

Arkansas Department of Transportation  
Arkansas Legislative Council  
Efficiency Study Recommendations  
Rules for Implementation

# Monthly Update

June 16, 2022



**ARKANSAS STATE  
HIGHWAY COMMISSION**

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# INTRODUCTION

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Reference is made to the Final Report to the Arkansas Legislative Council by the Highway Commission Review and Advisory Subcommittee's (HCRAS) Study of the Arkansas Department of Transportation dated November 20, 2020 (Report) (see Appendix). In accordance with Act 739 of the 93rd General Assembly, the Arkansas Highway Commission submits these rules to implement the recommendations in the Report.

For ease in reviewing, this document is organized to repeat the recommendation from the Report followed by the proposed rules for implementation. Once the rules are finalized, periodic reporting on the progress of implementation will be submitted to the HCRAS.

Implementation efforts will be underlined the first time they are reported.

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# Organizational Structure

## **Recommendation #1**

### **Finalize KPIs and implement performance management**

The Subcommittee recommends ARDOT adopt leading performance management practices to formulate and track a variety of operational effectiveness key performance indicators within a larger performance management framework and finalize those key performance indicators currently in use.

#### **a. Implementation:**

- (1) Finalize existing key performance indicators for system condition and preservation and establish a preliminary dashboard;
- (2) Establish baseline performance targets and connect the performance targets to the ARDOT strategic plan; and
- (3) Create and implement a roadmap for a comprehensive performance management plan.

#### **b. Considerations:**

- (1) This is a long-term initiative and should be approached in phases;
- (2) This practice should be used to improve the Department and foster collaboration; and
- (3) Communication, training, and change management may be required to socialize a new performance-based approach.

## **Rules**

**ARDOT Primary Oversight:** Assistant Chief Engineer – Planning

- Establish the ARDOT Key Performance Indicators (KPIs) Oversight Committee. This committee will be made up of senior administration officials. This committee will oversee implementation and long-term management of this recommendation.
  - ✓ This action has been completed.
- As stated in the Final Report, this is a long-term initiative and should be approached in phases. Therefore, the remaining actions for this recommendation will be accomplished in phases which align with the goals in the Strategic Plan, which are:
  - ✓ Provide Safe and Efficient Transportation Solutions;
  - ✓ Accomplish Our Mission with a Focus on Stewardship;
  - ✓ Champion Transportation Solutions that Promote Quality of Life and Economic Development;

- ✓ Continually Improve Transportation Services and Solutions Through Employee Engagement; and
- ✓ Maximize External and Internal Customer Satisfaction.
- Hold internal meetings with key ARDOT staff members to finalize development of operational effectiveness KPIs and recommend performance targets for each one that will support and evaluate ARDOT's accomplishment of its Strategic Plan.
- Solicit stakeholder comments regarding operational KPIs and performance targets.
- Make final adjustments to the operational effectiveness KPIs and performance targets based on the comments received.
- Develop a dashboard to monitor and evaluate how ARDOT is meeting the performance measure for each KPI.
- Develop annual review to identify successes and address areas of needed improvement.



## **Recommendation #2**

### **Strengthen knowledge management in anticipation of increased retirement**

The Subcommittee recommends adopting leading practices regarding knowledge management and preservation in anticipation of increased personnel retirement to allow ARDOT to mitigate knowledge loss due to turnover, identify operational efficiencies, and improve succession planning and training

#### **a. Implementation:**

- (1) Identify near-term “At Risk” business practices;
- (2) Initiate near-term succession planning activities;
- (3) Lay groundwork for more formal knowledge management system; and
- (4) Implement systems to sustain the desired change.

#### **b. Considerations:**

- (1) New IT systems and software may be required to support standard operating procedure creation and centralize content;
- (2) Updating and creating new standard operating procedures can be a significant undertaking, however using a comprehensive inventory will help ARDOT prioritize; and
- (3) Leadership support and change management may be needed for lasting change.

## **Rules**

### **ARDOT Primary Oversight:** Assistant Chief – Administration

- The ARDOT Human Resources Division has been assigned the responsibility to oversee the implementation and long-term management of ARDOT’s Knowledge Management Program.
  - ✓ This action has been completed.
- Continue reviewing all ARDOT positions to identify which ones are at risk of knowledge loss and identify responsibilities and associated processes, workflows, and critical areas of expertise.
  - ✓ Criteria and procedures have been developed which identify positions and key staff members at risk for potential knowledge loss using a Knowledge Risk Matrix.
  - ✓ 514 employees in 281 job titles have been identified as being at risk for knowledge loss of varying degrees. Of those, 29 employees were identified as the highest risk of critical knowledge loss.

