



STATE FISCAL YEARS 2025 & 2026

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

ARKANSAS DEPARTMENT OF TRANSPORTATION

Local Programs, Planning, and System Information & Research
Divisions in cooperation with the U.S. Department of
Transportation and the Federal Highway Administration.

FHWA PROJECTS

Y550 Apportionments

Y560 Apportionments

Y570 Apportionments

ARKANSAS DEPARTMENT OF TRANSPORTATION

State Planning and Research (SPR)
Work Program and Cost Estimate
State Fiscal Years 2025 & 2026

for

Federal Apportionments
Y550, Y560, and Y570

Part I
Planning

Part II
Research

Part III
Planning Non-SPR

Part IV
Research Non-SPR

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

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Introduction

This work program has been developed in compliance with United States Code Title 23 and in cooperation with the Federal Highway Administration (FHWA).


The contents of this document are guided by 23 Code of Federal Regulations 420 and describe the proposed planning and research activities of the Arkansas Department of Transportation (Department) for State Fiscal Years 2025 and 2026 (July 1, 2024 through June 30, 2026). It contains Part I, the Planning portion of the State Planning and Research (SPR) Work Program and Cost Estimate and Part II, which describes Research activities.

In general, the goals and objectives of this program describe and implement the type of planning and research that are essential to maintaining and improving the state's transportation system. The system is part of the unified, interconnected National Intermodal Transportation System, in accordance with the policies set forth in the Infrastructure Investment and Jobs Act (IIJA) of 2021 and its preceding congressional transportation authorization acts. 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. Special efforts will be given to develop and implement a performance-based planning and programming process that focuses on supporting transportation system performance outcomes. The Department's planning effort is an ongoing operation, instrumental to the formulation of short- and long-term policies, plans, and procedures to achieve the goals and objectives under each work function.

The final accomplishments and expenditures will be reported in the Annual Performance and Expenditures Reports submitted each October.

Arkansas Department of Transportation
 State Planning and Research Work Program
 State Fiscal Years 2025–2026
 Using Federal Fiscal Year 2024 and Estimated Federal Fiscal Year 2025 Funds

Program	Federal	State Match	100% State	Total
Part I Planning	\$24,210,752	\$5,883,515		\$30,094,267
Estimated SPR Funds (Y550)	23,534,062	5,883,515		29,417,577
Safe and Accessible Transportation Options (Y570)	676,690			676,690
<hr/>				
TPF-5(390) Institute for Trade and Transportation Studies	39,800			39,800
TPF-5(456) Econworks				
Part II Research	\$9,394,400	\$1,858,200		\$11,252,600
Obligated SPR Funds (Y560) for Fiscal Year 2025-2026	7,264,600	1,797,400		9,062,000
Previously Allocated Funds for Fiscal Year 2025	2,129,800	60,800		2,190,600
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NCHRP Contribution	736,989			736,989
TRB Core Program Services	146,655			146,655
AASHTO TSP Technical Services Program**	350,822	2,800		353,622
Transportation Pooled Fund Studies***	663,334			663,334
Local Technical Assistance Program Transfer	232,000	58,000		290,000
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Part III Planning Non - SPR In-house and Contract Activities			\$1,200,000	\$1,200,000
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Part IV Research Non - SPR In-house and Contract Activities			\$570,000	\$570,000
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Part V Other Federal Funds	\$3,628,540	\$907,137		\$4,535,677
<hr/>				
Grand Total	\$37,233,692	\$8,648,852	\$1,770,000	\$47,652,544



 Jessie X. Jones, P.E.
 Assistant Chief Engineer – Planning
 JEM

6/10/24
 Date



 Keli Wylie, P.E.
 Assistant Chief Engineer – Program Delivery
 DW

6/10/2024
 Date



 Jared D. Witley, P.E.
 Chief Engineer – Preconstruction

JUN 11 2024
 Date



 Lorie H. Tudor, P.E.
 Director

6/11/24
 Date

Part I Planning

**Part I Planning
Summary of Participation
Fiscal Years 2025-2026**

Job No.	Work Function	Federal	State/Local Match	Total Estimated Cost
Planning Division Budget 500		8,624,000	2,156,000	10,780,000
000401	GIS and Mapping	1,360,000	340,000	1,700,000
000402	Performance Management	320,000	80,000	400,000
000403	Reference Library and Publications	32,000	8,000	40,000
000404	Travel, Training and Seminars: Budget 500	120,000	30,000	150,000
000405	Legislative Review	32,000	8,000	40,000
000408	Statewide Planning	400,000	100,000	500,000
000409	Travel Demand Modeling	240,000	60,000	300,000
000410	Highway System Planning	1,280,000	320,000	1,600,000
000411	Freight Planning	400,000	100,000	500,000
000414	Air Quality Activities	200,000	50,000	250,000
000415	Local Planning Technical Assistance: Planning	40,000	10,000	50,000
000418	Miscellaneous Planning Support	40,000	10,000	50,000
000419	GIS Data Management	560,000	140,000	700,000
Unknown	General Planning Studies	3,600,000	900,000	4,500,000
System Information & Research Division Budget 530		13,640,000	3,410,000	17,050,000
000469	Travel, Training and Seminars: Budget 530	120,000	30,000	150,000
000473	Data Acquisition/Technology Integration	560,000	140,000	700,000
000474	Traffic Data Analysis	1,280,000	320,000	1,600,000
000475	Automated Traffic Data Collection	1,200,000	300,000	1,500,000
000476	Contract Collection of Turning Movement Counts	160,000	40,000	200,000
000477	Contract Collection of Traffic Volume Counts	1,360,000	340,000	1,700,000
000478	Contract Collection of Vehicle Classification Counts	1,120,000	280,000	1,400,000
000479	Traffic Data Collection	1,040,000	260,000	1,300,000
000480	Asset Management System	640,000	160,000	800,000
000481	Asset Management System Analysis	296,000	74,000	370,000
000482	Data Quality Management Plan (DQMP)	192,000	48,000	240,000
000483	Pavement Structural Testing	640,000	160,000	800,000
000484	Pavement Friction Data Collection Equipment	408,000	102,000	510,000
000485	Nondestructive Subsurface Investigation	444,000	111,000	555,000
00486C	Pavement Data Collection Vehicle: Collection	1,440,000	360,000	1,800,000
00486P	Pavement Data Collection Vehicle: Processing	800,000	200,000	1,000,000
000487	Pavement Management System (PMS)	112,000	28,000	140,000
000488	Pavement Engineering Data Processing	160,000	40,000	200,000
000489	Pavement Engineering Data Analysis	392,000	98,000	490,000
000490	Transportation Asset Management Plan	64,000	16,000	80,000
000491	Multimedial Highway Information System (MMHIS)	220,000	55,000	275,000
000494	Highway Performance Monitoring System (HPMS)	448,000	112,000	560,000
000495	Highway Condition Inventory and Analysis	432,000	108,000	540,000
000496	System Information: Program Coordination	80,000	20,000	100,000
000497	Profilograph Studies	32,000	8,000	40,000
Local Programs Division Budget 590		800,000	200,000	1,000,000
000406	Finance	440,000	110,000	550,000
000413	Cities Over 50,000 Population	320,000	80,000	400,000
000416	Local Planning Technical Assistance: Local Programs	40,000	10,000	50,000
TOTAL PART I PLANNING (Y550)		\$23,064,000	\$5,766,000	\$28,830,000
Safe & Accessible Transportation Options Set-Aside		100% Y570	0% State	Total Budget
000420	Multimodal Planning and Coordination	676,690	0	676,690
TOTAL - PLANNING (Y570)		\$676,690	\$0	\$676,690
Part I SPR Funds Available		Federal	State/Local Match	Total
Z550		171,348	42,837	214,185
Z55E		1,051,575	262,894	1,314,469
Y550		12,411,138	3,102,785	15,513,923
State Fiscal Years 2025-2026 FFY Apportionment		9,900,000	2,475,000	12,375,000
Total Available		\$23,534,062	\$5,883,515	\$29,417,577
Estimated Balance Available for Programming		\$470,062	\$117,515	\$587,577

Planned Equipment Purchases Using SPR Part I Funds

Equipment	Estimated Cost	Project	Page
Workstation for Travel Demand Modeling	Two units (one in FY25 and one in FY 26) at \$11,000 per unit, \$22,000 total	000409	14
Weight-in-Motion Data Collection Equipment	\$20,000 per unit and \$120,000 total	000475	27
AI Traffic Data Collection Cameras	\$ 19,000 per unit and \$100,000 total	000475	27
Radar Traffic Data Collection Equipment	\$ 15,000 per unit and \$60,000 total	000475	27
Portable Traffic Counters	\$900 per unit and \$75,000 total	000479	31
Sur-Pro walking profiler	\$40,000	000482	34
3DGPR van outfitting	\$60,000	000485	37
MIT-DOWEL-SCAN Dowel Bar Scanner	\$80,000	000485	37
Pavement Data Collection Vehicle	\$1,000,000	00486C	38

000401: GIS and Mapping

Purpose and Scope:

To meet the various needs of the Department by providing products and services related to GIS and Mapping. The preparation of GIS data, projects, and maps involves utilizing the latest information available, researching methodologies to ensure that best practices are being used to meet the Department's goals, and keeping up with the latest technologies to ensure that the Department is utilizing the best techniques available.

Products and data associated with GIS and Mapping are available to the general public through the Department's web application gallery (<https://gis.ardot.gov/portal/home>) and the Department's website (www.ardot.gov) as PDF images or web applications. In addition, the GIS and Mapping Section helps to upload and maintain layers on the Department's traveler's information website, www.idrivearkansas.com. Other data requests are fulfilled throughout the year for other state agencies, private firms, and the public via direct requests to the GIS and Mapping Section.

Ongoing Planned Activities and Deliverables:

Staff will update and commercially print up to 300,000 copies of the State Highway Map (Tourist Map); reflect all modifications made to the State Highway System on all statewide, city, and county maps; record minor updates and revisions on all city and county maps as needed; conduct other duties, special projects, and regular maintenance as requested; and continue to create, update, and deploy the mapped layers needed for the IDrive Arkansas website.

80% SPR	20% State Match	Total FY25-26 Budget
\$1,360,000	\$340,000	1,700,000

CONTACT: Sharon Hawkins
Staff GIS and Mapping Administrator
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501-569-2205

000402: Performance Management

Purpose and Scope:

To monitor current and proposed performance measure requirements, identify applicable performance measures, and advise the Department as necessary to ensure compliance. Activities performed under this job include reporting national performance measures and targets to FHWA, developing a Transportation Performance Management (TPM) Program, coordinating TPM activities within the Department and with other stakeholders (including MPOs), providing project programming recommendations based on statewide analyses of highway capacity and reliability, and supporting the incorporation of TPM into the Department's business practices. This job may also be used for staff time towards the development of Transportation Asset Management Plans (TAMP) or TAMP consistency reports.

Ongoing Planned Activities and Deliverables:

Staff will continue to identify, monitor, and report on performance measures and provide guidance to the Department as necessary to ensure compliance with the most current federal requirements. Efforts to develop the Department's TPM Program will continue, including refinement of performance measures, creation and enhancement of performance targets, and target-setting techniques. Assistance will be provided to establish an enterprise data management system for TPM. The Department will participate in and support relevant pooled fund studies and the AASHTO's TPM Technical Services Program. Necessary services for performance data processing and dashboards will be procured or developed. Evaluation and refinement of processes and techniques to link projects to setting and achieving performance (for instance, using Decision Lens) targets will continue. Travel time data for the National Highway System will be secured and analyzed through the Regional Integrated Traffic Information System (RITIS) platform.

80% SPR	20% State Match	Total FY25-26 Budget
\$320,000	\$80,000	\$400,000

CONTACT: Jacqueline Hou, P.E.
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501-569-2985

000403: Reference Material and Publication Documentation

Purpose and Scope:

To provide and maintain reference materials and documentation, including all planning studies and transportation-related subjects, in published or electronic format, for use by the Department and the public. Budget under this job includes participation in professional organizations for access to the most up-to-date technical and policy publications.

Ongoing Planned Activities and Deliverables:

Staff will continue to maintain the planning study library and the Web Application. Additional transportation-related publications and data will be purchased, assembled, and reviewed as needed. Professional articles on transportation issues will be reviewed, and reports will be prepared as necessary.

80% SPR	20% State Match	Total FY25-26 Budget
\$32,000	\$8,000	\$40,000

CONTACT: Jacqueline Hou, P.E.
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501-569-2985

000404: Travel, Training, and Seminars: Planning

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.

Ongoing Planned Activities and Deliverables:

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 travel, and miscellaneous expenses will be tracked.

80% SPR	20% State Match	Total FY25-26 Budget
\$120,000	\$30,000	\$150,000

CONTACT: Travis Brooks, P.E.
Assistant Division Head
travis.brooks@ardot.gov
501-569-2103

000405: Legislative Review

Purpose and Scope:

To provide analyses of impacts on program requirements, implementation, and funding related to state and federal legislative actions and to assist other divisions and sections relative to federal and state legislation and regulations.

Federal and state legislation is closely monitored for changes related to the authorization, apportionment, requirements, allocation of funding, and implementation of national and state transportation programs. Special reports are prepared as requested when the Arkansas State General Assembly is in session.

Ongoing Planned Activities and Deliverables:

State and federal legislative actions will continue to be monitored, particularly in the areas of planning and safety.

