



## **False Pass Harbor Float System**

**EDA Project No. 07-79-05433**

**False Pass, Alaska**

### **REQUEST FOR DESIGN/BUILD PROPOSALS**

**Volume 1: Design/Build Manual**

**September 14, 2007**

By:



**TRYCK NYMAN HAYES, INC.**

911 W. 8<sup>th</sup> Ave., Suite 300

Anchorage, AK 99501

Phone: (907) 279-0543

Fax: (907) 276-7679

In Association with:



**REQUEST FOR DESIGN/BUILD PROPOSALS  
for  
FALSE PASS HARBOR FLOAT SYSTEM**

---

**Volume 1: DESIGN/BUILD MANUAL**

**TABLE OF CONTENTS**

**TAB 1 – PROPOSAL AND CONTRACT REQUIREMENTS**

**Section**

<b>00020</b>	<b>Request for Proposals (RFP)</b>
<b>00023</b>	<b>Proposal Form</b>
<b>00310</b>	<b>Price Proposal</b>
<b>00312</b>	<b>Offer Schedule</b>
<b>00410</b>	<b>Sample Agreement</b>
<b>00510</b>	<b>Sample Construction Contract</b>
<b>00610</b>	<b>Sample Performance Bond</b>
<b>00620</b>	<b>Sample Payment Bond</b>
<b>00670</b>	<b>Contractor’s Questionnaire</b>
<b>00700</b>	<b>General Conditions</b>
<b>00800</b>	<b>Special Provisions</b>

**TAB 2 – PROJECT CRITERIA**

<b>01025</b>	<b>Measurement and Payment</b>
<b>01035</b>	<b>Modification Procedures</b>
<b>01040</b>	<b>Communication</b>
<b>01050</b>	<b>Field Engineering</b>
<b>01090</b>	<b>References</b>
<b>01200</b>	<b>Project Meetings</b>
<b>01300</b>	<b>Submittals</b>
<b>01400</b>	<b>Quality Control</b>
<b>01500</b>	<b>Construction Facilities and Temporary Controls</b>
<b>01600</b>	<b>Material and Equipment</b>
<b>01700</b>	<b>Contract Closeout</b>

**TAB 3 – DESIGN CRITERIA (Division 2)**

<b>02469</b>	<b>Steel Pipe Piles</b>
--------------	-------------------------

**TAB 4 – DESIGN CRITERIA (Division 5)**

**05500      Metal Fabrications**  
**05600      Gangway Ramp**

**TAB 5 – DESIGN CRITERIA (Division 6)**

**06100      Rough Carpentry (Trestle)**  
**06850      Timber Float Units**

**TAB 6 – PERMITS**

**TAB 7 – DRAWINGS**

**FALSE PASS BOAT HARBOR FLOAT SYSTEM: Conceptual Plans (13 Sheets)**

## **TAB 1**

---

### **Proposal and Contract Requirements**

# REQUEST FOR PROPOSALS (RFP)

**PROJECT: FALSE PASS HARBOR FLOAT SYSTEM (DESIGN/BUILD)**

**Contact:**  
**(Technical Issues)**  
**(Proposal Procedures)**

**Shaun McFarlane, PE, Project Manager**  
**Tryck Nyman Hayes, Inc.**  
**911 W. 8<sup>th</sup> Ave. Suite 300**  
**Anchorage, AK 99501**  
**Phone: (907) 343-0240 Fax: (907) 276-7679**  
**E-mail: shaunm@tnh-inc.com**

**Contracting Agency:**

**Aleutians East Borough**

## PROJECT

**Project Location: False Pass, Alaska**

**Contract Description: Manufacture and install timber floating docks, piling, gangway, and access trestle as well as the safety equipment as specified in the D/B Manual. Timber floats shall be designed for double-berthed side-tie moorage of vessels ranging in length from 26 to 115 feet. Floats will be equipped with chaseways and other provisions for future potable water and metered electrical service.**

**A non-mandatory pre-bid conference will be conducted at the offices of the Aleutians East Borough, 3380 C Street, Anchorage, Alaska on September 21, 2007 at 10:00 AM.**

## SCHEDULE & PRICE

**Required period for performance: Finished floats, gangway and guide piling to be delivered to a storage yard in False Pass no later than June 30, 2008. Float system installation (all project elements) to be completed no later than June 30, 2009.**

**Proposed Method(s) of Payment: Lump Sum with progress payments.**

## SUBMITTAL DEADLINE AND LOCATION

**OFFERORS ARE RESPONSIBLE TO ASSURE DELIVERY PRIOR TO DEADLINE  
ONLY SUBMITTALS RECEIVED PRIOR TO THE FOLLOWING DATE AND TIME WILL BE OPENED.**

**DATE: October 9, 2007**

**PREVAILING TIME: 2:00 PM**

**DELIVER PROPOSALS AND SEALED BIDS DIRECTLY TO:**

**Sharon Boyette, Development Director**  
**Aleutians East Borough**  
**3380 C Street, Suite 205**  
**Anchorage, AK 99503**  
**Phone: (907) 274-7566**  
**Fax: (907) 276-7569**

# INSTRUCTIONS TO PROPOSERS

Submittal in response to Request for Proposals shall be in two parts:

1. Sealed envelope marked “Design Proposal: False Pass Harbor Floats Design/Build Project” with complete submittals as required by the following sections:
  - a. Section 00670—Contractor’s Questionnaire
  - b. Section 02469—Steel Pipe Piles (Subsection 1.3B, Submittals)
  - c. Section 05600—Gangway Ramp (Subsection 1.5C, Quality Assurance/Control Submittals)
  - d. Section 06850—Timber Float Units (Subsection 1.9B, Submittals)

Bind design submittals in three-ring binder. Submit three (3) copies of Design Proposal.

2. Sealed envelope marked “Sealed Bid: False Pass Harbor Floats Design/Build Project” containing completed and executed forms found in the following sections:
  - a. Section 00023—Proposal Form
  - b. Section 00310—Price Proposal
  - c. Section 00312—Offer Schedule

Submit one (1) copy of Sealed Bid.

Submittals lacking any of the above items will be considered non-responsive and are subject to rejection and return.

Bids will remain sealed until technical review of Design Proposal is complete. Owner reserves the right to request additional information during technical review to clarify any Design Proposal.

Project will be awarded to the Design/Build Team with the lowest bid deemed fully responsive to the requirements of the Design/Build Manual.

# PROPOSAL FORM

THIS FORM (ALL PAGES) MUST COVER BOTH THE PROPOSAL AND SEALED BID.  
NO OTHER TRANSMITTAL LETTER OR COVER SHEET SHALL BE USED.

PROJECT: FALSE PASS HARBOR FLOAT SYSTEM (DESIGN/BUILD)

## OFFEROR (PRIME CONTRACTOR)

<b>Contractor:</b>
<b>Street:</b>
<b>P.O. Box:</b>
<b>City, State, Zip:</b>
<b>Alaska Business License Number:</b>
<b>General Contractor Registration No:</b>
<b>Federal Tax Identification No:</b>
<b>Individual(s) to sign contract:</b>
<b>Title(s):</b>
<b>Type of business enterprise (circle one):</b>
<input type="checkbox"/> Corporation in the state of _____ <input type="checkbox"/> Individual <input type="checkbox"/> Partnership <input type="checkbox"/> Other (specify) _____

## PROPOSED SUBCONTRACTOR(S)

<u>Specialty:</u>	<u>AK Business License No.</u>	<u>Contractor Registration</u>	<u>Subcontractor</u>
<b><u>PROPOSED SUPPLIER(S)</u></b>			
<b>Float System:</b>			
<b>Gangway:</b>			
<b>Piling:</b>			
<b>Other:</b>			

## CERTIFICATION

I certify that I am a duly authorized representative of the Contractor; that this Submittal accurately represents capabilities of the Contractor and Subcontractor(s) identified herein for providing the services indicated; and that the requirements of the certification on page 2 of this form for (1) Alaska Licenses/Registrations, (2) Insurance, (3) Cost and Pricing Data, and (4) Covenant Against Contingent Fees will be complied with in full. This Certification is a material representation of fact upon which reliance will be placed if the proposed contract is awarded. Failure to comply with this Certification is a fraudulent act. The Contracting Agent is hereby authorized to request any entity identified in this proposal to furnish information deemed necessary to verify the reputation and capabilities of the Contractor and Subcontractor(s). This proposal is valid for at least ninety (90) days.

**Signature:** \_\_\_\_\_

**Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

# CERTIFICATION FOR ALASKA BUSINESS LICENSES / REGISTRATIONS

Contractor and all Subcontractors must comply with the following applicable requirements of Alaska Statutes at time of Award:

1. **Alaska Business License** (Form 08-070 issued under AS 43.70) issued prior to submittal of proposals as required by AS 36.30.210(e) for Contractor; and not later than five (5) days after a Notice of Intent to Award as required by AS 36.30.210(a) and AS 36.30.250(a) for all Subcontractors.
2. **Certificate of Registration** (Form 08-2407) as required by AS 08.18.011 for Construction Contractors, including General Contractors, Specialty Contractors (AS 08.18.024), Residential Contractors (AS 08.18.025), Electrical Contractors (AS 08.18.026), and Mechanical Contractors (AS 08.18.028).
3. **Certificate of Registration** for each individual to be in "responsible charge" (AS 08.48.341(14)) for Architecture, Engineering or Land Surveying (Form 08-2407 issued under AS 08.48.21 1) issued prior to submittal of proposal. Associates, consultants, specialists under the supervision of a registered individual in "responsible charge" are exempt from registration requirements (AS 08.48.331).
4. **Certificate of Authorization for Corporate Practice** for incorporated Contractors and incorporated Subcontractors for architecture, Engineering or Land Surveying (Form 08-2407 issued under AS 08.48.241). Corporations offering to provide Architectural, Engineering or Land Surveying services do not need to be registered for such disciplines at the time proposal is submitted provided they obtain corporate registration before contract award (AS 08.48.241).
5. **Certificate of Incorporation** (Alaska firms) or **Certification of Authorization for Foreign Firm** ("Out of State" firms). All corporations, regardless of type of services provided, must have one of the certificates (AS 10.06.218 and other sections of Title 10.06 - Alaska Corporations Code).
6. **Current Board of Director's Resolution** for incorporated Contractors and incorporated Subcontractors for Architecture, Engineering or Land Surveying (reference AS 08.48.241) which names the person(s) designated in "responsible charge" for each discipline. Such persons shall be licensed in Alaska and shall participate as project staff in the Contract / Subcontracts.
7. **All partners** in a Partnership to provide Architectural, Engineering, or Land Surveying must be legally registered in Alaska prior to submittal of proposal for at least one of those disciplines (AS 08.48.251) which the Partnership offers.
8. **Partnerships and Joint-Ventures**, regardless of type of services provided, must be licensed/registered in the legal name of the Partnership or Joint Venture as used in this proposal (AS 43.70.020 and 43.70.110(4)).

## CERTIFICATION FOR INSURANCE

Contractor shall ensure that it and all Subcontractors have insurance coverage to effectuate the requirements of General Conditions of the Construction Contract for Buildings and Docks, Article 5 - Bonds, Insurance and Indemnification.

## CERTIFICATION - COST AND PRICING DATA

In accordance with AS 36.30.400, any cost and pricing data submitted herewith, or in any future price proposals for the proposed contract will be accurate, complete and current as of the date submitted and will continue to be accurate and complete during the performance of the contract, if awarded.

## COVENANT AGAINST CONTINGENT FEES

The Contractor warrants that he has not employed any person to solicit or secure this contract upon any agreement for a commission, percentage, brokerage, or contingent fee. Breach of this warranty shall give the Contracting Agency the right to annul the contract, or, at its discretion, to deduct from the contract price, the amount of such commission, percentage, brokerage, or contingent fee. This warranty shall not apply to commissions payable by the Contractor upon contracts or sales secured or made through bona fide established commercial or selling agencies maintained by the Contractor for the purpose of securing business.

# PRICE PROPOSAL

THIS FORM MUST BE INCLUDED IN THE SEALED BID.

**PROJECT: FALSE PASS HARBOR FLOAT SYSTEM (DESIGN/BUILD)**

To the **CONTRACTING OFFICER of the ALEUTIANS EAST BOROUGH:**

In compliance with your REQUEST FOR PROPOSAL the Undersigned proposes to furnish and deliver all the material and do all the work and labor required in the construction of the above identified project located at or near:

## **FALSE PASS, ALASKA**

According to the Design/Build Manual and for the amount and prices named herein as indicated on the OFFER Schedule consisting of one sheet, which is made a part of this Price Proposal.

The Undersigned declares that we have carefully examined the contract requirements and that we have made an examination of the site of the work; that we understand that the quantities, where such are specified in the OFFER Schedule or in the Project Manual for this project, are approximate only and subject to increase or decrease, and that we are willing to perform increased or decreased quantities of work at unit prices proposed under the conditions set forth in the Contract Documents.

The Undersigned hereby agrees to execute the said contract and bonds within fifteen (15) calendar days, or such further time as may be allowed in writing by the Contracting Officer, after receiving notification of the acceptance of this Price Proposal, and it is hereby mutually understood and agreed that in case the Undersigned does not, the accompanying OFFER Security shall be forfeited to the Aleutians East Borough as liquidated damages, and the said Contracting Officer may proceed to award the contract to others.

The Undersigned agrees to commence the work within ten (10) calendar days, to deliver the finished floats, gangway and guide piling to a storage yard in False Pass by June 30, 2008, and to complete the float system installation (all project elements) no later than June 30, 2009, unless extended in writing by the Contracting Officer.

The Undersigned proposes to furnish Payment Bond in the amount of one hundred percent (100%) and Performance Bond in the amount of one hundred percent (100%), of the contract, as surety conditioned for the full, complete and faithful performance of this contract.

The Undersigned acknowledges receipt of the following Addenda to the Design/Build Manual and related documents, drawings and specifications (give number and date of each).

<b>ADDENDUM</b>	<b>DATE ISSUED</b>

---

## NON-COLLUSION AFFIDAVIT

The Undersigned declares, under penalty of perjury under the laws of the United States, that neither he nor the firm, association or corporation of which he is a member, a Offeror an this project has, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competition in connection with this proposal.

---

The Undersigned has read the foregoing proposal and hereby agrees to the conditions stated therein by affixing his / her signature below:

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Name and Title of Person Signing**

\_\_\_\_\_  
**Telephone Number**

# OFFER PROPOSAL

Proposal of \_\_\_\_\_

(hereinafter called "OFFEROR") \* Insert "a corporation", "a partnership", or "an individual" as applicable.

To the **ALEUTIANS EAST BOROROUGH** (herein after called "OWNER"):

In compliance with your Advertisement for Offer, OFFEROR hereby proposes to perform all WORK for the construction of in strict accordance with the CONTRACT DOCUMENTS, within the time set forth therein, and at the prices stated below.

By submission of this OFFER, each OFFEROR certifies, and in the case of a joint OFFER each party thereto certifies as to his own organization, that this OFFER has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this OFFER with any other OFFEROR or with any competitor.

OFFEROR hereby agrees to commence WORK under this contract on or before a date to be specified in the NOTICE TO PROCEED, to deliver the finished floats, gangway and guide piling to a storage yard in False Pass by June 30, 2008, and to complete the float system installation (all project elements) no later than June 30, 2009. OFFEROR further agrees to pay as liquidated damages, the sum of one thousand dollars (\$1,000.00) for each consecutive calendar day thereafter as provided in Section 15 of the General Conditions.

# OFFER SCHEDULE

THIS FORM MUST BE INCLUDED IN THE SEALED BID.

**PROJECT: FALSE PASS HARBOR FLOAT SYSTEM (DESIGN/BUILD)**

Offerors please read the following carefully before preparing this OFFER schedule. The Offeror shall insert a dollar amount in figures in column (b) (OFFER amount opposite each pay item appearing in the OFFER schedule. No price is to be entered or tendered for any item not appearing in the OFFER schedule. Conditioned or qualified Price Proposals will be considered non-responsive.

(a) Description	(b) OFFER Amount
<p><b>Basic OFFER</b></p> <p>[Part 1: Furnish all design, labor, material, equipment, supervision and provide all work necessary to complete the fabrication, delivery to False Pass, storage and protection of: timber floats, gangway ramp and guide piling <u>as described in Section 01025, Paragraph 1.3A.2a – Fabrication/Delivery</u>]</p> <p>[Part 2: Furnish all design, labor, material, equipment, supervision and provide all work necessary to complete the installation of: timber floats, access gangway and trestle and all associated steel piling, safety ladders, fire extinguishers and cabinets, and life rings and cabinets <u>as described in Section 01025, Paragraph 1.3A.2b – Installation</u>]</p> <p>[TOTAL – Parts 1 &amp; 2]</p>	<p style="text-align: center;"><b>Enter all dollar amounts below in written text and figures.</b></p> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/>
<b>Deductive Alternates: None</b>	

\_\_\_\_\_  
**Contractor's Signature** **Date**

\_\_\_\_\_  
**Contractor's Name (print)**

\_\_\_\_\_  
**Business License Number** **Date**

\_\_\_\_\_  
**Contractor's Registration Number** **Date**

**(Seal)**  
**Attest** \_\_\_\_\_

# SAMPLE AGREEMENT

**PROJECT: FALSE PASS HARBOR FLOAT SYSTEM (DESIGN/BUILD MANUAL)**

THIS AGREEMENT, made this \_\_\_\_\_ day of \_\_\_\_\_, 2007, by and between the **ALEUTIANS EAST BOROUGH** (hereinafter called "OWNER"), and \_\_\_\_\_ doing business as (an individual,) or (a partnership.) or (a corporation) (hereinafter called "CONTRACTOR").

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The CONTRACTOR will commence and complete the construction of the **FALSE PASS HARBOR FLOAT SYSTEM** (hereinafter called "PROJECT").
2. The CONTRACTOR will furnish all of the material, supplies, tools, equipment, labor and other services necessary for the construction and completion of the PROJECT described herein.
3. The CONTRACTOR will commence the work required by the CONTRACT DOCUMENTS within \_\_\_\_\_ calendar days after the date of the NOTICE TO PROCEED and will complete the same within \_\_\_\_\_ calendar days unless the period for completion is extended otherwise by the OWNER.

## CONTRACT DOCUMENTS

4. The CONTRACTOR agrees to perform all of the WORK described in the CONTRACT DOCUMENTS and comply with the terms therein for the sum of \$ \_\_\_\_\_, or as shown in the OFFER schedule.
5. The term "CONTRACT DOCUMENTS" means and includes the following:
  - (A) ADVERTISEMENT FOR OFFER
  - (B) INFORMATION FOR OFFERORS
  - (C) OFFER
  - (D) AGREEMENT
  - (E) GENERAL CONDITIONS
  - (F) SUPPLEMENTAL GENERAL CONDITIONS
  - (G) PAYMENT BOND
  - (H) PERFORMANCE BOND
  - (I) NOTICE OF AWARD
  - (J) NOTICE TO PROCEED
  - (K) CHANGE ORDER

(L) DRAWINGS prepared by Tryck Nyman Hayes, Inc., dated February 23, 2007 (provided as part of the Design/Build Manual dated September 14, 2007.)

(M) DESIGN/BUILD SPECIFICATIONS prepared or issued by Tryck Nyman Hayes, Inc. dated September 14, 2007 (provided as part of the Design/Build Manual dated September 14, 2007.)

**(N) ADDENDA:**

No. \_\_\_\_\_ dated \_\_\_\_\_, 2007.

No. \_\_\_\_\_ dated \_\_\_\_\_, 2007.

No. \_\_\_\_\_ dated \_\_\_\_\_, 2007.

*\* Note: SUPPLEMENTAL INFORMATION, a separate volume of information accompanying the Design/Build Manual and dated September 14, 2007, is provided for reference only and is not considered a Contract Document. Interpretation and use of this information is the CONTRACTOR's responsibility. No representation whatsoever is made as to the accuracy, applicability or sufficiency of this information as relates to the PROJECT.*

- 6. The OWNER will pay to the CONTRACTOR in the manner and at such times as set forth in the General Conditions such amounts as required by the CONTRACT DOCUMENTS.
- 7. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in \_\_\_\_\_ each of which shall deemed an original on the date first above written.

(No. OF COPIES)

OWNER: \_\_\_\_\_

BY \_\_\_\_\_

\_\_\_\_\_  
Name (print or type) Title

(SEAL)  
ATTEST:

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Name (print or type) Title

CONTRACTOR: \_\_\_\_\_

BY \_\_\_\_\_

\_\_\_\_\_  
Name (print or type) Address

(SEAL)  
ATTEST:

\_\_\_\_\_  
Name (Please Type) Title

# SAMPLE CONSTRUCTION CONTRACT

**PROJECT: FALSE PASS HARBOR FLOAT SYSTEM (DESIGN/BUILD)**

THIS CONTRACT, between the **ALEUTIANS EAST BOROUGH**, herein called the Owner, Acting through its Contracting Officer, and an \_\_\_\_\_ (Individual, Partnership, Joint Venture, Sole Proprietorship, or Corporation), incorporated under the laws of the State of \_\_\_\_\_, its successors and assigns, hereinafter called the Contractor, is effective the date of signature of the Contracting Officer on this document.

