ANNUAL REPORT OF THE ALASKA ROAD COMMISSION

## DEPARTMENT OF THE INTERIOR ANNUAL REPORT OF ALASKA ROAD COMMISSION FISCAL YEAR 1935

REPORT TO THE GOVERNOR OF ALASKA
UPON THE CONSTRUCTION AND MAINTENANCE OF
ROADS, TRAMWAYS, FERRIES, BRIDGES, TRAILS
AND RELATED WORKS WITHIN THE TERRITORY

BY THE CHIEF ENGINEER

Being the THIRTY\_FIRST ANNUAL REPORT of the ALASKA ROAD COMMISSION

> Juneau, Alaska July 1, 1935

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August 15, 1935

Hon. John W. Troy Governor of Alaska Juneau, Alaska

Sir:

There is transmitted herewith report of operations of the Alaska Road Commission for the fiscal year ending June 30, 1935.

Respectfully,

Ike P. Taylor, Chief Engineer.

Enc. Annual Report, in trip.

# THE ALASKA ROAD COMMISSION

The Alaska Road Commission was created by act of Congress approved January 7, 1905, as a approved January 8, 1905, as a approved January 80, 1932, the activity was transferred to the Department of the Interior. Under orders issued by the Secretary of the Interior, the Governor of Alaska in his capacity as exempineer in direct charge of the work under the direction of the Governor.

The Alaska Road Commission is charged with the construction and maintenance of roads, bridges, and trails in Alaska. Construction and maintenance of airfields, telephone lines, and shelter cabins is also undertaken for the Territory.

Funds are made available for the work by annual congressional appropriations, from the "Alaska fund", and from contributions by the Territory of Alaska and others. During the past year in addition to the above usual sources of funds a balance of \$912,124.22, allocated by the Public Works Administration under the National Industrial Recovery Act, was available for expenditure and on Language 10, 1935, \$4.16,500 was allotted under the Emergency Relief Act for road construction.

The total costs to the end of the fiscal year are \$21,545,402.79, of which \$11,327,062.31 was for new work and \$10,216,430.48 was for maintenance and improvement.

The total mounded to June 30, 1935, is \$22,107,952.97. Of this amount \$15,902,655.26 was appropriated to acts of Congress, \$4,330,686.79 was allotted from the Alaska fund, and \$1,874,610.92

from Territorial appropriations and contributions.

The work accomplished during the fiscal year is summarized as follows:

New construction:  $121\frac{1}{4}$  miles of road,  $7\frac{3}{4}$  miles of sled road,  $6\frac{1}{4}$  miles of tram road, 126 miles of trail, 848 linear feet of timber bridges over 38-foot span, 1,120 linear feet of steel bridges of 300-foot span or over, 1,836 linear feet of timber trestle span bridges, 432 linear feet of concrete girder span, and 2 airplane landing fields.

Improvement: 77 miles of road reconstructed, 86% miles of road surfaced, 486 metal culverts replaced, and 18 airfields enlarged and improved.

Maintenance: 1,653 miles of road, 74 miles of tramway, 549 miles of sled road,  $4,005\frac{1}{2}$  miles of permanent trail, and 304 miles of temporary flagged trail.

The cost during the year was \$1,565,311,14, of which \$977,778.15 was for new work and \$587,532.99 was for maintenance and improvement. Total expenditures during the fiscal year were \$1,667,209.93.

The more important projects upon which new construction was performed are the Juneau-Douglas Bridge and approach, and the following roads: McCarthy-Nizina, Mount McKinley National Park, Gulkana-Nabesna, Olnes-Livengood, Dillingham-Snag Point, Nome-Sunset Creek, Iliamna, Lucky Shot Mine-Willow Station, Anchorage-Matanuska, Cantwell-Valdez Creek, and Seward Peninsula Tramroad extension. New airfields were constructed at Cache Creek and May Creek.

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fsto ß M The Richardson Highway was maintained open during the entire season. Improvement to new standard was continued and this road is now in excellent condition for auto traffic.

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Surfacing the Steese Highway was completed. As a result of the improvement traffic over this route continued to increase. Work was continued on the major project of constructing a road from Gulkana, on the Richardson Highway, to Nabesna, through the mineralized belt north of the Wrangell Mountains, resulting in the completion of this road except surfacing, which is 60 percent complete. The road from Olnes to Livengood was partially graded for the entire distance of 61 miles so that truck freighting was possible after the freeze-up. Completion of grading and surfacing throughout is necessary to provide an all-season road.

The work of maintenance and rehabilitation has been pushed, and the roads and trails under the jurisdiction of the commission are in better shape than ever before. The total mileage of roads and trails constructed and maintained by the commission since its inception aggregate  $11,943\frac{3}{4}$  miles, consisting of  $1,897\frac{3}{4}$  miles of wagon road,  $80\frac{1}{4}$  miles of tramway,  $1,562\frac{1}{2}$  miles of sled road,  $7,199\frac{1}{4}$  miles of permanent trail, and 304 miles of temporary flagged trail.

The roads and trails constructed by the Commission have not only opened up to development nearly all sections of the Territory but have effected large savings in freight charges. The major portion of this freight would not have been transported without the roads, and the indirect loss which would have been occasioned by the restriction on output and development cannot be estimated. As a result of the recent impetus to gold mining, demands for roads into new areas have greatly increased in the

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past year.

Under a cooperative agreement with the National Park Service, the Alaska Road Commission has undertaken the construction and maintenance of roads and trails in Mt. McKinley National Park and the maintenance of Sitka National Monument with Finds allotted by the Park Service. At the close of the fiscal year  $74\frac{1}{2}$  miles of road were suitable for traffic and 10 miles were under construction in Mt. McKinley Park. The route selected is one of great scenic grandeur. The Sitka National Monument has been placed in excellent condition and maintained.

### FUNDS

Money for the prosecution of this work was provided from six sources as follows:

- (1) Appropriation by the Federal Government to the Department of the Interior for expenditure in conformity with act of Congress approved January 27, 1905, and amendments thereto.
- (2) From a portion of the Alaska Fund, a fund covered into the Federal Treasury but derived entirely from special taxes imposed by the Federal Government upon various industries in the Territory.
- (3) Funds appropriated by the Territorial Legislature and turned over to the Treasurer of the United States for expenditure on construction, repair and maintenance of roads, bridges, ferries, trails and related works in the Territory as provided by act of Congress approved June 30, 1921. These funds are expended upon projects designated by the Territorial Board of Road Commissioners.
- (4) Money allotted by the National Park Service and expended under its direction entirely within the boundaries of national parks and monuments.
- (5) Contributions by individuals, companies, corporations, et cetera.
- (6) Funds allotted by the Public Works Administration as provided in the National Industrail Recovery Act and funds from the Emergency Relief Act.

Any balances remaining over at the end of a fiscal year from regular sources of revenue, Items 2 to 5 inclusive, are available for the succeeding fiscal year. Unused balances from the Public Works

allotment of 1933 are available until July 1, 1937.

Under the act approved May 9, 1935, \$500,000 was appropriated as Item 1 for the current year, or fiscal year 1936. Under the Public Works Administration a total of \$1,746,000 was allocated in 1933-34 including \$150,000 to be expended under the direction of the National Park Service, practically all of which had been expended at the close of this fiscal year. On June 10, 1935, \$446,500 was allocated from the Emergency Relief Act.

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The Commission has expended the following funds since the beginning of road and trail development in the Territory:

!	Fiscal year	Congressional appropriations	Alaska fund	Other funds	Total
ī	1905	\$ 118,172.09 197,930.91 244,857.18 236,674.97 237,498.50 100,000.00 150,103.58  125,010.91 153,174.43 126,852.28 165,011.73 500,031.75 325,000.00	\$ 28,000.00 57,420.77 148,814.79 120,772.72 146,971.92 102,898.29 166,777.95 167,302.49 17,052.23 (3) 228,117.56 170,688.37 157,915.84 135,708.89 76,716.15 272,020.18	\$	\$ 28,000.00(1) 175,592.86(1) 346,745.70(2) 365,629.90(2) 383,646.89(2) 340,396.79(2) 266,777.95 317,406.07 17,052.23 353,128.47 323,862.80 284,768.12 300,720.62 576,747.90 597,165.38
	1919	246,651.95 132,426.73	52,372.31 124,992.96	101,184.56	299,024.26 358,604.25