80% SPR	20% State Match	Total FY25-26 Budget
\$32,000	\$8,000	\$40,000

CONTACT: Brad McCaleb, P.E.
Division Engineer
brad.mccaleb@ardot.gov
501-569-2201

000406: Finance

Purpose and Scope:

To provide fiscal oversight for the Local Programs Division and coordinate with other divisions to ensure proper management of federal-aid programs.

Ongoing Planned Activities and Deliverables:

Federal and state regulations will continue to be monitored to ensure the proper use of federal funds in support of the Division's programs. The upcoming SPR Work Program and the previous year Performance and Expenditure Report will be developed in compliance with federal requirements and submitted to FHWA. Review and process reimbursements to local government offices and on-call consultants based on contracts with the Department.

80% SPR	20% State Match	Total FY25-26 Budget
\$440,000	\$110,000	\$550,000

CONTACT: Megan Brooks
Local Programs Fiscal Coordinator
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501-569-4976

000408: Statewide Planning

Purpose and Scope:

To provide guidance and coordination between the various planning efforts conducted at the statewide level, including the Statewide Long Range Intermodal Plan, the State Rail Plan, State Transportation Systems Management and Operations (TSMO) Plan, and others; to ensure statewide planning documents are prepared under the most current federal regulations and guidelines; to participate in relevant pooled fund projects and provide necessary training; to research and evaluate innovative financing options for transportation infrastructure. Staff time for statewide freight planning efforts is programmed separately under Job 000411.

Ongoing Planned Activities and Deliverables:

Work will continue related to the implementation of the Statewide Long Range Intermodal Transportation Plan. The Department will continue to act as lead agency for management of EconWorks pooled fund study. The Department has committed to participating in the AASHTO Census Transportation Solutions (formerly Census Transportation Planning Products) Program. Necessary data and web services may be purchased to support statewide planning activities, including, but not limited to, Implan and StreetLight.

FY2025 Planned Activities and Deliverables:

Draft final documents for the State Rail Plan will be delivered and presented to the Administration and the Commission. Planning will begin for the 2025 Arkansas Transportation Planning Conference. Work will continue on the Statewide TSMO Plan. Work will begin on the development of a State Resiliency Improvement Plan. Work may begin on a new Long Range Intermodal Transportation Plan.

FY2026 Planned Activities and Deliverables:

Work will conclude on the State Resiliency Improvement Plan. Work may begin or continue on a new Long Range Intermodal Transportation Plan.

TPF-5(456) Econworks: Improved Economic Insight

80% SPR	20% State Match	Total FY25-26 Budget
\$400,000	\$100,000	\$500,000

CONTACT: Travis Brooks, P.E.
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501-569-2103

000409: Travel Demand Modeling

Purpose and Scope:

To provide travel demand modeling results, census data, and related analyses and information for use in the planning process; to provide support for the development and use of the Arkansas Travel Demand Model (ARTDM); and to provide coordination and support for the development and use of regional travel demand models.

Ongoing Planned Activities and Deliverables:

The ARTDM will be used for the development of statewide plans, economic impact assessments, transportation system feasibility studies, and responses to specific requests. Other agencies will be assisted with modeling activities, model development, and training. Origin-destination, demographic, freight, and socio-economic data may be purchased to assist in planning studies and model development. One or more additional workstations may be purchased for Travel Demand Modeling, as well as one or more additional TransCAD licenses. Funding for a planned ARTDM update is programmed under a separate budget line item.

80% SPR	20% State Match	Total FY25-26 Budget
\$240,000	\$60,000	\$300,000

CONTACT: Ron Fields
Transportation Planner
ronald.fields@ardot.gov
501-569-2984

000410: Highway System Planning

Purpose and Scope:

To identify and evaluate engineering, social, economic, and environmental features of various proposals for use in the Department's decision-making processes. 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. Staff time for coordination and oversight of consultant studies is included in this budget line item.

Ongoing Planned Activities and Deliverables:

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 processes. Activities will continue toward the completion of planning studies that are in progress as well as requested additional studies. It is anticipated that numerous other studies will be initiated during the year based on need. Updated versions of traffic analysis software currently in use will be acquired, and new software products will be evaluated and acquired as needed to support the activities related to planning studies.

80% SPR	20% State Match	Total FY25-26 Budget
\$1,280,000	\$320,000	\$1,600,000

CONTACT: Andrew Warren, P.E., PTOE
Staff Transportation Planning Engineer
andrew.warren@ardot.gov
501-569-2063

000411: Freight Planning

Purpose and Scope:

To support the development and implementation of State freight plans and provide for the optimum use of the State's transportation modes for freight. Additional planning activities focus on providing improved intermodal connections, enhancing shipping choices, and conducting intermodal studies to aid local and regional economic development efforts.

Ongoing Planned Activities and Deliverables:

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. Strategies and actions identified by the State Freight Plan will be implemented. Freight transportation studies in progress will be completed, and new studies will be initiated as requested. Support activities for AASHTO Standing Committees and other special projects will be provided as needed. Coordination with other modal agencies and the State Freight Advisory Committee will continue for freight flow in, around, and through the State. Staff will continue to monitor and support economic development through freight movements. Staff will continue to participate in the ITTS Transportation Pooled Fund Study.

FY25 Planned Activities and Deliverables:

The State Rail Plan Update will be drafted and presented to the Administration and Commission. (Consultant services for updating the State Rail Plan is programmed separately under Job 012401.) Freight data may be purchased under this job in support of freight planning activities and Travel Demand Model development.

FY26 Planned Activities and Deliverables:

Work may begin on the next update of the State Freight Plan. Consultant services will be programmed under a separate Federal-Aid Project Agreement.

TPF-5(390) Institute for Trade and Transportation Studies

80% SPR	20% State Match	Total FY25-26 Budget
\$400,000	\$100,000	\$500,000

CONTACT: Josilyn Mitchell
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501-569-2975

000413: Cities Over 50,000 Population

Purpose and Scope:

To provide a continuing, cooperative, comprehensive (3-C) planning process with the eight Metropolitan Planning Organizations (MPOs) that supports the development of multi-modal transportation systems that provide mobility for people and goods within and through urbanized areas.

Ongoing Planned Activities and Deliverables:

Cooperative efforts will continue among the Department, MPOs, and local agencies to accomplish the objectives of the Metropolitan Planning Process. In developing transportation plans and programs pursuant to 23 USC 134, all planning factors in current law will be considered. Transportation Management Areas will continue to monitor STBGP-attributable and TAP projects to ensure the obligation of funds in a timely manner. 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 a review of environmental justice issues and addressing air quality issues in the WMATS area. The Department will continue sharing information on performance measures and coordinate with the MPOs to establish performance targets. Work programs, annual reports, agreements, and other products necessary to maintain the Metropolitan Area Transportation Planning Process will be developed as appropriate. The UPWPs for each area and the FTA Work Program contain detailed budget items and describe specific goals to be accomplished for each work element by the MPOs. Reimbursement requests will be processed for all MPOs. The Department will coordinate with MPOs on TIP and MTP development and adoption.

80% SPR	20% State Match	Total FY25-26 Budget
\$320,000	\$80,000	\$400,000

CONTACT: Sunny Farmahan
Section Head – Local Support
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501-569-2100

000414: Air Quality Activities

Purpose and Scope:

To coordinate air quality planning statewide. Activities performed under this job include compiling and analyzing data for emissions modeling, coordinating air quality activities with ADEE and relevant MPOs, planning for alternative fuels infrastructure (including electric vehicle infrastructure), participating in the review or development of environmental documentation, and development of carbon reduction strategies.

Ongoing Planned Activities and Deliverables:

Staff will provide coordination and support for air quality planning activities and programs, including those in the urbanized areas and on behalf of 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 ADEE and other entities. Staff training will be pursued as available. Emissions analyses as part of the CMAQ program or in support of other air quality planning activities will be performed as required. Regional and statewide planning for alternative fuels infrastructure (including electric vehicle infrastructure) will continue.

80% SPR	20% State Match	Total FY25-26 Budget
\$200,000	\$50,000	\$250,000

CONTACT: Travis Brooks, P.E.
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501-569-2103

000415: Local Planning Technical Assistance: Planning

Purpose and Scope:

To coordinate, review, and provide technical assistance to local agencies to ensure the linkage between land use, access management, and transportation are maintained.

Ongoing Planned Activities and Deliverables:

Efforts will continue to enhance coordination with local planning agencies in the areas of transportation planning, access management, and traffic engineering.

80% SPR	20% State Match	Total FY25-26 Budget
\$40,000	\$10,000	\$50,000

CONTACT: Travis Brooks, P.E.
Assistant Division Head
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501-569-2103

000416: Local Planning Technical Assistance: Local Programs

Purpose and Scope:

To coordinate, review, and provide technical assistance to local agencies to ensure the linkage between land use, access management, and transportation are maintained.

Ongoing Planned Activities and Deliverables:

Efforts will continue to enhance coordination with local planning agencies in the areas of transportation planning, access management, and traffic engineering.

80% SPR	20% State Match	Total FY25-26 Budget
\$40,000	\$10,000	\$50,000

CONTACT: Sunny Farmahan
Section Head – Local Support
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501-569-2100

000418: Miscellaneous Planning Support

Purpose and Scope:

To provide planning support activities by other Divisions and Districts for environmental and right-of-way reviews and conceptual plan schematic development. These are important functions to ensure proper planning products are being developed.

Ongoing Planned Activities and Deliverables:

This job will continue to be utilized by other Divisions to support the Project Planning and Multimodal Planning Sections.

80% SPR	20% State Match	Total FY25-26 Budget
\$40,000	\$10,000	\$50,000

CONTACT: Andrew Warren, P.E., PTOE
Staff Transportation Planning Engineer
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501-569-2063

000419: GIS Data Management

Purpose and Scope:

To create and maintain geographic enterprise datasets and data documentation for Departmental and public consumption. Enterprise datasets are defined as datasets shared and used widely across the Department. Examples of these datasets include The All Road Network of Linear Referenced Data (ARNOLD), intersection/interchange MIRE FDEs, sign database, ADA Ramp evaluation inventory, data dictionaries, and data catalogs.

Ongoing Planned Activities and Deliverables:

Staff will continue to update, maintain, and publish the ARNOLD dataset with changes as needed; manage the intersection MIRE FDE database; manage the interchange MIRE FDE database; maintain the database for the ADA ramp and sidewalk inventory efforts; develop and maintain official data dictionaries and data catalogs for the various datasets within the section; identify and advance GIS data management and best practices; maintain the oversize/overweight permitting system network; and maintain the sign and speed limit databases. Additional ArcGIS license will be purchased.

80% SPR	20% State Match	Total FY25-26 Budget
\$560,000	\$140,000	\$700,000

CONTACT: Sharon Hawkins
Staff GIS and Mapping Administrator
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501-569-2205

000420: Multimodal Planning and Coordination

Purpose and Scope:

To provide planning and coordination, policy development, project selection and development, education, data collection and analysis, and other related activities supporting the development of non-motorized transportation (including, but not limited to, complete streets planning, consistent with the requirement in Section 11206 of the IJA to use 2.5% of SPR funding for such activities). Activities under this job will be funded by Program Code Y570.

Ongoing Planned Activities and Deliverables:

Complete Streets planning and policy development will continue. Staff will participate in local and regional planning efforts (such as walk/bike audits, special route designations, and review of safety and mobility plans). Efforts to coordinate multimodal accommodations in state highway construction projects will continue. Monitoring bicycle and pedestrian safety strategies from the Strategic Highway Safety Plan will continue. Data supporting multimodal planning and coordination efforts (including, but not limited to, the bicycle and pedestrian module from StreetLight) will be purchased.

100% Y570
\$676,690

CONTACT: Kimberly Sanders
Bicycle and Pedestrian Coordinator
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501-569-2020

000469: Travel, Training, and Seminars: System Information & Research

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.

Ongoing Activities:

Division personnel will make necessary and pertinent in-state and out-of-state trips to attend seminars and meetings. Federal participating funds that are used for these seminars and meetings will be tracked. Training seminars will be done for employees within the Division to enhance knowledge on data collection and operation of equipment. Registration fees, salaries, meals and lodging, the cost of the trip, and miscellaneous expenses will be charged to this line item.

80% SPR	20% State Match	Total FY25-26 Budget
\$120,000	\$30,000	\$150,000

CONTACT: Mark Headley, P.E.
Division Head
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501-569-2946

000473: Data Acquisition/Technology Integration

Purpose and Scope:

To modernize the workflow utilizing technology and support the development of the enterprise data system. This includes preparing the scope of work to integrate Division data for GIS analysis; creating and maintaining databases and projects; researching tools for advanced analytical analysis for multiple large datasets; assisting in the research of best practices and newer technology; developing advanced applications to present data to internal and external customers and assisting with the development of new databases and front-end applications. This also includes assisting other sections in the Division with end-of-year close-out of databases, new database development, and integration of these datasets.

Ongoing Planned Activities and Deliverables:

Build on the development of the Roadway Inventory and Traffic Databases. Research advanced analytical tools for faster processing and data visualization for large datasets. Build front-end tools for easier data entry into the new SQL databases, move advanced QA/QC functions, and a change management system to track manual edits of the database.

80% SPR	20% State Match	Total FY25-26 Budget
\$560,000	\$140,000	\$700,000

CONTACT: Michael Henry, P.E.
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501-569-2111

000474: Traffic Data Analysis

Purpose and Scope:

To analyze the various types of traffic-related data collected on the State's roadway network, including the State Highway System, city streets, and county roads. This includes implementing and maintaining a traffic data management system and analyzing traffic volume counts, vehicle classification counts, video counts, turning movement counts, special counts and surveys, weight data, and other data collection efforts. This project also includes collecting and analyzing the permanent collection site data along with reporting the data to the Federal Highway Administration as required. Additionally, traffic projections are calculated, and load spectra files are generated to support highway and bridge design efforts.

