Agency: Commerce, Community and Economic Development

Grants to Municipalities (AS 37.05.315)

Grant Recipient: Sand Point **Federal Tax ID:** 92-0038128

Project Title: **Project Type:** Remodel, Reconstruction and Upgrades

Sand Point - Sand Point Road Rehabilitation

State Funding Requested: $2,500,000 **House District:** 37 / S

One-Time Need

Brief Project Description:

Rehabilitate the main thoroughfare in the community. Sand Point Road is a 2.5 mile, locally owned road connecting the community with the harbor and airport.

Funding Plan:

Total Project Cost:	$3,500,000
Funding Already Secured:	($1,000,000)
FY2013 State Funding Request:	($2,500,000)
Project Deficit:	$0

Funding Details:

The city is requesting $2.5 million in state general funds that will be matched with $1 million from other sources that are already identified, to rehabilitate this important road.

Detailed Project Description and Justification:

In 1995/96, the state of Alaska DOT repaired and paved Sand Point Road. This road connects downtown Sand Point with the airport. Immediately after completion of the project, this road began to fail and we have attached several pieces of correspondence to/from DOT concerning this road failure. The most candid letter was written 1/13/97 by then-Central Regional Director John Horn. Mr. Horn writes: "In retrospect, the road segment from the boat harbor to the airport should never have been paved." The city of Sand Point accepted ownership of the previously state-owned road in 1997 and it has been a maintenance nightmare ever since. Attached are several photos taken within the past year showing the deteriorating condition of this road. Currently, there is a major road project on-going in Sand Point (School Loop Road) and Brechan Enterprises is the prime contractor on this project. They intend to complete this project early this summer. I requested and receive a cost estimate (attached) from Brechan to rehabilitate Sand Point Road. Their estimate of $3.150 million was increased by 10% to $3.5 million to account for construction administration and contingencies.

Project Timeline:

Timing is critical. Because there will be an asphalt batch plant in Sand Point this summer (2012) and a construction firm already doing road improvements in the community, the need to receive this funding immediately is critical. Costs will escalate if we have another contractor return to Sand Point for this road rehabilitation.

Entity Responsible for the Ongoing Operation and Maintenance of this Project:

City of Sand Point

Contact Name: Adam Berg
Contact Number: 465-4451

For use by Co-chair Staff Only:

$2,500,000 Approved

3:19 PM 5/2/2012

Grant Recipient Contact Information:

Name:	Paul Day
Title:	City Administrator
Address:	3380 C Street 205
	Anchorage, Ak 99503
Phone Number:	(907)274-7561
Email:	daypar72@gci.net

Has this project been through a public review process at the local level and is it a community priority? [X] Yes [ ] No

For use by Co-chair Staff Only:

3:19 PM 5/2/2012

Contact Name: Adam Berg
Contact Number: 465-4451

Sand Point Road

"In retrospect, the road segment from the boat harbor to the airport should never have been paved."

John Horn – DOT Regional Director

Sand Point Road – Paved by DOT in 1997

City of Sand Point

January 26, 2012

Senator Lyman Hoffman
State of Alaska
State Capitol, Room 518
Juneau, Alaska 99801-1182

Representative Bryce Edgmon
State of Alaska
State Capitol, Room 424
Juneau, Alaska 99801-1182

Re: Sand Point Road

Dear Senator Hoffman and Representative Edgmon,

Attached to this letter are several pieces of correspondence between the city of Sand Point and the State of Alaska - Department of Transportation regarding the worsening condition of Sand Point Road - the main thoroughfare in our community connecting town, the harbor and the airport.

In a nut shell, this road was originally owned by DOT and in 1997, they paved it and transferred ownership to the city. As you can tell from the cover photo, this 13-year old road is falling apart and becoming increasingly difficult and costly to maintain. The interesting part of this tale is the very candid letter written by then DOT Regional Director John Horn where he states: "In retrospect, the road segment from the boat harbor to the airport should never have been paved".

We're not trying to do a 'blame game' because we're well-past that. We are trying to solve this local problem and have an opportunity to correct this road failure if we act swiftly. Brechan Enterprises (Kodiak firm) will be finishing a paving project Sand Point this coming spring and summer. We asked them to provide an estimated cost to repair and repave Sand Point Road. Their estimate of $3.5 million is also included in this packet.

