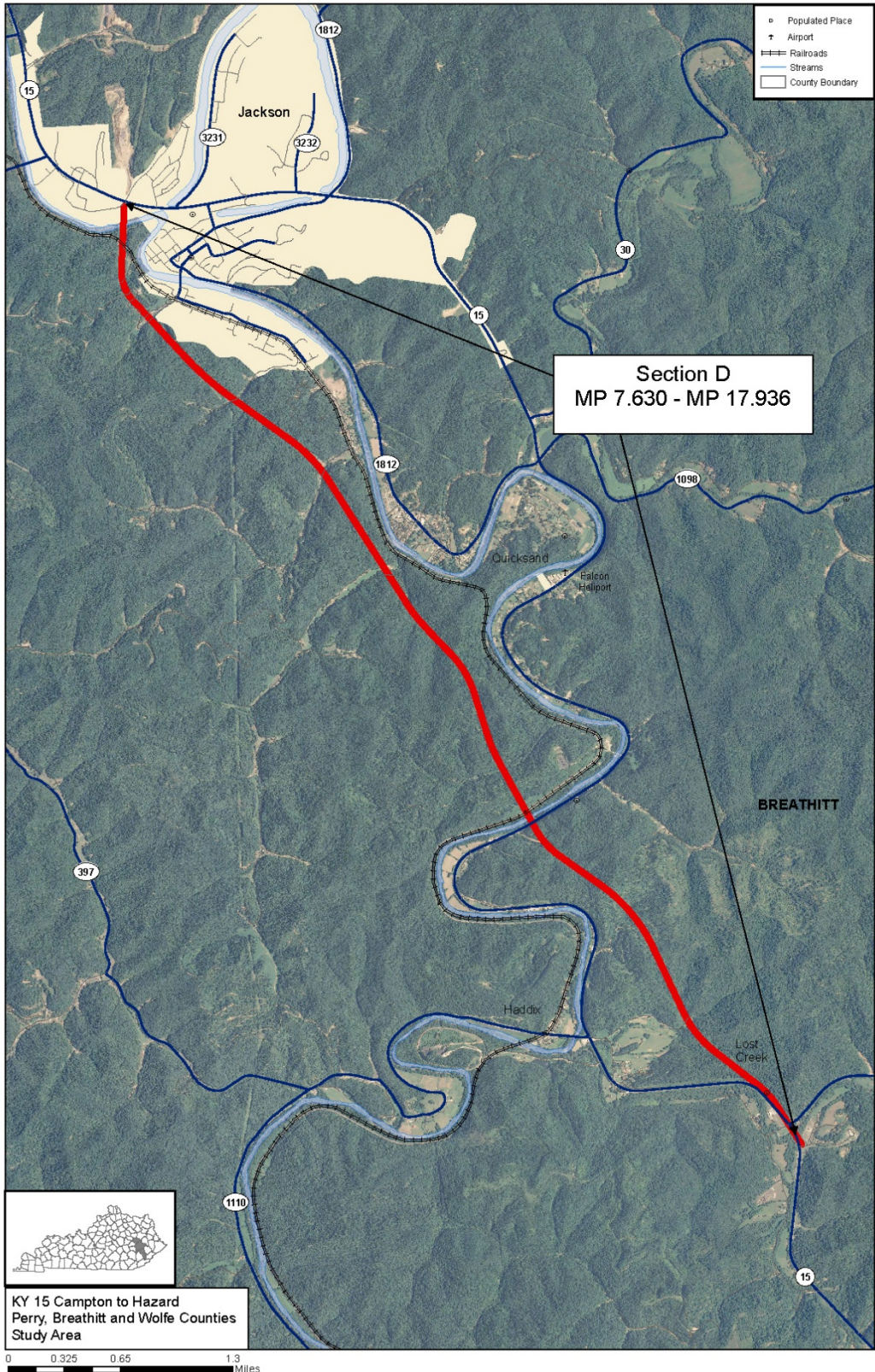
ITEM NUMBER: 270.60; 270.67; 270.70; 270.77

LATEST WORK: UNDER CONSTRUCTION NOW

TYPICAL SECTION: 4 12' LANES, 10' PAVED SHOULDER, 40' DEPRESSED MEDIAN

TRAFFIC DATA:

LATEST TRAFFIC ESTIMATE:	5600 (2010)
2020 FORECAST ADT:	6000 (KYTC TRAFFIC FORECAST) 16,850 (KYTC DESIGN PLANS)
GROWTH RATE USED:	1.00% (KYTC TRAFFIC FORECAST) 1.60% (KYTC DESIGN PLANS)



SECTION D

NORTHERN TERMINUS: JUNCTION WITH EXISTING KY 15 @ PANBOWL ROAD (MP 17.936)
SOUTHERN TERMINUS: 575 FEET SOUTH OF KY 476 NEAR HADDIX (MP 7.63)
LENGTH: 10.3 MILES

ITEM NUMBER: 270.11

LATEST PLANNING/DESIGN WORK: WMB ESTIMATES PHASE II DESIGN WAS 50% COMPLETE

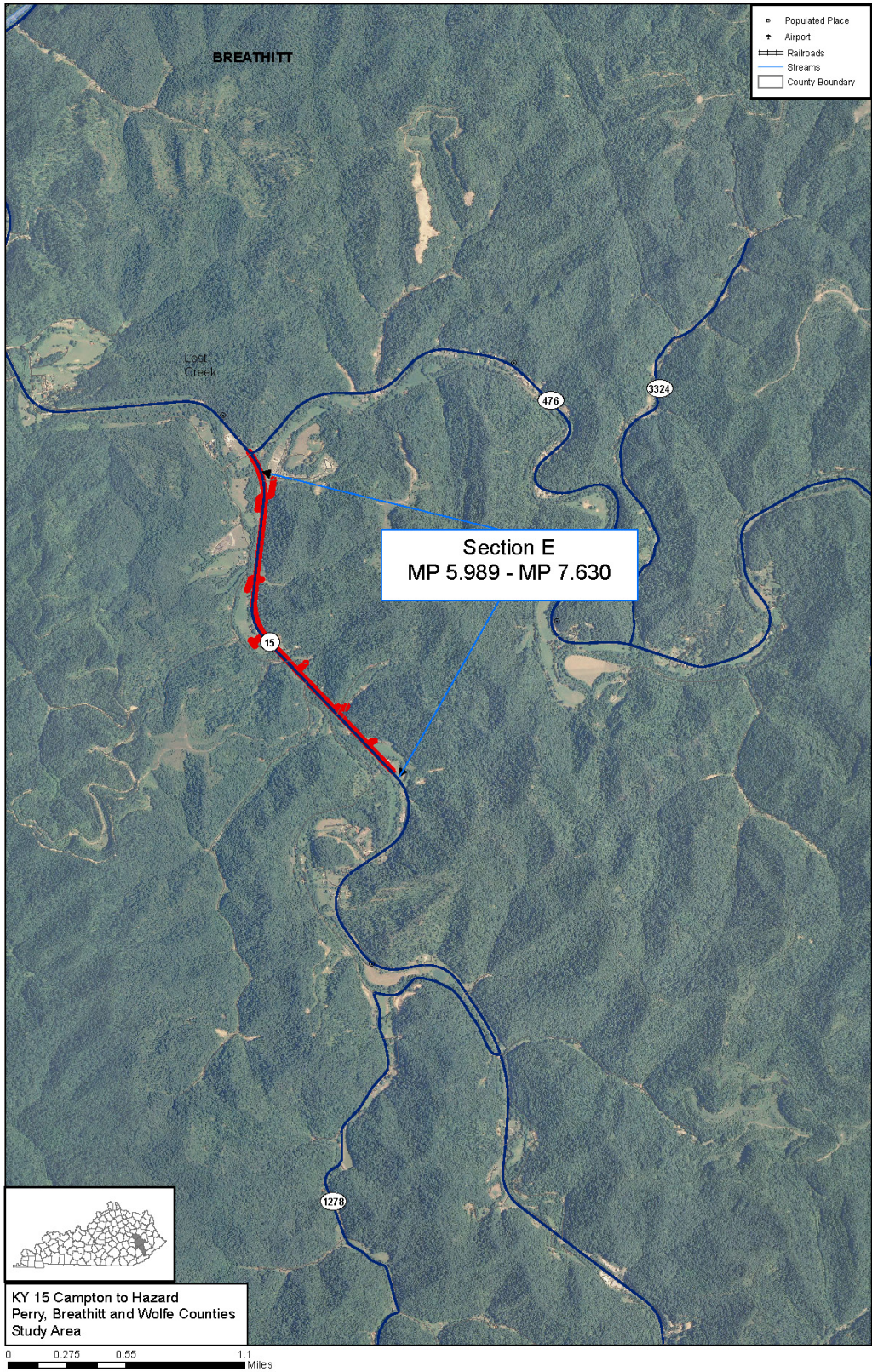
LATEST ENVIROMENTAL STATUS: EA FONSI MAY, 2000

RECOMMENDATION IN EA: ALTERNATE 2

- SHORTEST STRUCTURE TO SPAN NORTH FORK OF KY RIVER
- LESS POTENTIAL STABILITY PROBLEMS
- LOCAL OFFICIALS PREFERRED THIS ALTERNATIVE

PROPOSED TYPICAL SECTION: 4 12' LANES, 10' PAVED SHOULDER, 40' DEPRESSED MEDIAN

	1999 COST ESTIMATE (MILLIONS)	RESIDENTIAL RELOCATIONS	BUSINESSES	OTHER RELOCATIONS	FEET OF STREAM RECHANNELIZATION REQUIRED	ACRES OF PRIME FARMLAND TAKEN	HAZMAT SITES
RECOMMENDED ALTERNATIVE (ALTERNATIVE 2 IN EA)	\$148.2	51 FIXED, 38 MOBILE	14	11	21,533	23	6
OTHER ALTERNATIVES CONSIDERED (FROM EA)							
ALTERNATIVE 1	\$153.8	51 FIXED, 38 MOBILE	14	11	22,014	21	6
ALTERNATIVE 3	\$157.8	48 FIXED, 32 MOBILE	7	5	21,030	21	6
ALTERNATIVE 4	\$157.0	45 FIXED, 40 MOBILE	14	8	20,472	17	6
ALTERNATIVE 5	\$157.9	48 FIXED, 34 MOBILE	14	5	21,949	21	6
ALTERNATIVE 6	\$159.0	48 FIXED, 38 MOBILE	20	13	22,014	27	10
ALTERNATIVE 7	\$158.3	50 FIXED, 38 MOBILE	14	10	21,456	0	6



SECTION E

NORTHERN TERMINUS: 575 FEET SOUTH OF KY 476 (MP 7.63)
SOUTHERN TERMINUS: 1.75 MILES SOUTH OF KY 476 (MP 5.99)
LENGTH: 1.64 MILES

ITEM NUMBER: 285.00

LATEST PLANNING/DESIGN WORK: WMB ESTIMATES PHASE I DESIGN WAS 90% COMPLETE

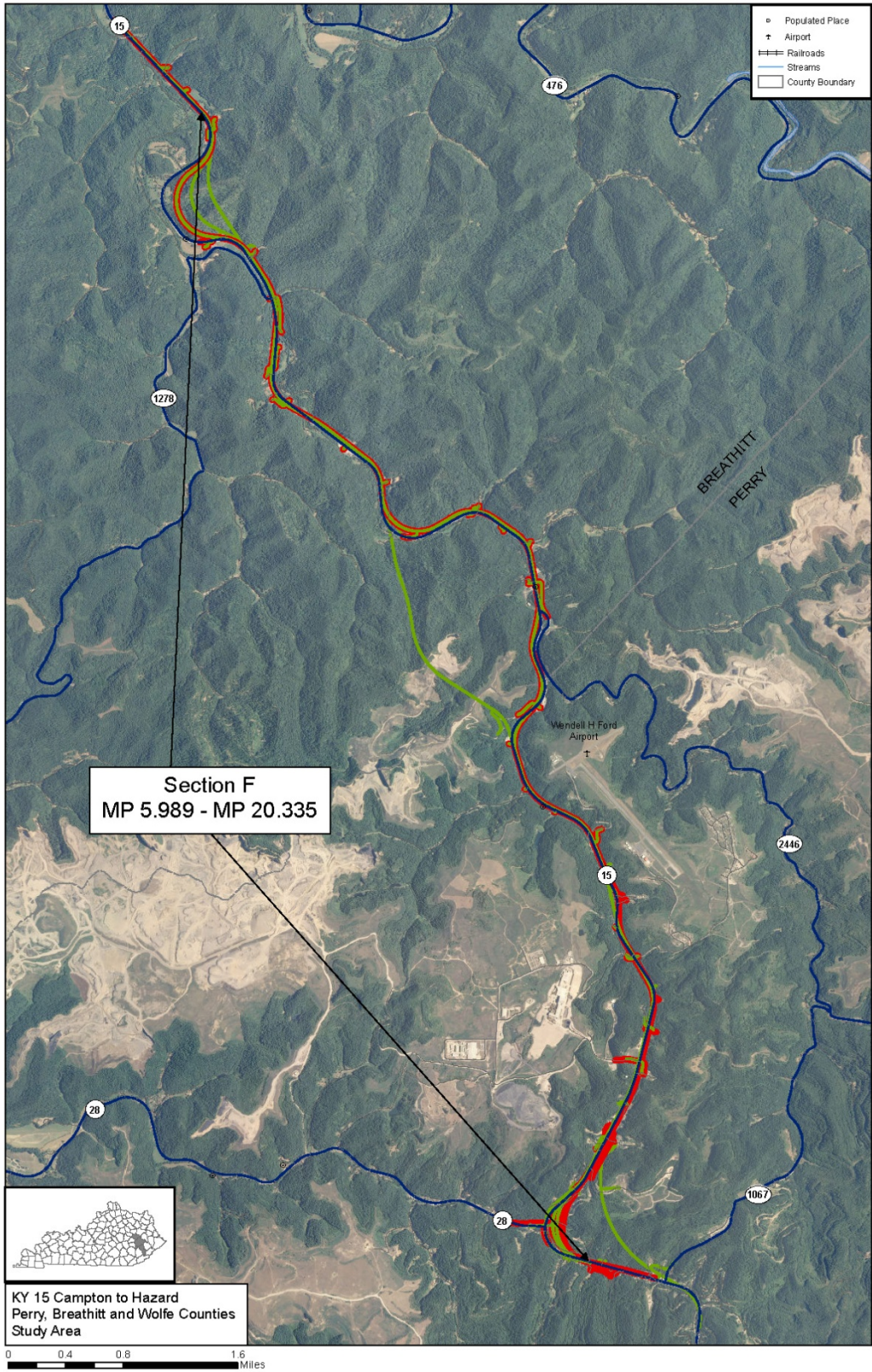
LATEST ENVIROMENTAL STATUS: DRAFT EA JUNE, 1999

RECOMMENDATION IN EA: ALTERNATE 1

PROPOSED TYPICAL SECTION: 4 12' LANES, 10' PAVED SHOULDER, 40' DEPRESSED MEDIAN

ENVIRONMENTAL COMPARISON OF ALTERNATIVES (INCLUDES ITEM 10-286)	RESIDENTIAL RELOCATIONS	BUSINESSES	CEMETERY IMPACTS	FEET OF STREAM RECHANNELIZATION REQUIRED	ACRES OF WETLANDS	HAZMAT SITES
RECOMMENDED ALTERNATIVE (ALT 9 SOUTH, ALT 1 NORTH)	22 FIXED, 51 MOBILE	13	8	1,469	1.6	5
OTHER ALTERNATIVES CONSIDERED						
ALTERNATIVE 8	40 FIXED, 63 MOBILE	4	5	8,135	1.2	3
ALTERNATIVE 9	22 FIXED, 38 MOBILE	5	5	5,855	1.6	2
ALTERNATIVE 8 SOUTH, ALTERNATE 1 NORTH	53 FIXED, 66 MOBILE	13	8	4,000	1.2	6
ALTERNATIVE 1	CONSIDERED INITIALLY, BUT DISMISSED—EXCEPT WHEN PAIRED WITH ALT 8 OR 9 AT KY15/KY28 INTERSECTION					
ALTERNATIVE 2	CONSIDERED INITIALLY, BUT DISMISSED FROM DETAILED EVALUATION BECAUSE DEFICIENCIES AT KY15/KY28 INTERSECTION NOT ALLEVIATED					
ALTERNATIVE 3	CONSIDERED INITIALLY, BUT DISMISSED FROM DETAILED EVALUATION BECAUSE DEFICIENCIES AT KY15/KY28 INTERSECTION NOT ALLEVIATED					

FROM		TO		Traffic Forecast and Year From Previous Work	Latest Actual Count and Year	Future Annual Traffic Growth Percentage Approved by KYTC
MP	DESCRIPTION	MP	DESCRIPTION			
5.989	1.75 mile south of KY 476	7.630	575 feet south of KY 476	7,800 (2015)	6,057 (2010)	1.00%



SECTION F

NORTHERN TERMINUS: 1.75 MILES SOUTH OF KY 476 (MP 5.99 BREATHITT CO.)
SOUTHERN TERMINUS: 0.40 MILES SOUTH OF KY 28 (MP 20.335 PERRY CO.)
LENGTH: 10.83 MILES

