

KETCHIKAN to SHELTER COVE ROAD

State Project Number: 68405



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Prepared by the:



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NOTICE TO USERS

Changes frequently occur during the planning and design of projects like this, so anyone relying on information from this document should check with the Alaska Department of Transportation & Public Facilities (DOT&PF) for the most current design information. You can contact the Project Manager, Dan Garner, P.E., at (907) 465-1851 or Carolyn Morehouse, P.E., at (907) 465-4234 for current information.

KETCHIKAN – SHELTER COVE SEPTEMBER 2011 OPEN HOUSE DOCUMENT

BACKGROUND

PROPOSED PROJECT DESCRIPTION

The proposed project would extend the Ketchikan Road system from the end of Revilla Road near Lake Harriet Hunt to Shelter Cove on Carroll Inlet. The project will utilize existing logging roads when available. DOT&PF evaluated four main alternatives.

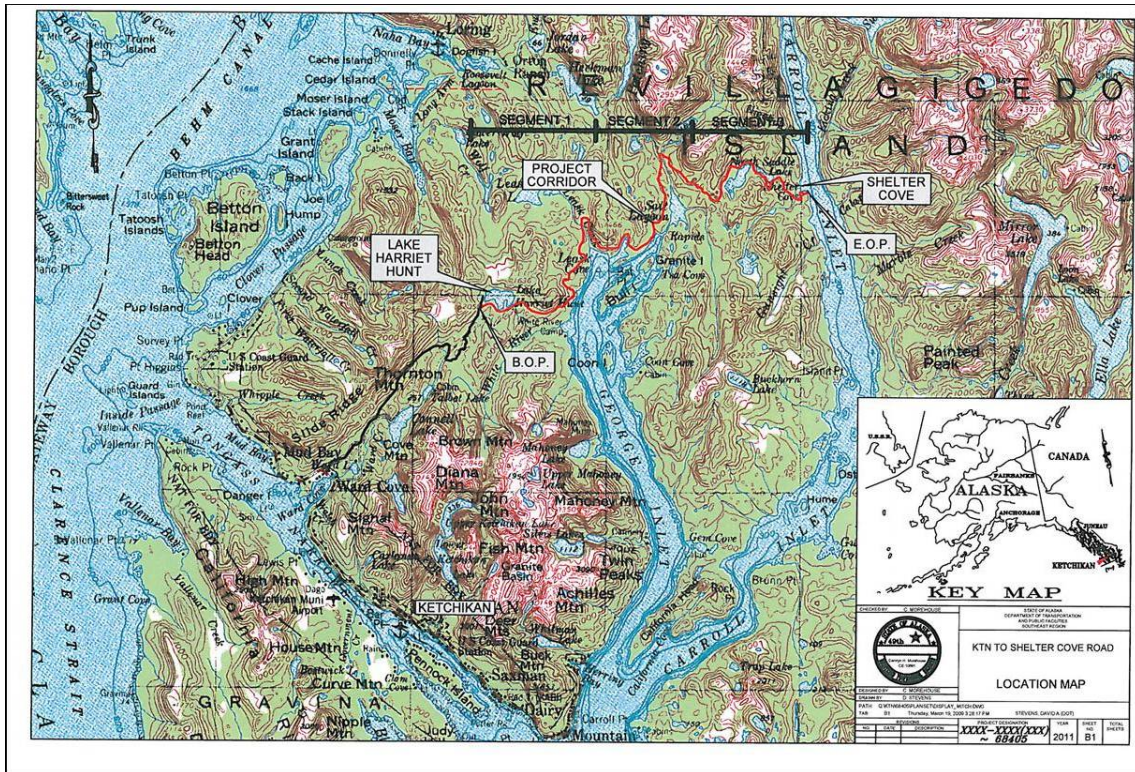


Figure 1. Key Map

EXISTING FUNDING

The Department of Transportation and Public Facilities (DOT&PF) began a preliminary reconnaissance study in the spring of 2007 that examined expanding road access in the Ketchikan area between Shelter Cove on Carroll Inlet and Lake Harriet Hunt. In November 2008, statewide Alaska voters approved a Transportation General Obligation (GO) Bond that included \$ 10 million for construction of a road to Shelter Cove. The legislative Committee language scope for this bond describes the project as follows: “10 Million dollars would fund the construction of a new 14’ single lane rock and gravel road between Harriet Hunt Lake and Shelter Cove Road. The new road would connect with two road systems on Revilla Island in Ketchikan.” Preliminary estimates indicate that \$ 10 million dollars is inadequate to complete the entire project scope.

PROPOSED PROJECT PURPOSE

