Alaska Roads

Methodology for Assessing National Register of Historic Places Eligibility

Prepared for

Alaska Department of Transportation and Public Facilities

December 2014

THIS PAGE INTENTIONALLY LEFT BLANK

Alaska Roads

Methodology for Assessing National Register of Historic Places Eligibility

Prepared for

Alaska Department of Transportation and Public Facilities

Prepared by

Mead & Hunt

www.meadhunt.com

December 2014

THIS PAGE INTENTIONALLY LEFT BLANK

Table of Contents

Appendices

Figures

Tables

List of Acronyms and Abbreviations

AASHO	American Association of State Highway Officials
AASHTO	American Association of State Highway and Transportation Officials
Alaska Road PA	*Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the Alaska Department of Transportation and Public Facilities, and the Alaska State Historic Preservation Officer Regarding Alaska's Highway System Roads Affected by the Federal-Aid Highway Program in Alaska*
APE	Area of Potential Effects
ARC	Alaska Board of Road Commissioners
BPR	Bureau of Public Roads
CDS	Coordinated Data System
DOT&PF	Alaska Department of Transportation & Public Facilities
FAHA	Federal-Aid Highway Act
FHWA	Federal Highway Administration
IHS	Interstate Highway System
LSR&T	Local Service Roads and Trails
National Register	National Register of Historic Places
PRA	Public Roads Administration
Roads Methodology	*Methodology for Assessing National Register of Historic Places Eligibility (December 2014)*
Roads Overview	*Historic Overview of Alaska Roads (February 2014)*
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (Public Law 109-59)
Section 106	Section 106 of the National Historic Preservation Act
SHPO	State Historic Preservation Officer

THIS PAGE INTENTIONALLY LEFT BLANK

1. Introduction and Applicability

This *Methodology for Assessing National Register of Historic Places Eligibility* (Roads Methodology) supports the implementation of the *Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the Alaska Department of Transportation and Public Facilities, and the Alaska State Historic Preservation Officer Regarding Alaska's Highway System Roads Affected by the Federal-Aid Highway Program in Alaska* (Alaska Road PA). The Roads Methodology is the second component in the study being completed by the Alaska Department of Transportation & Public Facilities (DOT&PF), in cooperation with the Alaska Division of the Federal Highway Administration (FHWA) and the State Historic Preservation Officer (SHPO), to assist in the identification of Alaska's historic roads as part of the environmental review process, in particular, Section 106 of the National Historic Preservation Act (Section 106).[1]

The Roads Methodology is applicable to vehicular roads eligible to receive FHWA Federal-Aid Highway Program funds and subject to the Alaska Road PA.[2] Application of the Roads Methodology to roads not eligible for FHWA Federal-Aid Program funds or private roads should be coordinated with the agency with jurisdiction and the SHPO. Roads that fall under the Interstate Exemption adopted by the Advisory Council on Historic Preservation in 2005 are exempt from Section 106 review. The Alaska Interstate Highway System Section 106 Exemption Route List is provided in Appendix A.

Roads are defined and evaluated as linear structures under the National Register of Historic Places (National Register) Criteria for Evaluation and evaluated as individual properties in this Roads Methodology. Roads may also be contributing or noncontributing resources within a historic district; however, evaluation of historic districts is beyond the scope of this study and the identification of historic districts is not addressed in this Roads Methodology.

1.1 Overview of Roads Methodology (Steps 1-4)

This Roads Methodology provides a consistent process for cultural resource practitioners to apply the National Register Criteria for Evaluation to facilitate Section 106 compliance for historic roads under the Alaska Road PA. This Roads Methodology is informed by the following publications: *National Register Bulletin: How to Apply the National Register Criteria for Evaluation* (commonly referred to as Bulletin 15); *National Register Bulletin: How to Complete the National Register Registration Form* (commonly referred to as Bulletin 16A); and the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation*, including the Standards and Guidelines for Evaluation (36 CFR 61, 1983, as amended).

Outlined in steps, the Roads Methodology begins with a screening process in Step 1 to measure a given road's potential to demonstrate individual significance without the need for extensive research. The screening process streamlines Section 106 review through early identification of roads that have potential

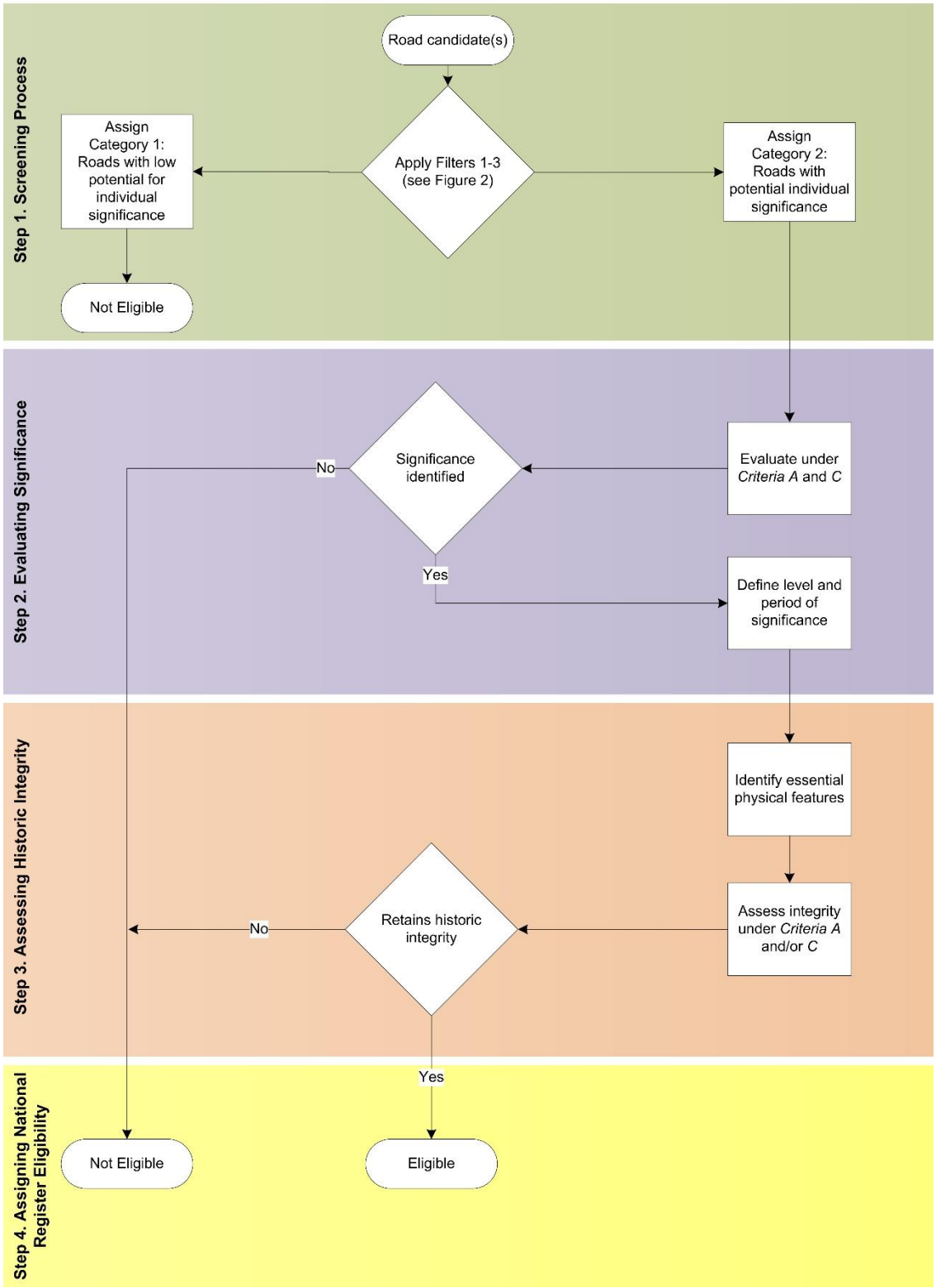
[1] The *Historic Overview of Alaska Roads* (February 2014) is the first component of the study.

[2] For a brief discussion of the applicability of Alaska Road PA and Federal-Aid Highway Program funding of the FHWA on Alaska's roads see Section 1 – Introduction in the *Historic Overview of Alaska Roads*, prepared by Mead & Hunt, Inc.

for individual significance and those that have low potential for individual significance. Input provided from outreach with the public and potential consulting parties in this step assists in the identification of roads with potential historical significance under Section 106. Roads that are determined to have low potential for individual significance are not evaluated further and are considered not eligible.

Roads that emerge from the screening process with the potential for individual significance require further evaluation to determine National Register eligibility. In Step 2, themes from the *Historic Overview of Alaska Roads* (Roads Overview) are presented to assist in identifying the related National Register areas of significance and serve as guidance to identify the level of significance and period of significance. Roads that are found to possess significance are further evaluated in Step 3, which provides guidance to users of the Roads Methodology on how to identify essential physical features, the aspects of integrity that should be retained to convey significance, and assess historic integrity. The road's eligibility is determined in Step 4. Figure 1 outlines the overall process to apply the National Register Criteria for Evaluation and complete an eligibility determination provided in this Roads Methodology.

Figure 1. Illustrated summary of Steps 1-4 of the Roads Methodology*



** Step 1, Step 2, and the identification of essential physical features in Step 3 apply to the entire length of the road. Assessing integrity in Step 3 and Step 4 only apply to the road segment being evaluated in the Area of Potential Effects (APE).*

1.2 Relationship to the Roads Overview

The Roads Overview is the first component of this study and was completed in February 2014. It establishes the chronological development of the state's road network from the late nineteenth century through the present. It is intended to present the major trends and important themes in Alaska road history, construction, and engineering.

The Roads Overview contains two main sections related to the development and construction of Alaska's roads:

- *On the Road: Alaska's Road Development* (Section 3 of the Roads Overview) presents an overview of Alaska's geography and climate to set the stage for a discussion of road development and its unique challenges. The section includes the broad trends and events and a chronological discussion of road development, policies, and funding from the late nineteenth and early twentieth centuries to the present.

- *Road Engineering* (Section 4 of the Roads Overview) discusses how development of a transportation network in Alaska had to address particular geographic and climatic challenges. The state's terrain, soil, and areas of permafrost, tundra, and muskeg posed difficulties for road design and construction. The section also discusses the evolution of road-building methods and materials, and the standardization of road design practices.

The Roads Overview provides the broad historical context in which to evaluate whether roads are associated with important themes or reflect engineering accomplishments related to the National Register areas of significance. The evaluation of significance will require further development of a road-specific historic context in which to understand how a road relates to areas of significance. Important themes of Alaska's road history relate to the following National Register areas of significance:[3]

- *Transportation* – "the process and technology of conveying passengers or materials."

- *Agriculture* – "the process and technology of cultivating soil, producing crops and raising livestock and plants" and focuses on road development specifically tied to agricultural activities.

- *Community Planning and Development* – "the design or development of the physical structure of communities" and focuses on road development within and immediately adjacent to communities primarily at the local level of significance.

