HCR

13

STATE OF ALASKA

LYMAN F. HOFFMAN
REPRESENTATIVE

P.O. BOX V
JUNEAU, ALASKA 99811
(907) 465-4530, 465-4453

HOUSE OF REPRESENTATIVES

DISTRICT 25
AKIACHAK
AKIAK
ATMAUTLUAK
BETHEL
CHEFORNAK
EEK
GOODNEWS BAY
KASIGLUK
KIPNUK
KONGIGANAK
KWETHLUK
KWIGILLINGOK
MEKORYUK
NAPAKIAK
NAPASKIAK
NEWTOK
NIGHTMUTE
NUNAPITCHUK
OSCARVILLE
PLATINUM
QUINHAGAK
TOKSOOK BAY
TUNTUTLIAK
TUNUNAK

M E M O R A N D U M

To: Representative Bette Cato
Chairman, House Transportation Committee

From: Representative Lyman Hoffman

Date: February 25, 1987

Subject: Scheduling of HCR 13

Would you please schedule HCR 13 to be heard in the House Transportation Committee during the week of March 2, 1987.

Enclosed is backup material on HCR 13 for your perusal.

If you have any questions, please do not hesitate to contact my office.

Thank you.

P.O. Box 763 Bethel, Alaska 99559 (907) 543-3543

Alaska State Legislature

House of Representatives

Committee on Transportation

Rep. Bette Cato, Chairman

Pouch V
State Capitol
Juneau, Alaska 99811
(907) 465-4858

March 2, 1987

FOR TODAY'S MEETING YOU HAVE:

A FOLDER ON HCR 13 THAT INCLUDES:

* a copy of HCR 13
* a fiscal note from DOT/PF
* a position paper from DOT/PF
* a current status report on HCR 13
* a fact sheet
* a map of the Bethel highway
* a correspondence from DOT/PF
* a correspondence from an engineering firm

Alaska State Legislature

House of Representatives

Committee on Transportation

Rep. Bette Cato, Chairman

Pouch V
State Capitol
Juneau, Alaska 99811
(907) 465-4858

March 9, 1987

FOR TODAY'S MEETING YOU HAVE:

A BINDER ON HB 94 THAT INCLUDES:

* the second committee substitute for HB 94
* the first committee substitute for HB 94
* a copy of HB 94
* a fiscal note from the Dept. of Public Safety
* a position paper from the Dept. of Public Safety
* committee minutes from other hearings on HB 94
* a bill analysis from the Dept. of Health & Social Services
* fatality statistics from the U. S. Coast Guard
* U. S. Coast Guard report on HB 94
* a memorandum on HB 94 from House Research
* a cost analysis and a question/answer paper from the U. S. Coast Guard

A FOLDER ON HCR 13 THAT INCLUDES:

* a copy of committe questions to DOT/PF
* a copy of HCR 13
* a fiscal note & position paper from DOT/PF
* committee minutes from the other hearing on HCR 13
* a fact sheet on the Bethel road
* a map of the Bethel airport road
* maps from DOT/PF
* a letter from an engineering consultants firm
* a fact sheet on the Red Dog Mine

ALASKA LEGISLATURE COMMITTEE FILES 1987-1988 8672
5177 HTRA HCR 13 - HCR 34

749

STATE OF ALASKA 1987 LEGISLATIVE SESSION
FISCAL NOTE

Bill Version: HCR 13
REQUEST — Publish Late:

Revision Date:
Agency Affected: DOT&PF
Title: Reconstruction of Bethel Airport Road
BRU: Design & Construction, Maintenance & Operations
Sponsor: Hoffman
Components:
Requestor: Hoffman

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES				17.5	17.5	17.5
TRAVEL						
CONTRACTUAL				25.0	25.0	25.0
SUPPLIES				7.5	7.5	7.5
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	50.0	50.0	50.0
CAPITAL	-0-	500.0	7,000.0	-0-	-0-	-0-
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND	-0-	500.0	7,000.0	50.0	50.0	50.0
FEDERAL FUNDS						
OTHER						
TOTAL	-0-	500.0	7,000.0	50.0	50.0	50.0

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS: See attached analysis

Prepared by: William R. Snell (signed)
Phone: 266-1440
Division: Deputy Commissioner, Central Region
Date: February 27, 1987

Approved by Commissioner: Mark D. Ulm, Acting Commissioner
Date: 3/1/87
Agency: Department of Transportation and Public Facilities

Distribution (by preparer):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)
Senate Secretary

Fiscal Note
HCR 13

1. Background

The 4.3 mile long Bethel Airport Road has been on the Federal-aid system since 1969 when the original construction took place. That project replaced a 4-wheel drive road and provided for the alignment and a gravel surface.

In 1970-1971 the road was paved. In 1972 the bridge at Brown's Slough was replaced. The last project in 1981-1982 was funded in Chapter 118 SLA 1980 for $2.5 million. This project consisted of replacing culverts in thaw settlement areas, insulating underneath to protect the permafrost, and an asphalt overlay of the road to a 24' surface width.

In 1986 the City completed a $287,000 shoulder widening project with the funding coming from a Transfer of Responsibility Agreement (TORA) with the Department.

2. Current Status

There are many pavement cracks and sections of the road are very uneven due to thawing and consolidation of the underlying silt permafrost. These problems are beyond Maintenance and Operation's ability to correct.

3. Reconstruction costs

The cost to reconstruct this 4.3 mile section of road is estimated to be $7,000,000. This would provide two 12 foot wide paved driving lanes as well as 8 foot wide shoulders. Approximately $500,000 would be required to design this project for major reconstruction. Even though this road is on the Federal Aid Highway System, with its relatively low traffic volumes (1,420 Average Daily Traffic), it would not compete well on a statewide basis for the limited federal funds because of the many other high priority competing projects. The Department currently has no funding to reconstruct this road.

4. Maintenance Costs

The annual maintenance cost for this 4.3 mile section of road is approximately $50,000. This is computed by multiplying the 8.6 lane miles by the estimated maintenance cost of $5,800 per lane mile for this road.

Dept. of Transportation & Public Facilities

Position Paper

3/4/87
MHH for

BILL NO: Bill No: HCR 13

APPROVED: Rocky Gutierrez
Commissioner

TITLE: Reconstruction of Bethel Airport Road

DATE: 2/27/1987

The Department of Transportation and Public Facilities (DOT&PF) agrees that there is a need to reconstruct the Bethel Airport Road. The current poor condition of the roadway is beyond the ability of our maintenance forces to correct. It is estimated that approximately $500,000 in design and $7,000,000 in construction funding would be needed to reconstruct this 4.3 mile road; however, the DOT&PF has no available funding for this purpose.

This road is on the Federal-aid Secondary System; however, its low traffic volumn (1,420 Average Daily Traffic) would not enable this project to compete well for the limited Federal highway construction funding because of the many other high priority projects throughout the State.

For further information call Susan Fleischhauer at 465-3900.

FACT SHEET

BETHEL ROAD
AIRPORT TO BROWN'S SLOUGH
PROJECT DESCRIPTION USING FEDERAL AID FUNDS

First Project: Original Construction, Grading, Drainage & Utilties

BEGAN:	August 1969
COMPLETED:	September 1970
DESIGNED BY:	Department of Transportation and Public Facilities (DOT&PF)
CONSTRUCTED BY:	Studnek Construction
COST:	$2.2 million
	FEDERAL AID