ITEM NUMBER: 286.00

LATEST PLANNING/DESIGN WORK: WMB ESTIMATES PHASE I DESIGN WAS 90% COMPLETE

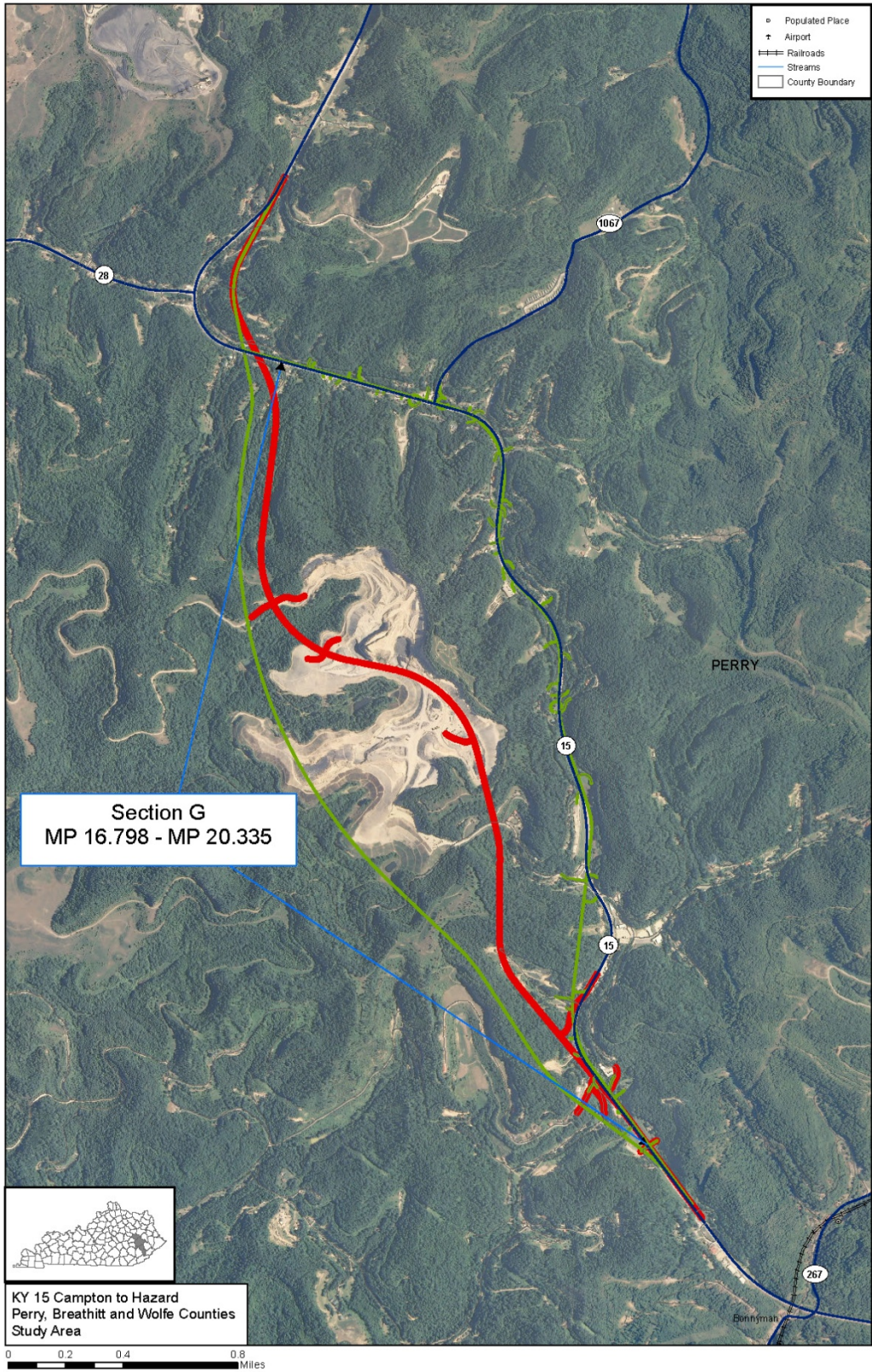
LATEST ENVIROMENTAL STATUS: DRAFT EA JUNE, 1999

RECOMMENDATION IN EA: ALTERNATE 1 SOUTH TO APPROX MP 22.7, THEN ALT 9

PROPOSED TYPICAL SECTION: 4 12' LANES, 10' PAVED SHOULDER, 40' DEPRESSED MEDIAN

ENVIRONMENTAL COMPARISON OF ALTERNATIVES (INCLUDES ITEM 10-285)	RESIDENTIAL RELOCATIONS	BUSINESSES	CEMETERY IMPACTS	FEET OF STREAM RECHANNELIZATION REQUIRED	ACRES OF WETLANDS	HAZMAT SITES
RECOMMENDED ALTERNATIVE (ALT 9 SOUTH, ALT 1 NORTH)	22 FIXED, 51 MOBILE	13	8	1,469	1.6	5
OTHER ALTERNATIVES CONSIDERED						
ALTERNATIVE 8	40 FIXED, 63 MOBILE	4	5	8,135	1.2	3
ALTERNATIVE 9	22 FIXED, 38 MOBILE	5	5	5,855	1.6	2
ALTERNATIVE 8 SOUTH, ALTERNATE 1 NORTH	53 FIXED, 66 MOBILE	13	8	4,000	1.2	6
ALTERNATIVE 1	CONSIDERED INITIALLY, BUT DISMISSED—EXCEPT WHEN PAIRED WITH ALT 8 OR 9 AT KY15/KY28 INTERSECTION					
ALTERNATIVE 2	CONSIDERED INITIALLY, BUT DISMISSED FROM DETAILED EVALUATION BECAUSE DEFICIENCIES AT KY15/KY28 INTERSECTION NOT ALLEVIATED					
ALTERNATIVE 3	CONSIDERED INITIALLY, BUT DISMISSED FROM DETAILED EVALUATION BECAUSE DEFICIENCIES AT KY15/KY28 INTERSECTION NOT ALLEVIATED					

FROM		TO		Traffic Forecast and Year From Previous Work	Latest Actual Count and Year	Future Annual Traffic Growth Percentage Approved by KYTC
MP	DESCRIPTION	MP	DESCRIPTION			
4.047	KY 1278	5.989	1.75 mile south of KY 476	6200 (2015)	6057 (2011)	1.00%
0.529	KY 2446	4.047	KY 1278	7900-10,100 (2015)	5943 (2011)	1.00%
0.000	Perry County Line	0.529	KY 2446 in Breathitt County	7900-10,100 (2015)	5943 (2011)	1.00%
20.735	KY 28 in Perry County	25.179	Breathitt County Line	7900-10,100 (2015)	8013 (2011)	1.00%
20.335	0.4 mile south of KY 28	20.735	KY 28 in Perry County	7900-10,100 (2015)	11390 (2009)	0.75%



SECTION G

NORTHERN TERMINUS: 0.40 MILES SOUTH OF KY 28 (MP 20.335 PERRY CO.)
SOUTHERN TERMINUS: CAPITOL HILL DRIVE (MP 16.847)
LENGTH: 3.54 MILES

ITEM NUMBER: 269.01

LATEST PLANNING/DESIGN WORK: V & M PLANS FOR P L & G INPECTION SUBMITTED OCT 2002

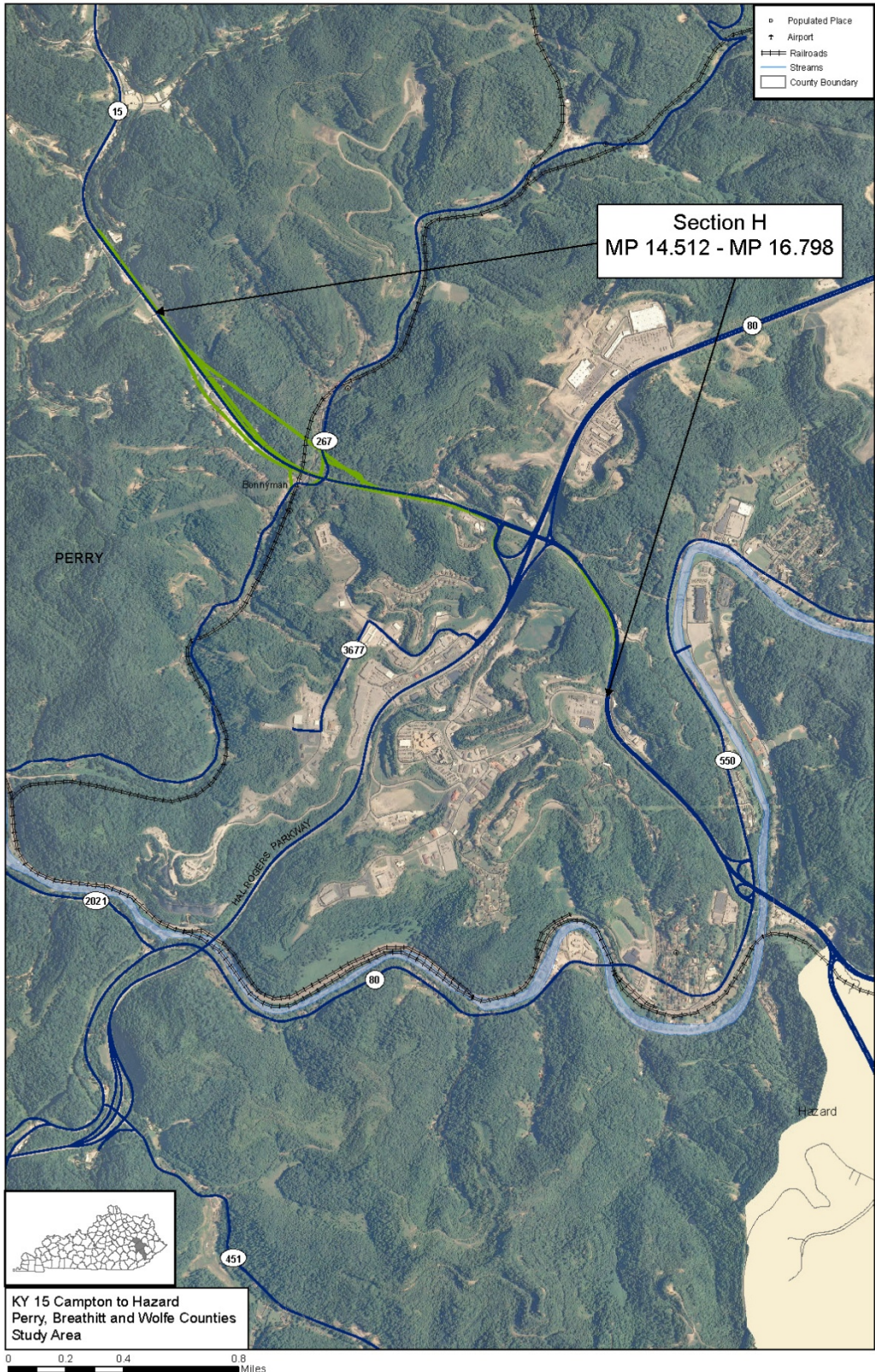
LATEST ENVIROMENTAL STATUS: EA FONSI JUNE, 2004

RECOMMENDATION IN EA: ALTERNATE 2

PROPOSED TYPICAL SECTION: 4 12' LANES, 10' PAVED SHOULDER, 40' DEPRESSED MEDIAN

ENVIRONMENTAL COMPARISON OF ALTERNATIVES (INCLUDES ITEM 10-269.02)	ESTIMATED COST (MILLIONS)	RESIDENTIAL IMPACTS	BUSINESS IMPACTS	CHURCH IMPACTS	CEMETERY IMPACTS	FEET OF STREAM RECHANNELIZATION REQUIRED	ACRES OF WETLANDS	HAZMAT SITES
RECOMMENDED ALTERNATIVE (ALTERNATIVE 2 IN EA)	\$56.9 (UPDATED TO \$58.4 IN 2008)	36	6	2	2	3,750	0.92	2
OTHER ALTERNATIVES CONSIDERED								
ALTERNATIVE 1	\$69.4	26	0	1	4	5,610	3.05	2
ON EXISTING ALIGNMENT	\$52.6	95	15	0	2	10,338	0.2	6

FROM		TO		Traffic Forecast and Year From Previous Work	Latest Actual Count and Year	Future Annual Traffic Growth Percentage Approved by KYTC
MP	DESCRIPTION	MP	DESCRIPTION			
16.798	Capitol Hill Drive	20.335	0.4 mile south of KY 28	11,510 (2025)	8013 (2011)	0.75%



SECTION H

NORTHERN TERMINUS: CAPITOL HILL DRIVE (MP 16.847)
SOUTHERN TERMINUS: MORTON BLVD (MP 14.512)
LENGTH: 2.34 MILES

ITEM NUMBER: 269.02 (PREVIOUS); 159.00 (NEW HIGHWAY PLAN)

LATEST PLANNING/DESIGN WORK: R/W PLANS SUBMITTED IN OCT, 2003

LATEST ENVIROMENTAL STATUS: EA FONSI JUNE, 2004

RECOMMENDATION IN EA: IMPROVE EXISTING ALIGNMENT

PROPOSED TYPICAL SECTION: 4 12' LANES, 6' PAVED SHOULDER, 14' FLUSH MEDIAN

ENVIRONMENTAL COMPARISON OF ALTERNATIVES (INCLUDES ITEM 10-269.01)	ESTIMATED COST (MILLIONS)	RESIDENTIAL IMPACTS	BUSINESS IMPACTS	CHURCH IMPACTS	CEMETERY IMPACTS	FEET OF STREAM RECHANNELIZATION REQUIRED	ACRES OF WETLANDS	HAZMAT SITES
RECOMMENDED ALTERNATIVE (ON EXISTING ALIGNMENT)	\$52.6	95	15	0	2	10,338	0.2	6
OTHER ALTERNATIVES CONSIDERED								
ALTERNATIVE 1	\$69.4	26	0	1	4	5,610	3.05	2
ALTERNATIVE 2	\$56.9	36	6	2	2	3,750	0.92	2

FROM		TO		Traffic Forecast and Year From Previous Work	Latest Actual Count and Year	Future Annual Traffic Growth Percentage Approved by KYTC
MP	DESCRIPTION	MP	DESCRIPTION			
14.512	Morton Blvd	16.798	Capitol Hill Drive	22300 (2020)	17830 (2008)	2.00% (KYTC forecast dated Mar 2002)

AGENDA

Project Team Meeting #2 KY 15 Programming Study Breathitt, Perry, and Wolfe Counties

Date: October 24, 2012
Time: 1:30 p.m.
Location: KYTC District 10, Jackson, KY

- I. Purpose of This Meeting:
 - a. Discuss 2012 Cost Estimates by Section
 - i. As originally proposed
 - ii. New corridor in Section D
 - iii. Along existing alignment in Sections D and G
 - iv. Alternative geometrics and pavement design
 - b. Discussion of KY 28 Intersection
 - c. Project Team Decides Which Concepts to Segment

- II. Next Steps
 - a. Segment Alternatives Recommended by Project Team
 - b. Cost Estimates Prepared for Each Segment
 - c. Priority Segments Recommended to Project Team





Architecture

Engineering

Construction

MEETING MINUTES

Project: Programming Study for KY 15 Breathitt, Perry, and Wolfe Counties
Mountain Parkway Interchange in Wolfe County to MP 16.8 in Perry County

Purpose: Project Team Meeting #2

Place: District 10 - Jackson

Meeting Date: October 24, 2012
1:30 p.m. EDT

Prepared By: Bruce Siria

In Attendance:

Jill Asher	KYTC, Division of Planning
Sreenu Gutti	KYTC, Division of Planning
Steve Ross	KYTC, Division of Planning
Jason Blackburn	KYTC, District 10 – Jackson
Darren Back	KYTC, District 10 – Jackson
Brent Weddington	KYTC, District 10 – Jackson
Aric Skaggs	KYTC, District 10 – Jackson
Min Jiang	KYTC, District 10 – Jackson
Eunice Holland	Kentucky River Area Development District
Annette Coffey	Qk4
Duffy Ford	Qk4
Bruce Siria	Qk4

Jason Blackburn noted that this was the second official project team meeting on the KY 15 Planning Study (the meeting on August 20 being an informal, interim discussion) and that the end purpose of the study was to prepare a summary notebook that would be useful both to District 10 personnel not familiar with previous work on KY 15 and to stress to external stakeholders the importance of the corridor.

Relevant central office and district personnel changes were announced. Sreenu Gutti will take over as central office coordinator for this study. Jill Asher is transferring to the Division of Highway Design effective

November 1. Mikael Pelfrey will assume Jill's duties as leader of the Corridor Planning Team in the Division of Planning. Aric Skaggs was introduced as the new Branch Manager for Project Development in District 10. Min Jiang and Brent Weddington of D-10 were also introduced.

Darren Back asked if WMB had shared an inspection report documenting why the "Westside of Jackson" corridor was preferred. Bruce Siria answered in the negative, indicating that Qk4 only had the EA FONSI for that segment. Jason indicated that the public and local officials had indicated concerns with a "Westside" alternative. (Note: The EA FONSI indicates that the preferred alignment within the "Westside of Jackson" corridor was recommended "after consideration of public input, environmental impacts, and transportation objectives". The preferred alignment was also 3 to 7 percent less costly than others considered.)

Bruce then narrated a brief PowerPoint presentation focusing on KY 15 corridor sections D, E, F, and G, including new corridors in Section D and an along existing Section G alternative. The cost estimates for the KY 15 junction at KY 28 included a diamond interchange; further cost savings would be possible with a modification there. Regardless, the existing KY 15 intersection with KY 28 should be relocated. The project team recommended that the interchange option continue to be included.

Jason commented that Section D was the most troublesome for the district office. "Westside" corridor has no tie-down points for construction segmentation, and connectors back to existing KY 15 necessitate crossing (or even relocating) the river. "Eastside" corridor is more attractive from that perspective.

The project team suggested unit costs of \$75,000 per house and \$500 per acre (in the 'cross-country' options). Right-of-Way and utility relocation costs will be developed by District 10. District staff asked Qk4 to provide Right-of-Way acreage, number of business/residential relocations, and disturb limits.

The current Qk4 cost estimates include the KY 15/KY 28 interchange in Section F. It will be moved to the estimate for Section G to mesh with the previous design work on Section G. (Note: The KY 15/KY 28 junction was included in the prior work for Section F, but later work for Section G also included that location.)

Possible construction segmentation for study sections was discussed:

No segmentation of sections E or G was needed.

For section F, the following general segments were suggested:

1. From MP 21.504 to the northern airport entrance road (MP 23.813) {2.3 miles}
2. From MP 23.813 to beginning of tangent section at MP 2.6 {4.0 miles}
3. From MP 2.6 to the northern end of Section F (MP 5.989) {3.4 miles}

For section D, there is no need to try to segment the “Westside” option. For the “Eastside” option, and for the option along the existing alignment, various combinations of the two were suggested.

The project team reiterated that Qk4 was not to further examine a 30-foot median option, although the work Qk4 has done to date may be included in the final report. Barrier wall options are to be included in the segment cost estimates to ascertain the level of right-of-way savings that option may provide. The project team indicated that pavement design options did not need to be considered in the segment cost estimates.

At the next meeting, Qk4 will present cost estimates by project development phase for the segments described above. Qk4 will also present a cost estimate by phase for section A (Vancleve to Campton). Finally, Qk4 will recommend a priority order for KY 15 improvement segments and its rationale for those recommendations.

The meeting concluded at approximately 3:00 p.m.