WITNESSETH: That the Contractor, for and in consideration of the payment or payments herein specified and agreed to by the Owner, hereby covenants and agrees to furnish and deliver all the materials and to do and perform all the work and labor required in the construction of the **FALSE PASS HARBOR FLOAT SYSTEM**, at the prices offered by the Contractor for the respective estimated quantities aggregating the sum of:

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_) and such other items as are mentioned in the original Proposal, which Proposal and prices named, together with the Contract Documents are made a part of this Contract and accepted as such, the project being situated or near **FALSE PASS, ALASKA**.

It is distinctly understood and agreed that no claim for additional work or materials, done or furnished by the Contractor and not specifically herein provided for, will be allowed by the Owner, nor shall the Contractor do any work or furnish any material not covered by this Contract, unless such work is ordered in writing by the Borough. In no event, shall the Owner be liable for any materials furnished or used, or for any work or labor done, unless the materials, work, or labor are required by the Contractor or on written order furnished by the Owner. Any such work or materials which may be done or furnished by the Contractor without written order first being given shall be at the Contractor's own risk, cost, and expense and the Contractor hereby covenants and agrees to make no claim for compensation for work or materials done or furnished without such written order.

The Contractor further re-covenants and agrees that all materials shall be furnished and delivered and all labor shall be done and performed, in every respect, to the satisfaction of the Owner, on or before \_\_\_\_\_, or within \_\_\_\_\_ calendar days. It is expressly understood and agreed that in case of the failure on the part of the Contractor, for any reason except with the written consent of the Owner, to complete the furnishing and delivery of materials and the doing and performance of the work before the aforesaid date, the Owner shall have the right to deduct from any money due or which may become due the Contractor, of if no money shall be due, the Owner shall the right to recover one thousand dollars (\$1,000.00), per day for each calendar day elapsing between the time stipulated for the completion and the actual date of completion in accordance with the terms hereof, such deduction to be made, or sum to be recovered, not as a penalty but as liquidated damages.

The bonds given by the Contractor in the sum of \$ \_\_\_\_\_ Payment Bond, and \$ \_\_\_\_\_ Performance Bond, to secure the proper compliance with the terms and provisions of this Contract, are submitted herewith and made a part hereof.

IN WITNESS WHEREOF, the parties hereto have executed this Contract and hereby agree to its terms and conditions.

## CONTRACTOR

\_\_\_\_\_  
**Contractor (signature)**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Typed Name**

\_\_\_\_\_  
**Title**

(Seal)

## ALEUTIANS EAST BOROUGH

\_\_\_\_\_  
**Contracting Officer (signature)**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Typed Name**

\_\_\_\_\_  
**Title**

# SAMPLE PERFORMANCE BOND

**PROJECT: FALSE PASS HARBOR FLOAT SYSTEM (DESIGN/BUILD)**

### KNOW ALL BY THESE PRESENTS:

That \_\_\_\_\_ of \_\_\_\_\_  
as Principal, and \_\_\_\_\_ of \_\_\_\_\_

\_\_\_\_\_ as surety, firmly bound and held unto the Aleutians East Borough the penal sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_ ) good and lawful money of the United States of America for the payment whereof, well and truly to be paid to the Aleutians East Borough, we bind ourselves, our heirs, successors, executors, administrators, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal has entered into written Contract with said Aleutians East Borough on the \_\_\_\_\_ of \_\_\_\_\_ 2007 for construction of the **FALSE PASS BOAT HARBOR FLOAT SYSTEM**, said work to be done according to the terms of said Contract.

Now, THEREFORE, the conditions of the foregoing obligation is such that if the said Principal shall well and truly perform and complete all obligations and work under said Contract and if said Principal shall reimburse upon demand of the Aleutians East Borough any sums paid to him which exceed the final payment determined to be due upon completion of the project, then these presents shall become null and void; otherwise they shall remain in full force and effect.

IN WITNESS WHEREOF, We have hereunto set our hands and seals at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_ 2007.

Principal:

By: \_\_\_\_\_

By: \_\_\_\_\_

Surety: \_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

The offered bond has been checked for adequacy under the applicable statues and regulations:

\_\_\_\_\_  
Aleutians East Borough  
Authorized Representative

\_\_\_\_\_  
Date

# INSTRUCTIONS

1. This form shall be used whenever a performance bond is required. There shall be no deviation from this form without approval from the Contracting Officer.
2. The full legal name and business address of the Principal and Surety shall be inserted on the face of the form. Where more than a single surety is involved, a separate form shall be executed for each surety.
3. The penal amount of the bond, or in the case of more than one surety, the amount of obligation shall be entered in words and in figures.
4. Where individual sureties are involved, a completed Affidavit of Individual Surety shall accompany the bond. Such forms are available upon request from the Contracting Officer.
5. Authorized persons shall sign the bond. Where such persons are signing in a representative capacity (e.g. an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, evidence of authority must be furnished.

# SAMPLE PAYMENT BOND

**PROJECT: FALSE PASS HARBOR FLOAT SYSTEM (DESIGN/BUILD)**

### KNOW ALL BY THESE PRESENTS:

That \_\_\_\_\_ of \_\_\_\_\_ as Principal, and \_\_\_\_\_ of \_\_\_\_\_ as surety, firmly bound and held unto the Aleutians East Borough in the penal sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_ ) good and lawful money of the United States of America for the payment whereof, well and truly to be paid to the **ALEUTIANS EAST BOROUGH**, we bind ourselves, our heirs, successors, executors, administrators, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal has entered into written Contract with said **ALEUTIANS EAST BOROUGH** on the \_\_\_\_\_ day of \_\_\_\_\_, 2007, for construction of the **FALSE PASS HARBOR FLOAT SYSTEM**, said work to be done according to the terms of said Contract.

Now, THEREFORE, the conditions of the foregoing obligation is such that if the said Principal shall well and truly perform and complete all obligations and work under said Contract and if said Principal shall reimburse upon demand of the Aleutians East Borough any sums paid to him which exceed the final payment determined to be due upon completion of the project, then these presents shall become null and void; otherwise they shall remain in full force and effect.

IN WITNESS WHEREOF, We have hereunto set our hands and seals at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_, 2007.

Principal:

By:

By:

Surety: \_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

The offered bond has been checked for adequacy under the applicable statutes and regulations:

\_\_\_\_\_  
Aleutians East Borough  
Authorized Representative

\_\_\_\_\_  
Date

# INSTRUCTIONS

1. This form shall be used whenever a performance bond is required. There shall be no deviation from this form without approval from the Contracting Officer.
2. The full legal name and business address of the Principal and Surety shall be inserted on the face of the form. Where more than a single surety is involved, a separate form shall be executed for each surety.
3. The penal amount of the bond, or in the case of more than one surety, the amount of obligation shall be entered in words and in figures.
4. Where individual sureties are involved, a completed Affidavit of Individual Surety shall accompany the bond. Such forms are available upon request from the Contracting Officer.
5. Authorized persons shall sign the bond. Where such persons are signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, evidence of authority must be furnished.

# CONTRACTOR'S QUESTIONNAIRE

**PROJECT: FALSE PASS HARBOR FLOAT SYSTEM (DESIGN/BUILD)**

**A. FINANCIAL**

Have you ever failed to complete a Contract due to insufficient resources?

Yes                      No                      If Yes, explain \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

2. Describe any arrangements you have made to finance this work:

\_\_\_\_\_  
 \_\_\_\_\_

**B. EQUIPMENT** Describe in detail the equipment you have available for this work; use additional sheets if necessary.

<i>Item</i>	<i>Quantity</i>	<i>Make</i>	<i>Model</i>	<i>Size / Capacity</i>	<i>Present Market Value</i>

2. Describe the yards and physical plant you have available for this work; use additional sheets if necessary.

<i>Description</i>	<i>Location</i>	<i>Size/Capacity</i>	<i>Present Market Value</i>

3. What percentage of the total value of this Contract do you intend to subcontract?

4. Do you propose to purchase any equipment for use on this project? Yes ----- No If yes, describe type, quantity, and approximate cost: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

5. Do you propose to rent any equipment for this work? Yes -----No -----

If yes, describe type and quantity:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. Is your proposal based on firm offers for all materials necessary for this report? Yes ----- No ----- If No, please explain below.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

C. EXPERIENCE

1. Have you had previous construction Contracts or subcontracts with the Aleutians East Borough?  
Yes No

Describe the most recent or current Contract, its completion date, and scope-of-work.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. List, as an attachment to this questionnaire, other construction projects you have completed; the dates of completion, scope-of-work, and total Contract amount for each project completed in the past twelve (12) months.

I hereby certify that the above statements are true and complete.

\_\_\_\_\_  
**Name of Contractor**

\_\_\_\_\_  
**Signature** **Date**

\_\_\_\_\_  
**Name and Title of Person Signing**

# GENERAL CONDITIONS

**PROJECT: FALSE PASS HARBOR FLOAT SYSTEM (DESIGN/BUILD)**

1. Definitions
2. Additional Instructions and Detail Drawings
3. Schedules, Reports and Records
4. Drawings and Specifications
5. Shop Drawings
6. Materials, Services and Facilities
7. Inspection and Testing
8. Substitutions
9. Patents
10. Surveys, Permits, Regulations
11. Protection of Work, Property, Persons
12. Supervision by Contractor
13. Changes in the Work
14. Changes in the Contract Price
15. Time for Completion and Liquidated Damages
16. Correction of Work
17. Subsurface Conditions
18. Suspension of Work, Termination and Delay
19. Payments to Contractor
20. Acceptance of Final Payment as Release
21. Insurance
22. Contract Security
23. Assignments
24. Indemnification
25. Separate Contracts
26. Subcontracting
27. Engineer's Authority
28. Land and Rights-of-Way
29. Guaranty
30. Arbitration
31. Taxes

## 1. DEFINITIONS

1.1 Wherever used in the CONTRACT DOCUMENTS, the following terms shall have the meanings indicated which shall be applicable to both the singular and plural thereof:

1.2 ADDENDA -- Written or graphic instruments issued prior to the execution of the Agreement which modify or interpret the CONTRACT DOCUMENTS, DRAWINGS and SPECIFICATIONS, by additions, deletions, clarifications or corrections.

1.3 OFFER -- The offer or proposal of the OFFEROR submitted on the prescribed form setting forth the prices for the WORK to be performed.

1.4 OFFEROR -- Any person, firm or corporation submitting a OFFER for the WORK.

1.5 BONDS -- OFFER, Performance, and Payment Bonds and other instruments of security, furnished by the CONTRACTOR and his surety in accordance with the CONTRACT DOCUMENTS.

1.6 CHANGE ORDER -- A written order to the CONTRACTOR authorizing an addition, deletion or revision in the WORK within the general scope of the CONTRACT DOCUMENTS, or authorizing an adjustment in the CONTRACT PRICE or CONTRACT TIME.

1.7 CONTRACT DOCUMENTS -- The contract, including Advertisement for OFFERS, Information for OFFERORS, OFFER, OFFER Bond, Agreement, Payment Bond, Performance Bond, NOTICE OF AWARD, NOTICE TO PROCEED, CHANGE ORDER, DRAWINGS, SPECIFICATIONS, and ADDENDA.

1.8 CONTRACT PRICE -- The total monies payable to the CONTRACTOR under the terms and conditions of the CONTRACT DOCUMENTS.

1.9 CONTRACT TIME -- The number of calendar days stated in the CONTRACT DOCUMENTS for the completion of the WORK.

1.10 CONTRACTOR -- The person, firm or corporation with whom the OWNER has executed the Agreement.

1.11 DRAWINGS -- The part of the CONTRACT DOCUMENTS that show the characteristics and scope of the WORK to be performed and which have been prepared or approved by the ENGINEER.

1.12 ENGINEER -- The person, firm or corporation named as such in the CONTRACT DOCUMENTS.

1.13 FIELD ORDER -- A written order effecting a change in the WORK not involving an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, issued by the ENGINEER to the CONTRACTOR during construction.

1.14 NOTICE OF AWARD -- The written notice of the acceptance of the OFFER from the OWNER to the successful OFFEROR.

1.15 NOTICE TO PROCEED -- Written communication issued by the OWNER to the CONTRACTOR authorizing him to proceed with the WORK and establishing the date of commencement of the WORK.

1.16 OWNER -- A public or quasi-public body or authority, corporation, association, partnership, or individual for whom the WORK is to be performed.

1.17 PROJECT -- The undertaking to be performed as provided in the CONTRACT DOCUMENTS.

1.18 RESIDENT PROJECT REPRESENTATIVE -- The authorized representative of the OWNER who is assigned to the PROJECT site or any part thereof.

1.19 SHOP DRAWINGS -- All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the CONTRACTOR, a SUBCONTRACTOR, manufacturer, SUPPLIER or distributor, which illustrate how specific portions of the WORK shall be fabricated or installed.

1.20 SPECIFICATIONS -- A part of the CONTRACT DOCUMENTS consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship.

1.21 SUBCONTRACTOR -- An individual, firm or corporation having a direct CONTRACT WITH THE CONTRACTOR or with any other SUBCONTRACTOR for the performance of a part of the work at the site.

1.22 SUBSTANTIAL COMPLETION -- That date as certified by the ENGINEER when the construction of the PROJECT or a specified part thereof is sufficiently completed, in accordance with the CONTRACT DOCUMENTS, so that the PROJECT or specified part can be utilized for the purposes for which it is intended.

1.23 SUPPLEMENTAL GENERAL CONDITIONS -- Modifications to General Conditions required by a Federal agency for participation in the PROJECT and approved by the agency in writing prior to inclusion in the CONTRACT DOCUMENTS, or such requirements that may be imposed by applicable state laws.

1.24 SUPPLIER -- Any person or organization who supplies materials or equipment for the WORK, including that fabricated to a special design, but who does not perform labor at the site.

1.25 WORK -- All labor necessary to produce the construction required by the CONTRACT DOCUMENTS, and all materials and equipment incorporated or to be incorporated in the PROJECT.

1.26 WRITTEN NOTICE--Any notice to any party of the Agreement relative to any part of this Agreement in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party at his last given address, or delivered in person to said party or his authorized representative on the WORK.

## **2. ADDITIONAL INSTRUCTIONS AND DETAIL DRAWINGS**

2.1 The CONTRACTOR may be furnished additional instructions and detail drawings, by the ENGINEER, as necessary to carry out the WORK required by the CONTRACT DOCUMENTS.

2.2 The additional drawings and instruction thus supplied will become a part of the CONTRACT DOCUMENTS. The CONTRACTOR shall carry out the WORK in accordance with the additional detail drawings and instructions.

## **3. SCHEDULES, REPORTS AND RECORDS**

3.1 The CONTRACTOR shall submit to the OWNER such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data where applicable as are required by the CONTRACT DOCUMENTS for the WORK to be performed.

3.2 Prior to the first partial payment estimate the CONTRACTOR shall submit construction progress schedules showing the order in which he proposes to carry on the WORK, including dates at which he will start the various parts of the WORK, estimated date of completion of each part and, as applicable:

3.2.1 The dates at which special detail drawings will be required.

3.2.2 Respective dates for submission of SHOP DRAWINGS, the beginning of manufacture, the testing and the installation of materials, supplies and equipment.

3.3 The CONTRACTOR shall also submit a schedule of payments that he anticipates he will earn during the course of the WORK.

## **4. DRAWINGS AND SPECIFICATIONS**

4.1 The intent of the DRAWINGS and SPECIFICATIONS is that the CONTRACTOR shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the WORK in accordance with the CONTRACT DOCUMENTS and all incidentals work necessary to complete the PROJECT in an acceptable manner, ready for use, occupancy or operation by the OWNER.

4.2 In case of conflict between the DRAWINGS and SPECIFICATIONS, the SPECIFICATIONS shall govern. Figure dimensions on DRAWINGS shall govern over scale dimensions, and detailed DRAWINGS shall govern over general DRAWINGS.

4.3 Any discrepancies found between the DRAWINGS and SPECIFICATIONS and site conditions or any inconsistencies or ambiguities in the DRAWINGS or

SPECIFICATIONS shall be immediately reported to the ENGINEER, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. WORK done by the CONTRACTOR after his discovery of such discrepancies, inconsistencies or ambiguities shall be done at the CONTRACTOR'S risk.

## **5. SHOP DRAWINGS**

5.1 The CONTRACTOR shall provide SHOP DRAWINGS as may be necessary for the prosecution of the WORK as required by the CONTRACT DOCUMENTS. The ENGINEER shall promptly review all SHOP DRAWINGS. The ENGINEER'S approval of any SHOP DRAWING shall not release the CONTRACTOR from responsibility for deviations from the CONTRACT DOCUMENTS. The approval of any SHOP DRAWING that substantially deviates from the requirement of the CONTRACT DOCUMENTS shall be evidenced by a CHANGE ORDER.

5.2 When submitted for the ENGINEER'S review, SHOP DRAWINGS shall bear the CONTRACTOR'S certification that he has reviewed, checked and approved the SHOP DRAWINGS and that they are in conformance with the requirements of the CONTRACT DOCUMENTS.

5.3 In consideration of schedule requirements, WORK requiring a SHOP DRAWING or sample submission may begin in advance of ENGINEER'S approval. All required SHOP DRAWINGS and/or samples shall be submitted for approval at the earliest opportunity. The relaxed submittal requirement shall not absolve the CONTRACTOR'S responsibility to conform to the requirements of the CONTRACT DOCUMENTS. A copy of each approved SHOP DRAWING and each approved sample shall be kept in good order by the CONTRACTOR at the site and shall be available to the ENGINEER.

## **6. MATERIALS, SERVICES AND FACILITIES**

6.1 It is understood that, except as otherwise specifically stated in the CONTRACT DOCUMENTS, the CONTRACTOR shall provide and pay for all materials, Labor, tools, equipment, water, light, power, transportation, supervision, temporary construction of any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete, and deliver the WORK within the specified time.

6.2 Materials and equipment shall be so stored as to insure the preservation of their quality and fitness for the WORK. Stored materials and equipment to be incorporated in the WORK shall be located so as to facilitate prompt inspection.

6.3 Manufactured articles, materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer.

6.4 Materials, supplies and equipment shall be in accordance with samples submitted by the CONTRACTOR and approved by the ENGINEER.

6.5 Materials, supplies or equipment to be incorporated into the WORK shall not be purchased by the CONTRACTOR or the SUBCONTRACTOR subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.

## **7. INSPECTION AND TESTING**

7.1 All materials and equipment used in the construction of the PROJECT shall be subject to adequate inspection and testing in accordance with generally accepted standards, as required and defined in the CONTRACT DOCUMENTS.

7.2 The OWNER shall provide all inspection and testing services not required by the CONTRACT DOCUMENTS.

7.3 The CONTRACTOR shall provide at his expense the testing and inspection services required by the CONTRACT DOCUMENTS.

7.4 If the CONTRACT DOCUMENTS, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any WORK to specifically be inspected, tested, or approved by someone other than the CONTRACTOR, the CONTRACTOR will give the ENGINEER timely notice of readiness. The CONTRACTOR will then furnish the ENGINEER the required certificates of inspection, testing or approval.

7.5 Inspections, tests or approvals by the engineer or others shall not relieve the CONTRACTOR from his obligations to perform the WORK in accordance with the requirements of the CONTRACT DOCUMENTS.

7.6 The ENGINEER and his representatives will at all times have access to the WORK. In addition, authorized representatives and agents of any participating Federal or state agency shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records. The CONTRACTOR will provide proper facilities for such access and observation of the WORK and also for any inspection, or testing thereof.

7.7 If any WORK is covered contrary to the written instructions of the ENGINEER it must, if requested by the ENGINEER, be uncovered for his observation and replaced at the CONTRACTOR'S expense.

7.8 If the ENGINEER considers it necessary or advisable that covered WORK be inspected or tested by others, the CONTRACTOR, at the ENGINEER'S request, will uncover, expose or otherwise make available for observation, inspection or testing as the ENGINEER may

require, that portion of the WORK in question, furnishing all necessary labor, materials, tools and equipment. If it is found that such WORK is defective, the CONTRACTOR will bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction. If, however, such WORK is not found to be defective, the CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate CHANGE ORDER shall be issued.

## **8. SUBSTITUTIONS**

8.1 Whenever a material, article or piece of equipment is identified on the DRAWINGS or SPECIFICATIONS by reference to brand name or catalogue number, it shall be understood that this is referenced for the purpose of defining the performance or other salient requirements and that other products of equal capacities, quality and function shall be considered. The CONTRACTOR may recommend the substitution of a material, article, or piece of equipment of equal substance and function for those referred to in the CONTRACT DOCUMENTS by reference to brand name or catalogue number, and if, in the opinion of the ENGINEER, such material, article, or piece of equipment is of equal substance and function to that specified, the ENGINEER may approve its substitution and use by the CONTRACTOR. Any cost differential shall be deductible from the CONTRACT PRICE and the CONTRACT DOCUMENTS shall be appropriately modified by CHANGE ORDER. The CONTRACTOR warrants that if substitutes are approved, no major changes in the function or general design of the PROJECT will result. Incidental changes or extra component parts required to accommodate the substitute will be made by the CONTRACTOR without a change in the CONTRACT PRICE or CONTRACT TIME.

