

## **APPENDIX G**

### **Section 106 Consultation**

## APPENDIX E

### Section 106 Consultation

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## **Memorandum of Agreement**

**MEMORANDUM OF AGREEMENT BETWEEN  
THE ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES,  
AND THE ALASKA STATE HISTORIC PRESERVATION OFFICER  
REGARDING ADVERSE EFFECTS TO THE CHILKAT RIVER BRIDGE (SKG-247)  
RESULTING FROM  
THE HAINES HIGHWAY PROJECT FROM MILEPOST 3.5 TO 25.3  
PROJECT NO. SHAK-095-6(28)/68606**

**WHEREAS**, the Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Alaska Division of the Federal Highway Administration (FHWA), proposes to carry out the Haines Highway Milepost (MP) 3.5 to 25.3 Project pursuant to the *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the Alaska State Historic Preservation Officer, and the Alaska Department of Transportation and Public Facilities Regarding Implementation of Section 106 of the National Historic Preservation Act for the Federal-Aid Highway Program in Alaska* (Section 106 PA) that was signed in October 2014; and,

**WHEREAS**, the undertaking shall upgrade the existing Haines Highway between MP 3.5 and 25.3 and includes minor highway realignments, shoulder widening, realignment of Chilkat Avenue at the Haines Highway intersection, replacing the Chilkat River Bridge, and other accommodations to improve public safety and maintain recreational access; and

**WHEREAS**, DOT&PF and FHWA have defined the undertaking's area of potential effects (APE) as described in Appendix A; and

**WHEREAS**, the FHWA has determined, and the DOT&PF agrees, that the undertaking shall have an adverse effect on the Chilkat River Bridge (SKG-247), which is eligible for inclusion in the National Register of Historic Places (NRHP); and

**WHEREAS**, the FHWA and the DOT&PF have consulted with the State Historic Preservation Officer (SHPO) pursuant to 36 CFR § 800 of the regulations implementing Section 106 of the National Historic Preservation Act (54 U.S.C. § 300101 et seq.); and

**WHEREAS**, in accordance with 36 CFR § 800.6(a)(1), the FHWA has notified the Advisory Council on Historic Preservation (ACHP) of its adverse effect determination with specified documentation and the ACHP has chosen to not participate in the consultation pursuant to 36 CFR § 800.6(a)(1)(iii); and

**WHEREAS**, the FHWA, with the DOT&PF's participation, consulted with the Chilkat Indian Village (CIV), the Chilkoot Indian Association (CIA), and the Central Council Tlingit and Haida Indian Tribes of Alaska (CCTHITA) in order to fulfill Tribal consultation requirements as set forth in 36 CFR § 800.2(c)(2) as it relates to sites of traditional religious and cultural importance; and

**WHEREAS**, the FHWA, with the DOT&PF's participation, consulted with the Sealaska Corporation; Sealaska Heritage Institute; and Klukwan, Incorporated; and

**WHEREAS**, Tribal consultation identified cultural resources of Tribal concerns within the



project's area of potential effect; and

**WHEREAS**, to address Tribal concerns, the FHWA and the DOT&PF refined the project design to not adversely affect such cultural resources and shall establish a Memorandum of Understanding with the CIV and the CIA for construction archaeological monitoring in sensitive areas, to also include Tribal monitors, which are separate and outside the terms of this Agreement; and

**NOW, THEREFORE**, the SHPO, and the DOT&PF (collectively "Signatories") agree that the undertaking shall be implemented in accordance with the following stipulations in consideration of the effects this undertaking shall have on the Chilkat River Bridge (SKG-247).

## **STIPULATIONS**

The DOT&PF shall ensure that the following stipulations are implemented:

### **I. Professional Qualifications Standards**

Unless otherwise specified, all work carried out under the terms of this Agreement shall be conducted and/or supervised by a qualified professional(s) who meets the Secretary of the Interior's (SOI) Professional Qualification Standards set forth in 36 CFR § 61 and who has previous related experience in documentation of historic bridges, Historic American Building Survey/Historic American Engineering Record (HABS/HAER) recordation, photography of structures, and interpretation of drawings.

### **II. Mitigation Measures for the Resolution of Adverse Effect on SKG-247, the Chilkat River Bridge**

#### **A. Architectural Documentation**

1. The ACHP issued a Program Comment for Common Post-1945 Concrete and Steel Bridges (Program Comment) in 2012, after the FHWA and DOT&PF initiated consultation with the SHPO, and after DOT&PF completed HABS/HAER architectural documentation of the Chilkat River Bridge in anticipation that it would be used for mitigation for the bridge replacement.

Although the Program Comment indicates that HABS/HAER architectural documentation is no longer required for these bridge types, the SHPO will accept the documentation that has already been completed.

2. The DOT&PF shall submit architectural documentation of the Chilkat River Bridge (also known as the "Wells Bridge", SKG-247) to the SHPO. The documentation shall meet HAER documentation Level II standards and include copies of the original plans, and black and white 35-millimeter photographs or digital photographs meeting the standards established by the National Register of Historic Places (National Register).
3. The DOT&PF shall also submit copies of the architectural documentation to the

Sheldon Museum in Haines.

#### B. Interpretive Wayside

1. The DOT&PF shall be responsible for the construction of one (1) interpretive wayside. The interpretive wayside shall be developed by the DOT&PF in consultation with the SHPO.
2. Location of the Interpretive Wayside shall be at the site named “Wells Bridge” on Map 12 of the August 2007 *Haines Highway Corridor Partnership Plan* (approximate location shown in Appendix B)
3. Design of the interpretive wayside shall be in accord with:
  - a. The American Association of State Highway and Transportation Officials standards for rest areas<sup>1</sup>, and
  - b. The Scenic Byways design guide for roadside improvements<sup>2</sup>.
4. The wayside shall include one (1) interpretive display panel and its theme shall be on the history of transportation and major utilities within the Chilkat Valley including the Tlingit trade route, the Dalton Trail, the Haines Fairbanks Pipeline, and the Haines Highway. A history of the Chilkat River crossings shall also be included.

### III. Mitigation Deliverables

#### A. Architectural Documentation

1. The DOT&PF has completed the architectural documentation, in accordance with *HABS/HAER/HALS Documentation for the Mitigation of Adverse Effects to Historic Properties* guidance from the Alaska Regional Office of the National Park Service, prior to any actions associated with this project that could disturb the Chilkat River Bridge.
2. The DOT&PF shall submit the architectural documentation required by Stipulation II.A to the SHPO and the Sheldon Museum in Haines within two (2) months from the execution date of this Agreement.

#### B. Interpretive Wayside

1. The DOT&PF shall submit the graphics, text, and design draft of the interpretive wayside and its display panel required by Stipulation II.B to the SHPO within twelve (12) months from the execution date of this Agreement. The SHPO shall have thirty (30) days from receipt of the DOT&PF submittals to review and comment. The

<sup>1</sup> American Association of State Highway and Transportation Officials, *A Policy on Geometric Design of Highways and Streets*, 2011, 6<sup>th</sup> Edition, pg. 3-171 to 3-172

<sup>2</sup> Yamada, A., Ostergard D., Jilbert, M., Brunswick N., *Scenic Byways, A Design Guide for Roadside Improvements*, July 2002

DOT&PF shall make revisions as necessary and resubmit to the SHPO within fifteen (15) days of receiving the SHPO comments. The SHPO shall complete a second review within fifteen (15) days of the revised submittal. DOT&PF shall take into account any comments received during the second review period.

2. The DOT&PF shall install the display panel at the interpretive wayside. Upon completion of the interpretive wayside and before project closure, the DOT&PF shall verify the wayside installation to the SHPO in writing, including photographic documentation.
3. The DOT&PF shall be responsible for maintaining the interpretative wayside.

#### **IV. Treatment of Human Remains**

- A. Any and all human remains shall at all times be treated with dignity and respect. Should human remains be encountered, work shall be stopped at once in the locality to prevent further disturbance and the DOT&PF project engineer shall be notified. The DOT&PF project engineer shall immediately notify the DOT&PF Southcoast Environmental Office, the Alaska State Troopers (AST) Missing Persons Bureau, the Alaska State Medical Examiner (SME), Haines Borough Police Department, Alaska Office of History and Archaeology (OHA), and the Tribes. See Appendix C to this Agreement for specific contact information for Agency and Tribal Officials involved with human remains consultation.
- B. The DOT&PF shall defer to the opinion of the AST and/or the SME for a determination of whether the remains are of a forensic nature and/or subject to criminal investigation.
- C. If the AST/SME determines that the remains are neither of a forensic nature nor subject to a criminal investigation, a SOI-qualified physical anthropologist experienced in the analysis of human remains shall examine the human remains to determine racial identity. The physical anthropologist shall document, analyze, and photograph the remains so that an independent assessment of racial identity can be made. The physical anthropologist shall be afforded no more than thirty (30) days' time to conduct his or her analysis.
- D. When a determination has been made by the AST and the SME that a death investigation is not warranted and the remains are not of Native origin, then the DOT&PF in consultation with the SME, shall identify, locate and consult with descendants of the deceased. If no descendants are found, any necessary permits from the Alaska State Bureau of Vital Statistics shall be obtained and the remains re-interred in a designated area.
- E. If the human remains are determined to be of Native origin, the CIV and the CIA shall cooperatively act as a facilitator(s) with other Tribal groups as needed to notify and coordinate with appropriate descendants. In addition, the CIV or the CIA shall conduct appropriate ceremonies and reburial(s) on behalf of the descendants, if requested. All reasonable expenses for this shall be negotiated on a case by case basis and shall be

reimbursed to the appropriate descendant.

- F. Should any associated or unassociated funerary objects, sacred objects, or objects of cultural patrimony as defined by the Native American Graves Protection and Repatriation Act (NAGPRA) (25 U.S.C. § 3001) be encountered, work shall be stopped at once in the locality to prevent further disturbance and the DOT&PF shall immediately notify the local Tribes and the SHPO, and proceed in accordance with Stipulation V *Inadvertent Discoveries*.

## V. **Inadvertent Discoveries**

- A. If, during the implementation of the undertaking, a previously unidentified cultural resource is encountered, or a previously identified historic property is affected in an unanticipated manner, the DOT&PF shall consult with the SHPO, Tribes, and other consulting parties, as appropriate, pursuant to 36 CFR § 800.13. The DOT&PF shall ensure that work shall cease in the area of the discovery until the previously unidentified historic property or unanticipated effect can be evaluated, and an appropriate treatment plan consistent with the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* (48 FR 44716) is developed and agreed upon by the SHPO. The DOT&PF shall ensure that the treatment plan is implemented.
- B. An SOI-qualified Archaeologist(s) shall evaluate any previously-unidentified cultural resource encountered during construction for eligibility to the National Register using established National Register criteria. The DOT&PF shall determine National Register eligibility in consultation with the SHPO, Tribes, and other consulting parties, as appropriate. All National Register evaluations shall follow the *Secretary of Interior's Standards and Guidelines for Evaluation of Historic Properties* and 36 CFR § Part 800.4(c). Disputes concerning eligibility shall be resolved by the Keeper of the National Register (Keeper) pursuant to 36 CFR § 800.4(c)(2).
- C. For those properties that are determined to be eligible for inclusion in the National Register, the DOT&PF shall apply the criteria of adverse effect (36 CFR § 800.5) in consultation with the SHPO, Tribes, and other consulting parties. The views of other consulting parties shall be sought through consultation as appropriate if there is a finding that the project activity shall cause an adverse effect.

## VI. **Curation**

- A. In accordance with the Alaska Historic Preservation Act, Title to Historic, Prehistoric, and Archaeological Resources (Alaska Statute [AS] 41.35.020), “(a) The state reserves to itself title to all historic, prehistoric, and archaeological resources situated on land owned or controlled by the state...” Therefore, artifacts, faunal remains, and related materials collected on land owned or controlled by the state shall be stored at the University of Alaska Museum of the North in Fairbanks in accordance with the DOT&PF curation agreement<sup>3</sup>. The Alaska Historic Preservation Act also recognizes the cultural rights of

<sup>3</sup> Memorandum of Understanding between the Department of Transportation and Public Facilities and the University of Alaska Museum of the North Fairbanks, Alaska, executed January 31, 2014.

Tribal descendants for possession and use of their valued cultural resources. The AS 41.35.020(b) has provisions for Tribes and cultural groups to retain materials from their respective cultures in coordination with the State.

- B. Historic, prehistoric, and archaeological resources recovered from land controlled by the Tribes or other private entities shall remain the property of the landowners.

## **VII. Review**

The Signatories shall review this Agreement two (2) years from its execution date and every two (2) years thereafter or until December 31, 2025. The DOT&PF shall submit a letter status update to the SHPO one (1) month prior to the review. Any amendments to this Agreement recommended during the review shall be considered in accordance with CFR § 800.6(c)(7). If the review results in a recommendation to terminate the Agreement, termination of the Agreement shall be considered in accordance with 36 CFR § 800.6(c)(8).

## **VIII. Dispute Resolution**

- A. Should any Signatory to this Agreement object in writing to the other Signatory regarding any action carried out or proposed with respect to the implementation of this Agreement, consultation among the Signatories shall be initiated to resolve the objections.
- B. If the DOT&PF determines that the objection cannot be resolved through consultation DOT&PF shall request the further comments or staff level recommendations from the ACHP pursuant to 36 CFR § 800.6(b). Any ACHP comment provided in response to such a request shall be taken into account by the DOT&PF in accordance with 36 CFR § 800.6(c)(2).
- C. At any time during implementation of the measures stipulated in this Agreement, should an objection to any such stipulation or its manner of implementation be raised by a member of the public, the DOT&PF shall take the objection into account and consult with the objecting party and Signatories to this Agreement as needed to resolve the objection.

## **IX. Amendments**

- A. Any Signatory to this Agreement may request that this Agreement be amended, whereupon they shall consult in accordance with 36 CFR § 800.6(c)(7) to consider such amendment. Amendments shall be executed in the same manner as the original Agreement.
- B. This Agreement may be amended when such an amendment is agreed to in writing by all Signatories. The amendment shall be effective on the date a copy is signed by all of the Signatories is filed with the ACHP.
- C. If any Signatory to this Agreement determines that its terms shall not or cannot be

carried out, that Signatory shall immediately consult with the other Signatory in writing to attempt to develop an amendment. If within sixty (60) calendar days an amendment cannot be reached, any Signatory may request to terminate the Agreement upon written concurrence of all other Signatories as set forth in Stipulation XI *Termination*.

**X. Duration**

This Agreement shall continue in full force and effect until all measures under Stipulation II. Mitigation Measures are completed or until 2025. At that time the DOT&PF may request the SHPO in writing to review the DOT&PF's project schedule and consider an extension or modification of this Agreement. No extension or modification shall be effective unless all Signatories to the Agreement have agreed in writing.

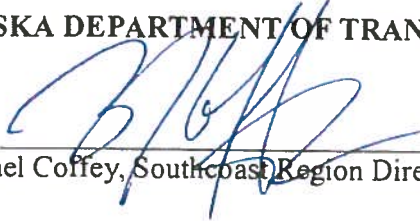
**XI. Termination**

Any Signatory to this Agreement may terminate it by providing thirty (30) days written notice to the other Signatories. The Signatories shall consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. In the event of termination, the DOT&PF shall seek the comments of the ACHP pursuant to 36 CFR § 800.7(c).

**Execution and Implementation** of this Agreement evidences that the DOT&PF has consulted with the SHPO and other consulting parties on the Haines Highway MP 3.5 to 25.3 project, and has taken into account the project's effects on historic properties in accordance with its Section 106 responsibilities.

**SIGNATORIES**

**ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES**

By:   
Michael Coffey, Southeast Region Director

6/1/14  
Date

**ALASKA STATE HISTORIC PRESERVATION OFFICER**

By:   
Judith E. Bittner, State Historic Preservation Officer

6/2/16  
Date

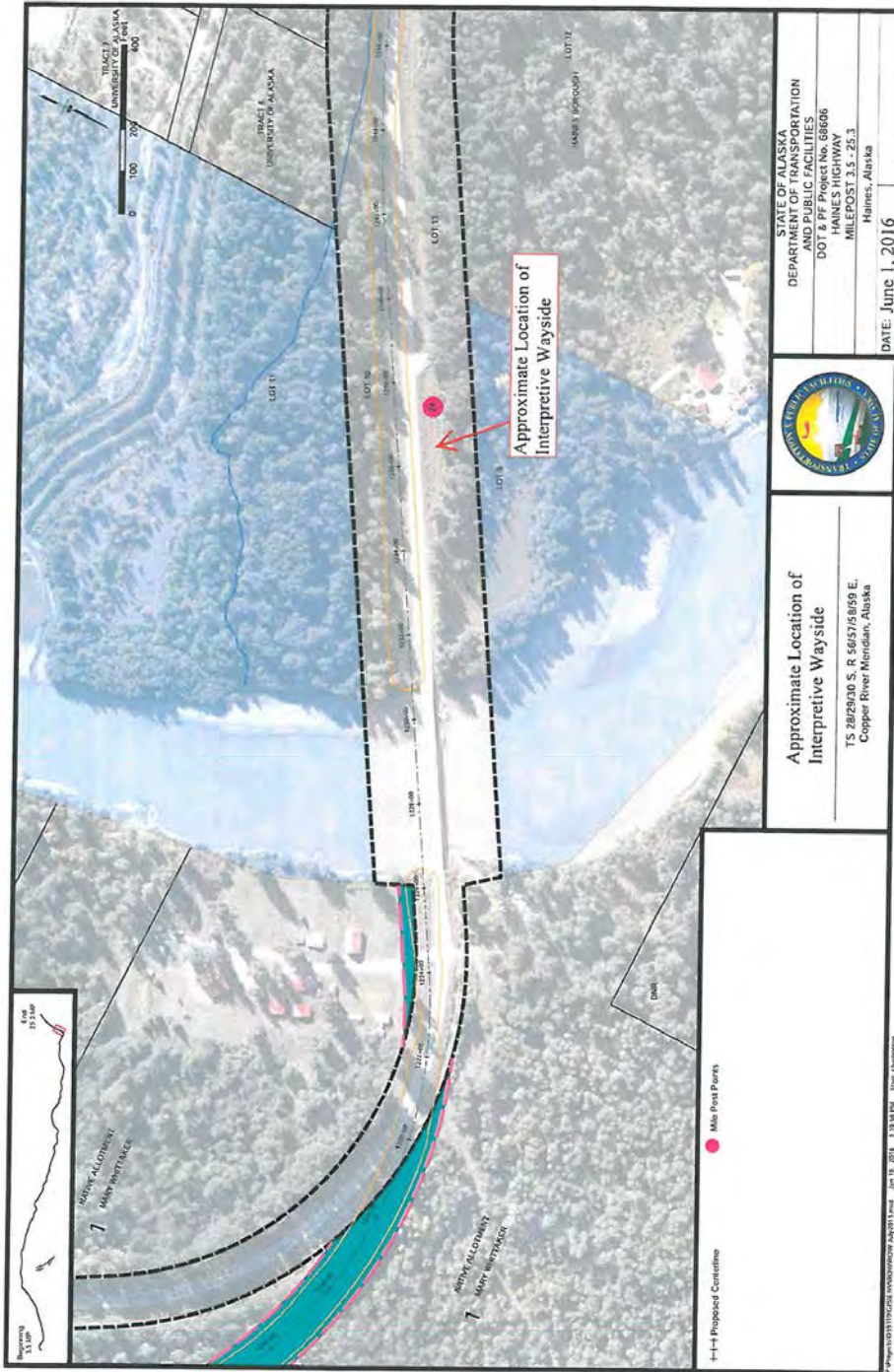
**APPENDIX A**  
**Haines Highway from Milepost (MP) 3.5 to 25.3**  
Project SHAK-095-6(28)/68606

**Area of Potential Effect**

The area of potential effect (APE) for the Haines Highway project Milepost (MP) 3.5 to 25.3 encompasses lands that are anticipated to be affected by ground-disturbing activities including a 25-foot wide buffer zone beyond the project footprint to cover the clearing limits and accommodate for operations of heavy equipment. In areas where major realignments are planned, the APE includes the new road footprint plus a 50-foot wide buffer zone, and all areas between the old and new alignment, as well as visual impacts due to proposed highway realignments. The APE also includes the entire Yendistucky site and a small piece of the Haines airport just south of MP 4.



**APPENDIX B**  
**Haines Highway from Milepost (MP) 3.5 to 25.3**  
 Project SHAK-0956(28)/68606



## APPENDIX C

### Haines Highway from Milepost (MP) 3.5 to 25.3

Project SHAK-095-6(28)/68606

Contact Information for Agency and Tribal Officials

Involved with Human Remains Consultation

#### **DOT&PF:**

Hilary Lindh, Regional Environmental  
Manager and Michael Kell, Cultural  
Resources Specialist  
6860 Glacier Highway  
Juneau, AK 99519  
Phone: (907) 465-6564 / (907) 465-4715  
Fax: (907) 465-3506  
[Hilary.lindh@alaska.gov](mailto:Hilary.lindh@alaska.gov)  
[Michael.kell@alaska.gov](mailto:Michael.kell@alaska.gov)

#### **State Historic Preservation Officer:**

Judy Bittner, SHPO  
DNR Office of History and Archaeology  
550 W. 7<sup>th</sup> Avenue, Suite 1310  
Anchorage, AK 99501  
Phone: (907) 269-8721  
Fax: (907) 269-8908  
[Judith.bittner@alaska.gov](mailto:Judith.bittner@alaska.gov)

#### **State Medical Examiner:**

Stephen Hoage, Operations Administrator  
4500 S. Boniface Pkwy  
Anchorage, AK 99508-1264  
Phone: (907) 334-8643  
Fax: (907) 334-2216  
[Stephen.hoage@alaska.gov](mailto:Stephen.hoage@alaska.gov)

#### **Alaska Bureau of Vital Statistics:**

Heidi Lengdorfer, Section Chief  
Supervisor of the Anchorage Bureau  
Phone: (907) 465-8643  
Fax: (907) 465-4689  
[Heidi.lengdorfer@alaska.gov](mailto:Heidi.lengdorfer@alaska.gov)

#### **AST Bureau of Investigation:**

Lieutenant Nils Monsen  
Phone: (907) 745-2131  
Investigator Dave Johnson  
Phone: (907) 465-8643

#### **Alaska State Troopers:**

Missing Persons Bureau  
Sergeant Kid Chan  
5700 East Tudor  
Anchorage, AK 99507  
Phone: (907) 269-5058  
Fax: (907) 248-9834  
[Choong.chan@alaska.gov](mailto:Choong.chan@alaska.gov)

#### **Chilkat Indian Village:**

Jones P. Hotch, Jr., President  
32 Chilkat  
Avenue  
Klukwan,  
Alaska P.O.  
Box 210  
Haines, AK 99827  
Phone: (907) 767-5505  
Fax: (907) 767-5518  
[klukwan@chilkat-nsn.gov](mailto:klukwan@chilkat-nsn.gov)

#### **Chilkoot Indian Association:**

Les Katzeek, President  
P.O. Box 490  
Haines, AK 99827-0490  
Phone: (907) 766-2323  
Fax: (907) 766-2365  
[hbrouillette@chilkoot-nsn.gov](mailto:hbrouillette@chilkoot-nsn.gov)

#### **Haines Borough Police Department:**

Robert E. "Bob" Griffiths  
P.O. Box 1209  
Haines, AK 99827  
Phone: (907) 766-2121  
Fax: (907) 766-2190  
[police@haines.ak.us](mailto:police@haines.ak.us)

**State Historic Preservation Officer (SHPO) Correspondence**



THE STATE  
of **ALASKA**  
GOVERNOR SEAN PARNELL

**Department of Natural Resources**

DIVISION OF PARKS AND OUTDOOR RECREATION  
Office of History and Archaeology

550 West 7<sup>th</sup> Avenue, Suite 1310  
Anchorage, Alaska 99501-3565  
Web: <http://dnr.alaska.gov/parks/oha>  
Phone: 907.269.8721  
Fax: 907.269.8908

August 28, 2014

File No.: 3130-1R FHWA

SUBJECT: Haines Highway Improvements Milepost 3.5-25.3, SHAK-0956(028)/68606

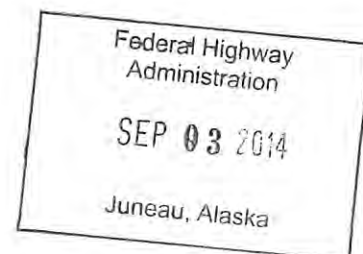
Alex Viteri Jr.  
U.S. Department of Transportation  
P.O. Box 21648  
Juneau, AK 99802-1648

Dear Mr. Viteri,

The Alaska State Historic Preservation Office (AK SHPO) received your letter (dated August 6, 2014) on August 8, 2014 and attached report titled *Ground Penetrating Radar Survey for the Haines Highway Improvement Project, No. 68606, In the Vicinity of Yendistucky Village*. We reviewed the subject undertaking for conflicts with cultural resources pursuant to Section 106 of the National Historic Preservation Act. Following our review of the supplemental finding letter and report, our office concurs with your recent findings of No Adverse Effect for Yendistucky Village (SKG-054) and Smokehouse Village (SKG-044). Also, we have no objections to the revised boundary of Yendistucky Village, which is based on the 1916 plat of US Survey No. 908. The revised boundary has already been updated in the Alaska Heritage Resources Survey (AHRs).

For future projects that utilize ground penetrating radar (GPR) equipment, we recommend that the AK SHPO be involved in consultation prior to the survey. Although GPR survey has been limited in Alaska, our office has had experience with projects around the State that have implemented this methodology. The GPR report that you submitted would have benefited from a test over previously identified grave sites. This technique would allow for a comparative sample to help identify anomalies and provide justification for the results.

Please note that as stipulated in *36 CFR 800.3*, other consulting parties such as the local government and Tribes are required to be notified of the undertaking. Additional information provided by the local government, Tribes or other consulting parties may cause our office to re-evaluate our comments and recommendations. Please note that our comment letter does not end the 30-day review period provided to other consulting parties.



Should unidentified archaeological resources be discovered in the course of the project, work must be interrupted until the resources have been evaluated in terms of the National Register of Historic Places eligibility criteria (36 CFR 60.4) in consultation with our office.

We look forward to future consultation on the overall project's finding of Adverse Effect for historic properties. It is our understanding that there will still be an adverse effect to the Chilkat River Bridge (SKG-247). As such, mitigation measures will be developed through a memorandum of agreement. Please contact Mark Rollins at 269-8722 or [mark.rollins@alaska.gov](mailto:mark.rollins@alaska.gov) if you have any questions or if we can be of further assistance.

Sincerely,

A handwritten signature in black ink, reading "Judith E. Bittner". The signature is written in a cursive style with a large initial "J" and a long horizontal stroke extending to the right.

Judith E. Bittner  
Chief, OHA

JEB:mwr



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**Alaska Division**

August 06, 2014

P.O. Box 21648  
Juneau, AK 99802-1648  
(907) 586-7418  
(907) 586-7420  
[www.fhwa.dot.gov/akdiv](http://www.fhwa.dot.gov/akdiv)

In Reply Refer To:  
SHAK-0956(028)/68606

Ms. Judith Bittner  
State Historic Preservation Officer  
Alaska Office of History and Archaeology  
550 W. 7<sup>th</sup> Avenue, Suite 1310  
Anchorage, AK 99501-3565

Dear Ms. Bittner:

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Alaska Division of the Federal Highway Administration (FHWA), is proposing to improve the Haines Highway between Milepost (MP) 3.5 and 25.3 (see attached Area of Potential Effect Figure Set 1 thru 18, and Table 1 – Project Location by Township and Range).

**Table 1 – Project Location by Township and Range**

Township	Range	Section	USGS Quad Map	Meridian
30S	59E	19	Skagway A-2	Copper River
30S	58E	6,7,8,14,15,16,17,23,24		
29S	58E	31		
29S	57E	5,6,8,9,14,15,16,23,25,26,36		
28S	56E	29,32,33,34		

Pursuant to 36 CFR 800.4(d)(2) and 800.5(d)(2), implementing regulations of Section 106 of the National Historic Preservation Act, the FHWA continues to find an adverse effect on one historic property by the proposed project, the Chilkat River Bridge (SKG-247). Furthermore, FHWA finds No Adverse Effects to Yendistucky (SKG-054), Smokehouse Village (SKG-044), and the Haines-Fairbanks Pipeline’s Gate Valve 4 (SKG-206). This submission provides documentation in support of a No Adverse Effect Finding to Yendistucky and Smokehouse Village subsequent to road alignment changes in the proposed action, as required at 36 CFR 800.11(e).

Specific purposes of this letter are:

- to formally acknowledge the correct boundary of Yendistucky Village (SKG-054)
- to provide details of the changes in the proposed project in the vicinity of Smokehouse Village (SKG-044) and Yendistucky Village (SKG-054),
- to provide a revised Area of Potential Effects (APE) resulting from the amended boundary of SKG-054 and the proposed project changes

- to supplement information about features and attributes of Yendistucky based on a ground penetrating radar field survey, and
- to document a No Adverse Effect on Yendistucky (SKG-054) and Smokehouse Village (SKG-044 from the proposed action).

**FHWA asks for your review and comments regarding the information presented in this letter including whether or not you agree with the FHWA finding of No Adverse Effect for Yendistucky and Smokehouse Village.**

**Summary of the Section 106 process from 2005 to the present.**

The following Section 106 consulting parties are involved with the consultation for this project:

- State Historic Preservation Officer
- Chilkat Indian Village of Klukwan
- Chilkoot Indian Association of Haines
- Central Council Tlingit and Haida Indian Tribes of Alaska
- Sealaska Corporation
- Klukwan, Incorporated
- Sealaska Heritage Institute
- Bureau of Indian Affairs

Consulting parties were sent initiation of Section 106 consultation letters including the original APE for the proposed action on December 2, 2005. Consulting parties were sent information about a proposed geotechnical survey on January 31, 2006. On July 6, 2010, FHWA provided a project update after a two-year project delay and an expanded APE that included potential visual effects to adjacent historic properties.

On November 28, 2011 FHWA sent letters to the consulting parties with Determinations of Eligibility (DoEs) for 25 properties within the APE of which 11 properties were determined eligible for the National Register (see Table 2 of the enclosed DoE letter). The FHWA determined that Smokehouse Village (SKG-044) and Yendistucky Village (SKG-054) were eligible under National Register Criteria A and D.

On January 15, 2013, an overall project finding of Adverse Effect for historic properties (SKG-247—the Chilkat River Bridge and SKG-206—the Haines-Fairbanks Pipeline District, Gate Valve #4) was issued. In that letter, FHWA’s findings of effect included No Effect on Yendistucky Village and No Adverse Effect on Smokehouse Village. The SHPO concurred with FHWA’s findings and requested results of a field survey for a revised highway intersection near the village of Klukwan (January 28, 2013). No other response was received from consulting parties.

The FHWA submitted the additional field survey results that included an expanded APE for additional rock cut areas on June 24, 2013. The survey did not identify any additional properties in the APE. However, due to design changes, FHWA found that Gate Valve 4 of the Haines Fairbanks Pipeline (SKG-206) would not be adversely affected. After receiving additional



requested information (September 3, 2013), SHPO concurred with the finding of No Adverse Effect on Gate Valve 4 on September 19, 2013.

Follow up consultations during 2013 and into 2014 with Chilkat Indian Village (CIV) and Chilkoot Indian Association (CIA), resulted in a need to:

1. Correct the site boundaries of Yendistucky Village and re-assess the finding of effect for this site,
2. Expand the APE to include all of Yendistucky and Smokehouse Village sites as well as a small piece of Haines Airport property located at MP 4, and
3. Re-assess the potential effects to Yendistucky and Smokehouse Village.

### **Revised Project Description**

As a result of public and agency comments received on the Environmental Assessment (EA) (July 2013), revisions to the proposed project alignment are being made to lessen impacts to: historic properties; the Chilkat River, streams, wetlands; and the Alaska Chilkat Bald Eagle Preserve. The revised alignment is shown in the enclosed Haines APE 2014 Figure Set 1 thru 18. An appropriately Revised EA is in preparation. The realignment proposed to lessen impacts to historic properties is in the vicinity of MP 4.

As a result of tribal consultations with the CIA and the CIV, the highway curve proposed near MP 4 in the EA was realigned further south and west toward the airport and Chilkat River to avoid impacts to the Yendistucky bluff, an area now known to be of cultural and spiritual significance to the Tribes (see Figure 2. Revised Proposed Action in Vicinity of Smokehouse Village (SKG-044) . This realignment would relocate a small anadromous fish stream inside a dike that protects Haines Airport from the Chilkat River. The APE shown on Sheet 2 in the Haines APE 2014 Figure Set 1 thru 18 enclosure encompasses the area that would be directly affected by highway realignment at MP4 and stream relocation plus a 25-foot buffer to account for possible construction impacts.

### **Revised Area of Potential Effects**

The APE as described in the most recent finding letter (June 24, 2013) has been expanded to include:

1. All of the corrected Yendistucky site depicted in the 1916 plat of U.S. Survey No. 908 See Figure 1. Correct Boundary of Yendistucky (SKG-054)(see below for discussion), and
2. A small piece of airport property located just south of the highway at MP 4 (Sheet 2, Haines APE 2014 Figure Set 1 of 18).

The AHRS data base was reviewed in May 2014 to determine if any additional historic properties have been reported within the revised APE. No additional historic properties were identified.



## **Identification Efforts**

The boundaries of Yendistucky used in the determination of eligibility and findings of effect have been found to be in error and need to be corrected. Additional features and attributes of Yendistucky (SKG-054) and Smokehouse Village (SKG-044) have also been identified.

### **Yendistucky Village (SKG-054).**

The boundary of Yendistucky Village (see enclosed Figure 1 Correct Boundary of Yendistucky (SKG-054)) is different than previously shown in our DoE letter dated November 28, 2011, and information contained in a supporting report by Cultural Resource Consultants LLC (CRC) (*Archaeological Field Survey of Proposed Alternatives for the Improvements of the Haines Highway from Milepost 3.5 to 25.3*, October 2011). The boundary previously recommended by CRC was based on a hand sketch of the Yendistucky Village boundary that was part of a Sealaska Corporation 1975 document (*Native Cemetery and Historic Sites of Southeast Alaska*). That sketch did not show the correct boundary.

The 1916 plat of U.S. Survey No. 908 village reservation boundaries, which is supported by CIA and CIV, extend further west across the highway to the former meander line of the Chilkat River and includes Smokehouse Village. It also extends further south onto the Haines Airport property and further east toward the mountains.

Consultations with the CIA during the fall of 2013 confirmed the boundary of Yendistucky as well as the importance of this area to the Tlingit people. The original proposed action described in the 2012 DoE letter and January 2013 finding letter included realigning the Haines Highway by cutting into the Yendistucky bluff incorrectly assuming that the bluff was outside of the boundary of Yendistucky. CIA commented on the July 2013 Environmental Assessment that the proposed action of cutting into the bluff would be considered an adverse effect. This resulted in DOT&PF's decision to realign the road away from the Yendistucky bluff.

In support of a request from the CIA; Sealaska Corporation Inc. and Sealaska Heritage Institute to avoid the Yendistucky bluff, Dr. Chuck Smythe prepared a white paper dated January 28, 2014 regarding the importance of shamanistic landscapes (enclosed). In it Dr. Smythe states that Yendistucky Village has a shamanistic landscape that should be protected.

DOT&PF brought the Yendistucky boundary error to the attention of SHPO staff and the Alaska Heritage Resource Survey (AHRS) data base has been updated. FHWA is formally presenting this information in support of the revised APE and finding of affect to both Yendistucky and Smokehouse Village presented in this consultation letter.

Additional investigations in the vicinity of MP 4 of the highway were also requested by CIA to resolve uncertainty about past highway construction impacts on burials in this area.

Between October 16 and 21, 2013, CRC archaeologists Dr. Linda Finn Yarborough and Sarah Meitl completed a Ground Penetrating Radar (GPR) survey in the vicinity of Yendistucky Village (CRC, January 2014, enclosed). The areas surveyed (see Figure 3 in the January 2014 report) were selected by representatives of the CIA Tribal Council and included:

1. A 361-foot long segment of the Haines Highway immediately south of the main Yendistucky Village site and north of the western end of the Haines Airport
2. The bluff west of Yendistucky Village and adjacent to the Haines Highway, between the bluff edge and the power and communications line to the east.

A third site, in the turnout area across from the bluff, was also identified for the GPR survey if there was adequate time. There was not adequate time to survey this site.

The GPR survey documented a modern culvert in the eastern part of the highway segment, but no anomalies were encountered that suggested the presence of burials either under the highway or on the bluff. A linear anomaly at a depth of about 7 to 10.5 feet in highway survey grid #1 may indicate the presence of compacted soil caused by a former road or trail. Small round anomalies at depths of about 5.8 to 10.3 feet in highway grid #6 might be pilings, posts, or post holes related to a structure or structures associated with Yendistucky. Both of these anomalies are within the APE. It is not possible to say with certainty what these anomalies represent without excavations.

The DOT&PF Southeast Regional archaeologist Michael Kell recently reviewed the findings of a cultural resource investigation conducted by J.D. McMahan and C.E. Holmes of Department of Natural Resource's Office of History and Archaeology (OHA) (April 1989). McMahan and Holmes found that, while the 1916 platted Yendistucky Reservation included the Chilkat River shoreline where the airport was built, the main features of the village of Yendistucky (houses and burials) were located entirely to the north of the existing highway. This detailed survey report was also used by CRC in support of their archaeological field survey and their recommendations for the proposed Haines Highway MP 3.5 to 25.3 project (CRC, 2011).

#### **Smokehouse Village (SKG-044).**

To further understand the potential to effect features and attributes of Smokehouse Village from the revised highway alignment at MP 4, Michael Yarborough (CRC) reviewed the field notes taken during CRC's field work done between 2005 and 2009 within the Smokehouse Village boundaries. The DOT&PF Southeast Regional archaeologist also visited the site on May 7, 2014 to verify the location of features identified by CRC in earlier field surveys. Both CRC and Michael Kell used Global Positioning System (GPS) technology to clarify the location of identified fish pits associated with traditional use of Smokehouse Village relative to our proposed project (see Figure 2. Revised Proposed Action in Vicinity of Smokehouse Village (SKG-044) ) but the technology used by Kell allowed for a more accurate location of the feature closest to the proposed action (Fish Pit at waypoint #87).

#### **Revised Finding of Effect for Yendistucky Village (SKG-054)**

The FHWA is formally requesting SHPO's concurrence on revisions to the Yendistucky boundary and a finding of No Adverse Effect for the village of Yendistucky (SKG-054). The boundary of the Yendistucky Village has been expanded further west and south based on the 1916 plat of US Survey No. 908 (see Figure 1. Correct Boundary of Yendistucky (SKG-054)

and Sheet 2 of Haines APE 2014 Figure Set 1 thru 18. ). Except for the boundary expansion, there are no changes to the Yendistucky Village DOE for the National Register under Criteria A and D. To more accurately represent the area of potential effects, the entire expanded boundary of Yendistucky Village is now within the project's APE.

The proposed realignment would result in an expansion of the Haines Highway footprint within Yendistucky (SKG-054) but the footprint would be less than the alignment proposed in the July 2013 EA. Figure 2. Revised Proposed Action in Vicinity of Smokehouse Village (SKG-044) shows the areas of Yendistucky where ground disturbing actions would occur during construction. All proposed ground disturbing actions within SKG-054 would be within areas that have been previously disturbed to some degree.

Based on the CRC and McMahn work, there are no archaeological features remaining in the vicinity of the road and below the road and the features and attributes that make this site eligible under Criteria A and D are associated with the village and burials located above the highway. According to Smythe (January 2014), the bluff is also an important feature in the eligibility of SKG-054. The bluff and the main village site located to the north and upgradient of the Haines Highway would not be directly affected. The results of the GPR survey found anomalies within the project footprint under the existing road. However, an analysis of the depth of the anomalies compared with the proposed cross sections show the anomalies are deeper than proposed groundwork at this location and so these anomalies would not be affected by project construction.

Based recent research and fieldwork conducted by CRC and with the realignment of the highway away from the Yendistucky bluff, there would be no direct adverse effects to features and attributes that make Yendistucky (SKG-054) eligible for the National Register.

The potential for indirect visual effects was also evaluated. With the change in alignment away from the Yendistucky bluff, the existing dense vegetation would visually shield the portion of Yendistucky located above the highway from project activities. Therefore, there would be no indirect adverse effects.

Based on the fact that DOT&PF would be working within the boundaries of Yendistucky (SKG-054) as described in the 1916 plat and enclosed APE, a finding of No Historic Properties Affected is not valid. For the aforementioned reasons, DOT&PF recommends and FHWA finds that the project would have No Adverse Effect on the characteristics that qualify Yendistucky for listing in the National Register.

#### **Finding of Effect for Smokehouse Village (SKG-044)**

The 1916 plat of Yendistucky Reservation includes the village area with houses, graves, and a demarcated fishing ground. Based on historic research and field surveys, the fishing ground has been determined to be a separate eligible historic site known as Smokehouse Village. The SHPO has concurred with this determination and Smokehouse Village is identified as SKG-044.

Smokehouse Village (SKG-044) is located next to the Chilkat River and within the southwestern area of Yendistucky (SKG-054) and is entirely within the project's APE.

As originally designed, the alignment upon which the January 2013 finding of No Adverse Effect for Smokehouse Village was based, avoided construction activities within SKG-044's boundary. That alignment would have resulted in cutting into the Yendistucky bluff. Through the summer of 2013 and into 2014, FHWA continued consultations with the CIA, CIV, Sealaska Heritage, and Sealaska Corporation due to concerns about the Proposed Action's impacts to Yendistucky resulting from excavation of a portion of the bluff. In addition, Tribal members confirmed that Smokehouse Village is still a traditional use area for eulachon rendering and salmon fishing and that highway access to the Smokehouse Village site is very important.

Following those consultations, DOT&PF developed a proposed highway alignment that would avoid Yendistucky bluff and meet the project's purpose and need. The newly developed alignment moves the road onto a small portion of airport property and into the Chilkat River but also would require some embankment fill in Smokehouse Village. Both CIA and CIV favor the newly developed alignment. See Figure 2. Revised Proposed Action in Vicinity of Smokehouse Village (SKG-044).