-----End of Minutes-----

AGENDA

Project Team Meeting #3 KY 15 Programming Study Breathitt, Perry, and Wolfe Counties

Date: January 16, 2013
Time: 10:30 a.m.
Location: KYTC District 10, Jackson, KY

- I. Purpose of This Meeting:
 - a. Discussion of Priority Segments
- II. Next Steps
 - a. Letter Agreement Extension
 - b. Submission of Draft Report
 - c. Schedule





Architecture

Engineering

Construction

MEETING MINUTES

Project: Programming Study for KY 15 Breathitt, Perry, and Wolfe Counties
Mountain Parkway Interchange in Wolfe County to MP 16.8 in Perry County

Purpose: Project Team Meeting #3

Place: District 10 - Jackson

Meeting Date: January 16, 2013
10:30 a.m. EDT

Prepared By: Annette Coffey

In Attendance:	Sreenu Gutti	KYTC, Division of Planning
	Steve Ross	KYTC, Division of Planning
	Jason Blackburn	KYTC, District 10 – Jackson
	Darren Back	KYTC, District 10 – Jackson
	Brent Weddington	KYTC, District 10 – Jackson
	Aric Skaggs	KYTC, District 10 – Jackson
	Min Jiang	KYTC, District 10 – Jackson
	Michael D. Miller	Kentucky River Area Development District
	Eunice Holland	Kentucky River Area Development District
	Annette Coffey	Qk4
	Duffy Ford	Qk4
	Bruce Siria (teleconference)	Qk4

Jason Blackburn noted that this was the third official project team meeting on the KY 15 Planning Study. At this meeting Qk4 was to present their recommendations for priorities for the project based on input from the previous meetings, existing and future conditions. At that point, he turned the meeting over to Annette Coffey of Qk4.

Annette provided an agenda, a summary of the process for establishing the recommended priorities for KY 15 improvements, a spreadsheet containing KY 15 segments and a priority for each,

recommended by Qk4 and a summary map. Each is attached for reference. The main considerations in establishing the priorities were current LOS, crash history, and existing and projected traffic. She then led the group through each priority section 1 -12.

The following were items to be clarified, or noted:

- Show in the Recommended Priorities spreadsheet for Priority 1 the breakout of rural and urban.
- Insert in the column “Estimated Future Daily Traffic” the Design Year 2035
- For Priority 9 Section A Segment 3, we may want to consider stopping the curb and gutter at the new elementary school (KY 3355). Include this comment in the final report and an estimated difference in cost per mile between a 5-lane rural and a 5-lane curb and gutter section.
- Clarify the difference in costs between Priority 8 and Priority 10 both on the spreadsheet and in the final report. Even though Section 10 is shorter it is \$34 Million, higher in construction costs. Much of the difference is due to a \$15.1 million structure. This will be clarified in the final report.
- Add a column stating at what point in the past this section was taken to e.g. through Phase I design and an approved final environmental document.
- Include the sections B and C so as not to leave any sections out.
- A clarification was asked on the footnote on the spreadsheet which states “Priority 10 is currently LOS E. If Priority 1 were to be constructed before Priority 8 the LOS would be B.” Several were concerned this would hamper chance of the final segment of the bypass ever being constructed.
- Qk4 was asked to send the draft Purpose and Need for the project out to everyone at the meeting for review and comment.
- Mr. Miller stated that the 80 miles from Campton to Whitesburg is the most important road in the area and it carries a considerable amount of the commercial traffic.
- It was requested that Qk4 either develop another spreadsheet or add to the existing spreadsheet what other alignments were studied and add comments as to why they were not selected e.g. D West.
- In the final report, Qk4 should include the fact that much of Segment G was years ago recommended on new alignment. Even though it may be cheaper to go along the existing, KYTC will have to make a decision whether it is prudent to stay with the previous cross country alignment or back up and go along the existing KY 15.

Jason stated that the District will take the recommended priorities under advisement and they look forward to a final report. A time extension may be necessary to complete the final report. Qk4 was asked by Steve Ross, to submit a letter to Mikael Pelfrey of Central Office Planning outlining the reasons for the extension. Qk4 will submit minutes of the meeting to everyone at the meeting for comment, and will submit a draft report within 60 days.

To ensure that KY 15 operates as intended in the goals of the project, access control will be very important when implementing segments of KY 15. Each alternative studied and updated for costs with this study effort, was estimated as partial control of access with minimum spacing in rural areas of 1200' and urban (through Jackson) 600 feet. Frontage roads were included in the estimates where appropriate and when needed.

The meeting concluded at approximately 12:00 p.m.

-----End of Minutes-----

Priorities for improvements to KY 15 in Perry, Breathitt, and Wolfe counties are listed below in 12 stages. Options for combining several of the improvements are listed based on what may be acceptable construction phase costs. KYTC's desire is to complete this project at the earliest practicable date, and this would be facilitated by having the fewest stages possible. However, construction cost levels must be reasonable for future listings as a single project in the KYTC Highway Plan. Criteria for recommending the following 12 priorities include traffic volume served, crash frequency, current level of service (LOS), and continuity of construction segments.

Priorities #1 and #2

The first recommended priority is Segment 3 of Section D along the existing KY 15 alignment. From just south of the shopping center that includes Walmart on the southern city limits of Jackson to just north of the intersection of KY 15 with Miller Hollow Road, a distance of 0.72 miles, the improvement would be a 5-lane rural cross-section. From Miller Hollow Road to the existing construction near Panbowl Road, a distance of 1.53 miles, the improvement would be a 5-lane curb-and-gutter cross-section.

Estimated future year traffic volumes are 21,000 vehicles daily, the highest traffic volumes north of Hazard. The current LOS is E. The critical crash rate factor (CCRF) for this segment ranges from 1.15 to 1.67. The advantages of improving this segment immediately include addressing the most significant current LOS and CCRF issues. However, these improvements would be aimed at what is, in essence, a local street rather than system improvements to KY 15 between the Hal Rogers and Mountain parkways. The principal disadvantage of this recommendation is the possibility that these improvements would be seen as the only ones ever needed along this segment of KY 15. Nonetheless, this recommendation is made to address the traffic and safety issues cited above as well as for the following additional considerations:

- Cost: This improvement is estimated to cost \$24 million. An eastern bypass of Jackson with similar termini is estimated to cost \$82.9 million. The western bypass of Jackson originally proposed is estimated to cost \$133.8 million. (A modified version of the western bypass developed by Qk4 to allow some minor segmenting is estimated to be only slightly less at \$133.1 million.)
- If this segment of the KY 15 system improvements on a Jackson bypass were constructed prior to major improvements between Hazard and Jackson, the newly generated traffic volumes would be small, and the trips using this bypass would simply be current through trips immediately north and south of Jackson. The western bypass, being a shorter distance and hence having a shorter travel time, would likely attract 6,150 vehicles per day. An eastern bypass, being slightly longer and having a slightly greater travel time, would likely attract only 5,100 vehicles per day. This would leave between 14,900 and 15,900 vehicles daily on existing KY 15, resulting in continued congestion and, likely, crash problems.

If Priority #1 were to be constructed, the estimated cost for the construction phase would be only \$16.1 million. Improvements in Priority #1 could be lengthened to a logical construction terminus to

include a more aggressive construction phase. Sections north of Priority #1 are currently under construction or have been constructed. Thus, the second priority would be immediately south of Priority #1. The logical construction segment for Priority #2 would be from the shopping center that includes Walmart on the southern city limits of Jackson to approximately one-half mile south of the intersection with KY 30 East, a distance of 1.47 miles. Estimated future year traffic volumes for Priority #2 are 14,400 vehicles daily, the second highest traffic volumes north of Hazard. The LOS is E and the CCRF for this segment is 1.2. The estimated construction cost phase of Priorities #1 and #2 combined is \$33.7 million. Figure 1 depicts this combined recommendation.

It is noted that a higher estimated construction cost phase (i.e., an even longer recommended section) would likely be acceptable. However, the discussion below will point out that extending this recommendation to the next logical construction break would result in a total construction phase cost of \$77 million, which is considered too high to be a practical recommendation.

The next sequence of recommended priorities is between Hazard and Jackson, starting at the southern terminus and progressing south-to-north until tying in to Priority #2.

Priorities #3 and #4

The third recommended priority is Section G, generally along the existing KY 15 alignment (except for a new KY 28 interchange) from MP 16.8 near Capitol Hill Drive through the new interchange at KY 28, a distance of 4.49 miles. (Note: neither this recommendation nor others for improvements along the existing alignment preclude spot locations identified in final design where short distances of new alignment are used.) This improvement would be a 4-lane cross section with a 40-foot-wide median. Estimated future year traffic volumes are 13,800 vehicles daily, the third highest traffic volumes north of Hazard. The LOS is E and the CCRF for this segment ranges from 0.61 to 0.82. The estimated cost of these improvements to Section G along the existing alignment is \$50.8 million, including \$40.1 million for the construction phase. The estimated cost for the new alignment west of existing KY 15 (originally recommended in the previous work) is \$61.5 million, including a construction phase of \$53.8 million. Significant overall cost savings could be realized despite higher estimated costs for right-of-way purchase and utility relocation. Priorities #1 through #3 are depicted in Figure 2.



Figure 1: Priorities #1 and #2

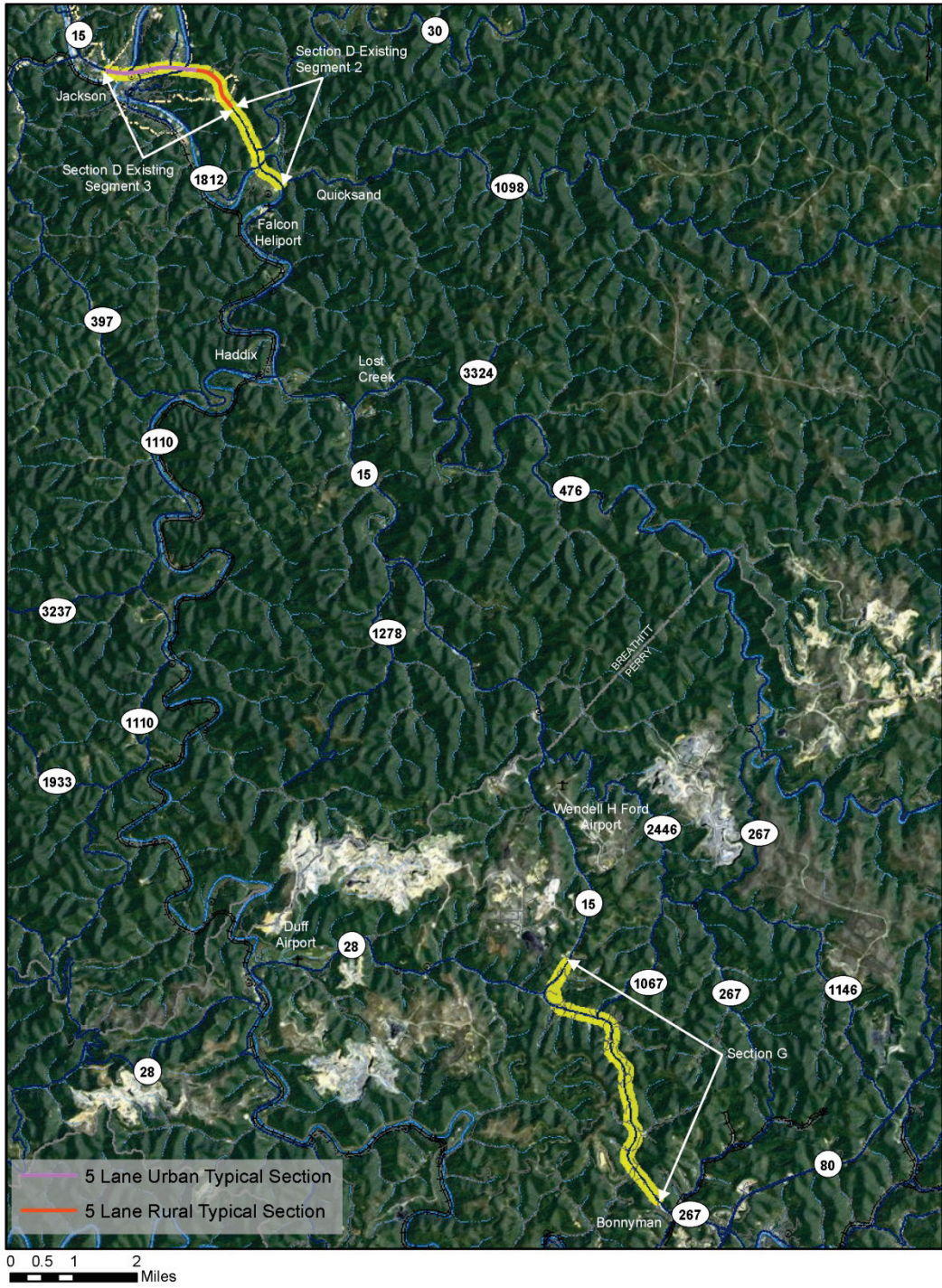


Figure 2: Priorities #1 through #3

If Priority #3 were to be constructed, the estimated cost for the construction phase would be \$40.1 million. Improvements in Priority #3 could possibly be lengthened to a logical construction terminus to include a more aggressive construction phase. Thus, the recommended Priority #4 is Segment 1 of Section F. This segment extends from just north of the new interchange with KY 28 to just north of Wendell Ford Airport entrance road, a distance of 2.83 miles. This improvement would be a 4-lane cross section with a 40-foot-wide median generally along the existing alignment. Estimated future year traffic volumes on Segment 1 of Section F are 10,200 vehicles daily, the fourth highest traffic volumes north of Hazard. The LOS is E and the CCRF for this segment is 0.35. The estimated cost of implementing Priority #4 is \$20 million, including \$16 million for the construction phase. The estimated construction cost phase of Priorities #3 and #4 combined is \$56.1 million. If KYTC considers this to be too aggressive for a single construction project, Priorities #3 and #4 could be pursued separately. Priorities #1 through #4 are shown in Figure 3.

Priorities 5 and 6

The fifth recommended priority is Segment 2 of Section F, generally along the existing KY 15 alignment from just north of Wendell Ford Airport Road in Perry County to vicinity of Noble Road south of Watts in Breathitt County, a distance of 3.94 miles. This improvement would be a 4-lane cross section with a 40-foot-wide median. Estimated future year traffic volumes are 7,600 vehicles daily. The LOS transitions from E at the south end to D at the north end. The CCRF for this segment is 0.35. The estimated cost of these improvements to Segment 2 of Section F along the existing alignment is \$36.0 million, including \$29.5 million for the construction phase. This segment is recommended as a continuation of previously recommended improvements to the south. This recommendation is shown in Figure 4.

Since the construction phase of Priority #5 is \$29.5 million, improvements in Priority #5 could possibly be lengthened to a logical construction terminus to include a more aggressive construction phase. Thus, the recommended Priority #6 is Segment 3 of Section F generally along the existing alignment from vicinity of Noble Road south of Watts to approx 2.23 miles south of KY 476 East, a distance of 2.36 miles. This improvement would be a 4-lane cross section with a 40-foot-wide median. This segment is recommended as a continuation of previously recommended improvements to the south. Estimated future year traffic volumes are 7,600 vehicles daily, while the current LOS is D. The CCRF for this segment is 0.35. The estimated cost of these improvements to Segment 3 of Section F along the existing alignment is \$29.0 million, including \$24.2 million for the construction phase. The estimated construction cost phase of Priorities #5 and #6 combined is \$53.6 million. If KYTC considers this to be too aggressive for a single construction project, Priorities #5 and #6 could be pursued separately. Priorities #1 through #6 are shown in Figure 5.

Priority #7

The seventh recommended priority is Section E, generally along the existing alignment from approximately 2.23 miles south of KY 476 East to approx 300 feet north of KY 476 East, a distance of 2.29 miles. This improvement would be a 4-lane cross section with a 40-foot-wide median. This segment

