Pribilof Islands Regional Transportation Safety Action Plan

Funded by Safe Streets for All (SS4A) USDOT

October 2024 Draft Version




THE SEAL OF THE CITY OF SAINT PAUL
INCORPORATED JUNE 29,1971
SAINT PAUL ISLAND
ST. PAUL
SAINT PAUL ISLAND, ALASKA

DEPARTMENT OF TRANSPORTATION
UNITED STATES OF AMERICA

S|S
4|A

ALEUT COMMUNITY OF ST. PAUL
TRIBAL GOVERNMENT

City and Tribal Leadership Commitment Letter

As we continue to build upon improving the livelihoods of the residents of the Pribilof Islands, we take pride in the cultural richness and the strong spirit of cooperation that defines the Aleut Community of Saint Paul Island and the City of Saint Paul. Together, we are committed to creating a future where our streets are safe for all users and where our families, neighbors, and friends can walk, bike, and drive without the fear of traffic-related injuries or fatalities.

Roadway safety is not just a transportation issue, it is a fundamental public safety concern. For the Pribilof Islands, keeping a record of zero roadway deaths is a success, but one we cannot take for granted. We must continue to work tirelessly to ensure that no more lives are lost. In partnership with the Aleut Community of Saint Paul Island, the City of Saint Paul is renewing our shared commitment to ensuring zero roadway deaths in the years to come. Our goal is clear: to eliminate fatalities and serious injuries on the Pribilof Islands' roads. With the support of local agencies, transportation partners, and community members, we aim to maintain this critical safety standard while addressing transportation challenges unique to our rural and remote location.

This commitment goes beyond statistics and numbers. It's about creating safe, accessible roads that work for all members of our community, from our elders and children to the hardworking men and women who rely on transportation to access essential services. We know that vulnerable road users, including pedestrians and ATV users, are disproportionately affected by traffic-related incidents. We also recognize that our lower-income residents, who are more reliant on walking and are often without vehicles for transportation, face unique challenges.

We pledge to address these disparities by focusing on safety for all road users and we are committed to a future where no one loses their life or suffers a life-changing injury on our roads.

This goal is ambitious, but achievable when we work together. Our partnership with Safety Partners, included in this Pribilof Islands Regional Safety Action Plan, will be key in realizing this vision. We will engage with the community to ensure that transportation safety priorities reflect local knowledge and concerns. In addition, through strategic investments in road safety infrastructure, including improved roadways, enhanced signage, guardrails, improved lighting, and drainage systems, we will ensure that our streets are safer for all.

Achieving zero roadway deaths will require a comprehensive and enduring effort, including public education, enforcement of driving regulations, and strategic public safety campaigns. Working together, the City of Saint Paul and the Aleut Community of Saint Paul Island commit to continuing the pursuit of safer streets for all. We are focused on keeping our roads safe, clean, and accessible for generations to come.

Together, we can and will achieve our vision of safe streets for all, ensuring that the Pribilof Islands remain a place where everyone can live, work, play, and thrive without fear of roadway tragedies.

Sign Here _____

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Aleut Community of Saint Paul Island, Tribal President, John Wayne Melovidov

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A special thanks to the communities of Saint Paul and Saint George and all those involved in public outreach efforts!

Planning support is provided by Kuna Engineering, LLC

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Acronyms and Abbreviations

ASHSP	Alaska Strategic Highway Safety Plan
ACS	American Community Survey
ACSPI	Aleut Community of St. Paul Island
ADOT&PF	Alaska Department of Transportation and Public Facilities
APICDA	Aleutian Pribilof Island Community Development Association
APIA	Aleutian Pribilof Islands Association
ATV	All-Terrain Vehicle
BIA	Bureau of Indian Affairs
CDP	Census Designated Place
CIP	Capital Improvement Plan
EMS	Emergency Medical Services
FHWA	Federal Highway Administration
FWS	Fish and Wildlife Service
MARAD	Maritime Administration
NHTSA	National Highway Traffic Safety Administration
NOAA	National Oceanic and Atmospheric Administration
PSC	Proven Safety Countermeasure
RSA	Road Safety Audit
SAPT	Safety Action Planning Team
SHSP	Strategic Highway Safety Plan
SS4A	Safe Streets and Roads for All
STIP	State Transportation Improvement Program
SWOT	Strengths, Weaknesses, Opportunities, Threats
TIP	Transportation Improvement Program
TDX	Tanadgusix Corporation
USDOT	United States Department of Transportation
VMT	Vehicle Miles Traveled
VRU	Vulnerable Road User

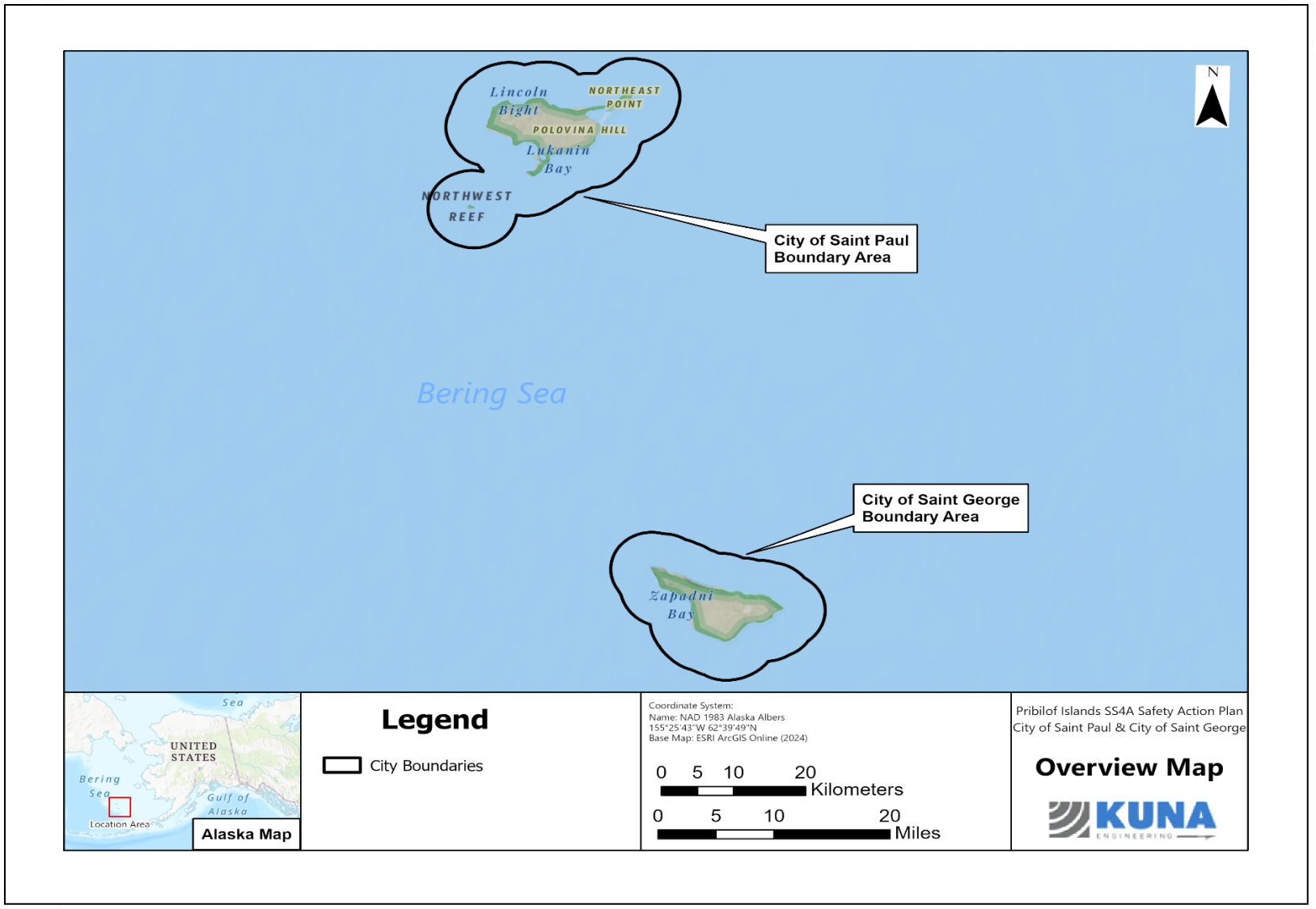


Figure 1. Pribilof Island Region Overview Map

Figure 2. Saint Paul Island Overview Map

Figure 3. Saint Paul Community Map

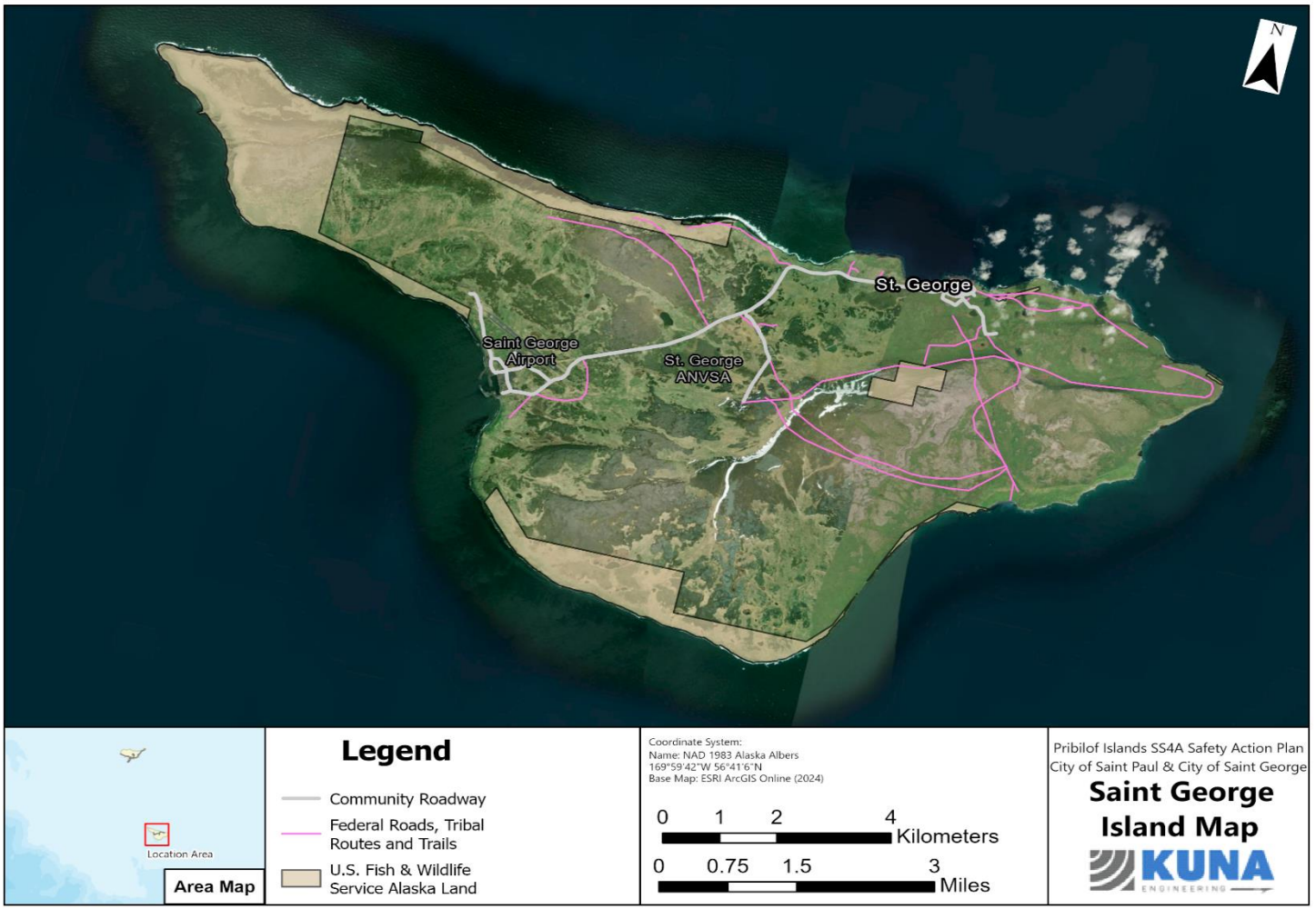


Figure 4. Saint George Island Overview Map

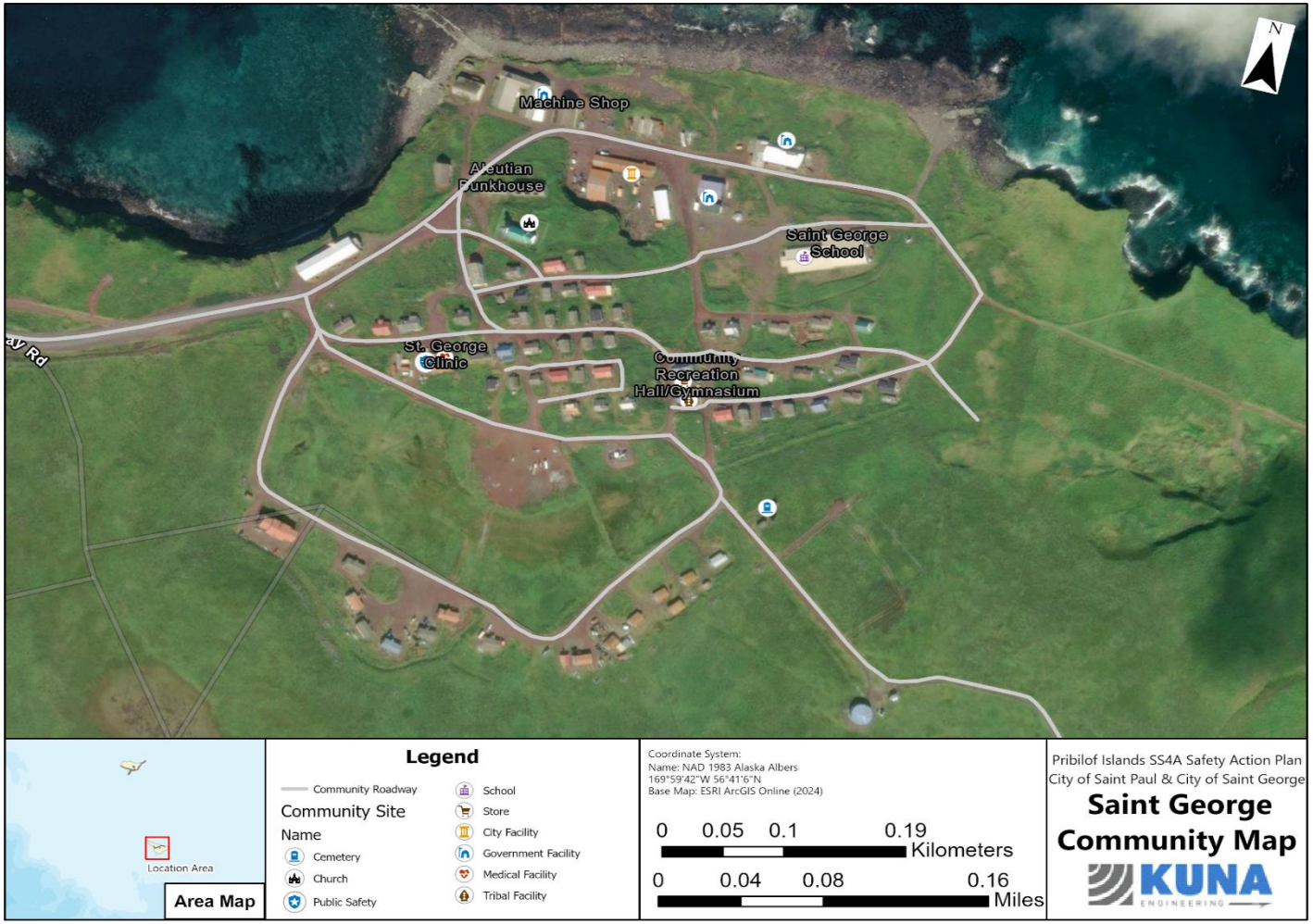


Figure 5. Saint George Community Map

Section 1 Introduction

Saint George Island Community Roadway

The Safe Streets for All (SS4A) grant program, introduced under the Bipartisan Infrastructure Law (BIL), is designed to support regional and local efforts aimed at preventing roadway fatalities and serious injuries. This initiative aligns with the U.S. Department of Transportation's (USDOT) National Roadway Safety Strategy, which seeks to achieve zero roadway fatalities through a Safe System Approach. Saint Paul and Saint George Islands, the two largest of Alaska's Pribilof Islands in the Bering Sea, were awarded a Planning and Demonstration Grant under the SS4A program to develop a comprehensive Safety Action Plan.

Saint Paul Island Community Roadway

While the number of fatalities on community roadways has been low in recent years, these rural and isolated communities have noted accidents resulting in serious injury that could be prevented with road safety improvements. Contributing factors include road safety issues related to roadway design, poor delineation between walking trails and motorized trails, lack of signage, and limited lighting. The prevention of future roadway fatalities and serious injuries is critically important, especially considering the lack of hospitals or trauma centers on the islands. Patients with serious injuries must be airlifted or medevaced nearly 800 miles to Anchorage, often facing delays due to persistently overcast skies, high winds, frequent cyclonic storms, or heavy fog.

The regional safety action plan for Saint Paul and Saint George Islands, was developed to identify actionable strategies toward reaching the goal of zero roadway fatalities and serious injuries. This plan is supported by a process of community engagement and a strong emphasis on equity that intends to:

Safety Action Plan Development Process:

1. Create a multi-stakeholder Safety Action Planning Team (SAPT) that works to integrate perspectives from representatives in public health, policymakers in both city and tribal governments, public safety, local residents, state and federal employees, businesses, and school district personnel who have a stake in transportation safety improvements for both islands.
2. Conduct meaningful community outreach to inform the plan's priorities and integrate transportation safety matters of concern into the plan.
3. Gather input from the community about what they see and experience on community roads, trails, walkways and transportation networks.
4. Make a public commitment that transportation safety efforts will adhere to the needs of the Unangan people of the Pribilof Islands and commit to reporting through public involvement to help build trust within the community.
5. Develop the plan in an equitable manner that honors the predominantly Unangan native population of these islands.

This collaborative and inclusive approach to improving transportation safety aims to ensure that the Safety Action Plan reflects the unique needs and perspectives of the Pribilof Island region, ultimately enhancing roadway safety for all.

Section 1.1 Mission Statement

The mission statement of the Safety Action Plan is collective commitment of the SAPT to keep the community safe and protected from transportation related accidents through improved roadways and greater emergency access. The SAPT is dedicated towards achieving a target of zero roadway deaths in the community and will adhere to the Vision Zero approach in continuing to achieve zero deaths. The City of Saint Paul and the Aleut Community of Saint Paul and Saint George Islands have all committed to:

Safety Action Plan Mission Statement:

- ✓ Maintain zero roadway deaths related to crashes or accidents over the next 10 years.
- ✓ Reduce the number of crashes and accidents resulting in serious injury on roadways by half
- ✓ Commit to eliminating crashes and accidents resulting in serious injury to pedestrians and ATV users on community roadways

Section 1.2 Goals and Emphasis Areas

FHWA Safe System Approach:

Reaching zero deaths requires the implementation of a Safe System approach, which was founded on the principles that humans make mistakes and that human bodies have limited ability to tolerate crash impacts. In a Safe System, those mistakes should never lead to death. Applying the Safe System approach involves anticipating human mistakes by designing and managing road infrastructure to keep the risk of a mistake low; and when a mistake leads to a crash, the impact on the human body doesn't result in a fatality or serious injury.

The Safety Action Plan will use the Safe System Approach in its goal of maintaining zero roadway deaths on community roadways. [1] The Safe System Approach emphasizes speed management, improving safety for all roadway users, and designing roadways with safety as the priority. In alignment with the Alaska Strategic Highway Safety Plan (SHSP) Towards zero deaths initiative, this plan will concentrate on critical elements, which can be influenced through roadway design, engineering, and education strategies. [2]

Health and safety staff both on island and off island, responsible for post-crash care, along with city government public safety staff, have been integral members in working towards the commitment to reduction in transportation related accidents and fatalities. There are six principles that form the basis of the Safe System approach that will be used to guide and develop the approach to mitigating transportation safety efforts included in the plan. These six principles form the basis for developing the priority

Figure 6. Safe System Approach Principles for Transportation Safety (FHWA)

[1] "Zero Deaths and Safe System" FHWA, 2024, website: https://highways.dot.gov/safety/zero-deaths
[2] "Strategic Highway Safety Plan" State of Alaska 2023, website: https://dot.alaska.gov/stwdplng/shsp/

transportation safety emphasis areas. It is the goal and mission of the city government, tribal council, and community to see these emphasis areas developed in the future to continue to achieve ongoing transportation safety and a continuation of zero road deaths on community roadways.

The Safe System approach is designed to systematically reduce fatalities and injuries by addressing key elements of road safety: Safe Roads, Safe Speeds, Safe Road Users, Safe Vehicles, and Post-crash Care. By evaluating data and regional safety priorities, the SAPT, Safety Plan Stakeholders and community members in Saint Paul and Saint George have developed targeted strategies within each element to improve safety outcomes. The Pribilof Islands Regional Safety Action Plan outlines specific actions within these areas, each with a defined implementation period, to ensure a comprehensive and phased approach to achieving the goal of zero fatalities and serious injuries. Goals are categorized by timeframe, with short-term projects expected to be completed within 5 years, medium-term projects completed within 5 years-10 years, and long-term projects taking up to 10 years to implement and monitor.

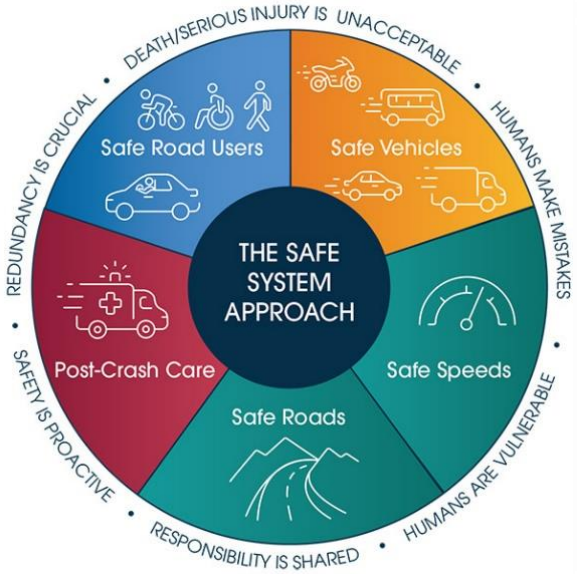


Figure 7. Safe System Approach to Transportation Safety (ADOT&PF)

Safety Action Plan Goals & Emphasis Areas:

1. Commitment to a Vision Zero Plan of maintaining zero roadway deaths on community roads, walkways and trails.
2. Use of the Safe Systems Approach in the development of the Safety Action Plan, which recognizes that humans make mistakes which can lead to crashes and that death and serious injuries on community transportation networks are unacceptable and that all community stakeholders have a shared responsibility to ensure serious and fatal crashes do not occur.
3. Modernize and develop existing transportation infrastructure to provide safety improvements for all road users.
4. Provide improved post-crash care in the event of crash so community members can access medical facilities and treatment in a timely manner.
5. Integrate and include the Pribilof Island Unangan people and their input into future transportation safety improvements.
6. Provide long-term transportation safety initiatives that can help support the future growth and development of the Pribilof Islands Region.

The transportation safety plan matrix for future planned projects integrates a variety of strategies to achieve the goals of the safety action plan. This includes the implementation of policies, programs, and innovative practices, alongside low-cost, high-impact strategies that enhance overall safety. Specific construction projects in the matrix are outlined with clear scopes, budgets, and timeframes, ensuring that each initiative aligns with the broader objectives of improving transportation safety. See the appendix for a breakdown of the table and specific emphasis areas, projects and actions that can be implemented in the long, medium and short term.

Section 1.2 Community Profile and Demographics

The Pribilof Islands, a group of four volcanic islands off the coast of mainland Alaska in the Bering Sea, are located about 200 miles north of Unalaska and 200 miles southwest of Cape Newenham. These islands including the communities of Saint Paul and Saint George, are located within the Aleutians West Census Area.

St. Paul, with a population of 390 (2022 ACS), has largely been economically dependent on the annual snow crab harvest and subsistence and commercial halibut fishing, along with support services for commercial fleets in the Bering Sea. The crash of the snow crab fisheries in recent years has greatly affected the City budget and funding through taxable funds received from crab fisheries is currently has greatly affected the City operating budget. Recent proposals have focused on alternative taxable revenue sources to support added revenue to the operating budget. [3] U.S. government employment and support from the US Fish and Wildlife Service National Weather Service and NOAA, contributes to the island's economy as well, though typically in the form of seasonal employment during the summer months.

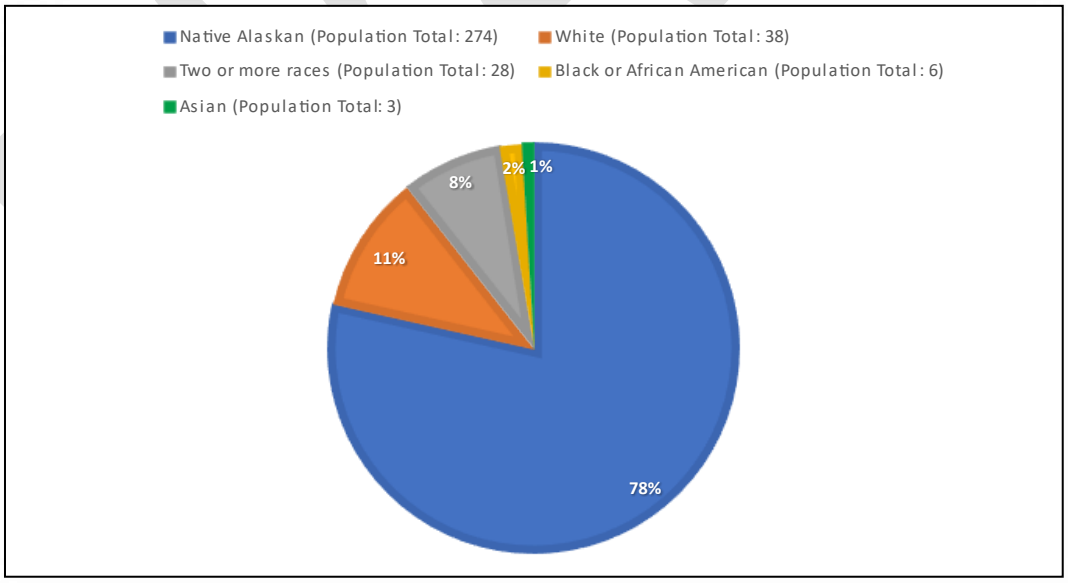


Figure 8. Saint Paul Alaska - Population Percentage by Race (ACS 5-Year Estimates, 2022)

[3] "City Proposes New Taxes in 2024 Due To $0 Tax Revenue from Crab" City of Saint Paul, December 2023, website: https://stpaulak.com/2023/12/20/city-proposes-tax-increases-in-2024-due-to-0-tax-revenue-from-crabtax-increase/

St. George, with a population of 57 (2022 ACS), has a similar economic structure to Saint Paul that is dependent on revenue from local fisheries. Most residents take part in Halibut fishing for subsistence and commercial use, which has experienced a steep decline in numbers in recent years. Similarly, to Saint Paul Island because of a decline in the abundance of the Halibut fishery, the City operating budget has been reduced and alternative taxable resources have been pursued. Saint George along with Saint Paul Island are also a major birdwatching destination, home to over 210 identified species, with an estimated two million seabirds nesting annually.

