

**COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF PLANNING**



**ANNUAL PERFORMANCE AND
EXPENDITURE REPORT
FOR
FISCAL YEAR 2013 ANNUAL WORK PROGRAM
PROJECT SP 0013 (001)
JUNE 16, 2012 THROUGH JUNE 15, 2013**

SEPTEMBER 2013

Introduction

The Annual Performance and Expenditure Report is required under 23 CFR 420.117. This document outlines the transportation planning activities conducted by the Kentucky Transportation Cabinet (KYTC) under Planning (Part I) of the SPR work program for the period of June 16, 2012 through June 15, 2013 (Fiscal Year 2013).

Many issues faced the Division of Planning during the period of this work program. Many analyses, studies, and traffic forecasts were initiated during the past year to support the KYTC lettings. The Division continued to work to increase our utilization of our roadway data management software, Highways by EXOR. Improvements to the quality of the data were made through collection efforts with our Area Development District (ADD) partners, and efficiencies in this program resulted in our ability to collect updated data quicker than was previously expected. Planning continued work with our ADD partners to maintain the digital base map of roadways and utilize that information to create visual representations of the state highway systems for use by KYTC, other agencies, and the general public. The Division continued efforts at intermodal planning and completed an update of the Statewide Transportation Plan. The Division made great efforts to aid the Cabinet and our MPO partners in making sure our required documents and processes were compliant with SAFETEA-LU and the associated revised regulations promulgated in 23 CFR 450. We worked closely with the Office of Special Programs in getting CMAQ, TE, and Safe Routes to School projects into the MPO Transportation Improvement Programs so funding could be authorized. The Division made great strides in the implementation of the Data Needs Analysis (DNA) scoping study process for the Six Year Plan Projects. The Division developed and implemented the District Transportation Plan (DTP) process resulting in the first DTP.

All these activities occurred while the Division of Planning continued to collect necessary data, manage and report the data as required, respond for requests for data both within and outside the Cabinet, forecast future transportation demands, plan for the transportation needs within the Commonwealth, coordinate with our rural and metropolitan planning partners, address air quality concerns, support project selection for the Six-Year Highway Plan and Statewide Transportation Improvement Program, and address other State and Federal requirements.

Attached are accomplishments for each chapter of the FY 2013 Work Program. Expenditures are summarized at the end of the document showing the initial budget, final budget, expenditures, encumbered (remaining to be spent) monies, and unspent funds.

FY 2013
SPR CHAPTER FUNDING SUMMARY

<u>CHAPTER AND TITLE</u>	<u>BUDGETED</u>	<u>EXPENDED</u>
1 SPR Work Program	\$65,000	\$8,880.53
2 Personnel Training	\$357,400	\$13,060.38
3 Traffic and Equipment Management	\$3,005,100	\$2,294,281.01
4 Roadway Systems	\$696,200	\$550,091.21
5 Cartography	\$563,200	\$327,573.80
6 Highway Information System	\$1,596,200	\$1,013,307.58
7 Strategic Corridor Planning	\$1,309,500	\$656,498.84
8 Statewide Transportation Planning	\$966,900	\$1,260,007.34
9 Metropolitan Planning Organizations	\$546,100	\$60,251.31
10 Air Quality	\$147,800	\$126,267.26
11 Multimodal Transportation	\$211,200	\$80,865.55
12 Congestion, Mobility, and Access Management	\$127,300	\$95,890.02
13 Traffic Data Forecasting	\$450,900	\$404,812.71
14 Bicycle and Pedestrian Program	<u>\$126,200</u>	<u>\$116,220.04</u>
Planning Total	\$10,169,000	\$7,008,007.58
Percent Expended		69%
15 Highway Safety Improvement Program	\$500,000	\$134,978.14
16 Value Engineering and Quality Assurance	<u>\$500,000</u>	<u>\$436,394.82</u>
Other Items Total	\$1,000,000	\$571,372.96
Percent Expended		57%
TOTAL	\$11,169,000	\$7,579,380.54
Percent Expended		68%

CHAPTER 1

SPR Work Program

RESPONSIBLE UNIT

Division of Planning
Customer Service Branch

PURPOSE AND SCOPE

The Customer Service Branch in the Division of Planning is responsible for administrative, budgetary, and expenditure tracking activities directly attributable to the completion of the SPR Planning Work Program chapters.

PROPOSED ACTIVITIES FOR 2012-2013

- Coordinate with all other branches in the Division of Planning in order to prepare the annual SPR Planning Work Program.
The Customer Service Branch created well over 400 pieces of correspondence in the form of memos and letters. Almost all of which were related to processing contracts, MOAs, letter agreements and other activities related to the SPR Work Program. 100% Complete
- Prepare monthly expenditure reports for each chapter of the SPR Planning Work Program.
Ran 12 expenditure reports, one per month. 100% Complete
- Update accomplishments of the SPR Planning Work Program quarterly.
Ran 12 expenditure reports, one per month. Communicated the results of those reports to branch managers and District Office Planning Supervisors quarterly to assist them in reporting quarterly accomplishments. 100% Complete
- Coordinate and prepare the annual SPR Planning Work Program and Accomplishments and Expenditures Report.
Ran final expenditure reports and reported total expenditures as well as percentage of budgeted amounts. Prepared FY 2013 Work Program. 100% Complete

PRODUCTS

The Internal Customer Service Section will coordinate and prepare the annual SPR Planning Work Program and the annual SPR Planning Work Program Accomplishments and Expenditures Report. This Section will also prepare and distribute to other Branches monthly expenditure reports for all chapters in the SPR Planning Work Program. The Internal Customer Service Branch will update accomplishments to the SPR Planning Work Program quarterly and distribute these updates to other Branches.

DISTRIBUTION OF ESTIMATED COST FOR 2012-2013

	2012-2013	Expended	Percent Expended
PERSONNEL	\$65,000	\$8,880.53	14%
OTHER	\$0.00	\$0.00	0%
TOTAL	\$65,000	\$8,880.53	14%

CHAPTER 2

Personnel Training

RESPONSIBLE UNIT

Division of Planning

PURPOSE AND SCOPE

The training of personnel is essential to the transportation program in order to keep pace with changing techniques and evaluate new procedures and developments as well as to help better develop the abilities of employees as they assume the vacated duties brought on through mass retirements, promotions, and transfers. This is particularly essential to the Cabinet's programs as more efficient and detailed technical analyses and assistance are required.

PROPOSED ACTIVITIES FOR 2012-2013

An effort will be made to continue a level of staff training which will maintain the integrity of professional career development and improvement of technological skills. Such training will include, but not be limited to the following workshops, classes, and conference or like training. This will not include registration fees to attend annual meetings or conferences except fees for portions of such conferences that do provide eligible training. We will also provide annual in-state Traffic Count Technician Training for District personnel. Training for Highway District Office Planning personnel, ADD personnel, and MPO personnel in procedures, regulations, technical issues, etc., may also be included as necessary to provide for improved coordination and efficiency within and between the Statewide and Metropolitan planning efforts.

PEEK Training (Chapter 3 – Traffic and Equipment Management) **No formal PEEK Training was held this fiscal year**

NATMEC Training (Chapter 3 – Traffic and Equipment Management) **NATMEC is held once every two years. There was no NATMEC this year.**

TMG Training (Chapter 3 – Traffic and Equipment Management) **No TMG training was attended this fiscal year.**

TRADAS (Chapter 3–Traffic and Equipment Management and Chapter 13–Traffic Data Forecasting) **Two Division employees attended TRADAS Training conducted by Chaparral Systems on September 17-20, 2012 in Sante Fe, NM.**

GIS Conference (Chapter 4 – Roadway Systems, Chapter 5 – Cartography, Chapter 6 – Highway Information System, Chapter 9 – Metropolitan Planning Organization and Chapter 12 – Congestion, Mobility and Access Management) **Several Attended**

Adobe Illustrator (Chapter 5 – Cartography) **Not Attended**

KAMP (Ky Assoc of Mapping Professionals) Annual Meeting (Chapter 4 – Roadway Systems, Chapter 5 – Cartography) **Not Attended**

GIS-T (GIS for Transportation) Annual Meeting (Chapter 4 – Roadway Systems, Chapter 5 – Cartography) **Attended**

COGNA Annual Meeting (Chapter 5 – Cartography) **Not Attended**

Microstation (Chapter 4 – Roadway Systems, Chapter 5 – Cartography, Chapter 6 – Highway Information System) **Attended**

CHAPTER 2

Personnel Training (continued)

RESPONSIBLE UNIT

Division of Planning

PROPOSED ACTIVITIES FOR 2012-2013 (continued)

Highway Performance Monitoring System (HPMS) (Chapter 6 – Highway Information System) **Attended**

Highway Information System Conference (HIS) (Chapter 6 – Highway Information System) **Three Division employees attended the HIS Conference conducted by FHWA on October 22-25, 2012, in Arlington, Virginia**

Asset Management Conference (Chapter 6 – Highway Information System) **Not Attended**

Bentley Training conference (Upgrade of HIS) (Chapter 6 – Highway Information System) **Not Attended**

HIDAC Training (Chapter 6 – Highway Information System) **Not Attended**

Business Objects Training (Chapter 6 – Highway Information System) **Attended**

Standard Query Language (SQL) (Chapter 6 – Highway Information System) **Attended**

Visual Basic (Chapter 6 – Highway Information System) **Not Attended**

Public Involvement (Chapter 7 –Strategic Corridor Planning, Chapter 8–Statewide Transportation Planning, and Chapter 9 – Metropolitan Planning Organization) **Attended webinar**

Road Safety Audit Training (Chapter 7 –Strategic Corridor Planning) **Attended**

Highway Safety Manual Training (Chapter 7 –Strategic Corridor Planning) **Attended**

2012 Partnering Conference (Chapter 7 –Strategic Corridor Planning) **Attended**

Purpose and Needs Statements Training (Chapter 7 –Strategic Corridor Planning, Chapter 8–Statewide Transportation Planning Chapter 9 – Metropolitan Planning Organization)

NEPA(Chapter 7 –Strategic Corridor Planning, Chapter 8–Statewide Transportation Planning, and Chapter 9 – Metropolitan Planning Organization) **Attended**

GIS (Chapter 7 –Strategic Corridor Planning, Chapter 8–Statewide Transportation Planning) **Attended**

Microsimulation (Chapter 7 –Strategic Corridor Planning) **Not Attended**

Administration of FHWA Planning and Research Grants Chapter 9 – Metropolitan Planning Organization) **Not Attended**

TRB Small and Medium Communities Conference (Chapter 9 – Metropolitan Planning Organization) **Not Attended**

Transportation and Land Use (Chapter 9 – Metropolitan Planning Organization) **Attended webinar**

Climate Change (Chapter 9 – Metropolitan Planning Organization, Chapter 10 – Air Quality Conformity Analysis) **Attended**

STAQS (Chapter 10 – Air Quality Conformity Analysis) **Not Attended**

MOVES (Chapter 10 – Air Quality Conformity Analysis) **Attended**

National Freight Conference (Chapter 11 – Multimodal Transportation) **Attended**

Modeling Conferences and Training (Chapter 9 – Metropolitan Planning Organization, Chapter 13 – Traffic Data Forecasting) **Attended**

TransCAD Training (Chapter 13 – Traffic Data Forecasting)

Census Training (Chapter 5 – Cartography, Chapter 9 – Metropolitan Planning Organization, **Attended**

Chapter 10 – Air Quality Conformity Analysis, Chapter 13 – Traffic Data Forecasting) **Attended webinar**

CHAPTER 2

Personnel Training (continued)

RESPONSIBLE UNIT

Division of Planning

PROPOSED ACTIVITIES FOR 2012-2013 (continued)

Bike/Ped Conferences (Chapter 9 – Metropolitan Planning Organization, Chapter 14 – Bicycle and Pedestrian Program) **Attended webinar**

Bicycle and Pedestrian Facilities Conference (Chapter 9 – Metropolitan Planning Organization, Chapter 14 – Bicycle and Pedestrian Program) **Attended**

Training for State Bicycle and Pedestrian Coordinator (Chapter 14 – Bicycle and Pedestrian Program) **Attended**

Partnering Conference (Chapter 3 – Traffic and Equipment Management, Chapter 4 – Roadway Systems, Chapter 6 – Highway Information System, Chapter 7 – Strategic Corridor Planning, Chapter 8 – Statewide Transportation Planning, Chapter 9 – Metropolitan Planning Organization, Chapter 13 – Traffic Data Forecasting, and Chapter 14 – Bicycle and Pedestrian Program) **Several Employees Attended**

Additional Training:

STP meeting in Lebanon Attended (SPAC) (Statewide Planning) (MPO)

MAP-21 Webinar: Overview with partners and stakeholders Attended (Statewide Planning) (MPO)

MAP-21 Webinar: Statewide and Metropolitan Planning Attended (Statewide Planning) (MPO)

MAP-21 Webinar: Performance Management Attended (Statewide Planning) (MPO)

MAP-21 Webinar: CMAQ Attended (MPO)

MAP-21 Webinar: Implementation Attended (SPAC) (MPO)

MAP 21: Implementation Work Groups Status Report Attended (SPAC) (MPO)

MOVES User Groups for MPOs Attended (MPO)

Every Day Counts Summit Attended (MPO)

Effectice Practices in Planning for Livable Communities at MPOs Attended (MPO)

INRIX Data as a Tool to Meet New US Federal Requirements Attended (MPO)

District Transportation Planners Meeting Attended (SPAC) (MPO)

Road Diets and Pedestrian Safety Attended webinar (SPAC) (MPO)

GIS - Linking Transportation and Natural Resource Planning Attended (MPO)

Statewide Planning Meeting in Frankfort Attended (SPAC) (MPO)

Transportation Research Board Annual Meeting Attended (Statewide) (MPO)

Toward Zero Deaths: Strategies for Pedestrian and Bicycle Professionals Attended (MPO)

Implementing SHRP2 research products Attended (MPO)

KYTC - LPA Training Attended (MPO)

INVEST Planning Exchange webinar Attended (MPO)

REMI Presentation on Reshoring US Manufacturing Attended (MPO)

Introduction to Transportation Conformity Attended (MPO)

CMP Training at KYOVA Attended (MPO)

Planning for Operations Workshop at KIPDA Attended (MPO)

HCM2010 Highway Capacity Analysis Attended (MPO)

ITTS/MAFC Freight Conference Attended (SPAC) (MPO)

Performance-Based Planning and Programming Attended (MPO)

Active Transportation and Demand Management and HCM Guide Attended (MPO)

ITSA Conference Attended (MPO)

CHAPTER 2

Personnel Training (continued)

RESPONSIBLE UNIT

Division of Planning

PROPOSED ACTIVITIES FOR 2012-2013 (continued)

- TCAPP Workshop Attended (MPO)
- Rightsizing Streets Attended (MPO)
- Pedestrian Safety and Flashing Yellow Traffic Signals Attended (MPO)
- KYTC Building Emergency and Evacuation Attended (SPAC) (MPO)
- LTAP Region 4 Conference Attended (MPO)
- Transit Signal Priority Planning and Analysis Attended (MPO)
- ODOT Peer Review Attended (SPAC) Attended (MPO)
- Webinar: AASHTO Guidance for Development of Bicycle Facilities Attended (SPAC)
- ACEC-KY Highway Capacity/Signal Capacity Analysis Training Attended (SPAC)
- Webinar: NACTO Urban Bikeway Design Attended (SPAC)
- Webinar: HCM2010 New Urban Streets Methodology – Urban Mode Attended (SPAC)
- Webinar: HCM2010 New Urban Streets Methodology – Bicycle, Pedestrian, and Transit Modes Attended (SPAC)
- MAP-21 Webinar: Congestion & NHS Performance Measures Attended (SPAC)
- Planning Section Supervisors Meeting Attended (SPAC)
- EDC MAP-21 Regional Presentations Attended (SPAC)
- Statewide Transportation Meeting at Barren River ADD Attended (SPAC)
- Advanced Leadership Academy Attended (Statewide)

PRODUCTS

Personnel with career development opportunities, improved technological skills, broadened knowledge, enhanced capabilities, and more efficient operation.

DISTRIBUTION OF ESTIMATED COST FOR 2012-2013

	2012-2013	Expended	Percent Expended
PERSONNEL	\$322,400	\$11,122.24	.03%
OTHER	\$35,000	\$1,938.14	1%
TOTAL	\$357,400	\$13,060.38	.03%

Other

- Other Operational Cost \$35,000
For items such as travel, mileage, equipment and other cost directly associated to the completion of this work chapter.

CHAPTER 3

Traffic and Equipment Management

RESPONSIBLE UNIT

Division of Planning
Traffic and Equipment Management Branch

PURPOSE AND SCOPE

The primary functions of the Traffic and Equipment Management Branch are to collect, process, and store traffic data. Traffic data is used in virtually every decision made in transportation engineering. Applications of this information include, but are not limited to: project/program planning, project selection, pavement design, safety analysis, capacity analysis, air quality assessment, and federal funding.

The Branch is comprised of two Sections: the Equipment Section and the Data Section.

The Equipment Section is responsible for the acquisition, distribution, operation, maintenance, and repair of all equipment used at traffic data acquisition stations. The Equipment Section performs site design, installations, construction inspections, and maintenance at traffic data acquisition stations throughout the state. Additional duties of Equipment Section personnel include providing technical expertise and training to District personnel and performing traffic counts as necessary.

The Data Section performs quality control for, and processes and maintains data collected from data acquisition stations located statewide. The Data Section generates several different reports from said data throughout the year. These reports are prepared for the Federal Highway Administration (FHWA), Kentucky Transportation Center (KYTC), various planning agencies, and other governmental agencies. Data is also made available for public consumption.

