REQUEST FOR PROPOSALS

RFP DH23-16

PROFESSIONAL SURVEYING SERVICES
for
ATS 1755 / ADL 109052
in
JUNEAU, ALASKA

Issued by: Carl J Uchytil
Carl Uchytil, Port Director

Date: January 18, 2023

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1.0 GENERAL INFORMATION

1.1 Purpose

The purpose of this document is to solicit proposals from qualified professional land surveyors to compile a plat in accordance with survey instructions issued by the Alaska Department of Natural Resources (ADNR).

1.2 Background

Juneau is Alaska's Capital City. This project is under purview of the City and Borough of Juneau (CBJ) Docks and Harbors. The CBJ Docks and Harbors is an enterprise fund directed by an Assembly appointed Board of volunteers. The Port Director sits at the pleasure of the Board and is in charge of all operations of Docks and Harbors. He is supported by an Administrative Officer; Port Engineer and the Juneau Harbormaster and staff. The Port Director's Office is located on the Second Floor of the Seadrome Building at 76 Egan Drive in Juneau, Alaska.

1.3 Scope of Services

The Consultant shall compile a preliminary plat in accordance with the survey instructions issued by ADNR and provide copies to ADNR and CBJ for review and comment. The Consultant shall consider review comments by ADNR and CBJ and make necessary changes to create a final plat document for recording with the State of Alaska.

The Consultant shall prepare application materials required for the CBJ Community Development Department (CDD) and Alaska Department of Natural Resources platting review process. CBJ Docks and Harbors will pay CBJ and ADNR platting fees.

Attachment 1 in this RFP contains the survey instructions issued by ADNR. The location of the work is along Gastineau Channel, south of downtown on the seaward side of South Franklin St, in Juneau, Alaska. The parcels are identified as ATS 1755 / ADL 109052.

1.4 Minimum Qualifications

The minimum qualifications for proposers are:

1. A valid State of Alaska professional land surveyor's license;
2. An established track record developing a final plat in accordance with ADNR requirements; and
3. The ability to submit a preliminary plat in accordance with the schedule contained in this RFP and ability to submit final plats to ADNR and CBJ within 30 days after receipt of ADNR's comments on the preliminary plats.

1.5 Schedule and Pay

The surveyor shall **submit a preliminary plat** for the parcel to ADNR and CBJ in accordance with ADNR's instructions by **May 31, 2023**. After submittal of the preliminary plat and upon approval by the project manager, CBJ will pay the consultant 75% of a total fixed fee. The Consultant may submit pay requests on a periodic basis prior to the submittal of the preliminary plat provided the amount does not exceed 75% of the total fixed fee.

The consultant shall submit a final plat for the parcels to ADNR and CBJ within 30 days after receiving comments from ADNR on the preliminary plat. After approval of the final plat, CBJ will pay the consultant the remaining 25% of the total fixed fee.

1.6 Questions

Questions regarding this proposal will be answered by:

Teena Larson, Administrative Officer
City and Borough of Juneau
Docks and Harbors
155 S. Seward Street
Juneau, Alaska 99801
Telephone: (907) 586-0292
Fax: (907) 586-0295
Email: teena.larson@juneau.gov
Office Location: 2nd floor of Seadrome Building, 76 Egan Drive, Juneau, Alaska
Office hours are 8:00 a.m. to 4:30 p.m. local time, Monday through Friday.

1.7 Proposal Deadline

Proposals will be accepted until **2:00 p.m. on February 22nd, 2023**. The proposals may be mailed to the City and Borough of Juneau, Docks and Harbors Port Office, 155 S. Seward Street, Juneau, Alaska 99801 or hand-delivered to the Port Director's Office, 2nd Floor of the Seadrome Building, 76 Egan Drive, Juneau, Alaska.

1.8 Standard Professional Services Contract Language

Attached to this RFP is a CBJ standard contract which should be carefully reviewed by proposers, as it is the basis of the agreement that the CBJ intends to contract with the selected Consultant in the event of acceptance of its proposal.

1.9 Duty to Examine the RFP and Addenda

Proposers should carefully examine the entire RFP and any addenda thereto, and all related materials and data referenced in the RFP. Proposers should become fully aware of the nature of the services requested and the conditions likely to be encountered in performing the services.

1.10 Proposal Disposition

The content of proposals will be kept confidential until the selection of the surveyor is publicly announced. All materials submitted in response to this RFP will become the property of the CBJ. The proposal will be retained for the official files of the Port Director's Office and will become public record after announcement of the successful Proposer. The CBJ will not return the proposal to the Proposer. The CBJ reserves the right to reject any or all proposals.

1.11 Exclusion

This solicitation does not commit CBJ to select any Consultant(s) for the requested services. All costs associated with the respondent's preparations and submission shall be the responsibility of the Proposer.

2.0 PROPOSAL REQUIREMENTS

All proposals must be signed. A proposal may be signed by the Consultant or by an agent(s) only if he/she is an officer or a corporate representative authorized to sign contracts on the Consultant's behalf, a member of a partnership, or is properly authorized by a power of attorney or equivalent document. The name and title of the individual(s) signing the proposal must be clearly shown immediately below the signature.

Proposals must contain the information requested below.

State the subject of the RFP, the name of the firm, address, telephone and fax numbers, name of a contact person and date of submission.

Provide a copy of the surveyor's license for the surveyor who will be in responsible charge of the work.

Provide a list of platting projects that have been performed in accordance with ADNR survey instructions and a discussion of how that work compares to the work required under this RFP.

Discuss the firm's present workload and its capacity to perform the services in accordance with the schedule stated in the RFP. Provide a proposed time schedule outlining the sequence necessary to complete the requested services by the project deadlines. Specify how much priority will be given to the project and who will manage the project.

Provide a total fixed fee for performing the work required by this RFP. Note that D&H will pay applicable platting fees to CDD and ADNR for the work required by this RFP.

Provide a specific acknowledgement of any applicable addenda.

3.0 EVALUATION OF PROPOSALS

Evaluation of the written proposals will be performed by a committee selected by the Port Director. The Committee will be comprised of 2 professional engineers. Written proposals will be the primary basis for selection of the consultant, unless the selection committee determines that oral interviews are necessary.

If oral interviews are used, the selection committee will prepare a "short list" of at least two finalists, who will then be invited to attend oral interviews in Juneau. Finalists will be notified and informed of specific interview requirements and procedures prior to the oral interview. Proposers will be allowed a maximum of three team members to participate in the interview process.
Oral interviews, if used, will be scored and ranked independently of the written proposal and will determine the outcome of the RFP process. All costs associated with attendance of the interviews, if held, will be the responsibility of the Proposer. The intent of the CBJ is to make award based on written proposals if possible.

The proposals will be evaluated using the criteria listed below.

3.1 Firm's Experience with Similar Projects

Evaluation will include assessment of the proposer's experience compiling ADNR plats.

3.2 Capacity of the Firm to Meet Schedule

Evaluation will include an assessment of the proposer's ability to perform the desired services within the established schedule.

3.3 Firm's Fee

Evaluation will include an assessment of the total fixed fee for performing the work.

3.4 Local Proposer's Preference

A 5% local proposer preference will be given to Proposers meeting the criteria of CBJ's Purchasing Ordinance 53.50, section 53.50.010. CBJ Ordinance 53.50 can be viewed electronically at the following internet address: "https://library.municode.com/ak/juneau/codes/code_of_ordinances?nodeId=TIT53PRACDI_PTIIOTPR_CH53.50PUSUSE". A paper copy of the CBJ Purchasing Ordinance is available upon request from the Port Director's Office.

4.0 SELECTION AND AWARD PROCESS

An evaluation committee will review, evaluate, score, and rank proposals in accordance with criteria identified in Section 3.0 and the Evaluation Form located at the end of this RFP. Each

member of the Selection Committee will independently score the proposals. Each member's scores, as they relate to the group of proposals, are then ranked. The proposal receiving the highest score is given a ranking value of "one", the second highest scored proposal receives a ranking of "two", and so on. The scores and rankings of each member are then forwarded to the Port Director. These rankings are checked for accuracy and combined to form a composite ranking.

The Proposer with the lowest composite numerical rank will be declared the apparent successful Proposer. In the event of a tie in the ranking totals, the raw scores of the Proposers who are tied will be totaled to determine the successful Proposer. If oral interviews are used, the successful proposer will be chosen as provided in Section 3.0 of this RFP.

After issuance of a notice of apparent successful proposer, the protest period begins. Once the protest period is over, the successful Proposer will be invited to enter into contract negotiations with the CBJ. If negotiations are unsuccessful, discussions with the lowest ranked Proposer will be terminated and the second lowest ranked Proposer may be contacted for negotiations.

Award of contract, if made, will be to the responsible Proposer selected in accordance with the process described in Section 4 of this RFP, and whose final proposal and fee is accepted by the CBJ.

The CBJ reserves the right to award the contract to the successful firm without further discussion. All offers must be complete and irrevocable for 90 days following the submission date.

5.0 INSURANCE REQUIREMENTS

The insurance requirements for this project will be as specified in a typical CBJ Professional Services Contract (see Attachment 2).

6.0 JUNEAU BUSINESS SALES TAX AND PERSONAL PROPERTY TAX

Vendors/merchants conducting business within the City are required by law to register with the City for sales and property taxes. Vendors/Merchants must be in good standing for all amounts owed to the City prior to award and prior to all contract renewals, but in any event no later than five business days following notification by the City of intent to award. Failure to meet these requirements, if so subject, shall be cause for your bid to be rejected. To determine if your business is subject to these requirements, or for further information, contact the City Finance Department, Sales Tax Division, at (907) 586-5265 concerning sales tax and the Assessor Division at (907) 586-5268 concerning business personal property and real property tax.

PROPOSER:_____

SCORED BY:_____ DATE:_____

EVALUATION/RANKING

		WEIGHT	X	RANK[1]	=	SCORE
1.	Previous Experience Compiling Plats for ADNR	40/# proposals	x	_____	=	_____
2.	Capacity of the firm to perform the services within the established schedule.	30/# proposals	x	_____	=	_____
3.	Fixed Fee Amount	30/# proposals	x	_____	=	_____
	SUBTOTAL SCORE (1+2+3)					_____
4.	Meets the definition of Juneau Proposer (Subtotal x 0.05)					_____
	TOTAL SCORE (Subtotal Score + 4)					_____
	INDIVIDUAL RANKING[2]					_____

[1] Determined by ranking the proposals against each other. The proposer with the best experience, capacity, or the lowest fee is assigned a rank equivalent to the # of proposals received. The proposer with the next best experience, capacity, or 2nd lowest fee is assigned a rank equivalent to the # of proposals received minus one, etc.
[2] Based on total score. The proposal with the highest total score is given the highest rank.

ATTACHMENT 1

ATS 1755 / ADL 109052 SURVEY INSTRUCTIONS

THE STATE
of ALASKA
GOVERNOR MIKE DUNLEAVY

Department of Natural Resources
DIVISION OF MINING, LAND & WATER
Survey Section

550 West 7th Avenue, Suite 650
Anchorage, Alaska 99501-3576
Main: 907.269.8523
TTY: 711 or 800-770-8973
Fax: 907.269.8916

September 20, 2022

Carl Uchytil
City and Borough of Juneau Docks and Harbors
155 S. Seward St.
Juneau, Alaska 99801

File: **ATS No. 1755**
Subj: Survey Instructions
ADL No. 109052

Dear Mr. Uchytil:

Enclosed are the Special Survey Instructions for the survey and platting of **ATS No. 1755 / ADL No. 109052**, the tide and submerged land conveyance of approximately 4.7 acres to the City and Borough of Juneau. These instructions will be good for two years from the date of approval. The applicant is being notified of the issuance of the instructions by a copy of this letter.

A waiver of any portion of the field survey requirements of the Survey Instructions must be requested and approved prior to completion of the fieldwork. A waiver of any portion of the platting requirements must be requested and approved prior to the submittal of the preliminary plat.

This survey is subject to review and approval by the City and Borough of Juneau Platting Authority. It is the responsibility of the surveyor to obtain this approval. In the event any Platting Authority requirement significantly changes the scope of this survey, contact this office for Supplemental Instructions.

If you have any questions concerning these instructions, please feel free to contact me at 269-8519.

Sincerely,

Brian Raynes, PLS
Coastal and Riparian Boundary Unit Supervisor

Enclosures:
Special Survey Instructions
Attachment for Special Survey Instructions (Ver. 2019-3-13)
Plan of Survey
Plat Checklist

Plat Submittal Requirements

cc: John King, Land Conveyance Section, DMLW
Natural Resource Tech II: Ronda Wilson ADL No. 109052
Survey Tracking & Monitoring, Case Type: 316, Subtype: 0046

ALASKA STATE CADASTRAL SURVEY /
ALASKA STATE LAND SURVEY / ALASKA TIDELAND SURVEY

ATTACHMENT
FOR
SPECIAL SURVEY INSTRUCTIONS

Conformance with: 11 AAC 53, Survey and Platting Standards,
Version: March 13, 2019

In the execution of the survey under the Special Instructions the surveyor is authorized and directed to perform the survey as set out in the Special Survey Instructions, the State of Alaska's Survey and Platting Regulations, and such Supplemental Instructions as may be issued during the progress of work.

LIMIT AND CHARACTER OF WORK

The survey is limited to the establishment and monumentation of the boundaries as shown on the Plan of Survey, the location of all improvements within the parcel, and the preparation of the survey plat. In the event that any needed BLM or GLO survey corner is missing or has been destroyed, it shall be reestablished per the appropriate BLM Manual of Surveying Instructions.

HISTORY OF SURVEYS

See the Special Survey Instructions.

METHOD OF SURVEY PROCEDURE

The survey shall be executed by a Professional Land Surveyor registered to practice in the State of Alaska.

It is the surveyor's responsibility to ensure research is complete.

The survey and plat shall substantially conform to 11 AAC 53, the Special Survey Instructions, this attachment to the Special Instructions, the Final Finding and Decision and any Amendments, the development plan, and the Plan of Survey.

See the Special Survey Instructions for parcel descriptions.

Field ties shall be made to all monuments which control the survey. The ties and monumentation shall be shown on the plat. Adjoining parcels shall be retraced sufficiently to ensure that they are not encroached upon. All significant improvements and encroachments within this survey shall be field located and shown on the plat.

No markings of any kind shall be added to recovered monuments.

Basis of Bearing

The Basis of Bearing shall be between any two recovered monuments for which there is a record bearing; preferably the longest line of record or alternately the Basis of Bearing may be determined using high precision Global Navigation Satellite System (GNSS) between two monumented positions. The Basis of Bearing must be clearly noted on the plat in **bold lettering**. The Datum, epoch, and conversion method information (if applicable) must also be noted on the plat.

Basis of Coordinates

Geographic NAD 1983 coordinates (and if applicable NAD 1927) are required to be shown at a monumented Corner, or Witness Corner, of the ASLS/ATS/ASCS. The Basis of Coordinates shall be derived from a field tie to a NGS survey monument, or from a tie to a **primary** monument with record coordinates (shared OPUS Solutions are acceptable), or coordinates computed from record tie information to a rectangular monument in the PLSS. The Basis of Coordinates must be clearly noted on the plat in **bold lettering**.

