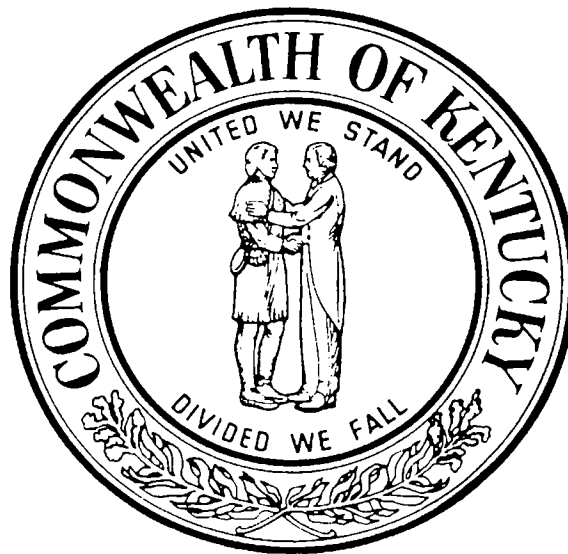


# **PLANNING WORK PROGRAM**

SP 0007 (001)  
JUNE 16, 2006 – JUNE 15, 2007



**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 0007 (001)  
June 16, 2006 through June 15, 2007**

**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, with a summary of the Research Parts II and III. 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.

In performing the planning activities, the Kentucky Transportation Cabinet has many partners. In this year's work program, those partners are outlined. 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. At times, we also work with the Kentucky Transportation Center to perform research that Parts II and III of the research program are unable to accommodate, and to also perform one of the required 500 Series FHWA reports. The consulting industry is also used at times when additional resources are needed. Those partners are addressed in Exhibits Two and Three (except for the consulting industry) in this year's work program.

Continuing in this year's work program is continued activities related to the upgrade of the Cabinet's Highway Information System (HIS) database to a newer version. As with any upgrade, there are various changes in process and activities that need to be made as well as continued fixes to the database to meet the Cabinet's data requirements. There is also a continued emphasis to install additional loops at high volume locations to obtain volume and class counts in a safe and efficient manner. To align with the HIS upgrade, we also seek to improve the quality of the data that is maintained in the databases. This year we anticipate efforts to collect and update data that is maintained in HIS.

We will continue the pilot program to combine the effort of the rural and MPO planning activities within FIVCO. We did not expand the program to other combined agencies this year in order to further evaluate the effectiveness of the combination as well as to determine what adjustments need to be made to work programs to further streamline their planning efforts. In the Air Quality area we will continue to evaluate and assist with conformity analysis for the PM 2.5 Fine Particulate Standard. Small Urban Studies will focus on a revised process that will address more directly operational and performance improvements that will enable the Cabinet to maximize the efficiency of the existing transportation network in a more cost effective manner. With the recent merger of the Divisions of Planning and Multimodal Programs, we now have a Modal Branch that is charged with modes other than highways which includes freight, waterways, rail, bicycle, pedestrian, and other related issues.

Because of downsizing efforts within the Cabinet, additional 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. We also anticipate working this upcoming year to further evaluate the planning provisions in SAFETEA-LU and work toward compliance both in the Statewide and MPO areas. Please refer to each chapter contained within this work program for more details.

## **FOREWARD**

This Planning Program SP 0007 (001) for the period June 16, 2006 to June 15, 2007 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). 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.

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 2007 are reported in detail by Volume and Chapter in this Work Program.

We expect the majority of activities in this Work Program to be completed by June 15, 2007. Those items that are not complete by June 15 will be identified in the Annual Performance and Expenditure Report

