

West Susitna Road Access

FY2022 Request: \$10,000,000
Reference No: AMD 56220

AP/AL: Appropriation
Category: Development
Location: Southcentral Alaska

Project Type: Construction
House District: Southcentral Region (HD 7-31)

Impact House District: Southcentral Region (HD 7-31)

Contact: Alan Weitzner, AIDEA

Estimated Project Dates: 07/01/2021 - 06/30/2026 **Contact Phone:** (907)771-3050

Brief Summary and Statement of Need:

This project has completed phase two of the pre-development feasibility planning, which started in 2014 as the West Susitna Access Study led by the Department of Transportation and Public Facilities (DOT&PF) as part of the agency’s Roads to Resources program. The purpose of the study was to identify options for an optimal access corridor to a broader, district-wide area of resources with connection to Port MacKenzie.

Funding:	<u>FY2022</u>	<u>FY2023</u>	<u>FY2024</u>	<u>FY2025</u>	<u>FY2026</u>	<u>FY2027</u>	<u>Total</u>
1004 Gen Fund	\$10,000,000						\$10,000,000
Total:	\$10,000,000	\$0	\$0	\$0	\$0	\$0	\$10,000,000

<input type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input checked="" type="checkbox"/> Ongoing
0% = Minimum State Match % Required		<input checked="" type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

Operating & Maintenance Costs:

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	0
Totals:	0	0

Prior Funding History / Additional Information:

Sec4 Ch16 SLA2013 P105 L22 SB 18 \$95,200,000
 Sec4 Ch5 SLA2011 P127 L10 SB 46 \$65,700,000
 Sec7 Ch43 SLA2010 P19 L16 SB 230 \$10,000,000
 Sec13 Ch29 SLA2008 P87 L14 SB 221 \$2,500,000

The proposed route is approximately 100 miles long, from the west end of Ayrshire Road to near the confluence of the Talachulitna and Skwentna Rivers. After crossing the Skwentna River, it would continue adjacent to the proposed Donlin Gold gas pipeline route on the north side of the Skwentna River. Near the Happy River crossing, the route would diverge away from the Donlin Gold gas pipeline route and continue west to a point of tie-in with existing mineral exploration roads.

Project Description/Justification:

This project will:

- Direct a route that implements broader access than a single purpose road;
- Expedite the development of the access for broader economic development within the Borough and State which would otherwise have been tied to a single user’s access requirements and timing; and

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- Facilitate future resource development which otherwise would not have the resources to complete the permitting process.

This project is critical in terms of providing new job opportunities within the Borough, new revenue streams to the Borough and State, expanding the utilization of existing infrastructure like Port MacKenzie, providing support to complete Borough projects like the rail link to Port MacKenzie, as well as expanding access to Alaska's abundant resources within the Borough:

- **Mineral Resources:** Copper, gold, silver, platinum, and diamond potential; more than 3,000 active mining claims within the basin
- **Oil & Gas:** Active oil and gas exploration in the northern Cook Inlet continues; nine oil and gas producing units and fields in the study area
- **Forestry:** 700,000+ acres available for harvest; enhance fire suppression
- **Agricultural Resources:** More than 65,000 acres of agricultural land identified for potential agricultural uses
- **Alternative Energy:** Opportunities including geothermal and hydroelectric projects, and woody biomass resources
- **Recreational Resources:** Recreation resource opportunities including snowmachining, fishing, hunting, boating, recreational mining, and use of cabins

Ambler Road Pre-Construction Activities Including Material Purchases **FY2022 Request: \$7,500,000**
Reference No: AMD 63439

AP/AL: Appropriation **Project Type:** Research / Studies / Planning
Category: Development
Location: Utqiagvik **House District:** Arctic (HD 40)
Impact House District: Arctic (HD 40) **Contact:** Alan Weitzner, AIDEA
Estimated Project Dates: 07/01/2021 - 06/30/2026 **Contact Phone:** (907)771-3050

Brief Summary and Statement of Need:

This project will provide an all season access road for exploration and development of mineral resources within the Ambler mining district.

AIDEA’s experience with similar transportation infrastructure investments has shown that these projects provide significant economic benefits and long term high paying jobs throughout the region. AIDEA expects the development of the Ambler Mining Access Road to provide long term economic benefits to private resource developers and the people of the State of Alaska.