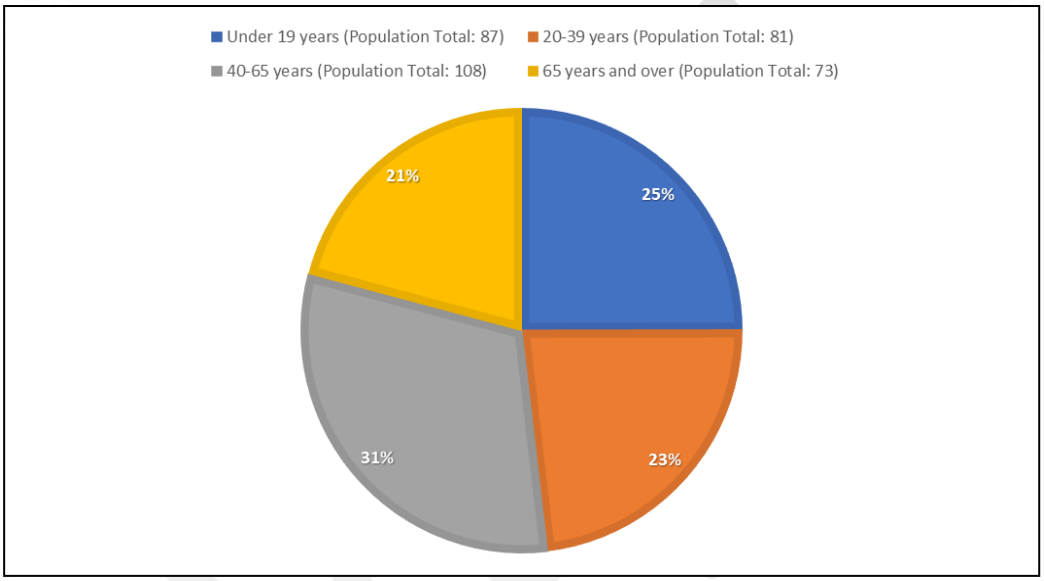


Figure 10. Saint Paul Alaska - Population Percentage by Age (ACS 5-Year Estimates, 2022)

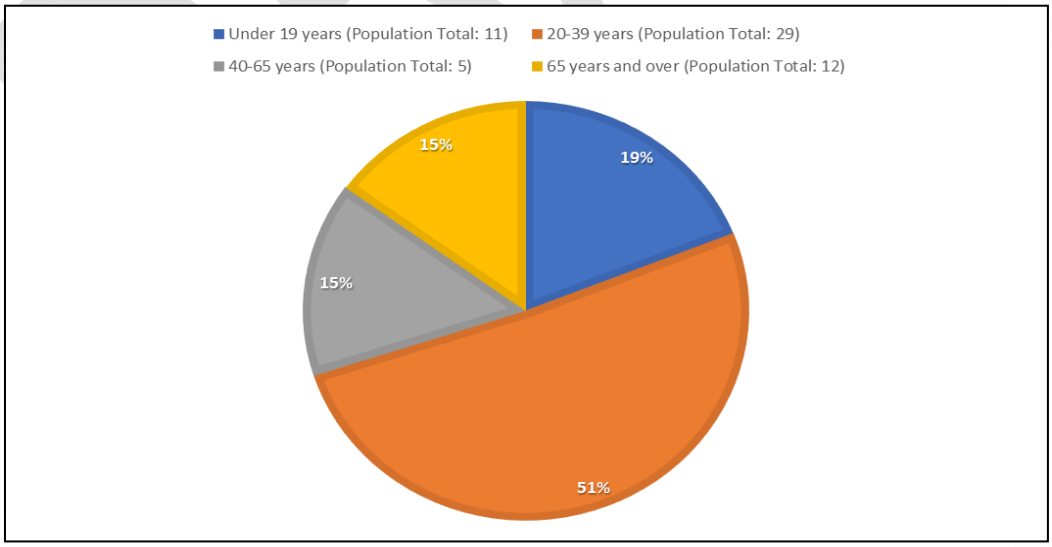


Figure 9. Saint George Alaska - Population Percentage by Age (ACS 5-Year Estimates, 2022)

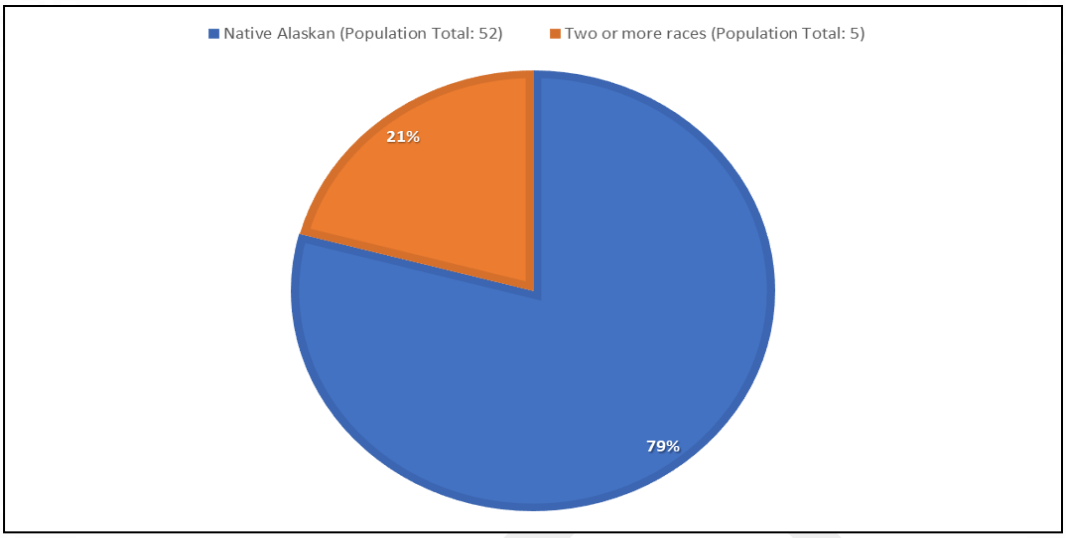


Figure 11. Saint George Alaska - Population Percentage by Race (ACS 5-Year Estimates, 2022)

Pribilof Islands, including the communities of Saint George Island and Saint Paul Island, are predominantly populated by the Unangan (Aleut) people. The Unangan people have been historically disenfranchised and were at one time indentured servants for the US Government during the Commercial Seal Harvest which ended in 1985. [4] The history of the Unangan people of Saint Paul and Saint George Islands, and lack of equity improvements to the day to day lives of the people that live there, has been ongoing. Many of the concerns of the Unangan people have not been addressed and limited funding has been provided by the federal government for their time supporting the commercial seal harvest.

[4] "Seal Islands National Historic Landmark" National Park Service, 2023, website: https://npshistory.com/brochures/nhl/seal-islands-sealing-plant.pdf

Section 2 Transportation Network Overview

The Pribilof Islands are accessible only by air and water, making these transportation networks crucial for ensuring safety. Air and marine access are essential for delivering emergency services, supplies, and economic support. On the islands, road systems serve as the primary means of travel for residents, with pedestrian and bicycle networks integrated into these roads. Trails and routes beyond the maintained roads are typically used by ATVs and UTVs, but are also frequented by community members, tourists, hunters, and scientists. The following provides an overview of the transportation infrastructure in the Pribilof Islands region.

Saint George Island roadway developed using D1 gravel.

Section 2.1 Road Infrastructure

The Pribilof Islands road infrastructure is heavily influenced by the choice of materials used, which is a critical factor in ensuring durability and safety. The island's unique environmental conditions, including frequent freeze-thaw cycles and high winds, necessitate careful consideration in material selection. Roads are primarily constructed using D1 gravel or scoria, each offering distinct advantages. D1 gravel is often preferred for its compactability and durability, making it ideal for high-traffic areas. Scoria, with its lighter weight and natural drainage properties, is sometimes chosen for roads where erosion and water management are significant concerns. The designation of these materials is decided by the specific needs of each roadway, balancing factors such as traffic volume, drainage conditions, and long-term maintenance requirements.

Saint George Island roadway developed using scoria rock.

Existing road conditions on Saint Paul and Saint George Islands are affected by the extreme weather of the Bering Sea which includes weathering and drainage issues throughout the year. Due to climate change and seasonal changes in the freeze thaw cycle that occur much more throughout the year, road weathering is occurring at much more rapid pace than in years past. Initiatives and projects are needed

to develop and improve existing roadways to provide long term protection from the ongoing effects of a changing climate on community transportation infrastructure.

Saint Paul Island Harbor

For new road improvement and development projects, such as those on the Polovina Turnpike and Zapadni Bay Road, the focus is on incorporating essential elements like drainage systems, culvert installation, and road crowning, alongside comprehensive geotechnical evaluations. These improvements ensure long-term durability and safety. Future projects are also being planned with the goal of integrating alternative pedestrian pathways and networks alongside existing road infrastructure. Examples of this approach include the Saint Paul School Ballfield project and proposed road improvements at the small boat harbor in Saint George, both of which emphasize creating safer, multi-use road systems that enhance transportation safety for all users.

Section 2.2 Pedestrian Pathways

Pedestrian walkways on the Pribilof Islands, are essential for ensuring the safety of residents and visitors, particularly in areas with high foot traffic, such as near each community's school and community store. The development of these walkways is crucial in minimizing the risk of accidents involving pedestrians, vehicles, and ATVs.

Saint Paul Island pedestrian pathway

In particular, the integration of dedicated pedestrian pathways around the Saint Paul School will significantly enhance safety for students and staff. Additionally, a proposal to make Sandy Lane a pedestrian-only zone further underscores the community's commitment to creating a safer environment. The existing wooden stairs and pedestrian walkways leading to community facilities in St. Paul have not seen significant improvements for many years, leaving them worn and potentially hazardous. Pedestrian paths on Saint George Island should focus on designating pedestrian areas from the existing roadways. Of particular importance is the area around the former school building and the canteen or community store.

To maximize safety, pedestrian walkways on both Saint Paul and Saint George Island should be clearly designated and separated from existing roadways. This can be achieved through the use of raised walkways, reflective markings, and protective barriers that physically separate pedestrians from vehicular traffic. Adequate lighting should also be installed to ensure visibility during low-light conditions, particularly during the long winter months. In areas where complete separation is not feasible, clearly marked crosswalks with signage and, where necessary pedestrian crossing signals should be implemented to alert drivers to the presence of pedestrians.

Section 2.3 Trails and Tribal Routes

On both Saint Paul and Saint George Islands, the BIA (Bureau of Indian Affairs) trails and roads play a vital role in connecting the more remote areas of each island. These routes are essential for accessing various parts of the islands, often leading to locations critical for environmental monitoring and research. Both NOAA (National Oceanic and Atmospheric Administration) and FWS (U.S. Fish and Wildlife Service) biological staff often use these routes to conduct fieldwork, including wildlife surveys and habitat assessments. The maintenance and preservation of these trails and roads is typically provided by City Staff due to limited labor and maintenance funding designated through BIA Tribal Shares for road maintenance.

Figure 12. Saint Paul School Ballfield Master Plan including overview of improved pedestrian pathways (FHWA)

The Aleut Community of Saint Paul Island is actively working on some transportation improvement projects to enhance connectivity to community facilities. One of the key planned initiatives is a road connection from the duplex area on Colonel Fouke Street to Venia Minor Street. Another significant development priority is the Saint Paul School Ballfield Plan, a project that promises to provide recreational space for the community and improved pedestrian access for the School. With support from the National Park Service, the community has developed a master plan for St. Paul Park, which includes restoring the baseball field, improving playgrounds, and adding new recreational facilities. This

FWS Access Trail to East Seal Rookery on Saint George Island.

project not only honors the island's rich history but also provides a vibrant, multi-purpose space for future generations to enjoy. [5] In terms of recently completed projects, Bartlett Road underwent substantial renovations and improvements in 2013. Previously in poor condition, the road was rebuilt to the standards of the bypass road, significantly improving its quality and durability. Additionally, the Polovina Turnpike was constructed in 2019, showing the Tribe's commitment to enhancing its infrastructure to meet both current needs and future growth.

The Aleut Community of Saint George Island has identified community BIA routes as the top priority for enhancing accessibility in the island's populated areas. The routes where most of the community infrastructure is found are heavily utilized and are particularly vulnerable to damage from the severe weather patterns common on the island. To address these issues, the roads require grading, spreading, and filling of gravel, along with water runoff mitigation through the installation of culverts to prevent washouts. The improvement of remote BIA routes and trails on the islands will need to be carried out with input from the U.S. Fish and Wildlife Service (FWS) and the National Oceanic and Atmospheric Administration (NOAA). These agencies, which regularly use these routes for their environmental monitoring and conservation work related to bird and seal activity, can contribute their knowledge and expertise to ensure the pathways are maintained to support both community access and critical scientific activities.

BIA Tribal Route on Saint George

The U.S. Fish and Wildlife Service (FWS) and the National Oceanic and Atmospheric Administration (NOAA) have an active presence on Saint George and Saint Paul Islands, with a vested interest in the development and improvement of trails and roads as needed to support environmental conservation and access. While some routes are being improved, the North Road on Saint Paul Island is not currently being used and does not have plans for use in the future due to erosion concerns. These trails and routes are critical not only for FWS and NOAA's scientific work, such as seal monitoring and reviewing environmental conditions in sensitive areas but are also heavily used by tourists accessing bird and seal viewing rookeries. The maintenance of these pathways ensures safe and sustainable access for both researchers and visitors while protecting the islands' fragile ecosystems.

Section 2.4 Maritime Transport

The Pribilof Islands, situated in the middle of the Bering Sea, are key waypoints for marine traffic, including commercial fishing vessels, local fishermen, and occasional cruise ships. Traditionally, the islands have been central to the profitable snow crab and halibut fisheries. However, the recent collapse of the snow crab fishery has severely affected local city governments, which depend heavily on fishing

[5] "Saint Paul Island Ballfield Project" National Park Service, 2022, website: https://www.nps.gov/articles/000/st-paul-island-creating-a-community-park-in-the-middle-of-the-bering-sea.htm

revenue.[6] This downturn has strained local economies, leading to budget cuts and reduced public services. Additionally, a decline in the local halibut fishery has harmed the livelihoods of fishermen, decreasing their income and reducing marine traffic to and from the islands.[7]

The Aleutian Pribilof Island Community Development Association (APICDA) has provided onsite support to local fisheries and offers transportation services to processors located in Akutan and Unalaska, which are approximately 350 to 400 miles away from the Pribilof Islands. When fully operational, the Trident facility on Saint Paul Island would play a crucial role in supporting both commercial and local fisheries, offering a more accessible processing option and reducing the need for long-distance transport to other facilities.

National Geographic Resolution Cruise Ship seen offshore from Saint George Island.

The Central Bering Sea Fishermen's Association (CBSFA) plays a vital role in supporting fisheries and marine transport on Saint Paul Island through its wholly owned subsidiary, St. Paul Fishing Company (SPFC). By managing fishing assets, vessels, and fishery allocations, CBSFA ensures the local fleet is still adaptable and profitable despite changing market conditions and fishery allocations. Additionally, CBSFA's ownership in vessels like the FV Early Dawn enables active participation in key fisheries, providing critical economic support to the community and sustaining marine operations on the island.

Saint George Harbor and APICDA transport fishing vessel.

Inclusion on the M-11 USDOT MARAD Marine Highway would significantly improve connectivity and provide funding to better link Saint Paul and Saint George Islands. At present, cruise ships such as the National Geographic Resolution pass by the islands but cannot dock due to the

[6] "City Proposes New Taxes in 2024 Due To $0 Tax Revenue From Crab" City of Saint Paul, 2023, website: https://stpaulak.com/2023/12/20/city-proposes-tax-increases-in-2024-due-to-0-tax-revenue-from-crabtax-increase/

[7] "City Proposes New Taxes in 2024 Due To $0 Tax Revenue from Crab" City of Saint Paul, 2023, website: https://stpaulak.com/2023/12/20/city-proposes-tax-increases-in-2024-due-to-0-tax-revenue-from-crabtax-increase/

harbor's inability to accommodate larger vessels.[8] The local communities are eager to enhance tourist access by upgrading port facilities, making it possible for cruise ships to dock and increasing marine travel. These improvements would provide a substantial boost to the local economy by promoting tourism and creating opportunities for sustainable economic growth in the region.

Marine transport and transportation safety are vital for the Pribilof Islands, where commercial and local fishermen often need urgent medical care for injuries sustained at sea. Fishermen are frequently transported to local clinics using the islands' road networks, and in more critical cases, air transport or medevac services are required for swift treatment. The seamless coordination of marine, road, and air transport is essential to ensure the health and safety of these fisheries-based communities.

Section 2.5 Air Transport

The Pribilof Islands are primarily accessed by air due to their remote location in the Bering Sea. However, regular air travel to and from the islands is often disrupted by extreme weather conditions, including heavy fog, severe winds, and intense storms, which make flights unreliable. Even under optimal weather conditions, commercial air service is limited to just three or four days per week. The Pribilof Islands face additional challenges due to FAA requirements for navigational equipment, such as Automated Weather Observing Systems (AWOS), Precision Approach Path Indicators (PAPI), and other necessary systems. These systems are essential for safe landings and takeoffs but are often limited or unreliable in such remote locations, further complicating access. The lack of fully functioning or consistently available navigational aids hinders flights to and from the islands, adding to the difficulty of maintaining regular air service, even when weather conditions are favorable.

Grant Aviation Aircraft at Saint George Island Airport

The Pribilof Islands rely on the Essential Air Service (EAS) program to maintain critical air connections, with service currently provided by Ravn Alaska and Grant Aviation.[9] These EAS agreements, typically renewed every two years, ensure that both Saint Paul and Saint George Islands have reliable air access despite their remote location. Ravn Alaska currently services Saint Paul Island using a Dash 8 aircraft, while both islands are served by Grant Aviation's Beech King Air 200. However, there is a growing need for additional flight options and larger aircraft to improve access and accommodate the islands' transportation needs. The Bombardier Challenger 650 and Dash 8-300 are considered ideal for operating in these challenging environments, offering better capacity and reliability for the islands' remote

[8] "MARAD Designates Two New Marine Highway Routes" USDOT, August 2023, website: https://www.transportation.gov/briefing-room/marad-designates-two-new-marine-highway-routes

[9] "Essential Air Service" USDOT, 2023, website: https://www.transportation.gov/policy/aviation-policy/small-community-rural-air-service/essential-air-service

airstrips. Expanding flight services and upgrading planes could significantly enhance connectivity and reduce disruptions caused by weather and limited scheduling.

Community members on both Saint Paul and Saint George Islands face significant challenges in accessing adequate post-crash care through air transport. Off-island patient transport typically involves multiple agencies including the US Coast Guard, Delta Medical Transport, Guardian Flight, and other Alaska-based medevac providers, depending on availability and cost. The Pribilof Islands average one to two medevac flights per month, according to staff from Aleutian Pribilof Islands Association (APIA) and Southcentral Foundation.

The 2024 Aviation Challenges document created by the City of Saint Paul outlines significant transportation challenges that have greatly impacted the community's access to essential services. A key issue identified is the frequent failure of critical aviation equipment, such as the Automated Surface Observing System (ASOS), radio transmitters, radar, and other navigation tools. Without proper redundancy or backup systems, these outages disrupt flight operations, making it difficult for essential personnel, such as medical providers and public safety officers to travel to and from the island. Additionally, the lack of a comprehensive maintenance schedule and delays in repairs worsen the situation, often leaving the island isolated from essential services for extended periods of time.

Coordinated emergency medevac services on Saint Paul Island including local EMS, US Coast Guard and medevac transport plane.

These challenges directly affect the ability of Saint Paul to provide prompt and effective transportation services. The limited flight availability has resulted in canceled or delayed shipments, including critical supplies such as food and medical equipment. The high rate of flight cancellations, as seen in the Saint Paul Island tourism program run through TDX, has led to a substantial loss in revenue and has limited the island's ability to engage with external partners. Furthermore, the unreliability of air travel affects the island’s ability to meet federal grant project deadlines, raising concerns about the overall sustainability of Saint Paul’s transportation infrastructure.

Section 3 Transportation Equity

In the development of the Pribilof Islands Regional Transportation Safety Action Plan, transportation equity considerations play a significant role. Utilizing data sets from the FHWA and the United States Census Bureau, the plan identifies and locates underrepresented communities to ensure that fairness and equity are incorporated into safety solutions. The equity analysis adheres to FHWA requirements by integrating Transportation Disadvantaged Communities (TDCs) and Areas of Persistent Poverty (APPs), ensuring that underserved populations receive attention in safety improvements. Additionally, an Environmental Justice (EJ) component highlights Communities of Concern (CoC), where specific and equitable safety strategies are tailored to meet the unique needs of these areas. [10]

Saint Paul Island School Drop Off Area

The Federal Highway Administration (FHWA) offers further guidance on transportation equity through its Transportation Equity - Transportation Planning Capacity Building Program. This resource helps decision-makers and transportation officials address equity challenges by providing training, technical assistance, and tools for incorporating fairness into transportation planning. The program is crucial for guiding future transportation efforts, ensuring that underrepresented and underserved communities, such as those in the Pribilof Islands, benefit from equitable safety and infrastructure improvements. [11]

Section 3.1 Transportation Disadvantaged Communities

Transportation Disadvantaged Communities (TDCs) are segments of the population that face significant barriers to accessing reliable and affordable transportation options, which are essential for connecting individuals to vital services, employment opportunities, education, and social engagements. These barriers often include limited access to public transit, inadequate sidewalks, a lack of bike lanes, and unsafe pedestrian infrastructure. TDCs are predominantly comprised of low-income individuals, older adults, minority populations, persons with disabilities, and those living in geographically isolated or underserved areas. The transportation challenges these communities face worsen existing social and economic inequalities, contributing to their isolation and reducing their quality of life.

[10] "Integrating Equity into Transportation" FHWA, 2023, website: https://highways.dot.gov/public-roads/spring-2023/05

[11] "Transportation Planning Capacity Building Essentials" USDOT, 2024, website: https://www.planning.dot.gov/planning_essentials.aspx

Applying targeted strategies to the Pribilof Islands could greatly benefit the local communities by addressing their unique transportation challenges. Adding public transit options and creating subsidized air travel programs would improve access to essential services, such as healthcare and education, which are currently limited by the islands' remoteness. Infrastructure improvements, like safer sidewalks and pathways, would encourage more active transportation participation, improving health and mobility. Collaborating with local community, native corporations. tribal organizations and agencies would ensure that these transportation solutions are tailored to the specific needs of the Pribilof Islands, fostering a more connected and resilient community.

Pribilof Islands TDC Areas of Concern:

***Accessibility**: The remoteness of the Pribilof Islands significantly hinders access to healthcare facilities, grocery stores, educational institutions, and employment opportunities, leading to reduced quality of life and economic challenges for the Unangan communities. The geographic isolation of the Pribilof Islands exacerbates social isolation, as inadequate transportation options via air and marine travel limit connectivity to outside resources.*

***Health**: Limited transportation options to and from the Pribilof Islands as well as on the islands contribute to health disparities, as the Unangan population struggles to access medical care, healthy food, and opportunities for physical activity, resulting in poorer health outcomes.*

***Environment:** The lack of public transportation infrastructure on the Pribilof Islands forces greater reliance on small private vehicles, ATVs or private boats, which increases the environmental footprint, contributing to air and water pollution in the sensitive island environment ecosystem.*

The USDOT Equitable Transportation Justice40 initiative focuses on improving accessibility to essential services like transit, grocery stores, and healthcare, including rural areas where these resources are often scarce. [12] The impact of limited access is particularly severe for communities where residents rely on walking or lack private vehicles, as they face greater challenges in reaching vital services. This can lead to increased isolation, reduced economic opportunities, and poorer health outcomes. By prioritizing equitable access, the initiative aims to ensure that all communities, regardless of location or income level, have the necessary transportation options to thrive. The tables below show transportation means and costs associated with navigating Saint Paul and Saint George by community residents.

[12] "USDOT Equitable Transportation Community (ETC) Explorer" USDOT, 2024, website: https://www.transportation.gov/priorities/equity/justice40/etc-explorer

Table 1. USDOT Equitable Transportation Community Data– Aleutian West Census Area (USDOT)

Category	Data
Urbanized Area (UZA) Summary	
UZA Population ≤ 50k	Yes
Cost Burden Summary	
Poverty Level	26.6% of population
Median Household Income	$63,750
Transportation Cost Burden	14.72% of household income
Estimated Cost of Transportation	$10,785
Housing Cost Burden	12.24% of household income
Access Burden Summary	
Households with No Personal Vehicle	34.20%
Transit Availability	None Reported
Estimated Driving Distances	None Reported
Adult Education	Within a 15-minute walk
Grocery Stores	Within a 15-minute walk
Medical Facilities	Within a 15-minute walk
Parks	Within a 15-minute walk
Broadband Access	24.6% of households lack internet

Table 2. Saint George -Means of Transportation to Work - Workers 16 Years and Over (ACS 5-Year Estimates, 2022)

Measure	Value
Drove alone	17.9%
Walked	67.9%
Worked from home	14.3%

Table 3. Saint Paul -Means of Transportation to Work - Workers 16 Years and Over (ACS 5-Year Estimates, 2022)

Measure	Value
Drove alone	40.5%
Carpool	25.2%
Walked	30.6%
Worked from home	3.6%

Section 3.2 Areas of Persistent Poverty

Under the Bipartisan Infrastructure Law (BIL), FHWA identifies Areas of Persistent Poverty (APPs) based on specific criteria set by the USDOT. A transportation project is classified as being in an APP if it meets any of the following:

- The project is in a county or borough that has had a poverty rate of 20 percent or higher in the 1990 and 2000 decennial censuses and the 2022 Small Area Income Poverty Estimates, or
- It is located in a Census Tract with a poverty rate of at least 20 percent according to the 2022 American Community Survey.

The identification process involves analyzing socio-economic indicators such as income, education, and employment to ensure that development strategies are equitable and improve access to jobs and opportunities. The Pribilof Islands Region, which is included in the Aleutian West Census Area has a poverty level of 26.6% (2022 ACS). Enduring poverty in Areas of Persistent Poverty (APPs) stems from a combination of factors. Limited economic opportunities result from a lack of diverse industries and job creation initiatives, impeding residents' ability to improve their socioeconomic status. Education disparities further worsen the situation, as unequal access to quality education from early childhood through vocational training hinders skill development and employment prospects. Inadequate infrastructure, such as deficient transportation networks and community facilities, restricts economic growth and access to essential services. Additionally, social and racial inequities compound these issues, with marginalized communities facing discrimination, diminished social capital, and reduced access to vital resources and opportunities. [13]

Section 3.3 Environmental Justice Principles

Under Environmental Justice (EJ) principles guide efforts to ensure that transportation planning prioritizes fair access to safe, reliable, and affordable transportation options while preventing disproportionate environmental and health impacts. These efforts aim to improve air and sea transport, maintain vital infrastructure, and respect the cultural and environmental context of the islands. [14] The socioeconomic indicators sourced from the Census Bureau's American Community Survey 5-year summary estimates include metrics like percent people of color, percent low-income, and unemployment rates, among others. These indicators are used to calculate the Demographic Index and Supplemental Demographic Index,

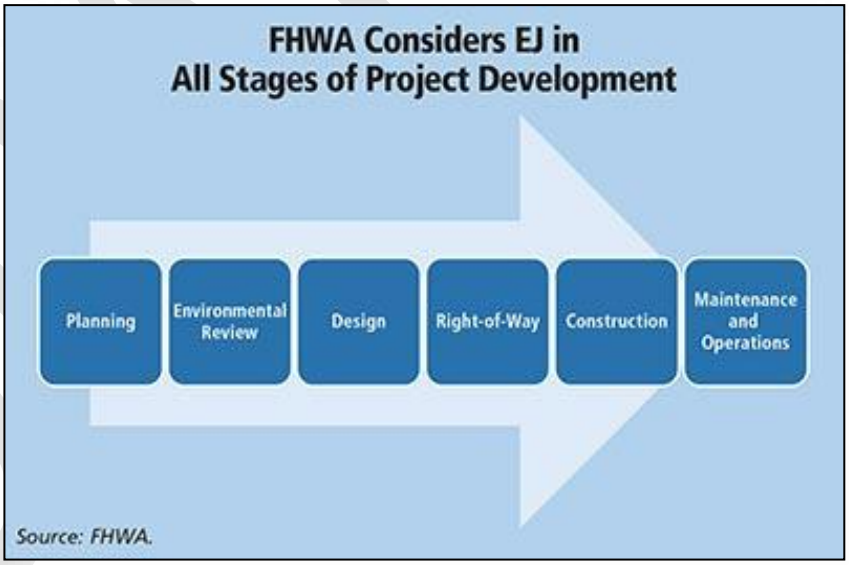


Figure 13. Stages of Transportation Development related to EJ Principles (FHWA)

[13] "Areas of Persistent Poverty and Historically Disadvantaged Communities" USDOT, April 2024, website: https://www.transportation.gov/grants/mpdg-areas-persistent-poverty-and-historically-disadvantaged-communities-1

[14] "Environmental Justice" USDOT, June 20, 2024, website: https://www.transportation.gov/transportation-policy/environmental-justice

which measure community vulnerability based on factors like income, education, and language proficiency. The Demographic Index focuses on percent minority and low-income populations, while the Supplemental Demographic Index incorporates additional factors such as disabilities and life expectancy to provide a broader view of potential environmental justice concerns. Demographics for the Aleutians West Census Area that include the Pribilof Islands Region have the EJ Index Percentile and Score shown in Table 4.

Table 4. Environmental Justice (EJ) Percentile Score – Aleutian West Census Area (EPA) [15]

Metric	Percentile
Demographic Percentile Index	73rd percentile
Demographic Index Score	1.82
Supplemental Demographic Index	70th percentile

[15] "EPA's Environmental Justice Screening and Mapping" EPA, 2024, website: https://ejscreen.epa.gov/mapper/index.html

Section 4 Crash Analysis

The Saint Paul Island Public Safety Office is the primary resource for crash data on the island.