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1921
                       350,000.00
                                   218,247.21
                                                   98,551.98
                                                                    666,799.19
1922
                       426,807.34
                                    173,029.19
                                                     83,411.15
                                                                    683,247.68
1923
                       555,613.67
                                     34,398.23
                                                    150,070.59
                                                                    740,082.49
1924 .....
                       730,423.17
                                     67,683.67
                                                    138,000.81
                                                                    936,107.65
1925
                       775,665.02
                                    168,518.01
                                                    194.164.61
                                                                  1,138,347.64
1926 .....
                     1,013,577.53
                                    115,035.11
                                                    182,705.05
                                                                  1,311,317.69
1927
                       889,443.65
                                    207,909.20
                                                    119,814.04
                                                                  1,217,166.89
1928 .....
                       860,192.90
                                    134,593.11
                                                    258,882.17
                                                                  1,253,668.18
1929
                      997,297.64
                                    134,371.66
                                                    315,494.61
                                                                  1,447,163.91
1930 .....
                      775,406.36
                                    138,542.03
                                                    342,401.26
                                                                  1,256,349.65
1931 .....
                      751,366.08
                                    202.547.78
                                                    334,359.60
                                                                  1,288,273.46
1932 .....
                      710,738.05
                                     68,270.32
                                                    260,022.41
                                                                  1,039,030.78
1933
                      448,777.90
                                    162,310.04
                                                     83,948.22
                                                                    695,036.16
1934 ......
                      467,737.60
                                     88,433.89
                                                     42,834.21
                                                                    599,005.70
1934 (N I R A)
                      780,396.23
                                                     53,479.55
                                                                    833,875.78
1935 .....
                      522,914.86
                                    242,253.92
                                                     72,107.68
                                                                    837,276.46
1935 (N I R A)
                      734,751.86
                                                     93,727.33
                                                                    828,479.19
1935 (E R A)..
                        1.454.28
                                                                     1.454.28
    Totals ..
                   $14,851,961.15 $4,330,686.79
                                                 $2,925,305.03
                                                                $22,107,952.97
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- To Oct. 31.
- To Sept. 30.
- U. S. Treasury adjustment.

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"Other funds" in the foregoing table include the following expenditures from other appropriations:

Fiscal year	Increase of Compensation Acts	Quartermaster General	Funds contributed	National Park Service
1918 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1934 1934 (N I R A) 1935	\$ 145.20 940.00 4,322.09 28,857.72 45,675.36 15,136.08	\$	\$\ \tag{101,184.56} \\ 97,611.98 \\ 79,089.06 \\ 121,212.87 \\ 92,325.45 \\ 98,708.53 \\ 132,414.88 \\ 103,001.10 \\ 198,089.34 \\ 249,494.61 \\ 180,080.15 \\ 165,604.86 \\ 161,459.79 \\ 6,698.71 \\ 36,027.35	\$0,020.00 50,000.00 16,000.94 60,000.00 65,000.00 160,821.31 167,817.27 96,237.79 77,249.51 6,806.86 53,479.55
1935 (N I R A) Total	\$95,076.45(1)	\$7,957.10	\$1,607.68	20,500.00 93,727.33 \$947,660.56(3)

<ul> <li>(1) Includes refunds of \$16.95.</li> <li>(2) Includes refunds of \$10,571.43 but is exclusive of reversions to omy Legislation) of \$302.39.</li> <li>(3) Includes refunds of \$20.94 but is exclusive of reversions to Tree Legislation) of \$3,777.23.</li> </ul>	
Total Congressional appropriations	\$15,849,656.00
Less - Reversions to Treasury \$ 37.65 Reversions to Treasury (Economy	
Legislation) 47,094.50 Transfer to U. S. Engineer Department	
(Lowell Creek flood control)	
Balance unexpended 973,391.12	1,020,940,48
Amount expended	\$14,828,715.52
Add Navy Department reimbursement	
1920-1929	23,245.63
Total expenditures	<u>\$14,851,961.15</u>
Total Alaska fund	
Add sales, refunds, etc., 1905-1929 130,182.29	4,345,161.14
Less balance unexpended July 1, 1935	14,474.35
Total expenditures	£ 4,330,686.79
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## These expenditures are summarized as follows:

# Federal Appropriations

Congressional appropriations Alaska fund, 1905-1935 U. S. Treasury adjustment, 1921 Increase of compensation acts, 1918-1925 Quartermaster General, 1925-1932 National Park Service, 1925-1935	\$14,851,961.15 4,313,634.56 17,052.23 95,076.45 7,957.10 947,660.56
Total	<u>\$20,233,342.05</u>
Contributed Funds	
Territory of Alaska, 1920-1935	\$ 1,708,017.07 166,593.85
Total	1,874,610,92
Grand total	£22,107,952.97

In addition to the above funds, disbursed through the United States Treasury, the Commission has supervised the expenditure of the following funds, disbursed by other agencies, for road and trail development:

Territorial funds and forest revenues prior to 1921	\$684 <b>,</b> 239 <b>.64</b>
Territorial divisional commissioners, 1921-1929	194,939.60
Seward Peninsula tramway, 1923	24,014.00
Tolovana tramway, 1924	6,425.00
Kaltag portage survey, 1925	312.72
Miscellaneous, 1926-1930	<u>22,349.50</u>
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Total	\$932.280.46

## TERRITORIAL FUNDS

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The Territorial Legislature bientially appropriates funds for the construction and maintenance of roads and trails. These funds are allocated approjects by the Territorial Road Board and are expended under the direction of the Alaska Road Commission.

For the working season of 1935 (fiscal year 1936) the Territorial Board has allotted to the Alaska Road Commission the following arounts:

Total .....\$43,690

# MATERIALS, SUPPLIES AND EQUIPMENT

Alaska products are preferably used in the work when the price and quality compare favorably with the cost of the same items landed at warelows in Alaska.

All supplies not procured in Alaska are unchased for the Commission by a governmental purchasing agency in Seattle, acting also for various other bureaus operating in the Territory. The cost of this service is shared by the individual bureaus on a pro rata basis. The share for the Alaska Road Commission is approximately 3 percent of the invoice price of items thus purchased.

Work is performed by mechanical equipment to every extent deemed advantageous. Small jobs in remote sections are necessarily done by hand. The Commission is now fully equipped to handle construction and maintenance work within the present

limits of appropriations except for replacement of unserviceable or obsolete equipment. During the fiscal year just closed the following pieces of mechanical equipment were purchased:

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sto:

7 pickup trucks, 1-ton

34 dump trucks, 12-yard

2 tractors, 75 h.p.

9 tractors, 44 h.p.

8 scrapers, automatic rotary fresno

1 pull grader, power controlled

3 motor graders

3 pull graders, hand controlled

1 scraper, 1-yard, drag

1 scraper, 3-yard, drag

2 tractor hoists, double drum

l ripper

4 trailbuilders

1 hoist, with diesel engine

1 portable gravel plant

2 shovels, diesel, 3/8-yard

2 electric welding outfits, portable with gas engines

l compressor, portable

#### ORGANIZATION

Labor, both common and skilled, is secured entirely from local residents. Labor has been plentiful the past year. It is encouraging to note the exceptional loyalty to the organization which is manifested generally even by the lowest paid laborers. This may be attributed in part to the fact that, though the work is only seasonal, many of these men have worked for the Commission continuously for 5 to 10 seasons and in part to the fact that as a whole Alaska labor is probably superior to that found elsewhere.

At the Juneau headquarters, located in the Federal and Territorial Building, is the general office staff consisting of a chief engineer and

and an assistant chief engineer with necessary clerical assistants. Disbursing is performed by the disbursing officer for the Department of the Interior at Juneau.

Five district offices and two district suboffices are located at strategic points in the
fields. The suboffices are closed during the
winter months. The work near or adjacent to
Juneau, and known as the "Southeastern District",
is supervised from the headquarters office.

The organization, with its widespread activities throughout the Territory, is equipped to handle many phases of construction work, and in many instances has lent itself to the supervision of construction work of various kinds for other branches of the Federal Government, and for the Territorial Government. This consolidation of work has doubtless saved considerable public expenditure, particularly on small projects in isolated sections. Especially is this true of small road projects undertaken by the Territorial Government and which were not included in the general road program of the Commission.

#### CONSTRUCTION METHODS

Although standard construction and maintenance methods are employed in Alaska so far as practicable, it is necessary to vary therefrom in some instances because of special physical and climatic conditions.

The frozen condition of the subsoil and the constant thawing during summer require special precautions for drainage. Intercepting ditches on the up-hill side of the road are frequently necessary and after the vegetation has been stripped from the roadway the ground must be allowed to thaw, settle, and consolidate for

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Special methods of revetment and stream control must be used to withstand the destructive effects of sudden and frequent freshets and washouts that result from heavy rains in the mountains or the release of impounded waters by breaks in glaciers. The most suitable type of revetment for this purpose is built of brush weighted down with stone in bundles wrapped in wire mesh to prevent its washing away.

Gravel for road surfacing is generally available within reasonable hauling distance. Surfacing is necessary for practically all roads which are used by automobiles. Concrete or other forms of hard-surfaced roads are nowhere warranted in the present stage of development of the Territory.

Bridges are built of native or imported timber or steel, depending on their importance. Fir has been found to be the most suitable material for timber bridges but local timber is used for part of these structures. Metal culverts are being introduced to replace the culverts of native timber heretofore used.