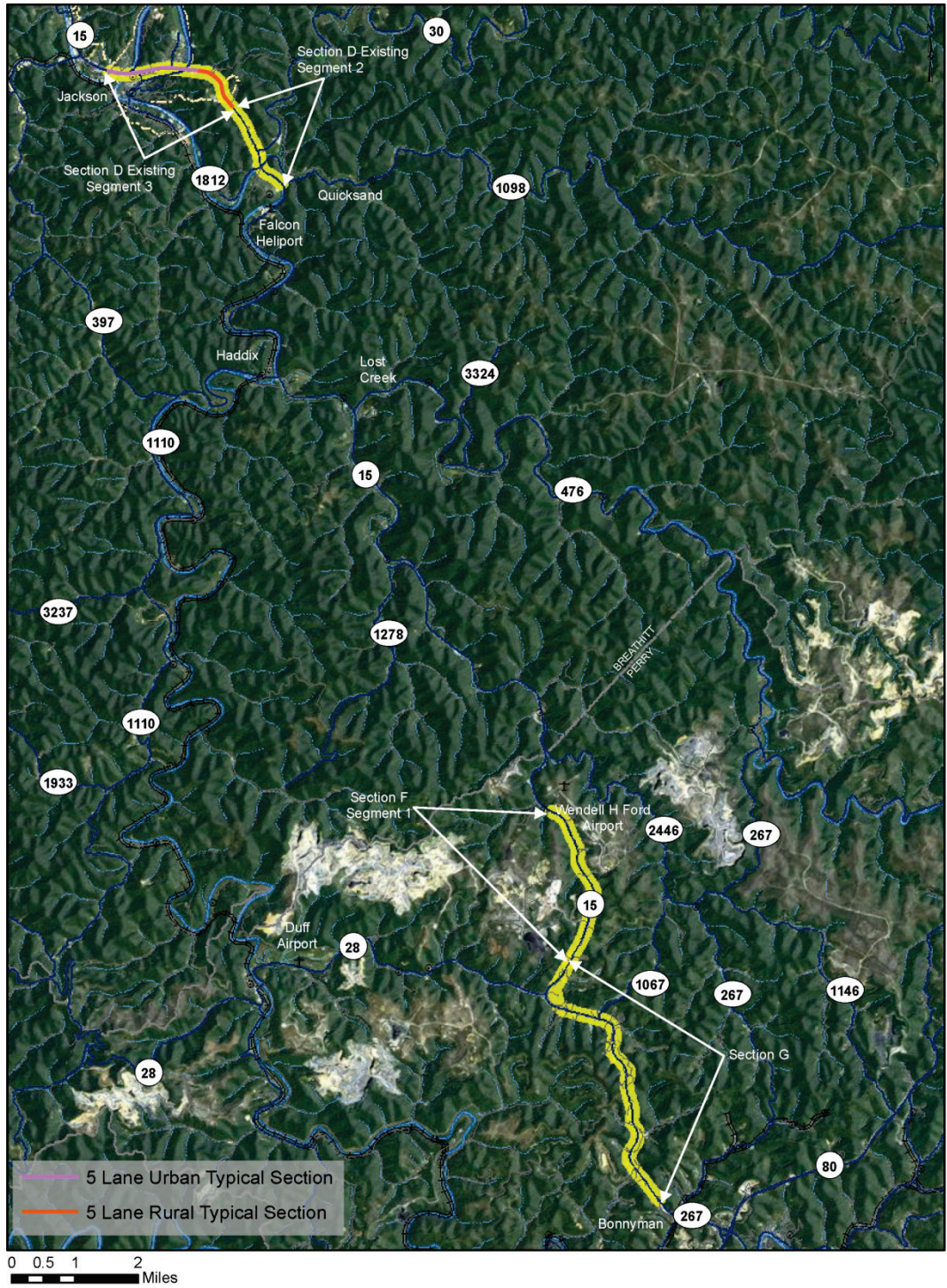


Figure 3: Priorities #1 through #4

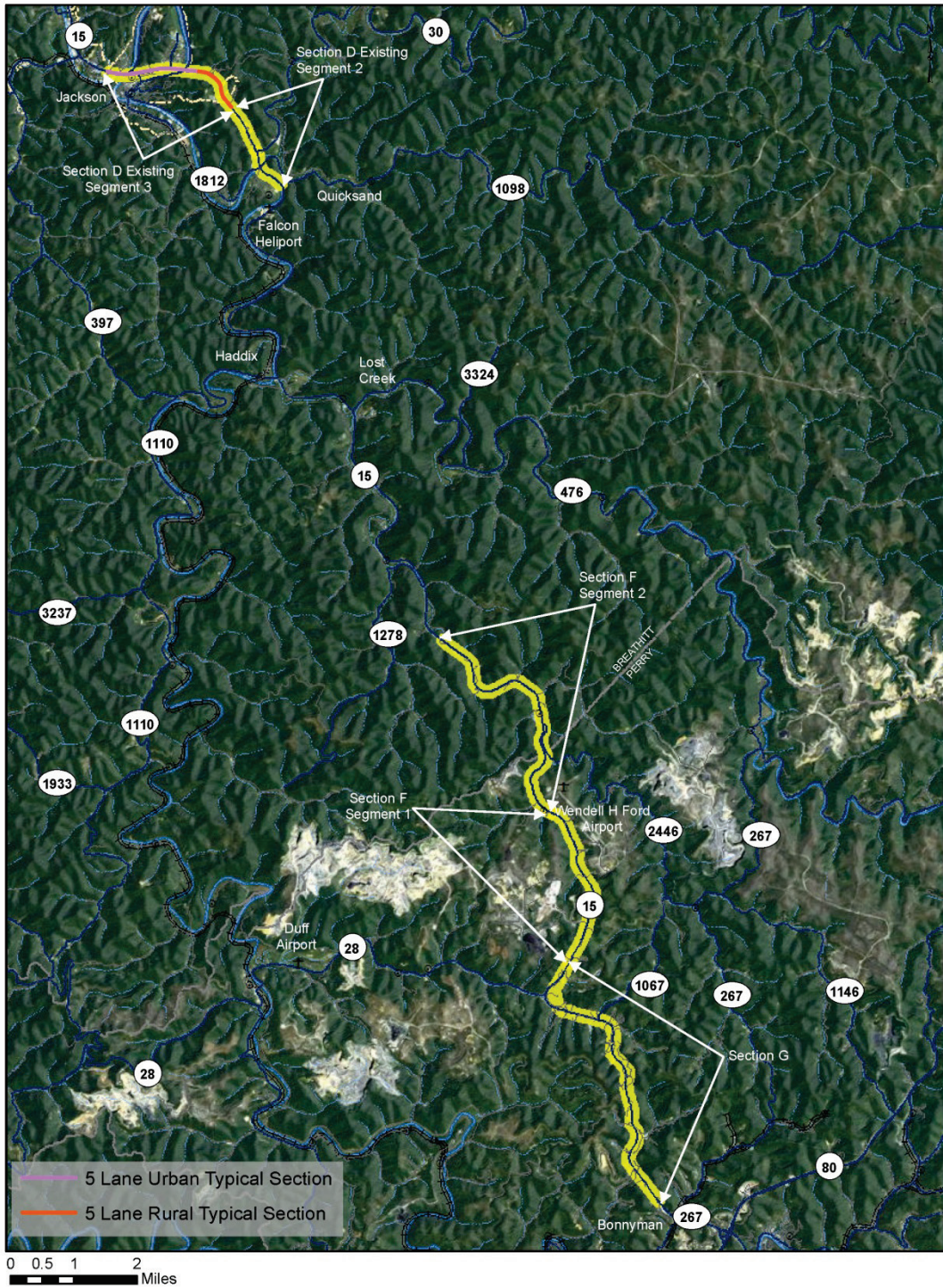


Figure 4: Priorities #1 through #5

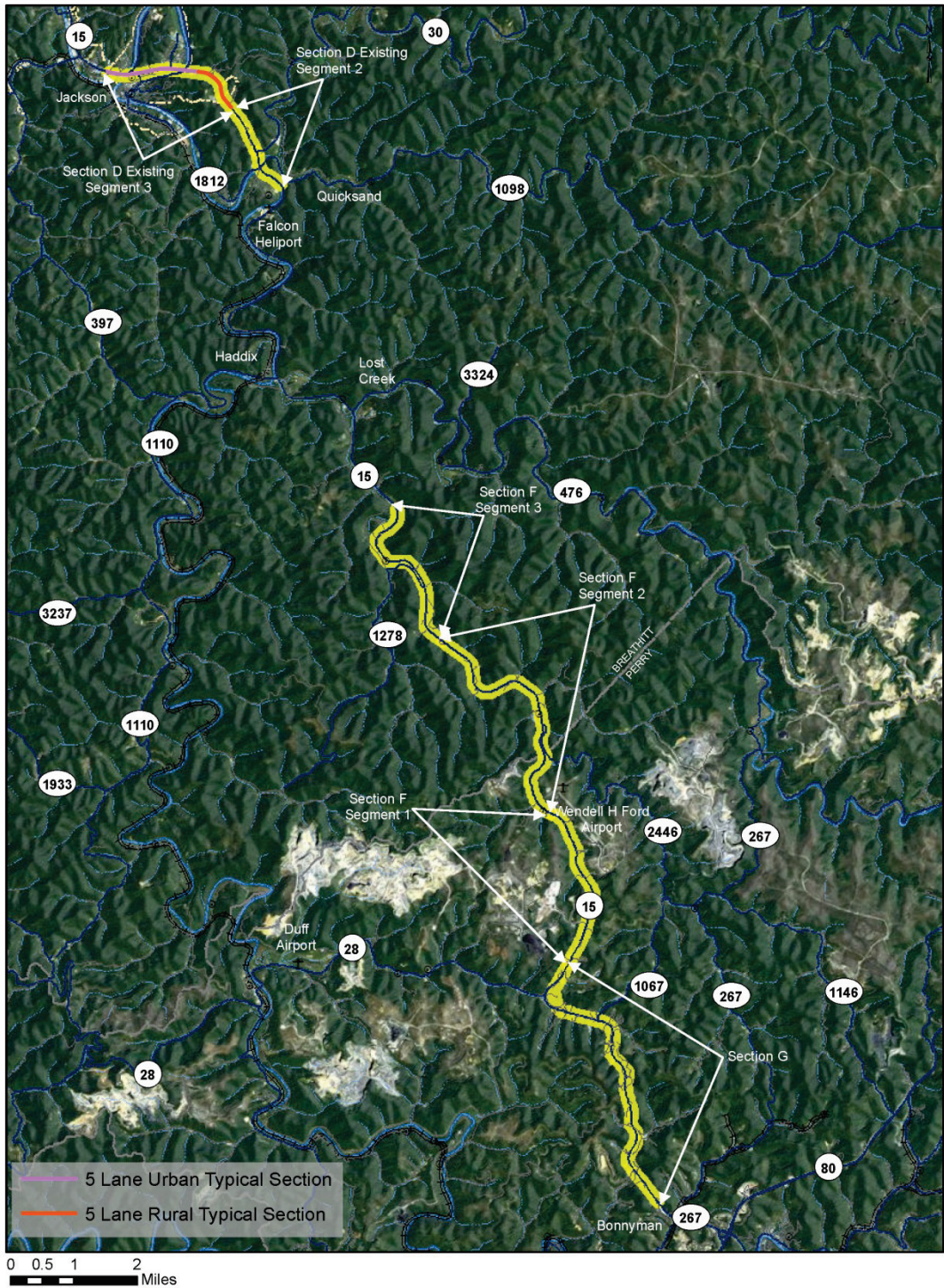


Figure 5: Priorities #1 through #6

is recommended for the next priority as a continuation of previously recommended improvements to the south. Estimated future year traffic volumes are 7,600 vehicles daily, and the current LOS is D. The CCRF for this segment is 0.24. The estimated cost of these improvements to Section E along the existing alignment is \$32.6 million, including \$27.8 million for the construction phase. Priorities #1 through #7 are shown in Figure 6.

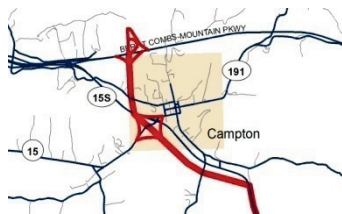
Priority #8

The eighth recommended priority is Segment 1 of Section D, on new alignment east of the existing KY 15 from approximately 300 feet north of KY 476 East to approximately one-half mile south of the intersection with KY 30 East, a distance of 3.90 miles. This improvement would be a 4-lane cross section with a 40-foot-wide median. The estimated cost of these improvements to Segment 1 of Section D on new alignment is \$47.4 million, including \$43.3 million for the construction phase. Though only modestly less costly than Segment 1 of Section D along the existing alignment (\$50.8 million estimated cost, including \$42.3 million for construction), the new alignment option reduces the travel distance for this segment by 1.29 miles. This segment is recommended as a continuation of previously recommended improvements to the south. Estimated future year traffic volumes are 8,500 vehicles daily, and the current LOS is E. The CCRF for this segment is 0.37. Priorities #1 through #8 are shown in Figure 7.

Priority #9

The ninth recommended priority is Segment 3 of Section A in Campton, along the existing alignment of from just south of current 3-lane section near MP 8.2 to the Mountain Parkway, a distance of 2.59 miles. This improvement would be a 5-lane curb-and-gutter cross-section. The estimated cost of this improvement is \$23.3 million, including \$19.4 million for the construction phase. The 1994 KY 15 Corridor Planning Study by WMB Engineers had considered a new alignment just south and west of existing KY 15 from near MP 8.2 south of Campton, a new interchange with existing KY 15 near MP 9.8, and a new interchange with the Mountain Parkway just east of the (then) partial interchange at MP 43. Public involvement during that study indicated this option was not popular, and improvements since constructed to the Mountain Parkway (and currently under construction) have reduced its practicality.

The WMB Study estimated the cost of the alternative for Segment 3 of Section A on new alignment would be 22% (\$5 million in 2012 dollars) more costly than improvements along the existing route. This segment is recommended because congestion through Campton would be the greatest cause of delay in the KY 15 Corridor following construction of the first eight priorities. Estimated future year traffic volumes range from 6,900 to 8,800 vehicles daily. The current LOS diminishes from C on the south end to D near the KY 15/KY 15S/KY 191 intersection. The CCRF for this segment ranges from 0.30 to 1.04. Priorities #1 through #9 are shown in Figure 8.



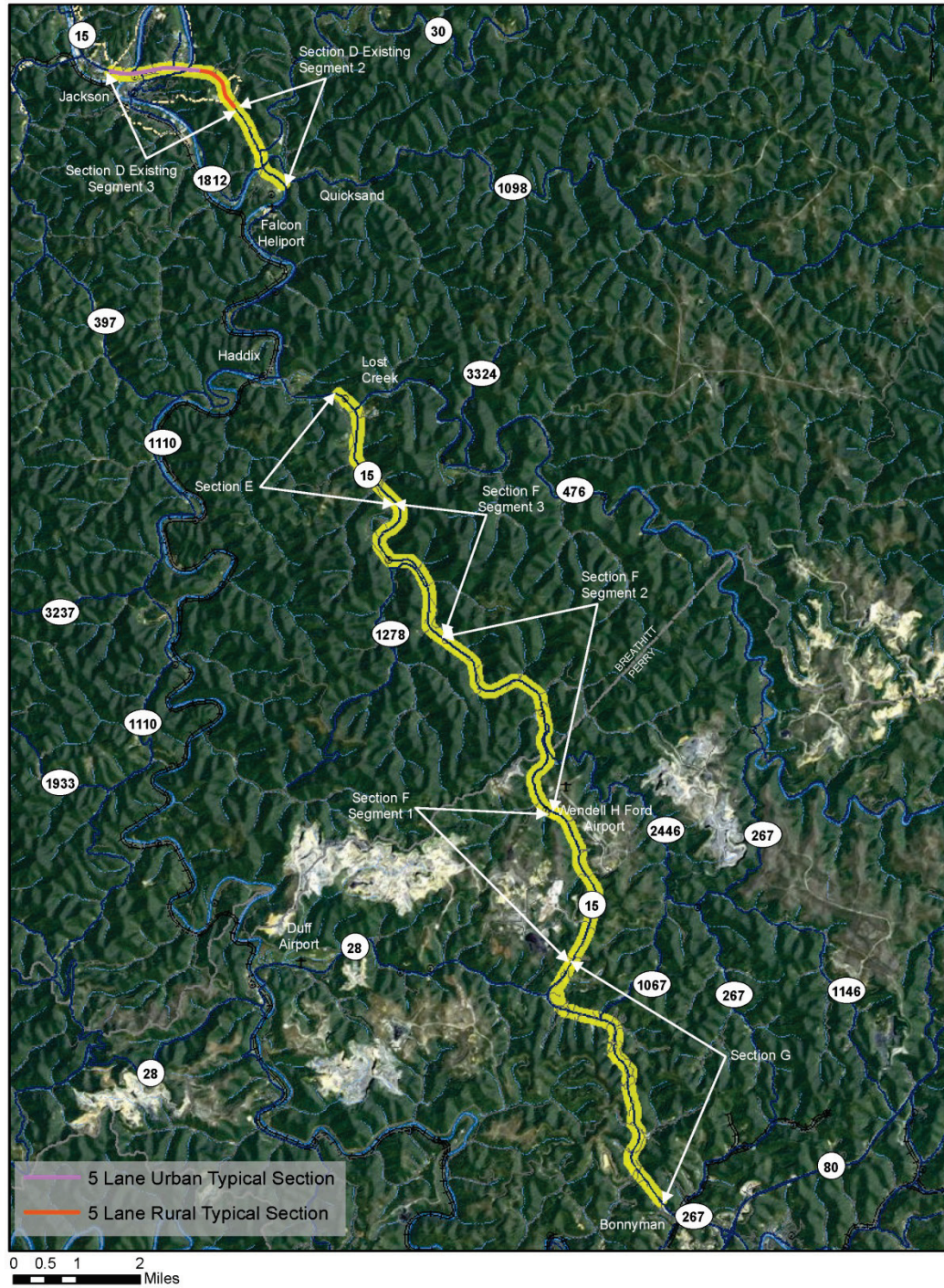


Figure 6: Priorities #1 through #7

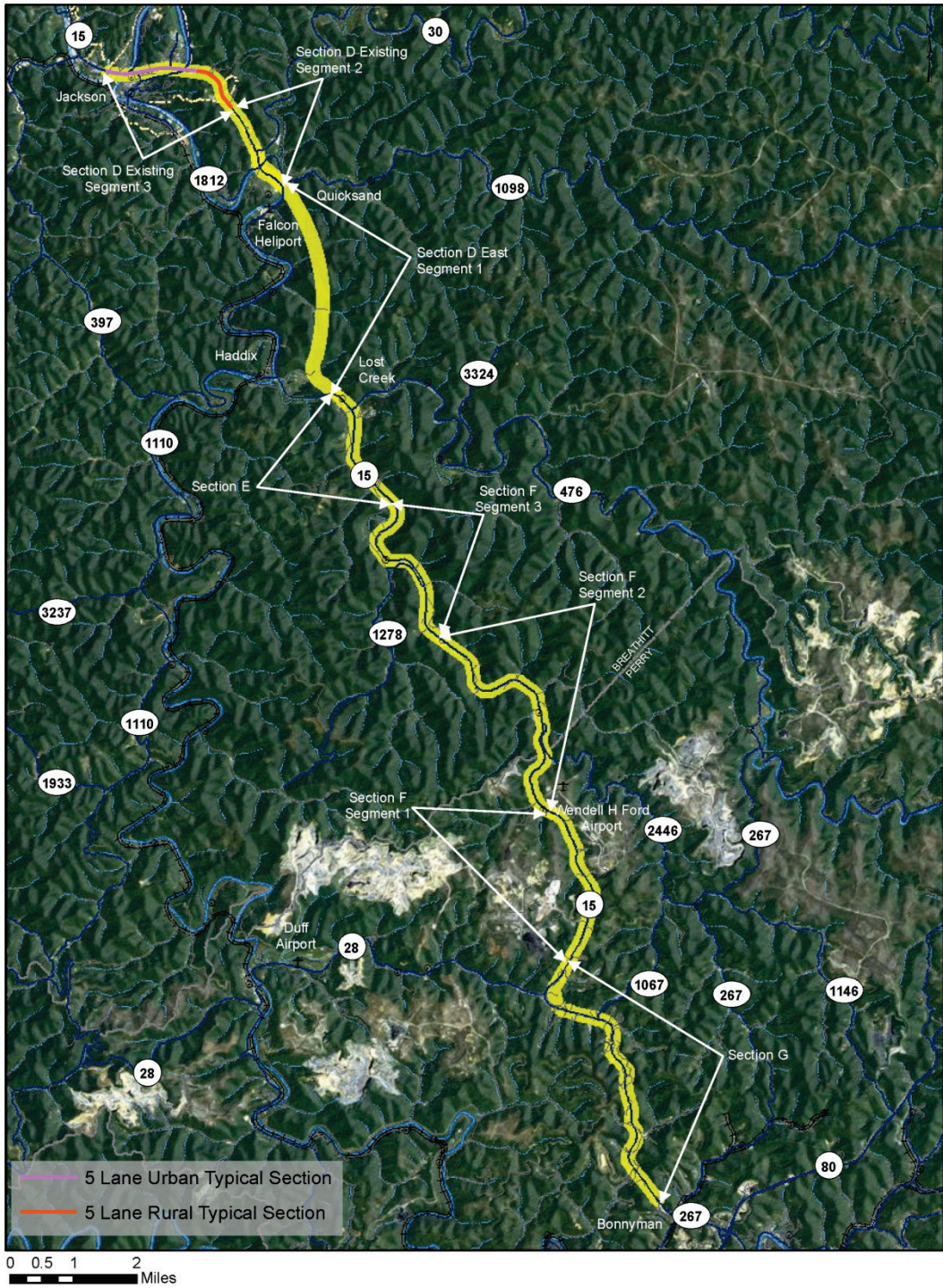


Figure 7: Priorities #1 through #8



Figure 8: Priorities #1 through #9

Priority #10

The tenth recommended priority is Segment 3 of Section D, on new alignment east of existing KY 15 from just south of the Walmart Shopping Center to near the north end of the existing construction, a distance of 3.45 miles. This improvement would be a 4-lane cross section with a 40-foot-wide median. In the discussion above, recommended Priority #1 would improve existing KY 15 in this same vicinity to address (1) immediate congestion concerns and (2) the projection that construction of a Jackson bypass prior to major improvements between Hazard and Jackson would result in relatively low traffic volumes. Previous recommended priorities have included improvements to all sections between Hazard and the south side of Jackson. Thus, construction of a Jackson bypass would be appropriate at this stage. The estimated cost of these improvements to Segment 3 of Section D on a new alignment east of Jackson is \$82.9 million, including \$77 million for the construction phase. This is considerably less costly than improvements on a new alignment west of Jackson (\$133.8 million, including \$123.4 million for the construction phase), and is more compatible with Priorities #2 and #8 above. Priorities 1 through 10 are shown in Figure 9.

