

Appendix D

Project Team Meeting Minutes

MEETING MINUTES

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Project: Kentucky 90 Pre-Design Scoping Study, Item No. 8-136.00

Purpose: Project Team Meeting #1, Project Kick-off

Place: KYTC, District 8 Conference Room, Somerset

Meeting Date: July 17, 2003, 10:00 a.m.

Prepared By: Chad Snellen

In Attendance:

David Martin	KYTC, Central Office, Division of Planning
Danny Jewell	KYTC, District 8, Chief District Engineer
Tom Clouse	KYTC, District 8, Planning
Jeff Moore	KYTC, District 3, Planning
Cathi Blair	KYTC, District 8, Environmental Coordinator
Tammy Wilson	KYTC, District 8, Traffic
Joe Cox	KYTC, District 8, Design
David Beattie	KYTC, District 8, Preconstruction Engineer
Russell Jones	KYTC, District 8, Operations
Alvin Dodson	KYTC, District 8, Right of Way
Alan Edwards	KYTC, District 8, Utilities
Keirsten Jagers	KYTC, District 3, Public Information Officer
David Smith	Qk4, Vice President
Bob Gustafson	Qk4, Senior Vice President
Chad Snellen	Qk4, Transportation Engineer

To begin Mr. Smith, the facilitator of the project team meeting, asked all attendees to introduce themselves. Once the introductions concluded, Mr. Smith provided a brief description of the project. The proposed project, as described in the KYTC Six-Year involves studying the need for spot improvements to the section of KY 90 between Beaumont and Burkesville in Metcalfe (District 3) and Cumberland (District 8) Counties, a distance of approximately 25 miles. Improvements to this section of KY 90 could improve the east-west connection from Burkesville to Glasgow. Each attendee was given a folder that contained a meeting agenda, three handouts providing existing information pertaining to KY 90, and a paper copy of a PowerPoint presentation. Posted around the room were several graphics of the project study area, including a USGS map with the project corridor highlighted, a map depicting existing roadways with the corresponding traffic and accident data, and also an aerial photograph for the project area.

Following the project description, Mr. Smith used a PowerPoint presentation to conduct the meeting and generate open discussion of the agenda items (see attachment A).

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Previous Studies. One general concern among the group was to find out who was responsible for pushing this project into the six-year plan and their expectations for this project. The consensus was no KY 90 specific studies have been conducted, however previous studies on other area roadways could provide helpful information on existing conditions and understanding transportation issues. Studies identified include:

- Improvements to KY 90 in District 3 west of the current project.
- KY 61 – Tom Clouse mentioned a section of KY 61 north of Burkesville.

Scope of Work. Mr. Smith went through the major elements of the Scope of Work, with a brief discussion of each:

1. Analyze Existing Highway Conditions
2. Prepare Environmental Overview/Footprint
3. Develop Project Goals
4. Identify Alternatives
5. Recommendations
6. Report
7. Public Involvement

Mr. Smith noted the Environmental Overview would consist primarily of a literature review, with limited fieldwork conducted. There was generally concern among the District 8 attendees, about possible historical districts along this section of KY 90 and how these properties may affect proposed improvements. Tom Clouse suggested that determining the boundaries of any historic properties would be helpful early in the design phase, in an attempt to reduce any unfeasible engineering efforts. David Beattie stated that a historic overview would not provide enough information. In some instances even widening may not be an option if historical boundaries are unknown. Tom Clouse asked what the additional cost would be for a study that included historical boundaries. Mr. Smith did not have that information available. District 8 and the Division of Planning continue to discuss what could be done concerning this issue.

Public involvement will be limited to two project team meetings, one local officials/stakeholders meeting, one public meeting and resource agency coordination.

Study Schedule. Mr. Smith presented the schedule, which is as follows:

- Environmental Overview Fall 2003
- Present Preliminary Alternatives Fall 2003
- Present Feasible Alternatives Winter 2003/2004
- Draft Report March 2004
- Final Report May 2004

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Existing Conditions. Available HIS data, including traffic volumes, crashes, and the geometrics of major highways in Metcalfe and Cumberland Counties were presented in handouts. According to the Crash Analysis presented in Table 3 there is a high injury rate on KY 90 in Cumberland County, between mile points 5.15 and 5.337, as well as the KY 90 and KY 3115 intersection. All of KY 90 within the study area has sub-standard driving lanes and shoulder widths; and about 15 percent is rated at LOS B, 75 percent is rated LOS C, with the remainder at LOS E. Current traffic volumes range from 2,400 to 7,000 ADT, and are forecast to increase approximately 50 - 54 percent by the year 2030. Traffic volumes were forecasted by using the functional class of Rural Minor Arterial, a 20-year multiplier of 1.61, and an annual growth rate of 2.40%.

Issues, Problems/Needs. Mr. Smith led the group in a brainstorming exercise to identify project and planning issues, problems, needs, and opportunities using colored post-it notes. Mr. Smith re-iterated that input from team meeting attendees – especially those familiar with the area – was a critical source of information. The group’s written comments generally fell into the following seven major categories:

- Geometric and Safety Issues
- Truck and Recreational Vehicles
- Historical and Environmental Issues
- Match Improvements West of Beaumont
- Community Impacts
- Expectations of Elected Officials and Community Leaders
- Economic Development

Mr. Smith commented that these categories and comments would be used to draft the study’s first set of Goals and Objectives. The “safety” category generated the largest amount of responses, followed by “growth and economic development.” He encouraged attendees to consult with their colleagues for additional issues, problems, and needs.

Alternatives. At this stage in the study it would be premature to propose any alternatives or potential solutions.

- Locations Identified for Further Study for Possible Spot Improvements:
 - Three to four narrow bridges that are in need of replacing. Water overtopping road at Wisdom Creek Bridge near KY 496 and Marrowbone Creek.
 - A review of the map plotting crash site locations indicated crash sites are not clustered together around specific high crash locations but, rather appear to be spaced along the roadway.
 - Reconstruct several curves that are currently signed for a 45 mph speed limit.
 - Cutting back high rock walls two miles East of Farris Fork Bridge, in Cumberland County.
 - Implement a solution to eliminate a high accident area around mile point 12.5 to 13.5 just past Old Burkesville Road.
 - Minimize impacts on possible historic districts around the small towns of Marrowbone and Summer Shade. Also consider impacts to local Amish Community and farms when considering possible alternatives.

