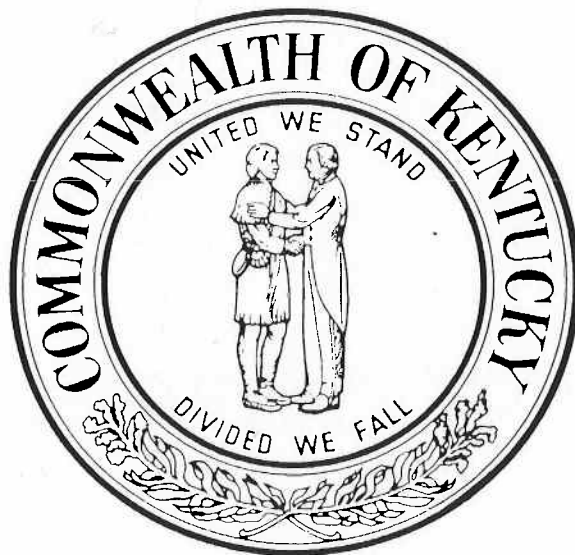


# PLANNING WORK PROGRAM

SP 0010 (001)  
JUNE 16, 2009 – JUNE 15, 2010



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 0010 (001)  
JUNE 16, 2009 THROUGH JUNE 15, 2010**

**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 begin the process to collect counts for local bridges. There is a continue 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. 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 downsizing efforts and/or staff retirements 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 the upcoming reauthorization bill. 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 0010 (001) for the period June 16, 2009 to June 15, 2010 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 2010 are reported in detail by Chapter in this Work Program.

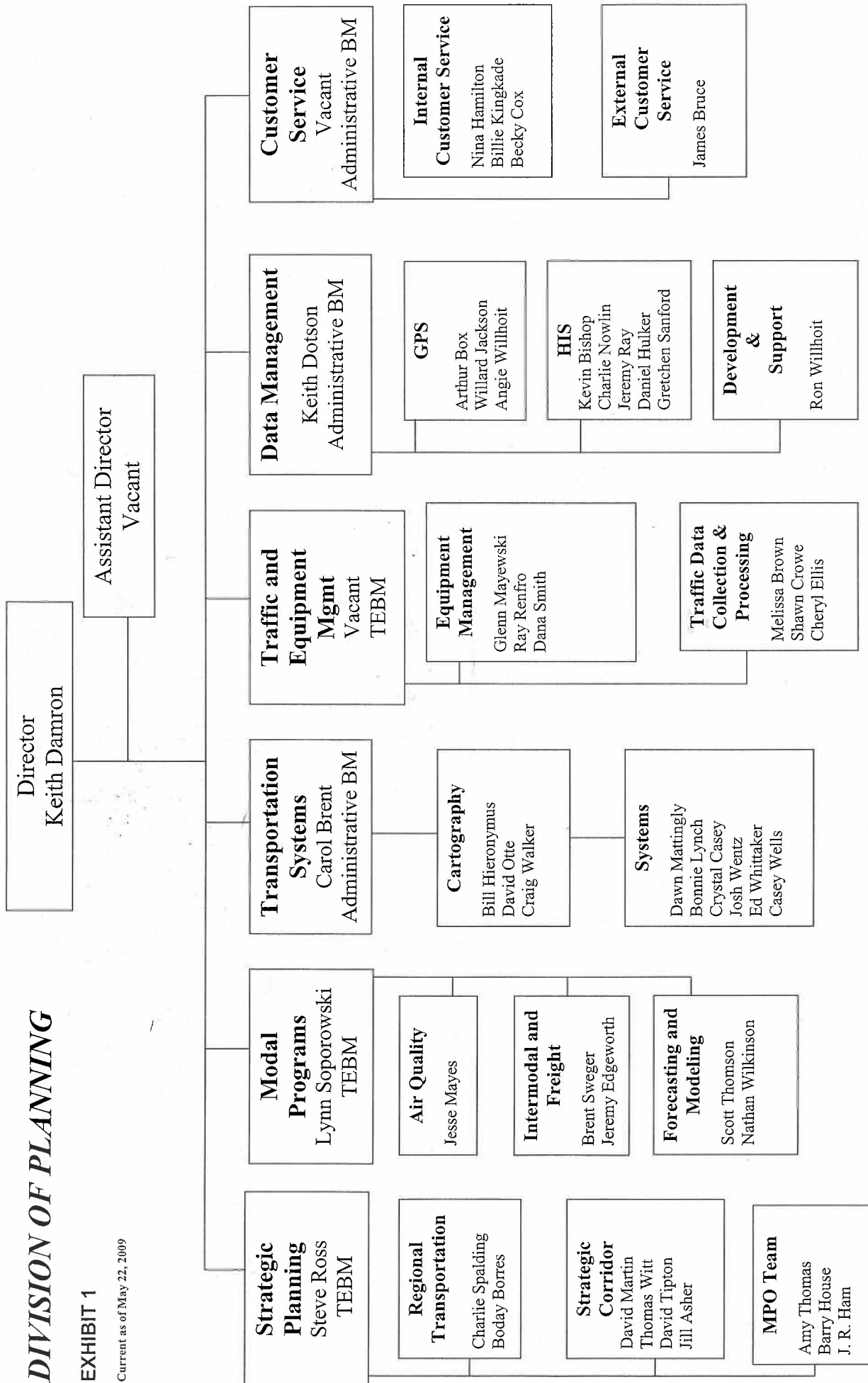
We expect the majority of activities in this Work Program to be completed by June 15, 2010. However, occasionally there are programs that cannot be completed June 15. Those items that are not complete by June 15 will be identified in the Annual Performance and Expenditure Report and will either be completed under a time extension or by carry it over to the next year. 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 May 22, 2009



