



CITY OF WASILLA

290 E. HERNING AVE.
WASILLA, ALASKA 99687
PHONE: (907) 373-9050
FAX: (907) 373-0788

COUNCIL MEMORANDUM NO. 91-64

FROM: Deputy Administrator

DATE: August 28, 1991

RE: Water Tank Site Number 3 Investigation

At the Council meeting of August 26, 1991, Council approved the concept of site evaluation for the location of a future water tank. The approval included authority to use the City budgeted funds for engineering.

The proposed work, and potentially the eventual purchase of the site, would be more properly funded from the water utility fund developed specifically for water system repairs and expansions. These funds are accumulated from the water utility earnings and not from the general tax base.

Request Council appropriate the funding from the water utility earnings account for the site evaluation as shown in Ordinance No. 91-39.

Robert E. Harris
Deputy Administrator

Gilfilian Engineering, Inc.

Professional Environmental Consultants

Main Office: 255 E. Fireweed Lane, Suite 102, Anchorage, Alaska 99503
(907) 277-2021 • Fax (907) 274-8683
Mat-Su Office: 5751 Mayflower Court, Wasilla, Alaska 99654-7880
(907) 376-3005 • Fax (907) 373-5686

September 11, 1991

Mr. Bob Harris
City Administrator
City of Wasilla
290 E. Herning Avenue
Wasilla, AK 99687

RE: Southside Reservoir Preliminary Site Evaluation
WO 91-05

Dear Mr. Harris:

We have completed our site evaluation of Matanuska-Susitna Borough Tax Parcel C2 located in Section 11, T17N R1W S.M. AK. We also evaluated the property's topographic and surficial features for the purpose of providing recommendations for site development. It is our understanding that the site is proposed to be developed with a future water reservoir facility.

This parcel contains 19.6 acres, of which the City of Wasilla directed us to evaluate the southern 10 acres for the future development. The property is owned by Mr. David F. Smith of Wasilla, who, through telephone conversations with this office, appears to be open to the possibility of selling this parcel.

This parcel is located south of Lake Wasilla and west of Cottonwood Creek Park Subdivision above the existing Kenai Supply facility. It is forested with old growth birch and spruce with a small gravel-concrete plant located on the northern most section of the parcel. The gravel-concrete plant is owned and operated by the parcel owner, Mr. Smith. The topography of the parcel ranges from a relatively steep north facing bluff at the northern end of the parcel to gently rolling terrain through the remainder. Access to the parcel is provided by way of Susitna Avenue to Roberts Street, a platted but undeveloped 60 foot right-of-way. This access will require significant upgrading of both Susitna Avenue and Roberts Street.

It is our understanding that the City is intending to develop a reservoir site similar to the site developed at the Spruce Avenue tank facility in 1986. It is also our understanding that the City is interested in leasing a portion of the 10 acre site to KNBQ Radio for use as a possible radio tower site.

Included with this report are the findings and determinations of our field investigation performed on September 5 and 6, 1991. Also attached is a preliminary site plan sketch prepared from the existing subdivision plat and field measurements obtained during the investigation of this parcel. The site plan sketch describes the location of the soils logs and a preliminary layout of the 10 acre development. We have used a

Mr. Bob Harris, City Administrator
City of Wasilla
WO 91-05 Southside Reservoir
Page 2, September 11, 1991

layout sketch of the radio tower provided by KNBQ Radio to help arrange the layout of the water reservoir site for preliminary planning and discussion purposes only.

The field investigation conducted by this firm evaluated the 10 acre site and logged seven (7) shallow test holes excavated by the City of Wasilla Public Works Department. The test hole depths ranged from 8.5 feet to 11.0 feet and the soils encountered were visually classified in the field according to the "United Soils Classification System". Three (3) soil samples were mechanically analyzed for classification confirmation and are also attached to this report. The geologic conditions encountered in the test holes were very consistent with little organic material, 2 to 3 feet of silt and 6 to 9 feet of silty gravelly sand. Groundwater was not encountered in any of the test excavation holes.