- Continue with knowledge interviews and further develop methods for knowledge capture of high-risk work responsibilities, processes, and workflows.
  - ✓ Knowledge interviews are actively being conducted with individuals who have been identified as at risk of knowledge loss. 62 knowledge interviews have been conducted.
  - ✓ Since 2018, we have also been participating in the American Association of State Highway and Transportation Officials (AASHTO) Knowledge Management (KM) Subcommittee, where state Departments of Transportations (DOT) share best practices, resources and lessons learned as each develops its own KM program. The information gained from our involvement has been and will continue to be used to implement this recommendation.
- Identify staff in each Division or District who will be responsible for management of the knowledge captured and transfer of the knowledge to appropriate parties.
- Develop annual review of ARDOT's KM Program to ensure alignment with current processes and workflows.

# Portfolio Planning

## **Recommendation #3**

### **Publish status of construction projects and maintenance activities**

The Subcommittee recommends revising ARDOT's existing communication of construction project and maintenance activities to make communication less disjointed and difficult to navigate. Improving the communication and reporting structure can enhance public visibility into, and accountability for, project performance; enhance project delivery; and yield better data to inform planning and budget appropriations.

#### **a. Implementation:**

- (1) Inventory current reporting infrastructure;
- (2) Identify and implement short-term reporting enhancements; and
- (3) Lay the groundwork for long-term reporting improvements.

#### **b. Considerations:**

- (1) ARDOT does not need to build out an entire platform to rapidly enhance reporting of readily available project status data: leverage existing platforms and tools, such as IDriveArkansas and district office websites; and
- (2) An enterprise level approach will be required to provide true real-time access to project status.

## **Rules**

### **ARDOT Primary Oversight:** Assistant Chief – Administration

- Evaluate existing reporting platforms currently in use and document project information provided through them.
  - ✓ This action has been completed.
- Identify additional project information that could be provided through currently used reporting platforms for construction projects that are under development or have been let to contract and for maintenance projects.
  - ✓ This action has been completed for construction projects. The information for maintenance projects will be developed as the Maintenance Management System (MMS) is developed and implemented.
- Hold internal meetings with key ARDOT staff members to select project information that will be provided and how this information should be presented.
  - ✓ These meetings are underway.
  - ✓ A committee was formed which contains a member of the Department's administration as well as key staff members. This committee will continue to serve in order to accomplish this recommendation.

- ✓ The committee determined that the use of a consultant to expand the existing platforms and systems currently in use to provide information to the public will provide significant benefit to the Department and the public.
- ✓ The Department is currently developing a Request For Proposals which will be issued to retain the services of a consultant to provide this capability.
- Solicit stakeholder comments regarding project information that will be provided and how this information should be presented.
- Finalize project information that will be provided and how this information should be presented.
- Since the accomplishment of this recommendation involves information and data that will be provided by implementation of Recommendations 1, 7, and 10, the implementation for this recommendation will be phased to align with when the information and data is available.

## **Recommendation #4**

### **Implement a platform that tracks all stakeholder inquiries to resolution**

The Subcommittee recommends ARDOT implement a process to track all stakeholder inquiries from receipt to resolution. ARDOT primarily manages customer service by providing the public direct access to staff with no uniform process for documentation of the inquiry or response. Leading customer services practices suggest that ARDOT can improve its customer service, while simultaneously reducing the cost to the Department and finding new Department-wide operational efficiencies.

#### **a. Implementation:**

- (1) Understand customer, stakeholder, and public needs;
- (2) Define a new customer experience vision;
- (3) Lay the groundwork for a new service approach, including adoption of a customer relationship management tool; and
- (4) Create and execute on implementation plan; and measure and communicate customer service performance.

#### **b. Considerations:**

- (1) Clear vision, leadership buy-in;
- (2) Upfront investment for future return on investment;
- (3) Project Manager passionate about customer service;
- (4) Right technology application identified early in the process; and
- (5) In a phased approach, transition “services” not divisions.

## **Rules**

### **ARDOT Primary Oversight:** Assistant Chief – Administration

- Establish the ARDOT Customer Service Oversight (ACSO) Committee. This committee will include at least one senior administration official and oversee implementation and long-term management of this recommendation.
  - ✓ This action has been completed.
- Hold internal meetings with key ARDOT staff members and evaluate existing resources to identify the quantity, scope, and type of customer inquiries.
  - ✓ This action is underway.
- Conduct a targeted survey of ARDOT inquiries to assess customer’s needs and create an analysis of their needs.
- Use the results of the internal meetings and the analysis of ARDOT customer’s needs to establish goals for customer experience.
- Solicit stakeholder comments regarding the establish goals for customer experience.