Priority #11

The eleventh recommended priority is Segment 2 of Section A, along the existing alignment from MP 2.9 north of Bethany in Wolfe County to the 5-lane curb-and-gutter segment in Priority #9, a distance of 5.25 miles. This improvement would be a 4-lane cross section with a 40-foot-wide median. Of the two remaining unprioritized segments, this one has a slightly higher projected daily traffic volume (5,400) than the one to the south discussed below (4,800). The estimated cost of these improvements to Segment 2 of Section A is \$44.7 million, including \$37.4 million for the construction phase. Priorities #1 through #11 are shown in Figure 10.

Priority #12

The twelfth and final recommended priority is Segment 1 of Section A, along the existing alignment from the north terminus of the existing 4-lane section at MP 24.4 near Vancleve in Breathitt County to MP 2.9 north of Bethany in Wolfe County, a distance of 4.93 miles. This improvement would be a 4-lane cross section with a 40-foot-wide median. The estimated cost of these improvements to Segment 2 of Section A is \$45.6 million, including \$38.6 million for the construction phase. Priorities #1 through #12 are shown in Figure 11.

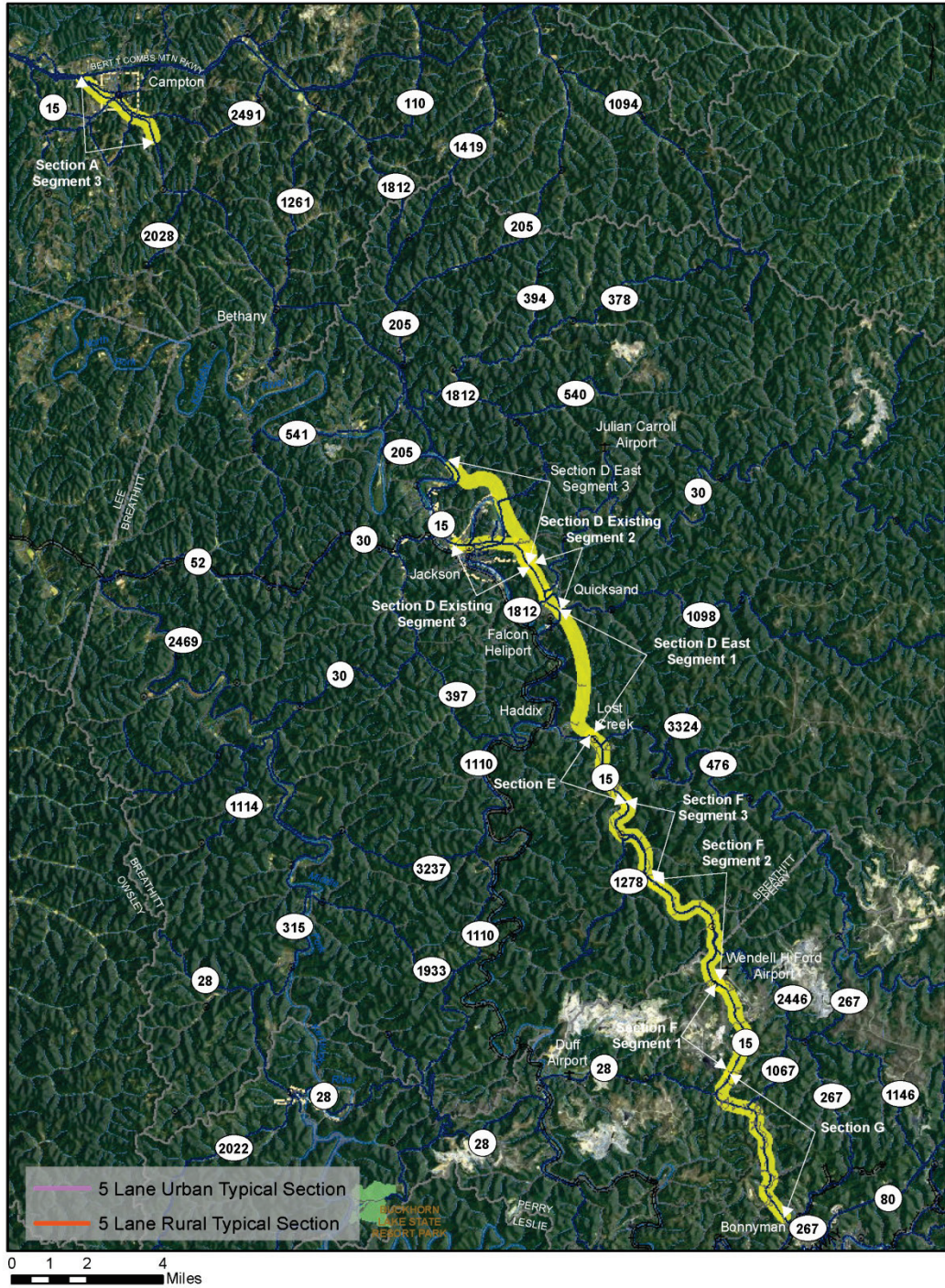


Figure 9: Priorities #1 through #10



Figure 10: Priorities #1 through #11



Figure 11: Priorities #1 through #12

RECOMMENDED PRIORITIES

Priority	County (ies)	Section	Segment	Description	Beginning MP	Ending MP	Length (Miles)	Cost Estimate (Millions)					Estimated Future Daily Traffic	Current CCRF	Current LOS
								Design	R/W	Util	Construction	Alternate Construction			
1	Breathitt	D Existing	3	From just south of Wal-mart Shopping Center to Existing Construction near Panbowl Road north of Jackson	15.6	17.9	2.3	\$1.6	\$5.3	\$1.0	\$16.1	\$33.7	21,000	1.15-1.67	E
2	Breathitt	D Existing	2	From a half-mile south of the intersection with KY 30 East to just south of Wal-mart shopping center	14.1	15.6	1.5	\$1.8	\$0.3	\$0.8	\$17.6		14,400	1.2	E
3	Perry	G Existing	All	Along existing alignment (except for a new KY 28 interchange) fromnear Capitol Hill Drive through new interchange at KY 28	16.9	21.5	4.5	\$3.2	\$6.3	\$1.2	\$40.1	\$56.1	13,800	0.61-0.82	E
4	Perry	F	1	Along existing alignment from new interchange at KY 28 to just north of Wendell Ford Airport entrance road	21.5	24.3	2.8	\$1.6	\$1.5	\$1.0	\$16.0		10,200	0.35	E
5	Breathitt/Perry	F	2	Along existing alignment from just north of Wendell Ford Airport Road entrance in Perry County to vicinity of Noble Road south of Watts in Breathitt County	24.3	3.0	3.9	\$2.5	\$2.7	\$1.3	\$29.5	\$53.7	7,600	0.35	D-E
6	Breathitt	F	3	Along existing alignment from vicinity of Noble Road south of Watts to approx 2.23 miles south of KY 476 East	3.0	5.4	2.4	\$2.3	\$1.6	\$0.9	\$24.2		7,600	0.35	D
7	Breathitt	E	All	Along existing alignment from approx 2.23 miles south of KY 476 East to approx 300 feet north of KY 476 East	5.4	7.7	2.3	\$2.5	\$1.5	\$0.8	\$27.8	\$27.8	7,600	0.24	D
8	Breathitt	D East	1	New alignment (east of existing) from approx 300 feet north of KY 476 East to a half-mile south of the intersection with KY 30 East	7.7	14.1**	3.9	\$3.5	\$0.6	\$0.1	\$43.3	\$43.3	8,500	0.37	E
9	Wolfe	A	3	5-lane Curb & Gutter segment in Campton from just south of current 3-lane section near MP 8.2 on KY 15 to KY 15S at the Mountain Parkway	8.2	1.1	2.6	\$1.8	\$1.6	\$1.0	\$17.9	\$17.9	6,900-8,800	0.30-1.04	C-D
10	Breathitt	D East	3	From just south of Wal-mart Shopping Center on new alignment east of existing KY 15 to near north end of existing construction	15.6**	17.9**	3.5	\$4.6	\$0.9	\$0.3	\$77.0	\$77.0	5,100	0.36	E*
11	Wolfe	A	2	Along existing alignment from approx MP 2.9 north of Bethany to 5-lane curb and gutter segment in priority 9 above	2.9	8.2	5.3	\$3.0	\$2.6	\$1.7	\$37.4	\$37.4	5,400	0.39	C
12	Breathitt/Wolfe	A	1	Along existing alignment from north end of existing 4-lane (MP 24.38 in Breathitt County) to approx MP 2.9 in Wolfe County north of Bethany	24.4	2.9	4.9	\$3.1	\$2.3	\$1.6	\$38.6	\$38.6	4,800	0.31-0.42	C

* Currently LOS E. If Priority 1 were to be constructed before Priority 8, the LOS would be B
 ** Milepoints of existing alignment. New alignment will result in milepoint modifications. Thus, length does not equal difference in milepoints.

APPENDIX C

SECTION A

SEGMENT 1

ESTIMATES

CONSTRUCTION

APPENDIX C

SECTION A

SEGMENT 1

ESTIMATES

RIGHT-OF-WAY

APPENDIX C

SECTION A

SEGMENT 2

ESTIMATES

CONSTRUCTION

DEPARTMENT OF TRANSPORTATION

Bureau of Highways

ESTIMATE SHEET

County of: Wolfe
 UPN: _____
 Fed No.: _____
 Item No.: _____
 Road Name: KY 15 - Section A Segment 2 (40' Median)

From STA: 2260+50.00
 To STA: 2537+50.00
 Net Length, mile: 5.25
 Type of Construction: Grade, Drain & Surfacing
 Class of Road: Rural/Urban Arterial

Item #	Item	Quantity	Unit	Unit Price	Amount
	4L-40' Median Const. (2260+50 to 2537+50)	27,700	FEET	\$ 1,100.00	\$ 30,470,000
	2281+30 ~ DBL 12' x 10' RCBC		LP SUM		\$ 530,000
	2289+65 ~ DBL 10' x 8' RCBC		LP SUM		\$ 350,000
	2342+80 ~ 12' x 8' RCBC		LP SUM		\$ 210,000
	2412+00 ~ 10' x 6' RCBC		LP SUM		\$ 130,000
	2432+20 ~ 10' x 8' RCBC		LP SUM		\$ 175,000
	2431+50 ~ 12' x 10' RCBC		LP SUM		\$ 265,000
	2434+85 ~ 5' x 4' RCBC		LP SUM		\$ 45,000
	2471+60 ~ 12' x 10' RCBC		LP SUM		\$ 265,000
	2481+55 ~ 10' x 6' RCBC		LP SUM		\$ 130,000
	MOBILIZATION		@ 3%		\$ 977,100
	DEMOBILIZATION		@ 1.5%		\$ 488,550
Construction-SubTotal					\$ 34,035,650
+10 Engr & Contg					3,403,565
Construction-Total					\$ 37,439,215
Construction Cost/Mile					\$ 7,136,428

Estimated by: D. Ford
 Checked by: _____

Last Edited: 12/1/2012
 Last Edited: _____

Right-of-way	\$2,553,261
Utilities	\$1,705,000
Construction	<u>\$37,439,215</u>
Total Cost	\$41,697,476
Cost/Mile	\$7,948,111

APPENDIX C

SECTION A

SEGMENT 2

ESTIMATES

RIGHT-OF-WAY

APPENDIX C

SECTION A

SEGMENT 3

ESTIMATES

CONSTRUCTION

APPENDIX C

SECTION A

SEGMENT 3

ESTIMATES

RIGHT-OF-WAY

KY 15 PLANNING STUDY - SECTION A (Segment 3)

STA. 2537+50 to 2674+00

Median Width	Approximate Gross Proposed R/W		Approx. Ex. KY15 R/W Assume 80' Width		Approximate Net Prop. R/W Purchased		Acreage Cost @ \$500 (Dollar)	Residential		Business		TOTAL R/W COST (Dollar)
			KY15 Length (SF)	13650 (Acres)				Reloc. # (each)	Cost @ \$75,000 (Dollar)	Reloc. # (each)	Cost @ \$75,000 (Dollar)	
	(SF)	(Acres)										
40 ft	3,317,653	76.2	1,092,000	25.1	2,225,653	51.1	\$25,547	1	\$75,000	20	\$1,500,000	\$1,600,547
20 & 30ft	3,112,903	71.5	1,092,000	25.1	2,020,903	46.4	\$23,197	1	\$75,000	19	\$1,425,000	\$1,523,197
5L C&G	2,771,653	63.6	1,092,000	25.1	1,679,653	38.6	\$19,280	1	\$75,000	10	\$750,000	\$844,280

APPENDIX C

SECTION D

EAST

ESTIMATES

SEGMENT 1B

CONSTRUCTION

DEPARTMENT OF TRANSPORTATION

Bureau of Highways

ESTIMATE SHEET

County of: Breathitt From STA: 838+50.00
 UPN: _____ To STA: 1044+50.00
 Fed No.: _____ Net Length, mile: 3.90
 Item No.: _____ Type of Construction: Grade, Drain & Surfacing
 Road Name: KY 15 -East Section D Seg 1b (20ft Median) Class of Road: Rural Arterial

Item #	Item	Quantity	Unit	Unit Price	Amount
	Roadway Exc (Mainline)	6,999,013	CU YD	\$ 2.50	\$ 17,497,533
	Asph Surf CL3 (Mainline Driving Lanes)	7,553	TON	\$ 85.00	\$ 642,005
	Asph Base CL3 (Mainline Driving Lanes)	60,757	TON	\$ 80.00	\$ 4,860,560
	CS Base (Mainline Driving Lanes)	27,200	TON	\$ 16.00	\$ 435,200
	Asph Surf CL2 (Mainline Shoulders)	5,901	TON	\$ 85.00	\$ 501,585
	Asph Base CL2 (Mainline Shoulders)	15,343	TON	\$ 80.00	\$ 1,227,440
	CS Base (Mainline Shoulders)	74,516	TON	\$ 16.00	\$ 1,192,256
	Roadway Exc (Approaches/Entrances)	242,795	CU YD	\$ 2.50	\$ 606,988
	Asph Surf CL2 (Approach Rd Driving Lanes)	639	TON	\$ 85.00	\$ 54,315
	Asph Base CL2 (Approach Rd Driving Lanes)	2,196	TON	\$ 80.00	\$ 175,680
	CS Base (Approach Rd Driving Lanes)	2,292	TON	\$ 16.00	\$ 36,672
	Asph Surf (CL2 Approach Rd Shoulders)	103	TON	\$ 85.00	\$ 8,755
	Asph Base CL2 (Approach Rd Shoulders)	262	TON	\$ 80.00	\$ 20,960
	CS Base (Approach Rd Shoulders)	892	TON	\$ 16.00	\$ 14,272
	Concrete Median Barrier	20,600	LF	\$ 55.00	\$ 1,133,000
	MISC ITEMS (@ 25%)				\$ 7,101,805
	868+35 ~ 5' x 4' RCBC		LP SUM		\$ 100,000
	879+00 ~ 10' x 6' RCBC		LP SUM		\$ 330,000
	934+40 ~ 12' x 8' RCBC		LP SUM		\$ 725,000
	936+50 ~ 12' x 6' RCBC		LP SUM		\$ 700,000
	1012+80 ~ 6' x 4' RCBC		LP SUM		\$ 190,000
	MOBILIZATION		@ 3%		\$ 1,126,621
	DEMobilIZATION		@ 1.5%		\$ 563,310
Construction-SubTotal					\$ 39,243,957
+10 Engr & Contg					3,924,396
Construction-Total					\$ 43,168,353
Construction Cost/Mile					\$ 11,064,510

Estimated by: D. Ford
 Checked by: _____

Last Edited: 12/1/2012
 Last Edited: _____

Right-of-way \$555,329
Utilities \$145,000
Construction \$43,168,353
Total Cost \$43,868,682
Cost/Mile \$11,244,012

DEPARTMENT OF TRANSPORTATION

Bureau of Highways

ESTIMATE SHEET

County of: <u>Breathitt</u>	From STA: <u>838+50.00</u>
UPN _____	To STA: <u>1044+50.00</u>
Fed No. _____	Net Length, mile: <u>3.90</u>
Item No. _____	Type of Construction: <u>Grade, Drain & Surfacing</u>
Road Name: <u>KY 15 -East Section D Seg 1b (30ft Median)</u>	Class of Road: <u>Rural Arterial</u>

Item #	Item	Quantity	Unit	Unit Price	Amount
	Roadway Exc (Mainline)	7,087,699	CU YD	\$ 2.50	\$ 17,719,248
	Asph Surf CL3 (Mainline Driving Lanes)	7,553	TON	\$ 85.00	\$ 642,005
	Asph Base CL3 (Mainline Driving Lanes)	60,757	TON	\$ 80.00	\$ 4,860,560
	CS Base (Mainline Driving Lanes)	27,200	TON	\$ 16.00	\$ 435,200
	Asph Surf CL2 (Mainline Shoulders)	3,462	TON	\$ 85.00	\$ 294,270
	Asph Base CL2 (Mainline Shoulders)	9,001	TON	\$ 80.00	\$ 720,080
	CS Base (Mainline Shoulders)	72,210	TON	\$ 16.00	\$ 1,155,360
	Roadway Exc (Approaches/Entrances)	242,795	CU YD	\$ 2.50	\$ 606,988
	Asph Surf CL2 (Approach Rd Driving Lanes)	639	TON	\$ 85.00	\$ 54,315
	Asph Base CL2 (Approach Rd Driving Lanes)	2,196	TON	\$ 80.00	\$ 175,680
	CS Base (Approach Rd Driving Lanes)	2,292	TON	\$ 16.00	\$ 36,672
	Asph Surf (CL2 Approach Rd Shoulders)	103	TON	\$ 85.00	\$ 8,755
	Asph Base CL2 (Approach Rd Shoulders)	262	TON	\$ 80.00	\$ 20,960
	CS Base (Approach Rd Shoulders)	892	TON	\$ 16.00	\$ 14,272
	MISC ITEMS (@ 25%)				\$ 6,686,091
	868+35 ~ 5' x 4' RCBC		LP SUM		\$ 105,000
	879+00 ~ 10' x 6' RCBC		LP SUM		\$ 350,000
	934+40 ~ 12' x 8' RCBC		LP SUM		\$ 760,000
	936+50 ~ 12' x 6' RCBC		LP SUM		\$ 725,000
	1012+80 ~ 6' x 4' RCBC		LP SUM		\$ 200,000
	MOBILIZATION		@ 3%		\$ 1,067,114
	DEMOBILIZATION		@ 1.5%		\$ 533,557
Construction-SubTotal					\$ 37,171,127
+10 Engr & Contg					3,717,113
Construction-Total					\$ 40,888,239
Construction Cost/Mile					\$ 10,480,092

Estimated by: <u>D. Ford</u>	Last Edited: <u>12/1/2012</u>
Checked by: _____	Last Edited: _____

Right-of-way	\$555,329
Utilities	\$145,000
Construction	\$40,888,239
Total Cost	\$41,588,568
Cost/Mile	\$10,659,594

APPENDIX C

SECTION D

EAST

ESTIMATES

SEGMENT 1B

RIGHT-OF-WAY

APPENDIX C

SECTION D

EAST

ESTIMATES

SEGMENT 2

CONSTRUCTION

DEPARTMENT OF TRANSPORTATION

Bureau of Highways

ESTIMATE SHEET

County of: Breathitt
UPN: _____
Fed No.: _____
Item No.: _____
Road Name: KY 15 -East Section D Seg 2 (20ft Median)

From STA: 1044+50.00
To STA: 1121+65.00
Net Length, mile: 1.46
Type of Construction: Grade, Drain & Surfacing
Class of Road: Rural Arterial

Table with 6 columns: Item #, Item, Quantity, Unit, Unit Price, Amount. Contains line items for roadway exc, asphalt surf, base, shoulders, approaches, bridges, mobilization, and demobilization.

