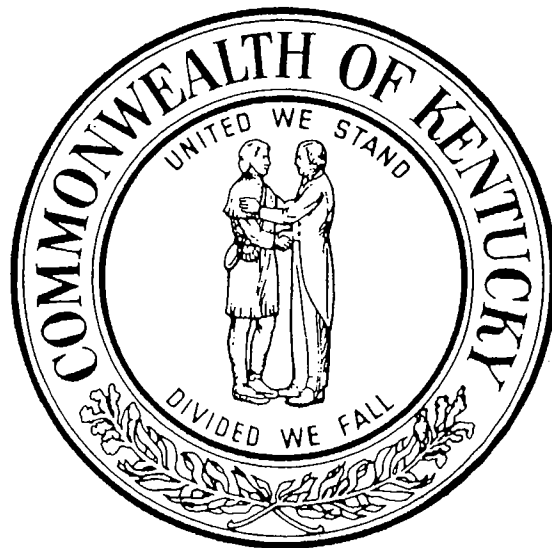


PLANNING WORK PROGRAM

SPR-PL-1(41)
JUNE 16, 2005 – JUNE 15, 2006



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 SPR-PL-1(41)
June 16, 2005 through June 15, 2006**

**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.

This year's work program has some changes from prior years. The Cabinet's Division of Multimodal Programs and the Division of Planning have merged organizationally and are now called the Division of Planning. Therefore, under each chapter, there is no longer the Multimodal Programs expenditure column. To illustrate the merge, a detailed organization chart (See Exhibit 1) has been inserted in the work program addressing the various functional areas of the new 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, environmental justice evaluation 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.

This year, there will be major ongoing activities for which one is a major upgrade of the Cabinet's Highway Information System (HIS) database that will integrate the highway graphics and highway data in a newer platform and more recent version of Oracle. Another emphasis area will be the documentation of the TMS processes, and the update of a planning manual that would incorporate the reorganization. There is a strong continued effort in this work program to install more loops at high volume locations to obtain volume and class counts without endangering our employees. If time allows, an upgrade of the many traffic databases currently in place will be examined and possible integration of those systems into one with the purchase of new software is a goal. There will potentially be a push for additional data collection efforts to update HIS with more current data. With the merger of divisions, there will be an opportunity to focus in the freight area more than in past years also. One more major initiative is the pilot project of combining the rural and MPO work programs for the FIVCO ADD/MPO for this year. If this proves successful, we will add more to the pilot. With focus on data collection, the division will be increasing vehicle classification counts to approximately 25% of the volume stations, in attempt to move closer to the percentage recommendation in the TMG (Traffic Monitoring Guide). For more details, refer to each chapter contained within this work program.

FOREWARD

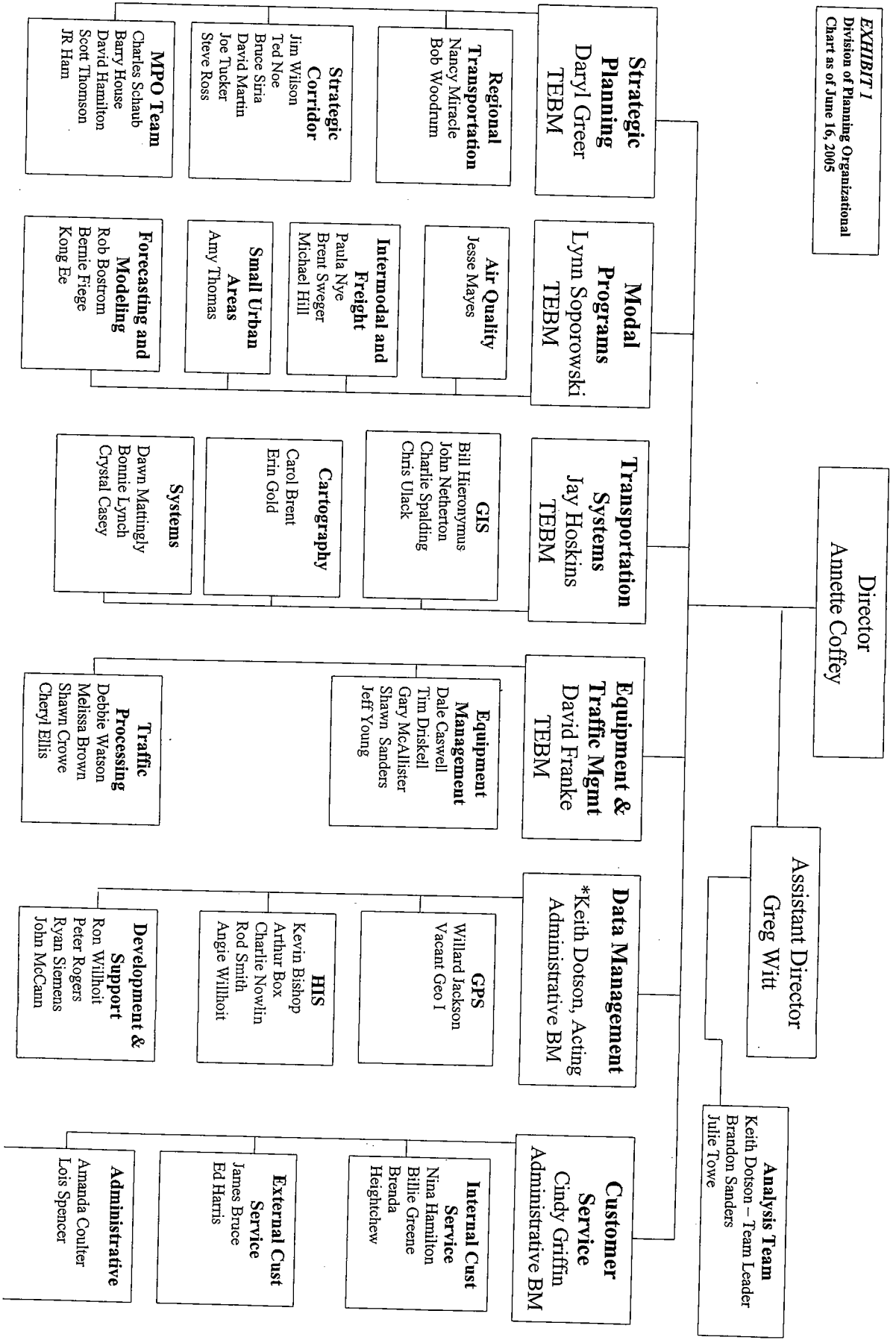
This Planning Program SPR-PL-1(41) for the period June 16, 2005 to June 15, 2006 is submitted in compliance with the provisions of Section 307 of Title 23, United States Code, and describes programs and operations for planning activities in the Kentucky Transportation Cabinet (KYTC). This program modifies 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 2006 are reported in detail by Volume and Chapter in this Work Program.

Until a Transportation Reauthorization Bill is passed by Congress the fiscal portions of the UPWP are based on past historical data. When the Transportation Bill is passed the fiscal portions may be amended to reflect the actual funding availability.

Attached as Exhibit 1 is the Division of Planning Organizational Chart as of June 16, 2005.

