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**TERRITORIAL
BOARD OF ROAD
COMMISSIONERS**

FOR THE
TERRITORY OF ALASKA

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April 1, 1921, to March 31, 1923

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LETTER OF TRANSMITTAL

Juneau, Alaska, March 17, 1922.

To the Honorable Members of the Sixth Territorial Legislature,
Juneau, Alaska.

Sirs:

Attached hereto is a detailed report of the Territorial Board of Road Commissioners. It covers all road work and expenditures of the Divisional Boards and also cooperative work and expenditures with the Alaska Road Commission and the U. S. Forest Service.

For the biennium all available funds were distributed as follows: In the First Division \$26,845.00 were applied to cooperative projects with the U. S. Forest Service, and \$26,690.77 to cooperative projects with the Alaska Road Commission. In the Second Division all divisional funds were applied to cooperative projects with the Alaska Road Commission. In the Third Division, \$11,120.00 were applied to cooperative projects with the Forest Service; \$40,135.96 to cooperative projects with the Alaska Road Commission, and \$18,667.91 were allotted to and expended directly by the Divisional Board. In the Fourth Division \$28,853.58 were allotted to cooperative projects with the Alaska Road Commission and \$37,667.91 were allotted to and expended directly by the Divisional Board.

All money allotted to cooperative projects with the U. S. Forest Service was expended by the U. S. Bureau of Public Roads and is covered by a report attached hereto. All money allotted to cooperative projects with the Alaska Road Commission was expended directly by that Board and is covered by a report attached hereto. All money allotted to the Divisional Boards was expended by the respective chairmen of such boards. On Nov. 14, 1921, Colonel James G. Steese, President of the Federal Board of Road Commissioners for Alaska, was appointed Consulting Engineer to the Territorial Board of Road Commissioners in which capacity he exercised direct supervision over all territorial road work.

In the First and Second Divisions all territorial funds were applied to cooperative projects either with the Alaska Road Commission or the U. S. Forest Service, hence no chairman and secretary of the Divisional Boards were appointed. In the Third and Fourth Divisions, Anton Elde and Abe McKinno, respectively, were appointed chairman and secretary of the Divisional Board and assumed direct responsibility over the territorial work in their respective districts, however, subject to supervision of the Consulting Engineer to the Territorial Board.

Under the cooperative agreement and in accordance with Chapter 11, Section 17, Session Laws of Alaska, April 21, 1919, the Alaska Road Commission assumed all overhead expenses, including salaries and ex-

penses of the chairmen of both the Third and Fourth Divisions, plant and equipment, and all supervision by the Alaska Road Commission's organization, the Territory being charged only for labor and supplies actually going into the work.

Referring to the biennial report of the Territorial Board submitted to the last Territorial Legislature, from March 1, 1919, to Feb. 28, 1921, the aggregate amount charged as overhead expenses in the four divisions is \$34,394.88, corresponding to \$301.33 for the present biennium, which indicates a direct saving to the Territory of \$34,093.55, for the present biennium.

In accordance with Section 7, Chapter 11, 1919 Session Laws of Alaska, the elected members of the Divisional Boards each year were requested to submit to the Territorial Board recommendations for road work in their respective districts, which were given careful consideration before making allotments for the various road projects.

Under authority of Chapter 39, Session Laws of Alaska, 1921, the Seward Peninsula Railroad was purchased and the title thereof is now vested in the Territory. Also, as provided by Chapter 30, Session Laws of Alaska, 1921, a cooperative agreement for the construction of the Nizina River Bridge was entered into with the Alaska Road Commission and the actual construction of this bridge is now under way. Reports of these projects are attached hereto.

The shelter cabin fund was expended through the Alaska Road Commission, under the cooperative Road agreement with them, and they assumed responsibility for all construction without overhead cost to the Territory. Report is attached hereto.

A review and comparison of the biennial reports for the past two bienniums reveals a substantial saving to the Territory as a result of cooperation with the various road building organizations in the Territory and the wisdom of the Territorial Legislature in creating the law making such cooperation possible. Under the present cooperative plan and agreement with the Alaska Road Commission, a more constructive distribution system of funds for road building is had and this makes it possible to prevent duplication of road organization and permits the maintenance of one well coordinated organization with sufficient funds at its disposal to do effective road work for the development and projection of an adequate road system and program in the Territory at large.

In conclusion, the Territorial Board wishes to express its appreciation for the efficient manner in which the territorial road funds have been applied by the U. S. Forest Service and the Alaska Road Commission under the present cooperative agreements.

Respectfully submitted,

KARL THEILE,

Secretary of the Territorial Board of Road Commissioners.

RECOMMENDATIONS

As stated in the letter of transmittal, the elected members of the respective Divisional Boards were requested to make recommendations for road work in their districts. Such recommendations as received by the Territorial Board were either in whole or in part carried out by territorial funds direct or by cooperative funds under the U. S. Forest Service and the Alaska Road Commission. Of course it is obvious that sufficient funds are not available properly to care for all needed road construction at this time and that available funds must be applied to projects considered of greatest public benefit. In making distribution the Board must be guided by such recommendations and petitions as are in its possession, and its personal knowledge and judgment of the various projects considered.

As stated above, the distribution of funds, owing to the limited amount available comparable with the demands, is difficult and quite often criticized by individuals, due undoubtedly to lack of knowledge of the funds available and the projects upon which they are being expended.

Under the present policy of cooperation with the U. S. Forest Service and under the cooperative agreement with the Alaska Road Commission, practically all of the Territory's money is applied to necessary local road maintenance and the major projects are cared for by the federal government through the U. S. Forest Service and the Alaska Road Commission. It is therefore recommended that the policy of the Territorial Road Commission for the past biennium be continued.

FUNDS REQUESTED

It is hoped that the Legislature will appropriate an amount at least equal to that of 1921, as a reduction will seriously impair the present road program for the biennium.

HISTORY OF ROAD DEVELOPMENT IN ALASKA

ORIGINAL CONDITION

Prior to the organization of the Board of Road Commissioners for Alaska there were, in the whole of the Territory, less than a dozen miles of what might be called wagon road, with a few hundred miles of pioneer trail, mostly constructed by expeditions under the War Department. Travel was largely confined to the open waterways in summer and to their frozen courses or overland in winter. When mining machinery and other supplies were to be transported from the coast or river landing they were, in most cases, hauled over the snow during the winter with some preliminary clearing of the route when necessary. Travel across country in summer, generally speaking, was possible only on foot or with pack horses. It was difficult always, and frequently dangerous, on account of the numerous swift and deep streams, fed by ice-cold and silt-laden waters of mountain glaciers.

PREVIOUS PROJECTS

In the summers of 1885, 1898 and 1899, War Department expeditions under Capts. Abercromble and Glenn and Lieuts. Allen and Herron, made explorations which collected much valuable data regarding the country and the best natural routes of travel. For the fiscal year 1901, Congress appropriated \$100,000 for roads and bridges in Alaska, to be spent on the route leading from Valdez to Eagle, but this was sufficient only for the construction of a crude pack trail through sections otherwise impassable and the building of some of the most necessary bridges along the route.

The Act of April 23, 1904 (33 Stats. at Large 271), appropriated \$25,000 for a survey and estimate for a wagon road along this route. A supplemental appropriation of \$5,700.63 was made in the Act of March 3, 1905 (33 Stats. at Large 1226), for the completion of this work. The survey was made under the direction of the Chief of Engineers prior to the organization of the Alaska Road Commission. In the same Acts an appropriation of \$2,500.00 was made for a survey and estimate for a military trail between the Yukon River and Coldfoot, on the Upper Koyukuk River, followed by a supplemental appropriation of \$1,431.15 for the completion of this work. This survey also was made under the direction of the Chief of Engineers.

ALASKA ROAD COMMISSION

The Alaska Road Commission was organized by Act of Congress approved Jan. 27, 1905. This Act has been several times amended subsequently without any substantial changes in its original provisions as they apply to the work. The Commission is charged with the construction and maintenance of military and post roads, bridges and trails in

the Territory of Alaska. In addition to the continuing appropriation provided for in the above Act (70% later reduced to 65% of the Alaska Fund) it has, since 1906, received an annual appropriation from Congress carried in the Acts for the Support of the Army.

TERRITORIAL ROAD WORK

The Act of April 27, 1904 (33 Stats. 391), provided for local territorial road work and authorized each U. S. Commissioner to appoint a road overseer for his precinct. Road districts were created corresponding to the precincts, such districts not to include incorporated cities and towns. The road commissioner served for one year and received \$4.00 per day for his services, not to exceed 10 days within any one year. Revenues were provided by requiring all male persons between the ages of eighteen and fifty years, of thirty days or more residence within the Territory, to perform in each year two days' work of eight hours each and furnish implements or to hire substitutes to perform the work or to contribute in cash at the rate of \$4.00 per day.

This law remained in effect until April 5, 1913, upon which date it was repealed by an Act of the Territorial Legislature (Chapt. 3, Session Laws 1913). While it was in force a great deal of work on local projects was accomplished, but no general scheme of construction was devised nor was there any coordination among the activities of the various road commissioners. In some districts, superintendents of the Alaska Road Commission supervised the work but the Alaska Road Commission was never charged with authority or responsibility for handling it generally.

By the Act of April 28, 1915 (Chapt. 27, Session Laws 1915), the present territorial road districts, corresponding to the judicial divisions, were created. There was also authorized an elected road commissioner for each district to receive as compensation five per cent of all money expended by him. He was authorized to appoint two assistants in each precinct as inspectors for the compensation of whom no provision was made. Seventy-five per cent of the Forest Revenues were appropriated for this work.

By the Act of April 30, 1917 (Chapt. 17, Session Laws 1917), \$20,000 was appropriated for shelter cabins, this money to be expended under the general supervision of the Governor of the Territory by the road commissioners who were to receive, also, five per cent of this fund for their services.

The Act of May 3, 1917 (Chapt. 36, Session Laws 1917), created the present Territorial Board of Road Commissioners and authorized and directed the submission of estimates to the Legislature covering road work considered necessary and desirable. Under this law in each road district there was created a Divisional Board consisting of a chairman and secretary to be elected. His salary was fixed at \$2,500 per year and he was authorized to expend, in addition, necessary amounts to cover office, clerk hire, et cetera. The other two members of the Divisional Boards were appointed by the Territorial Board and received actual expenses during such time as they were actually employed. The Divisional Boards were required to submit an annual report to the Territorial Board upon January first.

Funds were provided by the Act of May 3, 1917 (Chapt. 36, Session Laws 1917), to the amount of \$400,000, for the biennium, to be divided equally among the four road districts. A supplemental Act of the same date (Chapt. 50, Session Laws 1917) appropriated \$25,000 for the construction of the Nizina River Bridge.

The present road law in the Territory, known as the Cooperative Road Act, was passed on April 21, 1919 (Chapt. 11, Session Laws 1919). It was made necessary by the federal appropriation for the National Forests, which could be expended *only provided cooperative funds were* appropriated by the Territory, the Department of Agriculture funds becoming available in the ratio of about three dollars of federal funds to one dollar of territorial funds. Under this law the Territorial Board of Road Commissioners, consisting of the Governor, the Secretary, and the Treasurer of the Territory, was authorized to enter into cooperative agreements with the Department of Agriculture, the Alaska Road Commission, or other federal bureaus, and to turn over to the disbursing officers of such bureaus territorial funds to be expended by them upon the cooperative projects.

The Territorial Board was also authorized and directed to submit to the Legislature estimates for further work. The Divisional Boards consisted, as before, of one elected commissioner at an annual salary of \$2,500 and two appointed members *who should be reimbursed for their* expenses for such time as they should actually serve. The Divisional Boards, also, were required to submit annual reports upon January first.

This law further provided that after March 1, 1921, the Divisional Chairman should be appointed from qualified civil engineers in the Territory who would serve without pay and provided for two elected commissioners in each division who should receive a per diem of \$10.00 for such time as they should actually serve, but whose total compensation should not exceed \$1,000 in any one year.

Funds were provided by the Act of May 1, 1919 (Chapt. 36, Session Laws 1919), in the sum of \$375,000 for the biennium, to be equally divided among the four districts. The same Act also appropriated \$5,000 for shelter cabins to be constructed under the general supervision of the Governor.

For the current biennium the supplemental provisions of the law of April 21, 1919, are in effect. The Act of May 5, 1921 (Chapt. 30, Session Laws 1921), appropriated \$25,000 for a new Nizina River Bridge to be built by the Alaska Road Commission, provided the Alaska Road Commission should contribute at least an equal amount. The Act of May 5, 1921 (Chapt. 39, Session Laws 1921), appropriated \$30,000 for the purchase of the Seward Peninsula Railway, provided the Alaska Road Commission would agree to rehabilitate it and operate it as a public tram or highway. The act of May 7, 1921 (Chapt. 46, Session Laws 1921) appropriated \$240,000 for roads and trails for the current biennium and an additional sum of \$10,000 for shelter cabins. In addition to funds appropriated by the Territorial Legislature, 25% of certain revenues from timber sales in the National Forests accrue to the Territory; 75% of the Territory's portion are available for general road work throughout the Territory.

FEDERAL AID ROAD ACTS

The provisions of the Federal Aid Road Acts do not apply to the Territory of Alaska. They can be so applied only by an Act of Congress. The original act was approved July 11, 1916, and was amended by the Act approved February 28, 1919. Finally, the Federal Highway Act of November 9, 1921, still further deftued the situation. Should the provisions of these acts be applied to the Territory by appropriate Act of Congress upon the same basis as to the States, the Territory would receive about 6% of the Federal Aid money upon the following conditions:

- (a) The formal acceptance by the Territorial Legislature of the conditions imposed by these Acts;
- (b) The provision by the Territorial Legislature for a Highway Department acceptable to the Federal Government;
- (c) The approval by the Federal Government of all proposed projects;
- (d) The approval by the Federal Government of all surveys, plans, specifications, and estimates;
- (e) The approval by the Federal Government of all work before payment;
- (f) The provision by the Territory for all maintenance of completed mileage;
- (g) The contribution by the Territory of about 10% of the amount allotted by the Federal Government.

