



Risk Based Framework for Geotechnical Asset Management

Prepared by:
Shannon & Wilson, Inc.
1321 Bannock Street, Suite 200
Denver, CO 80204

December 28, 2017

Prepared for:
Alaska Department of Transportation & Public Facilities
Statewide Research Office
3132 Channel Drive
Juneau, AK 99801-7898

Publication Number STP000S(802)C

Alaska Department of Transportation & Public Facilities
Research & Technology Transfer

Notice

This document is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The U.S. Government assumes no liability for the use of the information contained in this document. The U.S. Government does not endorse products or manufacturers. Trademarks or manufacturers' names appear in this report only because they are considered essential to the objective of the document.

Quality Assurance Statement

The Federal Highway Administration (FHWA) provides high-quality information to serve Government, industry, and the public in a manner that promotes public understanding. Standards and policies are used to ensure and maximize the quality, objectivity, utility, and integrity of its information. FHWA periodically reviews quality issues and adjusts its programs and processes to ensure continuous quality improvement.

Author's Disclaimer

Opinions and conclusions expressed or implied in the report are those of the author. They are not necessarily those of the Alaska DOT&PF or funding agencies.

REPORT DOCUMENTATION PAGE

Form approved OMB No.

Public reporting for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestion for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-1833), Washington, DC 20503

1. AGENCY USE ONLY (LEAVE BLANK)

2. REPORT DATE

3. REPORT TYPE AND DATES COVERED

FHWA-AK-RD-xx-xx

December 28, 2017

Final, April 2013 to September 2017

4. TITLE AND SUBTITLE

Risk Based Framework for Geotechnical Asset Management

5. FUNDING NUMBERS

6. AUTHOR(S)

Mark Vessely

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

Shannon & Wilson, Inc.
1321 Bannock Street, Suite 200
Denver, CO 80204

8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

State of Alaska, Alaska Dept. of Transportation and Public Facilities
Research and Technology Transfer
3132 Channel Drive
Juneau, AK 99801-7898

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

STP000S(802)(C)

11. SUPPLEMENTARY NOTES

Performed in cooperation with Alaska Department of Transportation and Public Facilities, Federal Highway Administration, Paul D. Thompson, Landslide Technology.

12a. DISTRIBUTION / AVAILABILITY STATEMENT

No restrictions

12b. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200 words)

This report presents the outcome from a multi-year research study to incorporate a risk management framework for the Alaska Department of Transportation & Public Facilities Geotechnical Asset Management (GAM) Plan. The GAM Plan was developed by Paul D. Thompson (Thompson, 2017). Concurrently to this work, Landslide Technology has completed a concurrent GAM Methods Study. Throughout the GAM plan development, risk based asset management concepts have been proposed and progressed in parallel to the Methods Study and GAM Plan. The concepts include estimating risk exposure from geotechnical assets using the existing inventory and condition data for unstable slopes, retaining walls, and material sites; or ongoing frequency and magnitude data captured in an event tracker. This document presents the development of these concepts for the incorporation of practice-ready, risk based geotechnical asset management. The work includes identifying risks from geotechnical assets based on asset management performance objectives, approaches for incorporation of risk into the GAM program; and methods to evaluate risk management options using benefit-cost and life-cycle investment analysis. Risk-based asset management allows the department to measure risk from geotechnical assets based on risks to safety performance, mobility/traveler impacts, and direct financial consequences to the department.

14- KEYWORDS :

Geotechnical Asset Management, GAM, Risk Management, Risk Analysis, Rock Slopes, Rockfall, Soil Slopes, Landslides, Embankments, Unstable Slopes, Debris Flows, Retaining Walls, Material Sources, Asset Inventory, Asset Condition, Natural Hazards, Likelihood/Probability, Consequences, Deterioration, Life Cycle Cost Analysis

15. NUMBER OF PAGES

86

16. PRICE CODE

N/A

17. SECURITY CLASSIFICATION OF REPORT

Unclassified

18. SECURITY CLASSIFICATION OF THIS PAGE

Unclassified

19. SECURITY CLASSIFICATION OF ABSTRACT

Unclassified

20. LIMITATION OF ABSTRACT

N/A

METRIC (SI*) CONVERSION FACTORS

APPROXIMATE CONVERSIONS TO SI UNITS					APPROXIMATE CONVERSIONS FROM SI UNITS				
Symbol	When You Know	Multiply By	To Find	Symbol	Symbol	When You Know	Multiply By	To Find	Symbol
<u>LENGTH</u>					<u>LENGTH</u>				
in	inches	25.4	mm	mm	millimeters	0.039	inches	in	
ft	feet	0.3048	m	m	meters	3.28	feet	ft	
yd	yards	0.914	m	m	meters	1.09	yards	yd	
mi	Miles (statute)	1.61	km	km	kilometers	0.621	Miles (statute)	mi	
<u>AREA</u>					<u>AREA</u>				
in ²	square inches	645.2	millimeters squared	cm ²	mm ²	millimeters squared	0.0016	square inches	in ²
ft ²	square feet	0.0929	meters squared	m ²	m ²	meters squared	10.764	square feet	ft ²
yd ²	square yards	0.836	meters squared	m ²	km ²	kilometers squared	0.39	square miles	mi ²
mi ²	square miles	2.59	kilometers squared	km ²	ha	hectares (10,000 m ²)	2.471	acres	ac
ac	acres	0.4046	hectares	ha					
<u>MASS (weight)</u>					<u>MASS (weight)</u>				
oz	Ounces (avdp)	28.35	grams	g	g	grams	0.0353	Ounces (avdp)	oz
lb	Pounds (avdp)	0.454	kilograms	kg	kg	kilograms	2.205	Pounds (avdp)	lb
T	Short tons (2000 lb)	0.907	megagrams	mg	mg	megagrams (1000 kg)	1.103	short tons	T
<u>VOLUME</u>					<u>VOLUME</u>				
fl oz	fluid ounces (US)	29.57	milliliters	mL	mL	milliliters	0.034	fluid ounces (US)	fl oz
gal	Gallons (liq)	3.785	liters	liters	liters	liters	0.264	Gallons (liq)	gal
ft ³	cubic feet	0.0283	meters cubed	m ³	m ³	meters cubed	35.315	cubic feet	ft ³
yd ³	cubic yards	0.765	meters cubed	m ³	m ³	meters cubed	1.308	cubic yards	yd ³
Note: Volumes greater than 1000 L shall be shown in m ³									
<u>TEMPERATURE (exact)</u>					<u>TEMPERATURE (exact)</u>				
°F	Fahrenheit temperature	5/9 (°F-32)	Celsius temperature	°C	°C	Celsius temperature	9/5 °C+32	Fahrenheit temperature	°F
<u>ILLUMINATION</u>					<u>ILLUMINATION</u>				
fc	Foot-candles	10.76	lux	lx	lx	lux	0.0929	foot-candles	fc
fl	foot-lamberts	3.426	candela/m ²	cd/cm ²	cd/cm ²	candela/m ²	0.2919	foot-lamberts	fl
<u>FORCE and PRESSURE or STRESS</u>					<u>FORCE and PRESSURE or STRESS</u>				
lbf	pound-force	4.45	newtons	N	N	newtons	0.225	pound-force	lbf
psi	pound-force per square inch	6.89	kilopascals	kPa	kPa	kilopascals	0.145	pound-force per square inch	psi
These factors conform to the requirement of FHWA Order 5190.1A *SI is the symbol for the International System of Measurements									

RISK BASED FRAMEWORK FOR GEOTECHNICAL
ASSET MANAGEMENT

FINAL

Prepared for
Alaska Department of Transportation & Public Facilities

Author
Shannon & Wilson, Inc.
Denver, Colorado
Report # STP000S(802)(C)
December 2017

Table of Contents

Table of Contents	ii
List of Figures	iv
List of Tables	v
Acknowledgements.....	vi
Abstract.....	vii
Summary of Findings.....	1
CHAPTER 1 - INTRODUCTION AND RESEARCH APPROACH.....	2
Problem Statement and Research Objective	2
Scope of Study	2
Introduction.....	2
Integrating Risk-Based GAM Objectives with TAM.....	3
Defining Risk	3
Managing Risk	3
Incorporating Risk into GAM.....	3
Incorporating Risk with Performance Goals.....	4
Business Case and Return on Investment for Risk-Based GAM.....	5
CHAPTER 2 – DEVELOPMENT AND MEASUREMENT OF RISK IN GAM PLAN	8
Sources of Geotechnical Asset Risk	8
Risk-Based GAM Method Development.....	9
Inventory Development for Risk-Based GAM.....	9
Geotechnical Asset Inventory Sites	9
Geotechnical Event Tracker Sites.....	10
Assessing Risk Exposure for Geotechnical Assets.....	11
Geographic Extent	12
Geotechnical Asset Inventory Site Locations	13
Geotechnical Event Tracker Sites.....	13
Likelihood.....	14
Geotechnical Asset Inventory Sites	14
Geotechnical Event Tracker Sites.....	14
Consequence	14
Safety Threat.....	16
Maintenance Threat	16
Mobility Threat	17
Geotechnical Asset Risk Exposure Estimation.....	18
Safety Risk Exposure.....	19
Maintenance Risk Exposure	19
Mobility Risk	19
Total Geotechnical Asset Exposure Risk.....	20
Level of Risk Measure	21
CHAPTER 3 – LIFE-CYCLE COST AND RISK-MANAGEMENT	23
Life-Cycle Cost and Risk Management.....	23
Overview.....	23
Life-Cycle and Cost-benefit Analyses	24

Risk-Based Deterioration discussion	27
Risk management alternatives for GAM	27
Risk acceptance.....	29
Low cost, recurring risk treatments	29
Long-term risk reduction treatments.....	30
Risk transfer	30
Risk avoidance/termination	30
Cross-asset risk management opportunities.....	30
CHAPTER 4 - CONCLUSIONS AND SUGGESTED RESEARCH	32
Conclusions.....	32
Suggested Research	32
REFERENCES	35

APPENDIX A - PRELIMINARY RANKING OF GEOTECHNICAL ASSETS IN GAM
ASSET INVENTORY

APPENDIX B - CONCEPTUAL RISK REGISTER DEVELOPEMENT

List of Figures

Figure 1: Life-cycle Models for Rock Slopes from Thompson (2017).	23
---	----

List of Tables

Table 1: Risk-based GAM Factors from Expert Elicitation Workshop.....	15
Table 2: Summary of Probability Factors Used in AKDOT Risk-Based GAM.....	16
Table 3: Consequence Exposure Values Used to Represent Safety Threat in the Risk-Based GAM Plan.	16
Table 4: Consequence Values Used to Represent Maintenance Threat in the Risk-Based GAM Plan.	17
Table 5: Closure Duration Categories Used to Calculate Mobility Threat in the Risk-Based GAM Plan.	17
Table 6: Input for the Mobility Risk Exposure Calculation. Values based on AASHTO, 2010 or department guidance (also see Thompson 2017).	18
Table 7: Benefit-Cost Analysis Example for Treatment Options Over a 5-Year Life-Cycle.	26
Table 8: Example Benefit-Cost Analysis for Hypothetical Treatment Options.	28

Acknowledgements

This report and associated tasks for a risk management framework for geotechnical asset management were completed under Agreement 025-3-1-049 with the Alaska Department of Transportation and Public Facilities. Mark Vessely of Shannon & Wilson is the report author. David Stanley was the AKDOT&PF project manager who initiated the project in 2015 and Barry Benko is the current Project Manager. This work was performed in concert with geotechnical asset management projects by Paul T. Thompson (2017) and Landslide Technology (2017).

Throughout the course of this project numerous individuals have participated in progress review meetings, concept development, and interim reviews. These individuals include David Stanley, Barry Benko, Paul Thompson, Darren Beckstrand, Aine Mines, Larry Pierson, Robert Kimmerling, Scott Anderson, Ty Ortiz, Tom Badger, Beth Widmann, and Hollie Ellis. The author would like to thank all of these individuals for their involvement and support of the project. Further, the author wishes to acknowledge David Stanley for recognizing the need for geotechnical asset management and initiating this project in addition to leading various technical publications and presentations on the subject. The emergence of geotechnical asset management throughout the United States would not have occurred without the early formulation work and advocacy from David Stanley.

Abstract

This report presents the outcome from a multi-year research study to incorporate a risk management framework for the Alaska Department of Transportation & Public Facilities Geotechnical Asset Management (GAM) Plan. The GAM Plan was developed by Paul D. Thompson (Thompson, 2017). Concurrently to this work, Landslide Technology has completed a concurrent GAM Methods Study. Throughout the GAM plan development, risk based asset management concepts have been proposed and progressed in parallel to the Methods Study and GAM Plan. The concepts include estimating risk exposure from geotechnical assets using the existing inventory and condition data for unstable slopes, retaining walls, and material sites; or ongoing frequency and magnitude data captured in an event tracker. This document presents the development of these concepts for the incorporation of practice-ready, risk based geotechnical asset management. The work includes identifying risks from geotechnical assets based on asset management performance objectives, approaches for incorporation of risk into the GAM program; and methods to evaluate risk management options using benefit-cost and life-cycle investment analysis. Risk-based asset management allows the department to measure risk from geotechnical assets based on risks to safety performance, mobility/traveler impacts, and direct financial consequences to the department.

Summary of Findings

Incorporation of risk into geotechnical asset management allows the department to:

- Understand the distribution and magnitude of risk exposure from geotechnical assets both in the right-of-way (ROW) and beyond the ROW.
- Measure risk from geotechnical assets in terms of safety performance, mobility/traveler impacts, and direct financial consequences to the department.
- Aggregate risks into a weighted or unweighted total geotechnical asset risk exposure, or evaluate risk to safety, mobility, and direct financial impacts independently.
- Differentiate the source of measurable risk for geotechnical assets between the physical failure/deterioration of constructed geotechnical assets and events that originate from geologic hazards sites.
- Estimate risk exposure from geotechnical assets using existing inventory and condition data from unstable slope, retaining wall, and material site databases; or estimate risk based on new frequency and magnitude data captured in an event tracker.
- Geographically define and present areas or corridors with concentrations of high risk from geotechnical assets.
- Propose risk management alternatives at the project level and develop life-cycle cost estimates.
- Compare existing and proposed project-level geotechnical asset investment management options based on a risk-based benefit-cost analysis that consider improvements to safety, mobility, and financial performance over the life-cycle.
- Track the change in risk exposure with time and based on asset management investment actions.

CHAPTER 1 - INTRODUCTION AND RESEARCH APPROACH

Problem Statement and Research Objective

This report presents the outcome from a multi-year research study to incorporate a risk management framework for the Alaska Department of Transportation & Public Facilities (AKDOT&PF) Geotechnical Asset Management (GAM) Plan. The AKDOT&PF GAM Plan was developed concurrently to this study by Paul D. Thompson (Thompson, 2017). In addition, Landslide Technology completed a concurrent GAM Methods Study to develop condition state definitions and GAM site inventory field procedures, preservation criteria and cost analyses, and deterioration estimates for geotechnical assets in the GAM plan. Throughout the GAM plan development, risk based asset management concepts have progressed in parallel to the Methods Study and GAM Plan. This document consolidates information presented in previous documents and presentations prepared by Shannon & Wilson for this project, as well as updated recommendations for the incorporation of practice-ready, risk based concepts at AKDOT&PF.

Scope of Study

Our work was completed under a Professional Services Agreement with AKDOT&PF, Agreement No. 025-3-1-049, dated April 1, 2013. Activities under this scope of work include:

- Conduct a literature search for risk management in geotechnical engineering and asset management;
- Identify and catalogue significant risks to and from geotechnical assets and the GAM program;
- Create a framework for incorporating risk management into the GAM program;
- Prepare a preliminary risk analysis and assessment software tool;
- Develop a risk register for illustrating risk and benefits of risk reduction using benefit-cost and return on investment for alternative risk management strategies;
- Prepare and deliver a final report that summarizes research results; and
- Prepare, publish, and present results.

Introduction

AKDOT&PF is responsible for over 5,600 miles of paved and gravel highways, 242 airports, 21 harbors, and a ferry system that connects with 35 coastal communities. Within the AKDOT&PF system, geotechnical assets are identified as the rock and soil slopes, embankments, retaining walls, and materials sites that contribute to the safety, mobility, and economic vitality of the state transportation system. The complete inventory of geotechnical assets for the department is in development, but the known quantity of geotechnical assets in the GAM plan to date consists of 56 million square feet (MSF) of rock slopes, 1.4 million

linear feet of soil slopes, and 4 MSF of retaining walls (Thompson, 2017). At this time, the Alaska Highway System and other local community routes have not been inventoried due to prioritization decisions for National Highway System routes. In addition, there are embankments and slopes that have not yet been fully inventoried because either there is limited knowledge of historical adverse events or negligible deterioration rates under current maintenance practices.

For the AKDOT&PF GAM plan, the formulation of the asset inventory is based on the locations where there is a previously known or perceived threat to safety, mobility, department maintenance and engineering expenses, and/or economic vitality. The assets consist of both natural sites and constructed features such as walls, highway embankments, and cut slopes which may have a known landslide, rockfall, or other geologic hazard related threat.

Integrating Risk-Based GAM Objectives with TAM

Defining Risk

Risk, commonly defined in scientific and engineering literature as the product of a probability of occurrence and the resulting consequence, is a rational and well-established means for comparing life-cycle management options across different infrastructure systems with applied examples in both domestic and international practice. Where risk-based infrastructure management is applied in practice, there are examples of organizations that focus on the asset and use risk-based practices to maximize the asset value while others focus on system performance and use risk to maximize performance of the asset.

For transportation asset management in the United States, the definition proposed by the Federal Highway Administration (FHWA) states that risk is the positive or negative effects of uncertainty or variability upon agency objectives (FHWA, 2012a and 2012b). Further, in terms of risk management, FHWA proposed adoption of the New Zealand transport agency approach, which broadly defines risk management as “the cultures, processes and structures that are directed towards the effective management of potential opportunities and threats.”

Managing Risk

Risk exists whether acknowledged and directly managed through strategic and tactical processes or not. Risk management options are often categorized as: treat, accept/tolerate, transfer, and terminate. Ignoring or not considering risk is a form of management by acceptance or tolerance. Therefore, understanding the current risk exposure from geotechnical assets - the likelihood of adverse occurrences and the resulting magnitude of impact – at a minimum will allow AKDOT&PF to understand the level of risk has been accepted under historical practices. The remaining GAM risk management options are simply means and methods to reduce or increase this exposure if desired.

Incorporating Risk into GAM

For the integration of risk-based GAM into transportation asset management planning at AKDOT&PF, risk can be used to measure and compare opportunity and threat occurrences other than just “failure” events that are often considered during the design using factors of

safety or natural hazard return intervals. To aid in this process, the source risk can be segregated based on guidance from American Association of State Highway and Transportation Officials (AASHTO) which defines four major risks sources: operational, physical failure, external agency impacts, and natural hazards (AASHTO, 2011).

Of these risk sources, *physical failure (deterioration) and natural hazards* are important considerations for the GAM plan and can be measured. Operational risk, which is related to AKDOT&PF business decisions, does not appear to be a significant risk source to geotechnical assets that can be measured. External agency impacts include material and service price and supply threats also do not appear to be large or measurable risk sources in the GAM plan. Conversely, geotechnical assets do exhibit deterioration that can be influenced by design, preservation, and rehabilitation strategies that can reduce threat frequencies and consequences. For natural hazards such as floods, large debris flows from natural slopes, earthquakes, and permafrost, there often is a limited ability to influence the likelihood of the threat; however, AKDOT&PF can make decisions throughout the life-cycle that manage the consequences from natural hazard threats. Additional discussion on the source of risk is provided in Chapter 2.

Incorporating Risk with Performance Goals

In addition to consideration of multiple risk sources, risk-based methods can be used for geotechnical assets to measure and evaluate performance relative to multiple Federal and State goal areas. When reviewing successful GAM programs in the literature, there are several applied examples that demonstrate risk measurement for multiple goals. Two such examples include:

- for U.S. Army Corps of Engineers (USACE) dam safety program, risk analysis considers annual probability of failure (the specific loss of the dam asset), life safety, broader economic impacts, and environment and other non-monetary risk; and
- for Network Rail in the United Kingdom, the risk analysis is focused on traveler safety and travel time performance.

For domestic transportation asset management, performance goal areas have been established at the Federal level through the MAP-21 and FAST Act authorizations. Further, Alaska statutes and administrative code and AKDOT&PF planning processes provide guidance that can be used to establish goals for transportation asset management (TAM) and GAM. As a result, the performance areas that may be further developed through the AKDOT&PF TAM plan include safety, economic vitality, mobility, economic efficiency, and environmental sustainability (Thompson, 2017).

As discussed later in this report, the selected performance areas for risk-based GAM at AKDOT&PF that connect to TAM guidance include:

- traveler *safety* related to threats from geotechnical assets;
- *economic vitality* as estimated based on disruptions to mobility; and
- recovery costs or estimated *direct expenses* to the department.

By using the proposed risk-based frameworks, AKDOT&PF will be able to estimate a monetized risk exposure for these respective performance goal areas.

Business Case and Return on Investment for Risk-Based GAM

Thompson (2017) discusses how geotechnical assets affect the AKDOT&PF system performance and the need for including geotechnical assets in the TAM plan. This discussion in the GAM plan, as well as numerous examples in the literature, provide evidence of the range and magnitude for direct economic and indirect consequences that result from the adverse performance or physical deterioration of geotechnical assets.

While the consequences associated with geotechnical assets are well acknowledged – primarily impacts to traveler safety, highway delays and closures, and direct expenses to the department – implementation of GAM can be a challenge when not funded and mandated through legislative or regulatory means. In the absence of Federal or State requirements for GAM, a geotechnical asset management program must be able to demonstrate the value proposition for obtaining limited funds based on a sound business case and a favorable return on investment. There can be less of a need for regulatory requirements for implementing GAM when the economic and social basis need can be demonstrated.

By incorporating risk-based practices into GAM, AKDOT&PF can measure and direct plan actions towards performance criteria that exist at all levels of the organization including executive staff, maintenance management, TAM professionals, and the geotechnical programs. The asset management literature across infrastructure sectors indicates that risk-based network level decision making can be directed towards the following two key approaches:

- improving reliability/performance of the system without increasing costs; or,
- reducing costs without adversely reducing system reliability.

Alternatively, an organization can choose to improve system performance through increased funding, and through the use of risk-based GAM practices the agency will be able to demonstrate that the allocated funds are being optimized across the life-cycle for the system. At a minimum, by measuring the risk associated with geotechnical assets AKDOT&PF can be aware of the level of risk that is being accepted at the current investment levels.

To put this in context for AKDOT&PF, risk-based GAM can be considered for a budget/cost neutral process to improve performance or can be a process to work towards cost savings should the existing performance be deemed acceptable. Additionally, in a mature asset management environment, AKDOT&PF may be able to further fund GAM knowing the funds are being allocated with a favorable cost-benefit scenario that demonstrates a higher return on performance when compared with comparable investments in other asset classes.

To provide evidence of the business case and potential investment benefits, examples of successful risk-based GAM are summarized below. While these examples are not directly

transferable to AKDOT&PF, the lessons learned have been considered for the risk-based framework and analysis concepts presented in this report.

- The USACE Dam Safety Program is an aspirational example of GAM that uses risk to evaluate, prioritize, and justify safety decisions for over 700 dams, of which over 50 percent have exceeded the 50-year service life (USACE, 2017). Using risk-based analysis, USACE indicates \$8 of flood damage reduction through the investment of each \$1. A comment from a senior executive with the Army Corps of Engineers on the subject of risk-based dam safety management, indicates the Corps has avoided \$7 billion of expenses and “we couldn’t afford not to do it” (Halpin, 2017). Further, the USACE asset management process for water infrastructure facilities subject to natural hazards (water/hydropower, navigation, and flood related assets) demonstrates a successful combination of inventory, assessment, and risk-based multi-criteria decision analysis and financial planning, all of which is completed using conventional Microsoft Excel spreadsheet programs (Connelly, 2017).
- Network Rail manages approximately 19,200 miles of the rail network in Great Britain. The network includes many cut slope and embankment earthworks that were developed from 1830 to 1880. Network Rail established a geotechnical asset management system that consists of risk-based inventory, assessment, and intervention processes that have resulted in documented reductions in safety and delay risks for their system since implementation 15 years ago (Network Rail, 2017). Further, studies of the proactive management of embankment assets supporting railroad and motorways in the United Kingdom demonstrated realized life-cycle cost savings of 60 to 80 percent per unit length of embankment (Perry and others, 2003).
- Switzerland formed the National Platform for Natural Hazards (PLANAT) in 1997. This national effort to address the country’s considerable natural hazards risk is notable for the scope of its collaboration, which includes federal government, the financial and insurance industry, and public agencies across infrastructure sectors. The PLANAT mandate includes improving public awareness and efforts to optimize financial resources for mitigation according to risk reduction benefits (Bründl et al., 2009) (e.g. multiple stakeholders may fund a project based on benefits received). Additionally, the program has an online tool for evaluating risk reduction, the use of which is required for all projects costing more than approximately \$1M.

These examples and others in the literature demonstrate that risk-based asset management can provide cost savings and performance improvements when a sustained life-cycle implementation occurs. Each of these examples have evolved from startup programs into more complex maturities and can exist on the basis of measurable benefits. Further, USACE experience indicates that implementation can occur without specialized life-cycle investment and risk analysis software. The Swiss example suggests there can be opportunities to complete projects by including other funding partners such as communities and other infrastructure providers who will realize a portion of a calculated risk reduction.

To demonstrate the life-cycle return on investment in GAM, the benefits from risk-based management can include:

- Reduction of direct financial impact to AKDOT&PF;
- Reduction of direct financial and broader economic impacts due to loss of life, health, and property to citizens, businesses, and other governmental agencies;
- Reduction of financial and economic impact due to reduced mobility and access; and
- Improvements to environmental, community, public perception, and social performance areas.

CHAPTER 2 – DEVELOPMENT AND MEASUREMENT OF RISK IN GAM PLAN

Sources of Geotechnical Asset Risk

Adverse performance associated with geotechnical assets can be the result of either natural hazards and geologic conditions or deterioration and physical failure of constructed or excavated earthworks. For example, naturally occurring rock slides and debris flows that originate well beyond the AKDOT&PF right-of-way (ROW) during a storm event would be considered natural hazard events. Where natural hazard events occur, there can be reduced options available to mitigate the hazard during design, construction, or routine maintenance operations. Thus, the department has limited control over the occurrence of the off-ROW natural hazard event but can influence how the consequences of that event will be managed within the ROW.

Conversely, a shoulder embankment slump, or a rockfall that originates from an AKDOT&PF-constructed and maintained cut slope, can be considered a physical failure. In the case of the physical failure, the event or deterioration rates may have connection to decisions during design, construction, and/or maintenance management activities. AKDOT&PF, therefore, has a greater ability to control the likelihood of physical failure events in addition to addressing the consequences within the ROW.

The current GAM database does not readily distinguish between natural and physical failure risk sources, although historical data exist to evaluate the risk source at a site-specific level if necessary. While these risk sources have similar impacts to the corridor function and performance that is not necessarily distinguishable, the risk management approaches can be different. As an example, a debris flow originating from a distant off-ROW natural slope typically has limited treatment options for reducing the likelihood input in GAM risk estimation and AKDOT&PF investment opportunities would consist of options that address consequences from the debris flow once on the or more near the ROW. Conversely, on a rockfall or debris flow asset that originates from an AKDOT&PF cut slope on ROW, treatment options can be developed that influence either or both consequence and likelihood. Depending on future management strategies and investment opportunities, the AKDOT&PF GAM plan could capture this risk source information when completing inventory work or reporting geotechnical hazard events.

The differentiation between physical deterioration of constructed geotechnical assets and events from natural hazard site will provide AKDOT&PF additional data to support future planning decisions. For example, design decisions and performance criteria may differ in the management of deterioration based physical failure versus natural hazard threats that often have unknown recurrence intervals or deterioration rates that are not able to be measured within the corridor life-cycle. Additionally, risk mitigation design, maintenance, and monitoring activities for low frequency but large consequence natural hazard events may benefit from cost sharing strategies because the consequences typically impact multiple stakeholders beyond AKDOT&PF.

Risk-Based GAM Method Development

While risk or risk-based approaches are mentioned several times in the most recent federal authorizations, detailed guidance for risk-based asset management is not provided. Because the guidance does not yet exist, a goal of this study was to create a framework with processes for risk-based GAM based on literature review and measurable risks from GAM assets. The resulting framework that is presented later in this chapter is the result of adaptations from examples of published risk-based geotechnical asset management in practices in the United Kingdom, Canada, and New Zealand; development of similar efforts for other state transportation departments; and experimentation with specific applications within AKDOT&PF.

For AKDOT&PF, most decisions and activities involve some degree of risk and risk management, whether planned or not. For geotechnical assets, risk management decisions are spread throughout the department with different staff responsible for various portions of the asset life cycle, such as geotechnical design, ongoing inspection and maintenance, responding to unplanned events, asset data management, and planning for rehabilitation or improvement projects. While this situation is not unique to AKDOT&PF, it does result in several individuals contributing to the ownership responsibility of geotechnical assets. For example, a geotechnical engineer or geologist will make decisions during design that influence the asset management outcome for a particular site, in addition to cross-discipline design decisions by others that influence geotechnical asset management (e.g. wall type selection, walls versus slopes, right-of-way restrictions). Once construction is complete, the asset owner is typically the region and maintenance staff who make regular decisions on maintenance frequency and acceptable conditions.

The initial development of risk-based GAM methods involved obtaining the AKDOT&PF geotechnical and maintenance perspectives, as these programs have the most direct involvement with geotechnical assets through the life-cycle. In each of the regions, staff involved in traffic, planning, environmental programs, and region management also were interviewed. Throughout these discussions, we worked to understand the staff perspectives relative to asset management, including performance expectations, data availability and management tools, decision methodologies, and financial, safety or other measurable consequences associated with geotechnical assets. Further, in each Region methods for qualitative geotechnical asset risk measurement were evaluated to develop draft risk registers at the network or Region level. In addition, a quantitative risk analysis was completed for debris flows on the Haines Highway as a means to evaluate the feasibility for project level geotechnical asset management planning in a high-risk corridor.

Through this work and collaboration with the AKDOT&PF-sponsored research work with Landslide Technology and Paul Thompson, the preferred approaches for risk based asset management were developed and are described below.

Inventory Development for Risk-Based GAM

Geotechnical Asset Inventory Sites

The AKDOT&PF GAM plan includes four primary asset classes:

- Rock slopes
- Unstable embankment and soil slopes
- Retaining walls
- Material sites

Inventory and condition field surveys for these geotechnical assets were completed by AKDOT&PF and consultant partners for each of the asset classes. Select soil and rock slopes were inventoried and evaluated under the AKDOT&PF Unstable Slopes Management Program (USMP), which was initiated in 2010. The program is ongoing and is updated periodically as new slopes are added and existing USMP sites are revisited and reevaluated. The Retaining Wall Inventory was initiated in 2012. It is currently based largely on a compilation of as-built drawings; only a portion of the more than 1,300 retaining walls in the inventory have been field inspected. Work is ongoing to complete field assessments for retaining walls statewide. Lastly, material sites along roads in the statewide network were inventoried in the Statewide Material Site Inventory (MSI) projects completed between 2007 and 2015. Condition State assessment was performed on the most critical subset of material sites, those serving routes in the NHS and AHS network..

For a full discussion of the inventory process and results see the Statewide Geotechnical Asset Management Program Development: Rock Slopes, Unstable Soil Slopes and Embankments, Retaining Walls, and Material Sites – Final (Landslide Technology, 2017).

The inventory can be viewed at:

http://www.dot.state.ak.us/stwddes/desmaterials/mat_geotech_services/mat_gam2.shtml and click on the link to “Interactive GAM Program Overview”.

Geotechnical Event Tracker Sites

The field condition assessments for the geotechnical asset inventory discussed above was completed by geo-professionals and represents the asset condition at the time of the observation. To understand the frequency and magnitude of consequences from adverse events (such as a rockfall or slope deterioration), associated with geotechnical assets on an on-going basis, AKDOT&PF has taken steps to augment the data contained in the inventory databases through a variety of methods.

These steps include building awareness and interest in the department such that adverse events and changed conditions are noted and reported more consistently by maintenance staff and other field personnel. Additionally, Landslide Technology and Shannon & Wilson worked with AKDOT&PF to implement a geospatial database tool, known as the Geotechnical Event Tracker, to capture event data. This custom desktop application can be used to quickly report geohazard events in a consistent and geographically referenced format. This is done through use of pre-populated dropdown windows for standard data fields in addition to typed data entry. The tracker has been deployed to core AKDOT&PF users and consultants and is available at the ArcGIS Online (AGOL) site:

<http://akdot.maps.arcgis.com/apps/GeoForm/index.html?appid=cb801e51e9f144b38eacc5fffc a624af>. AGOL is the cloud-based mapping platform designated for agency-wide use for GIS applications.

Some of the key event tracker input fields are listed below.

- Latitude/Longitude (entered directly, or placed using interactive map)
- Event date
- Type of event (such as rockfall, debris flow, landslide)
- Size of event (qualitatively categorized as ranging from minor to catastrophic)
- Safety impact to traveler (such as damage to vehicle, injury, or fatality)
- Mobility impact to travelers (duration of road closures and delays)
- Approximate maintenance direct costs to respond and recover from the event
- General notes describing the event

The ongoing tracking of geotechnical events will allow maintenance frequency, event size, and other site inventory data information to be continually improved in addition to allowing AKDOT&PF to track temporal trends with time at the asset, corridor, and network levels. The benefits associated with event tracking for geotechnical asset management is evident in the Network Rail Earthworks Asset Policy (2017) which contains performance data for more than 10 years, allowing the agency to evaluate trends among precipitation cycles, asset age, and location and other inputs.

By comparing event frequency with existing GAM inventory site locations AKDOT&PF can:

- Identify new sites to add to the GAM inventory should the location not exist in the current geotechnical asset database.
- Identify existing GAM inventory sites where hazard activity has increased, indicating a change in deterioration rates and, thus, the need for a revised condition assessment.
- Annually measure and report performance related risk exposure and economic costs within the GAM program at the network level (e.g. number of events and consequence levels).
- Document performance improvements in locations where the GAM management strategy resulted in an increased investment level.

Assessing Risk Exposure for Geotechnical Assets

For risk-based GAM, the risk assessment for the geotechnical assets is based on the product of likelihood and consequence. Asset condition and/or the frequency of past geotechnical asset events can be used to estimate likelihood of an adverse performance impact occurring in the future. Consequence can be measured based on potential threats in selected performance areas, such as traveler injury from a geohazard event (safety), highway closure (mobility), or direct costs to the department (maintenance). The consequence values can be qualified using dimensionless values that indicate relative magnitude or expressed as a cost or other value with units. Where possible, the risk-based GAM process has been developed to obtain a financial exposure value in the determination of risk.

By multiplying the likelihood and consequence values AKDOT&PF can estimate the risk exposure in selected performance areas which currently included traveler safety, mobility impacts, and direct recovery costs to the department. The result is a risk exposure value for each respective performance area.

For measurement and reporting, the risks to each performance area can be aggregated into a single reporting measure identified as the Level of Risk (LOR), which is intended to be similar to the Level of Service (LOS) performance indicator used in other TAM processes. Because geohazards generally do not provide a ‘service,’ the LOR metric was developed to communicate relative magnitude of risk exposure to GAM stakeholders.

Risk assessment is carried out for both the geotechnical asset inventory sites and the geotechnical event tracker sites. Because the two datasets contain different data fields, the assumptions used in estimating geotechnical asset risk exposure vary slightly. The risk assessment for GAM inventory sites is based on data collected during the field inspection of a slope or structure by a geo-professional. Risk calculations for geotechnical event tracker sites are strictly data driven and rely on the reported frequency and severity of events. The risk assessment process is described below for each data set.

Geographic Extent

The referencing of transportation assets can be completed at different levels of complexity depending on agency data resources, capabilities, technology, and the required accuracy planning purposes. In general, there are three methods of location referencing and the methods can be used simultaneously (Austroads, 2016). The graphical extent methods consist of a 1-D location referenced to a known location (e.g. a centerline milepoint); 2-D location with an x and y context similar to a plan view outline; and a 3-D extent that incorporates an elevation (z-dimension).

For geotechnical assets and hazard sites there can be overlap from one or more geotechnical assets, which also can contribute to an aggregation of geotechnical hazard and risk in some locations. For example, many rockfall and debris flow events occur within a relatively limited lateral extent often affecting only short sections of the same roadway. Thus, rockfall events and other smaller hazard events may have a fairly specific geographic location, such as route and nearest tenth or hundredth mile marker (for example, mile marker [MM] 17.15). In a map environment, these specific locations can be displayed as a point that is representative of the geographical extent. Multiple threats, or different types of events occurring at the same geographic point can be evaluated collectively to estimate asset risk exposure for that particular site. However, larger hazard sites, such as landslides or distressed embankment subgrades that extend along many hundreds or thousands of feet of roadway, cannot easily be represented by a single mile marker point (e.g. a 1-D framework). Instead, they are best expressed by a range of mile markers (for example, MM16.9 to 17.3), which plot as a 2-D line parallel to the roadway in a map environment.

When evaluating the geotechnical asset risk exposure, it is important that adjacent threats from a different geotechnical asset are not omitted during planning as omission of a risk source can reduce the desired outcome for the proposed project. For example, evaluating the

risk from a rockfall site in the Long Lake corridor may not result in the desired level of TAM performance improvement should that site be above an area with shoulder embankment fill distress that is not considered and continues to generate high direct maintenance costs to the department. When considering the geographical extent of multiple geotechnical asset types, the measurement of risk in geo-referenced format is not practical when considering specific point because hazards represented by lines can overlap hazards represented by points. In illustration, a debris flow site (MM 17.15, for example) may occur within a larger landslide complex or adjacent to a retaining wall (e.g., MM 16.9 to 17.3). To measure geotechnical asset risk at MM 17.15, both the debris flow and landslide potential must be evaluated at that specific location. The difficulty lies in determining what portion of the landslide risk exposure should be applied to the point location. Applying all the landslide risk to a single point, rather than spreading the risk across the length of the landslide, could result in a falsely elevated risk exposure at the point location and can underestimate the risk to the greater stretch of roadway intersected by the landslide. The resolution to this constraint is described below.

Geotechnical Asset Inventory Site Locations

Geotechnical asset inventory site extents were initially identified based on the experience and institutional knowledge of AKDOT&PF Maintenance and Operations (M&O) personnel. A detailed assessment conducted by a geotechnical engineer or engineering geologist was then performed, during which time the geographical extent of the slope or feature was defined and latitude/longitude data was collected to delineate start and end points in a 2-D framework relative to the roadway. The geotechnical or wall structure conditions were evaluated during the assessment following established condition inventory parameters for the different asset classes (see *Landslide Technology*, 2017 for additional discussion).

Geotechnical Event Tracker Sites

Geotechnical event tracker sites, associated events, and the estimated risk exposures are referenced in GIS to a geographic location identified by the individual completing the event log input. The geotechnical asset risk from sites recorded in the AKDOT&PF event tracker is presented according to pre-defined roadway segment lengths as opposed to single points. The segments are based on roadway intervals representing one mile, which allows for risk measurement for multiple and/or overlapping hazard events with different geographical extents. This provides a multi-objective analysis when incorporating other linear assets such as walls, pavements, and culverts. Further, the historical reporting accuracy for events from geotechnical assets is often unsophisticated and relies largely on rough field estimates that may or may not utilize a high degree of accuracy. By evaluating risk along a defined length of roadway rather than at individual points, this geographical uncertainty is reduced in the GAM risk analysis from event tracker data.

The procedures for establishing geotechnical hazard segments in the AGOL are as follows.

- Point hazard locations are assigned to the nearest mile marker using a “round down” function such that any event occurring between MM 17.0 to 17.9, for example, is assigned to a segment designated as MM17.

- Laterally extensive features such as landslides are assigned to each of the roadway segments intersected by the landslide. Thus, the risk potential for a landslide occurring between MM16.9 and 17.3 will be assigned to segments MM16 and 17.

Likelihood

For risk-based GAM, likelihood is defined as the probability that an adverse event will occur in the future. The adverse event can be defined as an occurrence from a geotechnical asset that impacts the performance of the system. This could include isolated and sudden occurrences such as a rockfall reaching the road or debris flows into the ROW or long-term events such as recurring pavement distress from unstable embankments or deterioration of retaining wall elements.

Geotechnical Asset Inventory Sites

To estimate the probability of an adverse event from a geotechnical asset, an expert elicitation workshop was held with representatives from AKDOT&PF, Paul Thompson, Landslide Technology, PanGEO, and Shannon & Wilson. During the workshop, the GAM asset inventory condition states developed by Landslide Technology (2015) were reviewed for each asset class and an estimated probability of an adverse event was assigned based on the condition state score. Each representative was asked to confidentially record their estimate of the number of years between adverse events for the subject asset and condition state. The group scores were averaged into a single value that was then converted into an annualized adverse event probability. The values obtained in the workshop are summarized in Table 1. In the future, these rates can be calibrated to actual performance as data on maintenance work frequencies and event tracking are compiled.

Geotechnical Event Tracker Sites

Because many sites reported in the geotechnical event tracker may not have been formally inspected as of yet, and thus have not received a condition score, probability is estimated based on the frequency of reported events that have occurred at the site in the past 10 years, with the understanding that there likely is an under-reporting of events. A summary of the geotechnical event tracker probability values and the GAM inventory sites is presented in Table 2.

Consequence

The consequences considered in the AKDOT&PF GAM plan are evaluated according to threats in three performance categories: safety, mobility, and maintenance/recovery costs. Example consequences include vehicle damage or traveler injury from an adverse event originating from a geotechnical asset, delay to highway users due to a geotechnical-related road or lane closure, or direct maintenance costs to the department to respond or recover from the event.

The potential consequences of these threats are subjectively categorized according to magnitude (such as low, medium, or high) and a cost value is assigned to each level. Cost values are based on annual statistical data from the AASHTO User and Non-User Benefit Analysis for Highways (AASHTO 2010) or department guidance. The consequence

categories and assigned costs for each performance area (safety, mobility, and maintenance) are discussed below.

Rock Slopes		
Condition State, Condition Index and Action Level	Years between adverse events	Annualized adverse event rate
1- Good (100)	25	4%
2 – Fair (75)	10	10%
3 – Fair (50)	5	18%
4 – Poor (25)	1	63%
5 – Poor (0)	0.5	86%
Retaining Walls		
Condition State, Condition Index and Action Level	Years between adverse events	Annualized adverse event rate
1- Good (100)	75	1%
2 – Fair (75)	25	4%
3 – Fair (50)	10	10%
4 – Poor (25)	5	18%
5 – Poor (0)	1	63%
Soil Slopes and Embankments		
Condition State, Condition Index and Action Level	Years between adverse events	Annualized adverse event rate
1- Good (100)	50	2%
2 – Fair (75)	10	10%
3 – Fair (50)	2	39%
4 – Poor (25)	1	63%
5 – Poor (0)	0.5	86%
Material Sites		
Condition State, Condition Index and Action Level	Years between adverse events	Annualized adverse event rate
1- Good (100)	100	1%
2 – Good (75)	100	1%
3 – Good (50)	100	1%
4 – Fair (25)	10	10%
5 – Poor (0)	1	63%

Table 1: Risk-based GAM Factors from Expert Elicitation Workshop

GAM Inventory Sites			Geotechnical Event Tracker Sites		
Condition Score	Probability			Event Frequency	Probability
	Soil	Rock	Wall		
1	0.004	0.01	0.01	1	0.10
2	0.03	0.04	0.01	2	0.20
3	0.18	0.21	0.04	3	0.63
4	0.42	0.58	0.58	4	0.86
5	0.96	0.87	0.87	5+	0.86

Table 2: Summary of Probability Factors Used in AKDOT Risk-Based GAM.

Safety Threat

The potential safety consequence for GAM inventory sites is based on the Average Vehicle Risk (AVR) score from the existing database. The AVR score is based on a combination of the length of the geotechnical asset, traffic volume, and the travel speed limit at the asset location. Where an AVR value is not present, such as the geotechnical event tracker data, the categories are based on accident data that is attributed to the event and includes the number of fatalities, injuries, and/or vehicles damaged as a result of the hazard event. The assumed safety consequence exposure costs are presented in Table 3 below. The costs are in 2015 dollars based on Thompson (2017).

GAM Inventory AVR Score	Geotechnical Event Tracker Accident Data	Assumed Consequence Exposure Costs
0 to 3	None	\$435
4 to 9	Damage only, 1 vehicle	\$43,500
10 to 27	Damage only, 2+ vehicles	\$152,250
28 to 100	Minor/Moderate Injury	\$217,500
--	Serious Injury	\$326,250
--	Fatality	\$652,500

Table 3: Consequence Exposure Values Used to Represent Safety Threat in the Risk-Based GAM Plan.

Maintenance Threat

The potential maintenance consequence levels for GAM inventory sites are based on the Event Cost Score as recorded during the site inspection. This score may consider several factors such as Maintenance Management System (MMS) data, review of historic records and professional judgement. The Event Cost Score does not include outside contractors or equipment and other AKDOT&PF program expenses such as response and review by department geotechnical staff. Maintenance consequence levels for geotechnical event tracker sites is based on the approximation of actual cost data as reported for individual hazard events; this number represents direct costs to AKDOT&PF to respond and repair damage that occurs from a hazard event. This can include activities that range from debris removal to reconstruction of the roadway and new pavement. The assumed values for maintenance risk exposure are presented in Table 4.

GAM Inventory Sites		Geotechnical Event Tracker Sites
GAM Inventory Event Cost Score	Assumed Maintenance Exposure Costs	Assumed Maintenance Exposure Costs
0 to 3	\$5,000	Actual event costs as reported in the Event Tracker
4 to 9	\$30,000	
10 to 27	\$75,000	
28 to 81	\$175,000	
82 to 100	\$350,000	

Table 4: Consequence Values Used to Represent Maintenance Threat in the Risk-Based GAM Plan.

Mobility Threat

The potential threat to mobility is based on an estimate of the impact to users of the highway system caused by traffic delays or road closures resulting from geohazard events. For GAM inventory sites, the mobility consequence category levels are based on the Impact to Traffic Score recorded during the inspection. This score is based on professional judgement and may incorporate historic information. With the implementation of the geotechnical event tracker, actual closure and delay information is being captured. The assumed time values used to calculate mobility risk exposure are presented in the table below.

GAM Inventory Impact to Traffic Score & Description		Geotechnical Event Tracker Closure Duration		Assumed Closure Values for Risk Calculations	
				Duration	Category
0 to 3	Traffic continues, minor delays	0	None	0	I
		1	Partial, <0.5 hour	n/a	
4 to 9	1-lane open, traffic control	2	Partial, 0.5 to 2 hours	n/a	II
		3	Partial, >2hrs	n/a	
		4	Full, <1 hours	n/a	III
10 to 27	All lanes closed, detour <100 miles or 1 day closed	5	Full, 1 to 6 hours	0.125 days	IV
		6	Full, 6 to 24 hours	0.5 days	
		7	Full, 24 to 72 hours	2 days	
28 to 81	All lanes closed, detour >100 miles or 3 days closed			3 days	
		8	Full, 72 hours to 1 week	5 days	V
82 to 100	More than 3 days			10 days	
		9	Full, 1 week to 1 month	19 days	
		10	Full, >1 month	31 days	

Table 5: Closure Duration Categories Used to Calculate Mobility Threat in the Risk-Based GAM Plan.

Once the closure duration category is determined, the mobility threat costs are calculated based on the variables and assumptions outlined in the table below.

Variable	Assumed Value
Vehicle Operating Costs (VOC)	\$0.207
Travel Time Costs	\$30.50
Occupancy Rate	1.3 persons/vehicle
Annual Average Daily Traffic (AADT)	Specific to each site
Detour Length	Specific to each site (GAM) 150 miles (Event Tracker)
Detour Speed Limit	50 mph
Alternate Travel Costs (e.g., airfare)	\$300

Table 6: Input for the Mobility Risk Exposure Calculation.

Values based on AASHTO, 2010 or department guidance (also see Thompson 2017).

The mobility consequence for GAM inventory sites is categorized according to generalized road closure duration categories as follows:

- Category I: *Mobility Threat = 0*
- Category II: *Mobility Threat = 1/2 x (AADT x VOC)*
- Category III: *Mobility Threat = AADT x VOC*
- Category IV:
 - Mobility Threat = AADT x Closure Duration x [(Detour Length x VOC) + ((Detour Length/Detour Speed Limit) x Travel Time Costs x Occupancy Rate)]*
- Category V:
 - Mobility Threat = AADT x Closure Duration x Occupancy Rate x Alternate Travel Costs*

Geotechnical Asset Risk Exposure Estimation

The incorporation of risk into GAM planning at AKDOT&PF allows the department to consider the magnitude of risk exposure from geotechnical assets that can measurably impact the safety, maintenance needs, or availability of the travel lanes on Alaska’s transportation system. As stated previously, risk is defined as likelihood × consequence and is expressed as an economic risk exposure value. The consequence measures, such as user costs developed from average annual daily traffic counts are used with the probability values to estimate the level of risk exposure. While the reported values are expressed in dollars, it is important to understand that the values are not actual dollars but an adjusted value that approximates the potential economic exposure to AKDOT&PF and the users of the transportation network.

The values should be considered as a relative measure of risk among the geotechnical asset class.

These risk-based GAM calculations for each of the performance areas are discussed in the following sub-sections.

Safety Risk Exposure

The safety risk exposure estimate is determined based on the product of the likelihood that a future geotechnical hazard or adverse event will occur (see Table 2) and the consequence value assigned to the threat level (see Table 3). For GAM inventory sites, safety risk exposures represent the extent of the slope or feature as defined during the inventory for each individual geotechnical asset class (e.g. rock slope, wall, etc). The risk calculation is a function of safety consequence value and probability as shown by the following:

$$\text{Safety Risk} = \text{Safety Consequence Costs} \times \text{Probability}_{(\text{soil, rock or wall})}$$

The estimation of safety risk exposure for data from the GAM event tracker data is based on the aggregation of reported events to the nearest 1-mile highway segment, rather than to a specific slope or feature. In some cases, a single 1-mile highway segment may have been impacted by multiple events and/or multiple types of events, such as rockfall, debris flow, or embankment deterioration. Therefore, the risk equation is more complex as seen below:

$$\text{Safety Risk} = (\text{Sum Safety Consequence Costs}_{(\text{soil})} \times \text{Probability}_{(\text{soil})}) + (\text{Sum Safety Consequence Costs}_{(\text{rock})} \times \text{Probability}_{(\text{rock})}) + (\text{Sum Safety Consequence Costs}_{(\text{wall})} \times \text{Probability}_{(\text{wall})})$$

Maintenance Risk Exposure

The maintenance risk exposure estimate is based on the product of the likelihood that an adverse event will occur from a geotechnical asset (see Table 2) and the resulting direct maintenance cost to the department (see Table 4). As discussed in the safety risk section above, the risk equation for GAM inventory sites represents risk exposure along a specific slope or feature as shown below:

$$\text{Maintenance Risk} = \text{Maintenance Consequence Costs} \times \text{Probability}_{(\text{soil, rock or wall})}$$

For geotechnical assets recorded in the event tracker, data are aggregated to the nearest 1-mile highway segment such that risk exposure is represented by the following equation:

$$\text{Maintenance Risk} = (\text{Sum Maintenance Consequence Costs}_{(\text{soil})} \times \text{Probability}_{(\text{soil})}) + (\text{Sum Maintenance Consequence Costs}_{(\text{rock})} \times \text{Probability}_{(\text{rock})}) + (\text{Sum Maintenance Consequence Costs}_{(\text{wall})} \times \text{Probability}_{(\text{wall})})$$

Mobility Risk

The mobility risk cost value is determined based on the product of the likelihood that an adverse event from a geotechnical asset will occur and impact traveler mobility (see Table 2) and the resulting estimated user costs from the impact (see Table 5 and 6 and Thompson, 2017). The risk exposure equation for GAM inventory sites is shown below:

$$\text{Mobility Risk} = \text{Mobility Consequence Costs} \times \text{Probability}_{(\text{soil, rock or wall})}$$

For sites in the GAM event tracker database, the risk exposure uses a similar approach for the consequence determination and is represented by the following equation which aggregates the exposure from all geotechnical assets into a single value:

$$\text{Mobility Risk} = (\text{Sum Mobility Consequence Costs}_{(soil)} \times \text{Probability}_{(soil)}) + (\text{Sum Mobility Consequence Costs}_{(rock)} \times \text{Probability}_{(rock)}) + (\text{Sum Mobility Consequence Costs}_{(wall)} \times \text{Probability}_{(wall)})$$

Total Geotechnical Asset Exposure Risk

For risk-based GAM, the individual risk exposure values for safety, mobility, and maintenance are an estimate of the magnitude of risk exposure to each performance area from AKDOT&PF geotechnical assets. Of note, the material sites are not included in the total geotechnical asset risk estimation because measurable consequences to mobility and safety are limited or not present. Thus, the total geotechnical asset risk provides a measure for performance from the other three asset classes (rock slopes, unstable slopes and embankments, and retaining walls). This allows the department to prioritize geotechnical asset management decisions based on the desired risk management approach. For example, if safety or mobility risk reduction is desired for the geotechnical asset class, rehabilitation or improvement projects could be developed on the basis of the most favorable safety or mobility life-cycle improvements.

Atkins and Moon (2010) state, “the system performance is based on the performance of the entire set of asset groups working together,” and discuss the need to perform multi-sector asset management to meet goals. By applying risk-based multi-sector (cross-asset) asset management, AKDOT could evaluate the exposure from all assets relative to a performance area such as mobility or safety. In this scenario, AKDOT&PF would evaluate the risk exposure from several assets to work towards the desired goal (e.g. reduced traveler delay) while also minimizing the threat for adverse performance from an omitted asset to hinder the performance improvement. This would compare the risk exposures among geotechnical, bridge, pavement and other asset class.

In the absence of defined TAM goals that direct cross-asset management planning or the prioritization of TAM performance areas, the GAM plan can sum the safety, mobility, and maintenance risk exposures to estimate and compare the total risk exposure from all geotechnical assets, essentially performing a cross-asset analysis within the geotechnical asset class. Through this process, AKDOT would be able evaluate risk from all geotechnical assets based on asset type and at the site, corridor, or state level.

In the future, the sum of the risk exposures could incorporate a weighting factor should the department prioritize performance areas differently (e.g. weighting safety risk reduction higher than maintenance risk reduction). The literature provides a basis for a risk-based prioritization frame work. For example, Boadi and Amekudzi (2013) propose a risk-based corridor asset management framework based on research with Georgia Department of Transportation. As part of the research, a utility score is proposed that can be calculated for a highway segment as a measure of the risk potential associated with the assets on the given segment. Within the risk based utility score, an asset performance weighting is proposed as follows: 0.4 (40%) for safety, 0.3 (30%) for mobility, and 0.3 (30%) for preservation

(maintenance) is proposed. AbouRizk and Siu (2008) present examples of functioning risk-based infrastructure management plans for two municipalities in Canada. These plans aggregated the performance goals for the plan based on the following distribution:

- Safety (33%),
- growth (11%),
- environment (20%),
- replacement cost (20%), and
- services to people (16%).

An outcome of the GAM risk analysis is a risk register for each GAM inventory site or Event Tracker highway segment that estimates the risk exposure to AKDOT&PF with respect to safety, mobility, and direct maintenance threats from geotechnical assets. Appendix A presents a preliminary ranking of geotechnical assets in the asset inventory based on total estimated risk exposure and the risk calculation approaches above. For the geotechnical assets recorded in the event tracker, the risk scores for each performance area were aggregated into a single risk exposure cost for each 1-mile highway segment with a geotechnical asset. The risk reporting for the geotechnical assets in the event tracker can be viewed through the AKDOT&PF AGOL page.

The risk registers discussed above and in Appendix A or the on the AGOL page are in addition to conceptual risk registers that were created earlier in the project as part of the risk framework development. The conceptual risk registers were based on inputs into likelihood and consequence worksheets that would calculate a risk value for each site and/or treatment option under consideration. These conceptual risk registers were presented earlier in the project and intended to inventory and rank geotechnical asset risks at the Region and corridor levels in situations where the geotechnical asset database may not be complete or where there may be value in estimating risk based on an expanded range of consequence areas, such as environmental or department reputation. Additionally, these risk worksheets and registers could be applied at the project and corridor level to estimate the benefit of different treatment options. Additional discussion and examples of the conceptual risk registers are provided in Appendix B.