## EXHIBIT 2

### Planning Work Program 2010

PROGRAM IDENTITY      FEDERAL      STATE MATCH      LOCAL MATCH      OTHER      TOTAL

Kentucky Transportation Cabinet

Personnel Cost	\$7,889,482	\$1,659,357				\$9,548,839
Other Cost	\$945,357	\$199,143				\$1,144,500
<b>Total SPR Funds</b>	<b>\$8,834,839</b>	<b>\$1,858,500</b>				<b>\$10,693,339</b>

Partner Agencies

PL Funded MPO Planning Budget	\$1,987,488	\$124,218	\$372,654			\$2,484,360
PL Discretionary Fund	\$0		\$0			\$0
<b>Total PL Funds</b>	<b>\$1,987,488</b>	<b>\$124,218</b>	<b>\$372,654</b>			<b>\$2,484,360</b>

ADD Regional Transportation Program (State Funds)	\$823,900	\$91,544				\$915,444
ADD Regional Transportation Program (General Funds)	\$374,800	\$41,644				\$416,444
<b>Total ADD funds</b>	<b>\$1,198,700</b>	<b>\$133,188</b>				<b>\$1,331,888</b>

**TOTALS**

<b>\$14,509,587</b>
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Notes:

- 1) Potential Outsourced Items are indicated in each chapter
- 2) Toll Credits will be used to provide the remainder of the 20% match for the SPR funds. This is estimated to be \$280,168 in toll credits.
- 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.

### EXHIBIT 3

**FHWA FUNDING AVAILABILITY**  
 From Division of Program Management's  
 Federal Aid Fund Report  
 as of 4/03/2008

Fund	Code	Unobligated Balance
2% Highway Planning & Research	O810	83,918
2% Highway Planning & Research – STEA03	H550	738,217
Statewide Planning 2%	L550	5,211,907
2% Hwy Plng & Resch-TEA21	Q550	1,613,832
<b>Total Available SPR</b>		<b>\$7,647,874</b>
1% Metropolitan Planning	O850	5,606
1% Metropolitan Planning – STEA03	H450	20,000
Metropolitan Planning 1.25% Takedown	L450	3,681,079
1% Metropolitan Planning – TEA21	Q450	116,617
<b>Total Available PL</b>		<b>\$3,823,302</b>

**KENTUCKY TRANSPORTATION CABINET**  
**OFFICE OF BUDGET AND FISCAL MANAGEMENT**  
 2008-2010 BIENNIAL BUDGET  
 FY 2009-10

**Project Budget Unit**

**FH02 – SPR Planning**

State Road Fund	1,858,500.00
Federal Funds	8,834,839.00 *
<b>Total FH02 Funds</b>	<b>\$10,693,339.00</b>

**FH03 – Metropolitan Planning**

State Road Funds	282,000.00
Federal Funds	2,365,400.00
<b>Total FH03 Funds</b>	<b>\$2,647,000.00</b>

\*HSIP Program will fund \$300,000.



## EXHIBIT 4

# FY 2009 Proposed Research Program Summary

### FHWA Funding Availability

Unobligated funds as of April 3, 2009

Fund	Code	Balance
Mandatory 25% Studies-HPR	O860	\$ -
MAND 25%- HPR-STE A 03	H560	\$ 0.01
Statewide PLAN Mandatory	L560	\$ 34,438.37
Mand 25% Studies- HPR- TEA 21	Q560	\$ 1,009.82
<b>Total Unobligated Mandatory Studies</b>		<b>\$ 35,448.20</b>

### Estimated FY 2010 Apportionment

Fund Source	Federal
Interstate Maintenance	\$ 123,619,862.00
National Highway System	\$ 140,815,167.00
Surface Transportation Program	\$ 135,335,455.00
Bridge Replacement & Rehabilitation	\$ 77,501,754.00
Congestion Mitigation & Air Quality	\$ 12,921,955.00
Equity Bonus	\$ 36,244,041.00
Safety	\$ 25,767,051.00
<b>Total</b>	<b>\$ 552,205,285.00</b>
2% Take Down	\$ 11,044,105.70
<b>L550 Estimated Available 2008 Funds - 75% of Take Down</b>	<b>\$ 8,834,839.00</b>
<b>L 560 Estimated Available 2008 Funds - 25% of Take Down</b>	<b>\$ 2,594,592.00</b>

### Research Work Program - Part B

Estimated Fiscal Year 2010 Expenditures

Program Identity	Federal	State	Total
SPR-Part II Research (85% Allocated)*	\$ 2,594,592.00	\$ 648,648.00	\$ 3,243,240.00
FY 09 Carryover (obligated/unspent)	\$ 825,000.00	\$ 275,000.00	\$ 1,100,000.00
Part III B Research		\$ 220,000.00	\$ 220,000.00
		\$ 40,000.00	
NCHRP Dues	\$ -	\$ 600,000.00	\$ -
<b>Total</b>	<b>\$ 3,419,592.00</b>	<b>\$ 1,783,648.00</b>	<b>\$ 4,563,240.00</b>

\* Includes 100,000 for Pooled Fund Studies, and \$20,000 for Superpave Center. These items will be 100% Federally Funded (no state match).

Note: This summary of the Research Portion of the work program is submitted for informational purposes only and is only an estimate of the expenditures. The actual work program for the research program will be submitted under separate cover.

