U.S. Department of Transportation
Federal Highway Administration

Kentucky Division

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May 31, 2013

In Reply Refer To:
HPD-KY

Mr. Michael W. Hancock, PE
Secretary
Kentucky Transportation Cabinet
200 Mero Street, Room 613
Frankfort, Kentucky 40622

Dear Mr. Hancock:

We have reviewed the April 30, 2013 submittal of the following document:

Planning Work Program
SP 0012 (001)
June 16, 2013 - June 15, 2014
(2014 SPR Work Program - Subpart A)

The activities in the 2014 Planning Work Program were found eligible under 23 U.S.C. 134, 135, 505 or 49 U.S.C. 5303-5305,5313(b) and the provisions **of** 23 CFR 420 and 23 CFR 450. The work program should be administered in accordance with the provisions of 49 CFR Part 18 and 23 CFR Part 420. **The effective time period for funding is from June 16, 2013 – June 15, 2014.** Authorization of this work is subject to the availability of funds.

Prior approval is required for the following changes to the SPR Work Program:

- Budgetary changes,
- Increase in federal funds,
- Cumulative transfer among already approved work program line items of 10% of the total federal funds or $100,000,
- Programmatic changes,
- Change in the scope or objectives of activities (e.g., adding or deleting items),
- Extending the period of performance past the approved work program period,
- Transferring substantive programmatic work to a third party (e.g., consultant work not identified in the original work program), and/or
- Capital expenditures including purchase of equipment.

There are two additional requirements associated with the SPR Work Program, an

- independent audit and an
- annual performance and expenditure report.

The Single Audit Act Amendment of 1996 requires that an independent audit be completed of any non-federal entity expending $500,000 or more in Federal funds from all sources in a fiscal year that ends after December 31, 2003. (49 CFR 18.26, OMB Circular A-133).

An annual performance and expenditure report is required to be submitted within 90 days (3 months) after the end of the report period. The report may be more frequent if deemed necessary by FHWA. [23 CFR 420.117 (b) and (c)].

We appreciate the work that went into the development of this work program and thank you for working with our office to make improvements.

Sincerely yours,

Bernadette Dupont

Bernadette Dupont
Transportation Specialist

c: Keith Damron, KYTC - Planning

PLANNING WORK PROGRAM

SP 0014 (001)
JUNE 16, 2013 – JUNE 15, 2014

Kentucky UNBRIDLED SPIRIT™

IN COOPERATION WITH
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF PLANNING

WORK PROGRAM AND COST ESTIMATE
FOR
PROJECT SP 0014 (001)
JUNE 16, 2013 THROUGH JUNE 15, 2014

PART I
DIVISION OF PLANNING

PREPARED IN COOPERATION
WITH
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

INTRODUCTION

The Planning and Research Program Annual Work Program is required under 23 CFR 420.111. Due to the organization of the Cabinet, the Planning and Research portions are submitted as separate documents. This document outlines the transportation planning activities as Planning (Part I) of the work program. To illustrate the Division of Planning, a detailed organization chart (See Exhibit 1) has been inserted in the work program addressing the various functional areas of the Division responsible for planning activities.

The Kentucky Transportation Cabinet has many partners in performing the planning activities. In each of the work program chapters, there is a denotation of the Highway District Offices. Each Highway District Office has a Planning Branch that performs planning activities for many of the chapters in the work program. We also have agreements with each of the 15 Area Development Districts (ADDs) in the Commonwealth. The ADDs in cooperation with the Highway District Offices Planning Branch perform for the Cabinet much of the Public Involvement in Statewide Transportation Planning (23 CFR 450.200), intermodal and freight activities, and data collection. The Metropolitan Planning Organizations receive money each year to meet the requirements of 23 CFR 450 Subpart C. The consulting industry and the Kentucky Transportation Center are also used at times when additional resources are needed.

This year's work program continues activities related to improving the quality of the Cabinet's Highway Information System (HIS) data. To align with the recent HIS upgrade, we also seek to improve the storage and reporting of the traffic count data by integrating that database with the HIS database. There is an additional emphasis added to this year's regular count program to continue the process to collect counts for local bridges as well as collect counts for ramps. There is a continued effort to maintain and improve the count program with new ATDR's and additional traffic count loops at high volume locations. There is a continued effort to prepare and improve Kentucky's Traffic Models. Planning will also begin to work as a part of the Cabinets Performance Measures team to begin working toward setting Performance Measures. In general, the Division of Planning is undertaking efforts to insure quality data, to store the data more effectively, and to improve the efficiency and convenience of extracting and reporting the data.

Because of continued staffing limitations within the Cabinet, efforts will be placed toward outsourcing services which may include traffic counts, traffic forecasts, data collection, map products, planning studies, and other needed activities. The Division of Planning is also evaluating our core functions in order to streamline and align our efforts so that required activities are completed. It may become necessary during this time to significantly downsize or eliminate programs that are not directly required by regulation or statute. We also anticipate working this upcoming year to coordinate as needed with our elected officials and AASHTO on various issues. The Division of Planning will continue to evaluate and assist with air quality conformity issues, and we will assist the Cabinet in identifying operational and performance improvements to maximize the efficiency of the existing transportation network.

Please refer to each chapter contained within this work program for more details.

FOREWORD

This Planning Program SP 0014 (001) for the period June 16, 2013 to June 15, 2014 is submitted in compliance with the provisions of 23 CFR 420 and describes programs and operations for planning activities in the Kentucky Transportation Cabinet (KYTC). These funds will be administered in accordance with the provisions of 49 CFR 18 and 23 CFR 420. This program modifies and updates previous such programs and is specifically intended to reflect the needs of the Kentucky Transportation Cabinet. It is fully expected that products from this program will also have national applications. In general, these funds are used to assist the KYTC in meeting federal reporting and planning requirements.

The Division of Planning is charged with the responsibility for recommending, advising, and assisting the chief administrators of the KYTC in the development of the overall goals, policies, project priorities, and procedures relating to the total transportation program of the Cabinet. Proposed activities for Fiscal Year 2014 are reported in detail by Chapter in this Work Program.

We expect the majority of activities in this Work Program to be completed by June 15, 2014. However, occasionally there are programs, especially those that have to be contracted, that cannot be completed June 15. Those items that are not complete by June 15 will be identified in the Annual Performance and Expenditure Report and will either be completed under a time extension or by carry over to the next year in following 49 CFR 18 and 23 CFR 420. For those items not complete by June 15, but will be completed in a relatively short time period, an extension of the work program will be requested from FHWA so that the remainder of the funding commitments can be expended. If the commitment is expected to be long term, then a request to carry the program and funds into the next years work program will be requested.

The fiscal portions of the Work Program are based on funding availability provided by the Cabinet's Office of Budget and Fiscal Management.

