

**STATE PLANNING AND RESEARCH (SPR)  
WORK PROGRAM AND COST ESTIMATE**

**State Fiscal Year 2013**

**FHWA PROJECTS  
SPR-2000(33), SPR-4000(32)  
SPR-3000(1) AND SPR 3000(2)  
AND OTHER  
FEDERALLY ASSISTED PROGRAMS**



**Arkansas State Highway and Transportation Department  
Planning and Research Division  
in cooperation with  
U.S. Department of Transportation  
Federal Highway Administration  
Federal Transit Administration**

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
PLANNING AND RESEARCH DIVISION**

**STATE PLANNING AND RESEARCH (SPR)  
WORK PROGRAM AND COST ESTIMATE  
STATE FISCAL YEAR 2013**

**FOR**

**FHWA PROJECTS SPR-2000(33), SPR-4000(32),  
SPR-3000(1) AND SPR-3000(2)**

**AND**

**OTHER FEDERALLY ASSISTED PROGRAMS**

**PART I  
PLANNING**

**PART II  
RESEARCH**

**PART III  
MBTC ACTIVITIES**

**PART IV  
CTTP ACTIVITIES**

**PART V  
T<sup>2</sup> PROGRAM**

**PART VI  
PUBLIC TRANSPORTATION PROGRAMS**

**in cooperation with  
U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
FEDERAL TRANSIT ADMINISTRATION**

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## INTRODUCTION

This work program has been developed in compliance with United States Code Titles 23 and 49, as amended, in cooperation with the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA).

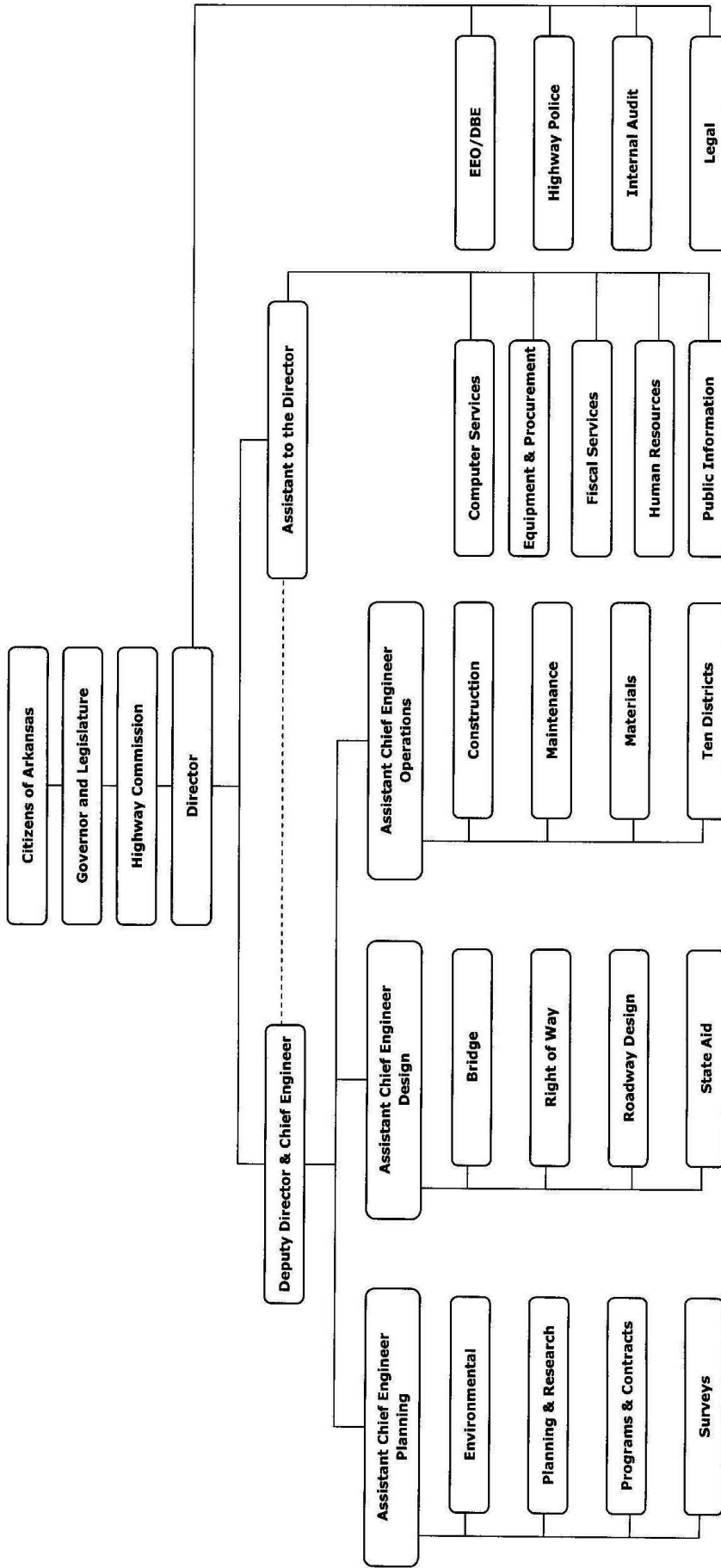
The contents of this document describe proposed planning and research activities of the Arkansas State Highway and Transportation Department (Department) for State Fiscal Year 2013. It contains Part I, the Planning portion of the State Planning and Research (SPR) Work Program and Cost Estimate; Part II, which describes Research activities; Part III, covering the Mack - Blackwell National Rural Transportation Study Center (MBTC); and Part IV, the Center for Training Transportation Professionals (CTTP) Activities. Other programs included are the Technology Transfer (T<sup>2</sup>) Program, the planning portion of the FTA Program under Public Transportation Programs, and other federal and state funded projects.

In general, the goals and objectives of this program describe and implement the type of planning and research essential to maintain and improve the State Transportation System. The System is part of the unified, interconnected National Intermodal Transportation System, in accordance with the policies set forth in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) of 1998, and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) of 2005. FHWA-supported highway and transportation planning continues as the dominant activity. The Department will continue to give proper attention to the development of other modes of transportation as outlined in the various line items. The Department's planning effort is an on-going operation, instrumental to the formulation of short- and long-term policies, plans and procedures to achieve the goals and objectives under each work function.

Implementation and monitoring programs for National Recreational Trails and Scenic Byways will continue during Fiscal Year 2013.

The T<sup>2</sup> Program funds are programmed based on a calendar year and the T<sup>2</sup> Program is presented through December 2012 and all of Calendar Year 2013.

# ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT ORGANIZATION CHART



*Scott D. Bennett*

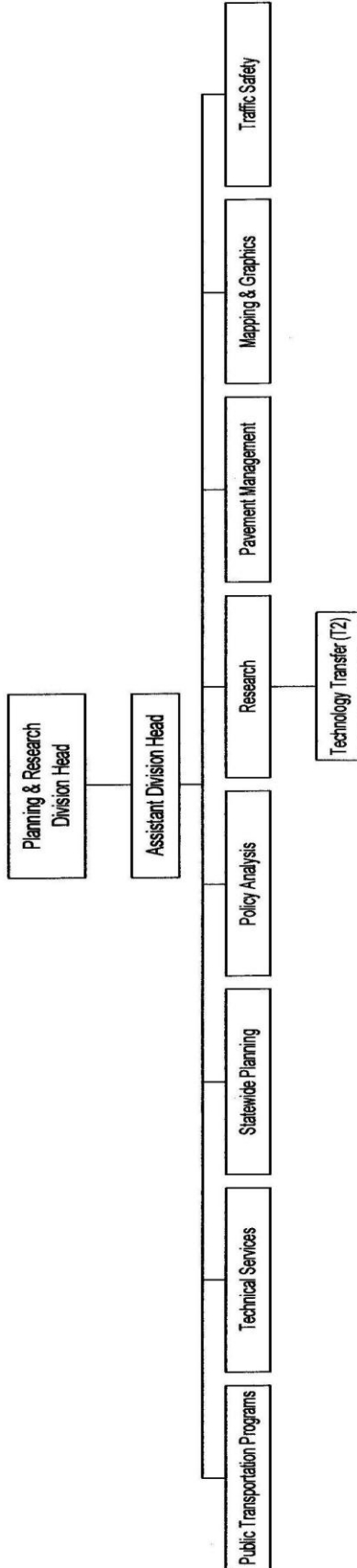
Director of Highways and Transportation

5-14-2012

Date



**PLANNING & RESEARCH DIVISION  
ORGANIZATION CHART**



Approved *Gene H. Audon* 3/29/2012  
 Assistant Chief Engineer - Planning Date

## **STATEWIDE PLANNING SECTION**

The Statewide Planning Section coordinates Department planning activities with government agencies responsible for all modes of transportation. Planning studies are conducted to identify and measure engineering, social and economic factors of proposed transportation improvements for use in the decision-making process. The Statewide Planning Section and the Public Transportation Programs Section share in managing the Department's participation in the continuing, cooperative, and comprehensive (3-C) planning process in each urbanized area in compliance with federal regulations.

The Statewide Planning Section has additional responsibilities that include developing, implementing and monitoring programs for Recreational Trails, Safe Routes to School and Scenic Byways. Other duties include the development of State Modal Transportation Plans and regional intermodal transportation studies.

## **TECHNICAL SERVICES SECTION**

The Technical Services Section has the responsibility of monitoring, collecting, analyzing, managing, and disseminating transportation system data. This data includes system mileage, usage data, performance data, and physical characteristics of the State's highways, roads and streets.

Major programs for which the Section is responsible include: the Highway Performance Monitoring System, the Roadway Inventory Database, and the Traffic Monitoring System for Highways.

Truck weight data and other highway user information such as traffic counts, vehicle classifications, pavement quality data and skid resistance data are collected, reported and disseminated. Special surveys are conducted as needed in order to support the Department's planning and design efforts.

Throughout the year, numerous statistical analysis reports and other reports are published for use by FHWA, State and local officials, planning departments, and Department personnel.

## **POLICY ANALYSIS SECTION**

The Policy Analysis Section is responsible for a variety of activities involving both the Planning and Research Division and several other Divisions in the Department. There are five main areas of effort:

- Legislative Review - monitoring state and federal legislative impacts on program requirements and funding; and monitoring other states' legislative actions to anticipate the impacts to Arkansas.

- Modeling and Management Studies - traffic modeling for the Department and various Metropolitan Planning Organizations, development of the Statewide Travel Demand Model, and the development and updating of the Arkansas State Highway Needs Study.
- Finance – monitoring Arkansas and federal funding trends, proposed funding mechanisms, and monitoring financing options in other states; submitting annual statistical reports to FHWA for federal fund distribution
- Publications – Biennial Report, Motor Fuel Tax Rates, Selected Facts and Figures, Census Data, and others as requested.
- Air Quality – working with the current and anticipated non-attainment areas as well as state and federal agencies to determine program features and impacts.

This Section gathers and analyzes data basic to federal, state, and Department policies and administrative decisions required to maintain and improve Arkansas' State Transportation System. Knowledge of highway, road and street laws, familiarity with state and national financial trends, air quality planning, travel demand modeling, and knowledge of system performance data and trends provide the basis for responding to requests.

## **MAPPING AND GRAPHICS SECTION**

The Mapping and Graphics Section is responsible for the preparation of maps and related projects required by the Department. These consist of design and compilation for 75 counties (centerline maps, enhanced maps, road number layers and route and section maps), 512 municipal or city area maps, statewide maps (i.e. State Highway Map (Tourist Map) and State General Highway Map), GIS datasets, and special projects or displays and presentations as needed.

## **TRAFFIC SAFETY SECTION**

The Traffic Safety Section is responsible for administering the Highway Safety Improvement Program (HSIP) and the rail-highway safety program. Part of the HSIP process involves traffic crash location and traffic crash data analysis. Railroad crossings are monitored for possible upgrade of their protective systems and surfaces. Traffic crash reports are checked for accurate highway-section-log mile location and are corrected if necessary. Traffic crash data is analyzed to identify high crash rate locations involving fatal and serious injuries, wet weather crashes, annual wrong way crash analysis study, and single vehicle run-off-road type crashes. The Traffic Safety Section conducts crash analyses as requested by other Divisions and Districts and computes statewide crash rates for the various roadway types. The Section also facilitates the Statewide Safety Steering Committee and updates the State's Strategic Highway Safety Plan as needed.

## **PAVEMENT MANAGEMENT SECTION**

The Pavement Management Section is responsible for maintaining the Department's Pavement Management System (PMS) and Multi-Media Highway Information System. The main duties within the Section are (1) the collection of pavement performance data, right-of-way images,

and pavement surface images; (2) the processing of the data and imagery into various formats conducive to analysis; and (3) the analysis of the data and imagery to aid in the prediction of future needs on the State Highway System and to provide the administration with tools necessary to make sound decisions regarding the State Highway System. Other responsibilities include providing pavement performance data and highway geometric data for the Highway Performance Monitoring System (HPMS).

## **RESEARCH SECTION**

The Research Section is responsible for conducting the Department's Transportation Research and Development Program, the Transportation Research Assistantship Program, the Training Transportation Professionals Program, and the Pavement Acceptability Verification Profilograph Program. Other responsibilities include monitoring contract project activities, conducting in-house research projects, installing and evaluating test sections of roadways, implementing findings of research projects, conducting Department support operations as requested or required, and other research related activities.

The Transportation Research and Development Program is composed of research projects recommended by the Research Advisory Council and approved by the Transportation Research Committee. The Program includes in-house projects, demonstration and experimental construction projects, required by the Department and contracts from FHWA, and projects that are contracted to various institutions of higher learning, other governmental agencies, and private contractors.

The Transportation Research Assistantship Program is composed of short courses/seminars, assistantships for graduate students studying engineering and conducting research projects as approved by the Mack-Blackwell National Rural Transportation Study Center Review Panel at the University of Arkansas at Fayetteville and the Department. In Fiscal Year 2012, one graduate student was awarded an assistantship to study engineering and conduct Department-sponsored research.

The Training Transportation Professionals Program is a continuing program and is composed of short courses specifically prepared at the request of the Department. Course subjects include certifying laboratory and field personnel of both the Department and its construction contractors for sampling, handling, and testing highway construction materials. Approximately twenty-eight training sessions are conducted annually and additional courses are currently being developed that will expand the program.

The Pavement Acceptability Verification Profilograph Program is a continuing program available at the request of the Districts to resolve pavement acceptability issues with contractors and to verify the authenticity of contractor performed profilograph ratings.

The Department's participation in the National Cooperative Highway Research Program (NCHRP) and various pooled fund studies are conducted through the Research Section. NCHRP projects are selected based upon national need. The Research Section coordinates the Department's participation in this selection process.

Grant projects are continuing with Arkansas State University in conjunction with the Crowley's Ridge Parkway and the Great River Road.

The Research Section subscribes to the National Highway Research Information Correlation Service. Through this system, information concerning research activities funded by the U.S. Department of Transportation is available to the Department. The Research Section maintains a library of selected publications from the Transportation Research Board, reports on Department sponsored research projects and various other states' sponsored research projects that are available to the Department and other agencies. Research maintains a database of research results and tracks their implementation within the Department.

### **MACK-BLACKWELL NATIONAL RURAL TRANSPORTATION STUDY CENTER (MBTC) TRANSPORTATION RESEARCH ASSISTANCE PROGRAM**

The Department entered into an agreement with the University of Arkansas at Fayetteville in 1996 establishing the Transportation Research Assistance Program at the Mack-Blackwell National Rural Transportation Study Center (MBTC). The Transportation Research Assistance Program permits the Department to participate with the MBTC in short courses/seminars, provide Transportation Research Assistantships to select graduate students at the MBTC, and to select Department employees; and participate in state funded, Department-sponsored research projects. General supervision of this program for the Department is vested in the Review Panel consisting of the Deputy Director and Chief Engineer as Chairperson, the Assistant to the Director, and the Assistant Chief Engineers.

Under the Short Courses/Seminars Program, the MBTC develops and presents short courses/seminars as mutually agreed to by the Department and the MBTC. Department personnel may be placed on loan to the MBTC to assist in development and/or presentation. Personnel may be made available for work with national short courses/seminars as well as Department-sponsored work.

Under the Transportation Research Assistantship Program, Research Assistantships are made available to select graduating Civil Engineering students and to select Department personnel. Applicants must be eligible for acceptance into the graduate program at the University of Arkansas at Fayetteville. This program permits employees to return to school to pursue advanced degrees in civil and transportation engineering and secures higher qualified personnel for the Department.

In the State Funded Research Projects Program, selected projects approved by the Review Panel will be forwarded to the MBTC. The MBTC may also submit research proposals directly to the Review Panel for review, approval, and inclusion in the State Funded Research Program. This program will complement the SPR Part II Contract Research Program.

## **CENTER FOR TRAINING TRANSPORTATION PROFESSIONALS (CTTP)**

The Department entered into an agreement with the University of Arkansas at Fayetteville in 1996 establishing the Center for Training Transportation Professionals at the Mack-Blackwell National Rural Transportation Study Center. Training courses have been developed by the CTTP for training transportation technicians in proper methods for sampling, handling, and testing highway construction materials. These training courses are available for Department and contractor personnel, and lead to certification as required by the Department's Standard Specifications for Highway Construction. Courses developed for other aspects of highway construction and management include National Pollutant Discharge Elimination System, Roadway Construction Control, Concrete Strength Testing, and Concrete Patching.

## **TECHNOLOGY TRANSFER (T<sup>2</sup>) PROGRAM**

The Arkansas Technology Transfer (T<sup>2</sup>) Program operates through the Research Section of the Planning and Research Division. The program is a cooperative effort of the Department, the University of Arkansas at Fayetteville and the FHWA. The Local Technical Assistance Program (LTAP) is part of the T<sup>2</sup> Program.

The purpose of the T<sup>2</sup> Program is to share the benefits of established and new transportation-related technology with local agencies through personnel at the agencies who is involved in the LTAP. The methods of technology transfer include: training seminars, newsletters, video tapes/DVD, site visits, reports, publications, and information services. The seminars and workshops are presented to the local agencies at no cost to the receiving agency. Presentations are conducted at Planning and Development District (PDD) offices, at local government facilities, as well as local university facilities when available. Technology transfers are accomplished by personnel of all agencies involved in the LTAP Program. The subject matter ranges from basic equipment maintenance, administration skills, worker safety, highway safety, and workforce development, to issues of infrastructure management. The experiences and innovations of established operations, as well as the implementation of the latest research findings, are shared.

The T<sup>2</sup> Program is guided by an Advisory Committee consisting of representatives from the Municipal League, the Association of Arkansas Counties, the County Judges Association of Arkansas, the American Public Works Association, FHWA, the University of Arkansas, and the Arkansas State Highway and Transportation Department.

## **PUBLIC TRANSPORTATION PROGRAMS SECTION**

The Public Transportation Programs Section is responsible for the oversight of all state and federal public transportation grant programs and van pool initiatives. Various FTA grants to assist transit and paratransit service providers are administered through this office. This Section also coordinates state public transit activities, providing necessary technical assistance.

Federal assistance programs include small-urbanized area transit systems, non-urbanized area transit systems, and community service organizations that serve the needs of the elderly, individuals with disabilities, and persons with low incomes. Federal and state discretionary capital projects, the metropolitan planning program, and local transit coordination planning are other responsibilities of this Section. Other duties include providing technical assistance, financial management, operations monitoring and reporting, safety and security oversight, and all associated compliance requirements for the Federal Transit Administration. Coordination activities include hosting and participating in the annual Public Transportation Conference and supporting the Public Transportation Coordination Council.

## ESTIMATED MANPOWER REQUIREMENTS – STATE F.Y. 2013

		<u>Full Time</u>	<u>Part Time</u>
<b>ADMINISTRATION:</b>			
	Number Supervisory	2	0
	Number Staff	0	0
	Number Secretarial	1	0
	Number Clerical	1	0
<b>STATEWIDE PLANNING:</b>			
	Number Supervisory	1	0
	Number Staff	13	0
	Number Secretarial	1	0
	Number Clerical	0	1*
<b>TECHNICAL SERVICES:</b>			
	Number Supervisory	5	0
	Number Staff	33	2
	Number Secretarial	0	0
	Number Clerical	0	1*
<b>POLICY ANALYSIS:</b>			
	Number Supervisory	1	0
	Number Staff	7	0
	Number Secretarial	0	0
	Number Clerical	0	1*
<b>MAPPING AND GRAPHICS:</b>			
	Number Supervisory	1	0
	Number Staff	10	0
	Number Secretarial	0	0
	Number Clerical	0	1*
<b>TRAFFIC SAFETY:</b>			
	Number Supervisory	1	0
	Number Staff	9	0
	Number Secretarial	1	0
	Number Clerical	0	1*
<b>PAVEMENT MANAGEMENT</b>			
	Number Supervisory	1	0
	Number Staff	11	0
	Number Secretarial	0	0
	Number Clerical	1	1*
<b>RESEARCH:</b>			
	Number Supervisory	1	0
	Number Staff	16	0
	Number Secretarial	1	0
	Number Clerical	0	2*
<b>PUBLIC TRANSPORTATION PROGRAMS:</b>			
	Number Supervisory	2	0
	Number Staff	7	0
	Number Secretarial	1	0
	Number Clerical	0	1*
<b>TOTAL</b>	Supervisory	16	0
	Staff	106	2
	Secretarial	5	0
	Clerical	2	9
<b>GRAND TOTAL</b>		129	11

\*Summer or C.O.E. Student Employees



## **FUNDING SUMMARY TABLE**

**PART I  
PLANNING**

**PART II  
RESEARCH**

**PART III  
MBTC ACTIVITIES**

**PART IV  
CTTP ACTIVITIES**

**PART V  
T<sup>2</sup> PROGRAM**

**PART VI  
PUBLIC TRANSPORTATION PROGRAMS**

**FUNDING SUMMARY TABLE**  
**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT**  
**PLANNING AND RESEARCH DIVISION**  
**STATE FISCAL YEAR 2013 WORK PROGRAM AND COST ESTIMATE**  
**USING 2012 FEDERAL FUNDS**

<b>PART</b>	<b>AREA AND TYPE OF FUNDS</b>	<b>FTA FUNDS</b>	<b>FHWA FUNDS</b>	<b>STATE MATCH</b>	<b>OTHER MATCH</b>	<b>100% STATE FUNDS</b>	<b>UAF</b>	<b>TOTAL</b>
<b>Part I</b>	<b><u>PLANNING</u></b>							
	S.F.Y. 2013 Estimated SPR Budget (L55)		\$8,410,400	\$2,102,600		\$460,000		\$10,973,000
	Part I Funds Transferred to Part II		(\$200,000)	(\$50,000)				(\$250,000)
	<i>Total Planning SPR Funds</i>		\$8,210,400	\$2,052,600		\$460,000		\$10,723,000
	Other Federal Funds - STP Att., CMAQ, etc.		\$10,389,036	\$524,800	\$1,108,731			\$12,022,567
	<b>Total Part I</b>		\$18,599,436	\$2,577,400	\$1,108,731	\$460,000		\$22,745,567
<b>Part II</b>	<b><u>RESEARCH</u></b>							
	Alloc. 2012 SPR Funds (L55)		\$200,000	\$50,000				\$250,000
	Alloc. 2010 & 2012 SPR Funds (L56)		\$3,287,082	\$821,771				\$4,108,853
	<i>Total Research SPR Funds</i>		\$3,487,082	\$871,771				\$4,358,853
	Programmed from Previous L56 Funds							
	SPR-TPF5(412)		\$531,676					\$531,676
	Solicitation #1323		\$114,825					\$114,825
	TPF5(025)		\$64,000					\$64,000
	<i>Total Previous Programmed L56 Funds</i>		\$710,501					\$710,501
	SPR Funds for LTAP Matching (T2 Program)		(\$176,000)	(\$44,000)				(\$220,000)
	<i>SPR Funds Available for Research Activities</i>		\$4,021,583	\$827,771				\$4,849,354
	Other Funds - State Funded Projects					\$505,000		\$505,000
<b>Parts III &amp; IV</b>	<b><u>MBTC and CTTP</u></b>							
	MBTC and CTTP					\$1,530,000		\$1,530,000
	<b>Total Parts II, III, &amp; IV</b>		\$4,021,583	\$827,771		\$2,035,000		\$6,884,354
<b>Part V</b>	<b><u>TECHNOLOGY TRANSFER PROGRAM (T2)</u></b>							
	LTAP FUNDS		\$140,000					\$140,000
	SPR FUNDS		\$176,000	\$44,000			\$0	\$220,000
	<b>Total Part V</b>		\$316,000	\$44,000			\$0	\$360,000
<b>Part VI</b>	<b><u>PUBLIC TRANSPORTATION</u></b>							
	<b>FHWA/FTA Consolidated</b>							
	Metropolitan Planning	\$1,783,434			\$445,859			\$2,229,293
	Statewide Planning	\$99,566		\$24,892				\$124,458
	<b>Total Part VI</b>	\$1,883,000		\$24,892	\$445,859			\$2,353,751
<b>GRAND TOTAL</b>		<b>\$1,883,000</b>	<b>\$22,937,019</b>	<b>\$3,474,063</b>	<b>\$1,554,590</b>	<b>\$2,495,000</b>	<b>\$0</b>	<b>\$32,343,672</b>

  
 Alan Meadors, Planning and Research Engineer  
 Planning and Research Division

5-14-12  
 Date

  
 Scott Bennett, Director  
 Arkansas State Highway and  
 Transportation Department

**PART I  
PLANNING**

**PART I - PLANNING**  
**Summary of Participation**  
**FHWA SPR and State Funds**  
**To be Obligated in Fiscal Year 2013**

<b>STATE FISCAL YEAR 2013 PROPOSED ACTIVITIES</b>		<b>FHWA</b>	<b>AHTD/LOCAL</b>	<b>TOTAL</b>
<b><u>JOB NUMBER AND WORK FUNCTION</u></b>		<b><u>SPR</u></b>	<b><u>MATCH</u></b>	<b><u>PROGRAMMED</u></b>
<b>ADMINISTRATION &amp; OTHER</b>				
400*	Administration	\$0	\$460,000	\$460,000
401	Field Operations	\$380,000	\$95,000	\$475,000
402	Mapping & Graphics	\$680,000	\$170,000	\$850,000
403	Data Analysis	\$660,000	\$165,000	\$825,000
<b>POLICY ANALYSIS</b>				
404	Legislative Review	\$220,000	\$55,000	\$275,000
405	Modeling & Management Studies	\$220,000	\$55,000	\$275,000
406	Performance Measures	\$16,000	\$4,000	\$20,000
408	Finance	\$140,000	\$35,000	\$175,000
409	Publications	\$120,000	\$30,000	\$150,000
<b>SYSTEM &amp; METROPOLITAN PLANNING</b>				
410	Highway System Planning Studies	\$420,000	\$105,000	\$525,000
412	Air Quality Activities	\$72,000	\$18,000	\$90,000
413	Cities Over 50,000 Population	\$360,000	\$90,000	\$450,000
415	Reference Library	\$12,800	\$3,200	\$16,000
<b>STATEWIDE STUDIES</b>				
416	Statewide Plan	\$80,000	\$20,000	\$100,000
417	Pavement Performance Data Collection	\$400,000	\$100,000	\$500,000
419	Highway Performance Monitoring System	\$88,000	\$22,000	\$110,000
420	Intermodal Transportation Planning	\$200,000	\$50,000	\$250,000
421	Automated Traffic Data Collection	\$640,000	\$160,000	\$800,000
422	Highway Condition Inventory & Analysis	\$100,000	\$25,000	\$125,000
423	Pavement Management System	\$520,000	\$130,000	\$650,000
425	Contract Turning Movement Counts	\$113,600	\$28,400	\$142,000
426	Approved In- & Out-of-State Travel & Seminars	\$200,000	\$50,000	\$250,000
427	Contract Collection of Traffic Volume Counts	\$480,000	\$120,000	\$600,000
428	Multimedia Highway Information System (MMHIS)	\$160,000	\$40,000	\$200,000
429	Contract Collection of Vehicle Classification Counts	\$168,000	\$42,000	\$210,000
430	Railroad Crossing Coordination	\$152,000	\$38,000	\$190,000
431	Traffic Crash Location	\$136,000	\$34,000	\$170,000
432	Traffic Crash Record Analysis	\$376,000	\$94,000	\$470,000
433	Traffic Data Collection for Special Projects	\$56,000	\$14,000	\$70,000
434	Traffic Data Collection - Traffic Counts	\$420,000	\$105,000	\$525,000
467	Research Section	\$200,000	\$50,000	\$250,000

\* Job 400 (Administration & Control) is not added into In-House Planning Total, 100% State Funded.

**In-House Planning Total**    \$7,790,400                    \$2,407,600                    \$10,198,000

**PLANNING BY CONSULTANTS**

Unknown	State Rail Plan Update	\$300,000	\$75,000	\$375,000
Unknown	Statewide Travel Demand Model Phase II	\$320,000	\$80,000	\$400,000
<b>Total FHWA (SPR) and Related Activities</b>		<b>\$8,410,400</b>	<b>\$2,562,600</b>	<b>\$10,973,000</b>

\*\* Funds are obligated separately for planning projects being conducted by consultants.