Estimated by: D. Ford
Checked by: _____

Last Edited: 12/1/2012
Last Edited: _____

Right-of-way \$324,036
Utilities \$230,000
Construction \$17,244,767
Total Cost \$17,798,803
Cost/Mile \$12,181,164

APPENDIX C

SECTION D

EAST

ESTIMATES

SEGMENT 2

RIGHT-OF-WAY

APPENDIX C

SECTION D

EAST

ESTIMATES

SEGMENT 3B

CONSTRUCTION

DEPARTMENT OF TRANSPORTATION

Bureau of Highways

ESTIMATE SHEET

County of: <u>Breathitt</u> UPN: _____ Fed No.: _____ Item No.: _____ Road Name: <u>KY 15 -East Section D Seg 3b (20ft Median)</u>	From STA: <u>1121+65.00</u> To STA: <u>1304+00.00</u> Net Length, mile: <u>3.45</u> Type of Construction: <u>Grade, Drain & Surfacing</u> Class of Road: <u>Rural Arterial</u>
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Item #	Item	Quantity	Unit	Unit Price	Amount
	Roadway Exc (Mainline)	12,648,054	CU YD	\$ 2.50	\$ 31,620,135
	Asph Surf CL3 (Mainline Driving Lanes)	6,411	TON	\$ 85.00	\$ 544,935
	Asph Base CL3 (Mainline Driving Lanes)	51,570	TON	\$ 80.00	\$ 4,125,600
	CS Base (Mainline Driving Lanes)	23,087	TON	\$ 16.00	\$ 369,392
	Asph Surf CL2 (Mainline Shoulders)	5,009	TON	\$ 85.00	\$ 425,765
	Asph Base CL2 (Mainline Shoulders)	13,023	TON	\$ 80.00	\$ 1,041,840
	CS Base (Mainline Shoulders)	65,929	TON	\$ 16.00	\$ 1,054,864
	Roadway Exc (Approaches/Entrances)	34,560	CU YD	\$ 2.50	\$ 86,400
	Asph Surf CL2 (Approach Rd Driving Lanes)	700	TON	\$ 85.00	\$ 59,500
	Asph Base CL2 (Approach Rd Driving Lanes)	5,561	TON	\$ 80.00	\$ 444,880
	CS Base (Approach Rd Driving Lanes)	2,449	TON	\$ 16.00	\$ 39,184
	Asph Surf (CL2 Approach Rd Shoulders)	318	TON	\$ 85.00	\$ 27,030
	Asph Base CL2 (Approach Rd Shoulders)	828	TON	\$ 80.00	\$ 66,240
	CS Base (Approach Rd Shoulders)	2,797	TON	\$ 16.00	\$ 44,752
	Concrete Median Barrier	17,375	LF	\$ 55.00	\$ 955,625
	MISC ITEMS (@ 25%)				\$ 10,226,536
	Mainline Bridges (Sta. 1227+72)	79,120	SQ FT	\$ 175.00	\$ 13,846,000
	1165+60 ~ 6' x 5' RCBC		LP SUM		\$ 305,000
	MOBILIZATION		@ 3%		\$ 1,958,510
	DEMobilIZATION		@ 1.5%		\$ 979,255
Construction-SubTotal					\$ 68,221,443
+10 Engr & Contg					6,822,144
Construction-Total					\$ 75,043,587
Construction Cost/Mile					\$ 21,729,100

Estimated by: D. Ford
 Checked by: _____

Last Edited: 12/1/2012
 Last Edited: _____

Right-of-way \$852,179
Utilities \$290,000
Construction \$75,043,587
Total Cost \$76,185,766
Cost/Mile \$22,059,822

DEPARTMENT OF TRANSPORTATION

Bureau of Highways

ESTIMATE SHEET

County of: <u>Breathitt</u>	From STA: <u>1121+65.00</u>
UPN _____	To STA: <u>1304+00.00</u>
Fed No. _____	Net Length, mile: <u>3.45</u>
Item No. _____	Type of Construction: <u>Grade, Drain & Surfacing</u>
Road Name: <u>KY 15 -East Section D Seg 3b (30ft Median)</u>	Class of Road: <u>Rural Arterial</u>

Item #	Item	Quantity	Unit	Unit Price	Amount
	Roadway Exc (Mainline)	12,800,005	CU YD	\$ 2.50	\$ 32,000,013
	Asph Surf CL3 (Mainline Driving Lanes)	6,411	TON	\$ 85.00	\$ 544,935
	Asph Base CL3 (Mainline Driving Lanes)	51,570	TON	\$ 80.00	\$ 4,125,600
	CS Base (Mainline Driving Lanes)	23,087	TON	\$ 16.00	\$ 369,392
	Asph Surf CL2 (Mainline Shoulders)	2,938	TON	\$ 85.00	\$ 249,730
	Asph Base CL2 (Mainline Shoulders)	7,640	TON	\$ 80.00	\$ 611,200
	CS Base (Mainline Shoulders)	61,291	TON	\$ 16.00	\$ 980,656
	Roadway Exc (Approaches/Entrances)	34,560	CU YD	\$ 2.50	\$ 86,400
	Asph Surf CL2 (Approach Rd Driving Lanes)	700	TON	\$ 85.00	\$ 59,500
	Asph Base CL2 (Approach Rd Driving Lanes)	5,561	TON	\$ 80.00	\$ 444,880
	CS Base (Approach Rd Driving Lanes)	2,449	TON	\$ 16.00	\$ 39,184
	Asph Surf (CL2 Approach Rd Shoulders)	318	TON	\$ 85.00	\$ 27,030
	Asph Base CL2 (Approach Rd Shoulders)	828	TON	\$ 80.00	\$ 66,240
	CS Base (Approach Rd Shoulders)	2,797	TON	\$ 16.00	\$ 44,752
	MISC ITEMS (@ 25%)				\$ 9,912,378
	Mainline Bridges (Sta. 1227+72)	67,080	SQ FT	\$ 200.00	\$ 13,416,000
	1165+60 ~ 6' x 5' RCBC		LP SUM		\$ 310,000
	MOBILIZATION		@ 3%		\$ 1,898,637
	DEMOBILIZATION		@ 1.5%		\$ 949,318
Construction-SubTotal					\$ 66,135,845
+10 Engr & Contg					6,613,585
Construction-Total					\$ 72,749,430
Construction Cost/Mile					\$ 21,064,820

Estimated by: D. Ford
 Checked by: _____

Last Edited: 12/1/2012
 Last Edited: _____

Right-of-way	\$852,179
Utilities	\$290,000
Construction	\$72,749,430
Total Cost	\$73,891,609
Cost/Mile	\$21,395,541

DEPARTMENT OF TRANSPORTATION

Bureau of Highways

ESTIMATE SHEET

County of: Breathitt
 UPN _____
 Fed No. _____
 Item No. _____
 Road Name: KY 15 -East Section D Seg 3b (40ft Median)

From STA: 1121+65.00
 To STA: 1304+00.00
 Net Length, mile: 3.45
 Type of Construction: Grade, Drain & Surfacing
 Class of Road: Rural Arterial

Item #	Item	Quantity	Unit	Unit Price	Amount
	Roadway Exc (Mainline)	13,523,443	CU YD	\$ 2.50	\$ 33,808,608
	Asph Surf CL3 (Mainline Driving Lanes)	6,411	TON	\$ 85.00	\$ 544,935
	Asph Base CL3 (Mainline Driving Lanes)	51,570	TON	\$ 80.00	\$ 4,125,600
	CS Base (Mainline Driving Lanes)	23,087	TON	\$ 16.00	\$ 369,392
	Asph Surf CL2 (Mainline Shoulders)	3,740	TON	\$ 85.00	\$ 317,900
	Asph Base CL2 (Mainline Shoulders)	9,724	TON	\$ 80.00	\$ 777,920
	CS Base (Mainline Shoulders)	68,262	TON	\$ 16.00	\$ 1,092,192
	Roadway Exc (Approaches/Entrances)	34,560	CU YD	\$ 2.50	\$ 86,400
	Asph Surf CL2 (Approach Rd Driving Lanes)	700	TON	\$ 85.00	\$ 59,500
	Asph Base CL2 (Approach Rd Driving Lanes)	5,561	TON	\$ 80.00	\$ 444,880
	CS Base (Approach Rd Driving Lanes)	2,449	TON	\$ 16.00	\$ 39,184
	Asph Surf (CL2 Approach Rd Shoulders)	318	TON	\$ 85.00	\$ 27,030
	Asph Base CL2 (Approach Rd Shoulders)	828	TON	\$ 80.00	\$ 66,240
	CS Base (Approach Rd Shoulders)	2,797	TON	\$ 16.00	\$ 44,752
	MISC ITEMS (@ 25%)				\$ 10,451,133
	Mainline Bridges (Sta. 1227+72)	72,240	SQ FT	\$ 200.00	\$ 14,448,000
	1165+60 ~ 6' x 5' RCBC		LP SUM		\$ 325,000
	MOBILIZATION		@ 3%		\$ 2,010,860
	DEMOBILIZATION		@ 1.5%		\$ 1,005,430
Construction-SubTotal					\$ 70,044,956
+10 Engr & Contg					7,004,496
Construction-Total					\$ 77,049,452
Construction Cost/Mile					\$ 22,309,904

Estimated by: D. Ford
 Checked by: _____

Last Edited: 12/1/2012
 Last Edited: _____

Right-of-way \$930,319
Utilities \$290,000
Construction \$77,049,452
Total Cost \$78,269,771
Cost/Mile \$22,663,251

APPENDIX C

SECTION D

EAST

ESTIMATES

SEGMENT 3B

RIGHT-OF-WAY

APPENDIX C

SECTION D

EXISTING ALIGNMENT

SEGMENT 1A

ESTIMATES

CONSTRUCTION

DEPARTMENT OF TRANSPORTATION

Bureau of Highways

ESTIMATE SHEET

County of: Breathitt
UPN
Fed No.
Item No.
Road Name: KY 15 - Section D Segment 1a (30' Median)

From STA: 838+50.00
To STA: 1112+58.00
Net Length, mile: 5.19
Type of Construction: Grade, Drain & Surfacing
Class of Road: Rural Arterial

Table with 6 columns: Item #, Item, Quantity, Unit, Unit Price, Amount. Includes rows for '4L-30' Median Const.' and 'RCBC' with subtotals for Construction and Construction Cost/Mile.

Estimated by: D. Ford
Checked by:

Last Edited: 12/1/2012
Last Edited:

Right-of-way \$3,630,401
Utilities \$1,110,000
Construction \$39,143,924
Total Cost \$43,884,325
Cost/Mile \$8,454,073

APPENDIX C

SECTION D

EXISTING ALIGNMENT

SEGMENT 1A

ESTIMATES

RIGHT-OF-WAY

APPENDIX C

SECTION D

EXISTING ALIGNMENT

SEGMENT 2

ESTIMATES

CONSTRUCTION

DEPARTMENT OF TRANSPORTATION

Bureau of Highways

ESTIMATE SHEET

County of: Breathitt
 UPN: _____
 Fed No.: _____
 Item No.: _____
 Road Name: KY 15 - Sec D Seg 2 (30ft Median)

From STA: 1112+58.00
 To STA: 1190+00.00
 Net Length, mile: 1.47
 Type of Construction: Grade, Drain & Surfacing
 Class of Road: Rural Arterial

Item #	Item	Quantity	Unit	Unit Price	Amount
	Roadway Exc (Mainline)	1,701,557	CU YD	\$ 2.50	\$ 4,253,893
	Asph Surf CL3 (Mainline Driving Lanes)	2,719	TON	\$ 85.00	\$ 231,115
	Asph Base CL3 (Mainline Driving Lanes)	21,870	TON	\$ 80.00	\$ 1,749,600
	CS Base (Mainline Driving Lanes)	9,791	TON	\$ 16.00	\$ 156,656
	Asph Surf CL2 (Mainline Shoulders)	1,246	TON	\$ 85.00	\$ 105,910
	Asph Base CL2 (Mainline Shoulders)	3,240	TON	\$ 80.00	\$ 259,200
	CS Base (Mainline Shoulders)	25,992	TON	\$ 16.00	\$ 415,872
	Roadway Exc (Approaches/Entrances)	23,430	CU YD	\$ 2.50	\$ 58,575
	Asph Surf CL2 (Approach Rd Driving Lanes)	287	TON	\$ 85.00	\$ 24,395
	Asph Base CL2 (Approach Rd Driving Lanes)	1,868	TON	\$ 80.00	\$ 149,440
	CS Base (Approach Rd Driving Lanes)	1,510	TON	\$ 16.00	\$ 24,160
	Asph Surf (CL2 Approach Rd Shoulders)		TON	\$ 85.00	\$ -
	Asph Base CL2 (Approach Rd Shoulders)		TON	\$ 80.00	\$ -
	CS Base (Approach Rd Shoulders)		TON	\$ 16.00	\$ -
	MISC ITEMS (@ 25%)				\$ 1,857,204
	Mainline Bridges (Sta. 1077+14)	23,790	SQ FT	\$ 200.00	\$ 4,758,000
	MOBILIZATION		@ 3%		\$ 421,321
	DEMOBILIZATION		@ 1.5%		\$ 210,660
Construction-SubTotal					\$ 14,676,001
+10 Engr & Contg					1,467,600
Construction-Total					\$ 16,143,601
Construction Cost/Mile					\$ 11,009,844

Estimated by: D. Ford
 Checked by: _____

Last Edited: 12/1/2012
 Last Edited: _____

Right-of-way \$250,232
Utilities \$805,000
Construction \$16,143,601
Total Cost \$17,198,833
Cost/Mile \$11,729,506

APPENDIX C

SECTION D

EXISTING ALIGNMENT

SEGMENT 2

ESTIMATES

RIGHT-OF-WAY

APPENDIX C

SECTION D

EXISTING ALIGNMENT

SEGMENT 3A

ESTIMATES

CONSTRUCTION

APPENDIX C

SECTION D

EXISTING ALIGNMENT

SEGMENT 3A

ESTIMATES

RIGHT-OF-WAY

APPENDIX C

SECTION D

WEST

ESTIMATES

CONSTRUCTION

DEPARTMENT OF TRANSPORTATION

Bureau of Highways

ESTIMATE SHEET

County of: <u>Breathitt</u>	From STA: <u>838+50.00</u>
UPN _____	To STA: <u>1206+50.64</u>
Fed No. _____	Net Length, mile: <u>6.97</u>
Item No. _____	Type of Construction: <u>Grade, Drain & Surfacing</u>
Road Name: <u>KY 15 - West Section D (20ft Median)</u>	Class of Road: <u>Rural Arterial</u>

Item #	Item	Quantity	Unit	Unit Price	Amount
	Roadway Exc (Mainline)	13,574,406	CU YD	\$ 2.50	\$ 33,936,015
	Asph Surf CL3 (Mainline Driving Lanes)	13,655	TON	\$ 85.00	\$ 1,160,675
	Asph Base CL3 (Mainline Driving Lanes)	109,667	TON	\$ 80.00	\$ 8,773,360
	CS Base (Mainline Driving Lanes)	48,992	TON	\$ 16.00	\$ 783,872
	Asph Surf CL2 (Mainline Shoulders)	9,979	TON	\$ 85.00	\$ 848,215
	Asph Base CL2 (Mainline Shoulders)	25,945	TON	\$ 80.00	\$ 2,075,600
	CS Base (Mainline Shoulders)	126,164	TON	\$ 16.00	\$ 2,018,624
	Roadway Exc (Ramps)	50,474	CU YD	\$ 2.50	\$ 126,185
	Asph Surf CL3 (Ramps)	181	TON	\$ 85.00	\$ 15,385
	Asph Base CL3 (Ramps)	1,460	TON	\$ 80.00	\$ 116,800
	CS Base (Ramps)	658	TON	\$ 16.00	\$ 10,528
	Asph Surf CL2 (Ramp Shoulders)	66	TON	\$ 85.00	\$ 5,610
	Asph Base CL2 (Ramp Shoulders)	170	TON	\$ 80.00	\$ 13,600
	CS Base (Ramp Shoulders)	1,226	TON	\$ 16.00	\$ 19,616
	Roadway Exc (Approaches/Entrances)	283,068	CU YD	\$ 2.50	\$ 707,670
	Asph Surf CL2 (Approach Rd Driving Lanes)	910	TON	\$ 85.00	\$ 77,350
	Asph Base CL2 (Approach Rd Driving Lanes)	4,159	TON	\$ 80.00	\$ 332,720
	CS Base (Approach Rd Driving Lanes)	3,267	TON	\$ 16.00	\$ 52,272
	Asph Surf (CL2 Approach Rd Shoulders)	35	TON	\$ 85.00	\$ 2,975
	Asph Base CL2 (Approach Rd Shoulders)	84	TON	\$ 80.00	\$ 6,720
	CS Base (Approach Rd Shoulders)	291	TON	\$ 16.00	\$ 4,656
	Concrete Median Barrier	35,350	LF	\$ 55.00	\$ 1,944,250
	MISC ITEMS (@ 25%)				\$ 13,258,175
	Mainline Bridges (Sta. 961+04)	55,660	SQ FT	\$ 175.00	\$ 9,740,500
	Mainline Bridges (Sta. 1179+55)	15,180	SQ FT	\$ 175.00	\$ 2,656,500
	Mainline Bridges (Sta. 1190+02)	89,240	SQ FT	\$ 175.00	\$ 15,617,000
	Ramp A	18,246	SQ FT	\$ 175.00	\$ 3,193,050
	Ramp D	25,400	SQ FT	\$ 175.00	\$ 4,445,000
	868+35 ~ 5' x 4' RCBC		LP SUM		\$ 107,500
	878+80 ~ 10' x 6' RCBC		LP SUM		\$ 355,000
	977+60 ~ 8' x 6' RCBC		LP SUM		\$ 240,000
	1048+68 ~ 24' x 10' 3-Sided Arch Culvert		LP SUM		\$ 1,200,000
	1082+59 ~ 12' x 10' RCBC		LP SUM		\$ 1,035,000
	1119+74 ~ 6' x 4' RCBC		LP SUM		\$ 95,000
	1155+20 ~ 6' x 5' RCBC		LP SUM		\$ 225,000
	MOBILIZATION		@ 3%		\$ 3,156,013
	DEMOBILIZATION		@ 1.5%		\$ 1,578,006
	Construction-SubTotal				\$ 109,934,442
	+10 Engr & Contg				10,993,444
	Construction-Total				\$ 120,927,886
	Construction Cost/Mile				\$ 17,350,221