**EXHIBIT 5**

**PL funds for MPO Unified Planning Work Programs for FY 2010  
Assumes 100% Federal Funds Available**

MPO AREA	TOTAL FY 2010 PL Funding						Total Contract \$ F+S+L=\$	Total Fed & State \$ F+S=\$	Total Fed & State % F+S = %
	Fed \$	Fed %	State \$	State %	Local \$	Local %			
LOUISVILLE	\$ 947,744	80.0%	\$ 59,234	5.00%	\$ 177,702	15.00%	\$ 1,184,680	\$ 1,006,978	85.00%
NORTHERN KY	\$ 358,720	80.0%	\$ 22,420	5.00%	\$ 67,260	15.00%	\$ 448,400	\$ 381,140	85.00%
LEXINGTON	\$ 301,664	80.0%	\$ 18,854	5.00%	\$ 56,562	15.00%	\$ 377,080	\$ 320,518	85.00%
HENDERSON	\$ 30,368	80.0%	\$ 1,898	5.00%	\$ 5,694	15.00%	\$ 37,960	\$ 32,266	85.00%
OWENSBORO	\$ 81,328	80.0%	\$ 5,083	5.00%	\$ 15,249	15.00%	\$ 101,660	\$ 86,411	85.00%
ASHLAND	\$ 80,000	80.0%	\$ 5,000	5.00%	\$ 15,000	15.00%	\$ 100,000	\$ 85,000	85.00%
CLARKSVILLE / OAK GROVE	\$ 27,664	80.0%	\$ 1,729	5.00%	\$ 5,187	15.00%	\$ 34,580	\$ 29,393	85.00%
BOWLING GREEN	\$ 80,000	80.0%	\$ 5,000	5.00%	\$ 15,000	15.00%	\$ 100,000	\$ 85,000	85.00%
RADCLIFF-ELIZABETHTOWN	\$ 80,000	80.0%	\$ 5,000	5.00%	\$ 15,000	15.00%	\$ 100,000	\$ 85,000	85.00%
DISCRETIONARY FOR SEPARATE CONTRACT	\$ -	0.0%	\$ -	0.00%	\$ -	0.00%	\$ -	\$ -	0.00%
<b>PL Budget Total</b>	<b>\$ 1,987,488</b>		<b>\$ 124,218</b>		<b>\$ 372,654</b>		<b>\$ 2,484,360</b>	<b>\$ 2,111,706</b>	

NOTE: State matching funds are 5% for formula funds only. Local funds do not flow through KYTC. The Kentucky MPO Council chose not to fund any discretionary projects for FY 2010.

## CHAPTER FUNDING SUMMARY

<u>CHAPTER</u>	<u>TITLE</u>	<u>AMOUNT</u>
1	SPR Work Program	\$58,500
2	Personnel Training	\$303,800
3	Traffic and Equipment Management	\$3,433,900
4	Roadway Systems	\$723,600
5	Cartography	\$568,600
6	Highway Information System	\$1,661,600
7	Strategic Corridor Planning	\$1,157,100
8	Statewide Transportation Planning	\$734,200
9	Metropolitan Planning Organizations	\$635,600
10	Air Quality Conformity Analysis	\$173,800
11	Multimodal Transportation	\$232,900
12	Congestion, Mobility, and Access Management	\$146,000
13	Traffic Data Forecasting	\$438,239
14	Bicycle and Pedestrian Program	\$125,500
15	Highway Safety Improvement Program	\$300,000
	TOTAL	\$10,693,339

## **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 activities directly attributable to the completion of the SPR Planning Work Program chapters and to oversee and manage requests from external sources for maps and other data information.

### **PROPOSED ACTIVITIES FOR 2009-2010**

- Prepare correspondence, reports, agreements, etc. for Division activities directly related to the SPR Planning Work Program.
- Prepare all registrations and forms necessary for various training directly related to accomplishing the goals of the SPR Planning Work Program and maintain training records.
- Prepare contracts, letter agreements, purchase requests, etc. for the Division directly related to the SPR Planning Work Program.
- Process payments against contracts awarded by the Division directly related to the SPR Planning Work Program.
- Coordinate and prepare the annual SPR Planning Work Program and the annual SPR Planning Work Program and Expenditures Report.
- Track budgets and annual SPR Planning Work Program Expenditures.

### **PRODUCTS**

The Internal Customer Service Team will coordinate and prepare the annual SPR Planning Work Program and the annual SPR Planning Work Program and Expenditures Report. This team will also prepare all contracts, letter agreements, and purchase requests directly relating to the SPR Work Program. They will process all payments against contracts awarded by the Division directly related to the SPR Work Program. The External Customer Service Team will also focus on customers external to the Division for cartographic products, statistical reports, and responses to various data requests including responding to requests from the Division's web page. This team is responsible for providing maps upon request to other divisions within the Cabinet, other state government agencies, or to the general public. In addition, they will also assist in creating and updating digital county, city, and district maps for generating other special application maps displaying HIS information.

**CHAPTER 1**

SPR Work Program (continued)

**RESPONSIBLE UNIT**

Division of Planning  
Customer Service Branch

**DISTRIBUTION OF ESTIMATED COST FOR 2009-2010**

<b>PERSONNEL</b>	<b>\$58,500</b>
<b>OTHER</b>	
<b>TOTAL</b>	<b>\$58,500</b>

## 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. This is particularly essential to the Cabinet's programs as more efficient and detailed technical analyses and assistance are required.

### PROPOSED ACTIVITIES FOR 2009-2010

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 Data Recorder 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.

NATMEC Training (Chapter 3 – Traffic and Equipment Management)

TMG Training (Chapter 3 – Traffic and Equipment Management)

TRADIS (Chapter 3–Traffic and Equipment Management and Chapter 13–Traffic Data Forecasting)

GIS Conference (Chapter 4 – Roadway Systems, Chapter 6 – Highway Information System and Chapter 12 – Congestion, Mobility and Access Management)

ESRI (Chapter 5 – Cartography)

Adobe Illustrator (Chapter 5 – Cartography)

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

Highway Information System Conference (HIS) (Chapter 6 – Highway Information System)

Highway Economic Requirements System (HERS) (Chapter 6 – Highway Information System)

Asset Management Conference (Chapter 6 – Highway Information System)

EXOR Training conference (Upgrade of HIS) (Chapter 6 – Highway Information System)

HIDAC Training (Chapter 6 – Highway Information System)

Public Involvement Plan Development (Chapter 7 –Strategic Corridor Planning, Chapter 8– Statewide Transportation Planning, and Chapter 9 – Metropolitan Planning Organization)