The new alignment tapers the embankment of the proposed road 1 to 12 feet into the boundaries of Smokehouse Village (5,275 square feet or 0.12 acre)(see Figure 2. Revised Proposed Action in Vicinity of Smokehouse Village (SKG-044)). The access point off Haines Highway used by Chilkat and Chilkoot tribal members during their fishing activities would be improved to meet standards. Although the traditional and current use of rendering pits, the existing sheds, and most vegetation would not be affected, an area of Smokehouse Village adjacent to the existing roadway would be impacted.

The fill avoids the site's identified fish pit features and further examination by CRC of the shovel test data collected in support of their October 2011 report indicates that the areas proposed for fill are likely comprised of a layer of forest duff over sandy/silty soil that have lower potential to contain cultural materials. According to M. Yarborough, it is unlikely that archaeological resources would be affected by the proposed fill. Based on consultations with CIA and CIV, this proposed action would not adversely affect activities associated with traditional use. Placing additional fill within the site would likely not affect or diminish the characteristics that qualify Smokehouse Village for listing on the National Register.

Therefore, DOT&PF recommends and FHWA finds that the Revised Proposed Action would not adversely affect the features and attributes that make Smokehouse Village eligible for the National Register under either Criteria A or D.

### **Consultation Efforts**

Recent consultation during 2013 and 2014 with the CIV Tribal Council; the CIA Tribal Council; Sealaska Corporation, Inc.; and Sealaska Heritage Institute have indicated that Yendistucky is spiritually important to them because of ancestors who lived there and are buried close to the residential portion of the village. Miraglia's 2009 documentation (*Yindastuki and Chilkoot Village: The Fates of Two Chilkat Tlingit Villages Claimed Under ANCSA Section 14(h)(1)*) also supports the interpretation that the site is culturally significant to the Tribes. DOT&PF has responded to these comments by realigning the Haines Highway to avoid direct impacts to the Yendistucky bluff near MP 4.


In conclusion, we respectfully seek your review and comments with our:

- revised property boundary for Yendistucky (SKG-054), and
- findings of No Adverse Effect for Yendistucky and Smokehouse Village.

We have asked the consulting parties, including the Advisory Council on Historic Preservation, of their interest in participating in the resolution of the adverse effects with the development of a Memorandum of Agreement. In addition to your Tribe, the SHPO, Chilkoot Indian Association, Sealaska Corporation, and Sealaska Heritage Institute have all requested to participate. The Advisory Council has declined to participate. A draft MOA is being developed and will be made available to you when this finding of effect consultation is complete.

Please direct your concurrence or comments on the content of this letter to me at the address above, by telephone at (907) 586-7544, or by e-mail at [alex.viteri@dot.gov](mailto:alex.viteri@dot.gov) .

Sincerely,

  
Alex Viteri Jr., P.E.  
Southeast Area Engineer

## Cited:

CRC. 2011. Archaeological Field Survey of Proposed Alternative for the Improvement of the Haines Highway from MP 3.5 to 25.3, DOT&PF Project Number 68606, Haines, Alaska. October 2011.

McMahan, J.D. and C.E. Holmes. 1989. *A Cultural Resource Investigation at Haines Airport, Haines, Alaska (Project No. 69523)*. Office of History and Archaeology Report Number 16. Office of History and Archaeology, Division of Parks and Outdoor Recreation, Alaska Department of Natural Resources. Anchorage, Alaska.

Miraglia, R.A. 2009. Yindastuki and Chilkoot Village: The Fates of Two Chilkat Tlingit Villages Claimed Under ANCSA Section 14(h)(1). In K.L. Pratt (ed.). *Chasing the Dark, Perspectives on Place, History, and Alaska Native Land Claims. Shadowlands, Volume 1*. U.S. Department of Interior, Bureau of Indian Affairs, Alaska Region, Division of Environmental and Cultural Resources Management, ANSCA Office. Anchorage, Alaska.

Sealaska Corporation. 1975. *Native Cemetery & Historic Sites of Southeast Alaska*. Submitted to Sealaska Corporation by Wilsey & Ham, Seattle.

## Enclosures:

Table 1 – Project Location by Township and Range

Copy of the letter from FHWA to SHPO dated November 28, 2011

Haines APE 2014 Figure Set 1 thru 18

Figure 1. Correct Boundary of Yendistucky (SKG-054)

Figure 2. Revised Proposed Action in Vicinity of Smokehouse Village (SKG-044)

Yandeistakye Spiritual and Shamanic Landscape, CW Smythe PhD, January 28, 2014

Office of History and Archaeology Report:

*Ground Penetrating Radar Survey for the Haines Highway Improvement Project, No. 68606, In the vicinity of Yendistucky Village*. Prepared by Dr. Linda Finn Yarborough, Cultural Resource Consultants LLC. Prepared for DOWL HKM. January, 2014.

## Electronic cc w/o enclosures:

Gregory Lockwood, P.E., DOT&PF, Project Manager

Jane Gendron, DOT&PF, Southeast Regional, Environmental Manager

Michael Kell, DOT&PF, Southeast Region, Regional, Archaeologist

Laurie Mulcahy, DOT&PF, Statewide Cultural Resources Manager

Jim Scholl, DOT&PF, Southeast Region, Project Environmental Coordinator



THE STATE  
of **ALASKA**  
GOVERNOR SEAN PARNELL

**Department of Natural Resources**

DIVISION OF PARKS AND OUTDOOR RECREATION  
Office of History and Archaeology

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Anchorage, Alaska 99501-3565  
Web: <http://dnr.alaska.gov/parks/oha>  
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September 19, 2013

File No.: 3130-1R FHWA

Alex Viteri Jr., P.E.  
Federal Highway Administration  
Southeast Region Area Engineer  
P.O. Box 21648  
Juneau, AK 99802-1648

Subject: Haines Highway Improvements between Milepost (MP) 3.5 and 25.3 near Haines, Alaska

Dear Mr. Viteri:

The Alaska State Historic Preservation Office (AK SHPO) received your correspondence (dated September 3, 2013) on September 5, 2013.

Following our review of the documentation provided, we concur that the planned activities at the Gate Valve (GV) #4 of the Haines-Fairbanks Pipeline (SKG-206) will not affect the eligibility of GV#4 and will result in **no adverse effect** to SKG-206. We look forward to receiving before and after photographs of GV#4.

Please note that as additional information provided by the local government, Tribes or other consulting parties may cause our office to re-evaluate our comments and recommendations.

Thank you for the opportunity to comment. Please contact Shina duVall at 269-8720 or [shina.duvall@alaska.gov](mailto:shina.duvall@alaska.gov) if you have any questions or if we can be of further assistance.

Sincerely,

A handwritten signature in cursive script, appearing to read "Judith E. Bittner".

Judith E. Bittner  
State Historic Preservation Officer

JEB:sad

## Tuttell, Maryellen

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**Subject:** FW: 68606 HNS: MP 3.5 to 25.3 / Enclosures to the findings letters

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**From:** Duvall, Shina A (DNR)  
**Sent:** Thursday, June 27, 2013 1:51 PM  
**To:** Gendron, Jane D (DOT); [Alex.Viteri@dot.gov](mailto:Alex.Viteri@dot.gov)  
**Cc:** Scholl, James W (DOT)  
**Subject:** RE: 68606 HNS: MP 3.5 to 25.3 / Enclosures to the findings letters

Hi Jane,

We have received the materials and will be sending back our concurrence letter in response to the revised finding of effect. In the meantime, we understand that there were no additional historic properties identified as a result of the most recent cultural resource inventory conducted within the APE. Thank you for letting us know. We believe we have sufficient information to provide our formal response to the findings letter, which will be forthcoming shortly.

Please let me know if you need anything else.

Best regards,  
Shina

Shina duVall, RPA  
Archaeologist, Review and Compliance Coordinator  
Alaska State Historic Preservation Office / Office of History and Archaeology  
550 W. 7th Ave., Suite 1310  
907-269-8720 (phone) 907-269-8908 (fax)  
[shina.duvall@alaska.gov](mailto:shina.duvall@alaska.gov)

---

**From:** Gendron, Jane D (DOT)  
**Sent:** Wednesday, June 26, 2013 11:26 AM  
**To:** Duvall, Shina A (DNR)  
**Cc:** Scholl, James W (DOT)  
**Subject:** RE: 68606 HNS: MP 3.5 to 25.3 / Enclosures to the findings letters

Hi Shina,  
FHWA signed and mailed the attached letter yesterday. I asked Jim to provide the referenced enclosures which he just sent you.

As we discussed, in order for us to issue the EA to the public, FHWA requires that you concur with the determination that no additional historic resources are present within the expanded APE.

We are hoping to public notice this week (tomorrow). I know this is an "above and beyond" request and appreciate your honest at when we might hear back from you.

Thank you for all your help.



*Jane Gendron*

Environmental Manager  
Alaska Department of Transportation and Public Facilities  
Southeast Region  
P.O. Box 112506  
Juneau, AK 998011-2506  
907-465-4499  
Fax 907-465-3506

---

**From:** Scholl, James W (DOT)  
**Sent:** Wednesday, June 26, 2013 11:20 AM  
**To:** Duvall, Shina A (DNR)  
**Cc:** Gendron, Jane D (DOT)  
**Subject:** 68606 HNS: MP 3.5 to 25.3 / Enclosures to the findings letters

Shina, Attached are the enclosures to the FHWA findings letter. The total file size is about 16 MB so if this e-mail is returned I will resend in two parts. If you wish I can have the enclosures printed in Anchorage and delivered to your office, today. Please let me know and I will gladly have that done.

***Jim Scholl***

Environmental Analyst  
ADOT&PF SE Region  
6860 Glacier Highway  
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U.S. Department  
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**Federal Highway  
Administration**

**Alaska Division**

June 24, 2013

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(907) 586-7420  
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In Reply Refer To:  
SHAK-956(028)/68606

Ms. Judith Bittner  
State Historic Preservation Officer  
Alaska Office of History and Archaeology  
550 W. 7<sup>th</sup> Avenue, Suite 1310  
Anchorage, AK 99501

Dear Ms. Bittner:

The Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Alaska Division of the Federal Highway Administration (FHWA), is proposing to improve the Haines Highway between Milepost (MP) 3.5 and MP 25.3 (see Area of Potential Effect Figures 1-18, and Table 1 – Project Location by Township and Range).

**Table 1 – Project Location by Township and Range**

Township	Range	Section	USGS Quad Map	Meridian
30S	59E	19	Skagway A-2	Copper River
30S	58E	6,7,8,14,15,16,17,23,24		
29S	58E	31		
29S	57E	5,6,8,9,14,15,16,23,25,26,36		
28S	56E	29,32,33,34		

On January 15, 2013, FHWA submitted a finding of adverse effect on historic properties by the proposed project pursuant to 36 CFR 800.4(d) (2) and 800.5(d) (2), implementing regulations of Section 106 of the National Historic Preservation Act. Since that time, design issues and consultations with tribal groups have resulted in a need to expand the Area of Potential Effect (APE) in several places along the highway corridor. This letter supplements the findings letter submitted on January 15, 2013 with an expanded APE.

**Project Description**

The broad proposed project description provided in January 2013, the location of identified historic properties, and, with the exception of SKG-206 the Haines Fairbanks Pipeline—Gate Valve #4 (GV#4), the finding of effect on historic properties have not changed. Modifications to the proposed road section at GV#4 and a proposed extension of the concrete vault to match the embankment surface have eliminated the need to remove the GV#4.

Two additional proposed project modifications, identified below, expanded a portion of the project's APE.

1. A recent field review identified a potential need to expand rock cuts in some areas along the proposed project.
2. Consultation with the Chilkat Indian Tribe resulted in a proposed highway realignment from Station 1075+00 to 1135+00 and relocation of the Klukwan Village/Haines Highway intersection at Station 1105+00.

The project's APE is shown in attached Figures 2 thru 18 with expanded portions of the APE highlighted in yellow.

### **Area of Potential Effect**

The expanded APE for the rock cut areas and road realignments account for direct impacts only. There are no structures on or in the viewshed of these expanded areas. There is no indirect APE, only a direct APE.

### **Identification of Resources**

From April 11 to 13, 2013, DOT&PF's regional archaeologist and a Cultural Resource Consultants, LLC archaeologist completed surveys to identify historical and archaeological resources within the expanded APE. The additional survey in rock cut areas and the Klukwan area did not identify any additional historic properties that might be affected by the proposed project. Enclosed is a report prepared by DOT&PF's Southeast Region Archaeologist, Michael Kell, which describes the survey methodologies and presents the results.

### **Finding of Effect**

Based on the April 2013 survey, DOT&PF recommends that there are no new historic resources identified. FHWA agrees with DOT&PF's recommendation and determines that no additional historic or cultural resources are present within the project's APE. Therefore, there are no additional resources that would be affected by the proposed project including the added rock cut areas and realignments.

DOT&PF Southeast Region's archaeologist also evaluated the new elements of the proposed action to determine if these actions would directly or indirectly affect previously identified resources in the APE. Based on this evaluation, DOT&PF recommends that the change in proposed action at rock cut areas and realignments in the Klukwan area would not change the original finding of effect on identified resource.

DOT&PF does recommend one change to FHWA's existing findings; that GV #4 would not be adversely affected. The FHWA agrees with DOT&PF's recommendation, and finds that there is one change to the January 15, 2013 findings of effect. FHWA finds that the project would have no adverse effect on SKG-206, the Haines Fairbanks Pipeline Gate Valve #4. FHWA's previous finding on all other identified historic properties has not changed (see attached letter dated January 15, 2013).

The following Section 106 consulting parties are involved with this project:

- Chilkat Indian Village of Klukwan
- Chilkoot Indian Association of Haines
- Central Council Tlingit and Haida Indian Tribes of Alaska
- Sealaska Corporation
- Klukwan, Incorporated
- Sealaska Heritage Institute
- Advisory Council on Historic Preservation (ACHP) (finding of effect only)


Previous consultation efforts are summarized in FHWA's January 15, 2013 findings of effect. DOT&PF did contact the Chilkat Indian Village (Tribe) on April 12, 2013, to discuss the survey work in the Klukwan area (see "Tribal Consultations" section of the attached report). The Tribe encouraged the finalization of the cultural evaluation and had no additional cultural concerns about the additional survey work.

Consulting parties were contacted with the January 15, 2013, findings letter to determine their interest in participating in consultation for the resolution of the adverse effects on the Chilkat River Bridge and the Haines Fairbanks Pipeline District's Gate Valve #4. In the State Historic Preservation Officer (SHPO) response letter of January 28, 2013, you indicated your interest in participating in the consultation for the resolution of adverse effects and the development of the Memorandum of Agreement (MOA). The ACHP notified FHWA in a letter dated January 30, 2013, that they did not believe their participation in the MOA was needed (enclosed). So far, FHWA has not heard from any other consulting parties.

With this letter we are extending the opportunity for the Section 106 consulting parties listed above to determine their interest in participating in consultation for the resolution of the adverse effects on the Chilkat River Bridge and in the development of a MOA.

Please direct your concurrence regarding this supplemental determination and revised finding of effect or comments to me at the address above, by telephone at (907)586-7544, or by e-mail at [alex.viteri@dot.gov](mailto:alex.viteri@dot.gov).

Sincerely,

  
Alex Viteri Jr., P.E.  
Southeast Area Engineer

## Enclosures:

Area of Potential Effect Figures 1-18  
Office of History and Archaeology Coversheet  
DOT&PF Report, *Field Reconnaissance Archeological Survey of Expanded APE for the Improvement of the Haines Highway from Milepost 21 to 22 including Cultural Resource Consultants Report, With Supplemental Archeological Survey Report for Milepost 6-18 by CRC.*  
FHWA letter to J. Bittner/SHPO dated January 15, 2013  
LaShavio Johnson/ACHP letter to D. Miller/FHWA dated January 30, 2013

## Electronically cc w/o enclosures:

Gregory Lockwood, P.E., DOT&PF, Project Manager  
Jane Gendron, DOT&PF, Southeast Regional, Environmental Manager  
Michael Kell, DOT&PF, Southeast Region, Regional Archaeologist  
Laurie Mulcahy, DOT&PF, Statewide Cultural Resources Specialist  
Jim Scholl, DOT&PF, Southeast Region, Project Environmental Coordinator



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**Alaska Division**

June 24, 2013

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In Reply Refer To:  
SHAK-956(028)/68606

Ms. Harriet Brouillette  
President  
Chilkoot Indian Association of Haines  
P.O. Box 490  
Haines, AK 99827

Dear Ms. Brouillette:

The Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Alaska Division of the Federal Highway Administration (FHWA), is proposing to improve the Haines Highway between Milepost (MP) 3.5 and MP 25.3 (see Area of Potential Effect Figures 1-18, and Table 1 – Project Location by Township and Range).

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29S	57E	5,6,8,9,14,15,16,23,25,26,36		
28S	56E	29,32,33,34		

On January 15, 2013, FHWA submitted a finding of adverse effect on historic properties by the proposed project pursuant to 36 CFR 800.4(d) (2) and 800.5(d) (2), implementing regulation of Section 106 of the National Historic Preservation Act. Since that time, design issues and consultations with tribal groups have resulted in a need to expand the Area of Potential Effect (APE) in several places along the highway corridor. This letter supplements the findings letter submitted on January 15, 2013 with an expanded APE.

**Project Description**

The broad proposed project description, the location of identified historic properties, and, with the exception of SKG-206 the Haines Fairbanks Pipeline—Gate Valve #4 (GV#4), the finding of effect on historic properties have not changed. Modifications to the proposed road section and a proposed extension of the concrete vault to match the embankment surface at GV#4 have eliminated the need to remove the GV#4.

Two additional proposed project modifications, identified below, expanded a portion of the project's APE.

1. A recent field review identified a potential need to expand rock cuts in some areas along the proposed project.
2. Consultation with the Chilkat Indian Tribe resulted in a proposed highway realignment from Station 1075+00 to 1135+00 and relocation of the Klukwan Village/Haines Highway intersection at Station 1105+00.

The project's APE is shown in attached Figures 2 thru 18 with expanded portions of the APE highlighted in yellow.

### **Area of Potential Effect**

The expanded APE for the rock cut areas and road realignments account for direct impacts only. There are no structures on or in the viewshed of these expanded areas. There is no indirect APE, only a direct APE.

### **Identification of Resources**

From April 11 to 13, 2013, DOT&PF's regional archaeologist and a Cultural Resource Consultants, LLC archaeologist completed surveys to identify historical and archaeological resources within the expansion areas of the APE. The additional testing in rock cut areas and the Klukwan area did not identify any additional historic properties that might be affected by the proposed project. Enclosed is a report prepared by DOT&PF's Southeast Region Archaeologist, Michael Kell, which describes the survey methodologies and presents the results.

### **Finding of Effect**

Based on the April 2013 survey, DOT&PF recommends that there are no new historic resources identified. FHWA agrees with DOT&PF's recommendation and determines that no additional historic or cultural resources are present within the project's APE. Therefore, there are no additional resources that would be affected by the proposed project including the added rock cut areas and realignments.

DOT&PF Southeast Region's archaeologist also evaluated the new elements of the proposed action to determine if these actions would directly or indirectly affect previously identified resources in the APE. Based on this evaluation, DOT&PF recommends that the change in proposed action at rock cut areas and realignments in the Klukwan area would not change the original finding of effect on identified resource.

DOT&PF does recommend one change to FHWA's existing findings; that GV #4 would not be adversely affected. The FHWA agrees with DOT&PF's recommendation, and finds that there is one change to the January 15, 2013 findings of effect. FHWA finds that the project would have no adverse effect on SKG-206, the Haines Fairbanks Pipeline Gate Valve #4. FHWA's previous finding on all other identified historic properties has not changed (see attached letter dated January 15, 2013).

The following Section 106 consulting parties are involved with this project:

- State Historic Preservation Officer (SHPO)
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- Sealaska Corporation
- Klukwan, Incorporated
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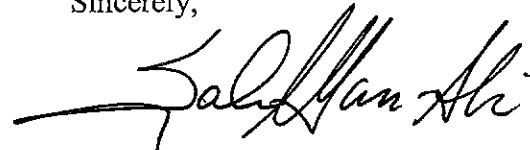
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With this letter we are extending the opportunity for the Section 106 consulting parties listed above to determine their interest in participating in consultation for the resolution of the adverse effects on the Chilkat River Bridge and in the development of a MOA.

If you wish to comment on this finding or let FHWA know of your interest in participating in the MOA, I can be reached at the above contact information. In addition, Alex Viteri, Jr., P.E., Southeast Area Engineer, is available at the same address above, by telephone at (907) 586-7544, or by e-mail at [alex.viteri@dot.gov](mailto:alex.viteri@dot.gov). However, we respectfully request that your comments or consultation requests be received within thirty days of your receipt of this correspondence.

Sincerely,



for David C. Miller  
Division Administrator



## Enclosures:

Area of Potential Effect Figures 1-18

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FHWA letter to J. Bittner/SHPO dated January 15, 2013

LaShavio Johnson/ACHP letter to D. Miller/FHWA dated January 30, 2013

## Electronically cc w/o enclosures:

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U.S. Department  
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**Federal Highway  
Administration**

**Alaska Division**

June 24, 2013

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[www.fhwa.dot.gov/akdiv](http://www.fhwa.dot.gov/akdiv)

In Reply Refer To:  
SHAK-956(028)/68606

Mr. Niles Cesar  
Regional Director  
Bureau of Indian Affairs, Regional Office  
P.O. Box 25520  
Juneau, AK 99802

Dear Mr. Cesar:

The Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Alaska Division of the Federal Highway Administration (FHWA), is proposing to improve the Haines Highway between Milepost (MP) 3.5 and 25.3 (see Area of Potential Effect Figures 1-18, and Table 1 – Project Location by Township and Range).

**Table 1 – Project Location by Township and Range**

Township	Range	Section	USGS Quad Map	Meridian
30S	59E	19	Skagway A-2	Copper River
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On January 15, 2013, FHWA submitted a finding of adverse effect on historic properties by the proposed project pursuant to 36 CFR 800.4(d) (2) and 800.5(d) (2), implementing regulation of Section 106 of the National Historic Preservation Act. Since that time, design issues and consultations with tribal groups have resulted in a need to expand the Area of Potential Effect (APE) in several places along the highway corridor. This letter modifies the findings letter submitted on January 15, 2013 only in the extent of the APE.

**Project Description**

The broad proposed project description, the location of identified historic properties, and, with the exception of SKG-206 the Haines Fairbanks Pipeline—Gate Valve #4 (GV#4), the finding of effect on historic properties have not changed. Modifications to the proposed road section at GV#4 and a proposed extension of the concrete vault to match the embankment surface have eliminated the need to remove the GV#4.

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### **Identification of Resources**

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### **Finding of Effect**

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The following Section 106 consulting parties are involved with this project:

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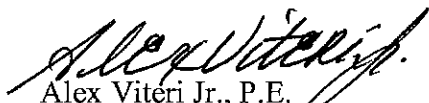
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With this letter we are extending the opportunity for the Section 106 consulting parties listed above to determine their interest in participating in consultation for the resolution of the adverse effects on the Chilkat River Bridge and in the development of a MOA.

If you wish to comment on this finding, I can be reached at the address above, by telephone at (907) 586-7544, or by e-mail at [alex.viteri@dot.gov](mailto:alex.viteri@dot.gov). However, please note that to receive consideration your comments must be received within thirty days of your receipt of this correspondence.

Sincerely,

  
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## Enclosures:

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In Reply Refer To:  
SHAK-956(028)/68606

Mr. Jones Hotch  
President  
Chilkat Indian Village  
P.O. Box 210  
Haines, AK 99827

Dear Mr. Hotch:

The Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Alaska Division of the Federal Highway Administration (FHWA), is proposing to improve the Haines Highway between Milepost (MP) 3.5 and MP 25.3 (see Area of Potential Effect Figures 1-18, and Table 1 – Project Location by Township and Range).

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On January 15, 2013, FHWA submitted a finding of adverse effect on historic properties by the proposed project pursuant to 36 CFR 800.4(d) (2) and 800.5(d) (2), implementing regulation of Section 106 of the National Historic Preservation Act. Since that time, design issues and consultations with tribal groups have resulted in a need to expand the Area of Potential Effect (APE) in several places along the highway corridor. This letter supplements the findings letter submitted on January 15, 2013 with an expanded APE.

**Project Description**

The broad proposed project description, the location of identified historic properties, and, with the exception of SKG-206 the Haines Fairbanks Pipeline—Gate Valve #4 (GV#4), the finding of effect on historic properties have not changed. Modifications to the proposed road section and a proposed extension of the concrete vault to match the embankment surface at GV#4 have eliminated the need to remove the GV#4.

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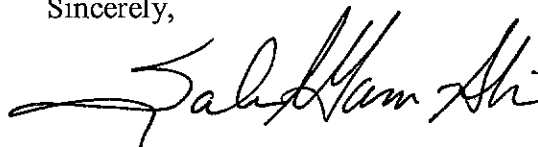
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for David C. Miller  
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In Reply Refer To:  
SHAK-956(028)/68606

Mr. Les Katzeek  
President  
Klukwan, Inc.  
P.O. Box 209  
Haines, AK 99827

Dear Mr. Katzeek:

The Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Alaska Division of the Federal Highway Administration (FHWA), is proposing to improve the Haines Highway between Milepost (MP) 3.5 and 25.3 (see Area of Potential Effect Figures 1-18, and Table 1 – Project Location by Township and Range).

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In Reply Refer To:  
SHAK-956(028)/68606

Ms. Michele Metz  
Assistant Lands Manager  
Sealaska Corporation  
One Sealaska Plaza, Suite 301  
Juneau, AK 99801

Dear Ms. Metz:

The Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Alaska Division of the Federal Highway Administration (FHWA), is proposing to improve the Haines Highway between Milepost (MP) 3.5 and 25.3 (see Area of Potential Effect Figures 1-18, and Table 1 – Project Location by Township and Range).

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Based on the April 2013 survey, DOT&PF recommends that there are no new historic resources identified. FHWA agrees with DOT&PF's recommendation and determines that no additional historic or cultural resources are present within the project's APE. Therefore, there are no additional resources that would be affected by the proposed project including the added rock cut areas and realignments.

DOT&PF Southeast Region's archaeologist also evaluated the new elements of the proposed action to determine if these actions would directly or indirectly affect previously identified resources in the APE. Based on this evaluation, DOT&PF recommends that the change in proposed action at rock cut areas and realignments in the Klukwan area would not change the original finding of effect on identified resource.

DOT&PF does recommend one change to FHWA's existing findings; that GV #4 would not be adversely affected. The FHWA agrees with DOT&PF's recommendation, and finds that there is one change to the January 15, 2013 findings of effect. FHWA finds that the project would have no adverse effect on SKG-206, the Haines Fairbanks Pipeline Gate Valve #4. FHWA's previous finding on all other identified historic properties has not changed (see attached letter dated January 15, 2013).

The following Section 106 consulting parties are involved with this project:

- State Historic Preservation Officer (SHPO)
- Chilkat Indian Village of Klukwan
- Chilkoot Indian Association of Haines
- Central Council Tlingit and Haida Indian Tribes of Alaska
- Klukwan, Incorporated
- Sealaska Heritage Institute
- Advisory Council on Historic Preservation (ACHP) (finding of effect only)

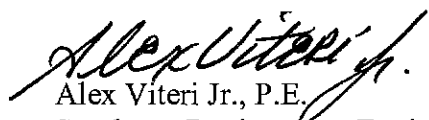
Previous consultation efforts are summarized in FHWA's January 15, 2013 findings of effect. DOT&PF did contact the Chilkat Indian Village (Tribe) on April 12, 2013, to discuss the survey work in the Klukwan area (see "Tribal Consultations" section of the attached report). The Tribe encouraged the finalization of the cultural evaluation and had no additional cultural concerns about the additional survey work.

Consulting parties were contacted with the January 15, 2013, findings letter to determine their interest in participating in consultation for the resolution of the adverse effects on the Chilkat River Bridge and the Haines Fairbanks Pipeline District's Gate Valve #4. In the SHPO response letter of January 28, 2013, they did indicate interest in participating in the consultation for the resolution of adverse effects and the development of the Memorandum of Agreement (MOA). The ACHP notified FHWA in a letter dated January 30, 2013, that they did not believe their participation in the MOA was needed (enclosed). So far, FHWA has not heard from any other consulting parties.

With this letter we are extending the opportunity for the Section 106 consulting parties listed above to determine their interest in participating in consultation for the resolution of the adverse effects on the Chilkat River Bridge and in the development of a MOA.

If you wish to comment on this finding, I can be reached at the address above, by telephone at (907) 586-7544, or by e-mail at [alex.viteri@dot.gov](mailto:alex.viteri@dot.gov). However, please note that to receive consideration your comments must be received within thirty days of your receipt of this correspondence.

Sincerely,

  
Alex Viteri Jr., P.E.  
Southeast Region Area Engineer



## Enclosures:

Area of Potential Effect Figures 1-18

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FHWA letter to J. Bittner/SHPO dated January 15, 2013

LaShavio Johnson/ACHP letter to D. Miller/FHWA dated January 30, 2013

## Electronically cc w/o enclosures:

Gregory Lockwood, P.E., DOT&PF, Project Manager

Jane Gendron, DOT&PF, Southeast Regional Environmental Manager

Michael Kell, DOT&PF, Southeast Region, Regional Archaeologist

Laurie Mulcahy, DOT&PF, Statewide Cultural Resources Specialist

Jim Scholl, DOT&PF Southeast Region, Project Environmental Coordinator



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**Alaska Division**

June 24, 2013

P.O. Box 21648  
Juneau, AK 99802-1648  
(907) 586-7418  
(907) 586-7420  
[www.fhwa.dot.gov/akdiv](http://www.fhwa.dot.gov/akdiv)

In Reply Refer To:  
SHAK-956(028)/68606

Mr. Edward Thomas  
President  
Central Council of the Tlingit and Haida Indian Tribes of Alaska  
320 W. Willoughby Ave., Suite 300  
Juneau, AK 99801

Dear Mr. Thomas:

The Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Alaska Division of the Federal Highway Administration (FHWA), is proposing to improve the Haines Highway between Milepost (MP) 3.5 and MP 25.3 (see Area of Potential Effect Figures 1-18, and Table 1 – Project Location by Township and Range).

**Table 1 – Project Location by Township and Range**

Township	Range	Section	USGS Quad Map	Meridian
30S	59E	19	Skagway A-2	Copper River
30S	58E	6,7,8,14,15,16,17,23,24		
29S	58E	31		
29S	57E	5,6,8,9,14,15,16,23,25,26,36		
28S	56E	29,32,33,34		

On January 15, 2013, FHWA submitted a finding of adverse effect on historic properties by the proposed project pursuant to 36 CFR 800.4(d) (2) and 800.5(d) (2), implementing regulation of Section 106 of the National Historic Preservation Act. Since that time, design issues and consultations with tribal groups have resulted in a need to expand the Area of Potential Effect (APE) in several places along the highway corridor. This letter supplements the findings letter submitted on January 15, 2013 with an expanded APE.

**Project Description**

The broad proposed project description, the location of identified historic properties, and, with the exception of SKG-206 the Haines Fairbanks Pipeline—Gate Valve #4 (GV#4), the finding of effect on historic properties have not changed. Modifications to the proposed road section and a proposed extension of the concrete vault to match the embankment surface at GV#4 have eliminated the need to remove the GV#4.

Two additional proposed project modifications, identified below, expanded a portion of the project's APE.

1. A recent field review identified a potential need to expand rock cuts in some areas along the proposed project.
2. Consultation with the Chilkat Indian Tribe resulted in a proposed highway realignment from Station 1075+00 to 1135+00 and relocation of the Klukwan Village/Haines Highway intersection at Station 1105+00.

The project's APE is shown in attached Figures 2 thru 18 with expanded portions of the APE highlighted in yellow.

### **Area of Potential Effect**

The expanded APE for the rock cut areas and road realignments account for direct impacts only. There are no structures on or in the viewshed of these expanded areas. There is no indirect APE, only a direct APE.

### **Identification of Resources**

From April 11 to 13, 2013, DOT&PF's regional archaeologist and a Cultural Resource Consultants, LLC archaeologist completed surveys to identify historical and archaeological resources within the expansion areas of the APE. The additional testing in rock cut areas and the Klukwan area did not identify any additional historic properties that might be affected by the proposed project. Enclosed is a report prepared by DOT&PF's Southeast Region Archaeologist, Michael Kell, which describes the survey methodologies and presents the results.

### **Finding of Effect**

Based on the April 2013 survey, DOT&PF recommends that there are no new historic resources identified. FHWA agrees with DOT&PF's recommendation and determines that no additional historic or cultural resources are present within the project's APE. Therefore, there are no additional resources that would be affected by the proposed project including the added rock cut areas and realignments.

DOT&PF Southeast Region's archaeologist also evaluated the new elements of the proposed action to determine if these actions would directly or indirectly affect previously identified resources in the APE. Based on this evaluation, DOT&PF recommends that the change in proposed action at rock cut areas and realignments in the Klukwan area would not change the original finding of effect on identified resource.

DOT&PF does recommend one change to FHWA's existing findings; that GV #4 would not be adversely affected. The FHWA agrees with DOT&PF's recommendation, and finds that there is one change to the January 15, 2013 findings of effect. FHWA finds that the project would have no adverse effect on SKG-206, the Haines Fairbanks Pipeline Gate Valve #4. FHWA's previous finding on all other identified historic properties has not changed (see attached letter dated January 15, 2013).

The following Section 106 consulting parties are involved with this project:

- State Historic Preservation Officer (SHPO)
- Chilkat Indian Village of Klukwan
- Chilkoot Indian Association of Haines
- Sealaska Corporation
- Klukwan, Incorporated
- Sealaska Heritage Institute
- Advisory Council on Historic Preservation (ACHP) (finding of effect only)

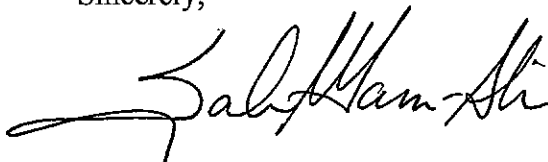
Previous consultation efforts are summarized in FHWA's January 15, 2013 findings of effect. DOT&PF did contact the Chilkat Indian Village (Tribe) on April 12, 2013, to discuss the survey work in the Klukwan area (see "Tribal Consultations" section of the attached report). The Tribe encouraged the finalization of the cultural evaluation and had no additional cultural concerns about the additional survey work.

Consulting parties were contacted with the January 15, 2013, findings letter to determine their interest in participating in consultation for the resolution of the adverse effects on the Chilkat River Bridge and the Haines Fairbanks Pipeline District's Gate Valve #4. In the SHPO response letter of January 28, 2013, they did indicate interest in participating in the consultation for the resolution of adverse effects and the development of the Memorandum of Agreement (MOA). The ACHP notified FHWA in a letter dated January 30, 2013, that they did not believe their participation in the MOA was needed (enclosed). So far, FHWA has not heard from any other consulting parties.

With this letter we are extending the opportunity for the Section 106 consulting parties listed above to determine their interest in participating in consultation for the resolution of the adverse effects on the Chilkat River Bridge and in the development of a MOA.

If you wish to comment on this finding or let FHWA know of your interest in participating in the MOA, I can be reached at the above contact information. In addition, Alex Viteri, Jr., P.E., Southeast Area Engineer, is available at the same address above, by telephone at (907) 586-7544, or by e-mail at [alex.viteri@dot.gov](mailto:alex.viteri@dot.gov). However, we respectfully request that your comments or consultation requests be received within thirty days of your receipt of this correspondence.

Sincerely,



for David C. Miller  
Division Administrator

## Enclosures:

Area of Potential Effect Figures 1-18

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U.S. Department  
of Transportation  
**Federal Highway  
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June 24, 2013

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In Reply Refer To:  
SHAK-956(028)/68606

Ms. Rosita Worl  
President  
Sealaska Heritage Institute  
One Sealaska Plaza, Suite 301  
Juneau, AK 99801

Dear Ms. Worl:

The Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Alaska Division of the Federal Highway Administration (FHWA), is proposing to improve the Haines Highway between Milepost (MP) 3.5 and 25.3 (see Area of Potential Effect Figures 1-18, and Table 1 – Project Location by Township and Range).

**Table 1 – Project Location by Township and Range**

Township	Range	Section	USGS Quad Map	Meridian
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On January 15, 2013, FHWA submitted a finding of adverse effect on historic properties by the proposed project pursuant to 36 CFR 800.4(d) (2) and 800.5(d) (2), implementing regulation of Section 106 of the National Historic Preservation Act. Since that time, design issues and consultations with tribal groups have resulted in a need to expand the Area of Potential Effect (APE) in several places along the highway corridor. This letter modifies the findings letter submitted on January 15, 2013 only in the extent of the APE.

**Project Description**

The broad proposed project description, the location of identified historic properties, and, with the exception of SKG-206 the Haines Fairbanks Pipeline—Gate Valve #4 (GV#4), the finding of effect on historic properties have not changed. Modifications to the proposed road section at GV#4 and a proposed extension of the concrete vault to match the embankment surface have eliminated the need to remove the GV#4.

Two additional proposed project modifications, identified below, expanded a portion of the project's APE.

1. A recent field review identified a potential need to expand rock cuts in some areas along the proposed project.
2. Consultation with the Chilkat Indian Tribe resulted in a proposed highway realignment from Station 1075+00 to 1135+00 and relocation of the Klukwan Village/Haines Highway intersection at Station 1105+00.

The project's APE is shown in attached Figures 2 thru 18 with expanded portions of the APE highlighted in yellow.

### **Area of Potential Effect**

The expanded APE for the rock cut areas and road realignments account for direct impacts only. There are no structures on or in the viewshed of these expanded areas. There is no indirect APE, only a direct APE.

### **Identification of Resources**

From April 11 to 13, 2013, DOT&PF's regional archaeologist and a Cultural Resource Consultants, LLC archaeologist completed surveys to identify historical and archaeological resources within the expansion areas of the APE. The additional testing in rock cut areas and the Klukwan area did not identify any additional historic properties that might be affected by the proposed project. Enclosed is a report prepared by DOT&PF's Southeast Region Archaeologist, Michael Kell, which describes the survey methodologies and presents the results.

### **Finding of Effect**

Based on the April 2013 survey, DOT&PF recommends that there are no new historic resources identified. FHWA agrees with DOT&PF's recommendation and determines that no additional historic or cultural resources are present within the project's APE. Therefore, there are no additional resources that would be affected by the proposed project including the added rock cut areas and realignments.

DOT&PF Southeast Region's archaeologist also evaluated the new elements of the proposed action to determine if these actions would directly or indirectly affect previously identified resources in the APE. Based on this evaluation, DOT&PF recommends that the change in proposed action at rock cut areas and realignments in the Klukwan area would not change the original finding of effect on identified resource.

DOT&PF does recommend one change to FHWA's existing findings; that GV #4 would not be adversely affected. The FHWA agrees with DOT&PF's recommendation, and finds that there is one change to the January 15, 2013 findings of effect. FHWA finds that the project would have no adverse effect on SKG-206, the Haines Fairbanks Pipeline Gate Valve #4. FHWA's previous finding on all other identified historic properties has not changed (see attached letter dated January 15, 2013).

The following Section 106 consulting parties are involved with this project:

- State Historic Preservation Officer (SHPO)
- Chilkat Indian Village of Klukwan
- Chilkoot Indian Association of Haines
- Central Council Tlingit and Haida Indian Tribes of Alaska
- Sealaska Corporation
- Klukwan, Incorporated
- Advisory Council on Historic Preservation (ACHP) (finding of effect only)


Previous consultation efforts are summarized in FHWA's January 15, 2013 findings of effect. DOT&PF did contact the Chilkat Indian Village (Tribe) on April 12, 2013, to discuss the survey work in the Klukwan area (see "Tribal Consultations" section of the attached report). The Tribe encouraged the finalization of the cultural evaluation and had no additional cultural concerns about the additional survey work.

Consulting parties were contacted with the January 15, 2013, findings letter to determine their interest in participating in consultation for the resolution of the adverse effects on the Chilkat River Bridge and the Haines Fairbanks Pipeline District's Gate Valve #4. In the SHPO response letter of January 28, 2013, they did indicate interest in participating in the consultation for the resolution of adverse effects and the development of the Memorandum of Agreement (MOA). The ACHP notified FHWA in a letter dated January 30, 2013, that they did not believe their participation in the MOA was needed (enclosed). So far, FHWA has not heard from any other consulting parties.

With this letter we are extending the opportunity for the Section 106 consulting parties listed above to determine their interest in participating in consultation for the resolution of the adverse effects on the Chilkat River Bridge and in the development of a MOA.

If you wish to comment on this finding, I can be reached at the address above, by telephone at (907) 586-7544, or by e-mail at [alex.viteri@dot.gov](mailto:alex.viteri@dot.gov). However, please note that to receive consideration your comments must be received within thirty days of your receipt of this correspondence.

Sincerely,

  
Alex Viteri Jr., P.E.  
Southeast Region Area Engineer



## Enclosures:

Area of Potential Effect Figures 1-18

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FHWA letter to J. Bittner/SHPO dated January 15, 2013

LaShavio Johnson/ACHP letter to D. Miller/FHWA dated January 30, 2013

## Electronically cc w/o enclosures:

Gregory Lockwood, P.E., DOT&PF, Project Manager

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Michael Kell, DOT&PF, Southeast Region, Regional Archaeologist

Laurie Mulcahy, DOT&PF, Statewide Cultural Resources Specialist

Jim Scholl, DOT&PF Southeast Region, Project Environmental Coordinator



THE STATE  
of **ALASKA**  
GOVERNOR SEAN PARNELL

Department of Natural Resources

DIVISION OF PARKS AND OUTDOOR RECREATION  
Office of History and Archaeology

550 West 7<sup>th</sup> Avenue, Suite 1310  
Anchorage, Alaska 99501-3565  
Web: <http://dnr.alaska.gov/parks/ond>  
Phone: 907.269.8721  
Fax: 907.269.8908

January 28, 2013

File No.: 3130-1R FHWA

*AV*  
Alex Viteri Jr., P.E.  
Federal Highway Administration  
Southeast Region Area Engineer  
P.O. Box 21648  
Juneau, AK 99802-1648



Subject: Haines Highway Improvements between Milepost (MP) 3.5 and 25.3 near Haines, Alaska

Dear Mr. Viteri:

The Alaska State Historic Preservation Office (AK SHPO) received your correspondence (dated January 15, 2013) on January 17, 2013.