Level of Risk Measure

To assist with reporting and tracking of geotechnical asset performance, the sum of the risk exposure values can be categorized by magnitude of exposure. For the AKDOT&PF GAM plan, the level of risk (LOR) reporting metric was determined based a summation of the risk costs in each of the three performance areas as follows:

$$LOR = \text{Safety Risk} + \text{Maintenance Risk} + \text{Mobility Risk}$$

The measurement and reporting of this risk is proposed as a letter grade, which is based on a categorical range of monetized total risk exposure as indicated below:

- A – less than \$1,000 risk exposure
- B – \$1,000 to \$5,000 risk exposure
- C – \$5,000 to \$50,000 risk exposure

- D – \$50,000 to \$100,000 risk exposure
- F – greater than \$100,000 risk exposure

The LOR category values were selected based on an assumed department tolerance for differing economic consequence levels for the annual performance of highway segments impacted by geohazards. The underlying exposure in the LOR categories is intended to be an estimate of the economic consequence, considering both direct and indirect costs. The categories could be adjusted at any time based on AKDOT&PF performance and asset management plans.

CHAPTER 3 – LIFE-CYCLE COST AND RISK-MANAGEMENT

Life-Cycle Cost and Risk Management

Overview

Figure 1 is a general representation of the life-cycle cost for rock slopes from the AKDOT&PF GAM Plan (Thompson, 2017). This model and the accompanying models for slopes and walls presented in the GAM plan shows how investment in treatment strategies to reduce deterioration can be less costly over the asset life-cycle when compared with failure and reconstruction.

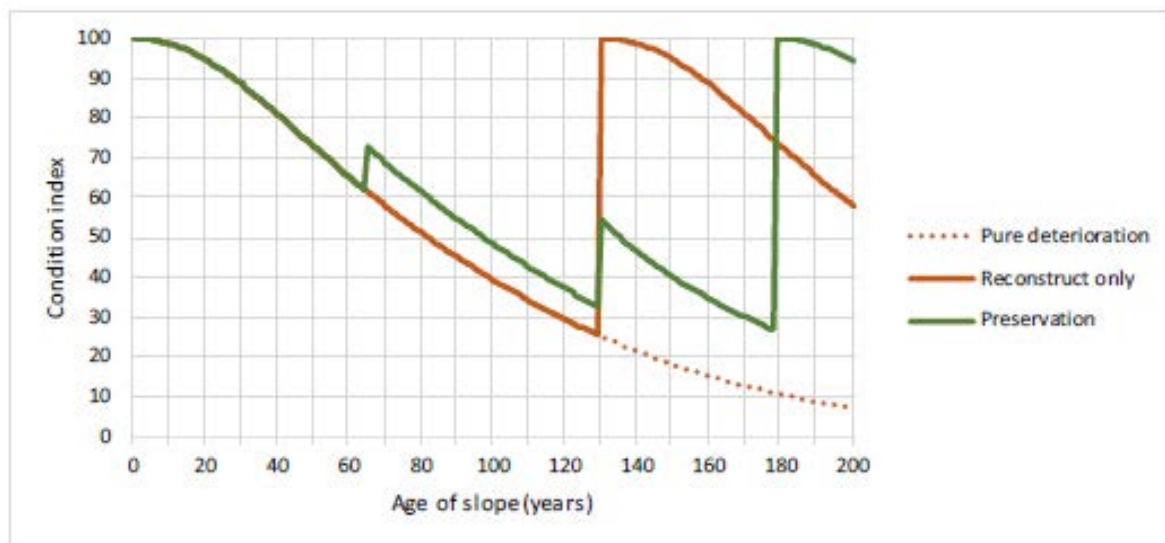


Figure 1: Life-cycle Models for Rock Slopes from Thompson (2017).

As discussed by Thompson (2017), the asset condition data are not yet available for geotechnical assets at this early stage of asset management implementation and thus expert judgement has formed the basis of the current models.

In addition, as discussed in Chapter 1 the geotechnical asset class contains assets that are subject to either physical failure through deterioration processes or natural hazard events. In the context of asset management, the life-cycle model above is assumed to apply more to constructed geotechnical assets, such as cut slopes, embankments, and walls that are within the ROW and whose performance is influenced by design, construction, and maintenance decisions. For these assets, AKDOT&PF can make decisions that influence both the likelihood of adverse events and the consequences. An example of this influence would be selecting the inclination of a cut slope angle during design or the level of effort for maintenance of the cut slope.

For natural hazard features, such as natural rock outcrops, large landslides that initiate beyond the ROW, and debris flow locations such as along the Haines Highway, a continuous deterioration model may not be as reliable without judgment in the near term. For example,

many natural hazard sites have longer-term deterioration rates that are more representative of geologic cycles and the rate of deterioration is not applicable within a transportation planning time horizon. Further, the events from natural hazard sites may have a return period that can be statistically analyzed but not predicted precisely, similar to the recurrence interval associated with storm and earthquake events. In these situations, AKDOT&PF has a limited ability to manage the likelihood of an event from the natural hazard at the geotechnical asset but can manage the consequence to the ROW from the hazard. The debris flows in the Haines Highway are representative of this condition where AKDOT&PF is not able to control the initiation of the events, but can manage the consequences at the ROW through various means.

Thompson (2017) and *Landslide Technology* (2017) discuss the incorporation of life-cycle cost into GAM for AKDOT&PF. The discussion in this report is intended to compliment the work of these other GAM research projects with a focus on the incorporation of risk and the benefits of risk reduction using benefit-cost and return on investment analyses for risk management strategies.

Additionally, a preliminary risk-based life-cycle analysis was completed for the Haines Highway debris flow sites during the research development of this project. The purpose of this work was to evaluate the feasibility of these types of analyses using actual data from within AKDOT&PF. This work was submitted to AKDOT&PF earlier in the project.

Life-Cycle and Cost-benefit Analyses

The business case and potential benefits of GAM can be evaluated at the project level by performing life-cycle cost and/or cost-benefit analyses of various asset treatment options either at project initiation or against the baseline (current) condition. According to Brundle et. al. (2009), cost-benefit analysis is a state of the art practice for evaluating natural hazard mitigation measures in many countries.

The life-cycle and cost-benefit analysis processes will help AKDOT&PF screen geotechnical asset risk management options with the highest return on investment. The treatment options can be considered as the design decisions, construction means and methods, and maintenance practices that lead to various life-cycle performance outcomes for geotechnical assets. For example, the department can quantitatively compare the life-cycle cost for the treatment alternatives for (1) a new a cut slope that would potentially generate rock fall that reaches the road; (2) a gentler slope cut option that does not generate rock fall but requires more ROW; or (3) a retaining wall option that may eliminate the rock fall hazard entirely but at a higher initial cost. Similar analyses can be performed for existing geotechnical assets when evaluating the preferred management approach.

To aid in the GAM project decision investment process, the life-cycle risk cost of the geotechnical asset is estimated using the initial values from risk assessment process in the GAM plan, or based on site specific analysis that is deemed to be more reliable. The life-cycle risk cost can be estimated by determining the present worth value of the current and future risk costs associated with an option. The present worth of future costs are determined using the discount rate which is currently proposed to be 2.1 percent in the GAM plan

(Thompson, 2017). Following the risk-based GAM process, the life-cycle exposure cost can include direct financial costs to AKDOT&PF and user costs associated with safety and mobility performance impacts, such as potential delays, accidents, and injuries resulting from treatment alternatives. Also, while not included in the risk register because of the relatively low contribution to geotechnical asset risk, material site assets can be candidates for life-cycle and cost-benefit analysis at the project level.

If the useful life of an asset has uncertainty, as with many geotechnical assets, judgement should be applied to develop an estimated life-cycle cost over the planning horizon. When comparing options, the life-cycle duration should be equal among the evaluated options. This may require estimation of rehabilitation, renewal, and/or reconstruction costs for certain assets to reach the desired planning duration.

Quantifying the benefits from investment can then be further evaluated through a risk-based cost-benefit analysis, where the benefits are estimated as the reduction in geotechnical asset risk exposure that may result from a treatment option over the evaluation duration. Similar to the life-cycle cost, the analysis determines a discounted present value but also incorporates the benefits generated by the treatment option. The benefits can be considered as equivalent “income” to AKDOT&PF and the network that is realized from investment in mitigation. The income is determined as the difference between the baseline or current life-cycle cost and the proposed life-cycle benefit cost. For example, if a treatment option results in lower recurring maintenance expenses when compared to the current treatment approach, those savings are considered a benefit in the cost-benefit analysis.

An example benefit-cost ratio analysis is provided in Table 7. This analysis compares two risk reduction options with a hypothetical existing baseline condition over a 5-year period at a single geotechnical asset. The analysis provides a means to estimate the return on investment when comparing expected benefits and risk reduction over the life-cycle to the current risk cost. For this hypothetical example, the risk costs for an assumed rockfall site are evaluated against treatment options for instrumentation and monitoring and a scaling project.

The benefit-cost ratio is based on the initial option investment cost to the department (denominator) and the net present value of the option over the life-cycle, which would incorporate user costs and future direct costs. The user costs and future direct costs (e.g. required maintenance) are not included in the initial investment cost because the analysis is evaluating the optimization of the return on current funds, which are not influenced by the future costs.

For the analysis outcome, a benefit-cost ratio (BCR) above 1 can indicate a favorable return on investment and the higher the benefit-cost ratio when compared to other options, the more favorable that option. Based on the analysis in Table 7, Risk Mitigation Option 2 is suggested to have a favorable benefit-cost ratio over maintaining the existing condition and the instrumentation and monitoring option.

The first step in the analysis is to estimate or input the annual risk cost exposures for the existing or proposed design condition. These risk exposures could be obtained using the risk exposure determination process discussed in this report or estimated based on a site-specific analysis. For this assumed example, the estimated annual risk exposure is \$80,000 for risks to safety, mobility, and maintenance direct costs.

For each of the proposed options, a probability of improvement to the risk exposure areas is estimated. For example, the probability of improvement for mobility risk exposure is judged to be 25 percent in the Instrumentation Option 1. This value is based on the assumed condition that monitoring likely does not prevent an event but it does help AKDOT&PF recognize an impending event and, thus, the department is able to better mitigate traffic impacts. However, the event still will happen and require a maintenance response; therefore the maintenance risk exposure is assumed to be unchanged. The scenario presented in Table 7 is provided as a hypothetical example, and it should be noted that cost-benefit analyses would be performed on a project/site-specific basis and through expert elicitation for selection of probability values.

Using the probability values, the estimated annual risk exposure can then be determined for each option and the initial investment and recurring annual direct costs to the department are incorporated into the analysis. The “net benefit/year” is the difference between the annual reduction in risk exposure and expected annual cost that was determined in the life-cycle cost model for the treatment. The “net benefit/year” is then summed to a present worth value over the analysis period (e.g. 5 years in this example) and the initial investment cost is subtracted from the present value. The expected benefit cost ratio is the ratio between the expected net present value for the option and the initial investment cost.

The estimation of benefits in the analysis is based on assumptions for future performance and risk reduction. Thus, projects with a benefit-cost ratio lower than 1 should not be rejected solely based on the benefit-cost ratio value due to uncertainties in the estimation of the broader economic impact to users. However, when comparing treatment options presented in the Table 7 example, the scaling option would be the preferred treatment.

	Annual Risk Exposures			Expected Annual Risk Exposure					
	Safety	Mobility	Maintenance		Option Initial Investment Cost	Option Annual Cost	Net Benefit/Year	5 Year Expected Net Present Value	5 Year Expected Benefit-Cost Ratio
Existing/Baseline GAM Risk Exposure	\$ 5,000	\$ 50,000	\$ 25,000	\$ 80,000					
Proposed Risk Management Treatment Option 1 (e.g. Instrumentation)	Probability of Improvement to Safety Exposure	Probability of Improvement to Mobility Exposure	Probability of Improvement to Maintenance Exposure						
	0.05	0.25	0	\$ 67,250	\$ 50,000	\$ 2,500	\$ 10,250	\$ (1,827)	-0.04
Proposed Risk Management Treatment Option 2 (e.g. scaling)									
	0.25	0.5	0.5	\$ 41,250	\$ 50,000	\$ 1,000	\$ 37,750	\$ 127,418	2.55

Assumes 2.1% annual inflation rate (Thompson, 2017)

Table 7: Benefit-Cost Analysis Example for Treatment Options Over a 5-Year Life-Cycle.

The analysis in Table 7 could be expanded to include multiple options, with variable life-cycle durations and re-investment needs, over a greater duration, such as a 30 or 50-year service life. In such an analysis, the sum of required option investments over the life-cycle would be determined and subtracted from the present value. The conceptual output for a more complex project analysis is presented in Table 8.

Risk-Based Deterioration discussion

The deterioration of geotechnical assets has not been previously measured by AKDOT&PF and the topic also is not well documented in the literature. Deterioration curves discussed in the literature have tended to be only conceptual or hypothetical for geotechnical assets; however, Network Rail in the United Kingdom has begun to develop deterioration estimates for failures occurring on embankments, many of which are greater than 150 years old (Network Rail 2017).

As the geotechnical asset inventories mature, it may be possible to develop deterioration curves for geotechnical assets based on condition, risk exposure, and other metrics. For example, sites can be tracked on the basis of change in condition and or risk with time. The deterioration rates are anticipated to be influenced by factors such as geological material characteristics, natural versus constructed features, weather and climate, and department maintenance practices. Unlike constructed assets that typically deteriorate over years, geotechnical assets, such as unstable slopes and retaining walls, can exhibit both slow and sudden deterioration rates. Thus, a geotechnical asset with an LOR grade of B may experience a condition change that results in a downgrade to LOR D grade in a short period.

In the absence of deterioration data, a failure probability could be estimated for many of the geotechnical assets, especially natural hazard sites. For example, an annual failure rate of 0.001 (1 in 1000) could be assumed for each asset at the network or corridor level for a group of assets to assist in financial planning for significant reconstruction projects that should be anticipated in the future regardless of GAM implementation status.

Risk management alternatives for GAM

The approaches to risk management are often categorized as:

- accept or tolerate,
- treatment,
- transfer, and
- terminate.

Table 8: Example Benefit-Cost Analysis for Hypothetical Treatment Options.

Geotechnical Asset Type				Mitigation Option	Management Option Cost/Segment (Investment)	Probability of improvement in safety risk	Probability of improvement in mobility risk	Probability of improvement in maintenance risk	Service Life of Option (Reinvest Period)	Annualized Maintenance Cost of Option	Existing Annual Safety Risk Exposure	Existing Annual Mobility Risk Exposure	Existing Annual Maintenance Risk Exposure	Expected Annual Risk Exposure	5 year expected BCR Ratio	5 year Expected NPV (2.1% rate)	20 year expected BCA Ratio	20 year Expected NPV (2.1% rate)	Year 0 & Future needed reinvestment cost	"net benefit/year" (e.g. "income" to AKDOT&PF that is realized from investment in mitigation [lower risk exposure and					
Landslide	Debris Flow	Rockfall	Rockslide																	1	6	11	15	16	20
x	x	x	x	Instrumentation	\$ 50,000	0.05	0.25	0	5	\$ 2,500	\$ 5,000	\$ 50,000	\$ 25,000	\$ 67,250	-0.04	(\$1,827)	-0.08	(\$3,780)	\$ 50,000	\$ 10,250	\$(39,750)	\$(39,750)	\$ 10,250	\$(39,750)	\$ 10,250
		x		Rockfall Scaling	\$ 50,000	0.25	0.5	0.5	5	\$ 1,000	\$ 5,000	\$ 50,000	\$ 25,000	\$ 41,250	2.55	\$127,418	8.83	\$441,575	\$ 50,000	\$ 37,750	\$(12,250)	\$(12,250)	\$ 37,750	\$(12,250)	\$ 37,750
	x	x	x	Barriers/Fences	\$ 1,000,000	0.75	0.9	0.25	20	\$ 2,000	\$ 5,000	\$ 50,000	\$ 50,000	\$ 43,750	-0.72	(\$721,536)	-0.04	(\$40,462)	\$ 1,000,000	\$ 59,250	\$ 59,250	\$ 59,250	\$ 59,250	\$ 59,250	\$ 59,250
	x	x	x	Realignment	\$ 10,000,000	0.99	0.99	0.99	75	\$ 10,000	\$ 5,000	\$ 50,000	\$ 50,000	\$ 1,050	-0.96	(\$9,558,453)	-0.85	(\$8,478,505)	\$10,000,000	\$ 93,950	\$ 93,950	\$ 93,950	\$ 93,950	\$ 93,950	\$ 93,950
x				Drains	\$ 100,000	0.5	0.5	0.5	15	\$ 1,000	\$ 500	\$ 50,000	\$ 50,000	\$ 50,250	1.31	\$131,466	6.24	\$624,373	\$ 100,000	\$ 49,250	\$ 49,250	\$ 49,250	\$(50,750)	\$ 49,250	\$ 49,250
x		x	x	Full Stabilization	\$ 2,000,000	0.99	0.99	0.9	50	\$ 1,000	\$ 5,000	\$ 50,000	\$ 50,000	\$ 5,550	-0.77	(\$1,537,304)	-0.20	(\$405,629)	\$ 2,000,000	\$ 98,450	\$ 98,450	\$ 98,450	\$ 98,450	\$ 98,450	\$ 98,450
				Assumptions:																					
				Where presented \$1000 annual cost is for routine inspection																					
				Annual inflation rate of 2.1% based on Thompson (2017)																					
				Values are assumed for the purpose of concept illustration																					

The historical practice for AKDOT&PF has involved accepting the consequences from all sites and occasionally treatment of high hazard or high risk sites through reactive projects after a significant event or proactive work when funds are available for improvement. The frequent types of treatment options for geotechnical assets has ranged from variable monitoring and inspection frequencies, response activities performed by Maintenance personnel, urgent or emergency repair work (rehabilitation), and larger scale hazard mitigation projects (reconstruction) projects. Following an asset management framework, future selection of treatment options at the project level can occur through a trade-off analysis using the cost-benefit process discussed previously. Additional discussion on risk-based geotechnical asset management treatment alternatives is below.

Risk acceptance

AKDOT&PF currently accepts all the risks from geotechnical assets consisting of constructed geotechnical assets and geological hazards (natural hazards) that can impact the department performance. By initiating risk-based geotechnical asset management, the department will have the means to quantify risk exposure to different TAM performance areas and implement risk-informed decision making for design and maintenance activities. At a minimum, the risk-exposures will inform AKDOT&PF staff as to the distribution in risk exposure for the geotechnical assets, both geographically and for different TAM performance areas related to safety, mobility, and direct costs associated with maintenance and recovery work.

Low cost, recurring risk treatments

Low cost risk treatments are defined as those treatments with a relatively low initial cost that can provide a measurable reduction in risk exposure from geotechnical assets. While these treatments may have a low initial cost, the mitigation duration can be shorter and/or exemption from typical design guidelines may be required. Thus, the life-cycle cost will need to be estimated and compared with other treatment options to determine the feasibility for TAM performance improvements over the evaluation period. Low cost treatments should be evaluated on a project specific basis.

Example treatments and considerations are provided below.

- Groundwater drains (excavated or drilled) in landslides and embankments - The use of groundwater drains has been shown to provide improvement in slide masses; however, the level of improvement is typically still below the guidance factor of safety values. Additionally, drains may require cleaning, maintenance, or replacement. These life cycle and design trade-offs should be compared with more substantial approaches to stabilization.
- Site specific, specialty maintenance plans such as asphalt repair programs and rockfall catchment cleaning - The frequency of impact to asphalt and ditches from geotechnical assets will typically be higher than other areas without geotechnical asset risk. While there are higher direct costs with more aggressive maintenance

treatments in these areas, there may be improved safety or mobility benefits that could be compared with continued levels of maintenance or larger mitigation projects.

- Aggressive erosion control mitigation such as protection of slaking shales or brow stabilization – Erosion of slopes can result in increased deterioration rates for slopes. By performing erosion control projects, the department may be able to increase the service life of some slope assets,
- Instrumentation and monitoring programs – Increased monitoring of geotechnical assets can inform the department about the rates of change for certain sites. With such data from monitoring and/or instrumentation, AKDOT&PF may be able to improve the management of the consequences from an event, which can reduce risk exposure.
- Scaling of rock slopes – A rockfall scaling program may allow the department to reduce the hazard of some slopes; however, scaling treatments will likely be a recurring process that would need to be evaluated against other longer-term life-cycle treatments.

Long-term risk reduction treatments

Construction of full-scale mitigation projects typically will provide the highest-level treatment for hazard and risk reduction of geotechnical assets. While these treatments tend to have high initial costs, there can be significant safety and life-cycle cost improvements that can be evaluated through a beneficial cost analysis process at the project level. Example projects could include landslide stabilization, roadway alignment changes, rockfall protection devices, and geotechnical asset reconstruction to a higher design standard.

Risk transfer

Transfer of risk has not been considered previously and may involve approaches such as transferring responsibility of select geotechnical assets to others or incorporation of insurance alternatives. Additionally, a transfer approach could involve directing geotechnical design standards to address treatment of physical failure and natural hazards up to only a certain recurrence interval (for example, 100-year flood events). Risks resulting from events larger than the design event would be the responsibility of others.

Options for risk transfer can be considered at the project specific level and would likely require input from other programs such as maintenance and executive management.

Risk avoidance/termination

Risk avoidance examples would include abandoning portions of the network or limiting travel in certain corridors (to reduce safety risk). If possible avoidance of risk could be considered; however, avoidance or termination opportunities appear limited at this time given the AKDOT&PF mission.

Cross-asset risk management opportunities

There may be opportunities for risk management and treatments to be shared with other transportation assets. For example, there can be locations where risks from avalanches and rockfall sites can utilize similar treatments, or where pavement performance is influenced by

both deterioration of pavement and poor subgrades. In these scenarios, the benefit-cost analysis may not be favorable for a single group, however when the costs are shared between programs the favorability will improve. Also, the available geospatial data for risks from geotechnical assets could be compared with geospatial data from other asset groups to identify concentrations of high TAM risk. Through this analysis, project planning could be directed at reducing risk exposure for more than one asset group with the benefit of direct cost savings to multiple asset owners and improved performance metrics across multiple asset categories.

Example cross-asset risk management opportunities could include:

- Cost sharing of specialty maintenance with other AKDOT&PF activities such as ditch and culvert cleaning or wall and bridge sealing.
- Partnering with local or other governmental entities

CHAPTER 4 - CONCLUSIONS AND SUGGESTED RESEARCH

Conclusions

Risk-based asset management at AKDOT&PF allows the department to measure and compare risk among TAM performance areas such as safety, mobility and economic vitality, and direct financial consequences associated with asset conditions. The risk can be aggregated and evaluated based on total geotechnical asset risk exposure or could be separated into separate performance risks to safety, mobility, and direct department costs. Further risk can be evaluated by individual geotechnical asset type, such as slopes or walls, if desired. These uses and resulting benefits of GAM are supported by literature across industries and internationally.

Throughout the research project, several approaches were proposed for the inventory, assessment, and measurement of risk associated with geotechnical assets. These risk frameworks can range from conceptual approaches that are based on new input data from a user using a common terminology (as reviewed in Appendix B to approaches that utilize existing data in the AKDOT&PF database or are based on actual event tracking data.

The proposed risk frameworks presented in this report were developed based on two existing data inventory sources. The first approach is based on collected condition data in the existing GAM inventory databases for unstable slopes, retaining walls, and material sites. The risk register developed from this database is provided in Appendix A. It should be noted that material sites were not carried into the risk register because the estimated risks were relatively low or not directly comparable with slope and wall asset types which have impacts to mobility and safety.

A second framework was developed based on ongoing frequency and magnitude data from geotechnical sites that are captured in the AKDOT&PF event tracker, which may or may not exist in the existing GAM databases. The output generated from this framework is presented online at the AGOL site and also provides a real-time perspective on geotechnical asset risk as new events are added to the inventory. For each framework, AKDOT&PF can geographically view sites and concentrations of sites (corridors) based on risk exposure magnitude.

AKDOT&PF can quantitatively compare several alternatives for the management of GAM on the basis of risk and life-cycle costs. The risk management alternatives can be compared at the project level using life-cycle cost estimates and risk-based benefit-cost analyses that consider probabilistic improvements to safety, mobility, and financial performance over the life-cycle.

Suggested Research

Based on overall progress of TAM development throughout the United States, as well as specific GAM progress reported by Network Rail (2017) and natural hazard mitigation in Switzerland (Bründl, et. al., 2009), geotechnical asset management for AKDOT&PF should be implemented as a continuous process that evolves and matures with more management

experience. Further, GAM can be a favorable business practice for financial and risk improvement when incorporating project level risk-based life-cycle and benefit cost analysis. Thus, GAM can be adopted with AKDOT&PF in the absence of Federal requirements and based on cost and risk improvements over the network life-cycle.

To support the continued progress of risk-based GAM for AKDOT&PF the following research topics are suggested. Of note, Thompson (2017) and Landslide Technology (2017) also recommend future research topics that should be considered in concert with these suggestions.

1. Review data to establish the distribution and magnitude of risk exposure from geotechnical assets both in and beyond the ROW.
2. Differentiate the source of measurable risk for geotechnical assets between the physical failure/deterioration of constructed geotechnical assets and events that originate from geologic hazards sites.
3. For Topics 1 and 2 above, perform project-level risk-based benefit cost analysis for high risk assets beyond the ROW that have a natural hazard risk source. Evaluate total risk and determine if cost-benefit ratios to AKDOT&PF could be improved through mitigation cost sharing with other entities, similar to the PLANAT program in Switzerland. This research item would investigate the potential for cost and risk sharing among those other than only AKDOT&PF. Other entities may include Alyeska Pipeline Service Company, Federal Land Management Agencies, municipalities, insurance companies, and railroad operators.
4. Based on the outcome results from Topic 2 above, develop project level risk-based design and maintenance guidance for natural hazard geotechnical assets based on an acceptable failure likelihood or condition that is documented through consensus with stakeholders. Communicate the results to the public to demonstrate how AKDOT&PF is mitigating broader economic risk to a certain level.
5. Perform ongoing programing improvements to the AKDOT&PF AGOL based Event Tracker and work with staff and other stakeholders to improve data input reliability across the state. In support of this task, develop reporting metrics that track adoption of the Event Tracker use and number of events recorded versus estimated events in select corridors (e.g. reporting frequency). Evaluate the feasibility of incorporating mobile data from traveling public affected by adverse geotechnical asset performance.
6. Complete project level risk-based benefit-cost alternative analyses for all future geotechnical asset management projects and evaluate actual performance improvements with predicted improvements.
7. Develop condition deterioration and LOR rate of change guidance based on ongoing GAM performance data at the asset site level.

8. Investigate the potential for risk transfer options associated with geotechnical assets. These options could include maintenance and operation contracts for geotechnical assets, devolution of assets to others, and insurance options for select risk sources and thresholds. These practices are not common but should not be eliminated from a risk management plan until the options have been evaluated further.
9. Develop cost-benefit models that incorporate investment from other assets as a means of showing favorable investment scenarios for both asset groups. For example, an annual ditch cleaning program can show benefit to both slope and culvert asset performance. The cost-benefit ratio at the individual asset level will be improved in this scenario if the investment is shared, thus resulting in a higher cost-benefit ratio (e.g. the benefit is realized at a lower program level investment).

REFERENCES

- AbouRizk, S.M., and Siu, K.L., 2008, Standardized Risk Analysis for Infrastructure Assessment, Infrastructure Reporting and Asset Management, Best Practices and Opportunities, p 131-140. American Society of Civil Engineers.
- American Association of State Highway and Transportation Officials (AASHTO) (2011). Transportation Asset Management Guide: A Focus on Implementation.
- Atkins, A. E. and Moon, F. L., 2010, Mitigating infrastructure performance failures through risk-based asset management, in Frangopol, D. M.; Sause, Richard; and Kusko, C. S., eds., International Conference on Bridge Maintenance, Safety and Management, 2010, Philadelphia, Penn., Proceedings: Boca Raton, Fla., CRC.
- Austrroads (2016) BA2057-DraftV2. Data Standard for Road Management and Investment in Australia and New Zealand: Draft 1 Version 2. Sydney, Austrroads.
- Boadi, R. S. and Amekudzi, A. A., 2013, Risk-based corridor asset management: applying multi-attribute utility theory to manage multiple assets, in Transportation Research Board 2013 Annual Meeting, Proceedings: Washington, D. C., TRB, paper 13-3319, 21 p.
- Bründl, M., H.E. Romang, N. Bischof, and C.M. Rheinberger, 2009. The Risk Concept and its Application in Natural Hazard Risk Management in Switzerland. Natural Hazards and Earth System Sciences.
- Connelly, E. B.; Thorisson, Heimir; Valverde, Jr., L. J.; and Lambert, J. H., 2017. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, part A: civil engineering, v. 2, no. 4, paper no. 04016001
- FHWA, 2012a. Risk-Based Transportation Asset Management: Evaluating Threats, Capitalizing on Opportunities: Report 1. US Federal Highway Administration Report FHWA-HIF-12-035, 2012.
- FHWA, 2012b. Risk-Based Transportation Asset Management: Evaluating Threats, Capitalizing on Opportunities: Literature Review. US Federal Highway Administration Report FHWA-HIF-12-036, 2012.
- Halpin, Eric, Deputy for Dam and Levee Safety for the Army Corps of Engineers, Engineering News-Record, May 17, 2017, Comment provided in “Dam Worries Resurface after Oroville Scare.”
- Landslide Technology, 2017, Statewide Geotechnical Asset Management Program Development: Rock Slopes, Unstable Soil Slopes and Embankments, Retaining Walls, and Material Sites – Final Report. AKDOT&PF Report No. STP4000(126)(A) (in preparation).

Landslide Technology, 2015, Draft Interim Report for Statewide Geotechnical Asset Management Program Development, March 30. AKDOT Geotechnical Asset Management Program Development

Network Rail, 2017. Earthworks Asset Policy. Issue 7, March 2017, Network Rail Infrastructure, Milton Keynes, United Kingdom.

Perry, J.G; Pedley, Martin; and Reid, M. 2003. Infrastructure embankments – condition appraisal and remedial treatment London: Construction Industry Research and Information Association, publication C592.

Thompson, Paul D., 2017. Geotechnical Asset Management Plan, Technical Report. Report STP000S(802)(B). Prepared for the Alaska Department of Transportation and Public Facilities, June 30, 2017.

USACE, 2017 : <http://www.usace.army.mil/Media/Fact-Sheets/Fact-Sheet-Article-View/Article/590578/dam-safety-facts-and-figures/>

APPENDIX A – PRELIMINARY RANKING OF GEOTECHNICAL ASSETS IN GAM ASSET INVENTORY

The following table contains a risk register presenting the estimated risk scores developed from the data contained in the AKDOT&PF geotechnical asset inventory. The process and calculations for estimating the geotechnical asset risk is presented in Chapter 2.

The presented risk inventory currently contains 411 retaining walls, 963 rock slopes, and 512 unstable soil slopes with complete assessment data. The table is based on data provided from Landslide Technology in January and March of 2017.

Table Components

Descriptions for the column heading fields in the risk register table are provided below. Discussion on the calculations for geotechnical asset risk based on the database is provided in Chapter 2.

Feature ID

This is the GAM site identification number in the database.

Highway

AKDOT&PF highway corridor identification name provided in the database.

Highway MP and CDS MP

AKDOT milepost and CDS milepoints for GAM sites in database.

Latitude and Longitude

Geographic coordinates of GAM sites in database.

Type

Geotechnical asset class incorporated into the risk analysis, including unstable soil slopes and embankments ("Soil"), rock slopes ("Rock"), and retaining walls ("Walls").

Condition

Assessed condition of asset in database on a scale of 1 to 5. Condition of 1 is assigned subjective term of Good, condition of 2 and 3 is termed Fair, and condition of 4 and 5 is termed Poor.

Likelihood/Probability

Geotechnical asset analysis probability value assigned to site based on condition score (see Table 2, Chapter 2).

Average Vehicle Risk

AVR value from geotechnical asset database used for estimate of GAM safety risk.

Safety Threat Cost

Consequence cost assigned to the GAM safety risk calculation based on AVR score (see Table 3, Chapter 2).

Maint. Event

Maintenance consequence score used in estimating the maintenance direct cost for recovery (see Table 4, Chapter 2).

Maint. Threat Cost

Maintenance consequence cost assigned to the site based on maintenance consequence score.

Impact Traffic

Score used in GAM mobility risk estimate based on Impact to Traffic score contained in database and determined during site assessment (see Table 5, Chapter 2).

Delay

Delay category assigned to site based on Impact to Traffic score.

AADT

Average annual daily traffic value contained in database.

Detour

Detour score assigned to site based on assessment of detour magnitude that would result from event.

Det. Lgth

Length of detour assigned to site based on the detour score.

Det. Days

Number of detour days assigned to the site based on the Impact to Traffic score.

Mobility Cost

Consequence cost used in mobility risk calculation and determined from Impact to Traffic scores and AADT (Tables 5 and 6, Chapter 2).

Risk

Estimated GAM risk cost based on safety, mobility, and maintenance consequence values multiplied by the probability score for each site.

LOR

Level of Risk category assigned to each site based on risk cost magnitude (see Page 21, Chapter 2).

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
1900000115552010	RICHARDSON HIGHWAY	112.7	115.55	62.0833	-145.44	Soil	4	0.42	2	\$ 435	100	\$ 350,000	100	Catastrophic	1732	Complex	500	10	\$ 6,676,800	\$ 2,954,402.23	F
680000001102010	REZANOF DRIVE	1.1	4.8	57.7836	-152.43	Rock	4	0.58	24	\$ 152,250	90	\$ 350,000	75	Critical	4930	Complex	500	3	\$ 7,395,000	\$ 4,545,871.54	F
1300000108222010	SEWARD HIGHWAY	109.1	108.22	61.0028	-149.66	Rock	3	0.21	100	\$ 217,500	27	\$ 75,000	55	Critical	8270	Complex	500	3	\$ 12,405,000	\$ 2,616,667.05	F
1300000107732010	SEWARD HIGHWAY	108.6	107.73	60.9995	-149.65	Rock	3	0.21	38	\$ 217,500	27	\$ 75,000	65	Critical	8270	Complex	500	3	\$ 12,405,000	\$ 2,616,667.05	F
2980000018442010	HAINES HIGHWAY	18.89	18.44	59.3734	-135.83	Soil	5	0.96	2	\$ 435	100	\$ 350,000	81	Critical	435	Complex	500	3	\$ 652,500	\$ 959,584.22	F
1350000104412010	GLENN HIGHWAY	112.8	104.41	61.8077	-147.52	Soil	5	0.96	2	\$ 435	81	\$ 175,000	81	Critical	1210	Long	50	3	\$ 181,500	\$ 341,506.87	F
2915000003972010	NORTH TONGASS	6.22	3.97	55.3993	-131.72	Soil	5	0.96	2	\$ 435	9	\$ 30,000	27	Major	5050	Complex	500	0.5	\$ 1,262,500	\$ 1,237,049.28	F
2915000004072010	NORTH TONGASS	6.32	4.07	55.4004	-131.72	Soil	5	0.96	1	\$ 435	9	\$ 30,000	27	Major	5050	Complex	500	0.5	\$ 1,262,500	\$ 1,237,049.28	F
1700000182782010	PARKS HIGHWAY	218.55	182.78	63.4908	-148.82	Soil	4	0.42	12	\$ 152,250	27	\$ 75,000	60	Critical	2193	Long	50	3	\$ 328,950	\$ 233,838.56	F
2980000022552010	HAINES HIGHWAY	23.1	22.55	59.4089	-135.92	Soil	5	0.96	1	\$ 435	27	\$ 75,000	81	Critical	415	Complex	500	3	\$ 622,500	\$ 667,767.51	F
2980000022552010	HAINES HIGHWAY	23.1	22.55	59.4089	-135.92	Soil	5	0.96	1	\$ 435	27	\$ 75,000	81	Critical	415	Complex	500	3	\$ 622,500	\$ 667,767.51	F
2955000005302010	SAWMILL CREEK ROAD	5.3	4.9	57.0436	-135.23	Rock	4	0.58	2	\$ 435	15	\$ 75,000	50	Critical	706	Complex	500	3	\$ 1,059,000	\$ 653,011.59	F
1350000078522010	GLENN HIGHWAY	85.7	78.52	61.8065	-148.23	Rock	4	0.58	2	\$ 435	8	\$ 30,000	50	Critical	1430	Long	50	3	\$ 214,500	\$ 140,991.24	F
1300000110372010	SEWARD HIGHWAY	111.3	110.37	61.0142	-149.72	Rock	3	0.21	100	\$ 217,500	25	\$ 75,000	20	Major	8270	Complex	500	0.5	\$ 2,067,500	\$ 486,342.53	F
1530000057992010	ELLIOTT HIGHWAY	60.97	57.99	65.474	-148.36	Soil	5	0.96	8	\$ 43,500	81	\$ 175,000	9	Minor	402	Complex	500	0.25	\$ 83	\$ 209,135.19	F
1300000106062010	SEWARD HIGHWAY	106.8	106.06	60.9848	-149.61	Rock	3	0.21	72	\$ 217,500	9	\$ 30,000	20	Major	8270	Complex	500	0.5	\$ 2,067,500	\$ 477,069.05	F
1323150005902010	WHITTIER ACCESS ROAD	5.9	5.9	60.7854	-148.83	Rock	5	0.21	3	\$ 435	100	\$ 350,000	81	Critical	1080	Complex	500	3	\$ 1,620,000	\$ 406,062.01	F
1700000203622010	PARKS HIGHWAY	239.25	203.62	63.7542	-148.9	Rock	4	0.58	14	\$ 152,250	9	\$ 30,000	27	Major	3094	Long	50	0.5	\$ 77,350	\$ 149,432.81	F
1980000018392010	EDGERTON HWY-MCCAR	18.27	18.39	61.5334	-144.38	Soil	5	0.96	5	\$ 43,500	25	\$ 75,000	27	Major	182	Complex	500	0.5	\$ 45,500	\$ 156,911.28	F
2915000000822010	NORTH TONGASS	3.06	0.82	55.3624	-131.71	Rock	4	0.58	30	\$ 217,500	3	\$ 5,000	9	Minor	9372	Complex	500	0.25	\$ 1,940	\$ 129,193.76	F
2500000113182010	TAYLOR HIGHWAY	114.8	113.18	64.3361	-141.42	Soil	5	0.96	1	\$ 435	27	\$ 75,000	81	Critical	90	Complex	500	3	\$ 135,000	\$ 201,339.17	F
2500000120792010	TAYLOR HIGHWAY	122.53	120.79	64.4109	-141.39	Soil	5	0.96	1	\$ 435	27	\$ 75,000	81	Critical	90	Complex	500	3	\$ 135,000	\$ 201,339.17	F
1530000051402010	ELLIOTT HIGHWAY	53.7	51.4	65.429	-148.24	Soil	5	0.96	4	\$ 43,500	27	\$ 75,000	9	Minor	595	Complex	500	0.25	\$ 123	\$ 113,495.81	F
1980000047082010	EDGERTON HWY-MCCAR	13.27	47.08	61.5169	-144.43	Soil	5	0.96	1	\$ 435	27	\$ 75,000	27	Major	466	Complex	500	0.5	\$ 116,500	\$ 183,638.82	F
1350000107132010	GLENN HIGHWAY	115.5	107.13	61.8208	-147.44	Soil	4	0.42	33	\$ 217,500	9	\$ 30,000	3	Negligible	1210	Long	50	0	\$ -	\$ 104,054.38	F
2940000005472010	MITKOF HIGHWAY	6.31	5.47	56.737	-132.94	Soil	5	0.96	1	\$ 435	9	\$ 30,000	27	Major	800	Complex	500	0.5	\$ 200,000	\$ 220,474.70	F
2980000026222010	HAINES HIGHWAY	26.64	26.22	59.4168	-136.01	Rock	3	0.21	2	\$ 435	81	\$ 175,000	65	Critical	415	Complex	500	3	\$ 622,500	\$ 164,436.32	F
2500000112502010	TAYLOR HIGHWAY	114.1	112.5	64.3268	-141.42	Soil	5	0.96	1	\$ 435	9	\$ 30,000	81	Critical	90	Complex	500	3	\$ 135,000	\$ 158,284.25	F
2500000112592010	TAYLOR HIGHWAY	114.2	112.59	64.3276	-141.42	Soil	5	0.96	1	\$ 435	9	\$ 30,000	81	Critical	90	Complex	500	3	\$ 135,000	\$ 158,284.25	F
2500000114162010	TAYLOR HIGHWAY	115.8	114.16	64.3459	-141.41	Soil	5	0.96	1	\$ 435	9	\$ 30,000	81	Critical	90	Complex	500	3	\$ 135,000	\$ 158,284.25	F
2500000116602010	TAYLOR HIGHWAY	118.3	116.6	64.3726	-141.42	Soil	5	0.96	1	\$ 435	9	\$ 30,000	81	Critical	90	Complex	500	3	\$ 135,000	\$ 158,284.25	F
2500000116712010	TAYLOR HIGHWAY	118.4	116.71	64.3731	-141.42	Soil	5	0.96	1	\$ 435	9	\$ 30,000	81	Critical	90	Complex	500	3	\$ 135,000	\$ 158,284.25	F
2500000117622010	TAYLOR HIGHWAY	119.3	117.62	64.385	-141.41	Soil	5	0.96	1	\$ 435	9	\$ 30,000	81	Critical	90	Complex	500	3	\$ 135,000	\$ 158,284.25	F
2500000117772010	TAYLOR HIGHWAY	119.45	117.77	64.3861	-141.41	Soil	5	0.96	1	\$ 435	9	\$ 30,000	81	Critical	90	Complex	500	3	\$ 135,000	\$ 158,284.25	F
2500000120602010	TAYLOR HIGHWAY	122.35	120.6	64.4093	-141.39	Soil	5	0.96	1	\$ 435	9	\$ 30,000	81	Critical	90	Complex	500	3	\$ 135,000	\$ 158,284.25	F
2980000017102010	HAINES HIGHWAY	17.55	17.1	59.3613	-135.79	Soil	5	0.96	1	\$ 435	6	\$ 30,000	27	Major	435	Complex	500	0.5	\$ 108,750	\$ 133,168.88	F
2980000019502010	HAINES HIGHWAY	19.97	19.5	59.3808	-135.84	Soil	5	0.96	1	\$ 435	9	\$ 30,000	27	Major	435	Complex	500	0.5	\$ 108,750	\$ 133,168.88	F
1100000012092010	STERLING HIGHWAY	48.9	12.09	60.4877	-149.84	Rock	3	0.18	2	\$ 435	27	\$ 75,000	15	Major	3212	Complex	500	0.5	\$ 803,000	\$ 159,233.25	F
1100000009172010	STERLING HIGHWAY	45.99	9.17	60.4946	-149.76	Rock	3	0.21	1	\$ 435	3	\$ 5,000	20	Major	3490	Complex	500	0.5	\$ 872,500	\$ 180,922.51	F
1100000021092010	STERLING HIGHWAY	57.52	21.09	60.4842	-150.1	Rock	3	0.21	1	\$ 435	3	\$ 5,000	27	Major	2981	Complex	500	0.5	\$ 745,250	\$ 154,699.17	F
2980000020602010	HAINES HIGHWAY	21.08	20.6	59.3912	-135.86	Soil	5	0.96	1	\$ 435	3	\$ 5,000	20	Major	435	Complex	500	0.5	\$ 108,750	\$ 109,249.48	F
1300000057942015	SEWARD HIGHWAY	58.55	57.94	60.7602	-149.39	Wall	3	0.04	2	\$ 435	27	\$ 75,000	50	Critical	3510	Complex	500	3	\$ 5,265,000	\$ 198,295.32	F
1700000311702010	PARKS HIGHWAY	349.85	311.7	64.8191	-148.03	Soil	4	0.42	10	\$ 152,250	27	\$ 75,000	9	Minor	2353	Moderate	25	0.25	\$ 487	\$ 95,745.61	D
1530000052372010	ELLIOTT HIGHWAY	54.76	52.37	65.4421	-148.24	Soil	4	0.42	12	\$ 152,250	27	\$ 75,000	9	Minor	595	Complex	500	0.25	\$ 123	\$ 95,592.62	D
2300000040462010	TOK CUTOFF HIGHWAY	41.17	40.46	62.6514	-144.5	Soil	4	0.42	11	\$ 152,250	27	\$ 75,000	3	Negligible	390	Long	50	0	\$ -	\$ 95,540.84	D
1500000012052010	DALTON HIGHWAY	11.96	12.05	65.573	-148.94	Soil	4	0.42	12	\$ 152,250	27	\$ 75,000	3	Negligible	288	Complex	500	0	\$ -	\$ 95,540.84	D
1700000181792010	PARKS HIGHWAY	217.5	181.79	63.476	-148.82	Soil	4	0.42	38	\$ 217,500	3	\$ 5,000	9	Minor	2193	Long	50	0.25	\$ 454	\$ 93,734.68	D
1900000214822010	RICHARDSON HIGHWAY	211.91	214.82	63.3295	-145.73	Soil	5	0.96	1	\$ 435	27	\$ 75,000	27	Major	356	Long	50	0.5	\$ 8,900	\$ 80,689.71	D
1350000068252010	GLENN HIGHWAY	75.4	68.25	61.772	-148.51	Rock	4	0.58	2	\$ 435	27	\$ 75,000	25	Major	1393	Long	50	0.5	\$ 34,825	\$ 63,468.65	D
1350000069472010	GLENN HIGHWAY	77.1	69.47	61.7764	-148.48	Rock	4	0.58	2	\$ 435	25	\$ 75,000	20	Major	1393	Long	50	0.5	\$ 34,825	\$ 63,468.65	D
1530000033112010	ELLIOTT HIGHWAY	35.17	33.11	65.253	-148.16	Soil	5	0.96	3	\$ 435	27	\$ 75,000	9	Minor	595	Complex	500	0.25	\$ 123	\$ 72,292.24	D
1530000034942010	ELLIOTT HIGHWAY	37.12	34.94	65.2773	-148.13	Soil	5	0.96	3	\$ 435	27	\$ 75,000	9	Minor	595	Complex	500	0.25	\$ 123	\$ 72,292.24	D
15300000560202010	ELLIOTT HIGHWAY	70.47	65.6	65.5068	-148.59	Soil	5	0.96	3	\$ 435	27	\$ 75,000	9	Minor	402	Complex	500	0.25	\$ 83	\$ 72,254.02	D
1530000011092010	ELLIOTT HIGHWAY	11.96	11.09	65.093	-147.73	Soil	5	0.96	2	\$ 435	27	\$ 75,000	3	Negligible	595	Complex	500	0	\$ -	\$ 72,174.40	D
1530000046102010	ELLIOTT HIGHWAY	48.32	46.1	65.3672	-148.26	Soil	5	0.96	1	\$ 435	27	\$ 75,000	3	Negligible	595	Complex	500	0	\$ -	\$ 72,174.40	D
1530000067952010	ELLIOTT HIGHWAY	72.93	67.95	65.49	-148.65	Soil	5	0.96	1	\$ 435	27	\$ 75,000	3	Negligible	402	Complex	500	0	\$ -	\$ 72,174.40	D
1530000000822010	ELLIOTT HIGHWAY	0.94	0.82	64.9699	-147.63	Soil	5	0.96	9	\$ 43,500	9	\$ 30,000	9	Minor	1075	Complex	500	0.25	\$ 223	\$ 70,535.95	D
2914000001962010	SOUTH TONGASS	0	1.96	55.3427	-131.65	Rock	3	0.21	100	\$ 217,500	9	\$ 30,000	9	Minor	17881	Moderate	25	0.25	\$ 3,701</		

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
2995200005832010	SKAGWAY-DYEA ROAD	5.8	5.83	59.4929	-135.35	Rock	3	0.21	1	\$ 435	20	\$ 75,000	65	Critical	240	Complex	500	3	\$ 360,000	\$ 89,733.29	D
2980000014502010	HAINES HIGHWAY	14.96	14.5	59.3388	-135.76	Rock	4	0.58	1	\$ 435	9	\$ 30,000	27	Major	435	Complex	500	0.5	\$ 108,750	\$ 80,118.67	D
1300000109602010	SEWARD HIGHWAY	110.5	109.6	61.0101	-149.7	Rock	2	0.04	100	\$ 217,500	20	\$ 75,000	20	Major	8270	Complex	500	0.5	\$ 2,067,500	\$ 89,609.28	D
1300000104002010	SEWARD HIGHWAY	104.7	104	60.9833	-149.55	Rock	2	0.04	44	\$ 217,500	27	\$ 75,000	27	Major	8270	Complex	500	0.5	\$ 2,067,500	\$ 89,609.28	D
1300000026272010	SEWARD HIGHWAY	26.48	26.27	60.4509	-149.37	Rock	3	0.21	1	\$ 435	9	\$ 30,000	27	Major	1780	Complex	500	0.5	\$ 445,000	\$ 97,976.38	D
1900000018122010	RICHARDSON HIGHWAY	14.3	18.12	61.0745	-145.9	Rock	3	0.21	4	\$ 43,500	9	\$ 30,000	27	Major	1237	Complex	500	0.5	\$ 309,250	\$ 78,876.10	D
1900000108522010	SEWARD HIGHWAY	109.4	108.52	61.0036	-149.67	Rock	2	0.04	100	\$ 217,500	9	\$ 30,000	20	Major	8270	Complex	500	0.5	\$ 2,067,500	\$ 87,900.62	D
1300000030792010	SEWARD HIGHWAY	31.26	30.79	60.5004	-149.4	Rock	3	0.21	1	\$ 435	9	\$ 30,000	27	Major	1660	Complex	500	0.5	\$ 415,000	\$ 91,794.06	D
2940000005202010	MITKOF HIGHWAY	6.05	5.2	56.7407	-132.94	Soil	4	0.42	1	\$ 435	3	\$ 5,000	27	Major	800	Complex	500	0.5	\$ 200,000	\$ 86,369.34	D
1300000109402010	SEWARD HIGHWAY	110.3	109.4	61.0078	-149.7	Rock	2	0.04	9	\$ 43,500	3	\$ 5,000	15	Major	8270	Complex	500	0.5	\$ 2,067,500	\$ 80,344.59	D
1323150005702010	WHITTIER ACCESS ROAD	5.7	5.7	60.7852	-148.83	Rock	2	0.04	2	\$ 435	81	\$ 175,000	81	Critical	1080	Complex	500	3	\$ 1,620,000	\$ 68,172.73	D
1500000215722010	DALTON HIGHWAY	213.54	215.72	67.7374	-149.75	Soil	5	0.96	1	\$ 435	3	\$ 5,000	27	Major	245	Complex	500	0.5	\$ 61,250	\$ 63,802.61	D
1500000218482010	DALTON HIGHWAY	216.15	218.48	67.7754	-149.78	Soil	5	0.96	1	\$ 435	3	\$ 5,000	27	Major	245	Complex	500	0.5	\$ 61,250	\$ 63,802.61	D
1500000223672010	DALTON HIGHWAY	221.09	223.67	67.8444	-149.82	Soil	5	0.96	1	\$ 435	3	\$ 5,000	27	Major	245	Complex	500	0.5	\$ 61,250	\$ 63,802.61	D
1500000227002010	DALTON HIGHWAY	224.3	227	67.891	-149.82	Soil	5	0.96	1	\$ 435	3	\$ 5,000	27	Major	245	Complex	500	0.5	\$ 61,250	\$ 63,802.61	D
1500000223952010	DALTON HIGHWAY	230.85	233.95	67.9823	-149.76	Soil	5	0.96	1	\$ 435	3	\$ 5,000	27	Major	245	Complex	500	0.5	\$ 61,250	\$ 63,802.61	D
1500000234532010	DALTON HIGHWAY	231.39	234.53	67.9905	-149.76	Soil	5	0.96	1	\$ 435	3	\$ 5,000	27	Major	245	Complex	500	0.5	\$ 61,250	\$ 63,802.61	D
1500000235732010	DALTON HIGHWAY	232.52	235.73	68.0054	-149.74	Soil	5	0.96	1	\$ 435	3	\$ 5,000	27	Major	245	Complex	500	0.5	\$ 61,250	\$ 63,802.61	D
1500000236932010	DALTON HIGHWAY	233.62	236.93	68.02	-149.72	Soil	5	0.96	1	\$ 435	3	\$ 5,000	27	Major	245	Complex	500	0.5	\$ 61,250	\$ 63,802.61	D
1500000237772010	DALTON HIGHWAY	234.42	237.77	68.0294	-149.7	Soil	5	0.96	1	\$ 435	3	\$ 5,000	27	Major	245	Complex	500	0.5	\$ 61,250	\$ 63,802.61	D
1500000251002010	DALTON HIGHWAY	247.83	251	68.1487	-149.44	Soil	5	0.96	1	\$ 435	3	\$ 5,000	27	Major	245	Complex	500	0.5	\$ 61,250	\$ 63,802.61	D
1500000252522010	DALTON HIGHWAY	249.56	252.52	68.1699	-149.44	Soil	5	0.96	1	\$ 435	3	\$ 5,000	27	Major	245	Complex	500	0.5	\$ 61,250	\$ 63,802.61	D
1500000253222010	DALTON HIGHWAY	250.34	253.22	68.1788	-149.43	Soil	5	0.96	1	\$ 435	3	\$ 5,000	27	Major	245	Complex	500	0.5	\$ 61,250	\$ 63,802.61	D
2960000012172015	GLACIER HIGHWAY-EGAN	12.78	12.17	58.3852	-134.66	Wall	3	0.04	4	\$ 43,500	81	\$ 175,000	27	Major	6084	Complex	500	0.5	\$ 1,521,000	\$ 64,589.25	D
2954000001152010	HALIBUT POINT ROAD	1.22	1.15	57.0642	-135.36	Soil	4	0.42	2	\$ 435	9	\$ 30,000	27	Major	8151	Simple	5	0.5	\$ 20,378	\$ 21,362.68	C
1100000129052010	STERLING HIGHWAY	169.51	129.05	59.6551	-151.63	Soil	3	0.18	2	\$ 435	81	\$ 175,000	27	Major	4723	Simple	5	0.5	\$ 11,808	\$ 33,941.31	C
1350000064112010	GLENN HIGHWAY	71	64.11	61.7499	-148.63	Rock	4	0.58	9	\$ 43,500	3	\$ 5,000	27	Major	1393	Long	50	0.5	\$ 34,825	\$ 47,964.13	C
1900000228902010	RICHARDSON HIGHWAY	226	228.9	63.512	-145.86	Soil	5	0.96	1	\$ 435	9	\$ 30,000	20	Major	618	Long	50	0.5	\$ 15,450	\$ 43,901.67	C
1350000079512010	GLENN HIGHWAY	86.8	79.51	61.8092	-148.2	Rock	4	0.58	1	\$ 435	7	\$ 30,000	27	Major	1430	Long	50	0.5	\$ 35,750	\$ 38,097.88	C
1350000079162010	GLENN HIGHWAY	86.4	79.16	61.8077	-148.22	Rock	3	0.21	22	\$ 152,250	7	\$ 30,000	27	Major	1430	Long	50	0.5	\$ 35,750	\$ 44,924.86	C
2914000001502010	SOUTH TONGASS	0	1.5	55.3456	-131.66	Rock	3	0.21	100	\$ 217,500	3	\$ 5,000	9	Minor	17991	Simple	5	0.25	\$ 3,724	\$ 46,619.67	C
2914000001872010	SOUTH TONGASS	0	1.87	55.3437	-131.65	Rock	3	0.21	60	\$ 217,500	3	\$ 5,000	3	Negligible	17881	Moderate	25	0	\$ -	\$ 45,852.21	C
1520000002592010	STEESE HIGHWAY	2.55	2.59	64.8669	-147.68	Soil	3	0.18	100	\$ 217,500	9	\$ 30,000	3	Negligible	10010	Simple	5	0	\$ -	\$ 44,864.14	C
1520000003312010	STEESE HIGHWAY	3.26	3.31	64.876	-147.66	Soil	3	0.18	100	\$ 217,500	9	\$ 30,000	3	Negligible	10010	Simple	5	0	\$ -	\$ 44,864.14	C
1700000199922010	PARKS HIGHWAY	235.58	199.92	63.7039	-148.88	Soil	3	0.18	100	\$ 217,500	9	\$ 30,000	3	Negligible	2193	Long	50	0	\$ -	\$ 44,864.14	C
1900000330572010	RICHARDSON HIGHWAY	329.11	330.57	64.5275	-146.99	Soil	3	0.18	34	\$ 217,500	3	\$ 5,000	3	Negligible	3450	Long	50	0	\$ -	\$ 40,332.41	C
1520000008262010	STEESE HIGHWAY	8.2	8.26	64.9264	-147.62	Soil	3	0.18	8	\$ 43,500	81	\$ 175,000	9	Minor	4910	Moderate	25	0.25	\$ 1,016	\$ 39,791.57	C
1700000208802010	PARKS HIGHWAY	244.38	208.8	63.8114	-148.97	Soil	3	0.18	19	\$ 152,250	9	\$ 30,000	3	Negligible	3094	Long	50	0	\$ -	\$ 33,036.32	C
1900000331212010	RICHARDSON HIGHWAY	329.74	331.21	64.5317	-147.01	Soil	3	0.18	19	\$ 152,250	9	\$ 30,000	3	Negligible	3450	Long	50	0	\$ -	\$ 33,036.32	C
2940000017392010	MITKOF HIGHWAY	18.5	17.39	56.6078	-132.79	Soil	5	0.96	1	\$ 435	9	\$ 30,000	27	Major	87	Moderate	25	0.5	\$ 1,088	\$ 30,159.97	C
1350000072912010	GLENN HIGHWAY	80	72.91	61.7902	-148.39	Rock	3	0.21	11	\$ 152,250	3	\$ 5,000	9	Minor	1430	Long	50	0.25	\$ 296	\$ 32,466.66	C
1350000313962010	PARKS HIGHWAY	352.39	313.96	64.8459	-148	Soil	4	0.42	3	\$ 435	27	\$ 75,000	9	Minor	3992	Moderate	25	0.25	\$ 826	\$ 32,061.93	C
1100000012602010	STERLING HIGHWAY	49.4	12.6	60.4855	-149.85	Soil	4	0.42	2	\$ 435	27	\$ 75,000	9	Minor	3212	Complex	500	0.25	\$ 665	\$ 31,994.04	C
1100000128042010	STERLING HIGHWAY	168.46	128.04	59.6593	-151.66	Soil	3	0.18	3	\$ 435	81	\$ 175,000	9	Minor	3790	Moderate	25	0.25	\$ 785	\$ 31,943.18	C
1100000113372010	STERLING HIGHWAY	153.3	113.37	59.8234	-151.82	Soil	3	0.18	1	\$ 435	81	\$ 175,000	9	Minor	2467	Complex	500	0.25	\$ 511	\$ 31,893.54	C
1700000270962010	PARKS HIGHWAY	306.71	270.96	64.5819	-149.12	Soil	4	0.42	2	\$ 435	27	\$ 75,000	9	Minor	1723	Long	50	0.25	\$ 357	\$ 31,864.46	C
1700000278712010	PARKS HIGHWAY	314.66	278.71	64.6602	-148.96	Soil	4	0.42	2	\$ 435	27	\$ 75,000	9	Minor	1723	Long	50	0.25	\$ 357	\$ 31,864.46	C
1700000278982010	PARKS HIGHWAY	314.94	278.98	64.6703	-148.92	Soil	4	0.42	3	\$ 435	27	\$ 75,000	9	Minor	1723	Long	50	0.25	\$ 357	\$ 31,864.46	C
1700000280342010	PARKS HIGHWAY	316.26	280.34	64.6727	-148.91	Soil	4	0.42	2	\$ 435	27	\$ 75,000	9	Minor	1723	Long	50	0.25	\$ 357	\$ 31,864.46	C
1700000292862010	PARKS HIGHWAY	328.92	292.86	64.7137	-148.55	Soil	4	0.42	1	\$ 435	27	\$ 75,000	9	Minor	1723	Long	50	0.25	\$ 357	\$ 31,864.46	C
1700000293112010	PARKS HIGHWAY	329.19	293.11	64.7107	-148.54	Soil	4	0.42	2	\$ 435	27	\$ 75,000	9	Minor	1723	Long	50	0.25	\$ 357	\$ 31,864.46	C
1700000294222010	PARKS HIGHWAY	330.41	294.22	64.7084	-148.51	Soil	4	0.42	2	\$ 435	27	\$ 75,000	9	Minor	1723	Long	50	0.25	\$ 357	\$ 31,864.46	C
1350000077532010	GLENN HIGHWAY	84.67	77.53	61.7997																	