Estimated by: D. Ford
 Checked by: _____

Last Edited: 11/26/2012
 Last Edited: _____

Right-of-way	\$2,573,407
Utilities	\$860,000
Construction	\$120,927,886
Total Cost	\$124,361,293
Cost/Mile	\$17,842,832

DEPARTMENT OF TRANSPORTATION

Bureau of Highways

ESTIMATE SHEET

County of: <u>Breathitt</u>	From STA: <u>838+50.00</u>
UPN _____	To STA: <u>1206+50.64</u>
Fed No. _____	Net Length, mile: <u>6.97</u>
Item No. _____	Type of Construction: <u>Grade, Drain & Surfacing</u>
Road Name: <u>KY 15 - West Section D (30ft Median)</u>	Class of Road: <u>Rural Arterial</u>

Item #	Item	Quantity	Unit	Unit Price	Amount
	Roadway Exc (Mainline)	13,175,670	CU YD	\$ 2.50	\$ 32,939,175
	Asph Surf CL3 (Mainline Driving Lanes)	13,655	TON	\$ 85.00	\$ 1,160,675
	Asph Base CL3 (Mainline Driving Lanes)	109,667	TON	\$ 80.00	\$ 8,773,360
	CS Base (Mainline Driving Lanes)	48,992	TON	\$ 16.00	\$ 783,872
	Asph Surf CL2 (Mainline Shoulders)	5,870	TON	\$ 85.00	\$ 498,950
	Asph Base CL2 (Mainline Shoulders)	15,263	TON	\$ 80.00	\$ 1,221,040
	CS Base (Mainline Shoulders)	122,163	TON	\$ 16.00	\$ 1,954,608
	Roadway Exc (Ramps)	50,474	CU YD	\$ 2.50	\$ 126,185
	Asph Surf CL3 (Ramps)	181	TON	\$ 85.00	\$ 15,385
	Asph Base CL3 (Ramps)	1,460	TON	\$ 80.00	\$ 116,800
	CS Base (Ramps)	658	TON	\$ 16.00	\$ 10,528
	Asph Surf CL2 (Ramp Shoulders)	66	TON	\$ 85.00	\$ 5,610
	Asph Base CL2 (Ramp Shoulders)	170	TON	\$ 80.00	\$ 13,600
	CS Base (Ramp Shoulders)	1,226	TON	\$ 16.00	\$ 19,616
	Roadway Exc (Approaches/Entrances)	283,068	CU YD	\$ 2.50	\$ 707,670
	Asph Surf CL2 (Approach Rd Driving Lanes)	910	TON	\$ 85.00	\$ 77,350
	Asph Base CL2 (Approach Rd Driving Lanes)	4,159	TON	\$ 80.00	\$ 332,720
	CS Base (Approach Rd Driving Lanes)	3,267	TON	\$ 16.00	\$ 52,272
	Asph Surf (CL2 Approach Rd Shoulders)	35	TON	\$ 85.00	\$ 2,975
	Asph Base CL2 (Approach Rd Shoulders)	84	TON	\$ 80.00	\$ 6,720
	CS Base (Approach Rd Shoulders)	291	TON	\$ 16.00	\$ 4,656
	MISC ITEMS (@ 25%)				\$ 12,205,942
	Mainline Bridges (Sta. 961+04)	47,190	SQ FT	\$ 200.00	\$ 9,438,000
	Mainline Bridges (Sta. 1179+55)	12,870	SQ FT	\$ 200.00	\$ 2,574,000
	Mainline Bridges (Sta. 1190+02)	75,660	SQ FT	\$ 200.00	\$ 15,132,000
	Ramp A	15,469	SQ FT	\$ 200.00	\$ 3,093,800
	Ramp D	21,535	SQ FT	\$ 200.00	\$ 4,307,000
	868+35 ~ 5' x 4' RCBC		LP SUM		\$ 110,000
	878+80 ~ 10' x 6' RCBC		LP SUM		\$ 360,000
	977+60 ~ 8' x 6' RCBC		LP SUM		\$ 245,000
	1048+68 ~ 24' x 10' 3-Sided Arch Culvert		LP SUM		\$ 1,225,000
	1082+59 ~ 12' x 10' RCBC		LP SUM		\$ 1,050,000
	1119+74 ~ 6' x 4' RCBC		LP SUM		\$ 97,500
	1155+20 ~ 6' x 5' RCBC		LP SUM		\$ 227,500
	MOBILIZATION		@ 3%		\$ 2,966,685
	DEMOBILIZATION		@ 1.5%		\$ 1,483,343
	Construction-SubTotal				\$ 103,339,537
	+10 Engr & Contg				10,333,954
	Construction-Total				\$ 113,673,490
	Construction Cost/Mile				\$ 16,309,391

Estimated by: D. Ford
 Checked by: _____

Last Edited: 11/26/2012
 Last Edited: _____

Right-of-way	\$2,573,407
Utilities	\$860,000
Construction	<u>\$113,673,490</u>
Total Cost	\$117,106,897
Cost/Mile	\$16,802,002

DEPARTMENT OF TRANSPORTATION

Bureau of Highways

ESTIMATE SHEET

County of: <u>Breathitt</u>	From STA: <u>838+50.00</u>
UPN: _____	To STA: <u>1206+50.64</u>
Fed No.: _____	Net Length, mile: <u>6.97</u>
Item No.: _____	Type of Construction: <u>Grade, Drain & Surfacing</u>
Road Name: <u>KY 15 - West Section D (40ft Median)</u>	Class of Road: <u>Rural Arterial</u>

Item #	Item	Quantity	Unit	Unit Price	Amount
	Roadway Exc (Mainline)	14,740,272	CU YD	\$ 2.50	\$ 36,850,680
	Asph Surf CL3 (Mainline Driving Lanes)	13,655	TON	\$ 85.00	\$ 1,160,675
	Asph Base CL3 (Mainline Driving Lanes)	109,667	TON	\$ 80.00	\$ 8,773,360
	CS Base (Mainline Driving Lanes)	48,992	TON	\$ 16.00	\$ 783,872
	Asph Surf CL2 (Mainline Shoulders)	7,470	TON	\$ 85.00	\$ 634,950
	Asph Base CL2 (Mainline Shoulders)	19,422	TON	\$ 80.00	\$ 1,553,760
	CS Base (Mainline Shoulders)	136,077	TON	\$ 16.00	\$ 2,177,232
	Roadway Exc (Ramps)	50,474	CU YD	\$ 2.50	\$ 126,185
	Asph Surf CL3 (Ramps)	181	TON	\$ 85.00	\$ 15,385
	Asph Base CL3 (Ramps)	1,460	TON	\$ 80.00	\$ 116,800
	CS Base (Ramps)	658	TON	\$ 16.00	\$ 10,528
	Asph Surf CL2 (Ramp Shoulders)	66	TON	\$ 85.00	\$ 5,610
	Asph Base CL2 (Ramp Shoulders)	170	TON	\$ 80.00	\$ 13,600
	CS Base (Ramp Shoulders)	1,226	TON	\$ 16.00	\$ 19,616
	Roadway Exc (Approaches/Entrances)	283,068	CU YD	\$ 2.50	\$ 707,670
	Asph Surf CL2 (Approach Rd Driving Lanes)	910	TON	\$ 85.00	\$ 77,350
	Asph Base CL2 (Approach Rd Driving Lanes)	4,159	TON	\$ 80.00	\$ 332,720
	CS Base (Approach Rd Driving Lanes)	3,267	TON	\$ 16.00	\$ 52,272
	Asph Surf (CL2 Approach Rd Shoulders)	35	TON	\$ 85.00	\$ 2,975
	Asph Base CL2 (Approach Rd Shoulders)	84	TON	\$ 80.00	\$ 6,720
	CS Base (Approach Rd Shoulders)	291	TON	\$ 16.00	\$ 4,656
	MISC ITEMS (@ 25%)				\$ 13,356,654
	Mainline Bridges (Sta. 961+04)	50,820	SQ FT	\$ 200.00	\$ 10,164,000
	Mainline Bridges (Sta. 1179+55)	13,860	SQ FT	\$ 200.00	\$ 2,772,000
	Mainline Bridges (Sta. 1190+02)	81,480	SQ FT	\$ 200.00	\$ 16,296,000
	Ramp A	16,659	SQ FT	\$ 200.00	\$ 3,331,800
	Ramp D	23,192	SQ FT	\$ 200.00	\$ 4,638,400
	868+35 ~ 5' x 4' RCBC		LP SUM		\$ 112,500
	878+80 ~ 10' x 6' RCBC		LP SUM		\$ 365,000
	977+60 ~ 8' x 6' RCBC		LP SUM		\$ 250,000
	1048+68 ~ 24' x 10' 3-Sided Arch Culvert		LP SUM		\$ 1,245,000
	1082+59 ~ 12' x 10' RCBC		LP SUM		\$ 1,060,000
	1119+74 ~ 6' x 4' RCBC		LP SUM		\$ 100,000
	1155+20 ~ 6' x 5' RCBC		LP SUM		\$ 230,000
	MOBILIZATION		@ 3%		\$ 3,220,439
	DEMOBILIZATION		@ 1.5%		\$ 1,610,220
	Construction-SubTotal				\$ 112,178,629
	+10 Engr & Contg				11,217,863
	Construction-Total				\$ 123,396,492
	Construction Cost/Mile				\$ 17,704,406

Estimated by: D. Ford
 Checked by: _____

Last Edited: 11/12/2012
 Last Edited: _____

Right-of-way	\$2,804,787
Utilities	\$860,000
Construction	<u>\$123,396,492</u>
Total Cost	\$127,061,279
Cost/Mile	\$18,230,214

APPENDIX C

SECTION D

WEST

ESTIMATES

RIGHT-OF-WAY

KY 15 PLANNING STUDY - West SECTION D

STA. 838+50 to 1209+00

Median Width	Approximate Gross Proposed R/W		Approx. Ex. KY15 R/W Assume 80' Width		Approximate Net Prop. R/W Purchased		Acreage Cost @ \$500 (Dollar)	Residential		Business		TOTAL R/W COST (Dollar)
			KY15 Length (SF)	0 (Acres)				Reloc. # (each)	Cost @ \$75,000 (Dollar)	Reloc. # (each)	Cost @ \$75,000 (Dollar)	
	(SF)	(Acres)										
40 ft	15,663,005	359.6	0	0.0	15,663,005	359.6	\$179,787	26	\$1,950,000	9	\$675,000	\$2,804,787
20 & 30ft	15,107,255	346.8	0	0.0	15,107,255	346.8	\$173,407	24	\$1,800,000	8	\$600,000	\$2,573,407

APPENDIX C

SECTION D

WEST ALTERNATIVE 2

SEGMENT 1

ESTIMATES

CONSTRUCTION

DEPARTMENT OF TRANSPORTATION

Bureau of Highways

ESTIMATE SHEET

County of: Breathitt
UPN
Fed No.
Item No.
Road Name: KY 15 - West Alt2 Sec D Seg 1 (30ft Median)

From STA: 838+50.00
To STA: 938+50.00
Net Length, mile: 1.89
Type of Construction: Grade, Drain & Surfacing
Class of Road: Rural Arterial

Table with 6 columns: Item #, Item, Quantity, Unit, Unit Price, Amount. Rows include Roadway Exc (Mainline), Asph Surf CL3, Asph Base CL3, CS Base, Asph Surf CL2, Asph Base CL2, CS Base, Roadway Exc (Approaches/Entrances), Asph Surf CL2 (Approach Rd Driving Lanes), Asph Base CL2 (Approach Rd Driving Lanes), CS Base (Approach Rd Driving Lanes), Asph Surf (CL2 Approach Rd Shoulders), Asph Base CL2 (Approach Rd Shoulders), CS Base (Approach Rd Shoulders), MISC ITEMS (@ 25%), 868+35 ~ 5' x 4' RCBC, 878+80 ~ 10' x 6' RCBC, MOBILIZATION, DEMOBILIZATION, Construction-SubTotal, +10 Engr & Contg, Construction-Total, Construction Cost/Mile.

Estimated by: D. Ford
Checked by:

Last Edited: 12/7/2012
Last Edited:

Right-of-way \$1,232,325
Utilities \$200,000
Construction \$9,785,106
Total Cost \$11,217,431
Cost/Mile \$5,922,803

APPENDIX C

SECTION D

WEST ALTERNATIVE 2

SEGMENT 1

ESTIMATES

RIGHT-OF-WAY

APPENDIX C

SECTION D

WEST ALTERNATIVE 2

SEGMENT 2

ESTIMATES

CONSTRUCTION

APPENDIX C

SECTION D

WEST ALTERNATIVE 2

SEGMENT 2

ESTIMATES

RIGHT-OF-WAY

APPENDIX C

SECTION E

ESTIMATES

CONSTRUCTION

DEPARTMENT OF TRANSPORTATION

Bureau of Highways

ESTIMATE SHEET

County of: Breathitt
 UPN _____
 Fed No. _____
 Item No. _____
 Road Name: KY 15 - West Section E (20ft Median)

From STA: 717+50.00
 To STA: 838+50.00
 Net Length, mile: 2.29
 Type of Construction: Grade, Drain & Surfacing
 Class of Road: Rural Arterial

Item #	Item	Quantity	Unit	Unit Price	Amount
	Roadway Exc (Mainline)	656,260	CU YD	\$ 3.25	\$ 2,132,845
	Asph Surf CL3 (Mainline Driving Lanes)	4,201	TON	\$ 85.00	\$ 357,085
	Asph Base CL3 (Mainline Driving Lanes)	33,764	TON	\$ 80.00	\$ 2,701,120
	CS Base (Mainline Driving Lanes)	15,098	TON	\$ 16.00	\$ 241,568
	Asph Surf CL2 (Mainline Shoulders)	3,159	TON	\$ 85.00	\$ 268,515
	Asph Base CL2 (Mainline Shoulders)	8,214	TON	\$ 80.00	\$ 657,120
	CS Base (Mainline Shoulders)	39,967	TON	\$ 16.00	\$ 639,472
	Roadway Exc (Approaches/Entrances)	166,735	CU YD	\$ 3.25	\$ 541,889
	Asph Surf CL2 (Approach Rd Driving Lanes)	913	TON	\$ 85.00	\$ 77,605
	Asph Base CL2 (Approach Rd Driving Lanes)	3,378	TON	\$ 80.00	\$ 270,240
	CS Base (Approach Rd Driving Lanes)	3,235	TON	\$ 16.00	\$ 51,760
	Asph Surf (CL2 Approach Rd Shoulders)		TON	\$ 85.00	\$ -
	Asph Base CL2 (Approach Rd Shoulders)		TON	\$ 80.00	\$ -
	CS Base (Approach Rd Shoulders)		TON	\$ 16.00	\$ -
	Concrete Median Barrier	11,150	LF	\$ 55.00	\$ 613,250
	MISC ITEMS (@ 25%)				\$ 2,138,117
	Mainline Bridges (Sta. 771+80)	25,300	SQ FT	\$ 175.00	\$ 4,427,500
	Mainline Bridges (Sta. 782+53)	26,496	SQ FT	\$ 175.00	\$ 4,636,800
	Mainline Bridges (Sta. 831+81)	23,000	SQ FT	\$ 175.00	\$ 4,025,000
	749+50 ~ 6' x 5' RCBC		LP SUM		\$ 60,000
	761+76 ~ 6' x 5' RCBC		LP SUM		\$ 65,000
	Appr 763+00 Rt. ~ 5' x 5' RCBC		LP SUM		\$ 35,000
	801+40 ~ 6' x 5' RCBC		LP SUM		\$ 65,000
	MOBILIZATION		@ 3%		\$ 720,147
	DEMOBILIZATION		@ 1.5%		\$ 360,073
Construction-SubTotal					\$ 25,085,106
+10 Engr & Contg					2,508,511
Construction-Total					\$ 27,593,617
Construction Cost/Mile					\$ 12,040,851

Estimated by: D. Ford
 Checked by: _____

Last Edited: 11/26/2012
 Last Edited: _____

Right-of-way **\$1,078,739**
Utilities **\$830,000**
Construction **\$27,593,617**
Total Cost **\$29,502,356**
Cost/Mile **\$12,873,755**

DEPARTMENT OF TRANSPORTATION

Bureau of Highways

ESTIMATE SHEET

County of: <u>Breathitt</u>	From STA: <u>717+50.00</u>
UPN _____	To STA: <u>838+50.00</u>
Fed No. _____	Net Length, mile: <u>2.29</u>
Item No. _____	Type of Construction: <u>Grade, Drain & Surfacing</u>
Road Name: <u>KY 15 - West Section E (30ft Median)</u>	Class of Road: <u>Rural Arterial</u>