Geographic coordinates may also be derived from survey-grade GNSS observations if sufficient to process through OPUS. Observations shall be on a **primary** monument, set or recovered, which shall be shown on the plat with ties to the survey. Note that if the point for the Basis of Coordinate is a random control point it MUST be monumented with a primary monument. Documentation accompanying the first plat submittal must include the "NGS OPUS Solution Report." The NGS Opus Solution Report shall show sufficient GPS data for minimum of an OPUS-RS solution.

For additional information regarding OPUS and the NGS OPUS Solution Report, see http://www.ngs.noaa.gov/OPUS/about.jsp

Control monuments on record with the National Geodetic Survey (NGS) may be researched on-line at http://www.ngs.noaa.gov/datasheets/ and shared OPUS solutions are available at http://www.ngs.noaa.gov/OPUS/view.jsp

If GNSS technology is used, it shall conform to the Federal Geographic Data Committee (FGDC) publication Geospatial Positional Accuracy Standards, Part 1, Reporting Methodology, FGDC-STD-007.1-1998; Part 2, Standards for Geodetic Networks, FGDC-STD-007.2-1998; and Part 3, National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998. Copies are available at the following website:
http://www.fgdc.gov/standards/projects/FGDC-standards-projects/accuracy/part1/chapter1
http://www.fgdc.gov/standards/projects/FGDC-standards-projects/accuracy/part2/chapter2
http://www.fgdc.gov/standards/projects/FGDC-standards-projects/accuracy/part3/chapter3

(As applicable to Municipal Entitlement Surveys) A table shall be shown on the plat showing total acreage of approved municipal entitlement lands and the total acreage of the riparian buffer within the approved municipal entitlement lands. Two such tables shall be shown. One for lands to which the state holds patent and a separate table where the state only holds Tentative Approval.

Reservations: See the Special Survey Instructions.
Subject to's: See the Special Survey Instructions.

The surveyor shall research the public record sufficiently to show on the plat the current legal identifiers of contiguous parcels.

TECHNICAL SURVEY REQUIREMENTS

All lines surveyed and retraced using terrestrial methods for the survey shall be surveyed with a minimum accuracy of 1:5000, and/or corner positions recovered or established with non-terrestrial methods (with a least square adjustment) shall have a Relative Positional Accuracy at the 95 percent confidence level of 0.13 feet plus 100 ppm (per 12 AAC 36.250). The surveyor must select the proper equipment and methods to achieve the required degree of accuracy for the survey, with the actual field closure reflected in the field notes and/or survey report. Legible, annotated copies of all field notes and computations, a sketch showing traverse point relationships, as well as good photographs or legible rubbings of monuments recovered and established, must accompany the first plat submittal. All GNSS data; including raw data files, adjustment files, final coordinate file, and OPUS solution reports shall be submitted in a digital format only, no hard copies please.

The field notes and/or survey report shall include 1) the accuracy classification to which the data was gathered, 2) the survey methods used to obtain the data, 3) the dates the survey work was performed, and 4) the datum (with epoch if applicable) used for the survey.

Monuments

Previously existing monuments and accessories found in a disturbed condition must be returned to the original position and condition as nearly as possible or replaced so as to perpetuate the position.

All angle points on the exterior boundary of the survey must be monumented with a primary monument. No portion of the survey may be more than 1,320 feet from a primary monument.

Primary Monuments

A primary monument must consist of a minimum two-inch diameter metal pipe, at least 30 inches long, with a minimum four-inch flange at the bottom. A minimum two-and-one-half inch diameter metal cap must be permanently attached at the top. If both the cap and the pipe are of non-ferrous metal, then additives with magnetic qualities must be permanently attached at both the top and bottom of the monument. Every primary monument cap must be permanently stamped with the survey designation across the top, the corner identification in the center, and the surveyor's registration number and the year set on the bottom. This data must be oriented so that it may be read when the reader is facing north.

If the point for a primary monument is in a place that would be impractical to monument because of natural obstacles, such as water bodies, a witness corner must be set. The witness distances must be shown on the plat of survey from the true corner position to the monument as set. Except where otherwise required in the Special Survey Instructions and the Plan of Survey, witness corners must be set on a survey property line and at a distance considered reasonable and practical from the true corner point. Witness corners must comply with the standards for primary monuments. If it is impractical to set a primary monument due to surface or shallow subsurface rock, one of the following may be substituted, with monument accessories as required: (a) a cap grouted into firm rock; or (b), a durable tablet containing a minimum of 1,000 cubic inches of concrete and a cap marking the actual corner point.

Care shall be taken to ensure that all primary monuments are firmly set and that the hole is backfilled completely with material that is dense enough to support the monument in an upright position for an extended period of time. In instances where monuments are being set in frozen ground and the

excavated material is not sufficient or suitable for backfilling the hole, it will be required to import material from offsite such as bagged pea gravel or other rocky material.

All primary monuments must be referenced to three bearing trees or objects, if available, using methods that will secure a closure error no greater than 1:2000. Reference monuments must be set if no trees or other suitable objects exist within 100 feet.

(1) If bearing trees or objects are used, they must be located as nearly as possible at equal angles and may not be farther away than 100 feet from the monument. The distance to trees or objects must be measured at waist height, and in the case of trees, measured to the center of the tree, with distances reduced to horizontal equivalent. The surveyor shall have the option of marking the bearing trees with non-ferrous metal tags of at least nine square inches in size facing the monument and clearly and permanently marked with the bearing, distance, and corner nomenclature, or of scribing the trees as per applicable Articles of the BLM Manual of Surveying Instructions, 2009. Reference monuments must be set if no trees or other suitable objects exist within 100 feet.

(2) If reference monuments are necessary, two monuments meeting the requirements for secondary monuments must be used. These monuments must be placed on a property line or at right angles to the monument within the property being surveyed, and may not be further than 100 feet from the monument being referenced. In addition, they must be marked with the nomenclature and distance to the monument being referenced.

(3) In addition to the accessories required above, witness posts of the minimum size of a nominal two-by-four, or fiberglass reinforced Carsonite witness posts, six feet in length with four feet protruding above ground, are required for all primary monuments. They shall be set at right angles to the line and no farther than one foot from the monument.

Secondary Monuments

Secondary monuments must consist of at least a five-eighth inch metal rod, three feet long, with a one-and-one-half inch cap attached at the top. Care shall be taken to ensure that all secondary monuments are firmly set and will remain in an upright position for an extended period of time.

If applicable all property corners must be numbered on the monuments and designated on the plat in a consecutive, preferably clockwise, direction.

Any additional survey or monumentation requirements of the local Platting Authority must also be conformed to.

PLAT REQUIREMENTS

The surveyor shall construct the plats in accordance with the following:

(1) The plat must be of archive quality biaxially oriented polyester film (Mylar) that does not exceed 32 x 36 inches. Margins shall be 1½ inch on the left and ½ inch on the top, right and bottom.

(2) Use the standard DNR legend, an example of which is available on the DNR Survey Section webpage at <http://www.dnr.state.ak.us/mlw/survey/> .

(3) All sheets must have the official division title block, border configuration and standard legend.

(4) It is the responsibility of the surveyor to comply with 12 AAC 36.185. Use of Seals. All sheets must include:

a) surveyors seal and date each time the registrant signs and seals a document by electronically or manually inserting the date within the seal or within two inches of the seal
b) business name, physical address, and telephone number
c) project name or identification
d) project address or location
e) certificate of authorization number issued to the corporation, limited liability company, or limited liability partnership to practice architecture, engineering, land surveying, or landscape architecture, if applicable.

(5) All line work on the plat must be in black ink (no gray scale).

(6) All lettering on the plat must be in black ink (no gray scale) and be accomplished with mechanical lettering equipment.

(7) All line work and lettering must be of professional quality and all line widths and lettering sizes must be of such size that all information can be clearly shown without overlap or confusion. All lettering must be minimum size 80 Leroy ®, or equivalent, with No. 100 recommended. Size 80 lettering must be uppercase.

(8) When more than one sheet is required, an index sheet must be added showing the entire limits of the survey, and each sheet showing the sheet number and total number. When more than one sheet is submitted, only the last need have the approval certificates, but all sheets must be the same size.

(9) The plat must be in an appropriate engineering scale, preferably of one inch representing a multiple of 100 feet. If larger than 100 scale the plat must be in a multiple of 10 feet.

(10) Details, as necessary, must be shown at an appropriate indicated scale.

(11) The plat must have a vicinity map in the upper right hand corner. The map shall be at least four inches on each side with a scale of 1:63,360, showing sections, townships and ranges, boundaries such as national forest or municipal boundaries, and other prominent physical or natural features such as roads, lakes, or rivers. The source and date/revision date of the base map must also be indicated.

(12) Nomenclature of the survey need appear in the title block only, unless the division specifically states otherwise.

(13) The Basis of Bearing must be indicated. Bearings shown must be true bearings as orientated to the basis of bearing, and distances must be in US Survey Feet reduced to the true horizontal equivalent.

(14) The Basis of Coordinates must be indicated. NAD 1983 (and if applicable NAD 1927) coordinates must be shown at a monumented Corner, Meander Corner, or a Witness Corner to Meander Corner.

(15) Bearings must be shown to the nearest second and distances to one hundredth of a foot. Boundary line distances must be shown from monument to monument. Witness distances must be shown from monument to the true point.

(16) In compliance with PL 94-168, entitled "Metric Conversion Act 1975," a metric bar scale shall be shown on the plat, positioned directly above the title block. A corresponding foot scale shall be shown and similarly placed, and have a unit scale which is identical to that used in the drawing on the survey portion of the plat. Two equations shall be shown:
1 meter = 3.280833 U.S. survey feet, and 1 U.S. Acre = 0.4047 hectare.

(17) The date of plat preparation and standard north arrow must be shown on the plat. A recent magnetic declination must be shown below the north arrow with a date and source. The current declination may be computed utilizing the N.O.A.A. National Geophysical Data Center website (http://www.ngdc.noaa.gov/geomag-web/).

(18) The applicable Certificates must be shown with the headings capitalized and underlined unless revised by the Special Survey Instructions:

CERTIFICATE OF OWNERSHIP AND DEDICATION

I, the undersigned, hereby certify that I am the Director, Division of Mining, Land and Water and that the State of Alaska is the owner of (AS APPLICABLE) ASLS No. 20xx-xx/ ASCS No. 20xx-xx/ATS XXXX, as shown hereon. I hereby approve this survey and plat for the State of Alaska, and dedicate for public or private use as noted, all easements, public utility areas, and rights-of-way as shown and described hereon.

Dated _____ _____(Signature in black ink)_____
Director, Division of Mining, Land & Water

NOTARY'S ACKNOWLEDGEMENT

Subscribed and sworn to before me this _____ day of _____, 20_____.

By _____.

_____
Notary Public for Alaska
My Commission Expires _____

APPLICANT CERTIFICATE

(Use the singular or plural as applicable.)
(I/We), the undersigned, hereby certify that (I am/we are) the applicant(s) as shown hereon. (I/We) hereby approve this survey and plat.

ADL No. xxxxxx Tracts X, X & X

____(Signature in black ink)_____ _____
Applicant's Name or Date
Authorized Official and Title

NOTARY'S ACKNOWLEDGEMENT

Subscribed and sworn to before me this _____ day of _____, 20_____.

By Applicant's/Official's name to be handwritten in by Notary

_____
Notary Public for Alaska
My Commission Expires _____

SURVEYOR'S CERTIFICATE

I hereby certify that I am properly registered and licensed to practice land surveying in the State of Alaska, that this plat represents a survey made by me or under my direct supervision, that the monuments shown hereon actually exist as described, and that all dimensions and other details are correct.

Date ___(date)____ __(Mechanically lettered name)_____
Registered Land Surveyor

(Surveyor's Seal with Original Signature)

TAX CERTIFICATE

This subdivision lies outside of any taxing authority, at the time of filing.

Or

(Appropriate Taxing Authority Certificate)

(19) Any approval or any other certificates or notes that may be required by the local Platting Authority shall be drafted on the plat.

(20) The following notes will be required on the plat:

a) All bearings shown are true bearings as oriented to the Basis of Bearings and distances shown are reduced to horizontal field distances.

b) The error of closure of this survey does not exceed 1:5000, and/or corner positions have a Relative Positional Accuracy at the 95 percent confidence level of 0.13 feet plus 100 ppm.

c) For plats based on GNSS *(to be used in lieu of note 20a):*

BEARINGS: Are based on high precision Global Navigation Satellite System technology in the NAD 83 (*CORS Epoch*) datum, using (*brand model)* receivers, differentially corrected and processed using *(name of software)*, Version ____ software. Local plane bearings are orientated to true geodetic North at (*monumented position on the survey).* Distances shown are reduced to horizontal field distances.

COORDINATES: The shown record coordinates are from _____, these coordinates were held and used to compute the protracted positions of the Rectangular (section, quarter & sixteenth) corners. The found NAD 83 (*2011*) coordinates (*Lat/Long*) are based on an OPUS Solution (Epoch: *2010.0000*) for the (*monumented position*) and used for verification only of the location. The coordinates were constrained to the National Spatial Reference System using the CORS reference stations: Xxxxx-1 (*PID #*), Xxxxx-2 (*PID #*), and Xxxxx-3 (*PID #*).

d) (If applicable) The natural meanders of the line of ordinary/mean high water (OHW/MHW) form the true bounds of (AS APPLICABLE) ASLS No. 20xx-xx/ ASCS No. 20xx-xx/ATS XXXX. The approximate line of OHW, as shown, is for area computations only, with the true corners being on the extension of the side lines and their intersection with the natural meanders.

e) (If applicable) A note shall be placed on the plat stating either:

Mean high tide was determined by time coordinated tidal observations on month day year as extrapolated from the NOAA Publication for the predictions of high and low waters for (year).

or

Mean high tide was determined from _____ tidal bench mark on month day year from data supplied by NOAA.

f) (If applicable) The tidal datum information shall be shown on the plat in a manner similar to the following:

Tidal Station Name Lat/Long	
MHHW	X.XX’
MHW	X.XX’
MLW	X.XX’
MLLW	X.XX’

(21) Both record and found bearings and distances shall be shown on the plat. In the event there are two sets of record data that of the latest plat of record will be shown with the plat nomenclature indicated. If record lines are not retraced or resurveyed but are used to compute closure, record monumentation along these lines must also be indicated.

(22) The exact marks on all primary monuments recovered and set must be shown on the plat with data pertaining to bearing trees and/or monument accessories established. (If applicable) a detail showing typical markings on secondary monuments recovered or set must be shown on the plat as well.

(23) All easements and rights-of-way shall be shown graphically on the plat in lieu of a "note" whenever possible to do so. This requirement applies to all easements and rights-of-way including those to and along public water bodies and shore lands. In unsurveyed sections, protracted section lines and associated easements shall also be computed and shown, with property line intersection dimensions, on the survey plat.