EXHIBIT 1
 Division of Planning Organizational
 Chart as of June 16, 2005



KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
FISCAL YEAR 2006
Subpart I- SPR-PLANNING WORK PROGRAM

PROGRAM IDENTITY FEDERAL STATE MATCH LOCAL MATCH OTHER TOTAL

PLANNING

SPR-Part I					
District Office Planning Personnel Cost	\$6,484,300	\$1,675,400			\$8,159,700
<i>Sub-Total Personnel Cost</i>	\$1,489,200	\$372,300			\$1,861,500
	\$7,973,500	\$2,047,700			\$10,021,200
Operating Cost	\$582,600	\$0		*\$1,200,000	
<i>Subtotal</i>	\$582,600	\$0		*\$1,200,000	\$10,603,800

Partner Agencies **

Metropolitan Planning Organizations					
PL Funded MPO Planning Budgeted	\$1,560,600	\$97,538	\$292,613		\$1,950,751
PL Discretionary Fund	\$484,734	\$8,713	\$112,471		\$605,918
<i>Total PL Funds</i>	\$2,045,334	\$106,251	\$405,084		\$2,556,669

ADD Regional Transportation Program (State Funds)		\$698,600	\$77,622		\$776,222
ADD Regional Transportation Program (General Funds)		\$400,000	\$44,444		\$444,444
Additional Mapping	\$113,600	\$28,400	\$0		\$142,000
<i>Total ADD funds</i>	\$113,600	\$1,127,000	\$122,066		\$1,362,666

TOTALS - PLANNING

\$13,160,469

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

** See Exhibit 2 for more detail

**KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
FISCAL YEAR 2005**

SPR RESEARCH PART II AND PART IIIB WORK PROGRAM

PROGRAM IDENTITY	FEDERAL	STATE MATCH	TOTAL
SPR-Part II Research	\$2,050,000	\$512,500	\$2,562,500
FY 04 Carryover Funds	\$57,200	\$14,300	\$71,500
Part III B Research		\$200,000	\$200,000
NCHRP Dues	\$600,000		\$600,000
Pooled Funds	\$100,000		\$100,000
TOTALS	\$2,807,200	\$726,800	\$3,534,000

**FISCAL YEAR 2005-2006 BUDGETS
FOR
REGIONAL TRANSPORTATION PROGRAM
WITH THE
AREA DEVELOPMENT DISTRICTS**

ADD	NO MATCH SPR Mapping	State (90%) Local (10%) Match Program			General Fund (state)	State Totals 90/10	Local Match 90/10	TOTAL PROGRAM
		ADD Planner Assistance	Regional Trans. Prog.	Trans. Prog.				
BARREN RIVER	\$20,000.00		\$47,500.00	\$27,040.00	\$74,540.00	\$8,282.00	\$102,822.00	
BIG SANDY	\$17,000.00		\$40,010.00	\$23,200.00	\$63,210.00	\$7,023.00	\$87,233.00	
BLUEGRASS			\$62,507.00	\$36,040.00	\$98,547.00	\$10,950.00	\$109,497.00	
BUFFALO TRACE	\$20,000.00		\$40,010.00	\$23,200.00	\$63,210.00	\$7,023.00	\$90,233.00	
CUMBERLAND VALLEY		\$2,000.00	\$48,553.00	\$27,800.00	\$78,353.00	\$8,706.00	\$87,059.00	
FIVCO	\$17,000.00		\$40,010.00	\$23,200.00	\$63,210.00	\$7,023.00	\$87,233.00	
GATEWAY			\$40,010.00	\$23,200.00	\$63,210.00	\$7,023.00	\$70,233.00	
GREEN RIVER			\$47,500.00	\$27,040.00	\$74,540.00	\$8,282.00	\$82,822.00	
KIPDA	\$17,000.00		\$47,500.00	\$27,040.00	\$74,540.00	\$8,282.00	\$99,822.00	
KENTUCKY RIVER			\$47,500.00	\$27,040.00	\$74,540.00	\$8,282.00	\$82,822.00	
LAKE CUMBERLAND	\$17,000.00		\$47,500.00	\$27,040.00	\$74,540.00	\$8,282.00	\$99,822.00	
LINCOLN TRAIL			\$47,500.00	\$27,040.00	\$74,540.00	\$8,282.00	\$82,822.00	
NORTHERN KENTUCKY			\$47,500.00	\$27,040.00	\$74,540.00	\$8,282.00	\$82,822.00	
PENNYRBE	\$17,000.00		\$47,500.00	\$27,040.00	\$74,540.00	\$8,282.00	\$99,822.00	
PURCHASE	\$17,000.00		\$47,500.00	\$27,040.00	\$74,540.00	\$8,282.00	\$99,822.00	
TOTAL	\$142,000.00	\$2,000.00	\$698,600.00	\$400,000.00*	\$1,100,600.00	\$122,286.00	\$1,364,886.00	

*The 2005-2006 Match Program will be used to fund the construction of the ADD. The ADD will be used to fund the construction of the ADD. The ADD will be used to fund the construction of the ADD.

**PL funds for MPO Unified Planning Work Programs for FY 2006
Assumes 100% Federal Funds Available**

MPO AREA	TOTAL FY 2006 PL Funding										TOTAL	FED+ST FUNDING	F+S = %
	Fed \$	Fed %	State \$	State %	Local \$	Local %	F+S+L=\$	F+S=\$	F+S = %				
LOUISVILLE	\$ 813,445	80.0%	\$ 50,840	5.00%	\$ 152,521	15.00%	\$ 1,016,807	\$ 864,286	85.00%				
NORTHERN KY	\$ 307,887	80.0%	\$ 19,243	5.00%	\$ 57,729	15.00%	\$ 384,858	\$ 327,129	85.00%				
LEXINGTON	\$ 275,669	80.0%	\$ 17,229	5.00%	\$ 51,688	15.00%	\$ 344,586	\$ 292,898	85.00%				
HENDERSON	\$ 35,969	80.0%	\$ 1,623	3.61%	\$ 7,369	16.39%	\$ 44,961	\$ 37,592	83.61%				
OWENSBORO	\$ 74,317	80.0%	\$ 4,645	5.00%	\$ 13,934	15.00%	\$ 92,896	\$ 78,962	85.00%				
ASHLAND	\$ 61,995	80.0%	\$ 3,875	5.00%	\$ 11,624	15.00%	\$ 77,494	\$ 65,870	85.00%				
FT CAMPBELL	\$ 20,782	80.0%	\$ 1,299	5.00%	\$ 3,897	15.00%	\$ 25,977	\$ 22,081	85.00%				
BOWLING GREEN	\$ 60,280	80.0%	\$ 3,559	4.72%	\$ 11,511	15.28%	\$ 75,350	\$ 63,839	84.72%				
RADCLIFF-													
ELIZABETHTOWN	\$ 62,991	80.0%	\$ 3,937	5.00%	\$ 11,811	15.00%	\$ 78,738	\$ 66,927	85.00%				
DISCRETIONARY FOR SEPARATE CONTRACT	\$ 332,000				\$ 83,000		\$ 415,000	\$ 332,000	80.00%				
TOTALS	\$ 2,045,334		\$ 106,250		\$ 405,084		\$ 2,556,668	\$ 2,151,584					
PL Budget Total	\$ 1,560,600	80%	\$ 97,538	5.00%	\$ 292,613	15.00%	\$ 1,950,750	\$ 1,658,138	85.00%				
PL Discretionary	\$ 484,734	80%	\$ 8,713	1.44%	\$ 112,471	18.56%	\$ 605,918	\$ 493,447	81.44%				

- * State funds are 5% for formula funds only.
- * Local does NOT flow thru the Cabinet.
- * Discretionary For Separate Contract will be divided into 3 projects in 3 MPO areas.

TABLE OF CONTENTS

<u>CHAPTER</u>	<u>TITLE</u>	<u>AMOUNT</u>
1	Administrative	\$331,100
2	Personnel Training	\$110,000
3	Equipment Management	\$953,800
4	Traffic Data Collection and Processing	\$2,079,200
5	Strategic Corridor Planning	\$1,274,100
6	Statewide Transportation Planning	\$786,900
7	Roadway Systems	\$553,700
8	Geographic Information Systems (GIS)	\$331,600
9	Cartography	\$340,000
10	GPS/HIS Development and Support	\$118,900
11	Global Positioning System (GPS)	\$209,300
12	Highway Information System	\$627,500
13	Special Analysis	\$651,800
14	Air Quality Conformity Analysis Program	\$213,500
15	Metropolitan Planning Organizations	\$471,200
16	Small Urban Areas Studies	\$848,200
17	Multimodal	\$287,300
18	Statewide Congestion, Mobility, and Access Management	\$91,600
19	Traffic Data Forecasting	\$242,100
20	Statewide Traffic Model	\$82,000
	TOTAL	\$10,603,800

CHAPTER 1: Administrative

RESPONSIBLE UNIT: Division of Planning
Customer Service Activity Center
Internal Customer Service Team
External Customer Service Team
Administrative Team

PURPOSE AND SCOPE: The Customer Service Activity Center within the Division of Planning is comprised of the Internal Customer Service Team, External Customer Service Team, and the Administrative Team.

