

ALASKA LEGISLATURE

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roadway infrastructure. Several firms that operate on the Alaska roadway network were therefore contacted.

Upon discussions with shippers, it was determined that a logical delivery pattern for petroleum products, under the assumption that the Trans-Peninsula Roadway is built, would be for a barge to make separate stops in both Williamsport and in Chignik. This is due to the fact that the trucking portion of the trip could be accomplished less expensively by choosing a closer port.

Per gallon barge costs were estimated at 12 cents per gallon from Anchorage to Chignik, and at 10 cents per gallon from Anchorage to Williamsport. Trucking costs were estimated at \$6.75 per mile. Trucking cost estimates were developed on the basis of input by Carlile and CAT, trucking firms that now operate in Alaska, but outside of Southwest Alaska. Both firms were quick to point out the speculative nature of their estimates. They pointed out that rates would be sensitive to volume, start-up costs (regarding which there is considerable uncertainty), and unusual maintenance and operations costs attributable to Southwest Alaska's remote and challenging natural environment. In providing their estimates, the trucking companies assumed that the road would be paved, maintained, and designed to AASHTO standards. For the purposes of this analysis, a tanker truck with a 7,500 gallon capacity was assumed.

Mileage between each affected community and the ports of Chignik and Williamsport was calculated based on specifications provided in an earlier deliverable, "Southwest Alaska Description of Alternatives Technical Memorandum." Total petroleum shipment rates for each affected community represent the sum of the barge and trucking related costs. Tables 14, 15 and 16 contain the resulting rate estimates. Table 14 calculates rates under the assumption that Williamsport serves as the intermodal transfer point. Table 15 calculates rates assuming that Chignik serves as the intermodal transfer point. Finally, Table 16 lists the lowest rate for each community, based on marine port of call.

Table 14.
Cost Analysis for Petroleum Movement (Williamsport as Transfer Point)

	Existing Conditions	Estimated Rates Assuming that the Trans-Peninsula Roadway is Built				
	Current Price	Price per gal ANC to Williamsport	Road Distance from Williamsport	Trucking Price Total at \$6.75/mi	Trucking Price per gal at 7,500 gal/load	Total Price (barge+road)
	(\$/gal)	(\$/gal)	(mi)	(\$)	(\$/gal)	(\$/gal)
Chignik	\$0.250	\$0.10	466	\$3,146	\$0.419	\$0.519
Chignik Lagoon	\$0.500	\$0.10	462	\$3,119	\$0.416	\$0.516
Chignik Lake	\$0.600	\$0.10	450	\$3,038	\$0.405	\$0.505
Egegik	\$0.500	\$0.10	262	\$1,769	\$0.236	\$0.336
Igiugig	\$0.800	\$0.10	109	\$736	\$0.098	\$0.198
Iliamna	\$0.800	\$0.10	53	\$358	\$0.048	\$0.148
Ivanof Bay	\$0.270	\$0.10	516	\$3,483	\$0.464	\$0.564
King Salmon and Naknek	\$0.300	\$0.10	184	\$1,242	\$0.166	\$0.266
Nondalton	\$0.800	\$0.10	69	\$466	\$0.062	\$0.162
Pedro Bay	\$0.800	\$0.10	26	\$176	\$0.023	\$0.123
Perryville	\$0.300	\$0.10	506	\$3,416	\$0.455	\$0.555
Pile Bay	\$0.800	\$0.10	15	\$101	\$0.014	\$0.114
Pilot Point	\$0.520	\$0.10	317	\$2,139	\$0.285	\$0.385
Port Heiden	\$0.350	\$0.10	404	\$2,727	0.364	\$0.464

Table 15.
Cost Analysis for Petroleum Movement (Chignik as Transfer Point)

Anchorage to	Current Price	Price per gal ANC to CHIGNIK	Road Distance from Chignik	Trucking Price Total at \$6.75/mi	Trucking Price per gal	Total Price (barge+road)
	(\$/gal)	(\$/gal)	(mi)	(\$)	(\$/gal)	(\$/gal)
Chignik	\$0.250	\$0.12	0	\$0	\$0.000	\$0.120
Chignik Lagoon	\$0.500	\$0.12	12	\$81	\$0.011	\$0.131
Chignik Lake	\$0.600	\$0.12	16	\$108	\$0.014	\$0.134
Egegik	\$0.500	\$0.12	204	\$1,377	\$0.184	\$0.304
Igiugig	\$0.800	\$0.12	357	\$2,410	\$0.321	\$0.441
Iliamna	\$0.800	\$0.12	413	\$2,788	\$0.372	\$0.492
Ivanof Bay	\$0.270	\$0.12	50	\$338	\$0.045	\$0.165
King Salmon and Naknek	\$0.300	\$0.12	269	\$1,816	\$0.242	\$0.362
Nondalton	\$0.800	\$0.12	429	\$2,896	\$0.386	\$0.506
Pedro Bay	\$0.800	\$0.12	440	\$2,970	\$0.396	\$0.516
Perryville	\$0.300	\$0.12	40	\$270	\$0.036	\$0.156
Pile Bay	\$0.800	\$0.12	451	\$3,044	\$0.406	\$0.526
Pilot Point	\$0.520	\$0.12	149	\$1,006	\$0.134	\$0.254
Port Heiden	\$0.350	\$0.12	62	\$419	\$0.056	\$0.176

**Table 16.
Least Cost Petroleum Rates**

	Current Price (\$/gal)	Assumes Community Served from	Total Price (barge+road) (\$/gal)
Chignik	\$0.25	Chignik	\$0.12
Chignik Lagoon	\$0.50	Chignik	\$0.13
Chignik Lake	\$0.60	Chignik	\$0.13
Egegik	\$0.50	Chignik	\$0.30
Igiugig	\$0.80	Williamsport	\$0.20
Iliamna	\$0.80	Williamsport	\$0.15
Ivanof Bay	\$0.27	Chignik	\$0.17
King Salmon and Naknek	\$0.30	Williamsport	\$0.27
Nondalton	\$0.80	Williamsport	\$0.16
Pedro Bay	\$0.80	Williamsport	\$0.12
Perryville	\$0.30	Chignik	\$0.17
Pile Bay	\$0.80	Williamsport	\$0.16
Pilot Point	\$0.52	Chignik	\$0.25
Port Heiden	\$0.35	Chignik	\$0.18

Estimated Petroleum Movement Rates (Williamsport Improvements Alone)

Although, as will be seen in subsequent analysis, it is clear that building the Trans-Peninsula Roadway in its entirety would produce significant petroleum movement cost savings, it is not obvious that rehabilitating the Williamsport to Pile Bay Road alone would do so. Part of the reason for this is that fuel is transported relatively cheaply by plane. According to Everts Air Fuel, petroleum can profitably be flown in at a rate of about \$0.96 per gallon (personal communications, November 1999). This rate is comparable to the \$0.80 per gallon rate that it costs to move petroleum up the Kvichak River from Naknek.

Also detracting from potential cost savings is the fact that two transfers would be required if only the Williamsport to Pile Bay segment of the Trans-Peninsula Roadway were improved. The first transfer would be from Cook Inlet barge to truck; the second would be from truck back to Iliamna Lake vessel. Because of the labor and coordination they require, transfers are costly.

For these reasons, petroleum shipping rates under the assumption of rehabilitating the Williamsport to Pile Bay Road as a stand-alone element were not developed.

Estimated "Other" Cargo Movement Rates (Whole Road Built)

Although rates to move "Other" cargo were projected in much the same way as were petroleum rates, there were a couple of differences in the methodology. First, whereas Alaska has multiple oil refineries, from which point products can be shipped directly to Southwest Alaska, most "Other" cargo originates in the lower 48, specifically, in the ports of Seattle and Tacoma. As

such, the cost projections for the barge portion of the transport of "Other" cargo originate in Seattle rather than Anchorage. This assumption is based on shippers' input indicating that very little of what is shipped to Southwest Alaska originates within the state—for two main reasons. First, manufacturing and agricultural production in Alaska are very limited. Second, Alaska cities' ability to serve as transshipment points is limited by a lack of warehousing and storage facilities (Terry Hart, Sea-Land, Alaska Northbound Marketing Manager, personal communications, October 1999).

Another difference is in the type of truck used to transport the goods along the road. Whereas a 7,500-gallon tanker truck was assumed to be used to deliver petroleum products, a 35-foot van is assumed to deliver "Other" cargo. A 35-foot van can carry about 22,750 pounds of cargo.¹¹ The same \$6.75 per mile rate is assumed for both petroleum and "Other" cargo transport.

As was done for petroleum rate projections, the barge portion of the transport costs for "Other" cargo was simply added to the truck-related costs for a single per-pound total. Again, rates are calculated using both Williamsport and Chignik as the transfer point from marine vessel to truck (Table 17 and Table 18). Meanwhile, Table 19 compiles the lowest rate for each community based on which port of call is used for the intermodal transfer.

¹¹ To estimate the freight-carrying capacity of a van of a given length, the assumed number of feet (35') was multiplied by 650 for total pounds. This 650-pound figure is based on the suggested equivalency found in *Transportation Research Board, Special Report 223-Providing Access for Large Trucks*, 1989, p. 177.

Table 17.
Cost Analysis for "Other" Cargo (Williamsport as Transfer Point)

Seattle to	Barge Cost (\$/lb)	Road Distance from Wmsport (mi)	Trucking Cost at \$6.75/mi (\$)	Total Trucking Cost (\$/lb)	Total Cost (\$/lb)
Chignik	\$0.27	466	\$3,146	\$0.138	\$0.408
Chignik Lagoon	\$0.27	462	\$3,119	\$0.137	\$0.407
Chignik Lake	\$0.27	450	\$3,038	\$0.133	\$0.403
Egegik	\$0.27	262	\$1,769	\$0.078	\$0.348
Igiugig	\$0.27	109	\$736	\$0.032	\$0.302
Iliamna	\$0.27	53	\$357	\$0.016	\$0.286
Ivanof Bay	\$0.27	516	\$3,483	\$0.153	\$0.423
King Salmon and Naknek	\$0.27	184	\$1,242	\$0.055	\$0.325
Nondalton	\$0.27	69	\$466	\$0.020	\$0.290
Pedro Bay	\$0.27	26	\$176	\$0.008	\$0.278
Perryville	\$0.27	506	\$3,416	\$0.150	\$0.420
Pile Bay	\$0.27	15	\$101	\$0.004	\$0.274
Pilot Point	\$0.27	317	\$2,140	\$0.094	\$0.364
Port Heiden	\$0.27	404	\$2,727	\$0.120	\$0.390

**Table 18.
Cost Analysis for "Other" Cargo (Chignik as Transfer Point)**

Seattle	Price per # Sea to Chignik	Road Distance from Chignik (mi)	Trucking Price Total at \$6.75/mi	Trucking Price per Pound	Total Price (barge+road)
Chignik	\$0.22	0	\$0	\$0.000	\$0.220
Chignik Lagoon	\$0.22	12	\$81	\$0.004	\$0.224
Chignik Lake	\$0.22	16	\$108	\$0.005	\$0.225
Egegik	\$0.22	204	\$1,377	\$0.106	\$0.280
Igiugig	\$0.22	357	\$2,410	\$0.122	\$0.326
Iliamna	\$0.22	413	\$2,788	\$0.015	\$0.342
Ivanof Bay	\$0.22	50	\$338	\$0.080	\$0.235
King Salmon and Naknek	\$0.22	269	\$1,816	\$0.127	\$0.300
Nondalton	\$0.22	429	\$2,896	\$0.130	\$0.347
Pedro Bay	\$0.22	440	\$2,970	\$0.119	\$0.350
Perryville	\$0.22	40	\$270	\$0.134	\$0.339
Pile Bay	\$0.22	451	\$3,014	\$0.018	\$0.34
Port Heiden	\$0.22	62	\$419	\$0.044	\$0.238

**Table 19.
Least Cost "Other" Rates**

Seattle to	Current Price (\$/lb)	Assumes Community Served from	Total Price (barge + road) (\$/lb)
Chignik	\$0.250	Chignik	\$0.220
Chignik Lagoon	\$0.600	Chignik	\$0.224
Chignik Lake	\$0.500	Chignik	\$0.225
Egegik	\$0.510	Chignik	\$0.280
Igiugig	\$0.765	Williamsport	\$0.302
Iliamna	\$0.765	Williamsport	\$0.286
Ivanof Bay	\$0.700	Chignik	\$0.235
King Salmon and Naknek	\$0.510	Chignik	\$0.300
Nondalton	\$0.765	Williamsport	\$0.290
Pedro Bay	\$0.765	Williamsport	\$0.278
Perryville	\$0.600	Williamsport	\$0.339
Pile Bay	\$0.765	Williamsport	\$0.274
Pilot Point	\$0.540	Chignik	\$0.264
Port Heiden	\$0.510	Chignik	\$0.238

Estimated "Other" Cargo Movement Rates (Williamsport Improvements Alone)

To estimate freight movement cost savings that could be achieved by dredging the channel at Williamsport, along the existing road and its bridges, the elements of current freight delivery to the region were considered. Operators of each of the modal links that is now required to move goods from Homer to the communities of Iliamna Lake via Williamsport were contacted and interviewed. Their estimates of the per pound cost for each modal link of this journey are noted below. Current total costs, that is, under existing conditions, are estimated at \$0.37 per pound. These shippers, like others contacted in the course of this research, had a difficult time predicting the impact of channel dredging and road reconstruction. They put the savings achievable by making these improvements in the neighborhood of 20%, as did shippers who now operate out of Naknek. However, the US Army Corps of Engineers (USCOE), in its 1995 study, estimated a much larger shipping cost savings under this scenario—in the neighborhood of 56%. In attempt to reconcile this difference, the approach taken in this assessment is more conservative than the USCOE's, but more optimistic than the shippers': A cost savings rate of 35% was applied to the existing rate, as calculated below.

Homer to Williamsport (barge)	\$0.12/lb
Williamsport to Pile Bay (truck)	\$0.10/lb
Pile Bay to Ultimate Destination (barge)	\$0.15/lb
Existing Conditions Total	\$0.37/lb
<hr/>	
Estimated Cost Savings with Project:	
$\$0.37 - (\$0.37 \times 0.35) = \$0.24$	\$0.24/lb

As pointed out by the USCOE and the shippers themselves, freight movement savings can be anticipated stemming from several sources:

- Reduced damage and wear and tear to transport vessels and vehicles, which should reduce shippers' capital and maintenance and operations costs;
- Reduced operating (and possibly capital) costs due to the elimination of the tide-related barge delays that are now frequently experienced;
- Removing the obstacles to freight shipment along this corridor would likely increase volumes of goods shipped, reducing unit costs;
- Insofar as volumes shipped would increase, new operators may be attracted to the area, thus creating competitive price pressure.

PART 4. RESULTS

The final step in the assessment of the freight movement impacts of the proposed alternatives brings together the three analytical elements just described:

- Freight volume forecasts, by study area community
- Modal rate estimates under existing conditions
- Modal rate estimates under specified transportation improvements

To assess the cost savings achievable by making the transportation improvements proposed, one simply multiplies the forecast volume of goods for the 2020 design year by rates under existing conditions and by rates under the proposed alternatives. Put simply, the difference between these totals represents the freight movement savings achievable by implementing the proposed alternatives. Three sets of probable impacts are provided:

1. Petroleum movement impacts assuming that the "whole road" (the Trans-Alaska Roadway) is implemented;²²
2. "Other" cargo impacts assuming that the whole road is implemented as a coherent system;
3. "Other" cargo movement impacts assuming that the existing Williamsport to Pile Bay Road and its bridges are rehabilitated, and that the Williamsport channel is dredged, as a stand-alone improvement.

ASSUMING THAT THE TRANS-PENINSULA ROADWAY IS BUILT

Petroleum Movement Cost Savings

Substantial savings in petroleum movement costs can be anticipated if the Trans-Peninsula Roadway System is built. Petroleum movement rates are much decreased from communities that are now particularly inaccessible, such as Chignik Lake, where the shipment rate is projected to fall from \$0.60 to \$0.13 per gallon. Savings are even greater in Iliamna Lake communities, such as Iliamna, where petroleum shipment costs are anticipated to fall from \$0.80 to \$0.15 per gallon, a greater than a five-fold reduction. The road would have the greatest freight movement cost savings for those communities that are now hardest to reach—i.e., those surrounding Iliamna Lake.

Modest savings, in contrast, are anticipated in Naknek and King Salmon. Naknek is already served directly by relatively frequent barge service, as part of the larger Bristol Bay market, which also includes communities to the north, such as Dillingham. According to this analysis, the cost of petroleum movement to Naknek is projected to fall only a few cents—from \$0.30 to \$0.27 per gallon.

In all, 2020 cost savings due to petroleum movement alone are estimated at \$755,000 per year. Actual savings could be higher or lower, based on factors including deviations from the population base forecast; the extent to which the improvements encourage competition, which

²² For reasons already discussed, petroleum movement impacts under the third scenario were not analyzed.

could further lower rates; and the extent to which the improvements foster other forms of economic development, such as tourism. Volume increases spurred by such development could further reduce rates. By the same token, rates could be higher than forecast if significant operating costs faced by shippers have not been taken into consideration; if operating conditions on the proposed roadway prove more difficult to manage and maintain than anticipated; and if other economic mainstays in Southwest Alaska falter, reducing both population levels and the demand for goods shipment.