(24) The plat shall show the legal parcel identifiers for all lands surrounding the survey. Indicate all water body names adjacent to the survey.

(25) A public access easement shall be provided contiguous with the bed of public water and 50 feet upland of the ordinary high water mark of all public or navigable water. The easement shall be depicted in the plat graphics with a dashed line and shall be labeled "*50’ Public Access Easement reserved to the State per AS 38.05.127*."

(26) The standard DNR Title Block must be used, an example of which is available on the DNR Survey Section webpage at <http://www.dnr.state.ak.us/mlw/survey/>. The sections and townships shown in the sample title block shall be modified as necessary, according to the surveyor’s field location of parcel boundaries with respect to protracted or surveyed sections and townships.

PLAT REVIEW PROCESS

Upon completion of the field survey and prior to submittal of the plat to a borough or municipal platting authority (if applicable), a blackline copy of the plat shall be submitted, with the applicable fee, to the Department of Natural Resources for review. If applicable a copy of the final platting board conditions of approval or meeting minutes, and filing fees, will be required with submittal of the final plat.

Legible, annotated copies of all field notes and computations, a sketch showing traverse point relationships, and photographs or legible rubbings of monuments recovered and established must accompany the first plat submittal. For plats where the basis of coordinates is derived from GNSS observations and not from monuments of record the "NGS OPUS Solution Report" must accompany the plat submittal.

The Plat Submittal Requirements and Plat Checklist, which are available on the DNR Survey Section webpage at <http://www.dnr.state.ak.us/mlw/survey/> must accompany the preliminary submittal. The Checked box shall be initialed by hand, by the surveyor, prior to submittal of the preliminary plats for review.

In accordance with 11 AAC 05.240(d)(1)(B), and Director's Fee Order Number 3 dated June 12, 2018, plat review fees are **$1,200** for the first parcel or tract, for up to **40** hours of staff time, and **$160** for each additional parcel or tract, for up to **4** hours of staff time per additional parcel or tract, with the second review at no charge. For the third review and each additional review, fees are **$400** each for the first parcel or tract per plat for up to **13** hours of staff time, and **$160** for each additional parcel or tract, for up to **5.5** hours of staff time per parcel or tract per plat. In accordance with 11 AAC 05.240(d)(2), if the review cannot be completed within the allotted staff times, each additional hour in excess of the listed staff hours will be **$75.00**. Please remit a check or money order payable to the State of Alaska and note the survey number in the "memo" line along with the first plat submittal, and if necessary the third and each additional submittal.

Plat review fees are subject to change per applicable regulations.

FINAL MYLAR PLAT SUBMITTAL

Along with the final plat Mylar, a digital file must be submitted with the entire drawing in *.dxf (drawing exchange format) or *.dwg (AutoCAD drawing format) in standard media electronic format (CD, or DVD) shall be submitted. In lieu of a disk, the surveyor may make the drawing available through a FTP site on the internet or by e-mail attachment.

The only additional drawing requirement is that the drawing file have special layer named "DNR". The following specifications apply only to the "DNR" layer; other layers need not be altered. The "DNR" layer must be in model space and not paper space when the submitted drawing is opened in AutoCAD. The "DNR" layer shall show the surveyed lines, interior lot/tract lines as well as the exterior boundary, the tie to the basis of bearing and the tie to the basis of coordinates. The basis of coordinates shall be labeled with its name/identifier, geographic coordinate values and datum. All parcels must close with lines having clean snapped intersections, with no overshoots or undershoots; snapped lines that close are preferred over polygons. On the "DNR" layer, do not

include extraneous text (area, title block, bearings or distances, details, etc) other than the labels for the basis of bearing and the basis of coordinates.

In accordance with 11 AAC 04.010(a)(14), the plat filing fee is $20.00 for the first sheet and $5.00 for each additional sheet.

Recording fees are subject to change per applicable regulations.

MODIFICATION OF INSTRUCTIONS

Should conditions arise appearing to require additional instructions or interpretation of the Special Survey Instructions or this Attachment, or which make the instructions inoperable, a report shall be submitted promptly to the Survey Section Chief describing the situation and making recommendations for its resolution.

In the event that the survey is not completed, the Special Survey Instructions will become void at 5:00 p.m., AST, two years from the date of approval. Special Survey Instructions may only be extended once after their original issuance. A written request for an extension with justification and applicable fee is required.

THE STATE of ALASKA
GOVERNOR MIKE DUNLEAVY

Department of Natural Resources
DIVISION OF MINING, LAND & WATER
Survey Section
550 West 7th Avenue, Suite 650
Anchorage, Alaska 99501-3576
Main: 907.269.8523
TTY: 711 or 800-770-8973
Fax: 907.269.8916

Plat Checklist

Complete and submit with plat for review.

☐ 1) The final plat submittal is of archive quality bi-axially oriented polyester film that does not exceed 32 x 36 inches. Margins shall be 1½ inch on the left and ½ inch on the top, right and bottom.

☐ 2) Use the standard DNR legend and border configuration, an example of which is available on the DNR Survey Section webpage at <http://www.dnr.state.ak.us/mlw/survey/> .

☐ 3) All sheets have the official division title block per the Special Survey Instructions.

☐ 4) It is the responsibility of the surveyor to comply with 12 AAC 36.185. Use of Seals. All sheets must include:

- ☐ a) surveyors seal and date each time the registrant signs and seals a document by electronically or manually inserting the date within the seal or within two inches of the seal
- ☐ b) business name, physical address, and telephone number
- ☐ c) project name or identification
- ☐ d) project address or location
- ☐ e) certificate of authorization number issued to the corporation, limited liability company, or limited liability partnership to practice architecture, engineering, land surveying, or landscape architecture, if applicable.

☐ 5) The plat is prepared in black ink (no gray scale) and with mechanical lettering equipment.

☐ 6) All line work and lettering is professional quality and all line widths and lettering sizes are of such size that information is clearly shown without overlap or confusion. All lettering is a minimum size 80 Leroy ®, or equivalent, with No. 100 recommended. Size 80 lettering is uppercase.

☐ 7) When more than one sheet is used, an index sheet shows the entire parcel. Each sheet shows the sheet number and total number. The last sheet has the approval certificates. All sheets are the same size.

☐ 8) The plat must be in an appropriate engineering scale, preferably of one inch representing a multiple of 100 feet. If larger than 100 scale is a multiple of 10.

☐ 9) Details are shown at an appropriate indicated scale.

☐ 10) Vicinity map is in the upper right hand corner of the first sheet and is at least four inches on each side at a scale of 1:63,360. Sections, townships and ranges, boundaries such as national forest or

municipal boundaries, and other prominent physical or natural features such as roads, lakes, or rivers are shown. The source and date/revision date of the base map is indicated.

☐ 11) Nomenclature of the survey is in the title block.

☐ 12) The Basis of Bearings and Basis of Coordinates are shown. Bearings are true bearings, and distances are in US Survey Feet reduced to horizontal. The Basis of Bearing and Basis of Coordinates are shown on the plat in **bold lettering**. The Datum is noted, including the conversion method.

- ☐ a) **Basis of Bearing:** is between two recovered monuments for which there is a record bearing; preferably the longest line of record. Or alternately the Basis of Bearing was determined via OPUS solutions on two or more monumented points.
- ☐ b) **Basis of Coordinates:** Is on a primary monument with record coordinates or coordinates computed from record tie information to a rectangular monument in the PLSS. Or alternately geographic coordinates were determined via OPUS solution. Observations are on a primary monument, set or recovered, which is shown on the plat with ties to the survey. Documentation accompanying the first plat submittal includes recordable copies of the "NGS OPUS Solution Report," and a completed "GPS Station Observation Log." The NGS Opus Solution Report shows sufficient GPS data for minimum of an OPUS-RS solution.

☐ 13) Bearings are shown to the nearest second and distances to one hundredth of a foot. Boundary line distances are shown from monument to monument. Witness distances are shown.

☐ 14) As depicted on the sample plat, the following are shown positioned directly above the title block:

- ☐ a) A foot scale identical to the drawing scale,
- ☐ b) a metric bar scale,
- ☐ c) Two equations: 1 meter = 3.280833 U.S. survey feet, and 1 U.S. acre = 0.4047 hectare.

☐ 15) The date of plat preparation and date of north arrow declination are shown.

☐ 16) Certificates are shown as follows, with the headings capitalized and underlined:

- ☐ a) <u>CERTIFICATE OF OWNERSHIP AND/OR DEDICATION with NOTARY'S ACKNOWLEDGEMENT</u>
- ☐ b) <u>APPLICANT CERTIFICATE with NOTARY'S ACKNOWLEDGEMENT</u>
- ☐ c) <u>SURVEYOR'S CERTIFICATE</u>
- ☐ d) <u>PLAT APPROVAL</u> (Appropriate Platting Authority Certificate)
- ☐ e) <u>ACCEPTANCE OF DEDICATION</u> (as appropriate in Unorganized Borough)
- ☐ f) <u>TAX CERTIFICATE</u> (Appropriate Taxing Authority Certificate or "This subdivision lies outside of any taxing authority, at the time of filing.")

☐ 17) All notes are shown as required by the General Survey Instructions.

☐ 18) All notes are shown as required by the Special Survey Instructions.

☐ 19) Both record and found bearings and distances are shown on the plat.

- ☐ a) In the event there are two sets of record data that of the latest plat of record is shown with the plat nomenclature indicated.
- ☐ b) In the event that it was not required to tie a line of record, and the record data was used to compute closure, record monumentation along these lines is indicated.

☐ 20) All easements and rights-of-way are shown on the plat in lieu of a "note" whenever possible. In unsurveyed sections, protracted section lines and easements are computed and shown, with propertyline intersection dimensions, on the plat. Easements are identified by legal creating source, i.e. statute, regulation, plat or ADL No.

☐ 21) The names of adjacent owners or claimants, or an indication that the land is not owned or claimed, adjacent U.S. surveys, private surveys or subdivisions, and Alaska state land surveys are shown.

☐ 22) A public access easement is shown contiguous with the bed of public water and 50 feet upland of the ordinary high water mark of all public or navigable water. The easement is depicted on the plat with a dashed line and is labeled *"50' Public Access Easement reserved to the State per AS 38.05.127."*

☐ 23) The current Division of Mining, Land and Water title block is in the lower right-hand corner of each sheet of the plat, and labeled per the special survey instructions. Name, Address and Phone number of the surveyor are in the upper right-hand corner of the title block.

☐ 24) The correct sections and townships shown based on the surveyor's field location of parcel boundaries with respect to protracted or surveyed sections and townships.

☐ 25) The exact marks on all monuments recovered and set are shown on the plat with data pertaining to bearing trees and/or monument accessories established. **Recommended format:**

MONUMENT ACCESSORY TABLE				
MONUMENT MARKINGS	DESCRIPTION	BEARING OBJECT	BEARING	DISTANCE
A Markings	SET 3.5" AL CAP ON 2.5" X 30" AL POST W/ MAGNET FIXED TO CAP . 3' ABOVE GRADE WITH CARSONITE POST 1' NORTH	8" SPRUCE	N23°E	34.2'
		12 " BIRCH	S36°E	20.6'
		4" BLACK SPRUCE	S67°W	17.7'

THE STATE of ALASKA
GOVERNOR MIKE DUNLEAVY

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Survey Section

550 West 7th Avenue, Suite 650
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Main: 907.269.8523
TTY: 711 or 800-770-8973
Fax: 907.269.8916

Plat Submittal Requirements

All items to be submitted in PDF format except as otherwise noted.

- ☐ 1. This checklist with all items checked. Incomplete submittals will be returned.
- ☐ 2. Plat Review Fees per Director's Fee Order Number 3 dated June 12, 2018.
- ☐ 3. Cover letter listing the submitted documentation. i.e. – review fees, cd w/digital data.
- ☐ 4. Plat converted from AutoCAD to PDF at full scale in Digital Format.
- ☐ 5. **One** full scale blackline copy of plat marked PRELIMINARY SUBMITTAL.
- ☐ 6. If applicable, OPUS Solution Report.
- 7. Field Data – (PDF format preferred).
  - ☐ i. Copy of field Notes
  - ☐ ii. Traverse Point Plot or field Note sketch and Point List- PNEZD (Number, Northing, Easting, Elevation, Description) Digital Format- CSV
  - ☐ iii. Computations and adjustments
    1. Traverse closure and adjustments
    2. Geodetic tie and computations, NADCON conversions
    3. Lot summary – Raw and Adjusted.
  - ☐ iv. Description of Recovered Monumentation – (condition and accessories)
    1. Previously existing monuments and accessories found in a disturbed condition must be returned to the original position and condition as nearly as possible or replaced so as to perpetuate the position
    2. Method used to refurbish or re-establish to perpetuate the original condition.
  - ☐ v. All GNSS data; including raw data files, adjustment files, and final coordinate file shall be submitted in digital format only.
- ☐ 8. Digital photographs showing 1) legible cap marking, 2) general conditions at the monument, 3) all accessories from the monument and a close-up of all bearing tree tags or scribes
  - i. Set Monument and accessory monument Photos
  - ii. Recovered Monument Photos or Rubbings.
- ☐ 9. Completed Plat Checklist.

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND & WATER
CADASTRAL SURVEY UNIT
550 W 7TH AVE., SUITE No. 650
ANCHORAGE, ALASKA 99501-3576

SPECIAL SURVEY INSTRUCTIONS

ALASKA TIDELAND SURVEY NO. 1755

These instructions together with the Attachment for Special Survey Instructions, Ver. March 13, 2019, provide for the survey and platting of one parcel approximately 4.73 acres of tide and submerged lands within Section 25, Township 41 South, Range 67 East, Copper River Meridian, at Juneau, Alaska. The purpose of this survey is to facilitate the Conveyance of Tide and Submerged Land to the City and Borough of Juneau in accordance with AS 38.05.825, pursuant to the Final Finding and Decision for ADL No. 109052, approved May 18, 2021..

HISTORY OF SURVEYS

Protraction Diagram CR12-13, for Township 41 South, Range 67 East, Copper River Meridian, was approved/accepted by the State of Alaska on May 1, 1980.

Township 41 South, Range 67 East, Copper River Meridian, platting Sections 7, 8, 16, 17, 19, 20, 29, 30, 31, 32 and 33, was surveyed by Donald P. Fordney, Registered Alaska Land Surveyor for Pool Engineering Inc.,, in 1985 and the plat was accepted by BLM on June 14, 1990.

U.S. Survey No. 1762 was surveyed by E.C. Guerin, Cadastral Engineer, in 1927 and the plat was approved/accepted by G.L.O. on February 10, 1940.

ATS No. 3 was surveyed by C.R. Nordling in 1960 and the plat was recorded/filed on June 14, 1961 as Plat No. 293, Juneau Recording District.

ATS No. 201 was surveyed by C.R. Nordling in 1967 and the plat was filed on May 31, 1967 as Plat No. 500, Juneau Recording District.