#### OPERATIONS DURING THE FISCAL YEAR

The work in the past fiscal year was greater than usual as a result of the allocation of a substantial amount of emergency funds by the Public Works Administration late in the summer of 1933,

balances of which were expended this year. These funds were available for new construction and reconstruction on much needed projects and included thirty-three road projects, sixteen airfields, one dyke project and one important bridge project, a bridge over Gastineau Channel connecting Juneau and Douglas. Work on these projects was 98 percent complete at the end of the fiscal year. Ordinary funds were sufficient only for maintenance and improvement of the existing system.

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The Richardson Highway was open from Valdez to Fairbanks from June 15 to October 17.

Surfacing of the Steese Highway was completed.

The Gulkana-Nabesna road, leading from the Richardson Highway to the Nabesna mining region, was improved as an earth road and all of the worst sections were gravel surfaced. Its total length is 106 miles, 39 miles of which received a gravel surface during the season.

The highway through Mt. McKinley National Park was opened for an additional distance of 7.00 miles, the constructed portion of the route now totaling 74.50 miles in length and leaving 14 miles to be completed. When completed the route will extend to the north park boundary, only  $5\frac{1}{2}$  miles from the Kantishna mining district, a district reported to contain quantities of very valuable ores. The work on this road was hampered by consistently wet weather.

Work on the Olnes-Livengood project was vigorously prosecuted during the season. All bridges were completed and grading sufficiently advanced over the entire 61 miles so that after the freezeup freighting was done by trucks between Feirbanks and Livengood at a saving of \$60 per ton compared to previous rates.

Work was continued on the Anchorage-Eklutna section of the Anchorage-Matanuska road project. Grading was completed to the Eklutna River, Mile 20.5 and short sections surfaced providing a passable road to this point. A 172-foot steel arch span with 50 feet of approach is now being erected over the Eklutna River.

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The Lucky Shot-Willow Station sled road was improved and a 100-foot truss erected across Willow Creek. The road connecting Iliamna Bay and Iliamna Village was improved making it passable for trucks.

The Juneau-Douglas bridge, built from PWA funds and consisting of 1120 feet of cantilever type steel bridge, 432 feet of concrete girder approaches and over 1,000 feet of rock fill is 95% complete.

New aviation fields were constructed at Cache Creek and May Creek.

Several new short roads and extensions were built in farming and mining areas.

The work accomplished during the fiscal year is summarized as follows:

New construction: 1214 miles of road,  $7\frac{3}{4}$  miles of sled road,  $6\frac{1}{4}$  miles of tram road, 126 miles of trail, 848 linear feet of timber bridges over 38-foot span, 1,120 linear feet of steel bridges of 300-foot span or over, 1,836 linear feet of timber trestle span bridges, 432 linear feet of concrete girder span, and 2 airplane landing fields.

Improvement: 77 miles of road reconstructed,  $86\frac{3}{4}$  miles of road surfaced, 486 metal culverts

replaced and 18 airfields enlarged and improved.

Maintenance: 1,653 miles of road, 74 miles of tramway, 549 miles of sled road, 4,005½ miles of permanent trail and 304 miles of temporary flagged trail.

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	Road	Sled <u>Road</u>	<u>Trail</u>	Flagged Trail	Grand Total
June 30, 1934 , (a)	1,872	1,576½	$7,324\frac{1}{4}$	712	$11,484\frac{3}{4}$
Fiscal Year 1935  New mileage	69 <u>1</u>	3 <del>1</del> 2	126	- <del></del>	199
transferred	<u>36<del>1</del></u>	$-17\frac{1}{2}$	<u>-251</u>	<u>-408</u>	<u>-640</u>
Total (b)	1,978	$1,562\frac{1}{2}$	$7,199\frac{1}{4}$	304	$11,043\frac{3}{4}$
No work of either maintenance or improvement during fiscal year 1935	242	1,0271	3,318 <u>3</u>		$4,565\frac{1}{4}$

- (a) Includes 74 miles tram road.
- (b) Includes  $80\frac{1}{4}$  miles tram road.

#### PROPOSED OPERATIONS

In addition to \$500,000 from appropriated funds, it is estimated there will be available from the "Alaska Fund" and Territorial appropriations \$200,000 for the fiscal year ending June 30, 1936.

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These funds will be required for normal maintenance of the existing system and for a limited improvement of certain sections. Surfacing will be provided where possible with available funds.

\$446,500 allotted from the Emergency Relief Act will be expended during the fiscal year on construction of the road connecting Anchorage with the farming development in the Matanuska-Palmer area, for the construction of new roads serving the farm units in this area and for improvement of existing farm roads.

#### RECOMMENDATIONS

For the fiscal year ending June 30, 1937, an appropriation of \$1,100,000 is recommended in addition to funds available from other sources. This will provide for necessary maintenance to the existing system and for the continuance of a reasonable program of construction on projects now under way and on needed new projects.

The principal projects on which new work would be performed are as follows:

Olnes\_Livengood. This project should be surfaced throughout making it passable in any kind of summer weather.

Bunker Hill-Kougarok. Extension of road to

serve mining area.

<u>Kantishna-Park Boundary.</u> Extension of Park road beyond boundary to serve mining area.

Nizina River Bridge. Installation of four 250-foot steel spans.

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Hot Springs-Tofty. Improvement of a winter sled road to truck road standard.

Chistochina-Slate Creek. Improvement of a winter sled road to summer tractor road standard.

<u>Talkeetna-Cache-Peters Creek.</u> Completion of grading and gravel surfacing throughout.

<u>Teller-Bluestone.</u> Extension of road to serve mining activities.

<u>Iliamna Bay-Iliamna Lake.</u> Completion to deep water in bay and lake - 4 miles.

Cantwell-Valdez Creek. Improvement of trail to summer tractor road.

Newhalen-Lake Clark. New road construction, 8 miles.

Homer-Kachemak Bay. Extension of road to serve farming area.

<u>Valdez-Mineral Creek.</u> Three-mile road to connect Valdez with road from bay to mining operations.

<u>Nizina-Bremner.</u> Construction of 30 miles of tractor road.

In addition to the above listed projects work

will be required on a number of small projects to serve developments as they occur.

A well planned program requires definite assurance that funds will be provided at a uniform rate. This allows for a definite plan for procurement and economical use of equipment as well as the building up of a well balanced and competent supervisory force. Such a plan is impossible under wide fluctuation of available funds from year to year.

### THIRTY\_ONE YEARS' SERVICE

With the period covered by this report the Alaska Road Commission concludes its thirty-first year of service. The work accomplished consists of the construction and maintenance of 1,978 miles of road and tram road, most of which is suitable for automobiles, 1,562½ miles of winter sled road, 7,199¼ miles of trail and 304 miles of flagged trail. The total costs to the end of the fiscal year are \$21,543,492.79, of which \$11,327,062.31 was for new work and \$10,216,430.48 was for maintenance and improvement. The total expenditures to date are \$22,107,952.97 of which \$15,902,655.26 was derived from Federal appropriation acts. The balance, \$6,205,297.71, or 28 per cent of the total expenditures, was obtained from Alaskan sources.

The pioneer period of the Alaska Road Commission is largely over. All existing mileage has been opened and improved, so far as funds have permitted. The present system of roads serves as the basis for future development for overland routes throughout the Territory. This development calls only for additional funds for construction.

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#### COSTS

A standard cost system is maintained in all districts, from which, over a period of years, valuable information can be secured in the preparation of estimates. In the use of such data, lowever, consideration must be given to the large differences in freight rates, labor costs and climatic conditions in the various sections.

In the interior of Alaska the average cost for c nstruction of a mile of gravel-surfaced road capable of continuous traffic in any kind of summer weather, and of such width as to enable cars to pass at any point is \$9,000.

Annual maintenance costs, including minor improvements, are roughly considered as \$300 per mile for roads, \$25 for sled roads, \$10 for trails and \$3 for flagged trails. For the working season of 1934 the cost of maintenance, per mile, including minor improvements, was \$306 for roads, \$19 for sled roads, \$7 for trails and \$4 for flagged trails. Roads were kept open for traffic, except in unusual circumstances but in certain instances maintenance was insufficient due to lack of funds.

Very little engineering is done on roads after the final survey is made. A resident engineering force is never maintained. To take the place of a permanent engineering force on a new job, foremen of long experience are employed and advised frequently by superintendents who are either engineers or men of wide experience on engineering work of this nature in Alaska.

Dispensing with relatively large engineering forces has reduced costs materially and, due to the low type of construction undertaken, has not adversely affected the work to any extent.

520 234 9I£ #99 '62£ '96I **'** ∑†₁Z **'** f5I, ,802 6'20E ٤٤٤ ع 6'ot1. IT'T 59' t(I 52'I 62\$ -02-9 I TO W Latol The Richardson Highway, which with the Edgerton Cutoff from Chitina totals 410 miles, is now in such condition that a 2-ton truck can ordinarily travel from Valdez to Fairbanks, 370 miles, in 18 hours. Actually the first automobile went over this route in 1913 but due to lack of funds improvement to a fair standard proceeded slowly. The average cost per mile to June 30, 1935 including all costs for construction and maintenance over the entire period of use for the 410 miles, is \$17,792.21.