Beyond the shipping cost savings suggested by this analysis, other economic and social benefits would accrue through implementation of the road, in terms of petroleum shipment alone. Currently, according to Lake and Peninsula School District administrator, Dennis Niedermeyer, the higher cost of shipping petroleum in winter months (when it must be flown into inland communities, and to Bristol Bay communities) effectively forces Southwest Alaska residents to "stock up" during the periods when petroleum can be barged in. However, communities are hard pressed to find storage capacity for all of the fuel needs, which can vary significantly by the harshness of a given winter. In his view, overtaxing fuel storage facilities creates problems in and of itself, such as fuel leaks and spills, whose cleanup is costly—both environmentally and financially. Another of the road's advantages would be reduced dependence on air shipment of petroleum products, which has safety drawbacks.

PETROLEUM MOVEMENT COST SAVINGS SUMMARY

Total petroleum freight movement cost savings achievable if the Alaska Peninsula Roadway is built are estimated at \$755,200 annually (Table 20).

Table 20.
Estimated Petroleum Movement Cost Savings (Whole Road Built)

	2020 Forecast Consumption(gal)	Current Rate (\$/gal)	Estimated Rate with Road* (\$/gal)	Assumes Product Shipped through	2020 Cost Estimate Using Existing Rates (\$ paid)	2020 Cost Estimate Assuming Road is Built (\$ paid)	2020 Savings Achievable (\$ saved)
Chignik	82,787	\$0.25	\$0.12	Chignik	\$20,697	\$9,934	\$10,763
Chignik Lagoon	81,967	\$0.50	\$0.13	Chignik	\$40,984	\$10,738	\$30,246
Chignik Lake	145,082	\$0.60	\$0.13	Chignik	\$87,049	\$19,441	\$67,608
Egegik	136,885	\$0.50	\$0.30	Chignik	\$68,442	\$41,065	\$27,377
Igiugig	55,556	\$0.80	\$0.20	Williamsport	\$44,444	\$11,000	\$33,444
Iliamna	283,546	\$0.80	\$0.15	Williamsport	\$226,837	\$41,965	\$184,872
Ivanof Bay	22,465	\$0.27	\$0.17	Chignik	\$6,066	\$3,707	\$2,359
King Salmon and Naknek	1,124,590	\$0.30	\$0.27	Williamsport	\$337,377	\$303,639	\$33,738
Newhalen	178,810	\$0.80	\$0.16	Williamsport	\$143,048	\$28,985	\$114,063
Nondalton	259,563	\$0.80	\$0.16	Williamsport	\$207,650	\$42,049	\$165,601
Pedro Bay	37,037	\$0.80	\$0.12	Williamsport	\$29,630	\$4,556	\$25,074
Perryville	95,325	\$0.30	\$0.17	Chignik	\$28,597	\$15,964	\$12,634
Pilot Point	94,262	\$0.52	\$0.25	Chignik	\$49,016	\$23,565	\$25,451
Port Heiden	129,508	\$0.35	\$0.18	Chignik	\$45,328	\$23,311	\$22,017
TOTALS					\$1,335,165	\$579,919	\$755,247

*This cost estimate assumes that a tanker truck with a 7,500-gallon capacity is used.

"Other" Cargo Movement Cost Savings

Cargo movement savings achievable by building the Trans-Peninsula Roadway are anticipated in two major areas. The first, and the primary focus of this assessment, is the savings that can be achieved in moving goods and commodities to communities in Southwest Alaska. The second, has to do with savings achievable by providing the region's gillnet fishers a more viable route between their fishing grounds in Bristol Bay, and Cook Inlet, where many store their vessels during the off-season, and where many have repair and maintenance done. These impacts are explored separately.

COMMODITIES MOVEMENT IMPACTS

Listed in Table 21 is a summary of estimated cost savings in commodities movements based on the rate calculations, and port call assumptions earlier discussed. This analysis suggests that around \$5.96 million per year could be saved in freight costs in terms of moving "Other" cargo alone, if the Alaska Peninsula Roadway System were built. Note that cargo shipment mode shifts under the proposed infrastructure improvements had to be taken into account in this analysis. These mode shift assumptions are documented in Table 21. These mode shift assumptions under both existing conditions and under the assumption that the Alaska Peninsula Roadway System is built are based on primary source data and area shippers' input.

A few explanations regarding the Iliamna Lake communities are needed to interpret Table 21. First, a weighted average was used in calculating the marine shipment rate under existing conditions for Iliamna Lake communities. This weighted average takes into account the percentage shipped, and rates paid, for marine freight via Naknek and Williamsport, respectively. In terms of projected rates, this analysis assumes that if the Trans-Peninsula Roadway is built, that most waterborne cargo will be shipped to Iliamna Lake communities via Williamsport.

GILLNET FLEET TRANSPORT IMPACTS

In its 1995 economic assessment, the US Army Corps of Engineers (USCOE) pointed out another area of savings that could be realized if these improvements were made. They point to the many gillnet vessels that each year make the trip from Cook Inlet to the fisheries in Bristol Bay and back. Some vessels are transported because they spend the off-season in Cook Inlet; others make the trip periodically for repairs and maintenance purposes. In all, about 825 gillnet boats are estimated to make the round trip each year.

Of these, the vast majority (about 785) sail around the Alaska Peninsula, a 1,100-mile trip that takes three days, and is estimated to cost \$1,800. A small contingent (about 40), however, makes the trip via Williamsport, which is almost a thousand miles shorter and is estimated to cost about \$1,233 per vessel. Although this trip is less costly in terms of both time and dollars, it is arduous, risky, and can only be undertaken during narrow time windows. Moreover, many gillnet vessels cannot be transported via this route because they are too wide to pass through existing bridges.

According to the US Army Corps of Engineers' detailed analysis, savings in the neighborhood of \$1,082,500 could be achieved on the part of gillnet vessel movement alone if the Williamsport Channel were dredged, and if the existing Williamsport to Pile Bay Road and its bridges were

rehabilitated.²³ Accordingly, these estimated savings are added to the freight movement savings estimated earlier.

"OTHER" CARGO MOVEMENT COST SAVINGS SUMMARY

Total "Other" freight movement cost savings under the assumption that the Alaska Peninsula Roadway is built are estimated at \$7,802,300. Of this total, \$1,082,500 attributable to gillnet vessel transport savings. To these savings can be added \$755,000 in petroleum movement savings, along with \$5,964,600 in "Other" commodity movement savings (Table 22).

²³ According to the USCOE, the number of gillnet vessels taking the Williamsport route would increase from 40 to 747 round trips per year (*Navigation Channel Feasibility Report and Environmental Assessment, Williamsport*, US Army Corps of Engineers, Alaska District, December 1995).

Table 21.
Estimate of "Other" Cargo Cost Savings (Whole Road is Built)

	MODE SPLIT AND RATES UNDER CURRENT CONDITIONS				2020 Freight Volume Estimate (lbs)	MODE SPLIT AND RATES ASSUMING THE TRANS-PENINSULA ROAD IS BUILT				RESULTS		
	Current Mode Split					Projected Mode Split		Rates		Freight Costs Paid in 2020 Assuming No Change	Freight Costs Paid in 2020 Assuming Road is Built	Savings Possible due to Road
	Marine	Air	Marine	Air		Barge/Road	Air	Barge/Road	Air			
	%	%	(\$/lb)	(\$/lb)		%	%	(\$/lb)	(\$/lb)			
Chignik	95%	5%	0.250	0.980	818,000	95%	5%	0.220	0.980	\$234,357	\$211,044	\$23,313
Chignik Lake	10%	90%	0.500	0.980	1,434,000	95%	5%	0.225	0.980	\$1,336,488	\$376,784	\$959,705
Chignik Lagoon	60%	40%	0.600	0.980	810,000	95%	5%	0.224	0.980	\$609,120	\$212,058	\$397,062
Egegik	80%	20%	0.500	0.670	1,352,000	90%	10%	0.280	0.670	\$721,968	\$431,288	\$290,680
Igiuglg	60%	40%	0.686	0.390	550,000	90%	10%	0.302	0.390	\$312,180	\$170,940	\$141,240
Iliamna	60%	40%	0.686	0.390	1,036,000	85%	15%	0.286	0.390	\$588,034	\$312,458	\$275,576
Ivanof Bay	90%	10%	0.700	1.090	218,000	95%	5%	0.232	1.090	\$161,102	\$59,928	\$101,174
King Salmon and Naknek	85%	15%	0.510	0.420	11,114,000	85%	15%	0.300	0.420	\$5,518,101	\$3,534,252	\$1,983,849
Nondalton	60%	40%	0.686	0.390	2,568,000	85%	15%	0.287	0.390	\$1,457,597	\$776,692	\$680,905
Pedro Bay	60%	40%	0.686	0.390	364,000	90%	10%	0.276	0.390	\$206,606	\$104,614	\$101,993
Perryville	90%	10%	0.600	1.070	940,000	95%	5%	0.230	1.070	\$608,180	\$255,680	\$352,500
Pilot Point	75%	25%	0.520	0.780	932,000	90%	10%	0.264	0.780	\$545,220	\$294,139	\$251,081
Port Heiden	70%	30%	0.510	0.870	1,280,000	90%	10%	0.238	0.870	\$791,040	\$385,536	\$405,504
TOTALS					23,416,000					\$13,089,993	\$7,125,412	\$5,964,581

**Table 22.
Freight Movement Cost Savings Summary
(Whole Road Built)**

Trans-Peninsula Roadway (Whole)	
Petroleum	\$755,200
Gillnet Fleet	\$1,082,500
Other Cargo	\$5,964,600
TOTAL	\$7,802,300

RESULTS ASSUMING THAT WILLIAMSPORT IMPROVEMENTS ALONE ARE IMPLEMENTED

By implementing only select elements of the Trans-Peninsula Roadway system, some significant freight movement cost savings could still be achieved. These savings are assumed to be experienced by the communities of Iliamna Lake.²⁴ To recap, the freight flow under this scenario would be as follows: barged or shipped into Williamsport, where it would be offloaded onto a truck; trucked across a much wider, completely bridged 15.5-mile roadway; then transferred to another vessel at the road's terminus at Pile Bay for final distribution.

If the Williamsport to Pile Bay Road were rehabilitated, in tandem with navigational improvements at Williamsport, it is estimated that most of the Iliamna Lake-bound cargo now barged up the Kvichak River from Naknek would shift to the Williamsport route. In addition, since marine transport under this scenario would be viable from June through November (a much larger portion of the year than is now the case) it is also assumed that a portion of the cargo now flown into Iliamna Lake communities would be barged, trucked, and then shipped again via Williamsport. Whereas the mode split for Iliamna Lake communities is currently estimated to be 48% marine via Naknek, 12% marine via Williamsport, and 40% air; under the proposed element of the alternative, cargo volumes are assumed to shift to 5% marine via Naknek; 65% marine via Williamsport; and 30% air.

It is estimated that these improvements would lower the cost of moving cargo to Iliamna Lake communities (via a surface route) from 37 to 24 cents per pound. When the assumed mode shift and rate values are applied to the cargo forecast volumes for the 2020 design year, savings attributable to the project can be calculated, as shown in Table 23. In all, freight movement savings achievable under this scenario are estimated at \$2,170,300 per year. Because these improvements' value would be comparable to that of building the entire Trans-Peninsula Roadway system in terms of allowing gillnet fleet passage across the Alaska Peninsula, the same yearly savings can be assumed for this stand-alone element. Accordingly, \$1,082,500 in gillnet fleet savings can be added to the \$2,170,300 figure for "Other" cargo, for a grand total cost savings estimate of \$3,252,800 per year (Table 24).

²⁴ Area shippers do not believe that the benefits of this element would extend as far west as Bristol Bay, for two primary reasons. First, the Kvichak River's navigability for cargo bearing vessels is a limiting factor. In good years, the period in which the River can be navigated by even small barges is limited to the narrow window between August and October. Although the Kvichak by necessity serves traffic from Bristol Bay to Iliamna Lake, its navigational limitations preclude its utility as a route to Bristol Bay. Second, it is relatively cost effective to barge goods to Naknek and other Bristol Bay communities. This is because the population of Bristol Bay communities is large enough to support sizable barge shipments, which lowers unit costs. Moreover, service directly to Bristol Bay communities does not require the extra intermodal transfer that would be required if goods were to be shipped by a subsequent, smaller barge down the Kvichak.

**Table 23.
Estimated "Other" Cargo Cost Savings (Williamsport Improvements Alone)**

	2020	Under Existing Conditions				Assuming that Road and Bridges are Rehabilitated and Channel Dredged				
	Forecast "Other" Cargo (lbs)	Marine via Naknek	Marine via Wmsport	Air	TOTAL Freight Costs Paid	Marine via Naknek	Marine via Wmsport	Air	TOTAL Freight Costs Paid	Savings Attributable to Road
Igiugig										
Mode Split	550,000	48%	12%	40%	\$367,180	5%	65%	30%	\$212,438	\$154,743
Rate		\$0.765	\$0.370	\$0.640		\$0.765	\$0.240	\$0.640		
Williamna and Newhalen										
Mode Split	2,558,000	48%	12%	40%	\$1,707,721	5%	65%	30%	\$988,028	\$719,693
Rate		\$0.765	\$0.370	\$0.640		\$0.765	\$0.240	\$0.640		
Nondallan										
Mode Split	2,588,000	48%	12%	40%	\$1,713,062	5%	65%	30%	\$991,118	\$721,944
Rate		\$0.765	\$0.370	\$0.640		\$0.765	\$0.240	\$0.640		
Pedro Bay										
Mode Split	364,000	48%	12%	40%	\$243,006	5%	65%	30%	\$140,595	\$102,411
Rate		\$0.765	\$0.370	\$0.640		\$0.765	\$0.40	\$0.640		
Kokhanok										
Mode Split	1,676,000	48%	12%	40%	\$1,118,898	5%	65%	30%	\$647,355	\$471,543
Rate		\$0.765	\$0.370	\$0.640		\$0.765	\$0.240	\$0.640		
						SAVINGS GRAND TOTAL				\$2,170,334

**Table 24.
Cargo Movement Cost Savings Summary
(Williamsport Improvements Alone)**

Williamsport to Pile Bay Road Only	
Other Cargo	\$2,170,300
Gillnet Fleet	\$1,082,500
TOTAL	\$3,252,800

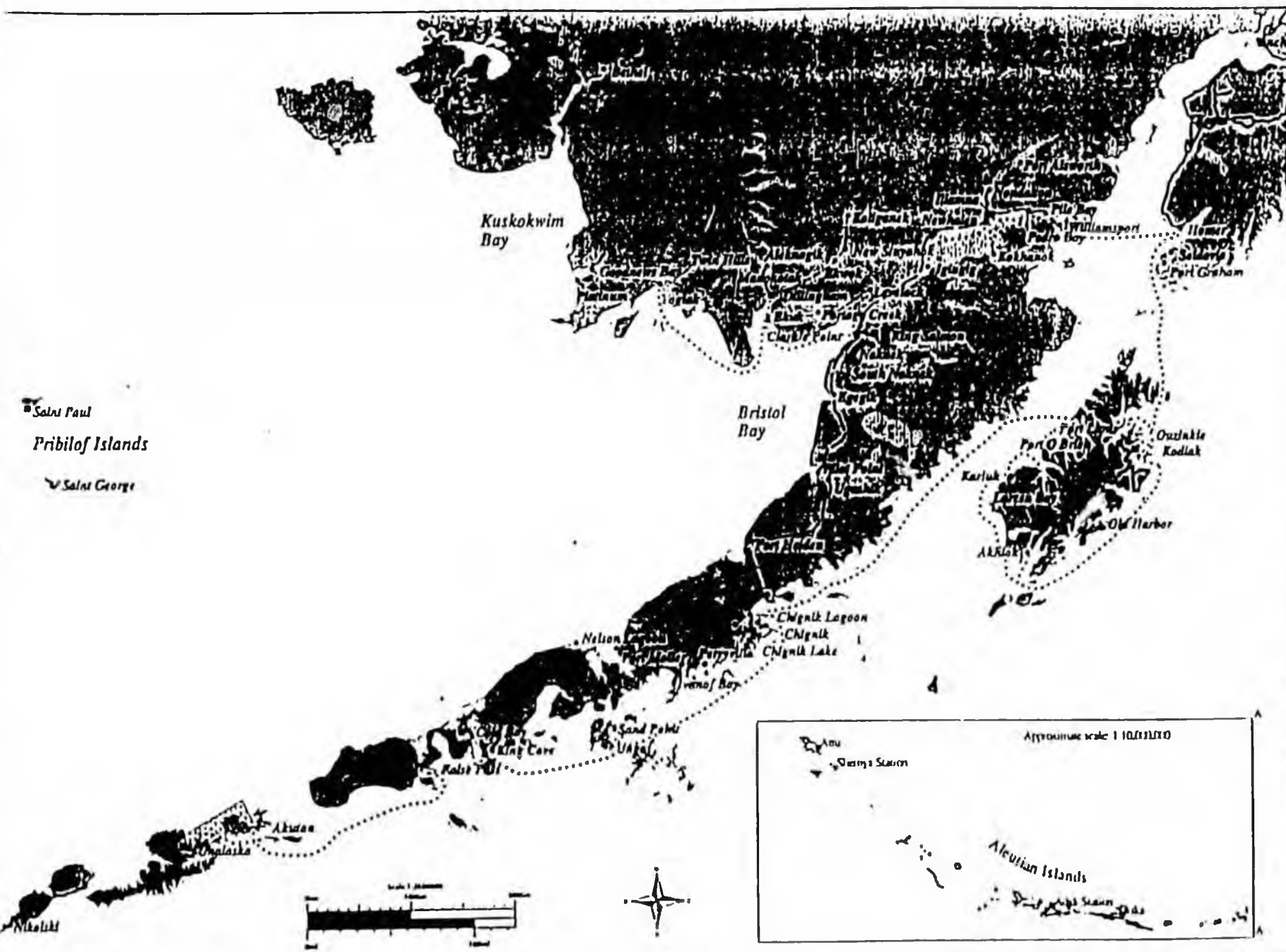
2. COOK INLET TO BRISTOL BAY CORRIDOR ALTERNATIVE, OVERLAND

This alternative would provide a surface transportation link between Cook Inlet and Bristol Bay. In so doing, this alternative would improve mobility and access for many communities in the study area, including Pedro Bay, Nondalton, Iliamna, Newhalen, Igiugig, Levelock, Naknek and King Salmon -- providing them for the first time a well developed surface transportation link to the Kenai Peninsula, Anchorage, and the state's primary roadway network. This alternative also has significant potential for improving the efficiency of regional freight movement and economic development.