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

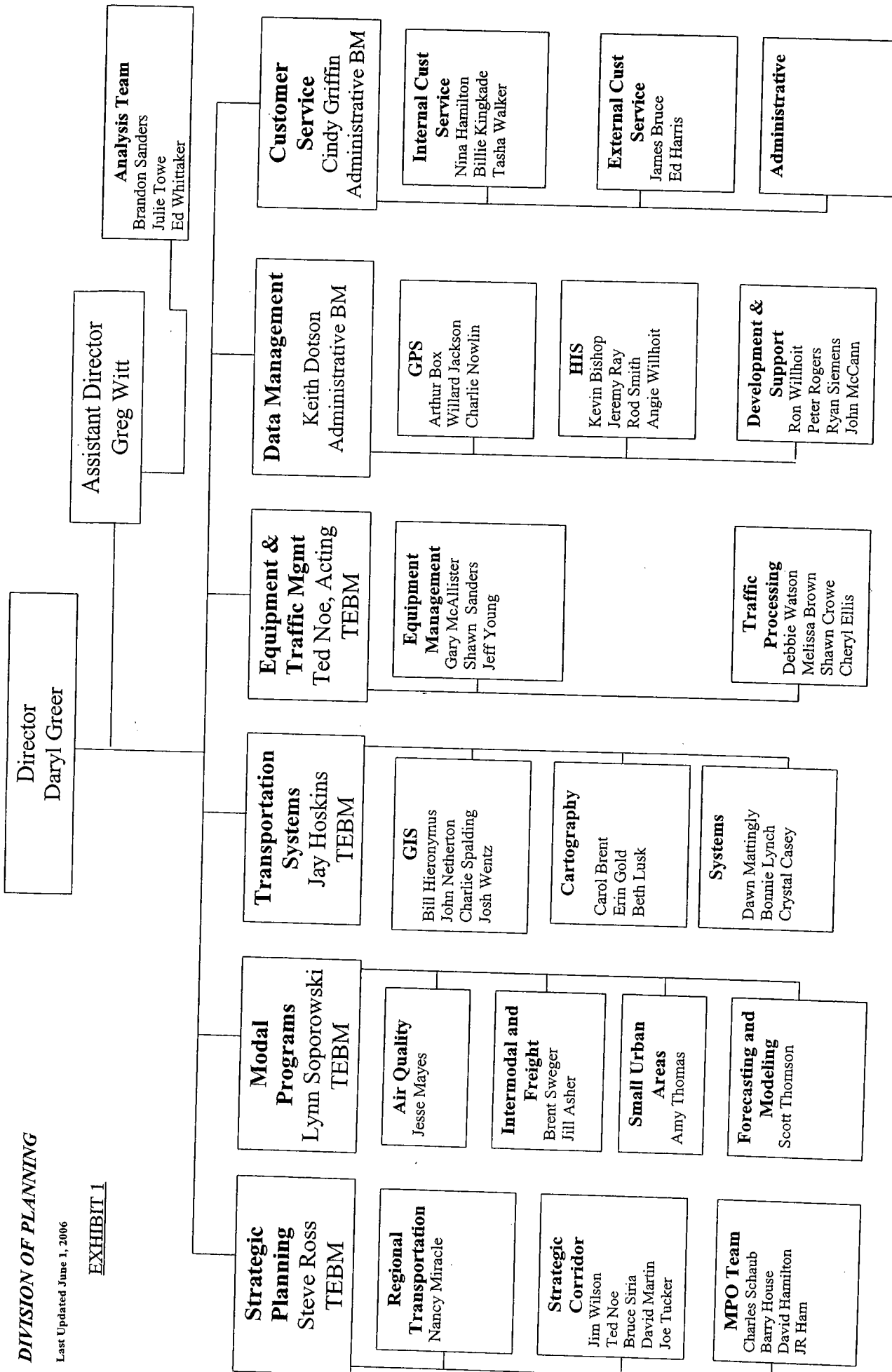
Administrative activities that are directly attributable to a work program chapter will be charged to the appropriate work program chapter.

Costs for development of the Annual SPR Work Program and Planning and Expenditures Report will be distributed among the work program chapters.

**DIVISION OF PLANNING**

Last Updated June 1, 2006

**EXHIBIT 1**



**EXHIBIT 2**  
**KENTUCKY TRANSPORTATION CABINET**  
**DEPARTMENT OF HIGHWAYS**  
**FISCAL YEAR 2007**  
**Subpart A- ADMINISTRATION OF FHWA PLANNING AND RESEARCH FUNDS**

<u>PROGRAM IDENTITY</u>	<u>FEDERAL</u>	<u>STATE MATCH</u>	<u>LOCAL MATCH</u>	<u>OTHER</u>	<u>TOTAL</u>
<b>PLANNING</b>					
SPR-Part I					
District Office Planning Personnel Cost	\$4,501,500	\$1,483,400			\$5,984,900
<i>Sub-Total Personnel Cost</i>	\$1,328,300	\$437,700			\$1,766,000
	\$5,829,800	\$1,921,100			\$7,750,900
Other Cost	\$3,296,300	\$167,300		*\$7,680,000	\$3,463,600
<b>Partner Agencies **</b>					<b>\$11,214,500</b>
Metropolitan Planning Organizations					
PL Funded MPO Planning Budgeted	\$1,890,367	\$118,148	\$354,444		\$2,362,959
PL Discretionary Fund	\$248,000	\$62,000			\$310,000
<i>Total PL Funds</i>	<i>\$2,138,367</i>	<i>\$118,148</i>	<i>\$416,444</i>		<i>\$2,672,959</i>
ADD Regional Transportation Program (State Funds)		\$798,600	\$88,734		
ADD Regional Transportation Program (General Funds)		\$400,000	\$44,444		\$444,444
<i>Total ADD funds</i>		<i>\$1,198,600</i>	<i>\$133,178</i>		<i>\$444,444</i>
<b>TOTALS - PLANNING</b>					<b>\$13,887,459</b>

\*Six-Year Highway Plan charged to projects, not SPR.