It will readily be seen from the above that in applying the provisions of the Federal Aid Road Acts to the special conditions in the Territory, some slight modifications in the existing Acts will have to be provided for.

DEPARTMENT OF AGRICULTURE

While the provisions of the Federal Aid Road Acts do not apply to the Territory, the provisions of the same Acts relating to roads and trails in the National Forests do apply to the Tongass and Chugach National Forests which constitute about 5% of the area of the Territory. As these forest funds require territorial cooperation, the amounts accruing under the Acts of 1916 and 1919 stood idle until the passage of the Territorial Cooperative Road Act approved April 21, 1919 (Chapt. 11, Session Laws of 1919). The funds then released and subsequent funds are expended under the direction of the Secretary of Agriculture, represented locally by the U. S. Forest Service. In addition to the cooperative funds, the Act of 1921 released additional forest funds for the expenditure of which cooperation is not mandatory.

Until July 1, 1920, the President of the Alaska Road Commission acted as the representative of the Department of Agriculture and supervised the performance of work and the expenditure of these cooperative funds within the National Forests, as all projects were former projects of that Commission. Until May 1, 1922, the Forest Funds were inadequate to take care of the projects in the National Forests already under construction under the Alaska Road Commission. The latter, therefore, continued to allot part of its own funds to these projects under a tripartite agreement to which the Territory, the Forest Service, and the Alaska Road Commission subscribed.

Since July 1, 1920, the Department of Agriculture has maintained a separate road building organization, the Bureau of Public Roads, in the Territory. Since May 1, 1922, it has assumed responsibility for all projects within or partly within the National Forests. To these projects the Territory contributes part of its funds under such cooperative agreements as may be required. The funds of the Alaska Road Commission, heretofore allotted to these projects, are thereby released for expenditure in the other 95% of the Territory.

The National Forests both lie along the sea-coast; the Tongass National Forest including most of Southeastern Alaska, the Chugach Forest including the Prince William Sound region, the shore line of Kenai Peninsula, and the east shore of Cook Inlet. Due to the rugged character of these sections of the Territory and to the excellent system of sheltered waterways, the main transportation will always be by water. Most of the projects, in the National Forests, therefore, consist of short spurs in the neighborhood of the principal towns, or from minor ports to agricultural or mining districts lying in the immediate hinterland. In general they do not tie into the main interior transportation system of the Territory.

**BIENNIAL CONSOLIDATED SUMMARY OF ALL
COOPERATIVE AND TERRITORIAL
ALLOTMENTS**

APRIL 1, 1921, TO MARCH 31, 1923

	A. R. C.	Territory	Other Sources	Total
First Division	\$ 64,201.63	\$ 36,690.77	\$963.75	\$ 101,856.15
Second Division	80,292.62	70,649.32		150,941.94
Third Division	60,549.95	40,135.96		100,685.91
Fourth Division	178,674.65	28,853.58		207,528.23
	\$383,718.85	\$176,329.63	\$963.75	\$ 561,012.23
	U. S. Forest Service			
First Division	\$275,355.74	\$ 26,845.00		\$ 302,200.74
Third Division	138,395.00	11,120.00		149,515.00
	\$413,750.74	\$ 37,965.00		\$ 451,715.74
Expended by Divisional Chairman:				
Third Division		\$ 18,667.91		\$ 18,667.91
Fourth Division		37,082.11		37,082.11
		\$ 55,750.02		\$ 55,750.02
Grand Totals Road Expenditures	\$797,469.59	\$270,044.65	\$963.75	\$1,068,477.99
Shelter Cabins				
Second Division		\$ 3,000.00		\$ 3,000.00
Third Division		3,000.00		3,000.00
Fourth Division		4,000.00		4,000.00
		\$ 10,000.00		\$ 10,000.00
	A. R. C.			
Nizina Bridge	\$ 38,714.66	\$ 25,000.00		\$ 63,714.66
Seward Peninsula Tramway	25,000.00	24,000.00		49,000.00
Grand total of Expenditures	\$861,184.25	\$329,044.65	\$963.75	\$1,191,192.65

Biennial Report

COOPERATIVE ROAD WORK—ALASKA ROAD COMMISSION AND THE TERRITORY OF ALASKA

FIRST DIVISION

In the First Division for the biennium all territorial funds were applied to cooperative projects as follows: *Department of Agriculture*, \$26,845; *Alaska Road Commission*, \$36,690.77. Funds allotted the *Department of Agriculture* were expended by the U. S. Bureau of Public Roads, contained in a separate report herein. The cooperative funds with the *Alaska Road Commission* were expended under the supervision of the *President of the Board* who, as *Consulting Engineer* to the Territorial Board, exercised general supervision over the field operations. The elected commissioners were consulted as to the work to be performed and one of them was employed throughout the season of 1921, first as *locating engineer*, and later as an assistant superintendent in local charge of construction work.

FOR YEAR 1921

A total of \$13,470.92 of territorial funds were expended to which the *Alaska Road Commission* added \$52,297.90 of its own funds; \$963.75 additional was contributed by municipalities benefited. The citizens of Skagway also contributed some materials and considerable labor on the *Smuggler's Cove* project.

FOR YEAR 1922

A total of \$23,219.85 of territorial funds were expended to which the *Alaska Road Commission* added \$11,993.73 of its own funds.

During the current season the *Forest Service* received sufficient funds to take care of all road and trail projects within the limits of the *National Forests*. On May 1, 1922, therefore, all remaining *Alaska Road Commission* projects in these areas were turned over to the *Forest Service*. Prior to this date it had been necessary for the *Alaska Road Commission* to contribute part of its funds toward projects within the *National Forests*.

All available divisional territorial funds allotted to the *Alaska Road Commission* for the biennium were allotted to cooperative projects in this division. The *Alaska Road Commission* contributed sufficient additional funds to carry the proposed operations on these projects until March 1, 1923, when additional federal funds will become available.

The following subprojects have been taken over by the Department of Agriculture and therefore no expenditures are shown for 1922:

Subproject Number	Name of Route
1	Prince of Wales Island Portage
2A	Auk Bay Extension
43	Petersburg-Scow Bay
52	Ketchikan-Wards Cove
58	Hyder-Salmon River
21B	Mendenhall-Glacier Extension
2C	Eagle River Extension
2D	Juneau-Duck Creek
14	Sitka-Indian River
39	Juneau-Sheep Creek
44	Skagway Valley
44A	Skagway-Smuggler's Cove
45	Silver Bow Basin
50	Stikine River
72	Wrangell Oil Dock
82	Taku Reconnaissance
91	Yakutat

Route 1—Prince of Wales Island Portage 4 Miles Wagon Road, 7 Miles Trail.

FOR YEAR 1921

This project was turned over to the Forest Service for maintenance and improvement on July 1, 1920, since which date no further work has been done by the Alaska Road Commission. The expenditure herein reported was for old bills held up pending final adjustment.

Total expenditure, Alaska Road Commission \$204.50.

Route 43—Petersburg-Scow Bay 5 Miles Wagon Road, 1 Mile Trail

FOR YEAR 1921

The same remark applies as in Route 1 above.

Total expenditure, Alaska Road Commission \$31.50.

JUNEAU SYSTEM

Route 2D—Juneau-Duck Creek 10 Miles Wagon Road

FOR YEAR 1921

General maintenance of the entire route. Three culverts were rebuilt. One 12-foot span bridge was replaced by a culvert and fill. Three new culverts were built and 200 feet of road were raised 3 feet; 1,000 feet of road were widened from 10 feet to 18 feet; 1,000 yards of gravel were placed on the road. This road carries the heaviest traffic of any road in the Territory and requires constant maintenance. Numerous auto accidents on this route demanded some type of speed regulation. This has been obtained by cooperation between the U. S. Marshal's office for the First Judicial Division of Alaska and the Alaska Road Commission.

Route 2B—Mendenhall Glacier Extension 3 Miles Wagon Road

FOR YEAR 1921

This road has received very little attention previous to this season, never having been properly located nor even brushed out. The entire road was relocated, conforming to general specifications. Clearing was done to a width of 40 feet and grubbing to a width of 20 feet. The entire road was graded, heavy rock work being encountered in the last mile. Four new culverts were constructed. This road is attracting a heavy traffic, especially during the tourist season.

Route 2C—Eagle River Extension 4 Miles Road, 14 Miles Trail

FOR YEAR 1921

This road is being built in cooperation with the Bureau of Public Roads and the Territorial Road Commission. The Alaska Road Commission has undertaken to build a bridge across Mendenhall River, connecting this road with the Duck Creek-Mendenhall Road. The road from the Duck Creek-Mendenhall Junction to the bridge site has been completed.

Route 39—Juneau-Sheep Creek Road 3 Miles Road

FOR YEAR 1921

This road extends from Juneau along Gastineau Channel to The Alaska Gastineau Mining Company's mill and improvements at Thane. It also serves the Standard Oil Company's plant. Traffic is very heavy on this route. Work has consisted of general maintenance. One-half mile of the road was surfaced with crushed rock obtained from the tailing dump of the Alaska Juneau Mining Company.

Route 45—Silver Bow Basin Road 4 Miles Road

FOR YEAR 1921

This road leads from Juneau along Gold Creek to Silver Bow Basin. The road is in side hill cut, or upon trestle. Much of the road, and especially the portion supported by trestles, has suffered serious deterioration. An effort was made to replace all dangerous structures along this road. The location is such that the failure of any structure would result in a very serious accident. Substantial repair work was carried out through the early season.

Expenditures on Juneau System: Territory, \$796.91; Alaska Road Commission, \$21,204.26. Total, \$22,001.17.

Route 40—Douglas-Gastineau Channel Road 2 Miles Wagon Road.

FOR YEAR 1922

Work consisted of general maintenance such as removal of slides, etc., construction of four new culverts, and general bridge repairs.

Expenditures: Territory of Alaska, \$150.00; Alaska Road Commission, \$53.25. Total, \$203.25. The town of Douglas contributed an equal amount in labor and lumber.

Route 14—Sitka-Indian River 13½ Miles Wagon Road

This road serves as an outlet to the City of Sitka and provides access to the National Monument.

FOR YEAR 1922

Expenditures were for outstanding bills of 1922 for spring maintenance.

Expenditures: Territory of Alaska, \$15.00; Alaska Road Commission, \$15.50. Total, \$30.50.

This project has been taken over by the Department of Agriculture.

Sitka Cemetery Road ¼ Mile

This road is from the Town of Sitka to the Military Cemetery. The expense of rehabilitating the cemetery was borne by the U. S. Navy and the Town of Sitka.

FOR YEAR 1921

Expenditures: Territory of Alaska, \$200.00; Alaska Road Commission, \$100.00. Total, \$300.00.

Route 3A—Haines-Wells and Route 3B—Pleasant Camp Extension, Total, 43 Miles Wagon Road.

This important project connects Haines with the International Boundary and the Rainy Hollow Mining District in British Columbia.

The excellent timber stand and ranches of the Upper Chilkat and Klehini Valleys are made accessible to Haines through this road.

FOR YEAR 1921

Work consisted of ordinary maintenance, including removal of slides, repair of culverts and a small amount of revetting on the 25 miles between Haines and Wells. This section of the road is now in excellent condition.

On the Pleasant Camp Extension, a 300-foot pile bent approach to the north side of the new bridge across the Chilkat river was constructed. A quarter mile of corduroy was constructed to connect this approach with the bars of the Klehini River. One mile of the road was cleared and grubbed. One mile of heavy side hill grading in rock was completed around Fish Point, Mile 28.

Expenditures: Territory of Alaska, \$4,367.19; Alaska Road Commission, \$18,462.29. Total, \$22,829.48.

FOR YEAR 1922

Beginning at the new bridge across the Chilkat, the road was graded and graveled, making connection with the one mile of grading previously completed around the bluff at Fish Point.

The following quantities represent the season's work: Clearing, 18 acres; excavation, 1,500 cu. yds.; graveleving, 1,425 cu. yds.; bridges, one 100-foot; culverts, 8.

In addition to this, through the open season a crew of men with

one GMC dump truck completed the graveleving of the road, with general repairs, from Haines to the 18 Mile Post. In addition to the above, late in the season, an additional 8,000 feet of right-of-way was cleared for next season's work.

Expenditures: Alaska Road Commission, \$10,345.15; Territory of Alaska, \$19,654.85. Total, \$30,000.00.

Biennial total of expenditures, \$52,829.48.

Route 3C—Porcupine Extension 18 Miles

This is the old Porcupine Road on the south side of the Klehini River. Since the old bridge at Wells was condemned it has been reached by fording the Klehini River from Route 3B.

FOR YEAR 1922

Work consisted of limited brushing out of the entire route. An equal amount of labor was donated by the farmers and other residents of the district.

Expenditures: Territory of Alaska, \$200.00; Alaska Road Commission, \$100. Total, \$300.00.

Route 3D—Haines-Mud Bay 10 Miles Wagon Road

This road extends westward from Haines along the west side of the Chilkat Peninsula to the cannery on Letnikoff Cove, and thence across the Peninsula to Mud Bay on the east side of the Peninsula.

FOR YEAR 1921

Work consisted of completing the grading so that travel would be made possible over the entire road. Two miles of new road were constructed. In addition, the grade was widened and the entire road from Haines to the Letnikoff Cannery opened up for wagon traffic.

Expenditures: Alaska Road Commission, \$39.50; Territory of Alaska, \$5,000.00. Total, \$5,039.50.

FOR YEAR 1922

This year's work made the road passable for through traffic and that portion, Haines to the Cannery, was regularly used for automobiles. The chief work of the season was the graveleving and regrading on the first two miles of this road, beginning at Haines.

Expenditures: Alaska Road Commission, \$700.00; Territory of Alaska, \$1,500.00. Total, \$2,200.00.

Biennial total of expenditures, \$7,239.30.

Route 44A—Skagway-Smuggler's Cove Suspension Bridge.

FOR YEAR 1921

This work was required to make Smuggler's Cove available to the Town of Skagway. In addition to the cooperation of the Territory and the Alaska Road Commission, the Alpine Club of Skagway contributed \$500.00; \$463.75 in cash and the balance in materials. A substantial steel cable suspension bridge of 175-foot span was erected. This bridge is an excellent permanent structure and, while designed for light traffic, fully answers present needs.