STAQS (Chapter 10 – Air Quality Conformity Analysis)

MOVES (Chapter 10 – Air Quality Conformity Analysis)

National Freight Conference (Chapter 11 – Multimodal Transportation)

**CHAPTER 2**

Personnel Training

**RESPONSIBLE UNIT**

Division of Planning

**PROPOSED ACTIVITIES FOR 2009-2010 (continued)**

Modeling Conferences and Training (Chapter 13 – Traffic Data Forecasting)

TransCAD Training (Chapter 13 – Traffic Data Forecasting)

Bike/Ped Conferences (Chapter 14 – Bicycle and Pedestrian Program)

Bicycle and Pedestrian Facilities Conference (Chapter 14 – Bicycle and Pedestrian Program)

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

Partnering Conference (Chapter 4 – Roadway Systems, 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)

**PRODUCTS**

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

**DISTRIBUTION OF ESTIMATED COST FOR 2009-2010**

<b>PERSONNEL</b>	<b>\$298,800</b>
<b>OTHER</b>	<b>\$5,000</b>
<b>TOTAL</b>	<b>\$303,800</b>

**Other**

- Other Operational Cost \$5,000

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 Equipment Management Team focuses on the identification, purchase, repair/maintenance, placement, and operation of various pieces of traffic data collection equipment statewide with the Districts and within the Division.

The Traffic Data Collection and Processing Team, working with our Highway District Offices, assign, process, analyze, and provide access to traffic volume and vehicle classification data for highway planning, design, reporting to FHWA, transportation decisions, and various other purposes. This involves making a significant number of short duration (usually 48 hours) portable machine counts on the State Highway System and state-maintained local roads. An adequate program of continuous traffic counting stations (ATRs) provides the basis for factoring short-term counts. Vehicle classification data will be assigned, processed, and made available to Cabinet staff for analytical and forecasting purposes.

### **PROPOSED ACTIVITIES FOR 2009-2010**

- Maintain, update, analyze, provide quality control and assurance of data, and make available data from more than 13,500 traffic count stations.
- Work with the Highway District Offices to perform approximately 5,900 regularly scheduled short-duration portable machine counts yearly which include one-third of all short-duration traffic count stations.
- In accordance with the Traffic Monitoring Guide, collect and process vehicle classification data for approximately 1,500 stations, which is 25-30% of all traffic count stations statewide.
- Review, assign, process, analyze, and distribute data for approximately 400 special count stations that are requested by the highway districts and other divisions.
- Collect volume and classification data on approximately 200 interstate stations by C.O. staff.
- Work to restart the WIM program to collect, process, analyze, and submit quarterly one week of weigh-in-motion (WIM) data at 28 permanent WIM stations and submit 48 hours of WIM data at ten portable WIM stations. Periodically calibrate and assess equipment for adjustments in order to obtain quality data.
- Download, process, repair, maintain, and analyze data from 80+ permanent ATR stations. Review proper operation, locations, and coverage for possible new ATR station installations. Install additional stations as necessary.
- Update axle and monthly factors used in adjusting short term counts, such as weekly, monthly, and axle correction factors from data collected at ATR and vehicle classification stations.
- Investigate and purchase new technologies, sensors, data recorders, and communication devices developed for the traffic-counting industry to provide for safer, more efficient and more accurate methods of collection.
- Certify, repair, and maintain approximately 650 traffic data recorders.
- Install, inspect, repair, and maintain 400 permanent vehicle sensor locations.



## CHAPTER 3

## Traffic and Equipment Management (continued)

### RESPONSIBLE UNIT

Division of Planning  
Traffic and Equipment Management Branch

- Work with Highway District Offices to perform 1,400 short duration portable machine local road bridge counts which include one-third of all local road bridge counts.
- Provide traffic data for annual FHWA required HPMS report.
- Review and analyze functionally classified local road data (collected by contractor) to validate formula used to calculate local road DVMT.
- Track emerging highway projects and produce plans and specifications for new and replacement traffic sensor installations for submittal into construction and pavement rehabilitation contracts.
- Update in-house databases to include any new stations or roadway alignment changes. Correct beginning and ending milepoints to better represent traffic generators.
- Detect, analyze, and adjust volume counts while combining and creating additional stations where necessary.
- Begin to document the TMS process.
- Provide oversight of consultants/contractors to assist the Division TMS field data collection. Process and provide quality control and assurance of those counts. Provide storage and analysis of those counts.
- Review, analyze, and update data summaries for vehicle weights and calculating Equivalent Single Axle Loads (ESALs).
- Investigate, evaluate, and purchase new software to move mainframe vehicle classification and potentially volume data to a pc-based software with much more capabilities for display, trend analysis, and viewing that also works with the upgrade of HIS.
- Develop annual traffic count technician training program.

### PRODUCTS /

- Short-duration portable machine volume and classification counts
- Perform and process data for special counts
- Install, maintain, and process data from permanent Automatic Traffic Recorders (ATRs)
- Updated axle, monthly factors, and correction factors
- Updated and maintained databases of count data, count stations, or other associated data
- Weigh-in-motion data
- Install, maintain, and process volume and classification data from permanent vehicle sensor locations at high volume and other locations where it is not feasible to conduct portable counts
- 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 2009-2010**

<b>PERSONNEL</b>	<b>\$2,853,900</b>
<b>OTHER</b>	<b>\$580,000</b>
<b>TOTAL</b>	<b>\$3,433,900</b>

**ESTIMATED OUTSOURCING EXPENSES AND PURCHASES**

**Outsourcing**

- \$615,000 for Interstate and Arterial contract for Loop and Piezo installation for a Contract
- \$1,000,000 new contract for outsourced traffic counts and sensor installations to be performed by consultant under Statewide Traffic Counting contract
- \$50,000 for Weigh-In-Motion (WIM) data compilation to be performed by UK

**Other**

- \$400,000 for purchase of new Automatic Traffic Data Recorders
- \$100,000 for Piezos and Road Tube
- \$80,000 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 Systems Team maintains the official Department of Highways records for the following: State Primary Road System (SPRS); National Highway System (NHS); Functional Classification System; Designated National Truck Network (NN); Coal Haul Highway System; and Forest Highway System. They work with Highway District Office Planning and Central Office Data Management staffs to track roadway changes, accomplish systems changes, and prepare official documents for approval. The team annually gathers and compiles source data on the transportation of coal by truck in the Commonwealth of Kentucky to prepare the Coal Haul Highway System.