DIVISION OF PLANNING

EXHIBIT 1

Current as of April 24, 2013

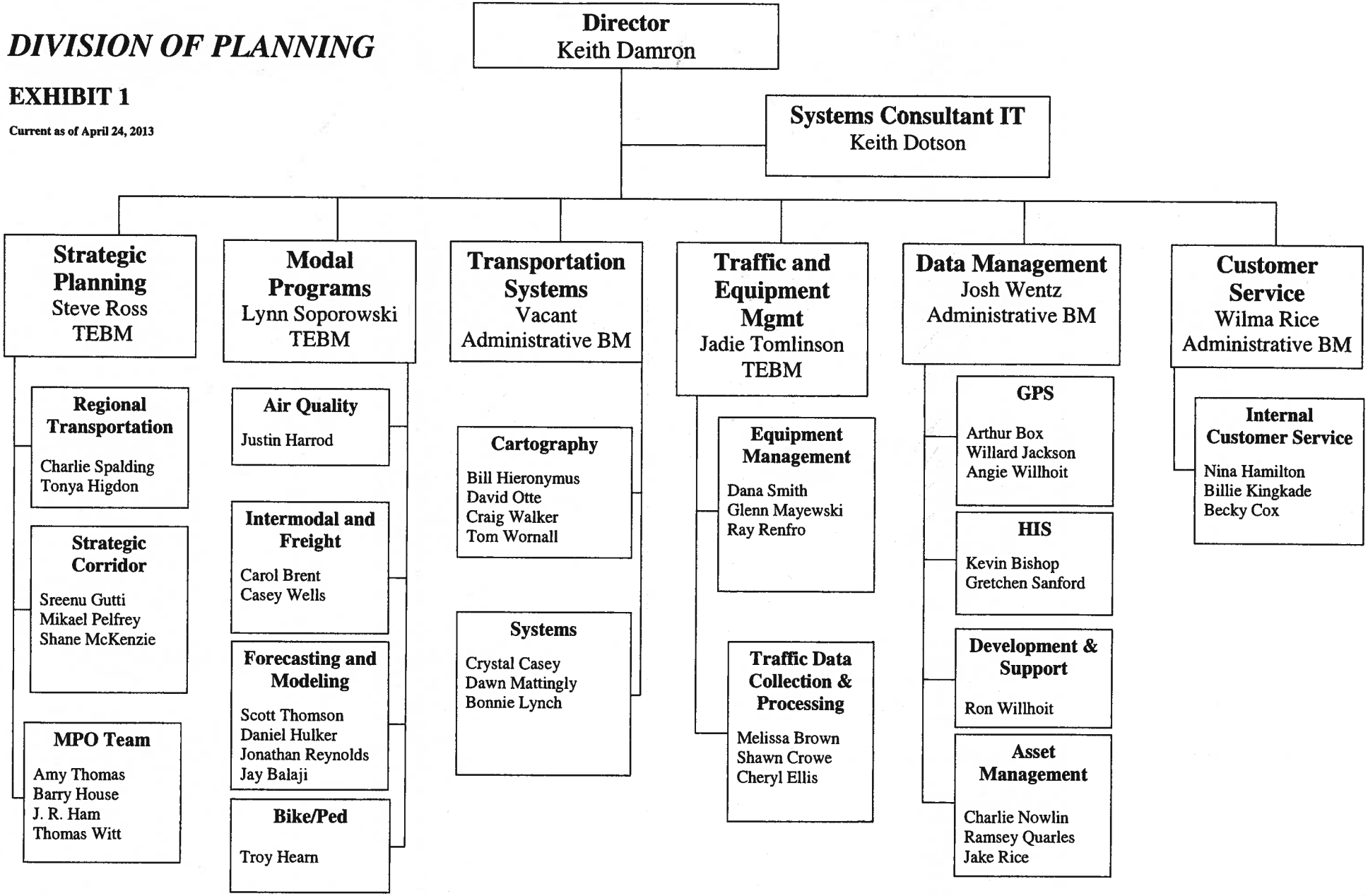

EXHIBIT 2

Planning Work Program 2014

PROGRAM IDENTITY	FEDERAL	STATE * MATCH	LOCAL MATCH	OTHER	TOTAL
Kentucky Transportation Cabinet					
Personnel Cost	$8,324,915	$2,081,229			$10,406,144
Other Cost	$934,000	$233,500			$1,167,500
Total SPR Funds	***$9,258,915***	***$2,314,729***			***$11,573,644***
Partner Agencies					
PL Funded MPO Planning Budgets	$2,350,400	$146,900	$440,700		$2,938,000
PL Discretionary Fund	$311,400		$0		$311,400
Total PL Funds	***$2,661,800***	***$146,900***	***$440,700***		***$3,249,400***
ADD Regional Transporation Program (State Funds)		$917,800	$91,780		$1,009,580
ADD Regional Transporation Program (General Funds)		$374,800	$37,480		$412,280
Total ADD funds		***$1,292,600***	***$129,260***		***$1,421,860***
TOTALS					**$16,244,904**

Notes:

1) Potential Outsourced Items are indicated in each chapter
2) Toll Credits may be used to provide the 20% match for the SPR funds.
3) **PERSONNEL COSTS** include staff charges and outsourced activities or contracts. **OTHER COSTS** include equipment, supplies, software, travel, carpool rental, printing,and other charges not related to personnel costs and are identified in each chapter.

* Pending Legislative Approval

EXHIBIT 3

FY 2014 MPO FEDERAL PLANNING (PL) FUNDING

Federal Planning (PL) Base Formula Funding for FY 2014 MPO UPWPs

MPO Area	PL 80% Federal $	KYTC 5% State $	MPO 15% Local $	Total 100% F+S+L $	Federal + State 85% F+S $
Bowling Green	102,400.00	6,400.00	19,200.00	128,000.00	108,800.00
Cincinnati - Northern KY	442,400.00	27,650.00	82,950.00	553,000.00	470,050.00
Clarksville	36,800.00	2,300.00	6,900.00	46,000.00	39,100.00
Elizabethtown - Radcliff	98,400.00	6,150.00	18,450.00	123,000.00	104,550.00
Evansville - Henderson	56,000.00	3,500.00	10,500.00	70,000.00	59,500.00
Huntington - Ashland	113,600.00	7,100.00	21,300.00	142,000.00	120,700.00
Lexington	350,400.00	21,900.00	65,700.00	438,000.00	372,300.00
Louisville	1,053,600.00	65,850.00	197,550.00	1,317,000.00	1,119,450.00
Owensboro	96,800.00	6,050.00	18,150.00	121,000.00	102,850.00
TOTAL	**2,350,400.00**	**146,900.00**	**440,700.00**	**2,938,000.00**	**2,497,300.00**

Federal Planning (PL) Discretionary Funding for FY 2014

MPO Area	PL 80% Federal $	MPO 20% Local $	Total 100% F+L $
Bowling Green	--	--	--
Cincinnati - Northern KY	--	--	--
Clarksville	--	--	--
Elizabethtown - Radcliff	--	--	--
Evansville - Henderson	--	--	--
Huntington - Ashland	111,400.00	--*	111,400.00
Lexington	--	--	--
Louisville	--	--	--
Owensboro	--	--	--
All (KYTC)	200,000.00	--*	200,000.00
TOTAL	**311,400.00**	**--**	**311,400.00**

**Both PL Discretionary projects will be matched with KYTC toll credits.*

FY 2014
SPR CHAPTER FUNDING SUMMARY

CHAPTER	TITLE	AMOUNT
1	SPR Work Program	$30,700
2	Personnel Training	$350,200
3	Traffic and Equipment Management	$2,865,300
4	Roadway Systems	$672,800
5	Cartography	$403,000
6	Highway Information System	$1,756,700
7	Strategic Corridor Planning	$2,233,144
8	Statewide Transportation Planning	$1,233,700
9	Metropolitan Planning Organizations	$643,200
10	Performance Measures and Congestion/Mobility Analysis	$299,700
11	Air Quality	$111,500
12	Multimodal Transportation	$286,700
13	Traffic Data Forecasting	$568,600
14	Bicycle and Pedestrian Program	$118,400
	Planning Total	**$11,573,644**
15	Highway Safety Improvement Program	$500,000
16	Value Engineering and Quality Assurance	$500,000
	Other Items Total	**$1,000,000**
	WORK PROGRAM TOTAL	**$12,573,644**

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 2013-2014

- Coordinate with all other branches in the Division of Planning in order to prepare the annual SPR Planning Work Program.
- Prepare monthly expenditure reports for each chapter of the SPR Planning Work Program.
- Update accomplishments of the SPR Planning Work Program quarterly.
- Coordinate and prepare the annual SPR Planning Work Program and Accomplishments and Expenditures Report.

