



**TRANSPORTATION CABINET**

Frankfort, Kentucky 40622  
www.kentucky.gov

**Ernie Fletcher**  
Governor

**Bill Nighbert**  
Secretary

**Marc Williams**  
Commissioner of Highways

August 16, 2006

Mr. Jose Sepulveda  
Division Administrator  
Federal Highway Administration  
330 West Broadway  
Frankfort KY 40601

Dear Mr. Sepulveda:

Enclosed is the Annual Performance and Expenditure Report for the June 16, 2005 through June 15, 2006 (Fiscal Year 2006) Planning Work Program (SPR-PL-1-(41)) of the Kentucky Transportation Cabinet.

If you have any questions, please contact me at 564-7183.

Sincerely,

A handwritten signature in cursive script that reads "Daryl J. Greer".

Daryl J. Greer, P. E.  
Director  
Division of Planning

DJG/CTG

Enclosure

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



**ANNUAL PERFORMANCE AND  
EXPENDITURE REPORT  
FOR  
FISCAL YEAR 2006 ANNUAL WORK PROGRAM  
PROJECT SPR-PL-1(41)  
JUNE 16, 2005 THROUGH JUNE 15, 2006**

**AUGUST 2006**

## Introduction

The Annual Performance and Expenditure Report is required under 23 CFR 420.117. This document outlines the transportation planning activities conducted under Planning (Part I) of the SPR work program for the period of June 16, 2005 through June 15, 2006 (Fiscal Year 2006).

Many issues faced the Division of Planning during the period of this work program. The Divisions of Planning and Multimodal Programs officially merged during the year. At the same time a significant downsizing of the Division has taken place. The Division undertook a major effort to convert our roadway data management software to Highways by EXOR. Planning also continued to work with Kentucky State Police and others to maintain the digital base map of roadways as well as converted to ArcMap to create visual representations of the state highway systems. The Division also hired a freight coordinator to continue and expand efforts toward planning for other modes.

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

Attached are accomplishments for each chapter of the FY 2006 Work Program. Expenditures are summarized at the end of the document showing initial budget, final budget, expenditures, encumbered (remaining to be spent) monies, and unspent funds.

## ACCOMPLISHMENTS FOR 2005-2006

### CHAPTER 1: Administrative

**RESPONSIBLE UNIT:** Division of Planning  
Customer Service Activity Center (Internal Customer Service Team, External Customer Service Team, and Administrative Team)

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 planned, organized, and supported activities to accomplish Division goals in accordance with Cabinet and federal transportation policies and procedures.

The Internal Customer Service Team:

- Prepared daily correspondence for the Division relating to SPR Work Program activities.
- Prepared daily time and attendance and maintained records for Division employees.
- Prepared approximately 25 monthly in-state travel reimbursements.
- Prepared approximately 40 TE's (travel request) per month.
- The Internal Customer Service Team also prepared all registrations for various federal training and maintained training records.

The External Customer Service Team focused last year on customers external to the Division for cartographic products and responded to various data requests including approximately 550 requests from the Division's web page. This team was responsible for the plotting and distribution of approximately 1000 city, county or other miscellaneous maps to other divisions within the Cabinet, other state government agencies, or to the general public. In addition, they assisted in updating 2005 traffic count station maps for all counties and incorporated areas with the latest available traffic count and station data. This team also assisted with the creation of updated State Primary Road System maps.

The Administrative Team provided leadership, guidance, and support to accomplish Division goals and support Division staff. This included preparing the FY 06 SPR Work Program and the FY 05 Accomplishment and Expenditures Report. This team also oversaw federal reporting requirements, processed various consultant pay estimates, created and monitored approximately 175 contracts assigned to this Division, and processed payments against these contracts. The Administrative area also prepared various requisitions, tracked budgets, and monitored the annual work program expenditures.

## ACCOMPLISHMENTS FOR 2005-2006

### CHAPTER 2: Personnel Training

RESPONSIBLE UNIT: Division of Planning

The training of personnel was essential to the transportation program in order to keep pace with changing techniques and evaluate new procedures and developments. This was particularly essential to the Cabinet's multimodal/intermodal programs as more and better technical analyses and assistance was required. An effort was made to continue a level of staff training which maintains the integrity of professional career development and improvement of technological skills.