- *Entertainment/Recreation* and *Conservation* – In Alaska, the dual missions of recreation and conservation in the national parks, forests, and other land reserves by land management agencies are closely related. For this reason, the areas of significance are discussed together.

[3] Descriptions and direct references of the National Register areas of significance adapted from U.S. Department of the Interior, National Park Service, *National Register Bulletin: How to Complete the National Register Registration Form* (1991), 40-41.

Entertainment/Recreation is "the development and practice of leisure activities for refreshment, diversion, amusement, or sport" and focuses on the development of Alaska's roads for outdoor recreational and subsistence activities, including access for hunting and fishing, camping, sightseeing, and related use of public lands for outdoor activities. Conservation is "the preservation, maintenance, and management of natural or manmade resources" and focuses on the development of Alaska's roads to provide access for use and management of natural resources on public lands by public agencies.

- *Exploration/Settlement* – "the investigation of unknown or little known regions; the establishment and earliest development of new settlements or communities" and applies to overland trails that may have evolved into roads that served as the first means of land transportation.

- *Industry* – "the technology and process of managing materials, labor, and equipment to produce goods and services" and applies to roads that were constructed to provide access to or in support of industries, such as timber, mineral, and oil extraction and commercial fishing.

- *Military* – "the system of defending the territory and sovereignty of a people" and applies to roads constructed to provide access to or in support of military facilities and activities.

- *Politics/Government* – "the enactment and administration of laws by which a nation, state, or other political jurisdiction is governed; activities related to political process."

- *Engineering* – "the practical application of scientific principles to design, construct, and operate equipment, machinery, and structures to serve human needs."

Summaries from the Roads Overview related to each area of significance and guidance on how to apply these areas of significance to individual roads are presented in Section 3 of this Roads Methodology.

THIS PAGE INTENTIONALLY LEFT BLANK

2. Screening Process (Step 1)

The screening process applies filters to measure a road's potential to be an individual candidate to demonstrate significance under the National Register Criteria for Evaluation. The screening process considers the entire length of the road including bypassed sections, if applicable. Roads identified through the screening process as candidates with potential significance will be examined further during subsequent steps in the Roads Methodology to determine eligibility. The screening process does not address the evaluation of roads as part of a potential historic district.

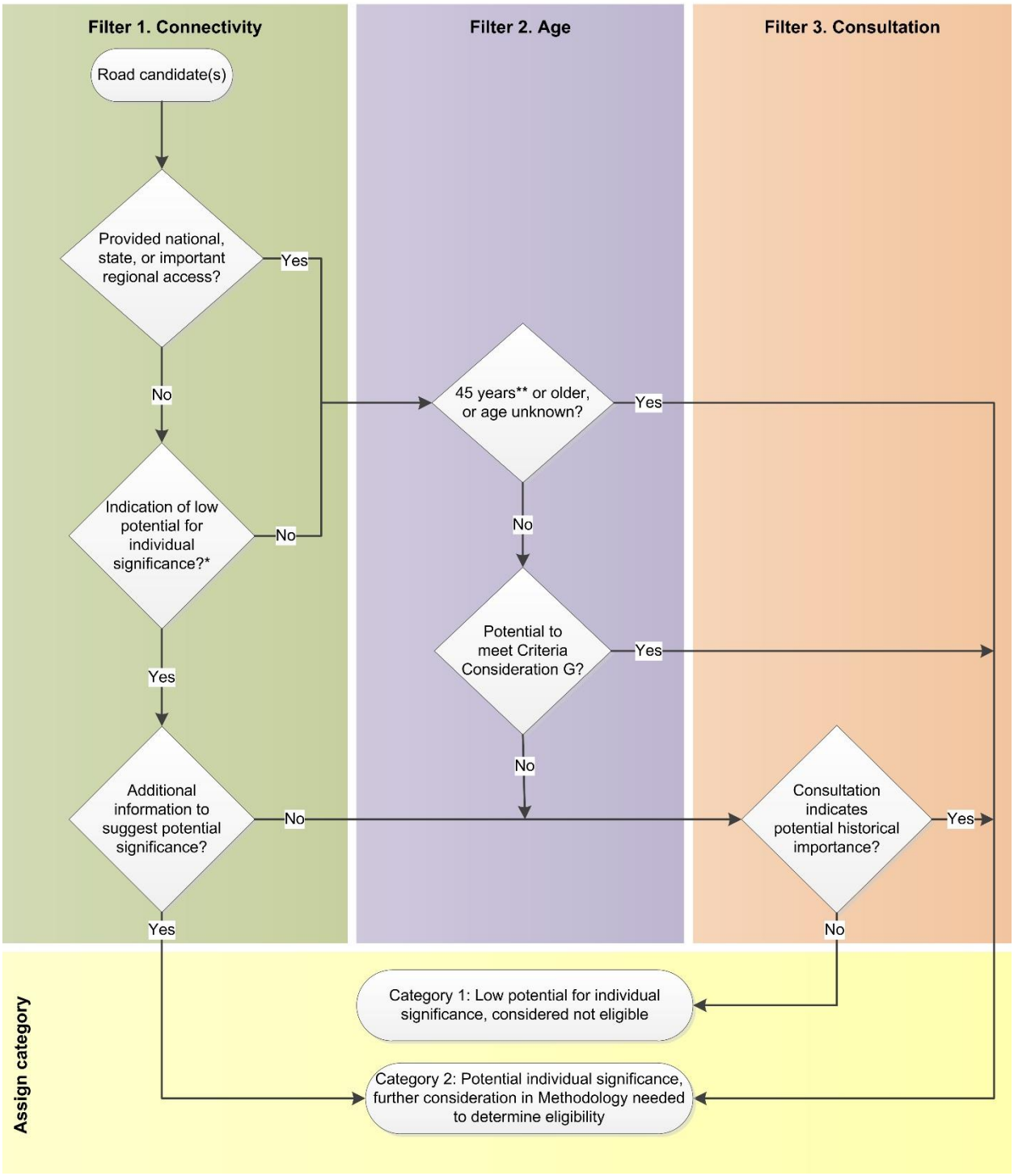
The screening process allows for the early identification of roads with potential significance without extensive research and involves professional judgment by an individual that meets the Secretary of the Interior's Professional Qualification Standards in the areas of history and/or architectural history. Its application utilizes readily available information, such as the Roads Overview, maps, and road data. The screening process is also coordinated with and receives input from the DOT&PF project team and cultural resource specialists, and local knowledge from outreach with the public and potential consulting parties to complete the analysis. The application of the screening process results in roads being placed into one of two categories:

- *Category 1: Low potential for individual significance* – No further consideration in the Roads Methodology is required; based on available information the road does not possess significance and is not considered to qualify for listing in the National Register.

- *Category 2: Potential individual significance* – Requires further consideration in the Roads Methodology (Steps 2-4) to determine significance and if it qualifies for listing in the National Register.

The screening process shown in Figure 2 illustrates the application of the filters described below. Appendix B provides a Screening Process Worksheet example identifying the type of information to collect and a suggested format to document key information used in decision making and the results of the screening process. The order of the filter applications may be modified on a project-by-project basis to facilitate the completion of the screening process.

Figure 2. Illustrated summary of the screening process (Step 1 of the Roads Methodology)



** Roads with low potential for individual significance include the categories provided in Section 2.1.*

*** Alternate age threshold may be determined on a project-by-project basis as discussed in Section 2.2.*

2.1 Filter 1: Connectivity

Filter 1 assesses the potential for individual significance based on the importance of the connection a road historically provided. This filter considers the connectivity for the entire length of a road even if a project includes only a segment of the overall road. The application of this filter is not based on current or past functional classification definitions of the FHWA or the DOT&PF.

Roads that historically provided national, state, or important regional connections continue to Filter 2. The screening process recognizes that these roads have the potential to individually possess significance in the history of transportation and/or other themes. Roads that historically provided national, state, or important regional connections are distinguished from other routes because they connected major centers of population and/or played an important role in facilitating the transport of people, goods, and/or materials rather than merely providing routine access to community destinations and services.

In addition, for the purposes of the screening process, the DOT&PF, the FHWA, and the SHPO have agreed that most roads providing routine, typical, and common connections, or serving primarily as part of a local road system, would have a low potential for possessing individual significance. Unless additional information is known about the history or engineering of a road to warrant additional consideration, roads that fall within the categories below are not considered candidates for further review in the Roads Methodology. The categories of roads identified with low potential to individually demonstrate significance include:

- Roads historically located wholly within a community, such as residential or commercial streets (not co-signed with a national or state through road), when the individual contribution of these roads is indistinguishable from the larger community roadway system.

- Roads that historically provided routine access to common types of destinations and services, such as roads connecting subdivisions, shopping areas, waste facilities, or a local recreational area.

- The road's primary historical purpose was as a service road or to provide access to a highway or other transportation facility. Examples include an access road to a highway, airport or ferry terminal, or a frontage road.

Roads falling within the categories above and which have no additional information to indicate potential significance continue to Filter 3. Roads that do not fit into the categories described above continue to Filter 2.

2.2 Filter 2: Age

Filter 2 identifies roads that meet the minimum age requirement (at least 45 years).

An exact date of road construction is not required in order to apply this filter in the screening process. Instead, reasonable evidence is required from readily available sources justifying whether the road is or is not at least 45 years in age. In evaluating if a road is at least 45 year in age, consider if the road or any

segment of the road was originally constructed for vehicular use within this time frame.[4] The date of construction and period of significance will be determined for roads identified as having potential significance in subsequent steps in the Roads Methodology. Readily available sources, which can assist in determining age, include U.S. Geological Survey maps, the Roads Overview, *Milepost*, aerial photographs, and state or community maps.

Roads are assigned to *Category 2: Potential individual significance* when they pass through Filter 1 and meet one or more of the following conditions:

- Meet the minimum threshold of at least 45 years in age, or the project-specific threshold.[5]
- Age cannot be determined from readily available sources.
- Information suggests the road may possess exceptional importance under *Criteria Consideration G, Properties that have achieved significance within the past 50 years* when the minimum threshold of at least 45 years in age is not met.

Roads that do not meet the minimum threshold of at least 45 years in age and in which there is no indication of exceptional importance continue to Filter 3.

2.3 Filter 3: Consultation

Filter 3 identifies if a road has the potential for historical importance based on information learned during the consultation process. Filter 3 allows for input from the public and potential consulting parties regarding the potential historical significance of a road. If information suggests potential historical significance during outreach and consultation, then the road is assigned to *Category 2: Potential individual significance* and further consideration is needed to determine eligibility.

If no information to suggest possible historical importance is identified during the consultation process, then the road is assigned to *Category 1: Low potential for individual significance* and considered not eligible.

[4] For the purposes of the Screening Methodology, roads with segments constructed before 45 ago years would meet the requirements of Filter 2. If segments were later bypassed or reconstructed, this would not change the use of the original construction date associated with the entire road in the application of this filter.