## **9. PATENTS**

9.1 The CONTRACTOR shall pay all applicable royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and save the OWNER harmless from loss on account thereof, except that the OWNER shall be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified, however if the CONTRACTOR has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the ENGINEER.

## **10. SURVEYS, PERMITS, REGULATIONS**

10.1 The OWNER shall furnish all boundary surveys and establish all base lines for locating the principal component parts of the WORK together with a suitable number of bench marks adjacent to the WORK as shown in the CONTRACT DOCUMENTS. From the information provided by the OWNER, unless otherwise specified in

the CONTRACT DOCUMENTS, the CONTRACTOR shall develop and make all detail surveys needed for construction such as slope stakes, batter boards, stakes for pile locations and other working points, lines, elevations and cut sheets.

10.2 The CONTRACTOR shall carefully preserve bench marks, reference points and stakes and, in case of willful or careless destruction, he shall be charged with the resulting expense and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.

10.3 Permits and licenses of a temporary nature necessary for the prosecution of the WORK shall be secured and paid for by the CONTRACTOR unless otherwise stated in the SUPPLEMENTAL GENERAL CONDITIONS. Permits, licenses and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the OWNER, unless otherwise specified. The CONTRACTOR shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the WORK as drawn and specified. If the CONTRACTOR observes that the CONTRACT DOCUMENTS are at variance therewith, he shall promptly notify the ENGINEER in writing.

## **11. PROTECTION OF WORK, PROPERTY AND PERSONS**

11.1 The CONTRACTOR will be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the WORK. He will take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury or loss to all employees on the WORK and other persons who may be affected thereby, all the WORK and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

11.2 The CONTRACTOR will comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction. He will erect and maintain, as required by the conditions and progress of the WORK, all necessary safeguards for safety and protection. He will notify owners of adjacent utilities when prosecution of the WORK may affect them. The CONTRACTOR will remedy all damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by the CONTRACTOR, any SUBCONTRACTOR or anyone directly or indirectly employed by any of them or anyone for whose acts any of them be liable, except damage or loss attributable to the fault of the CONTRACT DOCUMENTS or to the acts or omissions of the OWNER or the ENGINEER or anyone employed by either of them

or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the CONTRACTOR.

11.3 In emergencies affecting the safety of persons or the WORK or property at the site or adjacent thereto, the CONTRACTOR, without special instruction or authorization from the ENGINEER or OWNER, shall act to prevent threatened damage, injury or loss. He will give the ENGINEER prompt WRITTEN NOTICE of any significant changes in the WORK or deviations from the CONTRACT DOCUMENTS caused thereby, and a CHANGE ORDER shall thereupon be issued covering the changes and deviations involved.

## **12. SUPERVISION BY CONTRACTOR**

12.1 The CONTRACTOR will supervise and direct the WORK. He will be solely responsible for the means, methods, techniques, sequences and procedures of construction. The CONTRACTOR will employ and maintain on the WORK a qualified supervisor or superintendent who shall have been designated in writing by the CONTRACTOR as the CONTRACTOR representative at the site. The supervisor shall have full authority to act on behalf of the CONTRACTOR and all communications given to the supervisor shall be as binding as if given to the CONTRACTOR. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the WORK.

## **13. CHANGES IN THE WORK**

13.1 The OWNER may at any time, as the need arises, order changes within the scope of the WORK without invalidating the Agreement. If such changes increase or decrease the amount due under the CONTRACT DOCUMENTS, or in the time required for performance of the WORK, an equitable adjustment shall be authorized by CHANGE ORDER.

13.2 The ENGINEER, also, may at any time, by issuing a FIELD ORDER, make changes in the details of the WORK. The CONTRACTOR shall proceed with the performance of any changes in the WORK so ordered by the ENGINEER unless the CONTRACTOR believes that such FIELD ORDER entitles him to a change in CONTRACT PRICE or TIME, or both, in which event he shall give the ENGINEER WRITTEN NOTICE thereof within seven (7) days after the receipt of the ordered change. Thereafter the CONTRACTOR shall document the basis for the change in CONTRACT PRICE or TIME within thirty (30) days. The CONTRACTOR shall not execute such changes pending the receipt of an executed CHANGE ORDER or further instruction from the OWNER.

## **14. CHANGES IN CONTRACT PRICE**

14.1 The CONTRACT PRICE may be changed only by a CHANGE ORDER. The value of any WORK covered by a CHANGE ORDER or of any claim for increase or decrease in the CONTRACT PRICE shall be determined by one or more of the following methods in the order of precedence listed below: (a) Unit prices previously approved, (b) an agreed lump sum, (c) the actual cost for labor, direct overhead, materials, supplies, equipment, and other services necessary to complete the work. In addition there shall be added an amount to be agreed upon but not to exceed fifteen (15) percent of the actual cost of the WORK to cover the cost of general overhead and profit.

## **15. TIME FOR COMPLETION AND LIQUIDATED DAMAGES**

15.1 The date of beginning and the time for completion of the WORK are essential conditions of the CONTRACT DOCUMENTS and the WORK embraced shall be commenced on a date specified in the NOTICE TO PROCEED.

15.2 The CONTRACTOR will proceed with the WORK at such rate of progress to insure full completion within the CONTRACT TIME. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the CONTRACT TIME for the completion of the WORK described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the WORK.

15.3 If the CONTRACTOR shall fail to complete the WORK within the CONTRACT TIME, or extension of time granted by the OWNER, then the CONTRACTOR will pay to the OWNER the amount for liquidated damages as specified in the OFFER for each calendar day that the CONTRACTOR shall be in default after the time stipulated in the CONTRACT DOCUMENTS.

15.4 The CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in completion of the WORK is due to the following, and the CONTRACTOR has promptly given WRITTEN NOTICE of such delay to the OWNER or ENGINEER.

15.4.1 To any preference, priority or allocation order duly issued by the OWNER.

15.4.2 To unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including but not restricted to, acts of God, or of the public enemy, acts of the OWNER, acts of another CONTRACTOR in the performance of a contract with the OWNER, fires, floods, epidemics, necessary changes shall be adjusted as provided in Section 13, CHANGES IN THE WORK.

15.4.3 Quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather.

15.4.4 Any delays of SUBCONTRACTORS occasioned by any of the causes specified in paragraphs 15.4.1,

15.4.2 and 15.4.3 of this article.

## **16. CORRECTION OF WORK**

16.1 The CONTRACTOR shall promptly remove from the premises all WORK rejected by the ENGINEER for failure to comply with the CONTRACT DOCUMENTS, whether incorporated in the construction or not, and the CONTRACTOR shall promptly replace and re-execute the WORK in accordance with the CONTRACT DOCUMENTS and without expense to the OWNER and shall bear the expense of making good all WORK of other CONTRACTORS destroyed or damaged by such removal or replacement.

16.2 All removal and replacement WORK shall be done at the CONTRACTOR'S expense. If the CONTRACTOR does not take action to remove such rejected WORK within ten (10) days after receipt of WRITTEN NOTICE, the OWNER may remove such WORK and store the materials at the expense of the CONTRACTOR.

## **17. SUBSURFACE CONDITIONS**

17.1 The CONTRACTOR shall promptly, and before such conditions are disturbed, except in the event of an emergency, notify the OWNER by WRITTEN NOTICE of:

17.1.1 Subsurface or latent physical conditions at the site differing materially from those indicated in the CONTRACT DOCUMENTS: or

17.1.2 Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in WORK of the character provided for in the CONTRACT DOCUMENTS.

17.2 The OWNER shall promptly investigate the conditions, and if he finds that such conditions do so materially differ and cause an increase or decrease in the cost of, or in the time required for, performance of the WORK, an equitable adjustment shall be made and the CONTRACT DOCUMENTS shall be modified by a CHANGE ORDER. Any claim of the CONTRACTOR for adjustment hereunder shall not be allowed unless he has given the required WRITTEN NOTICE; provided that the OWNER may, if he determines the facts so justify, consider and adjust any such claims asserted before the date of final payment.

## **18. SUSPENSION OF WORK, TERMINATION AND DELAY**

18.1 The OWNER may suspend the WORK or any portion thereof for a period of not more than ninety days or such further time as agreed upon by the CONTRACTOR by WRITTEN NOTICE to the CONTRACTOR and the ENGINEER which notice shall fix the date on which WORK shall be resumed. The CONTRACTOR will resume that WORK on the date so fixed. The CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to any suspension.

18.2 If the CONTRACTOR is adjudged as bankrupt or insolvent, or if he makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for the CONTRACTOR or for any of his property, or if he files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or if he repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, or if he repeatedly fails to make prompt payments to SUBCONTRACTORS or for labor, materials or equipment or if he disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the WORK or if he disregards the authority of the ENGINEER, or if he otherwise violates any provision of the CONTRACT DOCUMENTS, then the OWNER may, without prejudice to any other right or remedy and after giving the CONTRACTOR and his surety a minimum of ten (10) days from delivery of a WRITTEN NOTICE, terminate the services of the CONTRACTOR and take possession of the PROJECT and of all materials, equipment, tools, construction equipment and machinery, thereon owned by the CONTRACTOR, and finish the WORK by whatever method he may deem expedient. In such case the CONTRACTOR shall not be entitled to receive any further payment until the WORK is finished. If the unpaid balance of the CONTRACT PRICE exceeds the direct and indirect costs of completing the PROJECT, including compensation for additional professional services, such excess SHALL BE PAID TO THE CONTRACTOR. If such costs exceed such unpaid balance, the CONTRACTOR will pay the difference to the OWNER. Such costs incurred by the OWNER will be determined by the ENGINEER and incorporated in a CHANGE ORDER.

18.3 Where the CONTRACTOR'S services have been so terminated by the OWNER, said termination shall not affect any right of the OWNER against the CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of monies by the OWNER due the CONTRACTOR will not release the CONTRACTOR from compliance with the CONTRACT DOCUMENTS.

18.4 After ten (10) days from delivery of a WRITTEN NOTICE to the CONTRACTOR and the ENGINEER, the OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the PROJECT

and terminate the Contract. In such case, the CONTRACTOR shall be paid for all WORK executed and any expense sustained plus reasonable profit.

18.5 If, through no act or fault of the CONTRACTOR, the WORK is suspended for a period of more than ninety (90) days by the OWNER or under an order of court or other public authority, or the ENGINEER fails to act on any request for payment within thirty (30) days after it is submitted or the OWNER fails to pay the CONTRACTOR substantially the sum approved by the ENGINEER or awarded by arbitrators within thirty (30) days of its approval and presentation, then the CONTRACTOR may, after ten (10) days from delivery of a WRITTEN NOTICE to the OWNER and the ENGINEER, terminate the CONTRACT and recover from the OWNER payment for all WORK executed and all expenses sustained. In addition and in lieu of terminating the CONTRACT, if the ENGINEER has failed to act on a request for payment or if the OWNER has failed to make any payment as aforesaid, the CONTRACTOR may upon ten (10) days written notice to the OWNER and the ENGINEER stop the WORK until he has been paid all amounts then due, in which event and upon resumption of the WORK, CHANGE ORDERS shall be issued for adjusting the CONTRACT PRICE or extending the CONTRACT TIME or both to compensate for the costs and delays attributable to the stoppage of the WORK.

18.6 If the performance of all or any portion of the WORK is suspended, delayed, or interrupted as a result of a failure of the OWNER or ENGINEER to act within the time specified in the CONTRACT DOCUMENTS, or if no time is specified, within a reasonable time, an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, shall be made by CHANGE ORDER to compensate the CONTRACTOR for the costs and delays necessarily caused by the failure of the OWNER or ENGINEER.

## **19. PAYMENTS TO CONTRACTOR**

19.1 At least ten (10) days before each progress payment falls due (but not more often than once a month), the CONTRACTOR will submit to the ENGINEER a partial payment estimate filled out and signed by the CONTRACTOR covering the WORK performed during the period covered by the partial payment estimate and supported by such data as the ENGINEER may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the WORK but delivered and suitably stored at or near the site, the partial payment estimate shall also be accompanied by such supporting data, satisfactory to the OWNER, as will establish the OWNER'S title to the material and equipment and protect his interest therein, including applicable insurance. The ENGINEER will, within ten (10) days after receipt of each partial payment estimate, either indicate in writing his approval of payment and present the partial payment estimate to the

OWNER, or return the partial payment estimate to the CONTRACTOR indicating in writing his reasons for refusing to approve payment. In the latter case, the CONTRACTOR may make the necessary corrections and resubmit the partial payment estimate. The OWNER will, within ten (10) days of presentation to him of an approved partial payment estimate, pay the CONTRACTOR a progress payment on the basis of the approved partial payment estimate. The OWNER shall retain ten percent (10%) of the amount of each payment until final completion and acceptance of all work covered by the CONTRACT DOCUMENTS. The OWNER at any time, however, after fifty percent (50%) of the WORK has been completed, if he finds that satisfactory progress is being made, shall reduce retainage to five percent (5%) on the current and remaining estimates. When the WORK is substantially complete (operational or beneficial occupancy), the retained amount may be further reduced below five percent (5%) to only that amount necessary to assure completion. On completion and acceptance of a part of the WORK on which the price is stated separately in the CONTRACT DOCUMENTS, payment may be made in full, including retained percentages, less authorized deductions.

19.2 The request for payment may also include an allowance for the cost of such major materials and equipment, which are suitably stored either at or near the site.

19.3 Prior to SUBSTANTIAL COMPLETION, the OWNER, with the approval of the ENGINEER and with the concurrence of the CONTRACTOR, may use any completed or substantially completed portions of the WORK. Such use shall not constitute an acceptance of such portions of the WORK.

19.4 The OWNER shall have the right to enter the premises for the purpose of doing work not covered by the CONTRACT DOCUMENTS. This provision shall not be construed as relieving the CONTRACTOR of the sole responsibility for the care and protection of the WORK, or the restoration of any damaged WORK except such as may be caused by agents or employees of the OWNER.

19.5 Upon completion and acceptance of the WORK, the ENGINEER shall issue a certificate attached to the final payment request that he has accepted the WORK under the conditions of the CONTRACT DOCUMENTS. The entire balance found to be due the CONTRACTOR, including the retained percentages, but except such sums as may be lawfully retained by the OWNER, shall be paid to the CONTRACTOR within thirty (30) days of completion and acceptance of the WORK.

19.6 The CONTRACTOR will indemnify and save the OWNER or the OWNER'S agents harmless from all claims growing out of the lawful demands of SUBCONTRACTORS, laborers, workmen, mechanics, material men, and furnishers of machinery and parts

thereof, equipment, tools, and all supplies, incurred in the furtherance of the performance of the WORK. The CONTRACTOR shall, at the OWNER'S request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the CONTRACTOR fails to do so the OWNER may, after having notified the CONTRACTOR, either pay unpaid bills or withhold from the CONTRACTOR'S unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the CONTRACTOR shall be resumed, in accordance, with the terms of the CONTRACT DOCUMENTS, but in no event shall the provisions of this sentence be construed to impose any obligations upon the OWNER to either the CONTRACTOR, his Surety, or any third party. In paying any unpaid bills of the CONTRACTOR, any payment so made by the OWNER shall be considered as a payment made under the CONTRACT DOCUMENTS by the OWNER to the CONTRACTOR and the OWNER shall not be liable to the CONTRACTOR for any such payments made in good faith.

19.7 If the OWNER fails to make payment thirty (30) days after approval by the ENGINEER, in addition to other remedies available to the CONTRACTOR, there shall be added to each such payment interest at the maximum legal rate commencing on the first day after said payment is due and continuing until the payment is received by the CONTRACTOR.

## **20. ACCEPTANCE OF FINAL PAYMENT AS RELEASE**

20.1 The acceptance by the CONTRACTOR of final payment shall be and shall operate as a release to the OWNER of all claims and all liability to the CONTRACTOR other than claims in stated amounts as may be specifically excepted by the CONTRACTOR for all things done or furnished in connection with this WORK and for every act and neglect of the OWNER and others relating to or arising out of this WORK. Any payment, however, final or otherwise, shall not release the CONTRACTOR or his sureties from any obligations under the CONTRACT DOCUMENTS or the Performance BOND and Payment BONDS.

## **21. INSURANCE**

21.1 The CONTRACTOR shall purchase and maintain such insurance as will protect him from claims set forth below which may arise out of or result from the CONTRACTOR'S execution of the WORK, whether such execution be by himself or by any SUBCONTRACTOR or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

21.1.1 Claims under workmen's compensation disability benefit and other similar employee benefit acts.

21.1.2 Claims for damages because of bodily injury, occupational sickness or disease, or death of his employees.

21.1.3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than his employees.

21.1.4 Claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of an offense directly or indirectly related to the employment of such person by the CONTRACTOR, or (2) by any other person.

21.1.5 Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom.

21.2 Certificates of Insurance acceptable to the OWNER shall be filed with the OWNER prior to commencement of the WORK. These Certificates shall contain a provision that coverage's afforded under the policies will not be canceled unless at least fifteen (15) days prior WRITTEN NOTICE has been given to the OWNER.

21.3 The CONTRACTOR shall procure and maintain, at his own expense, during the CONTRACT TIME, liability insurance as hereinafter specified;

21.3.1 CONTRACTOR'S General Public Liability and Property Damage Insurance including vehicle coverage issued to the CONTRACTOR and protecting him from all claims for personal injury, including death, and all claims for destruction of or damage to property, arising out of or in connection with any operations under the CONTRACT DOCUMENTS, whether such operations be by himself or by any SUBCONTRACTOR under him, or anyone directly or indirectly employed by the CONTRACTOR or by a SUBCONTRACTOR under him. Insurance shall be written with a limit of liability of not less than, \$500,000 for all damages arising out of bodily injury, including death, at any time resulting therefrom, sustained by any one person in any one accident; and a limit of liability of not less than \$500,000 aggregate for any such damages sustained by two or more persons in any one accident. Insurance shall be written with a limit of liability of not less than \$200,000 for all property damage sustained by any one person in any one accident; and a limit of liability of not less than \$200,000 aggregate for any such damage sustained by two or more persons in any one accident.

21.3.2 The CONTRACTOR shall acquire and maintain, if applicable, Fire and Extended Coverage insurance upon the PROJECT to the full insurable value thereof for the benefit of the OWNER, the CONTRACTOR, and SUBCONTRACTORS as their interest may appear. This provision shall in no way release the CONTRACTOR or CONTRACTOR'S surety from obligations under the

CONTRACT DOCUMENTS to fully complete the PROJECT.

21.4 The CONTRACTOR shall procure and maintain at his own expense, during the CONTRACT TIME, in accordance with the provisions of the laws of the state in which the work is performed, Workmen's Compensation Insurance, including occupational disease provisions, for all of his employees at the site of the PROJECT and in case any work is sublet, the CONTRACTOR shall require such SUBCONTRACTOR similarly to provide Workmen's Compensation Insurance, including occupational disease provisions for all of the latter's employees unless such employees are covered by the protection afforded by the CONTRACTOR. In case any class of employees engaged in hazardous work under this contract at the site of the PROJECT is not protected

under Workmen's Compensation statute, the CONTRACTOR shall provide, and shall cause each SUBCONTRACTOR to provide, adequate and suitable insurance for the protection of his employees not otherwise protected.

21.5 The CONTRACTOR shall secure, if applicable, "All Risk" type Builder's Risk Insurance for WORK to be performed. Unless specifically authorized by the OWNER, the amount of such insurance shall not be less than the CONTRACT PRICE totaled in the OFFER. The policy shall cover not less than the losses due to fire, explosion, hail, lightning, vandalism, malicious mischief, wind, collapse, riot, aircraft, and smoke during the CONTRACT TIME, and until the WORK is accepted by the OWNER. The policy shall name as the insured the CONTRACTOR, the ENGINEER, and the OWNER.

## 22. CONTRACT SECURITY

22.1 The CONTRACTOR shall within ten (10) days after the receipt of the NOTICE OF AWARD furnish the OWNER with a Performance Bond and a Payment Bond in penal sums equal to the amount of the CONTRACT PRICE, conditioned upon the performance by the CONTRACTOR of all undertakings, covenants, terms, conditions and agreements of the CONTRACT DOCUMENTS and upon the prompt payment by the CONTRACTOR to all persons supplying labor and materials in the prosecution of the WORK provided by the CONTRACT DOCUMENTS. Such BONDS shall be executed by the CONTRACTOR and a corporate bonding company licensed to transact such business in the state in which the WORK is to be performed and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of these BONDS shall be borne by the CONTRACTOR. If at any time a surety on any such BOND is declared a bankrupt or loses its right to do business in the state in which the WORK is to be performed or is removed from the list of Surety Companies accepted on Federal BONDS, CONTRACTOR shall within ten (10) days after notice

from the OWNER to do so, substitute an acceptable BOND (or BONDS) in such form and sum and signed by such other surety or sureties as may be satisfactory to the OWNER. The premiums on such BOND shall be paid by the CONTRACTOR. No further payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable BOND to the OWNER.