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The Steese Highway extending from Fairbanks to Circle, a distance of 162 miles, is suitable for traffic not exceeding 2-ton trucks, Including maintenance, the total cost per mile of this road to June 30, 1935 is \$11,372.65.

A consolidated cost statement of all projects follows:

-27-

			ED COS	T SUMM	ARY		
	Sub-project	Cost	Total Cost to June	Cost Main- tenance and Improvement 1935	Total Cost Maintenance and Improve- ment to June 30, 1935	Cost Con- struction 1935	Total Cost Construction to June 30, . 1935
No.	Name	1935	30, 1935	\$	\$21,038.40	\$	\$42,811.86
1*	Prince of Wales Island	\$	\$63,850.26 60,404.43		12,300.30		48,104.13
. 2A*	Auke Bay Extension		•		7,644.57		7,505.64
2.B*	Mendenhall Glacier Extension		15,150.21 18,362.32		3,360.00		15,002.32
5 <b>C</b> *	Eagle River Extension				31,250.55		78,407.72
2D*	Juneau-Duck Creek		109,658,27	i ·	1,386.00		28,621.83
. SE	Gastineau Channel Bar		30,007.83		1,580.00		2,156.75
2 <b>F</b>	Gold Creek Bridge, Juneau		2,156.75	5			÷ :
			831.66				831.66
SG	Alaska Juneau Mine Trail	777 06	34,532.6	337.06	4,316.34		30,216.31
2H	Juneau Wharf and Float	337.06				}	5,134.42
2J	Juneau Float	50.83	1			480.	94 52,000 <b>.</b> 00
2K	Willoughby Avenue	480.91	52,000.0	0		•	
		201,630.9	7 209,176.8	9		- 201,630.	*
5T				15,352.7	9 180,068.6	8	283,824.19
3A			47,634.6		- 9,279.7	3	38,354.90
30	Porcupine Extension				, , , , , , , ,		18,807.46
30	Haines-Mud Bay	919.9	33,547.8	1 .			18,236.56
- 31	Haines-Chilkopt	. 947.8	22,911.0		4,674.4	8.	1.0,0,0
M.	•	Ţ	:	15			

\$ 1.7°	7	motol Cost Total Cost						Total Cost
- tinnung	<b>∆</b> 7 .	Sub-project Name	Cost 1935	Total Cost to 6-30-35	Cost M & I 1935	M & I to 6-30-35	Cost Con.	Construction to 6-30-35
Smitino	: н9	Haines-Jones Point	\$	\$2,353.20	\$	\$799.75	\$	\$1,553.45
. raggoo	<del>.</del> 199	Chilkoot Barracks Water Supply	<u></u>	28,344.60		<u> </u>		28,344.60
Tower T	Æ9	Chilkoot Barracks Roads		1,252.50		1,252.50		
Snitino	<b>E</b> 9	r* Donnelly-Washburn		33,460.06		14,594.66		18,865.40
3mijid0	α9	A Richardson-Democrat Creek	2,929.11	5,249.70	1,119,11	1,119.11	1,810.00	4,130.59
risnoT	£9	B Donnelly Aviation Field		137.42	<del>_</del>	14.11	·	123.31
we lliw	<b>∀</b> 9	W Valdez-Ptarmigan Drop	\	1,181,530.70	47,711.70	710,974.43		470,556.55
ouilli	āС	A Dyke	6,623.08	139,436.14	6,623.08	83,370.16		56,065.98
Tanana	<b>E</b> G	B Ptarmigan Drop-Ernestine	13,394.78	479,753.59	13,394.78	308,526.03		171,227.56
SirəmA	α <u>ς</u>	# Ernestine-Willow Creek		385,747.41	11,725.42	208,247.56	,	177,499.85
I usia	og :	Willow Creek-Gulkana	_		9,530.63	421,647.31	. 2	246,394.58
Nenana	аG	Gulkana-Sourdough	2,182.21		2,182.21	243,754.65		1կկ, 173.70
Dun <b>d</b> ar	<b>V</b> S	Sourdough-Mile 168			2,009.07	195,253.81		136,258.29
Fater-	**G	Wile 168-Delta River			1	389,414.36		158,615.89
३५७ पुष्टु	τkΥ	Tolta River-Rapids			23,605.86	564,786.52		259,965,60
Sal cht	ηtK	Rapids-Grundler			10,265.76	316,218.89		120,386.12
Lake I	<b>▼</b> ₽†;	I Grundler-Richardson				234,956.34		121,294.00
	••N	Richardson-Salchaket	3,439.51					215,518.01
	- <b>40</b>	TITOIICH (TOAN DOTOIICHE A	7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7		16			

		· ·							
       			Sub-project Name	Cost 1935	Total Cost to 6-30-35	Cost M & I 1935	Total Cost M & I to 6-30-35	Cost Con. 1935	Total Cost Construction to 6-30-35
mrri Hoif	r, T	No. 4J <b>4</b>		\$358.18	\$5,427.14	\$358.18	\$2,326.39		\$3,100.75
•	I;			-		,,,,,	i		
r <u>o</u> eA	Tiil TiilS	ήK	Salchaket-Fairbanks	12,097.36	571,360.21	12,097.36	316,397.34		254,902.87
рејt	TEn	4KA	Salcha Bridge		95,482.06		45,111.39		50,370.67
Mile	9ŋ	5 <b>*</b> *	Ester-Dunbar	<b></b>	19,405.18		6,781.00		12,624.18
rnog	đη	5A	Dunbar-Tanana	1,159.84	92,855.92	1,159.84	42,586.23		50,269.69
GuII	Ah 🛔	5B	Nenana-Campbells	<u> </u>	2,025,61		106.60		1,919.01
TIM	ūη	5C	Fish Lake-American Creek	2,181.15	10,347.62	2,181.15	4,581.09		5, /66.53
Erne	Đħ·	5D	American Creek Aviation Field.		940.00				940.00
Ptar	ΗBB	5́⊑	Tanana Aviation Field	621.78	6,274.92		374.96	621.78	5,899.96
DAF	ΨEη	5₽	Illinois Creek-Moran Creek	<del></del>	1,178.89				1,178.89
Valc	βBΨ	6 <u>A</u>	Willow Creek-Tonsina	1,733.46	233,515,84	1,733.46	123,855.06		109,660.78
noc	#7B	6B	Tonsina-Chitina	8,045.02	374,563.58	8,045.02	229,200.89		145,362.69
Fic	FYI <sub>1</sub>	6D	Chitina Depot	2,880.10	17,859.33	2,880.10	5,920.67		11,938.66
ಷಚಾರ್	****	6E	Chitina-Native School	300.00	1,380.96	300.00	885.90		495.06
מדינו	ੜ	6F	Lower Tonsina Aviation Field		1,587.15		,++		1,587.15
E \$42	4 )	6G	Copper Center Aviation Field		27 <b>6.</b> 92	-	76.33		200.59
ənisH		6н	Chitina Aviation Field		110.85	• ,		***************************************	110.85
		<b>7</b> A	Summit-Chatanika	2,189.31	89,306.18	2,189,31	48,543.47	<del></del>	40,762.71
ļ					17			, ·	

				<del></del>	Total Cost	1	Total Cost
αр	Sub-project Name	Cest 1935	Total Cest to 6-30-35	Cost M &I 1935	1	Cost Con. 1935	Construction to 6-30-35
. 2 <i>L</i>	NO.	\$327.00	\$9,669.04	\$327.00	\$5,351.23	.\$	\$4,317.81
XL S	7AA Cleary Creek	29,571.99	81,016.53	13,190.99	36,543.88	16,381.00	<u> </u>
×Ζ	7BA Dome-Spaulding Mine		3,250.35		410.98		2,839.37
ΛL	7BB** Fox-Steel Creek	1	855.75				855•75
- <b>1</b> 2	7C Summit-Fairbanks Creek	.	58,982.78	2,095.59	34,080.17		214,902.61
, s.t	7CA Summit-Fish Creek	399.67	17,879.06	399.67	5,098.24		12,780.82
. н <u>/</u>	7D Ester Creek	5,470.27	103,23 <sup>4</sup> -53	5,470.27	64,577.60		38,656.93
EN\	7DA College Spur	89.60	1,503.19	89.60	973-19		530.00
AMY	7DB Ester-Dome	. 1,852.20	6,837.19	1,852.20	2,644.46		4,192-73
. NL	7DC St. Patricks-Happy-Gold Stre	am 237.74	8,624.24	237•74	2,554.77		0,000,00
JK .	7DD Ester-Beegler		1,010.28		10.28		1,000.00
οίγ	7DE Ready Bullion	. 99.16	464.46	99.16	99.16		365.30
ary	7E** Vault Creek		4,875.20		172-37		1,,02,00
AT	7F** Vault Creek-Treasure Creek.		1,379.09		29.09		1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
r2	7G Fairbanks-Gilmere	. 10,167.09	209,452.97	10,167.09	139,050.22		70,402.75
**AI7	7GA Lazelle Road	. 260.54	8,031.10	260.54	3,917-59		,,,
•oM	7H Little Eldorado Creek	310.37	22,977.19	310.37	14,398.88		,,,,,
	7I Gilmore-Summit	2,594.18	65,204.06	2,594.18	46,040.74		- 19,163.32