Expenditures: Alaska Road Commission, \$9,194.96; Territory of Alaska, \$1,500.00; Contributed, Alpine Club of Skagway, \$463.75. Total, \$11,158.71.

Route 72—Wrangell-Oil Dock 1/2 Mile Wagon Road

This is a new project taken up in response to numerous petitions. It provides a means of reaching the Standard Oil dock and supply station from the City of Wrangell.

FOR YEAR 1921

2,700 feet of road were constructed through heavy timber. A trestle approach 100 feet long was erected. The clearing and grubbing is complete on the entire road. The grading is not complete.

Expenditures: Alaska Road Commission, \$2,964.97; Territory of Alaska, \$1,500.00; City of Wrangell, \$500.00. Total, \$4,964.97.

On May 1st, 1922, this project was turned over to the Department of Agriculture, by whom it has been completed.

Route 81—Strawberry Point 1 1/2 Miles Wagon Road

This is a new project and is purely local. It provides means of transportation between the various settlers.

It is believed that *Strawberry Point* is one of the agricultural areas of Southeastern Alaska which can be most readily developed, and with a moderate road system it will become attractive to homestead settlers.

FOR YEAR 1921

Construction was started upon an 85-foot pile bent bridge with an 18-foot lift span across Good Creek. One and one-half miles of road were cleared connected Good Creek with Salmon River where a similar bridge will be required. The residents of *Strawberry Point* contributed \$300 in labor on this project.

Expenditures: Territory of Alaska, \$300.00; Alaska Road Commission, \$62.39. Total, \$362.39.

FOR YEAR 1922

The 85-foot pile bent bridge, referred to in the report of 1921, was completed. Work is projected on a similar bridge across Salmon River during the next season. This work, although small in itself, has been very encouraging to the small group of ranchers now developing homesteads in the vicinity.

Expenditures: Territory of Alaska, \$1,500.00; Alaska Road Commission, \$679.83. Total, \$2,179.83.

Biennial total of expenditures, \$2,542.22.

Route 91—Yakutat 1 1/2 Miles Trail

This is a new project. It consists of a pack trail from the Libby, McNeill & Libby Cannery to the postoffice of Yakutat and to the native village beyond.

FOR YEAR 1921

A small shipment of tools was sent to Yakutat in the fall of 1921, and the work was to have begun the following spring. This project was turned over to the Forest Service.

Expenditures: Territory of Alaska, \$6.82; Alaska Road Commission, \$43.73. Total, \$50.55.

**SUMMARY OF EXPENDITURES
APRIL 1, 1921, TO MARCH 31, 1922.****First Division**

Project—	A. R. C.	Terr.	Other Funds	Total
Pr. of Wales Is. Portage	\$ 204.50	\$	\$	\$ 204.50
Petersburg-Scow Bay	31.50	.....	.....	31.50
Juneau System	21,204.26	796.91	.....	22,001.17
Haines-Pleasant Camp	18,462.28	4,367.19	.....	22,829.48
Haines-Mud Bay	39.30	5,000.00	.....	5,039.30
Skagway-Smuggler's Cove	9,194.96	1,500.00	463.75	11,158.71
Wrangell-Oil Dock	2,964.97	1,500.00	500.00	4,964.97
Strawberry Point	62.39	300.00	.....	362.39
Yakutat	43.73	6.82	.....	50.55
	\$52,207.90	\$13,470.92	\$963.75	\$66,642.57

**SUMMARY OF ALLOTMENTS
APRIL 1, 1922, TO MARCH 31, 1923.****First Division**

Project—	A. R. C.	Terr.	Total
Douglas-Gastineau Channel	\$ 53.25	\$ 150.00	\$ 203.25
Sitka-Indian River	15.50	15.00	30.50
Sitka Cemetery	100.00	200.00	300.00
Strawberry Point	679.83	1,500.00	2,179.83
Haines-Mud Bay	700.00	1,500.00	2,200.00
Haines-Pleasant Camp	10,345.15	19,654.85	30,000.00
Porcupine Extension	100.00	200.00	300.00
	\$11,993.73	\$23,219.85	\$35,213.58

**BIENNIAL SUMMARY
APRIL 1, 1921, TO MARCH 31, 1923.**

Project—	A. R. C.	Terr.	Other Funds	Total
Pr. of Wales Is. Portage	\$ 204.50	\$	\$	\$ 204.50
Petersburg-Scow Bay	31.50	.....	.....	31.50
Juneau System	21,204.26	796.91	.....	22,001.17
Haines-Pleasant Camp	28,807.44	24,022.04	.....	52,829.48
Haines-Mud Bay	739.30	6,500.00	.....	7,239.30
Skagway-Smuggler's Cove	9,194.96	1,500.00	463.75	11,158.71
Wrangell-Oil Dock	2,964.97	1,500.00	500.00	4,964.97
Strawberry Point	742.22	1,800.00	.....	2,542.22
Yakutat	43.73	6.82	.....	50.55
Douglas-Gastineau Chan'l	53.25	150.00	.....	203.25
Sitka-Indian River	15.50	15.00	.....	30.50
Sitka Cemetery	100.00	200.00	.....	300.00
Porcupine Extension	100.00	200.00	.....	300.00
	\$64,201.63	\$36,690.77	\$963.75	\$101,856.15

BIENNIAL REPORT

COOPERATIVE ROAD WORK—ALASKA ROAD COMMISSION AND THE TERRITORY OF ALASKA

SECOND DIVISION

In the Second Division for the biennium all Territorial funds were applied to cooperative projects with the Alaska Road Commission. Hence, no chairman and secretary of the Divisional Board was appointed. The President of the Alaska Road Commission, as Consulting Engineer to the Territorial Board, exercised supervision over all field operations. Each year the elected commissioners were requested to submit recommendations to the Territorial Board.

Nome Locals: FOR YEAR 1921

Routine repair work was done upon the following local roads serving the mining district closely contiguous to Nome:

Route	13A	Nome to Bessie	3.5	miles
"	13B	Bessie Banner	3.5	"
"	13C	Bessie Little	1.25	"
"	13K	Bessie-Buster	7.5	"
"	25A	Cripple River	12.0	"
"	25B	Penny River	1.5	"
"	25D	Month of Center	2.0	"
"	25E	Submarine Paystreak	3.0	"
"	25F	Anvil Glacier	3.0	"
Total			37.25	"

The only new construction on the Nome system of roads was that upon the Nome-Osborn Road, Route 13F. Substantial work was done upon this road between the eight and ten and three-quarter mile posts. With the placing of two additional miles of surfacing this road will be in excellent condition. All of the Nome roads have received the benefit of the new Alaska Road Commission machinery which was sent to Nome last season. This equipment includes one caterpillar tractor, two dump trucks and two light delivery trucks.

Expenditures: Alaska Road Commission, \$11,699.67; Territory of Alaska, \$7,115.19. Total, \$18,814.86.

FOR YEAR 1922

Routine repair work was done upon the general local roads serving the mining districts closely contiguous to Nome. However, due to the installation of two large dredges on Little Creek, vastly more summer freighting was done through the season than in any previous year. The repairing of the roads to resist this traffic, in addition to extending the Bessie-Little Creek Road, constituted the heaviest work of the season. These new operations are so important for the Seward Peninsula that every effort was made and is projected for keeping the roads used in supplying these dredges, that is, the Nome-Bessie and Bessie-Little Creek, in the best possible condition.

In addition to the main arterial routes, some graveling and seasonal repairs were given to all roads in the district.

Expenditures: Alaska Road Commission, \$4,000.00; Territory of Alaska, \$11,425.00. Total, \$15,425.00.

Biennial total of expenditures, \$34,239.86.

Route 8—Nome Council.....57 Miles Wagon Road, 25 Miles Trail

FOR YEAR 1921

This important road serves as an artery connecting the City of Nome with Council and the intervening mining activities. The work of the last season was mainly carried out between Nome and Solomon. However, this portion of the road is now in such condition that no other work will be done upon it in the future except the necessary repair of seasonal damage. The portion of this route needing work especially is that between East Fork and Council. It is especially desired to open up the road to and across Skookum Pass. General repairs were carried out over the entire road; grading and graveling between Cape Nome and Solomon.

Expenditures: Alaska Road Commission, \$9,524.85; Territory of Alaska, \$13,820.57. Total, \$23,345.42.

FOR YEAR 1922

The work for the season consisted of protection of the entire road during the break-up and thereafter in repairing all seasonal damages. The first work of new improvement was performed on the section of this road from Bonanza to East Fork. This section of road is not only used as a through route but gives important service in supplying the mining operators along the Solomon River. Several large culverts were placed and one-half mile of road was graveled.

Expenditures: Territory of Alaska, \$1,400.00; Alaska Road Commission, \$5,000.00. Total, \$6,400.00.

Biennial total of expenditures, \$29,745.42.

Ferries:

FOR YEAR 1921

No new ferries were installed through 1921. All of the previously established ferries were maintained. The list of the ferries established in the Second Division follows: Safety, Bonanza, Council, Cripple River, Sirook, Nome River, Shelton, Kougarok, and Kiana. Besides these, six suspension type footbridges and two steel cable overhead trolleys were maintained.

Expenditures: Alaska Road Commission, \$1,894.54; Territory of Alaska, \$2,029.80. Total, \$3,834.34.

FOR YEAR 1922

No new ferries were installed through the year and all expenditures were for general maintenance and operation.

Expenditures: Alaska Road Commission, \$1,000.00; Territory of Alaska, \$1,750.00. Total, \$2,750.00.

Biennial total of expenditures, \$6,584.34.

Route 68—Winter Trails:

FOR YEAR 1921

The winter trail work in this division is of very great importance. Besides the upkeep of the permanently staked trails, about eight hundred miles of temporary trails are staked each winter. All of this work is of great importance in safeguarding the winter traveler. The most important trail is the winter mail route from the Yukon, at Kaltag, to Nome. This trail is now permanently staked throughout and, with some slight addition to the shelter provided, will be complete.

Expenditures: Alaska Road Commission, \$6,836.04; Territory of Alaska, \$706.00. Total, \$7,542.04.

FOR YEAR 1922

This season provided for staking permanently the trail from Lost River to Cape Prince of Wales and the trail up the Kobuk River from the mouth to Shungnak.

Total expenditures: Alaska Road Commission, \$2,000.00. Territory of Alaska, \$1,130.00. Total, \$3,130.00.

In addition to this, provision was made for temporary staking of the following trails:

Kotzebue to Riley Cahnell Shelter Cabin	32	miles
Kotzebue to Seesalik on Point Barrow Trail	12	"
Lockharts Point to Mount Noatak	6	"
Deering to Choris Peninsula	40	"
Keewalik to Choris Peninsula	35	"
Keewalik to Callahan Shelter Cabin	30	"
Callahan Cabin to Nazuruk Mouth Kobuk	14	"
Candle to Keewalik	8	"
Teller to Gold Run	18	"
Teller to Douglas	16	"
Teller to Mission	6	"
Teller to Head of Harbor	12	"
Teller to Igloo Creek	6	"
Romanoff to Coffee Point	12	"
Cheelena to Kotlik	12	"
St. Michaels Bay	5	"
Bonanza to Mouth Koyuk	30	"
Bonanza to Isaacs Point to Carhes	43	"
Isaacs Point to Mouth Koyuk	20	"
Moses to Walla Walla	20	"
McKinley Creek to west side Golovin Bay	14	"
Golovin to White Mountain	12	"
Nome Locals	100	"
Around Bluff	6	"
Around Topkok	8	"
Around Cape Nome	3	"

520 "

Provision was also made for an additional reconnaissance by the The route followed extends from

Nome to Unalakleet and thence to Kotlik and along the Lower Yukon to Kaltag, returning thence to Nome. With this reconnaissance, every winter trail will have been gone over in the Second Division.

Expenditures: Alaska Road Commission, \$4,000.00; Territory of Alaska, \$3,650.21. Total, \$7,650.21.

Biennial total of expenditures, \$18,322.25.

Route 13I—Nome River Extension.....5 Miles Wagon Road.

FOR YEAR 1921

This road commences at the eight and one-half mile post on Route 13K and follows the west bank of Nome River for a distance of five miles. Expenditure prior to July 1, 1921, was for repair of seasonal damage and maintenance during the break-up.

This road is not in very good shape, but the amount of traffic over it does not justify any expenditure except for seasonal damage.

Expenditures: Alaska Road Commission, \$416.63; Territory of Alaska, \$561.75. Total, \$978.38.

Route 25G—Snake River Extension3 Miles Wagon Road

This road commences at Glacier Creek at the end of Route 25F, extends to and across Snake River and thence across the flat to Boulder Creek.

FOR YEAR 1921

Total expenditures was for general repair and upkeep. A crew of men was sent out to repair two bridges over Sledge Creek and to place willow corduroy.

Expenditure: Alaska Road Commission, \$735.36.

Route 18—Kaltag-Solomon..... 248½ Miles Trail.

Commencing at Kaltag, this overland mail trail crosses the divide or portage to the Unalakleet River which it follows to Unalakleet. From Unalakleet it follows the coast to Bonanza on the east shore of Norton Bay, crossing to Isaacs Point on the west shore it follows the coast to Walla Walla, where it crosses the divide into the Quinahock. It then follows the Quinahock to its head, crossing the divide into McKinley Creek which it follows to Golovin Bay and thence to Golovin. From Golovin it crosses to Portage Creek which it follows to its head, crossing the divide into Cheruk Creek which it follows to the coast. It thence follows the coast to Solomon and thence over Route 8 to Nome.

FOR YEAR 1921

Work was done between Kaltag and Unalakleet and consisted of building three bridges over streams near the Twenty-two Mile Cabin, Old Woman and Ten Mile Creek, the resetting of some of the trail stakes and the grading of two approaches out of the Unalakleet River.

The trail is in good condition but needs constant attention. Between Solomon and Spruce Creek the location of this trail should be removed from the lagoon as the overflows are continually interrupting travel.