As noted within this most recent documentation, our office has previously provided concurrence with FHWA's determinations of eligibility for 25 resources documented within the project's area of potential effects (APE). In addition to this past consultation, our staff has greatly appreciated opportunities to participate in consultation meetings among FHWA and Chilkat Indian Tribal Council and Tribal members to discuss the project.

We understand that a property of religious and cultural significance was identified by the Chilkat Indian Tribe, about which they have requested no information be recorded or shared. We understand that FHWA intends to treat this property as eligible for the National Register of Historic Places (NRHP) and has worked out measures to avoid and minimize adverse effects to it directly through their government-to-government consultation with the Tribe. To honor the Tribe's request and FHWA's government-to-government relationship with the Tribe, our office withholds any further comment on the eligibility of or effect to this property. We have no objection to FHWA's intent to make a Section 4(f) *de minimus* impact finding with respect to this property.

Regarding FHWA's findings of effect for the subject undertaking on the other eligible sites within the APE, we offer the following comments:

- We concur that a finding of **no historic properties affected** is appropriate for the subject undertaking with respect to the following properties: SKG-054 (Yindastuki), SKG-543, SKG-057, and SKG-085.
- We concur that a finding of **no adverse effect** is appropriate for the subject undertaking with respect to the following properties: SKG-044 (Smokehouse Village), SKG-050 (T'Anu Fort), SKG-544, SKG-545, and SKG-537 (Gil Smith House).

- We concur that a finding of **adverse effect** is appropriate for the subject undertaking with respect to the following properties: SKG-247 (Chilkat River Bridge) and SKG-206 (Haines-Fairbanks Pipeline District, Gate Valve #4).

We look forward to receiving the results of the additional field survey that is planned for the expanded APE area in the Klukwan vicinity, as noted within your cover letter.

Additionally, we look forward to continued consultation with FHWA, DOT&PF, and other consulting parties on the subject undertaking and to developing a Memorandum of Agreement (MOA) that would stipulate measures to resolve adverse effects. Please note that the agency official shall notify the Advisory Council of the adverse effect finding (36 CFR 800.6[a][1]).

We agree that archaeological Construction Monitoring as well as opportunities for a Tribal observer during construction should be incorporated into the MOA. The specific stipulations for monitoring requirement as well as stipulations measures to mitigate adverse effects should be developed through consultation amongst FHWA, DOT&PF, the Tribe, SHPO, and other consulting parties, as appropriate.

Please note that as additional information provided by the local government, Tribes or other consulting parties may cause our office to re-evaluate our comments and recommendations.

Thank you for the opportunity to comment. Please contact Shina duVall at 269-8720 or [shina.duvall@alaska.gov](mailto:shina.duvall@alaska.gov) if you have any questions or if we can be of further assistance.

Sincerely,



Judith E. Bittner  
State Historic Preservation Officer

JEB:sad



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**Alaska Division**  
January 15, 2013

P.O. Box 21648  
Juneau, AK 99802-1648  
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(907) 586-7420  
[www.fhwa.dot.gov/akdiv](http://www.fhwa.dot.gov/akdiv)

In Reply Refer To:  
SHAK-0956(028)/68606

Ms. Judith Bittner  
State Historic Preservation Officer  
Alaska Office of History and Archaeology  
550 W. 7<sup>th</sup> Avenue, Suite 1310  
Anchorage, AK 99501

Dear Ms. Bittner:

The Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Alaska Division of the Federal Highway Administration (FHWA), is proposing to improve the Haines Highway between Milepost (MP) 3.5 and 25.3 (Figure 1, Project Location and Vicinity Map).

**Table 1 – Project Location by Township and Range**

Township	Range	Section	USGS Quad Map	Meridian
30S	59E	19	Skagway A-2	Copper River
30S	58E	6, 7, 8, 14, 15, 16, 17, 23, 24		
29S	58E	31		
29S	57E	5, 6, 8, 9, 14, 15, 16, 23, 25, 26, 36		
28S	56E	29, 32, 33, 34		

Pursuant to 36 CFR 800.4(d)(2) and 800.5(d)(2), implementing regulations of Section 106 of the National Historic Preservation Act, the FHWA finds an adverse effect on historic properties by the proposed project.

**Project Description**

**Roadway Improvements**

1. Straighten all but two curves and add additional passing zones.
2. Widen the roadway shoulders from 2 feet to 6 feet.
3. Construct drainage ditches along the roadway.
4. Repave and restripe the roadway, and add new signage.
5. Re-construct driveways.
6. Install new larger diameter culverts at debris flow areas (approximately MP 19 and MP 23)
7. Realign Chilkat Avenue and the Haines Highway intersection.

### **Right-of-Way, Utilities, and Underground Pipeline**

1. Acquire approximately 16.4 acres of private property and 3.2 acres of publically owned property for proposed right-of-way (ROW).
2. Relinquish approximately 6.0 acres of existing ROW to the Chilkat Bald Eagle Preserve as mitigation for ROW acquisition impacts.
3. Replace and/or relocate utilities and remove existing utility pipeline in areas where the proposed road alignment differs from the existing alignment.
4. Remove a segment of the Haines to Fairbanks pipeline, specifically Gate Valve 4.

### **Proposed New Chilkat River Bridge**

1. Install a temporary bridge to be used as a construction-staging platform.
2. Construct a new bridge immediately downstream of the existing bridge with same typical section as the road.
3. Remove existing bridge superstructure (deck) and cut piling at the river bottom.

### **Recreation Accommodations**

1. Create a new parking area for access to the Mount Ripinski Trailhead.
2. Improve surfacing and grading of turnouts along this roadway corridor.
3. Close two existing turnouts at the request of Alaska Department of Natural Resources: a pond access would be replaced with a new adjacent parking area and access to a dumping area would be permanently closed.

### **Avoidance Measures**

2. Shift highway alignment onto foundation walls to avoid direct impacts to sensitive cultural resources.

### **Area of Potential Effect**

The area of potential effect (APE) is based upon the study area for this project that was described in three consultation letters sent to your office on December 2, 2005, January 31, 2006, and July 6, 2010. As discussed with Shina Duvall of your staff on November 14, 2012, the study area was slightly expanded in the area of Klukwan to accommodate highway revisions including the realigned Chilkat Avenue intersection with the Haines Highway to improve safety and to avoid impacts to historic properties in the vicinity. The APE is shown in Appendix A (enclosed).

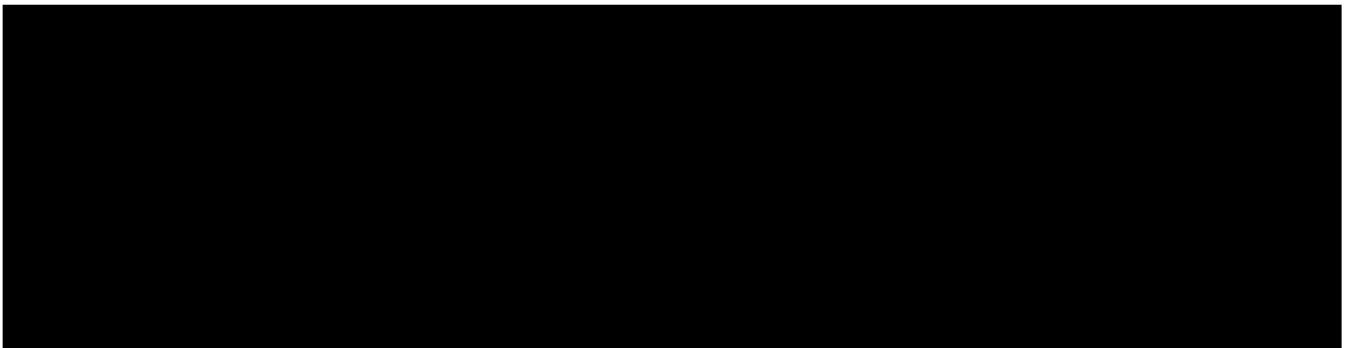
The APE encompasses lands that are anticipated to be affected by ground-disturbing activities including a 25-foot wide buffer zone beyond the project footprint to cover the clearing limits and accommodate for operations of heavy equipment. In areas where major realignments are planned, the APE includes the new road footprint plus a 50-foot wide buffer zone, and all areas in between the old and new alignment, as well as visual impacts due to proposed highway realignments. Areas assessed for visual impacts are shown on the attached APE figure set with a yellow line identified as, "Expanded APE for Potential Historic Properties with Visual Impacts". Additional consideration was given to potential effects of sub surface vibration as a result of work in areas located adjacent to historic resources.



### **Identification Effort**

There have been several prior archaeological and cultural resources surveys in the project area dating back to 1975. Cultural Resource Consultants, LLC (CRC) completed surveys to identify historical and archaeological resources specifically for this project in 2005, 2006, and 2009 (Cultural Resource Consultants, LLC, *Archaeological Field Survey of Proposed Alternatives for the Improvement of the Haines Highway from Milepost 3.5 to 25.3*, October 2011). The CRC report was previously enclosed with FHWA's November 28, 2011, determinations of eligibility (DOE) letter and is on file in your office.

Supplemental fieldwork to further identify and evaluate the components of archaeological Site SKG-543 was also conducted by Scientific Resource Surveys, Inc. in 2011 (*Intensive Survey III of Archaeological Site SKG-543 21-Mile Haines Highway*, December 2011) and provided to your office with a DOE letter on January 12, 2012. Additional cultural resources field review in the expanded APE areas in the Klukwan vicinity will be scheduled by DOT&PF to occur in 2013 prior to completion of the Environmental Assessment document. Following this survey, the DOT&PF and FHWA will reinitiate consultation with your office and the other consulting parties.



The other twenty-five properties within the APE as described in the previous DOE letters were previously evaluated. FHWA determined eleven of those properties to be eligible for listing on the National Register and the State Historic Preservation Officer (SHPO) concurred on February 24, 2012. Ten of those properties along with their Alaska Heritage Resources Survey numbers and their applicable National Register significance criteria are noted below in Table 2. The remaining eligible property, the above-ground portion of the Haines Fairbanks Pipeline (SKG-206), would be removed prior to construction of the subject project<sup>1</sup>.

### **Findings of Effect**

The findings of effect on historic properties eligible for listing on the National Register for the proposed Haines Highway improvements between MP 3.5 to 25.3 are listed in Table 2 and summarized below.

<sup>1</sup> Removing the above-ground portion of SKG 206, over the Chilkat River near MP 24 of the Haines Highway would be a separate, State funded project, independent from and not related to the subject federal-aid highway project.

**Table 2 - Findings of Effect**

Historic Property		National Register Criteria	Findings of Effect		
AHRS#	Name		No Effect	No Adverse	Adverse
SKG-054	Yindastuki	A and D	X		
SKG-057	Gravesite	B	X		
SKG-044	Smokehouse Village	A and D		X	
Historic Property		National Register Criteria	Findings of Effect		
AHRS#	Name		No Effect	No Adverse	Adverse
SKG-537	Gil Smith House	B		X	
SKG-050	T'Anu Fort	A, B, and D		X	
SKG-545	Prehistoric Site	D		X	
SKG-544	Prehistoric Site	D		X	
SKG-543	Prehistoric Site	D	X		
SKG-085	Donnelly Cabin Site	A	X		
SKG-247	Chilkat River Bridge	C			X
SKG-206	Haines-Fairbanks Pipeline District, Gate Valve #4	A and C			X

CRC has made recommendations of findings of effect on the eleven historic properties. The potential for visual impacts to historic properties from the project was also evaluated as well as any potential direct impacts. CRC recommended there would be no permanent visual or direct affects to those historic properties.

The results of CRC's inventory and assessment of cultural resources suggest that the proposed Haines Highway Improvements project could have a direct adverse effect on two properties that are recommended as eligible for listing on the National Register: SKG-247 (the Chilkat River Bridge), and SKG-206 (Gate Valve #4, a contributing element of the Haines-Fairbanks Pipeline District).

The DOT&PF current design shows that four of the sites (Smokehouse Village, T'Anu Fort, and Prehistoric Sites SKG-544 and SKG-545) are in close proximity to the project footprint. There would be no permanent visual or vibration affects from construction activities to those historic properties. The DOT&PF recommends findings of no adverse effect at these properties. The project now avoids the fifth site, SKG-543, and the DOT&PF recommends a finding of no effect as the current design shifts the highway downhill away from the site.

The DOT&PF commits to an archaeological monitor during construction as described below under the FHWA Commitment section.

### **Adverse Effect**

**Chilkat River Bridge:** The Chilkat River Bridge (SKG-247), also known locally as the Wells Bridge, would be replaced by a new bridge (see Figure 2). After the new bridge is built, the existing bridge would be demolished and removed. The FHWA finds this to be an adverse effect. Alternatives to avoid or minimize impacts to the Chilkat River Bridge were considered.

**Haines-Fairbanks Pipeline District Gate Valve #4:** The Haines-Fairbanks Pipeline District Chilkat River Crossing, a contributing element to the Haines-Fairbanks Pipeline District, would be removed prior to the subject project (see footnote 1). However, another contributing element to the Haines-Fairbanks Pipeline Chilkat River Crossing, Gate Valve #4, would be removed as a part of the subject project. The FHWA finds removal of Gate Valve #4 to be an adverse effect.

### **No Adverse Effect**

**Smokehouse Village:** The Smokehouse Village site is adjacent to the highway, but outside of the proposed cut and fill limits by approximately 2 feet and would not be directly affected. Proposed work in this area to realign a curve to the southeast of the site was designed to avoid impacts. Smokehouse Village has the potential to be affected by vibration from construction activities. However, DOT&PF recommends the magnitude of the vibration would not be so severe as to adversely affect the property. An archaeological construction monitor would be on-site during construction to ensure the site is protected. The FHWA agrees with DOT&PF's recommendation, and finds that Smokehouse Village (SKG-044) would be affected by the proposed project, but the affect would not be adverse.

**T'Anu Fort:** T'Anu Fort site boundary is located approximately 10 feet outside of the project limits and would not be directly affected. The Haines Highway was present during the Gus Klaney Cabin's period of significance and the proposed undertaking would not alter the integrity of its visual setting so as to constitute an affect. T'Anu Fort has the potential to be affected by vibration from construction activities. However, DOT&PF recommends that the magnitude of the vibration would not be so severe as to adversely affect the property. An archaeological construction monitor would be on-site during construction to ensure the site is protected. The FHWA agrees with DOT&PF's recommendation, and finds that T'Anu Fort (SKG-050) would be affected by the proposed project, but the affect would not be adverse.

**Prehistoric Sites SKG-544 and SKG-545:** These two prehistoric Tlingit sites are adjacent to the project. SKG-544 is approximately 15 feet outside the project limits and SKG-545 is approximately 5 feet outside the project limits and would not be directly affected. Prehistoric Sites SKG-544 and SKG-545 have the potential to be affected by vibration from construction activities. However, DOT&PF recommends the magnitude of the vibration would not be so severe as to adversely affect the property. An archaeological monitor would be on-site during construction ground disturbing activities to ensure both sites are protected. The FHWA agrees with DOT&PF's recommendation, and finds that Prehistoric Sites SKG-544 and SKG-545 would be affected by the proposed project, but the affect would not be adverse.

**Gil Smith House:** Proposed realignment of the Haines Highway would necessitate moving the road closer to the Gil Smith property; however, the Gil Smith House is outside of the project limits (see Gil Smith house detail sheets, APE figures 6 and 7) and would not be directly affected. Because the highway has always been a part of the visual setting, the realignment would not detract from the property's eligibility. The Gil Smith House has the potential to be affected by vibration from construction activities. However, DOT&PF recommends the magnitude of the vibration would not be so severe as to adversely affect the property. The FHWA agrees with DOT&PF's recommendation, and finds that the Gil Smith House (SKG-537) would be affected by the proposed project, but the affect would not be adverse.

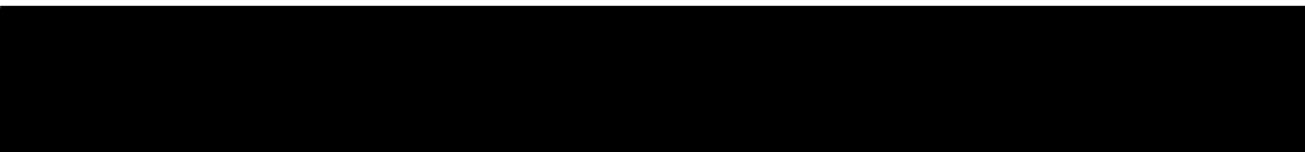




### No Effect

**Yindastuki:** Yindastuki (SKG-054) surrounds the highway. The CRC report suggests that there are no archaeological remains within the project limits and recommends Yindastuki would not be affected by the project. Based on the CRC report, a previous survey<sup>2</sup>, and DOT&PF's recommendation, FHWA finds that the project would have no effect on the property.

**Prehistoric Site SKG-543:** This prehistoric Tlingit site is adjacent and outside of the project limits. DOT&PF's recommendation that Phase III archaeological data recovery<sup>3</sup> found the potential was low to recover further subsurface data. An archaeological monitor would be on-site during construction ground disturbing activities to ensure that the site is protected. The FHWA agrees with DOT&PF's recommendation, and finds that the project would have no effect on the property.



**Donnelly Cabin Site:** The Donnelly Cabin Site (SKG-085), also known as the ARC Buildings site is approximately 10 feet from the proposed road alignment. DOT&PF recommends that visual or noise impacts from the proposed project would not affect the property any more than the current Haines Highway. The FHWA agrees with DOT&PF's recommendation, and finds that the project would have no effect on the property.

### FHWA Commitments

<sup>2</sup> McMahan, J. David and Holmes, Charles E., *A Cultural Resources Investigation at Haines*, 1989

<sup>3</sup> Wiley, Dr. Nancy Anastasia and Nelson, Andrea, *Intensive Survey III of Archaeological Site SKG-543 21-Mile Haines Highway, Haines Alaska*, 2011

Taking into account the recommendations from CRC and DOT&PF's further recommendations that are based on the current design, FHWA agrees and has made the findings of effect as listed in Table 2 and summarized above, with an overall project finding of Adverse Effect for the project.

**Additional Field Survey:** Winter conditions have obscured an expanded APE area in the Klukwan vicinity. This area has not yet been surveyed; however Tribal consultation indicated there are no cultural resources within a expanded APE area near Klukwan. The DOT&PF will conduct a cultural resources field review to identify any potential historic properties in the expanded APE areas in the Klukwan vicinity, including the reconfigured Chilkat Avenue intersection with the Haines Highway. The survey will be scheduled by DOT&PF to occur as early as possible in 2013 prior to completing the project's Environmental Assessment document.

**Construction Monitoring:** The FHWA and DOT&PF have committed to allow a Tribal observer during construction and as described below will commit to funding archaeological monitoring by qualified personnel in areas with sensitive cultural resources. We will consult with you to develop and implement an archaeological construction monitoring plan that will afford the Tribal representative the opportunity to observe ground disturbing activities; the plan will also provide measures for work zone safety.

An archaeological construction monitoring plan will be developed as approved by FHWA, DOT&PF, SHPO, and the Tribe. An archaeological monitor would be on site during earth disturbing activities associated with excavation in sensitive areas adjacent to the archaeological sites unless the archaeologist determines after field observations and consultation with FHWA, DOT&PF, SHPO, and the Tribe that monitoring is not necessary. That plan will identify specific project stationing for the monitoring. Those areas include:

- All areas of excavation in original ground,
- Yindastuki Village (SKG-054) and Smokehouse Village (SKG-044) in the vicinity of the Haines Airport.
- Strawberry Shorty's Homestead (SKG-536) and Ooligan Beach Camp (SKG-048) in the vicinity of MP 7.
- Zimovia Point Village (SKG-049) in the vicinity of MP 8.
- T'anu Fort and Gus Klaney Cabin (SKG-050) in the vicinity of MP 13.
- Depression / Prehistoric Site (SKG-545) in the vicinity of MP 15.
- Depression / Prehistoric Site (SKG-544) in the vicinity of MP 16.5.
- Depression / Prehistoric Site (SKG-543) in the vicinity of MP 21.
- Human Remains Site (No AHRS number) in the vicinity of MP 20.5.
- Klukwan Hill / Burial site (SKG-069) in the vicinity of MP 21.5.
- Jacquot Properties (SKG-541 and SKG-542), Donnelly Cabin Site (SKG-085), the Chilkat River Bridge (SKG-247), and the Haines Fairbanks Pipeline (SKG-206) in the vicinity of MP 23.5.

### **Proposed Draft Measures to Resolve Adverse Effects**

DOT&PF, in consultation FHWA, will develop a Memorandum of Agreement (MOA) to resolve adverse effects to the Chilkat River Bridge (SKG-247) and Haines-Fairbanks Pipeline district's Gate Valve #4 (SKG-206).

The measures to resolve adverse effects may include, but are not limited to:

- Submittal of architectural documentation of the Chilkat River Bridge to FHWA, the SHPO, and the Shelden Museum in Haines.
- Installation of an interpretive display with a theme concerning the Chilkat River Bridge.
- Delivery of Gate Valve to the Shelden Museum for public display.

Final details of the MOA will be developed in coordination with the appropriate consulting parties.

### **Consultation**

The following Section 106 consulting parties are involved with this project:

- Sealaska Corporation
- Sealaska Heritage Institute
- Klukwan, Incorporated
- Central Council Tlingit and Haida Indian Tribes of Alaska
- Chilkat Indian Village of Klukwan
- Chilkoot Indian Association of Haines

A summary of previous consultation efforts is provided in Appendix B. Note that a letter from the Tribe (February 23, 2012), requested archaeological construction monitoring, formal National Register listing of SKG-050, and designation of National Register eligibility for the entire area between MP 18-25 to which we responded on July 10, 2012 (both letters enclosed).

- Our response letter to the Tribe advised them that your office has an established program that provides assistance with the nomination process and to work directly with your office should they pursue this.
- We also advised the Tribe of your previous concurrence on our DOEs and that between MP 18-25 four sites were identified: Prehistoric Site SKG-543, Donnelly Cabin Site (SKG-085), Chilkat River Bridge (SKG-247), and Haines-Fairbanks Pipeline (SKG-206). We indicated that to expand currently defined site boundaries would be based on the identification and evaluation of additional associated historic/prehistoric features, and asked them to advise us of any additional cultural remains that would trigger a reevaluation of those sites. [REDACTED]


[REDACTED]

[REDACTED]

We are contacting the Section 106 consulting parties to determine their interest in participating in consultation for the resolution of adverse effects and in the development of a MOA. Once we receive responses, we will work with the consulting parties to identify mitigation measures as needed to offset the adverse effects of this project.

Please direct your concurrence or comments to me at the address above, by telephone at (907) 586-7544, or by e-mail at [alex.viteri@dot.gov](mailto:alex.viteri@dot.gov).

Sincerely,

  
Alex Viteri Jr., P.E.  
Southeast Area Engineer

Enclosures:

Figure 1 - Project Location and Vicinity Map  
Figure 2 - Proposed New Chilkat River Bridge  
Appendix A - APE Figure Set, Figures 1 through 20  
Appendix B - Summary of Consultation including  
Tribal and FHWA correspondence (February 23, 2012 and July 10, 2012)

Electronically cc w/o enclosures:

Matthew Van Alstine, P.E., DOT&PF, Project Manager  
Jane Gendron, DOT&PF Southeast Regional, Environmental Manager  
Michael Kell, DOT&PF Southeast Region, Cultural Resources Specialist  
Laurie Mulcahy, DOT&PF, Statewide, Cultural Resources Manager

# STATE OF ALASKA

SEAN PARNELL, GOVERNOR

## DEPARTMENT OF NATURAL RESOURCES

### DIVISION OF PARKS & OUTDOOR RECREATION OFFICE OF HISTORY AND ARCHAEOLOGY

550 WEST 7<sup>TH</sup> AVENUE, SUITE 1310  
ANCHORAGE, ALASKA 99501-3565

PHONE: (907) 269-8721  
FAX: (907) 269-8908

February 24, 2012

File No.: 3130-1R FHWA  
3330-6 SKG-543, 3330-6 SKG-544, 3330-6 SKG-545, 3330-6 SKG-537, 3330-6 SKG-050, 3330-6 SKG-085, 3330-6 SKG-247, 3330-6 SKG-206, 3330-6 SKG-044, 3330-6 SKG-054, and 3330-6 SKG-057  
3330-6N SKG-536, 3330-6N SKG-538, 3330-6N SKG-029, 3330-6N SKG-045, 3330-6N SKG-046, 3330-6N SKG-048, 3330-6N SKG-049, 3330-6N SKG-088, 3330-6N SKG-185, 3330-6N SKG-211, 3330-6N SKG-540, 3330-6N SKG-541, and 3330-6N SKG-542.

Alex Viteri Jr., P.E.  
Federal Highway Administration  
Southeast Region Area Engineer  
P.O. Box 21648  
Juneau, AK 99802-1648

Subject: Haines Highway Improvements between Milepost (MP) 3.5 and 25.3 near Haines, Alaska

Dear Mr. Viteri:

The Alaska State Historic Preservation Office (AK SHPO) received your correspondence (dated January 24, 2012) on January 26, 2012. Following our review of the documentation provided, we offer the following comments:

We concur with your determination that the following sites are **eligible** for the National Register of Historic Places (NRHP):

- SKG-543, SKG-544, and SKG-545 are eligible under Criterion D (please see below for additional comments on SKG-543)
- SKG-537 is eligible under Criterion B
- SKG-050 is eligible under Criteria B and D
- SKG-085 is eligible under Criterion A
- SKG-247 is eligible under Criterion C
- Haines-Fairbanks Pipeline, above-ground Chilkat River Crossing contributes to the Haines-Fairbanks Pipeline District (SKG-206) under Criteria A and C
- SKG-044 is eligible under Criterion D
- SKG-054 is eligible under Criteria A and D
- SKG-057 is eligible under Criterion B, meeting Criteria Consideration C and F

We further concur with your determination that the following sites are **not eligible** for the NRHP: SKG-536, SKG-538, SKG-029, SKG-045, SKG-046, SKG-048, SKG-049, SKG-088, SKG-185, SKG-211, SKG-540, SKG-541, and SKG-542.

Finally, we concur that the buried sections of the Haines-Fairbanks Pipeline between MP 3.5 and 23.5 do not retain sufficient integrity to contribute to the Haines-Fairbanks Pipeline District (SKG-206).

SKG-543: We appreciate the opportunity to review the supplemental report, "Intensive Survey III of Archaeological Site SKG-543 21-Mile Haines Highway, Alaska," prepared by Scientific Resource Surveys (SRS), Inc. Based on the previous recommendations made by Cultural Resource Consultants, LLC (CRC) for SKG-543 as well as the statements within the SRS report that the site continues to have the potential to provide additional important information, we agree with FHWA's determination that SKG-543 is eligible for the NRHP under Criterion D.

We note in your letter that consultations are ongoing with other consulting parties. Additional information provided by the local government, Tribes or other consulting parties may cause our office to re-evaluate our comments and recommendations. Please note that our comment letter does not end the 30-day review period provided to other consulting parties.\

Thank you for the opportunity to comment. Please contact Shina duVall at 269-8720 or [shina.duvall@alaska.gov](mailto:shina.duvall@alaska.gov) if you have any questions or if we can be of further assistance.

Sincerely,



Judith E. Bittner  
State Historic Preservation Officer

JEB:sad

## **Section 106 Consultation Efforts Summary**

## **SECTION 106 CONSULTATION EFFORTS**

The Alaska Department of Transportation and Public Facilities (DOT&PF) in cooperation with the Alaska Division of the Federal Highways Administration (FHWA) is proposing improvements to the Haines Highway between Mileposts (MP) 3.5 and MP 25.3. The project begins a short distance past the airport at MP 3.5 and ends just beyond the Chilkat River Bridge at MP 25.3.

For the purposes of the National Historic Preservation Act, consultation was initiated with the State Historic Preservation Office (SHPO), Chilkat Indian Village of Klukwan, Klukwan Inc., the Chilkoot Indian Association of Haines, the Central Council of the Tlingit and Haida Indian Tribes of Alaska, Sealaska Corporation, and Sealaska Heritage Institute. Letters were sent to each party on December 2, 2005. A second letter was sent January 31, 2006, regarding proposed geotechnical surveys for the project.

DOT&PF also held several meetings in Klukwan on this project. Formal government-to-government tribal consultation meetings were held in December 2005, October 2011, July 2012, August 2012 and November 2012. Community informational meetings were held in March 2009, June 2012, and October 2012 to provide updates on the status of the project. Members of Klukwan, Inc., the Chilkat Indian Village of Klukwan, and the Chilkoot Indian Association of Haines also participated in much of the field survey work conducted by DOT &PF archaeological consultant Cultural Resource Consulting (CRC) in 2006. DOT&PF also consulted with the SHPO and tribes regarding an unexpected discovery of human remains found during the 2006 archaeological survey.

Consultation was continued with a letter to the SHPO and tribes dated July 6, 2010, because of changes to the proposed project since the initiation of consultation in 2005. Meetings have been held between DOT&PF, SHPO, and FHWA to discuss project planning, progress, and next steps to be taken. Meetings were held April 13, 2006, October 2, 2009, March 15, 2011, and December 19, 2011.

A letter was sent to SHPO and tribal entities on November 28, 2011, to request concurrence on FHWA's determination of eligibility (DOE) for listing on the National Register of Historic Places (National Register) sites identified by CRC within the project's area of potential effect (APE).

At the October 25, 2011, government-to-government meeting, the Tribal Council of the Chilkat Indian Village requested more information be provided on a newly described cultural resource that would be affected by the proposed highway alignment. DOT&PF contracted with Scientific Resources Surveys, Inc. (SRS), to conduct an Intensive Survey (III) of the resource. Fieldwork was conducted November 5, 6, 7, and 9, 2011, to further identify and evaluate the components of the site. A report summarizing the findings of the survey was submitted to SHPO and the tribal entities January 24, 2012, as a supplement to the November 2011 DOE letter. SHPO concurred with the DOE on February 24, 2012 (attached). The Chilkat Indian Village provided comments on the supplemental report in a letter dated February 23, 2012. DOT&PF met with the Chilkat Indian Village in June 2012 to discuss these comments and again in October 2012 to discuss proposed project changes. A final government-to-government meeting was held in November 2012.

During the summer of 2013, the Chilkoot Indian Association (CIA), Sealaska Corporation, and Sealaska Heritage Corporation (SHI) representatives voiced concerns about the proposed project in the vicinity of MP 4, and an additional survey was conducted by CRC. An on-site meeting with DOT&PF, FHWA, CIA, Sealaska, and SHI was held on Aug 5, 2013. Consultation



continued with meetings, in Haines, with representatives of DOT&PF, CRC, CIA, Sealaska, SHI on Oct. 10, 2013. On Oct. 21 Government to Government meeting between FHWA and the CIA took place including representatives of DOT&PF, Sealaska and SHI.

On March 6, 2014 a Government to Government meeting was held in the Tribal offices of the Chilkat Indian Village (CIV) to discuss a proposal from the Tribe to resolve adverse effects to historic properties.”

In a letter to SHPO and the tribal entities dated January 15, 2013, FHWA found the proposed project to have an adverse effect on two historic properties eligible for listing on the National Register, and an effect, but not adverse, to five other eligible historic properties. SHPO concurred with the Findings on January 28, 2013 (attached).

FHWA and DOT&PF contacted the Section 106 consulting parties to determine their interest in participating in consultation for the resolution of adverse effect and in the development of a Memorandum of Agreement (MOA). An MOA is being developed and will be signed by FHWA, DOT&PF, and the SHPO, with concurrence from Chilkat Indian Village.

## **SUMMARY OF COMMENTS RECEIVED**

The majority of comments from individual members of the tribes were received during the tribal consultation meeting on December 7, 2005. The only comment related to cultural resources was a general statement that traditional and cultural properties need to be identified before too far along in the design process. The remainder of comments received was related to issues such as safety, jobs, fisheries, and maintenance of access to subsistence areas.

A letter was received from the Chilkat Indian Village of Klukwan on December 9, 2005. The only comment relating to cultural resources was a general recommendation that an archaeologist be on-site during any ground disturbing work for the project. Other comments related primarily to safety, fisheries, and subsistence access.

Cultural resource comments received during the March 2009 informational meeting in Klukwan included concern over impacts to subsistence fishing from widening the road at MP 21, and the potential location of a new bridge downstream of the existing. There were also comments about potential impacts to shaman graves at two locations. Several individuals requested that DOT&PF leave enough room for a future pedestrian path between the Chilkat Bald Eagle Preserve and the village.

Comments were also received during the October 2011 government-to-government meeting in Klukwan. There was some concern that highway upgrades near MP 13 would change drainage patterns and a traditionally named place called Swampy Lake. One meeting attendee noted that the tribe has a list of qualified trained archaeological monitors who would be available during highway construction activities. There was some discussion about the challenges of the highway alignment at MP 21 in avoiding subsistence use areas and a historic property, while simultaneously accommodating the tribe’s request for room for a pedestrian path. In order to leave room for the path, the proposed project would necessarily impact the cultural resource. Further alignment changes to the road resulted in eliminating the potential for the trail and the effect on the cultural resource. The tribe also requested directional and interpretive signs are installed in the right-of-way to direct people to the Klukwan visitor center and museum.

**Table E-1: Haines Highway Milepost 3.5 to Milepost 25.3 Consultation Efforts Summary**

<b>Date</b>	<b>Consulting Parties Involved</b>	<b>Purpose</b>	<b>Comments Received*</b>
Initiation of Consultation by Letter 12/02/05	All Parties*	Present project	
Government to Government Meeting 12/05/05	CIV	Present project	
Geotechnical Surveys Letter 01/31/06	All Parties*	Project Update	
2006	CIV and CIA	Tribal members participate in archaeological survey; tribal consultation	
Section 106 Consultation Meeting 04/13/06	SHPO		
Informational Meeting 3/5/09	CIV	Project Update	Tribe expressed concerns over: Chilkat River bridge location; room for future pedestrian path near MP 21; sensitivity to impacts to subsistence activities in river near MP 21
Section 106 Consultation Meeting 10/2/09	SHPO	Present overview of project, discuss APE and Section 106 consultation process	
Continuation of Consultation Letter 7/6/10	All Parties*	Project Update	
Section 106 Consultation Meeting 3/15/11	SHPO	Discuss eligibility of Haines to Fairbanks pipeline above-ground crossing of the Chilkat River and potential adverse effect	
Government to Government Meeting 10/25/11	CIV	FHWA provided information on how Tribal concerns expressed during March 2009 meeting had been addressed	Tribe requested more information be provided on SKG-543
Determinations of Eligibility (DOE) Letter 11/28/11	All Parties*	Concurrence with FHWA's determination of eligibility (DOE) for NRHP and NRHP-eligible sites	
Section 106 Consultation Meeting 12/19/11	SHPO	SHPO consultation meeting to discuss DOEs and additional SKG-543 information 12-19-11	

<b>Date</b>	<b>Consulting Parties Involved</b>	<b>Purpose</b>	<b>Comments Received*</b>
Addendum to DOE Letter 1/24/12	All Parties	Present results of Intensive Survey III of SKG-543, reconfirm FHWA DOE of site, and request comments	CIV letter 2-23-12 requested cultural resource monitoring during construction, and formal National Register recognition of SKG-050 and MP 18-25 area. SHI thanked FHWA for the supplemental report.
Informational Meeting 6/7/12	CIV	Discuss draft response to CIV comments on FHWA's DOE	Past Tribal president informed DOT&PF that she was replaced as President in last week's election; CIV requested DOT&PF come back and address the new Tribal Council
Informational Meeting 6/14/12	CIV	Discuss draft response to CIV comments on FHWA's DOE	Tribal Council revealed no new information about historic properties; A desire was expressed to include a vegetated buffer between the proposed road improvements and gravesites in the village as part of the MOA to resolve adverse effects to SKG-543
Letter 7/10/12	CIV	FHWA response to CIV letter of February 23, 2012	
Government to Government Meeting 7/12/12	CIV	FHWA discussed response to CIV comments received on the DOE letter	Tribal Council informed FHWA and DOT&PF that there are other historic properties that have not been identified
Government to Government Meeting 07/31/12 and 08/1/12	All Parties	SHPO, FHWA and DOT&PF gathered information from CIV on newly identified historic property and interviewed a tribal elder	Tribal Council discussed concerns about effects on historic property disclosed at previous meeting
On-site Meeting 10/11/12	CIV	Discuss informally proposed Klukwan area redesign of highway alignment	CIV members coordinated on potential mitigation and asked for more information on land ownership near the Village
Information Meeting 10/23/12	CIV	DOT&PF informed CIV about proposed alignment changes to address CIV concerns	
Informational Meeting 11/6/12	CIV	DOT&PF and FHWA provided a brief overview of proposed alignment changes	
Government to Government Meeting 11/7/12	CIV	FHWA and DOT&PF presented alignment revisions designed to avoid effects to historic properties	Tribe concurred with the proposed revised alignment

<b>Date</b>	<b>Consulting Parties Involved</b>	<b>Purpose</b>	<b>Comments Received*</b>
Section 106 Findings Letter 01/15/13	All Parties*	FHWA found the project would have an adverse effect on two historic properties and an effect, but not adverse, on five other eligible historic properties	SHPO concurred with the Findings on January 28, 2013
Section 106 Consultation 08/05/13	CIA	Met to discuss project effects at MP 4	Meeting requested by CIA
Section 106 Consultation 10/10/13	CIA	Met to discuss location and methodology of Ground Penetrating Radar (GPR)	
Section 106 Consultation 10/21/13	CIA	Met to discuss results of GPR studies	
Section 106 Consultation 12/19/13	CIA	Discussed findings of effect on historic properties and options to avoid sensitive cultural resources	Tribe preferred proposed option 2
Section 106 Consultation 12/20/13	CIV, BIA***	Discuss agreement on cultural resource issues	Tribe agreed to have a field meeting to discuss MOA details
Section 106 Consultation 02/07/14	CIV	Discuss agreement on cultural resource issues	Informal meeting at requested by FHWA
Government to Government Meeting 03/06/14	CIV	Discuss agreement on cultural resource issues, MP 4 issues and MOA to resolve adverse effects to historic properties	Meeting requested by CIV
Section 106 Consultation 04/16/14	CIV	Field review of proposed MOA items	

\*State Historic Preservation Officer (SHPO), Chilkat Indian Village of Klukwan (CIV), Klukwan, Inc., Chilkoot Indian Association of Haines (CIA), Sealaska Corporation, Sealaska Heritage Institute (SHI).

\*\*Only substantive comments related to specific historic properties, places of traditional religious and cultural importance to Tribes, or Section 106 issues are being noted. Tribal input received did not result in identification of any previously unknown historic properties.

\*\*\*BIA = Bureau of Indian Affairs

## **Initial Tribal Consultation**



**HAINES HIGHWAY MP 3.5 TO 25.3**  
**TRIBAL CONSULTATION MEETING MINUTES**

**DECEMBER 7, 2005**

**PROJECT TEAM ATTENDEES:** Kris Benson, Project Environmental Coordinator - DOT&PF  
Steve Noble, Design Engineer - DOWL Engineers  
Kristen Hansen, Environmental Planner - DOWL Engineers  
Ed DeCleva, Southeast Region Liaison - FHWA

DOT&PF invited the Chilkat Indian Village of Klukwan, Chilkat Indian Association of Haines, and the Klukwan, Inc., to a meeting to discuss the highway improvements project. Twenty-five people participated in the meeting. Ed DeCleva (FHWA) welcomed those in attendance and spoke about FHWA's government-to-government relationship with the tribes. He emphasized that FHWA and DOT&PF are looking for input regarding whether the proposed action might have any impacts on traditional and cultural properties, and he noted that tribes can consult directly with FHWA regarding this project, if they prefer, or they can consult directly with DOT&PF.

John Brower thanked Mr. DeCleva for recognizing their tribal status, and noted that they have a lot of interest in this project, and they encourage the federal government to stay involved. They hoped to remain in good communication regarding the development of the project.

Ed Warren commented that they are glad to see 6-ft shoulders finally; they have been asking for this for a number of years.

One of the Klukwan Elders noted that the recent slides have damaged the roadway surface, making it bumpy and rutted. She also noted the fishing grounds at MP 7-8 and at MP 20-21, and a hooligan pit at around MP 4 where impacts should be avoided. She indicated there is a need for outhouses at MP 4 and around MP 20, or signs at those locations indicating where restroom facilities are located along the road corridor.

One audience member noted that the recent slide moved mud and debris along the road toward the bridge, because that was the path of least resistance.

Kris Benson (DOT&PF) discussed the purpose and need of the project, the project schedule, the NEPA process, and she noted that the next series of public and tribal meetings for this project would most likely be about a year from now when the environmental document is available for public review.

Steve Noble (DOWL) reviewed the preliminary design, which essentially entails widening the roadway to provide 6-ft shoulders, and straightening some of the curves that do not meet 55 mph design speed standards. He then reviewed the major realignment areas, highlighting those areas that will fall outside DOT&PF's right-of-way, and areas that will require fill in the Chilkat River. Steve emphasized that minimization measures (i.e. guardrails to allow steeper slopes) have not yet been incorporated into the preliminary design. He added that the rock cuts in segments 3 and 4 could potentially provide a substantial borrow material source. Mr. Noble then discussed the bridge replacement options. He explained that the main advantage to relocating the bridge further downstream is that it would be a shorter crossing (305-ft long vs. the existing 460-ft long crossing). In

addition, if the bridge were relocated downstream, it would only require 2 spans (1 set of piers), rather than 3 spans (2 sets of piers).

Ed Warren noted Big Boulder Creek was a salmon spawning area and changed following the DOT&PF's improvements. Today king salmon use the "18-mile spawning area" just south of the slide area, but Mr. Noble indicated that the widening in that area is not expected to impact the river.

There was a comment to avoid installation of big boulders (riprap) along the riverbanks because this is detrimental to fish habitat, since riprap doesn't allow the river to naturally cut and meander; a process, which sometimes creates good spawning areas.

There was some concern voiced over the proposed realignment at Segment 7 and 8. Widening into the river would impact a known humpie spawning area, and widening to the mountainside would impact a pond that provides good fish habitat.

One audience member noted concern about the bridge height, noting that it's important to maintain enough clearance at high water conditions to allow boats to pass underneath.

There was a statement that SB796 does not allow acquiring Preserve property through eminent domain. Ms. Benson noted that FHWA requires any impacts to park lands go through a relatively rigorous review to demonstrate that there are no feasible or prudent alternatives to using the parklands.