- Select a consultant to provide software which can be integrated into our website that will provide ARDOT the ability to input, track, and document the processing and response to customer inquiries.
  - ✓ We have completed an evaluation of customer service systems utilized by other agencies such as the City of Portland and the City of Philadelphia, which were identified as a leading practice by Guidehouse, and the Florida Department of Transportation (FDOT).
  - ✓ As part of this evaluation, we have attended on-line webinars held by the FDOT and by the consultant that developed the system FDOT has implemented, which is GovQA.
  - ✓ Therefore, the committee has recommended and the Department has selected GovQA to be retained as a consultant for this recommendation.
  - ✓ The estimated cost for GovQA to provide the software and training is less than \$50,000.
- The consultant provided software will also be developed to provide a reporting structure that can be used to provide summarized information regarding customer inquiries to ARDOT administration and the public.
- Establish metrics and performance measurements to evaluate accomplishment of customer service goals.

# Procurement

## **Recommendation #5**

### **Implement efficiencies in procurement and purchasing**

The Subcommittee recommends ARDOT optimize and standardize procurement and purchasing procedures. ARDOT may more effectively use resources and maximize costs savings Department-wide – including and beyond construction procurement with documented and standardized procurement procedures.

#### **a. Implementation:**

- (1) Use data-driven approaches like spend analysis and lifecycle costing to inform procurement and purchasing decisions;
- (2) Standardize usage of project acceleration techniques, procurement methods, and delivery methods; and
- (3) Push efficiencies to districts.

#### **b. Considerations:**

- (1) IT systems to track data;
- (2) Staff capacity and expertise to conduct data analysis;
- (3) Assignment of responsibility between districts and divisions; and
- (4) Change management to shift culture from low bid to best value.

## **Rules**

**ARDOT Primary Oversight:** Deputy Director & Chief Engineer/Assistant Chief – Administration.

### **Procurement of Construction Projects**

- Select focus areas to evaluate related to this portion of the recommendation. Consideration should be given to change orders, cost estimates, and project delivery methods.
  - ✓ We are currently establishing a focus group to identify areas to be evaluated for improving efficiency for procurement of construction projects.
- Identify needed data to be able to evaluate the current processes and procedures used in the focus areas.
- If any needed data is not currently tracked, identify and implement methods of capturing it.
- Perform evaluation of current processes and procedures used with respect to the focus areas and document the practices that yield the best benefits.
- If needed, implement new or improved processes and procedures that yield the best benefits.



### Procurement of Equipment and Materials

- Select focus areas to evaluate related to this portion of the recommendation. Consideration should be given to supply and demand trends, term contracts, commodity price changes, ownership cost, procurement procedures, and purchasing methods.
  - ✓ While we have identified some focus areas, this action is still underway.
  - ✓ We have added new supply and term contracts for our Heavy Bridge Maintenance Section to take advantage of supply and demand trends in a volatile market.
  - ✓ We have increased our use of the Request for Proposals process for vendor selection and procurement. Specifically, in the professional services arena. This allows us to incorporate the total cost of ownership into the evaluation criteria.
- Identify needed data to be able to evaluate the current processes and procedures used in the focus areas.
  - ✓ While the implementation of the Oracle Fusion Procurement Cloud Service has identified and provided some of the data that is needed, we are still working on this action.
- If any needed data is not currently tracked, identify and implement methods of capturing it. This will include the implementation of a software to move ARDOT to electronic bidding for equipment and materials.
  - ✓ We have initiated implementation of on-line bidding software for our equipment and materials. As part of this implementation, we have attended on-line webinars for training held by the InfoTech, Inc., which is the same consultant that provides on-line bidding services for our construction projects. We have completed the training and have now moved to testing the software.
  - ✓ While we are in the testing phase, we have advertised a variety of equipment and commodity bids and contracts, allowing us to continue to navigate the challenges of the new system. We are now using on-line bidding for 75 percent of our bids and contracts. We are also incorporating lessons learned to ensure success once we are fully on-line bidding.
- Perform evaluation of current processes and procedures used with respect to the focus areas and document and the practices that yield the best benefits.
- If needed, implement new or improved processes and procedures that yield the best benefits.

## **Recommendation #6**

### **Implement construction contractor performance measurement**

The Subcommittee recommends a construction contractor performance score. ARDOT rigorously monitors contractor quality through inspections, but lacks a tool to screen for contractor quality during procurement. By implementing performance-based scoring, ARDOT may improve work quality, safety, and timeliness; reward high-performing contractors; and encourage low-performers to improve.