Explored in this alternative are four separate options for traversing the roughly 250 miles between Homer and Bristol Bay (Table 10). Two of the options provide an uninterrupted set of roadway links -- one via King Salmon, the other via Naknek. Meanwhile, the other two options provide a roadway connection until Iliamna, but then traverse the rest of the distance by either a shallow-draft landing vessel, or hovercraft.

Table 10
Cook Inlet to Bristol Bay Corridor Alternative
Four Options

OVERLAND OPTIONS		COMBINATION OVERLAND/MARINE OPTION	
Via King Salmon	Via Naknek	Via Shallow-Draft Landing Vessel	Via Hovercraft
<ul style="list-style-type: none"> • Homer to Williamsport Marine Service • Williamsport to Pile Bay Roadway Link • Pile Bay to Iliamna Roadway Link • Iliamna to Igiugig Roadway • Igiugig to King Salmon Roadway Link 	<ul style="list-style-type: none"> • Homer to Williamsport Marine Service • Williamsport to Pile Bay Roadway Link • Pile Bay to Iliamna Roadway Link • Iliamna to Igiugig Roadway • Igiugig to Levelock Roadway Link • Igiugig to Naknek Roadway Link 	<ul style="list-style-type: none"> • Homer to Williamsport Marine Service • Williamsport to Pile Bay Roadway Link • Lake Iliamna-Kvichak River Service via Shallow-Draft Landing Vessel 	<ul style="list-style-type: none"> • Homer to Williamsport Marine Service • Williamsport to Pile Bay Roadway Link • Lake Iliamna-Kvichak River Service via Hovercraft



JR PB

- | Symbol | Description |
|--------|-------------------------|
| | Creek Sites/Head of Bay |
| ⋯ | Rocky Shoreline |
| ⋯ | Unimproved Road System |
| | Improved Road System |
| ⋯ | Head of Bay |
| | Wharf |
| ⋯ | Shady Creek |
| | Existing Road |
| ■ | Regulated Area |



Scale: 1:100,000
 U.S. Department of the Interior
 Bureau of Land Management
 State of Alaska
 Project: Southwest Alaska Transportation System Alternatives
 Date: 1980

**Southwest Alaska
 Transportation Plan**
 Initial Transportation
 System Alternatives
 Technical Memorandum



This alternative would provide several benefits to the region and to the communities along the proposed corridor, including the following:

- It would open up a shorter, less dangerous, less expensive freight route from Cook Inlet to Bristol Bay. A continuous surface route across the top of the Alaska Peninsula would mean that it would no longer be necessary to transport goods by barge all the way around the Alaska Peninsula.
- By making scenic wilderness areas, businesses, and lodges along the corridor more accessible to visitors, this alternative would support tourism in the region.
- This alternative would provide the communities of interior Southwest Alaska with greater connectivity to one another, which would promote their economic development.
- This alternative would provide communities along the corridor with a modal alternative to reaching major activity centers such as Anchorage and Kodiak by air.
- Insofar as this alternative is based in large part on the existing road from Williamsport to Pile Bay, it provides a cost-effective means of expanding the core highway system because the right-of-way for this link is already established and owned by DOT&PF.
- The project would promote the economic development of Bristol Bay fisheries. Boat repair and storage facilities are limited in Bristol Bay, requiring many boat owners to bring their boats to Homer. The overland route avoids the time-consuming and hazardous open ocean voyage around the Alaska Peninsula, thereby saving money and increasing safety. The route also saves deterioration of fishing boats not designed for extensive open ocean travel.

Baseline

A key baseline improvement programmed within the proposed corridor is completion of the Iliamna-Nondalton Road, a \$9.75 million project which will complete the roadway connection between Iliamna and Nondalton by bridging the Newhalen River and constructing three final miles of roadway on the Nondalton side of the river. This baseline improvement would integrate Nondalton, a community with a 2020 base population forecast of 317 into the rest of the proposed corridor. The other baseline improvement relevant to this proposed alternative is DOT&PF's Winter Trail Marking project, which will mark 314 miles of trails – from Goodnews Bay all the way to Levelock and Naknek, communities served directly by the proposed corridor.

Element 1. Homer-Seldovia-Williamsport Marine Service

Proposed in this alternative is new marine service linking Seldovia and Homer, on the Kenai Peninsula, with Williamsport, which lies on the western shores of Cook Inlet, just off Iliamna Bay. This link would provide the first element of a surface transportation corridor linking Alaska's overland transportation system and population concentrations with the communities of the Lake and Peninsula and Bristol Bay Boroughs.

As envisioned, this marine service would not only provide a new link between Williamsport and Homer, but it would also continue to serve the linkage between Homer and Seldovia now provided by current AMHS service. In fact, as configured for planning purposes, it could provide an equal or greater level of service frequency and capacity compared to the current service provided by the *Tustumena*.

THE VESSEL

A separate alternative proposed in this document is a reconfiguration of AMHS service that would result in the dedication of the *Tustumena* to ports in the Southwest Alaska Study Area (along with connections to the Kenai Peninsula). As such, a new vessel was explored to provide the proposed service between Homer, Seldovia, and Williamsport. Given the run across lower Cook Inlet, an area noted for steep seas, strong currents, and winter ice floes, the vessel providing this service would have to be capable of navigating in high winds, seas, spray icing conditions, and sea ice.

For planning purposes, a basis vessel was chosen to illustrate this alternative. The basis vessel selected, the *MV Nunaiq*, is a 150'-6" long, with a 47' beam, an 8' depth, a 3'-9" to 6'0" draft and a cruising speed of 9 knots. Although the basis vessel and others of this type have extensive operation experience in Alaska waters, some design enhancements, including minimum ice strengthening, expandable passenger capacity, and increased freeboard and bulwark height should be considered. The capital cost of such a vessel is estimated at \$2.75 million.

SCHEDULE AND FREQUENCY OF SERVICE

Physical laws regarding the resistance of displacement vessels limit conventional monohull ferries with length on the order of 150' to speeds between 9 and 12 knots. Even at 12 knots, the 152 nautical mile trip between Homer and Williamsport would take more than 12 hours for running time alone (without allowance for port time, startup, or shutdown). Another factor in scheduling this service hinges on the shallow water and dredged channel at Williamsport, which would make it prudent to time trips to match the tide at Williamsport. As such, one round trip between Homer and Williamsport could be scheduled in any 24-hour period, but the timing of departures and arrivals would vary from day-to-day based on tides. Based on a 9-knot service speed (and allowing one half hour for morning startup and one-half hour for evening shutdown) the service day for a Homer-Williamsport round trip would be about 18 hours, which would allow six hours in any 24-hour day to adjust for the tide.

One way, the trip from Homer to Seldovia can be made in two hours, and two round trips per day, during daylight hours, are easily feasible. According to the schedule developed for this planning effort, the vessel could service Williamsport on seven days in a two-week period and Seldovia on the other seven days.

In a 44-week service year (with ten weeks provided for annual maintenance), the vessel would call at Williamsport and Homer 154 times apiece, and at Seldovia 308 times. The proposed service concept would provide much more frequent service to Homer and Seldovia, which received 58 port calls apiece in 1997, according to the "AMHS 1997 Annual Traffic Volume Report." As configured for planning purposes, the service proposed would provide an annual passenger capacity of 15,092, compared to the *Tustumena's* 12,760.

**Table 11
Seldovia Service Comparison**

SELDOVIA			
	<i>Tustumena</i>	New Vessel	Historical Demand
Annual Trips	58	308	
Annual Passenger Capacity	12,760	15,092	2,303
Annual Vehicle Capacity	3,132	6,160	878
WILLIAMSPORT			
Annual Trips	NA	154	
Annual Passenger Capacity	NA	7,546	NA
Annual Vehicle Capacity	NA	3,080	NA

Note: Annual capacities and historical demand are stated on a one-way basis. Two-way capacities are exactly twice the one-way capacities. One-way historical demand is the larger of the historical demand values from either the Homer-Seldovia or the Seldovia-Homer trip directions.

Operating costs for the Homer-Williamsport-Seldovia marine service element of this alternative are summarized in Table 12.

**Table 12
Homer-Seldovia-Williamsport Ferry Service
Operating Costs**

	Minimum	Maximum
Shoreside Maintenance	\$185,000	\$185,000
Hull Maintenance & Pass. Services Maint.	\$36,000	\$44,000
Machinery Maintenance	\$128,000	\$156,000
Crew	\$698,932	\$833,152
Fuel	\$159,000	\$194,000
Lubricating Oil	\$3,600	\$4,400
Ports and Terminals O.H.	\$223,176	\$223,176
Management O.H.	\$366,741	\$366,741
Shoreside O.H.	\$69	\$69
Insurance	\$19,000	\$23,000
TOTAL: (Estimated Annual Operating Cost)	\$1,819,518	\$1,873,694

OPERATIONAL ISSUES

Williamsport would require substantial navigational improvements in order to accommodate AMHS service. Williamsport is located at the head of tide flats that go dry at low water. In addition, large boulders dot the shoal water approaches to Williamsport. Although shallow-draft vessels could presumably call briefly at high tide, dredging the channel would be required to service other types of vessels, including the basis vessel envisioned to provide the marine service in this alternative.

The U.S. Army Corps of Engineers (COE) completed a study exploring the feasibility of a dredging project at Williamsport in 1995. That report recommended excavation of a 2,700-meter long channel, ending at Williamsport, in Iliamna Bay. The channel bottom would be 30 meters wide at 0.5 below Mean Lower Low Water. The channel would end with a turning basin 5 meters long and 55 meters wide. The turning basin would provide access to a sheet-pile bulkhead dock and an adjacent paved, 8-meter wide launch. Capital costs for the project were estimated at \$3,822,000, of which federal funding in the amount of \$1,691,400 was identified as available, leaving \$2,130,600 to non-federal sources. Annual M&O costs for the project were estimated at \$185,000.⁵

The COE study conducted a rigorous benefit-cost analysis for the project, which determined that benefits would exceed costs at a 3.1:1.0 ratio. While the COE study determined that dredging a channel to Williamsport would be a worthwhile project, the lack of a local sponsor terminated further work on the project. However, it was noted that the project could proceed if a local sponsor, such as the State of Alaska, were secured.

Element 2. Williamsport to Pile Bay Roadway Link

Although a roadway currently exists between Williamsport and Pile Bay, it is quite primitive and in poor repair. The existing road is 15.5 miles long, consisting of one graded and drained earthen travel lane with no shoulder. In poor condition, the road is maintained only during the summer when a maintenance contractor is available. Portions of the road do not meet minimum width standards and are too narrow for current use. One of four bridges along the project corridor has washed out, and the others, all of which have sufficiency ratings below 50, are narrow and cannot accommodate oversized traffic. The major limitation restricting boat-haul traffic is the existing metal bridge across the Iliamna River, whose interior dimension of only 12 feet, is too narrow for the typical gillnet boat.

The project proposed in this link would reconstruct and widen the existing road to design standards applicable to a rural major collector traveled by 250 vehicles or less per day. The road's four bridges would be repaired, replaced, or widened, as appropriate. The road would be maintained year-round.

The road climbs 850 feet through the Chigmit Mountains in the first two miles benched on steep rock slopes. The road through this section is narrow and subject to avalanche hazards. As such, winter maintenance through this stretch would likely be difficult and expensive.

⁵ This maintenance cost includes annual grading of the dock, ramp, and staging area; annual surveys the first 4 years, then every 5 years; maintenance dredging every 5 years; replacement of fender piles, ramp concrete, and sheet-pile cathodic protection every 10 years; and replacement of the sheet pile after 30 years.

Total capital costs for this project are estimated at \$14,857,500 for a paved surface, and \$12,300,000 for a gravel surface. Annual M&O costs are estimated at \$209,250 and \$232,500 respectively. Demand as part of the full alternative is estimated at 4,200 person trips per year (Tables 19 and 21).

Element 3. Pile Bay to Iliamna Roadway Link

This roadway would complete a link from Williamsport through to Iliamna, allowing travel from Cook Inlet into the interior of the Lake and Peninsula Borough at least as far as Iliamna. The road would connect as far as Nondalton, given that Iliamna-Nondalton link has been programmed and is part of the baseline. This roadway link would provide Pile Bay and Pedro Bay access to the airport at Iliamna and would allow for a tourism circuit from Cook Inlet and potential access to Lake Clark National Park. The project would also provide the potential for interconnection of the electric power of the Tazimina Hydroelectric project.

This project would build 38 miles of new roadway between Iliamna and Pile Bay, passing through Pedro Bay. Although no road yet exists from Iliamna to Pile Bay, a 46-mile trail from Iliamna to Pedro Bay does exist, as does a 12-mile trail from Pedro Bay to Pile Bay, denoted by the Alaska Department of Natural Resources as a RS2477 route. A likely corridor would follow the RS2477 trail route, traveling about half a mile inland from the northern shore of Lake Iliamna. As proposed, this road would cross about 15 creeks, which would require culvert placements or short-span bridges at these junctions. Like the other roadway links proposed in this regional plan, the road would be constructed to meet AASHTO design standards for a rural major collector with daily travel of under 250 vehicles per day.

The corridor envisioned consists of relatively easy terrain with numerous stream crossings. Construction would include typical fill construction techniques. No unusual construction or design issues are anticipated. Normal annual maintenance would be required for roadway upkeep. Because the area receives just over 60 inches of snow per year, plowing would probably account for the bulk of annual maintenance costs.

Total capital costs for this project are estimated at \$51,870,000 for a paved surface, and \$45,600,000 for a gravel surface. Annual M&O costs are estimated at \$513,000 and \$570,000, respectively. Demand for this roadway link is estimated at 17,900 person trips per year as an independent project and 32,400 person trips per year as a component of the alternative (Tables 19 and 21).

Element 4. Iliamna to Igiugig Roadway Link

The 56-mile road link proposed to connect the communities of Iliamna and Igiugig, which lie along the northern shores of Lake Iliamna, would cross lowlands dotted with many lakes, streams, and rivers. Bridges would be required to cross the Newhalen River, the Kvichak River, and many smaller rivers along the coast of Lake Iliamna. The 56-mile road would be built according to AASHTO design standards for a rural major collector serving 250 vehicle or less per day.

This project's major construction issues pertain to the development of bridges over the Newhalen and Kvichak Rivers. Construction materials would have to be barged in via the Kvichak River, and landings would have to be developed for staging. Permitting and land use concerns would also be an issue given the increase in traffic and the presence of structures

that may affect the fishing industry and other traditional area uses. Normal annual maintenance would be required for the bridge and roadway upkeep. Because total precipitation is 20 inches annually, including 45 inches of snowfall, snow removal would constitute the primary maintenance cost.

Total capital costs for this project have been estimated at \$78,940,000 for a paved surface and \$69,700,000 for a gravel surface. Annual M&O costs have been estimated at \$756,000 and \$840,000, respectively. Demand for this roadway link is estimated at 16,100 person trips per year as an independent project, 92,300 person trips per year as a component of the alternative, King Salmon option, and 106,100 person trips per year as a component of the alternative, Naknek Option (Tables 19 and 21).

Element 5a. Igiugig to Naknek Roadway Link

Constructing a 75-mile road between Igiugig and Naknek would provide one means of completing the proposed corridor from the Kenai Peninsula to Bristol Bay. This link would provide interior Southwest Alaska communities with ground access to the regional hub of King Salmon, where many goods and services are available.

The terrain between Igiugig and Naknek consists of coastlands and wetlands, with scattered lakes and ponds. The southwesterly route proposed along the Kvichak River would have to avoid numerous wetlands and lakes. Culverts to provide fish passage would be required at creek crossings, including Pecks Creek and Ole Creek. With the Kvichak River's turn to the south, the road alignment would parallel connecting into Hallersville from the north. The road would then be directed east and around the large mouth of the Wild and Scenic Alagnak River to an easier crossing of the river upstream. The crossing would take place approximately three miles east of Hallersville and then turn southwest toward the Kvichak River mouth. Once reaching Cape Horn, the road alignment would follow the pioneer route⁵, which runs along the coast through Kvichak, Koggiung, and Libbyville before ending on the north side of Naknek.

Normal annual maintenance would be required for bridge and roadway upkeep. With total precipitation amounting to 20 inches annually, with 45 inches of snowfall, snow removal would require the bulk of the maintenance expenditure.

Total capital costs for this project have been estimated at \$102,375,000 for a paved surface and \$90,000,000 for a gravel surface. Annual M&O costs are estimated at \$1,012,500 and \$1,125,000, respectively.

Demand for this roadway link is estimated at 24,100 person trips per year as an independent project and 110,000 person trips per year as a component of the alternative (Table 21).

Element 5b. Igiugig to King Salmon Roadway Link (Alternative Route)

A 56-mile roadway between Igiugig and King Salmon would provide an alternative route to finish the overland crossing of the Alaska Peninsula connecting the Kenai Peninsula with

⁵ This pioneer route is still used to access setnet sites along the coast.

Bristol Bay. Currently, passengers and freight are moved between Igiugig and King Salmon by aircraft or by boat along the Kvichak River with a transfer by road to King Salmon. The eastern portion of the terrain between these communities is characterized by large mountains and foothills to the north of Naknek Lake. The western portion of the area comprises coastlands and wetlands with scattered inland lakes and ponds.

