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Engineers & Surveyors

*Land Surveys . Mineral Surveys . Subdivisions
Civil Engineering . Forensic Expertise . CADD*

SURVEYOR'S REPORT UPDATE: PANKTRATZ III

**Lots 5, 6, 10, and 22, Pike's Island and the Southeast Channel of the Chena River
In Section 12, T1S, R2W, F.M.**

Submitted to 40th Annual Surveying and Mapping Conference, February, 2006

Events since April, 2001 report, case eventually settled

This is an addendum to our surveyor's Report of April, 2001, summarizing events that have taken place to resolve the conflicts. Had it gone to trial, it might have been referred to as Pankratz III. There was litigation. It was settled without going to trial. Actually, the parties involved in the litigation referred to it informally as Pankratz III as it progressed through 2004. Legal question regarding riparian boundaries appears to be nearly settled as of February, 2006.

Observations and planning activity

We set a post in the Southeast Channel to make it easy to determine water depth in relating to the 418.5 depth of the shallow portion. Periodically random checks were made in 2002, 2003 and 2004 to observe the depth of water in the Southeast Channel beside Lot 6 where we set the post. We note a range from 415 in the winter to almost 424 during summer and fall rain events. It is common for the water to reach and remain at a depth of over 3 feet deep, 422 feet in the channel when there has been a lot of rain in the hills feeding the Chena River. The depth approaches 424 feet in most years. When the river is that full, the Corps of Engineers has their hand on the Moose Creek Dam controls. We do not think that it was fully closed, but there has been partial closing of the gates since 2001. Upon seeing that the channel flowed for periods of over three weeks, we concluded that stream gage data would suffice should a lawsuit be enjoined to document the length of flow.

We also observed that at some time in every year the channel becomes dry. The river drops to 415 feet or so by winter, nearly three feet below the channel bottom. It is usually dry by sometime in May or April after spring runoff. When a long dry spell is experienced, the channel may remain dry for a month or more of the summer.

The lower Chena is also affected by the Tanana River. Back water effects from high water in the Tanana may raise the Chena River level well before rains arrive. It was not clear in 2002 what legal course might occur, so we thought it prudent to become acquainted enough with the area to be able to document use of the Southeast Channel in court.

The owner of Lot 6 joined with the owner of Lot 10 in a plan to excavate the Southeast Channel deeper and to create a marina suitable for parking a floatplane in Lot 6. A dredging was developed, a US Army Corp of Engineers permit sought. There were a number of meetings in 2002 relating to the proposed dredging permit, which would have lowered the elevation 3 to 5 feet throughout the channel. The Alaska Department of Fish and Game (ADF&G) was obstructive. The plan was abandoned in the fall of 2002 by the owners of Lot 6 as litigation loomed.

Construction activities

The owners of Lot 5, Greatland River Front Properties made excavation in 2001 that dramatically changed to nature of the pond. The upstream entrance was widened and deepened, to about 416 feet. A deep cut was made that connected the property to the Chena River down to 410 feet, which connected the deep bottom of the pond with the thalweg of the Chena River. Two purposes were in mind, one for a riverboat to pass from the pond into the Chena River, and to allow oxygen to circulate into the pond in the winter. ADF&G strongly supported the project, hoping that the connection to the river would prevent the pond from becoming anoxic in the winter, killing all impounded fish. A riverboat tour business began operating. The riverboat was docked at mooring facilities that were constructed on Lot 5 in 2003. A service building and parking lot were also constructed. The riverboat tour business has been operating every summer through 2005.

Litigation

One of the recommendations contained in our April 2001 report suggested that a quiet title action could be initiated by any one of the affected parties with intent to settle the boundaries that had not been addressed by Pankratz I and II. A court could render a decision on how to apportion the accretions. We said that provided that the action is uncontested, the procedure could be relatively inexpensive.

We had originally been retained to represent Lot 6, and prepared to defend against a future lawsuit from the owners of Lot 5. They came to an accommodation, the disputed triangle of accreted land was sold to Greatland Riverfront Properties by Doug Swanson, exercising a Power of Attorney right that his father, Ted Swanson had granted him. The owner, Ted Swanson, was bitterly opposed to the sale. At the time, we were deemed by Greatland Riverfront Properties to be hostile. A request that we supply the description was not carried out, the hostility to Greatland was mutual. However, the area sold was based on our survey, copies of which were supplied by Swanson. With the filing of the deed we had no further connection to Ted Swanson and Lot 6.

