

APPENDIX A
PROJECT TEAM
MEETING MINUTES

AGENDA
Programming Study - Initial Project Team Meeting
Union County US 60, Item No. 02-8102
10:30 a.m. CST, March 25, 2003
District 2 Conference Room

- 1) Introduction and Purpose
 - a) Listed in six-year highway plan as "Planning study to construct 4 lanes on US 60 from Sturgis to Morganfield."
 - b) Evaluate Roadway Improvements and prioritize projects for future programming documents
 - c) Provide input for the statewide transportation plan.

- 2) Project Goals and Objectives
 - a) Identify general project area
 - i) Sturgis to Morganfield
 - b) Discuss available data and reports
 - i) Traffic data
 - ii) Accident data
 - iii) Existing roadway geometry
 - (1) Little data available
 - (2) Resurfacing plans for 1930 with no plan profiles
 - (3) Old Earth Road? 1921 plans
 - iv) Other
 - c) Discuss problems with existing roadway or network
 - d) Discuss benefits of proposed project
 - e) Identify additional information needed to document problems
 - i) Traffic data
 - ii) Accident data
 - iii) Existing roadway geometry
 - iv) Other (ITS/Bikes/Ped.)
Real Estate Questionnaire
 - f) Environmental Justice
 - i) Provided by ADD
 - g) Identify logical termini
 - i) MP 5.671 (KY 109 (Main Street)) to MP 16.339 (KY 56)
 - ii) MP 5.671 to MP 15.412 (US 60 Bypass/ KY 3393)
 - iii) MP 5.671 to MP 18.051 (US 60 Bypass Northern end)
 - iv) MP 8.300 (Proposed Sturgis Bypass) to 15.412
 - v) other
 - h) Develop project goals and objectives
 - i) Define the need for the project
 - ii) Determine location of termini
 - iii) Describe existing conditions
 - iv) Develop environmental footprints
 - v) Estimate project cost
 - vi) Initiate contact with public officials and organizations

- 3) Discuss Possible Alternatives and Corridors
 - i) No build
 - ii) Spot Improvements
 - iii) Reconstruct with minimal relocation
 - iv) New route
 - v) Combination
 - vi) Other

- 4) Define Environmental Footprint Area
 - a) From KY 109 (MP 5.671) to US 60B (MP 15.412), to be provided by QK4 consultants.

- 5) Discuss Probable Design Criteria
 - a) Functional class
 - i) remain rural minor arterial
 - b) ADT/DHV
 - i) 2002 traffic 6980 ADT/ 789 DHV (11.3% from KYTC Division of Multimodal's Traffic Forecasting Report)
 - ii) 2030 traffic (2.4% growth rate from KYTC Division of Multimodal's Traffic Forecasting Report) ADT 13560/DHV 1532
 - c) Design speed
 - i) Majority 55 mph
 - ii) Some 35 mph urban sections
 - d) Typical section
 - i) 4-lanes
 - ii) median
 - iii) 8-12 foot shoulders
 - e) ITS
 - f) Bicycle/Pedestrian facilities
 - i) Bicycle route running parallel to route along KY 130.
 - g) Other criteria

- 6) Discuss Agency Coordination Needs
 - a) General agency coordination
 - b) Other local or interested agencies or groups

- 7) Discuss Public Involvement Needs
 - a) No public information meetings are planned for this study

- 8) Discuss Documentation/Reports
 - a) Previously developed information
 - b) Information to include in report
 - c) Level of detail in corridor/alternate development
 - d) Distribution
 - e) Other

- 9) Field Review of Project Area

Minutes
Programming Study - Initial Team Meeting
Union County, Item No. 8102.00
US 60 From Sturgis to Morganfield

Meeting Location: District 2 Office, Conference Room
Meeting Date: April 9, 2003

Introduction & Purpose

The meeting began at 10:00 AM local time. Handouts were distributed and attendees introduced themselves. Those present were:

Ted Merryman	D-2 Chief District Engineer
Everett Green	D-2 Preconstruction
T.C. Chambers	D-2 Construction
Kenny Potts	D-2 Traffic
Kevin McClearn	D-2 Planning
Nick Hall	D-2 Planning
Charlotte Cotton	D-2 Design
Joe Plunk	D-2 Design
Joe Luck	D-2 Design
Mark Allen	D-2 Utilities
Phillip Whitmer	D-2 ROW
Doug Taylor	D-2 Environmental Coordinator
Jennifer Alvey	Green River ADD
Gina Boaz	Green River ADD
Daryl Greer	CO Planning
Joe Tucker	CO Planning

The project was described as being listed in the 2002 Six-Year Highway Plan as "Planning study to construct 4 lanes on US 60 from Sturgis to Morganfield," with no other phases other than planning currently listed in the Six-Year Plan.

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

Project Description

Project Area

The general project area is Union County US 60 from Sturgis to Morganfield.

Available Data

Traffic Data

Existing traffic ranges from 4500 to 8520 vehicles per day with the highest traffic being near Morganfield.

Automatic Traffic Recorder (ATR) data is recorded south of Sturgis. However, it should not be used for this section due to the number of trucks south of Sturgis. The statewide model should be used instead.

Crash Data

Items highlighted in yellow in the crash analysis handout were seen as being more relevant due to being more recent. These numbers are derived from the CRASH database for January 1, 2000 to December 31, 2002. This information also showed a decrease in the number of crashes since the previous time period from January 1, 1996 to December 31, 1999.

The highest concentration of crashes was shown as being in the residential area near the Morganfield Bypass. This area was expected to have a high number of rear-end crashes, and the severity and types of crashes here should be evaluated further.

It was also noted that this project should stop at the Morganfield Bypass, and the crashes from the bypass into Morganfield should be evaluated as a separate project.

The schools and hospital just west of KY 1176 were noted as having high accident spots. The problems due to turning movements would probably be solved by a four-lane section.

Roadway Geometry

No old plans had been found. The team suggested checking old studies and using that information. The District agreed to look for plans on microfilm.

The curve near the liquor store just west of the Bypass was believed to have some horizontal and vertical problems. Blueberry Hill was also mentioned as having vertical problems.

Available Reports

1988 and 1998 studies are available and have been reviewed for this study. Both of these studies prioritized this section of roadway into three segments with the highest priority being from the Morganfield Bypass to KY 492. The second priority was from KY 492 to KY 950. The third priority was KY 950 to the Sturgis Bypass. The team agreed that the priorities should remain the same.

Problems with Existing Roadway

Proper turn lanes at the schools and hospital are a concern.

A previous curve revision just East of Hamner in the late 1980's to 12 foot lanes with shoulders has improved part of the geometric alignment.

Benefits of Proposed Project

- Four lane sections would provide a LOS of A throughout the project.
- The intent is to have 4 lanes from Henderson to Paducah. It was noted that this study should plan on 4 lanes throughout and allow the funding to dictate whether actual construction will be 4 lanes or 2 lanes on 4 lane ultimate right of way.
- A Sister project on KY 56 to Shawneetown Bridge may increase truck traffic in the project area.
- The project will improve connectivity to other roadways in the area and is the continuation of improvements to US 60 between Henderson and Paducah.
- An improved US 60 will provide a connection to the improvements on US 641 and future I-69.
- The project will improve safety by improving the cross sections to meet current design standards. Currently there are narrow shoulders, little to no clear zone, and vertical and horizontal sight distance problems.
- The capacity of the road will be increased to accommodate design year 2030 traffic.

Additional Information Needed

Traffic Data

2.4% growth rates were used for traffic projections. The District will provide traffic projections that were used for the other side of the Morganfield Bypass.

Possible future traffic generators such as I-69 and increased connectivity between existing and future roadway projects should be considered in the traffic projections.

Other (ITS/ Bikes/ Peds.)

There are no apparent ITS solutions.

The Rambling River Bike Tour is adjacent to this section of roadway on KY 130. So no specific bike facilities are anticipated for this project. The planned shoulders would be sufficient for bicycle traffic.

