



Alaska Department of Transportation and Public Facilities Research Program Overview

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March 26th, 2026



KEEP ALASKA MOVING

Alaska DOT&PF Overview

5,682 Center Line Miles / 11,894 Lane Miles of Roads/Highways

1,139 Signalized Intersections

80 Maintenance Stations

235 Rural Airports

2 International Airports

9 Active Ferries

35 Ports of Call

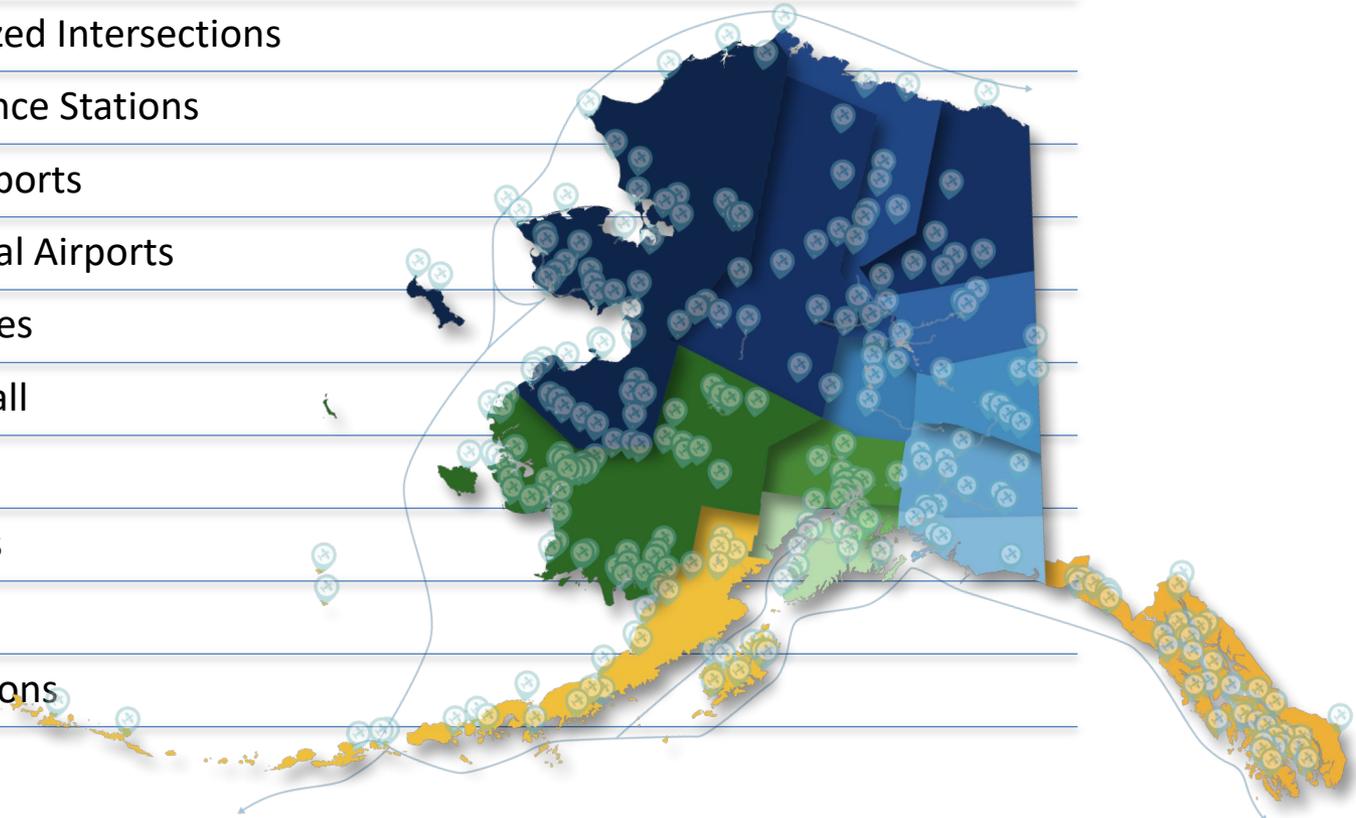
16 Harbors

1,000 Bridges

827 Buildings

9 Weigh Stations

3 Tunnels



Alaska DOT&PF is one of the largest departments, consisting of nearly 4,000 full-time, part-time, and non-permanent employees in 83 locations around the state.