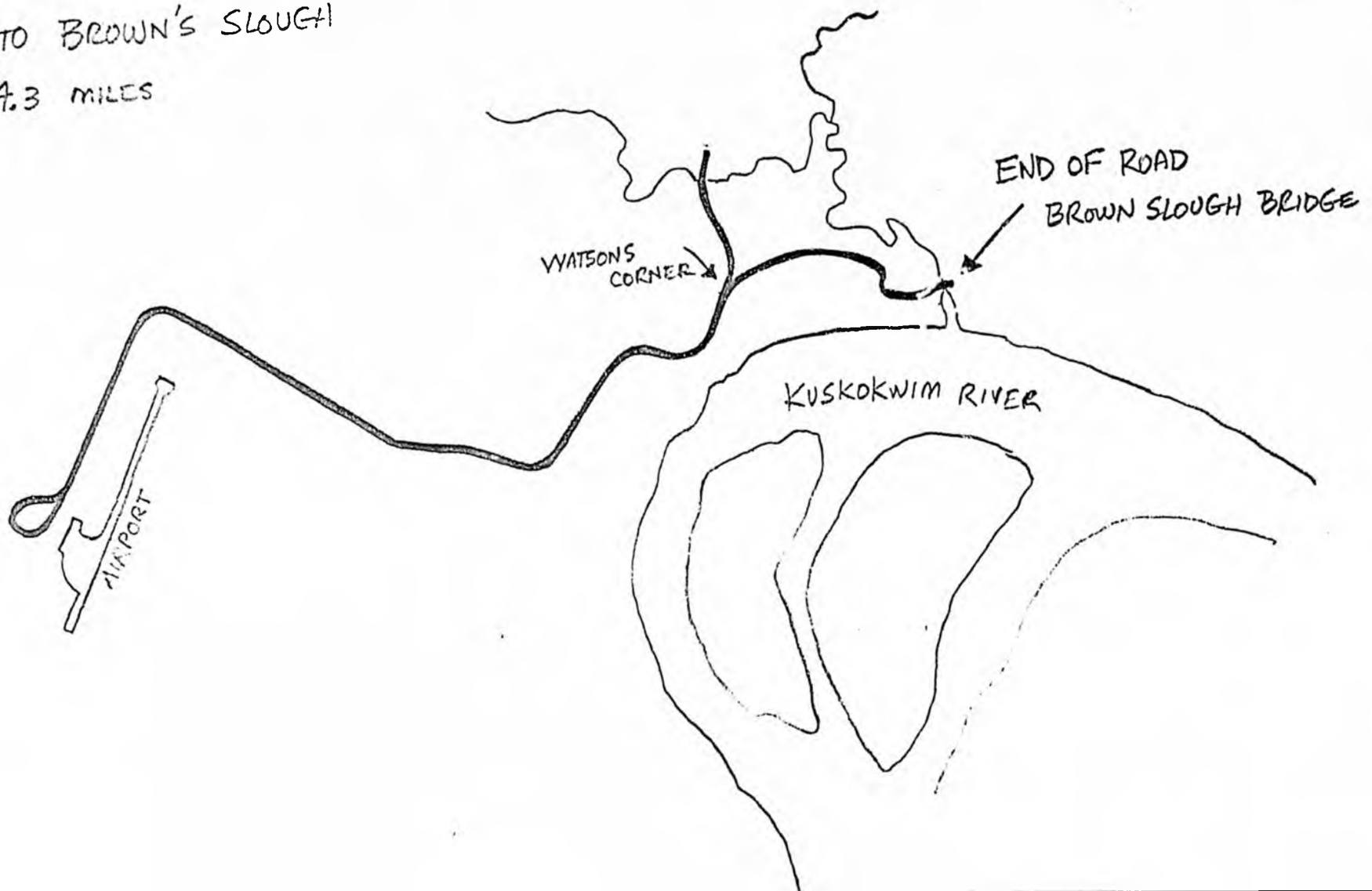
Second Project: Paved Surface

BEGAN:	August 1971
COMPLETED:	September 1972
DESIGNED BY:	(DOT&PF)
CONSTRUCTED BY:	Burgess Construction
COST:	$1.3 million
	FEDERAL AID

BETHEL HIGHWAY

AIRPORT TO BROWN'S SLOUGH

4.3 MILES



STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

POUCH Z
JUNEAU, ALASKA 99811
PHONE: (907) 465-3900

OFFICE OF THE COMMISSIONER

February 23, 1987

The Honorable Lyman Hoffman
House of Representatives
Alaska State Legislature
P.O. Box V
Juneau, AK 99811

Dear Representative Hoffman:

The following information and attachments are transmitted in response to a request from your office staff to Bruce Freitag concerning the Bethel Airfield Road.

I believe the route in question was placed on the Federal-aid secondary system at statehood, but the earliest records for it in our office are attached. In 1972 the Department of Highways revised their accounting system and gave this route a "CDS Log" number of 080000.

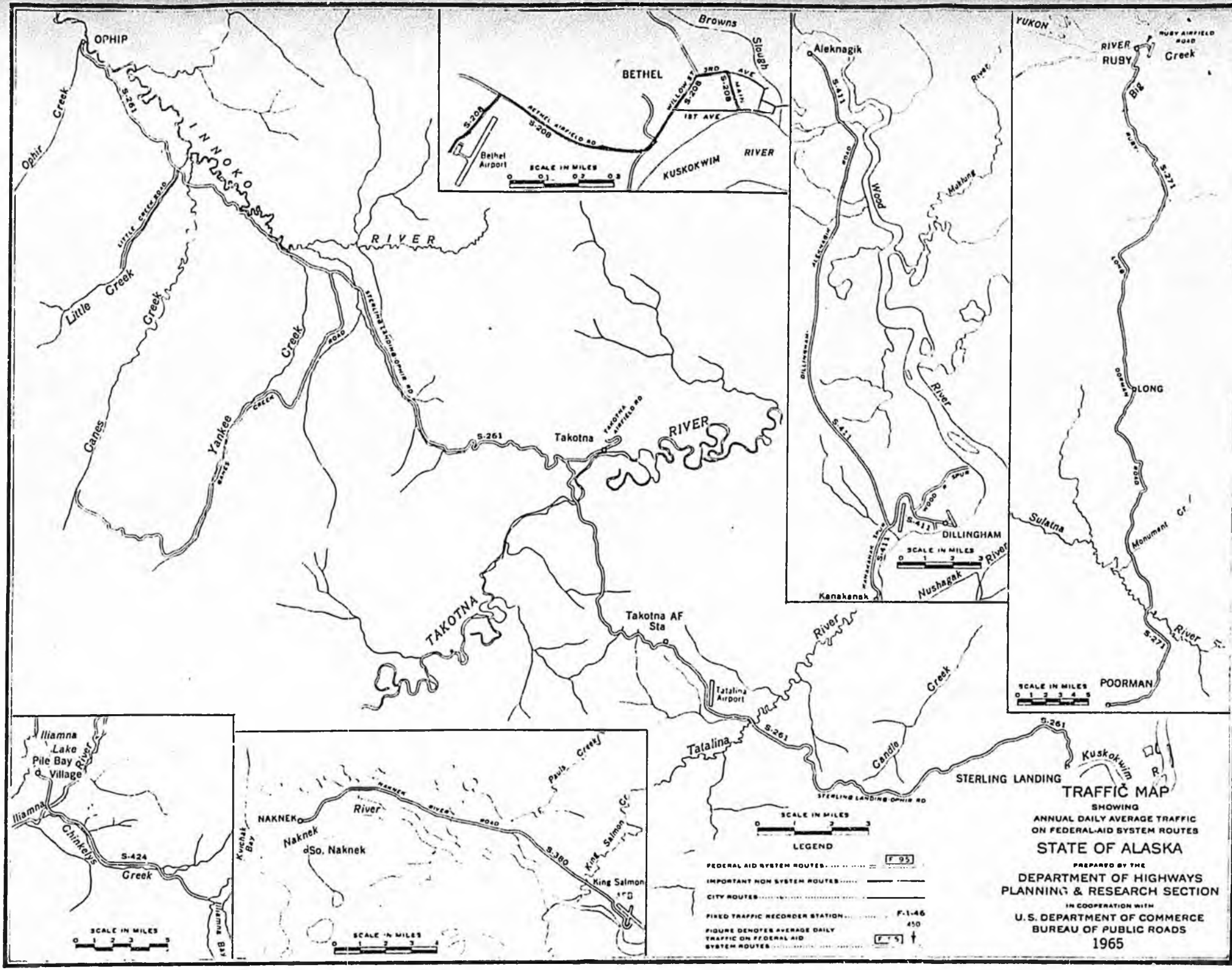
If additional information is needed please let me know.

Sincerely,

Mark S. Hickey
Deputy Commissioner
Operations

Attachment

cc: Susan Fleischhauer, Legislative Liaison
Bruce Freitag, M&O Standards Engineer
Dean Redick, M&O Director, Central Region



MAP 2

Nasnek–Bethel–Ophir
Iliamna–Ruby–Dillingham

LEGEND

MAP OF

BETHEL

MAINTENANCE STATION

PREPARED BY THE
STATE OF ALASKA
DEPARTMENT OF HIGHWAYS
PLANNING AND RESEARCH SECTION

1966

SCALE IN MILES

PRIMARY & SECONDARY ROUTES

CONTROL SECTION	ROUTE NUMBER	MILEAGE	DESCRIPTION	MAINTENANCE STATION
122081	209 Airport	4.4	From the Bethel Airport Northerly and Easterly via Bethel to the Jct. with Hanger Lake Road East of Browns Slough.	Bethel
	TOTAL	4.4		

STATE MAINTENANCE ROUTES

CONTROL SECTION	ROUTE NUMBER	MILEAGE	DESCRIPTION	MAINTENANCE STATION
139600	(139601)	1.3	FIRST AVENUE: From Jct. with FAS 208 (Bethel Airfield Road) at Willow Street, Easterly 0.5 mile via First Avenue to Jct. with FAS 208 (Bethel Airfield Road) at Main Street. SECOND AVENUE: From Jct. with Tundra Street Easterly 0.1 mile to Jct. with FAS 208 (Bethel Airport Road) at Bridge Avenue. THIRD AVENUE: From Jct. with FAS 208 (Bethel Airfield Road) at Main Street, Easterly 0.3 mile to Jct. with Tundra Street. TUNDRA STREET: From Jct. with FAS 208 (Bethel Airfield Road) at First Avenue, Northerly 0.2 mile to Third Avenue and a spur Northerly toward Brown's Slough MAIN STREET: From Jct. with FAS 208 (Bethel Airfield Road) at Third Avenue Northerly 0.2 mile to Bethel School.	Bethel
	(139602)	2.3	STANDARD OIL ROAD: From Jct. with FAS 208 (Bethel Airfield Road), Southerly 0.3 mile to Standard Oil Tank Farm. HOSPITAL ROAD: From Jct. with FAS 208 (Bethel Airfield Road) Northwesterly 0.2 mile to A.N.S. Hospital. PIT ROAD: From Jct. with FAS 208 (Bethel Airfield Road) at Willow Street, Northwesterly 0.7 mile to BPR barrow Pit. HANGER LAKE ROAD: From Jct. with FAS 208 (Bethel Airfield Road) at Brown's Slough, Northeasterly 1.1 miles to National Guard Hangar at Hangar Lake.	Bethel
	(139603)	2.3	BIA HEADQRTERS ROAD: From the Junction with FAS 208 (Bethel Airfield Road) near the airfield, westerly to the B.I.A. Headquarters building. (Added to SMR System 3-29-67)	Bethel
	TOTAL	5.9		

Peratrovich, Nottingham & Drage, Inc.