ATS No. 1623 was surveyed by Mark A. Johnson in 2005 and the plat was recorded/filed on December 9, 2005 as Plat No. 2005-53, Juneau Recording District.

ATS No. 1707 was surveyed by A. William Stoll in 2019 and the plat was recorded/filed on February 31, 2020 as Plat No. 2020-4, Juneau Recording District.

The following plats were filed/recorded in the Juneau Recording District:

Lots 1-A & 2A, Alaska Juneau Subdivision was surveyed by M.A. Menzies in 1991 and the plat was recorded on June 10, 1991 as Plat No. 91-31.

Franklin Dock Enterprises Subdivision was surveyed by Malcolm A. Menzies in 1995 and the plat was filed/recorded on March 6, 1996 as Amended Plat No. 96-11.

Alaska Juneau Subdivision II, was surveyed by Mark A Menzies in 1991 and the plat was recorded on October 1, 1991 as Plat No. 91-67.

Lot 1, 2 &3, Taku Rock Dump Resubdivision, was surveyed by J.W. Bean in 2005 and the plat was filed/recorded on April 13, 2005 as Plat No. 2005-16.

METHOD OF SURVEY PROCEDURE

One tract shall be created by this survey.

Tract A shall be a single parcel containing approximately 4.73 acres.

The northerly boundary of ATS 1755 shall be coincident with the southerly boundary of Tract 1, ATS 1707. The easterly boundary shall be coincident with the seaward or westerly boundary of ATS 201 (has been subdivided into several parcels). The southerly boundary shall be coincident with ATS 201 and ATS 1623. The seaward boundary will be a southerly extension of the seaward boundary of ATS 1707. Ties shall be made to two monuments on each end (North and South) of ATS 1755 and shown on the plat.

ATS No. 1755 shall encompass all improvements associated with the dock and moorage facilities. The improvements shall be as-built and depicted on the plat with ties to the parcel boundary.

ATS No.'s 3, 201, 1623 and 1707 shall be retraced sufficiently to ensure that they are not encroached upon.

A table shall be shown on the plat showing:

Ties from a minimum of two monuments, preferably monuments used to control the adjoining tideland surveys, shall be made to each corner of ATS 1755. The ties shall be oriented to yield a strong geometric figure for the purpose of reestablishing each corner of ATS 1755.

ATS 1755 is subject to:

Public Utility Easement, DNR casefile ADL 106916, as depicted on EPF 20110005, recorded as Plat 2017-47, Juneau Recording District.

The foregoing easements shall be graphically depicted and labeled on the plat.

Any additional survey or monumentation requirements of the City and Borough of Juneau Platting Authority must also be conformed to.

TECHNICAL SURVEY REQUIREMENTS

PLAT REQUIREMENTS

All Certificates as shown in the Attachment for Special Survey Instructions and the following must be shown with the headings capitalized and underlined:

Appropriate City and Borough of Juneau Plat Approval Certificate

All Notes as shown in the Attachment for Special Survey Instructions and the following will be required on the plat:

a. This survey was accomplished in accordance with AS 38.05.825 and ATS SI No. 1755.

The current Division of Mining, Land and Water title block shall be placed in the lower right-hand corner of each sheet of the plat, and labeled as follows:

<table>
<tr><td colspan="2">DATE OF SURVEY
Beginning: mm/dd/yyyy
Ending: mm/dd/yyyy</td><td>SURVEYOR
(Name)
(Address)
Xxxxxx Xxxxxx, AK. XXXXX
(Business Phone),
Certificate of Authorization Number</td></tr>
<tr><td colspan="3">STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND AND WATER
ANCHORAGE, ALASKA</td></tr>
<tr><td colspan="3">ALASKA TIDELAND SURVEY NO. 1755</td></tr>
<tr><td colspan="3">CREATING TRACT A

LOCATED WITHIN
PROTRACTED SECTION 25
TOWNSHIP 41 SOUTH, RANGE 61 EAST,
COPPER RIVER MERIDIAN, ALASKA

CONTAINING XX.XX ACRES

JUNEAU RECORDING DISTRICT</td></tr>
<tr><td colspan="2">DRAWN BY: ___
DATE: _____</td><td>APPROVAL RECOMMENDED

_____
STATEWIDE PLATTING SUPERVISOR DATE</td></tr>
<tr><td>SCALE
1" = XX'</td><td>CHECKED
(Initials)</td><td>FILE NO.
ATS 1755</td></tr>
</table>

Prepared by: _____
A. Brian Raynes, PLS
Land Surveyor II

Approved by: _____ Date: 4-20-22
A. Brian Raynes, PLS,
Coastal and Riparian Boundary Unit Supervisor

ABR: ABR: abr

Enclosures:
Preliminary Finding and Decision
Final Finding and Decision
Alaska Tideland Surveys

cc: John King, Land Conveyance Section, DML&W
Survey Tracking & Monitoring: ADL 109052 (Case Type 316, Subtype 0046)

Alaska Tideland Surveys

"Who, What, When, Where, How, Why"

A Paper Presented at the

37th Annual Alaska Surveying and Mapping Conference

By

Gerald Jennings, P.L.S., and Joe Kemmerer, P.L.S.

February, 2002

State of Alaska
Department of Natural Resources
Division of Mining, Land and Water, Technical and Data Management
550 West 7th Ave, Suite 650
Anchorage, Alaska 99501-3576
(907) 269-8523 Fax (907) 269-8914

ABSTRACT

Alaska Tideland Surveys – the 5 w's. Surveys of tideland parcels are unique in several ways. Typically all corners are monumented with witness corners. DNR is usually the fee owner of the parcel, and the landward boundary is usually the mean high water line. Frequently, the line is fixed and limiting, because of avulsion, or placement of fill. This paper will briefly discuss how an applicant applies for a tideland lease or conveyance and how to conduct the survey and obtain state approval. Presenter: Gerald Jennings

The Department of Natural Resources, Division of Mining, Land and Water, Technical and Data Management staff dealing with Alaska Tideland Surveys:

Gerald Jennings, P.L.S., Statewide Platting Supervisor

Joe Kemmerer, P.L.S., Coastal Boundary.

William (Bill) Brown, P.L.S., Riparian Specialist

Alaska Tideland Surveys

Introduction – who what why?

Title to most of the tide and submerged lands surrounding Alaska was vested in the State of Alaska under the Submerged Lands Act of May 22, 1953. Most of those lands remain in state ownership and in most cases, the state will lease, but retain fee title. As a surveyor, you will be contacted about Alaska Tideland Surveys (ATS) by a public or private party who desires to lease or acquire tidelands for various reasons such as construction of docks, bridges, harbors, log transfer facilities, etc.

Another situation in which you may need to conduct an ATS is to facilitate conveyance of tide and submerged lands to local communities under AS 38.05.820 or .825.

What are tidelands? The DNR Fact Sheet Titled: Tide & submerged Land Ownership (appendix A) discusses tideland ownership and what are tide and submerged lands. Tidelands are those lands between the mean high and the mean low tide lines. State owned submerged lands are located seaward of the mean low tide line and extending out three nautical miles. A definition of tidelands is also found in AS 38.05.965.

Why are tideland surveys required? For lease or patent, it is required under AS 38.04.045(b) "Before the issuance of a long-term lease under AS 38.05.070 or of a patent for state land, an official cadastral survey shall be accomplished, unless a comparable, approved survey exists that has been conducted by the federal Bureau of Land Management."

When? The Application Process

Your client calls up and tells you that they need a survey. They want to build a dock and the state's telling them that they need a survey. You respond, "I'll be glad to help. At what step is your application at DNR?". Sometimes applicants go for the survey too early. If you call the survey unit, we will ask for the ADL number, and we will check for a final decision. If the decision hasn't been done yet, it is usually too early to get survey instructions, but not always. Occasionally, we will issue instructions based on an approved preliminary decision, but rarely before any decision is issued. We will need verification from the division's adjudicator for instructions to go out before the final decision.

How To Conduct A Tideland Survey – Field Procedures

Before beginning the field survey, obtain survey instructions from DNR –see below.

Monumentation: For the "normal" ATS survey you will set four monuments, two on the upland extension of each sideline. Typically, the upland owner is the tideland applicant, however if not, you need to obtain permission for setting monuments on the uplands.

Monuments are to meet the standards for primary monuments (11AAC53.), which includes a requirement for setting accessories. However, we will entertain requests to waive accessories in areas of dense monumentation.

Monument Marking: There has been some confusion on this subject over the years. The confusion is the marking of the two witness corners which are set on a sideline's upland extension. Occasionally a survey will show one of the two monuments marked as a witness corner to the nearest true corner, with the second monument as witnessing the seaward corner. This works, but is not preferred. What doesn't work, is sometimes a survey shows both WC monuments as witnessing the same corner, with no differentiation of markings on the two witness monuments. If one is lost, it is difficult to determine which is remaining.

The preferred marking is to label the witness corners as wc 1 and wc 2 to the nearest true meander corner. This way, lining up the two monuments will give the lay person an approximation of the ATS survey parcel's sideline as it crosses the water. But if the true location became critical, it would be determined by grant boundary adjustment between the true meander corners on the opposite sidelines of the survey. This is because the two witness corners are typically set too close together to be dependable as an extension seaward.

How to determine the landward boundary: Often, there are two lines which need to be compared, the existing line of mean high water (MHW), and the record line as per the adjacent upland survey.

The approximate location of the true mean high water line is determined by the use of National Geodetic Survey tidal bench marks (or any other bench marks that have been determined from that source), and the MHW datum for the immediate body of water. Ref: 11AAC53.120(1). If no such bench marks exist within one mile, then tidal observations may be taken and used in conjunction with official tide tables for the immediate body of water. A note shall be placed on the plat stating either:

> Mean high tide was determined by time coordinated tidal observations on mth day yr as extrapolated from the NOAA Publication for the predictions of high and low waters for (year).

or

> Mean high tide was determined from _____ tidal bench mark on mth day yr from data supplied by NOAA. Bench Mark Elev.:

So, how exactly is this done in the field? Typically, you will set a temporary bench mark near the project and run levels from NGS bench mark or if there is no bench mark within one mile, you take time coordinated tide readings. See appendices B, C and D; "DETERMINING MEAN HIGH TIDE WHERE AN NGS BENCH MARK EXISTS" and "DETERMINING MEAN HIGH TIDE IN AREAS WHERE NO NGS BENCH

MARKS EXIST". The published MHW elevation for a particular body of water can be found on NOS Nautical Charts, NOS Tidal Bench Mark Data Sheets, or from the predicted tide tables.

To determine the meander line of record, it is necessary to tie monumentation from the record survey. You tie the nearest monument of the record survey in each direction, and using grant boundary adjustment procedures, fit the record meanders between the recovered monuments.

Once you've established the two lines, what do you do with them? This will ordinarily be addressed in the survey instructions. State regulations 11AAC53.120 set the guidelines for whether to set the upland boundary at the one line or the other.

In cases where it is determined that there has been an avulsive event, such as fill placed, or uplift (or subsidence), etc, the best evidence of the last location of the MHW prior to the event is used to set the line as a fixed and limiting boundary. This is usually the last survey of record, although sometimes aerial photography, surveys not of record or other evidence may be used.

A 50 foot public access easement is required by AS 38.05.127 and 11AAC51.045. Unless the easement is specifically waived in the final decision, it is required to be shown on the plat. The easement is along the existing mean high water line. There has been confusion on this in the past as the easement is to follow the existing MHW, not necessarily the landward boundary of the survey, which sometimes follows the record MHW line instead.

Note that the public access easement is applied 50 feet seaward and 50 upland of the existing MHW on uplands owned by the state. Thus, those surveys which, because of fill, extend upland of the existing MHW, will have the easement applied both directions.

Other Issues

Apportionment of tidelands: In cases of negotiated leases, the applicant's tideland parcel is limited to tidelands adjacent to his upland parcel. Depending on the configuration of the shore, the surveyor may not be able to simply extend the upland boundary seaward, but should typically extend at the angle which bisects the shoreline meander. The surveyor must be aware of the adjacent upland owner's rights to the tidelands.

How does accretion and erosion to the upland parcel's affect the tidelands parcel? Where the landward boundary is ambulatory, the seaward boundary is fixed. Thus accretion to uplands, "erodes" away the tidelands parcel. Over time, a tideland parcel can disappear. On the other hand, erosion of the upland parcel, increases the size of the tideland parcel.

Where Do You Get Survey Instructions?

You have received a final decision, and you would like to get the lands surveyed, how do you get started? Send a request for survey instructions to DNR's Land Survey Unit. The request should include the ADL number, a description of the lands which you want to have surveyed at this time, and the $225 fee. It is preferable that you only request for lands that you actually plan to survey, as they have a two year expiration, after which they would have to be extended or completely reissued depending on how much things have changed.

Gerald Jennings, Statewide Platting Supervisor
Department of Natural Resources
Div. Of Mining, Land and Water
Technical & Data Management
550 W 7th Ave, suite 650
Anchorage, Alaska 99501-3576

Email: Gerald_Jennings@dnr.state.ak.us
Phone: 907-269-8516
Fax: 907-269-8914

Depending on our workload, it may take a couple of months to get the instructions prepared. When the field work is complete, submit the project to DNR surveys for review. The review fee is $200 for the first tract, plus $50 per additional parcel.

If within a city or borough that exercises platting authority, you will need to go through the platting board for approval of the survey. When the survey meets DNR and local approval, the final plat will be signed by various parties and submitted for recording. The recording fee is $20 for sheet 1, plus $5 per additional sheet.

These fees are set out in 11 AAC 05.010 (a)(13) survey and platting.