\*\* See Exhibits 2 and 3 for more detail

Note: Potential Outsourced Items are indicated in each chapter

**EXHIBIT 3**

**FHWA FUNDING AVAILABILITY**

Status of Funds as of 5/30/2006

<b>Fund</b>	<b>Code</b>	<b>Unobligated Balance</b>
2% Highway Planning & Research	O810	40,401.02
2% Highway Planning & Research – STEA03	H550	4,787,248.71
Statewide Planning 2%	L550	6,959,697.00
<b>Total Available SPR</b>		<b>\$11,787,346.73</b>
1% Metropolitan Planning	O850	29,672.75
1% Metropolitan Planning – STEA03	H450	1,170,770.00
Metropolitan Planning 1.25% Takedown	L450	2,232,520.00
1% Metropolitan Planning – TEA21	Q450	29,266.01
<b>Total Available PL</b>		<b>\$3,462,228.76</b>

**KENTUCKY TRANSPORTATION CABINET  
OFFICE OF BUDGET AND FISCAL MANAGEMENT  
2006-2008 BIENNIAL BUDGET (HB 380)  
FY 2006-07**

**Project Budget Unit**

**FH03 – SPR Planning**

State Road Fund	Personnel	1,921,100.00
	<u>Operating</u>	<u>167,300.00</u>
	Total State Road Funds	2,088,400.00
Federal Funds	Personnel	5,829,800.00
	<u>Operating</u>	<u>3,296,300.00</u>
	Total Federal Funds	9,126,100.00

**Total FH03 Funds** **\$11,214,500.00**

**FH04 – Metropolitan Planning**

State Road Funds	Personnel	240,300.00
Federal Funds	Personnel	2,291,900.00

**Total FH04 Funds** **\$2,532,200.00**



**KENTUCKY TRANSPORTATION CABINET  
DEPARTMENT OF HIGHWAYS  
FISCAL YEAR 2007**

**SPR RESEARCH PART II AND PART IIIB WORK PROGRAM**

<b>PROGRAM IDENTITY</b>	<b>FEDERAL</b>	<b>STATE MATCH</b>	<b>TOTAL</b>
SPR-Part II Research	\$3,329,600	\$832,400	\$4,162,000
FY 06 Carryover Funds	\$358,000	\$89,500	\$447,500
Part III B Research		\$220,000	\$220,000
NCHRP Dues	\$600,000		\$600,000
Pooled Funds	\$100,000		\$100,000
<b>TOTALS</b>	<b>\$4,387,600</b>	<b>\$1,141,900</b>	<b>\$5,529,500</b>

**EXHIBIT 4  
FISCAL YEAR 2006-2007  
BUDGETS  
FOR  
REGIONAL TRANSPORTATION PROGRAM  
IN THE  
AREA DEVELOPMENT DISTRICTS**

ADD	Regional Planning Program				
	Road Fund (State)	General Fund (State)	State Totals 90%	Local Match 10%	TOTAL PROGRAM 90/10
BARREN RIVER	\$53,557.00	\$27,080.00	\$80,637.00	\$8,960.00	\$89,597.00
BIG SANDY	\$45,963.00	\$23,240.00	\$69,203.00	\$7,689.00	\$76,892.00
BLUEGRASS	\$74,178.00	\$36,240.00	\$110,418.00	\$12,267.00	\$122,685.00
BUFFALO TRACE	\$45,963.00	\$23,240.00	\$69,203.00	\$7,689.00	\$76,892.00
CUMBERLAND VALLEY	\$53,557.00	\$27,080.00	\$80,637.00	\$8,960.00	\$89,597.00
FIVCO	\$45,963.00	\$23,240.00	\$69,203.00	\$7,689.00	\$76,892.00
GATEWAY	\$45,963.00	\$23,240.00	\$69,203.00	\$7,689.00	\$76,892.00
GREEN RIVER	\$53,557.00	\$27,080.00	\$80,637.00	\$8,960.00	\$89,597.00
KIPDA	\$53,557.00	\$27,080.00	\$80,637.00	\$8,960.00	\$89,597.00
KENTUCKY RIVER	\$53,557.00	\$27,080.00	\$80,637.00	\$8,960.00	\$89,597.00
LAKE CUMBERLAND	\$53,557.00	\$27,080.00	\$80,637.00	\$8,960.00	\$89,597.00
LINCOLN TRAIL	\$53,557.00	\$27,080.00	\$80,637.00	\$8,960.00	\$89,597.00
NORTHERN KENTUCKY	\$53,557.00	\$27,080.00	\$80,637.00	\$8,960.00	\$89,597.00
PENNYRILE	\$53,557.00	\$27,080.00	\$80,637.00	\$8,960.00	\$89,597.00
PURCHASE	\$58,557.00	\$27,080.00	\$85,637.00	\$9,515.00	\$95,152.00
TOTAL	\$798,600.00	\$400,000.00	\$1,198,600.00	\$133,178.00	\$1,331,778.00

Note: State Match (90%) and Local Match (10%)