Research & Development at a Glance

Division of Data Modernization & Innovation

Research

Conducted by Universities, Consultants, In-house

Implementation

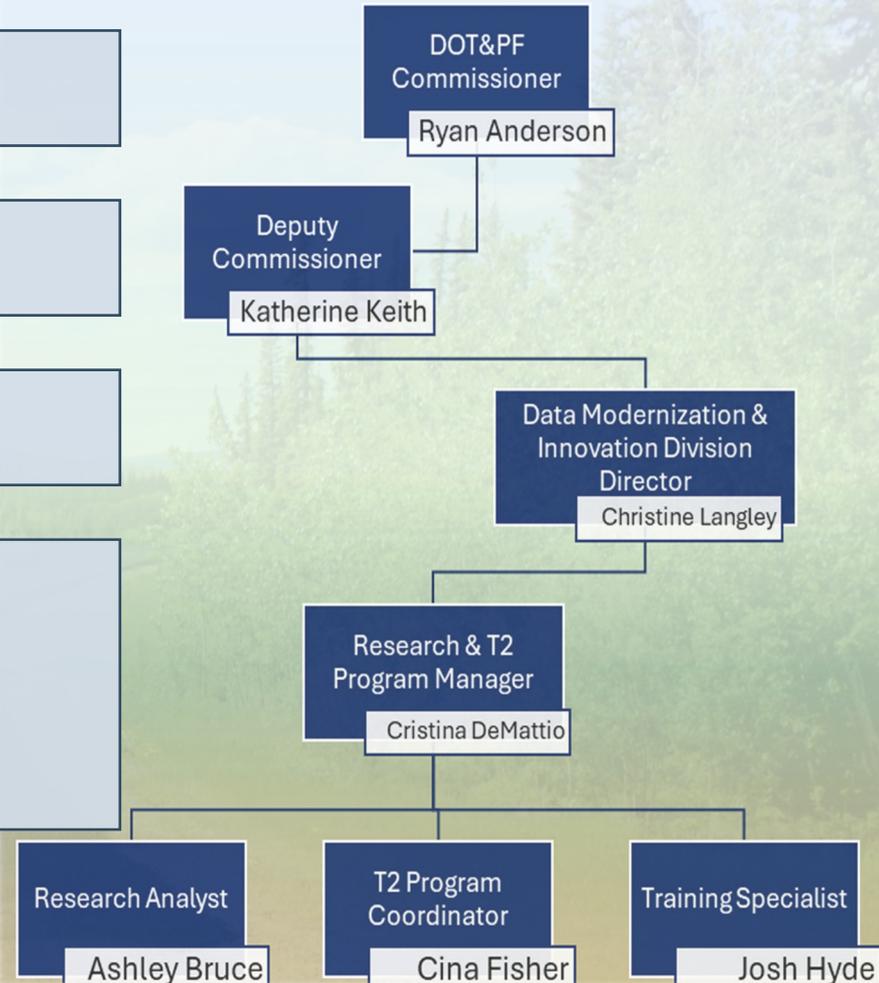
Development of Tools, Webinars, Specifications, etc.

Innovation Management

State Transportation Innovation Council (STIC)

Participation in National Research Programs

- TRB - Transportation Research Board
- TPF - Transportation Pooled Fund Studies
- NCHRP - National Cooperative Highway Research Program
- AASHTO - American Association of State Highway Transportation Officials