PROPOSED ACTIVITIES FOR 2012-2013

- Maintain, update, analyze, provide assurance of data, and make available data from approximately 15,000 traffic count stations including coverage, interstate, automatic traffic recorder (ATR), weigh in motion (WIM), and ramp counts. **All traffic count station data were checked for quality control and assurance of data upon entering into database. Data was updated as it was received. Data was continuously maintained and made available via regularly updated information on the Division of Planning website and by request from the TEMAC Branch. 100% complete.**
- Download, process, and analyze data from approximately 80 permanent ATR stations. **Available ATR data was downloaded daily. All ATR data was checked for quality control and assurance of data upon entering into database. Reports were generated and sent to FHWA monthly. 100% complete.**
- With the KYTC District Offices, collect and process vehicle volume data from approximately 4,900 short-duration, portable-machine, coverage and ramp counts. **Received approximately 4156 counts of approximately 4977 assigned (83.5% complete) from District Offices for short-duration counts in calendar year 2012. Assigned approximately 5200 short-duration counts to Districts in calendar year 2013.**
- With KYTC District Offices, collect and process vehicle volume data from approximately 1,400 short-duration, portable-machine, local-road, bridge counts. **Approximately 461 short duration local road bridge counts were performed (33% of triennial program) in calendar year 2012.**

CHAPTER 3

Traffic and Equipment Management (continued)

RESPONSIBLE UNIT

Division of Planning
Traffic and Equipment Management Branch

PROPOSED ACTIVITIES FOR 2012-2013 (CONTINUED)

- With KYTC District Offices, review, assign, collect, process, analyze, and distribute data from special count stations that are requested by the highway districts and other divisions. The number of special counts can vary significantly from year to year with the average being approximately 400 counts. *Approximately 243 special counts (100% of those received) were reviewed, assigned, processed, analyzed and distributed in calendar year 2012.*
- Concurrent with coverage, interstate, ATR, WIM, and ramp counts, collect and process vehicle classification data from approximately 1,400 stations, which is 28% of all traffic count stations statewide to comply with the FHWA, *Traffic Monitoring Guide* recommendation of 25%-30%. *Vehicle classification data was collected and processed from approximately 1040 stations (~24%) in calendar year 2012.*
- Provide traffic data for annual FHWA required Highway Performance Monitoring System (HPMS) report. *All data required of the Data Team for the annual FHWA HPMS report was provided. 100% complete.*
- Update axle and monthly factors used in adjusting short term counts from data collected at ATR and vehicle classification stations. *Updated seasonal, axle and design hour factors at the end of calendar year 2012. 100% complete.*
- Review and analyze functionally classified local road data to validate formula used to calculate local road Daily Vehicle-Miles of Travel (DVMT). *This task is still in progress. All local road data has been collected however, due to an unexpected number of functionally classified roadway changes last, analysis of the data to validate the formula was not completed. We had originally hoped to have this complete in early FY12, however, due to various other issues, we lowered the priority level on this task and postponed completion until next fiscal year.*
- Update in-house databases to include any new stations or roadway alignment changes. Correct beginning and ending mile points to better represent traffic generators. *All in-house databases were updated in a timely manner as needed. 100% complete.*
- Review, analyze, and update data summaries for vehicle weights and calculating Equivalent Single Axle Loads (ESALs). *Began collecting WIM data via ip addressable modems late this fiscal year. Began developing methodologies and software to review, analyze, and update data.*
- Complete testing and initiate final implementation of new traffic data system (TRADAS) software. *Testing was completed and final implementation of the new traffic data system (TRADAS) was initiated. 100% complete.*
- Maintain parallel data on mainframe until full implementation of TRADAS. *Parallel data was maintained on the mainframe until full implementation of TRADAS. 100% complete.*
- Continue to grow and maintain the WIM data program to collect, process, analyze, and submit monthly, one-week, WIM data at permanent WIM stations. Periodically calibrate WIM data collection equipment in order to assure quality data. *Began collecting WIM data via ip addressable modems late this fiscal year. Began developing methodologies and software to perform Quality Control, process, and analyze data. Plan on submitting data after QC program is complete and data is deemed reliable. 100% complete.*

CHAPTER 3

Traffic and Equipment Management (continued)

RESPONSIBLE UNIT

Division of Planning
Traffic and Equipment Management Branch

PROPOSED ACTIVITIES FOR 2012-2013 (CONTINUED)

- Review proper operation and coverage of ATR sites. Install additional stations as necessary. Review of functional classifications and geographic locations of ATR sites was performed – 100% complete. Some functional classifications were over-represented so some of the higher maintenance ATRs in these classifications were abandoned. Other functional classifications were under-represented. ATRs were added to the Traffic Management System via a contract let in June, 2012. In addition to functional classification representation, sites for new ATRs were selected statewide to provide geographic diversity.
- Investigate and purchase new traffic data collection equipment to provide for safer, more efficient and more accurate methods of collection. Investigated new technologies including but not limited to new automatic data recorder (ADR) hardware and software, video detectors, wireless detectors, modems, microwave detectors, GPS units, and data retrieval software. Purchased ADR modules, CPU boards, Comm cards, ADR Upgrade Kits, modems and antennae, miscellaneous portable count materials, and protective clothing. 100% complete.
- Certify, repair, and maintain approximately 700 traffic data recorders. The TEMAC Equipment Team certified approximately 700 automatic data recorders (ADRs). ADRs were maintained and repaired throughout the year, as required. 100% complete.
- Inspect, repair, and maintain approximately 600 ATR and semi-permanent vehicle sensor locations. Permanent vehicle sensor locations were inspected concurrent with annual short term traffic data collection. Sites requiring maintenance were noted and, where feasible, repaired by Equipment Team personnel. Entered into new maintenance contracts with two Electrical Contractors to provide statewide maintenance of ATR and semi-permanent sites. 100% complete.
- Track upcoming highway projects and produce plans and specifications for new and replacement traffic sensor installations for submittal into construction and pavement rehabilitation contracts. Approximately 56 sets (100% of requested) of plans and specifications including approximately 88 ATR and semi-permanent count station sites were produced and submitted by the Equipment Team for construction and pavement rehabilitation contracts. Completed construction inspection of project that was let in June 2012 that added/updated 35 ATR and semi-permanent collection sites throughout the state. 100% complete.
- Update the traffic management system (TMS) as needed. The TMS process documentation was updated throughout the year as needed. 100% complete.
- Provide contract management and oversight of consultants assisting with field data collection and other tasks. Process and provide quality assurance of the provided counts. Entered into new contract with a Traffic Data Collection Consultant for field data collection. Assigned counts but did not receive during this fiscal year. 100% complete.
- Provide traffic count technician training. The annual traffic count technician training program was developed and presented by TEMAC personnel on May 31, 2013 and was attended by all TEMAC personnel, District count technicians, and the FHWA liaison. Provided individual traffic count technician training throughout the year as needed. 100% complete.

CHAPTER 3

Traffic and Equipment Management (continued)

RESPONSIBLE UNIT

Division of Planning
 Traffic and Equipment Management Branch

PRODUCTS

- Volume and classification data from ATRs Data was retrieved for a minimum of six months from 55 ATR stations. Automatic Traffic Recorder (ATR) data was downloaded and processed daily and a report of hourly records was submitted to FHWA monthly. Data was analyzed to ensure proper operation of ATRs. Maintenance issues were referred to the Equipment Team and repaired where feasible. As funding permits, sites that require in-pavement sensor maintenance will be repaired by electrical contractors through the new maintenance agreements or by future projects let by the Division of Planning.
- Volume, classification, and weight data from WIM sites Began collecting WIM data via ip addressable modems late this fiscal year. Began developing methodologies and software to perform Quality Control, process, and analyze data. Data has not been submitted to FHWA - plan on submitting data quarterly after QC program is complete and data is deemed reliable. 0% complete.
- Volume and classification data from short-duration machine counts. Received approximately 4156 counts (of approximately 4977 assigned (83.5%)) from District Offices for short-duration counts in calendar year 2012. Assigned approximately 5200 short-duration counts (including counts not completed in calendar year 2011) to Districts in calendar year 2013. Of 208 interstate sites, completed data collection from approximately 181 (87%); were unable to collect data from remaining stations due to construction in the vicinity and/or malfunctioning sensors. Approximately 461 short duration local road bridge counts were performed (33% of triennial program).
- Volume and classification data from special counts Approximately 243 special counts (100% of those received) were reviewed, assigned, processed, analyzed and distributed.
- Axle and monthly factors. Updated seasonal, axle and design hour factors at the end of calendar year 2012.
- Databases containing count station and count data information Database information for count station and count data was updated as needed. Began working with Information Technology personnel to develop a new, more robust, user-friendly database for count station information.
- Accurate local DVMT data for FHWA reporting through HPMS. Accurate local DVMT data for FHWA was reported through HPMS.

DISTRIBUTION OF ESTIMATED COST FOR 2012-2013

	2012-2013	Expended	Percent Expended
PERSONNEL	\$2,550,100	\$1,283,166.51	50%
OTHER	\$455,000	\$1,011,114.50	222%
TOTAL	\$3,005,100	\$2,294,281.01	76%

CHAPTER 3

Traffic and Equipment Management (continued)

RESPONSIBLE UNITDivision of Planning
Traffic and Equipment Management Branch**ESTIMATED OUTSOURCING EXPENSES AND PURCHASES****Outsourcing**

- \$100,000 contract for outsourced traffic counts and sensor installations to be performed by consultant under Statewide Traffic Counting contract.
- \$175,000 for count station maintenance through district maintenance contracts.
- \$944,000 for Interstate and Arterial contract for Loop and Piezo installation and maintenance
- \$100,000 WIM Installation Maintenance, Calibration, and Collection.

Other

- \$250,000 for purchase of new Traffic Data Collection Equipment
- \$100,000 for Piezos, Road Tube, and counting supplies
- \$75,000 Other Operational Cost
For items such as travel, mileage, equipment and other cost directly associated to the completion of this work chapter.

CHAPTER 4

Roadway Systems

RESPONSIBLE UNIT

Division of Planning
Transportation Systems Branch

PROPOSED ACTIVITIES FOR 2012-2013

- Track roadway construction or maintenance projects to identify changes in roadways and their effect on roadway system designations. **Daily activity including contact and email with District Offices for project status updates. Posting notification for Data Management when traffic dates are changed as well as updating the Project Tracker Database with current information. 100% Complete**
- Adapt project design plans and use GIS software to generate maps for resolving issues of roadway system and ownership designations and for use by other branches. **Utilizing ArcMap and/or MicroStation/Bentley Map to create question maps from imported project design plan sheets and/or shapefiles for all upcoming projects for comments from the Systems group and District Offices regarding ownership and system designations. Subsequently questions maps where convert into an Official Order Map. 100% Complete**
- Coordinate the two-way flow of information between the Highway District planning staffs and Central Office Transportation Systems and Data Management branch staffs regarding roadway construction and ownership status. **Communicate almost daily with Data Management personnel on activities regarding updating and/or revising H.I.S. based on District Planning recommendations. Phone calls, emails, regular meeting with Data Management Staff, and sometime visits are made to the respective Highway District Office to check on project status. 100% Complete**
- Generate official documentation recommending appropriate SPRS revisions to the Commissioner of the Department of Highways for approval. (KRS 177.020 and 603 KAR 3:030). **Currently Official orders are required for all changes to the SPRS. Created official orders for all new construction projects and began doing official orders for data review changes as well, instead of electronic change orders. 100% Complete**
- Ensure the SPRS reflects roadways of significance, and correlates with the functional classification system and the electronic base map coverage. **Reviewed SPRS and functional class for all new road alignments along with recommendations and input from the Districts to make classification changes. Evaluate as projects were opened and official orders were generated. 100% Complete**
- Review the Functional Classification of roadways and consult with Data Management branch and others as appropriate to ensure the system reflects roadways of significance and correlates with the SPRS and the electronic base map coverage. **Met with Data Management staff on each road project prior to it being put into H.I. S. and reviewed as each respective project opened and the official orders were completed. Also, reviewed whenever a request by the Districts for a classification change becomes necessary. 100% Complete**
- Prepare quarterly reports for publication on the internet of SPRS mileage and of the designated routes and mileage of roads in the NHS and NN systems. **Reports every quarter and made sure they were published on the website. 100% Complete**
- Review revisions to the SPRS to discover any modifications made necessary to other systems such as functional classification, NHS, or NN classifications. **None required. Typically new alignment reviews check to see if any surrounding roads needed classification changes due to the new alignment. Changes to NHS and NN require a separate official order. This is a part of the process of doing an Official Order. 100% Complete**

CHAPTER 4

Roadway Systems

RESPONSIBLE UNIT

Division of Planning
Transportation Systems Branch

PROPOSED ACTIVITIES FOR 2012-2013 (continued)

- As requested by local public agencies or Highway Districts, review requests for revisions of functional classification, NHS and NN. As appropriate, prepare request from Cabinet to FHWA for system revision. **Did several official orders to reclassify SPRS road system as well as functional class at the districts requests. 100% Complete**
- As necessary or appropriate, review interstate frontage roads. Coordinate documentation by Highway District offices of suitability for transfer to local government and prepare request from Cabinet to FHWA for permission to complete transfer of property to local government. **Completed a few frontage roads in District 6. These require that the District (for KYTC) address certain criteria from the Federal-Aid Policy Guide 23 CFR 620B. Mailed letters to District 6 asking for these answers, but they have been put on hold for now. 100% Complete**
- As necessary or appropriate, prepare and submit request for approval by AASHTO Standing Committee on Highways, U.S. Route Numbering Special Committee, for any significant change to routing of a U.S. numbered highway. **Submittals are made to the Special Committee twice a year as necessary – completed one in March 2013 for US 60 (Tennessee River Bridge in McCracken/Livingston Counties) including the map and route log. Also coordinated with the Multimodal Branch to send their US Bicycle route designation submittal in for the Spring 2013 meeting of the Special Committee. 100% Complete**
- Provide all system revision information to the Data Management branch and others as appropriate. **Daily contact with Data Management to ensure that all Systems data is accurate in HIS. 100% Complete**
- Compile data to provide ton-mile statistics to the Governor's Office for Local Development for coal transported on Kentucky Highways as required by KRS 177.977 and KRS 42.455. **Reports are drawn in Exor forms from data entered for the previous calendar year. "Ton-Miles Table" to DLG on August 13, 2012. 100% Complete**
- Publish Kentucky's Official Coal Haul Highway System Report as required by KRS 177.977 and KRS 42.455. **The Coal Haul Report and supporting maps were published to the website in late August 2012. Website updated for Coal Haul. 100% Complete**
- Provide the Division of Maintenance coal haul route information for their review of bridge weight limits. Develop the update of the Extended Weight Coal and Coal By-Products Haul Road System for replacement of the current system in the Highway Information System database. Prepare the Official Order for approval of the updated Extended Weight system. **Bridge information for review by Maintenance was sent on August 15, 2012. The Extended Weight data was updated in HIS at the end of October 2012. Official Order updates for the Secretary's signature and it was distributed by early November 2012. 100% Complete**

PRODUCTS

- Official Order Changes to the State Primary Road System **43 Official Orders were completed, including transfers. Discovered and processed changes resulting from roadway data collection and roadway system data reviews. 100% Complete**

CHAPTER 4

Roadway Systems

RESPONSIBLE UNIT

Division of Planning
Transportation Systems Branch

PRODUCTS

- State Primary Road System Official Order Listings and Functional Classification Reports
Update State Primary Road listings for each official order completed. Revise mileage totals and update revisions page to reflect current changes. Revised SPRS listing to the Planning webpage. 100% Complete
- Quarterly Reports on internet: State Primary Road System Mileage, National Highway System routes and mileage, Designated National Truck Network routes and mileage Updated NHS and NTN reports on web at beginning of each quarter. Put SPRS mileage report back out on the web upon Districts requests. 100% Complete
- GIS map files incorporating project design files for decision-making and use by other Branches
Task 100% Completed Incorporated project design files into GIS map documents to create decision-making maps for nearly 50 projects. Communicated with Data Management Branch on information obtained for input into HIS for HPMS reporting. 100% Complete
- Coal Haul System Report with associated maps and separate datasets to Department of Local Governments, KYTC Budgets and KYTC Bridge Maintenance. Compiled Coal Haul reports and shapefiles. Created maps of producing counties as well as a statewide map. Mailed out 680 Coal Haul forms and 553 Coal Haul Updates. 100% Complete
- Inform FHWA of modification of functional classification
None Required
- Request to FHWA for modification of National Truck Network (NN) or Official Order Change to State Designated National Truck Network
None Required
- Request to FHWA for modification of National Highway System
None Required
- Request to FHWA for permission to relinquish interstate frontage road to local government
None Required

DISTRIBUTION OF ESTIMATED COST FOR 2012-2013

	2012-2013	Expended	Percent Expended
PERSONNEL	\$671,200	\$547,920.32	82%
OTHER	\$25,000	\$2,170.89	1%
TOTAL	\$696,200	\$550,091.21	79%

Other

- \$25,000 Other Operational Cost
For items such as travel, mileage, equipment and other cost directly associated to the completion of this work chapter.

CHAPTER 5

Cartography

RESPONSIBLE UNIT

Division of Planning
Transportation Systems Branch

PROPOSED ACTIVITIES FOR 2012-2013

- Provide electronic mapping for all city, county, district, state, and special-purpose cartographic products. Over 100 County Maps, SPRS, and Functional Classification Maps were updated and exported on the internet. About 70 City Maps, SPRS, and Functional Classification Maps were updated and exported on the internet. District Maps for SPRS and Functional Class were exported and updated to the internet 23 times. Create a city map for Campbellsburg. 100% Complete
- Maintain and publish electronic formats of cartographic products for display on the Internet. Maps are updated regularly. 100% Complete
- Update the Official State Highway Map electronic files and accomplish necessary publication. Monitor inventory at 17 locations and coordinate additional deliveries as needed. Reviewed updated highway information from Districts and Systems Team to ensure routes are correct on Official Highway Map. Obtained printing exception from Finance, processed form for contract and updated RFP document for contract. Revised coloration of map to match KY Tourism materials and updated roads on statewide map and 15 inset maps as required. Prepared for publication and press-checked printing of 745,000 maps. Continue to monitor inventory and shipping of product to 17 locations. Created alternate format digital versions of the map for publication on the web page and for usage in GIS software. 100% Complete
- Create reports and exhibits for various Division projects and studies to assist transportation decision-makers in their roles. 100% Complete Compiled over 550 coal haul reports and shapefile of producing county as well as a statewide map. Produced a Hazardous Cargo Routes Map of the state with insets for Louisville and Northern Kentucky for the Department of Vehicle Regulation. Created several maps for each District for use in developing District/Regional Transportation Plans, such as a special size 2013 Highway Plan map for District 2.
- Provide mapping and graphic assistance to other Divisions and Departments as requested. 100% Complete Create bicycle maps for adventure tourism and the bicycle and pedestrian program. Created a bicycle route map of Dawkins Trail and a wall map for Adventure Tourism. Finished a Special counties map focused on the Highway Map for Ron Harris in the Finance Cabinet. Provided KREDA map to the Economic Development Cabinet. Updated Legislator maps. Created several "You are Here" maps for a welcome centers, rest areas, and for the KACB. Genetated 30 county and city maps of D-10 counties for FEMA.
- Develop and provide to outside entities digital maps as requested. 100% Complete Responded to map reviews of 121 maps for evidence of populated places for USGS. Provided highway updates to Rand McNally and AAA. Created special Kentucky map for Kentucky Arts Council with event locations. Fulfilled 1,141 maps sales request and mailed out nearly 16,000 free official Highway Maps.
- Develop and provide geographic information systems (GIS) files locating non-roadway modes of transportation. 100% Complete Reviewed and edited populated place symbols from GIS data resulting in +400 changes to populated place symbols in the state for COT GNIS layer improvements.