Funding:	<u>FY2022</u>	<u>FY2023</u>	<u>FY2024</u>	<u>FY2025</u>	<u>FY2026</u>	<u>FY2027</u>	<u>Total</u>
1004 Gen Fund	\$7,500,000						\$7,500,000
Total:	\$7,500,000	\$0	\$0	\$0	\$0	\$0	\$7,500,000

<input type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input checked="" type="checkbox"/> Ongoing
0% = Minimum State Match % Required		<input checked="" type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

Operating & Maintenance Costs:	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	0
Totals:	0	0

Prior Funding History / Additional Information:

Named Recipient Grant - Pavement Rehab Through Mat-Su Population Corridor **FY2022 Request: \$10,000,000**
Reference No: AMD 63440

AP/AL: Appropriation **Project Type:** Research / Studies / Planning
Category: Development
Location: Matanuska-Susitna Borough (Greater Wasilla) **House District:** Matsu Areawide (HD 7-12)
Impact House District: Matsu Areawide (HD 7-12) **Contact:** Dom Pannone
Estimated Project Dates: 07/01/2021 - 06/30/2026 **Contact Phone:** (907)465-2956

Brief Summary and Statement of Need:

Grant funding to the Matanuska-Susitna Borough to address pavement and roadway rehabilitation and preservation, including work to the Parks Highway in the Wasilla population corridor, and other areas of need as determined by the Borough. This work may include crack sealing, surface treatment drainage, signage, guardrail, illumination, and other refurbishments to prolong the life of road pavement and bridges and their safety related structures. This includes national highway system lane delineators, destination and distance signing, pavement markings and signalization, abandoned vehicle program, road surfacing and transfer, road surface treatments, and improve curb ramps to meet ADA standards.

Funding:	<u>FY2022</u>	<u>FY2023</u>	<u>FY2024</u>	<u>FY2025</u>	<u>FY2026</u>	<u>FY2027</u>	<u>Total</u>
1004 Gen Fund	\$10,000,000						\$10,000,000
Total:	\$10,000,000	\$0	\$0	\$0	\$0	\$0	\$10,000,000

<input type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input checked="" type="checkbox"/> Ongoing
0% = Minimum State Match % Required		<input checked="" type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

Operating & Maintenance Costs:

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	0
Totals:	0	0

Prior Funding History / Additional Information:

The scope of this grant does not include landscaping or other elements inconsistent with a pavement preservation focus. These funds may be utilized as match funding for these purposes, and the Borough may coordinate with DOT&PF to execute on this project.

Arctic Strategic Transportation and Resource Project

FY2022 Request: \$5,000,000

Reference No: AMD 62649

AP/AL: Appropriation
Category: Development

Project Type: Research / Studies / Planning

Location: Utqiagvik
Impact House District: Arctic (HD 40)

House District: Arctic (HD 40)

Contact: Cheri Lowenstein

Estimated Project Dates: 07/01/2021 - 06/30/2026

Contact Phone: (907)465-2422

Brief Summary and Statement of Need:

The Arctic Strategic Transportation and Resource (ASTAR) is a partnership between the State of Alaska, Department of Natural Resources and the North Slope Borough. ASTAR seeks to work with North Slope communities and stakeholders to identify projects, resources, and studies which offer the most cumulative benefit to the North Slope region and its communities.

Funding:	<u>FY2022</u>	<u>FY2023</u>	<u>FY2024</u>	<u>FY2025</u>	<u>FY2026</u>	<u>FY2027</u>	<u>Total</u>
1004 Gen Fund	\$5,000,000						\$5,000,000
Total:	\$5,000,000	\$0	\$0	\$0	\$0	\$0	\$5,000,000

<input type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input checked="" type="checkbox"/> Ongoing
0% = Minimum State Match % Required		<input checked="" type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

Operating & Maintenance Costs:

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	0
Totals:	0	0

Prior Funding History / Additional Information:

Sec19 Ch1 SLA2017 P22 L21 SB23 \$7,303,482

Project Description/Justification:

Mission: Identify, evaluate, and advance opportunities to enhance the quality of life and economic opportunities in North Slope communities through responsible infrastructure development.

Goal: Prioritize community needs and identify infrastructure opportunities that offer the most cumulative benefit and best enhance the quality of life for the region.

Project Funding

Upcoming field studies

- Gravel survey (2021)
 - Focused around the communities of Utqiagvik, Atqasuk, Wainwright
- Lake surveys: NPRA (2021) and ANWR (2022)
- Coastal Hazard assessment (2021)
 - Erosion monitoring
- Shallow core drilling (2021)

- Data will serve as an analogue for reservoir development and help guide future exploration on the North Slope

Stakeholder outreach

- Provide a series of virtual trainings to North Slope communities for the Project Evaluation tool and the Infrastructure Site Selection tool (software/computer programs)
 - Trainings to be completed by June 2021
- Mail deliverables to each North Slope community
 - ASTAR reports, studies, data, infrastructure analysis tools (software), and more
- Continue to work with North Slope Borough and communities to identify community/regional infrastructure needs, identify data gaps, and fill data gaps through field studies as funds allow

Proposed studies and work in 2022 ASTAR funding request (bond package - not put forward by the Legislature)

This request is intended to help develop critical resources that empower Alaska's Arctic communities.