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- Bicycle/Pedestrian: It was noted that the typical section would accommodate bicycle facilities for cost estimation purposes. However, the planning study will not make a final determination of the cross-section of any recommended alternative. None of the attendees were immediately aware of any existing/designated bike paths/routes in the study area, however it was agreed additional research was warranted.
- Corridor Improvement
 - Some confusion about the extent or purpose of this project was also discovered because it is being referred to as a spot improvement project but money allocated is more closely related to that of a corridor improvement. Mr. Smith stated that Qk4 will study both spot improvements and corridor improvements, however the cost estimates for each will be on a per mile basis.
- Improvements to Existing Highways:
 - KY 90 West of Beaumont has recently been improved.
- No build alternative will also be investigated as a possible course of action.

Data Collection. Practical estimates for construction, utility, and right-of-way cost information for recent local projects will be used when compiling cost estimates when possible. David Martin will examine environmental justice, relocation, and real estate issues. Relocation and real estate issues will be addressed on the basis of countywide averages and general numbers.

Local Agency Coordination. It was agreed that local sheriffs, Clinton and Wayne County Judges as well as all other elected officials would be invited to the local officials meeting that is tentatively scheduled for August 28, 2003 at the community center (old school) in Marrowbone.

Follow-up and Next Steps. David Smith stated that the next Project Team Meeting (meeting #2) would be scheduled after the local officials meeting and public meeting, in an attempt to gather as much of the local communities expectations and comments as possible.

The meeting adjourned at approximately 11:45 am.

END OF MINUTES

MEETING MINUTES

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ATTACHMENT A – AGENDA

Kentucky 90 Pre-Design Scoping Study Project Team Meeting No. 1 Agenda

Date: July 17, 2003
Time: 10:00 AM
Location: KYTC District 8
Somerset, KY

1. Introductions
2. Scope of Work
 - a. Proposed Study Area
 - b. Prior Studies/Reports
 - c. Major Scope Elements
 - d. Project Schedule
3. Existing Conditions (Preliminary Review)
 - a. Highway Conditions
 - b. Traffic Analysis
 - c. Safety Analysis
 - d. Environmental Footprint
 - e. Environmental Justice Report
4. Project Issues and Goals
 - a. Project Issues
 - b. Project Problems/Needs
5. Alternative Development
 - a. Do Nothing Beyond Existing and Committed
 - b. Spot Improvements
 - c. ITS Applications
 - d. Bicycle/Pedestrian Considerations
 - e. Improvements to Existing Highways
 - f. New Road Construction
 - g. Other
6. Data Collection
 - a. Available Data
 - b. New Data Collection
 - c. Aerial Photography
 - d. Real Estate/Relocation Information
7. Agency Coordination Needs
8. Follow-up and Next Steps



Architecture

Engineering

Construction

MEETING MINUTES

Project: KY 90 Pre-Design Scoping Study
Item Number 08-136.00
Purpose: Project Team Meeting
Place: Somerset, Kentucky, D8 Multi-Purpose Building
Meeting Date: April 17, 2006
Prepared By: William Crawford
In Attendance:

Tom Clouse	KYTC, D8, Planning
Jeff Moore	KYTC, D3, Planning
Jim Wilson	KYTC, CO, Planning
David Martin	KYTC, CO, Planning
Rodney Little	KYTC, D8, Construction
David Beattie	KYTC, D8, Pre-Construction
Joe Cox	KYTC, D8, Design
Russell Jones	KYTC, D8, Operations
Jerry Gadberry	KYTC, D8, Traffic
Cathi Blair	KYTC, D8, Environmental
Gorman Shelley	KYTC, D8, Maintenance
Michael W. Ballard	KYTC, D8, Maintenance
Steve James	KYTC, D3, Design
Ken Cox	KYTC, D3, Design
Daryl Price	KYTC, D3, Permits
Keirsten Jagers	KYTC, D3, PIO
David Smith	Qk4, Vice President
Ben Brodbeck	Qk4, Transportation Engineer
William Crawford	Qk4, Transportation Planner

Mr. Tom Clouse, KYTC, D8, welcomed everyone to the meeting, and requested all attendees introduce themselves. He then turned the meeting over to Mr. Smith, who facilitated the project team meeting.

The proposed project is a pre-design scoping study involving feasible alternatives to improve KY 90 from the Barren-Metcalf County line (District 3) to the KY 90/KY 61 intersection in Cumberland County (District 8). The project is about 26 miles long, involves several small towns, and would improve the east-west connection between the project termini. The purpose of the meeting was to review the preliminary alternative improvements and construction estimates, and receive feedback. Available for review were large-scale aerial photographs depicting the preliminary improvement alternatives under consideration, which included the study area environmental overview (*i.e.*, potential archaeological sites, historic districts, individual historic sites, wetlands, ponds, surface waters); exhibits of crash data, existing and future traffic volumes, and Levels of Service (LOS); and a typical section exhibit. Attendees were provided a handout packet containing the meeting agenda, 11x17 map indicating the study area, a list of National Register of Historic Places (NRHP) and potential NRHP individual sites and districts, summary of comments from the two public information meetings, and the draft project goals (see Attachments).

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Following the introductions, Mr. Smith used the handouts, aerial photos, and exhibits to conduct the meeting and generate open discussion of the agenda items (see Attachments).

Status of Study. Mr. Smith began with a review of the project's background (initial planning began in 2003, then was suspended), the previous team meeting, the purpose of this meeting, and a description of the study area. Mr. Smith reviewed the status of the study, noting it is now at the preliminary alternatives review stage.