The Internal Customer Service Team

- Plans, organizes, directs, motivates, and controls activities to accomplish Division goals in accordance with Cabinet and federal transportation policies and procedures
- Prepares
 - Correspondence
 - Daily time and attendance records
 - In-state and out-of-state travel requests
- Oversees
 - Training
 - EEO reporting
 - ADA
 - Workers Comp
 - FLSA reporting

The External Customer Service Team

- Focuses on customers external to the Division for
 - Cartographic products
 - Statistical reports
 - Responses to various data requests including responding to the Division's web page
- Oversees map sales
- Plots maps upon request
- Keeps records of maps sold
- Processes the necessary paperwork for billing
- Produces city, county, and other miscellaneous maps for sale
 - to other divisions within the Cabinet
 - to other state government agencies
 - to the general public
- Updates traffic count station maps for all counties and incorporated areas with the latest available traffic count and station data

CHAPTER 1:

Administrative (continued)

RESPONSIBLE UNIT:

Division of Planning
 Customer Service Activity Center
 Internal Customer Service Team
 External Customer Service Team
 Administrative Team

PURPOSE AND SCOPE (continued):

The Administrative Team recommends, advises, and assists the chief administrators of the Cabinet in the development of the overall goals, policies, project priorities, and procedures relating to the transportation program of the Cabinet. The administration of the SPR Work Program, Area Development Districts Regional Transportation Program, and the Metropolitan Planning Organizations UPWPs also include full consideration of Title VI and the Civil Rights Act of 1964 and other social, environmental, and economic implications and is in compliance with the Cabinet's approved Affirmative Action Program.

It is the function of the Administrative Team to:

- Administer National Scenic Byway grants
- Oversee the state Scenic Byway program
- Prepare the annual Work Program
- Oversee federal reporting requirements
- Monitor and process payments against various contracts awarded to the Division.
- Track budgets and the annual work program expenditures
- Prepare Travel requests
- Prepare travel and registrations
- Prepare requisitions
- Track Employee Training
- Prepare ADHS (Appalachian Development Highway System)

PROPOSED ACTIVITIES FOR 2005-2006: Service and respond to all internal, external, and administrative requests in a precise, timely, and customer friendly manner regarding all inquiries for assistance as described above.

DISTRIBUTION OF ESTIMATED COST FOR 2005-2006

PLANNING	FEDERAL SHARE 80%	STATE SHARE 20%	TOTAL
PERSONNEL	\$248,080	\$62,020	\$310,100
OTHER	*\$16,800	*\$4,200	\$21,000
TOTAL	\$264,880	\$66,200	\$331,100

*Outsourced for completion of the FHWA 536 report

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

PROPOSED ACTIVITIES FOR 2005-2006: 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)
- Highway Economic Requirements System (HERS) and other economic modeling training
- Exor (upgrade of Highway Information System)
- TransCAD Traffic Model Training
- Modeling Conferences and Training
- ASCE Kentucky annual meeting
- ITE Kentucky annual meeting
- KBT Annual Meeting
- Partnering Conference
- Small and Medium Sized Communities Conference
- National Access Management Conference
- TRB Committee Meetings
- Planning Applications Conference
- NATMEC
- TMG training
- Reauthorization and mobility measures training
- Bike/Ped Conference
- Other miscellaneous workshops and conferences related to transportation planning and activities of this work program

CHAPTER 2: Personnel Training (continued)

RESPONSIBLE UNIT: Division of Planning

PROPOSED ACTIVITIES FOR 2005-2006 (continued):

- ArcGIS
- Air Quality
- Roundabouts
- Highway Capacity
- STAQ
- CORSIM
- Accident analysis
- Safety conscious planning
- Freight movement
- Rural transportation planning
- Federal highway bill provisions
- National Environmental Policy Act
- Land use
- Access management
- Road User Cost Analysis
- GIS systems
- Congestion Management Systems
- MPO and rural planning
- Other courses/conferences that will
 - Teach us about any changes in the federal legislation
 - Help us assist our customers better
 - Carry out the activities we are responsible for in the United States Code and the Code of Federal Regulations.

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

DISTRIBUTION OF ESTIMATED COST FOR 2005-2006

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	\$64,000	\$16,000	\$16,000	\$4,000	\$100,000
OTHER	\$5,600	\$1,400	\$2,400	\$600	\$10,000
TOTAL	\$69,600	\$17,400	\$18,400	\$4,600	\$110,000

CHAPTER 3:

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 2005-2006:

- Collect volume and classification data on 200 interstate stations
- Collect data at approximately 450 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 77 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:

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

CHAPTER 3:

Equipment Management (continued)

RESPONSIBLE UNIT:

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

Item Description	Quantity	Unit Cost	Total Cost
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, 2-part (Fabick)	400	\$30.00	\$ 12,000.00
Epoxy, Mixing Tubes	200	\$3.00	\$ 600.00
Equipment, NonIntrusive Counting Devices	2	\$5,000.00	\$ 10,000.00
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, repair parts	1	\$10,000.00	\$ 10,000.00
Equipment, Traffic Data Recorders for use with existing ITS monitoring station.	5	\$6,000.00	\$ 30,000.00
Erosion Control, (mulch, nuggets, straw, etc.)	145	\$5.00	\$ 725.00
Fasteners, (screws, nuts, bolts, nails, clamps, banding, brackets, straps, etc.)	1	\$2,000.00	\$ 2,000.00
Hardware, roadway - Chain	6	\$200.00	\$ 1,200.00
Hardware, roadway - Chinese Fingers	500	\$3.00	\$ 1,500.00
Hardware, roadway - Figure 8's	1,000	\$1.00	\$ 1,000.00
Hardware, roadway - Nails, PK (boxes)	14	\$20.00	\$ 280.00
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)	50	\$50.00	\$ 2,500.00
Jbox, Type B	20	\$250.00	\$ 5,000.00
Labels (repair tags, warning labels, wire numbers, etc.)	1	\$500.00	\$ 500.00
Loop Sealant	1,200	\$8.00	\$ 9,600.00
Loop/Piezo Installation Materials, (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
Paint 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

CHAPTER 3:

Equipment Management (continued)

RESPONSIBLE UNIT:

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

Item Description	Quantity	Unit Cost	Total Cost
Radio, hand-held	4	50.00	\$ 200.00
Poles, telescopic poles for equipment mounts	4	\$275.00	\$ 1,100.00
Road Tubing (.2845/feet)	15,000	\$0.30	\$ 4,500.00
Safety apparel , (Goggles, gloves, ear protection, rainsuits, 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
Tools, hand tools (shovels, rakes, picks, hammers, pliers, cutters, pneu. and hand caulk guns, screwdrivers, meas. tape, etc.)	1	\$1,500.00	\$ 1,500.00
Tools, small power (drills, weed eater, leaf blower, power washer, etc.)	1	\$1,000.00	\$ 1,000.00
Traffic Control	1	\$35,000.00	\$ 35,000.00
Uniforms	52	\$50.00	\$ 2,600.00
Vehicle, accessories dash hardware, safety lights, etc.	1	\$1,500.00	\$ 1,500.00
Vehicles, operating cost, Central Office	12	\$2,500.00	\$ 30,000.00
Vehicles, operating cost, Districts	12	\$5,100.00	\$ 61,200.00
Wire, 4 pair	500	\$0.85	\$ 425.00
Wire, loop	50,000	\$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 (estimated)			\$ 300,000.00

CHAPTER 3:

Equipment Management (continued)

RESPONSIBLE UNIT:

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

DISTRIBUTION OF ESTIMATED COST FOR 2005-2006

	PLANNING		CAPITAL EXPENDITURES		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	\$310,960	\$77,740	\$0	\$0	\$20,000	\$5,000	\$413,700
OTHER	\$95,920	\$23,980	*\$240,000	*\$60,000	\$16,000	\$4,000	\$439,900
TOTAL	\$406,880	\$101,720	*\$240,000	*\$60,000	\$36,000	\$9,000	\$853,600

*This figure represents the purchase of new equipment and parts as outlined above.