Training for 2005-2006 included conferences/workshops or like training:

- Highway Performance Monitoring System (HPMS)
- Highway Economic Requirements System (HERS)
- EXOR (upgrade of Highway Information System)
- TransCAD Traffic Model Training
- Partnering Conference
- TRB Committee Meetings
- Traffic Monitoring Guide training
- Reauthorization conference calls
- Mobility measures training
- ArcGIS
- Air Quality Roundtable
- Roundabouts RODEL Software
- Highway Capacity
- Safety conscious planning
- Freight movement
- Rural transportation planning
- Federal highway bill provisions
- National Environmental Policy Act
- Access Management
- GIS systems
- Congestion Management Systems
- Road User Cost Analysis
- MPO and Rural Planning
- TTI Mobility
- Title VI and Environmental Justice

## ACCOMPLISHMENTS FOR 2005-2006

### CHAPTER 3: Equipment Management

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

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.

- Collected volume and/or classification data on approximately 190 interstate stations across the state.
- Collected data at approximately 350 regularly scheduled volume and/or classification stations to assist District data collection efforts.
- Collected, processed, analyzed, and submitted quarterly one week of weigh-in-motion (WIM) data at 28 permanent WIM stations to include two LTPP sites.
- Periodically calibrated and assessed equipment for adjustments in order to obtain quality data. WIM sites were calibrated before each data collection as part of a research project to insure the accuracy of the collected data.
- Installed and/or repaired permanent vehicle sensors at approximately 30 high volume locations.
- Repaired and maintained 77 Automatic Traffic Recorders (ATR) sites.
- Investigated 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.
- Certified, repaired, and maintained approximately 600 traffic data recorders located in Central Office and across the state at the Districts.
- Inspected, repaired, and maintained 400 permanent vehicle sensor locations.
- Tracked emerging highway projects and produced plans and specifications for new and replacement traffic sensor installations for submittal into construction and pavement rehabilitation and resurfacing contracts.
- Oversaw any outside assistance necessary to assist this team in accomplishing the above tasks. Utilized contractors to help install sensors at various sites across the state.

Other items of note:

- Collection of WIM data at portable WIM stations has been limited to that for a research project to determine calibration requirements for permanent and portable WIM sites.

## ACCOMPLISHMENTS FOR 2005-2006

### CHAPTER 4: Traffic Data Collection and Processing

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

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.

- Worked with the Highway District Offices to perform approximately 4,500 regularly scheduled short-duration portable machine counts. These counts are approximately one-third of all short-duration traffic count stations in the state and are performed on a three-year cycle.
- Vehicle classification data at approximately 800 stations was collected and processed. The number of classification stations has been increased to 25-30% of all traffic count stations in accordance with the FHWA Traffic Monitoring Guide.
- Reviewed, assigned, processed, analyzed, and distributed data for approximately 290 special count stations that have been requested by the Division of Planning and outside divisions.
- Downloaded, processed, maintained, and analyzed data from 77 permanent ATR stations. Reviewed operation with Equipment Management Team for proper operation, locations, and coverage for possible new ATR station installations.
- Maintained, updated, analyzed, provided quality control and assurance of data, and made data available from approximately 13,500 traffic count stations.
- Updated 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.
- Updated in-house databases to include any new stations or roadway alignment changes. Correct beginning and ending milepoints to better represent traffic generators.
- Detected, analyzed, and adjusted volume counts while combining and creating additional stations where necessary.
- Continued work to document the entire TMS process.

## ACCOMPLISHMENTS FOR 2005-2006

### CHAPTER 5: Strategic Corridor Planning

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

A total of 7 studies were completed during the period of June 16, 2005 to June 15, 2006. This is based on the date the final report was printed for those projects that were completed in-house or the date the final report was submitted by the consultant. The studies completed are as follows:

- KY 44, Bullitt County – Item 05-150.00 – June 2005
- US 641 Eddyville, Lyon/Crittenden County – Item NA – July 2005
- US 41A, Hopkins County - Item 02-137.00 – January 2006
- US 421, Clay County – Item 11-8003.00 – January 2006
- Trapp Power Plant, Clark/Powell/Estill County – Item NA – March 2006
- KY 645 Extension, Lawrence/Carter County – Item 12-115.00 – April 2006
- Murray Intersection, Calloway County – Item NA – May 2006

The US 641 Eddyville and KY 645 Extension studies were consultant studies managed by central office staff. The US 41A study was managed in-house by District 2 with only the Environmental Footprint prepared by consultant. The KY 44 study was managed in-house by District 5. The Trapp Power Plant, US 421, and Murray Intersection studies were managed in-house by central office staff.