Expenditure: Alaska Road Commission, \$860.99.

FOR YEAR 1922

Work consisted of general upkeep and improvements, similar to those of 1921.

Expenditures: Alaska Road Commission, \$1,000.00; Territory of Alaska, \$500.00. Total, \$1,500.00.

Biennial total of expenditures, \$2,360.99.

Route 21—Unalakleet-St. Michael 60 Miles Trail.

This is the mail trail following the coast from Unalakleet to St. Michaels Bay where it crosses to St. Michaels.

FOR YEAR 1921

Work consisted of seasonal flagging.

Expenditure: Alaska Road Commission, \$50.00.

Route 26—Candle-Candle Creek 6 Miles Wagon Road

FOR YEAR 1921

This road is a good gravel road and serves the operators working south of Candle. About one-half mile of graveling still is required to put the entire road in excellent condition.

Expenditures: Alaska Road Commission, \$5,025.86; Territory of Alaska, \$529.12. Total, \$5,554.98.

FOR YEAR 1922

Work on this road consisted of general repair and regravelling between the 3 and 4 mile posts. This road is now in excellent condition and its extension is not contemplated.

Expenditures: Alaska Road Commission, \$1,000.00; Territory of Alaska, \$1,000.00. Total, \$2,000.00.

Biennial total of expenditures, \$7,554.98.

Route 27—Deering Inmachuk 25 Miles Wagon Road.

This road, leading from Kotzebue Sound at Deering, to the mining operations on the Inmachuk, is being gradually improved by improving the numerous fords and grading.

FOR YEAR 1921

This road was worked over, slides removed, detours cut around fords and all seasonal damage repaired. Three fords still exist in this road and future work is planned to make overland detours about each of them.

Expenditures: Alaska Road Commission, \$2,507.31; Territory of Alaska, \$6,000.00. Total, \$8,507.31.

FOR YEAR 1922

The road has been extended to the 13 Mile Post from Deering. During the season two miles of willow corduroy were placed and one mile of grading executed.

Expenditures: Alaska Road Commission, \$3,500.00; Territory of Alaska, \$3,500.00. Total, \$7,000.00.

Biennial total of expenditures, \$15,507.31.

Route 28A—Nome Taylor 135 Miles Trail.

This winter mail trail leaves Nome over Routes 13A and 13K to the mouth of Dexter Creek. Crossing Nome River, it follows the left

limit to the mouth of Willow Creek, then recrosses and follows the right limit to the U. S. Roadhouse at Dorothy Creek, then the left limit again and over the divide to Nugget Creek. From the Nugget Roadhouse, it crosses Salmon Lake, follows down Pilgrim River to Iron Creek, then across the flats to Hot Springs. It then cuts across to Marys Igloo and up the Kusatrin River to Shelton, the northern terminus of the summer tramline (Seward Peninsular Railway). From Shelton the trail proceeds to Dahl, and then up the Kougarok River to Taylor.

FOR YEAR 1921

Seasonal flagging.

Expenditure: Alaska Road Commission, \$1,558.00.

Route 37—Topkok-Candle 154 Miles Trail.

This is the Candle mail trail. It leaves the overland mail route 18 at Topkok, fifty-three miles east of Nome, and follows the Topkok River to its head, thence over the divide into Skookum, crossing the same and the Fish River and Niuktuk Flats to Council. This portion is the regular Council winter trail. From Council the trail follows up Melsing Creek to the head, crosses the divide into the Fish River Flats, then crossing same in a general northeasterly direction to Telephone Creek. Following Telephone Creek to its head it then crosses the divide and goes down the Koyuk Valley. It then crosses into First Chance Creek and up to its head, then over the divide into Gold Run Creek. Following down Gold Run Creek to within two miles of the mouth, the trail swings northerly and parallels the Keewalik River to Glacier Creek, then on the left bank of the Keewalik River to near the mouth of Lava Creek and then on the Keewalik River to Candle. The portion between Council and the mouth of Hunter Creek is but slightly used as the mail now goes in via Haycock and the two trails join at the mouth of Hunter Creek, or near Snyder's Roadhouse. There is considerable travel on this trail between Council and the coast at Topkok.

FOR YEAR 1921

Work consisted of winter flagging.

Expenditure: Alaska Road Commission, \$210.00.

Route 41—Kiana-Klery Creek 1 Mile Road, 11 Miles Trail

FOR YEAR 1921

A permanently staked winter trail, twelve miles in length, connects Kiana and Klery. One mile of the trail has been corduroyed by the Alaska Road Commission with the help of funds collected for road tax.

Expenditures: Alaska Road Commission, \$237.15.

Route 42—St. Michael-Kotlik 70 Miles Trail.

This is a winter mail trail to Kotlik and on up the Yukon River to Marshall. From St. Michael's it follows the left bank of the St. Michael's Canal to the mainland. Thence in a southwesterly direction to Point Romanoff on the beach seven miles, thence to Coffee Point twelve miles. Thence by Postolik to Kotlik, twelve miles, and thence up the Yukon to Marshall.

FOR YEAR 1921

With the completion of the work of permanent staking this past fall, this route should be in excellent shape.

Expenditures: Alaska Road Commission, \$270.00.

**Route 49—Davidson's Landing to Kougarok.....24 Miles Wagon Road,
16 Miles Trail.**

FOR YEAR 1921

The entire route was gone over, broken culverts repaired and brush cut out. Only slight improvements were contemplated as it is hoped to lay out and begin the construction upon a route of more permanent nature into the Kougarok Mining District.

Expenditures: Alaska Road Commission, \$45.80; Territory of Alaska, \$1,000.00. Total, \$1,045.80.

Route 62—Haycock to Dime Landing.....9 Miles Wagon Road.

This road connects Dime Landing, on the Koyuk River, with the workings on Dime Creek at the postoffice of Haycock.

FOR YEAR 1921

Work was prosecuted through the entire season. Two miles of corduroy was placed, using timber cut during the winter. One-half mile of corduroy is required to complete this nine miles of road. The work done is of very high value in keeping up the production of this active mining district.

Expenditures: Alaska Road Commission, \$7,680.51; Territory of Alaska, \$6,361.29. Total, \$14,041.80.

FOR YEAR 1922

During 1922 the road was completed, except as noted above, but sufficient funds were not on hand to pay for all the poles incorporated in the corduroy. This obligation was settled during this season. No additional work is being performed or contemplated as this road is substantially complete.

Expenditures: Territory of Alaska, \$7,689.64; Alaska Road Commission, \$2,400.00. Total, \$10,089.64.

Biennial total of expenditures, \$24,131.44.

Route 67A—Teller-Lost River.....21 Miles Trail.

FOR YEAR 1921

This is the extension of Route 67 towards Cape Prince of Wales. It was permanently staked as far as Lost River, crossing the bay from Teller to the Reindeer Station and thence on the beach to Lost River.

Expenditures: Alaska Road Commission, \$420.00.

**Route 73—Kotlik-Marshall.....4¼ Miles Wagon Road, 11 Miles
Sled Road, and 190 Miles Trail.**

FOR YEAR 1921

Expenditures under this head include \$456.50 for repairs and protection during the break-up to the two and one-eighths miles of corduroy and one-eighth mile of graded road constructed by the Territory from

the landing ten miles above Marshall with the workings on Willow Creek; \$850.00 for work performed on two sections of the winter mail trail from Kotlik to Marshall, between Old Hamilton and New Hamilton, and between Andreafski and Pilot Station, respectively; \$660.00 for clearing out a winter sled road and summer trail, eleven miles long, from the landing on the Yukon River below Russian Mission across to the new diggings on Stuyahok Creek; and \$639.50 in settlement of old bills for prior work. Stuyahok Creek is reported to have produced \$7,000.00 the first season.

Total expenditures: Alaska Road Commission, \$2,225.25; Territory of Alaska, \$380.75. Total, \$2,606.00.

Bridges:

FOR YEAR 1922

Allotment for general spring maintenance of unlisted bridges: Alaska Road Commission, \$300.00; Territory of Alaska, \$100.00. Total, \$400.00.

**SUMMARY OF EXPENDITURES
APRIL 1, 1921, TO MARCH 31, 1922**

Second Division

Project—	A. R. C.	Terr.	Total
Nome Locals	\$11,699.67	\$ 7,115.19	\$18,814.86
Nome-Council	9,524.85	13,820.57	23,345.42
Ferries	1,804.54	2,029.80	3,834.34
Winter Trails	6,836.04	706.00	7,542.04
Nome River Extension	416.63	561.75	978.38
Snake River Extension	735.36	0.00	735.36
Kaltag-Solomon	860.99	0.00	860.99
Unalakleet-St. Michael	50.00	0.00	50.00
Candle-Candle Creek	5,025.86	529.12	5,554.98
Deering-Innuchuk	2,507.31	6,000.00	8,507.31
Nome-Taylor	1,558.00	0.00	1,558.00
Topkok-Candle	210.00	0.00	210.00
Kiana-Klery Creek	237.15	0.00	237.15
St. Michael-Kotlik	270.00	0.00	270.00
Davidsons Landing-Taylor	45.80	1,000.00	1,045.80
Dime Creek Corduroy	7,680.51	6,361.29	14,041.80
Nome-Wales	420.00	0.00	420.00
Marshall-Kotlik	2,225.25	380.75	2,606.00
Kougarok Reconnaissance	3,984.66	0.00	3,984.66
	\$56,092.62	\$38,504.47	\$94,597.09

SUMMARY OF ALLOTTMENTS

APRIL 1, 1922, TO MARCH 31, 1923

Project	A. R. C.	Terr.	Total
Nome Locals	\$ 4,000.00	\$11,425.00	\$15,425.00
Dime Creek Corduroy	2,400.00	7,689.64	10,089.64
Nome-Council	5,000.00	1,400.00	6,400.00
Candle-Candle Creek	1,000.00	1,000.00	2,000.00
Deering-Immachuk	3,500.00	3,500.00	7,000.00
Bridges	300.00	100.00	400.00
Ferries	1,000.00	1,750.00	2,750.00
Flagging	6,000.00	4,780.21	10,780.21
Kaltag-Solomon	1,000.00	500.00	1,500.00
	\$24,200.00	\$32,144.85	\$56,344.85

BIENNIAL SUMMARY

APRIL 1, 1921, TO MARCH 31, 1923

Project	A. R. C.	Terr.	Total
Nome Locals	\$15,699.67	\$18,540.19	\$34,239.86
Nome-Council	14,524.85	15,220.57	29,745.42
Dime Creek Corduroy	10,080.51	14,050.93	24,131.44
Candle-Candle Creek	6,025.86	1,529.12	7,554.98
Deering-Immachuk	6,007.31	9,500.00	15,507.31
Snake River Extension	735.36	0.00	735.36
Nome River Extension	416.63	561.75	978.38
Ferries	2,804.54	3,779.80	6,584.34
Bridges	300.00	100.00	400.00
Winter Flagging	12,836.04	5,486.21	18,322.25
Kaltag-Solomon	1,860.99	500.00	2,360.99
Unalakleet-St. Michael	50.00	0.00	50.00
Nome-Taylor	1,558.00	0.00	1,558.00
Topkok-Candle	210.00	0.00	210.00
Klana-Klery Creek	237.15	0.00	237.15
St. Michaels-Kotlik	270.00	0.00	270.00
Nome-Wales	420.00	0.00	420.00
Marshall-Kotlik	2,225.25	380.75	2,606.00
Kougarok Reconnaissance	3,984.66	0.00	3,984.66
Davidsons Landing-Kougarok	45.80	1,000.00	1,045.80
	\$80,292.62	\$70,649.32	\$150,941.94

BIENNIAL REPORT

STATEMENT OF RECEIPTS AND DISBURSEMENTS
ROAD DISTRICT NO. 3, TERRITORY OF ALASKA
FROM MARCH 1, 1921, TO FEB. 28, 1923

Anton Eide, Divisional Chairman.

Receipts from Territorial Treasurer W. G. Smith, deposited with Divisional Road Treasurer and subject to disbursement by Divisional Chairman:

Deposit June 30, 1921	\$2,500.00
" Nov. 21, 1921	5,000.00
" Feb. 10, 1922	1,400.00
" June 16, 1922	500.00
" Oct. 7, 1922	4,500.00
" Oct. 23, 1922	5,000.00
" Voucher No. 121, disallowed	.25
	\$18,900.25

Disbursements by Routes

Overhead	\$ 145.33
Route No. 9 Valdez-Mineral Creek	1,009.75
" " 11 Seward-Nash Road	400.00
" " 12 Lake Spinaud Road	693.25
" " 14 Whitney Road	388.20
" " 17 Wasilla-Finger Lake	10,520.99
" " 20 Matanuska Trunk Road	323.69
" " -- Moose Creek-Baxter	2,218.62
" " -- Houston-Willow Creek	940.32
" " 22 Granby Road	495.97
" " 24 Palmer Springer Road	418.00
" " 25 Moose-Palmer Road	236.62
" " -- Chulitna Ferry	877.17
	\$18,667.91

Transferred to Cooperative Fund 232.34

Total \$18,900.25

DETAILED EXPENDITURES

Overhead:

Under the cooperative agreement the Alaska Road Commission assumed all overhead expenses, including salary and expenses of the chairman, plant and equipment, and all supervision by the Alaska Road Commission's organization. The Territory was charged for labor and supplies actually going into the work, fuel and routine repairs to equip-

ment. The charge here for overhead includes the purely territorial charges which could not be assumed by the Alaska Road Commission.

FOR YEAR 1921

Office rent at Valdez accruing prior to assumption of supervision by A. R. C.	\$ 25.33
Two days' salary of Divisional Commissioners Alf Benson in preparation of report and recommendations	20.00
Total expenditures	\$45.33

FOR YEAR 1922

Chairman's Bond, 1921	\$ 25.00
Chairman's Bond, 1922	25.00
Treasurer's Bond, 1921	5.00
Treasurer's Bond, 1922	5.00
Salaries of Commissioners Benson and Johnson @ \$20 each	40.00
Total expenditures	\$100.00

Biennial total of expenditures \$145.33

Route 9—Valdez-Mineral Creek 10½ Miles

This road leads from the Town of Valdez along the beach westward to the mouth of Mineral Creek; it then follows Mineral Creek as far as McIntosh's Roadhouse. It provides access to numerous small claims and small workings at the head of Mineral Creek.