Item #	Item	Quantity	Unit	Unit Price	Amount
	Roadway Exc (Mainline)	666,400	CU YD	\$ 3.25	\$ 2,165,800
	Asph Surf CL3 (Mainline Driving Lanes)	4,201	TON	\$ 85.00	\$ 357,085
	Asph Base CL3 (Mainline Driving Lanes)	33,764	TON	\$ 80.00	\$ 2,701,120
	CS Base (Mainline Driving Lanes)	15,098	TON	\$ 16.00	\$ 241,568
	Asph Surf CL2 (Mainline Shoulders)	1,861	TON	\$ 85.00	\$ 158,185
	Asph Base CL2 (Mainline Shoulders)	4,839	TON	\$ 80.00	\$ 387,120
	CS Base (Mainline Shoulders)	38,683	TON	\$ 16.00	\$ 618,928
	Roadway Exc (Approaches/Entrances)	166,735	CU YD	\$ 3.25	\$ 541,889
	Asph Surf CL2 (Approach Rd Driving Lanes)	913	TON	\$ 85.00	\$ 77,605
	Asph Base CL2 (Approach Rd Driving Lanes)	3,378	TON	\$ 80.00	\$ 270,240
	CS Base (Approach Rd Driving Lanes)	3,235	TON	\$ 16.00	\$ 51,760
	Asph Surf (CL2 Approach Rd Shoulders)		TON	\$ 85.00	\$ -
	Asph Base CL2 (Approach Rd Shoulders)		TON	\$ 80.00	\$ -
	CS Base (Approach Rd Shoulders)		TON	\$ 16.00	\$ -
	MISC ITEMS (@ 25%)				\$ 1,892,825
	Mainline Bridges (Sta. 771+80)	21,450	SQ FT	\$ 200.00	\$ 4,290,000
	Mainline Bridges (Sta. 782+53)	22,464	SQ FT	\$ 200.00	\$ 4,492,800
	Mainline Bridges (Sta. 831+81)	19,500	SQ FT	\$ 200.00	\$ 3,900,000
	749+50 ~ 6' x 5' RCBC		LP SUM		\$ 62,500
	761+76 ~ 6' x 5' RCBC		LP SUM		\$ 67,500
	Appr 763+00 Rt. ~ 5' x 5' RCBC		LP SUM		\$ 35,000
	801+40 ~ 6' x 5' RCBC		LP SUM		\$ 67,500
	MOBILIZATION		@ 3%		\$ 671,383
	DEMOBILIZATION		@ 1.5%		\$ 335,691
	Construction-SubTotal				\$ 23,386,499
	+10 Engr & Contg				2,338,650
	Construction-Total				\$ 25,725,149
	Construction Cost/Mile				\$ 11,225,520

Estimated by: D. Ford
 Checked by: _____

Last Edited: 11/26/2012
 Last Edited: _____

Right-of-way	\$1,078,739
Utilities	\$830,000
Construction	\$25,725,149
Total Cost	\$27,633,888
Cost/Mile	\$12,058,424

DEPARTMENT OF TRANSPORTATION

Bureau of Highways

ESTIMATE SHEET

County of: Breathitt
 UPN _____
 Fed No. _____
 Item No. _____
 Road Name: KY 15 - West Section E (40ft Median)

From STA: 717+50.00
 To STA: 838+50.00
 Net Length, mile: 2.29
 Type of Construction: Grade, Drain & Surfacing
 Class of Road: Rural Arterial

Item #	Item	Quantity	Unit	Unit Price	Amount
	Roadway Exc (Mainline)	805,196	CU YD	\$ 3.25	\$ 2,616,887
	Asph Surf CL3 (Mainline Driving Lanes)	4,201	TON	\$ 85.00	\$ 357,085
	Asph Base CL3 (Mainline Driving Lanes)	33,764	TON	\$ 80.00	\$ 2,701,120
	CS Base (Mainline Driving Lanes)	15,098	TON	\$ 16.00	\$ 241,568
	Asph Surf CL2 (Mainline Shoulders)	2,368	TON	\$ 85.00	\$ 201,280
	Asph Base CL2 (Mainline Shoulders)	6,157	TON	\$ 80.00	\$ 492,560
	CS Base (Mainline Shoulders)	43,092	TON	\$ 16.00	\$ 689,472
	Roadway Exc (Approaches/Entrances)	166,735	CU YD	\$ 3.25	\$ 541,889
	Asph Surf CL2 (Approach Rd Driving Lanes)	913	TON	\$ 85.00	\$ 77,605
	Asph Base CL2 (Approach Rd Driving Lanes)	3,378	TON	\$ 80.00	\$ 270,240
	CS Base (Approach Rd Driving Lanes)	3,235	TON	\$ 16.00	\$ 51,760
	Asph Surf (CL2 Approach Rd Shoulders)		TON	\$ 85.00	\$ -
	Asph Base CL2 (Approach Rd Shoulders)		TON	\$ 80.00	\$ -
	CS Base (Approach Rd Shoulders)		TON	\$ 16.00	\$ -
	MISC ITEMS (@ 25%)				\$ 2,060,367
	Mainline Bridges (Sta. 771+80)	23,100	SQ FT	\$ 200.00	\$ 4,620,000
	Mainline Bridges (Sta. 782+53)	24,192	SQ FT	\$ 200.00	\$ 4,838,400
	Mainline Bridges (Sta. 831+81)	21,000	SQ FT	\$ 200.00	\$ 4,200,000
	749+50 ~ 6' x 5' RCBC		LP SUM		\$ 65,000
	761+76 ~ 6' x 5' RCBC		LP SUM		\$ 70,000
	Appr 763+00 Rt. ~ 5' x 5' RCBC		LP SUM		\$ 35,000
	801+40 ~ 6' x 5' RCBC		LP SUM		\$ 70,000
	MOBILIZATION		@ 3%		\$ 726,007
	DEMOBILIZATION		@ 1.5%		\$ 363,003
	Construction-SubTotal				\$ 25,289,243
	+10 Engr & Contg				2,528,924
	Construction-Total				\$ 27,818,167
	Construction Cost/Mile				\$ 12,138,837

Estimated by: D. Ford
 Checked by: _____

Last Edited: 11/12/2012
 Last Edited: _____

Right-of-way \$1,455,822
Utilities \$830,000
Construction \$27,818,167
Total Cost \$30,103,989
Cost/Mile \$13,136,286

APPENDIX C

SECTION E

ESTIMATES

RIGHT-OF-WAY

KY 15 PLANNING STUDY - West SECTION E

STA. 717+50 to 838+50

Median Width	Approximate Gross Proposed R/W		Approx. Ex. KY15 R/W Assume 80' Width		Approximate Net Prop. R/W Purchased		Acreage Cost @ \$500 (Dollar)	Residential		Business		TOTAL R/W COST (Dollar)
			KY15 Length (SF)	12100 (Acres)				Reloc. # (each)	Cost @ \$75,000 (Dollar)	Reloc. # (each)	Cost @ \$75,000 (Dollar)	
	(SF)	(Acres)										
40 ft	3,653,216	83.9	968,000	22.2	2,685,216	61.6	\$30,822	16	\$1,200,000	3	\$225,000	\$1,455,822
20 & 30ft	3,471,716	79.7	968,000	22.2	2,503,716	57.5	\$28,739	13	\$975,000	1	\$75,000	\$1,078,739

APPENDIX C

SECTION F

SEGMENT 1

ESTIMATES

CONSTRUCTION

APPENDIX C

SECTION F

SEGMENT 1

ESTIMATES

RIGHT-OF-WAY

APPENDIX C

SECTION F

SEGMENT 2

ESTIMATES

CONSTRUCTION

DEPARTMENT OF TRANSPORTATION

Bureau of Highways

ESTIMATE SHEET

County of: <u>Perry, Breathitt</u>	From STA: <u>378+00.00</u>
UPN: _____	To STA: <u>586+00.00</u>
Fed No.: _____	Net Length, mile: <u>3.94</u>
Item No.: _____	Type of Construction: <u>Grade, Drain & Surfacing</u>
Road Name: <u>KY 15 - West Section F Segmet 2 (20ft Median)</u>	Class of Road: <u>Rural Arterial</u>

Item #	Item	Quantity	Unit	Unit Price	Amount
	Roadway Exc (Mainline)	2,152,131	CU YD	\$ 2.50	\$ 5,380,328
	Asph Surf CL3 (Mainline Driving Lanes)	7,900	TON	\$ 85.00	\$ 671,500
	Asph Base CL3 (Mainline Driving Lanes)	63,450	TON	\$ 80.00	\$ 5,076,000
	CS Base (Mainline Driving Lanes)	28,350	TON	\$ 16.00	\$ 453,600
	Asph Surf CL2 (Mainline Shoulders)	5,756	TON	\$ 85.00	\$ 489,260
	Asph Base CL2 (Mainline Shoulders)	14,967	TON	\$ 80.00	\$ 1,197,360
	CS Base (Mainline Shoulders)	72,444	TON	\$ 16.00	\$ 1,159,104
	Roadway Exc (Appr/Entrances/Ramps)	157,380	CU YD	\$ 2.50	\$ 393,450
	Asph Surf CL2 (Approach Rd Driving Lanes)	1,204	TON	\$ 85.00	\$ 102,340
	Asph Base CL2 (Approach Rd Driving Lanes)	4,643	TON	\$ 80.00	\$ 371,440
	CS Base (Approach Rd Driving Lanes)	4,255	TON	\$ 16.00	\$ 68,080
	Asph Surf (CL2 Approach Rd Shoulders)		TON	\$ 85.00	\$ -
	Asph Base CL2 (Approach Rd Shoulders)		TON	\$ 80.00	\$ -
	CS Base (Approach Rd Shoulders)		TON	\$ 16.00	\$ -
	Concrete Barrier Median	20,500	LF	\$ 55.00	\$ 1,127,500
	MISC ITEMS (@ 25%)				\$ 4,122,491
	Mainline Bridges (Sta. 461+51)	26,312	SQ FT	\$ 175.00	\$ 4,804,800
	421+88 ~ 8' x 8' Dbl RCBC Extension		LP SUM		\$ 210,000
	485+05 ~ 12' x 6' Triple RCBC Extension		LP SUM		\$ 190,000
	508+20 ~ 12' x 6' RCBC Extension		LP SUM		\$ 105,000
	508+20(Entr Right) ~ 12' x 6' RCBC		LP SUM		\$ 35,000
	576+12 ~ 6' x 5' RCBC Extension		LP SUM		\$ 60,000
	MOBILIZATION		@ 3%		\$ 780,518
	DEMobilIZATION		@ 1.5%		\$ 390,259
	Construction-SubTotal				\$ 27,188,029
	+10 Engr & Contg				2,718,803
	Construction-Total				\$ 29,906,832
	Construction Cost/Mile				\$ 7,591,734

Estimated by: D. Ford
 Checked by: _____

Last Edited: 11/12/2012
 Last Edited: _____

Right-of-way	\$2,477,489
Utilities	\$1,315,000
Construction	\$29,906,832
Total Cost	\$33,699,321
Cost/Mile	\$8,554,443

APPENDIX C

SECTION F

SEGMENT 2

ESTIMATES

RIGHT-OF-WAY

APPENDIX C

SECTION F

SEGMENT 3

ESTIMATES

CONSTRUCTION

APPENDIX C

SECTION F

SEGMENT 3

ESTIMATES

RIGHT-OF-WAY

APPENDIX C

SECTION G

EXISTING ALIGNMENT

ESTIMATES

CONSTRUCTION

APPENDIX C

SECTION G

EXISTING ALIGNMENT

ESTIMATES

RIGHT-OF-WAY

APPENDIX C

SECTION G

WEST

ESTIMATES

CONSTRUCTION

DEPARTMENT OF TRANSPORTATION

Bureau of Highways

ESTIMATE SHEET

County of: <u>Perry</u>	From STA: <u>+00</u>
UPN _____	To STA: <u>228+50.00</u>
Fed No. _____	Net Length, mile: <u>4.33</u>
Item No. _____	Type of Construction: <u>Grade, Drain & Surfacing</u>
Road Name: <u>KY 15 - West Section G (20ft Median)</u>	Class of Road: <u>Rural Arterial</u>

Item #	Item	Quantity	Unit	Unit Price	Amount
	Roadway Exc (Mainline)	5,705,598	CU YD	\$ 2.50	\$ 14,263,995
	Asph Surf CL3 (Mainline Driving Lanes)	8,133	TON	\$ 85.00	\$ 691,305
	Asph Base CL3 (Mainline Driving Lanes)	65,419	TON	\$ 80.00	\$ 5,233,520
	CS Base (Mainline Driving Lanes)	29,285	TON	\$ 16.00	\$ 468,560
	Asph Surf CL2 (Mainline Shoulders)	6,253	TON	\$ 85.00	\$ 531,505
	Asph Base CL2 (Mainline Shoulders)	16,259	TON	\$ 80.00	\$ 1,300,720
	CS Base (Mainline Shoulders)	78,963	TON	\$ 16.00	\$ 1,263,408
	Roadway Exc (Appr/Entrances/Ramps)	192,235	CU YD	\$ 2.50	\$ 480,588
	Asph Surf CL2 (Approach Rd Driving Lanes)	1,207	TON	\$ 85.00	\$ 102,595
	Asph Base CL2 (Approach Rd Driving Lanes)	6,234	TON	\$ 80.00	\$ 498,720
	CS Base (Approach Rd Driving Lanes)	4,305	TON	\$ 16.00	\$ 68,880
	Asph Surf (CL2 Approach Rd Shoulders)	78	TON	\$ 85.00	\$ 6,630
	Asph Base CL2 (Approach Rd Shoulders)	188	TON	\$ 80.00	\$ 15,040
	CS Base (Approach Rd Shoulders)	655	TON	\$ 16.00	\$ 10,480
	Asph Surf CL3 (Ramp Driving Lanes)	585	TON	\$ 85.00	\$ 49,725
	Asph Base CL3 (Ramp Driving Lanes)	4,695	TON	\$ 80.00	\$ 375,600
	CS Base (Ramp Driving Lanes)	2,094	TON	\$ 16.00	\$ 33,504
	Asph Surf CL2 (Ramp Shoulders)	208	TON	\$ 85.00	\$ 17,680
	Asph Base CL2 (Ramp Shoulders)	539	TON	\$ 80.00	\$ 43,120
	CS Base (Ramp Shoulders)	4,281	TON	\$ 16.00	\$ 68,496
	Concrete Median Barrier	22,850	LF	\$ 55.00	\$ 1,256,750
	MISC ITEMS (@ 25%)				\$ 6,695,205
	Mainline Bridges (Sta. 195+62)	48,944	SQ FT	\$ 175.00	\$ 8,565,200
	Mainline Bridges (Sta. 208+63)	16,468	SQ FT	\$ 175.00	\$ 2,881,900
	30+55 ~ 14' x 10'		LP SUM		\$ 570,000
	195+65 ~ 14' x 10' RCBC		LP SUM		\$ 660,000
	220+08 ~ 10' x 6' RCBC		LP SUM		\$ 300,000
	MOBILIZATION		@ 3%		\$ 1,393,594
	DEMOBILIZATION		@ 1.5%		\$ 696,797
Construction-SubTotal					\$ 48,543,517
+10 Engr & Contg					4,854,352
Construction-Total					\$ 53,397,869
Construction Cost/Mile					\$ 12,338,764

Estimated by: D. Ford
 Checked by: _____

Last Edited: 11/21/2012
 Last Edited: _____

Right-of-way	\$2,571,883
Utilities	\$1,155,000
Construction	\$53,397,869
Total Cost	\$57,124,752
Cost/Mile	\$13,199,943

DEPARTMENT OF TRANSPORTATION

Bureau of Highways

ESTIMATE SHEET

County of: <u>Perry</u>	From STA: <u>+1.00</u>
UPN _____	To STA: <u>228+50.00</u>
Fed No. _____	Net Length, mile: <u>4.33</u>
Item No. _____	Type of Construction: <u>Grade, Drain & Surfacing</u>
Road Name: <u>KY 15 - West Section G (40ft Median)</u>	Class of Road: <u>Rural Arterial</u>

Item #	Item	Quantity	Unit	Unit Price	Amount
	Roadway Exc (Mainline)	6,280,931	CU YD	\$ 2.50	\$ 15,702,328
	Asph Surf CL3 (Mainline Driving Lanes)	8,133	TON	\$ 85.00	\$ 691,305
	Asph Base CL3 (Mainline Driving Lanes)	65,419	TON	\$ 80.00	\$ 5,233,520
	CS Base (Mainline Driving Lanes)	29,285	TON	\$ 16.00	\$ 468,560
	Asph Surf CL2 (Mainline Shoulders)	4,669	TON	\$ 85.00	\$ 396,865
	Asph Base CL2 (Mainline Shoulders)	12,139	TON	\$ 80.00	\$ 971,120
	CS Base (Mainline Shoulders)	85,223	TON	\$ 16.00	\$ 1,363,568
	Roadway Exc (Appr/Entrances/Ramps)	192,235	CU YD	\$ 2.50	\$ 480,588
	Asph Surf CL2 (Approach Rd Driving Lanes)	1,207	TON	\$ 85.00	\$ 102,595
	Asph Base CL2 (Approach Rd Driving Lanes)	6,234	TON	\$ 80.00	\$ 498,720
	CS Base (Approach Rd Driving Lanes)	4,305	TON	\$ 16.00	\$ 68,880
	Asph Surf (CL2 Approach Rd Shoulders)	78	TON	\$ 85.00	\$ 6,630
	Asph Base CL2 (Approach Rd Shoulders)	188	TON	\$ 80.00	\$ 15,040
	CS Base (Approach Rd Shoulders)	655	TON	\$ 16.00	\$ 10,480
	Asph Surf CL3 (Ramp Driving Lanes)	585	TON	\$ 85.00	\$ 49,725
	Asph Base CL3 (Ramp Driving Lanes)	4,695	TON	\$ 80.00	\$ 375,600
	CS Base (Ramp Driving Lanes)	2,094	TON	\$ 16.00	\$ 33,504
	Asph Surf CL2 (Ramp Shoulders)	208	TON	\$ 85.00	\$ 17,680
	Asph Base CL2 (Ramp Shoulders)	539	TON	\$ 80.00	\$ 43,120
	CS Base (Ramp Shoulders)	4,281	TON	\$ 16.00	\$ 68,496
	MISC ITEMS (@ 25%)				\$ 6,649,581
	Mainline Bridges (Sta. 195+62)	44,688	SQ FT	\$ 200.00	\$ 8,937,600
	Mainline Bridges (Sta. 208+63)	15,036	SQ FT	\$ 200.00	\$ 3,007,200
	30+55 ~ 14' x 10'		LP SUM		\$ 600,000
	195+65 ~ 14' x 10' RCBC		LP SUM		\$ 690,000
	220+08 ~ 10' x 6' RCBC		LP SUM		\$ 315,000
	MOBILIZATION		@ 3%		\$ 1,403,931
	DEMOBILIZATION		@ 1.5%		\$ 701,966
	Construction-SubTotal				\$ 48,903,602
	+10 Engr & Contg				4,890,360
	Construction-Total				\$ 53,793,962
	Construction Cost/Mile				\$ 12,430,834

Estimated by: D. Ford
 Checked by: _____

Last Edited: 11/12/2012
 Last Edited: _____

Right-of-way **\$2,800,817**
Utilities **\$1,155,000**
Construction **\$53,793,962**
Total Cost **\$57,749,779**
Cost/Mile **\$13,344,953**

APPENDIX C

SECTION G

WEST

ESTIMATES

RIGHT-OF-WAY