Crash data for the Safety Action Plan was collected by local public safety resources, addressing the challenges of limited transportation data availability in rural Alaska. While the Alaska Department of Transportation (ADOT) maintains a statewide crash database, data is not compiled for remote rural communities like Saint Paul and Saint George. In the absence of comprehensive ADOT data, the Safety Plan relied on information from the City of Saint Paul and City of Saint George public safety offices, which provided local incident reports and crash details. Additional data was collected from the Aleutian Pribilof Islands Association (APIA) Village Public Safety Officer (VPSO) office which recently took over public safety duties on Saint Paul Island.[16] The Tribal Government contributed through the Tribal Transportation Safety Program, providing insights into transportation safety concerns from past planning efforts. Saint George Island currently is not serviced through the APIA managed VPSO program and public safety is currently managed by the VPSO and State Troopers Dispatch Office in Dutch Harbor. In rural areas, where the Alaska State Troopers may not always be present to report crashes, local feedback from community members and dispatch logs served as crucial resources. This multi-source approach helped ensure a more accurate reflection of safety issues, enabling targeted strategies to be developed for the SS4A Action Plan.

Section 4.1 Pribilof Islands Crash Data

The crash data analysis for the SS4A Action Plan examined several key factors to gain a comprehensive understanding of transportation safety issues in rural Alaska. Data was analyzed using key components to determine the risk factors involved for the crashes occurring in Saint Paul and Saint George. To enhance the analysis, insights were sourced from the University of Alaska Fairbanks - Center for Safety Equity in Transportation, which focuses on improving transportation safety in rural areas.

Injury severity levels were assessed using the Model Minimum Uniform Crash Criteria (MMUCC). The determination of injury severity whether there were no injuries reported, minor injuries, or fatal injuries was based on the latest available information at the time of reporting. Special attention was given to fatal and serious injuries as described in the MMUCC guidelines.

[16] "VPSO General Information, Eligibility, and Selection Guide" APIA, 2024, website: https://www.apiai.org/community-services/public-safety/village-public-safety-officer/

Crash Data Analysis Key Factors

1.) Crash Locations and Types of Crashes

- *Identified types of crashes and mapped and examined where crashes occur most frequently to highlight high-risk areas within the community.*

2.) Contributing Factors

- *Circumstances leading to crashes, such as weather conditions, and driver behavior*
- *Looked at when accidents happen, including specific times of day and year*

3.) Injury Severity

- *Assessed the seriousness of injuries from crash data*

Section 4.1.1 Crash Locations and Types of Crashes

The Safety Plan used detailed crash data to improve safety across the islands. By analyzing this data, the plan created maps showing where accidents occurred both within individual communities and across the entire island. These maps, available in the crash data analysis section, highlight areas with frequent crashes, helping to pinpoint where safety improvements are needed. In addition to crash data, the plan also considered feedback from local residents who were involved throughout the development process. This combination of data and community input ensures that the safety measures are not only data-driven but also responsive to the concerns of those who live on the islands.

Table 5. Community transportation type and count for the Pribilof Islands (City of Saint Paul & City of Saint George)

Transportation Type	Vehicle Count
ATV	35
Bike	43
Vehicle	128
Grand Total	206

The crash data for the Safety Plan was collected from both recent and historical sources, spanning the past 30 years from 1990 to 2023. This dataset includes information on recent accidents as well as those that occurred over the decades, providing a comprehensive view of crash trends on the Pribilof Islands. The resulting maps display the locations and types of crashes, detailing the nature of injuries and the types of vehicles involved. While these maps were reviewed and validated by local public safety officials, they were not examined or approved by the Alaska Department of Transportation (ADOT). As a result, the insights and conclusions drawn from this data reflect local input and historical records but do not include ADOT's oversight or additional analysis. [17]

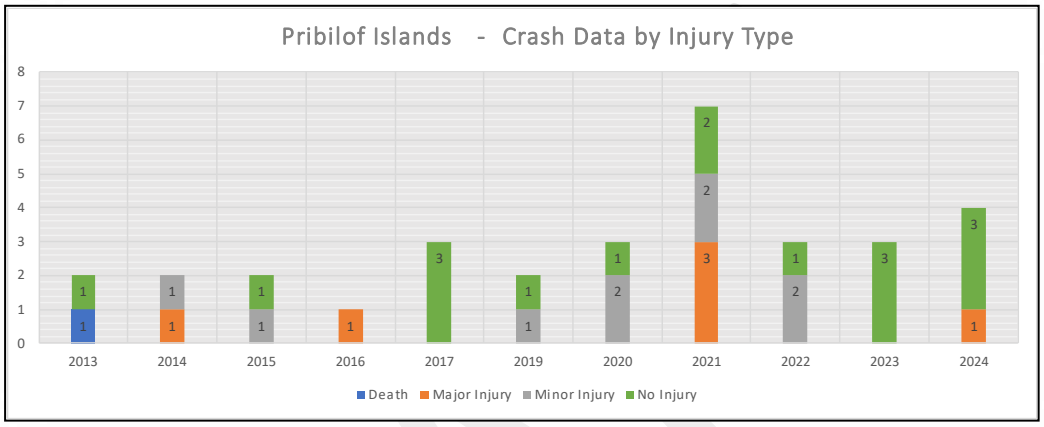


Figure 14. Pribilof Island Crash Data by Injury Type (City of Saint Paul & City of Saint George Public Safety)

[17] Alaska DOT&PF Crash Data, DOT&PF, 2024 website: https://dot.alaska.gov/stwdplng/hwysafety/data.shtml

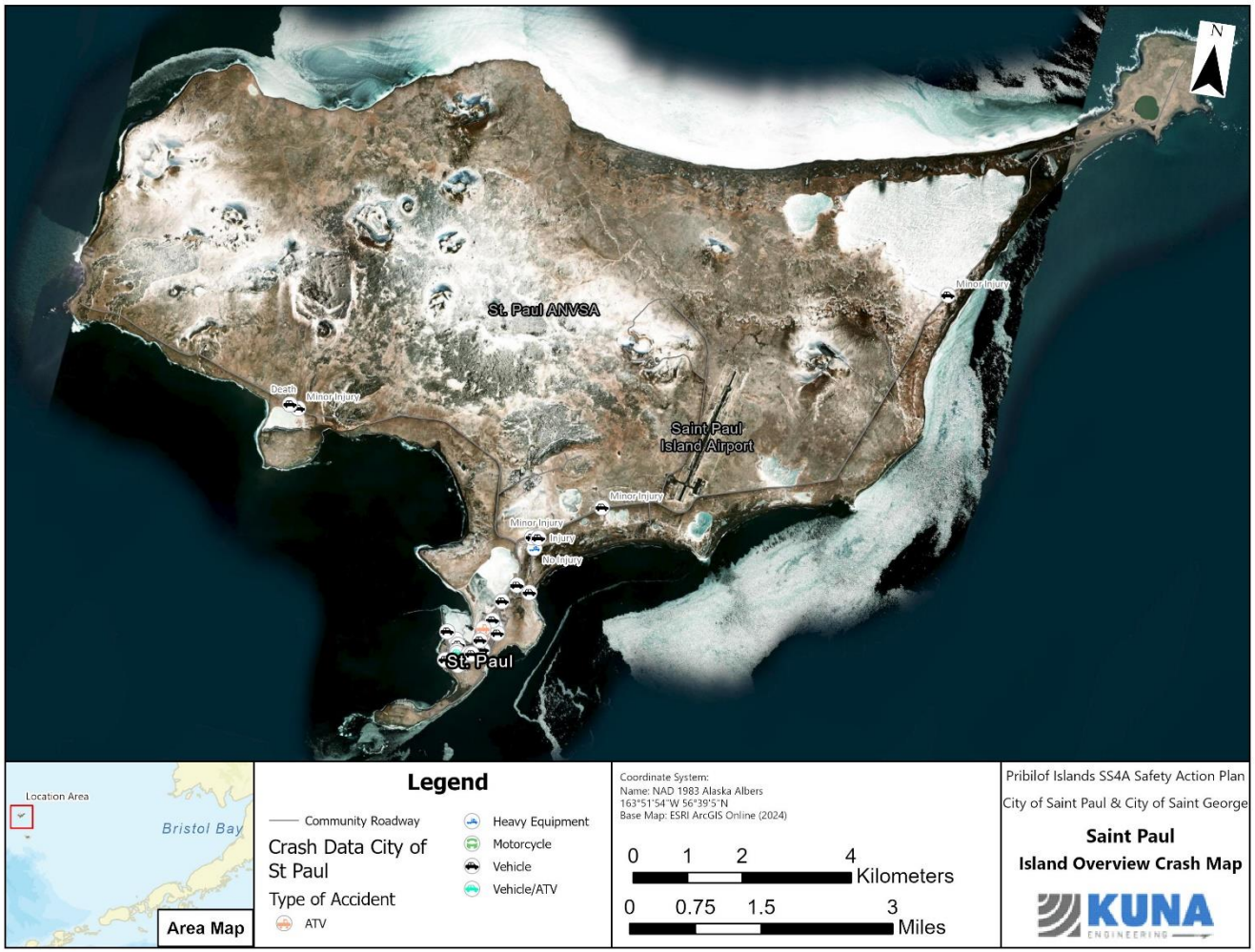


Figure 15. Saint Paul Island Overview Crash Map

Figure 16. Saint Paul Island Community Crash Map

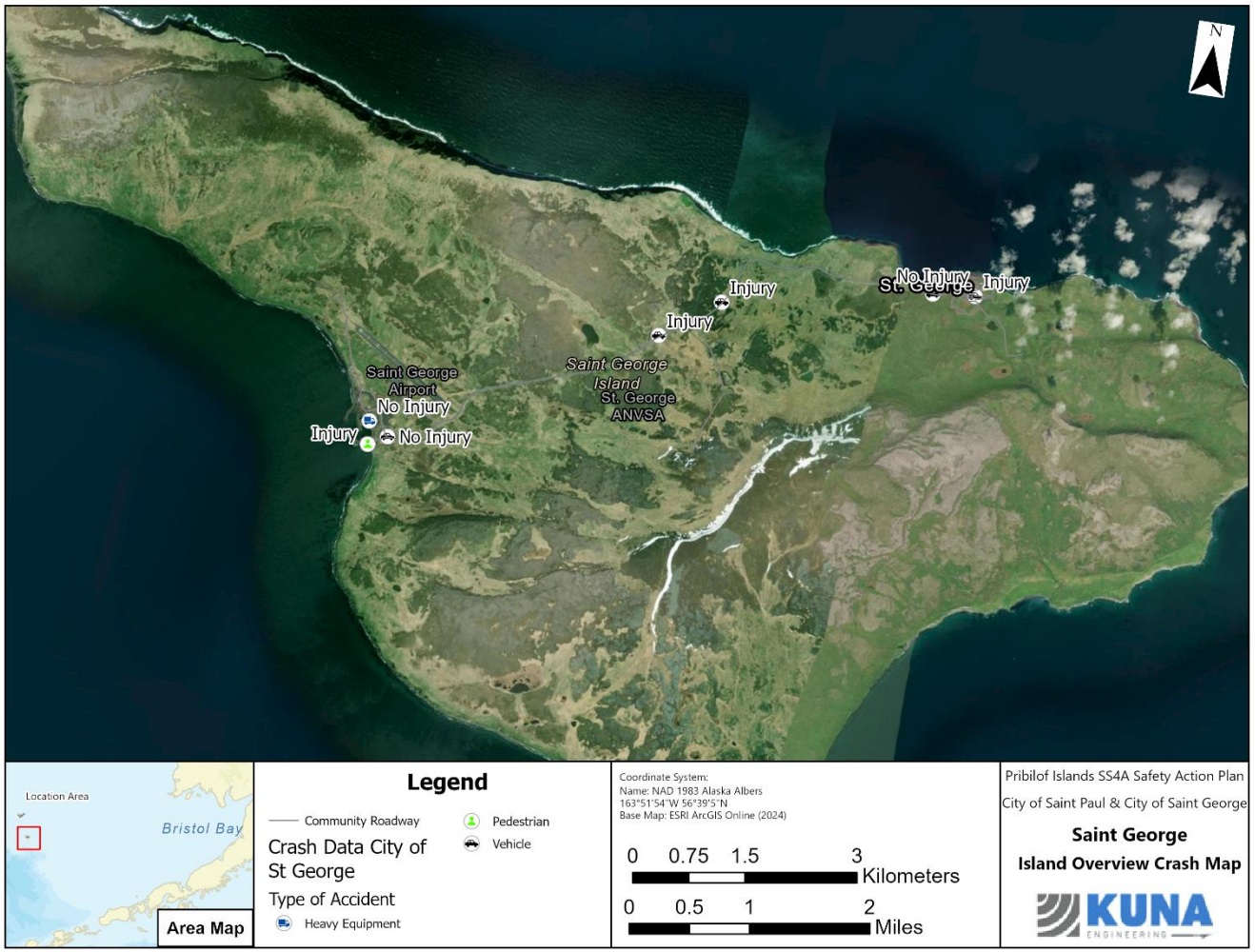


Figure 17. Saint George Island Overview Crash Map

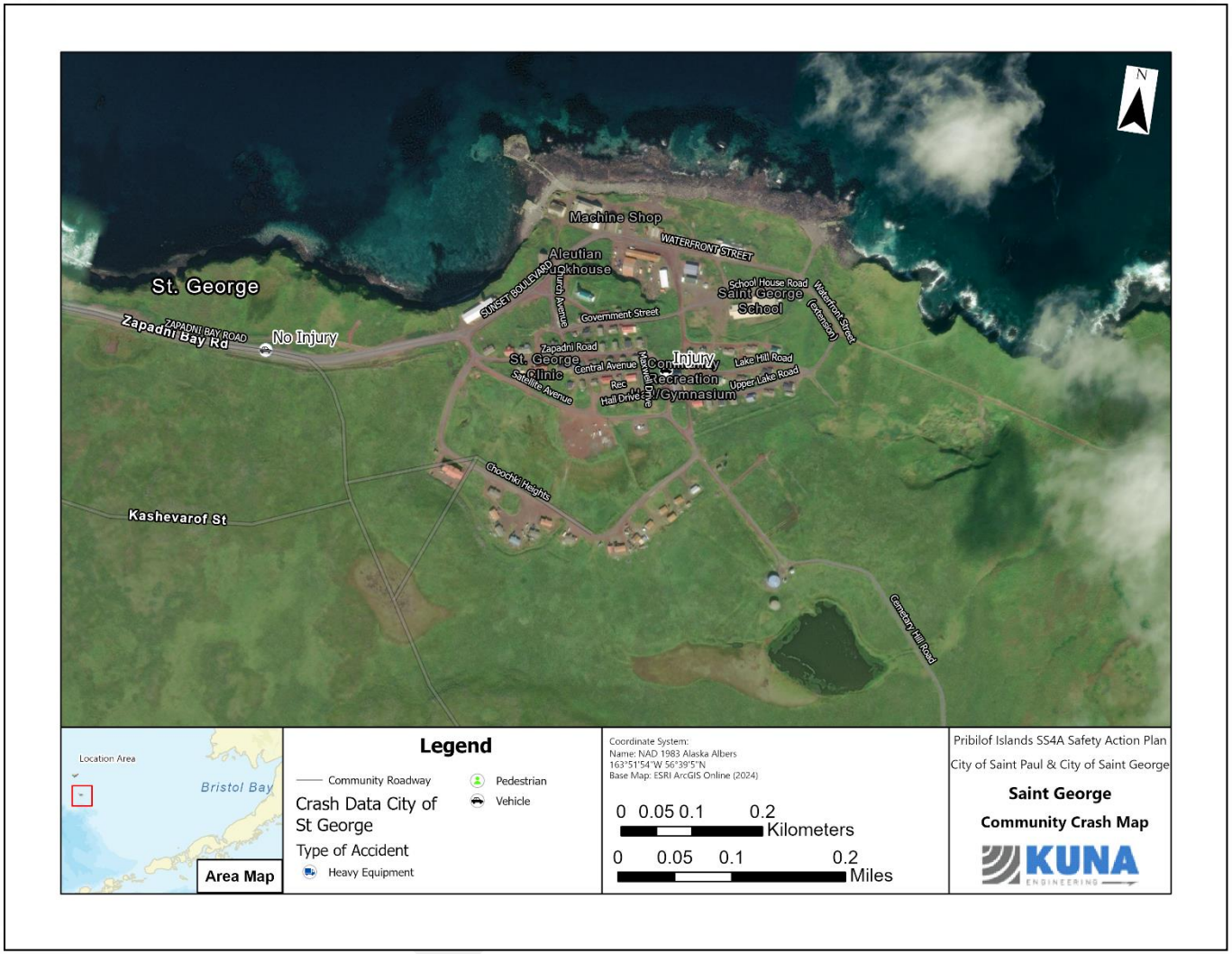


Figure 18. Saint George Island Community Crash Map

On Saint Paul Island, the analysis of crash data reveals that the majority of incidents occur around key areas of the community. Notably, Tolstoi Road, near the school, experiences a high concentration of crashes. The Polovina Turnpike also shows a significant number of accidents, indicating a trend in this area. Additionally, other crashes are reported near the store and harbor, which are both heavily frequented locations within the community. These high-traffic areas contribute to the increased incidence of crashes, highlighting where targeted safety measures may be most needed.

The limited crash data for Saint George Island, combined with its small population, indicates that crashes are not heavily concentrated on the island. However, Zapadni Bay Road does show a number of incidents, reflecting its significant use by the community for navigating the island. This suggests that while overall crash rates are low, specific areas like Zapadni Bay Road experience notable traffic-related issues.

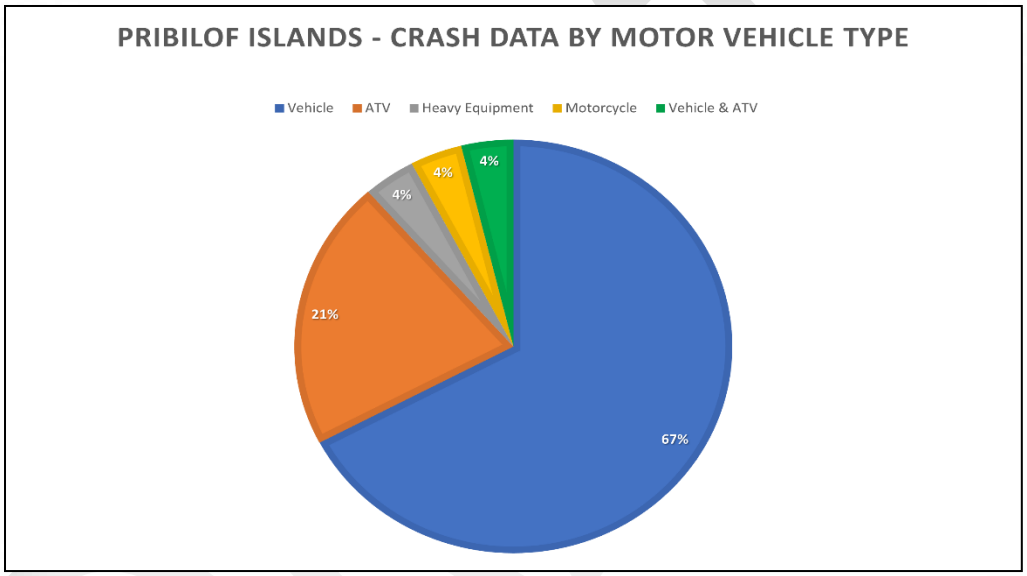


Figure 19. Pribilof Island Crash Data by Motor Vehicle Type (City of Saint Paul & City of Saint George Public Safety)

Section 4.1.2 Crash Data Contributing Factors

In Alaska, rural roads are particularly vulnerable to severe traffic crashes due to a combination of contributing factors. The challenges are exacerbated by the harsh weather conditions that affect these roads throughout much of the year, including ice, snow, and reduced visibility. Additionally, driver behavior, particularly related to intoxication, significantly impacts safety on these roadways. Rural areas in Alaska, like other isolated and tribal communities across the United States, experience a disproportionate number of traffic fatalities. Despite rural roads accounting for only a fraction of Vehicle Miles Traveled (VMT), they are the site of a higher percentage of traffic fatalities. For example, the rural crash fatality rate was found to be 195% higher than in urban areas for communities in Alaska and Hawaii. [18]

[18] "Develop an Interactive Baseline Data Platform for Visualizing and Analyzing Rural Crash Characteristics" UAF, CSET, 2019, website: https://cset.uaf.edu/research/year-1-projects/develop-an-interactive-baseline-data-platform-for-visualizing-and-analyzing-rural-crash-characteristics-in-riti-communities/

Temporal patterns in crash data for Saint Paul and Saint George Islands reveal how climate influences traffic incidents throughout the year. Analysis shows that crashes peak during specific months, such as May, October, and January, which may correspond to seasonal changes in weather conditions that affect road safety. For instance, icy roads in January and changing weather patterns in May and October can increase the risk of accidents. The distribution of crashes across different days of the week indicates that Thursdays and Saturday's experience slightly higher incident rates, possibly due to increased community activities or travel.

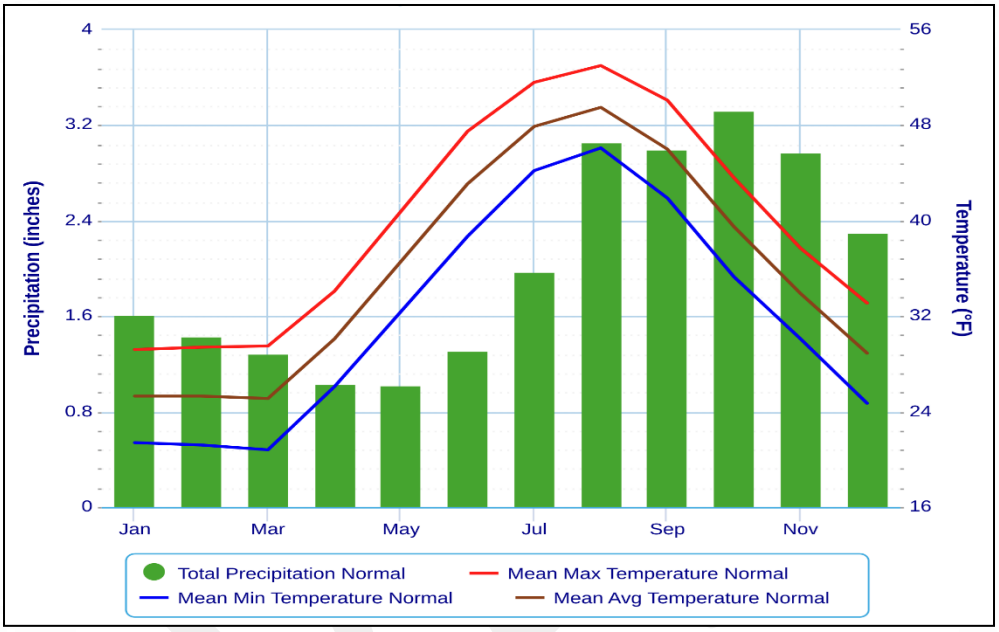


Figure 21. Climate Chart for Pribilof Islands (NOAA)

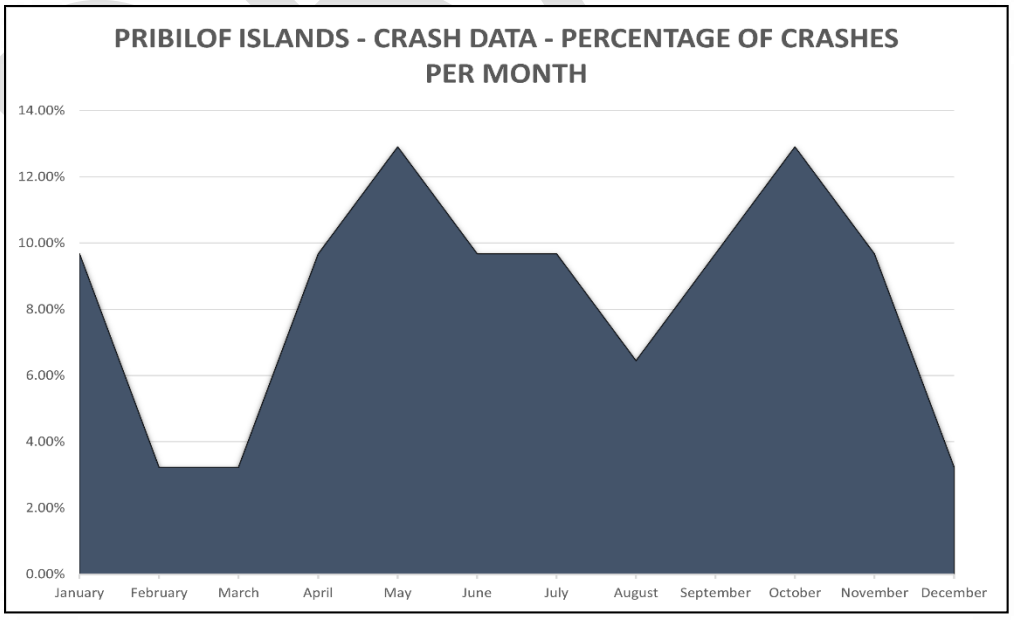


Figure 20. Pribilof Island Crash Data by Month (City of Saint Paul & City of Saint George Public Safety)

Additionally, crashes tend to occur more frequently during peak commuting times and late evenings, which could be linked to higher traffic density and driver fatigue, exacerbated by challenging weather conditions. Understanding these temporal and climatic factors is essential for developing targeted safety measures, such as enhanced road maintenance and increased enforcement during high-risk periods, to improve safety on the islands.

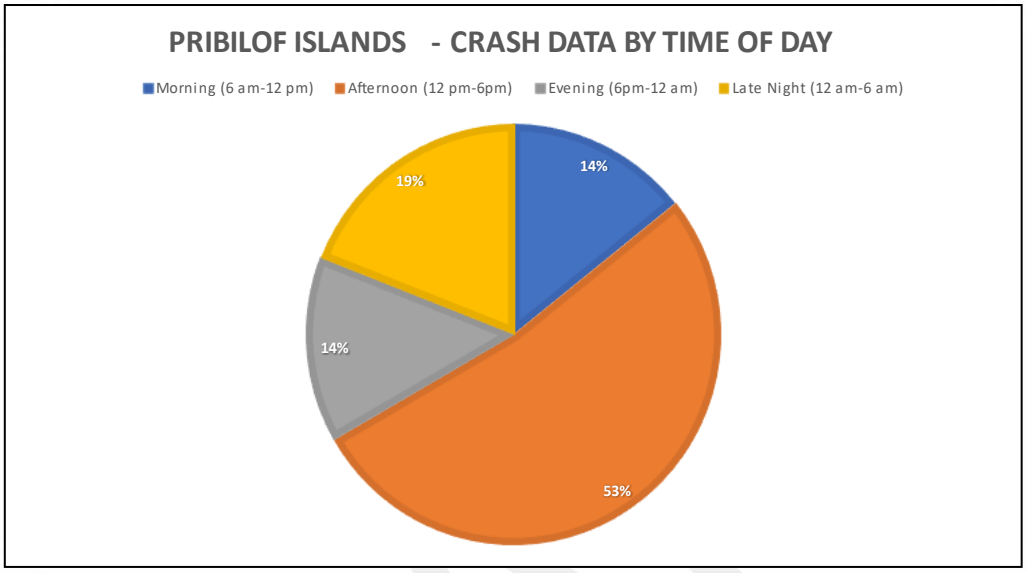


Figure 22. Pribilof Island Crash Data by Time-of-Day Crash Occurred (City of Saint Paul & City of Saint George Public Safety)

Driving Under the Influence (DUI)

Of the reported crashes in the Pribilof Islands Region, 25 crashes or 43% of crashes were attributed to DUI.

According to City of Saint Paul Police Department Public Safety Reports, nearly half of all vehicle crashes involve drivers under the influence of alcohol or drugs, highlighting a significant concern for road safety. It is important to note that this statistic only captures a portion of the total incidents, as not all crashes are reported through official channels. For instance, incidents that occur but are not documented by public safety agencies may be recorded by local health clinics. In rural Alaska, the issue of driving under the influence is especially pronounced due to limited public safety resources and enforcement capabilities.

Section 4.1.3 Crash Severity

In recent years, while there have been no fatal crashes since 2013, there have been notable incidents resulting in serious injuries. The remote nature of the Pribilof Islands amplifies concerns about post-crash care, as serious injuries necessitate medevac services to transport patients to Anchorage, located 800 miles away. The islands' location in the middle of the Bering Sea compounds the challenge, with high winds, severe storms, fog, snow, and ice frequently limiting flight availability. In September 2024, a crash occurred near Sidetown Road, resulting in a serious injury that required medevac services. However, the medevac service was unable to access the island for more than a day due to weather conditions. Clinic staff and those providing inpatient care noted that if the victim had not been

transported when they were, the outcome could have been fatal. These delays, which can extend from days to weeks, significantly impact the timeliness and effectiveness of medical care for injured individuals.

As part of the plan development process, a comprehensive approach has been taken to enhance road safety by analyzing high-usage roads in relation to existing crash locations. This analysis identifies potential crash hotspots and seeks to mitigate the risk of serious accidents. To ensure the plan is robust and reflects community needs, public outreach was conducted, involving city officials, tribal leaders, school representatives, elders, and members of the public. These stakeholders provided invaluable input by mapping out high-usage roads within each community, which helped to pinpoint critical areas for safety improvements. By integrating this local knowledge with crash data, the plan proactively addresses problem areas and provides strategies to reduce the likelihood of severe crashes, making roads safer for all users. The route maps provided by community members highlighted key facilities frequently accessed for work, school, and home activities. These maps revealed patterns of high traffic and frequent use, pinpointing critical areas where road safety improvements could have the most significant impact on daily life.