[5] The 50-year age guideline of the National Register allows historical perspective in which to evaluate the significance of properties. This time frame extends to 45 years in the screening process to consider roads that will reach the 50-year age guideline of the National Register during project development and construction. On a project-by-project basis, the time frame used in the screening process may be extended further to capture roads that would reach the 50-year threshold before project completion. For example, a 40-year minimum age requirement may be used in the screening process if project construction is not expected for 10 years. In cases where the time frame has been extended, roads may be placed in Category 2 until the DOT&PF project development team, in consultation with DOT&PF cultural resources staff, identify the appropriate time to complete a Determination of Eligibility (DOE).

3. Evaluating Significance (Step 2)

For a road to possess significance, National Register guidance requires that it "must represent a significant part of the history, architecture, archaeology, engineering, or culture of an area, and it must have the characteristics that make it a good representative of properties associated with that aspect of the past."[6] Using the Roads Methodology, roads assigned to *Category 2: Potential individual significance* require further evaluation to determine eligibility following the application of the National Register Criteria for Evaluation in the Roads Methodology. This step considers the important themes identified in the Roads Overview and may require further research and a road-specific context to evaluate if a road demonstrates significance under one or more of the National Register criteria outlined below. Evaluating significance also includes identifying the level of significance (national, state, or local) and the period of significance when the road was historically important.

The entire length of a road should generally be evaluated for significance through the completion of road-specific research and analysis by an individual that meets the Secretary of the Interior's Professional Qualification Standards in the areas of history and/or architectural history.[7] In some cases research will reveal that discrete segments of road have historical associations or engineering significance that other portions of road do not have, and these areas may be addressed segmentally. The result may be that the entire road or individual segments of a road (including bypassed sections or sections related to an earlier road history) may be found to possess significance,

Once a road or segment of a road is determined to possess significance, individual segments of the road that may be impacted by a potential project are assessed for integrity to determine if they are eligible or not eligible following the guidance in Step 3.

3.1 Criteria for evaluation

The National Register employs four evaluation criteria: *A*, *B*, *C*, and *D* (36 CFR 60.4).

- *Criterion A: Events – Properties that are associated with events that have made a significant contribution to the broad patterns of our history.*

- *Criterion B: Persons – Properties that are associated with the lives of persons significant in our past.*

- *Criterion C: Design/Construction – Properties that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.*

- *Criterion D: Information Potential – Properties that have yielded, or may be likely to yield, information important in prehistory or history.*

[6] U.S. Department of the Interior, National Park Service, *National Register Bulletin: How to Apply the National Register Criteria for Evaluation* (1991), 7.

[7] The consideration of significance will likely require looking beyond the APE at a sufficient level to understand and evaluate the road's historical importance.

For Alaska roads to qualify for the National Register, significance will most likely be demonstrated through application of *Criteria A* and *C*. *Criterion B* association with a significant person and *Criterion D* for ability to yield information are unlikely to apply to roads. *Criterion B* requires that a road best exemplify a person's contributions to history; mere association with a road, such as involvement in design or construction, would not render a road significant under *Criterion B*. Roads named for an important individual in which the recognition is commemorative in nature also do not qualify under *Criterion B*. The works of road engineers, designers, and artisans are typically not represented under *Criterion B* and are recognized under *Criterion C*. *Criterion D* is most often applied to archaeological properties, and roads in this study are in vehicular use and remain as aboveground property types. Discussions for *Criteria B* and *D* are not included in this Roads Methodology because they are not likely to apply during evaluations. However, this does not preclude a road from being significant under one of these criteria should compelling information prove otherwise.

In identifying areas of significance, National Register guidance provides for a variety of criteria considerations. *Criteria Consideration G, properties that have achieved significance within the past 50 years,* may be applicable to roads when defining the period of significance (see Section 3.6). Additional National Register criteria considerations are not expected to apply to roads.[8]

3.2 Application of *Criterion A* to roads

Roads that have a direct and important association with single events, a pattern of events, repeated activities, or historic trends can possess significance under *Criterion A*. The Roads Overview provides important historical themes that influenced the development of roads under *Criterion A* (e.g., transportation, agriculture, industry, etc.). Transportation is the main area of significance under this criterion because roads were built to convey people and goods. However, mere association with transportation is not sufficient to convey significance. To meet the threshold for significance under *Criterion A* in the Roads Methodology*,* a road must possess an important association with Transportation and one or more supplemental areas of significance by meeting the considerations identified in Table 1.

[8] *Criteria Consideration B* for moved properties and *Criteria Consideration E* for reconstructed properties are not expected to apply because these considerations would generally be referencing the construction of new sections of road that would not possess significance or retain historic integrity.

Table 1. Evaluating historical significance under *Criterion A*
Establishing two or more related areas of significance All roads are associated with Transportation; to demonstrate significance a road must **also** have a direct and important association with at least one supplemental area of significance under this criterion and meet the requirements below.
Transportation **AND** One or more supplemental areas of significance: • Agriculture • Community Planning and Development • Entertainment/Recreation/Conservation • Industry • Military • Politics/Government Requirements: • Association must be demonstrated as important in one or more areas of significance • Association must be direct and documented and not be speculative or incidental Section 3.3 provides supplemental areas of significance and guidance on identifying significance and a historic summary.

3.3 Areas of significance under *Criterion A*

Areas of significance under *Criterion A* and guidance on identifying significance along with summaries from the Roads Overview are provided below.[9]

3.3.1 Transportation: Guidance on identifying significance

This area of significance focuses on major trends to improve Alaska's overall road transportation network but may also include the role of roads to facilitate non-vehicular modes of transportation. All roads have an association with transportation because they were constructed to serve transportation needs and to convey people and goods. As a result, one or more supplemental areas of significance will explain the historical purpose a road had in the conveyance of people and goods under *Criterion A* (e.g., agriculture, industry, etc.). A direct and important association with one or more supplemental areas of significance is required for a road to possess significance under *Criterion A*.

[9] Summaries of important historical themes throughout the Roads Methodology were obtained from the *Alaska Roads Historic Overview: Applied Historic Context of Alaska's Roads.* See that document for complete citations. Citations are included here in cases of direct quotations. References to individual roads in the historic summary are for illustrative purposes only and these roads require evaluation to determine significance.

Historic summary

During the late nineteenth century a number of expeditions funded by both the federal government and private fur trading and mining interests helped generate interest for the later development of an interior road system in Alaska to transport both people and goods between and in the vicinity of communities or resource areas. In 1898 the U.S. Congress passed a homestead act for Alaska that also allowed private individuals and companies to obtain a permit to construct toll roads. However, this act had little impact on road construction in Alaska.

Following early U.S. army explorations and mapping expeditions, the U.S. Congress created the Alaska Board of Road Commissioners (ARC)[10] in 1905. Between 1905 and 1917 the ARC, administered by the U.S. Department of War, oversaw the development of a basic network of roads and trails across the territory in response to a flood of petitions from miners and residents. Roads provided a way to transport machinery and supplies to mining concerns and connect them to supporting communities and agricultural areas.

In 1913 the ARC developed an ambitious 10-year road development plan to improve the road system. However, funding dropped during World War I and road construction was halted. At the end of the war, road construction and improvements resumed. In 1920 the ARC drafted a new 10-year plan for road construction and maintenance that focused on serving mining and oil fields, and also made advances in new road construction. Federal New Deal programs of the 1930s, including the Public Works Administration, the Federal Emergency Relief Administration, and the Civilian Conservation Corps, provided funding for work on roads and trails.

Overall connectivity was a transportation theme in the post-World War II (postwar) period, with the ARC concentrating its efforts on improving access to the interior, connecting urban and rural communities, and upgrading existing highways. Linking and extending roads provided connections to isolated areas, for instance the Sterling Highway connecting the Kenai Peninsula with Anchorage. Highway betterment, including paving, improved transportation on the Glenn Highway, Richardson Highway, Haines Cutoff, and Tok Cutoff, among other roads. Additional new highways constructed in the postwar period include the Taylor Highway to support access to the Fortymile Mining District; the Copper River Highway, intended to create a fourth road to an ice-free port by providing overland access to Cordova from the Richardson Highway west of Chitina (this route was never fully completed); and the Denali Highway to Denali (formerly Mt. McKinley) National Park to support tourism. Postwar road construction also continued to support other modes of transportation that developed in the years leading up to the war, mainly marine and air travel. Road-building efforts by the federal government in National Forests focused

[10] Throughout Alaska's history, various agencies have been in charge of road building, with subsequent name changes due to reorganization. In the Roads Overview, the common term Alaska Road Commission, or acronym ARC, is used interchangeably for the Alaska Road Commission and the Board of Road Commissioners of Alaska. This agency, officially named as the Alaska Road Commission in 1926, was the main agency responsible for territorial roads from 1905 to 1956. The term Department is used in this document to refer to the various territorial and then state agencies with primary responsibility for Alaska's roads from 1957 to the present.

on accessing natural resources and connecting communities and settlement areas to main highways and other transportation modes, such as ferries.

In the mid-twentieth century, road development efforts focused on constructing and improving the state's primary highways. An example of a large-scale road development effort related to the theme of transportation includes the construction of the Parks Highway. The Bureau of Public Roads (BPR, earlier known as the Public Roads Administration [PRA]), began construction of the road in 1958 to provide a shorter and more direct automobile route between Fairbanks and Anchorage.[11] Previously, such a trip required a circuitous 439-mile drive on the Glenn and Richardson Highways. The State of Alaska completed construction of the 323-mile road in 1971.

In the 1980s the State successfully petitioned the federal government to designate four primary highways as part of the national Interstate Highway System, thereby allowing access to federal funds to pay for the upgrade, improvement, and maintenance of the designated Interstate routes (see list of routes within Alaska on the Interstate Highway System exempt from Section 106 in Appendix A).

3.3.2 Agriculture: Guidance on identifying significance

This area of significance applies primarily to the period when road development began to focus on supporting the territory of Alaska's agricultural interests. A direct association with an important statewide, regional, or local trend or program related to Agriculture may be shown for roads if they served as one or both of the following:

- A principal regional or inter-regional route that provided access between an important agricultural region and its market.

- A principal road that provided direct access to an agricultural experiment station.

Roads that merely provided access to individual farms or are one of many roads linking an agricultural region to its market would not possess significance under this area of significance.

Historic Summary

The 1898 Alaska Homestead Act enabled the establishment of farms to support growing gold rush communities; however, little road building occurred as a result.

It is important to note that the first roads intended to specifically serve agricultural development were built between c.1910 and the beginning of World War I. The U.S. Department of Agriculture established agricultural experiment stations at Sitka, Rampart, Kenai, and Copper Center. Small farms associated with mining camps and other settlements created a demand for roads that farmers could use to deliver perishable farm products to local markets. By 1917 the Matanuska Valley was developing as an important Alaska agricultural region. To serve the settlers and farmers in this area the ARC constructed a

[11] The Public Roads Administration, under the Federal Works Agency since 1939, was renamed the Bureau of Public Roads in 1949 when it was placed under the direction of the Department of Commerce. Throughout the Roads Overview and this report, BPR is used to identify this agency.

road from Palmer to connect with the Alaska Railroad at Mile 26 and the Knik-Willow Creek Road. Several roads to serve farms in the Fairbanks region were also built. These roads also served miners, wood haulers, and others, including people visiting the hot springs in the area.

