

Final Report to the Arkansas Legislative Council

Highway Commission Review and Advisory Subcommittee Study of the Arkansas Department of Transportation

November 20, 2020

I. Background.

Act 298, passed by the 92nd General Assembly during the 2019 Regular Session, required the Arkansas Legislative Council to conduct a study of “the processes and functioning of the Arkansas Department of Transportation (the “Department”), including without limitation the department’s processes, procedures, procurement procedures, projects, expenditures, and appeals processes.” In its rules adopted May 17, 2019, the Arkansas Legislative Council assigned the study and its duties under the Act to the Highway Commission Review and Advisory Subcommittee (the “Subcommittee”).

The objective of the Subcommittee, as proscribed by the Act, was to provide to the members of the Arkansas Legislative Council detailed and accurate information concerning the current state of the processes and functioning of the Department, as well as recommendations for legislative changes. In order to achieve the purposes of the study, the Subcommittee was tasked with the following:

1. Compare the procurement processes of the Department with the requirements of the Arkansas Procurement Law, Arkansas Code § 19-11-201, et seq.;
2. Study and consider the best practices for functioning of state transportation departments through consideration of practices in surrounding or comparable states;
3. Audit the expenditures and procurement processes of the Department in order to find ways to improve or create efficiencies in those areas; and
4. Consider and adopt recommended legislation based on the results of the study.

The Act also set forth a requirement that the Legislative Council “hire one (1) or more consultants to assist it in conducting the study.” Pursuant to that directive, the Subcommittee began the process of acquiring consulting services and released a Request for Proposals for State Transportation Department Oversight Consulting Services on May 20, 2019. In August 2019, the Subcommittee selected Guidehouse, LLP (“Guidehouse”) to perform a review of the Department and provide recommendations, and a contract was entered between Guidehouse and the Bureau of Legislative Research on August 23, 2019.

Act 298 further requires the Arkansas Legislative Council to file on or before December 1, 2020, with the Governor, the President Tempore of the Senate, and the Speaker of the House of Representatives a final report of its activities, findings, and recommendations, including recommended legislation related to the study. This document and its appendices and attached draft legislation constitute the final report of the Subcommittee.

The work of the Subcommittee will continue beyond submission of the November 20, 2020 report. The Subcommittee intends to use the remaining weeks of 2020 to refine its recommendations and legislative package for submission during the 2021 legislative session. As you review this report, please keep in mind that it is not a static document, but one that is subject to revision or modification by the Subcommittee as it works to refine its final recommendations.

II. Work of the Subcommittee

Guidehouse began its review of the Department in September of 2019 and provided regular updates to the Subcommittee on the progress of the study. In May of 2020, Guidehouse provided its Current State Assessment of the Department to the Subcommittee (See Current State Assessment Report, [Appendix A](#)). This report developed twenty-three (23) key findings in six (6) focus areas to be considered in the subsequent report on recommendations.

Guidehouse provided its Recommendations Report to the Subcommittee on June 17, 2020 (See Recommendations Report, [Appendix B](#)). The report identified thirteen (13) recommendations in the six (6) previously identified focus areas. In the following months the Subcommittee approached its workload by dividing the recommendations into focus areas. The Subcommittee met five (5) times between June and October to hear and discuss possible recommendations. At each meeting, Guidehouse presented a synopsis of its recommendations related to the meeting's focus area, the Department provided a response to each recommendation, and the Subcommittee asked questions of the Department and Guidehouse and had discussion regarding possible inclusion of the recommendation in its final report. The Subcommittee voted on whether to include the recommendations in the final report, and the following reflects the six (6) focus areas and related thirteen (13) recommendations that received approval from the Subcommittee for inclusion in this final report.

A. Organizational Structure

The following recommendations have been adopted by the Subcommittee with regard to Organizational Structure of the Arkansas Department of Transportation: *[Added to Draft Report by Subcommittee Vote on 8/5/2020]*

- 1. Finalize Key Performance Indicators 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.¹

¹ Guidehouse, *Arkansas Department of Transportation Performance Review Recommendations Report*, April 20, 2020, pages 12-14.

a. ArDOT 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.

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.²

a. ArDOT 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.

B. Portfolio Planning

The following recommendations have been adopted by the Subcommittee with

² Guidehouse, *Arkansas Department of Transportation Performance Review Recommendations Report*, April 20, 2020, pages 15-17.

regard to Portfolio Planning of the Arkansas Department of Transportation: *[Added to Draft Report by Subcommittee Vote on 8/19/2020]*

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.³

a. ArDOT Implementation:

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

and

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 iDRIVE AR and district office websites; and

(2) An enterprise level approach will be required to provide true real-time access to project status.

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.⁴

a. ArDOT 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

³ Guidehouse, *Arkansas Department of Transportation Performance Review Recommendations Report*, April 20, 2020, pages 19-22.

⁴ Guidehouse, *Arkansas Department of Transportation Performance Review Recommendations Report*, April 20, 2020, pages 23-25.

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.

