

# Alaska Department of Transportation & Public Facilities


## DOE Methodology for Roads


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Our mission is to *Keep Alaska Moving* through service and infrastructure.

# DOE Methodology for Roads

[Section 106 Programmatic Agreement](#)  Effective February 23, 2019

[Section 106 PA Body](#) 

[Section 106 PA Appendix A -- Acronyms](#) 


[Section 106 PA Appendix B -- Programmatic Allowances](#) 


[Section 106 PA Appendix C -- Screening Forms](#)

- [Appendix C.1 -- Screening Form, New Projects](#) 
- [Appendix C.1 -- Screening Form, Project Updates](#) 

[Section 106 PA Appendix D -- Delegated Section 106 Process](#) 

[Section 106 PA Appendix E -- Cultural Resources Qualifications Training](#) 

[Section 106 PA Appendix F -- Arch Monitor Discovery](#) 

[Section 106 PA Appendix G -- Standard Specs Section 107](#) 

[Section 106 PA Appendix H -- Human Remains](#) 

[Section 106 PA Appendix I -- Amendment Log](#) 

[Section 106 PA Appendix J -- Historic Roads Consideration for Standard Consultation Projects, Use After Feb. 23, 2019](#)

<http://www.dot.state.ak.us/stwddes/desenviron/resources/historicproperties.shtml>



# Alaska Roads

## Methodology for Assessing National Register of Historic Places Eligibility

Prepared for

### Alaska Department of Transportation and Public Facilities

December 2014

## Table of Contents

	Page
<b>1. Introduction and Applicability .....</b>	<b>1</b>
1.1 Overview of Roads Methodology (Steps 1-4).....	1
1.2 Relationship to the Roads Overview .....	4
<b>2. Screening Process (Step 1) .....</b>	<b>7</b>
2.1 Filter 1: Connectivity .....	9
2.2 Filter 2: Age .....	9
2.3 Filter 3: Consultation.....	10
<b>3. Evaluating Significance (Step 2) .....</b>	<b>11</b>
3.1 Criteria for evaluation .....	11
3.2 Application of <i>Criterion A</i> to roads.....	12
3.3 Areas of significance under <i>Criterion A</i> .....	13
3.3.1 Transportation: Guidance on identifying significance ....	13
3.3.2 Agriculture: Guidance on identifying significance .....	15
3.3.3 Community Planning and Development: Guidance on identifying significance .....	16
3.3.4 Entertainment/Recreation and Conservation: Guidance on identifying significance.....	17
3.3.5 Exploration/Settlement: Guidance on identifying significance.....	19
3.3.6 Industry: Guidance on identifying significance.....	19
3.3.7 Military: Guidance on identifying significance .....	20
3.3.8 Politics/Government: Guidance on identifying significance.....	21
3.4 Application of <i>Criterion C</i> to roads.....	22
3.4.1 Distinctive characteristics of a type, period, or method of construction.....	22
3.4.2 Work of a master.....	22
3.4.3 High artistic value.....	22
3.5 Engineering: Guidance on identifying significance.....	24
3.6 Defining level and period of significance .....	25
<b>4. Assessing Historic Integrity (Step 3) .....</b>	<b>27</b>
4.1 Identifying essential physical features .....	27
4.2 Aspects and determination of integrity .....	29
4.3 Assessing historic integrity – <i>Criterion A</i> .....	31
4.4 Assessing historic integrity – <i>Criterion C</i> .....	34
<b>5. Assigning National Register Eligibility (Step 4).....</b>	<b>37</b>



# DOE Methodology

The Methodology outlines a sequential, 4-step process for determining eligibility of roads

## Step 1: Screening

The road is screened via filters and denoted as Category 1 or 2.

Category 2 roads continue for further consideration.

## Step 2: Significance

Review of significance under National Register criteria, per Methodology guidance. Research includes entire road.

**IF not significant, advance to Step 4**

## Step 3: Integrity

**IF the road is found significant, then** identify essential physical features and assess integrity via field survey, as applicable to the project.