FY25 Planned Activities and Deliverables:

Traffic Information Systems will analyze all 48-hour classification counts throughout the State, including some weekend and holiday samples. All video counts, turning movement counts, and traffic volume counts will be analyzed. Traffic data from the Continuous Count Stations (CCS) stations will be collected, analyzed, and reported. Special traffic counts will be processed. Traffic and load spectra data will be calculated to support the Design Branch Divisions. Traffic count databases and traffic count applications will be updated. A Traffic Data Management System will be implemented. Any station that is determined to be unsafe for collection with standard traffic counters and tubes will be converted to a video count station.

FY26 Planned Activities and Deliverables:

Traffic Information Systems will analyze all types of traffic counts through the Traffic Data Management System. Traffic data from the CCS stations will be collected, analyzed, and reported. Special traffic counts will be processed. Traffic and load spectra data will be calculated to support the Design Branch Divisions. Traffic count databases and traffic count applications will be updated from the Traffic Data Management System. Any station that is determined to be unsafe for collection with standard traffic counters and tubes will be converted to a video count station.

80% SPR	20% State Match	Total FY25-26 Budget
\$1,280,000	\$320,000	\$1,600,000

CONTACT: Alan Nguyen
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501-569-2976

000475: Automated Traffic Data Collection

Purpose and Scope:

To collect vehicle volume, weight, speed, and classification traffic data at permanent, site-specific locations. The types of Automated Traffic Data Collection sites are Smart Sensor radar detectors, AI enabled cameras, Volume-only, Automatic Vehicle Classifier (AVC), and Weigh-in-Motion (WIM). The AVC sites collect volume and classification data, and the WIM sites collect volume, classification, and weight data. The scope of activities includes the purchase of testing equipment, piezoelectric sensors, and other equipment deemed necessary to support the collection of data, repair of equipment and the installation of monitoring stations, upgrade of existing stations, and replacement of obsolete and non-functional equipment. Currently, there are a total of 53 automatic data collection sites around the State. Of these, nine are non-operational due to construction. Three are smart sensor sites; 6 are volume-only sites; 6 are AVC sites; 1 AI enabled camera test site; and 28 are WIM sites.

Ongoing Planned Activities and Deliverables:

Automatic data collection sites will be maintained and repaired as needed. The Recorder Shop will maintain all records of repairs to data collection devices as well as items necessary for the repair and installation of permanent data collection sites. WIM sites will be evaluated for sampling adequacy. New locations for data collection will be selected as required. These activities are in addition to the normal maintenance and repair of existing sites. New radar, AI cameras and WIM hardware will be purchased to replace older equipment.

80% SPR	20% State Match	Total FY25-26 Budget
\$1,200,000	\$300,000	\$1,500,000

CONTACT: Alan Nguyen
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501-569-2976

000476: Contract Collection of Turning Movement Counts

Purpose and Scope:

To collect turning movement counts using contract forces. Video cameras are utilized to collect 24 hours of data for all movements.

Ongoing Planned Activities and Deliverables:

The consultant will collect turning movement counts as requested from other divisions and sections.

80% SPR	20% State Match	Total FY25-26 Budget
\$160,000	\$40,000	\$200,000

CONTACT: Alan Nguyen
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501-569-2976

000477: Contract Collection of Traffic Volume Counts

Purpose and Scope:

To collect 48-hour traffic volume counts statewide using contract forces. Both annual and special counts will be performed.

Ongoing Planned Activities and Deliverables:

Collect traffic volume counts.

80% SPR	20% State Match	Total FY25-26 Budget
\$1,360,000	\$340,000	\$1,700,000

CONTACT: Alan Nguyen
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501-569-2976

000478: Contract Collection of Vehicle Classification Counts

Purpose and Scope:

To provide contract collection of 48-hour vehicle classification counts and 48-hour video counts. These counts include multi-lane, undivided State Highways, many high-volume multi-lane HPMS sample segments within urban areas, and certain Interstate and freeway counts with significantly high volumes and truck traffic. The contractor will perform the counts supporting all ongoing urban transportation studies and HPMS segment locations.

Ongoing Planned Activities and Deliverables:

Collect classification counts either by tubes or video classification in urban, high speed, or high-volume locations.

80% SPR	20% State Match	Total FY25-26 Budget
\$1,120,000	\$280,000	\$1,400,000

CONTACT: Alan Nguyen
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000479: Traffic Data Collection

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.

Ongoing Planned Activities and Deliverables:

Traffic Information Systems will conduct 48-hour machine classification counts, including some weekend and holiday samples. Speed data will be collected at all classification sites. Special counts will be performed as requested.

80% SPR	20% State Match	Total FY25-26 Budget
\$1,040,000	\$260,000	\$1,300,000

CONTACT: Alan Nguyen
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501-569-2976

000480: Asset Management System

Purpose and Scope:

To provide for all charges accruing to the Asset Management Program within the Department. It may include charges for data reduction, organization, and presentation, associated transportation costs, travel and subsistence, materials, supplies and services, contracts, salaries, equipment and/or rental fees, and all other charges necessary and pertinent to the proper function of the Asset Management Program. The Asset Management System (AMS) is responsible for the coordination of activities required to achieve the highest quality pavements, bridges, and other assets throughout the state at the lowest feasible cost. The AMS will coordinate the collection and reporting of assets throughout the Department to ensure the requirements of MAP-21 and the FAST Act are met. The legislation requires that all states report the condition of their pavement and bridge assets on the enhanced National Highway System (NHS). MAP-21 established the requirement that states maintain their assets in a state of good repair. These assets may or may not be located within the right-of-way of the State Highway System.

Ongoing Planned Activities and Deliverables:

The parameters used in dTIMS to perform pavement and bridge data analyses will continue to be refined and adjusted for the Arkansas system. Further pavement data collection by the vendor will provide pavement performance data and imagery on the NHS and various APHN routes.

80% SPR	20% State Match	Total FY25-26 Budget
\$640,000	\$160,000	\$800,000

CONTACT: Bryan Signorelli, P.E.
Staff Asset Management Engineer
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501-569-2435

000481: Asset Management System Analysis

Purpose and Scope:

To provide system-level pavement condition information and system-level forecasts on future trends. This job does not cover project-level analyses. This includes any use of software packages that provide system projections (such as dTIMS) and any by hand analysis of the system as a whole.

Ongoing Planned Activities and Deliverables:

System performance will be further modeled and loaded into the Pavement Management System (PMS) database. Analysis settings, methodologies, and scenarios will be further refined and corrected. Updated deterioration curves created by a contractor will be implemented in PMS software. Further progress will be made to run PMS software without major contractor assistance.

80% SPR	20% State Match	Total FY25-26 Budget
\$296,000	\$74,000	\$370,000

CONTACT: Robert Kacir
Senior Asset Management and Pavement Data Analyst
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501-569-2234

000482: Data Quality Management Plan (DQMP)

Purpose and Scope:

To implement the Department's Pavement Performance Data Quality Management Program (DQMP) in compliance with Federal Highway Administration's requirements (23 CFR 490.319). This activity will involve creating and implementing data collection, processing, and reporting standards and protocols. These protocols are expected to lead to better compliance with data standards, improved completeness, accuracy, consistency of data, and increased data credibility within the Department. This line item will provide for all charges accruing to the DQMP. This project may include charges for data collection, data reduction, organization and presentation, travel subsistence, materials, supplies and services, contracts, salaries, equipment and/or rental fees, and all other necessary activities pertinent to the proper function of the DQMP.

Ongoing Planned Activities and Deliverables:

Continue to develop the necessary protocols, control sites, and in-house training for distress raters, equipment operators, data processors, and data analysts as required to implement the DQMP. Existing control sites will be reestablished by manually measuring and collecting data such as IRI, rutting, faulting, and various pavement distresses. Control and verification site data will continue to be collected and analyzed to ensure PDCV systems are accurate and precise on a weekly basis. Implement SQL scripts across large-scale production databases in order to identify any potential erroneous sensor data that may warrant investigating.

A walking profiler will be purchased to collect ground truth data on control sites.

80% SPR	20% State Match	Total FY25-26 Budget
\$192,000	\$48,000	\$240,000

CONTACT: Keith Ross
System Information Supervisor
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501-569-2602

000483: Pavement Structural Testing

Purpose and Scope:

To collect and provide structural qualities of the pavement for analysis purposes. A falling weight deflectometer (FWD) is specialized equipment used to perform non-destructive dynamic testing, which simulates traffic by applying a load to the pavement surface and providing deflection values of the pavement, imparting structural information on the remaining life, suggested overlay thickness, and resilient modulus. FWD testing can provide the variables for determining the effective static k-values, joint load transfer efficiency, and void detection in the pavement structure. FWD data will be collected on pavements based on specific job requests ranging from pre-construction sites, weight-restricted roads, research projects, and pavement monitoring.

Ongoing Planned Activities and Deliverables:

Deflection data will be collected as requested for construction jobs and will continue to be collected for research projects, weight-restricted routes, and Fayetteville Shale routes for monitoring purposes. The Department will also collect deflection data on proposed State Transportation Improvement Plan (STIP) jobs. It is anticipated that the FWDs will resume the alternating year schedule with respect to destinations for calibration and preventative maintenance. A statewide FWD analysis is currently underway to evaluate the removal of weight-restricted routes.

80% SPR	20% State Match	Total FY25-26 Budget
\$640,000	\$160,000	\$800,000

CONTACT: Seth Louviere, P.E.
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501-569-2004

000484: Pavement Friction Data Collection Equipment

Purpose and Scope:

To provide the Department with information regarding the skid resistance of pavement surfaces around the state. The Pavement Friction Tester (PFT) will provide skid number (SN) data from the National Highway System (NHS), state-maintained routes, and special projects to monitor pavement performance and subsequently maintain a database of historical records. The Dynamic Friction Tester (DFT) and the Circular Track Meter (CTM) will be utilized where the PFT cannot safely collect the needed information. The SN data will allow the Department to proactively identify friction problems in pavements through early detection of weathering and/or accelerated pavement deterioration. The PFT lends itself to accident site investigation and the determination of International Friction Index (IFI) values when coupled with additional devices for measuring macrotexture. Currently, one PFT, one DFT, and one CTM are used to measure skid resistance.

Ongoing Planned Activities and Deliverables:

Statewide pavement friction data collection will continue, as well as requests for specific locations. The DFT and CTM will continue to be utilized for friction data collection where the geometry of the highway prevents collection using the PFT. The collected data will be processed, loaded into a statewide database, and mapped for internal use.

80% SPR	20% State Match	Total FY25-26 Budget
\$408,000	\$102,000	\$510,000

CONTACT: Seth Louviere, P.E.
Advanced Asset & Pavement Engineer
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501-569-2004

000485: Nondestructive Subsurface Investigation

Purpose and Scope:

To collect nondestructive subsurface data for pavement structure and other underground structures analyses. Ground Penetrating Radar (GPR) is a nondestructive evaluation tool that scans the subsurface using radio waves. The Department's two GPR units, the air-coupled antennas, and the ground-coupled antennas, are maintained and operated by the Asset Management Section. The air-coupled antennas probe pavement layers at highway speeds using antennas mounted in front of the vehicle. The information from these antennas is used to determine the thickness of pavement layers and to detect underground utilities and voids in the pavement structure. This information is essential for other structural analyses, such as Falling Weight Deflectometer (FWD) analysis. To better calibrate pavement layer thickness data obtained by the GPR equipment, efficient and judicious use of core data is utilized. Coring data is obtained via Department-owned coring machines operated by Department personnel and charged to this project number. Both air-coupled and ground-coupled antennas provide continuous coverage of the subsurface structure. The ground-coupled radar is primarily used to detect underground utilities and voids in the right of way, determine the thickness of concrete cover and the overall thickness of bridge decks, investigate the alignment of dowel bars, and determine core locations for concrete and HMA structures. This line item will provide for all charges accruing to nondestructive subsurface investigations. This project may include charges for data collection, data reduction, organization and presentation, travel subsistence, materials, supplies and services, contracts, salaries, equipment and/or rental fees, and all other necessary activities to implement nondestructive subsurface investigations properly.

Ongoing Planned Activities and Deliverables:

A 3DGPR system was purchased in late FY24 and this unit will be integrated into a vehicle in early FY25. Potential statewide network-level collection will be possible once this 3DGPR system is fully implemented. Data collection to support FWD analysis will continue. Coring samples will continue to be taken as needed to verify GPR data.

A dowelbar/rebar locator will be purchased.

A ground-coupled antenna will be evaluated for purchase.

80% SPR	20% State Match	Total FY25-26 Budget
\$444,000	\$111,000	\$555,000

CONTACT: Seth Louviere, P.E.
Advanced Asset & Pavement Engineer
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501-569-2004

00486C: Pavement Data Collection Vehicle: Collection

Purpose and Scope:

To collect pavement performance data, including, but not limited to, roughness, rutting, cracking, curve, grade, and geographic location. In addition to the performance data, the pavement data collection vehicle (PDCV) also collects right-of-way imagery. A 3D pavement imaging system provides high-definition 3D imagery of the pavement surface that can be processed into pavement, range, and intensity images, with the range image providing a depth (3D) component that allows enhanced pavement cracking detection. This project may include charges for data collection, data reduction, organization and presentation, travel subsistence, materials, supplies and services, contracts, salaries, equipment and/or rental fees, and all other necessary activities pertinent to the proper function of the pavement data collection vehicle.