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 2013-2014

PERSONNEL	**$30,700**
OTHER	
TOTAL	**$30,700**

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 2013-2014

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)
TMG Training (Chapter 3 – Traffic and Equipment Management)
TRADAS (Chapter 3–Traffic and Equipment Management)

GIS Conference (Chapter 4 – Roadway Systems, Chapter 5 – Cartography, Chapter 6 – Highway Information System and Chapter 10 – Performance Measures, Chapter 14-Bike Ped)
Adobe Illustrator (Chapter 5 – Cartography)
KAMP (Ky Assoc of Mapping Professionals) Annual Meeting (Chapter 4 – Roadway Systems, Chapter 5 – Cartography)
GIS-T (GIS for Transportation) Annual Meeting (Chapter 4 – Roadway Systems, Chapter 5 – Cartography, Chapter 6 – Highway Information System)
COGNA Annual Meeting (Chapter 5 – Cartography)
Microstation (Chapter 4 – Roadway Systems, Chapter 5 – Cartography, Chapter 6 – Highway Information System)

Highway Performance Monitoring System (HPMS) (Chapter 6 – Highway Information System)
Highway Information System Conference (HIS) (Chapter 6 – Highway Information System)
Asset Management Conference (Chapter 6 – Highway Information System)
Bentley Training conference (Upgrade of HIS) (Chapter 6 – Highway Information System)
HIDAC Training (Chapter 6 – Highway Information System)
Business Objects Training (Chapter 6 – Highway Information System)
Standard Query Language (SQL) (Chapter 6 – Highway Information System)
Visual Basic (Chapter 6 – Highway Information System)

CHAPTER 2 Personnel Training (continued)

RESPONSIBLE UNIT Division of Planning

PROPOSED ACTIVITIES FOR 2013-2014 (continued)

Bentley InRoads (Chapter 7 – Strategic Corridor Planning)
Public Involvement in the Transportation Decision Making Process (Chapter 7 – Strategic Corridor Planning, Chapter 8, Statewide Transportation Planning and Chapter 9 – Metropolitan Planning Organization)
Effective Communications in Public Involvement (Chapter 7 – Strategic Corridor Planning, Chapter 8, Statewide Transportation Planning and Chapter 9 – Metropolitan Planning Organization)
Fundamentals of Title VI/Environmental Justice (Chapter 7 – Strategic Corridor Planning, Chapter 8, Statewide Transportation Planning and Chapter 9 – Metropolitan Planning Organization)
Practical Conflict Management Skills for Environmental Issues (Chapter 7 – Strategic Corridor Planning and Chapter 8, Statewide Transportation Planning)
Highway Capacity 2010 manual/software (Chapter 7 – Strategic Corridor Planning, Chapter 13 - Traffic Forecasting and Modeling)
KYTC Traffic Engineering Design (Chapter 7 – Strategic Corridor Planning)
Public Involvement (Chapter 7 –Strategic Corridor Planning, Chapter 8–Statewide Transportation Planning, and Chapter 9 – Metropolitan Planning Organization, Chapter 12 – Multimodal Transportation)
Road Safety Audit Training (Chapter 7 –Strategic Corridor Planning)
Highway Safety Manual Training (Chapter 7 –Strategic Corridor Planning)
2013 Partnering Conference (Chapter 7 –Strategic Corridor Planning, Chapter 12 – Multimodal Transportation, Chapter 13 - Traffic Forecasting and Modeling, Chapter 14-Bike Ped)
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)
GIS (Chapter 7 –Strategic Corridor Planning, Chapter 8–Statewide Transportation Planning, Chapter 12 – Multimodal Transportation, Chapter 13 - Traffic Forecasting and Modeling, Chapter 14-Bike Ped)
Microsimulation (Chapter 7 –Strategic Corridor Planning)
Administration of FHWA Planning and Research Grants Chapter 9 – Metropolitan Planning Organization, Chapter 13 - Traffic Forecasting and Modeling)
Transportation Research Board annual meeting (Chapter 7 – Strategic Corridor Planning, Chapter 9 – Metropolitan Planning Organization)
Planning for Operations (Chapter 9 – Metropolitan Planning Organization)
TRB Small and Medium Communities Conference (Chapter 9 – Metropolitan Planning Organization)
Congestion Management and Reliability (Chapter 9 – Metropolitan Planning Organization)
Transportation and Land Use (Chapter 9 – Metropolitan Planning Organization, Chapter 13 - Traffic Forecasting and Modeling)
Climate Change (Chapter 9 – Metropolitan Planning Organization, Chapter 11 – Air Quality Conformity Analysis)

CHAPTER 2 Personnel Training (continued)

RESPONSIBLE UNIT Division of Planning

PROPOSED ACTIVITIES FOR 2013-2014 (continued)

STAQS (Chapter 11 – Air Quality Conformity Analysis)
MOVES (Chapter 11 – Air Quality Conformity Analysis)
National Freight Conference (Chapter 12 – Multimodal Transportation)

Modeling Conferences and Training (Chapter 9 – Metropolitan Planning Organization, Chapter 13 – Traffic Data Forecasting)
TransCAD Training (Chapter 13 – Traffic Data Forecasting, Chapter 9 – Metropolitan Planning Organization)
Census Training (Chapter 5 – Cartography, Chapter 8 – Statewide Transportation Planning, Chapter 9 – Metropolitan Planning Organization, Chapter 11 – Air Quality Conformity Analysis, Chapter 13 – Traffic Data Forecasting)
Bike/Ped Conferences (Chapter 9 – Metropolitan Planning Organization, Chapter 14 – Bicycle and Pedestrian Program)
Bicycle and Pedestrian Facilities Conference (Chapter 9 – Metropolitan Planning Organization, Chapter 14 – Bicycle and Pedestrian Program)
Training for State Bicycle and Pedestrian Coordinator (Chapter 14 – Bicycle and Pedestrian Program)

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 12 – Multimodal Transportation, Chapter 13 – Traffic Data Forecasting, and Chapter 14 – Bicycle and Pedestrian Program)

PRODUCTS

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

DISTRIBUTION OF ESTIMATED COST FOR 2012-2013

PERSONNEL	**$315,200**
OTHER	**$35,000**
TOTAL	**$350,200**

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 Cabinet (KYTC), Kentucky Transportation Center (KTC), various planning agencies, and other governmental agencies. Data is also made available for public consumption.

PROPOSED ACTIVITIES FOR 2013-2014

- Maintain, update, analyze, provide quality assurance, and make available data from approximately 15,000 traffic count stations including coverage, interstate, automatic traffic recorder (ATR), weigh in motion (WIM), and ramp sites.
- Download, process, and analyze data for every day of the year from approximately 100 permanent ATR stations.
- With the KYTC District Offices, collect and process vehicle volume data from approximately 5,400 short-duration, portable-machine, coverage and ramp counts.
- With KYTC District Offices, collect and process vehicle volume data from approximately 500 short-duration, portable-machine, local-road, bridge counts.
- 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 400100 total, each of which typically includes multiple volume and turning movement counts.
- Concurrent with coverage, interstate, ATR, WIM, and ramp counts, collect and process vehicle classification data from approximately 1,600 stations, which is 30% of all traffic count stations statewide to comply with the FHWA, *Traffic Monitoring Guide* recommendation of 25%-30%.
- Submit monthly reports to FHWA of hourly ATR records.