## Step 4: Finalize DOE

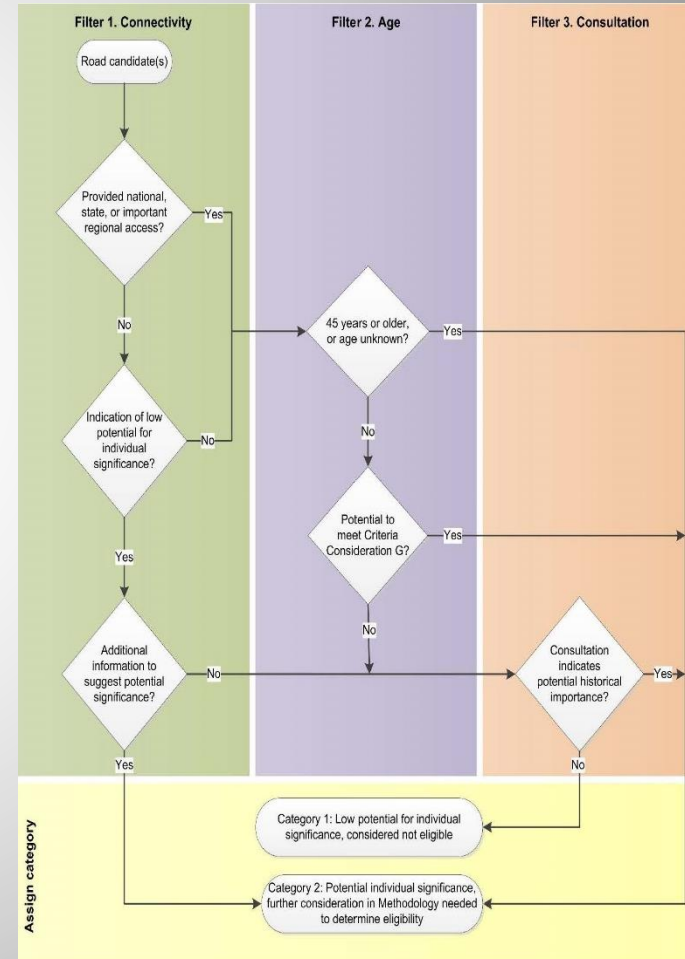
Final determination is made by the agency (DOT&PF) and sent to SHPO for concurrence



# Methodology Steps

## Step 1: Screening Process

- Designed to focus time and energy and avoid creating lengthy DOEs for commonplace roads.
- Road examined through three filters:
  - Connectivity: did the road provide important national, state, or regional connections?
  - Age: is the road 45 years or older, or likely to possess exceptional significance under *Criteria Consideration G*?
  - Consultation: does input from the public and consulting parties indicate the road should be considered further?
- Screening process “utilizes readily available information, such as the Roads Overview, maps, and road data” (page 7)





# Screening Process

## Filter 1: Connectivity

These are categories of roads identified with low potential for significance:

- 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.

*(Methodology page 9)*



# Screening Process

## Screening Results

- Category 1, Not Eligible
- Category 2, advance to next step for further consideration of eligibility

