

## MINUTES

### Programming Study –Team Meeting 2 Graves County, Item No. 01-8100 KY 121 from 440 Feet South of Harris Lane to Intersection KY 945

**Meeting Location -Video Conference Sites:** Kentucky State University, Frankfort; Paducah Community College, Paducah

**Meeting Date:** June 24, 2004

#### Introductions

The meeting began at 2:00 P.M. Eastern Daylight Time. Attendees introduced themselves. Those present were:

Paducah Video Conference Site  
Stacey Courtney Purchase ADD  
Tim Choate D-01 Preconstruction  
Chris Kuntz D-01 Design  
Jason Looper D-01 Operations  
Allen Thomas D-01 Planning  
Jeff Thompson D-01 Planning  
Frankfort Video Conference Site  
Stephen Hoefler CO Highway Design  
Gary Bunch CO Environmental  
Jim Wilson CO Planning  
Steve Ross CO Planning

#### Project Purpose

Steve Ross gave a brief review of the first team meeting, project description, purpose, goals, and reviewed the agenda and objectives for this meeting. The purpose of the study is to evaluate the need to reconstruct KY 121 in Graves County from 400 feet south of Harris Lane to KY 945. The goals are to improve safety, relieve congestion and improve capacity, and to accommodate increased truck use and promote regional connectivity.

#### Environmental Overview

Steve Ross summarized the results of the Environmental Overview and Footprint prepared by consultant Qk4 for the study. There were no major environmental issues noted that might jeopardize reconstruction efforts. A review of the high points included:

- The topography and geology of the area consists of unconsolidated coastal plain sediments susceptible to rapid erosion.
- Of the culturally sensitive locations listed, only Mt. Zion Cemetery is within the study bounds, being 1200 feet off KY 121, shown as Site F on the north end of the study on the environmental footprint. An historic farm, Andrus Farm, is located somewhere in Mayfield, not known to be within the study area, but its exact location was not determined in the environmental overview. Meeting participants were not familiar with this farm or its location. There are no previously recorded archaeological sites but moderate potential for discovery of significant deposits.
- Thirty streams could be impacted by sedimentation from construction activities. There are 24 wetlands from 0.1 to 4.6 acres, most of which are probably created ponds
- Plant and animal life is considered typical for the area. The Kentucky Department of Fish and Wildlife Resources (KDFWR) indicated that the copperbelly water snake is known to occur in the Hickory quadrangle. It is federally listed as a threatened species in the northern part of its range but is not

federally listed in the southern part of its range, including Kentucky. It could require mitigation if suitable habitat land (i.e., wetlands) is impacted and may require more intensive field studies. The Kentucky State Nature Preserves Commission (KSNPC) identified two state threatened species from the study area: Compass plant (two sites near the study area, south side of KY 121) and Bachman's Sparrow (one site northwest and outside the study area).

- There is 40 to 50% prime farmland soil in the study area. About 31% of existing KY 121 crosses prime farmland. Some of the prime farmland value has already been compromised by development and roadway construction.
- Only two of the hazmat sites listed in the overview are within the study area: Vacant commercial property, formerly Turners Body Shop (Site 3 on footprint) has possible petroleum or hazmat from former operations and also possible asbestos containing building materials (ACBM); and Farmer's Co-op, a former gasoline station (Site 4 on footprint) has potential hazmat.
- The study area is in an air quality attainment area and improvements are not expected to adversely impact air quality in the region.
- Traffic noise should not adversely affect properties.
- The water tank on the north end of the project area near the KY 121/KY 440 intersection has been removed.

### **Environmental Justice**

Stacey Courtney reviewed the Environmental Justice document he prepared for the study. There were no readily identifiable minority or low-income groups at the Census Tract or Block Group level. If taken down to the Census Block (CB) level, CB 4005 has a higher percentage minority population, 15.4%, than 7.9% Graves County, 9.5% Region (Purchase Area Development District), 9.4% Kentucky, but lower than 30.9% US. Note, at this level, the 15.4% represents a total minority population of only 4 (approximately one family) compared to a total CB population of 26. There is a higher percentage of elderly residents in the project area, 18.3% age 62+, compared to 14.9% Kentucky and 14.7% US, but lower than 18.8% Graves County and 19.1% Region. The numbers however, are evenly distributed with no specific concentrated populations identified. These findings should be noted in future project planning and design phases. The general conclusion is that there is no defined Environmental Justice community within the project area.

### **Real Estate/Relocation**

Stacey Courtney supplied a handout and reviewed the real estate/relocation information he compiled for the study. There were seven deed transfers in the project area for 2002, a number he thought was higher than expected, but could be accounted for when considering that some involved property transfers between family members. Mr. Courtney reviewed other real estate market information including home characteristics, price ranges, number of homes built, number of homes on the market, available business relocations, dependence on existing location, and effect on farms and agricultural activities in the area and concluded that there are suitable relocations for residences. One lamp company indicated it would need to be located within a three to four mile radius due to other lamp businesses being located in Mayfield and competitive pressures. Mr. Courtney noted that the Eagles Club and Langston Trucking properties are located within the project area and were not included in the compiled information. Langston Trucking is located within the Y-intersection of KY 121 and KY 440. The impact to farms is expected to be minimal.