CHAPTER 4:

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 2005-2006:

- 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 77 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 13,000 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.
- Update data summaries developed under the research study entitled "Estimation of Equivalent Axleloads."
- 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 4:

Traffic Data Collection and Processing (continued)

RESPONSIBLE UNIT:

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

DISTRIBUTION OF ESTIMATED COST FOR 2005-2006

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	\$171,360	\$42,840	\$660,000	\$165,000	\$1,039,200
OTHER	*\$768,000	*\$192,000	\$64,000	\$16,000	\$1,040,000
TOTAL	\$939,360	\$234,840	\$724,000	\$181,000	\$2,079,200

*Includes \$660,000 to outsource for assistance with data collection and \$300,000 for the purchase of integrated Traffic Management System software.

CHAPTER 5:

Strategic Corridor Planning

RESPONSIBLE UNIT:

Division of Planning
Strategic Planning Activity Center
Strategic Corridor Planning Team

PURPOSE AND SCOPE:

- Develop and implement 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
- Conduct studies to determine a “backbone” highway network for the Commonwealth and identify needs on said network
- 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
 - 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 2005-2006:

- 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.
- Develop a recommendation 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 5:

Strategic Corridor Planning (continued)

RESPONSIBLE UNIT:

Division of Planning
Strategic Planning Activity Center
Strategic Corridor Planning Team

PROPOSED ACTIVITIES FOR 2005-2006 (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:
 - Developing a conceptual purpose and need statement
 - 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
- Review and evaluate Project Identification Forms for needed improvements and updates
- 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 5:

Strategic Corridor Planning (continued)

RESPONSIBLE UNIT:

Division of Planning
 Strategic Planning Activity Center
 Strategic Corridor Planning Team

DISTRIBUTION OF ESTIMATED COST FOR 2005-2006

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	\$276,400	\$69,100	\$32,000	\$8,000	\$385,500
OTHER	*\$706,880	*\$176,720	\$4,000	\$1,000	\$888,600
TOTAL	\$983,280	\$245,820	\$36,000	\$9,000	\$1,274,100

*Includes \$873,600 for planning studies discussed in proposed activities. An additional \$2,400,000 (non-SPR funds) is estimated for resources outside the Kentucky Transportation Cabinet.

CHAPTER 6:

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 and the public involvement process.
- 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 approach to identification 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 2005-2006:

- Prepare an updated STP that incorporates the Cabinet's strategic goals and objectives, regional transportation goals, and data-driven needs assessment
- Coordinate with other transportation modes 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 of needs for a major transportation "backbone" network for the Commonwealth that serves as the major skeletal support for the other minor roadways
- Provide direction for special projects
- Respond to inquiries about proposed transportation projects
- Review surplus property/right-of-way proposals and school site locations as they relate to long-range transportation needs
- Make information on statewide transportation available for public use
- Assist with other planning activities as needed, such as the Cabinet's Highway Safety Program through the ADDs and Division of Traffic Operations

CHAPTER 6:

Statewide Transportation Planning (continued)

RESPONSIBLE UNIT:

Division of Planning
 Strategic Planning Activity Center
 Statewide Planning Team

DISTRIBUTION OF ESTIMATED COST FOR 2005-2006

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	\$184,240	\$46,060	\$344,000	\$86,000	\$660,300
OTHER	*\$88,480	*\$22,120	\$12,800	\$3,200	\$126,600
TOTAL	\$272,720	\$68,180	\$356,800	\$89,200	\$786,900

* This chapter also includes \$698,600 (not financed with SPR funds) for the annual program with the Area Development Districts and \$100,000 to outsource for "backbone" corridor studies or assistance in research or public involvement.

CHAPTER 7: Roadway Systems

RESPONSIBLE UNIT: Division of Planning
Transportation Systems Activity Center
Roadway Systems Team

PURPOSE AND SCOPE:

- Maintain the official Department of Highways records for the following:
 - State Primary Road System
 - National Highway System
 - Functional Classification System
 - Designated National Truck Network (NN)
 - Coal Haul Highway System
 - Forest Highway System
- Work with our Highway District Office Planning staff to conduct the necessary research and evaluations relative to:
 - Proposed system changes
 - Prepare official documentation for approval and signature
 - Notify all necessary personnel of the approved changes
- Gather and compile source data annually for the Coal Haul System on the transportation of coal by truck in the Commonwealth of Kentucky

PROPOSED ACTIVITIES FOR 2005-2006:

- Examine systems change process to respond in a more timely fashion
- Work to scrub our State Primary Road System so that the Cabinet is maintaining roadways of significance that match our functional classification system
- Update, maintain, and publish for distribution to interested parties and the trucking industry an official listing of truck route descriptions and a statewide map depicting the NN
- Send out forms semi-annually to coal companies and truck transporters for reporting the truck transportation of coal
- Update database and maps from information on returned semi-annual reports
- Provide ton-mile statistics to the Governor's Office for Local Development
- Publish Kentucky's Official Coal Haul System Report
- Study possible legislative proposals to streamline and stabilize the Coal Haul Road System
- Provide the Division of Maintenance information for updating the "Extended Weight Coal Haul Road System"

CHAPTER 7:

Roadway Systems (continued)

RESPONSIBLE UNIT:

Division of Planning
 Transportation Systems Activity Center
 Roadway Systems Team

DISTRIBUTION OF ESTIMATED COST FOR 2005-2006

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	\$107,760	\$26,940	\$248,000	\$62,000	\$444,700
OTHER	*\$82,400	*\$20,600	\$4,800	\$1,200	\$109,000
TOTAL	\$190,160	\$47,540	\$252,800	\$63,200	\$553,700

* Includes \$100,000 to outsource the Coal Haul Program so staff can focus on data quality changes and official orders.

CHAPTER 8:

Geographic Information Systems (GIS)

RESPONSIBLE UNIT:

Division of Planning
 Transportation Systems Activity Center
 GIS Team

PURPOSE AND SCOPE:

- Meet the needs of the Division, Cabinet, other state agencies, and entities outside state government for accurate GIS based electronic maps
- Maintain the transportation layer base map to the highest map standard level and most up-to-date status possible
- See that data links to the base map are always complete and accurate
- Analyze graphically and spatially the Cabinet's highway transportation needs.

PROPOSED ACTIVITIES FOR 2005-2006:

- Create and maintain a seamless statewide transportation GIS base map using GPS data and electronic plan files to acquire alignment of all public streets and roads
- Work with the Data Management Activity Center to conflate data to new GIS transportation layer for all public roads and link new data as required
- Develop new county maps using ESRI® based GIS tools to show all the transportation layers and other pertinent features
- Maintain and update the GIS base maps to continually reflect the latest street and road alignments, road attribute data, and other map features
- Provide various GIS displays of data to assist transportation decision-makers in their roles

DISTRIBUTION OF ESTIMATED COST FOR 2005-2006

PLANNING	FEDERAL SHARE 80%	STATE SHARE 20%	TOTAL
PERSONNEL	\$177,280	\$44,320	\$221,600
OTHER	*\$88,000	*\$22,000	\$110,000
TOTAL	\$265,280	\$66,320	\$331,600

*Includes \$100,000 for University of Kentucky technical assistance program.