<b><u>PART I SPR FUNDS AVAILABLE</u></b>		<b><u>FHWA</u></b>	<b><u>AHTD/LOCAL</u></b>	<b><u>TOTAL</u></b>
		<b><u>SPR</u></b>	<b><u>MATCH</u></b>	
FHWA	F.Y. 2012	\$6,676,932	\$2,129,233	\$8,806,165
	Unobligated/Released Funds from Previous Years	\$1,737,944	\$434,486	\$2,172,430
<b>Total Available</b>		<b>\$8,414,876</b>	<b>\$2,563,719</b>	<b>\$10,978,595</b>
<b>Estimated Balance Available for Programming</b>		<b>\$4,476</b>	<b>\$1,119</b>	<b>\$5,595</b>

**State Fiscal Year 2013 Work Program Estimated Expenditures  
By Work Function and Section  
Part I - Planning**

Job Number	Work Function	Administration	Policy Analysis	Mapping & Graphics	Statewide Planning	Technical Services	Traffic Safety	Pavement Management	Total
<b>A) FHWA SPR and STATE</b>									
<b>ADMINISTRATION &amp; OTHER</b>									
400	Administration *	\$460,000							\$460,000
401	Field Operations					\$475,000			\$475,000
402	Mapping & Graphics			\$850,000					\$850,000
403	Data Analysis					\$825,000			\$825,000
<b>POLICY ANALYSIS</b>									
404	Legislative Review		\$275,000						\$275,000
405	Modeling & Management Studies		\$275,000						\$275,000
406	Performance Measures		\$20,000						\$20,000
408	Finance		\$175,000						\$175,000
409	Publications		\$150,000						\$150,000
<b>SYSTEM &amp; METROPOLITAN PLANNING</b>									
410	Highway System Planning Studies		\$90,000		\$525,000				\$525,000
412	Air Quality Activities				\$450,000				\$450,000
413	Cities Over 50,000 Population		\$16,000						\$16,000
415	Reference Library								
<b>STATEWIDE STUDIES</b>									
416	Statewide Plan		\$100,000					\$500,000	\$100,000
417	Pavement Performance Data Collection					\$110,000			\$500,000
419	Highway Performance Monitoring System								\$110,000
420	Intermodal Transportation Planning				\$250,000				\$250,000
421	Automated Traffic Data Collection					\$800,000			\$800,000
422	Highway Condition Inventory & Analysis					\$125,000			\$125,000
423	Pavement Management System							\$850,000	\$850,000
425	Contract Turning Movement Counts					\$142,000			\$142,000
426	Approved In- & Out-of-State Travel & Seminars								\$250,000
427	Contract Collection of Traffic Volume Counts	\$250,000							\$250,000
428	Multimedia Highway Information System (MMHIS)					\$600,000			\$600,000
429	Contract Collection of Vehicle Classification Counts					\$200,000			\$200,000
430	Contract Collection of Vehicle Classification Counts					\$210,000			\$210,000
431	Railroad Crossing Coordination						\$190,000		\$190,000
432	Traffic Crash Location						\$170,000		\$170,000
433	Traffic Crash Record Analysis						\$470,000		\$470,000
434	Traffic Data Collection for Special Projects					\$70,000			\$70,000
467	Traffic Data Collection - Traffic Counts Research Section	\$250,000				\$525,000			\$250,000
<b>* Job 400 (Administration &amp; Control) is not added into In-House Planning Total, 100% State Funded.</b>									
<b>PLANNING BY CONSULTANTS</b>									
001969 & 001970	General Planning Studies (2003)								\$0
110549	US 49/US 278 Improvement Study (AR/MS)								\$0
012130	Statewide Travel Demand Model								\$0
012138	Pavement Management Data Integration and dTMS CT Software Implementation								\$0
Unknown	Statewide Travel Demand Model Phase II		\$400,000						\$400,000
Unknown	State Rail Plan Update				\$375,000				\$375,000
<b>Total FHWA (SPR) and Related Activities</b>		<b>\$960,000</b>	<b>\$1,501,000</b>	<b>\$850,000</b>	<b>\$1,600,000</b>	<b>\$3,882,000</b>	<b>\$830,000</b>	<b>\$1,350,000</b>	<b>\$10,975,000</b>
<b>B) METROPOLITAN PLANNING FUNDS (Total PL Funding is included in PT's FTA Budget)</b>									
<b>C) OTHER FEDERAL FUNDS</b>									
<b>Scenic Byway, Bikeway &amp; Pedestrian Programs</b>									
1711	Bikeway & Pedestrian Programs				\$30,000				\$30,000
012141	Statewide Scenic Byways Program				\$20,000				\$20,000
<b>SRTS Program</b>									
012057	Safe Routes to School Program				\$150,000				\$150,000
Various	Under Contract or Project Development				\$3,730,995				\$3,730,995
Unknown	Federal FY 2013 SRTS Projects (to be selected)				\$1,500,000				\$1,500,000
<b>Recreational Trail Project Program</b>									
001723	National Recreational Trails Project Administration				\$90,000				\$90,000
Various	Under Contract or Project Development				\$3,391,136				\$3,391,136
Unknown	Federal FY 2013 Trail Projects (to be selected)				\$1,608,086				\$1,608,086
<b>STP Attributable Funds</b>									
60630	CARTS Planning Study				\$200,000				\$200,000
061260	I-630 Fixed Guideway Alignment Study				\$0				\$0
061231	River Rail/Airport Study				\$0				\$0
110273	WMATS Transportation Planning				\$98,750				\$98,750
012151	CARTS Travel Demand Model 2040 Update				\$0				\$0
012152	CARTS 2040 Long-Range Transportation Plan				\$125,000				\$125,000
<b>CMAQ Funds</b>									
110481	WMATS Air Quality - MPO				\$125,000				\$125,000
012028	CARTS Ozone Awareness				\$60,000				\$60,000
<b>Rail Funds</b>									
Unknown	High-Speed/Intercity Passenger Rail Study				\$893,600				\$893,600
<b>Total Other Federal Funds</b>		<b>\$</b>	<b>\$ 960,000</b>	<b>\$ 850,000</b>	<b>\$12,022,567</b>	<b>\$3,882,000</b>	<b>\$830,000</b>	<b>\$1,350,000</b>	<b>\$12,022,567</b>
<b>Grand Total</b>		<b>\$</b>	<b>\$ 960,000</b>	<b>\$ 850,000</b>	<b>\$13,622,567</b>	<b>\$3,882,000</b>	<b>\$830,000</b>	<b>\$1,350,000</b>	<b>\$22,995,567</b>

## ADMINISTRATION & OTHER

### 400 - ADMINISTRATION

**Purpose and Scope:** To set objectives, measure accomplishments, and provide administrative support for all work activities of the Division. To provide training and auxiliary functions necessary for Division work activities, including records, payroll, attendance reports, and all other required administrative, bookkeeping, and secretarial functions. Activities necessary to carry out planning requirements in accordance with all state and federal regulations will be executed. Activities performed under this job number are 100% State funded.

**Accomplishments for F.Y. 2012:** Administrative guidance and controls were accomplished in accordance with the goals and objectives set forth for the Division. The necessary purchasing, storing, and distribution of supplies continued. An accurate inventory was maintained for the Division. Federal Registers were reviewed for information affecting Department operations, planning, and the administration of funds. The Fiscal Year 2013 SPR Work Program and Cost Estimate document and the Fiscal Year 2011 Performance and Expenditure Report were developed in compliance with federal requirements.

**Proposed Activities for F.Y. 2013:** Continue to provide guidance and assistance in the development and analysis of transportation related projects and information including improving communication and support information exchange through new technologies. Web conferencing capable system will be developed and implemented. The Fiscal Year 2012 Final Performance and Expenditure Report will be developed and submitted to FHWA. The Fiscal Year 2014 SPR Work Program and Cost Estimate will be developed and submitted to FHWA for approval and work authorization.

Programmed Amount for F.Y. 2012	\$460,000
Estimated Expenditure for F.Y. 2012	\$400,000
Estimated Cost for F.Y. 2013	\$460,000

### 401 - FIELD OPERATIONS

**Purpose and Scope:** To collect various items of information relating to and describing physical and travel characteristics of State Highways, local roads, and city streets. The scope of activities extends to the collection of both objective data, including those items that can be measured such as pavement quality, pavement friction resistance, lane and shoulder widths, type of surface, and log miles and subjective data such as roadway conditions and type of area.

In FY 2012, Job 401 included collecting traffic count data. This function is being moved to Job 434.

**Accomplishments for F.Y. 2012:** All scheduled statewide and urbanized area coverage counts, special counts, and machine vehicle classification counts were completed. Maintenance, repair, and calibration of monitoring equipment were performed as required. Pavement

deflections were measured with the falling weight deflectometer (FWD) to determine pavement composition and characteristics. Pavement friction data was collected using the pavement friction tester. The Department continued collecting classification and weight data for the Long-Term Pavement Performance program.

**Proposed Activities for F.Y. 2013:** Statewide friction resistance testing will continue and all special requests will be handled as received. The FWD will be used to measure pavement deflections and conduct pavement performance analysis. Roadway Inventory data will be collected as needed.

Programmed Amount for F.Y. 2012	\$950,000
Estimated Expenditure for F.Y. 2012	\$900,000
Estimated Cost for F.Y. 2013	\$475,000

## **402 - MAPPING AND GRAPHICS**

**Purpose and Scope:** To meet the various needs of the Department and to provide the most current map data available. The preparation of maps involves using the latest information available to create and update needed and existing files. This information includes but is not limited to: orthorectified aerial photography, Global Positioning System (GPS) data, existing data from other sources (inside and outside the Department), and contact with county and city officials.

Mapping data is available to the general public through the State's Geographic Information System (GIS) clearinghouse (Geostor) [www.geostor.arkansas.gov](http://www.geostor.arkansas.gov), and through the Department's website as .tif or .pdf images [www.arkansashighways.com](http://www.arkansashighways.com). Many other data requests are fulfilled throughout the year for other state agencies, private firms, and the public via direct requests to the Mapping and Graphics Section.

### **Accomplishments for F.Y. 2012:**

- State Highway Map (Tourist Map) updated and 1,000,000 copies printed.
  
- Changes to the State Highway System as follows:
  - Hwy. 1 Section 6 – Mileage changed based on new straightline. (Monroe Co.)
  - Hwy. 4 Section 0 – Mileage changed based on new straightline. (Polk Co.)
  - Hwy. 5 Section 10 - Re-aligned based on current straightline. (Pulaski Co.)
  - Hwy. 7 Section 5 – Mileage changed based on new straightline. (Dallas Co.)
  - Hwy. 7 Section 19 - Mileage changed based on new straightline. (Boone Co.)
  - Hwy. 7 Section 20 - Mileage changed based on new straightline. (Boone Co.)
  - Hwy. 8 Section 7 – Mileage changed based on new straightline. (Dallas Co.)
  - Hwy. 8 Section 6 – Mileage changed based on new straightline. (Dallas Co.)
  - Hwy. 9 Section 2 – Mileage changed based on new straightline. (Dallas Co.)
  - Hwy. 9 Section 1 – Mileage changed based on new straightline. (Ouachita Co.)
  - Hwy. 9 Section 7 – Mileage changed based on new straightline. (Conway Co.)
  - Hwy. 9 Section 8 – Mileage changed based on new straightline. (Conway Co.)

- Hwy. 10 Section 8 – Re-aligned based on current straightline. (Pulaski Co.)
- Hwy. 12 Section 2 - Mileage changed based on new straightline (Benton Co.)
- Hwy. 13 Section 10 – Re-aligned and mileage changed based on new straightline. (Lonoke Co.)
- Hwy. 13 Section 8 - Mileage changed based on new straightline. (Jefferson Co.)
- Hwy. 13 Section 9 - Mileage changed based on new straightline. (Jefferson/Lonoke Co.)
- Hwy. 20 Section 1 – Mileage changed based on new straightline. (Phillips Co.)
- Hwy. 24 Section 6 – Mileage changed based on new straightline. (Ouachita Co.)
- Hwy. 24 Section 5 – Mileage changed based on new straightline. (Nevada Co.)
- Hwy. 28 Section 6 – Mileage changed based on new straightline. (Yell Co.)
- Interstate 30 Section 22/23 – Mileage changed based on new straightline. (Saline and Pulaski Co.)
- Hwy. 31 Section 3 – Mileage changed based on new straightline. (Lonoke Co.)
- Hwy. 31 Section 4 – Mileage changed based on new straightline. (White Co.)
- Hwy. 33 Section 7 – Mileage changed based on new straightline. (Woodruff Co.)
- Hwy. 34 Section 1 – Mileage changed based on new straightline. (Lawrence Co.)
- Hwy. 34 Section 2 – Mileage changed based on new straightline. (Randolph Co.)
- Hwy. 36 Section 5 – Mileage changed based on new straightline. (White Co.)
- Hwy. 38 Section 7 – Mileage changed based on new straightline. (St. Francis Co.)
- Hwy. 42 Section 2 – Mileage changed based on new straightline. (Cross Co.)
- Hwy. 49 Section 7 – Mileage changed based on new straightline. (Woodruff Co.)
- Hwy. 49 Section 1 – Mileage changed based on new straightline. (Montgomery Co.)
- Hwy. 50 Section 3 - Mileage changed based on new straightline (Crittenden Co.)
- Hwy. 50 Section 1 – Mileage changed based on new straightline. (St. Francis Co.)
- Hwy. 61 Section 1 – Mileage changed based on new straightline. (Crittenden Co.)
- Hwy. 62 Section 07Y Deleted from the State Highway System. (Boone Co.)
- Hwy. 63 Section 3 – Portion changed in road inventory to be in Randolph County. (Lawrence/Randolph Co.)
- Hwy. 64 Section 17B – Mileage changed based on new straightline. (Crittenden Co.)
- Hwy. 64 Section 7 – Mileage changed based on new straightline. (Conway Co.)
- Hwy. 64 Section 2 – Mileage changed based on new straightline. (Crawford Co.)
- Hwy. 64 Section 3 - Mileage changed based on new straightline. (Franklin Co.)
- Hwy 64 Section 9 – Mileage changed (Vilonia Bypass Added). (Faulkner Co.)
- Hwy. 64 Section 9B – Added to the State Highway System (Old 64) (Faulkner Co.)
- Hwy. 65 Section 9B – Mileage changed based on new straightline. (Faulkner Co.)
- Hwy. 65 Section 15 - Mileage changed based on new straightline. (Jefferson Co.)
- Hwy. 65 Section 16 - Mileage changed based on new straightline. (Lincoln Co.)
- Hwy. 65 Section 17 - Mileage changed based on new straightline. (Desha Co.)
- Hwy. 65 Section 1B – Portion deleted from the State Highway System and mileage changed based on new straightline. (Boone Co.)
- Hwy. 67 Section 11 - Mileage changed based on new straightline. (Lonoke Co.)
- Hwy. 67 Section 12 - Mileage changed based on new straightline. (White Co.)
- Hwy. 67 Section 13 - Mileage changed based on new straightline. (White Co.)
- Hwy. 67 Section 3 – Mileage changed based on new straightline. (Nevada Co.)
- Hwy. 69 Section 3 - Mileage changed based on new straightline. (Independence Co.)



- Hwy. 70 Section 6 – Mileage changed based on new straightline. (Montgomery Co.)
- Hwy. 70 Section 1B – Mileage changed based on new straightline. (Sevier Co.)
- Hwy. 70 Section 10 – Re-aligned and mileage change based on new straightline. (Saline Co.)
- Hwy. 71 Section 0 – Mileage changed based on new straightline. (Sebastian Co.)
- Hwy. 71 Section 17B – Changed alignment to main lane and mileage changed. (Washington Co.)
- Hwy. 74 Section 3 - Mileage changed based on new straightline. (Madison Co.)
- Hwy. 75 Section 4 – Mileage changed based on new straightline. (Cross Co.)
- Hwy. 75 Section 0 – Mileage changed based on new straightline. (St. Francis Co.)
- Hwy. 78 Section 1 – Mileage changed based on new straightline. (St. Francis Co.)
- Hwy. 78 Section 0 – Mileage changed based on new straightline. (Woodruff Co.)
- Hwy. 79 Section 16 – Mileage changed based on new straightline. (Lee Co.)
- Hwy. 79 Section 4B – Mileage changed based on new straightline. (Ouachita Co.)
- Hwy. 79 Section 4 – Mileage changed based on new straightline. (Ouachita Co.)
- Hwy. 79 Section 17 – Mileage changed based on new straightline. (St. Francis Co.)
- Hwy. 79 Section 5B – Mileage changed based on new straightline (Ouachita/Calhoun Co.)
- Hwy. 83 Section 1 - Mileage changed based on new straightline. (Drew Co.)
- Hwy. 86 Section 3 – Mileage changed based on new straightline. (Monroe Co.)
- Hwy. 87 Section 1 – Mileage changed based on new straightline. (White Co.)
- Hwy. 88 Section 3 – Mileage changed based on new straightline. (Montgomery Co.)
- Hwy. 88 Section 1 – Mileage changed based on new straightline. (Polk Co.)
- Hwy. 90 Section 5 – Mileage changed based on new straightline. (Randolph Co.)
- Hwy. 96 Section 3 – Mileage changed based on new straightline. (Sebastian Co.)
- Hwy. 96 Section 4 – Mileage changed based on new straightline. (Franklin Co.)
- Hwy. 102 Section 2 - Mileage changed based on new straightline. (Benton Co.)
- Hwy. 105 Section 1 – Mileage changed based on new straightline. (Pope Co.)
- Hwy. 105 Section 2 – Mileage changed based on new straightline. (Pope Co.)
- Hwy. 107 Section 1 – Re-aligned and mileage changed based on new straightline. (Pulaski Co.)
- Hwy. 111 Section 2 – Mileage changed based on new straightline. (Saline/Pulaski Co.)
- Hwy. 111 Section 3 – Mileage changed based on new straightline. (Saline Co.)
- Hwy. 112 Section 2 - Mileage changed based on new straightline (Benton Co.)
- Hwy. 118 Section 3 – Mileage changed based on new straightline. (Crittenden Co.)
- Hwy. 121 Section 1 – Mileage changed based on new straightline. (Lee Co.)
- Hwy. 124 Section 2 – Mileage changed based on new straightline. (Pope Co.)
- Hwy. 124 Section 5 – Mileage changed based on new straightline. (Conway Co.)
- Hwy. 127 Section 1 - Mileage changed based on new straightline. (Madison Co.)
- Hwy. 128 Section 11 - Mileage changed based on new straightline. (Garland Co.)
- Hwy. 128 Section 11 – Portion was re-logged and co was changed to Saline Co. (Saline Co.)
- Hwy. 131 Section 0 – Mileage changed based on new straightline. (Lee Co.)
- Hwy. 147 Section 1 – Mileage changed based on new straightline. (Crittenden Co.)
- Hwy. 155 Section 3 – Mileage changed based on new straightline. (Conway Co.)

- Hwy. 166 Section 1 – Mileage changed based on new straightline. (Randolph Co.)
- Hwy. 167 Section 1 - Mileage changed based on new straightline. (Union Co.)
- Hwy. 184 Section 1 – Mileage changed based on new straightline. (Cross Co.)
- Hwy. 190 Section 5 – Route was aligned to the correct roadway via aerial photography. (Jefferson Co.)
- Hwy. 192 Section 2 - Mileage changed based on new straightline. (Garland Co.)
- Hwy. 193 Section 1 – Mileage changed based on new straightline. (Cross Co.)
- Hwy. 199 Section 2 – Route was aligned to the correct roadway via aerial photography. (Jefferson Co.)
- Hwy. 203 Section 4 – Mileage changed based on new straightline. (Ouachita Co.)
- Hwy 203 Section 2 – Highway splits between 2 counties now in Road Inventory (Calhoun and Ouachita Co.)
- Hwy. 204 Section 4 - Mileage changed based on new straightline. (Benton Co.)
- Hwy. 207 Section 0 – Mileage changed based on new straightline. (Dallas Co.)
- Hwy. 213 Section 1 – Mileage changed based on new straightline. (Conway Co.)
- Hwy. 215 Section 0 - Mileage changed based on new straightline. (Franklin Co.)
- Hwy. 229 Section 0 – Mileage changed based on new straightline. (Dallas Co.)
- Hwy. 231 Section 6 – Mileage changed based on new straightline. (Randolph Co.)
- Hwy. 238 Section 2 – Mileage changed based on new straightline. (Lee Co.)
- Hwy. 238 Section 1 – Mileage changed based on new straightline. (Monroe Co.)
- Hwy. 241 Section 2 – Mileage changed based on new straightline. (Monroe Co.)
- Hwy. 243 Section 3 – Mileage changed based on new straightline. (Lee Co.)
- Hwy. 245 Section 1 - Mileage changed based on new straightline. (Miller Co.)
- Hwy. 247 Section 2 – Mileage changed based on new straightline. (Conway Co.)
- Hwy. 252 Section 4 – Mileage changed based on new straightline. (Sebastian Co.)
- Hwy. 259 Section 7 – Mileage changed based on new straightline. (Cross Co.)
- Hwy. 259 Section 0 – Mileage changed based on new straightline. (Lee Co.)
- Hwy. 259 Section 4 – Mileage changed based on new straightline. (St. Francis Co.)
- Hwy. 261 Section 3 – Mileage changed based on new straightline. (St. Francis Co.)
- Hwy. 261 Section 2 – Mileage changed based on new straightline. (St. Francis Co.)
- Hwy. 264 Section 3 - Mileage changed based on new straightline (Benton Co.)
- Hwy. 264 Section 2 - Mileage changed based on new straightline (Benton Co.)
- Hwy. 270 Section 1 – Mileage changed based on new straightline. (Polk Co.)
- Hwy. 272 Section 1 – Mileage changed based on new straightline. (Polk Co.)
- Hwy. 278 Section 9 – Mileage changed based on new straightline. (Ouachita Co.)
- Hwy. 278 Section 1 - Mileage changed based on new straightline. (Polk Co.)
- Hwy. 278 Section 2 - Mileage changed based on new straightline. (Howard Co.)
- Hwy. 284 Section 1 – Mileage changed based on new straightline. (Cross Co.)
- Hwy. 284 Section 2 – Mileage changed based on new straightline. (Cross Co.)
- Hwy. 287 Section 4 – Mileage changed based on new straightline. (Conway Co.)
- Hwy. 288 Section 1 - Mileage changed based on new straightline. (Franklin Co.)
- Hwy. 300 Section 2 - Mileage changed based on new straightline. (Pulaski Co.)
- Hwy. 301 Section 1 - Mileage changed based on new straightline. (Pike Co.)
- Hwy. 302 Section 2 – Mileage changed based on new straightline. (Monroe Co.)
- Hwy. 305 Section 3 – Mileage changed based on new straightline. (White Co.)

- Hwy. 305 Section 4 – Mileage changed based on new straightline. (White Co.)
- Hwy. 306 Section 5 – Mileage changed based on new straightline. (Cross Co.)
- Hwy. 306 Section 2 – Mileage changed based on new straightline. (St. Francis Co.)
- Hwy. 306 Section 3 – Mileage changed based on new straightline. (St. Francis Co.)
- Hwy. 309 Section 1 – Mileage changed based on new straightline. (Yell Co.)
- Hwy. 314 Section 1 – Mileage changed based on new straightline. (Perry Co.)
- Hwy. 318 Section 3 – Mileage changed based on new straightline. (Phillips Co.)
- Hwy. 323 Section 3 – Mileage changed based on new straightline. (White Co.)
- Hwy. 333 Section 1 – Mileage changed based on new straightline. (Pope Co.)
- Hwy. 350 Section 1 – Mileage changed based on new straightline. (Cross Co.)
- Hwy. 356 Section 2 - Mileage changed based on new straightline (Clebune Co.)
- Hwy. 371 Section 1 - Mileage changed based on new straightline. (Sevier Co.)
- Hwy. 371 Section 2 - Mileage changed based on new straightline. (Howard Co.)
- Hwy. 371 Section 5 – Route re-aligned and mileage changed based on new straightline. (Nevada Co.)
- Hwy. 372 Section 1 – Mileage changed based on new straightline. (Nevada Co.)
- Hwy. 379 Section 3 – Mileage changed based on new straightline. (Pike Co.)
- Hwy. 385 Section 0 – Mileage changed based on new straightline. (St. Francis Co.)
- Hwy. 412 Section 5 - Mileage changed based on new straightline. (Carroll Co.)
- Interstate 430 Section 210 - Mileage changed based on new straightline. (Pulaski Co.)
- Hwy. 440 Section 1 – Mileage changed based on new straightline. (Pulaski Co.)
- Hwy. 440 Section 2 – Mileage changed based on new straightline. (Pulaski Co.)

Each addition, deletion or re-alignment to the State Highway System involves changing 10 individual maps and the State Highway Linear Referencing System to reflect the changes. The mileage changes are reflected on the Route and Section map as well as the State Highway Linear Referencing System.

- Completed full county map updates on the following with orthorectified aerial photography:
  - Crawford County – August 2011
  - Lincoln County – September 2011
  - Jackson County – October 2011
  - Pike County – November 2011
- Counties that were not fully updated required minor revisions in specific areas such as but not limited to:
  - City Limits
  - State Highway Revisions
  - Road Numbers
  - Culture Updates (i.e., schools, churches, post offices, police and fire stations, etc.)
  - Public Land Boundaries (parks, WMAs and military reservation boundaries)
  - Railroads

- Completed full map updates with street indexes on the following cities and municipal areas:
  - Altheimer
  - Elkins
  - Elm Springs
  - Farmington
  - Fayetteville
  - Goshen
  - Greenland
  - Humphrey
  - Johnson
  - Lincoln
  - Prairie Grove
  - Redfield
  - Sherrill
  - Springdale
  - Tontitown
  - Wabbaseka
  - West Fork
  - Winslow
  
- Cities, approximately 25, that were not fully updated and indexed required minor revisions in specific areas such as but not limited to:
  - City Limits
  - State Highway Revisions
  - Road Numbers
  - Culture Updates (i.e., schools, churches, post offices, police and fire stations, etc.)
  
- GPS was used to obtain new and relocated alignments for the State Highway System and needed county roads/city streets not present on most recently available orthophotography.
  
- GIS Datasets Created /Updated/Maintained:
  - Linear Referencing System (LRS)-State Highway System
  - Cities (Current and Archival)
  - Gas Report (AR Democrat Gazette) Well Completions, Well Re-Completions and Drilling Permits were entered into database and plotted for mapping purposes.
  - AHTD Maintenance Facilities
  
- Special Projects:
  - Truck Parking Maps (Research)
  - License Plate Study (Research)
  - Route Change Sketches (Technical Services)
  - ADT County Book Assistance (Technical Services)
  - Weight Restriction Maps (Technical Services)
  - Highway 10 Public Involvement Maps (Statewide Planning)
  - Figure Maps for Planning Studies (Statewide Planning)
  - GeoMedia and Microstation methodologies training/assistance.
  - AHTD Arkansas Highway Police District Map
  - Intranet and Internet updated with TIF image of updated county and city maps
  - Intranet updated with PDF image of updated county and city maps
  - Provided with a paper print of all county and city maps produced by the Mapping and Graphics Section, for distribution by Map Sales Section.

- I-69 SIU Map updates (Administration)
- Fayetteville Shale Maps (Administration)
- Commemorative Route Database and Map (Administration)
- Economic Impact Mapping Project for Four-Lane Improvements (Policy Analysis)

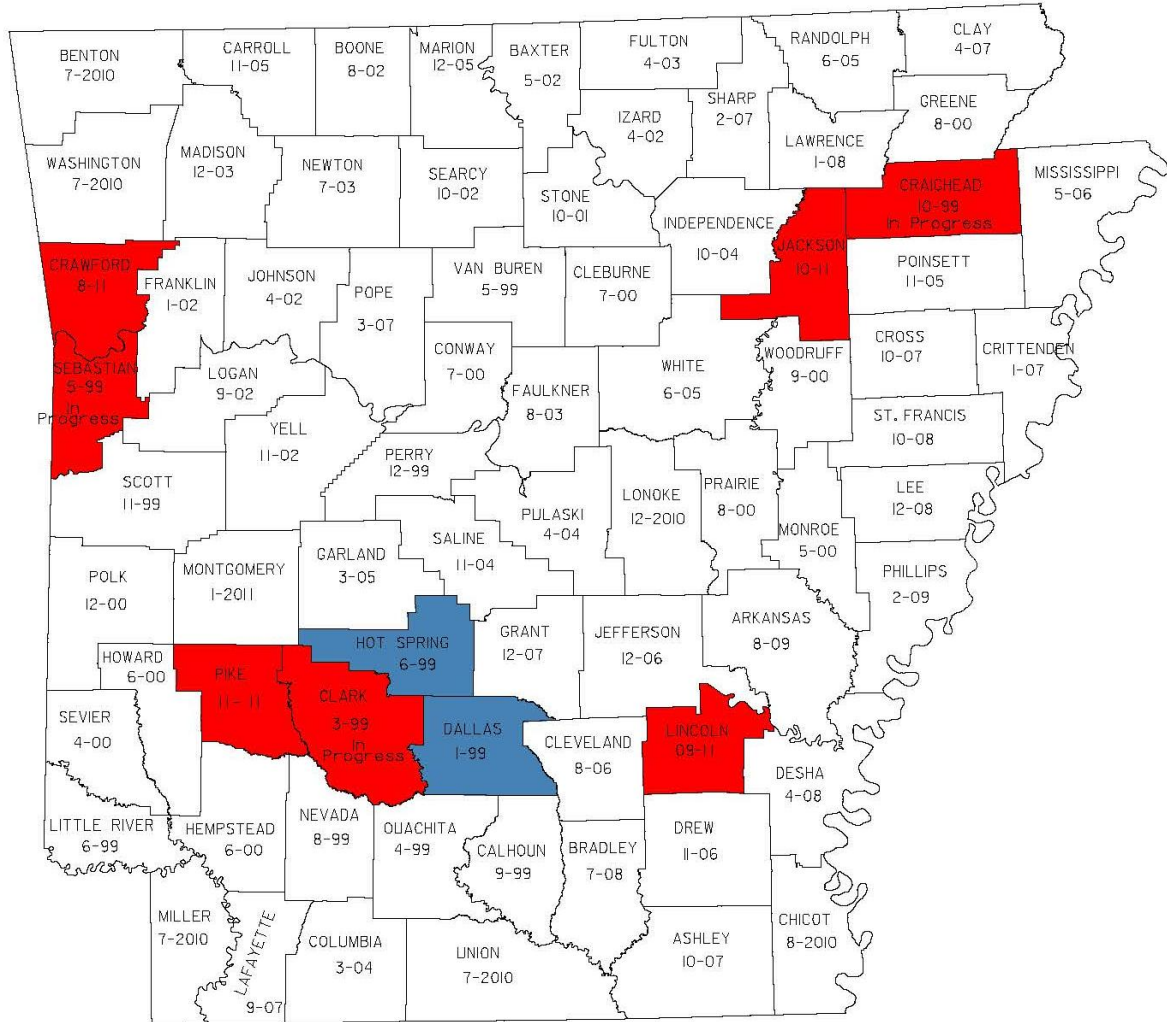
***Proposed Activities for F.Y. 2013:***

- Update and commercially print over 1,000,000 copies of the State Highway Map (Tourist Map).
- Utilizing Wacom tablets to accurately and quickly draw features directly onto a screen that are directly implemented into the CAD county and city maps.
- Utilizing updated Global Positioning System units to improve accuracy in mapping features under canopy areas (dense tree growth etc..).
- Acquiring and incorporating intergraph markets straight line software into roadway inventory and linear referencing system workflow, in lieu of current hand drawn process.
- Increasing the use of Incident Analyst from one to three licenses that works with our GIS software to produce visual aids for our crash and other events that occur on the State Highway System.
- Map all changes made to the State Highway System.
- Update full city map (with indices) in the following counties:
  - Benton County – 19 Cities
  - Union County – 8 Cities
  - Lonoke County – 10 Cities
  - Chicot County – 3 Cities
- Map minor revisions on all counties and cities as needed throughout the year.
- Maintain all GIS datasets that have been created and create new datasets as needed.
- Conduct special projects as needed.
- Complete full county map updates on the following with orthorectified aerial photography: (map on following page)
  - Sebastian County – In Progress
  - Craighead County – In Progress
  - Clark County – In Progress
  - Hot Spring County
  - Dallas County

Programmed Amount for F.Y. 2012  
 Estimated Expenditure for F.Y. 2012  
 Estimated Cost for F.Y. 2013

\$850,000  
 \$600,000  
 \$850,000

## COMPUTER CARTOGRAPHY COUNTY GENERAL HIGHWAY MAPPING PROGRAM



■ COUNTY MAPPING STARTED OR COMPLETED FY 2012  
■ COUNTY MAPPING TO BE STARTED OR COMPLETED FY 2013

LONOKE  
12-2010 COUNTY NAME AND DATE LAST FULLY UPDATED

## 403 - DATA ANALYSIS

**Purpose and Scope:** To analyze the various types of data collected on the State Highways, local roads, and city streets. This includes traffic volume counts, vehicle classification counts, turning movement counts, special counts and surveys, and other data collection efforts. The functional classification system for highways is updated and maintained. This job also includes reporting the permanent collection site data to the Federal Highway Administration as required, along with statewide summaries of travel volumes, vehicle classifications and truck weights by functional system and rural, small urban, and urbanized areas.