Review Environmental Footprint. Mr. Smith reviewed the study area's environmental footprint referring to the aerial photographs and noting that all known environmental features were indicated, including:

- 1 NRHP district and an expansion of that district, 5 potential districts, 23 individual historic sites, and 19 survey only sites
- 7 previous archaeological surveys, 13 known sites, 9 considered not eligible, 4 not assessed
- up to 49 streams, and 108 potential wetlands and ponds
- threatened and endangered species known to occur in the area include the bald eagle, gray bat, 11 fresh water mussels, and 1 fish.

Review Traffic and Crash Information. Using the graphic exhibits, Mr. Smith reviewed the study area's existing and projected traffic volumes, LOS's, and crash analysis indicating only two high crash locations (*i.e.*, vicinity of KY 640 in Summer Shade, and the KY 90/KY 163 intersection). Available HIS data, including traffic, crashes, and highway geometrics of major roadways in the study area was available in the handout.

Review Public Information Meeting Comments. Mr. Crawford reviewed a summary of the public information meeting comments. Two hundred-two people attended the two meetings, and submitted 28 comment forms representing 37 individuals, all of whom agreed KY 90 had problem areas. The comments tended to fall within several common themes concerning KY 90: narrow driving lanes and narrow or no shoulders; too much commercial truck and recreational vehicle traffic; too many speeding vehicles, especially through the towns; few passing opportunities, and the on-coming traffic volume often prevented passing a slower moving vehicle. Several people suggested bypassing the towns as a means to remove trucks and speeding vehicles from the town roadway. Poultry/chicken trucks were specifically cited in terms of volume and speeding. Most people believed improving KY 90 would make the road safer, improve the local economies, and make it easier to attract businesses to the area. Some suggested a 4-lane highway with a median was the best solution. A few submitted hand-drawn maps of alternatives and bypasses, but on the whole agreed the areas most in need of improvement had already been identified on the study area maps.

Review Draft Project Goals. Mr. Smith presented the draft project goals developed from comments and concerns expressed during the previous project team, local officials, and stakeholder meetings, and at the two recent public information meetings. He noted that a purpose and need statement is not developed with a pre-design scoping study, but the project goals lead to a purpose and need statement.

A discussion concerning the need for a 4-lane highway developed. It was believed necessary to formally address the issue since a number of local citizens had expressed a desire for a 4-lane highway. A review of existing and projected traffic volumes indicated traffic volumes could not justify a 4-lane highway. Additionally, KY 90 in Barren County is already scheduled for improvement and has greater traffic volumes near Glasgow than experienced by KY 90 in the study area. A short section of KY 90 near Glasgow will have 4-lanes, however the majority will be 2-lanes, including the roadway leading up to the Metcalfe county line. Constructing passing lanes at periodic intervals was suggested, however, that requires a level of design not addressed at this stage of the scoping study. Roadway profiles and potential passing lane locations would be investigated next, after the preliminary alternative improvements were reviewed and agreed upon. The project team agreed it was more practical to design a roadway that was economically feasible, and would be more

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compatible with the KY 90 improvements already scheduled for Barren County. Therefore, a 2-lane highway improvement would be considered for KY 90 in Metcalfe and Cumberland Counties. It was suggested, and agreed, to replace the word “continue” in the sixth project goal with the word “compliment.”

The discussion continued with the typical section’s lane and shoulder widths to use for preliminary design purposes (*i.e.*, the second project goal bullet concerning “current design standards”). Current design standards call for 12-foot lanes and 8-foot shoulders. However, in Barren County, KY 90 improvements use 11-foot lanes and 6-foot shoulders; and spot improvements generally involve the addition of passing lanes because alternatives on new alignment are not feasible due to residential development. It was noted that future economics may dictate a change in lane and shoulder widths to “betterment quality” (*i.e.*, 11-foot lanes, 6-foot shoulders). Since the future cannot be predicted, it was believed better for planning purposes to design for the wider lanes and shoulders throughout the study area, which would permit comparing all improvements considered by the same standard and provide a “most expensive” scenario. If future conditions dictate betterment quality improvements, then cost estimates can be adjusted accordingly. The project team agreed we wanted to “try to give the people the best improvement we can.” Therefore, the bullet would remain as stated, and improvements designed for 12-foot driving lanes and 8-foot shoulders.

Discuss Preliminary Alternatives. Mr. Brodbeck presented and discussed the preliminary improvement alternatives using the aerial photo exhibit and a handout table listing KY 90 improvement opportunities, their length, and estimated construction cost (see Attachment). Improvement opportunities were identified through a windshield survey, and a consideration of previous meeting minutes and public meeting comments. Improvements were divided into two categories. Numbered items involved more extensive spot improvements such as bypasses, realignment of curves or intersections, bridge replacement, and curb and gutter through towns. Lettered items involved reconstructing the remaining KY 90 roadway sections located between the numbered improvements, with one exception. A windshield survey identified a KY 90 section east of Beaumont, between Martin Cemetery Road and the Metcalfe-Cumberland county line (a distance of about 5-miles), which appeared to have already been improved with a more favorable typical section consisting of 11-foot wide lanes and 6-foot shoulders. This section was considered to be less in need of improvement than other KY 90 sections, therefore a reconstruction cost estimate was not prepared for the section. Each proposed improvement alternative consists of a two lane, undivided roadway with a 60-mph design speed meeting current design standards (*i.e.*, 12-foot lanes, 8-foot shoulders). Curb and gutter improvements through the towns are within the existing right-of-way to avoid impacting historic or potentially historic property sites.

Some discussion and explanation of individual improvement opportunities occurred. The project team agreed with, and accepted, the proposed improvements. The project team requested a cost estimate be developed for improving the KY 90 section between Martin Cemetery Road and the county line to current design standards to maintain continuity with the other improvements, and to provide a total KY 90 reconstruction cost estimate.

Alternative Preferences. Mr. Smith conducted two “voting” exercises using post-it notes to determine project team members’ preferences concerning the proposed improvements. Qk4 members abstained from voting.

1. The first exercise asked team members to take eight (8) post-it notes and place one post-it note on the eight improvement alternatives they believed were needed most.
2. The second exercise asked team members to take three (3) post-it notes, number them as 1, 2, and 3, and place the notes on the eight improvements identified in the first exercise in priority order, with one (1) being the highest priority, and three (3) the lowest.