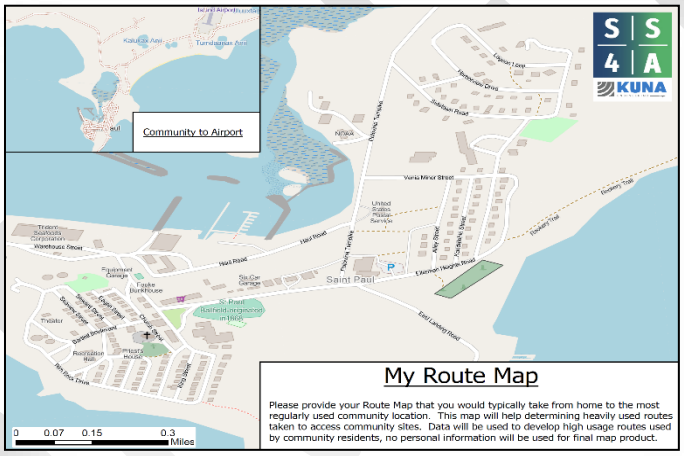


Figure 23. Saint Paul Island My Route Map (High Usage Transportation Route)

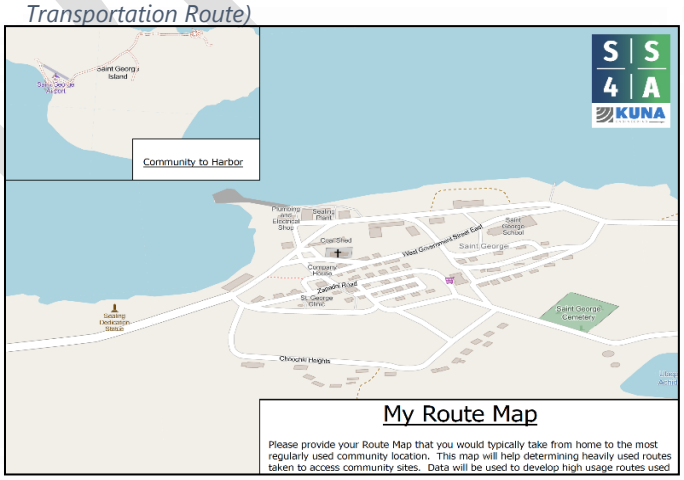


Figure 24. Saint George Island My Route Map (High Usage Transportation Route)

Figure 25. Saint Paul Crash Severity Map

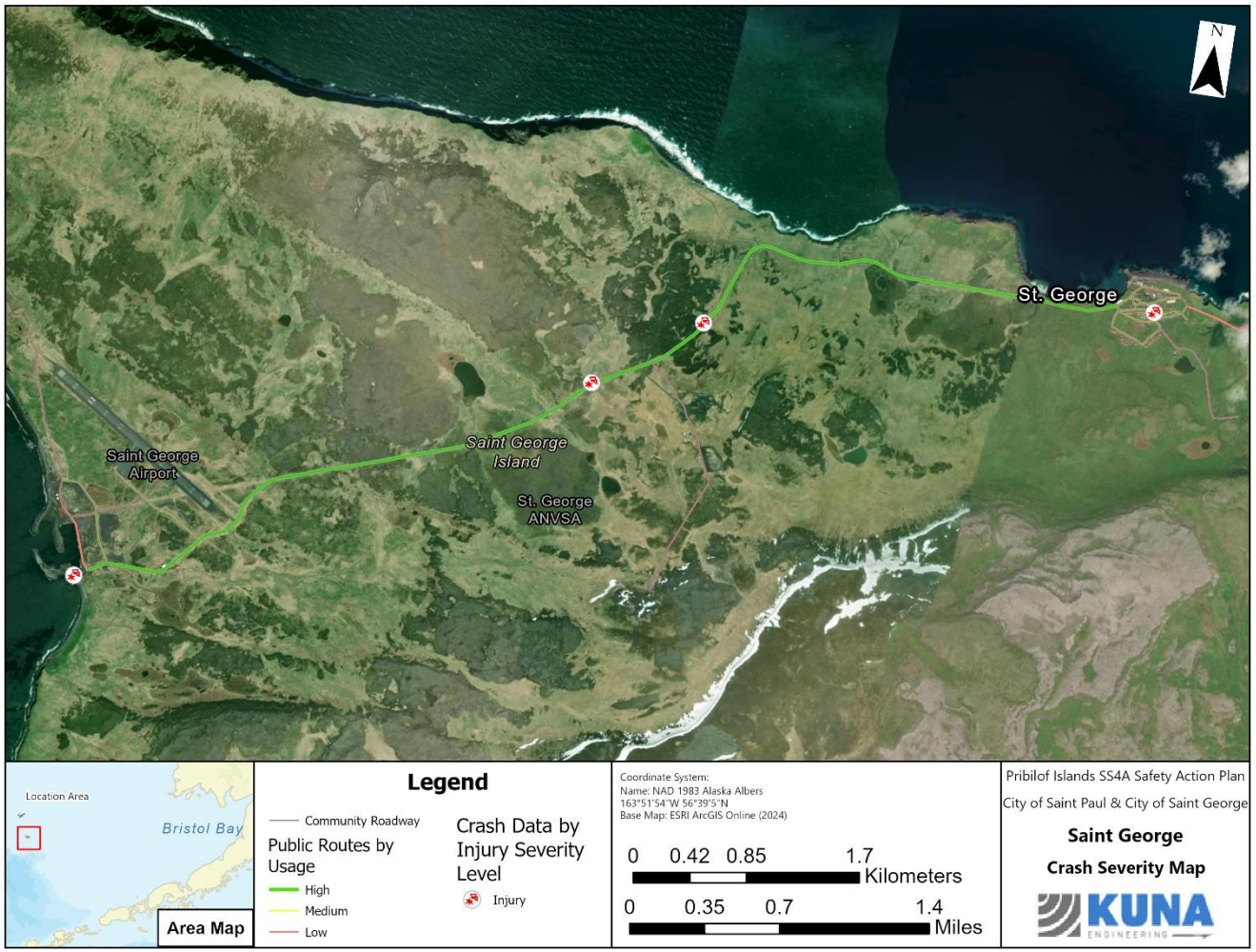


Figure 26. Saint George Crash Severity Map

Most accidents resulting in death or major injury on the Pribilof Islands have involved vehicles, though there have also been serious incidents involving ATVs and incidents that have also included motorbikes and heavy equipment. While no pedestrian or bicycle-related deaths have been reported, pedestrian safety remains a concern. A recent accident in 2023 at the Saint Paul school highlighted these risks when a child's leg was run over during school drop-off. The lack of adequate pedestrian walkways in high-traffic areas near the school poses ongoing risks, raising concerns about potential crashes and the safety of students and other pedestrians accessing the area. Efforts to address these issues are critical to

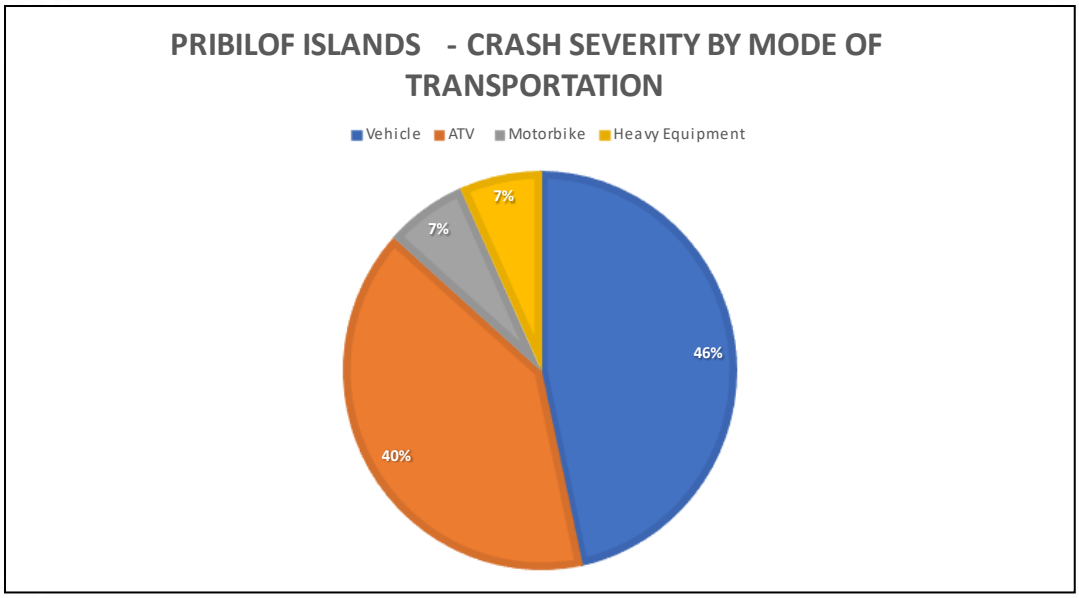


Figure 27. Pribilof Island Crash Severity percentage by mode of Transportation for crashes resulting in fatalities and serious injury. (City of Saint Paul & City of Saint George Public Safety)

Section 5 Public Engagement

Public engagement and outreach played a crucial role in guiding the development of the Pribilof Islands Safety Action Plan. Meetings and transportation safety initiatives were conducted at key locations within the community, including the school, clinic, senior housing, community recreation centers, and medical facilities. These efforts provided opportunities for residents to offer input and ensured equitable outcomes in improving transportation safety. The plan development process was initiated by integrating leaders from each community's City Government, including the City Manager, Mayor, Public Works Department, and members of the City Administration Department. Stakeholder engagement was further strengthened by actively involving safety plan stakeholders, whose feedback and insights shaped the direction of the SAP, ensuring it addressed the specific needs and safety concerns of the community. Through this collaborative approach, the Pribilof Islands Safety Action Plan was built with a focus on improving overall transportation safety in a way that reflects the voices and priorities of all community members.

Safety Planning Team members involved in public outreach at Saint Paul School.

A critical aspect of public involvement in the Safety Action Plan development process was the use of USDOT's *Promising Practices for Meaningful Public Involvement in Transportation Decision-Making*. These practices provided a framework for building and fostering meaningful engagement with the plan stakeholders and the community, ensuring that all voices were heard, and critical gaps were addressed. By following these best practices, the Pribilof Islands Safety Action Plan was able to create inclusive opportunities for participation, particularly for underserved or hard-to-reach populations, and develop solutions that reflect the diverse needs of the community. Through this collaborative approach, the Pribilof Islands Safety Action Plan was built with a focus on improving overall transportation safety in a way that reflects the voices and priorities of all community members. [19]

Figure 28. Features of meaningful public involvement

[19] "Promising Practices for Meaningful Public Involvement in Transportation Decision-Making" USDOT, June 2024, website: https://www.transportation.gov/priorities/equity/promising-practices-meaningful-public-involvement-transportation-decision-making

Section 5.1 Safety Partners

The local community, City Government, Tribal government, Native Corporations, Tribal groups, non-profits, and government agencies work together to ensure transportation safety in the Pribilof Islands region. The Safety Action Plan Team (SAPT) actively collaborated with these groups to develop long-term safety partnerships aimed at improving transportation safety across the islands. These partnerships were essential in addressing key areas such as education, enforcement, and maintenance, along with other critical aspects of transportation safety within the community.

Table 6. Meeting Dates with Safety Plan Partners and Stakeholders

Stakeholder	Meeting Dates	Meeting Location
Saint Paul Community Health Clinic (Southcentral Foundation)	April 16, 2024	Health Clinic, Saint Paul
Pribilof School District, Saint Paul School	April 16, 2024	Saint Paul School
Aleut Community of Saint Paul Island Tribal Government	April 17, 2024	Tribal Office, Saint Paul
Tanadgusix (TDX) Corporation	April 17, 2024	City Office, Saint Paul
Aleut Corporation	May 15, 2024	Remote/Online
NOAA Fisheries, National Weather Service (NWS)	June 4, 2024	Remote/Online
Alaska Fish & Wildlife Service (FWS)	June 21, 2024	Remote/Online
Tanaq Corporation (Saint George Liaison)	August 6, 2024	City Office, Saint George
Aleut Community of Saint George Island Tribal Government	August 7, 2024	Tribal Office, Saint George
Aleutians Pribilof Islands Association (APIA)	August 7, 2024	Health Clinic, Saint George
Aleutian Pribilof Island Community Development Association (Saint George Liaison)	August 8, 2024	Harbor Office, Saint George

By working with a diverse network of safety partners, including local stakeholders and organizations, SAPT was able to create a comprehensive and sustainable approach to road safety included in this plan. This collaborative effort not only enhanced the development of the Safety Action Plan but also laid the groundwork for continued cooperation, ensuring that these partnerships will remain instrumental in advancing transportation safety initiatives well into the future. Below is a list of the Safety Partners and feedback received from them during the public outreach process.

City Government – City of Saint George and City of Saint Paul

The City of Saint Paul and City of Saint George Safety Action Planning Team members worked closely with staff from both the Administration and Public Works Departments to gather valuable input on transportation safety improvements. Administrative input included feedback from City Council meetings, where transportation safety concerns were discussed and prioritized. This ensured that key issues identified by local leaders and community members were addressed in the planning process. Public Works staff, particularly road maintenance personnel, provided critical insights into areas where transportation safety is a concern, highlighting specific locations where signage and speeding are ongoing issues. Additionally, they identified intersections and roads where inadequate lighting poses safety risks.

Tribal Government – Aleut Community of Saint Paul & Saint George Island

The SAPT collaborated with the **Aleut Community of Saint Paul Island (ACSPI**) to incorporate transportation safety improvements already being developed on the island into the plan. One key project is the Ballfield Project, a joint initiative between ACSPI and the National Park Service (NPS) that aims to improve pedestrian safety around the school. The SAPT worked with the Tribal government to secure buy-in and gather input for potential tribal road projects, with key contributions from the Tribal President and Executive Director. These projects could include adding street signage that reflects local Unangax̂ language and values, promoting both safety and cultural preservation. Additionally, SAPT engaged with *Tanax̂-Unaaĝim Maqax̂singin (T-UM Office of Cultural Affairs),* the Tribal department responsible for overseeing the ethnic and cultural interests of individual and family members of the Aleut Community. [20] This partnership ensured that the transportation safety improvements align with the broader goals of the community, integrating cultural elements and addressing critical safety concerns.

The SAPT worked with the **Aleut Community of Saint George** and the **Saint George Traditional Council** to identify and address ongoing transportation safety concerns in the community. Building on issues already outlined in the 2018 FHWA Tribal Transportation Safety Plan, SAPT engaged with Tribal leaders to also address newer safety concerns.[21] These include current challenges related to community roads and the conditions that make travel difficult, such as deteriorating infrastructure, limited signage, and hazards caused by weather and insufficient road maintenance.

Corporation – Tanadgusix Corporation (TDX), Tanaq Corporation, & Aleut Corporation

The Alaska Native Corporations, owned by shareholders of the Pribilof Islands, represent Saint Paul Island through **Tanadgusix Corporation (TDX)** and Saint George Island through **Tanaq Corporation**. Both corporations were established in 1971 under the Alaska Native Claims Settlement Act (ANCSA) and play a vital role in land management and ownership on their respective islands. In addition to being important resources for funding community infrastructure improvements, TDX and Tanaq are actively involved in managing material sites that supply gravel material used for the development of community roadways. The Aleut Corporation serves as the regional corporation representing the Pribilof Islands, and among a wide range of activities focuses on managing subsurface activities at road material sites for the Pribilof Islands. Their role involves overseeing and regulating the extraction and use of materials from these sites to ensure environmental sustainability and adherence to local regulations.

> *"Aleut Corporation is committed to improving transportation safety on both Saint Paul and Saint George Islands through transportation projects and grant based initiatives."*
>
> *VP Regional Affairs, Aleut Corporation*

Aleut Corporation actively reinforces support for transportation safety initiatives on both St. Paul and St. George Islands by looking at

[20] "ACSPI PROGRAMS AND SERVICES" ACSPI, 2021, website: https://www.aleut.com/wp-content/uploads/2021/12/ACSPI-Who-We-Are-December-2021.pdf
[21] "SAFETY PLANS LIBRARY" FHWA TTP Program, 2024, website: https://www.tribalsafety.org/safety-plans-library

investing in projects that enhance infrastructure and safety measures. The corporation is keen on expanding its involvement through future initiatives and grants, emphasizing collaboration with local city governments. By contributing to material costs at subsurface material sites, Aleut Corporation aims to facilitate crucial transportation projects, ensuring safer and more efficient travel for island communities.

Tanadgusix Corporation (TDX) is actively involved in several transportation safety projects on Saint Paul Island, with a focus on improving infrastructure to support both community needs and their summer tourism operations. TDX is working to enhance trails around the island, which are vital for tourism, and the roadways leading to these trails also require upgrades to improve access. A key project is the small boat harbor, where there are concerns that rerouting the road to avoid easement and land ownership issues may lead to new drainage challenges. Additionally, TDX is collaborating with the Tribe on land transfers for projects such as the Ballfield Project with ACSPI. Transportation safety improvements, such as better lighting near the school and at the drop-off area, as well as enhancements to SW Point Road, especially at sharp turns where crashes have occurred, are also priority areas. In Old Town, improvements to roads and walkways, including making walkways more accessible during winter and spring months, are critical for connectivity and safety on Saint Paul Island.

Tanaq Corporation wants to play a role in future transportation projects aimed at enhancing the accessibility of the island. By focusing on supporting material sites crucial for road infrastructure improvements, Tanaq Corporation is committed to creating a more navigable and connected island environment. This strategic involvement is designed to facilitate easier travel for visitors who wish to explore and engage with the island's unique wildlife. The corporation aims to not only bolster local infrastructure but also to promote tourism and conservation efforts, ensuring that the island remains a vibrant and accessible destination for nature enthusiasts and researchers.

Medical Providers– Aleutian Pribilof Islands Association (APIA) & Southcentral Foundation

Medical providers and clinic staff from APIA and Southcentral Foundation play a crucial role in identifying and addressing gaps in post-crash care on the Pribilof Islands. As the first line of defense in emergency situations, they are instrumental in recognizing and documenting areas needing improvement. Their on-the-ground insights help to refine and enhance post-crash care protocols, ensuring that responses are both timely and effective. These dedicated professionals facilitate medevac services, which are vital for transporting patients to specialized care facilities when necessary. They work closely with vulnerable populations on each island, integrating their observations and experiences into broader transportation safety improvement plans.

> *"There is a need for improved weather systems at the airport as there is an AWOS System, but no FAA Weather Cameras. The cameras and AWOS systems in Saint Paul are often down and can often prevent medevac flights from coming into Saint George."*
>
> *Lead Nurse Practitioner, APIA Clinic, Saint George Island*

APIA clinic staff identify transportation safety on Saint George Island as a concern that directly impacts the ability to provide effective medical care. The clinic which offers general and emergency services, is set to improve with the addition of a new transit vehicle in 2025. This will help transport residents to the clinic or airport for medevac services more efficiently. Currently medevac options include Coast Guard support for severe cases and Guardian Aviation's prop planes to Dutch Harbor, though most emergencies are redirected to Anchorage due to weather issues. Staff have pointed out that the airport's weather systems, including the AWOS and FAA Weather Cameras, are often unreliable, complicating flight logistics. The clinic faces staffing challenges with limited availability of rotational nurse practitioners and outdated emergency vehicles, including an unused ambulance. Community roads, like Zapadni Bay Road can always be improved upon and while drunk driving is infrequent, it remains a concern. The clinic also manages injuries from fishing boats and coordinate medevac services to ensure that both routine and emergency medical needs are effectively met.

The Saint Paul Community Health Center which is used to provide initial post-crash care in the event of a transportation accident.

> *"The Hospital has limited EMT capability when rotational staff is either off-island or staffed positions haven't been filled to fulfil the service. When EMT services are unavailable residents will typically have to drive those in need of aid to the hospital on their own."*
>
> *Case Manager, Southcentral Foundation, Saint Paul Health Center*

Southcentral Foundation manages and operates the hospital & community health center in Saint Paul and addresses transportation safety with a comprehensive approach to both medical care and needed infrastructure improvements. The hospital provides essential care on-site but relies on medevac services for more intensive needs, utilizing Coast Guard assistance in emergencies when weather prevents other aircraft from landing. The quickest medevac route is via prop planes to Dutch Harbor, though most serious cases are redirected to Anchorage (ANMC). Delta Medical Transport previously offered remote care services but faced capacity constraints due to funding issues. Weather-related challenges are significant, as the AWOS System at the airport has experienced prolonged outages, disrupting medical flights. The hospital's ambulance, housed in the clinic bay, is available for use by EMTs or VPSOs during accidents, though availability can be limited when staff are off-island. Pedestrian safety is a priority, a need to improve existing pedestrian walkways and create designated walkways to enhance connectivity and reduce road accidents. Infrastructure upgrades are needed, including addressing exposed wires along Elementary Heights Road and improving water diversion on King Street to prevent flooding. These efforts are aimed at ensuring both effective medical responses and access for medical vehicles if a crash occurs.

School – Pribilof School District

Transportation safety improvements at the school in St. Paul are essential for enhancing student well-being and ensuring safe travel. At the St. Paul school, there is a need to address the school drop-off area, where inadequate drainage and high traffic volumes have previously led to dangerous situations, including an incident where a student's leg was run over. To improve safety, it is crucial to implement better drainage solutions and consider a more staggered drop-off and pick-up schedule to reduce vehicle congestion during peak times. In the playground and ballfield areas at the school, enhancements are needed to address drainage issues and stabilize materials to prevent erosion and washout.

> *"Pick up and drop off times seem to have the most potential for crashes or accidents to occur. The drop off area at Saint Paul School due to drainage issues is often unusable and parents have to drop their children off at the side door of the building."*
>
> *Superintendent, Pribilof School District*

For the Saint George School, which serves as a distance learning facility, safety concerns must also be addressed. Although the school is not currently in regular use, it still plays a role in the community, and transportation safety improvements should be considered for any activities or events held at the facility. Engaging students in the planning process can provide valuable insights into their daily travel experiences and help tailor safety measures to their specific needs. Potential projects could include creating safer pedestrian pathways, enhancing visibility around the school entrances, and implementing traffic control measures to ensure a safer environment for students as they travel to and from school-related activities. pedestrian walkways and create designated walkways to enhance connectivity and reduce road accidents.

Non-Profits – Central Bering Sea Fishermen's Association (CBSFA) & Aleutian Pribilof Island Community Development Association (APICDA)

Local nonprofits **APICDA (Aleutian Pribilof Islands Community Development Association)** and **CBSFA (Central Bering Sea Fishermen's Association)** serve as crucial safety partners in advancing transportation safety improvements for the Pribilof Islands. Their collaborative efforts focus on enhancing marine navigation and transportation infrastructure, which is vital for connecting St. Paul and St. George Islands more effectively. By supporting projects that improve safety standards and infrastructure, these organizations not only facilitate smoother transportation but also bolster economic opportunities and fisheries-related activities.

Government Agencies – US Fish & Wildlife Service (FWS) & National Oceanic and Atmospheric Administration (NOAA)

The FWS and the NOAA play supporting roles in the government oversight of the Pribilof Islands, with FWS managing notable portions of land on each island through the Alaska Maritime National Wildlife Refuge. Their stewardship is crucial for maintaining the ecological balance and protecting critical habitats for bird and seal species. Transportation safety is a key concern for both agencies, especially regarding the navigation of trails and routes used to access these sensitive viewing areas. These pathways are essential for biologists and scientists who monitor wildlife during the summer months, ensuring that their research and conservation efforts are conducted safely and effectively.

> *"Roads need better markings for visitors to the islands, including street signs and whether roads and trails are open to the public. High visibility signage that can withstand the severe weather of the Bering Sea should also be noted when deciding what type of signage to install."*
>
> *FWS Resource Manager, Alaska Maritime National Wildlife Refuge*

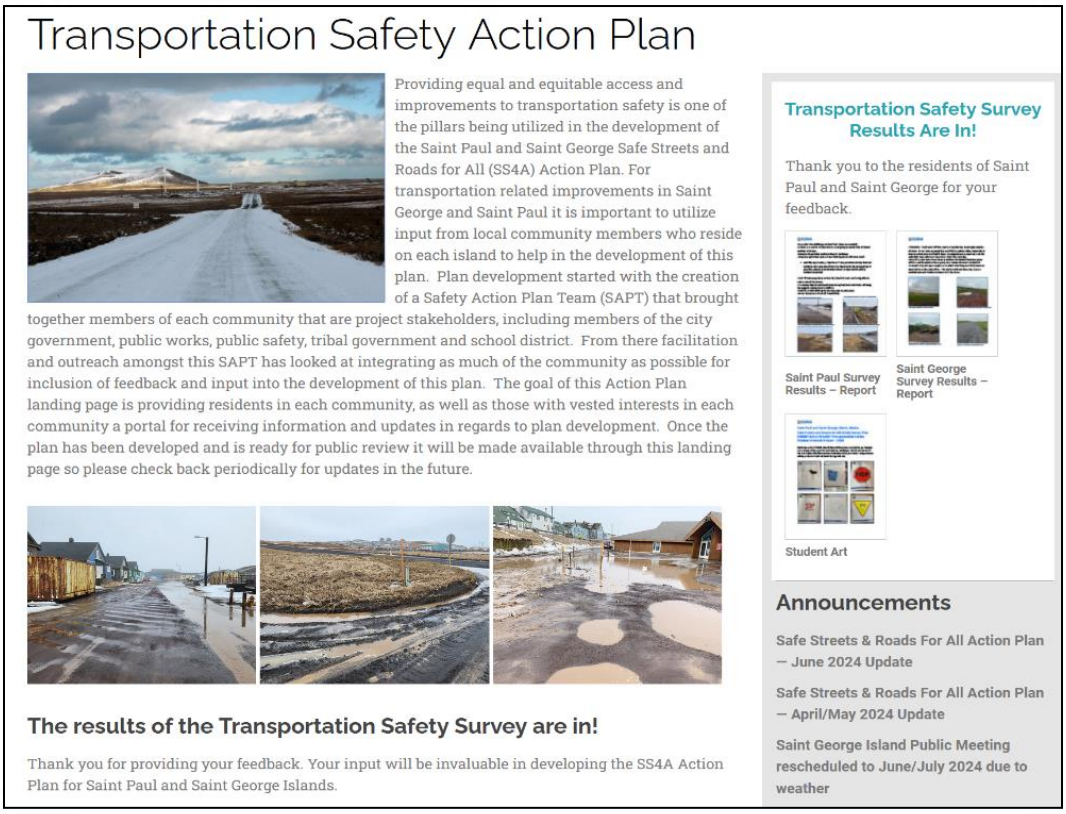
FWS and NOAA specific transportation challenges include access to key sites, including Polovina Cliffs, Zapadni Reef on Saint Paul Island, and South Rookery on Saint George Island. Both are hindered by inadequate pedestrian infrastructure to access the sites safely. Saint George, in particular, lacks proper lighting and maintenance, exacerbating safety risks despite fewer motorized vehicles on the island used by Government staff. Sand drifts, erosion, and poor drainage impact road safety, especially on main and side roads leading to the rookeries on both islands. The unchecked erosion caused by ATV traffic and the lack of public access to key wildlife viewing areas further complicate safe and efficient travel. Improved infrastructure, including better lighting, reflective materials, and enhanced road maintenance, is essential for ensuring safe access and reducing risks for fieldwork of the government staff and supporting staff from the community.

The transportation networks on St. Paul Island, including the North Road designated as the St. Paul Island High Bluffs Trail, require critical improvements to address ongoing erosion issues. Although the trail was designated as a National Recreation Trail in 2006 and has been restricted to non-motorized and ATV/UTV use to mitigate degradation, erosion continues to be a significant problem. Gates and barriers installed in 2004 and 2005 have helped slow degradation but have not fully resolved the issue. Recent measures, such as instructing crews to walk rather than use ATVs on the deteriorated section coming off Rush Hill, highlight the need for more effective solutions. Enhancing the trail's infrastructure or possibly diverting the route could help prevent further erosion, ensuring safer and more sustainable access while preserving the trail's integrity for future use.

Section 5.1 Community Involvement

Community involvement and feedback are crucial in shaping the Pribilof Island Safety Action Plan to ensure it meets the needs and concerns of local residents. Engaging with the community through in-person meetings held in Spring, Summer, and Fall on both St. Paul and St. George Islands has been a fundamental aspect of this process. These meetings, which featured public forums with food and drinks provided, encouraged active participation through various methods such as surveys, maps, word boards, PowerPoint presentations, and open microphone sessions.

Additionally, an online project page was developed to enhance accessibility and broaden community engagement throughout the planning process. This website serves multiple functions: it provides detailed information on the development stages of the plan, offers regular updates on plan progress, and outlines the process for public review and feedback of the plan when the draft is complete. By incorporating a variety of perspectives and local knowledge through this platform, the plan can be more effectively tailored to address the unique safety challenges faced by the islands. The website also features interactive elements such public survey data, project milestones and a Story Maps page to facilitate meaningful input from residents. This approach not only fosters greater community support but also ensures that the plan is more responsive to local needs and concerns.