Engineering Consultants

1506 West 36th Avenue • Suite 101 • Anchorage, Alaska 99503 • 907-561-1011

February 19, 1987 PN&D 87000AC

Representative Lyman Hoffman
Box V
Juneau, Alaska 99811

Re: Design, Construction and Maintenance of Roads on Ice-Rich Soils

Dear Representative Hoffman:

It is well known that road construction over ice-rich oil without special precautions results in thawing of the frozen soil often with severe settlement. These settlements are known to cause some of the worst highway maintenance problems in Alaska.

Methods That Work

Much of what has been learned over the last two decades in Alaska about road construction is based on monitoring of viable types of existing roads. From this information engineers have developed many methods that can be used to assure good road performance with lower maintenance costs. Some of these methods include use of the following:

* geotextiles - to segregate fine soil materials from structural fills, to bridge settlement zones and reduce differential settlement at roadway surface and to ensure insulation integrity in organic tundra overlay construction (i.e. Red Dog project).

* synthetic plastic honeycomb reinforcing sections - similar to that used in the Shishmaref airport construction.

* rigid insulation - between the embankment and natural ground to slow heat flow into frozen ground. The high strength closed cell rigid insulation provide the best performance.

* thicker embankment fill - when cost effective as an insulating layer. Typically, 1 ft. of soil has the equivalent insulating value of 1 inch of rigid insulation.

* culvert insulation - to slow thaw below culverts thus road settlement.

* adequate shoulder widths - to protect and insulate the roadway edge from settlement due to ambient temperatures and drainage along the road.

* positive drainage - to minimize thermal degradation at culverts and along the shoulders.

* heat pipes - to maintain frozen soil at site specific areas.

* painted surfaces - painting or paving roadway surfaces with white materials to reflect infrared from the sun. A white surface will reflect heat and reduce the temperature in the fill thus reducing thaw in underlying soil. Black surfaces absorb I.R. energy and increase ground temperatures.

Many of these methods can be used to repair and stabilize existing roads or to improve performance and reduce maintenance.

Repair

Road upgrade costs depend on many factors: availability of local building materials and equipment, present condition of the road surface and foundation, soil type, drainage, adequate right-of-way, etc. However, the first step towards developing any upgrade plan would be to prepare a preliminary engineering status and upgrade report listing problems, their extent and obtaining an engineer's opinion on what is required to upgrade the road. These studies can generally be performed by reviewing available data and conducting a site visit.

Example

The Bethel Highway (FAS 208) is an example of improper construction over ice-rich soil. It was built to substandard width and does not use many of the methods now commonly used for roads of this type; it has narrow shoulders, does not use thermal protection for culverts and was constructed with improper base gradation and surfacing. Shoulders are important because they help prevent thawing below the roadway edge. And thermal protection of culverts is important because it protects against thaw under the roadway.

Repair and upgrade of this road to minimum State standards is expected to cost $750,000 to $1,000,000 per mile because some construction materials must be shipped to the site from outside Bethel. However, after a preliminary study, methods may be developed which could more fully utilize near site materials thus reducing costs.

If I may be of any further assistance please call.

Sincerely,

PERATROVICH, NOTTINGHAM & DRAGE, INC.

Alan B. Christopherson, P.E.
Senior Engineer

ABC/jk/L7

cc: Lori Nottingham

Alaska State Legislature

House of Representatives

Committee on Transportation

Rep. Bette Cato, Chairman

Pouch V
State Capitol
Juneau, Alaska 99811
(907) 465-4858

March 4th, 1987

TO: Commissioner Mark Hickey

FROM: Representative Bette Cato

SUBJECT: HCR 13 - Representative Hoffman
Reconstruction of the Airport Road in Bethel

At the recent Committee meeting held on Monday March 2nd, 1987 the House Transportation Committee requested the following information from the Department:

a. Why is the fiscal note so high?

b. Why does the road not appear in the 6 year plan?

c. What was the departments rationale for taking this project out of the Federal funding request and placing it in with projects requesting general fund appropriations?

d. How did the department arrive at the $2 million per mile figure?

e. Basically, does the department plan new construction or is using part of the existing road feasible?

f. The fiscal note and plans provides for 8 ft. shoulders, could the department reduce the cost by construction of 4 ft. shoulders?

g. Does the construction plan include reusing the asphalt already there or are the plans to bring new asphalt to the construction site?

This resolution is scheduled for a second hearing on Monday March 9th. I would appreciate a representative from the department attending the meeting to answer the above questions.

Thank you

Bette

Representative Bette Cato
House Transportation Chairman

STATE OF ALASKA

STEVE COWPER, GOVERNOR

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

OFFICE OF THE COMMISSIONER

P.O. BOX Z
JUNEAU, ALASKA 99811-2500
PHONE: (907) 465-3900

March 9, 1987

HCR 13 - Relating to the expeditious redesign and reconstruction of the airport road in Bethel.

1. Why is the fiscal note so high? How did the department arrive at the $2 million per mile figure? The department should revise its fiscal note to reflect a savings from previous fiscal note by reusing existing materials. Would it be possible to lower reconstruction costs by providing for a 4 ft. shoulder width instead of 8 ft?

   The department is in the process of revising cost estimates for the road. Central Region Design and Construction is examining the road section by section to determine if existing materials could be reused in an effort to lower costs.

2. What is the department's rationale for taking this project out of the federal funding request and placing it in with projects requesting general fund appropriations, and why is it not listed in the 6-year CIP?

   Reconstruction of the Airport Road in Bethel was never included in the federal funding request because it does not meet the criteria the department uses to prioritize projects, and, therefore, cannot compete on a statewide basis with other projects being considered. With limited federal funds available each year, identified needs greatly exceed available funding. However, the department is in the process of determining whether or not the project would qualify for the "Federal 3-R Program" (rehabilitation, reconstruction, repaving). The criteria the department uses to determine federal funding priorities are attached.

3. Basically, does the department plan new construction, or is using part of the existing road feasible? Does the construction plan include reusing the asphalt already there or are the plans to bring new asphalt to the construction site?

   Again, in determining a new cost estimate for the project, the department will examine the possibility of reusing existing materials in an effort to lower the cost.

CRITERIA DOT&PF USES TO PRIORITIZE PROJECTS:

-Service Life

-Need to Continue Development of Previously Funded Project

-Post Construction Economic Benefits

-Impact on State M&O Costs

-Impact on Alaska Job Market

-Safety Improvements

-Functional Classification

-Type of Improvement

-Perception of Public Support

-Regional Importance

-Capacity

-Standards

THE DESIGN COST FOR THE RED DOG MINE ROAD PROJECT WAS A LITTLE OVER 1 MILLION DOLLARS. PROJECT DESIGN CONSISTED OF:

9 BRIDGES
500 CULVERTS
14 BARROW PITS (DIRT FOR ROAD USE)
60 ROAD MILES

THE OVERALL PROJECT COST FOR THE RED DOG MINE ROAD WAS $50 TO $60 MILLION.

THE BETHEL AIRPORT ROAD RECONSTRUCTION PROJECT CONSISTING OF 4.3 ROAD MILES WAS GIVEN A DESIGN COST OF $500,000 BY THE DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES.

THE DESIGN AND PROJECT COST COMPARISONS BETWEEN THE RED DOG PROJECT AND THE BETHEL ROAD PROJECT ARE WIDELY DIFFERENT. USUALLY THE DESIGN COSTS ARE +/- 5% OF THE TOTAL PROJECT COST. IN DOT/PF'S FISCAL NOTE FOR RECONSTRUCTION OF THE BETHEL ROAD, THE PROJECT DESIGN COST WAS STATED TO BE $500,000, HOWEVER WITH THE +/- 5% CALCULATION FOR DESIGN COSTS THE FIGURE SHOULD BE $350,000.

THE RED DOG PROJECT IS LOCATED IN A HARD PERMAFROST REGION AND THE BETHEL ROAD IS LOCATED IN A SALINE PERMAFROST REGION, THE DISCREPANCY IN PROJECT COSTS EXCEEDS REASONABLE EXPLANATION BY SITE DIFFERENTIALS. IF THE BETHEL ROAD WAS TOTALLY RECONSTRUCTED NOT USING ANY OF THE MATERIALS (I.E. SAND AND GRAVEL) THAT ARE ALREADY AVAILABLE FROM THE OLD ROAD THE COST STILL SHOULD NOT EXCEED $1 MILLION PER ROAD MILE. A REALISTIC PROJECT COST FIGURE FOR THE AIRPORT BETHEL ROAD WOULD BE APPROXIMATELY +/- $4.3 MILLION, WITH A DESIGN COST OF APPROXIMATELY +/- $215,000.

AS FOR PRIORITY RANKING - THE BETHEL AIRPORT ROAD HAS NOT RECEIVED FEDERAL AID FUNDS SINCE 1972. POPULATION SHOULD NOT BE THE UNDERLYING CRITERIA IN PROJECT RANKING WHEN DETERMINING THE WORTH OF A PROJECT, BUT THE IMPORTANCE OF THE ROAD TO THE PEOPLE IN THE REGION AS WELL AS THEIR SAFETY IN USING THE ROAD.