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
1900000229042010	RICHARDSON HIGHWAY	226.14	229.04	63.5127	-145.86	Soil	4	0.42	1	\$ 435	27	\$ 75,000	3	Negligible	618	Long	50	0	\$ -	\$ 31,714.51	C
2980000028102010	HAINES HIGHWAY	28.58	28.1	59.4221	-136.05	Soil	4	0.42	1	\$ 435	27	\$ 75,000	3	Negligible	315	Complex	500	0	\$ -	\$ 31,714.51	C
2995000002772010	KLONDIKE HIGHWAY	4.42	2.77	59.5009	-135.27	Soil	4	0.42	2	\$ 435	27	\$ 75,000	3	Negligible	533	Complex	500	0	\$ -	\$ 31,714.51	C
1500000161152010	DALTON HIGHWAY	160.21	161.15	67.0702	-150.35	Soil	4	0.42	4	\$ 43,500	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 30,922.32	C
1500000017932010	DALTON HIGHWAY	17.79	17.93	65.6023	-149.07	Soil	4	0.42	4	\$ 43,500	9	\$ 30,000	3	Negligible	288	Complex	500	0	\$ -	\$ 30,901.00	C
1100000012752010	STERLING HIGHWAY	49.55	12.75	60.4863	-149.86	Soil	5	0.96	2	\$ 435	9	\$ 30,000	9	Minor	3212	Complex	500	0.25	\$ 665	\$ 29,755.63	C
1300000054492010	WEARLING HIGHWAY	55.05	54.49	60.7633	-149.45	Soil	3	0.18	18	\$ 152,250	3	\$ 5,000	3	Negligible	3388	Complex	500	0	\$ -	\$ 28,504.59	C
298000008652010	HAINES HIGHWAY	9.12	8.65	59.2754	-135.66	Rock	3	0.21	1	\$ 435	27	\$ 75,000	27	Major	520	Complex	500	0.5	\$ 130,000	\$ 42,335.50	C
1900000228802010	RICHARDSON HIGHWAY	225.9	228.8	63.5105	-145.86	Soil	4	0.42	1	\$ 435	9	\$ 30,000	20	Major	618	Long	50	0.5	\$ 15,450	\$ 19,291.05	C
2933000007522010	ZIMOVIA HIGHWAY	8	7.52	56.3778	-132.36	Rock	3	0.21	1	\$ 435	25	\$ 75,000	27	Major	450	Complex	500	0.5	\$ 112,500	\$ 38,729.15	C
1350000077562010	GLENN HIGHWAY	84.7	77.56	61.8004	-148.25	Rock	3	0.21	6	\$ 43,500	3	\$ 5,000	20	Major	1430	Long	50	0.5	\$ 35,750	\$ 17,362.02	C
2150000001002010	Copper River Spur	1	1	61.4832	-144.45	Rock	4	0.58	1	\$ 435	9	\$ 30,000	27	Major	100	Complex	500	0.5	\$ 25,000	\$ 31,909.89	C
1500000224202010	DALTON HIGHWAY	219.87	222.4	67.8274	-149.83	Soil	4	0.42	1	\$ 435	9	\$ 30,000	27	Major	245	Complex	500	0.5	\$ 61,250	\$ 38,546.37	C
1500000249302010	DALTON HIGHWAY	245.97	249.3	68.1337	-149.45	Soil	4	0.42	1	\$ 435	9	\$ 30,000	27	Major	245	Complex	500	0.5	\$ 61,250	\$ 38,546.37	C
1900000209632010	RICHARDSON HIGHWAY	206.71	209.63	63.2753	-145.66	Soil	5	0.96	1	\$ 435	3	\$ 5,000	27	Major	356	Long	50	0.5	\$ 8,900	\$ 13,715.39	C
1900000209782010	RICHARDSON HIGHWAY	206.89	209.78	63.2771	-145.66	Soil	5	0.96	1	\$ 435	3	\$ 5,000	27	Major	356	Long	50	0.5	\$ 8,900	\$ 13,715.39	C
1500000258032010	DALTON HIGHWAY	255.23	258.03	68.2432	-149.42	Soil	4	0.42	1	\$ 435	9	\$ 30,000	27	Major	190	Complex	500	0.5	\$ 47,500	\$ 32,765.57	C
1350000079682010	GLENN HIGHWAY	87	79.68	61.8098	-148.19	Rock	3	0.21	1	\$ 435	5	\$ 30,000	27	Major	1430	Long	50	0.5	\$ 35,750	\$ 13,639.23	C
1350000059362010	GLENN HIGHWAY	66.6	59.36	61.7319	-148.75	Soil	3	0.18	1	\$ 435	6	\$ 30,000	27	Major	1393	Long	50	0.5	\$ 34,825	\$ 19,829.63	C
1350000046942010	GLENN HIGHWAY	54.1	46.94	61.678	-149.04	Rock	3	0.21	5	\$ 43,500	9	\$ 30,000	9	Minor	2562	Long	50	0.25	\$ 530	\$ 15,255.97	C
1350000078232010	GLENN HIGHWAY	85.4	78.23	61.8048	-148.23	Rock	3	0.21	3	\$ 435	3	\$ 5,000	20	Major	1430	Long	50	0.5	\$ 35,750	\$ 8,487.30	C
1700000313752010	PARKS HIGHWAY	352.11	313.75	64.8458	-148	Soil	3	0.18	2	\$ 435	27	\$ 75,000	9	Minor	3992	Moderate	25	0.25	\$ 826	\$ 13,823.84	C
1100000034422010	STERLING HIGHWAY	70.65	34.42	60.5313	-150.44	Soil	3	0.18	1	\$ 435	20	\$ 75,000	9	Minor	3272	Moderate	25	0.25	\$ 677	\$ 13,796.82	C
1700000311892010	PARKS HIGHWAY	350.04	311.89	64.8216	-148.03	Soil	3	0.18	3	\$ 435	27	\$ 75,000	9	Minor	2353	Moderate	25	0.25	\$ 487	\$ 13,762.34	C
1700000272452010	PARKS HIGHWAY	308.37	272.45	64.6021	-149.11	Soil	3	0.18	1	\$ 435	27	\$ 75,000	9	Minor	1723	Long	50	0.25	\$ 357	\$ 13,738.70	C
1700000276992010	PARKS HIGHWAY	312.92	276.99	64.6433	-149	Soil	3	0.18	1	\$ 435	27	\$ 75,000	9	Minor	1723	Long	50	0.25	\$ 357	\$ 13,738.70	C
1350000071172010	GLENN HIGHWAY	78.5	71.17	61.7885	-148.44	Soil	3	0.18	1	\$ 435	27	\$ 75,000	9	Minor	1430	Long	50	0.25	\$ 296	\$ 13,727.70	C
1350000060652010	GLENN HIGHWAY	67.88	60.65	61.7297	-148.72	Soil	3	0.18	1	\$ 435	27	\$ 75,000	9	Minor	1393	Long	50	0.25	\$ 288	\$ 13,726.31	C
2981500001282010	LUTAK ROAD	1.77	1.28	59.2489	-135.43	Soil	3	0.18	1	\$ 435	27	\$ 75,000	9	Minor	600	Complex	500	0.25	\$ 124	\$ 13,696.56	C
2981500001502010	LUTAK ROAD	1.96	1.5	59.2514	-135.43	Soil	3	0.18	1	\$ 435	27	\$ 75,000	9	Minor	600	Complex	500	0.25	\$ 124	\$ 13,696.56	C
2980000030072010	HAINES HIGHWAY	30.56	30.07	59.4237	-136.11	Soil	3	0.18	2	\$ 435	27	\$ 75,000	9	Minor	315	Complex	500	0.25	\$ 65	\$ 13,685.87	C
2980000026812010	HAINES HIGHWAY	27.22	26.81	59.423	-136.02	Soil	3	0.18	1	\$ 435	20	\$ 75,000	9	Minor	315	Complex	500	0.25	\$ 65	\$ 13,685.87	C
1530000011592010	ELLIOTT HIGHWAY	12.65	11.59	65.0983	-147.74	Soil	3	0.18	1	\$ 435	27	\$ 75,000	3	Negligible	595	Complex	500	0	\$ -	\$ 13,674.05	C
1530000012262010	ELLIOTT HIGHWAY	13.39	12.26	65.1049	-147.76	Soil	3	0.18	1	\$ 435	27	\$ 75,000	3	Negligible	595	Complex	500	0	\$ -	\$ 13,674.05	C
1530000013762010	ELLIOTT HIGHWAY	14.79	13.76	65.1178	-147.79	Soil	3	0.18	3	\$ 435	27	\$ 75,000	3	Negligible	595	Complex	500	0	\$ -	\$ 13,674.05	C
1530000040062010	ELLIOTT HIGHWAY	42.36	40.06	65.3451	-148.39	Soil	3	0.18	1	\$ 435	27	\$ 75,000	3	Negligible	595	Complex	500	0	\$ -	\$ 13,674.05	C
1530000042842010	ELLIOTT HIGHWAY	44.97	42.84	65.3301	-148.31	Soil	3	0.18	1	\$ 435	27	\$ 75,000	3	Negligible	595	Complex	500	0	\$ -	\$ 13,674.05	C
1530000043262010	ELLIOTT HIGHWAY	45.4	43.26	65.3359	-148.31	Soil	3	0.18	1	\$ 435	27	\$ 75,000	3	Negligible	595	Complex	500	0	\$ -	\$ 13,674.05	C
1530000054142010	ELLIOTT HIGHWAY	56.54	54.14	65.4641	-148.26	Soil	3	0.18	2	\$ 435	27	\$ 75,000	3	Negligible	402	Complex	500	0	\$ -	\$ 13,674.05	C
1530000062822010	ELLIOTT HIGHWAY	67	62.82	65.4928	-148.51	Soil	3	0.18	1	\$ 435	27	\$ 75,000	3	Negligible	402	Complex	500	0	\$ -	\$ 13,674.05	C
1530000063828010	ELLIOTT HIGHWAY	67.58	63.28	65.4918	-148.53	Soil	3	0.18	1	\$ 435	27	\$ 75,000	3	Negligible	402	Complex	500	0	\$ -	\$ 13,674.05	C
1530000064292010	ELLIOTT HIGHWAY	68.84	64.29	65.4928	-148.5	Soil	3	0.18	1	\$ 435	27	\$ 75,000	3	Negligible	402	Complex	500	0	\$ -	\$ 13,674.05	C
1530000064592010	ELLIOTT HIGHWAY	69.22	64.59	65.4966	-148.57	Soil	3	0.18	2	\$ 435	27	\$ 75,000	3	Negligible	402	Complex	500	0	\$ -	\$ 13,674.05	C
1700000142842010	PARKS HIGHWAY	178.3	142.84	63.063	-149.54	Soil	3	0.18	6	\$ 43,500	9	\$ 30,000	3	Negligible	1680	Long	50	0	\$ -	\$ 13,323.29	C
1900000331752010	RICHARDSON HIGHWAY	330.29	331.75	64.5378	-147.02	Soil	3	0.18	4	\$ 43,500	9	\$ 30,000	3	Negligible	3450	Long	50	0	\$ -	\$ 13,323.29	C
1350000042272010	GLENN HIGHWAY	49.5	42.27	61.627	-149.12	Soil	4	0.42	3	\$ 435	6	\$ 30,000	9	Minor	4100	Simple	5	0.25	\$ 849	\$ 13,152.35	C
1700000151422010	PARKS HIGHWAY	186.89	151.42	63.1657	-149.39	Soil	4	0.42	1	\$ 435	9	\$ 30,000	9	Minor	1644	Long	50	0.25	\$ 340	\$ 12,938.61	C
1350000060872010	GLENN HIGHWAY	68.1	60.87	61.7304	-148.72	Soil	4	0.42	1	\$ 435	9	\$ 30,000	9	Minor	1393	Long	50	0.25	\$ 288	\$ 12,916.76	C
153000000132010	ELLIOTT HIGHWAY	0.23	0.13	64.9608	-147.62	Soil	4	0.42	1	\$ 435	9	\$ 30,000	9	Minor	1075	Complex	500	0.25	\$ 223	\$ 12,889.09	C
1530000050352010	ELLIOTT HIGHWAY	52.69	50.35	65.4089	-148.23	Soil	4	0.42	1	\$ 435	9	\$ 30,000	9	Minor	595	Complex	500	0.25	\$ 123	\$ 12,847.32	C
1800000042502010	ALASKA HIGHWAY	1265.4	42.5	63.0297	-141.82	Soil	4	0.42	1	\$ 435	9	\$ 30,000	9	Minor	490	Complex	500	0.25	\$ 101	\$ 12,838.18	C
1530000054882010	ELLIOTT HIGHWAY	57.28	54.88	65.4727	-148.27	Soil	4	0.42	3	\$ 435	9	\$ 30,000	9	Minor	402	Complex	500	0.25	\$ 83	\$ 12,830.52	C
180000008292010	ALASKA HIGHWAY	1230.33	8.29	62.6981	-141.14	Soil	4	0.42	1	\$ 435	9	\$ 30,000	9	Minor	314	Complex	500	0.25	\$ 65	\$ 12,822.86	C
1500000019092010	DALTON HIGHWAY	18.88	19.09	65.6145	-149.06	Soil	4	0.42	1	\$ 435	9	\$ 30,000	9	Minor	288	Complex	500	0.25	\$ 60	\$ 12,820.60	C
1500000045722010	DALTON HIGHWAY	44.97	45.72	65.8223	-149.47	Soil	4	0.42	1	\$ 435	9	\$ 30,000	9	Minor	280	Complex	500	0.25	\$ 58	\$ 12,819.90	C
1500000046702010	DALTON HIGHWAY	45.98	46.7	65.8323	-149.5	Soil	4	0.42	1	\$ 435	9	\$ 30,000	9	Minor	280	Complex	500	0.25	\$ 58	\$ 12,819.90	C
1500000106792010	DALTON HIGHWAY	106.2	106.79	66.4476	-150.64	Soil	4	0.42	1	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 12,816.86	C
1500000127172010	DALTON HIGHWAY	126.47	127.17	66.6869	-150.66	Soil	4	0.42	1	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 12,816.86	C
1500000136902010	DALTON HIGHWAY	136.16	136.9	66.7979	-150.68	Soil	4	0.42	2	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 12,816.86	C
1500000139572010	DALTON HIGHWAY	138.81	139.57	66.8297	-150.64																

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
1500000155982010	DALTON HIGHWAY	155.1	155.98	67.0045	-150.29	Soil	4	0.42	1	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 12,816.86	C
1500000159452010	DALTON HIGHWAY	158.54	159.45	0	0	Soil	4	0.42	2	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 12,816.86	C
1500000160122010	DALTON HIGHWAY	159.2	160.12	67.0552	-150.34	Soil	4	0.42	1	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 12,816.86	C
1500000162522010	DALTON HIGHWAY	161.55	162.52	67.0885	-150.35	Soil	4	0.42	1	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 12,816.86	C
1500000163212010	DALTON HIGHWAY	162.24	163.21	67.0983	-150.35	Soil	4	0.42	2	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 12,816.86	C
1500000164002010	DALTON HIGHWAY	163.02	164	67.1097	-150.34	Soil	4	0.42	2	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 12,816.86	C
1500000164732010	DALTON HIGHWAY	163.75	164.73	67.1198	-150.35	Soil	4	0.42	2	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 12,816.86	C
1500000166282010	DALTON HIGHWAY	165.32	166.28	67.1415	-150.36	Soil	4	0.42	1	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 12,816.86	C
1500000177142010	DALTON HIGHWAY	176.12	177.14	67.2681	-150.17	Soil	4	0.42	1	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 12,816.86	C
1500000182762010	DALTON HIGHWAY	181.73	182.76	67.3455	-150.14	Soil	4	0.42	1	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 12,816.86	C
1500000204992010	DALTON HIGHWAY	203.43	204.99	67.6009	-149.79	Soil	4	0.42	3	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 12,816.86	C
1500000234232010	DALTON HIGHWAY	231.11	234.23	67.9863	-149.76	Soil	4	0.42	1	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 12,816.86	C
1500000239102010	DALTON HIGHWAY	235.71	239.1	68.0358	-149.65	Soil	4	0.42	1	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 12,816.86	C
1500000361302010	DALTON HIGHWAY	358.22	361.3	69.4532	-148.58	Soil	4	0.42	2	\$ 435	9	\$ 30,000	9	Minor	190	Complex	500	0.25	\$ 39	\$ 12,812.07	C
1350000129332010	GLENN HIGHWAY	138	129.33	61.9896	-146.93	Soil	4	0.42	3	\$ 435	9	\$ 30,000	3	Negligible	901	Long	50	0	\$ -	\$ 12,795.54	C
1350000155072010	GLENN HIGHWAY	164.1	155.07	62.0967	-146.23	Soil	4	0.42	2	\$ 435	9	\$ 30,000	3	Negligible	867	Long	50	0	\$ -	\$ 12,795.54	C
1350000163502010	GLENN HIGHWAY	172.7	163.5	62.0963	-145.97	Soil	4	0.42	2	\$ 435	9	\$ 30,000	3	Negligible	905	Long	50	0	\$ -	\$ 12,795.54	C
1530000007172010	ELLIOTT HIGHWAY	7.53	7.17	65.0523	-147.66	Soil	4	0.42	1	\$ 435	9	\$ 30,000	3	Negligible	1075	Complex	500	0	\$ -	\$ 12,795.54	C
1700000172882010	PARKS HIGHWAY	208.37	172.88	63.3775	-148.94	Soil	4	0.42	2	\$ 435	9	\$ 30,000	3	Negligible	1644	Long	50	0	\$ -	\$ 12,795.54	C
1800000018262010	ALASKA HIGHWAY	1240.54	18.26	62.8041	-141.32	Soil	4	0.42	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 12,795.54	C
1800000024102010	ALASKA HIGHWAY	1246.48	24.1	62.8531	-141.46	Soil	4	0.42	2	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 12,795.54	C
1800000032702010	ALASKA HIGHWAY	1255.27	32.7	62.951	-141.61	Soil	4	0.42	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 12,795.54	C
1900000083802010	RICHARDSON HIGHWAY	80	83.8	61.6731	-145.17	Soil	4	0.42	1	\$ 435	9	\$ 30,000	3	Negligible	598	Complex	500	0	\$ -	\$ 12,795.54	C
1900000212452010	RICHARDSON HIGHWAY	209.61	212.45	63.3097	-145.69	Soil	4	0.42	1	\$ 435	9	\$ 30,000	3	Negligible	598	Complex	500	0	\$ -	\$ 12,795.54	C
2300000038982010	TOK CUTOFF HIGHWAY	39.69	38.98	62.6393	-144.54	Soil	4	0.42	2	\$ 435	9	\$ 30,000	3	Negligible	390	Long	50	0	\$ -	\$ 12,795.54	C
2300000041982010	TOK CUTOFF HIGHWAY	42.69	41.98	62.6612	-144.46	Soil	4	0.42	2	\$ 435	9	\$ 30,000	3	Negligible	390	Long	50	0	\$ -	\$ 12,795.54	C
2300000043972010	TOK CUTOFF HIGHWAY	44.68	43.97	62.6733	-144.41	Soil	4	0.42	2	\$ 435	9	\$ 30,000	3	Negligible	390	Long	50	0	\$ -	\$ 12,795.54	C
2300000075112010	TOK CUTOFF HIGHWAY	76.13	75.11	62.862	-143.67	Soil	4	0.42	1	\$ 435	9	\$ 30,000	3	Negligible	381	Long	50	0	\$ -	\$ 12,795.54	C
2300000093902010	TOK CUTOFF HIGHWAY	95.55	93.9	63.0163	-143.38	Soil	4	0.42	1	\$ 435	9	\$ 30,000	3	Negligible	360	Long	50	0	\$ -	\$ 12,795.54	C
2300000096032010	TOK CUTOFF HIGHWAY	98.17	96.03	63.045	-143.37	Soil	4	0.42	2	\$ 435	9	\$ 30,000	3	Negligible	360	Long	50	0	\$ -	\$ 12,795.54	C
2960000014092010	GLACIER HIGHWAY-EGAN	14.76	14.09	58.3783	-134.71	Soil	4	0.42	2	\$ 435	9	\$ 30,000	3	Negligible	1825	Simple	5	0	\$ -	\$ 12,795.54	C
1500000013702010	DALTON HIGHWAY	13.58	13.7	65.5789	-148.99	Soil	4	0.42	2	\$ 435	9	\$ 30,000	3	Negligible	288	Complex	500	0	\$ -	\$ 12,795.54	C
1500000014172010	DALTON HIGHWAY	14.04	14.17	65.5766	-149.01	Soil	4	0.42	2	\$ 435	9	\$ 30,000	3	Negligible	288	Complex	500	0	\$ -	\$ 12,795.54	C
1500000014802010	DALTON HIGHWAY	14.68	14.8	65.5753	-149.02	Soil	4	0.42	1	\$ 435	9	\$ 30,000	3	Negligible	288	Complex	500	0	\$ -	\$ 12,795.54	C
1500000015602010	DALTON HIGHWAY	15.48	15.6	65.5738	-149.05	Soil	4	0.42	2	\$ 435	9	\$ 30,000	3	Negligible	288	Complex	500	0	\$ -	\$ 12,795.54	C
1500000038462010	DALTON HIGHWAY	37.63	38.46	65.7605	-149.38	Soil	4	0.42	1	\$ 435	9	\$ 30,000	3	Negligible	280	Complex	500	0	\$ -	\$ 12,795.54	C
1500000044292010	DALTON HIGHWAY	43.51	44.29	65.8062	-149.44	Soil	4	0.42	1	\$ 435	9	\$ 30,000	3	Negligible	280	Complex	500	0	\$ -	\$ 12,795.54	C
1500000045002010	DALTON HIGHWAY	44.23	45	65.8141	-149.46	Soil	4	0.42	1	\$ 435	9	\$ 30,000	3	Negligible	280	Complex	500	0	\$ -	\$ 12,795.54	C
1500000045932010	DALTON HIGHWAY	45.19	45.93	65.8246	-149.48	Soil	4	0.42	1	\$ 435	9	\$ 30,000	3	Negligible	280	Complex	500	0	\$ -	\$ 12,795.54	C
1500000046232010	DALTON HIGHWAY	45.49	46.23	65.8273	-149.49	Soil	4	0.42	1	\$ 435	9	\$ 30,000	3	Negligible	280	Complex	500	0	\$ -	\$ 12,795.54	C
1500000046522010	DALTON HIGHWAY	45.79	46.52	65.8305	-149.49	Soil	4	0.42	1	\$ 435	9	\$ 30,000	3	Negligible	280	Complex	500	0	\$ -	\$ 12,795.54	C
1500000143132010	DALTON HIGHWAY	142.42	143.13	66.8638	-150.56	Soil	4	0.42	1	\$ 435	9	\$ 30,000	3	Negligible	245	Complex	500	0	\$ -	\$ 12,795.54	C
1500000157322010	DALTON HIGHWAY	156.43	157.32	67.0246	-150.29	Soil	4	0.42	1	\$ 435	9	\$ 30,000	3	Negligible	245	Complex	500	0	\$ -	\$ 12,795.54	C
1500000165682010	DALTON HIGHWAY	164.72	165.68	67.1332	-150.35	Soil	4	0.42	2	\$ 435	9	\$ 30,000	3	Negligible	245	Complex	500	0	\$ -	\$ 12,795.54	C
1500000264522010	DALTON HIGHWAY	261.83	264.52	68.3295	-149.35	Soil	4	0.42	2	\$ 435	9	\$ 30,000	3	Negligible	190	Complex	500	0	\$ -	\$ 12,795.54	C
1700000203972010	PARKS HIGHWAY	239.6	203.97	63.7594	-148.9	Rock	2	0.04	15	\$ 152,250	9	\$ 30,000	25	Major	3094	Long	50	0.5	\$ 77,350	\$ 9,857.02	C
2995000003412010	KLONDIKE HIGHWAY	5.05	3.41	59.5079	-135.26	Rock	3	0.21	2	\$ 435	9	\$ 30,000	20	Major	302	Complex	500	0.5	\$ 75,500	\$ 21,830.80	C
1500000219832010	DALTON HIGHWAY	217.4	219.83	67.792	-149.81	Soil	4	0.42	1	\$ 435	3	\$ 5,000	27	Major	245	Complex	500	0.5	\$ 61,250	\$ 28,035.82	C
1500000232542010	DALTON HIGHWAY	229.47	232.54	67.9625	-149.77	Soil	4	0.42	1	\$ 435	3	\$ 5,000	27	Major	245	Complex	500	0.5	\$ 61,250	\$ 28,035.82	C
2300000003382010	TOK CUTOFF HIGHWAY	3.4	3.38	62.3062	-145.26	Soil	4	0.42	1	\$ 435	3	\$ 5,000	20	Major	472	Long	50	0.5	\$ 11,800	\$ 7,245.97	C
2980000011632010	HAINES HIGHWAY	12.08	11.63	59.3072	-135.71	Rock	3	0.21	1	\$ 435	3	\$ 5,000	25	Major	520	Complex	500	0.5	\$ 130,000	\$ 27,910.08	C
2980000027592010	HAINES HIGHWAY	28.07	27.59	59.4226	-136.04	Soil	3	0.18	1	\$ 435	9	\$ 30,000	25	Major	315	Complex	500	0.5	\$ 78,750	\$ 19,791.88	C
1323150005502010	WHITTIER ACCESS ROAD	5.5	5.5	60.7853	-148.84	Rock	1	0.01	2	\$ 435	81	\$ 175,000	81	Critical	1080	Complex	500	3	\$ 1,620,000	\$ 24,878.61	C
1350000061782010	GLENN HIGHWAY	68.95	61.78	61.7352	-148.69	Rock	3	0.21	4	\$ 43,500	3	\$ 5,000	9	Minor	1393	Long	50	0.25	\$ 288	\$ 10,054.17	C
1351000003102010	HILAND ROAD	3.1	3.1	61.2855	-149.5	Rock	3	0.21	4	\$ 43,500	3	\$ 5,000	3	Negligible	1590	Complex	500	0	\$ -	\$ 9,994.75	C
1300000106712010	SEWARD HIGHWAY	107.5	106.71	60.9934	-149.63	Rock	2	0.04	100	\$ 217,500	6	\$ 30,000	9	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 9,462.58	C
1300000112252010	SEWARD HIGHWAY	113.2	112.25	61.0297	-149.76	Rock	2	0.04	80	\$ 217,500	6	\$ 30,000	6	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 9,462.58	C
1300000110082010	SEWARD HIGHWAY	111	110.08	61.0125	-149.71	Rock	2	0.04	38	\$ 217,500	9	\$ 30,000	9	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 9,462.58	C
1300000112652010	SEWARD HIGHWAY	113.6	112.65	61.0339	-149.77	Rock	2	0.04	38	\$ 217,500	6	\$ 30,000	9	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 9,462.58	C
1300000112652010	SEWARD HIGHWAY	113.6	112.65	61.0339	-149.77	Rock	2	0.04	38	\$ 217,500	6	\$ 30,000</									

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LIOR Grade
2915000009312010	NORTH TONGASS	11.54	9.31	55.4391	-131.8	Soil	3	0.18	4	\$ 43,500	3	\$ 5,000	3	Negligible	3900	Complex	500	0	\$ -	\$ 8,791.56	C
1300000112952010	SEWARD HIGHWAY	113.9	112.95	61.0357	-149.78	Rock	2	0.04	14	\$ 152,250	20	\$ 75,000	9	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 8,693.69	C
2914000001552010	SOUTH TONGASS	0	1.55	55.345	-131.66	Rock	2	0.04	100	\$ 217,500	3	\$ 5,000	9	Minor	17991	Simple	5	0.25	\$ 3,724	\$ 5,589.74	C
1300000108712010	SEWARD HIGHWAY	109.6	108.71	61.0047	-149.68	Rock	2	0.04	100	\$ 217,500	3	\$ 5,000	9	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 8,513.33	C
1300000113252010	SEWARD HIGHWAY	114.2	113.25	61.0384	-149.78	Rock	2	0.04	100	\$ 217,500	3	\$ 5,000	9	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 8,513.33	C
1300000106972010	SEWARD HIGHWAY	107.81	106.97	60.9954	-149.63	Rock	2	0.04	37	\$ 217,500	3	\$ 5,000	9	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 8,513.33	C
2914000003242010	SOUTH TONGASS	0.92	3.24	55.3331	-131.62	Rock	2	0.04	100	\$ 217,500	3	\$ 5,000	9	Minor	5544	Complex	500	0.25	\$ 1,148	\$ 8,491.91	C
2914000003942010	SOUTH TONGASS	1.63	3.94	55.3254	-131.61	Rock	2	0.04	100	\$ 217,500	3	\$ 5,000	9	Minor	5544	Complex	500	0.25	\$ 1,148	\$ 8,491.91	C
1350000088032010	GLENN HIGHWAY	95.6	88.03	61.7922	-147.96	Rock	2	0.04	100	\$ 217,500	3	\$ 5,000	9	Minor	1760	Long	50	0.25	\$ 364	\$ 8,462.17	C
1350000028642010	GLENN HIGHWAY	30	28.64	61.478	-149.26	Rock	2	0.04	100	\$ 217,500	3	\$ 5,000	3	Negligible	25260	Moderate	25	0	\$ -	\$ 8,448.33	C
2914000004462010	SOUTH TONGASS	2.15	4.46	55.3209	-131.6	Rock	2	0.04	100	\$ 217,500	3	\$ 5,000	3	Negligible	5361	Complex	500	0	\$ -	\$ 8,448.33	C
2915000001012010	NORTH TONGASS	3.25	1.01	55.3644	-131.71	Rock	2	0.04	100	\$ 217,500	3	\$ 5,000	3	Negligible	9372	Complex	500	0	\$ -	\$ 8,448.33	C
1300000111332010	SEWARD HIGHWAY	112.3	111.33	61.0196	-149.74	Rock	2	0.04	31	\$ 217,500	3	\$ 5,000	3	Negligible	8270	Complex	500	0	\$ -	\$ 8,448.33	C
2961500010032010	NORTH DOUGLAS HIGHWAY	11.1	10.03	58.3166	-134.66	Rock	2	0.04	1	\$ 435	5	\$ 30,000	50	Critical	335	Complex	500	3	\$ 502,500	\$ 20,235.56	C
2995000002272010	KLONDIKE HIGHWAY	3.92	2.27	59.4951	-135.28	Rock	2	0.04	1	\$ 435	27	\$ 75,000	27	Major	1290	Complex	500	0.5	\$ 322,500	\$ 15,109.60	C
1300000111742010	SEWARD HIGHWAY	112.7	111.74	61.0241	-149.75	Rock	2	0.04	12	\$ 152,250	9	\$ 30,000	9	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 6,985.04	C
2915000004042010	NORTH TONGASS	6.29	4.04	55.4	-131.72	Rock	3	0.21	2	\$ 435	9	\$ 30,000	9	Minor	5050	Complex	500	0.25	\$ 1,045	\$ 6,487.39	C
2915000006052010	NORTH TONGASS	8.3	6.05	55.4065	-131.75	Rock	3	0.21	2	\$ 435	9	\$ 30,000	9	Minor	4500	Complex	500	0.25	\$ 932	\$ 6,463.92	C
1100000002422010	STERLING HIGHWAY	39.27	2.42	60.5247	-149.61	Rock	3	0.21	2	\$ 435	9	\$ 30,000	9	Minor	2880	Complex	500	0.25	\$ 596	\$ 6,394.82	C
1300000018382010	SEWARD HIGHWAY	18.39	18.38	60.3439	-149.35	Rock	3	0.21	3	\$ 435	9	\$ 30,000	9	Minor	1780	Complex	500	0.25	\$ 368	\$ 6,347.90	C
1350000067622010	GLENN HIGHWAY	74.6	67.62	61.7663	-148.53	Rock	3	0.21	2	\$ 435	7	\$ 30,000	9	Minor	1393	Long	50	0.25	\$ 288	\$ 6,331.39	C
1900000289322010	RICHARDSON HIGHWAY	286.6	289.32	64.2604	-146.11	Rock	3	0.21	1	\$ 435	6	\$ 30,000	9	Minor	1310	Long	50	0.25	\$ 271	\$ 6,327.85	C
2995000001752010	KLONDIKE HIGHWAY	3.38	1.75	59.4886	-135.28	Rock	3	0.21	1	\$ 435	9	\$ 30,000	9	Minor	1290	Complex	500	0.25	\$ 267	\$ 6,326.99	C
2995000001772010	KLONDIKE HIGHWAY	3.4	1.77	59.4904	-135.28	Rock	3	0.21	1	\$ 435	9	\$ 30,000	9	Minor	1290	Complex	500	0.25	\$ 267	\$ 6,326.99	C
2995000001962010	KLONDIKE HIGHWAY	3.6	1.96	59.492	-135.28	Rock	3	0.21	1	\$ 435	9	\$ 30,000	9	Minor	1290	Complex	500	0.25	\$ 267	\$ 6,326.99	C
1900000017032010	RICHARDSON HIGHWAY	13.2	17.03	61.0622	-145.91	Rock	3	0.21	1	\$ 435	9	\$ 30,000	9	Minor	1237	Complex	500	0.25	\$ 256	\$ 6,324.73	C
1800000060712010	ALASKA HIGHWAY	1284.4	60.71	63.1989	-142.18	Rock	3	0.21	1	\$ 435	6	\$ 30,000	9	Minor	490	Complex	500	0.25	\$ 101	\$ 6,292.87	C
1900000214532010	RICHARDSON HIGHWAY	211.57	214.53	63.3255	-145.73	Rock	3	0.21	1	\$ 435	9	\$ 30,000	9	Minor	356	Long	50	0.25	\$ 74	\$ 6,287.15	C
2995000008632010	KLONDIKE HIGHWAY	10.28	8.63	59.5733	-135.2	Rock	3	0.21	1	\$ 435	9	\$ 30,000	9	Minor	302	Complex	500	0.25	\$ 63	\$ 6,284.85	C
2995000008692010	KLONDIKE HIGHWAY	10.34	8.69	59.5744	-135.2	Rock	3	0.21	1	\$ 435	9	\$ 30,000	9	Minor	302	Complex	500	0.25	\$ 63	\$ 6,284.85	C
1980000038782010	EDGERTON HWY-MCCAR	5.01	38.78	61.662	-144.67	Rock	3	0.21	2	\$ 435	9	\$ 30,000	3	Negligible	585	Complex	500	0	\$ -	\$ 6,271.96	C
2981500004112010	Lutak Road	4.2	4.11	59.2812	-135.47	Rock	3	0.21	2	\$ 435	9	\$ 30,000	3	Negligible	600	Complex	500	0	\$ -	\$ 6,271.96	C
2915000000722010	NORTH TONGASS	2.95	0.72	55.3614	-131.71	Rock	2	0.04	14	\$ 152,250	3	\$ 5,000	9	Minor	9372	Complex	500	0.25	\$ 1,940	\$ 6,044.45	C
1300000105842010	SEWARD HIGHWAY	106.6	105.84	60.9848	-149.6	Rock	2	0.04	12	\$ 152,250	3	\$ 5,000	9	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 6,035.79	C
1300000106542010	SEWARD HIGHWAY	107.31	106.54	60.9911	-149.62	Rock	2	0.04	18	\$ 152,250	3	\$ 5,000	6	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 6,035.79	C
1300000107332010	SEWARD HIGHWAY	108.2	107.33	60.9983	-149.64	Rock	2	0.04	13	\$ 152,250	3	\$ 5,000	9	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 6,035.79	C
2915000004192010	NORTH TONGASS	6.44	4.19	55.402	-131.72	Rock	2	0.04	13	\$ 152,250	3	\$ 5,000	9	Minor	5050	Complex	500	0.25	\$ 1,045	\$ 6,010.48	C
1300000073382010	SEWARD HIGHWAY	74.27	73.38	60.8383	-149.08	Rock	2	0.04	14	\$ 152,250	3	\$ 5,000	6	Minor	4163	Complex	500	0.25	\$ 862	\$ 6,003.51	C
680000006902010	REZANOF DRIVE	6.9	10.7	57.7365	-152.52	Rock	2	0.04	11	\$ 152,250	3	\$ 5,000	3	Negligible	1810	Complex	500	0	\$ -	\$ 5,970.79	C
1700000205922010	PARKS HIGHWAY	241.54	205.92	63.7829	-148.91	Rock	2	0.04	16	\$ 152,250	3	\$ 5,000	3	Negligible	3094	Long	50	0	\$ -	\$ 5,970.79	C
2914000003742010	SOUTH TONGASS	1.43	3.74	55.3273	-131.62	Rock	2	0.04	23	\$ 152,250	3	\$ 5,000	3	Negligible	5544	Complex	500	0	\$ -	\$ 5,970.79	C
2915000006852010	NORTH TONGASS	9.13	6.85	55.414	-131.76	Rock	2	0.04	11	\$ 152,250	3	\$ 5,000	3	Negligible	4361	Moderate	25	0	\$ -	\$ 5,970.79	C
2960000012662010	GLACIER HIGHWAY-EGAN	13.3	12.66	58.382	-134.67	Rock	2	0.04	10	\$ 152,250	3	\$ 5,000	3	Negligible	4958	Complex	500	0	\$ -	\$ 5,970.79	C
1300000055182010	SEWARD HIGHWAY	55.75	55.18	60.7731	-149.44	Soil	3	0.18	1	\$ 435	9	\$ 30,000	9	Minor	3388	Complex	500	0.25	\$ 701	\$ 5,644.06	C
1100000022362010	STERLING HIGHWAY	58.49	22.36	60.4884	-150.13	Soil	3	0.18	1	\$ 435	9	\$ 30,000	9	Minor	3272	Moderate	25	0.25	\$ 677	\$ 5,639.70	C
1100000029752010	STERLING HIGHWAY	65.9	29.75	60.5253	-150.31	Soil	3	0.18	2	\$ 435	9	\$ 30,000	9	Minor	3272	Moderate	25	0.25	\$ 677	\$ 5,639.70	C
1700000312912010	PARKS HIGHWAY	351.05	312.91	64.8348	-148.01	Soil	3	0.18	2	\$ 435	9	\$ 30,000	9	Minor	2353	Moderate	25	0.25	\$ 487	\$ 5,605.22	C
1300000016162010	SEWARD HIGHWAY	16.07	16.16	60.3141	-149.36	Soil	3	0.18	1	\$ 435	9	\$ 30,000	9	Minor	1798	Complex	500	0.25	\$ 372	\$ 5,584.40	C
1900000301942010	RICHARDSON HIGHWAY	299.85	301.94	64.2905	-146.48	Soil	3	0.18	2	\$ 435	9	\$ 30,000	9	Minor	1750	Long	50	0.25	\$ 362	\$ 5,582.59	C
1900000305572010	RICHARDSON HIGHWAY	303.51	305.57	64.3131	-146.58	Soil	3	0.18	2	\$ 435	9	\$ 30,000	9	Minor	1750	Long	50	0.25	\$ 362	\$ 5,582.59	C
1350000073012010	GLENN HIGHWAY	80.1	73.01	61.7902	-148.39	Soil	3	0.18	2	\$ 435	9	\$ 30,000	9	Minor	1430	Long	50	0.25	\$ 296	\$ 5,570.59	C
1350000073522010	GLENN HIGHWAY	80.6	73.52	61.7931	-148.37	Soil	3	0.18	1	\$ 435	9	\$ 30,000	9	Minor	1430	Long	50	0.25	\$ 296	\$ 5,570.59	C
1352250006502010	EAGLE RIVER ROAD	6.5	6.5	61.2902	-149.41	Soil	3	0.18	1	\$ 435	9	\$ 30,000	9	Minor	1210	Complex	500	0.25	\$ 250	\$ 5,562.33	C
1352250009002010	EAGLE RIVER ROAD	9.0	9.1	61.2681	-149.35	Soil	3	0.18	1	\$ 435	9	\$ 30,000	9	Minor	1210	Complex	500	0.25	\$ 250	\$ 5,562.33	C
2914000009602010	SOUTH TONGASS	7.31	9.6	55.3149	-131.52	Soil	3	0.18	1	\$ 435	9	\$ 30,000	9	Minor	787	Complex	500	0.25	\$ 163	\$ 5,546.46	C
29140000010142010	SOUTH TONGASS	7.87	10.14	55.3221	-131.52	Soil	3	0.18	1	\$ 435	9	\$ 30,000	9	Minor	787	Complex	500	0.25	\$ 163	\$ 5,546.46	C
1530000014342010	ELLIOTT HIGHWAY	15.33	14.34	65.1225	-147.81	Soil	3	0.18	3	\$ 435	9	\$ 30,000	9	Minor	595	Complex	500	0.25	\$ 123	\$ 5,539.26	C
1530000017372010	ELLIOTT HIGHWAY	18.49	17.37	65.1512	-147.86	Soil	3	0.18	1	\$ 435	9	\$ 30,000	9	Minor	595	Complex	500	0.25	\$ 123	\$ 5,539.26	C
1530000018152010	ELLIOTT HIGHWAY	19.19	18.15	65.1565	-147.88	Soil	3	0.18	2	\$ 435	9	\$ 30,000	9	Minor	595	Complex	500	0.25	\$ 123	\$ 5,539.26	C
1530000034212010	ELLIOTT HIGHWAY	36.32	34.21																		

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	IOR Grade
1500000174182010	DALTON HIGHWAY	173.12	174.18	67.2333	-150.22	Soil	3	0.18	1	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 5,526.12	C
1500000179422010	DALTON HIGHWAY	178.4	179.42	67.2996	-150.16	Soil	3	0.18	1	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 5,526.12	C
1500000189002010	DALTON HIGHWAY	187.96	189	67.4304	-150.08	Soil	3	0.18	1	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 5,526.12	C
1500000189332010	DALTON HIGHWAY	188.29	189.33	67.4349	-150.07	Soil	3	0.18	1	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 5,526.12	C
1500000209362010	DALTON HIGHWAY	207.55	209.36	67.651	-149.72	Soil	3	0.18	1	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 5,526.12	C
1500000237692010	DALTON HIGHWAY	234.33	237.69	68.0289	-149.7	Soil	3	0.18	1	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 5,526.12	C
1500000341492010	DALTON HIGHWAY	338.49	341.49	69.2064	-148.81	Soil	3	0.18	1	\$ 435	9	\$ 30,000	9	Minor	190	Complex	500	0.25	\$ 39	\$ 5,524.06	C
1500000413382010	DALTON HIGHWAY	410.34	413.38	70.154	-148.46	Soil	3	0.18	1	\$ 435	9	\$ 30,000	9	Minor	190	Complex	500	0.25	\$ 39	\$ 5,524.06	C
674000016642010	CHINIAK HIGHWAY	26.6	16.671	57.6189	-152.45	Soil	3	0.18	1	\$ 435	9	\$ 30,000	9	Minor	170	Complex	500	0.25	\$ 35	\$ 5,523.31	C
674000031822010	CHINIAK HIGHWAY	41.8	31.82	57.6185	-152.22	Soil	3	0.18	1	\$ 435	9	\$ 30,000	9	Minor	100	Complex	500	0.25	\$ 21	\$ 5,520.68	C
674000031922010	CHINIAK HIGHWAY	41.9	31.92	57.618	-152.22	Soil	3	0.18	1	\$ 435	9	\$ 30,000	9	Minor	100	Complex	500	0.25	\$ 21	\$ 5,520.68	C
2500000148312010	TAYLOR HIGHWAY	150.3	148.31	64.6753	-141.32	Soil	3	0.18	1	\$ 435	9	\$ 30,000	9	Minor	90	Complex	500	0.25	\$ 19	\$ 5,520.31	C
674000007852010	CHINIAK HIGHWAY	17.75	7.85	57.6684	-152.49	Soil	3	0.18	2	\$ 435	6	\$ 30,000	3	Negligible	230	Complex	500	0	\$ -	\$ 5,516.93	C
1300000058672010	SEWARD HIGHWAY	59.47	58.67	60.7524	-149.38	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	3510	Complex	500	0	\$ -	\$ 5,516.93	C
1300000064092010	SEWARD HIGHWAY	64.83	64.09	60.7428	-149.26	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	3510	Complex	500	0	\$ -	\$ 5,516.93	C
1530000006632010	ELLIOTT HIGHWAY	6.95	6.63	65.045	-147.66	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	1075	Complex	500	0	\$ -	\$ 5,516.93	C
1530000006772010	ELLIOTT HIGHWAY	7.1	6.77	65.0471	-147.66	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	1075	Complex	500	0	\$ -	\$ 5,516.93	C
1530000008132010	ELLIOTT HIGHWAY	8.56	8.13	65.0655	-147.67	Soil	3	0.18	2	\$ 435	9	\$ 30,000	3	Negligible	1075	Complex	500	0	\$ -	\$ 5,516.93	C
1530000011762010	ELLIOTT HIGHWAY	12.89	11.76	65.1	-147.75	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	595	Complex	500	0	\$ -	\$ 5,516.93	C
1530000011892010	ELLIOTT HIGHWAY	13.04	11.89	65.1015	-147.75	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	595	Complex	500	0	\$ -	\$ 5,516.93	C
1530000012412010	ELLIOTT HIGHWAY	13.53	12.41	65.1064	-147.76	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	595	Complex	500	0	\$ -	\$ 5,516.93	C
1530000014702010	ELLIOTT HIGHWAY	15.67	14.7	65.1262	-147.82	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	595	Complex	500	0	\$ -	\$ 5,516.93	C
1530000057092010	ELLIOTT HIGHWAY	59.85	57.09	65.4655	-148.34	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	402	Complex	500	0	\$ -	\$ 5,516.93	C
1700000197012010	PARKS HIGHWAY	232.72	197.01	63.6719	-148.82	Soil	3	0.18	2	\$ 435	9	\$ 30,000	3	Negligible	2193	Long	50	0	\$ -	\$ 5,516.93	C
1700000197292010	PARKS HIGHWAY	232.99	197.29	63.6759	-148.82	Soil	3	0.18	2	\$ 435	9	\$ 30,000	3	Negligible	2193	Long	50	0	\$ -	\$ 5,516.93	C
1700000202092010	PARKS HIGHWAY	237.71	202.09	63.7317	-148.88	Soil	3	0.18	3	\$ 435	9	\$ 30,000	3	Negligible	3094	Long	50	0	\$ -	\$ 5,516.93	C
1700000208452010	PARKS HIGHWAY	243.98	208.45	63.8078	-148.96	Soil	3	0.18	3	\$ 435	9	\$ 30,000	3	Negligible	3094	Long	50	0	\$ -	\$ 5,516.93	C
1800000001792010	ALASKA HIGHWAY	1223.16	1.79	62.6363	-141.03	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000002302010	ALASKA HIGHWAY	1223.71	2.3	62.6433	-141.03	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000002922010	ALASKA HIGHWAY	1224.39	2.92	62.6505	-141.04	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000003292010	ALASKA HIGHWAY	1224.79	3.29	62.6543	-141.05	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000012432010	ALASKA HIGHWAY	1234.59	12.43	62.7427	-141.21	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000013992010	ALASKA HIGHWAY	1236.17	13.99	62.7617	-141.23	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000014422010	ALASKA HIGHWAY	1236.6	14.42	62.7663	-141.24	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000015152010	ALASKA HIGHWAY	1237.33	15.15	62.7744	-141.25	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000016222010	ALASKA HIGHWAY	1238.45	16.22	62.7857	-141.27	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000017122010	ALASKA HIGHWAY	1239.39	17.12	62.7939	-141.29	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000017892010	ALASKA HIGHWAY	1240.16	17.89	62.8021	-141.31	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000020342010	ALASKA HIGHWAY	1242.64	20.34	62.8209	-141.37	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000021202010	ALASKA HIGHWAY	1243.51	21.2	62.8271	-141.39	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000022522010	ALASKA HIGHWAY	1244.84	22.52	62.8369	-141.42	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000025352010	ALASKA HIGHWAY	1247.74	25.35	62.8674	-141.48	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000026882010	ALASKA HIGHWAY	1249.31	26.88	62.8845	-141.51	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000030682010	ALASKA HIGHWAY	1253.1	30.68	62.9311	-141.56	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000031752010	ALASKA HIGHWAY	1254.18	31.75	62.9408	-141.59	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000032272010	ALASKA HIGHWAY	1254.8	32.27	62.9469	-141.6	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000033392010	ALASKA HIGHWAY	1255.96	33.39	62.9558	-141.62	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000034652010	ALASKA HIGHWAY	1257.21	34.65	62.9715	-141.64	Soil	3	0.18	2	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000036502010	ALASKA HIGHWAY	1259.13	36.5	62.9892	-141.68	Soil	3	0.18	2	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000036982010	ALASKA HIGHWAY	1259.61	36.98	62.9934	-141.69	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000039172010	ALASKA HIGHWAY	1261.93	39.17	63.0088	-141.74	Soil	3	0.18	2	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000040322010	ALASKA HIGHWAY	1263.13	40.32	63.011	-141.78	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	314	Complex	500	0	\$ -	\$ 5,516.93	C
1800000041722010	ALASKA HIGHWAY	1264.59	41.72	63.0183	-141.81	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	490	Complex	500	0	\$ -	\$ 5,516.93	C
1800000042892010	ALASKA HIGHWAY	1265.81	42.89	63.034	-141.82	Soil	3	0.18	2	\$ 435	9	\$ 30,000	3	Negligible	490	Complex	500	0	\$ -	\$ 5,516.93	C
1800000043432010	ALASKA HIGHWAY	1266.38	43.43	63.0401	-141.83	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	490	Complex	500	0	\$ -	\$ 5,516.93	C
1800000044132010	ALASKA HIGHWAY	1267.12	44.13	63.0491	-141.83	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	490	Complex	500	0	\$ -	\$ 5,516.93	C
1800000046502010	ALASKA HIGHWAY	1269.55	46.5	63.0596	-141.9	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	490	Complex	500	0	\$ -	\$ 5,516.93	C
1800000047392010	ALASKA HIGHWAY	1270.46	47.39	63.0679	-141.92	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	490	Complex	500	0	\$ -	\$ 5,516.93	C
1800000048732010	ALASKA HIGHWAY	1271.82	48.73	63.0779	-141.95	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	490	Complex	500	0	\$ -	\$ 5,516.93	C
1800000049122010	ALASKA HIGHWAY	1272.21	49.12	63.0813	-141.96	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	490	Complex	500	0	\$ -	\$ 5,516.93	C
1800000052602010</																					