Project Website for SS4A Safety Action Plan (https://projects.stpaulak.com/ss4a-action-plan/)

Section 5.1.1 Public Meetings

Public meetings and outreach efforts played a crucial role in gathering community input and ensuring broad participation in the planning process. Activities at the Saint Paul School engaged students directly, including a creative student art project that invited young students to visually express their ideas about safety through transportation signs. Students contributed valuable insights through "My Route" maps, which illustrated their daily routes to school, as well as other frequently visited places within the community. These maps provided a clear picture of how students navigate their neighborhoods and highlighted key areas for safety improvements.

Safety Planning Team members involved in public outreach with KUHB-FM Radio, Saint Paul, Alaska.

Public meetings held at the recreation centers in both Saint Paul and Saint George offered additional opportunities for community engagement, allowing residents to discuss the plan, ask questions, and provide feedback. To reach an even wider audience, outreach efforts extended to social media platforms, local radio through KUHB-FM, and other communication channels, ensuring that diverse voices were heard and considered. This multifaceted approach aimed to foster a comprehensive understanding of community needs and promote active participation in shaping the plan.

Student artwork developed by students at Saint Paul School of Transportation Safety Signage

Public meetings held at the recreation centers in Saint Paul and Saint George incorporated equity-focused strategies to enhance community engagement. By providing food and beverages, the events created a welcoming and inclusive atmosphere, making it easier for local residents to participate. This approach aimed to remove barriers to attendance and ensure that all community members, regardless of their circumstances, felt valued and encouraged to share their perspectives. The provision of refreshments not only fostered a

more relaxed environment but also facilitated informal discussions, helping to build stronger connections between planners and community members.


Community Members involved in Public Meeting at Saint Paul Rec Center (Left) & Saint George Rec Center (Right)

Feedback collected at the public meetings provided valuable insights into transportation safety concerns across the islands. Residents highlighted common issues such as issues with the conditions of community roadways and insufficient pedestrian infrastructure; while also pointing out unique challenges specific to each island, such as lack of functioning lighting on community roads (Saint George) and lack of adequate road width on some residential roads (Saint Paul). This feedback was important in shaping a greater understanding of safety concerns specific and different for each island.

Location	Event	Date
Saint Paul Island Rec Hall	Public meeting	April 16, 2024
Saint Paul School	School outreach	April 16-17, 2024
Saint Paul Island KUHB-FM Radio Station	Radio Interview	April 18, 2024
Saint Paul Island	Public Survey Online	April-May, 2024
Saint George Island	Public Survey Online	April-June, 2024
Saint George Rec Center	Public meeting	August 7, 2024
Saint Paul Island Rec Hall	Public meeting	Fall 2024 Date TBD

Table 7. Meeting Dates with Safety Plan Partners and Stakeholders

Obtaining community feedback from residents of the Pribilof Islands is crucial, as many decisions about the future of these islands are made by individuals who do not live there. Leaders of corporations, agencies, and entities with a stake in the islands often reside off-island, such as in Anchorage or other distant locations, which can lead to a disconnect between decision-makers and the on-the-ground realities faced by residents. Ensuring that the planning process is guided by the input of those who actually live in the Pribilof Islands is essential for creating a plan that truly reflects local needs and priorities. By actively involving island residents, the plan can address specific concerns and leverage local knowledge, ultimately leading to more effective and relevant solutions for the community.

Section 5.1.2 Public Surveys

Transportation Safety Survey Map used to identify specific areas of concern on each island.

Social Media Outreach for planned public meeting event and Transportation Safety Survey.

The Pribilof Islands Regional Transportation Safety Plan survey was actively promoted through multiple channels to gather comprehensive community input. Utilizing the online ArcGIS Survey123 platform, the survey was shared via social media, the KUHB-FM Radio website and posted on City websites including the project website. In addition to the digital outreach, hard copy versions of the survey were distributed during in-person meetings held on both islands, ensuring participation from residents who preferred or required non-digital formats. Survey input was collected from community members and key stakeholders, both on and off the islands, to ensure diverse perspectives were considered in shaping the transportation safety improvements for the region.

The Pribilof Islands Regional Transportation Safety Plan survey received a total of **59 responses**, gathered from both online submissions and in-person surveys. The input focused on identifying critical transportation safety improvements, as well as providing crash data not previously documented in existing resources. Respondents also contributed valuable insights by marking areas of concern on both digital and hard copy maps, highlighting specific locations where transportation safety issues were evident. This comprehensive feedback will play a key role in enhancing the accuracy of the safety plan and addressing previously overlooked hazards.

The public survey for the Pribilof Islands Regional Transportation Safety Plan was available online from April through June 2024. When the survey closed on July 1st, the SAPT began reviewing the results and provided this information to the public through the project website. The survey provided demographic information about the respondents, insights into how safe they perceive the transportation network to be, the modes of transportation they typically use—whether car, bike, or other—and specific safety concerns they identified. This analysis will help guide targeted improvements to the region's transportation safety. See results below for breakdown of survey responses.

Survey Response #1. Where do you reside currently?

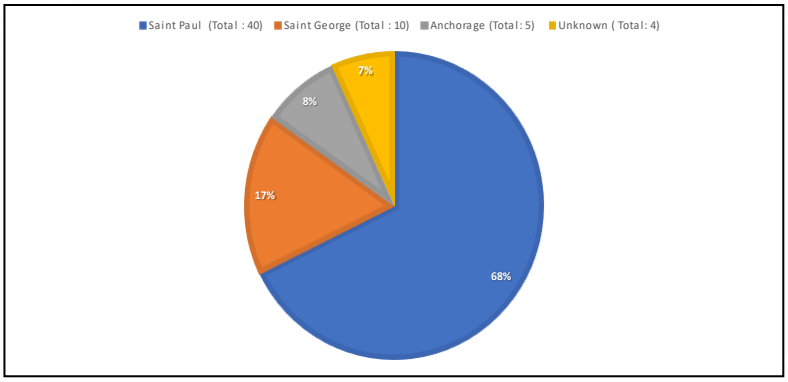


Figure 30. Pribilof Island Public Survey Response #1

Survey Response #2. What transportation safety issues are most important to you?

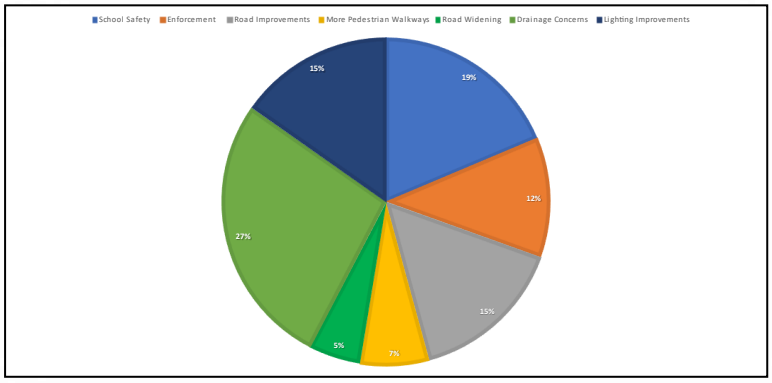


Figure 29. Pribilof Island Public Survey Response #2

Survey Response #3. Where do you see the most concern regarding transportation safety?

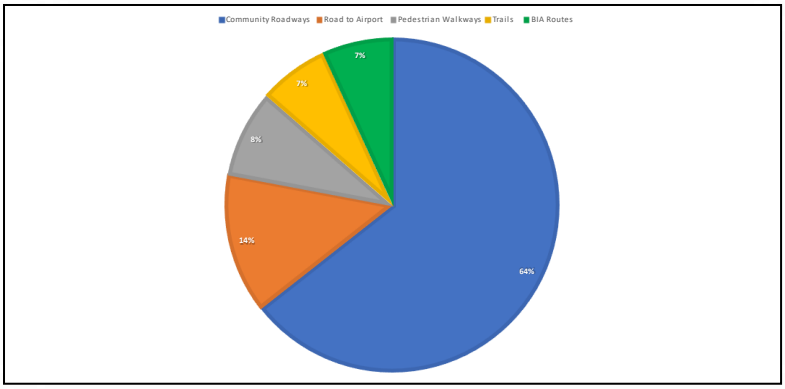


Figure 31. Pribilof Island Public Survey Response #3

Survey Response #4. Identify any crashes, injuries or transportation safety related incidents that you can think of or identify in the community?

Saint Paul:

- *Forklift bumping into a vehicle near Church Street, with visibility issues around the corner.*
- *Tire damage due to poor road conditions and jagged materials causing tire deflation.*
- *Crash near the tribal building by the stop sign in past years.*
- *Minor accident in front of the Tribal Office.*

Saint George:

- *7/4/2024: Truck went off the road on Zapadni Bay Road just outside of town. The driver was impaired, but due to the absence of VPSO or public safety, there was no enforcement of traffic laws. No injuries were reported, and the truck was retrieved the next day.*
- *Over the years, multiple vehicles have gone off the road while headed to the airport; most incidents involved alcohol.*
- *A couple of years ago, a single-car accident involving an elderly woman occurred near the post office. She did not sustain injuries or seek medical treatment at the clini**c.***

Most common concerns included in survey responses.

Drainage issues on community roads

Lack of dependable air service

Improved pedestrian walkways

Road surface issues

Poor street lighting

Please provide information using the map to identify specific areas, roadways or trails which have ongoing transportation safety concerns.

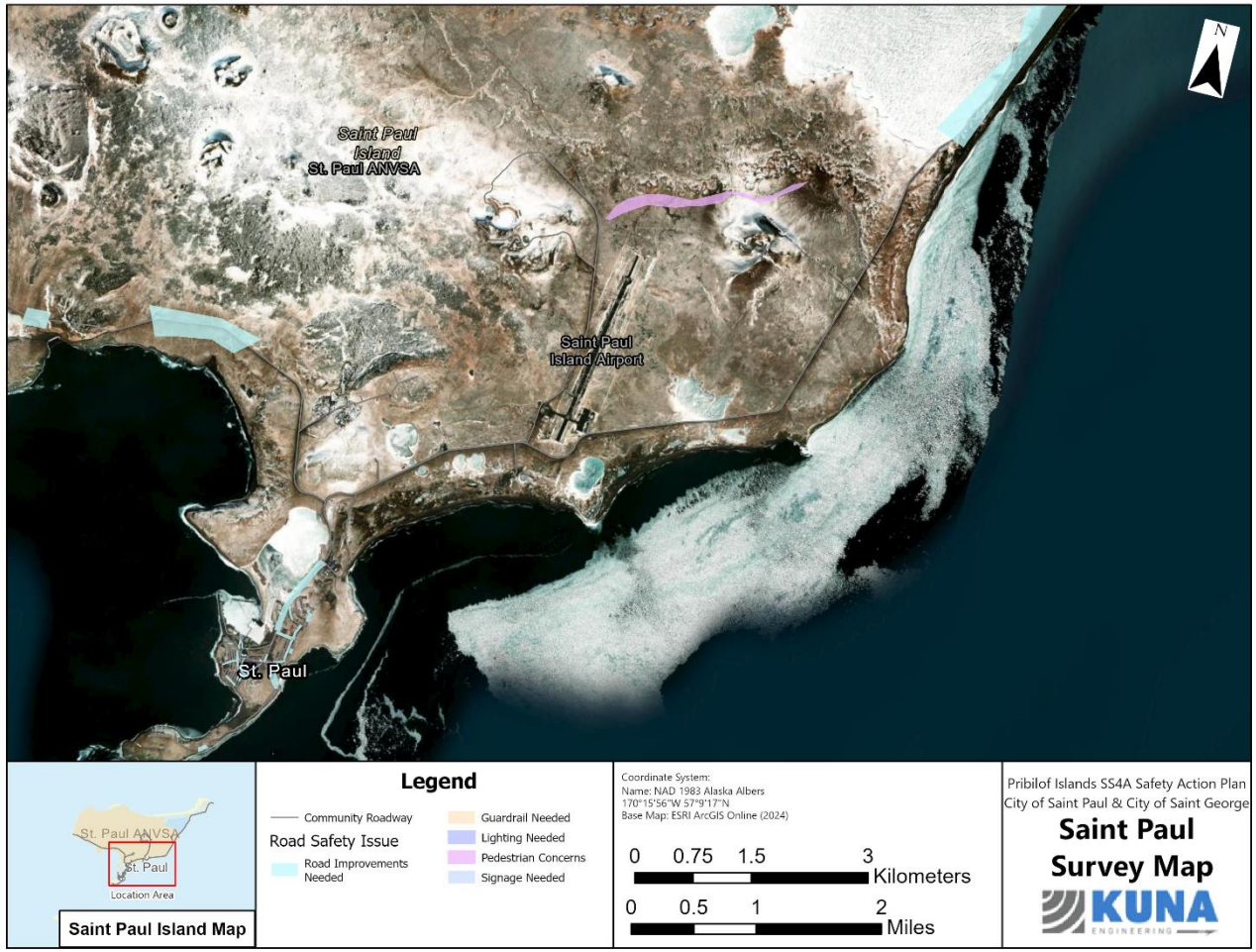


Figure 32. Saint Paul Island Survey Response Map

Figure 33. Saint George Island Survey Response Map

Section 6 Transportation Policy & Processes

The Safety Action Planning Team (SAPT) conducted a thorough review of existing policy and planning efforts aimed at improving transportation safety in the Pribilof Islands. This process involved an evaluation of current transportation plans and studies, with participation from both municipal and tribal stakeholders. As part of this effort, the team also examined the Alaska Strategic Highway Safety Plan (SHSP) to identify initiatives that could potentially overlap or be integrated into the Pribilof Islands' Regional Transportation Safety Plan.

Community members reviewing transportation maps and planning documents at a safety plan public meeting event in Saint Paul.

Section 6.1 Overview of Existing Planning Efforts

Transportation safety documents, planning efforts, and programs currently in place can help guide the safety improvements proposed in this plan. By reviewing existing resources, such as municipal and tribal transportation plans, as well as state-level initiatives like the Alaska SHSP the planning team identified key strategies that align with local safety needs. These documents provide a foundation for integrating proven solutions and leveraging ongoing efforts to enhance transportation safety across the Pribilof Islands.

Alaska Strategic Highway Safety Plan 2023-2027

The SHSP served as a key resource in guiding the Safe System and Vision Zero approaches integrated into the Pribilof Islands Safety Action Plan. As Alaska's coordinated safety plan, the SHSP aims to reduce fatalities and serious injuries on all public roads, aligning with the state's vision of Toward Zero Deaths. This plan outlines traffic safety problems, priorities, and solutions that will be implemented through 2027, in collaboration with state, regional, and local agencies, as well as private sector and non-profit stakeholders. By incorporating the strategies and actions outlined in the SHSP, the Pribilof Islands' safety plan aligns with Alaska's broader goals to create a safe transportation system for all road users, emphasizing effective and equitable solutions. Additionally, the plan aims to work with the ADOT&PF to improve crash data reporting and integrate the islands into crash databases, enabling better monitoring and analysis of crash data to inform ongoing safety improvements.

Saint George Traditional Council Transportation Safety Plan 2018

The ongoing safety concerns identified in the Saint George Traditional Council Transportation Safety Plan provide valuable guidance for the Pribilof Islands Safety Action Plan. Many of the issues, such as unsafe and unmaintained roads, inadequate street lighting, excessive speeding, and a lack of emergency shelters, remain unaddressed and continue to affect transportation safety on Saint George Island. By

integrating these concerns into the broader Pribilof Islands Safety Action Plan, efforts can be made to address critical issues like driving and boating while intoxicated, pedestrian visibility, insufficient street signage, and the lack of helmet use for ATVs and bicycles. Additionally, the absence of bicycle and pedestrian facilities, life vests, and trail markings highlights the need for comprehensive safety improvements. Incorporating these unresolved issues will help the Pribilof Safety Action Plan focus on solutions that enhance overall safety for all road users across the islands.

Saint Paul Road Drainage Improvement Study 2021

The 2021 drainage study of community roads in Saint Paul highlighted key factors affecting the community's transportation safety and the ongoing need to improve its infrastructure. The study assessed roads impacted by drainage issues, focusing on areas such as clearly defined drainage channels, roadway elevation, surface grade, and roadside ditches. It also evaluated the quality of surface materials and the availability of heavy equipment necessary for excavation, transportation, and aggregate compaction. Additionally, the study reviewed current maintenance practices and the need for upgraded equipment to support these efforts.

Integrating the findings from this drainage study into the broader Pribilof Islands Safety Action Plan emphasizes the importance of addressing these critical infrastructure concerns. Ongoing drainage issues pose safety risks and threaten the longevity of existing roadways, reinforcing the need for regular maintenance, enhanced equipment, and strategic improvements to the community's transportation network.

Saint George Traditional Council Long Range Transportation Plan 2022

The 2022 Long-Range Transportation Plan (LRTP) for Saint George identifies road maintenance and improvement as the highest priority for enhancing accessibility and safety on the island. The community roads, where most infrastructure is concentrated, are especially vulnerable to damage due to severe weather and frequent usage. The LRTP outlines key strategies, including regular grading, filling potholes, and reshaping gravel surfaces to maintain a stable and drivable road network. Installing culverts for water runoff mitigation is essential to prevent washouts, particularly during heavy rainfall. Additional priorities include snow removal within 24 to 48 hours of significant accumulation and applying dust control measures to improve visibility and road conditions. Regular maintenance of road markings and signage ensures proper identification of routes, contributing to overall safety. These measures, outlined in the 2022 LRTP, aim to address the ongoing maintenance needs of Saint George, ensuring that community roads remain functional and safe year-round.

St. Paul Island Comprehensive Economic Development Strategy: 2024-2028

The 2023 Comprehensive Economic Development Strategy (CEDS) for St. Paul Island, developed by the Aleut Community of St. Paul Island (ACSPI), emphasizes the importance of improving transportation to and from Saint Paul Island as a key factor in supporting economic growth and development. Reliable transportation to and from the island is vital, not only for daily travel but also for enhancing tourism, research, and business opportunities. Air transportation challenges, such as limited availability, high costs, and inconsistent reliability, hinder the growth of industries like tourism and scientific research.

The strategy calls for collaboration with air and water transportation providers to improve access, making it safer and more consistent. Increased transportation services will also enhance safety for residents, visitors, and researchers by ensuring dependable routes for emergency services, supplies, and routine travel. The development of the Bering Sea Research Center and support for small businesses focused on visitor services further underscore the need for a comprehensive approach to improving transportation safety, ultimately driving economic resilience on St. Paul Island.

City of Saint Paul 2023 Capital Improvement Plan

The Capital Improvement Plan (CIP) for St. Paul Island plays a critical role in shaping transportation safety initiatives by identifying key infrastructure projects that address the community's current and future needs. Through the CIP process, transportation projects are prioritized based on their importance to public safety and their potential to improve accessibility. For example, road maintenance projects, such as resurfacing and installing proper drainage, can reduce the risk of accidents caused by poor road conditions. Additionally, the development of safe and reliable transportation routes for vehicles and pedestrians can minimize hazards and ensure emergency services can respond effectively. By incorporating public input and aligning transportation improvements with long-term community goals, the CIP serves as a strategic tool to enhance safety, guide development, and create a more resilient transportation system for St. Paul in the future.

Section 6.2 Policies and Procedures

The City of Saint Paul's existing policies and procedures related to transportation safety were reviewed, focusing on key areas such as access management, complete streets, pedestrian regulations and requirements, work zone management, and emergency response protocols. These policies serve as a foundation for current transportation safety measures and highlight areas that require updates to meet the evolving needs of the community. For example, the integration of "complete streets" principles aims to enhance safety for all users, including pedestrians and bicyclists. The review also identified gaps in work zone management and emergency response times, where updated traffic management plans and faster incident response systems could greatly reduce risks related to crashes.

Policy review included determining location of and replacement need for Proven Safety Countermeasures, including guardrails.

In developing future transportation improvement projects, Alaska Department of Transportation (DOT) policies and requirements can provide valuable guidance. The use of Alaska DOT standards for work zones, emergency response, and traffic management ensures that new projects align with best practices

for safety and efficiency. [22] By implementing these standards, along with planned updates to the City's policies and procedures, The City of Saint Paul can enhance transportation safety, minimize incidents, and improve overall mobility for residents and visitors alike. Below are the potential policy and procedural changes highlighted in discussions with the public, city council and project plan stakeholders.

Proposed Policy & Process Changes that can improve transportation safety

1.) Complete Streets Program

- *The Complete Streets program will enhance transportation safety in the Pribilof Islands by designing and implementing infrastructure that accommodates all users pedestrians, cyclists, and drivers ensuring safer and more accessible travel throughout the community.*

2.) Proven Safety Countermeasures Initiatives

- *Proven safety countermeasure initiatives will improve transportation safety in the Pribilof Islands by implementing evidence-based strategies such as enhanced signage, improved road markings, and safer crossing points, reducing the risk of accidents and promoting safer travel for all residents.*

3.) Assessment and Improvement of existing road traffic management policy

- *Improving the existing road traffic management policy will enhance transportation safety in the Pribilof Islands by introducing more effective traffic control measures, streamlined enforcement practices, and updated guidelines that address current safety challenges and promote more cautious driving behaviors.*

4.) Emergency Response to Post-Crash Care

- *Aligning emergency response and post-crash care will improve the likelihood of positive outcomes by ensuring timely and effective medical intervention in traffic crashes.*

Section 6.2.1 Complete Streets Program

Complete Streets initiatives, adapted for the remote and rural context of the Pribilof Islands, can significantly enhance transportation safety for vulnerable road users such as pedestrians, cyclists, and ATV operators. In these areas, the focus would be on creating safer, more accessible roadways by incorporating features like designated lanes for non-motorized traffic, clear signage, and improved crossings where appropriate. [23] Given the rural and often harsh conditions, these improvements would help reduce the risks associated with limited visibility, rough terrain, and mixed-use roads, ensuring safer travel for all residents and visitors.

To enhance transportation in the Pribilof Islands, policy initiatives include collaborating with the Alaska Department of Transportation (ADOT) through their Complete Streets Program. [24] This collaboration would involve implementing successful strategies from other rural Alaskan areas to improve safety and

[22] "Highway Work Zone Safety and Traffic Control Plans" ADOT, September 2022, website: https://dot.alaska.gov/stwddes/dcspubs/assets/pdf/directives/attach/22/090222attach_work_zone_hpcm14.pdf
[23] "Complete Streets Policy Factsheet" ADOT, 2024, website: https://dot.alaska.gov/stwdplng/completestreets/docs/DOTPF-CS-Policy-Factsheet.pdf
[24] "Complete Streets" ADOT, 2024, website: https://dot.alaska.gov/stwdplng/completestreets/

accessibility for all users, including pedestrians, cyclists, and ATV/snow machine operators. Participating in ADOT's Complete Streets workshops and outreach events, especially with in-person visits to the islands, would provide valuable opportunities for tailored solutions. This direct engagement would facilitate hands-on collaboration and technical support, ensuring that infrastructure improvements meet the community's unique needs and align with long-term goals for safety and sustainability.

Section 6.2.2 Proven Safety Countermeasures Initiatives

In rural areas like the Pribilof Islands, Proven Safety Countermeasure initiatives such as targeted lighting plans and comprehensive road safety audits can significantly enhance transportation safety. [25] Implementing effective lighting solutions at key locations, such as intersections and high-risk areas, can improve visibility for drivers and pedestrians alike, reducing the likelihood of accidents during low-light conditions. Road safety audits, on the other hand, systematically evaluate roadways to identify and address potential hazards, ensuring that safety improvements are tailored to the specific needs of rural roads.

The SAPT has proactively sought additional grant funding through the SS4A program to conduct an in-depth road safety audit and develop a comprehensive lighting plan, aiming to bolster the effectiveness of the safety action plan. By securing additional funds, the team will be able to thoroughly assess the current road conditions, identify critical safety issues, and implement targeted improvements. The road safety audit will provide detailed insights into potential hazards and vulnerabilities, while the lighting plan will enhance visibility and reduce the risk of accidents, especially in low-light conditions.

Improvements at the school drop off area should look to Proven Safety Countermeasures including Roundabouts & Corridor Access Management to improve transportation safety.

The Complete Streets Programs look at ways to provide safer transportation networks for vulnerable road users, including pedestrians.

[25] "Proven Safety Countermeasures in Rural Communities" FHWA, 2024, website: https://highways.dot.gov/sites/fhwa.dot.gov/files/2024-01/FHWA_PSCs_in_Rural_Communities_508.pdf

Section 6.2.3 Improvement of Road Management

The City Government during the SS4A Plan development process has actively engaged the community to gather public input on proposed road traffic initiatives aimed at enhancing local transportation safety and efficiency. This outreach has included discussions on potential road widening in residential areas to create additional pedestrian walking spaces, thereby improving safety for walkers and reducing conflicts between vehicles and pedestrians. Exploring the implementation of one-way roads in certain residential zones to manage and reduce traffic levels, which can alleviate congestion and improve overall traffic flow. Also included in feedback with the Trial Government has been input on the placement of new street signs on roads to aid in navigating community roadways more effectively.

Enhanced roadway safety includes improved traffic control devices that utilize lighting and higher visibility signage.

The city government will use the Highway Safety Improvement Program (HSIP) as a resource to integrate key safety initiatives into local transportation safety strategies. By drawing on the guidance and standards outlined in the Alaska Traffic Manual and the Alaska Sign Design Specifications Manual, the city aims to enhance road safety through improved traffic management practices.[26] This includes upgrading traffic control devices, implementing advanced traffic signals, improving street lighting, and enhancing roadway signage and road design in line with state and national standards. Additionally, the city will apply safety countermeasures, work zone traffic control, and crashworthy hardware in its planning and construction efforts, ensuring that road improvement projects meet HSIP's objectives of reducing traffic incidents and improving overall traffic safety for the community.

Section 6.2.4 Emergency Response to Post-Crash Care

The city government is focused on initiatives to improve post-crash care and emergency response by utilizing the local clinic and its support staff, in collaboration with the Southcentral Foundation and the Aleutian Pribilof Islands Association (APIA). Given the remote location of the island, the clinic is a vital first point of care following road accidents. Efforts will be made to strengthen coordination between the clinic, Southcentral Foundation's healthcare providers, and APIA's emergency services to ensure timely and effective post-crash care. Additionally, recognizing the unique challenges of the island, these initiatives will focus on improving connections with medevac and emergency response services to facilitate rapid patient transfers to off-island medical facilities when advanced care is needed. This approach aims to enhance the integration of local and regional healthcare services, ensuring better outcomes for critical injury cases.

[26] "Traffic and Safety Resources" ADOT, 2024, website: https://dot.alaska.gov/stwddes/dcstraffic/resources.shtml

The Pribilof Islands can benefit from adopting strategies outlined in the Statewide Highway Safety Plan (SHSP) to enhance post-crash care and emergency response initiatives. Specifically, the SHSP's Emergency Response Focus Area (Post-Crash Care Emphasis Area) highlights Strategy 2, which aims to protect first responders at crash sites using advanced tools, techniques, technology, and information-sharing. [27] In the unique setting of the Pribilof Islands, where resources are limited, these strategies can be adapted to improve the safety and efficiency of post-crash care. By equipping first responders with the necessary tools and technology, such as high-visibility gear and advanced communication systems, they can safely perform their duties while minimizing the risk of secondary crashes. Additionally, the use of technology and information-sharing systems can streamline the coordination between local clinics, Southcentral Foundation, APIA, and medevac services, ensuring timely and effective emergency response and post-crash care for both crash victims and responders.

The Village Public Safety Officer and Clinic Staff work together to initiate response with EMS Services to post-crash care.

The City of Saint Paul is committed to ensuring the continuation of EMS despite the severe financial challenges posed by the closure of the crab fisheries and the resulting loss of tax revenue. To bridge this funding gap, the city is seeking to collaborate with local nonprofits, such as the Central Bering Sea Fishermen's Association (CBSFA), and state and federal agencies to secure sustainable funding for EMS services. [28] By working together, the City hopes to develop long-term partnerships that can provide consistent financial support to maintain EMS operations. This includes exploring additional grants and funding opportunities with the State of Alaska Department of Health and other federal programs. The goal is to continue delivering critical medical services to both the residents and the Bering Sea fishing fleet while the City rebuilds its financial capacity. Through these partnerships, Saint Paul aims to keep EMS fully funded and operational, ensuring the health and safety of the community during this period of economic uncertainty.

[27] "Alaska Vulnerable Road User Safety Assessment" ADOT, SHSP, 2023, website: https://dot.alaska.gov/stwdplng/shsp/assets/AKDOT_VRU_Draft-11-14-23_signed.pdf
[28] "Funding Emergency Medical Services (EMS) update" City of Saint Paul, February 2023, website: https://stpaulak.com/2023/04/03/funding-ems-update/

Section 6.3 Adoption of Policy Changes

The City Council, in adopting the Safety Action Plan, is committed to enacting the policy and procedural changes outlined within the plan. This commitment will be formalized through the Council's adoption and approval prior to the final draft's completion, ensuring that necessary revisions and community input are incorporated. The Council is also dedicated to collaborating with ADOT to implement recommendations from the State Highway Safety Plan. Specifically, the Council will work to incorporate the Proposed Policy & Process Changes listed in the plan, which are designed to enhance transportation safety across the region.

