

## **Appendix H: Project Team Meetings**

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**MINUTES**  
**First Project Team Meeting**  
**US 231 – Warren County – Item # 3-8702.00.00**  
KYTC District 3 Office  
Bowling Green, Kentucky  
December 3rd, 2013  
9:00 AM CST

A project team meeting for the US 231 Scottsville Road Scoping and Traffic Operations Study (Warren County) was held at 9:00 a.m. CST on Tuesday, December 3<sup>rd</sup>, 2013, in Bowling Green, Kentucky. The purpose of the meeting was to discuss the project purpose and history, the scope of work, the preliminary data collected and relevant project issues. Participants in the meeting represented the Kentucky Transportation Cabinet (KYTC) District 3 and Central Offices, the Bowling Green MPO and the consultant firms, CDM Smith and AEI. Meeting attendees included the following persons:

Greg Meredith	KYTC, District 3 Chief District Engineer
Joshua Amos	KYTC, District 3 Project Development
Deneatra Henderson	KYTC, District 3 Planning
Jeff Moore	KYTC, District 3 Planning
Joe Plunk	KYTC, District 3 Design
Wes Watt	KYTC, District 3 PIO
Heath Crawford	KYTC, District 3 PD&PI
Tim Sharp	KYTC, District 3 PD&PI
Jon Whitaker	KYTC, District 3 Traffic
Jill Asher	KYTC, Central Office Design
Shane McKenzie	KYTC, Central Office Planning
Barry House	KYTC, Central Office Planning
Steve Ross	KYTC, Central Office Planning
Mikael Pelfrey	KYTC, Central Office Planning
Troy Hearn	KYTC, Central Office Bike/Ped Coordinator
Scott Thomson	KYTC, Central Office Model Team Lead
Amy Scott	Bowling Green MPO/BRADD
Brad Johnson	CDM Smith
Ashley Sells	CDM Smith
Peter Overmohle	AEI
Kenneth Cox	AEI

A summary of the key discussion items and decisions from this meeting are provided below.

**Welcome and Introductions:** Deneatra Henderson, KYTC Co-Project Manager, began the meeting, welcoming attendees and asking for formal introductions from all.

**Study Corridor:** Brad Johnson, CDM Smith Project Manager, briefly outlined the project limits and environmental considerations. He also noted this project meeting was scheduled for November; however, it was decided to wait until all the traffic data was available. Brad noted that the project runs from Lovers Lane and will tie into the interchange project. Crash data and traffic data includes the segment between Three Springs Road and the interchange, but it is understood this project will likely end at Three Springs Road. 24-hour video data was collected over two days at various locations from Three Springs to Lovers Lane. CDM Smith is still developing the environmental footprint map. Once complete, CDM Smith will provide to the District for review. Additional help may be needed to obtain all utilities along the corridor.

**Existing Conditions:** Brad provided an overview of the existing conditions for the study corridor, including HIS data, traffic data, and crash analysis. He noted the traffic data were not received until a week before the meeting and has yet to be reviewed and balanced. Key related discussion items and decisions include:

- The current ADTs range from 30K-35K with 1800-2600 VPH during the peak hour. Directional splits were 55/45 in the PM and 70/30 in the AM. The truck percentage is assumed to be 4%. The proposed growth rate is less than 0.5%. With the new traffic data, the peak hour volumes, directional splits and truck percentages will be updated.
- CDM Smith will update the crash analysis based upon the new ADT's and provide a new traffic map displaying segments with balanced volumes.
- CDM Smith will review the frontage road crash data, currently 86 crashes, using their longitude and latitude.
- KYTC has access to the detailed crash reports; CDM Smith will work with them if they are needed.
- Joe Plunk, KYTC District 3, inquired about the crash locations and if they were pedestrian related. Current crash data reveals if pedestrians were involved and gives location of each crash.
- According to the preliminary V/C calculations that were calculated, there is peak congestion. These calculations will be updated once traffic data is balanced and will be provided on the traffic map.
- KYTC Central Office will help to review the simulation model and can help validate the traffic forecast using the Kentucky Statewide Travel Demand Model.
- Scott Thomson, KYTC Central Office, asked what time intervals were used for collecting the traffic data and stated 5-minute increments can provide a more realistic view of traffic conditions. He mentioned that 15-minute count intervals miss the surges at the hour and half hour and Inrex & Navteq are providing traffic data in 5 minute intervals. Also 10-minute intervals were used in a recent Micro-simulation. Due to the existing traffic counts being collected in 15 minute intervals, this request may not be viable at this time, but should be considered on future studies.
- Brad noted that there have been seven previous studies/projects related to this area, including the Interchange Study, I-65 Interchange Design Plan, District 3 ID Meeting, SR 884 Three Springs Road, Shive Lane extension improvements and Cemetery Road reconstruction. It was asked that if there are other related projects that may directly impact this study to please let the project team know.
- Jeff Moore, KYTC District 3 Planning, mentioned since Cemetery Road was reconstructed that volumes have decreased on US 231 and over the past 10 to 15 years, shopping and eating areas have spread throughout Bowling Green.