Pedestrians are not expected along the route due to the lack of population clusters.

Real Estate Questionnaire

- In a rural area it may not be beneficial.
- There was no significant relocations noted on other segments of US 60, so it is not expected here.
- Homes are pretty far off the road and few relocations are expected for this project.
- The market is expected to easily be able to absorb the relocations.
- Widening US 60 through Sturgis would be difficult due to the potential relocations involved and historic property concerns.

Environmental Justice

The Area Development District was asked to do an environmental justice report, and a letter request will be sent out.

No apparent community impact issues, clusters, gathering places, or other concentrations of populations were noted.

Logical Termini

- The Morganfield Bypass was chosen as the eastern terminus.
- The proposed Sturgis Bypass would be the logical western terminus, but no point has been tied down.
- The study should include the city of Sturgis, but it is doubtful that the improvements will go into Sturgis.
- District 1 will be contacted to find out their plans for getting US 60 to Sturgis.

Project Goals and Objectives

1. Provide corridor and system connectivity between improved and future improvements on US 60 from Paducah to Henderson.
2. Increase capacity to handle the existing and induced traffic along US 60.
3. Improve safety by correcting horizontal, vertical, and providing lane and shoulder widths that meet current standards.
4. Enhance regional and local network by providing improved access to schools and the hospital.

Cost Estimates

The initial cost estimate, which is based on other projects on US 60 in Union County listed in the Six-Year Plan, appears to be reasonable. Other similar projects on US 60 are at or below current six-year plan totals.

Possible Alternatives and Corridors

Expect to stay on existing alignment for most of the route. One area of concern is at the schools and hospital. It may be desirable to look at a larger area there in order to avoid potential section 4(f) areas and adversely affecting the schools or hospital. Blueberry Hill is another place where it may be desirable to deviate from the existing alignment.

Environmental Footprint Area

QK-4 consultants will provide the environmental footprint.

Probable Design Criteria

Functional Class

Rural Minor Arterial- will discuss with Jay Hoskins the effects of these improvements on the functional class.

Future ADT/ DHV

Design year 2030 traffic (2.4% growth rate from KYTC Division of Multimodal's Traffic Forecasting Report) ADT 13560/ DHV 1532

Design Speed

Mainly 55 mph speed with some 45 mph curb and gutter sections near Morganfield.

Typical Section

Should remain consistent with other improvements planned or finished along US 60. The District provided these typicals at the meeting.

Other

Partial access on 4 lane. Access by permit in Morganfield.

Agency Coordination Needs

Agencies to be included:

- Delta Regional Authority
- City and County Planning Commission
- Elected Officials
- Chamber of Commerce
- School Board
- Hospital
- Vocational School
- Industrial Foundation
- EMS
- Convention Center in Sturgis
- Airport in Sturgis