CHAPTER 5

Cartography

RESPONSIBLE UNIT

Division of Planning
Transportation Systems Branch

PRODUCTS

- Official Highway Map 100% Completed Contract obtained for 2013 map, graphic files generated, roadway updates made to statewide map and 15 inset maps, printing QC'd and 745,000 copies printed and distributed as needed.
- State Primary Road System Maps 100% Completed
Updated county maps at least 101 times
Updated city maps 67 times
Updated highway district maps 23 times
- Functional Classification Maps 100% Completed Same as for State Primary Road Systems. Also 70+ counties were updated because of special functional changes to NHS updates
- Other Highway Data Maps (i.e., traffic counts, NHS, NN, etc. maps) Task 100% Completed
Hazardous Cargo Routes maps of the state, Louisville, and N. Ky.
Economic Development KREDA State map
- Cabinet and Planning Project Exhibit Maps/Displays 100% Completed
Special Map of Campbellsburg per request
Special size 2013 Highway map plain for District 2
Special large 2013 Highway Map You Are Here with enlarged Richmond inset for KACB
Legislator maps, then updated for new elections and leadership
New Rest Area map updated for website per request
Provide highway updates to Rand McNally, AAA
Special Kentucky map for Kentucky Arts Council w/ event locations
30 county and city maps for D-10 counties for FEMA
I-65 Welcome Center Bullitt Co. You Are Here map
Special counties focused Highway map for Finance Cabinet Ron Harris
Dawkins Trail bicycle route maps
Wall Map for Adventure Tourism
New You Are Here map for Shelby Co. Welcome Center
- GIS Analyses of various data for transportation decision-making 100% Completed
As requested – See Comments above
- General and special purpose maps as requested by other agencies 100% Completed
As requested – See Comments above
- Geographic information systems (GIS) electronic files 100% Completed 400+ maps of suspect populated places for COT GNIS layer improvements

DISTRIBUTION OF ESTIMATED COST FOR 2012-2013

	2012-2013	Expended	Percent Expended
PERSONNEL	\$458,200	\$215,668.75	47%
OTHER	\$105,000	\$111,905.05	106%
TOTAL	\$563,200	\$327,573.80	58%

CHAPTER 5

Cartography

RESPONSIBLE UNIT

Division of Planning
Transportation Systems Branch

ESTIMATED OUTSOURCING EXPENSES AND PURCHASES

Outsourcing

- \$150,000 for Technical Assistance program with UK to provide Interns to help with various SPR program items.
- \$50,000 for highway map outsourced production assistance.

Other

- \$100,000 for Official Highway Map Publication.
- \$5,000 Other Operational Cost
For items such as travel, mileage, equipment and other cost directly associated to the completion of this work chapter.

CHAPTER 6

Highway Information System

RESPONSIBLE UNIT

Division of Planning
Data Management Branch

PURPOSE AND SCOPE

The Data Management Branch responsibilities include assistance and support for maintenance of the Transportation Cabinet's Highway Information System (HIS) which includes storage of all roadway characteristic information, transportation systems information, and the Cabinet's roadway centerline Geographic Information System (GIS). The branch contributes to the KYTC Asset Management program, providing an up-to-date route network of asset location for other divisions and provides asset extraction for updates to the network. They perform a yearly Functional Class review with the Highway Districts and MPO's. They coordinate all Functional Class changes associated with state road changes and requests from external entities. They perform data collection activities for the statewide Geographic Information System (GIS) transportation layer, HPMS data, operational performance data, and roadway characteristics using data collected from Division of Maintenance Photo Van. From this information the Branch uses the Highway Performance Monitoring System (HPMS) to establish a baseline and assist with analysis for measuring highway system performance and produce the highway data submittal required annually by the Federal Highway Administration (FHWA). They provide information to the Transportation Cabinet, other governmental agencies, consultants, and private organizations via requests or by posting data to the Division's web site.

PROPOSED ACTIVITIES FOR 2012-2013

- Work with the Office of Information Technology (OIT) to upgrade the HIS database to the next release of "Highways by EXOR" and deploy to other data owners within the cabinet. **Tested HIS database upgrades to confirm product reliability and functionality prior to installation 100% Complete**
- Work with OIT to assist with database upgrades that include links, functionality, and data exchange with other division databases. **Worked with TED and GIS Branches in OIT for reporting and mapping of HIS data 100% Complete**
- Assist with implementation of new Traffic System database including links, functionality, and data exchange between HIS and the new database. **Completed 2012 HPMS submittal using traffic data stored in new TRADAS database; continuing to perform troubleshooting and functionality improvements 80% Complete**
- Assist with implementation of the photo van imaging system for data collection purposes. This will include providing up to date route network for photo location accuracy and data extraction oversight. **Accurately located Photo Van data to the up-to-date route network; Used photo van data and images to improve accuracy of route network and roadway data 100% Complete**
- Assist with cabinet wide asset management data collection and data dissemination. **Updates to route network and roadway data used by customers remained on pace with the opening of new roadway projects; Numerous customer requests for data processed efficiently and timely 100% Complete**
- Coordinate with other divisions concerning asset management needs of HIS and TED and HIS needs of other divisions data. **Coordinated with Division of Public Affairs to improved the management of Adopt-a-Highway data in HIS; Development of a link between HIS/TED and the Division of Maintenance's OMS/PMS databases in progress. 40% Complete**

CHAPTER 6

Highway Information System (continued)

RESPONSIBLE UNIT

Division of Planning
Data Management Branch

PROPOSED ACTIVITIES FOR 2012-2013 (continued)

- Continue to develop processes and procedures to review, edit, and update Cabinet's base map and HIS database. **New data types added to HIS and existing data types modified or removed as needed to meet changing reporting requirements and Cabinet needs; Field data collection processes improved with new technologies and techniques 100% Complete**
- Assist with testing, training, report migration, and enhancements with the HIS. **Ongoing 75% Complete**
- Assist in the development and maintenance of a Cabinet GIS and maintain database network for Kentucky's public highway system. **Route network updates completed in over 90 counties; Performed significant corrections and updates to Route Log data 100% Complete**
- Update newly acquired road centerline data collected from Division of Maintenance Photo Van or central office staff using GPS collection methods or CAD design file extraction to the existing highway network. Update and verify roadway mileage, highway systems data, for use in maintaining and generating data driven maps. **New road alignment updates of GIS and HIS data completed for over 120 locations 100% Complete**
- Improve and update roadway characteristic, HPMS, Performance Measure, and analysis data through Division of Maintenance Photo Van data collection project. **HIS regularly updated with more complete and accurate Photo Van road data that drives these processes; Submitted 67 out of 68 HPMS data items, many of which were collected or verified using Photo Van data 100% Complete**
- Perform office reviews to verify data meets the required standards and confidence levels established by this Division and FHWA. **Utilized HPMS Field Manual to verify the quality and completeness of road data; Reviewed the Local Roads Collection Guidelines to establish new standards which would improve collection techniques; Reviewed all ramps and corrected data as needed to follow new ramp naming protocol 100% Complete**
- Provide up-to-date route network, DMI, roadway characteristics and system information through various programs. **Provided route network and roadway characteristic updates through field collection, GIS tools, aerial imagery, and the Photo Van data collection project 100% Complete**
- Conduct a statewide urban boundary review in cooperation with Highway Districts, MPO's and Local Officials. **Began cooperation efforts and planning; Review scheduled for FY 2014 25% Complete**
- Process and submit annual HPMS submittal. **HPMS processed and submitted following receipt of data from other areas of the Cabinet 100% Complete**
- Perform statewide review of functional class in cooperation with Highway Districts and MPO's. **Full review of Principal Arterial and Minor Arterial systems as part of MAP-21 NHS review; System mileages were brought into FHWA guidelines 100% Complete**
- Review functional class change requests from Highway Districts and other external entities. **Reviewed and process four Functional Classification change requests 100%**
- Coordinate changes to the NHS and Strategic Highway Network following proper procedure for approval from FHWA and DOD. **Full review of NHS as part of MAP-21 addition of all Principal Arterials; 414 miles added to NHS 100% Complete**

CHAPTER 6

Highway Information System (continued)

RESPONSIBLE UNIT

Division of Planning
Data Management Branch

PROPOSED ACTIVITIES FOR 2012-2013 (continued)

- Utilize HPMS to update Rating Indices, Capacity, and Volume/Service Flow ratio in the HIS database. Ongoing discussion with Kentucky Transportation Center to re-develop these processes using the 2010 Capacity Manual 25% Complete
- Use HIS to measure highway system performance and assist with analyses of the Unscheduled Projects List. Provided HIS data to District offices to assist with the District Transportation Plan, which is being used to help guide Cabinet project priorities 100% Complete
- Maintain currency of HPMS software and perform changes required by federal legislation, regulations, policies, and/or guidelines, as needed to the HPMS. Used HPMS 8.0 and followed software validations and requirements; Used the latest edition of the HPMS Field Manual 100% Complete
- Investigate results of HPMS each year and analyze changes in processes to improve output of report. Team meeting following submittal; Documented challenges, lessons learned, and planned improvements for 2013 submittal; Updates to HPMS Process Document under way 25% Complete
- Assist in processing and reporting of the FHWA 534 and 536 reports. Both reports completed 100% Complete

PRODUCTS

- Routines to extract better road information from the GPS files (i.e. vertical grade, horizontal curve) Working with Mandli to develop better method for calculating horizontal curve information 50% Complete
- Queries and routines for quality control of the database concerning asset items and road information QA report performed weekly and improved as needed 100% Complete
- Database and GIS application troubleshooting when errors take place Weekly checks took place and adjustments made when appropriate 100% Complete
- Database and GIS upgrades Database fixes applied; New location of GIS data created 100% Complete
- Other agency information loaded or linked to HIS database Division of Public Affairs Adopt-a-Highway data; Development of a link between HIS/TED and the Division of Maintenance's OMS/PMS databases in progress 40% Complete
- New roadway centerlines obtained through GPS technology and CAD design files and updates to both the GIS layers and HIS database Completed and ongoing 100% Complete
- New roadway inventory either through field collection or extracted from CAD design files to update the GIS layers and HIS database Completed and ongoing 100% Complete
- New roadway inventory extracted through photo van software Completed and ongoing 100% Complete
- Existing roadway characteristic inventory QC checks from photo van pictures Completed and ongoing 100% Complete
- Transportation Enterprise database updates for cabinet wide consumption of data Completed and ongoing 100% Complete
- Cabinet wide Asset Management updates and route locations to update other divisions Completed and ongoing 100% Complete

CHAPTER 6

Highway Information System (continued)

RESPONSIBLE UNITDivision of Planning
Data Management Branch**PRODUCTS (continued)**

- HPMS 534 and 536 Reports **Both reports completed 100% Complete**
- HPMS submittal due June 15, 2011 **Submitted July 8 due to slow cooperation from other Cabinet data sources and issues extracting traffic data from a new database 100% Complete**
- Reports created concerning information about transportation network stored in HIS database **Completed as needed/requested 100% Complete**
- Provide Certification of Public Road Mileage by June 1 **Signed and submitted on May 29 100% Complete**

DISTRIBUTION OF ESTIMATED COST FOR 2012-2013

	2012-2013	Expended	Percent Expended
PERSONNEL	\$1,346,200	\$765,037.62	57%
OTHER	\$250,000	\$248,269.96	99%
TOTAL	\$1,596,200	\$1,013,307.58	63%

ESTIMATED OUTSOURCING EXPENSES AND PURCHASES**Outsourcing**

- \$50,000 Special GPS Maintenance
- \$150,000 Asset Management & Support through IT
- \$135,000 to outsource for Local Road Attribute Data Collection to all of the 15 ADD's, with contracts less than \$100,000 for each
- \$98,306 Roadway Attribute Data Collection
- \$50,000 to outsource for Asset Management data extraction from photo van images
- \$50,000 for Asset Management data collection
- \$64,810 536 Report

Other

- \$100,000 for EXOR ecredits
- \$75,000 Other Operational Cost For items such as travel, mileage, equipment and other cost directly associated to the completion of this work chapter.
- \$75,000 computer software maintenance for upgrading HPMS.

CHAPTER 7

Strategic Corridor Planning

RESPONSIBLE UNIT

Division of Planning
Strategic Planning Branch
Strategic Corridor Planning Team

PURPOSE AND SCOPE

The Strategic Corridor Planning Team evaluates system and corridor needs for the state maintained roadways. It enhances and continues to update an evaluation process for prioritizing projects for consideration for inclusion in the Six-Year Highway Plan and the Unscheduled Projects List. It also conducts technical project studies performing the necessary levels of planning to develop a conceptual and draft purpose and need statement, identifies major environmental issues including environmental justice, initiates consultation with local officials, initiates agency coordination and conducts appropriate levels of public involvement. It identifies and evaluates alternatives, generates project cost estimates and recommends phasing priorities where appropriate. The team oversees outsourced activities and works with the Highway District Offices (HDOs), Metropolitan Planning Organizations (MPOs), and Area Development Districts (ADDs) as needed to complete necessary tasks. Through analysis of data, sustainable and fundable projects will be identified.

PROPOSED ACTIVITIES FOR 2012-2013

- Continue to develop and update policy and procedures for evaluating corridor level needs. **This task is on-going. We continue to evaluate the policy and procedures for each study, placing emphasis on practical solutions.**
- Conduct corridor, system, small urban area studies, data needs analyses, and other studies. **For a list of active studies please see the PRODUCTS below or view the attached spreadsheet.**
- Respond to inquiries about corridor planning issues. **All inquiries to planning studies are responded to in a timely manner. Recently completed studies are available online for the public to view and posted on ProjectWise.**
- Identify, evaluate and prioritize corridor, system, and small urban area needs through data analysis and public involvement. **Corridor and Small Urban Area Studies involve the identification, evaluation, and prioritization of recommended roadway improvements through data analysis and involvement from the public, and/or local officials/stakeholders advisory committees.**
Oversee outsourced activities. **Several of our studies are done by consultants with someone from the district and from the Division of Planning acting as co-Project Managers who oversee the study. At the end of the FY 2013 fourth quarter, KYTC had twelve active planning studies that were outsourced to a consultant.**
- Evaluate identified needs statewide to assist in prioritizing projects for programming in the Highway Plan. **PIFs are made for long-term needs identified through our corridor and Small Urban Area studies. Our studies also provide cost estimates to be used in programming future projects. This process is on-going. Every two years District Transportation Plans are developed to assist in prioritizing projects for the Highway Plan.**

CHAPTER 7

Strategic Corridor Planning (continued)

RESPONSIBLE UNITDivision of Planning
Strategic Planning Branch
Strategic Corridor Planning Team**PRODUCTS**

Such Studies will include, but not be limited to the following:

• Programming Studies					<u>% Complete</u>
Harlan	KY 38	Programming Study	N/A		85%
Jefferson, Oldham, Henry, Trimble, Carroll, Gallatin, Boone	I-71	Programming Study	99-394.00		29%
• Interchange Justification Studies					<u>% Complete</u>
Boone	Mall Road / I-75	IJS	6-409.00		82%
• Scoping Studies					<u>% Complete</u>
Henderson, Daviess, Ohio, Butler, Warren	I-66, I-66/ I-65 Spurs	Scoping Study	2-85.00		86%
Jefferson	KY 1931	Scoping Study	5-480.00		62%
McCracken	KY 305	Scoping Study	1-8702.00		30%
Livingston	US 60	Scoping Study	1-1142.00		50%
McCracken	KY 1286	Scoping Study	1-153.00		30%
Knox, Laurel	KY 3041	Scoping Study	11-190.00		36%
Christian, Hopkins	Pennyrile Parkway	Scoping Study	N/A		0%
• Feasibility Studies					<u>% Complete</u>
Henderson	I-69	Feasibility Study	2-69.02		45%
Christian, Hopkins	Dawson Springs Bike Path	Feasibility Study	N/A		10%
• Small Urban Area Studies					<u>% Complete</u>
Christian	Hopkinsville	Small Urban Area Study			88%
Shelby	Shelbyville	Small Urban Area Study			10%
Marion	Lebanon	Small Urban Area Study			5%

CHAPTER 7

Strategic Corridor Planning (continued)

RESPONSIBLE UNIT

Division of Planning
Strategic Planning Branch
Strategic Corridor Planning Team

PRODUCTS (continued)

Six studies were completed during the period of June 30, 2012 to June 30, 2013. One was completed in-house and five were completed by consultants. The studies completed are as follows:

- KY 321 Programming Study, Johnson Co. – N/A – August 2012 (SPR)
- US 60 Scoping Study, McCracken Co. – 1-125.00 – September 2012
- US 460 Scoping Study, Magoffin Co. – N/A – October 2012 (SPR)
- KY 44 Scoping Study, Bullitt & Spencer Co.'s – 5-396.00 – November 2012
- Danville Traffic Management Plan Update, Boyle Co. – N/A – January 2013 (SPR)
- KY 15 Programming Study, Breathitt, Perry & Wolfe Co.'s – N/A – May 2013 (SPR)

Many of the current studies are large-scale efforts that have included or will include agency coordination and significant public involvement activities. All of the studies have required or will require coordination with the Highway District Offices and Area Development District Offices to assemble the project team, provide input on study issues, assist with scheduling meetings, and review reports. The Area Development District Offices will also develop Environmental Justice reports for many of the studies.