CHAPTER 9: Cartography

RESPONSIBLE UNIT: Division of Planning
Transportation Systems Activity Center
Cartography Team

PURPOSE AND SCOPE:

- Meet the needs of the Division, Cabinet, other state agencies, and entities outside state government for general and special purpose maps
- Create, update, print, and distribute a wide variety of cartographic projects

PROPOSED ACTIVITIES FOR 2005-2006:

- Continue development of electronic mapping for all city, county, state, and special-purpose cartographic products
- Maintain and publish electronic formats of cartographic products on the internet
- Use the large-format plotter to print city, county, and state maps as needed for distribution through the Division of Planning inter-account service and the Kentucky Geological Survey (Map Sales function contained in Chapter 1, Administrative)
- Update the Official State Highway Map and have necessary printing accomplished
- Create reports and exhibits for various Division projects and studies
- Provide mapping and graphic assistance to other Divisions and Departments on request

DISTRIBUTION OF ESTIMATED COST FOR 2005-2006

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	\$115,280	\$28,820	\$800	\$200	\$145,100
OTHER	*\$155,520	*\$38,880	\$400	\$100	\$194,900
TOTAL	\$270,800	\$67,700	\$1,200	\$300	\$340,000

*Includes \$50,000 for the Official State Highway Map printing and \$142,400 for assistance in map production.

CHAPTER 10:

GPS/HIS Development and Support

RESPONSIBLE UNIT:

Division of Planning
 Data Management Activity Center
 Development and Support Team

PURPOSE AND SCOPE:

- Provide assistance and support for maintenance of Cabinet's Geographic Information System (GIS)
- Implement Highway Information System (HIS) database upgrade to "Highways by Exor" product
- Research, develop, and incorporate available data options into base map and/or HIS database maintenance and updates

PROPOSED ACTIVITIES FOR 2005-2006:

- Develop programs and procedures to review, edit, and update Cabinet's base map and HIS/Exor database
- Work with Transportation's Division of Technology and other agencies to:
 - Move existing data to new database
 - Run in parallel with existing system
 - Identify problems to be addressed by Cabinet or vendor
 - Accept upgrade as the production system
- Assist in resolving Division hardware and software problems
- Review software that will assist in maintenance of base map and database
- Work with other agencies to maintain link to current roadway network
- Assist with testing, training, report migration, and looking for enhancements with the new Exor

DISTRIBUTION OF ESTIMATED COST FOR 2005-2006

PLANNING	FEDERAL SHARE 80%	STATE SHARE 20%	TOTAL
PERSONNEL	\$93,520	\$23,380	\$116,900
OTHER	\$1,600	\$400	\$2,000
TOTAL	\$95,120	\$23,780	\$118,900

CHAPTER 11: Global Positioning System (GPS)

RESPONSIBLE UNIT: Division of Planning
Data Management Activity Center
GPS Team

PURPOSE AND SCOPE:

- Coordinate and perform data collection update activities for the statewide Geographic Information System (GIS) transportation layer in cooperation with the Area Development Districts (ADDs)
- Match Global Positioning System (GPS) centerline data collected and processed with existing Linear Referencing System (county, route, milepoint)
- Develop and implement process to acquire road centerline and associated highway attribute data from as-built design files
- Assist in the migration of the existing Highway Information System (HIS) database to "Highways by Exor" using Oracle Spatial

PROPOSED ACTIVITIES FOR 2005-2006:

- Maintain and make updates as needed to roadway centerline data using GPS and GIS technology
- Perform office reviews to verify data meets the required standards and confidence levels established by this Division and in accordance with the National Standard for Spatial Data Accuracy
- Incorporate newly acquired centerline data to the existing highway network, which consists of updating and verifying roadway mileage, highway systems data, and use in maintaining and generating data driven maps. These include:
 - County Road Aid Series maps
 - Functional maps
 - Truck maps
 - State system maps
 - Traffic station maps
- Make GIS base map changes as necessitated by changes to the highway network

DISTRIBUTION OF ESTIMATED COST FOR 2005-2006

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	\$156,640	\$39,160	\$4,000	\$1,000	\$200,800
OTHER	\$6,400	\$1,600	\$400	\$100	\$8,500
TOTAL	\$163,040	\$40,760	\$4,400	\$1,100	\$209,300

CHAPTER 12: Highway Information System

RESPONSIBLE UNIT: Division of Planning
Data Management Activity Center
HIS Team

PURPOSE AND SCOPE:

- Maintain and operate the Highway Information System (HIS) database
- Use the Highway Performance Monitoring System (HPMS) to establish a baseline for measuring highway system performance and produce the highway data submittal required annually by the Federal Highway Administration (FHWA)
- Provide information to the Transportation Cabinet, other governmental agencies, consultants, and private organizations
- Continue development and maintenance of the HIS database interface with the Geographic Information System (GIS) and other Cabinet databases
- Provide data to be posted to the Division's web site
- Participate in FHWA annual process review

PROPOSED ACTIVITIES FOR 2005-2006:

- Work with the Division of Technology and other divisions within the Transportation Cabinet to upgrade the HIS database to "Highways by EXOR" and consolidate the Cabinet's data maintenance efforts
- Assist in the development and maintenance of a Cabinet GIS and maintain database network for Kentucky's public highway system
- Provide up-to-date route network, DMI, functional class, NHS, and urban area information.
- 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 Needs List
- Maintain currency of HPMS software and perform changes required by federal legislation, regulations, policies, and/or guidelines, as needed to the HPMS
- Make updates to the HIS database
- Investigate results of HPMS each year and analyze changes in processes to improve output of report

CHAPTER 12:

Highway Information System (continued)

RESPONSIBLE UNIT:

Division of Planning
 Data Management Activity Center
 HIS Team

DISTRIBUTION OF ESTIMATED COST FOR 2005-2006

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	\$275,600	\$68,900	\$4,000	\$1,000	\$349,500
OTHER	*\$221,600	*\$55,400	\$800	\$200	\$278,000
TOTAL	\$497,200	\$124,300	\$4,800	\$1,200	\$627,500

* Includes \$75,000 to outsource for GPS maintenance and \$200,000 to outsource for Data Collection.

CHAPTER 13: Special Analysis

RESPONSIBLE UNIT: Division of Planning

PURPOSE AND SCOPE: Numerous requests are made throughout the year for activities and information that may not directly relate to an applicable chapter of the work program. These requests vary from information assimilation requests that may require only hours to complete the technical analyses and reviews and policy review/recommendations that may require extensive efforts. Work with the Highway District Offices (HDOs) and Area Development Districts (ADDs) as needed to complete necessary tasks. Other requests may include reviews and recommendations of new policies, editing of existing policies, and procedures that require extensive research and development efforts. This chapter will also include some work for our Highway District Office staff to administer and oversee consultant and local agreements for roadway projects.

Due to the numerous requests for analysis work we have created an Analysis team. The Analysis team has been directly assigned to the Assistant Director. This team will handle high priority analysis and projects for the Division. This team will assist in the implementation of technology software migrations and implementations, and new procedures and processes that are separate and distinct from day to day activities. This team will assist all activity centers and other Divisions at times.

PROPOSED ACTIVITIES FOR 2005-2006: It is anticipated that a large volume of special requests will continue to be received and processed by the Division. One type of request that is increasing in consistency and number is Road User Cost Analysis. This analysis may include comparisons for detour versus non-detour, bituminous pavement or PCC pavement. Kentucky has received great acclaim for using advanced construction techniques, Road user Cost Analysis that determined that the cost of delaying the public and commercial traffic is significant. We will explore computer models to assist in road user cost analysis, such as TSIS, CORSIM, QuickZone, Autoturn, or other simulation software. Census Transportation Planning Package will be released in FY 2005. We will review the new data for use in SUA as well as use for MPO and ADDs.