*The next slides continue with  
Category 2 roads and formal DOEs*



# Evaluating Significance

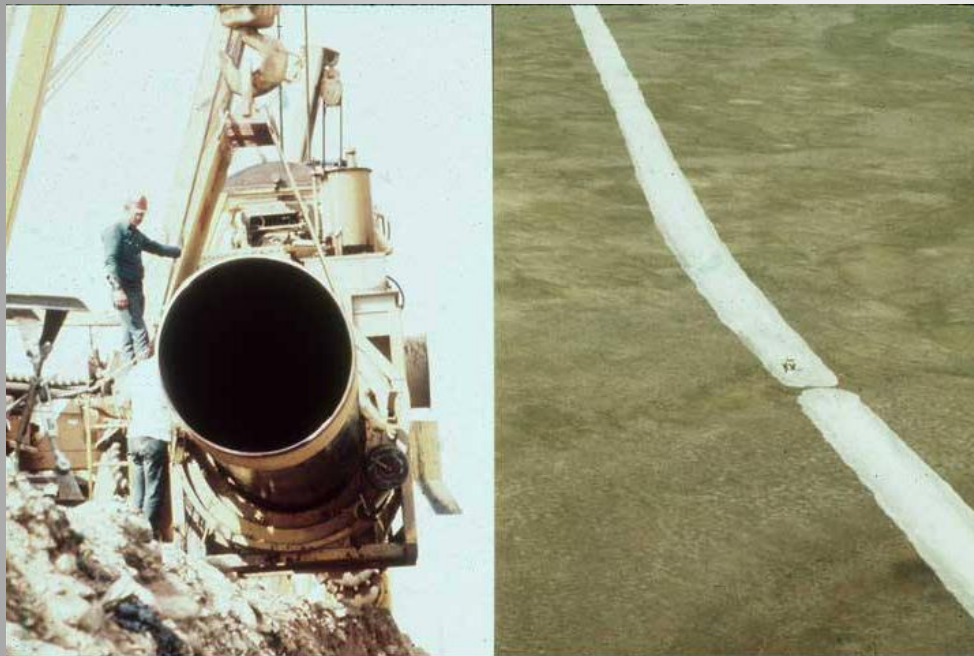
## Step 2: Evaluating Significance

- When evaluating significance general practice is to consider the entire road (can later focus on discrete segments for integrity assessments)
  - *Note: research may indicate a road has historically differentiated segments-- this is ok*
- Roads are most likely to meet the National Register criteria A (significant events) or C (engineering merit). The Methodology focuses on these.
- Association must be direct and important—no *mere* association will suffice!





# Evaluating Significance



- “Rule of Two”
  - *Criterion A*: all roads are associated with transportation, so must demonstrate significance in an additional area

The Dalton Highway was significantly associated with the development of North Slope oil fields and the Trans-Alaska Pipeline, meeting the threshold via direct association with an important statewide industry, providing a critical link that led to an important phase in industry operations.



# Evaluating Significance

One or more supplemental areas of significance:

- Agriculture
- Community Planning and Development
- Entertainment/Recreation/Conservation
- Industry
- Military
- Politics/Government

for  
Criterion A

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

*Methodology, beginning on page 13*



# Evaluating Significance

for Example...

## 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.

*Page 20 of the Methodology*



# Evaluating Significance

- Rule of Two
  - *Criterion C*: must do more than reflecting features common to its type; must reflect other important design features or practices



The design of Skyline Drive, in the Blue Ridge Mountains of Virginia, embodies the principles and traditions of naturalistic landscape architecture as exhibited in the parkway movement of the early 20<sup>th</sup> century

# Evaluating Significance

*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 or construction may not be eligible for Register significance. This consideration focuses on unique design or construction technology or features.

- **Evolutions and transitions**

This consideration takes into account design or construction practices that had a lasting 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.

Section 3.5 provides guidance on identifying Engineering significance

*Methodology, beginning on page 23*



# Evaluating Significance

- If road does not meet the threshold for significance, skip Step 3 (integrity) and finalize DOE of **Not Eligible**
- If road is found *significant*, be sure to
  - Define level of significance (local, regional, state, national)
  - Define period of significance



# Assessing Integrity

## Step 3: Assessing Integrity



Essential Physical Features (EPFs):

Present during the period of significance, and necessary to physically convey that significance

*Identify the EPFs for roads which pass the threshold for significance.*

# Assessing Integrity

Some features would not reach the level of being key to conveying significance

- Case by case decision based on identified significance



# Assessing Integrity

- Integrity assessment focuses on the essential features of the particular road
  - Ancillary features, by definition, are not necessary to represent the road's significance
- Field survey occurs at this stage. It is not needed for roads which have not met the significance threshold.
- Guidance provided in Sec 4





# Assessing Integrity

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

Aspect of historic integrity	Importance under <i>Criterion A</i>
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

*Methodology  
page 32*

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

Aspect of historic integrity	Importance under <i>Criterion C</i>
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.

*Methodology  
page 34*

# Assessing Integrity

The Methodology includes details on how to analyze existing alterations when assessing historic integrity, under Criteria A and C

Section 4

Assessing Historic Integrity (Step 3)

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 <i>Criterion A</i> , 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 <i>Criterion A</i> . As such, important aspects of historic integrity such as association, location, feeling, and design may be retained.