Those projects listed above followed by (SPR) were funded with SPR Work Program funds. In addition, some SPR funding was used for management, oversight, and review of strategic corridor planning activities.

Summarizing, 20 projects have been worked on during the past fiscal year, with 6 being completed, and 14 others in various stages of completion. An additional 8 projects have been announced and will begin shortly. Please refer to the table at the end of this document to see percentages of projects complete and percentage of FY 13 project goals that were met.

- Data Needs Analysis (DNA) PreDesign Scoping Studies
A DNA for Six-Year Plan and Unscheduled Projects.
Over 80 DNA studies have been completed by District and Central Office Planners since the beginning of the fiscal year. These studies include projects identified by Item #1-1141, #1-1143, #1-1146, #1-1148, #1-152, #1-1144, #1-1145, #1-1147, #2-228, #2-227, #2-1079, #2-1082, #2-1085, #2-79.3, #3-1080, #3-1081, #3-1082, #3-1083, #3-1076, #3-8305, #4-8307.1, #4-198, #4-394, #4-1078, #4-8712, #5-1060, #5-1063, #5-1069, #5-474, #5-1061, #5-1064, #5-1068, #6-8707, #6-8708, #6-1077, #6-1078, #6-1079, #6-1073, #6-1080, #6-1081, #6-8500, #7-412, #7-414, #7-1126, #7-1133, #7-1128, #8-394, #9-204, #9-205, #9-1082, #9-1081, #9-1083, #9-1085, #9-228, #10-8302, #10-167, #10-1098, #10-1099, #10-8702, #10-1101, #10-1102, #10-1103, #10-1104, #10-1105, #10-1107, #10-8402, #10-163, #11-1076, #11-1077, #11-1078, #11-1079, #11-1087, #11-1093, #11-1090, #11-1091, #11-1092, #11-185, #11-188, #11-8705, #12-8704, #12-8705, #12-191, #12-192, #12-3, #12-195, #12-1113, #12-1117, #12-1115, #12-1116.
- Priorities for Highway Plan Programming that are sustainable and fundable.

CHAPTER 7

Strategic Corridor Planning (continued)

RESPONSIBLE UNIT

Division of Planning
Strategic Planning Branch
Strategic Corridor Planning Team

DISTRIBUTION OF ESTIMATED COST FOR 2012-2013

	2012-2013	Expended	Percent Expended
PERSONNEL	\$1,289,500	\$651,599.32	50%
OTHER	\$20,000	\$4,899.52	24%
TOTAL	\$1,309,500	\$656,498.84	50%

ESTIMATED OUTSOURCING EXPENSES AND PURCHASES

Outsourcing

- \$700,000 to outsource for Planning Studies. FHWA will be notified when planning studies utilizing SPR funds are initiated.

Other

- \$20,000 Other Operational Cost
For items such as travel, mileage, equipment and other cost directly associated to the completion of this work chapter.

PLEASE SEE ATTACHED PAGE FOR LIST OF STUDIES

PROJECT I.D.	ITEM NO.	COUNTY(S)	CONTRACT NO.	TYPE OF WORK	District Project Manager	Central Office Co-Project Manager	Consultant	NTP Date	Contract/L.A. Amount	Funds Expended in FY 2013 ¹	Total Funds Expended ¹	Overrun?	Schedule met?	Approximate % Complete	Were needs for this corridor/SUA identified, evaluated, and prioritized?	FY 13 SPR Work Program Funds	Were there contract revisions?
LEBANON	N/A	MARION	In-House	SMALL URBAN AREA STUDY	TBD	Spalding	In-House	N/A	-	-	-	-	-	5%	On Hold	N/A	N/A
SHELBYVILLE	N/A	SHELBY	In-House	SMALL URBAN AREA STUDY	Pelfrey	Higdon	In-House	N/A	-	-	-	-	-	10%	In progress	Yes	N/A
I-66 / I-69 SPURS - OWENSBORO	2-85.00	HENDERSON, DAVIESS, OHIO, BUTLER, WARREN	Agree. No. 201210	CORRIDOR STUDY	N. Hall	A. Thomas	Palmer	9/21/2011	\$278,802.00	\$121,225.73	\$240,670.80	No	No	86%	In progress	No	Yes
KY 38	N/A	HARLAN	In-House	PROGRAMMING STUDY	Mosely	Pelfrey	In-House	N/A	-	-	-	-	-	85%	Yes	Yes	N/A
HOPKINSVILLE	N/A	CHRISTIAN	LA No. 5, Agree. No. 201028	SMALL URBAN AREA STUDY	N. Hall	Gutti	Stantec	3/15/2012	\$108,581.00	\$75,777.98	\$95,975.79	No	No	88%	In progress	Yes	Yes
KY 1931	5-480.00	JEFFERSON	LA No. 1, Agree. No. 201254	SCOPING STUDY	Downs	Pelfrey	CDM Smith	9/25/2012	\$172,734.00	\$107,958.75	\$107,958.75	No	Yes	62%	In progress	No	No
I-75 / MALL ROAD	6-409.00	BOONE	LA No. 1, Agree. No. 201248	INTERCHANGE JUSTIFICATION STUDY	Bezold	Pelfrey	Qk4	7/2/2012	\$86,177.00	\$70,553.10	\$70,553.10	No	No	82%	In progress	Yes	No
KY 305	1-8702.00	McCRACKEN	Agree. No. 201344	SCOPING STUDY	Herring	Higdon	Stantec	2/21/2013	\$225,111.00	\$67,615.27	\$67,615.27	No	Yes	30%	In progress	No	No
US 60	1-1142.00	LIVINGSTON	LA No. 2, Agree. No. 201247	SCOPING STUDY	Herring	Higdon	PB Americas	1/28/2013	\$223,371.76	\$111,685.70	\$111,685.70	No	Yes	50%	In progress	No	No
KY 1286 / KY 998	1-153.00	McCRACKEN	LA No. 2, Agree. No. 201254	SCOPING STUDY	Herring	Higdon	CDM Smith	1/4/2013	\$170,560.00	\$50,519.87	\$50,519.87	No	Yes	30%	In progress	No	No
KY 3041	11-190.00	KNOX, LAUREL	Agree. No. 201334	SCOPING STUDY	Chappell	Higdon	Stantec	1/31/2013	\$323,161.00	\$117,393.42	\$117,393.42	No	Yes	36%	In progress	No	No
I-71	99-394.00	JEFFERSON, OLDHAM, HENRY, TRIMBLE, CARROLL, GALLATIN, BOONE	Agree. No. 201348	SCOPING STUDY	Yeager	Pelfrey	Qk4	3/5/2013	\$405,809.00	\$116,315.50	\$116,315.50	No	Yes	29%	In progress	No	No
I-69 SIU #4	2-69.02	HENDERSON	LA No. 2, Agree. No. 201248	FEASIBILITY STUDY	Valentine	Pelfrey	Qk4	3/6/2013	\$231,475.00	\$104,727.53	\$104,727.53	No	Yes	45%	In progress	No	No
KY 109 DAWSON SPRINGS BIKE PATH	N/A	CHRISTIAN, HOPKINS	LA No. 3, Agree. No. 201248	FEASIBILITY STUDY	N. Hall	McKenzie	Qk4	6/10/2013	\$30,000.00	\$3,000.00	\$3,000.00	No	Yes	10%	In progress	No	No
EB 9004 PENNYRILE PARKWAY	N/A	CHRISTIAN, HOPKINS	LA No. 4, Agree. No. 201248	CORRIDOR STUDY	N. Hall	McKenzie	Qk4	6/10/2013	\$137,814.00	\$0.00	\$0.00	No	Yes	0%	In progress	N/A	No

¹In-house studies using SPR funds do not have have a tracking mechanism for funding that identifies charges to individual studies.

PROJECT I.D.	ITEM NO.	COUNTY(S)	TYPE OF WORK
KY 321	N/A	JOHNSON	PROGRAMMING STUDY
US 60	1-125.00	MCCRACKEN	SCOPING STUDY
US 460	N/A	MAGOFFIN	SCOPING STUDY
KY 44	05-396.00	BULLITT, SPENCER	SCOPING STUDY
DANVILLE TMP	N/A	BOYLE BREATHITT, PERRY,	SCOPING STUDY
KY 15	N/A	WOLFE	PROGRAMMING STUDY
LEBANON	N/A	MARION	SMALL URBAN AREA STUDY
SHELBYVILLE	N/A	SHELBY	SMALL URBAN AREA STUDY
I-66 / I-69 SPURS - OWENSBORO	2-85.00	HENDERSON, DAVISS, OHIO, BUTLER, WARREN	CORRIDOR STUDY
KY 38	N/A	HARLAN	PROGRAMMING STUDY
HOPKINSVILLE	N/A	CHRISTIAN	SMALL URBAN AREA STUDY
KY 1931	5-480.00	JEFFERSON	SCOPING STUDY
I-75 / MALL ROAD	6-409.00	BOONE	INTERCHANGE JUSTIFICATION STUDY
KY 305	1-8702.00	McCRACKEN	SCOPING STUDY
US 60	1-1142.00	LIVINGSTON	SCOPING STUDY
KY 1286 / KY 998	1-153.00	McCRACKEN	SCOPING STUDY
KY 3041	11-190.00	KNOX, LAUREL JEFFERSON, OLDHAM, HENRY, TRIMBLE, CARROLL, GALLATIN,	SCOPING STUDY
I-71	99-394.00	BOONE	SCOPING STUDY
I-69 SIU #4	2-69.02	HENDERSON	FEASIBILITY STUDY
KY 109 DAWSON SPRINGS BIKE PATH EB 9004 PENNYRILE PARKWAY	N/A N/A N/A	CHRISTIAN, HOPKINS CHRISTIAN, HOPKINS	FEASIBILITY STUDY CORRIDOR STUDY

PROJECT I.D.	ITEM NO.	COUNTY(S)	PROJECT DESCRIPTION	TYPE OF WORK	Project Manager	Backup Manager	Consultant	COMPLETION DATE
KY 321	N/A	JOHNSON	KY 321 FROM KY 40 TO KY 321X	PROGRAMMING STUDY	Cuzzort	Pelfrey	QK4	August-12
US 60	1-125.00	MCCRACKEN	US 60 FROM KY 998 to FRIEDMAN LANE	SCOPING STUDY	J. Herring	Higdon	Stantec	September-12
US 460	N/A	MAGOFFIN	US 460 FROM THE MOUNTAIN PARKWAY TO KY 114	SCOPING STUDY	Westfall	Pelfrey	Stantec	October-12
KY 44	05-396.00	BULLITT, SPENCER	KY 44 FROM US 31E TO KY 1633	SCOPING STUDY	Gutti	Asher	In-House	November-12
DANVILLE TMP	N/A	BOYLE BREATHITT, PERRY,	DANVILLE TRAFFIC MANAGEMENT PLAN	SCOPING STUDY	Vint	A. Thomas	PB Americas	January-13
KY 15	N/A	WOLFE	KY 15 FROM CAMPTON TO HAZARD	PROGRAMMING STUDY	Blackburn	Gutti	QK4	May-13

CHAPTER 8

Statewide Transportation Planning

RESPONSIBLE UNIT

Division of Planning
Strategic Planning Branch

PURPOSE AND SCOPE

The Statewide Planning Team conducts a comprehensive statewide transportation planning process with the Area Development Districts (ADDs), Metropolitan Planning Organizations (MPOs), and the Highway District Offices (HDOs). This process includes consideration of all modes and development of a policy driven and data-based approach to identification, analysis and prioritization of needs. The team also updates a Statewide Transportation Plan (STP) as needed and ensures that the STP and STP Program are SAFETEA-LU compliant. Through these processes and partnerships, this team provides meaningful input to the Highway Plan.

PROPOSED ACTIVITIES FOR 2012-2013

- Review and update the STP document as needed. **100% complete and ongoing regular reviews.**
- Develop and implement processes as needed to ensure SAFETEA-LU/MAP-21 compliance. **100% complete. District Transportation Plan revision schedule has been revised and distributed to ADD/MPO/HDO planners for coordination.**
- Coordinate with other transportation modes, land use, environmental, and other resource agencies. **Coordinated with Office for Civil Rights & Small Business Development to ensure compliance with Title VI requirements via site visits and training at Statewide Transportation Planning meetings. 100% Complete**
- Enhance the statewide transportation planning process by including data collection and analysis, public involvement, and coordination. **Held STP meetings with presentations on public involvement methods, and discussed the importance of public involvement for the planning process. Administered “Your Turn” Long Range Transportation Planning Survey. 100% complete**
- Identify, evaluate, and prioritize transportation projects through data analysis and public involvement. **Coordinated between ADD’s and HDO’s on Prioritization process and schedule for 2013 cycle. Continue to analyze and proof complete PIF listing for quality. 100% complete**
- Recommend sustainable and fundable projects. **Coordinated discussion sessions and gave presentations on proper development of PIF’s, as well as what should be appropriate for submittal as a PIF. Facilitated the Funder Games, a group exercise aimed at spurring discussion on PIF development and presentation. Refined District Transportation Plan process and schedule. 100% complete**
- Maintain and oversee further development of the Project Identification Form/Unscheduled Projects List online database for use as a tool in project prioritization and analysis. **Continue to work with developers as bugs arise in PIF application and look for ways to improve existing practices and information 100% complete**
- Coordinate with other Divisions, Districts, and Agencies and incorporate applicable plans as necessary to ensure compliance with new authorization or SAFETEA-LU extension compliance. **Working cooperatively with ADD, MPO, and HDO planners to identify transportation related issues on both a local and regional scale in an effort to better determine quality data driven needs. 100% complete**

CHAPTER 8

Statewide Transportation Planning (continued)

RESPONSIBLE UNIT

Division of Planning
Strategic Planning Branch

PROPOSED ACTIVITIES FOR 2012-2013 (continued)

- Coordinate and oversee the ADD Regional Transportation Program. Coordinate and assist the Highway District Offices as they develop the District Regional Transportation Plan. Revised and forwarded new contracts for signatures. Provided guidance on deliverables, addressed Regional Transportation Committees, attended Regional Transportation Committees both as an observer and presenter, processed invoices, and facilitated ADD Planner Assessments. Coordinated between ADD's and HDO's on development and presentation of District Regional Plans. 100% complete

PRODUCTS

- Statewide Transportation Plan updates as needed. 100% complete. Administered "Your Turn" Long Range Transportation Planning Survey as a component of the 2013 update cycle for the Long Range Plan. Facilitated Planner, Stakeholder and Vision meetings to garner wide ranging input for use in Long Range Plan.
- Unscheduled Projects List database Managed data entry, verification, and refinement of existing PIF's into web application, and reviewed for quality and consistency. Reviewed proposed PIF's and assigned control numbers. Worked with Data Management to develop PIF and mapping products for use with District Transportation Plan and Prioritization processes. 100% complete
- Annual Work Programs and Contracts for 15 Area Development Districts Completed revisions for FY13 work program and forwarded for signatures. Clarified deliverables and their due dates. Reviewed deliverables for completeness. 100% complete
- Statewide Transportation Planning Meetings Held STP, ADD, District Planner or equivalent meetings. 100% complete
- Individual ADD Planner Assessments Tracking deliverables and attending/presenting at meetings as necessary for use in evaluation. Released checklist to ADD planners for verification, and solicited feedback from HDO planners for potential use in said assessments. 100% complete
- District Regional Transportation Plan that is sustainable and fundable. District Transportation Plan revision schedule has been completed and distributed to ADD/MPO/HDO planners for coordination. Raw files were collected and distributed to HDO planners for efficient and effective revision cycle. 100%.

DISTRIBUTION OF ESTIMATED COST FOR 2012-2013

	2012-2013	Expended	Percent Expended
PERSONNEL	\$931,900	\$818,810.85	88%
OTHER	\$35,000	\$441,196.49	126%
TOTAL	\$966,900	\$1,260,007.34	130%

CHAPTER 8

Statewide Transportation Planning (continued)

RESPONSIBLE UNIT

Division of Planning
Strategic Planning Branch

ESTIMATED OUTSOURCING EXPENSES AND PURCHASES

Outsourcing

- \$75,000 to outsource for studies and assistance related to the Statewide Planning SPR Work Program

Other

- \$35,000 Other Operational Cost
For items such as travel, mileage, equipment and other cost directly associated to the completion of this work chapter.

CHAPTER 9

Metropolitan Planning Organizations (Areas over 50,000 Population)

RESPONSIBLE UNIT

Division of Planning
Strategic Planning Branch
MPO Team

PURPOSE AND SCOPE

The MPO Team provides technical assistance to and coordination with the Metropolitan Planning Organizations (MPOs) for developing and maintaining a continuing, cooperative, and comprehensive (3C) transportation planning process. This process ensures that KYTC and local transportation projects remain eligible to receive federal funding. The scope of work is in accordance with the Unified Planning Work Program (UPWP), which describes all anticipated urban transportation and transportation-related planning activities to be performed.

PROPOSED ACTIVITIES FOR 2012-2013

- Review and implement any changes to the MPO planning process as a result of an expected new federal transportation bill. 15% complete. MPO Team members have participated in webinars to discuss the new transportation bill and how the planning process is expected to be affected. Draft performance measures have been discussed and identified in a number of fields. Waiting on published draft guidance in order to complete a Gap Analysis effort between the metropolitan planning process under SAFETEA-LU and MAP-21.
- Incorporate statewide changes and provide data, analysis, and support in implementation of new Census 2010 data within the planning process including activities such as updating the PL distribution formula for state FY 2014, coordinating the review of MPO urban boundaries, responding if new MPOs are identified, etc. 75% complete. PL distribution formula has been updated and approved. No new MPOs were identified. The Ashland urbanized area became part of the Huntington-Ashland TMA in FY 2013. Urban boundaries were not completed in FY 2013, but are expected to be updated during FY 2014.
- Provide technical assistance and oversight review of MPO activities, programs, documents, models and/or tools. 100% complete. Daily monitoring, reviewing, and recommending improvements to MPO activities continue. 56 non-specific MPO meetings and 44 conference, training meetings, and/or webinars took place to maintain knowledge and understanding of MPO requirements.
- Attend technical, policy, and other committee meetings to represent the Cabinet. 100% complete. 36 Policy, 46 Technical, and 104 other committee meetings were attended during the quarter.
- Conduct contract management and oversight for federal funds. 100% complete. All contracts, invoices, and auditing requirements are being met as expected. A review of files and file structures took place to prepare for APA audits in January-February 2013. Additional file reviews were completed at the end of FY 2013 in preparation for transitions between MPO Engineers.
- Ensure consistency between local and state plans and programs. 100% complete. Coordination continues for encouraging consistency across the state while providing flexibility for local and regional variances.