Section 7 Transportation Projects and Strategies

The transportation projects and strategies in the City's Safety Action Plan will be guided by the Safe System approach, with the overarching goal of achieving **Vision Zero,** continuing the community's track record of zero roadway deaths. Unlike traditional road safety practices that often focus solely on preventing crashes, the Safe System approach is proactive and holistic, recognizing that human error is inevitable and designing transportation systems to minimize the severity of crashes when they occur. Projects will focus on creating safer road environments through improved infrastructure, safer speeds, and better protection for all users. By prioritizing safety at every level, ranging from roadway design to vehicle operation, the SAPT is committed to sustaining its vision of zero fatalities, ensuring that all community members can travel safely on Pribilof Island roads and transportation systems.

Improvements to safety related to public works projects are part of strategies outlined in the implementation matrix.

The projects and strategies outlined in the Safety Action Plan will prioritize multimodal travel, recognizing the unique transportation needs of the Pribilof Islands. This includes ensuring safe travel for vehicles, ATVs, pedestrians, and bicycles, while also integrating air and marine services, which are critical due to the islands' remote location. Given the community's reliance on these various modes of transport, the plan will address the interconnected nature of road, air, and marine systems, ensuring that safety improvements reflect the full spectrum of travel needs. By accommodating all users and modes of transportation, the plan aims to create a safer, more resilient system that enhances mobility and ensures access to essential services, particularly in emergency situations.

Section 7.1 Implementation Matrix

The implementation matrix, as part of the Safety Action Plan, is a key tool in guiding future transportation safety projects on the Pribilof Islands. By identifying potential projects, strategies, and recommendations aligned with safety best practices, the matrix will help prioritize efforts that are feasible for grant funding and infrastructure improvements. It will include conceptual project details, estimated costs, and a schedule for implementation. Additionally, the matrix will outline the fiscal and staff resources necessary for sustained efforts to achieve the island's traffic safety goals and meet SS4A objectives. A project readiness timeline for short-term, mid-term, and long-term initiatives will ensure a structured approach to enhancing transportation safety and securing funding for future improvements.

The implementation matrix in the City's Safety Action Plan is structured using specific goals and emphasis areas to categorize transportation safety projects. By dividing the table into these categories, the matrix helps prioritize and focus efforts on the most critical aspects of safety improvements. The

matrix also incorporates the Capital Improvement Plan (CIP) Scoring Matrix as a guide, aligning with the City's existing understanding of rating systems to ensure consistency in project evaluation. Each project is scored based on its alignment with the Safe System approach, addressing key components such as safe road users, safe vehicles, safe speeds, safe roads, and post-crash care. Additionally, the matrix includes detailed funding sources and cost estimates, which are informed by both ongoing and planned development projects. This structured scoring method ensures that the projects are not only feasible but also effectively contribute to the broader safety goals of the community.

Section 7.1.1 Project Development and Prioritization

The transportation safety plan matrix includes a range of projects derived from public outreach comments, requests from the City Administrative staff, SAPT planning team members and existing plans. To estimate the costs of these proposed projects, order-of-magnitude estimates were calculated using average unit costs from past road Pribilof Island Road Projects, with quantities based on typical conditions for each improvement type. Cost estimates also included additional considerations for right-of-way acquisition, utility relocations, engineering fees, and a 20 percent contingency for unforeseen expenses. The prioritization of these safety projects was determined through a criteria-based approach, incorporating input from public outreach, to align with the goals and objectives of the Safety Action Plan.

Each project in the City of Saint Paul Capital Improvement Plan (CIP) and Safety Action Plan will receive a score based on a 1-10 ranking for specific criteria, with scores multiplied by weighted percentages to calculate a final Project Score. Projects are then categorized as **Essential** (46-60), **Desirable** (31-45), **Acceptable** (16-30), or **Deferrable** (0-15). Each is assigned a readiness timeline—short-term (0-5 years), mid-term (5-10 years), or long-term (10+ years). The City Council prioritizes higher-ranked projects for State and Federal funding, focusing on those with the greatest impact on safety and public welfare.

Table 8. Priority Project Scoring Matrix

Timeframe	Years	Description	Priority Level	Project Score Range	Description
Short-term	0-5 years	Immediate goals or projects to be completed within the next five years.	**Essential**	46-60	Urgent, high priority; addresses emergency or dangerous conditions, critical for improving road safety.
Mid-term	5-10 years	Medium-range goals or projects expected to be achieved within five to ten years.	**Desirable**	31-45	High-priority, valid timing; implement as funding becomes available.
Long-term	10+ years	Long-range goals or projects that will take over ten years to complete or plan for.	**Acceptable**	16-30	Worthwhile but can be deferred if needed; budget dependent.
			Deferrable	0-15	Low-priority, desirable but not essential; can be postponed.

Table 9. Project Priority Criteria Matrix

Criteria	Explanation	Evaluation Measure	Scoring Scale (Points Possible 1-10)				
			1	3	5	7	10
Goals and Emphasis Areas	Projects that address and provide connection to the goals and emphasis area highlighted in the plan	Number of goals and emphasis areas addressed as part of the project.	Does not address any of the goals or emphasis areas in the plan	↔	Addresses two or more goals or emphasis areas in the plan.	↔	Addresses all of the goals or emphasis areas highlighted in the plan.
Safe System Approach	Projects that address the Safe System Approach to improvements in transportation safety.	Number of Safe System Approach elements addressed by the project: Safer People, Safer Vehicles, Safer Speeds, Safer Roads, Post-Crash Care.	Does not address any of the elements in the Safe System Approach.	↔	Addresses two or more elements in the Safe System Approach.	↔	Addresses all of the elements in the Safe System Approach.
Crash Factor	Projects that address the Vision Zero approach to crashes that result in fatalities and serious injuries.	Intersections or roads where injuries or fatal accidents have occurred.	No crashes resulting in injury or death have occurred on the roadway or route segment.	↔	Three or more crashes resulting in serious injury or death have occurred on the roadway or route segment.	↔	Five or more crashes resulting in serious injury or death have occurred on the roadway or route segment.
Equity Considerations	Projects that equity considerations including Transportation Disadvantaged Communities (TDC) areas of concern around Accessibility, Health and Environment.	Project includes improvements that address Pribilof Islands TDC Areas of Concern.	Does not address any of the Pribilof Islands TDC Areas of Concern.	↔	Addresses two or more Pribilof Islands TDC Areas of Concern.	↔	Addresses all of the Pribilof Islands TDC Areas of Concern.
Existing Plan	Projects that support existing plans, policies, and development projects are already proposed.	Project is in an existing plan, policy, procedure or development project.	Project is not in an existing plan, policy or development project.	↔	Project has been listed within a plan or policy for three or more years.	↔	Project has been listed within a plan or policy for five or more years.
Public Input	Project has been cited by the public through public meetings or stakeholder engagement.	Project has been cited by the public through public meetings or stakeholder engagement by one or more individuals in the form of feedback, surveys or community outreach events.	Project not developed with public input	↔	Project part of public input received by two or more individuals.	↔	Project part of public input received by five or more individuals.

Table 10. Transportation Project Prioritization & Implementation Matrix

Description	ID#	Improvement Type	Lead Department	Priority Level	Cost Estimate	Partner Entities	Funding Sources	Timeline	Project Prioritization Scoring Criteria						
									Goals & Emphasis Area	Safe System Approach	Crash Factor	Equity Consider-ations	Existing Plan	Public Input	Total Priority Score
Route Infrastructure															
King Street Culvert Installation Project	1-R	Road Conditions	City of Saint Paul	Desirable	$375,960	Aleut Tribal Government of Saint Paul	SS4A, TTSP, USDOT	Mid-term	7	5	3	5	10	10	40
Rim Rock Drive Drainage Improvement Project	2-R	Road Conditions	City of Saint Paul	Desirable	$407,290	Aleut Tribal Government of Saint Paul	SS4A, TTSP, USDOT	Mid-term	7	5	3	5	10	10	40
Bartlett Boulevard (West) Drainage Improvement Project	3-R	Road Conditions	City of Saint Paul	Desirable	$626,600	Aleut Tribal Government of Saint Paul	SS4A, TTSP, USDOT	Mid-term	7	5	5	5	10	10	42
Bartlett Boulevard (East) Drainage Improvement Project	4-R	Road Conditions	City of Saint Paul	Desirable	$1,159,210	Aleut Tribal Government of Saint Paul	SS4A, TTSP, USDOT	Mid-term	7	5	5	5	10	10	42
Sidetown Road Drainage Improvement Project	5-R	Road Conditions	City of Saint Paul	Desirable	$751,920	Aleut Tribal Government of Saint Paul	SS4A, TTSP, USDOT	Mid-term	7	5	5	5	10	10	42
Diamond Hill Road/Public Works Drainage Improvement Project	6-R	Road Conditions	City of Saint Paul	Desirable	$751,920	Aleut Tribal Government of Saint Paul	SS4A, TTSP, USDOT	Mid-term	7	5	3	5	10	10	40
Haul Road Drainage Improvement Project	7-R	Road Conditions	City of Saint Paul	Desirable	$1,503,840	Aleut Tribal Government of Saint Paul	SS4A, TTSP, USDOT	Mid-term	7	5	5	5	10	10	42
Community Street Lighting Upgrade	8-R	Road Visibility	City of Saint Paul	Desirable	$125,000	Aleut Tribal Government of Saint Paul, TDX	SS4A, TTSP, USDOT, RAISE	Mid-term	5	7	10	5	7	10	44
Old Town Road Drainage Improvement Project	9-R	Road Conditions	City of Saint Paul	Essential	$1,879,800	Aleut Tribal Government of Saint Paul	SS4A, TTSP, USDOT, RAISE	Mid-term	7	5	10	5	10	10	47
School Area Complete Streets Project	10-R	Complete Streets	City of Saint Paul	Essential	$2,340,000	Aleut Tribal Government of Saint Paul	SS4A, TTSP, USDOT, RAISE	Mid-term	7	7	10	7	10	7	48

Description	ID#	Improvement Type	Lead Department	Priority Level	Cost Estimate	Partner Entities	Funding Sources	Timeline	Project Prioritization Scoring Criteria						
									Goals & Emphasis Area	Safe System Approach	Crash Factor	Equity Consider-ations	Existing Plan	Public Input	Total Priority Score
New Town Road Drainage Improvement Project	11-R	Road Conditions	City of Saint Paul	Essential	$1,879,800	Aleut Tribal Government of Saint Paul	SS4A, TTSP, USDOT, RAISE	Mid-term	7	5	10	5	10	10	47
Harbor Road	12-R	Complete Streets	City of Saint Paul	Desirable	$2,600,000	Aleut Tribal Government of Saint Paul, TDX, CBSFA, ADOT&PF, USDOT	SS4A, TTSP, USDOT, RAISE, ADOT&PF	Long-Term	7	5	7	5	10	10	44
Aalax Landfill Road	13-R	Complete Streets	City of Saint Paul	Desirable	$11,000,000	Aleut Tribal Government of Saint Paul, TDX, Aleut Corp, ADOT&PF	SS4A, TTSP, USDOT, RAISE, ADOT&PF	Long-Term	5	5	1	3	10	7	31
Community & Island Wide Trail Improvements	14-R	Complete Streets	City of Saint Paul	Acceptable	$200,000	Aleut Tribal Government of Saint Paul, TDX, Aleut Corp, ADNR, FWS, NOAA	SS4A, TTSP, TTP ADNR	Mid-term	3	3	1	3	3	5	18
Saint Paul School Ballfield Pedestrian Project	16-R	Pedestrian Walkways	Aleut Tribal Government of Saint Paul Island	Essential	$1,100,000	City of Saint Paul, TDX, Aleut Corp, NPS	SS4A, TTSP, USDOT, RAISE, NPS-RTCA	Mid-term	5	7	7	7	10	10	46
Saint Paul Island Street Sign Development Project	17-R	Road Safety Signage	Aleut Tribal Government of Saint Paul Island	Essential	$280,000	City of Saint Paul, TDX, Aleut Corp	SS4A, TTSP, USDOT, RAISE, NPS-RTCA	Mid-term	7	7	10	10	7	7	48
Saint Paul Island Safety Signage	18-R	Road Safety Signage	City of Saint Paul	Desirable	$125,000	Aleut Tribal Government of Saint Paul	SS4A, TTSP, USDOT	Short-Term	5	7	10	10	5	7	44
Guardrail Replacement and Improvement Project	19-R	Roadway Departure	City of Saint Paul	Desirable	$792,000	Aleut Tribal Government of Saint Paul	SS4A, TTSP, USDOT	Mid-term	5	7	7	10	5	7	41
Speed Limit & Feedback Signage	20-R	Speed Management	City of Saint Paul	Desirable	$80,000	Aleut Tribal Government of Saint Paul	SS4A, TTSP, USDOT	Mid-term	5	7	10	7	3	3	35

Description	ID#	Improvement Type	Lead Department	Priority Level	Cost Estimate	Partner Entities	Funding Sources	Timeline	Project Prioritization Scoring Criteria						
									Goals & Emphasis Area	Safe System Approach	Crash Factor	Equity Consider-ations	Existing Plan	Public Input	Total Priority Score
NE Point Road Drainage Improvement Project	21-R	Road Conditions	City of Saint Paul	Desirable	$1,159,210	Aleut Tribal Government of Saint Paul	SS4A, TTSP, USDOT, RAISE	Long-Term	7	5	5	5	10	10	42
SW Point Road Drainage Improvement Project	22-R	Road Conditions	City of Saint Paul	Desirable	$1,159,210	Aleut Tribal Government of Saint Paul	SS4A, TTSP, USDOT, RAISE	Long-Term	7	5	5	5	10	10	42
Planning Projects															
Community Road Lighting Plan	1-P	Safety Study	City of Saint Paul	Essential	$35,000	Aleut Tribal Government of Saint Paul, TDX	SS4A, TTSP, USDOT, RAISE	Mid-term	7	7	10	5	10	10	49
Safe Routes to Schools Plan	2-P	Safety Study	City of Saint Paul	Essential	$45,000	Aleut Tribal Government of Saint Paul, Pribilof School District	SS4A, TTSP, USDOT, RAISE	Mid-term	7	7	10	7	10	7	48
Transportation Equity Assessment	3-P	Safety Study	City of Saint Paul	Essential	$35,000	Aleut Tribal Government of Saint Paul	SS4A, TTSP, USDOT, RAISE	Mid-term	7	7	10	10	10	7	51
FAA Safety Management Systems (SMS) Manual and implementation plan	4-P	Safety Study	City of Saint Paul	Desirable	$80,000	FAA, ADOT&PF	FAA, ADOT&PF	Mid-term	7	5	3	7	10	10	42
Road Safety Audit	5-P	Safety Study	City of Saint Paul	Essential	$35,000	Aleut Tribal Government of Saint Paul, ADOT&PF	SS4A, TTSP, USDOT, RAISE	Mid-term	7	7	10	7	10	10	51
Transportation, Utility & Community GIS Mapping Project	6-P	Mapping Study	City of Saint Paul	Desirable	$250,000	Aleut Tribal Government of Saint Paul, TDX	SS4A, TTSP, USDOT, RAISE	Mid-term	7	5	3	7	7	5	34
Technical Analysis of High Incident Areas	7-P	Enforcement	City of Saint Paul	Desirable	$50,000	Aleut Tribal Government of Saint Paul, DPS	SS4A, TTSP, USDOT, DPS	Long-Term	7	5	10	7	5	5	39
Road Safety Vehicles and Equipment															
Public Safety UTV Vehicle	1-V	Vehicles	City of Saint Paul Public Safety	Acceptable	$47,000	Aleut Tribal Government of Saint Paul, Alaska DPS	DPS, TTP, Denali	Short-Term	3	3	1	3	7	5	22

Description	ID#	Improvement Type	Lead Department	Priority Level	Cost Estimate	Partner Entities	Funding Sources	Timeline	Project Prioritization Scoring Criteria						
									Goals & Emphasis Area	Safe System Approach	Crash Factor	Equity Consider-ations	Existing Plan	Public Input	Total Priority Score
Transportation Support Vehicle	2-V	Vehicles	City of Saint Paul Public Safety	Acceptable	$55,000	Aleut Tribal Government of Saint Paul, Alaska DPS	DPS, TTP, Denali	Short-Term	3	3	1	3	7	3	20
120 AWD Road Grader	3-V	Heavy Equipment	City of Saint Paul Public Works	Acceptable	$370,000	Aleut Tribal Government of Saint Paul, ADOT&PF	ADOT&PF, TTP, Denali	Mid-term	3	3	1	1	7	3	18
12 Yard Dump Truck	4-V	Heavy Equipment	City of Saint Paul Public Works	Acceptable	$245,000	Aleut Tribal Government of Saint Paul, ADOT&PF	ADOT&PF, TTP, Denali	Mid-term	3	3	1	1	7	3	18
Hooklift Truck	5-V	Heavy Equipment	City of Saint Paul Public Works	Acceptable	$245,000	Aleut Tribal Government of Saint Paul, ADOT&PF	ADOT&PF, TTP, Denali	Mid-term	3	3	1	1	7	3	18
Excavator	6-V	Heavy Equipment	City of Saint Paul Public Works	Acceptable	$420,000	Aleut Tribal Government of Saint Paul, ADOT&PF	ADOT&PF, TTP, Denali	Mid-term	3	3	1	1	7	3	18
12 Ton Flatbed Trailer	7-V	Heavy Equipment	City of Saint Paul Public Works	Acceptable	$35,000	Aleut Tribal Government of Saint Paul, ADOT&PF	ADOT&PF, TTP, Denali	Short-Term	3	3	1	1	7	3	18
Extended Boob Forklift`	8-V	Heavy Equipment	City of Saint Paul Public Works	Acceptable	$360,000	Aleut Tribal Government of Saint Paul, ADOT&PF	ADOT&PF, TTP, Denali	Mid-term	3	3	1	1	7	3	18
Snow Wing for 160 AWD Grader	9-V	Heavy Equipment	City of Saint Paul Public Works	Acceptable	$58,500	Aleut Tribal Government of Saint Paul, ADOT&PF	ADOT&PF, TTP, Denali	Short-Term	3	3	1	1	7	3	18
313 Excavator	10-V	Heavy Equipment	City of Saint Paul Public Works	Acceptable	$403,891	Aleut Tribal Government of Saint Paul, ADOT&PF	ADOT&PF, TTP, Denali	Mid-term	3	3	1	1	7	3	18
963 Tracked Loader	11-V	Heavy Equipment	City of Saint Paul Public Works	Acceptable	$624,247	Aleut Tribal Government of Saint Paul, ADOT&PF	ADOT&PF, TTP, Denali	Mid-term	3	3	1	1	7	3	18
Marine Infrastructure															
Harbor Improvements and Expansion Project Phase 1a -City	1-M	Harbor	City of Saint Paul, ADOT&PF	Desirable	$10,775,576	ADOT&PF, USDOT	Denali, MARAD, RAISE	Long-Term	5	3	3	3	10	7	31

Description	ID#	Improvement Type	Lead Department	Priority Level	Cost Estimate	Partner Entities	Funding Sources	Timeline	Project Prioritization Scoring Criteria						
									Goals & Emphasis Area	Safe System Approach	Crash Factor	Equity Consider-ations	Existing Plan	Public Input	Total Priority Score
South Dock Renovations and New Berthing Dolphins															
Harbor Improvements and Expansion Project Phase 1d - City North Docks and Piers	2-M	Harbor	City of Saint Paul, ADOT&PF	Desirable	$28,499,929	Aleut Tribal Government of Saint Paul	Denali, MARAD, RAISE	Long-Term	5	3	3	3	10	7	31
Harbor Improvements and Expansion Project Phase 1c-Repair of TDX/Trident Dock; Fendering System for TDX/Trident Dock	3-M	Harbor	City of Saint Paul, ADOT&PF	Desirable	$16,750,000	ADOT&PF, USDOT	Denali, MARAD, RAISE	Long-Term	5	3	3	3	10	7	31
Harbor Improvements and Expansion Project Phase 1d-Piling dock or dolphins east of TDX/Trident Dock	4-M	Harbor	City of Saint Paul, ADOT&PF	Desirable	$14,250,000	ADOT&PF, USDOT	Denali, MARAD, RAISE	Long-Term	5	3	3	3	10	7	31
Harbor Improvements and Expansion Project Phase 2: Expand the breakwater and revise the entrance channel.	5-M	Harbor	City of Saint Paul, ADOT&PF	Desirable	$28,899,000	ADOT&PF, USDOT	Denali, MARAD, RAISE	Long-Term	5	3	3	3	10	7	31
Harbor Improvements and Expansion Project Phase 3a: relocating the exit to the salt lagoon and creating new uplands and additional moorage.	6-M	Harbor	City of Saint Paul, ADOT&PF	Desirable	$24,892,500	ADOT&PF, USDOT	Denali, MARAD, RAISE	Long-Term	5	3	3	3	10	7	31
Small Boat Harbor Dock Lighting	7-M	Harbor	City of Saint Paul, ADOT&PF	Desirable	$105,000	ADOT&PF, USDOT	Denali, MARAD, RAISE	Mid-term	5	3	3	3	10	7	31
Search & Rescue Boat	8-M	Marine Vessel	City of Saint Paul, ADOT&PF	Acceptable	$363,758	ADOT&PF, USDOT, Aleut Tribal Government of Saint Paul	Denali, MARAD, RAISE	Short-Term	7	5	1	5	5	5	28
Post-Crash Care															
Advanced AWOS System Installation and Monitoring	1-C	Care Access	City of Saint Paul,	Desirable	$750,000	Aleut Tribal Government of Saint Paul, Alaska DPS, ADOT&PF, FAA	FAA, ADOT&PF	Mid-term	7	7	1	7	10	10	42
Airfield Operations Monitoring Systems	2-C	Airfield Monitoring	City of Saint Paul, ADOT&PF	Desirable	$890,000	Aleut Tribal Government of Saint Paul	FAA, ADOT&PF	Long-Term	7	7	1	7	7	7	36
E911 Addressing System	3-C	Care Access	City of Saint Paul, ADOT&PF	Desirable	$550,000	Aleut Tribal Government	DPS, TTP, Denali, SS4A	Long-Term	7	7	1	10	5	7	37

Description	ID#	Improvement Type	Lead Department	Priority Level	Cost Estimate	Partner Entities	Funding Sources	Timeline	Project Prioritization Scoring Criteria						
									Goals & Emphasis Area	Safe System Approach	Crash Factor	Equity Consider-ations	Existing Plan	Public Input	Total Priority Score
						of Saint Paul, DPS									
Airfield Policy & Regulations	4-C	Care Access	City of Saint Paul, ADOT&PF, FAA	Desirable	$100,000	Aleut Tribal Government of Saint Paul, DPS	DPS, TTP, Denali, ADOT&PF	Long-Term	7	7	1	7	10	10	42
Airfield Reporting System Integration	5-C	Care Access	City of Saint Paul, ADOT&PF, FAA	Desirable	$780,000	Aleut Tribal Government of Saint Paul, DPS	DPS, TTP, Denali, ADOT&PF	Long-Term	7	7	1	7	10	10	42
Clinic Medevac Service Reporting System	6-C	Care Access	City of Saint Paul, Alaska DPH, Southcentral Foundation, APIA	Desirable	$250,000	Aleut Tribal Government of Saint Paul, DPS	DPS, TTP, Denali, ADOT&PF	Mid-term	7	10	1	7	7	7	39
Airfield Operations Monitoring Systems Training Program	7-C	Airfield Monitoring	City of Saint Paul, ADOT&PF, FAA	Desirable	$400,000	Aleut Tribal Government of Saint Paul	FAA, ADOT&PF	Long-Term	7	7	1	7	10	10	42
Education															
ATV Safety Education	1-E	Care Access	City of Saint Paul,	Desirable	$15,000	Aleut Tribal Government of Saint Paul, DPS, ADOT&PF, Pribilof Island School District	DPS, TTP, Denali, SS4A	Long-Term	5	7	5	7	5	5	34
Seatbelt and child restraint use	2-E	Airfield Monitoring	City of Saint Paul,	Desirable	$10,000	Aleut Tribal Government of Saint Paul, DPS, ADOT&PF, Pribilof Island School District	DPS, TTP, Denali, SS4A	Long-Term	7	5	5	7	5	5	34
Boater Safety Education	3-E	Care Access	City of Saint Paul,	Acceptable	$10,000	Aleut Tribal Government of Saint Paul, DPS, ADOT&PF, Pribilof	DPS, TTP, Denali, SS4A	Long-Term	5	5	1	7	5	3	26

Description	ID#	Improvement Type	Lead Department	Priority Level	Cost Estimate	Partner Entities	Funding Sources	Timeline	Project Prioritization Scoring Criteria						
									Goals & Emphasis Area	Safe System Approach	Crash Factor	Equity Consider-ations	Existing Plan	Public Input	Total Priority Score
						Island School District									
Driver Training School Initiative	4-E	Care Access	City of Saint Paul,	Desirable	$45,000	Aleut Tribal Government of Saint Paul, DPS, ADOT&PF, Pribilof Island School District	DPS, TTP, Denali, SS4A	Long-Term	7	5	5	7	5	5	34
Policing & Enforcement															
DUI Enforcement through targeted media outreach	1-P	Enforcement	City of Saint Paul,	Desirable	$20,000	Aleut Tribal Government of Saint Paul, DPS	DPS, TTP, Denali, SS4A	Long-Term	5	5	7	7	5	5	34
Distracted driving initiatives through targeted media outreach	2-P	Airfield Monitoring	City of Saint Paul,	Acceptable	$20,000	Aleut Tribal Government of Saint Paul, DPS	DPS, TTP, Denali, SS4A	Long-Term	5	3	5	5	3	3	24
Policy Initiatives to address DUI incidents	3-P	Care Access	City of Saint Paul,	Acceptable	$10,000	Aleut Tribal Government of Saint Paul, DPS	DPS, TTP, Denali, SS4A	Long-Term	5	3	7	5	3	5	28
Speeding Enforcement Initiatives	4-P	Care Access	City of Saint Paul,	Desirable	$25,000	Aleut Tribal Government of Saint Paul, DPS	DPS, TTP, Denali, SS4A	Long-Term	5	5	7	7	3	5	32

Section 7.1.2 Transportation Safety Countermeasures

A toolbox of countermeasures can be used to improve safety within the Pribilof Islands, including both Saint Paul and Saint George. Given the unique transportation challenges on the islands, a road safety audit should be conducted at intersections where crashes have occurred to determine which countermeasures are suitable for the specific types and severity of crashes experienced. For example, areas prone to harsh weather conditions may require countermeasures focused on improved road drainage, signage, and street lighting to enhance visibility and reduce accident risk. Vulnerable users, including pedestrians and ATV users, as well as equity populations, must also be considered. Countermeasures like better walkways, and road delineators specifically benefit these groups. In certain locations, multiple countermeasures may need to be deployed simultaneously for the best results.

These countermeasures when initiated by the city can be integrated into ongoing transportation improvement projects, such as road grading and graveling, snow removal, and guardrail installations. For example, adding pedestrian walkways to areas like Harbor Road or Haul Road would improve safety for fisherman and tourists, while enhanced signage determining street names could reduce crash risks during the busy summer months. Additionally, education campaigns focused on DUI prevention and safe driving practices should be included alongside physical improvements, ensuring an all-encompassing approach to road safety.