Objectives of the Highway Research & Development Program

23 U.S.C. 503(b)(1)

1. Identify Research Topics

2. Coordinate Research & Development Activities

3. Carry out Research, Testing, and Evaluation Activities

4. Provide Technology Transfer and Technical Assistance





Alaska's Research Program

- Research Program Funding for FFY27-28 Approximately \$7.6M
- **Project Types:**
 - ✓ Multi-year Research Projects
 - ✓ Rapid Research
 - ✓ Literature Review, Lab Testing, Field Testing, etc.
 - ✓ Pooled Fund Studies
- **Experimental Features**
 - Integrated with construction projects
 - Supports analysis, monitoring & reporting
- **Deployment**
 - Outreach, trainings, peer-exchanges, webinars
 - Implementation of national research and expert guidance



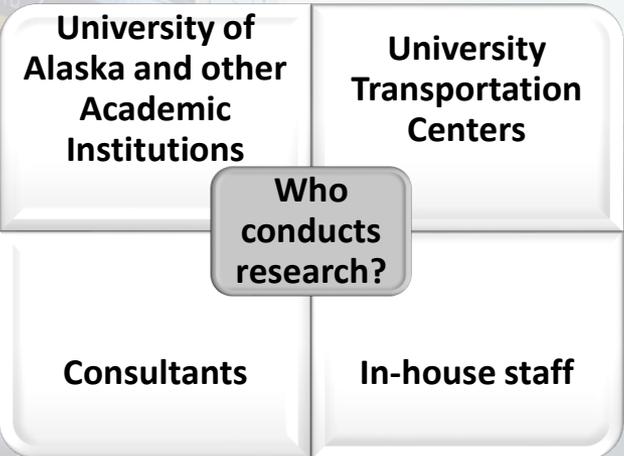
What is Research?

Applied Research

- Addresses surface transportation challenges
- Improves operational efficiency
- Evaluates innovations
- Improves policies and operations
- Partners with industry to advance technology adoption

Activities not considered research include:

- Updating department manuals
- Routine software licensing or database management
- Procurement of proprietary technology
- Construction or maintenance activities
- Equipment purchases exceeding \$10,000



FFY27-28 Call for Research Needs

The Alaska Department of Transportation & Public Facilities invites you to submit research ideas for surface transportation projects by **April 30th, 2026**.

Surface Transportation Includes:

- Roads and Highways
- Bridges and Structures
- Ferry and Marine Highway Infrastructure
- Sidewalk, Bicycle, and Pedestrian Facilities
- Trails and Rural Access Routes
- Ports and Harbors
- Winter and Ice Road Operations

Eligible Research Topics

- ✓ Improving mobility of people and goods
- ✓ Reducing congestion
- ✓ Promoting safety
- ✓ Improving the durability and extending the life of transportation infrastructure
- ✓ Preserving the existing transportation system
- ✓ Stimulating economic growth
- ✓ Increasing productiveness and competitiveness
- ✓ Accelerating project delivery



Establish Clear and Strategic Goals

Effective projects are:

- ✓ Clearly defined in scope
- ✓ Achievable within two years
- ✓ Low risk and supported by a project champion
- ✓ Aligned with communication and public engagement opportunities
- ✓ Supported by engaged technical advisors

Projects are less likely to succeed when they are:

- Poorly defined in scope or purpose
- Lacking demonstrated need
- Not supported by technical advisors
- Unrealistic in scale or complexity

Demonstrate Practical Application

- Incorporating real-world testing and pilot projects increases stakeholder confidence and project credibility
- Supports continued collaboration with federal partners
- Identify opportunities to integrate innovations into existing projects

Experimental Feature: Implementation of a proven product, method, or innovation under Alaska-specific conditions, followed by field evaluation and performance monitoring.