## 23. ASSIGNMENTS

23.1 Neither the CONTRACTOR nor the OWNER shall sell, transfer, assign or otherwise dispose of the Contract or any portion thereof or of his right, title or interest therein, or his obligations thereunder, without written consent of the other party.

## 24. INDEMNIFICATION

24.1 The CONTRACTOR will indemnify and hold harmless the OWNER and the ENGINEER and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the WORK, provided that any such claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting therefrom; and is caused in whole or in part by any negligent or willful act or omission of the CONTRACTOR, and SUBCONTRACTOR, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

24.2 In any and all claims against the OWNER or the ENGINEER, or any of their agents or employees, by any employee of the CONTRACTOR, any SUBCONTRACTOR, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the CONTRACTOR or any SUBCONTRACTOR under workmen's compensation acts, disability benefit acts or other employee benefits acts.

24.3 The obligation of the CONTRACTOR under this paragraph shall not extend to the liability of the ENGINEER, his agents or employees arising out of the preparation or approval of maps, DRAWINGS, opinions, reports, surveys, CHANGE ORDERS, designs or SPECIFICATIONS.

## 25. SEPARATE CONTRACTS

25.1 The OWNER reserves the right to let other contracts in connection with this PROJECT. The CONTRACTOR shall afford other CONTRACTORS reasonable opportunity for the introduction and storage of their materials and the execution of their WORK, and shall

properly connect and coordinate his WORK with theirs. If the proper execution or results of any part of the CONTRACTOR'S WORK depends upon the WORK of any other CONTRACTOR, the CONTRACTOR shall inspect and promptly report to the ENGINEER any defects in such WORK that renders it unsuitable for such proper execution and results.

25.2 The OWNER may perform additional WORK related to the PROJECT by himself, or he may let other contracts containing provisions similar to these. The CONTRACTOR will afford the other CONTRACTORS who are parties to such Contracts (or the OWNER, if he is performing the additional WORK himself), reasonable opportunity for the introduction and storage of materials and equipment and the execution of WORK, and shall properly connect and coordinate his WORK with theirs.

25.3 If the performance of additional WORK by other CONTRACTORS or the OWNER is not noted in the CONTRACT DOCUMENTS prior to the execution of the CONTRACT, written notice thereof shall be given to the CONTRACTOR prior to starting any such additional WORK. If the CONTRACTOR believes that the performance of such additional WORK by the OWNER or others involves him in additional expense or entitles him to an extension of the CONTRACT TIME, he may make a claim therefor as provided in Sections 14 and 15.

## **26. SUBCONTRACTING**

26.1 The CONTRACTOR may utilize the services of specialty SUBCONTRACTORS on those parts of the WORK which, under normal contracting practices, are performed by specialty SUBCONTRACTORS.

26.2 The CONTRACTOR shall not award WORK to SUBCONTRACTOR(s), in excess of fifty percent (50%) of the CONTRACT PRICE, without prior written approval of the OWNER.

26.3 The CONTRACTOR shall be fully responsible to the OWNER for the acts and omissions of his SUBCONTRACTORS, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

26.4 The CONTRACTOR shall cause appropriate provisions to be inserted in all subcontracts relative to the WORK to bind SUBCONTRACTORS to the CONTRACTOR by the terms of the CONTRACT DOCUMENTS insofar as applicable to the WORK of SUBCONTRACTORS and to give the CONTRACTOR the same power as regards terminating any subcontract that the OWNER may exercise over the CONTRACTOR under any provision of the CONTRACT DOCUMENTS.

26.5 Nothing contained in this CONTRACT shall create any contractual relation between any SUBCONTRACTOR and the OWNER.

## **27. ENGINEER'S AUTHORITY**

27.1 The ENGINEER shall act as the OWNER'S Representative during the construction period. He shall decide questions, which may arise as to quality and acceptability of materials furnished and WORK performed. He shall interpret the intent of the CONTRACT DOCUMENTS in a fair and unbiased manner. The ENGINEER will make visits to the site and determine if the WORK is proceeding in accordance with the CONTRACT DOCUMENTS.

27.2 The CONTRACTOR will be held strictly to the intent of the CONTRACT DOCUMENTS in regard to the quality of materials, workmanship and execution of the WORK. Inspections may be made at the factory or fabrication plant of the source of material supply.

27.3 The ENGINEER will not be responsible for the construction means, controls, techniques, sequences, procedures, or construction safety.

27.4 The ENGINEER shall promptly make decisions relative to interpretation of the CONTRACT DOCUMENTS.

## **28. LAND AND RIGHTS-OF-WAY**

28.1 Prior to issuance of NOTICE TO PROCEED, the OWNER shall obtain all land and rights-of-way necessary for carrying out and for the completion of the WORK to be performed pursuant to the CONTRACT DOCUMENTS unless otherwise mutually agreed.

28.2 The OWNER shall provide to the CONTRACTOR information, which delineates and describes the lands owned and rights-of-way acquired.

28.3 The CONTRACTOR shall provide at his own expense and without liability to the OWNER any additional land and access thereto that the CONTRACTOR may desire for temporary construction facilities, or for storage of materials.

## **29. GUARANTY**

29.1 The CONTRACTOR shall guarantee all materials and equipment furnished and WORK performed for a period of one (1) year from the date of SUBSTANTIAL COMPLETION. The CONTRACTOR warrants and guarantees for a period of one (1) year from the date of SUBSTANTIAL COMPLETION of the system that the completed system is free from all defects due to faulty materials or workmanship and the CONTRACTOR shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects. The OWNER will give notice of observed defects with reasonable promptness. In the event that the CONTRACTOR should fail to make such repairs, adjustments, or other WORK that may be made

necessary by such defects, the OWNER may do so and charge the CONTRACTOR the cost thereby incurred. The Performance BOND shall remain in full force and effect through the guarantee period.

### **30. ARBITRATION**

30.1 All claims, disputes and other matters in question arising out of, or relating to, the CONTRACT DOCUMENTS or the breach thereof, except for claims which have been waived by the making and acceptance

of final payment as provided by Section 20, shall be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association. This agreement to arbitrate shall be specifically enforceable under the prevailing arbitration law. The award rendered by the arbitrators shall be final, and judgment may be entered upon it in any court having jurisdiction thereof.

30.2 Notice of the demand for arbitration shall be filed in writing with the other party to the CONTRACT DOCUMENTS and with the American Arbitration Association, and a copy shall be filed with the ENGINEER. Demand for arbitration shall in no event be made and any claim, dispute or other matter in question which would be barred by the applicable statute of limitations.

30.3 The CONTRACTOR will carry on the WORK and maintain the progress schedule during any arbitration proceedings, unless otherwise mutually agreed in writing.

### **31. TAXES**

31.1 The CONTRACTOR will pay all sales, consumer, use and other similar taxes required by the law of the place where the WORK is performed.

# SPECIAL PROVISIONS

PROJECT: FALSE PASS HARBOR FLOAT SYSTEM (DESIGN/BUILD)

## 4.01 General Statement

The Special Provisions set forth conditions and requirements unique to this Project and are supplemental to, and supersede, the Aleutians East Borough (AEB) General Conditions of the Construction Contract.

It shall be the responsibility of the Bidder to prepare his/her bid so all materials and/or different arrangements of connections or fittings shall harmoniously conform to the intent of the Contract Drawings, AEB General Conditions of the Construction Contract and these Special Provisions.

## 4.02 Time of Completion

Finished floats, gangway and guide piling to be delivered to a storage yard in False Pass no later than June 30, 2008. Float system installation (all project elements) to be completed no later than June 30, 2009:

Substantial Completion: Substantial completion shall be defined as the stage in the progress of the work when the work is sufficiently complete in accordance with the Contract Documents so the Owner (AEB) can occupy or use the facilities, or that which is the subject of the contract, for its intended use. This will consist of installing the new float system, trestle and gangway access, and other items complete and in place.

It is expected that the ongoing U.S. Army Corps of Engineers (COE) dredging will be completed by September 30, 2008. Contractor will be allowed access to the harbor for float installation upon completion of in-water work per the terms of a "non-interference clause" in the referenced COE Contract. Contractor will be provided access to a nearby upland storage yard (location to be determined) for delivery of floats, gangway and guide piling by June 30, 2008. Contractor shall properly stockpile and wrap materials to ensure Public safety and protect against damage from the elements and shall provide construction fencing around all material stockpiles for the duration of storage.

## 4.03 Liquidated Damages

Liquidated damages will be assessed in the sum of one thousand dollars (\$1,000) for each calendar day after the completion date during which the Project remains substantially incomplete for those items scheduled for completion as noted above in 4.02.

It is hereby understood and mutually agreed, by and between the parties hereto that the time for furnishing and delivering the equipment hereunder is an ESSENTIAL CONDITION of this contract.

IF THE SAID SUPPLIER SHALL NEGLECT, FAIL OR REFUSE TO FURNISH AND DELIVER THE EQUIPMENT WITHIN THE TIME HEREIN SPECIFIED, then the said supplier does hereby agree, as a part consideration for the awarding of this contract, to pay the Owner an amount specified in the Contract, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth for each and every calendar day that the Supplier shall be in default after the time stipulated in the Contract for completing the Contract.

The said amount is fixed and agreed upon by and between the Supplier and the Owner because of the difficulty of fixing and ascertaining the actual damages the Owner would in such event sustain, and said amount is agreed to be the amount of damages which the Owner would sustain and said amounts shall be retained by the Owner from the payment due to the contractor.

Provided, that the Supplier shall not be charged with liquidated damages or any excess costs when the delay in completion of the work is due:

1. to any preference, priority or allocation order duly issued by the Government;
2. to unforeseeable cause beyond the control and without the fault or negligence of the Supplier, including but not restricted to acts of God, or the public enemy, acts of the Owner, fires, floods, epidemics, quarantine restrictions, strikes, and freight embargoes.

Provided, further, that the Supplier shall, within seven (7) days from the beginning of such delay, notify the Owner,

in writing of the delay who shall ascertain the facts and extent of the delay and notify the Supplier within a reasonable time of its decision in the matter.

#### **4.04 Special Site Conditions**

The project location is sited within a constricted harbor basin. The contractor will closely coordinate all work with the Owner's Representative. The contractor shall have exclusive access to the harbor during construction.

The AEB has made available, for the convenience of the Contractor, an area near the job site to be used as a contractor staging area. This site consists of the fill area directly west of the boat harbor. Use of this site shall be coordinated with the Owner and/or Owner's Representative. The Contractor shall make his/her own arrangements for any additional areas and facilities needed for storage of materials, supplies and equipment, parking and other activities. Snow removal, security, and fencing for the provided staging area shall be the sole responsibility of the Contractor. The Contractor shall hold the Owner harmless from all claims or complaints arising from the use of such areas. Public streets in or outside this project will not be used for any storage activities (equipment and materials) and/or exclusive vehicle parking without prior written approval from the Engineer.

It is expected that the ongoing U.S. Army Corps of Engineers (COE) dredging will be completed by September 30, 2008. Contractor will be allowed access to the harbor for float installation upon completion of in-water work per the terms of a "non-interference clause" in the referenced COE Contract. Contractor will be provided access to a nearby upland storage yard (location to be determined) for delivery of floats, gangway and guide piling by June 30, 2008. Contractor shall properly stockpile and wrap materials to ensure Public safety and protect against damage from the elements and shall provide construction fencing around all material stockpiles for the duration of storage. Contractor shall maintain adequate Builder's Risk Insurance covering all stockpiled materials and fabrications for the life of the Contract.

#### **4.05 Hazardous Waste Generation**

Every effort to minimize or eliminate the generation of hazardous waste shall be used by the Contractor in the performance of the work of this Contract in accordance with federal, state, and local laws and regulations. Unless there is no substitute, no hazardous materials shall be used in the performance of the work of this Contract. The Contractor will take all necessary precaution to avoid to release of petroleum based or other hazardous materials into the water and surrounding environment. The Contractor will be held responsible for any and all such spills.

#### **4.06 Coordination and Schedule**

The Contractor shall, within ten (10) working days of the date of the Notice to Proceed, submit to the Owner's Representative a schedule as required in General Conditions, Article 3, Schedules, Reports, Records.

It is the Owner's intent and desire to complete all work under this contract, unless as otherwise provided below under General Conditions, Article 18, Suspension of Work.

#### **4.07 Site Preservation, Restoration, Cleanup and Environmental Reporting**

The Contractor shall be solely responsible for damage to public or private property caused by construction operations. The contractor shall take all precautions necessary to control dust. Contractor shall notify the Owner of any claims of damage, and shall clean and restore any property so damaged at the sole expense of the Contractor. All spills or releases of any oil or hazardous substance shall be reported to the appropriate governmental agency as well as notice to the Owner. Contractors shall be responsible for all associated clean up costs and fines.

At all times during the work, keep the premises clean and orderly. Upon completion of the work, repair all damage caused by equipment and leave the Project free of rubbish or excess materials of any kind.

#### **4.08 Permits**

The Contractor shall adhere to the provisions and stipulations set forth in all applicable permits. The following permit documents are included under Tab 6 – Permits section for reference and will be considered part of the Contract Documents:

1. Department of the Army Permit, POA2007-160-1, Isanotski Strait dated June 7, 2007.
2. Letter from Alaska Department of Natural Resources, Office of Permitting and Project Management, dated April 2, 2007 indicating ACMP Consistency and Concurrence.

## TAB 2

---

### Project Criteria

**SECTION 01025  
MEASUREMENT AND PAYMENT**

PART 1 - GENERAL

1.1 GENERAL

- A. Measurement and payment will be per the bid items described in the bid form and this section.
- B. The following descriptions are for general information purposes only. The Contractor shall furnish all labor, materials, equipment, and incidentals necessary to provide a complete and operable facility as shown on the Drawings and detailed in the Specification.
- C. No separate measurement for payment will be made for lump sum bid items.

1.2 SECTION INCLUDES

- A. Measurement and payment descriptions.
- B. Payment procedures.

1.3 MEASUREMENT AND PAYMENT

- A. General measurement and payment descriptions shall be as follows:
  - 1. Project consists of fabrication and installation of timber floats, guide piling, gangway ramp and all safety equipment for the float system including safety ladders, fire extinguishers and cabinets, and life rings and cabinets for a new harbor designated for side-to berths for vessels ranging in length from 26 to 115 feet. Base Offer shall consist of Floats A, B, and Marginal Float, access trestle, gangway, piling, and all safety equipment for the float system including safety ladders, fire extinguishers and cabinets, and life rings and cabinets. Floats shall be designed to accommodate future utilities including chaseways and access vaults for future potable water and electrical service, as illustrated in the Drawings included with this Design/Build Manual.
  - 2. Provide bid in two parts:
    - a. Fabrication/Delivery: Fixed price to furnish all design, labor, equipment, supervision and to provide all work to fabricate, deliver to a storage yard in False Pass, secure and protect: completed timber floats, guide piling and gangway ramp for timber float system described in 1.3.A.1 above prior to fabrication/delivery deadline.
    - b. Installation: Fixed price to furnish all design, labor, equipment, supervision and to provide all work to install complete timber float system described in 1.3.A.1 above prior to installation deadline.

- c. There are no Deductive Alternates for this project.

#### 1.4 PRIOR TO APPLICATION OF FIRST PROGRESS PAYMENT

- A. Submit the following:
  - 1. Construction progress schedule;
  - 2. A list of all subcontractors and suppliers;
  - 3. A list of all major material suppliers;
  - 4. Sample form for progress payment submittal;
  - 5. Submittal schedule.

#### 1.5 SUBMITTAL PROCEDURE

- A. Check all extensions, totals, and required information for accuracy before formal submittal.
- B. Submit three (3) copies of Application for Payment to the Owner's Representative or as directed.
- C. Applications are to be signed by a responsible officer of Contracting firm. Do not sign in black ink: no photocopies of signature permitted.
- D. When Owner's Representative deems Application for Payment properly completed and correct, they will sign and transmit all copies of Application for Payment to Owner for processing.
- E. If Owner's Representative finds Application for Payment improperly or incorrectly executed, an annotated copy will be returned for a NEW SUBMITTAL.
- F. Only minor corrections are allowed on original, with approval of Owner. 1.6 PRIOR TO APPLICATION FOR FINAL PAYMENT
- G. Application for a FINAL pay request will be accepted for processing only after satisfactory completion of the following:
  - 1. Punch list items complete and accepted;
  - 2. Final change orders signed off;
  - 3. Affidavit of Wages Paid for Contractor and all subcontractors;
  - 4. Affidavit of Materials Paid for and lean rights released from material suppliers;
  - 5. Updated list of all subcontractors and suppliers;
  - 6. Notarized letter stating that all subcontractors and suppliers have been paid for labor & materials previously billed;
  - 7. Required permits signed off;

8. Submittal of record documents;
9. Other requirements as specified in Section 01700.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

**END OF SECTION**

## **SECTION 01035 MODIFICATION PROCEDURES**

### **PART 1 - GENERAL**

#### **1.1 SUMMARY**

- A. Section includes administrative and procedural requirements for executing a change in the Work.

#### **1.2 CHANGE ORDER PROCEDURES**

- A. Owner Changes: Changes may be initiated by Owner through a Change Order Proposal (COP) submitted to Contractor. Such a request is for information and pricing only and is not an instruction to execute changes nor to stop Work in progress unless issued as a field order. Proposal will include:

1. Detailed description of changes, products, and location of modification in project (first part of COP, "Request");
2. Supplementary or revised Drawings or Specifications; and
3. Projected time span for making change, including statement as to whether overtime Work is, or is not, authorized.

- B. Contractor Change Order Request (COR): Initiate changes by submitting a letter to Owner's Representative requesting a COP be issued. Include in the letter the following:

1. Description of proposed changes;
2. Reason for making changes;
3. A specific period of time during which requested price will be considered valid;
4. Effect on Contract Sum and Contract Time;
5. Documentation supporting any change in Contract Sum or Contract Time, as appropriate. Provide all supporting documentation as required to substantiate the requested costs, such as invoices for rental equipment, freight cost, etc.;
6. Statement of why proposed change is not covered in Contract Document;
7. Include date Work is to be completed.

- C. Work Change Directive: In situations where time is of the essence or an emergency condition exists, Owner's Representative may directly order a change

to the Work by a written order signed by Owner's Representative.

D. Change Order Authorization:

1. Recommendation of COP is indicated by signature of Owner's Representative.
2. Upon signature and execution by Owner, the COP becomes a change order altering the Contract Time and Contract Sum, as indicated.
3. Contractor may only request payment for the Work against an approved change order.
4. If either Owner's Representative or Owner disapproves the COP, the reason for disapproval will be stated. A request for a revised proposal or cancellation of the proposal will be shown.

E. Correlation with Contractor's Submittals:

1. Application of Payment forms shall record each change order as a separate item of Work. Do not include a change order on the applications until the fully executed change order is received from the Owner with the adjusted Contract Sum.
2. Revise construction schedule to reflect changes in Contract Time.
3. Upon completion of change order Work, enter pertinent modifications in Project Record documents.

F. Distribution

1. Upon authorization of a change order, Owner will transmit one signed copy each to Contractor and Engineer.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

**END OF SECTION**

## **SECTION 01040 COMMUNICATION**

### **PART 1 - GENERAL**

#### **1.1 GENERAL COMMUNICATION**

- A. Communication between the Contractor and Owner shall be through the Owner's Representative.
- B. Communication between the Engineer and Owner shall be through the Owner's Representative.
- C. Telephone communication and correspondence shall be between Contractor's Representative and Owner's Representative.
- D. Transmit problems or questions in writing using a Design Clarification/Verification Request Form (DCVR) to Owner's Representative.
- E. In case of an EMERGENCY, contact the Owner.

#### **1.2 CORRESPONDENCE**

- A. All correspondence to and from Contractor will be routed through Owner's Representative.
- B. Format: Number correspondence sequentially beginning with Letter #1. Include project title.

#### **1.3 DESIGN CLARIFICATION VERIFICATION REQUESTS (DCVR)**

- A. When field conditions or Contract Document contents require clarification or verification by the Owner's Representative, submit a written DCVR per the following:
  - 1. Identify the nature and location of each clarification/verification. Provide as a minimum the following information:
    - a. Project name;
    - b. Date;
    - c. Date response required by;
    - d. DCVR number;
    - d. Subject;
    - e. Initiator of the question;
    - f. Indication of costs, if known;
    - g. Location on site;

- h. Contract drawing reference;
- i. Contract specification section and paragraph reference;
- j. Descriptive text;
- k. Space for reply on same page as questions;
- l. Single subject matter, one item each - architectural, civil, structural, mechanical, electrical.

2. Number each DCVR sequentially beginning with #001. Only one question per DCVR. DCVRs may be identified as GEN, MECH, ELEC, by sequential numbers.

B. Route DCVRs in same manner as correspondence.

C. Clarifications may only be discussed on site or by telephone with Owner's Representative. Incorporate the essence of the discussion onto an DCVR form.

## PART 2 - PRODUCTS

NOT USED

## PART 3 - EXECUTION

NOT USED

**END OF SECTION**

**SECTION 01050  
FIELD ENGINEERING**

**PART 1 - GENERAL**

**1.1 SECTION INCLUDES**

- A. Construction surveying and staking requirements

**1.2 AVAILABLE SURVEY INFORMATION**

- A. Benchmarks and survey data for establishing elevations and alignments of Work are provided in the Contract Drawings, Survey Control sheet.