### **Resource Agency Coordination Responses**

Steve Ross distributed a handout with a summary of all resource agency responses. The following highlights were discussed:

- The Department of the Army noted that the open water areas and wetlands have been adequately inventoried but that stream crossings would need to be documented and permitting requirements addressed for all wetlands.

- The Kentucky Geological Survey responded that the project would probably encounter pre- and or post-landslide hazards and unconsolidated sediments. They noted that no faults would be encountered but that the project is in an earthquake zone and there would be a high potential for liquefaction or slope failure in the unconsolidated sediments.
- The United States Environmental Protection Agency forwarded four population maps. No potential environmental justice areas were shown on the maps.
- The United States Department of Agriculture (USDA), Natural Resources Conservation Service responded with concerns about potential impacts upon prime farmland soils.
- The United States Department of the Interior, Fish and Wildlife Service expressed concerns over accelerated erosion and sedimentation in streams that would be most effectively prevented through Best Management Practices. Fish and Wildlife also noted that the Indiana and Gray Bat may exist within the study area.
- The City of Mayfield favors reconstruction of KY 121.
- The Kentucky Department of Fish and Wildlife does not anticipate impacts to critical habitats of fish and wildlife.
- The Division of Air Quality, Department of Environmental Protection, Natural Resources and Environmental Protection Cabinet wrote that project activities should include measures to prevent particulate matter from becoming airborne.
- KYTC Geotechnical Branch noted that highly erosive continental deposits would be encountered requiring flatter than normal cut and fill slopes. The project is located in Seismic Zone 3, which is considered a high risk for earthquake damage.
- The KYTC Permits Branch recommends all new projects be classified as partially controlled access and set all possible access points on the plan. The project team discussed this. The team had agreed in the initial team meeting that it would probably be best to recommend improvements for an access by permit facility. The team noted during this meeting that it would not be practical to classify this, or any number of other projects as partial control access, but the consideration of doing so would be documented in the report write-up.
- The Kentucky State Nature Preserves Commission (KSNPC) responded that no KSNPC-listed species or unique natural areas would be directly impacted.

### **Related Projects**

- **I-66** – While the study to recommend alternatives for the location of an I-66 corridor is not yet complete, no additional project development phases are currently scheduled. That study team has looked at different locations for an Ohio or Mississippi River crossing. There are flood control features just south of the confluence of these two rivers that the Army Corps of Engineers wants to avoid. The Coast Guard also recommends a four-mile recovery distance downstream from the confluence, which will most likely set the recommended location of a new bridge. Just south of this location, on the Kentucky side, are two National Register listed historic sites that must be avoided. There are also concerns with the possibility of having to maintain the existing bridge at Wickliffe in addition to a new bridge. If a Mississippi River crossing is recommended, then KY 121 northwest of Mayfield may be a logical consideration for part of that future I-66 corridor. The team noted that the segment of KY 121 that we are studying now would probably not be included. It would be more likely to tie a future I-66 from the Julian M. Carroll Purchase Parkway into KY 121 significantly north and west of Mayfield to avoid the existing interchanges and associated development at the Parkway.
- **KY 1830** – The status of the KY 1830 reconstruction project was discussed. This project has not been deobligated but is a high priority with right-of-way acquisition going forward.
- **Regional Industrial Park** – Earlier bills to fund construction for a major regional industrial park in the Folsomdale/Viola area along US 45 north of Mayfield died in the House and Senate. More recently, \$5 million was allocated and this project is moving ahead with land acquisition.

- **I-69** – While the study to recommend an I-69 corridor is not complete, part of the I-69 corridor is expected to follow the Julian M. Carroll Purchase Parkway. If so, then traffic levels on KY 121 will probably rise more than those predicted using statewide average rates.

### **Study Recommendations**

Steve Ross summarized issues and recommendations that were made in the February 2000 study prepared for the Division of Planning by Wilbur Smith Associates. That study looked at KY 121 between Mayfield and Wickliffe and broke the route down into priority segments, with the segment between the Julian M. Carroll Purchase Parkway and KY 440 being the top priority, recommending two-lane improvements on four-lane right-of-way. Improving the KY 440 intersection was Priority 2 from that study.

This study team suggested several different improvement alternatives, considering recent KY 121 improvements between the current study segment and the Julian M. Carroll Purchase Parkway. Also considered were new schools along KY 121 and KY 1830, planned improvements to KY 1830, a planned Regional Industrial Park north of Mayfield, future I-66 and I-69 corridors, crash statistics, current and projected traffic and levels of service, truck percentages, environmental issues, relative cost and available resources. Suggested improvements were, do nothing, spot, two-lane, two-lane on four-lane right-of-way, three-lane, four-lane, and super-two on five-lane right-of-way.