Beginning in the village of Igiugig, the proposed roadway alignment would travel to the south-southwest, crossing Pecks Creek and Ole Creek along with many other small crossings. Continuing south-southwest, the alignment would require crossing the Alagnak River (a Wild and Scenic River) and would navigate along the foothills of the mountains north of Naknek Lake, outside of Katmai National Park and Preserve. The roadway would be routed to the southwest, crossing many branches of Pauls Creek and take a southerly bearing toward King Salmon Creek. Once the road alignment had crossed King Salmon Creek, it would travel along the banks until it connected into the pioneer road system, built by the U.S. Air Force north of King Salmon. After following the pioneer road southwest, the road would terminate on the northwest side of King Salmon at the Alaska Peninsula Highway.

Large river crossings, each of which would require fish passage culverts, are the primary construction issue for this link. With 20 inches of total precipitation annually, including 45 inches of snowfall, snow removal would account for the bulk of maintenance costs.

Total capital costs for this project have been estimated at \$76,440,000 for a paved surface and \$67,200,000 for a gravel surface. Annual M&O costs have been estimated at \$756,000 and \$840,000, respectively. Demand for this roadway link is estimated at 24,100 person trips per year as an independent project and 95,100 person trips per year as a component of the alternative (Table 19).

Element 6. Levelock Link to the Igiugig-Naknek Roadway

Building a connection between Levelock and the Igiugig-Naknek roadway link would integrate Levelock, which lies on the north shore of the Kvichak River, to the rest of the surface transportation corridor proposed in this alternative. This would permit the village of Levelock, (2020 base population forecast = 139) access to the larger communities of King Salmon and Naknek. This link could also serve as the beginning of a future route connecting the southwestern peninsula with communities further west, such as Dillingham.

The proposed 19-mile route, which would stem from the proposed link connecting Igiugig and Naknek, would require a 400-foot bridge across the Kvichak River. In addition, the proposed alignment would encounter several creeks, including Yellow Creek and Levelock Creek.

The terrain to be crossed in this proposed link is relatively flat, with occasional creek crossings that would require accommodation of fish passage. The bridge and roadway would require normal annual maintenance, most of which would be devoted to snow removal, insofar as the area receives about 20 inches of precipitation annual, including 45 inches of snowfall.

Total capital costs for this project have been estimated at \$27,435,000 for a paved surface and \$24,300,000 for a gravel surface. Annual M&O costs have been estimated at \$256,500 and \$285,000, respectively.

Demand for this roadway link is estimated at 15,000 person trips per year as an independent project and 39,600 person trips per year as a component of the alternative (Table 21).

Marine Options

Each of the four options for linking the Kenai Peninsula with Bristol Bay is the same as far west as Iliamna, at which point they diverge into two overland and two marine options. Discussed below are the two marine options for completing the stretch from Iliamna to Bristol Bay. Initially, the consultant team explored use of a shallow-draft landing vessel to provide service from Iliamna west to Bristol Bay along Lake Iliamna and the Kvichak River. However, initial analysis revealed that such service would be constrained by two factors: (1) winter ice; and (2) seasonally low water, which, combined, would restrict the navigable season from May to October. For this reason, Hovercraft service, which can negotiate both ice and shallow water, was also explored. The results of both sets of analysis are summarized below.

Element 7. Iliamna to Naknek Via Shallow-Draft Landing Vessel

Private and commercial vessels, including barges, are already in use on this waterway system. This option proposes ferry service along Lake Iliamna and the Kvichak River. Iliamna Lake is navigable between May 1 through October 31. While the lower reaches of the Kvichak River are navigable during the ice-free season, the upper reaches of the river are subject to seasonal low water that could impact navigability for some conventional vessels.

The vessel envisioned to provide this service is a shallow-draft landing vessel about 50 feet long, with a 16-foot beam, and with a running draft of approximately 14 inches. The vessel explored for planning purposes can accommodate two loaded full-sized pickup trucks and up to six passengers. The six-passenger threshold is highly desirable because this capacity would allow, according to USCG regulations, the service to operate with just two crew, each holding a USCG boat operator's license, a relatively easily acquired credential.

It would be possible, given the distances between ports served, to operate this service on a "dayboat" concept, which provides substantial operating cost savings, insofar as operations require no more than a single crew for no more than 12 hours per day of service. This would be feasible, providing that the vessel employed is capable of traveling comfortably in excess of the peak river current by a sufficient margin to make the transit in under 12 hours. For planning purposes, we currently believe that a 15-knot vessel could provide round trip service from the western terminus on a three-day turnaround basis (with two 12-hour layovers enroute). A 25-knot vessel could provide the same service on a two-day turnaround basis (with one 12-hour layover enroute). The schedule proposed for planning purposes would have Naknek, at the route's southern terminus, as its "home" port. Table 13 shows a model high-speed, shallow-draft, landing craft schedule for a typical voyage originating in Naknek and returning to Naknek at the end of the second day. Note that one 12-hour minimum layover is required on Iliamna Lake for crew rest.

**Table 13
Model Schedule
High-Speed (25 knot), Shallow-Draft Landing Craft**

	Arrival		Departure		Port Time	Sailing Time
	Day	Time	Day	Time	Duration	Duration
Naknek			Monday	6:00		1:16
Levelock	Monday	7:16	Monday	7:46	0:30	4:56
Iglugig	Monday	12:42	Monday	13:12	0:30	1:36
Newhalen	Monday	14:48	Monday	15:18	0:30	0:14
Iliamna	Monday	15:32	Monday	16:02	0:30	0:55
Pedro Bay	Monday	16:57	Monday	17:27	0:30	0:22
Pile Bay	Monday	17:49	Tuesday	5:40	12:00	1:36
Kokhanok	Tuesday	7:25	Tuesday	7:55	0:30	0:41
Newhalen	Tuesday	8:36	Tuesday	9:06	0:30	0:41
Kokhanok	Tuesday	9:47	Tuesday	10:17	0:30	0:41
Newhalen	Tuesday	10:58	Tuesday	11:28	0:30	1:36
Igiugig	Tuesday	13:04	Tuesday	13:34	0:30	1:59
Levelock	Tuesday	15:33	Tuesday	16:03	0:30	1:04
Naknek	Tuesday	17:07				

Although accommodating the vessel envisioned to provide service on this link would not require extensive or particularly expensive shoreside infrastructure, some minor landing area upgrades, such as road extensions and gravel or concrete pads, would be needed. Accordingly, the costs of such improvements have been estimated at \$25,000 at each of eight ports proposed for service, for a total of \$200,000. In addition, navigation aids needed on the Kvichak River itself have been estimated at a cost of \$50,000. Combined M&O costs for all shoreside improvements have been estimated at \$6,250 annually.

In addition to the shoreside improvements just mentioned, of course a new vessel would have to be acquired – at an estimated cost of \$526,000. Vessel-related M&O costs, which include crew, fuel, insurance and overhead, are estimated at \$318,300. The total cost breakdown for this project is provided in Table 14.

Table 14
Capital and M&O Costs for Proposed
Lake Iliamna/Kvichak River Marine Link
(Shallow-Draft Landing Vessel Option)

Vessel Acquisition Cost	\$481,000 F.O.B. Seattle \$45,000 Delivery by barge	
Subtotal: (Acquisition Cost)	\$526,000	
	Minimum	Maximum
Hull Maintenance	\$1,500	\$2,000
Machinery Maintenance	\$4,000	\$5,500
Crew	\$144,000	\$223,000
Fuel	\$90,000	\$110,000
Lubricating Oil	\$1,200	\$1,400
Berthing	\$3,000	\$4,000
Insurance	\$22,000	\$25,000
Subtotal: (Annual Operating Cost)	\$265,700	\$370,900

Table 15
Capital and M&O Costs
Shoreside Improvements

Landing area upgrades (road extensions, gravel or concrete pads, etc.) at eight (8) communities (Allowance: 8x\$25,000)	\$200,000	
Aids to navigation on Kvichak River	\$50,000	
Subtotal: (Acquisition Cost)	\$250,000	
	Minimum	Maximum
Annual Maintenance	\$5,500	\$7,000
Subtotal: (Annual Operating Cost)	\$5,500	\$7,000

Demand for this service link is estimated at 3,600 person trips per year.

Element 8. Iliamna to Egegik Marine Service via Hovercraft

Hovercraft, which can operate at speeds over 40 knots over land, ice cover, seas with up to four-foot waves, beaches, and shallow water, were also explored as a means of linking the western portion of the Kenai Peninsula to Bristol Bay corridor. Two models of hovercraft with extensive Alaskan operating experience were explored in analyzing this option: the turbine-powered LACV-30 type hovercraft and the conventionally-powered AP.1-88. Of the two, the

AP.1-88 was found to be more suitable for Lake Iliamna-Kvichak River service, due to its smaller size, lower operating costs, and lower noise impacts.⁷ Like the shallow-draft landing vessel option described above, crew costs for hovercraft operations would be relatively low. It is possible that the AP.1-88 could be operated with a crew of two: a master, who would have to have a USCG hovercraft endorsement,⁸ and a mate to crew the aft compartment.⁹

Using a hovercraft rather than a shallow-draft landing vessel to connect the communities along Lake Iliamna and the Kvichak River would have several advantages over the use of a shallow-draft landing vessel:

- **Longer service period.** Hovercraft operation would offer the advantage of a year-round, as opposed to May through October service season. Unlike a shallow-draft vessel, the Hovercraft would be able to operate over the winter ice of Lake Iliamna, and probably over the Kvichak River's ice. However, the Hovercraft would likely be out of service for about 20 days each for the periods of winter freezeup and spring thaw, which could be scheduled for annual maintenance. In any case, the total service period of the Hovercraft would be approximately 46 weeks compared to 26 weeks for the shallow-draft vessel.
- **Fewer shoreside improvements required.** The AP.1-88 is able to utilize an unimproved or minimally improved loading/unloading facility, unlike a shallow-draft landing vessel, which would require landing pads.
- **Freight-carrying flexibility.** The version of the AP.1-88 currently operating in Alaska is configured for 24 passengers with adjustable interior bulkhead to accommodate freight. The aft superstructure doors are wide enough to pass a full size pallet.

Some disadvantages associated with hovercraft operations have also been identified:

- **Noise.** Although the diesel-powered AP.1-88 is not as noisy as the turbine-powered LACV-30, it is relatively noisy compared to the conventional hull option. In any case, current hovercraft operations in Bethel, Alaska, on behalf of the U.S. Postal Service will provide an opportunity to assess noise impacts firsthand.
- **Limited payload.** Although the AP.1-88's 16,000-pound cargo capacity slightly exceeds that of the shallow-draft landing vessel, its deadweight capacity is modest. However, given early, planning-level demand estimates, it is thought to be sufficient.
- **Relatively high maintenance costs.** Although maintenance costs for Hovercraft are not well established, they are presumed to be higher than those for conventional hull craft, due to two factors: (1) their higher level of mechanical sophistication; and (2) wear and tear on the craft's rubber skirt. In addition, it would be necessary to wash the craft down when operating over brackish water near Naknek in order to prevent salt water damage to the air screws and other machinery.

⁷ Although other hovercraft are commercially available, most are much smaller and would not meet the project's freight and passenger load requirements envisioned in this option. In addition, two existing AP.1-88 vessels, although built in Canada, have unrestricted Jones Act waivers allowing their use in the United States.

⁸ A hovercraft endorsement from the USCG can be earned upon completion of 36 hours of classroom study and 36 hours of operating time.

⁹ Although the mate need not be fully qualified, he or she must have a radar rating.

MODEL SCHEDULE

The AP.1-88 hovercraft is fast enough that the highly desirable result of 12-hour dayboat operation would be achievable. In fact, Table 17 shows a model schedule based on the following operating speeds: 40 knots per hour on the lower Kvichak River, 30 knots on the upper Kvichak River, and 50 knots on Lake Iliamna. In order to maintain 12-hour service days, port calls are limited to 20 minutes. This model schedule accomplishes the daily round trip in 11 hours, allowing a half hour in the morning for startup and a half hour in the evening for shutdown. For the purposes of illustrating this schedule, Naknek serves as homeport.

The acquisition cost for an AP.1-88 hovercraft is estimated in the range of \$5 to \$6 million, depending on classification and regulatory requirements, outfitting, delivery costs, and acquisition scheme. A summary of estimated Hovercraft operating costs is provided in Table 18.

Table 16
AP.1-88 Hovercraft

Annual Operating Costs	
Maintenance	\$1,408,000
Crew	237,250
Fuel	14,608
Lubricating oil	2,282
Subtotal	\$1,662,140
Miscellaneous (4%)	66,460
Total	\$1,728,600

The operating cost summary contained in Table 18 assumes that hovercraft service is provided five days a week except during break-up and freeze-up, for which 20 days apiece are allocated and assumed to be used for annual maintenance.

Demand for this service link is estimated at 6,900 passenger trips.

Table 17
Model Schedule
(40 kt lower river; 30 kt upper river; 50 kt lake)

	Arrival		Departure		Port Time	Sailing Time
	Day	Time	Day	Time	Duration	Duration
Naknek	Same Day	6:30	Same Day	6:30	0:20	0:45
Levelock	Same Day	7:15	Same Day	7:35	0:20	1:30
Igiugig	Same Day	9:05	Same Day	9:25	0:20	0:50
Newhalen	Same Day	10:15	Same Day	10:35	0:20	0:10
Iliamna	Same Day	10:45	Same Day	11:05	0:20	0:30
Pedro Bay	Same Day	11:35	Same Day	11:55	0:20	0:15
Pile Bay	Same Day	12:10	Same Day	12:30	0:20	0:50
Kokhanok	Same Day	13:20	Same Day	13:40	0:20	0:50
Igiugig	Same Day	14:30	Same Day	14:50	0:20	1:30
Levelock	Same Day	16:20	Same Day	16:40	0:20	0:45
Naknek	Same Day	17:25				

Table 18
Cost Synopsis
Cook Inlet to Bristol Bay Overland
King Salmon Option

	Annual O&M Cost	Total Capital Cost	Annualized Cap Cost @ 7% Interest	Annualized Capital plus O&M costs
Marine Elements				
Homer-Williamsport-Seldovia Marine	\$1,846,606	\$2,750,000	\$259,581	\$1,921,187
Homer-W-S shoreside	\$185,000	\$3,822,000	\$360,770	\$545,770
Roadway Elements				
Williamsport to Pile Bay				
Paved	\$209,250	\$14,857,500	\$1,402,443	\$1,611,693
Unpaved	\$232,500	\$12,300,000	\$1,161,033	\$1,393,533
Pedro Bay to Pile Bay to Iliamna				
Paved	\$513,000	\$51,870,000	\$4,896,161	\$5,409,161
Unpaved	\$570,000	\$45,600,000	\$4,304,317	\$4,874,317
Iliamna to Igiugig				
Paved	\$756,000	\$78,940,000	\$7,451,378	\$8,207,378
Unpaved	\$840,000	\$69,700,000	\$6,579,187	\$7,419,187
Igiugig to King Salmon				
Paved	\$756,000	\$76,440,000	\$7,215,395	\$7,971,395
Unpaved	\$840,000	\$67,200,000	\$6,343,205	\$7,183,205
TOTAL				
Paved Option	\$4,778,856	\$228,679,500	\$21,585,727	\$25,666,583
Unpaved Option	\$5,084,106	\$201,372,000	\$19,008,092	\$23,337,198

Table 19
2020 Annual Travel Demand Estimate
Cook Inlet to Bristol Bay Overland
King Salmon Option

	Independent*	Alternative**	System***
Marine Elements			
Homer-Seldovia		4,000	
Homer-Williamsport		4,000	
Roadway Elements			
Williamsport to Pile Bay to Pedro Bay		4,200	
Pedro Bay to Iliamna	17,900	32,400	33,700
Iliamna to Igiugig	16,100	92,300	101,300
Igiugig to King Salmon	24,100	95,100	108,300

* Demand on the link as an independent element.

** Demand on the link as part of the alternative.

*** Demand on the link assuming implementation of a Cook Inlet to Bristol Bay to Alaska Peninsula roadway system.

Table 20
Cost Synopsis
Cook Inlet to Bristol Bay, Overland
Naknek Option

	Annual O&M Cost	Total Capital Cost	Annualized Cap Cost @ 7% Interest	Annualized cap cost plus O&M Cost
Marine Elements				
Homer-Williamsport-Seldovia	\$1,846,606	\$2,750,000	\$259,581	\$1,921,187
Homer-W-S Shoreside	\$185,000	\$3,822,000	\$360,770	\$545,770
Roadway Elements				
Williamsport-Pile Bay				
Paved	\$209,250	\$14,857,500	\$1,402,443	\$1,611,693
Unpaved	\$232,500	\$12,300,000	\$1,161,033	\$1,393,533
Iliamna-Pedro Bay-Pile Bay				
Paved	\$513,000	\$51,870,000	\$4,896,161	\$5,409,161
Unpaved	\$570,000	\$45,600,000	\$4,304,317	\$4,874,317
Iliamna to Igiugig				
Paved	\$756,000	\$78,940,000	\$7,451,378	\$8,207,378
Unpaved	\$840,000	\$69,700,000	\$6,579,187	\$7,419,187
Igiugig to Naknek				
Paved	\$1,012,500	\$102,375,000	\$9,663,476	\$10,675,976
Unpaved	\$1,125,000	\$90,000,000	\$8,495,363	\$9,620,363
Igiugig to Levelock				
Paved	\$256,500	\$27,435,000	\$2,589,670	\$2,846,170
Unpaved	\$285,000	\$24,300,000	\$2,293,748	\$2,578,748
TOTAL				
Paved Option	\$4,778,856	\$282,049,500	\$26,623,478	\$31,217,334
Unpaved Option	\$5,084,106	\$248,472,000	\$23,453,999	\$28,353,105

Table 21
2020 Annual Travel Demand Estimate
Cook Inlet to Bristol Bay Overland
Naknek Option

	Independent*	Alternative**	System***
Marine Elements			
Homer-Seldovia		4,000	
Homer-Williamsport		4,200	
Roadway Elements			
Williamsport to Pile Bay		4,200	
Pile Bay to Pedro Bay to Iliamna	17,900	32,400	33,700
Iliamna to Igiugig	16,100	106,100	115,100
Igiugig to Naknek	24,100	110,000	123,200
Igiugig to Levelock	15,000	39,600	43,800

* Demand on the link as an independent element.