The results of the voting exercises are summarized in the table below. Exercise 1 identified the eight proposed improvements the project team felt were the most important to implement in the study area. No other proposed improvements received a vote. The bypasses were clearly preferred over other improvement

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alternatives, with Burkesville Bypass receiving the most votes, followed by a Summer Shade Bypass, and a Waterview Bypass.

Item	Improvement	Exercise 1	Exercise 2			Cumulative Score
		Number of Votes	Priority 1 Votes	Priority 2 Votes	Priority 3 Votes	
1	Summer Shade Bypass	17	4	3	3	21
4	Beaumont Bypass	13	0	2	0	4
5	Anderson Curve Reconst.	8	0	0	0	0
7	Marrowbone Bypass	14	0	4	4	12
10	Waterview Bypass	16	0	1	3	5
15	Norris Branch Rd to Owens Rd Relocation	15	0	4	5	13
16	Burkesville Hill Reconst.	4	0	0	0	0
17	Burkesville Bypass	20	12	2	0	40
18	KY 90/KY 61 Intersection Reconst.	1	0	0	0	0

In Exercise 2, the cumulative score column represents an attempt to prioritize the improvement alternatives based upon a weighting scale. Priority 1 votes were assigned a weight of 3, Priority 2 a weight of 2, and Priority 3 a weight of 1. The number of votes for each priority were multiplied by their assigned weight number, and then summed to obtain the cumulative score for that improvement alternative. Using Summer Shade Bypass as an example, the cumulative score is: $(4 \times 3) + (3 \times 2) + (3 \times 1) = 21$. Based upon the project team members voting preferences in Exercise 2, improvement alternatives Burkesville Bypass, Summer Shade Bypass, and Norris Branch Road to Owens Road relocation were considered the top three most important to implement.

Resource Agency Coordination/Involvement. Mr. Smith initiated discussion concerning coordination letters to the resource agencies. The comment was made we could anticipate some agencies responding with useful comments, and others will provide a general response, or withhold comments until project specifics are provided. Central Office maintains a mailing list database for resource agency coordination letters. Central Office and District 8 will coordinate to mail the letters. Qk4 will develop and provide the exhibits to attach to the letters.

The environmental justice and community impacts section of the pre-design scoping study are to be provided by the respective Area Development Districts (*i.e.*, Lake Cumberland ADD and Barren River ADD). The District offices will request the environmental justice and community impacts analysis with a due date of June. Qk4 will develop and provide the study area exhibits to attach to the requests.

Follow-up and Next Steps. Mr. Smith concluded the meeting by discussing the remaining scope of work requirements, and the upcoming study phases and dates. According to the scope of work, the Districts are to provide utility and right-of-way costs. The estimated availability date is May-June. Qk4 will review the resource agency response letters, and continue preparation of the draft pre-design scoping study report for review by the KYTC by August 2006. Another project team meeting will be scheduled to review the final improvement alternatives and recommendations, probably in July.

The meeting adjourned at approximately 12:15 p.m.

END OF MINUTES

**KY 90 Pre-Design Scoping Study
Project Team Meeting No. 1
Agenda**

**Date: April 17, 2006
Time: 10:00 A.M.
Location: KYTC District 8
Somerset, KY**

1. Introductions
2. Status of Study
3. Review Environmental Footprint
4. Review Traffic and Crash Information
5. Review Public Information Meeting Comments
6. Review Draft Project Goals
7. Discuss Preliminary Alternatives
8. Agency Coordination
9. Follow-up and Next Steps
 - a. Schedule
 - b. Report

KY 90 Improvement Opportunities, Metcalfe-Cumberland Counties

(improvement opportunities are described in order from west to east in the study area)

Item	Improvement Description	Length (miles)	Est. Cost* (million dollars)
n/a	Curve just west of Barren-Metcalfe County line. Outside this project's scope of work. Included in KYTC Item No. 3-108.50, reconstruct KY 90 from east of Glasgow to Metcalfe County line.		
Metcalfe County			
1	Bypass Summer Shade to the south:		
1-1 (yellow)	Summer Shade Bypass 1. Beginning west of Big Jack Road, curve southeast on new alignment to proceed east to bypass Summer Shade to the south, and reconnect with KY 90 east of Ernie Ferrell Road. This alternative is more expensive and longer than 1-2, but positions the roadway further from residential dwellings.	2.31	10.3
1-2 (orange)	Summer Shade Bypass 2. Beginning about Big Jack Road, curve southeast on new alignment to proceed east to bypass Summer Shade to the south, and reconnect with KY 90 about Ernie Ferrell Road. This alternative is less expensive and shorter than 1-1, but positions the roadway closer to residential dwellings.	1.76	3.6
2	Reconstruct KY 90 through Summer Shade with curb and gutter, and sidewalks, using the existing right-of-way. Includes reconstructing the intersections at Bronston Howard Road (access road to Summer Shade Elementary School) and KY 640.	0.44	0.7
3	KY 90/KY 163 intersection. This intersection was identified as a high crash location and is scheduled for reconstruction with KYTC Item No. 3-276.50, relocate KY 163 from south of Cyclone Road in Monroe County extending north to KY 90 in Metcalfe County. Interim improvement opportunities include improved signing (<i>e.g.</i> , warn KY 163 drivers that intersection is not a 4-way stop; cross traffic does not stop.)	--	--
4	Bypass Beaumont to the south:		
4-1 (blue)	Beaumont Bypass 1. Beginning from the vicinity of the Kingsford Manufacturing Plant, proceed almost due east on new alignment to bypass Beaumont to the south, and rejoin KY 90 east of Beaumont. This alternative is more direct and shorter than 4-2.	0.792	1.2
4-2 (orange)	Beaumont Bypass 2. Beginning from the vicinity of the Kingsford Manufacturing Plant, curve southeast on new alignment to bypass Beaumont to the south, and rejoin KY 90 east of Beaumont.	0.794	1.4
Cumberland County			
5	Curve at Anderson Lane. Reconstruct curve just east of the Metcalfe-Cumberland County line near Anderson Lane to meet current design standards.	0.221	0.3
6	Curve at Pitman Creek. Reconstruct curve west of Pittman Creek Road to meet current design standards.	0.203	0.3
7	Bypass Marrowbone to the north:		
7-1 (red)	Marrowbone Bypass 1. Beginning from east of Homing Creek Road, proceed east to bypass Marrowbone to the north on new alignment, and curve southeast to reconnect with KY 90 in the vicinity of KY 496.	2.02	21.0
7-2 (blue)	Marrowbone Bypass 2. Beginning from east of Homing Creek Road, proceed east to bypass Marrowbone to the north on new alignment, and curve southeast to reconnect with KY 90 in the vicinity of KY 496. 7-2 follows the same alignment as 7-1, except in the mid-section where it curves south of 7-1 on new alignment.	2.02	23.2
8	Reconstruct KY 90 through Marrowbone with curb and gutter, and sidewalks, using the existing right-of-way. Includes reconstructing the KY 3115 intersection to more favorable geometrics.	0.72	1.1
9	Replace existing bridge over Wisdom Creek.		0.5
10	Bypass Waterview to the north:		
10-1 (orange)	Waterview Bypass 1. Beginning from the curve west of Waterview's limits, proceed northeast, curving east to bypass Waterview to the north on new alignment, then curving southeast to reconnect with KY 90 in the vicinity of Taylor Road.	2.15	5.3
10-2 (yellow)	Waterview Bypass 2. Beginning from the curve west of Waterview's limits, proceed in a more direct alignment to bypass Waterview to the north and reconnect with KY 90 in the vicinity of Abby Lane. Alternative 10-2 crosses within the potential national register historic district boundaries.	1.52	3.6
11	Reconstruct the KY 90/KY 100 intersection. The existing intersection would be shifted west and KY 100 realigned to provide a more favorable geometry with KY 90. Turning lanes would be added to KY 90.	0.38	0.5