CHAPTER 3 Traffic and Equipment Management (continued)

RESPONSIBLE UNIT Division of Planning
Traffic and Equipment Management Branch

PROPOSED ACTIVITIES FOR 2013-2014 (continued)

- Provide traffic data for annual FHWA required Highway Performance Monitoring System (HPMS) report.
- Update axle and monthly factors used in adjusting short term counts from data collected at ATR and vehicle classification stations.
- Review and analyze functionally classified local road data to validate formula used to calculate local road Daily Vehicle-Miles of Travel (DVMT).
- Update in-house databases to include any new stations or roadway alignment changes. Correct beginning and ending mile points to better represent traffic generators.
- Continue to grow and maintain the WIM data program to collect, process, analyze, and submit monthly, one-week, WIM data at permanent WIM stations to FHWA. Periodically calibrate WIM data collection equipment in order to assure quality data.
- Review proper operation and coverage of ATR sites. Install additional stations as necessary.
- Investigate and purchase new traffic data collection equipment to provide for safer, more efficient and more accurate methods of collection.
- Certify, repair, and maintain approximately 800 traffic data recorders.
- Inspect, repair, and maintain, where possible, approximately 550 ATR and semi-permanent vehicle sensor locations.
- Administer contract and provide oversight of Contractor(s) for the repair and maintenance of ATR and semi-permanent vehicle sensor locations.
- Track upcoming highway projects and produce plans and specifications for new and replacement traffic sensor installations for submittal into construction and pavement rehabilitation contracts.
- Provide construction oversight, when required, and perform final inspections of new and replacement traffic sensor installations.
- Update the traffic management system (TMS) as needed.
- Provide contract management and oversight of consultants assisting with field data collection and other tasks. Process and provide quality assurance of the provided counts.
- Provide traffic count technician training and support.

PRODUCTS

- Volume and classification data from ATRs
- Volume, classification, and weight data from WIM sites
- Volume and classification data from short-duration machine counts
- Volume and classification data from special counts
- Axle and monthly factors
- Databases containing count station and count data information
- Accurate local DVMT data for FHWA reporting through HPMS

CHAPTER 3 Traffic and Equipment Management (continued)

RESPONSIBLE UNIT Division of Planning
Traffic and Equipment Management Branch

DISTRIBUTION OF ESTIMATED COST FOR 2013-2014

PERSONNEL	**$2,410,300**
OTHER	**$455,000**
TOTAL	**$2,865,300**

ESTIMATED OUTSOURCING EXPENSES AND PURCHASES

Outsourcing

- $150,000 contract for outsourced traffic counts to be performed by consultant under Statewide Traffic Counting contract.
- $250,000 for count station maintenance through district maintenance contracts.
- $150,000 WIM Installation Maintenance, Calibration, and Collection.
- $150,000 Research and Studies
- $290,000 Interstate and Arterial Loop and Piezo Install

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

PURPOSE AND SCOPE

The Roadway Systems Team maintains the official Department of Highways records for the following: State Primary Road System (SPRS); Designated National Truck Network (NN); Coal Haul Highway System; and Forest Highway System. The team works with Highway District Office Planning Section and Central Office Data Management staffs and other sources as available to track changes in roadways and highway systems, accomplish systems changes, and prepare official documents for approval. The team annually gathers and compiles source data on the transportation of coal by trucks in the Commonwealth of Kentucky to prepare the tables, maps and descriptive information published in the Coal Haul Highway System Annual Report and other coal transportation information.

PROPOSED ACTIVITIES FOR 2013-2014

- Track roadway construction or maintenance projects to identify changes in roadways and their effect on roadway system designations.
- 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.
- 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.
- 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)
- Ensure the SPRS reflects roadways of significance, and correlates with the functional classification system and the electronic base map coverage.
- 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.
- 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.
- Review revisions to the SPRS to discover any modifications made necessary to other systems such as functional classification, NHS, or NN classifications.
- As requested by local public agencies or Highway Districts, review requests for revisions of NN. As appropriate, prepare request from Cabinet to FHWA for system revision.
- 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.
- 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
- Provide all system revision information to the Data Management branch and others as appropriate.

CHAPTER 4 Roadway Systems (continued)

RESPONSIBLE UNIT Division of Planning
Transportation Systems Branch

PROPOSED ACTIVITIES FOR 2013-2014 (continued)

- 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.
- Publish Kentucky's Official Coal Haul Highway System Report as required by KRS 177.977 and KRS 42.455.
- 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.

PRODUCTS

- Official Order Changes to the State Primary Road System
- State Primary Road System Official Order Listings
- Quarterly Reports on internet: State Primary Road System Mileage, Designated National Truck Network routes and mileage
- GIS map files incorporating project design files for decision-making and use by other Branches
- Coal Haul System Report with associated maps and separate datasets to Department of Local Governments, KYTC Budgets and KYTC Bridge Maintenance
- Request to FHWA for modification of National Truck Network (NN) or Official Order Change to State Designated National Truck Network
- Request to FHWA for modification of National Highway System
- Request to FHWA for permission to relinquish interstate frontage road to local government

DISTRIBUTION OF ESTIMATED COST FOR 2013-2014

PERSONNEL	**$647,800**
OTHER	**$25,000**
TOTAL	**$672,800**

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

PURPOSE AND SCOPE

The Cartography Team meets the needs of the Division, Cabinet, other state agencies, and entities outside state government for general and special purpose maps. The team creates, updates, and distributes a wide variety of standard cartographic products in electronic and/or paper format. The team creates maps depicting various analyses of highway transportation data in digital and/or printed format. They also work to develop procedural and technical standards for digital mapping.

PROPOSED ACTIVITIES FOR 2013-2014

- Provide electronic mapping for all city, county, district, state, and special-purpose cartographic products.
- Maintain and publish electronic formats of cartographic products for display on the Internet.
- Update the Official State Highway Map electronic files and accomplish necessary publication. Monitor inventory at 17 locations and coordinate additional deliveries as needed.
- Create reports and exhibits for various Division projects and studies to assist transportation decision-makers in their roles.
- Provide mapping and graphic assistance to other Divisions and Departments as requested.
- Develop and provide to outside entities digital maps as requested.
- Develop and provide geographic information systems (GIS) files locating other modes of transportation.

PRODUCTS

- Official Highway Map
- State Primary Road System Maps
- Functional Classification Maps
- Other Highway Data Maps (i.e., traffic counts, NHS, NN, etc. maps)
- Cabinet and Planning Project Exhibit Maps/Displays
- GIS Analyses of various data for transportation decision-making
- General and special purpose maps as requested by other agencies
- Geographic information systems (GIS) electronic files

DISTRIBUTION OF ESTIMATED COST FOR 2013-2014

PERSONNEL	**$298,000**
OTHER	**$105,000**
TOTAL	**$403,000**

CHAPTER 5 Cartography (continued)

RESPONSIBLE UNIT Division of Planning
Transportation Systems Branch

ESTIMATED OUTSOURCING EXPENSES AND PURCHASES

Outsourcing
- $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 maintenance of the Transportation Cabinet's Highway Information System (HIS). This database serves as the Cabinet's storage unit for Geographic Information System (GIS) road centerlines and information about roadway characteristics, transportation systems, and roadway analysis. The branch contributes to the KYTC Asset Management program by providing an up-to-date route network of asset locations for other divisions and also providing asset extraction capabilities for updates to the network. The branch uses HIS information to produce the Highway Performance Monitoring System (HPMS) data submittal required annually by the Federal Highway Administration (FHWA). The HPMS submittal is also used within the Cabinet to assist with the analysis and measurement of highway system performance. The branch regularly reviews Functional Classification with the Highway District Offices, Metropolitan Planning Organizations (MPOs), and local officials. It also coordinates all Functional Classification changes associated with road changes or external entity requests. The branch provides roadway information to many areas within the Cabinet, other governmental agencies, consultants, and the public via the Division's website, the Cabinet's Transportation Enterprise Database (TED), or direct requests. In order to support all of these functions with accurate and timely data, the branch routinely analyzes data collected by the Cabinet's Photo Vans and performs on-site data collection activities.