By 1925 the ARC noted that there was a good road system in place in south-central Alaska that served both miners and farmers around Wasilla. Further road construction continued at this time in the Matanuska area and around Anchorage where farms were established. A number of these and other roads were planned and built to connect agricultural regions with the Alaska Railroad.

Road building generally declined during the Great Depression of the 1930s; however, one important link constructed at this time was the Anchorage-Palmer Highway, a route that allowed for easy transport of agricultural products from Matanuska Colony farms to Anchorage. An additional 26 miles of new branch roads were also built in the Matanuska Valley between 1935 and 1936.

Increased settlement occurred following World War II and new areas opened to homesteading, such as the Kenai Peninsula. Completion of the Sterling Highway in 1950 provided access to the western part of the peninsula, which was previously accessed via water. The highway, among other things, allowed for peninsula farms to access markets for their products. Improvement of local and feeder roads in the 1950s was a focus for the ARC, and construction requests were prioritized for areas with farming and mining possibilities. The ARC referred all petitions for farm roads to the Bureau of Land Management for recommendation on whether the area was suitable for farming.

Agriculture continued to be an important industry in Alaska through the 1960s. The State continued to build roads and bridges in the Matanuska Valley to shorten travel distances and improve connection of farms to markets in Anchorage and the surrounding areas. In 1962 the State completed a portion of Parks Highway and a portion of Chena Hot Springs Road to open the areas for farming and recreational use. While development of access roads to agricultural regions in the state likely continued, these roads were not specifically discussed in Department reports or popular literature after the 1960s.

3.3.3 Community Planning and Development: Guidance on identifying significance

This area of significance focuses on road development within and immediately adjacent to communities, rather than on creating connections between communities, which is covered under the area of significance of Transportation.

Roads that individually played a crucial role in the development pattern within a community may have a direct association with an important regional or local trend or program related to *Community Planning and Development.*

Roads that merely addressed population growth or improved traffic congestion, are an indistinguishable part of a larger overall development trend, or that facilitated or provided more direct connections within a community would not possess significance under this area of significance. Documentation, such as plans or government records, should identify the specific role of the road to improve the physical structure of a community and should distinguish its role as important to the community.

Historic summary
Surveys were conducted by the ARC in 1905 for several prospective roads in the Fairbanks and Nome areas to provide access to mining communities. These roads formed the basis for future local road networks in these areas. Construction efforts for roads surrounding communities continued until the beginning of World War I in 1917, at which time curtailment of funding severely limited further development. During the 1920s and 1930s the ARC oversaw the development of local road networks near Anchorage, Fairbanks, Wasilla, and Palmer, as well as on the Kenai Peninsula and other areas.

Local road construction rose in the postwar period and many miles of roads were completed serving isolated communities that were largely disconnected from the main highway system. Included in this, the BPR funded roads that served communities with the National Forests. The 1960s to 1980s saw increased construction of roads within large urban areas, as well as a new trend of building roads to bypass urban centers. The Department's 1966 long-range plan outlined urban and suburban road development as a priority and focused efforts on areas where population growth dictated a need such as Anchorage, Fairbanks, Juneau, and Ketchikan. The focus on urban roads was supported by provisions of the 1968 Federal-Aid Highway Act (FAHA) that required states to prepare plans for urban areas to make sure that local road needs were addressed. From these planning efforts, urban expressways developed in Anchorage and improvements were completed in and around Fairbanks.

In 1970 the state established the Local Service Roads and Trails (LSR&T) Program to fund projects that did not qualify for federal assistance. Projects funded under this program focused on meeting needs for community and neighborhood access and upgrading local streets. Into the late 1970s and 1980s the Department led efforts to alleviate traffic and improve safety by providing additional interchanges and street connections in metropolitan areas. These efforts were outlined in the Department's 1982 Statewide Transportation Plan, which noted that transportation investment was needed to respond to the state's growth in metropolitan areas. In 1999 the Rural Transportation Initiative developed by the federal government brought a focus to rural areas and small communities, and 20-year transportation plans were completed for the Southwest and Eastern interior, Prince William Sound, Yukon-Kuskokwim Delta, and Northwest Alaska regions.

3.3.4 Entertainment/Recreation and Conservation: Guidance on identifying significance

This area of significance focuses on the use of Alaska's roads for outdoor activity, including access for hunting and fishing, camping, tourism, and related activities and the management of the state's natural resources. A direct association with an important statewide, regional, or local trend or program related to *Entertainment/Recreation* and *Conservation* may be shown for roads if they meet one of the following conditions:

- Constructed to provide direct and critical public access to activities such as hunting, fishing, and camping for recreational or subsistence purposes.
- Provided direct and critical access to an important regional or state recreational area.
- Provided direct access to an area deemed critical for the management of natural resources.

Roads that provided connections or access to existing recreational activities or whose primary purpose relates to another area of significance would not possess significance under this area of significance. Roads that merely provided connections or access for routine activities associated with recreation or conservation would not demonstrate significance under this area of significance.

Historic summary

The advent of motorized vehicles in Alaska facilitated the development of roads and access to outdoor recreation activities. The ARC quickly realized that citizens wanted to own and drive automobiles. As early as 1913 residents and visitors traveled by automobile during the summer months to recreation sites around Juneau, Fairbanks, and Nome, and between Valdez and Fairbanks. They also demanded better roads, something the U.S. Congress initially was reluctant to fund. During the 1920s progress included the first road construction within Mt. McKinley National Park (now Denali National Park).

During the Great Depression, construction continued on the Mt. McKinley National Park Road, a 91-mile joint venture between the ARC and the National Park Service to provide tourist access into the park. By the 1930s touring busses were available for the adventurous tourist, with travel primarily occurring along the Richardson Highway. However, it was not until after World War II, with the advent of commercial air travel and construction of the Alaska Highway, that tourism by road became a popular way to experience the state.

The Alaska Highway, which connected Alaska with the northwestern U.S. through Canada, opened for public use following World War II once the military need that precipitated its construction in 1942 largely dissipated. Paving of the route, and other major roads, became a focus to support increasing tourist travel. The construction of the Sterling Highway also provided new tourist opportunities by making fishing spots on the Kenai Peninsula accessible by automobile. Road construction by the BPR in the National Forests in the 1950s also increased accessibility to these natural areas, which also provided recreational opportunities. Construction of the Denali Highway in 1950 supported tourism by providing access from the Richardson Highway starting at Paxson to Denali National Park via Cantwell.

The theme of Entertainment/Recreation is apparent in the 1960s, with attempts to accommodate the increasing number of tourists in the state. The centennial celebration of Alaska's purchase held in 1967 led to beautification efforts, including landscaping and construction of scenic overlooks. In addition, the Department added campgrounds, such as on the Chena Hot Springs Road, and rest areas along major primary highways. In the 1980s tourism was once again an important priority in Alaska, aided by the growing cruise ship industry. Road construction related to tourism largely focused on connecting highways to other transportation hubs, such as ports. An example of increased road construction efforts based on tourism in the period included construction of the Portage Glacier Highway in south-central Alaska. The establishment of state scenic byways in the 1990s-2000 also reflects the State's efforts to enhance roads that served tourism and recreation. The Alaska Scenic Byway's program funded interpretation and beautification of designated byways that represented distinctive cultural, historic, or natural roadways in the state.

3.3.5 Exploration/Settlement: Guidance on identifying significance

Under this Roads Methodology, roads with a direct association to this area of significance would be required to have been the primary, earliest overland link to a community or settlement area. Such roads may have had their origin as trails, sometimes in eras preceding those covered by this Roads Methodology. It is expected that roads associated with former trails will have experienced substantial improvements resulting in a loss of integrity of the trail from the initial period of significance, so that ability to convey association with the theme of *Exploration/Settlement* would be infrequent. (Roads relating to other aspects of community growth would be expected to be addressed under *Community Planning and Development* instead.)

3.3.6 Industry: Guidance on identifying significance

This area of significance focuses on roads directly related to Alaska's industries, primarily mineral and oil extraction, as well as timber and fishing industries. A direct association with an important statewide, regional, or local trend or program related to *Industry* may be shown for roads if they meet one or more of the following conditions:

- Constructed or improved to provide an important connection to convey labor and/or goods, or materials to processing centers, including to other modes of transportation.

- Provided a critical link that led to an important phase of expansion of the operations of an industry.

Roads that provided routine access and connections to existing industrial activities would not demonstrate significance under this area of significance.

Historic summary

Throughout the period from 1867, when the U.S. acquired Alaska, until World War I, most of the road development in the territory occurred because of the need to access and serve mining developments. Prior to 1900 trails and primitive roads were constructed to serve several locations that experienced gold rushes, including Silver Bow Basin, Forty-Mile River, Koyukuk, the northern Kenai Peninsula, and Nome. As mining developed in several parts of the Alaska territory during the 1890s, trails and crude roads were built to accommodate the hauling of heavy mining equipment from coastal and river landing sites.

After 1900 there were new gold discoveries in the Fairbanks area, but copper, coal, oil, and gold discoveries in other parts of Alaska created the need for further road and trail development. In 1920 the ARC developed a 10-year construction plan for roads to serve mining areas and oil fields. Roads within National Forests continued to be built with federal assistance in the 1930s to support the forest industry, while others provided accesses to canneries located along the coast. Many of the road extensions and new construction by the ARC in the 1930s were also mining related.

During the postwar period, roads continued to be constructed to improve access to mining and logging areas. The Tongass Timber Act of 1947 opened the Tongass National Forest to harvest by private companies, leading the U.S. Forest Service to construct new roads to facilitate timber harvesting. The

BPR also constructed roads in the national forests, largely in southeastern Alaska and areas around Prince William Sound. While some were built to serve the timber industry, others were constructed to improve connections to communities within the forest boundary, many of which expanded in the 1950s and 1960s as a result of the rapid growth of the timber and pulp industries at that time. To support mining, the ARC constructed the Taylor Highway to serve the Fortymile Mining District, located south of the Yukon River near the Canadian border.

Industry is a prominent theme from the late 1960s through the 1970s, with the development of access roads to mining, oil, and timber industries by both the State of Alaska and the federal government. In 1968 the Department found recent road improvements to mineral-rich areas brought increased mining and business activity. Discovery of oil in the North Slope prompted specific efforts by both the State and private developers to access the resources. The construction of the Hickel Highway (eventually abandoned) and the North Slope Haul Road (now the Dalton Highway) represent these efforts. Increased mining activities in the central Yukon Territory in Canada renewed efforts to construct an overland route from Skagway to Carcross, in Canada. Accessing the state's natural resources continued to be an important priority through the twentieth century, though funding challenges, environmental considerations, and public opinion made these efforts increasingly challenging. In the 2000s public-private partnerships between the state and private developers led to renewed efforts to connect roads to resources.