Item	Improvement Description	Length (miles)	Est. Cost* (million dollars)
12	Replace existing bridge at Dutch Creek.		0.7
13	Replace existing bridge west of Allen Creek Road.		0.6
14	Curve at Allen Creek. Reconstruct curve east of Allen Creek Road (Grider) to meet current design standards.	0.25	0.4
15	Norris Branch Road to Owens Road. Relocate KY 90 on new alignment to eliminate curve at KY 691. Beginning east of Norris Branch Road, proceed east on new alignment to reconnect with KY 90 in the vicinity of Owens Road.	0.75	5.5
16	Reconstruct Burkesville Hill Road/Saw Mill Cut. Beginning just west of the KY 90/KY 2276 intersection and following the existing alignment east as much as possible. At the first curve, continue northeast on new alignment, curving east to reconnect with KY 90 near the hilltop and end near the county hospital. It includes reconstructing the existing KY 90/KY 2276 intersection.	1.03	5.4
17	Burkesville Bypass. Beginning just west of the KY 90/KY 2276 intersection, proceed southeasterly on new alignment to bypass Burkesville on the south, and reconnect with KY 90 at the KY 90/KY 61 intersection near the Cumberland River Bridge.	1.57	13.1
18	Reconstruct the KY 90/KY 61 intersection in Burkesville. It includes widening KY 90 to 3-lanes, and constructing curb and gutter and sidewalks from near the county hospital to the intersection; reconstructing the elementary school entrance and exit roads; and adding a right hand turn lane on KY 61 southbound.	0.36	0.6
Reconstruct roadway to 12-foot wide lanes, 8-foot shoulders.			
A	Roadway section from the Barren-Metcalfe County line to the beginning of the Summer Shade Bypass (item 1).	1.69	2.0
B	Roadway section from the end of the Summer Shade Bypass (item 1) to the beginning of the Beaumont Bypass (item 4).	1.75	2.0
C	Roadway section from the end of the Beaumont Bypass (item 4) to Martin Cemetery Road.	0.57	0.7
D	Roadway section from the Metcalfe-Cumberland County line to the curve at Anderson Lane (item 5).	0.07	\$80,000
E	Roadway section from the end of the curve at Anderson Lane (item 5) to the beginning of the curve at Pitman Creek (item 6).	0.43	0.5
F	Roadway section from the end of the curve at Pitman Creek (item 6) to the beginning of the Marrowbone Bypass (item 7).	2.26	2.6
G	Roadway section from the end of the Marrowbone Bypass (item 7) to the beginning of the Waterview Bypass (item 10).	1.24	1.5
H	Roadway section from the end of the Waterview Bypass (item 10) to the beginning of the curve at Allen Creek (item 14).	0.72	0.9
I	Roadway section from the end of the curve at Allen Creek (item 14) to Norris Branch Road (beginning of item 15).	0.63	0.8
J	Roadway section from Owens Road (end of item 15) to the beginning of the Burkesville Bypass (item 17).	0.54	0.7
K	Roadway section from the beginning of the Burkesville Bypass (item 17) to the beginning of the Burkesville Hill Road reconstruction (item 16).	0.34	0.4
L	Roadway section from Martin Cemetery Road to the Metcalfe-Cumberland C/L.	5.10	5.8

* Cost estimate is for construction only. It does not include utilities and right-of-way costs.



Architecture

Engineering

Construction

MEETING MINUTES

Project: KY 90 Pre-Design Scoping Study
Item Number 08-136.00
Purpose: Project Team Meeting #2
Place: Somerset, Kentucky, D8 Multi-Purpose Building
Meeting Date: October 17, 2006 10:00 a.m.
Prepared By: William Crawford
In Attendance:

Tom Clouse	KYTC, D8, Planning
Jeff Moore	KYTC, D3, Planning
Jim Wilson	KYTC, CO, Planning
David Beattie	KYTC, D8, Pre-Construction
Joe Cox	KYTC, D8, Design
Mark Robertson	KYTC, D8, Construction
Tamra Wilson	KYTC, D8, Traffic
Alan Edwards	KYTC, D8, Utilities
Cathi Blair	KYTC, D8, Environmental
Gorman Shelley	KYTC, D8, Maintenance
Michael W. Ballard	KYTC, D8, Maintenance
Keirsten Jagers	KYTC, D3, PIO
Amy Scott	Barren River ADD
David Smith	Qk4, President
Thomas Springer	Qk4, Transportation Planner
Ben Brodbeck	Qk4, Transportation Engineer
William Crawford	Qk4, Transportation Planner

Mr. Tom Clouse, KYTC, D8, welcomed everyone to the meeting, then turned the meeting over to Mr. Smith, who facilitated the project team meeting. He requested all attendees introduce themselves.