The legal description references the line shown on RS 99-41, and calls for the westerly extension of the line as originally described by Larry Irving in 1983. The deed is a quitclaim, it makes no reference to the river or riparian boundaries, just the line between Lots 5 and 6. James T Swanson signed it on November 7, 2002. It was recorded on January 2, 2003 as instrument No 2003-000082-0, Fairbanks Recording District. So the river boundary of Lot 5 remained clouded. Several things occurred leading to settlement. First, Greatland Riverfront Properties sued Pankratz, who had sold them the Southeast Channel of the Chena River as land. Pankratz agents were also named in the suit. It was named Case No. 4FA-03-1776 Civil. It was active from 2003 into 2004.

In 2003 Pankratz sued Fairbanks Title Agency, RCH Surveys and Kalen & Associates. It is an offshoot of Case No. 43FA-03-1776 Civil. These cases were kept grouped together. Confidential that we had only stated facts, and having experienced a similar situation in the past, Kalen & Associates declined to retain an attorney and answered the Pankratz suit pro se.

There was discussion of our April 2001 Surveyor's Report, which had limited distribution. Certain parties with knowledge of the case had read it, but copies were not distributed.

Some time in 2004, after our pro se response to Pankratz filing against Kalen & Associates, Guess and Rudd, attorneys for Greatland Riverfront Properties offered to represent Kalen at no fee in the lawsuit between Pankratz and Greatland Riverfront Properties. It was conditioned on forwarding a copy of our April 2001 Surveyors Report for their use in the Civil case between Greatland and Pankratz, agreeing to become their witness, and agreeing to perform whatever surveying would be required to quiet title.

The settlement conference took place on July 22, 2004. Kalen & Associates, paid no legal fees, and declined a request by Pankratz to pay him for his trouble. Various agreements were made between the parties that forestalled any further court action.

Greatland River Front Properties retained Kalen & Associates to complete the work. A Quiet Title action was initiated as a new lawsuit: Greatland Riverfront Properties II, LLC, Plaintiff v. State of Alaska and "all persons claiming an interest in Government Lot 5-----", Case No. 4FA-05-0110 Civil. It was intended from the start to be non contested. The law office of Guess and Rudd requested that we represent Greatland as needed in the lawsuit.

We completed a boundary survey of Lot 5 for Greatland Riverfront Properties. A new OHW line was determined, based on conditions as they existed on September 3, 2004. The water had been high every summer, and stayed high for longer times than we recall seeing it. This is not confirmed by additional research. We made our OHW determination without regard to previous surveys. Office comparisons found it to be very similar in location, except for where additional dredging and placement of riprap had altered the pond entrance. We found it to be close to 421 feet, rounding down. In 2001 we found it to be 420 feet. That was also a rounding downward. We are stiffly resistant to calling OHW to the nearest tenth, as it is our belief that the mark along the bank called for in 11AAC53 900(23) is not that precise. Plants try to grow below it during a

drought, only to be drowned by the high water during the raining periods. Wave activity washed above it. Where there are collapsing cut banks, it cannot be seen at all.

A Record of Survey was filed as Plat # 2004-124 on September 28, 2004. This Record of Survey was used in the course of Quiet Title Action Case No. 4FA-05-1010 Civil. It depicts Lot 5 boundaries. The left bank of the Chena River is meandered from under the Parks Highway bridge downstream along Lot 5 to the shallow portion of the Southeast Channel beside Lot 6 at the 421 OHW line as it was surveyed in September of 2004.

As a result of the Quiet Title action, we were directed to prepare a plat to be approved by DNR. ASLS 2005-8 was submitted to DNR on July 15, 2005. The Chena River boundaries are taken directly from Record of Survey Plat #2004-124, modified to fit on a State Title Block and with special notes pertaining to Case No. 4FA-05-01010 Civil. When the ASLS 2005-08 plat is filed, the left banks of the Chena River will be settled after a chain of litigation that began in 1971.

It is our opinion that it will remain stable for many years due to the very low levels of silt carried by the Chena River, the sluggish current through the pond and Southeast Channel, and the stabilizing effect of the Chena River bridge construction.