(13) survey and platting

(A) issuance or amendment of survey instructions, $50 for a remote recreational cabin site lease, replat, or right-of-way vacation, and $225 for any other type of survey;

(B) plat review under AS 38.04.045 ,

(i) first review of first parcel or tract per plat, $200, and $50 for each additional parcel or tract per plat, with the second review at no charge;

(ii) third and each additional review of first parcel or tract per plat, $300 each, and $100 for each additional parcel or tract per plat;

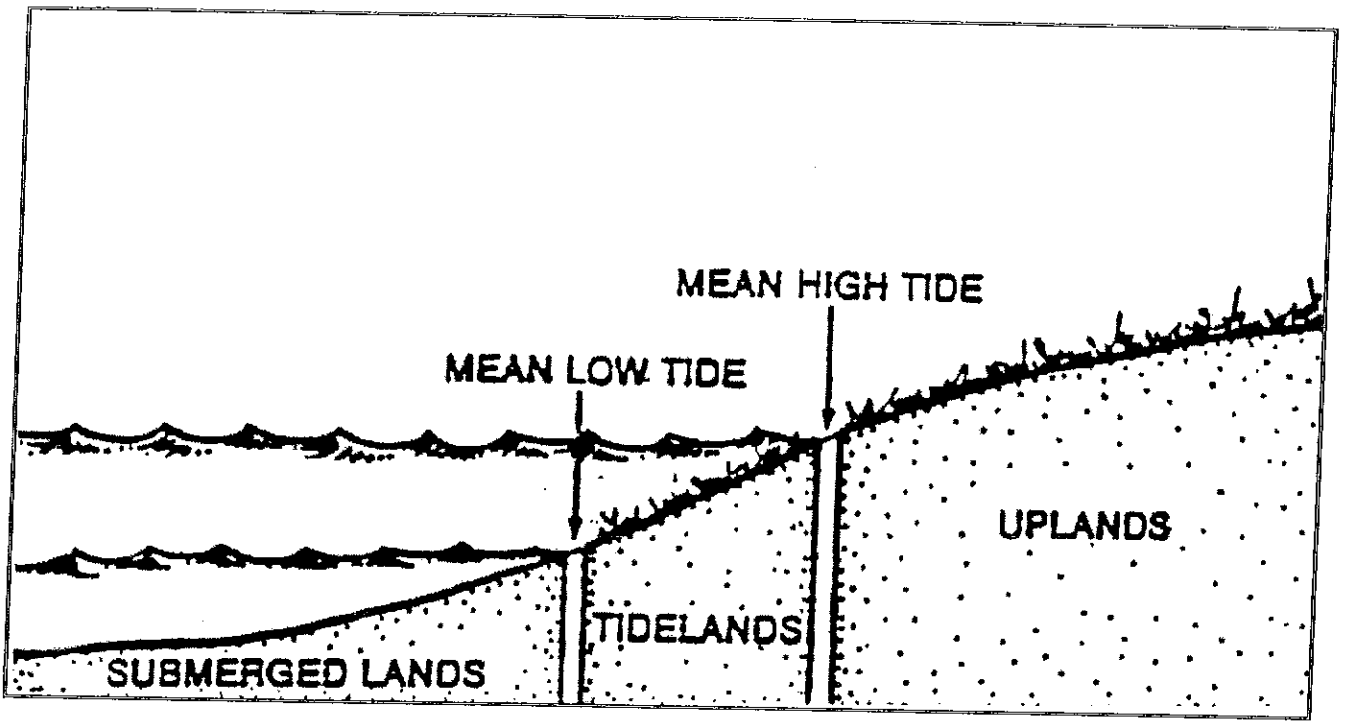
Fact Sheet

Title: Tide & Submerged Land Ownership

Alaska Department of NATURAL RESOURCES
Division of Mining, Land & Water
January 2000

What are "tide and submerged" lands?

Tidelands include the land between mean (average) high and mean low tide. Submerged lands are seaward of mean low tide to three miles offshore. The tide and submerged lands include all land between the mean high tide line and three miles offshore of the mean low tideline.



Who owns tide and submerged lands in Alaska?

The State of Alaska owns most of the tide and submerged lands along its coastline. The submerged Lands Act of May 22, 1953 states that all lands permanently or periodically covered by tidal waters up to, but not above, the line of mean high tide and seaward to a line three geographical miles distant from the coast mean low tideline is owned by the state.

Can the state sell or lease its tide and submerged land?

As a general rule, the State cannot sell tide and submerged land. However, certain cities and individuals or corporations may acquire title to tide and submerged land occupied or developed on or before January 3, 1959, the date Alaska was admitted to the union. There are several programs under which a lease of state tidelands may be acquired.

Can I use state tide and submerged lands, even if the state doesn't own the uplands?

Yes, you can use state tide and submerged land, even if the uplands are not owned by the state. However, you must remember that you only have the right to use the land from mean high water seaward. You are also expected to respect the upland owner's rights and treat the land with care.

Does the federal government own tidelands adjacent to its conservation units, such as National Parks?

The question has been raised that the United States may own tidelands adjacent to certain federal withdrawals that exist prior to statehood. However, that question was answered on June 8, 1987 when the U.S. Supreme Court issued its decision in Utah v. United States. This decision established that federal land withdrawals made prior to statehood did not include land under navigable waters.
In that decision, the Supreme Court affirmed the longstanding policy that the federal government holds land under navigable waters for the ultimate benefit of a future state. In order for this not to be the case, congress would have to specifically include the land and clearly state that it intended that the state would not have title to it.

Tide and submerged lands were not included in any pre-statehood federal withdrawals within Alaska and there is no indication that Congress intended to take away the State of Alaska's title. The state therefore received title to all the tide and submerged lands at statehood.

Additionally, in the Alaska National Interest Lands Conservation Act, Congress did not take away the state's power to regulate state-owned submerged lands within or adjacent to federal Conservation System Units in Alaska. Many provisions in ANILCA recognize and respect the state's authority over state-owned land.

Where the uplands are within federal conservation units, the state has cooperated with federal land managers wherever possible. As a result, some special use restrictions may apply. Sometimes this cooperation is formally set out in a memorandum of understanding that discusses management issues and how they will be resolved.

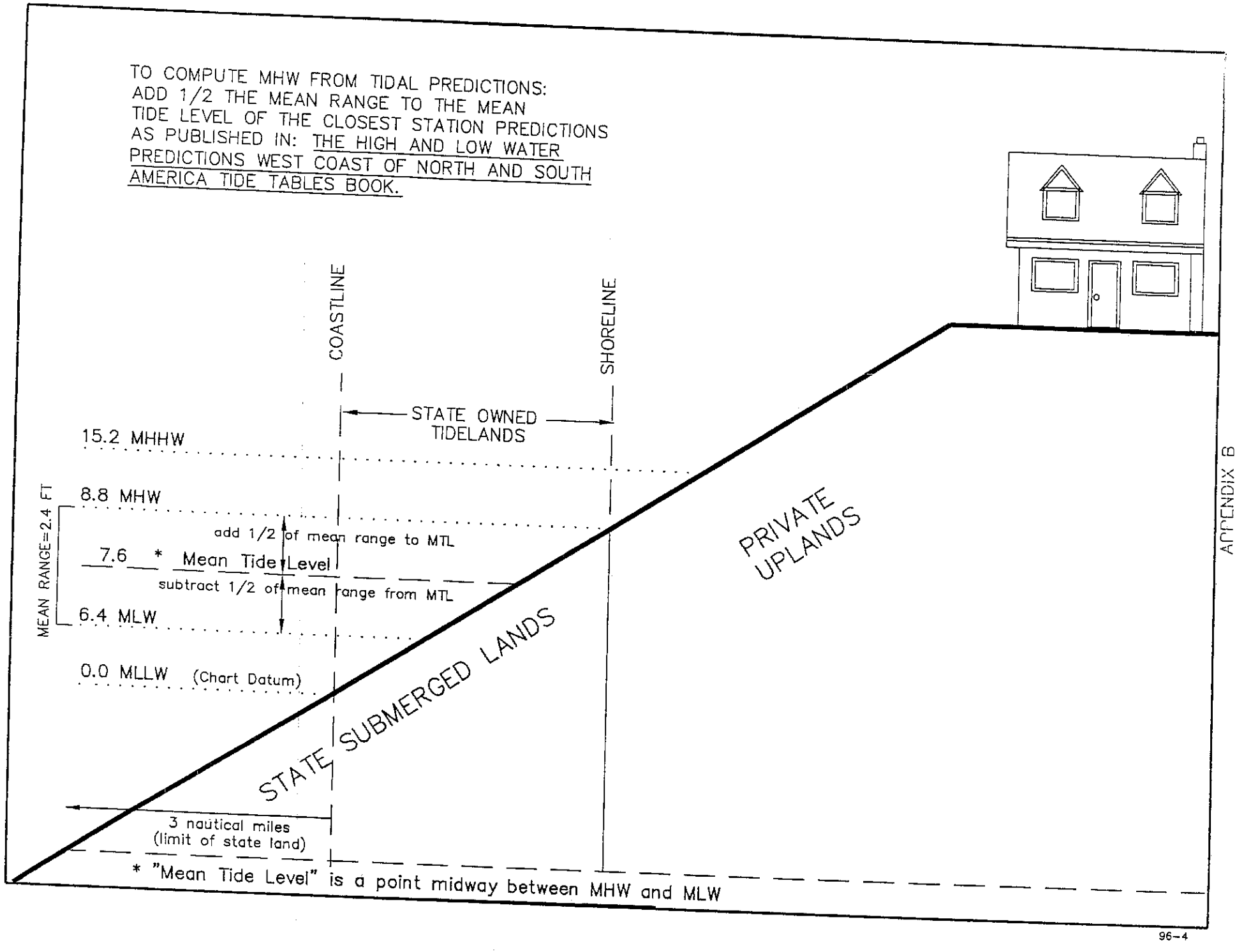
For additional information contact:

Department of Natural Resources
Division of Mining, Land & Water

Southcentral Regional Office
550 West 7th Avenue, Suite 900-C
Anchorage, AK 99501
Phone: 907-269-8503

Southeast Regional Office
400 Willoughby Avenue, 4th Floor
Juneau, AK 99801
Phone: 907-465-3400

Northern Regional Office
3700 Airport Way
Fairbanks, AK 99709
Phone: 907-451-2700


TO COMPUTE MHW FROM TIDAL PREDICTIONS:
ADD 1/2 THE MEAN RANGE TO THE MEAN
TIDE LEVEL OF THE CLOSEST STATION PREDICTIONS
AS PUBLISHED IN: THE HIGH AND LOW WATER
PREDICTIONS WEST COAST OF NORTH AND SOUTH
AMERICA TIDE TABLES BOOK.
COASTLINE
SHORELINE
STATE OWNED
TIDELANDS
15.2 MHHW
8.8 MHW
MEAN RANGE=2.4 FT
add 1/2 of mean range to MTL
7.6 * Mean Tide Level
subtract 1/2 of mean range from MTL
6.4 MLW
0.0 MLLW (Chart Datum)
PRIVATE
UPLANDS
STATE SUBMERGED LANDS
3 nautical miles
(limit of state land)
* "Mean Tide Level" is a point midway between MHW and MLW
APPENDIX B
96-4

DETERMINING MEAN HIGH TIDE WHERE AN NGS BENCH MARK EXISTS

1. NOAA Primary Control Stations and related benchmark data can be obtained at http://co-ops.nos.noaa.gov/bench.html or the State of Alaska/ DNR at (907) 269-8521. *Example: Juneau.*

2. Using a level and rod, run differential levels from one of the Control Station bench marks to the project location.

3. Establish a point on each sideline of the ATS survey at the mean high water elevation. Measure the witness distance from these points to the witness monuments.

4. When the tide level reaches this elevation, field survey the meanders within the project.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Service

Station ID: 9452210
Name: JUNEAU, GASTINEAU CHANNEL, STEPHENS PASS ALASKA
NOAA Chart: 17315
USGS Quad: JUNEAU B-2

PUBLICATION DATE: 11/02/1999

Latitude: 58ø 17.9' N
Longitude: 134ø 24.9' W

To reach the tidal bench marks from the main Juneau Post Office main entrance at 9th and D Streets, proceed SW one block to Glacier Avenue, turn left onto Glacier Avenue and proceed 0.2 km (0.1 mi), bear left at the Y intersection onto Willoughby Avenue and follow it 0.3 km (0.2 mi) to Whittier Street, turn right onto Whittier Street and proceed 0.4 km (0.3 mi) (across Egan Drive) to the U.S. Coast Guard Pier. The bench marks are in the general vicinity. Turn right (SW) from the main Coast Guard pier and proceed 73.15 m (240.0 ft) to the tide house.

T I D A L B E N C H M A R K S

PRIMARY BENCH MARK STAMPING:
DESIGNATION: 945 2210 TIDAL 8
ALIAS: 8 1922

MONUMENTATION: Tidal Station disk
AGENCY: U.S. Coast & Geodetic Survey (USC&GS)
SETTING CLASSIFICATION: Building wall

VM#: 1188
PID:

The primary bench mark is an unstamped disk set vertically in the SE corner of the Goldstein Emporium Building on the west side of Seward Street between Front and Second Streets, 5.18 m (17.0 ft) south of the entrance to Miss Scarlett's

U.S. DEPARTMENT OF COMMERCE
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Latitude: 58ø 17.9' N
Longitude: 134ø 24.9' W

T I D A L D A T U M S

Tidal datums at JUNEAU, GASTINEAU CHANNEL, STEPHENS PASS based on:

LENGTH OF SERIES:	5 YEARS
TIME PERIOD:	January 1994 - December 1998
TIDAL EPOCH:	1960-1978
CONTROL TIDE STATION:	

Appendix C

Elevations of tidal datums referred to Mean Lower Low Water (MLLW), in METERS:

HIGHEST OBSERVED WATER LEVEL (11/02/1948)	= 7.395
MEAN HIGHER HIGH WATER (MHHW)	= 4.962
MEAN HIGH WATER (MHW)	= 4.675
MEAN SEA LEVEL (MSL)	= 2.615
MEAN TIDE LEVEL (MTL)	= 2.580
MEAN LOW WATER (MLW)	= 0.485
MEAN LOWER LOW WATER (MLLW)	= 0.000
LOWEST OBSERVED WATER LEVEL (01/01/1991)	= -1.663

Bench Mark Elevation Information

Stamping or Designation	In METERS above: MLLW	MHW
945 2210 TIDAL 8	11.836	7.161
12 1945	18.203	13.528
2210 C 1982	8.960	4.285
2210 D 1984	10.844	6.169
2210 E 1984	10.343	5.668
2210 G 1984	10.340	5.665
945 2210 TIDAL 9	9.714	5.039
BM WG-91 1994 ELEVATION 29.26	9.156	4.481
2210 J 1997	9.737	5.062
2210 H 1997	9.990	5.315

Appendix C

DETERMINING MEAN HIGH TIDE IN AREAS WHERE NO NGS BENCH MARKS EXIST

1. In NOAA Tide Tables 2002, NOS High and Low Water Predictions or on the internet at: http://co- ops.nos.noaa.gov/tpred2.html#AK look up high tides and times for nearest Tide Station in Table 1. *Example: Juneau - June 12, 2002.*
    A. Tide predictions in the NOAA Tide Predictions book are in Alaska Standard Time.

2. Look up nearest Place in Table 2. Example: Cannery Cove, Phybus Bay.

3. Add or subtract (or multiply by ratio factor) local correction factor to time of high tide in Table 1 to find predicted time of Local High Tide. *Example: 17:57-00:08 = 17:49.*

4. Using a level and rod observe the rising tide from ½ hour before to ½ hour after predicted time of high tide taking a minimum of six observations on the rod. Mean the observations and using the level and rod locate the mean elevation on the beach and mark with a temporary bench. This is the approximate High Tide for this location on this day at this time (AM or PM).

5. Apply local Height difference from Table 2 to High Tide at the nearest Tide Station in Table 1.This will be the approximate elevation of the point marked in step 4. *Example: 13.0' x 0.90' = 11.7'.*

6. Find the Mean High Tide for this location by looking up the Local Mean Range in Table 2. Divide this number by 2. Add the result to the local mean Tide Level also found in Table 2. *Example: 12.24' / 2 = 6.12' 6.12' + 7.60' = 13.72.'*

7. Locate the Mean High Tide Line on the beach by subtracting or adding to the elevation of the marked point. In this case you would move the rod upland from the water line to the point of elevation 13.72 feet.