There was some discussion about the potential alternatives for dealing with the debris flow slide areas. Mr. Noble explained some of the options that the design team is considering.

One person noted that wayside areas should be included; however, that DOT&PF should check first for special archeological or environmental areas. Staging areas, material sites, and disposal sites need to be identified, as these can have the largest impacts. He expressed opinion that the staging areas and material sites should be lined to prevent hydraulic fluid and oil spills from contaminating the soils.

There was a question regarding boat launches and pullouts. There are trailheads at MP 7 and 14. Mr. Noble indicated that the design team is looking for input and comments regarding specific locations where people want new or maintained access.

Kristen Hansen (DOWL) discussed the environmental documentation that is underway for this project, noting that a number of field studies had been initiated last summer (wetland delineation, fish habitat study, hydrology and hydraulic study, Phase 1 Environmental Site Assessment (ESA), and a historic, cultural, and archaeological reconnaissance survey). The historic, cultural, and archaeological reconnaissance survey will be followed up with additional work by Mr. Michael Yarborough of Cultural Resources Consultants next spring, now that DOT&PF has developed their proposed action. Ms. Hansen indicated that the results of the reconnaissance survey indicated there are 16 known sites along the project corridor, and that these sites were identified on the figures mailed to the tribes along with the consultation letters from FHWA. (Because the letters had not yet been received by the tribes, several sets of the figures were distributed at the meeting. Ms. Hansen also noted that the figures distributed at the meeting included a minor update with respect to the proposed realignment near the airstrip at approximate MP 18).

Ms. Hansen noted that the preliminary alignment does include widening in the areas around Yindastuki Village, Takshanuk Village, Dok Point, Zimovia Point Village, and Katkwaltu, and indicated that if there is concern about widening the road in those areas, it would be important for the project team to know this.

Ms. Hansen also explained the Phase 1 geotechnical investigation, which has already begun, but is limited to work within the existing road prism, and the work was planned to avoid the 16 known archaeological and historic sites. Ms Hansen noted that one of the immediate needs in terms of tribal

consultation is to determine whether there is any concern with the proposed Phase 2 geotechnical investigation, which is anticipated to begin in January, and will include test borings and test pits off the road prism, and in previously undisturbed areas. No one from the audience indicated concern with this proposed work.

Someone commented that the Village has plans to extend the existing pathway that was recently constructed into Klukwan, and that this project should be designed to accommodate that future pathway extension. Mr. DeCleva noted that while FHWA cannot require DOT&PF to construct pedestrian facilities with their projects, they do encourage it whenever possible. The residents in attendance expressed general concurrence of the trail extension concept.

There was a comment that DOT&PF does not plow turnouts, and there is a need for larger throats to accommodate the big plow vehicles. There is a safety issue with tourists parking on the road during the eagle-viewing season.

Kimberly Strong noted that MP 8 gets heavy snow drifting and wondered whether a snow fence of some sort could be constructed since DOT&PF does not plow after 3:00 p.m.

Someone noted that DOT&PF should be careful about drilling during the geotechnical investigation (referring to potential archaeological resources).

There was a comment regarding a subsistence and sport fishing clear water stream at approximately MP 13; Sockeye used to spawn in the pond, but quit when DOT&PF installed a culvert there; humpies at approximately MP 17.

Someone commented that the location of the new bridge may conflict with subsistence activities. This is right where they set their nets and drift. They are concerned that there would be impacts to subsistence fishing if the bridge were moved. There used to be coho spawning areas upstream, but now they don't spawn upstream; the bridge relocation site could be a sockeye spawning area.

As a result of this discussion, Mr. DeCleva indicated that FHWA would like DOT&PF to include a specific report with regard to potential impacts from this project on subsistence activities as part of the NEPA documentation. Someone noted that the Borough is initiating a subsistence study for Haines and Klukwan soon. Representatives of the Chilkat Indian Village said DOT&PF could contract with them to do the study.

Dave Barry expressed the desire for phased construction to enhance local economy and allow more opportunities for local hire.

An elder said that Mosquito Lake used to have sockeye salmon. If the road improvements damage fish resources, it's not worth it.

Henry Jacquet said there are logjams on about half of the piers of the existing bridge. Is there a plan to get rid of the logs? Mr. Noble responded that the team would ask DOT&PF Maintenance.

It was stated that the road is very bumpy at breakup.

Dave Barry said that the Village of Klukwan had put in a formal request to DOT&PF to vacate portions of the right-of-way near Klukwan. If this is approved, DOT&PF right-of-way will go from 300-ft in width to 150-ft.

There was a question about whether DOT&PF would have to acquire right-of-way along the entire project corridor to allow for the widened shoulders. Mr. Noble explained that the right-of-way varies from 150-ft to 300-ft in width, and in most places, there is plenty of right-of-way for the proposed



improvements. Under the preliminary design, it appears additional right-of-way is only needed in 3 or 4 locations.

River bank erosion is an issue near the existing bridge (due to jet boats). Would DOT&PF stabilize the banks at the proposed bridge site?

Ed Warren commented that AmTrak gets more than their fair share of federal transportation funding, and wondered why more funding isn't available for road projects? This project could be built to "international standards" if more federal funding were available. Mr. DeCleva assured them that this project is 91% federally funded, and that this is a National Highway System classification road, and as such, DOT&PF will consider the appropriate amenities (pull-outs, rest areas, etc.)

At this point, the formal meeting ended, and was followed by informal discussions with project team members.

D59119B.Tribal Meeting Minutes.120705.CAD.011206.mas

MEETING NOTES  
FIELD REVIEW WITH TRIBAL GROUPS  
HAINES HIGHWAY MILEPOST 3.5 TO 25.3  
DOT&PF Project No. 68606

February 21, 2006

Participants:

Harriet Brouillette, Klukwan, Inc.  
Joe Hotch, Chilkat Indian Village of Klukwan  
Walter Hotch-Hill, Chilkat Indian Village of Klukwan  
Michele Metz, Sealaska Corp.  
Chris Schelb, Chilkoot Indian Association of Haines  
Ryan Cook, Chilkoot Indian Association of Haines  
Ed DeCleva, Federal Highway Administration, Juneau  
Kris Benson, Alaska Dept. of Transportation and Public Facilities, Juneau  
Steve Noble, DOWL Engineers, on behalf of DOT&PF, Anchorage  
Dan Egolf, Alaska Nature Tours, driver

Introduction:

All of the participants drove the length of the proposed highway reconstruction project in a large van. The review started at the beginning of the project near the airport. Therefore, when these notes refer to the right or left side of the road, it is from the perspective of driving from Haines to Canada. The group looked at most of the proposed second phase geotechnical testing sites, with an emphasis on the test pit sites, as the footprint of disturbance of test borings and peat probes is much smaller. Most of the proposed test sites were located with numbered survey stakes.

Summary of Comments:

Joe Hotch noted that on the left side of the highway near Station 212 there is a coho spawning area.

At Yindastuki, several participants had concerns about the road being moved. It was noted that the ANSCA Section 14(h)(1) boundaries of the site were smaller than the original reservation boundaries, the point being that there could be cultural resources outside of the boundaries. DOT&PF was requested to change the proposed Test Pits #3 and #4 to test borings. Steve Noble, the highway engineer, stated that that change would be done. Harriet Brouillette asked that any future drawings refer to the site shown as "SKG #057" only by that name, out of respect for the individuals associated with the site and their families. Ed DeCleva stated that there would be no reason to do additional archeological excavations in the Yindastuki area, since it had been well-described by the Sealaska archeologists. Harriet told us that her grandmother said that when the highway was first constructed, it was located over a family grave, but her grandmother was unable to stop the roadbuilders.

As a general comment, the tribal representatives told DOT&PF that they need time to think about their concerns and discuss them with others, so that no decisions could be made during the field visit. Michele and Walter said that they would provide written comments soon. They said that they want a safer road, but they need as much advance notice as possible regarding changes to the road, so that they can research whether there are cultural resources. Joe also advised DOT&PF that if any resources were found during excavation for road construction that both the Chilkat and Chilkoot tribes be notified right away.

Joe said that there were hooligan camps at Yindastuki and in the Mile 8-9 area.

Past Test Boring 5, on the right side of the road, Joe pointed out that there were native gardens beyond the house.

DOT&PF was asked to provide an archeological monitor for Test sites 1 through 8 (because of their proximity to Yindastuki and Smokehouse Village). Michele stated that Sealaska holds these sites for the clans and it's Sealaska's role to protect them. She asked what would happen if DOT&PF found a cultural resource when it was excavating? Kris Benson replied that the archeologist working on the road improvement project had spent time training the geologists as to what to look for, how to be careful and what to do if they did encounter something. Ed stated that additional excavation to recover the resource may or may not be done. Tribal representatives stated that the entire proposed project corridor was used for travel, so DOT&PF needs to be mindful that it could find resources anywhere.

Joe said that at MP 6, Takshanuk village was another hooligan fishing place. He said that at Dok Point, a village was on the right side of the road. Steve said that Test Pit 26, at Dok Point, would be converted to a Test Boring and also, moved from beyond the shoulder onto the road. Steve also pointed out that while borings have a smaller footprint, they will do deeper (10 to 15' deep relative to 7 to 9-foot deep pits), so that there is a tradeoff.

DOT&PF was asked to provide an archeological monitor at Test sites #26 and #27.

Walter pointed out that near MP 8, drivers pull over to look at the ADF&G fish wheels and that it's also near where you enter the Preserve, so it'd be a good place for a new pullout.

Joe said that Zimovia Point Village is also known as "Mile 9 hooligan camp".

Joe told us that Tom Jimmy had a restaurant at Peat Probe #38 site. He said that between Mile 11 and 13, there were three forts on the left side of the road, established to protect from tribes from the south.

Near Mile 13, Joe said that there was a village on the right side of the road, consisting of 13 to 15 houses. When asked how old it was, Joe said that when he was growing up, he saw some of the houses there (though he knows the number of houses was decreasing), and he is 75 now. Test Pits 72 through 77 are located where he said the village was.

Walter said that there is a sockeye spawning stream near Test Pit 82 on the right side and a coho stream on the left. (NOTE: Later, the test pit location was cross-referenced with the fish habitat mapping and the pit is about 200 feet away from the stream -- Test Pit #82 at Station 731 and stream at Station 733 +50. Stockpiles of material will need to be placed such that they do not contribute sediment to the stream.)

Around Mile 15 to 16, there is a king salmon stream on the left side. And beyond MP 17, there is a pink salmon stream on the left side.

Joe said that there was a public school and post office at the village of Katkwaltu. He said the village was made up of Coho people. Walter asked that DOT&PF provide an archeological monitor for Test sites #121 through 124, because of their proximity to Katkwaltu.

Dan Egolf said that before the trail was built from the eagle viewing pullout, he did some survey work and found cans with lead in them. They are under the trail now. He also said that the survey of 1924 shows a Native Sanitorium Preserve on the right side of the road, just past the pullout.

Joe said that soapberries occur from about mile 18 and continue through the slide area.

Walter requested that DOT&PF notify the village of Klukwan prior to any geotechnical testing of the anticipated dates for testing between Mile 19 to the end of the project, so that the village can have a representative present during the testing.

Notes prepared by Kris Benson, DOT&PF, February 28, 2006.

**SHPO Comments  
October 15, 2015**

## Gillispie, Tom E (DNR)

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**From:** Rollins, Mark W (DNR)  
**Sent:** Thursday, October 15, 2015 10:11 AM  
**To:** Gendron, Jane D (DOT); Gillispie, Tom E (DNR); Rickman, Summer L (DNR)  
**Cc:** Lockwood, Gregory K (DOT); Scholl, James W (DOT); Kell, Michael W (DOT); Price, Katherine E (DOT); Mulcahy, Laurie A (DOT)  
**Subject:** RE: Haines 68606\_Draft\_MOA\_Bridge\_081015.docx: For SHPO Review and Comment / 2015-01433  
**Attachments:** Haines 68606\_Draft\_MOA\_Bridge\_081015\_sd082115.docx

Hi Jane,

The committee discussed the MOA today. Along with Shina's comments, the committee would like to note that the Chilkat River Bridge (SKG-247) is now covered by the Program Comment for Post-1945 Concrete and Steel Bridges. SKG-247 was found eligible for the National Register of Historic Places before the Program Comment was issued and remains eligible. Since SKG-247 is a type of bridge covered by the Program Comment, we believe that HAER/architectural documentation is not an appropriate form of mitigation because the intent of the Program Comment is to eliminate repetitive and redundant documentation of common types of bridges. We recommend that DOT consider other mitigation options or further develop Mitigation Measure B. Interpretive Wayside. The wayside should include interpretive panels about the local history of the area that the community would find of interest. The interpretive panels theme should no longer be focused on the history of the Chilkat River Bridge. These are just suggestions, we are open to any other ideas for mitigation or interpretive displays. If you have any questions please give me a call.

Mark W. Rollins  
Archaeologist II  
Alaska State Historic Preservation Office/ Office of History and Archaeology  
550 West 7th Avenue, Suite 1310  
Anchorage, AK 99501

(907) 269-8722

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**From:** Gendron, Jane D (DOT)  
**Sent:** Wednesday, October 14, 2015 9:14 AM  
**To:** Rollins, Mark W (DNR); Gillispie, Tom E (DNR)  
**Cc:** Lockwood, Gregory K (DOT); Scholl, James W (DOT); Kell, Michael W (DOT)  
**Subject:** FW: Haines 68606\_Draft\_MOA\_Bridge\_081015.docx: For SHPO Review and Comment / 2015-01433

Good morning, Mark and Tom.

I don't find any formal or informal feedback from your review committee. Shina did make some comments on this version and she and Jim Scholl spoke about the amount of additional information the MOA will contribute to the historic context through implementation of the proposed HAER. But, based on her email, we expected some additional feedback.

Can you let me know if we will be getting anything further from you?

Thank you.

**SHPO Response**  
**May 12, 2016**



THE STATE  
of **ALASKA**  
GOVERNOR BILL WALKER

Department of Transportation and  
Public Facilities

SOUTHCOAST REGION  
DESIGN & ENGINEERING SERVICES  
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May 12, 2016

Ms. Judith Bittner  
State of Alaska Department of Natural Resources  
Division of Parks and Outdoor Recreation  
Office of History and Archaeology  
550 West 7th Avenue, Suite 1310  
Anchorage, AK 99501-3565

Re: Comments on Revised Draft Environmental Assessment  
Haines Highway Improvements Milepost 3.5 to 25.3 (Airport to Bluffs)

Dear Ms. Bittner:

Thank you for the comments on the referenced document submitted on December 7, 2015. We appreciate the time and effort that you and your staff have dedicated to working with us to address potential effects to historic resources as a result of this proposed project.

As noted in your email dated December 7, 2015, DOT&PF is working with your office and other relevant parties to develop a Memorandum of Agreement (MOA) that would resolve adverse effects to the historic property the Chilkat River Bridge. The final environmental document will be updated to reflect the provisions of the MOA.

Again, thank you for your comments on the project and we look forward to working with you as we move forward with this project.

Sincerely,

A handwritten signature in blue ink, appearing to read "Hilary Lindh".

Hilary Lindh, Regional Environmental Manager  
Department of Transportation & Public Facilities  
Southcoast Region

*"Keep Alaska Moving through service and infrastructure"*



## **CIV Comments**



## Chilkat Indian Village

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# CHILKAT INDIAN VILLAGE COMMENTS REGARDING THE 2015 ENVIRONMENTAL ASSESSMENT OF THE HAINES HIGHWAY FROM MP 3.5 TO 25.3 ALTERNATIVES, IMPACTS, AND MITIGATION

December 7, 2015

Respectfully submitted to  
Jim Scholl (Alaska Department of Transportation)  
Greg Lockwood (Alaska Department of Transportation)

Tribal President  
Jones P Hotch Jr.

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# ATTACHMENTS

Attachment 1	Presidential Memorandum
Attachment 2	ADOT Proposed 2015 Mitigation Figures
Attachment 3	CIV Conceptual Proposed Road and Mitigation Figures and Sections



**Chilkat Indian Village**

DEC. 7 2015

## SOUTHEAST TRADITIONAL TRIBAL VALUES

### “Our Way of Life”

- Discipline and Obedience to the Traditions of our Ancestors
- Respect for Self, Elders, and Others
- Patience
- Pride in Family, Clan, and Traditions is found in Love, Loyalty and Generosity
- Be Strong in Mind, Body and Spirit
- Humor
- Hold Each Other Up
- Listen Well and With Respect
- Speak with Care
- We are Stewards of the Air, Land and Sea
- Reverence for our Creator
- Live in Peace and Harmony
- Be Strong and have Courage



Chilkat Indian Village

DEC. 7 2015

# 1. INTRODUCTION

This project has generational consequences and we are obligated to honor our past tribal members and to give due diligence to present and future tribal members (268 current members). This obligation has and will continue to contribute to our traditional ways, subsistence life style, the strength of our community, economy, and quality of life. We request that the Haines Highway project first avoid, then minimize and then fully compensate and mitigate all potential negative effects on the environment.

We, the Chilkat Indian Village Tribal Council have a fiduciary responsibility to protect and sustain the natural environment that has sustained our people for countless generations; to ensure that our descendants and the future residents of this valley will be able to enjoy the same quality of life that we have enjoyed. We recognize, and fully appreciate the brevity of this project and we feel compelled to give the project our best efforts and thorough diligence to ensure that you as a project team do nothing that could further harm or irrevocably damage the pristine ecosystem that our community shares with the wildlife and other inhabitants of this valley.

The reduction of environmental impacts achieved with the 2015, design following the 2013 EA, is appreciated; however, we feel that additional provisions are possible. Additionally, there appear to be no modifications addressing the original CIV comments concerning engineering design and standards applied to main channel or side channel mitigation, or a reduction of impacts to Eagle Perch trees within the Chilkat Bald Eagle Preserve.

The 2015 EA identifies four alternatives for consideration:

- **Alternative 1** - Brings the entire roadway up to American Association of State Highway and Transportation Officials (AASHTO) standards for 55 miles per hour (mph) design speed
- **Alternative 2a** - Brings the roadway up to AASHTO standards for 55 mph, as practicable, with 6-foot-wide shoulders. (the 2013 EA preferred alternative)
- **Alternative 2b** - Brings the roadway up to AASHTO standards for 55 mph, as practicable, with 6-foot-wide shoulders. This alternative has fewer curve adjustments than Alternative 2A. (the 2015 EA preferred alternative)
- **Alternative 3** - Brings the roadway up to AASHTO standards for 50 mph, as practicable, with 4-foot-wide shoulders (the 2013 EA public agency recommendation)
- **Alternative 4** -No Action Alternative.



Chilkat Indian Village

## 2. INITIAL POSITION

The preferred alternative selection process in the EA is unclear and appears to arbitrarily select or reject standards and variations on standards with what appears to be flawed arguments and logic. Consideration and implementation of additional engineering design flexibility allowed under Federal Highway Administration (FHWA) guidelines would certainly further reduce, minimize, and avoid impacts to the natural environment. The EA is unclear as to how and why Alternative 2b has been selected as the preferred alternative, as its selection appears to be based on additional arbitrary relaxation of standards. Neither does the EA explain why Alternative 3 is not within the bounds of the allowable design flexibility, as the reduction in impacts would be greatly reduced and appear to meet the needs.

**The CIV considers Alternative 4 (No Action Alternative) as the preferred alternative, if impacts cannot be further minimized, avoided, and mitigated in a way that clearly ensures that our moral obligation to the current, and future CIV members, is met.**

**It is imperative to the CIV that all impacts are mitigated and addressed locally (on site), to ensure that ecological function is maintained and enhanced where past and proposed road impacts occur.**

The CIV shares similar concerns as those stated in the Lynn Canal Conservation (LCC) 2015 comment letter regarding the EA, the impact assessment, the process of avoidance and minimization of impact, and the appropriate mitigation to address system- and ecological-process impacts. Serious concerns were raised and recommendations for an alternate preferred alternative presented.

## 3. BACKGROUND

The CIV proposes consideration of an alternate preferred alternative that better addresses required avoidance, minimization, and mitigation of impacts associated with:

1. Mainstem Chilkat River and Side Channel Mitigation
2. Salmon and Eagle Habitat Risk
3. Slide Area Mitigation

This letter presents Proposed Mainstem Chilkat River and Side Channel Mitigation and Bridge Replacement options for consideration. CIV reserves the right to provide additional feedback and input in response to comments, and as project elements and designs are further developed and refined.



Chilkat Indian Village

DEC. 7 2015

## Mainstem Chilkat River and Side Channel Mitigation

Comments made in 2013 from the CIV regarding the mitigation of the 2.95 miles of riprap bank fill using riprap clusters and vegetated riprap protrusions does not appear to have been addressed or considered. Restoring the function and health of the “pre-road” riparian edge is a baseline requirement associated with bringing this project up to current federal, state, and tribal design standards. The mitigation for riprap armoring of the channel, loss of forested river edge, and complex channel margins associated with road construction must be addressed at a minimum ratio of 1 to 1. Additionally the mitigations must be designed with the same engineering rigor and industry care required for other project elements, such as bridge, road, culvert, and guardrail design, to ensure we have not compromised our moral duties for generations to come. Anything less than complete mitigation performance over the life of the project will not meet the obligations we have to our tribal members.

We appreciate the work and design effort that thoughtfully addressed culvert and tributary impacts associated with historic construction of the road and the potential road improvements. These appear to bring the road crossings up to current standards. As such, our review focuses on mitigation of the 2.36 miles of riprap bank within the active channel and side channels of the Chilkat River proposed in the 2015 EA. We understand that these are preliminary mitigation designs and that further detail and design will be included as the project advances; however, we are currently tasked with commenting on what is being provided. As shown, the current riprap mitigation appears to be additional localized placements of riprap, with loose/transient wood placed upstream, and the construction of larger riprap protrusions with plantings above ordinary high water. As designed, these do not appear to address the following:

- The number and size of proposed features does not achieve the required 1:1 ratio for the 2.36 miles of bank armoring
- The design does not appear to address function and performance over the life of the project
- Wood elements appear to be transient, unstable, and prone to decompose over the life of the project
- The design does not appear to address riparian edge forest function (e.g., adequate overhanging wood and vegetation, mature forested cover and edge habitat, wood recruitment from natural bank processes) associated with pre-riprap/road conditions.

## Salmon and Eagle Habitat at Risk

As stated in the Lynn Canal Conservation (LCC) 2015 comment letter, the proposed alteration of much of the available prime natural salmon habitat includes “adverse effect on 23.7 acres of wetlands and 7.4 acres of open water” and “impacts to 14,244 lineal feet of Chilkat river



Chilkat Indian Village

tributaries.”<sup>1</sup> Potential impacts to Essential Fish Habitat (EFH) listed in EA Table 4.15-1 include eliminating riparian areas and wetlands, changes in hydrology, loss of natural spawning habitat, degradation of water quality, changed fish passage routes, and much, much more. The EA makes a vague and unsubstantiated statement that somehow through a combination of avoidance, minimization, mitigation, and in-lieu payments that salmon habitat inside the Preserve will not be significantly affected.<sup>2</sup> There is a lack of sufficient data in the EA to support this. Additionally, Preserve statutes clearly state that the “natural” salmon habitat is to be protected in perpetuity.<sup>3</sup> Natural salmon habitat has already been destroyed from past highway projects in the area including changes “from a natural riverbank to a hardened bank composed of shot rock and riprap.”<sup>4</sup> Mitigation efforts will drastically change the existing “natural” habitat, as elaborated in the EA. In lieu payments that restore damaged habitats outside of Preserve boundaries do nothing to protect and sustain natural Preserve salmon habitat, as required by Alaska statute. Further, the EA implies the success of the mitigation proposed (use of large woody debris) is questionable: “Depending upon the success of mitigation and enhancement efforts” impacts to fish habitat “may be beneficial.”<sup>5</sup> If impacts “may be beneficial”, then it is also possible that they may not be beneficial. Uncertainty surrounding the success of the proposed mitigation is reiterated: The project “may improve overwintering Chilkat River habitat”<sup>6</sup>. Again if it may, it also may not. Some of the proposed mitigation would include “fee in lieu of compensatory mitigation”<sup>7</sup> which means mitigation for some of the adverse impacts caused by the project would occur outside of the area. This might be appropriate for a transportation project through an area not protected by statute. The magnitude of impacts proposed for protected habitats seems unreasonable - particularly because there are alternatives that can drastically lessen impacts.

And finally, AS 41.21.610 was adopted to protect Chilkat bald eagles, their essential habitats, and the natural anadromous streams inside the Chilkat Bald Eagle Preserve in perpetuity. Harm to Chilkat bald eagles, eagle habitat, and natural salmon habitat violates this statute and 40 CFR 1508.27(b)(10).

In addition to the concerns that the LCC thoughtfully acknowledges above, On Page 24 of the EFH the EA eludes to the process used to mitigate for mainstem and side channel impacts to salmon, “ADOT consulted with ADF&G and USFW to develop mitigation areas that mimic existing successful habitat in the Chilkat River watershed”. Using existing reference sites to evaluate potential future mitigation alternatives is a common conceptual design tool used during preliminary analysis of alternatives and is a good first step. To fully understand the impacts associated with existing and proposed bank armoring to be included in any preferred alternative, the design should include determination of:

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<sup>1</sup> 2015 EA page 126  
<sup>2</sup> Id page 181  
<sup>3</sup> AS 41.21.610(b)(1)  
<sup>4</sup> 2015 EA page 354  
<sup>5</sup> Id page 130  
<sup>6</sup> Id page 140  
<sup>7</sup> Id page 181



#### Chilkat Indian Village



- What function is lost with the road project (e.g., hydraulic complexity, edge habitat, tree recruitment, stable wood and banks etc.)
- What are the current and most probable historic fish use and conditions within impacted areas - specifically how does the project impact the limiting habitat within the reach and basin over the entire life history of the all species
- What is the design basis for quantifying loss in order to quantify required mitigation - fill volume alone does not address functions lost
- What are the natural historic analog or reference sites for the proposed habitat structures- - examples of similar type-structures that function to meet similar mitigation requirements
- How are river impacts associated road straightening, widening, and riprap bank armoring assessed and quantified, including 2.36 miles (12,512 linear feet) of rip rap, with 5,022 linear feet of new rip rap placed on native banks and 7,490 linear feet of additional rip rap paced on top of the existing riprap armored banks
- How mitigation has been quantified to be commensurate with impacts.

ADF&G noted that biologists identified numerous locations for mitigation and assessed condition. The mission of the Division of Habitat is to protect Alaska's valuable fish and wildlife resources and their habitats, as Alaska's population and economy continue to expand. We would like to better understand the quantification of the road impacts (existing and proposed) to better understand the impact to ecological functions and to validate the appropriate mitigation.

## Slide Areas

Slide areas have been identified, as well as additional concerns associated with potential future slides in expanded areas. The EA needs to address other mitigation that could be implemented associated with anticipated debris (e.g., soil stabilization/revegetation).

Could soil from slide areas be incorporated or used to build out protrusions outboard of hardened banks to increase number, function and effect of placed structures.

Additionally the proposed culverts which would direct sediment and water directly into the Chilkat River would require analysis for potential impacts to water quality

## 4. PROPOSED ALTERNATE PREFERRED ALTERNATIVE

Similar to LCC, the CIV believes the currently proposed preferred alternative (2b) should be reconsidered. The following alternative would meet requirements of first avoidance,



**Chilkat Indian Village**

minimization, and mitigation. This alternative brings the roadway up to AASHTO standards for 55 mph, **employing all possible design exceptions that firstly avoid and secondly minimize Chilkat River impacts and wetland fill.** This alternative would retain some substandard curves (as does the RPA and the Haines Highway section from MP 1 to MP 3.5), reduce speed where necessary, and include smaller shoulders and clear zones than proposed through sensitive habitats (employing the use of pullouts instead, when necessary).

This Alternative would also employ design exceptions to avoid impacts to bald eagle habitat in the ROW adjacent to the Critical Habitat Area (CHA). It would avoid impacts to preserve activities by retaining every identified eagle perching and roosting tree in the area. This is extremely important because 90% of eagle perching during fall and winter gathering was documented to occur in the CHA.

**This alternative would use a combination of rock/alluvium/wood placements, as well as engineered log placements, for wood cribs, bank projection structures, and Engineered Log Jams to mitigate for riprap bank armoring, restoring hydraulic and ecological function. Additionally, this alternative would allow reduction of rip rap armoring in new and already armored areas.**

Specifically, the Alternative would:

- Straighten some curves to meet the 55 mph design standard
- Widen shoulders through non-sensitive habitat areas and employ reduced shoulder widths or pullouts to avoid sensitive habitats.
- Construct drainage ditches and upgrade and/or add new culverts
- Repave and restripe roadway and add new signage
- Rehabilitate or relocate driveways, turnout access points, and road intersections to meet design standards
- Install or upgrade guardrails and other safety features, where needed
- Modify the Haines-Fairbanks Pipeline Gate Valve 4 concrete vault to protect the gate valve and provide a safe road embankment.
- Relocate utilities, where required and maintain access to utilities not relocated.
- Mitigate riparian/riverine habitat losses by:
  - Constructing wood/rock/native fill bank features that provide long term riverine habitat, with re-establishment and eventual recruitment of mature long-lived riparian vegetation, including perch trees on the river side of road, and reducing/eliminating engagement of riverine processes with existing/proposed hardened/armored banks
  - Using general rules of thumb for hydraulics and approximating the currently proposed river large woody debris (LWD)/Riprap features to extend 40 feet into the wetted channel, the 2015 EA project would need to include more than 60 features to provide a minimal long-term growth footprint for restoration of a forested channel buffer and bank armor mitigation. This would need to be further studied (the actual number and size would be based on site-specific hydraulics and ecological function and performance goals).



**Chilkat Indian Village**

DEC. 7 2015

- Scaling the mainstem mitigation features to be larger (possibly two to three times), with the inclusion of native fill material, would:
    - Reduce the number of structures required
    - Improve the long-term establishment of riparian forest and edge habitat,
    - Improve protection/maintenance concerns for the road
    - Improve habitat quality and quantity
    - Improve long term establishment of perch trees (in and outside of preserve)
  - Conducting 2-dimensional hydraulic modeling to assess impacts and mitigation and performance of alternatives (requires LIDAR surface mapping), to determine:
    - Flow re-attachment lengths between structures (coverage of mitigation and potential for increased erosion and maintenance of road shoulder)
    - Assess and mitigate hydraulic impacts
    - Critical hydraulic locations to ensure mitigation is adequate, designed to persist, and would not create long-term road issues that will further compromise habitat
    - Structures placed in side channels do not damage existing rearing habitat by significantly occluding the channel resulting in localized siltation and or large scale side channel abandonment/loss.
  - Implementing smaller habitat **pilot** structures in areas of rip rap placement, or other degraded areas, that could be monitored along with other structures to verify and document performance of mitigation efforts (as part of the mitigation requirements)
  - Consider long term maintenance of these structures through placement and replenishment of woody debris from blow down and storm maintenance.
  - Long term monitoring of the river mitigation efforts
- Improve Highway Debris flow areas to address concerns
  - Raise the grade of the highway 15 to 18 feet from its current elevation at Milepost 19 and Milepost 23
  - Install four to six larger-diameter culverts under the elevated highway, at each debris flow area (Milepost 19, Milepost 23)
  - Widen roadway shoulders from 2 feet to improve safety for non-motorized users as practicable
  - Construct a parking area for access to the Mount Ripinski Trailhead (Figure 1.2-5)
  - Improve surfacing and grading of turnouts within the right-of-way
  - Maintain vehicle access to the formal Chilkat River recreational areas.
  - Continue to evaluate and exhaust all alternatives to replace the bridge on the upstream side of the existing bridge (move gate valve 4 to and relocate Donnelly Cabin)

This alternative would substantially meet purpose and need for the project and also further avoid and minimize impacts.



#### Chilkat Indian Village

At this time the CIV does not believe the Draft Revised Environmental Assessment warrants a Finding of No Significant Impact and a full and fair examination of this proposed alternative would minimize impacts and could provide commensurate mitigation.

CIV reserves the right to add future comments.

## 5. SUMMARY AND CONTRAST

### Differences with Alternative 2b (2015 ADOT Preferred Alternative)

- Realign **fewer** curves to meet 55 mph design standards focused on where realignment can avoid sensitive areas.
- **Do not add Passing Zones** smaller shoulders and clear zones than proposed through sensitive habitats (employing the use of pullouts instead, when necessary).
- Widen shoulders to a continuous 6 feet **where not in conflict with sensitive areas.**
- Install temp Bridge down river of existing, **further consider construction of the replacement bridge on the up river side of the existing bridge by moving the historic structures**
- **Mainstem and Side channel mitigation for bank armoring designed to ensure full and complete instream mitigation for the life of the project.**



Chilkat Indian Village

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## Additional Comments and Concerns

1. Concern with subsistence access to plants and river – (General)
  - a. Hooligan – Summer (MP 4-8) & winter (MP 7-9) runs
  - b. Salmon, trout, steelhead & other wild animals that use the Chilkat river.
  - c. Berries: blue, soap, salmon, elder, service, and cranberry.
  - d. Access to mushrooms, fireweed, and rosehips during construction
2. Impacted access to hunt mountain goat and moose during construction
  - a. Ex. Eagle, bear, wolf, moose.
3. Temporary and permanent access to pull out & fish camp nearby MP 4
4. Temporary and permanent Access to pull out for subsistence fishing, rod casting raft landing, and culvert near MP 14
5. Oil spill from the Haines-Fairbanks pipeline – Contamination is approaching the Chilkat River, when will contamination be Addressed/Removed? MP 15.5 and at bridge.
6. Stream close to Campbell's house (Approximately 18 mile) – impacts on potential king salmon
7. MP 19 - slide area maintenance and work relative to native allotments and agreements, the historic village site, and Victor Hotch's.
8. Y turn into Klukwan (page fig. A 29 of 34) village water main crosses the highway & follows the highway.
9. Opening of the Museum in May 2016 – concerns with impacts to business/access due to construction
10. Loss of Trees for subsistence: cottonwood, dogwood, birch, alder.
11. Participation and oversight by CHPO (Chilkat Historical Preservation Office) as paid positions during construction
12. Mitigation of culvert and upper stream above Village access verses pond and just hydraulic repair of culvert crossing
13. 300 foot right of way converted to original 120 foot right of way. Land returned to CIV without fee.
14. Disturbance to Klukwan Hill
15. Loss of any eagle perch trees
16. The road should only been upgraded if the highest level of protection is provided to salmon habitat. This includes requiring alternatives to rip rap for bank stabilization.
17. All traditional access points should be maintained. These included 16 mi, 14 mi, and 13 mi. They are critical to both traditional subsistence activities, as well as the tourism industry which is one of the valleys primary economic engines.



**Chilkat Indian Village**

DEC. 7 2015

11



# ATTACHMENT 1

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## Presidential Memorandum





November 03, 2015

# Presidential Memorandum: Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment

MEMORANDUM FOR THE SECRETARY OF DEFENSE

THE SECRETARY OF THE INTERIOR

THE SECRETARY OF AGRICULTURE

THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

THE ADMINISTRATOR OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

We all have a moral obligation to the next generation to leave America's natural resources in better condition than when we inherited them. It is this same obligation that contributes to the strength of our economy and quality of life today. American ingenuity has provided the tools that we need to avoid damage to the most special places in our Nation and to find new ways to restore areas that have been degraded.

Federal agencies implement statutes and regulations that seek simultaneously to advance our economic development, infrastructure, and national security goals along with environmental goals. As efforts across the country have demonstrated, it is possible to achieve strong environmental outcomes while encouraging development and providing services to the American people. This occurs through policies that direct the planning necessary to address harmful impacts on natural resources by avoiding and minimizing impacts, then compensating for impacts that do occur. Moreover, when opportunities to offset foreseeable harmful impacts to natural resources are available in advance, agencies and project proponents have more options to achieve positive environmental outcomes and potentially reduce permitting timelines.

Federal agencies can, however, face barriers that hinder their ability to use Federal resources for restoration in advance of regulatory approval of development and other activities (e.g., it may not be possible to fund restoration before the exact location and scope of a project have been approved; or there may be limitations in designing large-scale management plans when future development is uncertain). This memorandum will encourage private investment in restoration and public-private

partnerships, and help foster opportunities for businesses or non-profit organizations with relevant expertise to successfully achieve restoration and conservation objectives.

One way to increase private investment in natural resource restoration is to ensure that Federal policies are clear, work similarly across agencies, and are implemented consistently within agencies. By encouraging agencies to share and adopt a common set of their best practices to mitigate for harmful impacts to natural resources, the Federal Government can create a regulatory environment that allows us to build the economy while protecting healthy ecosystems that benefit this and future generations. Similarly, in non-regulatory circumstances, private investment can play an expanded role in achieving public natural resource restoration goals. For example, performance contracts and other Pay for Success approaches offer innovative ways to finance the procurement of measurable environmental benefits that meet high government standards by paying only for demonstrated outcomes.

Therefore, by the authority vested in me as President by the Constitution and the laws of the United States of America, and to protect the health of our economy and environment, I hereby direct the following:

Section 1. Policy. It shall be the policy of the Departments of Defense, the Interior, and Agriculture; the Environmental Protection Agency; and the National Oceanic and Atmospheric Administration; and all bureaus or agencies within them (agencies); to avoid and then minimize harmful effects to land, water, wildlife, and other ecological resources (natural resources) caused by land- or water-disturbing activities, and to ensure that any remaining harmful effects are effectively addressed, consistent with existing mission and legal authorities. Agencies shall each adopt a clear and consistent approach for avoidance and minimization of, and compensatory mitigation for, the impacts of their activities and the projects they approve. That approach should also recognize that existing legal authorities contain additional protections for some resources that are of such irreplaceable character that minimization and compensation measures, while potentially practicable, may not be adequate or appropriate, and therefore agencies should design policies to promote avoidance of impacts to these resources.

Large-scale plans and analysis should inform the identification of areas where development may be most appropriate, where high natural resource values result in the best locations for protection and restoration, or where natural resource values are irreplaceable. Furthermore, because doing so lowers long-term risks to our environment and reduces timelines of development and other projects, agency policies should seek to encourage advance compensation, including mitigation bank-based approaches, in order to provide resource gains before harmful impacts occur. The design and implementation of those policies should be crafted to result in predictability sufficient to provide incentives for the private and non-governmental investments often needed to produce successful advance compensation. Wherever possible, policies should operate similarly across agencies and be implemented consistently within them.

To the extent allowed by an agency's authorities, agencies are encouraged to pay particular attention to opportunities to promote investment by the non-profit and private sectors in restoration or enhancement of natural resources to deliver measurable environmental outcomes related to an established natural resource goal, including, if appropriate, as part of a restoration plan for natural resource damages or for authorized investments made on public lands.

Sec. 2. Definitions. For the purposes of this memorandum:

(a) "Agencies" refers to the Department of Defense, Department of the Interior, Department of Agriculture, Environmental Protection Agency, and National Oceanic and Atmospheric Administration, and any of their respective bureaus or agencies.

(b) "Advance compensation" means a form of compensatory mitigation for which measurable environmental benefits (defined by performance standards) are achieved before a given project's harmful impacts to natural resources occur.

(c) "Durability" refers to a state in which the measurable environmental benefits of mitigation will be sustained, at minimum, for as long as the associated harmful impacts of the authorized activity continue. The "durability" of a mitigation measure is influenced by: (1) the level of protection or type of designation provided; and (2) financial and long-term management commitments.

(d) "Irreplaceable natural resources" refers to resources recognized through existing legal authorities as requiring particular protection from impacts and that because of their high value or function and unique character, cannot be restored or replaced.

(e) "Large-scale plan" means any landscape- or watershed-scale planning document that addresses natural resource conditions and trends in an appropriate planning area, conservation objectives for those natural resources, or multiple stakeholder interests and land uses, or that identifies priority sites for resource restoration and protection, including irreplaceable natural resources.

(f) "Mitigation" means avoiding, minimizing, rectifying, reducing over time, and compensating for impacts on natural resources. As a practical matter, all of these actions are captured in the terms avoidance, minimization, and compensation. These three actions are generally applied sequentially, and therefore compensatory measures should normally not be considered until after all appropriate and practicable avoidance and minimization measures have been considered.

Sec. 3. Establishing Federal Principles for Mitigation. To the extent permitted by each agency's legal authorities, in addition to any principles that are specific to the mission or authorities of individual agencies, the following principles shall be applied consistently across agencies to the extent appropriate and practicable.

(a) Agencies should take advantage of available Federal, State, tribal, local, or non-governmental large-scale plans and analysis to assist in identifying how proposed projects potentially impact natural resources and to guide better decision-making for mitigation, including avoidance of irreplaceable natural resources. 4

(b) Agencies' mitigation policies should establish a net benefit goal or, at a minimum, a no net loss goal for natural resources the agency manages that are important, scarce, or sensitive, or wherever doing so is consistent with agency mission and established natural resource objectives. When a resource's value is determined to be irreplaceable, the preferred means of achieving either of these goals is through avoidance, consistent with applicable legal authorities. Agencies should explicitly consider the extent to which the beneficial environmental outcomes that will be achieved are demonstrably new and would not have occurred in the absence of mitigation (i.e. additionality) when determining whether those measures adequately address impacts to natural resources.

(c) With respect to projects and decisions other than in natural resource damage cases, agencies should give preference to advance compensation mechanisms that are likely to achieve clearly defined environmental performance standards prior to the harmful impacts of a project. Agencies should look for and use, to the extent appropriate and practicable, available advance compensation that has achieved its intended environmental outcomes. Where advance compensation options are not appropriate or not available, agencies should give preference to other compensatory mitigation practices that are likely to succeed in achieving environmental outcomes.

(d) With respect to natural resource damage restoration plans, natural resource trustee agencies should evaluate criteria for whether, where, and when consideration of restoration banking or advance restoration projects would be appropriate in their guidance developed pursuant to section 4(d) of this memorandum. Consideration under established regulations of restoration banking or advance restoration strategies can contribute to the success of restoration goals by delivering early, measurable environmental outcomes.

(e) Agencies should take action to increase public transparency in the implementation of their mitigation policies and guidance. Agencies should set measurable performance standards at the project and program level to assess whether mitigation is effective and should clearly identify the party responsible for all aspects of required mitigation measures. Agencies should develop and use appropriate tools to measure, monitor, and evaluate effectiveness of avoidance, minimization, and compensation policies to better understand and explain to the public how they can be improved over time.