						<del></del>	
lo.	Sub-project	Cost 1935	Total Cost to 6-30-35	Cost M & I 1935	Total Cost M & I to 6-30-35	Cost Con. 1935	Total Co Construct to 6-30-
714	** Gilmore Creek	\$	\$1,562.00	\$	\$	\$	\$1,562
<b>7</b> J.	Fairbanks-Chena Hot Springs.	2,932.90	21,206.83	2,932.90	13,174.24		8,032
731	Chena River Branch	1,852.44	4,176.28	1,852.44	3,562.27	,	614
7,77	Palmer Creek Aviation Field.		<b>339.11</b>	<b>_</b> _	264.11		575
73(	Colorado Creek-South Fork		600.00				600
7K	Olnes-Livengood	169,878.79	360,695.45		2,170.39	169,878.79	358,525
71.7	Farmers-Birch Hill	8,581.56	43,458.94	4,311.56	24,786.97	4,270.00	18,671
P10	Isabelle Creek	152.79	3,006,56	152.79	1,331.56		1,675
תוך 🌓	Ballaine-Rickert	32.67	1,968.35	32.67	168.35	***	1,800
ĮR.	Goldstream-O'Connor Creek	<b>→</b>	662.56		507.92		151
<b>1</b> 7S	Graehl Eridges and Road	360.34	6,935.59	350.34	3,935,23		3,050
77	- Farmers-Chena Slough	1,691.01	19,261.67	1,091.01	7,462.90	600.00	11,798
77	Fairbanks-Wireless Road		495.46		495.46		
7X	Chena Hot Springs Avia. Field		1,739.58		50.00		1,639
¥ 71	Fairbanks Aviation Field		19,969.33		498:11		19,47
72	Fairbanks Aviation Field Road		766.66				76
3	Nome-Council	10,394.86	453,460.57	10,394.86	271,577.61		181,88
7 31	Council-Ophir Creek	1,138.10	10,659.53	1,138.10	10,659.53		_

13K		Sub-project	Cost 1935	Total Cost to 6-30-35	Cost M & I 1935	Total Cost M & I to 6-30-35	Cost Con.	Total Cost Construction to 6-30-35
**P\$T	No- 8H	Casa de Paga	\$166.81	\$34,013.71	\$166.31	\$16,574.06	\$	\$17,439.65
±*⊞€T	8J	Shovel Creek	102.45	169.00	102.45	110.50		58 <b>.</b> 50
73G**	gK	Council Aviation Field		2,244.27		:845 <b>.9</b> 3		1,399.24
13E 13E**	gL	Port Safety Aids	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	616.50		616.50		
**#ISI	9,	Rampart-Eureka	2,966.41	57,139.56	2,966.41	28,025.20		29,114.36
130	10*	Seward-Kenai Lake		80,783.93		34,523.10		46,260.83
SAFI.	10A*	Seward Radio		6,594.04		124.00		6,470.04
1 8£T	10B*	Seward-Nash		21,996.00		8,753.70		13,242.30
τ ΨΣτ	10 <b>C</b> *	Lowell Creek Flood Control .		124,663.54		11,424.92	· ·	113,238.62
J2A**M	10D	Seward Aviation Field	551.92	13,543.61		245.75		13,297.86
च ठार	11A	Fagle-Liberty	16,187.12	144,301.09	16,187.12			53,422.55
o arr	11B	American Summit-Fortymile	712.63	29,680.87	712.63	9,429.68	<u> </u>	20,251.19
T NTI	11C	Steel Creek-Mouth of Walk- er's Fork	727 • 55	10,319.79	727.55	5,687.29		4,632.50
e wii	11D	Steel Creek-Walker's Fork		6,446.20		2,336.20		4,110.00
IIP E	]   11E	Eagle-Seventy mile	749.91	23,502.18	749.91	18,537.59		4,964.59
IIK B	llf	Liberty-Chicken	3,078.31	22,885.90	3,078.31	18,871.63		4,014.27
•оИ	11G	Steel Creek-Canyon Creek		986.04	·	986-04		
	11J	Forty mile-Chicken	39.90	116.01	39.90 20	116.01		

ינד י					m 1 2 0 - 1		Total Cost
II	Sub-project	Cost 1935	Total Cost to 6-30-35	Cost M & I	Total Cost M & I to 6-30-35	Cost Con. 1935	Construction to 6-30-35
זז	IK Fortymile-Steel Creek	\$	\$80.00	\$	\$80.00	\$ <b>-</b> -	\$
TT	.M. Franklin-Chicken	486.60	2,923.48	486.60	2,923.48	حديد شده جديد ويتم	داده همای — همای همای
IJ	:N Jack Wade-Walker's Fork-Boundary	569.73	920.20	569.73	920.20		<del></del>
τ	Ny Lillywig Creek		909.50	gang daya garay dana dilad			909.50
ī	HP Chicken Aviation Field		2,816.00		115.86		2,700.14
τ	No Eagle Aviation Field		2,829.84		809.09	·	2,020.75
τ	Mark Mile 34-Lynx Creek		22,192.66		8,239.03		13,953.63
Ι	以 Nome-Bessie	374.50	89,214.39	374.50	50,672.44		38,541.95
Ţ	NB Bessie-Snake River	14,459.90	114,214.80	3,149.90	63,871.68	11,310.00	50,343.12
Ī	MA Snake River-Monument Creek		1,788.65		371.38		1,417.27
T	]C Bessie-Sunset Creek	1,882.72	64,609.28	1,882.72	21,297.00		43,312.28
6	JD**Bessie-Dry Creek		3,289.20		1,706.73		1,582.47
۵	E**Dry Creek-Newton		623.74		223.86		399.88
8	l)F Nome-Osborne	213.83	58,839.16	213.83	43,445.37		15,393.79
ş Ş	JG**Grass Gulch		1,125.73		338.94		786.79
[8	JH**Center Creek		1,538.80		1,455.15		83.65
<u>o;</u>	13J**Wonder-Flat Creek		2,803.72		2,633.22		170.50
	K Bessie-Buster	<u> </u> 442.83	57,068.74	442.83	39,564.76		17,503.98

Sub-project	Cost 1935	Total Cost to 6-30-35	Cost M & I	Total Cost M & I to 6-30-35	Cost Con. 1935	Total Cost Construction to 6-30-35
No. Name	\$!	\$585.00	\$	\$585.00	\$	\$
13M Nome Depot	4,449.17	9,315.69	1,449.17	6,315.69	3,000.00	3,000.00
14* Sitka-Indian River		9,610.88		3,336.16	·	6,274.72
14 Sitka-Indian River	557.84	8,131 <b>.1</b> 6	557.84	4,568.16		3,563.00
NA Sitka National Monument	500.00	14,031.21	500.00	12,481.21		1,550.00
14B* Sitka National Cemetery		9,233.02		5,733.02		3,500.00
14C Sitka-Pioneer Cemetery Road	330.63	4,913.16	330.63	1,572.14		3,341.02
14D National Cemetery Road	79 <b>.</b> 25	2,572.85	79.25	1,875.38		697.47
15 Circle-Miller House	12,175.02	608,570.70	12,175.02	175,882.67		432,688.03
15A Central House-Circle Hot Springs	1,710.22	35,851.49	1,710.22	13,350.79		22,500.70
15B Central House-Deadwood	100.47	12,606.56	100.47	554.68		12,051.88
15BA Ketchum Creek	571.58	571.58			571.58	571.58
150 Circle Hot Springs Aviation Field	337.64	2,702.21		385.71	337.64	2,316.50
15D Leech Cutoff		224.75		· ·		224.75
15E Miller House-Harrison Creek	5,719.63	11,848.46		399.94	5,719.63	11,448.52
15F Boulder Creek Trail	321.90	321.90			321.90	321.90
16 Chatanika-Miller House	22,602.05	878,377.78	22,602.05	342,769.27		535,608.51
16A U. S. Creek Branch		12,362.79		1,990.66	,	10,372.13
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1 <b>¥</b> 9T		, Sub-project	Cost	Total Cost to	Cost M & I 1935	Total Cost M & I to 6-30-35	Cost Con. 1935	Total Cost Construction to 6-30-35
) 9T	No.	Name Name	1935	6-30-35	1 1939	0-30-39	1930	1 10 0-30-39
t agr	163	Eagle Creek Spur	\$265.68	\$571.71	\$265.68	\$490.54	\$	\$81.17
i açı	160	Chatanika-Miller House (Winter)	559.27	23,864.78	559.27	9,250.04		14,614.74
α9τ	160	Sourdough Creek Branch	5,208.72	9,191.48	1,488.72	2,707.36	3,720.00	6,484.12
ĭ2c	16E	Faith Creek	1,106.99	1,106.99			1,106.99	1,106.99
J≥B <b>∀</b>	17	Tanana-Kaltag	106.40	34,620.64	106.40	10,882.84		23,737.80
EST	17A*	*Lewis Landing-Dishkaket		483.37		<b>-</b>		483.37
₩SI	17B*	*Nulato-Dishkaket		735.88		250.00		485.88
Sτ	17C	Nulato Aviation Field		5,026.02		14.13		5,011.89
Œητ	17ם	Tanana-Kaltag Telephone Line	·	6,683.59		6,683.59	بين وين فقد شد وين	
τητC	18	Kaltag-Nome	2,071.74	76,422.19	2,071.74	48,284.80		28,137.39
7#B*	18A	· · · · · · · · · · · · · · · · · · ·	288.55	10,945.80	288.55	9,715.80		1,230.00
¥ <del>l</del> l[[	18B	Golovin-Council	48.00	618.65	48.00	618.65	<b>-</b>	
\	18D	Unalakleet Aviation Field		1,641.17		199.50		1,441.67
, ∗†\[	18E	Solomon Aviation Field		· 719.83		624.83		95.00
MST	18F	Golovin Aviation Field		1,751.97		. 172.90	·	1,579.07
TST	18G	Moses Aviation Field	· <b>-</b>	254.20		29.20		225.00
No.	18H	Kaltag-Unalakleet Telephone Line		2,454.00		2,454.00		
900	18J	Spruce Creek	264.06	1,030,45	264.06	742.95		287.50