**Accomplishments for F.Y. 2012:** All statewide coverage counts, special counts, turning movements and machine vehicle classification counts were processed. Truck weight data and associated vehicle classification data from the permanent collection sites (ATR) were collected and analyzed. Seasonal and axle adjustment factors were calculated using the permanent count station data. FWD data was analyzed for all locations where data was collected. The statewide friction resistance-testing data was processed. The functional classification system for highways was maintained. Prepared for functional classification updates stemming from the 2010 Census by preparing maps and developing functional classification update procedures. Meetings with the counties, cities, and MPOs were conducted to discuss and implement the functional classification update process.

**Proposed Activities for F.Y. 2013:** Technical Services will analyze approximately 2,000 48-hour machine classifications counts throughout the State, including some weekend and holiday samples. Approximately 150 Turning Movement Counts and 9,000 traffic volume counts will be analyzed. Traffic data from the ATR stations will be collected and analyzed regularly. Special traffic counts will be processed. The statewide friction resistance-testing data will be processed. Seasonal and axle adjustment factors will be calculated. FWD data will be analyzed as appropriate. A biennial report on the Peel Ferry will be completed. Updated county, city, and MPO functional classification maps will be reviewed. Federal-aid Urban boundaries will be established. Three data collection devices will be acquired for quick data collection and field verification such as truck traffic mobile spot checks, and turning movement verification.

Programmed Amount for F.Y. 2012	\$620,000
Estimated Expenditure for F.Y. 2012	\$770,000
Estimated Cost for F.Y. 2013	\$825,000

## 404 – LEGISLATIVE REVIEW

**Purpose and Scope:** To provide analyses of impacts on program requirements, implementation, and funding as they are impacted by state and federal legislative actions and to assist other Divisions and Sections relative to state and federal legislation and regulations.

Federal and state legislation is closely monitored for changes related to the authorization, apportionment, requirements, and allocation of funding, and implementation of the national

and state transportation programs. When the Arkansas State General Assembly is in session, daily and weekly legislative summaries are prepared and distributed throughout the Department. Specific reports are prepared as requested. At the end of the session, a final summary of all legislation tracked by the Department is compiled, distributed within the Department, and published to the Department's website.

***Accomplishments for F.Y. 2012:*** All proposed state legislation generated in the 88<sup>th</sup> Arkansas General Assembly- First Fiscal Session was reviewed for its potential impact to the Department. The daily and weekly legislative reports were prepared and distributed for staff review. At the federal level, legislation related to reauthorization, appropriations, and implementation was monitored and analyzed for its impact to the Department. Activities were undertaken to streamline and improve the communication of time-sensitive legislative information from the staff to the Administrative Officials through the use of automated report forwarding, mobile access to data and the use of mobile personal devices.

***Proposed Activities for F.Y. 2013:*** Staff members will continue to monitor and analyze as necessary federal legislation related to reauthorization, appropriations, and implementation of the national transportation programs. Preparations will be completed for the 89<sup>th</sup> Arkansas General Assembly 2013. State legislation will be monitored and analyzed. Efforts will continue to provide more information directly from Department's proprietary providers, accessing and transmitting information to mobile devices. Multiple mobile devices may be acquired to thoroughly assess the flexibility and dependability of data transfer and reliable communications. Policy Analysis will coordinate with the Computer Services Division to purchase equipment for Campus WIFI.

Programmed Amount for F.Y. 2012	\$275,000
Estimated Expenditure for F.Y. 2012	\$160,000
Estimated Cost for F.Y. 2013	\$275,000

#### **405 – MODELING AND MANAGEMENT STUDIES**

***Purpose and Scope:*** To provide analyses and information to other Divisions and Sections regarding travel demand modeling results, census data, and related impacts to the planning process and programs. To gather and analyze needs data and report on the condition and expected needs of the State Highway System. To provide support for consultant activities related to the development and use of the Statewide Travel Demand Model.

***Accomplishments for F.Y. 2012:*** Prepared studies and assessments for proposed federal and state funded projects. Profiles and reports were prepared in response to administrative requests. Materials related to the findings of the draft 2006 Arkansas State Highway Needs Study and Highway Improvement Plan were updated. TransCAD simulation modeling was conducted for NARTS and CARTS in cooperation and coordination with the MPO staffs. Work on a Statewide Travel Demand Model was continued (see Job Number 012130). The Arkansas Statewide Model Users Group continued to meet to encourage coordination and communication among the members.



**Proposed Activities for F.Y. 2013:** Answer specific questions as they pertain to economic evaluation or financial planning. Prepare economic impact statements and transportation system investment feasibility studies, and respond to specific requests. Conduct travel demand modeling for the Department and assist other agencies and jurisdictions with modeling activities and modeling training. Facilitate the statewide modeling support group by providing a discussion forum for users regarding training, data input, validation, and calibration activities. Continue to provide support to Phase II of the Statewide Travel Demand Model.

Programmed Amount for F.Y. 2012	\$425,000
Estimated Expenditure for F.Y. 2012	\$115,000
Estimated Cost for F.Y. 2013	\$275,000

#### **406 – PERFORMANCE MEASURES**

**Purpose and Scope:** To continue activities to prepare the Planning and Research Division for anticipated performance measure reporting requirements from FHWA.

**Accomplishments for F.Y. 2012:** Work continued on performance measures within the Division, as identified by individual sections, including researching Performance Measure reporting tools used by other state transportation agencies. The Department provided FHWA a status report on activities to date.

**Proposed Activities for F.Y. 2013:** Continue development of internal and external performance measures for the Planning and Research activities. A reporting tool will be developed to present a summary of performance measure data to others in the Department and ultimately to the public. The Planning and Research Division will coordinate activities with FHWA. The Public Transportation Performance Measures will be charged under another funding source.

Programmed Amount for F.Y. 2012	\$ 20,000
Estimated Expenditure for F.Y. 2012	\$ 5,000
Estimated Cost for F.Y. 2013	\$ 20,000

#### **408 – FINANCE**

**Purpose and Scope:** To analyze trends in state highway revenues and to prepare and distribute reports evaluating these data. Evaluate existing and changing financial information on highway taxation and finance. Provide analyses of economic, geographic, fiscal, and historic factors to assist in the use of physical and fiscal resources. Provide assistance related to funding and related matters to Department administrators, legislators, other government agencies, and private individuals. Provide fiscal projections of the development of long-range cash flow forecasts related to bond financing.

**Accomplishments for F.Y. 2012:** Monitored gasoline and diesel tax rate changes and price fluctuations. Various annual, quarterly, and monthly statistical reports reflecting highway user revenues were prepared. Fiscal data on taxation for local governments was evaluated. Monitored trends, prices, construction costs, and other economic indicators in Arkansas and analyzed their impact on residents, road use, and highway funds. Generated and analyzed bond financing scenarios as needed to determine bond issue and construction program amounts. Data for submittal as a part of the annual statistical reports was gathered, prepared, and submitted to FHWA prior to the deadline for use in the annual Highway Statistics Report. The biennial survey of local agencies regarding their funding trends was completed as a part of the preparation of information for the annual Highway Statistics Report,

**Proposed Activities for F.Y. 2013:** Monitor motor fuel prices that are used in making revenue estimates. Continue monitoring multi-agency economic conditions and the impacts on residents, road use, and highway-user revenues. Update impacts from changing situations, such as revenue forecasts for cash flow and overall fiscal management. Develop bond financing scenarios to determine bond issue and construction program amounts. Compile and prepare data to submit statistical reports to FHWA prior to the deadline.

Programmed Amount for F.Y. 2012	\$ 200,000
Estimated Expenditure for F.Y. 2012	\$ 50,000
Estimated Cost for F.Y. 2013	\$ 175,000

#### **409 – PUBLICATIONS**

**Purpose and Scope:** To coordinate Department responses to questionnaires and surveys. Retain information preserving the history of the Department’s organization and accomplishments in administering and operating the State Highway System and other state transportation systems. The Department’s Biennial Report is prepared as part of this responsibility. Information requests from federal, state, and local agencies are researched and answered. Other regularly prepared documents include Motor Vehicle Registration and Fees, Selected Facts and Figures, Motor Vehicle Traffic Laws and State Highway Commission Regulations, and The Fact Sheet of Information on Arkansas’ Transportation System.

**Accomplishments for F.Y. 2012:** Prepared and distributed the table of motor vehicle registrations and fees by county. The 2011 Selected Facts and Figures report and was compiled and published. The Department’s Biennial Report was published. The 2011 Fact Sheet of Information on Arkansas’ Transportation System was published. Historical information was provided in response to requests.

The Department coordinated responses to questionnaires and surveys requesting specific information regarding the Department’s activities. Activities of the 88<sup>th</sup> Arkansas General Assembly – Fiscal Session were monitored and reported. Fiscal Year 2012 monthly turnback estimates for Arkansas counties and cities were prepared and distributed.

**Proposed Activities for F.Y. 2013:** Continue coordination of Department responses to questionnaires and surveys. Prepare statistical reports for FHWA and AHTD monthly revenue reports. Prepare Fiscal Year 2013 monthly turnback estimates for Arkansas counties and cities. Compile 2012 Selected Facts and Figures report. Compile the 2012 Fact Sheet of Information on Arkansas' Transportation System. Prepare and coordinate with the Department of Finance and Administration on the publication of the 2013 Motor Vehicle Traffic Laws and the State Highway Commission Regulations. Compile and distribute the Motor Vehicle Registration and Fee table. Compile and distribute the 2013 Reference Book. Publish the Development of Highway and Transportation Legislation in Arkansas. Activities of the 89<sup>th</sup> Arkansas General Assembly will be monitored and reported. The Newly Elected Legislator Briefing report for 89<sup>th</sup> Arkansas General Assembly will be published.

Programmed Amount for F.Y. 2012	\$ 200,000
Estimated Expenditure for F.Y. 2012	\$ 65,000
Estimated Cost for F.Y. 2013	\$ 150,000

#### **410 – HIGHWAY SYSTEM PLANNING STUDIES**

**Purpose and Scope:** To identify and measure engineering, social, economic, and environmental features of various proposals for use in the Department's decision-making process. This includes conducting feasibility studies for use in determining the need for specific highway improvements as well as responding to requests for information such as traffic forecasts and traffic operating conditions. Coordination and oversight of consultant studies is also included.

**Accomplishments for F.Y. 2012:** Activities were conducted on several planning studies in various areas of the state and information was provided to assist decision-makers. Various studies analyzed route and corridor feasibility in order to maintain the highest quality highway system and to provide the best service for the safe and efficient movement of people and goods within and through the State.

The status of the studies and reports during F.Y. 2012 is provided below.

#### **Studies Completed**

- Highway 190 Improvements Study (Pine Bluff)
- Highway 161 Improvement Study (Jacksonville)
- Harrison Bypass Study (Highway 65)
- Highway 108 Study (Foreman)
- Northwest Arkansas Eastern North-South Corridor Study
- Highway 43 Railroad Overpass Study (Siloam Springs)
- Memo Study: I-540/Highway 71B Interim Interchange Improvements (Rogers)
- Memo Study: Highway 135 from Highway 49 to Oak Grove Heights (Greene County)
- Memo Study: Interstate 630 between Pine/Cedar and Fair Park Interchanges
- Memo Study: Proposed Development at University/Col. Glenn Intersection

- Memo Study: Highway 70 (Broadway) Arkansas River Bridge
- Memo Study: Proposed Improvements to County Roads between Highway 70 and Highway 5 in Garland County
- Memo Study: Highway 70 at Highway 5
- Memo Study: Highway 270 from Highway 227 to the Ouachita River Bridge
- Purpose and Need Update - North Searcy Connector
- Purpose and Need - Highway 62 Improvements in Green Forest
- Purpose and Need - Highway 70 Widening (Hot Springs to I-30)
- Purpose and Need – Highway 27 Ouachita River Bridge
- Purpose and Need – Highways 124/326 Improvements in Russellville
- Purpose and Need – Highway 25 Relocation (I-40 North)
- Road User Cost Analyses Jobs 020506, 040517, 061026, 061113, 061228, 070345, 090280, 100705, 100723, 020070, 020487, 040489, 040490, 061215, 070273, 090174, 090313, 110504, 110541, 061259, 080295, 110543, 060352, 090286, 061318, 040583, 040518, 040578
- Job 040584 I-540/Hwy. 71B/Hwy. 112 Interchange Justification Report

### **Studies in Progress**

- I-55/Highway 64 Interchange Study (Marion)
- Study of Access Improvements to Highways 32 and 71 (Ashdown)
- I-40/Highway 59 Interchange Modification Study (Van Buren)
- I-40 Interchanges Study (Van Buren)
- I-540/Highway 412 Springdale Bypass Interchange Justification Report
- I-30/I-430 Interchange Improvements Interchange Justification Report
- Beebe Railroad Overpass Feasibility Study (Highway 31)
- I-40: Conway to North Little Rock Corridor Study
- Highway 67 Corridor Study (Jacksonville - Cabot)
- Highway 5 Widening Study (Benton to Pulaski County Line)
- Highway 5 Improvement Study (Hot Springs Village to Benton)
- Highway 10 Improvement Study (I-430 to Ferndale Cutoff Road)
- Highway 7 Improvement Needs Study (Hot Spring County)
- Highway 335 Study (Union County)
- Highway 82 Corridor Study (Texarkana to Lake Village)
- Highway 82B/167B Memo Study (El Dorado)
- Clarksville Congestion and Access Improvement Study
- Highway 139 Improvement Study – Highway 18 to Missouri State Line (Monette)
- Memo Study: Highway 89 Widening Study (Highway 67 to Highway 5) (Cabot)
- Highway 112 Corridor Study in Northwest Arkansas
- Highway 170 Improvement Study (Farmington)

## Consultant Studies Completed

AHTD staff reviewed and coordinated activities on the following consultant studies that were completed in F.Y. 2012.

- Feasibility Study of Enhanced Corridor from Batesville, MS to Brinkley, AR
- Northwest Arkansas Western Beltway Study

## Consultant Studies in Progress

AHTD staff reviewed and coordinated activities on the following consultant studies that are in progress.

- I-40 Interchange (Maumelle) Interchange Justification Report
- I-30 Corridor Improvement Study
- I-540 Interchange Improvements at Highways 62, 16/112, 264 and 62/102
- Northwest Arkansas Regional Airport Access Road Environmental Impact Study?
- I-540/8<sup>th</sup> Street Interchange Alternatives for the Environmental Assessment?
- Conceptual Design of Interchanges for I-40: Conway to North Little Rock Corridor Study
- Conceptual Design for Highway 67 Corridor Study (Jacksonville - Cabot)
- Conceptual Design for Highway 5 Widening Study (Benton to Pulaski County Line)
- Design study for Highway 70 Arkansas River Structure and Approaches (Broadway)

**Proposed Activities for F.Y. 2013:** The Department will continue to identify and analyze the engineering, environmental, social, and economic features of various proposals for use in the Department's decision-making process. Activities will continue toward completion of planning studies that are in progress, as well as new studies as requested. It is anticipated that during the course of the year numerous other studies will be initiated as needs arise. Updated traffic analysis software such as Synchro Studio 8 and Traffix will be acquired to support the activities related to planning studies.

Programmed Amount for F.Y. 2012	\$525,000
Estimated Expenditure for F.Y. 2012	\$410,000
Estimated Cost for F.Y. 2013	\$525,000

## 412 – AIR QUALITY ACTIVITIES

**Purpose and Scope:** To coordinate air quality planning statewide. Activities include the coordination of planning and construction projects, and compiling and analyzing data for emission modeling and coordinating air quality activities between the Arkansas Department of Environmental Quality (ADEQ) and WMATS and CARTS.

**Accomplishment for F.Y. 2012:** Provided Congestion Mitigation/Air Quality (CMAQ) funds to support air quality planning efforts by the Metropolitan Planning Organizations (MPO) in central Arkansas and Crittenden County. Specific activities in central Arkansas include

coordination with Metroplan for the Ozone Action Day Program, implementation of the Ozone Action Day program within the Department, and participation in the Central Arkansas Clean Air Task Force. In Crittenden County, air quality planning activities include the gathering, analysis and preparation of local and statewide data used for emission modeling and conformity determinations for the Long Range Plan. With FHWA, the Department coordinated Motor Vehicle Emissions Simulator (MOVES) training for AHTD, CARTS, WMATS, and ADEQ staffs. The Statewide Planning Section provided analysis to ADEQ of data conversion from MOBILE6 to MOVES for sensitivity analysis.

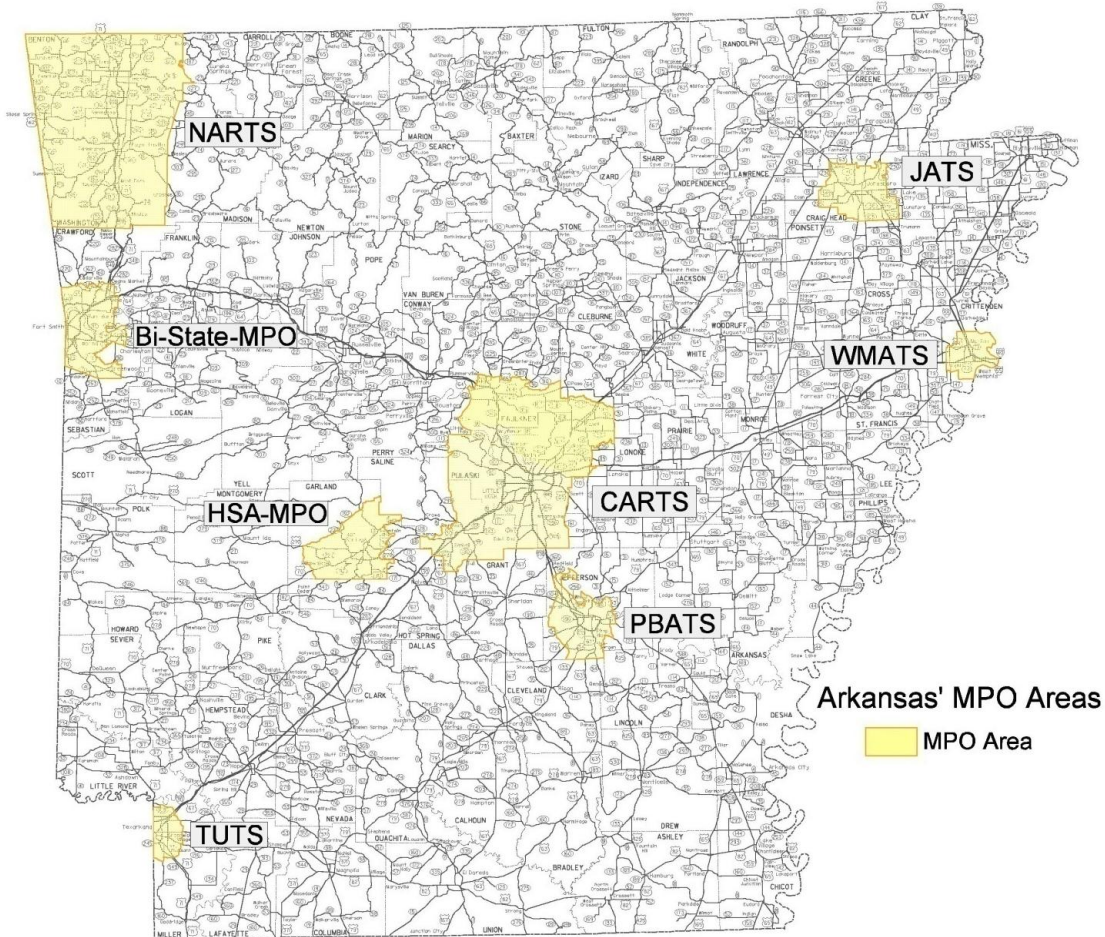
**Proposed Activities for F.Y. 2013:** Provide support activities for the air quality planning programs including those in the urbanized areas as well as programs within the Department. Activities will include developing implementation strategies for air quality programs within the Department, coordination with MPOs in developing and implementing programs and strategies, and coordination with the ADEQ, and other entities. Training for current and additional staff will be included.

Programmed Amount for F.Y. 2012	\$90,000
Estimated Expenditure for F.Y. 2012	\$90,000
Estimated Cost for F.Y. 2013	\$90,000

#### **413 - CITIES OVER 50,000 POPULATION**

**Purpose and Scope:** There are eight Metropolitan Planning Organizations (MPOs) in Arkansas. The MPOs and their general geographic areas are listed below. In cooperation with the MPOs, efforts are made to develop transportation systems embracing various modes of transportation in a manner that will efficiently maximize mobility of people and goods within and through urbanized areas and minimize transportation-related costs. To accomplish these objectives, MPOs, in cooperation with the State, develop transportation plans and programs for urbanized areas of the State. Such plans and programs provide for the development of transportation facilities (including pedestrian walkways and bicycle transportation facilities) that can be incorporated into the State's transportation system. The process for developing such plans and programs considers all modes of transportation and is continuing, cooperative, and comprehensive to the degree appropriate, based on the complexity of the transportation system.

**Accomplishments for F.Y. 2012:** The Metropolitan Planning Process (23USC134(c)(3)) was coordinated in all urbanized areas and the necessary activities were carried out for each area as explained below and in each MPO Unified Planning Work Program (UPWP). UPWPs, PL Agreements, Performance and Expenditure Reports, Annual Listing of Obligated Projects, and Transportation Improvement Programs were developed for each Metropolitan Area. Progress reports and planning claims were reviewed and approved. Specific areas and activities are as follows:



**Central Arkansas Regional Transportation Study (CARTS) –**

- Expanded the metropolitan planning area to include all of Saline, Faulkner, and Pulaski Counties as well as about half of Lonoke County which now includes the City of Lonoke.
- Refinements to the 2030 regional travel demand model continued as well as an update to 2040 with model enhancements completed.
- Participated in Arkansas Model Users Group.
- Metroplan staff worked cooperatively with local governments and the AHTD to provide traffic forecasts for major corridor studies such as Interstate 40, Highway 67, Highway 70 (Broadway Bridge), and the Maumelle I-40 Interchange.
- The annual Congestion Management System report was produced with use of GPS units provided by the AHTD.
- The 2010 Pedestrian/Bicycle Crash Analysis Report was produced.
- The Ozone Action Day program was continued.
- Monitoring continued of air quality issues and their impact on the region. Ozone readings in the summer of 2011 kept Central Arkansas barely in attainment of the 2008 standard.
- Considerable Metroplan and Department staff time was devoted to tracking and coordinating project design and cost items.
- The Regional Arterial Network (RAN) Study was updated.
- Public outreach was conducted on the design of the future Broadway Bridge.

Frontier Metropolitan Planning Organization (FMPO) –

- Updated the existing 2030 MTP and adopted the revisions as the 2035 MTP
- MPO director retired and new MPO staff was hired.
- Bi-State MPO redesignated as Frontier MPO.

Hot Springs Area Metropolitan Planning Organization (HSAMPO) –

- Coordinated with Intracity Transit (IT) to implement transit programs in the MPO area.
- Coordinated with IT and Hot Springs National Park to implement test National Park Service (NPS) Transit in Parks and Public Lands program in Hot Springs.

Jonesboro Area Transportation Study (JATS) –

- Completed the ITS Architecture and Deployment Plan.
- Coordinated with transit providers to implement transit programs in the MPO area.

Northwest Arkansas Regional Transportation Study (NARTS) –

- Worked on the 2030 and 2035 travel demand forecast models.
- Completed Western Beltway Study.
- Coordinated with AHTD on the Eastern North-South Corridor Study.
- Participated in the Arkansas Model Users Group.
- Coordinated with FHWA and AHTD on the Northwest Arkansas Razorback Regional Greenway Trail project.
- Developed a policy and initial list of projects for funding with STP>200K funding with anticipation of surpassing 200,000 urbanized area population and being designated as a Transportation Management Area (TMA) prior to the beginning of FFY 2013.

Pine Bluff Area Transportation Study (PBATS) –

- Coordinated with Pine Bluff Transit to provide transit planning and public participation for transit activities.

Texarkana Urban Transportation Study (TUTS) –

- Developed performance measures in preparation for MTP update.
- Converted historical files to electronic format consistent with current file system.

West Memphis-Marion Area Transportation Study (WMATS) –

- Continued to monitor crash data, land use and other characteristics with data being entered into the GIS system and specialized reports produced upon request.
- Coordination for the upcoming Air Quality Conformity cycle was initiated.
- Continued to monitor air quality issues and their impacts in the MPO area.
- Considerable MPO and Department staff time was devoted to coordinating projects funded with STP>200,000 and American Recovery and Reinvestment Act Funds.
- Additional MPO and Department staff time was spent on coordinating with the consultant team preparing the Southern Gateway Mississippi River Bridge Environmental Impact Statement.
- Interagency meetings were held with MPO staff.



***Proposed Activities for F.Y. 2013:*** Efforts will be made cooperatively among the AHTD, all MPOs, and local agencies to accomplish the objectives of the Metropolitan Planning Process and development of the STIP. Activities will continue to maintain compatibility between the Urbanized Area Transportation Plans and each local transportation plan (Master Street Plan). In developing transportation plans and programs pursuant to 23 USC 134, the eight factors set out in SAFETEA-LU will be considered in all Metropolitan Planning Area Studies. Activities related to the administration of Metropolitan Planning funds will continue in all areas. Necessary activities will be conducted to maintain certification for all urbanized areas. Efforts will continue toward meeting federally-mandated requirements including review of environmental justice issues. Activities will be conducted to assure necessary consideration of social, environmental and economic aspects of planning. TIP, UPWP, surveillance data analysis, annual reports, agreements, and other activities necessary to maintain the Metropolitan Area Transportation Planning Process will be conducted. Activities will continue on special studies in progress. New studies will be conducted as the need arises.

The UPWPs for each area and the Federal Transit Administration Work Program contain budget amounts and describe specific work to be accomplished for each work element by the MPOs. STP-Attributable and CMAQ claims will be processed for WMATS and CARTS. PL claims will be processed for all MPOs. Acquire webcams for each MPO that does not currently have videoconferencing capabilities. Some highlights of the proposed F.Y. 2012 activities are listed below:

Central Arkansas Regional Transportation Study - Work will continue on the Congestion Management System, responding to changing air quality standards and the Ozone Action Day Program, rideshare assistance through ArkRide.com, and other area studies. A major effort that will continue in FY 2013 is the updating of the CARTS Regional Traffic model to 2040 along with various enhancements.

Frontier Metropolitan Planning Organization – The MPO will continue to work with the City of Van Buren and Crawford County to study the most appropriate means of improving access to areas north of I-40.

Hot Springs Area Metropolitan Planning Organization – Continue to collect data on transit use for Hot Springs National Park demo project (Alternative Transportation for Parks and Public Lands).

Jonesboro Area Transportation Study – Staff will continue to work with the Jonesboro Economical Transportation System on an as needed basis.

Northwest Arkansas Regional Transportation Study – Continue to work on the 2030 and 2035 travel demand forecast models. Begin migrating the travel demand model base year to 2010. Continue to work on the Northwest Arkansas Razorback Regional Greenway Trail project. With the anticipated designation as a TMA, continue to develop and monitor projects for

STP>200K funds to ensure obligation of funds in a timely manner and begin development of a congestion management process.

Pine Bluff Area Transportation Study – The MPO will continue to provide assistance, as needed, to Pine Bluff Transit and to maintain the Transit Coordination Plan.

Texarkana Urban Transportation Study – Continuing to work on the development of a project identification/selection/ prioritization process to follow in next MTP. Start on new travel demand model with help from TXDOT for next MTP. Research regional economic trends to support fiscal constraint in next MTP.

West Memphis-Marion Area Transportation Study – The MPO will continue to monitor air quality issues and their impacts in the MPO area. The 2033 MTP will be monitored for needed updates. The collection of crash data will continue and a database of crashes will be updated. Begin work on the Air Quality Conformity plan.

**All Metropolitan Planning by Department Staff**

Programmed Amount for F.Y. 2012	\$450,000
Estimated Expenditure for F.Y. 2012	\$350,000
Estimated Cost for F.Y. 2013	\$450,000

Note: MPO UPWPs will be developed by the individual MPOs and will reflect the metropolitan planning funds to be expended by each MPO staff.

**415 - REFERENCE LIBRARY**

***Purpose and Scope:*** To provide and maintain a reference library on transportation-related subjects, in published or electronic format, for use by Department personnel and the public.

***Accomplishments for F.Y. 2012:*** Purchased, collected and filed relevant transportation data, reports and notices. Geographic Information System activities were continued for the on-line library. The Arkansas Statutes and Acts books were updated. Reviewed professional articles on transportation issues and prepared reports as necessary.

***Proposed Activities for F.Y. 2013:*** Continue to purchase, assemble, review and file transportation related data. Review professional articles on transportation issues and prepare reports as necessary. Geographic Information System software, hardware and accessories will be used to further implement the on-line library. Replace State Statute documents as printed. Update Federal Decennial Census Data.

Programmed Amount for F.Y. 2012	\$ 16,000
Estimated Expenditure for F.Y. 2012	\$ 8,000
Estimated Cost for F.Y. 2013	\$ 16,000

## 416 – STATEWIDE PLAN

**Purpose and Scope:** To update the current Arkansas Statewide Long Range Intermodal Transportation Plan through the review of the current Plan documents and Plans from other states, the review of SAFETEA-LU planning requirements, and the development of topics and trends to be addressed in the document. This will be achieved through close coordination within the Department with other Divisions, with FHWA and with other State and Federal agencies.

**Accomplishments for F.Y. 2012:** The QIP Team for Non-Metropolitan Local Elected Officials, recommended revisions to the Public Involvement Process. Provided support activities and research for the Blue Ribbon Committee. A Request for Proposal was developed and Alliance Transportation Group, Inc. was selected as the consultant for the Statewide Travel Demand Model, Phase I. Various data products for use in the Statewide Travel Demand Model were reviewed and researched.

**Proposed Activities for F.Y. 2013:** Transportation issues will be monitored and evaluated throughout the year. Oversee consultant activities for statewide travel demand model. Continue to provide support activities, research, and other materials for the Blue Ribbon Committee on Arkansas Highway Finance. Provide statistical information to Administration regarding statewide demographics and needs. Upon delivery of Phase I of the Statewide Travel Demand Model, preliminary model runs will be created to train staff on the proper use of the model and to educate other users regarding the appropriate use of model products.

Programmed Amount for F.Y. 2012	\$100,000
Estimated Expenditure for F.Y. 2012	\$100,000
Estimated Cost for F.Y. 2013	\$100,000

## 417 – PAVEMENT PERFORMANCE DATA COLLECTION

**Purpose and Scope:** To collect pavement performance data and right-of-way and pavement surface images for use in the Department's Pavement Management System (PMS) and Multi-Media Highway Information Systems (MMHIS). Currently, the Department's Automatic Road Analyzer (ARAN) data collection vehicle provides the majority of the data used by the PMS. The Department's ARAN provides right-of-way and pavement surface images and PMS data for use in the MMHIS.