** Demand on the link as part of the alternative.

*** Demand on the link assuming implementation of a Cook Inlet to Bristol Bay to Alaska Peninsula roadway system.

**Table 22
Cost Synopsis
Cook Inlet to Bristol Bay Marine
Hovercraft Option**

	Annual O&M Cost	Total Capital Cost	Annualized Capital Cost @ 7% Interest	Annual Capital plus O&M costs
Marine Elements				
Homer-Williamsport-Seldovia	\$1,846,606	\$2,750,000	\$259,581	\$1,921,187
Homer-Williamsport Shoreside	\$185,000	\$3,822,000	\$360,770	\$545,770
Lake Iliamna (Hovercraft)	\$1,728,600	\$5,500,000	\$519,161	\$2,247,761
Roadway Elements				
Williamsport-Pile Bay				
Paved	\$209,250	\$14,857,500	\$1,402,443	\$1,611,693
Unpaved	\$232,500	\$12,300,000	\$1,161,033	\$1,393,533
TOTAL				
Paved Option	\$3,969,456	\$26,929,500	\$2,541,954	\$6,326,410
Unpaved Option	\$3,992,706	\$24,372,000	\$2,300,544	\$6,108,250

**Table 23
2020 Annual Travel Demand Estimate
Cook Inlet to Bristol Bay Marine
Hovercraft Option**

	Travel Demand
Marine Elements	
Homer-Seldovia	4,000
Homer-Williamsport	4,200
Lake Iliamna Hovercraft Service	6,900
Roadway Elements	
Williamsport to Pedro Bay	4,200
Pedro Bay to Iliamna	22,100

Table 24
Cost Synopsis
Cook Inlet to Bristol Bay Marine
Shallow-Draft Landing Vessel Option

	Annual O&M Cost	Total Capital Cost	Annualized Capital Cost @7% Interest	Annual Capital plus O&M costs
Marine Elements				
Homer-Williamsport-Seldovia*	\$1,846,606	\$2,750,000	\$259,581	\$1,921,187
Homer, Williamsport Shoreside	\$185,000	\$3,822,000	\$360,770	\$545,770
Lake Iliamna (Shallow-Draft Vessel)**	\$318,300	\$526,000	\$49,651	\$367,951
Lake Iliamna Shoreside	\$6,250	\$250,000	\$23,598	\$29,848
Roadway Elements				
Williamsport-Pile Bay				
Paved	\$209,250	\$14,857,500	\$1,402,443	\$1,611,693
Unpaved	\$232,500	\$12,300,000	\$1,161,033	\$1,393,533
TOTAL				
Paved Option	\$2,565,406	\$22,205,500	\$2,096,042	\$4,476,448
Unpaved Option	\$2,588,656	\$19,648,000	\$1,854,632	\$4,258,288

*Vehicle demand for this element of the alternative was estimated at 2,800 vehicles/year.

**Vehicle demand for this element of the alternative was estimated at 770 vehicles/year.

Table 25
2020 Annual Travel Demand Estimate
Cook Inlet to Bristol Bay
Shallow-Draft Landing Vessel Option

	Travel Demand
Marine Elements	
Homer-Seldovia	4,000
Homer-Williamsport	4,200
Lake Iliamna Marine Service (S.D.)	3,600
Roadway Elements	
Williamsport to Pedro Bay	4,200
Pedro Bay to Iliamna	22,100

2/6/01

Proposed Taku Road - Under House Bill #8

My name is Rudy Ripley and I am a resident of Juneau. I would like to address H.B.#8 as it may pertain to the Taku Valley. I have close personal experience with the Taku River and the surrounding valley. I have never missed a summer spending time up the river in over 40 years, starting back in 1958. I am a property owner there and have built and owned a cabin since 1960. I am a charter member of Taku River Recreation Association, an organization of property owners and traditional users of the Taku from tide water to the U.S. / Canadian border. I speak today on behalf of the TRRA as well as myself.

Over the years, there have been various studies and proposals to build a road from Juneau up the Taku River Valley to the existing road system in B.C., Canada. In our opinion, people who make these proposals are unfamiliar with the entire Taku River Valley ecosystem, the close proximity of the Juneau Ice fields, and the adjoining Taku Inlet area at tidewater.

It should be noted here that the wind velocities recorded in the Taku Inlet are some of the fiercest in all of Southeast Alaska especially in winter. The prevailing wind at this time of year comes down river from the Canadian interior and the Juneau Ice Fields. Some of these northerly winds exceed 100 mph. Records show that at Canyon Island, approximately five miles up river above tidewater, there have been snows totaling over 200 inches during an average winter. Combine this with the much colder temperatures than we have here in Juneau, partially due to the adjacent Juneau Ice Fields, it is our opinion keeping a road open for vehicular travel could be a nightmare under such conditions.

There are three glaciers stemming from the Juneau Ice Fields that would have a heavy influence on any road project. The first two are located at the upper end of the Taku Inlet at tidewater. The first of these is the Norris, which is just southwest of the Taku Glacier. It is presently receding and has a gravel moraine with approximately a fifty-year-old Spruce tree forest on most of it. The Taku, however, is advancing with a muddy silt shoulder rising up in most of its path. Seawater flows past the face of the glacier at every high tide. Both of these glaciers are located up at the north- westerly side of the inlet at tidewater. Constructing any sort of road, causeway or bridge across the moraines of either of these glaciers would take the absolute best designers and contractors available. If a bridge were constructed in front of these huge ice masses, the first land above them is a spit known as Swede Point just slightly in front and north of the Taku Glacier. It is made up of mostly old river silt for the first several hundred yards and some bedrock for the last twenty yards or so. A section of road could be constructed here for approximately 1/4 mile to a mile, most probably requiring a great deal of heavy shot rock for a stable roadbed where it is nothing but silt, as would be the case for the entire road through the tidal area. At the end of this section, the third glacier, Hole-In-The -Wall, another advancing one, is also on the west side. It too is pushing directly into the river. A bridge approximately a mile or more, depending on which side the designers and engineers decide most appropriate, would have to be constructed to cross the river tide flats.

(It should be noted here that the Taku River system has one or more annual floods that could have major impacts on any bridge structure built in the flood plane, which in this case, is the entire lower valley found on the U.S. side of the Canadian / U.S. border. United States Geological Survey, Water Resources of Alaska records show that these floods can raise rapidly, flowing over the riverbanks swamping hundreds of acres in a very short period of time. For example, this past summer we had a flood that rose from 30 thousand cubic feet per second to over 85 thousand cubic feet per second in less than 24 hours. It sent several property owners scrambling tying down various building materials and rescuing their equipment from the rising water. Many found their cabins close to being flooded. One cabin did flood. Approximately five miles above the border

the Tulsequah River flows into the Taku from the west. The Tulsequah Glacier, a glacier that is connected to the Juneau Ice Field, feeds it. The glacier blocks a lake that builds up every summer by snowmelt. When the lake rises sufficiently to float the ice plugging the lake, the water flows out at an alarming rate of speed and force. Enough force to cut new channels not only over gravel bars, but also into higher ground that supports forests of mainly cottonwoods and alder. These snags drift downstream and can dam most anywhere causing various stream courses to be altered. Other snags come to rest at tidewater on sand bars and some even make it to salt water. And they could come to hang up on any man made structure such as a bridge abutment.)

Looking at it purely from an engineering standpoint, even with all the various bridges and river containment barriers it would require, the road construction would become easier above the flats. But, from ecological concerns, it becomes a disaster! There are countless feeder streams that drain into the Taku River. At least seven salmon streams flow into the river on the U.S. side of the border alone. The valley floor is one of the best moose habitats in all of southeast Alaska. Black and grizzly bears, wolves and smaller fur bearing animals such as marten, mink, beaver, river otter, muskrat, and more inhabit this area. Waterfowl, such as ducks, geese and swan share this area with a large number of other birds such as snow owls, hawks and especially the American bald eagle. There have even been sightings of the rare golden eagle as well.

It should be noted here that when just recently, the Redfern Mining Company, a Canadian company, proposed to build a haul road from a proposed mine at the Tulsequah River to Atlin, B.C., the Tlingit natives of Atlin, known in Canada as people of the First Nations, took the company to court to stop the project. In the past when the last study was proposed by Alaska for a road from Juneau to Atlin, the B.C. government said they were not in favor of it.

So, with that and the points made above, which we see as negatives for a road up the Taku, the TRRA views any future studies toward construction of a road to be a complete waste of time, talent and money, now and in the foreseeable future.

HB

8

SFIN

FILE

SENATE FINANCE COMMITTEE REPORT

REPORTED OUT
MAY 06 2001
SENATE FINANCE
COMMITTEE

DATE: 4/11/01

FURTHER:

DATE TURNED
IN TO OFFICE:

6 May 2001

Finance Committee considered CS FOR HOUSE BILL NO. 8(FIN) am

"An Act establishing the Legislative Pioneer Road Development Task Force; and providing for an effective date."

and recommends:

- be replaced with _____ CS _____ (_____)
- adopt previous 5 CS CS HB 8 (TRA)
- attached amendment(s)
- adopt Letter of Intent by _____ Committee
- further referral to _____ Committee

Senate Bill:

- same title
- new title

House Bill:

- same title
- technical title
- new: SCR # _____

NEW FISCAL NOTE(S):

Department	Date	Fiscal	Zero	FN#
DCED	4/11/01	1.4		

PREVIOUS FISCAL NOTE(S):

Department	Date	Fiscal	Zero	FN#
Leg. Council	4/24/01	9.8		#1
DOT	4/10/01	15.0		#2

APPROPRIATION - no fiscal note

SIGNATURES AND RECOMMENDATIONS:	DO PASS	DO NOT PASS	NO REC	AMEND
<i>[Signature]</i>	✓			
<i>[Signature]</i>	✓			
<i>[Signature]</i>			✗	
<i>[Signature]</i>	✓			
<i>[Signature]</i>	✓			
<i>[Signature]</i>	✓			
COCHAIR: <i>[Signature]</i>	✓			
COCHAIR: <i>[Signature]</i>	✓			

MAY 06 2001

SENATE FINANCE
COMMITTEE

FISCAL NOTE

STATE OF ALASKA
2001 LEGISLATIVE SESSION

Fiscal Note Number:

Bill Version:

CSHB 8(FIN) AM

() Publish Date:

Revision Date/Time (Note if correction): 04/16/2001 2:59p.m.

Dept. Affected:

DCED

Title: Legislative Pioneer Road Development Task

BRU:

Comm. Asst & Econ. Dev.

Force:

Component:

Community and Business

Sponsor: Representative Rokeberg

Development

Requester: Senate Transportation

Component Number:

2486

Expenditures/Revenues

(Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Personal Services						
Travel	1.4					
Contractual						
Supplies						
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	1.4	0.0	0.0	0.0	0.0	0.0

CAPITAL EXPENDITURES						
----------------------	--	--	--	--	--	--

CHANGE IN REVENUES ()						
------------------------	--	--	--	--	--	--

FUND SOURCE

(Thousands of Dollars)

FUND SOURCE	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
1002 Federal Receipts						
1003 GF Match						
1004 GF	1.4					
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other (Specify Type)						
TOTAL	1.4	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY2001) cost: _____

Check this box (X) if funding for this bill is included in the Governor's FY 2002 budget proposal:

PO: INS

Full-time						
Part-time						
Temporary						

ANALYSIS: (Attach a separate page if necessary)

This legislation provides for a task force that would include the Commissioner of this department. Some staff support for the task force would be provided by the Division of Community and Business Development. It is estimated that this support position would be required to travel one time to Anchorage, one time to the interior for a hearing. Participation in other hearings will occur via teleconference. Travel costs for these trips are estimated to be approximately \$1.4.

Prepared by: Pat Poland, Director

Phone 907-269-4580

Division: Community and Business Development

Date/Time 04/16/2001 2:59p.m.

Approved by: Commissioner Deborah B. Sedwick

Date 4/16/2001

Agency: Department of Community & Economic Development

For distribution information, call the Governor's Legislative Office

MAY 06 2001

SENATE FINANCE
COMMITTEE

FISCAL NOTE

STATE OF ALASKA
2001 LEGISLATIVE SESSION

Fiscal Note Number: 2
Bill Version: CSHB 8(FIN) AM
(S) Publish Date: 4/11/01

Revision Date/Time (Note if correction): _____ Dept. Affected: DOT&PF
Title: "An act establishing the Legislative BRU: Planning
Road Development Task Force; and providing . . . Component: Statewide Planning
Sponsor: Representative Rokeberg
Requester: Senate Transportation Component Number: 1951

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Personal Services	13.6					
Travel	1.4					
Contractual						
Supplies						
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	15.0	0.0	0.0	0.0	0.0	0.0

CAPITAL EXPENDITURES						
-----------------------------	--	--	--	--	--	--

CHANGE IN REVENUES ()						
-------------------------------	--	--	--	--	--	--

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF	15.0					
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other (Specify Type)						
TOTAL	15.0	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY2001) cost: 0.0

Check this box (X) if funding for this bill is included in the Governor's FY 2002 budget proposal:

POSITIONS

Full-time						
Part-time						
Temporary						

ANALYSIS: (Attach a separate page if necessary)

This estimate assumes the task force will study 30 road corridors. We have assumed eight hours of planner level staff time and one hour of the director's time per corridor. We are also including travel for the director to travel to four meetings. This request is to cover expenses of federally funded positions because task force activities are not eligible for federal reimbursement.

Prepared by: Dennis Poshard, Legislative Liaison Phone 465-3904
Division: Commissioner's Office Date/Time 4/10/01 11:47am
Approved by: Joseph L. Perkins, Commissioner Date 4/10/01
Agency: DOT&PF

For distribution information, call the Governor's Legislative Office

FISCAL NOTE

REPORTED OUT
MAY 06 2001
SENATE FINANCE
COM

STATE OF ALASKA
2001 LEGISLATIVE SESSION

Fiscal Note Number: 1
Bill Version: CSHB&(TRA)
(H) Publish Date: 01/24/01

Revision Date: _____
Title: *An Act establishing the Legislative
Road Development Task Force; and providing....
Sponsor: Representative Rokeberg
Requestor: House Transportation

Department Affected: Legislative Affairs Agency
BRU: Legislative Council
Component: Council and Subcommittees

COMPONENT SERIAL NO:

Expenditures/Revenues: (Thousands of Dollars)

OPERATING	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07
PERSONAL SERVICES	0	0	0	0	0	0.0
TRAVEL	6.0	0	0	0	0	0.0
CONTRACTUAL	1.5	0	0	0	0	0.0
SUPPLIES	2.3	0	0	0	0	0.0
EQUIPMENT	0	0	0	0	0	0.0
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	9.8	0	0	0	0	0.0

CAPITAL	0	0	0	0	0	0.0
---------	---	---	---	---	---	-----

REVENUE FUND SOURCE	0	0	0	0	0	0.0
---------------------	---	---	---	---	---	-----

FUNDING: (Thousands of Dollars)

GENERAL FUND	9.8	0	0	0	0	0.0
FEDERAL FUNDS						
OTHER FUND SOURCE						
TOTAL	9.8	0	0	0	0	0.0

POSITIONS:

FULL-TIME	0	0	0	0	0	0.0
PART-TIME	0	0	0	0	0	0.0
TEMPORARY	0	0	0	0	0	0.0

Estimate of current year impact:

ANALYSIS: (Attach a separate page if necessary) HB8 establishes a thirteen member Legislative Road Development Task Force. The task force will be composed of 9 public members, 2 Legislators, and 2 state officials. The task force shall identify roads that are important to the future economic development of the state, study and research the feasibility of upgrading roads, and establish a priority ranking for projects to develop or upgrade those roads. The task force shall submit a report of its findings to the Legislature and the Governor before the 2nd session of the 22nd Alaska State Legislature convenes.

Prepared By: Karla Schofield, Deputy Director *Karla Schofield* Phone: 465-3852
Division: Administrative Services Date: 1/24/01

Approved By: Pamela A. Varni, Executive Director *Pamela A. Varni*
Agency: Legislative Affairs Agency Date: 1/24/01

COMMITTEE COPY

(by preparer): Leg. Finance, Legislative Sponsor, Requestor, OMB, Gov., & Impacted Agency(ies).