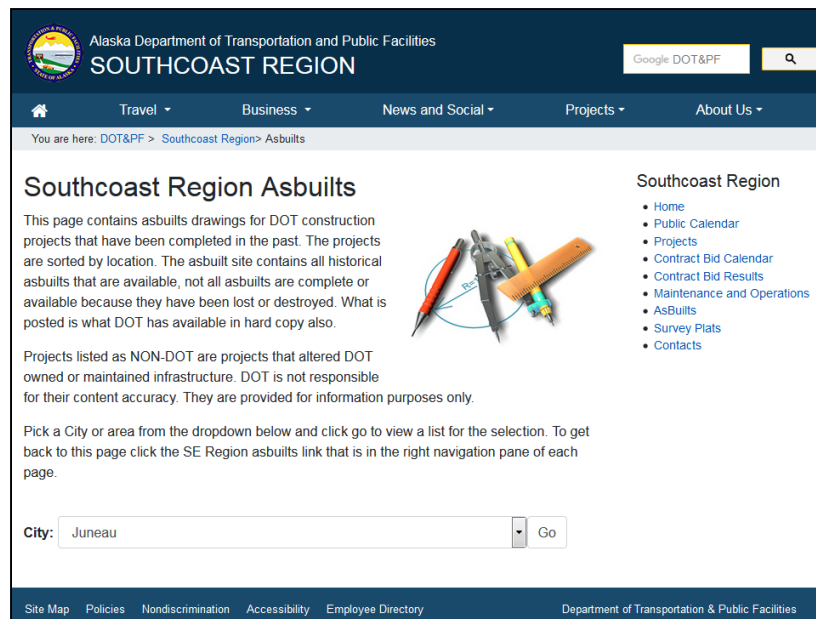
Methodology page 33

# Assessing Integrity

## Keep the Period of Significance in mind

Focus on alterations or changes which occurred after the road's period(s) of significance.

*DOT&PF has numerous as-built records for projects constructed post-statehood, which can assist in dating alterations.*



The screenshot shows the website for the Alaska Department of Transportation and Public Facilities (DOT&PF), specifically the Southcoast Region Asbuilts page. The page features a dark blue header with the DOT&PF logo and the text "Alaska Department of Transportation and Public Facilities SOUTHCOAST REGION". A search bar is located in the top right corner. Below the header, there is a navigation menu with links for "Travel", "Business", "News and Social", "Projects", and "About Us". The main content area is titled "Southcoast Region Asbuilts" and contains the following text:

This page contains asbuilts drawings for DOT construction projects that have been completed in the past. The projects are sorted by location. The asbuilt site contains all historical asbuilts that are available, not all asbuilts are complete or available because they have been lost or destroyed. What is posted is what DOT has available in hard copy also.

Projects listed as NON-DOT are projects that altered DOT owned or maintained infrastructure. DOT is not responsible for their content accuracy. They are provided for information purposes only.

Pick a City or area from the dropdown below and click go to view a list for the selection. To get back to this page click the SE Region asbuilts link that is in the right navigation pane of each page.

City:

On the right side of the page, there is a "Southcoast Region" navigation menu with the following links:

- Home
- Public Calendar
- Projects
- Contract Bid Calendar
- Contract Bid Results
- Maintenance and Operations
- ASBuilts
- Survey Plats
- Contacts

At the bottom of the page, there is a footer with links for "Site Map", "Policies", "Nondiscrimination", "Accessibility", "Employee Directory", and "Department of Transportation & Public Facilities".



# Assessing Integrity



*South Tongass Hwy segment, Ketchikan. EPFs were: two lane narrow shoulder configuration, with embankment and alignment closely following surrounding topography. Recommended as retaining integrity (of design, location, association, feeling and setting.)*



*Edgerton Hwy Segment A2, illustrating altered embankment and alignment. Segment widened, with vertical and horizontal realignments to straighten curves and smooth out grade. Alterations resulted in loss of integrity of design, location, setting, and feeling.*

# Completion of DOE

## Step 4: Finalizing DOE

With Step 4, the Methodology process is completed and a road is determined to be either eligible or not eligible; at this point DOT&PF submits results to SHPO with a request for concurrence.