#### **a. Implementation:**

- (1) Identify quality indicators (i.e., repeated disincentives, claims, change orders, delays);
- (2) Develop scoring system to quantify performance; and
- (3) Track and monitor performance, using indicators and costs. In monitoring contractor performance, the recommendation of the Subcommittee is that the Department coordinate with county judges, mayors, and other municipal leaders to receive feedback regarding contractors performing work for the Department in the municipal leader's jurisdiction.

#### **b. Considerations:**

- (1) Consider impact for both small and large contractors;
- (2) Emphasize quantitative approach to minimize any appearance of subjectivity in scoring;
- (3) Consider an appeals process for contractors to counter scores; and
- (4) Ensure contractors have a clear path to raise their scores

## **Rules** - Rule change based on public comment.

### **ARDOT Primary Oversight:** Deputy Director & Chief Engineer

- Establish the Contractor Performance Evaluation Committee (CPEC) to include ARDOT staff and two representatives from the highway contracting industry. Members should have work experience needed to oversee the development, implementation and long-term management of this recommendation. The CPEC will be responsible for the following:
  - This action will be completed upon identification of the contracting industry members.
- Identify metrics that define quality and desired performance of the prime contractor for construction projects.
  - The CPEC Committee is currently reviewing best practices from other State DOTs. As part of this, the Committee participated in a Federal Highway Administration Virtual Peer exchange on May 12, 2022. The following State DOT's also participated in this peer exchange: New Mexico, Arizona, California, and Virginia.

- ✓ Establish how each metric will be used to evaluate the prime contractor.
- ✓ Develop a form which will be used by the ARDOT Resident Engineer and appropriate stakeholders to document their evaluation of the prime contractor.
- ✓ Establish the process of compiling the completed evaluations into the project's final evaluation of the prime contractor.
- ✓ Establish a review and appeal process of the project's final evaluation of the prime contractor that is accomplished and completed prior to the results of the evaluation being published.
- ✓ Develop guidance for the type or size of projects where this evaluation will not be used.
- ✓ Solicit stakeholder comments regarding the identified process for this recommendation.
- ✓ Finalize the process for this recommendation.

# Expenditures

## **Recommendation #7**

### **Implement project and portfolio management frameworks**

Subcommittee recommends adopting a project and portfolio management framework. ARDOT's pre-construction, construction and maintenance Project Portfolio Management systems vary in maturity. Enhancing these systems with leading Project Portfolio Management practices and a Project Management Office may allow ARDOT to more effectively budget, plan, execute, and communicate on its portfolio of construction projects and maintenance activities.

#### **a. Implementation:**

- (1) Catalog existing Project Portfolio Management capabilities and identify baseline and target;
- (2) Identify gaps in Project Portfolio Management (e.g. pre-construction resource planning);
- (3) Establish a Project Management Office and Governance, and build on existing strengths and capabilities; and
- (4) Phase deployment, develop tools, and train staff members.

#### **b. Considerations:**

- (1) Will require Department-wide effort to unify disparate initiatives and assets and build out Project Portfolio Management framework; a qualified vendor can expedite this process;
- (2) Implementation of Project Portfolio Management/project management office will be perceived as overhead, but will yield long-term benefits; and
- (3) Change management and new IT applications may be required.

## **Rules**

**ARDOT Primary Oversight:** Deputy Director & Chief Engineer

### **Construction Projects**

- Evaluate the need for a Construction Project Management Office.
  - ✓ *The Program Management Division currently serves as the Project Management Office (PMO) for pre-construction projects while Construction Division currently serves as the PMO for construction projects. The noted Divisions will continue in their assigned roles as this recommendation is implemented.*

- Review existing planning and project management protocols currently in use by ARDOT to determine the software used and their capabilities for construction projects.
  - ✓ A new software system has been implemented to assist with the planning of projects. This system allows for suggested projects to be entered into a database which streamlines the project submission process. This software will be enhanced as part of this recommendation.
  - ✓ Additionally, the software used to track pre-construction project development activities has recently been enhanced to provide additional data, which will also be incorporated into this recommendation.
- Prepare a comparison of the planning and project management protocols currently in use by ARDOT for construction projects against systems and processes used by other state DOTs to identify potential benefits from the implementation of the identified systems.
- Select identified systems and processes for implementation.
  - ✓ Efforts are underway to enhance our current construction project documentation software, AASHTOWARE Project. This software has been developed in collaboration with other state Departments of Transportation. The new web-based system will provide additional reporting tools for project monitoring. Currently, we are working with our consultant, InfoTech, Inc., to complete customization of the software, identification, and implementation of needed changes to our current procedures while we work toward completing this upgrade.
- Coordinate implementation of the selected systems and processes with implementation of recommendation three to enhance publication of the status of construction projects.
- Provide needed training to implement the selected systems and processes.