Three of these studies were funded through the SPR program: The US 421 Clay County study, The Trapp Power Plant study, and The Murray Intersection study.

The second phase of the I-69 Eddyville to Henderson study is now in progress. This is a consultant study managed by central office staff.

There are also five other studies that are nearing completion:

- London-Ashland, Various Counties, Item NA – Central Office in-house study (final draft)
- AA Connector, Lewis/Mason/Fleming County, Item 09-178.00 – Central Office in-house study (draft)
- KY 441, Bell County Item 11-110.00, Central Office in-house study (near draft)
- KY 17, Boone/Kenton County, Item NA, Central Office in-house study (final draft)
- US 25, Laurel County, Item 11-8201.00, Central Office in-house study (final draft)



## ACCOMPLISHMENTS FOR 2005-2006

### CHAPTER 5: Strategic Corridor Planning (continued)

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

Several of the studies listed above were large-scale efforts that included agency coordination and public involvement. All of the studies required coordination with the Highway District Offices and Area Development District Offices to assemble the project team, provide input on study issues, assist with scheduling meetings, and review reports. The Area Development District Offices also developed Environmental Justice reports for many of the studies.

Some, and in many cases, a substantial amount of work has been completed on other projects during the past work-program year. These projects include:

- KY 90, Cumberland/Metcalf County – Item 8-136 – consultant study, District 8
- US 421, Franklin County – Item 5-8109 – in-house study, Central Office
- US 421, Trimble County – Item 5-147 – in-house study, Central Office
- US 431, Logan, Muhlenberg, McLean, & Daviess Counties – Item 2-8106 – in-house study, Central Office
- I-64 Gilliland Road, Jefferson County – Item 5-8200, consultant study, District 5
- KY 1819 Billtown Road, Jefferson County, item 5-8203, consultant study, District 5
- Lawrenceburg Small Urban Area Study, Anderson County, Item NA, in-house study Central Office

Summarizing, 20 projects have been worked on during the past year, with 7 being completed and 5 others nearing completion.

## ACCOMPLISHMENTS FOR 2005-2006

### CHAPTER 6: Statewide Transportation Planning

RESPONSIBLE UNIT: Division of Planning  
Strategic Planning Activity Center  
Statewide Planning Team

- 2005 Prioritization Process Completed by ADDs, MPOs and Highway District Offices
  - High, Medium and Low Priorities were provided for approximately 2400 Unscheduled Projects at the Local, Regional and Highway District Levels. Process was completed and all priorities and rankings noted in the UPL by September of 2005.
  - Top Ten Rankings of UPL projects by funding tiers and also an overall top ten ranking per region was completed by July of 2005.
  - Top five Six Year Plan Projects were provided by each ADD, MPO and Highway District during 2005.
- 2005 Priorities on UPL Projects were entered into the KYVIP Scoring System for use in recommending projects for the 2006 Six Year Highway Plan.
- Assisted 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.
- Project Identification Forms were reviewed, updated and submitted with maps and photos for all High Priority Projects by the 15 Area Development Districts.
- Draft detailed Guidelines were developed and distributed for preparing Project Identification Forms, to be used by various areas of the KYTC, Highway Districts, MPOs and ADDs.
- Six Statewide Transportation Planning Meetings were held for the 15 Area Development Districts, 12 Highway District Offices and 3 of those meetings included the 9 Metropolitan Planning Organizations as well.
- Drafted and finalized a Rural Consultation Survey which was distributed to all local officials for incorporated cities with populations of 5,000 or more and all county judges in Kentucky. The survey results were reviewed, compiled and provided to the Federal Highway Administration, all 15 Area Development Districts, and posted on the Cabinet's Web Page. This effort was completed in response to TEA-21 requirements to obtain feedback from local officials on the Cabinet's Rural Consultation Process in Transportation Planning.
- Researched and drafted the Statewide Transportation Plan for the KY Transportation System.
- Title VI Certification Data, Surveys and Census Data was prepared and collected by 15 Area Development Districts and submitted to the KYTC Office for Business and Occupational Development.