The city of Sand Point is asking for $2.75 million of this estimated cost from the state of Alaska. The city will use up to $1 million of other available funding to cover the balance.

As you both know, paving projects and asphalt batch-plants show up in rural Alaska on an all-too infrequent nature. If we don't act now to address this problem, the road will continue to deteriorate and the cost to repair will continue to increase.

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(907) 383-2698 FAX

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Anchorage, Alaska 99503
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(907) 274-3540 FAX
daypar72@gci.net

We thank you for your immediate consideration of our request and if I can offer anything further, please let me know.

Sincerely,

Martin Gundersen
Mayor

cc: DOT Commissioner Luiken
Sand Point City Council
Paul Day – City Administrator
Mark Hickey

Correspondence to/from Dept. of Transportation

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

OFFICE OF THE COMMISSIONER

SEAN PARNELL, GOVERNOR

☐ Anchorage Office 4111 Aviation Avenue
☐ Juneau Office 3132 Channel Drive

P.O. Box 112500
JUNEAU, ALASKA 99811-2500

PHONE: (907) 465-3901
FAX: (907) 586-8365
WEB: dot.state.ak.us

RECEIVED
NOV 17 2011

November 8, 2011

Mr. Paul Day
City Administrator
City of Sand Point
P.O. Box 249
Sand Point, AK 99661

Dear Mr. Day:

I am responding to your September 6 letter regarding Sand Point Road. The City and this Department have a solid history of cooperation on this project, and I'm happy to respond to your request for continued assistance.

I've reviewed you letter and the project history. The clear view that hindsight provides suggests that the section of road between the boat harbor and the airport should not have been paved without first improving the underlying sub-base. The history also indicates that the Department's decision to pave this section of road was made at the request of the City as a late addition to the original project scope. The City had agreed to pay the estimated $285,000 cost to pave from the boat harbor to the airport.

However, I was pleased to find that the Department not only recognized the subsequent pavement failures, but also tried to make the City whole by not seeking the agreed-to reimbursement for the paving, which in actual costs far exceeded the $285,000 estimate. At that point, it appears that the City received a better road, even with its paving failures, at no cost to the City. The Department went further to recommend to the City that the $285,000 be set aside for future drainage improvements and repairs, or to return sections of this segment back to a gravel or chip-sealed surface.

The reconstruction Sand Point Road, as proposed in your letter, is a new project to the Department. Funding for this project should be evaluated against other competing projects. Our area planner, Mary Jane Sutliff (269-0509), can assist you in introducing and advancing this project through the process.

While I cannot provide you the immediate assistance you seek, I hope this information can help you get to the next step. Please let me know if this office can assist you any further.

"Keep Alaska moving through service and infrastructure."

11-18-2011 11:48am From-City of Sand Point T-149 P.001/002 F-275

Sincerely,

Marc Luiken
Commissioner

cc: The Honorable Sean Parnell, Governor
Senator Lyman Hoffman
Representative Bryce Edgmon
Rob Campbell, Central Region Director, Department of Transportation and Public Facilities

11-18-2011 11:48am From-City of Sand Point T-149 P 002/002 F-276

City of Sand Point

September 6, 2011

Commission Mark Luiken
Dept. of Transportation and Public Facilities
P.O. Box 112500
Juneau, Alaska 99811-2500

Re: Sand Point Road

Dear Commissioner Luiken:

The city of Sand Point, in partnership with your department, is in the process of rehabilitating and paving the 2½ mile School Loop Road in our community. Plans call for the paving project to be completed next summer. This project is a great example of how local, state and federal dollars can be used to enhance safety and the quality of life in a small, rural Alaskan community. For your information, the full design, costing over $600,000 was paid entirely with local funding. Additionally, the City paid for and donated 11,625 tons of gravel material to the project (estimated cost - $418,500); applied for and received a $1.5 million grant from the Denali Commission; and received a $1 million grant from the federal Bureau of Indian Affairs - all funding that went directly to this project. Commission Luiken, we're still in need of help.