Based on this preliminary investigation, it appears the site would be suited for development of the water reservoir; however, it should be understood that this report in no way represents complete geological investigation for use in the structural design of the reservoir, but is a preliminary site evaluation only. In consideration of the limited extent of our subsurface investigation, we recommend a specific investigation be performed at the time actual facility locations are determined. This intensified investigation should include standard borings of 20 to 50 foot depths, standard penetration tests and additional mechanical analysis performed to determine the structural integrity of the soil.

We believe that this site would be capable of supporting both the City's and the radio station's needs, and would also allow Mr. Smith the option of developing the remaining 9.6 acres. The remaining 9.6 acres does have some prime view lot potential.

If you have any questions regarding this report, please feel free to call.

Sincerely,

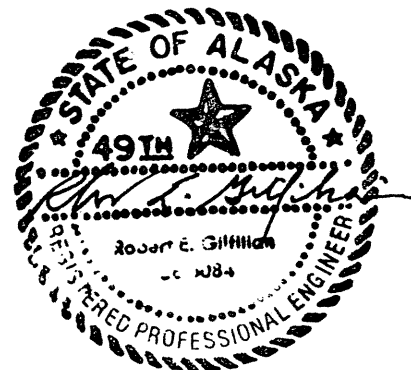
GILFILIAN ENGINEERING, INC.



C. Peter Curtis
Wasilla Office Manager

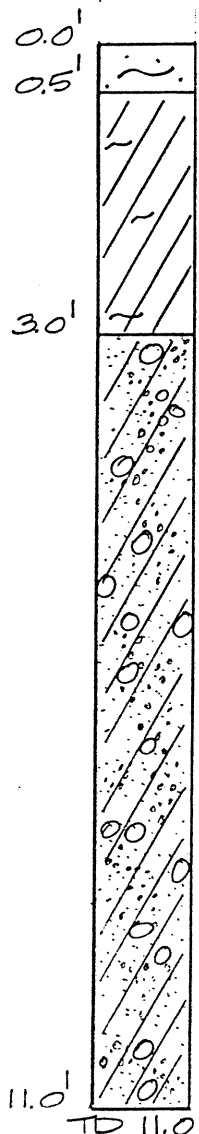
Attachments

CPC/pko/WO91-05.L1 PC #2



TEST HOLE LOG

#1



ORGANIC MATERIAL

SILT WITH OCCASIONAL ORGANICS, REDDISH BROWN - FIRM, DRY, (LOESS)

SILTY GRAVELLY SAND WITH NUMEROUS COBBLES AND BOULDERS, GRAY, DENSE, DRY

NO GROUND WATER ENCOUNTERED
NO MOTTLING APPARENT

SOUTHSIDE WATER TOWER

W.O. 91-05

Gilfilian Engineering, Inc.

DATE: 9/5/91

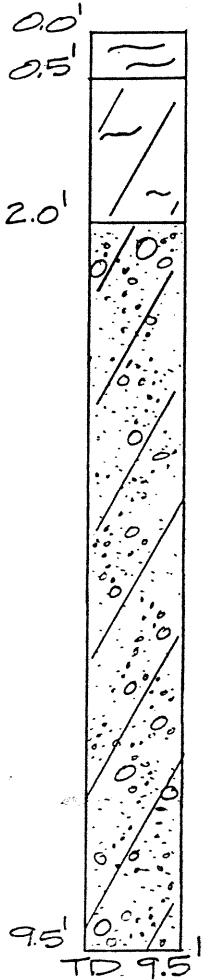
Mat-Su Office: 5751 Mayflower Court, Wasilla, Alaska 99654

Anchorage Office: 255 E. Fireweed Ln., Suite 102, Anchorage, Alaska 99503

SCALE: 1" = 2'

TEST HOLE LOG

2



ORGANIC MATERIAL

SILT WITH OCCASIONAL ORGANICS, REDDISH BROWN, LOOSE, FIRM, DRY (LOESS)

SILTY, SANDY GRAVEL WITH NUMEROUS COBBLE, GRAY, DENSE, DRY

NO GROUND WATER ENCOUNTERED
NO MOTTLING APPARENT

SOUTHSIDE WATER TOWER

W.O. 91-05

Gilfilian Engineering, Inc.