- Amy Scott, Bowling Green MPO, stated the environmental justice report is currently being compiled. Preliminary data suggests there is low income housing near Pedigo Way and Bryant Way, which could account for the increased pedestrian activity in the area; residents walking from home to work.

**Purpose and Need:** Brad presented the draft purpose and need statement. The project team agreed that the purpose statement should be revised to: “safety of all users and the mobility of Scottsville Road”.

**Design Considerations:** Brad provided an overview of the design considerations including geotechnical issues, multimodal considerations and typical sections. Key related discussion items and decisions include:

- Shane McKenzie and Mikael Pelfrey will prompt KYTC Geotechnical Staff to provide a geotechnical overview for this project. It is expected that the report would be complete by the time of the final project team meeting.
- Jeff Moore mentioned Go BG Transit would be receiving new full size transit buses from Louisville’s TARC. Any potential changes this may have on service and/or routes should be considered.
- The study will need to consider the appropriate typical section. It was noted that for an urban section, curb and gutter along with sidewalks should be included. For a rural section, sidewalks could still be included, but the grass/ditch buffer would remain.
- The project team will need to coordinate with the City of Bowling Green. They are expected to have significant input on recommendations, particularly dealing with the frontage road.
- Troy Hearn, KYTC Bike/Ped Coordinator, stated he would promote pedestrian improvements such as crosswalks and a refuge island but not bike improvements. Sidewalks at 5 to 8 feet with a 2 foot buffer would be recommended. In particular, pedestrian accommodations should be considered near Greenwood Mall and at the Kmart/Kroger shopping center.
- The project team mentioned lengthening the southbound left turn lane onto Ken Bale Boulevard and providing dual lefts onto Cave Mill Road. This will be considered as the alternatives are further developed.
- The project team recommended the following alternatives in a urban and rural typical section to be further examined:
  - Widen the existing to three lanes in each direction
  - Medians with left turns in only for a 4-lane section
  - Medians with left turns in only for a 6-lane section
  - Turning the frontage road into one way roadway and considering other access management along the mainline
  - Coordinated spot improvements that include pedestrian accommodations, lengthening turn lanes and providing dual lefts

**Project Schedule:** Deneatra explained that the study will include three meetings of the project team and two meetings with local officials and stakeholders. The planning study has a tight schedule with recommendations due to KYTC in March. Report writing will occur in early spring of 2014. It was decided that the first local officials/stakeholders meeting would include elected and local officials. If needed, additional coordination could occur afterwards.

**Next Steps:** The project team discussed the next steps for the project, particularly the first local officials meeting. The following discussion items and decisions resulted:

- CDM Smith will work on the traffic operations and simulation models for the next meeting.
- Greg Meredith, KYTC District 3 Chief District Engineer, will update Representatives on this project.
- A handout packet similar to the packet provided at this project team meeting (but more succinct) will be developed and provided to the project team in advance of the meetings.
- CDM Smith will prepare a bullet style draft purpose and need statement (and goals and objectives) for KYTC review and approval for use at the first local officials meeting.
- KYTC will work next week to identify when and where the local officials meeting will be held as well as who will be invited. The team hopes to hold the meeting during the last week of January. Once ready, Deneatra Henderson, will send Shane McKenzie, KYTC Central Office Project Manager, contact information for the local officials. KYTC central office will send out the stakeholder meeting notice (usually sent 3 week prior to meeting date). Subsequent to the draft minutes, the Elected Officials/Local Officials Meeting was scheduled for Monday, February 3<sup>rd</sup>, at 8 am in the District 3 Conference Room.
- CDM Smith will continue to work with the existing traffic counts and crash data and work to develop preliminary alternatives for the next meeting.

With no further questions, the meeting was adjourned around 11:40 am CST.