I have attached a very interesting letter, penned by former DOT Central Regional Director John Horn in January 1997 concerning the Sand Point Road (road leading from the airport to town). For historical reference, this road was originally state-owned and the City agreed to accept ownership of this vital transportation link pending DOT's promise to refurbish it. Quoting from Mr. Horn's letter: "Before agreeing to pave this section, the Department should have performed a more thorough geotechnical investigation of the existing roadway to verify the character of the materials". He goes on to say: "In retrospect, the road segment from the boat harbor to the airport should never have been paved". This road, in its current condition continues to deteriorate and is proving very costly for us to maintain. In short, it needs to be fixed.

As you know, asphalt batch plants are seen in rural Alaskan communities on a very infrequent basis. I hazard to guess that when the School Loop Road project is completed next summer, we won't have the opportunity to pave or repave any road in our community for the next decade – or

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longer. We need to act now to bring our main roadway, connecting the airport with the harbor and city, up to an acceptable standard.

The City has approximately $700,000 available for this project and I asked the current contractor in Sand Point, Brechan Enterprises, to give me a 'rough estimate' of what it would take to repave this road. $3.2 million! That means we have to find an additional $2.5 million in order to give them the green light to include the Sand Point Road as part of their paving project next summer.

Commission Luiken, the City is willing to cover nearly ¼ of the estimated funding needed. Given the attached letter from DOT basically saying that they did a poor job on this road back in 1996-7 and given the fact that a batch plant will be in Sand Point next summer, I think this is a project that needs to happen.

Thank you for your time and if I can offer anything further, please let me know.

Sincerely,

Paul Day
City Administrator

Cc: Senator Lyman Hoffman
Rep. Bryce Edgmon
Rob Campbell – DOT Regional Mgr.
Mayor Glen Gardner, Jr.
Sand Point City Council
Mark Hickey

STATE OF ALASKA

TONY KNOWLES, GOVERNOR

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

REGIONAL DIRECTOR, CENTRAL REGION

P.O. BOX 196900
ANCHORAGE, ALASKA 99519-6900
(TDD 266-1442)
(907) 266-1440 (FAX 248-1573)

January 13, 1997

Mr. David L. Soulak
City Administrator
City of Sand Point
1600 A Street, Suite 103
Anchorage, AK 99501-5146

Subject: Project No. 51894
Sand Point Road Improvements

Dear Mr. Soulak:

We have recently completed our geotechnical investigation and laboratory analysis of the Sand Point airport road project and wish to share our conclusions with you. The Department of Transportation, like the City, is also disappointed with the performance of the pavement between the post office and the airport.

In order to better understand what went wrong, I believe a review of how this project evolved would be helpful. In 1994, $1,000,000 in federal ISTEA funding was programmed for improvements to the Sand Point Road. Early in the design process for this project, it was concluded that the level of programmed funding would not accommodate paving the full length of the airport road and the project was re-scoped to address the highest local priority. Based upon discussions with the City, the section of the road from the townsite out to the boat harbor access road was identified for hot-asphalt paving. The design challenge at the time was focused on reconstructing the structural section of the road between the post office and the townsite (Main Street). This segment of road had not received any recent upgrade and showed evidence of pumping and rutting. Notes, interviews, and visible evidence indicated that the existing roadway in this area was constructed as of very thin "corduroy" cross-section.

In contrast, the roadway from the post office to the airport appeared to be a stable gravel road which could be suitably reconditioned with a base course and hot-asphalt paving on top of the existing roadbed. This section of road had been improved in 1982-83 with 12 inches of select material and 6 inches of base course. Interviews with local officials confirmed that most of their road maintenance problems were with the downtown area, with the exception of typical gravel road washboarding and soil-filled ditches along the hill section of the road to the airport.

In January 1994, a limited geotechnical investigation was performed utilizing a city backhoe and operator in the downtown segment and out to the boat harbor access road. At that time, the project scope did not include paving between the boat harbor and the airport, and consequently no testing was performed in this segment. Due to the road being frozen, and with limitations of local equipment, we were only able to sample the top one foot of the roadway. These samples were tested and found to be consistent with our original design assumptions.

The scope of the Sand Point road project, as designed in March 1995, was to totally reconstruct the roadbed from downtown out to the post office, and to pave from downtown to the boat harbor access road. In addition, there appeared to be sufficient funds to also provide gravel re-surfacing from the boat harbor to the airport.

In April 1995, the City advised us that they were willing to provide $285,000 to fund the additional cost of paving form the harbor to the airport. An agreement was entered into between the City and the Department, and the plans were modified accordingly. Final plans, specifications and cost estimates were assembled for advertising the end of May 1995.