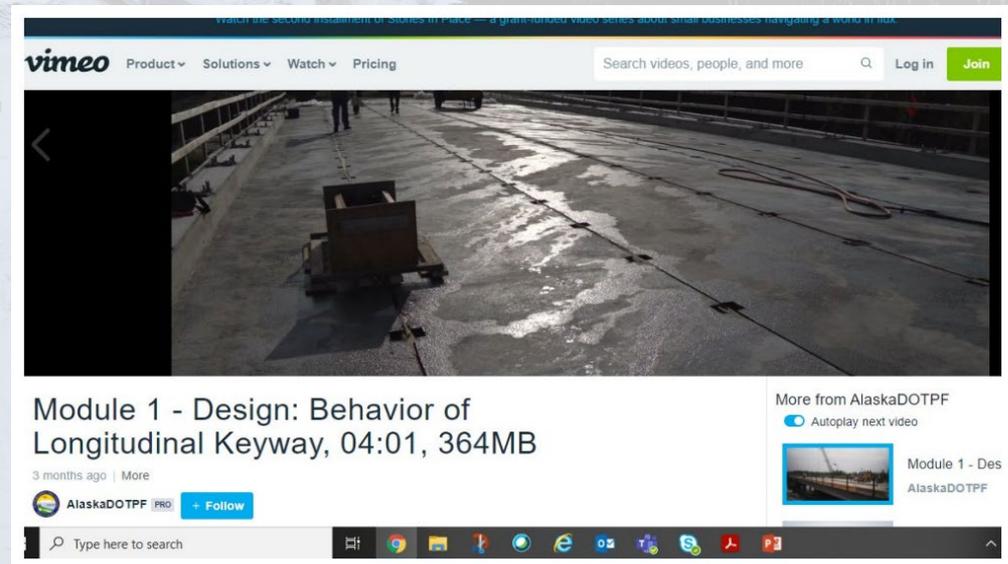
Typical open pipe fish ladder application (Photo: Fishculvert.com)



Dynamic Friction tester with Case and Water Source

Implement Research Outcomes

- Deliver training, webinars, and multimedia resources
- Foster collaboration across stakeholders
- Integrate findings into standard business practices
- Support policy and legislative updates where applicable
- Facilitate peer exchanges and cross-division recommendations





The Research Advisory Board

The Research Advisory Board provides research program direction by formulating and approving selection criteria for the upcoming federal fiscal year. The RAB also reviews and ranks Research Needs Statements (RNS) for funding. The RAB includes:

1. A Regional DOT&PF Director/Chief Engineer
2. A Regional DOT&PF Pre-Construction Engineer
3. A Statewide DOT&PF Technical Engineer
4. An Alaska Energy Authority Representative
5. A Department of Environmental Conservation Representative
6. A Department of Natural Resources Representative
7. A Department of Fish and Game Representative
8. A Department of Commerce, Community & Economic Development Representative
9. A Department of Public Safety Representative
10. A Department of Labor & Workforce Development Representative
11. A Department of Health Representative
12. Denali Commission Representative
13. FHWA Alaska Division Representative (non-voting)

The Research Program Manager will facilitate the board meeting but is a non-voting member.

Timeline

Application & Selection

April - May

Researchers coordinate with Subject Matter Experts to develop and submit needs statements. **Due April 30th**

May 13, 2026

Research Needs Presentations

Researchers will be invited to share brief presentations at the Technical Advisors Committee (TAC) Meeting.

➤ Ranking by TAC

May 27, 2026

Research Advisory Board reviews TAC rankings and makes final project selections

Research Plan Development & Approval

June - July

- Prepare Research Workplan and submit to FHWA for approval
- Researchers will be notified if their proposed project has been approved

Formal Proposals

August - September

Researchers who have received notice of project approval will submit formal proposals including detailed scope and budget to DOT&PF for 2027 project starts.

Template documents are available upon request

Project Initiation

October - January

October 1st - Start of FFY27

October - December

Prepare FFY27 Project Starts and Contracts

November - January

Research Projects commence. *Start date can be adjusted to accommodate university schedules if needed.*

How to Submit a Research Needs Statement

A complete RNS must include the following:

1. Problem Statement
2. Objectives & Expected Outcomes
3. Expected Benefits
4. Research Approach
5. Implementation plan
6. Cost Estimate
7. Equipment Needs
8. Project Duration



[Research Needs Application](#)

Questions?

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Cover photos by Alaska DOT&PF Staff:

Sunset departure, Anchorage International Airport. By Christopher Cummins

Alaska Range from the Richardson Highway. By Dennis Bishop

Aboard the MV LeConte sailing Lynn Canal to Juneau from Haines. By Andrea Deppner

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