CHAPTER 9

Metropolitan Planning Organizations (continued)
(Areas over 50,000 Population)

RESPONSIBLE UNIT

Division of Planning
Strategic Planning Branch
MPO Team

PROPOSED ACTIVITIES FOR 2012-2013 (continued)

- Coordinate with other transportation modes to obtain input on multimodal issues for the Metropolitan Transportation Plans (MTPs). 100% complete. Coordination continues with Office of Transportation Delivery for transit and the Division of Planning's Modal Branch on bicycle, pedestrian, freight, and other modes.
- Work with the MPOs and Highway District Offices (HDOs) on Project Identification Forms (PIFs), data collection, project evaluation and ranking, and training. 100% complete. All expected deliverables are being met.
- Conduct regular statewide meetings. 100% complete. Three statewide meetings were held during the FY 2013, in addition to two conference calls.
- Coordinate with the Transportation Management Areas (TMAs) on the programming and tracking of dedicated Federal Statewide Transportation Program (STP) funded projects and the development of compliant Congestion Management Processes (CMPs). 100% complete. Coordination continues to ensure federal transportation requirements are being met by TMAs.
- Coordinate with MPOs on air quality issues, analysis, and conformity. 100% complete. Coordination continues to educate and cooperatively work with MPOs to address air quality

PRODUCTS

- Assistance to MPOs in preparing compliant Transportation Improvement Programs (TIPs), MTPs, Participation Plans (PPs), CMP's and UPWP's 100% complete. 2 new MTPs, 5 new TIPs, and 4 Participation Plans were approved during FY 2013. 9 original or revised Performance and Expenditure reports were completed. 9 original or revised Annual Obligation reports were completed.
- Review TIP actions and request STIP modifications to incorporate changes 100% complete. 17 TIP Amendments and 40 TIP Administrative Modifications were approved during FY 2013.
- Assistance to MPOs in updating their urban boundaries 5% complete. MPOs were waiting for direction from KYTC to begin updating urban boundaries. This task was scheduled for completion during the 4th quarter, but was delayed to the 1st quarter of FY 2014.
- Updated MPO PL distribution formula 100% complete. MPO PL distribution formula update was completed by KYTC in the 1st quarter and received final approval from MPOs by the end of the 2nd quarter.
- MPO UPWP contracts and administration 100% complete. 27 UPWP contracts have been monitored for necessary oversight activities during the course of the year
- MPO dedicated STP fund contracts and administration 100% complete. 8 STP contracts and 6 other contracts have been monitored for necessary oversight activities during FY 2013.
- Statewide Transportation Planning Meetings 100% complete. 3 STP meetings and 2 conference calls were held during FY 2013.
- Special Studies 100% complete. 15 ongoing studies are being monitored.

CHAPTER 9

Metropolitan Planning Organizations (continued)
(Areas over 50,000 Population)

RESPONSIBLE UNIT

Division of Planning
Strategic Planning Branch
MPO Team

DISTRIBUTION OF ESTIMATED COST FOR 2012-2013

	2012-2013	Expended	Percent Expended
PERSONNEL	\$521,100	\$60,251.31	12%
OTHER	\$25,000	\$0.00	0%
TOTAL	\$546,100	60,251.31	12%

ESTIMATED OUTSOURCING EXPENSES AND PURCHASES**Outsourcing**

- \$50,000 Various studies (CTPP participation, etc.), as needed.

Other

- \$25,000 Other Operational Cost
For items such as travel, mileage, equipment and other cost directly associated to the completion of this work chapter.

CHAPTER 10

Air Quality

RESPONSIBLE UNIT

Division of Planning
Multimodal Programs Branch
Air Quality Team

PURPOSE AND SCOPE

The Air Quality Team will coordinate and perform analyses necessary to determine regional air quality conformity. They will also assist in the development of regulations, guidance, and best practices in order to ensure compliance and deliver transportation projects within designated non-attainment and maintenance areas.

PROPOSED ACTIVITIES FOR 2012-2013

- Host and/or participate in interagency consultation calls regarding transportation conformity for updates and amendments to MTP plans, TIPs, and STIP. Responded to updates from KIPDA, OKI, CUAMPO, KYOVA, FIVCO, and Sherry Curry regarding any STIP updates/amendments. Have also participated in Clarksville and Ashland IAC calls. 100% Complete
- Run the current emissions model for ozone and PM_{2.5} regional air quality conformity analyses for Ashland and Christian County areas as well as other newly designated areas. It was determined earlier that a conformity analysis for the Clarksville 2040 MTP was not needed. It was also determined that the Ashland 2040 MTP conformity run would only be composed of a PM_{2.5} analysis and not an ozone one. All DAQ's Stage II requests have been completed. The Ashland Area will be turned over to KYOVA effective July 1st, 2013, and KYTC will assist when needed 100% Complete
- Maintain a working knowledge of the guidelines for the 8-hour ozone and PM_{2.5} standards, EPA's current emissions model, air quality regulations, and implementation guidance. Attend necessary meetings and conferences to stay abreast of air quality issues. The 1997 8-hour ozone standard is still on schedule to be revoked July 20, 2013, at which time the 2008 standard will take effect. EPA has released their documentation on the new PM_{2.5} standard, (which was dropped from 15µg/m³ to 12µg/m³) and EPA/DAQ/KYTC are currently in the process of reviewing the documents to see how it will apply to our AQ issues around the state. EPA has plans to make formal designations by December 2014. Currently waiting on DAQ data showing which counties will be in nonattainment for the new standard. Further information is forthcoming. EPA released an updated version of their MOVES_2010b model earlier in the year, which contains minor adjustments to the database. 100% Complete
- Facilitate monthly conference calls with federal, state, and local partners to discuss timely air quality regulations and conformity issues. Participated in meetings with LMAPCD/KIPDA/INDOT/IDEM, OKI/ODOT, CUAMPO/TDOT/TDEC, KY DAQ, Ashland/FIVCO/KYOVA, AQ Advisory Committee, Freight, FHWA – KY/TN/IN, and EPA 100% complete

CHAPTER 10

Air Quality (continued)

RESPONSIBLE UNIT

Division of Planning
Multimodal Programs Branch
Air Quality Team

PROPOSED ACTIVITIES FOR 2012-2013 (continued)

- Educate KYTC staff, KYTC management, public officials, and the general public about air quality, conformity analysis, and federal guidelines and on new developments with greenhouse gas/climate change requirements. Disseminate information about the PM_{2.5} and 8-hour ozone standards and designation process and on new developments with greenhouse gas requirements. **Continue to update Keith, Lynn, MPO Team, and anyone concerning important changes to AQ. AQ discussed in Division's presentations with Project Management Academy 100% Complete**
- Provide VMT, speeds, and vehicle registration age/type distribution to DAQ for their development of the State Implementation Plans (SIPs) for non-attainment and maintenance areas as well as for other projects such as emissions analyses for Southeastern Modeling, Analysis, and Planning Project (SEMAP) to evaluate visibility in the Southeast. **Have provided DAQ with VMT data. Finished with the quality assurance of the vehicle registration data for the years 2010 and 2011, which will be used by the NKY and Louisville Areas. 100% Complete**
- Work with KYTC IT to develop Kentucky vehicle registration age/type distribution for use with MOVES. **The VIN data was reviewed by the NKY and Louisville IAC; they have accepted the data. UK-KTC performed statistical analysis on 2010 and 2011 data, and then made recommendations. Worked with Ed Harding/Info Tech to take the VIN data which was in Mobile6.2 format and converted to MOVES format. KYTC will continue to use some MOVES default data so since KY does not have all the data available 100% Complete**
- Review, comment, and participate during the preparation of mobile budgets for the development of the attainment demonstration and maintenance SIPs for the 8-hour ozone and PM_{2.5} standards designations, SIP amendments, and budget adjustments. **Involvement in the Clarksville 2040 MTP and Ashland 2040 MTP processes is completed. Reviewing amendments concerning AQ from Louisville or NKY Areas 100% Complete**
- Provide support to the Office of Local Government for CMAQ related issues, as needed. **Office of Local Programs now handles the CMAQ process 100% Complete**
- Assist District Offices with the preparation of CMAQ applications including emission calculations and documentation. **No Districts have asked for analysis. Office of Local Programs handles the CMAQ process 100% Complete**
- Maintain a working knowledge of emerging issues and best practices, such as diesel emissions reduction strategies and greenhouse gases. **The EPA and White House have released their guidelines for the new fuel standards for 2025, currently staying up-to-date on the issues that involve diesel retrofitting or greenhouse gases 100% Complete**
- Work with the freight team to address pertinent air quality issues including diesel retrofits on locomotives and emission reduction best practices at rail yards and ports. **Freight and AQ teams exchange information that may help with diesel retrofitting or emission reductions in freight. Will continue to work with Casey Wells/Freight Team 100% complete**
- Implement Central Kentucky Vanpool CMAQ project if approved. **On hold due to budgetary constraints 0% Complete**

CHAPTER 10

Air Quality Conformity Analysis (continued)

RESPONSIBLE UNIT

Division of Planning
 Multimodal Programs Branch
 Air Quality Team

PROPOSED ACTIVITIES FOR 2012-2013 (continued)

- Develop working knowledge of MOVES, EPA's current mobile emissions model. **Successfully ran the MOVES_2010a and MOVES_2010b models, and completed post-processing of the data. Have also participated in training by the EPA/FHWA for these models. 100% complete**
- Additional tasks as they are assigned. **Performed ozone and PM_{2.5} Regional Conformity Analysis as needed. Met the requirements of Statewide and MPO planning documents. Shared data with the agencies as requested. Emission calculated as needed 100% complete**

PRODUCTS

- Ozone and PM_{2.5} Regional Conformity Analysis for required all non-attainment and maintenance areas **100% complete**
- Conforming statewide and MPO planning documents **100% complete**
- Data to Division of Air Quality as requested. **100% complete**
- Emission calculations for CMAQ, GHG/CC as needed. **100% complete**

DISTRIBUTION OF ESTIMATED COST FOR 2012-2013

	2012-2013	Expended	Percent Expended
PERSONNEL	\$142,800	\$43,437.88	30%
OTHER	\$5,000	\$37.38	1%
TOTAL	\$147,800	\$43,475.26	30%

ESTIMATED OUTSOURCING EXPENSES AND PURCHASES**Outsourcing**

- \$10,000 Greenhouse Gas/Climate Change and Land Use training **Class not held**
- \$30,000 Travel Time Reliability and Incidents research **100% complete**

Other

- \$5,000 Other Operational Cost

For items such as travel, mileage, equipment and other cost directly associated to the completion of this work chapter

CHAPTER 11

Multimodal Freight Transportation

RESPONSIBLE UNIT

Division of Planning
Multimodal Programs Branch

PURPOSE AND SCOPE

The Modal Team will collect data, plan, promote, and assist in the development of a multimodal and intermodal transportation system in Kentucky. The programs addressed in this chapter are public riverports, railroads, freight, and ferryboats. The team will administer and have oversight/support of TIGER I & III Grants, KSRA, and other federal or state contracts as well as serve as staff support for the Water Transportation Advisory Board.

PROPOSED ACTIVITIES FOR 2012-2013

Public Riverports

- Develop Kentucky's guidelines for public riverport applications to submit to the Secretary's Office for approval. Review and approve any public riverport applications received for grants. **Kentucky's guidelines for public riverport applications has been developed and approved. Eight applications were submitted. Seven were approved. 100% Complete**
- Provide staff support for the Water Transportation Advisory Board. **KYTC attended and provided staff support for May 17, 2012, July 19, 2012, November 1, 2012, and January 9, 2013 Advisory Board meetings. Assisted with creation of recommendation list and meeting minutes. 100% Complete**
- Plan and host Riverport Meeting as needed. **The Public Riverports were all present for riverport discussions during the meeting of the Water Transportation Advisory Board. A separate Riverport Meeting was unnecessary 100% Complete**
- Interface with the public riverports in the state by responding to information requests, and serving as a member of the Kentucky Association of Riverports. **KYTC attended two Kentucky Association of Riverports meetings. 100% Complete**
- Actively participate as a member on the AASHTO Standing Committee on Water Transportation (SCOWT). **KYTC submitted surveys and voted through SCOWT in support of the Water Resources Development Act by expanding the funding, expediting its use, and elevating awareness. 100% Complete**
- Conduct annual on-site visits of active public riverports in the state. **Site visits have been conducted of the active Riverports of Hickman/Fulton County Riverport, Paducah/McCracken County Riverport, Eddyville Riverport and Industrial Development Authority, Jefferson Riverport, Hickman-Fulton County Riverport Authority, Henderson County Riverport Authority and Owensboro Riverport Authority. 100% Complete**

Railroads

- Administer KYTC's TIGER Grant Project with RJ Corman Railroad. **KYTC staff continues to administer the grant including approving invoices, construction inspection, and consultant oversight. Work was completed 12/31/2012. Final report is in development. 100% Complete**
- Administer KYTC's TIGER III Grant Project with Paducah & Louisville Railway. **Project transferred to SHE's office.**

CHAPTER 11

Multimodal Freight Transportation (continued)

RESPONSIBLE UNIT

Division of Planning
Multimodal Programs Branch

PROPOSED ACTIVITIES FOR 2012-2013 (continued)

- Administer Kentucky Shortline Railroad Assistance program including advertising fund availability, receiving and disseminating applications, contact administration, and project inspection. **KYTC held kick-off meetings, conducted pre-inspection site visits, conducted construction inspection, and post-construction inspection. 100% Complete**
- Assist with development and maintaining the statewide railroad GIS mapping and data set using RR GIS, RR maps, and aerial photographs. Rail maps may be used by KYTC for roadway planning and project development. **Worked with all active railroads within the commonwealth to obtain GIS layers of all railroad track owned/operated within Kentucky. Compiled GIS layers into statewide mainline layer that has been published through the Kentucky Geo-net and a statewide layer of all rail type centerlines is now available on request. 100% Complete**
- Update the 2002 Kentucky Statewide Rail Plan to meet current requirements (From the Passenger Rail Investment and Improvement Act (PRIIA) of 2008). **A consultant was selected to do the update and the initial scoping meeting was held. The anticipated completion is set for fall of 2014. 20% Complete**
- Participate in various rail studies and research with KYTC involvement. **KYTC researched other state's rail crossing improvement projects to develop guidelines and an application for the Kentucky Railroad Crossing Improvement program. 100% Complete**
- Collect railroad annual reports and rail accident/incident reports as directed in 603 KAR 7:090. **KYTC staff sent letters to all operating railroads within Kentucky requesting annual reports. Rail accident/incident reports are submitted to KYTC by the railroads on a monthly basis. Rail accident/incident reports were distributed to the Division of Right of Way and Utilities as necessary 100% Complete**
- Actively participate as a member on the AASHTO Standing Committee on Rail Transportation (SCORT), American Railway Engineering and Maintenance-of-Way Association (AREMA), American Short Line & Regional Railroad Association (ASLRRA), and Kentucky Operation Lifesaver. **Due to budgetary constraints, KYTC staff was unable to attend the annual SCORT, AREMA, and ASLRRA meetings; however KYTC staff has participated in conference calls and webinars whenever available. KYTC staff attends events and meetings of Kentucky Operation Lifesaver. 100% Complete**
- Monitor, track, and distribute information about railroad line abandonments in Kentucky. **No rail abandonment notices were received. 100% Complete**
- Review need to update the 1999 passenger rail feasibility study as needed. **Due to budgetary constraints, it was determined that an update of the passenger rail feasibility study was not updated. 100% Complete**
- Respond to public inquiries on passenger and freight rail issues. **KYTC staff has responded to numerous letters and emails for information about rail issues. 100% Complete**
- Provide technical assistance and disseminate information to MPOs, ADDs, HDOs, and project teams regarding freight movement, planning, and safety. **KYTC regularly reviews industry publications and news articles and forwards relevant information to the MPOs and ADDs. KYTC staff attends and presents at Statewide Transportation Planning meetings. 100% Complete**

CHAPTER 11

Multimodal Freight Transportation (continued)

RESPONSIBLE UNIT

Division of Planning
Multimodal Programs Branch

PROPOSED ACTIVITIES FOR 2012-2013 (continued)

- Evaluate, receive, and update freight data from MPOs, ADDs, and HDOs as needed. The Major Freight Generators nor Major Traffic Generators were not scheduled for a detailed update in FY 2013. Updates to the Major Freight Generators and the Major Freight Generators received from the ADDs in spring of 2012 were compiled into a single dataset in the summer of 2013. Files were provided to Data Management and others for use in freight planning. In April of 2013, updates to the Major Freight Generators dataset were received from Barren River ADD and Kentucky River ADD. Updates to the Major Traffic Generators were received from Gateway ADD, Lincoln Trail ADD and KIPDA in April of 2013. They have been reviewed for quality control purposes. 100% Complete
- Participate in regional freight planning efforts. KYTC staff serves as member of Institute for Trade and Transportation Studies (ITTS), and the Mid America Freight Coalition (MAFC). KYTC also participated in a peer exchange with West Virginia and Ohio DOTs. Freight topics were discussed 100% Complete

Freight

- Continue involvement with Mid-America Freight Coalition (MAFC), Institute for Trade and Transportation Studies (ITTS), and National Cooperative Freight Research Program (NCFRP). KYTC staff assisted with conference planning and attended the MAFC/ITTS joint conference and regularly participates in conference calls for these coalitions. 100% Complete
- Visit intermodal sites and communicate with rail, water, and road modes to identify freight-related needs and concerns involving highways. KYTC staff conducted site visits throughout the state that included railroads, a lock and dam operation, active riverports, state funded ferry operations, and a federally funded ferry operation to identify freight related needs and concerns. 100% Complete
- Continue developing relationships with Economic Development to identify and promote intermodal freight needs. KYTC invited and welcomed staff from Economic Development at several freight-related meetings including WTAB and the state freight plan meeting. 100% Complete
- Research, prepare, and populate information for FHWA Intermodal Connector Assessment Tool (ICAT). Some research has been accomplished but no data has been completed 25% Complete-ongoing