The proposed project is a pre-design scoping study involving feasible alternatives to improve KY 90 from the Barren-Metcalf County line (District 3) to the KY 90/KY 61 intersection in Cumberland County (District 8). The project is about 26 miles long, involves several small towns, and would improve the east-west connection between the project termini. The purpose of the meeting was to review the project goals, new information received since the last project team meeting, the identified improvement options and construction estimates, and evaluate/prioritize the improvements. Available for review were large-scale aerial photographs depicting the improvement opportunities under consideration, including the environmental overview (*i.e.*, potential archaeological sites, historic districts, individual historic sites, wetlands, ponds, surface waters); an exhibit of crash data, existing and future traffic volumes, and Levels of Service (LOS); and a typical section exhibit. Attendees were provided a handout packet containing the meeting agenda, environmental justice report summary, resource agency responses summary, a table describing improvement opportunities, 11x17 exhibit maps (4) indicating the study area and improvement opportunities, and a comparison matrix table of construction cost estimates and potential environmental considerations for each improvement opportunity.

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Status of Study. Mr. Crawford briefly reviewed the study's status in terms of the work accomplished thus far: documentation of existing conditions, base studies (*i.e.*, historic and archaeological resources overviews; terrestrial and aquatic ecological resources overviews; threatened and endangered species; hazardous materials sites; existing and projected traffic volumes, LOS's and a crash analysis), two public meetings, project team meetings, and a draft study report for review.

Review Project Goals. Mr. Crawford reviewed the project goals developed from comments and concerns expressed during the previous project team, local officials, and stakeholder meetings, and at the two recent public information meetings.

Review Environmental Justice Report. Mr. Crawford reviewed the EJ report prepared by the LCADD. The report concluded that several EJ population concentrations may exist in the study area, but no disproportionate impacts were anticipated. LCADD recommended another review after preferred alignments/alternatives were selected.

Review Resource Agency Responses. Mr. Crawford briefly reviewed the responses from the resource agency coordination mailing. About 100 letters were mailed, 24 responses received. Most agencies responded with "no comment/no concerns," or standard cautionary advisory guidance. DEA advised the John Hunt Morgan Trail (historic) was recently established between Marrowbone and Burkesville; and the potential for encountering Native American and other potentially significant archaeological sites existed. Law enforcement agencies believed the project would be beneficial for improving traffic flows and safety. Burkesville Hill was specifically cited for improvement due to the large number of accidents and fatalities.

Review Improvement Opportunities. Mr. Brodbeck presented and briefly described the 39 improvement opportunities from west to east along the study area using the aerial photo exhibits and a table describing KY 90 improvement opportunities, length, and estimated construction cost. Improvements were identified by either a number (*i.e.*, improvements involving bypasses, passing lanes, curve or intersection realignment, bridge replacement, and curb and gutter through towns); or letters (*i.e.*, reconstructing existing KY 90 roadway sections). Proposed improvements consist of 12-foot lanes and 8-foot shoulders. Curb and gutter improvements through the towns are within the existing right-of-way to avoid impacting historic or potentially historic property sites. Some confusion occurred concerning construction cost estimate differences between seemingly similar improvements. Qk4 was asked to verify the estimates. The Project Team also requested the length and cost of just the passing lane be included in the improvement description, where applicable.

[Note, subsequent to the meeting, the cost estimates provided were verified as essentially accurate based upon 2005 unit bid prices. The large cost difference between Summer Shade Bypasses 1-1 and 1-2 was attributable to terrain features crossed by 1-1 requiring more fill. A typographical error occurred with 1-1-P, Summer Shade Bypass with a passing lane, and should have been \$10.8 million. Improvements were re-examined and new models run based upon the decisions made by the Project Team using 2006 estimated bid costs. Virtually all improvement cost estimates increased, some significantly. However, improvements generally maintained their relative comparison to one another; that is, higher cost improvements were still the higher cost improvements after cost updating. The "new"/recommended improvement opportunity costs are in the attached table.]

Discussion and Evaluation of Improvement Opportunities. Mr. Springer facilitated an open discussion of the various improvement opportunities and their relative merits in terms of satisfying project goals. Ultimately, the Project Team decided to categorize the projects into one of three types to facilitate implementation strategies, as described below.

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- Bridge replacements would be one category, and selected for replacement as the District deemed appropriate.
- Operational improvement projects was the second category, which included lower cost improvements addressing immediate and short-term needs. The Project Team made no attempt to prioritize these improvement opportunities, believing it was best to allow the District to select the improvement(s) to implement based upon available funding and needs.
- Roadway reconstruction improvements was the third category, consisting of higher-cost, longer-term roadway section reconstruction and bypass improvements. The Project Team prioritized these improvements based upon considerations of safety, traffic volumes, passing opportunities, estimated construction costs, and local knowledge.

During the course of the discussion and evaluation of improvements opportunities, the Project Team made several changes to the initial set of improvement opportunities, as described below.