Table 11. Road Safety Countermeasure Implementation Matrix

Safety Concern	Countermeasure	Positives	Negatives
Speeding Enforcement	**Select appropriate speed limits**	• Low cost	• Opposition from regular roadway users
		• Crash severity reduction	• Excess violations issued if not implemented properly
		• Safer for all roadway users	
		• Traffic calming	
	Install speed cameras or signs	• Significant reduction in crashes and severities	• Opposition from regular roadway users
		• Increased driver attentiveness	• Additional monitoring and enforcement required
			• Maintenance requirements and electrical costs associated with signage.
	Implement variable speed limits	• Significant reduction in crashes and severities	• Driver confusion due to inconsistent speeds
		• Allows drivers to react to ongoing situations	• Requires additional monitoring, equipment, and maintenance
		• Helps manage congestion and weather	
Vulnerable roadway user safety	**Implement crosswalk visibility enhancements**	• Increased pedestrian safety	• Not ideal for all roadway types
		• Encourages pedestrian crossing at designated locations	• Costly lighting options
Roadway Surface Maintenance	**Regular grading and gravel replenishment**	• Improves road surface quality and safety	• Requires frequent maintenance due to weather conditions
		• Reduces road hazards caused by uneven terrain	
Water runoff and drainage issues	**Install and maintain culverts**	• Reduces roadway flooding and water damage	• Requires periodic cleaning and maintenance
		• Prevents erosion	
Dust control		• Improves air quality and visibility	• May require seasonal re-application

Safety Concern	Countermeasure	Positives	Negatives
	Apply dust control measures	• Reduces health hazards	• Can be costly depending on material
Snow and ice	**Added funding for snow removal and sanding programs**	• Improves winter driving conditions	• Requires additional equipment and personnel
		• Reduces crash risk due to snow and ice accumulation	• High cost that would require yearly grant funds to implement.
Roadway Departure	**Wider shoulder edges**	• Increased visibility of curves • Low cost • Reduction in roadway departure crashes	• None
Intersections	**Signal backplates with retroreflective borders**	• Increased visibility of traffic signals	• Structural limitations due to wind loads
		• Low cost	• Additional cost to retrofit existing signals
	Turn lanes added to intersections	• Reduced left-turn and rear-end crashes	• Additional right-of-way (ROW) required
		• Improved visibility for opposing left-turn movements	• Zero or negative offset turns may block line of sight
	Reduced left-turn conflict intersections	• Fewer conflict points • Increased mainline traffic flow	• Longer travel distances for minor movements
	Installation of roundabouts	• Significant reduction in injury/fatal crashes	• High cost of installation
		• Lowered vehicle speeds	• May be unfamiliar to rural drivers in Alaska
	Low-cost countermeasures including added signage	• Low cost • Reduction in injury/fatal crashes	• None
Crosscutting (other safety focus areas)	**Add and Improve lighting systems**	• Reduced nighttime crashes	• High installation and maintenance costs
		• Improved visibility for pedestrians	
	Improvements to road conditions at intersections	• Reduced roadway departure crashes at pedestrian crosswalks. • Reduced crashes at intersection approaches	• None
	Road Safety Audit	• Early identification and mitigation of safety issues	• None
Distracted Driving	**Graduated Driver Licensing**	• Reduced crashes and injuries among teenage drivers	• Requires months for implementation and 1-2 years before new drivers are fully licensed under restrictions
	High-visibility cell phone enforcement (HVE)	• Reduction in distracted driving	• Expensive to implement HVE campaigns
			• Enforcement of cell phone use can be challenging in rural areas
Impaired Driving	**License revocation and suspension**	• Policy has been shown to reduce fatal crashes through ADOT data. • Decreases repeat offenses	• Requires significant funds for design, implementation, and operation
	High-visibility saturation patrols	• Saturation patrols may be effective in reducing alcohol-related fatal crashes	• Can be costly for increase in public safety usage • Limited patrol resources in rural areas

Section 8 Plan Progress and Transparency

The Pribilof Islands Safety Action Plan serves as a living document, outlining a range of strategies and location-specific safety projects aimed at reducing fatal and serious injury crashes on Saint Paul Island. The City of Saint Paul, in coordination with the Aleut Tribal Government of Saint Paul Island, will play a central role in supporting and implementing this plan. By working together, these entities will ensure that the document remains current and responsive to the island's evolving transportation safety needs. The plan will be aligned with ongoing long-range planning efforts and will leverage collaboration with partner agencies to target high-priority areas, ensuring that effective safety measures are continually updated and integrated into future transportation improvement projects.

Coordinated input and response from project stakeholders in plan progress reporting will be an important component of the Safety Action Plan.

Section 8.1 Progress Reporting

The Pribilof Islands Safety Action Plan progress reporting will involve coordinated efforts across key departments, including Public Works, Public Safety, and the Aleut Tribal Government, with oversight from City leadership. These departments, along with Tribal and City leadership, will meet at least once a year, with a preference for quarterly meetings, to review safety improvements, address public concerns, and identify emerging safety issues. These meetings will serve as a platform to evaluate the effectiveness of current safety strategies and determine if adjustments are necessary.

Progress reporting is essential for prioritizing safety projects and securing grants or funding opportunities. By regularly evaluating ongoing initiatives, unmet safety needs, and community feedback, departments can identify key projects for future improvements. Engaging stakeholders, including residents, law enforcement, non-profits, corporations, federal and state agencies, and Tribal members will ensure that safety initiatives effectively address both immediate concerns and long-term transportation safety goals.

Table 12. Progress Reporting Implementation Matrix

Departments	Meeting Frequency	Key Responsibilities	Coordination Focus	Safety Plan Stakeholders	Outcome Goals
City of Saint Paul Public Works Department	Yearly	- Address public concerns - Identify new safety projects - Explore grant opportunities	Collaborating with Public Safety and Tribal Government	Local residents, TDX, Aleut Corp., FWS, NOAA, Non-Profits	Ensure road safety improvements are aligned with community needs
City of Saint Paul Public Safety Department	Yearly	- Review safety strategies - Address public safety concerns - Implement safety measures	Coordinate with Public Works and City leadership	Local law enforcement, emergency services	Enhance effectiveness of safety measures
Aleut Tribal Government Leadership	Quarterly	- Provide input on safety strategies - Ensure inclusion of cultural considerations	Work with City departments and leadership	Tribal members, cultural leaders	Ensure safety projects are culturally sensitive and community-focused
City of Saint Paul Leadership	Quarterly	- Oversee strategy alignment	Coordinate with Public Works, Public Safety, and Tribal Government	City Council, SAPT members	Maintain alignment of safety goals with long-term transportation planning

Section 8.2 Plan Maintenance

The Pribilof Islands Safety Action Plan will collaborate with the ADOT and City of Saint Paul Public Safety Department to provide annual updates on crash data. This data is crucial for tracking progress in reducing fatalities and serious injuries as the plan is implemented. To enhance transparency and public engagement, updated crash data, along with a list of ongoing and completed Safety Action Plan projects, will be posted on the project webpage each year. Additionally, improvements in mapping and database systems will be coordinated with ADOT to ensure they are integrated into the plan updates. In cases where local data is unavailable, new data from the SHSP will be incorporated to maintain accuracy and relevance. Comprehensive updates to the plan will be developed every 5 to 10 years, contingent upon available grant funding through the USDOT or FHWA.

Section 8.3 Implementation

The Pribilof Islands Safety Action Plan will be prominently featured on the project website at https://projects.stpaulak.com/ss4a-action-plan/. This publicly accessible platform will provide various resources, including crash maps, public feedback data, and other relevant information to support the plan. These tools will enhance transparency and strengthen key transportation safety initiatives outlined in the plan. By making this information readily available, the project aims to foster community engagement both on island and off island and encourage stakeholders to actively participate in ongoing safety efforts.

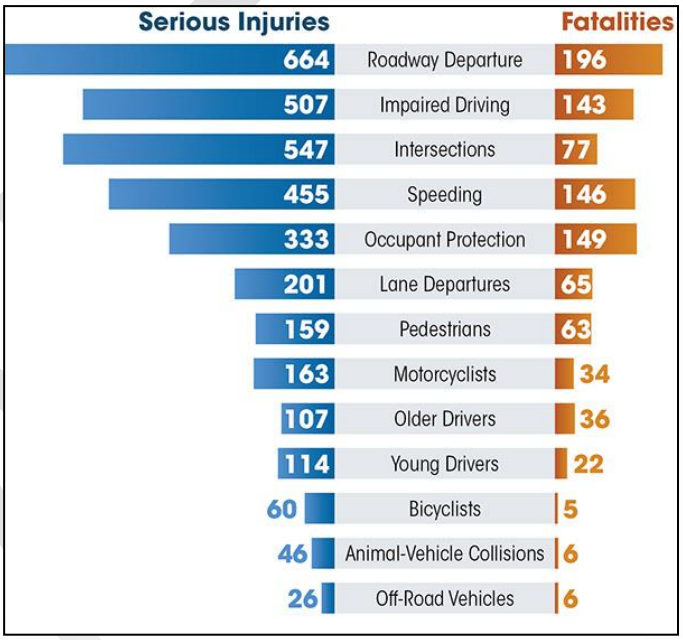


Figure 34. ADOT information on crash characteristics and fatality or serious injury incidents from 2015 - 2020. (ADOT SHSP)

Appendix A: Planning Documents Cited

1.) *ACSPI Long Range Transportation Plan*, Aleut Community of Saint Paul, BIA, 2011.
2.) "*ACSPI PROGRAMS AND SERVICES*" ACSPI, 2021, website: https://www.aleut.com/wp-content/uploads/2021/12/ACSPI-Who-We-Are-December-2021.pdf
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9.) "*Proven Safety Countermeasures in Rural Communities"* FHWA, 2024, website: https://highways.dot.gov/sites/fhwa.dot.gov/files/2024-01/FHWA_PSCs_in_Rural_Communities_508.pdf
10.) *Saint George Traditional Council Long Range Transportation Plan*, Aleut Community of Saint George, BIA, 2022.
11.) *Saint George Traditional Council Transportation Safety Plan*, FHWA, 2018, website: https://www.tribalsafety.org/safety-plans-library
12.) "*Saint Paul Island Ballfield Project*" National Park Service, 2022, website: https://www.nps.gov/articles/000/st-paul-island-creating-a-community-park-in-the-middle-of-the-bering-sea.htm
13.) *St. Paul Island Comprehensive Economic Development Strategy*, Aleut Community of Saint Paul, 2024-2028, website: https://www.aleut.com/ceds-update/
14.) *Saint Paul Road Drainage Improvement Study, City of Saint Paul*, EBSC Engineering, 2021.
15.) "*Seal Islands National Historic Landmark"* National Park Service, 2023, website: https://npshistory.com/brochures/nhl/seal-islands-sealing-plant.pdf
16.) "*Transportation Planning Capacity Building Essentials*" USDOT, 2024, website: https://www.planning.dot.gov/planning_essentials.aspx

Appendix B: Public Feedback Summary

Completed after Fall 2024 Public Review

Appendix C: Typical Project Costs Summary

The typical project cost summary for transportation initiatives on the Pribilof Islands is based on data provided by ADOT regarding typical project costs for rural Alaska. This summary also includes costs from specific projects on the Pribilof Islands, such as the Zapadni Bay Road and the Polovina Turnpike extension, both completed within the last decade. Key cost categories outlined in the summary include planning and design, environmental assessments, construction, and project management. The accompanying tables offer detailed insights into individual project expenditures, illustrating the allocation of funds across different phases and highlighting trends in costs related to transportation improvements in the region. This comprehensive overview serves as a valuable resource for understanding financial commitments and guiding future project planning.

Item	Average Unit Cost	Rural Unit Cost	Recommended Average Unit Cost
Project Requirements (%)	12%	16%	13%
Construction Camps (%)	8%	-	10%
Erosion Control (%)	2%	4%	3%
Clearing & Grubbing (per acre)	$4,695	$4,500	$5,500
Excavation (per cuyd)	$8	$9	$9
Subexcavation (per cuyd)	$7	$8	$8
Asphalt (per cuyd)	$173	$197	$220
Aggregate Base (per cuyd)	$43	$35	$40
Select Material (per cuyd)	$24	$25	$25
Large Culverts (>10') (per lnft)	$1,489	$1,280	$2,000
Riprap (per cuyd)	$40	$60	$30
Wetland Mitigation (per acre)	$24,701	$27,100	$25,000
Mechanically Stabilized Earth (MSE) Walls (per sqft)	$46	$45	$45
Misc. Drainage (per mile)	$109,767	$115,000	$115,000
Landscape/Seeding (per acre)	$4,519	$6,300	$7,000
Guardrail (per lnft)	$34	$47	$30
Signing (per mile)	$3,517	$3,200	$3,500
Design/Construction Engineering (%)	18%	21%	20%
Contingency (%)	15%	25%	25%

Table 13. ADOT Recommended Project Costs (ADOT 2011)

ITEM	UNIT	UNIT PRICE
REMOVAL OF CULVERT PIPE	LINEAR FOOT	$ 10.00
UNCLASSIFIED EXCAVATION	CUBIC YARD	$ 18.50
BORROW, TYPE B	CUBIC YARD	$ 45.00
AGGREGATE SURFACE COURSE, GRADING E-1	CUBIC YARD	$ 55.00
24-INCH CSP	LINEAR FOOT	$ 150.00
36-INCH CSP	LINEAR FOOT	$ 325.00
48-INCH PIPE	LINEAR FOOT	$ 475.00
56-INCH PIPE	LINEAR FOOT	$ 525.00
60-INCH PIPE	LINEAR FOOT	$ 750.00
70-INCH PIPE	LINEAR FOOT	$ 950.00
STANDARD SIGN	SQUARE FEET	$ 150.00
GEOTEXTILE, SEPARATION	SQUARE YARD	$ 2.50
SILT FENCE	LINEAR FOOT	$ 7.50
MOBILIZATION AND DEMOBILIZATION	LUMP SUM	$ 600,000.00
EROSION AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	$ 10,000.00
TEMPORARY EROSION AND POLLUTION CONTROL	LUMP SUM	$ 5,000.00
CONSTRUCTION SURVEYING	LUMP SUM	$ 40,000.00
TRAFFIC MAINTENANCE	LUMP SUM	$ 5,000.00
PERMANENT CONSTRUCTION SIGNS	LUMP SUM	$ 2,000.00
CPM SCHEDULING	LUMP SUM	$ 5,000.00
UTILITY RELOCATION	LUMP SUM	$ 50,000.00

Table 14. Pribilof islands Typical Transportation Project Costs

Feature	D-1 Gravel	Scoria Gravel
Material Type	Crushed rock, typically granite or limestone	Volcanic rock, lightweight and porous
Weight	Heavier; denser than scoria	Lighter due to its porous nature
Strength	High compressive strength	Moderate compressive strength
Drainage	Good drainage characteristics	Excellent drainage due to porosity
Stability	Provides solid, stable base	Can be less stable under heavy loads
Temperature Sensitivity	Less affected by temperature changes	Can expand/contract with temperature fluctuations
Aesthetic Appeal	Neutral appearance; blends well with surroundings	Unique reddish color; visually striking
Uses	Ideal for roads, pathways and construction bases	Best for lightweight fill, and some road applications

Table 15. Comparative analysis for D-1 gravel and scoria gravel for road material used on Pribilof Island Roads.

Appendix D: City of Saint Paul Equipment Inventory

YEAR	MAKE	MODEL
1986	Caterpillar	966D Front End Loader
1987	Ford	F700 Fire Truck
1991	Freightliner	FLD12064T
1992	Case	Compact Roller
1992	Ingersoll Rand	Light Tower
1993	Caterpillar	140G Grader
1994	Case	1840 Uniloader
1995	Peterbilt	377 Truck
1995	Lowboy	50 Ton Fixed Neck Trailer
1999	Steward	Stevenson Snowblower
2000	Freightliner	FLD120 Sewer Truck
2000	Caterpillar	V300B Forklift
2003	International	4400 Firetruck
2003	Kenworth	T800B Dump Truck
2004	New Holland	LB 115B Loader/Back Hoe
2005	Caterpillar	325CL Excavator
2008	Caterpillar	966H Front End Loader
2008	Monroe	MV-156-84-50 Sander
2010	Ford	Expedition
2010	Case	445 Skid Steer
2010	Lull	1044C54 Forklift
2010	International	4400 SBA 6x4 Fuel Tanker
2010	Brando	640 Trencher w/ 36"Deep 12"Wide
2011	Chevrolet	Silverado 1500 Double Cab 4x4
2011	Caterpillar	299C Track Skid Steer
2011	Ford	F350 Crew Cab 4x4
2011	Ford	F350 Crew Cab 4x4
2011	Nissan	UD 0011605 Fuel Tanker
2011	Caterpillar	160M AWD Grader
2011	Ford	F350 Crew Cab 4x4
2011	Ford	F350 Crew Cab 4x4
2011	Ford	F350 Regular Chassis Cab 4x4 with Electrical Box
2011	Ford	F-350 Chassis Cab 4x4 Ambulance
2015	Polaris	Medstat MS500 6x6 Ambulance
2015	Polaris	ACE ATV
2016	Ford	F150 Super Crew Cab 4x4
2017	Ford	F550 Regular Chassis Cab Garbage Truck
2018	Ford	F550 Regular Chassis Cab Hook Lift
2019	Chevrolet	Silverado 1500 Double Cab 4x4

2020	Fisher	Poly-Caster 1.8 cu Sander
2020	General	660 Dig-R-Mobile
2020	Daniels Plows	18' VersaBox Plow for Loader
2020	Caterpillar	926M Front End Loader
2020	Caterpillar	309 CR Mini Excavator
2020	GMC	Savana 3500 Van
2020	Chevrolet	Silverado 1500 Double Cab 4x4
2020	Chevrolet	Silverado 1500 Double Cab 4x4
2020	Chevrolet	Silverado 1500 Double Cab 4x4
2020	Chevrolet	Silverado 1500 Crew Cab 4x4
2020	Chevrolet	Silverado 1500 Regular Cab 4x4
2020	Chevrolet	Silverado 1500 Regular Cab 4x4
2020	Chevrolet	Silverado 1500 Regular Cab 4x4
2020	Chevrolet	Silverado 1500 Crew Cab 4x4
2020	Caterpillar	HMF Flail Mower
2020	Caterpillar	Auger
2021	Daniels Plows	16' 3 in 1 Plow for Loader
2021	Daniels Plows	8' VersaBox Plow for Skid Steer
2021	EZ Loader	1720/2350 Trailer
2021	Yamaha	F90LB Outboard Motor
2021	Hewes Craft	180 Open Fisherman Skiff
2021	Chevrolet	Silverado 3500 Regular Chassis Cab 4x4 Pickup with Mechanic Box
2021	Chevrolet	Silverado 1500 Crew Cab 4x4
2021	Chevrolet	Silverado 3500 Regular Cab 4x4
2021	Chevrolet	Silverado 1500 Crew Cab 4x4
2023	One Clarion	550 Express Water Trailer
2023	Caterpillar	963 Track Loader
2024	Volvo	EC140EL Excavator
2024	International	CV515 8YD Rear Load Garbage Truck
2024	International	CV515 Hooklift Truck
2024	TransFueler	1500 Gallon Diesel Fuel Trailer
2024	TransFueler	1500 Gallon Gasoline Fuel Trailer

Table 16. City of Saint Paul Vehicle and Equipment Inventory List (2024)

Appendix E: City of Saint Paul Master Rate Schedule

ID#	Model Year	Make	Model / Number	Hourly	Standby	Daily w/Fuel	Weekly w/Fuel
405	2008	Caterpillar	966H Loader	$387.22	$26.83	$3,562.87	$16,032.92
410	2005	Caterpillar	325 CL Excavator	$199.71	$42.77	$1,847.57	$8,314.07
411	2011	Caterpillar	160M AWD Grader	$261.80	$22.07	$2,438.65	$10,973.92
435	2000	Freightliner	Freightliner Sewage Truck	$312.93	$23.19	$2,901.47	$13,056.62
425	2010	Lull	Lull 1044C54 Forklift	$185.81	$14.17	$1,716.56	$7,724.53
590	1993	Caterpillar	140G Grader	$283.54	$16.59	$2,622.70	$11,802.17
418	1995	Peterbilt	Tractor	$223.15	$2.46	$2,136.01	$9,612.03
418	1995	Low Boy	Trailer	$103.95	$3.60	$935.59	$4,210.17
424	2010	Case	445 Skid Steer Skid Loader	$83.95	$7.09	$778.83	$3,504.73
434	2003	Kenworth	W4900 Truck	$290.79	$10.56	$2,750.42	$12,376.91
442	2004	New Holland	LB 115B	$197.10	$2.32	$1,802.62	$8,111.78
478	2023	Caterpillar	D6H Cat Dozer	$351.69	$12.40	$3,221.01	$14,494.56
487	1994	Case	1840 Uniloader	$45.29	$1.39	$425.17	$1,913.28
547	1986	Caterpillar	966D Front End Loader	$378.02	$8.07	$3,499.12	$15,746.04
587	1992	Case	1102 D Compactor	$53.21	$1.08	$490.83	$2,208.73
383	2020	Caterpillar	309 Mini Excavator	$137.35	$13.76	$1,256.41	$5,653.85
382	2020	Caterpillar	926M Front End Loader	$292.42	$16.28	$2,680.13	$12,060.58
553	1992	Ingersol Rand	Light Tower	$24.17	$0.76	$223.63	$1,006.33
397	2016	Ford	F150 Supercab 4x4	$114.39	$3.15	$1,053.19	$4,739.37
416	2010	Ford	Expedition 4x4	$114.39	$3.15	$1,053.19	$4,739.37
415	2011	Ford	F350 Reg Cab 4x4 Electrician Box	$128.83	$3.76	$1,187.35	$5,343.07
415	2011	Ford	F350 Supercab 4x4	$114.39	$3.15	$1,053.19	$4,739.37
394	2018	Ford	F550 Reg Cab Hooklift 4x4	$238.23	$3.36	$2,203.66	$9,916.48
394	2010	Chevrolet	1500 Silverado Dbl/Crew 4x4	$81.47	$3.49	$750.75	$3,378.38
415	2011	Chevrolet	1500 Silverado Dbl/Crew 4x4	$81.55	$3.53	$751.45	$3,381.51
379	2020	Chevrolet	1500 Silverado Reg Cab 4x4	$126.39	$3.60	$1,165.39	$5,244.26
379	2020	Chevrolet	1500 Silverado Dbl/Crew Cab 4x4	$110.70	$4.05	$1,017.94	$4,580.74
377	2021	Chevrolet	3500 Silverado Reg Cab 4x4	$128.83	$3.76	$1,187.35	$5,343.07
377	2021	Chevrolet	3500 Silverado Reg Cab 4x4 Mechanic Box	$127.52	$3.76	$1,175.57	$5,290.05
374	2020	Chevrolet	3500 Savana Van 2x4	$125.63	$3.52	$1,158.56	$5,213.51
375	2021	Hewes Craft	180 Open Fisherman 90HP Yamaha	$75.44	$1.49	$697.50	$3,138.76
439	1999	International	Paystar 5000 Concrete Mixer	$272.11	$1.49	$2,548.86	$11,469.88
440	200	Caterpillar	Forklift	$55.27	N/A	$512.93	$2,308.21

Table 17. City of Saint Paul Equipment and Vehicle Rental Rates (2024)

Appendix F: Road Safety Improvement Maps

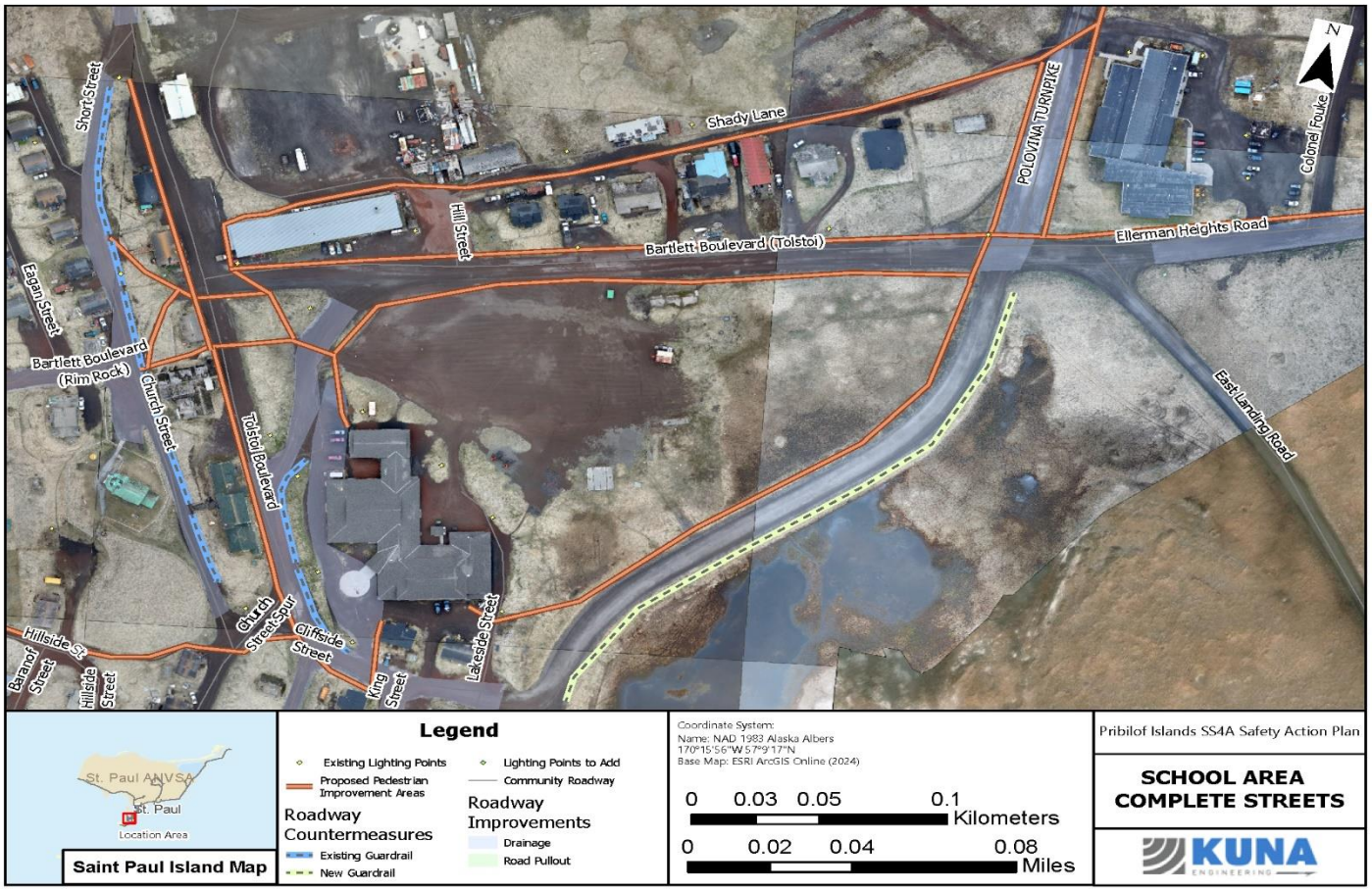

Figure 35. Saint Paul Island School Area Road Safety Improvements

Transportation Safety Countermeasures:

- Drainage Improvements
- Pedestrian Walkways
- School Drop Off Engineering
- Crosswalk Delineation
- Road Delineation
- Road Trenching
- Road Condition Improvements
- Guardrail Improvements

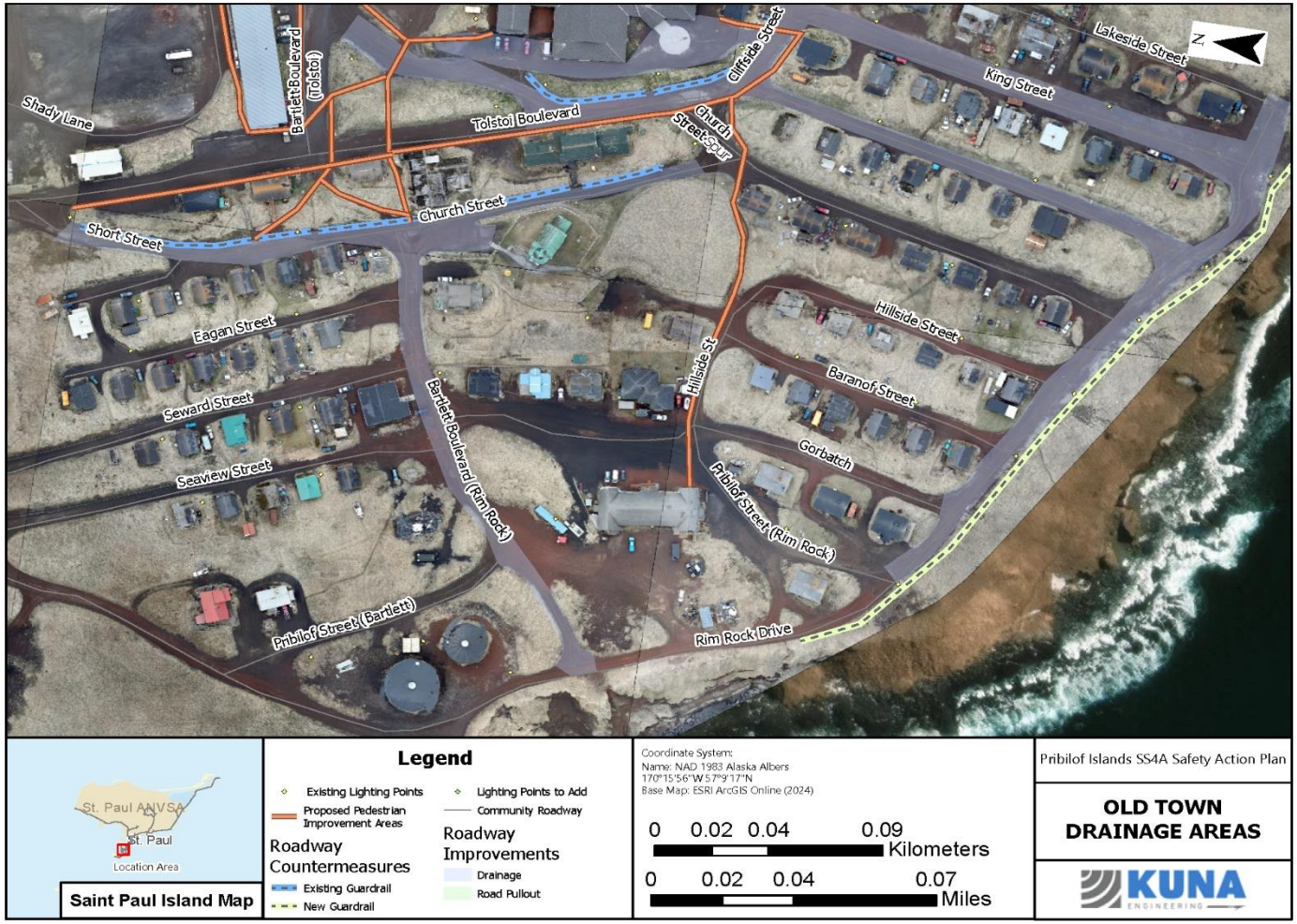

Figure 36. Saint Paul Island Old Town Drainage Improvements

Transportation Safety Countermeasures:

- Drainage Improvements
- Road Delineation
- Road Trenching
- Guardrail Improvements
- Road Condition Improvements
- Pedestrian Walkways

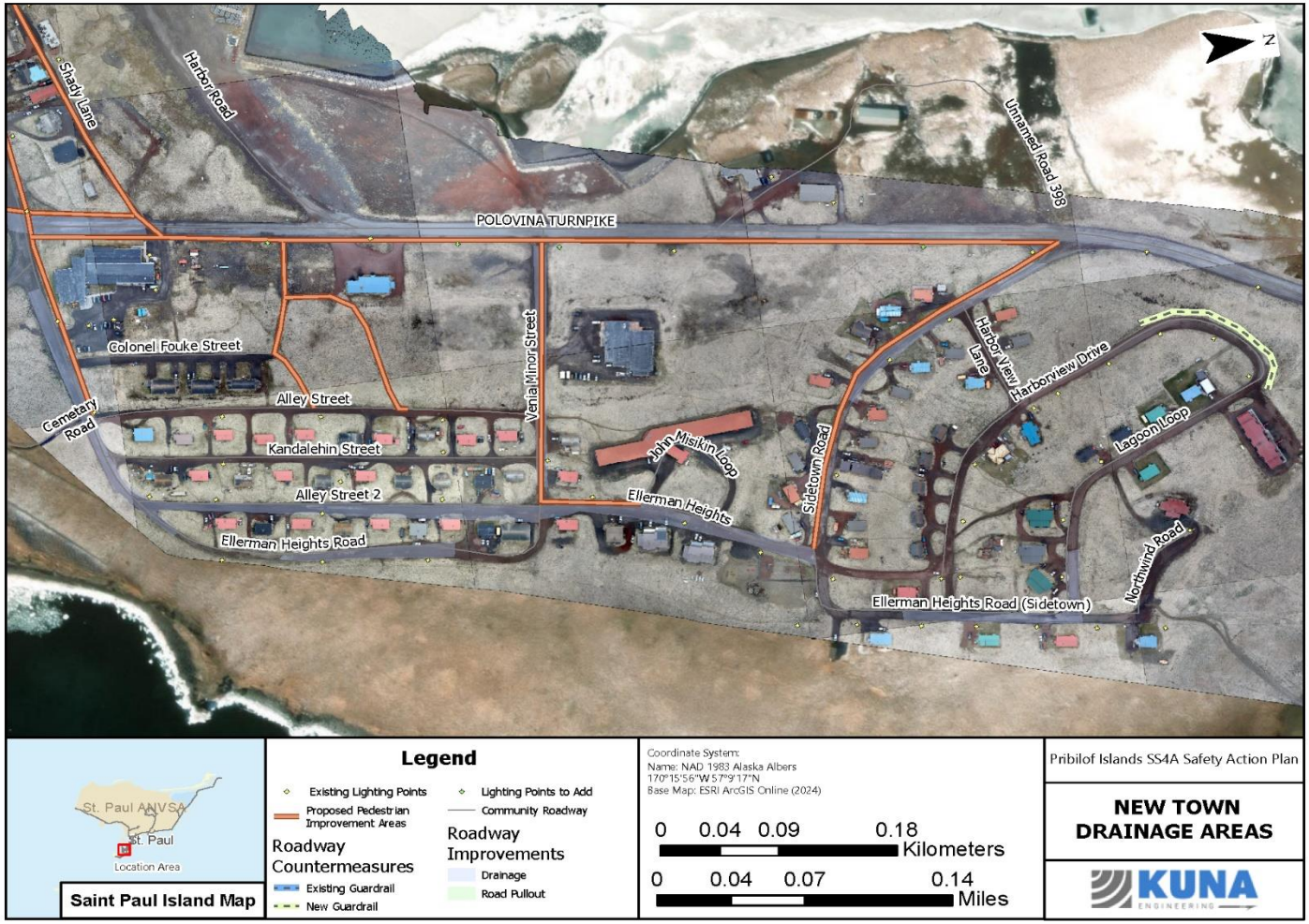

Figure 37. Saint Paul Island New Town Drainage Improvements

Transportation Safety Countermeasures:

- Drainage Improvements
- Road Delineation
- Road Trenching
- Guardrail Improvements
- Road Condition Improvements
- Pedestrian Walkways

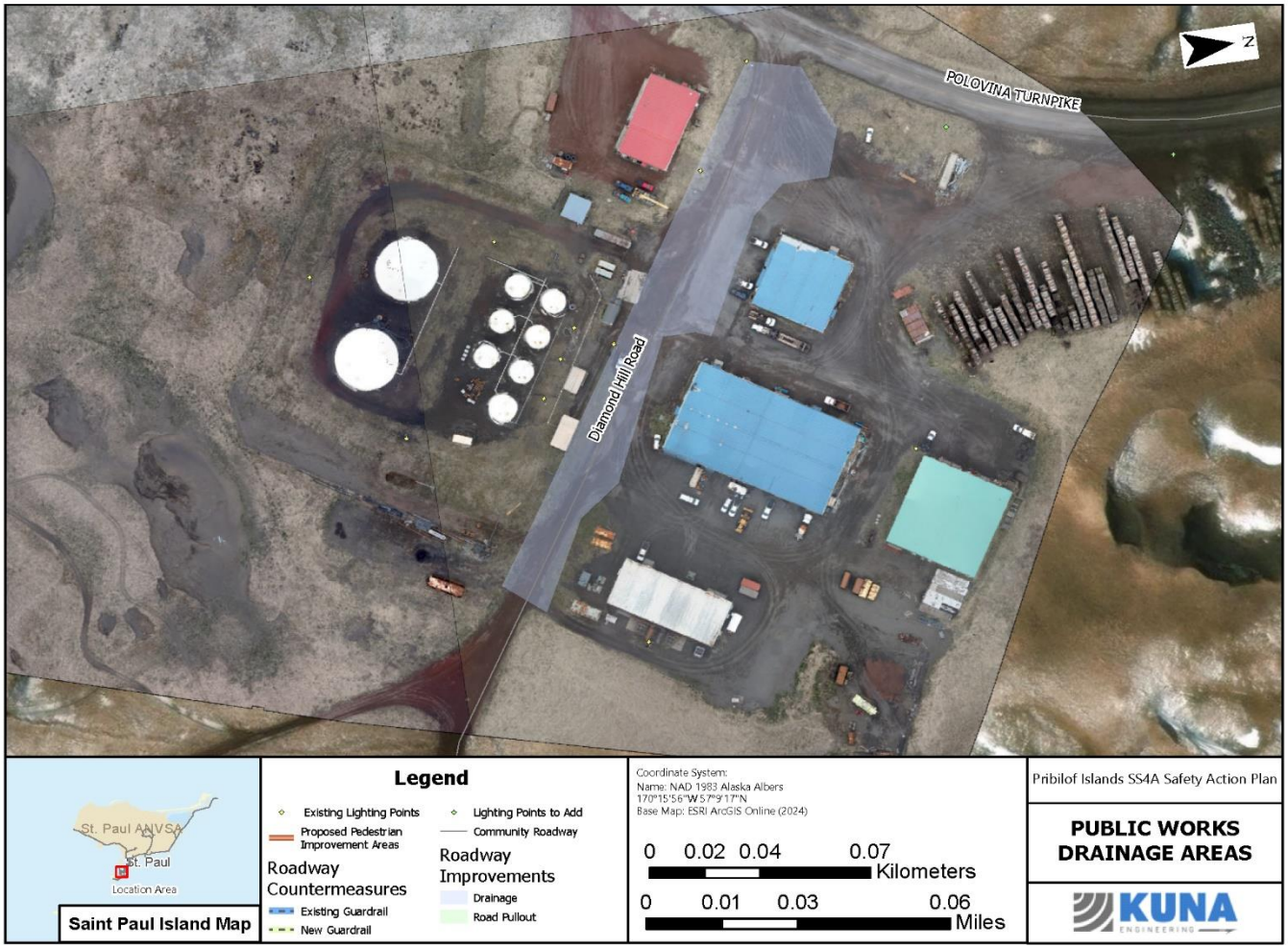

Figure 38. Saint Paul Island Public Works Area Drainage Improvements

Transportation Safety Countermeasures:

- Drainage Improvements
- Road Delineation
- Road Trenching

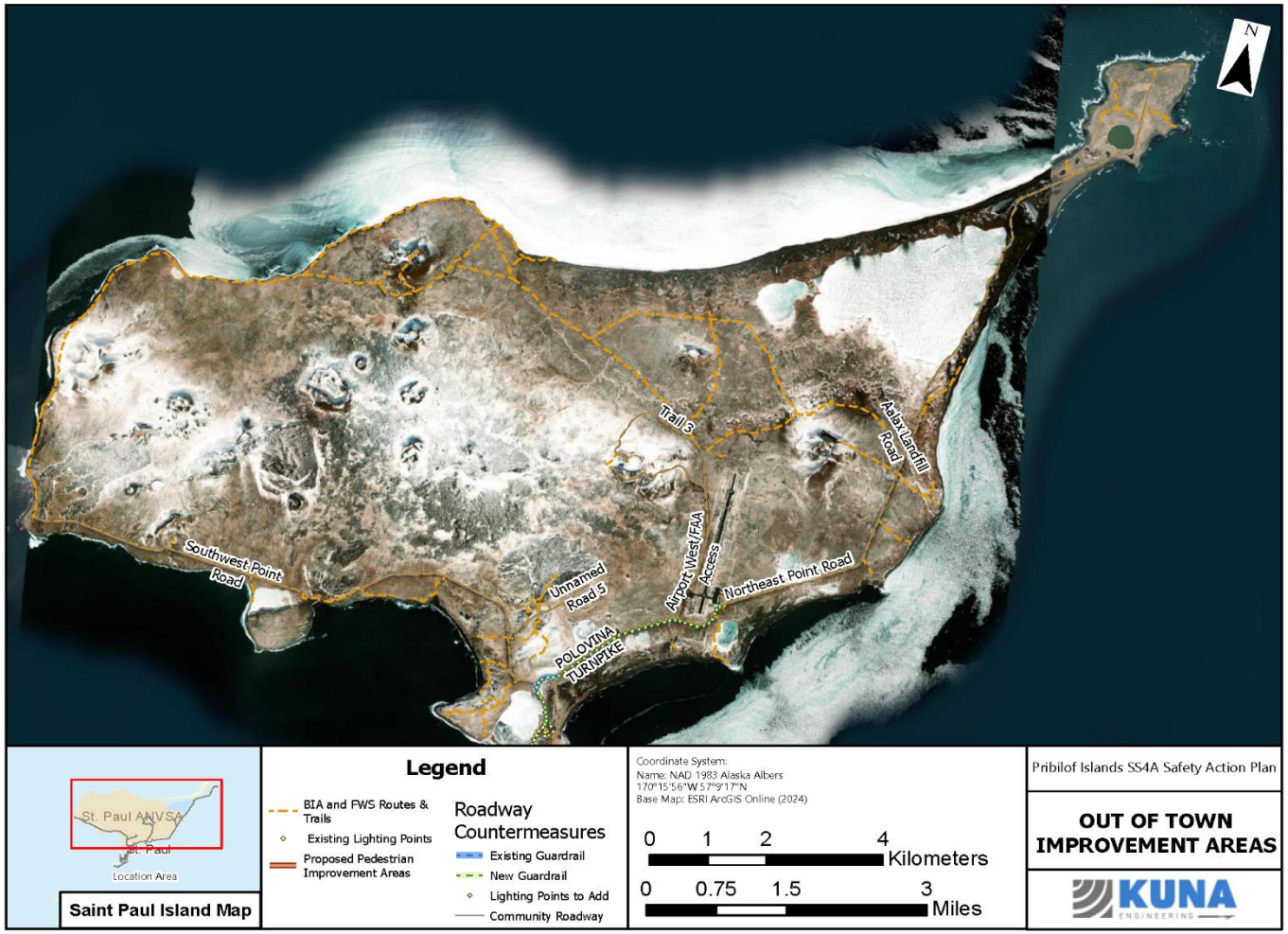

Figure 39. Saint Paul Island Wide Drainage & Road Improvements

Transportation Safety Countermeasures:

- Drainage Improvements
- Road Delineation
- Road Trenching
- Road Pull Outs

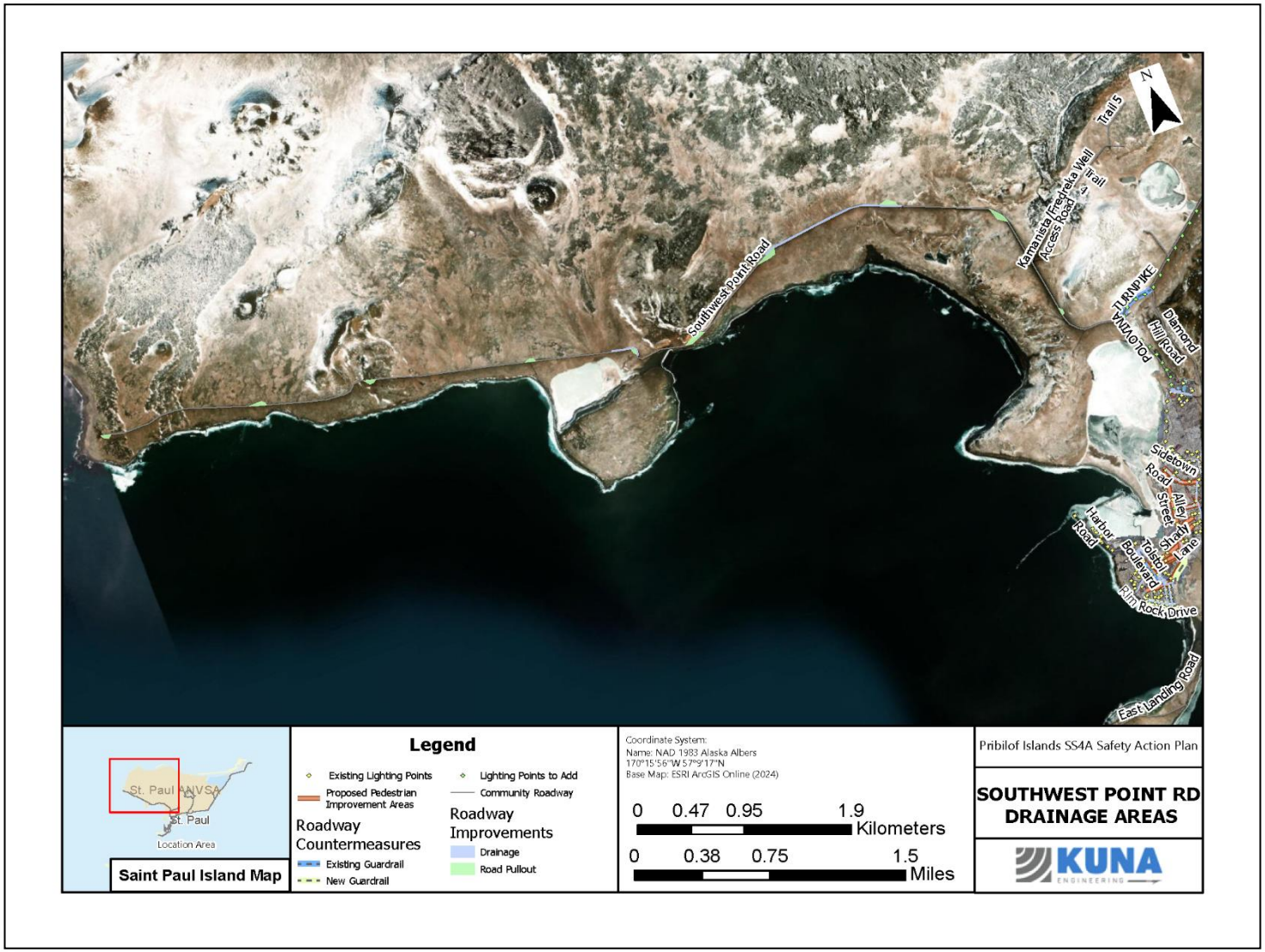

Figure 40. Southwest Point Road Drainage & Road Improvements

Transportation Safety Countermeasures:

- Drainage Improvements
- Road Delineation
- Road Trenching
- Road Pull Outs

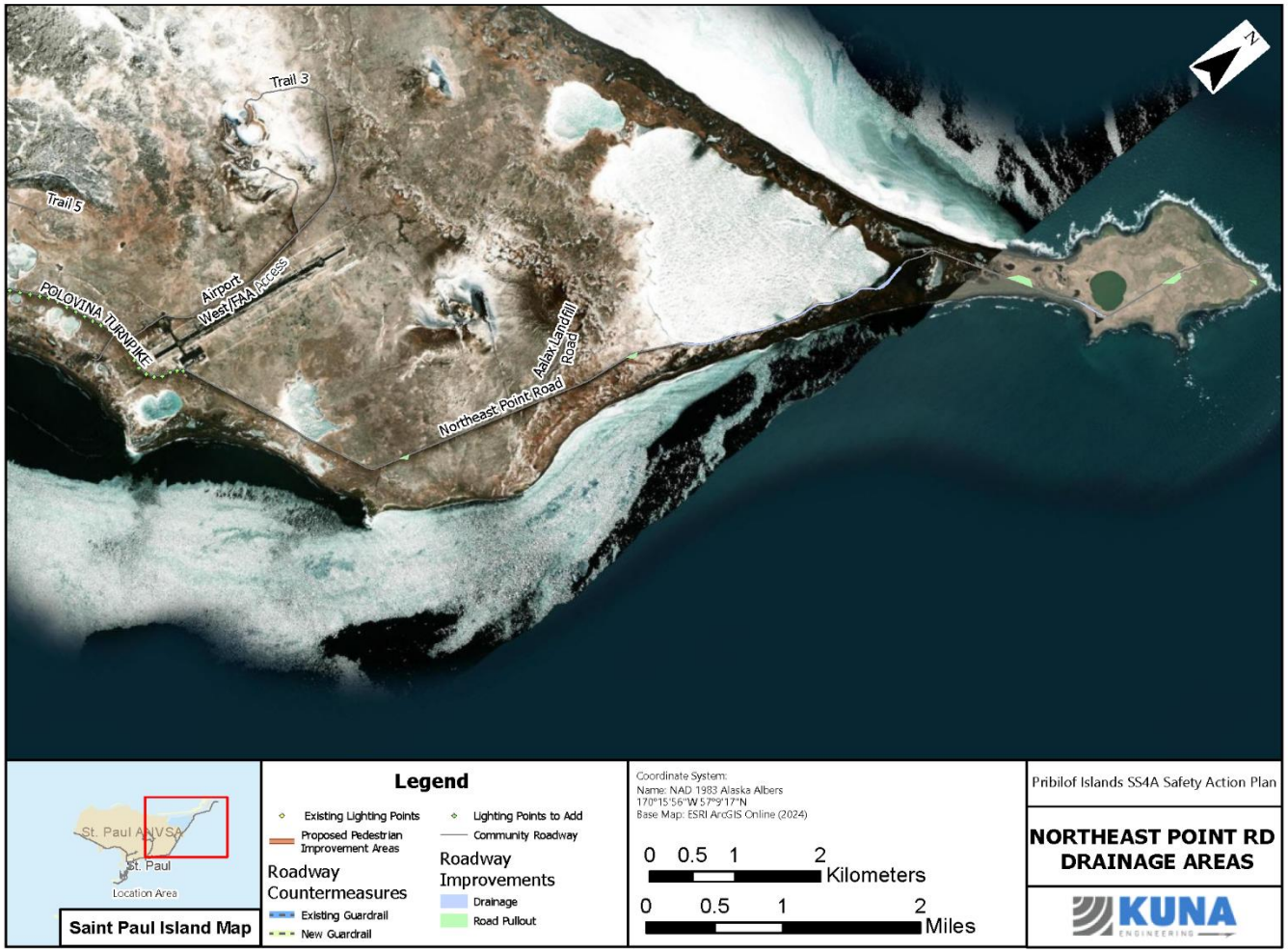

Figure 41. Northeast Point Road Drainage & Road Improvements

Transportation Safety Countermeasures:

- Drainage Improvements
- Road Delineation
- Road Trenching
- Road Pull Outs

Appendix G: Funding Sources

Federal Government Grants

1. **Safe Streets and Roads for All (SS4A)**
    - **Agency:** U.S. Department of Transportation (USDOT)
    - **Purpose:** Provides funds to develop and implement comprehensive safety action plans to prevent roadway deaths and serious injuries.
    - **Website:** SS4A Program
2. **Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grants**
    - **Agency:** Federal Highway Administration (FHWA)
    - **Purpose:** Provides funds for safety improvements to reduce traffic fatalities and serious injuries.
    - **Website:** RAISE Grants
3. **Highway Safety Improvement Program (HSIP)**
    - **Agency:** U.S. Department of Transportation (USDOT)
    - **Purpose:** Provides technical assistance and planning resources to historically underserved communities to implement infrastructure projects that enhance safety and connectivity.
    - **Website:** Thriving Communities Program
4. **Highway Safety Improvement Program (HSIP)**
    - **Agency:** Federal Highway Administration (FHWA)
    - **Purpose:** Provides funds for safety improvements to reduce traffic fatalities and serious injuries.
    - **Website:** FHWA HSIP
5. **National Highway Traffic Safety Administration (NHTSA) Grants**
    - **Agency:** National Highway Traffic Safety Administration
    - **Purpose:** Offers funding for projects aimed at improving traffic safety and reducing crashes.
    - **Website:** NHTSA Grants
6. **Federal Transit Administration (FTA) Bus and Bus Facilities Program**
    - **Agency:** Federal Transit Administration
    - **Purpose:** Provides funds for improving safety and accessibility of transit bus systems.
    - **Website:** FTA Bus and Bus Facilities Program
7. **Congestion Mitigation and Air Quality Improvement (CMAQ) Program**
    - **Agency:** Federal Highway Administration (FHWA)

- **Purpose:** Supports projects that improve air quality and reduce congestion, which can enhance safety.
- **Website:** FHWA CMAQ

8. **State and Community Highway Safety Program**
   - **Agency:** National Highway Traffic Safety Administration (NHTSA)
   - **Purpose:** Provides grants to states for projects aimed at improving highway safety and reducing traffic-related injuries and fatalities.
   - **Website:** NHTSA State and Community Highway Safety
9. **Airport Improvement Program (AIP)**
   - **Agency:** Federal Aviation Administration (FAA)
   - **Purpose:** Provides funding to public-use airports for the planning and development of improvements such as runways, taxiways, lighting, and signage.
   - **Website:** FAA AIP
10. **Port Infrastructure Development Program (PIDP)**
    - **Agency:** U.S. Maritime Administration (MARAD)
    - **Purpose:** Provides funding for projects that improve the safety, efficiency, or reliability of the movement of goods through U.S. ports.
    - **Website:** MARAD PIDP
11. **Building Resilient Infrastructure and Communities (BRIC)**
    - **Agency:** Federal Emergency Management Agency (FEMA)
    - **Purpose:** Provides federal funding support for transportation projects that enhance community resilience against natural disasters. By providing financial assistance, BRIC aims to improve infrastructure while promoting safety and sustainability in vulnerable areas.
    - **Website:** FEMA BRIC
12. **Maritime Environmental and Technical Assistance (META) Program**
    - **Agency:** U.S. Maritime Administration (MARAD)
    - **Purpose:** Provides support for maritime sustainability, environmental improvements, and innovative marine technologies.
    - **Website:** MARAD META
13. **Infrastructure for Rebuilding America (INFRA) Grants**
    - **Agency:** U.S. Department of Transportation (USDOT)

- **Purpose:** Supports infrastructure projects, including heavy equipment for transportation construction and maintenance
- **Website:** INFRA Program

14. **National Park Service – Rivers, Trails, and Conservation Assistance program (NPS-RTCA)**
    - **Agency:** National Park Service (NPS)
    - **Purpose:** Supports locally-led conservation and outdoor recreation projects across the United States. NPS-RTCA assists communities and public land managers in developing or restoring parks, conservation areas, rivers, and wildlife habitats, as well as creating outdoor recreation opportunities and programs that engage future generations in the outdoors.
    - **Website:** NPS RTCA Program

Non-Profit Grants

1. **Governor's Highway Safety Association (GHSA) Grants**
    - **Purpose:** Supports state and local highway safety projects and initiatives aimed at reducing traffic accidents and fatalities.
    - **Website:** GHSA Grants
2. **Automobile Association Foundation for Traffic Safety (AAFTS) Grants**
    - **Purpose:** Provides funding for research and programs that enhance traffic safety and driver education.
    - **Website:** AAFTS
3. **The National Safety Council (NSC) Grants**
    - **Purpose:** Funds projects and programs that aim to improve road safety and reduce traffic-related injuries.
    - **Website:** NSC Grants
4. **The Road Safety Foundation (RSF) Grants**
    - **Purpose:** Supports initiatives focused on reducing road crashes and improving overall traffic safety.
    - **Website:** Road Safety Foundation
5. **Denali Commission Transportation Program**
    - **Purpose:** The Surface Transportation Program focuses on the planning, design, and construction of essential transportation infrastructure like gravel roads, board roads, ATV and multi-use trails, and rural transit improvements. The Waterfront Program addresses the development of ports, harbors, and rural waterfront facilities, including barge landings and docking infrastructure. Both programs aim to enhance access and transportation in rural areas.
    - **Website:** Denali Commission

State of Alaska Resources

1. **Alaska Highway Safety Office (AHSO) Grants**
    - **Agency:** Alaska Department of Transportation and Public Facilities
    - **Purpose:** Provides funding for highway safety initiatives and programs within the state.
    - **Website:** Alaska Highway Safety Office
2. **Alaska Department of Transportation and Public Facilities (DOT&PF) Grants**
    - **Purpose:** Offers various grants for transportation safety improvements and infrastructure projects.
    - **Website:** Alaska DOT&PF Funding Hub
3. **Alaska State Troopers Traffic Safety Grants (DPS-SG)**
    - **Purpose:** Provides funding for law enforcement agencies to support traffic safety enforcement and education programs.
    - **Website:** Alaska State Troopers Traffic Safety
4. **Alaska DCCED Community Development Block Grant (CDBG)**
    - **Purpose:** Provides funding to rural communities for infrastructure development, including the purchase of vehicles or equipment needed for public safety and emergency response.
    - **Website:** Alaska CDBG Program
5. **Alaska DNR Recreational Trails Program**
    - **Purpose:** The Recreational Trails Program grant supports the development and maintenance of recreational trails across Alaska, fostering outdoor activities and public access to natural areas. It provides reimbursable funding for trail projects approved by state and federal agencies.
    - **Website:** Alaska DNR Trails

Tribal and Native Resources

1. **Bureau of Indian Affairs (BIA) Tribal Transportation Program (TTP)**
    - **Agency:** Bureau of Indian Affairs
    - **Purpose:** Provides funds for the construction and improvement of transportation infrastructure on tribal lands, including safety and maintenance improvements.
    - **Website:** BIA TTP Program
2. **Federal Transit Administration (FTA) Tribal Transit Program**
    - **Agency:** Federal Transit Administration
    - **Purpose:** Supports public transit projects for tribal governments, including safety and accessibility enhancements.

- **Website:** FTA Tribal Transit Program

3. **Tribal Transportation Program Safety Fund (TTPSF)**
    - **Agency:** Federal Highway Administration
    - **Purpose:** Provides funding specifically for safety projects on tribal transportation systems.
    - **Website:** FHWA Tribal Transportation Program
4. **Indian Health Service (IHS) Injury Prevention Program**
    - **Agency:** Indian Health Service
    - **Purpose:** Funds projects aimed at reducing injuries, including those related to transportation safety, in Native communities.
    - **Website:** IHS Injury Prevention Program
5. **Native American Housing Assistance and Self-Determination Act (NAHASDA)**
    - **Agency:** U.S. Department of Housing and Urban Development (HUD)
    - **Purpose:** While primarily focused on housing, NAHASDA funds can be used for infrastructure improvements, including those related to transportation safety in Native communities.
    - **Website:** NAHASDA
6. **National Congress of American Indians (NCAI) Transportation Safety Grants**
    - **Purpose:** Provides support for tribal transportation safety projects through various funding opportunities and partnerships.
    - **Website:** NCAI Transportation