

MEMORANDUM

OFFICE OF THE DEPUTY MINISTER
DEPARTMENT OF HIGHWAYS

To Deputy Minister,
Department of Highways,
Buildings.

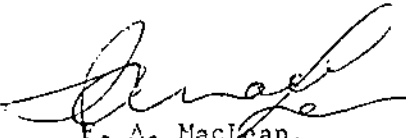
VICTORIA, October 1st, 1968.

Re: D'arcy - Lillooet Road

The Honourable the Premier phoned on Tuesday, October 1st, regarding the above road and advised that he was making \$250,000.00 available for Day Labour improvements to start immediately.

He requested that the work be carried out from Lillooet which we would do in any case as this section is in Region #2. I presume this is to bolster the Lillooet economy.

I have advised the Region that Mr. Dennison will tour the route with them and lay out the program in the immediate future.


F. A. Maclean,
Asst. Deputy Minister.

FAM/CN

110131

DEPUTY MIN.
HIGHWAYS

Fiscal Year

Headquarters File No.

Government of the Province of British Columbia

DEPARTMENT OF

Victoria, B.C.

19

All vouchers covering work hereby authorized must quote the No. of this Work Order.

To

WORK ORDER

Departmental Use Only

Nº 3829 A

Reference:

Regional File:

District File:

RECEIVED

19

19

Signature of Approving Officer

Signature of Approving Officer

Signature of Approving Officer

Signature of Approving Officer

Controller of Expenditure

Charge to:

Unexpended Balance

Appropriation

Previous Year Budget

Current Year Budget

Total Available Budget

Unexpended Balance

Received		
Headquarters	Headquarters	Headquarters
District	District	District
Control	Control	Control

19

P.W.H. 19

2363

Fiscal Year 1968-69

HEADQUARTERS FILE NO.

Government of the Province of British Columbia
DEPARTMENT OF HIGHWAYS

WORK ORDER

Departmental Use Only

Victoria, B.C., October 4, 1968

Nº 3829 A

All vouchers covering work hereby authorized must quote the No. of this Work Order.

To Regional Highway Engineer
Department of Highways
Kamloops B. C.

Reference:

Memo of October 1, 1968, from
Secretary, Treasury Board.
File #3338-19/109905

Regional File:

District File:

REGION #2

LILLOOET HIGHWAY DISTRICT

Roads (Day Labour)

\$250,000.00

Headquarters Information

Project #1988 - D'Arcy - Lillooet Road
SHALATH ROAD

Mary
Comptroller of Expenditure.

Charge to:
VOTE 152 (a) GENERAL HIGHWAYS (ROADS)

1968-69

Entered

Headquarters
Detail Ledger

Headquarters
Control A/c.

District
Ledger A/c.

Cash raised - - - \$

Appropriation - - - - - \$

Previously authorized - \$

This order - - - \$ 250,000.00

Total amount authorized - - - - - \$

Unencumbered balance - - - - - \$

MEMORANDUM

OFFICE OF THE DEPUTY MINISTER

DEPARTMENT OF HIGHWAYS

VICTORIA, October 16, 1968.

To The Hon. W. D. Black,

Minister of Highways.

Re: Proposed Road Improvement - Darcy to Seton Portage, \$250,000.

VICTORIA, B. C.

The appropriation of \$250,000 to improve the road from Darcy to Seton Portage, with respect, gives us some concern. I have personally been over the present tote road, as have several of our engineers, and there is concurrence that the spending of money on this road would not produce a worthwhile road.

Considerable study has been done into the proposed network of roads which would best serve the Bridge River-Lillooet area, and also fit ultimately into a second link from the Vancouver area to Williams Lake. The road network is shown on the attached plan. A road from Darcy to Seton Portage or a road from Seton Portage to Lillooet was not considered, primarily because of very difficult topographical features and, as you can see, it does not give the desired alternative northerly route.

I quote from a report made in 1962, "Pemberton - Anderson - Seton Lakes - Lillooet":

"No serious problems would be encountered on this route from Pemberton to the south end of Anderson Lake. The valley is fairly wide and the material generally good except for some muskeg sections. Some poor alignment and choppy grades would be necessary up to the lakes.