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
180000070112010	ALASKA HIGHWAY	1294.04	70.11	63.2471	-142.43	Soil	3	0.18	2	\$ 435	9	\$ 30,000	3	Negligible	490	Complex	500	0	\$ -	\$ 5,516.93	C
180000079762010	ALASKA HIGHWAY	1303.73	79.76	63.3157	-142.66	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	579	Complex	500	0	\$ -	\$ 5,516.93	C
180000080002010	ALASKA HIGHWAY	1303.95	80	63.3154	-142.67	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	579	Complex	500	0	\$ -	\$ 5,516.93	C
1800000800262010	ALASKA HIGHWAY	1304.21	80.26	63.3149	-142.68	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	579	Complex	500	0	\$ -	\$ 5,516.93	C
1800000104322010	ALASKA HIGHWAY	1328.38	104.32	63.3635	-143.44	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	312	Long	50	0	\$ -	\$ 5,516.93	C
1800000105142010	ALASKA HIGHWAY	1329.22	105.14	63.3627	-143.47	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	312	Long	50	0	\$ -	\$ 5,516.93	C
1800000108432010	ALASKA HIGHWAY	1332.49	108.43	63.3758	-143.56	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	312	Long	50	0	\$ -	\$ 5,516.93	C
1800000108692010	ALASKA HIGHWAY	1332.74	108.69	63.3768	-143.57	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	312	Long	50	0	\$ -	\$ 5,516.93	C
1800000124232010	ALASKA HIGHWAY	1348.42	124.23	63.5085	-143.82	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	312	Long	50	0	\$ -	\$ 5,516.93	C
1800000125172010	ALASKA HIGHWAY	1349.26	125.17	63.5205	-143.84	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	312	Long	50	0	\$ -	\$ 5,516.93	C
1800000125682010	ALASKA HIGHWAY	1349.77	125.68	63.5269	-143.85	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	312	Long	50	0	\$ -	\$ 5,516.93	C
1800000125812010	ALASKA HIGHWAY	1349.9	125.81	63.5285	-143.85	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	312	Long	50	0	\$ -	\$ 5,516.93	C
1800000125962010	ALASKA HIGHWAY	1350.05	125.96	63.5303	-143.85	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	312	Long	50	0	\$ -	\$ 5,516.93	C
1800000126212010	ALASKA HIGHWAY	1350.3	126.21	63.5337	-143.85	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	312	Long	50	0	\$ -	\$ 5,516.93	C
1800000126812010	ALASKA HIGHWAY	1350.9	126.81	63.541	-143.86	Soil	3	0.18	2	\$ 435	9	\$ 30,000	3	Negligible	312	Long	50	0	\$ -	\$ 5,516.93	C
1800000127352010	ALASKA HIGHWAY	1351.44	127.35	63.5479	-143.87	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	312	Long	50	0	\$ -	\$ 5,516.93	C
1800000127852010	ALASKA HIGHWAY	1351.95	127.85	63.5541	-143.88	Soil	3	0.18	2	\$ 435	9	\$ 30,000	3	Negligible	312	Long	50	0	\$ -	\$ 5,516.93	C
1800000145472010	ALASKA HIGHWAY	1369.57	145.47	63.6955	-144.31	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	312	Long	50	0	\$ -	\$ 5,516.93	C
1800000145762010	ALASKA HIGHWAY	1369.87	145.76	63.7069	-144.32	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	312	Long	50	0	\$ -	\$ 5,516.93	C
1800000157652010	ALASKA HIGHWAY	1381.98	157.65	63.7228	-144.66	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	457	Long	50	0	\$ -	\$ 5,516.93	C
1800000157852010	ALASKA HIGHWAY	1382.2	157.85	63.7255	-144.66	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	457	Long	50	0	\$ -	\$ 5,516.93	C
1800000158112010	ALASKA HIGHWAY	1382.49	158.11	63.7291	-144.67	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	457	Long	50	0	\$ -	\$ 5,516.93	C
1800000158562010	ALASKA HIGHWAY	1382.99	158.56	63.7347	-144.67	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	457	Long	50	0	\$ -	\$ 5,516.93	C
1800000158832010	ALASKA HIGHWAY	1383.28	158.83	63.7381	-144.68	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	457	Long	50	0	\$ -	\$ 5,516.93	C
1900000221712010	RICHARDSON HIGHWAY	218.83	221.71	63.4236	-145.76	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	356	Long	50	0	\$ -	\$ 5,516.93	C
1900000222762010	RICHARDSON HIGHWAY	219.83	222.76	63.4344	-145.78	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	356	Long	50	0	\$ -	\$ 5,516.93	C
1900000223782010	RICHARDSON HIGHWAY	220.86	223.78	63.4453	-145.8	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	356	Long	50	0	\$ -	\$ 5,516.93	C
1900000225952010	RICHARDSON HIGHWAY	223.05	225.95	63.4696	-145.85	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	356	Long	50	0	\$ -	\$ 5,516.93	C
1900000226702010	RICHARDSON HIGHWAY	223.8	226.7	63.4797	-145.85	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	356	Long	50	0	\$ -	\$ 5,516.93	C
1900000229872010	RICHARDSON HIGHWAY	227.02	229.87	63.5244	-145.85	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	618	Long	50	0	\$ -	\$ 5,516.93	C
1900000231302010	RICHARDSON HIGHWAY	228.42	231.3	63.5441	-145.86	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	618	Long	50	0	\$ -	\$ 5,516.93	C
1900000233962010	RICHARDSON HIGHWAY	231.1	233.96	63.5813	-145.87	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	618	Long	50	0	\$ -	\$ 5,516.93	C
1900000237732010	RICHARDSON HIGHWAY	234.91	237.73	63.6305	-145.89	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	618	Long	50	0	\$ -	\$ 5,516.93	C
1900000293572010	RICHARDSON HIGHWAY	291.15	293.57	64.2741	-146.23	Soil	3	0.18	2	\$ 435	9	\$ 30,000	3	Negligible	1310	Long	50	0	\$ -	\$ 5,516.93	C
1900000299542010	RICHARDSON HIGHWAY	297.43	299.54	64.2907	-146.41	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	1750	Long	50	0	\$ -	\$ 5,516.93	C
2300000038212010	TOK CUTOFF HIGHWAY	38.91	38.21	62.633	-144.56	Soil	3	0.18	2	\$ 435	9	\$ 30,000	3	Negligible	390	Long	50	0	\$ -	\$ 5,516.93	C
2300000044472010	TOK CUTOFF HIGHWAY	45.18	44.47	62.6802	-144.4	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	390	Long	50	0	\$ -	\$ 5,516.93	C
2300000044792010	TOK CUTOFF HIGHWAY	45.49	44.79	62.6845	-144.4	Soil	3	0.18	2	\$ 435	9	\$ 30,000	3	Negligible	390	Long	50	0	\$ -	\$ 5,516.93	C
2300000057932010	TOK CUTOFF HIGHWAY	58.89	57.93	62.717	-144.02	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	390	Long	50	0	\$ -	\$ 5,516.93	C
2300000058152010	TOK CUTOFF HIGHWAY	59.11	58.15	62.7158	-144.01	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	390	Long	50	0	\$ -	\$ 5,516.93	C
2300000059212010	TOK CUTOFF HIGHWAY	60.2	59.21	62.7158	-143.98	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	381	Long	50	0	\$ -	\$ 5,516.93	C
2300000061452010	TOK CUTOFF HIGHWAY	62.63	61.45	62.7258	-143.92	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	381	Long	50	0	\$ -	\$ 5,516.93	C
2300000065422010	TOK CUTOFF HIGHWAY	66.61	65.42	62.745	-143.81	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	381	Long	50	0	\$ -	\$ 5,516.93	C
2300000067462010	TOK CUTOFF HIGHWAY	68.76	67.46	62.7728	-143.79	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	381	Long	50	0	\$ -	\$ 5,516.93	C
2300000071292010	TOK CUTOFF HIGHWAY	72.57	71.29	62.8163	-143.72	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	381	Long	50	0	\$ -	\$ 5,516.93	C
2300000071812010	TOK CUTOFF HIGHWAY	73.1	71.81	62.8202	-143.71	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	381	Long	50	0	\$ -	\$ 5,516.93	C
2300000072742010	TOK CUTOFF HIGHWAY	73.91	72.74	62.8342	-143.7	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	381	Long	50	0	\$ -	\$ 5,516.93	C
2300000073632010	TOK CUTOFF HIGHWAY	74.87	73.63	62.847	-143.71	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	381	Long	50	0	\$ -	\$ 5,516.93	C
2300000085822010	TOK CUTOFF HIGHWAY	86.93	85.82	62.9505	-143.38	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	360	Long	50	0	\$ -	\$ 5,516.93	C
2300000088512010	TOK CUTOFF HIGHWAY	89.58	88.51	62.9475	-143.38	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	360	Long	50	0	\$ -	\$ 5,516.93	C
2300000090762010	TOK CUTOFF HIGHWAY	91.95	90.76	62.9733	-143.35	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	360	Long	50	0	\$ -	\$ 5,516.93	C
2300000092212010	TOK CUTOFF HIGHWAY	93.59	92.21	62.9937	-143.36	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	360	Long	50	0	\$ -	\$ 5,516.93	C
2300000093302010	TOK CUTOFF HIGHWAY	94.84	93.3	63.0082	-143.37	Soil	3	0.18	2	\$ 435	9	\$ 30,000	3	Negligible	360	Long	50	0	\$ -	\$ 5,516.93	C
2300000103592010	TOK CUTOFF HIGHWAY	105.82	103.59	63.1319	-143.28	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	380	Long	50	0	\$ -	\$ 5,516.93	C
2300000104812010	TOK CUTOFF HIGHWAY	107.05	104.81	63.1427	-143.25	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	380	Long	50	0	\$ -	\$ 5,516.93	C
2300000105912010	TOK CUTOFF HIGHWAY	108.08	105.91	63.1533	-143.23	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	380	Long	50	0	\$ -	\$ 5,516.93	C
2300000106662010	TOK CUTOFF HIGHWAY	108.85	106.66	63.1604	-143.21	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	380	Long	50	0	\$ -	\$ 5,516.93	C
1500000016082010	DALTON HIGHWAY	15.96	16.08	65.577	-149.06	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	288	Complex	500	0	\$ -	\$ 5,516.93	C
1500000017392010	DALTON HIGHWAY	17.26	17.39	65.5928	-149.07	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	288	Complex	500	0	\$ -	\$ 5,516.93	C
1500000042622010	DALTON HIGHWAY	41.81	42.62	65.7858	-149.44	Soil	3	0.18	1	\$ 435	9	\$ 30,000	3	Negligible	280	Complex	500	0	\$ -	\$ 5,516.93	C
1500000047112010	DALTON HIGHWAY	46.39	47.11																		

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade	
2500000116812010	TAYLOR HIGHWAY	118.5	116.81	64.3742	-141.42	Soil	5	0.96	1	\$ 435	3	\$ 5,000	9	Minor	90	Complex	500	0.25	\$ 19	\$ 5,217.90	C	
1100000013572010	STERLING HIGHWAY	50.4	13.57	60.4842	-149.88	Soil	5	0.96	0	\$ 435	0	\$ 5,000	0	Negligible	3212	Complex	500	0	\$ -	\$ 5,200.08	C	
2995000006112010	KLONDIKE HIGHWAY	7.75	6.11	59.539	-135.21	Rock	2	0.04	1	\$ 435	27	\$ 75,000	27	Major	302	Complex	500	0.5	\$ 75,500	\$ 5,731.01	C	
2995000006562010	KLONDIKE HIGHWAY	8.2	6.56	59.5439	-135.21	Rock	2	0.04	1	\$ 435	27	\$ 75,000	27	Major	302	Complex	500	0.5	\$ 75,500	\$ 5,731.01	C	
2995000002952010	KLONDIKE HIGHWAY	4.6	2.95	59.5031	-135.26	Rock	2	0.04	2	\$ 435	9	\$ 30,000	27	Major	533	Complex	500	0.5	\$ 133,250	\$ 6,215.12	C	
2500000117722010	TAYLOR HIGHWAY	119.4	117.72	64.3861	-141.41	Rock	2	0.04	1	\$ 435	3	\$ 5,000	81	Critical	90	Complex	500	3	\$ 135,000	\$ 5,332.32	C	
2914000002662010	SOUTH TONGASS	0	2.66	55.3388	-131.64	Wall	1	0.01	11	\$ 152,250	27	\$ 75,000	27	Major	5831	Complex	500	0.5	\$ 1,457,750	\$ 8,464.28	C	
2914000003332014	SOUTH TONGASS	0	3.33	55.332	-131.62	Wall	4	0.10	2	\$ 435	27	\$ 75,000	9	Minor	5544	Complex	500	0.25	\$ 1,148	\$ 7,491.31	C	
2914000003842014	SOUTH TONGASS	0	3.84	55.3264	-131.62	Wall	4	0.10	2	\$ 435	27	\$ 75,000	9	Minor	5544	Complex	500	0.25	\$ 1,148	\$ 7,491.31	C	
1300000104572015	SEWARD HIGHWAY	105.27	104.57	60.9844	-149.57	Wall	4	0.10	100	\$ 217,500	81	\$ 175,000	9	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 38,561.79	C	
1300000106412015	SEWARD HIGHWAY	107.15	106.41	60.9895	-149.62	Wall	1	0.01	100	\$ 217,500	27	\$ 75,000	27	Major	8270	Complex	500	0.5	\$ 2,067,500	\$ 11,855.02	C	
2914000004342014	SOUTH TONGASS	0	4.34	55.3222	-131.6	Wall	4	0.10	5	\$ 43,500	27	\$ 75,000	9	Minor	5361	Complex	500	0.25	\$ 1,110	\$ 11,700.22	C	
2915000000962014	NORTH TONGASS	0	0.96	55.3641	-131.71	Wall	1	0.01	2	\$ 435	27	\$ 75,000	27	Major	9372	Complex	500	0.5	\$ 2,343,000	\$ 12,148.55	C	
1343000005572015	MINNESOTA DRIVE	0	5.57	61.1839	-149.91	Wall	3	0.04	21	\$ 152,250	3	\$ 5,000	3	Negligible	37954	Simple	5	0	\$ -	\$ 5,838.84	C	
2960000000012015	GLACIER HIGHWAY-EGAN	0.47	0.01	58.2995	-134.41	Wall	4	0.10	53	\$ 217,500	81	\$ 175,000	25	Major	10602	Simple	5	0.5	\$ 26,505	\$ 40,987.05	C	
2960000002802015	GLACIER HIGHWAY-EGAN	3.25	2.8	58.3241	-134.46	Wall	2	0.01	100	\$ 217,500	81	\$ 175,000	27	Major	21477	Moderate	25	0.5	\$ 268,463	\$ 9,875.46	C	
1343440000232015	OCEAN DOCK ROAD	0	0.23	61.227	-149.89	Wall	1	0.01	4	\$ 43,500	9	\$ 30,000	81	Critical	3610	Complex	500	3	\$ 5,415,000	\$ 27,570.45	C	
1347500001302015	NORTHERN LIGHTS BOUL	0	1.3	61.1954	-149.77	Wall	3	0.04	54	\$ 217,500	3	\$ 5,000	9	Minor	19890	Simple	5	0.25	\$ 4,117	\$ 8,414.51	C	
2960000012622015	GLACIER HIGHWAY-EGAN	13.26	12.62	58.3831	-134.67	Wall	4	0.10	1	\$ 435	27	\$ 75,000	9	Minor	4958	Complex	500	0.25	\$ 1,026	\$ 7,479.44	C	
1343410000432016	C Street	0	0.43	61.2278	-149.88	Wall	3	0.04	100	\$ 217,500	27	\$ 75,000	9	Minor	9394	Simple	5	0.25	\$ 1,945	\$ 10,933.00	C	
1351000003622016	Hiland Road	0	3.62	61.284	-149.5	Wall	2	0.01	1	\$ 435	9	\$ 30,000	27	Major	1406	Complex	500	0.5	\$ 351,500	\$ 5,706.50	C	
170000000162016	Parks Highway	0	0.16	61.5553	-149.25	Wall	1	0.01	100	\$ 217,500	27	\$ 75,000	81	Critical	29332	Moderate	25	3	\$ 2,199,900	\$ 12,520.10	C	
1350000106182016	Glenn Highway	0	106.18	61.8167	-147.47	Wall	1	0.01	1	\$ 435	9	\$ 30,000	100	Catastrophic	1152	Complex	500	10	\$ 4,492,800	\$ 22,721.62	C	
1350000106192016	Glenn Highway	0	106.19	61.8164	-147.47	Wall	1	0.01	1	\$ 435	9	\$ 30,000	100	Catastrophic	1152	Complex	500	10	\$ 4,492,800	\$ 22,721.62	C	
1350000098272016	Glenn Highway	0	98.27	61.8011	-147.67	Wall	3	0.04	13	\$ 152,250	27	\$ 75,000	9	Minor	1222	Complex	500	0.25	\$ 253	\$ 8,447.40	C	
1100000008552010	STERLING HIGHWAY	45.34	8.55	60.4896	-149.76	Rock	4	0.58	2	\$ 435	3	\$ 5,000	9	Minor	3490	Complex	500	0.25	\$ 722	\$ 3,544.38	B	
1300000104852010	SEWARD HIGHWAY	105.6	104.85	60.9841	-149.57	Rock	1	0.01	95	\$ 217,500	9	\$ 30,000	6	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 3,453.23	B	
1300000022342010	SEWARD HIGHWAY	22.59	22.34	60.376	-149.36	Rock	4	0.58	2	\$ 435	3	\$ 5,000	9	Minor	1780	Complex	500	0.25	\$ 368	\$ 3,340.63	B	
1350000001492010	GLENN HIGHWAY	68.68	61.49	61.7335	-148.7	Rock	4	0.58	1	\$ 435	3	\$ 5,000	9	Minor	1393	Long	435	50	0.25	\$ 288	\$ 3,294.52	B
2915000001552010	NORTH TONGASS	3.8	1.55	55.3669	-131.71	Rock	1	0.01	79	\$ 217,500	3	\$ 5,000	9	Minor	9372	Complex	500	0.25	\$ 1,940	\$ 3,109.97	B	
1300000108912010	SEWARD HIGHWAY	109.8	108.91	61.0053	-149.68	Rock	1	0.01	80	\$ 217,500	3	\$ 5,000	9	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 3,106.81	B	
68000001802010	REZANOF DRIVE	1.8	5.5	57.7784	-152.45	Rock	1	0.01	100	\$ 217,500	3	\$ 5,000	3	Negligible	4930	Complex	500	0	\$ -	\$ 3,083.09	B	
2915000000632010	NORTH TONGASS	2.86	0.63	55.3607	-131.7	Rock	1	0.01	100	\$ 217,500	3	\$ 5,000	3	Negligible	9372	Complex	500	0	\$ -	\$ 3,083.09	B	
2915000001252010	NORTH TONGASS	3.49	1.25	55.3671	-131.71	Rock	1	0.01	86	\$ 217,500	3	\$ 5,000	3	Negligible	9372	Complex	500	0	\$ -	\$ 3,083.09	B	
1300000112452010	SEWARD HIGHWAY	113.4	112.45	61.0317	-149.77	Rock	1	0.01	43	\$ 217,500	3	\$ 5,000	3	Negligible	8270	Complex	500	0	\$ -	\$ 3,083.09	B	
2915000002212010	NORTH TONGASS	4.47	2.21	55.3782	-131.73	Rock	1	0.01	53	\$ 217,500	3	\$ 5,000	3	Negligible	6587	Moderate	25	0	\$ -	\$ 3,083.09	B	
1323150005602010	WHITTIER ACCESS ROAD	5.6	5.6	60.7851	-148.83	Rock	2	0.04	1	\$ 435	27	\$ 75,000	9	Minor	1080	Complex	500	0.25	\$ 224	\$ 2,872.76	B	
1323150005602010	WHITTIER ACCESS ROAD	5.6	5.6	60.7851	-148.83	Rock	2	0.04	1	\$ 435	27	\$ 75,000	9	Minor	1080	Complex	500	0.25	\$ 224	\$ 2,872.76	B	
2995000003672010	KLONDIKE HIGHWAY	5.31	3.67	59.5113	-135.25	Rock	2	0.04	1	\$ 435	27	\$ 75,000	9	Minor	302	Complex	500	0.25	\$ 63	\$ 2,866.64	B	
2960000030112010	GLACIER HIGHWAY-EGAN	30.89	30.11	58.5594	-134.87	Rock	2	0.04	1	\$ 435	27	\$ 75,000	9	Minor	147	Complex	500	0.25	\$ 30	\$ 2,865.42	B	
2960000030272010	GLACIER HIGHWAY-EGAN	31.05	30.27	58.5618	-134.87	Rock	2	0.04	1	\$ 435	27	\$ 75,000	9	Minor	147	Complex	500	0.25	\$ 30	\$ 2,865.42	B	
1300000111232010	SEWARD HIGHWAY	112.2	111.23	61.0186	-149.74	Rock	2	0.04	7	\$ 43,500	6	\$ 30,000	9	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 2,855.80	B	
1300000073602010	SEWARD HIGHWAY	74.49	73.6	60.8413	-149.08	Rock	2	0.04	5	\$ 43,500	9	\$ 30,000	9	Minor	4163	Complex	500	0.25	\$ 862	\$ 2,823.52	B	
1700000183182010	PARKS HIGHWAY	218.95	183.18	63.4963	-148.82	Rock	2	0.04	5	\$ 43,500	6	\$ 30,000	9	Minor	2193	Long	50	0.25	\$ 454	\$ 2,808.03	B	
1300000112052010	SEWARD HIGHWAY	113	112.05	61.0283	-149.75	Rock	1	0.01	12	\$ 152,250	9	\$ 30,000	9	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 2,549.08	B	
1900000197402010	RICHARDSON HIGHWAY	194.45	197.4	63.1435	-145.54	Soil	4	0.42	1	\$ 435	3	\$ 5,000	9	Minor	380	Long	50	0.25	\$ 79	\$ 2,318.06	B	
2981500001152010	LUTAK ROAD	1.66	1.15	59.2473	-135.43	Soil	2	0.03	1	\$ 435	27	\$ 75,000	9	Minor	600	Complex	500	0.25	\$ 124	\$ 2,312.85	B	
2981500001332010	LUTAK ROAD	1.81	1.33	59.2495	-135.43	Soil	2	0.03	1	\$ 435	27	\$ 75,000	9	Minor	600	Complex	500	0.25	\$ 124	\$ 2,312.85	B	
1500000009402010	DALTON HIGHWAY	9.31	9.4	65.5436	-148.89	Soil	4	0.42	2	\$ 435	3	\$ 5,000	9	Minor	288	Complex	500	0.25	\$ 60	\$ 2,310.06	B	
1500000020792010	DALTON HIGHWAY	20.37	20.79	65.631	-149.03	Soil	4	0.42	1	\$ 435	3	\$ 5,000	9	Minor	288	Complex	500	0.25	\$ 60	\$ 2,310.06	B	
1530000001662010	ELLIOTT HIGHWAY	1.81	1.66	64.9817	-147.64	Soil	2	0.03	1	\$ 435	27	\$ 75,000	3	Negligible	1075	Complex	500	0	\$ -	\$ 2,309.05	B	
1500000075102010	DALTON HIGHWAY	74.45	75.1	66.0579	-150.16	Soil	4	0.42	2	\$ 435	3	\$ 5,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 2,306.31	B	
1500000079252010	DALTON HIGHWAY	78.97	79.25	66.1147	-150.17	Soil	4	0.42	1	\$ 435	3	\$ 5,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 2,3		

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
150000089792010	DALTON HIGHWAY	89.37	89.79	66.2478	-150.31	Soil	4	0.42	2	\$ 435	3	\$ 5,000	3	Negligible	245	Complex	500	0	\$ -	\$ 2,284.99	B
1500000152292010	DALTON HIGHWAY	151.48	152.29	66.964	-150.37	Soil	4	0.42	1	\$ 435	3	\$ 5,000	3	Negligible	245	Complex	500	0	\$ -	\$ 2,284.99	B
1500000152492010	DALTON HIGHWAY	151.67	152.49	66.9652	-150.36	Soil	4	0.42	1	\$ 435	3	\$ 5,000	3	Negligible	245	Complex	500	0	\$ -	\$ 2,284.99	B
1500000169232010	DALTON HIGHWAY	168.2	169.23	67.1767	-150.32	Soil	4	0.42	1	\$ 435	3	\$ 5,000	3	Negligible	245	Complex	500	0	\$ -	\$ 2,284.99	B
1500000268842010	DALTON HIGHWAY	266.22	268.84	68.3888	-149.32	Soil	4	0.42	2	\$ 435	3	\$ 5,000	3	Negligible	190	Complex	500	0	\$ -	\$ 2,284.99	B
1500000271392010	DALTON HIGHWAY	268.82	271.39	68.4235	-149.34	Soil	4	0.42	1	\$ 435	3	\$ 5,000	3	Negligible	190	Complex	500	0	\$ -	\$ 2,284.99	B
1500000275792010	DALTON HIGHWAY	272.9	275.79	68.4761	-149.42	Soil	4	0.42	1	\$ 435	3	\$ 5,000	3	Negligible	190	Complex	500	0	\$ -	\$ 2,284.99	B
1500000276802010	DALTON HIGHWAY	273.92	276.8	68.4866	-149.45	Soil	4	0.42	1	\$ 435	3	\$ 5,000	3	Negligible	190	Complex	500	0	\$ -	\$ 2,284.99	B
1500000305122010	DALTON HIGHWAY	302.47	305.12	68.7271	-148.96	Soil	4	0.42	2	\$ 435	3	\$ 5,000	3	Negligible	190	Complex	500	0	\$ -	\$ 2,284.99	B
1500000307372010	DALTON HIGHWAY	304.85	307.37	68.7511	-148.9	Soil	4	0.42	2	\$ 435	3	\$ 5,000	3	Negligible	190	Complex	500	0	\$ -	\$ 2,284.99	B
1500000312482010	DALTON HIGHWAY	309.92	312.48	68.816	-148.82	Soil	4	0.42	2	\$ 435	3	\$ 5,000	3	Negligible	190	Complex	500	0	\$ -	\$ 2,284.99	B
2995000004152010	KLONDIKE HIGHWAY	5.77	4.15	59.5178	-135.25	Rock	2	0.04	1	\$ 435	9	\$ 30,000	27	Major	302	Complex	500	0.5	\$ 75,500	\$ 4,022.36	B
2995000007852010	KLONDIKE HIGHWAY	9.49	7.85	59.5621	-135.2	Rock	2	0.04	1	\$ 435	9	\$ 30,000	20	Major	302	Complex	500	0.5	\$ 75,500	\$ 4,022.36	B
1300000098592010	SEWARD HIGHWAY	99.39	98.59	60.955	-149.42	Rock	1	0.01	12	\$ 152,250	3	\$ 5,000	3	Negligible	8120	Complex	500	0	\$ -	\$ 2,178.95	B
1300000105512010	SEWARD HIGHWAY	106.3	105.51	60.9834	-149.6	Rock	1	0.01	15	\$ 152,250	3	\$ 5,000	3	Negligible	8270	Complex	500	0	\$ -	\$ 2,178.95	B
1300000105512010	SEWARD HIGHWAY	106.3	105.51	60.9834	-149.6	Rock	1	0.01	15	\$ 152,250	3	\$ 5,000	3	Negligible	8270	Complex	500	0	\$ -	\$ 2,178.95	B
1300000113552010	SEWARD HIGHWAY	114.5	113.55	61.0435	-149.79	Rock	1	0.01	15	\$ 152,250	3	\$ 5,000	3	Negligible	8270	Complex	500	0	\$ -	\$ 2,178.95	B
1700000301542010	PARKS HIGHWAY	338.25	301.54	64.8451	-147.99	Rock	1	0.01	19	\$ 152,250	3	\$ 5,000	3	Negligible	1723	Long	50	0	\$ -	\$ 2,178.95	B
2915000001412010	NORTH TONGASS	3.65	1.41	55.3688	-131.72	Rock	1	0.01	19	\$ 152,250	3	\$ 5,000	3	Negligible	9372	Complex	500	0	\$ -	\$ 2,178.95	B
2915000005342010	NORTH TONGASS	7.58	5.34	55.4096	-131.73	Rock	1	0.01	18	\$ 152,250	3	\$ 5,000	3	Negligible	4500	Complex	500	0	\$ -	\$ 2,178.95	B
1300000110652010	SEWARD HIGHWAY	111.6	110.65	61.0159	-149.73	Rock	2	0.04	8	\$ 43,500	3	\$ 5,000	9	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 1,906.55	B
1300000110932010	SEWARD HIGHWAY	111.9	110.93	61.0167	-149.74	Rock	2	0.04	9	\$ 43,500	3	\$ 5,000	9	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 1,906.55	B
1300000113152010	SEWARD HIGHWAY	114.1	113.15	61.0369	-149.78	Rock	2	0.04	4	\$ 43,500	3	\$ 5,000	9	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 1,906.55	B
2915000001782010	NORTH TONGASS	4.03	1.78	55.3735	-131.72	Rock	2	0.04	5	\$ 43,500	3	\$ 5,000	9	Minor	6587	Moderate	25	0.25	\$ 1,364	\$ 1,893.32	B
1300000056502010	SEWARD HIGHWAY	57.09	56.5	60.7756	-149.41	Rock	2	0.04	4	\$ 43,500	3	\$ 5,000	9	Minor	3510	Complex	500	0.25	\$ 727	\$ 1,869.13	B
1300000057862010	SEWARD HIGHWAY	58.47	57.86	60.7609	-149.39	Rock	2	0.04	4	\$ 43,500	3	\$ 5,000	9	Minor	3510	Complex	500	0.25	\$ 727	\$ 1,869.13	B
2914000007472010	SOUTH TONGASS	5.18	7.47	55.2941	-131.55	Rock	2	0.04	4	\$ 43,500	3	\$ 5,000	9	Minor	1924	Complex	500	0.25	\$ 398	\$ 1,856.67	B
1300000102392010	SEWARD HIGHWAY	103.2	102.39	60.9833	-149.54	Rock	2	0.04	4	\$ 43,500	3	\$ 5,000	3	Negligible	8460	Complex	500	0	\$ -	\$ 1,841.55	B
1300000104022010	SEWARD HIGHWAY	104.72	104.02	60.9832	-149.55	Rock	2	0.04	4	\$ 43,500	3	\$ 5,000	3	Negligible	8270	Complex	500	0	\$ -	\$ 1,841.55	B
1350000110562010	GLENN HIGHWAY	118.8	110.56	61.8525	-147.37	Rock	2	0.04	5	\$ 43,500	3	\$ 5,000	3	Negligible	939	Long	50	0	\$ -	\$ 1,841.55	B
1700000205492010	PARKS HIGHWAY	241.13	205.49	63.7767	-148.91	Rock	2	0.04	7	\$ 43,500	3	\$ 5,000	3	Negligible	3094	Long	50	0	\$ -	\$ 1,841.55	B
1900000018502010	RICHARDSON HIGHWAY	14.68	18.5	61.0809	-145.9	Rock	2	0.04	5	\$ 43,500	3	\$ 5,000	3	Negligible	1237	Complex	500	0	\$ -	\$ 1,841.55	B
190000031242010	RICHARDSON HIGHWAY	329.77	331.24	64.5318	-147.01	Rock	2	0.04	7	\$ 43,500	3	\$ 5,000	3	Negligible	3450	Long	50	0	\$ -	\$ 1,841.55	B
2914000004222010	SOUTH TONGASS	1.91	4.22	55.3232	-131.61	Rock	2	0.04	5	\$ 43,500	3	\$ 5,000	3	Negligible	5361	Complex	500	0	\$ -	\$ 1,841.55	B
2914000006642010	SOUTH TONGASS	4.32	6.64	55.3063	-131.56	Rock	2	0.04	5	\$ 43,500	3	\$ 5,000	3	Negligible	3360	Complex	500	0	\$ -	\$ 1,841.55	B
2915000001142010	NORTH TONGASS	3.38	1.14	55.3659	-131.71	Rock	2	0.04	5	\$ 43,500	3	\$ 5,000	3	Negligible	9372	Complex	500	0	\$ -	\$ 1,841.55	B
2915000003142010	NORTH TONGASS	5.4	3.14	55.3902	-131.74	Rock	2	0.04	4	\$ 43,500	3	\$ 5,000	3	Negligible	5050	Complex	500	0	\$ -	\$ 1,841.55	B
2915000003852010	NORTH TONGASS	6.1	3.85	55.398	-131.73	Rock	2	0.04	6	\$ 43,500	3	\$ 5,000	3	Negligible	5050	Complex	500	0	\$ -	\$ 1,841.55	B
2915000004762010	NORTH TONGASS	7	4.76	55.4085	-131.72	Rock	2	0.04	4	\$ 43,500	3	\$ 5,000	3	Negligible	5900	Complex	500	0	\$ -	\$ 1,841.55	B
2915000006582010	NORTH TONGASS	8.86	6.58	55.4105	-131.76	Rock	2	0.04	8	\$ 43,500	3	\$ 5,000	3	Negligible	4500	Moderate	25	0	\$ -	\$ 1,841.55	B
2933000005662010	ZIMOVIA HIGHWAY	6.1	5.66	56.3934	-132.34	Rock	2	0.04	1	\$ 435	3	\$ 5,000	20	Major	450	Complex	500	0.5	\$ 112,500	\$ 4,478.00	B
1300000105732010	SEWARD HIGHWAY	106.5	105.73	60.9844	-149.6	Rock	3	0.21	2	\$ 435	3	\$ 5,000	9	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 1,472.81	B
2961500009262010	NORTH DOUGLAS HIGHWAY	10.3	9.26	58.321	-134.64	Rock	2	0.04	1	\$ 435	3	\$ 5,000	27	Major	335	Complex	500	0.5	\$ 83,750	\$ 3,386.36	B
2914000003322010	SOUTH TONGASS	1	3.32	55.3318	-131.62	Rock	3	0.21	2	\$ 435	3	\$ 5,000	9	Minor	5544	Complex	500	0.25	\$ 1,148	\$ 1,356.53	B
2960000012812010	GLACIER HIGHWAY-EGAN	13.46	12.81	58.3822	-134.67	Rock	3	0.21	2	\$ 435	3	\$ 5,000	9	Minor	4958	Complex	500	0.25	\$ 1,026	\$ 1,331.53	B
1100000008322010	STERLING HIGHWAY	45.1	8.32	60.4879	-149.74	Rock	3	0.21	1	\$ 435	3	\$ 5,000	9	Minor	3490	Complex	500	0.25	\$ 722	\$ 1,268.91	B
1100000008562010	STERLING HIGHWAY	45.35	8.56	60.4897	-149.79	Rock	3	0.21	2	\$ 435	3	\$ 5,000	9	Minor	3490	Complex	500	0.25	\$ 722	\$ 1,268.91	B
1100000008932010	STERLING HIGHWAY	45.74	8.93	60.4928	-149.75	Rock	3	0.21	2	\$ 435	3	\$ 5,000	9	Minor	3490	Complex	500	0.25	\$ 722	\$ 1,268.91	B
1300000037972010	SEWARD HIGHWAY	38.4	37.97	60.5474	-149.58	Rock	3	0.21	2	\$ 435	3	\$ 5,000	9	Minor	3292	Complex	500	0.25	\$ 681	\$ 1,260.46	B
1100000003022010	STERLING HIGHWAY	39.92	3.02	60.5242	-149.62	Rock	3	0.21	3	\$ 435	3	\$ 5,000	9	Minor	2880	Complex	500	0.25	\$ 596	\$ 1,242.89	B
1300000036922010	SEWARD HIGHWAY	37.36	36.92	60.5353	-149.56	Rock	3	0.21	3	\$ 435	3	\$ 5,000	9	Minor	2420	Complex	500	0.25	\$ 501	\$ 1,223.26	B
1300000020232010	SEWARD HIGHWAY	20.62	20.23	60.3658	-149.35	Rock	3	0.21	2	\$ 435	3	\$ 5,000	9	Minor	1780	Complex	500	0.25	\$ 368	\$ 1,195.96	B
1300000020372010	SEWARD HIGHWAY	20.73	20.37	60.3672	-149.35	Rock	3	0.21	1	\$ 435	3	\$ 5,000	9	Minor	1780	Complex	500	0.25	\$ 368	\$ 1,195.96	B
1300000021132010	SEWARD HIGHWAY	21.43	21.13	60.3803	-149.35	Rock	3	0.21	1	\$ 435	3	\$ 5,000	9	Minor	1780	Complex	500	0.25	\$ 368	\$ 1,195.96	B
1300000021242010	SEWARD HIGHWAY	21.55	21.24	60.3828	-149.35	Rock	3	0.21	1	\$ 435	3	\$ 5,000	9	Minor	1780	Complex	500	0.25	\$ 368	\$ 1,195.96	B
1300000021912010	SEWARD HIGHWAY	22.22	21.91	60.3912	-149.35	Rock	3	0.21	2	\$ 435	3	\$ 5,000	9	Minor	1780	Complex	500	0.25	\$ 368	\$ 1,195.96	B
1300000022412010	SEWARD HIGHWAY	22.65	22.41	60.3972	-149.36	Rock	3	0.21	1	\$ 435	3	\$ 5,000	9	Minor	1780	Complex	500	0.25	\$ 368	\$ 1,195.96	B
1300000025942010	SEWARD HIGHWAY	26.18	25.94	60.4468	-149.37	Rock	3	0.21	1	\$ 435	3	\$ 5,000	9	Minor	1780	Complex	500	0.25	\$ 368	\$ 1,195.96	B
1300000026792010	SEWARD HIGHWAY	26.96	26.79	60.4591	-149.37	Rock	3	0.21	1	\$ 435	3	\$ 5,000	9	Minor	1780	Complex	500	0.25	\$ 368	\$ 1,195.96	B
1300000026992010	SEWARD HIGHWAY	27.16	26.99	60.462	-149.37	Rock	3	0.21	1	\$ 435	3	\$ 5,000	9	Minor	1780	Complex	500	0.25	\$ 368	\$ 1,195.96	B

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade				
1350000080942010	GLENN HIGHWAY	88.3	80.94	61.8118	-148.15	Rock	3	0.21	2	\$	435	3	\$	5,000	9	Minor	1430	Long	50	0.25	\$	296	\$	1,181.03	B
1100000013482010	STERLING HIGHWAY	50.3	13.48	60.4842	-149.88	Rock	2	0.04	2	\$	435	9	\$	30,000	9	Minor	3212	Complex	500	0.25	\$	665	\$	1,180.86	B
1350000060372010	GLENN HIGHWAY	67.6	60.37	61.7282	-148.73	Rock	3	0.21	1	\$	435	3	\$	5,000	9	Minor	1393	Long	50	0.25	\$	288	\$	1,179.45	B
1700000273182010	PARKS HIGHWAY	309.23	273.18	64.6061	-149.09	Rock	2	0.04	2	\$	435	9	\$	30,000	9	Minor	1723	Long	50	0.25	\$	357	\$	1,169.16	B
1300000031612010	SEWARD HIGHWAY	32.16	31.61	60.5014	-149.42	Rock	2	0.04	1	\$	435	9	\$	30,000	9	Minor	1660	Complex	500	0.25	\$	344	\$	1,168.67	B
1900000017222010	RICHARDSON HIGHWAY	13.39	17.22	61.0658	-145.91	Rock	2	0.04	2	\$	435	7	\$	30,000	9	Minor	1237	Complex	500	0.25	\$	256	\$	1,165.34	B
291400009022010	SOUTH TONGASS	6.73	9.02	55.3068	-131.53	Rock	2	0.04	1	\$	435	6	\$	30,000	9	Minor	787	Moderate	25	0.25	\$	163	\$	1,161.80	B
2981500001222010	LUTAK ROAD	1.72	1.22	59.2481	-135.43	Rock	2	0.04	1	\$	435	9	\$	30,000	9	Minor	600	Complex	500	0.25	\$	124	\$	1,160.33	B
2981500001372010	LUTAK ROAD	1.85	1.37	59.2501	-135.43	Rock	2	0.04	1	\$	435	9	\$	30,000	9	Minor	600	Complex	500	0.25	\$	124	\$	1,160.33	B
2995000002782010	KLONDIKE HIGHWAY	4.43	2.78	59.5009	-135.27	Rock	2	0.04	1	\$	435	9	\$	30,000	9	Minor	533	Complex	500	0.25	\$	110	\$	1,159.81	B
2980000005332010	HAINES HIGHWAY	5.79	5.33	59.2617	-135.57	Rock	2	0.04	1	\$	435	6	\$	30,000	9	Minor	520	Complex	500	0.25	\$	108	\$	1,159.71	B
2980000005762010	HAINES HIGHWAY	6.22	5.76	59.2637	-135.59	Rock	2	0.04	1	\$	435	9	\$	30,000	9	Minor	520	Complex	500	0.25	\$	108	\$	1,159.71	B
1800000052302010	ALASKA HIGHWAY	1275.6	52.3	63.1129	-142.03	Rock	2	0.04	1	\$	435	6	\$	30,000	9	Minor	490	Complex	500	0.25	\$	101	\$	1,159.47	B
2933000005962010	ZIMOVIA HIGHWAY	6.4	5.96	56.3795	-132.36	Rock	2	0.04	1	\$	435	5	\$	30,000	9	Minor	450	Complex	500	0.25	\$	93	\$	1,159.15	B
2980000025382010	HAINES HIGHWAY	25.86	25.38	59.4128	-135.99	Rock	2	0.04	1	\$	435	9	\$	30,000	9	Minor	415	Complex	500	0.25	\$	86	\$	1,158.88	B
2995000005882010	KLONDIKE HIGHWAY	7.51	5.88	59.5357	-135.22	Rock	2	0.04	2	\$	435	9	\$	30,000	9	Minor	302	Complex	500	0.25	\$	63	\$	1,157.99	B
2995000007022010	KLONDIKE HIGHWAY	8.66	7.02	59.5515	-135.2	Rock	2	0.04	1	\$	435	9	\$	30,000	9	Minor	302	Complex	500	0.25	\$	63	\$	1,157.99	B
2995000007212010	KLONDIKE HIGHWAY	8.84	7.21	59.5528	-135.2	Rock	2	0.04	1	\$	435	9	\$	30,000	9	Minor	302	Complex	500	0.25	\$	63	\$	1,157.99	B
2995000007342010	KLONDIKE HIGHWAY	8.97	7.34	59.5548	-135.2	Rock	2	0.04	1	\$	435	9	\$	30,000	9	Minor	302	Complex	500	0.25	\$	63	\$	1,157.99	B
2995000007512010	KLONDIKE HIGHWAY	9.14	7.51	59.5567	-135.2	Rock	2	0.04	1	\$	435	9	\$	30,000	9	Minor	302	Complex	500	0.25	\$	63	\$	1,157.99	B
2995000008062010	KLONDIKE HIGHWAY	9.7	8.06	59.5653	-135.2	Rock	2	0.04	1	\$	435	9	\$	30,000	9	Minor	302	Complex	500	0.25	\$	63	\$	1,157.99	B
2995000008132010	KLONDIKE HIGHWAY	9.77	8.13	59.5661	-135.2	Rock	2	0.04	1	\$	435	9	\$	30,000	9	Minor	302	Complex	500	0.25	\$	63	\$	1,157.99	B
2995000009052010	KLONDIKE HIGHWAY	10.7	9.05	59.5789	-135.2	Rock	2	0.04	1	\$	435	9	\$	30,000	9	Minor	302	Complex	500	0.25	\$	63	\$	1,157.99	B
2995000009772010	KLONDIKE HIGHWAY	11.43	9.77	59.5885	-135.19	Rock	2	0.04	1	\$	435	9	\$	30,000	9	Minor	302	Complex	500	0.25	\$	63	\$	1,157.99	B
2960000029222010	GLACIER HIGHWAY-EGAN	30.01	29.22	58.5493	-134.86	Rock	2	0.04	1	\$	435	9	\$	30,000	9	Minor	147	Complex	500	0.25	\$	30	\$	1,156.77	B
2960000030762010	GLACIER HIGHWAY-EGAN	31.57	30.76	58.5684	-134.88	Rock	2	0.04	1	\$	435	9	\$	30,000	9	Minor	147	Complex	500	0.25	\$	30	\$	1,156.77	B
2960000032422010	GLACIER HIGHWAY-EGAN	33.21	32.42	58.5886	-134.9	Rock	2	0.04	1	\$	435	9	\$	30,000	9	Minor	133	Complex	500	0.25	\$	28	\$	1,156.66	B
2915000005592010	NORTH TONGASS	7.83	5.59	55.4068	-131.74	Rock	2	0.04	2	\$	435	9	\$	30,000	3	Negligible	4500	Complex	500	0	\$	-	\$	1,155.62	B
2981500001072010	LUTAK ROAD	1.59	1.07	59.2465	-135.43	Rock	2	0.04	1	\$	435	9	\$	30,000	3	Negligible	600	Complex	500	0	\$	-	\$	1,155.62	B
2980000003762010	HAINES HIGHWAY	4.22	3.76	59.2492	-135.54	Rock	3	0.21	1	\$	435	3	\$	5,000	9	Minor	520	Complex	500	0.25	\$	108	\$	1,142.21	B
2980000008352010	HAINES HIGHWAY	8.82	8.35	59.2723	-135.66	Rock	3	0.21	2	\$	435	3	\$	5,000	9	Minor	520	Complex	500	0.25	\$	108	\$	1,142.21	B
2980000013092010	HAINES HIGHWAY	13.54	13.09	59.3222	-135.74	Rock	3	0.21	1	\$	435	3	\$	5,000	9	Minor	435	Complex	500	0.25	\$	90	\$	1,138.59	B
180000006072010	ALASKA HIGHWAY	1227.85	6.07	62.6812	-141.1	Rock	3	0.21	1	\$	435	3	\$	5,000	9	Minor	314	Complex	500	0.25	\$	65	\$	1,133.42	B
2914000011282010	SOUTH TONGASS	8.96	11.28	55.3332	-131.51	Rock	3	0.21	1	\$	435	3	\$	5,000	9	Minor	134	Complex	500	0.25	\$	28	\$	1,125.75	B
1100000010212010	STERLING HIGHWAY	47.11	10.21	60.495	-149.79	Rock	3	0.21	1	\$	435	3	\$	5,000	3	Negligible	3490	Complex	500	0	\$	-	\$	1,120.03	B
1300000020142010	SEWARD HIGHWAY	20.55	20.14	60.3688	-149.35	Rock	3	0.21	1	\$	435	3	\$	5,000	3	Negligible	1780	Complex	500	0	\$	-	\$	1,120.03	B
1300000022442010	SEWARD HIGHWAY	22.68	22.44	60.3997	-149.36	Rock	3	0.21	2	\$	435	3	\$	5,000	3	Negligible	1780	Complex	500	0	\$	-	\$	1,120.03	B
1300000028092010	SEWARD HIGHWAY	28.36	28.09	60.479	-149.37	Rock	3	0.21	2	\$	435	3	\$	5,000	3	Negligible	1780	Complex	500	0	\$	-	\$	1,120.03	B
1350000061302010	GLENN HIGHWAY	68.5	61.3	61.7338	-148.71	Rock	3	0.21	2	\$	435	3	\$	5,000	3	Negligible	1393	Long	50	0	\$	-	\$	1,120.03	B
1350000062042010	GLENN HIGHWAY	69.2	62.04	61.7369	-148.69	Rock	3	0.21	1	\$	435	3	\$	5,000	3	Negligible	1393	Long	50	0	\$	-	\$	1,120.03	B
1350000066002010	GLENN HIGHWAY	72.9	66	61.7613	-148.58	Rock	3	0.21	2	\$	435	3	\$	5,000	3	Negligible	1393	Long	50	0	\$	-	\$	1,120.03	B
1350000099592010	GLENN HIGHWAY	107.6	99.59	61.8015	-147.67	Rock	3	0.21	1	\$	435	3	\$	5,000	3	Negligible	1210	Long	50	0	\$	-	\$	1,120.03	B
1351000003302010	HILAND ROAD	3.3	3.3	61.2846	-149.5	Rock	3	0.21	2	\$	435	3	\$	5,000	3	Negligible	1540	Complex	500	0	\$	-	\$	1,120.03	B
1900000210812010	RICHARDSON HIGHWAY	207.9	210.81	63.2913	-145.66	Rock	3	0.21	1	\$	435	3	\$	5,000	3	Negligible	356	Long	50	0	\$	-	\$	1,120.03	B
1900000211372010	RICHARDSON HIGHWAY	208.5	211.37	63.2979	-145.67	Rock	3	0.21	1	\$	435	3	\$	5,000	3	Negligible	356	Long	50	0	\$	-	\$	1,120.03	B
1900000212342010	RICHARDSON HIGHWAY	209.5	212.34	63.3097	-145.69	Rock	3	0.21	1	\$	435	3	\$	5,000	3	Negligible	356	Long	50	0	\$	-	\$	1,120.03	B
1900000216082010	RICHARDSON HIGHWAY	213.2	216.08	63.3471	-145.73	Rock	3	0.21	1	\$	435	3	\$	5,000	3	Negligible	356	Long	50	0	\$	-	\$	1,120.03	B
2500000109352010	TAYLOR HIGHWAY	110.91	109.35	64.2983	-141.43	Rock	3	0.21	3	\$	435	3	\$	5,000	3	Negligible	90	Complex	500	0	\$	-	\$	1,120.03	B
2915000008002010	NORTH TONGASS	10.27	8	55.4243	-131.78	Rock	3	0.21	3	\$	435	3	\$	5,000	3	Negligible	4361	Moderate	25	0	\$	-	\$	1,120.03	B
2915000008612010	NORTH TONGASS	10.87	8.61	55.4305	-131.79	Rock	3	0.21	2	\$	435	3	\$	5,000	3	Negligible	4361								

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
2914000003662014	SOUTH TONGASS	0	3.66	55.3285	-131.62	Wall	3	0.04	2	\$ 435	9	\$ 30,000	3	Negligible	5544	Complex	500	0	\$ -	\$ 1,130.08	B
130000005192015	SEWARD HIGHWAY	55.76	55.19	60.7731	-149.44	Wall	3	0.04	1	\$ 435	9	\$ 30,000	9	Minor	3388	Complex	500	0.25	\$ 701	\$ 1,156.12	B
2914000003722014	SOUTH TONGASS	0	3.72	55.3278	-131.62	Wall	3	0.04	1	\$ 435	9	\$ 30,000	3	Negligible	5544	Complex	500	0	\$ -	\$ 1,130.08	B
2914000003752014	SOUTH TONGASS	0	3.75	55.3274	-131.62	Wall	3	0.04	2	\$ 435	9	\$ 30,000	3	Negligible	5544	Complex	500	0	\$ -	\$ 1,130.08	B
2914000003822014	SOUTH TONGASS	0	3.82	55.3268	-131.62	Wall	3	0.04	6	\$ 43,500	27	\$ 75,000	9	Minor	5544	Complex	500	0.25	\$ 1,148	\$ 4,442.63	B
2914000003882014	SOUTH TONGASS	0	3.88	55.3259	-131.61	Wall	3	0.04	2	\$ 435	9	\$ 30,000	3	Negligible	5544	Complex	500	0	\$ -	\$ 1,130.08	B
2914000004192014	SOUTH TONGASS	0	4.19	55.3234	-131.61	Wall	3	0.04	4	\$ 43,500	27	\$ 75,000	9	Minor	5361	Complex	500	0.25	\$ 1,110	\$ 4,441.22	B
1300000117342015	SEWARD HIGHWAY	118.27	117.34	61.0891	-149.83	Wall	1	0.01	100	\$ 217,500	27	\$ 75,000	9	Minor	14060	Simple	5	0.25	\$ 2,910	\$ 1,483.94	B
1300000117792015	SEWARD HIGHWAY	118.71	117.79	61.0961	-149.84	Wall	1	0.01	71	\$ 217,500	3	\$ 5,000	3	Negligible	21610	Simple	5	0	\$ -	\$ 1,117.69	B
1332000000392015	OLD SEWARD HIGHWAY	0	0.39	61.0866	-149.83	Wall	1	0.01	47	\$ 217,500	27	\$ 75,000	27	Major	18472	Simple	5	0.5	\$ 46,180	\$ 1,701.30	B
1332000000482015	OLD SEWARD HIGHWAY	0	0.48	61.0874	-149.84	Wall	1	0.01	100	\$ 217,500	27	\$ 75,000	27	Major	18472	Simple	5	0.5	\$ 46,180	\$ 1,701.30	B
1332000000552015	OLD SEWARD HIGHWAY	0	0.55	61.0885	-149.84	Wall	1	0.01	100	\$ 217,500	9	\$ 30,000	9	Minor	9802	Simple	5	0.25	\$ 2,029	\$ 1,253.46	B
1332000002242015	OLD SEWARD HIGHWAY	0	2.24	61.1084	-149.86	Wall	1	0.01	11	\$ 152,250	9	\$ 30,000	20	Major	14165	Simple	5	0.5	\$ 35,413	\$ 1,093.39	B
1332000004992015	OLD SEWARD HIGHWAY	0	4.99	61.1558	-149.86	Wall	1	0.01	30	\$ 217,500	3	\$ 5,000	3	Negligible	19055	Simple	5	0	\$ -	\$ 1,117.69	B
2914000004362014	SOUTH TONGASS	0	4.36	55.3221	-131.6	Wall	4	0.10	3	\$ 435	9	\$ 30,000	3	Negligible	5361	Complex	500	0	\$ -	\$ 2,977.15	B
1337000001472015	DIMOND BOULEVARD	0	1.47	61.1429	-149.9	Wall	1	0.01	100	\$ 217,500	9	\$ 30,000	9	Minor	31957	Simple	5	0.25	\$ 6,615	\$ 1,276.50	B
1337000001582015	DIMOND BOULEVARD	0	1.58	61.142	-149.9	Wall	1	0.01	100	\$ 217,500	9	\$ 30,000	9	Minor	31957	Simple	5	0.25	\$ 6,615	\$ 1,276.50	B
1337000002402015	DIMOND BOULEVARD	0	2.4	61.1373	-149.92	Wall	1	0.01	100	\$ 217,500	9	\$ 30,000	9	Minor	33072	Simple	5	0.25	\$ 6,846	\$ 1,277.66	B
1337000002492015	DIMOND BOULEVARD	0	2.49	61.1373	-149.93	Wall	1	0.01	100	\$ 217,500	9	\$ 30,000	9	Minor	33072	Simple	5	0.25	\$ 6,846	\$ 1,277.66	B
1337000002562015	DIMOND BOULEVARD	0	2.56	61.1373	-149.93	Wall	1	0.01	59	\$ 217,500	9	\$ 30,000	3	Negligible	33072	Simple	5	0	\$ -	\$ 1,243.27	B
1337000003052015	DIMOND BOULEVARD	0	3.05	61.1373	-149.94	Wall	2	0.01	97	\$ 217,500	9	\$ 30,000	9	Minor	19806	Simple	5	0.25	\$ 4,100	\$ 3,759.16	B
1338990002352015	TUDOR ROAD	0	2.35	61.1807	-149.85	Wall	1	0.01	100	\$ 217,500	3	\$ 5,000	3	Negligible	40694	Simple	5	0	\$ -	\$ 1,117.69	B
1338990002662015	TUDOR ROAD	0	2.66	61.181	-149.84	Wall	1	0.01	100	\$ 217,500	3	\$ 5,000	3	Negligible	40694	Simple	5	0	\$ -	\$ 1,117.69	B
1338990002682015	TUDOR ROAD	0	2.68	61.1807	-149.84	Wall	1	0.01	100	\$ 217,500	9	\$ 30,000	9	Minor	40694	Simple	5	0.25	\$ 8,424	\$ 1,285.58	B
1338990003282015	TUDOR ROAD	0	3.28	61.1807	-149.82	Wall	1	0.01	100	\$ 217,500	9	\$ 30,000	9	Minor	40144	Simple	5	0.25	\$ 8,310	\$ 1,285.01	B
2915000001642014	NORTH TONGASS	0	1.64	55.3719	-131.72	Wall	2	0.01	5	\$ 43,500	9	\$ 30,000	3	Negligible	6587	Complex	500	0	\$ -	\$ 1,098.17	B
1338990003772015	TUDOR ROAD	0	3.77	61.1807	-149.78	Wall	1	0.01	66	\$ 217,500	9	\$ 30,000	9	Minor	41614	Simple	5	0.25	\$ 8,614	\$ 1,286.54	B
1339000001642015	MULDON ROAD	0	1.64	61.2032	-149.73	Wall	1	0.01	100	\$ 217,500	3	\$ 5,000	3	Negligible	33000	Simple	5	0	\$ -	\$ 1,117.69	B
1339000001642015	MULDON ROAD	0	1.64	61.2032	-149.73	Wall	1	0.01	100	\$ 217,500	3	\$ 5,000	3	Negligible	33000	Simple	5	0	\$ -	\$ 1,117.69	B
2915000004452014	NORTH TONGASS	0	4.45	55.4047	-131.72	Wall	2	0.01	2	\$ 435	27	\$ 75,000	9	Minor	5050	Complex	500	0.25	\$ 1,045	\$ 1,142.69	B
1341400001912015	LAKE OTIS PARKWAY	0	1.91	61.1802	-149.84	Wall	2	0.01	72	\$ 217,500	3	\$ 5,000	9	Minor	25249	Simple	5	0.25	\$ 5,227	\$ 3,402.47	B
1341400002312015	LAKE OTIS PARKWAY	0	2.31	61.1744	-149.84	Wall	1	0.01	33	\$ 217,500	9	\$ 30,000	9	Minor	21523	Simple	5	0.25	\$ 4,455	\$ 1,265.65	B
1341400004972015	LAKE OTIS PARKWAY	0	4.97	61.1367	-149.83	Wall	1	0.01	33	\$ 217,500	9	\$ 30,000	9	Minor	13137	Simple	5	0.25	\$ 2,719	\$ 1,256.93	B
13420000000842015	GAMBELL STREET	0	0.84	61.2074	-149.87	Wall	2	0.01	11	\$ 152,250	3	\$ 5,000	3	Negligible	23886	Simple	5	0	\$ -	\$ 2,349.48	B
2915000007462014	NORTH TONGASS	0	7.46	55.4216	-131.77	Wall	1	0.01	74	\$ 217,500	81	\$ 175,000	27	Major	4361	Simple	5	0.5	\$ 10,903	\$ 2,026.42	B
29540000000212015	HALIBUT POINT ROAD	0.13	0.21	57.0545	-135.34	Wall	2	0.01	100	\$ 217,500	27	\$ 75,000	3	Negligible	9750	Simple	5	0	\$ -	\$ 4,370.25	B
1343000005132015	MINNESOTA DRIVE	0	5.13	61.1775	-149.91	Wall	1	0.01	100	\$ 217,500	9	\$ 30,000	9	Minor	42142	Simple	5	0.25	\$ 8,723	\$ 1,287.09	B
1343000005252015	MINNESOTA DRIVE	0	5.25	61.1791	-149.91	Wall	1	0.01	100	\$ 217,500	27	\$ 75,000	9	Minor	42142	Simple	5	0.25	\$ 8,723	\$ 1,513.14	B
1343000005282015	MINNESOTA DRIVE	0	5.28	61.1799	-149.91	Wall	1	0.01	100	\$ 217,500	3	\$ 5,000	3	Negligible	42142	Simple	5	0	\$ -	\$ 1,117.69	B
1343410006022015	C STREET	0	6.02	61.1493	-149.89	Wall	1	0.01	100	\$ 217,500	9	\$ 30,000	9	Minor	17285	Simple	5	0.25	\$ 3,578	\$ 1,261.24	B
2960000002812015	GLACIER HIGHWAY-EGAN	3.26	2.81	58.3247	-134.46	Wall	1	0.01	100	\$ 217,500	27	\$ 75,000	9	Minor	21477	Moderate	25	0.25	\$ 4,446	\$ 1,491.65	B
1343410006022015	C STREET	0	6.02	61.1493	-149.89	Wall	1	0.01	100	\$ 217,500	9	\$ 30,000	9	Minor	17285	Simple	5	0.25	\$ 3,578	\$ 1,261.24	B
2960000002822015	GLACIER HIGHWAY-EGAN	3.27	2.82	58.3248	-134.46	Wall	1	0.01	100	\$ 217,500	9	\$ 30,000	9	Minor	21477	Moderate	25	0.25	\$ 4,446	\$ 1,265.60	B
2960000006232015	GLACIER HIGHWAY-EGAN	6.73	6.23	58.3589	-134.53	Wall	2	0.01	100	\$ 217,500	27	\$ 75,000	9	Minor	20798	Simple	5	0.25	\$ 4,305	\$ 4,434.57	B
2960000006322015	GLACIER HIGHWAY-EGAN	6.82	6.32	58.3584	-134.53	Wall	1	0.01	51	\$ 217,500	3	\$ 5,000	3	Negligible	20798	Simple	5	0	\$ -	\$ 1,117.69	B
13440000000622015	L STREET	0	0.62	61.2101	-149.9	Wall	2	0.01	100	\$ 217,500	9	\$ 30,000	3	Negligible	15707	Simple	5	0	\$ -	\$ 3,697.90	B
13444000000962015	5TH AVENUE	0	0.96	61.2177	-149.86	Wall	1	0.01	100	\$ 217,500	3	\$ 5,000	9	Minor	45910	Simple	5	0.25	\$ 9,503	\$ 1,165.43	B
13470000000452015	BONIFACE PARKWAY	0	0.45	61.1873	-149.78	Wall	1	0.01	100	\$ 217,500	9	\$ 30,000	9	Minor	15745	Simple	5	0.25	\$ 3,259	\$ 1,259.64	B
1338990003772015	TUDOR ROAD	0	3.77	61.1807	-149.78	Wall	1	0.01	66	\$ 217,500	9	\$ 30,000	9	Minor	41614	Simple	5	0.25	\$ 8,614	\$ 1,286.54	B
1100000012092010	36TH AVE	0	2.43	61.1881	-149.84	Wall	1	0.01	100	\$ 217,500	9	\$ 30,000	9	Minor	15980	Complex	500	0.25	\$ 3,308	\$ 1,259.89	B
2914000000322014	SOUTH TONGASS	0	0.32	55.3526	-131.69	Wall	3	0.04	2	\$ 435	9	\$ 30,000	9	Minor	15779	Simple	5	0.25	\$ 3,266	\$ 1,251.36	B
2914000000472014	SOUTH TONGASS	0	0.47	55.3516	-131.68	Wall	2	0.01	7	\$ 43,500	9	\$ 30,000	6	Minor	15779	Simple	5	0.25	\$ 3,266	\$ 1,146.97	B
2914000000512014	SOUTH TONGASS	0	0.51	55.3513	-131.68	Wall	2	0.01	5	\$ 43,500	27	\$ 75,000	6	Minor	15779	Simple	5	0.25	\$ 3,266	\$ 1,819.31	B
1337350001372016	ELMORE RD	0	1.37	61.1521	-149.8	Wall	1	0.01	100	\$ 217,500	9	\$ 30,000	9	Minor	11604	Simple	5	0.25	\$ 2,402	\$ 1,255.34	B
1337350001122016	ELMORE RD	0	1.12	61.1491	-149.8	Wall	1	0.01	67	\$ 217,500	9	\$ 30,000	9	Minor	11604	Simple	5	0.25	\$ 2,402	\$ 1,255.34	B
1325000001212016	Alyeska Highway	0	1.21	60.9559	-149.16	Wall	3	0.04	1	\$ 435	9	\$ 30,000	3	Negligible	2621	Complex	500	0	\$ -	\$ 1,130.08	B
1341400003702016	Lake Otis Parkway	0	3.7	61.1554	-149.83	Wall	2	0.01	100	\$ 217,500	3	\$ 5,000	3	Negligible	18664	Simple	5	0	\$ -	\$ 3,324.38	B
1338000000052016	Dimond Blvd	0	0.05	61.141	-149.91	Wall	1	0.01	15	\$ 152,250	9	\$ 30,000	27	Major	29714	Simple	5	0.5	\$ 74,285	\$ 1,288.66	B
13376000000112016	88th Avenue	0	0.11	61.1412	-149.93	Wall	2	0.01	12	\$ 152,250	9	\$ 30,000	3	Negligible	8842	Simple	5	0	\$ -	\$ 2,723.00	B
13376000000102016	88th Avenue	0	0.01	61.1413	-149.92	Wall	2	0.01	57	\$ 217,500	9	\$ 30,000	3	Negligible							