## ACCOMPLISHMENTS FOR 2005-2006

### CHAPTER 6: Statewide Transportation Planning (continued)

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

- Drafted and approved the FY 2007 Annual Work Programs/Contracts for 15 Area Development Districts.
- Processed 3 Quarterly Modifications to the FY 2006 Contracts for all 15 Area Development Districts.
- Reviewed and processed 4 Quarterly Reports, Invoices and payments for all 15 Area Development Districts.
- Provided data and information as requested for the KYTC Draft STIP for 2006.
- Assisted 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.

## ACCOMPLISHMENTS FOR 2005-2006

### CHAPTER 7: Roadway Systems

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

#### State Primary Road System (SPRS):

- Participated in Exor software Training exercises and switched to the new HIS database.
- Learned ArcMap using Division created self-training instructions for making maps.
- Created nine (9) new county SPRS maps in ArcMap.
- Processed a total of 59 official orders making various system changes.
- Provided Quality Control support for new ArcMap SPRS maps created by Cartography Team.

#### Coal Haul Highway System:

- Updated address list and mailed coal haul reporting forms in December 2005 (593) and in June 2006 (563).
- Processed 675 routes for the 2005 Coal Haul report.
- Provided ton-miles data to the Governor's Office for Local Development.
- Published the Annual Coal Haul Report.
- Provided data to Division of Maintenance for updating Extended Weight Coal Haul Road System.
- Trained new employee to process coal haul information including use of Surface Mining Information System, ArcView, Kentucky GIS Portal, and Route Log.

#### Functional Classification System:

- Continued to make changes and updates to functional classification system as needed.
- Provided Quality Control support for new ArcMap Functional Classification maps.

#### Miscellaneous Efforts:

- Handled National Truck Network (NN) requests and inquiries.
- Entered historical Interstate and Parkway sections open to traffic dates with milepoints in new HIS database.
- Processed first entirely electronic AASHTO route numbering change.

## ACCOMPLISHMENTS FOR 2005-2006

### CHAPTER 8: Geographic Information Systems (GIS)

**RESPONSIBLE UNIT:** Division of Planning  
Transportation Systems Activity Center  
GIS Team

#### GIS Maintenance:

- Assisted in revising standards and scheduling counties for GPS maintenance.
- Worked with KSP and ADD's plan overall maintenance program.
- Performed processes to incorporate ADD updates to GIS road network for 65 counties.
- Adjusted GIS coverages (state and county) to match HIS data for loading in Exor software (59 counties in Exor).

#### State Highway Map:

- Rescaled and revamped 2006 map with new alignments and road classifications.
- Rescaled and modified 15 city inset maps in Adobe Illustrator.
- Created new inset of State Park Golf Trail.
- Worked with Tourism and Creative Services to publish new Official State Highway map.

#### Special Maps:

- Created 2006 Getaway Guide map for Tourism.
- Produced map of state highlighting Welcome Centers and Rest Areas for Tourism.
- Made a series of nine (9) regional maps plus state map for 2006 Visitors Guide.

#### Special Exhibit Projects for SPAC:

- Assisted with exhibits for Trapp-Irvine study.
- Created Interstates and Parkways map for Web site.
- Assisted with US 421 Clay County study.
- Made the VSF maps.

#### Miscellaneous Projects

- Produced maps of critical bridges and tunnels for Homeland Security.
- Created County Road Series maps.
- Assisted in update of bridge location data and rectification project.
- Helped in creating new SPRS and Functional Classification maps.

## ACCOMPLISHMENTS FOR 2005-2006

### CHAPTER 9: Cartography

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

#### Maps:

- Converted to ArcMap and created 34 new county and 15 new city SPRS and Functional Classification maps.
- Created 120 county and 85 city Functional Classification maps prior to ArcMap conversion.
- Created maps for Commissioner of Highways showing priority network, pavement condition, and traffic volume.
- Performed annual update of Economic Development Counties map.
- Produced I-75 map for DoD showing hospitals close to interstate exits.
- Reviewed and critiqued 15 county road aid series maps produced by the ADD's.
- Converted several specialty maps to ArcMap (NHS, NN, etc.).
- Generated statewide Kentucky and Tennessee air transportation system maps.
- Updated statewide map showing Legislators and their districts.
- Produced maintenance and support facility map for the Office of Inspector General.
- Made series of maps for various Departments and Divisions:
  - Large statewide map for the Office of Public Affairs
  - Map of traffic school locations
  - Rest Area "You are here" maps for Welcome Centers
  - Statewide map of bond projects
  - Maintenance and support facilities maps
  - High resolution official highway map for information kiosks