Ferryboats

- Coordinate the Kentucky Ferryboat program. KYTC staff provides ongoing oversight on the operation of 7 state funded ferries and is responsible for all of the contracting and invoicing of these ferries. 100% Complete

CHAPTER 11

Multimodal Freight Transportation (continued)

RESPONSIBLE UNIT

Division of Planning
Multimodal Programs Branch

PROPOSED ACTIVITIES FOR 2012-2013 (continued)

- Share information concerning Ferryboat Discretionary Fund (FBD) Grant program. Review and prioritize applications received for submitting to the State Highway Engineer's Office and the Secretary's Office for approval. Administer FBD funds. FHWA will be provided all applications for review and approval. Information concerning the outgoing Ferryboat Discretionary Fund Grant Program (FBD) and the incoming Ferryboat Formula Fund Grant Program (FBP) was shared with the ferryboat operators at the annual meeting. No applications for FBD or FBP projects were received. 100% Complete
- Administer FBD Grants for Kentucky ferry boats. KYTC staff continues to work with Valley View Ferry Authority on the administration of funds for their ongoing FBD grant. 100% Complete
- Plan and host the Ferryboat Meeting as needed. KYTC staff planned and hosted the annual Ferryboat Meeting in March. 100% Complete
- Conduct annual on-site visits of Kentucky Ferryboat Operations. KYTC staff conducted on-site visits of all Kentucky Ferryboat Operations. 100% Complete

PRODUCTS

- Revised riverport application guidelines. Riverport application guidelines were not revised. 0%
- Updated Statewide Rail Plan. The Statewide Rail Plan was not updated but the scoping meeting was held. 20% Complete
- Updating railroad GIS database and maps for KYTC purposes. Updated railroad GIS database components include railroad centerlines and rail yards. Information is published on KY Geonet. 100% Complete
- Working ferryboat operations, contracts, site inspections, and invoice review/approval. 100% Complete
- ICAT documentation Some research has been accomplished but no data has been completed 25% Complete-ongoing
- FBD awards administered. Valley View Ferry continues to revise boat specifications. 50% Complete
- Annual Waterways meeting as needed. An Annual Ferry Boat Meeting was conducted with Ferryboats representatives. 100% Complete
- RJ Corman TIGER Grant administration KYTC administered TIGER grants for RJ Corman. TIGER projects were completed and invoices were paid. All work was completed by 12/31/2012. Final documents are nearing completion. 100% Complete
- Paducah & Louisville Railway TIGER III administration. Transferred to SHE's office.
- Kentucky Shortline Railroad Assistance administration. KYTC administered KSRA grants for several railroads. KSRA projects were completed, invoices were paid, and final inspections conducted. 100% Complete
- Water Transportation Advisory Board staff support. KYTC provided staff support at all WTAB meetings and responded to all other correspondence. 100% Complete

CHAPTER 11

Multimodal Freight Transportation (continued)

RESPONSIBLE UNITDivision of Planning
Multimodal Programs Branch**DISTRIBUTION OF ESTIMATED COST FOR 2012-2013**

	2012-2013	Expended	Percent Expended
PERSONNEL	\$171,200	\$116,989.56	68%
OTHER	\$40,000	\$9,277.70	23%
TOTAL	\$211,200	\$126,267.26	60%

ESTIMATED OUTSOURCING EXPENSES AND PURCHASES**Outsourcing**

- \$75,000 Rail Plan **No Expenses**

Other

- \$5,000 Operation Lifesaver **Expended 100% of budgeted**
- \$10,000 Other Operational Cost
For items such as travel, mileage, equipment, and other costs directly associated to the completion of this work chapter
- Tombigbee Waterway Dues are paid through Regional Planning (EA51 General Fund \$50,000). **Expended 100% of budgeted**
- \$25,000 Mid-America Freight Coalition, an AASHTO subcommittee paid as a pooled fund study. **Expended 100% of budgeted**
- \$64,000 Institute for Trade and Transportation Studies, a SAASHTO subcommittee paid as a pooled study. Institute For Trade and Transportation Studies Five Year Commitment of \$64,000. \$200,000 paid in advance in 2FY 2012 to cover three years and \$8,000 in 4th. First of 5 Years Commitment. **Expended 100% of budgeted**

CHAPTER 12

Congestion and Mobility Analysis

RESPONSIBLE UNIT

Division of Planning
Multimodal Programs Branch

PURPOSE AND SCOPE

Congestion mitigation and smooth traffic flow is important for continuing safe, efficient operation of Kentucky's roadways. During the normal transportation planning processes, traffic congestion is routinely considered when selecting and prioritizing long range planning projects. Therefore, the Congestion and Mobility Management Team will work to improve the planning methods, strategies, and policies used by KYTC and local planning organizations that lead to a more efficiently planned multimodal transportation system for Kentucky.

PROPOSED ACTIVITIES FOR 2012-2013

Measure Mobility & Identify Congestion

- Continue efforts to analyze 2010 and 2011 non-factored speed data for freeways and arterials statewide. *Analysis of the 2010 and 2011 is complete. (100% complete).*
- Acquire 2012 non-factored speed data for freeways and arterials statewide. *Notice to pursue 2012 data was made in April and acquired in May 2013. (100% complete).*
- Analyze resulting speed data and develop travel time index for all segments and all years. *Speed and travel time measures have been developed using the 2010 and 2011 data. (100% complete).*
- Choose, based on the real data, representative periods to determine free-flow speeds. *Speed data was incomplete to statistically report speeds in less than 30 minute time periods. Several definitions for free-flow speed were identified and reported. (100% complete).*
- With free-flow established, develop a travel-time index formula. *Multiple travel-time indices have been estimated for each free-flow definition. (100% complete)*
- Develop a web-based query formula for the processed data for public-agency users. *Web-based pages have been developed without the query formula. Research on going with KTC. (75% complete).*
- Using acquired speed data, continue research efforts to develop mobility performance measures compatible with the speed data and HPMS traffic volumes. *Research efforts identified several definitions for performance measures. Currently freight speed data cannot be ascertained. Awaiting data acquired by FHWA. (100% complete)*
- Assist TMAs to develop and implement performance measures into their congestion management process. *Data packets of roads within TMA's have been distributed based on multiple free-flow definitions. (100% complete)*
- Refine the mobility component of the Adequacy Rating System using new performance measures. Assist planners and designers in using mobility measures in studies and projects. *Awaiting consensus as to which definition to use in addition to changes in HPMS. 0% Complete*
- Fund participation in the Texas Transportation Institute's (TTI) pooled-funded Urban Mobility Study. There are several elements of research that affects measuring mobility. *Kentucky attended an annual meeting held in Denver, CO in June 2013. (100% complete)*

CHAPTER 12

Congestion and Mobility Analysis (continued)

RESPONSIBLE UNIT

Division of Planning
Multimodal Programs Branch

PROPOSED ACTIVITIES FOR 2012-2013 (continued)

Provide Information and Educate about Congestion Management Measures

- Update and maintain the web-based Kentucky Congestion Mitigation Toolbox (100% complete)
- Continue the update of the Planning Units (planning & zoning) GIS database. Intermediate reports of changes received from ADDs and incorporated in to database. (100% complete)
- Maintain a park and ride GIS database of existing assets. Intermediate reports of changes received from ADDs and incorporated in to database. (100% complete)

PRODUCTS

- Maps and database of mobility measures on freeways and arterials (100% complete)
- Updated Congestion Toolbox website (100% complete)
- Updated Park and Ride GIS Database (100% complete)
- Updated Planning Unit Database (100% complete)
- Creation of a new Statewide Vanpool Program, if approved by the Secretary No Activity

DISTRIBUTION OF ESTIMATED COST FOR 2012-2013

	2012-2013	Expended	Percent Expended
PERSONNEL	\$112,300.00	\$56,950.68	51%
OTHER	\$15,000.00	\$23,914.87	160%
TOTAL	\$127,300.00	\$80,865.55	64%

ESTIMATED OUTSOURCING EXPENSES AND PURCHASES

Outsourcing

- \$55,000 for analysis of speed (mobility) data for calendar year 2012 (100% complete)

Other

- \$5,000 Other Operational Cost
For items such as travel, mileage, equipment and other cost directly associated to the completion of this work chapter.
- \$10,000 for 2011 for TTI Urban Mobility Study (pooled-fund study) (100% complete)

CHAPTER 13

Traffic Data Forecasting Statewide Traffic Model

RESPONSIBLE UNIT

Division of Planning
Multimodal Programs Branch
Forecasting and Modeling Team

PURPOSE AND SCOPE

The Forecasting and Modeling Team will maintain traffic trends, provide current and projected traffic volume estimates for planning, project development, operations, and other purposes. They will update and maintain local, regional, and statewide traffic models (KySTM). They will collect, process, and assemble data for determining route location or relocation, selecting among alternate routes, or as input into KySTM.

PROPOSED ACTIVITIES FOR 2012-2013

- Prepare traffic estimates for planning studies, design projects, road user costs, maintenance, and other purposes, as needed.
Overall, 105 traffic forecast requests were received and 92 completed. Twelve forecasts were completed using consultant forces. Currently, 17 forecasts and nine modeling projects are open. (100% Complete)
- Administer statewide traffic forecasting and modeling contracts and provide quality review for traffic projections made by the MPOs and planning consultants.
Two forecasting letter agreements were continued from the previous year, five initiated, and two completed during the fiscal year. Eight modeling contracts were carried from the previous year and one was completed. Two new models initiated for downtown Frankfort and Christian County. Continuing to manage three contracts to update the Statewide model, three associated with the Lexington Area MPO, and one for the Boyle County Traffic Demand Model. Work will continue into FY 2014. (100% Complete)
- Maintain databases that track traffic forecasts and traffic forecast parameters. Make databases available to other users and offices. Maintain the traffic forecasting web page as a tool for other users. Database maintained and a copy made available to other users within the Division of Planning. Reviewed the forecasting web page and updated information (100% Complete)
- Maintain and update internal traffic forecasting tools (e.g. ESAL spreadsheets; turning movement spreadsheets). Anomaly discovered with the turning movement spreadsheet that skewed the distribution of turns. Special care applied when using default ESAL values. Awaiting WIM data to initiate global growth factors for ESALs (100% Complete)
- Provide future year forecasting of K-factors/D-factors for the Highway Performance Monitoring System (HPMS) and compare result with TRADAS outputs.
ATR data received in May and results forwarded to HPMS team on June 10, 2013. (100% Complete)
- Update ESAL tables utilizing available 2009 and 2010 vehicle classification data
Awaiting WIM data to initiate global growth factors (0 % complete)
- Update ESAL Forecasting for Superpave computer program
Discussions initiated with Highway Design regarding Darwin ME inputs. One forecast for I-65 initiated for Highway Design to perform dual pavement analysis using both ESAL and Darwin ME pavement design procedures (100% Complete).

CHAPTER 13

Traffic Data Forecasting (continued) Statewide Traffic Model

RESPONSIBLE UNIT

Division of Planning
Multimodal Programs Branch
Forecasting and Modeling Team

- Update the annual Traffic Forecast Report (TFR) utilizing KTC.
Awaiting WIM and extracts from TRADIS data to initiate global growth factors (0% complete)
- Participate in Regional Forecaster User's Group. This group includes forecasters from surrounding states that are trying to identify the state of practice for traffic forecasts.
No Forecaster User's Group sessions were held during the year. (100% Complete)
- Host/Facilitate the Traffic Model Users Group, which is a peer group for traffic forecasters and traffic modelers composed of members from government, academia, and the private sector.
Model Users Group meeting held June 13, 2013. (100% Complete)
- Participate in Caliper workshops held at adjacent States, foster a peer exchange with such agencies regarding statewide model and regional models. *One person attended the TRB Planning Innovations Conference in Columbus, OH (100% Complete).*
- Update the KySTM model to 2010 conditions including the incorporation of socio-economic data from existing county-wide models. Forecast future KySTM to 2040. Document the process. *The model was received on April 20, 2012 as a Beta. Several 'fixes' have been performed to enhance the model's function. Dis-aggregate zones were discovered and a procedure to fix them inserted into the draft manual. The 2040 employment distribution was suspect and returned to the consultant for review. Awaiting final written documentation. Work will continue into FY 2014. (90% Complete).*
- Conduct studies to better calibrate and validate models. Extend peer review of large MPO models and coordinate model updates as needed for small MPO models. *KYTC met with the Lexington Area MPO and demonstrated the new model base year and a new tool called SelectLink that used for congestion mitigation analysis. Attended a Texas Transportation Institute meeting in Denver to discuss travel time performance measures and how to estimate free flow speed. (100% Complete)*
- Identify areas needing an area-wide model. Develop small area and county-wide models using a standardized interface. *New Statewide and LAMPO models are employing an innovative method to estimate speed and capacity using the HCM2010 methods. One of the first in the country to use the procedure. (100% complete)*

PRODUCTS

- Corridor or other traffic forecasts
92 Forecast reports were completed during the year. 100% Complete
- District Office coordination regarding models and forecasts
The Modal branch reviewed consultant work in District Five and currently working with Districts One, Three, Four, Five, Six, Seven, Nine, and Twelve.
- Travel Time and Road User Cost Studies
Travel Time data with modeling assisted projects in Jefferson County, I-71 corridor, a Winchester Bypass extension in Clark, and Corbin Bypass. 100% Complete
- Traffic forecast factors for HPMS *100 % Completed*
- Updated tools for consultants and District (e.g. ESAL Calculator; look-up tables)
Waiting for validated WIM and TRADIS data. 0% Complete

CHAPTER 13

Traffic Data Forecasting (continued)
Statewide Traffic Model

RESPONSIBLE UNIT

Division of Planning
Multimodal Programs Branch
Forecasting and Modeling Team

DISTRIBUTION OF ESTIMATED COST FOR 2012-2013

	2012-2013	Expended	Percent Expended
PERSONNEL	\$430,900.00	\$249,049.47	58%
OTHER	\$20,000.00	\$155,763.30	779%
TOTAL	\$450,900.00	\$404,812.77	90%

ESTIMATED OUTSOURCING EXPENSES AND PURCHASES

Outsourcing

- \$50,000 for annual ESAL table and program updates by KTC using WIM
Task deferred. Awaiting KTC WIM site study
- \$25,000 for annual Traffic Forecasting Report updates by KTC
Task deferred. Awaiting KTC WIM and TRADIS site study
- \$200,000 for County-Wide Traffic models (outsource)
Boyle County - 90%, LAMPO – 80%, Statewide Model – 90%

Other

- \$5,000 Other Operational Cost
New laptop for training and demonstrations.
- \$5,000 TransCAD & TransModeler Workshops
One attended the TRB Planning Innovations Conference in Columbus, OH in May 2013.

CHAPTER 14

Pedestrian and Bicycle Program

RESPONSIBLE UNIT

Division of Planning
Modal Programs Branch

PURPOSE AND SCOPE

The team will coordinate the state's Bicycle and Pedestrian Program, continue developing a statewide bikeway system, and work within the Transportation and other Cabinets. They will work to expand active transportation opportunities in Kentucky by providing assistance to state and local governments and other groups, as requested. This assistance will be in the form of technical advice, development of plans, and coordinating studies. The responsibility of the Kentucky Pedestrian and Bicycle Coordinator is to prepare, assist, and promote bicycle and pedestrian programs throughout the state as well as to work with project teams to recommend opportunities for bicycle-pedestrian facilities for proposed highway projects. The Bicycle and Pedestrian Coordinator will also act as secretariat for the Kentucky Bicycle and Bikeway Commission.

The Bicycle and Pedestrian team will coordinate with the Cabinet for Tourism, Arts and Heritage, the Governor's Office of Local Development, as well as the Cabinet for Health and Family Services to promote pedestrian and bicycle travel as well as recreational trails and Adventure Kentucky programs to promote livability through biking and walking.

The KYTC Office of Local Programs coordinates several programs that support and encourage active transportation. The team will coordinate with them, regarding Scenic Byways, Transportation Alternatives, Recreational Trails, and CMAQ programs.