**PART 2 - PRODUCTS**

NOT USED

**PART 3 - EXECUTION**

**3.1 EXAMINATION AND PREPARATION**

- A. Verify benchmarks and horizontal control prior to construction staking and construction. Continue verifying during construction as required to ensure monuments and control have not been disturbed.

**3.2 PROTECTION**

- A. Protect existing monuments, benchmarks, and control. Additional staking, replacement of staking, and monuments shall be at Contractor's expense.

**3.3 EXECUTION**

- A. Provide all surveys required for construction.

**END OF SECTION**

## SECTION 01090 REFERENCES

### PART 1 - GENERAL

#### 1.1 INDUSTRY STANDARDS

- A. **Applicability of Standards:** Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. **Publication Dates:** Comply with the standards in effect as of the date of the Contract Documents.
- C. **Conflicting Requirements:** Where compliance with two or more standards is specified and where the standards may establish different or conflicting requirements for minimum quantities or quality levels, refer requirements that are different but apparently equal and uncertainties to the Engineer for a decision before proceeding.
- D. **Copies of Standards:** Each entity engaged in construction on the Project shall be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound within the Contract Documents.
- E. **Abbreviations and Names:** Trade association names and titles of general standards are frequently abbreviated. The following acronyms or abbreviations, as referenced in Contract Documents, are defined to mean the recognized name of the trade association:

AISC	American Institute of Steel Construction One East Wacker Drive, Suite 3100 Chicago, IL 60067
ANSI	American National Standards Institute 11 West 42nd St., 13th Floor New York, NY 10036
ASTM	American Society for Test. & Materials 1916 Race Street Philadelphia, PA 19103
AWPA	American Wood-Preservers' Association 9549 Old Fredrick Road Ellicott City, MD 21042
AWS	American Welding Society, Inc. 550 NW LeJuene Road P. O. Box 351040 Miami, FL 33135

FS	Federal Specifications Defense Printing Service (DPS) Building 4D 700 Robbins Avenue Philadelphia, PA 19111-5094
IEEE	Institute of Electrical and Electronic Engineers 345 E 47th Street New York, NY 10017
MIL-SPEC	Military Specifications Defense Printing Service (DPS) Attn: Cataloging Building 4D 700 Robbins Avenue Philadelphia, PA 19111-5094
NECA	National Electrical Manufacturers Assoc. 2101 L Street NW, Suite 300 Washington, DC 20037
NFPA	National Fire Protection Assoc. One Batterymarch Park PO Box 9101 Quincy, MA 02269-9101
UBC	Uniform Building Code International Conference of Building Officials 5360 Workman Mill Road Whittier, CA 90601-2298
UL	Underwriters Laboratories 333 Pfingsten Road Northbrook, IL 60062
WCLIB	West Coast Lumber Inspection Bureau 6980 SW Varns Street Portland, OR 97223

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

**END OF SECTION**

**SECTION 01200  
PROJECT MEETINGS**

**PART 1 - GENERAL**

**1.1 PRE-CONSTRUCTION MEETING**

- A. Meeting Location: Owner will schedule a meeting prior to the start of construction at the Project site. This meeting will review contract administration requirements and mobilization procedures. Attendance is required of the following:
1. Contractor's superintendent and Project manager.
  2. Float manufacturer/suppliers.
- B. Owner's Representative will:
1. Preside and conduct meeting.
  2. Record, reproduce, and distribute copies of minutes within seven (7) days of meeting to all meeting participants.
- C. Agenda: Discussion will pertain to detailed information, such as:
1. Communication chain and persons authorized to direct changes;
  2. The Work;
  3. Work sequence phasing and occupancy;
  4. Contractor use of premises;
  5. Special Project procedures;
  6. Procedures and processing:
    - a. Application for payments;
    - b. Change Order Proposals (COP);
    - c. Change Orders (CO);
    - d. Design Clarification/Verification Requests (DCVR);
    - e. Field Directives;
    - f. Submittals;
    - g. Others as appropriate.
  6. Project record documents;

7. Contractor's schedule;
8. Construction facilities, controls, and construction aids;
9. Temporary utilities;
10. Security procedures;
11. Safety and first-aid procedures;
12. Housekeeping procedures;
13. Utility shutdowns;
14. Access routes shutdowns;
15. Parking;
16. Others as appropriate.

## 1.2 PROGRESS MEETINGS

- A. Progress meetings will occur weekly during periods of construction of major site features and during periods of minor construction.
- B. Meeting Locations: Contractor's Project field office, unless otherwise agreed.
- C. Attendance: Representatives attending meetings are required to be qualified and authorized to act on behalf of their firms. Attendance shall include:
  1. Contractor's superintendent and Project manager;
  2. Subcontractors, as appropriate;
  3. Owner's Representative;
  4. Others, as appropriate.
- D. Owner's Representative will:
  1. Administer progress meetings and specially called meetings throughout Work progress;
  2. Record, reproduce, and distribute copies of minutes prior to the next progress meeting to all meeting participants;
  3. Ascertain that Work is prosecuted consistently with Contract Documents and construction schedules.
- E. Agenda: Discussion will pertain to items, such as:
  1. Review and approve minutes of previous meeting;
  2. Review Work progress since previous meeting;

3. Review plans for progress for subsequent Work period;
4. Review construction schedule;
5. Present corrective measures and procedures to regain Project schedule as applicable;
6. Present field observations, problems, and conflicts;
7. Discuss problems impeding progress schedule;
8. Review Quality Control;
9. Review submittal schedules and present methods to expedite as required;
10. Review off-site fabrication;
11. Review delivery schedules;
12. Coordinate Work;
13. Review proposed changes for:
  - a. Effect on construction schedule and on completion date;
  - b. Effect on any other contracts of the Project.
14. Review change order proposals;
15. Review draft of Application for Payment (at end of month);
16. Review required revisions to Project Record documents;
17. Review Project safety;
18. Review any other business.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

**END OF SECTION**

## **SECTION 01300 SUBMITTALS**

### **PART 1 - GENERAL**

#### **1.1 SECTION INCLUDES**

- A. Submittal procedures for all Contractor Submittals including but not limited to administrative Submittals, shop drawings and product data, samples, quality control, construction permits, manufacturer's instructions, construction photographs, and contract close-out Submittals.

#### **1.2 DEFINITIONS**

Work-related Submittals of this Section are categorized for convenience as follows:

- A. **Product Data:** Product Data include standard printed information on materials, products and systems not specially prepared for the Work, other than designation of selections from among available choices printed therein.
- B. **Shop Drawings:** Shop Drawings include specially prepared technical data for the Work, including drawings, diagrams, performance curves, data sheets, schedules, templates, patterns, reports, calculations, instructions, measurements and similar information not in standard printed form for general application to other contracts.
- C. **Samples:** Samples include both fabricated and unfabricated physical examples of materials, products and units of Work; both as complete units and as smaller portions of units of Work; either for limited visual inspection or (where indicated) for more detailed testing and analysis.
- D. **Quality Control:** Quality Control Submittals include certificates of compliance, qualifications to perform work, successful testing, field samples, test reports, inspections and other documentation to substantiate the quality of work.
- E. **Miscellaneous Submittals:** Miscellaneous Submittals related directly to the Work (non-administrative) include construction permits, warranties, maintenance agreements, workmanship bonds, project photographs, survey data and reports, physical Work records, copies of industry standards, records, drawings, field measurement data, operation and maintenance materials, overrun stock; and similar information, devices and materials applicable to the Work and not processed as Product Data, Shop Drawings, Samples, or Quality Control Submittals.

#### **1.3 GENERAL SUBMITTAL PROCEDURES**

- A. Shop drawings, product data, samples and similar Submittals are not Contract Documents. The purpose of their Submittal is to demonstrate for those portions of the Work for which Submittals are required the way the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents.
- B. The Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Owner's Representative's approval of shop drawings, product data, samples, or similar Submittals unless the Contractor has specifically informed the Owner's Representative in writing of such deviation at the time of Submittal and the Owner's Representative has given written approval to the specific deviation. The Contractor shall not be relieved of responsibility for errors or omissions in shop drawings, product data, samples or similar Submittals by the Owner's Representative's approval thereof.

- C. The Contractor shall perform no portion of the Work requiring Submittal and review of shop drawings, product data, samples or similar Submittals until the respective Submittal has been approved by the Owner's Representative. Such work shall be in accordance with approved Submittals.
- D. Direct inquiries regarding procedure, purpose, or extent of Submittal to the Owner's Representative.
- E. Required Submittals are specified herein. Additional Submittals may be established during the pre-construction conference.
- F. At any time, the City may authorize changes to procedures and requirements for Submittals, as necessary to accomplish specific purpose of each Submittal. Such authorization will be by Field Order or Request for Information.
- G. The Contractor shall schedule and make submissions in accordance with requirements of individual Specification sections and in such sequence as to cause no delay in Work or in work of other contractors.
- H. Identify variations from the Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
- I. Identification of Submittals:
  - 1. All Submittals shall be transmitted with a pre-printed letter of transmittal form (attached) or other form approved by the Owner's Representative, dated and signed, with the job title and Sections(s) of the Specification requiring the Submittal clearly indicated.
  - 2. By signing the Submittal, the Contractor shall certify that review, verification of products required, field dimensions and coordination of information is in accordance with the Work as specified in the Contract Documents.
  - 3. Number each transmittal as in the following example: 02700-01-02
    - a. "02700" indicates Specification section reference.
    - b. "01" indicates Submittal number or reference paragraph for the particular Specification section.
    - c. "02" indicates number of times the particular Submittal has been submitted (i.e., revisions).
  - 4. Show date of submission and dates of previous submissions.
  - 5. Submit only information pertaining to one Specification section on each transmittal form.
  - 6. Show Project title and Owner's contract identification and contract number.
  - 7. Show names of Contractor, Subcontractor or Supplier, and manufacturer as appropriate.
- J. Schedule Submittals to expedite the project and deliver to Owner.
- K. Coordinate submission of related items.
- L. Incomplete Submittal Submissions:
  - 1. At Owner's Representative's sole discretion, Owner's Representative will either (a) return the entire Submittal for Contractor's revision/correction and resubmission, or (b) retain portions of the Submittal and request submission/resubmission of specified items or as noted thereon.

2. Submittals which do not clearly bear Contractor's specific written indication of Contractor review and approval of Submittal or which are transmitted with an unsigned or uncertified submission form or as may otherwise be required under Contract Documents, will be returned to Contractor unreviewed for resubmission in accordance with Contract Documents.
  3. Delays, resequencing, or other impact to Work resulting from Contractor's submission of unchecked or unreviewed, incomplete, inaccurate or erroneous, or nonconforming Submittals, which will require Contractor's resubmission of a Submittal for Owner's Representative's review, shall not constitute a basis of claim for adjustment in Contract Price or Contract Times.
- M. Nonspecified Submissions: Submissions not required under these Contract Documents and not shown on submissions list will not be reviewed and will be returned to Contractor.
- N. Disposition of Submittals, Except Shop Drawings and Samples: Owner's Representative will review, stamp, and indicate requirements for resubmission or acceptance on Submittal as follows:
1. Accepted:
    - a. Contractor may proceed to perform Submittal related Work.
    - b. Two copies furnished Owner.
    - c. One copy furnished Owner's Representative.
    - d. Two copies returned to Contractor, one for onsite records.
  2. Rejected as Noted (Revise/Correct or Develop Replacement and Resubmit):
    - a. Revise/correct in accordance with Owner's Representative's comments and resubmit.
    - b. One copy to Owner's Representative.
    - c. Remaining copies returned to Contractor appropriately annotated.
- O. In the event of conflict between this Section and the General Conditions, the more restrictive requirements shall apply.
- P. Promptly identify variation from contract documents and product or system limitations which may be detrimental to successful performance or the completion of work.
- Q. Distribute copies of reviewed Submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.
- R. Contractor's Review
1. Before submission to Owner's Representative, the Contractor shall review all Submittals and verify all dimensions, quantities, field measurements, field construction criteria, materials, catalog numbers and similar data, satisfy himself that adequate information is contained in the Submittal to fulfill the purpose intended, and shall check and coordinate the Submittal data with the requirements of the Work and the Contract Documents.
  2. All calculations and details shall be checked and signed off before being submitted for review. The Contractor is ultimately responsible for the correctness of the calculations and resulting drawings generated by himself or a subcontractor.

3. After the above review, Contractor shall affix a dated notation (rubber or plastic inking stamp) over his signature to the effect that the above action has been taken and the Submittal is approved by him. Unsigned Submittals will be returned unapproved.

S. Owner's Representative's Review

4. The Owner's Representative will review and approve Shop Drawings, Project Data and Samples with reasonable promptness so as to cause no delay, but only for conformance with the design concept of the Project and with the information given in the Contract Documents. The approval of a separate item shall not indicate approval of an assembly in which the item functions.
5. When professional certification of performance criteria for materials, systems or equipment is required by the Contract Documents, the Owner's Representative shall be entitled to rely upon the accuracy and completeness of such calculations and certifications. When a design professional or third party designer is required to provide specific design services for a portion of the Work, the designer shall be responsible for the adequacy of the design and the Owner's Representative will rely upon such certification or notification by the designer that performed the Work.

1.4 ADMINISTRATIVE SUBMITTALS

- A. Five copies of Administrative Submittals shall be provided to the Owner's Representative. Administrative Submittals include Submittals required by Contract Documents that are not Shop Drawings or Samples, or that do not reflect quality of product or method of construction. Administrative Submittals may include, but will not be limited to, those Submittals identified below.

1. Applications for Payment: Meet requirements of *General Conditions* and Measurement and Payment sections of the individual Specification sections.
2. Construction Progress Schedules
  - a. Initial Progress Schedule: Submit initial progress schedule for review within five (5) days after date of Notice to Proceed. At a minimum the Progress Schedule shall include two bar charts or preliminary network analysis diagrams as follows:
    - 1). 30-Day Plan: Show major initial activities including, but not limited to, mobilization, Submittals for early product procurement and long lead time items, initial site work, and other activities anticipated in the first 30-day period after notice to proceed.
    - 2). Project Overview Plan: Show major components of the Work and the sequence relations between major components and subdivisions of major components. The chart shall indicate the relationship and time frames in which each phase will be substantially completed and placed into service in accordance with the Project Parts and Milestones. Sufficient detail shall be included for the identification of subdivisions of major components.
  - b. Adjust, revise and resubmit the Progress Schedule as required. Submit revised schedule prior to weekly progress teleconference meeting and with each Application for Payment, identifying changes since previous version.
  - c. Weekly Schedule Submissions: Include overall percent complete, projected and actual; and percent completion progress for each listed activity
  - d. The Schedule shall be a detailed graphic representation of all activities that affect the progress of the Work. The level of detail shall be such that no activity shall have a duration longer than fifteen (15) calendar days, except for

procurement and General Conditions activities or except as otherwise approved by the Owner's Representative.

- e. For all major equipment and materials fabricated or supplied for this Project, the schedule shall show a sequence of activities including:
    - 1). Shop fabrication and delivery
    - 2). Erection or installation
    - 3). Testing of equipment and materials
    - 4). Required dates of completion
    - 5). Procurement
  - f. The schedule shall indicate an early completion date for each Part of the Project that is no later than the required completion date(s) specified in the *Special Provisions*. All activity durations shall be given in calendar days.
  - g. The Construction network shall be in Critical Path Method format and the Critical Path shall be clearly identified.
  - h. Indicate the beginning and completion date of each line item.
  - i. Indicate estimated percent of completion for each item of work at each submission.
3. Schedule of Submittals:
- a. Within 5 days of contract award, prepare and submit (hardcopy and electronic format) a preliminary list of Submittals that identifies each Submittal required, the planned date of Submittal and the required date of return to maintain the construction schedule.
  - b. Allow 5 working days of review by the Owner's Representative from the time of receipt of the Submittal to the time of mailing of the Submittal by the Owner's Representative. Submittal approval will be FAXED to the Contractor and will be followed by the hard copy original by mail.
  - c. Submit to Owner's Representative weekly (a) updated list if changes have occurred, otherwise submit a written communication confirming existing list, and (b) adjusted submissions reflecting submission activity planned for forthcoming time period. Coordinate with progress schedule updates.
4. Submittals Required by Laws and Regulations and Governing Agencies:
- a. Submit promptly notifications, reports, certifications, payrolls, and otherwise as may be required, directly to the applicable federal, state, or local governing agency or their representative.
  - b. Transmit to Owner's Representative for Owner's records one copy of correspondence and transmittals (to include enclosures and attachments) between Contractor and any governing agency.
5. Proposed Product List: Within 30 days from execution of the agreement between Owner and Contractor, submit a complete list of products proposed for use, with name of manufacturer, trade name, and model number of each product. For products specified only by reference standards, give manufacturer, trade names, model or catalog number, and reference standards.

## 1.5 SHOP DRAWINGS AND PRODUCT DATA

Unless otherwise noted, for each item below, five (5) copies of Submittals shall be submitted to the Owner's Representative.

- A. Shop Drawings: Submit one reproducible tracing and four (4) hardcopies. Submissions of multiple prints will not be accepted or processed. Reproducible will be returned with approval affixed and any changes marked up. Contractor may submit paper copy marked "Original" in place of the reproducible tracing.
- B. Product Data: In manufacturer's brochures and catalogs, items being proposed for use are to be clearly marked. If not marked, this material will be returned for Resubmittal. Whenever possible, submit data in reproducible tracing form as specified for Shop Drawings. Original will be returned to Contractor approved or with comments.
- C. Excessive Review: Review of the first submission and two resubmissions of Shop Drawings, Product Data, test procedures, and training plans, etc. will be performed by Owner's Representative and Owner's Representative's Consultants, as appropriate, at no cost to Contractor. Subsequent additional resubmissions of such Submittals will be reviewed by Owner's Representative and Owner's Representative's Consultants; however, Owner's Representative will document work hours and other expenses required to perform such additional review(s) and Contractor shall reimburse Owner for actual invoiced costs.
- D. Substitute Items: The Owner's Representative's approval of Shop Drawings or Product Data does not relieve the Contractor of responsibility for any deviation from the Contract Documents unless the Contractor has informed the Owner's Representative in writing of the specific deviation and the Owner's Representative has approved the specific deviation in writing. Errors and omissions that may occur in the Shop Drawings are the responsibility of the Contractor. The Contractor is not relieved of this responsibility by the Owner's Representative's approval of the Shop Drawings. The approval by the Owner's Representative shall not relieve the Contractor from responsibility to correct deviation from Drawings or Specifications, unless he has in writing called the Owner's Representative's attention to such deviations at the time of submission and secured the Owner's Representative's written approval, nor shall it relieve him from responsibility to correct errors of any sort in the items submitted.
- E. Submit Shop Drawings and Product Data to Owner's Representative as specifically required by individual Specification sections for equipment and materials to be furnished under these Contract Documents.
- F. Collect required data into one Submittal for each unit of Work or system; and mark each copy to show which choices and options are applicable to Work. Include manufacturer's standard printed recommendations for application of labels and seals, notation of field measurements which have been checked, and special coordination requirements.
- G. Identify and indicate:
  - 1. Applicable products, models, options, and other data. Supplement manufacturer's standard data to provide all information unique to this project.
  - 2. Pertinent drawing sheet(s) and detail number(s), products, units and assemblies, and system or equipment identification or tag numbers.
  - 3. Critical field dimensions and relationships to other critical features of Work.
  - 4. Each deviation or variation from Contract Documents.

H. Resubmissions:

1. Clearly identify each correction or change made.
2. Shop Drawings:
  - a. Revise initial drawings as required and resubmit as specified for initial Submittal.
  - b. Indicate on drawings any changes which have been made other than those requested by Owner's Representative.
3. Indicate on the drawings a sequential number or letter which corresponds to the revision number of the drawing.

I. Preparation:

1. Format: Whenever possible, schedule for and combine Shop Drawings and Product Data required for submission in each Specification section or division into a single Submittal package. Also combine product data for like items into a single Submittal package.
2. Present in a clear and thorough manner and of sufficient detail to show kind, size, arrangement, and function of components, materials, and devices and compliance with Contract Documents. Identify details by reference to sheet and detail, and schedule shown on Drawings.
4. Piping Systems: Drawn to scale.
5. Product Data: Clearly mark each copy to identify pertinent products or models and show performance characteristics and capacities, dimensions and clearances required, diagrams and controls, and external connections, anchorages, and supports required.
6. Equipment and Component Titles: Identical to title shown on Drawings.
7. Manufacturer's standard schematic drawings and diagrams as follows:
  - a. Modify to delete information that is not applicable to Work.
  - b. Supplement standard information to provide information specifically applicable to Work.

J. Disposition: Owner's Representative will review, mark, and stamp Shop Drawings and Product Data as appropriate and distribute marked-up copies as noted.