**Accomplishments for F.Y. 2012:** Data collection by the Department's ARAN was completed on the entire National Highway System (NHS), Districts 1, 2, 3, 7, and 10, and routes affected in the Fayetteville Shale Play area. Data collected on routes have been processed and QC/QA was completed on the majority of the data. Data was also collected for several special projects to support the Research Section as well as other Sections and Districts within the Department. All necessary data and imagery were supplied to the MMHIS. A secondary data collection vehicle is being developed by Pavement Management staff to provide right-of-way imagery for low volume, institutional, and Fayetteville Shale Play routes and other special projects. After

evaluation and testing, it should be available to provide imagery on Fayetteville Shale Play routes multiple times per year.

**Proposed Activities for F.Y. 2013:** Data collection by the Department’s ARAN vehicle will include the entire NHS and all State maintained routes in Districts 4, 5, 6, 8, and 9. The Fayetteville Shale Play area will be collected at least one time. Data for special projects will be collected as requested. Costs for operating the ARAN vehicle, including maintenance, are included in this activity.

Pavement Management will acquire a Falling Weight Deflectometer (FWD) from the Technical Services Section. The FWD will be used to collect pavement serviceability data on the State Highway Network.

Acquiring and incorporating roughness and rutting subsystems on the secondary data collection vehicle improve the ability to provide better coverage for the Pavement Management data collection efforts. The secondary data collection vehicle will provide pavement performance data on Fayetteville Shale Play routes to supplement the pavement performance data collected by the ARAN vehicle. This vehicle will also be used to provide pavement performance data on non-APHN routes, institutional routes, and special projects.

Upon completion of the research project TRC-1001, “Ground Penetrating Radar for Pavement”, Pavement Management will acquire the Ground Penetrating Radar (GPR) unit from the Research Section. The vehicle will be used to collect pavement thickness data statewide for use in the pavement management database, the MMHIS, and in conjunction with the FWD to provide more accurate pavement condition data.

Programmed Amount for F.Y. 2012	\$275,000
Estimated Expenditure for F.Y. 2012	\$250,000
Estimated Cost for F.Y. 2013	\$500,000

#### **419 - HIGHWAY PERFORMANCE MONITORING SYSTEM**

**Purpose and Scope:** To investigate, design, develop, document, and implement a continuing system capable of assessing the performance of the State Highway System with respect to safe, efficient, and economical movement of people and goods, and to determine how existing highway programs and policies impact highway performance. The scope of this item includes developing and monitoring a panel of sample sections year to year; making necessary updates when changes occur in the physical highway conditions; and reporting this data to the FHWA annually, along with statewide summaries of mileage travel by functional system and rural, small urban, and urbanized areas.

**Accomplishments for F.Y. 2012:** Current data files were maintained. Field checks of 2011 sample sections were made in conjunction with FHWA staff. The off-system Linear Referencing System continued to be developed and edited as necessary. The HPMS data was

submitted to the FHWA before the deadline. Additional error checking routines were developed.

**Proposed Activities for F.Y. 2013:** The process of maintaining the current HPMS data file and Linear Referencing System files will be continued. The Table Of Potential Samples (TOPS) will be reviewed for adequacy and sample sections will be adjusted as required and classification counts will be reviewed for adequacy. The development of sample section maps will be continuing. A field review of a cross-section of the sample sections will be conducted. The HPMS data submittal will be made by the deadline. Field checks of the 2012 sample sections will be made and any needed logging will be completed. The Linear Referencing System will be updated to incorporate changes to the functional classification system. The Error checking for the HPMS data will be automated.

Programmed Amount for F.Y. 2012	\$ 200,000
Estimated Expenditure for F.Y. 2012	\$ 75,000
Estimated Cost for F.Y. 2013	\$ 110,000

#### **420 – INTERMODAL TRANSPORTATION PLANNING**

**Purpose and Scope:** To provide for the optimum use of all of the State’s transportation modes for both passengers and freight. Intermodal refers to the shipping and/or receiving of freight by two or more different modes of transportation (e.g., rail and truck) or, in the case of passenger movements, a system link (e.g., ground transportation at airports). Current planning activities focus on providing improved intermodal connections, enhancing shipping choices, conducting intermodal studies to aid local and regional economic development efforts and activities to enhance passenger rail service.

**Accomplishments for F.Y. 2012:** Technical assistance was provided to regional intermodal freight facility authorities and to the State’s MPOs. Assistance included guidance for Federal-aid construction projects and analysis of data on regional freight shipments. Freight data and freight transportation maps were provided as requested. Support functions were provided to AASHTO Standing Committees. Assistance provided to the Little Rock Corps of Engineers in their evaluation of a proposed slackwater harbor for the Fort Smith/Van Buren area. Data collection continued for the new State Rail Plan and Directory of Railroads. A planning grant was awarded by the Federal Railroad Administration (FRA) to conduct high-speed intercity passenger rail studies. Two construction grants were awarded by FRA, a project to improve railroad bridges for a railroad in south central Arkansas and a project to improve track conditions for a railroad located in southeast Arkansas. An application was submitted to FHWA for highway railroad grade crossing improvements on the State’s high-speed passenger rail corridor. Freight data was provided to support the Statewide Travel Demand Model. Support activities were provided to the Southern Gateway Mississippi River Third Bridge Project. Technical assistance was given to the Institute for Trade and Transportation Studies in developing the agency’s five-year work program and to the City of West Memphis for an evaluation of the region’s freight capabilities. In cooperation with the Oklahoma and Texas

Departments of Transportation, an application, Sun Belt Regional Shortline Railroad Projects, was submitted for the FY 2011 Tiger Discretionary Grant Program.

**Proposed Activities for F.Y. 2013:** Project planning and development assistance will be provided to Federal-aid intermodal transportation projects. Technical assistance will be given to local communities and regional intermodal authorities to develop freight transportation assets. Freight data and modal maps will be provided upon request. NHS Intermodal Connector routes will be monitored for changes. Freight transportation studies in progress will be completed and new studies will be initiated as requested. Provide support for consultant studies for the State Rail Plan Update and the High Speed/Intercity Passenger Rail Study. Support activities will be provided as needed for AASHTO Standing Committees and other special projects. Technical assistance will be provided as needed for freight and passenger rail grants; for rail line and railroad bridge improvement projects; and for the West Memphis freight capability evaluation.

Programmed Amount for F.Y. 2012	\$190,000
Estimated Expenditure for F.Y. 2012	\$190,000
Estimated Cost for F.Y. 2013	\$250,000

#### **421 - AUTOMATED TRAFFIC DATA COLLECTION**

**Purpose and Scope:** To collect vehicle volume, weight, speed, and classification traffic data at permanent, site-specific locations. The scope of this item includes developing and monitoring sample sites from year to year and making necessary updates when changes occur in the physical highway conditions. The scope of activities also includes the purchase of testing equipment, road tube, piezoelectric sensors and other equipment deemed necessary to support the collection of data, and repair of all assigned equipment. Also included is the installation of multi-purpose monitoring stations, upgrading of existing stations and replacement of obsolete and non-functional equipment. The Technical Services Recorder Shop will maintain all records of repairs to all data collection devices as well as all necessary items for the repair of portable equipment and installation of permanent automated data collection sites. Currently there are a total of 67 automatic data collection sites around the State. Of these, 11 collect volume data; one collects volume and classification data; 53 collect volume, classification and weight data; and two are currently inoperable.

**Accomplishments for F.Y. 2012:** All automatic data collection sites were maintained and repaired as needed to stay operational. The Technical Services Recorder Shop maintained all records of repairs to all data collection devices as well as kept all portable equipment in working condition and maintained supplies for the installation of permanent automated data collection sites. Five existing sites were rehabilitated.

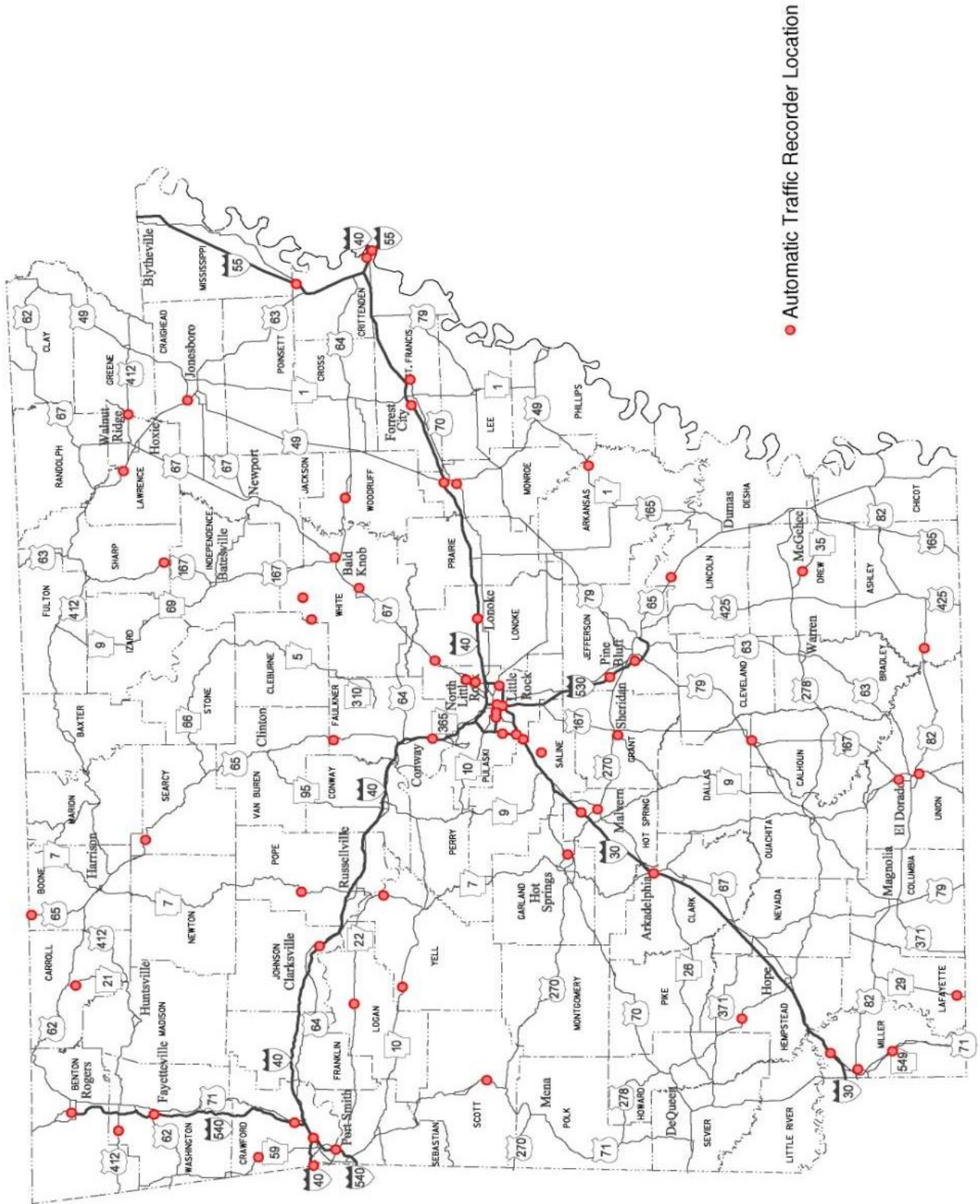
**Proposed Activities for F.Y. 2013:** All automatic data collection sites will be maintained and repaired as needed to keep them operational. The Technical Services Recorder Shop will maintain all records of repairs to all data collection devices as well as all necessary items for the repair of portable equipment and installation of permanent Automated Data Collection

Sites. Four new sites will be installed, two on facilities on urban minor arterials and two on urban major collectors. Four existing sites will be rehabilitated. This is in addition to the normal maintenance of the existing sites. A tractor trailer will be purchased and will be used to calibrate weigh-in-motion (WIM) sites.

Internet Protocol addressable modems will be acquired to replace the current cellular modems. The current cellular data service will soon no longer be supported by AT&T. A concrete saw is also needed to replace the existing saw nearing the end of its usable life.

Programmed Amount for F.Y. 2012	\$1,075,000
Estimated Expenditure for F.Y. 2012	\$ 480,000
Estimated Cost for F.Y. 2013	\$ 800,000

# Automatic Traffic Recorder Location Map



● Automatic Traffic Recorder Location



**CONTINUOUS AUTOMATED TRAFFIC MONITORING STATIONS  
(VOLUME COUNT, VEHICLE CLASSIFICATION and WEIGH-IN-MOTION)  
RURAL**

Station	Route	Sec	Log Mile	Location	Lanes	Year Est	Year WIM
<u>Functional Class 01</u>							
460006	I-30	11	8.00	At C.R. C-63 Overpass (Texarkana)	4	1994	1994
100019	I-30	14	77.10	At Caddo River Bridge (Arkadelphia)	4	1998	1998
301769	I-30	21	101.70	At C.R. 74 Overpass (Glen Rose)	4	2006	2006
Q301769	I-30	21	101.70	At C.R. 74 Overpass Kistler (Glen Rose)	4	2006	2006
170049	I-40	11	0.25	At Oklahoma State Line (Dora)	4	2008	2008
360009	I-40	21	63.19	West of U.S. 64 (Lamar)	4	2009	2009
230021	I-40	32	134.60	At C.R. Overpass (Mayflower)	4	1996	1996
430037	I-40	41	176.97	East of S.H. 31 Interchange (Lonoke)	4	2002	2002
481524	I-40	43	215.25	West of U.S. 49 (Brinkley)	4	2004	2004
680025	I-40	51	238.70	At C.R. F-10 Overpass (Forrest City)	4	1991	1991
181501	I-55	11	26.80	At C.R. D-28 Overpass (Gilmore)	4	1996	1996
350019	I-530	05	29.20	At C.R. A-4 Overpass (Samples)	4	1996	1996
170064	I-540	03	22.36	South of Newberry Rd (Alma)	4	2007	2007
<u>Functional Class 02</u>							
460011	US 549	01	20.37	1 Mile North of C.R. 4 (Fouke)	4	2005	2005
730068	US 67	13	10.40	At S.H. 258 Overpass (Bald Knob)	4	1991	1999
<u>Functional Class 03</u>							
010009	SH 1	05	12.50	NE of S.H. 17 (St. Charles)	2	1999	1999
750006	SH 7	13	11.20	South of S.H. 155 (Dardanelle)	2	2000	2000
050026	US 65	01	0.69	South of Missouri State Line (Omaha)	4	2007	2007
641932	US 65	04	5.40	North of S.H. 235 (Pindall)	2	1979	1996
230001	US 65	09	6.56	South of S.H. 124 (Damascus)	4	2000	2000
400062	US 65	16	8.70	North of S.H. 114 (Grady)	2	2009	2009
630009	US 71	10	10.25	North of U.S. 270 (Needmore)	2	2009	2009
071813	US 79	05	8.20	North of U.S. 167 (Thornton)	4	1979	1995
020006	US 82	08	3.50	East of Ouachita River Bridge (W. Crossett)	2	1984	2003
700040	US 167	01	13.41	South of S.H. 82 (El Dorado)	4	2009	2009
300052	US 270	08	3.60	South of I-30 (Malvern)	2	2006	2006
720034	US 412	02	4.20	West of S.H. 112 (Tontitown)	4	2003	2003
281983	US 412	08	0.67	East of Cache River Bridge (Light)	2	2002	2002
<u>Functional Class 04</u>							
580024	SH 7	15	15.90	North of S.H. 164 (Dover)	2	1987	
750010	SH 10	03	7.20	East of C.R. 537 (Havana)	2	2003	2003
420010	SH 22	03	14.00	East of S.H. 980 (Paris)	2	2001	2001
370001	SH 29	01	3.30	North of Louisiana State Line (Bradley)	2	1995	1995
220024	SH 35	08	5.80	Southeast of U.S. 278 (Monticello)	2	1979	2003
171651	SH 59	05	10.00	North of Natural Dam (Natural Dam)	2	2000	2000
740035	US 64	13	5.94	West of S.H. 17 (Patterson)	2	2002	2003
290002	US 278	05	7.30	South of S.H. 332 (Ozan)	2	1983	1998
<u>Functional Class 05</u>							
080004	SH 21	05	15.70	South of U.S. 62 (Berryville)	2	1987	2000
270012	SH 46	02	17.80	South of U.S. 270 (Sheridan)	2	1983	2005
680032	SH 50	01	1.00	West of S.H. 38 (Madison)	2	1983	1996
480037	US 70	17	9.90	East of S.H. 17 (Brinkley)	2	1999	1996
170053	SH 64	02	3.14	U.S. 64 between S.H. 282 and S.H. 60 (Van Buren)	4	2010	2010
670027	SH 115	03	13.80	East of U.S. 167 (Cave City)	2	1983	1996
730222	SH 367	16	3.30	S.H. 367 Sec. 160 Park Ave. (Searcy)	2	2010	2010

**CONTINUOUS AUTOMATED TRAFFIC MONITORING STATIONS  
(VOLUME COUNT, VEHICLE CLASSIFICATION and WEIGH-IN-MOTION)  
URBAN**

Station	Route	Sec	Log Mile	Location	Lanes	Year Est	Year WIM
<u>Functional Class 01</u>							
600563	I-30	23	126.50	West of Little Rock at Z Motel (County Line)	6	2006	
600388	I-30	23	138.80	At Roosevelt Road and I-440 (Little Rock)	7	1997	
600639	I-30	23	139.60	Between 6 <sup>th</sup> and 9 <sup>th</sup> Streets (Little Rock)	7	1997	
180209	I-40	52	283.97	At Mississippi River Bridge (West Memphis)	6	2007	
180210	I-55	11	0.95	At Mississippi River Bridge (West Memphis)	4	2008	
600345	I-430	21	4.25	N. of Col. Glenn Rd. At W. 36 <sup>th</sup> St. (Little Rock)	6	2006	2006
600504	I-440	01	6.50	West of U.S. 165 (North Little Rock)	6	1993	1993
350314	I-530	05	37.00	North of S.H. 190 (Pine Bluff)	4	2000	2000
650284	I-540	01	7.00	North of S.H. 22 (Rogers Ave) (Fort Smith)	4	2004	2004
720236	I-540	04	61.30	South of U.S. 62 Interchange (Fayetteville)	4	2007	2007
040432	I-540	05	84.82	North of U.S. 71B (Rogers)	4	2004	2004
600426	I-630	21	2.00	At Park Street Overpass (Little Rock)	6	1985	
600429	I-630	21	3.40	At Ray Winder Field LTPP Site (Little Rock)	6	2005	
<u>Functional Class 02</u>							
160058	US 63	06	10.00	South of S.H. 91 (Jonesboro)	4	1990	1990
600613	US 67	10	7.80	South of Redmond Road (Jacksonville)	4	1987	
430038	US 67	11	1.30	South of S.H. 89 (Cabot)	4	1991	1995
260059	US 70	09	1.50	1.2 Miles North of U.S. 270 (Hot Springs)	4	2005	2005
460286	SH 245	01	2.22	South of U.S. 82 (Texarkana)	4	2002	2002
600870	SH 440	02	12.00	South of S.H. 161 (Rixey)	6	2003	2003
<u>Functional Class 03</u>							
700229	US 167	01B	3.38	North of S.H. 7 Spur (El Dorado)	2	1987	
600567	SH 338	01	0.66	East of S.H. 5 at I-430 Overpass (Little Rock)	2	1997	1997
<u>Functional Class 04</u>							
620176	SH183	01	6.06	S.H. 183 Sec.010 L.M. 4.18-6.38(Bryant)	2	2010	2010

## **422 - HIGHWAY CONDITION INVENTORY AND ANALYSIS**

**Purpose and Scope:** To provide the Department with data for a more precise means of evaluating the State Highway System in response to condition and needs. A database will be maintained for information pertaining to the individual roadways' profile and design. The scope of the inventory encompasses the gathering and compiling of information used in the needs evaluation process for each highway section. The inventory will be used to update and maintain the Department's highway road log.

**Accomplishments for F.Y. 2012:** Field inventory data was collected by the field crews and was analyzed by the office staff. GIS applications were developed for the end-of-year QCQA process. This process incorporates: aerial photography, MMHIS and GIS. A computer data file was maintained and updated as construction jobs were completed.

**Proposed Activities for F.Y. 2013:** Activities include updating annual data necessary for effective analysis by the Department. The QAQC process developed in FY 2012 will be refined and the final process will be documented. Field inventory updates will be made from data collected by field personnel as needed. The database will be updated as construction jobs are completed.

Programmed Amount for F.Y. 2012	\$150,000
Estimated Expenditure for F.Y. 2012	\$120,000
Estimated Cost for F.Y. 2013	\$125,000

## **423 - PAVEMENT MANAGEMENT SYSTEM (PMS)**

**Purpose and Scope:** To develop and implement a statewide PMS for State Highways. The PMS is a systematic process that provides, analyzes, and summarizes information for use in selecting and implementing cost-effective pavement construction, rehabilitation, and maintenance programs. The PMS work plan components include database development, pavement evaluation, establishment of preferable maintenance treatment strategies, and the identification of projects for consideration in developing statewide transportation plans and improvement programs.

**Accomplishments for F.Y. 2012:** Data from the NHS and Secondary Systems was processed and reported. The most current International Roughness Index (IRI) data on the state maintained highway network was supplied to the HPMS. The data from all routes collected with the ARAN has been entered into a PMS database and images have been loaded into the MMHIS. All existing data files have been processed to conform to the Roadway Inventory System using geographic coordinates provided from the Surveyor asset inventory software.

The Surveyor asset inventory software was used to locate and categorize assets required to populate basic inventory data for the PMS database. PMS personnel used the Surveyor software with imagery from the five (5) high-definition digital cameras mounted on the ARAN to extract asset data items. Each data item extracted has corresponding geographic coordinates

that allow all assets to be displayed using the Department's GIS. The geographic coordinates are used to match the raw ARAN data files to the Department's Roadway Inventory System.

PMS personnel have used WiseCrax automatic crack detection software to locate and classify cracks on the NHS routes and the Fayetteville Shale Play routes. Secondary highways with asphalt surfaces have been processed as well. Four licensed copies of the software have been acquired and installed on desktop computers, each with a 64-bit operating system installed. This operating system allows the installation of more system memory that allows the WiseCrax software to process cracking data on even the longest routes collected by the ARAN vehicle. D-Rate software is used to provide cracking distress data for concrete surface roadways and certain asphalt surface roadways not suitable for use with WiseCrax.

Curve-Fit software was used to provide more accurate horizontal and vertical curvature data and pavement grade data. Edge Drop-off software was used to locate pavement segments that have developed significant deterioration along the edge of the pavement, creating an unsafe drop-off condition. The Edge Drop-off software allows PMS personnel to view the transverse profile of the pavement and visually observe the location of measured ruts. This provides a tool to QC/QA the rut data provided by the ARAN. These items, along with pavement macro texture, are made available to the Traffic Safety Section for use in roadway safety analysis. A QC/QA procedure was developed to ensure the reported rut values reflect actual pavement condition.

Evaluation of the Vision data processing software from Fugro-Roadware will be completed. The software should eliminate any duplication of efforts in data processing and eliminate several steps in the data processing work flow. The software also combines WiseCrax, D-Rate, CurveFit, and Edge Drop-off into one desktop application. The software also has built in QC/QA tools to streamline the QC/QA process.

Pavement Management and other required data were provided to the vendor selected to upgrade and implement the Department's deighton® Total Infrastructure Management Software Concurrent Transformation (dTIMS CT) asset management software. All processing variables and rehabilitation trigger values were determined and entered into the software. This will allow users of the software to perform system-wide, multi-year, multi-budget, scenarios to determine future conditions and pavement rehabilitation needs.

***Proposed Activities for F.Y. 2013:*** The processing of data collected by the ARAN will continue. The data will be incorporated into a Pavement Management database. This database will be used in the dTIMS CT asset management software. Work will continue to enhance pavement deterioration curves for use in dTIMS CT to allow more reliable analysis of the highway system.

The evaluation of WiseCrax and D-Rate will continue to determine if protocols can be established for use in the PMS and the HPMS. QC/QA procedures will be implemented to ensure the quality and accuracy of the WiseCrax data. The distress data will be used to

establish pavement cracking indices and will be used in combination with IRI and rutting data to establish a pavement condition index.

ARAN sensor data and right-of-way and pavement imagery for all collected routes on the state maintained highway system will be provided to the MMHIS.

Data processed by using the Curve-Fit and Edge Drop-off software will be incorporated into the ARAN data files. Continue the QC/QA procedures to ensure the reported rut values reflect the actual pavement condition.

The purchase of the Vision software will incorporate many of the data processing applications currently used as standalone products. After training and implementation of the software, the streamlining of the data processing workflow will begin.

The Pavement Management database will provide necessary data to the HPMS. The latest HPMS reassessment demands more comprehensive data reporting and will require a more complex work-flow. Pavement Management personnel will write computer applications to assimilate the required data.

Pavement Management personnel will provide support for Research projects administered by the Research Section and the State universities as required.

Programmed Amount for F.Y. 2012	\$680,000
Estimated Expenditure for F.Y. 2012	\$520,000
Estimated Cost for F.Y. 2013	\$650,000

#### **425 - CONTRACT TURNING MOVEMENT COUNTS**

***Purpose and Scope:*** The purpose of this activity is to use outside contractors in the collection of certain traffic data elements to reduce collection time. The scope of this element will include turning movement counts only.

***Accomplishments for F.Y. 2012:*** Approximately 150 turning movement counts were completed during the fiscal year.

***Proposed Activities for F.Y. 2013:*** The consultant will collect approximately 150 turning movement counts.

Programmed Amount for F.Y. 2012	\$142,000
Estimated Expenditure for F.Y. 2012	\$125,000
Estimated Cost for F.Y. 2013	\$142,000

## 426 - APPROVED IN- AND OUT-OF-STATE TRAVEL AND SEMINARS

**Purpose and Scope:** To acquire additional, up-to-date knowledge and the latest techniques to stay abreast of available information and/or technology in order to provide the best transportation system for the movement of people and goods in and through Arkansas.

**Accomplishments for F.Y. 2012:** Out-of-state trips were taken to attend transportation related meetings and seminars to acquire training, to update knowledge and techniques, and to network with others involved in planning and financing transportation programs and systems.

Out-of-state trips and their purposes are listed below.

Washington, DC – FHWA and AASHTO Standing Committee on Planning Complete Street Peer Exchange  
New Orleans, LA – AASHTO Value Engineering Technical Committee  
Loveland, CO – Geospatial Information Systems for Transportation Symposium  
Huntsville, AL – Intergraph Transportation Summit  
Dallas, TX - NATMEC-TMC Graph Meeting  
Washington, DC - FHWA’s Highway Information Seminar  
Oklahoma City, OK – 2012 Highway Safety Engineering Peer Exchange  
Baton Rouge, LA – Institute for Trade and Transportation Studies (ITTS)  
St. Louis, MO – State Highway Map Printing  
Salt Lake City, Utah – 2011 AASHTO Research Advisory Committee (RAC) meeting  
Washington, DC – Transportation Research Board 91<sup>st</sup> Annual meeting

**Proposed Activities for F.Y. 2013:** Division personnel will make necessary and pertinent in- and out-of-state trips to attend seminars and meetings. Federal participating funds that are used for these seminars and meetings will be tracked. Charging trips and training seminars to one job number improves record keeping. Registration fees, salaries, meals and lodging, the cost of the trip and miscellaneous expenses will be charged to this job number.

Programmed Amount for F.Y. 2012	\$ 150,000
Estimated Expenditure for F.Y. 2012	\$ 230,000
Estimated Cost for F.Y. 2013	\$ 250,000

## 427 - CONTRACT COLLECTION OF TRAFFIC VOLUME COUNTS

**Purpose and Scope:** To use outside contractors to augment the collection of certain traffic data elements. The scope of this element will include the collection of 48-hour traffic volume counts. These counts include all State Highways and a significant number of the high volume county roads and city streets. The contractor will perform the counts supporting all ongoing urban transportation studies and routine count locations.

**Accomplishments for F.Y. 2012:** Collected approximately 9,600 traffic volume counts.

**Proposed Activities for F.Y. 2013:** Collect approximately 9,600 traffic volume counts.

Programmed Amount for F.Y. 2012	\$487,000
Estimated Expenditure for F.Y. 2012	\$630,000
Estimated Cost for F.Y. 2013	\$600,000

**428 – MULTIMEDIA HIGHWAY INFORMATION SYSTEM (MMHIS)**

**Purpose and Scope:** The MMHIS is designed to provide the Department’s users with highway imagery collected by the ARAN along with data from various Department databases. The data is synchronized with the imagery. The MMHIS is accessible to all users who are connected to the Department’s fiber-optic network. It is also accessible at offices which have a local hard drive with the MMHIS data for their area of responsibility. This allows Department personnel to review the roadway and other associated features without the travel required for a field investigation. The scope of work includes continuous updates to the MMHIS along with expanding the number of MMHIS users within the Department.

**Accomplishments for F.Y. 2012:** Approximately 500 roadway sections were added to the MMHIS. These represent the Interstate, NHS, and State Highway data collected by the Department’s ARAN data collection vehicle. Enhancements continue to be made to expand the capabilities of the MMHIS.

**Proposed Activities for F.Y. 2013:** Work will include providing the MMHIS users with new high definition imagery and data as collected by the Department’s ARAN. Routes will be included from the Interstate, NHS, and the other portions of the State Highway system. It is anticipated that additional hard drives will be procured with state funds and distributed to additional off-site offices as the demand for MMHIS increases. Additional enhancements to the MMHIS may also be included.

Programmed Amount for F.Y. 2012	\$ 215,000
Estimated Expenditure for F.Y. 2012	\$ 95,000
Estimated Cost for F.Y. 2013	\$ 200,000

**429 - CONTRACT COLLECTION OF VEHICLE CLASSIFICATION COUNTS**

**Purpose and Scope:** To use outside contractors to augment the collection of certain traffic data elements. The scope of this element will include the collection of 48-hour vehicle classification counts. These counts include multi-lane undivided State Highways and a significant number of the high volume multi-lane undivided HPMS sample segments within urban areas. The contractor will perform the counts supporting all ongoing urban transportation studies and HPMS segment locations.

**Accomplishments for F.Y. 2012:** Collected approximately 450 vehicle classification counts.

**Proposed Activities for F.Y. 2013:** Collect approximately 450 vehicle classification counts.

Programmed Amount for F.Y. 2012	\$210,000
Estimated Expenditure for F.Y. 2012	\$190,000
Estimated Cost for F.Y. 2013	\$210,000

#### 430 – RAILROAD CROSSING COORDINATION

**Purpose and Scope:** To maintain and update highway/railroad crossing data files for all public crossings in the State. To rank the crossings by a hazard rating that is used as a guide to evaluate crossings for possible signal improvements. To review and submit proposed signal improvements and/or surface improvements for the crossings to FHWA for approval. To monitor and coordinate all railroad crossing improvements that are involved in highway construction projects. To prepare all Special Provisions for construction contract bid documents and to develop Construction and Maintenance Agreements including Overpass Agreements for any AHTD projects involving railroad crossings. To respond to requests from the public and private sectors concerning railroad crossing issues.