### **PROPOSED ACTIVITIES FOR 2009-2010**

- Track roadway construction or revision projects to identify changes in roadways and their affect on roadway systems.
- Adapt project design plans and use GIS software to generate maps for resolving issues of roadway system and ownership designations and to assist Data Management in their entry of roadway revisions.
- Coordinate the two-way flow of information between the Highway District planning staffs and Central Office Planning and Data Management staffs regarding roadway construction and ownership status.
- Review required SPRS revisions for any modifications made necessary to other systems such as functional classification, National Highway System, National Truck Network, etc. Provide this information to the Data Management branch.
- Generate official documentation recommending appropriate SPRS revisions to the Cabinet Secretary for approval.
- Ensure the SPRS reflects roadways of significance, and matches the functional classification system, and the electronic base map coverage.
- Compile data to provide ton-mile statistics to the Governor's Office for Local Development for coal transported on Kentucky Highways as required by statute.
- Publish Kentucky's Official Coal Haul Highway System Report as required by statute.
- Provide the Division of Maintenance information for their review. Update the "Extended Weight Coal Haul Road System". Produce 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 and Functional Classification Reports
- Quarterly Report of State Primary Road System Mileage
- GIS map files incorporating project design files for decision-making and use by other Branches
- Coal haul statistics and Coal Haul System Report with associated maps
- National Truck Network (NN) modifications as needed

**CHAPTER 4**

Roadway Systems (continued)

**RESPONSIBLE UNIT**

Division of Planning  
Transportation Systems Branch

**DISTRIBUTION OF ESTIMATED COST FOR 2009-2010**

<b>PERSONNEL</b>	<b>\$718,600</b>
<b>OTHER</b>	<b>\$5,000</b>
<b>TOTAL</b>	<b>\$723,600</b>

**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 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 2009-2010**

- 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 printing. Monitor inventory at all 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.

**PRODUCTS**

- Official Highway Map
- State Primary Road System Maps
- Functional Classification Maps
- Other Highway Data Maps (i.e., 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

**DISTRIBUTION OF ESTIMATED COST FOR 2009-2010**

<b>PERSONNEL</b>	<b>\$463,6,800</b>
<b>OTHER</b>	<b>\$105,000</b>
<b>TOTAL</b>	<b>\$568,600</b>

**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). They also contribute to the KYTC Asset Management program by providing an up-to-date route network for asset location from other divisions and provide asset extraction for update to the network. They also coordinate and perform data collection update activities for the statewide Geographic Information System (GIS) transportation layer, HPMS data, operational performance data, and roadway characteristics in cooperation with the Area Development Districts (ADDs) and internal staff members. 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 2009-2010**

- 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 cabinetwide asset management data collection and data dissemination
- 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 ADD 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.
- Improve and update roadway characteristic, HPMS, Performance Measure, and analysis data through ADD data collection project.

## CHAPTER 6

## Highway Information System (continued)

### RESPONSIBLE UNIT

Division of Planning  
Data Management Branch

### PROPOSED ACTIVITIES FOR 2009-2010 (continued)

- 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.
- Process and submit annual HPMS submittal.
- 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 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 cabinetwide consumption of data
- Cabinetwide Asset Management updates and route locations to update other divisions
- HPMS 534 and 536 Reports
- HPMS submittal
- Reports created concerning information about transportation network stored in HIS database
- Provide Certification of Public Road Mileage by June 1



**CHAPTER 6**

Highway Information System (continued)

**RESPONSIBLE UNIT**Division of Planning  
Data Management Branch**DISTRIBUTION OF ESTIMATED COST FOR 2009-2010**

<b>PERSONNEL</b>	<b>\$1,411,600</b>
<b>OTHER</b>	<b>\$250,000</b>
<b>TOTAL</b>	<b>\$1,661,600</b>

**ESTIMATED OUTSOURCING EXPENSES AND PURCHASES****Outsourcing**

- \$50,000 to outsource for GPS maintenance
- \$175,000 to outsource for Roadway Attribute Data Collection to several of the 15 ADD's, with contracts less than \$100,000 for each.
- 200,000 Asset Management & Support through IT
- \$100,000 to outsource for Asset Management Data Collection to several of the 15 ADD's, with contracts less than \$100,000 for each.
- \$40,000 to outsource for assistance in GPS alignments and road inventory to several of the 15 ADD's, with contracts less than \$100,000 for each.

**Other**

- \$150,000 for EXOR eCredits
- \$100,000 Other Operational Cost  
For items such as travel, mileage, equipment and other cost directly associated to the completion of this work chapter.