3.3.7 Military: Guidance on identifying significance

This area of significance may apply to Alaska's road and trail development, from 1867, when the U.S. acquired the territory from Russia, to the present. A direct association with an important statewide, regional, or local trend or program related to *Military* may be shown for roads if they affirm one or both of the following conditions:

- Established or improved access to a mission critical military facility.
- Facilitated specific activities or strategic access deemed critical for national defense.

Roads that provided routine access would not possess significance under this area of significance. Roads within the boundaries of military facilities should be evaluated as part of the larger installation.

Historic summary

As early as 1868 the U.S. military undertook limited road construction at Sitka in the southeastern part of Alaska. Military explorations to learn about the geography and resources of the vast new territory began the following year and continued through the nineteenth century. Throughout the 1880s and 1890s several U.S. Army expeditions explored the interior of Alaska, mapping routes and documenting mining and timber resource locations. These federal expeditions were intended to map the territory; identify potential road and railroad routes; identify sites for military posts; and investigate mineral, timber, and related resources. The Department of War administered the ARC, the commission responsible for the territory roads, until 1932.

Although Congress approved studies for an international highway to connect Alaska with the northwestern U.S. through Canada in 1930, the Alaska Highway was not constructed until after U.S. entry

into World War II. The construction of the Alaska Highway by the U.S. Army became strategically important with U.S. entry into the war and this road, built rapidly in 1942, became essential to connect recently established airfields in Alaska and Canada.

Military expansion in Alaska, in particular during World War II and the Cold War era, created new demands on roads and had a significant impact on road-building efforts. The World War II-era military build-up led to the development of Army airbases in Anchorage and naval airbases at Kodiak, Sitka, and Unalaska. The U.S. government provided increased funds for road building, which were utilized by the ARC, U.S. Army, and BPR to support this strategic military location. New highways included the Alaska Highway and Palmer-Richardson Highway (future Glenn Highway); existing main highways, such as the Richardson and others, were greatly improved to meet military needs for transportation and the connection of facilities. The Palmer-Richardson Highway had particular strategic importance connecting air bases in Fairbanks and Anchorage. The Haines Cutoff, between Haines on the Alaska coast and the Alaska Highway, a link that was not originally planned, was completed to provide truck access to a coastal port to facilitate distribution of military supplies. In addition to the construction and reconstruction of main highways, access roads were also built to military installations around Anchorage and on Kodiak Island and smaller surrounding islands.

Military transportation needs continued into the postwar period with the onset of the Cold War. Bases in Fairbanks and Anchorage became important facilities due to Alaska's new strategic importance in proximity to the Soviet Union. Federal funding continued for maintenance, reconstruction, and new construction of roads to serve the military. Primary efforts upgraded the Alaska, Richardson, and Glenn Highways to all-weather standards and completed the Seward-Anchorage Highway with the Turnagain Arm Road (now known as the Seward Highway), linking Anchorage with the Kenai Peninsula.

3.3.8 Politics/Government: Guidance on identifying significance

This area of significance applies to roads constructed as a direct result of an important government program that offered assistance for road funding and policy. This area of significance is expected to only apply in rare cases where the program and the road transcend the regular actions of government road building efforts and therefore roads associated with routine government programs would not possess significance under this area of significance. Individual roads constructed as a direct result of a historically important federal or state program that are distinctive within that program may have a direct association related to *Politics/Government*.

Historic summary

Throughout Alaska's road building history, federal, territory, and later state funding has provided for road construction. For example, during the Great Depression, New Deal programs were an important funding and labor source for road construction. The Public Works Administration and the Civilian Conservation Corps, authorized under the National Industrial Recovery Act and the Emergency Relief Act, funded road construction projects to serve mining districts and other industries, as well as roads to airfields. In 1935 and 1936 the Federal Emergency Relief Administration, in cooperation with the Alaska Rural Rehabilitation Corporation, upgraded the road from Anchorage to Palmer and constructed and improved a network of local roads to serve the Matanuska Colony, a New Deal agricultural settlement near Palmer. Civilian Conservation Corps crews worked on many road and trail projects in Alaska's national forests.

3.4 Application of *Criterion C* to roads

To possess significance under *Criterion C* a road needs to reflect design features or construction practices that were the result of uncommon, early, or specific contributions or advances in the application of engineering principles. These thresholds can be achieved if a road exemplifies one or more of the following requirements as outlined in the National Register Criteria for Evaluation under *Criterion C*:

- Embodies distinctive characteristics of a type, period, or method of construction.
- Represents a distinctive work of a master.
- Possesses high artistic value.

3.4.1 Distinctive characteristics of a type, period, or method of construction

To identify roads that are significant for embodying the distinctive characteristics of a type, period, or method of construction, three considerations apply:

- Patterns of features common to a particular road type.
- Variation of road features.
- Evolutions and transitions in road design and construction.

All roads have the ability to display patterns of features common to their particular road type and can therefore generally serve as representative examples of the application of road design standards under *Criterion C*. Under this Roads Methodology, mere representation of particular road design standards is alone not sufficient to convey significance. A road will possess significance only if it represents its type and exhibits important design and/or construction features such as variation of road features, evolution or transition in road design and construction to distinguish itself from other roads of the same type or is a surviving example of a rare road type (see Table 2).

3.4.2 Work of a master

This consideration takes into account evidence of a master's (engineer, designer, fabricator, or builder) important work. A road recognized for its significance as the work of an engineering master needs to be representative of a particular phase of the master's career. Since roads largely display standardized design and construction methods, the influence of the work of a master is not expected to be demonstrated in Alaska's roads. No evidence was found through Roads Overview development to suggest application of this area of significance.

3.4.3 High artistic value

This consideration takes into account roads that were designed with an outstanding aesthetic treatment(s). Most roads are utilitarian, with little or no application of aesthetic treatments. In general, for a road to demonstrate aesthetic treatment it would have to follow an overall design aesthetic, likely applied by a landscape architect who integrated roadway siting with designed road-related features, such as walls or landscaping. The Roads Overview suggests that aesthetic treatments were not frequently applied to Alaska roads, with the possible exception of siting for roads such as the Denali (formerly Mt. McKinley) National Park Road.

Table 2. Evaluating historical significance under *Criterion C: Engineering*

Identifying two or more important engineering features
Most roads reflect patterns of features common to a particular road type under distinctive characteristics of a type, period, or method of construction (see Section 3.4.1). To possess significance a road must **also** reflect other important or distinctive design features and/or construction practices and the requirements under this criterion, or be a surviving example of a rare road type.

Patterns of features common to a particular road type.

AND

One or more distinctive characteristics of a type, period, or method of construction, which may include:

- ***Variation of features***
  This consideration takes into account variations in the application of road design principles and construction practices, such as choices in the use and availability of materials and technology. This may be expressed as innovative or complex engineering solutions employed to address unusual or challenging site conditions. Examples may include such features as segments of road that involved blasting rock for the construction of tunnels to traverse mountainous areas or constructing sections of super-elevated roadways to traverse coastal areas. For a road to possess significance under *Criterion C*, the solutions need to address issues that transcend the normal challenges of road building within the State. Roads that exhibit typical or modest variations of standards in highway design and construction would not possess National Register significance. This consideration also takes into account examples of rare road-building technology or features.

- ***Evolutions and transitions***
  This consideration takes into account the initial application of advances that had a long-standing impact on the field of road engineering and were experimental in nature or served as an important departure from typical design principles or practices of the time. This may be expressed in an innovative use of materials, progression of design principles, or development of technologies or building practices that transcend typical standards in highway design of the time. Examples may include early road segments improved to all-weather standards or departures in typical road design to accommodate permafrost.

Requirements:

- Exhibits evidence of engineering design and/or construction features that serve to distinguish it from other roads. Design or construction features must be demonstrated as important in road engineering or the road segment must be a surviving example of a rare road type.

To possess significance, roads require a specific historic context to understand how a road's engineering features relate to other roads and descriptions of the importance of the design or construction features in a statement of significance.

3.5 Engineering: Guidance on identifying significance

Criterion C applies to roads that reflect important design features and construction practices. Below is a summary of important themes from the Roads Overview that relate to *Engineering* under National Register *Criterion C*.[12]

Roads can convey advances in engineering through their application of design principles and methods of construction. For the most part, Alaskan roads in the early twentieth century were minimally designed. The simplest roads were built of earth, and crushed gravel surface was the most advanced surface type employed until after World War II. Asphalt surfacing did not appear until the late 1940s, and many low-volume Alaskan roads are still gravel surfaced. The road system was upgraded and standardized after World War II, at which time the use of state or federal standards became widespread.

Historic summary

Early roads built by the ARC in the early 1900s were classified as "wagon roads." These wagon roads were often the precedent for the modern transportation network. Construction of wagon roads typically consisted of clearing vegetation from the alignment, digging side ditches, shaping the soil into an embankment, and grading the earthen surface. Heavily travelled roads could have a cleared width of up to 30 feet with a single 16-foot travel lane; lower-traffic roads might be cleared to 24 feet with a single 12- or 13-foot travel lane, although this could be reduced further where necessary. Earthen wagon roads were typically one-lane wide with grades limited to a maximum of 10 percent and curvatures to a 100-foot radius. Automobile traffic, however, required higher-quality roads, and throughout the following decade the ARC began to upgrade roads accordingly by widening and gravelling. Beginning in 1922 the BPR was responsible for road construction operations in the National Forests in the Pacific coastal area.

By 1932 the Alaskan road system consisted of approximately 2,200 miles; less than one-quarter of which were graveled, and none were paved. During the 1920s and into the 1930s, a number of key routes were improved to all-weather standards. At the time, "all-weather" simply meant that the road remained passable in wet weather and would not turn to mud as an earth road would. All-weather roads typically had an improved gravel surface of either pit-run or crushed gravel and typically consisted of a 26-foot-wide roadway and prefabricated corrugated pipe culverts. These improvements progressed gradually, and as late as 1940 the ARC maintained that the use of concrete or asphalt-surfaced roads was "nowhere warranted in the present stage of development of the territory."[13]

A six-year road-building program initiated in 1949 by the ARC resulted in the reconstruction, widening, and paving of existing primary roads. These highways were reconstructed to federal standards, specifically American Association of State Highway Officials (AASHO, renamed the American Association of State Transportation Officials [AASHTO] in 1973) secondary standards that dictated minimum sight distance, maximum grade and curvature, and minimum roadway and surfacing dimensions based on

[12] The theme of engineering was prepared from the Roads Overview. See that document for complete citations. Citations are included here in cases of direct quotes. References to individual roads in the historic summary are for illustrative purposes only and these roads require evaluation to determine significance.