Submitted by Patrick Kalen, PLS
February, 2006

SURVEYOR'S REPORT**Lots 5, 6, 10, and 22, Pike's Island and the Southeast Channel of the Chena River
In Section 12, T1S, R2W, F.M.
April, 2001****Introduction:**

Following is a report on the navigability and history of a portion of the Chena River near what became U.S. Government Lots 5, 6, 10, and 22 of Section 12, T. 1 S., R. 2 W., F.M. The purpose of this study is to arrive at an opinion as to where the boundaries are today, particularly with respect to the left bank of the Chena River, and what has been extensively referred to as the lower portion of the "Southeast Channel" of the Chena River, so called because it lies southeast of Government Lot 22, Pike's Island. Pike's Island has been the subject of much litigation: two boundary disputes between the owners and the State, and another over gravel quantities excavated. The island lies along the Chena River at an upland elevation of 420 to 428 feet. The river banks are at about 425 feet. The Chena River thalweg is 406 to 408 feet, and the surface waters run from 424 feet at highest, down to 414 or 415 feet in winter. The 100 year flood elevation is 426 feet.

History:

This area was first surveyed in 1911 by the United States General Land Office surveyors, who provided a very crude representation of the river bank. The entire area was designated Lot 4. The Chena River was very active from 1911 to 1950. Aerial photographs taken in May of 1939 and in September of 1949 show that the island emerged from the river over that 10 year period. It was bare of vegetation and all below Ordinary High Water in 1939. Each flood stage deposited more material on the island. By 1949 the island was brush covered, and had migrated downstream about 300 feet and moved toward the right bank of the Chena River. The land beside future BLM Lots 5, 6, and 10 grew rapidly in area over the time frame from 1911 to 1951. Approximately 100 to 200 feet of land had accreted beside what would become Lot 6. The right bank in this area of the river is the cut bank; the left side and the island are the accreting bank. When photographed in September, 1949, the Southeast Channel was completely full of water, which appears to be high, and the island is grown over.

The first Moose Creek dike built in 1949 stopped the flow of water from the Tanana River to the Chena River, which had a substantial connection to the larger river, changing forever its dynamics. No longer did the Chena carry high silt loads. Draining only the foothills north and

east of drainages leading up to the Chena Hot Springs area, the river was unaffected by glaciers after 1949, and ran through broad alluvial flats. Much of the year the river is clear. After 1949, it never approaches the high silt loads typical of the Tanana River.