## 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 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.

### PROPOSED ACTIVITIES FOR 2009-2010

- Continue to develop and update policy and procedures for evaluating corridor level needs.
- Conduct corridor, system, and small urban area 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:

- Programming Studies

<b>Franklin</b>	<b>US 421 Franklin</b>	<b>Programming Study</b>	<b>05-8109.00</b>
<b>Bell</b>	<b>KY 441</b>	<b>Programming study</b>	<b>11-110.00</b>
- Pre-Design Scoping Studies
- Alternatives Studies

<b>Henderson</b>	<b>US 41A Henderson</b>	<b>Alternative Study</b>	<b>02-140.00</b>
<b>Mercer</b>	<b>Harrodsburg Bypass</b>	<b>Alternative Study</b>	<b>07-8344.00</b>
<b>Boyd</b>	<b>Ashland / US 60 Connector</b>	<b>Alternative Study</b>	<b>09-129.00</b>
<b>Rowan, Elliott</b>	<b>KY 32</b>	<b>Alternative Study</b>	<b>09-192.00</b>
<b>Wolfe</b>	<b>KY 715</b>	<b>Alternative Study</b>	<b>10-8200.00</b>

**CHAPTER 7**

Strategic Corridor Planning (continued)

**RESPONSIBLE UNIT**

Division of Planning  
Strategic Planning Branch  
Strategic Corridor Planning Team

**PRODUCTS (continued)**

- Small Urban Area Studies
 

<b>Rowan</b>	<b>Morehead</b>	<b>Small Urban Area Study</b>
<b>Knox, Whitley</b>	<b>Corbin</b>	<b>Small Urban Area Study</b>
<b>Harrison</b>	<b>Cynthiana</b>	<b>Small Urban Area Study</b>
<b>Grayson</b>	<b>Leitchfield</b>	<b>Small Urban Area Study</b>
<b>Shelby</b>	<b>Shelbyville</b>	<b>Small Urban Area Study</b>
<b>Pulaski</b>	<b>Somerset</b>	<b>Small Urban Area Study</b>
  
- Interchange Justification Studies
 

<b>Warren</b>	<b>Elrod Road Natcher Parkway Interchange Alt. Study</b>	<b>3-130.00</b>
<b>Jefferson</b>	<b>I-264 / US 42 Interchange Scoping Study</b>	<b>05-390.00</b>
  
- Feasibility Studies
 

<b>Jefferson</b>	<b>I-265/Rehl Road Interchange Feasibility study</b>	
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- Priorities for Highway Plan Programming

**DISTRIBUTION OF ESTIMATED COST FOR 2009-2010**

<b>PERSONNEL</b>	<b>\$1,152,100</b>
<b>OTHER</b>	<b>\$5,000</b>
<b>TOTAL</b>	<b>\$1,157,100</b>

**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**

- \$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 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 2009-2010

- Review and update the STP document as needed.
- Develop and implement processes as needed to ensure SAFETEA-LU 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.
- Coordinate/implement the conversion of the Project Identification Form/Unscheduled Projects List database to one consolidated database.
- Coordinate with other Divisions, Districts, and Agencies and incorporate applicable plans as necessary to ensure SAFETEA-LU compliance.
- Coordinate and oversee the ADD Regional Transportation Program.

### PRODUCTS

- Statewide Transportation Plan updates as needed
- Unscheduled Projects List database
- Project Identification Forms conversion to new web based format
- Annual Work Programs and Contracts for 15 Area Development Districts
- Four Statewide Transportation Planning Meetings
- Individual ADD Planner Assessments

### DISTRIBUTION OF ESTIMATED COST FOR 2009-2010

<b>PERSONNEL</b>	<b>\$709,200</b>
<b>OTHER</b>	<b>\$25,000</b>
<b>TOTAL</b>	<b>\$734,200</b>

**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**

- \$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 2009-2010**

- Provide technical assistance and 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 the Metropolitan Transportation Plans (MTPs).
- Work with the MPOs and Highway District Offices (HDOs) on Project Identification Forms (PIFs), data collection, and training.
- Conduct four regular statewide meetings.
- Coordinate with the Transportation Management Areas (TMAs) on the programming and tracking of dedicated Federal Statewide Transportation Program (STP) funded projects.
- Coordinate with MPOs on air quality issues, analysis, and conformity.

### **PRODUCTS**

- Assistance to agencies in preparing compliant MPO Transportation Improvement Programs (TIPs), MTPs, Participation Plans (PPs), CMP's and the UPWP's
- MPO Self Certifications (participant)
- Assistance to agencies in preparing compliant MPO UPWPs
- MPO UPWP Contracts and administration
- MPO dedicated STP fund contracts and administration
- Four Statewide Transportation Planning Meetings
- Special Studies

**LPA MANUAL for Local Public Agencies**

**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 2009-2010**

<b>PERSONNEL</b>	<b>\$630,600</b>
<b>OTHER</b>	<b>\$5,000</b>
<b>TOTAL</b>	<b>\$635,600</b>

**ESTIMATED OUTSOURCING EXPENSES AND PURCHASES**

**Outsourcing**

- \$100,000 LPA (Statewide Contract)

**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 10**

## **Air Quality Conformity Analysis**

### **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 2009-2010**

- Host and/or participate in interagency consultation calls regarding transportation conformity for updates and amendments to MTP plans, TIPs, and STIP.
- Host with FHWA the 2010 Kentucky Regional Air Quality Conference.
- Run the current emissions model for ozone and PM<sub>2.5</sub> regional air quality conformity analyses for Ashland and Christian County areas as well as other newly designated areas.
- 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.
- Facilitate monthly conference calls with federal, state, and local partners to discuss timely air quality regulations and conformity issues.
- 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<sub>2.5</sub> and 8-hour ozone standards and designation process and on new developments with greenhouse gas requirements.
- Provide VMT and speeds to DAQ for their development of the State Implementation Plans (SIPs) for non-attainment and maintenance areas.
- 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<sub>2.5</sub> standards designations, SIP amendments, and budget adjustments.
- Provide support to the Office of Special Programs for CMAQ related issues, as needed.
- Assist District Offices with the preparation of CMAQ applications including emission calculations and documentation.
- Manage KTC's work on the research efforts to update the recently developed speed model with 2008 HPMS data.
- Manage completion of KTC's work on the Travel Time Reliability project including high level correlation between reliability and the number and duration of incidents.
- Maintain a working knowledge of emerging issues and best practices, such as diesel emissions reduction strategies and greenhouse gases.
- 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.