The Analysis Team will provide assistance and perform the following duties:

- Analysis
- Highway Adequacy Rating
- VIP scoring (project selection scoring from Chapters 5 and 6, missing data links, data uploads, sql coding and reports)
- Develop priority corridor routes
- Add unscheduled projects and Project Identification Forms (PIF) to a database
- HERS analysis
- HPMS checks and validations
- Environmental footprints/template
- Other support for environmental footprint review

CHAPTER 13: Special Analysis (continued)

RESPONSIBLE UNIT: Division of Planning

PROPOSED ACTIVITIES FOR 2005-2006 (continued):

- EV
- VSF (ensuring segments are treated consistently for various collection)
- Provide specialty maps
- Support for project planning study analysis and other specialized software.
- Database upgrades, inclusions, and improvements in the following areas:
 - Develop a process for updating Jefferson and Fayette Counties' centerline
 - Capturing alignments/data from highway plans
 - Exor (tool development, data migration, reporting (sql, IMS, web), new model)
 - Route log conflation for which determines intermediate points to match our GPS centerlines
 - Analyze the application of MAP Capture in data collection
 - Database review (validity checks)

Bridge system (Link to HIS), SYP to HIS link, UPL to HIS link, Traffic information (signals, signs, etc.) incorporated into HIS, migration from ArcInfo to ARC 9 and

- Assist HDOs in conducting special studies (Highway District Office Planning staff will coordinate the development of private or public agency projects that involve state transportation facilities that may require a contractual agreement.)
- Special Request
- Computer model exploration

DISTRIBUTION OF ESTIMATED COST FOR 2005-2006

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	*\$164,800	*\$41,200	\$4,000	\$1,000	\$211,000
OTHER	**\$351,840	**\$87,960	\$800	\$200	\$440,800
TOTAL	\$516,640	\$129,160	\$4,800	\$1,200	\$651,800

*A staff of 3 has been added to this area.

** Anticipate \$429,800 in special studies utilizing outside resources to link a new traffic system to HIS and other special studies that evolve throughout the year where in-house staff is not available.

CHAPTER 14:

Air Quality Conformity Analysis Program

RESPONSIBLE UNIT:

Division of Planning
Modal Programs Activity Center
Air Quality Team

PURPOSE AND SCOPE: Coordinate and perform analyses necessary for Regional Air Quality Conformity Determinations both rural areas and four MPO areas to allow for the timely advancement of projects. Coordinate with Division of Environmental Analysis, Natural Resources and Environmental Protection Cabinet's Division for Air Quality, EPA, FHWA, FTA, local air agencies and local transit agencies, ADDs, MPOs, and KYTC for conformity approvals. Review and comment on the air quality rules, proposed rules, regulations, implementation standards, and guidance that impact transportation conformity. Maintain a working knowledge of EPA's air quality modeling software, as well as, review and comment on air quality model updates. Develop and maintain new modeling methods for rural conformity. Establish and maintain conformity consultation processes, which specifies each agency's roles and responsibilities.

PROPOSED ACTIVITIES FOR 2005-2006:

- Establish or update conformity consultation agreements statewide.
- Develop sub-area models from the Statewide Traffic Model for proposed rural nonattainment areas as needed.
- Review and comment on the guidelines for the 8-Hour Ozone and PM 2.5 Standards, MOBILE Model 6, and air quality regulations/implementation guidance.
- Run the MOBILE Model for all necessary regional air quality conformity analyses.
- Perform regional air quality conformity analysis for Boyd and Christian Counties for the 8-Hour Ozone Standard.
- Perform regional air quality conformity analysis for Boyd County and a portion of Lawrence County for the PM2.5 Fine Particulate Standard.
- Coordinate with the ADDs, MPOs, Division of Environmental Analysis, Natural Resources and Environmental Protection Cabinet's Division for Air Quality, FHWA, FTA, and EPA.
- Division Planning will provide traffic model output in the form of vehicle miles of travel (VMT) and speeds for Christian and Boyd counties as well as provide non-TDM VMT and speeds for Lawrence County. These VMT and speeds will be used to determine conformity of the area's Transportation Plans, STIP, and TIPs.
- Review and comment during the preparation of mobile budgets for the development of the State Implementation Plans (SIPs) for the 8-Hour Ozone and PM2.5 Standards designations, SIP amendments, and budget adjustments.

CHAPTER 14: Air Quality Conformity Analysis Program (continued)

RESPONSIBLE UNIT: Division of Planning
 Modal Programs Activity Center
 Air Quality Team

PROPOSED ACTIVITIES FOR 2005-2006 (continued):

- Promote and educate the Cabinet, public officials, and general public about air quality, conformity analysis, and federal guidelines.
- Continue to monitor and coordinate various CMAQ projects in the nonattainment and maintenance areas. Projects will include ozone awareness programs, traffic management and operation centers, transit, bicycle/pedestrian, and other programs.
- Spearhead the development, implementation, and maintenance of a Speed and VMT Database Estimation portable computer program that will serve as new data input for calculated speed values to be put in the Highway Information System.
- Attend necessary meetings and conferences to allow the Cabinet to stay abreast of Air Quality issues.

DISTRIBUTION OF ESTIMATED COST FOR 2005-2006

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	\$84,000	\$21,000	\$4,400	\$1,100	\$110,500
OTHER	*\$30,300	*\$70,700	\$1,600	\$400	\$103,000
TOTAL	\$114,300	\$91,700	\$6,000	\$1,500	\$213,500

*\$30,000 for Air Quality Models for new nonattainment areas and \$31,000 for KTC Speed Database Programming -additional monies may be added to complete this study as monies are available in the SPR program.

CHAPTER 15: Metropolitan Planning Organizations
(Areas over 50,000 Population)

RESPONSIBLE UNIT: Division of Planning

PURPOSE AND SCOPE: Provide technical assistance and coordination to the Metropolitan Planning Organizations (MPOs) for developing and maintaining a continuing, cooperative, and comprehensive (3C) transportation planning process. The results are Transportation Improvement Programs (TIPs), Long Range Transportation Plans (LRTPs), Unified Planning Work Programs (UPWPs), and other studies, plans or programs consistent with the 3C planning requirements for urbanized areas in accordance with the 1991 ISTEA, 1997 TEA-21, and subsequent federal transportation legislation. This process ensures that KYTC and local transportation projects remain eligible to receive federal funding. The scope of work for the 3C planning process is in accordance with the UPWP, which describes all anticipated urban transportation and transportation-related planning activities to be performed.

PROPOSED ACTIVITIES FOR 2005-2006:

- Provide technical assistance and review of MPO activities and documents.
- Attend technical, policy, and other committee meetings to represent the Cabinet.
- Ensure consistency between local and state plans and programs, including MPO and state transportation improvement programs, congestion management plans, the Cabinet's Six-Year Highway Plan, MPO Long-Range Transportation Plans, and the Cabinet's Statewide Transportation Plan.
- Assist MPOs in updating and amending TIPs, LRTPs, and UPWPs.
- Coordinate with other transportation modes to obtain input on intermodal issues for the LRTPs.
- Work closely with the MPOs and Highway District Offices (HDOs) to enhance the metropolitan transportation planning process including data collection, analysis, public involvement, and coordination.
- Work with the MPOs and HDOs to prepare, evaluate, and update Project Identification Forms.
- Provide the MPOs, and HDOs with data, training, transportation systems information, tools, and guidance.
- Provide technical assistance for MPO traffic models.
- Provide special traffic assignments and analyses for the design and implementation of various highway and street projects.
- Maintain traffic models for the Ashland, Bowling Green, Clarksville/Oak Grove, Owensboro, and Radcliff-Elizabethtown areas and conduct analyses for projects in these areas.
- Coordinate traffic assignments for the other urbanized areas done by the local MPOs (with assistance from this Division) for distribution throughout the Cabinet.
- Coordinate with the Transportation Cabinet's Office of Transportation Delivery on transit and transit planning issues.
- Monitor, coordinate, and assist with programs by the MPO such as Rideshare, Bicycle/Pedestrian, Intelligent Transportation Systems (ITS), Congestion Management, CMAQ, TCSP, and others.