[13] Alaska Road Commission, 1940, 6.

anticipated traffic volume. At the same time, the ARC also developed its own standards for curve and grade (alignment) maximums, roadbed, and paving widths. The Roads Overview provides greater discussion and the standards are summarized in Tables 11 and 12 of the Roads Overview.

As the state grew and major highways were improved, motorists became accustomed to better roads and demanded improvements elsewhere. Road design and improvements in the 1960s and 1970s progressed at a steady pace reflecting improvements in design standards. As a result, rock was blasted where it impaired sight distance, roadways and shoulders were widened, surfaces were graveled or paved, and grades were raised and adjusted to improve drainage. Hazardous portions of major highways that still followed pioneer-era alignments were straightened and "two-lane curvy old [roads]" were replaced by wider, more modern roads.[14] Outside of urban areas, the width and surfacing standards for both primary and secondary roads were essentially the same, and design was dictated by traffic volume (see Table 13 in the Roads Overview for 1965 width standards). Where necessary, guardrail was included in the designs for improvement projects, and a centerline striping program was initiated in 1961. Shoulder striping was added beginning in 1966, and by 1968 all paved roads had both center and shoulder stripes.

Importantly, permafrost posed one of the greatest challenges for building roads in Alaska. During the early half of the twentieth century, permafrost required the use of what the ARC referred to as "stage construction." In this process, a new roadway was cleared and the ground stripped of its insulating mat of vegetation during one summer season, after which the permafrost was allowed to thaw. Beginning in the mid-1950s construction criteria discouraged stripping or any disturbance of the tundra. Wherever possible, roads were constructed atop the tundra. To solve the challenges of permafrost, departures from standard road design and construction practices resulted.

3.6 Defining level and period of significance

Assessing significance includes the identification of both the level and period of significance based on an understanding of the road's area(s) of significance. Information learned about the road while evaluating significance will assist in identifying the appropriate level and period of significance. Roads can derive significance from important historical associations or feats of engineering in national, state, or local history under *Criterion A* or *Criterion C*. For each area of significance, the appropriate level of significance (national, state, or local) should be identified based on the specific historic context and described in a statement of significance. For the purpose of this Roads Methodology, local significance is defined as relating to the significance of an individual community or specific region within the state. Under *Criterion A*, the period of significance in the area of *Transportation* will be concurrent with the period identified for the supplemental area of significance.

The National Register Bulletin *How to Complete the National Register Registration Form* states the period of significance is the "length of time when a property was associated with important events, activities, or person, or attained the characteristics which qualify it for National Register listing." The period of significance for a road may span many years to encompass its continued use and association with the

[14] State of Alaska, Department of Highways, 1968, 21; State of Alaska, Department of Highways, 1970, 52.

area of significance under *Criterion A*. Under *Criterion C: Engineering*, the period of significance for roads may be relatively short, as it relates to the road's date of construction. A road with more than one area of significance may have varied (overlapping or discontiguous) periods of significance representing the time associated with the events or characteristics of significance.

Generally, the National Register Criteria for Evaluation requires properties to have achieved significance at least 50 years ago. For the purpose of this Roads Methodology, *Criteria Consideration G* only needs to be addressed when applicable. For evaluation purposes, roads that will reach the 50-year threshold during the development and construction of a project do not need to meet *Criteria Consideration G*. Roads that achieve significance less than 50 years ago need to meet the requirements of *Criteria Consideration G*. Roads with a period of significance that is largely encompassed within the recent past (less than 50 years) have to demonstrate exceptional significance through the application of *Criteria Consideration G*. Roads with a period of significance that ends only a few years outside the 50-year period may not be required to have exceptional significance. For each area of significance, the appropriate period of significance should be identified based on the specific historic context and described in a statement of significance.

4. Assessing Historic Integrity (Step 3)

To be eligible for the National Register, a road must not only possess significance, but also retain historic integrity. According to the National Register guidance, historic integrity is "the ability of a property to convey its significance."[15] It is necessary to have a clear understanding of why and when a road was important to determine what the road's essential physical features are, and to understand which aspects of historic integrity are most important to convey its significance. For this reason, the identification of essential physical features will take into account features present during the period of significance along the entire road (or segments of road) that were identified as significant.[16] Assessing integrity is usually focused more narrowly on the segment of road within the APE. In assessing historic integrity, a road or segment of road with significance needs to convey the essential physical features and be of a distance long enough to provide a sense of time and place and travel experience related to the period(s) of significance. When a bypassed section that possesses significance is present in the APE, it may also retain integrity and should be assessed.

4.1 Identifying essential physical features

Essential physical features are those features that were present during the period of significance and are required to understand a road's significance.[17] According to the National Register guidance, "the essential physical features are those features that define both *why* a property is significant (Applicable Criteria and Areas of Significance) and *when* it was significant (Periods of Significance)."[18]

A road is a linear structure that consists of a roadbed and roadbed-related features. Each road will derive significance from a unique set of factors and will require evaluation on a case-by-case basis to determine which individual roadbed and roadbed-related features are essential to understand the significance under *Criterion A* and/or *Criterion C*. Identification of essential physical features should consider those features present during the period of significance for the entire length of road or road segment with significance.

For roads with historical significance under *Criterion A*, the essential physical features will often demonstrate their historic function of providing an important connection between two or more destinations related to the road's significance. Essential physical features that convey a road's historic function will typically include the number of travel lanes, the embankment, and the overall alignment that define the road corridor. For roads with historic significance under *Criterion C*, the essential physical features will typically demonstrate the important road design or construction related to engineering significance. Essential physical features that most often exhibit distinctive engineering will typically be the road's physical components including the embankment, surface material, and the grade and curvature of the

[15] U.S. Department of the Interior, National Park Service, *National Register Bulletin: How to Apply the National Register Criteria for Evaluation* (1991, rev), 44.

[16] The identification of essential physical features requires consideration beyond the APE when the road or road segment found to possess significance extends beyond the APE.

[17] Physical features not present during a road's period of significance cannot be essential physical features.

[18] U.S. Department of the Interior, National Park Service, *National Register Bulletin: How to Apply the National Register Criteria for Evaluation* (1991, rev), 46.

alignment, in addition to any important roadbed-related features. Roadbed and roadbed-related features determined not to be necessary in understanding a road's significance should not be identified as essential physical features.

The definitions of roadbed and roadbed-related features listed below do not directly reference current or past technical engineering terms and are intended for use in the application of the Roads Methodology in assessing National Register eligibility to promote a common terminology and consistency among the users of the Roads Methodology.[19]

Roadbed features may include:

- Travel lanes – a part of the road that is used for a single line of vehicles.
- Median strip – a grassy or paved area that divides a highway so that traffic going in one direction is kept separate from traffic going in the opposite direction.
- Shoulder – either edge of a roadway outside of the travel lanes.
- Embankment – a raised bank or bed of material built to carry travel lanes and shoulders or other roadbed-related features (e.g., sidewalks).
- Road surface – the material that comprises the uppermost layer of the travel lanes of a road.
- Alignment – the grade (vertical alignment) and curve (horizontal alignment) of the roadbed.

Roadbed-related features are integrated into or located immediately adjacent to the roadbed and may include:[20]

- Bridges, viaducts, and grade separations (overpasses or underpasses)
- Tunnels
- Retaining walls
- Intersections
- Interchanges
- Drainage features (culverts, gutters, drains, ditches, or dikes)
- Specially engineered features

[19] Since technical engineering terms have evolved over time, the use of current technical engineering terms may not reflect the historical application of these terms on road design or standards. As a result, definitions of the roadbed and roadbed-related features are provided to assist in creating a common terminology among transportation engineers, cultural resource professionals, and other users for use in the application of the Roads Methodology in assessing National Register eligibility.

[20] In some cases, road-related features may be individually significant for engineering in addition to contributing to the significance of a road.

- Traffic signals, signage, or mile markers
- Lighting
- Safety barriers (such as guard rails, curbs)
- Parking areas (such as on street parking areas immediately adjacent to the travel lanes)
- Landscaping
- Fences
- Overlooks and turnouts (connected to road)
- Weigh stations (connected to road)
- Sidewalks and paths

4.2 Aspects and determination of integrity

Historic integrity is comprised of seven aspects, which are outlined below and applied to segments of historic roads within the APE.[21]

- *Design* – The combination of elements that create the physical form and plan of a road from the period of significance. Among other things, a road's design encompasses its grade (vertical alignment) and curve (horizontal alignment).[22]

- *Materials* – The physical composition of the road from the period of significance.

- *Workmanship* – Elements that reflect physical evidence of the labor and skill of artisans or master craft persons from the period of significance. Due to standardization and the widespread use of mechanization in road construction, this aspect of historic integrity is rarely expected to apply to Alaska's roads.

- *Location* – The spatial location of the road from the period of significance.

- *Setting* – The elements in the environment that comprise the character of the surroundings of the road during the period of significance. The physical features that comprise the setting may vary along the length of a road.

- *Feeling* – Results from the presence of elements that evoke and express the historic character of the road during the period of significance.

- *Association* – The direct link between the road and its historic significance, demonstrated by the presence of sufficiently intact features that can convey this relationship to an observer.

[21] Adapted from U.S. Department of the Interior, National Park Service, *National Register Bulletin: How to Apply the National Register Criteria for Evaluation* (1991, rev), 44-45.

[22] The term design is defined here as an aspect of historic integrity and is not intended to be a technical engineering definition.

Assessing historic integrity requires linking the information known about the road's significance with its present appearance and assessing its ability to visually convey its significance. To assess historic integrity, generally only the segment of road within the APE needs to be considered.[23] The assessment of historic integrity for roads deriving significance under *Criterion A* will differ from the assessment for integrity under *Criterion C,* because the themes a road represents will vary. If a property is significant under both *Criteria A* and *C,* integrity should be assessed separately to determine if the road retains the essential physical features that were identified under the associated area of significance under each criterion.

If the essential physical features of the road are present, the road segment being evaluated must also demonstrate most if not all of the aspects of integrity vital to conveying the road's significance and historic identity. According to National Register guidance, "It is not necessary for a property to retain all its historic physical features or characteristics. The property must retain, however, the essential physical features that enable it to convey its historic identity."[24] Road segments that do not exhibit the essential physical features of the overall road cannot convey significance and are not eligible. Guidance on the identification and consideration of the seven aspects of integrity related to *Criteria A* and *C* is provided below.

When considering integrity, alterations or changes to the road should be identified and determined if they occurred within the road's period(s) of significance as defined for the area of significance being assessed. The assessment needs to determine if the changes impact essential physical features and the degree the changes diminish the aspects of integrity. The size and scale of the change needs to be considered to determine if the change is severe enough to diminish particular aspects of integrity important to the significance. Alterations or changes made within the period of significance and outside the period of significance should be considered. Not all alterations, including those to essential physical features, will diminish a road's historic integrity to the degree that it can no longer convey significance. In addition to assessing individual changes the cumulative effect of multiple changes to a variety of road features, including essential physical features, may collectively diminish important aspects of historic integrity and hinder a road's ability to convey significance. If there is a loss of the essential physical features and a loss of integrity to the level that the historic identity can no longer be conveyed, then the road no longer retains integrity and is not eligible. Roads deriving significance from more than one area of significance may have separate periods of significance (overlapping or discontiguous) that need to be considered separately for integrity.