	^ .	Cost	Total Cost	Cost M & I	Total Cost M & I to	Cost Con.	Total Cost . Construction to 6-30-35
	Sub-project Name	1935	6-30-35	1935 \$	6-30-35 \$3,615.73	\$	\$10,276.22
52н оғ	* Kern Creek-Knik	.\$	\$13,891.95	ψ			6,833.20
rs ess	Kenai Lake-Kern Creek		741.66				741.66
ra Ares	3**Mile 27-Mile 29 A.N.R.R	1	1,595.81				1,595.81
SPD Mor	**Kenai Lake-Mile 27 A.N.R.R		3,758.26	1			3,758.26
EDD TO	***Kern Creek-Indian Creek		3,434.15	1	2,542.50		891.65
528**Pen	Girdwood-Crow Creek		8,437.4		629.59		7,807.85
tums *Sh?	3 Susitna-Rainy Pass		32,876.98		6,598.69		26,278.29
ShA* Lyn2	Rainy Pass-Big River	i	16,436.4		1,927.39		14,509.07
Sp* Nije	11.7		4,290.0	o	38.60		3,800,00
SIE COLO			5,026.8	7	1,226.87		3,575.00
ored agg	- 19 <b>1</b>		- 4,335.C	İ	760.00		g,640.21
Big of	***Susitna-McDougal		- 8,640.2		347.10		7,002.90
Reaves Agencies	***Kanaugal-Cache Creek		7,350.0	İ	- 1 341.10		3,675.00
	z ***Lakeview-McDougal		3,675.		- 2,773·3 <sup>1</sup>	5	
M . JZ A	Z Nancy-Susitna		2,773	<b>,</b>	1,478.5		2,643.93
slanU	Susitna-Tyonek		4,122.		1. I T T T T T T T T T T T T T T T T T T	_	931.10
**	W Susitna Aviation Field		931.	30			•

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02	Sub-project	Cost 1935	Total Cost to 6-30-35	Cost M & I 1935	Total Cost M & I to 6-30-35	Cost Con. 1935	Total Cost : Construction to 6-30-35
SC	21 Unalakleet-St. Michael	\$51.67	\$8,968.00	\$51.67	\$6,365.37	\$	\$2,602.63
:	21A St. Michael Aviation Field	- ·	110.00				110.00
ALC: No.	22 Hot Springs-Sullivan Creek	582 <b>.</b> 15	61,496.46	. 582.15	33,672.62		27,823.84
	23A Snowshoe_Beaver		14,163.03		3,227.58		10,935.45
1	23B Beaver-Caro	319.20	69,376,35	319.20	39,135.5 <del>!</del>		30,240.81
	330 Big Creek		9,614.77		3,294,77		6,320.00
The second second	23D Caro-Flat Creek		16,517.56		12,494.30	-	4,023.26
	NE Caro-Coldfoot		13,167.46		5,607.59		7,559.87
	3F Chandalar Aviation Field		8,335.74		120.00		g,215 <b>.</b> 74
	24* Mile 29 A.N.R.RSunrise		57,850.94		27 <b>,</b> 123 <b>.3</b> 9		30,727 <b>.</b> 85
and the second	%4* Iynx Creek_Six Mile		10,832.40		3,800. <b>9</b> 0		7,032. <u>4</u> 0
a hand follow	AB* Sunrise_Hope	,	1,085.00		200.00		835.00
The Paris of the P	٦١**Cripple River		8,801.79		3,743.82		5,057.97
A STATE OF THE PERSONS NAMED IN	i58**Penny River		1,967.08		691.05	<u></u>	1,276.03
Applications.	350 Nome-Wireless	16.47	3,831.90	15.47	2,066.99		1,764.91
Section 1	D Mouth of Center Creek	473.13	25,235.20	473.13	20,787.13		7,501.07
A. Selbert Barre	5M Little Creek Branch	63.98	4,544.18	63.98	7,47.48		3,796.70
Sign differ	Submarine Paystreak	862.34	37,775.14	362.34	13,404.81		2 <sup>1</sup> 4,370.33
To Assert Process	5 Otter Creek		1,802.52		652.98		1, 149.51

35D		Sub-project	Cost	Total Cost to 6-30-35	Cost M & I	Total Cost M & I to 6-30-35	Cost Con. 1935	Total Cost Construction to 6-30-35
350	No.	Nome City Dock	1935 \$	\$3,051.47	\$	\$84.82	\$	\$2,966.65
3SB	25K 25L	Nome Aviation Field	,	31,920.08	<u></u>	5,459.73	14,154.52	26,460.35
32B	25M	Telephone Lines, Seward Peninsula.		13,149.20		11,449.20		1,700.00
DASE	25N	Nome City Streets	2,815.89	4,355.91	2,815.89	4,355.91	<u></u>	<u></u>
AAS E	25P	Nome Harbor Lights	, 	815.29		815.29		
ASE AASE	25R	Radio Telephones		6,477.34			· 	6,477.34
	26	Candle-Candle Creek	8,811.02	96,308.93	5,669.02	58,172.86	3,142.00	33,136.07
37 30B	26A**	* Kugruk River Approach		भड़ड.00	!	488.00		·
40ξ	26.B	Bear Creek Trail		814.48		मंत्रम मह		340.00
·0ξ	260	Candle-Kiwalik	21.67	1,107.27	21.67	79.36		1,027.91
<b>262</b>	260	Kiwalik Aviation Field		873.50		573.50		300.00
SSD	26E	Candle Aviation Field		1,355.00				1,355.00
290	25F	Telephone Line Reconnaissance		148.00		148.00		
<b>46</b> 2	26G ;	Candle Radio Road		575.00				575.00
53	27	Deering-Inmachuk	4,838.39	i10,713.57	4,833.39	79,821.67	`,^	30,891.90
SSC	27∆ .	Deering Aviation Field	, <del></del>	1,159.65		137.65		1,022.00
· OM	28	Shelton-Candle		12,368.89	· · · · · · · · · · · · · · · · · · ·	4,161.87		8,207.02
	28A	Nome-Serpentine Hot Springs	581.05	18,5 <sup>4</sup> 5.57	581.05	13,306.57		5,239.0 <b>9</b>
					26	1	i	•