Our initial cost estimates suggested that the $285,000 of City funds would be sufficient to cover the additional paving costs out to the airport. In actuality, based upon contract unit prices, the cost of paving this segment was considerably more than the original estimate. The Department, however, did not seek additional funding from the City and chose to absorb these added costs.

Construction work on the road project began in September 1995, and was completed in early November. However, after several months evidence of problem areas began to develop in the pavement; most notably in the vicinity of the reservoir. Following an onsite inspection by our project engineer with City officials, we directed our contractor to repair the areas of distressed pavement. This was accomplished in April 1996 and the contractor demobilized his asphalt hot plant and equipment from Sand Point in early May.

As you know, subsequent to the repair work, additional distress areas began appearing; primarily in the road segment between the harbor and the airport, and again in the area of the reservoir. As a consequence we mobilized a Department drilling rig and crew to Sand Point in September 1996 to perform an in-depth geotechnical investigation and determine the cause of the pavement failures. The results of this geotechnical investigation have revealed that the local Sand Point materials, which comprise the basic structural section of the airport road, tend to degrade over time with exposure to heavy loads and moisture. Both the roadway embankment and underlaying foundation materials contain a high moisture content. Some of the reasons for the high moisture content include: 1) poor to nonexistent ditches, 2) high annual rainfall, 3) "pumping" of moisture due to heavy truck traffic, 4) the hygroscopic (i.e. high affinity for water) nature of the local volcanic soils. The net result of this condition is a subgrade which is subject to yielding and movement.

The physical properties of hot asphalt pavement require a very stable subgrade to perform properly. If the subgrade materials of the roadbed are susceptible to moisture and begin to yield, pavement failures of the type being observed will result. Based upon the performance of the pavement between the post office and the airport, and as verified by our recent geotechnical investigation, we now know that it was a mistake to pave this segment of the road without making major improvements to the structural section of the roadway and adjacent drainage. These major improvements would have been very costly and no doubt would have been well beyond any feasible funding levels available for this project.

Before agreeing to pave this section, the Department should have performed a more thorough geotechnical investigation of the existing roadway to verify the character of the materials. This could not have been accomplished, however, without delaying the project for a year or more.

Coupled with the fact that this gravel road had apparently been performing well and was not a significant maintenance problem, we had no reason at the time to suspect there was a problem with the subgrade.

In retrospect, the road segment from the boat harbor to the airport should never have been paved. Therefore, in all fairness to the City and to bring this issue to closure, the Department has decided not to seek any payment form the City for the cost of paving between the harbor access road and the airport. Instead, we suggest that the City use the money they have set aside to improve drainage along this roadway so that the service life is extended to the maximum extent possible. Special attention should also be applied to local enforcement of load limits, particularly when the subgrade maybe saturated.

Despite the problems observed in isolated sections, much of this pavement will perform well if properly maintained. Sections of the road that may become badly deteriorated can either be returned to a gravel surface, or can be "chip sealed" to provide a dust free and more flexible surface. It would also be in the City's best interest to attempt to identify new material sources which contain better road or gravel materials that will help avoid some of the constructability problems experienced on this project.

It is always unfortunate when a completed project falls short of mutual expectations. Hopefully we can learn from this experience and recognize the fiscal, as well as the physical, realities of design and construction of projects in remote locations.

Sincerely,

John D. Horn, P.E.
Regional Director

cc: Commissioner Joseph Perkins, P.E.
Senator Lyman Hoffman
Representative Carl Moses
Mayor Gunderson, City of Sand Point