Both sides of the lakes were carefully studied, and the south side ruled out as a highway route. Hairpin alignment broken with gulleys, deep water and many snow slides all contribute to next to impossible road construction.

The north side above the P.G.E. is possible, but certainly not practical. Conflietion with the railway and power line, poor alignment, choppy grades and snow slides would make extremely expensive construction. The P.G.E. advise that snow and mud slides along the lakes are a continuous and serious maintenance problem."

There is presently an access road between Darcy and Seton Portage which was built primarily to provide access to construct three power lines which traverse the area. The road, 17 miles in length, is 8 to 12 feet wide with grades up to 25% and should not be traversed by other than 4-wheel drive vehicles. As is obvious, the access road was built by the power line contractors, hence it follows the cheapest route, resulting in impractical and unreasonable grades and alignment for public use.

By using \$250,000 on the present road, it would merely result in widening the present road. It would not improve the dangerous grades, nor would it help the alignment appreciably. The road could not be maintained in the winter for safe public travel.

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Hon. W. D. Black

- 2 -

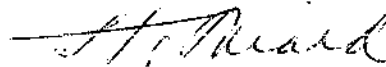
October 16, 1968.

As a rough estimate, a satisfactory road over this section would require a minimum of \$5,000,000, plus cost of bridges.

I also respectfully suggest that we concentrate our efforts on opening up the Hurley Pass route into Bralorne, which will give a road connection to Lillooet area only 25 - 30 miles longer than the Anderson-Seton route.

As a last resort, we would suggest that we put a ferry on Anderson Lake, but we are not in favor of establishing new ferry routes if it can be avoided.

We would appreciate your instructions, please.



H. T. Miard,
Deputy Minister.

TELETYPE

DEPARTMENT OF HIGHWAYS

OCTOBER 29, 1968.

J. W. NELSON,
REGIONAL HIGHWAY ENGINEER,
DEPARTMENT OF HIGHWAYS,
KAMLOOPS, B. C.

RE: LILLOOET DAY LABOR - \$250,000.

CONFIRMING OUR TELEPHONE CONVERSATION, THE AREA IN WHICH THE \$250,000 IS TO BE SPENT IS IN THE AREA FROM LILLOOET TO MISSION DAM TO SEALATH ON THE PRESENT ROAD AND AS FAR AS POSSIBLE CREWS FROM LILLOOET SHOULD BE USED.

IN VIEW OF THE LATENESS OF THE SEASON I THINK THE MOST LOGICAL AREA TO DO WORK NOW IS FROM LILLOOET TO MISSION DAM.