FOR YEAR 1921

The approaches to Slwash Bridge were rebuilt and the bridge repaired.

Total expenditure, \$91.20.

FOR YEAR 1922

Routine maintenance work was performed on the beach section, and heavy repairs to the last four miles along Mineral Creek, upon which no expenditures had been made for several years. All bridges were placed in a good state of repair.

Total expenditures, \$918.55.

Biennial total of expenditures, \$1,009.75.

Route 11—Seward Branch (Nash) 2½ Miles.

This road leads from the Seward-Kenai Lake Road, (A. R. C. No. 10), 2½ miles from Seward, to the north shore of Resurrection Bay through a rich agricultural district.

FOR YEAR 1921

Only emergency repairs, such as turning the glacial streams and leveling the ruts, were made last season. To make this piece of road reasonably passable will take about \$5,000 for graveling. The present condition is poor.

Total expenditures, \$400.00.

Route 12—Anchorage-Lake Spinard 3½ Miles

This road leads from Anchorage, at Mile 114, Government Railroad, through a good farming district to Lake Spinard. Lake Spinard is a

summer resort and bathing place and is used by hundreds of autoists in the summer time. It gives the City of Anchorage a much needed outlet and eventually should be extended in a loop through the promising agricultural country to connect with the Whitney Road, No. 14.

FOR YEAR 1921

The work performed last season consisted of dragging the entire length of the road and putting in 1170 feet of fir plank road across a swamp.

Total expenditures, \$533.75.

FOR YEAR 1922

Routine maintenance work was performed through the season. About \$4,000 should be allotted for widening and regrading this road to the same standard as the other Anchorage local roads.

Total expenditures, \$159.50.

Biennial total of expenditures, \$693.25.

Route 14—Whitney Road 7 Miles

This road runs from Anchorage, Mile 114 on the Government Railroad, in a southerly direction to Whitney's ranch. It is used very extensively by autoists, ranchers, wood-haulers, etc.

FOR YEAR 1922

Routine maintenance work was performed upon this road, which will eventually be extended to meet the Anchorage-Eagle River Road, Route 75, by way of Otter Lake.

Total expenditure, \$388.20.

Route 17—Wasilla-Finger Lake 7 Miles

This road runs from the town of Wasilla, at Mile 160, Government Railroad, in a northeasterly direction to connect with the Matanuska Trunk Road (No. 20) at Forest Hall. It runs through the richest part of the Matanuska Valley and serves a great many ranchers.

FOR YEAR 1921

Six and one-half miles were grubbed and graded at a cost of \$725 per mile.

Total expenditures, \$4,714.15.

FOR YEAR 1922

The entire road has been completed, including surfacing. The road is now in excellent condition.

Total expenditure, \$5,806.84.

Biennial total of expenditures, \$10,520.99.

Route 20—Matanuska Trunk Road 8 Miles

This road leads from the Wasilla-Matanuska Road (No. 15) about a mile out of Matanuska in a northeasterly direction into the farming country and serves a great number of farmers along the route. At Forest Hall, about Mile 6 from Matanuska, it is joined by the Wasilla-Finger Lake Road (No. 17). It terminates with its junction with the Mile 26½-Palmer Road (A. R. C. No. 35B).

FOR YEAR 1922

Routine seasonal repairs were made to the road. It is now in good condition.

Total expenditure, \$323.69.

Route 25—Moose Creek-Baxter 2 Miles

This road connects the Chickaloon Branch of the Government Railroad with the Baxter Coal Mine. There has been greatly increased activity in this section during the year, a large coal contract having been secured.

FOR YEAR 1922

Heavy work was required in putting this road in shape for heavy coal shipments. Corduroy was required for about $\frac{1}{4}$ of a mile.

Total expenditure, \$2,218.62.

Houston-Willow Creek 128 Miles Winter Sled Road

This is a new project. The proposed sled road extends from Houston, Mile 175 of the Government Railroad, to the Willow Creek Mining District and connects with the summer road from Wasilla to the Fish Hook and Archangel districts.

FOR YEAR 1922

Work consisted of clearing entire right-of-way for winter traffic. Additional expenditures next year will be necessary to complete the project.

Total expenditures, \$940.32.

Route 22—Granby Road 5 Miles

This road connects the electrical power and lighting development, at the head of Solomon Gulch, with the beach. It serves the electrical development, furnishing the light and power to the City of Valdez, as well as the Solomon Gulch mines and several prospectors in that vicinity.

FOR YEAR 1921

Practically all work on this project was limited to completion of the Solomon Gulch Bridge, left incomplete the previous season, due to lack of funds. About 55 yards of solid rock were blasted out at the bridge approaches. Bulkheads were constructed at each end of the bridge and decking and bull rails were placed on the bridge.

Total expenditures, \$495.97.

Route 24—Palmer-Springer 3 Miles

This road connects a number of ranchers along the Matanuska River with Palmer at Mile 5 of the Chickaloon Branch of the Government Railroad.

FOR YEAR 1921

About two miles of the road were cleared and grubbed in order to allow the ranchers to get in and out with their implements and machinery.

Total expenditures, \$418.00.

Route 25—Moose-Palmer 2 Miles

This is an Alaskan Engineering Commission tote road and serves a few ranchers living along the Railroad.

FOR YEAR 1921

The work during the season consisted in removing a landslide near the mouth of Moose Creek. Present condition of the road is fair.

Total expenditures, \$236.62.

Chulitna Ferry:

FOR YEAR 1921

This ferry across the Chulitna River, near the mouth of Honolulu Creek, Mile 288 on the Government Railroad, gives access to the Government Railroad to a number of homesteaders and prospectors in the country across the Chulitna River which, at that point, is unfordable. Present development does not justify a bridge.

Total expenditures, \$877.17.

Note:

The last biennial report of the Territorial Board, under the caption of "Overhead", for the Third Division shows an expenditure for chairman's salary, clerk hire, office rent, supplies, etc., of \$9,251.04. The corresponding expenditure under the present cooperative agreement for the present biennium was only \$145.33, which shows a direct saving in this one item over the last biennium of \$9,105.71. In addition, the Territorial Divisional Board had free use of all necessary Alaska Road Commission equipment, such as road graders, gasoline tractors, tents, tools, etc., which also represents a material saving to the Territory.

**COOPERATIVE ROAD WORK—ALASKA ROAD COMMISSION
AND THE TERRITORY OF ALASKA**

THIRD DIVISION

In the Third Division the Divisional Territorial Board expended directly for the biennium \$18,667.91. The balance available of territorial funds, for the biennium, were allotted to cooperative projects as follows: Department of Agriculture, \$11,120.00; Alaska Road Commission, \$40,135.96. Funds allotted the Department of Agriculture were expended by the U. S. Bureau of Public Roads, contained in a separate report herein. The cooperative funds with the Alaska Road Commission were expended under the supervision of the President of the Board, who, as Consulting Engineer to the Territorial Board, exercised supervision over all field operations. The elected commissioners were requested to submit to the Territorial Board recommendations on all projects within their division which were given careful consideration in making divisional allotments.

Route 10—Seward-Kenai Lake 7 Miles Wagon Road

Miles 8-14, inclusive, of this project were turned over to the Department of Agriculture on July 1, 1920, since which date no further

expenditures have been made by the Alaska Road Commission. Miles 0-7 were similarly turned over as of May 1, 1922. Expenditures below represent work performed prior to that date and some belated bills from the previous season's work.

Total expenditure: Alaska Road Commission, \$9,617.58.

Route 20—Rainy Pass Trail.....282 Miles Trail
(Nancy-Iditarod Winter Trail)

FOR YEAR 1921

During the winter of 1921-22 the entire route was gone over and all windfalls removed, fallen tripods replaced and all of the most necessary emergency work done. A telephone line was installed from Pontello's Cabin near the timber line on the south slope of Rainy Pass to Anderson's Roadhouse near the summit, a distance of some twelve miles over a barren, windswept and dangerous ridge. The Pontello Cabin and the Richardson Roadhouse were repaired for use as shelter cabins.

Total expenditures: Alaska Road Commission, \$1,794.21; Territory of Alaska, \$2,000.00. Total, \$3,794.21.

FOR YEAR 1922

Two contracts were let on this trail, removing what has long been two of the most annoying obstacles. A contract was let for side hill grading through Dalzelle Canyon permitting the trail to be removed from the stream bed. In addition, a contract was let for cutting down the steep grades on both sides of the Happy River Roadhouse. Both of these contracts were completed and added immensely to the safety of travel over this trail. It was the plan of this Commission to keep this trail to the Kuskokwim in the best possible condition through the winter of 1922-23. At the same time, the reconnaissances extending through the past two years were to be completed for a trail from Kobi on the Government Railroad, north of the Alaska Range, to McGrath. Sufficient funds were at hand, also, to cut the latter trail. If the cutting of this trail and the additional experiences through the winter were satisfactory on the Kobi Trail, it was the plan to recommend to the Postoffice Department the routing of mail along this northern route. Such a program, in case the northern trail had been finally adopted for the winter of 1923-24, would have provided ample time for the roadhouse owners on the Rainy Pass Trail to move and establish themselves along the new trail. In spite of all this, the mail was routed from Kobi to McGrath, with the consequent annoyance and disruptive mail service that is well known. All expenditures made on the Rainy Pass Trail were made with this thoroughly in mind and with the purpose of maintaining this trail in the best possible condition considering the difficult topography traversed through all seasons of travel.

Expenditures: Alaska Road Commission, \$2,000.00; Territory of Alaska, \$3,000.00. Total, \$5,000.00.

Biennial total of expenditures, \$8,794.21.

Route 51—Talkeetna-Cache Creek 12 Miles Wagon Road, 30 Miles Sled Road.

Work was carried on upon this project through the entire year. This road connects Talkeetna, on the Government Railroad, with the Cache Creek Mining District.

FOR YEAR 1921

Bridges were erected across Peters Creek and Kroto River. A sled road was cut for the entire length of the road. Permanent caches were installed through the wintertime and supplies for the season's work freighted in over the snow. A tractor was obtained and used through the entire season. Twelve miles of road have now been cleared and graded. There remains thirty miles of sled road upon which considerable work will be required before summer freighting will be possible over the entire road.

Expenditures: Alaska Road Commission, \$18,940.86; Territory of Alaska, \$18,208.77. Total, \$37,149.62.

FOR YEAR 1922

Construction was in progress through the entire open season upon this project. A very encouraging stimulation of placer mining in the Cache Creek District has followed the opening up of this road. Through the season 14 acres of grubbing and 4 miles of grading were performed. One mile of corduroy was laid.

In order to assist summer traffic beyond the end of the completed road, a pack trail, with bridges, was blazed from Moose Creek to Cache Creek. This, with the excellent sled road cut throughout, provides winter and summer communication of some kind between Talkeetna on the Government Railroad and this mining district. Both of these expedients have given immediate relief.

In addition to this, every effort will be continued to open the summer wagon road through the entire distance.

Expenditures: Alaska Road Commission, \$15,000.00; Territory of Alaska, \$15,232.34. Total, \$30,232.34.

Biennial total of expenditures, \$67,381.96.

Route 75—Anchorage-Eagle River..... 9 Miles Wagon Road, 1 Mile Trail.

FOR YEAR 1922

This road is an important tributary road to Anchorage. Through the last season the plans of this road were modified somewhat to include its extension to Otter Creek and the railroad nearby. After the railroad is crossed, it is planned to connect this road with the road to the Whitney Roadhouse and thus provide a loop road from Anchorage of twenty-seven miles, connecting the ranches north and northeast of Anchorage and opening up a generally excellent farming country.

Through the season four miles of road were stripped, cleared and graded. The road is now complete from Anchorage to the crossing of the Alaskan Railroad.

Expenditures: Alaska Road Commission, \$12,000.00; Territory of Alaska, \$1,694.85. Total, \$13,694.85.

Route 61—Strelna-Kuskulana.....16 Miles Wagon Road.

FOR YEAR 1921

Entire expenditure was for repairs to the Kuskulana Bridge in the fall of 1920. The Divisional Chairman for that year paid bills for this work amounting to \$750.00 and the Alaska Road Commission made up the balance.

Expenditures: Alaska Road Commission, \$1,197.31.

SUMMARY OF EXPENDITURES

APRIL 1, 1921, TO MARCH 31, 1922.

Third Division

Project	A. R. C.	Terr.	Total
Seward-Kenal Lake	\$ 9,617.58	\$ 0.00	\$ 9,617.58
Rainy Pass Trail	1,794.21	2,000.00	3,794.21
Talkeetna-Cache Creek	18,940.85	18,208.77	37,149.62
Kuskulana Bridge	1,197.31	0.00	1,197.31
	\$31,549.95	\$20,208.77	\$51,758.72

SUMMARY OF ALLOTMENTS

APRIL 1, 1922, TO MARCH 31, 1923.

Project	A. R. C.	Terr.	Total
Talkeetna-Cache Creek	\$15,000.00	\$15,232.34	\$30,232.34
Rainy Pass Trail	2,000.00	3,000.00	5,000.00
Anchorage-Eagle River	12,000.00	1,694.85	13,694.85
	\$29,000.00	\$19,927.19	\$48,927.19

BIENNIAL SUMMARY

APRIL 1, 1921, TO MARCH 31, 1923.

Project	A. R. C.	Terr.	Total
Seward-Kenal Lake	\$ 9,617.58	\$ 0.00	9,617.58
Rainy Pass Trail	3,794.21	5,000.00	8,794.21
Talkeetna-Cache Creek	33,940.85	33,441.11	67,381.96
Kuskulana River Bridge	1,197.31	0.00	1,197.31
Anchorage-Eagle River	12,000.00	1,694.85	13,694.85
	\$60,549.95	\$40,135.96	\$100,685.91

FOURTH DIVISION

STATEMENT OF RECEIPTS AND DISBURSEMENTS

ROAD DISTRICT NO. 4, TERRITORY OF ALASKA,
FROM MARCH 1, 1921, TO FEB. 28, 1923.