1. Approved as Submitted (for incorporation in Work):
  - a. One copy to be kept on file as record document at Contractor's office at site.
  - b. Additional copies for Contractor's office file, Subcontractors, or Suppliers as appropriate.
  - c. Contractor may begin to implement (a) activities to incorporate specific product(s) or (b) Work covered by Shop Drawing and Product Data as shown on approved Shop Drawing and Product Data.
2. Approved as Noted (for incorporation in Work):
  - a. One copy to be kept on file as a record document at Contractor's office at the site.
  - b. Additional copies for Contractor's office file, Subcontractors, or Suppliers as appropriate.

- c. Contractor may begin to implement (a) activities to incorporate product(s) or (b1) Work covered by Shop Drawing and Product Data and in accordance with Owner's Representative's notations on Shop Drawing and Product Data.
  - d. Revise copies of Submittal data in operation and maintenance manuals according to exceptions as noted.
3. Disapproved:
- a. Revise/Correct and Resubmit or Develop Replacement and Submit:
    - 1) One copy furnished Owner's Representative.
    - 2) Remaining copies will be returned to Contractor appropriately annotated.
    - 3) Contractor is responsible to revise, correct, and to resubmit Shop Drawing (in same manner and quantity as specified for original submission).
  - b. Shop Drawing and Product Data are not approved.
4. Incomplete:
- a. Complete and Submit or Resubmit Missing Portion(s):
    - 1) Owner's Representative will retain copies of incomplete Submittal and transmit a written list of deficiencies.
    - 2) Contractor shall submit specified item(s) to correct the incomplete Submittal
  - b. Shop Drawing and Product Data not approved.

#### 1.6 SAMPLES

- A. Samples: Submit two samples, unless otherwise specified in individual Specification section or in sufficient quantity and of size to enable examination as required and to establish quality or equality thereof.
- B. Provide units identical with final condition of proposed materials or products for the Work.
- C. Include "range" samples (not less than three units) where unavoidable variations must be expected, and describe or identify variations that must be expected, and describe or identify variations between units of each set.
- D. Provide full set of optional samples where Owner's Representative's selection is required. Prepare samples to match Owner's Representative's sample where so indicated.
- E. Contractor is responsible for safe and proper delivery of Samples and to prepay cartage charges. Submit additional Samples as may be required.
- F. Identification: Clearly indicate Specification section, generic description, source or product name and manufacturer limitations, limitations, compliance with standards, certification as required and other appropriate information. Samples are submitted for review and confirmation of color, pattern texture, and kind/type by Owner's Representative.
- G. Owner's Representative will not "test" samples (except as otherwise indicated) for compliance with other requirements, which are therefore the exclusive responsibility of the Contractor.

## 1.7 QUALITY CONTROL SUBMITTALS

### A. Certificates:

#### 1. Manufacturer's Certificate of Compliance:

- a. When specified in individual Specification sections or where products are specified to a recognized standard or code, submit to Owner's Representative for review prior to shipment of product or material to the site.
- b. Owner's Representative may permit use of certain materials or assemblies prior to sampling and testing if accompanied by accepted certification of compliance.
- c. Signed by product manufacturer certifying that materials manufactured, and product specified conforms to or exceeds specified requirements and intent for which product will be used. Submit supporting reference data, affidavits, and certifications as appropriate.
- d. May reflect recent or previous test results on material or product, but must be acceptable to Owner's Representative. If these are outdated and/or not acceptable to Owner's Representative, the Contractor shall submit to the Owner's Representative the new certificates and test results on materials or product.
- e. Indicate that material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- f. Contractor shall be responsible for removing and replacing unsuitable material with specified material if certification is inaccurate.

#### 2. Certificates of Successful Testing or Inspection: Submit when testing or inspection is required by Laws and Regulations or governing agency or specified in the individual Specification sections.

B. Manufacturer's Instructions: When specified in individual Specification sections, submit two (2) copies of manufacturer's printed instructions for delivery, storage, assembly, installation, adjusting and finishing.

C. Statements of Qualification: Evidence of qualification, within five (5) days of bid opening, certification, or registration. As required in these Contract Documents to verify qualifications of land surveyors, materials testing laboratories, specialty Subcontractors, trades, specialists, installers, and other professionals.

D. Field Samples: Provide as required by individual Specifications and as may be required by Owner's Representative during progress of Work.

E. Written Test Reports and Inspection: As a minimum, include the following:

1. Classify each as either "project related" or Product Data, depending upon whether report is uniquely prepared for project or a standard publication of workmanship control testing at point of production, and process accordingly.
2. Date of test and date issued, Project title and number, testing laboratory name, address, and telephone number, and name and signature of laboratory inspector.
3. Date and time of sampling or inspection and record of temperature and weather conditions.
4. Identification of product and Specification section, location of Sample, test or inspection in the Project, type of inspection or test with referenced standard or code, certified results of test.

5. All test equipment used shall be verified to be in calibration at the time of each test and test reports shall so indicate. No test shall be made without such verification.
6. Compliance with Contract Documents, and identifying corrective action necessary to bring materials and equipment into compliance.
7. Provide an interpretation of test results, when requested by Owner's Representative.

#### 1.8 MISCELLANEOUS SUBMITTALS

- A. Construction Permits: Acquire, maintain, and submit copies of all construction permits that are required by the agencies to execute the Work.
- B. Contractor's Daily Field Report: Submit on a bi-weekly basis, and Include work force, equipment spread, work activity, weather, material shortages and schedule progress.
- C. Manufacturer's Instructions: When specified in individual Specification Sections, submit manufacturer's printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing. Identify any conflicts between manufacturers' instructions and Contract Documents.
- D. Standards:
  1. Where copy Submittal is indicated, and except where specified integrally with Product Data Submittal, submit a single copy for Owner's Representative's use.
  2. Where workmanship at project site and elsewhere is governed by standards, furnish additional copies to fabricators, installers, and others involved in performance of the work.
- E. Construction Photographs: Document, by digital photography, pre-construction conditions prior to arrival of equipment on site. Following completion of work, document post-construction conditions. Submit digital photographs on CD-Rom following completion of work.

#### 1.9 CONTRACT CLOSEOUT SUBMITTALS

- A. In accordance with the *General Conditions*, *Special Conditions*, Section 01700—*Contract Closeout*, and as may be further augmented by other Sections of this Contract.

#### PART 2 - PRODUCTS

Not used.

#### PART 3 - EXECUTION

Not used.

**END OF SECTION**



**SECTION 01400  
QUALITY CONTROL**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. Contractor Quality Control (CQC) shall consist of plans, procedures, and organization necessary to provide materials, equipment, workmanship, fabrication, construction, and operations that comply with the requirements of the Contract Documents. CQC shall cover construction operations, including fabrication both on-site and off-site and shall be keyed to the construction schedule.
  
- B. The Owner will select and employ an independent testing agency or a special inspector to conduct the tests and inspections required by local building requirements, except where those tests are specifically indicated to be performed by the Contractor in the Specifications and/or the Drawings. The Contractor will be required to provide and pay for all other testing services where specified in the technical sections of the Specifications or required by governing authorities. All required testing and inspection services shall be included in the fixed price for the contract.
  
- C. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance with Contract Document requirements. All test and inspection reports shall be provided to the Owner.

**PART 2 - PRODUCTS**

NOT USED PART

**3 - EXECUTION**

NOT USED

**END OF SECTION**

**SECTION 01500  
CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS**

**PART 1 - GENERAL**

**1.1 DESCRIPTION**

- A. Work under this section includes temporary utilities, temporary controls, such as barriers, enclosures and fencing, protection of the Work, water control, access roads, parking, progress cleaning, security/protection provisions, and project signage.
- B. Specific minimum administrative and procedural actions are specified in this section as extensions of provisions in the General Conditions and other Contract Documents. Nothing in this section is intended to limit types and amounts of temporary Work required, and no omission from this section will be recognized as an indication that such temporary activity is not required for successful completion of the Work and compliance with requirements of the Contract Documents.

**1.2 WORK AREA**

- A. Confine operations and storage to the designated Work area. Maintain the Work area in a clean and orderly manner.
- B. Safety Procedures: Implement safety procedures as required by the Contract Documents, local codes, and laws to ensure the safety of all site personnel, visitors to the site, and facilities.
- C. Fire Safety:
  - 1. Conduct operations in a manner that is fire-safe for the Work area and adjacent areas. Maintain the premise clear of rubbish, debris, or other materials constituting a potential fire hazard. Maintain access to fire hydrants and keep them free of obstructions.
  - 2. Report all construction accidents, fires, and/or hazardous spills immediately to local emergency response unit and to Owner's Representative.
  - 3. Outdoor storage and staging operations may not impede egress, restrict fire fighting access, or present a fire exposure to existing buildings. Provide adequate separation between buildings and construction trailers.
- D. Security:
  - 1. Provide security and facilities to protect Work from unauthorized entry, vandalism, or theft.
  - 2. Contractor is advised to lock gang boxes and secure them. Owner will not reimburse Contractor for any lost or stolen tools, material, or equipment. Maintain the security of Owner's property, where appropriate, as it normally exists (i.e., secure areas when not actively working, etc.).

- E. Waste Materials: Dispose of all refuse and waste material, including excess earth from excavation, off Owner's property. Do not stockpile waste material on Owner's property. Immediately clean up any spilled material. Clean all trash and debris from Work area daily. Keep Work area, site, and adjacent properties free from accumulations of waste materials, rubbish, and windblown debris resulting from construction operations. Provide on-site containers for collection of waste materials, debris, and rubbish. Periodically remove waste from the site. Do not use Owner's waste containers for construction waste. Dispose of all flammable, hazardous, and toxic waste materials daily.
- F. Control of Solvents: The use of solvents and materials producing noxious fumes shall be subject to the approval of Owner. Submit a written procedure for the control of emissions prior to any use.

### 1.3 PROTECTION OF EXISTING UTILITIES

- A. Concealed utilities of record are not shown on the Drawings. Therefore, Contractor shall take the following steps:
  - 1. Notify utility locator service prior to Work on site for pre-marking of all underground utilities.
  - 2. Notify Owner in writing, on each occasion, of the intent to Work near existing underground utility services or structures or when a new excavation operation is about to begin. Submit procedure for approval to ensure safe and continuous operation of the services.
  - 3. Proceed with sufficient caution to preclude damaging any utilities known or unknown (i.e., hand digging or probing). In the event unidentified utilities are encountered, notify Owner's Representative immediately.
  - 4. In the event utilities are damaged during construction, temporary services and/or repairs must be made immediately at Contractor's expense to maintain continuity of services.

### 1.4 SHUTDOWNS OF EXISTING EQUIPMENT AND UTILITY SERVICES

- A. Continuity of equipment and utility services at the site shall be reasonably maintained at all times. Equipment or utility shutdowns required to facilitate construction Work shall be accomplished in accordance with the following requirements:
  - 1. Submit a schedule of equipment and utility shutdowns within fourteen (14) days after the Notice to Proceed, sooner if early Work requires immediate shutdown.
  - 2. Confirm all requests for equipment and utility shutdowns in writing to the Owner not less than fourteen (14) days prior to the proposed date. Include, as a minimum, the following information:
    - a. Equipment or utility services affected;
    - b. Reason shutdown is required;

- c. Work to be accomplished during the shutdown;
  - d. Proposed date and time;
  - e. Duration of the shutdown.
- 3. The actual time and date of all shutdowns will be subject to approval of Owner. Shutdowns normally will be scheduled for nights, weekdays, or other low intensity use periods.
  - 4. The duration of all shutdowns shall be held to a reasonable minimum as determined by Owner.
  - 5. Materials and equipment required for the Work to be accomplished during shutdown shall be complete and available on the job for review by Owner three days prior to the shutdown, if requested. If Contractor is not prepared, the shutdown will be canceled and rescheduled.
  - 6. In the event Contractor's Work is not completed during the time scheduled for the shutdown, Owner may elect to restart the equipment or utility service. In that event, additional shutdown requirements shall be rescheduled in accordance with the preceding requirements. Restarting shall not be construed as acceptance of the Work as complete.
  - 7. Include in the bid all costs associated with equipment and utility shutdowns. Owner will make no extra payment for overtime Work, schedule changes, or failure to complete utility connections within authorized shutdown periods.

## 1.5 TEMPORARY FACILITIES

- A. The types of temporary support facilities required include, but are not limited to, field offices, storage sheds, sanitary facilities, drinking water, first aid facilities, bulletin board, telephones, clocks, thermometer, project identification signs, clean up facilities, waste disposal service, and similar miscellaneous general services, all as may be reasonably required for proficient performance of the Work and accommodation of personnel at the site. Locate temporary support facilities for convenience of users and for minimum interference with construction activities. All placement shall be subject to review and approval by the Owner's Representative.
- B. Remove all temporary support facilities, upon completion of Work. Restore site to original or new condition, patching and filling as required to match adjacent surfaces.
- C. Electrical Power: Electricity is not available at the site. Contractor shall generate all required electrical power. Cost shall be included in fixed price for contract.
- D. Lighting: Provide and maintain security lighting, as appropriate, to provide general illumination of Work area during nighttime hours. Provide general illumination of Work area for all trades.
- E. Water: Water is not available at the site. Contractor shall provide own fresh water source as needed. Cost shall be included in fixed price for contract.

- F. Toilet Facilities: Owner's toilet facilities are not available at the site. As required, provide self-contained, single-occupant toilet units of the chemical, aerated circulation, or combustion type, properly vented and fully enclosed with a glass fiber reinforced polyester shell or similar nonabsorbent material.

## 1.6 TEMPORARY ENCLOSURES

- A. Barriers, Safety Guards and Warnings: Provide for public protection as required by law and ordinance. Keep streets and walks clean and free from obstructions.
  - 1. Provide temporary enclosures to protect Work. Furnish, install, and maintain for the duration of construction all required scaffolds, tarpaulins, barricades, canopies, warning signs, steps, bridges, platforms, and other temporary construction necessary for proper completion of the Work. Maintain in compliance with all pertinent safety and other regulations.
- B. Security: Protect Work, stored products, and construction equipment from theft and vandalism; and protect premises from entry by unauthorized persons. At the end of work day, close temporary enclosures and lock any exterior doors and/or gates. Secure all openings at any time site is left unoccupied.
- C. Fences and Barricades: Provide temporary 6-foot high chain link fence panels with top rail securely fastened to tubular metal posts set in heavy concrete bases to prevent ready relocation unless otherwise indicated. Panels are to be anchored together to prevent entry between panels. Provide fence around construction laydown area. No barbed wire permitted.

## 1.7 NOISE CONTROL

- A. General: Conduct all Work, use appropriate construction methods and equipment, and furnish and install acoustical barriers, as necessary so no noise emanating from the process or any related tool or equipment will exceed legal noise levels determined by appropriate agencies.
- B. Nighttime Work: If the Contractor desires to perform any Work outside normal working hours, Contractor shall obtain all necessary permits from the appropriate agencies and make all necessary arrangements prior to commencing.
- C. Mitigation of Construction Noise Impact: Submit plans to the Owner's Representative to mitigate the construction noise impacts, including method of construction, equipment to be used, and acoustical treatments if necessary.

## 1.8 TRAFFIC CONTROL

- A. Notify Owner in advance of any long or large deliveries that will block roadways.
- B. Clean pedestrian and driving surfaces daily or more often as required to keep the paths clean. Clean spillage from trucks immediately. Keep adjacent areas clean.

## 1.9 TREE AND PLANT PROTECTION

- A. Preserve and protect existing trees, plants, and other vegetation which are designated to remain and those adjacent to the site.
- B. Replace or repair any damaged plant material (not designated for removal) at no cost to Owner.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

**END OF SECTION**

**SECTION 01600  
MATERIALS AND EQUIPMENT**

**PART 1 - GENERAL**

**1.1 GENERAL**

- A. This section specifies administrative and procedural requirements governing Contractor's selection of products for use in the Project and administrative procedures for handling requests for substitutions made before and after Contract award.

**1.2 QUALITY ASSURANCE**

- B. Source Limitations: Provide product of same kind, to fullest extent possible, from a single source.
- C. Compatibility of Options: When Contractor is given the option of selecting between two or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.

**1.3 PRODUCT DELIVERY, STORAGE, AND HANDLING**

- A. Deliver, store, and handle products in accordance with the manufacturer's recommendations, using means and methods that will prevent damage, deterioration, loss or theft.
- B. Schedule delivery to minimize storage at the site and to prevent overcrowding of construction spaces.
- C. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other losses.
- D. Deliver products to the site in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.
- E. Inspect products upon delivery to ensure compliance with Contract Documents and to ensure products are undamaged and properly protected.
- F. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.
- G. Store products subject to damage by the elements above ground, under cover in a weathertight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by Manufacturer's instructions.

**1.4 PRODUCT SELECTION**

- A. General Product Requirements: Provide products that comply with Contract Documents, that are undamaged, and, unless otherwise indicated, unused at the

time of installation.

1. Provide products complete with all accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and intended use and effect.
  2. Standard Products: Where available, provide standard products of type and manufacture used successfully in similar situations on other projects.
- B. Product Selection Procedures: Product selection is governed by Contract Documents and governing regulations. Procedures governing product selection include the following:
1. Non-Proprietary Specification Requirements: Where specifications name products or manufacturers that are indicative of type and quality of the product to be incorporated in the Work, followed by the term "or approved equal" or "other acceptable," comply with the Contract Document provisions concerning product substitutions to obtain approval for use of an unnamed product.
  2. Descriptive Specification Requirements: Where specifications describe a product or assembly defining characteristics required, but with or without use of a brand or trade name, provide products or assemblies that provide the characteristics indicated and otherwise comply with Contract requirements.
  3. Performance Specification Requirements: Where Specifications require compliance with performance requirements, provide products that comply with these requirements, which are recommended by the manufacturer for the application indicated. Submit manufacturer's recommendations contained in published product literature or by manufacturer's individual certification of performance for approval by Engineer. General overall performance of product is implied where product is specified for specific application.

## 1.5 PRODUCT SUBSTITUTION

- A. If approval of some material or product other than that specified is desired, submit a written request for approval of substitute item in accordance with the following requirements:
1. No request for approval will be considered unless submitted in accordance with this section;
  2. Final decision as to whether an item is an equal or satisfactory substitution rests with Owner.
- B. Substitution Requests: Every substitution request must state whether item offered is equal or equivalent to specified product. The substitute material or product must be accompanied by its reference in the Contract Documents and complete catalog, technical, and other information. If applicable, include samples showing comparison of physical and other pertinent characteristics as required to establish equivalence of acceptability for the proposed application. Where specific test

results are required by the Contract Documents, comparison data for the proposed item shall be based upon the same test methods as those specified, or they shall be correlated to clearly demonstrate comparability. The same guarantee described for the specified product is required for the substitution.

- C. Redesign and Coordination: In requesting approval of substitute materials, the Contractor must represent that it has investigated proposed product and, in its opinion, it is equal or equivalent in all respects to that specified. Also, Contractor will coordinate all trades, including changes thereto, as may be required, that it waives all claims for additional costs which subsequently become apparent as a consequence of the substitution, and that it will bear all costs related thereto, including costs of Engineer's services for redesign, if deemed necessary.
- D. Substitutions will not be considered if they are indicated or implied on Shop Drawings or other Project data submittals without proper notice shown on attached form.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

**END OF SECTION**

**SECTION 01700  
CONTRACT CLOSEOUT**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. This section specifies administrative and procedural requirements for project closeout, including, but not limited to:
1. Project record document submittals;
  2. Operation and maintenance manuals;
  3. Warranties and bonds;
  4. Operating instructions;
  5. Final cleaning;
  6. Submittal of warranties;
  7. Substantial completion;
  8. Release of retainage;
  9. Closeout requirements for specific construction activities are included in the appropriate Sections in Divisions 2 through 6.

**1.2 PROJECT RECORD DOCUMENT SUBMITTALS**

- A. General: Do not use project record documents for construction purposes; protect from deterioration and loss in secure fire-resistant location. Record documents will be reviewed by Owner's Representative on a biweekly basis during construction.
- B. Record Drawings: Maintain a clean, undamaged set of blue or black line prints of Contract Drawings and Shop Drawings. Mark set to show actual installation where the installation varies substantially from the Work as originally shown. Mark whichever Drawing can show conditions fully and accurately; where shop drawings are used, record a cross-reference at corresponding location on Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.
1. Mark record sets with red erasable pencil; use other colors to distinguish between variations in separate categories of the Work.
  2. Mark new information important to Owner but not shown on Contract Documents or Shop Drawings.
  3. Note related Change Orders and Design Clarification/Verification Requests (DCVR) numbers, where applicable.