The proposed project's preliminary purpose is to provide vehicle access to Shelter Cove allowing access to public and private lands in between Lake Harriet Hunt and Shelter Cove. This would increase the public's opportunities for recreation, subsistence hunting and gathering, tourism, and economic development consistent with the public land use plans and policies.

PROPOSED PROJECT NEED

Road access to public lands is limited in the Ketchikan area. The results of a household survey recently conducted in Ketchikan identified an unmet need for access to recreational and subsistence-related activities in the lands surrounding the proposed Shelter Cove road.

In the 2004 Southeast Alaska Transportation Plan (SATP), DOT&PF identified a possible link between Southeast Alaska and the Canadian highway system at the Cassiar Highway. That proposed link included a Revillagigedo Highway. A portion of that road is between Lake Harriet Hunt and Shelter Cove. That plan is being updated, but the 2004 version is still the approved transportation plan for Southeast Alaska.

EXISTING SHELTER COVE ROAD EASEMENT (Reciprocal Easement)

Federal Public Law 109-59, Section 4407, provided the impetus for the United State Forest Service (USFS) and the State of Alaska to enter into a Memorandum of Understanding (MOU) to establish a process for granting reciprocal rights-of-way and easements throughout the Tongass National Forest for future transportation and utility corridors. With this MOU, a recorded reciprocal easement was given to the State from near the end of the Ward Lake Road (Revilla Road) by Lake Harriet Hunt to Shelter Cove. One of the four alternatives follows the recorded reciprocal easement between the United States Forest Service (USFS) and the State of Alaska. Other alternatives could use portions of this easement in combination with new construction and/or connect and upgrade existing logging road systems as feasible.

DESIGN CRITERIA

Based in part on the original bond language, a single lane road designed for 20 mph with pullouts constructed within an alignment that can be easily upgraded to a 35 mph, two lane road (Island Collector) would be the desired design criteria.