### Maintenance Projects

- Evaluate the need for a Maintenance Project Management Office.
  - ✓ *The Maintenance Division currently serves as the PMO for maintenance projects. They will continue in their assigned role as this recommendation is implemented.*
- Finalize the review of existing planning and project management protocols currently in use by ARDOT to determine the software used and their capabilities for maintenance projects.
  - ✓ Efforts are underway to develop and implement our Maintenance Management System (MMS). As part of this effort, we participated in a Domestic Scan Peer Exchange with other State Departments of Transportation (DOT) to learn how they utilize software to manage their maintenance efforts based on asset condition. We have met with the following DOTs: North Carolina, Mississippi, and Louisiana, and visited onsite with the Texas to evaluate how each state uses MMS to accomplish maintenance projects. We have also evaluated National Cooperative Highway Research Program (NCHRP) reports to assist in our development of how we will use our MMS to manage our maintenance projects.

- ✓ This information was used to develop a Request For Proposals (RFP) that was published. In response to our RFP, 11 proposals were received, 5 consultants were shortlisted and presented a demonstration of their software. Based on their qualifications and demonstrations, a consultant was recommended.
- ✓ In November 2021, the Commission selected DTS to provide this system. The contract will be submitted to this Subcommittee for review.
- Prepare a comparison of the planning and project management protocols currently in use by ARDOT and those that will be provided by the MMS for maintenance projects against systems and processes used by other state DOTs to identify potential benefits from the implementation of the identified systems.
  - ✓ This action is underway and will continue as we implement the MMS.
- Select identified systems and processes for implementation.
  - ✓ This action is underway and will continue as we implement the MMS.
- Coordinate implementation of the selected systems and processes with implementation of Recommendation 3 to enhance publication of the status of maintenance projects.
- Provide needed training to implement the selected systems and processes.

## **Recommendation #8**

### **Implement best practices in construction project design**

The Subcommittee recommends adopting, implementing, and documenting best practices in construction project design. ARDOT lacks formal frameworks to ensure the consistent use of best practices in construction design, limiting their ability to demonstrate cost savings and strengthen institutional knowledge. By adopting and documenting such procedures, ARDOT may reduce project costs and improve achievement of system targets.

#### **a. Implementation:**

- (1) Develop formal framework around use of performance-based practical design;
- (2) Conduct value engineering earlier in design (i.e., at 30% complete) and more often; and
- (3) Evaluate gap between original bid and final payment amounts to inform best practices in design.

#### **b. Considerations:**

- (1) Not all projects are well suited to or would benefit from such approaches; frameworks should identify when to use them; and
- (2) ARDOT is already employing many of these practices, so implementing recommendation will not require creation of new technical practices; rather, formalizing and documenting existing practices.

## **Rules**

### **ARDOT Primary Oversight:** Assistant Chief Engineer – Design

- Establish formal procedures for practical design, value engineering, and a comparison of engineer's estimates against final cost.
  - ✓ Practical Design – The formalization of this process is underway.
  - ✓ Value Engineering – While Value Engineering of projects was being accomplished according to FHWA guidelines, the Design Staff revisited the process and has made the following updates and additions:
    - The Value Engineering Guidelines and Procedures Manual was updated and distributed October 2021 encouraging additional projects that have the highest potential for value improvements be considered for the Value Engineering process. The additional screening criteria included, but was not limited to, the following:
      - More than one alternative solution
      - Relative complexity in design
      - Accelerated time schedule in planning and design phases
      - Opportunity for implementation of state-of-the-art practices
      - Complicated maintenance of traffic requirements



- A Value Engineering Flow Chart was developed to aid Engineers in determining when a project meets the criteria for Value Engineering.
  - An additional entry has been added to the Design Decision Document stating the results of the Flow Chart determination.
  - Additional entries will be made in the ARDOT Staff Minutes alerting staff of the Value Engineering requirements for each project.
- ✓ Comparison of the Engineer's Estimate Against Final Cost
  - Design Staff will continue to review the overruns and underruns of contract pay items when the project is completed and finalized. Any revisions to current design practices, deemed necessary by the Roadway Design Engineer, will be submitted in writing to the Assistant Chief Engineer - Design for review.
- Establish the analysis which will identify benefits, cost savings, and return of investment from the use of practical design, value engineering, and a comparison of engineer's estimates against final cost.
  - ✓ Design Staff have begun to record cost savings from the implementation of practical design elements during the design process. This is accomplished through the use of a Microsoft Access database which will enhance our ability to perform analysis of the data. The staff will expand the recording of cost savings to the Value Engineering process if those savings ever present themselves.
  - ✓ Cost Savings realized in 2021 was \$116,015,925.54.
- Establish processes which will identify needed changes to design approach for projects most likely to have change orders, that exceed estimated completion dates, and are likely to benefit from practical design solutions.
  - ✓ The Department is currently developing a Constructability Review Procedures Manual that will establish uniform policies and procedures for Constructability reviews within the Arkansas Department of Transportation.