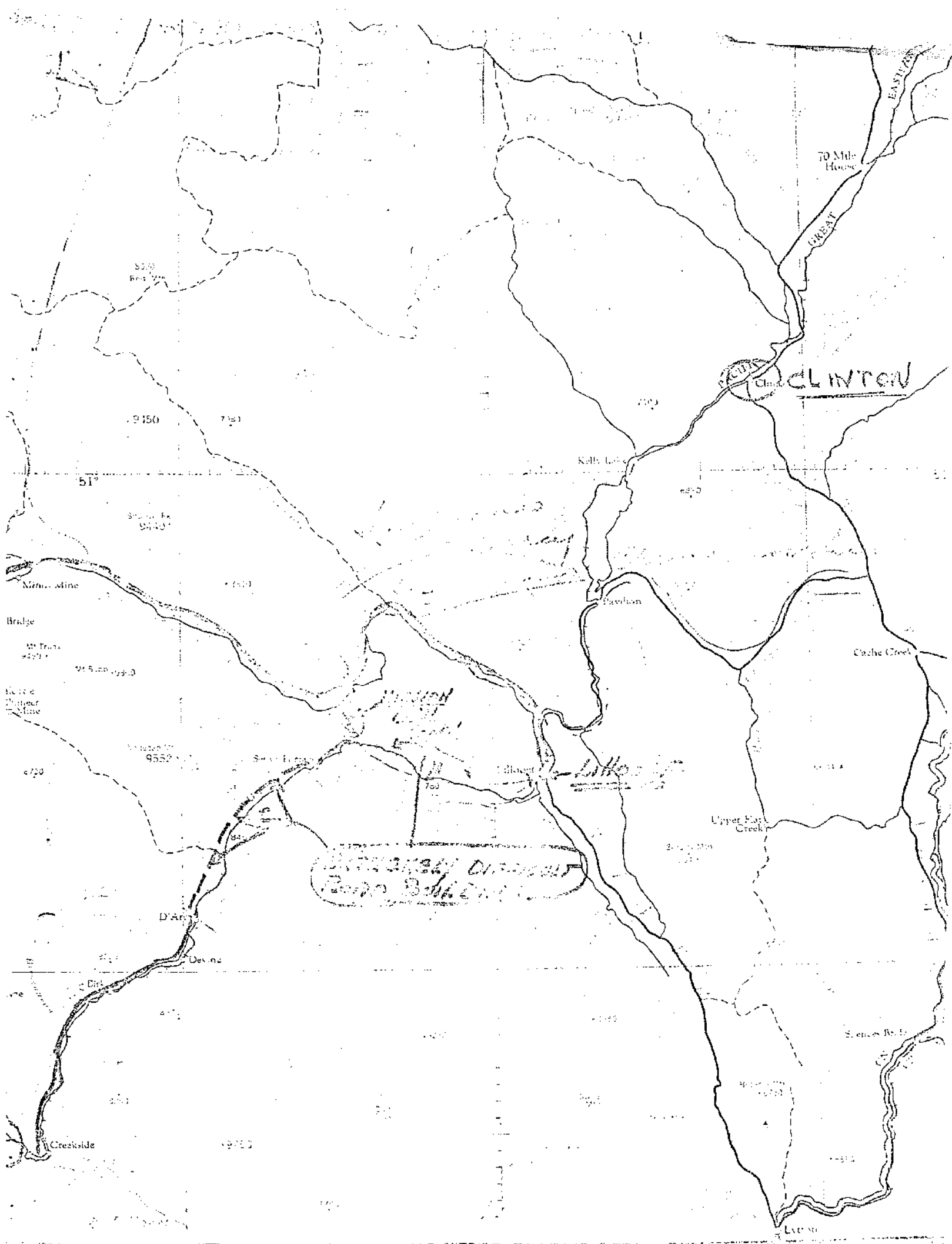
I THINK THAT A STANDARD EQUIVALENT TO THE ROAD BUILT ALONG CAMBESTER LAKE SHOULD BE STRIVED FOR BUT IF GOING IS TOUGH AND REAL EXPENSIVE WE SHOULD LESSEN. THIS WOULD NOT APPLY OVER MISSION MOUNTAIN.

THERE IS NO ASSURANCE AT THIS TIME THAT MORE FUNDS WILL BE ISSUED NEXT YEAR BUT I WOULD ASSUME THAT ANY BALANCE NOT EXPENDED WOULD BE RE-ISSUED. DO NOT PLAN ON PUTTING ON CRUSHED MATERIAL OUT OF THESE FUNDS.

IF THERE IS FURTHER CLARIFICATION NEEDED PLEASE PHONE ME.

J. A. DENNISON,
SENIOR MAINTENANCE ENGINEER.

JAD/jc



MEMORANDUM

2363

OFFICE OF THE DEPUTY MINISTER

DEPARTMENT OF HIGHWAYS

To

Memo for file

VICTORIA, December 18th, 1968

Re: Road Work -- Lillooet Area

On December 12th a delegation (consisting of Mayor G.C. Bryson of Lillooet Village; Mr. R. Pigeau, President of the Lillooet & District Chamber of Commerce; and Mr. J.C. Reynolds, an agent for Imperial Oil, Lillooet) met in this office with Messrs. J.W. Nelson, J.P. O'Toole, J.A. Dennison, N.R. Zapf and the undersigned regarding where work was urgently required in the Lillooet area.

The delegation claimed that Lillooet, one of the oldest and most historic towns in B.C., was not changing and had not improved over the last decade. They were anxious to have a road built from Lillooet to Seton Portage to D'Arcy, so that traffic from Vancouver could pass through Lillooet on a circle tour. They felt that, at some time, there would be another main highway proceeding west from Cache Creek to Lillooet and on to Vancouver through that area.

It was pointed out to them that it would probably be much quicker to build a route from Lillooet to Vancouver as an extension of Bridge River Road along Carpenter Lake from the Goldbridge area to the Hurley River Pass and down to Pemberton that way. This did not appeal to the delegation in the least because it would, apparently, permit the Bralorne people to do their major shopping in Vancouver instead of Lillooet.