PROPOSED ACTIVITIES FOR 2013-2014

- 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.
- Work with OIT to assist with database upgrades that include links, functionality, and data exchange with other division databases.
- Assist with implementation of new Traffic System database including links, functionality, and data exchange between HIS and the new database.
- 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.
- Assist with cabinet wide asset management data collection and data dissemination.
- Coordinate with other divisions concerning asset management needs of HIS and TED and HIS needs of other divisions data
- Continue to develop processes and procedures to review, edit, and update Cabinet's base map and HIS database.
- Assist with testing, training, report migration, and enhancements with the HIS.
- Assist in the development and maintenance of a Cabinet GIS and maintain database network for Kentucky's public highway system.
- 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.

CHAPTER 6 Highway Information System (continued)

RESPONSIBLE UNIT Division of Planning
Data Management Branch

PROPOSED ACTIVITIES FOR 2013-2014 (continued)

- Improve and update roadway characteristic, HPMS, Performance Measure, and analysis data through Division of Maintenance Photo Van data collection project.
- Perform office reviews to verify data meets the required standards and confidence levels established by this Division and FHWA.
- Provide up-to-date route network, DMI, roadway characteristics and system information through various programs.
- Complete a statewide urban boundary review in cooperation with Highway Districts, MPO's and Local Officials
- Process and submit annual HPMS submittal.
- Regularly review Functional Classification in cooperation with Highway Districts and MPO's. Review Functional Classification change requests from Highway Districts and other external entities.
- Coordinate changes to the NHS and Strategic Highway Network following proper procedure for approval from FHWA and DOD.
- Utilize HPMS to update Rating Indices, Capacity, and Volume/Service Flow ratio in the HIS database.
- Use HIS to measure highway system performance and assist with analyses of the Unscheduled Projects List.
- Maintain currency of HPMS software and perform changes required by federal legislation, regulations, policies, and/or guidelines, as needed to the HPMS.
- Investigate results of HPMS each year and analyze changes in processes to improve output of report.
- Assist in processing and reporting of the FHWA 534 and 536 reports.

PRODUCTS

- Routines to extract better road information from the GPS files (i.e. vertical grade, horizontal curve)
- Queries and routines for quality control of the database concerning asset items and road information
- Database and GIS application troubleshooting when errors take place
- Database and GIS upgrades
- Other agency information loaded or linked to HIS database
- New roadway centerlines obtained through GPS technology and CAD design files and updates to both the GIS layers and HIS database
- New roadway inventory either through field collection or extracted from CAD design files to update the GIS layers and HIS database
- New roadway inventory extracted through photo van software
- Existing roadway characteristic inventory QC checks from photo van pictures
- Transportation Enterprise database updates for cabinet wide consumption of data
- Cabinet wide Asset Management updates and route locations to update other divisions
- HPMS 534 and 536 Reports

CHAPTER 6 Highway Information System (continued)

RESPONSIBLE UNIT Division of Planning
Data Management Branch

PRODUCTS (continued)

- HPMS submittal due by June 15
- Reports created concerning information about transportation network stored in HIS database
- Provide Certification of Public Road Mileage by June 1

DISTRIBUTION OF ESTIMATED COST FOR 2013-2014

PERSONNEL	**$1,421,700**
OTHER	**$355,000**
TOTAL	**$1,756,700**

ESTIMATED OUTSOURCING EXPENSES AND PURCHASES

Outsourcing
- $35,000 for Special GPS Maintenance
- $150,000 for Asset Management & Support through IT
- $150,000 for Local Road Centerline Collection with all of the 15 Area Development Districts, with contracts less than $100,000 for each
- $150,000 for Roadway Information Data Collection
- $200,000 Asset Management Data Collection and Analysis

Other
- $100,000 for database enhancements
- $50,000 for Asset Management Data Collection
- $75,000 for Other Operational Costs (items such as travel, mileage, equipment and other costs directly associated to the completion of this work chapter)
- $10,000 TAM Pooled Fund Led by Iowa
- $100,000 for 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, the District Transportation Plan (Consisting of the Unscheduled Projects List) and the Unscheduled Needs List. It also conducts technical project studies consisting of large studies to Data Needs Analysis (DNA) Studies in order to perform 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 2013-2014

- Continue to develop and update policy and procedures for evaluating corridor level needs.
- Conduct corridor, system, small urban area studies, data needs analyses (DNA), and other studies.
- Respond to inquiries about corridor planning issues.
- Identify, evaluate and prioritize corridor, system, and small urban area needs through data analysis and public involvement.
- Oversee outsourced activities.
- Evaluate identified needs statewide to assist in prioritizing projects for programming in the Highway Plan.

PRODUCTS

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

- **Corridor Studies**

County(ies)	Route	Item No.	% Activity in 2014	SPR Funding
Jefferson	KY 1931	N/A	To completion	Yes
Boone	I-75/ Mall Road	6-409.00	To completion	No
McCracken	New Route	1-8702.00	To completion	No
McCracken	US 60	1-1142.00	To completion	No

CHAPTER 7 Strategic Corridor Planning (continued)

RESPONSIBLE UNIT Division of Planning
Strategic Planning Branch
Strategic Corridor Planning Team

PRODUCTS (continued)

County(ies)	Route	Item No.	% Activity in 2014	SPR Funding
McCracken	KY 1286/ KY 998	1-153.00	To completion	No
Knox/Laurel	KY 3041	11-190.00	To completion	No
Jefferson, Oldham, Henry, Trimble, Carroll, Gallatin, Boone	I-71	99-394.00	To completion	No

- Small Urban Area Studies

County	SUA	% Activity in 2014	SPR Funding
Shelby	Shelbyville	60%	Yes (in-house)
Christian	Hopkinsville	To completion	Yes
Barren	Glasgow	50%	Yes (in-house)

- Data Needs Analysis (DNA) Studies
  A DNA study will be completed for all projects in the Highway Plan intended to be advertised for Consultant services, prior to the Advertisement.

- Priorities for Highway Plan Programming that are sustainable and fundable.

DISTRIBUTION OF ESTIMATED COST FOR 2013-2014

PERSONNEL	**$2,213,144**
OTHER	**$20,000**
TOTAL	**$2,233,144**

ESTIMATED OUTSOURCING EXPENSES AND PURCHASES

Outsourcing
- $1,200,000 to outsource for Planning Studies. FHWA will be notified when planning studies utilizing SPR funds are initiated.
- $200,544 Research or Studies

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.

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 MAP-21 compliant. Through these processes and partnerships, this team provides meaningful input to the Highway Plan through the Unscheduled Needs List (UNL) and District Transportation Plan (DTP).

PROPOSED ACTIVITIES FOR 2013-2014

- Review and update the STP document as needed.
- Develop and implement processes as needed to ensure MAP-21 compliance.
- Coordinate with other transportation modes, land use, environmental, and other resource agencies.
- Enhance the statewide transportation planning process by including data collection and analysis, public involvement, and coordination.
- Identify, evaluate, and prioritize transportation projects through data analysis and public involvement.
- Recommend sustainable and fundable projects.
- Maintain and oversee further development of the Project Identification Form/Unscheduled Needs, the District Transportation Plan containing the Unscheduled Projects List (UPL) List and an online database for use as a tool in project prioritization and analysis.
- Coordinate with other Divisions, Districts, and Agencies and incorporate applicable plans as necessary to ensure compliance with new authorization or MAP-21 extension compliance.
- Coordinate and oversee the ADD Regional Transportation Program. Coordinate and assist the Highway District Offices as they develop the District Regional Transportation Plan.