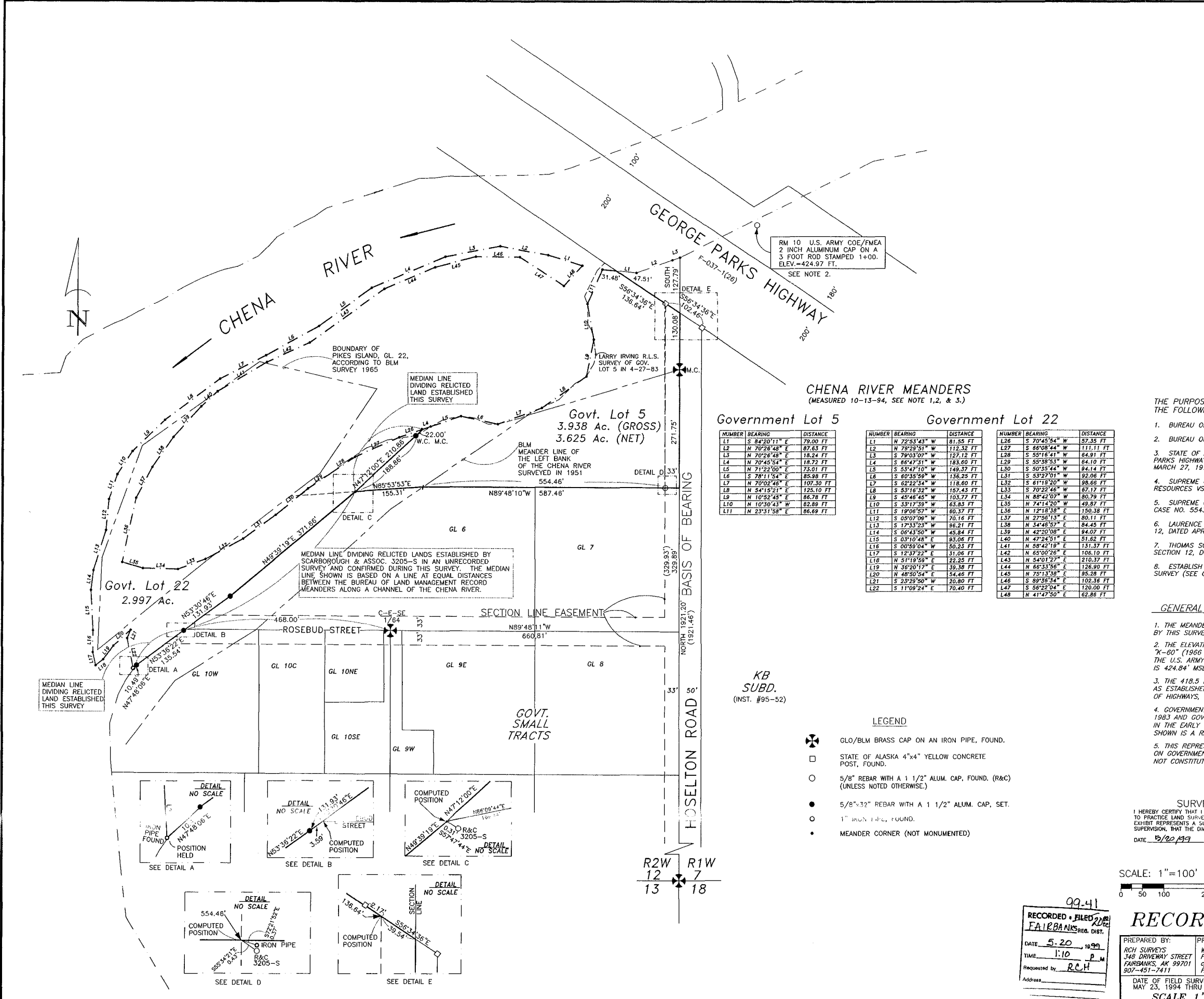
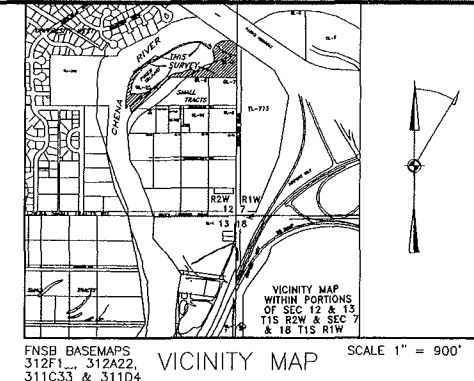
In July of 1951 the Bureau of Land Management began surveying a small tracts subdivision with new lots in Section 12 adjoining the Chena River. The field notes state that "As title to certain portions of these sections, which were divided into small tracts, shown to be riparian by the plat of the original survey is still in the government, there is no reason for retaining the original lottings and areas. New meander courses are shown along certain portions of the banks of the Chena River and new lottings and areas are shown which will allow a more appropriate disposal of the small tracts in these areas." The original Lot 4 was eliminated and new small tracts were created in Sections 12, 13, 14, and 23, on both sides of the Chena River over a stretch of two miles in 1951. The BLM meandered the Chena River again, and used this line for computing approximate areas of Lots 5, 6, and 10. The plat was approved May 4, 1953. Field notes are clear that homesteading activity was underway while the survey was being performed.

Lot 10 was the first of the Government lots to begin to pass into private ownership when Roy Heidel filed an entry on October 27, 1952. The lot was meandered to show an area of 3.85 acres. On December 5, 1955, James T. Swanson filed for Lot 6, which contained 3.45 acres at that time. On December 23, 1955, Patricia E. Ennes filed an entry on Lot 5, which was then listed at 2.2 acres.

The island had been omitted in the 1951 survey, in conformance with General Land Office and Bureau of Land Management policy regarding value. Islands were not surveyed unless they were large enough to justify the cost of survey. If they were entered, a survey was conducted at the expense of the entryman. On March 31, 1959 Lloyd Pike filed an entry for the omitted island, which lay mainly beside Lot 6. The BLM conducted a survey of the island meanders on November 12-13 of 1963, designating it Lot 22.

In August of 1967 a major flood of the Chena River took place. To prevent recurring floods, a new dike and a dam capable of diverting Chena River water to the Tanana River was built by the U.S. Army Corps of Engineers. The projects took place over the space of ten years or so. The project included a levee from Moose Creek some 20 miles down the Tanana River to a point near the confluence of the Chena and Tanana Rivers. There has not been flooding of the Chena River since the Moose Creek dam became operational; the Corps can severely restrict the flow.