We pointed out to them that the Hurley River route would be extended north to Williams Lake -- which also did not appeal to them because it brought no business to Lillooet.

They were chiefly interested in having a road, of any type, built from Lillooet to Seton along Seton Lake so that the people of Seton could come to Lillooet to shop.

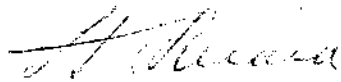
No mutual understanding was arrived at; but the delegates were advised that we would consider their contention and that we acknowledged the fact that they had put forward their case.

It appears advisable to look at the possibility of building a cheap road from Lillooet to Seton Portage. It is the opinion of all the Highway Department officials that this cannot be done as a cheap road and that it would be very difficult work; however, we will arrange to discuss the matter with the P.G.E. Railway Co. and to have District Officials - and possibly Mr. Dennison, Senior Maintenance Engineer - make a trip along the lake by boat and/or speeder to ascertain the actual difficulties and problems which might be encountered if the money were spent here.

21060

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The undersigned, by telephone on December 13th, in the absence of Mr. Broadbent contacted Mr. H. Minshall the Chief Engineer of the P.G.E. in Vancouver, and Mr. Minshall advised that he would be glad to make available to us the information which they have of the area along Seton Lake and which would be of value to us; he will check into what data they have; and he was also prepared to arrange for a speeder to take a party along the lake on the P.G.E. but that he should have some prior notice. I asked Mr. Minshall to discuss the proposition with Mr. Broadbent, and he thought Mr. Broadbent might have some opinions on the matter.



H.T. Miard
Deputy Minister

HTM:MH

cc: Hon. W.D. Black, Minister.

cc: Regional Highway Engineer, Kamloops, B.C.

cc: Senior Maintenance Engineer.
Director of Location.

MEMORANDUM

REFER TO FILE No. 2363

OFFICE OF THE DEPUTY MINISTER
DEPARTMENT OF HIGHWAYS

RECEIVED
DEPT. OF HIGHWAYS
VICTORIA, B. C.
Mr. J.A. Dennison
Senior Maintenance Engineer

VICTORIA, June 18, 1969

JUN 25 1969
Department of Highways

ANSWERED
NOTED
DATE

Re: Seton Portage - D'Arcy

Would you please arrange to have work started along Anderson Lake
as soon as reconnaissance is completed by the Location Branch.
Please provide information to the Comptroller of Expenditure so that
he can apply for funds.

H. T. Miard,
Deputy Minister.

c.c. Director of Location
c.c. Chief Engineer

W.O. Issued # 5006
BW

PROVINCE OF BRITISH COLUMBIA

DEPARTMENT OF HIGHWAYS

<p>TO: Regional Highway Engineer, Department of Highways, KAMLOOPS, British Columbia</p>	<p>SENDER'S ADDRESS: Box 460, Lillooet, British Columbia</p> <p>DATE: December 3, 1969</p> <p>DISTRICT: Lillooet R 2</p> <p>HEADQUARTERS FILE: C.</p> <p>REGIONAL FILE: R2-28-20-0</p> <p>DISTRICT FILE: 28-20-23</p>
<p>ATTENTION:</p> <p>SUBJECT: Anderson Lake Project (Project 1988 - Seton Portage-D'Arcy)</p>	<p>REFERENCE: DATED: Nov. 28/69</p> <p>Chf. High. Engr. Tel. Your Note December 1, 1969</p>

FOR DEPARTMENTAL CORRESPONDENCE ONLY.

Work on this project for this year will be completed December 5, 1969. 8,000 feet of road on the new location is 85% complete; some widening and gravelling is still required. No work is done at proposed bridge site Sta 41+75 in that bridge design or retaining wall design is not complete by bridge branch. Full width is not yet obtained at the critical Hydro tower near Station 41+00. At present the new road is open and serviceable to where it joins the old Hydro road. Those first very steep grades and bad switch backs are eliminated. All of the heavy rock drilling and rock hauling equipment is laid off.

About \$40,000.00 remains unexpended. I had thought to retain this money for clean up in the spring, to clean up probable rock slides onto the P.G.E. Railway that may occur this winter and to make an early start on the project again next spring.