**MINUTES**  
**Second Project Team Meeting**  
**US 231 – Warren County – Item # 3-8702.00.00**  
KYTC District 3 Office  
Bowling Green, Kentucky  
February 3rd, 2014  
10:30 AM CST

A meeting of the project team for the US 231 Scottsville Road Scoping and Traffic Operations Study (Warren County) was held at 10:30 a.m. CST on Monday, February 3rd, 2013, in Bowling Green, Kentucky. The purpose of the meeting was to discuss the preliminary data collected, relevant project issue and the alternatives for US 231. Participants in the meeting represented the local officials and stakeholders, the Kentucky Transportation Cabinet (KYTC) District 3 and Central Offices, and the consultant firm, CDM Smith. Meeting attendees included the following persons:

Greg Meredith	KYTC, District 3 Chief District Engineer
Deneatra Henderson	KYTC, District 3 Planning
Joe Plunk	KYTC, District 3 Planning
Wes Watt	KYTC, District 3 PIO
Jon Whitaker	KYTC, District 3 Traffic
Tim Sharp	KYTC, District 3 PD&PI
Andy Stewart	KYTC, District 3
Shane McKenzie*	KYTC, Central Office Planning
Steve Ross*	KYTC, Central Office Planning
Mikael Pelfrey*	KYTC, Central Office Planning
Scott Thomson*	KYTC, Central Office Model Team Lead
Troy Hearn*	KYTC, Central Office Bike/Ped Coordinator
Travis Carrico*	KYTC, Central Office Design
Brad Johnson*	CDM Smith
Ashley Sells*	CDM Smith

*\*Joined by conference call/teleconference*

A summary of the key discussion items and decisions from this meeting are provided below.

**Welcome and Introductions:** Deneatra Henderson, KYTC Co-Project Manager, began the meeting, welcoming attendees and asking for formal introductions from all.

**Study Corridor:** Brad Johnson, CDM Smith Project Manager, briefly outlined the project limits and environmental considerations. Brad noted that the project runs from Lovers Lane/Campbell Lane to Three Springs Road/Ken Bale Road. This includes 6 signalized and 3 unsignalized intersections currently.

**Existing Conditions:** Brad provided an overview of the existing conditions for the study corridor, including HIS data, traffic data, and crash analysis. The crash data collected is from November 2008 to October 31, 2013 and includes the interchange as well as the frontage road. Key related discussion items and decisions include:

- CDM Smith added the frontage road crashes to the crash map by mapping them using their longitude and latitude.
- CDM Smith updated the crash analysis based upon the new traffic volumes.

**Purpose and Need:** Brad presented a bullet style draft purpose and need statement. Since the last meeting there has been changes, it now reads “improve safety and mobility of Scottsville Road.”

**Design Considerations:** Brad provided an overview of the design considerations including utilities, multimodal considerations and typical sections. The multimodal considerations are transit, truck access to businesses, pedestrians and bicyclists. The typical sections decisions were rural/urban, the number of lanes and consideration of the frontage road.

**Proposed Alternates:** Brad provided an overview of the five alternates for US 231 for the group’s consideration including:

- Alternate 1 - Widen to 3 three lanes and intersection improvements.
- Alternate 2 – Convert 4 intersections to right in/out, left- in to help mobility.
- Alternate 3 – Combination of Alternates 1 & 2 with 3 lanes in each direction and convert 4 intersections to right in/out, left- in. There is also a bulb-out as an option which could create a pedestrian crossing challenge and would have to move the stop bar back.
- Alternate 4 – Widen to three lanes, permit u-turns and intersection modifications. These include removing the signal at Kroger; keep the left in at Pedigo Way & Kroger and installing a wide median for large turning trucks.
- Alternate 5 – Intersection improvements such as extending turn lanes and dual lefts.

**Feedback from Local Officials/Stakeholders Meeting:** The project team discussed the responses from the local officials and stakeholders meeting. The following discussion items and decisions resulted:

- Deneatra stated the Representatives are in favor of alternates that are similar to Somerset.
- Trucks would not use the J-Turn and instead use an alternate route.
- Greg Meredith, KYTC, District 3 Chief District Engineer, asked if dual lefts can be accommodated with 6 lanes. Brad responded that once 3 lanes were installed, side street improvements may not be needed.
- Scott Thomson, KYTC, Central Office Model Team Lead, commented Cave Hill has residential as well as a school located on it therefore a growth rate higher than 1% could be used. Brad replied that yes the side streets can be higher than 1% and Synchro has been used to apply these future volumes.
- One attendee asked if the total cost would include striping for crosswalks and pedestrian signals. KYTC shared any intersection would need to include pedestrian improvements if needed.
- Brad asked about the 160 left turns into Kroger currently. Deneatra answered if the signal is removed then those motorists wishing to turn left may still do so but at an unsignalized intersection.
- In Alternate 2 remove the urban typical section because of the cost.
- The project team recommended the following two alternatives in a urban and rural typical section to be further examined:
  - Alternate 1 including removing the signal at Kroger
  - Alternate 3
  - Consider the Wall Street connection in this study

**Project Schedule:** Deneatra explained that the study will include one more meeting of the project team and one more meeting with local officials and stakeholders. Report writing will occur in early spring of 2014. The next meeting will be in March, 2014 and will be with the local officials and stakeholders.