In 1968 the island was in a natural state. Air photos taken in September 1939 clearly show Pike's Island, the gravel bar, and the Southeast Channel. Some exploratory excavation took place in the channel beside the island and on Lot 5, just upstream. In 1969 the island was stripped of vegetation to prepare the area for commercial gravel excavation. This shows clearly in 1969 air photos. Litigation interrupted these activities until the mid 1970's when most of the island was excavated and sold as gravel. After excavation, air photos taken in 1975 show a large pond where there was once the island and the gravel bar. A downstream remnant of Pike's Island is connected to the mainland in 1975, the Southeast Channel is blocked.



CHENA RIVER MEANDERS
(MEASURED 10-13-94, SEE NOTE 1, 2, & 3.)

Government Lot 5

NUMBER	BEARING	DISTANCE
L1	S 84°20'11" E	79.00 FT
L2	N 70°26'48" E	87.63 FT
L3	N 70°26'48" E	18.24 FT
L4	N 70°45'54" E	18.72 FT
L5	N 71°22'00" E	75.01 FT
L6	S 78°11'54" E	85.88 FT
L7	N 70°02'46" E	107.30 FT
L8	N 54°15'21" E	125.10 FT
L9	N 10°32'43" W	86.78 FT
L10	N 10°30'43" W	82.89 FT
L11	N 23°31'58" E	86.69 FT

Government Lot 22

NUMBER	BEARING	DISTANCE
L1	N 72°33'43" W	81.55 FT
L2	N 78°29'51" W	112.32 FT
L3	S 79°03'07" W	127.12 FT
L4	S 86°47'31" W	183.60 FT
L5	S 33°47'10" W	149.37 FT
L6	S 80°35'59" W	136.25 FT
L7	S 62°22'34" W	118.60 FT
L8	S 31°16'32" W	157.43 FT
L9	S 45°46'45" W	103.77 FT
L10	S 33°17'39" W	63.83 FT
L11	S 19°06'57" W	60.37 FT
L12	S 05°07'09" W	70.16 FT
L13	S 17°33'23" W	96.21 FT
L14	S 06°43'50" W	45.84 FT
L15	S 03°10'48" E	93.06 FT
L16	S 00°50'04" W	50.23 FT
L17	S 12°37'52" E	31.06 FT
L18	N 51°19'59" E	22.25 FT
L19	N 36°20'17" E	39.38 FT
L20	N 48°50'54" E	54.46 FT
L21	S 33°29'50" W	20.80 FT
L22	S 11°09'24" E	70.40 FT

THE PURPOSE OF THIS PLAT IS TO CONSOLIDATE THE FOLLOWING INFORMATION:

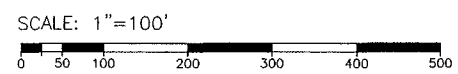
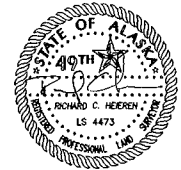
- BUREAU OF LAND MANAGEMENT SURVEY OF GOVT. LOT 5, DATED 1951.
- BUREAU OF LAND MANAGEMENT SURVEY OF GOVT. LOT 22, DATED 1965.
- STATE OF ALASKA DEPT. OF TRANSPORTATION SURVEY OF THE GEORGE PARKS HIGHWAY RIGHT-OF-WAY, PROJECT NO. F-037-1(26), LAST DATED MARCH 27, 1973.
- SUPREME COURT OF ALASKA, STATE OF ALASKA, DEPT. OF NATURAL RESOURCES VS. PANKRATZ, CASE NOS. 2153 & 2156, AUG. 1, 1975.
- SUPREME COURT OF ALASKA, PANKRATZ VS. STATE, DEPT. OF HIGHWAYS, CASE NO. 5543, SEPT. 24, 1982.
- LAURENCE IRVING, LS 4111, SURVEY OF GOVERNMENT LOT 5 OF SECTION 12, DATED APRIL 27, 1983.
- THOMAS SCARBOROUGH, LS 3205, SURVEY OF GOVERNMENT LOT 6 OF SECTION 12, DONE IN THE EARLY 1980'S (EXACT DATE UNKNOWN).
- ESTABLISH THE BOUNDARY OF GOVERNMENT LOTS 5 & 22 BY THIS SURVEY (SEE GENERAL NOTES 1 THROUGH 3).