JPO'T:mk

J.P. O'Toole
J.P. O'Toole,
District Superintendent

DEPARTMENT OF HIGHWAYS

TO: Mr. J. A. Dennison Chief Highway Engineer Department of Highways Victoria, British Columbia		RECEIVED DEPT. OF HIGHWAYS VICTORIA DEC 8 1969	SENDER'S ADDRESS: Regional Highway Engineer Kamloops, B. C. December 5, 1969 DISTRICT: Lillooet, R#2 HEADQUARTERS FILE: 5296
ATTENTION:		REGIONAL FILE: R2-28-20-0 DISTRICT FILE: 28-20-23	REFERENCE: DATED: Your T.T. - November 28, 1969.
SUBJECT: Anderson Lake Project.			

FOR DEPARTMENTAL CORRESPONDENCE ONLY.

Report enclosed.

Unfortunately all our expenditures have been concentrated right at Seton Portage, and we have been unable to make general improvements along the route as we had first hoped. If further funds are available in 1970, we will do some general improvements along the route rather than concentrate all our efforts in one place. The \$250,000. will be completely spent by March 31, 1970.

J. W. Nelson
 J. W. Nelson
 REGIONAL HIGHWAY ENGINEER

JWN/pt
 Encl.
 cc: Senior Maintenance Engineer, Victoria.

158863



Piscal Year 1970-71

HEADQUARTERS FILE NO. 2363

Government of the Province of British Columbia
DEPARTMENT OF HIGHWAYS

Victoria, British Columbia, May 13, 19 70.

All vouchers covering work hereby authorized must quote the No. of this Work Order.

To Regional Highway Engineer,
Department of Highways,
Kamloops, British Columbia.

WORK ORDER

Departmental Use Only

Nº 6777 A

Reference:

Chief Engineer's list for Reg.#2
(part of Day Labour programme auth-
orized by Treasury Board letter
of April 29/70; File #5338-21/
Regional File: 172244.)
District File:

REGION #2

LILLOOET HIGHWAY DISTRICT

Roads (Day Labour)

\$20,000.00

Headquarters Information

Project #1989 - D'Arcy to Seton Portage

[Signature]
Comptroller of Expenditure.

Charge to:			Cash raised - - - \$
VOTE 115(a) GENERAL HIGHWAYS			Appropriation - - - \$
(ROADS)			Previously authorized - \$
1970-71			This order - - - \$ <u>20,000.00</u>
ENTERED			Total amount authorized - - - \$
Headquarters Detail Ledger	Headquarters Control A/c.	District Ledger A/c.	Unencumbered balance - - - \$
<i>[initials]</i>	<i>[initials]</i>		

HQ 2363 5.4

Government of the Province of British Columbia
DEPARTMENT OF HIGHWAYS

WORK ORDER

Departmental Use Only

Nº 7018 A

Victoria, British Columbia, September 10., 1970

All vouchers covering work hereby authorized must quote the No. of this Work Order.

To Regional Highway Engineer,
Department of Highways,
Kanloona, British Columbia.

Reference: Dist. Superintendent's letter dated Aug. 27, 1970, Reg. Hwy. Engr.'s letter dated Aug. 28, 1970 and assignment from Construction Engineer dated Sept. 8, 1970.

Regional File: 82-0-84A & 82-28-40-0District File: 28-0-84CREDIT WORK ORDERREGION #2LILLOOET HIGHWAY DISTRICT

Roads (Day Labour)

\$20,000.00 cr.

Headquarters InformationProject #1988 - D'Arcy to Seton Portage

[Signature]
Comptroller of Expenditure.

Credit to:			Cash raised - - - \$
Charge to:			Appropriation - - - - - \$
VOTE 115(e) GENERAL HIGHWAYS			Previously authorized - \$
(ROADS)			This order - - - \$ 20,000.00 cr.
1970-71			Total amount authorized - - - - \$
ENTERED			Unencumbered balance - - - - \$
Headquarters Detail Ledger	Headquarters Control A/c.	District Ledger A/c.	
<i>[Signature]</i>	<i>[Signature]</i>		

Fiscal Year 1970-71HEADQUARTERS FILE NO. 2363Government of the Province of British Columbia
DEPARTMENT OF HIGHWAYSVictoria, British Columbia, September 10, 1970

All vouchers covering work hereby authorized must quote the No. of this Work Order.