**Exhibit 5**  
**PL Funds for MPO Unified Planning Work Programs for FY 2007**

MPO AREA	TOTAL FY 2007 PL Funding							TOTAL		FED+ST FUNDING	
	Fed \$	Fed %	State \$	State %	Local \$	Local %	F+S+L=\$	100%	F+S= \$	F+S = %	
LOUISVILLE	\$ 1,099,540	80.00%	\$ 57,221	4.16%	\$ 217,664	15.84%	\$ 1,374,425		\$ 1,156,762	84.16%	
NORTHERN KY	\$ 346,529	80.00%	\$ 21,658	5.00%	\$ 64,974	15.00%	\$ 433,161		\$ 368,187	85.00%	
LEXINGTON	\$ 291,410	80.00%	\$ 18,213	5.00%	\$ 54,639	15.00%	\$ 364,262		\$ 309,623	85.00%	
HENDERSON	\$ 28,877	80.00%	\$ 1,805	5.00%	\$ 5,414	15.00%	\$ 36,096		\$ 30,682	85.00%	
OWENSBORO	\$ 78,561	80.00%	\$ 4,910	5.00%	\$ 14,730	15.00%	\$ 98,201		\$ 83,471	85.00%	
ASHLAND	\$ 69,776	80.00%	\$ 4,361	5.00%	\$ 13,083	15.00%	\$ 87,220		\$ 74,137	85.00%	
CLARKSVILLE / OAK GROVE	\$ 26,307	80.00%	\$ 1,644	5.00%	\$ 4,932	15.00%	\$ 32,883		\$ 27,951	85.00%	
BOWLING GREEN	\$ 95,323	80.00%	\$ 3,958	3.32%	\$ 19,873	16.68%	\$ 119,153		\$ 99,280	83.32%	
RADCLIFF-ELIZABETHTOWN	\$ 102,044	80.00%	\$ 4,378	3.43%	\$ 21,133	16.57%	\$ 127,555		\$ 106,422	83.43%	
<b>TOTALS</b>	<b>\$ 2,138,367</b>		<b>\$ 118,148</b>		<b>\$ 416,444</b>		<b>\$ 2,672,958</b>		<b>\$ 2,256,514</b>		
Discretionary for Separate Contract	\$ 248,000	80.00%		0.00%	\$ 62,000	20.00%	\$ 310,000		\$ 248,000	80.00%	
PL Base Budget Total	\$ 1,890,367	80.00%	\$ 118,148	5.00%	\$ 354,444	15.00%	\$ 2,362,958		\$ 2,008,514	85.00%	
PL Discretionary Total	\$ 248,000	80.00%		0.00%	\$ 62,000	20.00%	\$ 310,000		\$ 248,000	80.00%	

State funds are 5% of formula funds (base budget) only.  
 Local funds do not flow through the Cabinet.  
 Discretionary for Separate Contract will be divided into 4 projects in 3 MPO areas.  
 State does not provide the match for discretionary funds. Match will be provided by the local agencies.  
 - Nashville Road Circulation Study, Bowling Green  
 - Fort Knox Traffic Circulation Study, Radcliff-Elizabethtown  
 - Taylorsville Road (KY 155) Study, Louisville  
 - Rehl Road Interchange Traffic Operations Study, Louisville

## CHAPTER FUNDING SUMMARY

<u>CHAPTER</u>	<u>TITLE</u>	<u>AMOUNT</u>
1	Personnel Training	\$563,140
2	Equipment Management	\$1,433,840
3	Traffic Data Collection and Processing	\$2,615,840
4	Strategic Corridor Planning	\$621,140
5	Statewide Transportation Planning	\$910,540
6	Roadway Systems	\$612,040
7	Geographic Information Systems (GIS)	\$342,740
8	Cartography	\$445,440
9	GPS/HIS Support	\$236,740
10	Global Positioning System (GPS)	\$310,760
11	Highway Information System	\$476,160
12	Special Analysis	\$231,460
13	Air Quality Conformity Analysis Program	\$219,760
14	Metropolitan Planning Organizations	\$597,160
15	Small Urban Areas Studies	\$237,960
16	Multimodal Planning and Technical Assistance	\$555,060
17	Statewide Congestion, Mobility, and Access Management	\$153,380
18	Traffic Data Forecasting	\$285,680
19	Statewide Traffic Model	\$132,880
20	Area Development District Inventory	\$232,780
	TOTAL	\$11,214,500

**CHAPTER 1:** 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. This is particularly essential to the Cabinet's multimodal/intermodal programs as more and better technical analyses and assistance are required.

**PROPOSED ACTIVITIES FOR 2006-2007:** 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 conference/workshops or like training:

- Highway Performance Monitoring System (HPMS) (Chapter 12–Highway Information System)
- Highway Economic Requirements System (HERS) and other economic modeling training (Chapter 13–Special Analysis)
- Exor (upgrade of Highway Information System) (Chapter 12–Highway Information System)
- TransCAD Traffic Model Training (Chapter 19–Traffic Data Forecasting)
- Modeling Conferences and Training (Chapter 19–Traffic Data Forecasting)
- Small and Medium Sized Communities Conference (Chapter 6–Statewide Transportation Planning, Chapter 15–Metropolitan Planning Organizations)
- National Access Management Conference (Chapter 18–Statewide Congestion, Mobility, and Access Management)
- NATMEC (Chapter 3–Equipment Management, Chapter 4–Traffic Data Collection and Processing)
- TMG training (Chapter 3–Equipment Management, Chapter 4–Traffic Data Collection and Processing)
- Reauthorization and mobility measures training (Chapter 18–Statewide Congestion, Mobility, and Access Management)
- Bike/Ped Conference(Chapter 17–Statewide Congestion, Mobility, and Access Management)
- Socioeconomic Analysis and Public Involvement Plan Development (Chapter 6–Statewide Transportation Planning, Chapter 15–Metropolitan Planning Organizations)
- ArcGIS (Chapter 8–Geographic Information Systems)
- Air Quality (Chapter 14–Air Quality Conformity Analysis Program)
- Roundabouts (Chapter 18–Statewide Congestion, Mobility, and Access Management)
- Highway Capacity (Chapter 5–Strategic Corridor Planning, Chapter 16–Small Urban Areas Studies)
- STAQ (Chapter 14–Air Quality Conformity Analysis Program)
- CORSIM (Chapter 18–Statewide Congestion, Mobility, and Access Management)