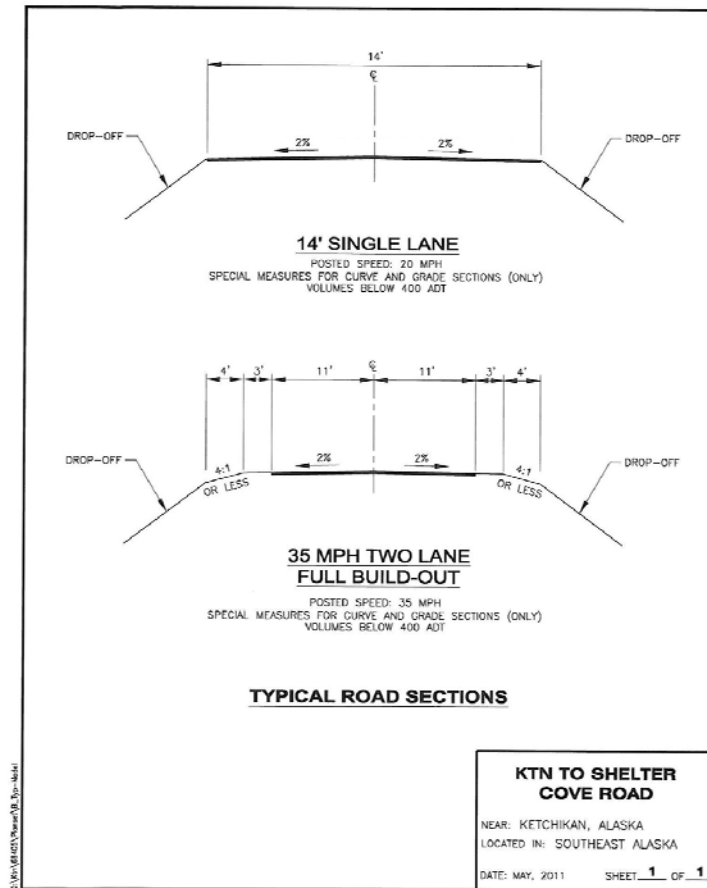


Figure 2. Typical Road Section

EXISTING CONDITIONS

HISTORY

The road system on Revillagigedo Island is made up of many isolated road systems. Revilla Road is owned and maintained by the State of Alaska for approximate 6 miles to Harriet Hunt Lake.

The roads under the jurisdiction of the USFS typically consist of smaller, isolated systems such as the Shelter Cove Road and have been used mainly for timber harvest activities. These were built for logging using a United States Army Corps of Engineers (USACE) exemption to the federal environmental review process for silviculture (timber) usage. The USFS maintains the existing Shelter Cove Road and the road is in good condition.

The White River Road was constructed in 1980 by the Cape Fox Corporation as a timber access road and has been used intermittently for both timber and tourism related activities. Presently, Cape Fox is allowing the State of Alaska Mental Health Trust and their logging contractors to access its lands via the White River Road. Cape Fox's tour groups also use the White River Road during the summer. This road is not open to the public without permission from the Cape Fox Corporation. The Mental Health Trust has constructed some roads to access their lands but it is a private road system and not open to the public without their permission.

TRAFFIC

Traffic on Revilla Road is less than 186 ADT (Average Daily Traffic) based on 2008 traffic data. Cape Fox utilizes the Lake Harriet Hunt and White River areas for tourism related activities. No traffic data was available for the Lake Harriet Hunt Road or the White River Road. However, Cape Fox projections are less than 40 vehicles per day during the summer on the White River Road. The vehicles are passenger vans and full size buses. The Mental Health Trust lands are currently accessed by White River Road for logging operations. Traffic includes logging trucks, heavy equipment, various crew vehicles, tour buses and passenger vehicles.

CLIMATE AND TOPOGRAPHY

The area is in a maritime climate zone noted for its warm winters, cool summers, and heavy precipitation. Summer temperatures range from 46 to 59 °F; winter temperatures range from 29 to 39° F. Ketchikan averages 162 inches (13.5 feet) of precipitation annually, including 32 inches of snowfall. Topography in the project area ranges from mountainous terrain with deep ravines to extensive areas of rolling muskeg. The study corridor runs between elevation 100 and 1100 feet.

DRAINAGE

The proposed Shelter Cove Road alignment crosses several major drainage and lake areas that may require substantial culvert sizes or bridge crossings. The various routes include several watersheds including the White River, Lake Harriet Hunt drainage, Leask Lake drainage and Saddle Lakes drainage.

SOILS

A preliminary geotechnical reconnaissance report was initiated in the fall of 2007 and includes the results of an earlier investigation conducted by Western Federal Lands for portions of the USFS Shelter Cove Road system. The study was conducted in three phases with phase I conducted in the fall of 2007, phase II in August 2008 and phase III in August and September of 2011. Field work included investigating the various route options. The only significant geological hazard identified is localized slope instability.

Most of the existing logging roads in the proposed corridors were constructed either over muskeg and/or incorporated overburden in the roadway embankment.