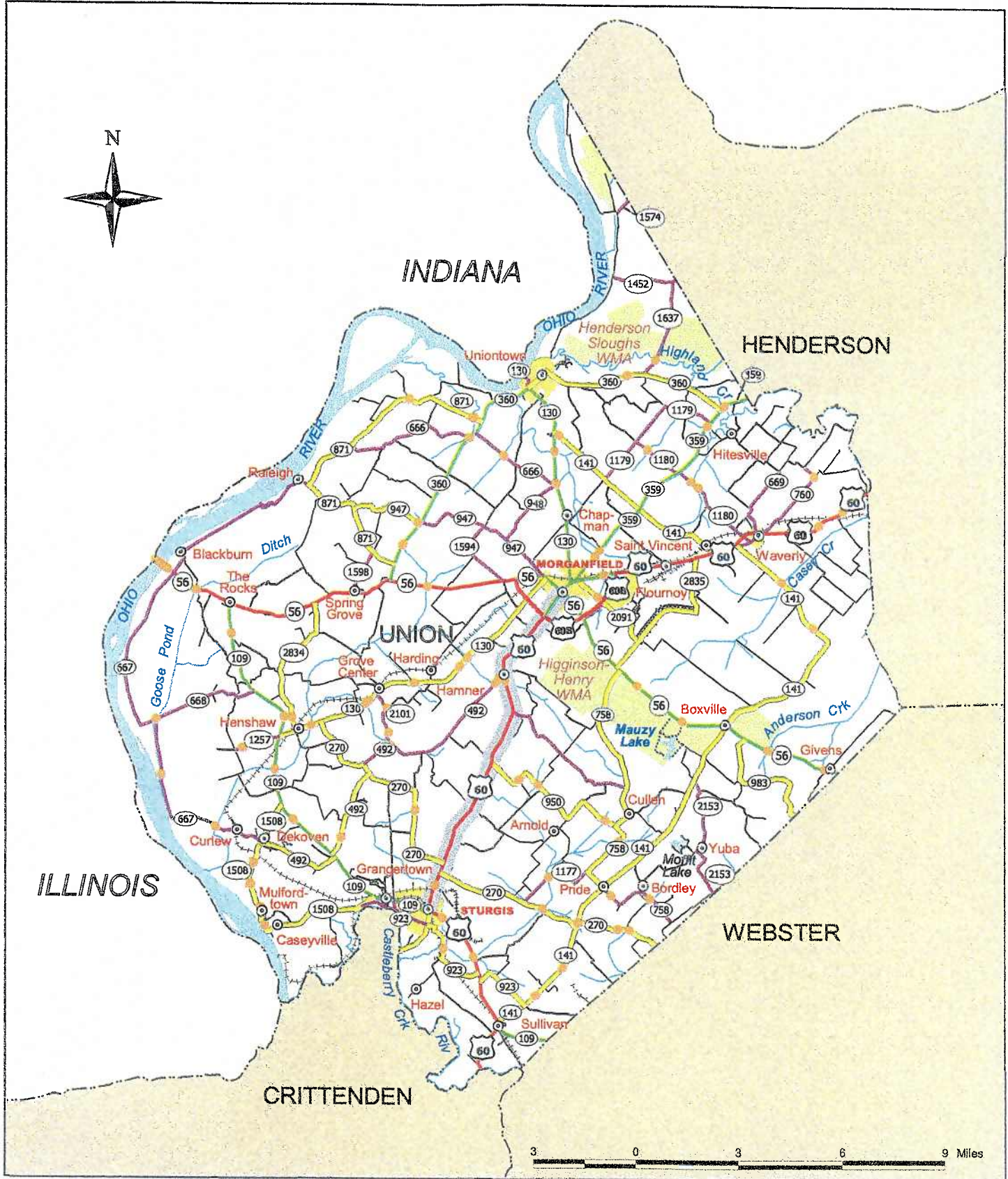
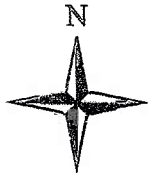
Public Involvement Needs

Not planning on having a public meeting but may meet with elected officials. A decision on meeting with the elected officials will be made at a later date.

An article about the study should be put into the local papers:

- The Union County Advocate
- The Henderson Gleaner
- The Sturgis paper

Field Review of Project Area



3 0 3 6 9 Miles

STUDY CORRIDOR



COUNTY MAP & PROJECT LOCATION
UNION COUNTY, US 60
ITEM NO. 02-8102.00

Union County
US 60
From Sturgis to Morganfield

General Information

County: Union
Route: US 60 **Beg MP:** 5.671 **End MP:** 16.300
Item No: 8102
Description: Planning Study to construct 4 lanes on US 60 from Sturgis to Morganfield. (02CCN)

ADD: Green River ADD
District: District 2
Functional Classification: Rural Minor Arterial
State System: State Primary (Other)
National Truck Network: Yes
NHS: No
Truck Weight Class: AAA
Type Road: Undivided Highway
Type of Terrain: Rolling
Number of Bridges: 2
Pavement type: Mixed