Abe McKinnon, Divisional Chairman.

Receipts from Territorial Treasurer W. G. Smith, deposited with Divisional Road Treasurer and subject to disbursement by Divisional Chairman:

Deposit May 28, 1921	\$4,000.00
" Aug. 27, 1921	5,000.00
" Sept. 30, 1921	3,000.00
" Oct. 17, 1921	8,000.00
" Dec. 15, 1921	1,000.00
" Jan. 20, 1922	1,000.00
" June 17, 1922	500.00
" July 15, 1922	2,500.00
" Aug. 10, 1922	4,000.00
" Sept. 30, 1922	5,000.00
" Oct. 9, 1922	3,000.00
" Jan. 13, 1922: Voucher 1266 disallowed	7.00
Voucher 1360 part disallowed	15.00
May 16, 1922: Voucher 1311 part disallowed	18.75
Nov. 15, 1922: Voucher 1439 disallowed	100.00
Voucher 1457 disallowed	11.50
Voucher 1500 disallowed	6.00

\$37,158.25

Disbursements by Routes

Overhead	\$ 156.00
Route No. 1A Fairbanks-Gilmore	4,903.95
" " 1B Gilmore-Summit	8,353.68
" " 2 Summit-Chatanika	1,181.00
" " 4 Little Eldorado	575.05
" " 6 Fox-Olnes	275.50
" " 8 Fairbanks-Ester Creek	4,428.10
" " 9 Farmers Birch Hill	5,830.41
" " 9A Isabelle Creek Branch	261.32
" " 22 Hot Springs Landing-Eureka	1,162.36
" " — Fairbanks-Chena H. S.	2,698.10
" " — Olnes-Livengood	271.25
" " — Graehl Bridge	1,223.57
" " — Central House-Circle H. S.	1,218.25
" " — Roosevelt-Kantishna	655.03
" " — Dunbar-Brooks	2,258.38

" " Farmers-Chena Slough	1,170.47	
" " Noyes Slough Bridge	459.69	
		\$37,082.11
Transferred to Cooperative Fund		76.14
Total		\$37,158.25

DETAILED EXPENDITURES

Overhead:

Under the cooperative agreement the Alaska Road Commission assumed all overhead expenses, including salary and expenses of the chairman, plant and equipment, and all supervision by the Alaska Road Commission's organization. The Territory was charged for labor and supplies actually going into the work, fuel and routine repairs to equipment. The charge here for overhead includes the purely territorial charges which could not be assumed by the Alaska Road Commission:

FOR YEAR 1921

Premiums on Chairman's Bonds, Vouchers 1270 and 1301	\$ 45.00
2 day's salary of Divisional Commissioner Carl Nelson: Preparation of report and recommendations	20.00
	\$ 65.00

FOR YEAR 1922

Premium on Chairman's Bond	\$ 5.00
Salvage on grader and other territorial equipment left at Tamarak Landing	56.00
Printing of forms	10.00
Pay of Commissioner Nelson	20.00
Total	\$ 91.00

Biennial total of expenditures

\$156.00

Route 1A—Fairbanks-Gilmore 13 Miles Wagon Road

This road forms an integral part of the proposed extension of the Richardson Highway to Circle City, connecting Fairbanks with the Town of Gilmore, near the headwaters of Goldstream, a prominent placer district. It carries a large part of the traffic in the vicinity of Fairbanks, being used principally by farmers and miners.

FOR YEAR 1921

No work was done on this route between May 1st and June 30th, 1921.

Between July 1st and Oct. 31st, 1921 the entire road was worked over, 4 miles receiving a light layer of gravel and 7 miles being graded in addition to general repair work. The post bent bridge over Garden Slough, ¼ mile out from Fairbanks, was rebuilt. New timbers were put on the ice breakers of the Noyes Slough Bridge.

Total expenditures, \$3,897.90.

FOR YEAR 1922

General maintenance work was done on this route. Chuck holes were filled and light gravel surfacing done in places, totaling ½ mile.

The grader was run over approximately three miles, making two cuts each way to clean out ditches and smooth up crown. Some work was done for protection during break-up.

Total expenditures, \$1,006.05.

Biennial total of expenditures, \$4,903.95.

Route 1B—Gilmore-Fairbanks Creek 19 Miles Wagon Road

This route forms a part of the proposed extension of the Richardson Highway and is used by automobiles, trucks, and teams in going from Fairbanks to Fairbanks Creek or from Fairbanks to Chatanika. It connects the Town of Gilmore with a point on the divide known as Summit, where the road branches, one branch going to Fairbanks Creek, the other to Chatanika.

FOR YEAR 1921

No work was done on this route between May 1st and June 30th, 1921.

Between July 1st and Oct. 31st, 1921, the entire road was gone over and put in good condition, the grader being used where feasible and bridges and culverts repaired.

This road is in good surface condition but has some excess grades. Because of the heavy traffic over it and the fact that it will later form a part of the Richardson Highway, between two and three miles of the road will be relocated next season to secure better grades.

Total expenditures, \$2,984.02.

FOR YEAR 1922

Chuck holes were filled and culverts repaired on old road. Road was patrolled and protected during break-up; 3,500 feet of new road were graded in the vicinity of Golden, eliminating stretch of 11% grade. 600 feet of new road were graded between 18 and 19 mile posts to eliminate excessive grades; 6,500 feet of new road were graded across Skoogy Gulch and approximately half way to the summit. This stretch on the old road contained 11% and 12% grades. The new road is built on a 5% grade. At Bear Creek Saddle 2½ miles of new road were built. Of this, 1 mile followed an old road which was partly cleared and graded; the remainder was all new work. Built 10 small plank culverts and 2 larger culverts of 8 and 10 feet each. The latter were built with rock ends, covered with plank. Total cleared and grubbed, 3½ miles; total graded, 4½ miles.

Total expenditure, \$5,369.61.

Biennial total of expenditures, \$8,353.68.

Route 2—Summit-Chatanika 11 Miles Wagon Road

This is an old road and very little used at the present time, though passable for automobiles and is a part of the proposed continuation of the Richardson Highway from Fairbanks to Circle City.

FOR YEAR 1921

No work was done between May 1st and June 30th, 1921.

Between July 1st and Oct. 31st, 1921, general maintenance work, consisting of filling holes, repairing culverts, and cutting the heavy growth of brush overhanging the road, was done.

Total expenditures, \$525.00.

FOR YEAR 1922

Road was protected during break-up period. Eleven new plank culverts were built, average size 1 to 3 feet, 12 feet long; 3x12 plank were used. Repairs were made to a number of old culverts.

Total expenditures, \$656.00.

Biennial total of expenditures, \$1,181.00.

Route 4—Little Eldorado Creek..... 1½ Miles Wagon Road

This road connects placer mining claims on Little Eldorado Creek, a tributary of Goldstream, with the Government Railroad at Little Eldorado Station, Mile 37, Happy-Chatanika Branch.

FOR YEAR 1921

No work was performed between May 1st and June 30th, 1921.

Between July 1st and Oct. 31st, 1921, general repair work, including a new bridge of 16-foot span, was done.

Total expenditures, \$336.00.

FOR YEAR 1922

200 feet of road were graveled, ditches cleared, three new pole culverts were built, 30 feet corduroy laid, and washouts repaired. Some work was done on this route from Alaska Road Commission allotment.

Total expenditures, \$239.05.

Biennial total of expenditures, \$775.05.

Route 6—Fox-Olnes..... 13 Miles Wagon Road.

This road connects the towns of Fox and Olnes, situated at Miles 18 and 34 respectively, on the branch line of the Government Railway known as the Happy-Chatanika Branch. The road was constructed in pre-railroad days and the greater part of it is little used.

FOR YEAR 1921

No work was done between May 1st and June 30, 1921.

Work between July 1st and Oct. 31st, 1921, consisted only of repairing culverts and replanking one short bridge.

Total expenditure, \$230.00.

FOR YEAR 1922

The larger part of this route is very little used. Culverts and corduroy were repaired on the end near Fox. Work on the Olnes end was done under the Alaska Road Commission allotment. Road was also brushed out over summit.

Total expenditure, \$45.50.

Biennial total of expenditures, \$275.50.

Route 8—Ester Creek..... 13 Miles Wagon Road

This road connects the Town of Fairbanks with Ester City on Ester Creek, one of the rich placer creeks in early days, passing the Government Farm at Mile 6 and crossing the Government Railroad to Nenana at Mile 460.

FOR YEAR 1921

From May 1st to June 30th, 1921, \$100 was spent to good advantage during breakup by Alaska Road Commission. Mile 3, known as

the peat bog, was graveled and general repairs and maintenance was carried on by the Territorial Road Commission. This road was finished on July 13, 1921. Nothing more was done to Oct. 31st, aside from dragging the road once.

A portion of this road between Miles 7 and 13 passes through a soil area subject to very rapid erosion during spring season and it is desirable to expend a sum of approximately \$100 toward handling the water at that time. Two years ago ditches 6 feet wide were cut along the road on account of no protection. Aside from this work, operations between May 1st and Oct. 31st, 1922, may be confined to general maintenance.

Present condition very good.

Total expenditures, \$2,916.30.

FOR YEAR 1922

Work was done on this road during break-up period. ½ mile new road was graded at the end of old road to Smith Mine. 3 miles of road were regraded, ditches cleaned and crown smoothed up. ½ mile road was graded around College. Road around bluff at College Hill was widened to 18 feet. Gravel surfacing was done in several places totaling ½ miles. Road was dragged entire distance 3 times, Alaska Road Commission tractor and drag being used. General repairs were made to culverts.

Total expenditure, \$1,511.80.

Biennial total of expenditures, \$4,428.10.

Route 9—Farmers Birch Hill..... 6½ Miles Wagon Road

This road has been built by the Territory through the farming district along Birch Hill. It branches from the Fairbanks-Gilmore Road (Route 1A) at Mile 3, and connects with the Fairbanks-Ester Road (Route 8) at Mile 5.

FOR YEAR 1921

Some grading was done on this route this season prior to June 30th but the bulk of the work was accomplished between July 1st and Oct. 31st, 1921. Due to poor location, one mile of the road was abandoned, a large part of it being washed out. Over two miles of new road to make connection between Gilmore road and Ester Creek Road, were built and an additional two miles were regraded and widened. A number of new culverts were built.

Total expenditures, \$4,814.89.

FOR YEAR 1922

2 miles of road were widened, brush cleaned out and culverts repaired.

Total expenditure, \$1,015.52.

Biennial total of expenditures, \$5,830.41.

Route 9A—Isabelle Creek Branch..... 1½ Miles Wagon Road

FOR YEAR 1922

This is a branch from Route 9 to several farms up Isabelle Creek. Clearing has already been done; 1½ miles were graded.

Total expenditure, \$261.32.

Route 22—Hot Springs Landing-Eureka..... 24 Miles Wagon Road

Connects the landing on the Tanana River, two miles from Hot Springs, with the mining camp of Eureka, passing through Hot Springs.

FOR YEAR 1921

One hundred dollars was spent to protect road during spring floods, between May 1st and June 30th, 1921. During period July 1st to Oct. 31st, 1921, a new bridge was erected over Baker Creek at Mile 14. Bridge consisted of one 80-foot Howe truss span of native timber and approaches decked with four inch plank. Cost of bridge was shared by the Territory to the extent of \$1,000; total cost approximately \$6,200.

This road has held up well for the small amount of work that has been done upon it since first built and though twenty thousand dollars would be required to make it a good road, twenty-five hundred dollars will repair the Hot Springs Slough Bridge, put in a few needed culverts and cut the brush from the road. The last item is most necessary as the underbrush has grown to such an extent that it completely overlaps the road in many places.

Total territorial expenditures, \$1,162.36.

Fairbanks-Chena Hot Springs 64 Miles Sled Road

This road connects Fairbanks with the Hot Springs up the Chena River and is used by the farmers, miners, wood-haulers, and the passenger traffic to the Springs.

FOR YEAR 1921

No work was done between May 1st and June 30th, 1921.

Between July 1st and Oct. 31st, 1921, the new bridge over Little Chena River at Mile 14, was put in at a cost of \$1,650, the cost being shared by the Territory to the extent of \$525. No other work was done on the sled road but approximately \$500 were spent on repairing, widening and hauling gravel on the three miles of road along the foot of Birch Hill which will eventually be continued to the Hot Springs and is considered as a part of Route 7.

Petitions have several times been circulated to grade the bluff near Mile 44 where the trail necessarily takes to the ice on Chena River. The river at this point is slow in freezing and travelers have had narrow escapes from drowning. This work should be done during the coming summer season. The cost is estimated at \$4,000.00.

Present condition of winter trail is good.

Total territorial expenditures, \$1,052.35.

FOR YEAR 1922

1,820 feet of road were graded around bluff at Mile 44, doing away with the necessity of going on the river ice at this place, which previously delayed travel in the spring and fall. Four culverts were repaired, one 14-foot pole bridge constructed. The wagon road was widened from 2 to 2½ mile post near Shipley's Ranch.

Total expenditure, \$1,645.75.

Biennial total of expenditures, \$2,698.10.

Olnes-Livengood..... 54 Miles Sled Road.

Connects Town of Olnes on the Chatanika Branch of the Government Railroad with Livengood Creek in the Tolovana District. This road has been practically abandoned the past few years, except for summer travel in favor of the Dunbar-Brooks Road. During the Wilbur Creek excitement of the past year, when several new and encouraging prospects were found, the travel on this trail increased. However, the same prospects can be reached via the Dunbar-Brooks Road, thus avoiding the hills of this route.

FOR YEAR 1921

Between July 1st and Oct. 31st, 1921, the Washington Creek Bridge was rebuilt and the footbridge over the Chatanika River was repaired. Total expenditures, \$221.25.

FOR YEAR 1922

Entire expenditure was for repairs to Washington Creek Bridge.

Total expenditures, \$50.00.

Biennial total of expenditures, \$271.25.