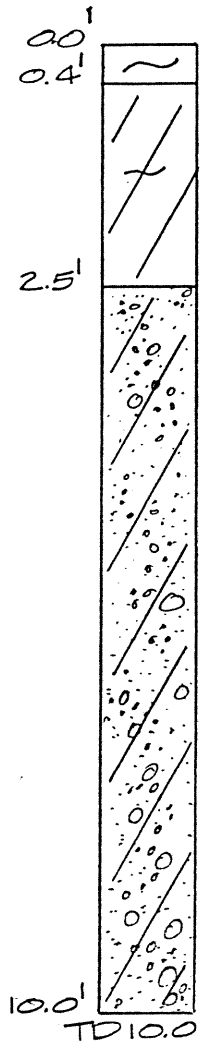
DATE: 9/5/91

Mat-Su Office: 5751 Mayflower Court, Wasilla, Alaska 99654
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SCALE: 1" = 2'

TEST HOLE LOG

#3



ORGANIC MATERIAL

SILT WITH OCCASIONAL ORGANICS, ORANGE BROWN, FIRM, DRY

SILTY, SANDY GRAVEL WITH OCCASIONAL COBBLES, GRAY, DENSE TO VERY DENSE NEAR BOTTOM DRY

NO GROUND WATER ENCOUNTERED
NO MOTTLING APPARENT

SOUTH SIDE WATER TOWER

W.O. 91-05

Gilfilian Engineering, Inc.

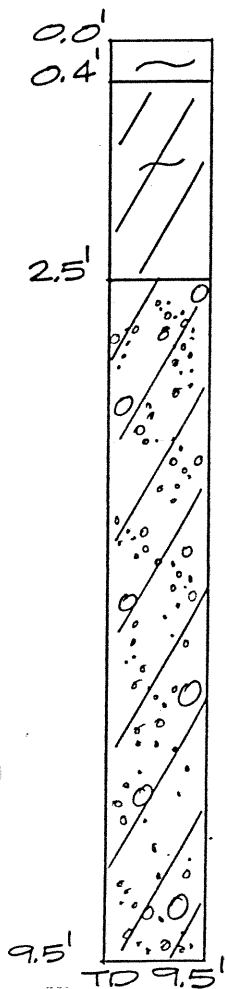
DATE: 9/6/71

Mat-Su Office: 5751 Mayflower Court, Wasilla, Alaska 99654
Anchorage Office: 255 E. Fireweed Ln., Suite 102, Anchorage, Alaska 99503

SCALE: 1" = 2'

TEST HOLE LOG

#4



ORGANIC MATERIAL

SILT WITH OCCASIONAL ORGANICS, GRAY-BROWN TO ORANGE-BROWN, FIRM, DRY (LOESS)

SILTY GRAVELLY SAND W/ OCCASIONAL COBBLES AND BOULDERS GRAY, DENSE TO VERY DENSE BELOW 6.0', DRY (TILL)

NO GROUND WATER ENCOUNTERED
NO MOTTLING APPARENT

SOUTH SIDE WATERTOWER

W.O. 91-05

Gilfilian Engineering, Inc.

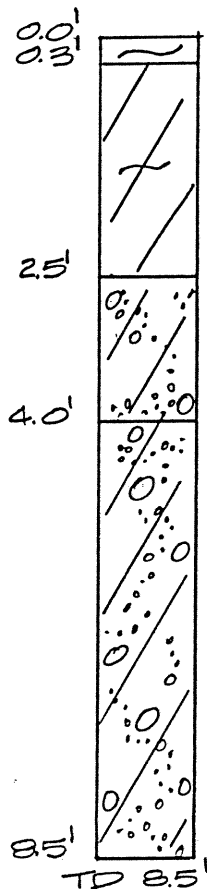
DATE: 9/6/91

Mat-Su Office: 5751 Mayflower Court, Wasilla, Alaska 99654
Anchorage Office: 255 E. Fireweed Ln., Suite 102, Anchorage, Alaska 99503