PRODUCTS

- Statewide Transportation Plan updates as needed
- Unscheduled Needs List database
- Annual Work Programs and Contracts for 15 Area Development Districts
- Statewide Transportation Planning Meetings
- Individual ADD Planner Assessments
- District Regional Transportation Plan containing the Unscheduled Projects List.

CHAPTER 8 Statewide Transportation Planning (continued)

RESPONSIBLE UNIT Division of Planning
Strategic Planning Branch

DISTRIBUTION OF ESTIMATED COST FOR 2013-2014

PERSONNEL	**$1,183,700**
OTHER	**$50,000**
TOTAL	**$1,233,700**

ESTIMATED OUTSOURCING EXPENSES AND PURCHASES

Outsourcing

- $150,000 to outsource for studies and assistance related to the Statewide Planning SPR Work Program

Other

- $15,000 LRP/Visioning Brochures and Promotional Items
- $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 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 2013-2014

- Review and implement changes to the MPO planning process as a result of Moving Ahead for Progress in the 21st Century Act (MAP-21), the new federal transportation bill.
- Provide technical assistance and oversight review of MPO activities, programs, documents, models and/or tools.
- Attend technical, policy, and other committee meetings to represent the Cabinet.
- Conduct contract management and oversight for federal funds.
- Ensure consistency between local and state plans and programs.
- Coordinate with other transportation modes to obtain input on multimodal issues for various metropolitan planning process issues.
- Work with the MPOs and Highway District Offices (HDOs) on Project Identification Forms (PIFs), data collection, project evaluation and ranking, and training.
- Conduct regular statewide meetings including a focus on metropolitan planning organization issues.
- Coordinate with the Transportation Management Areas (TMAs) on the programming and tracking of dedicated Federal Statewide Transportation Program (STP) and Transportation Alternative (TA) funded projects and the development of compliant Congestion Management Processes (CMPs).
- Coordinate with MPOs on air quality issues, analysis, and conformity.

PRODUCTS

- Analysis of SAFETEA-LU to MAP-21 gaps in the metropolitan planning process
- Assistance to MPOs in preparing compliant Transportation Improvement Programs (TIPs), MTPs, Participation Plans (PPs), CMP's and UPWP's
- Review TIP actions and request STIP modifications to incorporate changes
- MPO UPWP contracts and administration

CHAPTER 9 Metropolitan Planning Organizations (continued)
(Areas over 50,000 Population)

RESPONSIBLE UNIT Division of Planning
Strategic Planning Branch
MPO Team

PRODUCTS (continued)

- MPO dedicated STP fund contracts and administration
- Statewide Transportation Planning Meetings
- Special Studies

DISTRIBUTION OF ESTIMATED COST FOR 2013-2014

PERSONNEL	**$618,200**
OTHER	**$25,000**
TOTAL	**$643,200**

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 Performance Measures and Congestion/Mobility Analysis

RESPONSIBLE UNIT Division of Planning

PURPOSE AND SCOPE

The federal transportation legislation Moving Ahead for Progress in the 21st Century (MAP-21) requires the United States Department of Transportation (U.S. DOT) to identify national-level performance measures for various performance management areas related to safety, pavements, bridges, freight, emissions, performance, and congestion.

The Division of Planning is tasked with the determining performance measures for the following:

Freight
- Annual Hours of Truck Delay (AHTD) - Travel time above a KYTC-defined, congestion threshold in units of vehicle-hours of delay for Trucks on the Interstate Highway System.
- Truck Reliability Index (RI_{80}) - The ratio of the 80th percentile truck travel time to the KYTC-determined threshold travel time for trucks on the Interstate Highway System.

System Performance
- Annual Hours of Delay (AHD) - Travel time above a KYTC-defined, congestion threshold in units of vehicle -hours of delay on all National Highway System (NHS) corridors.
- Reliability Index (RI_{80}) - The ratio of the 80th percentile travel time to the KYTC-determined threshold travel time for all vehicles on NHS corridors.

Congestion Mitigation and Air Quality (CMAQ)
- Criteria Pollutant Emissions - Daily kilograms of on-road, mobile source criteria air pollutants (VOC, NOx, PM, CO) reduced by the latest annual program of CMAQ projects.
- Annual Hours of Delay (AHD) - Travel time above a KYTC-defined, congestion threshold in units of vehicle-hours of delay reduced by the latest annual program of CMAQ projects.

In addition, congestion mitigation is important for continuing safe, efficient operation on Kentucky's roadways. Traffic congestion is considered when selecting and prioritizing long-range planning projects. 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 2013-2014

- Continue efforts to analyze current, non-factored speed data for NHS statewide.
- Acquire, conflate, evaluate, and conduct a GIS audit of 2013 non-factored speed data for NHS statewide
- Analyze resulting speed data and develop travel time index for all segments and all years
- Choose, based on the real data, representative periods to determine free-flow speeds
- Determine source(s) of and obtain travel time and vehicle miles traveled data for all roads on the NHS
- Define corridor segments for all roads on the NHS

CHAPTER 10 Performance Measures and Congestion/Mobility Analysis (continued)

RESPONSIBLE UNIT Division of Planning

PROPOSED ACTIVITIES FOR 2013-2014 (continued)

- Begin to establish Daily, AM Peak, PM Peak, and Off-peak threshold speeds for each segment
- Begin to develop methodologies for calculating segment and statewide AHTD, Freight $RI_{80,}$ AHD, and System RI_{80}
- Begin to establish annual targets for AHTD, Freight $RI_{80,}$ AHD, and System RI_{80}
- Begin evaluating how to provide MOVES and transportation model output to assist the office of Local Programs to establish annual targets for CMAQ On-road Mobile Source Emissions and Traffic Congestion for TMAs with populations of over 1 million that are non-attainment or maintenance areas
- Begin evaluating how to provide MOVES and transportation model output to assist the office of Local Programs to develop a report detailing CMAQ program traffic congestion reductions for TMAs with populations of over 1 million that are non-attainment or maintenance areas
- Assist TMAs to develop and implement performance measures into their congestion management process
- 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.
- Fund participation in the Texas Transportation Institute's (TTI) pooled-funded Urban Mobility Study. There are several elements of research that affect measuring mobility.

PRODUCTS

- Maps and database of mobility measures on freeways and arterials
- Preliminary MAP-21 Performance Measures for:
  - AHTD on each interstate corridor segment
  - Statewide AHTD across all interstate corridors
  - Freight RI_{80} for each interstate corridor segment
  - Statewide Average Freight RI_{80} across interstate corridors where the RI > 1.0
  - AHD on each NHS Corridor segment
  - Statewide AHD across all NHS corridors
  - RI_{80} for each NHS corridor segment
  - Statewide Average RI_{80} across NHS corridors where the RI > 1.0
- Preliminary MOVES and transportation model output to report CMAQ program traffic congestion reductions for TMAs with populations of over 1 million that are non-attainment or maintenance areas

CHAPTER 10 Performance Measures and Congestion/Mobility Analysis (continued)

RESPONSIBLE UNIT Division of Planning

DISTRIBUTION OF ESTIMATED COST FOR 2013-2014

PERSONNEL	**$284,700**
OTHER	**$15,000**
TOTAL	**$299,700**

ESTIMATED OUTSOURCING EXPENSES AND PURCHASES

Outsourcing
- $100,000 Purchase and analysis of speed (mobility)
- $ contract with KTC
- $150,000 Research or Studies