Typical alterations to a road that may result in changes to one or more essential physical features and impact historic integrity include:

[23] In rare situations, portions of roads outside the APE may need to be reviewed for integrity, such as examples of specially engineered structural features for comparative purposes for establishing historic integrity thresholds.

[24] U.S. Department of the Interior, National Park Service, *National Register Bulletin: How to Apply the National Register Criteria for Evaluation* (1991, rev), 46.

- Widening of roadbed, including addition of travel lanes, addition/change in shoulders, median strip, and embankment.

- Realignment or straightening or changes to grade, curvature, or alignment.

- New surface material (changes to road surface can range from an alteration in road surface type [e.g., gravel to hard pavement] or in-kind replacement due to reconditioning or replacement).

- Replacement, addition, or change of roadbed-related features such as bridges and culverts.

If a road segment retains essential physical features that enable it to convey its significance, then the road segment should be considered eligible. If the road does not retain essential physical features to the degree necessary to convey its historic significance, then the segment does not retain integrity and therefore is not eligible.

As noted above, the aspects of integrity needed to convey significance are expected to vary for *Criterion A* and *Criterion C* because the reason for significance will be different. Guidance for each criteria is provided below on the identification of the most important aspects of integrity and the consideration of alterations to assess integrity.

4.3 Assessing historic integrity – *Criterion A*

Criterion A relates to the significance of a road gained through its historical associations, which is often demonstrated by the connection it provided. As previously described, travel lanes, the embankment, and overall alignment are typically essential physical features of the roadbed needed to convey the important connection a road provides and its significance under *Criterion A*.

Location, design, and association are typically the most important aspects of historic integrity in conveying a road's historical association. As a result, retention of these are typically required for a road to be eligible under *Criterion A*. The other aspects of integrity are also important under *Criterion A* and most should be retained to convey significance. Table 3 below lists the relative importance of each aspect of integrity.

Table 3. Relevant aspects of historic integrity under *Criterion A*

Aspect of historic integrity	Importance under *Criterion A*
Design	Most important to convey significance – should be recognizable from the period of significance
Materials	Least important to convey significance – if present will assist in conveying significance
Workmanship	Least important to convey significance – if present will assist in conveying significance
Location	Most important to convey significance – should be recognizable from the period of significance
Setting	Important to convey significance – should be recognizable and be retained together with other aspects to convey significance
Feeling	Important to convey significance – should be recognizable and be retained together with other aspects to convey significance
Association	Most important to convey significance – should be recognizable from the period of significance

This guidance generally applies to roads with significance under *Criterion A*; however, the assessment of integrity needs to consider the particular area of significance and essential physical features for each road and will vary for each road depending on the type of changes. Alterations need to be assessed on a case-by-case and cumulative basis to determine the overall impact of these changes on the road's historic integrity and if they obscure or detract from the ability of the road to convey its historic identity. Table 4 provides guidance on the assessment of integrity for a road under *Criterion A*.

Table 4. Examples of existing alterations that may affect assessment of historic integrity under *Criterion A*

Examples of typical alterations (existing)	Assessment of historic integrity
Realignment of portions of a roadbed outside the period of significance	Realignment might have resulted in changes to essential physical features of the current roadbed, such as travel lanes, embankment and alignment, and roadbed-related features. Changes of sufficient scale might have resulted in a loss of one or more aspects of integrity, such as design, location, association, feeling and setting. Realignment may also have resulted in bypassed sections that may retain essential physical features that were present during the period of significance. Such bypassed segments may retain aspects of integrity such as design, location, setting, feeling, and association. If the essential physical features and other road features were altered to the degree that they cannot convey significance, then the road may no longer retain aspects of historic integrity typically most important for roads significant under *Criterion A*. A note on integrity of association: The alignment from the period of significance indicates the specific place associated with the road's significance. If realignment has severed the important connection a road historically provided, then the current realigned roadbed may no longer retain integrity of association. However, bypassed sections of road may still retain integrity of association if they retain alignment and other sufficiently intact essential roadbed features from the period of significance.

Table 4. Examples of existing alterations that may affect assessment of historic integrity under *Criterion A*

Examples of typical alterations (existing)	Assessment of historic integrity
	Widening might have resulted in changes to essential physical features, such as travel lanes, median strip, shoulder, embankment, and road surface. If the essential physical features and other road features were altered to the degree that they cannot convey significance, then the road may no longer retain aspects of historic integrity typically most important for roads significant under *Criterion A*, such as design, location, and association.
Widening portions of a roadbed outside the period of significance	Widening might not always result in a loss of integrity. For example, a small amount of widening (e.g., 5-10 feet) may not have had an impact on essential physical features such as travel lanes, embankment, or shoulder to the degree that the road can no longer convey its historic identity under *Criterion A*. As such, important aspects of historic integrity such as association, location, feeling, and design may be retained. In other cases, widening that impacts the essential physical feature of travel lanes by doubling the number of travel lanes, might have occurred to a degree that the road can no longer convey its historic identity under *Criterion A* since important aspects of historic integrity could be diminished, such as design, feeling, and setting.
Resurfacing of road outside the period of significance	In-kind replacement of the road surface, such as replacing asphalt with asphalt, is a common change associated with this property type and will typically not result in a loss of integrity of most important aspects of integrity under *Criterion A*, such as design, location, and association. Resurfacing resulting in a new surface type (e.g., from gravel to asphalt) might have resulted in a change to the essential physical feature of road surface under *Criterion A*. This change may diminish integrity of design and materials. Materials is typically not an important aspect of integrity under *Criterion A*. Design is an important aspect, but since it is also conveyed through the essential physical features of embankment, alignment, and number of travel lanes, a change in road surface when taken alone does not generally result in a loss of integrity of design. An existing alteration to surface type will not cause an overall loss of integrity under *Criterion A* if other essential physical features are present to a degree that can demonstrate the importance of a road's historical association and connection through retention of aspects of integrity of design, association, location, and setting.
Replacement of culverts and bridges outside of the period of significance	Replacement of roadbed-related features alone is not typically expected to have diminished a road's ability to convey significance under *Criterion A*. The retention of other essential features of the road such as embankment, alignment, and the number of travel lanes will typically better demonstrate the importance of a road's historical association and connection under *Criterion A*. However, replacement of roadbed-related features such as bridges and culverts needs to be considered in addition to other changes to determine the overall impact of alterations on aspects of historic integrity most important under *Criterion A*, including design, materials, setting and feeling.

4.4 Assessing historic integrity – *Criterion C*

Criterion C relates to the significance of a road gained through its important road engineering, which is demonstrated by its design and construction. As previously described, travel lanes, the embankment, curvature and grade of the alignment, and road surface are typically essential physical features of the roadbed needed to convey the important engineering and its significance under *Criterion C*.

Design, materials, and location are typically the most important aspects of historic integrity in conveying a road's historical association. As a result, retention of these are typically required for a road to be eligible under *Criterion C*. The other aspects of integrity also important under *Criterion C* and most should be retained to convey significance. Table 5 below lists the relative importance of each aspect of integrity.

Table 5. Relevant aspects of historic integrity under *Criterion C*

Aspect of historic integrity	**Importance under *Criterion C***
Design	Most important to convey significance – should be recognizable from the period of significance
Materials	Most important to convey significance – should be recognizable from the period of significance
Workmanship	If applicable, may be important to convey significance – should be recognizable and be retained together with other aspects to convey significance
Location	Most important to convey significance – should be recognizable from the period of significance
Setting	Least important to convey significance – if present will assist in conveying significance
Feeling	Least important to convey significance – if present will assist in conveying significance
Association	Least important to convey significance – If present will assist in conveying significance.

This guidance generally applies to roads with significance under *Criterion C*; however, the assessment of integrity needs to consider the nature of the engineering significance and essential physical features for each road and will vary for each road depending on the type of changes. Alterations need to be assessed on a case-by-case basis to determine the overall impact of this change on the road's historic integrity and if it obscures or detracts from the ability of the road to convey its historic identity. Table 6 provides guidance on the assessment of integrity for a road under *Criterion C*.

Table 6. Examples of existing alterations that may affect assessment of historic integrity under *Criterion C*

Examples of typical alterations (existing)	Assessment of historic integrity
Realignment of portions of a roadbed outside the period of significance	Realignment might have resulted in changes to essential physical features of the current roadbed, such as the number of travel lanes, embankment, the curvature and grade of the alignment, and road surface, which are likely important for a road with engineering significance. Changes of sufficient scale might have resulted in a loss of one or more important aspects of integrity, such as design, location, and materials. Realignment may also have resulted in bypassed sections that may retain essential physical features that were present during the period of significance. Such bypassed segments may retain aspects of integrity such as design, location, and materials. If the changes result in the loss of essential physical features, and other elements of the roadbed and other road-related features were altered to the degree that they cannot convey significance, then the road may no longer retain aspects of historic integrity typically most important for roads significant under *Criterion C*.
Widening portions of a roadbed outside the period of significance	Widening (increase in width or number of travel lanes) might have resulted in a change to essential physical features, such as travel lanes, median strip, shoulder, embankment, and the road surface, which are likely important for a road with engineering significance. If the changes result in the loss of essential physical features of the roadbed and roadbed-related features were altered to the degree that they cannot convey significance, then the road may no longer retain aspects of historic integrity typically most important for roads significant under *Criterion C*, such as design, location, and materials.
Resurfacing of road outside the period of significance	In-kind replacement of the road surface, such as replacing asphalt with asphalt, is a common change associated with this property type. In-kind replacement might have diminished integrity of materials and design under *Criterion C* but taken alone does not generally result in a loss of these aspects of integrity. Resurfacing resulting in a new surface type (e.g., from gravel to asphalt) might have resulted in a change to the essential physical feature of road surface under *Criterion C*. This change will diminish important aspects of integrity of design and materials and may result in the loss of integrity.
Replacement of culverts and bridges outside of the period of significance	Replacement of roadbed-related features alone will typically not cause an overall loss of integrity and a road's ability to convey significance under *Criterion C* if they are not identified as essential physical features. Roadbed-related features can be important to convey the historic identity of a road and can contribute to its significance. The impact of previous replacement of roadbed-related features such as bridges and culverts needs to be considered in addition to other changes to determine the overall impact of alterations on aspects of historic integrity most important under *Criterion C*, including design, location, and materials.