Ongoing Planned Activities and Deliverables:

Data collection efforts are anticipated to include the Interstate, other APHN routes, and as much of the remaining system as possible. All pavement data collection vehicle software, equipment maintenance, and insurance premiums are charged to this project. A pavement data collection contract will be executed in FY25.

The purchase of a new pavement data collection vehicle is planned.

80% SPR	20% State Match	Total FY25-26 Budget
\$1,440,000	\$360,000	\$1,800,000

CONTACT: Christopher L. Davis
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00486P: Pavement Data Collection Vehicle: Processing

Purpose and Scope:

To process pavement performance data, including, but not limited to, roughness, rutting, cracking, curve, grade, and geographic location. In addition to the performance data, the pavement data collection vehicle also collects right-of-way imagery. A 3D pavement imaging system provides high-definition 3D imagery of the pavement surface that can be processed into pavement, range, and intensity images, with the range image providing a depth (3D) component that allows enhanced pavement cracking detection. Pavement performance data is processed and imported into the Pavement Management System. The data is also provided to the Department ad-hoc and through the Multimedia-based Highway Information System (MMHIS). This project may include charges for data reduction, data processing, organization and presentation, travel subsistence, materials, supplies and services, contracts, salaries, equipment and/or rental fees, and all other necessary activities pertinent to the processing of the collected pavement data.

Ongoing Planned Activities and Deliverables:

Data processing efforts are anticipated to include the Interstate, other APHN routes, and as much of the remaining system as possible. All pavement data processing software and equipment are charged to this project.

80% SPR	20% State Match	Total FY25-26 Budget
\$800,000	\$200,000	\$1,000,000

CONTACT: Keith Ross
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501-569-2602

000487: Pavement Management System

Purpose and Scope:

To maintain a Pavement Management System (PMS) for state highways in a systematic process that provides, analyzes, and summarizes information for use in selecting, scoping, and implementing cost-effective pavement preservation and construction, rehabilitation, and maintenance programs. The PMS functions include but are not limited to database development, pavement evaluations, the establishment of preferable maintenance treatment strategies, and the identification of projects for consideration in developing statewide transportation plans and improvement programs.

Ongoing Planned Activities and Deliverables:

The pavement data collection process will continue with the data incorporated into the PMS database for use in the dTIMS asset management software. Work will continue enhancing pavement deterioration curves for use in dTIMS to allow more reliable analyses of the highway system. The QC/QA procedures incorporated in the processing software will continue to be developed and implemented to ensure the quality and accuracy of pavement data collection vehicle-provided distress data. This data will be used to establish pavement cracking indices in combination with IRI and rutting data to develop a pavement condition index. The PMS database will be used to provide the necessary data for the HPMS. Interstate performance data provided through the Pavement Performance and Imagery Data Collection contract will be checked for quality acceptance, consistency, and reasonableness and provided for the HPMS. All data used to fulfill the federal pavement performance requirements will be reported through the HPMS. Asset Management personnel will continue to assist the Department with the Preventive Maintenance Plan (PMP), including the IRI, rutting, and cracking data, along with assistance in selecting the location of preventive maintenance treatments. Support for research projects administered by the Research Section and state universities will be provided as required.

80% SPR	20% State Match	Total FY25-26 Budget
\$112,000	\$28,000	\$140,000

CONTACT: James Fountain IV
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501-569-4954

000488: Pavement Engineering Data Processing

Purpose and Scope:

To assemble and collate all data collected for the Asset Management System (AMS) and to apply quality assurance measures to that data. This includes but is not limited to FWD, GPR, and PFT data. This project is limited to the typical processing of information and does not cover any data analysis.

Ongoing Planned Activities and Deliverables:

Data from FWD, GPR, and PFT will continue to be uploaded to the Department's servers and processed. Data-driven quality-control measures, process flows, and tools will continue to be developed to ensure high-quality data elements. Data-relative databases will continue to be expanded to house various processed data types collected by both the Section and external vendors; it will also be used to augment quality control and data analysis and facilitate upgrades to tools such as the MMHIS.

80% SPR	20% State Match	Total FY25-26 Budget
\$160,000	\$40,000	\$200,000

CONTACT: Keith Ross
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501-569-2602

000489: Pavement Engineering Data Analysis

Purpose and Scope:

To analyze the various types of data collected on the National Highway System (NHS), state-maintained routes, and through special projects. Evaluating the collected data provides pavement surface and structural properties, including pavement texture properties, right-of-way imagery, cracking, pavement profile properties, pavement structural properties, sub-surface properties, and pavement friction characteristics. According to MAP-21, the Department is required to report International Roughness Index (IRI), rutting, faulting, and cracking for asphalt and concrete pavements.

Ongoing Planned Activities and Deliverables:

The Pavement Engineering Data Analysis group within the Section will analyze network-level data through the operation of the PDCV, FWD, GPR, and PFT equipment. Data will also be analyzed as needed for project-level jobs such as Interstate Rehabilitation, STIP, state aid jobs, weight-restricted routes, active poultry industry routes, Fayetteville Shale routes, and research projects. This data is expected to provide a more current representation of the pavement condition throughout the state. The GPR data from weight-restricted routes and the network-level GPR data will continue to be analyzed.

80% SPR	20% State Match	Total FY25-26 Budget
\$392,000	\$98,000	\$490,000

CONTACT: Bryan Signorelli, P.E.
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501-569-2435

000490: Transportation Asset Management Plan

Purpose and Scope:

To develop and implement the Department's TAMP in compliance with the Federal Highway Administration's requirements (23 CFR Part 515). This activity will involve compiling all required pavement-related data and modeling required for the TAMP. This project will provide for all charges accruing to the TAMP from the Asset Management section. It may include charges for data reduction, organization and presentation, travel subsistence, materials, supplies and services, contracts, salaries, equipment and/or rental fees, and all other necessary activities pertinent to the proper function of the TAMP.

Ongoing Planned Activities and Deliverables:

Submit required data for the annual implementation documentation.

80% SPR	20% State Match	Total FY25-26 Budget
\$64,000	\$16,000	\$80,000

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000491: Multimedia-Based Highway Information System

Purpose and Scope:

The Multimedia-based Highway Information System (MMHIS) is designed to provide the Department's users with highway imagery collected by the PDCV and data from various Department databases. The data is synchronized with the imagery, and MMHIS is made accessible to all users who are connected to the Department's computer network. 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.

Ongoing Planned Activities and Deliverables:

Make enhancements to the new MMHIS application and continue to use the program to process the data from the PDCV.

80% SPR	20% State Match	Total FY25-26 Budget
\$220,000	\$55,000	\$275,000

CONTACT: Jack Koba
System Information Analyst
jack.koba@ardot.gov
501-569-2621

000494: Highway Performance Monitoring System (HPMS)

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 the 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 project 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 the functional system and rural, small urban and urbanized areas.

Ongoing Planned Activities and Deliverables:

Software applications will be developed to aid in quality control and analysis of the HPMS data prior to submittal. Field reviews of sample sections will be continued, and sample adequacy will be maintained. Preparations will be made to ready the Department's data sources for inclusion in the upcoming HPMS reassessment that will allow data from the HPMS to be used to evaluate the state of the NHS according to the MAP-21 data reporting requirements and the Department's TAMP. Additional field data collection will be performed as needed. Coordination will be provided, as needed, to staff using traffic data during the implementation process for the Traffic Database Management System Software.

80% SPR	20% State Match	Total FY25-26 Budget
\$448,000	\$112,000	\$560,000

CONTACT: Michael Henry, P.E.
Staff Traffic Information System Engineer
michael.henry@ardot.gov
501-569-2111

000495: Highway 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 users' needs. A database will be maintained for information pertaining to the individual roadway's footprint and design. The scope of the inventory encompasses gathering and compiling information used in the need's evaluation process for each highway section. The inventory will be used to update and maintain the Department's highway road log.

Ongoing Planned Activities and Deliverables:

Development of a new roadway inventory database designed with a modular concept that will work in conjunction with the Department's pavement data collection vehicle, and the new ARNOLD and asset management efforts will continue. Develop tools to aid in the updating of the database. Continue research and development of GPS-enabled tablets for field data collection and reporting. Additional enhancements will be made to current quality control and analysis.

80% SPR	20% State Match	Total FY25-26 Budget
\$432,000	\$108,000	\$540,000

CONTACT: Michael Henry, P.E.
Staff Traffic Information System Engineer
michael.henry@ardot.gov
501-569-2111

000496: System Information: Program Coordination

Purpose and Scope:

To provide administrative support for work activities related to System Information, including administrative maintenance and reporting of the National Highway System (NHS), Functional Classification, and U.S. Route Numbering. Additional activities involve initiating changes to the State Highway System through the Highway System Change Minute Order process, administrative maintenance, and the Arkansas Primary Highway Network (APHN) analysis.

Ongoing Planned Activities and Deliverables:

Provide administrative support and analysis of the APHN and publish annual reports and maps. Provide administrative support for the Highway System Change Minute Order through the U.S. Route application process with AASHTO. Continue cross-training programs to aid in staff development for the System Information Group and updates to the off-system inventory to ensure ARNOLD compatibility.

80% SPR	20% State Match	Total FY25-26 Budget
\$80,000	\$20,000	\$100,000

CONTACT: Michael Henry, P.E.
Staff Traffic Information System Engineer
michael.henry@ardot.gov
501-569-2111

000497: Profilograph Studies

Purpose and Scope:

To provide the Department with the collection and analysis of pavement smoothness data. This project includes funding for refurbishing, recalibrating, and replacing the profilograph if needed. This project includes training, purchasing equipment, travel, and other necessary expenditures incurred in support of the Design and Construction Divisions, Districts, and the Research Program.

Ongoing Planned Activities and Deliverables:

Special Provision jobs for the state will be done, and all equipment currently owned for Profilograph Studies will continue to be utilized. More specifically, the Department's high-speed profilograph vehicle will be used to verify contractors' IRI and Profile Index data of construction projects requiring special provisions. The high-speed profilograph vehicle will also be utilized in determining ride quality for other types of projects and requests. For small-scale projects, the Department's walking profiler will be used to determine IRI values for control sites as required by the DQMP. Also, in accordance with policy additions pertaining to Construction Division, the high-speed profiler will be used in certifying quality control personnel with the Department.

80% SPR	20% State Match	Total FY25-26 Budget
\$32,000	\$8,000	\$40,000

CONTACT: Keith Ross
System Information Supervisor
keith.ross@ardot.gov
501-569-2602

012353: Arkansas Railroad State Action Plan

Purpose and Scope:

To develop the State highway-rail grade crossing action plan (SAP) in accordance with the Federal Railroad Administration (FRA) requirements and guidance. Consultant services will be utilized to complete this plan.

FY25 Planned Activities and Deliverables:

Submit to FRA for review and comment. Present final documents to leadership for adoption. Close out.

80% SPR	20% State Match	Total FY25-26 Budget
\$18,529	\$4,632	\$23,161

CONTACT: Josilyn Mitchell
Advanced Transportation Planning Engineer
josilyn.mitchell@ardot.gov
501-569-2975

*Funding was obligated in a previous fiscal year.

012360: ADA Transition Plan Update

Purpose and Scope:

To collect data and document conditions of curb ramps and sidewalks consistent with the requirements of the Americans with Disabilities Act (ADA). To update the ADA Transition Plan. Consultant services will be utilized to complete the Plan.

FY25 Planned Activities and Deliverables:

Planned milestones for FY25 include project kickoff, monthly meetings, coordination with the ADA Committee, and development of ADA Transition Plan for FHWA review and approval.

80% SPR	20% State Match	Total FY25-26 Budget
\$115,855	\$28,964	\$144,819

CONTACT: Sharon Hawkins
Staff GIS and Mapping Administrator
sharon.hawkins@ardot.gov
501-569-2205

*Funding was obligated in a previous fiscal year.

012370: Transportation Systems Management and Operations (TMSO) Plan

Purpose and Scope:

To develop statewide and regional plans that identify strategic, programmatic, and tactical requirements for optimizing the performance of the existing transportation system and integrating planning and design with maintenance and operations. Consultant services will be utilized to develop this plan.

FY25 Planned Activities and Deliverables:

Development of the TSMO Plan will continue, including strategic, programmatic, and tactical elements. Draft final documents will be presented to Administration for review and subsequently to the Commission for adoption. Work may begin on an update to the State ITS Architecture or TSMO implementation plans.

FY26 Planned Activities and Deliverables:

Work may continue on Statewide ITS Architecture or TSMO implementation plans.

80% SPR	20% State Match	Total FY25-26 Budget
\$170,362	\$42,591	\$212,953

CONTACT: Jacqueline Hou, P.E.
Senior Transportation Planning Engineer
jacqueline.hou@ardot.gov
501-569-2985

*Funding was obligated in a previous fiscal year.

012401: Arkansas State Freight and Rail Plans Update

Purpose and Scope:

To update the Arkansas State Freight Plan and Arkansas State Rail Plan, consistent with current statutory and regulatory requirements. Consultant services will be utilized to update these plans.

FY25 Planned Activities and Deliverables:

Stakeholder engagement activities will continue, and final deliverables will be completed for the State Rail Plan. The updated State Rail Plan will be presented to the Administration for review and subsequently to the Commission for adoption. The State Freight Plan update has been completed.

FY26 Planned Activities and Deliverables:

80% SPR	20% State Match	Total FY25-26 Budget
\$63,069	\$15,767	\$78,836

CONTACT: Josilyn Mitchell
Advanced Transportation Planning Engineer
josilyn.mitchell@ardot.gov
501-569-2975

*Funding was obligated in a previous fiscal year.