- Opportunities to pass on KY 90 are very limited, and considered an important safety issue. The existing topography and town locations restrict passing lane positions to those locations already identified as improvement opportunities. Therefore, it was decided to add “passing lane only” as stand-alone spot improvements to the improvement opportunities list. Additionally, it was decided to eliminate those lettered improvement opportunities involving mainline reconstruction without passing lanes (*i.e.*, A, C, F, H) because they did not satisfy the project goals. Mainline improvements would include a passing lane, if feasible, because the public wants and expects passing opportunities.
- Changed improvement 2 (reconstruct KY 90 through Summer Shade) to reconstructing the KY 90 intersection at Bronston Howard Road (provides access to Summer Shade Elementary School), which is in the vicinity of an identified high crash spot location. Improvement 2 is now considered an operational improvement.
- Improvements D and 5 are adjacent improvements and were combined to form one operational improvement. Number 5 is an accident-prone curve, especially for eastbound traffic. D is a relatively short roadway section that abruptly changes typical section at the county line, becoming more narrow in Cumberland Co.
- Improvements E and 6 are adjacent improvements and were combined to form one operational improvement. Their combined utility was considered an advantage.
- Part of improvement F, between White Road and Ferris Fork Creek, was identified as F.1, a separate operational improvement opportunity due to safety concerns. The location is characterized by Marrowbone Creek immediately south of KY 90, and a steep rock wall immediately north, which was also prone to rockslides. The narrow roadway had little to no shoulders, with a ditch adjacent the rock wall. The location was considered a safety issue in need of additional rock cutting to improve distances and slope.
- Added operational improvement 8.1 as an opportunity to improve the KY 90/KY 3115 intersection in Marrowbone.
- Changed improvement 11 (reconstructing KY 90 through Waterview) to be defined as reconstructing the intersection at KY 90/KY 100.

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- Added operational improvement 18.1 in Burkesville at the KY 90/KY 61 intersection. The improvement opportunity adds a right-turn lane to southbound KY 61 at this heavily congested intersection located near a school.

Listed in the table below are the KY 90 improvement opportunities recommended by the Project Team.

Bridge Replacements	Operational Improvements	Roadway Reconstruction (prioritized list)
9	2	1. Summer Shade Bypass (1-1-P, 1-1, 1-2)
12	8.1	2. 16 + 18
13	D + 5	3. 15
	E + 6	4. Waterview Bypass with passing ln (10-1-P, 10-2)
	F.1	5. A-P (KY 90 reconstruction with passing ln)
	11	6. 8
	14	7. J + K
	18.1	8. I
	Passing lane only at:	9. H-P (KY 90 reconstruction with passing ln)
	A-P	10. B
	C-P	11. G + 9
	F-P	12. Beaumont Bypass (4-1, 4-2)
	H-P	13. F-P (KY 90 reconstruction with passing ln)
		14. Burkesville Bypass (17-P, 17)
		15. C-P (KY 90 reconstruction with passing ln)
		16. Marrowbone Bypass (7-1, 7-2)

Follow-up and Next Steps. Mr. Smith concluded the meeting by discussing the remaining steps to complete the study. Qk4 would re-examine the construction cost estimates, to include the changes made by the Project Team to the original list of improvement opportunities. Brief explanations of why a southern or northern bypass was developed would be added to the study report. Qk4 will complete the study's recommendations section incorporating the decisions and improvement opportunity changes, and provide it to project team members for review and comment. After receipt of comments, the final study report will be prepared and submitted.

The meeting adjourned at approximately 2:30 p.m.

END OF MINUTES

attachment: Recommended KY 90 Improvement Opportunities

KY 90 Pre-Design Scoping Study Project Team Meeting No. 2 Agenda

Date: October 17, 2006
Time: 10:00 A.M. EDT
Location: KYTC District 8
Somerset, KY

1. Introductions
2. Status of Study
3. Review Project Goals
4. Review Environmental Justice Report
5. Review Resource Agency Comments
6. Present / Discuss Improvement Opportunities
7. Review Improvement Opportunities Evaluation Criteria and Results
8. Follow-up and Next Steps
 - a. Schedule
 - b. Report

KY 90 Improvement Opportunities Description

Exhibit Item	Improvement Description	Length (miles)	Est. Cost* (million dollars)
n/a	Curve just west of Barren-Metcalfe County line. Outside this project's scope of work, but included in KYTC Item No. 3-108.50, reconstruct KY 90 from east of Glasgow to Metcalfe County line.	--	--
Metcalfe County			
1	Bypass Summer Shade to the south:		
1-1 (yellow)	Summer Shade Bypass 1. Begin west of Hill Top VW Road, curve southeast on new alignment to proceed east to bypass Summer Shade to the south, and reconnect with KY 90 east of Ernie Ferrell Road. This improvement is more expensive and longer than 1-2, but positions the roadway further from residential dwellings.	2.31	10.3
1-1-P	Summer Shade Bypass 1 with an eastbound passing lane (<i>i.e.</i> , 3-lane typical section). Passing lanes are located only between the points indicated by the arrows.	2.31	3.6
1-2 (orange)	Summer Shade Bypass 2. Begin east of Big Jack Road, curve southeast on new alignment to proceed east to bypass Summer Shade to the south, and reconnect with KY 90 about Ernie Ferrell Road. This improvement costs less and is shorter than 1-1, but locates the roadway closer to residential dwellings.	1.76	3.6
2	Reconstruct KY 90 through Summer Shade with curb and gutter, and sidewalks, using the existing right-of-way. Includes reconstructing the intersections at Bronston Howard Road (access road to Summer Shade Elementary School) and KY 640.	0.44	0.7
3	KY 90/KY 163 intersection. Intersection was identified as a high crash location. It is scheduled for reconstruction with KYTC Item No. 3-276.50, relocate KY 163 from south of Cyclone Road in Monroe County north to KY 90 in Metcalfe County. Interim improvement opportunities include improved signing (<i>e.g.</i> , warn KY 163 drivers that intersection is not a 4-way stop; cross traffic does not stop.)	--	--
4	Bypass Beaumont to the south:		
4-1 (blue)	Beaumont Bypass 1. Begin from the vicinity of the Kingsford Manufacturing Plant, proceed almost due east on new alignment to bypass Beaumont to the south, and rejoin KY 90 east of Beaumont. This improvement is more direct and shorter than 4-2.	0.792	1.2
4-2 (orange)	Beaumont Bypass 2. Begin from the vicinity of the Kingsford Manufacturing Plant, curve southeast on new alignment to bypass Beaumont to the south, and rejoin KY 90 east of Beaumont.	0.794	1.4
Cumberland County			
5	Curve at Anderson Lane. Reconstruct curve just east of the Metcalfe-Cumberland County line near Anderson Lane to meet current design standards.	0.221	0.3
6	Curve at Pitman Creek. Reconstruct curve west of Pittman Creek Road to meet current design standards.	0.203	0.3
7	Bypass Marrowbone to the north:		
7-1 (red)	Marrowbone Bypass 1. Begin east of Hominy Creek Road, proceed east to bypass Marrowbone to the north on new alignment, and curve southeast to reconnect with KY 90 in the vicinity of KY 496.	2.02	21.0
7-2 (blue)	Marrowbone Bypass 2. Begin east of Hominy Creek Road, proceed east to bypass Marrowbone to the north on new alignment, and curve southeast to reconnect with KY 90 in the vicinity of KY 496. 7-2 follows the same alignment as 7-1, except the mid-section curves south of 7-1 on new alignment.	2.02	23.2
8	Reconstruct KY 90 through Marrowbone with curb, gutter, and sidewalks, using the existing right-of-way. Includes reconstructing the KY 3115 intersection to more favorable geometrics.	0.72	1.1
9	Replace existing bridge over Wisdom Creek.	--	0.5
10	Bypass Waterview to the north:		
10-1 (orange)	Waterview Bypass 1. Begin from the curve west of Waterview's limits, proceed northeast, curving east to bypass Waterview to the north on new alignment, then curving southeast to reconnect with KY 90 in the vicinity of Taylor Road.	2.15	5.3
10-1-P	Waterview Bypass 1 with a westbound passing lane (<i>i.e.</i> , 3-lane typical section). Passing lanes are located only between the points indicated by the arrows.	2.15	9.8
10-2 (yellow)	Waterview Bypass 2. Begin from the curve west of Waterview's limits, proceed in a more direct eastern alignment to bypass Waterview to the north and reconnect with KY 90 west of Dutch Creek Road. Improvement 10-2 crosses within the potential national register historic district boundaries.	1.52	3.6