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
134350000632016	Airport Entrance Road/15th Avenue	0	0.63	61.1763	-149.98	Wall	2	0.01	8	\$ 43,500	9	\$ 30,000	27	Major	4362	Simple	5	0.5	\$ 10,905	\$ 1,261.10	B
1345030000042016	15th Avenue	0	0.04	61.2077	-149.9	Wall	2	0.01	6	\$ 43,500	9	\$ 30,000	9	Minor	4202	Simple	5	0.25	\$ 870	\$ 1,111.16	B
1345030000662016	15th Avenue	0	0.66	61.208	-149.88	Wall	2	0.01	5	\$ 43,500	9	\$ 30,000	3	Negligible	12634	Simple	5	0	\$ -	\$ 1,098.17	B
1343410000502016	C Street	0	0.5	61.228	-149.88	Wall	2	0.01	13	\$ 152,250	9	\$ 30,000	3	Negligible	9394	Simple	5	0	\$ -	\$ 2,723.00	B
1343410000552016	C Street	0	0.55	61.2274	-149.88	Wall	2	0.01	5	\$ 43,500	9	\$ 30,000	3	Negligible	9394	Simple	5	0	\$ -	\$ 1,098.17	B
1343410000572016	C Street	0	0.57	61.227	-149.88	Wall	2	0.01	5	\$ 43,500	9	\$ 30,000	9	Minor	9394	Simple	5	0.25	\$ 1,945	\$ 1,127.22	B
1347000001472016	Boniface Parkway	0	1.47	61.2023	-149.78	Wall	1	0.01	100	\$ 217,500	9	\$ 30,000	9	Minor	24641	Simple	5	0.25	\$ 5,101	\$ 1,268.89	B
1341500000812016	Ingra Street	0	0.81	61.2135	-149.87	Wall	2	0.01	46	\$ 217,500	9	\$ 30,000	3	Negligible	18417	Simple	5	0	\$ -	\$ 3,697.90	B
135000000642016	Glenn Highway	0	0.64	61.2204	-149.81	Wall	1	0.01	100	\$ 217,500	27	\$ 75,000	27	Major	48166	Simple	5	0.5	\$ 120,415	\$ 2,074.20	B
135000000732016	Glenn Highway	0	0.73	61.2214	-149.81	Wall	1	0.01	100	\$ 217,500	9	\$ 30,000	9	Minor	54464	Simple	5	0.25	\$ 11,274	\$ 1,299.90	B
1352350002632016	Eagle River Loop Road	0	2.63	61.3	-149.54	Wall	2	0.01	100	\$ 217,500	9	\$ 30,000	3	Negligible	12244	Simple	5	0	\$ -	\$ 3,697.90	B
1352350002142016	Eagle River Loop Road	0	2.14	61.3067	-149.54	Wall	2	0.01	34	\$ 217,500	27	\$ 75,000	9	Minor	12244	Simple	5	0.25	\$ 2,535	\$ 4,408.12	B
1352350002292016	Eagle River Loop Road	0	2.29	61.3051	-149.54	Wall	2	0.01	97	\$ 217,500	9	\$ 30,000	9	Minor	12244	Simple	5	0.25	\$ 2,535	\$ 3,735.77	B
135210000012016	Business Boulevard	0	0.01	61.3238	-149.57	Wall	2	0.01	4	\$ 43,500	9	\$ 30,000	9	Minor	3922	Simple	5	0.25	\$ 812	\$ 1,110.30	B
135200000472016	Old Glenn @ Eagle River	0	0.47	61.3239	-149.57	Wall	2	0.01	67	\$ 217,500	9	\$ 30,000	9	Minor	14122	Simple	5	0.25	\$ 2,923	\$ 3,741.58	B
135200000772016	Old Glenn @ Eagle River	0	0.77	61.3283	-149.57	Wall	2	0.01	100	\$ 217,500	27	\$ 75,000	9	Minor	14122	Simple	5	0.25	\$ 2,923	\$ 4,413.93	B
1350000014612016	Glenn Highway	0	14.61	61.3489	-149.55	Wall	2	0.01	40	\$ 217,500	9	\$ 30,000	3	Negligible	15000	Simple	5	0	\$ -	\$ 3,697.90	B
1352000002552016	Old Glenn @ Eagle River	0	2.55	61.35	-149.55	Wall	1	0.01	40	\$ 217,500	9	\$ 30,000	9	Minor	4323	Simple	5	0.25	\$ 895	\$ 1,247.76	B
1352000007692016	Old Glenn @ Eagle River	0	7.69	61.405	-149.46	Wall	3	0.04	2	\$ 435	9	\$ 30,000	9	Minor	4323	Simple	5	0.25	\$ 895	\$ 1,163.31	B
135000002002016	Glenn Highway	0	20	60.4074	-149.45	Wall	2	0.01	6	\$ 43,500	9	\$ 30,000	9	Minor	4323	Simple	5	0.25	\$ 895	\$ 1,111.54	B
1700630000652016	Railroad Avenue	0	0.65	61.5799	-149.43	Wall	1	0.01	100	\$ 217,500	27	\$ 75,000	27	Major	15000	Simple	5	0.5	\$ 37,500	\$ 1,657.69	B
170000006532016	Parks Highway SB Matsu	0	6.53	61.5805	-149.43	Wall	1	0.01	100	\$ 217,500	27	\$ 75,000	27	Major	34019	Simple	5	0.5	\$ 85,048	\$ 1,896.54	B
1700400000152016	Crusey Street	0	0.15	61.5827	-149.43	Wall	2	0.01	6	\$ 43,500	9	\$ 30,000	3	Negligible	7284	Simple	5	0	\$ -	\$ 1,098.17	B
170000004012016	Parks Highway SB Matsu	0	4.01	61.5717	-149.39	Wall	1	0.01	43	\$ 217,500	9	\$ 30,000	9	Minor	32501	Simple	5	0.25	\$ 6,728	\$ 1,277.07	B
1350000041392016	Glenn Highway	0	41.39	61.6162	-149.12	Wall	2	0.01	17	\$ 152,250	27	\$ 75,000	9	Minor	7337	Moderate	25	0.25	\$ 1,519	\$ 3,418.04	B
1700000055682016	Parks Highway	0	5.68	61.5752	-149.4	Wall	2	0.01	43	\$ 217,500	9	\$ 30,000	27	Major	32501	Simple	5	0.5	\$ 81,253	\$ 4,911.90	B
1700000055672016	Parks Highway	0	5.67	61.5756	-149.4	Wall	2	0.01	91	\$ 217,500	9	\$ 30,000	27	Major	32501	Simple	5	0.5	\$ 81,253	\$ 4,911.90	B
1350000089982016	Glenn Highway	0	98.99	61.8011	-147.67	Wall	1	0.01	3	\$ 435	27	\$ 75,000	27	Major	1152	Complex	500	0.5	\$ 288,000	\$ 1,825.65	B
1350000046982016	Glenn Highway	0	46.98	61.6793	-149.05	Wall	3	0.04	1	\$ 435	9	\$ 30,000	9	Minor	1222	Complex	500	0.25	\$ 253	\$ 1,139.47	B
171000005492016	Talkeetna Spur Highway	0	5.49	62.2018	-150.07	Wall	2	0.01	5	\$ 43,500	9	\$ 30,000	3	Negligible	2223	Complex	500	0	\$ -	\$ 1,098.17	B
170000029322016	Parks Highway	0	29.32	61.6867	-149.97	Wall	2	0.01	1	\$ 435	9	\$ 30,000	27	Major	3891	Long	50	0.5	\$ 97,275	\$ 1,908.12	B
1700000176162016	Parks Highway	0	176.16	63.4156	-148.88	Wall	2	0.01	1	\$ 435	9	\$ 30,000	27	Major	1157	Complex	500	0.5	\$ 289,250	\$ 4,776.42	B
1196000000412016	STERLING WYE	0.41	0.41	60.5323	-149.56	Rock	2	0.04	2	\$ 435	3	\$ 5,000	27	Major	1170	Moderate	25	0.5	\$ 14,625	\$ 761.68	A
150000009792016	DALTON HIGHWAY	9.7	9.79	65.5483	-148.9	Soil	3	0.18	1	\$ 435	3	\$ 5,000	9	Minor	288	Complex	500	0.25	\$ 60	\$ 996.00	A
150000009882016	DALTON HIGHWAY	9.79	9.88	65.5491	-148.9	Soil	3	0.18	1	\$ 435	3	\$ 5,000	9	Minor	288	Complex	500	0.25	\$ 60	\$ 996.00	A
1500000249502016	DALTON HIGHWAY	246.17	249.5	68.1316	-149.45	Soil	3	0.18	1	\$ 435	3	\$ 5,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 994.39	A
1500000249582016	DALTON HIGHWAY	246.25	249.58	68.1314	-149.44	Soil	3	0.18	1	\$ 435	3	\$ 5,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 994.39	A
1500000334862016	DALTON HIGHWAY	332.02	334.86	69.1147	-148.85	Soil	3	0.18	1	\$ 435	3	\$ 5,000	9	Minor	190	Complex	500	0.25	\$ 39	\$ 992.33	A
674000032032016	CHINIAK HIGHWAY	42.11	32.03	57.6178	-152.21	Soil	3	0.18	1	\$ 435	3	\$ 5,000	9	Minor	100	Complex	500	0.25	\$ 21	\$ 988.95	A
2500000110042016	TAYLOR HIGHWAY	111.6	110.04	64.306	-141.42	Soil	3	0.18	1	\$ 435	3	\$ 5,000	9	Minor	90	Complex	500	0.25	\$ 19	\$ 988.58	A
2500000113472016	TAYLOR HIGHWAY	115.1	113.47	64.3382	-141.41	Soil	3	0.18	1	\$ 435	3	\$ 5,000	9	Minor	90	Complex	500	0.25	\$ 19	\$ 988.58	A
2500000148802016	TAYLOR HIGHWAY	150.8	148.8	64.6808	-141.32	Soil	3	0.18	1	\$ 435	3	\$ 5,000	9	Minor	90	Complex	500	0.25	\$ 19	\$ 988.58	A
110000006412016	STERLING HIGHWAY	43.32	6.41	60.4983	-149.69	Soil	3	0.18	2	\$ 435	3	\$ 5,000	3	Negligible	2880	Complex	500	0	\$ -	\$ 985.20	A
119300000302016	BEAN CREEK ROAD	0.3	0.3	60.4948	-149.82	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	500	Complex	500	0	\$ -	\$ 985.20	A
1350000047442016	GLENN HIGHWAY	54.68	47.44	61.6827	-149.04	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	2562	Long	50	0	\$ -	\$ 985.20	A
1350000050882016	GLENN HIGHWAY	58	50.88	61.6939	-148.97	Soil	3	0.18	3	\$ 435	3	\$ 5,000	3	Negligible	2562	Long	50	0	\$ -	\$ 985.20	A
1350000159512016	GLENN HIGHWAY	168.9	159.51	62.0999	-146.09	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	915	Long	50	0	\$ -	\$ 985.20	A
1700000205152016	PARKS HIGHWAY	240.79	205.15	63.7721	-148.91	Soil	3	0.18	2	\$ 435	3	\$ 5,000	3	Negligible	3094	Long	50	0	\$ -	\$ 985.20	A
1700000208222016	PARKS HIGHWAY	243.76	208.22	63.8053	-148.96	Soil	3	0.18	2	\$ 435	3	\$ 5,000	3	Negligible	3094	Long	50	0	\$ -	\$ 985.20	A
180000009932016	ALASKA HIGHWAY	1232.1	9.93	62.7115	-141.14	Soil	3	0.18	2	\$ 435	3	\$ 5,000	3	Negligible	314	Complex	500	0	\$ -	\$ 985.20	A
180000010722016	ALASKA HIGHWAY	1233	10.72	62.7217	-141.18	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	314	Complex	500	0	\$ -	\$ 985.20	A
180000019582016	ALASKA HIGHWAY	1241.88	19.58	62.8123	-141.35	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	314	Complex	500	0	\$ -	\$ 985.20	A
180000021822016	ALASKA HIGHWAY	1244.14	21.82	62.8335	-141.4	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	314	Complex	500	0	\$ -	\$ 985.20	A
180000028582016	ALASKA HIGHWAY	1250.97	28.58	62.9076	-141.52	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	314	Complex	500	0	\$ -	\$ 985.20	A
180000039812016	ALASKA HIGHWAY	1262.6	39.81	63.0117	-141.76	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	314	Complex	500	0	\$ -	\$ 985.20	A
180000044022016	ALASKA HIGHWAY	1267	44.02	63.0468	-141.83	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 985.20	A
180000046842016	ALASKA HIGHWAY	1269.9	46.84	63.0631	-141.91	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 985.20	A
180000049752016	ALASKA HIGHWAY	1272.85	49.75	63.0874	-141.97	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 985.20	A
180000055972016	ALASKA HIGHWAY	1279.45	55.97	63.1518	-142.08	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 985.20	A
180000061552016	ALASKA HIGHWAY	1285.29	61.55	63.208	-142.19	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 985.20	A
1800000138762016	ALASKA HIGHWAY	1362.83	138.76	63.6743	-144.1	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	312						

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
190000011492010	RICHARDSON HIGHWAY	112.1	114.92	62.0743	-145.44	Soil	3	0.18	3	\$ 435	3	\$ 5,000	3	Negligible	1712	Complex	500	0	\$ -	\$ 985.20	A
1900000207202010	RICHARDSON HIGHWAY	204.3	207.2	63.2468	-145.68	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	356	Long	50	0	\$ -	\$ 985.20	A
1900000207482010	RICHARDSON HIGHWAY	204.58	207.48	63.2502	-145.69	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	356	Long	50	0	\$ -	\$ 985.20	A
1900000236262010	RICHARDSON HIGHWAY	233.37	236.26	63.6131	-145.86	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	618	Long	50	0	\$ -	\$ 985.20	A
1900000237882010	RICHARDSON HIGHWAY	235.06	237.88	63.6324	-145.89	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	618	Long	50	0	\$ -	\$ 985.20	A
1900000298562010	RICHARDSON HIGHWAY	296.4	298.56	64.2904	-146.38	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	1310	Long	50	0	\$ -	\$ 985.20	A
2300000005312010	TOK CUTOFF HIGHWAY	5.3	5.31	62.3205	-145.21	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	472	Long	50	0	\$ -	\$ 985.20	A
2300000005952010	TOK CUTOFF HIGHWAY	5.6	5.59	62.324	-145.2	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	472	Long	50	0	\$ -	\$ 985.20	A
2300000058332010	TOK CUTOFF HIGHWAY	59.29	58.33	62.7145	-144.01	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	390	Long	50	0	\$ -	\$ 985.20	A
2300000059562010	TOK CUTOFF HIGHWAY	60.59	59.56	62.718	-143.97	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	381	Long	50	0	\$ -	\$ 985.20	A
2300000060632010	TOK CUTOFF HIGHWAY	61.78	60.63	62.7231	-143.94	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	381	Long	50	0	\$ -	\$ 985.20	A
2300000061022010	TOK CUTOFF HIGHWAY	62.2	61.02	62.7249	-143.93	Soil	3	0.18	2	\$ 435	3	\$ 5,000	3	Negligible	381	Long	50	0	\$ -	\$ 985.20	A
2300000067852010	TOK CUTOFF HIGHWAY	69.17	67.85	62.778	-143.79	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	381	Long	50	0	\$ -	\$ 985.20	A
2300000073102010	TAYLOR HIGHWAY	74.29	73.1	62.8394	-143.71	Soil	3	0.18	3	\$ 435	3	\$ 5,000	3	Negligible	381	Long	50	0	\$ -	\$ 985.20	A
2300000073312010	TOK CUTOFF HIGHWAY	74.52	73.31	62.8424	-143.71	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	381	Long	50	0	\$ -	\$ 985.20	A
2300000074472010	TOK CUTOFF HIGHWAY	75.59	74.47	62.8573	-143.69	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	381	Long	50	0	\$ -	\$ 985.20	A
2300000088312010	TOK CUTOFF HIGHWAY	89.36	88.31	62.9453	-143.39	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	360	Long	50	0	\$ -	\$ 985.20	A
2300000088992010	TOK CUTOFF HIGHWAY	90.1	88.99	62.9522	-143.37	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	360	Long	50	0	\$ -	\$ 985.20	A
2500000007742010	TAYLOR HIGHWAY	8	7.74	63.3949	-142.5	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	171	Complex	500	0	\$ -	\$ 985.20	A
2500000115972010	TAYLOR HIGHWAY	117.7	115.97	64.364	-141.42	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	90	Complex	500	0	\$ -	\$ 985.20	A
2500000120282010	TAYLOR HIGHWAY	122.05	120.28	64.4058	-141.4	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	90	Complex	500	0	\$ -	\$ 985.20	A
2914000006782010	SOUTH TONGASS	4.47	6.78	55.302	-131.56	Soil	3	0.18	0	\$ 435	3	\$ 5,000	3	Negligible	3360	Complex	500	0	\$ -	\$ 985.20	A
2915000008062010	NORTH TONGASS	10.33	8.06	55.4251	-131.78	Soil	3	0.18	3	\$ 435	3	\$ 5,000	3	Negligible	4361	Simple	5	0	\$ -	\$ 985.20	A
2960000041192010	GLACIER HIGHWAY-EGAN	152.63	41.19	58.6904	-134.93	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	156	Complex	500	0	\$ -	\$ 985.20	A
2980000025082010	HAINES HIGHWAY	25.56	25.08	59.411	-135.98	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	415	Complex	500	0	\$ -	\$ 985.20	A
2981500000412010	LUTAK ROAD	1.02	0.41	59.2408	-135.44	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	800	Moderate	25	0	\$ -	\$ 985.20	A
1500000010832010	DALTON HIGHWAY	10.74	10.83	65.5598	-148.91	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	288	Complex	500	0	\$ -	\$ 985.20	A
1500000013232010	DALTON HIGHWAY	13.12	13.23	65.5765	-148.97	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	288	Complex	500	0	\$ -	\$ 985.20	A
1500000013372010	DALTON HIGHWAY	13.26	13.37	65.5769	-148.98	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	288	Complex	500	0	\$ -	\$ 985.20	A
1500000015252010	DALTON HIGHWAY	15.14	15.25	65.5737	-149.04	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	288	Complex	500	0	\$ -	\$ 985.20	A
1500000016432010	DALTON HIGHWAY	16.3	16.43	65.581	-149.07	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	288	Complex	500	0	\$ -	\$ 985.20	A
1500000016662010	DALTON HIGHWAY	16.54	16.66	65.5833	-149.08	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	288	Complex	500	0	\$ -	\$ 985.20	A
1500000016882010	DALTON HIGHWAY	16.76	16.88	0	0	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	288	Complex	500	0	\$ -	\$ 985.20	A
1500000017682010	DALTON HIGHWAY	17.54	17.68	0	0	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	288	Complex	500	0	\$ -	\$ 985.20	A
1500000047472010	DALTON HIGHWAY	46.76	47.47	65.8281	-149.52	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	280	Complex	500	0	\$ -	\$ 985.20	A
1500000047592010	DALTON HIGHWAY	46.88	47.59	65.8276	-149.52	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	280	Complex	500	0	\$ -	\$ 985.20	A
1500000138102010	DALTON HIGHWAY	137.35	138.1	66.8132	-150.67	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	245	Complex	500	0	\$ -	\$ 985.20	A
1500000217252010	DALTON HIGHWAY	214.98	217.25	67.7591	-149.76	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	245	Complex	500	0	\$ -	\$ 985.20	A
1500000217592010	DALTON HIGHWAY	215.31	217.59	67.7636	-149.77	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	245	Complex	500	0	\$ -	\$ 985.20	A
1500000217642010	DALTON HIGHWAY	215.36	217.64	67.7643	-149.77	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	245	Complex	500	0	\$ -	\$ 985.20	A
1500000244832010	DALTON HIGHWAY	241.28	244.83	68.1011	-149.53	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	245	Complex	500	0	\$ -	\$ 985.20	A
1500000248372010	DALTON HIGHWAY	245.01	248.37	68.133	-149.48	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	245	Complex	500	0	\$ -	\$ 985.20	A
1500000248672010	DALTON HIGHWAY	245.32	248.67	68.1356	-149.47	Soil	3	0.18	1	\$ 435	3	\$ 5,000	3	Negligible	245	Complex	500	0	\$ -	\$ 985.20	A
1300000074002010	SEWARD HIGHWAY	74.87	74	60.8446	-149.07	Soil	2	0.03	1	\$ 435	9	\$ 30,000	9	Minor	4163	Complex	500	0.25	\$ 862	\$ 957.99	A
1100000024542010	STERLING HIGHWAY	60.44	24.54	60.508	-150.17	Soil	2	0.03	1	\$ 435	9	\$ 30,000	9	Minor	3272	Moderate	25	0.25	\$ 677	\$ 952.34	A
1100000034442010	STERLING HIGHWAY	70.67	34.44	60.5312	-150.44	Soil	2	0.03	1	\$ 435	9	\$ 30,000	9	Minor	3272	Moderate	25	0.25	\$ 677	\$ 952.34	A
1900000314432010	RICHARDSON HIGHWAY	312.61	314.43	64.3403	-146.84	Soil	2	0.03	1	\$ 435	9	\$ 30,000	9	Minor	1750	Long	50	0.25	\$ 362	\$ 942.70	A
1530000055992010	ELLIOTT HIGHWAY	58.48	55.99	65.4724	-148.31	Soil	2	0.03	1	\$ 435	9	\$ 30,000	9	Minor	402	Complex	500	0.25	\$ 83	\$ 934.16	A
1530000056402010	ELLIOTT HIGHWAY	58.98	56.4	65.469	-148.32	Soil	2	0.03	1	\$ 435	9	\$ 30,000	9	Minor	402	Complex	500	0.25	\$ 83	\$ 934.16	A
1530000056592010	ELLIOTT HIGHWAY	59.22	56.59	65.4676	-148.33	Soil	2	0.03	1	\$ 435	9	\$ 30,000	9	Minor	402	Complex	500	0.25	\$ 83	\$ 934.16	A
1530000057022010	ELLIOTT HIGHWAY	59.76	57.02	65.4658	-148.34	Soil	2	0.03	1	\$ 435	9	\$ 30,000	9	Minor	402	Complex	500	0.25	\$ 83	\$ 934.16	A
1500000172312010	DALTON HIGHWAY	171.28	172.31	67.2144	-150.26	Soil	2	0.03	1	\$ 435	9	\$ 30,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 933.16	A
1300000057642010	SEWARD HIGHWAY	58.24	57.64	60.7629	-149.4	Soil	2	0.03	1	\$ 435	9	\$ 30,000	3	Negligible	3510	Complex	500	0	\$ -	\$ 931.61	A
1530000007302010	ELLIOTT HIGHWAY	7.67	7.3	65.0541	-147.66	Soil	2	0.03	1	\$ 435	9	\$ 30,000	3	Negligible	1075	Complex	500	0	\$ -	\$ 931.61	A
2500000109342010	TAYLOR HIGHWAY	110.9	109.34	64.2983	-141.43	Soil	2	0.03	3	\$ 435	9	\$ 30,000	3	Negligible	90	Complex	500	0	\$ -	\$ 931.61	A
2954000006372010	HALIBUT POINT ROAD	6.79	6.37	57.1266	-135.39	Soil	2	0.03	1	\$ 435	9	\$ 30,000	3	Negligible	872	Complex	500	0	\$ -	\$ 931.61	A
1100000028662010	STERLING HIGHWAY	64.78	28.66	60.523	-150.27	Rock	1	0.01	5	\$ 43,500	3	\$ 5,000	9	Minor	3272	Moderate	25	0.25	\$ 677	\$ 681.43	A
1300000073952010	SEWARD HIGHWAY	74.82	73.95	60.8444	-149.07	Rock	1	0.01	4	\$ 43,500	3	\$ 5,000	3	Negligible	4163	Complex	500	0	\$ -	\$ 672.04	A
1300000096462010	SEWARD HIGHWAY	97.22	96.46	60.939	-149.37	Rock	1	0.01	4	\$ 43,500	3	\$ 5,000	3	Negligible	8120	Complex	500	0	\$ -	\$ 672.04	A
1700000201412010	PARKS HIGHWAY	237.09	201.41	63.7236	-148.89	Rock	1	0.01	6	\$ 43,500	3	\$ 5,000	3	Negligible	2193	Long	50	0	\$ -	\$ 672.04	A
2914000003112010	SOUTH TONGASS	0.79	3.11	55.3347	-131.63	Rock	1	0.01	4	\$ 43,500	3	\$ 5,000	3	Negligible	5831	Complex	500	0	\$ -	\$ 672.04	A
2914000004512010	SOUTH TONGASS	2.2	4.51	55.3192	-131.6	Rock	1	0.													

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
2915000007722010	NORTH TONGASS	10	7.72	55.4222	-131.77	Rock	1	0.01	4	\$ 43,500	3	\$ 5,000	3	Negligible	4361	Moderate	25	0	\$ -	\$ 672.04	A
1300000013052010	SEWARD HIGHWAY	12.97	13.05	60.2717	-149.35	Rock	1	0.01	2	\$ 435	9	\$ 30,000	9	Minor	1798	Complex	500	0.25	\$ 372	\$ 426.88	A
2915000013972010	NORTH TONGASS	16.16	13.97	55.4874	-131.77	Rock	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	200	Complex	500	0.25	\$ 41	\$ 422.30	A
2954000003582010	HALIBUT POINT ROAD	3.89	3.58	57.0923	-135.39	Rock	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	6796	Complex	500	0	\$ -	\$ 421.73	A
2954000004302010	HALIBUT POINT ROAD	4.6	4.3	57.099	-135.4	Rock	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	2805	Complex	500	0	\$ -	\$ 421.73	A
2960000029542010	GLACIER HIGHWAY-EGAN	30.33	29.54	58.5529	-134.86	Rock	1	0.01	1	\$ 435	9	\$ 30,000	0	Negligible	147	Complex	500	0	\$ -	\$ 421.73	A
2980000030172010	HAINES HIGHWAY	30.66	30.17	59.4243	-136.11	Rock	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	315	Complex	500	0	\$ -	\$ 421.73	A
2995000012262010	KLONDIKE HIGHWAY	13.92	12.26	59.6176	-135.17	Rock	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	302	Complex	500	0	\$ -	\$ 421.73	A
13000000109612010	SEWARD HIGHWAY	110.51	109.61	61.0095	-149.7	Rock	2	0.04	3	\$ 435	3	\$ 5,000	9	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 271.37	A
2914000003582010	SOUTH TONGASS	1.27	3.58	55.3293	-131.62	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	5544	Complex	500	0.25	\$ 1,148	\$ 249.94	A
2915000002942010	NORTH TONGASS	5.2	2.94	55.3883	-131.74	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	5050	Complex	500	0.25	\$ 1,045	\$ 246.06	A
2915000004012010	NORTH TONGASS	6.26	4.01	55.4044	-131.72	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	5050	Complex	500	0.25	\$ 1,045	\$ 246.06	A
2915000004452010	NORTH TONGASS	6.7	4.45	55.4047	-131.72	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	5050	Complex	500	0.25	\$ 1,045	\$ 246.06	A
680000001252010	REZANOF DRIVE	1.25	5.0	57.7822	-152.44	Rock	2	0.04	3	\$ 435	3	\$ 5,000	9	Minor	4930	Complex	500	0.25	\$ 1,021	\$ 245.12	A
1300000056072010	SEWARD HIGHWAY	56.65	56.07	60.7793	-149.42	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	3510	Complex	500	0.25	\$ 727	\$ 233.96	A
1300000057482010	SEWARD HIGHWAY	58.08	57.48	60.7643	-149.4	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	3510	Complex	500	0.25	\$ 727	\$ 233.96	A
1300000057792010	SEWARD HIGHWAY	58.39	57.79	60.7616	-149.4	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	3510	Complex	500	0.25	\$ 727	\$ 233.96	A
1300000057832010	SEWARD HIGHWAY	58.44	57.83	60.7612	-149.4	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	3510	Complex	500	0.25	\$ 727	\$ 233.96	A
1300000058382010	SEWARD HIGHWAY	59	58.38	60.7553	-149.38	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	3510	Complex	500	0.25	\$ 727	\$ 233.96	A
1300000058472010	SEWARD HIGHWAY	59.14	58.47	60.7536	-149.38	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	3510	Complex	500	0.25	\$ 727	\$ 233.96	A
1100000008672010	STERLING HIGHWAY	45.47	8.67	60.4908	-149.75	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	3490	Complex	500	0.25	\$ 722	\$ 233.80	A
1300000050812010	SEWARD HIGHWAY	51.44	50.81	60.7169	-149.46	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	3388	Complex	500	0.25	\$ 701	\$ 233.00	A
1300000054232010	SEWARD HIGHWAY	54.79	54.23	60.7614	-149.46	Rock	2	0.04	3	\$ 435	3	\$ 5,000	9	Minor	3388	Complex	500	0.25	\$ 701	\$ 233.00	A
29140000005862010	SOUTH TONGASS	3.55	5.86	55.3091	-131.58	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	3360	Complex	500	0.25	\$ 696	\$ 232.78	A
29140000006872010	SOUTH TONGASS	4.56	6.87	55.3008	-131.56	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	3360	Complex	500	0.25	\$ 696	\$ 232.78	A
1100000018212010	STERLING HIGHWAY	55.11	18.21	60.4874	-150.01	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	2981	Complex	500	0.25	\$ 617	\$ 229.80	A
1100000011762010	STERLING HIGHWAY	157.3	117.16	59.7732	-151.83	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	2960	Complex	25	0.25	\$ 613	\$ 229.63	A
1100000000772010	STERLING HIGHWAY	37.61	0.77	60.5317	-149.56	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	2880	Complex	500	0.25	\$ 596	\$ 229.00	A
1100000003132010	STERLING HIGHWAY	40.03	3.13	60.524	-149.63	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	2880	Complex	500	0.25	\$ 596	\$ 229.00	A
1100000004452010	STERLING HIGHWAY	41.38	4.45	60.5208	-149.66	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	2880	Complex	500	0.25	\$ 596	\$ 229.00	A
1100000004512010	STERLING HIGHWAY	41.45	4.51	60.5202	-149.66	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	2880	Complex	500	0.25	\$ 596	\$ 229.00	A
1100000005912010	STERLING HIGHWAY	42.83	5.91	60.5053	-149.69	Rock	2	0.04	3	\$ 435	3	\$ 5,000	9	Minor	2880	Complex	500	0.25	\$ 596	\$ 229.00	A
1100000006042010	STERLING HIGHWAY	42.95	6.04	60.5033	-149.69	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	2880	Complex	500	0.25	\$ 596	\$ 229.00	A
2915000000992010	NORTH TONGASS	3.23	0.99	55.3643	-131.71	Soil	2	0.03	2	\$ 435	3	\$ 5,000	9	Minor	9372	Complex	500	0.25	\$ 1,940	\$ 225.75	A
2914000007232010	SOUTH TONGASS	4.94	7.23	55.2973	-131.55	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	1924	Complex	500	0.25	\$ 398	\$ 221.49	A
2914000007542010	SOUTH TONGASS	5.25	7.54	55.2944	-131.55	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	1924	Complex	500	0.25	\$ 398	\$ 221.49	A
2914000007612010	SOUTH TONGASS	5.32	7.61	55.2946	-131.55	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	1924	Complex	500	0.25	\$ 398	\$ 221.49	A
1300000010952010	SEWARD HIGHWAY	10.85	10.95	60.2449	-149.36	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	1798	Complex	500	0.25	\$ 372	\$ 220.50	A
1300000011242010	SEWARD HIGHWAY	11.17	11.24	60.2482	-149.35	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	1798	Complex	500	0.25	\$ 372	\$ 220.50	A
1300000015502010	SEWARD HIGHWAY	15.41	15.5	60.306	-149.36	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	1798	Complex	500	0.25	\$ 372	\$ 220.50	A
1300000025432010	SEWARD HIGHWAY	25.68	25.43	60.4398	-149.37	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	1780	Complex	500	0.25	\$ 368	\$ 220.36	A
1300000030222010	SEWARD HIGHWAY	30.6	30.22	60.5039	-149.38	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	1660	Complex	500	0.25	\$ 344	\$ 219.41	A
1350000074812010	GLENN HIGHWAY	81.8	74.81	61.7946	-148.33	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	1430	Long	50	0.25	\$ 296	\$ 217.61	A
1350000075032010	GLENN HIGHWAY	82.01	75.03	61.7955	-148.32	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	1430	Long	50	0.25	\$ 296	\$ 217.61	A
1350000081332010	GLENN HIGHWAY	88.7	81.33	61.8119	-148.15	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	1430	Long	50	0.25	\$ 296	\$ 217.61	A
1350000095962010	GLENN HIGHWAY	66.7	59.46	61.7292	-148.75	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	1393	Long	50	0.25	\$ 288	\$ 217.32	A
1350000067042010	GLENN HIGHWAY	74	67.04	61.7633	-148.55	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	1393	Long	50	0.25	\$ 288	\$ 217.32	A
2995000001582010	KLONDIKE HIGHWAY	3.2	1.58	59.4865	-135.28	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	1290	Complex	500	0.25	\$ 267	\$ 216.51	A
1900000016932010	RICHARDSON HIGHWAY	13.1	16.93	61.0612	-145.91	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	1237	Complex	500	0.25	\$ 256	\$ 216.09	A
1900000017132010	RICHARDSON HIGHWAY	13.3	17.13	61.0635	-145.91	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	1237	Complex	500	0.25	\$ 256	\$ 216.09	A
1900000017912010	RICHARDSON HIGHWAY	14.1	17.91	61.0724	-145.9	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	1237	Complex	500	0.25	\$ 256	\$ 216.09	A
1900000018832010	RICHARDSON HIGHWAY	15	18.83	61.0856	-145.89	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	1237	Complex	500	0.25	\$ 256	\$ 216.09	A
1350000098892010	GLENN HIGHWAY	107	98.89	61.8032	-147.68	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	1210	Long	50	0.25	\$ 250	\$ 215.88	A
2914000008902010	SOUTH TONGASS	6.61	8.9	55.3049	-131.58	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	787	Complex	500	0.25	\$ 163	\$ 212.55	A
2914000010622010	SOUTH TONGASS	8.33	10.62	55.327	-131.52	Rock	2	0.04	1	\$ 435	3	\$ 5,000	6	Minor	787	Complex	500	0.25	\$ 163	\$ 212.55	A
2981500001432010	LUTAK ROAD	1.9	1.43	59.2509	-135.43	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	600	Complex	500	0.25	\$ 124	\$ 211.08	A
2981500001552010	LUTAK ROAD	2	1.55	59.252	-135.43	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	600	Complex	500	0.25	\$ 124	\$ 211.08	A
2981500001872010	LUTAK ROAD	2.28	1.87	59.2552	-135.44	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	600	Complex	500	0.25	\$ 124	\$ 211.08	A
1900000048202010	RICHARDSON HIGHWAY	43.81	48.2	61.2479	-145.32	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	532	Complex	500	0.25	\$ 110	\$ 210.55	A
1900000048402010	RICHARDSON HIGHWAY	43.97	48.4	61.248	-145.31	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	532	Complex	500	0.25	\$ 110	\$ 210.55	A
2980000005852010	HAINES HIGHWAY	6.31	5.85	59.2645	-135.59	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	520	Complex	500	0.25	\$ 108	\$ 210.	

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
2980000015462010	HAINES HIGHWAY	15.93	15.46	59.3484	-135.77	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	435	Complex	500	0.25	\$ 90	\$ 209.79	A
2980000015612010	HAINES HIGHWAY	16.08	15.61	59.3512	-135.77	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	435	Complex	500	0.25	\$ 90	\$ 209.79	A
2980000024872010	HAINES HIGHWAY	25.35	24.87	59.4102	-135.97	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	415	Complex	500	0.25	\$ 86	\$ 209.63	A
1900000223442010	RICHARDSON HIGHWAY	220.52	223.44	63.4414	-145.8	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	356	Long	50	0.25	\$ 74	\$ 209.17	A
2980000028072010	HAINES HIGHWAY	28.55	28.07	59.4225	-136.05	Rock	2	0.04	1	\$ 435	3	\$ 5,000	6	Minor	315	Complex	500	0.25	\$ 65	\$ 208.84	A
2980000029712010	HAINES HIGHWAY	30.19	29.71	59.4214	-136.1	Rock	2	0.04	1	\$ 435	3	\$ 5,000	6	Minor	315	Complex	500	0.25	\$ 65	\$ 208.84	A
180000008932010	ALASKA HIGHWAY	1231.03	8.93	62.7059	-141.16	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	314	Complex	500	0.25	\$ 65	\$ 208.84	A
2995000003832010	KLONDIKE HIGHWAY	5.46	3.83	59.5136	-135.25	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	302	Complex	500	0.25	\$ 63	\$ 208.74	A
2995000003902010	KLONDIKE HIGHWAY	5.53	3.9	59.5142	-135.25	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	302	Complex	500	0.25	\$ 63	\$ 208.74	A
2995000004042010	KLONDIKE HIGHWAY	5.67	4.04	59.5161	-135.25	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	302	Complex	500	0.25	\$ 63	\$ 208.74	A
2995000004222010	KLONDIKE HIGHWAY	5.84	4.22	59.5187	-135.25	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	302	Complex	500	0.25	\$ 63	\$ 208.74	A
2995000004302010	KLONDIKE HIGHWAY	5.92	4.3	59.5191	-135.25	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	302	Complex	500	0.25	\$ 63	\$ 208.74	A
2995000004682010	KLONDIKE HIGHWAY	6.3	4.68	59.5225	-135.24	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	302	Complex	500	0.25	\$ 63	\$ 208.74	A
29950000043692010	KLONDIKE HIGHWAY	7.88	6.24	59.539	-135.21	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	302	Complex	500	0.25	\$ 63	\$ 208.74	A
2995000008592010	KLONDIKE HIGHWAY	10.23	8.59	59.5726	-135.2	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	302	Complex	500	0.25	\$ 63	\$ 208.74	A
2995000008882010	KLONDIKE HIGHWAY	10.53	8.88	59.5769	-135.2	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	302	Complex	500	0.25	\$ 63	\$ 208.74	A
2995000009342010	KLONDIKE HIGHWAY	10.99	9.34	59.583	-135.2	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	302	Complex	500	0.25	\$ 63	\$ 208.74	A
1500000042822010	DALTON HIGHWAY	42.02	42.82	65.7885	-149.44	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	280	Complex	500	0.25	\$ 58	\$ 208.57	A
1500000043692010	DALTON HIGHWAY	42.9	43.69	65.799	-149.44	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	280	Complex	500	0.25	\$ 58	\$ 208.57	A
1500000246852010	DALTON HIGHWAY	243.46	246.85	68.1217	-149.52	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 208.29	A
1500000247632010	DALTON HIGHWAY	244.28	247.63	68.127	-149.5	Rock	2	0.04	2	\$ 435	3	\$ 5,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 208.29	A
1500000248132010	DALTON HIGHWAY	244.78	248.13	68.1302	-149.48	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	245	Complex	500	0.25	\$ 51	\$ 208.29	A
2915000015262010	NORTH TONGASS	17.49	15.26	55.5011	-131.74	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	200	Complex	500	0.25	\$ 41	\$ 207.94	A
2914000011052010	SOUTH TONGASS	8.74	11.05	55.3321	-131.51	Rock	2	0.04	1	\$ 435	3	\$ 5,000	6	Minor	134	Complex	500	0.25	\$ 28	\$ 207.42	A
2914000011632010	SOUTH TONGASS	9.32	11.63	55.3358	-131.5	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	134	Complex	500	0.25	\$ 28	\$ 207.42	A
2914000012392010	SOUTH TONGASS	10.11	12.39	55.3458	-131.5	Rock	2	0.04	1	\$ 435	3	\$ 5,000	6	Minor	134	Complex	500	0.25	\$ 28	\$ 207.42	A
2914000012852010	SOUTH TONGASS	10.56	12.85	55.351	-131.49	Rock	2	0.04	1	\$ 435	3	\$ 5,000	6	Minor	123	Complex	500	0.25	\$ 25	\$ 207.33	A
2914000013102010	SOUTH TONGASS	10.81	13.1	55.3537	-131.48	Rock	2	0.04	1	\$ 435	3	\$ 5,000	6	Minor	123	Complex	500	0.25	\$ 25	\$ 207.33	A
2914000013232010	SOUTH TONGASS	10.94	13.23	55.3553	-131.48	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	123	Complex	500	0.25	\$ 25	\$ 207.33	A
2914000013982010	SOUTH TONGASS	11.68	13.98	55.3646	-131.48	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	123	Complex	500	0.25	\$ 25	\$ 207.33	A
2914000014222010	SOUTH TONGASS	11.92	14.22	55.367	-131.47	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	123	Complex	500	0.25	\$ 25	\$ 207.33	A
2914000014972010	SOUTH TONGASS	12.66	14.97	55.3716	-131.47	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	123	Complex	500	0.25	\$ 25	\$ 207.33	A
2914000015042010	SOUTH TONGASS	12.73	15.04	55.373	-131.47	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	123	Complex	500	0.25	\$ 25	\$ 207.33	A
2914000015132010	SOUTH TONGASS	13.37	15.13	55.3743	-131.47	Rock	2	0.04	1	\$ 435	3	\$ 5,000	9	Minor	123	Complex	500	0.25	\$ 25	\$ 207.33	A
674000018142010	CHINIAK HIGHWAY	28.35	18.14	57.6018	-152.47	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	170	Complex	500	0	\$ -	\$ 206.37	A
1100000001082010	STERLING HIGHWAY	37.92	1.08	60.5333	-149.57	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	2880	Complex	500	0	\$ -	\$ 206.37	A
1100000004082010	STERLING HIGHWAY	40.98	4.08	60.5244	-149.65	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	2880	Complex	500	0	\$ -	\$ 206.37	A
1100000008112010	STERLING HIGHWAY	44.9	8.11	60.4863	-149.73	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	3490	Complex	500	0	\$ -	\$ 206.37	A
1100000025952010	STERLING HIGHWAY	61.82	25.95	60.5237	-150.2	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	3272	Moderate	25	0	\$ -	\$ 206.37	A
130000000772010	SEWARD HIGHWAY	7.68	7.77	60.2009	-149.37	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	1798	Complex	500	0	\$ -	\$ 206.37	A
1300000009792010	SEWARD HIGHWAY	9.54	9.79	60.2295	-149.37	Rock	2	0.04	3	\$ 435	3	\$ 5,000	3	Negligible	1798	Complex	500	0	\$ -	\$ 206.37	A
1300000016352010	SEWARD HIGHWAY	16.26	16.35	60.3169	-149.36	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	1798	Complex	500	0	\$ -	\$ 206.37	A
1300000016612010	SEWARD HIGHWAY	16.52	16.61	60.3205	-149.36	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	1798	Complex	500	0	\$ -	\$ 206.37	A
1300000016862010	SEWARD HIGHWAY	16.77	16.86	60.324	-149.36	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	1798	Complex	500	0	\$ -	\$ 206.37	A
1300000016932010	SEWARD HIGHWAY	16.84	16.93	60.3253	-149.36	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	1798	Complex	500	0	\$ -	\$ 206.37	A
1300000018172010	SEWARD HIGHWAY	18.07	18.17	60.34	-149.34	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	1780	Complex	500	0	\$ -	\$ 206.37	A
1300000018212010	SEWARD HIGHWAY	18.13	18.21	60.3412	-149.34	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	1780	Complex	500	0	\$ -	\$ 206.37	A
1300000018242010	SEWARD HIGHWAY	18.17	18.24	60.3417	-149.34	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	1780	Complex	500	0	\$ -	\$ 206.37	A
1300000054932010	SEWARD HIGHWAY	55.5	54.93	60.7701	-149.44	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	3388	Complex	500	0	\$ -	\$ 206.37	A
1300000057292010	SEWARD HIGHWAY	57.89	57.29	60.7671	-149.4	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	3510	Complex	500	0	\$ -	\$ 206.37	A
1300000058642010	SEWARD HIGHWAY	59.42	58.64	60.7501	-149.38	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	3510	Complex	500	0	\$ -	\$ 206.37	A
1300000068292010	SEWARD HIGHWAY	69.08	68.29	60.795	-149.2	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	4163	Complex	500	0	\$ -	\$ 206.37	A
1300000105862010	SEWARD HIGHWAY	106.62	105.86	60.9848	-149.61	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	8270	Complex	500	0	\$ -	\$ 206.37	A
1350000047292010	GLENN HIGHWAY	54.5	47.29	61.6799	-149.05	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	2562	Long	50	0	\$ -	\$ 206.37	A
1350000047432010	GLENN HIGHWAY	54.67	47.43	61.6827	-149.04	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	2562	Long	50	0	\$ -	\$ 206.37	A
1350000047452010	GLENN HIGHWAY	54.69	47.45	61.6828	-149.04	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	2562	Long	50	0	\$ -	\$ 206.37	A
1350000047912010	GLENN HIGHWAY	55.2	47.91	61.681	-149.03	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	2562	Long	50	0	\$ -	\$ 206.37	A
1350000060612010	GLENN HIGHWAY	67.84	60.61	61.7296	-148.72	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	1393	Long	50	0	\$ -	\$ 206.37	A
1350000060892010	GLENN HIGHWAY	68.11	60.89	61.7308	-148.71	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	1393	Long	50	0	\$ -	\$ 206.37	A
1350000076452010	GLENN HIGHWAY	83.6	76.45	61.7966	-148.29	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	1430	Long	50	0	\$ -	\$ 206.37	A
1350000098512010	GLENN HIGHWAY	106.6	98.51	61.7997	-147.68	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	1760	Long	50	0	\$ -	\$ 206.37	A
1351000003402010	HILAND ROAD	3.4	3.4	61.284	-149.5	Rock	2	0.04	1	\$ 435											

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LIOR Grade
180000006262010	ALASKA HIGHWAY	1228.07	6.26	62.6808	-141.11	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	314	Complex	500	0	\$ -	\$ 206.37	A
180000006282010	ALASKA HIGHWAY	1228.1	6.28	62.6857	-141.13	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	314	Complex	500	0	\$ -	\$ 206.37	A
180000006592010	ALASKA HIGHWAY	1228.47	6.59	62.6806	-141.12	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	314	Complex	500	0	\$ -	\$ 206.37	A
180000006622010	ALASKA HIGHWAY	1228.5	6.62	62.6886	-141.14	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	314	Complex	500	0	\$ -	\$ 206.37	A
180000010452010	ALASKA HIGHWAY	1232.69	10.45	62.7178	-141.18	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	314	Complex	500	0	\$ -	\$ 206.37	A
180000042382010	ALASKA HIGHWAY	1265.27	42.38	63.0271	-141.82	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 206.37	A
180000052962010	ALASKA HIGHWAY	1276.35	52.96	63.1203	-142.04	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 206.37	A
180000060972010	ALASKA HIGHWAY	1284.68	60.97	63.2019	-142.19	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 206.37	A
180000061862010	ALASKA HIGHWAY	1285.6	61.86	63.2109	-142.2	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 206.37	A
180000066462010	ALASKA HIGHWAY	1290.29	66.46	63.2331	-142.33	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 206.37	A
180000067152010	ALASKA HIGHWAY	1291.03	67.15	63.2345	-142.34	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 206.37	A
190000016852010	RICHARDSON HIGHWAY	13.01	16.85	61.0596	-145.91	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	1237	Complex	500	0	\$ -	\$ 206.37	A
190000019702010	RICHARDSON HIGHWAY	15.85	19.7	61.0941	-145.88	Rock	2	0.04	3	\$ 435	3	\$ 5,000	3	Negligible	1237	Complex	500	0	\$ -	\$ 206.37	A
190000026722010	RICHARDSON HIGHWAY	23	26.72	61.1187	-145.69	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 206.37	A
190000039002010	RICHARDSON HIGHWAY	34.77	39	61.2005	-145.55	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 206.37	A
190000042602010	RICHARDSON HIGHWAY	38.6	42.6	61.2083	-145.45	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 206.37	A
190000043532010	RICHARDSON HIGHWAY	39.5	43.53	61.2081	-145.41	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 206.37	A
190000047102010	RICHARDSON HIGHWAY	42.91	47.1	61.2409	-145.35	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 206.37	A
190000048662010	RICHARDSON HIGHWAY	44.29	48.66	61.2502	-145.3	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 206.37	A
190000059202010	RICHARDSON HIGHWAY	55.18	59.2	61.3776	-145.26	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 206.37	A
190000060102010	RICHARDSON HIGHWAY	56.1	60.1	61.385	-145.23	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 206.37	A
190000060302010	RICHARDSON HIGHWAY	56.3	60.3	61.3878	-145.23	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 206.37	A
190000060702010	RICHARDSON HIGHWAY	56.71	60.7	61.3902	-145.22	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 206.37	A
190000064502010	RICHARDSON HIGHWAY	60.58	64.5	61.4304	-145.13	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 206.37	A
1900000192202010	RICHARDSON HIGHWAY	188.9	192.2	63.0811	-145.51	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	380	Long	50	0	\$ -	\$ 206.37	A
1900000211032010	RICHARDSON HIGHWAY	208.13	211.03	63.294	-145.67	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	356	Long	50	0	\$ -	\$ 206.37	A
1900000212692010	RICHARDSON HIGHWAY	209.84	212.69	63.3087	-145.7	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	356	Long	50	0	\$ -	\$ 206.37	A
1900000212832010	RICHARDSON HIGHWAY	209.97	212.83	63.3083	-145.7	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	356	Long	50	0	\$ -	\$ 206.37	A
1900000214092010	RICHARDSON HIGHWAY	211.05	214.09	63.3192	-145.73	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	356	Long	50	0	\$ -	\$ 206.37	A
1900000214902010	RICHARDSON HIGHWAY	212	214.9	63.3305	-145.73	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	356	Long	50	0	\$ -	\$ 206.37	A
1900000222392010	RICHARDSON HIGHWAY	219.48	222.39	63.43	-145.77	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	356	Long	50	0	\$ -	\$ 206.37	A
1900000223062010	RICHARDSON HIGHWAY	220.13	223.06	63.4378	-145.79	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	356	Long	50	0	\$ -	\$ 206.37	A
1900000229392010	RICHARDSON HIGHWAY	226.52	229.39	63.5177	-145.86	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	618	Long	50	0	\$ -	\$ 206.37	A
1900000229952010	RICHARDSON HIGHWAY	227.1	229.95	63.5273	-145.86	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	618	Long	50	0	\$ -	\$ 206.37	A
1900000250272010	RICHARDSON HIGHWAY	247.26	250.27	63.7792	-145.76	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	618	Long	50	0	\$ -	\$ 206.37	A
1900000278482010	RICHARDSON HIGHWAY	275.71	278.48	64.1586	-145.85	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	1850	Long	50	0	\$ -	\$ 206.37	A
1900000290852010	RICHARDSON HIGHWAY	288.31	290.85	64.2672	-146.15	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	1310	Long	50	0	\$ -	\$ 206.37	A
1900000299412010	RICHARDSON HIGHWAY	297.29	299.41	64.2907	-146.4	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	1750	Long	50	0	\$ -	\$ 206.37	A
1900000326802010	RICHARDSON HIGHWAY	325.24	326.8	64.4767	-146.98	Rock	2	0.04	3	\$ 435	3	\$ 5,000	3	Negligible	2710	Long	50	0	\$ -	\$ 206.37	A
1900000331682010	RICHARDSON HIGHWAY	330.22	331.68	64.5368	-147.02	Rock	2	0.04	3	\$ 435	3	\$ 5,000	3	Negligible	3450	Long	50	0	\$ -	\$ 206.37	A
1916000004942010	DAYVILLE ROAD	4.9	4.94	61.0836	-146.34	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	1601	Complex	500	0	\$ -	\$ 206.37	A
1916000005242010	DAYVILLE ROAD	5.2	5.24	61.0864	-146.35	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	1601	Complex	500	0	\$ -	\$ 206.37	A
2300000069032010	TOK CUTOFF HIGHWAY	70.34	69.03	62.7933	-143.77	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	381	Long	50	0	\$ -	\$ 206.37	A
2300000085532010	TOK CUTOFF HIGHWAY	86.67	85.53	62.9323	-143.47	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	360	Long	50	0	\$ -	\$ 206.37	A
2500000120652010	TAYLOR HIGHWAY	122.40	121.1	64.4094	-141.39	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	90	Complex	500	0	\$ -	\$ 206.37	A
2500000120712010	TAYLOR HIGHWAY	122.45	120.71	64.4102	-141.39	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	90	Complex	500	0	\$ -	\$ 206.37	A
2500000121192010	TAYLOR HIGHWAY	122.9	121.19	64.4147	-141.38	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	90	Complex	500	0	\$ -	\$ 206.37	A
2500000133412010	TAYLOR HIGHWAY	135.1	133.41	64.5305	-141.24	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	90	Complex	500	0	\$ -	\$ 206.37	A
2500000150492010	TAYLOR HIGHWAY	152.6	150.49	64.7026	-141.31	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	90	Complex	500	0	\$ -	\$ 206.37	A
2500000150722010	TAYLOR HIGHWAY	152.8	150.72	64.7048	-141.31	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	90	Complex	500	0	\$ -	\$ 206.37	A
2500000150952010	TAYLOR HIGHWAY	153	150.95	64.7072	-141.31	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	90	Complex	500	0	\$ -	\$ 206.37	A
2914000002472010	SOUTH TONGASS	0.15	2.47	55.34	-131.64	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	5247	Moderate	25	0	\$ -	\$ 206.37	A
2914000005142010	SOUTH TONGASS	2.85	5.14	55.3149	-131.59	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	3360	Complex	500	0	\$ -	\$ 206.37	A
2914000006002010	SOUTH TONGASS	3.68	6	55.3082	-131.57	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	3360	Complex	500	0	\$ -	\$ 206.37	A
2914000006112010	SOUTH TONGASS	3.79	6.11	55.3073	-131.57	Rock	2	0.04	3	\$ 435	3	\$ 5,000	3	Negligible	3360	Complex	500	0	\$ -	\$ 206.37	A
2914000006682010	SOUTH TONGASS	4.36	6.68	55.3032	-131.56	Rock	2	0.04	3	\$ 435	3	\$ 5,000	3	Negligible	3360	Complex	500	0	\$ -	\$ 206.37	A
2914000006952010	SOUTH TONGASS	4.64	6.95	55.2996	-131.56	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	3360	Complex	500	0	\$ -	\$ 206.37	A
2914000008002010	SOUTH TONGASS	5.72	8	55.2946	-131.54	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	1924	Moderate	25	0	\$ -	\$ 206.37	A
2914000008992010	SOUTH TONGASS	6.7	8.99	55.3066	-131.53	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	787	Moderate	25	0	\$ -	\$ 206.37	A
2914000009332010	SOUTH TONGASS	7.03	9.33	55.3117	-131.52	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	787	Complex	500	0	\$ -	\$ 206.37	A
2914000009982010	SOUTH TONGASS	7.7	9.98	55.32	-131.52	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	787	Complex	500	0	\$ -	\$ 206.37	A
2914000010222010	SOUTH TONGASS	7.95	10.22	55.323	-131.52	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	787	Simple	5	0	\$ -	\$ 206.37	A
291																					