ASTAR seeks to identify regional infrastructure needs. Through the ASTAR effort, alliances with willing Arctic communities and stakeholders have been formed to collaborate on opportunities that strengthen community infrastructure and facilitate access to Arctic resources. The goal is to identify infrastructure opportunities which offer the most Cumulative Benefit and best enhance the quality of life for the region.

This work supports natural outgrowth of previous ASTAR activities and empowers Alaska's Arctic communities through continued engagement with federal, state, and local land managers and delivery of resource information critical to community infrastructure planning, proposal, and development. Key objectives of these efforts include:

- North Slope sand and gravel survey. Because it is expensive to transport sand and gravel, identifying where construction-quality sand and gravel resources are located helps communities estimate costs of new infrastructure and facilitates industry development.
- Coastal hazards assessment for North Slope communities and facilities. Identify areas near North Slope coastal communities and development centers that are vulnerable to flooding and coastal erosion. Providing data on erosion rates and flooding along the coast will support development projects, community connectivity, public safety, and community resilience.
- Petroleum geology fieldwork from the eastern NPR-A to the ANWR coastal plain to provide regional and reservoir-scale geologic data for the Nanushuk, Torok, Seabee, Tuluvak, and associated petroleum-significant rock units. This work will include shallow coring of the Nanushuk, Seabee, and Tuluvak formations at several locations. Industry relies on publicly available geological information when deciding where to invest in seismic, exploration, and development activities. Because Alaska is a resource-rich state, making this information available attracts investment.
- Continue stakeholder outreach with North Slope Borough, North Slope communities, residents, and stakeholders.

Partnered funds for ASTAR projects

One of the ASTAR's biggest success stories has been our ability to leverage funds with other North Slope entities/stakeholders. Many North Slope stakeholders are very interested in advancing or adding to ASTAR studies. ASTAR offers an avenue for entities that are interested in this work and data to participate in a variety of ways, including matching funds to increase and expand our efforts. Below is a rough estimate of partnered funds to date:

- Gravel research and field studies

- \$560,000 BLM
- \$600,000 North Slope Borough
- Department of Transportation (DOT) is donating drill rig and staff time for field surveys
- Coastal Hazard assessment
 - \$1,000,000 NOAA
- Shallow Core drilling program
 - \$400,000 USGS
- North Slope stakeholder outreach
 - \$200,000 North Slope Borough
 - Countless hours from North Slope community leadership to participate and meaningfully engage with ASTAR team and efforts

Alaska Real-Time Global Navigations Satellite System Network

FY2022 Request: \$5,000,000
Reference No: AMD 63438

AP/AL: Appropriation
Category: Development
Location: Utqiagvik
Impact House District: Arctic (HD 40)
Estimated Project Dates: 07/01/2021 - 06/30/2025

Project Type: Research / Studies / Planning
House District: Arctic (HD 40)
Contact: Cheri Lowenstein
Contact Phone: (907)465-2422

Brief Summary and Statement of Need:

Alaska’s existing Continuous Operating Reference Stations (CORS) provide geodetic quality Global Navigations Satellite System (GNSS) data at a known location which enables users to improve three-dimensional positioning, meteorology, public safety, and geophysical applications. It is the cornerstone of the National Spatial Reference System (NSRS). However, Alaska’s CORS are currently operating independently and are not linked as a system. These linked systems are called Real-Time GNSS Networks.

Funding:	<u>FY2022</u>	<u>FY2023</u>	<u>FY2024</u>	<u>FY2025</u>	<u>FY2026</u>	<u>FY2027</u>	<u>Total</u>
1004 Gen Fund	\$5,000,000						\$5,000,000
Total:	\$5,000,000	\$0	\$0	\$0	\$0	\$0	\$5,000,000

<input type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input checked="" type="checkbox"/> Ongoing
0% = Minimum State Match % Required		<input checked="" type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

Operating & Maintenance Costs:

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	0
Totals:	0	0

Prior Funding History / Additional Information:

Linking Alaska’s existing CORS sites with low latency communications, upgrading others, and adding 28 additional sites to fill in gaps would create a powerful Real-Time GNSS Network that could send positional information to a central server. This data would be integrated into a system that provides real-time positional accuracy of 2 cm horizontal and 5 cm vertical instantaneously to the user in the field.

Project Description/Justification:

A fully realized Real-Time GNSS Network would tremendously benefit all forms of emergency management, hazards assessment, early warning systems, increase public safety through e911 integration, support autonomous and semi-autonomous vehicles such as snowplows and semi-trucks, and significantly reduce the cost and time to develop land in Alaska.