Other
- $5,000 Other Operational Costs
- $10,000 TTI Urban Mobility Study (pooled-fund study)

CHAPTER 11 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 2013-2014

- Perform Regional Air Quality (AQ) Conformity Analysis for several metropolitan and rural areas.
- Develop desk procedures for Regional Conformity Analysis.
- Monitor AQ data submissions to other agencies – State, Federal, Local, Research, and Educational. 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. Review, comment, and participate during the preparation of mobile budgets for the development of the attainment demonstration and maintenance for SIPs, SIP amendments, and budget adjustments.
- Work with KYTC IT to develop Kentucky vehicle registration age/type distribution for use with MOVES.
- Prepare Cabinet responses for Citizen/Agency inquires. Preparing letters of response for the Governor/Secretary/Director.
- Monitor changes and maintain a clearinghouse of knowledge for the Division/Cabinet concerning AQ regulations. This includes maintaining 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. Inform 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 8-hour Ozone and $PM_{2.5}$ standards and designation process and on new developments with greenhouse gas requirements.
- Attend necessary meetings and conference to stay abreast of the AQ issues.
- AQ Website development. Maintain appropriate active web-links.
- Develop and maintain a KYTC AQ Email distribution list for AQ information.
- Participate and facilitate monthly AQ conference calls and quarterly meetings. This includes participating in interagency consultation calls regarding transportation conformity for updates and amendments to MTP plans, SIPs, TIPs, and STIPs.
- Assist with new programs as required by MAP-21, CAAA, and authorization.
- Develop and maintain KY rideshare and park-n-ride database of locations.

CHAPTER 11 Air Quality Conformity Analysis (continued)

RESPONSIBLE UNIT Division of Planning
Multimodal Programs Branch
Air Quality Team

PROPOSED ACTIVITIES FOR 2013-2014 (continued)

- Maintain Literacy in MOVES_2010a or current AQ models. This includes the current emissions model or Ozone and $PM_{2.5}$ regional air quality conformity analyses for the Louisville, NKY, Ashland, and Christian County areas as well as other newly designated areas.
- Coordinate special AQ/MOVES training when needed.
- Provide support to the Office of Local Government for Congestions Management and Air Quality (CMAQ) related issues, as needed. Assist District Offices with the preparation of CMAQ applications including emission calculations and documentation.
-
- Maintain a working knowledge of emerging issues and best practices, such as diesel emissions reduction strategies and Cabinet Green Initiatives. 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.
- Other duties and special projects as assigned.

PRODUCTS

- Ozone and PM 2.5 Regional Conformity Analysis for required all non-attainment and maintenance areas
- Conforming statewide and MPO planning documents
- Data to Division of Air Quality as requested.
- Emission calculations for CMAQ, GHG/CC as needed.
- VIN Calculations for MOVES Input

DISTRIBUTION OF ESTIMATED COST FOR 2013-2014

PERSONNEL	**$106,500**
OTHER	**$5,000**
TOTAL	**$111,500**

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 12 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 KSRA and other federal or state contracts as well as serve as staff support for the Water Transportation Advisory Board.

PROPOSED ACTIVITIES FOR 2013-2014

Public Riverports

- Maintain Kentucky's guidelines for public riverport applications. Review any public riverport applications received for grants.
- Provide staff support for the Water Transportation Advisory Board.
- Plan and host Riverport Meeting as needed.
- Interface with the public riverports in the state by responding to information requests, and serving as a member of the Kentucky Association of Riverports.
- Actively participate as a member on the AASHTO Standing Committee on Water Transportation (SCOWT).
- Conduct annual on-site visits of active public riverports in the state.

Railroads

- Administer Kentucky Shortline Railroad Assistance program including advertising fund availability, receiving and disseminating applications, contact administration, and project inspection.
- 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.
- Update the 2002 Kentucky Statewide Rail Plan to meet current requirements (From the Passenger Rail Investment and Improvement Act (PRIIA) of 2008).
- Participate in various rail studies and research with KYTC involvement.
- Collect railroad annual reports and rail accident/incident reports as directed in 603 KAR 7:090.
- 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.
- Monitor, track, and distribute information about railroad line abandonments in Kentucky.
- Respond to public inquiries on passenger and freight rail issues.

CHAPTER 12 Multimodal Freight Transportation (continued)

RESPONSIBLE UNIT Division of Planning
Multimodal Programs Branch

PROPOSED ACTIVITIES FOR 2013-2014 (continued)

Freight

- Provide technical assistance and disseminate information to MPOs, ADDs, HDOs, and project teams regarding freight movement, planning, and safety.
- Evaluate, receive, and update freight data from MPOs, ADDs, and HDOs as needed.
- Participate in regional freight planning efforts.
- Continue involvement with Mid-America Freight Coalition (MAFC), Institute for Trade and Transportation Studies (ITTS), and National Cooperative Freight Research Program (NCFRP).
- Visit intermodal sites and communicate with rail, water, and road modes to identify freight-related needs and concerns involving highways.
- Continue developing relationships with Economic Development to identify and promote intermodal freight needs.
- Research, prepare, and populate information for FHWA Intermodal Connector Assessment Tool (ICAT).

Ferryboats

- Coordinate the Kentucky Ferryboat program.
- Share information concerning Ferryboat Formula Fund (FBP) program and administer remaining FBD funds. Plan and host the Ferryboat Meeting as needed
- Conduct annual on-site visits of Kentucky Ferryboat Operations.
- Work with Ferry Authorities to develop fiscally constrained plans for FBP funds

PRODUCTS

- Prioritize Riverport applications
- Updated Statewide Rail Plan
- Updating railroad GIS database and maps for KYTC purposes
- Working ferryboat operations, contracts, site inspections, and invoice review/approval
- ICAT documentation
- FBP awards administered.
- Annual Waterways meeting as needed
- Kentucky Shortline Railroad Assistance administration.
- Water Transportation Advisory Board staff support.

CHAPTER 12 Multimodal Freight Transportation (continued)

RESPONSIBLE UNIT Division of Planning
Multimodal Programs Branch

DISTRIBUTION OF ESTIMATED COST FOR 2013-2014

PERSONNEL	**$246,700**
OTHER	**$40,000**
TOTAL	**$286,700**

ESTIMATED OUTSOURCING EXPENSES AND PURCHASES

Outsourcing

- $150,000 Rail Plan (addressing PRIIA) Update

Other

- $5,000 Operation Lifesaver
- $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).
- $25,000 Mid-America Freight Coalition, an AASHTO subcommittee paid as a pooled fund study.
- $64,000 Institute for Trade and Transportation Studies, a SAASHTO subcommittee paid as a pooled study. Institute For Trade and Transportation Studies 5 Year Commitment of $64,000. $200,000 paid in advance in 2FY 2012 to cover 3 years and $8,000 in 4th. First of 5 Years Commitment. (This is the 2nd year)

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 2013-2014

Traffic Forecasting and Modeling Reports, Studies, and Analysis

- Prepare traffic estimates for planning studies, design projects, road user costs, maintenance, and other purposes, as needed.
- Administer statewide traffic forecasting contracts and provide quality review for traffic projections prepared by the MPOs and Project Development consultants.
- 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.
- Maintain and update internal traffic forecasting tools (e.g. ESAL spreadsheets; turning movement spreadsheets).
- Provide future year forecasting of K-factors/D-factors for the Highway Performance Monitoring System (HPMS) and compare result with TRADAS outputs.
- 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.
- Host/Facilitate the Traffic Model Users Group and a TransCAD workshop for traffic forecasters and traffic modelers composed of members from government, academia, and the private sector.
- Participate in Caliper workshops held at adjacent states, foster a peer exchange with such agencies regarding statewide model and regional models.
- Create city, county, multi-county, regional models as needed for Project Development
- 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.
- Identify areas needing an area-wide model. Develop models using a standardized interface.