RIGHT-OF-WAY

All the identified potential corridors include land owned by the following groups: Cape Fox Corporation, United States Forest Service, State of Alaska Department of Natural Resources and Mental Health Trust. The Cape Fox Corporation has used the White River Road for access for various tourism related and logging activities. The Mental Health Trust also depends on the White River Road for access. During the 1970's and 80's the USFS conducted timber sales in the Shelter Cove area but there are currently no USFS timber harvesting activities in the area. All routes considered, even the reciprocal easement, require an easement of some length from the Cape Fox Corporation.

ENVIRONMENTAL ISSUES

TYPE OF ENVIRONMENTAL DOCUMENT NEEDED

The route selected will determine the lead federal agency, in this case either the USFS or USACE, and will determine what kind of environmental document would be required. If only the USACE is involved, the project will adhere to the USACE's National Environmental Policy Act (NEPA) process because a permit to fill wetlands under their jurisdiction will be needed.

If the reciprocal easement is followed, the USFS may not have a federal action to make, since provision of a permit or easement is mandated by Congress pursuant to Section 4407 of Public Law 109-59. USFS granted the State of Alaska Department of Transportation and Public Facilities a reciprocal easement in 2006. This easement allows the State to conduct surveys and investigations as necessary for planning possible future construction or placement of highway and/or utilities within the land described in the easement. Per the MOU, a second easement would be conveyed prior to construction. If the final alignment falls outside of the reciprocal easement the project will require a NEPA action, most likely an Environmental Impact Statement (EIS) as all USFS property decisions on new roads on National Forest Land typically require an EIS.

WETLANDS

Initial wetland impact evaluations included referring to the National Wetlands Inventory to evaluate potential impacts for some of the routes. In 2009, DOT&PF conducted a wetland delineation study along the White River Road, Leask Cove, Bat Cove, and Salt Lagoon route (lower route).

HISTORICAL & ARCHAEOLOGICAL

The Office of History and Archaeology's Alaska Heritage Resource Survey (AHRs) data base was researched to see if cultural or archaeological surveys have been conducted in the project vicinity. The proposed road alignments avoid the listed sites but archaeological and other cultural surveys will be completed on the selected route.

BALD EAGLES

Preliminary investigation indicates low potential for impacts to bald eagles and nesting sites. Six nesting sites were identified along the Low Road Corridor but additional field work will be needed to confirm and update the preliminary survey for all routes.

THREATENED AND ENDANGERED SPECIES

Preliminary investigation indicates low potential impacts to threatened or endangered species. Additional field work will be performed to confirm that there are no impacts to threatened and endangered species particularly in the areas of new road construction.

ALTERNATIVE ROUTES CONSIDERED

After field reconnaissance and review of preliminary geotechnical information, DOT&PF considered the following four alignments beginning from the Lake Harriet Hunt vicinity and ending at the existing Shelter Cove Road system.

- Alternative I- High Road Corridor (Reciprocal Easement)
- Alternative II- Low Road Corridor
- Alternative III- High-Low Corridor
- Alternative IV- Low-High Corridor

ALTERNATIVE I – HIGH ROAD CORRIDOR

This corridor follows the USFS reciprocal easement. This is a northerly, upland route from Lake Harriet Hunt to Leask Lake. The road then turns to the northeast until it joins the existing logging road system from Shelter Cove. This corridor is 19 miles long, 8 miles of which consist of existing logging roads. This route would require approximately eleven miles of new road from Lake Harriet Hunt to the junction with the existing logging road system from the Shelter Cove side.

The High Road corridor would impact wetlands, potentially critical wildlife habitat areas in the vicinity of Leask Lake. This route crosses approximately three miles of land owned by Mental Health Trust and also lies adjacent to the NAHA Wilderness Area (~1.4 miles), staying within the reciprocal easement. This alternative provides access to the second highest acreage of public lands for recreational and subsistence use.

This corridor will traverse a fairly steep slope northeast of Lake Harriet Hunt and will require significant cuts, fills, slope retaining structures and drainage features. Portions of the route cross muskeg. In some areas, bridges may be required.

While this is the shortest corridor, it is not the least expensive due to the terrain and the large amount of new road construction.