Appendix D

All Tables Unaltered and Unabridged

Tide Tables 2002

High and Low Water Predictions

West Coast of North and South America

Including the Hawaiian Islands and the Alaskan Supplement

International Marine

Formerly published by the **National Ocean Service, NOS,**
a division of the **National Oceanic and Atmospheric Administration, NOAA.**

Accepted by the U.S. Coast Guard

TABLE 1.—DAILY TIDE PREDICTIONS

Juneau, Alaska, 2001

Times and Heights of High and Low Waters

April

	Time	Height			Time	Height			Time	Height			Time	Height			Time	Height		
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm	
1 Su ◐	0544	14.4	439	16 M	0107	6.7	204	1 Tu	0100	5.4	165	16 W	0147	6.0	183	1 F	0320	1.9	58	16 Sa	0301	3.3	101
	1247	1.5	46		0704	12.1	369		0702	13.7	418		0734	11.8	360		0928	13.8	421		0900	11.8	360
	1924	11.8	360		1404	3.2	98		1348	1.0	30		1409	3.2	98		1526	1.6	49		1456	3.8	116
					2059	11.7	357		2029	13.8	421		2053	12.9	393		2150	16.6	506		2119	14.7	448
2 M	0101	6.0	183	17 Tu	0237	6.3	192	2 W	0229	4.5	137	17 Th	0256	4.9	149	2 Sa	0418	0.3	9	17 Su	0353	1.8	55
	0710	13.9	424		0832	12.1	369		0830	13.9	424		0849	12.0	366		1033	14.3	436		1002	12.5	381
	1413	1.3	40		1513	2.9	88		1459	0.7	21		1507	3.0	91		1620	1.7	52		1549	3.6	110
	2054	12.5	381		2157	12.6	384		2132	15.0	457		2140	13.8	421		2238	17.3	527		2203	15.7	479
3 Tu	0238	5.4	165	18 W	0343	5.2	158	3 Th	0340	2.7	82	18 F	0350	3.5	107	3 Su	0507	−1.0	−30	18 M	0440	0.2	6
	0842	14.3	436		0942	12.8	390		0945	14.6	445		0951	12.7	387		1128	14.9	454		1056	13.3	405
	1527	0.4	12		1606	2.2	67		1558	0.3	9		1555	2.7	82		1708	1.8	55		1637	3.3	101
	2203	14.0	427		2240	13.7	418		2224	16.3	497		2219	14.8	451		2321	17.8	543		2246	16.6	506
4 W	0354	3.7	113	19 Th	0431	3.7	113	4 F	0436	0.8	24	19 Sa	0434	1.9	58	4 M	0551	−2.0	−61	19 Tu	0524	−1.3	−40
	0959	15.4	469		1035	13.7	418		1047	15.6	475		1042	13.5	411		1216	15.4	469		1145	14.2	433
	1626	−0.7	−21		1647	1.5	46		1649	−0.1	−3		1637	2.3	70		1752	1.9	58		1723	3.0	91
	2255	15.6	475		2314	14.7	448		2309	17.5	533		2254	15.8	482						2328	17.5	533
5 Th	0452	1.7	52	20 F	0510	2.2	67	5 Sa	0524	−0.9	−27	20 Su	0514	0.4	12	5 Tu ○	0001	18.0	549	20 W	0607	−2.6	−79
	1100	16.6	506		1118	14.6	445		1140	16.4	500		1126	14.4	439		0631	−2.6	−79		1231	15.0	457
	1716	−1.7	−52		1723	1.0	30		1734	−0.2	−6		1716	2.0	61		1300	15.6	475		1808	2.6	79
	2339	17.1	521		2344	15.7	479		2350	18.4	561		2328	16.7	509		1833	2.2	67				
6 F	0541	−0.2	−6	21 Sa	0546	0.8	24	6 Su	0608	−2.2	−67	21 M	0552	−1.1	−34	6 W	0040	17.9	546	21 Th	0011	18.2	555
	1152	17.6	536		1156	15.4	469		1227	16.8	512		1208	15.1	460		0710	−2.8	−85		0650	−3.6	−110
	1800	−2.2	−67		1757	0.6	18		1816	−0.1	−3		1754	1.8	55		1341	15.5	472		1316	15.7	479
																	1913	2.6	79	●	1853	2.3	70
7 Sa ○	0020	18.4	561	22 Su	0012	16.6	506	7 M	0028	18.8	573	22 Tu	0001	17.5	533	7 Th	0116	17.6	536	22 F	0056	18.7	570
	0625	−1.7	−52		0621	−0.5	−15		0649	−3.0	−91		0629	−2.2	−67		0748	−2.5	−76		0734	−4.2	−128
	1239	18.2	555		1232	15.9	485		1311	16.9	515		1248	15.6	475		1421	15.2	463		1402	16.1	491
	1841	−2.2	−67		1829	0.4	12	○	1855	0.4	12	●	1832	1.8	55		1952	3.0	91		1938	2.2	67
8 Su	0057	19.1	582	23 M	0040	17.2	524	8 Tu	0105	18.8	573	23 W	0036	18.1	552	8 F	0153	17.0	518	23 Sa	0142	18.7	570
	0707	−2.7	−82		0655	−1.5	−46		0728	−3.2	−98		0708	−3.1	−94		0825	−2.0	−61		0819	−4.2	−128
	1324	18.2	555		1308	16.2	494		1353	16.6	506		1329	15.9	485		1500	14.8	451		1448	16.2	494
	1921	−1.7	−52	●	1901	0.6	18		1934	1.1	34		1911	1.9	58		2030	3.6	110		2026	2.2	67
9 M	0134	19.3	588	24 Tu	0109	17.7	539	9 W	0140	18.3	558	24 Th	0113	18.3	558	9 Sa	0229	16.3	497	24 Su	0230	18.3	558
	0748	−3.1	−94		0729	−2.2	−67		0806	−2.9	−88		0748	−3.5	−107		0903	−1.3	−40		0905	−3.7	−113
	1407	17.7	539		1344	16.2	494		1434	15.9	485		1412	15.8	482		1541	14.3	436		1536	16.2	494
	1959	−0.8	−24		1935	0.9	27		2012	2.0	61		1951	2.2	67		2111	4.2	128		2118	2.4	73
10 Tu	0210	18.9	576	25 W	0140	17.9	546	10 Th	0216	17.5	533	25 F	0153	18.2	555	10 Su	0307	15.4	469	25 M	0322	17.4	530
	0828	−2.8	−85		0806	−2.5	−76		0845	−2.1	−64		0831	−3.4	−104		0942	−0.4	−12		0954	−2.8	−85
	1449	16.8	512		1422	15.9	485		1516	15.1	460		1457	15.6	475		1623	13.7	418		1627	16.0	488
	2037	0.5	15		2010	1.6	49		2050	3.1	94		2035	2.8	85		2154	4.8	146		2215	2.7	82
11 W	0246	18.0	549	26 Th	0213	17.7	539	11 F	0252	16.5	503	26 Sa	0237	17.7	539	11 M	0348	14.4	439	26 Tu	0418	16.2	494
	0908	−2.0	−61		0845	−2.3	−70		0925	−1.1	−34		0917	−2.9	−88		1024	0.6	18		1046	−1.5	−46
	1532	15.5	472		1503	15.3	466		1559	14.1	430		1547	15.2	463		1708	13.3	405		1721	15.9	485
	2115	1.9	58		2047	2.4	73		2131	4.2	128		2124	3.4	104		2244	5.3	162		2319	2.9	88
12 Th	0322	16.9	515	27 F	0251	17.3	527	12 Sa	0330	15.3	466	27 Su	0327	16.9	515	12 Tu	0434	13.4	408	27 W	0521	14.9	454
	0950	−0.8	−24		0928	−1.8	−55		1007	0.1	3		1008	−2.0	−61		1110	1.6	49		1142	−0.1	−3
	1618	14.1	430		1550	14.5	442		1648	13.2	402		1642	14.7	448		1757	13.0	396		1818	15.8	482
	2155	3.5	107		2130	3.4	104		2217	5.2	158		2222	4.0	122		2343	5.5	168	◐			
13 F	0401	15.5	472	28 Sa	0334	16.5	503	13 Su	0413	14.1	430	28 M	0424	15.8	482	13 W	0530	12.5	381	28 Th	0030	2.9	88
	1036	0.6	18		1018	−1.0	−30		1056	1.3	40		1105	−0.9	−27		1202	2.5	76		0633	13.6	415
	1710	12.8	390		1646	13.7	418		1743	12.4	378		1744	14.4	439		1849	13.1	399		1244	1.3	40
	2242	5.0	152		2223	4.5	137		2313	6.0	183		2331	4.5	137	◑					1918	15.8	482
14 Sa	0446	14.1	430	29 Su	0427	15.4	469	14 M	0507	13.0	396	29 Tu ◐	0532	14.6	445	14 Th	0051	5.3	162	29 F	0145	2.4	73
	1131	2.0	61		1118	0.0	0		1154	2.4	73		1209	0.1	3		0636	11.8	360		0751	12.9	393
	1816	11.7	357		1754	13.1	399		1848	12.1	369		1850	14.5	442		1259	3.2	98		1349	2.4	73
	2342	6.2	189		2331	5.3	162										1941	13.4	408		2018	15.9	485
15 Su ◑	0544	12.8	390	30 M ◐	0536	14.4	439	15 Tu ◑	0026	6.4	195	30 W	0051	4.3	131	15 F	0200	4.6	140	30 Sa	0256	1.5	46
	1242	2.9	88		1229	0.8	24		0615	12.1	369		0651	13.7	418		0749	11.6	354		0909	12.8	390
	1938	11.3	344		1912	13.0	396		1301	3.0	91		1318	0.9	27		1359	3.6	110		1454	3.1	94
									1955	12.3	375		1956	15.0	457		2032	14.0	427		2116	16.2	494
												31 Th	0211	3.3	101								
													0813	13.5	411								
													1425	1.4	43								
													2056	15.8	482								

Time meridian 135° W. 0000 is midnight. 1200 is noon.
Heights are referred to mean lower low water which is the chart datum of soundings.