Cost Estimate

Sand Point Airport Road
Rough Estimation of Costs
8/16/2011

Item #	Specification Section	Description	Quantity	Rough Unit Price	Price Extension
1	201 (3A)	Clearing & Grubbing	5.3 Acre	$ 3,000.00	$ 15,900.00
2	202 (2)	Removal of Pavement	37,430.0 SY	$ 5.00	$ 187,150.00
3	203 (6A)	Borrow, Type A	27,247.0 Ton	$ 21.00	$ 572,187.00
4	301 (1)	Aggregate Base Course, Grading D-1	8,457.0 Ton	$ 30.00	$ 253,710.00
5	401 (1B)	Asphalt Concrete, Type II, Class B	6,320.0 Ton	$ 145.00	$ 916,400.00
6	401 (2)	Asphalt Cement, Grad PG 52-28	373.0 Ton	$ 1,600.00	$ 596,800.00
7	401 (9)	Longitudinal Joint Adhesive	11,616.0 LF	$ 1.00	$ 11,616.00
8	606 (1)	W-Beam Guardrail	3,882.0 LF	$ 50.00	$ 194,100.00
9	606 (6)	Removing & Disposing of Guardrail	3,382.0 LF	$ 12.00	$ 40,584.00
10	606 (13)	Parallel Guardrail Terminal	14.0 EA	$ 3,000.00	$ 42,000.00
11	618 (1)	Seeding	3.7 Acre	$ 3,000.00	$ 11,100.00
12	630 (1)	Geotextile, Separation	45,560.0 SY	$ 1.00	$ 45,560.00
13	639 (1)	Residence Driveway	10.0 EA	$ 750.00	$ 7,500.00
14	639(6)	Approach	1.0 EA	$ 1,000.00	$ 1,000.00
15	640 (1)	Mobilization & Demobilization	1.0 LS	$ 100,000.00	$ 100,000.00
16	640 (4)	Worker Meals & Lodging, or Per Diem	1.0 LS	$ 40,000.00	$ 40,000.00
17	641 (1)	Erosion, Sediment And Pollution Control Administration	1.0 LS	$ 10,000.00	$ 10,000.00
18	641 (2)	Temporary Erosion, Sediment And Pollution Control	1.0 CS	$ 30,000.00	$ 30,000.00
19	642 (1)	Construction Surveying	1.0 LS	$ 15,000.00	$ 15,000.00
20	643 (2)	Traffic Maintenance	1.0 LS	$ 5,000.00	$ 5,000.00
21	643 (3)	Permanent Construction Signs	1.0 LS	$ 5,000.00	$ 5,000.00
22	643 (15)	Flagging	1.0 CS	$ 30,000.00	$ 30,000.00
23	643 (25)	Traffic Control	1.0 CS	$ 20,000.00	$ 20,000.00
		Total Cost			**$ 3,150,607.00**

Paul Day

From: rockkodiak@gci.net on behalf of Louis Rocheleau [rockkodiak@gci.net]
Sent: Thursday, August 18, 2011 4:26 PM
To: 'Paul Day'
Cc: 'Jim Graham'; Mike Martin; Glen Gardner
Subject: Sand Point Airport Road Rough Estimate of Costs
Attachments: 110818 Sand Poitn Airport Rd Typical Section & Takeoff of Quantities.pdf; 110816 Sand Point Airport Road Rough Estimation of Costs.xlsx

Paul,

Attached you will find a Rough Estimate of Costs to re-build the Sand Point Airport Road, as discussed.

The Project Limits are from the State Airport Property, heading 2.2 miles north and ending just after Harbor Road.

I have also attached a sketch of the Typical Section and my takeoff of quantities.

The following sequence of activities is represented in the Costs:

1. DOT specifications will be met for this project.
2. I was able to minimize the Mobilization costs due to us already being on site for the School Loop Road. If you are unable to secure funds prior to us completing the School Loop Road, this cost would obviously go up.
3. All ADEC SWPPP guidelines will be met.
4. The existing centerline elevations will be offset to re-build the existing vertical curves and alignment. 100' transitions will be installed at BOP & EOP to match existing grades. The existing 29 ft width of the road will be kept at the new surface of the road.
5. All guardrail will be removed and replaced, with end sections. 500' of additional guardrail has been included for a section that I assumed required it.
6. Clearing & Grubbing will be performed along both sides of the road for a width of 10' from existing asphalt.
7. 2.5 inches of existing asphalt will be milled up and reclaimed.
8. Geotextile, Separation will be placed at the bottom of the milled surface.
9. 12 inches of Borrow, Type A will be placed on top of the Geotextile.
10. The reclaimed asphalt will be fed through the crusher and used as Recycled Asphalt Pavement (RAP) & be installed in lieu of a portion of the Aggregate Base Course, D-1. When the RAP runs out, D-1 will be substituted for the remainder. Royalties and drill and shoot costs are not incurred for the RAP, so I was able to get the overall cost of the D-1 item down.
11. 3 inches of Hot Mix Asphalt, Type II, Class B will be placed, with 2 ft driveway approaches paved at 10 locations. Harbor Road will receive a full approach, back to the radius return. The longitudinal centerline joint will be cut and a joint adhesive will be applied to the cold joint prior to the completion of the second lane.
12. Approximately 7 ft of each side of the road will be hydroseeded where the clearing and grubbing has not been covered by the Borrow, Type A.