ALTERNATIVE II - LOW ROAD CORRIDOR

An existing logging road network extends from the Ketchikan side to as far as Leask Cove and offers the possibility of a road connection to Shelter Cove road with as little as 5.9 miles of new road construction along George inlet and the Salt Lagoon. Much of the land along this corridor is owned by third parties and significant purchases of right-of-way would be required. This alternative will also require substantial ground cuts along the Leask Cove and Bat Cove portion. Muskeg construction is the least amount of all of the alternatives. Some of the cut slopes may need stabilization. This alternative provides access to the *least* amount of public lands for recreation and subsistence use.

This corridor also offers four potential routes that vary in length from 17.3 to 23.0 miles. The routes within this corridor use existing logging roads to varying degrees and have different approaches from the existing road system. These approaches are shown as three proposed roads (in red) near Harriet Hunt Lake. Two options travel around Lake Harriet Hunt through Cape Fox land and then connect to the White River Road while the remaining option avoids Cape Fox land altogether and connects with existing logging roads in Mental Health Trust land.

Along with Corridor IV, this corridor requires the least amount of new road construction. However, higher right of way costs are anticipated to offset any savings in construction.

ALTERNATIVE III - HIGH - LOW CORRIDOR

This route follows the Reciprocal Easement to Leask Lake then drops down to George Inlet at Leask Cove. From there, it follows the Low Road corridor along George Inlet and the Salt Lagoon to the existing Shelter Cove road. This alternative is 22 miles long with approximately eight miles on existing logging roads. This route crosses difficult terrain but avoids the NAHA Reserve. This route requires the most new road construction and accesses a relatively high amount of public and Mental Health Trust lands. This alternative is similar to Alternative I requiring substantial cuts and fills for the portion of the proposed road leaving the Lake Harriet Hunt area, and similar to Alternative II, requiring cut slopes along Leask Cove and Bat Cove.

This is the most expensive corridor with the most miles of new road construction. This corridor requires traversing the ridge northeast of Lake Harriet Hunt and along the coast north of Leask cove. It is anticipated that the cuts and fill along with slope protection will be expensive.

ALTERNATIVE IV - LOW - HIGH CORRIDOR

This route follows the White River Road to Leask Cove where it turns northerly through existing logging roads on Mental Health Trust land to connect with the Reciprocal Easement east of Leask Lake. This alignment crosses the NAHA Reserve.

This corridor offers an inland alternative of connecting Leask Cove with the existing Shelter Cove logging road system. Depending on the exact alignment, this corridor is approximately 20 miles long and offers the possibility of a road connection to Shelter Cove with only 5.4 miles of new road. This route would provide access to Mental Health Trust similar to Alternative I and II. This alignment avoids any USFS property easements outside of the reciprocal easement.

This terrain, with one possible exception, is generally less difficult than the others with elevations remaining fairly low.

This corridor is the lowest cost alternative. However, it does require acquisition of potentially expensive right-of-way along the White River Road from Cape Fox Corporation and Mental Health Trust lands. Similar to Alternative II, this corridor would require the least amount of new road construction.

COMPARISON OF ALTERNATIVES

OVERALL LENGTH AND NEW ROAD LENGTH

Alternative	Total Road Length (in miles)	New Road Construction (in miles)
Alternative I High Road	19	11
Alternative II Low Road	17.3 - 23	6
Alternative III High-Low Road	22.7	14
Alternative IV Low-High Road	22	5.4

Table 1 Comparison of Alternatives by Road Length

COST COMPARISONS

Alternative	35 mph Island Collector	20 mph Single Lane
Alternative I High Road	\$82,000,000	\$24,000,000
Alternative II Low Road	\$80,000,000	\$23,000,000
Alternative III High-Low Road	\$92,000,000	\$30,000,000
Alternative IV Low-High Road	\$78,000,000	\$22,000,000

Table 2 Cost Comparison of Alternatives by Road Type