GENERAL NOTES:

- THE MEANDERS SHOWN APPROXIMATE THE 418.5 FT. CONTOUR AS ESTABLISHED BY THIS SURVEY USING A RM 10 ELEVATION OF 424.97' MSL 1966 ADJ-NGVD 1929.
- THE ELEVATION 424.97 FT. AT RM 10 WAS ESTABLISHED FROM USGS BENCH "K-60" (1966 ADJUSTED NGVD 1929) LOCATED AT FAIRBANKS INTERNATIONAL AIRPORT. THE U.S. ARMY COE/FEDERAL EMERGENCY MAPPING AGENCY ELEVATION OF RM 10 IS 424.84' MSL (REF. FIRM PANEL 025009 0181 G).
- THE 418.5 FT. CONTOUR IS THE LINE OF OWNERSHIP FOR THE STATE OF ALASKA AS ESTABLISHED BY THE SUPREME COURT OF ALASKA, PANKRATZ VS. STATE, DEPT. OF HIGHWAYS, CASE NO. 5543, SEPT. 24, 1982.
- GOVERNMENT LOT 5 WAS SURVEYED BY LAURENCE IRVING, LS 4111, ON APRIL 27, 1983 AND GOVERNMENT LOT 6 WAS SURVEYED BY THOMAS SCARBOROUGH, LS 3205, IN THE EARLY 1980'S (THE EXACT DATE IS UNKNOWN). THE COMMON BOUNDARY SHOWN IS A RESURVEY BASED ON THOSE SURVEYS.
- THIS REPRESENTS A COMPILATION OF RECORD, COURT AND SURVEY INFORMATION ON GOVERNMENT LOTS 5 AND 22 OF SECTION 12, T.15, R.2W, F.M., AK. AND DOES NOT CONSTITUTE A SUBDIVISION AS DEFINED BY A.S. 415.190(2).

- LEGEND**
- GLO/BLM BRASS CAP ON AN IRON PIPE, FOUND.
 - STATE OF ALASKA 4"x4" YELLOW CONCRETE POST, FOUND.
 - 5/8" REBAR WITH A 1 1/2" ALUM. CAP, FOUND. (R&C) (UNLESS NOTED OTHERWISE).
 - 5/8"x32" REBAR WITH A 1 1/2" ALUM. CAP, SET.
 - 1" IRON PIPE, FOUND.
 - MEANDER CORNER (NOT MONUMENTED)

SURVEYORS CERTIFICATE
I HEREBY CERTIFY THAT I AM PROPERLY REGISTERED AND LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF ALASKA, THAT THIS EXHIBIT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE DIMENSIONS AND OTHER DETAILS ARE CORRECT.
DATE: 12/22/99 REGISTRATION NO. 4473 S

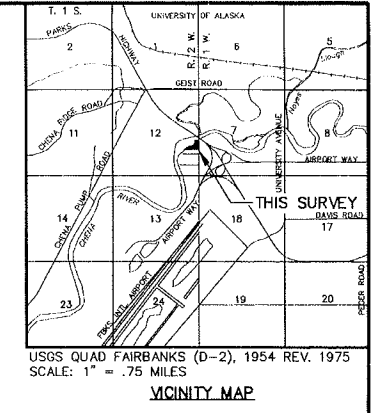


RECORDED & FILED
FAIRBANKS REG. DIST.
DATE: 5-20-1999
TIME: 1:10 P.M.
Requested by: RCH
Address:

RECORD OF SURVEY		
PREPARED BY: RCH SURVEYS 348 DRIVEWAY STREET FAIRBANKS, AK 99701 907-451-7411	PREPARED FOR: WILLIAM STROECKER & FRED PANKRATZ C/O P.O. BOX 60183 FAIRBANKS, AK 99706	LEGAL DESCRIPTION: GOVERNMENT LOTS 5 AND 22 LOCATED IN SECTION 12, T.15., R.2W., F.M., AK.
DATE OF FIELD SURVEY: MAY 23, 1994 THRU APRIL 30, 1996 SCALE 1" = 100'	SHEET: 1 OF 1	NUMBER: NA FAIRBANKS RECORDING DISTRICT