# Information Technology

## **Recommendation #9**

### **Build an IT Governance Structure to guide to the Department's IT investments**

The Subcommittee recommends building an information technology governance structure to determine ARDOT's IT investments. ARDOT's IT investments have grown 155% since FY 2016 to \$23M in FY 2020 under unclear enterprise level guidance. Leading practices suggest that establishing a formal governance structure will enable the IT Division of ARDOT to support business objectives, help optimize ARDOT operations, manage enterprise risk, and meet internal and external stakeholder needs.

#### **a. Implementation:**

- (1) Lay the groundwork to establish a robust governance structure;
- (2) Establish a governance structure that identifies a cross-section of business and IT personnel to create a charter and decision making framework; and
- (3) Create and execute on a governance roadmap; measure and communicate progress

#### **b. Considerations:**

- (1) This is an ongoing process;
- (2) Leadership support is needed;
- (3) Emphasize how IT enables business performance and reduces risk; and
- (4) Cascading of enterprise level goals through the IT Division to actual underlying processes.

## **Rules**

**ARDOT Primary Oversight:** Assistant Chief – Administration

- Establish an Information Technical (IT) Governance Committee made up of ARDOT leadership including the appropriate Assistant Chiefs and Division Head that reports through the Deputy Director and Chief Operating Officer to the Director.
  - ✓ This action has been completed. The committee has held meetings to begin the implementation of this recommendation. We have also meet with all District Engineers and Division Heads to discuss and inform them of the goals of this committee.
- Establish a framework and charter for the committee.
  - ✓ We have scheduled an implementation and project meeting for the week of June 6 to establish a framework and charter for the committee.
- Establish governance focus areas and priorities.
  - ✓ We have scheduled an implementation and project meeting for the week of June 6 to establish a framework and charter for the committee.

- Establish needed subcommittees to address each focus area.
- Establish a framework and charter for each subcommittee.
- Establish frequency for committee and subcommittee meetings.
- Identify KPIs to evaluate performance.

## **Recommendation #10**

### **Implement mid-term IT initiatives that can optimize business operations**

The Subcommittee recommends the adoption of information technology initiatives that optimize business operations. ARDOT spends ~\$5.3M on software applications and has 300+ databases. Implementing leading data management and software application rationalization practices can deliver cost savings and unlock data value.

#### **a. Implementation:**

- (1) Build a software application and database inventory;
- (2) Assess and score each software application and database;
- (3) Identify target state for each application and database; and
- (4) Build phased roadmap for migration processes.

#### **b. Considerations:**

- (1) Requires upfront investment to yield mid-to long-term savings;
- (2) Requires leadership buy-in and change management to overcome resistance and assist staff in shifting to a new model;
- (3) Requires software application such as the planned information technology service management tool; and
- (4) Requires implementation plan for continuity of operations.

## **Rules**

### **ARDOT Primary Oversight:** Assistant Chief – Administration

- Determine preliminary ARDOT data governance and application development standards.
  - ✓ This action is underway.
- Complete the existing application and database inventory including known policies, procedures, training and database schema categorized by business function.
  - ✓ The software application and database inventory has been completed.
- Establish application and database scoring system based on business function relevancy, risks, and cost of ownership.
  - ✓ We are currently in the process of assessing and scoring the applications and databases.
- Review and validate scoring assessment with internal subject matter experts.
  - ✓ This review is scheduled to take place in May 2022.
- Create an overall assessment for all applications and databases in the inventory, which will, in part, evaluate the security and configuration of each one.

- Establish a phased approach for implementation based on the needed actions as identified in the assessment as follows:
  - ✓ Phase 1 – Retain as is or eliminate
  - ✓ Phase 2 – Re-engineer
  - ✓ Phase 3 – Migrate

## **Recommendation #11**

### **Develop critical pillars necessary to establish IT as an effective business partner**

The Subcommittee recommends developing the critical pillars within ARDOT to establish the IT Division as an effective business partner. Currently, ARDOT's IT Division is not able to definitively articulate what services it will deliver, when it will deliver them, and its standards for effective delivery. Implementing an information technology service management framework may yield enhanced IT service delivery, improved internal customer satisfaction, and reduced IT costs.