*Be sure to include specific boundaries for eligible roads.*





# Pilot DOE: Elliott Hwy



*Keep Alaska Moving* through service and infrastructure



# Varying History & Segments

- Segments had different development histories
- Segments A, B, and D met Rule of Two for significance under Criterion A for demonstrated, important association with mining



# Elliott Hwy POS and EPFs

Segment	Period(s) of Significance	Feature
A	1911-1938	<ul style="list-style-type: none"> <li>• Single lane</li> <li>• Low embankment with no shoulder</li> <li>• Pre-1938 alignment that connected Fox station, Dome City, and Olnes</li> </ul>
A	1938-1959	<ul style="list-style-type: none"> <li>• Single lane through 1948; two travel lanes, 1949-1959</li> <li>• Low embankment with no shoulder through 1948; subsequent widening to embankment, 1949-1959 (to accommodate additional travel lane)</li> </ul>
B	1938-1959	<ul style="list-style-type: none"> <li>• Single lane through 1948; two travel lanes, 1949-1959</li> <li>• Low embankment with no shoulder through 1948; subsequent widening to embankment, 1949-1959 (to accommodate additional travel lane)</li> <li>• Pre-1959 alignment that connected Olnes to Livengood</li> </ul>
D	c.1913-1959	<ul style="list-style-type: none"> <li>• Single travel lane through c.1931; two travel lanes, c.1931-1959</li> <li>• Low embankment with no shoulder</li> <li>• Pre-1959 alignment that connected the Tanana River, Manley Hot Springs, and Eureka</li> </ul>

The road surface material and roadbed-related features (such as bridges, drainage features, traffic signals, signage, mile markers, lighting safety barriers, and parking areas) from the period of significance were determined not to be necessary in understanding the road's function of providing important connections to early mining activities and its association under *Criterion A* in the areas of *Transportation* and *Industry*, and are not identified as essential physical features.



# Historic Photos



View at Willow Creek Flats at Mile 15, c. 1934.



Grade at Snowshoe Gulch at Mile 15, c. 1934.



Tolvovana Flats looking east at Mile 49, c. 1934.



Olive Creek at Mile 58, 1934.



Bridge crossing Livengood Creek in Livengood, c. 1938.



# Current photos



Representative views of Segments A and B.  
Current highway reflects changes after the period of significance.