4. Keep accurate measurements of underground services and utilities referenced to buildings or other permanent construction.
  5. Note changes of directions and locations, by dimensions and elevations, as utilities are actually installed. Show mechanical dampers, valves, boxes, cleanouts, and other items that require maintenance.
  6. Show location of construction-concealed internal utilities and appurtenances referenced to visible and accessible features.
  7. Record accurate locations of piping, valves, equipment, and the like.
  8. Indicate field changes of dimension and detail.
  9. "X-out" conditions not constructed and appropriately annotate "not constructed" to convey the actual "as constructed" condition.
  10. Show addenda items.
  11. Show and date revisions to Drawings with a "cloud" drawn around revision.
  12. Organize record drawing sheets in manageable sets, bind with durable paper cover sheets, and print suitable titles, dates, and other identification on cover of each set.
  13. Include signed off permits, including: plumbing, electrical, and building.
- C. Record Specifications: Maintain one complete copy of the Project Manual, including addenda, and one copy of other written construction documents, such as Change Orders and DCVRs issued in printed form during construction. Mark these documents to show substantial variations in actual Work performed in comparison with the text of the specification and modifications. Give particular attention to substitutions, selection of options and similar information on elements that are concealed or cannot otherwise be readily discerned later by direct observation. Note related record drawing information and product data.
- D. Submittal: Submit all record documents after substantial completion and prior to final acceptance.
1. Submit to Owner's Representative.
  2. Contractor will be notified within fifteen (15) days if submitted documents are acceptable.

### 1.3 OPERATION AND MAINTENANCE (O&M) MANUALS

- A. Operations and Maintenance (O&M) Manuals shall contain all the information needed to operate, maintain, and repair all systems, equipment, and material provided in the Project. They shall be presented and arranged logically for efficient use by Owner's operation personnel. As a minimum the information provided shall include, but is not limited to, the following:

1. General maintenance, cleaning and repair of material, finishes, and equipment;
  2. Equipment or product manufacturer, make, model number, size color, etc.;
  3. Supplier's name, address, phone, and reference order numbers;
  4. Equipment nameplate data of major items;
  5. Description of system configuration and operation, including component identification and interrelations. A master control schematic drawing(s) will normally be required for this purpose;
  6. Dimensional and performance data for specific unit provided. Extraneous catalog data must be eliminated;
  7. Manufacturers' recommended operating instructions, as appropriate;
  8. Manufacturers' recommended lubrication and servicing data;
  9. Complete parts list, including recording information, recommended spares, and anticipated useful life.
- B. Bind copies in slant-D, three-ring 4-inch capacity ring view binders with insertable, clear vinyl overlay on front cover and spine. Binders shall have heavy-duty nylon reinforced hinges.
- C. Warranties and Bonds: Assemble executed certificates, warranties, bonds, and any required service and maintenance contracts from respective Manufacturers, Suppliers, and Subcontractors. Provide two preliminary review copies and four final signed copies of each item to be included in the O&M Manuals.

#### 1.4 FINAL CLEANING

- A. Cleaning: Clean each surface or unit to the condition expected in a normal cleaning and maintenance program. Comply with Manufacturer's instructions. Complete the following cleaning operations before requesting final inspection:
1. Remove labels that are not permanent labels;
  2. Clean transparent materials, including mirrors and glass in doors and windows, inside and out. Remove glazing compound and other substances that are noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials;
  3. Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films, and similar foreign substances;
  4. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances.

## 1.5 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for substantial completion (for either the entire Work or portions thereof), complete the following:
1. Submit written notice that Project is ready for final inspection;
  2. Provide a list of items not yet in conformance with Contract Documents which require attention and any outstanding items that will require completion;
  3. Submit two (2) preliminary copies of O&M Manuals;
  4. Obtain and submit releases enabling Owner's full and unrestricted use of the Work and access to services and utilities, including (where required) occupancy permits, operating certificates, and similar releases.
- B. Initial Final Inspection Procedures: Upon receipt of a request for final inspection, Owner's Representative will either proceed with inspection or advise Contractor of unfulfilled requirements. Following initial inspection, Owner's Representative will recommend date of substantial completion or advise Contractor of Work which must be completed or corrected before substantial completion will be established.
1. Results of completed inspection will form the initial "punch list" for final acceptance.
- C. Issuance:
1. Upon satisfactory inspection and Contractor's completion of items for substantial completion, the Owner's Representative will prepare preliminary statement of substantial completion and forward to Contractor for review and signature.
  2. If all required items are complete, Owner's Representative will issue in writing the official letter of substantial completion.

## 1.6 FINAL ACCEPTANCE

- A. Preliminary Procedure: Before requesting final inspection for certification of final acceptance and final payment, complete the following (list known exceptions in request):
1. Submit final Application for Payment as specified with final supporting documentation not previously submitted or accepted;
  2. Submit copy of Owner's Representative's final punch list of itemized Work to be completed or corrected, stating that each item is complete or otherwise resolved for acceptance, endorsed, and dated by Owner's Representative;
  3. Deliver tools, spare parts, and extra stock of materials to Owner; with itemized list;

4. Submit record drawings, if only a portion of the Work is substantially complete, submit a copy of the record drawings covering the completed Work;
  5. Submit specific warranties, workmanship/maintenance bonds, maintenance agreements, final certifications, and similar documents;
  6. Make final changeover of locks, transmit new keys to Owner, return loaned construction keys, and advise Owner's personnel of changeover in security provisions;
  7. Complete system start-up testing and instruction of Owner's operating/maintenance personnel;
  8. Discontinue or changeover and remove from project site temporary facilities and services, along with construction tools and facilities, mock-ups, and similar elements;
  9. Complete final cleaning requirements, including touch up of marred surfaces. Touch up, repair, and restore marred exposed finishes.
- B. Reinspection Procedure: Owner's Representative will reinspect Work upon receipt of Contractor's notice that Work, including punch list items resulting from earlier inspections, is complete. Those items whose completion is delayed due to circumstances acceptable to the Owner's Representative will be exceptions.
1. Upon completion of reinspection, Owner's Representative will either recommend final acceptance or advise Contractor of Work not completed or obligations not fulfilled as required for final acceptance. If necessary, procedure will be repeated. Further reinspection shall be at expense of Contractor and shall be deducted from the final payment.
  2. When all required items are complete, Owner's Representative will issue the final acceptance form.

## PART 2 - PRODUCTS

NOT USED

## PART 3 - EXECUTION

NOT USED

### END OF SECTION

## **TAB 3**

---

### **Design Criteria (Divison 2)**

**SECTION 02469  
STEEL PIPE PILES**

**PART 1 - GENERAL**

1.1 SECTION INCLUDES

- A. Design, manufacture, delivery, and installation of all steel pipe piling, including, all pile caps, anodes, and other associated items required for a complete and operable facility as shown on the Drawings and as specified.
- B. The Contractor shall be responsible for furnishing piles of sufficient length and suitable pile driving equipment to obtain the required penetration and capacity necessary to meet all applicable codes and standards as specified. The Contractor may (at no additional expense to the Owner) drive test piles, make borings or other such other investigations as deemed necessary to determine required driving equipment or site characteristics.

1.2 REFERENCES

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

ASTM INTERNATIONAL

ASTM A 36/A 36M	(1996) Carbon Structural Steel
ASTM A 572/A 572M	(1997) High-Strength Low-Alloy Columbium-Vanadium Structural Steel
ASTM A 123	(2002) Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM A 252	(2002) Welded and Seamless Steel Pipe Piles
ASTM A 588/A 588M	(1997) High-Strength Low-Alloy Structural Steel with 50 ksi (345 MPa) Minimum Yield Point to 4 in. (100 mm) Thick
ASTM A 780	(2001) Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings
ASTM D 1143	(1981; R 1994) Piles Under Static Axial Compressive Load

AMERICAN WELDING SOCIETY (AWS)

AWS C2.23	(2003) Application of the Thermal Spray Coatings (Metallizing) of Aluminum, Zinc, and Their Alloys and Composites for the Corrosion Protection of Steel.
AWS D1.1	(2006) Structural Welding Code – Steel
AWS D3.6	(1999) Underwater Welding

NATIONAL ASSOCIATION OF CORROSION ENGINEERS (NACE)

NACE RP0387	(1999) Metallurgical and Inspection Requirements for Cast Galvanic Anodes for Offshore Applications
SSPC SP-10	(1999) Near White Metal Blast Cleaning

### 1.3 SUBMITTALS

- A. Make all submittals in accordance with Section 01300–Submittals.
- B. As part of Design/Build Proposal, submit engineering design calculations for pile system including layout, embedment/penetration, lateral load analysis, splice and cap details, corrosion protection and other information as required. Piles shall conform to all design loads and performance requirements of Section 06850–Timber Float Units. Design brief must be of sufficient scope and detail to justify all elements of the pile design and shall specifically demonstrate the following:

1. Maximum moment below allowable stress under design wind loads.
2. No more than one-inch of lateral displacement of any pile in any direction at the mudline.

Prior to fabrication and construction, all calculations and plans shall be sealed by a registered Professional Engineer in the State of Alaska.

- C. Prior to pile fabrication, submit:
  1. Piling manufacturer or fabricator.
  2. Complete order lists, including pile quantities, sizes, and lengths.
  3. Manufacturer's product data and specifications for piles, cutting shoes, caps, and anodes.
  4. Wave Equation Analysis for trestle piling.
  5. Basis of the pile design and installation methods, sealed by professional geotechnical engineer. Include lateral load analysis, utilizing *L-Pile* or equivalent analysis program.
  6. List of driving and installation equipment to be utilized, including hammer types, sizes, and energies; lead lengths; crane capacities; and other relevant information. Indicate driving energy and recommended rate of operation.
  7. Pile driving points and shoes.
  8. Weld inspection reports
  9. Welder's certificates that include a statement that specifically certifies that welders employed on the work have been qualified as specified in AWS D1.1 for the particular process or processes that the welder will perform on this project. Submittal shall also specifically certify that welders qualifications remain in effect in accordance with AWS D1.1.
  10. Coatings and Coating Repair Products and Procedures.
  11. Certificates of inspection for galvanizing.
  12. Anodes product data and attachment method.
- D. Drawings
  1. Pile welds.
  2. Pile shop splices (if any).
  3. Pile driving points and shoes attachment.

4. Anodes dimensions and attachment details.
- E. Certificates:
  1. Certification of conformance, including physical and chemical composition for each heat number of metal included in the shipment.
- F. Pile Driving Records
  1. Submit to the Owner complete and accurate job pile records, as specified in paragraph entitled "RECORDS" of this section, for each pile by the following working day after the pile is driven.

#### 1.4 PILE CAPACITIES

- A. Piles shall be installed to achieve the compression uplift and lateral load capacities determined by the designer to be necessary for the proper performance of the float system under the specified loads and other performance criteria. Pile capacities depend on achieving adequate penetration into and resistance in the underlying soils present at the site. The Owner will accept the installed pile capacities based on the Contractor achieving both the indicated tip elevation and the specified driving resistance during installation. The required driving resistance, measured in hammer blows per foot, will be determined based on the Contractor's proposed pile installation equipment, pile size and length, and geotechnical characteristics.
- B. A wave equation analysis shall be performed for the steel pile to be used for the new access trestle including input and output files, all assumptions, results, and drivability analysis. Submit results to Owner's Representative.
- C. Low Driving Resistance
  1. Should the Owner believe that the capacity of a pile installed to the indicated tip elevation may not be adequate due to low driving resistance; the Contractor shall take further actions to ensure adequate capacity. Possible actions could include installing the pile to a greater embedment, re-striking the pile after a wait of 24 hours or other appropriate period, utilizing a pile driving analyzer to more accurately determine the capacity of the pile, adding piles, and other actions that may be determined to be appropriate.

#### 1.5 BASIS OF BIDS

- A. Base bids on the number, size, and length of piles from tip to cutoff, including waste and cutoff, determined by the designer to be required for proper performance of the timber float system. No adjustments in the contract price will be allowed for additional piling, pile lengths or required methods of pile installation.

#### 1.6 GEOTECHNICAL INFORMATION

- A. It is the responsibility of the Contractor and the Designer to determine pile installation requirements at the site based on a review of existing local geotechnical reports, geotechnical studies performed by the Contractor, or other methods as may be appropriate. The Contractor shall provide the Owner with a report sealed by a geotechnical engineer registered in the State of Alaska outlining the basis of the pile design and installation methods for the project.
- B. Limited soils exploration studies and resulting geotechnical reports are included in the SUPPLEMENTAL INFORMATION.

## **PART 2 - PRODUCTS**

### **2.1 STEEL PIPE PILES**

- A. Piling shall be new and shall conform to ASTM A 252 Grade 3,  $F_y = 36,000$  psi with a minimum wall thickness of 0.5 inch. Pile diameters for installation of floats shall not be less than 16-inches, but may be larger, at the discretion of the Design-Build Engineer, depending on their pile layout and design.
- B. Pipe piles shall be of steel, round, seamless or longitudinally welded, of sufficient strength to prevent harmful distortions during driving, after completion of driving and during driving of adjacent casings. Steel pipe piles driven without the use of an internal mandrel shall have walls of a thickness sufficient to withstand the stresses. Spiral welded pipe will not be allowed.
- C. Submit pile quantities, sizes, and lengths to the Owner's Representative for review.
- D. Submit name, address, and phone number of piling manufacturer or fabricator. All piles shall have chemical compositions that are fully compatible for weld splicing any two-pile pieces together using a single common welding procedure.
- E. Piles shall be fabricated from the longest lengths possible with no more than one splice per pile. Shop splices shall be full penetration butt welds in accordance with AWS D1.1.
- F. All welds shall be 100% visual and Ultrasonic tested.
- G. Field splices will not be allowed. Piles bent or otherwise damaged will be rejected.

### **2.2 PIPE MATERIAL TESTING**

- A. Testing shall be performed on piling in accordance with ASTM A 252.

### **2.3 PILE FABRICATION TOLERANCES**

- A. Pile diameters shall not vary more than one percent from the specified diameter in a given cross section or throughout the length of a pile. Variations in straightness shall not exceed the length of the pile divided by 480.

### **2.4 COATINGS**

- A. Piles shall be hot-dip galvanized after fabrication in accordance with ASTM A-123. Minimum coating thickness is 2.3 ounces per square foot.
- B. Piles too long for available galvanizing equipment may be galvanized in pieces and then spliced. No more than one splice per pile will be allowed. Such splices shall be shop galvanized using hot applied galvanized coatings.
- C. Galvanize repair all field damaged areas using the flame-spray method in accordance with ASTM A780 and AWS C2.23.

### **2.5 PILE DRIVING POINTS AND SHOES**

- A. Open-ended pile driving shoes shall be welded, cast steel and of sufficient strength to adequately resist all loads sustained during pile installation. Shoes shall have inside flanges, such that it is flush with the outside of the pile. Coordinate activities as needed to ensure cutting shoe does not interfere with drilling work.

## 2.6 PILE TOP CAPS

- A. Piles used in securing the floats shall have white fiberglass pile caps attached according manufacturer's recommendations.
- B. Pile top caps shall be of fiberglass polyethylene materials, UV resistant and cone shaped to prevent bird roosting activities. Caps shall be designed to securely fit the specified pile diameter. Caps shall be as manufactured by "Cheyenne Manufacturing, Inc." or equal. Caps shall be affixed to the top of the pile after driving, cut-off, and repair of galvanized coatings in accordance with manufacturer's recommendations.

## 2.7 ANODES

- A. Provide newly furnished anodes for all float piling and any trestle piling that will be exposed to seawater. Anodes shall have the minimum weights and maximum length dimensions appropriate for the size of the pile as recommended by the manufacturer and approved by the Owner's Representative. Anodes shall be cast from aluminum alloy such as Galvalume 3, or equal and shall conform to NACE RP0387 and the composition specified in the following Table.

**Table 2.7.1: Aluminum Anode Composition**

<b>ELEMENT</b>	<b>PERCENT BY WEIGHT</b>
Zinc	2.8—6.5%
Silicon	0.08—0.2%
Iron	0.12% Maximum
Cadmium	0.002% Maximum
Mercury	0.001% Maximum
Tin	0.001% Maximum
Indium	0.014—0.020 %
Copper	0.006% Maximum
Aluminum	Remainder Balance

- B. Anodes shall have a current capacity of not less than 1150 Amp-hr/lb, a consumption rate of not more than 7.6 lb/amp-year, and an open circuit potential of more than -1.05 volts vs. a silver/silver chloride electrode.
- C. Anodes shall be installed on piling at the locations in accordance with the manufacturer's recommendations and as specified on the Drawings. Provide a manufacturer certificate of conformity.
- D. The Contractor shall furnish spectrographic analysis on samples from each heat or batch of anodes used on this project.
- E. Anodes are to be supplied in the weight units as appropriate for the size of the pile (i.e., 130-lb unit for 16" dia. pile), where this weight refers to the weight of the anode material not including the core.
- F. The core shall be a minimum of 2-inch by ¼-inch thick mild steel bar stock. It shall be placed longitudinally in the anode material and shall extend a minimum of 4 inches from each end of the anode. The cores shall be abrasive blasted to near white finish per SSPC SP-10 and cast with the anode material within 4 hours of blasting.

## **PART 3 - EXECUTION**

### **3.1 SHOP FABRICATION**

- A. Fabricate the piles in the longest lengths practicable. All pile splice welds shall develop the full strength capacity of the pipe.
- B. All welding shall be in accordance with, and by welders currently certified in accordance with AWS D1.1 for the type of welding specified.

### **3.2 CORROSION PROTECTION**

- A. Piles will be delivered to the site with galvanized coating as specified herein.
- B. Provide cathodic protection using anodes in accordance with the Drawings and other paragraphs of this Specification pertaining to Anodes.

### **3.3 INSTALLATION**

- A. Inspect piles when delivered and when in the leads immediately before driving. Piles shall be handled in a manner to protect pile and coatings. Cut piles at cutoff grade by an approved method.
- B. Driving Piles
  1. Operate hammer at Manufacturer's rated speed and drive pile without interruption to the indicated tip elevation or below and achieve the required driving resistance. The Owner may, at its discretion, accept modified driving resistance criteria during construction, as result of a request by the Contractor based on the records of previously installed piles. Drive piles with the same hammer, cushion, or cap block, and use the same operating conditions as used in establishing the driving resistance criteria.
  2. Jetting and pre-boring will not be permitted.
  3. If, in driving, it is found that a pile is not of sufficient length to provide the required capacity without receiving a field splice after the pile is partially installed, notify the Owner, who will determine the procedure to be followed. Record installation data as specified in paragraph entitled "RECORDS."
  4. Trestle piles shall be driven to the minimum tip elevation as required to achieve the indicated capacity. Evaluation of pile capacity shall be based on Contractor's wave equation analyses acceptable to the Owner's Representative and the Engineer.
  5. The new trestle piles are to be driven into the existing breakwater section. The contractor shall remove and relocate the primary armor rock in the area of the new trestle. The secondary armor rock shall be removed and replaced as required to drive the piling. Excavation to remove obstructions shall occur only to depths that will not threaten the integrity of the breakwater slope.

6. Steel pipe piles shall be installed to the penetrations, tip elevations, and bearing and uplift capacities indicated on the Drawings prepared by the Designer. The Owner reserves the option, based on the results of pile installation, to modify either final tip elevation or other design or installation requirements.
  7. Piles shall be driven to within the tolerances specified in paragraph, TOLERANCES of this Specification.
- C. Driving and Installation Equipment
1. Pile Hammer
    - a. Pile driving hammer for driving steel piles shall be of an approved type and with a capacity at least equal to the hammer manufacturer's recommendation for the total weight of the pile and character of subsurface material to be encountered. Piles shall be driven with the heaviest hammer that, in the judgment of the Design-Build Engineer, can be used to secure maximum penetration without appreciable damage to the pile. Driving energy shall be obtained by use of a heavy ram and a short stroke with low impact velocity, rather than a light ram and a long stroke with high impact velocity. Position a pile cap or drive cap between the pile and hammer. Place hammer cushion or cap block between ram and the pile cap or drive cap. Hammer cushion or cap block shall have consistent elastic properties, shall minimize energy absorption, and shall transmit hammer energy uniformly and consistently during the entire driving period. Do not use a pile cushion block.
    - b. Vibratory Hammers: Consideration will be given by the Owner's Representative to the use of vibratory hammers when requested by the Contractor for piles that are not required to be monitored for blow counts. However, at a minimum, the piling indicated in the section "RECORDS, Piles Driven for Record" shall be driven with an approved impact hammer.
- D. Damaged and Misdriven Piles:
1. The method used in driving piles shall not subject them to excessive and undue abuse resulting in deformation of the steel. Manipulation of the piles to force them into proper position is not be permitted.
  2. Any pile damaged in driving by reason of internal defect, damaged by improper driving, or driven out of its proper location shall be removed and replaced by a new pile or shall be cut off and a second pile driven as directed by the Owner's Representative, at the expense of the Contractor.
  3. Should the Contractor damage the pile top during driving so as to interfere, in the opinion of the Owner's Representative, with the satisfactory driving of the pile, the driving shall be discontinued, the pile shall be cut perpendicular to its axis, and the driving shall then be resumed. Any pile which is damaged in driving (other than at the top) shall be withdrawn and another pile shall be substituted; or, if permitted by the Owner's Representative, the damaged pile may be spliced at some point such that the completed pile will be satisfactory, all at no additional expense to the Owner.

F. Anode Installation

1. Anodes on float piles shall be welded in place after pile installation by a diver using a method conforming to AWS D3.6, Class B standards.
2. Clean localized area of galvanized pile coatings to bright finish material at each welded tab location to ensure metallic contact between anode and pile. Bend anode tabs as required and install anodes by diver.
3. Anodes shall be placed as close to the existing ground-line as possible ensuring that the top most portion of the anode is no higher than elevation -8 feet, MLLW. Diving operations shall conform to all safety standards and divers shall follow, at a minimum, the procedures as outlined in the Association of Diving Contractors International (ADCII) Consensus Standards.