STATE OF ALASKA 1987 LEGISLATIVE SESSION
FISCAL NOTE

Bill Version: HCR 13
Publish Date:

REQUEST:

Revision Date: March 10, 1987
Title: Reconstruction of Bethel Airport Road
Sponsor: Hoffman
Requestor:

Agency Affected: DOT/PF
BRU: Design & Construction, Maintenance & Operations
Components:

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES	-0-	-0-	-0-	17.5	17.5	17.5
TRAVEL						
CONTRACTUAL	-0-	-0-	-0-	25.0	25.0	25.0
SUPPLIES	-0-	-0-	-0-	7.5	7.5	7.5
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	50.0	50.0	50.0
CAPITAL	-0-	510.0	4,490.0	-0-	-0-	-0-
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND	-0-	-0-	-0-	50.0	50.0	50.0
FEDERAL FUNDS	-0-	510.0	4,490.0	-0-	-0-	-0-
OTHER						
TOTAL	-0-	510.0	4,490.0	50.0	50.0	50.0

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS: (Attach a separate page if necessary)

See attached analysis.

Prepared by: William R. Snell (signed) Phone: 266-1440
Division: Deputy Commissioner, Central Region Date: March 10, 1987

Approved by Commissioner: Mark S. Hickey MSH Date: March 10, 1987
Agency: Department of Transportation & Public Facilities

Distribution (by preparer):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)
Senate Secretary

Fiscal Note
HCR 13

1. Background

The 4.3 mile long Bethel Airport Road has been on the Federal aid system since 1969 when the original construction took place. That project replaced a 4-wheel drive road and provided for the alignment and a gravel surface.

In 1970-1971 the road was paved. In 1972 the bridge at Brown's Slough was replaced. The last project in 1981-1982 was funded in Chapter 118 SLA 1980 for $2.5 million. This project consisted of replacing culverts in thaw settlement areas, insulating underneath to protect the permafrost, and an asphalt overlay of the road to a 24' surface width.

In 1986 the City completed a $287,000 shoulder widening project with the funding coming from a Transfer of Responsibility Agreement (TORA) with the Department.

2. Current Status

There are many pavement cracks and sections of the road are very uneven due to thawing and consolidation of the underlying silt permafrost. These problems are beyond Maintenance and Operation's ability to correct.

3. Reconstruction costs

The DOT&PF's earlier cost estimate to reconstruct this road was $7,000,000 which would provide two 12 foot wide paved driving lanes as well as 8 foot wide shoulders. $500,000 was estimated to design this project.

A close review of this project indicates that a lower cost federally funded project might be possible. This would be through the federal 3R (resurfacing, restoration, and rehabilitation) program; however, the department would have to receive a Federal Highway Administration (FHWA) waiver to reduce the roadway shoulders and pave the surface to two 12 foot driving lanes with 2 foot wide paved shoulders. A waiver might be justified by the presence of permafrost because the permafrost may thaw faster and in a larger area if shoulders were added.

Assuming the department developed a 3R project, the following would be provided:

- new pavement, 28 feet wide
- erosion control along the most critical slopes
- leveling with gravel as needed
- minor replacement of culverts

The total cost with a 3R project is estimated at $5.0 million with $510,000 of this being for preliminary engineering (PE). The PE money will allow the department to better define the geotechnical problems and propose a long term solution. With this information, we can then discuss with the FHWA the scope of the project and whether or not a 3R project is appropriate. It may be that a 3R project should be done on a periodic basic until the roadway stabilizes. Use of existing materials will be looked at during P.E. Depending on the condition, it may or may not be economical.

4. Maintenance Costs

The annual maintenance cost for this 4.3 mile section of road is approximately $50,000. This is computed by multiplying the 8.6 lane miles by the estimated maintenance cost of $5,800 per lane mile for this road.

MEMORANDUM

State of Alaska
Department of Transportation & Public Facilities

TO: All Deputy Commissioner

DATE: August 29, 1986

FILE NO:

TELEPHONE NO: 465-3900

SUBJECT: FY88 Capital Budget Instructions

FROM: Warren S. Sparks
Deputy Commissioner
Headquarters

Attached are instructions for development of the FY88 Capital Improvement Program. OMB instructions are the basic instructions for our FY88 capital budget. The remaining instructions in this package are the finalization of drafts previously distributed to your staff.

Completed CP-1 forms (or the computerized equivalent), scoring summaries and worksheets, and the appropriate data diskettes are expected here at Headquarters by September 19, 1986. We have an agreement with OMB that the FY88 capital budget will be due there on October 13.

Attachment

Distribution:

Joe Camp, Deputy Commissioner, Marine Highways
H. Glenzer, Deputy Commissioner, Northern Region
Jon Scribner, Deputy Commisioner, Southeast Region
William Snell, Deputy Commissioner, Central Region

cc: Ron Lind, Director, Plans, Programs & Budget, Headquarters
John Martin, Chief, Planning, Northern Region
Stan McAlister, Planning Supervisor, Marine Highways
Ray Meketa, Chief, Planning, Southeast Region
John S. Tolley, Chief, Planning, Central Region

Instructions for Development of FY 88 Capital Budget

This year the capital budget process incorporates an obligation plan for both federal highways and federal aviation projects. The object of this exercise is to produce a list of expected plus alternate project phases which will be obligating federal funds between July 1, 1987 and September 30, 1988. The FY88 capital budget should include no requests for federal authorization which are not in the Obligation Plan for FFY88.

The match amount for FY87 was developed using the estimated federal apportionment for FFY87. This means that, because of overprogramming, not all federal projects were necessarily provided general fund match. The intention was to match those projects which would obligate federal funds during this year. For FY88 we intend to request federal authorization for only those project phases requiring authorization or supplemental authorization to obligate FFY87 or FFY88 federal funds (in the expected plus alternate project list). The match request for 1988 will be sufficient to provide match required to obligate the federal funds through FFY88. Requests for match will be prepared by Headquarters.

Due Date

Materials required in these instructions are due at Headquarters by September 19, 1986.

Fiscal Guidelines

PROPOSED GENERAL FUND MATRIX FY 88
(Dollars in millions)

	CE	NO	SE	MHS	HQ	TOTAL
Minimum Programming Levels						
Advance Project Definition	$0.4	$0.2	$0.1	$0.05	$ —	$0.75
Aviation	0.5	0.4	0.1	—	—	1.0
Erosion Control	1.0	1.0	—	—	—	2.0
Marine (Ports and Harbors)	1.0	0.3	1.0	—	—	2.3
Facilities*	1.0	1.5	1.0	0.5	—	4.0
Barrier Free Access	0.5	0.5	0.5	0.2	—	1.7
State-Maintained Roads (Non-federally eligible work)	0.5	0.5	0.15	—	—	1.15
LSR&T	—	—	—	—	4.0	4.0
Research	—	—	—	—	0.5	0.5
Regional Discretion	6.0	4.5	1.5	2.5	0.75	15.2
TOTAL GF ALLOCATION	$10.9	$8.9	$4.35	$3.25	$5.25	$32.65

* DOT&PF M&O camp facilities, repairs of multiple occupancy buildings, and correction of construction errors even on single use facilities if DOT&PF was in charge of the facility. Does not include Water and Sewer at airports.

Format

The Office of Management and Budget has forwarded CP-1 forms (copy attached) and requested that our budget submission adhere to that basic format. CABDR is no longer being used. The following numbers represent the fields on the attached CP-1 form. The fields should be formatted as specified, and the resulting report pages to be submitted should resemble the CP-1 as closely as possible, ie the information should reside in the same relative position as on the CP-1. Those CP-1 items not addressed below should follow the general guidelines provided in the OMB instructions (copy of capital sections attached).

"Region:" Insert a line after "Location" to identify the region

4. "Election District:" 2 characters of numeric, districts as specified in the OMB instructions or in the case of region-wide projects use:

DOT Region	Regional Election District
Central	92
Northern	94
Southeast	91
Statewide	99

6. "Program:" use these terms:

AVIATION INTERNATIONAL
International Airports, Fairbanks and Anchorage.

AVIATION
All aviation except Fairbanks and Anchorage International Airports. Aviation is considered all work at airports (including water and sewer, buildings and roads).

MARINE
Ports and harbors.

MARINE HIGHWAYS SYSTEM

PUBLIC FACILITIES

LOCAL ROADS
Local Service Roads and Trails, Road Maintenance Service Areas, RS 2477.

EROSION CONTROL

TRANSIT
UMTA grants and urban systems funded transit projects.

STATE EQUIPMENT FLEET

SUPPORT
Intermodal projects, administrative projects, computerization.

HIGHWAYS
Major roads and especially those funded through FHWA including Forest Highways and Public Lands.

8. "Capital Request:" in thousands with commas and one decimal place.

9. "Operating Costs:" in thousands with commas and one decimal place.

11. "Project Description and Justification:" 50 lines of 72 characters for a total of 3600 characters are allowed.

    Follow the OMB instructions for the description and justification including a discussion on alternatives considered. The description should be extensive enough to allow verification of scoring.

12. The priority field should be left blank. This will be a department-wide priority.

Criteria Application and Ranking

The ranking criteria should be strictly and conservatively applied. Please provide worksheets (and data diskettes) of the question scores for each project. This includes a summary of all projects (title, funding amount and total score) and a detail worksheet (with title, individual question scores and total project score).

Q1. Does the project extend the service life of the facility?

Service life = design life of facility.

$$\text{Yes} = \frac{\text{Extended service life in years}}{\text{Original design life in years}} \times 25 = \text{points}$$

Note: No more than 25 points can be awarded for this question.

No = 0

Assumptions: Any work to be done to an existing facility potentially qualifies. This item is intended to reward projects which protect the State's investment in the existing system.