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	IOR Grade
2914000015502010	SOUTH TONGASS	19.36	15.5	55.379	-131.47	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	123	Complex	500	0	\$ -	\$ 206.37	A
2915000001902010	NORTH TONGASS	4.15	1.9	55.3748	-131.72	Rock	2	0.04	3	\$ 435	3	\$ 5,000	3	Negligible	6587	Moderate	25	0	\$ -	\$ 206.37	A
2915000002642010	NORTH TONGASS	4.9	2.64	55.3832	-131.74	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	5050	Complex	500	0	\$ -	\$ 206.37	A
2915000002982010	NORTH TONGASS	5.24	2.98	55.3881	-131.74	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	5050	Complex	500	0	\$ -	\$ 206.37	A
2915000003822010	NORTH TONGASS	6.07	3.82	55.3979	-131.73	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	5050	Complex	500	0	\$ -	\$ 206.37	A
2915000004592010	NORTH TONGASS	6.83	4.59	55.4068	-131.72	Rock	2	0.04	3	\$ 435	3	\$ 5,000	3	Negligible	5900	Complex	500	0	\$ -	\$ 206.37	A
2915000005562010	NORTH TONGASS	7.8	5.56	55.4069	-131.74	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	4500	Complex	500	0	\$ -	\$ 206.37	A
2915000006492010	NORTH TONGASS	8.77	6.49	55.409	-131.76	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	4500	Moderate	25	0	\$ -	\$ 206.37	A
2915000006692010	NORTH TONGASS	8.98	6.69	55.4116	-131.76	Rock	2	0.04	3	\$ 435	3	\$ 5,000	3	Negligible	4500	Moderate	25	0	\$ -	\$ 206.37	A
2915000006752010	NORTH TONGASS	9.04	6.75	55.4124	-131.76	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	4361	Moderate	25	0	\$ -	\$ 206.37	A
2915000007822010	NORTH TONGASS	10.09	7.82	55.4228	-131.78	Rock	2	0.04	3	\$ 435	3	\$ 5,000	3	Negligible	4361	Moderate	25	0	\$ -	\$ 206.37	A
2915000008602010	NORTH TONGASS	10.86	8.6	55.4305	-131.79	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	4361	Complex	500	0	\$ -	\$ 206.37	A
2915000010502010	NORTH TONGASS	12.73	10.5	55.4507	-131.82	Rock	2	0.04	3	\$ 435	3	\$ 5,000	3	Negligible	3000	Complex	500	0	\$ -	\$ 206.37	A
2960000019692010	GLACIER HIGHWAY-EGAN	20.4	19.69	58.4419	-134.77	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	879	Complex	500	0	\$ -	\$ 206.37	A
2960000020352010	GLACIER HIGHWAY-EGAN	21.09	20.35	58.4508	-134.77	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	879	Complex	500	0	\$ -	\$ 206.37	A
2960000022552010	GLACIER HIGHWAY-EGAN	23.27	22.55	58.4984	-134.77	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	660	Complex	500	0	\$ -	\$ 206.37	A
2960000023802010	GLACIER HIGHWAY-EGAN	24.54	23.8	58.4975	-134.77	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	660	Complex	500	0	\$ -	\$ 206.37	A
2960000028452010	GLACIER HIGHWAY-EGAN	29.22	28.45	58.5397	-134.85	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	147	Complex	500	0	\$ -	\$ 206.37	A
2960000028972010	GLACIER HIGHWAY-EGAN	29.75	28.97	58.5457	-134.86	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	147	Complex	500	0	\$ -	\$ 206.37	A
2960000030562010	GLACIER HIGHWAY-EGAN	31.36	30.56	58.5657	-134.88	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	147	Complex	500	0	\$ -	\$ 206.37	A
2960000031202010	GLACIER HIGHWAY-EGAN	32.04	31.2	58.5734	-134.89	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	133	Complex	500	0	\$ -	\$ 206.37	A
2960000032202010	GLACIER HIGHWAY-EGAN	33	32.2	58.5899	-134.9	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	133	Complex	500	0	\$ -	\$ 206.37	A
2960000032982010	GLACIER HIGHWAY-EGAN	33.76	32.98	58.5955	-134.91	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	156	Complex	500	0	\$ -	\$ 206.37	A
2960000033212010	GLACIER HIGHWAY-EGAN	33.98	33.21	58.5971	-134.91	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	156	Complex	500	0	\$ -	\$ 206.37	A
296000004112010	GLACIER HIGHWAY-EGAN	148.57	41.11	58.6896	-134.93	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	156	Complex	500	0	\$ -	\$ 206.37	A
2960000041232010	GLACIER HIGHWAY-EGAN	154.67	41.23	58.6911	-134.93	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	156	Complex	500	0	\$ -	\$ 206.37	A
2960000006722010	HAINES HIGHWAY	7.19	6.72	59.2664	-135.61	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	520	Complex	500	0	\$ -	\$ 206.37	A
2980000006892010	HAINES HIGHWAY	7.36	6.89	59.2668	-135.62	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	520	Complex	500	0	\$ -	\$ 206.37	A
298000001072010	HAINES HIGHWAY	11.52	11.07	59.3007	-135.71	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	520	Complex	500	0	\$ -	\$ 206.37	A
2980000027022010	HAINES HIGHWAY	27.45	27.02	59.4242	-136.02	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	315	Complex	500	0	\$ -	\$ 206.37	A
2981500001312010	LUTAK ROAD	1.8	1.31	59.2494	-135.43	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	600	Complex	500	0	\$ -	\$ 206.37	A
2981500002212010	LUTAK ROAD	2.57	2.21	59.2583	-135.44	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	600	Complex	500	0	\$ -	\$ 206.37	A
2995000001592010	KLONDIKE HIGHWAY	3.21	1.59	59.4865	-135.28	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	1290	Complex	500	0	\$ -	\$ 206.37	A
2995000002432010	KLONDIKE HIGHWAY	4.09	2.43	59.4969	-135.27	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	1290	Complex	500	0	\$ -	\$ 206.37	A
2995000003822010	KLONDIKE HIGHWAY	5.45	3.82	59.5135	-135.25	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	302	Complex	500	0	\$ -	\$ 206.37	A
2995000004412010	KLONDIKE HIGHWAY	6.03	4.41	59.5194	-135.24	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	302	Complex	500	0	\$ -	\$ 206.37	A
2995000004772010	KLONDIKE HIGHWAY	6.39	4.77	59.5239	-135.24	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	302	Complex	500	0	\$ -	\$ 206.37	A
2995000005282010	KLONDIKE HIGHWAY	6.9	5.28	59.5286	-135.23	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	302	Complex	500	0	\$ -	\$ 206.37	A
2995000008522010	KLONDIKE HIGHWAY	10.16	8.52	59.5715	-135.2	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	302	Complex	500	0	\$ -	\$ 206.37	A
2995000009752010	KLONDIKE HIGHWAY	11.41	9.75	59.5888	-135.19	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	302	Complex	500	0	\$ -	\$ 206.37	A
2995000009922010	KLONDIKE HIGHWAY	11.58	9.92	59.5884	-135.19	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	302	Complex	500	0	\$ -	\$ 206.37	A
2995000010822010	KLONDIKE HIGHWAY	12.54	10.82	59.5984	-135.18	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	302	Complex	500	0	\$ -	\$ 206.37	A
2995000012752010	KLONDIKE HIGHWAY	14.45	12.75	59.6232	-135.16	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	302	Complex	500	0	\$ -	\$ 206.37	A
2995000012932010	KLONDIKE HIGHWAY	14.66	12.93	59.6258	-135.16	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	302	Complex	500	0	\$ -	\$ 206.37	A
2995000013012010	KLONDIKE HIGHWAY	14.75	13.01	59.6266	-135.16	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	302	Complex	500	0	\$ -	\$ 206.37	A
1500000019822010	DALTON HIGHWAY	19.52	19.82	65.6213	-149.05	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	288	Complex	500	0	\$ -	\$ 206.37	A
1500000040732010	DALTON HIGHWAY	39.89	40.73	65.7843	-149.39	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	280	Complex	500	0	\$ -	\$ 206.37	A
1500000041042010	DALTON HIGHWAY	40.21	41.04	0	0	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	280	Complex	500	0	\$ -	\$ 206.37	A
1500000070342010	DALTON HIGHWAY	69.76	70.34	66.0011	-150.07	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	245	Complex	500	0	\$ -	\$ 206.37	A
1500000228352010	DALTON HIGHWAY	225.57	228.35	67.9104	-149.82	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	245	Complex	500	0	\$ -	\$ 206.37	A
1500000231402010	DALTON HIGHWAY	228.36	231.4	67.9474	-149.79	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	245	Complex	500	0	\$ -	\$ 206.37	A
1500000240112010	DALTON HIGHWAY	236.72	240.11	68.0468	-149.63	Rock	2	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	245	Complex	500	0	\$ -	\$ 206.37	A
1500000246352010	DALTON HIGHWAY	242.91	246.35	68.1181	-149.54	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	245	Complex	500	0	\$ -	\$ 206.37	A
1500000327952010	DALTON HIGHWAY	325.29	327.95	69.021	-148.84	Rock	2	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	190	Complex	500	0	\$ -	\$ 206.37	A
1900000105212010	RICHARDSON HIGHWAY	101.4	105.21	61.9584	-145.33	Soil	1	0.00	4	\$ 43,500	3	\$ 5,000	3	Negligible	875	Simple	5	0	\$ -	\$ 203.78	A
1100000028912010	STERLING HIGHWAY	65.03	28.91	60.5239	-150.28	Soil	2	0.03	2	\$ 435	3	\$ 5,000	9	Minor	3272	Moderate	25	0.25	\$ 677	\$ 187.10	A
1100000004192010	STERLING HIGHWAY	41.1	4.19	60.5233	-149.66	Soil	2	0.03	2	\$ 435	3	\$ 5,000	3	Negligible	2880	Complex	500	0	\$ -	\$ 166.36	A
1100000004192010	STERLING HIGHWAY	41.1	4.19	60.5233	-149.66	Soil	2	0.03	2	\$ 435	3	\$ 5,000	3	Negligible	2880	Complex	500	0	\$ -	\$ 166.36	A
1100000128762010	STERLING HIGHWAY	169.18	128.76	59.6572	-151.63	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	4723	Simple	5	0	\$ -	\$ 166.36	A
1350000127002010	GLENN HIGHWAY	135.5	127	61.988	-147	Soil	2	0.03	2	\$ 435	3	\$ 5,000	3	Negligible	901	Long	50	0	\$ -	\$ 166.36	A
1700000041552010	PARKS HIGHWAY	76.96	41.55	61.8136	-150.1	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	2680	Long	50	0	\$ -	\$ 166.36	A
1700000233722010	PARKS HIGHWAY	269.37	233.72	64.1313	-149.25	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	1932	Long	50</				

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
1800000054702010	ALASKA HIGHWAY	1278.19	54.7	63.1354	-142.07	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 166.36	A
1800000065622010	ALASKA HIGHWAY	1289.43	65.62	63.2314	-142.3	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 166.36	A
1800000069132010	ALASKA HIGHWAY	1293.05	69.13	63.247	-142.4	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 166.36	A
1900000083202010	RICHARDSON HIGHWAY	79.4	83.2	61.6653	-145.18	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	598	Complex	500	0	\$ -	\$ 166.36	A
1900000083702010	RICHARDSON HIGHWAY	79.9	83.7	61.6715	-145.17	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	598	Complex	500	0	\$ -	\$ 166.36	A
1900000300162010	RICHARDSON HIGHWAY	298.08	300.16	64.2909	-146.43	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	1750	Long	50	0	\$ -	\$ 166.36	A
1900000321482010	RICHARDSON HIGHWAY	319.8	321.48	64.4096	-146.88	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	2710	Complex	500	0	\$ -	\$ 166.36	A
2300000001192010	TOK CUTOFF HIGHWAY	1.2	1.19	62.2996	-145.32	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	472	Long	50	0	\$ -	\$ 166.36	A
2300000071702010	TOK CUTOFF HIGHWAY	73	71.7	62.8199	-143.71	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	381	Long	50	0	\$ -	\$ 166.36	A
2300000074212010	TOK CUTOFF HIGHWAY	75.38	74.21	62.8545	-143.7	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	381	Long	50	0	\$ -	\$ 166.36	A
2300000076992010	TOK CUTOFF HIGHWAY	78.01	76.99	62.8868	-143.68	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	381	Long	50	0	\$ -	\$ 166.36	A
2300000078912010	TOK CUTOFF HIGHWAY	79.92	78.91	62.9126	-143.66	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	381	Long	50	0	\$ -	\$ 166.36	A
2500000007342010	TAYLOR HIGHWAY	7.6	7.34	63.3907	-142.51	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	171	Complex	500	0	\$ -	\$ 166.36	A
2500000120442010	TAYLOR HIGHWAY	122.2	120.44	64.4081	-141.39	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	90	Complex	500	0	\$ -	\$ 166.36	A
2914000006912010	SOUTH TONGASS	4.6	6.91	55.3002	-131.56	Soil	2	0.03	2	\$ 435	3	\$ 5,000	3	Negligible	3360	Complex	500	0	\$ -	\$ 166.36	A
2914000007022010	SOUTH TONGASS	4.72	7.02	55.2989	-131.56	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	1924	Complex	500	0	\$ -	\$ 166.36	A
2914000009162010	SOUTH TONGASS	6.87	9.16	55.3089	-131.53	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	787	Simple	5	0	\$ -	\$ 166.36	A
2914000011722010	SOUTH TONGASS	9.42	11.72	55.3372	-131.5	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	134	Complex	500	0	\$ -	\$ 166.36	A
2914000011912010	SOUTH TONGASS	9.62	11.91	55.3396	-131.5	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	134	Complex	500	0	\$ -	\$ 166.36	A
2914000012302010	SOUTH TONGASS	10.03	12.3	55.3449	-131.5	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	134	Complex	500	0	\$ -	\$ 166.36	A
2915000009152010	NORTH TONGASS	11.39	9.15	55.4369	-131.8	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	3900	Complex	500	0	\$ -	\$ 166.36	A
2915000009192010	NORTH TONGASS	11.43	9.19	55.4373	-131.8	Soil	2	0.03	2	\$ 435	3	\$ 5,000	3	Negligible	3900	Complex	500	0	\$ -	\$ 166.36	A
2914000006912010	SOUTH TONGASS	4.6	6.91	55.3002	-131.56	Soil	2	0.03	2	\$ 435	3	\$ 5,000	3	Negligible	3360	Complex	500	0	\$ -	\$ 166.36	A
1500000017592010	DALTON HIGHWAY	17.46	17.59	65.5947	-149.07	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	288	Complex	500	0	\$ -	\$ 166.36	A
1500000248942010	DALTON HIGHWAY	245.6	248.94	68.135	-149.46	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	245	Complex	500	0	\$ -	\$ 166.36	A
1500000249222010	DALTON HIGHWAY	245.88	249.22	68.1346	-149.45	Soil	2	0.03	1	\$ 435	3	\$ 5,000	3	Negligible	245	Complex	500	0	\$ -	\$ 166.36	A
2914000003432010	SOUTH TONGASS	1.11	3.43	55.3314	-131.62	Rock	1	0.01	3	\$ 435	3	\$ 5,000	9	Minor	5544	Complex	500	0.25	\$ 1,148	\$ 91.21	A
2915000005802010	NORTH TONGASS	8.04	5.8	55.4065	-131.74	Rock	1	0.01	3	\$ 435	3	\$ 5,000	9	Minor	4500	Complex	500	0.25	\$ 932	\$ 88.22	A
1300000068082010	SEWARD HIGHWAY	68.87	68.08	60.7929	-149.2	Rock	1	0.01	2	\$ 435	3	\$ 5,000	9	Minor	4163	Complex	500	0.25	\$ 862	\$ 87.25	A
1300000068452010	SEWARD HIGHWAY	69.24	68.45	60.7977	-149.2	Rock	1	0.01	2	\$ 435	3	\$ 5,000	9	Minor	4163	Complex	500	0.25	\$ 862	\$ 87.25	A
1300000055792010	SEWARD HIGHWAY	56.37	55.79	60.7803	-149.43	Rock	1	0.01	2	\$ 435	3	\$ 5,000	9	Minor	3510	Complex	500	0.25	\$ 727	\$ 85.38	A
1300000057742010	SEWARD HIGHWAY	58.34	57.74	60.7619	-149.4	Rock	1	0.01	1	\$ 435	3	\$ 5,000	9	Minor	3510	Complex	500	0.25	\$ 727	\$ 85.38	A
1100000023392010	STERLING HIGHWAY	59.37	23.39	60.4943	-150.15	Rock	1	0.01	2	\$ 435	3	\$ 5,000	9	Minor	3272	Moderate	25	0.25	\$ 677	\$ 84.70	A
1100000001822010	STERLING HIGHWAY	38.65	1.82	60.5302	-149.59	Rock	1	0.01	2	\$ 435	3	\$ 5,000	9	Minor	2880	Complex	500	0.25	\$ 596	\$ 83.57	A
1700000301852010	PARKS HIGHWAY	338.58	301.85	64.7612	-148.31	Rock	1	0.01	3	\$ 435	3	\$ 5,000	9	Minor	1723	Long	50	0.25	\$ 357	\$ 80.25	A
1900000290562010	RICHARDSON HIGHWAY	287.99	290.56	64.2576	-146.14	Rock	1	0.01	2	\$ 435	3	\$ 5,000	9	Minor	1310	Long	50	0.25	\$ 271	\$ 79.07	A
1900000298752010	RICHARDSON HIGHWAY	296.6	298.75	64.29	-146.39	Rock	1	0.01	1	\$ 435	3	\$ 5,000	9	Minor	1310	Long	50	0.25	\$ 271	\$ 79.07	A
2914000010072010	SOUTH TONGASS	7.79	10.07	55.3213	-131.52	Rock	1	0.01	1	\$ 435	3	\$ 5,000	9	Minor	787	Complex	500	0.25	\$ 163	\$ 77.57	A
1900000047452010	RICHARDSON HIGHWAY	43.21	47.45	61.2444	-145.34	Rock	1	0.01	1	\$ 435	3	\$ 5,000	9	Minor	532	Complex	500	0.25	\$ 110	\$ 76.84	A
2960000034182010	GLACIER HIGHWAY-EGAN	34.96	34.18	58.608	-134.93	Rock	1	0.01	1	\$ 435	3	\$ 5,000	9	Minor	156	Complex	500	0.25	\$ 32	\$ 75.76	A
2960000027592010	GLACIER HIGHWAY-EGAN	28.33	27.59	58.5331	-134.83	Rock	1	0.01	1	\$ 435	3	\$ 5,000	9	Minor	147	Complex	500	0.25	\$ 30	\$ 75.73	A
2914000011412010	SOUTH TONGASS	9.09	11.41	55.3342	-131.5	Rock	1	0.01	1	\$ 435	3	\$ 5,000	9	Minor	134	Complex	500	0.25	\$ 28	\$ 75.69	A
2914000012782010	SOUTH TONGASS	10.5	12.78	55.35	-131.49	Rock	1	0.01	1	\$ 435	3	\$ 5,000	6	Minor	123	Complex	500	0.25	\$ 25	\$ 75.66	A
2914000014792010	SOUTH TONGASS	12.48	14.79	55.3701	-131.47	Rock	1	0.01	1	\$ 435	3	\$ 5,000	9	Minor	123	Complex	500	0.25	\$ 25	\$ 75.66	A
2914000015322010	SOUTH TONGASS	16.45	15.32	55.3768	-131.47	Rock	1	0.01	1	\$ 435	3	\$ 5,000	9	Minor	123	Complex	500	0.25	\$ 25	\$ 75.66	A
2914000015412010	SOUTH TONGASS	17.9	15.41	55.3781	-131.47	Rock	1	0.01	1	\$ 435	3	\$ 5,000	9	Minor	123	Complex	500	0.25	\$ 25	\$ 75.66	A
1100000000472010	STERLING HIGHWAY	37.31	0.47	60.5324	-149.56	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1710	Complex	500	0	\$ -	\$ 75.31	A
1100000000622010	STERLING HIGHWAY	37.46	0.62	60.5314	-149.56	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	2880	Complex	500	0	\$ -	\$ 75.31	A
1300000025312010	SEWARD HIGHWAY	25.56	25.31	60.4375	-149.37	Rock	1	0.01	3	\$ 435	3	\$ 5,000	3	Negligible	1780	Complex	500	0	\$ -	\$ 75.31	A
1300000056882010	SEWARD HIGHWAY	57.47	56.88	60.7729	-149.4	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	3510	Complex	500	0	\$ -	\$ 75.31	A
1300000070062010	SEWARD HIGHWAY	70.85	70.06	60.8142	-149.16	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	4163	Complex	500	0	\$ -	\$ 75.31	A
1300000072972010	SEWARD HIGHWAY	73.87	72.97	60.8353	-149.09	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	4163	Complex	500	0	\$ -	\$ 75.31	A
1300000103622010	SEWARD HIGHWAY	104.37	103.62	60.9834	-149.54	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	8270	Complex	500	0	\$ -	\$ 75.31	A
1300000105902010	SEWARD HIGHWAY	106.66	105.9	60.9848	-149.61	Rock	1	0.01	3	\$ 435	3	\$ 5,000	3	Negligible	8270	Complex	500	0	\$ -	\$ 75.31	A
1350000080452010	GLENN HIGHWAY	87.8	80.45	61.8117	-148.17	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1430	Long	50	0	\$ -	\$ 75.31	A
1350000087362010	GLENN HIGHWAY	94.9	87.36	61.797	-147.98	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	1760	Long	50	0	\$ -	\$ 75.31	A
1350000089112010	GLENN HIGHWAY	96.7	89.11	61.7918	-147.93	Rock	1	0.01	3	\$ 435	3	\$ 5,000	3	Negligible	1760	Long	50	0	\$ -	\$ 75.31	A
1350000089312010	GLENN HIGHWAY	96.9	89.31	61.7923	-147.92	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	1760	Long	50	0	\$ -	\$ 75.31	A
1350000089682010	GLENN HIGHWAY	97.3	89.68	61.7923	-147.91	Rock	1	0.01	3	\$ 435	3	\$ 5,000	3	Negligible	1760	Long	50	0	\$ -	\$ 75.31	A
1350000102172010	GLENN HIGHWAY	110.5	102.17	61.8001	-147.59	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1210	Long	50	0	\$ -	\$ 75.31	A
1352250006602010	EAGLE RIVER ROAD	6.6	6.6	61.289	-149.4	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1210	Complex	500	0	\$ -	\$ 75.31	A
1530000034082010	ELLIOTT HIGHWAY	36.18	34.08	65.2656	-148.13	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	N							

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
1700000176752010	PARKS HIGHWAY	212.28	176.75	63.421	-148.88	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	2193	Long	50	0	\$ -	\$ 75.31	A
1700000284552010	PARKS HIGHWAY	320.5	284.55	64.7035	-148.79	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1723	Long	50	0	\$ -	\$ 75.31	A
1700000285652010	PARKS HIGHWAY	321.58	285.65	64.6968	-148.76	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	1723	Long	50	0	\$ -	\$ 75.31	A
1700000286132010	PARKS HIGHWAY	322.05	286.13	64.6971	-148.75	Rock	1	0.01	3	\$ 435	3	\$ 5,000	3	Negligible	1723	Long	50	0	\$ -	\$ 75.31	A
1700000289112010	PARKS HIGHWAY	325	289.11	64.7034	-148.66	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	1723	Long	50	0	\$ -	\$ 75.31	A
1700000299972010	PARKS HIGHWAY	336.55	299.97	64.7572	-148.37	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1723	Long	50	0	\$ -	\$ 75.31	A
1700000307482010	PARKS HIGHWAY	344.89	307.48	64.7925	-148.15	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	2353	Moderate	25	0	\$ -	\$ 75.31	A
1800000005522010	ALASKA HIGHWAY	1227.22	5.52	62.6764	-141.09	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	314	Complex	500	0	\$ -	\$ 75.31	A
1800000029752010	ALASKA HIGHWAY	1252.16	29.75	62.9216	-141.54	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	314	Complex	500	0	\$ -	\$ 75.31	A
1800000039152010	ALASKA HIGHWAY	1261.91	39.15	63.0087	-141.74	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	314	Complex	500	0	\$ -	\$ 75.31	A
1800000039672010	ALASKA HIGHWAY	1262.45	39.67	63.0107	-141.76	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	314	Complex	500	0	\$ -	\$ 75.31	A
1800000040062010	ALASKA HIGHWAY	1262.86	40.06	63.0123	-141.77	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	314	Complex	500	0	\$ -	\$ 75.31	A
1800000045502010	ALASKA HIGHWAY	1268.53	45.5	63.0533	-141.87	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 75.31	A
1800000047652010	ALASKA HIGHWAY	1270.72	47.65	63.0675	-141.93	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 75.31	A
1800000050852010	ALASKA HIGHWAY	1274	50.85	63.0963	-141.99	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 75.31	A
1800000051222010	ALASKA HIGHWAY	1274.4	51.22	63.1001	-142	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 75.31	A
1800000052042010	ALASKA HIGHWAY	1275.3	52.04	63.1102	-142.02	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 75.31	A
1800000053422010	ALASKA HIGHWAY	1276.87	53.42	63.1194	-142.05	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 75.31	A
1800000057062010	ALASKA HIGHWAY	1280.58	57.06	63.1636	-142.1	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 75.31	A
1800000065232010	ALASKA HIGHWAY	1289.04	65.23	63.228	-142.29	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 75.31	A
180000006832010	ALASKA HIGHWAY	1292.21	68.33	63.2401	-142.38	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 75.31	A
1800000069722010	ALASKA HIGHWAY	1293.64	69.72	63.2464	-142.42	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 75.31	A
1800000071022010	ALASKA HIGHWAY	1294.94	71.02	63.2532	-142.45	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	490	Complex	500	0	\$ -	\$ 75.31	A
1800000078752010	ALASKA HIGHWAY	1302.76	78.75	63.3194	-142.63	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	579	Complex	500	0	\$ -	\$ 75.31	A
1800000138472010	ALASKA HIGHWAY	1362.54	138.47	63.6734	-144.09	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	312	Long	50	0	\$ -	\$ 75.31	A
1900000012802010	RICHARDSON HIGHWAY	9.18	12.8	61.0664	-146.03	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1237	Complex	500	0	\$ -	\$ 75.31	A
1900000016502010	RICHARDSON HIGHWAY	12.67	16.5	61.0579	-145.92	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	1237	Complex	500	0	\$ -	\$ 75.31	A
1900000016802010	RICHARDSON HIGHWAY	12.96	16.8	61.0596	-145.91	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1237	Complex	500	0	\$ -	\$ 75.31	A
1900000029702010	RICHARDSON HIGHWAY	25.84	29.7	61.1285	-145.73	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000031602010	RICHARDSON HIGHWAY	27.56	31.6	61.148	-145.73	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000034702010	RICHARDSON HIGHWAY	30.35	34.7	61.1782	-145.66	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000035702010	RICHARDSON HIGHWAY	31.41	35.7	61.184	-145.64	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000037602010	RICHARDSON HIGHWAY	33.35	37.6	61.1914	-145.59	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000038102010	RICHARDSON HIGHWAY	33.86	38.1	61.1945	-145.57	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000038602010	RICHARDSON HIGHWAY	34.36	38.6	61.196	-145.56	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000039302010	RICHARDSON HIGHWAY	35.09	39.3	61.2014	-145.54	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000040202010	RICHARDSON HIGHWAY	36.19	40.2	61.2052	-145.51	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000043002010	RICHARDSON HIGHWAY	39	43	61.2072	-145.43	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000053912010	RICHARDSON HIGHWAY	49.8	53.91	61.316	-145.29	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000054522010	RICHARDSON HIGHWAY	50.4	54.52	61.3216	-145.31	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000214792010	RICHARDSON HIGHWAY	211.87	214.79	63.3291	-145.73	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	356	Long	50	0	\$ -	\$ 75.31	A
1900000279142010	RICHARDSON HIGHWAY	276.35	279.14	64.1651	-145.87	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1850	Long	50	0	\$ -	\$ 75.31	A
1900000297122010	RICHARDSON HIGHWAY	294.87	297.12	64.2825	-146.34	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	1310	Long	50	0	\$ -	\$ 75.31	A
1900000300352010	RICHARDSON HIGHWAY	298.27	300.35	64.2902	-146.44	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	1750	Long	50	0	\$ -	\$ 75.31	A
1900000302182010	RICHARDSON HIGHWAY	300.08	302.18	64.2936	-146.49	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1750	Long	50	0	\$ -	\$ 75.31	A
1900000302282010	RICHARDSON HIGHWAY	300.19	302.28	64.295	-146.49	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1750	Long	50	0	\$ -	\$ 75.31	A
1900000302522010	RICHARDSON HIGHWAY	300.43	302.52	64.2982	-146.49	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	1750	Long	50	0	\$ -	\$ 75.31	A
1900000313852010	RICHARDSON HIGHWAY	312.03	313.85	64.3375	-146.83	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	1750	Long	50	0	\$ -	\$ 75.31	A
1900000314012010	RICHARDSON HIGHWAY	312.19	314.01	64.3386	-146.83	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1750	Long	50	0	\$ -	\$ 75.31	A
1900000314422010	RICHARDSON HIGHWAY	312.6	314.42	64.338	-146.86	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1750	Long	50	0	\$ -	\$ 75.31	A
1900000319732010	RICHARDSON HIGHWAY	317.99	319.73	64.3969	-146.92	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1750	Long	50	0	\$ -	\$ 75.31	A
1916000003952010	DAYVILLE ROAD	3.9	3.95	61.0834	-146.31	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	1601	Complex	500	0	\$ -	\$ 75.31	A
1916000004452010	DAYVILLE ROAD	4.4	4.45	61.0832	-146.32	Rock	1	0.01	3	\$ 435	3	\$ 5,000	3	Negligible	1601	Complex	500	0	\$ -	\$ 75.31	A
1916000005142010	DAYVILLE ROAD	5.1	5.14	61.0861	-146.34	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	1601	Complex	500	0	\$ -	\$ 75.31	A
2300000048812010	TOK CUTOFF HIGHWAY	49.51	48.81	62.7139	-144.3	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	390	Long	50	0	\$ -	\$ 75.31	A
2300000049652010	TOK CUTOFF HIGHWAY	50.35	49.65	62.7157	-144.28	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	390	Long	50	0	\$ -	\$ 75.31	A
2300000058632010	TOK CUTOFF HIGHWAY	59.6	58.63	62.7126	-144	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	390	Long	50	0	\$ -	\$ 75.31	A
2300000060212010	TOK CUTOFF HIGHWAY	61.31	60.21	62.7194	-143.95	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	381	Long	50	0	\$ -	\$ 75.31	A
2300000064402010	TOK CUTOFF HIGHWAY	65.55	64.4	62.7349	-143.83	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	381	Long	50	0	\$ -	\$ 75.31	A
2300000068892010	TOK CUTOFF HIGHWAY	70.2	68.89	62.7914	-143.77	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	381	Long	50	0	\$ -	\$ 75.31	A
2300000069202010	TOK CUTOFF HIGHWAY	70.5	69.2	62.795	-143.76	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	381	Long	50	0	\$ -	\$ 75.31	A
2300000088102010	TOK CUTOFF HIGHWAY	89.13	88.1	62.9426	-143.39	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	360	Long	50	0	\$ -	\$ 75.31	A

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
291400006442010	SOUTH TONGASS	4.11	6.44	55.306	-131.56	Rock	1	0.01	3	\$ 435	3	\$ 5,000	3	Negligible	3360	Complex	500	0	\$ -	\$ 75.31	A
291400008302010	SOUTH TONGASS	6.03	8.3	55.2968	-131.53	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	1924	Moderate	25	0	\$ -	\$ 75.31	A
291400008482010	SOUTH TONGASS	6.2	8.48	55.2994	-131.53	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	1924	Moderate	25	0	\$ -	\$ 75.31	A
291400008672010	SOUTH TONGASS	6.39	8.67	55.3019	-131.53	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	1924	Moderate	25	0	\$ -	\$ 75.31	A
291400008732010	SOUTH TONGASS	6.45	8.73	55.3028	-131.53	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1924	Moderate	25	0	\$ -	\$ 75.31	A
291400008792010	SOUTH TONGASS	6.51	8.79	55.3036	-131.53	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	787	Moderate	25	0	\$ -	\$ 75.31	A
291400009152010	SOUTH TONGASS	6.86	9.15	55.3086	-131.53	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	787	Moderate	25	0	\$ -	\$ 75.31	A
291400009582010	SOUTH TONGASS	7.29	9.58	55.3148	-131.52	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	787	Complex	500	0	\$ -	\$ 75.31	A
291400009642010	SOUTH TONGASS	7.35	9.64	55.3154	-131.52	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	787	Complex	500	0	\$ -	\$ 75.31	A
291400009762010	SOUTH TONGASS	7.48	9.76	55.3171	-131.52	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	787	Complex	500	0	\$ -	\$ 75.31	A
291400009852010	SOUTH TONGASS	7.57	9.85	55.3183	-131.52	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	787	Complex	500	0	\$ -	\$ 75.31	A
291400009922010	SOUTH TONGASS	7.64	9.92	55.3192	-131.52	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	787	Complex	500	0	\$ -	\$ 75.31	A
291400010752010	SOUTH TONGASS	8.45	10.75	55.3279	-131.52	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	787	Complex	500	0	\$ -	\$ 75.31	A
291400010852010	SOUTH TONGASS	8.55	10.85	55.3299	-131.52	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	134	Complex	500	0	\$ -	\$ 75.31	A
291400010932010	SOUTH TONGASS	8.63	10.93	55.3312	-131.51	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	134	Complex	500	0	\$ -	\$ 75.31	A
291400011812010	SOUTH TONGASS	9.51	11.81	55.3384	-131.5	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	134	Complex	500	0	\$ -	\$ 75.31	A
291400012082010	SOUTH TONGASS	9.8	12.08	55.342	-131.5	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	134	Complex	500	0	\$ -	\$ 75.31	A
291400012212010	SOUTH TONGASS	9.93	12.21	55.3436	-131.5	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	134	Complex	500	0	\$ -	\$ 75.31	A
291400012542010	SOUTH TONGASS	10.26	12.54	55.3478	-131.49	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	134	Complex	500	0	\$ -	\$ 75.31	A
291400012892010	SOUTH TONGASS	10.6	12.89	55.3515	-131.49	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	123	Complex	500	0	\$ -	\$ 75.31	A
291400012982010	SOUTH TONGASS	10.69	12.98	55.3523	-131.49	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	123	Complex	500	0	\$ -	\$ 75.31	A
291400013382010	SOUTH TONGASS	11.08	13.38	55.3577	-131.48	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	123	Complex	500	0	\$ -	\$ 75.31	A
291400013572010	SOUTH TONGASS	11.27	13.57	55.3593	-131.48	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	123	Complex	500	0	\$ -	\$ 75.31	A
291400013802010	SOUTH TONGASS	11.5	13.8	55.3631	-131.48	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	123	Complex	500	0	\$ -	\$ 75.31	A
291400014962010	SOUTH TONGASS	12.65	14.96	55.3716	-131.47	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	123	Complex	500	0	\$ -	\$ 75.31	A
2915000001642100	NORTH TONGASS	3.89	1.64	55.3988	-131.72	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	5050	Complex	500	0	\$ -	\$ 75.31	A
2915000001702010	NORTH TONGASS	3.95	1.7	55.3726	-131.72	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	6587	Moderate	25	0	\$ -	\$ 75.31	A
2915000003712010	NORTH TONGASS	5.96	3.71	55.3967	-131.73	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	5050	Complex	500	0	\$ -	\$ 75.31	A
2915000005422010	NORTH TONGASS	7.66	5.42	55.4078	-131.73	Rock	1	0.01	3	\$ 435	3	\$ 5,000	3	Negligible	4500	Complex	500	0	\$ -	\$ 75.31	A
2915000005552010	NORTH TONGASS	7.79	5.55	55.4069	-131.74	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	4500	Complex	500	0	\$ -	\$ 75.31	A
2915000005702010	NORTH TONGASS	7.94	5.7	55.4065	-131.74	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	4500	Complex	500	0	\$ -	\$ 75.31	A
2915000005822010	NORTH TONGASS	8.06	5.82	55.4065	-131.74	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	4500	Complex	500	0	\$ -	\$ 75.31	A
2915000005902010	NORTH TONGASS	8.15	5.9	55.4068	-131.74	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	4500	Complex	500	0	\$ -	\$ 75.31	A
2915000006002010	NORTH TONGASS	8.25	6	55.4067	-131.75	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	4500	Complex	500	0	\$ -	\$ 75.31	A
2915000006192010	NORTH TONGASS	8.45	6.19	55.4966	-131.75	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	4500	Complex	500	0	\$ -	\$ 75.31	A
2915000006942010	NORTH TONGASS	9.22	6.94	55.4153	-131.76	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	4361	Moderate	25	0	\$ -	\$ 75.31	A
2915000008102010	NORTH TONGASS	10.37	8.1	55.4256	-131.78	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	4361	Moderate	25	0	\$ -	\$ 75.31	A
2915000008382010	NORTH TONGASS	10.65	8.38	55.4279	-131.79	Rock	1	0.01	3	\$ 435	3	\$ 5,000	3	Negligible	4361	Complex	500	0	\$ -	\$ 75.31	A
2915000008762010	NORTH TONGASS	11.02	8.76	55.4231	-131.78	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	3900	Moderate	25	0	\$ -	\$ 75.31	A
2915000010072010	NORTH TONGASS	12.29	10.07	55.446	-131.81	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	3000	Complex	500	0	\$ -	\$ 75.31	A
2915000010142010	NORTH TONGASS	12.36	10.14	55.4464	-131.81	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	3000	Complex	500	0	\$ -	\$ 75.31	A
2915000010302010	NORTH TONGASS	12.52	10.3	55.4478	-131.82	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	3000	Complex	500	0	\$ -	\$ 75.31	A
2915000010702010	NORTH TONGASS	12.93	10.7	55.4536	-131.82	Rock	1	0.01	3	\$ 435	3	\$ 5,000	3	Negligible	3381	Complex	500	0	\$ -	\$ 75.31	A
2915000010842010	NORTH TONGASS	13.07	10.84	55.4553	-131.82	Rock	1	0.01	3	\$ 435	3	\$ 5,000	3	Negligible	3381	Complex	500	0	\$ -	\$ 75.31	A
2915000011022010	NORTH TONGASS	13.25	11.02	55.457	-131.82	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	3381	Complex	500	0	\$ -	\$ 75.31	A
2915000011132010	NORTH TONGASS	13.36	11.13	55.4585	-131.81	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	3381	Complex	500	0	\$ -	\$ 75.31	A
2915000011362010	NORTH TONGASS	13.58	11.36	55.4614	-131.81	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	3381	Complex	500	0	\$ -	\$ 75.31	A
2915000011582010	NORTH TONGASS	13.8	11.58	55.4635	-131.81	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	3381	Complex	500	0	\$ -	\$ 75.31	A
2915000011842010	NORTH TONGASS	14.05	11.84	55.4661	-131.8	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	3381	Moderate	25	0	\$ -	\$ 75.31	A
2915000012052010	NORTH TONGASS	14.26	12.05	55.468	-131.8	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	530	Moderate	25	0	\$ -	\$ 75.31	A
2915000012602010	NORTH TONGASS	14.79	12.6	55.4691	-131.8	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	530	Moderate	25	0	\$ -	\$ 75.31	A
2915000012872010	NORTH TONGASS	15.05	12.87	55.4758	-131.78	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	530	Complex	500	0	\$ -	\$ 75.31	A
2915000013012010	NORTH TONGASS	15.19	13.01	55.4774	-131.78	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	530	Complex	500	0	\$ -	\$ 75.31	A
2915000013162010	NORTH TONGASS	15.34	13.16	55.479	-131.78	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	530	Complex	500	0	\$ -	\$ 75.31	A
2915000013202010	NORTH TONGASS	15.38	13.2	55.4797	-131.78	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	530	Complex	500	0	\$ -	\$ 75.31	A
2915000013252010	NORTH TONGASS	15.43	13.25	55.4802	-131.78	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	530	Complex	500	0	\$ -	\$ 75.31	A
2915000013292010	NORTH TONGASS	15.47	13.29	55.4806	-131.78	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	530	Complex	500	0	\$ -	\$ 75.31	A
2915000013502010	NORTH TONGASS	15.68	13.5	55.4825	-131.77	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	530	Complex	500	0	\$ -	\$ 75.31	A
2915000013702010	NORTH TONGASS	15.88	13.7	55.4849	-131.77	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	530	Complex	500	0	\$ -	\$ 75.31	A
2915000013782010	NORTH TONGASS	15.97	13.78	55.4857	-131.77	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	530	Complex	500	0	\$ -	\$ 75.31	A
2915000013832010	NORTH TONGASS	16.02	13.83	55.4861	-131.77	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	530	Complex	500	0	\$ -	\$ 75.31	A
2915000014402010	NORTH TONGASS	16.6	14.4	55.4924	-131.76	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	200	Complex	500	0	\$ -	\$ 75.31	A
2915000014542010	NORTH TONGASS	16.75	14.54	55.4938	-131.76	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	200						

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
2915000014872010	NORTH TONGASS	17.09	14.87	55.4977	-131.75	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	200	Complex	500	0	\$ -	\$ 75.31	A
2915000014922010	NORTH TONGASS	17.14	14.92	55.4982	-131.75	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	200	Complex	500	0	\$ -	\$ 75.31	A
2915000014982010	NORTH TONGASS	17.2	14.98	55.4987	-131.75	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	200	Complex	500	0	\$ -	\$ 75.31	A
2915000015702010	NORTH TONGASS	17.93	15.7	55.5054	-131.74	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	200	Complex	500	0	\$ -	\$ 75.31	A
2915000015732010	NORTH TONGASS	17.96	15.73	55.5057	-131.74	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	200	Complex	500	0	\$ -	\$ 75.31	A
2915000015762010	NORTH TONGASS	18	15.76	55.506	-131.73	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	200	Complex	500	0	\$ -	\$ 75.31	A
2915000015772010	NORTH TONGASS	18.01	15.77	55.5063	-131.73	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	200	Complex	500	0	\$ -	\$ 75.31	A
2915000015842010	NORTH TONGASS	18.08	15.84	55.5067	-131.73	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	200	Complex	500	0	\$ -	\$ 75.31	A
2915000015852010	NORTH TONGASS	18.09	15.85	55.5068	-131.73	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	200	Complex	500	0	\$ -	\$ 75.31	A
2915000015892010	NORTH TONGASS	18.13	15.89	55.5075	-131.73	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	200	Complex	500	0	\$ -	\$ 75.31	A
2915000015992010	NORTH TONGASS	18.23	15.99	55.5084	-131.73	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	200	Complex	500	0	\$ -	\$ 75.31	A
2915000016002010	NORTH TONGASS	18.24	16	55.5088	-131.73	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	200	Complex	500	0	\$ -	\$ 75.31	A
2915000016122010	NORTH TONGASS	18.36	16.12	55.5095	-131.73	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	200	Complex	500	0	\$ -	\$ 75.31	A
2915000016202010	NORTH TONGASS	18.44	16.2	55.51	-131.72	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	200	Complex	500	0	\$ -	\$ 75.31	A
2954000001052010	HALIBUT POINT ROAD	1.11	1.05	57.0633	-135.35	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	8151	Moderate	25	0	\$ -	\$ 75.31	A
2954000002802010	HALIBUT POINT ROAD	3.12	2.8	57.0832	-135.38	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	6796	Complex	500	0	\$ -	\$ 75.31	A
2954000005572010	HALIBUT POINT ROAD	5.93	5.57	57.1183	-135.39	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	872	Complex	500	0	\$ -	\$ 75.31	A
2960000014112010	GLACIER HIGHWAY-EGAN	14.78	14.11	58.3781	-134.71	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	1825	Moderate	25	0	\$ -	\$ 75.31	A
2960000015252010	GLACIER HIGHWAY-EGAN	15.72	15.25	58.3817	-134.74	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	1825	Moderate	25	0	\$ -	\$ 75.31	A
2960000016952010	GLACIER HIGHWAY-EGAN	17.63	16.95	58.403	-134.76	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	1338	Complex	500	0	\$ -	\$ 75.31	A
2960000018152010	GLACIER HIGHWAY-EGAN	18.82	18.15	58.4205	-134.76	Rock	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	879	Complex	500	0	\$ -	\$ 75.31	A
2960000018682010	GLACIER HIGHWAY-EGAN	19.36	18.68	58.4274	-134.76	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	879	Complex	500	0	\$ -	\$ 75.31	A
2960000018782010	GLACIER HIGHWAY-EGAN	19.46	18.78	58.4288	-134.76	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	879	Complex	500	0	\$ -	\$ 75.31	A
2960000021902010	GLACIER HIGHWAY-EGAN	22.63	21.9	58.4717	-134.78	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	660	Complex	500	0	\$ -	\$ 75.31	A
2960000022052010	GLACIER HIGHWAY-EGAN	22.77	22.05	58.4737	-134.78	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	660	Complex	500	0	\$ -	\$ 75.31	A
2960000022472010	GLACIER HIGHWAY-EGAN	23.19	22.47	58.48	-134.78	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	660	Complex	500	0	\$ -	\$ 75.31	A
2960000025532010	GLACIER HIGHWAY-EGAN	26.27	25.53	58.5184	-134.79	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	381	Complex	500	0	\$ -	\$ 75.31	A
2960000027202010	GLACIER HIGHWAY-EGAN	27.94	27.2	58.5289	-134.82	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	147	Complex	500	0	\$ -	\$ 75.31	A
2960000029792010	GLACIER HIGHWAY-EGAN	30.57	29.79	58.5563	-134.87	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	147	Complex	500	0	\$ -	\$ 75.31	A
2960000030452010	GLACIER HIGHWAY-EGAN	31.25	30.45	58.5641	-134.88	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	147	Complex	500	0	\$ -	\$ 75.31	A
2960000031332010	GLACIER HIGHWAY-EGAN	32.16	31.33	58.575	-134.89	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	133	Complex	500	0	\$ -	\$ 75.31	A
2960000031512010	GLACIER HIGHWAY-EGAN	32.34	31.51	58.5765	-134.89	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	133	Complex	500	0	\$ -	\$ 75.31	A
2960000031582010	GLACIER HIGHWAY-EGAN	32.4	31.58	58.5773	-134.89	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	133	Complex	500	0	\$ -	\$ 75.31	A
2960000031732010	GLACIER HIGHWAY-EGAN	32.55	31.73	58.5791	-134.9	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	133	Complex	500	0	\$ -	\$ 75.31	A
2960000031912010	GLACIER HIGHWAY-EGAN	32.72	31.91	58.5817	-134.9	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	133	Complex	500	0	\$ -	\$ 75.31	A
2960000032022010	GLACIER HIGHWAY-EGAN	32.82	32.02	58.5833	-134.9	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	133	Complex	500	0	\$ -	\$ 75.31	A
2960000034082010	GLACIER HIGHWAY-EGAN	34.86	34.08	58.6066	-134.93	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	156	Complex	500	0	\$ -	\$ 75.31	A
2960000041522010	GLACIER HIGHWAY-EGAN	169.4	41.52	58.6954	-134.93	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	156	Complex	500	0	\$ -	\$ 75.31	A
2980000005502010	HAINES HIGHWAY	5.96	5.5	59.2624	-135.58	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	520	Complex	500	0	\$ -	\$ 75.31	A
2980000007182010	HAINES HIGHWAY	7.65	7.18	59.2666	-135.62	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	520	Complex	500	0	\$ -	\$ 75.31	A
2980000008062010	HAINES HIGHWAY	8.53	8.06	59.2707	-135.65	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	520	Complex	500	0	\$ -	\$ 75.31	A
2980000010412010	HAINES HIGHWAY	10.87	10.41	59.2925	-135.7	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	520	Complex	500	0	\$ -	\$ 75.31	A
2980000012102010	HAINES HIGHWAY	12.55	12.1	59.312	-135.72	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	520	Complex	500	0	\$ -	\$ 75.31	A
2980000026532010	HAINES HIGHWAY	26.93	26.53	59.4208	-136.01	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	415	Complex	500	0	\$ -	\$ 75.31	A
2980000028662010	HAINES HIGHWAY	29.14	28.66	59.4214	-136.07	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	315	Complex	500	0	\$ -	\$ 75.31	A
2980000029412010	HAINES HIGHWAY	29.89	29.41	59.4206	-136.09	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	315	Complex	500	0	\$ -	\$ 75.31	A
2980000030472010	HAINES HIGHWAY	30.96	30.47	59.4257	-136.12	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	315	Complex	500	0	\$ -	\$ 75.31	A
2980000031432010	HAINES HIGHWAY	31.91	31.43	59.4297	-136.14	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	240	Complex	500	0	\$ -	\$ 75.31	A
2980000031742010	HAINES HIGHWAY	32.22	31.74	59.4302	-136.15	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	240	Complex	500	0	\$ -	\$ 75.31	A
2995000003972010	KLONDIKE HIGHWAY	5.6	3.97	59.5156	-135.25	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000011112010	KLONDIKE HIGHWAY	12.86	11.11	59.6029	-135.18	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000011612010	KLONDIKE HIGHWAY	13.33	11.61	59.6082	-135.17	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000011862010	KLONDIKE HIGHWAY	13.56	11.86	59.6114	-135.17	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000012542010	KLONDIKE HIGHWAY	14.21	12.54	59.6207	-135.16	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000013162010	KLONDIKE HIGHWAY	15.28	13.16	59.6289	-135.16	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
1100000002002010	STERLING HIGHWAY	38.83	2	60.5284	-149.6	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	2880	Complex	500	0	\$ -	\$ 75.31	A
1100000002742010	STERLING HIGHWAY	39.61	2.74	60.5251	-149.61	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	2880	Complex	500	0	\$ -	\$ 75.31	A
1100000004172010	STERLING HIGHWAY	41.08	4.17	60.5238	-149.66	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	2880	Complex	500	0	\$ -	\$ 75.31	A
1100000004562010	STERLING HIGHWAY	41.5	4.56	60.5197	-149.67	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	2880	Complex	500	0	\$ -	\$ 75.31	A
1100000009142010	STERLING HIGHWAY	45.96	9.14	60.4944	-149.76	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	3490	Complex	500	0	\$ -	\$ 75.31	A
1100000010252010	STERLING HIGHWAY	47.15	10.25	60.4948	-149.79	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	3490	Complex	500	0	\$ -	\$ 75.31	A
1100000017952010	STERLING HIGHWAY	54.86	17.95	60.4873	-150	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	3060	Complex	500	0	\$ -	\$ 75.31	A
11000																					