**Next Steps:** The project team discussed the next steps for the project. The following discussion items and decisions resulted:

- CDM Smith will include pedestrian improvements for Alternate 1.
- CDM Smith will add in the cost for the Lovers Lane bulb out in Alternate 3.
- CDM Smith will remove the Kroger signal for all alternatives.
- CDM Smith will be meeting Friday with KYTC to discuss the model and will need a couple of weeks to complete the analysis.

With no further questions, the meeting was adjourned around 11:40 am CST.

**MINUTES**  
**Third Project Team Meeting**  
**US 231 – Warren County – Item # 3-8702.00**  
Barren River Area Development District Office  
Bowling Green, Kentucky  
May 12, 2014  
1:00 PM CDT

A meeting of the project team for the US 231 Scottsville Road Scoping and Traffic Operations Study (Warren County) was held at 1:00 p.m. CDT on Monday, May 12, 2014, in Bowling Green, Kentucky. The purpose of the meeting was to review and analyze the initial alternatives and discuss the next steps. Participants in the meeting represented the Kentucky Transportation Cabinet (KYTC) District 3 and Central Offices, the consultant firm, CDM Smith, and sub-consultant firm, American Engineers. The following were in attendance:

Greg Meredith	KYTC, District 3 Chief District Engineer
Deneatra Henderson	KYTC, District 3 Planning
Jeff Moore	KYTC, District 3 Planning
Joe Plunk	KYTC, District 3 Design
Wes Watt	KYTC, District 3 PIO
Andy Stewart	KYTC, District 3 Design
Renee Slaughter	KYTC, District 3 Environmental Coordinator
J.C. Puryear, Jr.	KYTC, District 3 Utilities
Shane McKenzie	KYTC, Central Office Planning
Steve Ross	KYTC, Central Office Planning
Mikael Pelfrey	KYTC, Central Office Planning
Barry House	KYTC, Central Office Planning
Eileen Vaughan	KYTC, Central Office Planning
Scott Thomson	KYTC, Central Office Planning
Brad Johnson	CDM Smith
Steve De Witte	CDM Smith
Kenneth Cox	American Engineers
Peter Overmohle	American Engineers

A summary of the key discussion items and decisions from this meeting are provided below.

**Welcome and Introductions:** Deneatra Henderson, KYTC Co-Project Manager, began the meeting, welcoming attendees and asking for introductions from all.

**Stakeholder Meeting Results:** Brad Johnson, CDM Smith Project Manager, briefly conveyed the results of the Stakeholder Meeting held in the morning. The turnout was very good, with eighteen stakeholders/local officials in attendance. The consensus from the stakeholders was to immediately address spot improvements, with widening in the future.

**Improvement Options:** As no wholesale changes had been made to the spot improvements or alternatives, discussion moved quickly to the cost estimates. Brad Johnson noted that the spot improvements could be lumped into enhancements at four intersections, and that the urban and rural estimates are very similar. Discussion followed:

- Joe Plunk asked if the design team had looked into the need for retaining walls at Shive Lane. Peter Overmohle gave a brief review of design assumptions, including a 20% contingency and full-depth shoulders. He confirmed the likelihood of a retaining wall at Shive Lane, and speculated that off-site drainage may also need to be improved.
- Joe Plunk stressed the need for very detailed cost estimates to be included in the report as this project moves into the design phase. He then asked if the cost estimate included signals. Kenneth Cox replied that it does, but does not include signal design.
- Jeff Moore stressed the need for documented assumptions (such as traffic design and management) as there has been no DNA study for this project. Everything must be included in the report. American Engineers will develop a more detailed cross-section.
- Scott Thomson expressed his desire to see an explanation of the traffic forecast and simulation model parameters in the final report so as we move into the design phase we know what was assumed and can match efforts. Brad offered for the assumptions to be included in appendix.