Q2. Is the project needed to continue the development and construction of previously funded projects in the program?

1. Supplemental funding for work that is under contract.

75 points

2. Supplemental funding for a project that is ready to go to bid in the first quarter of the budget year.

55 points

3. Construction phase funding where project will be ready for bid in the budget year and pre-construction phases were funded in prior years.

35 points

4. Funding for completion of pre-construction phases (applies only if funding need was identified in last year's six year capital improvement program).

15 points

5. All other projects.

0 points

Q3. Will the completion of this project have direct and identifiable post-construction benefits to the local, regional or statewide economy?

1. Highway resurfacing, public facilities repairs and improvements, harbor float replacement or runway resurfacing would have little or no economic effect, since these projects repair or replace existing facilities.

3 points

2. Additional harbor floats, expansion of airport aprons or widening existing roadways would have a moderate impact on the economy since these projects expand existing facilities. It is assumed that a certain amount of infrastructure and economic activity already exists and these projects would support the expansion of this existing activity.

5 points

3. New roads or airports built to support community growth and development.

7 points

4. New or expanded capacity for roads, airports or harbors built specifically to support industrial, commercial or resource development.

$$\frac{\text{Number of Jobs}}{\text{Project Cost}} \times 2{,}000{,}000 = \text{points}$$

Note: Most projects will not be scored using item 4. The project must support new industrial, commercial, resource or other development specifically identified as part of an organized and recognized review of the development (only projects meeting these criteria can be awarded any points under item 4).

Q4. Will state maintenance and/or operations costs change as a result of this project?

Reduction in State M&O costs (i.e. facility upgraded, transfer of responsibility to local government)	20 points
No additional State M&O costs/positions	15 points
One new State M&O position	10 points
Two new State M&O positions	5 points
Three or more new State M&O positions	0 points

Q5. Impact on Alaskan job market.

1. Majority of project jobs can be filled by Alaskans	10 points
2. All other projects	0 points

Assumptions: Apply this item to all projects, design, right of way, construction or combinations of those. Judge each project on its own merits. This item is intended to reward projects that are likely to result in Alaskan hire.

Q6. Will the project provide low-cost solutions to safety problems at high-hazard locations?

1. Specific safety projects for facilities operated and maintained by the State of Alaska.

$$\frac{\text{Dollars directly addressing safety}}{\text{Project Cost}} \times 100 = \text{points}$$

- Illumination, signalization and/or channelization of intersections with high accident rates
- Guardrails
- Dangerous surface condition on runway or runway safety area
- Repair of specific hazardous conditions

2. Safety-related projects

$$\frac{\text{Dollars directly addressing safety}}{\text{Project Cost}} \times 65 = \text{points}$$

- Accident history of facility indicates need for upgrade
- Runway length is deficient by more than 1000 feet or width by more than 15 feet
- Lane widths of 10 feet or less
- No shoulders

3. Other safety projects

$$\frac{\text{Dollars directly addressing safety}}{\text{Project Cost}} \times 30 = \text{points}$$

- Unsafe operating environment
- Lane width, shoulders or runway substandard
- Required CFR, fencing, etc.

4. All other projects 0 points

Q7. What is the functional classification of the facility?

(1) International airports, Interstate highways

60 points

(2) Regional center airports, Major arterial highways

50 points

(3) District and Transport airports, Minor arterial highways, Regional ports, Buildings (Statewide purpose, M&O facilities)

40 points

(4) Community airports, Reliever airports, Major collectors, Urban collectors, Sub-regional harbors, Buildings (Regional purpose)

30 points

(5) Local airports, Other state-maintained routes, Local harbors, Buildings (Local purpose)

20 points

Q8. What type of improvement is proposed?

(1) Project is aimed at preventing an imminent failure of the facility.

60 points

(2) Restoration, preservation, structural maintenance or safety improvement to an existing facility.

50 points

(3) Reconstruction for the purposes of bringing the facility up to modern standards.

40 points

(4) Improvement or expansion of a facility for the purposes of economic development, improved safety or improved levels of service.

30 points

(5) New facility development to relieve congestion of an existing facility, improve efficiency of the transportation system or generate economic development.

20 points

Q9. What is the regional perception of the public's support for this project relative to other projects being ranked?

(1) The project is in the top third of public priorities.

25 points

(2) The project is in the middle third of public priorities.

15 points

(3) The project is in the lower third of public priorities.

5 points

Note: The average of scores for this question cannot exceed 15.

Q10. What importance does the region give to factors not addressed by the other ranking items?

Score this item 0 to 200 for each project; however, the average of the points given to all projects cannot exceed 100.

Note: Regions may be asked to provide back-up information on what these factors were and their importance in evaluating the proposed project.

Q11. Is this project prompted by capacity concerns?

For apron projects, harbor expansions and marine highway system improvements, estimate a volume to capacity ratio based on the demand for the limited space and the capacity of the respective tiedown, parking, mooring areas, transfer facilities and/or vessels. Multiply this ratio by 25 to determine point score; however, no project with an estimated ratio can score more than 75 points.

Roadways - Less than two lanes

$$\frac{\text{Current year ADT} \times 25}{(.5)(\text{Capacity at LOS C for terrain type})} = \text{points}$$

Two lane roadways

Adequate shoulders[A]

$$\frac{\text{Current year ADT} \times 25}{(\text{Capacity at LOS C for terrain type and area})^{A}} = \text{points}$$

Note: [A] If shoulders are inadequate, multiply by (.8)

Multi-lane roadway

Single-direction ADT

$$\frac{(.10)\ (\text{Current year ADT})\ (25)}{(\text{Capacity for terrain type})^{A}(\#\text{ of lanes in that direction})} = \text{points}$$

Q12. Does the facility related to the project meet identified standards for such a facility?

For facilities that do not meet minimum standards, rate the severity of deficiency on a scale of 1 to 100.

Assumptions: This item is intended to reward projects which address substandard facilities.

MEMORANDUM

State of Alaska
Department of Transportation & Public Facilities

TO: Keith R. Morberg, P.E.
Chief of Design
Central Region

DATE: March 9, 1987

FILE NO: 201C- (mar0901)

TELEPHONE NO: 266-1504

FROM: John J. Burkholder, P.E. /3
Reconnaissance & Locations Engineer
Central Region

SUBJECT: Bethel Airport Road

I have reviewed the proposed Bethel Airport Road project to identify a means of reducing the estimated $7.8 million cost for reconstruction and still use Federal funds.

It appears the only way is a resurfacing, restoration and rehabilitation (3R) project. The attached page from CFR 23 Sec. 625.2 is the 3R guideline.

The biggest hurdle I anticipate may be getting a waiver to leave roadway shoulders off. The projected traffic would require a 40-foot roadway instead of the existing 28 feet. A waiver might be justified by the presence of permafrost. The permafrost may thaw faster and in a larger area if shoulders were added.

A check with the Traffic Section indicates a low accident rate. This being so, substantial geometric changes are not indicated.

Assuming we develop this as a 3R project, we would do the following:

1. new pavement, 28 feet wide
2. erosion control along slopes where most critical
3. leveling with HAP and/or gravel as required
4. minor replacement of culverts

Construction, construction engineering and design are estimated to cost $5.0 million.

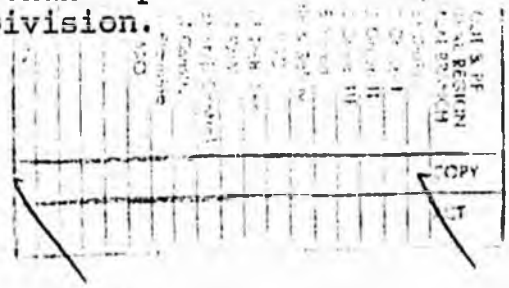
If we pursue this idea, we should program $510,000 for preliminary engineering through Plans, Specifications and Estimate.

The preliminary engineering money will allow us to better define the geotechnical problems and propose a long term solution. With this information, we can then discuss with the Federal Highways Administration (FHWA), the scope of the project and whether or not a 3R project is appropriate. It may be that a 3R project should be done on a periodic basis until the roadway stabilizes.

Hopefully the FHWA will agree with our scope of work and not consider the road a maintenance problem to be handled by the Maintenance & Operations Division.

attachments: (5)

JB/ds



RECEIVED
MAR 9 '87

MEMORANDUM

State of Alaska
Department of Transportation & Public Facilities
Central Region

TO: John Burkholder
Reconnaissance & Locations Engineer
Central Region

DATE: March 9, 1987

FILE NO: 242C

TELEPHONE NO: 266-1525

FROM: Steven R. Horn, P.E.
Regional Traffic & Safety Engineer
Central Region

SUBJECT: Accident Analysis on Bethel Highway

In response to your request, the Traffic & Safety Section has compiled accident rates on the Bethel Highway (CDS Route No. 080000) for the years 1983-1986.

The following table summarizes the number of accidents, average daily traffic (ADT) volumes and resulting accident rates for the subject route:

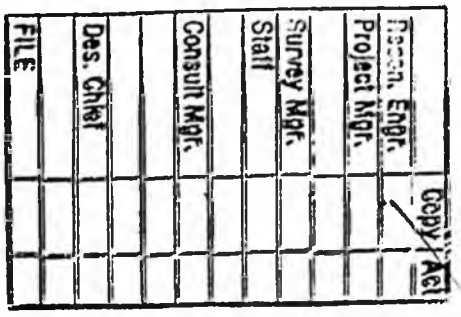
Year	No. of Accidents	ADT	Accident Rate **
1983	7	2950	1.51
1984	10	3100	2.06
1985	5	3340	0.95
1986*	7	3500	1.27
Total	29		

* Accident data for 1986 is thru the middle of November, 1986 ADT is estimated.