CHAPTER 15: Metropolitan Planning Organizations (continued)
(Areas over 50,000 Population)

RESPONSIBLE UNIT: Division of Planning

PORPOSED ACTIVITIES FOR 2005-2006 (continued):

- Coordinate with the Transportation Management Areas (TMAs) on the programming and tracking of dedicated STP funded projects.
- Coordinate with MPOs on air quality issues, analysis, and conformity. The MPOs will continue transportation planning activities as outlined in their UPWPs.

Several special planning efforts are expected to be continued or are new this year including:

- Ashland – Air Quality Outreach Program and Combined MPO/Rural UPWP
- Cincinnati/Northern Kentucky – Dixie Highway Access Management Study
- Louisville – Downtown Subarea Transportation Study and a Roundabout Feasibility Study
- Radcliff/Elizabethtown – US 31W Access Management Study
- Bowling Green – Aerial Photography Phase II Planimetrics
- Evansville/Henderson – I-69 Management Team
- Owensboro – Downtown Travel Study
- Lexington – Downtown Master Plan and Regional Bicycle and Pedestrian Plan

DISTRIBUTION OF ESTIMATED COST FOR 2005-2006

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	\$287,360	\$71,840	\$80,000	\$20,000	\$459,200
OTHER	*\$8,000	*\$2,000	\$1,600	\$400	\$12,000
TOTAL	\$295,360	\$73,840	\$81,600	\$20,400	\$471,200

*PL funds passed through to MPOs (\$1,594,000-Federal and \$96,875-Road Fund as well as \$301,625 local funds for the PL Program that does not flow through the Cabinet).

SEE EXHIBIT 3

CHAPTER 16: Small Urban Areas Studies

RESPONSIBLE UNIT: Division of Planning

PURPOSE AND SCOPE: Identify and analyze traffic operational and transportation system deficiencies in small urban areas (5,000 to 50,000 population). The purpose of these studies is to provide transportation professionals with urban transportation needs and information sufficient to determine priorities for the needs. These prioritized transportation needs are used as input to KYTC's Six-Year Plan, the Long Range Plan, and the Unfunded Needs List. Coordination with the Cabinet's Traffic Operations, Environmental Analysis, Design, District Offices, and ADDs is required. The emphasis of this effort will be to provide a timely response to transportation system issues.

PROPOSED ACTIVITIES FOR 2005-2006:

- Complete the Small Urban Area (SUA) Transportation Study for the Winchester area. Selected one to three more area studies by a multi-divisional meeting.
- Provide general oversight/guidance, data collection/analysis, and serve on advisory committees with local representatives for providing input to the studies. State road funds are used to fund the contracts with the consultants.
- Receive and respond to project proposals and requests for studies from local governments. Project and prioritize recommendations as appropriate.
- Improve existing models and convert older models to TransCAD. Updated socioeconomic data and modeling techniques.
- Develop procedures to incorporate GIS data and tools in the model development process. Support for both MinuTP and TransCAD will continue.
- Continue training staff in project management, leadership, and model development.
- Review the chosen network, and participation in at least 4-6 public and project team meetings.
- Needs: Modeling software including updated TransCAD software and license is a requirement.
- Incorporate Strategic Planning expertise in the research of urban transportation needs in the SUAs.

CHAPTER 16:

Small Urban Areas Studies

RESPONSIBLE UNIT: Division of Planning**DISTRIBUTION OF ESTIMATED COST FOR 2005-2006**

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	\$74,560	\$18,640	\$40,000	\$10,000	\$143,200
OTHER	*\$562,400	*\$140,600	\$1,600	\$400	\$705,000
TOTAL	\$636,960	\$159,240	\$41,600	\$10,400	\$848,200

* An additional \$400,000 of State Road Funds are identified in the Cabinet's Six-Year Highway Plan (99-341.02) for Urban Transportation Studies for areas with 5,000-50,000 population. \$700,000 has been included for outsource needs to increase the number of SUAs performed to provide input into the next Six-Year Highway Plan.

CHAPTER 17: Multimodal

RESPONSIBLE UNIT: Division of Planning

PURPOSE AND SCOPE: To conduct a comprehensive statewide intermodal transportation planning process with the Division of Planning, Area Development Districts (ADDs), Metropolitan Planning Organizations (MPOs), and the Highway District Offices (HDOs) as well as industry partners. This process includes statewide intermodal transportation planning programs: freight, rail, waterways, riverports, ferries, intermodal connections, in addition to bicycle & pedestrian needs. Tasks include identifying and analyzing intermodal facilities, access, and systems; identifying needs based on data and local input; recommending strategies to enhance intermodal transportation and the Statewide Transportation Planning process; oversight of waterway transportation; recommending projects for the Six Year Highway Plan and STP; and assisting with other planning activities as needed.

Coordinate the state bicycle and pedestrian program, develop a statewide bikeway system, work and coordinate with the Kentucky Bicycle & 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. This assistance will be in the form of technical advice, assisting in the development of plans, and coordinating studies.

PROPOSED ACTIVITIES FOR 2005-2006:

- Utilize data to identify needs.
- Respond to inquiries about proposed intermodal transportation projects.
- Review surplus property/right-of-way proposals and school site locations as related to long-range transportation needs.
- Make information on statewide intermodal transportation available for public use.

Intermodal:

- Work closely with the ADDs/HDOs to enhance the statewide intermodal transportation planning process, including public involvement/coordination with the ADDs and MPOs. Provide transportation systems information and guidance. Identify intermodal facilities that need improvement
- Obtain input to the statewide intermodal transportation planning process from the industry.
- Locate and map via GIS tools all public intermodal facilities in Kentucky. Include information as appropriate in the HIS database.
- Identify specifically highway access to intermodal facilities that need improvement. Coordinate with ADDs and MPOs to complete a Project Information Form (PIF) for inclusion in the next project identification and prioritization cycle.

CHAPTER 17: Multimodal (continued)

RESPONSIBLE UNIT: Division of Planning

PROPOSED ACTIVITIES FOR 2005-2006 (continued):

Freight

- Provide technical assistance to ADDs, MPOs, and project teams regarding freight movement and safety.
- Host freight partners meetings.
- Contribute to quarterly Freight Newsletter
- Participate in freight focus groups

Riverports

- Locate and map via GIS tools all public riverports in Kentucky. Include information as appropriate in the HIS database.
- Conduct special studies, as needed, to analyze riverport issues.

Railroad

- Update the 2002 Kentucky Statewide Rail Plan with current information. Make information available on division website.
- Update Rail website.
- Locate and map via GIS tools all rail lines in Kentucky. Include information as appropriate in the HIS database.

Bike and Pedestrian

- Assist local government in the development of local bicycle and pedestrian network facilities and plans. Travel to various meetings and opportunities to promote pedestrian and bicycle safety and facilities.
- Revise and update the statewide bike-route system and associated maps.
- Answer requests concerning KYTC's design guidelines regarding pedestrian and bicycle facilities.
- Promote and facilitate the increased use and public education of non-motorized modes of transportation, including developing pedestrian and bicycle facilities. As well as, assist and expand safety programs for using such facilities.
- Develop a statewide non-motorized transportation master plan.
- Review project plans for bicycle and pedestrian facilities.

CHAPTER 17:

Multimodal (continued)

RESPONSIBLE UNIT:

Division of Planning

PROPOSED ACTIVITIES FOR 2005-2006 (continued):

Additional

- Update the statewide riverport study and plan.
- Copy and distribute the Pedestrian and Bicycle Safer Journey CDs to each school district with the help of the UK Center for School Safety.
- Reduce the number of pedestrian injuries and fatalities in Kentucky by providing the latest technology for pedestrian visibility and educating citizens how to be a safe pedestrian.
- Develop a research project with the University of Kentucky or the University of Louisville to reduce the number of pedestrian injuries and fatalities in Kentucky by educating pedestrians about the importance of being visible to motorists. Nationally, we encourage walking for transportation and exercise, but we need to educate on how to be a safe pedestrian. The most current research indicates pedestrian injuries and fatalities will be reduced if pedestrian are more visible to motorists. We want to provide the pedestrians of Kentucky the newest reflective safety technology for pedestrian visibility. Partnering with the UK Center for School Safety, participating schools will receive Reflexite© pedestrian safety armbands.