#### Created Exhibits for planning studies:

- Ashland to London corridor study
- Fort Campbell traffic study
- US 431 statewide study
- US 421 study in Clay County
- Trapp area study

#### Other Special Projects:

- Finalized update of bridge location data and rectification project for Division of Maintenance.
- Worked with Data Management on Exor software HIS mapping requirements.
- Developed process and instructions to create SPRS maps in ArcMap.
- Assisted ADD's in creating County Road Aid series maps.
- Maintained the computer backup system for Division.
- Worked with Traffic Counts Team to prioritize and create county base maps for traffic count mapping.
- Updated GIS maintenance tracker system for use with Exor software.
- Created and automated CRA road list in Access.

## ACCOMPLISHMENTS FOR 2005-2006

### CHAPTER 10: GPS/HIS Development and Support

**RESPONSIBLE UNIT:** Division of Planning  
Data Management Activity Center  
Development and Support Team

- Loaded HIS database and GIS layers to EXOR systems.
- Continued to develop programs to convert layer tables back to familiar format after exporting from EXOR for the purpose of providing a seamless GIS transfer from EXOR for existing costumers.
- Created individual asset type GIS layers directly exported from EXOR to replace old individual road asset mapping (e.g. Functional Class, State System, Route Log, etc) which used a database connection and dynamically segmented an asset table to a measured route layer for mapping purposes.
- Developed and ran numerous quality control measures to assure current HIS records and GIS centerline records match assuring all centerlines have correct and full assets assigned. All records not correct were assigned to processor to fix.
- Have conducted weekly status meetings with EXOR staff through conference calls to assure full implementation of EXOR was occurring. Any issues concerning performance, reliability, and functionality were discussed and a plan of action for a solution provided to proceed.
- Many work sessions were accomplished for the purpose of developing new work processes and procedures as they need to be accomplished in EXOR.
- Reviewed many scripts developed by EXOR to create tables to attempt to match existing tables as defined in the current HIS System. Provided feedback to EXOR as to validity and functionality of the scripts.
- Provided much input to EXOR staff in developing custom tools for KYTC for the purpose of providing better functionality of the EXOR product pertaining to KYTC's needs and updating the state's road network.
- Continued development of the GPS Maintenance Process to systematically update the GIS centerlines. Existing routines modified and new routines written for automation of the process and QC.
- HPMS annual submittal.

## ACCOMPLISHMENTS FOR 2005-2006

### CHAPTER 10: GPS/HIS Development and Support (continued)

**RESPONSIBLE UNIT:** Division of Planning  
Data Management Activity Center  
Development and Support Team

- Support for Rating and Scoring of projects.
- Replaced horizontal curve data in database with newly calculated curve from the GIS centerline files.
- Implemented process to update GIS road centerlines with CAD design plans.



## ACCOMPLISHMENTS FOR 2005-2006

### CHAPTER 11: Global Positioning System (GPS)

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

- 65 of 120 counties have been through a QC and preparation process for GPS maintenance submittals after a 5 month shut down of the system to load to EXOR. New GIS layers were submitted by the Area Development District to update new roads and attributes such as road name, surface type, ownership, to the GIS system.
- 65 of 120 counties have been entered into new HIS (EXOR) to correctly reflect changes to the road network associated with the GPS maintenance process.
- Developed new process to exchange GIS centerline data with Area Development District for the purpose of fixing address ranges of the statewide centerline file to be submitted to KSP for statewide enhanced 911 database and centerlines.
- 52 GPS Maintenance counties centerline files were delivered back to ADD staff to process into KSP enhanced 911 database.
- 35 new state road alignments including multiple local roads affected by state road new alignments were delivered to ADD staff to process into KSP enhanced 911 database.
- 2 new state road alignments and local roads affected by these state road alignments were mapped using GPS and updated in EXOR (HIS).
- 33 new state road alignments and local roads affected by these state road alignments were mapped using design files to update EXOR (HIS).
- Office reviews were accomplished to verify spatial accuracy of the GPS'd alignments and alignments derived from design files.
- Many work sessions for the purpose of migrating from ESRI GIS Arcinfo coverage's to the new GIS and database system called Highways by EXOR.
- Ran quality control error checks to assure all GIS\GPS'd centerlines are correctly reflected in HIS database.
- Provided data to updated HIS database with new GPS'd centerline information.
- Ran QC routines to identify attribute changes to the centerline file that was not correctly changed in route description fields in individual asset items of Evaluation Segments, Functional System, Route Log, Traffic Flow, and Truck Weight.

