

MEMORANDUM

Date: September 12, 2012

To: Kelly Petersen, P.E., Project Manager DOT&PF

From: Mark Dalton, Project Team Leader, HDR Alaska, Inc.

RE: Juneau Creek Variant Alternative for the Sterling Highway Supplemental Draft Environmental Impact Statement Process

In 2003, the Alaska Department of Transportation and Public Facilities (DOT&PF) identified three reasonable build alternatives that would meet transportation improvement needs from milepost (MP) 45 to 60¹ on the Sterling Highway. The *Evaluation Criteria and Alternatives Analysis* (HDR 2003) contains an analysis of the 10 preliminary build alternatives and the No Build Alternative, and identified the G South Alternative, Cooper Creek Alternative, and Juneau Creek Alternative as reasonable alternatives recommended for further study in the Draft Supplemental Impact Statement (Draft SEIS). In consultation with the Federal Highway Administration (FHWA), the remaining alternatives were eliminated from further evaluation based on a screening for multiple criteria associated with the project purpose and need, engineering and traffic issues, and anticipated effects to the environment.

Following this study, DOT&PF developed a variant to the Juneau Creek Alternative in an effort to avoid the Mystery Creek Wilderness (Wilderness) within the Kenai National Wildlife Refuge (KNWR). The Juneau Creek Variant Alternative was developed to the same design standards as other alternatives and retains much of the current Juneau Creek Alternative alignment, while avoiding designated Wilderness within the KNWR (see Figure 1). The variant would connect to the existing highway alignment at MP 55, within the existing highway right-of-way at the Refuge boundary. To make this connection, the variant would diverge from the Juneau Creek Alternative nearly 3 miles to the east as the new road descended from the Juneau Creek canyon. The new highway would cross a grade separation at the base of the descent, and the existing highway would be rerouted under this grade separation to form a T-intersection joining the north side of the new highway, as illustrated on Figure 2.

Screening criteria for the 2003 Alternatives Evaluation were applied to evaluate the Juneau Creek Variant Alternative. Based on this analysis, DOT&PF has determined that the Juneau Creek Variant Alternative:

- Meets the transportation needs to improve traffic flow and safety, and is consistent with the project's Purpose and Need.
- Has comparable construction costs as other alternatives (approximately \$220 million).
- Is technically feasible to construct.

¹ While the project limits are referred to as MP 45 to 60, the actual project covers proposed improvements in the corridor from MP 45 to the highway's intersection with Skilak Lake Road at approximately MP 58.

- Is distinct enough from the Juneau Creek Alternative to present a contrast between impacts of the two alternatives – the Juneau Creek Alternative impacts KNWR Wilderness land but relatively few cultural sites, and the Juneau Creek Variant Alternative impacts no KNWR Wilderness but more cultural sites.

As a result, DOT&PF, in consultation with FHWA, has determined that the Juneau Creek Variant Alternative is a reasonable alternative that should be further evaluated in the Draft SEIS.