DISTRIBUTION OF ESTIMATED COST FOR 2005-2006

	PLANNING		DISTRICT OFFICES		TOTAL
	Federal Share 80%	State Share 20%	Federal Share 80%	State Share 20%	
PERSONNEL	\$127,280	\$31,820	\$32,000	\$8,000	\$199,100
OTHER	*\$70,560	*\$17,640	\$0	\$0	\$88,200
TOTAL	\$197,840	\$49,460	\$32,000	\$8,000	\$287,300

* Includes \$83,200 for additional potential project

CHAPTER 18: Statewide Congestion, Mobility, and Access Management

RESPONSIBLE UNIT: Division of Planning

PURPOSE AND SCOPE: During the normal statewide transportation planning process, traffic congestion is routinely used to select and prioritize projects that are considered for the Six-Year Plan, STIP, the State Long Range Transportation Plan, and Small Urban Area Transportation Studies in addition to the MPO TIP, LRTP, and UPWP documents. Therefore we want to find ways to measure, mobility, suggest congestion mitigation strategies, and promote best planning practices and policies. These activities will lead to a more efficient, safe and multimodal transportation system throughout Kentucky.

PROPOSED ACTIVITIES FOR 2005-2006:

Congestion Management

- Provide expertise as needed in Congestion Management System in conjunction with Division of Traffic Operations.
- Participate in Archived Data Management System research study, which uses data from various ITS operations. Use data for forecast, model calibration, HPMS estimates, and other uses as defined in the study.
- Provide necessary expertise on an as needed basis for the development and implementation of a comprehensive and integrated statewide ITS plan including statewide ITS architecture updates. Analyze data for consistency, accuracy and historical trends.
- Ensure that ITS Architecture remains an integral component of the planning process.

Mobility Management

- Coordinate urban mobility team.
- Investigate use of the Texas Transportation Institute review of Kentucky mobility data practices.
- Use travel-time based performance measures in the statewide model and as urban models are updated/developed.
- Apply travel-time measurements in at least one MPO starting with Lexington.
- Continue co-sponsorship of TTI urban mobility study. Review findings and look for ways to apply it to Kentucky data.
- Be a point of contact and knowledge for roundabouts as an application that can increase mobility, provide safer roads and reduce congestion.
- Look for opportunities for usage of roundabouts in Cabinet projects, purchase and use modeling software to show traffic flow.

Access Management

- Coordinate the Statewide Access Management Task Force in development of the Kentucky Access Management Program. Develop of policies, procedures, and training needed to carry out such a program.
- Develop and update training materials.

CHAPTER 18:

Statewide Congestion, Mobility, and Access Management
(continued)

RESPONSIBLE UNIT:

Division of Planning

PROPOSED ACTIVITIES FOR 2005-2006: (continued)

- Provide training, technical expertise, and review to KYTC district/central office staff, ADD planners and MPO planners on specific congestion and access management applications, as needed. Partner with highway district office personnel to include overlays of land-use as part of transportation project development.
- Develop, populate, and maintain a GIS tracking system for smart-growth projects.

DISTRIBUTION OF ESTIMATED COST FOR 2005-2006

PLANNING	FEDERAL SHARE 80%	STATE SHARE 20%	TOTAL
PERSONNEL	\$71,680	\$17,920	\$89,600
OTHER	\$1,600	\$400	\$2,000
TOTAL	\$73,280	\$18,320	\$91,600

CHAPTER 19: Traffic Data Forecasting

RESPONSIBLE UNIT: Division of Planning
Modal Programs Activity Center

PURPOSE AND SCOPE: To maintain traffic trends, provide current and projected traffic volume estimates, and associated elements such as design hour volumes, directional distribution, composition of traffic, and truck loadings for project development and design purposes.

PROPOSED ACTIVITIES FOR 2005-2006:

- Prepare numerous traffic estimates for planning studies, design projects, environmental analysis, and other purposes as needed. Various procedures, including trendline analysis and the use of computerized traffic models (including statewide traffic model and small urban models) will be utilized to determine traffic assignments. Traffic trends will be monitored to assure usage of accurate K-factors, directional factors, and growth rates. Socioeconomic and site data will be reviewed for usage in traffic model analysis and forecasting.
- Monitor and provide quality review for traffic projections provided by the MPOs and planning consultants.
- Administer statewide traffic forecasting contracts and provide quality review for traffic projections made by the consultant.
- Work with KTC to update ESAL Forecasting for Superpave computer program.
- Work with KTC and Pavement Design Branch to test and implement the AASHTO Pavement Design Guide (due to be complete in 2007) which will use load spectra to replace ESALs.
- Maintain databases that track traffic forecasts and traffic forecast parameters. Make databases available to other user offices. Maintain the traffic forecasting web page.
- Maintain and update internal traffic forecasting tools.
- Update the 2004 Traffic Forecasting Report.
- Provide future year forecasting factors and k-factors/d-factors will be provided for the Highway Performance Monitoring System.
- Work with Equipment/Traffic Management Branch to perform traffic data analysis.
- Utilize \$40,000 of this budget estimate will be utilized by the Kentucky Transportation Center for producing ESAL tables and vehicle classification summary files.
- Coordinate with the Strategic Planning Branch to insure that traffic forecasting data needs are met.
- Participate in 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.

CHAPTER 19: Traffic Data Forecasting

RESPONSIBLE UNIT: Division of Planning
Modal Programs Activity Center

DISTRIBUTION OF ESTIMATED COST FOR 2005-2006

PLANNING	FEDERAL SHARE 80%	STATE SHARE 20%	TOTAL
PERSONNEL	*\$133,680	*\$33,420	\$167,100
OTHER	**\$60,000	**\$15,000	\$75,000
TOTAL	\$193,680	\$48,420	\$242,100

*Statewide Forecasting Contract - \$200,000 (\$30,000 SPR, \$170,000 will be charged to projects).

**Kentucky Transportation Center Equivalent Axleload Processing - \$40,000.
Charges will be made to SYP projects for some forecasts.

CHAPTER 20: Statewide Traffic Model

RESPONSIBLE UNIT: Division of Planning

PURPOSE AND SCOPE: To update and maintain the Statewide Traffic Model (KySTM). To collect data on vehicular movement on the highway system through various survey tools. Process and assemble data to aid in determining travel desires for the location of new routes, relocation of existing routes, decisions between alternate route improvements, or as input into KySTM.

PROPOSED ACTIVITIES FOR 2005-2006:

- Maintain the KySTM and update with consultant forces.
- Use KySTM model for corridor studies, freight analysis, air quality conformity, system analysis, and special requests.
- Use KySTM model to develop sub-area studies on a county-wide basis for air quality analysis and as a source of data for developing external data for all KYTC and MPO models.
- Work with consultant to provide training in use of new KySTM model.
- Participate in TRB and other organizations that improve the state-of-the art of statewide modeling. This will involve travel to annual TRB meeting.
- Consider adding time-of-day modeling capability to KySTM model to enable better accuracy in congestion performance measure development.

DISTRIBUTION OF ESTIMATED COST FOR 2005-2006

PLANNING	FEDERAL SHARE 80%	STATE SHARE 20%	TOTAL
PERSONNEL	\$32,800	\$8,200	\$41,000
OTHER	*\$32,800	*\$8,200	\$41,000
TOTAL	\$65,600	\$16,400	\$82,000

*Includes \$40,000 for STM maintenance by consultant.