012456: Complete Streets Plan Development

Purpose and Scope:

To develop Complete Streets standards, policies, and plans consistent with the requirements of Section 11206 of the IIJA. Consultant services will be utilized for this effort.

FY25 Planned Activities and Deliverables:

Conduct stakeholder engagement activities. Prepare draft and final Complete Streets Policy. Submit Complete Streets Policy to leadership for review. Work may begin on Complete Streets prioritization plan development.

FY26 Planned Activities and Deliverables:

Work may continue on Complete Streets plan prioritization development.

100% SPR	0% State Match	Total FY25-26 Budget
\$68,001	\$0	\$68,001

CONTACT: Kimberly Sanders
Bicycle and Pedestrian Coordinator
kim.sanders@ardot.gov
501-569-2020

*Funding was obligated in a previous fiscal year.

012478: Traffic Management Plan for Solar Eclipse (S)

Purpose and Scope:

To develop a Traffic Management Plan (TMP) for the April 8, 2024, solar eclipse. The TMP will include all considerations needed to proactively manage traffic before, during and after the eclipse and to perform after action review. Consultant services will be utilized to develop this plan.

FY25 Planned Activities and Deliverables:

The after-action review will be completed, and the project will be closed out.

80% SPR	20% State Match	Total FY25-26 Budget
\$16,276	\$4,069	\$20,345

CONTACT: Andrew Warren, P.E., PTOE
Staff Transportation Planning Engineer
andrew.warren@ardot.gov
501-569-2063

012487: Highway 412 Future Interstate Study

Purpose and Scope:

To conduct preliminary engineering and develop a Planning and Environmental Linkages (PEL) document for a future Interstate Highway following Highway 412 from Interstate 35 in Noble County, Oklahoma, to Interstate 49 in Benton County, Arkansas. Consultant services will be utilized to perform this work.

FY25 Planned Activities and Deliverables:

Preliminary engineering, stakeholder involvement, and PEL documentation will be completed, and the project will be closed out.

80% SPR	20% State Match	Total FY25-26 Budget
\$677,582	\$169,396	\$846,978

CONTACT: Andrew Warren, P.E., PTOE
Staff Transportation Planning Engineer
andrew.warren@ardot.gov
501-569-2063

*Funding was obligated in a previous fiscal year.

012522: Corridor Planning Study Updates (S)

Purpose and Scope:

To update unfinished corridor planning studies to support project selection and project scoping. Consultant services will be utilized to perform this work.

FY25 Planned Activities and Deliverables:

The first Task Order issued under this job will be scoped to update a study of the Highway 70 interchange in Hot Springs (a component of the larger Highway 270 Interchanges Study). Subsequent Task Orders or Supplementals will be issued and have been budgeted for under Unknown: General Planning Studies.

FY26 Planned Activities and Deliverables:

Task Orders to update other corridor planning studies will be issued and have been budgeted for under Unknown: General Planning Studies.

80% SPR	20% State Match	Total FY25-26 Budget
\$104,000	\$26,000	\$130,000

CONTACT: Andrew Warren, P.E., PTOE
Staff Transportation Planning Engineer
andrew.warren@ardot.gov
501-569-2063

012XXX: Arkansas Travel Demand Model Update

Purpose and Scope:

To update the Arkansas Statewide Travel Demand Model (ARTDM), which is used for forecasting changes in travel patterns over time, forecasting changes in travel patterns as a result of highway improvements or loss of highway assets, and estimating system performance. The last update to the ARTDM was completed in 2015. This project would update socioeconomic and traffic data, redesign the user interface and model architecture to streamline coding and reduce runtime, and improve model functionality. Consultant services will be utilized to perform this work.

FY25 Planned Activities and Deliverables:

Milestone activities are expected to include project kickoff, stakeholder coordination, data development, and model development. Socioeconomic, freight, or other data may be purchased.

FY26 Planned Activities and Deliverables:

Model development will continue, including calibration and validation leading to model acceptance. Additional stakeholder engagement may be performed. Model documentation will be developed. Close out.

80% SPR	20% State Match	Total FY25-26 Budget
\$800,000	\$200,000	\$1,000,000

CONTACT: Ron Fields
Transportation Planner
ronald.fields@ardot.gov
501-569-2984

040851: Highway 64 Study

Purpose and Scope:

To determine the need and feasibility for connectivity improvements to Highway 64 in and around downtown Fort Smith, including the feasibility of constructing a new river crossing north or south of the existing bridge.

FY25 Planned Activities and Deliverables:

Complete study documentation, including the Executive Summary and the full report. Study documentation will be finalized and presented to leadership and the Highway Commission for adoption. Close out.

80% SPR	20% State Match	Total FY25-26 Budget
\$13,300	\$3,325	\$16,625

CONTACT: Christopher Dillaha
Transportation Planner
christopher.dillaha@ardot.gov
501-569-2603

*Funding was obligated in a previous fiscal year.

050495: Central Searcy Mobility Study (S)

Purpose and Scope:

To conduct a study of travel conditions in an around central Searcy, and to identify alternatives to address any deficiencies. Consultant services will be utilized to perform this work.

FY25 Planned Activities and Deliverables:

Major milestones and continuing activities for FY25 will include project kickoff, data collection, stakeholder engagement, purpose and need development, traffic forecasting, and analysis of alternatives. Study documentation will be developed as major tasks are completed.

FY26 Planned Activities and Deliverables:

Public engagement will be completed. Study documentation will be finalized and presented to leadership and the Highway Commission for adoption. Close out.

80% SPR	20% State Match	Total FY25-26 Budget
\$334,224	\$83,556	\$417,780

CONTACT: Christopher Dillaha
Transportation Planner
christopher.dillaha@ardot.gov
501-569-2603

*Funding was obligated in a previous fiscal year.

070600: Magnolia Bypass Study

Purpose and Scope:

To determine the need for a feasibility of a Magnolia bypass. Consultant services will be utilized to perform this work.

FY25 Planned Activities and Deliverables:

Major milestones and continuing activities for FY25 will include project kickoff, data collection, stakeholder engagement, purpose and need development, traffic forecasting, and analysis of alternatives. Study documentation will be developed as major tasks are completed.

FY26 Planned Activities and Deliverables:

Public engagement will be completed. Study documentation will be finalized and presented to leadership and the Highway Commission for adoption. Close out.

80% SPR	20% State Match	Total FY25-26 Budget
\$240,000	\$60,000	\$300,000

CONTACT: Andrew Warren, P.E., PTOE
Staff Transportation Planning Engineer
andrew.warren@ardot.gov
501-569-2063

080XXX: Highway 107 Study (Vilonia)

Purpose and Scope:

To determine the need for and feasibility of improvements to Highway 107 from Highway 64 to Highway 64B in Vilonia. Consultant services will be utilized to perform this work.

FY25 Planned Activities and Deliverables:

Major milestones and continuing activities for FY25 will include project kickoff, data collection, stakeholder engagement, purpose and need development, traffic forecasting, and analysis of alternatives. Study documentation will be developed as major tasks are completed. Close out.

80% SPR	20% State Match	Total FY25-26 Budget
\$80,000	\$20,000	\$100,000

CONTACT: Andrew Warren, P.E., PTOE
Staff Transportation Planning Engineer
andrew.warren@ardot.gov
501-569-2063

090711: Highway 59 and Highway 72 Corridor Study (Benton Co.) (S)

Purpose and Scope:

To evaluate the need for and feasibility of improvements to the Highway 59 corridor between Highway 412 in Siloam Springs and the Missouri State Line and the Highway 72 corridor between Highway 59 and Interstate 49 in Gravette. Consultant services will be utilized to perform this work.

FY25 Planned Activities and Deliverables:

Major milestones and continuing activities for FY25 will include project kickoff, data collection, stakeholder engagement, purpose and need development, traffic forecasting, and analysis of alternatives. Study documentation will be developed as major tasks are completed.

FY26 Planned Activities and Deliverables:

Public engagement will be completed. Study documentation will be finalized and presented to leadership and the Highway Commission for adoption. Close out.

80% SPR	20% State Match	Total FY25-26 Budget
\$397,572	\$99,393	\$496,965

CONTACT: Ryan DeVasher
Advanced Transportation Planning Engineer
carter.devasher@ardot.gov
501-569-2065

*Funding was obligated in a previous fiscal year.

101112: Jonesboro South and West Connector Study

Purpose and Scope:

To determine the need for and feasibility of an improved connection south and west of Interstate 555 in the Jonesboro area.

FY25 Planned Activities and Deliverables:

Complete final billing and close out.

80% SPR	20% State Match	Total FY25-26 Budget
\$31,834	\$7,959	\$39,793

CONTACT: Josilyn Mitchell
Advanced Transportation Planning Engineer
josilyn.mitchell@ardot.gov
501-569-2975

*Funding was obligated in a previous fiscal year.

101113: Interstate 555 Corridor Study

Purpose and Scope:

To determine the need for and feasibility of improvements to the Interstate 555 corridor and interchanges in Jonesboro.

FY25 Planned Activities and Deliverables:

Complete final billing and close out.

80% SPR	20% State Match	Total FY25-26 Budget
\$2,664	\$666	\$3,330

CONTACT: Ryan DeVasher
Advanced Transportation Planning Engineer
carter.devasher@ardot.gov
501-569-2065

*Funding was obligated in a previous fiscal year.

Unknown: General Planning Studies

Purpose and Scope:

To conduct transportation planning studies, needs assessments, and other planning activities, as needed, including but not limited to implementation of the planning requirements of the IJA, such as the requirement to use 2.5% of SPR funds to carry out complete streets planning activities. Consultant services will be utilized as needed.

Ongoing Planned Activities and Deliverables:

Use on-call consultant services to conduct planning studies as needed and directed. Task orders will be issued for studies. They will be tracked and reported under those job numbers.

*80% SPR	*20% State Match	*Total FY25-26 Budget
\$3,600,000	\$900,000	\$4,500,000

CONTACT: Travis Brooks, P.E.
Assistant Division Head
travis.brooks@ardot.gov
501-569-2103

*Anticipate additional funds released from Fiscal Year 2024.

Part II Research

**Part II Research
Summary of Participation
Fiscal Years 2025-2026**

	Federal	State Match	100% State	Total Cost
Part II SPR Funds Available				
Z560	1,243,701			
Z56E	431,387			
Y560	4,662,154			4,662,154
State Fiscal Years 2026 – 2025 FFY Apportionment	3,400,000			
Total for FY2025 – 2026	<u>9,737,242</u>			
Previously allocated funds* FY2025 Only	less 2,129,800	60,800		2,190,600
Total Available for Programming	7,607,442	1,901,860		9,509,302
Program Funding Amount	less 4,195,000	1,030,000		5,225,000
Project Funding Amount	less 3,069,600	767,400		
Contingency	<u>342,842</u>			342,842
State Program			570,000	570,000

*Breakdown of Previously Allocated Funds	Fiscal Year 2025	Federal	State Match	Total
NCHRP Contribution		736,989		736,989
TRB Core Program Services		146,655		146,655
AASHTO TSP Technical Services Program**		350,822	2,800	353,622
Transportation Pooled Fund Studies***		663,334		663,334
Local Technical Assistance Program Transfer		232,000	58,000	290,000
		2,129,800	60,800	2,190,600

**AASHTO TSP Technical Services Program	Fiscal Year 2025	Federal	State Match	Total
AASHTO Census Transportation Solutions 2025-2029		81,322		81,322
AASHTO Design Guidelines		15,000		15,000
AASHTO Equipment Management		5,000		5,000
AASHTO Materials Guidelines		10,000		10,000
AASHTO Operations		15,000		15,000
AASHTO Performance Management		76,300		76,300
AASHTO Preservation Management		20,000		20,000
AASHTO Product Evaluation and Audit Solutions		25,000		25,000
AASHTO re:source		22,000		22,000
AASHTO Safety Hardware Management		10,000		10,000
AASHTO Safety Management		10,000		10,000
AASHTO STEM Outreach Solutions		11,200	2,800	14,000
AASHTO Structures Guidelines		15,000		15,000
AASHTO Technical Training Solutions		20,000		20,000
National Operations Center of Excellence		15,000		15,000
Total for Fiscal Year 2025		350,822	2,800	353,622

Fiscal Year 2026 funding for Previously Allocated Funds will be added in the FY2026 Work Program Amendment.