Graehl Bridge:

This bridge is over a slough on the winter cutoff from the Fox Road into Fairbanks. All the travel from that direction crosses this bridge in winter as it saves approximately one mile on the distance into Fairbanks. It is also the only outlet for the people living in Graehl during the summer.

FOR YEAR 1921

Minor repairs were made. It is recommended that this bridge be rebuilt. Estimated cost, \$1,200.00.

Total expenditures, \$105.97.

FOR YEAR 1922

This bridge is located on winter cut-off from Fox Road into Fairbanks. Nine bents of four pile each were driven, 15-foot span each; 6 stringers were used to the span, decked 12 feet wide. Total length of bridge 120 feet. A small culvert was built near the bridge.

Total expenditure, \$1,117.60.

Biennial total of expenditures, \$1,223.57.

Farmers Chena Slough Road..... 4½ Miles Sled Road.

This route starts from a point near 5 mile post from Fairbanks on the Fairbanks-Valdez Road, thence to the Chena Slough and up the Slough, serving three homesteaders.

FOR YEAR 1922

4½ miles were cleared 30 feet wide, one bridge 46 feet and one 40 feet were built, using five stringers each and 12 feet wide. This route should be improved to wagon road with later funds, if available.

Total expenditure, \$1,170.47.

Noyes Slough Bridge:**FOR YEAR 1922**

The work consists of cribbing the center pier on the Noyes Slough Bridge. Timber has been delivered on the site and cribbing will be placed after the freeze-up.

Total expenditure, \$459.69.

Central House-Circle Hot Springs.....9 Miles Wagon Road.

FOR YEAR 1921

This is a branch road from the Circle-Miller House Road at Central House, Mile 36, to the Hot Springs.

No work was done until after June 30th, 1921. Between that date and Oct. 31st, 1921, general maintenance work, such as ditching, covering corduroy, and repairing culverts, was done.

Present condition fair.

Total expenditures, \$620.50.

FOR YEAR 1922

The route was entirely gone over, repairs made to culverts, mud-holes graveled and brush cut.

Total expenditure, \$597.75.

Biennial total of expenditures, \$1,218.25.

Roosevelt-Kantishna.....34 Miles Wagon Road.

This road leads from Roosevelt, on the upper waters of the Kantishna River, to the postoffice of Kantishna, the mining center. Lacking communication with the railroad, all supplies for the district are brought up the Kantishna River to Roosevelt, and then hauled overland to Kantishna. The road to date is purely a winter road, being almost impassable in summer.

FOR YEAR 1921

No work was accomplished this year until after July 1st, 1921, when a foreman was sent in to lay some corduroy which had been cut the winter before. Five thousand feet of corduroy was laid and two and one-half miles of clearing done.

Condition of road actually built to date is excellent but the balance of road is very poor. More corduroy is needed and should by all means be cut and hauled this winter or the work which has been done will be of little value.

Investigation by the foreman in charge shows that nine thousand feet of corduroy will have to be laid. It is recommended that this work be done, that the entire route be made passable, including several miles of brushing and ditching and the building of two bridges. Estimated cost to make this route a fair wagon road is \$50,000.

Total territorial expenditures, \$655.03.

Dunbar-Brooks.....63 Miles Sled Road

Connects the mining camp of Brooks in the Tolovana District with Dunbar Station at Mile 429 of the Government Railroad. This is a good winter trail and the best available route to Brooks.

FOR YEAR 1921

No work was done between May 1st and Oct. 31st, 1921.

Three bridges were put in over Washington, Globe and Tatallna Creeks and general repairs over the route were made, partly from territorial funds. This road is at present in good condition.

Total territorial expenditures, \$1,778.38.

FOR YEAR 1922

For maintenance and construction of additional bridges the Alaska Road Commission allotted \$3,000.00.

Total expenditure, \$480.00.

Biennial total of expenditures, \$2,258.38.

Note:

The last biennial report of the Territorial Board, under the caption of "Overhead," for the Fourth Division, shows an expenditure for chairman's salary, clerk hire, office rent, supplies, etc., of \$8,799.36. The corresponding expenditure under the present cooperative arrangement for the present biennium was only \$156.00 which shows a direct saving in this one item over the last biennium of \$8,643.36. In addition, the Territorial Divisional Board had free use of all necessary Alaska Road Commission equipment, such as road graders, gasoline tractors, tents, tools, etc., which also represents a material saving to the Territory.

COOPERATIVE ROAD WORK—ALASKA ROAD COMMISSION
AND THE TERRITORY OF ALASKA

FOURTH DIVISION

In the Fourth Division the Divisional Territorial Board expended directly for the biennium \$37,082.11. The balance of \$28,853.58 of territorial funds were allotted to cooperative projects with the Alaska Road Commission. The Divisional Board applied their funds primarily to the Fairbanks local system, and to local roads tying into through routes for which the Alaska Road Commission assumed responsibility. The President of the Alaska Road Commission, as Consulting Engineer to the Territorial Board, exercised supervision over all operations. The elected commissioners were requested for recommendations on all projects.

Fairbanks Local Roads:

FOR YEAR 1921

Responsibility for these roads was assumed by the Divisional Commission. Expenditure of \$58.35 was for old bills.

Route 9—Rampart-Eureka.....6½ Miles Wagon Roads, 21 Miles Winter Sled Road.

FOR YEAR 1921

Expenditure represents clean-up on work performed during 1921 on previous arrangements. An inspection has been made and future work planned. The first six and a half miles out of Rampart form a fair wagon road; the remaining twenty-one miles are only a mediocre sled road.

Expenditure: Alaska Road Commission, \$637.80.

Route 22—Hot Springs-Sullivan..... 9 Miles Wagon Road.

This road connects the Town of Hot Springs, two miles from the Tanana River, with the placer producing creek known as Sullivan Creek.

FOR YEAR 1921

Expenditure represents clean-up on old bills under previous arrangements. Present condition fair.

Expenditure: Alaska Road Commission, \$2,092.12.

Route 30—Hot Springs Landing-Eureka 24 Miles Wagon Road.

This road connects the landing on the Tanana River, two miles from Hot Springs, with the mining camp of Eureka, passing through Hot Springs.

FOR YEAR 1921

The principal work was the construction of a new bridge over Baker Creek, Mile 14, at a cost of about \$6,000.00. Minor repair work was also done, part of which was paid for by the Divisional Commission.

Expenditure: Alaska Road Commission, \$5,001.72.

FOR YEAR 1922

Very extensive work of improvement and rehabilitation was carried out during the season. The road was cleared of underbrush for a distance of twenty-two miles. Four bridges and twenty-seven culverts were rebuilt and drainage restored.

Expenditures: Alaska Road Commission, \$2,500.00; Territory of Alaska, \$2,500.00. Total, \$5,000.00.

Biennial total of expenditures, \$10,001.72.

Route 11—Eagle-Fortymile 17 Miles Road, 30 Miles Sled Road.**FOR YEAR 1921**

The Alaska Road Commission assumed entire responsibility for the group of roads and trails in the Eagle-Fortymile-Seventymile District. General maintenance work was performed with a small amount of new work. A reconnaissance was made covering the entire district and a general program of improvement has been drawn up.

Expenditure: Alaska Road Commission, \$10,353.96.

Route 15—Circle-Miller House 49 Miles Wagon Road.

This road connects Circle City on the Yukon River with the Circle placer district. This section will be the final link in the proposed extension of the Richardson Highway from the coast to the Yukon.

FOR YEAR 1921

No work was performed until after June 30, 1921. Between that time and Oct. 31, 1921, general repair work was done.

Expenditure: Alaska Road Commission, \$9,733.24.

Route 16—Chatanika-Miller House..... 4 Miles Wagon Road.

This connects the Town of Chatanika, at end of branch line of Government Railroad, with Miller House in the Circle placer district, being a part of the through route to Circle City and a section of the proposed extension of the Richardson Highway.

FOR YEAR 1921

No work was done before June 30, 1921. Between that time and Oct. 31, 1921, a survey party was put in field to make a part of the definite location for a wagon road between Chatanika and Miller House, which has heretofore been connected in winter only by sled road. Actual construction was begun after July 4th. A good location was secured for the first 15 miles. 7 miles were cleared and 4 miles of road built at a cost of \$18,000, approximately \$2,000.00 of which was spent for equipment.

Expenditure: Alaska Road Commission, \$19,421.05.

Route 38—Ruby-Long-Ophir:

This is an excellent road connecting Ruby with the workings on Long Creek. Its extension to Poorman and Ophir is contemplated.

FOR YEAR 1921

General maintenance was performed between Ruby and Long Creek and a contract was let for a bridge across the Solatna River on the Poorman Extension.

Expenditures: Alaska Road Commission, \$9,855.74.

FOR YEAR 1922

Between Ruby and Long, seasonal maintenance, consisting of a number of broken bridges repaired. The road was dragged and gravel placed where needed.

Long-Poorman:

This is a very poor summer road, following in part the winter mail trail. It will require relocation over the greater part of its length when finally improved to a good summer road standard.

The most important work performed through the last season was the construction of a one hundred foot Howe truss bridge across the Solatna River. This bridge was constructed during the fall at the time of low water on Solatna River using native spruce timber procured during the winter of 1921-22. With the completion of this bridge, light loads can be brought through from Long to Poorman. The construction of this bridge is a great step forward in the transportation conditions of this pioneer section of Alaska.

Poorman Ophir:

A summer pack trail was blazed through this entire distance. Two men and two pack horses were employed through the entire season. Several bridges were constructed. Three shelter tents, with stoves, were erected.

The completion of this summer trail assures travelers of a safe route from Ruby to Ophir. In the past a considerable number of men have been lost along the general route of this trail.

Expenditures on the Ruby-Long-Ophir System: Alaska Road Commission, \$8,000; Territory of Alaska, \$2,000. Total, \$10,000.00.

Biennial total of expenditures, \$19,855.74.

Route 38D—Ophir-Tacotna..... 24½ Miles Wagon Road.**FOR YEAR 1921**

This road was prosecuted very vigorously through this season. The following precautions were taken to assure substantial progress: Horses were sent in overland from Fairbanks over the winter trail. Assistant Superintendent W. W. Lukens, with a liberal shipment of supplies and forage, was sent from Seattle by way of Bethel. Plenty of men were available through the season and, as a result, very encouraging progress was made. 4½ miles of new road were completely graded. 5 additional miles of road were located and cleared. Bridges were built across Yankee and California Creeks. 3½ miles of road remain to be completed to connect with the work performed in 1917 near Ophir. The mining district in this vicinity has been very active. Three dredges are being installed. The policy of vigorous prosecution of this road, which is essentially a portage road from tributaries of the Kuskokwim to those of the Yukon, is highly justified.

Expenditures: Alaska Road Commission, \$38,222.80; Territory of Alaska, \$8,500.00. Total, \$46,722.80.

FOR YEAR 1922

Work was vigorously prosecuted during the season in spite of the unusually cold and wet weather. The most important work performed was the construction of an 80 foot span Howe truss bridge across Gaines Creek. Native spruce timber was used on this bridge and a substantial permanent structure erected. With the completion of this bridge all streams are crossed by this road. In addition, the work of grading extended the road two and one-half miles. Due to the wet season, considerable work of repair and graveling on portions completed in 1921 and 1922 were required. Much of this road is over frozen ground, therefore requiring considerable corduroy and more care for drainage, making progress rather slow.

The importance of this road, which is not only a portage from the Kuskokwim to the Innoko, a tributary of the Yukon, but is also an artery tying together the placer workings of the Upper Innoko, is very high. Two dredges have been installed in the Upper Innoko, and one operated through the entire season.

Expenditures: Alaska Road Commission, \$26,000.00; Territory of Alaska, \$5,000.00. Total, \$31,000.00.

Biennial total of expenditures, \$77,722.80.

Route 32B—Iditarod-Flat..... 8 Miles Summer Road.

No work has been performed upon this road for several years.

FOR YEAR 1922

The roadway was repaired throughout, ditches were cleaned, the Otter Creek Bridge was repaired but should be reconstructed during 1923. This road should also be extended from the headwaters of Flat Creek to Chicken Creek.

Expenditures: Alaska Road Commission, \$3,000.00; Territory of Alaska, \$2,000.00. Total, \$5,000.00.

Route 46A—Roosevelt-Kantishna..... 34 Miles Wagon Road.**FOR YEAR 1921**

Work consisted in improving the route from Roosevelt on the Kantishna River to Kantishna Postoffice on Eureka Creek. This route is of high importance for this promising mining district until such time as a road tributary to the Government Railroad has been constructed. 1½ miles of corduroy were placed. Considerable additional clearing and grading of the road was also performed.

Expenditures: Alaska Road Commission, \$20,663.98; Territory of Alaska, \$2,632.59. Total, \$23,296.57.

FOR YEAR 1922

This cooperative project is the important summer route to the Kantishna Mining District and Mt. McKinley Park, west of McKinley River. In wintertime this route is also used as a sled road in freight-ing supplies delivered at Roosevelt during the open season. The effort of the year's work was restricted to improving the very swampy portion of the route in the vicinity of Roosevelt. Two additional miles of corduroy were placed near Roosevelt. This improves the most impassable portion of this route. In addition, three and one-half miles of road were cleared and straightened with the construction of a few summer bridges. Three side hill cuts were graded in the vicinity of Kantishna Postoffice. The general work performed, for the relief of the Kantishna Mining District and to increased traffic into Mt. McKinley Park, is worthy of notice. A pack trail was opened, guiding signs erected and shelter tents placed along the route from McKinley Park Station to McKinley River. Through the winter, the winter trail from Kobi to Diamond was cleared and bridged, making it into an excellent sled road. Beyond Diamond, the dog trail was cut through complete to Berry's Landing, on the Upper Kuskokwim, making connection there with McGrath and the Iditarod. This latter route is the new route to the Kuskokwim and besides passing through very much less rugged country than the Rainy Pass Trail, it is along the north slope of the Alaska Range with the generally better weather conditions, common to that locality. The activity in the Kantishna is present to aid in keeping the trail open.

Expenditures: Alaska Road Commission, \$17,500.00; Territory of Alaska, \$1,720.99. Total, \$19,220.00.