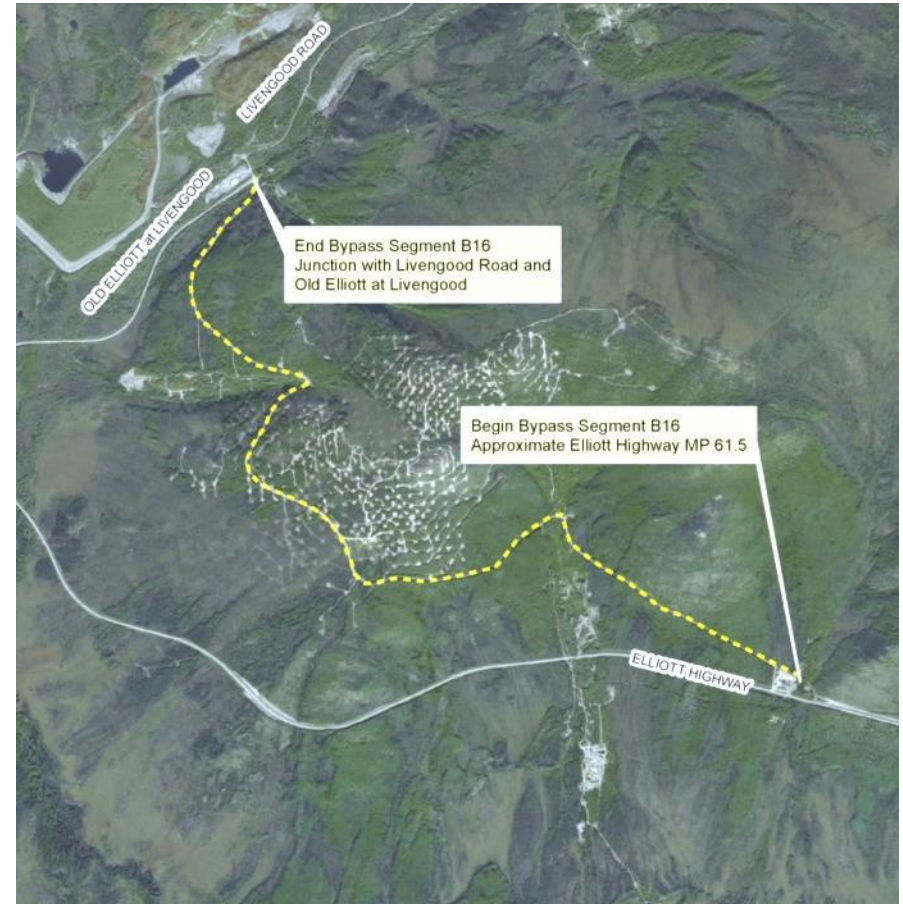
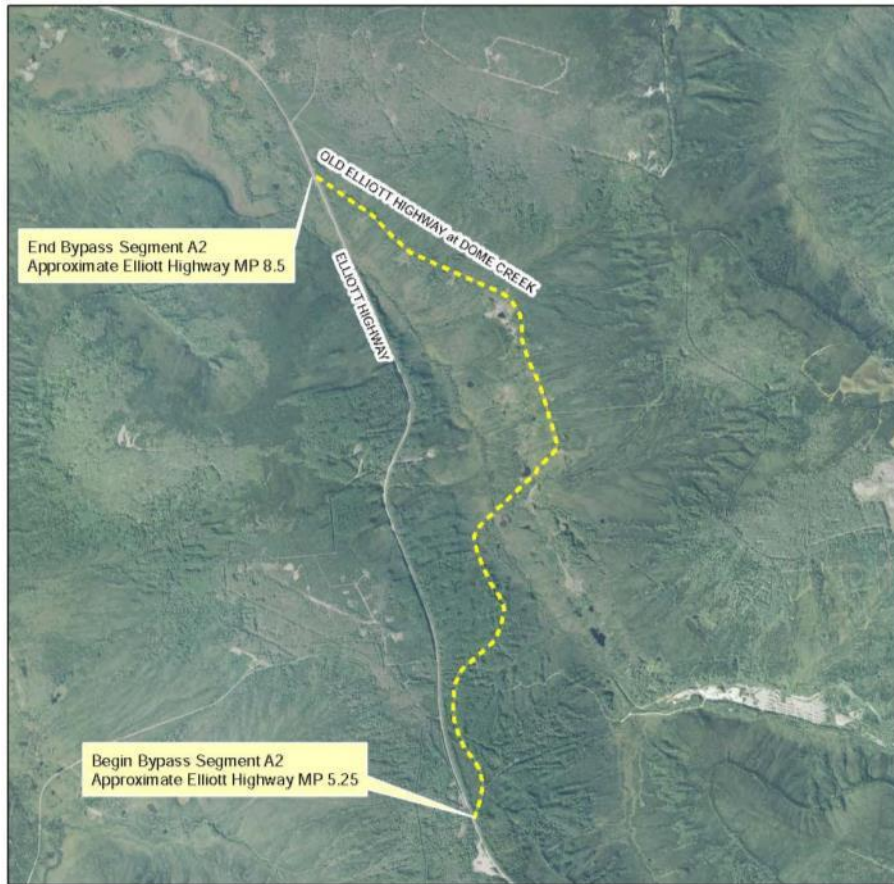
# Bypasses



Example bypassed portions of Segment B.  
Top showing loss of integrity, bottom showing retention.