**CHAPTER 1:** Personnel Training (continued)

**RESPONSIBLE UNIT:** Division of Planning

**PROPOSED ACTIVITIES FOR 2006-2007 (continued):**

- Accident analysis (Chapter 5–Strategic Corridor Planning)
- Safety conscious planning (Chapter 6–Statewide Transportation Planning, Chapter 15–Metropolitan Planning Organizations)
- Freight movement (Chapter 17–Statewide Congestion, Mobility, and Access Management)
- Rural transportation planning (Chapter 6–Statewide Transportation Planning)
- National Environmental Policy Act (Chapter 5–Strategic Corridor Planning)
- Land use (Chapter 18–Statewide Congestion, Mobility, and Access Management)
- Access management (Chapter 18–Statewide Congestion, Mobility, and Access Management)
- Road User Cost Analysis (Chapter 13–Special Analysis)
- GIS systems (Chapter 8–Geographic Information Systems)
- Congestion Management Systems (Chapter 18–Statewide Congestion, Mobility, and Access Management)
- MPO and rural planning (Chapter 6–Statewide Transportation Planning, Chapter 15–Metropolitan Planning Organizations)

We will also provide annual in-state Traffic Data Recorder Training for District Personnel and training for the District Planning personnel in procedures, etc.

**PRODUCTS**

- Personnel with career development opportunities, improved technological skills, broadened knowledge, and enhanced capabilities

**DISTRIBUTION OF ESTIMATED COST FOR 2006-2007**

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
<b>PERSONNEL</b>	\$75,320	\$18,820	\$8,000	\$2,000	\$104,140
<b>OTHER</b>	*\$362,400	*\$90,600	\$4,800	\$1,200	\$459,000
<b>TOTAL</b>	\$437,720	\$109,420	\$12,800	\$3,200	\$563,140

\*Includes bringing in outside training for KYTC, MPOs and ADDs for socioeconomic analysis, public involvement, or other needs as necessary.

**CHAPTER 2:**

Equipment Management

**RESPONSIBLE UNIT:**

Division of Planning  
Traffic and Equipment Management Activity Center  
Equipment Management Team

**PURPOSE AND SCOPE:** This 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.

**PROPOSED ACTIVITIES FOR 2006-2007:**

- Collect volume and classification data on 200 interstate stations
  - Collect data at approximately 250 regularly scheduled volume and classification stations to assist District efforts
  - Collect, process, analyze, and submit quarterly one week of weigh-in-motion (WIM) data at 28 permanent WIM stations
  - Periodically calibrate and assess equipment for adjustments in order to obtain quality data
  - Collect, process, and submit 48 hours of WIM data at ten portable WIM stations
  - Install and maintain permanent vehicle sensors at approximately 30 high volume locations
  - Repair and maintain 80+ Automatic Traffic Recorders (ATR) and install additional stations as necessary
  - 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 600 traffic data recorders
  - Inspect, repair, and maintain 400 permanent vehicle sensor locations
  - Track emerging highway projects and produce plans and specifications for new and replacement traffic sensor installations for submittal into construction and pavement rehabilitation contracts
  - Oversee any outside assistance necessary to assist this team in accomplishing the above tasks
- 
- Repair and maintenance of equipment is estimated to include the following:

## WORK PROGRAM 2006-2007

Item Description	Quantity	Unit Cost	Total Cost
Asphalt cold patch	20	\$5.00	\$100.00
ATR station repair parts (surge panel, low V disconnects, solar reg, fuses, harnesses)	1	\$5,000.00	\$5,000.00
Band-it and accessories	1	\$500.00	\$500.00
Batteries, equipment, 1.5V etc.	1	\$1,000.00	\$1,000.00
Batteries, Storage, 12V	10	\$60.00	\$600.00
Batteries, Storage, 6V	50	\$25.00	\$1,250.00
Cables and parts (hoods, connectors, etc.)	1	\$1,000.00	\$1,000.00
Cleaning supplies, (solvent, towels, hand cleaner, brushes, buckets, etc.)	1	\$1,500.00	\$1,500.00
Concrete (cabinet and pole bases)	150	\$3.00	\$450.00
Concrete Saw Accessories- Blades, water pumps, gaskets, hoses	3	\$500.00	\$1,500.00
Conduit, (Various sizes, types and fittings)	1	\$3,000.00	\$3,000.00
Electronic Components (diodes, capacitors, soldering iron, solder, etc.)	1	\$500.00	\$500.00
Epoxy (for piezo installations)	200	\$90.00	\$18,000.00
Equipment, rental	5	\$200.00	\$1,000.00
Equipment, test (electrical, piezo, ground, meters, o'scope, loop, modem)	1	\$2,000.00	\$2,000.00
Equipment, Traffic Data Recorder, (replacements for stolen, damaged beyond repair)	10	\$1,500.00	\$15,000.00
Equipment, Traffic Data Recorder, (WIM capable)	4	\$10,000.00	\$40,000.00
Equipment, Traffic Data Recorder, repair parts	1	\$10,000.00	\$10,000.00
Equipment Traffic Data Recorders for use w/ existing ITS monitoring stations	4	\$6,000.00	\$24,000.00
Erosion Control, (mulch, nuggets, straw, etc.)	100	\$7.50	\$750.00
Fasteners, (screws, nuts, bolts, nails, clamps, banding, brackets, straps, etc.)	1	\$2,000.00	\$2,000.00
Hardware, roadway - Chain	5	\$200.00	\$1,000.00
Hardware, roadway - Chinese Fingers	500	\$3.00	\$1,500.00
Hardware, roadway - Figure 8's	1000	\$1.20	\$1,200.00
Hardware, roadway - Nails, PK (boxes)	16	\$20.00	\$320.00
Hardware, roadway - Nails, Spikes	150	\$1.00	\$150.00
Hardware, roadway - Tube clamps	200	\$0.60	\$120.00
Inverters/power strips	3	\$250.00	\$750.00
Jbox, (6x6x4, 10x8x4.6)	50	\$50.00	\$2,500.00
Jbox, Type B	20	\$250.00	\$5,000.00
Labels (repair tags, warning labels, wire numbers, etc.)	1	\$1,000.00	\$1,000.00
Loop Sealant	1200	\$8.00	\$9,600.00



Item Description	Quantity	Unit Cost	Total Cost
<b>Loop/Piezo Installation Materials</b> , (mixing buckets, putty knives, spatulas, electrical tape, marking crayons, butt splices, spade lugs, drill bits, hole saws, etc.)	1	\$1,500.00	\$1,500.00
Modems	15	\$300.00	\$4,500.00
<b>Paint</b> and accessories (brushes, buckets, rollers, handle extensions	1	\$500.00	\$500.00
Pesticide and Herbicide	1	\$500.00	\$500.00
Phone parts and accessories	1	\$100.00	\$100.00
Piezo Cables	40	\$500.00	\$20,000.00
Poles, telescopic poles for equipment mounts	4	\$275.00	\$1,100.00
Radio, hand-held	4	\$50.00	\$200.00
Road Tubing (.2845/feet)	15,000	\$0.30	\$4,500.00
<b>Safety apparel</b> , (Goggles, gloves, ear protection, rain suits, hard hats, vests, flashlights, etc.)	1	\$1,000.00	\$1,000.00
Sealant, waterproof (silicone, duct seal, etc.)	1	\$250.00	\$250.00
Solar panels	10	\$200.00	\$2,000.00
Splice Kits (\$7.40 each)	80	\$7.50	\$600.00
Tape Primer	30	\$10.00	\$300.00
Tape, bookbinding	1	\$1,000.00	\$1,000.00
Tape, asphalt tape in various sizes and types	1	\$6,000.00	\$6,000.00
Toolboxes, containers	5	\$30.00	\$150.00
<b>Tools, hand tools</b> (shovels, rakes, picks, hammers, pliers, cutters, pneu. and hand caulk guns, screwdrivers, meas. tape, etc.)	1	\$1,500.00	\$1,500.00
<b>Tools, small power</b> (drills, weed eater, leaf blower, power washer, rechargeable batteries, etc.)	1	\$1,000.00	\$1,000.00
Traffic Control	1	\$35,000.00	\$35,000.00
Training, (annual counter technician tng)	1	\$3,000.00	\$3,000.00
Uniforms	52	\$30.00	\$1,560.00
Vehicle, accessories - dash hardware, safety lights, etc.	1	\$1,500.00	\$1,500.00
Vehicles, per month operating cost, Central Office	12	\$2,500.00	\$30,000.00
Vehicles, per month operating cost, Districts	12	\$5,100.00	\$61,200.00
Wire, 4 pair	500	\$1.00	\$500.00
Wire, loop	50000	\$0.06	\$3,000.00
Wire, piezo coax	1	\$500.00	\$500.00
Wood, (posts, plywood, forms, boards, shelving, etc.)	10	\$25.00	\$250.00
Misc.	1	\$1,000.00	\$1,000.00

**GRAND TOTAL**

**\$336,500.00**

**CHAPTER 2:** Equipment Management (continued)

**RESPONSIBLE UNIT:** Division of Planning  
Traffic and Equipment Management Activity Center  
Equipment Management Team

**PRODUCTS**

- Volume and Classification data from permanent installations
- Weigh-in-motion data
- Installed and maintained permanent vehicle sensor locations at high volume or other locations where it is infeasible to conduct portable counts
- Installed and maintained permanent Automatic Traffic Recorders (ATRs)
- Special Counts

**DISTRIBUTION OF ESTIMATED COST FOR 2006-2007**

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
<b>PERSONNEL</b>	\$335,160	\$83,780	\$28,000	\$7,000	\$453,940
<b>OTHER*</b>	\$778,320	\$191,580	\$8,000	\$2,000	\$979,900
<b>TOTAL</b>	\$1,113,480	\$275,360	\$36,000	\$9,000	\$1,433,840

\* This includes the purchase of new counting equipment and vehicles for central office personnel, an estimated \$120,000 for WIM research and an estimated \$147,000 for new traffic count or WIM loop sites. Equipment and vehicle purchases not specifically itemized in this chapter will be submitted to FHWA for individual approval.