Biennial total of expenditures, \$42,517.56.

Route 63—Brooks-Dunbar..... 63 Miles Sled Road**FOR YEAR 1921**

This is the main winter mail route to the Tolovana mining district from the Alaska Railroad. Work consisted principally in the construction of bridges, of which several more are still needed. Except for the bridges, this is one of the best sled roads in the Territory, there being only one hill in the entire 63 miles. Part of the bills for the work on this route were paid by the Divisional Commission.

Expenditures: Alaska Road Commission, \$2,283.91.

FOR YEAR 1922

A new truss was erected on the bridge over Goldstream and a bridge built across the Tatalina. Two other small bridges were built.

Expenditures: Alaska Road Commission, \$1,000.00; Territory of Alaska, \$2,000.00. Total, \$3,000.00.

Biennial total of expenditures, \$5,283.91.

LOWER KUSKOKWIM

Route 92B—Akiak-Bethel 25 Miles Trail

FOR YEAR 1921

This is a new project. The mail route was shortened, improved, and permanently marked. The work was done by contract and consisted of the erection of 22 beacons, 18 tripods, the cutting down of 13 approaches to portages across bends in the Kuskokwim River, and the clearing of 6 miles of brush 12 feet wide. With the construction of one bridge next winter across a small slough, the route will be in excellent condition.

Expenditures: Territory of Alaska, \$500.00; Alaska Road Commission, \$294.98. Total, \$794.98.

FOR YEAR 1922

The trail was permanently marked and a bridge about sixty feet long constructed.

Route 92—Bethel-Quinhagak 90 Miles Trail

FOR YEAR 1922

The mail trail was permanently tripoded, beacons were set upon opposite shores of all lakes and temporary stakes were set on the ice.

Route 92C—Yukon-Kuskokwim Portage 95 Miles Trail.

FOR YEAR 1922

This portage is used in carrying small boats from the Yukon to the Kuskokwim. Guiding marks and beacons were placed along the entire route during the past summer.

Route 92D—Akiak-Russian Mission 92 Miles Trail.

Shelter cabins, with stoves, were erected at Phillips and Big Georges. The trail was tripoded between the same points.

Expenditures entire Lower Kuskokwim: Alaska Road Commission, \$2,000.00; Territory of Alaska, \$2,000.00. Total, \$4,000.00.

Biennial total of expenditures, \$4,794.98.

SUMMARY OF EXPENDITURES APRIL 1, 1921, TO MARCH 31, 1923.

Fourth Division

Project—	A. R. C.	Terr.	Total
Fairbanks Locals	\$ 58.35	\$ 0.00	\$ 58.35
Rampart-Eureka	637.80	0.00	637.80
Hot Springs-Sullivan	2,092.12	0.00	2,092.12
Hot Springs Landing-Eureka	5,001.72	0.00	5,001.72
Eagle-Fortymile	10,358.96	0.00	10,358.96
Circle-Miller House	9,783.24	0.00	9,783.24
Chatanika-Miller House	19,421.05	0.00	19,421.05
Ruby-Long	9,855.74	0.00	9,855.74
Ophir-Tacotna	38,220.80	8,500.00	46,722.80
Kantishna	20,663.98	2,632.59	23,296.57
Bethel Trails	294.98	500.00	794.98
Brooks-Dunbar	2,283.91	0.00	2,283.91
	\$118,674.65	\$11,632.59	\$130,307.24

SUMMARY OF ALLOTMENTS APRIL 1, 1922, TO MARCH 31, 1923.

Project—	A. R. C.	Terr.	Total
Dunbar-Logjam	1,000.00	\$ 2,000.00	\$ 3,000.00
Ruby-Long-Ophir	8,000.00	2,000.00	10,000.00
Ophir-Tacotna	26,000.00	5,000.00	31,000.00
Lower Kuskokwim Trails	2,000.00	2,000.00	4,000.00
Ophir-Tacotna	38,222.80	8,500.00	46,722.80
Iditarod Roads	3,000.00	2,000.00	5,000.00
Kantishna District	17,500.00	1,720.99	19,220.99
	\$60,000.00	\$17,220.99	\$77,220.99

BIENNIAL SUMMARY APRIL 1, 1921, TO MARCH 31, 1923.

Project—	A. R. C.	Terr.	Total
Fairbanks Locals	\$ 58.35	\$ 0.00	\$ 58.35
Rampart-Eureka	637.80	0.00	637.80
Hot Springs-Sullivan	2,092.12	0.00	2,092.12
Hot Springs Landing-Eureka	7,501.72	2,500.00	10,001.72
Eagle-Fortymile	10,358.96	0.00	10,358.96
Circle-Miller House	9,783.24	0.00	9,783.24
Chatanika-Miller House	19,421.05	0.00	19,421.05
Ruby-Long-Ophir	17,855.74	2,000.00	19,855.74
Kantishna	38,163.98	4,353.58	42,517.56
Bethel and Lower Kuskokwim..	2,294.98	2,500.00	4,794.98
Brooks-Dunbar	3,283.91	2,000.00	5,283.91
Tacotna-Ophir	64,222.80	13,500.00	77,722.80
Iditarod-Flat	3,000.00	2,000.00	5,000.00
	\$178,674.65	\$28,853.58	\$207,528.23

TERRITORIAL SHELTER CABIN FUND

APRIL 1, 1921, TO MARCH 31, 1923.

Report is hereby submitted of the administration of the Shelter Cabin Fund apportioned by the Governor of the Territory, in compliance with Section 3, Chapter 17, Session Laws of 1917. \$10,000.00 was available for the biennium. The fund was expended by the Alaska Road Commission under its cooperative agreement with the Territorial Board.

The fund was apportioned by the Governor of the Territory as follows:

SHELTER CABIN FUND

	Allotted 1921	Allotted 1922	Total
Second Division	\$1,500.00	\$1,500.00	\$ 3,000.00
Third Division	2,000.00	1,000.00	3,000.00
Fourth Division	1,500.00	2,500.00	4,000.00
	\$5,000.00	\$5,000.00	\$10,000.00

DISTRIBUTION

Second Division—1921-1922

A total of \$1,500.00 was expended during the year for shelter cabins. The following work was done:

Choris Peninsula Cabin: Purchase of materials, freight, and labor of erection	\$ 768.41
Purchase of Christianson cabin at Topkok and repairs	260.00
Repairs to cabin at Agiapuk	75.00
Boston, Telegraph, and Fox River Cabins, repairs	135.00
Mouth of Kobuk Cabin, repairs	72.00
Purchase of stoves, stovepipe, wood, roofing, etc.	189.59
Total	\$1,500.00

1922-1923

A total of \$1,500.00 was obligated; bills were reported to date to have aggregated \$1,069.23. The following work was done:

Trail —	Cabin Location —	Cost
Nome-Kaltag	Mouth of Cheeokuk Creek	\$ 200.00
Nome-Kaltag	Moses	300.00
Dime Creek-Candle	Quartz Creek	50.00
Nome-Council	At Timber	210.00
Dahl Creek-Candle	Aurora Creek	80.00
Dahl Creek-Candle	Cottonwood Creek	50.00
Kotzebue-Pt. Barrow	Kivalina	173.53
Kotzebue-Shungnak	Pothluks	280.77
Nome-Taylor	Iron Creek	150.00
Deering-Kotzebue	Choris Peninsula	5.70
Total		\$1,500.00
Total 1921-1923		\$3,000.00

The above distribution is subject to slight revision, when all vouchers are finally received and checked.

Third Division—1921-1922

A total of \$1,200.00 was expended during the year, distributed as follows:

Trail—	Cabin Location—	Cost
Chisana-Nizina	Foot of Nizina Glacier	\$ 200.00
Rainy Pass	Pontello Cabin	500.00
Rainy Pass	Richardson's Roadhouse	500.00
Total		\$1,200.00

1922-1923

A total of \$1,800.00 was obligated; bills received to date have aggregated \$1,000.00.

Trail—	Cabin Location—	Cost
Katalia-Yakataga	Siyou River)
Katalia-Yakataga	Round Timber	) \$1,000.00
Katalia-Yakataga	Cape Suckling)
Chisana-Nizina	Compl'n Nizina Glc'r Cab.	200.00
Chisana-Nizina	Rohn Glacier Cabin	600.00
Total		\$1,800.00
Total 1921-1923		\$3,000.00

Fourth Division—1921-1922

A total of \$1,500.00 was expended during the year, distributed as follows:

Trail—	Cabin Location—	Cost
Tacotna-Flat (summer)	Brush Creek	\$ 300.00
Tacotna-Flat	Brush Creek Barn	300.00
Tacotna-Flat	Fourth of July Creek	300.00
Tacotna-Flat	Fourth of July Cr. Barn	300.00
Tacotna-Flat	Lincoln Creek	300.00
Total		\$1,500.00

1922-1923

A total of \$2,500.00 has been obligated; bills reported aggregate \$1,800.00

Trail—	Cabin Location—	Cost
Aklak-Russian Mission	Phillips	\$ 500.00
Aklak-Russian Mission	Big Georges	500.00
Poorman-Ophir (summer)	4 Tents	300.00
Ophir-Iditarod (winter)	2 Cabins	500.00
Beaver-Caro-Coldfoot	Miscellaneous repairs	250.00
Chatanika-Beaver	Miscellaneous repairs	450.00
Total		\$2,500.00
Total 1921-1923		\$4,000.00
Grand total		\$10,000.00

Appropriations to Date for Shelter Cabins

April 30, 1917	\$20,000.00	
May 1, 1919	5,000.00	
May 5, 1921	10,000.00	
		\$35,000.00
Recommended for 1923	\$20,000.00	

Substantial progress has been made upon a general overhauling of the shelter cabin situation. Considerable new trail mileage has been constructed during the past biennium and many new shelter cabins are required. Seasonal repairs upon existing cabins now require a regular allotment for annual maintenance. Of the \$20,000.00 recommended for the next biennium, about \$3,000 will be required for maintenance, leaving \$17,000 for new construction. By that time sufficient information will be available from which to draw up a regular program for a five or ten year period.

SEWARD PENINSULA RAILROAD (87 MILES TRAM)

Chapter 39, Session Laws of Alaska, 1921, provided that the Federal Board of Road Commissioners for Alaska, with the consent and approval of the Territorial Board of Road Commissioners, were authorized to purchase the Seward Peninsula Railroad, extending from Nome to Shelton, for use as a public tram and highway. This narrow gauge railroad for many years, following its abandonment as a steam railroad, has been used as the main overland artery of communication with the Kougarok Mining District and the other placer mining camps on the northern portion of Seward Peninsula. The repair of the bridges and washed out portions of track are of great public interest and could be accomplished provided the structure was publicly acquired.

An examination and inventory of this railroad was made by Mr. A. G. Blake, a competent civil engineer, engaged for the purpose. Negotiations were entered into with the Pioneer Mining Company, owners of the property, and on Oct. 3, 1922, the railroad, et cetera, was purchased for \$24,000.00, cash payment. The title of the railroad and the Daly lots in Nome, dates as of Dec. 29, 1921, and Jan. 4, 1922, respectively. An additional expenditure, not yet accounted for, was made for recording the necessary instrument of conveyance etc. This amount should not exceed \$25,000. The title to the property was searched and passed upon by the Attorney General of the Territory, through the Territorial Board of Road Commissioners.

On Oct. 4, 1922, physical possession of the property was assumed by a representative of the Alaska Road Commission at Nome. Considerable information required for its final rehabilitation was obtained during the summer and fall. This road, long used as a public tramway, it is planned to maintain for such a purpose. It is not thought that any other traffic need be provided for other than light cars loaded with not to exceed one thousand pounds, drawn by dogs, horses, or propelled by gasoline speeder.

The greatest obstacle encountered on the railroad at present is that due to broken bridges, requiring travelers to ford several streams. This fording is a hindrance and disagreeable at all times and is almost impossible during the time of high water. The restoration of these bridges is planned during the coming summer. Lumber is on hand from that left at Fort St. Michael when abandoned by the War Department. Other equipment is being turned over from the work on Nome Harbor and the work planned for next summer includes only the restoration of the bridges and straightening and leveling the track at a few points where the road bed has completely dropped from the track. An allotment of \$25,000.00 has been made for this purpose from the Alaska Road Commission funds.

In addition to his report upon the existing Nome-Shelton Tramway, Mr. Blake made a complete reconnaissance of the transportation system of the Seward Peninsula, required by the Act of Congress approved June 30, 1921. The results are found published in House Document No. 514, Sixty-seventh Congress, Fourth Session, entitled, "Nome-Shelton-Kugruk River-Keewalk Reconnaissance," in which it is recommended that the existing system be improved as follows:

From Shelton to Dahl, extension of the Nome-Shelton Tramway, 12 miles, at \$12,500.00 per mile.....	\$150,000.00
From Dahl to Inmachuk, improvement of winter trail to summer trail standard, including bridges, 65 miles, at \$3,000.00 per mile	195,000.00
From Inmachuk to Candle Creek, construction of a tramway, 30 miles at 13,500.00 per mile	405,000.00
Total	\$750,000.00

An initial appropriation of \$250,000.00 and a continuing-contract authorization for the entire \$750,000.00 was recommended.

NIZINA RIVER BRIDGE

Chapter 30, Session Laws of Alaska, 1921, provided for the construction of a bridge across the Nizina River, in the Nizina Mining District, McCarthy Recording Precinct, at or near Young Creek (or at any point connecting with the road now being constructed by the Board of Road Commissioners for Alaska from the Town of McCarthy to Nizina River), in the Third Judicial Division of the Territory of Alaska; providing for cooperation between the Territorial Board of Road Commissioners and the Board of Road Commissioners for Alaska in the construction of said bridge, and making an appropriation of \$25,000 therefor.

This important project to bridge the exceptionally dangerous Nizina River has been pushed vigorously during the past year. A preliminary study of a design of a bridge consisting of five spans of 180 feet each, with 660 feet of framed trestle and pile trestle approach, has been made. The structure will be a light steel deck truss, designed to sustain a concentrated live load of one 5-ton truck. These trusses, resting on