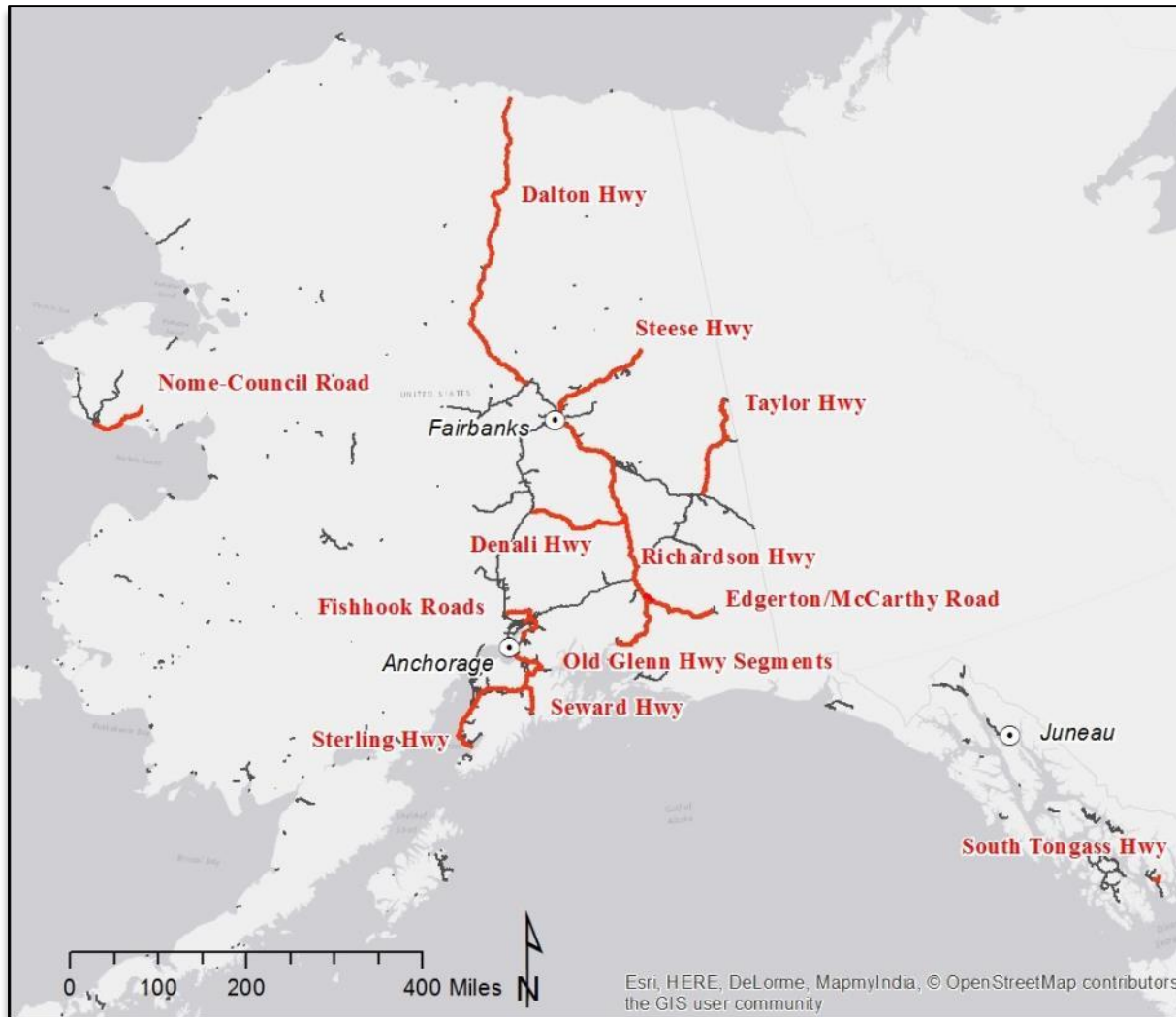
# Location of example eligible bypasses







# Recent DOEs



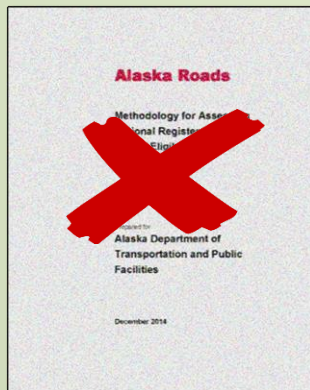
# Example results

<u>Road Name</u>	<u>Location(s) Assessed</u>	<u>AHRS Number(s)</u>	<u>Result</u>	<u>Boundary</u>	<u>Essential Features per DOE</u>
<b>Denali Highway (CDS 140000)</b>	Entire	HEA-00450, XMH-01428	<b>Eligible, Criterion A POS 1957-1971</b>	<p>Length: MP 0-134, from junction with Richardson Hwy to junction with Parks Hwy</p> <p>Width: toe of slope to toe of slope, encompassing embankment prism.</p>	<ul style="list-style-type: none"> <li>• Two travel lanes with narrow or no shoulders.</li> <li>• Low embankment</li> <li>• Vertical and horizontal alignment that largely follows contour of landscape with minimal blading, grading, or cut-and-fill features; periodic sharp curves and steep grades dictated by natural conditions</li> </ul> <p><i>Other features, including bridges and the road surface, were determined not to be essential for conveying the road's significance and do not contribute to the eligibility of the road.</i></p>
Edgerton Hwy (CDS 198000)	Edgerton Highway, MP 0-33 (Chitina)	VAL-00594, VAL-00597	Not Eligible	n/a	n/a
Elliott Hwy (CDS 198000)	Entire (excluding bypass segments)*	LIV-00750, LIV-00751, LIV-00752, TAN-00126, TAN-00127, XKR-00030	Not Eligible	n/a	n/a
<b>Old Edgerton Loop Rd (CDS 198500)</b>	<b>Old Edgerton Hwy MP 0-12 (Willow Creek to Kenny Lake)</b>	VAL-00595	<b>Eligible, Criterion A POS 1911-1938</b>	<p>Length: MP 0-12, from junction with Richardson Hwy to junction with Edgerton Highway at Kenny Lake</p> <p>Width: toe of slope to toe of slope, encompassing embankment prism</p>	<ul style="list-style-type: none"> <li>• One to two travel lanes</li> <li>• No shoulder</li> <li>• Low embankment</li> <li>• Horizontal Alignment: pre-1938 alignment connected Willow Creek (MP 92.4 Richardson Highway), with Chitina with sharp curves around small ponds and wetlands at northern portion of road.</li> <li>• Vertical Alignment: relatively flat terrain at northern end, alignment alongside valley edge immediately north of Chitina.</li> </ul> <p><i>Other features were determined not to be essential for conveying the road's significance and do not contribute to the eligibility of the road.</i></p>