The Borrow, Type A item may increase in quantity due to not having true cross sections to perform a takeoff from. If you decrease the width of the road, then you could save some money there, as well as on Asphalt, D-1, and Geotextile.

Please keep in touch and let me know how your fund acquisition is progressing.

Good luck,

City of Sand Point

July 31, 1996

Mr William T.. Goodell
Construction Project Manager
Department of Transportation and Public Facilities
P. O. Box 196900
Anchorage, Alaska 99519-6900

RE: State Project No. 51894
Sand Point Road Improvements

Dear Mr. Goodell,

I appreciated your recent visit to the City of Sand Point to review the recent paving of the main thoroughfare for the community.

And at the same time, your letter dated July 10, 1996 was quite explicit as well as informative.

During our joint review of the road project which included the inspection of the ditches and pavement failures, some of the thoughts contained in your letter particularly winter maintenance was discussed. While you have stated that possibly clogged ditches created the road failure problems, it should be noted that the failures became apparent in the month of December, 1995, just after completion of the project. Too, winter maintenance has different connotations to every region in the State which should be spelled out to the affected agency in the future. In the case of Sand Point, one would assume that winter maintenance involved the clearing of the roadway of snow accumulation and providing abrasives when icing created a traffic hazard. Since the City had not accepted the paving project, it's responsibilities were limited.

The City does not disagree with the fact that we agreed to maintain the road upon completion which is the norm now days if the community wants certain improvements to be made by the State which is a benefit to it's residents. At the same time, it is implied that the project will be completed to the satisfaction of the community. This has not happened in the City of Sand Point's case.

Due to Sand Point's remoteness, we are very cognizant of the construction costs involved in a project of this nature as well as the mobilization difficulties.

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(907) 274-7555 Phone
(907) 276-7569 FAX

Normally, the State of Alaska's or a municipality's street maintenance costs decrease upon the completion of paving or repaving of a street or highway. In Sand Point's case, the City, if it accepts the paving project, will be required to spend an unspecified sum to obtain the proper equipment and material immediately to perform maintenance work on a failed paved surface of less than seven months old. Having travelled many of the State's projects, I have yet to see DOT/PF's maintenance crews performing the work of this nature so soon after completion. This includes the Southeast as well as the Interior. With this being the third year in a row for the residents of Sand Point having a disastrous fishing season, the City's FY 97 Budget is incapable of bearing any unforeseen capital expenditure, which the maintenance equipment is. In fact, at the next City Council meeting to be held on August 13, 1996, budget reductions will be made to balance to FY 97 Budget is light of this fishing season. In fact the Aleutians East Borough as well as the City of King Cove have to make budget adjustments to cope with these economic hard times.

Although the State of Alaska has expended a goodly sum of money on this project, the City, even in the spirit of compromise cannot accept the work as it exists today. .As time marches on without corrective action, the deterioration of the pavement will accelerate which we both agree upon.

We both realize the costs of having a paving contractor return to Sand Point to perform the corrective work necessary to satisfy the City. At the same time, the citizens of Sand Point do not want to see there tax dollars being spent on a project which has failed shortly after completion. Every resident passes on this paved project daily and is very aware of the shortcomings.

In summation, the City's position has not changed since my correspondence dated May 1, 1996 and July 1, 1996.

While my decision represents that of the City, you are free to address the City Council at any of their regularly scheduled meetings which are held on the second Tuesday of every month on this or any other issue.

Should you have any questions, please feel free to contact me.

Yours truly,

David L. Soulak
City Administrator

City of Sand Point

October 14, 1996

Ms Karen Kristy
Department of Transportation and Public facilities
P.O. Box 196900
Anchorage, Alaska 99519-6900

RE: DOT/PF Project 51894

Dear Ms Kristy,

We have received DOT/PF's invoices for the City's share of the aforementioned project.