**Accomplishments for F.Y. 2012:** From July 1, 2011 through March 1, 2012, three work orders were issued to railroad companies to upgrade/install active warning devices and/or surfaces at railroad crossings in conjunction with highway improvements. During this same period, preliminary engineering was authorized to the railroad companies to provide plans and estimates for improvements at six crossings. Five Overpass Agreements were signed. On-site inspections of railroad crossings were made as warranted.

**Proposed Activities for F.Y. 2013:** Railroad crossings will continue to be monitored in order to recommend projects to install signals and surface improvements. Approximately six to eight crossing improvements will be submitted to FHWA for approval. Construction projects will continue to be monitored for railroad involvement. All railroad related Special Provisions for construction contract documents will continue to be prepared. Construction projects that include railroad involvement will be coordinated with the railroad companies and appropriate Divisions and Districts. Construction and Maintenance Agreements including Overpass Agreements for any AHTD projects involving railroad crossings will continue to be developed.

Programmed Amount for F.Y. 2012	\$240,000
Estimated Expenditure for F.Y. 2012	\$120,000
Estimated Cost for F.Y. 2013	\$190,000

#### 431 – TRAFFIC CRASH LOCATION

**Purpose and Scope:** To review all traffic crash reports for correct location. To verify the location listed on the crash report for correct highway-section-log mile location. If the location is incorrect on the crash report, the crash locators will determine the correct highway, section and log mile of the crash.

**Accomplishments for F.Y. 2012:** The crash locators reviewed 60,984 traffic crashes that occurred in the State in 2010. Of these, 38,050 crashes occurred on the State Highway System.



A process using the Linear Referencing System Virtual Location Tool (LRSVLT) that was developed in house by AHTD, was initiated in 2011. Also the Department has coordinated with the Department of Finance and Administration and the Arkansas State Police to locate all crash reports electronically, thus employing a paperless crash report system. Both of these processes have streamlined the traffic crash location process.

**Proposed Activities for F.Y. 2013:** Crash reports will continue to be reviewed and checked for correct highway, section, and log mile locations. The LRSVLT will continue to be used to identify the highway, section and log mile of a crash. Furthermore, crashes that occurred on freeway ramps, frontage roads and federally funded county roads and city streets are being located accurately due to the addition of the LRSVLT. The paperless crash report process will continue. Efforts will continue with the Arkansas State Police to improve the crash report form and process for reporting.

Programmed Amount for F.Y. 2012	\$180,000
Estimated Expenditure for F.Y. 2012	\$140,000
Estimated Cost for F.Y. 2013	\$170,000

#### **432 – TRAFFIC CRASH RECORD ANALYSIS**

**Purpose and Scope:** To continue to review crash data and identify high crash rate locations. To implement the State’s Strategic Highway Safety Plan (SHSP) to ensure that appropriate safety measures are implemented that will reduce the State’s fatality rate.

**Accomplishments for F.Y. 2012:** The Traffic Safety Section is the lead agency in the development of the State’s SHSP. The goal of the SHSP is to identify traffic safety problems and recommend strategies to address these problems that will ultimately reduce the State’s fatality rate. The SHSP was adopted by the Arkansas State Highway Commission in July 2007.

Crash analyses for safety projects in FFY 2012 were completed. Crash analyses for safety projects in the upcoming 2013-2016 Statewide Transportation Improvement Program (STIP) were completed. Studies include highways at rural, unsignalized intersections, locations with a high rate of run-off-the-road crashes, locations involving vehicles crossing the median, and areas with a high rate of wet-weather crashes. In accordance with Minute Order 2009-035, an annual study on wrong-way crashes on Interstates and other Freeways was prepared. An annual report on HSIP was prepared and submitted to FHWA. The AASHTO Highway Safety Manual (HSM) training course was held in February. A project effort in collaboration with FHWA to study roadway departure crashes was initiated.

**Proposed Activities for F.Y. 2013:** Staff will continue to identify high crash rate locations and conduct crash analyses. Staff will continue to coordinate with and provide assistance to other Sections and Divisions for safety studies and related efforts. The Incident Analyst software from Intergraph will be used to visually identify locations with high concentrations of crashes (hot spots), any changes over time, and other crash analyses from mapped crash data. Work

will continue to identify locations with a high rate of run-off-the-road crashes and a high frequency of fatal and serious injury crashes. The SHSP will be updated and steering committee meetings will be facilitated. An SHSP Safety Summit will be conducted. High crash rate locations on the high risk rural road system will be identified. An annual wrong-way crash study will be conducted. The HSM and the corresponding Interactive Highway Safety Design Model (IHSDM) will continue to be implemented. A program to update the railroad hazard rating database will be completed. An update to the network screening program will be completed. In addition, work will continue to coordinate with FHWA on the review and update of the HSIP process. The roadway departure study with FHWA will be completed. Other training opportunities with FHWA will continue to be explored. An annual report on HSIP will be prepared and submitted to FHWA.

Acquiring and incorporating SafetyAnalyst into the traffic safety work flow will improve effort in system analysis and network screening.

Programmed Amount for F.Y. 2012	\$410,000
Estimated Expenditure for F.Y. 2012	\$430,000
Estimated Cost for F.Y. 2013	\$470,000

#### **433 – TRAFFIC DATA COLLECTION FOR SPECIAL PROJECTS**

**Purpose and Scope:** This job will track the costs of traffic data collection for special projects for other sections in the Planning and Research Division. These projects could include, micro-simulation modeling in Statewide Planning, a Statewide Travel Demand model in Policy Analysis, and rest area counts for Research. This project does not include traffic counts performed for Roadway Design or Maintenance for routine projections for project design or turning movement counts for signal warrants.

**Accomplishments for F.Y. 2012:** Technical Services conducted 43 turning movement counts for other Sections.

**Proposed Activities for F.Y. 2013:** Technical Services will collect approximately 50 classification counts and 50 turning movement counts as requested from other Divisions and Sections.

Programmed Amount for F.Y. 2012	\$70,000
Estimated Expenditure for F.Y. 2012	\$40,000
Estimated Cost for F.Y. 2013	\$70,000

#### **434 – TRAFFIC DATA COLLECTION – TRAFFIC COUNTS**

**Purpose and Scope:** To collect traffic data, including vehicle classification counts, railroad crossing delay studies, and other special data collection efforts. The traffic counting effort will include normal coverage counts (48-hour counts), weekend counts, and holiday counts.

Please note that this job is new for FY 2013, so there are no accomplishments for FY 2012.

**Accomplishments for F.Y. 2012:** New activity in Fiscal Year 2013.

**Proposed Activities for F.Y. 2013:** Technical Services will conduct approximately 1,600 48-hour machine classification counts throughout the State, including some weekend and holiday samples. Speed data will be collected at all classification sites. Special counts will be made as requested. Axle Light sensors are unobtrusive sensors that can be used to obtain classification data in congested areas. Since axle light sensors are set up on only one side of the road, they are safer than any of our current technology. Additionally, axle light sensors use the same type of counter technology, so they are compatible with the Department's traffic count database. Two of these sensors will be purchased during the Fiscal Year.

Programmed Amount for F.Y. 2012	\$	0
Estimated Expenditure for F.Y. 2012	\$	0
Estimated Cost for F.Y. 2013	\$	525,000

#### **467 - RESEARCH SECTION PROJECTS FROM Q55 APPORTIONMENT**

**Accomplishments for F.Y. 2012:** See the Part II Research portion of the Work Program for these project activities.

**Proposed Activities for F.Y. 2013:** See Part II.

Programmed Amount for F.Y. 2012	\$500,000
Estimated Expenditure for F.Y. 2012	\$500,000
Estimated Cost for F.Y. 2013	\$250,000

#### **GENERAL PLANNING STUDIES (2003) - 001969, 001970 001969 – PARSONS BRINKERHOFF QUADE AND DOUGLAS, INC.**

**Purpose and Scope:** Task Order 3 – Continuous Flow Intersections Study

**Accomplishments for F.Y. 2012:** Completion of the study.

**Proposed Activities for F.Y. 2013:** None.

#### **001970 – JACOBS ENGINEERING GROUP**

**Purpose and Scope:** Task Order 1 – I-30 Operations Study.

**Accomplishments for F.Y. 2012:** Entered into a supplemental agreement to extend time for work activities.

**Proposed Activities for F.Y. 2013:** Completion of the study.

Programmed Amount for F.Y. 2012	\$ 17,801
Estimated Expenditure for F.Y. 2012	\$ 1,000
Estimated Cost for F.Y. 2013	\$ 5,400

**012130 – STATEWIDE TRAVEL DEMAND MODEL, PHASE I**

**Purpose and Scope:** To develop a statewide travel demand model to determine regional and corridor-based needs. Mode share will be addressed within regional corridors. Phase I of the project will include network development, traffic analysis zone development, and demographic, mode, and network data development. Phase II will address the integration of data into the model, mode share, and validation and calibration of a base year model. Phase III may include the development of a future year statewide travel demand model including appropriate data collection and projection activities.

**Accomplishments for F.Y. 2012:** Work on this project progressed on schedule. Fiscal Year 2012 completed activities include the development of traffic analysis zones and the base network. Data has been collected and purchased to populate zones and links. Continue coordination with the consultant to complete the data population, validation, and calibration of the base year network.

**Proposed Activities for F.Y. 2013:** None.

Programmed Amount for F.Y. 2012	\$ 218,000
Estimated Expenditure for F.Y. 2012	\$ 218,000
Estimated Cost for F.Y. 2013	\$ 0

**UNKNOWN – STATEWIDE TRAVEL DEMAND MODEL, PHASE II**

**Purpose and Scope:** To develop Phase II of the statewide travel demand model. Phase II will include a forecast year, address the integration of data into the model, update demographics, enhance the freight network component and add a tolling component for future project analysis.

**Accomplishments for F.Y. 2012:** New activity in Fiscal Year 2013.

**Proposed Activities for F.Y. 2013:** Work with selected consultants to provide answers to specific question pertaining to future projects. This may include data purchases, transformations and projections of data sets.

Programmed Amount for F.Y. 2012	\$ 0
Estimated Expenditure for F.Y. 2012	\$ 0
Estimated Cost for F.Y. 2013	\$ 400,000

## UNKNOWN – STATE RAIL PLAN UPDATE

**Purpose and Scope:** To prepare an updated State Rail Plan that will meet Federal requirements established under the Passenger Rail Investment and Improvement Act (PRIIA) of 2008 and that will be based on Federal long-range rail transportation goals established in the National Rail Plan currently being developed by the Federal Railroad Administration (FRA).

**Accomplishments for F.Y. 2012:** Project initiated.

**Proposed Activities for F.Y. 2013:** The Department will oversee consultant activities to ensure compliance with PRIIA requirements and FRA rail planning policy. These activities will include data collection and analysis of the State’s freight and passenger rail systems, including infrastructure, equipment and support facilities, conducting stakeholder meetings, and other activities to achieve the desired document and will support the proposed passenger rail studies, including high speed rail.

Programmed Amount for F.Y. 2012	\$375,000
Estimated Expenditure for F.Y. 2012	\$ 0
Estimated Cost for F.Y. 2013	\$375,000

**OTHER FEDERAL FUNDS**

## **1711 - BICYCLE AND PEDESTRIAN PROGRAM**

***Purpose and Scope:*** To develop, monitor and assist efforts regarding, bicycle and pedestrian transportation planning, facilities development, and other duties as assigned.

***Accomplishments for F.Y. 2012:*** Responded to requests from organizations engaged in bicycle tourism and from cyclists for route and other information. Coordinated responses to these requests with local advocacy groups, national cycling resources, and State Parks and Tourism. The Department fielded queries from State agencies, communities, and individuals regarding AASHTO's design guidelines for bicycle facilities and sign regulations from the Manual for Uniform Traffic Control Devices, the AHTD Bicycle Facility Accommodation Policy, and the AHTD Sidewalk Policy.

Arkansas Health Department's Obesity Prevention Initiative to increase walking and bicycling was supported. Participated in a Walklive Institute walkability audits in Harrison, North Little Rock, Little Rock (UALR campus), and El Dorado. Supported local communities in their efforts to communicate and implement audit findings. Coordinated efforts between AASHTO/Adventure Cycling, MPOs, local governments, local advocates/volunteers, and Bicycle and Pedestrian Coordinators in neighboring states to identify potential routes for USBRS 51(Bella Vista to Texarkana), USBRS 80 (Lake Village to Texarkana), and USBRS 84 (Memphis, TN to Mena). Arkansas side of Harahan Bridge project to ensure connectivity for USBRS route between Little Rock and Memphis was coordinated.

Annual Bicycle Friendly States Surveys were completed and submitted under a FHWA-supported League of American Bicyclist (LAB) initiative. An Alliance for Cycling and Walking publication was reviewed prior to publication to ensure accuracy regarding Arkansas figures. Local cycling groups, cities and MPOs were supported in integrating non-motorized modes into local transportation planning processes. Local communities were assisted in increasing their support for bicycling and in making application for LAB Bicycle Friendly Community (BFC) Awards.

Awards for Bicycle Bronze have been made to the City of Conway, the City of Fayetteville, the City of North Little Rock, the Chainwheel bike shop in Little Rock and the Ride bike shop in Conway. Bicycle Silver awards have been made to Garver Engineers, Bike City Recyclery in Fayetteville and the Gearhead bike shop in Jonesboro.

The Department participated in FHWA Bicycle/Pedestrian Safety webinars and coordinator conference calls. The Bicycle/Pedestrian Coordinator maintained LAB Licensed Safe Cycling Instructor (LCI) status and provided safe cycling instruction to several hundred children and adults, including over 200 children at the annual Bentonville B2 Bicycle Blast event. Training was also provided to Conway Public School teachers to prepare them to teach safe cycling as part of their Safe Routes to School funded program.

***Proposed Activities for F.Y. 2013:*** Provide technical assistance to agencies, organizations and communities requesting help with cycling and pedestrian transportation issues. Respond to

requests for Arkansas cycling information. Provide technical support to planning organizations, communities and state agencies to facilitate Bicycle/Pedestrian Master Planning and ensure consideration of Bicycle/Pedestrian safety in existing and proposed projects and programs. Support additional Bicycle Friendly applications. Continue to support volunteer-led efforts to complete AASHTO USBRS routes across Arkansas. Continue to participate in FHWA webinars and conference calls. Oversee development of a statewide bicycle and pedestrian master plan by a consultant.

Programmed Amount for F.Y. 2012	\$30,000
Estimated Expenditure for F.Y. 2012	\$12,000
Estimated Cost for F.Y. 2013	\$30,000

**012141 – STATEWIDE SCENIC BYWAYS PROGRAM**

**Purpose and Scope:** To develop, monitor and assist efforts regarding scenic highways and byways and to perform other duties as assigned.

**Accomplishments for F.Y. 2012:** Provided information and guidance on the Scenic Byways Program to the Ozark Gateway Heritage group which is considering multiple routes between Batesville and Mammoth Springs. Worked with the America’s Byways Resource Center to assist Highway 28 in the development of a Corridor Management Plan (CMP) and to provide a workshop on corridor management planning to aid in the updates of existing byways’ CMPs. Reviewed and coordinated the submittal of Scenic Byway grant applications from Delta Byways.

**Proposed Activities for F.Y. 2013:** Participate in meetings and activities associated with the Mississippi River Parkway Commission and the Talimena Scenic Drive Association. Conduct a study on Highway 28 (Highway 71 to Highway 7) in coordination with the Arkansas Department of Parks and Tourism and present the findings to the Arkansas Highway Commission for consideration of designation as a State Scenic Byway. . Participate in FHWA State and Tribal Coordinator conference calls and training webinars. Attend the biennial National Scenic Byways Conference.

Programmed Amount for F.Y. 2012	\$30,000
Estimated Expenditure for F.Y. 2012	\$ 1,600
Estimated Cost for F.Y. 2013	\$20,000



## 012057 – SAFE ROUTES TO SCHOOL PROGRAM

**Purpose and Scope:** To administer the Arkansas Safe Routes To School (SRTS) Program.

**Accomplishments for F.Y. 2012:** Project development and oversight activities were initiated for the projects recommended by the Arkansas Safe Routes to School Advisory Committee in July 2011 and then approved by the Arkansas Highway Commission in December 2011. A total of 20 projects were awarded: 12 infrastructure, six (6) educational, and two (2) planning grant projects. Project development activities for the infrastructure projects included preparing task orders for consultants, developing design plans, obtaining right-of-way certifications, requesting environmental clearances, preparing bid documents for advertising, verifying completed activities and paying claims. Activities for education and planning grant projects included monitoring progress, attending school-sponsored SRTS events and paying claims.

**Proposed Activities for F.Y. 2013:** Oversight will be provided for the continued development and implementation of all funded projects. Depending on the availability of Federal funds, a new application cycle will be held.

Programmed Amount for F.Y. 2012	\$ 150,000
Estimated Expenditure for F.Y. 2012	\$ 91,000
Estimated Cost for F.Y. 2013	\$ 150,000

## VARIOUS JOB NUMBERS – SAFE ROUTES TO SCHOOL PROGRAM PROJECTS

**Purpose and Scope:** To develop and implement Safe Routes to School projects in Arkansas.

### **Summary of Program Activities:**

<u>Project Status</u>	<u>Federal Funds</u>	<u>Number of Projects</u>
Completed	\$1,281,179.11	17
Closed by Sponsor	\$ 24,000.00	1
Under Development	\$1,420,613.30	16
Under Construction	\$ 618,207.80	6
Under Contract	\$ 238,225.00	8
<b>Total Active SRTS Program</b>	<b>\$2,277,046.10</b>	<b>30</b>
<i>FY 2013 Projects (to be selected)</i>	<u>\$1,500,000</u>	
<b>Total for Safe Routes to School Program</b>	<u><b>\$3,777,046</b></u>	

SAFE ROUTES TO SCHOOL PROGRAM  
FY 2012

Job Number	Sponsor	Project Name	Type of Proposal	Description	Status	Total Federal Share
040633	City of Barling	Barling SRTS I (2011)	Infrastructure	Install flashing beacons.	Cancelled	\$24,000.00
030357	City of Texarkana	Texarkana SRTS I (2011)	Infrastructure	Construct bike and pedestrian trail.	Complete	\$98,037.00
080402	City of Mayflower	Mayflower SRTS I (2011)	Infrastructure	Construct sidewalks with curb and gutter, crosswalk and signs.	Complete	\$101,023.00
100733	City of Trumann	Trumann SRTS I (2011)	Infrastructure	Construct sidewalks with drainage.	Complete	\$97,587.00
080342	City of Russellville	Russellville SRTS I (2009)	Infrastructure	Construct sidewalks and drainage at four school sites.	Complete	\$87,100.00
070325	City of Magnolia	Magnolia SRTS I (2009)	Infrastructure	Construct sidewalks.	Complete	\$46,902.00
061210	Forest Park Elementary PTA	Forest Park SRTS E (2007)	Education	Grade specific curricula, educational materials and resources, and participation incentives for bicycle and pedestrian safety education.	Complete	\$5,196.31
030356	City of Texarkana	Texarkana SRTS E(2007)	Education	Develop a Walking School Bus Program including background checks, reflective vests, and office materials.	Complete	\$2,500.00
12134	Arkansas Children's Hospital RI	ACHRI SRTS I (2009)	Education	Support SRTS programming through technical assistance, marketing and evaluation.	Complete	\$132,116.44
040577	The Bicycle Coalition of the Ozarks	Bicycle Coalition-Ozarks SRTS E (2009)	Education	Train physical education teachers to become bicycle educators.	Complete	\$58,278.99
050241	Cave City Elementary and Middle School	Cave City SRTS E (2009)	Education	Education, encouragement, helmets, DVDs, pedometers, pamphlets, brochures and other participation incentives.	Complete	\$15,077.32
090290	Carroll County Resource Council	Carroll County SRTS E (2009)	Education	Add a SRTS curriculum to physical education class.	Complete	\$28,620.00
040502	City of Booneville	Booneville SRTS I (2009)	Infrastructure	Construct sidewalks.	Complete	\$116,222.80
020472	City of Hamburg	Hamburg SRTS I (2009)	Infrastructure	Construct 2,500 feet of sidewalk w/ curb and gutter and storm drains.	Complete	\$298,527.25
040576	Farmington School District	Farmington SRTS I (2009)	Infrastructure	Construct sidewalks, crosswalks and signs.	Complete	\$44,081.00
020516	City of Dumas	Dumas SRTS I (2009)	Infrastructure	Construct sidewalks and crosswalks.	Complete	\$61,000.00
050240	Cave City Elementary and Middle School	Cave City SRTS E (2009)	Infrastructure	Construct sidewalks.	Complete	\$19,750.00
061288	City of North Little Rock	North Little Rock SRTS I (2009)	Infrastructure	Construct sidewalks and crosswalks.	Complete	\$69,160.00
050239	City of Heber Springs	Heber Springs SRTS I (2011)	Infrastructure	Construct sidewalks and crosswalks.	Under Construction	\$92,478.00
061289	City of Lonoke	Lonoke SRTS I (2011)	Infrastructure	Construct sidewalks and crosswalks.	Under Construction	\$86,126.00
061290	City of Ward	Ward SRTS I (2011)	Infrastructure	Construct sidewalks.	Under Construction	\$86,126.00
100734	City of Jonesboro	Jonesboro SRTS I (2011)	Infrastructure	Construct sidewalks and install flashing beacons.	Under Construction	\$81,917.00
100735	City of Brookland	Brookland SRTS I (2011)	Infrastructure	Construct sidewalks and crosswalks.	Under Construction	\$94,204.55
100665	Harrisburg School District	Harrisburg SRTS I (2007)	Infrastructure	Construct sidewalk with curb and gutter, school zone signs and RR crossing.	Under Construction	\$177,356.25
012173	Arkansas Childrens Hospital RI	ACHRI SRTS E (2011)	Education	Statewide SRTS non-infrastructure administration, promotion and technical assistance.	Under Contract	\$96,815.00
110579	City of Wynne	Wynne SRTS P (2011)	Planning Grant	Complete a planning grant for future infrastructure and education programs.	Under Contract	\$3,000.00
061363	City of North Little Rock	North Little Rock SRTS E (2011)	Education	Purchase bicycles and teach bicycle and pedestrian safety skills.	Under Contract	\$44,740.00
061362	City of Haskell	Haskell SRTS I (2011)	Education	Education promotional materials and training.	Under Contract	\$10,000.00
061364	Pulaski Heights Elementary	Pulaski Heights Elementary SRTS E (2011)	Education	Install a Boltage radio-frequency identification tracking system and purchase educational and promotional materials.	Under Contract	\$17,670.00
090354	NW AR Resource Conservation Dev. Co.	NWAR CDC SRTS E (2011)	Education	Education promotional materials and training.	Under Contract	\$13,000.00
090355	NW AR Resource Conservation Dev. Co.	NWAR CDC SRTS P (2011)	Planning Grant	Complete a planning grant for future infrastructure and education programs.	Under Contract	\$3,000.00
090356	Bike Bentonville Bicycle Advocacy Group	Bike Bentonville SRTS E (2011)	Education	Purchase bicycles and teach bicycle/pedestrian safety skills.	Under Contract	\$50,000.00
080403	City of Conway	Conway SRTS E (2011)	Education	City wide education and encouragement.	Under Development	\$17,410.00
080404	City of Conway	Conway SRTS SU (2011)	Start Up	Create school specific SRTS program and plan.	Under Development	\$3,000.00
020515	City of McGehee	McGehee SRTS I (2009)	Infrastructure	Construct sidewalks with drainage.	Under Development	\$106,894.00
070348	City of El Dorado	El Dorado SRTS I (2009)	Infrastructure	Construct sidewalks, signs and crosswalks.	Under Development	\$92,376.00
090289	City of Green Forest	Green Forest SRTS I (2009)	Infrastructure	Construct sidewalk and crosswalk.	Under Development	\$120,131.30
020545	City of Hamburg	Hamburg SRTS I (2011)	Infrastructure	Construct sidewalks with curb and gutter.	Under Development	\$116,932.00
030419	City of Ashdown	Ashdown SRTS I (2011)	Infrastructure	Construct sidewalks.	Under Development	\$66,667.00
040631	City of Mulberry	Mulberry SRTS I (2011)	Infrastructure	Construct sidewalks and install flashing beacons.	Under Development	\$82,864.00

SAFE ROUTES TO SCHOOL PROGRAM  
FY 2012

Job Number	Sponsor	Project Name	Type of Proposal	Description	Status	Total Federal Share
040632	City of Hartford	Hartford SRTS I (2011)	Infrastructure	Construct sidewalks and install flashing beacons.	Under Development	\$72,000.00
050283	Southside School District.	Southside School District SRTS I (2011).	Infrastructure	Construct sidewalks and install a traffic signal with a pedestrian button.	Under Development	\$94,274.00
061365	City of Haskell	Haskell SRTS I (2011)	Infrastructure	Construct sidewalks.	Under Development	\$35,189.00
061366	Pulaski Heights Elementary	Pulaski Heights Elementary SRTS I (2011)	Infrastructure	Construct sidewalks with curb and gutter and install speed feedback signs.	Under Development	\$86,000.00
070386	City of Magnolia	Magnolia SRTS I (2011)	Infrastructure	Construct sidewalks with curb and gutter.	Under Development	\$116,933.00
080456	City of Conway	Conway SRTS I (2011)	Infrastructure	Construct sidewalks and install flashing beacons.	Under Development	\$139,590.00
100771	City of Gosnell	Gosnell SRTS I (2011)	Infrastructure	Construct sidewalks and install flashing beacons.	Under Development	\$36,418.00
100772	City of Jonesboro	Jonesboro SRTS I (2011)	Infrastructure	Construct sidewalks and install flashing beacons.	Under Development	\$233,935.00

## 001723 - NATIONAL RECREATIONAL TRAILS PROJECT ADMINISTRATION

**Purpose and Scope:** To develop, monitor and assist efforts to implement National Recreational Trails Program projects in Arkansas.

**Accomplishments for F.Y. 2012:** Sixty-three trail projects for the Federal Fiscal Years of 1998 and 2007-2011 were monitored: 9 are under contract, 31 are in project development, 22 were completed in the past year and 1 was closed by their sponsor prior to implementation.

**Proposed Activities for F.Y. 2013:** Projects will be selected during Federal Fiscal Year 2013. Continue to monitor projects that are under construction and to assist in new project development.

Programmed Amount for F.Y. 2013	\$90,000
Estimated Expenditure for F.Y. 2013	\$76,000
Estimated Cost for F.Y. 2014	\$90,000

\* The Recreational Trails Committee recommended 22 projects for funding in July 2010 but the Highway Commission and FHWA have not approved these projects.

## VARIOUS JOB NUMBERS – RECREATIONAL TRAILS PROGRAM PROJECTS

**Purpose and Scope:** To develop and implement Recreational Trails projects in Arkansas.

**Accomplishments for F.Y. 2012:**

<u>Project Status</u>	<u>Number of Projects</u>
Completed and/or Closed Out	23
Contracts Executed	1
Projects Selected	31

**Summary of Program Activities:**

<u>Status</u>	<u>Federal</u>	<u>Total</u>	<u>Total Number of Projects</u>
Completed and/or Closed Out	\$1,040,115	\$1,747,277	22
Under Construction	\$1,723,483	\$2,138,278	30
Project Development	<u>\$ 338,339</u>	<u>\$ 422,924</u>	<u>2</u>
<b>Total Active Projects</b>	<b>\$2,061,822</b>	<b>\$2,561,202</b>	<b>32</b>
FY 2011 Projects (yet to be approved)	\$1,191,517	\$1,489,396	
FY 2012 Projects (to be selected)	<u>\$1,520,225</u>	<u>\$1,900,281</u>	
<b>Total for Recreational Trails Program</b>	<b><u>\$4,773,564</u></b>	<b><u>\$5,950,879</u></b>	

The following table lists all Recreational Trails Program projects active during the past fiscal year, including the sponsoring agency, a project description, funding information, and status. The FY 2012 projects to be selected funds are estimated at an obligation limitation of 92.26%. These funds are matched by the sponsor.