** Accicents per million vehicle miles travelled.

The types of accidents occurring on this route can be summarized as follows:

Right Angle	-	10
Rear End	-	5
Pedestrian & Bicycle	-	4
Single Vehicle Overturn	-	3
Fixed Object	-	3
Other	-	4
TOTAL	=	29



An accident cluster analysis was also performed. For the purpose of this report, a cluster was defined as a one-tenth of a mile segment of roadway with at least one accident per year or a total of four accidents in the four year study period. Locations meeting this criteria are summarized below:

Location	CDS Milepoint	No. of Accidents
Tundra Street Intersection	0.33-0.42	5
Main Street Intersection	0.66-0.75	4
Willow Street/Watson's Corner	0.86-0.95	5

If you have any questions or need additional information contact Ron Martindale at extension 528.

RM:bt

cc: Keith R. Morberg, Chief of Design, Central Region

MEMORANDUM State of Alaska

TO: John Burkholder
Reconaissance Engineer
Central Region

DATE: March 5, 1987

FILE NO.:

THRU:

TELEPHONE NO.: 338-2121

SUBJECT: Bethel Airport to Brown's Slough

FROM: Eric G. Johnson, P.E.
Geotechnical Engineer
Engineering & Operations Standards

As you requested, I have analyzed the available information to determine the cause of the continued differential settlements of the existing embankment and to make preliminary recommendations on the best course of action from a geotechnical point of view.

The road was originally paved in 1972. Since that time it has experienced settlement due to the thawing of the underlying silty sand and sandy-silt permafrost. This thawing is caused by the increased heat input into the ground because of the black pavement surface.

Because the average annual temperature in Bethel (29.2° F) is so warm (close to 32° F) there is no cost effective method of repair that will stop these settlements from occuring. Insulating the embankment will only slow the inevitable thaw and prolong the settlements. Other alternatives such as thermo-syphons are too expensive to install along the entire project.

The thaw of the permafrost will continue, but at an ever reducing rate until the road stabilizes. Experience in the Copper River Basin with the Richardson and Glenn Higways over similar warm permafrost, indicates that this could take as much as 30 years from initial paving. My recommendation for this project is to continue re-leveling and repaving the road as needed until it stabilizes.

	Copy	Act
Recon. Engr.		°
Project Mgr.		
Survey Mgr.		
Staff		
Consult Mgr.		
Des. Chief		
FILE		

§ 625.2 Policy.

(a) Plans and specifications for proposed Federal-aid highway projects shall provide for a facility that will (1) adequately meet the existing and probable future traffic needs and conditions in a manner conducive to safety, durability, and economy of maintenance; and (2) be designed and constructed in accordance with standards best suited to accomplish the foregoing objectives and to conform to the particular needs of each locality.

(b) The development and overall management of highway facilities must be considered as a continuing program. This process of highway management commences with planning and extends through design, construction, maintenance, and operation To assure a continuing acceptable level of safe traffic service, it is essential to provide for adequate maintenance and periodic resurfacing, restoration, and rehabilitation (RRR) throughout the life of the highway. The RRR work is defined as work undertaken to extend the service life of an existing highway and enhance highway safety. This includes placement of additional surface material and/or other work necessary to return an existing roadway, including shoulders or bridges, the roadside, and appurtenances to a condition of structural or functional adequacy. The RRR work may include upgrading of geometric features, such as minor roadway widening, flattening curves, or improving sight distances. The RRR work is an essential part of any highway program, and each State and local agency should provide for these types of improvements in each annual highway program.

(c) An important goal of the FHWA is to provide the highest practical and feasible level of safety for people and property associated with the Nation's highway transportation systems and to reduce highway hazards and the resulting number and severity of accidents on all the Nation's highways. Accordingly, the only constraint on the application of Federal-aid funds to RRR work is that they must be used to provide a facility that adequately meets existing and probable future traffic needs and conditions in a manner conducive to safety, durability, and economy of maintenance, and acceptable levels of community and environmental impact. The RRR projects shall be designed and constructed in a manner that will enhance highway safety and accomplish the foregoing objectives according to the particular needs of each State and locality.

(23 U.S.C. 101(e), 109, 315, and 49 CFR 1.48(b); sec. 110(a), Pub. L. 97-424, 96 Stat. 2097 (23 U.S.C. 109(o)); 23 U.S.C. 315; 49 CFR 1.48)

[47 FR 25274, June 10, 1982, as amended at 48 FR 13412, Mar. 31, 1983]

§ 625.3 Standards, specifications, policies, guides, and references.

The following[1] are approved by the FHWA for application on Federal-aid projects. This regulation does not establish Federal standards for work that is not federally funded; however, the safety related criteria of the referenced documents are established as goals for developing State and local safety programs for all public highways as required by Highway Safety Program Standards 1.2, 23 CFR Part 1204.4. The following design standards are incorporated by reference and are on file at the Office of the Federal Register in Washington, D.C. They are available for inspection and copying from the FHWA Washington Headquarters and all FHWA Division and Regional offices as prescribed in 49 CFR Part 7, Appendix D. Copies of current AASHTO publications are also available for purchase from the American Association of State Highway and Transportation Officials, Suite 225, 444 North Capitol Street NW., Washington, D.C. 20001.

(a) *Roadway and appurtenances.* (1) A policy on Geometric Design of Highways and Streets, AASHTO, 1984.[2]

(2) Geometric Design Standards for the National System of Interstate and Defense Highways, AASHO 1967.[2]

(3) The geometric design standards for resurfacing, restoration, and rehabilitation (RRR) projects on highways other than freeways shall be the pro-

For footnotes to this part, see Appendix A.

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION PROJECT DEVELOPMENT

4111 AVIATION AVENUE
POUCH 6900
ANCHORAGE, ALASKA 99502
(TELEX 25-185)

Date: 3-5-87
Prepared By: RON TAN

This estimate is based on using the Highway Preconstruction Manual, Part II:

Functional Classification

☐ Section 11-5-1 ☐ Section 11-15-10 ☐ Section 11-20-10
☐ Section 11-15-5 ☐ Section 11-20-5 ☐ Section 11-20-15

☐ None of the Above (Reason): _____

PRELIMINARY CONSTRUCTION COST ESTIMATE FOR:

Project Name: BETHEL AIRPORT ROAD

Project Number: _____

From: 6+00 (MP) _____ To: 233+00 (MP) _____

Total Length: 22,700 L.F

Location and Description: Resurface the Bethel Airport RD. with 28-ft H.A.P. Use H.A.P for levelling and Borrow for levelling when affected are sink more than one-foot.

Current ADT: 1985 3300 Design ADT/Date 1995 4435

Actual Width: 28 Required Width: 28

Assumed Structural Section H.A.P.: 2" in.

Proj. Est Amount: $5.0 million C.A.B.: 6" in.

Subbase: _____ in.

Borrow: 24" (min) in.

Sheet 1 of ____

BETHEL AIRPORT ROAD
RESURFACING WITH MINOR RECONSTRUCTION
ESTIMATE OF COST
BY: RON TAN - MAR. 5, 1987

ITEM NO & DESCRIPTION	UNIT	UNIT PRICE	QUANTITY	AMOUNT
110(1) Mobilization	* L.S.	20% of Const	All Req'd	$545,945.35
111(1) Erosion/Pollution Control	* C.S.	.5% of Const	All Req'd	$13,648.63
112(1) Training Program	C.S.	Cont. Sum	All Req'd	
114(1) Const. Engineering	* L.S.	3% of Const	All Req'd	$81,891.80
114(2) Three Person Survey Party	Hour	$150.00	100	$15,000.00
115(1) Traffic Maintenance	* L.S.	1% of Const	All Req'd	$27,297.27
115(2) Construction Signs	L.S.	Lump Sum	All Req'd	
115(4) Temp Pavement Markings	Sta.	Lump Sum	All Req'd	$15,000.00
115(5) Concrete Median Barrier	L.F.			
116(1) Furn./Maint. Engr. Facility	L.S.	(1,500/Mth)	All Req'd	$15,000.00
116(2) Furn./Maint. Laboratory	L.S.	(1,500/Mth)	All Req'd	$15,000.00
201(2A) Clearing and Grubbing	Acre			
202(2) Removal of Pavement	S.Y.	$5.00	35,310	$176,550.00
202(10) Multiple Mailbox Installati	L.F.			
202(9) Single Mailbox Installation	Each			
203(1) Common Excavation	C.Y.			
203(2) Rock Excavation	C.Y.			
203(4) Muck Excavation	C.Y.			
203(5B) Borrow, Type A	Ton	$37.50	18,830	$706,125.00
301(1) Crushed Aggr. Base Course	Ton	$56.00	4,710	$263,760.00
301(4) Subbase, Grading 'A'	Ton			
303(1) Reconditioning	STA.	$120.00	115	$13,800.00
401(1) Asphalt Concrete. Type II	Ton	$100.00	9,120	$912,000.00
401(2) Asphalt Cement, AC-5	Ton	$600.00	565	$338,791.74
401(7) Asphalt Median Paving	Ton			
402(1) CSS-1 Asphalt Tack Coat	Ton	$600.00	59	$35,400.00
403(1) Prime Coat	Ton	$600.00	59	$35,400.00
501(6) Class A Concrete (Headwall)	C.Y.			
501(8) Retaining Wall (Crib)	S.F.			
501(8) Retaining Wall (Block)	S.F.			
603(22-18) 18-inch Pipe	L.F.			
603(22-24) 24-inch Pipe	L.F.			
603(22-30) 30-inch Pipe	L.F.			
603(22-36) 36-inch Pipe	L.F.	$75.00	500	$37,500.00
603(22-54) 54-inch Pipe	L.F.			
603(22-XX) XX-inch Pipe	L.F.			
603(22-96) 96-inch Pipe	L.F.			
603(30) Culvert Adjustment	L.F.			
604(1C) Storm Manhole, Large	Each			
604(1D) Storm Manhole, Small	Each			
604(3) Reconstruct Existing Manhole	Each			
604(4) Adjust Existing Manhole	Each			
604(5A) Curb Inlet	Each			
604(5E) Inlet, Field	Each			
604(8) Culvert End Section	Each			
606(1) Guard Rail, Type I	L.F.			
606(5) Removal of Guard Rail	L.F.			
606(6) End Anchorage	Each			
607(7) Noise Barrier Fence	S.F.			
608(1) Concrete Sidewalk	S.Y.			
608(2) Asphalt Sidewalk	Ton			
609(2) Curb and Gutter	L.F.			
610(1) Ditch Lining	Sta.			