Appendix D

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
				Time		Height				
		Latitude	Longitude	High Water	Low Water	High Water	Low Water	Mean	Diurnal	
		North	West	h m	h m	ft	ft	ft	ft	ft
	ALASKA Meares Passage to Davidson Inlet–cont. Time meridian, 135° W					on Sitka, p.128				
	Davidson Inlet–cont.									
1613	El Capitan Island	55° 56'	133° 20'	−0 11	−0 10	+0.9	−0.1	8.7	10.8	5.6
1615	Cyrus Cove, Sea Otter Sound	55° 55'	133° 24'	−0 16	−0 12	+1.1	0.0	8.8	10.9	5.8
1617	Marble Passage	55° 57'	133° 26'	−0 14	−0 09	+1.0	0.0	8.7	10.9	5.8
1619	Marble Island	56° 00'	133° 28'	−0 19	−0 15	+0.8	−0.1	8.6	10.7	5.6
1621	Holbrook, Kosciusko Island	56° 02'	133° 30'	−0 10	−0 06	+0.9	−0.1	8.7	10.8	5.6
1623	Edna Bay	55° 57'	133° 40'	−0 20	−0 08	+0.9	0.0	8.6	10.8	5.7
	Sumner Strait									
1625	Coronation Island	55° 54'	134° 07'	−0 16	−0 17	+0.8	0.0	8.5	10.7	5.6
1627	Pole Anchorage, Kosciusko Island	55° 57'	133° 49'	−0 22	−0 22	+1.4	−0.1	9.2	11.4	5.9
1629	Port McArthur, Kuiu Island	56° 04'	134° 07'	−0 11	−0 07	+0.6	−0.1	8.4	10.6	5.5
1631	Kell Bay, Affleck Canal, Kuiu Island	56° 09'	134° 08'	+0 01	+0 01	+1.3	0.0	9.0	11.2	5.9
1633	Point St. Albans	56° 05'	133° 58'	−0 17	−0 13	+1.4	0.0	9.1	11.3	5.9
1635	Shakan Bay Entrance	56° 08'	133° 37'	−0 13	−0 12	+1.8	0.0	9.5	11.7	6.2
1637	Shakan Strait, Kosciusko Island	56° 08'	133° 28'	−0 09	−0 10	+1.9	−0.1	9.7	11.7	6.2
1639	El Capitan Passage	56° 04'	133° 19'	−0 05	+0 02	+0.9	−0.1	8.7	10.8	5.6
1641	Port Beauclerc, Kuiu Island	56° 17'	133° 57'	−0 14	−0 12	+1.9	−0.1	9.7	11.9	6.2
1643	Port Protection, Prince of Wales Island.	56° 19'	133° 36'	−0 13	−0 11	+2.4	0.0	10.1	12.4	6.4
1645	Reid Bay	56° 23'	133° 53'	−0 11	−0 19	+2.5	0.0	10.2	12.4	6.5
1647	Sumner Island	56° 25'	133° 48'	−0 19	−0 12	+2.6	0.0	10.3	12.6	6.6
						on Ketchikan, p.120				
1649	Red Bay, Prince of Wales Island	56° 18'	133° 19'	+0 03	+0 07	−0.8	0.0	12.2	14.6	7.6
1651	Level Islands	56° 28'	133° 06'	+0 03	+0 04	−0.4	0.0	12.6	15.0	7.8
1653	Butterworth Island, Duncan Canal	56° 32'	133° 04'	−0 04	+0 03	0.0	0.0	13.0	15.3	8.0
1655	Duncan Canal, Kupreanof Island	56° 34'	133° 04'	+0 15	+0 16	−0.2	−0.1	12.9	15.2	7.8
1657	Grief Island, Duncan Canal	56° 37'	133° 03'	+0 15	+0 12	+0.1	−0.1	13.2	15.4	8.0
1659	Castle Islands, Duncan Canal	56° 39'	133° 09'	+0 27	+0 12	+0.1	−0.1	13.2	15.5	8.0
1661	St.John Harbor, Zarembo Island	56° 26'	132° 57'	+0 09	+0 05	−0.7	−0.2	12.5	14.6	7.6
1663	Greys Island	56° 31'	132° 33'	+0 06	+0 04	+0.2	0.0	13.2	15.6	8.1
	Wrangell Narrows									
1665	Point Lockwood, Woewodski Island	56° 33'	132° 58'	+0 20	+0 15	+0.2	+0.1	13.1	15.7	8.1
1667	Finger Point, Lindenburg Peninsula	56° 41'	132° 57'	+0 29	+0 41	+1.2	0.0	14.2	16.7	8.6
1669	Anchor Point	56° 38'	132° 56'	+0 20	+0 35	+0.6	0.0	13.6	16.0	8.3
1671	Petersburg	56° 49'	132° 57'	+0 09	+0 26	+0.3	−0.1	13.4	15.7	8.1
	Keku Strait									
1673	Monte Carlo Island	56° 32'	133° 46'	+0 02	+0 03	−2.8	−0.1	10.3	12.5	6.6
1675	Seclusion Harbor, Kuiu Island	56° 33'	133° 52'	+0 05	+0 02	−3.0	−0.2	10.2	12.3	6.4
1677	Beck Island	56° 39'	133° 43'	+0 08	+0 31	−1.6	−0.1	11.5	13.8	7.1
1679	The Summit	56° 41'	133° 44'	+0 31	+0 37	+0.3	+0.1	13.2	15.7	8.2
1681	Entrance Island	56° 49'	133° 47'	+0 22	+0 31	−0.7	0.0	12.3	14.7	7.6
1683	Port Camden, Kuiu Island	56° 44'	133° 55'	+0 03	+0 04	−1.5	0.0	11.5	13.9	7.2
1685	Hamilton Bay, Kupreanof Island	56° 55'	133° 50'	+0 03	+0 04	−1.6	0.0	11.4	13.8	7.2
1687	Kake	56° 58'	133° 56'	+0 05	+0 12	−1.4	−0.1	11.7	14.0	7.3
	Frederick Sound					on Juneau, p.124				
1689	Dry Strait	56° 37'	132° 34'	−0 18	−0 03	−0.2	0.0	13.5	16.1	8.3
1691	Cosmos Point	56° 39.8'	132° 37.0'	−0 05	−0 05	*0.98	*0.99	13.47	16.00	8.43
1693	Ideal Cove, Mitkof Island	56° 40'	132° 38'	−0 09	−0 05	−0.2	0.0	13.5	16.1	8.3
1695	Leconte Bay	56° 47.3'	132° 30.1'	0 00	+0 03	*0.98	*0.99	13.42	15.94	8.28
1697	Brown Cove	56° 53'	132° 48'	−0 14	−0 10	−0.3	−0.1	13.5	15.8	8.2
1699	Thomas Bay	57° 00'	132° 47'	+0 07	+0 07	−0.8	−0.1	13.0	15.4	8.0
1701	Portage Bay, Kupreanof Island	57° 00'	133° 19'	−0 19	−0 15	−0.7	0.0	13.0	15.5	8.1
1703	Cleveland Passage, Whitney Island	57° 13'	133° 30'	−0 01	+0 03	−1.2	−0.1	12.6	15.0	7.8
1705	The Brothers	57° 17.7'	133° 47.8'	−0 06	−0 03	*0.91	*0.94	12.40	14.74	7.68
1707	Pybus Bay, Admiralty Island	57° 18'	134° 08'	+0 03	−0 02	−1.9	−0.1	11.9	14.3	7.4
1709	Cannery Cove, Pybus Bay	57° 18.4'	134° 08.0'	−0 08	−0 06	*0.90	*0.94	12.24	14.63	7.60
1711	Eliza Harbor, Desnoi Island	57° 10'	134° 17'	−0 19	−0 19	−1.9	−0.1	11.9	14.3	7.4
1713	Eliza Harbor, Admiralty Island	57° 11.3'	134° 17.2'	−0 06	−0 04	*0.87	*0.92	11.79	14.10	7.35
1715	Herring Bay	57° 06.8'	134° 22.8'	−0 08	−0 07	*0.84	*0.91	11.44	13.70	7.16
1717	Saginaw Bay, Kuiu Island	56° 54.2'	134° 18.2'	−0 12	−0 15	*0.84	*0.96	11.34	13.67	7.18
	Stephens Passage									
1719	Port Houghton, Robert Islands	57° 18'	133° 28'	−0 21	−0 17	−0.8	−0.1	13.0	15.4	8.0
1721	Hobart Bay	57° 24'	133° 25'	−0 06	+0 03	−1.1	−0.1	12.7	15.1	7.8
1723	Good Island, Gambier Bay	57° 29'	133° 54'	−0 03	+0 04	−1.4	−0.1	12.4	14.8	7.7
1725	Windham Bay	57° 33'	133° 30'	0 00	0 00	−1.1	−0.1	12.7	15.1	7.8
1727	Rasp Ledge, Seymour Canal	57° 41'	134° 02'	+0 06	+0 05	−0.7	+0.1	12.9	15.6	8.2
1729	Windfall Harbor, Seymour Canal	57° 52'	134° 16'	+0 14	+0 18	−0.2	0.0	13.5	16.0	8.3
1731	Holkham Bay, Wood Spit	57° 43'	133° 35'	+0 03	+0 06	−0.8	−0.1	13.0	15.4	8.0
1733	Sawyer Island, Tracy Arm	57° 52.7'	133° 11.4'	+0 02	+0 06	*0.97	*1.01	13.32	15.83	8.25
1735	Port Snettisham, Point Styleman	57° 58'	133° 53'	−0 12	−0 06	−0.4	−0.1	13.4	15.8	8.2
1737	Port Snettisham, Crib Point	58° 05.7'	133° 44.3'	−0 03	−0 03	*0 98	*0.97	13.40	15.86	8.23

Endnotes can be found at the end of table 2.

    - Possession Sound, Port Susan, Skagit Bay area
  - Rosario Strait

select a different state

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ALASKA

- Dixon Entrance and Portland Canal
- Revillagigedo Channel and Tongass Narrows
- Behm Canal
- Clarence Strait
- Cordova Bay and Dall Island
- Meares Passage to Davidson Inlet
- Sumner Strait and Wrangell Narrows
- Keku Strait, Fredrick Sound, Stephens Passage
- Lynn Canal and Chatham Strait
- Baranof Island, Salisbury Sound, Chichagof Island
- Cross Sound and Icy Strait
- Gulf of Alaska
- Prince William Sound
- Kenai Peninsula and Cook Inlet
- Kodiak and Afgonak Islands
- Alaska Peninsula
- **Aleutian Islands**
    - Unimak and Unalaska Islands
    - Umnak, Yunaska, Atka Islands
    - Adak, Kanaga, Tanaga, Rat and Attu Islands
- Bristol Bay
- Kusokwim Bay and Bering Sea
- Norton Sound, Bering Strait, and Arctic Ocean

select a different state

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Pacific Islands

- Marianas Islands
- Caroline, Marcus and Wake Islands
- Marshall Islands
- Gilbert Islands and North Pacific Detached Islands

Appendix D

Petersburg	+0 09	+0 26	+0.3	-0.1

Keku Strait

Station	Time Diff. High	Time Diff. Low	Hgt. Diff. High	Hgt. Diff. Low
Monte Carlo Island	+0 02	+0 03	-2.8	-0.1
Seclusion Harbor, Kuiu Island	+0 05	+0 02	-3.0	-0.2
Beck Island	+0 08	+0 31	-1.6	-0.1
The Summit	+0 31	+0 37	+0.3	+0.1
Entrance Island	+0 22	+0 31	-0.7	0.0
Port Camden, Kuiu Island	+0 03	+0 04	-1.5	0.0
Hamilton Bay, Kupreanof Island	+0 03	+0 04	-1.6	0.0
Kake	+0 05	+0 12	-1.4	-0.1

Frederick Sound

Station	Time Diff. High	Time Diff. Low	Hgt. Diff. High	Hgt. Diff. Low
Dry Strait	-0 18	-0 03	-0.2	0.0
Cosmos Point	-0 05	-0 05	*0.98	*0.99
Ideal Cove, Mitkof Island	-0 09	-0 05	-0.2	0.0
Leconte Bay	0 00	+0 03	*0.98	*0.99
Brown Cove	-0 14	-0 10	-0.3	-0.1
Thomas Bay	+0 07	+0 07	-0.8	-0.1
Portage Bay, Kupreanof Island	-0 19	-0 15	-0.7	0.0
Cleveland Passage, Whitney Island	-0 01	+0 03	-1.2	-0.1
The Brothers	-0 06	-0 03	*0.91	*0.94
Cannery Cove, Pybus Bay	-0 08	-0 06	*0.90	*0.94
Eliza Harbor, Wrangell Island	-0 19	-0 19	-1.9	-0.1
Eliza Harbor, Admiralty Island	-0 06	-0 04	*0.87	*0.92
Herring Bay	-0 08	-0 07	*0.84	*0.91
Saginaw Bay, Kuiu Island	-0 12	-0 15	*0.84	*0.96

Stephens Passage

Station	Time Diff. High	Time Diff. Low	Hgt. Diff. High	Hgt. Diff. Low
Port Houghton, Robert Islands	-0 21	-0 17	-0.8	-0.1
Hobart Bay	-0 06	+0 03	-1.1	-0.1
Good Island, Gambier Bay	-0 03	+0 04	-1.4	-0.1
Windham Bay	0 00	0 00	-1.1	-0.1
Rasp Ledge, Seymour Canal	+0 06	+0 05	-0.7	+0.1
Windfall Harbor, Seymour Canal	+0 14	+0 18	-0.2	0.0
Holkham Bay, Wood Spit	+0 03	+0 06	-0.8	-0.1
Sawyer Island, Tracy Arm	+0 02	+0 06	*0.97	*1.01
Port Snettisham, Point Styleman	-0 12	-0 06	-0.4	-0.1
Port Snettisham, Crib Point	-0 03	-0 03	*0.98	*0.97
Taku Harbor	-0 03	-0 04	*0.97	*1.00
Greely Point, Taku Inlet	-0 01	-0 04	-0.6	-0.1
Taku Point, Taku Inlet	+0 14	+0 13	+0.4	0.0

JUNEAU

Daily predictions

Appendix D

19	Su	1238am	L	5.6	635am	H	13.8	124pm	L	0.9	806pm H 13
20	M	202am	L	5.2	758am	H	13.4	235pm	L	1.2	912pm H 14
21	Tu	324am	L	3.9	922am	H	13.5	341pm	L	1.2	1010pm H 15
22	W	430am	L	2.0	1036am	H	14.2	440pm	L	1.0	1101pm H 16
23	Th	526am	L	-0.1	1139am	H	15.1	533pm	L	0.8	1148pm H 18
24	F	616am	L	-1.9	1235pm	H	15.9	621pm	L	0.7	
25	Sa	1232am	H	18.9	702am	L	-3.3	125pm	H	16.4	707pm L 0
26	Su	115am	H	19.3	746am	L	-4.0	213pm	H	16.6	751pm L 1
27	M	157am	H	19.2	829am	L	-4.1	259pm	H	16.4	834pm L 1
28	Tu	239am	H	18.7	912am	L	-3.6	345pm	H	15.8	918pm L 2
29	W	321am	H	17.8	956am	L	-2.6	432pm	H	15.1	1003pm L 3
30	Th	404am	H	16.6	1040am	L	-1.4	521pm	H	14.3	1051pm L 4
31	F	450am	H	15.2	1128am	L	-0.1	613pm	H	13.6	1145pm L 5

Juneau, Alaska
Tide Predictions (High and Low Waters) June, 2002
NOAA, National Ocean Service

Daylight Saving Time

Day		Time		Ht.	Time		Ht.	Time		Ht.	Time	H
1	Sa	541am	H	13.9	1219pm	L	1.2	710pm	H	13.1		
2	Su	1249am	L	5.7	641am	H	12.7	117pm	L	2.3	809pm H	13
3	M	203am	L	5.6	752am	H	11.9	219pm	L	3.0	906pm H	13
4	Tu	314am	L	4.9	907am	H	11.7	319pm	L	3.5	956pm H	13
5	W	414am	L	3.8	1015am	H	11.9	413pm	L	3.6	1040pm H	14
6	Th	503am	L	2.4	1114am	H	12.4	500pm	L	3.6	1119pm H	15
7	F	546am	L	1.1	1203pm	H	13.1	543pm	L	3.5	1155pm H	15
8	Sa	625am	L	-0.1	1246pm	H	13.7	623pm	L	3.4		
9	Su	1230am	H	16.4	702am	L	-1.2	126pm	H	14.3	701pm L	3
10	M	105am	H	16.9	739am	L	-2.0	205pm	H	14.7	739pm L	3
11	Tu	140am	H	17.3	817am	L	-2.5	244pm	H	14.9	817pm L	3
12	W	217am	H	17.4	856am	L	-2.8	324pm	H	14.9	857pm L	3
13	Th	256am	H	17.3	937am	L	-2.7	407pm	H	14.9	940pm L	3
14	F	339am	H	16.9	1020am	L	-2.3	452pm	H	14.8	1028pm L	3
15	Sa	427am	H	16.2	1107am	L	-1.6	542pm	H	14.7	1124pm L	4
16	Su	522am	H	15.3	1159am	L	-0.6	636pm	H	14.8		
17	M	1229am	L	4.1	627am	H	14.2	1256pm	L	0.4	733pm H	15
18	Tu	143am	L	3.6	741am	H	13.4	159pm	L	1.3	832pm H	15
19	W	259am	L	2.6	901am	H	13.0	304pm	L	2.0	931pm H	16
20	Th	407am	L	1.1	1019am	H	13.3	407pm	L	2.4	1027pm H	16
21	F	507am	L	-0.4	1127am	H	13.9	506pm	L	2.6	1120pm H	17
22	Sa	600am	L	-1.8	1226pm	H	14.6	600pm	L	2.6		
23	Su	1209am	H	18.1	648am	L	-2.8	118pm	H	15.2	649pm L	2
24	M	1256am	H	18.3	733am	L	-3.3	206pm	H	15.5	736pm L	2
25	Tu	141am	H	18.3	816am	L	-3.4	251pm	H	15.6	820pm L	2
26	W	223am	H	17.9	858am	L	-3.1	333pm	H	15.5	903pm L	3
27	Th	305am	H	17.3	938am	L	-2.4	415pm	H	15.2	946pm L	3
28	F	346am	H	16.4	1018am	L	-1.5	456pm	H	14.8	1030pm L	3
29	Sa	428am	H	15.4	1058am	L	-0.4	538pm	H	14.3	1116pm L	4
30	Su	512am	H	14.3	1139am	L	0.7	621pm	H	13.9		

Juneau, Alaska
Tide Predictions (High and Low Waters) July, 2002
NOAA, National Ocean Service