## ACCOMPLISHMENTS FOR 2005-2006

### CHAPTER 12: Highway Information System

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

- Processed HIS data through the HPMS software to prepare for HPMS submittal.
- Produced the following summary reports for HPMS submittal:
  - Statewide summary
  - Pavement Type
  - Travel Activity
  - Length Totals
  - Travel Totals
  - Urbanized Length Totals
  - Urbanized Travel Totals
- Validated data integrity of all data items questioned to be in error by the HPMS software.
- Incorporated 35 new state road alignments and numerous local roads affected by state road new alignments into new HIS (EXOR) assuring network and data was correctly processed, assigned and attributed.
- Completed statewide evaluation mapping project to use as baseline for future evaluation review project.
- Helped establish guidelines for new road inventory project for the purpose of redefining evaluation sections based off of new road inventory project.
- Continued to conduct statewide Functional Class review as new alignments from Official Orders and GPS Maintenance are added to the network.
- Continued to conducted statewide Traffic Station review as new alignments from Official Orders and GPS Maintenance are added to the network.
- Continued to conducted statewide State System review as new alignments from Official Orders and GPS Maintenance are added to the network.
- Produced the annual Certified Public Mileage report.
- Produced the annual Vehicle Miles Traveled by functional class report.
- Produced Roadway mileage spreadsheet by functional class and county.

## ACCOMPLISHMENTS FOR 2005-2006

### CHAPTER 12: Highway Information System (continued)

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

- Produced System Length and Daily Vehicle Travel report and uploaded to Division of Planning website.
- Produced National Highway System (NHS) report and uploaded to the Division of Planning website.
- Produced Governmental Ownership Length report and uploaded to the Division of Planning website.
- Produced Daily Truck Travel report and uploaded to the Division of Planning website.
- Produced Mileage and Daily Vehicle Miles Traveled (DVMT) report and uploaded to the Division of Planning Website.
- Loaded all new degree of curvature calculated using GPS centerlines.

## ACCOMPLISHMENTS FOR 2005-2006

### CHAPTER 13: Special Analysis

RESPONSIBLE UNIT: Division of Planning

- Developed/programmed the KY VIP project scoring system for the SYP and UPL.
- Created an environmental footprint template for use in planning studies.
- Assisted in updating data related to Official Orders changes.
- Developed custom queries and GIS files for various analysis and reporting projects.
- Assisted in the ongoing development of features for the Federal Highway Administration's HERS-ST model.
- Gave presentations at a variety of conferences and meetings regarding various analysis projects and the usage of HERS-ST within the Division.
- Provided assistance and guidance to each branch within the Division for specialized projects.
- Updated and verified data for high Volume to Service Flow roadway sections.
- Assisted in the database migration from HIS to EXOR.
- Performed various EXOR database updates and edit checks (Relating to the HPMS report and the GPS maintenance process).
- Assisted in the development of the highway priority network.
- Developed a data collection process to be used by the Area Development Districts for the Data Collection contract.
- Trained the eight participating Area Development Districts on the processes of roadway data collection. The training included one day of in-house Central Office training and two days of field training for each Area Development District.
- Held training for non-Analysis Team Division staff relating to querying the EXOR database and creating the needed reports for the data collection effort.

## ACCOMPLISHMENTS FOR 2005-2006

### CHAPTER 14: Air Quality Conformity Analysis Program

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

#### 8-Hour Ozone Conformity Analysis

*(Note) New areas were designated as nonattainment for the 8-Hour Ozone NAAQS on June 15, 2004 and conformity demonstration was required by June 15, 2005.*

8-Hour Ozone conformity analyses for a new Long Range Plan (Plan) and Transportation Improvement Plan (TIP) for the Ashland Area and amendments to the Plan and TIP for Christian County (Clarksville Area) were completed. Activities included:

- Worked with FHWA and MPO to schedule and conduct Interagency Consultation (IAC) Meetings.
- Participated with IAC to determine analysis years and planning assumptions.
- For required analysis years, prepared MOBILE6.2 emission model input (including VMT forecasts and average speeds) and worked with IAC to approve transportation and other inputs.
- Ran MOBILE6.2 model to get emission factors and used VMT forecasts to determine emissions for required analysis years.
- Wrote conformity chapters for respective MPO Long Range Transportation Plans and TIPs.
- Coordinated KYTC support letter for FHWA conformity determination.
- Ensured that FHWA conformity determination letter is on file.