611(1) Riprap	C.Y.			
614(1) Survey Monuments	Each			
614(2) Monument Cases	Each			
615(1) Standard Signs	S.F.	$75.00	200	$15,000.00
616(2) 1/2-Inch Culvert Thaw Pipe	L.F.			
616(4) Culvert Thaw Wire Install	L.F.			
618(1) Seeding	POUND	$12.00	1,000	$12,000.00
618(4) Water for Maintenance	M.Gal	$10.00	540	$5,400.00
619(1) Soil Stabilization Matting	M.S.F.	$100.00	500	$50,000.00
620(1) Topsoil	M.S.F.			
627(1) Watering	M.GAL			
639(1) Approaches	Each	$400.00	20	$8,000.00
640(1) Retaining Walls	S.F.			
660(1) Traffic Signal System Compl	L.S.	Lump Sum	All Req'd	
660(3) Hwy Lighting System Complete	L.S.	Lump Sum	All Req'd	
660(7) Temp Signal System Complete	L.S.	Lump Sum	All Req'd	
670(6) Thermoplastic Markings	L.S.	Lump Sum	All Req'd	$75,000.00

SUBTOTAL AMOUNT	$2,729,726.74
* OVERHEAD (ITEM 110(1) TO 115(1)	$668,783.05
CONSTRUCTION ESTIMATE	$3,398,509.80

CONSTRUCTION ADMINISTRATION	15	% OF CONST.	$509,776.47
CONTINGENCIES	15	% OF CONST.	$509,776.47
TOTAL CONSTRUCTION COST			$4,418,062.74
PRELIMINARY ENGINEERING	15	% OF CONST.	$509,776.47
RIGHT-OF-WAY			
UTILITIES RELOCATION			
PROJECT TOTAL			$4,927,839.21

Project Length = Lane =
Pavement Width = Thickness =

Basic Assumption:

1. Resurface the entire Road with 2" H.A.P for 28' wide.
2. Use H.A.P for levelling where it is less than one-foot depth.
3. In area where levelling more than 2-ft, proposal will remove the Asphalt and replace with Borrow, Subbase, and pavement. It will add a Culvert - if it help to reduce the problem.
4. Place matting along slope, where erosion most critical.
5. Price based on project D03151 (6-22-83) and Bethel Rd (6-26-81), plus 25% Adjustment to 1981's Bid price.

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

JAY S. HAMMOND, GOVERNOR

4111 AVIATION AVENUE
POUCH 6900
ANCHORAGE, ALASKA 99502
(TELEX 25-185)

Date: MAR 4, 1980
Prepared By: J. BARSTAD
Project Number: _____

PRELIMINARY CONSTRUCTION COST ESTIMATE FOR:

Project Name: BETHEL AIRPORT ROAD

From: 6+00 (MP) To: 233+00 (MP)

Total Length: 22,900 L.F. = 4.30 MILE

Location and Description: _____

Current ADT: _____ Design ADT: 4,000

Required Width: 40' Actual Width: 27'

Assumed Structural Section H.A.P.: 1½" in.

C.A.B.: _____ in.

~~Borrow~~ SAND: 24" in.

Estimated Costs (Dollars) Based Upon Above Assumptions:

1.	Construction Estimate:	$ 5,835,073 ⁼
2.	Construction Administration (15 % of 1):	$ 875,261
3.	Subtotal:	$ 6,710,334
4.	Contingencies (10 % of 1):	$ 583,507
5.	Construction Total:	$ 7,293,841
6.	Preliminary Engineering (9 % of 1):	$ 525,156
7.	Right of Way ($_____/Acre):	$ ——
8.	Utilities:	$ 20,000
9.	Project Total:	$ 7,838,997 ⁰⁰

Sheet ____ of ____

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

Sheet 3 of 5
Project BETHEL AIRPORT ROAD
Project No.
Prepared By J. BARSTAD
Date MAR 4, 1987

ESTIMATE OF COST

ITEM NO.	ITEM	UNIT	UNIT PRICE	QUANTITY	AMOUNT
109(1)	Petroleum Escalation *	C.S.	1% of Const)	All Req'd	$
110(1)	Mobilization *	L.S.	10% of Const	All Req'd	
111(1)	Temporary Erosion and Pollution Control *	C.S.	(0.5% of Const)	All Req'd	5000—
112(1)	Training Program	C.S.	Cont. Sum	All Req'd	1600.00
114(1)	Construction Surveying by the Contractor *	L.S.	3% of Const)	All Req'd	
114(2)	Three Person Survey Party	Hour			
115(1)	Traffic Maintenance *	L.S.	3% of Const)	All Req'd	50,000
115(2)	Construction Signs	L.S.	Lump Sum	All Req'd	
115(4)	Temporary Pavement Markings	Sta.			
116(1)	Furnishing and Maintaining Field Office	L.S.	(1500/MO)	All Req'd	15,000
116(2)	Furnishing and Maintaining Field Laboratory	L.S.	(1500/MO)	All Req'd	15,000
201(2A)	Clearing and Grubbing	Acre			
202(1)	Removal of Structures and Obstructions	L.S.			
202(4)	Removal of Culvert Pipe	L.F.	6	2,725	16,350
202(9)	Single Mail Box Installation	Each			
203(1)	Common Excavation	C.Y.	13	18,500	240,500
203(2)	Rock Excavation	C.Y.			
203(4)	Muck Excavation	C.Y.			
203(~~5B~~) (5C)	GRANULAR SAND ~~Borrow~~	CYVM ~~Ton~~	20	45,400	908,000
301(1)	Crushed Aggregate Base Course	Ton			
304(1)	Subbase, Grading A	CYVM ~~Ton~~	100	7,237	723,700
401(1)	Asphalt Concrete, Type II	Ton	100	9,100	910,000
401(2)	Asphalt Cement AC-5	Ton	500	515	257,500
401(4)	Anti-Stripping Additive	C.S.			
402(1)	CSS-1 Asphalt for Tack Coat	Ton			
403(1)	Prime Coat	Ton	400	5	2,000
207(3)	FILTER FABRIC	S.Y.	3—	60,534	181,602
207(3A)	FILTER CLOTH	S.Y.	5—	35,311	176,555

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

ESTIMATE OF COST

Sheet 4 of 5
Project BETHEL AIRPORT
Project No.
Prepared By
Date MAR 4, 1987

ITEM NO.	ITEM	UNIT	UNIT PRICE	QUANTITY	AMOUNT
501(6)	Class W Concrete	C.Y.			
506(1)	Treated Timber	L.S.	Lump Sum	All Req'd.	
602(1)	Structural Plate Pile	L.F.			
602(2A)	Structural Plate Ripe Arch	L.F.			
603(22-18)	18-inch Pipe	L.F.	60	2461	147,660
603(22-24)	24-inch Pipe	L.F.	75	464	34,800
603(22-30)	30-inch Pipe	L.F.			
603(22-36)	36-inch Pipe	L.F.	100	300	30,000
603(22-60)	60-inch Pipe	L.F.			
603(22-96)	96-inch Pipe	L.F.			
604(1C)	Storm Sewer Manhole, Large	Each			
604(1D)	Storm Sewer Manhole, Small	Each			
604(3)	Reconstruct Existing Manhole	Each			
604(4)	Adjust Existing Manhole	Each			
604(5A)	Curb Inlet	Each			
604(5E)	Inler, Field	Each			
604(8)	Culvert End Section	Each			
606(1)	Beam Type Guard Rail, Type 1 Post	L.F.	55	600	33,000
606(5)	Removal and Disposal of Guard Rail	L.F.			
606(6)	End Anchorages	Each	1500	4	6,000
607(7)	Fence	L.F.			
608(1)	Concrete Sidewalk	S.Y.			
608(2)	Asphalt Sidewalk	Ton			
609(2)	Curb and Gutter Type	L.F.			
610(1)	Ditch Lining	C.Y.			