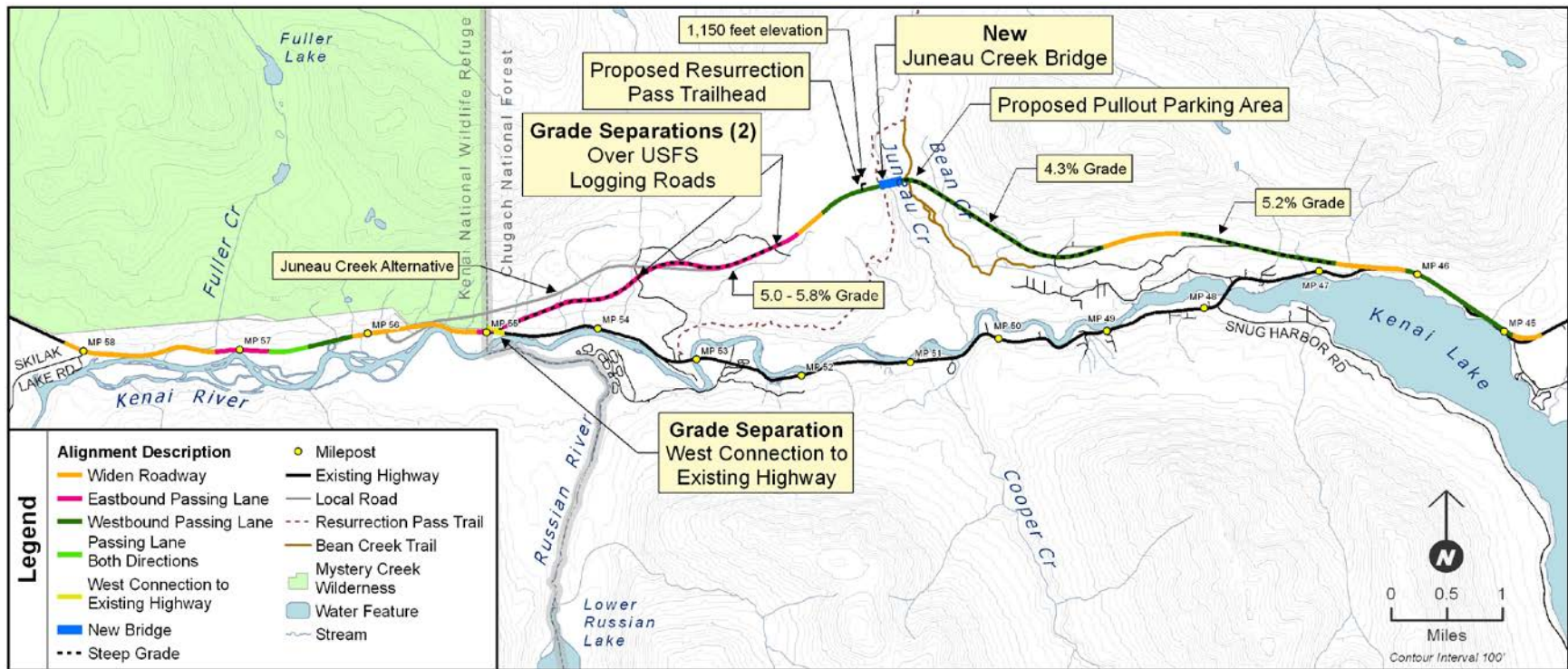


Figure 1. Juneau Creek Variant Alternative

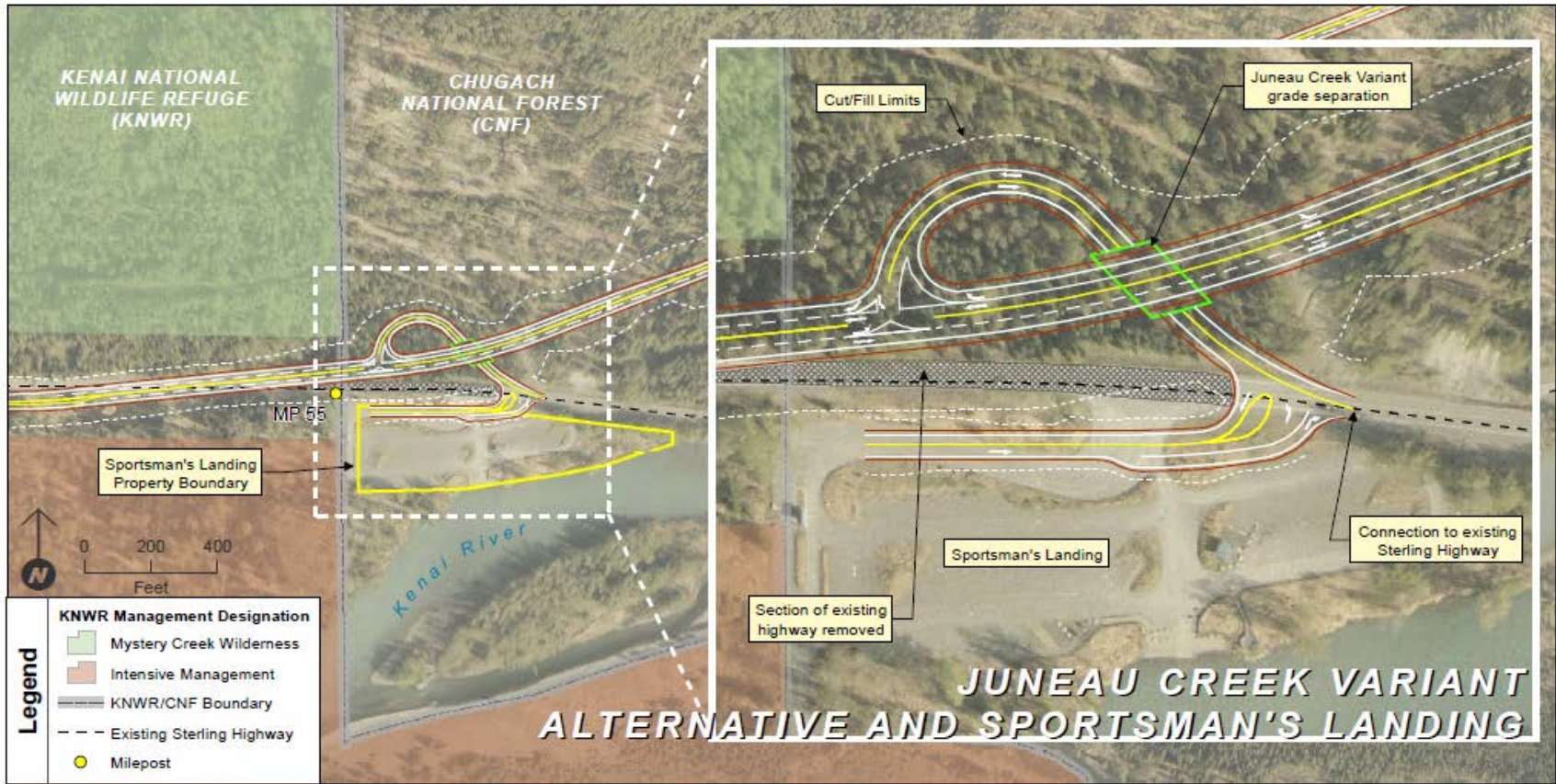


Figure 2. Juneau Creek Variant Alternative and Sportsman's Landing