# Coordination with Section 106 PA

## Streamlined Reviews (aka Programmatic Allowances)

- Projects that qualify do not trigger road DOEs; so Methodology does not apply



## Standard Consultations

- Road DOE Methodology may apply, case by case  
*There is a preliminary consideration step outlined in Appendix J*



***Confirm with DOT&PF PQI before using Methodology on a project***





# Consultant Surveys

To keep in mind for DOT&PF projects:

- *Not all projects will involve DOEs on roads, even if roads are within the APE*
- *For projects that may require evaluations*
  - *Confirm this with PQI*
  - *Follow the Methodology*
    - *Begin with Category 1 screening, unless the road has already been determined to be Category 2 (e.g., tiering from an existing DOE)*

***Connect with DOT&PF PQI regarding project-specific applicability***



# Consultant Surveys

To keep in mind for DOT&PF projects:

- ***Do not conduct fieldwork for road evaluation unless:***
  - *the roads are Category 2 roads AND*
  - *their significance has been established according to the principles in the Methodology*
- *Define essential physical features (EPFs) before going into the field*

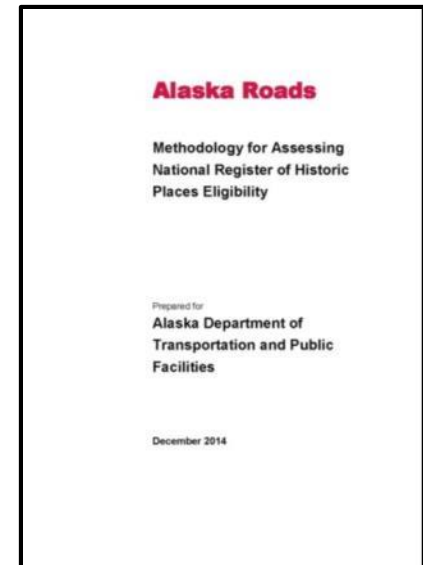
***Connect with DOT&PF PQI regarding project-specific applicability***



# Wrapping Up

## Methodology

- Addresses the challenge of the ubiquitous property type
- Applicable to a wide variety of roads
- Guides users to
  - ◆ Demonstrate why a road would be significant (gives examples of thresholds under various areas of significance)
  - ◆ Identify a road's period of significance
  - ◆ Focus on key features would reflect that significance
- Reflects interagency collaboration, leading to more predictability during consultations











# Web location

## **NEW** Historic Road Considerations

### Protocols in Effect

- Section 106 PA, Appendix B
- Section 106 PA, Appendix J
- Methodology for Assessing NRHP Eligibility

### Resources

- Historic Overview: Applied Historic Context of Alaska's Roads 
- Elliott Highway Determination of Eligibility 
- Interstate Highway System Section 106 Exemption Route List within Alaska 
- Interim Guidance (limited applicability) 

<http://www.dot.state.ak.us/stwddes/desenviron/resources/historicproperties.shtml>



# Questions?



# Thank you

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<http://www.dot.state.ak.us/stwddes/desenviron/resources/historicproperties.shtml>