RECREATIONAL TRAILS PROGRAM  
FY 2012

Job Number	Sponsor	Project Name	Description	Status	Total Federal Share	Total Estimated or Final Cost	Notes
040557	Ark. Trail Blazers ATV Club	Poteau Mountain Trail Restoration	Restore Poteau Mountain Trail.	Closed by Sponsor prior to Implementation	0	0	1
012089	Ouachita National Forest	Reroutes of Recreational Trail	Relocating sections of the Ouachita National Recreational Trail to correct persistent erosion problems.	Complete	4,991.94	6,239.93	1
020499	Arkansas Game & Fish	Lake Saracen Trail Phase II	A trail of 5,600 feet in downtown Pine Bluff.	Complete	66,492.00	83,551.05	1
020500	City of Lake Village	Rodney Angel Sports Complex Trail	A trail of 1,270 feet in a City Park.	Complete	39,620.55	49,525.69	1
030365	City of Texarkana	Ernest Hill Pavilion Trail	A trail of 2,200 feet in a residential neighborhood.	Complete	33,136.22	41,420.28	1
030366	Melonvine Striders Running Club	Tri-County Trail (Stamps)	Phase 7 of Rails to Trail project that is 10 miles long.	Complete	35,876.00	50,773.80	1
030381	City of Texarkana	Nix Creek Trail Connector	A trail of 340 feet that connects to a trail of 2.4 miles.	Complete	10,900.00	14,255.07	1
040509	Sebastian County	Sebastian County Rec Trail	A trail of 3,000 feet that connects to a trail of 5,000 feet.	Complete	80,000.00	210,835.68	1
040531	City of Paris	Paris Recreational Trail	A walking, bicycling and jogging trail that is 4,218 feet long.	Complete	38,923.00	72,884.58	1
040558	City of Fayetteville	Oak Ridge Trail	A trail of 2,530 feet linking University of Arkansas and Fayetteville High School as well as adjacent residential areas.	Complete	116,534.00	157,688.59	1
040560	City of Greenwood	Greenwood Fitness Trail Phase III	A trail extension of 1,500 feet extending into the Oaks subdivision.	Complete	18,794.00	26,109.42	1
050217	Lyon College	Lyon College Trail	One mile trail connecting the college to a nearby neighborhood.	Complete	15,643.14	19,553.93	1
050219	AR State University - Beebe @ Heber Springs	Sugarloaf Mountain Summit Trail	A climbing trail of 1,500 feet that is being restored.	Complete	29,000.00	38,850.00	1
061242	City of Hot Springs	Valley Creekwalk (Phase II)	A trail of 800 feet that also includes an area of creek walk stabilization.	Complete	92,287.00	136,421.00	1
061265	City of Jacksonville	Bayou Meto Creek Trail	A trail extension of 1,600 feet linking Dupree Park Trail to Bayou Meto Creek.	Complete	51,433.41	64,291.76	1
061266	City of Maumelle	Odom Blvd. & Lake Willastein Trail	A trail extension of 3,180 feet.	Complete	39,656.02	49,570.02	1
070328	Southern Financial Partners	Mountain Bike Trail (Phase I)	A new 10-mile bike trail.	Complete	65,000.00	85,270.02	1
070337	Southern Arkansas University	SAU Walking Trail Phase III	An extension of 5,051 feet linking community to the College.	Complete	66,491.00	84,761.47	1
080369	Gates Rogers Foundation	South Fork Native Plant Reserve Phase II	An interpretive trail extension of 5,280 feet.	Complete	44,500.00	55,645.00	1
100683	Jonesboro Parks Dept	Turtle Creek Greenway Phase IV	A trail extension of 2,100 feet to the Turtle Creek Greenway.	Complete	29,000.00	46,555.56	1
100685	Lawrence County	Lawrence County Rails to Trail Project (Williams Baptist)	A two mile extension to a rails to trails project.	Complete	72,335.00	102,310.00	1
100706	Jonesboro Parks Dept	Turtle Creek Greenway Phase V	A trail extension of 1,422 feet to the Turtle Creek Greenway.	Complete	60,721.00	79,526.98	1
100707	Lawrence County	Rails to Trails Project Phase IV	A trail extension of 2 miles to a rails to trails project.	Complete	65,816.00	83,046.00	1
012088	Ouachita National Forest	Ouachita Forest OHV Information	Assist in the implementation of the National OHV Travel Management Rule.	Under Construction	\$76,800.00	\$96,000.00	
020474	Arkansas Game & Fish	Choctaw Island Trail	Multi-use trail of 27,984 feet on an island in the Mississippi River.	Under Construction	\$30,000.00	\$37,500.00	
030380	Melonvine Striders Running Club	Tri-County Trail (Patmos-Stamps)	A 5 mile extension to a rails to trails project.	Under Construction	\$55,326.00	\$69,158.00	
040296	Ozark-St. Francis National Forest	Lee Creek Trails	Mapping, cultural resource survey, and educational development of a motorized trail.	Under Construction	\$116,320.00	\$129,320.00	
040556	Ark. Trail Blazers ATV Club	Wolf Pen Gap Trail Restoration	Provide for restoration of 5 miles for Wolf Pen Gap Trail.	Under Construction	\$124,222.00	\$155,275.00	
061223	Little Rock Parks Dept.	Arkansas River Trail Completion	A bicycle trail extension of 2,000 feet near Murray Park.	Under Construction	\$37,680.00	\$47,100.00	
061264	City of North Little Rock	Motorized Trail Land Purchase	Purchase of 200 acres southeast of Interstate 440 and Highway 165 for diversified motorized multi-use trail users.	Under Construction	\$289,699.00	\$362,124.00	2
070326	City of El Dorado	El Dorado Recreational Trail	A 4 mile trail which is part of the City's master parks plan.	Under Construction	\$128,381.00	\$160,476.00	

Notes: 1 - Completed or closed during State Fiscal Year 2012  
2 - Contract executed during State Fiscal Year 2012  
3 - Project selected during State Fiscal Year 2012

RECREATIONAL TRAILS PROGRAM  
FY 2012

Job Number	Sponsor	Project Name	Description	Status	Total Federal Share	Total Estimated or Final Cost	Notes
080334	Ouachita National Forest	Lake Ouachita Vista Trail (Phase III)	Five miles of trail construction on third section of the trail.	Under Construction	\$59,400.00	\$74,250.00	
110565	City of Helena-West Helena	Freedom Park Trail	A trail in a neighborhood park that will be 1,320 feet.	Project Development	\$43,200.00	\$54,000.00	3
110566	City of Wynne	Sports Complex Trail (Phase II)	A trail extension of 2,500 feet.	Project Development	\$63,200.00	\$79,000.00	3
020536	City of Wilmot	Wilmot City Park Trail	Construction of a new trail of 2,500 feet in a City Park.	Project Development	\$70,000.00	\$87,500.00	3
020537	Arkansas Game & Fish	Lake Saracen Trail Phase III	A trail extension of 290 feet and installing bridge flooring on a pedestrian bridge.	Project Development	\$40,000.00	\$50,000.00	3
030410	Arkansas Game & Fish	Little Missouri Trail	A natural trail of 3,500 feet.	Project Development	\$40,000.00	\$50,000.00	3
030411	Univ. of AR Community College @ Hope	Hope Community College Trail	A trail of 4,000 feet on the college campus.	Project Development	\$48,000.00	\$60,000.00	3
040610	Ouachita ATV Club	Motorized Trails Signage	Purchasing and placing signage on Wolf Pen Gap motorized trail.	Project Development	\$12,064.00	\$15,080.00	3
040611	Ouachita ATV Club	Trail Equipment Purchase	Purchase motorized trail construction equipment for use on Wolf Pen Gap.	Project Development	\$12,000.00	\$15,000.00	3
040612	Ouachita ATV Club	Wolf Pen Gap Trail Restoration Phase II	Purchasing material to restore approximately 50,000 feet of the Wolf Pen Gap motorized trail.	Project Development	\$16,000.00	\$20,000.00	3
040613	City of Fayetteville	Lake Fayetteville Trail	Expanding an existing trail by 5,553 feet.	Project Development	\$80,000.00	\$100,000.00	3
040614	Ouachita ATV Club	Motorized Trail Equipment	Purchase a mini excavator for work on Wolf Pen Gap motorized trail.	Project Development	\$28,000.00	\$35,000.00	3
040615	City of Springdale	Springdale City Trail	A 3,850 feet multi-purpose trail in downtown area of Springdale.	Project Development	\$50,000.00	\$62,500.00	3
040616	City of Booneville	Booneville Creek Trail	A multi-purpose trail of 1,442 feet in a City Park.	Project Development	\$47,000.00	\$58,750.00	3
040617	City of Greenwood	Bell Park Trail	A multi-purpose trail of 3,365 feet in a City Park.	Project Development	\$40,000.00	\$50,000.00	3
050267	City of Batesville	Fitzhugh Park Trail Extension	Expanding an existing trail by 2,500 feet.	Project Development	\$43,887.00	\$54,859.00	3
061337	North Little Rock	Emerald Park Trail Phase II	Extend existing trail 2,222 feet.	Project Development	\$85,000.00	\$106,250.00	3
061338	City of Sherwood	Sherwood City Hall Trail	Construct a hiking trail of 1,320 feet on City Hall property.	Project Development	\$44,253.00	\$55,317.00	3
061339	Kohen's Park Foundation	Kohen's Park Trail	A hiking trail of 1,300 feet on Foundation property.	Project Development	\$42,000.00	\$52,500.00	3
061340	City of Hot Springs	Valley Creekwalk Phase III	A trail extension of 400 feet and constructing a 40 foot pedestrian bridge.	Project Development	\$40,000.00	\$50,000.00	3
070370	Southern Bancorpp Capital Partners	Iron Mountain Trail Phase II	Expanding an existing trail by 9.5 miles.	Project Development	\$100,000.00	\$125,000.00	3
070371	Southern Arkansas University	SAU Walking Trail Phase IV	A trail extension of 2,620 feet linking community to the College.	Project Development	\$89,253.00	\$111,567.00	3
070372	Melonvine Striders Running Club	Trail Equipment and Trailhead Development	Motorized trail construction equipment purchase and development of two trailheads.	Project Development	\$69,528.00	\$86,910.00	3
080432	Hendrix College	Hendrix College Trail	A trail of 3,750 feet on Hendrix College campus.	Project Development	\$122,640.00	\$153,300.00	3
080433	AR State Parks	Petit Jean State Park Trail	Construction of a 1.72 mile-long trail in Petit Jean State park.	Project Development	\$146,075.00	\$182,594.00	3
080434	City of Conway	Tucker Creek Trail Extension Phase II	A trail extension of 1,023 feet.	Project Development	\$59,291.00	\$74,114.00	3
080435	City of Mayflower	Mayflower Railroad Trail	A trail of 2,570 feet in a residential neighborhood.	Project Development	\$50,000.00	\$62,500.00	3
090335	City of Berryville	Pension Mountain Trail Phase II	A trail extension of of 5.5 miles.	Project Development	\$70,460.00	\$88,075.00	3
090336	City of Berryville	Trail Equipment Purchase	Purchase of Motorized Trail equipment and materials.	Project Development	\$13,840.00	\$17,300.00	3
090337	Buffalo National River Park	Buffalo National River Trail	Construction of a 11.3 mile natural hiking trail.	Project Development	\$82,253.00	\$102,817.00	3
100757	City of Jonesboro	Turtle Creek Greenway Section VI	A trail extension of 1,200 feet to the Turtle Creek Greenway.	Project Development	\$80,000.00	\$100,000.00	3
100758	Lawrence County	Rails to Trails Project Phase V	A trail extension of 8,000 feet to a rails to trails project.	Project Development	\$80,000.00	\$100,000.00	3

Notes: 1 - Completed or closed during State Fiscal Year 2012  
2 - Contract executed during State Fiscal Year 2012  
3 - Project selected during State Fiscal Year 2012

## **VARIOUS – HIGH-SPEED/INTERCITY PASSENGER RAIL STUDY**

***Purpose and Scope:*** To evaluate passenger rail service; assess the feasibility of extending the South Central High-Speed Rail Corridor (SCHSRC) from Little Rock to Memphis, Tennessee; and prepare a Service Development Plan (SDP) for the SCHSRC in Arkansas.

The Feasibility Study analysis will contain three components: technical feasibility (physical route data, engineering and capacity constraints); economic feasibility (ridership potential, capital and operating costs); and operating feasibility (equipment needs and crew scheduling). The SDP will include demand and revenue forecasts, conceptual engineering and benefit-cost analysis.

***Accomplishments for F.Y. 2012:*** Grant Agreement completed and project initiated.

***Proposed Activities for F.Y. 2013:*** The Department will procure a consultant and provide oversight activities regarding the preparation of the SDP and the feasibility study. Note: These activities will be performed with funds received from the Federal Railroad Administration, from the Department and from an Arkansas Economic Development Commission appropriation.

Programmed Amount for F.Y. 2012	\$	0
Estimated Expenditure for F.Y. 2012	\$	0
Estimated Cost for F.Y. 2013		\$893,600

### **60630 - CARTS PLANNING STUDY (STP ATTRIBUTABLE)**

***Purpose and Scope:*** The funds under this Job Number are used to supplement the Metropolitan Planning Funds in the CARTS Area to conduct the 3-C Transportation Planning Process as required by 23USC134.

***Accomplishments for F.Y. 2012:*** The 3-C Transportation Planning Process continued with tasks as noted in the CARTS Work Program.

***Proposed Activities for F.Y. 2013:*** The Department and Metroplan will conduct activities on the following CARTS UPWP elements: program support and administration; general development and comprehensive planning; long and short-range transportation planning; and transportation improvement program.

Programmed Amount for F.Y. 2012	\$375,000
Estimated Expenditure for F.Y. 2012	\$100,000
Estimated Cost for F.Y. 2013	\$200,000



## **061260 – I-630 CORRIDOR FIXED GUIDEWAY ALIGNMENT STUDY**

**Purpose and Scope:** Consultant-led study to determine the most feasible alignment for development of a fixed guideway transit system along the I-630 corridor for long-term corridor preservation efforts.

**Accomplishments for F.Y. 2012:** Consultant contract administration by Metroplan continued. Two early public involvement sessions were held. Study was finalized and a supplemental agreement approved to produce a design visualization video which was also completed.

**Proposed Activities for F.Y. 2013:** Completion of the study.

Programmed Amount for F.Y. 2012	\$25,000
Estimated Expenditure for F.Y. 2012	\$25,000
Estimated Cost for F.Y. 2013	\$ 0

## **061231 – RIVER RAIL AIRPORT STUDY**

**Purpose and Scope:** Consultant-led study to determine the feasibility and possible location of an extension of the River Rail streetcar line to the Little Rock Regional Airport. Other modal alternatives may also be pursued.

**Accomplishments for F.Y. 2012:** Phase 2 of the study was completed with recommendations for system expansion in the future.

**Proposed Activities for F.Y. 2013:** None.

Programmed Amount for F.Y. 2012	\$62,500
Estimated Expenditure for F.Y. 2012	\$62,500
Estimated Cost for F.Y. 2013	\$ 0

## **110273 - WMATS PLANNING STUDY (STP ATTRIBUTABLE)**

**Purpose and Scope:** The West Memphis MPO will use STP Attributable funds to supplement the West Memphis-Marion Area Transportation Study.

**Accomplishments for F.Y. 2012:** STP Attributable funds were used for transportation planning in this area for the following Work Elements: Administration, Data Development/Maintenance, Short-Range Planning, Long-Range Planning, Management Systems, and Special Studies.

**Proposed Activities for F.Y. 2013:** Portions of the transportation planning activities described in the WMATS UPWP will be accomplished using STP Attributable funds.

Programmed Amount for F.Y. 2012	\$98,750
Estimated Expenditure for F.Y. 2012	\$98,750
Estimated Cost for F.Y. 2013	\$98,750

**012151 CARTS TRAVEL DEMAND MODEL 2040 UPDATE**

**Purpose and Scope:** Update the model software and enhance the models functioning and capability.

**Accomplishments for F.Y. 2012:** The contract was begun and completed during the fiscal year.

**Proposed Activities for F.Y. 2013:** None.

Programmed Amount for F.Y. 2012	\$100,000
Estimated Expenditures for F.Y. 2012	\$ 91,707
Estimated Cost for F.Y. 2013	\$ 0

**012152 CARTS 2040 LONG-RANGE TRANSPORTATION PLAN**

**Purpose and Scope:** Assistance with the public outreach and technical aspects of the long-range plan update.

**Accomplishments for F.Y. 2012:** The contract was initiated and the public outreach plan developed.

**Proposed Activities for F.Y. 2013:** Completion of technical assistance.

Programmed Amount for F.Y. 2012	\$250,000
Estimated Expenditures for F.Y. 2012	\$125,000
Estimated Cost for F.Y. 2013	\$125,000

**110481 - WMATS AIR QUALITY - MPO**

**Purpose and Scope:** The WMATS will use CMAQ funds to supplement the WMATS UPWP for air quality planning in the West Memphis area.

**Accomplishments for F.Y. 2012:** Coordination with ADEQ, EPA, and Memphis-Shelby County air quality planning groups continued. The 2033 Long-Range Plan and 2010-2013 TIP were monitored and amended with appropriate conformity determination documentation.

**Proposed Activities for F.Y. 2013:** Coordination will be continued with ADEQ, EPA, and Memphis-Shelby County for air quality planning in the West Memphis-Marion area to ensure that the requirements of the current NAAQS attainment status are being met.

Programmed Amount for F.Y. 2012	\$125,000
Estimated Expenditure for F.Y. 2012	\$125,000
Estimated Cost for F.Y. 2013	\$125,000

**012028 – CARTS OZONE AWARENESS**

**Purpose and Scope:** The use of CMAQ funds by the Central Arkansas MPO to continue air quality planning activities in the CARTS Area.

**Accomplishments for F.Y. 2012:** The use of CMAQ funds in the CARTS area continues the cooperative effort among the MPO, the Department, ADEQ, and other agencies for a continued Awareness and Public Education campaign stressing voluntary actions to reduce seasonal emissions (ridesharing, refueling during the evening, etc.). Public relations, an advertising campaign, and notifications to local media and major employers of potential high ozone days were continued. Procedures were followed for consultant procurement for a new contract and it was initiated in the spring of 2012.

**Proposed Activities for F.Y. 2013:** Continue activities listed above.

Programmed Amount for F.Y. 2012	\$60,000
Estimated Expenditures for F.Y. 2012	\$60,000
Estimated Cost for F.Y. 2013	\$60,000

**PART II  
RESEARCH**

**Part II - Research  
FHWA and State Funds  
To be Obligated in Fiscal Year 2013**

Financial Summary  
SPR-4000(32)

<u>FY &amp; Type</u>	<u>Fed. Funds Available</u>	<u>Previously Programmed</u>	<u>Unprogram. Amount</u>	<u>Federal Rate</u>	<u>State Funds</u>	<u>Fed. Program Total Cost</u>
2012 SPR (L55 Apportion.)	\$ 200,000		\$ 200,000	0.8	\$ 50,000	\$ 250,000
2012 SPR (L56 Apportion.)	\$ 2,225,646	\$ 710,501 *	\$ 1,515,145	0.8	\$ 378,786	\$ 1,893,931
2010 SPR (L56) **	\$ 1,771,937		\$ 1,771,937	0.8	\$ 442,985	\$ 2,214,922
				0.8		
<b>TOTAL</b>	<b>\$ 4,197,583</b>	<b>\$ 710,501</b>	<b>\$ 3,487,082</b>		<b>\$ 871,771</b>	<b>\$ 4,358,854</b>

Total Program Funding Summary:

SPR Funds (L55 & L56)	\$ 3,487,082 ^
Previously Programmed	\$ 710,501
State Matching for SPR\$	\$ 871,771
100% State Program	<u>\$ 2,035,000</u>
<b>TOTAL</b>	<b><u>\$ 7,104,354</u></b>

\* Previously Programmed SPR(L56) Funds:

SPR-TPF5(412) NCHRP Contribution	\$ 531,676
Solicitation #1323 Core Program Services for a Highway Research, Development & Technology Program	\$ 114,825
TPF5(025) Institute for Trade and Transportation Studies (ITTS)	\$ 64,000
	<u>\$ 710,501</u>

\*\* Re-programmed from release of FY 2010 funding from SPR-4000(30).

^ Includes \$176,000 in Part II Funds for 12 months of LTAP matching (July 2012 - June 2013)

**ARKANSAS PROJECT SPR-4000(32)**  
**WORK PROGRAM - PART II**  
 FISCAL YEAR 2013  
 JULY 1, 2012 TO JUNE 30, 2013

State Study	Title	Budget-FY13 (Exp. FY12)	Total Exp. to Date (Total Study Budget)	Completion Date	State Contact
B456	PROJECT DEVELOPMENT	\$250,000	{N/A}	CONTINUING	E. Wright-Kehner
D456	PROFILOGRAPH STUDIES	(\$159,000)	{N/A}	CONTINUING	T. Frierson
E456	PRODUCT EVALUATION	\$25,000	{N/A}	CONTINUING	E. Wright-Kehner
F456	IMPLEMENTATION OF RESEARCH	(\$0)	{N/A}	CONTINUING	D. Webb
G456	PROJECT MONITORING	\$200,000	{N/A}	CONTINUING	E. Wright-Kehner
L456	SUBSURFACE DRAINAGE RESEARCH	(\$119,000)	{N/A}	CONTINUING	M. Rowlett
M456	LOW VOLUME ROUTE EVALUATION	\$300,000	{N/A}	CONTINUING	J. Key
R456	PEER EXCHANGE TEAM ACTIVITIES	(\$295,000)	{N/A}	CONTINUING	E. Wright-Kehner
S456	SHRP-LTTP	\$260,000	{N/A}	CONTINUING	M. Greenwood
A457	SUPPORT SERVICES	(\$0)	{N/A}	CONTINUING	E. Wright-Kehner
	<b>Subtotal</b>	<b>\$1,668,854</b>			
<b>Continuing Studies</b>					
F467	REMEDIAION MEASURES FOR SLOPE FAILURES	\$40,000	\$141,000	Jun-02	E. Wright-Kehner
N467	PERMEABILITY AND DRAINAGE OF SUPERPAVE	(\$0)	(\$160,200)	Jun-04	E. Wright-Kehner
L457	DEVELOPING A SMOOTHNESS SPECIFICATION FOR ACHM PAVEMENTS	\$90,000	\$296,000	Dec-04	T. Frierson
Q457	DEVELOPMENT OF A VIRTUAL WEIGH STATION	(\$0)	(\$385,177)	Jul-07	E. Wright-Kehner
H467	GEOSYNTHETIC DRAINS FOR SLOPE STABILITY AND REHABILITATION	\$15,000	\$83,400	Jun-07	E. Wright-Kehner
D467	DEVELOPMENT OF A MASTER PLAN FOR CALIBRATION AND IMPLEMENTATION OF THE MECHANISTIC-EMPIRICAL DESIGN GUIDE	(\$800)	(\$97,700)	Jun-08	E. Wright-Kehner
G467	EVALUATION OF BOND STRENGTH BETWEEN PAVING LAYERS FOR HOT MIX ASPHALT	\$40,000	\$29,600	Oct-07	E. Wright-Kehner
T467	RESISTANCE FACTORS FOR PILE FOUNDATIONS	(\$3,600)	(\$200,000)	Dec-08	D. Rhodes
U467	EVALUATION OF AGGREGATE DURABILITY PERFORMANCE TEST PROCEDURES	\$45,000	\$147,500	Dec-08	M. Greenwood
R457	EVALUATION OF BIODIESEL IN DEPARTMENTAL VEHICLES	(\$0)	(\$181,000)	Dec-08	S. Tamayo
W467	GROUND PENETRATING RADAR FOR PAVEMENT EVALUATION	\$65,000	\$10,950	Sep-11	E. Wright-Kehner
X467	LOCAL CALIBRATION OF MECHANISTIC EMPIRICAL PAVEMENT DESIGN GUIDE	(\$300)	(\$183,000)	Jun-13	D. Rhodes
Y467	INVESTIGATION OF WARM MIX ASPHALT DESIGN AND CONSTRUCTION	\$50,000	\$59,600	Dec-12	S. Tamayo
Z467	ROLLER COMPACTED CONCRETE FOR ROADWAY	(\$400)	(\$224,000)	Dec-12	S. Tamayo
K467	RECYCLED ASPHALT SHINGLES IN ASPHALT PAVEMENTS	\$60,000	\$65,000	Sep-12	S. Tamayo
L467	SLOPE STABILITY MONITORING USING GROUND-BASED PORTABLE RADAR INTERFEROMETER	(\$46,000)	(\$105,817)	Jun-12	M. Greenwood
S467	RAPID NETWORK LEVEL SURVEY WITH AUTOMATED CRACKING DETECTION	\$60,000	\$154,000	Sep-12	T. Frierson
B457	USE OF UNMANNED AERIAL VEHICLE FOR AHTD APPLICATIONS	(\$106,000)	(\$210,409)	Aug-12	T. Frierson
V467	DESIGN, CONSTRUCTION AND MONITORING OF ROLLER COMPACTED CONCRETE PAVEMENT IN THE FSP	\$20,000	\$31,500	Apr-11	S. Tamayo
C457	EVALUATION OF NEW TECHNOLOGY FOR TRAFFIC MONITORING	(\$29,000)	(\$19,984)	Jun-13	J. Gazin
B467	DATA PREPARATION FOR IMPLEMENTING DARWIN-ME	\$80,000	(\$0)	Jun-14	T. Frierson
J467	LOAD AND RESISTANCE DESIGN SITE SPECIFIC VARIABILITY IN LABORATORY AND FIELD MEASUREMENTS AND CORRFI ATIONS	\$60,000	(\$0)	Jun-14	M. Greenwood
I467	STATIC LOAD TESTING PROGRAM FOR CALIBRATION	(\$0)	(\$387,798)	Jun-13	D. Rhodes
Q467	INTERNAL CURING	\$90,000	\$100,000	Jun-13	D. Siskowski
D457	COST/BENEFIT EVALUATION OF INCENTIVES PAID FOR ACHM PROPERTIES	(\$0)	(\$184,720)	Mar-13	D. Webb
	<b>Subtotal</b>	<b>\$1,450,000</b>	<b>\$1,223,550</b>		
<b>New Projects</b>					
0	USE OF NON-NUCLEAR DEVICES FOR QUALITY CHEMICAL ADMIXTURES TO INCREASE EFFECTIVENESS OF SNOW/ICE REMOVAL	\$125,000			M. Rowlett
0	COMPARISON OF TEXTURING METHODS USED FOR HIGHWAY CONSTRUCTION AND MAINTENANCE	\$140,000			D. Siskowski
0	FOAMED WARM MIX ASPHALT DESIGN ISSUES	\$125,000			S. Tamayo
0	LOW-COST EXPERIMENTAL TREATMENTS FOR HORIZONTAL CURVES	\$120,000			S. Tamayo
0	WORK ZONE TRAFFIC CAPACITY DETERMINATION OF VARIOUS FUNCTIONAL CLASSIFICATIONS	\$140,000			T. Frierson
0	INVESTIGATION OF GPS DATA COLLECTION FOR MAINTENANCE OPERATIONS	\$155,000			D. Rhodes
0	DEVELOP EMBANKMENT AND SUBGRADE STABILIZATION SPECIFICATIONS	\$95,000			M. Rowlett
	<b>Subtotal</b>	<b>\$1,020,000</b>			S. Tamayo
20050	TECHNOLOGY TRANSFER PROGRAM - LTAP Match	\$220,000			L. Carter
	<b>Subtotal</b>	<b>\$220,000</b>			
	<b>PART II BUDGET</b>	<b>\$4,358,854</b>			

LTAP match is 80/20 SPR

**ARKANSAS PROJECT SPR-4000(32)**  
**WORK PROGRAM -PART II**  
 FISCAL YEAR 2013 BUDGET

NO.	Project	Work Description	Budget
B456		PROJECT DEVELOPMENT	\$250,000
D456		PROFILOGRAPH STUDIES	\$105,000
E456		PRODUCT EVALUATION	\$25,000
F456		IMPLEMENTATION OF RESEARCH	\$200,000
G456		PROJECT MONITORING	\$300,000
L456		SUBSURFACE DRAINAGE RESEARCH	\$260,000
M456		LOW VOLUME ROUTE EVALUATION	\$175,000
R456		PEER EXCHANGE TEAM ACTIVITIES	\$35,000
S456		SHRP-LTTP ACTIVITIES	\$25,000
A457		SUPPORT SERVICES	\$293,854
		<b>Subtotal</b>	<b>\$1,668,854</b>
<b>Continuing Projects</b>			
F467	TRC0107	REMEDATION MEASURES FOR SLOPE FAILURES	\$40,000
N467	TRC0203	PERMEABILITY AND DRAINAGE OF SUPERPAVE	\$90,000
L457	TRC0308	DEVELOPING A SMOOTHNESS SPECIFICATION FOR ACHM PAVEMENTS	\$15,000
Q457	TRC0503	DEVELOPMENT OF A VIRTUAL WEIGH STATION	\$40,000
H467	TRC0506	GEOSYNTHETIC DRAINS FOR SLOPE STABILITY AND REHABILITATION	\$45,000
D467	TRC0602	DEVELOPMENT OF A MASTER PLAN FOR CALIBRATION AND IMPLEMENTATION OF THE MECHANISTIC-EMPIRICAL DESIGN GUIDE	\$65,000
G467	TRC0706	EVALUATION OF BOND STRENGTH BETWEEN PAVING LAYERS FOR HOT MIX ASPHALT	\$50,000
T467	TRC0904	RESISTANCE FACTORS FOR PILE FOUNDATIONS	\$60,000
U467	TRC0905	EVALUATION OF AGGREGATE DURABILITY PERFORMANCE TEST PROCEDURES	\$60,000
R457	TRC0906	EVALUATION OF BIODIESEL IN DEPARTMENTAL VEHICLES	\$20,000
W467	TRC1001	GROUND PENETRATING RADAR FOR PAVEMENT EVALUATION	\$80,000
X467	TRC1003	LOCAL CALIBRATION OF MECHANISTIC-EMPIRICAL PAVEMENT DESIGN GUIDE	\$80,000
Y467	TRC1004	INVESTIGATION OF WARM MIX ASPHALT DESIGN AND CONSTRUCTION	\$50,000
Z467	TRC1005	ROLLER COMPACTED CONCRETE FOR ROADWAY PAVEMENT	\$50,000
K467	TRC1101	RECYCLED ASPHALT SHINGLES IN ASPHALT PAVEMENTS	\$60,000
L467	TRC1102	SLOPE STABILITY MONITORING USING GROUND-BASED PORTABLE RADAR INTERFEROMETER	\$50,000
S467	TRC1103	RAPID NETWORK LEVEL SURVEY WITH AUTOMATED CRACKING DETECTION	\$40,000
B457	TRC1104	USE OF UNMANNED AERIAL VEHICLE VEHICLE FOR AHTD APPLICATIONS	\$45,000
V467	TRC1201	DESIGN, CONSTRUCTION AND MONITORING OF ROLLER COMPACTED CONCRETE PAVEMENT IN THE FSP	\$70,000
C457	TRC1202	EVALUATION OF NEW TECHNOLOGY FOR TRAFFIC MONITORING	\$80,000
B467	TRC1203	DATA PREPARATION FOR IMPLEMENTING DARWIN-ME	\$60,000
J467	TRC1204	LOAD AND RESISTANCE DESIGN SITE SPECIFIC VARIABILITY IN LABORATORY AND FIELD MEASUREMENTS AND CORRELATIONS	\$80,000
I467	TRC1205	STATIC LOAD TESTING PROGRAM FOR CALIBRATION	\$90,000
Q467	TRC1206	INTERNAL CURING	\$80,000
D457	TRC1207	COST/BENEFIT EVALUATION OF INCENTIVES PAID FOR ACHM PROPERTIES	\$50,000
		<b>Subtotal</b>	<b>\$1,450,000</b>
20050		TECHNOLOGY TRANSFER PROGRAM^	\$220,000
		<b>Subtotal</b>	<b>\$220,000</b>
<b>New Projects</b>			
	TRC1301	USE OF NON-NUCLEAR DEVICES FOR QUALITY ASSURANCE	\$125,000
	TRC1302	CHEMICAL ADMIXTURES TO INCREASE EFFECTIVENESS OF SNOW/ICE REMOVAL	\$140,000
	TRC1303	COMPARISON OF TEXTURING METHODS USED FOR HIGHWAY CONSTRUCTION AND MAINTENANCE	\$125,000
	TRC1304	FOAMED WARM MIX ASPHALT DESIGN ISSUES	\$120,000
	TRC1305	LOW-COST EXPERIMENTAL TREATMENTS FOR HORIZONTAL CURVES	\$140,000
	TRC1306	WORK ZONE TRAFFIC CAPACITY DETERMINATION OF VARIOUS FUNCTIONAL CLASSIFICATIONS	\$155,000
	TRC1307	INVESTIGATION OF GPS DATA COLLECTION FOR MAINTENANCE OPERATIONS	\$95,000
	TRC1308	DEVELOP EMBANKMENT AND SUBGRADE STABILIZATION SPECIFICATIONS	\$120,000
		<b>Subtotal</b>	<b>\$1,020,000</b>
<b>TOTAL PART II BUDGET</b>			<b>\$4,358,854</b>

^ LTAP Match

**PART II**  
**ARKANSAS PROJECT (NON-SPR IN-HOUSE & CONTRACT ACTIVITIES)**  
**FISCAL YEAR 2013 BUDGET**

A556		ADMINISTRATION	\$300,000
B556		PROJECT DEVELOPMENT	\$10,000
C556		PAVEMENT DEFLECTION STUDIES	\$5,000
D556		PROFILOGRAPH STUDIES	\$5,000
E556		PRODUCT EVALUATION	\$5,000
G556		PROJECT MONITORING	\$20,000
K556		IMPLEMENTATION OF WEATHER MONITORING SYSTEM	\$10,000
L556		SUBSURFACE DRAINAGE RESEARCH	\$10,000
M556		LOW VOLUME ROUTE EVALUATION	\$10,000
A557		SUPPORT SERVICES	\$20,000
B557		MONITOR OF BRIDGE END EMBANKMENT SETTLEMENT	\$20,000
		<b>Subtotal</b>	<b>\$415,000</b>

**Continuing In-House Projects**

X556	---	ENGINEERING AND RESEARCH SERVICES	\$30,000
T556	TRC0507	GEOMEDIA & SURVEYOR SOFTWARE ROADWAY ASSET DATABASE	\$30,000
H556	TRC0606	DEVELOPMENT OF A BRIDGE SCOUR MONITORING DEVICE	\$30,000
		<b>Subtotal</b>	<b>\$90,000</b>

**Total Non-SPR In-House Budget** **\$505,000**



## **B456 – PROJECT DEVELOPMENT**

**Purpose and Scope:** This job provides for expenditures incurred for the Research and Development Program in efforts to develop or procure studies and projects. It includes the development, preparation, review, and processing of Problem Statements for the Research Program. It includes library searches and maintenance, on-line information retrieval, preparation of problem statements, request for proposals, and writing of contracts and work plans for research projects, studies, and proposals. This budget line item is to cover all relevant and pertinent expenses incurred in the preparation and submittals for federally-funded programs.