**CHAPTER 10**

Air Quality Conformity Analysis (continued)

**RESPONSIBLE UNIT**

Division of Planning  
Multimodal Programs Branch  
Air Quality Team

**PRODUCTS**

- Ozone and PM 2.5 Regional Conformity Analysis for required all non-attainment and maintenance areas
- Conforming statewide and MPO planning documents
- Speed and VMT Database Estimation computer program
- Supply data to Division of Air Quality

**DISTRIBUTION OF ESTIMATED COST FOR 2009-2010**

<b>PERSONNEL</b>	<b>\$153,800</b>
<b>OTHER</b>	<b>\$20,000</b>
<b>TOTAL</b>	<b>\$173,800</b>

**ESTIMATED OUTSOURCING EXPENSES AND PURCHASES**

**Outsourcing /**

- \$20,000 Speed and VMT Database research program with KTC
- \$30,000 Speed model update and Travel Time Reliability project completion with KTC

**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 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.

### PROPOSED ACTIVITIES FOR 2009-2010

#### Public Riverports

- Develop an implementation plan based on the Kentucky Riverport Improvement Project.
- Develop Kentucky's guidelines for public riverport applications. Review and approve any public riverport applications received for grants.
- Plan and host Riverport Annual Meeting in conjunction with Ferryboat Annual Meeting.
- 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

- Assist with development and maintaining the statewide railroad GIS mapping and data set using aerial photographs to be used by KYTC for roadway planning and project development.
- Update the 2002 Kentucky Statewide Rail Plan contact information.
- 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.
- Review need to update passenger rail feasibility study

#### Freight

- Provide technical assistance and disseminate information to MPOs, ADDs, and project teams regarding freight movement, planning, and safety.

## CHAPTER 11

Multimodal Freight Transportation (continued)

### RESPONSIBLE UNIT

Division of Planning  
Multimodal Programs Branch

### PROPOSED ACTIVITIES FOR 2009-2010 (continued)

#### Freight (continued)

- Update the truck parking availability information along Kentucky interstates and parkways.
- Participate in regional freight planning efforts.
- Continue involvement with Delta Regional Authority (DRA), Mississippi Valley Freight Coalition (MFVC), Institute for Trade and Transportation Studies (ITTS), and National Cooperative Freight Research Program.
- 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 and Commerce 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 Discretionary Fund (FBD) Grant program. Review and prioritize applications received. Administer FBD funds. FHWA will be provided all applications for review and approval.
- Plan and host the Ferryboat Annual Meeting in conjunction with Riverport Annual Meeting.
- Conduct annual on-site visits of Kentucky Ferryboat Operations.

### PRODUCTS

- Riverport Implementation Plan
- Revised riverport application guidelines.
- Updated Statewide Rail Plan contact information
- Updating railroad GIS database and maps for KYTC purposes
- Truck Parking along Kentucky Interstates and Parkways Study database and map
- Working ferryboat operations
- ICAT documentation
- Begin updated Passenger Rail Feasibility Study
- FBD application prioritization
- Annual Waterways meeting
- Annual Railroad report to FRA

**CHAPTER 11**

Multimodal Freight Transportation (continued)

**RESPONSIBLE UNIT**

Division of Planning  
Multimodal Programs Branch

**DISTRIBUTION OF ESTIMATED COST FOR 2009-2010**

<b>PERSONNEL</b>	<b>\$122,900</b>
<b>OTHER</b>	<b>\$110,000</b>
<b>TOTAL</b>	<b>\$232,900</b>

**ESTIMATED OUTSOURCING EXPENSES AND PURCHASES**

**Other**

- \$5,000 Operation Lifesaver
- \$5,000 Kentucky Association of Riverports Dues
- \$25,000 Mississippi Valley Freight Coalition
- \$25,000 Institute for Trade and Transportation Studies
- \$50,000 Other Operational Cost

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

## CHAPTER 12

## Congestion/Mobility Management

### RESPONSIBLE UNIT

Division of Planning  
Multimodal Programs Branch

### PURPOSE AND SCOPE

During the normal transportation planning processes, traffic congestion is routinely considered when selecting and prioritizing long range planning projects. Congestion mitigation and smooth traffic flow is important for continuing operation of Kentucky's roadways. 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 2009-2010

#### Congestion and Mobility Management

- Update and maintain the web-based Kentucky Congestion Mitigation Toolbox.
- Investigate the state-of-the-practice travel-time performance measures (for use in the statewide and urban travel demand models) and opportunities to improve the measures used to identify needs and prioritize projects.
- Fund participation in the Texas Transportation Institute's (TTI) annual Urban Mobility Study (Louisville and Cincinnati regions).
- Work with TTI staff to develop recommended travel time performance measures for Kentucky. The purpose is to identify congestion problem areas and monitor performance over time.
- Maintain a park and ride GIS database of existing assets.
- Assist local governments in the development of local management programs as part of their planning processes using the model local regulations, when requested.
- Work with KYTC Division of Traffic to transport signal systems travel time data into GIS format so it can be merged with Planning HIS data as appropriate and share this data with the KYTC districts and appropriate MPOs.
- Work with FHWA-Kentucky and MSA's to development performance measure requirements and associated data requirements for MSA Congestion Management Processes.
- Work with KYTC management and Finance Cabinet as appropriate to determine and implement a statewide vanpool strategy.

#### Intersections

- Provide information and technical assistance on intersection planning, when requested.
- Participation on intersection research teams.
- Track "smart-growth" projects such as access management retrofits, roundabouts, innovative intersection treatments, and road diets using GIS. Analyze change over time.
- Assist engineers and planners on processes for considering innovative intersections during the planning process.