Crash Data

Route	Begin MP	End MP	Length (Miles)	ADT	Number of Lanes	Rural/Urban		Critical Crash Rate	Crashes			HMVM	MV	Rates per HMVM			Critical Rate Factor		
						Rural	Urban		Fatal	Injury	PDO			Total	Fatal	Injury		PDO	Total
January 1, 1996 to December 31, 1999 Crash Data																			
US 60	5.671	5.847	0.177	6630	2	Rural		593.594	0	2	11	13	0.0171	1.713	0.0	116.7	642.0	758.8	1.278
US 60	5.848	6.199	0.352	6980	2	Rural		481.848	0	1	7	8	0.0359	3.587	0.0	27.9	195.1	223.0	0.463
US 60	6.200	7.196	0.997	6130	2	Rural		394.500	0	10	27	37	0.0892	8.923	0.0	112.1	302.6	414.7	1.051
US 60	7.197	10.514	3.318	5360	2	Rural		334.176	1	15	39	55	0.2597	25.965	3.9	57.8	150.2	211.8	0.634
US 60	10.515	13.288	2.774	6520	2	Rural		333.471	0	12	32	44	0.2641	26.406	0.0	45.4	121.2	166.6	0.500
US 60	13.289	15.411	2.123	4500	2	Rural		365.078	0	26	51	77	0.1395	13.948	0.0	186.4	365.6	552.0	1.512
US 60	15.412	16.264	0.853	4500	2	Rural		433.660	0	19	28	47	0.0560	5.604	0.0	339.0	499.6	838.7	1.934
US 60	16.265	16.300	0.035	8520	2	Rural		986.593	0	8	20	28	0.0044	0.435	0.0	1837.5	4593.8	6431.3	6.519
January 1, 2000 to December 31, 2002 Crash Data																			
US 60	5.671	5.847	0.176	6630	2	Rural		652.896	0	1	4	5	0.0128	1.278	0.0	78.3	313.1	391.3	0.599
US 60	5.848	6.199	0.351	6980	2	Rural		520.303	0	1	5	6	0.0268	2.683	0.0	37.3	186.4	223.7	0.430
US 60	6.200	7.196	0.996	6130	2	Rural		417.633	0	3	10	13	0.0669	6.686	0.0	44.9	149.6	194.5	0.466
US 60	7.197	10.514	3.317	5360	2	Rural		347.248	0	14	15	29	0.1947	19.468	0.0	71.9	77.0	149.0	0.429
US 60	10.515	13.288	2.773	6520	2	Rural		346.431	1	17	25	43	0.1980	19.798	5.1	85.9	126.3	217.2	0.827
US 60	13.289	15.411	2.122	4500	2	Rural		383.244	1	17	36	54	0.1046	10.456	9.6	162.6	344.3	516.4	1.348
US 60	15.412	16.264	0.852	4500	2	Rural		463.488	0	11	26	37	0.0420	4.198	0.0	262.0	619.3	881.3	1.902
US 60	16.265	16.300	0.035	8520	2	Rural		1120.750	0	4	9	13	0.0033	0.327	0.0	1225.0	2756.3	3981.3	3.552
January 1, 1996 to December 31, 2002 Crash Data																			
US 60	5.671	5.847	0.176	6630	2	Rural		505.601	0	3	15	18	0.0298	2.981	0.0	100.6	503.1	603.7	1.194
US 60	5.848	6.199	0.351	6980	2	Rural		423.432	0	2	12	14	0.0626	6.260	0.0	32.0	191.7	223.7	0.528
US 60	6.200	7.196	0.996	6130	2	Rural		358.741	0	13	37	50	0.1560	15.600	0.0	83.3	237.2	320.5	0.893
US 60	7.197	10.514	3.317	5360	2	Rural		313.774	1	29	54	84	0.4543	45.426	2.2	63.8	118.9	184.9	0.589
US 60	10.515	13.288	2.773	6520	2	Rural		313.248	1	29	57	87	0.4619	46.194	2.2	62.8	123.4	188.3	0.601
US 60	13.289	15.411	2.122	4500	2	Rural		336.838	1	43	87	131	0.2440	24.398	4.1	176.2	356.6	536.9	1.594
US 60	15.412	16.264	0.852	4500	2	Rural		387.759	0	30	54	84	0.0980	9.796	0.0	306.3	551.3	857.5	2.211
US 60	16.265	16.300	0.035	8520	2	Rural		786.112	0	12	29	41	0.0076	0.762	0.0	1575.0	3806.3	5381.3	6.845
Project Averages- January 1, 1996 to December 31, 2002 Crash Data																			
US 60	5.671	16.300	10.629	5580	2	Rural		285.549	3	161	345	509	1.5154	151.537	2.0	106.2	227.7	335.9	1.176
High Accident Spots- January 1, 1996 to December 31, 2002 Crash Data																			
Route	Begin MP	End MP	Length (Miles)	ADT	Number of Lanes	Rural	Urban	Critical Crash Rate	Fatal	Injury	PDO	Total	HMVM	MV	Fatal	Injury	PDO	Total	Critical Rate Factor
US 60	16.000	16.300	0.300	4980	2	Rural		1.429	0	24	62	86	0.0382	12.724	0.0	1.9	4.9	6.8	4.730
US 61	14.800	15.100	0.300	4500	2	Rural		1.466	0	20	39	59	0.0345	11.498	0.0	1.7	3.4	5.1	3.501
US 62	14.300	14.600	0.300	4500	2	Rural		1.466	0	7	18	25	0.0345	11.498	0.0	0.6	1.6	2.2	1.483
US 64	5.671	5.971	0.300	6630	2	Rural		1.335	0	4	19	23	0.0508	16.940	0.0	0.2	1.1	1.4	1.017
High Accident Spots- January 1, 2000 to December 31, 2002 Crash Data																			
US 60	16.000	16.300	0.300	4980	2	Rural		1.813	0	10	28	38	0.0164	5.453	0.0	1.8	5.1	7.0	3.843
US 61	14.800	15.100	0.300	4500	2	Rural		1.873	0	7	19	26	0.0148	4.928	0.0	1.4	3.9	5.3	2.817
US 62	14.300	14.600	0.300	4500	2	Rural		1.873	0	4	5	9	0.0148	4.928	0.0	0.8	1.0	1.8	0.975
US 64	5.671	5.971	0.300	6630	2	Rural		1.335	0	2	5	7	0.0508	16.940	0.0	0.1	0.3	0.4	0.310