SCALE: 1" = 2'

TEST HOLE LOG

#5



ORGANIC MATERIAL

SILT WITH OCCASIONAL ORGANICS, GRAY TO ORANGE-BROWN, FIRM, DRY

SILTY SANDY GRAVEL WITH SCATTERED COBBLES, OLIVE GRAY, MOD.-DENSE, DRY (TILL) (SHOWS FOSSELE STRUCTURE FROM 2.5' - 4.0')

SILTY SANDY GRAVEL WITH OCCASIONAL COBBLES AND BOULDERS, GRAY, DENSE TO VERY DENSE, DRY TILL

NO GROUND WATER ENCOUNTERED
NO MOTTLING APPARENT

SOUTHSIDE WATER TOWER

WO. 91-05

Gilfilian Engineering, Inc.

DATE: 9/6/91

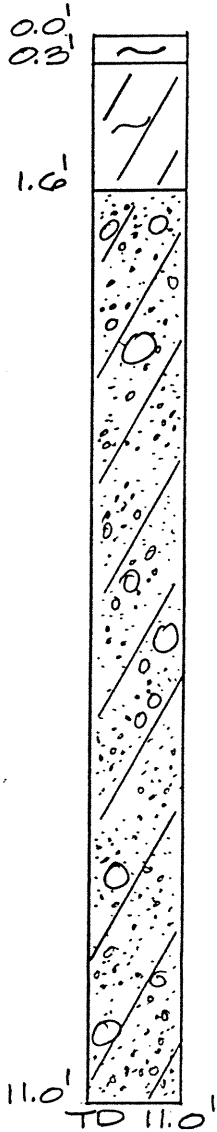
Mat-Su Office: 5751 Mayflower Court, Wasilla, Alaska 99654

Anchorage Office: 255 E. Fireweed Ln., Suite 102, Anchorage, Alaska 99503

SCALE: 1" = 2'

TEST HOLE LOG

#6



ORGANIC MATERIAL

SILT WITH OCCASIONAL ORGANICS, GRAY TO ORANGE BROWN, FIRM, DRY

SILTY GRAVELLY SAND WITH SCATTERED COBBLES AND BOULDERS, GRAY, DENSE TO VERY DENSE, DRY

NO GROUND WATER ENCOUNTERED
NO MOTTLING APPARENT

SOUTH SIDE WATER TOWER

W.O. 91-05

Gilfilian Engineering, Inc.

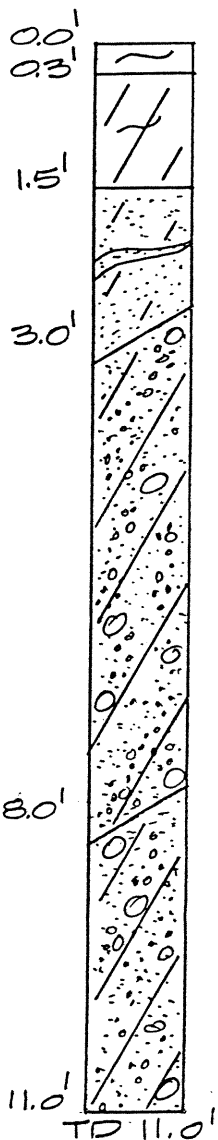
DATE: 9/6/91

Mat-Su Office: 5751 Mayflower Court, Wasilla, Alaska 99654
Anchorage Office: 255 E. Fireweed Ln., Suite 102, Anchorage, Alaska 99503

SCALE: 1" = 2'

TEST HOLE LOG

7



ORGANIC MATERIAL

SILT WITH OCCASIONAL ORGANICS, GRAYISH BROWN TO ORANGE BROWN, FIRM, DRY

CLEAN TO SOME SILT SAND IN ALTERNATING STRATA OF COMPLEX ACCUMULATION-DISTORTED GRAY, MOD. DENSE, DRY.