**CHAPTER 3:**

## Traffic Data Collection and Processing

**RESPONSIBLE UNIT:**

Division of Planning  
Traffic and Equipment Management Activity Center  
Traffic Data Collection and Processing Team

**PURPOSE AND SCOPE:** Working with our Highway District Offices we 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 2006-2007:**

- Work with the Highway District Offices to perform approximately 6,500 regularly scheduled short-duration portable machine counts. These counts are one-third of all short-duration traffic count stations in the state and are now performed on a three-year cycle.
- Vehicle classification data at approximately 1,500 stations will be collected and processed. This is the beginning of an effort to increase the number of classification stations to 25-30% of all traffic count stations in accordance with the Traffic Monitoring Guide.
- Review, assign, process, analyze, and distribute data for approximately 400 special count stations that have been requested by outside divisions.
- Download, process, maintain, and analyze data from 80+ permanent ATR stations. Review operation with Equipment Management Team for proper operation, locations, and coverage for possible new ATR station installations.
- Maintain, update, analyze, provide quality control and assurance of data, and make available data from more than 13,500 traffic count stations.
- Update axle, monthly factors used in adjusting short counts, such as weekly, monthly, and axle correction factors from data collected at ATR and vehicle classification stations.
- 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.
- Work with the FHWA to document the entire 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 analyzation 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. Begin the process of converting the existing vehicle classification file from a mainframe to a PC environment.

**CHAPTER 3:** Traffic Data Collection and Processing (continued)

**RESPONSIBLE UNIT:** Division of Planning  
 Traffic and Equipment Management Activity Center  
 Traffic Data Collection and Processing Team

**PRODUCTS**

- Short-duration portable machine volume and classification counts
- Processed data for special count stations
- Processed 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

**DISTRIBUTION OF ESTIMATED COST FOR 2006-2007**

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
<b>PERSONNEL</b>	\$195,000	\$48,740	\$600,000	\$150,000	\$993,740
<b>OTHER</b>	*\$937,680	*\$234,420	*\$360,000	*\$90,000	\$1,622,100
<b>TOTAL</b>	\$1,132,680	\$283,160	\$960,000	\$240,000	\$2,615,840

\*Includes \$660,000 to outsource for assistance with data collection and \$350,000 for the purchase of integrated Traffic Management System software. Also, includes purchases of new vehicles for central office and District personnel. Each vehicle purchase will be submitted for individual approval.

**CHAPTER 4:** Strategic Corridor Planning

**RESPONSIBLE UNIT:** Division of Planning  
Strategic Planning Activity Center  
Strategic Corridor Planning Team

**PURPOSE AND SCOPE:**

- Enhance and continue to update an evaluation/scoring process for prioritizing projects for inclusion in the Six-Year Highway Plan and the Unscheduled Projects List
- Evaluate system and corridor needs for the state maintained roadway network
- Analyze data to measure performance of the transportation network and identify needs
- Continue to evaluate and update a “backbone” highway network for the Commonwealth and identify needs on said network
- Evaluate system and local needs of small urban areas (population less than 50,000) and recommend ways to improve safety and reduce congestion throughout the system
- Perform the necessary level of planning to do the following:
  - Develop a conceptual purpose and need statement
  - Identify major environmental issues including environmental justice
  - Initiate consultation with local officials
  - Initiate agency coordination
  - Involve the public early and often for projects listed in the Six-Year Highway Plan and Statewide Transportation Plan (Long-Range Plan)
  - Identify and evaluate alternatives, generate project cost estimates, and recommend phasing priorities
  - Oversee outsourced activities
- Prepare brief technical project studies, interchange justification studies, and/or other special studies
- Evaluate and research techniques to better inform and involve the public about the project development process
- Work with the Highway District Offices (HDOs), Metropolitan Planning Organizations (MPOs), and Area Development Districts (ADDs) as needed to complete necessary tasks

**PROPOSED ACTIVITIES FOR 2006-2007:**

- Score, evaluate, and prioritize projects in the current Six-Year Highway Plan and Unscheduled Projects List (UPL), using available data such as adequacy ratings or other information to provide executive staff with a tool to analyze projects for possible inclusion in future Six-Year Highway Plans. Brief scoping efforts may be conducted on these proposed projects to further define the project description, need, and cost prior to programming.
- Continue to update and identify needs for a major transportation “backbone” network for the Commonwealth that serves as the major skeletal support for the other minor roadways.