#### **a. Implementation:**

- (1) Establish baseline policies and procedures, and preliminary service catalog;
- (2) Select appropriate software tools; and
- (3) Establish a long-term IT Service Management Plan that includes appropriate communications and training to staff, and mature service catalog.

#### **b. Considerations:**

- (1) Yield quick wins by establishing a basic service catalog and standards, capturing IT demand, and tracking requests;
- (2) Include recommended project management infrastructure in the long-term information technology service management plan; and
- (3) Communication and training will be critical to mitigate resistance to change.

## **Rules**

### **ARDOT Primary Oversight: Assistant Chief – Administration**

- Evaluate industry standards and protocols for Information Technology Project Management (ITPM).
  - ✓ This action is underway.
- Select a preliminary set of ITPM tools, templates, and success metrics.
  - ✓ We have selected SmartSheet Enterprise as our project management software which provides us with tools and templates to measure our success metrics.
- Establish and provide training to staff members to implement the ITPM tools, templates, and success metrics.
- Complete implementation of the Information Technology Service Management (ITSM) already selected and installed at ARDOT including:
  - ✓ Service desk capabilities;
    - This action has been completed.
  - ✓ Service catalog management;
    - This action has been completed.

- ✓ Risk management;
  - This action is underway.
- ✓ Asset catalog;
  - This action is underway.
- ✓ Project Management capabilities including tracking and reporting.
  - This action is underway.
- Establish a multi-year long range plan for management and use of the ITSM.



# People Capabilities

*The Rules for Recommendations 12 and 13 should be combined into one set of actions since they are so closely connected.*

## **Recommendation #12**

### **Ensure staff can develop in their careers at the Department**

The Subcommittee recommends developing a career development plan for ARDOT employees. Nearly half of ARDOT staff do not believe they can advance their careers there, and its turnover is rising. By developing career ladders and lattices, ARDOT may increase retention, reduce turnover-related costs, strengthen its talent pipeline, and improve morale.

In addition, the Subcommittee recommends the State Highway Commission establish a merit pay system for employees of the Department that incorporates performance evaluation standards, including an employee's attendance, completion of projects and assignments, and increased competence in the employee's job duties.

#### **a. Implementation:**

- (1) Verify roles at high risk of turnover and important to succession planning;
- (2) Conduct compensation study;
- (3) Develop and publicize career, skill, and salary progression;
- (4) Promote buy-in among staff for the performance-based pay and evaluation practice; and
- (5) Implement a merit pay system that incorporates employee performance evaluation standards.

#### **b. Considerations:**

- (1) Ability to promote may be limited by low turnover in desirable positions – consider career lattices when traditional career ladders are inaccessible; and
- (2) Career development activities are closely aligned with training and knowledge management.

## **Recommendation #13**

### **Improve staff capabilities to align with current/future organizational needs**

The Subcommittee recommends ARDOT improve staff capabilities to align with the current and future needs of ARDOT. Staff and supervisors report that training resources are limited. By strengthening training, ARDOT may improve job satisfaction and retention, increase

productivity, and instill confidence in staff who then become more willing and able to take on greater responsibility within the ARDOT.

**a. Implementation:**

- (1) Align trainings to job descriptions and career planning activities;
- (2) Identify and fill training gaps;
- (3) Assign trainings as part of performance evaluation process;
- (4) Reinstitute manager training;
- (5) Consider cross-training in high turnover districts and positions; and
- (6) Consider formalizing on-the-job, practical training.

**b. Considerations:**

- (1) Training will likely need to be updated over time, for example as new equipment is used or new programs are developed;
- (2) Training need not be restricted to entry-level roles, senior level employees can benefit as well; and
- (3) Priorities must be identified to focus rollout on training where it will have the most impact.

## **Rules**

**ARDOT Primary Oversight:** Assistant Chief – Administration

- Continue to monitor turnover and identify high turnover positions that are important to ARDOT's continuity of operations for accomplishment of the Strategic Plan.
  - ✓ This action is underway.
  - ✓ We have identified the most common reasons for turnover as well as the groups of employees which appear to be the least engaged. This information was used to develop our Workforce Strategic Plan which will enhance our ability to provide continuity of operations.
  - ✓ We calculated turnover by job category for the last five years and identified high turnover groups. This information is being evaluated to identify potential actions that can be taken to enhance our ability to provide continuity of operations.
- Continue implementing the existing Workforce Strategic Plan, and adjust as needed, in order to mitigate the impact of turnover and increase employee engagement.
  - ✓ This action is underway.
- Continue to establish how pooled positions can be used to properly align our employee's compensation with their competencies and responsibilities.
  - ✓ In 2018, we established a performance-based pay program called Achieving Career Excellence (ACE) that incorporates performance standards and competencies associated with the job description.
  - ✓ During the last appropriation cycle, we incorporated the use of pooled positions in order to provide career ladders and lattices for our employees. Pooled positions