SILTY SANDY GRAVEL WITH OCCASIONAL COBBLES AND BOULDERS, GRAY, MOD. DENSE-DENSE DRY TO SLIGHTLY MOIST.

SILTY SANDY GRAVEL WITH OCCASIONAL COBBLES AND BOULDERS, GRAY, DENSE TO VERY DENSE DRY

NO GROUND WATER ENCOUNTERED
NO MOTTLING APPARENT

SOUTH SIDE WATER TOWER

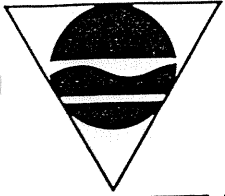
W.O.: 91-05

Gilfilian Engineering, Inc.

DATE: 9/6/91

Mat-Su Office: 5751 Mayflower Court, Wasilla, Alaska 99654
Anchorage Office: 255 E. Fireweed Ln., Suite 102, Anchorage, Alaska 99503

SCALE: 1" = 2'



MAT-SU TEST LAB

Soils — Concrete — Water
Field and Laboratory Testing Services

P.O. Box 871868 • Wasilla, Alaska 99687 • (907) 376-3005

PROJECT NUMBER: WO 91-05 DATE: 9/10/91

PROJECT NAME: Southside Water Tank - City of Wasilla

TEST HOLE: 1 SAMPLE: 1 DEPTH: 8.0 - 9.0 Ft.

SIEVE	% PASSING	SPECS:	COMMENTS
3 IN.			
2 IN.	96		USC = SM, Silty Gravelly SAND
1 ½ IN.			
1 IN.	92		Moisture Content 8.9%
¾ IN.	88		
½ IN.	81		
⅜ IN.	76		
#4	67		
#8	59		
#10			
#16	50		
#20			
#30			
#40	40		
#50			
#60	34		
#80			
#100	29		
#200	21.2		

Reviewed By: C. Peter Curtis
C. Peter Curtis

Date: 9/10/91



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PROJECT NUMBER: WO 91-05 DATE: 9/10/91

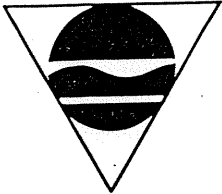
PROJECT NAME: Southside Water Tank - City of Wasilla

TEST HOLE: 4 SAMPLE: 1 DEPTH: 4.0 - 5.0 Ft.

SIEVE	% PASSING	SPECS:	COMMENTS
3 IN.			
2 IN.			USC = SM Silty Gravelly SAND
1 ½ IN.	90		
1 IN.	77		
¾ IN.	69		
½ IN.	64		
⅜ IN.	61		
#4	53		
#8	48		
#10			
#16	41		
#20			
#30			
#40	31		
#50			
#60	25		
#80			
#100	20		
#200	13.7		

Reviewed By: *C. J. [Signature]*

Date: 9/10/91



MAT-SU TEST LAB

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Field and Laboratory Testing Services