PROPOSED ACTIVITIES FOR 2012-2013

Planning

- Assist local governments in the development of local bicycle and pedestrian network facilities and plan using bikeability and walkability audits. **No cycling or pedestrian audits were conducted this past year. The bike/ped team maintains a master file of all cities over a population of 500 and keeps track of the bike/ped plans (if they have one). We track requests from communities for cycling or pedestrian planning help. (100% complete)**
- Participate in the KYTC Strategic Safety Plan implementation. **The team worked with Louisville metro Government to include pedestrian mobility as a separate section in Kentucky Strategic Highway Safety Action Plan. The team has worked with the Office of Highway safety to produce new version of bicycle and pedestrian safety brochures and also add new versions of safety flyers and brochures to our web site from the Federal Office of Highway Safety. Several Spanish language versions are now available on our web site. (100% complete)**
- Participate in FHWA Pedestrian Fatality Focus Study for Louisville and Kentucky. **The team has attended eight monthly national pedestrian safety focus group phone conferences. (100% complete)**
- Revise and update the USBR and statewide bike tours system. **The KYTC submittal of USBR route 76 to AASHTO was approved based on KYTC's Bicycle Level of Service Analysis (BLOS). The signage plan for USBR 76 was submitted to KYTC's Division of Maintenance for approval. (100% complete)**

CHAPTER 14

Pedestrian and Bicycle Program (continued)

RESPONSIBLE UNIT

Division of Planning
Modal Programs Branch

PROPOSED ACTIVITIES FOR 2012-2013 (continued)

- Review, revise and update the Kentucky Bicycle and Pedestrian Plan and the Kentucky Pedestrian and Bicycle Travel Policy, as needed. **No updates were made to the plan. (100 % complete)**

Engineering and Projects

- Answer requests concerning planning and design guidelines regarding pedestrian and bicycle facilities and provide review of bicycle and pedestrian projects and facilities with KYTC's HDO and CO Divisions, ADDs, MPOs, and local government. **The team has reviewed at least nine projects this year for bike/ped projects. 1. Bike path in Dawson Springs, 2. Multi use path in Bardstown, 3. Bike lanes in Bardstown, 4. Multi use path in Danville, and 5. Multi use path in Campbellsville, 5. Greenway trail in Paducah, 6. Reviewed the Kentucky Bourbon Trail, 7. The Barren River multi-use trail system, 8. Use of green paint marking for a bike lane in Louisville, and 9. Bike lane projects in Louisville. (100% completed)**
- Review the list of proposed resurfacing projects for opportunities to improve biking and walking facilities through restriping and other improvements as part of Maintenance activities. Review for compliance with local bike/ped plans where appropriate. **The team has helped review a road diet in Lebanon, and a road diet in Louisville. The team is working with the Division of Maintenance and District office planners to develop a better way of introducing, reviewing, and scheduling of future bicycle and pedestrian accommodations such as road diets. (100% complete)**
- Review Share the Road sign requests for applicability and proper system placement. **Share the road sign request have been reviewed and sent to several highway district offices. These include the counties of Franklin, Woodford, Davies, Warren, Henry, and Bourbon. (100% complete)**
- Develop/update in coordination with HDO, Maintenance, Traffic Operations, Design, and Planning Share the Road sign procedures for review, placement, and maintenance. **The team has worked with the Traffic Operations staff to update the Share the Road sign request form and process. (100% complete)**
- Provide and assist with implementation of the Lane Reconfiguration Guide to KYTC district Maintenance and Traffic staff. Update as need with their input. Meet with each District office and provide the design standards for active transportation considerations by providing alternative lane usage within existing R/W. Also add updated design drawings and design choices. **The team met with Districts Two and Three to review, revise and update their local Bicycle and Pedestrian Plans. The team met with Districts Four, and Seven, Divisions of Design and Planning to work on updating all materials associated with standard bike/ped designs and planning procedures/processes. (100% complete)**
- GIS applications- Develop and maintaining a GIS of bicycle and pedestrian network facilities and plans statewide. Document linkage between the local and regional network facilities. **The team continues working with the GIS team to include recreational road rider information that has been collected from KY bike clubs. This data may be included for future project development teams in working on new and re-construction projects. (100% complete)**

CHAPTER 14

Pedestrian and Bicycle Program (continued)

RESPONSIBLE UNIT

Division of Planning
Modal Programs Branch

PROPOSED ACTIVITIES FOR 2012-2013 (continued)

- Obtain federal, state, local, or private funds available to the cabinet. The bike ped team has been involved with several organizations in grant funding opportunities. The team wrote a letter of support for the Northern Kentucky Health Department toward a Center for Disease Control and prevention Community Transformation Grant. The team also helped review a grant and provided a letter of support for the State Health Department. These grant funds will be used toward training to help local community agencies to create their own bike/ped master plans. The bike/ped team created and submitted an application for TIGER Grant federal funding for phase 2 of the Dawkins Line Rail Trail. (100% complete)

Education & Enforcement

- Provide technical training that includes pedestrian and bicycle design to planners, designers, local governments, and other KYTC staff statewide. Provide the design and construction standards to each District office and additional information that is included in the AASHTO bicycle facility guide. The bike/ped team always brings a copy of the 2012 AASHTO Bicycle Facilities guide to all meeting and reminds everyone needs a copy of this for reference and guidance on new facility construction and maintenance. The bike team assisted in the planning as well as presenting a bicycle safety and off road opportunities presentations for the 2013 Walk Bike Kentucky Summit. (100% complete)
- Provide training to HDO, ADD, MPO, and local staffs on how to conduct a walkability and bikeability audits as requested. No audits conducted this year.
- Facilitate public education of non-motorized modes of transportation, as opportunity arises. The team has produced three new bicycle and pedestrian safety brochures. These brochures are shared on our web site and promoted at each highway district meeting. The team was included in a bicycle safety video produced in Fayette County. (100% complete)
- Work with local law enforcement to promote education and enforcement of pedestrian and bicycle safety laws. The team has provided information brochures and prepared a presentation for the annual Life Savers Conference. The team has been involved with safety reviews of trail systems in Franklin, Fayette, Woodford, Christian, and Warren Counties. These reviews included recommendations of trail signage for the facility user and also warning/information signage for vehicles as they approach and cross the multiuse paths. (100% complete)
- Respond to citizens' need for information, maps, bike routes, walking trails, availability of funds for projects as requested. The team responded to over 20 request for road bike maps, routes and general information requests each quarter. The responses included emails, mailing of state highway maps, mailing of local trail and on-road bike route information and sending contact information for local cycling groups. The statewide information portion of our web site has been very useful to refer private and government organization to for information and examples. (100% complete)
- Develop and maintain a clearinghouse of information concerning active transportation - research, methods, and criteria to CO Divisions, ADDs, MPOs, and local government. The team is working for the district offices and data management to update the list of roadways that the state wishes to convert back to local roads. (100% complete)

CHAPTER 14

Pedestrian and Bicycle Program (continued)

RESPONSIBLE UNIT

Division of Planning
Modal Programs Branch

PROPOSED ACTIVITIES FOR 2012-2013 (continued)

- Maintain www.bikewalk.ky.gov website. The BikeWalk web site has been updated and several new pages have been produced. The safety page has several new brochures and flyers in both English and Spanish. The KBBC page has been updated with current meeting agendas and meeting notes. (100% complete)

Kentucky Bicycle and Bikeways Commission (KBBC)

- Plan quarterly KBBC meetings. All quarterly meetings have been planned, agendas confirmed and all associated information has been posted on the web site. (100% complete)
- Prepare agenda before each KBBC meeting and minutes after each KBBC meeting. Agendas have been prepared, posted on the web site, sent to the public information contacts and associated meeting notes added for each agenda. (100% complete) Assist KBBC on communications and technical matters. The bike/ped team created a committee manual for new and existing KBBC members. The information contained in the book has contact information, ethics statements, current KRS and KAR's associated with the KBBC and the bike/ped program, the last 12 months of KBBC agendas with meeting notes, video location information, and associated forms for travel/reimbursement and travel policy. The bike/ped team also coordinated all email and phone call inquiries for the KBBC. (100% complete) Assist in facilitating the Paula Nye Education Grant program. The team acts as the secretariat for the Paula Nye Grant program. The team receives the new grant applications, the 6 month reports from current applicants, and shares accounting records for all funds used for the awarded programs with KBBC. The team created a simple 6 month reporting document and asked all awarded grantees to use this for future use. The team submits the yearly KBBC list of recommended Paula Nye Grant applicants to the Secretary of Transportation's office. (100% complete)

PRODUCTS

- Local pedestrian and bicycle master plans, as needed. The team helped review and develop bicycle and pedestrian master plans for several small communities (Danville, Bardstown, Versailles, Lawrenceburg, and Campbellsville). The team also helps coordinate the sharing of these plans with each highway district office. (100% complete)
- Provide a clearing house/tool box of bike/ped resources and related items for the creation or improvement of local master plans. The team maintains information on the statewide portion of the BikeWalk web page. This information provides links to communities that have current bike/ped master plans. These plans can be used as examples for other communities that wish to develop bike/ped master plans of their own. (100% complete)
- Updated bicycle and pedestrian brochures and promotional materials. Additional bicycle and pedestrian safety brochures have been created, new federal highway safety brochures have been added to our web site, and several Spanish language brochures and flyers have been added to our web site. (100% complete)

CHAPTER 14

Pedestrian and Bicycle Program (continued)

RESPONSIBLE UNIT

Division of Planning
Modal Programs Branch

PRODUCTS (continued)

- Provide pedestrian and bicycle technical training courses as appropriate. The bike/ped team attended and presented at the spring district planning meeting. Examples of bike lane, separated or buffered bike lanes and separated multi-use path designs were presented. We also gave a brief presentation of what facility type would be needed for each type of cyclist or pedestrian. A discussion concerning increased autumn cycle crashes in MPO areas was also shared. The bike team assisted in the planning and attended the 2013 Walk Bike Kentucky Summit.
- Walkability/Bikeability Audits. No requests were received.(100% complete)
- Quarterly KBBC meetings. Agendas, accounting reports, Paula Nye Grant status reports and other documents are provided for each KBBC meeting. Promotional products, signs and banners are provided for the yearly in-person KBBC fall meeting. (100% complete)
- NYE Grant status reports. Email and mail reminders of required status reports are sent to all active grantees. Status reports are collected, the master accounting file is updated, and the findings are sent to all KBBC members and associated KYTC personnel. The bike/ped team and KBBC work with the Transportation Cabinets Auditors office to maintain current information and Paul Nye Grant recipient’s status reports. (100% complete)

DISTRIBUTION OF ESTIMATED COST FOR 2012-2013

	2012-2013	Expended	Percent Expended
PERSONNEL	\$88,700	\$113,147.90	127%
OTHER	\$37,500	\$3,072.14	1%
TOTAL	\$126,200	\$116,220.04	92%

ESTIMATED OUTSOURCING EXPENSES AND PURCHASES

Other

- \$10,000 Pedestrian and bicycle training course instructor. Not expensed.
- \$2,500 for attendance of national conference.
Attended the 2012 Pro Bike Pro Walk Conference in September 2012.
- \$10,000 for Kentucky Bicycle and Bikeway Commission meetings.
- \$5,000 for Bicycle and Pedestrian Brochures. KYTC printing costs incurred
- \$5,000 for Bicycle and Pedestrian Promotional Items (bike lights, reflectors, pedometers).
Not expensed
- \$5,000 Other Operational Cost
For items such as travel, mileage, equipment and other cost directly associated to the completion of this work chapter.
The bike team attended the 2013 Walk Bike Kentucky Summit.

CHAPTER 15

Highway Safety Improvement Program

RESPONSIBLE UNIT

Division of Traffic Operations
 Traffic Engineering Branch
 Highway Safety Improvement Program Team

PURPOSE AND SCOPE

The Highway Safety Improvement Program (HSIP) Team evaluates, develops, and implements safety improvements on all roadways. It enhances and continues to update an evaluation process for prioritizing projects for consideration for inclusion in the Highway Safety improvement Program. It also conducts Road Safety Audit Reviews performing the necessary levels of evaluation to identify and develop a conceptual purpose and need statement of safety issues needs. It identifies and evaluates alternatives, generates project cost estimates and recommends phasing priorities where appropriate. The team oversees outsourced activities and works with the other Division and Agencies as needed to complete necessary tasks.

PROPOSED ACTIVITIES FOR 2012-2013

- Continue to develop and update procedures for evaluating safety needs.
- Conduct Roadway Safety Audit Reviews.
- Respond to inquiries about safety issues.
- Identify, evaluate and prioritize safety needs through data analysis and public involvement.
- Evaluate identified needs District wide/Statewide to assist in prioritizing projects for programming in the Highway Safety Improvement Program.

PRODUCTS

- Crash Analysis
- Road Safety Audit Reviews
- Alternatives Studies
- Feasibility Studies
- Special Studies
- Environmental Studies
- Utility Studies
- Project Estimates
- Priorities for Highway Safety Improvement Program

DISTRIBUTION OF ESTIMATED COST FOR 2012-2013

	2012-2013	Expended	Percent Expended
PERSONNEL	\$500,000	\$114,997.70	23%
OTHER	\$0.00	\$19,980.44	
TOTAL	\$500,000	\$134,978.14	27%

CHAPTER 15

Highway Safety Improvement Program (continued)

RESPONSIBLE UNIT

Division of Traffic Operation
Traffic Engineering Branch
Highway Safety Improvement Program Team

ESTIMATED OUTSOURCING EXPENSES AND PURCHASES

Provide \$25,000 to each of 12 Districts to administer the Highway Safety Improvement Program (HSIP), including planning, implementation, evaluation, and reporting.

PLEASE SEE ATTACHED PAGES

District	County	Route	BMP	EMP	Category	Description	Program Year	PR1	TC-10	Calc Total Cost
02	024 Christian	I-24	70.550	86.050	Cable Median Barrier	Construct Cable Median Barrier on I-24	2013	HSIP 0243 052	88059	\$ 1,950,000
02	051 Henderson	KY 351	4.700	5.432	Other	Horizontal and vertical realignment, shoulder widening, install guardrail	2013	HSIP 5061 002	75212	\$ 295,000
02	089 Muhlenberg	US 431	23.000	23.300	Other	Grade, drain and surface for safety improvements on US 431	2013	HSIP 4312 049	78961	\$ 1,384,752
03	002 Allen	US 31E	0.000	19.152	NHS ET	Replace guardrail end treatments along US 31E from the Tennessee Line (MP 0.000) to the Barren River Bridge (MP 19.152)	2013	HSIP 3311 015	87806	\$ 1,000,000
03	005 Barren	US 68	3.971	3.971	Intersection	Intersection realignment on US 68 at KY 255 at M.P. 3.971	2013	HSIP 5084 020	87406	\$ 110,000
03	071 Logan	KY 100	0.000	9.077	LD-R	Ditching, shouldering, extend cross drains, remove headwalls.	2013	HSIP 5069 009	86267	\$ 1,500,000
03	071 Logan	US 68X	1.200	1.800	Intersection	Grade, drain and surface	2013			\$ 389,322
03	114 Warren	KY 234	12.000	13.500	Pavement Markings	Installation of wet reflective markings on KY 234	2013	HSIP 7421 007	87547	\$ 100,000
04	082 Meade	US 31W	2.524	3.389	NHS-ET	Replace Guardrail End Treatments	2013	HSIP 0311 028	86923	\$ 250,000
04	082 Meade	KY 710	0.000	7.066	RD Corridors	Perform low cost safety improvements on KY 710	2013	HSIP 9010 103	87803	\$ 250,000
04	090 Nelson	US 31E	25.800	27.100	Pavement Markings	Install wet reflective markings on US 31E	2013	HSIP 1501 112	87545	\$ 100,000
05	037 Franklin	KY 420	0.000	2.145	Lane Departure	Low Cost Safety Improvement	2013	HSIP 7325 001	87570	\$ 800,000
05	037 Franklin	US 127	11.000	11.900	Pavement Markings	Install wet reflective markings on US 127	2013	HSIP 1271 107	87544	\$ 100,000
05	037 Franklin	KY 151	1.800	2.200	Other	Reconstruct KY 151 south of I-64 interchange to extend acceleration lane for I-64 east to KY 151 and provide a left turn lane	2013	HSIP 1511 005	71378	\$ 696,000
05	056 Jefferson	KY 2860	0.000	0.981	4 to 3 lane conversions	Road diet on Grinstead Drive	2013	HSIP 8704 001	87696	\$ 287,903
06	019 Campbell				HRRR	Install Horizontal Alignment Signage - OKI	2013	HSIP 9010 094	87621	\$ 30,000
06	021 Carroll	KY 36	8.200	8.500	Other	Add TWLTL in front of Carrol County HS	2013			\$ 48,000
06	039 Gallatin	I-71	62.800	63.600	Low Cost	High Friction Surface	2013	HSIP 0713 056	88369	\$ 950,000
06	059 Kenton	KY 1486	2.590	2.590	30 Worst Intersections	Intersection Improvements	2013	HSIP 9010 100	87824	\$ 25,000
06	059 Kenton	KY 1501	0.000	2.520	Pavement Markings	Install wet reflective pavement markings on KY 1501	2013	HSIP 8156 011	87546	\$ 100,000
06	059 Kenton	KY 536	7.470	7.525	Low Cost	High Friction Surface	2013	HSIP 5392 (001)	88370	\$ 35,000
06	059 Kenton	KY 1501	0.300	0.950	Low Cost	High Friction Surface	2013			\$ 250,000
07	034 Fayette	US 60	6.975	6.975	Intersection Emphasis List	Intersection Rebuild	2013	HSIP 1601 024	87663	\$ 120,000
07	121 Various	Various			NHS - ET	Replace turndown end treatments on NHS routes in District Seven	2013	HSIP 9010 090	87411	\$ 907,850
08	027 Clinton	US 127	11.000	20.967	NHS - ET	Replace turndown end treatments on US 127	2013	HSIP 1271 109	87915	\$ 522,000
08	029 Cumberland	KY 61	0.000	12.869	RSA	Ditching and shouldering, rumble strips	2013	HSIP 1611 002	87264	\$ 203,000
08	069 Lincoln	KY 1194	3.300	6.600	RD Plan	Tree trimming and Signage	2013	HSIP 9010 087	87262	\$ 52,500
08	069 Lincoln	KY 1273	0.000	2.500	RD Plan	Tree trimming and Signage	2013	HSIP 9010 086	87263	\$ 35,500
08	069 Lincoln	KY 78	8.200	8.650	Other	Grade, drain and surface to improve alignment and sight distance.	2013	HSIP 5180 025	78201	\$ 1,184,000
08	074 McCreary	US 27	0.000	9.093	NHS-ET	G/R ETs	2013	HSIP 0271 082	87766	\$ 600,000
08	100 Pulaski	KY 461	0.000	8.441	NHS-ET	Replace turndown ETs on KY 461 in Pulaski County	2013	HSIP 4611 007	87767	\$ 302,000
08	104 Russell	US 127	0.000	19.000	NHS-ET	Replace turndown ETs on US 127 in Russell County	2013	HSIP 1271 108	87768	\$ 365,000
09	010 Boyd	US 23	10.895	20.938	NHS-ET	NHS-ET	2013	HSIP 0232 006	87805	\$ 317,000
09	022 Carter	KY 1947	0.000	3.398	LD-R	Pipe Replacment, Pipe Extensions, Slope Improvements and G/R ET replacement.	2013	HSIP 9010 076	86809	\$ 289,000
09	045 Greenup	US 23	0.000	28.760	NHS-ET	NHS-ET	2013	HSIP 0232 006	87805	\$ 565,000
09	081 Mason	KY 3170	0.000	1.297	LD-R	G/R End treatments, Ditching and Shouldering and Drainage Structure Repair	2013	HSIP 9010 078	86924	\$ 209,387
10	088 Morgan	KY 519	1.280	1.570	RD Plan	Mill/Inlay with polish resistant aggregate, reset guardrail.	2013	HSIP 5319 016	86925	\$ 105,000
10	088 Morgan	KY 7	3.650	3.840	RD Plan	Mill/Inlay with polish resistant aggregate, reset guardrail	2013	HSIP 0071 024	86926	\$ 50,000
10	095 Owsley	KY 30	15.496	19.599	LD-R	Extend Culverts, trench shoulders, add 4' shoulder	2013	HSIP 0302 017	87917	\$ 1,050,000
11	007 Bell	US 25E	0.000	18.651	NHS-ET	NHS ET	2013	HSIP 0255 033	87567	\$ 250,000
11	061 Knox	US 25E	2.000	26.000	NHS-ET	G/R End treatments, trench shoulders	2013	HSIP 0251 030	86321	\$ 550,000
12	036 Floyd	KY 979	0.000	15.430	RD Corridors	Perform low cost safety improvements along KY 979	2013	HSIP 9010 098	87804	\$ 250,000
12	067 Letcher	KY 931	5.700	6.600	RD Plan	Tree removal	2013	HSIP 5335 017	86176	\$ 85,000
12	098 Pike	KY 319	3.200	4.250	RD Plan	Tree removal	2013	HSIP 5362 020	86174	\$ 45,000
12	098 Pike	KY 194	18.400	19.000	Low Cost	High Friction Surface	2013	HSIP 5360 (026)	88372	\$ 200,000
Statewide	121 Various				RD Plan	Pavement Frictions Surface Treatments Phase 3	2013	HSIP 9010 083	86981	\$ 2,145,000
Statewide	121 Various				Non Highway	Horizontal Alignment Sign Training Program	2013	HSIP 9010 091	87492	\$ 29,515
Statewide	121 Various				KTC Technical Assistance	Agreement with KTC for Technical Assistance	2013	HSIP 9010 032	83960	\$ 400,000
Statewide	121 Various				Horizontal Alignment Signing	Purchase Flourescent Yellow Sign Sheeting for Horizontal Alignment Warning Signs	2013	HSIP 9010 033	84172	\$ 500,000
Statewide	121 Various				SCR	Safety Circuit Rider FY13-FY14	2013	HSIP 9010 095	87638	\$ 354,000
Statewide	121 Various				KTC Technical Assistance	Development of an ADT Model for local roads statewide	2013	HSIP 9010 101	87914	\$ 75,000
Statewide	121 Various				FE06 Matching Funds	Matching funds for FE06	2013			\$ 414,794