C. Procurement

The following recommendations have been adopted by the Subcommittee with regard to Procurement Procedures of the Arkansas Department of Transportation: *[Pending Subcommittee Vote on 10/05/2020]*

- 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.⁵

a. ArDOT 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.

- 6. Implement Construction Contractor Performance Management.** 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.⁶

a. ArDOT Implementation:

⁵ Guidehouse, *Arkansas Department of Transportation Performance Review Recommendations Report*, April 20, 2020, page 27-30.

⁶ Guidehouse, *Arkansas Department of Transportation Performance Review Recommendations Report*, April 20, 2020, pages 31-33.

- (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.

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.

D. Expenditures

The following recommendations have been adopted by the Subcommittee with regard to Expenditures of the Arkansas Department of Transportation: *[Pending Subcommittee Vote on 10/05/2020]*

- 7. Implement Project and Portfolio Management Frameworks.** The 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.⁷

a. ArDOT 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

⁷ Guidehouse, *Arkansas Department of Transportation Performance Review Recommendations Report*, April 20, 2020, pages 35-40

(3) Change management and new IT applications may be required.

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.⁸

a. ArDOT 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.

E. Information Technology

The following recommendations have been adopted by the Subcommittee with regard to Information Technology of the Arkansas Department of Transportation: *[Pending Subcommittee Vote on 10/05/2020]*

9. Build an IT Governance Structure to Guide 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 FY2016 to \$23M in FY2020 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.⁹

⁸ Guidehouse, *Arkansas Department of Transportation Performance Review Recommendations Report*, April 20, 2020, page 41-44.

⁹ Guidehouse, *Arkansas Department of Transportation Performance Review Recommendations Report*, April 20, 2020, pages 46-48.

a. ArDOT 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.

- 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.¹⁰

a. ArDOT 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.

- 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

¹⁰ Guidehouse, *Arkansas Department of Transportation Performance Review Recommendations Report*, April 20, 2020, pages 49-52.

management framework may yield enhanced IT service delivery, improved internal customer satisfaction, and reduced IT costs.¹¹

a. ArDOT 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.

F. People Capabilities

The following recommendations have been adopted by the Subcommittee with regard to People Capabilities of the Arkansas Department of Transportation: *[Added to Draft Report by Subcommittee Vote on 08/05/2020]*

- 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.¹²

a. ArDOT 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; and
- (4) Promote buy-in among staff for the performance-based pay and evaluation practice.

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

¹¹ Guidehouse, *Arkansas Department of Transportation Performance Review Recommendations Report*, April 20, 2020, pages 53-55.

¹² Guidehouse, *Arkansas Department of Transportation Performance Review Recommendations Report*, April 20, 2020, pages 57-58.

(2) Career development activities are closely aligned with training and knowledge management.

13.Improve Staff Capabilities to Align with Current/Future Organization 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.¹³

a. ArDOT 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.

G. Oversight of Implementation of Subcommittee Recommendations.

In addition to the thirteen (13) recommendations set forth above, the Subcommittee adopted a recommendation to expand the authority of the Subcommittee to maintain oversight of the progress of the Department in implementing the recommendations set forth herein. The Subcommittee adopted recommended draft legislation that authorizes the Subcommittee to review the State Highway Commission's proposed rules regarding the implementation of the recommendations set forth in this final report. The bill would also require the Subcommittee to review proposed contracts, of \$25,000 or more, required to implement the recommendations prior to execution of the contracts. In addition, the Subcommittee will allow for reasonable public comment regarding both the proposed rules and contracts regarding implementation of the recommendations. (*See DTP005, An Act to Amend the Law Concerning the Duties of the State Highway Commission, Appendix C.*)

¹³ Guidehouse, *Arkansas Department of Transportation Performance Review Recommendations Report*, April 20, 2020, pages 59-62.

The Subcommittee also adopted and recommends an amendment to the Rules of the Arkansas Legislative Council reflecting the additional oversight authority of the Subcommittee, and requests immediate adoption of the amended rule. (See Proposed Amendment to ALC Rule 5.(a)(13), Appendix D.)

III. Looking Forward.

The recommendations of the Subcommittee provide ArDOT the opportunity to engage with members of the General Assembly and stakeholders to optimize the public's investment in the state's transportation infrastructure. The recommendations focus on creating a system of processes, standardized procedures, and documentation that spans all functions of the Department from administration, planning, design, construction, and maintenance. This structure, beginning with strong information technology resources, will standardize procedures across divisions and districts as well as increase transparency of how the Department is maximizing public funds. The implementation of the recommendations is a crucial step in completing this process. The subcommittee recommendation to bring the implementation of the recommendations before the subcommittee with the involvement of the public will ensure transparency in the process of implementation and provide the Department support during the process. The implementation of the recommendations will result in a strategic, efficient, optimized, and transparent ArDOT.

IV. Appendices.

- A.** Current State Assessment Report
- B.** Recommendations Report
- C.** DRAFT Legislation
- D.** Proposed Amendment to ALC Rule 5.(a)(13)