CHAPTER 13 Traffic Data Forecasting (continued)
Statewide Traffic Model

RESPONSIBLE UNIT Division of Planning
Multimodal Programs Branch
Forecasting and Modeling Team

PRODUCTS

- Corridor or other traffic forecasts
- District Office coordination regarding models and forecasts
- Travel Time Analysis for models and performance measures
- Road User Cost Reports
- Traffic forecast factors for HPMS
- Updated tools for consultants and District (e.g. ESAL Calculator; look-up tables)
- Maps and database of mobility measures on freeways and arterials Performance Measure Chapter
- Various City/County/MPO & Statewide Traffic Models such as, but not be limited to the following:
  - Nelson County
  - Validation and Calibration of new and existing statewide models

DISTRIBUTION OF ESTIMATED COST FOR 2013-2014

PERSONNEL	**$548,600**
OTHER	**$20,000**
TOTAL	**$568,600**

ESTIMATED OUTSOURCING EXPENSES AND PURCHASES

Outsourcing

- $300,000 for County-Wide Traffic models (outsource)
- For items such as equipment and software directly associated to the completion of this work chapter.
- $15,000 TransCAD & TransModeler Workshops
  For items such as travel, mileage, registration, and other costs directly associated with attending Caliper training sponsored by adjacent State Transportation Agencies and sponsoring an advanced TransCAD workshop

Other

- $5,000 Other Operational Cost

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 develop a statewide bikeway system, and work within 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. 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 2013-2014

Planning

- Assist local governments in the development of local bicycle and pedestrian network facilities and plan using bikeability and walkability audits.
- Participate in the KYTC Strategic Safety Plan implementation. Pedestrian is now a separate section.
- Participate in FHWA Pedestrian Fatality Focus Study for Louisville and Kentucky.
- Revise and update the USBR and statewide bike tours system. Changes to the the USBR system include the submittal to AASHTO for approval.
- Review, revise and update the Kentucky Bicycle and Pedestrian Plan and the Kentucky Pedestrian and Bicycle Travel Policy, as needed.

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.
- 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.

CHAPTER 14 Pedestrian and Bicycle Program (continued)

RESPONSIBLE UNIT Division of Planning
Modal Programs Branch

PROPOSED ACTIVITIES FOR 2013-2014 (continued)

- Review Share the Road sign requests for applicability and proper system placement.
- Develop/upadate in coordination with HDO, Maintenance, Traffic Operations, Design, and Planning Share the Road sign procedures for review, placement, and maintenance.
- 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.
- 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.
- Obtain federal, state, local, or private funds available to the cabinet.

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.
- Provide training to HDO, ADD, MPO, and local staffs on how to conduct a walkability and bikeablility audits as requested.
- Facilitate public education of non-motorized modes of transportation, as opportunity arises. Introduce a series of PSA for both pedestrian and cycling awareness as appropriate. Links to these PSA would be found on the Walk-Bike web page. Provided educational brochures to DMV offices, bike shops, multi sport retail locations, health departments, and various related groups.
- Work with local law enforcement to promote education and enforcement of pedestrian and bicycle safety laws. Provide information brochures and prepare a presentation at the annual Life Savers Conference.
- Respond to citizens' need for information, maps, bike routes, walking trails, availability of funds for projects as requested.
- Develop and maintain a clearinghouse of information concerning active transportation - research, methods, criteria to CO Divisions, ADDs, MPOs, and local government.
- Maintain www.bikewalk.ky.gov website.

Kentucky Bicycle and Bikeways Commission (KBBC)

- Plan quarterly KBBC meetings
- Prepare agenda before each KBBC meeting and minutes after each KBBC meeting.
- Assist KBBC on communications and technical matters
- Assist in facilitating the Paula Nye Education Grant program.

CHAPTER 14 Pedestrian and Bicycle Program (continued)

RESPONSIBLE UNIT Division of Planning
Modal Programs Branch

PRODUCTS

- Local pedestrian and bicycle master plans, as needed.
- Provide a clearing house/tool box of bike/ped resources and related items for the creation or improvement of local master plans.
- Updated bicycle and pedestrian brochures and promotional materials
- Provide pedestrian and bicycle technical training courses as appropriate
- Walkability/Bikeability Audits Quarterly KBBC meetings
- NYE Grant status reports.

DISTRIBUTION OF ESTIMATED COST FOR 2013-2014

PERSONNEL	**$80,900**
OTHER	**$37,500**
TOTAL	**$118,400**

ESTIMATED OUTSOURCING EXPENSES AND PURCHASES

Other

- $10,000 Pedestrian and bicycle training course instructor
- $2,500 for attendance of national conference
- $10,000 for Kentucky Bicycle and Bikeway Commission meetings.
- $5,000 for Bicycle and Pedestrian Brochures
- $5,000 for Bicycle and Pedestrian Promotional Items (bike lights, reflectors, pedometers)
- $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 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 2013-2014

- 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

CHAPTER 15 Highway Safety Improvement Program (continued)

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

DISTRIBUTION OF ESTIMATED COST FOR 2013-2014

PERSONNEL	**$500,000**
OTHER	
TOTAL	**$500,000**

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.

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. Previously, a VE study could be done for any project, but the federal regulations required that a VE study be conducted on highway projects over $25 million and bridge projects over $20 million on the National Highway System (NHS).

Currently, the Moving Ahead for Progress in the 21st Century (MAP-21) was enacted on July 6, 2012. It has redefined when a value engineering (VE) analysis or study is required. The law now specifies that all roadway projects on the NHS that have a total phase cost exceeding $50 million and bridge projects exceeding $40 million will require a VE study when there are any federal funds used for the project. The "total phase cost" of a project is that which is estimated for planning, environmental, design, right-of-way, utility relocation, and construction. Recommendations developed in a VE study are shared with the project development team to consider for implementation. In addition, the VE program may be used to address other projects that may be used to review processes, standards and/or specifications.

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.

PURPOSE AND SCOPE (continued)

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. 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.
- Conduct mandated Value Engineering studies to meet federal guidelines.
- Conduct VE Mod 1 and overview training for KYTC staff and design consultants.
- Conduct Post-Construction Reviews in their prescribed cycle.
- Conduct Constructability Reviews to improve quality of designs and enhance efficiency of work flow during the construction phase.
- Collect data for the 3 program datasets to include in the Lessons Learned GIS geodatabase.
- 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.
- Ensure consistency and quality of design products delivered by the Cabinet.
- Train in-house and consultant personnel on findings for the betterment of designs and design processes.
- Oversee outsourced activities.

CHAPTER 16 Value Engineering and Quality Assurance (continued)

RESPONSIBLE UNIT Division of Highway Design
Quality Assurance Branch

PRODUCTS

- VE Studies
- VE Check Lists
- VE Punch Lists
- VE Project Database
- VECP Database
- Post-Construction Review Fact Sheets
- Post-Construction Review Database
- Constructability Review Database
- *Quality Matters* Newsletter
- Lessons Learned Geodatabase
- Lessons Learned Mapping
- Annual Reports from all Programs
- Special Studies

DISTRIBUTION OF ESTIMATED COST FOR 2013-2014

PERSONNEL	**$325,000**
OTHER	**$175,000**
TOTAL	**$500,000**

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, American Society for Quality (ASQ) membership and attendance to meetings, research or assistance related to Quality Assurance and Quality Control. (FHWA will be notified in advance when the Quality Assurance Branch needs to utilize the funds when initiated.)