**Part II Research
Transportation Pooled Fund Participation
Fiscal Years 2025-2026**

***Transportation Pooled Fund Studies	FY25	FY26	Total FY25-26 Funding	FY27	FY28	Total Participation
TPF-5(463) Pavement Surface Properties Consortium: Phase III	20,000		20,000			20,000
TPF-5(486) Steel Bridge Research, Inspection, Training and Edu Engr Ctr S-BRITE	100,000		100,000			100,000
TPF-5(488) Southeast Transportation Consortium - Phase II	15,000		15,000			15,000
TPF-5(515) Evaluation of Low-Cost Safety Improvements	20,000	20,000	40,000	20,000	20,000	80,000
TPF-5(518) Implementation of Structural Data from Traffic Speed Deflection Devices	55,000	55,000	110,000			110,000
*TPF-5(531) 2024 NCAT Pavement Test Track	166,667	166,667	333,334	166,666		500,000
*TPF-5(442) Transportation Research and Connectivity	25,000		25,000			
*1605 Improving the Quality of Highway Profile Measurement	20,000		20,000			20,000
Total Per Fiscal Year	421,667	241,667	663,334	Future Funding		845,000

*Pending FHWA and Commission Approval

Ongoing Transportation Pooled Fund Studies requiring no additional funding

- TPF-5(399) Improve Pavement Surface Distress - Phase II
- TPF-5(437) Technology Transfer Concrete Consortium
- TPF-5(467) Research Project Tracking System - Phase II

**Part II Research
Program Funding
Fiscal Years 2025-2026
Allocated for use between July 1, 2024 and June 30, 2026**

Project	Work Description	Federal	State	Total
RES110	Project Development	560,000	140,000	700,000
RES120	Project Management	560,000	140,000	700,000
RES130	Project Field Work	160,000	40,000	200,000
RES140	Implementation	160,000	40,000	200,000
RES210	Program Management	720,000	180,000	900,000
RES310	Department Support	120,000	30,000	150,000
RES320	Library	480,000	120,000	600,000
RES330	Short-Term Research	600,000	150,000	750,000
RES340	Product Evaluation	280,000	70,000	350,000
RES410	Technology Transfer	480,000	120,000	600,000
RES810	Peer Exchange Activities	75,000	0	75,000
Subtotal		\$4,195,000	\$1,030,000	\$5,225,000

Planned Equipment Purchases Using SPR Part II Funds

Equipment	Estimated Cost	Project	Page
Instrotek IDEAL-CT machine	\$12,000	TRC2201	101
10 Mobile MULTI pedestrian/cyclist counters	\$60,000 / \$6,000 each	TRC2302	106
IML-RESI Power Drill	\$12,000	TRC2502	112
Fractometer	\$4,000	TRC2502	112

RES110: Project Development

Purpose and Scope:

To provide for expenditures allocable to the Research Program in efforts to develop or procure studies and projects.

Ongoing Activities:

Follow processes from the most current Research Manual to develop projects to meet the needs of the Department.

80% SPR	20% State Match	Total FY25-26 Budget
\$560,000	\$140,000	\$700,000

CONTACT: Sanghyun Chun, Ph.D., P.E.
Senior Research Study Engineer
sanghyun.chun@ardot.gov
501-569-2933

RES120: Project Management

Purpose and Scope:

To cover costs allocable to the management of research projects to ensure projects achieve objectives within the specified timeline, budget, and scope.

Ongoing Activities:

Project management activities as defined in the most current Research Manual, such as but not limited to the following:

- Review project related deliverables and activities
- Manage project resources
- Track project progress
- Identify and mitigate project risks
- Communicate project status to appropriate project participants

80% SPR	20% State Match	Total FY25-26 Budget
\$560,000	\$140,000	\$700,000

CONTACT: Sanghyun Chun, Ph.D., P.E.
Senior Research Study Engineer
sanghyun.chun@ardot.gov
501-569-2933

RES130: Project Field Work

Purpose and Scope:

To cover costs allocable to conducting and overseeing field work activities by Research and Department personnel during a project. This includes salaries, travel, Department equipment rentals, and other expenses necessary for conducting field work.

Ongoing Activities:

Field work required for the success of research projects as outlined in project work plans and contracts.

80% SPR	20% State Match	Total FY25-26 Budget
\$160,000	\$40,000	\$200,000

CONTACT: Sanghyun Chun, Ph.D., P.E.
Senior Research Study Engineer
sanghyun.chun@ardot.gov
501-569-2933

RES140: Implementation

Purpose and Scope:

To cover costs allocable to the implementation of research results.

Ongoing Activities:

Necessary training related to new products or procedures based on the research findings.

80% SPR	20% State Match	Total FY25-26 Budget
\$160,000	\$40,000	\$200,000

CONTACT: Sanghyun Chun, Ph.D., P.E.
Senior Research Study Engineer
sanghyun.chun@ardot.gov
501-569-2933

RES210: Program Management

Purpose and Scope:

To cover costs allocable to the work or training directly related to the Research Program.

Ongoing Activities:

Activities include regular staff update meetings, payment processing, inventory management, the development and approval of the upcoming Work Program, preparation and submittal of Annual Performance & Expenditure Reports to FHWA, completion of the Census R&D survey, and other activities as required by the Department and FHWA.

A consultant will be selected to rewrite the Research Manual.

80% SPR	20% State Match	Total FY25-26 Budget
\$720,000	\$180,000	\$900,000

CONTACT: Bethany Stovall
Research Support Supervisor
bethany.stovall@ardot.gov
501-569-2279

RES310: Department Support

Purpose and Scope:

To cover costs allocable to the Research Program when the Department calls upon Research staff for available expertise or resources readily available to the Section.

Ongoing Activities:

Activities may include but are not limited to the use available equipment and support for Department activities such as document reviews and intern orientation.

80% SPR	20% State Match	Total FY25-26 Budget
\$120,000	\$30,000	\$150,000

CONTACT: Bethany Stovall
Research Support Supervisor
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501-569-2279

RES320: Library

Purpose and Scope:

To cover costs allocable to the Library as a service to the Department. The Librarian will act as the gatekeeper for AASHTO publications and be responsible for purchasing and distributing relevant publications. Additionally, the Librarian will enter new research projects into the TRB Research in Progress (RiP) database and distribute completed project reports as directed by FHWA. New publications will be cataloged and stored in the library for departmental use. The Research Informer Newsletter will be prepared in partnership with the Communications Office. To provide an up-to-date library, subscriptions to a cataloging tool, an integrated library system, and content management & curation platform. Furthermore, a subscription to editing tool will be purchased to assist Research in creating, editing, and reviewing quality papers and reports. The Librarian will coordinate with Human Resources to develop and implement knowledge management practices.

Ongoing Activities:

Continue developing develop the library and its resources and distribute new publications. The RiP database will be updated with new and ongoing project information, and final reports will be formatted and distributed. Subscriptions will be renewed for cataloging tools and software, editing tools, and additional resources and subscriptions will be explored. The Library's policies and practices will be established and documented, and preliminary knowledge management tools will be implemented. A content management & curation platform will be selected.

80% SPR	20% State Match	Total FY25-26 Budget
\$480,000	\$120,000	\$600,000

CONTACT: Wendy Davis
Librarian
wendy.davis@ardot.gov
501-569-2376

RES330: Short-Term Research

Purpose and Scope:

The Department at times may have an immediate research need that can be accomplished more efficiently outside the TRC process. These projects should take no more than one year. The main ways these projects are conducted are by utilizing Department staff and resources or a consultant.

Activities:

Gather facts, test results, state of the practice, and other relevant information to meet the research needs.

Deliverables:

Compilation of information in the form needed for each project. These may include but are not limited to the following: literature reviews, synthesis, white papers, spreadsheets, survey results, bullet lists, computer software or program.

FY2025:

00J456-24A - Evaluation of Friction, Polishing, and Absorption for Aggregate Sources of Asphalt Mixtures Began in FY24

- Task 1: Obtain samples of all asphalt aggregate sources
- Task 2: Purchase asphalt pavement analyzer with friction testing equipment
- Task 3: Test all aggregates for absorption
- Task 4: Friction and polishing testing
- Task 5: Data analysis and develop database of aggregate absorption, asphalt mix design friction and polishing values.
- Task 6: Documentation including final report.

80% SPR	20% State Match	Total FY25-26 Budget
\$600,000	\$150,000	\$750,000

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RES340: Product Evaluation

Purpose and Scope:

To cover costs allocable to the Research Program in support of the New Product Evaluation Committee.

Ongoing Activities:

Work includes supporting the New Product Evaluation Committee related to the evaluation of products or processes when the Research Section is called upon to evaluate a particular product. Monitoring of current products for material performance will continue.

80% SPR	20% State Match	Total FY25-26 Budget
\$280,000	\$70,000	\$350,000

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RES410: Technology Transfer

Purpose and Scope:

To cover costs allocable to receiving and applying the results of research and involves dissemination, demonstration, training, and other activities that lead to eventual innovation. Costs may include staff time, travel expenses, registration fees, and supplies and services.

Ongoing Activities:

Demonstrations and evaluations of new equipment, techniques, materials, TRC Conference planning activities, attending relevant conferences and trainings.

80% SPR	20% State Match	Total FY25-26 Budget
\$480,000	\$120,000	\$600,000

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RES810: Peer Exchange Activities

Purpose and Scope:

To cover costs allocable to the participation in peer exchange activities as required by 23 CFR Part 420, Subpart B. This project may include costs incurred by Department personnel and non-Department personnel named to participate in Peer Review activities. Costs may include salaries and wages, travel expenses, 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.

Ongoing Activities:

Host at least one small peer exchange per year with two or three states and regular virtual meetings with peer states.

100% SPR	0% State Match	Total FY25-26 Budget
\$75,000	\$0	\$75,000

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TRC Projects

**Part II Research
Project Funding
Fiscal Years 2025-2026
Allocated for use between July 1, 2024 and June 30, 2026**

Continuing TRC Projects		PI	PM	80% Federal	20% State	Total Budget
00N467	TRC2101: Update of the ARDOT Workforce Forecasting System	UAF	Simecek	121,600	30,400	152,000
00J467	TRC2103: Developing Guidelines for Evaluating Weathering Steel Bridges	UAF	Chun	36,000	9,000	45,000
00M467	TRC2104: Maintenance Guidelines for MSE Walls	UAF	Chun	64,000	16,000	80,000
00D457	TRC2105: Innovative Countermeasures to Deter Wrong-Way Driving	ARDOT	Romano	8,000	2,000	10,000
00L467	TRC2106: UAS LiDAR for Developing Small Project Elevation Models	UAF	Simecek	36,000	9,000	45,000
00K467	TRC2107: Non-nuclear Moisture Content and Density Determination	UAF	Chun	60,800	15,200	76,000
00A467	TRC2201: Update Superpave Spec	UAF	Chun	336,800	84,200	421,000
00B467	TRC2202: Updating Liquefaction Procedures	UAF	Simecek	52,000	13,000	65,000
00P467	TRC2203: Low Shrink Mix	UAF	Simecek	189,600	47,400	237,000
00Q467	TRC2204: Drilled Shaft Concrete	UAF	Simecek	233,600	58,400	292,000
00C467	TRC2301: Automated Work Zone System	UAF	Chun	246,400	61,600	308,000
00E467	TRC2302: Dev Ped and Bicyclist Flow Volumes	UAF	Stovall	288,000	72,000	360,000
00V467	TRC2303: Daily Impacts of a Bridge Closure	UAF	Chun	176,000	44,000	220,000
TR2401	TRC2401: Alkali-Silica Reaction Potential	ARDOT	Elia	108,800	27,200	136,000
TR2402	TRC2402: High-Performance Cold Mix	ARDOT	Simecek	66,400	16,600	83,000
TR2403	TRC2403: Evaluation of Air in Concrete	ARDOT	Elia	77,600	19,400	97,000
Subtotal				2,101,600	525,400	2,627,000
New TRC Projects						
RC2501	TRC2501: Methodology on Establishing Vegetation on Cut Slopes	TBD	Hagins	240,000	60,000	300,000
RC2502	TRC2502: Evaluation of Timber Pile Capacity for Bridge Maintenance	TBD	Simecek	248,000	62,000	310,000
RC2503	TRC2503: Feasibility of Vehicle Probe Data for Origin-Destination Estimation	TBD	Chun	480,000	120,000	600,000
Subtotal				968,000	242,000	1,210,000
Total Part II Project Funding				\$3,069,600	\$767,400	\$3,837,000

Projects in the Final Stage not Requiring Funding

The projects listed are in the Final Report approval stage. No project-specific funding is required. The final steps for project close-out, report publication, and implementation will use funds from Program Support Services, Library Services, and Implementation of Research.

TRC2001

00N467: Research Project TRC2101

Title: Update of the ARDOT Workforce Forecasting System

Purpose and Scope:

To re-estimate and expand the capabilities of the workforce prediction model and software. The project will develop new equations for the Construction Division's Workforce Forecasting System and find or write new software with the possibility of integrating artificial intelligence (AI) in a future interface.

Planned Activities and Deliverables:

Short-term and long-range software will be developed using a project-level Full Time Equivalent (FTE) calculator, division-level workforce forecasting tool, and long-range workforce forecasting tool. CURSOR is the preliminary name for this software. A user guide with videos will be developed, evaluated, and tested. Finally, the implementation and final reports will be written and submitted for feedback. Project close-out and implementation.

80% SPR	20% State Match	Total FY25-26 Budget
\$121,600	\$34,400	\$152,000

CONTACT: Mark Simecek, P.E.
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00J467: Research Project TRC2103

Title: Developing Guidelines for Evaluating Weathering Steel Bridges

Purpose and Scope:

To develop guidelines for bridge inspectors to evaluate the patina at unpainted weathering steel (UWS) bridges and recommend measures to restore sections that are experiencing corrosion if remediation is needed. UWS forms a surface patina to protect a structural member from corrosion. However, the patina sometimes does not develop, and the material is not maintenance-free. UWS may require restoration through cleaning or painting. The research will review how other transportation agencies address problems with UWS and will review and track bridges using UWS in Arkansas. The final report will recommend design guidelines for using UWS based on environmental factors and will recommend remediation measures to address existing deficiencies.

Planned Activities and Deliverables:

Remaining project close-out and implementation tasks will be completed.

80% SPR	20% State Match	Total FY25-26 Budget
\$36,000	\$9,000	\$45,000

CONTACT: Sanghyun Chun, Ph.D., P.E.
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00M467: Research Project TRC2104

Title: Maintenance Guidelines for MSE Walls

Purpose and Scope:

To determine Best Management Practices (BMP) for Mechanically-Stabilized Earth (MSE) walls and to develop a maintenance inspector's guidebook, which provides guidance to address potential signs of distress. The guidebook will aid inspectors in assigning a grade to each wall according to the ARDOT Maintenance Manual and detail the appropriate corresponding repairs. The guidebook will also provide guidance on the process and frequency of routine inspections, the level of effort required to repair or reconstruct any defects identified, and guidance regarding emergencies and significant weather events.