Exhibit Item	Improvement Description	Length (miles)	Est. Cost* (million dollars)
11	Reconstruct the KY 90/KY 100 intersection. The existing intersection would be shifted west and KY 100 realigned to provide a more favorable geometry with KY 90. Turning lanes would be added to KY 90.	0.38	0.5
12	Replace existing bridge at Dutch Creek.	--	0.7
13	Replace existing bridge west of Allen Creek Road.	--	0.6
14	Curve at Allen Creek. Reconstruct curve east of Allen Creek Road and near Grider to meet current design standards.	0.25	0.4
15	Norris Branch Road to Owens Road. Relocate KY 90 on new alignment to eliminate curve at KY 691. Begin east of Norris Branch Road, proceed east on new alignment to reconnect with KY 90 in the vicinity of Owens Road.	0.75	5.5
16	Reconstruct Burkesville Hill Road/Saw Mill Cut. Begin just west of the KY 90/KY 2276 intersection and follow the existing alignment east as much as possible. At the first curve, continue northeast on new alignment, curving east to reconnect with KY 90 near the hilltop and end near the county hospital.	1.03	5.4
17	Burkesville Bypass. Begin near the KY 90/KY 2276 intersection, proceed southeasterly on new alignment to bypass Burkesville on the south, and reconnect with KY 90 at the KY 90/KY 61 intersection west of the Cumberland River Bridge. Includes reconstructing the KY 90/KY 2276 intersection.	1.57	13.1
17-P	Burkesville Bypass with an eastbound passing lane (<i>i.e.</i> , 3-lane typical section). Passing lanes are located only between the points indicated by the arrows.	1.57	17.8
18	Reconstruct the KY 90/KY 61 intersection in Burkesville. Includes widening KY 90 to 3-lanes, and constructing curb, gutter and sidewalks from near the county hospital to the intersection; reconstructing the elementary school entrance and exit roads; and adding a right hand turn lane on KY 61 southbound.	0.36	0.6
Reconstruct existing KY 90 roadway to 12-foot wide lanes, 8-foot shoulders.			
A	Roadway section from the Barren-Metcalf County line to the beginning of the Summer Shade Bypass (item 1).	1.69	2.0
A-P	Roadway section A with a westbound passing lane (<i>i.e.</i> , 3-lane typical section). Passing lanes are located only between the points indicated by the arrows.	1.69	2.8
B	Roadway section from the end of the Summer Shade Bypass (item 1) to the scheduled KY 163 improvement.	1.75	2.4
C	Roadway section from the end of the Beaumont Bypass (item 4) to the Metcalfe-Cumberland C/L.	5.67	7.7
C-P	Roadway section C with an eastbound passing lane (<i>i.e.</i> , 3-lane typical section). Passing lanes are located only between the points indicated by the arrows.	5.67	8.7
D	Roadway section from the Metcalfe-Cumberland County line to the curve at Anderson Lane (item 5).	0.07	\$95,000
E	Roadway section from the end of the curve at Anderson Lane (item 5) to the beginning of the curve near Pitman Creek (item 6).	0.43	0.6
F	Roadway section from the end of the curve near Pitman Creek (item 6) to the beginning of the Marrowbone Bypass (item 7).	2.26	3.7
F-P	Roadway section F with a westbound passing lane (<i>i.e.</i> , 3-lane typical section). Passing lanes are located only between the points indicated by the arrows.	2.26	4.5
G	Roadway section from the end of the Marrowbone Bypass (item 7) to the beginning of the Waterview Bypass (item 10).	1.24	1.7
H	Roadway section from the end of the Waterview Bypass (item 10) to the beginning of the curve near Allen Creek (item 14).	0.72	0.9
H-P	Roadway section H with an eastbound passing lane beginning just east of Waterview (<i>i.e.</i> , 3-lane typical section). Passing lanes are located only between the points indicated by the arrows.	1.22	2.4
I	Roadway section from the end of the curve at Allen Creek (item 14) to near Norris Branch Road (beginning of item 15).	0.63	0.9
J	Roadway section from Owens Road (end of item 15) to beginning of the Burkesville Bypass (item 17).	0.54	0.8
K	Roadway section from the beginning of the Burkesville Bypass (item 17) to the beginning of the Burkesville Hill Road reconstruction (item 16).	0.34	0.5