**CHAPTER 12**

Congestion/ Mobility Management (continued)

**RESPONSIBLE UNIT**

Division of Planning  
Multimodal Programs Branch

**PRODUCTS**

- Updated Congestion Toolbox website
- Updated Park and Ride GIS Database
- Rideshare/Vanpool Program Recommendations

**DISTRIBUTION OF ESTIMATED COST FOR 2009-2010**

<b>PERSONNEL</b>	<b>\$141,000</b>
<b>OTHER</b>	<b>\$5,000</b>
<b>TOTAL</b>	<b>\$146,000</b>

**ESTIMATED OUTSOURCING EXPENSES AND PURCHASES**

**Outsource**

- \$30,000 for 2010 for TTI Urban Mobility Study

**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 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 2009-2010**

- Prepare traffic estimates for planning studies, design projects, environmental analysis, and other purposes, as needed.
- Administer statewide traffic forecasting contracts and provide quality review for traffic projections made by the MPOs and planning 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 factors and K-factors/D-factors for the Highway Performance Monitoring System (HPMS).
- Update ESAL tables utilizing 2008 vehicle classification data
- Update ESAL Forecasting for Superpave computer program
- Update the annual Traffic Forecast Report (TFR) utilizing KTC.
- 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, which is a peer group for traffic forecasters and traffic modelers composed of members from government, academia, and the private sector.
- Develop refinements and incorporate into KySTM model an estimation process for future traffic distribution. Document the process.
- 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 small area and county-wide models using a standardized interface.

#### **PRODUCTS**

- Corridor or other traffic forecasts as requested
- Travel time Studies
- Traffic forecast factors for HPMS
- Design tools for consultants and District (e.g. ESAL Calculator; look-up tables)

**CHAPTER 13**

Traffic Data Forecasting (continued)  
Statewide Traffic Model

**RESPONSIBLE UNIT**

Division of Planning  
Multimodal Programs Branch  
Forecasting and Modeling Team

**PRODUCTS (continued)**

- City/County/MPO & Statewide Traffic Models will include, but not be limited to the following:  
Madison County  
Pulaski/Laurel County  
Paducah/McCracken County - new air quality concern area  
Lebanon/Marion County -SPAC suggestion  
Middlesboro/ Bell County - SPAC suggestion

**DISTRIBUTION OF ESTIMATED COST FOR 2009-2010**

<b>PERSONNEL</b>	<b>\$433,239</b>
<b>OTHER</b>	<b>\$5,000</b>
<b>TOTAL</b>	<b>\$438,239</b>

**ESTIMATED OUTSOURCING EXPENSES AND PURCHASES**

**Outsourcing /**

- \$50,000 for annual ESAL table and program updates by KTC
- \$25,000 for annual Traffic Forecasting Report updates by KTC
- \$25,000 for KySTM enhancements/updates (outsource)
- \$180,439 for County Wide Traffic models (outsource)

**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 14**

## **Bicycle and Pedestrian Program**

### **RESPONSIBLE UNIT**

Division of Planning  
Modal Programs Branch

### **PURPOSE AND SCOPE**

The team will coordinate the state's Bicycle and Pedestrian Program, develop a statewide bikeway system, and work within Transportation and with other Cabinets. They will work to expand non-motorized transportation opportunities in Kentucky by providing assistance to local governments and groups as requested. This assistance will be in the form of technical advice, development of plans, and coordinating studies. The responsibility of the Kentucky Bicycle and Pedestrian Coordinator is to prepare, assist, and promote bicycle and safety programs throughout the state and to recommend opportunities for bicycle-pedestrian facilities for proposed highway improvements. The Bicycle and Pedestrian Coordinator will also act as secretariat for the Kentucky Bicycle and Bikeway Commission to provide assistance to the general public, municipal governments, and other state agencies in the planning and development of bicycle and pedestrian facilities and programs.

The Bicycle and Pedestrian team will coordinate with the Cabinet for Tourism, Arts and Heritage, the Government of Local Development as well as the Cabinet for Health and Family Services to promote pedestrian and bicycle travel.

The Office of Local Programs coordinates several programs that support and encourage bicycling and walking as viable forms of transportation. The team will coordinate with them, especially in regards to Safe Routes to School, Scenic Byways, Transportation Enhancements, Recreational Trails, and CMAQ programs.

### **PROPOSED ACTIVITIES FOR 2009-2010**

- Assist local governments in the development of local bicycle and pedestrian network facilities and plans.
- 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.
- Promote pedestrian and bicycle safety and facilities.
- Revise and update the statewide bike-route system and associated maps.
- Facilitate the increased use and public education of non-motorized modes of transportation.
- Plan a bicycle and pedestrian safety conference.
- Update the Kentucky bicycle and pedestrian plan.
- Participate in the Cabinet's Strategic Safety Plan update.
- Review and revise the Kentucky Bicycle and Pedestrian Policy as needed.
- Coordinate the Annual Share the Road Rally.
- Seek and Develop Training for Planning, Design, and Environmental Staff.

**CHAPTER 14**

Bicycle and Pedestrian Program (continued)

**RESPONSIBLE UNIT**

Division of Planning  
Modal Programs Branch

**PRODUCTS**

- Development of a revised Bicycle and Pedestrian Plan and a Policy
- Preparations for the annual Share the Road Rally in 2009
- Preparations for the annual KBBC meeting in 2010
- Updated bicycle and pedestrian brochures and promotional materials
- Attend national Conference

**DISTRIBUTION OF ESTIMATED COST FOR 2009-2010**

<b>PERSONNEL</b>	<b>\$94,200</b>
<b>OTHER</b>	<b>\$31,300</b>
<b>TOTAL</b>	<b>\$125,500</b>

**ESTIMATED OUTSOURCING EXPENSES AND PURCHASES**

**Other**

- \$3,300 for Kentucky Bicycle and Bikeway Commission Annual Meeting
- \$5,500 for Share the Road Rally event
- \$7,500 for Bicycle and Pedestrian Brochures and Bicycle Route Tour Guides
- \$10,000 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 Operation  
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 2009-2010**

- 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 Districtwide/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 2009-2010**

<b>PERSONNEL</b>	<b>\$300,000</b>
<b>OTHER</b>	<b>\$</b>
<b>TOTAL</b>	<b>\$300,000</b>

**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.