**Accomplishments for F.Y. 2012:** Development was completed on eight new TRC projects for FY2013. These projects are scheduled to begin on July 1, 2012.

**Proposed Activities for F.Y. 2013:** Work will include development of new TRC projects for F.Y. 2014.

Programmed Amount for F.Y. 2012	\$200,000
Estimated Expenditures for F.Y. 2012	\$109,000
Estimated Cost for F.Y. 2013	\$250,000

## **D456 – PROFILOGRAPH STUDIES**

**Purpose and Scope:** The purpose of Profilograph studies is to provide the Department with the data collection, reduction, analysis, and interpretation involved with Profilograph activities. This project includes funding for refurbishing, recalibration, and replacement of the Profilograph may be needed. This item includes the purchase of equipment, travel and subsistence, and other necessary expenditures incurred in support of the design and construction divisions and districts and for the research program for pavement profile studies.

**Accomplishments for F.Y. 2012:** Successful evaluations were completed at various construction sites throughout the state. Data was collected and analyzed.

**Proposed Activities for F.Y. 2013:** Support TRC 0208: “Development of Certification Procedures for Profiler Operators” and TRC 0308: “Developing a Smoothness Specification for ACHM Pavements” based on the results from data collected using the lightweight profilers. New profiler equipment will be purchased to represent the change in technology utilized in the field.

Programmed Amount for F.Y. 2012	\$ 70,000
Estimated Expenditures for F.Y. 2012	\$ 21,000
Estimated Cost for F.Y. 2013	\$ 105,000

## **E456 – PRODUCT EVALUATION**

**Purpose and Scope:** This job provides for expenditures incurred in support of the Product Evaluation Committee. All expenditures related to the evaluation of products or processes for highway construction and maintenance when the Research Section is called upon to evaluate a particular product. The preparation of reports reflecting evaluation findings and actions of the Product Evaluation Committee are included. Charges for documentation, dissemination of how products and processes function, roles they may fulfill, and their benefits to the Department’s Construction and Maintenance Program may be included.

**Accomplishments for F.Y. 2012:** The Research Section met with the Product Evaluation Committee from the Materials Division. Several products related to highway safety, construction, and maintenance were discussed at the meeting and it was decided that the Research Section’s services were not needed at this time.

The Joint QIP Steering Committee accepted recommendations on a new Culvert Selection Policy developed by the Joint QIP Council. Recommendations included monitoring of new placed culverts on an annual basis for a period of ten years. The Research Section has been charged with monitoring any new culverts installed.

**Proposed Activities for F.Y. 2013:** Work includes supporting the Product Evaluation Committee related to the evaluation of products or processes for highway construction and maintenance when the Research Section is called upon to evaluate a particular product. Monitoring of culverts for material performance will continue.

Programmed Amount for F.Y. 2012	\$ 5,000
Estimated Expenditures for F.Y. 2012	\$ 3,000
Estimated Cost for F.Y. 2013	\$ 25,000

## **F456 – IMPLEMENTATION OF RESEARCH**

**Purpose and Scope:** This job provides for expenditures incurred in association with the implementation of research results. It will be used to accumulate expenses incurred for implementation tracking and monitoring. The preparation of reports reflecting findings, recommendations and actions of any project results may be included. Charges for documentation and dissemination of how products and processes function, roles they may fulfill and their benefits to the Department’s construction and maintenance programs may be included. Activities designed to put research results into practice will be included in this line item. Any charges relating to providing information to a user will be included in this line item.

This line item may include equipment purchase and rental, supplies and services, reproduction costs, and any other pertinent charges for the implementation of research findings. This may include responses to information requests, on-line information requests and retrievals, phone calls, report preparation, report condensing and other activities undertaken to get research

results into the hands of a user. The documentation of activities related to the monitoring of implementation of results research will be included in this line item.

**Accomplishments for F.Y. 2012:** There were five TRC and four MBTC projects finalized and distributed to FHWA, public libraries in Arkansas, and the other 49 states research agencies. Research products received from other agencies were distributed to interested personnel throughout the Department. The Sharepoint electronic library now has approximately 30,000 publications.

**Proposed Activities for F.Y. 2013:** As the AHTD Research projects are finalized they will be distributed to FHWA and other state agencies. Notification from other states' agencies regarding their research products will be forwarded to the proper AHTD personnel. Continue the coordination of Sharepoint activities. Implement the updated Follett library software program and enter library books into the new database.

Programmed Amount for F.Y. 2012	\$ 200,000
Estimated Expenditures for F.Y. 2012	\$ 91,000
Estimated Cost for F.Y. 2013	\$ 200,000

#### **G456 – PROJECT MONITORING**

**Purpose and Scope:** This job provides for expenditures incurred for the Research and Development Program in monitoring of projects where charges to a specific project would be inappropriate. It includes the review and preparation of responses to various specifications, letters, questionnaires, and information requests of a general nature. It may include arranging meetings and demonstrations. It may include expenditures for all follow-up actions on projects whose funding has otherwise expired. It includes all activities in monitoring of contract studies and in-house studies where funding for the Department effort is not included elsewhere.

**Accomplishments for F.Y. 2012:** The Research Section has many projects for which monitoring and/or evaluating is still required to determine if updates are needed.

**Proposed Activities for F.Y. 2013:** Work will include the continued monitoring of contract studies and in-house projects.

Programmed Amount for F.Y. 2012	\$295,000
Estimated Expenditures for F.Y. 2012	\$190,000
Estimated Cost for F.Y. 2013	\$300,000

#### **L456 – SUBSURFACE DRAINAGE RESEARCH**

**Purpose and Scope:** This line item is provided to cover the cost of research, maintenance, departmental support services, fabrication equipment and monitoring of pavement subsurface drainage. The purpose of this project is to evaluate the performance of pavement subsurface drainage under various conditions and make determinations of their effectiveness.

This line item will provide for the cost of research and assistance to TRB Committee on Subsurface Drainage, AFS60.

**Accomplishments for F.Y. 2012:** None. New activity in Fiscal Year 2013.

**Proposed Activities for F.Y. 2013:** Evaluation performance of subsurface drainage to determine future construction and maintenance activities.

Programmed Amount for F.Y. 2012	\$	0
Estimated Expenditures for F.Y. 2012	\$	0
Estimated Cost for F.Y. 2013	\$	260,000

#### **M456 – LOW VOLUME ROUTE EVALUATION**

**Purpose and Scope:** To create and maintain a pictorial database, along with traffic counts at selected sites, for the purpose of forecasting roadway failures and problem areas due to traffic increase, and attempting to project rehabilitation methods and techniques to alleviate these problems in the most feasible manner possible. Help will be provided in assistance to research needs for the TRB Committee on Maintenance and Operations Management, AHD10.

**Accomplishments for F.Y. 2012:** None. New activity in Fiscal Year 2013.

**Proposed Activities for F.Y. 2013:** To expand the database that is in place for the Fayetteville Shale Play Area and to create a database for the Brown Dense Shale Play area. Also to use the information gathered in order to provide data in determining rehabilitation methods for all areas with low volume route.

Programmed Amount for F.Y. 2012	\$	0
Estimated Expenditures for F.Y. 2012	\$	0
Estimated Cost for F.Y. 2013	\$	175,000

#### **R456 – PEER-REVIEW TEAM ACTIVITIES**

**Purpose and Scope:** The line item is to accumulate the charges incurred from participation in peer review activities as required by 23 CFR Part 420, Subpart B. It may include costs incurred by Department personnel and by non-Department personnel named to participate in Peer Review activities. Costs may include salaries and wages, travel and subsistence, equipment purchase and rental, meeting facilities and amenities, and supplies and services as may be pertinent and necessary for the conduct of peer reviews of the research program in any state.

**Accomplishments for F.Y. 2012:** Regulations are to hold a Peer Review meeting at least every 5 years. The last Peer Review was held in August 2007. Planning for a Peer Review that is scheduled for F.Y. 2013 has begun. Preliminary planning has begun.

**Proposed Activities for F.Y. 2013:** Peer review is scheduled for F.Y. 2013.

Programmed Amount for F.Y. 2012	\$ 5,000
Estimated Expenditures for F.Y. 2012	\$ 0
Estimated Cost for F.Y. 2013	\$ 35,000

#### **S456 – SHRP/LTPP ACTIVITIES**

**Purpose and Scope:** The purpose of the Strategic Highway Research Program (SHRP)/Long Term Pavement Performance (LTPP) program is monitoring pavement performance. Some pavements perform better than others and this is the key to building and maintaining a cost-effective highway system. In 1987, the Long-Term Pavement Performance (LTPP) program - a comprehensive 20-year study of in-service pavements - began a series of rigorous long-term field experiments monitoring more than 2,400 asphalt and portland cement concrete pavement test sections across the U.S. and Canada. In Arkansas, we began with 21 sites and through significant maintenance and/or reconstruction most of the sites have been removed from study. One of the latest goals for the LTPP program is to collect 5 years of complete data for the Specific Pavement Study sites. Most of the WIM systems for our LTPP sites are collecting Volume only. The weight and class numbers are suspect due to deteriorating pavement conditions.

**Accomplishments for F.Y. 2012:** Traffic data has been collected but has been delayed on transmitting to the LTPP contractor. Currently there is a 6-month lag time from collecting, filtering, and transmitting this data for SHRP's use. Maintenance has been performed on some of the SPS sites and the records have been sent to Fugro.

**Proposed Activities for F.Y. 2013:** Work will include transmitting traffic data as it is collected and filtered. The LTPP contractor will be notified when maintenance and/or major construction is scheduled for a specific site to allow them to obtain a final manual distress survey before construction begins. Fugro has scheduled visits to select sites to perform manual distress surveys. This will take place in late fall.

Programmed Amount for F.Y. 2012	\$15,000
Estimated Expenditures for F.Y. 2012	\$14,000
Estimated Cost for F.Y. 2013	\$25,000

#### **A457 – SUPPORT SERVICES**

**Purpose and Scope:** This line item covers costs associated with work done for Divisions, Districts, and other agencies that are not directly related to the Research Program. It may be for activities related to site evaluations, pavement studies, design evaluations, failure mode investigations, forensic investigations and such other activities as may be required. Charges for data collection and evaluation, sample taking, conditioning, storing and delivering, and the conducting of tests may be included in this line item. The line item is to cover salaries and

wages, travel and subsistence, equipment purchase and equipment rental, report preparation, supplies and services, and such other costs as may be pertinent to functions conducted in support of other programs.

***Accomplishments for F.Y. 2012:*** Several activities were supported this year from site evaluations, data collection and traffic surveys.

***Proposed Activities for F.Y. 2013:*** Continued support when the Research Section is called upon for many relatively small jobs that are of concern to the Department or other agencies.

Programmed Amount for F.Y. 2012	\$361,091
Estimated Expenditures for F.Y. 2012	\$375,000
Estimated Cost for F.Y. 2013	\$293,854

#### **F467 – REMEDIATION MEASURES FOR SLOPE FAILURES**

***Purpose and Scope:*** The purpose of this project is to develop design and repair guidance that will aid managers and designers in making rational decisions regarding the selection of the proper design and remediation techniques to use when dealing with cut slopes and embankments. This project should give the Department alternatives to current slope repair techniques. Additionally, the results will include an evaluation of remote sensing technologies that could be used to monitor signs of failure and predict a failure within a slope before it actually occurs. An ancillary objective is to develop preliminary data and guidelines from which a reliability-based design procedure can be developed.

***Accomplishments for F.Y. 2012:*** Expect to receive and review the final report by the end of Fiscal Year 2012.

***Proposed Activities for F.Y. 2013:*** Completion and final payment of project.

Programmed Amount for F.Y. 2012	\$20,000
Estimated Expenditures for F.Y. 2012	\$20,000
Estimated Cost for F.Y. 2013	\$40,000

#### **N467 – PERMEABILITY AND DRAINAGE OF SUPERPAVE**

***Purpose and Scope:*** The purpose of this project is to develop guidance in the form of design criteria and construction specifications that will account for varying moisture conditions in flexible pavement systems.

***Accomplishments for F.Y. 2012:*** Expect to receive and review the final report by the end of Fiscal Year 2012.

***Proposed Activities for F.Y. 2013:*** Completion and final payment of project.

Programmed Amount for F.Y. 2012	\$80,000
Estimated Expenditures for F.Y. 2012	\$75,000
Estimated Cost for F.Y. 2013	\$90,000

**L457 - DEVELOPING OF A SMOOTHNESS SPECIFICATION FOR ACHM PAVEMENTS**

**Purpose and Scope:** The overall objective of the project is to evaluate the current smoothness specification and create a new smoothness specification for ACHM pavements. By creating a specification that applies to all ACHM pavements and incorporates the flexibility to allow different brands of profilers to report road smoothness, the Department will be able to maximize the benefits of a smooth road. The California-style Profilograph will be correlated with the three Light Weight Profilers.

**Accomplishments for F.Y. 2012:** Data was collected at various locations around the state for overlay and new constructed pavements. This data was analyzed and has been included in the final report for developing the new smoothness specification for Arkansas.

**Proposed Activities for F.Y. 2013:** A new smoothness specification should be completed and implemented.

Programmed Amount for F.Y. 2012	\$ 5,000
Estimated Expenditures for F.Y. 2012	\$ 4,000
Estimated Cost for F.Y. 2013	\$ 15,000

**Q457 – DEVELOPMENT OF A VIRTUAL WEIGH STATION**

**Purpose and Scope:** The purpose of this project is to evaluate ways to improve the current traffic data collection system. The usability, cost, and maintenance will be evaluated along with the accuracy of a new WIM system. The present piezo system will also be directly compared to that of another WIM system. Additionally, this will investigate a way to provide the AHP with an enforcement tool to curb overweight vehicles that may take alternative routes to avoid weigh stations.

**Accomplishments for F.Y. 2012:** Project has been put on hold due to funding uncertainties. Commercial Vehicle Information Systems and Networks (CVISN) and the Federal Motor Carrier Safety Administration (FMCSA) are working on a grant with Federal Highway Administration to use funds associated with SAFETEA-LU.

**Proposed Activities for F.Y. 2013:** Design, construct and monitor virtual weigh station.

Programmed Amount for F.Y. 2012	\$ 40,000
Estimated Expenditures for F.Y. 2012	\$ 1,000
Estimated Cost for F.Y. 2013	\$ 40,000

## **H467 – GEOSYNTHETIC DRAINS FOR SLOPE STABILITY AND REHABILITATION**

**Purpose and Scope:** This research project is to investigate the use of geosynthetic drains for increased slope stability in soils. These drains can be installed horizontally in slopes to provide additional drainage. This reduces excess pore pressures, increases shear strength and potentially prevents further movement of slope failures. Fieldwork and evaluation has been completed.

**Accomplishments for F.Y. 2012:** Expect to receive and review the final report by the end of Fiscal Year 2012.

**Proposed Activities for F.Y. 2013:** Completion and final payment of project.

Programmed Amount for F.Y. 2012	\$45,000
Estimated Expenditures for F.Y. 2012	\$40,000
Estimated Cost for F.Y. 2013	\$45,000

## **D467 – DEVELOPMENT OF A MASTER PLAN FOR CALIBRATION AND IMPLEMENTATION OF THE MECHANISTIC-EMPIRICAL DESIGN GUIDE**

**Purpose and Scope:** The primary global objective for the proposed research is to create a master plan for implementation of the NCHRP 1-37a M-E Pavement Design Guide (MEPDG) in Arkansas.

**Accomplishments for F.Y. 2012:** Expect to receive and review the final report by the end of Fiscal Year 2012.

**Proposed Activities for F.Y. 2013:** Completion and final payment of project.

Programmed Amount for F.Y. 2012	\$40,000
Estimated Expenditures for F.Y. 2012	\$40,000
Estimated Cost for F.Y. 2013	\$65,000

## **G467 – EVALUATION OF BOND STRENGTH BETWEEN PAVING LAYERS FOR HOT MIX ASPHALT**

**Purpose and Scope:** The overall purpose of this project is to evaluate the bond strength between Hot Mix Asphalt (HMA) layers.

**Accomplishments for F.Y. 2012:** Expect to receive and review the final report by the end of Fiscal Year 2012.

**Proposed Activities for F.Y. 2013:** Completion and final payment of project.



Programmed Amount for F.Y. 2012	\$40,000
Estimated Expenditures for F.Y. 2012	\$37,000
Estimated Cost for F.Y. 2013	\$50,000

**T467 – RESISTANCE FACTORS FOR PILE FOUNDATIONS**

*Purpose and Scope:* The purpose of the proposed research project is to develop a framework for pile design in Arkansas that permits the use of state-specific LRFD resistance factors for the capacity of driven piles used in the design of bridge systems in Arkansas.

*Accomplishments for F.Y. 2012:* Expect to receive and review the final report.

*Proposed Activities for F.Y. 2013:* Completion and final payment of project.

Programmed Amount for F.Y. 2012	\$60,000
Estimated Expenditures for F.Y. 2012	\$50,000
Estimated Cost for F.Y. 2013	\$60,000

**U467 – EVALUATION OF AGGREGATE DURABILITY PERFORMANCE TEST PROCEDURES**

*Purpose and Scope:* The overall objective of this project is to evaluate various methods for testing the soundness and durability of aggregates used in the construction of flexible and rigid pavements.

*Accomplishments for F.Y. 2012:* Aggregate durability testing has been completed. The PI had encountered problems with equipment, which has prolonged sodium sulfate and freeze/thaw testing. A significant amount of the final report has been written and should be submitted by the end of this fiscal year.

*Proposed Activities for F.Y. 2013:* Completion of the final report is expected this year if not finished by year end 2012.

Programmed Amount for F.Y. 2012	\$50,000
Estimated Expenditures for F.Y. 2012	\$45,000
Estimated Cost for F.Y. 2013	\$60,000

**R457 - EVALUATION OF BIODIESEL IN DEPARTMENTAL VEHICLES**

*Purpose and Scope:* The purpose for evaluating biodiesel fuel in Department vehicles is to determine what effects and benefits are from using biodiesel blend (B20) in lieu of petroleum diesel. Biodiesel has a lower carbon emission and is a renewable and domestically produced resource. Biodiesel has greater lubricating properties. We anticipate less wear in the engine and lower operating costs. The scope of the work will involve establishing dedicated B20

refueling tanks in area maintenance yards that are already scheduled to receive new diesel vehicles. As the new vehicles go into service, they will start operating on B20 fuel. The driver will maintain a maintenance log book to track all maintenance work. An oil sample will be collected from each scheduled oil change and a detailed analysis conducted to track internal engine wear. The testing of biodiesel in Department vehicles is currently scheduled to run for three years.

**Accomplishments for F.Y. 2012:** Oil samples were collected with each scheduled oil change. The samples were sent for analysis and the reports are tabulated. Maintenance logs and mileage for each of the has been collected

**Proposed Activities for F.Y. 2013:** Finish collecting data and write final report

Programmed Amount for F.Y. 2012	\$30,000
Estimated Expenditures for F.Y. 2012	\$10,000
Estimated Cost for F.Y. 2013	\$20,000

**W467 - GROUND PENETRATING RADAR FOR PAVEMENT EVALUATION**

**Purpose and Scope:** To investigate the cost effectiveness of new Ground Penetrating Radar (GPR) technologies for providing accurate pavement layer thickness data for use with the FWD to provide pavement structural capacity and remaining service life for use in the Pavement Management database. To deliver a working GPR system that will allow the Department to collect, analyze and distribute pavement thickness information meeting the needs of the AHTD.

**Accomplishments for F.Y. 2012:** The Project is on schedule. Two reports have been produced by the University of Arkansas, one on “State of Practice for utilizing GPR to Determine Pavement Thickness” and the other on “GPR Equipment Acquisition.” The U of A has ordered a GPR system from GSSI after answering a questionnaire from Pavement Management and Research. An AHTD vehicle has been delivered upon which the GPR System will be mounted.

**Proposed Activities for F.Y. 2013:** Research implementation will be reported in later stages of the research project. It is anticipated that upon the arrival of the new GPR equipment, the research team will focus on establishing experience in operating the GPR system and make a plan to survey several pavement networks defined with AHTD staff.

Programmed Amount for F.Y. 2012	\$60,000
Estimated Expenditures for F.Y. 2012	\$55,000
Estimated Cost for F.Y. 2013	\$80,000

## **X467 - LOCAL CALIBRATION OF MECHANISTIC-EMPIRICAL PAVEMENTS DESIGN GUIDE**

**Purpose and Scope:** The primary objective is to assess the suitability of the ‘national’ calibration of the MEPDG relative to Arkansas and adjust the guide model coefficients to provide better predictions of pavement distress for Arkansas roadways.

**Accomplishments for F.Y. 2012:** The research team has developed an experimental design matrix and identified and selected specific roadway sections to be used in calibration efforts. The U of A team has extracted and evaluated roadway segment data and assessed the bias of the experimental matrix.

**Proposed Activities for F.Y. 2013:** The research team will compare the MEPDG pavement distress predictions with field distress data.

Programmed Amount for F.Y. 2012	\$80,000
Estimated Expenditures for F.Y. 2012	\$69,000
Estimated Cost for F.Y. 2013	\$80,000

## **Y467 – INVESTIGATION OF WARM MIX ASPHALT DESIGN AND CONSTRUCTION**

**Purpose and Scope:** The objective of this project is to evaluate warm mix asphalt (WMA) technologies and if found feasible to develop the provisions so that WMA can be incorporated in AHTD standard specifications.

**Accomplishments for F.Y. 2012:** The implementation report has been completed. Dr. Williams is currently working on the final report and will have it completed before the end of FY 2012.

**Proposed Activities for F.Y. 2013:** Monitor implementation

Programmed Amount for F.Y. 2012	\$70,000
Estimated Expenditures for F.Y. 2012	\$47,000
Estimated Cost for F.Y. 2013	\$50,000

## **Z467 – ROLLER COMPACTED CONCRETE FOR ROADWAY PAVEMENT**

**Purpose and Scope:** The objective of this project is to make appropriate recommendations relating to the incorporation of roller compacted concrete in AHTD standard specification. The recommendations will be based on a thorough evaluation of roller compacted concrete technologies.

**Accomplishments for F.Y. 2012:** The implementation report has been completed and the final report will be completed before the end of FY 2012.

**Proposed Activities for F.Y. 2013:** Monitor implementation

Programmed Amount for F.Y. 2012	\$70,000
Estimated Expenditures for F.Y. 2012	\$40,000
Estimated Cost for F.Y. 2013	\$50,000

#### **K467 – RECYCLED ASPHALT SHINGLES IN ASPHALT PAVEMENTS**

**Purpose and Scope:** The overall objective of this project is to evaluate the use of Recycled Asphalt Shingles (RAS) for asphalt pavements in Arkansas. This will include a consideration of the associated mixture design, performance, and acceptance procedures pertaining to this material. If applicable, the provisions will be established to incorporate RAS into the Department’s Standard Specifications.

**Accomplishments for F.Y. 2012:** The literature review is 95% complete. Identification of potential sources has also been completed, as well as selection of shingle and aggregate sources. Mix designs for the project have also been selected.

**Proposed Activities for F.Y. 2013:** Work will continue on assessing RAS mixture and investigating tear off shingle sources. The project will be completed in September. The implementation report and the final report will be completed. Once the final is accepted implementation monitoring will begin.

Programmed Amount for F.Y. 2012	\$50,000
Estimated Expenditures for F.Y. 2012	\$45,000
Estimated Cost for F.Y. 2013	\$60,000

#### **L467 – SLOPE STABILITY MONITORING USING A GROUND-BASED PORTABLE RADAR INTERFEROMETER**

**Purpose and Scope:** This research will include determining the viability of using Ground Based Portable Radar Interferometer (GBPRI) as another monitoring tool for the purpose of determining the extent of a known sliding mass within the State of Arkansas. Testing will determine if GBPRI can establish to a high level of confidence the limits, extent and rate of movement within a sliding mass. Data obtained from GBPRI will be used to determine if excessive movement can be identified prior to a catastrophic failure. Based on the rate of movement, parameters may be established to alert Arkansas State Highway and Transportation Department officials of the need and type of remediation measures to initiate. If the research results determine a need for the Department to purchase the equipment, training manuals and project developed computer software should be included in the final report.

**Accomplishments for F.Y. 2012:** The Interferometer was received and University of Arkansas personnel were trained on the use of the device. The project is well underway with biweekly scans of the Malvern and Chester slides. New inclinometers and piezometers were installed at the Malvern sight along with drilling and sampling of the subsurface.

**Proposed Activities for F.Y. 2013:** Continue surveying the slide areas in Malvern and Chester with the interferometer and total station. Develop plans for the Malvern slide repair recommendations from the University of Arkansas and submittal of the final report.

Programmed Amount for F.Y. 2012	\$50,000
Estimated Expenditures for F.Y. 2012	\$50,000
Estimated Cost for F.Y. 2013	\$50,000

#### **S467 – RAPID NETWORK LEVEL SURVEY WITH AUTOMATED CRACKING DETECTION**

**Purpose and Scope:** The purpose of the project is to provide the Department an automated image processing system for pavement crack detection that would be fast, accurate, and flexible enough to produce data in many types of crack index outputs. The outcomes of the proposed research can assist the Department in satisfying both state and Federal data needs and requirements for pavement management concerning network level cracking, and to provide necessary cracking data for calibrating and implementing the new mechanistic-empirical pavement design process DARWin-ME, which is an out-growth of the NCHRP 1-37A Mechanistic Empirical Pavement Design Guide (MEPDG).

**Accomplishments for F.Y. 2012:** The team working on this project managed and process data during the 2012 fiscal year.

**Proposed Activities for F.Y. 2013:** The team should develop a quality assurance and quality control procedure and provide education and training.

Programmed Amount for F.Y. 2012	\$40,000
Estimated Expenditures for F.Y. 2012	\$30,000
Estimated Cost for F.Y. 2013	\$40,000

#### **B457 – USE OF UNMANNED AERIAL VEHICLE FOR AHTD APPLICATIONS**

**Purpose and Scope:** As part of its mission to develop, operate and maintain a safe and efficient transportation system, the Department monitors, inspects, and surveys its highways, bridges, and facilities. Outside of surveying, this is done through several means, such as the ARAN vehicle, traffic counters, bridge sensors, cameras, and field or site inspections. There are needs to view areas from above in a flexible, safe, and cost-effective manner. Recording with high definition (HD) video cameras from varying altitudes, Department staff can view and record areas of interest from the air. Other types of aerostats and methods of deploying a HD video camera will be reviewed.

**Accomplishments for F.Y. 2012:** Data was collected at various locations using the mobile mast-mounted camera and the helium balloon was tested.

**Proposed Activities for F.Y. 2013:** The helium balloon and the mobile mast-mounted camera will be used for data collection a new chosen locations. The final report will be written.

Programmed Amount for F.Y. 2012	\$50,000
Estimated Expenditures for F.Y. 2012	\$40,000
Estimated Cost for F.Y. 2013	\$45,000

#### **V467 – DESIGN, CONSRUCTION AND MONITORING OF ROLLER COMPACTED CONCRETE PAVEMENT IN THE FSP**

**Purpose and Scope:** The objective of this project is to evaluate several rehabilitation strategies for the Fayetteville Shale Play (FSP) area and determine which strategies are the most viable.

**Accomplishments for F.Y. 2012:** The literature review is 70% complete. Two possible site location have been selected for the project. The possible locations for the project are Highway 213 and Highway 326.

**Proposed Activities for F.Y. 2013:** Design, construct, and monitor test sections.

Programmed Amount for F.Y. 2012	\$50,000
Estimated Expenditures for F.Y. 2012	\$45,000
Estimated Cost for F.Y. 2013	\$70,000

#### **C457 – EVALUATION OF NEW TECHNOLOGY FOR TRAFFIC MONITORING**

**Purpose and Scope:** The primary focus of this research is to determine which of two technologies would be most beneficial in estimating motorist travel times: Bluetooth traffic monitoring or side-scan radar. Both systems are to be co-located at a minimum of three locations on Interstate 40 between Conway and Little Rock. Average speeds between sites are to be determined with Bluetooth sensors; side fire radar will provide point speeds, length and vehicle count at each location. Travel times can also be obtained using side-fire radar once calibrated with the proper algorithm. Monitoring will be supplemented with live network video.

**Accomplishments for F.Y. 2012:** None. This project is on hold until the 511 system has been established.

**Proposed Activities for F.Y. 2013:** Begin the project should the 511 initiative be approved.

Programmed Amount for F.Y. 2012	\$ 100,000
Estimated Expenditures for F.Y. 2012	\$ 0
Estimated Cost for F.Y. 2013	\$ 80,000

**B467 – DATA PREPARATION FOR IMPLEMENTING DARWIN-ME**

*Purpose and Scope:* Contract not completed.

*Accomplishments for F.Y. 2012:* This project has yet to start.

*Proposed Activities for F.Y. 2013:* Review of Literature.

Programmed Amount for F.Y. 2012	\$ 90,000
Estimated Expenditures for F.Y. 2012	\$ 0
Estimated Cost for F.Y. 2013	\$ 60,000

**J467 – LOAD AND RESISTANCE FACTOR DESIGN SITE SPECIFIC  
VARIABILITY IN LABORATORY AND FIELD MEASUREMENTS  
AND CORRELATIONS**

*Purpose and Scope:* The objective of this study is to determine the variance in reliability between current site characterization techniques of field sampling and conventional laboratory testing, as compared with state-of-the-art sampling and laboratory testing and full-scale load tests. Three primary geological formations utilized in foundation support for structures should be investigated: 1) Bedrock material consisting of Limestone, Sandstone and/or Shale in western and northern Arkansas; 2) Primarily Clays in southwestern and eastern Arkansas; and 3) Clay underlain by Sand in northeastern Arkansas. The bias associated with the geotechnical engineering properties (of soil, rock, and soil-structure interaction) obtained from both current and advanced techniques will be analyzed to determine how the deviation in applied design values will affect LRFD based geotechnical engineering designs in terms of reliability and cost.