Sub-project Name	Cost 1935	Total Cost to 6-30-35	Cost M & I 1935	Total Cost M & I to 6-30-35	Cost Con. 1935	Total Cost Construction to 6-30-35
Lower Kougarok Aviation Field	\$362.84	\$362 <b>.</b> 84	\$ <b>-</b>	\$	\$362.84	\$362.84
Tanana-Bettles		12,878.41		5,866.30		7,012.11
Bettles-Coldfoot	647.79	20,665.53	647.79	15,535.53		5,130.00
: Nile 70-Hughes		2,167,02		458,45	: <u>-</u>	1,708.57
Wild River Trail	2,693.54	4,119.30		1,425,76	2,693.54	2,653.54
. Bettles River Aviation Field		500.00				500.00
Hot Springs Landing-Eureka	398.60	87,624.60	398.60	67,198.79		20,425.81
. Hot Springs-Torty	6,332.16	17,279.71		2,374.21	6,332.16	14,905,50
Manley Hot Springs Aviation Field		1,159.98		49.98		1,140.00
Caribou Creek	9•33	15,063.82	9.33	6,482.90		8,580.92
. Takotna-Flat (Summer)		9,305.14		3,867.85		5,437.29
4 Takotna-Flat (via Moore Creek) .	533.60	1,854.61	533.60	1,054.61		300.00
Al Flat-Moore Creek		15.00		15.00		
Candle Creek-Takotna		1,216.09		1,216.09		.
ditarod-Flat	8,614.97	134,497.94	8,614.97	78,611.67		. 55,886.27
M iditarod River Improvement		100.00	)			100.00
· Opnir-Iditarod		8,053.42	2	3,053.42		5,000.00
int-Crooked Creek	410.50	6,928.01	410.50	5,448.03		1,480.00
			<sup>27</sup> □ ·□			

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		Total Cost	· ·	Total Cost		Total Cost
Sub-project . Name	Cost 1935	to 6-30-35	Cost M & I 1935	M & I to -6-30-35	Cost Con. 1935	Construction to 6-30-35
32DD Flat-Georgetown	\$	\$150.00	\$ <u>-</u>	\$150.00	\$	\$
32E Takotna Aviation Field		3,869.12		446.68		3,422.44
32F Takotna Depot	323.98	14,592.16	323.98	6,982.89		7,609.27
33A**Otter Creek Towpath		448.23				448.23
}}B**Summit-Otter Creek	:	5,047.66		5,047.66		
33C Flat City-Flat Creek	24.46	5,893.11	24.46	5,893.11	· ,	
J3D Heat Flat Creek-Willow Creek .	779•95	10,780,52	779•95	9,537.52		1,243.00
33DA Happy Creek Road		360.46		1	<del>-</del>	360.46
33E Willow Creek-Chicken Creek	· <del></del>	11,608.59		.10,108.59		1,500.00
33F Flat City-Slate Creek	7,221.54	38,638 <b>.</b> 82	2,021.54	13,124.12	5,200.00	25,514.70
33FA Gold Horn Branch	3,012.83	3,012.83			3,012.83	3,012.83
33G Candle Landing-Candle Creek		6,577.16		980.16		5,597.00
33H Flat Aviation Field	2,001.45	5,181,45		280.00	2,001.45	4,901.45
孙** Iditarod-Dishkaket	<b>_</b>	4,830.98		100.00		4,730.98
34A Flat-Holy Cross-Anvik	80.11	2,600.06	80.11	2,600.06		
34B Iditarod-Shageluk-Anvik		1,365.66		865.66		500.00
35A Archangel Extension	544.76	32,26 <sup>1</sup> 4.95	5 <sup>11</sup> 4.76	15,067.03		17,197.92
35AA Sherry Branch		1,768.49		649.17		1,119.32
		104.20				104,20

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		· · · · · · · · · · · · · · · · · · ·	Total Cost		Total Cost		Total Cost
EPB*	Sub-project	Cost	to	Cost M & I	M&I to	Cost Con.	Construction
	Name	1935	6-30-35 .	1935	6-30-35	1935	to 6-30-35
S AAR	% Palmer-Fishhook	\$349.95	\$40,709.96	\$349.95	\$16,022.04	\$	\$24,687.92
A ACT	MA Falk Road	7.14	1,109.89	7.14	7.14		1,102.75
I H:	Palmer-Matanuska River	5,509.98	40,693.47		11,527.33	5,509.98	29,166.14
∃ ₹*:	Nillow Creek Extension	1,155.12	116,723.76	1,155.12	78,589.62		38,134.14
I ** :	MA Gold Chord Branch	1,805.36	14,362.02		1,965.42	1,805.36	12,396.60
A Hit	500 Lucky Shot-Willow	29,696.93	124,693.96		6,255.75	29,696.93	118,438.21
D A3{{ .	FIX Willow Creek Mines Aviation Field	305.95	305.95			305.95	305.95
of Six	☑ Wasilla-Fishhook	2,076.35	134,481.12	2,076.35	101,068.49		33,412.63
AM EXI	A Lakeview Road	1,114.98	6,515.07			1,114.98	6,515.07
H ACF:	▼ Wasilla-Knik	2,058.83	56,404.86	2,058.83	29,969.39		26,435.47
∍H G:	Palmer-Springer	1,365.77	4,698.16	320.00	2,079.07	1,045.77	2,619.09
IT O''	Wasilla-Finger Lake-Palmer	625.34	37.933.22	625.34	18,875.99	<b></b>	19,057.23
ns <sub>**</sub> ຄື::	": Moose-Palmer	3,184.89	11,363.03		627.53	3,184.89	1
40****!	Vasilla-Matamuska	1,244.53	30,003.63	1,244.53	20,727.40		9,276.23
eL 🐠	Latamuska Trunk Road	569.29	50,925.10	569.29	35,873.64		15,051.46
eT I:	Palmer-Matanuska	1,127.34	18,934.09	1,127.34	10,529.39		8,404.70
ta ci	a licleod Road	2,322.52	2,322.58	2	gug ma and and boo	2,322.52	2,322.52
	. Houston-Willow Creek		1,212.3	2	272.00		940.32
			,	29			

•		Sub-project	Cost	Total Cost to	Cost M & I	Total Cost	Cost Con.	Total Cost	
Н85.	No.	Name	1935	6-30-35	1935	6-30-35	1935	Construction to 6-30-35	
586	350	Fishhook-Goldmint	\$553.68	\$26,408.82	\$553.68	\$8,871.99	\$	\$17,536.83	
38F F	35P*	*Moose Creek-Baxter		2,218.62				2,218.62	
3SEEE 3	35Q	Edlund Road	320.75	4,815.45	320.75	949.08		3,866.37	
ा उत्तरहर	35R	Bogard Road	756.90	14,877.41	756.90	2,648.83		12,228.58	
yee i	35RA	Engstrom Road	1,096.68	2,116.68			1,096.68	2,116.68	
J AGSE	35s	Moose Creek Trail		2,118.44		77.43		2,041.01	
SED O	35Т	Werner Connection		502.94		16.00		486.94	
o sg	35 <b>u</b>	Moose Creek Aviation Field		481.75		20.25		461.50	
a ast	35₹	Fishhook Aviation Field		917.49		68.75		848.74	
J. HAR	35W	Wasilla Aviation Field	,	999•50		540.00		459.50	
IH AYE JSA Ho	35 <b>x</b>	Wasilla Aviation Field Road	39 <b>.</b> 83	1,457.04	39.83	321.10		1,135.94	
IA ATE	35Y	Wasilla Depot	706.29	860 <b>.</b> 29	706.29	860.29			
от. 78	36	Mineral Creek	12,281.32	72,914.69	4,281.32	29,599.68	8,000.00	43,315.01	
US ** 4 19 5	36A	Granby Road		3,431.35		349 <b>.</b> 44		3,081.91	
чs **±39 гл **±398	36в	South 2nd Street, Cordova		3,373.15				3,373.15	
LBV ** (10)	360*	Eyak Lake Road		7,735.85				7,735.85	
·ck	r:31	Cordova Aviation Field		941.90		1575		926.15	Ē
	36св	Cordova Airport	13,061.39	55,000.00			13,061.39	55,000.00	