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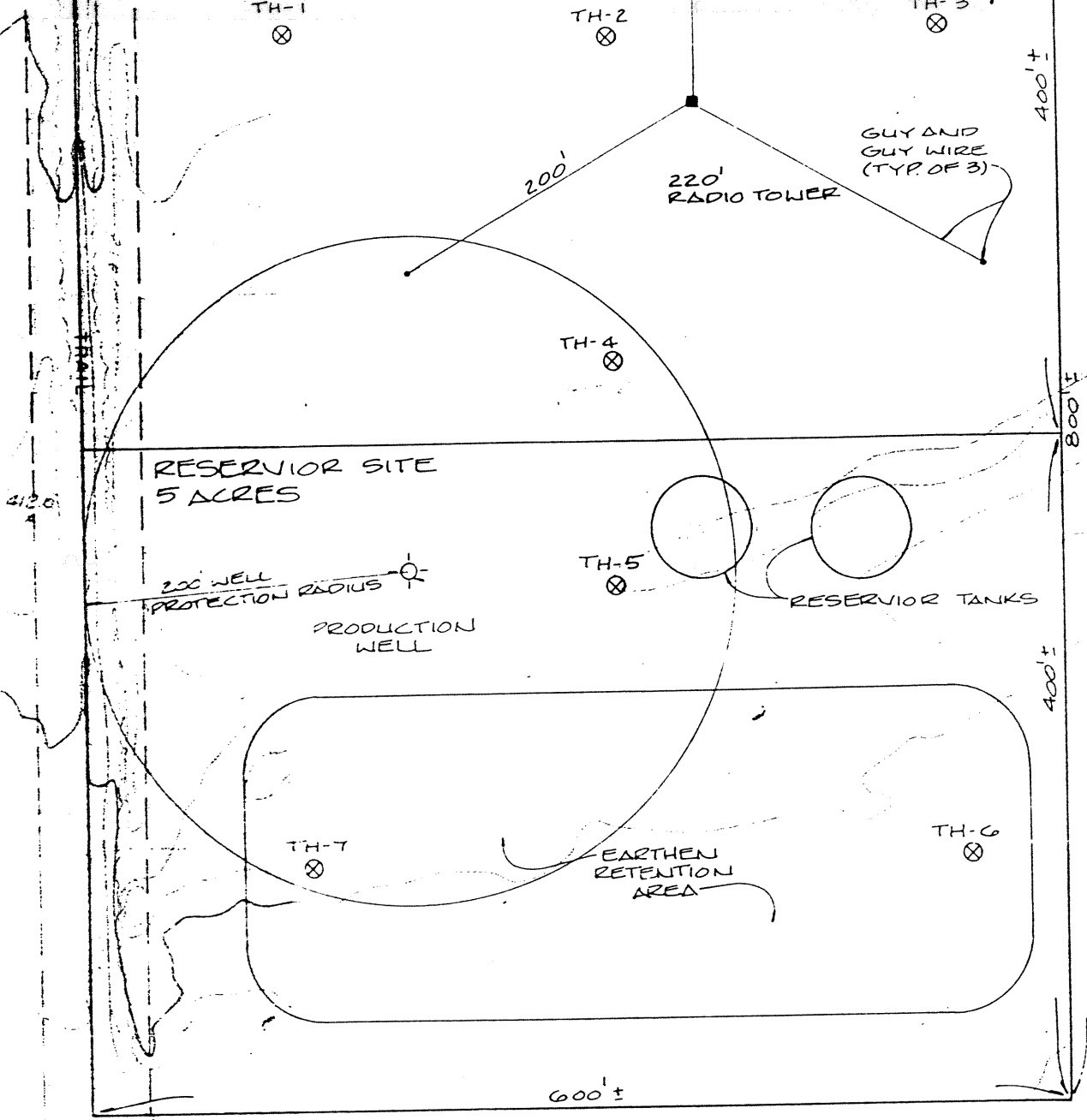
PROJECT NUMBER: WO 91-05 DATE: 9/10/91

PROJECT NAME: Southside Water Tank - City of Wasilla

TEST HOLE: 6 SAMPLE: 1 DEPTH: 6.0 - 7.0 Ft.

SIEVE	% PASSING	SPECS:	COMMENTS
3 IN.			
2 IN.			USC = SM, Silty Gravely SAND
1 ½ IN.	96		
1 IN.	89		
¾ IN.	81		
½ IN.	75		
⅜ IN.	71		
#4	63		
#8	58		
#10			
#16	51		
#20			
#30			
#40	42		
#50			
#60	36		
#80			
#100	31		
#200	23.7		

Reviewed By: C. Peter Curtis Date: 9/10/91



Gilfilian Engineering, Inc.

Wasilla Office - 5751 Mayflower Court, Wasilla, Alaska 99654
 Anchorage Office - 255 E. Fireweed Ln., Suite 102, Anchorage, Alaska 99503

SOU
 C
 SE

PARKS

HIGHWAY

ROBERTS

E 14 62 10

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