This technology is ubiquitous in the lower 48. Alaska can take advantage of what has been learned by other states and leverage existing infrastructure to build a modern integrated CORS-augmented GPS Real-Time Network that would meet the needs of Alaska now and make Alaska more competitive in the future.

Benefits of the Alaska Real-Time GNSS Network include:

- Developing geographic information systems for planning and management functions. These include boundary determination for site planning, land use, hydrology and minerals management.
- Infrastructure mapping and asset maintenance including roads, pipelines and utilities for projects such as Ambler Road, Donlin Gold, Alaska to Alberta Railway, AK LNG, DOT&PF transportation projects and enhancing Wildlife fire response.
- Precise locations of cell phone calls for e911 emergency systems through augmented GPS (aGPS).
- Coastal hazard mapping requires collecting precise, survey-grade elevations to support mapping of flood elevations, shoreline erosion/accretion, or local topography/bathymetry.
- Calibrating tide gauge data for monitoring sea level rise or glacial rebound and creating accurate storm surge and tsunami inundation models.
- Assessments of relative sea level use continuously operating GPS systems to determine the magnitude of vertical land motion, which is then compared to eustatic sea level to understand the local magnitude of relative sea level rise or decline and the impacts of local sea level on coastal inundation.
- Unmanned Aircraft Systems guidance system integration for commercial, scientific and fire mapping.
- Creating a structure for high precision agriculture, mining and transportation safety allowing on-board steering and controls.
- Determining the travel path of moving platforms, including positions of aircraft. This contributes to many types of mapping, assessing airport approaches and runway obstructions and assessing storm damage.
- Monitoring horizontal and vertical crustal motion and plate tectonics for earthquake prediction.
- Determining legal marine and land boundaries, determining wetlands, fishing areas, mineral rights, cadastral, etc.
- Measuring and monitoring fault displacement.
- Monitoring the distribution of precipitable water vapor in the atmosphere for weather prediction.
- Mapping the distribution of free electrons in the atmosphere to predict and measure space weather, which can have large effects on aircraft, power grids and telecommunications.

FHWA Allocation - Denali Commission Infrastructure

FY2022 Request: \$15,000,000

Reference No: AMD 63436

AP/AL: Appropriation
Category: Development

Project Type: Research / Studies / Planning

Location: Statewide
Impact House District: Statewide (HD 1-40)

House District: Statewide (HD 1-40)

Estimated Project Dates: 07/01/2021 - 06/30/2026

Contact: Dom Pannone

Contact Phone: (907)465-2956

Brief Summary and Statement of Need:

This project will enable the Denali Commission to execute on targeted surface transportation projects in rural Alaska. The Denali Commission was established with a focus on promoting rural development in bulk fuel storage, power generation, health care facilities, surface transportation and waterfront facilities, communication systems, and specialty housing. The Denali Commission Act affords the agency significant latitude and authority to address issues facing rural Alaska.

Funding:	<u>FY2022</u>	<u>FY2023</u>	<u>FY2024</u>	<u>FY2025</u>	<u>FY2026</u>	<u>FY2027</u>	<u>Total</u>
1265 COVID Fed	\$15,000,000						\$15,000,000
Total:	\$15,000,000	\$0	\$0	\$0	\$0	\$0	\$15,000,000

<input type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input checked="" type="checkbox"/> Ongoing
0% = Minimum State Match % Required		<input checked="" type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

Operating & Maintenance Costs:

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	0
Totals:	0	0

Prior Funding History / Additional Information:

FHWA CRRSSA Federal

Project Description/Justification:

This allocation is intended to revitalize the Denali Commission surface transportation program to provide critical access to and between rural and remote communities. From 2006 to 2021 the Commission received approximately \$125 million of direct appropriations from the U.S. Department of Transportation, Federal Highway Administration (FHWA) and Federal Transit Authority (FTA), which was matched by \$400 million from other sources including the State of Alaska. The Commission's road projects included new road construction, design, realignments, community street upgrades, storm drainage, access road improvements, dust control, boardwalks, and road paving, resurfacing, and rehabilitation. Rural Alaska faces a well-documented unmet need related to transportation infrastructure as well as age, environmental and climate risks to existing infrastructure.

Possible future projects under evaluation include:

- Noatak to Red Dog Mine Delong Mountain Transportation System
- Kaktovik to Dalton Highway
- Yukon-Kuskokwim Freight and Energy Surface Transportation Corridor
- Southeast road and bridge links

Arctic Strategic Transportation and Resource Project (ASTAR) network
Rampart Village to Elliot Highway
Max Italo road reconstruction