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Sub-project Name	Cost 1935	Total Cost to 6-30-35	Cost M & I 1935	Total Cost M & I to 6-30-35	Cost Con. 1935	Total Cost Construction to 6-30-35
.'* Valdez-Quartz Creek	· \$	\$524.75	\$	\$	\$	\$524.75
" Valdez-Glacier		616.91		<b>-</b>		616.91
"* Shoups Bay		····3,457 <b>.</b> 25	<b></b>		<b></b>	3,457.25
Topkok-Candle		1,026.56		210.00		816.56
Bluff-White Mountain		3,287.47	<b></b>	14.24		. 3,273.23
Bluff Aviation Field	·	80.00	<del>-</del> -		<b></b>	80.00
Ruby-Long	.14,474.34	264,484.29	. 14,474.34	132,463.94	·	132,020.35
J Long-Birch Creek	. 426.90	426.90			426.90	426.90
Poorman-Cripple	. 564.30	6,354.86	564.30	4,851.90	<b></b> -	1,502,96
Ophir-Cripple	1.26	4,778.05	1.26	2,879.05		1,899.00
Ophir-Takotna	6,409.79	280,688.04	6,409.79	106,180.54		174,507.50
Little Creek Road	410.53	14,007.56	410.53	3,359.52	·	10,648.04
Long Poor,man	7,932.19	177,225.23	7,932.19	60,032.67		117,192.56
Long-Poorman (Winter)	33.25	5,668.01	33.25	400.01		5,268.00
II Tamarack-Poorman	. <b></b> -	22,322.69	*** Lay Las			22,322.69
Poorman-Ophir	43.65	3,075.84	43.65	3,075.84		
Takotna-Aviation Field Road	66.10	9,362.06	66.10	1,427.82	<del>-</del>	7,934.24
: Ganes Creek Road	2,394.07	18,373.63	2,394.07	114.969.78		3,403.85
	Waldez-Quartz Creek  Valdez-Glacier  Shoups Bay  Topkok-Candle  Bluff-White Mountain  Bluff Aviation Field  Ruby-Long  Long-Birch Creek  Poorman-Cripple  Ophir-Cripple  Ophir-Takotna  Little Creek Road  Long Poor,nan  Long-Poorman (Winter)  Tamarack-Poorman  Poorman-Ophir  Takotna-Aviation Field Road.	Name   1935     Valdez-Quartz Creek   \$     Valdez-Glacier       Shoups Bay       Topkok-Candle       Bluff-White Mountain       Bluff Aviation Field       Ruby-Long   14,474.34     Long-Birch Creek   426.90     Poorman-Cripple   564.30     Ophir-Cripple   1.26     Ophir-Takotna   6,409.79     Little Creek Road   410.53     Long Poorman (Winter)   33.25     Elong-Poorman (Winter)   33.25     Elong-Poorman (Winter)   43.65     Takotna-Aviation Field Road   66.10	Sub-project	Sub-project         Cost 1935         to 6-30-35         Cost M & I 1935           .** Valdez-Quartz Creek         \$         \$524.75         \$           .** Valdez-Glacier          616.91            .** Shoups Bay         3,457.25            Topkok-Candle         1,026.56            .** Bluff-White Mountain         3,287.47            .** Bluff Aviation Field         80.00            .** Ruby-Long         14,474.34         264,484.29         14,474.34           .** Dong-Birch Creek         426.90         426.90            .** Poorman-Cripple         564.30         6,354.86         564.30           .** Ophir-Takotna         6,409.79         280,688.04         6,409.79           .** Little Creek Road         410.53         14,007.56         410.53           .** Long-Poorman (Winter)         33.25         5,668.01         33.25           .** Tamarack-Poorman	Sub-project         Cost 1935         to 6-30-35         Cost M & I 1935         M & I to 6-30-35           .* Valdez-Quartz Creek         \$         \$524.75         \$         \$           .* Valdez-Glacier          616.91          \$           .* Valdez-Glacier          616.91          \$           .* Topkok-Candle          1.026.56          210.00           .* Bluff Aviation Field          80.00          14.24           .* Bluff Aviation Field          80.00          132,463.94           .* Long-Birch Creek         426.90         426.90         14.474.34         132,463.94           .* Poorman-Cripple         564.30         6,354.86         564.30         4,851.90           .* Ophir-Cripple         1.26         4,778.05         1.26         2,879.05           .* Ophir-Takotna         6,409.79         280,688.04         6,409.79         106,180.54           .* Little Creek Road         410.53         14,007.56         410.53         3,359.52           .* Long-Poorman (Winter)         33.25         5,668.01         33.25         400.01           .* Tamarack-Poorman	Sub-project Name 1935 6-30-35   Cost M & I   M & I to   Cost Con   1935   S-20-35   S-30-35   S-

Cost	· Total Cost	Cost M. O. T.	Total Cost		Total Cost
1935	6-30-35				Construction
T	\$2,198.51	\$	\$998.51	\$	to 6-30-35 \$1,200.00
335-12	918.42	335.12	418.42		•
	1,825.12				500.00
	45,929.40		20 539 27		1,825,12
					25,390.13
910 cm; 848 cm; 444				~	12,019.88
•					3,014.76
21.05		51.65	4,408.22		
~	2,357.27		765.87		1,591.40
91.79	6,189.43	91, 79	1,789.41		4,400.02
48.00	563.31	48.00	563.31		
	1,955.45		537.90		1 117 cc
	2,299.00	*************	-		1,417.55
34.43	112.01	7)1 )17		. =====	2,299.00
86.08	}				77•58
		80.08			
ļ			9,968.56	<b>-</b>	13,497.67
İ	- 1		2,320.88		8,803.95
]	- 1	480.00	8,447.72		11,158.71
992.35		992.35	1,441.31		6,785.53
	1935 \$ 335.12  51.65  91.79 48.00 	Cost 1935       to 6-30-35         \$       \$2,198.51         335.12       918.42          1,825.12          45,929.40          18,616.56          3,915.08         51.65       4,408.22         2,357.27       6,189.43         48.00       563.31          2,299.00         34.43       112.01         86.08       2,903.97          23,466.23         11,124.83       19,606.43         480.00       19,606.43         992.35       8,226.84	Cost 1935       to 6-30-35       Cost M & I 1935         \$       \$2,198.51       \$         335.12       918.42       335.12          1,825.12           45,929.40           18,616.56          3,915.08        51.65          2,357.27          91.79       6,189.43       91.79         48.00       563.31       48.00          2,299.00          34.43       112.01       34.43         86.08       2,903.97       86.08          23,466.23           11,124.83          480.00       19,606.43       480.00	Cost 1935         to 6-30-35         Cost M & I 1935         M & I to 6-30-35           \$         \$2,198.51         \$         \$998.51           335.12         918.42         335.12         418.42            1,825.12          20,539.27            45,929.40          20,539.27            18,616.56          6,596.68            3,915.08          900.32           51.65         4,408.22         51.65         4,408.22            2,357.27          765.87           91.79         6,189.43         91.79         1,789.41           48.00         563.31         48.00         563.31            2,299.00          537.90            2,299.00          34.43         34.43           86.08         2,903.97         86.08         2,903.97            23,466.23          9,968.56            11,124.83          2,320.88           480.00         19,606.43         480.00         8,447.72 <td< td=""><td>Cost 1935         to 6-30-35         Cost M &amp; I 1935         M &amp; I to 6-30-35         Cost Con. 1935           \$         \$2,198.51         \$         \$998.51         \$           335.12         918.42         335.12         418.42             1,825.12          20,539.27             18,616.56          6,596.68             18,616.56          6,596.68             18,616.56          6,596.68             18,616.56          6,596.68             18,616.56          6,596.68             18,616.56          900.32            51.65         4,408.22         51.65         4,408.22            91.79         6,189.43         91.79         1,789.41            48.00         563.31         48.00         563.31             2,299.00          537.90            34.43         112.01         34.43&lt;</td></td<>	Cost 1935         to 6-30-35         Cost M & I 1935         M & I to 6-30-35         Cost Con. 1935           \$         \$2,198.51         \$         \$998.51         \$           335.12         918.42         335.12         418.42             1,825.12          20,539.27             18,616.56          6,596.68             18,616.56          6,596.68             18,616.56          6,596.68             18,616.56          6,596.68             18,616.56          6,596.68             18,616.56          900.32            51.65         4,408.22         51.65         4,408.22            91.79         6,189.43         91.79         1,789.41            48.00         563.31         48.00         563.31             2,299.00          537.90            34.43         112.01         34.43<

No.	Sub-project Name	Cost 1935	Total Cost to 6-30-35	Cost M & I	Total Cost M & I to 6-30-35	Cost Con.	Total Cost Construction to £-30-35
44C	Skagway-Denver Glacier	\$838.84	\$25,182.70	\$	\$	\$838.84	\$25,182.70
45*	Silver Bow Basin		23,466.21	.,	17,527.59		5,938.62
46	Kobi-Eureka		16,437.54		3,865.91		12,571.63
46A	Roosevelt-Kantishna		61,686.53		19,723.84		41,962.69
46B	Lignite-Kantishna		13,130.00		1,163.09		11,966.91
46c	Nenana-Knight's Roadhouse	242.89	4,601.19	242.89	3,008.61	<del></del>	1,592.5%
46D	McKinley Park Road	113,727.33	974.174.53	29,038.46	148,061.70	84,688.87	826,112.83
46DA	Kantishna-Park Boundary	916.57	1,175.47			916.57	1,175.47
46E	Diamond-Telida	155.85	10,753.54	155.85	3,941.98		6,811.56
46F	Nenana Cemetery Road	240.06	8,316.12	240.06	4,497.49		3,818.63
46G	Kobi-Bonnifield	`	5,767.51		60.90		5,706.61
46н	Lake Minchumina Aviation Field		914.11		164.11		750.00
46Ј	Kantishna Aviation Field		775.00		100.00		675.00
46K	Telida Aviation Field		850.00		250.00		600.00
46M	Nenana Aviation Field	-	1,108.04		388.04		720.00
47	Coldfoot-Wiseman	558.68	17,641.62	558.68	8,699.01		8,942.61
47A	Wiseman Aviation Field	530.58	8,934.02		2,320.77	530.58	6,613.25
47В	Nolan Branch	3,579.52	33,592.40	3,579.52	14,957.66	<u></u>	18,634.74

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