Planned Activities and Deliverables:

The final report and implementation plan will be completed and finalized.

80% SPR	20% State Match	Total FY25-26 Budget
\$64,000	\$16,000	\$80,000

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00D457: Research Project TRC2105

Title: Innovative Countermeasures to Deter Wrong-Way Driving

Purpose and Scope:

To assess new countermeasures being deployed by other state highway agencies and determine which may be cost-effective for Arkansas. This research is being conducted in response to an increase in serious and fatal crashes due to wrong-way drivers entering freeways at exit ramps. These trends continue even after a statewide traffic safety project (Job 012260) improved signing at exit ramps. Wrong-way crashes in Arkansas mirror trends throughout the United States that include over half of these crashes occurring at night and most wrong-way drivers being under the influence of alcohol or drugs.

Planned Activities and Deliverables:

The final report will be completed, and the implementation phase will be completed.

80% SPR	20% State Match	Total FY25-26 Budget
\$8,000	\$2,000	\$10,000

CONTACT: Kim Romano, P.E.
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00L467: Research Project TRC2106

Title: UAS Lidar for Developing Small Project Elevation Models

Purpose and Scope:

To assess the accuracy and benefits of using Unmanned Aerial System (UAS) LiDAR to collect high-quality survey data for small area projects such as bridge replacements. The research team will coordinate with the Surveys Division to identify four bridge projects to serve as test sites. These sites will be chosen to represent bridge project conditions where the Surveys Division expects to utilize the UAS LiDAR post-project. LiDAR data will be collected, processed, and then compared to terrain models developed utilizing conventional and UAS photogrammetric surveying methods to assess the accuracy of each. The team will develop standard practices and procedures (best methods) for data acquisition through this research.

Planned Activities and Deliverables:

Project close-out and implementation.

80% SPR	20% State Match	Total FY25-26 Budget
\$36,000	\$9,000	\$45,000

CONTACT: Mark Simecek, P.E.
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00K467: Research Project TRC2107

Title: Non-Nuclear Moisture Content and Density Determination

Purpose and Scope:

To determine if there are any alternative technologies to determine density and moisture content of aggregate material. If any non-nuclear technologies can determine density or moisture that are comparable to the nuclear density gauge, changing to non-nuclear would be a better alternative for the Department. This project will be broken down into two phases: density determination and moisture determination. The goal of this project is to find a method of determining both density and moisture content using one or two new methods.

Planned Activities and Deliverables:

Project close-out and implementation.

80% SPR	20% State Match	Total FY25-26 Budget
\$60,800	\$15,200	\$76,000

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00A467: Research Project TRC2201

Title: Update to ARDOT Superpave Gyrotory Compaction (SGC) Specification to Increase Pavement Durability

Purpose and Scope:

To increase the durability (cracking and rutting performance) of asphalt pavements. Specifically, this study will determine the effects of “lower gyration” incorporating with “balanced mix design approach” on change in the volumetric and performance properties of asphalt mixtures. This research will also estimate the impact of increasing the durability of asphalt mixtures on mixture design, construction, and subsequent performance and life-cycle of asphalt pavements that will lead to a robust Arkansas-based life cycle cost analysis to fully capture all the local variables.

Planned Activities and Deliverables:

According to the work time schedule, the proposed activities and deliverables for FY25 contain the continuation of the following tasks: contractor participation – moving forward today, laboratory research – validating concepts, life cycle cost analysis, and final deliverables. The Instrotek IDEAL-CT machine purchase is anticipated in FY25 in order to primarily verify the results obtained from the Humboldt IDEAL-CT machine currently being used for the project. The project close-out and implementation are expected in FY25.

80% SPR	20% State Match	Total FY25-26 Budget
\$336,800	\$84,200	\$421,000

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00B467: Research Project TRC2202

Title: Updating ARDOT Liquefaction Evaluation and Mitigation Procedures

Purpose and Scope:

To update the SPT-based liquefaction spreadsheet the Department uses to incorporate current guidance and procedures for bridge pile design.

Planned Activities and Deliverables:

Project close-out and implementation.

80% SPR	20% State Match	Total FY25-26 Budget
\$52,000	\$13,000	\$65,000

CONTACT: Mark Simecek, P.E.
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00P467: Research Project TRC2203

Title: Low Shrinkage Concrete Mixtures for Arkansas

Purpose and Scope:

To develop a low-shrinkage concrete specification tailored for Arkansas materials to address the issue of shrinkage cracking in bridge deck concrete.

Planned Activities and Deliverables:

The evaluation of recent bridge decks will continue as Resident Engineer offices submit new information. Development of Low-Shrinkage Concrete Mixtures, including materials acquisition, mixture design and testing of normal weight aggregates, and low-shrinkage specification development. The implementation and final reports are expected. Project close-out and implementation.

80% SPR	20% State Match	Total FY25-26 Budget
\$189,600	\$47,400	\$237,000

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00Q467: Research Project TRC2204

Title: Materials and Testing Specifications for Drilled Shaft Concrete

Purpose and Scope:

To update the Department's Self-Consolidating Concrete (SCC) mix design, with specific consideration toward Drilled Shaft construction. This project will also determine the best testing methods for QA/QC of SCC concrete.

Planned Activities and Deliverables:

- Task 3b: Full-scale Investigation of SCC Mixtures
- Task 4: Specifications related to the QA/QC testing of the drilled shaft concrete will be prepared following the exhumation of the full-scale drilled shafts.
- Task 5: Final reports will be developed that document the efforts and findings of each research task.

80% SPR	20% State Match	Total FY25-26 Budget
\$233,600	\$58,400	\$292,000

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00C467: Research Project TRC2301

Title: Smart Work Zone (SWZ) System Design, Specifications, Estimates, and Implementation Guidelines

Purpose and Scope:

The Department's Automated Work Zone Information System (AWIS) special provisions have required frequent revisions. The need for AWIS is sometimes determined late in project development, thus requiring last-minute revisions. New smart work zone (SWZ) technologies enhancing communications to drivers are becoming available. This research will look at current Department practices, examine nationwide emerging best practices and new technologies, and recommend special provision modifications, equipment selection criteria, and system estimates.

Planned Activities and Deliverables:

- Task 1: Review literature related to SWZ and compile a compendium of the Department's existing AWIS systems.
- Task 2: Facilitate a SWZ Concept of Operations (ConOps) workshop with the subcommittee and representative stakeholders and to document the output of the workshop.
- Task 3: Assessment of ARDOT's Work Zone Queue Length Estimation Process.
- Task 4: Develop a selection criterion and deployment strategy for ITS devices and develop a method to assess effectiveness of deployments.
- Task 5: Identify and select third-party probe data providers, evaluate the ability of probe or third-party data to supplement or replace ITS devices for work zone management, and assess the feasibility of using vehicle probe or third-party data for construction or maintenance projects for which the current AWIS system data can't be used.
- Task 6: Develop a decision tree framework to determine if SWZ systems are needed at an earlier point in project development and the Transportation Management Plan (TMP) process.
- Task 7: Analyze historical AWIS data to quantify traffic safety and operational impacts through analysis of quality of AWIS data, identify of opportunities for additional data collection, and quantify traffic safety and operational impacts using different data sources.
- Task 8: Update SWZ System Design and Develop Cost Estimates.
- Task 9: Final reports will be developed that document the efforts and findings of each research task.

80% SPR	20% State Match	Total FY25-26 Budget
\$246,400	\$61,600	\$308,000

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00E467: Research Project TRC2302

Title: Development of Pedestrian and Bicyclist Flow Volumes and Risk Factors

Purpose and Scope:

To create a database on travel patterns of non-motorized transportation users. Estimating the volume of pedestrian and cycling road users is an important step toward developing a systemic safety management approach to reduce crashes. Both observational and emerging sources of non-motorized traffic volume data will be overlaid with the historical crash and roadway inventory data to determine crash risks for selected locations. Based on the crash risks of those selected locations, countermeasures can be implemented to address the increasing number of suspected serious injuries and fatalities among this vulnerable user group.

Planned Activities and Deliverables:

- Task 2: Data Collection – Data collection will be based on subcommittee feedback on recommendations from the research team made in FY24. Crowdsourced data will also be collected.
- Task 3: Database Creation – An Access database will be created with the count data obtained in Task 2.
- Task 4: Exposure Models – Develop Non-motorized exposure models to estimate pedestrian and bicycle exposure using both collected and crowdsourced data.
- Task 5: Crash Risk Factors and Countermeasures.
- Task 6: Implementation.

Purchase 10 Mobile MULTI pedestrian/cyclist counters.

80% SPR	20% State Match	Total FY25-26 Budget
\$288,000	\$72,000	\$360,000

CONTACT: Bethany Stovall
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Title: Evaluation of Impacts Due to a Bridge Closure: A Case Study of the Mississippi River Bridges in Arkansas

Purpose and Scope:

To quantify the multi-modal impacts due to a Mississippi River bridge closure. This study will consider different scenarios/combinations of bridge closures (i.e., full and partial bridge closures that take account of one/both directions, single/multiple lanes, and day/night closures), including all the Mississippi River Bridges in Arkansas (i.e., I-40, I-55, HWY 49 and HWY 82 bridges). A comprehensive multi-modal analysis will be performed that considers the number of vehicles, trucks, and marine vessels/barges disrupted due to the bridge closure (with all potential scenarios/combinations) and applies detailed cost conversions to monetize direct (delays) and indirect (safety, infrastructure, operations) impacts. Also, this study will develop an Excel-based tool to conduct “what-if” analyses for decision-making purposes, whether for operation, maintenance, or planning activities.

Planned Activities and Deliverables:

- Task 1: Conduct a comprehensive literature review of ongoing and previous research related to estimating and forecasting the impacts of bridge and other transportation infrastructure disruptions on traffic congestion, safety, and mobility.
- Task 2: Gather the data required for the multimodal impact estimation in Task 3.
- Task 3: Perform a comprehensive multi-modal impact analysis for bridge closures.
- Task 4: Develop a model as an Excel-based tool for “what if” analyses that will provide the information for investments and strategies in operations, maintenance, and planning activities to reduce the impacts of transportation infrastructure disruptions caused by different bridge closure scenarios.
- Task 5: Draft and submit the final and implementation reports summarizing the methods, data, applications, key findings, and recommended future work resulting from Tasks 1 through 4.

80% SPR	20% State Match	Total FY25-26 Budget
\$176,00	\$44,000	\$220,000

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TR2401: Research Project TRC2401

Title: Evaluation of Alkali-Silica-Reaction (ASR) Potential for Aggregate Sources in Arkansas

Purpose and Scope:

New test methods have been developed to determine the susceptibility of aggregates to Alkali-Silica-Reaction (ASR) and the alkali threshold of aggregate combinations. This project will examine the ASR susceptibility of aggregates, determine the alkali threshold of common aggregate combinations, and develop a mix design analysis tool to evaluate the ASR susceptibility of concrete mix designs. ARDOT will be able to determine the ASR susceptibility of concrete mix designs. ARDOT will be able to make informed decisions for testing requirements based on the susceptibility of aggregate combinations to ASR.

Planned Activities and Deliverables:

- Task 1: Collect aggregate from all sources that provide aggregate to the Department for Concrete Mix designs.
- Task 2: Soil/Prep Lab will perform standard QPL testing on the aggregate, such as Soundness, La Abrasion, Specific Gravity, and Absorption.
- Task 3: Perform T-FAST testing on aggregate samples to determine the potential alkali-silica reactivity level within 21 days.
- Task 4: Perform ATT testing on all the aggregates that showed high susceptibility to testing in Task 3.
- Task 5: alkalinity load will be determined by Task 3 and used in Task 4 to determine the alkali threshold of aggregates.
- Task 6: Gather results and write a program to analyze the Alkalinity Load of concrete mix designs and compare the results to the Alkalinity threshold of aggregate combinations to provide the department with the best combinations to use in a concrete mix design.
- Task 7: Send samples off for petrographic analysis.
- Task 8: Final reports will be developed that document the efforts and findings of each research task.

80% SPR	20% State Match	Total FY25-26 Budget
\$108,000	\$27,200	\$136,000

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TR2402: Research Project TRC2402

Title: Field Evaluation of High-Performance Cold Mix (HPCM) Products

Purpose and Scope:

High-Performance Cold Mix (HPCM) Products have been widely used as materials to repair potholes and other maintenance activities in different environmental/weather conditions. The most important aspect of the HPCM is that it performs well in field applications. The literature indicates that there has been extensive research on the use of HPCM material for patching potholes. However, no research efforts have been conducted using the HPCM products currently being approved and used in Arkansas. Each of the manufacturers that produce the HPCM have specialized proprietary ingredients that make it difficult to develop a specification to encompass all available products. Therefore, there is an emerging need to evaluate the performance of HPCM and further develop/update the specification. The primary objective of this research is to evaluate the field performance of HPCM products. In particular, the research will be conducted as a head-to-head comparison of HPCM products by observing and evaluating the test section developed. It is anticipated to create a field test section/strip for available HPCM products and evaluate them over a 12-month period. This test period may vary depending on the test results. This will help determine the future test parameter(s) to evaluate and approve for future submitted products.