Level of Service Calculations

Begin MP	End MP	2002 ADT	Annual Growth Rate	2030 ADT	% Trucks	Number of Lanes	Lane Width (Feet)	Shoulder Width (Feet)	% Passing Sight Distance	Access Points Per Mile	Direction Split	Speed Limit (MPH)	2002 LOS	2030 LOS No Improv.
5.671	5.848	6630	2.4%	12880	6.4%	2	12	0	34	17	57.1%-42.9%	25	C	D
5.848	6.200	6980	2.4%	13560	6.4%	2	12	0	34	20	57.1%-42.9%	35	C	D
6.200	7.197	6130	2.4%	11909	6.4%	2	12	3	34	10	57.1%-42.9%	55	C	D
7.197	10.515	5360	2.4%	10413	6.4%	2	11	3	60	2	57.1%-42.9%	55	C	D
10.515	13.289	6520	2.4%	12666	6.4%	2	11	3	60	2	57.1%-42.9%	55	C	D
13.289	15.412	4500	2.4%	8742	6.4%	2	11	3	20	3	57.1%-42.9%	55	C	D
15.412	16.265	4500	2.4%	8742	6.4%	2	12	3	20	7	57.1%-42.9%	35	C	D
16.265	16.300	8520	2.4%	16552	6.4%	2	14	0	20	29	57.1%-42.9%	25	D	E