- ✓ provide the ability to increase an employee's compensation to properly align with their capabilities and responsibilities without having to increase the total number of appropriated positions.
- ✓ We are currently evaluating existing pools for expansion and the need for additional pools during the upcoming State Fiscal Year 2024-2025 biennial appropriations and budgeting process.
- Identify and publicize the steps required for advancement within career paths with respect to competencies, experience, training, and certifications.
  - ✓ We now have Human Resources Specialists in every District to give employees direct access to someone who can help with career development and coaching.
  - ✓ We have also implemented a Career Path Promotion Program that allows employees to promote along established career paths by meeting certain measurable objectives. Eligibility criteria related to the objectives has been published so that employees are aware of the objectives they must meet in order to be eligible for consideration.
  - ✓ 106 career path promotions have been awarded.
- Consider the benefit of a compensation study.
  - ✓ We have hired an experienced Classification and Compensation Specialist to analyze compensation trends, develop a compensation strategy, monitor market conditions, and conduct ongoing job analysis for key positions and also upon request to ensure pay and job duties are in line.
- Evaluate the ACE employee performance evaluation process to ensure that the accomplishment of training, attendance, completion of projects and assignments, and increased competencies are taken into consideration.
  - ✓ While this action is underway, we have taken actions to ensure that the performance evaluation process includes competencies related to self-development/training, dependability/attendance, completion of assignments and technical competence.
  - ✓ Our Administration has also emphasized manager accountability for accurate ratings.
- Continue to identify and fill training gaps, and prioritize training where it will have the most impact.
  - ✓ We have significantly expanded online learning opportunities through the implementation of the ARDOT University, which is our learning management system.
  - ✓ We have hired a Workforce Development Coordinator and a Learning Management System Administrator who are dedicated to expanding and enhancing our training programs, publishing learning paths, developing curriculum for online and classroom training, and coordinating the Leadership Development Program and Maintenance Training Academy.
  - ✓ We now have Health & Safety Officers in every District. This will enable greater focus to be spent on field training and expansion of the Maintenance Training Academy.

- ✓ A “Train the Trainer” program has been completed by the Health & Safety Officers and they have begun delivering the newly-mandated Entry-Level Driver Training (ELDT) program to all employees whose positions require a commercial driver’s license. This program includes classroom and behind-the-wheel training.
- ✓ In the last year, almost 2,747 employees have received new Anti-Fraud and Ethics Code training and approximately 1,370 employees have received additional work zone safety training.
- Encourage supervisors to utilize employee development plans, including training and other activities, as part of the performance evaluation process.
- Continue providing manager training both in-house and by utilizing our existing external partners.
  - ✓ In the last year, 20 new supervisors have completed a Dale Carnegie leadership immersion training program.
  - ✓ All new supervisors are required to attend Supervisor Onboarding training to help them make the transition to leadership, provide Day 1 need-to-know information, and give them team-building skills from the start.
  - ✓ In May 2022, approximately 100 District and construction managers attended a two-day conference with an agenda heavily focused on leadership and communication strategies.
- Implement a Leadership Development Program to further develop existing leaders at all levels, as well as to prepare future leaders.
  - ✓ Fifteen ARDOT leaders recently completed a pilot program utilizing University of Arkansas at Little Rock’s (UALR) leadership development courses. This course will continue to be used as part of ARDOT’s leadership development. Fifteen additional ARDOT leaders are being enrolled in the next course.
  - ✓ In March 2022, 12 administrative officials participated in a pilot 360-degree feedback program. Using the feedback, each is in the process of completing three professional coaching sessions. If the pilot is successful, it too will be incorporated into our more comprehensive Leadership Development Program for high-level leaders.
  - ✓ In May 2022, Twenty ARDOT leaders were nominated and accepted into the American Association of State Highway and Transportation Officials Management Institute for 2022. This is a four-day intensive course which is specifically designed to develop leadership skills of upper level management staff in the transportation industry.
  - ✓ Phase 1 of the Leadership Development Program is expected to begin in Fall 2022, after a marketing campaign this summer.
- Continue cross-training in high turnover areas and for high turnover positions.

- Complete implementation of the Maintenance Training Academy, which offers formalized practical training, including but not limited to equipment operation.
  - ✓ Now that we have Health & Safety Officers in every District, we are able to provide a greater focus to be spent on field training and expansion of the Maintenance Training Academy (MTA).
  - ✓ The addition of a Tractor Mower course is being finalized and will be added to the MTA in the near future