#### 8-Hour Ozone Redesignation to Attainment with a Maintenance Plan

- For required analysis years, prepared transportation data MOBILE6.2 emission model input (including VMT forecasts and average speeds) for Christian County, Boyd, and Lawrence Counties in the Ashland area and Bullitt and Oldham Counties in the Louisville area. Worked with IAC to approve transportation and other inputs. This information was used by the Kentucky Division for Air Quality (DAQ) to prepare the State Implementation Plan (SIP) and associated mobile source emissions “budgets” for the redesignation requests. As a result, Christian County has been redesignated as attainment with a maintenance plan and the Ashland and Louisville area redesignations are in the final stages of EPA approval.

## ACCOMPLISHMENTS FOR 2005-2006

### CHAPTER 14: Air Quality Conformity Analysis Program (continued)

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

#### Fine Particulate (PM2.5) Conformity Analysis

*(Note) New areas were designated as nonattainment for the Fine Particulate (PM2.5) NAAQS on April 5, 2005 and conformity demonstration was required by on April 5, 2006*

Fine Particulate (PM2.5) conformity analyses for all the Kentucky PM2.5 areas (Louisville area, Northern Kentucky/Cincinnati and Ashland/Huntington) were completed by the April 5, 2006 deadline. Activities included:

- Worked with FHWA and MPO to schedule and conduct Interagency Consultation (IAC) Meetings.
- Participated with IAC to determine analysis years and planning assumptions.
- For required analysis years, prepared MOBILE6.2 emission model input (including VMT forecasts and average speeds) and worked with IAC to approve transportation and other inputs.
- Ran MOBILE6.2 model to get emission factors and used VMT forecasts to determine emissions for required analysis years.
- Wrote conformity chapters for respective MPO Long Range Transportation Plans and TIPs.
- Ensured that FHWA conformity determination letter is on file.

#### Fine Particulate (PM2.5) Project Level (Hot Spot) Conformity Analysis

*(Note) New areas were designated as nonattainment for the Fine Particulate (PM2.5) NAAQS on April 5, 2005 and project level conformity demonstration is required for any project requiring federal approval after April 5, 2006.*

- Worked with FHWA and EPA to develop process and checklist and standardized documentation for PM2.5 project level conformity.
- Worked with KYTC Division of Environmental Analysis (DEA) to develop KYTC process for meeting PM2.5 project level conformity requirements.
- Worked with KYTC Division of Environmental Analysis to review list of six year plan projects and categorize as exempt/nonexempt.
- Work with appropriate IACs to get concurrence for exempt projects.
- Consult with FHWA and EPA and begin work on the PM2.5 project level analysis for the Ohio River Bridges project.

*Will continue to work with DEA to analyze and complete required documentation for PM2.5 project level requirements for all KYTC six year plan projects.*

## ACCOMPLISHMENTS FOR 2005-2006

### CHAPTER 14: Air Quality Conformity Analysis Program (continued)

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

#### Transportation data prepared for the Kentucky Division for Air Quality

- Prepared VMT forecasts and average speeds for MOBILE6.2 input for Bullitt and Oldham Counties for Louisville Area 8-Hour Ozone conformity analysis and SIP development and the associated mobile source emissions budgets.
- Prepared VMT forecasts and average speeds for MOBILE6.2 input for Christian County for Clarksville Area 8-Hour Ozone redesignation to attainment and SIP development and the associated mobile source emissions budgets.
- Prepared VMT forecasts and average speeds for MOBILE6.2 input for Boyd and Lawrence Counties for Ashland Area 8-Hour Ozone redesignation to attainment and SIP development and the associated mobile source emissions budgets.
- Prepared VMT forecasts and average speeds for MOBILE6.2 input for Bullitt and Oldham Counties for Louisville Area PM2.5 conformity analysis. Assisted DAQ with development of methodology for determining annual, semi-annual, seasonal and monthly PM2.5 emissions.
- Updated VMT and speed forecasts for EPA's Visibility Improvement - State and Tribal Association of the Southeast (VISTAS) program to analyze particulate matter air quality and regional haze.