Cost Estimates from 6-Year Plan

Length	Project Number	Description	Design	ROW	Utility	Const.	Total
5.6	02-79.20	Reconstruct from Waverly to Corydon	\$ 1.80	\$ 4.00	\$ 2.00	\$ 16.00	\$ 23.80
3.7	02-122.01	Morganfield Bypass to Waverly	\$ 0.30	\$ 3.10	\$ 2.30	\$ 14.30	\$ 20.00
2.3	02-123.01	Waverly Bypass	\$ 0.30	\$ 1.25	\$ 0.75	\$ 9.00	\$ 11.30
2.1	02-139.00	Sullivan Bypass	\$ 0.80	\$ 1.50	\$ 1.00	\$ 8.00	\$ 11.30
Per Mile							
5.6	02-079.20	Reconstruct from Waverly to Corydon	\$ 0.32	\$ 0.71	\$ 0.36	\$ 2.86	\$ 4.25
3.7	02-122.01	Morganfield Bypass to Waverly	\$ 0.08	\$ 0.84	\$ 0.62	\$ 3.86	\$ 5.41
2.3	02-123.01	Waverly Bypass	\$ 0.13	\$ 0.54	\$ 0.33	\$ 3.91	\$ 4.91
2.1	02-139.00	Sullivan Bypass	\$ 0.38	\$ 0.71	\$ 0.48	\$ 3.81	\$ 5.38
			\$ 0.38	\$ 0.84	\$ 0.62	\$ 3.91	\$ 5.75
			\$ 0.08	\$ 0.54	\$ 0.33	\$ 2.86	\$ 3.81
			\$ 0.23	\$ 0.70	\$ 0.45	\$ 3.61	\$ 4.99
			\$ 0.23	\$ 0.72	\$ 0.44	\$ 3.45	\$ 4.85
Maximum							
Minimum							
Average							
Weighted Average							
7.112	02-81.02.00	Proposed Sturgis Bypass to Morganfield Bypass	\$ 1.60	\$ 5.00	\$ 3.20	\$ 25.70	\$ 35.50

Crossroad Crash History Within 2 Miles of US 60

Route	Total Crashes	Fatal	Injury	PDO	Traffic Volume	HMVM	Critical Crash Rate	CRF
KY 365	7	0	3	4	2020	0.0463	452.91	0.3340
KY 109	44	2	12	30	5820	0.3005	328.27	0.4461
KY 270 E	2	0	0	2	1120	0.0327	493.41	0.1239
KY 270 W	3	0	0	3	619	0.0181	583.83	0.2843
KY 950	1	0	1	0	212	0.0062	852.51	0.1895
KY 1176	4	0	1	3	352	0.0103	704.00	0.5528
KY 492	7	0	1	6	450	0.0131	646.79	0.8236
US 60B	6	2	1	3	8500	0.0621	424.22	0.2279
KY 3393	1	0	1	0	8500	0.2482	336.10	0.0120
KY 56	80	0	21	59	5238	0.3059	327.57	0.7984
KY 130	33	0	15	18	4770	0.2786	331.27	0.3576

**Kentucky Transportation Cabinet
Unscheduled State Highway Plan Needs**

County: Union

State LRP Control No.	Corr. No.	Route	County	ADD/ MPO Area	Length (Miles)	Project Description	Total Unsch Cost (\$Mil)	Fed. Sys.	State Sys.	Funct. Sys.	2001 Local Priority	2001 ADD/ MPO Priority (Rank)	2001 Highway district Priority	2001 State Wide Priority
02 113 B0060 81.00	17	US 60	Union	Green River	2.2	Major widening to 4 lanes from proposed Sturgis bypass to KY 950 to KY 492. See Segment 22 in April, 1998 Advance Planning Study.	14.5	STP	SP	MN A	LOW	LOW	LOW	LOW
02 113 B0060 82.10	17	US 60	Union	Green River	2.8	Major widening to 4 lanes from KY 950 to KY 492. See segment 23 in April, 1998 Advance Planning Study.	17.6	STP	SP	MN A	MED	MED	LOW	LOW
02 113 B0060 82.20	17	US 60	Union	Green River	1.9	Major widening to 4 lanes from KY 492 to Morganfield Bypass. See Segment 24 in April, 1998 Advance Planning Study.	12	STP	SP	MN A	HI	HI	HI	HI