ALASKA STATE LEGISLATURE

House of Representatives

COMMITTEE ASSIGNMENTS

JUDICIARY COMMITTEE CHAIRMAN
LABOR & COMMERCE COMMITTEE MEMBER
LEGISLATIVE COUNCIL MEMBER
SPECIAL COMMITTEE ON ECONOMIC DEVELOPMENT &
TOURISM MEMBER

website: <http://www.akrepublicans.org/Rokeberg.htm>



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ANCHORAGE AK 99501
PHONE (907) 269-0117
FAX (907) 269-0119

SESSION
ALASKA STATE CAPITOL
JUNEAU AK 99801-1182
PHONE (907) 465-4962
FAX (907) 465-2040

Representative Norman Rokeberg

e-mail: Representative_Norman_Rokeberg@legis.state.ak.us

Sponsor Statement for SCS CSHB 8 (TRA) PIONEER ROAD DEVELOPMENT TASK FORCE

**Title: An Act establishing the Legislative Pioneer Road Development Task Force;
and providing for an effective date**

SCS CSHB 8 (TRA) establishes a Legislative Pioneer Road Development Task Force whose duties would include: research existing plans for road development in the state, identify roads that are important to Alaska's future economic development, study feasibility of developing or upgrading roads in order to promote future economic development, determine availability and source of funds to develop or upgrade those roads, review alternative funding sources for ongoing maintenance, and establish a priority ranking for projects to develop or upgrade those roads identified by the Task Force. The Task Force would include various members as described in the legislation.

Without a better transportation infrastructure, many areas in Alaska cannot be developed to their full potential. The legislation sets forth many roads the Task Force may consider. Many of these roads have been discussed by previous legislatures and these discussions have impressed on me the need for some forward thinking when it comes to road projects. We need to get roads up and going to benefit all areas of the state. Besides natural resource projects, tourism could benefit from roads to all points of the state, thus offering smaller areas more economic opportunities. While new roads could be viewed as interrupting the way of life in rural areas, it is important to remember that if those rural areas want to become viable, they need transportation access for business, industry, local communication, and commerce.

The Task Force would complete its work and make recommendations in January 2002 and the legislation is repealed March 15, 2002.

ED 5:04/11/01

ALASKA STATE LEGISLATURE

House of Representatives

COMMITTEE ASSIGNMENTS

JUDICIARY COMMITTEE, CHAIRMAN
LABOR & COMMERCE COMMITTEE, MEMBER
LEGISLATIVE COUNCIL, MEMBER
SPECIAL COMMITTEE ON ECONOMIC DEVELOPMENT &
TOURISM, MEMBER

website: <http://www.akrepublicans.org/Rokeberg.htm>



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Representative Norman Rokeberg

e-mail: Representative_Norman_Rokeberg@legis.state.ak.us

SECTIONAL ANALYSIS

SCS CSHB 8 (TRA)

An Act establishing the Legislative Pioneer Road Development Task Force; and providing for an effective date

Prepared by: Rep. Norman Rokeberg

Section 1: Creates the Legislative Road Development Task Force. Sets forth membership and objectives of the Task Force. Lists some roads that may be considered with particular emphasis. Task Force is to meet as frequently as it desires and may meet and vote by teleconference. Compensation not to be paid to Task Force members but per diem and travel may be paid for all except legislative and commissioner members. A written report is to be presented to the Legislature and the Governor before the Second Session of the 22nd Alaska State Legislature, which convenes in January 2002.

Section 2: Act is repealed March 15, 2002.

Section 3: Immediate effective date.

ED 5:04/11/01



General Teamsters Local 959 State of Alaska

Affiliated with International Brotherhood of Teamsters
 ANCHORAGE, ALASKA 99503, 570 E. 34TH AVE. (907) 565-8125 FAX (907) 565-4265 GERALD L. HOOD, Secretary-Treasurer

FAIRBANKS, ALASKA 99707, P.O. Box 70408 (907) 457-2950 FAX (907) 457-4051
 JUNEAU, ALASKA 99901, 207 W. Lughby (907) 586-3225 FAX (907) 586-1227
 KENAI, ALASKA 99541, P.O. Box 2150 (907) 283-4488 FAX (907) 283-8024

January 12, 2001

Representative Vic Kohring
 Chair
 Transportation Committee
 State Capitol
 Juneau, AK 99801

JAN 16 2001

Re: HB 8 Legislative Road Development Task Force

Dear Representative Kohring:

On behalf of the thousand of Teamsters that we represent throughout the State and many of whom transport goods on our road system, I would like to go on record in support of HB 8. The long-term viability of our State, as you and your committee members are aware, is dependent on a strong road system structure. We support the intent of this bill to identify those systems important to future economic growth and development throughout the State.

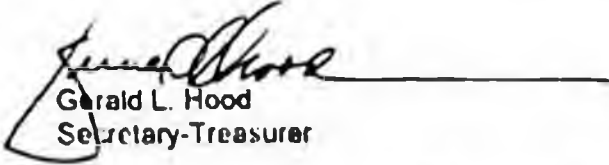
We also strongly believe that the intermodal transportation system needs to be considered as the task force looks at future development of our road systems. Due to the vast area of our State, the effective interlinking of our various transportation systems is the key to our successful ability to transport goods and provide an effective road system for the motoring public as well.

It is further imperative that the financial support of such development needs to be included in any and all considerations. Like any other infrastructure, the financial support to build must include a commitment to maintain such road structures in the future.

We appreciate your time and consideration in hearing this bill and your support in assuring that our road systems meet the needs and concerns of all Alaskans, not only in furthering economic development, but for the general motoring public as well.

Sincerely,

TEAMSTERS LOCAL 959


 Gerald L. Hood
 Secretary-Treasurer

cc: Transportation Committee Members



Alaska

**Department of Community
and Economic Development**

Office of the Commissioner

P.O. Box 110800, Juneau, AK 99811-0800

Telephone: (907) 465-2500 • Fax: (907) 465-5442 • TDD: (907) 465-5437

Email: questions@dced.state.ak.us • Website: www.dced.state.ak.us/

January 17, 2001

JAN 23 2001

The Honorable Norman Rokeberg
Alaska House of Representatives
State Capitol, Room 118
Juneau, AK 99801-1182

Dear Representative Rokeberg:

Thank you for the opportunity to comment on HB8, "an Act establishing the Legislative Road Development Task Force." This bill provides an opportunity for me to serve along with Commissioner Perkins with the Department of Transportation and Public Facilities as nonvoting members of the task force.

As I understand the bill, the task force will rank road development projects. Road development projects have implications for many of the functions of my department ranging from promoting community and economic development to enhancing tourism. I assume the task force would be open to considering alternative transportation modes where appropriate.

Many of the road projects are currently part of regional plans being studied by DOT and in many cases road development may be the most efficient and effective approach to accomplish the goals of increased development. In those cases I will be pleased to offer the assistance of the department to expedite road development. The Alaska Industrial Development and Export Authority stands by to provide its assistance in financing roads associated with the development of large projects.

Sincerely,

Deborah B. Sedwick

Deborah B. Sedwick
Commissioner

Cc: Robert Poe, Executive Director, AIDEA



JAN 19 2001

ASSOCIATED GENERAL CONTRACTORS of ALASKA

4041 B STREET • ANCHORAGE, ALASKA 99503
P.O. BOX 240609 • ANCHORAGE, ALASKA 99524-0609
TELEPHONE (907) 561-5354 • FAX (907) 562-6118

January 15, 2001

Representative Norman Rokeberg
Alaska State Legislature
State Capitol (MS 3100)
Juneau, Alaska 99801-1182

Re: House Bill 8 - "An Act establishing the Legislative
Road Development Task Force; and providing for an effective
date"

Dear Representative Rokeberg:

The Associated General contractors of Alaska support this bill and initiative. For Alaska to grow and develop its natural resources we need additional roads that will connect remote parts of the state with communities on the road system. It has been many years since Alaska built a new road and action in that direction is long overdue. This taskforce can address the priorities of the State and the report will be a useful tool to implement a program of development.

We look forward to working with you on this bill.

Sincerely,

Richard Cattanach
Executive Director

Jan 24 01 01:30a

Richards & Associates

(907) 63-4660

P. 1

JAN 24 '01 13:54 F

CENTRE 2

684 443 1848 TO 915 4634660

P.02/02

JAN-24-01 12:13 PM

ALASKA MINERS ASSN.

987 563 9225

P.02



ALASKA MINERS ASSOCIATION, INC.

3305 Arctic #202, Anchorage, Alaska 99503 • (907) 581-8778 • FAX (907) 443-9975 • www.alaskaminers.org

January 16, 2001

Honorable Norman Rukoberg
Alaska State House
State Capitol
Juneau, AK 99801

JAN 24 2001

RE: House Bill 8, Legislative Road Development Task Force

Dear Representative Rukoberg,

Thank you for the opportunity to comment on House Bill 8 which would establish a Legislative Road Development Task Force. This bill will provide a needed venue for discussing alternatives for new roads that are needed. The State planning process has typically focused on repair and maintenance of existing roads but has not effectively addressed the need for new roads.

We would recommend one change to HB-8 and this is to add one additional route into Section 1 that would be considered. This is as follows:

(2) a road from the Dalton Highway west to the Ambler copper district;

This road was contemplated in ANILCA where specific language was included to ensure a right of way would be allowed to follow this route. It would be appropriate for the Task Force to evaluate whether the time has come to develop this road.

We appreciate that the Alaska Federation of Natives is represented on the Task Force and observe that support from local Native groups will be essential for new roads that involve their lands and regions. These Native Corporations and their villages have much to gain if roads are developed and they also have concerns and views that should be considered by the Task Force.

Thank you for the opportunity to comment on this bill. We look forward to working with you as it move forward.

Sincerely,

Steven C. Dorell, P.E.
Executive Director



750 W. 2nd Ave. #109, Anchorage AK 99501 / Ph. 907-258-6171 / Fax 907-258-6177

P.O. Box 22151, Juneau AK 99802 / Ph. 907-463-3366 / Fax 907-463-3312 / urite@akvoice.org

HB 8: Legislative Pioneer Road Development Task Force

TO: Representatives
DATE: February 14, 2001

Alaska Conservation Alliance and Alaska Conservation Voters are sister nonprofit organizations dedicated to protecting Alaska's environment through public education and advocacy. Our 44 member organizations and businesses represent over 35,000 registered Alaskan voters. Conservationists throughout Alaska support a healthy economy for all the benefits it provides us. However, we do not believe economic health is predicated on building roads. We have several concerns with HB 8:

- **The Task Force is stacked with pro-road advocates.**

Legislation (SB 3) to appropriate state funds for studies for a northern access into Denali National Park was recently heard in Senate Transportation committee. A major criticism leveled at the Denali Task Force that evaluated the feasibility of the route was that it was imbalanced with members opposed to the route. Clearly, the Task Force authorized under HB 8 could be similarly criticized – no positions have been designated for tourism interests, for municipal government representatives, or for representatives from agencies or organizations concerned with habitat protection.

- **The bill has no provision for meaningful public process.**

Alaskan history has shown time and again that road projects can be very controversial. The Task Force must be mandated to provide meaningful public process by holding local hearings and notifying citizens of comment periods for each and every road proposal under consideration. The Task Force must be funded sufficiently to provide for this process.

- **This legislation is backward looking.**

A healthy economic future for Alaska will not be found by looking backwards to 80 year old rutted tractor trails. ACV encourages legislators to put fiscal and time resources into meaningful studies of improving transportation needs for our state that would enhance the economic opportunities Alaskans are facing in this new millennium. HB 8 establishes a controversial, faulty process to take a great look backwards – for that reason, this legislation should be opposed.

Susan Schrader

Susan Schrader, Conservation Advocate

Conserve Alaska. It's Only Natural.



Article last updated:
Friday, November 03, 2000 6:24 AM MST

index >

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State must improve transportation, mining session told

By DIANA CAMPBELL
Staff Writer

ANCHORAGE--Alaska has enormous economic potential for mining despite a poor transportation infrastructure and rigid environmental rules, said Cominco President David Thompson.

The state has a pro-mining Legislature, administration and congressional delegation and an enviable record of tax stability, he said. Cominco runs the Red Dog zinc mine near Kotzebue.

"Our leading choice is Alaska," Thompson told the lunchtime crowd of about 250 people attending the Alaska Miners Association annual convention.

Thompson urged the mining industry to work three areas that would encourage mineral development in Alaska. Improve transportation, bring environmental regulations back to a state level and learn to better explain how mining works, he said.

For instance, zinc is used to galvanize steel and increases its life three times, Thompson said. Zinc is used to galvanize steel in the automotive industry and in household appliances. That cuts down on the need for smelting plants that are responsible for 23 million tons of greenhouse gases annually, he said. Cominco's zinc would help reduce that, he said.

"We are the essential ingredient to stop environmental pollution," he said.

Thompson's assertion had some people thinking. "I've never heard that before," said Art Roth, industrial products specialist for Svedala Industries.

Most in the audience agreed with Thompson. The industry needs to promote how mined minerals are used in everyday life, said Bill Jeffress, Fairbanks Gold Mining Inc.'s manager of environmental services.

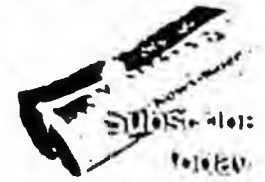
"It's like how people think milk comes from a milk carton in the store," he said.

Jeffress agreed with Thompson about the need to have more state involvement in environmental regulation.

"A lot of federal laws are broad based, and they are written to cover a lot of situations in the Lower 48," he said. "Any time you have your regulations at a state level, you have an opportunity to write reasonable regulations."



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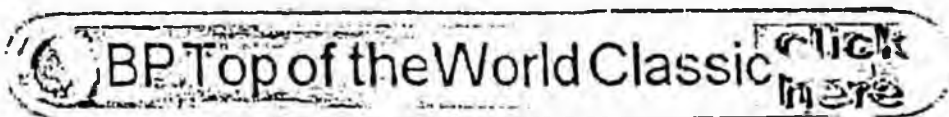
More state money needs to go into the state Department of Natural Resources and the state Department of Environmental Conservation, many in the mining industry say.

Recent cutbacks have resulted in short staffs, translating into a longer permit process time, said Steve Borrell, AMA executive director. That, he said, gives the federal government more muscle. There needs to be a strong voice on a state level to understand Alaska's peculiarities, he said.

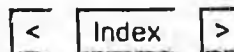
"Local people understand environmental concerns," Borrell said.

Thompson's evaluation of the state's transportation system is right, Borrell said. Cominco's Red Dog Mine is a success because its high-grade ore makes transporting it to market affordable, he said.

The mine is the largest zinc producer in the world. In 1999 Red Dog produced 521,000 tons of zinc and announced \$123 million in operating profit.



Article last updated:
Thursday, November 02, 2000 6:27 AM 'MST



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Gold mining companies announce promising finds

By DIANA CAMPBELL
Staff Writer

ANCHORAGE--North Star Exploration Inc. has announced promising results of recent assays from test holes near Northway.

The tests showed the presence of gold in significant quantities, said Tom Bundtzen, the company's manager of Alaska field operations.

"With one drill hole, we ran into something pretty sweet," Bundtzen said.

North Star, a privately funded exploration company based in New York, has an exclusive exploration and development agreement with Doyon Ltd. to evaluate and develop mineral resources on 7 million acres.

The company was one of two that announced significant gold findings on Wednesday. Copper Ridge Explorations announced a significant gold find on its Ogopogo project in the Goodpaster area near the Pogo mine site.

North Star collected samples mid-September through mid-October near Northway Junction northeast of the Alaska Highway. The claim is called Road Metal.

One ore sample showed gold at 2.865 ounces per ton or \$757.85 per ton. The least amount in the same drilling was 0.535 ounces of gold per ton or \$141.43. In comparison, Fort Knox Gold Mine mills ore at 0.0245 ounces per ton.

North Star is focusing its Alaska exploration program on five areas within the Doyon region, Bundtzen said. The company is looking at claims near Hughes, called the Indian River trend; the Tofty prospect near Manley Hot Springs; Elephant Mountain project near Rampart; and Kaiyah project near Kaltag, in addition to the Northway work.

Bundtzen said the company is looking for a major mining firm interested in developing the Northway project.

Owners of the Ogopogo project are hoping the same rich geology that produced the Pogo mine's 5.6 million ounces of gold for Teck Resources and Sumitomo will do the same for them.

"Structurally, we may actually be connected to Pogo," said Mark Fields, Copper Ridges vice president and



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director.

Recent drillings from Ogopogo indicated a high of 123 parts per billion of gold. That's enough to conduct an intensive drilling program, Fields said. The work was done in August.

"We need to trench and do diamond drilling," he said. A company press release said it is in discussion with several major gold companies.

The Ogopogo project covers 114 state claims and 8,040 acres on the northern boundary of Pogo.