(f) When evaluating proposed mitigation measures, agencies should consider the extent to which those measures will address anticipated harm over the long term. To that end, agencies should address the durability of compensation measures, financial assurances, and the resilience of the measures' benefits

to potential future environmental change, as well as ecological relevance to adversely affected resources.

(g) Each agency should ensure consistent implementation of its policies and standards across the Nation and hold all compensatory mitigation mechanisms to equivalent and effective standards when implementing their policies.

(h) To improve the implementation of effective and durable mitigation projects on Federal land, agencies should identify, and make public, locations on Federal land of authorized impacts and their associated mitigation projects, including their type, extent, efficacy of compliance, and success in achieving performance measures. When compensatory actions take place on Federal lands and waters that could be open to future multiple uses, agencies should describe measures taken to ensure that the compensatory actions are durable.

Sec. 4. Federal Action to Strengthen Mitigation Policies and Support Private Investment in Restoration. In support of the policy and principles outlined above, agencies identified below shall take the following specific actions.

(a) Within 180 days of the date of this memorandum, the Department of Agriculture, through the U.S. Forest Service, shall develop and implement additional manual and handbook guidance that addresses the agency's approach to avoidance, minimization, and compensation for impacts to natural resources within the National Forest System. The U.S. Forest Service shall finalize a mitigation regulation within 2 years of the date of this memorandum.

(b) Within 1 year of the date of this memorandum, the Department of the Interior, through the Bureau of Land Management, shall finalize a mitigation policy that will bring consistency to the consideration and application of avoidance, minimization, and compensatory actions or development activities and projects impacting public lands and resources.

(c) Within 1 year of the date of this memorandum, the Department of the Interior, through the U.S. Fish and Wildlife Service, shall finalize a revised mitigation policy that applies to all of the U.S. Fish and Wildlife Service's authorities and trust responsibilities. The U.S. Fish and Wildlife Service shall also finalize an additional policy that applies to compensatory mitigation associated with its responsibilities under the Endangered Species Act of 1973. Further, the U.S. Fish and Wildlife Service shall finalize a policy that provides clarity to and predictability for agencies and State governments, private landowners, tribes, and others that take action to conserve species in advance of potential future listing under the Endangered Species Act. This policy will provide a mechanism to recognize and credit such action as avoidance, minimization, and compensatory mitigation.

(d) Within 1 year of the date of this memorandum, each Federal natural resource trustee agency will develop guidance for its agency's trustee representatives describing the considerations for evaluating whether, where, and when restoration banking or advance restoration projects would be appropriate as components of a restoration plan adopted by trustees. Agencies developing such guidance will coordinate for consistency.

(e) Within 1 year of the date of this memorandum, the Department of the Interior will develop program guidance regarding the use of mitigation projects and measures on lands administered by bureaus or offices of the Department through a land-use authorization, cooperative agreement, or other appropriate mechanism that would authorize a project proponent to conduct actions, or otherwise secure conservation benefits, for the purpose of mitigating impacts elsewhere. 6

Sec. 5. General Provisions. (a) This memorandum complements and is not intended to supersede existing laws and policies.

(b) This memorandum shall be implemented consistent with applicable law, and subject to the availability of appropriations.

(c) This memorandum is intended for the internal guidance of the executive branch and is inapplicable to the litigation or settlement of natural resource damage claims. The provisions of section 3 this memorandum encouraging restoration banking and advance restoration projects also do not apply to the selection or implementation of natural resource restoration plans, except to the extent determined appropriate in Federal trustee guidance developed pursuant to section 4(d) of this memorandum.

(d) The provisions of this memorandum shall not apply to military testing, training, and readiness activities.

(e) Nothing in this memorandum shall be construed to impair or otherwise affect:

(i) the authority granted by law to an executive department, agency, or the head thereof; or

(ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(f) This memorandum is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

(g) The Secretary of the Interior is hereby authorized and directed to publish this memorandum in the *Federal Register*.

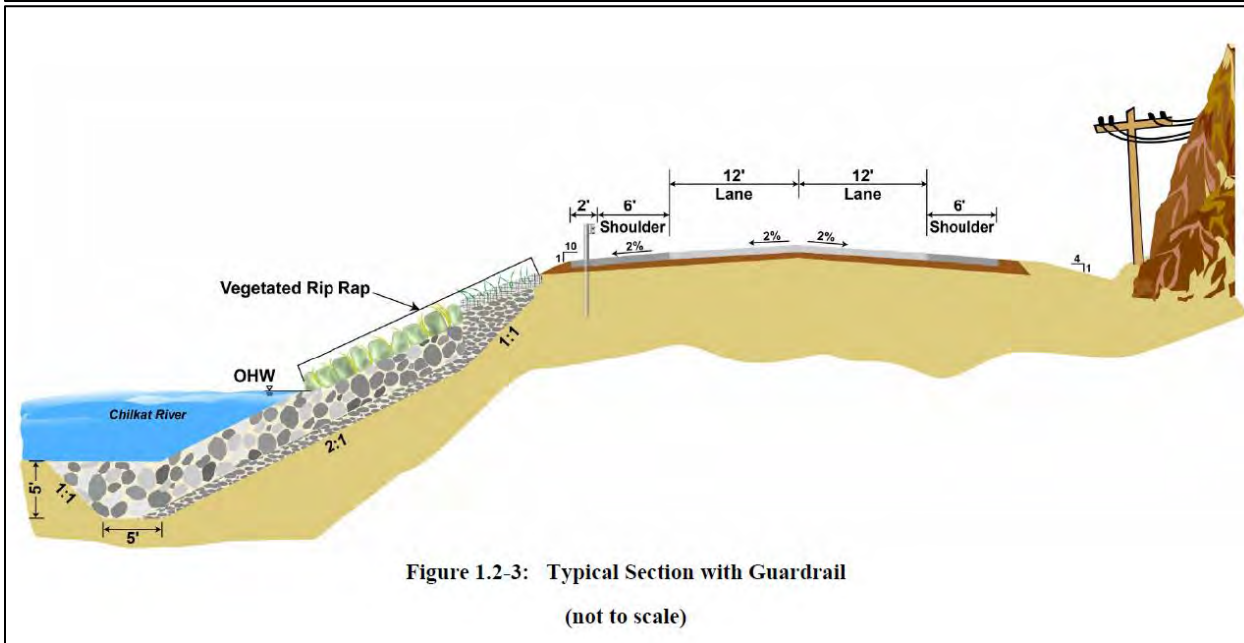
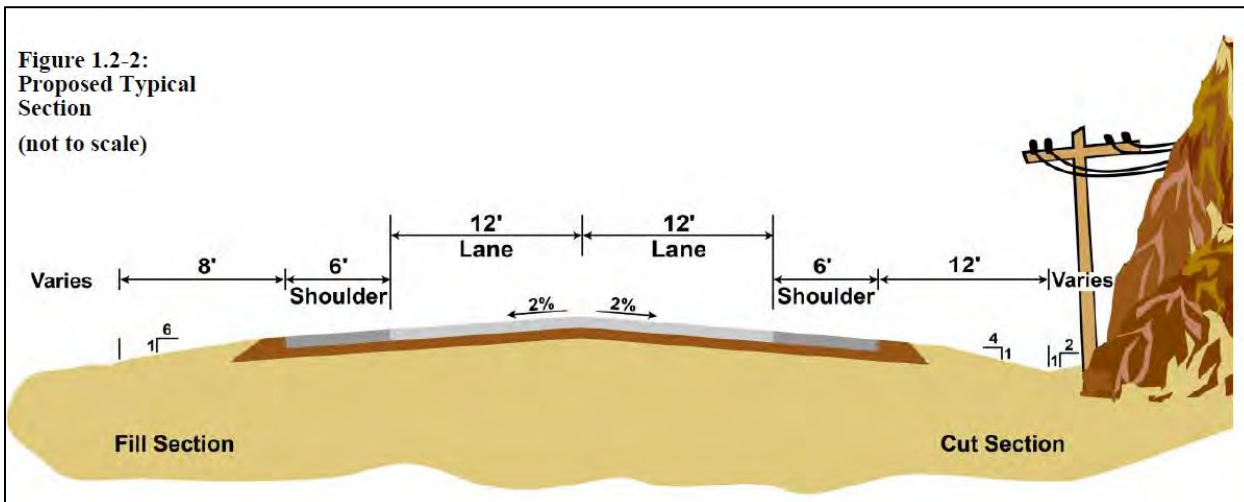
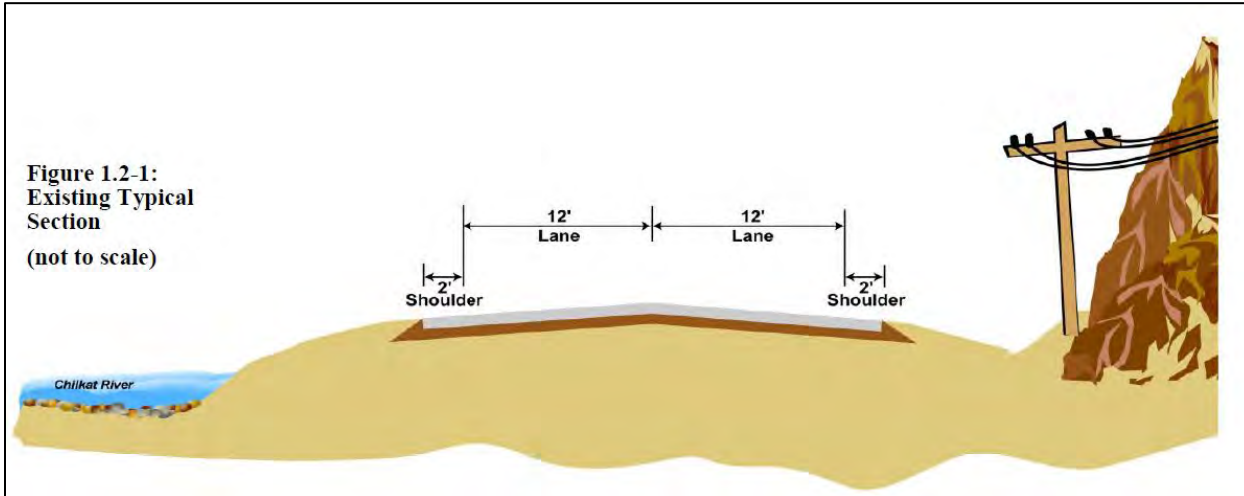
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## ATTACHMENT 2

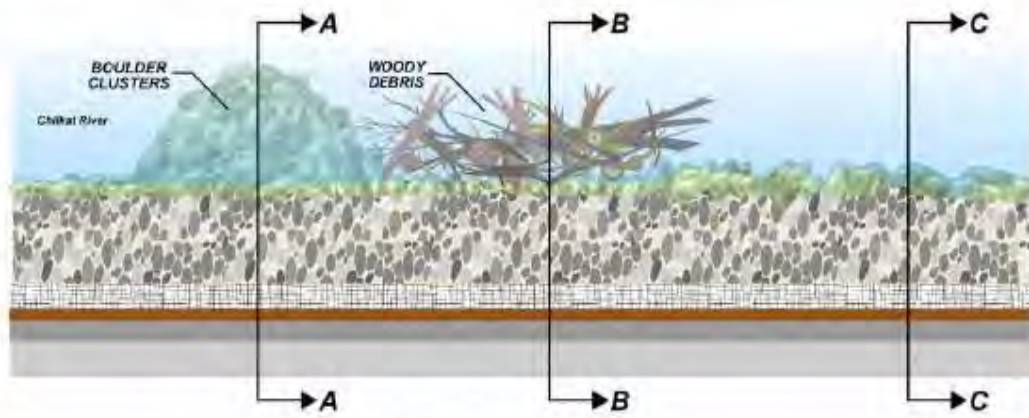
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# ADOT Proposed 2015 Mitigation Figures

ADOT proposed road and mitigation figures and sections

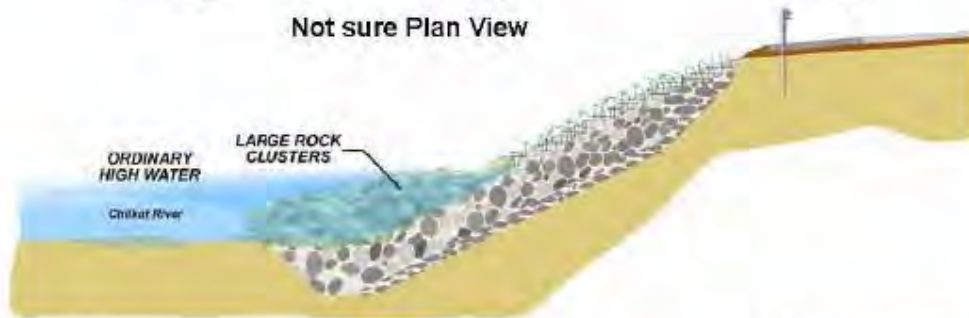




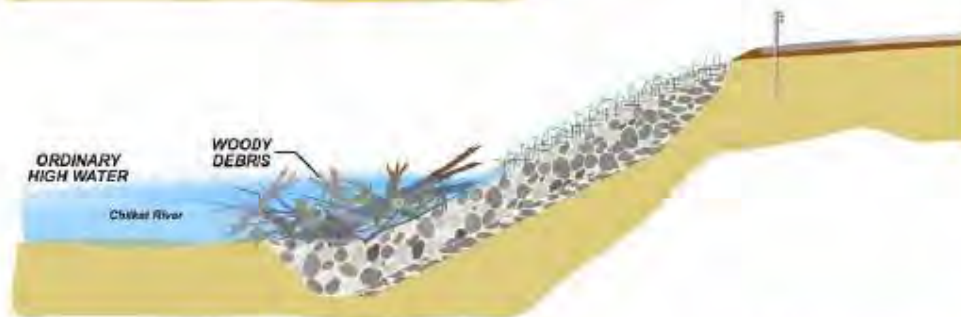


Not sure Plan View

Typical Section A



Typical Section B



Typical Section C



**Woody Debris Upstream and Adjacent to Large Rocks Conceptual Drawing**

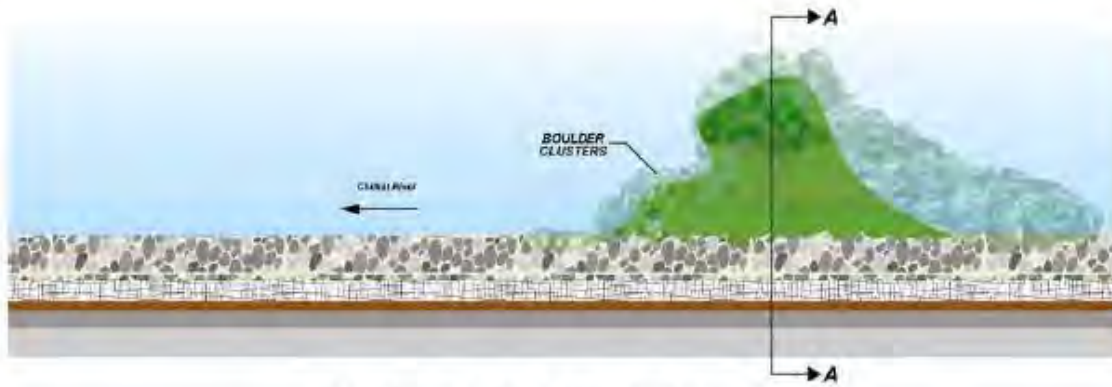
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Copper River Meridian, Alaska



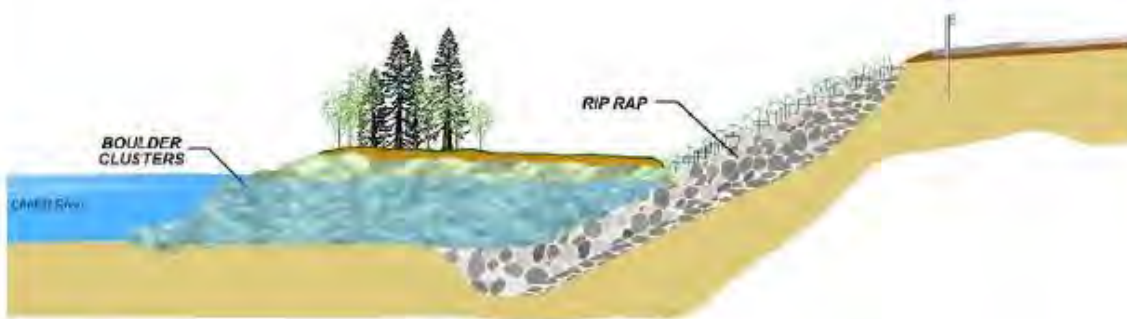
**STATE OF ALASKA**  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
DOT & PF Project No. 68606  
HAINES HIGHWAY  
MILEPOST 3.5 - 25.3  
Haines, Alaska

DATE: Aug 15, 2014

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Vegetated River Protrusion Plan View



Typical Section A

**Vegetated River Protrusion  
Conceptual Drawing**

TS 28/29/30 S, R 56/57/58/59 E,  
Copper River Meridian, Alaska



**STATE OF ALASKA**  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
DOT & PF Project No. 68606  
HAINES HIGHWAY  
MILEPOST 3.5 - 25.3  
Haines, Alaska

DATE: Aug 15, 2014

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Approximate locations of all proposed main stem and side channel mitigation features (2015 EA). Includes Fish Wheels, Vegetated riprap Protrusions, and Riprap and woody debris structures.



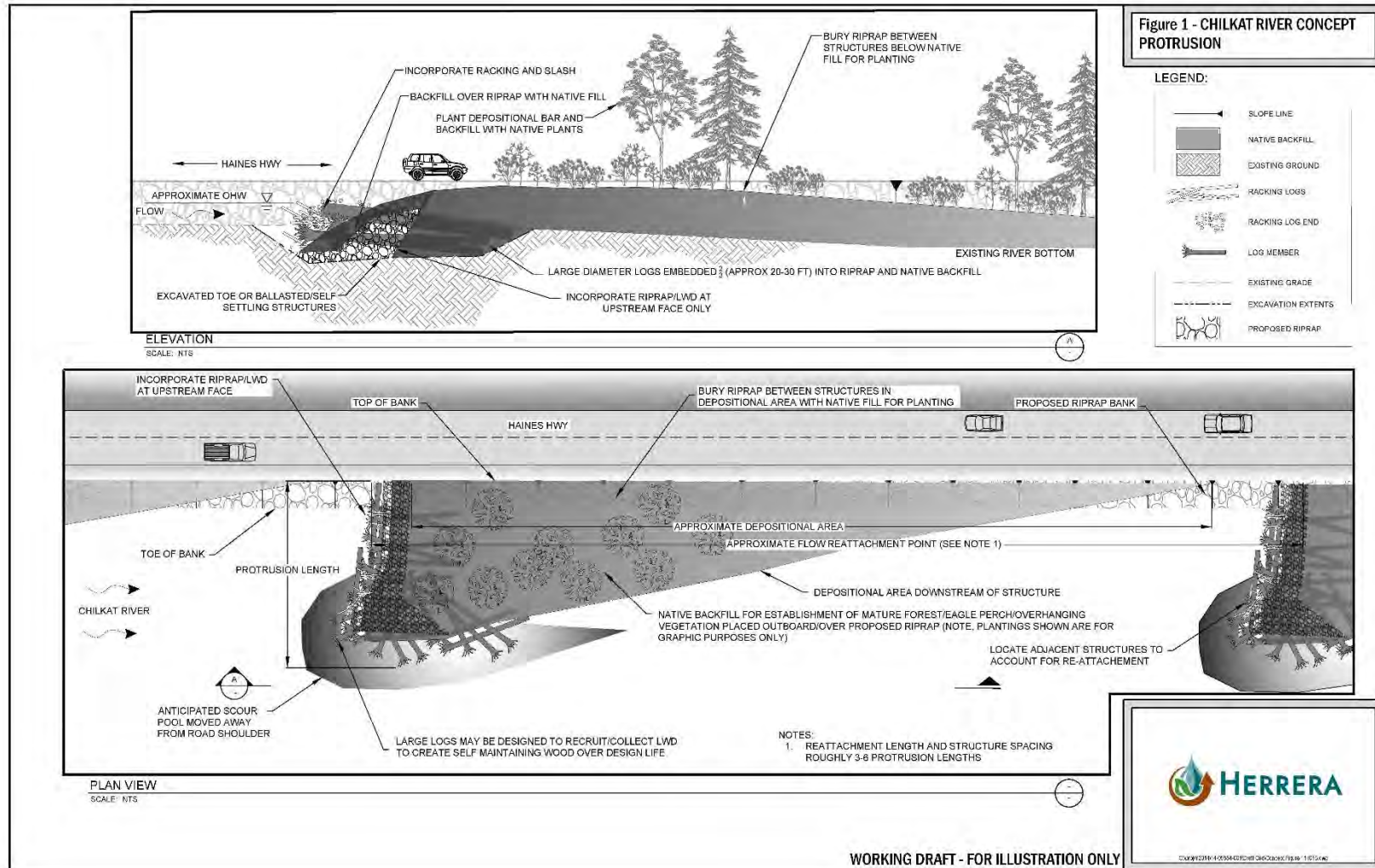
## ATTACHMENT 3

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# CIV Conceptual Proposed Road and Mitigation Figures and Sections

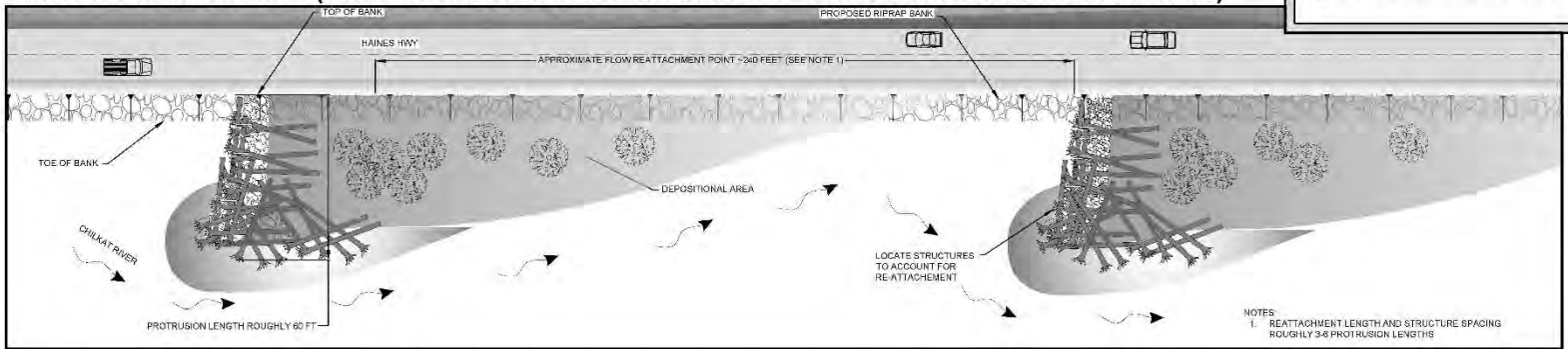


# Conceptual alternative Figures

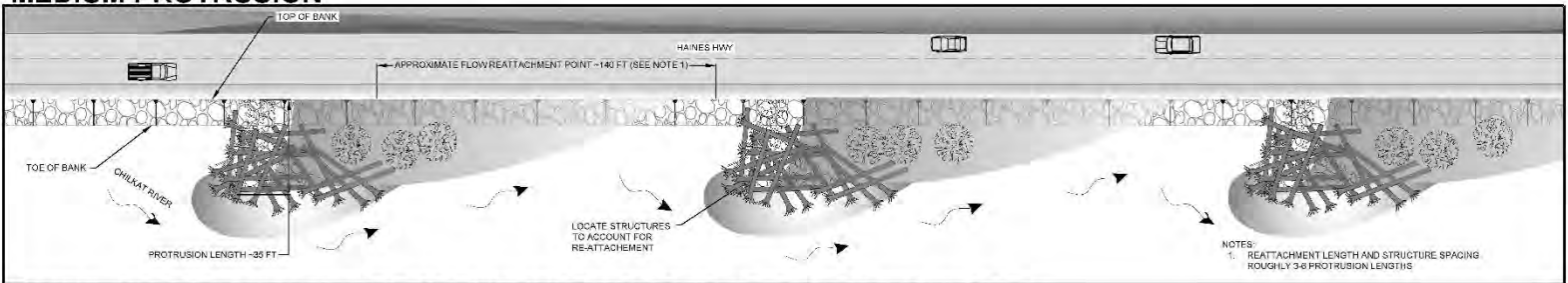


**LARGE PROTRUSION (FEWER STRUCTURES/SCOUR POOL MOVED AWAY FROM ROAD)**

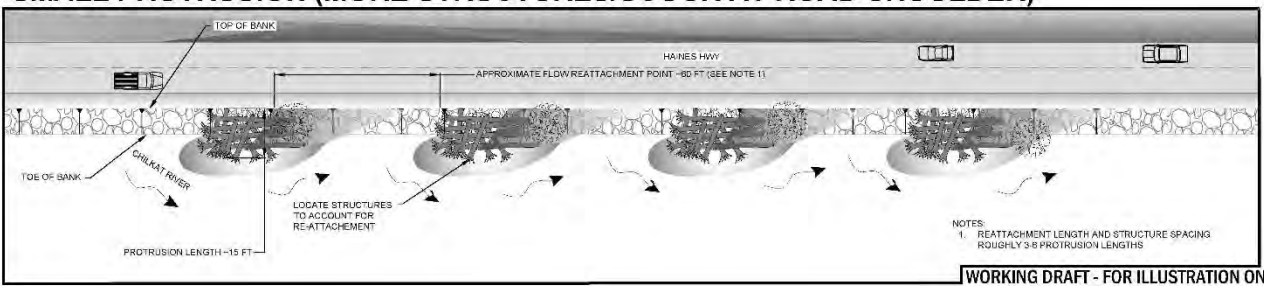
Figure 2 - CHILKAT RIVER CONCEPT



**MEDIUM PROTRUSION**

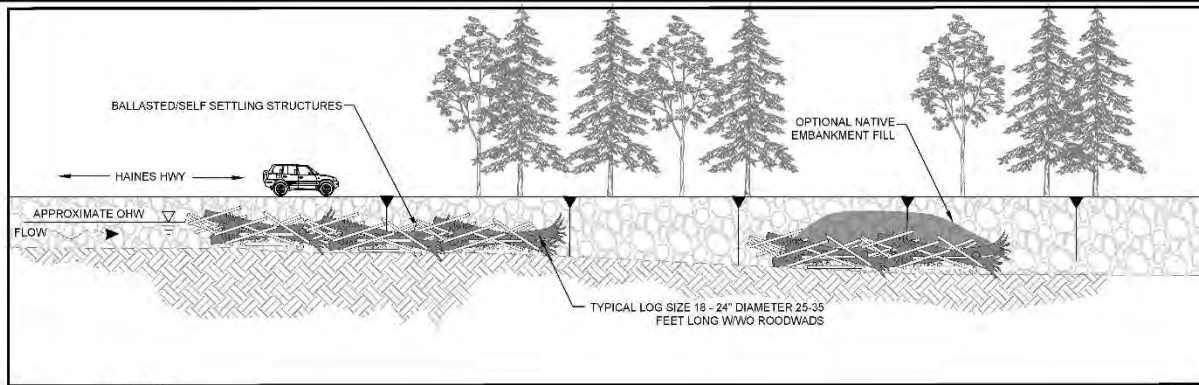


**SMALL PROTRUSION (MORE STRUCTURES/SCOUR AT ROAD SHOULDER)**



WORKING DRAFT - FOR ILLUSTRATION ONLY

©2014/03/14/0954 03/14/0954 Page 2 - 16725(x)

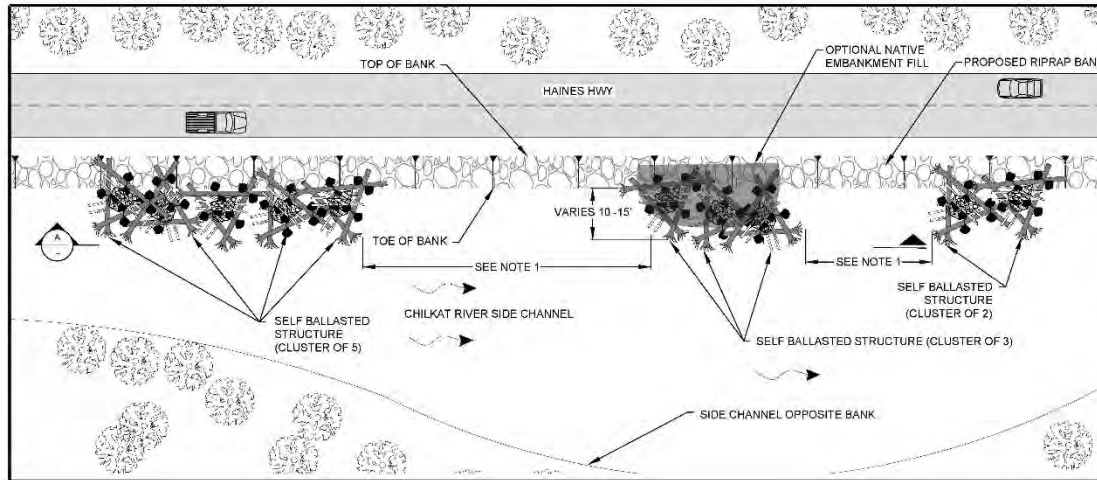


ELEVATION  
SCALE: NTS

FIGURE 3 - CONCEPTUAL CHILKAT RIVER SIDE CHANNEL WOOD

LEGEND:

- SLOPE LINE
- NATIVE BACKFILL
- EXISTING GROUND
- RACKING LOGS
- RACKING LOG END
- LOG MEMBER
- EXISTING GRADE
- EXCAVATION EXTENTS
- RIPRAP



PLAN VIEW  
SCALE: NTS

NOTES:

- 1) LOCATION, SPACING AND SIZE VARIES BASED ON HYDRAULIC MODELING



EXAMPLE PHOTO  
SCALE: NTS

**HERRERA**  
BALLASTED SELF SETTLING  
WOOD FEATURES

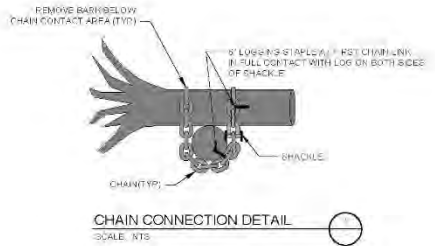
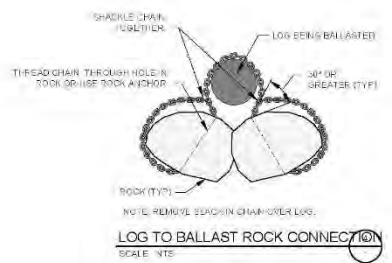
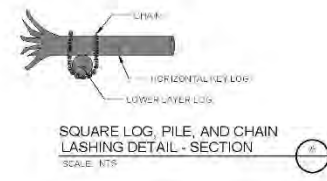
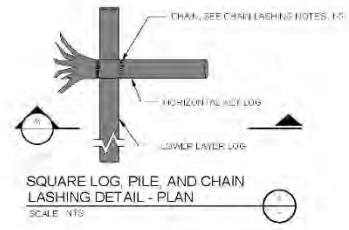
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**GENERAL NOTES:**

- RIPRAP DESIGN FOR PROTRUSION SHALL
  - BE DESIGNED TO ACCOMMODATE THE 100YR FLOOD MAXIMUM PROBABLY SCOUR THROUGH A BURIED TOE, SELF LAUNCHING TOE OR THE STRUCTURE SHALL BE DESIGNED TO BE SELF SETTLING
  - RIPRAP SIZING SHALL INCLUDE A MINIMUM FACTOR OF SAFETY OF 1.4
  - RIPRAP BLANKET THICKNESS SHALL BE A MINIMUM OF 1.5 TIMES THE D100 ROCK SIZE
  - RIPRAP PLACEMENT SHALL BE COORDINATED WITH LOG PLACEMENT TO ENSURE THAT CONTINUOUS VOIDS THAT MAY LEAD TO PIPING AND EROSION OF THE NATIVE FILL ARE NOT PRESENT OR A FILTER BLANKET SHALL BE SPECIFIED
- KEY LOGS USED IN CONSTRUCTION OF THE PROTRUSION AND MITIGATION STRUCTURES SHALL
  - BE CONIFEROUS SPECIES INCLUDING SPRUCE AND CEDAR
  - LARGE DIAMETER (18-24 INCHES) TO IMPROVE ROT RESISTANCE OVER THE DURATION OF THE PROJECT DESIGN LIFE
- LARGE AND SMALL WOODY DEBRIS (RACKING AND SLASH) SHALL BE INCORPORATED DURING THE INSTALLATION OF KEY LOGS TO CREATE A CONTINUOUS DENSE MAT MATRIX OF WOODY DEBRIS BEYOND THE RIPRAP BLANKET
  - MATERIAL MAY BE NATIVE MATERIALS SALVAGED FROM CLEARING OPERATIONS
- LOCATIONS, GEOMETRY AND SIZES OF PROTRUSIONS AND BALLASTED SELF SETTLING HABITAT STRUCTURES SHALL BE
  - DESIGNED TO ENSURE FULL COVERAGE/TREATMENT OF PROPOSED HARDENED BANKS
  - MODELED USING A 2 DIMENSIONAL HYDRAULIC MODEL TO ENSURE SIDE CHANNELS ARE NOT DETRIMENTALLY IMPACTED BY STRUCTURE PLACEMENT
  - DESIGNED WITH A MINIMUM FACTOR OF SAFETY OF 1.5 TO RESIST BUOYANCY
  - DESIGN TO RESIST LATERAL MOVEMENT OF KEY PIECES AND RIPRAP DUE TO DRAG FORCES

**Figure 4 - CONCEPTUAL CHILKAT RIVER PROTRUSION DETAILS**



WORKING DRAFT - FOR ILLUSTRATION ONLY



## **CIV Response**



THE STATE  
of **ALASKA**  
GOVERNOR BILL WALKER

## Department of Transportation and Public Facilities

SOUTHCOST REGION  
DESIGN & ENGINEERING SERVICES  
Preconstruction

6860 Glacier Highway  
PO Box 112506  
Juneau, Alaska 99801-2506  
Main: (907) 465-6465  
Toll free: (800) 575-4540  
Fax: (907) 465-4414

May 9, 2016

Jones Hotch, President  
32 Chilkat Ave., Klukwan AK  
HC 60 Box 2207  
Haines, AK 99827

Re: CIV Comments on Haines Highway Improvements Milepost 3.5 to 25.3  
Draft Revised Environmental Assessment

Dear Mr. Hotch:

Thank you for your comments dated December 7, 2015 on the referenced document. We appreciate the time and effort that you and your staff have dedicated to working with us to address potential impacts and the thoughtful input received from the Chilkat Indian Village (CIV) and your Consultant Herrera Engineering.

Based on consultation with CIV and input from ADF&G, DOT&PF revised our proposed Chilkat River mitigation plan. Revised mitigation concepts are attached along with a table and graphics showing locations. The attached Table A also shows all mitigation for impacts to Wetlands and other Waters of the US. CIV's comment letter proposes a new alternative that differs from the DOT&PF proposed alternative in five ways. DOT&PF considered the CIV proposed alternative and offers the following:

- **Reconsider the preferred alternative.**
  - DOT&PF worked with the CIV and their Consultant, Herrera Engineering to further mitigate the Preferred Alternative (2A) by modifying the proposed Chilkat River mitigation concepts to more closely match the details presented in the CIV letter dated December 7, 2015.

*"Keep Alaska Moving through service and infrastructure."*

- **Realign fewer curves to meet 55 mph design standards focused on where realignment can avoid sensitive areas.**
  - Due to public and resource agency concerns, compared to the July 2013 Proposed Action the 2015 Revised Proposed Action has been modified to include less realignment to avoid impacts to the most sensitive areas. The 2015 Revised Proposed Action reduced passing zones to about 50 percent while still addressing the highway deficiencies, bridge deficiencies, highway instability, and recreational access deficiencies, e.g. the project purpose and need. We have reintroduced curvature to the extent practicable while meeting purpose and need. Reintroduction of substandard curvature (curves that do not meet the 55 MPH design speed) would not meet purpose and need of the project.
  
- **Do not add passing zones. Use smaller shoulders and clear zones through sensitive habitats. Widen shoulders to a continuous 6 feet where not in conflict with sensitive areas.**
  - Sometimes “passing zones” are mistaken for passing lanes. Passing lanes were eliminated from the project to reduce the size of the project footprint and the corresponding impacts. A passing zone is a fairly straight section of highway where the sight distance permits faster vehicles to overtake slower vehicles in the lane normally used by opposing traffic. Dashed yellow centerline markings indicate where passing is permitted on two-lane two-way roadways. The overall amount of passing zones was reduced in the revised alignment to re-introduce curves to reduce impacts to sensitive resources.
  - Varying the width of the shoulder would not reduce tree and brush clearing because the minimum width of the clear zone, the unobstructed, traversable area beyond the edge of the travel lane, would remain the same. The required minimum width of the clear zone is measured from the outside edge of the travel lane. As a result, reducing the shoulder would not reduce the width of the minimum clear zone.

Passing zones are necessary and would not be eliminated, entirely. Absent the ability to pass slower vehicles, drivers may become anxious; a contributing factor in crashes.



Safety is a consideration in the selection of a continuous shoulder width. Though the standard for shoulders on highways used by bicyclists is a width greater than 4 feet, a minimum shoulder width of 6 feet is preferred so vehicles can make emergency stops and pull completely off the travel lane.

**Photograph 2.0-1:**  
Bicyclist on  
Highway with  
Narrow Shoulders

(Photo courtesy of  
Bob Trousil, P.E.,  
DOT&PF, May  
2014)



A continuous shoulder width is predictable and provides a sense of security for most motorists knowing they can pull completely off the travel lane anywhere along the highway. Variable shoulder widths create uncertainty for the driver, thereby diminishing that sense of a security which may increase the risk of accidents.

A continuous shoulder width also provides a consistent and predictable area for bicyclists to operate in without obstructing faster moving motor vehicles.

- **Install temporary bridge down river of existing; further consider construction of the replacement bridge on the up river side of the existing bridge by moving the historic structures.**
  - As we discussed at the meeting in Klukwan there are Section 4(f) historic properties that are in the way of an upstream alignment. Section 4(f) requires avoidance of the properties unless there is no feasible or prudent practicable alternative. DOT&PF is continuing discussions with FHWA concerning the practicality of completely avoiding the properties.

- **Main stem and side channel (Chilkat River) mitigation for bank armoring designed to ensure full and complete instream mitigation for the life of the project.**
  - DOT&PF has worked with the Chilkat Indian Village, their consultant Herrera Engineering, and ADF&G to refine and locate Chilkat River mitigation sites. The results of those discussions are attached as conceptual graphics, a table of mitigation locations and a revised Figure Set D.

Thank you for expressing your concerns and the thoughtful and productive coordination.

Sincerely,



Jim Scholl  
Project Environmental Coordinator  
DOT&PF Southcoast Region

Attachments:

Chilkat River Mitigation Concepts  
Table 4.15-3 Summary of Linear Impacts and Benefits to Fish Habitat  
Figure Set D, Wetlands Impacts and Proposed Stream Mitigation.