This project was substantially completed in the fall of 1995 with completion in the spring of 1996. The road has failed prior to completion and attempts were made to perform corrective action prior to the contractor's (Quality Asphalt) equipment removal from the City via barge.

The City has notified DOT/PF about our non-acceptance and displeasure of the road pavement condition. I have included correspondence with Mr. Goodell regarding our situation and the City Council's action to hold the payment in abeyance until the road project is resolved to our satisfaction.

The City acknowledges that there are monies which may be due to DOT/PF but until the project has been completed to our satisfaction or a resolution of the matter has taken place, the remittance will not be forthcoming. It still is the intent as well as the hope of the City that an amicable solution can be made of this matter for both parties.

Should you have any questions on this matter, please feel free to contact me.

Yours truly,

David L. Soulak
City Administrator

cc Mayor Gunderson
City Council
Representative Moses
Senator Hoffman
Mr Goodell

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City of Sand Point

December 13, 1996

Mr. William T. Goodell
Construction Project Manager
State of Alaska
Department of Transportation and Public Facilities
P.O. Box 196900
Anchorage, Alaska 99519-6900

RE: State Project No. 51894
Sand Point Road Improvements

Dear Mr. Goodell,

It has been several months since we last communicated on the status of the Sand Point Road Improvements, the requested payment and our objection to the work completed.

Since your last letter of September 12, 1996, DOT/PF has performed a series of soil borings in the roadway which hopefully shed light as to why this project has failed so miserably. The City had hoped that we would have been privy to these results as well as those performed at the airport. The worked performed at the airport could be beneficial for future expansion of the facility. The roadbed borings could assist both parties in determining what can or cannot be down to preserve the existing pavement without a great cost, money wise.

During my visit to Sand Point in November, the alligatoring of the paved surface was more apparent in the existing areas as well as newly fractured areas appearing in other areas. In other words, this road is not healing.

The City has set aside the $285,000.00 for it's share of the project, so the question is not whether or not we have the funds. The real question is how do we resolve this issue amicably without involving the lawyers and the courts. We would like to resolve the issue once and for all whereby it is a win-win situation for both parties.

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This may be a project you would like to work on after the first of the year. The City of Sand Point would like to resolve this issue before the end of our fiscal year, June 30, 1997.

Should you have questions, please feel free to contact me.

Yours truly,

David L. Soulak
City Administrator

cc: Mayor Gundersen
City Council
Senator Hoffman
Representative Moses

STATE OF ALASKA

TONY KNOWLES, GOVERNOR

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

REGIONAL DIRECTOR, CENTRAL REGION

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January 13, 1997

Mr. David L. Soulak
City Administrator
City of Sand Point
1600 A Street, Suite 103
Anchorage, AK 99501-5146

Subject: Project No. 51894
Sand Point Road Improvements

Dear Mr. Soulak:

We have recently completed our geotechnical investigation and laboratory analysis of the Sand Point airport road project and wish to share our conclusions with you. The Department of Transportation, like the City, is also disappointed with the performance of the pavement between the post office and the airport.

In order to better understand what went wrong, I believe a review of how this project evolved would be helpful. In 1994, $1,000,000 in federal ISTEA funding was programmed for improvements to the Sand Point Road. Early in the design process for this project, it was concluded that the level of programmed funding would not accommodate paving the full length of the airport road and the project was re-scoped to address the highest local priority. Based upon discussions with the City, the section of the road from the townsite out to the boat harbor access road was identified for hot-asphalt paving. The design challenge at the time was focused on reconstructing the structural section of the road between the post office and the townsite (Main Street). This segment of road had not received any recent upgrade and showed evidence of pumping and rutting. Notes, interviews, and visible evidence indicated that the existing roadway in this area was constructed as of very thin "corduroy" cross-section.

In contrast, the roadway from the post office to the airport appeared to be a stable gravel road which could be suitably reconditioned with a base course and hot-asphalt paving on top of the existing roadbed. This section of road had been improved in 1982-83 with 12 inches of select material and 6 inches of base course. Interviews with local officials confirmed that most of their road maintenance problems were with the downtown area, with the exception of typical gravel road washboarding and soil-filled ditches along the hill section of the road to the airport.