District	County	Route	BMP	EMP	Method	Length	SY
2	OHIO	092 US-231	5.682	6.250	HFS	1200	2666.667
2	OHIO	092 US-231	2.841	3.409	N/A		0
3	SIMPSON	107 KY-100	6.250	6.818	HFS	3200	7111.111
3	TODD	110 KY-106	0.000	0.568	HFS	1050	2333.333
4	GREEN	044 KY-61	1.136	1.705	HFS	1500	3333.333
4	HARDIN	047 KY-583	0.568	1.136	HFS	2100	4666.667
4	LARUE	062 US-31E	16.477	17.045	HFS	2100	4666.667
5	BULLITT	015 KY-44	7.955	8.523	HFS	2600	5777.778
5	BULLITT	015 KY-44	8.523	9.091	N/A	0	0
5	HENRY	052 KY-55	1.705	2.273	HFS	1600	3555.556
5	SHELBY	106 KY-55	5.682	6.250	N/A		0
6	BOONE	008 KY-14	0.568	1.136	HFS	1400	3111.111
6	BOONE	008 KY-14	1.136	1.705	N/A	0	0
6	CAMPBELL	019 KY 1998	0.4	1.4	HFS	2900	6444.444
6	HARRISON	049 KY-392	0.568	1.136	HFS	800	1777.778
6	HARRISON	049 US-27	11.364	11.932	N/A	0	0
6	HARRISON	049 US-27	11.932	12.500	HFS	1320	2933.333
6	KENTON	059 KY-536	9.659	10.227	HFS	1600	3555.556
6	KENTON	059 KY-17	2.273	2.841	HFS	1100	2444.444
7	ANDERSON	003 US-62	11.932	12.500	HFS	1350	3000
7	BOYLE	011 KY-34	6.250	6.818	HFS	550	1222.222
7	CLARK	025 I-64	KY 1958 to I-64 EB Ramp		HFS	550	977.7778
7	FAYETTE	034 I-64	I-64 EB to I-75 NB Ramp		HFS	1600	2844.444
7	FAYETTE	034 KY-353	8.523	9.091	HFS	550	1222.222
7	JESSAMINE	057 KY-169	15.909	16.477	HFS	600	1333.333
7	JESSAMINE	057 KY-169	12.500	13.068	HFS	1000	2222.222
7	JESSAMINE	057 KY-169	13.068	13.636	HFS	1300	2888.889
7	MADISON	076 KY-1295	2.273	2.841	HFS	1100	2444.444
7	MERCER	084 KY-390	10.795	11.364	HFS	550	1222.222
7	SCOTT	105 US-460	4.200	4.500	HFS	750	1666.667
8	LINCOLN	069 KY-78	11.932	12.500	HFS	1300	2888.889
8	PULASKI	100 KY-1247	10.795	11.364	HFS	900	2000
9	MASON	081 US-62	10.227	10.795	HFS	400	888.8889
11	LAUREL	063 KY-1006	2.273	2.841	HFS	1000	2222.222
11	LAUREL	063 KY-192	16.477	17.045	HFS	1600	3555.556
11	LAUREL	063 KY-472	1.136	1.705	HFS	2640	5866.667
11	LAUREL	063 KY-472	1.705	2.273	N/A	0	0
11	LAUREL	063 KY-552	6.818	7.386	HFS	1350	3000
11	WHITLEY	118 KY-6	0.000	0.568	HFS	300	666.6667
12	PIKE	098 KY-319	3.409	3.977	HFS	1900	4222.222
6	BOONE	088 US-42/Rice	4.500	4.600	HFS	600	2000
7	MADISON	076 KY-21	11.871	11.966	HFS	550	1222.222
					FE01		103955.6

HSIP GUARDRAIL Approved Award List Statewide FY 13

District	County	Prefix	Route	Road Name	Road System	Beg MP	End MP	Estimated Cost	Revised Estimated Cost	Award Cost + 5% Engineering	Letting Date	CID	COMMENTS
1	Lyon	KY	93		SS	6.878	6.933	\$19,875	\$17,205		5/24/13	132250	GR 88 Gr w/FE06 project
2	Muhlenberg	KY	181		SS	4.86	5.08	\$32,600	\$38,860	\$28,297	4/19/2013	132203	
3	Logan	KY	103	AUBURN-CHANDLERS CHAPEL RD	RS	5.974	6.081	\$31,671	\$34,199	\$26,568	12/14/12	122376	
4	Grayson	KY	187		SS	9.662	9.738	\$20,000	\$23,430		5/24/2013	132252	GR 90 Grw/FE06 project
4	Marion	KY	152		RS	0.897	1.2	\$34,600	\$42,101	\$32,156	1/25/13	132060	
7	Mercer	US	68		SS	3.4	3.471	\$20,000	\$13,129		5/24/2013	132253	
8	Wayne	KY	1275		RS	8.62	8.98	\$30,750	\$24,424		6/14/2013		IN OFFICE
9	Boyd	KY	5		SS	9.223	9.331	\$15,000	\$24,670	\$18,908	4/19/2013	132225	
9	Boyd	KY	1012		RS	0.89	1.065	\$25,000	\$28,000	\$22,220	10/19/2012	122368	
9	Mason	KY	10		SS	1.5	2	\$27,655	\$52,563	\$42,831	1/25/2013	132053	GR20 GR W/FE06
10	Perry	KY	1440		RS	1.924	2.191	\$25,000	\$23,673	\$17,385	1/25/2013	132061	
11	Knox	KY	223		RS	1.344	1.418	\$10,000	\$12,133	\$10,925	2/22/2013	132089	
11	Harlan	KY	522		RS	0.22	0.281	\$20,000					
11	Whitley	KY	26		SS	9.141	9.24	\$22,500	Combo				
11	Whitley	KY	26		SS	6.378	6.61	\$37,500	\$115,337	\$98,265	1/25/2013	132062	
11	Whitley	KY	26		SS	8.155	8.927	\$15,000	Combo				
12	Lawrence	KY	644		SS	1	1.325	\$39,000	\$67,353	\$117,239	4/19/2013	132223	GR 81
12	Johnson	KY	172		SS	9.49	9.865	\$38,000	\$68,771	grW/Lawrence	4/19/2013	132223	GR 81
12	Pike	KY	1056		SS	7.608	8.161	\$88,125	\$82,407		5/24/2013	132202	GR 75, GRWFE06
12	Pike	KY	1441		SS	10.31	10.55	\$38,000	\$39,494		5/24/2013	132202	GR 75, GRWFE06

Estimated cost \$590,276

Awarded cost

\$414,794

CHAPTER 16

Value Engineering and Quality Assurance

RESPONSIBLE UNIT

Division of Highway Design
Quality Assurance Branch

PURPOSE AND SCOPE

The Quality Assurance Branch (QAB) includes three programs: Value Engineering (VE), Constructability Review and Post-Construction (PC) Review. The purpose for this Branch is to ensure that federal guidelines are met and to improve Kentucky Transportation Cabinet's (KYTC) design deliverables and its policy, processes and procedures through early intervention in preparation and planning. Below is a brief scope of each program:

The Value Engineering (VE) program was established in 1995 as an independent review process to examine potential ways to improve a project's design or reduce its cost. A VE study may be done for any project, but federal regulations require that a VE study be conducted on highway projects over \$25 million and bridge projects over \$20 million on the National Highway System (NHS). These cost thresholds include the summation of all project development costs: design, environmental, right-of-way, utility relocation, and construction. Recommendations developed in a VE study are shared with the project development team to consider for implementation.

Constructability Review program is a work in progress. It has traditionally consisted of formal meetings prescribed by the Project Manager during the design phase as spelled out in the KYTC's Design Manual. However, due to declining levels of personnel, in the last several years constructability reviews have only been completed on a selected number of projects. Therefore, in order to address potential constructability issues on a broader range of projects, the Constructability Review Program is undergoing a revamping process. Currently it has been tasked to review all projects throughout the state while in "Design" phase for two "red-flags" – Maintenance of Traffic (MOTs) and horizontal/vertical alignments for roadways and structures. Along with these two topics, QAB is currently compiling an annual check list comprised of other "red-flag" issues that frequently reoccur during the plan review process. The follow-up action is to present these items at our Annual ACEC/FHWA/KYTC Partnering Conference. The attendees are usually roadway and structure designers in the state of Kentucky gathering to share an all-encompassing transportation experience. Furthermore, this venue will facilitate discussions on items that need to be addressed. Another follow-up action will be to meet with Cabinet Officials to propose recommendations and changes to our internal processes for the betterment of the Cabinet.

Post-Construction Review (PCR) program is a cyclic process. Projects that meet the criteria of over \$1 million dollars (state and federally funded) and have been open to the public for approximately one year are solicited from the District's Transportation Engineer Branch Managers (TEBM) in July and August. The target is 4 projects per district per fiscal year. There is a possibility to review more and smaller projects in the future. Meetings are scheduled from August to April. Consultants, Contractors, Federal Highway Administration (FHWA) and KYTC Personnel are invited and provided prior information such as documented change orders.

CHAPTER 16

Value Engineering and Quality Assurance (continued)

RESPONSIBLE UNIT

Division of Highway Design
Quality Assurance Branch

PURPOSE AND SCOPE (continued)

During these meetings, it is discussed how the project(s) progressed and what were the major issues that arose. The attendees participate as a team to identify collective solutions for the relevant issues. After the meeting, a draft Fact Sheet for each project is created and sent back to the participants for review. Once finalized, the Fact Sheet is distributed among Cabinet Personnel, FHWA Personnel and an American Council for Engineering Companies of KY (ACEC-KY) Organizer. Following the completion of the team meeting and data collection phases, data entry of the issues/solutions are inputted to the Lessons Learned GIS geodatabase. (The other programs are compiled into this database at different intervals throughout the year). The collection of data may also substantiate follow up meetings or contacting those who can make decisions to improve/change/revise the design process to improve overall quality and cost saving in future projects.

PROPOSED ACTIVITIES (Annually)

- Continue to develop and update policy and procedures for all aspects of each program.
VE Policy Manual – Updated the manual to reflect changes in process, including the implementation of VE findings.
Draft Constructability Review Manual ~ revisions in process
Draft Post-Construction Review Manual ~ revisions in process
Draft Lessons Learned ARC-GIS Manual ~ revisions in process
- Conduct mandated Value Engineering studies to meet federal guidelines.
3 ~ VE Studies were performed
- Conduct Post-Construction Reviews in their prescribed cycle.
34 ~ Post-Construction Reviews were made
- Conduct Constructability Reviews to improve quality of designs and enhance efficiency of work flow during the construction phase.
119 ~ Constructability Reviews were made
- Collect data for the 3 program datasets to include in the Lessons Learned GIS geodatabase.
VE, VECPs and PCR are current in the each dataset for ARC-GIS
Constructability dataset was entered in FY14 ~ July 18, 2013 (See outsourced activities below)
- Provide technical assistance from the programs to identify, evaluate and prioritize needs for improvements and coordinate those recommendations within the Cabinet through the collection and analysis of data.
Quality Matters Newsletter – Volume 2, Issue 3 (September 2012), Volume 2, Issue 4 (December 2012), Volume 3, Issue 1 (March 2013) & Volume 3, Issue 2 (June 2013) – shared with KYTC personnel, KY Consultant and Contractor Industry, TRB Quality Assurance Committee (AFH 20) and TRB Friends email distribution list

CHAPTER 16

Value Engineering and Quality Assurance (continued)

RESPONSIBLE UNIT

Division of Highway Design
Quality Assurance Branch

PROPOSED ACTIVITIES (Annually) (continued)

Participate in multi-divisional process ~ Erosion Control Blankets for Cable Guardrail, creation of new Bid Item “ECB – Short Term,” experimental use for Dec. 2012 project was postponed to three other projects that was scheduled to let in April 2013. Follow-up article in Quality Matters newsletter anticipated for Volume 3, Issue 4.

Participate in Division of Highway Design ~ Highway Design Manual Updates

Participate in Division of Construction ~ VECP process

Providing VE Implementation meetings after each VE study to continue work on the VE recommendations’ Punch List

- Ensure consistency and quality of design products delivered by the Cabinet.

Work with Plan and Processing Branch in the Division of Highway Design

Attending Monthly Letting Status Review Meetings

Constructability Reviewers (prior to letting):

- Attending Preliminary Line and Grade Meetings
- Attending Joint and Final Joint Inspections
- Correspondence via email on reviews

Value Engineering Team Participation

Implementation Meetings for VE Recommendations

Value Engineering External Audit (Auditor of Public Accounts Office) – Completed 3/5/13 and follow-up ensuing

Participate in LSIORB – Conflict of Interest committee

Created monthly User Group meetings with internal divisional personnel working in Business Objects for data mining

- Train in-house and consultant personnel on findings for the betterment of designs and design processes.

Lessons Learned and Follow up Findings Training:

- Section Supervisor Meeting (Spring 2013)

Roadmap Panel Member – on KYTC personnel expectations in the Workplace

Construction Management Academy – Intro to Lessons Learned and PCR programs

Hosted Geosynthetic Reinforced Soil seminar with MSE Wall Abutment SAC, 1/23/13

Presentations on VE Resuscitation with MSE Wall Abutments study update and Constructability Program – KSPE’s Annual Convention, Louisville, KY

Attended the New Engineers’ Orientation – Quality Engineering

Gave presentation at two (2) Project Development Academy Trainings, Frankfort, KY

Gave three (3) program presentations at the 2012 KYTC/ACEC/FHWA Partnering Conference – Involved in a whole Quality Assurance Tract that partnered with Division of Construction and Division Maintenance and Operation, Louisville, KY

VE MOD I Training Scheduled for December 2-6, 2013

Forwarding various webinars to KYTC personnel

CHAPTER 16

Value Engineering and Quality Assurance (continued)

RESPONSIBLE UNITDivision of Highway Design
Quality Assurance Branch**PROPOSED ACTIVITIES (Annually) (continued)**

- Oversee outsourced activities.
- Working with KTC for research projects:
 - Tools for Applying Constructability Concepts to Project Development (Design)
 - ◊ Phase II - extensions granted, projected final completion October 2013
 - Evaluation of Design and Construction of Mechanically Stabilized Earth Walls
 - ◊ Completed – 8/23/13, need a final meeting for upper management

PRODUCTS

- VE Studies ~ 3
- VE Check Lists ~ Document for Project Manager to submit items to the VE Team
- VE Punch Lists ~ 3
- VE Project Database ~ maintain ACCESS database for current and future VE projects
- VECP Database ~ Updated ARC-GIS
- Post-Construction Review Fact Sheets ~ 34 posted in ProjectWise and emailed to Transportation Group including but not limited to FHWA, ACEC, KAHC & KYTC
- Post-Construction Review Database ~ Updated with ARC-GIS
- Constructability Review Database ~ Updated with ARC-GIS
- *Quality Matters* Newsletter ~ Four Issues completed (March, June, September and December)
- Lessons Learned Geodatabase ~ Updated with ARC-GIS
- Lessons Learned Mapping ~ updated maps to develop various presentations in FY
- Annual Reports from all Programs
 - FHWA VE Annual Report – FY12 for Federal Fiscal Year
 - Constructability Status Report in ProjectWise – updated monthly with 6YP data from Transportation Enterprise Data (TED or Oracle or Pre-Con)
 - Internal QAB Momentous Events Report (calendar year 2012) submitted to KYTC upper management, 1/4/12.
- Special Studies
 - Involved in KY 811 – Before U Dig legislation
 - Working on integral end bents (I.E.B) and approach slab study – updated to a KTC/KYTC study for FY14 – not started to date
 - Work Zone Traffic Control Safety – working on updated training for winter 2013

DISTRIBUTION OF ESTIMATED COST FOR 2012-2013

	2012-2013	Expended	Percent Expended
PERSONNEL	\$325,000	\$294,133.89	90%
OTHER	\$175,000	\$142,260.93	81%
TOTAL	\$500,000	\$436,394.82	87%

CHAPTER 16

Value Engineering and Quality Assurance (continued)

RESPONSIBLE UNIT

Division of Highway Design
Quality Assurance Branch

ESTIMATED OUTSOURCING EXPENSES AND PURCHASES

- \$175,000 to outsource but not limited to the following: Other VE studies that are state funded, Value Engineering Training, SAVE International Membership fees, SAVE International Annual Conferences, AASHTO VE Committee Conferences, Transportation Research Board (TRB) attendance and participation in TRB committees, research or assistance related to Quality Assurance and Quality Control. (FHWA will be notified in advance when the Quality Assurance Branch needs utilize the funds when initiated.)