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
1100000028812010	STERLING HIGHWAY	64.93	28.81	60.5236	-150.28	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	3272	Moderate	25	0	\$ -	\$ 75.31	A
1100000028832010	STERLING HIGHWAY	64.95	28.83	60.5237	-150.28	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	3272	Moderate	25	0	\$ -	\$ 75.31	A
1100000029052010	STERLING HIGHWAY	65.17	29.05	60.5243	-150.29	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	3272	Moderate	25	0	\$ -	\$ 75.31	A
1100000064582010	STERLING HIGHWAY	102.47	64.58	60.3986	-151.17	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	5220	Simple	5	0	\$ -	\$ 75.31	A
1100000064592010	STERLING HIGHWAY	102.48	64.59	60.3983	-151.17	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	5220	Simple	5	0	\$ -	\$ 75.31	A
1196000000392010	STERLING WYE	0.39	0.39	60.5327	-149.56	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1170	Simple	5	0	\$ -	\$ 75.31	A
1300000009472010	SEWARD HIGHWAY	9.23	9.47	60.2249	-149.37	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1798	Complex	500	0	\$ -	\$ 75.31	A
1300000009582010	SEWARD HIGHWAY	9.34	9.58	60.226	-149.37	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1798	Complex	500	0	\$ -	\$ 75.31	A
1300000010042010	SEWARD HIGHWAY	9.78	10.04	60.2329	-149.37	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1798	Complex	500	0	\$ -	\$ 75.31	A
1300000010412010	SEWARD HIGHWAY	10.17	10.41	60.2392	-149.37	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1798	Complex	500	0	\$ -	\$ 75.31	A
1300000012482010	SEWARD HIGHWAY	12.4	12.48	60.2643	-149.34	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1798	Complex	500	0	\$ -	\$ 75.31	A
1300000012652010	SEWARD HIGHWAY	12.57	12.65	60.2666	-149.35	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1798	Complex	500	0	\$ -	\$ 75.31	A
1300000014632010	SEWARD HIGHWAY	14.55	14.63	60.2938	-149.35	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1798	Complex	500	0	\$ -	\$ 75.31	A
1300000014982010	SEWARD HIGHWAY	14.9	14.98	60.2987	-149.35	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1798	Complex	500	0	\$ -	\$ 75.31	A
1300000015072010	SEWARD HIGHWAY	14.99	15.07	60.2999	-149.35	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1798	Complex	500	0	\$ -	\$ 75.31	A
1300000018762010	SEWARD HIGHWAY	18.97	18.76	60.3478	-149.35	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1780	Complex	500	0	\$ -	\$ 75.31	A
1300000020412010	SEWARD HIGHWAY	20.76	20.41	60.3724	-149.35	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1780	Complex	500	0	\$ -	\$ 75.31	A
1300000025892010	SEWARD HIGHWAY	26.14	25.89	60.446	-149.37	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1780	Complex	500	0	\$ -	\$ 75.31	A
1300000038082010	SEWARD HIGHWAY	38.53	38.08	60.5484	-149.58	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	3292	Complex	500	0	\$ -	\$ 75.31	A
1300000038372010	SEWARD HIGHWAY	38.85	38.37	60.5506	-149.58	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	3292	Complex	500	0	\$ -	\$ 75.31	A
1300000050952010	SEWARD HIGHWAY	51.55	50.95	60.7184	-149.46	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	3388	Complex	500	0	\$ -	\$ 75.31	A
1300000051312010	SEWARD HIGHWAY	51.84	51.31	60.7225	-149.46	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	3388	Complex	500	0	\$ -	\$ 75.31	A
1300000051422010	SEWARD HIGHWAY	51.93	51.42	60.7239	-149.46	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	3388	Complex	500	0	\$ -	\$ 75.31	A
1300000053042010	SEWARD HIGHWAY	53.56	53.04	60.7462	-149.46	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	3388	Complex	500	0	\$ -	\$ 75.31	A
1300000055682010	SEWARD HIGHWAY	56.25	55.68	60.7795	-149.43	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	3388	Complex	500	0	\$ -	\$ 75.31	A
1300000056732010	SEWARD HIGHWAY	57.32	56.73	60.7747	-149.41	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	3510	Complex	500	0	\$ -	\$ 75.31	A
1300000056832010	SEWARD HIGHWAY	57.42	56.83	60.7736	-149.41	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	3510	Complex	500	0	\$ -	\$ 75.31	A
1300000057782010	SEWARD HIGHWAY	58.38	57.78	60.7617	-149.4	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	3510	Complex	500	0	\$ -	\$ 75.31	A
1300000058592010	SEWARD HIGHWAY	59.34	58.59	60.751	-149.38	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	3510	Complex	500	0	\$ -	\$ 75.31	A
1300000062612010	SEWARD HIGHWAY	63.38	62.61	60.7273	-149.28	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	3510	Complex	500	0	\$ -	\$ 75.31	A
1300000062642010	SEWARD HIGHWAY	63.41	62.64	60.7273	-149.28	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	3510	Complex	500	0	\$ -	\$ 75.31	A
1300000069122010	SEWARD HIGHWAY	69.89	69.12	60.8041	-149.18	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	4163	Complex	500	0	\$ -	\$ 75.31	A
1300000069382010	SEWARD HIGHWAY	70.15	69.38	60.8071	-149.18	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	4163	Complex	500	0	\$ -	\$ 75.31	A
1300000069532010	SEWARD HIGHWAY	70.31	69.53	60.8087	-149.18	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	4163	Complex	500	0	\$ -	\$ 75.31	A
1300000069542010	SEWARD HIGHWAY	70.32	69.54	60.8086	-149.18	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	4163	Complex	500	0	\$ -	\$ 75.31	A
1300000072832010	SEWARD HIGHWAY	73.73	72.83	60.8343	-149.1	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	4163	Complex	500	0	\$ -	\$ 75.31	A
1300000073222010	SEWARD HIGHWAY	74.12	73.22	60.8358	-149.09	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	4163	Complex	500	0	\$ -	\$ 75.31	A
1300000098462010	SEWARD HIGHWAY	99.26	98.46	60.9541	-149.42	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	8120	Complex	500	0	\$ -	\$ 75.31	A
1300000101092010	SEWARD HIGHWAY	101.89	101.09	60.9759	-149.48	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	8460	Complex	500	0	\$ -	\$ 75.31	A
1300000102442010	SEWARD HIGHWAY	103.25	102.44	60.9832	-149.54	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	8460	Complex	500	0	\$ -	\$ 75.31	A
1300000104092010	SEWARD HIGHWAY	104.78	104.09	60.9834	-149.56	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	8270	Complex	500	0	\$ -	\$ 75.31	A
1300000104222010	SEWARD HIGHWAY	104.89	104.22	60.9836	-149.56	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	8270	Complex	500	0	\$ -	\$ 75.31	A
1300000104282010	SEWARD HIGHWAY	104.94	104.28	60.9837	-149.56	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	8270	Complex	500	0	\$ -	\$ 75.31	A
1300000104462010	SEWARD HIGHWAY	105.13	104.46	60.9846	-149.57	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	8270	Complex	500	0	\$ -	\$ 75.31	A
1300000104552010	SEWARD HIGHWAY	105.24	104.55	60.9846	-149.57	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	8270	Complex	500	0	\$ -	\$ 75.31	A
1300000104602010	SEWARD HIGHWAY	105.3	104.6	60.9846	-149.57	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	8270	Complex	500	0	\$ -	\$ 75.31	A
1300000106222010	SEWARD HIGHWAY	106.95	106.22	60.9875	-149.61	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	8270	Complex	500	0	\$ -	\$ 75.31	A
1300000111512010	SEWARD HIGHWAY	112.47	111.51	61.0217	-149.75	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	8270	Complex	500	0	\$ -	\$ 75.31	A
1300000111602010	SEWARD HIGHWAY	112.56	111.6	61.0225	-149.75	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	8270	Complex	500	0	\$ -	\$ 75.31	A
1300000111932010	SEWARD HIGHWAY	112.89	111.93	61.0267	-149.75	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	8270	Complex	500	0	\$ -	\$ 75.31	A
1350000061562010	GLENN HIGHWAY	68.75	61.56	61.7338	-148.7	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1393	Long	50	0	\$ -	\$ 75.31	A
1350000066192010	GLENN HIGHWAY	73.1	66.19	61.7629	-148.57	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1393	Long	50	0	\$ -	\$ 75.31	A
1350000067522010	GLENN HIGHWAY	74.5	67.52	61.7651	-148.53	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1393	Long	50	0	\$ -	\$ 75.31	A
1350000067722010	GLENN HIGHWAY	74.7	67.72	61.7663	-148.53	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1393	Long	50	0	\$ -	\$ 75.31	A
1350000069972010	GLENN HIGHWAY	77.5	69.97	61.7797	-148.47	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1393	Long	50	0	\$ -	\$ 75.31	A
1350000071052010	GLENN HIGHWAY	78.4	71.05	61.7886	-148.45	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1430	Long	50	0	\$ -	\$ 75.31	A
1350000071402010	GLENN HIGHWAY	78.7	71.4	61.7898	-148.43	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1430	Long	50	0	\$ -	\$ 75.31	A
1350000071852010	GLENN HIGHWAY	79.1	71.85	61.7914	-148.42	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1430	Long	50	0	\$ -	\$ 75.31	A
1350000075492010	GLENN HIGHWAY	82.6	75.49	61.7961	-148.31	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1430	Long	50	0	\$ -	\$ 75.31	A
1350000075572010	GLENN HIGHWAY	82.7	75.57	61.7964	-148.31	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1430	Long	50	0	\$ -	\$ 75.31	A
1350000075652010	GLENN HIGHWAY	82.8	75.65	61.7965	-148.31	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1430	Long	50	0	\$ -	\$ 75.31	A
1350000075802010	GLENN HIGHWAY	83	75.8	61.7966	-148.3	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1430	Long	50	0	\$ -	\$ 75.31	A
1350000076132010	GLE																				

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	IOR Grade
1350000080262010	GLENN HIGHWAY	87.6	80.26	61.8121	-148.18	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1430	Long	50	0	\$ -	\$ 75.31	A
1350000083722010	GLENN HIGHWAY	91.2	83.72	61.8032	-148.07	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1430	Long	50	0	\$ -	\$ 75.31	A
1350000090412010	GLENN HIGHWAY	98.1	90.41	61.7936	-147.89	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1760	Long	50	0	\$ -	\$ 75.31	A
1350000090502010	GLENN HIGHWAY	98.2	90.5	61.7943	-147.88	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1760	Long	50	0	\$ -	\$ 75.31	A
1350000093102010	GLENN HIGHWAY	101.2	93.1	61.8005	-147.81	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1760	Long	50	0	\$ -	\$ 75.31	A
1350000093762010	GLENN HIGHWAY	101.9	93.76	61.7979	-147.79	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1760	Long	50	0	\$ -	\$ 75.31	A
1350000096542010	GLENN HIGHWAY	104.6	96.54	61.7926	-147.71	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1760	Long	50	0	\$ -	\$ 75.31	A
1350000099942010	GLENN HIGHWAY	107.9	99.94	61.7999	-147.65	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1210	Long	50	0	\$ -	\$ 75.31	A
1350000101672010	GLENN HIGHWAY	110	101.67	61.7998	-147.6	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1210	Long	50	0	\$ -	\$ 75.31	A
1350000101972010	GLENN HIGHWAY	110.3	101.97	61.8005	-147.59	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1210	Long	50	0	\$ -	\$ 75.31	A
1350000102372010	GLENN HIGHWAY	110.7	102.37	61.8002	-147.58	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1210	Long	50	0	\$ -	\$ 75.31	A
1350000128422010	GLENN HIGHWAY	137.2	128.42	61.9857	-146.96	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	901	Long	50	0	\$ -	\$ 75.31	A
1351000003202010	HILAND ROAD	3.2	3.2	61.2848	-149.5	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1590	Complex	500	0	\$ -	\$ 75.31	A
1530000001542010	ELLIOTT HIGHWAY	1.69	1.54	64.9799	-147.64	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1075	Complex	500	0	\$ -	\$ 75.31	A
1530000010602010	ELLIOTT HIGHWAY	11.28	10.6	65.0861	-147.73	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	595	Complex	500	0	\$ -	\$ 75.31	A
1530000029062010	ELLIOTT HIGHWAY	30.93	29.06	65.2084	-148.11	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	595	Complex	500	0	\$ -	\$ 75.31	A
1530000036242010	ELLIOTT HIGHWAY	38.7	36.24	65.2885	-148.16	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	595	Complex	500	0	\$ -	\$ 75.31	A
1530000037092010	ELLIOTT HIGHWAY	39.53	37.09	65.2939	-148.18	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	595	Complex	500	0	\$ -	\$ 75.31	A
1530000045422010	ELLIOTT HIGHWAY	47.62	45.42	65.3582	-148.26	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	595	Complex	500	0	\$ -	\$ 75.31	A
1530000049892010	ELLIOTT HIGHWAY	52.21	49.89	65.4106	-148.24	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	595	Complex	500	0	\$ -	\$ 75.31	A
1530000050092010	ELLIOTT HIGHWAY	52.42	50.09	65.4125	-148.24	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	595	Complex	500	0	\$ -	\$ 75.31	A
1530000053472010	ELLIOTT HIGHWAY	55.87	53.47	65.4579	-148.24	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	595	Complex	500	0	\$ -	\$ 75.31	A
1530000053782010	ELLIOTT HIGHWAY	56.18	53.78	65.4619	-148.25	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	595	Complex	500	0	\$ -	\$ 75.31	A
1530000055272010	ELLIOTT HIGHWAY	57.67	55.27	65.4748	-148.28	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	402	Complex	500	0	\$ -	\$ 75.31	A
1530000060302010	ELLIOTT HIGHWAY	63.85	60.3	65.4836	-148.43	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	402	Complex	500	0	\$ -	\$ 75.31	A
1530000060612010	ELLIOTT HIGHWAY	64.24	60.61	65.484	-148.44	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	402	Complex	500	0	\$ -	\$ 75.31	A
1530000061562010	ELLIOTT HIGHWAY	65.43	61.56	65.4885	-148.47	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	402	Complex	500	0	\$ -	\$ 75.31	A
1530000064052010	ELLIOTT HIGHWAY	68.54	64.05	65.4919	-148.55	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	402	Complex	500	0	\$ -	\$ 75.31	A
1700000176932010	PARKS HIGHWAY	212.45	176.93	63.4234	-148.88	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	2193	Long	50	0	\$ -	\$ 75.31	A
1700000177402010	PARKS HIGHWAY	212.9	177.4	63.4301	-148.87	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	2193	Long	50	0	\$ -	\$ 75.31	A
1700000189922010	PARKS HIGHWAY	225.6	189.92	63.5872	-148.81	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	2193	Long	50	0	\$ -	\$ 75.31	A
1700000190122010	PARKS HIGHWAY	225.78	190.12	63.5916	-148.81	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	2193	Long	50	0	\$ -	\$ 75.31	A
1700000190522010	PARKS HIGHWAY	226.16	190.52	63.5971	-148.8	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	2193	Long	50	0	\$ -	\$ 75.31	A
1700000195342010	PARKS HIGHWAY	231.06	195.34	63.6522	-148.83	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	2193	Long	50	0	\$ -	\$ 75.31	A
1700000291002010	PARKS HIGHWAY	326.99	291	64.7136	-148.6	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1723	Long	50	0	\$ -	\$ 75.31	A
1800000007302010	ALASKA HIGHWAY	1229.28	7.3	62.6884	-141.13	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	314	Complex	500	0	\$ -	\$ 75.31	A
1800000029612010	ALASKA HIGHWAY	1252.02	29.61	62.9197	-141.54	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	314	Complex	500	0	\$ -	\$ 75.31	A
1800000033172010	ALASKA HIGHWAY	1255.74	33.17	62.9534	-141.62	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	314	Complex	500	0	\$ -	\$ 75.31	A
1800000044332010	ALASKA HIGHWAY	1267.33	44.33	63.0504	-141.84	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	490	Complex	500	0	\$ -	\$ 75.31	A
1800000046792010	ALASKA HIGHWAY	1269.85	46.79	63.0625	-141.91	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	490	Complex	500	0	\$ -	\$ 75.31	A
1800000048022010	ALASKA HIGHWAY	1271.1	48.02	63.0689	-141.94	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	490	Complex	500	0	\$ -	\$ 75.31	A
1800000051412010	ALASKA HIGHWAY	1274.61	51.41	63.1032	-142.01	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	490	Complex	500	0	\$ -	\$ 75.31	A
1800000059982010	ALASKA HIGHWAY	1283.63	59.98	63.1899	-142.17	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	490	Complex	500	0	\$ -	\$ 75.31	A
1800000061202010	ALASKA HIGHWAY	1284.93	61.2	63.2034	-142.19	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	490	Complex	500	0	\$ -	\$ 75.31	A
1800000066822010	ALASKA HIGHWAY	1290.68	66.82	63.2355	-142.33	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	490	Complex	500	0	\$ -	\$ 75.31	A
1800000070672010	ALASKA HIGHWAY	1294.59	70.67	63.2501	-142.44	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	490	Complex	500	0	\$ -	\$ 75.31	A
1800000076112010	ALASKA HIGHWAY	1300.1	76.11	63.2975	-142.57	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	490	Complex	500	0	\$ -	\$ 75.31	A
1800000078742010	ALASKA HIGHWAY	1302.75	78.74	63.3194	-142.63	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	579	Complex	500	0	\$ -	\$ 75.31	A
1800000079052010	ALASKA HIGHWAY	1303.07	79.05	63.318	-142.64	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	579	Complex	500	0	\$ -	\$ 75.31	A
1800000123092010	ALASKA HIGHWAY	1347.23	123.09	63.4936	-143.84	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	312	Long	50	0	\$ -	\$ 75.31	A
1800000156452010	ALASKA HIGHWAY	1380.72	156.45	63.7069	-144.65	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	457	Long	50	0	\$ -	\$ 75.31	A
1900000008702010	RICHARDSON HIGHWAY	4.79	8.7	61.0764	-146.15	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1237	Complex	500	0	\$ -	\$ 75.31	A
1900000011902010	RICHARDSON HIGHWAY	8.06	11.9	61.0668	-146.06	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1237	Complex	500	0	\$ -	\$ 75.31	A
1900000012102010	RICHARDSON HIGHWAY	8.31	12.1	61.0668	-146.05	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1237	Complex	500	0	\$ -	\$ 75.31	A
1900000012502010	RICHARDSON HIGHWAY	8.83	12.5	61.0676	-146.04	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1237	Complex	500	0	\$ -	\$ 75.31	A
1900000014602010	RICHARDSON HIGHWAY	10.91	14.6	61.062	-145.98	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1237	Complex	500	0	\$ -	\$ 75.31	A
1900000024802010	RICHARDSON HIGHWAY	21.08	24.8	61.116	-145.74	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000030002010	RICHARDSON HIGHWAY	26.1	30	61.1354	-145.74	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000030602010	RICHARDSON HIGHWAY	26.61	30.6	61.1395	-145.75	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000031002010	RICHARDSON HIGHWAY	26.95	31	61.1447	-145.74	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000031402010	RICHARDSON HIGHWAY	27.36	31.4	61.1468	-145.73	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000032402010	RICHARDSON HIGHWAY	28.27	32.4	61.1572	-145.71	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000032602010	RICHARDSON HIGHWAY	28																			

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
1900000043402010	RICHARDSON HIGHWAY	39.38	43.4	61.2076	-145.42	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000044202010	RICHARDSON HIGHWAY	40.12	44.2	61.2098	-145.4	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000044402010	RICHARDSON HIGHWAY	40.29	44.4	61.2109	-145.39	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000048602010	RICHARDSON HIGHWAY	44.21	48.6	61.2484	-145.31	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000048902010	RICHARDSON HIGHWAY	44.62	48.9	61.2498	-145.3	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000049402010	RICHARDSON HIGHWAY	45.24	49.4	61.2533	-145.29	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000057702010	RICHARDSON HIGHWAY	53.66	57.7	61.3608	-145.28	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000058902010	RICHARDSON HIGHWAY	54.88	58.9	61.3741	-145.26	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000059902010	RICHARDSON HIGHWAY	55.89	59.9	61.3838	-145.24	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	532	Complex	500	0	\$ -	\$ 75.31	A
1900000190802010	RICHARDSON HIGHWAY	187.65	190.8	63.0625	-145.51	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	380	Long	50	0	\$ -	\$ 75.31	A
1900000210372010	RICHARDSON HIGHWAY	207.48	210.37	63.2854	-145.66	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	356	Long	50	0	\$ -	\$ 75.31	A
1900000213092010	RICHARDSON HIGHWAY	210.2	213.09	63.3085	-145.71	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	356	Long	50	0	\$ -	\$ 75.31	A
1900000278942010	RICHARDSON HIGHWAY	276.15	278.94	64.1633	-145.86	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1850	Long	50	0	\$ -	\$ 75.31	A
1900000296472010	RICHARDSON HIGHWAY	294.12	296.47	64.2805	-146.31	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1310	Long	50	0	\$ -	\$ 75.31	A
1900000296982010	RICHARDSON HIGHWAY	294.71	296.98	64.282	-146.33	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1310	Long	50	0	\$ -	\$ 75.31	A
1900000299692010	RICHARDSON HIGHWAY	297.59	299.69	64.2909	-146.41	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1750	Long	50	0	\$ -	\$ 75.31	A
1900000301832010	RICHARDSON HIGHWAY	299.74	301.83	64.2895	-146.48	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1750	Long	50	0	\$ -	\$ 75.31	A
1900000302872010	RICHARDSON HIGHWAY	300.79	302.87	64.3016	-146.5	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1750	Long	50	0	\$ -	\$ 75.31	A
2300000064052010	TOK CUTOFF HIGHWAY	65.19	64.05	62.7322	-143.84	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	381	Long	50	0	\$ -	\$ 75.31	A
2300000064182010	TOK CUTOFF HIGHWAY	65.33	64.18	62.7332	-143.84	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	381	Long	50	0	\$ -	\$ 75.31	A
2300000065092010	TOK CUTOFF HIGHWAY	66.26	65.09	62.7407	-143.81	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	381	Long	50	0	\$ -	\$ 75.31	A
2300000067262010	TOK CUTOFF HIGHWAY	68.55	67.26	62.77	-143.79	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	381	Long	50	0	\$ -	\$ 75.31	A
2300000072382010	TOK CUTOFF HIGHWAY	73.6	72.38	62.8291	-143.7	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	381	Long	50	0	\$ -	\$ 75.31	A
2300000078062010	TOK CUTOFF HIGHWAY	79.07	78.06	62.9011	-143.67	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	381	Long	50	0	\$ -	\$ 75.31	A
2300000078352010	TOK CUTOFF HIGHWAY	79.36	78.35	62.9053	-143.67	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	381	Long	50	0	\$ -	\$ 75.31	A
2300000081162010	TOK CUTOFF HIGHWAY	82.15	81.16	62.9278	-143.61	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	360	Long	50	0	\$ -	\$ 75.31	A
2300000081262010	TOK CUTOFF HIGHWAY	82.25	81.26	62.9279	-143.6	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	360	Long	50	0	\$ -	\$ 75.31	A
2300000086352010	TOK CUTOFF HIGHWAY	87.44	86.35	62.9343	-143.44	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	360	Long	50	0	\$ -	\$ 75.31	A
2300000086462010	TOK CUTOFF HIGHWAY	87.55	86.46	62.9343	-143.44	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	360	Long	50	0	\$ -	\$ 75.31	A
2300000087372010	TOK CUTOFF HIGHWAY	88.42	87.37	62.9377	-143.41	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	360	Long	50	0	\$ -	\$ 75.31	A
2300000087562010	TOK CUTOFF HIGHWAY	88.6	87.56	62.939	-143.41	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	360	Long	50	0	\$ -	\$ 75.31	A
2300000105612010	TOK CUTOFF HIGHWAY	107.79	105.61	63.1501	-143.23	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	380	Long	50	0	\$ -	\$ 75.31	A
2914000007192010	SOUTH TONGASS	4.89	7.19	55.2945	-131.55	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1924	Complex	500	0	\$ -	\$ 75.31	A
2954000004792010	HALIBUT POINT ROAD	5.09	4.79	57.1082	-135.4	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	2805	Complex	500	0	\$ -	\$ 75.31	A
2954000006262010	HALIBUT POINT ROAD	6.67	6.26	57.1262	-135.39	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	872	Complex	500	0	\$ -	\$ 75.31	A
2960000014182010	GLACIER HIGHWAY-EGAN	14.85	14.18	58.3784	-134.71	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1825	Moderate	25	0	\$ -	\$ 75.31	A
2960000015242010	GLACIER HIGHWAY-EGAN	15.91	15.24	58.3813	-134.74	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1825	Moderate	25	0	\$ -	\$ 75.31	A
2960000017992010	GLACIER HIGHWAY-EGAN	18.66	17.99	58.4179	-134.76	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	879	Complex	500	0	\$ -	\$ 75.31	A
2960000018322010	GLACIER HIGHWAY-EGAN	18.99	18.32	58.4222	-134.76	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	879	Complex	500	0	\$ -	\$ 75.31	A
2960000027492010	GLACIER HIGHWAY-EGAN	28.23	27.49	58.532	-134.83	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	147	Complex	500	0	\$ -	\$ 75.31	A
2960000028692010	GLACIER HIGHWAY-EGAN	29.47	28.69	58.5425	-134.85	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	147	Complex	500	0	\$ -	\$ 75.31	A
2960000028872010	GLACIER HIGHWAY-EGAN	29.65	28.87	58.5443	-134.86	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	147	Complex	500	0	\$ -	\$ 75.31	A
2960000029642010	GLACIER HIGHWAY-EGAN	30.43	29.64	58.5543	-134.86	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	147	Complex	500	0	\$ -	\$ 75.31	A
2960000029902010	GLACIER HIGHWAY-EGAN	30.68	29.9	58.5573	-134.87	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	147	Complex	500	0	\$ -	\$ 75.31	A
2960000032232010	GLACIER HIGHWAY-EGAN	33.03	32.23	58.576	-134.9	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	133	Complex	500	0	\$ -	\$ 75.31	A
2960000033462010	GLACIER HIGHWAY-EGAN	34.23	33.46	58.5999	-134.92	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	156	Complex	500	0	\$ -	\$ 75.31	A
2960000033632010	GLACIER HIGHWAY-EGAN	34.4	33.63	58.6022	-134.92	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	156	Complex	500	0	\$ -	\$ 75.31	A
2960000033662010	GLACIER HIGHWAY-EGAN	34.43	33.66	58.6026	-134.92	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	156	Complex	500	0	\$ -	\$ 75.31	A
2960000040562010	GLACIER HIGHWAY-EGAN	120.63	40.56	58.6829	-134.92	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	156	Complex	500	0	\$ -	\$ 75.31	A
2960000040902010	GLACIER HIGHWAY-EGAN	137.9	40.9	58.6874	-134.92	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	156	Complex	500	0	\$ -	\$ 75.31	A
2960000041462010	GLACIER HIGHWAY-EGAN	166.35	41.46	58.6944	-134.93	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	156	Complex	500	0	\$ -	\$ 75.31	A
2960000041562010	GLACIER HIGHWAY-EGAN	171.43	41.56	58.6959	-134.93	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	156	Complex	500	0	\$ -	\$ 75.31	A
2980000003632010	HAINES HIGHWAY	4.09	3.63	59.2484	-135.54	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	520	Complex	500	0	\$ -	\$ 75.31	A
2980000005642010	HAINES HIGHWAY	6.1	5.64	59.2626	-135.58	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	520	Complex	500	0	\$ -	\$ 75.31	A
2980000007002010	HAINES HIGHWAY	7.47	7	59.2669	-135.62	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	520	Complex	500	0	\$ -	\$ 75.31	A
2980000007762010	HAINES HIGHWAY	8.23	7.76	59.2684	-135.64	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	520	Complex	500	0	\$ -	\$ 75.31	A
2980000008772010	HAINES HIGHWAY	9.24	8.77	59.2778	-135.66	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	520	Complex	500	0	\$ -	\$ 75.31	A
2980000009872010	HAINES HIGHWAY	10.33	9.87	59.2867	-135.69	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	520	Complex	500	0	\$ -	\$ 75.31	A
2980000010532010	HAINES HIGHWAY	10.99	10.53	59.2934	-135.7	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	520	Complex	500	0	\$ -	\$ 75.31	A
2980000010802010	HAINES HIGHWAY	11.26	10.8	59.2966	-135.7	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	520	Complex	500	0	\$ -	\$ 75.31	A
2980000012902010	HAINES HIGHWAY	13.35	12.9	59.3209	-135.74	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	435	Complex	500	0	\$ -	\$ 75.31	A
2980000014842010	HAINES HIGHWAY	15.3	14.84	59.3417	-135.76	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	435	Complex	500	0	\$ -	\$ 75.31	

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
2980000031632010	HAINES HIGHWAY	32.11	31.63	59.4297	-136.15	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	240	Complex	500	0	\$ -	\$ 75.31	A
2980000037752010	HAINES HIGHWAY	38.24	37.75	59.4363	-136.32	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	240	Complex	500	0	\$ -	\$ 75.31	A
2980000038102010	HAINES HIGHWAY	38.59	38.1	59.4397	-136.32	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	240	Complex	500	0	\$ -	\$ 75.31	A
2981500001972010	LUTAK ROAD	2.36	1.97	59.256	-135.44	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	600	Complex	500	0	\$ -	\$ 75.31	A
2981500002022010	LUTAK ROAD	2.41	2.02	59.2565	-135.44	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	600	Complex	500	0	\$ -	\$ 75.31	A
2981500003462010	LUTAK ROAD	3.64	3.46	59.2743	-135.44	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	600	Complex	500	0	\$ -	\$ 75.31	A
2981500003872010	LUTAK ROAD	4	3.87	59.2782	-135.45	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	600	Complex	500	0	\$ -	\$ 75.31	A
2981500004002010	LUTAK ROAD	4.11	4	59.2789	-135.45	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	600	Complex	500	0	\$ -	\$ 75.31	A
2995000001452010	KLONDIKE HIGHWAY	3.06	1.45	59.4847	-135.28	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1333	Complex	500	0	\$ -	\$ 75.31	A
2995000001532010	KLONDIKE HIGHWAY	3.15	1.53	59.4856	-135.28	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	1333	Complex	500	0	\$ -	\$ 75.31	A
2995000002512010	KLONDIKE HIGHWAY	4.17	2.51	59.498	-135.27	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	533	Complex	500	0	\$ -	\$ 75.31	A
2995000003612010	KLONDIKE HIGHWAY	5.25	3.61	59.5107	-135.25	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000003762010	KLONDIKE HIGHWAY	5.39	3.76	59.5125	-135.25	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000005412010	KLONDIKE HIGHWAY	7.03	5.41	59.5302	-135.22	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000005652010	KLONDIKE HIGHWAY	7.28	5.65	59.5329	-135.22	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000006852010	KLONDIKE HIGHWAY	8.49	6.85	59.5479	-135.2	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000007262010	KLONDIKE HIGHWAY	8.89	7.26	59.5538	-135.2	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000007672010	KLONDIKE HIGHWAY	9.31	7.67	59.5596	-135.2	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000008012010	KLONDIKE HIGHWAY	9.65	8.01	59.5643	-135.2	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000008222010	KLONDIKE HIGHWAY	9.86	8.22	59.5671	-135.2	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000008802010	KLONDIKE HIGHWAY	10.45	8.8	59.5755	-135.2	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000009242010	KLONDIKE HIGHWAY	10.89	9.24	59.5815	-135.2	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000009622010	KLONDIKE HIGHWAY	11.28	9.62	59.5869	-135.2	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000009662010	KLONDIKE HIGHWAY	11.32	9.66	59.5875	-135.2	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000009722010	KLONDIKE HIGHWAY	11.38	9.72	59.5881	-135.2	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000010012010	KLONDIKE HIGHWAY	11.68	10.01	59.5884	-135.19	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000010572010	KLONDIKE HIGHWAY	12.26	10.57	59.596	-135.18	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000010772010	KLONDIKE HIGHWAY	12.48	10.77	59.5992	-135.18	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000010942010	KLONDIKE HIGHWAY	12.67	10.94	59.6008	-135.18	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000011332010	KLONDIKE HIGHWAY	13.08	11.33	59.605	-135.18	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000011422010	KLONDIKE HIGHWAY	13.16	11.42	59.6062	-135.17	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000012012010	KLONDIKE HIGHWAY	13.69	12.01	59.6127	-135.17	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000012022010	KLONDIKE HIGHWAY	13.7	12.02	59.6144	-135.17	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
2995000012642010	KLONDIKE HIGHWAY	14.33	12.64	59.6219	-135.16	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	302	Complex	500	0	\$ -	\$ 75.31	A
1500000020492010	DALTON HIGHWAY	20.11	20.49	65.6273	-149.03	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	288	Complex	500	0	\$ -	\$ 75.31	A
1500000025392010	DALTON HIGHWAY	24.56	25.39	65.6757	-149.09	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	280	Complex	500	0	\$ -	\$ 75.31	A
1500000043182010	DALTON HIGHWAY	42.38	43.18	65.7933	-149.45	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	280	Complex	500	0	\$ -	\$ 75.31	A
1500000048512010	DALTON HIGHWAY	47.8	48.51	65.8218	-149.55	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	280	Complex	500	0	\$ -	\$ 75.31	A
15000000244672010	DALTON HIGHWAY	241.12	244.67	68.0992	-149.54	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	245	Complex	500	0	\$ -	\$ 75.31	A
15000000251132010	DALTON HIGHWAY	247.99	251.13	68.1505	-149.44	Rock	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	245	Complex	500	0	\$ -	\$ 75.31	A
1500000021382010	DALTON HIGHWAY	20.88	21.38	65.6392	-149.03	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	0	Complex	500	0	\$ -	\$ 75.31	A
1500000021992010	DALTON HIGHWAY	21.41	21.99	65.6477	-149.04	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	0	Complex	500	0	\$ -	\$ 75.31	A
1500000039892010	DALTON HIGHWAY	39.02	39.89	65.7763	-149.37	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	0	Complex	500	0	\$ -	\$ 75.31	A
1500000040612010	DALTON HIGHWAY	39.77	40.61	65.7828	-149.39	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	0	Complex	500	0	\$ -	\$ 75.31	A
1500000048852010	DALTON HIGHWAY	48.14	48.85	65.8226	-149.56	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	0	Complex	500	0	\$ -	\$ 75.31	A
1500000068852010	DALTON HIGHWAY	68.27	68.85	65.9925	-150.03	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	0	Complex	500	0	\$ -	\$ 75.31	A
1500000069602010	DALTON HIGHWAY	69.02	69.6	65.9955	-150.05	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	0	Complex	500	0	\$ -	\$ 75.31	A
1500000070902010	DALTON HIGHWAY	70.32	70.9	66.007	-150.09	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	0	Complex	500	0	\$ -	\$ 75.31	A
1500000071232010	DALTON HIGHWAY	70.65	71.23	66.0113	-150.09	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	0	Complex	500	0	\$ -	\$ 75.31	A
1500000109922010	DALTON HIGHWAY	109.33	109.92	66.4836	-150.7	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	0	Complex	500	0	\$ -	\$ 75.31	A
1500000231012010	DALTON HIGHWAY	228	231.01	67.9427	-149.79	Rock	1	0.01	0	\$ 435	0	\$ 5,000	0	Negligible	0	Complex	500	0	\$ -	\$ 75.31	A
1800000041052010	ALASKA HIGHWAY	1263.91	41.05	63.0111	-141.8	Soil	1	0.00	3	\$ 435	3	\$ 5,000	3	Negligible	800	Complex	500	0	\$ -	\$ 22.84	A
1900000112862010	RICHARDSON HIGHWAY	110.1	112.86	62.0473	-145.43	Soil	1	0.00	1	\$ 435	3	\$ 5,000	3	Negligible	1712	Complex	500	0	\$ -	\$ 22.84	A
1100000020602010	STERLING HIGHWAY	61.92	26.06	60.5237	-150.2	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	3272	Moderate	25	0	\$ -	\$ 22.84	A
1100000047702010	STERLING HIGHWAY	84.27	47.7	60.5373	-150.83	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	5782	Simple	5	0	\$ -	\$ 22.84	A
1100000098022010	STERLING HIGHWAY	137.31	98.02	60.0259	-151.7	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	3150	Complex	500	0	\$ -	\$ 22.84	A
1100000129202010	STERLING HIGHWAY	169.68	129.2	59.6548	-151.63	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	4723	Simple	5	0	\$ -	\$ 22.84	A
1176000019132010	KENAI SPUR HIGHWAY	19.17	19.13	60.6469	-151.36	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	6450	Simple	5	0	\$ -	\$ 22.84	A
1300000044572010	SEWARD HIGHWAY	45	44.57	60.6309	-149.51	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	3292	Complex	500	0	\$ -	\$ 22.84	A
1300000046782010	SEWARD HIGHWAY	47.25	46.78	60.6589	-149.48	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	3388	Complex	500	0	\$ -	\$ 22.84	A
1300000054792010	SEWARD HIGHWAY	55.35	54.79	60.7677	-149.45	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	3388	Complex	500	0	\$ -	\$ 22.84	A
1300000103432010	SEWARD HIGHWAY	104.21	103.43	60.9835	-149.53	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	8270	Complex	500	0	\$ -	\$ 22.84	A
1300000103512010	SEWARD HIGHWAY	104.28	103.51	60.9831	-149.54																

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	IOR Grade
132300002962010	PORTAGE GLACIER ROAD	2.94	2.96	60.7972	-148.91	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	935	Complex	500	0	\$ -	\$ 22.84	A
132300003692010	WHITTIER ACCESS ROAD	3.66	3.69	60.7895	-148.89	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	935	Complex	500	0	\$ -	\$ 22.84	A
1337150000902010	CLARKS ROAD	0.9	0.9	61.0849	-149.73	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	986	Complex	500	0	\$ -	\$ 22.84	A
1337210000602010	Upper Huffman	0.6	0.6	61.1089	-149.72	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	1822	Complex	500	0	\$ -	\$ 22.84	A
1350000051402010	GLENN HIGHWAY	58.6	51.4	61.6985	-148.95	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	2562	Long	50	0	\$ -	\$ 22.84	A
1350000094792010	GLENN HIGHWAY	102.8	94.79	61.7972	-147.76	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	1760	Long	50	0	\$ -	\$ 22.84	A
1350000096872010	GLENN HIGHWAY	105	96.87	61.7916	-147.7	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	1760	Long	50	0	\$ -	\$ 22.84	A
1350000097192010	GLENN HIGHWAY	105.3	97.19	61.7915	-147.69	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	1760	Long	50	0	\$ -	\$ 22.84	A
1350000111402010	GLENN HIGHWAY	119.8	111.4	61.8609	-147.36	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	939	Long	50	0	\$ -	\$ 22.84	A
1350000162672010	GLENN HIGHWAY	172	162.67	62.0971	-146	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	867	Long	50	0	\$ -	\$ 22.84	A
1530000029462010	ELLIOTT HIGHWAY	31.39	29.46	65.2111	-148.11	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	595	Complex	500	0	\$ -	\$ 22.84	A
1530000033702010	ELLIOTT HIGHWAY	35.78	33.7	65.2605	-148.13	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	595	Complex	500	0	\$ -	\$ 22.84	A
1530000055632010	ELLIOTT HIGHWAY	58.04	55.63	65.4737	-148.3	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	402	Complex	500	0	\$ -	\$ 22.84	A
1530000055882010	ELLIOTT HIGHWAY	58.34	55.88	65.4729	-148.3	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	402	Complex	500	0	\$ -	\$ 22.84	A
1700000033042010	PARKS HIGHWAY	68.23	33.04	61.7279	-150.04	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	4190	Simple	5	0	\$ -	\$ 22.84	A
1700000033112010	PARKS HIGHWAY	68.32	33.11	61.729	-150.04	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	4190	Simple	5	0	\$ -	\$ 22.84	A
1700000033542010	PARKS HIGHWAY	68.84	33.54	61.7331	-150.04	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	4190	Simple	5	0	\$ -	\$ 22.84	A
1700000136662010	PARKS HIGHWAY	172.1	136.66	62.9908	-149.62	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	1680	Long	50	0	\$ -	\$ 22.84	A
1700000186102010	PARKS HIGHWAY	221.85	186.1	63.5358	-148.8	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	2193	Long	50	0	\$ -	\$ 22.84	A
1700000196472010	PARKS HIGHWAY	232.18	196.47	63.6663	-148.84	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	2193	Long	50	0	\$ -	\$ 22.84	A
1700000196832010	PARKS HIGHWAY	232.54	196.83	63.6697	-148.83	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	2193	Long	50	0	\$ -	\$ 22.84	A
1700000201222010	PARKS HIGHWAY	236.91	201.22	63.7209	-148.9	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	2193	Long	50	0	\$ -	\$ 22.84	A
1700000269932010	PARKS HIGHWAY	305.55	269.93	64.5696	-149.11	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	1406	Long	50	0	\$ -	\$ 22.84	A
1700000272762010	PARKS HIGHWAY	308.78	272.76	64.6039	-149.1	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	1723	Long	50	0	\$ -	\$ 22.84	A
1700000281322010	PARKS HIGHWAY	317.25	281.32	64.6773	-148.88	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	1723	Long	50	0	\$ -	\$ 22.84	A
1700000282412010	PARKS HIGHWAY	318.35	282.41	64.6861	-148.85	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	1723	Long	50	0	\$ -	\$ 22.84	A
1700000301252010	PARKS HIGHWAY	337.94	301.25	64.7651	-148.33	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	1723	Long	50	0	\$ -	\$ 22.84	A
1700000302422010	PARKS HIGHWAY	339.19	302.42	64.7647	-148.29	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	1723	Long	50	0	\$ -	\$ 22.84	A
1700000308992010	PARKS HIGHWAY	346.73	308.99	64.8006	-148.11	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	2353	Moderate	25	0	\$ -	\$ 22.84	A
1700000309342010	PARKS HIGHWAY	347.16	309.34	64.8021	-148.1	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	2353	Moderate	25	0	\$ -	\$ 22.84	A
1800000010692010	ALASKA HIGHWAY	1232.96	10.69	62.7211	-141.18	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	314	Complex	500	0	\$ -	\$ 22.84	A
1900000009002010	RICHARDSON HIGHWAY	5.09	9	61.0751	-146.14	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	1237	Complex	500	0	\$ -	\$ 22.84	A
1900000009302010	RICHARDSON HIGHWAY	5.4	9.3	61.0738	-146.13	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	1237	Complex	500	0	\$ -	\$ 22.84	A
1900000011602010	RICHARDSON HIGHWAY	7.75	11.6	61.0676	-146.07	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	1237	Complex	500	0	\$ -	\$ 22.84	A
1900000066852010	RICHARDSON HIGHWAY	62.95	66.85	61.4559	-145.11	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	532	Complex	500	0	\$ -	\$ 22.84	A
1900000070802010	RICHARDSON HIGHWAY	67.02	70.8	61.4986	-145.2	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	598	Complex	500	0	\$ -	\$ 22.84	A
1900000073602010	RICHARDSON HIGHWAY	69.94	73.6	61.5305	-145.24	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	598	Complex	500	0	\$ -	\$ 22.84	A
1900000074702010	RICHARDSON HIGHWAY	71.06	74.7	61.549	-145.24	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	598	Complex	500	0	\$ -	\$ 22.84	A
1900000075952010	RICHARDSON HIGHWAY	72.37	75.95	61.5642	-145.24	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	598	Complex	500	0	\$ -	\$ 22.84	A
1900000124802010	RICHARDSON HIGHWAY	121.86	124.8	62.2114	-145.44	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	918	Long	50	0	\$ -	\$ 22.84	A
1900000140702010	RICHARDSON HIGHWAY	137.71	140.7	62.4119	-145.38	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	571	Long	50	0	\$ -	\$ 22.84	A
1900000180152010	RICHARDSON HIGHWAY	177.14	180.15	62.918	-145.49	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	456	Long	50	0	\$ -	\$ 22.84	A
1900000187152010	RICHARDSON HIGHWAY	184.21	187.15	63.013	-145.49	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	456	Long	50	0	\$ -	\$ 22.84	A
1900000190102010	RICHARDSON HIGHWAY	187.06	190.1	63.054	-145.5	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	380	Long	50	0	\$ -	\$ 22.84	A
1900000201502010	RICHARDSON HIGHWAY	198.56	201.5	63.191	-145.56	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	380	Long	50	0	\$ -	\$ 22.84	A
1900000247972010	RICHARDSON HIGHWAY	245.1	247.97	63.7598	-145.81	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	618	Long	50	0	\$ -	\$ 22.84	A
1900000314192010	RICHARDSON HIGHWAY	312.37	314.19	64.3401	-146.84	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	1750	Long	50	0	\$ -	\$ 22.84	A
1900000314662010	RICHARDSON HIGHWAY	312.84	314.66	64.3383	-146.85	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	1750	Long	50	0	\$ -	\$ 22.84	A
1900000325442010	RICHARDSON HIGHWAY	323.87	325.44	64.47	-146.94	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	2710	Long	50	0	\$ -	\$ 22.84	A
2940000005562010	MITKOF HIGHWAY	6.4	5.56	56.7358	-132.94	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	800	Complex	500	0	\$ -	\$ 22.84	A
2940000007542010	MITKOF HIGHWAY	8.39	7.54	56.7114	-132.94	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	800	Complex	500	0	\$ -	\$ 22.84	A
2940000007782010	MITKOF HIGHWAY	8.63	7.78	56.708	-132.94	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	483	Complex	500	0	\$ -	\$ 22.84	A
2940000007942010	MITKOF HIGHWAY	8.79	7.94	56.7058	-132.93	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	483	Complex	500	0	\$ -	\$ 22.84	A
2940000015622010	MITKOF HIGHWAY	16.46	15.62	56.6189	-132.84	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	87	Moderate	25	0	\$ -	\$ 22.84	A
2960000016622010	GLACIER HIGHWAY-EGAN	17.29	16.62	58.3989	-134.75	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	1338	Complex	500	0	\$ -	\$ 22.84	A
2960000022162010	GLACIER HIGHWAY-EGAN	22.88	22.16	58.4754	-134.78	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	660	Complex	500	0	\$ -	\$ 22.84	A
2960000022932010	GLACIER HIGHWAY-EGAN	23.66	22.93	58.4862	-134.78	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	660	Complex	500	0	\$ -	\$ 22.84	A
2960000040772010	GLACIER HIGHWAY-EGAN	131.3	40.77	58.6853	-134.92	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	156	Complex	500	0	\$ -	\$ 22.84	A
2980000001542010	HAINES HIGHWAY	2.03	1.54	59.2423	-135.48	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	920	Complex	500	0	\$ -	\$ 22.84	A
2980000005412010	HAINES HIGHWAY	5.87	5.41	59.2622	-135.58	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	520	Complex	500	0	\$ -	\$ 22.84	A
2980000006872010	HAINES HIGHWAY	7.34	6.87	59.2671	-135.61	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	520	Complex	500	0	\$ -	\$ 22.84	A
2980000007312010	HAINES HIGHWAY	7.78	7.31	59.2665	-135.63	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	520	Complex	500	0	\$ -	\$ 22.84	A</

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
2980000013002010	HAINES HIGHWAY	13.45	13	59.322	-135.74	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	435	Complex	500	0	\$ -	\$ 22.84	A
2980000014252010	HAINES HIGHWAY	14.71	14.25	59.3356	-135.75	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	435	Complex	500	0	\$ -	\$ 22.84	A
2980000015512010	HAINES HIGHWAY	15.98	15.51	59.35	-135.77	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	435	Complex	500	0	\$ -	\$ 22.84	A
2980000015782010	HAINES HIGHWAY	16.25	15.78	59.3512	-135.77	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	435	Complex	500	0	\$ -	\$ 22.84	A
2980000020852010	HAINES HIGHWAY	21.33	20.85	59.3984	-135.88	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	415	Complex	500	0	\$ -	\$ 22.84	A
2980000029002010	HAINES HIGHWAY	29.48	29	59.4201	-136.08	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	315	Complex	500	0	\$ -	\$ 22.84	A
2980000029392010	HAINES HIGHWAY	29.87	29.39	59.4206	-136.08	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	315	Complex	500	0	\$ -	\$ 22.84	A
2980000035212010	HAINES HIGHWAY	35.66	35.21	59.4351	-136.24	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	240	Complex	500	0	\$ -	\$ 22.84	A
2980000036972010	HAINES HIGHWAY	37.46	36.97	59.4369	-136.29	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	240	Complex	500	0	\$ -	\$ 22.84	A
29950000200202010	KLONDIKE HIGHWAY	3.64	2	59.4915	-135.28	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	1290	Complex	500	0	\$ -	\$ 22.84	A
1800000041052010	ALASKA HIGHWAY	1263.91	41.05	63.0111	-141.8	Soil	1	0.00	3	\$ 435	3	\$ 5,000	3	Negligible	800	Complex	500	0	\$ -	\$ 22.84	A
1500000045352010	DALTON HIGHWAY	44.59	45.35	65.8184	-149.46	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	190	Complex	500	0	\$ -	\$ 22.84	A
1500000062432010	DALTON HIGHWAY	61.91	62.43	65.9363	-149.86	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	190	Complex	500	0	\$ -	\$ 22.84	A
1500000066862010	DALTON HIGHWAY	66.3	66.86	65.9696	-149.99	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	190	Complex	500	0	\$ -	\$ 22.84	A
1500000067862010	DALTON HIGHWAY	67.27	67.86	65.9817	-150.01	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	190	Complex	500	0	\$ -	\$ 22.84	A
1500000068612010	DALTON HIGHWAY	68.03	68.61	65.9913	-150.02	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	190	Complex	500	0	\$ -	\$ 22.84	A
15000000221252010	DALTON HIGHWAY	218.79	221.25	67.8111	-149.82	Soil	1	0.00	0	\$ 435	0	\$ 5,000	0	Negligible	190	Complex	500	0	\$ -	\$ 22.84	A
2914000000612014	SOUTH TONGASS	0	0.61	55.3506	-131.68	Wall	1	0.01	2	\$ 435	27	\$ 75,000	9	Minor	15779	Simple	5	0.25	\$ 3,266	\$ 395.34	A
2914000000622014	SOUTH TONGASS	0	0.62	55.3505	-131.68	Wall	1	0.01	4	\$ 43,500	27	\$ 75,000	6	Minor	15779	Simple	5	0.25	\$ 3,266	\$ 611.67	A
2914000000662014	SOUTH TONGASS	0	0.66	55.3503	-131.68	Wall	1	0.01	5	\$ 43,500	9	\$ 30,000	3	Negligible	15779	Simple	5	0	\$ -	\$ 369.21	A
2914000001832014	SOUTH TONGASS	0	1.83	55.3439	-131.65	Wall	1	0.01	4	\$ 43,500	27	\$ 75,000	3	Negligible	17881	Simple	5	0	\$ -	\$ 595.26	A
2914000001862014	SOUTH TONGASS	0	1.86	55.3436	-131.65	Wall	1	0.01	2	\$ 435	27	\$ 75,000	3	Negligible	17881	Simple	5	0	\$ -	\$ 378.93	A
130000001932015	SEWARD HIGHWAY	11.85	11.93	60.2578	-149.35	Wall	1	0.01	3	\$ 435	9	\$ 30,000	9	Minor	1798	Complex	500	0.25	\$ 372	\$ 154.75	A
130000001982015	SEWARD HIGHWAY	11.9	11.98	60.2586	-149.35	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	1798	Complex	500	0	\$ -	\$ 152.88	A
130000002252015	SEWARD HIGHWAY	12.17	12.25	60.2614	-149.35	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1798	Complex	500	0	\$ -	\$ 27.30	A
1300000013962015	SEWARD HIGHWAY	13.89	13.96	60.2847	-149.34	Wall	1	0.01	1	\$ 435	9	\$ 30,000	6	Minor	1798	Complex	500	0.25	\$ 372	\$ 154.75	A
1300000014002015	SEWARD HIGHWAY	13.93	14	60.285	-149.34	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	1798	Complex	500	0.25	\$ 372	\$ 154.75	A
1300000018042015	SEWARD HIGHWAY	17.92	18.04	60.3381	-149.34	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	1780	Complex	500	0.25	\$ 368	\$ 154.74	A
2914000003432014	SOUTH TONGASS	0	3.43	55.3309	-131.62	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	5544	Complex	500	0	\$ -	\$ 27.30	A
2914000003512014	SOUTH TONGASS	0	3.51	55.3301	-131.62	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	5544	Complex	500	0	\$ -	\$ 152.88	A
1300000018132015	SEWARD HIGHWAY	18	18.13	60.3391	-149.34	Wall	2	0.01	1	\$ 435	9	\$ 30,000	9	Minor	1780	Complex	500	0.25	\$ 368	\$ 460.24	A
1300000018392015	SEWARD HIGHWAY	18.4	18.39	60.3449	-149.35	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	1780	Complex	500	0.25	\$ 368	\$ 154.74	A
1300000022122015	SEWARD HIGHWAY	22.4	22.12	60.3937	-149.35	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1780	Complex	500	0	\$ -	\$ 27.30	A
2914000003552014	SOUTH TONGASS	0	3.55	55.3296	-131.62	Wall	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	5544	Complex	500	0	\$ -	\$ 152.88	A
1300000025072015	SEWARD HIGHWAY	25.31	25.07	60.4348	-149.37	Wall	1	0.01	1	\$ 435	3	\$ 5,000	9	Minor	1780	Complex	500	0.25	\$ 368	\$ 29.15	A
2914000003682014	SOUTH TONGASS	0	3.68	55.3282	-131.62	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	5544	Complex	500	0	\$ -	\$ 152.88	A
1300000025312014	SEWARD HIGHWAY	25.44	25.2	60.4366	-149.37	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	1780	Complex	500	0.25	\$ 368	\$ 154.74	A
2914000003712014	SOUTH TONGASS	0	3.71	55.3279	-131.62	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	5544	Complex	500	0	\$ -	\$ 27.30	A
1300000056482015	SEWARD HIGHWAY	57.07	56.48	60.7766	-149.41	Wall	1	0.01	1	\$ 435	3	\$ 5,000	9	Minor	3510	Complex	500	0.25	\$ 727	\$ 30.95	A
1300000057642015	SEWARD HIGHWAY	58.24	57.64	60.7628	-149.4	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	3510	Complex	500	0	\$ -	\$ 27.30	A
2914000003782014	SOUTH TONGASS	0	3.78	55.3271	-131.62	Wall	1	0.01	2	\$ 435	9	\$ 30,000	9	Minor	5544	Complex	500	0.25	\$ 1,148	\$ 158.65	A
1300000058482015	SEWARD HIGHWAY	59.16	58.48	60.7534	-149.38	Wall	3	0.04	2	\$ 435	3	\$ 5,000	3	Negligible	3510	Complex	500	0	\$ -	\$ 201.81	A
1300000059782015	SEWARD HIGHWAY	61.07	59.78	60.74	-149.36	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	3510	Complex	500	0	\$ -	\$ 27.30	A
1300000059822015	SEWARD HIGHWAY	61.1	59.82	60.7403	-149.36	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	3510	Complex	500	0	\$ -	\$ 27.30	A
2914000003972014	SOUTH TONGASS	0	3.97	55.3251	-131.61	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	5544	Complex	500	0	\$ -	\$ 27.30	A
1300000063242015	SEWARD HIGHWAY	63.98	63.24	60.7318	-149.27	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	3510	Complex	500	0	\$ -	\$ 27.30	A
1300000063992015	SEWARD HIGHWAY	64.73	63.99	60.7414	-149.26	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	3510	Complex	500	0	\$ -	\$ 27.30	A
2914000004022014	SOUTH TONGASS	0	4.02	55.3247	-131.61	Wall	2	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	5544	Complex	500	0	\$ -	\$ 454.73	A
2914000004122014	SOUTH TONGASS	0	4.12	55.3237	-131.61	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	5361	Complex	500	0	\$ -	\$ 27.30	A
1300000064092015	SEWARD HIGHWAY	64.83	64.09	60.7427	-149.26	Wall	1	0.01	1	\$ 435	3	\$ 5,000	9	Minor	3510	Complex	500	0.25	\$ 727	\$ 30.95	A
2914000004142014	SOUTH TONGASS	0	4.14	55.3237	-131.61	Wall	1	0.01	1	\$ 435	27	\$ 75,000	9	Minor	5361	Complex	500	0.25	\$ 1,110	\$ 384.51	A
2914000004152014	SOUTH TONGASS	0	4.15	55.3236	-131.61	Wall	1	0.01	1	\$ 435	27	\$ 75,000	3	Negligible	5361	Complex	500	0	\$ -	\$ 378.93	A
1300000106282015	SEWARD HIGHWAY	107	106.28	60.988	-149.61	Wall	2	0.01	3	\$ 435	9	\$ 30,000	9	Minor	8270	Complex	500	0.25	\$ 1,712	\$ 480.31	A
2914000004172014	SOUTH TONGASS	0	4.17	55.3235	-131.61	Wall	2	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	5361	Complex	500	0	\$ -	\$ 454.73	A
2914000004272014	SOUTH TONGASS	0	4.27	55.323	-131.61	Wall	2	0.01	3	\$ 435	9	\$ 30,000	3	Negligible	5361	Complex	500	0	\$ -	\$ 454.73	A
1300000125322015	SEWARD HIGHWAY	162.58	125.32	61.2016	-149.87	Wall	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	51000	Simple	5	0	\$ -	\$ 27.30	A
1323150000292015	WHITTIER ACCESS ROAD	0.29	0.29	60.7856	-148.84	Wall	1	0.01	1	\$ 435	3	\$ 5,000	9	Minor	1080	Complex	500	0.25	\$ 224	\$ 28.42	A
2914000004392014	SOUTH TONGASS	0	4.39	55.3217	-131.6	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	5361	Complex	500	0	\$ -	\$ 152.88	A
2914000004422014	SOUTH TONGASS	0	4.42	55.3214	-131.6	Wall	2	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	5361	Complex	500	0	\$ -	\$ 454.73	A
2914000004452014	SOUTH TONGASS	0	4.46	55.321	-131.6	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	5361	Complex	500	0	\$ -	\$ 27.30	A
2914000004462014	SOUTH TONGASS	0	4.49	55.3208	-131.6	Wall	1	0.01	6	\$ 43,500	9	\$ 30,000	3	Negligible	5361	Complex	500	0	\$ -	\$ 369.21	A
2914000005702014	SOUTH TONGASS	0	5.7	55.3106	-131.58	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	3360	Complex	500	0.25	\$ 696	\$ 156.38	A