To Regional Highway Engineer,
Department of Highways,
Kamloops, British Columbia.

WORK ORDER

Departmental Use Only

Nº 7019 A

Reference: Dist. Superintendent's
letter dated Aug. 27, 1970,
Reg. Hwy. Engr.'s letter dated
Aug. 28, 1970 and assignment from
Construction Engineer dated
Sept. 8, 1970.
Regional File: R2-0-84A & R2-28-40-0
District File: 26-0-24REGION #2LILLOET HIGHWAY DISTRICTBr. Proj. #708 - Reconstruction Portage Bridge #1
(at beginning of Seton Portage -
D'Arcy Project)

\$20,000.00

Comptroller of Expenditure.

Charge to: <u>VOTE 115(b) BRIDGES</u>			Cash raised - - - \$
<u>1970-71</u>			Appropriation - - - \$
ENTERED			Previously authorized - \$
Headquarters Detail Ledger	Headquarters Control A/c.	District Ledger A/c.	This order - - - \$ <u>20,000.00</u>
			Total amount authorized - - - \$
			Unencumbered balance - - - \$



Fiscal Year 1969-70HEADQUARTERS FILE NO. 2363

Government of the Province of British Columbia
DEPARTMENT OF HIGHWAYS

Victoria, B.C., June 30, 1969

All vouchers covering work hereby authorized must quote the No. of this Work Order.

To: Regional Highway Engineer,
Department of Highways,
Kamloops, B.C.

WORK ORDER

Departmental Use Only

No 5006 A

Reference:

Memo of April 9, 1969, from Sec.
Treasury Board, File #2363/141234;
and Mr. Dennison's Assignment.

Regional File:

District File:

REGION #2LILLOOET HIGHWAY DISTRICT

Roads (Day Labour)

\$250,000.00

Headquarters InformationProject #1988- D'Arey to Seton Portage*Comptroller of Expenditure.*

Charge to:

VOTE 136(a) GENERAL HIGHWAYS(ROADS)1969-70

Entered

Headquarters Detail Ledger	Headquarters Control A/c.	District Ledger A/c.
<i>[Signature]</i>	<i>[Signature]</i>	

Cash raised - - - \$

Appropriation - - - \$

Previously authorized - \$

This order - - - \$ 250,000.00

Total amount authorized - - - \$

Unencumbered balance - - - \$

Government of the Province of British Columbia
DEPARTMENT OF HIGHWAYS

Victoria, British Columbia, September 10, 1970

All vouchers covering work hereby authorized must quote the No. of this Work Order.

To Regional Highway Engineer,
Department of Highways,
Kamloops, British Columbia.

WORK ORDER

Departmental Use Only

Nº 7018 A

Reference: Dist. Superintendent's letter dated Aug. 27, 1970, Reg. Hwy. Engr.'s letter dated Aug. 28, 1970 and assignment from Construction Engineer dated Sept. 8, 1970.

Regional File: R2-0-84A & R2-28-40-0

District File: 28-0-84

CREDIT WORK ORDER

REGION #2

LILLOOET HIGHWAY DISTRICT

Roads (Day Labour)

\$20,000.00 cr.

Headquarters Information

Project #1989 - D'Arcy to Seton Portage

M. J. [Signature]
for Comptroller of Expenditure.

~~Charge to:~~ Credit to:

VOTE 115(a) GENERAL HIGHWAYS

(ROADS)

1970-71

ENTERED

Headquarters
Detail Ledger

Headquarters
Control A/c.

District
Ledger A/c.

Cash raised - - - \$

Appropriation - - - - - \$

Previously authorized - \$

This order - - - \$ 20,000.00 cr.

Total amount authorized - - - - - \$

Unencumbered balance -

Fiscal Year 1970-71

Government of the Province of British Columbia
DEPARTMENT OF HIGHWAYS

Victoria, British Columbia, September 10, 1970
All vouchers covering work hereby authorized must quote the No. of this Work Order.

To Regional Highway Engineer,
Department of Highways,
Kamloops, British Columbia.