Daylight Saving Time

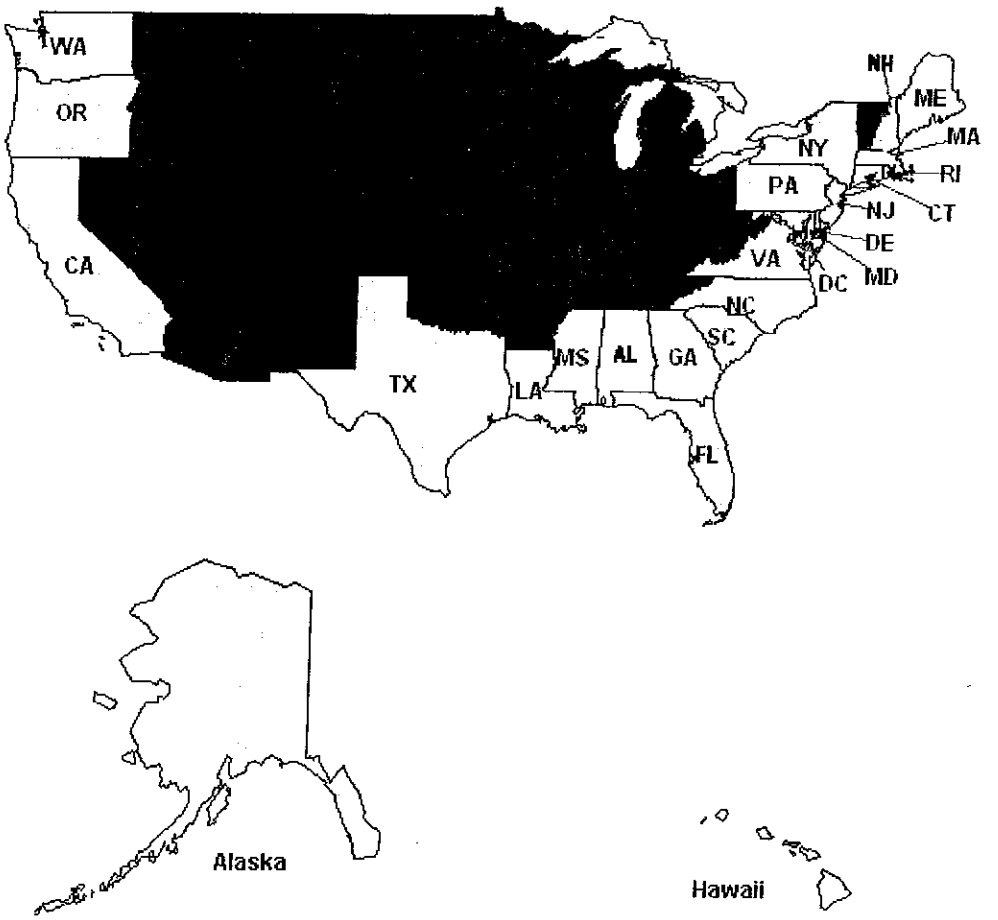
Day		Time		Ht.	Time		Ht.	Time		Ht.	Time	H
1	M	1208am	L	4.6	601am	H	13.1	1223pm	L	1.9	706pm H	13
2	Tu	107am	L	4.7	657am	H	12.1	112pm	L	3.1	754pm H	13

Appendix D

NOAA/NOS CO-OPS

PUBLISHED BENCHMARK SHEETS

Below is a map of states and geographical areas where CO-OPS maintains Published Benchmark Sheets. Specific stations are listed within each area.



Non U.S. Bench Marks

Appendix C

Alaska Bench Marks

9450305 BOCA DE QUADRA , AK
9450460 KETCHIKAN, TONGASS NARROWS , AK
9450695 HUT POINT , AK
9450807 CONVENIENT COVE, HASSLER ISLAND , AK
9450811 FIN , AK
9450970 ENTRANCE TO ZIMOVIA STRAIT , AK
9451005 POINT HARRINGTON, SUMNER STRAIT , AK
9451037 VILLAGE ROCK, AK , AK
9451074 BUSHY ISLAND, SNOW PASSAGE , AK
9451124 STIKINE STRAIT , AK
9451204 WRANGELL, WRANGELL ISLAND , AK
9451218 VANK ISLAND, SUMNER STRAIT , AK

Click on station of interest.

The NOS bench mark sheets now contain links to corresponding NGS data sheets. Under the NOS vertical mark number (VM#) you may see a PID# link. Clicking on this link will bring up the corresponding NGS data sheet for that vertical mark.

For stations which do not list PID# links, the Latitude and Longitude of the station can be used to find data sheets for nearby PIDs by Clicking HERE.

* Home * PORTS * Predictions *Observations *Bench Marks
* FAQ Station Locator *Publications *About CO-OPS *Product Info.

Appendix C

ATTACHMENT 2

SAMPLE STANDARD CBJ CONTRACT

APPENDIX A: SCOPE OF WORK, TERM, AND COMPENSATION

1. **SCOPE OF WORK**
2. **TERM**

   The effective date of this contract shall be the date it is signed by the CBJ, and it shall remain in effect until_____
3. **COMPENSATION AND TERMS OF PAYMENT**
   a. Compensation.
   b. Additional Terms of Payment.

APPENDIX B: STANDARD PROVISIONS

1. CONTRACTUAL RELATIONSHIP. The parties intended that an independent Contractor relationship will be created by this contract. The CBJ is interested only in the results to be achieved as provided in this agreement. The conduct and control of the work will lie solely with the Contractor. Contractor is not considered to be an agent or employee of the CBJ for any purpose, and the employees of Contractor are not entitled to any benefits that CBJ provides for CBJ employees. CBJ does not agree to use the Contractor exclusively. Contractor does not agree to work for CBJ exclusively.

2. PERSONNEL, EQUIPMENT AND SUPPLIES. Except as provided in the Scope of Work, the Contractor represents that it has or will secure at its own expense all personnel, equipment, and supplies required in performing the work under this contract. All of the work required hereunder will be performed by the Contractor or under its supervision. None of the work covered by this Contract shall be subcontracted except as provided in the Scope of Work.

3. CONTRACTOR QUALIFICATIONS. Contractor warrants that it is fully qualified and is licensed under all applicable local, state, and federal laws to perform its obligations under this contract.

4. INSURANCE REQUIREMENTS. Contractor has secured and agrees to keep and maintain in full force and effect, at its own expense, the insurance approved by CBJ Risk Management as outlined in Appendix C. At least 30 days prior to the cancellation, non-renewal or reduction in the amount of coverage, Contractor shall provide written notice to CBJ Risk Management. The Contractor's insurance shall be primary and any insurance maintained by the CBJ shall be non-contributory. If the Contractor maintains higher limits than shown below, the CBJ shall be entitled to coverage for the higher limits maintained by the Contractor.

a. ***Deductibles and Self-Insured Retentions.*** Any deductibles and self-insured retentions must be declared to and approved by the CBJ. The CBJ may require the Contractor to provide proof of ability to pay losses and related investigations, claim administration and defense expenses within the retention.

b. ***Claims-Made Policies.*** If any of the required policies provide coverage on a claims- made basis:

1. The Retroactive Date must be declared and must be before the date of the contract or the beginning of the contract work.
2. Insurance must be maintained and evidence of insurance must be provided ***for at least one (1) year after completion of the contract work.***
3. If coverage is canceled or non-renewed, and not replaced with another claims- made policy form with the Retroactive Date prior to the contract effective date, the Contractor must purchase **"extended reporting"** coverage for a minimum of one (1) year after completion of the contract work.

5. CHANGES. The CBJ may, from time to time, require changes in the scope of services to be performed under this contract. Such changes, including any increase or decrease in the amount of the Contractor's compensation, must be mutually agreed upon in writing before they will be regarded as part of this contract. No claim for additional services, not specifically provided in this contract, performed or furnished by the Contractor, will be allowed, nor may the Contractor do any work or furnish any material not covered by the contract unless the work or material is ordered in writing by the CBJ.

6. NO ASSIGNMENT OR DELEGATION. The Contractor may not assign or delegate any interest in this contract without the prior written consent of the CBJ. Contractor may assign its rights to any payment under this

contract without the prior written consent of CBJ; however, notice of any such assignment or transfer shall be furnished promptly to CBJ by Contractor.

7. TERMINATION FOR CONVENIENCE. The CBJ may, by prior written notice, terminate this agreement at any time, in whole or in part, when it is in the best interest of the CBJ. In the event that this contract is terminated by the CBJ for convenience, as opposed to termination for cause, the CBJ is liable only for payment in accordance with this agreement for work accomplished prior to the effective date of the termination.

8. DEFAULT AND TERMINATION FOR CAUSE. If Contractor fails to perform a material obligation under this contract, the CBJ may consider the Contractor to be in default (unless caused an event, circumstance, or act of a third party that is beyond Contractor's reasonable control) and may assert a default claim by giving Contractor a written and detailed notice of default. The Contractor shall cure the default within the time frame identified in the notice of default, or, if the default is not curable within the time frame specified, provide a written cure plan acceptable to the CBJ, which shall not be unreasonably withheld. Contractor will begin implementing the cure plan immediately after receipt of notice that the CBJ approves the plan. The CBJ's payment obligations shall be held in abeyance until the default is cured.

If Contractor fails to cure the default, unless otherwise agreed in writing, the CBJ may terminate any unfulfilled portion of this Agreement. In the event of termination for default, the Parties may agree that the CBJ's remedy be limited to recovering from Contractor all actual, reasonable costs incurred in securing the work described in Appendix A. The CBJ agrees to mitigate damages to the extent required by law, and to provide Contractor with detailed invoices substantiating the charges.

9. INSPECTION AND RETENTION OF RECORDS. The CBJ may inspect, in the manner and at reasonable times it considers appropriate, all of Contractor's facilities, records and activities having any relevance to this contract. Contractor shall retain financial and other records relating to the performance of this contract for a period of six years, or until the resolution of any audit findings, claims or litigation related to the contract.

10. EQUAL EMPLOYMENT OPPORTUNITY. The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, age, disability, familial status, sexual orientation, gender identity, gender expression, or national origin. Contractor shall include these provisions in any agreement relating to the work performed under this agreement with Contractors or subContractors.

11. CHOICE OF LAW, JURISDICTION. The Superior Court for the State of Alaska, First Judicial District at Juneau, Alaska shall be the exclusive jurisdiction for any action of any kind and any nature arising out of or related to this Agreement. Venue for trial in any action shall be in Juneau, Alaska. The laws of the State of Alaska shall govern the rights and obligations of the parties. Contractor specifically waives any right or opportunity to request a change of venue for trial pursuant to A.S. 22.10.040.

12. COMPLIANCE WITH LAWS AND REGULATIONS. Contractor shall, at Contractor's sole cost and expense, comply with all applicable requirements of federal, state, and local laws, ordinances and regulations now in force, including safety, environmental, immigration, and security enactments, or which may be subsequently enacted. Contractor warrants that it has obtained and is in full compliance with all required licenses, permits, and registrations regulating the conduct of business within the State of Alaska and the CBJ, and shall maintain such compliance during the effective term of this agreement.

13. PAYMENT OF TAXES AND OBLIGATIONS TO CBJ. As a condition of this contract, the Contractor shall pay all federal, state, and local taxes incurred by the Contractor and shall require their payment of any subContractor or any other persons in the performance of this contract. Contractor shall not be delinquent in the payment of taxes, or any other obligation, to CBJ during the performance of this contract. Satisfactory performance of this paragraph is a condition precedent to payment by the CBJ under this contract.

14. CONFLICT OF INTEREST. Contractor warrants that no employee or officer of the CBJ has violated the conflict of interest provisions of CBJ code regarding this contract. Contractor also warrants that it has not solicited or received any prohibited action, favor or benefit from any employee or office of CBJ, and that it will not do so as a condition of this contract. If the Contractor learns of any such conflict of interest, the Contractor shall without delay inform the CBJ and Borough Attorney or CBJ's representative for this contract.

15. INDEMNIFICATION. The Contractor agrees to defend, indemnify, and hold harmless CBJ, its employees, volunteers, consultants, and insurers, with respect to any action, claim, or lawsuit arising out of or related to the Contractor's performance of this contract, without limitation as to the amount of fees, and without limitation as to

any damages, cost or expense resulting from settlement, judgment, or verdict, and includes the award of any attorneys' fees even if in excess of Alaska Civil Rule 82. This indemnification agreement applies to the fullest extent permitted by law and is in full force and effect whenever and wherever any action, claim, or lawsuit is initiated, filed, or otherwise brought against CBJ relating to this contract. The obligations of Contractor arise immediately upon actual or constructive notice of any action, claim, or lawsuit. CBJ shall notify Contractor in a timely manner of the need for indemnification, but such notice is not a condition precedent to Contractor's obligations and is waived where the Contractor has actual notice.

16. OWNERSHIP OF DOCUMENTS. All designs, drawings, specifications, notes, artwork, and other work developed in the performance of this contract become the sole property of the CBJ and may be used by the CBJ for any other purpose without additional compensation to the Contractor. The Contractor agrees not to assert any rights and not to establish any claim under the design patent or copyright laws. The Contractor, for a period of three years after final payment under this contract, agrees to furnish and provide access to all retained materials at the request of the CBJ. Unless otherwise directed by the CBJ, the Contractor may retain copies of all the materials.

17. IDENTIFICATION OF DOCUMENTS. All reports, maps, and other documents completed as a part of this contract, other than documents exclusively for internal use within the CBJ, shall carry a CBJ notation or logo as directed by the CBJ.

18. APPLICABILITY OF ALASKA PUBLIC RECORDS ACT. Contractor acknowledges and understands that the CBJ is subject to the Alaska Public Records Act (AS 40.25.120) and that all documents received, owned or controlled by the CBJ in relation to this Contract must be made available for the public to inspect upon request, unless an exception applies. It is Contractor's sole responsibility to clearly identify any documents Contractor believes are exempt from disclosure under the Public Records Act by clearly marking such documents "Confidential." Should the CBJ receive a request for records under the Public Records Act applicable to any document marked "Confidential" by Contractor, the CBJ will notify Contractor as soon as practicable prior to making any disclosure. Contractor acknowledges it has five (5) calendar days after receipt of notice to notify the CBJ of its objection to any disclosure, and to file any action with any competent court Contractor deems necessary in order to protect its interests. Should Contractor fail to notify the CBJ of its objection or to file suit, Contractor shall hold the CBJ harmless of any damages incurred by Contractor as a result of the CBJ disclosing any of Contractor's documents in the CBJ's possession. Additionally, Contractor may not promise confidentiality to any third party on behalf of the CBJ, without first obtaining express written approval by the CBJ.

19. FISCAL FUNDING. The parties acknowledge that the municipality is legally prohibited from encumbering funds that have not been duly appropriated, pursuant to CBJ Charter 9.13. Funding for this agreement beyond fiscal year_____ is therefore subject to an appropriation of funds by, and at the sole discretion of, the City and Borough of Juneau Assembly. The parties acknowledge and understand that in the event the Assembly fails to appropriate sufficient funds for this agreement, the agreement will automatically terminate without penalty or further municipal liability, on June 30 of the current fiscal year.

20. ENTIRE AGREEMENT. This Agreement, including all appendices and exhibits, constitutes the entire agreement of the Parties regarding the subject matter of the agreement and supersedes all previous agreements, proposals, and understandings, whether written or oral, relating to this subject matter.

21. SEVERABILITY. If a court of competent jurisdiction renders any part of this agreement invalid or unenforceable, that part will be severed and the remainder of this agreement will continue in full force and effect.

22. WAIVER. Failure or delay by the CBJ to exercise a right or power under this agreement will not be a waiver of the right or power. For a waiver of a right or power to be effective, it must be in a writing signed by the CBJ. An effective waiver of a right or power will not be construed as either a future or continuing waiver of that same right or power, or the waiver of any other right or power.