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EUREKA TO RAMPART ROAD LOCATION STUDY

I. PURPOSE AND NEED

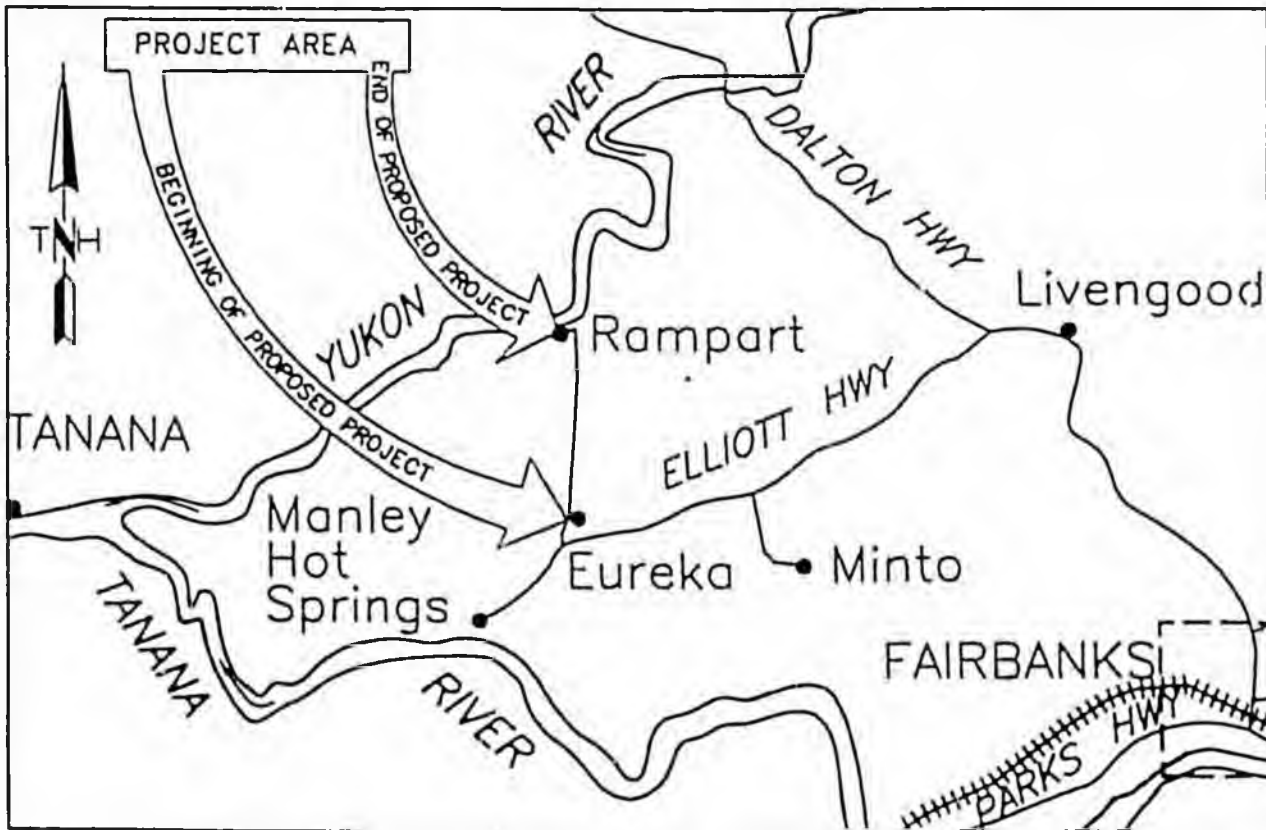
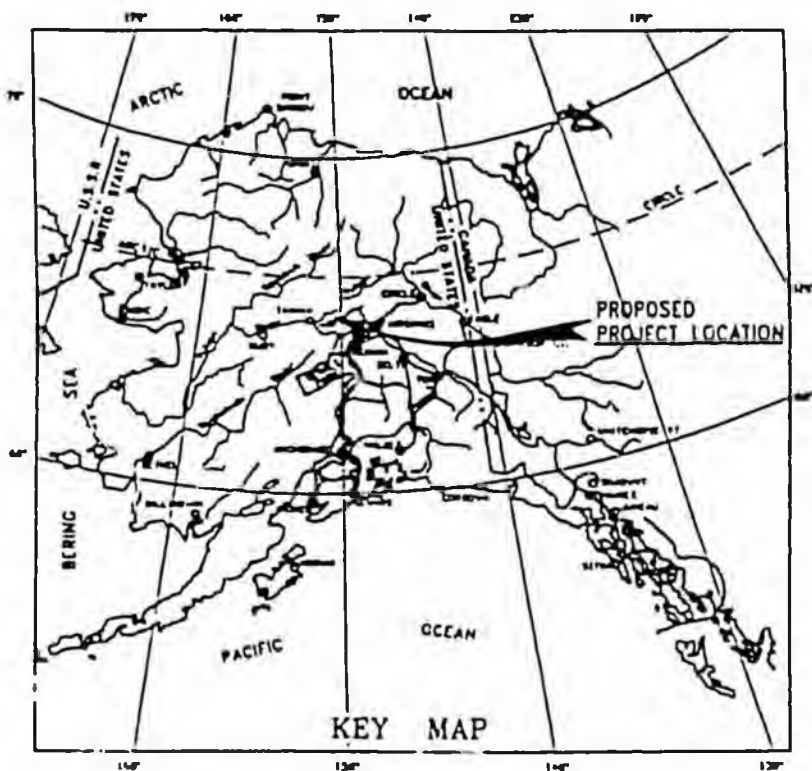
The citizens of Rampart desire year-round surface access to improve their social and economic conditions. There is no reliable road access linking Rampart to the State highway system. Community activism placed the project on the State's 20-year transportation plan. The community lies on the south bank of the Yukon River, approximately 161 kilometers (km) (100 miles [mi]) northwest of Fairbanks (Fig. 1).

The road would extend 40 km (25 mi) northward from Eureka on the Elliott Highway to Rampart. It would follow the approximate route of the wagon trail constructed in 1906 by the Alaska Road Commission to transport mail and supplies to gold miners at Rampart. In 1963, the Alaska Department of Highways converted 12 km (7 mi) of trail into a gravel road from the Elliott Highway to Joseph Creek. Further work was suspended when construction funds were diverted to repair roads in southern Alaska damaged by the 1964 "Good Friday" earthquake. A portion of the 1963 road and an additional 3 km (2 mi) up to Lost Creek were rebuilt by ADOT&PF in 1983, and another 3 km (2 mi) at the north end has been improved over the years by Rampart residents. Beginning at Eureka, ADOT&PF maintains the first 3 km (2 mi) of the existing road. The remaining 22 km (14 mi) of trail has not been upgraded. Local residents provide minimal maintenance on the rest of the roadway and the trail.

When the ground is frozen and road conditions permit, snow machines, four-wheel-drive trucks, or heavy equipment can travel on the trail from Lost Creek to Rampart. All-terrain vehicles use the trail during the summer, but severe rutting and sinkholes force operators to use adjacent lands that are classified as wetlands. Destruction of wildlife and anadromous fish habitat is occurring.

Barges and aircraft are the only commercial transportation to and from Rampart. Barges deliver freight, except fuel, three or four times each summer. (Fuel is not shipped by barge due to exorbitant costs but is delivered by airplane). Air service is the only year-round means for transporting people and perishable goods. Air transport is expensive and unreliable due to frequent fog and wind conditions along the Yukon River.

A reliable, year-round road will provide Rampart residents with a lower cost of living and increase employment opportunities, and protect wetlands, wildlife, and fisheries resources.



VICINITY MAP

FIGURE I
 STATE OF ALASKA
 DEPARTMENT OF PUBLIC TRANSPORTATION
 AND
 PUBLIC FACILITIES
 EUREKA TO RAMPART ROAD
 VICINITY AND KEY MAPS



TANANA CHIEFS CONFERENCE, INC.

Yukon Tanana Subregion
1302 21st Avenue
Fairbanks, Alaska 99701
(907)459-3930

NOV 13 11:02

November 11, 1996

State of Alaska Department of Transportation & Public Facilities
Division of Design & Construction
2301 Peger Road
Fairbanks, Alaska 99709-5399

Dear Mr. John Rezek, P.E.

Enclosed is a copy of Tanana Chiefs Conference/Yukon Tanana Subregional Advisory Board resolution 96-07. Resolution 96-07-'Continued Support of the Rampart-Eureka Road'-was passed and approved by the Advisory Board on Oct. 23, 1996.

The Subregional Board consists of the villages of Alatna, Alickaket, Evansville, Fairbanks, Hughes, Lake Minchumina, Manley, Minto, Nenana, Rampart and Tanana. The road has been supported by the villages of the subregion for almost ten years.

The proposed Eureka-Rampart Road has been a community goal of Rampart since the early 80's; and was submitted to the State Transportation Improvement Plan (STIP) for several years for consideration as a road project .

Our Subregional Office looks forward to the proceeding of the location study and environmental analysis. We want to be involved and will attend the Scoping meeting scheduled for Fairbanks.

Thank you.

Sincerely,

TANANA CHIEFS CONFERENCE, INC.

Oscar Frank, Jr.
Community Resource Coordinator

cc: Rampart Village Council .

UNORGANIZED BOROUGH

RAMPART

Project Name	Description	Cost	Need ID	GIP	Priority	Score
Airport Improvements	Reconstruct the runway and safety area		5134	AV		
Eureka to Rampart Road	Construct approx. 14 miles of two lane, gravel road to complete connection between Eureka, on the Elliott Highway, and Rampart, on the Yukon River. The entire route is approx. 26 miles long. The project entails construction of the center section and localized improvements on previously improved sections.	12,600,000	3705	CTP	2	76

RED DEVIL

Project Name	Description	Cost	Need ID	GIP	Priority	Score
Airport Improvements	Reconstruct the airport to meet current standards. Construct a new apron and taxiway, snow removal equipment building, and purchase a new grader.	1,500,000	5657	AV	1	80

RUBY

Project Name	Description	Cost	Need ID	GIP	Priority	Score
Ruby to McGrath Road	New road construction to connect Ruby and McGrath		3696	CTP	3	

RUSSIAN MISSION

Project Name	Description	Cost	Need ID	GIP	Priority	Score
Landfill Road	Construct 3/4 mile long road to the new landfill	450,000	9918	CTP	1	124
Local Streets	Repair/rehabilitate approximately 2 miles of local streets. Improvements include application of dust palliative.	330,000	3697	CTP	3	
New Housing Roads	New roads for upcoming housing	700,000	3698	CTP	3	
Runway Rehabilitation	Realign and extend the runway; reconstruct apron, taxiway and access road, raise grade to mitigate flooding problems.	2,700,000	5136	AV		112

FROM: REP. MORRIS

Tanana Tribal Council
P.O. Box 130
Tanana, Alaska 99777
Ph: (907) 366-7160
Fax: (907) 366-7195

JAN 28 2000

January 7, 2000

Rampart Village Council
Rampart Alaska

Dear Council Members,

The Tanana Tribal Council discussed the Rampart - Eureka Road and has decided to support your efforts in having the road built to Rampart. When the initial request for support came in, we did not realize or understand how important it was for the village of Rampart to have this road in place. Now, based on facts that your village has provided to us, we realize the very existence of your community is at stake here and we cannot stand by and allow your community to become extinct. Without reliable transportation into a small community, such as Rampart, services only become fewer and fewer. The State of Alaska has an obligation to protect and promote the viability of our village residents, regardless of their size. Without access into the rural areas of Alaska, our State will never live up to its potential.

A resolution of support is enclosed and if you need us to testify on your behalf, please give us a call and we will provide support for your village. Our very best in your endeavor.

Sincerely,

Julie M. Roberts
Executive Director

Cc: Department of Transportation

Tanana Tribal Council
P.O. Box 130
Tanana, Alaska 99777
Ph: (907) 366-7160
Fax: (907) 366-7195

Resolution 01-00
Title: Resolution of Support for the Village of Rampart

Whereas: the Tanana Tribal Council is the duly constituted and legal governing body of the federally recognized Indian Tribe organized as the Native Village of Tanana; and

Whereas: the Rampart Village Council has requested our support in having the proposed Rampart - Eureka Road built; and

Whereas: tribal members of the Tanana Tribal Council currently resides in the village of Rampart and strong family ties have existed for many years; and

Whereas: the safety and general welfare of the people of Rampart is of the utmost importance to the Tanana Tribal Council; and

Now Therefore Be it Resolved that the Tanana Tribal Council hereby requested the State of Alaska, the Bureau of Indian Affairs and Congress to fully support funding to build the Rampart - Eureka Road for the General well being and existence of the village of Rampart Alaska.

Passed and Approved this 20 day of January, 2000, by the Tanana Tribal Council seated in Quorum

Signed: Faith M. Peter
Chairwoman

Date: 1/20/2000

Attest: Maria E. Anderson
Secretary

ROCK CREEK - NOME AREA

The Rock Creek Nome Area Road
January 27, 2000

The Rock Creek Road will help to encourage potential economic development of the hard rock mineral resources in the Nome area currently under investigation by a group of companies including Novagold, Alaska Gold, Sitnasuak, and the Bering Straights Corp.

The existing road is built along existing contours and is seasonal in nature. The road could not be used for transport of construction material during potential mine start-up due to it's windy nature, gradient and narrowness.

The new rerouted road would shorten the haul distance by two miles and be built across a flat plain that would make maintenance and use possible year round.

The City of Nome fully supports the road project for the potential economic benefit it could provide.

The City has recently lost 70 jobs due to the temporary shut down of mining operations in the Placer mining fields. The job loss is due to the current low prices of gold. Hard rock mining may still be viable at the current prices due to the higher tenor of the gold present. It must be remembered that the potential for sustained mining operations are speculative.

Currently, The rock creek gold deposit contains an estimated 500,000 ounces of gold.

GP:sp

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
P.O. BOX 1048
NOME, ALASKA 99762

PHONE: (907) 443-3444
FAX: (907) 443-2618

TO: SCOTT PETSEL	FAX #: 465-2698
LOCATION:	DATE: 1-27-00
FROM: ANDREW NIEMIEC	TIME:

NUMBER OF PAGES INCLUDING THIS PAGE 2

RE: GLACIER CREEK RD.

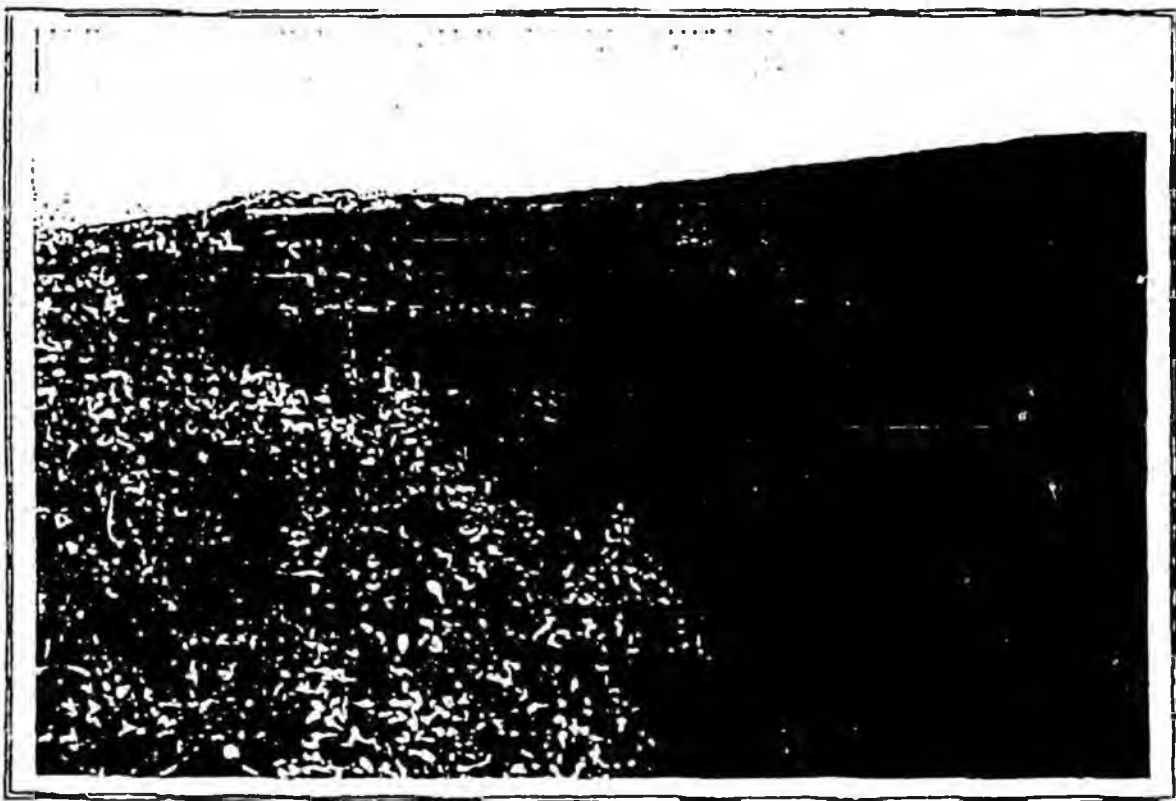
Note: Alternative 3 is the Preferred Route.

THIS DOCUMENT WAS PREPARED IN 1995.