WORK ORDER

Departmental Use Only

No 7019 A

Reference: Dist. Superintendent's
Letter dated Aug. 27, 1970,
Reg. Hwy. Engr.'s letter dated
Aug. 26, 1970 and assignment from
Construction Engineer dated
Sept. 8, 1970.
Regional File: 82-0-94A & R2-28-40-0
District File: 28-0-24

SECTION #2

MILK CREEK HIGHWAY DISTRICT

Br. Proj. #705 - Reconstruction Forage Bridge #1
(at beginning of Seton Forage -
Bifray Project)

\$20,000.00

Charge to: VOTE 115(b) FININGS		
1970-71		
ENTERED		
Headquarters Detail Ledger	Headquarters Control A/c.	District Ledger A/c.
Headquarters	Headquarters	District
Unencumbered balance -	\$ - - - - -	
Total amount authorized	\$ - - - - -	
This order -	\$ 20,000.00	
Previously authorized -	\$ - - - - -	
Appropriation -	\$ - - - - -	
Cash raised -	\$ - - - - -	

[Signature]
Comptroller of Expenditure.

RECONNAISSANCE REPORT
SETON PORTAGE TO D'ARCY ROAD

On October 8, 1968, the following Department of Highways personnel made a preliminary reconnaissance trip along the existing B. C. Hydro access road between Seton Portage and D'Arcy:

Mr. J. A. Dennison - Senior Maintenance Engineer
Mr. J. W. Nelson - Regional Highway Engineer
Mr. J. P. O'Toole - District Superintendent, Lillooet
Mr. A. W. G. Smith - Regional Location Superintendent

Prior to the ground inspection of this project, a quick preliminary look was made using the government aircraft. This flight was not too informative as it was sometimes difficult to distinguish the main access road from some of the tower access roads, and there was a definite loss of depth perception making it difficult to judge the road grades. The aerial inspection did however point up the horizontal alignment, which was in most cases not very good as the main objective of the existing road was access to the towers of the three major power lines.

Mention should be made here, that we were not too sure of our assignment and to cover all the possibilities; assessments were made using the following criteria:

1) The money allocated would be used to do minor grade revisions and widening of the existing access road along the entire 17.2 miles. A larger portion of the monies would be expended on the 1st mile at the north end of Anderson Lake, in an effort to eliminate or improve the switch back section of the existing road.

2) The route would be surveyed to a higher standard road suitable to all vehicular traffic; e.g. 40 M.P.H. design 30 foot finished grade.

Both construction proposals would be built under adverse conditions as it would be necessary to protect the Power lines.

Proposal #1 - Based on a \$250,000 allotment.

Upgrade the existing access road and control the amount of work done by limiting the expenditure to \$10,000 a mile for the section from mile 1.6 to mile 16.2 and spend \$75,000 at mile 0.0 to mile 1.6 and \$25,000 at mile 16.2 to mile 17.2 as the most difficult sections occur at each end of the project.

Mile 0.0 - Anderson Creek Bridge.

Existing road is located on the gravel fan of Whitecap Creek, and would require some protection from the creek which appears to wander across the gravel fan. This fan extends to the north shore of Anderson Lake and it might be possible to prove up a gravel source on this fan. The road bed would be about 14' wide.

Mile 0.7 - Base of hill.

The road turns sharply left to follow the tracks, on a very steep grade, approximately 20%, and is located on a talus and O.M. side hill lying at about a 1½:1 slope on the talus portion. Road width is very narrow, about 8' in most places with the usable portion being limited more or less to the width of a vehicle wheel axle.

Mile 1.0 - First Switch back.

Side hill slope is very steep, and consists of shallow talus slopes and ridges of solid rock. It would be impossible to fill along the hillside without burying the P.G.E. tracks, consequently construction equipment would be limited to trucks and a loader in order to remove the material to make a fill at the base of the hill. Some of the bedrock could be ripped using a cat, but it would be necessary to do a fair amount of drilling and blasting.

Mile 1.3 - Second Switch back.

This switch back is located along the base of a rock ridge, and the curve is so tight it is more convenient to back up the next section of road rather than try to make the turn. Grades are in the order of 20 to 25% and the road is about 7 feet wide.

Mile 1.6 - Top of the hill.