In January 1994, a limited geotechnical investigation was performed utilizing a city backhoe and operator in the downtown segment and out to the boat harbor access road. At that time, the project scope did not include paving between the boat harbor and the airport, and consequently no testing was performed in this segment. Due to the road being frozen, and with limitations of local equipment, we were only able to sample the top one foot of the roadway. These samples were tested and found to be consistent with our original design assumptions.

The scope of the Sand Point road project, as designed in March 1995, was to totally reconstruct the roadbed from downtown out to the post office, and to pave from downtown to the boat harbor access road. In addition, there appeared to be sufficient funds to also provide gravel re-surfacing from the boat harbor to the airport.

In April 1995, the City advised us that they were willing to provide $285,000 to fund the additional cost of paving form the harbor to the airport. An agreement was entered into between the City and the Department, and the plans were modified accordingly. Final plans, specifications and cost estimates were assembled for advertising the end of May 1995.

Our initial cost estimates suggested that the $285,000 of City funds would be sufficient to cover the additional paving costs out to the airport. In actuality, based upon contract unit prices, the cost of paving this segment was considerably more than the original estimate. The Department, however, did not seek additional funding from the City and chose to absorb these added costs.

Construction work on the road project began in September 1995, and was completed in early November. However, after several months evidence of problem areas began to develop in the pavement; most notably in the vicinity of the reservoir. Following an onsite inspection by our project engineer with City officials, we directed our contractor to repair the areas of distressed pavement. This was accomplished in April 1996 and the contractor demobilized his asphalt hot plant and equipment from Sand Point in early May.

As you know, subsequent to the repair work, additional distress areas began appearing; primarily in the road segment between the harbor and the airport, and again in the area of the reservoir. As a consequence we mobilized a Department drilling rig and crew to Sand Point in September 1996 to perform an in-depth geotechnical investigation and determine the cause of the pavement failures. The results of this geotechnical investigation have revealed that the local Sand Point materials, which comprise the basic structural section of the airport road, tend to degrade over time with exposure to heavy loads and moisture. Both the roadway embankment and underlaying foundation materials contain a high moisture content. Some of the reasons for the high moisture content include: 1) poor to nonexistent ditches, 2) high annual rainfall, 3) "pumping" of moisture due to heavy truck traffic, 4) the hygroscopic (i.e. high affinity for water) nature of the local volcanic soils. The net result of this condition is a subgrade which is subject to yielding and movement.

The physical properties of hot asphalt pavement require a very stable subgrade to perform properly. If the subgrade materials of the roadbed are susceptible to moisture and begin to yield, pavement failures of the type being observed will result. Based upon the performance of the pavement between the post office and the airport, and as verified by our recent geotechnical investigation, we now know that it was a mistake to pave this segment of the road without making major improvements to the structural section of the roadway and adjacent drainage. These major improvements would have been very costly and no doubt would have been well beyond any feasible funding levels available for this project.

Before agreeing to pave this section, the Department should have performed a more thorough geotechnical investigation of the existing roadway to verify the character of the materials. This could not have been accomplished, however, without delaying the project for a year or more.

Coupled with the fact that this gravel road had apparently been performing well and was not a significant maintenance problem, we had no reason at the time to suspect there was a problem with the subgrade.

In retrospect, the road segment from the boat harbor to the airport should never have been paved. Therefore, in all fairness to the City and to bring this issue to closure, the Department has decided not to seek any payment form the City for the cost of paving between the harbor access road and the airport. Instead, we suggest that the City use the money they have set aside to improve drainage along this roadway so that the service life is extended to the maximum extent possible. Special attention should also be applied to local enforcement of load limits, particularly when the subgrade maybe saturated.

Despite the problems observed in isolated sections, much of this pavement will perform well if properly maintained. Sections of the road that may become badly deteriorated can either be returned to a gravel surface, or can be "chip sealed" to provide a dust free and more flexible surface. It would also be in the City's best interest to attempt to identify new material sources which contain better road or gravel materials that will help avoid some of the constructability problems experienced on this project.

It is always unfortunate when a completed project falls short of mutual expectations. Hopefully we can learn from this experience and recognize the fiscal, as well as the physical, realities of design and construction of projects in remote locations.

Sincerely,

John D. Horn, P.E.
Regional Director

cc: Commissioner Joseph Perkins, P.E.
Senator Lyman Hoffman
Representative Carl Moses
Mayor Gunderson, City of Sand Point