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

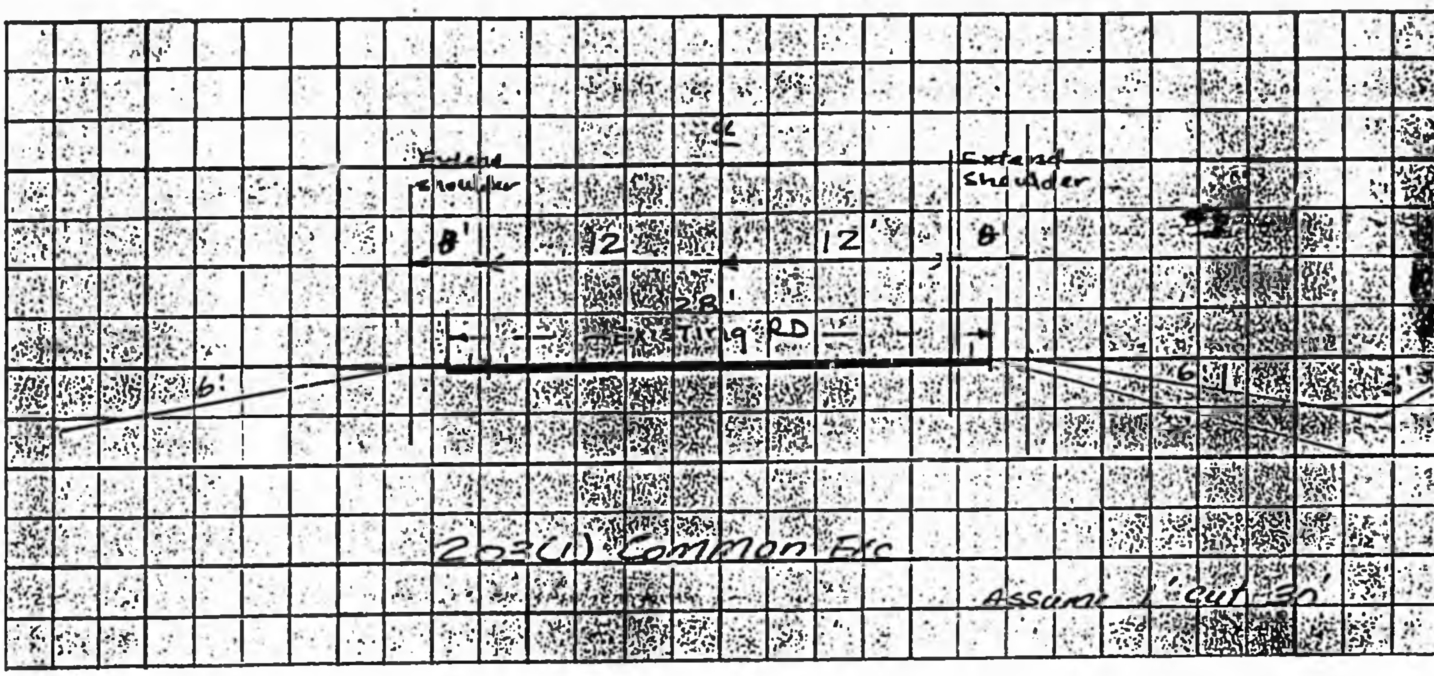
ESTIMATE OF COST

Sheet 5 of 5
Project BETHEL AIRPORT ROAD
Project No.
Prepared By
Date MAR 4, 1987

ITEM NO.	ITEM	UNIT	UNIT PRICE	QUANTITY	AMOUNT
611 (1)	Riprap	C.Y.			
614(1)	Survey Monuments ADJUSTMENT	Each	75	19	1426
614(2)	Monument Cases	Each			
615(1)	Standard Signs	S.F.	60	150	9000
615(5)	Guide Marker Posts	Each			
617(1)	Railroad Crossing	L.S.	Lump Sum	All Req'd.	
618(1)	Seeding	M.S.F.	150	545	81.750
618(4)	Water for Maintenance	M.Gal.	20	200	4,000
619(1)	Soil Stabilization Matting	M.S.F.	2,000	545	1,090,000
620(1)	Topsoil	M.S.F.			
527(1)	Watering	M.Gal.			
639(1)	Approaches	Each	400	117	46,800
660(1)	Traffic Signal System Complete	L.S.	Lump Sum	All Req'd.	
660(3)	Highway Lighting System Complete	L.S.	Lump Sum	All Req'd.	
660(7)	Temporary Signal System Complete	L.S.	Lump Sum	All Req'd.	
670(6)	Thermoplastic Placement Markings	L.S.	Lump Sum	All Req'd.	
	($1.50/ft. of 4-inch stripe)				
	Bridge	S.F.			
	Retaining Wall	S.F.			
	SUBTOTAL				4,987.24
	OVERHEAD ITEMS +17.0%				847,83
	CONSTRUCTION EST.				5,835,07
	CONST. ADMIN. +15%				
	CONTINGENIES +10%				
	PRE-ENGINEERING				
	~~SUBTOTAL~~ UTILITIES				
	*(Before items 109(1), 110(1), 111(1), 114(1), 115(1))				
	CONSTRUCTION ESTIMATE				5,835.07

Sheet 2 of 5
Project Name BETHEL AIR PORT ROAD
Project Number
Prepared By
Date MAR 4, 1987

TYPICAL SECTION



GENERAL NOTES

STATE OF ALASKA
THE LEGISLATURE

POUCH Y - STATE CAPITOL
JUNEAU, ALASKA 99811
907-465-3800

LEGISLATIVE AFFAIRS AGENCY

LEGISLATIVE REFERENCE LIBRARY

May, 1988

Copies of minutes listed below were originally included in this file. The minutes are available on the STAIRS database CMPR. In order to save space copies of minutes have not been left in the files.

Mary Van Nimwegen

H. TRANS.	3-2-87	1:30 p.m.
" "	3-9-87	1:30 p.m.
" "	3-11-87	1:30 p.m.

(7)

HOUSE COMMITTEE REPORT

Date referred: 2/25/87

FURTHER REFERRALS: Finance

DATE: March 11, 1987

The Transportation Committee has considered HCR 13

Relating to the expeditious redesign and reconstruction of the airport road in Bethel.

RECOMMENDS:

[ ] replace with ______________ [ ] the same title [ ] a new title

[ ] attached amendment(s)

- [ ] do pass
- [ ] do not pass
- [X] no recommendation
- [ ] individual recommendations
- [ ] additional referral to the ______________ Committee

ADOPTS: [ ] ________ letter of intent

ATTACHES NEW FISCAL NOTE(s):

[X] fiscal impact

[ ] zero fiscal note

[ ] zero with analysis

[ ] same as previous fiscal note published ________

[ ] same as previous zero fiscal note published ________

SIGNING DO PASS:

Bette Cato

SIGNING OTHER RECOMMENDATIONS:

Mike Miller No. Rec

[illegible] No Rec

[illegible] - Do Not Pass - handle in CIP process

Heinrich Springer No. Rec

Bette Cato

Chairman's signature

Official Business

COMMITTEE:

House Transportation

DATE: March 2, 1987

SIGN-IN

Subject of meeting:

HCR 13: Relating to the expeditious redesign and reconstruction of the airport road in Bethel.

NAME	ADDRESS	PHONE	REPRESENTING	DO YOU WANT TO TESTIFY?
JOHN BATES	Box 1822 Juneau AK 99802	586 2302	REP Hoffman	Yes
Lynn Hoffman	112 Capitol	465-4530		
Susan Fleischhauer		465-3900	DOT&PF	answer questions

Official Business

COMMITTEE:

House Transportation Committee

DATE: March 9, 1987

SIGN-IN

Subject of meeting:

HB 94: "An Act relating to boat numbering, accidents, and safety; and providing for an effective date."

HCR 13 Relating to the expeditious redesign and reconstruction of the airport road in Bethel.

NAME Please include title	ADDRESS Please include zip	PHONE	REPRESENTING	DO YOU WANT TO TESTIFY?
CDR GARY HARIBEN	USCG FED BUILDING	586-7474	USCG	IF NEEDED No
Cdr DM WALDRON	USCG MSO JUNEAU	5867349	USCG	If Needed *
CDR M.A. CONWAY	USCG DISTRICT 17	586-7197	USCG	
GRETCHEN DERR SPECIAL ASST	P.O. Box N, Juneau, Ak 99811	465-4520	Public Safety	Answer Questions if necessary
MARK S. JOHNSON	Dept. of Health & Social Services EMS Section P.O. BOX H-06C JUNEAU	465-3027	AHSS	SUPPORT HB 94 if Amended
SUSAN FLEISCHHACKER	DEPT. OF TRANSPORTATION	465-3900	DOT&PF	ANSWER QUESTIONS IF NECESSARY *

Official Business

COMMITTEE: House Transportation Committee

DATE: March 11, 1987

SIGN-IN

Subject of meeting:

HB 115: "An Act relating to public use of the Dalton Highway."

HCR 13: Relating to the expeditious redesign and reconstruction of the airport road in Bethel.

	NAME Please include title	ADDRESS Please use full address. Please include zip.	PHONE	REPRESENTING	DO YOU WANT TO TESTIFY?	
7	Dillon "Rusty" Snell	Anchorage	266-1440	Alaska DOT/PF	HCR 13	
2	Ron Somerville	Juneau 3780 McGinnis Juneau 99801	789-2399	Ak. Outdoor Council	yes	115 1
4	Bob Lance	BKS 204 N. Franklin #3 Juneau 99801	586-2345	AEL		115 3
5	Dan Savage	Cap Rm 501	3732	Rep. Kay Walles	yes	115 4
3	Mark Hickey			DOT/PF		
6	Rep. Lyman Hoffman	ASL	4453	Sponsor HCR 13		HCR 13
1	Rep Steve Frank	ASL	3709	" HB 115		115