Planned Activities and Deliverables:

- Task 1: Literature Review to summarize and categorize the various HPCM products and specifications being used by other state agencies.
- Task 2: Obtain test site permissions and procure HPCM Materials
- Task 3: Develop the test site by creating square holes and placing HPCM materials.
- Task 4: Evaluate the performance of HPCM weekly and measure rutting, pushing, popouts, deformation, raveling, cracking, and bleeding.
- Task 5: A final report at the end of the evaluation period will rank and prioritize the HPCM products. Develop a specification.

80% SPR	20% State Match	Total FY25-26 Budget
\$66,400	\$16,600	\$83,000

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TR2403: Research Project TRC2403

Title: Evaluation of Air in Concrete

Purpose and Scope:

The primary objective of this research is to evaluate the air content of hardened concrete cylinders to determine the optimal sampling location for fresh concrete. This research will also evaluate the durability of current concrete mix designs and the variability of fly ash's impact on air entrainment. The research will be conducted as a series of test decks cast alongside Department bridge construction projects. These test decks will be cast and cured identically to the bridge deck being poured. The detailed objectives and scope include the determination of the correct location for sampling air-entrained concrete, evaluation of the theory that entrained air returns to the concrete after pumping and before the initial set, evaluation of the ability of the Super Air Meter (SAM) to predict entrained air bubble size and spacing through petrographic analysis, evaluation of the durability of current concrete mix designs, determination of the optimum concrete curing methods through comparison to current methods by using test decks, test the resistivity and chloride penetration of hardened concrete to establish baseline of current concrete mix designs, and evaluation of fly ash variability in relation to air entrainment efforts through use of the foam index test.

Planned Activities and Deliverables:

- Task 1: Obtain materials for test deck forms, super air meters, and maturity meters.
- Task 2: Obtain samples of cement and air-entraining admixtures from ready-mix concrete plants and perform foam index testing.
- Task 3: Build and pour test decks, test air content with SAM, finish ability and box testing, install and monitor maturity meters and monitor the condition of the bridge deck and test deck.
- Task 4: Send hardened concrete cores for petrographic analysis to determine air content, air bubble size, and air bubble spacing for comparison to SAM results. Test concrete cores for resistivity and chloride penetration.
- Task 5: Compare air content results from Super Air Meter (SAM) and petrographic analysis to validate SAM results and determine the optimal sampling location for air content. Review test deck condition to determine optimal concrete curing methods. Compile resistivity and chloride penetration results of mix designs to discuss optimization and/or specification requirements.
- Task 6: The final report will include recommendations for specifications to change the sampling method and location for pumped concrete, concrete curing methods, and fly ash testing requirements.

80% SPR	20% State Match	Total FY25-26 Budget
\$77,600	\$19,400	\$97,000

CONTACT: Hala Elia, Ph.D.
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RC2501: Research Project TRC2501

Title: Methodology on Establishing Vegetation on Cut Slopes

Purpose and Scope:

To create a methodology to be used in the preliminary planning and design phases that will identify factors that could inhibit vegetation growth on cut slopes by analyzing and testing problem soils prior to design or during construction. The desired outcome is to provide widely applicable options to offset growth inhibitors and set parameters that will provide mitigation options based on site specific factors. Factors to be considered should include but are not limited to areas where non-native species are prohibited, soil analysis, seasonal timing of seed application, existing vegetation, slope grades (designs to limit erosion), and surface run-on.

These factors will be taken into consideration in the planning and design phase of each project to maximize success in establishing vegetation after construction, minimize change orders, avert the cost of additional let jobs, and avoid delays in final contract acceptance.

Planned Activities and Deliverables:

- Task 1: Literature review to research regional practices for fertilizer, seed, watering requirements, and penalties.
- Task 2: Survey surrounding states with similar geographical conditions to learn the following: When other DOTs begin planning for vegetation, what seed mixes other DOTs use, practices for implementing fertilizer and seed watering practices.
- Task 3: Determine potential factors to be considered including, but not limited to: Grade and length of slope face, run-on from adjacent surroundings, soil analysis beyond pH to include at a minimum NPK needs, amount of material removed exposing sterile subsoils and justification for redressing with topsoil, consideration of ecoregion specific issues develop regional fertilizer and seed mix options.
- Task 4: Alter structural practices such as the design of cut slopes to limit the erosion on slopes as well as intercept and divert run-on.
- Task 5: Meet watering requirements based on the type of seed mix used.
- Task 6: Draft special provisions, highlight findings at each phase of the project, provide final report including implementation.

80% SPR	20% State Match	Total FY25-26 Budget
\$240,000	\$60,000	\$300,000

CONTACT: Gloria Hagins
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RC2502: Research Project TRC2502

Title: Development of Modern Methods for Evaluation of Timber Pile Capacity

Purpose and Scope:

Gather testing information to link results from the timber pile drill to the capacity of timber piles.

Set thresholds that indicates good piles, piles in need of replacement or rehabilitation within a certain time frame, and piles that have failed.

Estimate bending capacity based on decay and the height of the pile given results from the timber pile drill.

Provide guidance for ARDOT bridge maintenance on repair strategies considering the condition and the height of piles.

Determine expected failure modes based on resistance graph showing decay and the height of the pile.

Estimate crushing and bending capacity of timber caps given the results of the timber pile drill. Typical timber caps used by ARDOT are 12"x12" timbers.

Planned Activities and Deliverables:

- Task 1: Perform a comprehensive literature review of timber pile capacity measurements. This should include any testing related to the use of a timber pile resistance drill to display the condition of a timber pile.
- Task 2: Perform comprehensive data collection using the timber pile drill and structural testing of timber piles.
- Task 3: Perform comprehensive data analysis of the results from Task 2. Data from structural testing will be compared with the data from the timber pile drill.
- Task 4: Correlations will be determined, and the results compiled in a useable format for the Department.

Purchase IML-RESI Power Drill and Fractometer.

80% SPR	20% State Match	Total FY25-26 Budget
\$248,000	\$62,000	\$310,000

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RC2503: Research Project TRC2503

Title: Feasibility of Vehicle Probe Data for Origin-Destination Estimation

Purpose and Scope:

Origin-Destination (O-D) estimation is an important step for travel demand forecasting. Traditional approaches rely on either survey-based trip diaries or traffic counts. Both methods are time-consuming and cost prohibitive. This research will examine trip data provided by third-party vendors to determine data reliability and to compare trip attributes.

Planned Activities and Deliverables:

- Task 1: Literature and market review that supports O-D estimation and ground-truth methodology.
- Task 2: Develop O-D estimation parameters, including methodology for traditional O-D estimation, including assumptions for trip-chaining.
- Task 3: Purchase and analyze third-party O-D data and collect O-D data using traditional means or other method(s).
- Task 4: Compare results and document findings in the Final Report and recommend potential actions for successfully integrating the findings into ARDOT processes in the Implementation Report.
- Deliverables should include a decision tree to aid in determining the type of O-D data attributes, potential data quality, and bias, and Development of adjustment factors to use when applying data.

80% SPR	20% State Match	Total FY25-26 Budget
\$480,000	\$120,000	\$600,000

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Arkansas Local Technical Assistance Program

020050: Arkansas Local Technical Assistance Program

The Arkansas Local Technical Assistance Program (LTAP) funds are programmed based on a federal fiscal year and presented from October 2023 through September 2024. SPR Part II funds are transferred to LTAP as matching funds.

LTAP operates through the Local Support Section of the Local Programs Division. The program is a cooperative effort of the Department, the University of Arkansas – Fayetteville (UAF), and FHWA.

Purpose and Scope: The purpose of LTAP is to share the benefits of established and new transportation-related technology with local agencies. The methods include training seminars, newsletters, webinars, DVDs, site visits, reports, publications, and information services. Training seminars ranging from basic equipment maintenance to administration skills are provided through this program. Seminars and workshops are presented to the local agencies at no cost to the receiving agency. When available, presentations are conducted at Planning and Development District (PDD) offices, local government facilities, or local university facilities. Technology transfers are accomplished by personnel of all agencies involved in the LTAP Program. The subject matter ranges from worker safety, highway safety, and workforce development to infrastructure management issues. The experiences and innovations of established operations and the implementation of the latest research findings are shared.

Ongoing Planned Activities and Deliverables: The Department’s activities will include overall program administration and management, training schedule coordination, and seminar presentation oversight. The contracted presenter seminars are part of an agreement with the Department and LTAP. UAF activities will include developing selected courses, as requested and approved by the Department, with guidance from the LTAP Advisory Committee.

Additional details are included in the formal LTAP Work Plan submittal to FHWA.

FY25 Funding Summary	
Funding Description	Funding Totals
LTAP Funding	210,000
SPR Match	232,000
State Match	58,000
Total LTAP Budget	\$500,000

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Fiscal Year 2026 funding will be added in the FY2026 Work Program Amendment.

Part III Planning Non-SPR

000400: Administration: Planning

Purpose and Scope:

To set objectives, measure accomplishments, and provide administrative support for all work activities of the Division, including records, payroll, attendance reports, and all other required administrative 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.

Ongoing Planned Activities and Deliverables:

Continue to provide guidance and assistance in the development and analysis of transportation-related projects and information, including improving communication and supporting information exchange through new technologies. Efficiency initiatives will be developed and implemented. Annual Final Performance and Expenditure Reports will be developed and submitted to FHWA. SPR Work Programs and Cost Estimates will be developed and submitted to FHWA for approval and work authorization.

0% SPR	100% State Funded	Total FY25-26 Budget
	\$600,000	\$600,000

CONTACT: Travis Brooks, P.E.
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000468: Administration: System Information and Research

Purpose and Scope:

To set objectives, measure accomplishments, and provide administrative support for all work activities of the Division. This project also provides 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 requirements in accordance with all state and federal regulations will be executed. Activities performed under this job number are 100% state funded.

Ongoing Activities:

Continue to provide guidance and assistance in the development and analysis of transportation-related projects and information, including improving communication and supporting information exchange through new technologies. The upcoming SPR Work Program and Cost Estimate will be developed and submitted to FHWA for approval and work authorization.

0% SPR	100% State Funded	Total FY25-26 Budget
	\$600,000	\$600,000

CONTACT: Mark Headley, P.E.
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Part IV Research Non-SPR

RES910: Administration: Research

Purpose and Scope:

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

FY25 Planned Activities and Deliverables:

Continue to provide guidance and assistance in the development and analysis of transportation-related projects and information, including improving communication and supporting information exchange through new technologies. The upcoming SPR Work Program and Cost Estimate will be developed and submitted to FHWA for approval and work authorization.

0% SPR	100% State Funded	Total FY25-26 Budget
	\$450,000	\$450,000

CONTACT: Vacant
Staff Research Engineer
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501-569-4922

RES920: Support Services

Purpose and Scope:

To cover costs associated with work and other activities directly related to the Research Program but not to a specific federally funded Research project.

FY25 Planned Activities and Deliverables:

Activities include continued vehicle maintenance and other support services not eligible for federal funding.

0% SPR	100% State Funded	Total FY25-26 Budget
	\$40,000	\$40,000

CONTACT: Vacant
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RES930: Engineering and Research Services (EARS)

Purpose and Scope:

To provide funding for short-term, limited-scope projects without a contract. Existing basic agreements with three universities allow for this process. Task Orders are completed for these projects.

FY25 Planned Activities and Deliverables:

Activities may include any short-term research as needed by the Department.

0% SPR	100% State Funded	Total FY25-26 Budget
	\$80,000	\$80,000

CONTACT: Vacant
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Part V Other Federal Funds

FHWA/FTA Consolidated Planning Work Program

Work Program	Federal	State/Local Match	Total Cost
Section 5303 - FHWA/FTA Consolidated Metropolitan Planning Program			
Metroplan (CARTS)	1,224,903	306,226	1,531,129
Frontier Metropolitan Planning Organization (FMPO)	288,558	72,140	360,698
Northeast Arkansas Regional Transportation Planning Commission (NARTPC)	170,780	42,695	213,475
Northwest Arkansas Regional Planning Commission (NARTS)	865,676	216,419	1,082,095
Southeast Arkansas Regional Planning Commission (PBATS)	108,946	27,237	136,183
Tri-Lakes Metropolitan Planning Organization (HSATS)	138,390	34,598	172,988
Texarkana Metropolitan Planning Organization (TUTS)	58,889	14,722	73,611
West Memphis Metropolitan Planning Organization (WMATS)	88,335	22,084	110,419
Subtotal	2,944,477	736,119	3,680,596
Section 5304 - FTA Statewide Planning Program			
Core Program	68,242	17,061	85,303
Drug-Alcohol Planning	41,261	10,315	51,576
Seniors/Disabled/Low Income Service Planning	41,262	10,316	51,578
Staff Training and Development	11,299	2,825	14,124
Subtotal	162,064	40,517	202,581
Total Project Cost	\$3,106,541	\$776,636	\$3,883,177

Both programs have a 20 percent local or state match requirement.

Other Federal Funds

Work Program	Federal	State/Local Match	Total Cost
Surface Transportation Block Grant Program - Attributable (STBGP - A)			
012193 - Northwest Arkansas Planning	200,000	50,000	250,000
110273 - West Memphis Planning	109,000	27,250	136,250
Subtotal	309,000	77,250	386,250
Congestion Mitigation and Air Quality Improvement (CMAQ)			
012178 - CARTS Ozone Awareness	48,000	12,000	60,000
110481 - West Memphis Air Quality	165,000	41,250	206,250
Subtotal	212,999	53,251	266,250
Total Project Cost	\$521,999	\$130,501	\$652,500



STATE FISCAL YEARS 2025 & 2026
STATE PLANNING AND
RESEARCH WORK PROGRAM