Brad queried the project team regarding their concerns about utility impacts. The goal should be to limit right-of-way needs and parking lot incursions as well. It is known, for instance, that AT&T owns a fiber optic conduit running along Scottsville Road that will be expensive to relocate. Discussion followed:

- J.C. Puryear, Jr. explained the utility impacts are difficult to discern at the plan sheet scale provided. Brad will provide D3 with Microstation files to aid in the utility cost estimate. KYTC will provide an estimate in 2-4 weeks. J.C. noted that a SUE investigation should be budgeted. There will be no avoiding the AT&T conduit, which will cost millions of dollars to relocate.
- Joe Plunk noted Atmos natural gas pipelines run parallel to Scottsville Road on both sides. Even with a more detailed drawing, if construction comes within several feet of a utility, it should be considered for relocation.
- Greg Meredith asked if the team could delineate the extent of the spot improvements for utilities. J.C. noted that they may be longer than expected due to manhole placement. Greg noted that the spot improvements are expected to be completed prior to widening, so it wouldn't hurt to go an extra manhole down with utility relocation to mitigate future impacts.
- Joe commented that strip taking may be necessary, especially if chasing slopes to drainage basins. An estimate from Kelly (D3 ROW) will have an asterisk because of possible drainage-related easements. CDM Smith will provide spot improvement project limits.

Brad steered the conversation toward the traffic analysis of the alternatives. He explained that Synchro was used for delay, Level of Service, and signal timing while VISSIM was used for travel times and Frontage Road interactions. The key conclusions were:

- Spot improvements can be done today with immediate positive impacts.
- By 2040, spot improvements alone will not be sufficient; additional through capacity will be required.
- Alternative 1 and Alternative 3 do not differ greatly in traffic, but multiple safety enhancements are introduced in Alternative 3.

Further discussion ensued:

- Jeff Moore stressed the importance of appropriately framing the project team recommendation to the legislature. The short term spot improvements are “Phase I” are staging for a long term 6 lane facility both need to address congestion, access and safety. Brad agreed; it’s not an either/or situation. He also wanted to clear up the misconception that since the 2040 forecast volumes were used, 2040 is the build year. In fact, 2020 was the assumed build year with a 20-year design life.
- Barry House noted the importance of stressing increased travel time reliability – improving the worst movements aids overall mobility. Jeff confirmed that it is a performance measure.

Discussion turned to whether the project team should identify a recommended or preferred alternative. Jeff stressed the importance of being true to the purpose and need, and summarized his thoughts thusly:

- Spot improvements alone do not satisfy the purpose and need requirements of enhanced safety and mobility. However, they are key elements for the next selection.
- Alternative 1 meets the purpose and need’s call for mobility, but safety concerns are not met fully as it contains four unsignalized intersections where vehicles are to turn left opposing three lanes of traffic, which is less safe.
- Alternative 3A/3B satisfies both goals of the purpose and need, while also satisfying a secondary condition to provide reasonable access.

Brad agreed with these points, and noted that low-cost versions of Alternative 3 elements could be incorporated into Alternative 1 as a cost-saving measure.

**Project Team Recommendations:** Discussion solidified into the following recommendation: Spot improvements should move forward immediately and as many spot improvements as programmed funding allows should be constructed. Alternative 3 is the preferred alternative, and should move forward as quickly as possible. Alternative 1 may be considered if impacts caused by Alternative 3 are too great; however, concepts from Alternative 3 should be incorporated into the Alternative 1 footprint.

Brad stated that both Alternatives should continue to be studied for comparison purposes, but the safety concerns of Alternative 1 must be called out and discussed.

Joe Plunk explained that it is very important to stress the value of the frontage road in the report. Scott Thomson added that it should be documented that removing it and giving all business driveway access to Scottsville Road is not advisable. Jeff Moore reiterated the importance of documenting the project team’s rationale, as the project team may have a difference composition in Phase I Design.

Greg Meredith stated that right now, spot improvements should be made for a positive difference. At the conclusion of this planning study, spot design should commence. However, the team must be weary of potential changes to the typical section of the Alternatives, as spot improvements will be designed to match and tie-in with the Alternatives.

Joe Plunk prescribed an abundance of caution while discussing the modification of the Greenwood Square signal. It may be necessary to remove to accommodate dual lefts onto Cave Mill Road. Alternative three does not remove the signal completely, but allows a protected left-in movement as part of a simple two-phase signal. Deneatra stressed that in Alternative 3 it is a signal modification, not removal.

Scott Thomson asked if the spot improvements could be considered “all or nothing.” Brad responded that at each intersection each spot improvement should be implemented, but all four intersections are not critical. CDM Smith will group the spot improvements by location on future figures.

**Next Steps:** Agency Coordination will be underway by the end of the week of this meeting. CDM Smith will leave a placeholder in the draft report for any feedback until the conclusion of the commenting period.

With no further discussion, the meeting was adjourned at 3:30 p.m. CDT.