#### MPO Coordination

- Worked with KIPDA (Louisville Area), OKI (Northern Kentucky Area), Ashland, Clarksville, and LFUCG (Lexington) to insure their Travel Demand Models (TDM) are consistent with KYTC VMT and speed forecasts.
- Coordinated with FHWA monthly air quality conference calls.
- Provided appropriate educational air quality agenda items for quarterly MPO meetings.

#### Speed Study

- Guided University of Kentucky effort to expand the recently developed speed study to determine hourly average daily speeds using FHWA's Highway Economic Requirements System (HERS).

#### Standards Guidelines

- Updated KYTC's knowledge of conformity regulations through study and discussion with federal partners.
- Reviewed and commented on FHWA/EPA guidelines for 8-Hour Ozone, PM2.5 conformity and PM2.5 project level (hot spot) conformity.

## ACCOMPLISHMENTS FOR 2005-2006

### CHAPTER 14: Air Quality Conformity Analysis Program (continued)

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

- Worked with FHWA and EPA to develop and standardized documentation for PM2.5 project level conformity.
- Worked with KYTC Division of Environmental Analysis to develop KYTC process for meeting PM2.5 project level conformity requirements.
- Provided status of new regulations, standards and designations to KYTC staff.

### CMAQ

- Managed CMAQ process for review and selection of 2007 CMAQ projects.
- Managed the programming of 2006 CMAQ projects.
- Provided emissions reduction analysis for numerous CMAQ applications.
- Began work to transition the CMAQ program to the Office of Intergovernmental Programs.

### Outreach

- Worked to coordinate an air quality media campaign designed to encourage folks to bike or walk instead of driving building on the previous years' campaign.
- Worked with small MPOs (Ashland, Owensboro) to implement or improve their outreach programs.
- Represented KYTC on the interagency Earth Day preparations and activities.
- Worked with Lexington and Northern Kentucky to prepare for Safe Routes to School CMAQ applications in preparation for the new Safe Routes to School federal program.



## ACCOMPLISHMENTS FOR 2005-2006

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

RESPONSIBLE UNIT: Division of Planning

- The Radcliff/Elizabethtown Public Transportation Study was completed.
- The Dixie Fix Access Management Study was completed.
- The Hardin-Meade County US 31W Access Management Study was initiated and 75% completed.
- The KYTC VMT Forecasting Model was updated and 2004-2030 county level forecasts were prepared.
- The PIP Process Review Team developed recommendations for streamlining the public review process for statewide and metropolitan planning products.
- The TIP Process Review Team developed recommendations for streamlining the amendment process for statewide and metropolitan Transportation Improvement Programs.
- The Fiscal Constraint Process Review Team worked on recommendations to best meet federal requirements for statewide and metropolitan financial constraint.
- A draft Consolidated Planning Process Team worked on recommendations to combine overlapping planning issues into a streamlined process.
- The Radcliff/Elizabethtown traffic model update was completed.
- Six Statewide Transportation Planning Meetings were held for the 15 Area Development Districts, 12 Highway District Offices and 3 of those meetings included the 9 Metropolitan Planning Organizations as well.
- Title VI documentation from the MPOs was requested and collected.
- PL funding distribution was coordinated with the MPOs and projects were selected for discretionary spending.
- Participated in the development of 7 new or updated TIPs, 20 TIP amendments, and conformity approvals as appropriate.
- Participated in the development of 5 new or updated long range transportation plans, 14 plan amendments, and conformity approvals as appropriate.
- Participated in the certification review process for the Louisville area MPO.
- The Lexington Regional Bike and Pedestrian Plan study was begun.
- Participated in planning for transportation needs for the World Equestrian Games.
- Participated in the drafting of a scope of work for a Bluegrass Regional Transportation Study.
- Continued working with the Newtown Pike Extension work group in Lexington.
- Contract and contract administration of over 70 contracts.
- Nine MPO work programs were reviewed and implemented.
- Travel demand modeling completed for the Ashland area conformity analysis.

## ACCOMPLISHMENTS FOR 2005-2006

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

**RESPONSIBLE UNIT:** Division of Planning

- The travel demand model was updated and recalibrated for the Owensboro area.
- A corrective action in the OKI area was addressed requiring the MPO to take lead on SNK project selection.
- Reviewed and coordinated MPO Public Involvement Plans.
- The Boone County Transportation Study was completed.
- The US 27 non-capacity adding study in Northern Kentucky was completed.
- Review of the traffic forecasts for the Brent Spence Bridge replacement was conducted.