THIS PAGE INTENTIONALLY LEFT BLANK

5. Assigning National Register Eligibility (Step 4)

Road segments that possess significance and retain integrity are eligible for listing in the National Register. To complete a DOE, the historic boundary for each eligible road segment should be defined to account for the physical location and extent of the property. *National Register Bulletin: Defining Boundaries for National Register Properties* provides guidance on the identification of a boundary that is appropriate for the resource and its area of significance. Justification of a historic boundary for a road commonly includes a beginning and ending point (termini) and extends horizontally and vertically to include the essential physical features from the period of significance. Historic boundaries may not coincide with current right-of-way boundaries. Eligibility determinations should be submitted for SHPO concurrence using the appropriate DOT&PF procedures and following the current edition of the Alaska Office of History and Archaeology *Standards and Guidelines for Investigating and Reporting Archaeological and Historic Properties in Alaska*.

THIS PAGE INTENTIONALLY LEFT BLANK

Appendix A. Interstate Highway System Section 106 Exemption Route List within Alaska

THIS PAGE INTENTIONALLY LEFT BLANK

Appendix A. Interstate Highway System Section 106 Exemption Route List within Alaska

Certain routes in Alaska have been designated as Interstate Highway System (IHS) roads (see table below). Federal agencies are exempt from the Section 106 (National Historic Preservation Act) requirement of taking into account the effects of their undertakings on components of the IHS (Federal Register, March 10, 2005). Similarly, Sec 6007 of The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) exempts most components of the IHS from Section 4(f) of the Department of Transportation Act requirements. Federal agencies remain responsible for considering the effects of undertakings on other historic properties that are not components of the IHS (e.g., adjacent historic properties or archaeological sites that may lie within undisturbed areas of the right of way) in accordance with Section 106 regulations.

Route Description	Highway Mileposts[25]	CDS Milepoints[26]	Termini Names
Alaska Highway	MP 1222-1421	0.0-197.6	Alaska/Canada Border to Richardson Highway
Gambell Street (Anchorage)	---	0.1-1.2	5th Avenue to Seward Highway
Glenn Highway	MP 0-189	0.0-180.2	Mountain View Drive (Anchorage) to Richardson Highway
Ingra Street (Anchorage)	---	0.0-1.1	Seward Highway to 5th Avenue
Parks Highway	MP 36-355	0.0-323.7	Glenn Highway to Richardson Highway southbound ramp and Parks Highway westbound ramp (Fairbanks)
Richardson Highway	MP 115-128	117.6-131.6	Glenn Highway to Tok Cutoff Highway
Richardson Highway	MP 265-357	268.7-361.9	Alaska Highway to Parks Highway eastbound ramp and Richardson Highway northbound ramp (Fairbanks)
Seward Highway	MP 37-124	36.5-125.3	Sterling Highway to Ingra Street (Anchorage)
Sterling Highway	MP 37-92	0.0-57.2	Seward Highway to Kenai Spur Highway (Soldotna)
Tok Cutoff Highway	MP 0-124	0.0-122.4	Richardson Highway to Alaska Highway
5th Avenue (Anchorage)	---	0.0-1.5	Mountain View Drive to Gambell Street
6th Avenue (Anchorage)	---	1.1-1.6	Gambell Street to 5th Avenue

[25] Milepost list does not include urban interstate portions of the route. See the Coordinated Data System (CDS) Milepoints list for the inclusive data.

[26] The Alaska DOT&PF identifies roads with CDS Route numbers and corresponding Milepoints for route features.

Interstate Highway System Section 106 Exclusions within Alaska (in effect December 19, 2006)
Bridges identified as nationally and exceptionally significant IHS features within Alaska are excluded from the IHS exemptions, and are considered as historic properties under the provisions of Section 106 and Section 4(f). They are presented below.[27]

Historic Property	Highway Milepost	Area of Significance	National Register Eligibility
Tok River Bridge[28]	Alaska Highway MP 1309	WWII Military History & Engineering, A & C	Determined eligible 2/15/13
Robertson River Bridge	Alaska Highway MP 1347	WWII Military History & Engineering, A & C	No determination
Johnson River Bridge	Alaska Highway MP 1380	WWII Military History & Engineering, A & C	No determination
Black Veterans Memorial Bridge (Big Gerstle River Bridge)	Alaska Highway MP 1393	WWII Military History & Engineering, A & C	No determination

[27] A World War II-era Tanana River Bridge at Alaska Highway MP 1303 was also included on the original December 19, 2006, exclusions list, but is no longer extant.

[28] The Tok River Bridge Replacement project is currently being developed and is scheduled for 2016 construction.

Appendix B. Screening Process Worksheet (Example)

THIS PAGE INTENTIONALLY LEFT BLANK

Appendix B. Screening Process Worksheet (Example)

(See Section 2: Screening Process of *Alaska Roads: Methodology for Assessing National Register of Historic Places Eligibility,* December 2014)

Road name, location, and length		**Apply Filter 1 – Connectivity**			**Apply Filter 2 – Age**		**Apply Filter 3 – Consultation[29]**	**Assign Screening Category**	**Provide summary of information learned through readily available sources**
Name and location (Beginning and end points of the segment requested for screening) Identify how the segment requested for screening relates to overall road, if applicable.	Length of road in miles	Provided national, state, or important regional access? If yes, characterize access and continue to Filter 2. If no, continue to next column.	Exhibits characteristics of roads with low potential for individual significance? If yes, characterize and continue to next column. If no, characterize and continue to Filter 2.	Is there additional information to suggest the road, individually, has possible significance? If yes, provide rationale and continue to Filter 2. If no, then continue to Filter 3.	Is the road at least 45 years in age or older? If yes or unknown, assign to Category 2. If no, continue to next column.	Is there information to suggest the road has the potential to meet *Criterion Consideration G*? If no, then continue to Filter 3. If yes, provide rationale and assign to *Category 2*.	Is there information provided during consultation to suggest potential individual historical importance? If yes, provide rationale and assign to *Category 2*. If no, then assign *Category 1*.	*Category 1: Low potential for individual significance, considered not eligible*. or *Category 2: Potential individual significance, further consideration needed to determine eligibility*	
McCarthy Road (End Edgerton Highway (end pavement, Chitina) to Kennicott River tram) This road is co-signed with the Edgerton Highway in the CDS. However, only the portion known as McCarthy Road was subject to this screening review, not the entire route of the Edgerton Highway.	58.074	No	No - Provides access to abandoned Kennecott mines and the former mining communities of Kennecott, McCarthy, and Blackburn.	Not applicable	Yes	Not applicable	Results of consultation unknown.	Category 2	Beginning in the early 1960s an abandoned rail line from Chitina to McCarthy was improved to provide vehicular access to the abandoned Kennecott mines and communities along the route - see section 3.7.1.5, *Roads to resources* of the *Alaska Roads Historic Overview: Applied Historic Context of Alaska's Roads*, February 2014 (Roads Overview).
Basin Road (Jct of East Street/6th Street, Juneau to Perseverance Trail)	1.182	No	Yes - Road provided routine access to common types of destinations and services.	Yes - Early wagon road associated with mining activities.	Yes	Not applicable	Results of consultation unknown.	Category 2	Also known as Johnson Road and Silver Bow Basin Road, prospectors established Basin road in 1882 to access claims on Gold Creek; in 1885 the Johnson Mill and Gold Mining Company made improvements to this road before the ARC assumed ownership in 1915 as an early wagon road - see section 3.2.2, *Gold rushes and development of early transportation routes (1886 – 1904)* of the Roads Overview.

[29] Consultation was generally not completed during the application of the Screening Process for these roads. When consultation was not completed, "Results of consultation unknown" appears in Filter 3 and Category 1 or Category 2 was selected based on the results of Filter 1 and Filter 2. In a project review scenario, consultation would typically occur during the Section 106 process.

Road name, location, and length		**Apply Filter 1 – Connectivity**			**Apply Filter 2 – Age**		**Apply Filter 3 – Consultation[29]**	**Assign Screening Category**	**Provide summary of information learned through readily available sources**
Name and location (Beginning and end points of the segment requested for screening) Identify how the segment requested for screening relates to overall road, if applicable.	Length of road in miles	Provided national, state, or important regional access? If yes, characterize access and continue to Filter 2. If no, continue to next column.	Exhibits characteristics of roads with low potential for individual significance? If yes, characterize and continue to next column. If no, characterize and continue to Filter 2.	Is there additional information to suggest the road, individually, has possible significance? If yes, provide rationale and continue to Filter 2. If no, then continue to Filter 3.	Is the road at least 45 years in age or older? If yes or unknown, assign to Category 2. If no, continue to next column.	Is there information to suggest the road has the potential to meet *Criterion Consideration G*? If no, then continue to Filter 3. If yes, provide rationale and assign to *Category 2*.	Is there information provided during consultation to suggest potential individual historical importance? If yes, provide rationale and assign to *Category 2*. If no, then assign *Category 1*.	*Category 1: Low potential for individual significance, considered not eligible*. or *Category 2: Potential individual significance, further consideration needed to determine eligibility*	
Nabesna Road (Jct with Tok Cutoff Highway to road end) This road appears to have formed a portion of the Gulkana to Nabesna Road, which extended for 107 miles before being modified by the construction of Tok Cutoff. The entire length of the route as constructed was considered during screening for this reason.	41.096	Yes - Originally constructed as part of the Gulkana to Nabesna Road, it provided important regional access between Nabesna and Gulkana.	Not applicable	Not applicable	Yes	Not applicable	Results of consultation unknown.	Category 2	Improvement to vehicular road began in the mid-1930s; the Gulkana to Nabesna Road provided access to the Nabesna mining region north of the Wrangell Mountains - see 3.4.1, *ARC and BPR efforts during the 1930s* of the Roads Overview.
Pioneer Avenue, Homer (East End Road to Sterling Highway)	0.988	No	Yes - Road provided routine access to common types of destinations and services.	No	Not applicable	Not applicable	Results of consultation unknown.	Category 1	Road is shown on the 1946 USGS map. Provided local access within the community of Homer.
Klondike Highway, Skagway (Alaska Street to Canadian border) The Klondike Highway extends for over 400 miles within the United States and Canada. The entire length of the highway was considered during screening to account for overall connectivity.	13.174	Yes - Provided international access between Canada and Alaska.	Not applicable	Not applicable	No	Yes - Important international road development and connection.	Results of consultation unknown.	Category 2	Beginning in 1973, one of the larger state-led road building efforts included the construction of the Klondike Highway, an all-weather road through the Skagway River valley, from Skagway to the Canadian border to provide access to mineral resources and then over 400 miles before ending at Dawson City, Canada. The Klondike Highway opened to travelers in 1978. Earlier roads that may have become part of the Klondike Highway were not considered for screening because they pre-date the development of the overall route of the highway[30] - see section 3.7.1.5, *Roads to resources* of the Roads Overview.
Sterling Landing/Takotna/Ophir Road (Ophir to end)	44.42	No	Yes - Road provided routine access to common types of destinations and services.	No	Not applicable	Not applicable	Yes – This road was identified for consideration by the Takotna Community Association (8/20/11).	Category 2	Information provided suggests this road has an association with c.1910 mining activities.

[30] See Frank Norris, "Skagway, the White Pass Railroad, and the Struggle to Build the Klondike Highway," *Alaska History* 15:1 (Spring 2000), for additional information on the development of this highway.