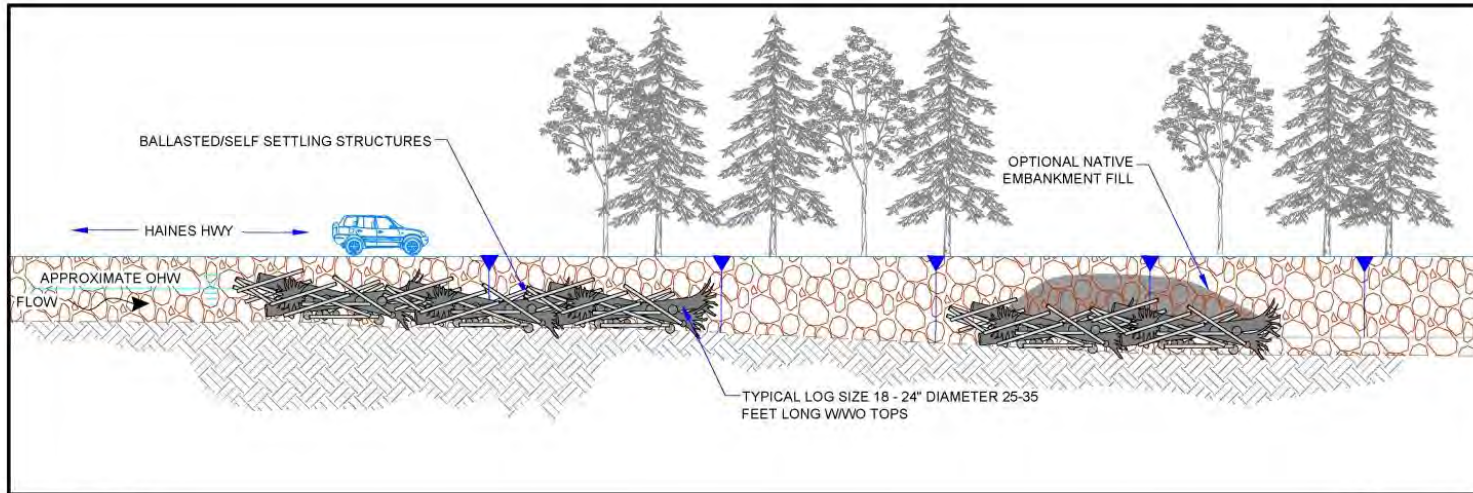
Cc w/o attachments:

Al Fletcher, Field Operations Engineer, FHWA  
Hilary Lindh, DOT&PF Southcoast Region, Regional Environmental Manager

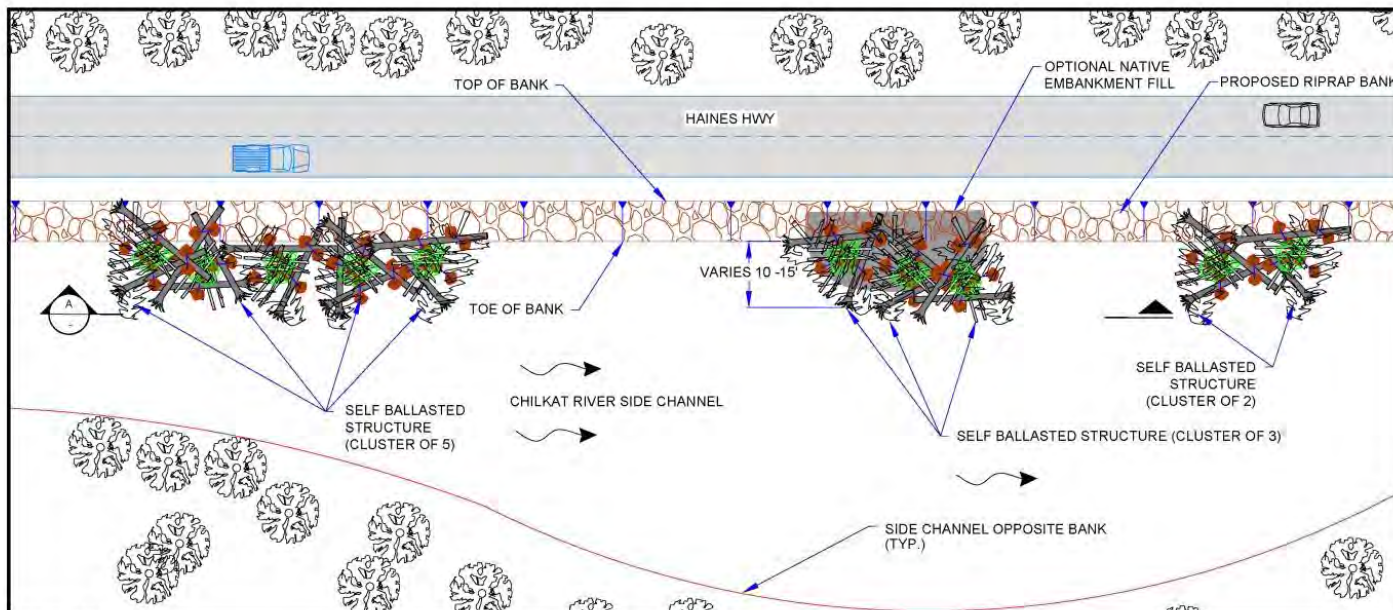
# **CHILKAT RIVER MITIGATION CONCEPTS**



# Conceptual Plan for Ballasted Log Clusters

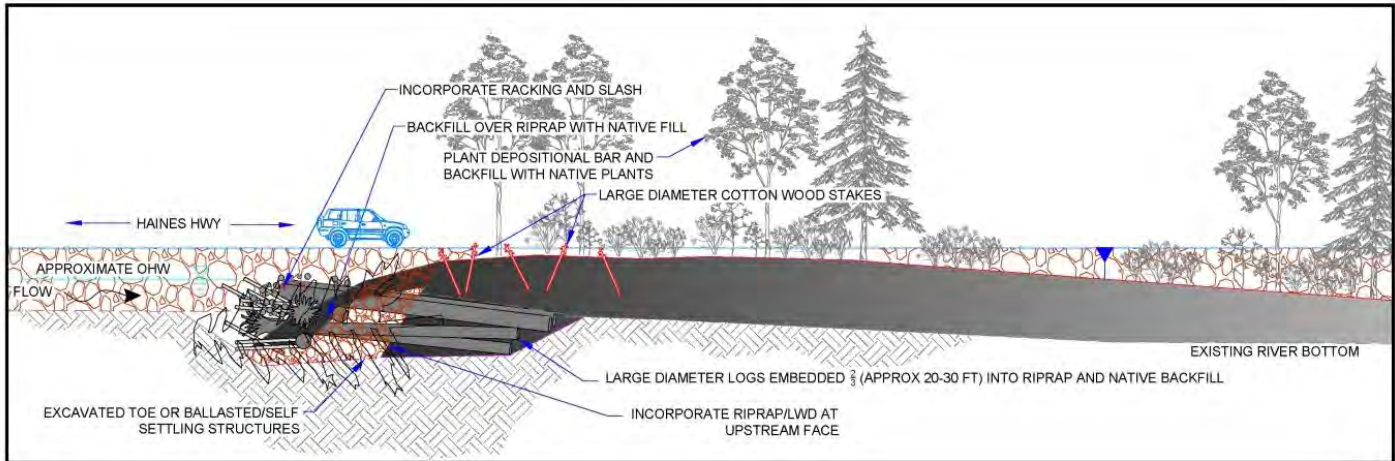


ELEVATION  
SCALE: NTS

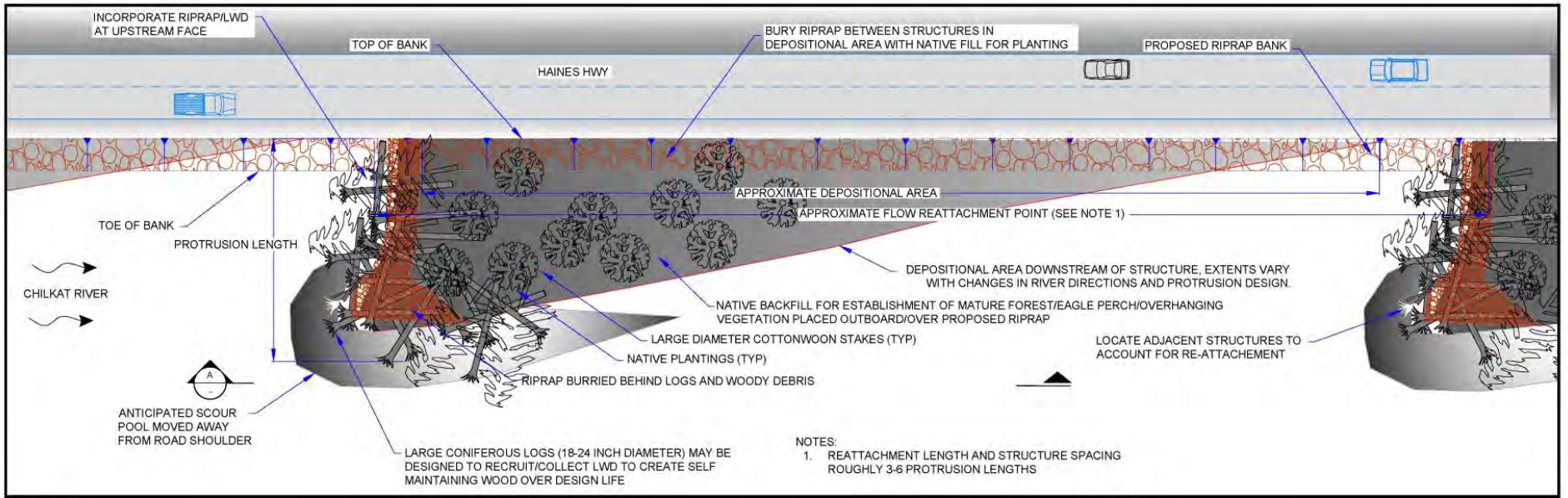


PLAN VIEW  
SCALE: NTS

# Conceptual Plan for River Protrusions



**ELEVATION**  
SCALE: NTS



**PLAN VIEW**  
SCALE: NTS



- NOTES:**
1. REATTACHMENT LENGTH AND STRUCTURE SPACING ROUGHLY 3-6 PROTRUSION LENGTHS



**Table 4.15-3**

**Summary of Linear Impacts and Benefits to Fish  
Habitat**

**FREA Table 4.15-3: Summary of Linear Impacts and Benefits to Fish Habitat**

<b>Fig Set D Sht #</b>	<b>MP (App)</b>	<b>DOT&amp;PF Station Numbering</b>	<b>Fish Pass Culvert #</b>	<b>ACTIVITY</b>	<b>LF of Stream Impact</b>	<b>LF of Stream Benefit</b>	<b>Net Effect</b>	<b>Habitat Function Impacted/Benefited*</b>
1	4.1	191+00 - 194+00		Relocate 300 feet of stream			Neutral	Replace in kind
1	4.2	195+50 - 197+50		302 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
2	4.7	223+50	FP-1	Replace existing culvert with fish passage culvert		90	Positive	Passage, Functional lift to upstream wetlands
2	4.7	221+00 - 223+00		Relocate/replace 100 feet of stream			Neutral	Replace in kind
2	4.7	223+00 - 224+00		Relocate/replace 100 feet of stream			Neutral	Replace in kind
2	4.8	229+50		Relocate/replace 25 feet of stream			Neutral	Replace in kind
2	4.8	230+20	FP-2	Replace existing culvert with fish passage culvert		79	Positive	Passage, Functional lift to upstream wetlands
2	4.9	233+00	FP-33	Replace existing culvert with fish passage culvert		54	Positive	Passage, Functional lift to upstream wetlands
2	4.9	238+50 - 241+40		Improve/Relocate 195 feet of stream to abandoned channel away from road		195	Positive	Improve fish habitat
2	5.0	241+37	FP-3	Replace existing culvert with fish passage culvert		62	Positive	Passage, Functional lift to upstream wetlands
2	5.1	245+25	FP-34	Replace existing culvert with fish passage culvert (driveway)		27	Positive	Passage
2	5.1	246+25	FP-4	Replace existing culvert with fish passage culvert		73	Positive	Passage
2	5.1	249+43	FP-5	Replace existing culvert with fish passage culvert		66	Positive	Passage
2	5.2	249+50 - 256+00		Relocate/replace 650 feet of stream			Neutral	Replace in kind

**FREA Table 4.15-3: Summary of Linear Impacts and Benefits to Fish Habitat**

<b>Fig Set D Sht #</b>	<b>MP (App)</b>	<b>DOT&amp;PF Station Numbering</b>	<b>Fish Pass Culvert #</b>	<b>ACTIVITY</b>	<b>LF of Stream Impact</b>	<b>LF of Stream Benefit</b>	<b>Net Effect</b>	<b>Habitat Function Impacted/Benefited*</b>
3	5.3	258+50 - 260+50		Relocate/replace 250 feet of stream			Neutral	Replace in kind
3	5.5	263+00 - 264+75		169 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
3	5.6	264+00 - 265+00		Ballasted log clusters		100	Positive	OW COr, Passage
3	5.7	275+50 - 275+60		11 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
3	5.8	275+10 - 276+10		Ballasted log clusters		100	Positive	OW COr, Passage
4	5.9	284+50 - 289+00		404 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
4	6.0	293+90		Partial fill of pond	15		Negative	Impact to spawning habitat
4	6.1	298+25 - 300+25		River Protrusion		200	Positive	OW COr, Passage
4	6.1	297+00 - 302+00		452 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
4	6.4	312+00 - 313+40		Ballasted log clusters		140	Positive	OW COr, Passage
4	6.4	311+00 - 314+00		165 feet of shoreline fill with vegetated riprap	165		Negative	Impact
4	6.5	316+00	FP-7	Replace existing culvert with fish passage culvert		60	Positive	Passage, Functional lift to upstream wetlands
5	6.7	318+50 - 320+00		Relocate/replace 150 feet of stream			Neutral	Replace in kind
5	6.7	320+00	FP-8	Replace existing culvert with fish passage culvert		69	Positive	Passage, Functional lift to upstream wetlands
5	6.7	320+00 - 323+00		Relocate/replace 300 feet of			Neutral	Replace in kind

**FREA Table 4.15-3: Summary of Linear Impacts and Benefits to Fish Habitat**

<b>Fig Set D Sht #</b>	<b>MP (App)</b>	<b>DOT&amp;PF Station Numbering</b>	<b>Fish Pass Culvert #</b>	<b>ACTIVITY</b>	<b>LF of Stream Impact</b>	<b>LF of Stream Benefit</b>	<b>Net Effect</b>	<b>Habitat Function Impacted/Benefited*</b>
				stream				
5	6.7	325+80	FP-9	Replace existing culvert with fish passage culvert		81	Positive	Passage, Functional lift to upstream wetlands
5	7.0	336+70 - 338+25		120 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
5	7.1	336+70 - 338+25		Ballasted log clusters		150	Positive	CO <sub>r</sub> , Passage
6	7.3	350+00 - 358+00		771 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
6	7.3	351+00		Relocate/replace 200 feet of stream			Neutral	Replace in kind
6	7.3	351+00	FP-10	Replace existing culvert with fish passage culvert		66	Positive	Passage, Functional lift to upstream wetlands
6	7.5	351+20 - 352+30		Ballasted log clusters		110	Positive	OW CO <sub>r</sub> , Passage
6	7.5	354+80 - 356+40		River Protrusion		160	Positive	OW CO <sub>r</sub> , Passage
6	7.5	362+00 - 363+00		River Protrusion		100	Positive	CO <sub>r</sub>
6	7.6	365+25 - 366+25		57 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
6	7.6	367+50	FP-11	Replace existing culvert with fish passage culvert		65	Positive	Passage, Functional lift to upstream wetlands
6	7.8	371+50 - 376+00		485 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
6	7.8	374+00 - 374+50		Ballasted log clusters		50	Positive	OW CO <sub>r</sub> , Passage
6	7.9	380+25 - 385+50		524 feet of shoreline fill (vegetated riprap)			Neutral	Replace in kind

**FREA Table 4.15-3: Summary of Linear Impacts and Benefits to Fish Habitat**

<b>Fig Set D Sht #</b>	<b>MP (App)</b>	<b>DOT&amp;PF Station Numbering</b>	<b>Fish Pass Culvert #</b>	<b>ACTIVITY</b>	<b>LF of Stream Impact</b>	<b>LF of Stream Benefit</b>	<b>Net Effect</b>	<b>Habitat Function Impacted/Benefited*</b>
				on existing vegetated riprap				
7	7.9	383+25	FP-12	Replace existing culvert with fish passage culvert		72	Positive	Passage, Functional lift to upstream wetlands
7	8.9	385+00 - 385+50		Fish Wheel, Ballasted log clusters, River protrusion		50	Positive	CO <sub>r</sub>
7	8.9	389+00 - 390+00		Ballasted log clusters		100	Positive	OW CO <sub>r</sub> , Passage
7	8.0	388+25 - 391+75		332 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
7	8.2	405+75 - 406+25		28 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
7	8.2	407+25 - 409+50		217 feet of shoreline fill with vegetated riprap	217		Negative	Impact
7	8.4	412+00 - 417+50		547 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
7	8.4	413+00 - 413+50		Fish Wheel		50	Positive	Passage
7	8.5	415+80 - 417+20		River Protrusion		140	Positive	OW CO <sub>r</sub> , Passage
8	8.6	423+75 - 425+50		154 feet of shoreline fill with vegetated riprap	154		Negative	Impact
8	8.7	429+00 - 436+25		872 feet of shoreline fill with vegetated riprap	872		Negative	Impact
8	8.5	431+00 - 431+50		Fish Wheel		50	Positive	Passage
8	8.7	435+80 - 437+75		River Protrusion		195	Positive	OW CO <sub>r</sub> , Passage
8	8.8	439+00 - 448+00		904 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind

**FREA Table 4.15-3: Summary of Linear Impacts and Benefits to Fish Habitat**

<b>Fig Set D Sht #</b>	<b>MP (App)</b>	<b>DOT&amp;PF Station Numbering</b>	<b>Fish Pass Culvert #</b>	<b>ACTIVITY</b>	<b>LF of Stream Impact</b>	<b>LF of Stream Benefit</b>	<b>Net Effect</b>	<b>Habitat Function Impacted/Benefited*</b>
8	8.8	441+00 - 443+10		River protrusion		210	Positive	OW COr, Passage
8	8.8	446+00 - 446+50		Fish Wheel		50	Positive	Passage
9	8.9	448+00 - 452+50		467 feet of shoreline fill with vegetated riprap	467		Negative	Impact
9	8.9	449+20 - 451+20		Ballasted log clusters		200	Positive	OW COr, Passage
9	8.9	454+00 - 458+00		398 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
9	8.9	455+30 - 456+70		Ballasted log clusters		140	Positive	OW COr, Passage
9	9.0	459+75 - 470+00		1,020 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
9	9.2	463+50 - 465+00		Ballasted log clusters		150	Positive	OW COr, Passage
9	9.2	468+00 - 468+50		Fish Wheel		50	Positive	Passage
10	9.5	484+75	FP-14	Replace existing culvert with fish passage culvert		77	Positive	Passage
10	9.5	484+75		Relocate/replace 30 feet of stream			Neutral	Replace in kind
10	9.7	493+00 - 498+00		447 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
10	9.7	494+00 - 494+50		Fish Wheel		50	Positive	Passage
10	9.7	497+80 - 500+00		River Protrusion		220	Positive	OW COr, Passage
10	10.0	513+90	FP-15	Replace existing culvert with fish passage culvert		72	Positive	Passage, Functional lift to upstream wetlands
11	10.3	520+00 - 524+00		Improve/Relocate 400 feet of stream to historical channel		400	Positive	Passage, Functional lift to upstream wetlands
11	10.3	519+00 - 523+00		Fill 400 feet of slough shoreline	400		Negative	Impact

**FREA Table 4.15-3: Summary of Linear Impacts and Benefits to Fish Habitat**

<b>Fig Set D Sht #</b>	<b>MP (App)</b>	<b>DOT&amp;PF Station Numbering</b>	<b>Fish Pass Culvert #</b>	<b>ACTIVITY</b>	<b>LF of Stream Impact</b>	<b>LF of Stream Benefit</b>	<b>Net Effect</b>	<b>Habitat Function Impacted/Benefited*</b>
11	10.5	532+00	FP-16	Replace existing culvert with fish passage culvert		76	Positive	Passage
11	10.5	530+00 - 532+00		Improve/Relocate 126 feet of stream		126	Positive	Passage, Functional lift to upstream wetlands
12	11.2	570+00 - 570+50		Relocate/replace 50 feet of stream			Neutral	Replace in kind
13	11.6	585+50 - 587+50		193 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
13	11.6	585+30 - 588+10		Ballasted log clusters		280	Positive	OW COr, Passage
13	11.7	590+75	FP-17	Replace existing culverts (2) with fish passage culvert		63	Positive	Passage, Functional lift to upstream wetlands
13	11.7-12	594+25 - 608+00		Create 980 feet of new stream		980	Positive	New fish habitat, functional lift to adjacent wetlands
13	12.0	608+50		Replace culvert			Neutral	Replace in kind
13	12.1	611+50 - 613+25		270 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
13	12.1	612+50 - 613+50		Ballasted log clusters		100	Positive	OW COr, Passage
14	12.2	620+00 - 622+50		221 feet of shoreline fill with vegetated riprap	221		Negative	Impact
14	12.3	621+20 - 622+00		Ballasted log clusters		80	Positive	OW COr, Passage
14	12.3	623+00 - 623+50		Ballasted log clusters		50	Positive	OW COr, Passage
14	12.3	624+75 - 625+30		Ballasted log clusters		55	Positive	OW COr, Passage
14	12.6	641+00 - 642+25		68 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
14	12.6	641+00 - 642+80		Ballasted log clusters		180	Positive	OW COr, Passage

**FREA Table 4.15-3: Summary of Linear Impacts and Benefits to Fish Habitat**

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14	12.7	643+00 - 647+00		Improve/Relocate 300 feet of stream		300	Positive	New fish habitat, functional lift to adjacent wetlands
15	12.8	648+90	FP-18	Replace existing culvert with fish passage culvert		69	Positive	Passage, Functional lift to upstream wetlands
15	12.8	649+00 - 651+00		Improve/Relocate 300 feet of stream		300	Positive	New fish habitat, functional lift to adjacent wetlands
15	12.8	649+00 - 654+50		Create 500 feet of new stream		500	Positive	New fish habitat, functional lift to adjacent wetlands
15	12.9	654+25	FP-19 (New)	New fish passage culvert; direct flow from along road to under road to feed new stream		58	Positive	Passage, Functional lift to upstream wetlands
15	12.9	656+80	FP-20	Replace existing culverts with fish passage culvert		67	Positive	Passage, Functional lift to upstream wetlands
15	13.1	666+50 - 673+00		626 feet of shoreline fill with vegetated riprap	626		Negative	Impact
15	13.1	666+50 - 668+20		Ballasted log clusters		170	Positive	OW COr, Passage
15	13.2	668+90 - 670+50		River Protrusion		160	Positive	Passage
15	13.2	671+80 - 673+50		River Protrusion		170	Positive	Passage
15	13.4	688+50 - 693+50		513 feet of shoreline fill with vegetated riprap	513		Negative	Impact
16	13.4	692+00 - 693+50		River Protrusion		150	Positive	Passage
16	13.5	694+25 - 1,145+25		97 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
16	13.7	696+25 - 699+25		304 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
16	13.7	696+30 - 698+00		River Protrusion		170	Positive	Passage



**FREA Table 4.15-3: Summary of Linear Impacts and Benefits to Fish Habitat**

<b>Fig Set D Sht #</b>	<b>MP (App)</b>	<b>DOT&amp;PF Station Numbering</b>	<b>Fish Pass Culvert #</b>	<b>ACTIVITY</b>	<b>LF of Stream Impact</b>	<b>LF of Stream Benefit</b>	<b>Net Effect</b>	<b>Habitat Function Impacted/Benefited*</b>
16	13.7	699+75 - 703+50		383 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
16	13.7	699+80 - 700+70		River Protrusion		90	Positive	Passage
16	13.8	702+60 - 703+60		Ballasted log clusters		100	Positive	OW COr, Passage
16	13.9	712+00	FP-21	Replace culverts (2) with fish passage culvert		119	Positive	Passage, Functional lift to upstream wetlands
16	13.9	711+75		Fill a portion off 14 Mile pond, fill 30 feet of stream	130		Negative	Impact
16	13.9	711+75		Expand/lengthen the pond		50	Positive	New fish habitat, functional lift to adjacent wetlands
17	14.3	735+90 - 738+00		Ballasted log clusters		210	Positive	OW COr, Passage
17	14.3	735+50 - 737+75		214 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
17	14.3	736+00 - 738+00		Improve fish habitat on slough		200	Positive	COr, Kr
17	14.3	738+00 - 740+00		Improve fish habitat on protrusion		200	Positive	COr, Kr
17	14.3	738+25	FP-22	Replace existing culvert with fish passage culvert		56	Positive	Passage
17	14.3	738+00 - 742+00		Fill 400 feet of stream along road toe; direct water under road to new pond	400		Negative	Impact
18	14.8	760+75 - 762+00		235 feet of shoreline fill with vegetated riprap	235		Negative	Impact
18	14.8	761+75 - 762+20		Ballasted log clusters		45	Positive	OW COr, Passage
18	14.9	767+50 - 769+50		192 feet of shoreline fill (vegetated riprap)	192		Negative	Impact

**FREA Table 4.15-3: Summary of Linear Impacts and Benefits to Fish Habitat**

<b>Fig Set D Sht #</b>	<b>MP (App)</b>	<b>DOT&amp;PF Station Numbering</b>	<b>Fish Pass Culvert #</b>	<b>ACTIVITY</b>	<b>LF of Stream Impact</b>	<b>LF of Stream Benefit</b>	<b>Net Effect</b>	<b>Habitat Function Impacted/Benefited*</b>
18	14.9	767+80 - 768+30		Ballasted log clusters		50	Positive	OW COr, Passage
18	14.9	768+75	FP-23	Replace existing culvert with fish passage culvert		56	Positive	Passage, Functional lift to upstream wetlands
18	14.9	768+75		Relocate/replace 100 feet of stream			Neutral	Replace in kind
18	15.0	768+90 - 770+20		Ballasted log clusters		130	Positive	OW COr, Passage
18	15.0	772+00	FP-24	Replace existing culvert with fish passage culvert		66	Positive	Passage, Functional lift to upstream wetlands
18	15.0	772+00 - 778+00		Relocate/replace 600 feet of stream			Neutral	Replace in kind
19	15.1	788+50 - 789+00		Ballasted log clusters		50	Positive	OW COr, Passage
19	15.1	790+50 - 791+00		Ballasted log clusters		50	Positive	OW COr, Passage
19	15.1	791+20 - 792+30		Ballasted log clusters		110	Positive	OW COr, Passage
20	16.0	816+00 - 819+50		350 feet of shoreline fill (vegetated riprap) on existing vegetated riprap			Neutral	Replace in kind
20	16.0	817+00 - 819+30		Ballasted log clusters		230	Positive	OW COr, Passage
21	16.9	867+50 - 871+50		Remove culvert and create 500 feet of new stream to new culvert		500	Positive	Passage, Functional lift to upstream fish habitat
21	16.9	871+10	FP-25	Install new fish passage culvert		85	Positive	Passage, Functional lift to upstream wetlands
21	16.9	867+50 - 871+50		Fill 150 feet of stream	150		Negative	Impact
21	16.9	867+50 - 871+50		Improve/Relocate 400 feet of stream		400	Positive	Replace in kind
21	17.0	873+00		Fill 100 feet of stream with vegetated riprap	100		Negative	Impact
21	17.0	873+00 - 873+50		Ballasted log clusters		50	Positive	OW COr, Passage

**FREA Table 4.15-3: Summary of Linear Impacts and Benefits to Fish Habitat**

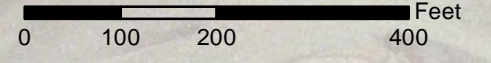
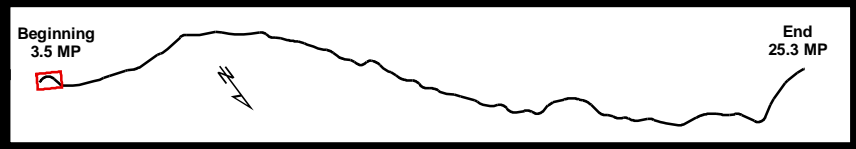
<b>Fig Set D Sht #</b>	<b>MP (App)</b>	<b>DOT&amp;PF Station Numbering</b>	<b>Fish Pass Culvert #</b>	<b>ACTIVITY</b>	<b>LF of Stream Impact</b>	<b>LF of Stream Benefit</b>	<b>Net Effect</b>	<b>Habitat Function Impacted/Benefited*</b>
21	17.0	875+00 - 878+00		Extend stream 300 feet using new landslide water source		300	Positive	Increase habitat
22	17.3	889+50	FP-26	New fish passage culvert		129	Positive	Passage
22	17.3	889+50		Relocate/replace 100 feet of stream			Neutral	Replace in kind
22	17.3	889+50 - 891+00		Relocate/replace 200 feet of stream			Neutral	Replace in kind
22	17.3	890+00 - 898+00		Remove culverts and road embankment, restore riparian habitat		800	Positive	Improve fish habitat
22	17.3	897+00		Remove culvert and install open stream crossing		100	Positive	Improve fish habitat
25	19.8	1016+00 - 1017+00		Ballasted log clusters		100	Positive	Kr
26	20.3	1038+00 - 1047+00		Ballasted log clusters		900	Positive	Kr
28	21.5	1103+00		Create pond to provide rearing habitat at culvert outlet		50	Positive	Increase habitat
32	23.8	1126+00 - 1231+00		Replace bridge, shoreline fill and shoreline rehabilitation	150**	100	Neutral	Replace in kind
N/A	N/A	N/A		Replace culvert at Mink Creek on Mud Bay Road with fish passage culvert		50	Positive	Passage

**FREA Table 4.15-3: Summary of Linear Impacts and Benefits to Fish Habitat**

<b>Fig Set D Sht #</b>	<b>MP (App)</b>	<b>DOT&amp;PF Station Numbering</b>	<b>Fish Pass Culvert #</b>	<b>ACTIVITY</b>	<b>LF of Stream Impact</b>	<b>LF of Stream Benefit</b>	<b>Net Effect</b>	<b>Habitat Function Impacted/Benefited*</b>
					<b>Impact</b>	<b>Benefit</b>	<b>Net Benefit</b>	
				<b>Chilkat River Totals (linear feet [LF])</b>	<b>3,812</b>	<b>6,845</b>	<b>3,033</b>	
				<b>Tributary Totals (LF)</b>	<b>1,195</b>	<b>6,858</b>	<b>5,813</b>	
				<b>Chilkat River and Tributary Totals (LF)</b>	<b>4,957</b>	<b>13,703</b>	<b>8,746</b>	

## **FREA Figure Set D**





<b>Wetland Type</b>	--- Proposed Centerline	--- Existing Streams
PEM1H	▭ Proposed Cut & Fill Limits	--- MP 4 Stream Relocation
PSS1H	▭ Previous EA Cut & Fill Limits	--- Stream Impacts
R3OW	● Mile Post Points	
	⊕ Chilkat River Impacted Polygon ID	
	⊕ Fish Passage Culvert #	

\*Darker wetland colors show impacted wetlands. Lighter wetland colors show the extent of wetlands mapped within the 2006 study area. Reference EA acronym list for NWI types.

### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

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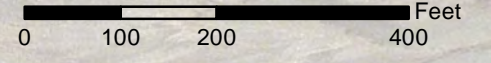
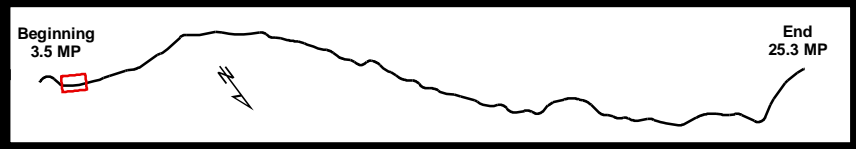
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Haines, Alaska

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Figure Set D (01 OF 34)





- |                     |                                   |                                      |
|---------------------|-----------------------------------|--------------------------------------|
| <b>Wetland Type</b> | --- Proposed Centerline           | --- Existing Streams                 |
| PEM1H               | ▭ Proposed Cut & Fill Limits      | --- Proposed Stream Mitigation       |
| PSS1H               | ▭ Previous EA Cut & Fill Limits   | --- Stream Impacts                   |
| R3OW                | ● Mile Post Points                | --- Upgraded to Fish Passage Culvert |
| #                   | Chilkat River Impacted Polygon ID |                                      |
| #                   | Fish Passage Culvert #            |                                      |

\*Darker wetland colors show impacted wetlands. Lighter wetland colors show the extent of wetlands mapped within the 2006 study area. Reference EA acronym list for NWI types.

### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

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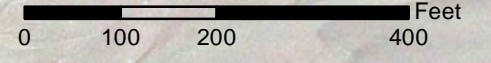
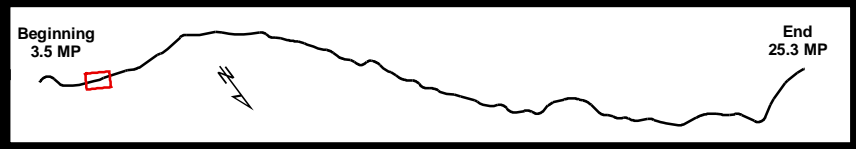
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Figure Set D (02 OF 34)





- |                     |                                     |                      |                            |
|---------------------|-------------------------------------|----------------------|----------------------------|
| <b>Wetland Type</b> | --- Proposed Centerline             | --- Existing Streams | <b>In River Mitigation</b> |
| PEM1B               | Proposed Cut & Fill Limits          | --- Stream Impacts   | ● Ballasted Log Clusters   |
| PEM1H               | Previous EA Cut & Fill Limits       |                      |                            |
| PSS1H               |                                     |                      |                            |
| R3OW                |                                     |                      |                            |
|                     | ● Mile Post Points                  |                      |                            |
|                     | Ⓝ Chilkat River Impacted Polygon ID |                      |                            |
|                     | Ⓝ Fish Passage Culvert #            |                      |                            |

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### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

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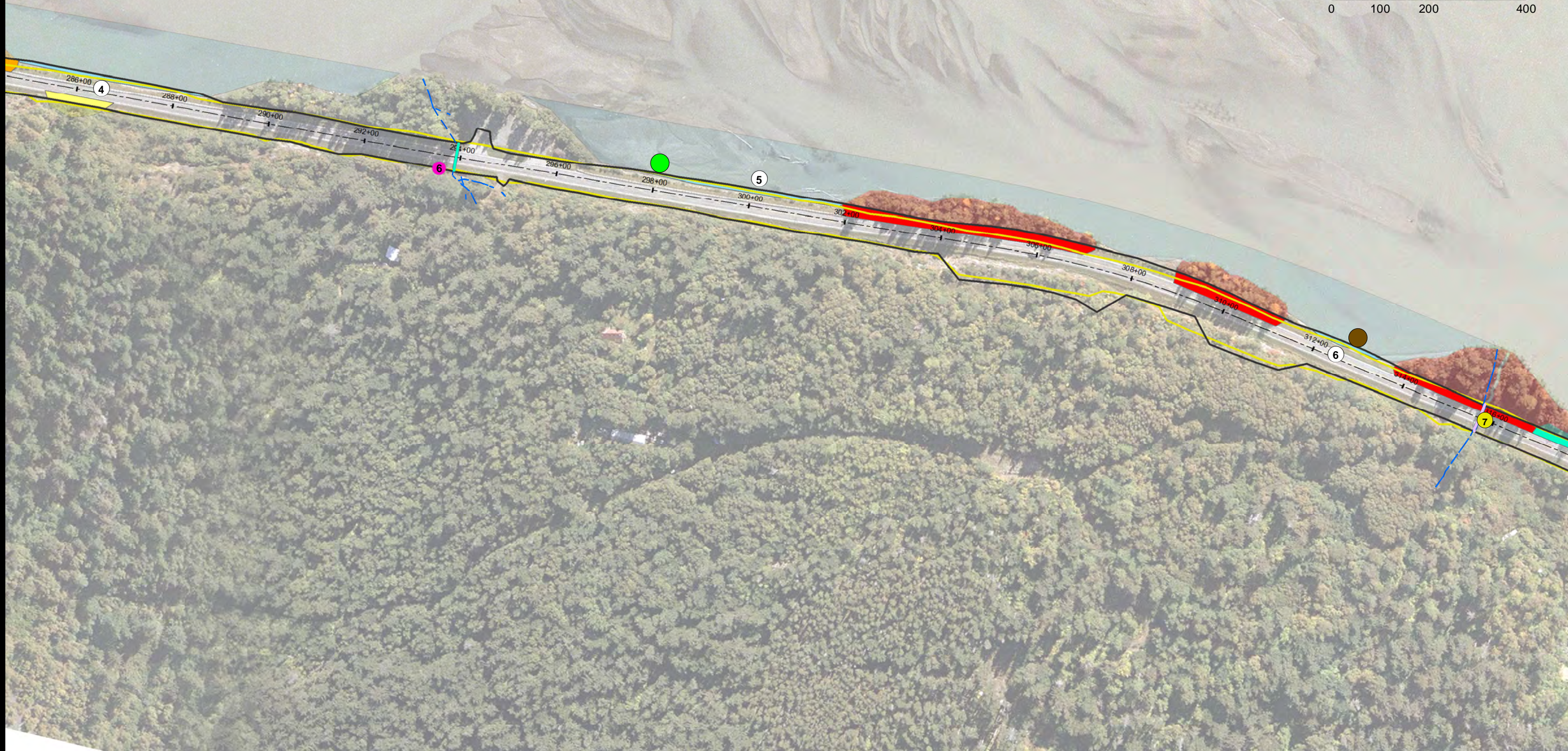
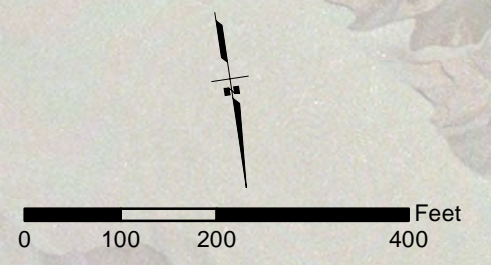
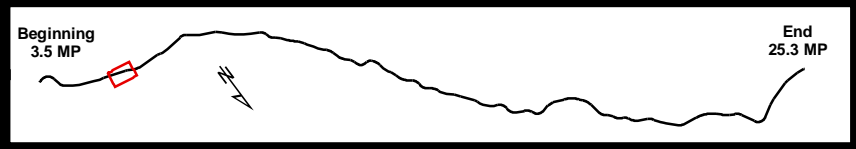
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Wetland Type	Proposed Centerline	Existing Streams	In River Mitigation
PEM1B	Proposed Cut & Fill Limits	Upgraded Culvert (non-anadromous streams)	Ballasted Log Clusters
PEM1H	Previous EA Cut & Fill Limits	Upgraded to Fish Passage Culvert	Vegetated River Protrusion
PFO1C	Mile Post Points		
PSS1H	Chilkat River Impacted Polygon ID		
R3OW	Fish Passage Culvert #		

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### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

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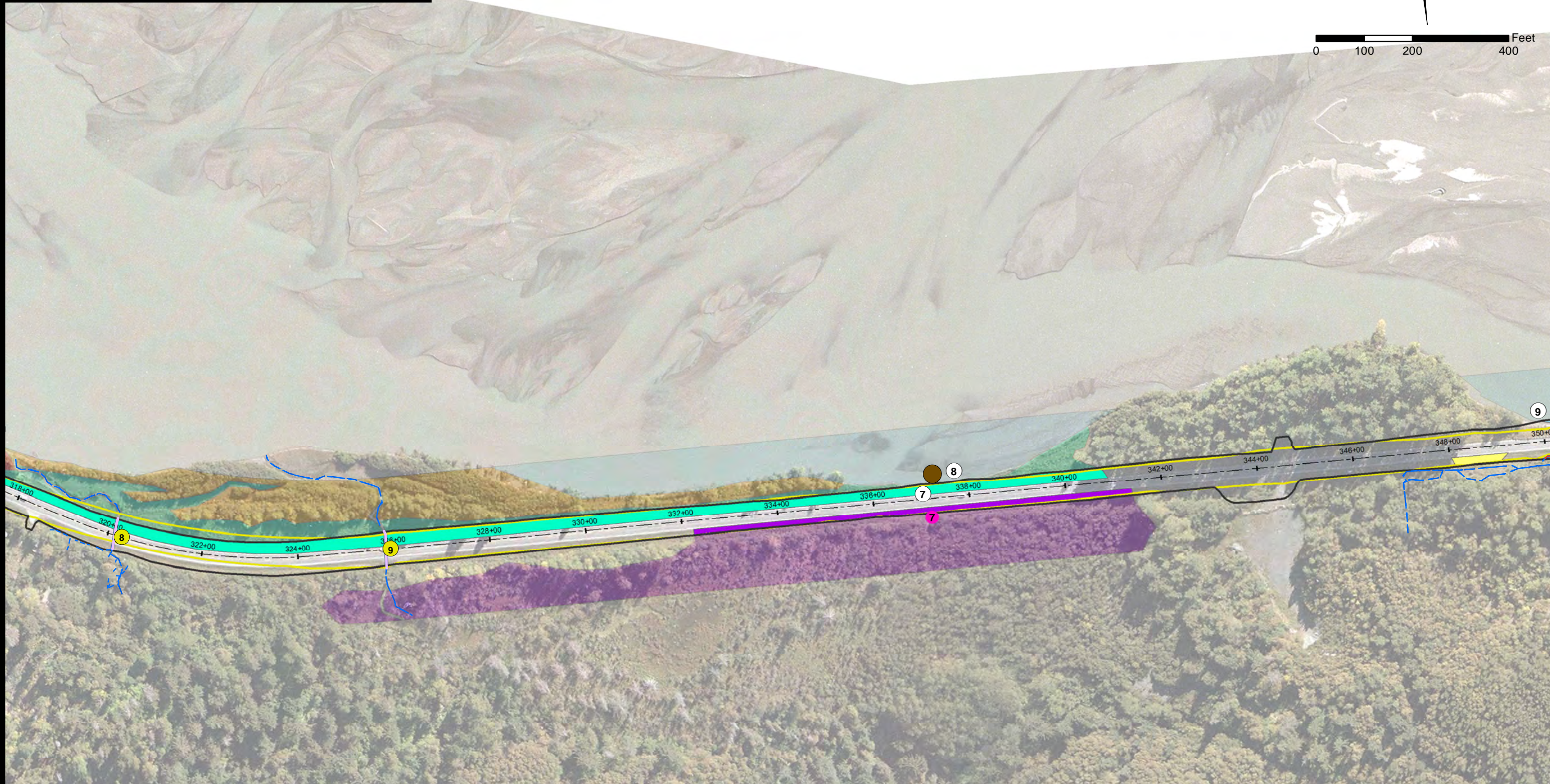
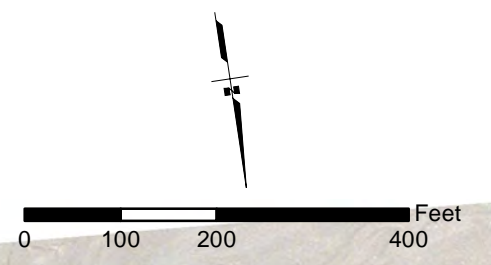
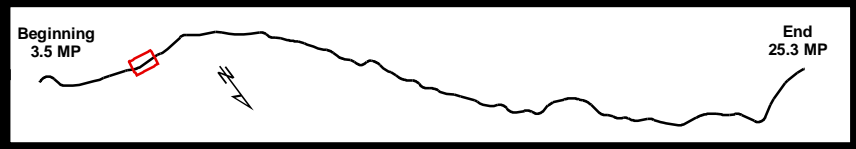
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Wetland Type	Proposed Centerline	Existing Streams	In River Mitigation
PEM1B	Proposed Cut & Fill Limits	Stream Impacts	Ballasted Log Clusters
PEM1H	Previous EA Cut & Fill Limits	Upgraded to Fish Passage Culvert	
PFO1C	Mile Post Points		
PSS1E	Chilkat River Impacted Polygon ID		
PSS1H	Fish Passage Culvert #		
R3OW			

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### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

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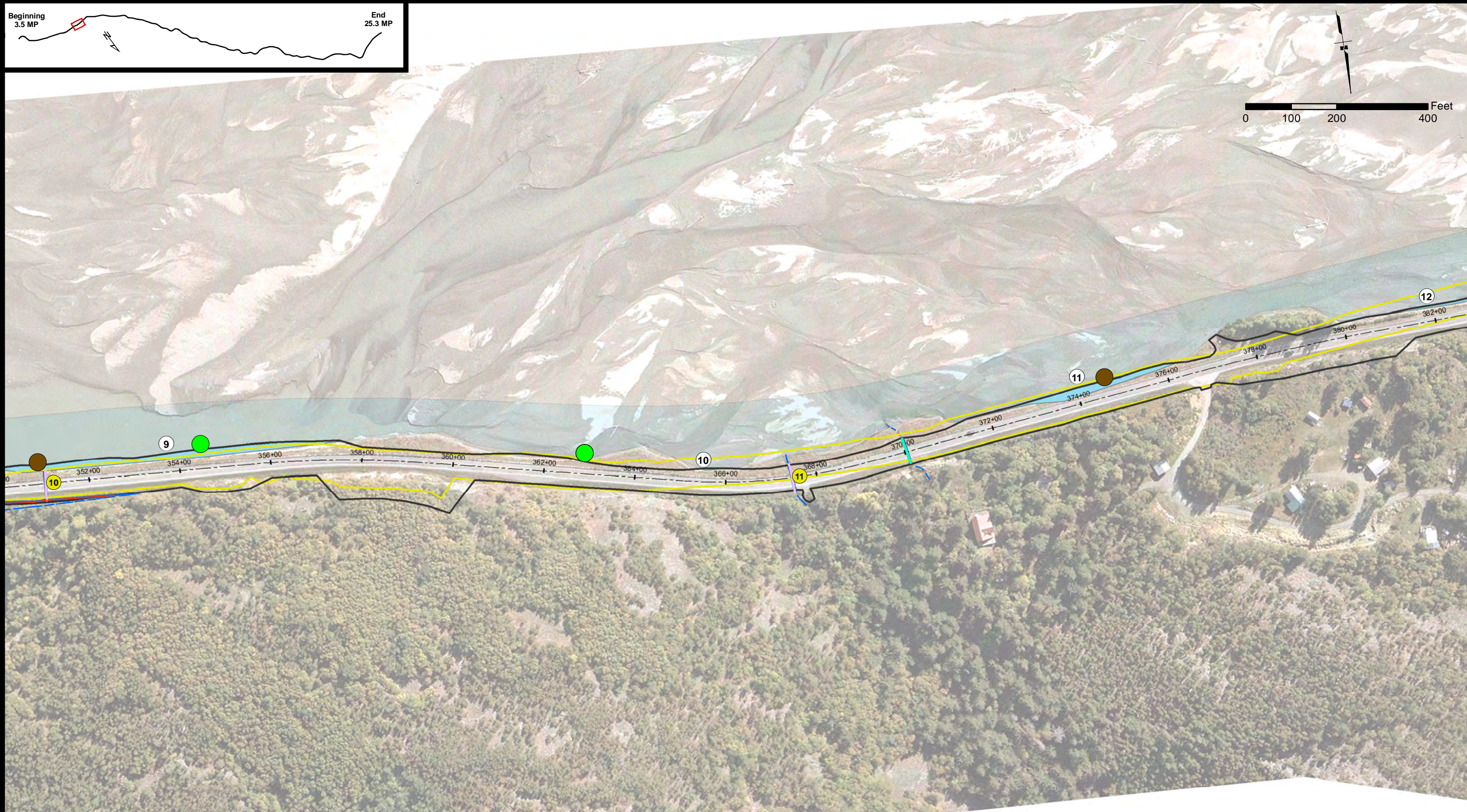
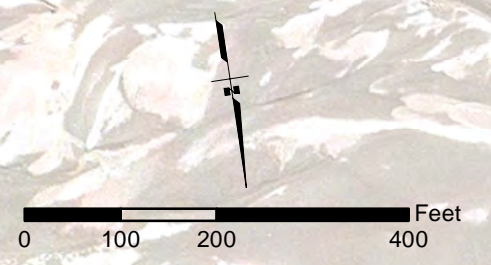
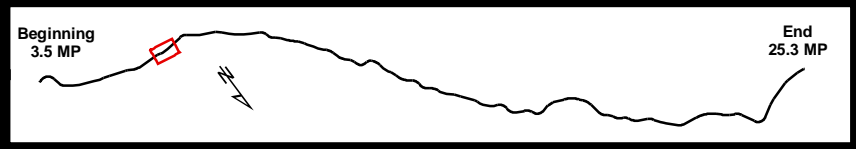
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- |                                     |   |                                      |                              |
|-------------------------------------|---|--------------------------------------|------------------------------|
| <b>Wetland Type</b>                 | --- Proposed Centerline                       | --- Existing Streams                 | <b>In River Mitigation</b>   |
| ■ R30W                              | ▭ Proposed Cut & Fill Limits                  | --- Stream Impacts                   | ● Ballasted Log Clusters     |
| ■ Previous EA Cut & Fill Limits     | --- Upgraded Culvert (non-anadromous streams) | --- Upgraded to Fish Passage Culvert | ● Vegetated River Protrusion |
| ● Mile Post Points                  |   |                                      |                              |
| Ⓜ Chilkat River Impacted Polygon ID |   |                                      |                              |
| Ⓜ Fish Passage Culvert #            |   |                                      |                              |

\*Darker wetland colors show impacted wetlands. Lighter wetland colors show the extent of wetlands mapped within the 2006 study area. Reference EA acronym list for NWI types.

### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

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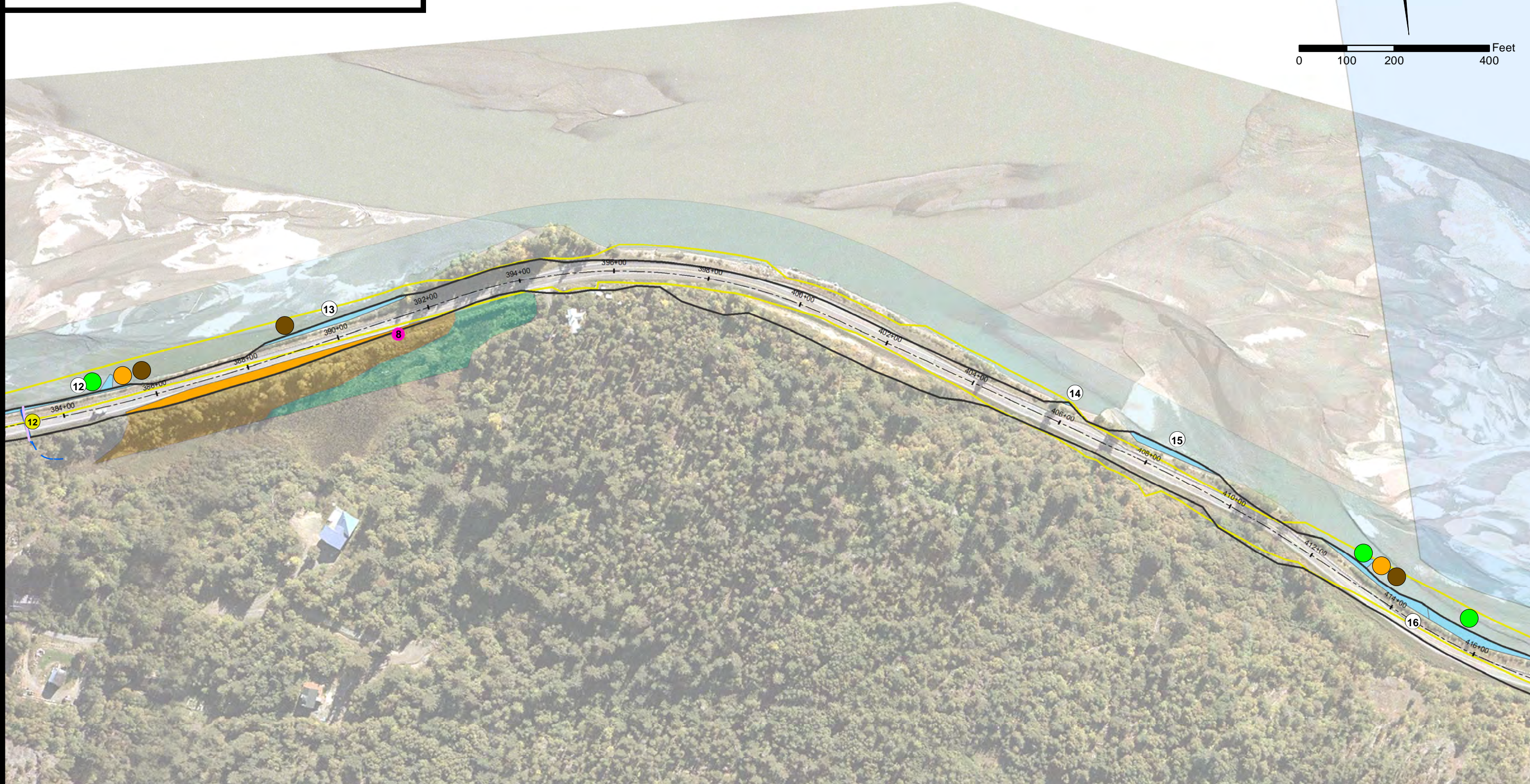
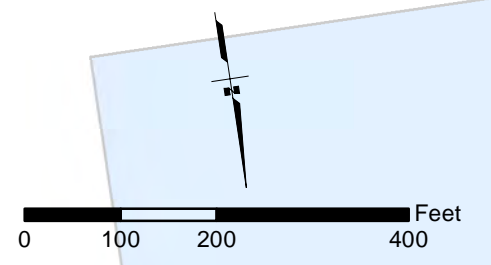
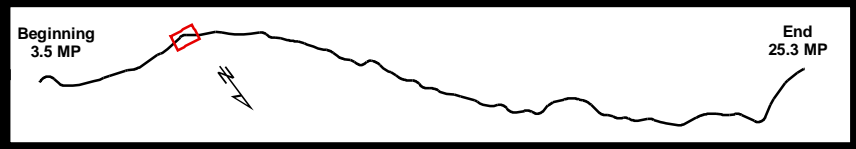
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Wetland Type	Proposed Centerline	Existing Streams	In River Mitigation
PEM1H	Proposed Cut & Fill Limits	Upgraded to Fish Passage Culvert	Ballasted Log Clusters
PSS1H	Previous EA Cut & Fill Limits		Vegetated River Protrusion
R3OW	Mile Post Points		Fish Wheel Site
	Chilkat River Impacted Polygon ID		
	Fish Passage Culvert #		

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### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

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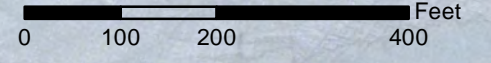
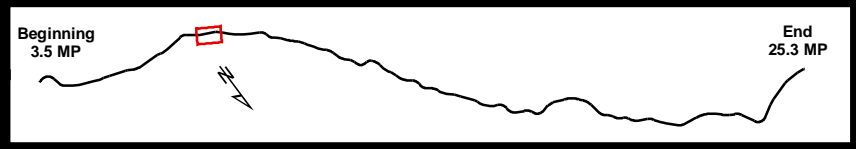
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<b>Wetland Type</b>	--- Proposed Centerline	--- Existing Streams
Light Blue Box: R30W	Black Box: Proposed Cut & Fill Limits	Red Line: Upgraded Culvert (non-anadromous streams)
Yellow Box: Previous EA Cut & Fill Limits	Pink Circle: Mile Post Points	Brown Circle: Ballasted Log Clusters
Green Circle: Chilkat River Impacted Polygon ID	Orange Circle: Fish Passage Culvert #	Green Circle: Vegetated River Protrusion
Yellow Circle: Fish Passage Culvert #		Orange Circle: Fish Wheel Site

\*Darker wetland colors show impacted wetlands. Lighter wetland colors show the extent of wetlands mapped within the 2006 study area. Reference EA acronym list for NWI types.

### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

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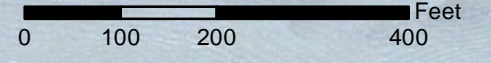
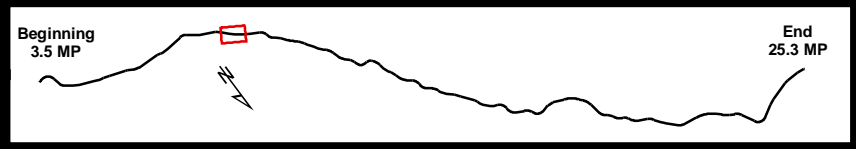
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Wetland Type	Proposed Centerline	Existing Streams	In River Mitigation
PFO1C	Proposed Cut & Fill Limits		Ballasted Log Clusters
PSS1H	Previous EA Cut & Fill Limits		Vegetated River Protrusion
R3OW			Fish Wheel Site
			Mile Post Points
			Chilkat River Impacted Polygon ID
			Fish Passage Culvert #

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### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

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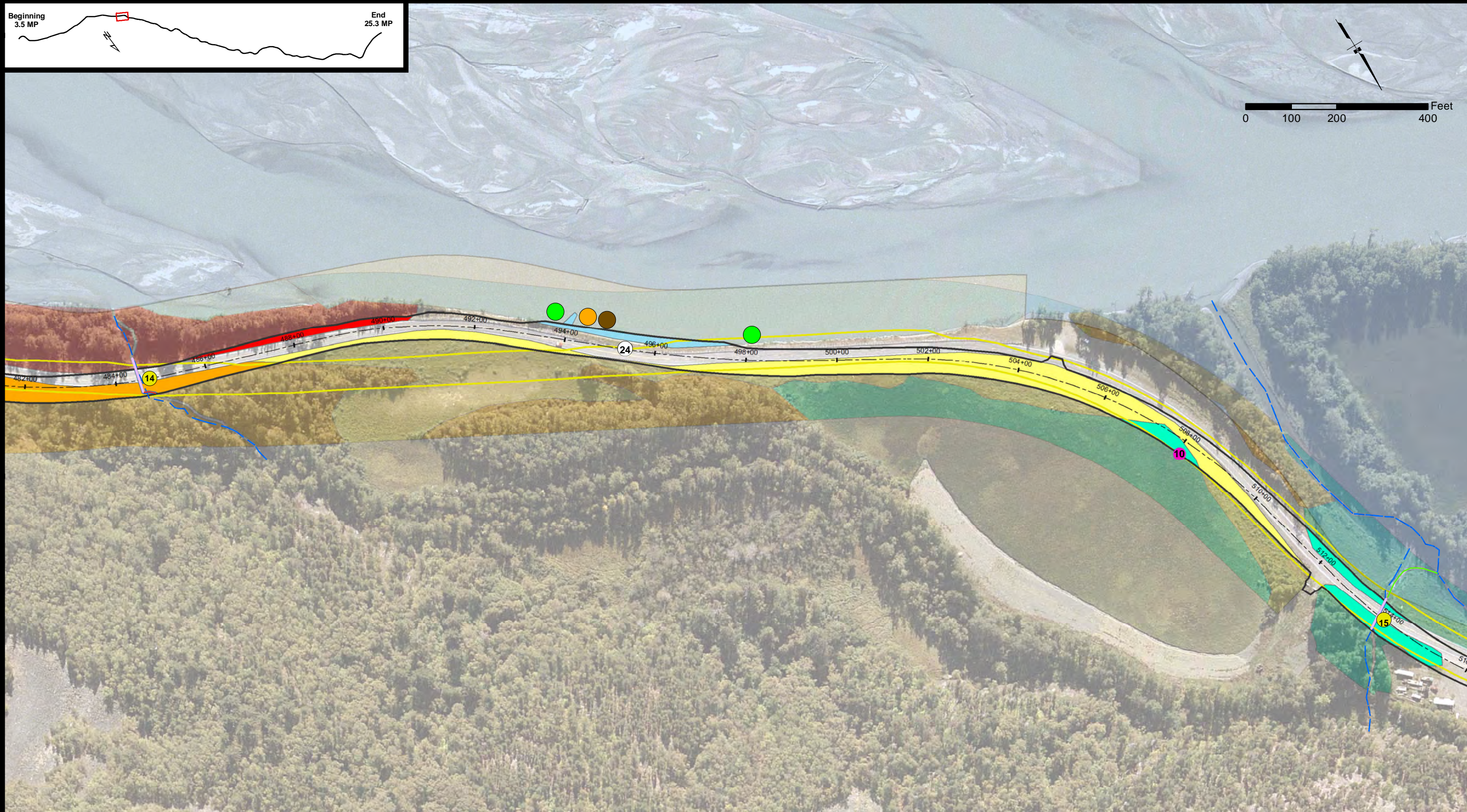
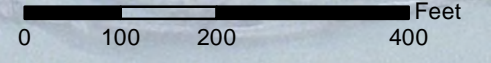
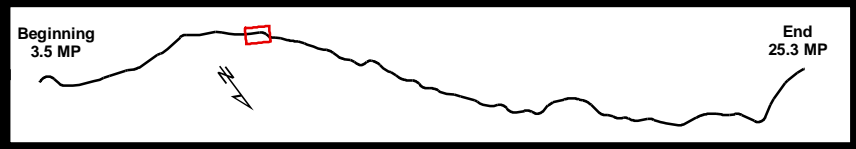


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Figure Set D (09 OF 34)





Wetland Type	Proposed Centerline	Existing Streams	In River Mitigation
PEM1B	Proposed Cut & Fill Limits	Proposed Stream Mitigation	Ballasted Log Clusters
PEM1H	Previous EA Cut & Fill Limits	Stream Impacts	Vegetated River Protrusion
PFO1C	Mile Post Points	Upgraded to Fish Passage Culvert	Fish Wheel Site
PSS1H	Chilkat River Impacted Polygon ID		
R3OW	Fish Passage Culvert #		

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### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

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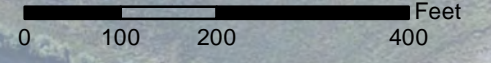
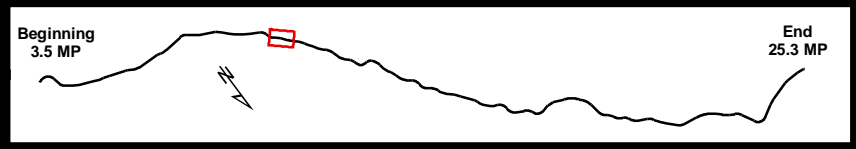
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- |                          |                                     |                                      |
|--------------------------|-------------------------------------|--------------------------------------|
| <b>Wetland Type</b>      | --- Proposed Centerline             | --- Existing Streams                 |
| PEM1H                    | ▭ Proposed Cut & Fill Limits        | --- Proposed Stream Mitigation       |
| PSS1H                    | ▭ Previous EA Cut & Fill Limits     | --- Upgraded to Fish Passage Culvert |
| ● Mile Post Points       | ● Chilkat River Impacted Polygon ID | ■ Protected Vegetation               |
| ● Fish Passage Culvert # |                                     |                                      |

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### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

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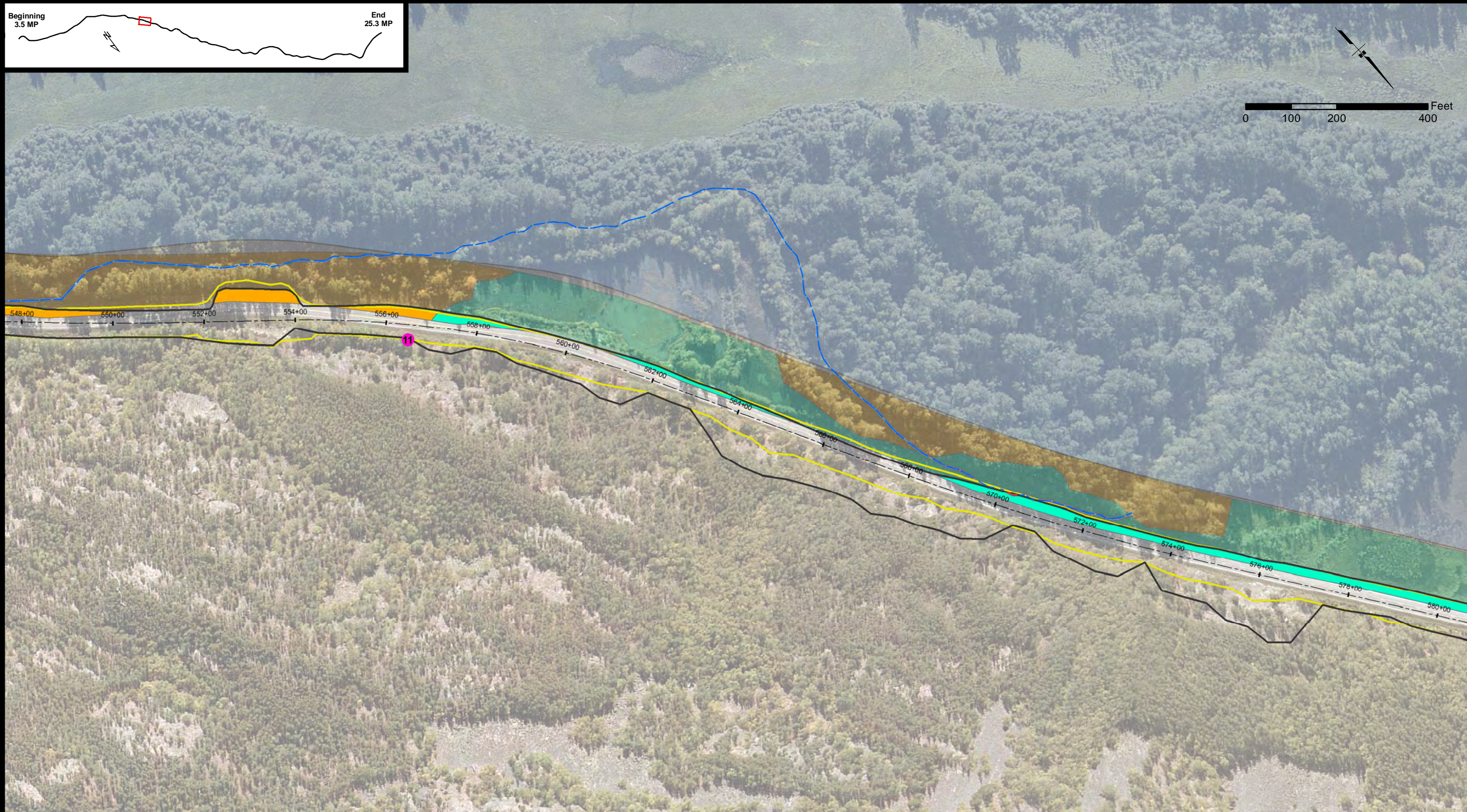
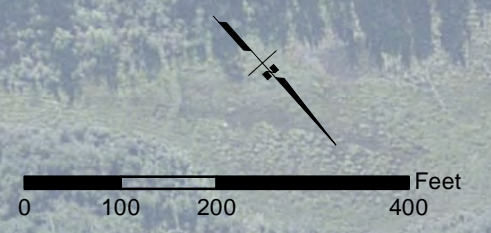
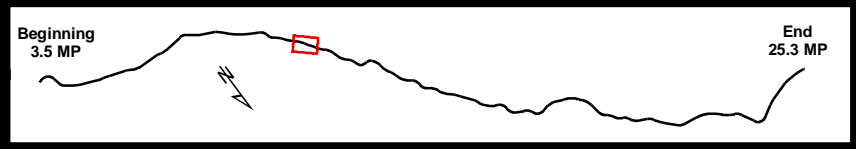
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- |                     |                                     |                      |
|---------------------|-------------------------------------|----------------------|
| <b>Wetland Type</b> | --- Proposed Centerline             | --- Existing Streams |
| PEM1H               | ▭ Proposed Cut & Fill Limits        | --- Stream Impacts   |
| PSS1H               | ▭ Previous EA Cut & Fill Limits     |                      |
|                     | ● Mile Post Points                  |                      |
|                     | ⊘ Chilkat River Impacted Polygon ID |                      |
|                     | ⊘ Fish Passage Culvert #            |                      |

*\*Darker wetland colors show impacted wetlands. Lighter wetland colors show the extent of wetlands mapped within the 2006 study area. Reference EA acronym list for NWI types.*

### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

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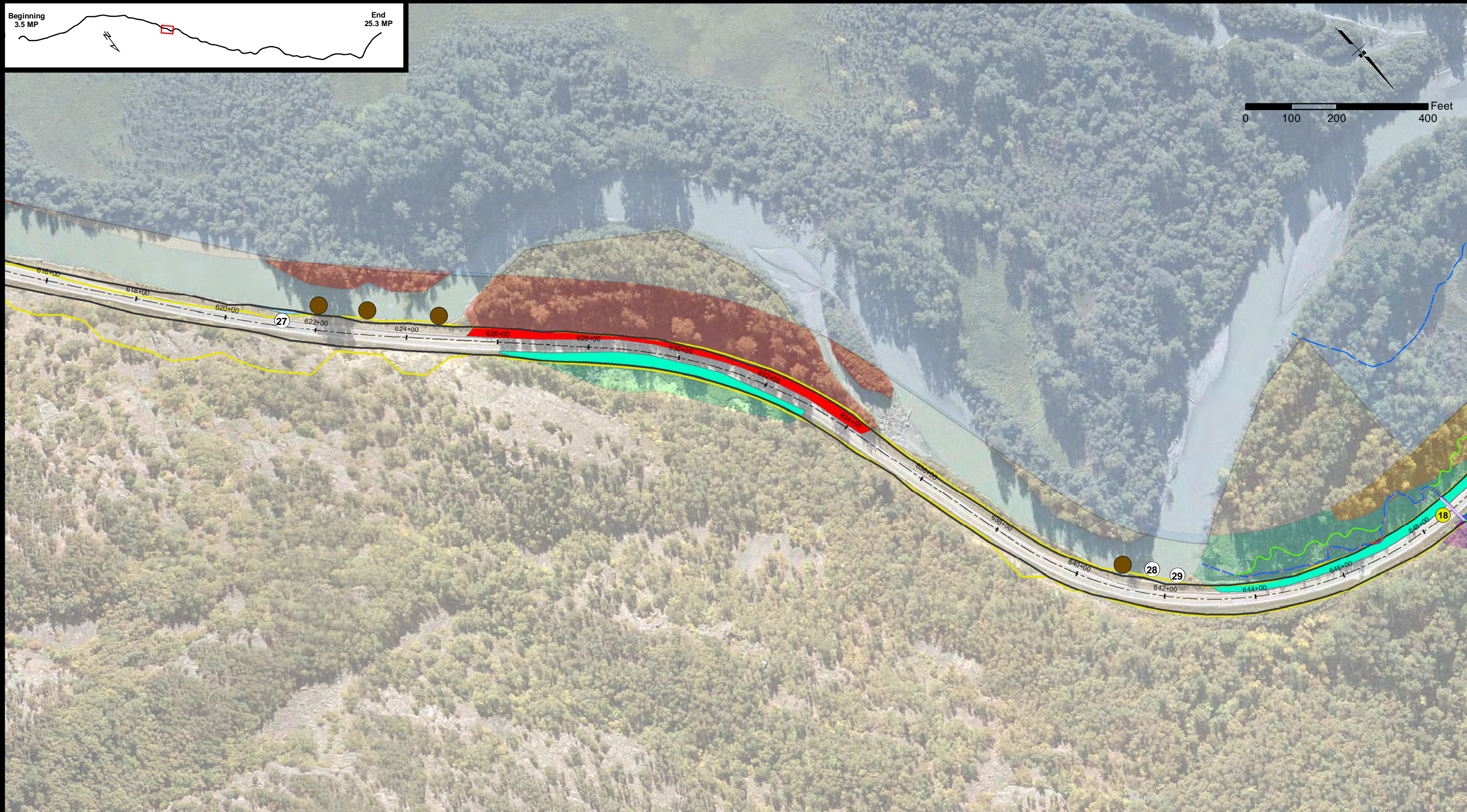
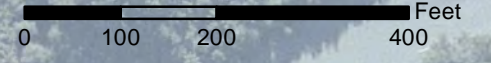
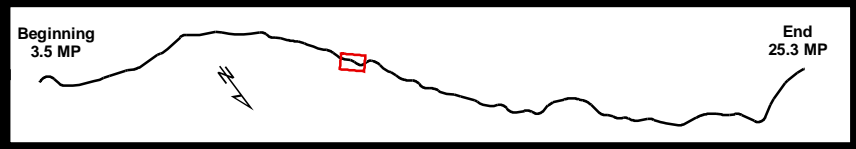
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- |                     |                                     |                                      |                            |
|---------------------|-------------------------------------|--------------------------------------|----------------------------|
| <b>Wetland Type</b> | --- Proposed Centerline             | --- Existing Streams                 | <b>In River Mitigation</b> |
| PEM1H               | ▭ Proposed Cut & Fill Limits        | --- Proposed Stream Mitigation       | ● Ballasted Log Clusters   |
| PFO1C               | ▭ Previous EA Cut & Fill Limits     | --- Stream Impacts                   |                            |
| PSS1E               | ● Mile Post Points                  | --- Upgraded to Fish Passage Culvert |                            |
| PSS1H               | # Chilkat River Impacted Polygon ID |                                      |                            |
| R3OW                | # Fish Passage Culvert #            |                                      |                            |

\*Darker wetland colors show impacted wetlands. Lighter wetland colors show the extent of wetlands mapped within the 2006 study area. Reference EA acronym list for NWI types.

### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

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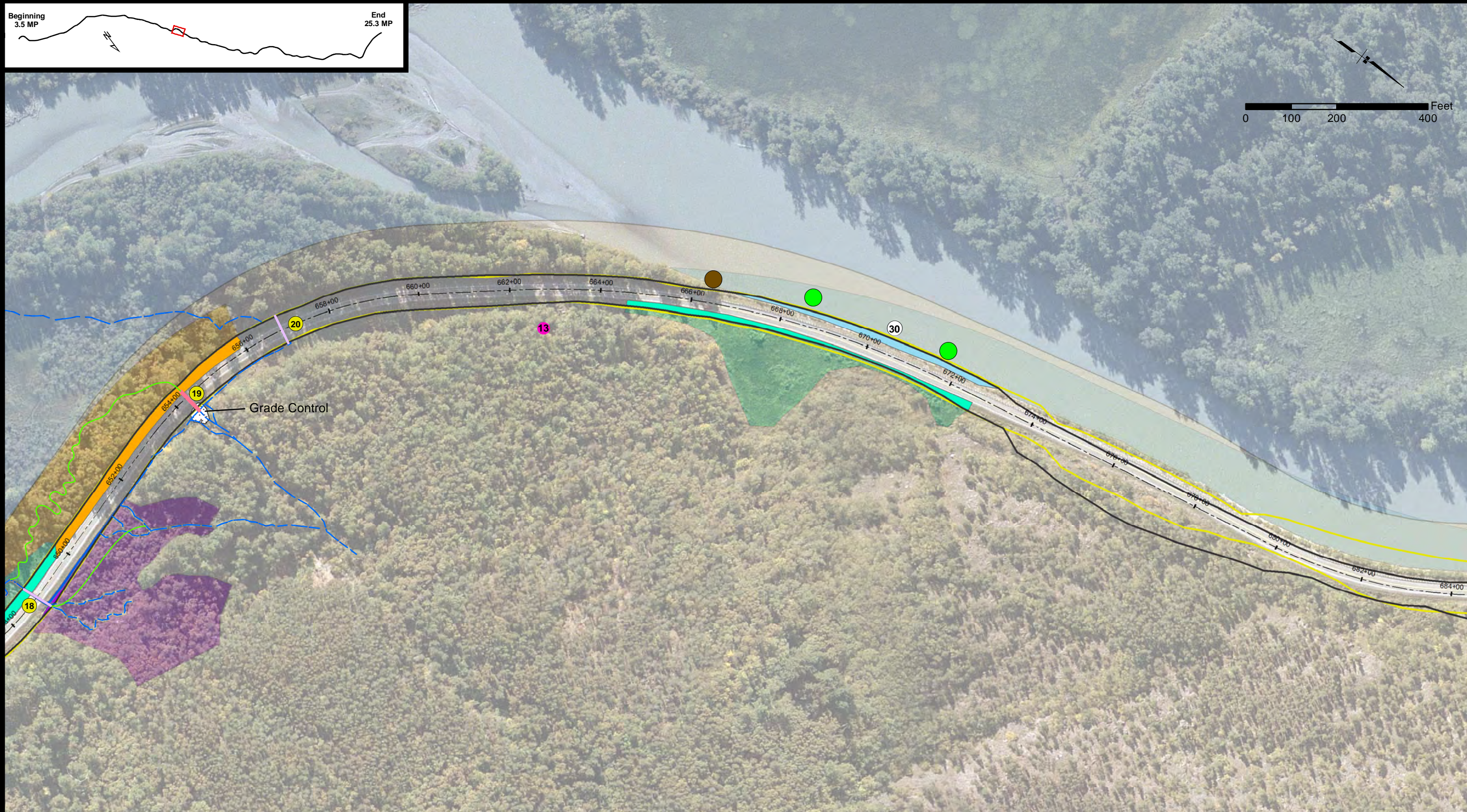
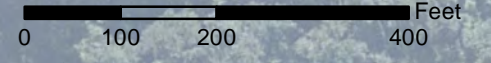
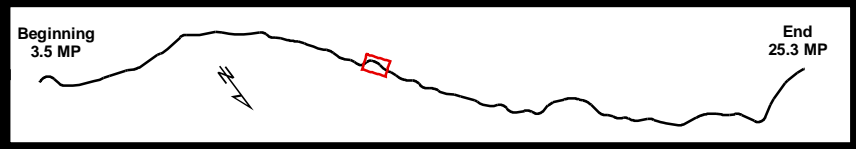
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Wetland Type	Proposed Centerline	Existing Streams	In River Mitigation
PEM1H	Proposed Cut & Fill Limits	New Fish Passage Culvert	Ballasted Log Clusters
PSS1E	Previous EA Cut & Fill Limits	Proposed Stream Mitigation	Vegetated River Protrusion
PSS1H	Mile Post Points	Upgraded to Fish Passage Culvert	
R3OW	Chilkat River Impacted Polygon ID	Grade Control	
	Fish Passage Culvert #		

\*Darker wetland colors show impacted wetlands. Lighter wetland colors show the extent of wetlands mapped within the 2006 study area. Reference EA acronym list for NWI types.

### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

TS 28/29/30 S, R 56/57/58/59 E,  
Copper River Meridian, Alaska



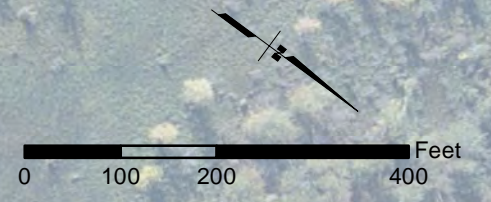
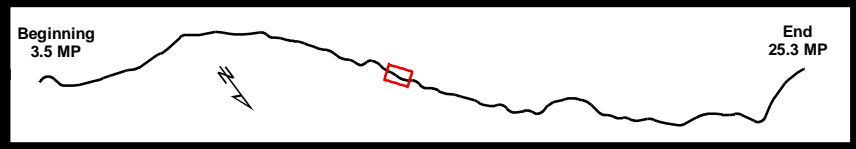
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MILEPOST 3.5 - 25.3

Haines, Alaska

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Wetland Type	Proposed Centerline	Existing Streams	In River Mitigation
PEM1B	Proposed Cut & Fill Limits	Upgraded to Fish Passage Culvert	Ballasted Log Clusters
PEM1H	Previous EA Cut & Fill Limits		Improve Fish Habitat
PSS1H			Vegetated River Protrusion
R3OW			
	Mile Post Points		
	Chilkat River Impacted Polygon ID		
	Fish Passage Culvert #		

**WETLAND IMPACTS AND PROPOSED STREAM MITIGATION**

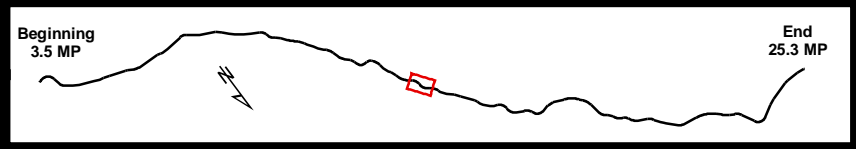
TS 28/29/30 S, R 56/57/58/59 E,  
Copper River Meridian, Alaska



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Wetland Type	Proposed Centerline	Existing Streams	In River Mitigation
PEM1B	Proposed Cut & Fill Limits	Stream Impacts	Ballasted Log Clusters
PEM1H	Previous EA Cut & Fill Limits	Upgraded to Fish Passage Culvert	Improve Fish Habitat
PSS1H	Mile Post Points		
R3OW	Chilkat River Impacted Polygon ID		
	Fish Passage Culvert #		

\*Darker wetland colors show impacted wetlands. Lighter wetland colors show the extent of wetlands mapped within the 2006 study area. Reference EA acronym list for NWI types.

### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

TS 28/29/30 S, R 56/57/58/59 E,  
Copper River Meridian, Alaska



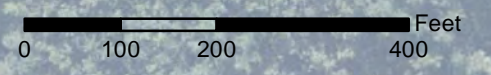
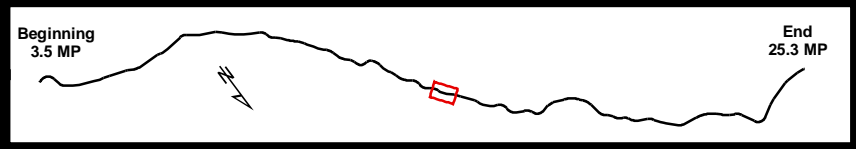
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<b>Wetland Type</b>	--- Proposed Centerline	--- Existing Streams	<b>In River Mitigation</b>
Orange Box: PSS1H	Black Box: Proposed Cut & Fill Limits	Red Line: Stream Impacts	Brown Circle: Ballasted Log Clusters
Light Blue Box: R3OW	Yellow Box: Previous EA Cut & Fill Limits	Purple Line: Upgraded to Fish Passage Culvert	
	Pink Circle: Mile Post Points		
	# in Circle: Chilkat River Impacted Polygon ID		
	# in Square: Fish Passage Culvert #		

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### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

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Copper River Meridian, Alaska



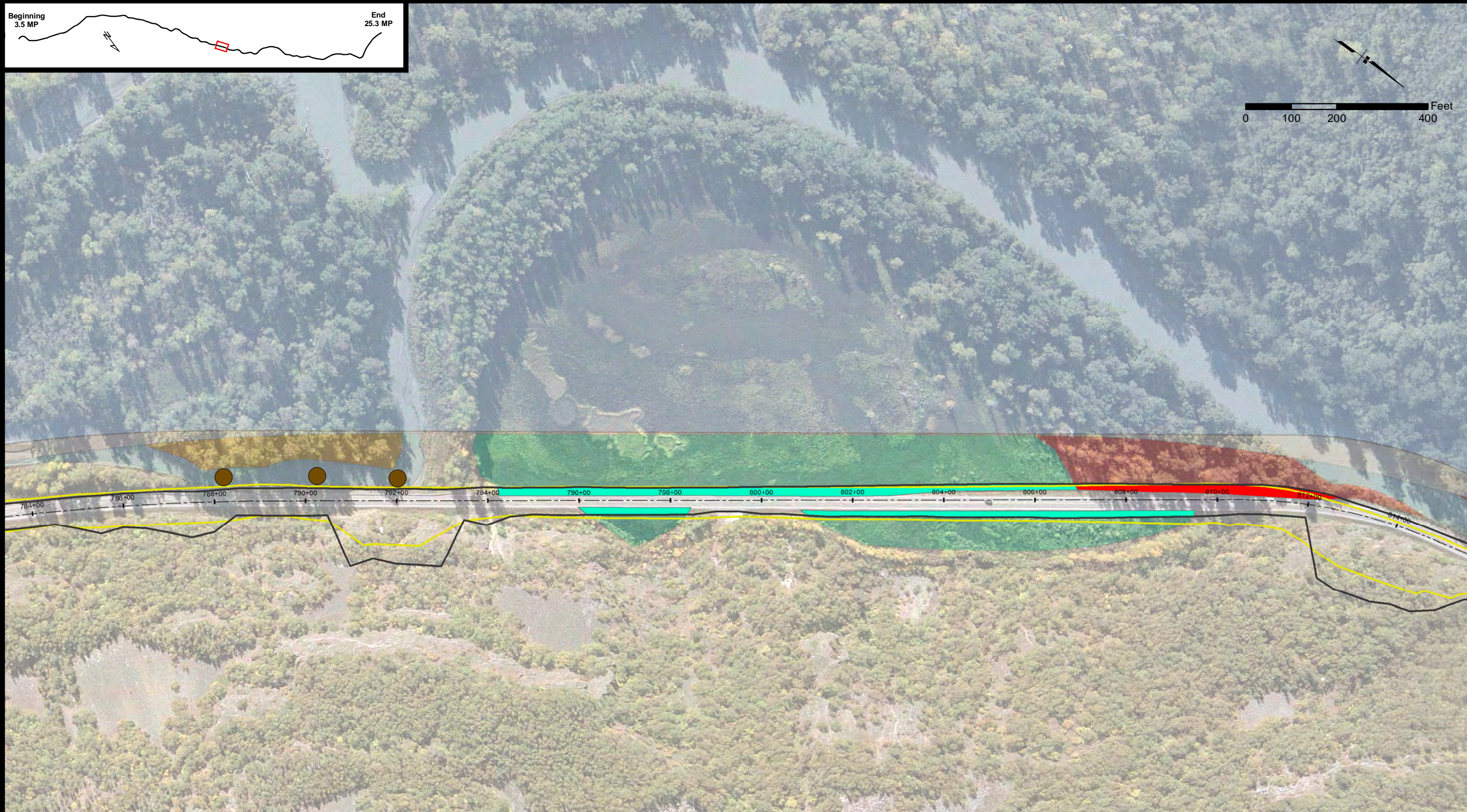
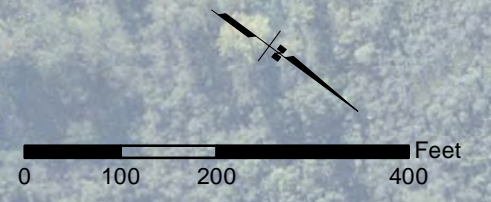
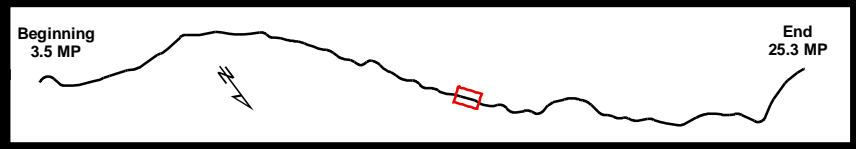
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- |                     |                                     |                      |                            |
|---------------------|-------------------------------------|----------------------|----------------------------|
| <b>Wetland Type</b> | --- Proposed Centerline             | --- Existing Streams | <b>In River Mitigation</b> |
| PEM1H               | Proposed Cut & Fill Limits          |                      | ● Ballasted Log Clusters   |
| PFO1C               | Previous EA Cut & Fill Limits       |                      |                            |
| PSS1H               |                                     |                      |                            |
| R3OW                |                                     |                      |                            |
|                     | ● Mile Post Points                  |                      |                            |
|                     | Ⓝ Chilkat River Impacted Polygon ID |                      |                            |
|                     | Ⓝ Fish Passage Culvert #            |                      |                            |

*\*Darker wetland colors show impacted wetlands. Lighter wetland colors show the extent of wetlands mapped within the 2006 study area. Reference EA acronym list for NWI types.*

### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

TS 28/29/30 S, R 56/57/58/59 E,  
Copper River Meridian, Alaska



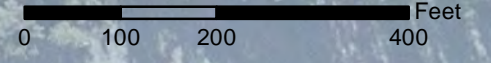
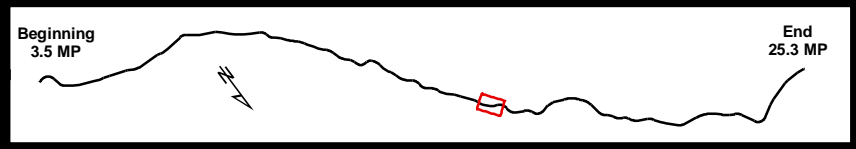
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- |  |   |                      |   |
|--|---|----------------------|---|
| <b>Wetland Type</b>  | --- Proposed Centerline   | --- Existing Streams | <b>In River Mitigation</b>  |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightcoral; border:1px solid black;"></span> PFO1C  | <span style="display:inline-block; width:15px; border-bottom:2px solid black;"></span> Proposed Cut & Fill Limits     |                      | <span style="display:inline-block; width:15px; height:15px; background-color:lightcoral; border-radius:50%;"></span> Ballasted Log Clusters |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightpurple; border:1px solid black;"></span> PSS1E | <span style="display:inline-block; width:15px; border-bottom:2px solid yellow;"></span> Previous EA Cut & Fill Limits |                      |   |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightblue; border:1px solid black;"></span> R3OW    |   |                      |   |
|  | ● Mile Post Points  |                      |   |
|  | Ⓝ Chilkat River Impacted Polygon ID   |                      |   |
|  | Ⓝ Fish Passage Culvert #  |                      |   |

\*Darker wetland colors show impacted wetlands. Lighter wetland colors show the extent of wetlands mapped within the 2006 study area. Reference EA acronym list for NWI types.

### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

TS 28/29/30 S, R 56/57/58/59 E,  
Copper River Meridian, Alaska



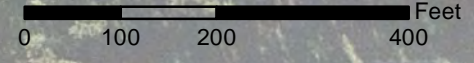
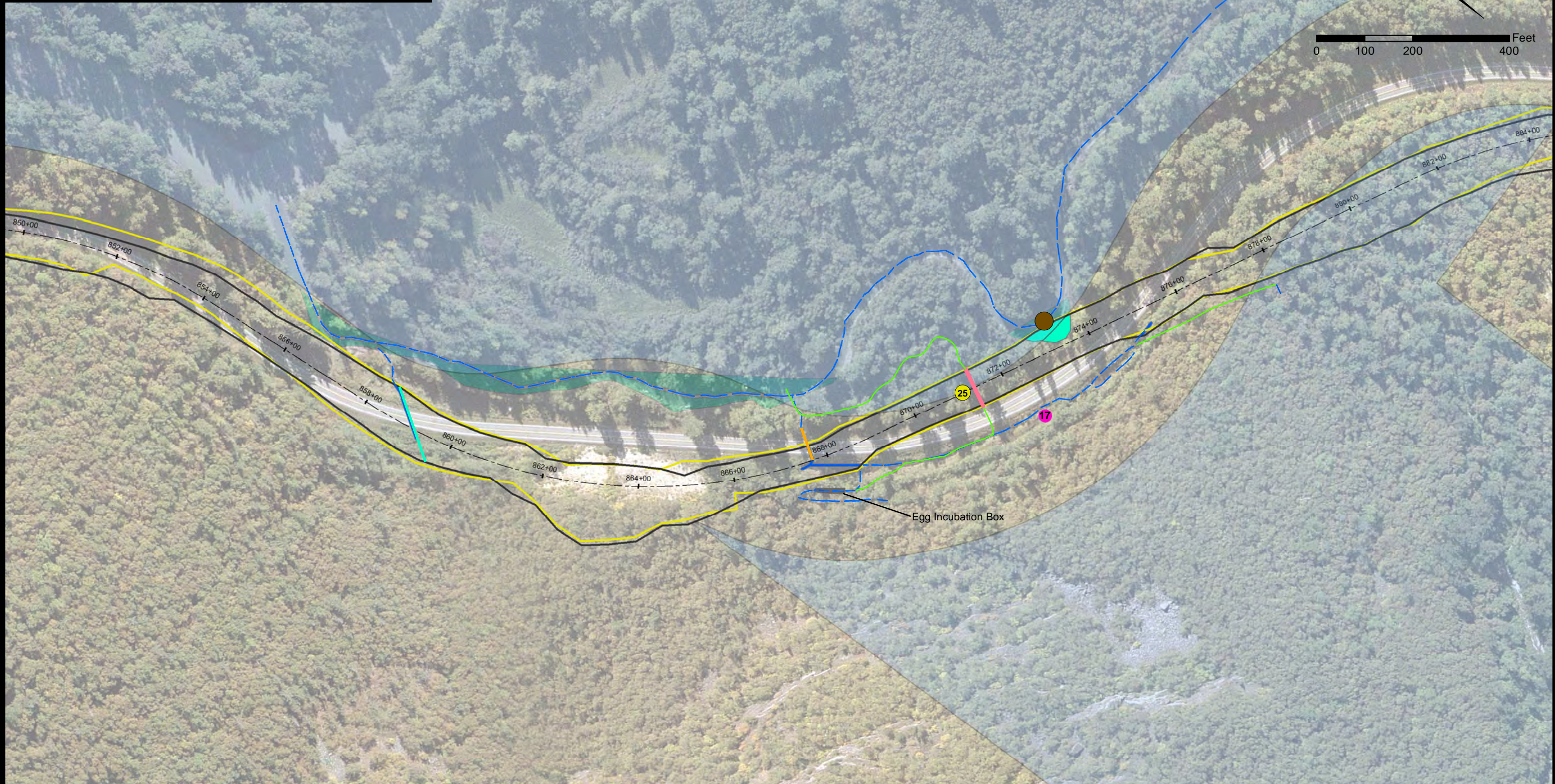
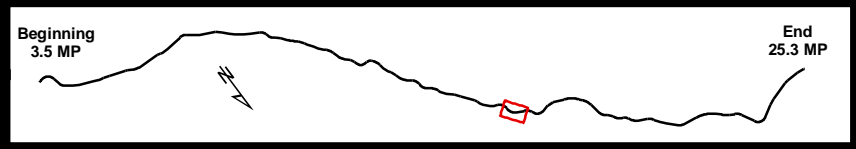
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Wetland Type		Proposed Centerline		Existing Streams		In River Mitigation	
	PEM1H		Proposed Centerline		Existing Streams		Ballasted Log Clusters
			Proposed Cut & Fill Limits		Abandoned Culvert		New Fish Passage Culvert
			Previous EA Cut & Fill Limits		Proposed Stream Mitigation		Mile Post Points
			Chilkat River Impacted Polygon ID		Upgraded Culvert (non-anadromous streams)		Fish Passage Culvert #
			Egg Incubation Box				

\*Darker wetland colors show impacted wetlands. Lighter wetland colors show the extent of wetlands mapped within the 2006 study area. Reference EA acronym list for NWI types.

### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

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Copper River Meridian, Alaska



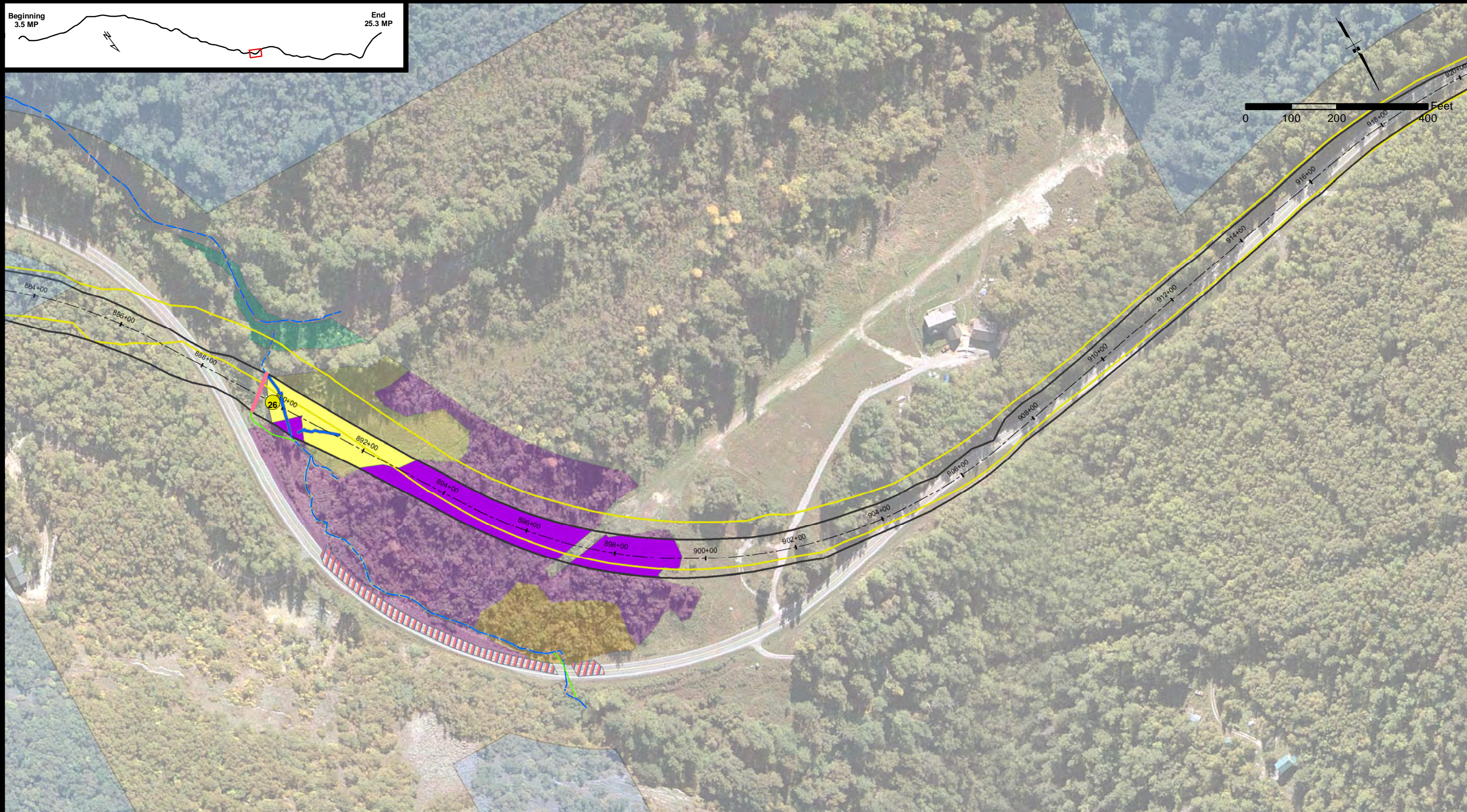
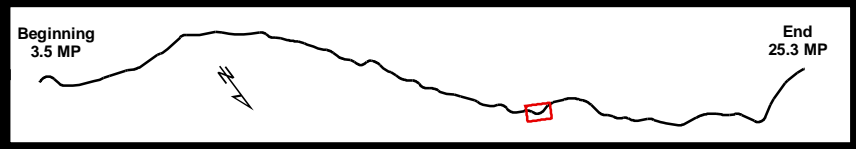
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<b>Wetland Type</b>	--- Proposed Centerline	--- Existing Streams
PEM1B	▭ Proposed Cut & Fill Limits	--- New Fish Passage Culvert
PEM1H	▭ Previous EA Cut & Fill Limits	--- Proposed Stream Mitigation
PSS1E	● Mile Post Points	▨ Cut (Wetland Creation)
PSS1H	Ⓜ Chilkat River Impacted Polygon ID	
	Ⓜ Fish Passage Culvert #	

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### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

TS 28/29/30 S, R 56/57/58/59 E,  
Copper River Meridian, Alaska



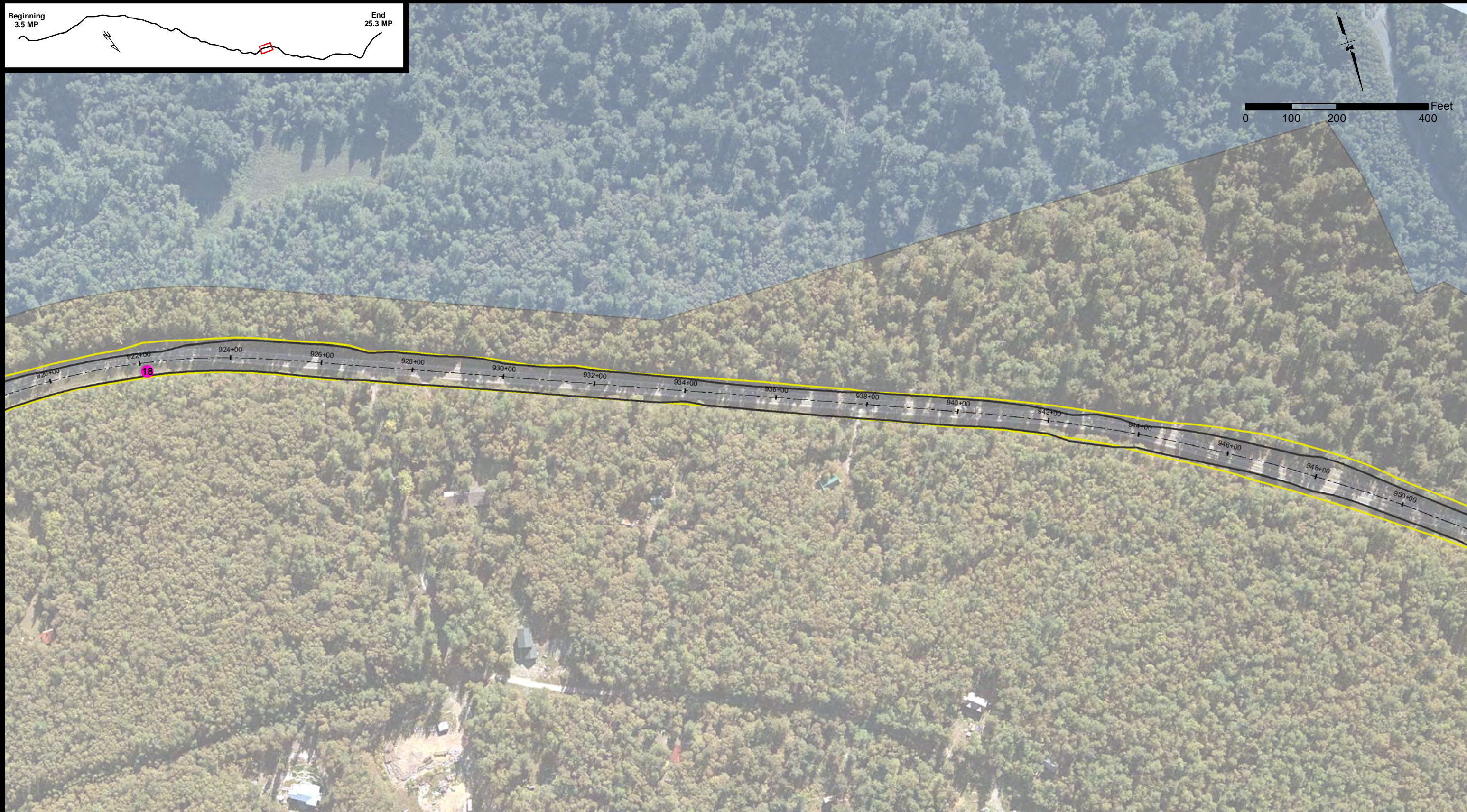
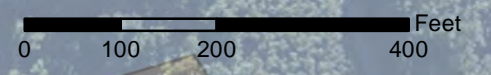
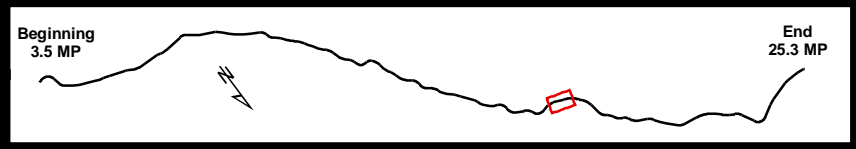
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- Proposed Centerline
- Existing Streams
- ▭ Proposed Cut & Fill Limits
- ▭ Previous EA Cut & Fill Limits
- Mile Post Points
- # Chilkat River Impacted Polygon ID
- # Fish Passage Culvert #

\*Darker wetland colors show impacted wetlands. Lighter wetland colors show the extent of wetlands mapped within the 2006 study area. Reference EA acronym list for NWI types.

### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

TS 28/29/30 S, R 56/57/58/59 E,  
Copper River Meridian, Alaska



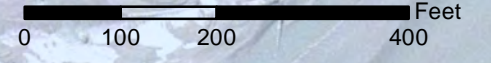
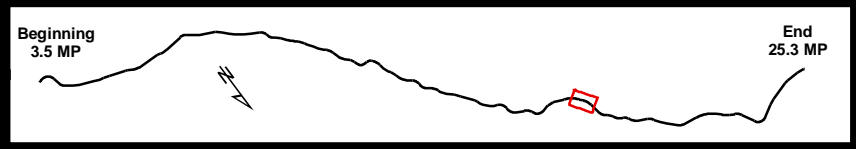
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- Proposed Centerline
- Existing Streams
- ▭ Proposed Cut & Fill Limits
- ▭ Upgraded Culvert (non-anadromous streams)
- ▭ Previous EA Cut & Fill Limits
- Mile Post Points
- Ⓝ Chilkat River Impacted Polygon ID
- Ⓝ Fish Passage Culvert #

*\*Darker wetland colors show impacted wetlands. Lighter wetland colors show the extent of wetlands mapped within the 2006 study area. Reference EA acronym list for NWI types.*

### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

TS 28/29/30 S, R 56/57/58/59 E,  
Copper River Meridian, Alaska



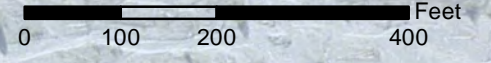
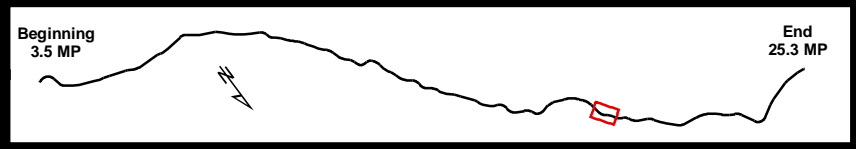
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- |                     |                                     |   |                            |
|---------------------|-------------------------------------|---|----------------------------|
| <b>Wetland Type</b> | --- Proposed Centerline             | --- Existing Streams                          | <b>In River Mitigation</b> |
| PEM1H               | ▭ Proposed Cut & Fill Limits        | --- Upgraded Culvert (non-anadromous streams) | ● Ballasted Log Clusters   |
| R3OW                | ▭ Previous EA Cut & Fill Limits     |   |                            |
|                     | ● Mile Post Points                  |   |                            |
|                     | # Chilkat River Impacted Polygon ID |   |                            |
|                     | # Fish Passage Culvert #            |   |                            |

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### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

TS 28/29/30 S, R 56/57/58/59 E,  
Copper River Meridian, Alaska



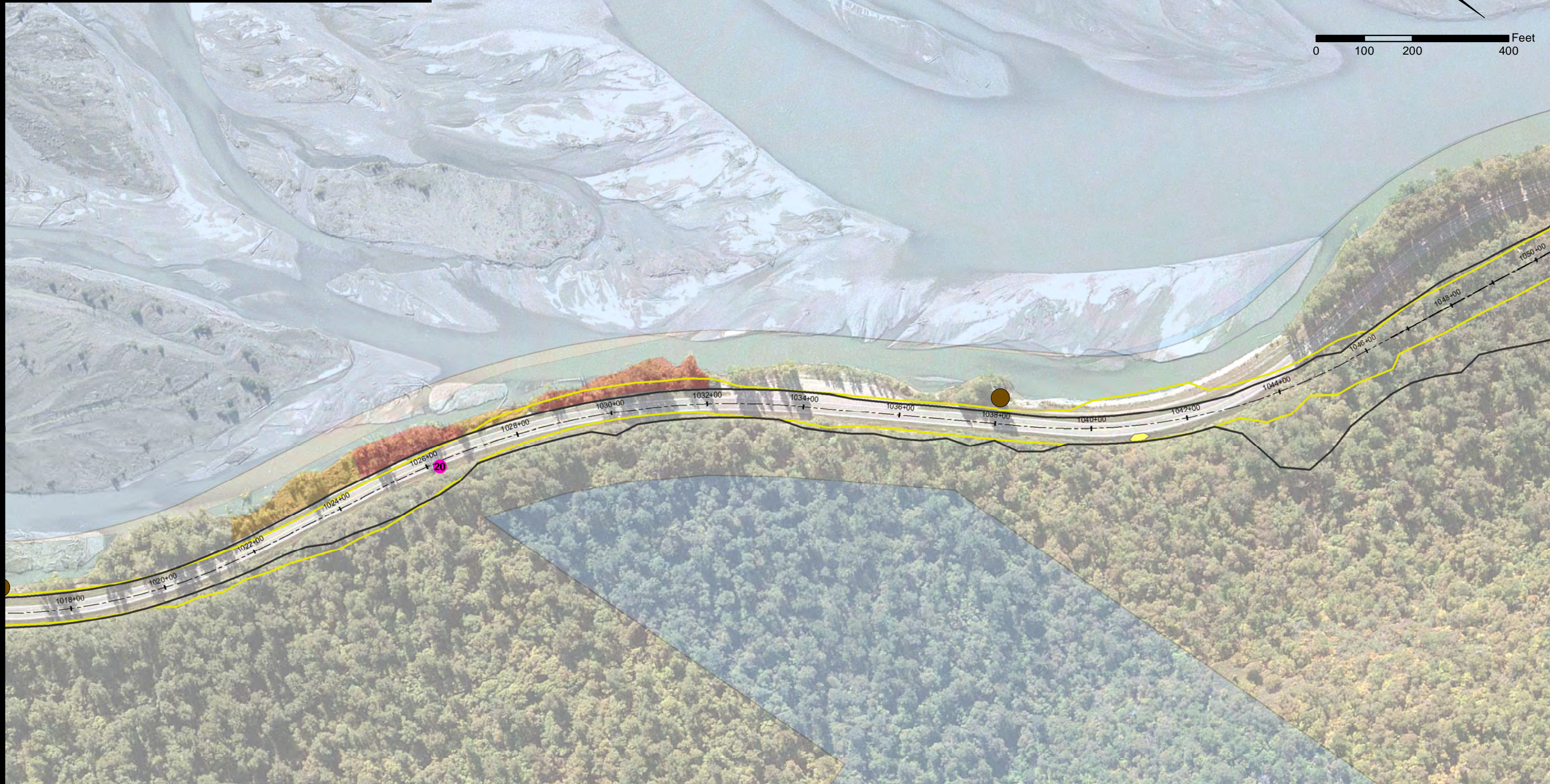
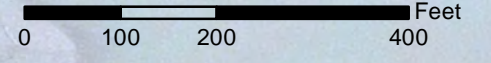
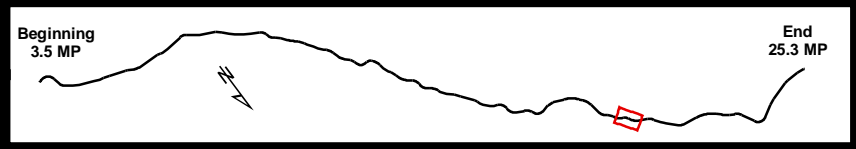
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- |                     |                                     |                      |                            |
|---------------------|-------------------------------------|----------------------|----------------------------|
| <b>Wetland Type</b> | --- Proposed Centerline             | --- Existing Streams | <b>In River Mitigation</b> |
| PEM1B               | Proposed Cut & Fill Limits          |                      | Ballasted Log Clusters     |
| PFO1C               | Previous EA Cut & Fill Limits       |                      |                            |
| PSS1H               |                                     |                      |                            |
| R3OW                |                                     |                      |                            |
|                     | ● Mile Post Points                  |                      |                            |
|                     | # Chilkat River Impacted Polygon ID |                      |                            |
|                     | # Fish Passage Culvert #            |                      |                            |

\*Darker wetland colors show impacted wetlands. Lighter wetland colors show the extent of wetlands mapped within the 2006 study area. Reference EA acronym list for NWI types.

### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

TS 28/29/30 S, R 56/57/58/59 E,  
Copper River Meridian, Alaska



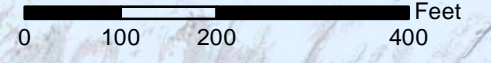
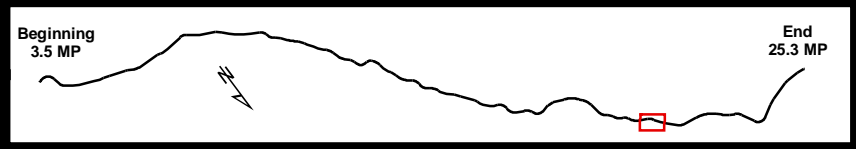
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- |                     |                                   |                      |
|---------------------|-----------------------------------|----------------------|
| <b>Wetland Type</b> | --- Proposed Centerline           | --- Existing Streams |
| R3OW                | Proposed Cut & Fill Limits        |                      |
|                     | Previous EA Cut & Fill Limits     |                      |
|                     | Mile Post Points                  |                      |
|                     | Chilkat River Impacted Polygon ID |                      |
|                     | Fish Passage Culvert #            |                      |

\*Darker wetland colors show impacted wetlands. Lighter wetland colors show the extent of wetlands mapped within the 2006 study area. Reference EA acronym list for NWI types.

### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

TS 28/29/30 S, R 56/57/58/59 E,  
Copper River Meridian, Alaska



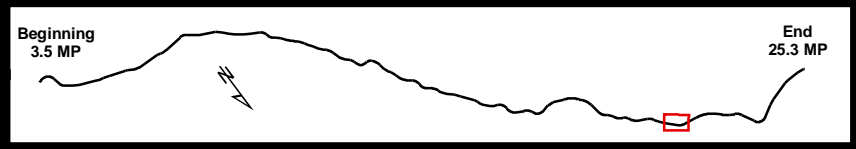
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- |                     |                                     |   |                            |
|---------------------|-------------------------------------|---|----------------------------|
| <b>Wetland Type</b> | --- Proposed Centerline             | --- Existing Streams                          | <b>In River Mitigation</b> |
| PEM1H               | ▭ Proposed Cut & Fill Limits        | --- Stream Impacts                            | ● Improve Fish Habitat     |
| PSS1H               | ▭ Previous EA Cut & Fill Limits     | --- Upgraded Culvert (non-anadromous streams) |                            |
| R3OW                | ● Mile Post Points                  |   |                            |
|                     | # Chilkat River Impacted Polygon ID |   |                            |
|                     | # Fish Passage Culvert #            |   |                            |

*\*Darker wetland colors show impacted wetlands. Lighter wetland colors show the extent of wetlands mapped within the 2006 study area. Reference EA acronym list for NWI types.*

### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

TS 28/29/30 S, R 56/57/58/59 E,  
Copper River Meridian, Alaska



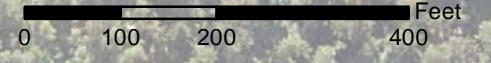
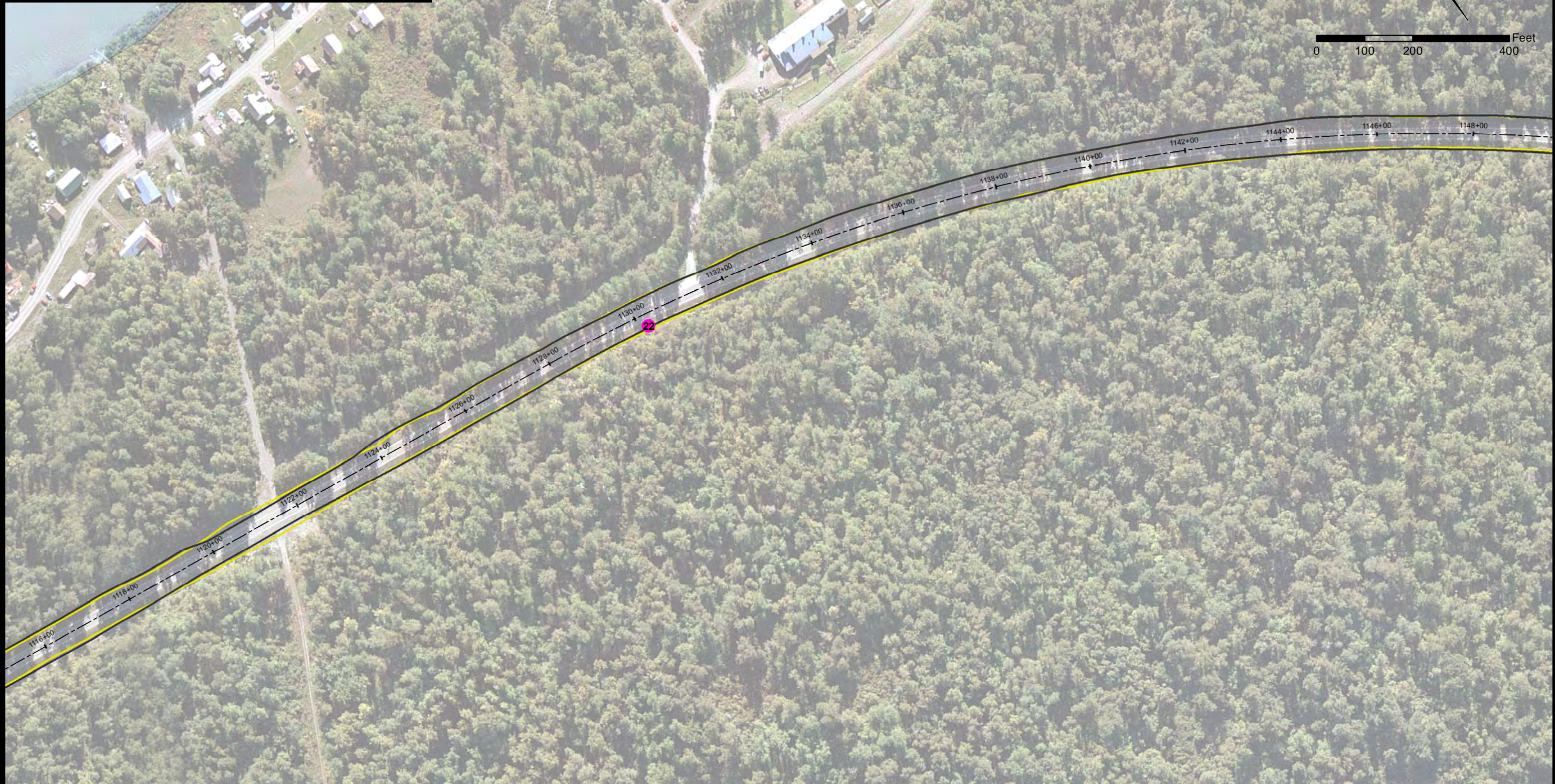
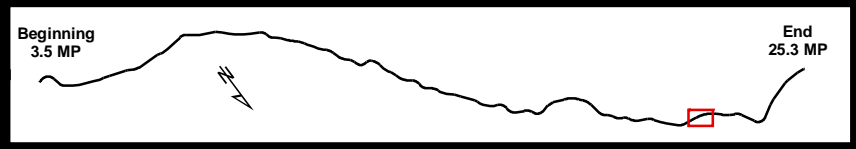
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- Proposed Centerline
- Existing Streams
- ▭ Proposed Cut & Fill Limits
- ▭ Previous EA Cut & Fill Limits
- Mile Post Points
- ⊕ Chilkat River Impacted Polygon ID
- ⊕ Fish Passage Culvert #

\*Darker wetland colors show impacted wetlands. Lighter wetland colors show the extent of wetlands mapped within the 2006 study area. Reference EA acronym list for NWI types.

### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

TS 28/29/30 S, R 56/57/58/59 E,  
Copper River Meridian, Alaska



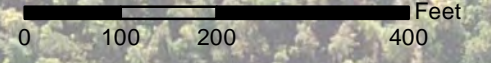
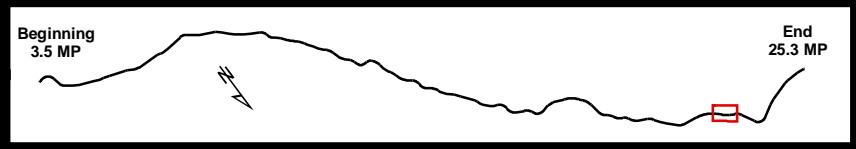
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<b>Wetland Type</b>	--- Proposed Centerline	--- Existing Streams
R3OW	Proposed Cut & Fill Limits	Upgraded Culvert (non-anadromous streams)
	Previous EA Cut & Fill Limits	
	Mile Post Points	
#	Chilkat River Impacted Polygon ID	
#	Fish Passage Culvert #	

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### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

TS 28/29/30 S, R 56/57/58/59 E,  
Copper River Meridian, Alaska



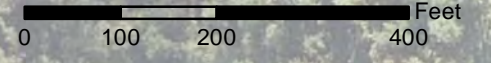
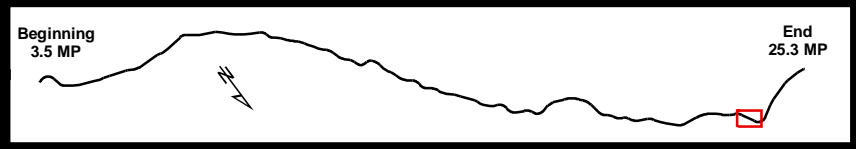
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DOT & PF Project No. 68606  
HAINES HIGHWAY  
MILEPOST 3.5 - 25.3

Haines, Alaska

DATE: January 15, 2016

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<b>Wetland Type</b>	--- Proposed Centerline	--- Existing Streams
■ R3OW	▭ Proposed Cut & Fill Limits	▭ Upgraded Culvert (non-anadromous streams)
	▭ Previous EA Cut & Fill Limits	
● Mile Post Points		
Ⓝ Chilkat River Impacted Polygon ID		
Ⓝ Fish Passage Culvert #		

\*Darker wetland colors show impacted wetlands. Lighter wetland colors show the extent of wetlands mapped within the 2006 study area. Reference EA acronym list for NWI types.

**WETLAND IMPACTS AND PROPOSED STREAM MITIGATION**

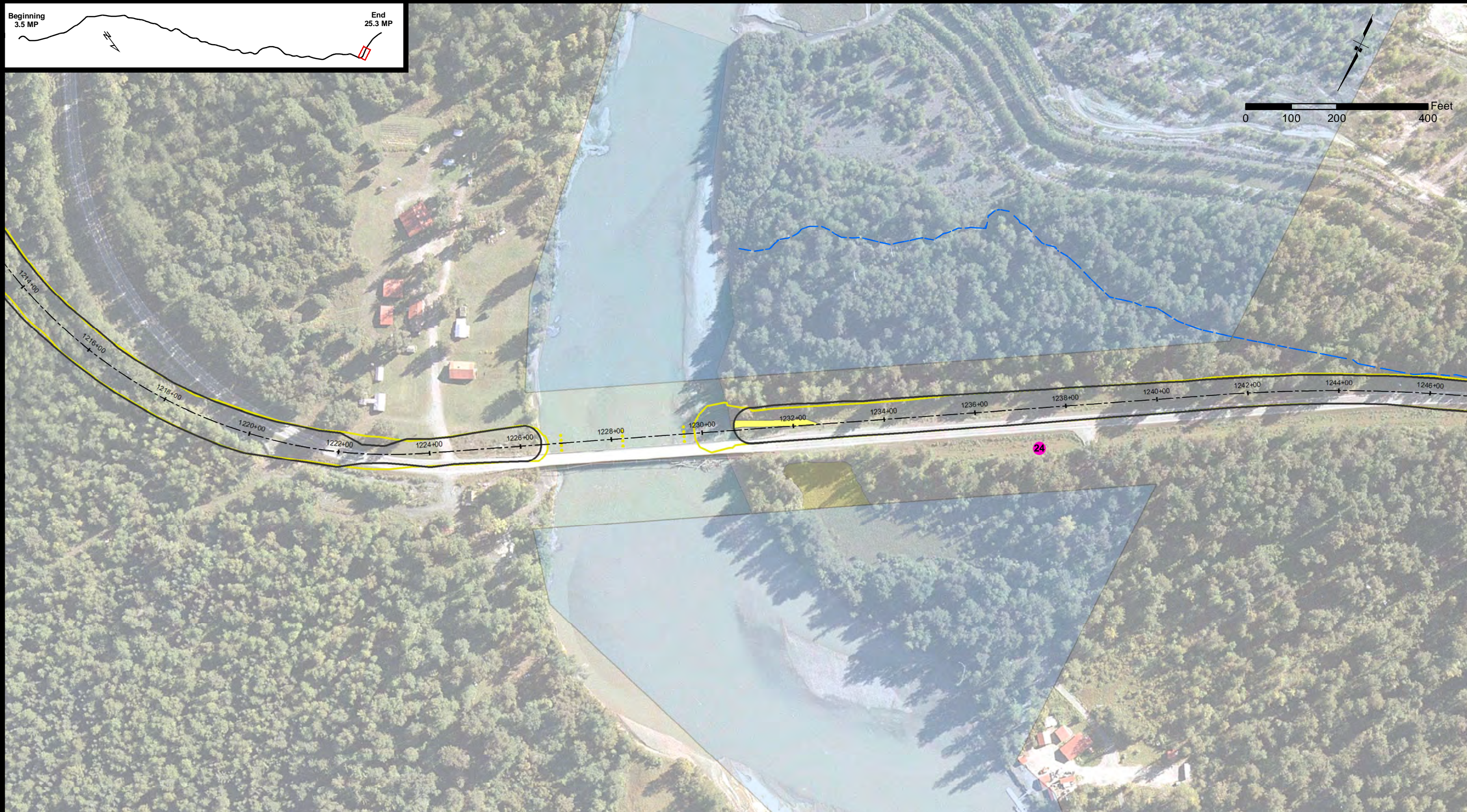
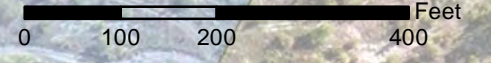
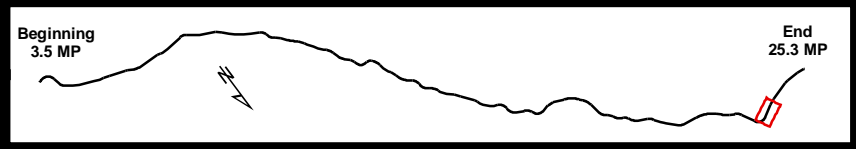
TS 28/29/30 S, R 56/57/58/59 E,  
Copper River Meridian, Alaska



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- |                     |                                     |                      |
|---------------------|-------------------------------------|----------------------|
| <b>Wetland Type</b> | --- Proposed Centerline             | --- Existing Streams |
| PEM1B               | Proposed Cut & Fill Limits          |                      |
| R3OW                | Previous EA Cut & Fill Limits       |                      |
|                     | ● Mile Post Points                  |                      |
|                     | # Chilkat River Impacted Polygon ID |                      |
|                     | # Fish Passage Culvert #            |                      |

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### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

TS 28/29/30 S, R 56/57/58/59 E,  
Copper River Meridian, Alaska



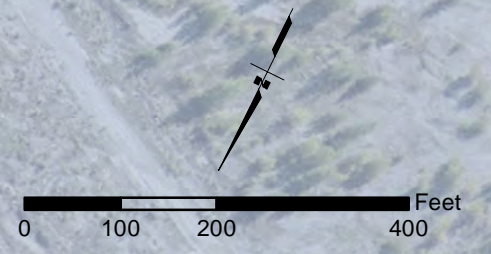
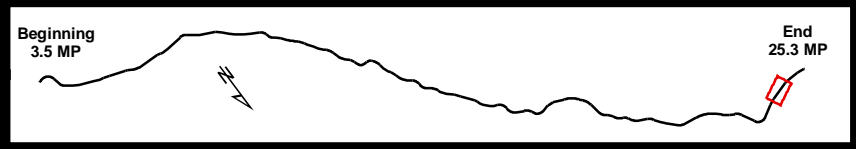
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- Wetland Type**
- PSS1E
- Proposed Centerline
- Existing Streams
- Proposed Cut & Fill Limits
- Previous EA Cut & Fill Limits
- Mile Post Points
- # Chilkat River Impacted Polygon ID
- # Fish Passage Culvert #

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### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

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Copper River Meridian, Alaska



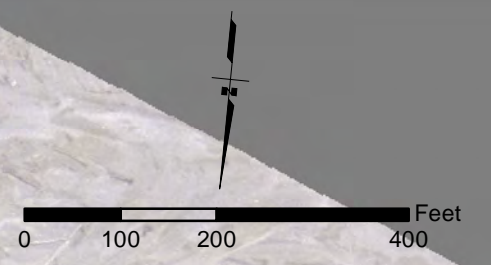
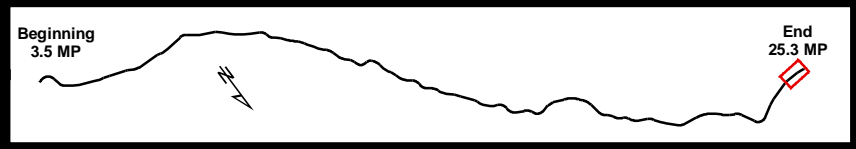
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HAINES HIGHWAY  
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- |                     |                                   |                      |
|---------------------|-----------------------------------|----------------------|
| <b>Wetland Type</b> | --- Proposed Centerline           | --- Existing Streams |
| PSS1E               | Proposed Cut & Fill Limits        |                      |
| R3OW                | Previous EA Cut & Fill Limits     |                      |
|                     | Mile Post Points                  |                      |
|                     | Chilkat River Impacted Polygon ID |                      |
|                     | Fish Passage Culvert #            |                      |

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### WETLAND IMPACTS AND PROPOSED STREAM MITIGATION

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