The present access roads climbs to the top of a rock ridge just above the 2nd power line, and then proceeds down hill on a 7 to 10% grade. This summit should be lowered to eliminate the adverse grade and possibly eliminate the 2nd switch back. It might be possible to eliminate the lower or 1st switch back by pushing a side hill fill north toward the fan of Whitecap Creek. Before there is a decision made on this first 1.6 miles of road it will be necessary to do some preliminary engineering to determine if it is feasible to remove both switch backs with the monies allotted. Existing road is constructed quite narrow 8 to 12 feet, and has numerous adverse grades with very poor alignment. Some solid rock outcroppings.

Mile 5.2 - Currie Creek.

The road climbs sharply up the north ridge of Currie Creek to avoid the lower rock canyon section and these grades are in the order of 15 to 20%. The entrance into the creek from the north side is along a steep bouldery GM side hill which will not accommodate a fill, and any material excavated would end up in the creek. Any major alignment changes are out of the question unless a high level bridge crossing was considered, and this structure would be very expensive. Grades undulate and are quite steep across the side hill of OM with numerous rock ridges.

Mile 8.3 - Connel Creek.

This crossing is much easier than Currie Creek, but would still require a major structure to attain any reasonable alignment. The slopes of the Creek are GM bouldery with bedrock at the Creek elevation. The terrain south of Connel Creek is OM bouldery with numerous rock ridges and small talus slopes.

Mile 11.4 - McGillivray Creek.

Any type of crossing is going to be expensive, and it has to be a high level crossing to better the alignment. This crossing would be comparable to Currie Creek with respect to costs.

Mile 12.0 - Top of south ridge of McGillivray Creek.

Construction south of the ridge is about the cheapest encountered as the terrain is relatively flat and is granular with few indications of bed rock.

Mile 15.5

Hill side steepens and the bedrock is more prevalent, some talus slopes at the base of bedrock out croppings grades are steep 10 to 20%.

Mile 16.2 - North back of Creek above D'Arcy.

Existing road follows down the north ridge of the Creek fan. One switch back at the Creek is quite tight and could be improved. Grades are steep and any major improvement would be fairly expensive. Minor widening could be done quite cheaply as the material is OM.

Mile 16.8 - Toe of Creek fan.

Mile 17.2 -

Existing level crossing of the P.C.E. tracks.

Gravel is available along the side hill of the main valley.

Proposal #1 which would be more of a heavy maintenance programme rather than construction project offers the best utilization of the funds allocated if there is no intention to make this road into a major highway to Lillooet. The end result, would be a major improvement to Hydro's access road, but would not be suitable to all vehicular traffic as the alignment and grades would eliminate any truck or trailer traffic.

Proposal #2 would only be implimented if it is the intention of the Department to make this route a major arterial to Lillooet in which case it would be necessary to do a full field survey preferably with preliminary mapping of 400 feet to the inch. There is very little indication that any of the existing road could be salvaged, with this type of project and the costs would be in the order of \$300,000.00 per mile and this price would not buy a full 60M.P.H. design.

Proposal #3 which would utilize a ferry system on Anderson Lake is offered for consideration as an alternative to proposals #1 and #2. Costs would have to be considered in the construction of landing docks and the construction of a suitable vessel similar to the Arrow Lake ferry now operating at Arrowhead. Then there would be the annual operating expense for the ferry personnel and the ferry maintenance.

INDEX OF PHOTOGRAPHY

Photo "B" - Mile 0.7, at the base of the hill at the north end of Anderson Lake.

Photo "C" - Steep adverse grade to miss bedrock ridge Mile 1.0.

Photo "D" - Mile 1.3 - the 2nd switch back. Sidehill is solid rock directly in front of the vehicle.

Photo "E" - Mile 1.6 - Top of the 1st summit. It would be desirable to relocate between the 1st and 2nd power line to lower the summit.

Photo "F" - Mile 3.3 looking north.

Photo "G" - Mile 3.5 looking south.

Photo "H" - Mile 6.0 looking south and giving a good indication of the alignment and adverse grades of the existing road.

Photo "I" - Mile 8.0 - looking south.

Photo "J" - Mile 8.5 a bridge crossing of the creek.

Photo "K" - Mile 10.0 - Summit of a long steep climb on grades between 10 and 20%.

Photo "L" - Mile 15.7 - Steep talus slope.

Photo "M" - Mile 15.9 - looking north.