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
2914000005922014	SOUTH TONGASS	0	5.92	55.3092	-131.58	Wall	1	0.01	2	\$ 435	27	\$ 75,000	3	Negligible	3360	Complex	500	0	\$ -	\$ 378.93	A
2914000005972014	SOUTH TONGASS	0	5.97	55.3089	-131.58	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	3360	Complex	500	0	\$ -	\$ 152.88	A
2914000005992014	SOUTH TONGASS	0	5.99	55.3088	-131.58	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	3360	Complex	500	0	\$ -	\$ 27.30	A
1337000002592015	DIMOND BOULEVARD	0	2.59	61.1373	-149.93	Wall	1	0.01	21	\$ 152,250	9	\$ 30,000	3	Negligible	19806	Simple	5	0	\$ -	\$ 915.50	A
2914000006012014	SOUTH TONGASS	0	6	55.3085	-131.57	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	3360	Complex	500	0	\$ -	\$ 152.88	A
2914000006032014	SOUTH TONGASS	0	6.03	55.3086	-131.57	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	3360	Complex	500	0	\$ -	\$ 152.88	A
1337000003092015	DIMOND BOULEVARD	0	3.09	61.1373	-149.94	Wall	1	0.01	10	\$ 152,250	3	\$ 5,000	9	Minor	19806	Simple	5	0.25	\$ 4,100	\$ 810.51	A
2914000006132014	SOUTH TONGASS	0	6.13	55.3077	-131.57	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	3360	Complex	500	0	\$ -	\$ 27.30	A
2914000006922014	SOUTH TONGASS	0	6.92	55.3004	-131.56	Wall	1	0.01	2	\$ 435	27	\$ 75,000	9	Minor	3360	Complex	500	0.25	\$ 696	\$ 382.43	A
1337650003782015	RASPBERRY ROAD	0	3.78	61.159	-149.95	Wall	1	0.01	1	\$ 435	3	\$ 5,000	9	Minor	2090	Simple	5	0.25	\$ 433	\$ 29.47	A
2914000007022014	SOUTH TONGASS	0	7.02	55.2987	-131.56	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1924	Complex	500	0	\$ -	\$ 27.30	A
1337650003902015	RASPBERRY ROAD	0	3.9	61.1593	-149.95	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	2090	Simple	5	0	\$ -	\$ 27.30	A
1337650003922015	RASPBERRY ROAD	0	3.92	61.1593	-149.95	Wall	1	0.01	1	\$ 435	3	\$ 5,000	9	Minor	2090	Simple	5	0.25	\$ 433	\$ 29.47	A
2915000001322014	NORTH TONGASS	0	1.32	55.368	-131.72	Wall	1	0.01	8	\$ 43,500	9	\$ 30,000	9	Minor	9372	Complex	500	0.25	\$ 1,940	\$ 378.96	A
1337650003972015	RASPBERRY ROAD	0	3.97	61.1591	-149.95	Wall	1	0.01	2	\$ 435	9	\$ 30,000	9	Minor	2090	Simple	5	0.25	\$ 433	\$ 155.06	A
2915000001412013	NORTH TONGASS	0	1.41	55.3689	-131.72	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	9372	Complex	500	0.25	\$ 1,940	\$ 162.63	A
2915000001442014	NORTH TONGASS	0	1.44	55.3693	-131.72	Wall	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	9372	Complex	500	0	\$ -	\$ 152.88	A
2915000001562014	NORTH TONGASS	0	1.56	55.3707	-131.72	Wall	1	0.01	2	\$ 435	9	\$ 30,000	9	Minor	9372	Complex	500	0.25	\$ 1,940	\$ 162.63	A
2915000001742014	NORTH TONGASS	0	1.74	55.373	-131.72	Wall	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	6587	Complex	500	0	\$ -	\$ 27.30	A
2915000001832014	NORTH TONGASS	0	1.83	55.3742	-131.72	Wall	1	0.01	4	\$ 43,500	27	\$ 75,000	3	Negligible	6587	Complex	500	0	\$ -	\$ 595.26	A
2915000002612014	NORTH TONGASS	0	2.61	55.383	-131.74	Wall	1	0.01	2	\$ 435	27	\$ 75,000	9	Minor	5050	Complex	500	0.25	\$ 1,045	\$ 384.18	A
2915000002732014	NORTH TONGASS	0	2.73	55.3845	-131.74	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	5050	Complex	500	0.25	\$ 1,045	\$ 158.14	A
1339500001032015	BRAGAW STREET	0	1.03	61.218	-149.81	Wall	2	0.01	3	\$ 435	3	\$ 5,000	3	Negligible	15404	Simple	5	0	\$ -	\$ 81.20	A
2915000002742014	NORTH TONGASS	0	2.74	55.3846	-131.74	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	5050	Complex	500	0.25	\$ 1,045	\$ 158.14	A
2915000002922014	NORTH TONGASS	0	2.92	55.3872	-131.74	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	5050	Complex	500	0	\$ -	\$ 27.30	A
2915000003742014	NORTH TONGASS	0	3.74	55.3971	-131.73	Wall	1	0.01	2	\$ 435	15	\$ 75,000	9	Minor	5050	Complex	500	0.25	\$ 1,045	\$ 384.18	A
2915000004802014	NORTH TONGASS	0	4.8	55.4086	-131.72	Wall	1	0.01	2	\$ 435	9	\$ 30,000	9	Minor	5900	Complex	500	0.25	\$ 1,221	\$ 159.02	A
2915000005102014	NORTH TONGASS	0	5.1	55.4102	-131.73	Wall	1	0.01	2	\$ 435	27	\$ 75,000	3	Negligible	5900	Complex	500	0	\$ -	\$ 378.93	A
1341400000482015	LAKE OTIS PARKWAY	0	0.48	61.2007	-149.84	Wall	3	0.04	1	\$ 435	3	\$ 5,000	3	Negligible	16887	Simple	5	0	\$ -	\$ 201.81	A
1341400000492015	LAKE OTIS PARKWAY	0	0.49	61.2007	-149.84	Wall	4	0.10	1	\$ 435	3	\$ 5,000	3	Negligible	16887	Simple	5	0	\$ -	\$ 531.65	A
1341400002292015	LAKE OTIS PARKWAY	0	2.29	61.1746	-149.84	Wall	1	0.01	15	\$ 152,250	9	\$ 30,000	9	Minor	21523	Simple	5	0.25	\$ 4,455	\$ 937.88	A
1341400003272015	LAKE OTIS PARKWAY	0	3.27	61.1611	-149.83	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	23810	Simple	5	0	\$ -	\$ 27.30	A
1341400003282015	LAKE OTIS PARKWAY	0	3.28	61.1611	-149.83	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	23810	Simple	5	0	\$ -	\$ 27.30	A
1341400004002015	LAKE OTIS PARKWAY	0	4	61.1506	-149.83	Wall	1	0.01	3	\$ 435	3	\$ 5,000	3	Negligible	19167	Simple	5	0	\$ -	\$ 27.30	A
1342000000862015	GAMBELL STREET	0	0.86	61.2072	-149.87	Wall	1	0.01	5	\$ 43,500	3	\$ 5,000	3	Negligible	23886	Simple	5	0	\$ -	\$ 243.63	A
2915000005362014	NORTH TONGASS	0	5.36	55.4082	-131.73	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	4500	Complex	500	0	\$ -	\$ 152.88	A
2915000005952014	NORTH TONGASS	0	5.95	55.4066	-131.75	Wall	1	0.01	2	\$ 435	27	\$ 75,000	9	Minor	4500	Complex	500	0.25	\$ 932	\$ 383.61	A
2915000006112014	NORTH TONGASS	0	6.11	55.4063	-131.75	Wall	1	0.01	2	\$ 435	27	\$ 75,000	9	Minor	4500	Complex	500	0.25	\$ 932	\$ 383.61	A
2915000006402014	NORTH TONGASS	0	6.4	55.4085	-131.76	Wall	1	0.01	9	\$ 43,500	9	\$ 30,000	3	Negligible	4500	Complex	500	0	\$ -	\$ 369.21	A
2915000006452014	NORTH TONGASS	0	6.45	55.4089	-131.76	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	4500	Simple	5	0.25	\$ 932	\$ 157.56	A
2915000006472014	NORTH TONGASS	0	6.47	55.4094	-131.76	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	4500	Simple	5	0	\$ -	\$ 27.30	A
2915000006502014	NORTH TONGASS	0	6.5	55.411	-131.76	Wall	1	0.01	1	\$ 435	3	\$ 5,000	1	Negligible	4500	Simple	5	0	\$ -	\$ 27.30	A
2915000007682014	NORTH TONGASS	0	7.68	55.422	-131.77	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	4361	Simple	5	0	\$ -	\$ 27.30	A
2915000008122014	NORTH TONGASS	0	8.12	55.4261	-131.78	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	4361	Simple	5	0.25	\$ 903	\$ 157.42	A
2915000008212014	NORTH TONGASS	0	8.21	55.4272	-131.78	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	4361	Simple	5	0	\$ -	\$ 152.88	A
2915000008782014	NORTH TONGASS	0	8.78	55.4329	-131.79	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	3900	Complex	500	0	\$ -	\$ 27.30	A
2915000008802014	NORTH TONGASS	0	8.8	55.4332	-131.79	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	3900	Complex	500	0	\$ -	\$ 27.30	A
2915000008842014	NORTH TONGASS	0	8.84	55.4337	-131.79	Wall	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	3900	Complex	500	0	\$ -	\$ 152.88	A
2915000008912014	NORTH TONGASS	0	8.91	55.4345	-131.79	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	3900	Complex	500	0	\$ -	\$ 27.30	A
2915000008932014	NORTH TONGASS	0	8.93	55.4347	-131.79	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	3900	Complex	500	0	\$ -	\$ 27.30	A
2915000008942014	NORTH TONGASS	0	8.94	55.4349	-131.79	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	3900	Complex	500	0	\$ -	\$ 152.88	A
2915000008962014	NORTH TONGASS	0	8.96	55.4352	-131.79	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	3900	Complex	500	0	\$ -	\$ 152.88	A
2915000009002014	NORTH TONGASS	0	9	55.4357	-131.8	Wall	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	3900	Complex	500	0	\$ -	\$ 152.88	A
2915000009022014	NORTH TONGASS	0	9.02	55.4358	-131.8	Wall	1	0.01	1	\$ 435	27	\$ 75,000	9	Minor	3900	Complex	500	0.25	\$ 807	\$ 382.99	A
2954000000562015	HALIBUT POINT ROAD	0.54	0.56	57.0582	-135.35	Wall	1	0.01	4	\$ 43,500	9	\$ 30,000	3	Negligible	12947	Simple	5	0	\$ -	\$ 369.21	A
2954000001042015	HALIBUT POINT ROAD	1.09	1.04	57.0631	-135.35	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	8151	Simple	5	0	\$ -	\$ 27.30	A
2954000001322015	HALIBUT POINT ROAD	1.42	1.32	57.0653	-135.36	Wall	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	8151	Simple	5	0	\$ -	\$ 152.88	A
2954000006852015	HALIBUT POINT ROAD	8.08	6.85	57.1288	-135.37	Wall	2	0.01	1	\$ 435	9	\$ 30,000	9	Minor	688	Complex	500	0.25	\$ 142	\$ 456.86	A
1343000006722015	MINNESOTA DRIVE	0	6.72	61.2003	-149.91	Wall	1	0.01	16	\$ 152,250	9	\$ 30,000	9	Minor	31010	Simple	5	0.25	\$ 6,419	\$ 947.74	A
2954640000082015	AIRPORT ROAD	0	0.08	57.0483	-135.34	Wall	1	0.01	3	\$ 435	27	\$ 75,000	9	Minor	4093	Simple	5	0.25	\$ 847	\$ 383.19	A
1343410006062015	C STREET	0	6.06	61.1485	-149.89	Wall	1	0.01	7	\$ 43,500	3	\$ 5,000	9	Minor	17285	Simple	5	0.25	\$ 3,578	\$ 261.60	A
1343410006122015	C STREET	0	6.12	61.1478	-149.89	Wall	1	0.01	6	\$ 43,500	3	\$ 5,000	3	Negligible	17285	Simple	5	0	\$ -	\$ 243.63	A
2960000006052015	GLACIER HIGHWAY-EGAN	6.53	6.05	58.3583	-134.52	Wall	1	0.01	0	\$ 435											

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
1347000001552015	BONIFACE PARKWAY	0	1.55	61.2028	-149.78	Wall	1	0.01	3	\$ 435	9	\$ 30,000	9	Minor	22742	Simple	5	0.25	\$ 4,708	\$ 176.53	A
1347500000332015	NORTHERN LIGHTS BOUL	0	0.33	61.1954	-149.74	Wall	1	0.01	2	\$ 435	3	\$ 5,000	9	Minor	13330	Simple	5	0.25	\$ 2,759	\$ 41.16	A
1347500001372015	NORTHERN LIGHTS BOUL	0	1.37	61.1953	-149.77	Wall	1	0.01	6	\$ 43,500	3	\$ 5,000	9	Minor	19890	Simple	5	0.25	\$ 4,117	\$ 264.31	A
1347500005722015	NORTHERN LIGHTS BOUL	0	5.72	61.1954	-149.9	Wall	2	0.01	6	\$ 43,500	3	\$ 5,000	3	Negligible	19710	Simple	5	0	\$ -	\$ 274.64	A
1347500006582015	NORTHERN LIGHTS BOUL	0	6.58	61.1954	-149.92	Wall	2	0.01	5	\$ 43,500	3	\$ 5,000	9	Minor	11662	Simple	5	0.25	\$ 2,414	\$ 760.71	A
1347700002302015	36TH AVE	0	2.3	61.188	-149.84	Wall	1	0.01	8	\$ 43,500	3	\$ 5,000	9	Minor	15980	Simple	5	0.25	\$ 3,308	\$ 260.25	A
1347700002372015	36TH AVE	0	2.37	61.1881	-149.84	Wall	1	0.01	24	\$ 152,250	3	\$ 5,000	0	Negligible	15980	Simple	5	0	\$ -	\$ 789.92	A
1347700002392015	36TH AVE	0	2.39	61.188	-149.84	Wall	1	0.01	5	\$ 43,500	3	\$ 5,000	3	Negligible	15980	Simple	5	0	\$ -	\$ 243.63	A
2914000000112014	SOUTH TONGASS	0	0.11	55.3542	-131.69	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	16120	Simple	5	0	\$ -	\$ 27.30	A
2914000000132014	SOUTH TONGASS	0	0.13	55.354	-131.69	Wall	2	0.01	3	\$ 435	9	\$ 30,000	3	Negligible	16120	Simple	5	0	\$ -	\$ 454.73	A
2914000000192014	SOUTH TONGASS	0	0.19	55.3535	-131.69	Wall	1	0.01	3	\$ 435	9	\$ 30,000	3	Negligible	15779	Simple	5	0	\$ -	\$ 152.88	A
2914000000302014	SOUTH TONGASS	0	0.3	55.3527	-131.69	Wall	1	0.01	9	\$ 43,500	3	\$ 5,000	3	Negligible	15779	Simple	5	0	\$ -	\$ 243.63	A
2960000011002015	GLACIER HIGHWAY-EGAN	11.54	1.11	58.3823	-134.64	Wall	1	0.01	2	\$ 435	9	\$ 30,000	9	Minor	7546	Moderate	25	0.25	\$ 1,562	\$ 160.73	A
2960110000072015	THANE ROAD	1	0.07	58.292	-134.39	Wall	1	0.01	3	\$ 435	9	\$ 30,000	3	Negligible	7446	Complex	500	0	\$ -	\$ 152.88	A
2960140000252015	FRANKLIN STREET	0	0.25	58.2958	-134.4	Wall	1	0.01	2	\$ 435	9	\$ 30,000	9	Minor	3070	Complex	500	0.25	\$ 635	\$ 156.08	A
2960140000292015	FRANKLIN STREET	0	0.29	58.2963	-134.4	Wall	1	0.01	2	\$ 435	9	\$ 30,000	9	Minor	3070	Complex	500	0.25	\$ 635	\$ 156.08	A
2914000000362014	SOUTH TONGASS	0	0.36	55.3523	-131.68	Wall	1	0.01	14	\$ 152,250	9	\$ 30,000	9	Minor	15779	Simple	5	0.25	\$ 3,266	\$ 931.91	A
2914000000492014	SOUTH TONGASS	0	0.49	55.3515	-131.68	Wall	1	0.01	4	\$ 43,500	9	\$ 30,000	3	Negligible	15779	Simple	5	0	\$ -	\$ 369.21	A
2914000000522014	SOUTH TONGASS	0	0.52	55.3513	-131.68	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	15779	Simple	5	0	\$ -	\$ 152.88	A
2914000000532014	SOUTH TONGASS	0	0.53	55.3511	-131.68	Wall	1	0.01	2	\$ 435	27	\$ 75,000	3	Negligible	15779	Simple	5	0	\$ -	\$ 378.93	A
1337350003122016	ELMORE ROAD	0	3.12	61.1764	-149.81	Wall	1	0.01	3	\$ 435	27	\$ 75,000	3	Negligible	9979	Simple	5	0	\$ -	\$ 378.93	A
1337350003112016	ELMORE ROAD	0	3.11	61.1763	-149.81	Wall	1	0.01	4	\$ 43,500	27	\$ 75,000	3	Negligible	9979	Simple	5	0	\$ -	\$ 595.26	A
1338990003742016	TUDOR ROAD	0	3.74	61.181	-149.81	Wall	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	41614	Simple	5	0	\$ -	\$ 152.88	A
1337350003412016	ELMORE ROAD	0	3.41	61.181	-149.81	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	6260	Simple	5	0	\$ -	\$ 152.88	A
1337350001732016	Elmore Rd	0	1.73	61.1573	-149.8	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	9979	Simple	5	0	\$ -	\$ 152.88	A
1337350001722016	Elmore Rd	0	1.72	61.1573	-149.8	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	9979	Simple	5	0	\$ -	\$ 152.88	A
1333080002362016	Birch Rd	0	2.36	61.1356	-149.77	Wall	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	2380	Simple	5	0	\$ -	\$ 152.88	A
1335100002012016	Elmore Rd	0	2.01	61.0991	-149.8	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	1627	Simple	5	0	\$ -	\$ 152.88	A
1337350001342016	ELMORE RD	0	1.34	61.1515	-149.8	Wall	1	0.01	9	\$ 43,500	9	\$ 30,000	9	Minor	11604	Simple	5	0.25	\$ 2,402	\$ 381.28	A
1337350001292016	ELMORE RD	0	1.29	61.1509	-149.8	Wall	1	0.01	3	\$ 435	9	\$ 30,000	9	Minor	11604	Simple	5	0.25	\$ 2,402	\$ 164.95	A
1337350001232016	ELMORE RD	0	1.23	61.1501	-149.8	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	11604	Simple	5	0	\$ -	\$ 27.30	A
1337350001222016	ELMORE RD	0	1.22	61.1501	-149.8	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	11604	Simple	5	0	\$ -	\$ 27.30	A
1337350001132016	ELMORE RD	0	1.13	61.1493	-149.8	Wall	1	0.01	27	\$ 152,250	9	\$ 30,000	9	Minor	11604	Simple	5	0.25	\$ 2,402	\$ 927.56	A
1337350000372016	ELMORE RD	0	0.37	61.1377	-149.8	Wall	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	11604	Simple	5	0	\$ -	\$ 27.30	A
1337240000762016	Abbott Rd	0	0.76	61.1375	-149.77	Wall	1	0.01	2	\$ 435	9	\$ 30,000	9	Minor	3934	Simple	5	0.25	\$ 814	\$ 156.98	A
1333080002172016	BIRCH RD	0	2.17	61.1328	-149.77	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	2529	Simple	5	0.25	\$ 524	\$ 155.51	A
1333080001972016	BIRCH RD	0	1.97	61.1299	-149.77	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	2529	Simple	5	0	\$ -	\$ 152.88	A
1333080001732016	BIRCH RD	0	1.73	61.1263	-149.77	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	2529	Simple	5	0.25	\$ 524	\$ 155.51	A
1335100000402016	Elmore Rd	0	0.4	61.1225	-149.8	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	1147	Simple	5	0.25	\$ 237	\$ 154.08	A
1333000001952016	HUFFMAN RD	0	1.95	61.1085	-149.81	Wall	1	0.01	3	\$ 435	9	\$ 30,000	9	Minor	2946	Simple	5	0.25	\$ 610	\$ 155.95	A
1335100001432016	ELMORE RD	0	1.43	61.1077	-149.8	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	1627	Simple	5	0.25	\$ 337	\$ 154.58	A
1335100001462016	ELMORE RD	0	1.46	61.1073	-149.8	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	1627	Simple	5	0.25	\$ 337	\$ 154.58	A
1335100001472016	ELMORE RD	0	1.47	61.107	-149.8	Wall	1	0.01	2	\$ 435	9	\$ 30,000	9	Minor	1627	Simple	5	0.25	\$ 337	\$ 154.58	A
1333080000762016	BIRCH RD	0	0.76	61.1124	-149.77	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	1627	Simple	5	0.25	\$ 337	\$ 154.58	A
1337010000802016	Old Rabbit Creek Rd	0	0.8	61.0969	-149.74	Wall	1	0.01	1	\$ 435	9	\$ 30,000	27	Major	82	Simple	5	0.5	\$ 205	\$ 153.91	A
1337010000812016	Old Rabbit Creek Rd	0	0.81	61.0968	-149.74	Wall	1	0.01	1	\$ 435	9	\$ 30,000	27	Major	82	Simple	5	0.5	\$ 205	\$ 153.91	A
1337010000432016	Old Rabbit Creek Rd	0	0.43	61.097	-149.75	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	82	Simple	5	0.25	\$ 17	\$ 152.97	A
1332000000082016	Old Seward Highway	0	0.08	61.0833	-149.83	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	8818	Simple	5	0	\$ -	\$ 152.88	A
1332000000272016	Old Seward Highway	0	0.27	61.0852	-149.83	Wall	1	0.01	5	\$ 43,500	9	\$ 30,000	3	Negligible	8818	Simple	5	0	\$ -	\$ 369.21	A
1339680000862016	Campbell Airstrip Road	0	0.86	61.1689	-149.76	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	1615	Simple	5	0	\$ -	\$ 152.88	A
1339680000872016	Campbell Airstrip Road	0	0.87	61.1689	-149.76	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	1615	Simple	5	0	\$ -	\$ 152.88	A
1337230002272016	Hillside Dr	0	2.27	61.1323	-149.74	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	3247	Simple	5	0.25	\$ 672	\$ 156.26	A
1337230002262016	Hillside Dr	0	2.26	61.132	-149.74	Wall	2	0.01	1	\$ 435	9	\$ 30,000	9	Minor	3247	Simple	5	0.25	\$ 672	\$ 464.77	A
1331000000052016	De Armon Rd	0	0.05	61.0943	-149.84	Wall	1	0.01	4	\$ 43,500	9	\$ 30,000	9	Minor	3651	Simple	5	0.25	\$ 756	\$ 373.01	A
1332000002302016	Old Seward Highway	0	2.3	61.1096	-149.86	Wall	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	15980	Simple	5	0	\$ -	\$ 152.88	A
1332000002732016	Old Seward Highway	0	2.73	61.1156	-149.86	Wall	1	0.01	6	\$ 43,500	9	\$ 30,000	3	Negligible	15980	Simple	5	0	\$ -	\$ 369.21	A
1341400006882016	Lake Otis Parkway	0	6.88	61.1091	-149.83	Wall	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	6126	Simple	5	0	\$ -	\$ 152.88	A
1341400006872016	Lake Otis Parkway	0	6.87	61.109	-149.83	Wall	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	6126	Simple	5	0	\$ -	\$ 152.88	A
1341400006002016	Lake Otis Parkway	0	6	61.1222	-149.83	Wall	1	0.01	2	\$ 435	9	\$ 30,000	9	Minor	6126	Simple	5	0.25	\$ 1,268	\$ 159.25	A
1341400003642016	Lake Otis Parkway	0	3.64	61.1556	-149.83	Wall	1	0.01	4	\$ 43,500	3	\$ 5,000	3	Negligible	21455	Simple	5	0	\$ -	\$ 243.63	A
1337370001042016	72ND AVENUE	0	1.04	61.1556	-149.82	Wall	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	2880	Simple	5	0	\$ -	\$ 152.88	A
1337370000772016	72ND AVENUE	0	0.77	61.1556	-149.83	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	2880	Simple	5	0	\$ -	\$ 152.88	A
1337370000782016	72ND AVENUE	0	0.78	61.1555	-149.83	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible							

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
1337320000892016	68TH AVENUE	0	0.89	61.1591	-149.83	Wall	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	4270	Simple	5	0	\$ -	\$ 152.88	A
1337320000592016	68TH AVENUE	0	0.59	61.1591	-149.82	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	4270	Simple	5	0	\$ -	\$ 152.88	A
1337320000602016	68TH AVENUE	0	0.6	61.1593	-149.82	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	4270	Simple	5	0	\$ -	\$ 152.88	A
1337320000722016	68TH AVENUE	0	0.72	61.1593	-149.83	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	4270	Simple	5	0	\$ -	\$ 27.30	A
1343280000192016	40TH AVENUE	0	0.19	61.1845	-149.83	Wall	1	0.01	17	\$ 152,250	9	\$ 30,000	9	Minor	4000	Simple	5	0.25	\$ 828	\$ 919.66	A
1343280000202016	40TH AVENUE	0	0.2	61.1845	-149.83	Wall	1	0.01	6	\$ 43,500	9	\$ 30,000	9	Minor	4000	Simple	5	0.25	\$ 828	\$ 373.37	A
1347700002442016	36TH AVENUE	0	2.44	61.188	-149.84	Wall	1	0.01	7	\$ 43,500	9	\$ 30,000	9	Minor	12634	Simple	5	0.25	\$ 2,615	\$ 382.35	A
1332000003752016	Old Seward Highway	0	3.75	61.1302	-149.86	Wall	1	0.01	3	\$ 435	9	\$ 30,000	3	Negligible	18796	Simple	5	0	\$ -	\$ 152.88	A
1332000005212016	Old Seward Highway	0	5.21	61.1519	-149.86	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	18796	Simple	5	0	\$ -	\$ 152.88	A
1332000005222016	Old Seward Highway	0	5.22	61.1518	-149.86	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	18796	Simple	5	0	\$ -	\$ 152.88	A
1332000005522016	Old Seward Highway	0	5.52	61.1557	-149.86	Wall	1	0.01	4	\$ 43,500	3	\$ 5,000	3	Negligible	18796	Simple	5	0	\$ -	\$ 243.63	A
1338350000522016	East 76th Avenue	0	0.52	61.1519	-149.87	Wall	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	4174	Simple	5	0	\$ -	\$ 152.88	A
1338350000472016	East 76th Avenue	0	0.47	61.152	-149.87	Wall	1	0.01	3	\$ 435	9	\$ 30,000	3	Negligible	4174	Simple	5	0	\$ -	\$ 152.88	A
1338350000432016	East 76th Avenue	0	0.43	61.1519	-149.87	Wall	2	0.01	3	\$ 435	9	\$ 30,000	3	Negligible	4174	Simple	5	0	\$ -	\$ 454.73	A
1338350000402016	Old Seward Highway	0	0.4	61.1519	-149.87	Wall	2	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	4174	Simple	5	0	\$ -	\$ 454.73	A
1338350000372016	East 76th Avenue	0	0.37	61.1519	-149.87	Wall	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	4174	Simple	5	0	\$ -	\$ 152.88	A
1338350000352016	East 76th Avenue	0	0.35	61.1519	-149.87	Wall	2	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	4174	Simple	5	0	\$ -	\$ 81.20	A
1338000003542016	International Airport Road	0	3.54	61.1736	-149.86	Wall	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	2680	Simple	5	0	\$ -	\$ 27.30	A
1343300004222016	Arctic Blvd	0	4.22	61.1453	-149.89	Wall	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	7023	Simple	5	0	\$ -	\$ 152.88	A
1343300004172016	Arctic Blvd	0	4.17	61.1463	-149.89	Wall	2	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	7023	Simple	5	0	\$ -	\$ 454.73	A
1343300004162016	Arctic Blvd	0	4.16	61.1465	-149.89	Wall	2	0.01	2	\$ 435	9	\$ 30,000	27	Major	7023	Simple	5	0.5	\$ 17,558	\$ 717.06	A
1343300004132016	Arctic Blvd	0	4.13	61.1467	-149.89	Wall	2	0.01	2	\$ 435	9	\$ 30,000	27	Major	7023	Simple	5	0.5	\$ 17,558	\$ 717.06	A
1337070000442016	Minnesota SB - Dimond Rd	0	0.44	61.1406	-149.91	Wall	1	0.01	7	\$ 43,500	9	\$ 30,000	9	Minor	7836	Simple	5	0.25	\$ 1,622	\$ 377.36	A
1337510000822016	Strawberry Road	0	0.82	61.152	-149.93	Wall	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	3481	Simple	5	0	\$ -	\$ 152.88	A
1337510000812016	Highway RW	0	0.81	61.1519	-149.93	Wall	2	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	3481	Simple	5	0	\$ -	\$ 454.73	A
1337500001802016	Jewel Lake Road	0	1.8	61.1596	-149.95	Wall	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	12803	Simple	5	0	\$ -	\$ 152.88	A
1337640000082016	Raspberry EB - Minnesota	0	0.08	61.1579	-149.91	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	3522	Simple	5	0	\$ -	\$ 27.30	A
1343360000472016	Turnagain Parkway	0	0.47	61.2021	-149.94	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	100	Simple	5	0	\$ -	\$ 152.88	A
1347500006682016	Northern Lights Boulevard	0	6.68	61.1952	-149.93	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	5000	Simple	5	0	\$ -	\$ 27.30	A
1343100002782016	Spenard Road	0	2.78	61.2026	-149.91	Wall	1	0.01	2	\$ 435	9	\$ 30,000	27	Major	2699	Simple	5	0.5	\$ 6,748	\$ 186.78	A
1343300000442016	Arctic Boulevard	0	0.44	61.1993	-149.9	Wall	1	0.01	3	\$ 435	9	\$ 30,000	3	Negligible	5644	Simple	5	0	\$ -	\$ 152.88	A
1343070000482016	Airport Departure Ramp	0	0.48	61.1733	-149.98	Wall	2	0.01	1	\$ 435	3	\$ 5,000	27	Major	4362	Simple	5	0.5	\$ 10,905	\$ 244.14	A
1343070000492016	Airport Departure Ramp	0	0.49	61.1734	-149.98	Wall	2	0.01	2	\$ 435	9	\$ 30,000	27	Major	4362	Simple	5	0.5	\$ 10,905	\$ 617.66	A
1345480000392016	13th Avenue	0	0.39	61.2097	-149.9	Wall	2	0.01	2	\$ 435	9	\$ 30,000	9	Minor	4000	Simple	5	0.25	\$ 828	\$ 467.10	A
1345400001962016	9th Avenue	0	1.96	61.2136	-149.91	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	1250	Simple	5	0.25	\$ 259	\$ 154.18	A
1344400002632016	5th Avenue	0	2.63	61.2176	-149.91	Wall	1	0.01	2	\$ 435	9	\$ 30,000	9	Minor	4000	Simple	5	0.25	\$ 828	\$ 157.04	A
1344400002602016	5th Avenue	0	2.6	61.2176	-149.9	Wall	2	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	4000	Simple	5	0	\$ -	\$ 81.20	A
1344400002592016	5th Avenue	0	2.59	61.2176	-149.9	Wall	2	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	4000	Simple	5	0	\$ -	\$ 81.20	A
1345030000532016	15th Avenue	0	0.53	61.2078	-149.89	Wall	2	0.01	3	\$ 435	9	\$ 30,000	3	Negligible	4000	Simple	5	0	\$ -	\$ 454.73	A
1345030000612016	15th Avenue	0	0.61	61.2077	-149.88	Wall	1	0.01	4	\$ 43,500	9	\$ 30,000	3	Negligible	12634	Simple	5	0	\$ -	\$ 369.21	A
1345030000832016	15th Avenue	0	0.83	61.2078	-149.88	Wall	1	0.01	3	\$ 435	9	\$ 30,000	3	Negligible	12634	Simple	5	0	\$ -	\$ 152.88	A
1345510000672016	Cordova Street	0	0.67	61.2103	-149.88	Wall	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	2195	Simple	5	0	\$ -	\$ 152.88	A
1338990005332016	Tudor Road	0	5.33	61.181	-149.76	Wall	1	0.01	7	\$ 43,500	9	\$ 30,000	3	Negligible	23570	Simple	5	0	\$ -	\$ 369.21	A
1338990005322016	Tudor Road	0	5.32	61.181	-149.76	Wall	1	0.01	4	\$ 43,500	9	\$ 30,000	3	Negligible	23570	Simple	5	0	\$ -	\$ 369.21	A
1339230000132016	East 32nd Avenue	0	0.13	61.1919	-149.73	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	300	Simple	5	0	\$ -	\$ 152.88	A
1347300001302016	Wesleyan Drive	0	1.3	61.1988	-149.79	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	647	Simple	5	0	\$ -	\$ 152.88	A
1347500001312016	Northern Lights Boulevard	0	1.31	61.1952	-149.77	Wall	1	0.01	9	\$ 43,500	9	\$ 30,000	3	Negligible	9009	Simple	5	0	\$ -	\$ 369.21	A
1347950000512016	Beaver Place	0	0.51	61.2026	-149.76	Wall	1	0.01	3	\$ 435	3	\$ 5,000	3	Negligible	9009	Simple	5	0	\$ -	\$ 27.30	A
1345400000512016	9th Avenue	0	0.51	61.2136	-149.87	Wall	1	0.01	3	\$ 435	9	\$ 30,000	3	Negligible	3772	Simple	5	0	\$ -	\$ 152.88	A
1339500001502016	Bragaw Street	0	1.5	61.2205	-149.81	Wall	1	0.01	8	\$ 43,500	9	\$ 30,000	27	Major	18535	Simple	5	0.5	\$ 46,338	\$ 601.98	A
1339500001512016	Bragaw Street	0	1.51	61.2205	-149.81	Wall	1	0.01	8	\$ 43,500	9	\$ 30,000	27	Major	18535	Simple	5	0.5	\$ 46,338	\$ 601.98	A
1339000001452016	Muldoon Road	0	1.45	61.2004	-149.73	Wall	2	0.01	6	\$ 43,500	3	\$ 5,000	3	Negligible	29257	Simple	5	0	\$ -	\$ 724.64	A
1339000001442016	Muldoon Road	0	1.44	61.2002	-149.73	Wall	2	0.01	6	\$ 43,500	3	\$ 5,000	3	Negligible	29257	Simple	5	0	\$ -	\$ 724.64	A
1339000001832016	Muldoon Road	0	1.83	61.2061	-149.73	Wall	1	0.01	9	\$ 43,500	3	\$ 5,000	3	Negligible	29257	Simple	5	0	\$ -	\$ 243.63	A
1339400001642016	Boundary Avenue	0	1.64	61.2242	-149.74	Wall	2	0.01	1	\$ 435	9	\$ 30,000	9	Minor	1000	Simple	5	0.25	\$ 207	\$ 457.82	A
1339010000082016	Highway RW	0	0.08	61.2166	-149.76	Wall	1	0.01	1	\$ 435	3	\$ 5,000	9	Minor	1000	Simple	5	0.25	\$ 207	\$ 28.34	A
1345210000452016	Edward Street	0	0.45	61.2166	-149.76	Wall	2	0.01	1	\$ 435	9	\$ 30,000	9	Minor	1000	Simple	5	0.25	\$ 207	\$ 457.82	A
1352180000032016	Driftwood Bay Drive	0	0.03	61.3033	-149.54	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	2021	Simple	5	0.25	\$ 418	\$ 154.99	A
1352350001862016	Eagle River Loop Road	0	1.86	61.311	-149.54	Wall	1	0.01	2	\$ 435	3	\$ 5,000	3	Negligible	8910	Simple	5	0	\$ -	\$ 27.30	A
1352350001252016	Eagle River Loop Road	0	1.25	61.3198	-149.54	Wall	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	8910	Simple	5	0	\$ -	\$ 152.88	A
1352350001272016	Eagle River Loop Road	0	1.27	61.3196	-149.54	Wall	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	8910	Simple	5	0	\$ -	\$ 152.88	A
1352360000272016	West Skyline Drive	0	0.27	61.3255	-149.54	Wall	1	0.01	2	\$ 435	9	\$ 30,000	9	Minor	1544	Simple	5	0.25	\$ 320	\$ 154.49	A
1352360000542016	West Skyline Drive	0	0.54	61.3285	-149.54	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	1544	Simple	5	0.25	\$ 320	\$ 154.49	A</

Feature ID	Highway	Highway MP	CDS MP	Latitude	Longitude	Type	Condition	Likelihood /Probability	Avg Veh Risk	Safety Threat Cost	Maint. Event	Maint. Threat Cost	Impact Traffic	Delay	AADT	Detour	Det Lgth	Det Days	Mobility Cost	Risk	LOR Grade
1352000002442016	Old Glenn @ Eagle River	0	2.44	61.3497	-149.55	Wall	1	0.01	2	\$ 435	9	\$ 30,000	9	Minor	4323	Simple	5	0.25	\$ 895	\$ 157.38	A
1352000002422016	Old Glenn @ Eagle River	0	2.42	61.3492	-149.55	Wall	2	0.01	3	\$ 435	9	\$ 30,000	9	Minor	4323	Simple	5	0.25	\$ 895	\$ 468.10	A
1352000002302016	Old Glenn @ Eagle River	0	2.3	61.3483	-149.55	Wall	1	0.01	9	\$ 43,500	9	\$ 30,000	3	Negligible	4323	Simple	5	0	\$ -	\$ 369.21	A
1352410000172016	N Eagle River Access Ram	0	0.17	61.3398	-149.57	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	2637	Simple	5	0	\$ -	\$ 152.88	A
1352000002682016	Old Glenn @ Eagle River	0	2.68	61.3524	-149.54	Wall	2	0.01	2	\$ 435	9	\$ 30,000	9	Minor	4323	Simple	5	0.25	\$ 895	\$ 468.10	A
1352000006222016	Old Glenn @ Eagle River	0	6.22	61.3901	-149.47	Wall	2	0.01	3	\$ 435	9	\$ 30,000	3	Negligible	4323	Simple	5	0	\$ -	\$ 454.73	A
1352000007132016	Old Glenn @ Eagle River	0	7.13	61.4	-149.46	Wall	2	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	4323	Simple	5	0	\$ -	\$ 81.20	A
1352000007182016	Old Glenn @ Eagle River	0	7.18	61.4006	-149.46	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	4323	Simple	5	0.25	\$ 895	\$ 157.38	A
1352000007222016	Old Glenn @ Eagle River	0	7.22	61.401	-149.46	Wall	2	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	4323	Simple	5	0	\$ -	\$ 454.73	A
1352000003072016	Old Glenn @ Eagle River	0	3.07	61.3554	-149.53	Wall	1	0.01	2	\$ 435	9	\$ 30,000	9	Minor	4323	Simple	5	0.25	\$ 895	\$ 157.38	A
1700630000372016	Railroad Avenue	0	0.37	61.5804	-149.44	Wall	1	0.01	2	\$ 435	9	\$ 30,000	3	Negligible	1000	Simple	5	0	\$ -	\$ 152.88	A
1701040000442016	Glennwood Avenue	0	0.44	61.5702	-149.42	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	500	Simple	5	0.25	\$ 104	\$ 153.40	A
1701040000452016	Glennwood Avenue	0	0.45	61.5706	-149.42	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	500	Simple	5	0.25	\$ 104	\$ 153.40	A
1700300000362016	Glennwood Avenue	0	0.36	61.5746	-149.41	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	815	Simple	5	0.25	\$ 169	\$ 153.73	A
2640000000002016	E Industrial Drive	0	0	61.5733	-149.4	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	500	Simple	5	0	\$ -	\$ 27.30	A
1700350001022016	Seward Meridian Parkwa	0	1.02	61.5812	-149.36	Wall	1	0.01	4	\$ 43,500	9	\$ 30,000	9	Minor	9053	Simple	5	0.25	\$ 1,874	\$ 378.63	A
1368000004242016	Palmer/Wasilla Highway	0	4.24	61.5995	-149.25	Wall	2	0.01	2	\$ 435	9	\$ 30,000	27	Major	10712	Simple	5	0.5	\$ 26,780	\$ 854.85	A
1700500000872016	Woodworth Loop Road	0	0.87	61.5615	-149.26	Wall	2	0.01	1	\$ 435	3	\$ 5,000	9	Minor	1000	Moderate	25	0.25	\$ 207	\$ 84.30	A
1700000001072016	Parks Highway	0	1.07	61.5633	-149.27	Wall	2	0.01	1	\$ 435	9	\$ 30,000	9	Minor	1000	Simple	5	0.25	\$ 207	\$ 457.82	A
1700160001902016	East Fireweed Road	0	1.9	61.5625	-149.28	Wall	1	0.01	1	\$ 435	9	\$ 30,000	9	Minor	1513	Simple	5	0.25	\$ 313	\$ 154.46	A
1700010000182016	SB Parks to Trunk Off-Ra	0	0.18	61.5624	-149.27	Wall	1	0.01	2	\$ 435	9	\$ 30,000	9	Minor	1832	Simple	5	0.25	\$ 379	\$ 154.79	A
1360000017032016	Old Glenn @ Palmer	0	17.03	61.6075	-149.08	Wall	2	0.01	2	\$ 435	9	\$ 30,000	9	Minor	8372	Long	50	0.25	\$ 1,733	\$ 480.62	A
1360000017022016	Old Glenn @ Palmer	0	17.02	61.6076	-149.08	Wall	1	0.01	1	\$ 435	3	\$ 5,000	9	Minor	8372	Long	50	0.25	\$ 1,733	\$ 36.01	A
1350000110002016	Glenn Highway	0	110	61.8487	-147.39	Wall	2	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1152	Moderate	25	0	\$ -	\$ 81.20	A
1350000000002016	Glenn Highway	110.01	0	61.8485	-147.39	Wall	2	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1152	Moderate	25	0	\$ -	\$ 81.20	A
1350000103772016	Glenn Highway	0	103.77	61.805	-147.54	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1152	Complex	500	0	\$ -	\$ 27.30	A
1350000103782016	Glenn Highway	0	103.78	61.8046	-147.54	Wall	2	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1152	Complex	500	0	\$ -	\$ 81.20	A
1350000101762016	Glenn Highway	0	101.76	61.8008	-147.6	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1152	Complex	500	0	\$ -	\$ 27.30	A
1350000101772016	Glenn Highway	0	101.77	61.8006	-147.6	Wall	1	0.01	1	\$ 435	9	\$ 30,000	3	Negligible	1152	Complex	500	0	\$ -	\$ 152.88	A
1700000176132016	Parks Highway	0	176.13	63.4126	-148.88	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1157	Complex	500	0	\$ -	\$ 27.30	A
1700000176142016	Parks Highway	0	176.14	63.4127	-148.88	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1157	Complex	500	0	\$ -	\$ 27.30	A
1700000187742016	Parks Highway	0	187.74	63.5584	-148.82	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1157	Complex	500	0	\$ -	\$ 27.30	A
1700000187732016	Parks Highway	0	187.73	63.5583	-148.82	Wall	1	0.01	1	\$ 435	3	\$ 5,000	3	Negligible	1157	Complex	500	0	\$ -	\$ 27.30	A
1700000186412016	Parks Highway	0	186.41	63.5403	-148.81	Wall	1	0.01	1	\$ 435	3	\$ 5,000	9	Minor	1157	Complex	500	0.25	\$ 239	\$ 28.50	A
1700000186402016	Parks Highway	0	186.4	63.5403	-148.81	Wall	1	0.01	1	\$ 435	3	\$ 5,000	9	Minor	1157	Complex	500	0.25	\$ 239	\$ 28.50	A

APPENDIX B – CONCEPTUAL RISK REGISTER DEVELOPMENT

A portion of the scope of study for this project included the identification and cataloging of significant risks to and from geotechnical assets and the GAM program. In addition, the work included preliminary risk analysis and assessment software tools that would support development of risk registers. For the implementation framework presented in this report, the current risk registers are based on data contained in either the geotechnical asset management database (summarized in Appendix A) or data collected through the event tracker (presented in the Department's ArcGIS Online (AGOL) mapping platform website). This appendix discusses other methods and software tools that were used in the initial phases of the study to identify, assess, and catalogue risks in the GAM program. These methods and tools could have benefit at the Region or corridor levels where a geotechnical asset database may not be complete or at a project level where there can be value in assessing geotechnical asset risk based on an expanded range of consequence areas, such as environmental impacts or department reputation.

Risk and Risk Register Background

Risk is generally defined as likelihood \times consequence; hence, a risk analysis for each transportation asset would involve the quantitative evaluation to determine the likelihood and consequences of events or asset conditions that could negatively impact the safety, use, asset function, or surrounding assets and property. Estimating the likelihood and consequences of a particular event or condition occurring to an asset is accomplished by evaluating historical data or, in the absence of sufficient historical evidence, by expert solicitation. Once there are likelihood and consequence inputs, it is possible to calculate a risk score for each asset, and then catalog the assets with respect to both the magnitude of risk and the sources of risk. This catalog or register can be a tool for prioritization and selection of risk mitigation activities such as maintenance, repair, or reconstruction treatments with a group of assets.

A challenge with risk estimation for risk registers is having a consistent level of detail across a program and among asset types. To develop a network or corridor-level relative risk register for geotechnical assets, it is important to consider all asset types at the same level of detail in order to reduce potential for bias. For example, inputs into the assessment for a rock slope should be similar to the risk assessment inputs for a retaining wall should they both be evaluated as geotechnical assets. Should there be a disparity in detail, there could be bias reflected in the risk register. In the AKDOT&PF risk framework presented in this report, this bias is reduced by developing consistent likelihood and consequence inputs from the geotechnical asset or event tracker databases. For asset analyses outside of these databases, the approach discussed in this appendix could be considered.

Risk Analysis Terminology and Scales

As part of a risk analysis of multiple sites, it is beneficial to use a common terminology and to establish likelihood and consequence ranges and scales appropriate to the frequency and magnitude of risk issues facing AKDOT&PF. The ranges and scales used in this project are based on discussions with and the experience of AKDOT&PF geotechnical staff. Adjustments of likelihood and consequence ranges and scales could be made in the future

based on experience or as the reliability of likelihood and consequence data improve with time.

A terminology example for risk register consequences is presented in Table 1. The columns in this table under the heading “*Consequence to*” identify who or what is impacted by the consequence and the rows represent increasing levels of consequence severity. The column labeled “*Level*” lists the numeric value used in calculation of risk scores.

Level	Descriptor	Consequence to				
		Public		Asset	Corridor / Region / Department	
		Safety	Mobility		Financial Impact	Other Impacts
1	Negligible	Negligible safety hazard	Minimal delay	Minimal or cosmetic damage	Cost <\$100K	<p>Consider negative impacts to: future funding support, insurance or legal costs, regulatory compliance, political issues, and public reputation</p>
2	Minor	Minimal safety hazard	Minor delay	Minor damage requiring repair	Cost \$100K to \$500K	
3	Major	Likely minor injuries	Major delay	Moderate damage requiring repair	Cost \$500K to \$2M	
4	Critical	Likely major injuries	Critical delay	Extensive damage requiring significant repair or replacement	Cost \$1M to \$10M	
5	Catastrophic	Likely fatalities and major injuries	Catastrophic delay	Destroyed or large scale damage requiring replacement	Cost > \$10M	

Table 1. Conceptual Consequence Terminology

Table 2 presents a suggested terminology proposed for likelihood. Likelihood in this table is defined in terms of number of events or conditions per year that could lead to a consequence, such as those in Table 1. For example, an average of one event every four years would be a Medium High likelihood event. The columns labeled “Level” and “Probability” include numeric values that are used in calculation of risk scores that can be compiled into a risk register.

Level	Descriptor	Description	Annual Probability Range	Probability
1	Low	50 years or more between events	<2%	1.0%
2	Medium Low	20 to 50 years between events	2% to 5%	3.5%
3	Medium	5 to 20 years between events	5% to 20%	12.5%
4	Medium High	1 to 5 years between events	20% to 100%	40.0%
5	High	One to several events per year	100%	99.0%

Table 2. Likelihood Terminology

The inputs above were incorporated into a risk analysis template in a Microsoft Excel spreadsheet as shown in Figure 1. This tool would provide a consistent format developing a risk register outside of the examples shown in Appendix A or on the AGOL webpage. The following steps would be performed to complete this risk register spreadsheet.

1. Select an asset category and an asset from the first two dropdown lists (blue highlighted, rows 2 and 3)
2. Enter a description of the hazards associated with the selected asset (yellow highlighted, row 4)
3. Select a likelihood level from the third dropdown list (blue highlighted, row 5)
4. Select a consequence level from the four dropdown lists (blue highlighted, rows 9 to 12)
5. Check all applicable boxes among the "Other Negative Impacts" (row 13)

Additional comments may be added in the yellow highlighted column in rows 9 to 13. When used for multiple sites, the output from this tool can be used to generate a risk register summary spreadsheet.

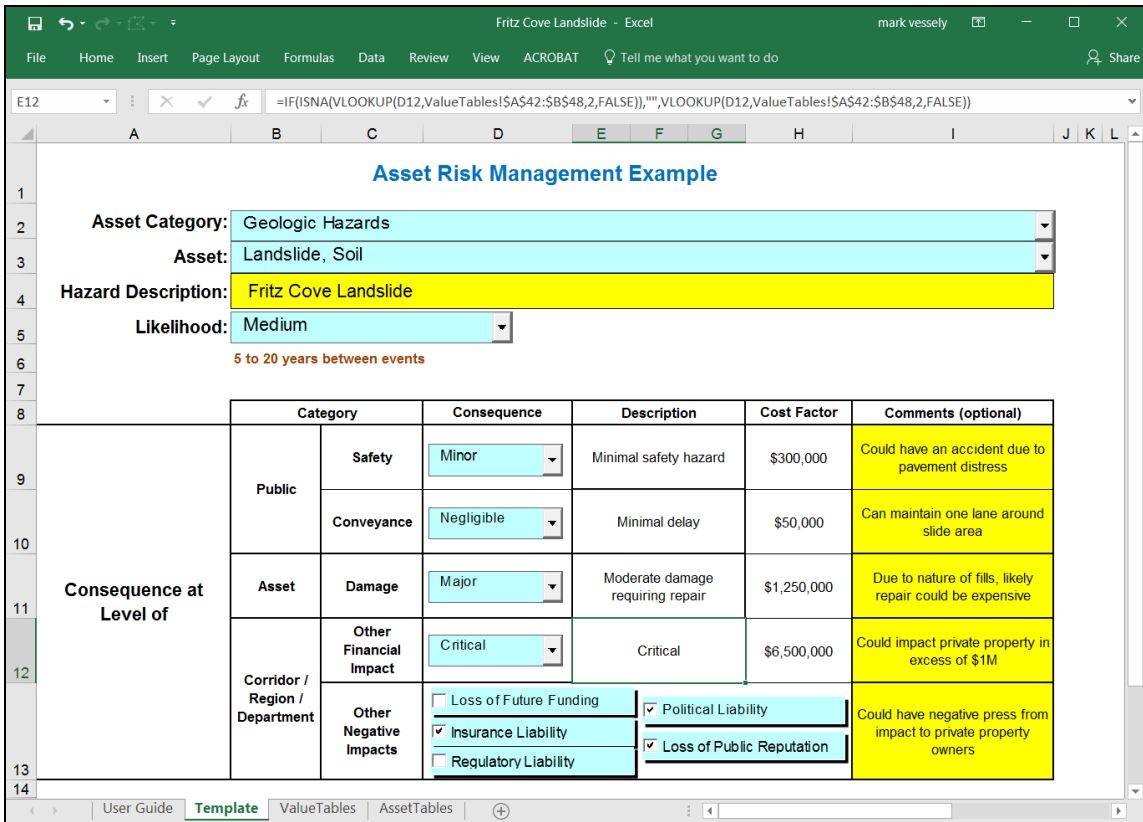


Figure 1. Example Risk Analysis Input Worksheet

Risk Register Example

As indicated, the inputs above can be used to develop an initial high-level, relative risk ranking of multiple geotechnical assets and/or natural hazard sites in a risk register. The risk register summary spreadsheet is used to merge the results from the individual risk calculations into a table of likelihoods, consequences, and risk scores that may be sorted by risk score and asset category. It is possible to develop risk registers at the state-wide level, similar to what is presented in Appendix A, as well as at corridor and project levels. The statewide risk register could be considered as a Tier 1 or high-level register, while corridor and project risk registers could be considered Tier 2 risk registers that are based on more detailed or reliable input data. In this scenario, the Tier 1 register can help AKDOT&PF identify areas with the highest risk and then a Tier 2 register can refine the risk at a more specific detail to understand what elements and hazards generate an exposure that can be reduced through asset management practices. An example of a risk register that was developed earlier in the project based on geotechnical asset observations in the Southeast and Central regions is presented in Figure 2.

Category	Asset/ Feature	Hazard Description	Annual Likelihood	Consequence at Level of				Other Negative Impacts					Risk Score	Risk Cost
				Safety	Mobility	Asset Damage	Other Financial Impact	Funding	Insurance	Regulatory	Political	Reputation		
Geotechnical	Debris Flow	Haines Debris Flow - Major event that closes highway for 3 days	Medium	Major	Major	Minor	Negligible		X			X	7.4	\$391,875
Geotechnical	Debris Flow	Haines Debris Flow - Minor event that requires cleanup	Medium-High	Negligible	Negligible	Negligible	Negligible		X				4.2	\$84,000
Geotechnical	Debris Flow	Haines Debris Flow - Catastrophic event with fatalities and long term road closure	Low	Critical	Critical	Major	Major		X		X	X	4.3	\$333,500
Geotechnical	Debris Flow	Thane Road Debris Flow - Culvert blockage and less than 24 hours of closure	Medium-High	Negligible	Minor	Negligible	Minor		X			X	6.6	\$308,000
Geotechnical	Slopes	Thane Road - Cut Slope Failures: <2 CY	High	Negligible	Negligible	Negligible	Negligible						5.0	\$198,000
Geotechnical	Slopes	Thane Road - Cut Slope Failures: 2-10 CY	Medium-High	Negligible	Negligible	Minor	Negligible						5.0	\$180,000
Geotechnical	Slopes	Thane Road - Fill Slope Erosion and Slumping	High	Minor	Negligible	Negligible	Minor			X			7.9	\$727,650
Geotechnical	Slopes	Thane Road - Fill Slope Embankment Failure that impacts 50% of travel lane	Medium	Minor	Negligible	Minor	Negligible					X	4.7	\$91,875
Geotechnical	Slopes	Fritz Cove Landslide	Medium	Minor	Negligible	Major	Critical		X		X	X	8.6	\$1,164,375
Geotechnical	Slopes	Fritz Cove Rockfall Site	Medium-High	Minor	Negligible	Negligible	Negligible		X				5.3	\$189,000
Geotechnical	Slopes	Seward Rockfall MP 105-113 - <10 yard events that require ditch cleaning, but don't impact travel	High	Minor	Negligible	Negligible	Negligible		x				6.6	\$467,000
Geotechnical	Slopes	Seward Rockfall MP 105-113 - events that block a single travel lane	High	Minor	Minor	Negligible	Negligible		x				7.9	\$727,000
Geotechnical	Slopes	Seward Rockfall MP 105-113 - events that cause vehicle damage	High	Minor	Negligible	Minor	Negligible		x				7.9	\$727,000
Geotechnical	Slopes	Seward Rockfall MP 105-113 - events that cause injury or fatality	Medium Low	Catastrophic	Negligible	Negligible	Critical		x		x	x	6.3	\$1,070,000
Geotechnical	Slopes	Seward Corridor - Major Rock Slide (similar to Whittier event)	Low	Major	Catastrophic	Critical	Catastrophic		x		x	x	4.9	\$549,000
Geotechnical	Slopes	Glenn Highway Rockfall MP67-90 <10 yard events that require cleaning, no vehicle damage	High	Minor	Minor	Negligible	Negligible		x				7.9	\$727,000
Geotechnical	Slopes	Glenn Highway Rockfall MP67-90 <10 yard events that damage vehicles	Low	Minor	Minor	Minor	Negligible		x				9.2	\$987,000
Geotechnical	Slopes	Glenn Highway Rockfall MP67-90 events causing injury or fatality	Low	Catastrophic	Negligible	Negligible	Critical		x		x	x	3.2	\$305,000
Geotechnical	Slopes	Glenn Highway Shoulder Slumps MP 67-90, minor slides that deteriorate shoulders	Medium High	negligible	Negligible	Minor	Negligible						5.0	\$180,000
Geotechnical	Sinkholes/ Culverts	Sinkholes in Anchorage due to culvert deterioration	Medium High	negligible	Minor	Minor	Negligible					x	6.3	\$294,000

Figure 2. Example Risk Register for Select Southeastern and Central Region Sites.

Risk Matrix

A risk matrix can be a method of visually communicating the data contained in a risk register. An example of a comparative risk matrix is shown in Table 3. This matrix shows the range of potential risk values that could be computed from the likelihood and consequence level values. The high frequency-high consequence values are darker red and low frequency-low consequence values in darker green. The accompanying Table 4 is a conceptual financial risk cost matrix that would illustrate the scale of economic consequences that could result from geotechnical assets. A risk matrix can be a means of showing the risk for specific site or asset relative to other assets. Additionally, it may be possible to develop risk management strategies for each of the geotechnical asset types based on risk levels (low versus high) as deterioration rates are better understood.

Likelihood		Consequence (Level/Descriptor)				
		1	2	3	4	5
Level	Descriptor	Negligible	Minor	Major	Critical	Catastrophic
1	Low	1	2	3	4	5
2	Medium Low	2	4	6	8	10
3	Medium	3	6	9	12	15
4	Medium High	4	8	12	16	20
5	High*	5	10	15	20	25

* A High likelihood event may occur more than once per year

Table 3. Example Comparative Risk Matrix

Likelihood		Financial Impact (Descriptor / Average Cost)				
Descriptor	Annual Probability	Negligible	Minor	Major	Critical	Catastrophic
		\$50,000	\$300,000	\$1,250,000	\$6,500,000	\$20,000,000
Low	1.0%	\$500	\$3,000	\$12,500	\$65,000	\$200,000
Medium Low	3.5%	\$1,750	\$10,500	\$43,750	\$227,500	\$700,000
Medium	12.5%	\$6,250	\$37,500	\$156,250	\$812,500	\$2,500,000
Medium High	40.0%	\$20,000	\$120,000	\$500,000	\$2,600,000	\$8,000,000
High*	99.0%	\$49,500	\$297,000	\$1,237,500	\$6,435,000	\$19,800,000

* A High likelihood event may occur more than once per year

Table 4. Example Economic Risk Matrix