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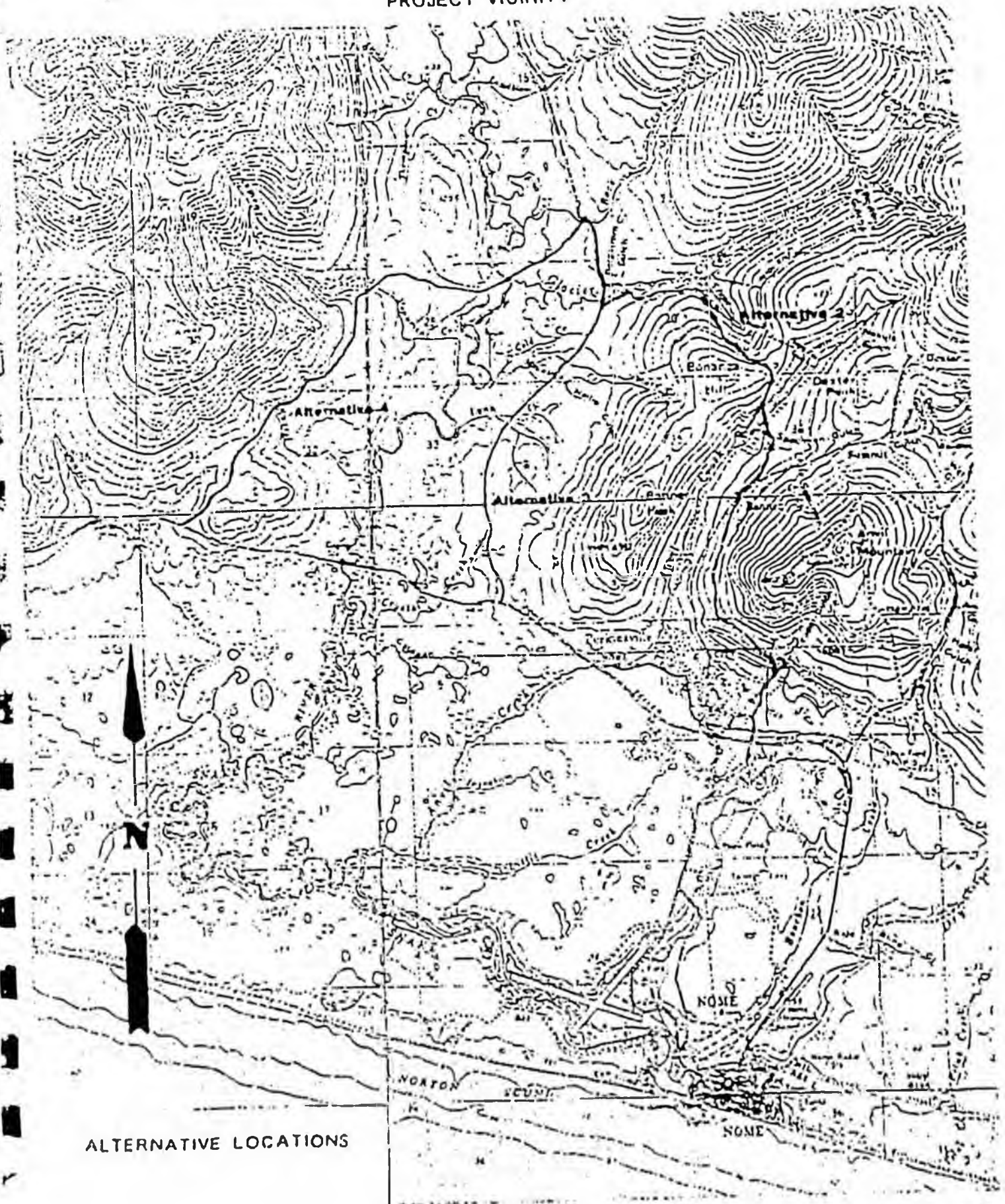
GLACIER CREEK ROAD NONE, ALASKA ENVIRONMENTAL ASSESSMENT



Glacier Creek

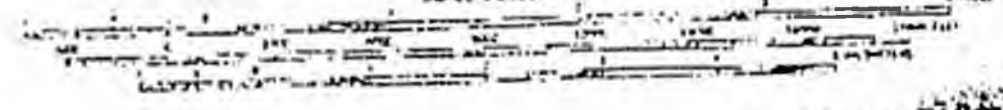
Alaska Department of Transportation
and Public Facilities
Northern Region - Western District
Division of Design and Construction
Environmental Section

PROJECT VICINITY



ALTERNATIVE LOCATIONS

SCALE 1:6150



GLACIER CREEK ROAD

CHAPTER I

PURPOSE AND NEED

The Alaska Department of Transportation and Public Facilities (ADOT&PF) in cooperation with the Federal Highway Administration (FHWA) is proposing to either upgrade or reroute Glacier Creek Road in Nome Alaska. The proposed project's objective is to enhance economic development. Glacier Creek Road accesses numerous gold mining operations with new development and exploration expected during the next several years.

The proposed project would provide an all-season, year-round¹ access road to areas that are believed to contain large mineral deposits. The existing road was originally constructed as a sidehill cut for much of its length and is therefore susceptible to early and lengthy closure due to snow accumulation.

Glacier Creek Road has major deficiencies, especially for heavy equipment. Grades on the existing road are severe, and when combined with the many sharp curves sight distance becomes severely limited. The existing road is approximately 4.3 meters (14 feet) wide, is gravel surfaced, and without shoulders. There is very little room for maneuverability or passing. These aspects are a hinderance for drivers, especially when a vehicle breaks down, becoming more extreme when operating larger equipment.

Several large gold deposits have been identified in the vicinity of Glacier Creek Road by private sector exploration firms. Reports from both federal and state agencies have also documented the potential for economic lode gold deposits in this area. Additionally, there are several gold mines currently in production. However, the

¹ Currently, Glacier Creek Road is not maintained during the winter.

NOME ALASKA

GLACIER CREEK ROAD

operation of these current mining ventures are sometimes hindered by the length of time the existing road is open to traffic.

Currently, mining companies are in the process of defining the Rock Creek ore body, in the anticipation of bringing it into production. (Rock Creek crosses the existing Glacier Creek Road at about 1 kilometer (¾ mile) beyond Glacier Creek. Exploration of the entire area is under the "Rock Creek" designation and encompasses nearly 13,760 hectares [34,000 acres]. An adjacent 14,165 hectares [35,000 acres] tract is also being explored. Until recently, these two tracts were being explored by separate companies. The Kennicott Mining Company has assumed Newmont Exploration's 13,760 hectare [34,000 acres] tract.

It is estimated that between 100-200 jobs would be created if a new mine were to begin production. This is a significant economic boost to an area which has a labor force of about 3,000 and an unemployment rate typically near 10 percent.

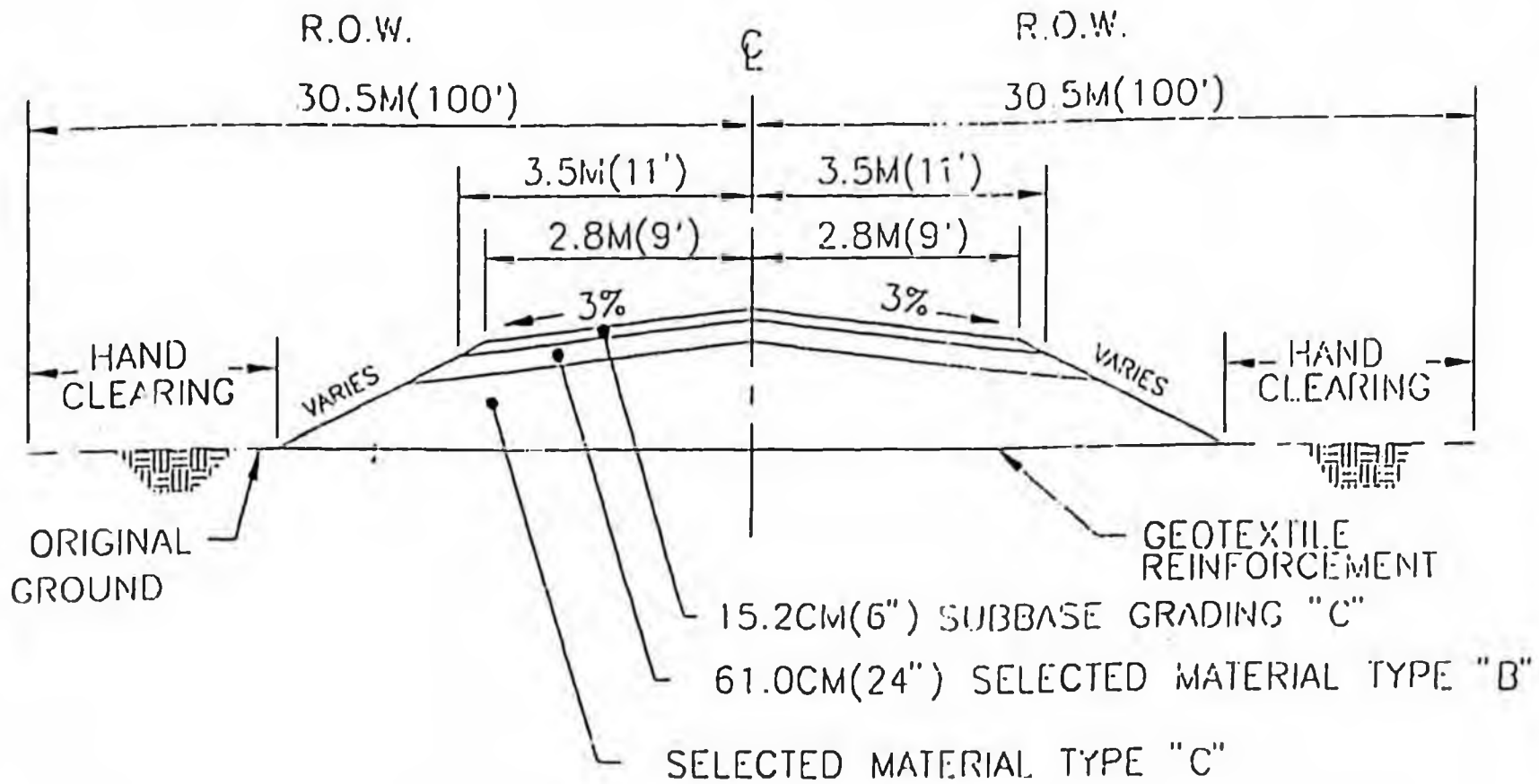
CHAPTER II

ALTERNATIVES

Four alternatives have been evaluated for this proposal. They are the no-action (or no-build), upgrade the existing roadway alignment, and two options to re-route the road.

All of the build alternatives would have a finished road width of 5.5 meters (eighteen feet) including shoulders. The typical section for the build alternatives would have foreslopes varying from 1:4 to 1:1½ (4:1 to 1½:1). Design criteria recommended with all build versions would result in horizontal curves at or above the minimums. Other recommendations include flatter grades, and hand clearing alders and willows out of the right-of-way to help facilitate snow removal. The proposed facility would require additional right-of-way to establish a corridor width of approximately 30.5 meters (100 feet).

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TYPICAL SECTION

GLACIER CREEK ROAD

Alternatives 3 & 4

Re-route Glacier Creek Road

Two locations were considered for realignment. An alternate route on the west side of the Snake River (Alternative 4) was investigated and discarded because of its longer length and higher cost; and a greater potential for environmental impacts, particularly with regard to crossing the Snake River. Because of its width, crossing the Snake would entail a bridge structure substantially increasing construction costs.

The recommended route, Alternative 3, starts on the east side of the Snake River, approximately 10 kilometers [6.3 miles] on the Bob Blodgett Nome-Teller Highway traversing into the Snake River valley and intersecting into the existing Glacier Creek Road near Kilometer 9 [Mile 5.6]. From this point, the existing Glacier Creek Road would be upgraded to Rock Creek. The approximate length would be 6 kilometers [3.6 miles].

A spur road connecting the new alignment with the existing Glacier Creek Road south of Glacier Creek is also proposed to access the area to eliminate the need for a new and additional crossing of Glacier Creek. This spur road would be about one-quarter mile long (approximately 400 meters). Two 3.7-meter [12-foot] culverts would replace the existing road crossing at Glacier Creek.

The topography along this alignment is flat, open terrain with sparse vegetation consisting of a combination of alpine tundra/barren ground system, with alders and willows lining the numerous drainage channels. Underlying soils are primarily undisturbed tundra consisting of fine material with a high moisture content that is interspersed with ice lenses.

The major advantage of this alternative is that it allows the desired all-season capability with minimal maintenance efforts. Another cost saving would be realized by incorporating an overlay throughout the proposed alignment and hand-clearing alders

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GLACIER CREEK ROAD

and willows to the right-of-way limits. This in turn would reduce snow drift accumulation on the road's surface enhancing vehicle safety and minimizing maintenance costs.

A potential disadvantage with this alternative is possible differential settlement of the embankment placed over undisturbed tundra. Although eventually this type of problem generally reaches a point of equilibrium.

Right-of-way costs would be increased with this alternative. Land ownership along the proposed route is primarily native corporation lands.² This alternative's alignment would for the most part, avoid the numerous patented mining claims, except near the end of the project where the many claims cannot be avoided.

Alternative 3

Preferred Alternative

The department is recommending re-routing the road to the east of the Snake River, as described above. This alternative is preferred because it offers the best means to satisfy the purpose and need for the proposed project. It would provide users with a safe, all-season driving surface at minimum costs; and with minimal social, economic and physical environmental impacts.

²The Bering Straits Native Corporation has passed Resolution #2-4-94-2 granting a perpetual subsurface easement and restrictive covenant to the ADOT&PF to facilitate the Glacier Creek Road proposal. However, it is the village corporations who have been granted surface rights to the land.

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GLACIER CREEK ROAD

**TABLE 1
ESTIMATED COST**

Alternative 1: No-Build	
Phase 2: Design	\$ 0
Phase 3: Right-of-Way	\$ 0
Phase 4: Construction	\$ 0
Maintenance: Summer	\$ 8,105
Maintenance: Winter	\$ 0
TOTAL	<u>\$ 8,105</u>
 Alternative 2: Upgrade Existing Route	
Phase 2: Design	\$ 300,000
Phase 3: Right-of-Way	\$ 521,909
Phase 4: Construction	\$4,054,334
Maintenance: Summer	\$ 8,105
Maintenance: Winter	<u>\$ 390,184</u>
TOTAL	<u>\$5,265,532</u>
 Alternative 3: Re-route road	
Phase 2: Design	\$ 300,000
Phase 3: Right-of-Way	\$ 159,770
Phase 4: Construction	\$2,947,854
Maintenance: Summer	\$ 4,053
Maintenance: Winter	<u>\$ 8,105</u>
TOTAL	<u>\$3,419,782</u>
 Alternative 4: Re-route road	
Phase 2: Design	\$ 400,000
Phase 3: Right-of-Way	\$ 234,013
Phase 4: Construction	\$4,866,526
Maintenance: Summer	\$ 4,053
Maintenance: Winter	<u>\$ 130,061</u>
TOTAL	<u>\$5,634,053</u>

NOME, ALASKA

**REQUEST FOR FUNDING
PRELIMINARY ENGINEERING AND DESIGN
CROOKED CREEK DONLIN CREEK MINE ROAD**

PROJECT BACKGROUND

The Donlin Creek mine is a lode-gold exploration project located 15 miles north of the village of Crooked Creek (population 144). Small placer mining operations (total production 35,000 oz.) have been present in the area since 1915. In the mid-1980's, Calista geologists determined that a significant lode source could exist in the uplands above the existing placer mining operations near Snow Gulch.

In 1988 and 1989 Western Gold Mining and Exploration Ltd. (WestGold) spent \$2 million drilling and trenching the Donlin Creek deposit. Based on their fieldwork they estimated the Donlin Creek gold reserve to be over 400,000 ounces. In 1995, Placer-Dome North America (PDNA) operated a \$2 million exploration and drilling program. In 1996 and 1997 they extended \$18 million on additional drilling and exploration work at Donlin Creek, delineating a 3.6 million-ounce gold resource. Successful field results in 1998 produced an estimated 11.5 million ounces of resource which could lead to a preliminary mine feasibility determination by the end of 1999.

The level of exploration and financial investment PDNA is making at the Donlin Creek Project is a sign this area is considered a very advanced exploration property. The actual development cost for a mine facility will require an outlay of more than \$600 million dollars. The construction of an access road is just one of the costs associated with developing a producing mine. It is in the best interest of the mining industry that the State of Alaska encourages the development of remote mines.

An airstrip suitable for Hercules and DC-6 type aircraft was constructed at American Creek. Although it was expensive, Placer-Dome and Calista believed the expenditure was necessary to conduct advanced exploration. The airstrip will meet this project's needs for exploration support, but it will not be sufficient for use during actual construction and development of a mine. Long-term mine development will require access to the mine site over land. Over the next two years, it is essential to link the mine site with the Kuskokwim River via a road.

There is minimal road access to the Donlin Creek area. A pioneer road is in place from the placer mine sites at Snow Gulch and Queen Gulch. PDNA constructed an additional one and one half miles of road during 1997 from Queen Gulch to American Creek. The road provides access to the general location of the exploration camp, which was constructed in 1996. The road project and campsite represent a very high level of commitment by PDNA to undertake a viable exploration program to prove up the gold reserve in the area.

PROJECT DESCRIPTION:

Road access from the Kuskokwim River is required to move equipment, supplies and materials into the Donlin Creek area. Engineering studies to design and site a 24-mile road from Donlin Creek South, down the Crooked Creek valley, which terminates on the Kuskokwim River about 0.5 miles South of the Jungjuk Creek confluence, along with construction cost estimates, are required before actual road construction can begin.

Work which needs to be completed as soon possible includes; a) a preliminary engineering analysis, including the delineation of alternative and initial cost estimates and; b) soil borings at critical points along the proposed road alignment and at potential material sites to determine soil suitability. A field program can be completed using locally available equipment and manpower during late winter and early spring. It is estimated that the preliminary engineering and design work will cost \$500,000 for engineering services and field studies. An engineering study will identify a suitable road alignment and determine construction costs. Other work needed is an examination of available mapping and further investigation into the environmental issues so the cost estimate can be finalized.

SUMMARY OF DESIGN STUDY SCOPE OF WORK BY TASK

1. Establish Land Ownership for route area
2. Control Survey GPS
3. Air Photo Mapping
4. Route Engineering
5. Geotech Field Work
6. Bridge, Drainage and Alignment Refinement
7. Environmental and Assessment
8. Cost Estimating

PROJECT JUSTIFICATION

The Kuskokwim Corporation, representing 10 villages in the upper Kuskokwim River, are in favor of this project. They will be sending in a resolution or letter of support for this project. Immediate benefits will be to employment of local residents during the construction of the road. It is estimated that during construction of the road it could employ in the neighborhood of 30-50 employees. The road will provide a critical link between the Kuskokwim River, and the mine and campsite at American Creek and Snow Gulch. Without a road, it will be difficult to move equipment and materials to the mine site for the construction and operation of a producing mine. The development of a mine in the region will provide a significant amount of employment opportunities for many years to come. Provided the exploration site does become a mine it is anticipated that 600 employees will be needed during the construction phase, and thereafter for operations an estimated 400 permanent jobs will be needed.

Unappropriated Federal Lands	7.3 Miles
State Selected	6 Miles
ANCSA Selected	1 Mile
ANCSA Conveyed	7.47 Miles
	<hr/>
	24.8 Miles (estimate)