- **Do nothing** – This alternative does not address any of the project goals or purpose. No team members were in favor of a do-nothing recommendation.
- **Spot Improvements** – For this study segment of KY 121, the only spot location of serious concern to the team was the Y-intersection at KY 440. An extreme skew combine with a crest vertical curve to reduce the sight distance at this location. A short, “unofficial” cut-across just west of the intersection is used by local traffic to negotiate turning movements. The northern study terminus was extended to the KY 945 intersection since it also is on a skew and would possibly be affected by any improvements made at the KY 440 intersection. KY 1276 also intersects KY 121 on a skew. Statistically there are no crash problems at any of these intersections. While no team members recommended spot improvements as their first choice, most agreed that at the very least, improvements need to be made at the KY 440 intersection.
- **Two-lane** – Current level of service for the segment is D, as is the 2030 projected level of service. There are no crash problems on this segment compared to similar roads in Kentucky. KY 121 is on the National Truck Network (NN) and is the primary link between Mayfield and Wickliffe. Right-of-way funds have been allocated for a major Regional Industrial Park north of Mayfield along US 45 in the Viola-Folsomdale area. This industrial park, as well as a proposed I-66 and I-69 would most likely increase traffic levels and truck percentages along KY 121. Timing and specific locations for the proposed interstates are still undecided though we will look at traffic projections for the most likely location for I-69. I-66 could possibly use the KY 121 corridor in the future but will most likely tie in north and west of Mayfield from the Julian M. Carroll Purchase Parkway (future I-69). Two-lane improvements in the form of lane and shoulder widening would improve the ability to handle trucks on KY 121 but would not do anything significant to reduce congestion or improve level of service. No team members were in favor of two-lane only improvements.
- **Three-lane** - According to the Highway Capacity Manual, two-lane with two-way left-turn lane (TWLTL) improvements do not have a formal methodology for evaluating operational effectiveness. At current or projected traffic levels, no significant operational improvements are expected by adding a two-way left-turn lane (TWLTL). A TWLTL might be considered if there was a crash problem, especially a problem with rear-end crashes. No team members favored three-lane improvements.
- **Two-lane on four-lane right-of-way** – This was the recommendation made for this segment of KY 121 in the 2000 Wilbur Smith Associates study. Team members noted that this recommendation

would involve going off alignment due to the additional right-of-way needed, but would still fall within the project study corridor. This improvement would have the same advantages as the two-lane improvements noted above, with the added benefit of being able to provide additional capacity if needed in the future. The disadvantage would be the additional right-of-way costs. No team members favored of this alternative.

- **Four-lane** – Four lane improvements would involve either a four-lane rural divided section, or four-lane urban section with a TWLTL. The biggest advantage for either the rural or urban case, is that either would improve the current LOS from D to A, and would accommodate increases in traffic, improving the projected 2030 LOS from LOS D to A. The downside is that this improvement may be more than is needed given the traffic levels now and the uncertainty of what will be needed in the future. Several team members spoke in favor of four-lane improvements, suggesting urban improvements from KY 1830 out to KY 1276 and then either a rural or urban section west of KY 1276.
- **Super-two on five-lane right-of-way** - This alternative would have the same benefits as the two-lane improvements noted above with the advantages of being able to accommodate future increases in traffic if needed. The disadvantage is the same as that for the two-on-four case above, that it would require additional right-of-way. However, the right-of-way requirements would be less for the super-two compared to the two-on-four case and have a better chance to stay on the existing alignment. Several team members favored the super-two on five-lane right-of-way recommendation.

Before finalizing a recommendation, the team suggested getting KY 121 traffic projections taking into consideration a future I-69 corridor built along the Julian M. Carroll Purchase Parkway. The traffic projections will be requested from the Division of Multimodal Programs and evaluated to see if there is further justification to go to a four or five-lane recommendation. If not, the recommendation will be for a super-two on five-lane right-of-way.

The meeting adjourned at approximately 3:40 P.M. Eastern Daylight Time.

**AGENDA**  
**Team Meeting 2**

**Graves County, Item No. 01-8100**  
**KY 121 from 400 South of Harris Lane to the KY 945 Intersection**

**Video Conference Locations:** Paducah Community College  
Sitecode: KC-Paducah CC Rm 101  
4810 Alben Barkley Drive  
Crounce Hall, Room 101  
Paducah, KY 42002  
Capacity: 94  
Phone: (270) 534-3136  
Room Phone: (270) 534-3141  
Contact: Ellis Jones, Ruby Rodgers

Kentucky State University  
Sitecode: OT-KSU509  
University Drive, 275 E. Main St.  
Academic Services Bldg., 5th Floor, Room 509  
Frankfort, KY 40601  
Capacity: 18  
Phone: (502) 597-5050  
Room Phone: (502) 597-5048  
Contact: N'Namdi Paskins

**Meeting Date:** June 24, 2004

**Meeting Time:** 2:00 PM – 4:00 PM Eastern Time, (1:00 PM – 3:00 PM Central)

- 1) Introductions & Purpose
- 2) Environmental Overview
- 3) Environmental Justice
- 4) Resource Agency Coordination Responses
- 5) Related Projects
  - a) I66
  - b) KY 1830
  - c) Regional Industrial Park
- 6) Other
- 7) Study Recommendations