*Accomplishments for F.Y. 2012:* The areas selected include Turrell, Siloam Springs and Monticello. To date all of Phase 1 field-testing has been completed, which included drilling and sampling along with Missouri Department of Transportation bringing in their Cone Penetrometer Test and testing each site. Laboratory testing should be completed by end of this fiscal year. Plan for the drilled shafts will be developed by years end.

*Proposed Activities for F.Y. 2013:* Completion of the laboratory samples testing. Phase 2 drilled shafts will be constructed at each of the 3-sites. Sensors will be installed within the drilled shafts and a number of tests will be performed once in place.

Programmed Amount for F.Y. 2012	\$70,000
Estimated Expenditure for F.Y. 2012	\$70,000
Estimated Cost for F.Y. 2013	\$80,000

## **I467 – STATIC LOAD TESTING PROGRAM FOR CALIBRATION**

***Purpose and Scope:*** Contract not completed.

***Accomplishments for F.Y. 2012:*** This project has yet to start.

***Proposed Activities for F.Y. 2013:*** Complete contract and start with literature review.

Programmed Amount for F.Y. 2012	\$80,000
Estimated Expenditures for F.Y. 2012	\$75,000
Estimated Cost for F.Y. 2013	\$90,000

## **Q467 – INTERNAL CURING**

***Purpose and Scope:*** The research project will determine the appropriate content of lightweight aggregate per cubic yard of concrete required to reduce drying shrinkage without sacrificing the hardened concrete properties for standard paving and bridge deck mixtures. In addition to plastic and drying shrinkage, compressive strength, modulus of elasticity, and modulus of rupture will be measured for mixtures containing presoaked, lightweight aggregates. The project will examine both locally available expanded slate and expanded clay lightweight aggregate and possibly other sources of locally available lightweight aggregate.

***Accomplishments for F.Y. 2012:*** The research team has started determining the absorption capacities of the aggregates and the correct amount of time required to soak the lightweight aggregates before mixing the concrete. Strain tests were being run on concrete prisms in order to track concrete shrinkage. The prisms were instrumented with vibrating wire strain gages, allowing the research team to track shrinkage cracking as soon as the specimens are cast, instead of having to wait one full day. Some results show that adding as little as 100 lb/yd<sup>3</sup> of lightweight aggregate can reduce shrinkage in mixtures.

***Proposed Activities for F.Y. 2013:*** The laboratory testing will continue through the end of F.Y. 2013. A cracking study will also take place. Small slabs of concrete will be cast with the lightweight aggregates and will be exposed to controlled environmental conditions. Four different curing regimens will be applied to the slabs to test different results. The final report should also be written and submitted by the end of F.Y. 2013.

Programmed Amount for F.Y. 2012	\$75,000
Estimated Expenditures for F.Y. 2012	\$72,000
Estimated Cost for F.Y. 2013	\$80,000



## **D457 – COST/BENEFIT EVALUATION OF INCENTIVES PAID FOR ACHM PROPERTIES**

**Purpose and Scope:** Asphalt pavement performance is dependent upon the quality of the mix. A poorly designed mixture or poorly constructed pavement may fail by stripping, rutting, cracking or raveling. The Department has, over time, developed stringent controls to ensure quality of the mix and consequently, the pavement. The Department has developed compliance, price reduction and rejection limits for ACHM courses for asphalt binder content, air voids, voids in the mineral aggregate (VMA) and density. This project will consist of, but not limited to, the following:

1. Sort historical database of projects by incentives received, contractor, location, year constructed, ADT, and project type.
2. Select projects with similar characteristics from the projects which received incentive payment and the projects which did not receive incentive payment.
3. Review ARAN data from MMHIS system to compare project qualities of rutting, IRI, cross slope, cracking, ADT and maintenance records.
4. Evaluate project quality data for measurable differences.

From this data the Department will be to determine whether a better ACHM pavement can be achieved when ACHM property incentives are paid. This determination may also lead to a reevaluation of the incentive specification.

Implementation of this project will give the Department the pertinent information to assess current ACHM incentive payments. Results of this project may lead to implementing a review and/or possible changes to the incentive specifications.

**Accomplishments for F.Y. 2012:** Identified a large number of projects with similar characteristics from the projects which received incentive payment and the projects which did not receive incentive payment.

**Proposed Activities for F.Y. 2013:** Review ARAN data from MMHIS system to compare project qualities of rutting, IRI, cross slope, cracking, ADT and maintenance records. Evaluate project quality data for measurable differences.

Programmed Amount for F.Y. 2012	\$60,000
Estimated Expenditures for F.Y. 2012	\$50,000
Estimated Cost for F.Y. 2013	\$50,000

**PART III**  
**MBTC ACTIVITIES**

**PART III**  
**MACK-BLACKWELL NATIONAL RURAL TRANSPORTATION**  
**STUDY CENTER (MBNRTSC) ACTIVITIES^**  
**FISCAL YEAR BUDGET 2013**

A588	PROJECT DEVELOPMENT	\$10,000
B588	ASSISTANTSHIPS	\$300,000
	PROJECTS (See list below)	\$370,000
D588	SHORT COURSES/SEMINARS	\$50,000
	<b>TOTAL MBTC BUDGET</b>	<b>\$730,000</b>

PROJECT LIST:

F580	MBTC2006	INVESTIGATION OF LONG TERM STABILITY SLOPES	\$5,000
G580	MBTC2007	RESILIENT MODULUS FOR PAVEMENT DESIGN	\$15,000
M580	MBTC2026	MULTI-SPECTRAL SATELLITE IMAGERY TO ENHANCE SLOPE FAILURE PREDICTION	\$10,000
T580	MBTC2070	DEVELOP METHODS ESTIMATING REMAINING LIFE OF HOT MIX ASPHALT FIELD MIXES	\$60,000
X580	MBTC2074	EVALUATION OF PAVEMENT THICKNESS AND MODULUS USING SPECTRAL ANALYSIS OF SURFACE WAVES (SASW)	\$30,000
N580	MBTC3015	CONDITION SCREENING OF BRIDGES - FWD	\$40,000
A580	MBTC3020	PERFORMANCE OF FLEXIBLE PAVEMENT SYSTEMS CONTAINING GEOSYNTHETIC SEPARATION	\$50,000
B580	MBTC3021	PERFORMANCE OF PRESTRESSED GIRDERS CAST WITH LIGHTWEIGHT SELF-CONSOLIDATING CONCRETE	\$50,000
C580	MBTC3030	PERFORMANCE OF PRESTRESSED GIRDERS CAST WITH LIGHTWEIGHT SELF-CONSOLIDATING CONCRETE PHASE II	\$30,000
D580	MBTC3031	IDENTIFICATION OF EXPANSIVE SOILS USING REMOTE SENSING AND IN-SITU FIELD MEASUREMENTS - PHASE I	\$40,000
J580	MBTC3032	SITE-SPECIFIC SEISMIC GROUND MOTION ANALYSES FOR TRANSPORTATION INFRASTRUCTURE IN THE NEW MADRID SEISMIC ZONE	\$40,000
			<b>\$370,000</b>

^MBTC projects listed here are funded with 100% State Funds.

**Purpose:** The Mack-Blackwell National Rural Transportation Study Center at the University of Arkansas at Fayetteville participates with the Department in research projects, provides transportation research assistantships to selected graduate students at the Center as well as selected employees at the Department, and conducts short courses and seminars. The Department operates under a review panel consisting of the Deputy Director and Chief Engineer as Chairman, the Assistant to the Director, and the Assistant Chief Engineers.

## **F580 – INVESTIGATION OF LONG TERM STABILITY SLOPES**

**Purpose and Scope:** This project describes the third phase of a three-phase program intended to develop management and assessment tools that will allow the AHTD to use reliability concepts in the design and maintenance of embankment and cut slopes. The area of emphasis for phase three will focus on incorporating probabilistic algorithms into the GIS database that will help in evaluating the probability of slope failures in various regions of the state. The slope failure data will be integrated with other geographical data in an effort to develop an executive management tool to evaluate failure hazards. Final correlations will be developed in an attempt to use the historical failure data as a management tool in the right-of-way acquisition.

**Accomplishments for F.Y. 2012:** Preparation of Final Report.

**Proposed Activities for F.Y. 2013:** Completion and final payment of project.

Programmed Amount for F.Y. 2012	\$ 5,000
Estimated Expenditures for F.Y. 2012	\$ 0
Estimated Cost for F.Y. 2013	\$ 5,000

## **G580 – RESILIENT MODULUS FOR PAVEMENT DESIGN**

**Purpose and Scope:** The overall purpose of this project is to develop testing and material modeling methodologies to estimate the resilient modulus of compacted fine-grain subgrade soils.

**Accomplishments for F.Y. 2012:** Preparation of Final Report.

**Proposed Activities for F.Y. 2013:** Completion and final payment of project.

Programmed Amount for F.Y. 2012	\$ 15,000
Estimated Expenditures for F.Y. 2012	\$ 0
Estimated Cost for F.Y. 2013	\$ 15,000

## **M580 – MULTI-SPECTRAL SATELLITE IMAGERY TO ENHANCE SLOPE FAILURE PREDICTION**

**Purpose and Scope:** The overall purpose of this project is to develop a reliability-based design procedure for cut slopes and embankments.

**Accomplishments for F.Y. 2012:** Preparation of Final Report.

**Proposed Activities for F.Y. 2013:** Completion and final payment of project.

Programmed Amount for F.Y. 2012	\$ 10,000
Estimated Expenditures for F.Y. 2012	\$ 0
Estimated Cost for F.Y. 2013	\$ 10,000

### **T580 – DEVELOP METHODS FOR ESTIMATING REMAINING LIFE OF HOT MIX ASPHALT FIELD MIXES**

**Purpose and Scope:** The overall purpose of this project is to develop a field guide for Hot Mix Asphalt pavements regarding suspect HMA mixtures.

**Accomplishments for F.Y. 2012:** Preparation of Final Report.

**Proposed Activities for F.Y. 2013:** Completion and final payment of project.

Programmed Amount for F.Y. 2012	\$ 60,000
Estimated Expenditures for F.Y. 2012	\$ 0
Estimated Cost for F.Y. 2013	\$ 60,000

### **X580 – EVALUATION OF PAVEMENT THICKNESS AND MODULUS USING SPECTRAL ANALYSIS OF SURFACE WAVES (SASW)**

**Purpose and Scope:** To develop and calibrate a man-portable SASW device, along with associated software for data analysis. This product could be used by moderately trained technicians and roadway personnel to accurately determine thicknesses of pavement system components without the need for destructive coring of the pavement structure.

**Accomplishments for F.Y. 2012:** Preparation of Final Report.

**Proposed Activities for F.Y. 2013:** Completion and final payment of project.

Programmed Amount for F.Y. 2012	\$ 30,000
Estimated Expenditures for F.Y. 2012	\$ 0
Estimated Cost for F.Y. 2013	\$ 30,000

### **N580 – CONDITION SCREENING OF BRIDGES - FWD**

**Purpose and Scope:** To develop an experimental method for rapidly determining the condition of a bridge in terms of its stiffness through the use of a standard Falling Weight Deflectometer (FWD). The development of a rapid and reliable experimental means for quantitatively establishing the condition of a bridge offers great promise for improving the rationality and reliability of bridge management decisions.

**Accomplishments for F.Y. 2012:** The PI has still been working on the final report.

**Proposed Activities for F.Y. 2013:** Final report should be completed and submitted.

Programmed Amount for F.Y. 2012	\$ 40,000
Estimated Expenditures for F.Y. 2012	\$ 0
Estimated Cost for F.Y. 2013	\$ 40,000

**A580 – PERFORMANCE OF FLEXIBLE PAVEMENT SYSTEMS CONTAINING GEOSYNTHETIC SEPARATORS**

**Purpose and Scope:** A series of laboratory and field tests will be conducted to determine the efficacy of geotechnical separators in flexible pavement systems. Samples will be collected from and field in-situ permeability test will be conducted at the Marked Tree site. The base course at the Marked Tree test site will be analyzed to determine if geosynthetic separators have prevented plastic fines from migrating into the base layer from the prepared subgrade.

**Accomplishments for F.Y. 2012:** The project has been completed. The final report should be completed before the end of FY 2012.

**Proposed Activities for F.Y. 2013:** Monitor implementation

Programmed Amount for F.Y. 2012	\$50,000
Estimated Expenditures for F.Y. 2012	\$18,000
Estimated Cost for F.Y. 2013	\$50,000

**B580 – PERFORMANCE OF PRESTRESSED GIRDERS CAST WITH LIGHTWEIGHT SELF-CONSOLIDATING CONCRETE**

**Purpose and Scope:** The research program will investigate the bond of prestressing strands in lightweight self-consolidating concrete (LWSCC). Bond in normal weight self-consolidating concrete (SCC) has been and is currently being examined and the results vary. Some investigators have measured longer transfer and development lengths in normal weight SCC members when compared to conventional concrete of like compressive strength and some have measured shorter lengths. Longer lengths suggest poorer strand bond and possibly unconservative prediction equations. Shorter lengths infers adequate or good bond between the prestressing strands and the concrete and ensures the ACI 318 code equations are conservative. When compared to normal weight concrete of the same strength, the transfer and development lengths of prestressing strand in lightweight concrete are generally longer. When two types of concrete are combined, lightweight and SCC, the adequacy of the prediction equations shown in ACI 318/AASHTO LRFD will be determined.

**Accomplishments for F.Y. 2012:** The remaining beams were cast and tested this year. The grad student on the project has started analyzing the data and should have the final report submitted by the end of F.Y. 2012.

**Proposed Activities for F.Y. 2013:** Completion and final payment of project.

Programmed Amount for F.Y. 2012	\$ 50,000
Estimated Expenditures for F.Y. 2012	\$ 0
Estimated Cost for F.Y. 2013	\$ 50,000

### **C580 – PERFORMANCE OF PRESTRESSED GIRDERS CAST WITH LIGHTWEIGHT SELF-CONSOLIDATING CONCRETE PHASE II**

**Purpose and Scope:** The research program will investigate the prestress losses in members cast with lightweight self-consolidating concrete (LWSCC). The loss or gain in prestress force has little effect on the flexural capacity of the member. Losses do affect service load behavior such as deflection or camber, cracking load, and crack widths, as well as deformations during construction. Accurately predicting prestress losses is key to good performance. The AASHTO LRFD Bridge Specification provides guidelines for estimates losses in conventional and high strength conventional concrete. This research program will address whether these guidelines are applicable to LWSCC.

**Accomplishments for F.Y. 2012:** All beams for the project were cast and the research team is measuring prestress losses on the beams. They will also be loading the beams to determine creep losses for the pre-tensioning strands. All data will be consolidated and analyzed to determine results.

**Proposed Activities for F.Y. 2013:** The project should be completed by the end of F.Y. 2012. The final report will be submitted and final payment will be made at the beginning of Fiscal Year 2013.

Programmed Amount for F.Y. 2012	\$ 30,000
Estimated Expenditures for F.Y. 2012	\$ 800
Estimated Cost for F.Y. 2013	\$ 30,000

### **D580 – IDENTIFICATION OF EXPANSIVE SOILS USING REMOTE SENSING AND IN-SITU FIELD MEASUREMENTS – PHASE I**

**Purpose and Scope:** The volume change characteristic of clay soils from Northwest Arkansas (with and without bentonite amendment) will be determined by combining knowledge gathered from emerging ground-based remote sensing platforms (visible, infrared and microwave spectra), and geotechnical field investigations (volumetric moisture content, soil temperature, soil suction, infiltration, evaporation). The work seeks to demonstrate and test the efficacy of remote sensing (specifically using a ground based radar) as a new approach for in-situ classification, characterization, and heave prediction of expansive soils.

**Accomplishments for F.Y. 2012:** The two test pads have been constructed, one from bentonite amended red dirt and one from non-amended red dirt. The pads were instrumented with various sensors. Biweekly ground based radar interferometer images have been collected.

**Proposed Activities for F.Y. 2013:** Biweekly ground based radar interferometer images will be collected along with in-situ soil testing. The final report will be written and submitted along with recommendations for use of the interferometer.

Programmed Amount for F.Y. 2012	\$ 40,000
Estimated Expenditures for F.Y. 2012	\$ 9,000
Estimated Cost for F.Y. 2013	\$ 40,000

**J580 – SITE-SPECIFIC SEISMIC GROUND MOTION ANALYSES FOR TRANSPORTATION INFRASTRUCTURE IN THE NEW MADRID SEISMIC ZONE**

**Purpose and Scope:** The main objective of this study is to develop guidelines that design engineers can use to perform high-quality, site-specific ground motion response analyses for transportation infrastructure in the NMSZ. While AASHTO 2009 allows designers to benefit from reduced seismic loading estimated by site-specific ground motion response analyses, no guidance is provided on how these analyses should be performed. The uncertainty in ground motions within the NMSZ, coupled with the deep, soft soils of the Mississippi embayment, present unique and challenging problems that require further research before these recommendations can be developed. This research will focus on developing guidelines for conducting nonlinear, effective stress analyses with particular attention given to providing recommendation for: (1) proper dynamic soil properties for typical NMSZ soils, (2) Selecting and scaling ground motion time histories, and (3) appropriate, cheap or freely-available software to conduct the analyses.

**Accomplishments for F.Y. 2012:** Seismic Period records have been collected for the bridge division. The project is scheduled for completion at the end of FY 2012.

**Proposed Activities for F.Y. 2013:** The final report will be completed and monitoring of implementation will began.

Programmed Amount for F.Y. 2012	\$ 40,000
Estimated Expenditures for F.Y. 2012	\$ 6,000
Estimated Cost for F.Y. 2013	\$ 40,000



**PART IV**  
**CTTP ACTIVITIES**

**PART IV  
 CENTER FOR TRAINING TRANSPORTATION PROFESSIONALS  
 (CTTP) ACTIVITIES  
 FISCAL YEAR 2013 BUDGET**

A589	ADMINISTRATION AND COORDINATION	\$100,000
B589	ANNUAL FEE	\$275,000
D589	TRAINING AND CERTIFICATIONS	\$275,000
E589	COURSE DEVELOPMENT	\$150,000
	<b>TOTAL</b>	<b>\$800,000</b>

**Purpose:** The Center for Training Transportation Professionals (CTTP) program at the Mack-Blackwell National Rural Transportation Study Center provides training to qualify and certify technicians for quality control sampling and testing for acceptance as required by the Department’s current Standard Specifications for Highway Construction and ensures laboratory facilities meet minimum capability criteria. The program also provides continuing education as required by the State Board of License for Professional Engineers and Professional Surveyors and other training as may be deemed required by the Department and is agreeable to the Center. Additional courses are being developed for concrete strength, concrete patching, roadway construction control, and lightweight profiler certification.

**PART V**  
**T<sup>2</sup> PROGRAM**

## **PART V**

### **ARKANSAS TECHNOLOGY TRANSFER (T<sup>2</sup>) PROGRAM**

A major function of the Technology Transfer (T<sup>2</sup>) Center is to facilitate training seminars and workshops for local agencies. The T<sup>2</sup> Program focuses on four major areas of training: Safety (worker/workplace/highway), Infrastructure Management, Workforce Development, and Organizational Excellence. These seminars and workshops have primarily been conducted at local sites to reach a larger number of the local agency workforce. Seminars/workshops, which are regularly conducted by the T<sup>2</sup> Center, are as follows:

- Defensive Driving training
- Drug and Alcohol Recognition for Supervisors
- Global Positioning System (GPS) Seminars
- Heavy Equipment Operator Training
- First Aid and CPR Training Workshops
- Asphalt Paving and Compaction Workshops
- Shop Safety and General Equipment Safety Seminar/Workshop
- Soils and Grades Workshop
- Traffic Signal Maintenance Seminar/Workshop
- Work Zone Traffic Safety and Basic Flagging Seminar
- Trenching and Shoring (Competent Person training and Confined Space Entry training)
- Best Management Practices (Erosion Control)
- Short Span Bridge Construction and Maintenance Workshops
- Computer Applications Upgrade Training
- Management Development Certificate Program
- Supervisory Certificate Program
- Traffic Operation Reviews
- Concrete Basics 101
- Pipe Culvert Sizing and Installation Workshop
- Chip Seal Application Seminar/Workshop
- Gravel Road Maintenance and Erosion Control Issues

Site visits for “problem solving” will continue to be part of the program. Required Local Technical Assistance Program (LTAP) tasks will be accomplished. Sources of the total budget will be allocated approximately as follows:

	F.Y. 2013 July 1, 2012 to June 30, 2013
LTAP funds requested	\$ 140,000
Matching funds (SPR)	\$ 176,000
Matching funds (State)	\$ 44,000
<b>TOTAL</b>	<b>\$ 360,000</b>

***Proposed Activities for F.Y. 2013:***

University of Arkansas at Fayetteville activities will include the development of selected courses, as requested and approved by the Department with guidance from the Technology Transfer Advisory Committee. An agreement between University of Arkansas at Fayetteville and the Department is being finalized that allows the Center for Training Transportation Professionals to administer T<sup>2</sup> activities involving the two entities.

Arkansas State University activities may include re-development and update of the Short Span Bridge Design and Maintenance Workshops. Emphasis on resolving repetitive maintenance issues and proper bridge inspection procedures have been completed, but may require upgrade development. The course will be presented again if sufficient requests are received.

The Department's activities will include overall program administration and management, training schedule coordination, and seminar presentation oversight. The contracted presenter seminars/workshops are a part of the AHTD program.

Efforts will continue to involve Historically Black Colleges and Universities (HBCU) like Philander Smith College and the University of Arkansas at Pine Bluff in mutually beneficial projects.

Details are included in the formal T<sup>2</sup> program submittal.

*Funding Summary:*

	<i>F.Y. 2013</i>				<i>July 1, 2012-Dec. 31, 2012*</i>			
	<b>LTAP</b>	<b>SPR MATCH</b>	<b>STATE MATCH</b>	<b>UAF MATCH</b>	<b>LTAP</b>	<b>SPR MATCH</b>	<b>STATE MATCH</b>	<b>UAF MATCH</b>
<b>UAF</b>	\$178,240	\$0	\$0	\$0	\$39,120	\$0	\$0	\$0
<b>AHTD</b>	\$61,760	\$176,000	\$44,000	\$0	\$30,880	\$88,000	\$22,000	\$0
<b>TOTALS</b>	\$140,000	\$176,000	\$44,000	\$0	\$70,000	\$88,000	\$22,000	\$0

\* The T<sup>2</sup> program operates on a calendar year basis. The six-month period from July 1 to December 31, 2012 is included here to allow the implementation of calendar year 2012 contracts. Next year's work program will include this period.

**PART VI**  
**PUBLIC TRANSPORTATION PROGRAMS**

**PART VI**  
**FTA CONSOLIDATED PLANNING WORK PROGRAM**

**SECTION 5303 (STATE FISCAL YEAR 2013 Summary)**  
**FHWA/FTA CONSOLIDATED METROPOLITAN PLANNING PROGRAM**

	FEDERAL	LOCAL/ STATE	TOTAL	FEDERAL SHARE
Central Arkansas Regional Transportation Study	\$ 747,258	\$ 186,815	\$ 934,073	80%
Frontier Metropolitan Planning Organization	\$ 215,796	\$ 53,949	\$ 269,745	80%
Hot Springs Area Metropolitan Planning Organization	\$ 107,005	\$ 26,751	\$ 133,756	80%
Jonesboro Area Transportation Study	\$ 107,005	\$ 26,751	\$ 133,756	80%
Northwest Arkansas Regional Transportation Study	\$ 358,470	\$ 89,618	\$ 448,088	80%
Pine Bluff Area Transportation Study	\$ 121,275	\$ 30,319	\$ 151,594	80%
Texarkana Urban Transportation Study	\$ 48,153	\$ 12,038	\$ 60,191	80%
West Memphis-Marion Area Transportation Study	\$ 78,472	\$ 19,618	\$ 98,090	80%
<b>SUBTOTAL</b>	<b>\$ 1,783,434</b>	<b>\$ 445,859</b>	<b>\$ 2,229,293</b>	

**SECTION 5304 - FTA STATEWIDE PLANNING PROGRAM**

Arkansas State Highway and Transportation Department				
• Program Support and Administration	\$ 48,000	\$ 12,000	\$ 60,000	80%
• Safety & Security/Drug-Alcohol Planning	\$ 16,000	\$ 4,000	\$ 20,000	80%
• Elderly/Disabled/Low Income Service Planning	\$ 20,000	\$ 5,000	\$ 25,000	80%
• Staff Training and Development	\$ 15,566	\$ 3,892	\$ 19,458	80%
<b>SUBTOTAL</b>	<b>\$ 99,566</b>	<b>\$ 24,892</b>	<b>\$ 124,458</b>	
<b>TOTAL PROJECT COSTS</b>	<b>\$1,883,000</b>	<b>\$470,751</b>	<b>\$2,353,751</b>	



## FFY2012 Metropolitan Planning Funds (Federal Funds)

MPO AREA	2000 POPULATION	DISTRIBUTION FACTOR	PL \$	FTA \$	TOTAL
CARTS	360,331	0.419	\$ 548,376	\$ 198,882	\$ 747,258
FMPO	104,198	0.121	\$ 158,362	\$ 57,434	\$ 215,796
HSAMPO	51,763	0.060	\$ 78,526	\$ 28,479	\$ 107,005
JATS	51,804	0.060	\$ 78,526	\$ 28,479	\$ 107,005
NARTS	172,585	0.201	\$ 263,063	\$ 95,407	\$ 358,470
PBATS	58,584	0.068	\$ 88,997	\$ 32,278	\$ 121,275
TUTS	23,521	0.027	\$ 35,337	\$ 12,816	\$ 48,153
WMATS	37,961	0.044	\$ 57,586	\$ 20,885	\$ 78,472
	860,747	1.000	\$1,308,773	\$474,660	\$1,783,434

Note: The Fiscal Year 2012 FHWA PL Allocation was \$1,418,878. An obligation limitation of 92.24% was applied resulting in \$1,308,773 available for programming. The Fiscal Year 2012 FTA PL Allocation includes \$99,255 from the FY 2011 Statewide Transit Planning Program. Funding is estimated off of six months of authorization.

**FTA SECTION 5304  
FTA STATEWIDE PLANNING PROGRAM**

**PROGRAM SUPPORT AND ADMINISTRATION**

***Purpose and Scope:*** To provide general program administration responsibilities which are associated with Federal Transit Administration (FTA) grants.

***Accomplishments for F.Y. 2012:*** General administration of grant activities and processing claims and quarterly reports. MPO TAC meetings and other transit-related activities were attended as necessary to support transportation planning requirements including the development of Transit 2013-2016 STIP. The staff performed all management and oversight activities associated with the American Recovery and Reinvestment Act (ARRA). Approximately 75 percent of the obligated funds have been expended. TranSystems completed a *Statewide Transit Needs Assessment*. A draft of the *Arkansas Statewide Transit Coordination Plan: 2012* was developed.

***Proposed Activities for F.Y. 2013:*** The Department will conduct all grants management activities associated with Sections 5303, 5304, 5307, 5309, 5310, 5311, 5316, and 5317 grant programs (i.e., accounting, coordination, program development, etc.) as may be necessary to complete these grants. The Department may allocate some Transit Statewide Planning Program funds to the MPOs to develop 20-year transportation plans, TIPs, UPWPs and continue the metropolitan transportation planning process. The *Arkansas Statewide Transit Coordination Plan: 2012* will be published. Review and comment on Arkansas' MPOs UPWPs and transit related studies as they are drafted. Oversight and monitoring of the ARRA grant will continue. An Intercity Needs Assessment and an Excess Property Assessment will also be prepared. Staff will continue to monitor and review transit reauthorization legislation.

Programmed Amount for F.Y. 2012	\$60,000
Estimated Expenditure for F.Y. 2012	\$41,000
Estimated Cost for F.Y. 2013	\$60,000

**SAFETY & SECURITY – DRUG-ALCOHOL PLANNING**

***Purpose and Scope:*** The abuse of drugs and alcohol by transit employees poses a potential threat to the overall safety of the transit-dependent public. Control and/or elimination of these substances will result in a safer transit industry, increased productivity, reduced absenteeism, reduced theft, decreased sick leave, fewer worker's compensation claims, and lower medical costs. Safety and Security oversight responsibilities of passenger light rail systems in Arkansas have been delegated to the AHTD, specifically the Public Transportation Programs Section. Duties related to this program will be performed.

**Accomplishments for F.Y. 2012:** Continued coordination and certification efforts with the Arkansas Transit Association who administers the Drug and Alcohol Testing Consortium for all Arkansas-based transit systems. Staff conducted Drug and Alcohol Review at all public transportation agencies. Implemented and monitored the State's Safety and Oversight efforts at the Little Rock/North Little Rock River Rail project. Staff conducted Safety and Security Facilities Inspections at public transportation agencies.

**Proposed Activities for F.Y. 2013:** The Department will continue to work closely with the Arkansas Transit Association and all Arkansas-based transit systems to ensure compliance with FTA drug and alcohol testing regulations and Safety and Security mandates. This will include reviews and inspection at the public transit agencies. Also, the Department will continue to monitor Central Arkansas Transit Authority's River Rail Project to ensure all regulations are met.

Programmed Amount for F.Y. 2012	\$ 20,000
Estimated Expenditure for F.Y. 2012	\$ 15,900
Estimated Cost for F.Y. 2013	\$ 20,000

## **ELDERLY/DISABLED/LOW INCOME SERVICE PLANNING**

**Purpose and Scope:** To promote increased coordination between state agencies and private-nonprofit organizations in providing transportation services to the elderly, disabled, and low income persons in Arkansas.

**Accomplishments for F.Y. 2012:** Developed reporting forms and computer files as per Federal guidelines. Job Access and Reverse Commute and New Freedom projects were monitored and claims were processed. The Department continued the development of the Section 5310 Elderly and Disabled Management Information System (5310 EDMIS). Staff prepared a draft of the *Statewide Transit Coordination Plan: 2012 Update*.

**Proposed Activities for F.Y. 2013:** Continue participation with transportation committees and promote public awareness of transportation opportunities for coordination. Continue development of the 5310 EDMIS and expand to include other administered transit programs. The staff will complete the *Statewide Transit Coordination Plan: 2012 Update*. The staff will update the State Management Plans for the Section 5310, 5311, 5316 and 5317 programs.

Programmed Amount for F.Y. 2012	\$ 25,000
Estimated Expenditure for F.Y. 2012	\$ 18,100
Estimated Cost for F.Y. 2013	\$ 25,000

## STAFF TRAINING AND DEVELOPMENT

***Purpose and Scope:*** To increase the expertise of transit staffs through the exposure of innovative options in transit planning and operations.

***Accomplishments for F.Y. 2012:*** The Department was represented at conferences and meetings, which focused on transportation training, funding, compliance with regulations and development of training programs. This included the FTA Triennial Review Workshop, the Southwest Transit Association (SWTA) Accessibility Seminar, the FTA Transit Bus Safety and Security Orientation Seminar, and ARRA Reporting webinars.

***Proposed Activities for F.Y. 2013:*** Continue participation in training and information sharing workshops and conferences. Complete State Rail Oversight Certification program.

Programmed Amount for F.Y. 2012	\$ 19,069
Estimated Expenditure for F.Y. 2012	\$ 5,000
Estimated Cost for F.Y. 2013	\$ 19,458