**CHAPTER 4:**

Strategic Corridor Planning (continued)

**RESPONSIBLE UNIT:**

Division of Planning  
Strategic Planning Activity Center  
Strategic Corridor Planning Team

**PROPOSED ACTIVITIES FOR 2006-2007 (continued):**

- Develop policy and procedures for project selection for the Six-Year Highway Plan based on data driven needs, “backbone” network needs, and Cabinet goals and objectives. Based on scheduled design starts or programmed planning phases, projects will be selected from the Six-Year Highway Plan (first priority) or the higher needs of the UPL for analysis. This may include:
  - a conceptual purpose and need statement
  - Developing/Establishing an environmental footprint
  - Identifying major environmental issues for each project
  - Coordinating with various agencies and organizations
  - Initiating consultation with local officials and other stakeholders including potential affected minority and low-income populations as appropriate
  - Participating in a public involvement process to solicit input about project needs and requirements
  - Defining project concepts and alternatives
  - Selecting preferred concepts and/or alternatives as appropriate
  - Developing cost estimates for project concepts and alternatives
  - Developing phasing priorities for implementation of the preferred concept/alternative
- Review and evaluate Project Identification Forms for needed improvements and updates
- Develop policy and procedures for evaluating system and local needs of small urban areas. This may include:
  - Analyzing road system data
  - Identifying problem spots
  - Coordinating a multidisciplinary field review
  - Initiating consultation with local officials
  - Developing project concepts to improve safety and reduce congestion
  - Recommending preferred concept as appropriate
- Work with HDOs to do the following:
  - Set up team meetings
  - Review and completing cost estimates
  - Participate in project teams
  - Set up public involvement activities
  - Conduct early project planning and special studies
- Work with MPOs and ADDs to do the following:
  - Set up meetings
  - Evaluate environmental justice issues
  - Evaluate study issues
  - Prioritize projects

**CHAPTER 4:**

Strategic Corridor Planning (continued)

**RESPONSIBLE UNIT:**

Division of Planning  
 Strategic Planning Activity Center  
 Strategic Corridor Planning Team

**PRODUCTS**

- Feasibility Studies
- Programming Studies
- Pre-Design Scoping Studies
- Alternatives Studies
- Interchange Justification Studies
- Special Studies

**DISTRIBUTION OF ESTIMATED COST FOR 2006-2007**

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
<b>PERSONNEL</b>	<b>\$234,520</b>	<b>\$58,620</b>	<b>\$40,000</b>	<b>\$10,000</b>	<b>\$343,140</b>
<b>OTHER</b>	<b>*\$214,400</b>	<b>*\$53,600</b>	<b>\$8,000</b>	<b>\$2,000</b>	<b>\$278,000</b>
<b>TOTAL</b>	<b>\$448,920</b>	<b>\$112,220</b>	<b>\$48,000</b>	<b>\$12,000</b>	<b>\$621,140</b>

\*Includes \$100,000 for planning studies discussed in proposed activities. An additional \$7,680,000 (non-SPR funds) is estimated for resources outside the Kentucky Transportation Cabinet. FHWA will be notified if a study is initiated using SPR Funds.

**CHAPTER 5:**

## Statewide Transportation Planning

**RESPONSIBLE UNIT:**

Division of Planning  
Strategic Planning Activity Center  
Statewide Planning Team

**PURPOSE AND SCOPE:**

- Conduct a comprehensive statewide transportation planning process with the Area Development Districts (ADDs), Metropolitan Planning Organizations (MPOs), and the Highway District Offices (HDOs).
- Update a multimodal Statewide Transportation Plan (STP) based on the Cabinet's long-range goals and objectives, identified needs and the public involvement process.
- Ensure that the Statewide Transportation Plan (STP) and the Statewide Transportation Planning Program is in compliance with SAFETEA-LU requirements prior to July 1, 2007.
- Provide input to the Six-Year Highway Plan. This process includes the following:
  - Intermodal and statewide transportation planning programs
  - Consideration of all modes and intermodal highway access
  - Development of a policy driven and data-based approach to identification, analysis and prioritization of needs
  - Support of the Rural Transportation Planning and Metropolitan Planning programs through the fifteen ADDs, nine MPOs, and twelve HDOs

**PROPOSED ACTIVITIES FOR 2006-2007:**

- Prepare an updated STP that incorporates the Cabinet's strategic goals and objectives, regional transportation goals, and data-driven needs assessment and conduct the public review process as required for the STP
- Identify, evaluate, and develop processes and/or activities to address compliance with SAFETEA-LU, regulations, or proposed rule making
- Coordinate with other transportation modes, economic development agencies, land use, environmental, and other resource agencies to obtain input on intermodal issues for the STP
- Work closely with the ADDs, MPOs, and HDOs to enhance the statewide transportation planning process including data collection, analysis, public involvement, and coordination
- Work with the ADDs, MPOs, and HDOs to prepare, evaluate, and update Project Identification Forms
- Provide the ADDs and HDOs with data, training, transportation systems information, tools, and guidance
- Analyze, identify, and prioritize transportation projects through analyses of data, freight flow patterns, intermodal and freight facility locations, National Highway System (NHS) and National Truck Network (NN) access, and public input
- Assist with the development and implementation of a scoring process for prioritizing projects for inclusion in the Six-Year Highway Plan as well as evaluation of system and corridor needs for the state maintained roadway network
- Assist with the development and identification/analyses of needs for a major transportation "backbone" network for the Commonwealth that serves as the major skeletal support for the other minor roadways
- Coordinate as necessary with other Divisions and agencies on the Strategic Highway Safety Plan