FAIRBANKS 99-41

MEANDERS		
L1	S 56° 10' 43" W	123.85'
L2	N 72° 44' 08" W	42.70'
L3	N 74° 29' 11" W	33.55'
L4	S 40° 37' 37" W	31.51'
L5	S 22° 42' 36" W	50.10'
L6	S 11° 02' 05" E	113.17'
L7	S 06° 17' 30" W	50.63'
L8	S 39° 25' 25" W	39.20'
L9	S 55° 59' 45" W	156.38'
L10	S 84° 55' 35" W	213.08'
L11	S 70° 48' 47" W	97.03'
L12	S 58° 52' 30" W	62.98'
L13	S 48° 30' 15" W	59.68'
L14	S 19° 00' 12" W	50.02'
L15	S 34° 29' 00" W	25.00'
L16	S 41° 06' 57" W	89.05'

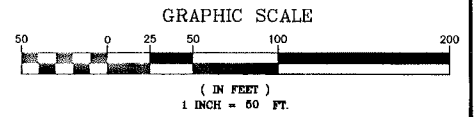


NOTES

1. THE CROSS HATCHED AREA DEPICTED WAS PURCHASED ON NOVEMBER 7, 2002, AND RECORDED AS INSTRUMENT # 2003-00082-0, FRD.
2. THE SHADED AREA DEPICTED, IS A TRACT OF LAND DEDICATED FOR ALASKA HIGHWAY PROJECT F-037-1(26), BY BOOK 71, PAGE 30, FRD.
3. THE BASIS OF ELEVATION FOR THIS SURVEY IS A DOT BRASS CAP LOCATED IN THE SOUTH EAST WINGWALL OF THE PARKS HIGHWAY AND CHENA RIVER BRIDGE. THIS BENCHMARK HAS A MEASURED ELEVATION OF 445.39 FT. (NGVD 1929), AND HAS BEEN VERTICALLY TIED TO USGS BENCHMARKS C-60 AND K-60.
4. THE ORDINARY HIGH WATER WAS DETERMINED TO BE 421 FT. (NGVD 1929), ON SEPTEMBER 3, 2004.
5. THIS SURVEY CONFLICTS, IN SOME RESPECTS, WITH RS 99-41 RECORDED MAY 20, 1999. NO DATA FROM RS 99-41 HAS BEEN USED ON THIS PLAT.

ACREAGE SUMMARY

GOVERNMENT LOT 5 (NET)	3.75 ACRES
SECTION LINE EASEMENT	0.31 ACRES
GROSS AREA	4.06 ACRES



LEGEND

- ⊕ GLO MONUMENT RECOVERED
- ⊙ PRIMARY MONUMENT SET (3/4" ALUM. CAP ON 2 1/2"x30" ALUM. PIPE)
- SECONDARY MONUMENT RECOVERED, LS# 4603-S UNLESS OTHERWISE NOTED
- ADOT ROW MONUMENT RECOVERED (8"x6" CONCRETE)
- () RECORD

CERTIFICATE OF REGISTERED LAND SURVEYOR

I, PATRICK H. KALEN, A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA, DO HEREBY CERTIFY THIS PLAT TO BE A TRUE AND CORRECT REPRESENTATION OF THE LANDS ACTUALLY SURVEYED BY ME OR UNDER MY DIRECT SUPERVISION, ACCORDING TO THE STANDARDS OF TITLE 17, SUBDIVISIONS, FAIRBANKS NORTH STAR BOROUGH CODE, AND THAT THE DISTANCES AND BEARINGS ARE SHOWN CORRECTLY AND THAT ALL MONUMENTS REQUIRED HAVE BEEN SET.



2004-124
 Fairbanks, Alaska
 DATE: 9-28-2004
 TIME: 9:27 A.M.
 Disposition: Sale
 Address: _____

FAIRBANKS RECORDING DISTRICT	
DATE OF SURVEY: 9/27/04	KALEN & ASSOCIATES, INC. 1041 CHENA RIDGE ROAD FAIRBANKS, ALASKA 99709 (907) 479-2628
RECORD OF SURVEY	
U.S. GOVERNMENT LOT 5	
SECTION 12, TOWNSHIP 1 SOUTH, RANGE 2 WEST, FAIRBANKS MERIDIAN	
OWNER: GREATLAND RIVER FRONT PROPERTIES, INC.	
DRAWN BY: ERK	FILE NO. 2004033
DATE: 9/27/04	CHECKED BY: [Signature]
SCALE: 1" = 50'	DATE: 9/27/04