3.4 TOLERANCES

- A. Piles shall be driven as accurately as practicable in the correct locations, true to line both laterally and longitudinally.
- B. Trestle piles shall be driven so that the top at cutoff position is within a one-inch radius of the design position. Battered trestle piles shall not deviate from the indicated batter by more than 1/8 inch in three feet.
- C. Float piles shall be driven in true alignment and location with a maximum allowable variation from design position of 2-inches. Internal and external pile collars shall be adjusted as needed to center finished piling within collars. Piles shall be located and driven so that binding within pile collars does not occur during tidal movement (i.e. extreme high to extreme low). Full-length piles shall be driven without field splices. Drive so that shop splices are located in the upper portion of the pile or buried underground near the pile tip—no splices shall be located near the mudline.
- D. Manipulation of piles will not be permitted if the required deviation or force is considered to be excessive by the Owner's Representative. A variation of not more than 0.2 inch per foot of pile length from the vertical for plumb piles nor more than 0.2 inch per foot of pile length from the required angle for batter piles will be permitted.
- E. Remove and replace with new piles those driven outside the above tolerances, damaged, mislocated, driven below the design cutoff, or driven out of alignment, or provide additional piles, driven as directed. Redesign of pile caps or additional work required due to improper location of piles will be the responsibility and expense of the Contractor.

3.5 LONG PILES

- A. Handle and drive piles of a high slenderness ratio carefully to prevent overstress. Provide pile driving rig with rigid supports so that leads remain accurately aligned. Where a high degree of accuracy is required, erect templates or guide frames at or close to the ground or water surface.
- B. Pile guides shall slide freely over piles throughout the entire tidal cycle.

### 3.6 SPLICES

- A. Provide splices of the full penetration butt weld type using 1.4 inch minimum backing ring and a single vee or single bevel groove weld as required by and in accordance with AWS D1.1. Use only one splice per length of pile. Field splices will not be permitted for lengths under 80 feet, unless otherwise approved by the Owner's Representative. Construct splices to maintain the true alignment and position of the pile sections. Splices shall develop the full strength of the pile in both bearing and bending. Steel shall be installed such that the top 40 feet of pile does not contain a splice, unless otherwise approved by the Owner. Provide splice weld tests reports to the Owner.
- B. After splicing, repair damaged galvanized surfaces according to ASTM A153, using "hot stick" GAL-VIZ manufactured by Harris Welco (or approved equal), in accordance with the Manufacturer's recommendations. No spray galvanizing will be allowed.

### 3.7 PILE CUTOFFS

- A. After the piles are driven and accepted, they shall be cut off to the planes and elevations shown on the Drawings. Cutting methods shall be used which will not damage the portion of the pile to be left in place. In lieu of cutting the tops of piles at the required elevation, the contractor may drive to additional depths to the desired cut-off elevation.
- B. Steel pile tops shall be treated after driving or cut-off by flame spray galvanizing method in accordance with ASTM A780 and AWS C2.23.
- C. Pile cut-offs and withdrawn piles shall remain the property of the Contractor and shall be removed from the Owner's property at the completion of the work.

### 3.8 PILE EXTENSIONS

- A. If required capacity is not met before the entire length of a given pile is installed, a spliced extension shall be made. The Contractor shall be prepared to have the necessary equipment available to splice piles in the leads as required to meet project requirements.
- B. Work associated with splicing piles in the leads, partially installed, is an not an addition to the scope of the bid work.

### 3.9 PILE DRIVING POINTS AND SHOES ATTACHMENT

- A. Driving points and shoes shall be welded to the pile tips with the weld types shown on the drawings and with weld thickness and lengths sufficient to keep the points and shoes fully attached to the piles throughout pile installation.

### 3.10 FINISHING

- A. Grind tops of all cutoff piles to produce a smooth finished edge.
- B. Install fiberglass pile caps as shown on Drawings.

- C. Coating Repairs: Galvanized coating at damaged areas and at field splices shall be repaired using flame spray galvanizing method in accordance with ASTM A780 and AWS C2.23.

### 3.11 WELDING

- A. All welding shall be in accordance with AWS D1.1. Welding shall be performed by welders who possess welder's certificates that indicate they are currently certified in accordance with AWS D1.1 for the type of welding specified.
- B. Inspection: All field and shop welds shall be visually inspected (100% visual inspection). All field and shop pile splice welds shall also be ultrasonically tested (100% ultrasonic testing). Inspection and testing shall be in accordance with the referenced standards by an AWS-certified welding inspector from an independent inspection service. Weld inspection reports prepared by the inspector shall be provided for each weld. Cost of this work shall be the responsibility of the Contractor.

### 3.12 RECORDS

- A. At least one pile for each of the main floats (one each for A Float, B Float, and Marginal Float) as well as all of the trestle piles will be driven with an impact hammer and all pertinent driving information recorded. Use attached Pile Driving Log.
- B. Maintain a complete and accurate record of each pile driven. Indicate the pile location, deviations from design location, cross section shape and dimensions, original length, ground elevation, tip elevation, cutoff elevation, penetration in blows per foot for the entire length of penetration, hammer data including rate of operation, make, and size, and unusual pile behavior or circumstances experienced during driving such as re-driving, heaving, weaving, obstructions and unanticipated interruptions. Use attached Pile Driving Log.
- C. Each pile to be driven for record shall be marked by the Contractor so that the Contractor and the Owner's Representative can monitor the embedment depth and record its driving record and driving performance information. Marks shall be made by the Contractor at 1-foot increments, starting at the tip, with lengths written above the line every five feet. The overall length shall be written at the top of each pile. Pile marks shall be made with non-permanent marking materials, but shall be such that they are not obliterated or made unreadable during slinging and handling.
- D. The piles shall be oriented in the leads so the markings are visible for monitoring by the Owner's Representative during pile installation.
- E. All markings above low tide level shall be removed prior to project completion.
- F. The Contractor shall record the type of hammer, stroke, helmet and anvil characteristics and other pertinent equipment and operational information as well as the number of blows per foot.
- G. The Contractor shall notify the Engineer or Owner's Representative at least 48 hours in advance of driving these piling. Piles shall be oriented during driving for ease of viewing by the Engineer or Owner's Representative.

## END OF SECTION



## **TAB 4**

---

### **Design Criteria (Division 5)**

**SECTION 05500  
METAL FABRICATIONS**

**PART I - GENERAL**

1.1 SECTION INCLUDES

- A. The Work includes requirements for providing all miscellaneous iron and steel not specifically described in other sections of these Specifications but required for a complete and operable facility.

1.2 RELATED SECTIONS

- A. Section 02469 – Steel Pipe Piles
- B. Section 06100 - Rough Carpentry

1.3 QUALITY ASSURANCE

- A. Qualification of Fabricator: Fabricator of metals specified in this section shall be experienced in fabrication and working of metals, including cutting, bending, forming, and finishing.
- B. Qualification of Welders: Welders shall be currently certified in accordance with American Welding Society (AWS) requirements for structural welding. Submit qualification test reports bearing witness certification of independent laboratory and inspection service approved by the Owner's Representative. If welder has not been engaged in welding process for three (3) or more months, requalify before permitting them to do structural welding Work.

1.4 CODES AND STANDARDS

- A. Workmanship and materials shall conform to latest revision of referenced standards hereafter referred to by acronym or alpha/numeric designation only.

1.5 REFERENCES

- A. ASTM A47 - Specification for Ferritic Malleable Iron Castings
- B. ASTM A36 - Specification for Carbon Structural Steel
- C. ASTM A53, Gr. B - Pipe, Steel, Black and Hot-dipped, Zinc-coated Welded and Seamless Steel Pipe
- D. ASTM A123 - Specification for Zinc Hot-Dipped (Galvanized) Coatings on Iron and Steel Products
- E. ASTM A153 - Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
- F. ASTM A307 - Specification for Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength

- G. ASTM A325/A449 - Specification for Structural Bolts
- H. ASTM A563 - Specification for Carbon and Alloy Steel Nuts
- I. ANSI B18.22.1
- J. MIL-SPEC-DOD-P-21 035

## 1.6 SUBMITTALS

- A. Make all submittals in accordance with Section 01300–Submittals.
- B. Prior to fabrication, submit complete shop drawings to the Owner's Representative. Shop drawings shall show all locations, markings, quantities, materials, sizes and shapes, and indicate all methods of connecting, anchoring, fastening, bracing and attaching to the work of other trades.

## 1.7 PRODUCT HANDLING

- A. Protection: Use all means necessary to protect miscellaneous metal materials before, during, and after installation and to protect the installed work of other trades.
- B. Replacements: In the event of damage, immediately make all repairs and replacements necessary to review by Owner's Representative and at no additional cost to the Owner.

## 1.8 MEASUREMENT AND PAYMENT

- A. See Section 01025.

## **PART 2 – PRODUCTS**

### 2.1 GENERAL

- A. Unless otherwise noted or specified, all products shall be new, free from oxidation or corrosion, and the "best" quality for the intended use.

### 2.2 STEEL PLATES, SHAPES, BARS, AND RODS

- A. ASTM A36, hot-dip galvanized after fabrication.

### 2.3 STEEL PIPE

- A. ASTM A53, Grade B, hot-dip galvanized after fabrication.

### 2.4 BOLTS, NUTS AND LAG SCREWS

- A. All bolts, lag screws, and anchor bolts shall meet the requirements of ASTM A307, except where indicated otherwise on Drawings. Where indicated, bolts shall meet the requirements of ASTM A325 or A449, respectively. All bolts, lag screws, and anchor bolts shall be hot-dip galvanized in accordance with ASTM A153.

- B. Nuts shall conform to the latest version ASTM A563, hot-dip galvanized in accordance with the latest version of ASTM A153.
- C. Where indicated on Drawings, bolts shall be stainless steel, conforming to the latest version ASTM A240, Type 304 or 316. Nuts and washers for stainless steel bolts shall also be stainless steel.

## 2.5 MALLEABLE IRON WASHERS

- A. ASTM A47, hot-dip galvanized in accordance with ASTM A153.

## 2.6 CIRCULAR WASHERS

- A. ANSI B18.22.1, hot-dip galvanized in accordance with ASTM A153.

# PART 3 - EXECUTION

## 3.1 PREPARATORY REVIEW

- A. Prior to all Work of this section, inspect carefully the installed work of all other trades affecting this Work and verify that all such Work is complete to the point where this installation may commence properly.
- B. Verify that all items to be embedded in concrete are in place, properly oriented, located, and secured.
- C. Discrepancies: In the event of a discrepancy, do not proceed with fabrication or installation until all such discrepancies have been resolved.

## 3.2 FABRICATION

- A. Fabricate all miscellaneous metal in accordance with Contractor's shop drawings after review and acceptance by Owner's Representative.
- B. Insofar as practical, shop prefabricate all items complete and ready for installation.
- C. Weld all shop connections unless otherwise indicated on Drawings. All joints shall be tightly fitting, securely fastened, square, plumb, straight, true, and shall be sealed for hot-dip galvanizing.
- D. Drill or punch all holes required for the attachment of work of other trades and for bolted connections. Burned holes are not acceptable.
- E. Touch up galvanize after fabrication according to ASTM A153 per Section 3.3.B.

## 3.3 ERECTION

- A. Erect and install all miscellaneous metal items in strict accordance with Drawings, approved shop drawings, and reference standards; align straight, plumb, and level within a tolerance of 1 in 200.

- B. After the erection and installation are complete, repair all damaged galvanized surfaces according to ASTM A153, using "hot stick" GAL-VIZ manufactured by Harris Welco (or approved equal), in accordance with the Manufacturer's recommendations.

**END OF SECTION**

## **SECTION 05600 GANGWAY RAMP**

### **PART 1 - GENERAL**

#### **1.1 SECTION INCLUDES**

- A. Design, manufacture, delivery, and installation of the aluminum gangways, including, all associated items required for a complete and operable facility as shown on the Drawings and as specified.

#### **1.2 RELATED SECTIONS**

- B. Section 05500 - Metal Fabrications
- C. Section 06100 - Rough Carpentry
- D. Section 06850 – Timber Float Units

#### **1.3 REFERENCES**

- A. AWS D1.1 and D1.2 - Structural Welding Codes
- B. ASTM A36 - Specification for Carbon Structural Steel
- C. Aluminum Design Manual
- D. AASHTO Guide Specifications for the Design of Pedestrian Bridges
- E. American Institute of Steel Construction, Steel Construction Manual
- F. OSHA - Occupational Health and Safety Act
- G. Uniform Building Code (UBC)
- H. ASTM A153 - Zinc Coating (Hot-Dip) on Iron and Steel Hardware

#### **1.4 SYSTEM DESCRIPTION**

- A. Design Requirements: Overall design shall conform with UBC requirements. The gangway ramp for this Project shall conform with the following criteria:
  - 1. Span and clear walkway width shall be as follows:
    - a. Span: 60 feet (approximate);
    - b. Total overall width: 6.5 feet (maximum);
    - c. Clear width opening: 6 feet (minimum).
  - 2. Structural Design:
    - a. Loads: Design gangway to resist the combination of dead load, live

load, supported utilities, and lateral loads as listed below. Load combinations shall be in accordance with the UBC. Snow load may be ignored.

- (1) Live Load: 85 pounds per square foot uniform load and 1,000 pounds concentrated (non-concurrent).
  - (2) Dead Load: Weight of all materials used in construction of the gangway and its appurtenances, as shown on the Drawings, plus:
    - (i) Utility Load: Design ramp to support a minimum utility load of 200 pounds per linear foot or the weight of all future planned utility service lines and conduit, as shown in the Drawings, whichever is greater.
    - (ii) Snow Load: 20 pounds per square foot.
  - (3) Wind Load: standard occupancy,
    - o U.B.C.: fastest mile, 100 mph, Exposure D
    - o I.B.C.: 120 mph, 3 second gust, Exposure D
- b. Member Design: Structural components shall be designed in accordance with the current edition of following:
- (1) Uniform Building Code,
  - (2) Aluminum Design Manual
  - (3) AASHTO Guide Specifications for the Design of Pedestrian Bridges,
  - (4) American Institute of Steel Construction, Steel Design Manual,
  - (5) AWS D1.1 and D1.2 Structural Welding Code, and
  - (6) Applicable ASTM Standards.
- c. Deflection: Limit deflection to  $L/360$  for dead load plus live load.
3. Guardrail openings: Maximum allowable openings on sides shall not allow a 4-inch sphere to pass through.
  4. Provisions for utility hangers, including required channels or additional structural supports for utilities, shall be included in design and fabrication of gangway. The gangway shall be designed to carry, through a sling arrangement or dedicated raceway the following:
    - a. Up to six future electrical utility lines;
    - b. one future fire water line;

- c. one future potable water line,
- d. two future telephone lines, and
- e. one future cable television line.

The carriage arrangement must not interfere with the operation of the ramp and must facilitate an easy connection of the utility lines with the dockage and shore attachment.

B. Performance Requirements:

- 1. Design gangway for a maximum gradient of 15% (nominal) at Mean Lower Low Water (MLLW), as determined by length of gangway, elevation of shoreline abutment and freeboard of landing float. Tidal data for False Pass is summarized on Drawing G03.
- 2. Provide a transition plate at roller end of deck to ensure a smooth, uninterrupted tread surface from ramp to float.
- 3. Provide ramp rollers or skids and guide tracks of highest quality materials for zero maintenance.
- 4. Design and construct ramp shore-end mount to provide sufficient strength and flexibility for required conditions. Provide a hinged cover plate to span gap. Isolate connections between dissimilar metals.
- 5. Ramp deck surface shall be a durable, non-skid surface, including cleats or traction garnets on transition plate.
- 6. Provide smooth surface handrails per UBC requirements along each side of gangway.

1.5 SUBMITTALS

- A. Make all submittals in accordance with Section 01300–Submittals.
- B. Shop Drawings: Prior to fabrication of gangways, submit data sheets for all materials and products to be fabricated and installed under this section. Submit shop drawings to Owner’s Representative for review in accordance with Section 01300. Shop drawings shall show the layout of the structural and non-structural members, details of all connections, hinges, decking, plates, and all other details necessary and pertinent to fabrication and installation of the gangway ramp system.
- C. Product Data: Submit the following product data to Owner’s Representative for review and approval prior to fabrication:
  - 1. FRP decking.
  - 2. Steel decking.

D. Quality Assurance/Control Submittals:

1. As part of Design/Build Proposal, submit all design criteria, drawings, and preliminary calculations to the Owner's Representative for information only in accordance with *Section 01300—Submittals*. Final calculations and drawings shall be sealed and prepared under the direction of a Professional Civil (Structural) Engineer licensed in the state of Alaska.
2. Test Reports and Certificates: Submit all test reports and mill certificates to Owner's Representative for review in accordance with *Section 01300--Submittals*. Test reports and certificates shall substantiate the required mechanical properties of the materials utilized.
3. Qualifications of Fabricator and Welders: The fabricator of the metals specified in this section shall be experienced in fabrication and working of metals, including cutting, bending, forming, and finishing. Welders shall be currently certified in accordance with UBC requirements for structural welding, submit qualification test reports, and bearing witness certification of independent laboratory and inspection service approved by Owner's Representative. If welder has not been engaged in welding process for three or more months, re-qualify before permitting them to do structural welding work.
4. Manufacturer's Instructions: Submit all Manufacturers' manuals and maintenance literature to Owner's Representative in accordance with *Section 01300 - Submittals*.

1.6 QUALITY ASSURANCE

- A. Experience: Manufacturer must be able to show at least five (5) years of experience building steel or aluminum gangways or bridges.
- B. Qualification of Workers: Provide sufficient supervisors and skilled workers who shall be thoroughly familiar with the type of construction involved and the techniques required for the proper execution of the Work.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Use all means necessary to protect this Work before, during, and after installation and protect the installed work of other trades. In the event of damage, immediately make all repairs and replacements necessary, at no additional cost to the Owner.

1.8 MEASUREMENT AND PAYMENT

- A. See Section 01025.

**PART 2 – PRODUCTS**

2.1 MATERIALS

- A. General: All materials shall be new, of best quality, and meet all acceptable industry

standards and Manufacturers' recommendations.

- B. Aluminum: Use ASTM 6061-T6 for all structural aluminum used in gangway manufacture. All edges shall be smooth and free from sharp edges. Corners of top chords shall have a radius edge.
  
- C. Steel:
  - 1. Structural and Miscellaneous Steel, including plates and shapes shall be ASTM A36. Pipe shall be ASTM A53, Grade B.
  - 2. All steel shall be hot-dip galvanized after its fabrication in accordance with ASTM A153.
  - 3. Repair any damaged galvanizing according to ASTM A153 using "hot stick" GAL-VIZ manufactured by Harris Welco (or approved equal), in accordance with the Manufacturer's recommendations.
  - 4. Welding through the galvanizing will not be allowed. Should any welding be required after galvanizing, remove galvanized surface to the base metal before welding. Repair to galvanizing in accordance with these Specifications and ASTM A153.
  - 5. Hardware: All bolts and hardware shall be ASTM A325 and Hot-Dip Galvanized in accordance with ASTM A123.
  
- D. Polyethylene: Use Ultra High Molecular Weight Polyethylene (UHMWPE) for all rollers, bushings, wear strips, dielectric isolators, and other non-metallic parts in gangway manufacture. UHMWPE shall be made from materials conforming to ASTM 4020. Material shall be chemically cross linked, ultra-violet light stabilized, and suitable for long term exposure. UHMWPE shall be black in color, except for wear strips at edge of transition plates which shall be safety yellow.
  
- E. Welds: Use a filler metal alloy for welds to produce a weld compatible with base structural metal in corrosion resistance in accordance with AWS D1.1.
  
- F. Decking: Submit product data for decking materials prior to fabrication. Decking surface shall consist of ADA Compliant deck grating consisting of a combination of Fiberglass Reinforced Plastic (FRP) and serrated steel bar deck grating. The FRP decking shall be pultruded FRP and shall include a bonded grit surface for traction and shall be installed across two-thirds of the width of the gangway (4-ft). Provide a compatible galvanized steel bar grating with a serrated walking surface installed across the remaining one-third (2-ft) of the width of the gangway floor, as noted on the Drawings. The thickness of the bars shall be designed for the span widths and design loads indicated.

The two types of decking shall be similar in height such that there is a smooth and even transition between the two materials on the deck surface. Fibergrate and Alabama Metal Industries Corporation (AMICO) are pre-approved manufacturers. Submit product data for decking to Owner's representative for approval.

Fabricate deck supports to facilitate a deck strength of 100 psf with maximum deflection of 1/4 inch.

Hardware: Use manufacturer recommended hold-down clips or other attachment hardware, spaced at a maximum of four feet apart with a minimum of four per piece of grating, or as otherwise recommended by the manufacturer. All metal hardware shall be Type 316 stainless steel, unless otherwise approved by Owner's Representative.

- G. Transition Plates: Transition plates shall be full size aluminum sheet stock with a "slip-not" finish, or approved equal.

### **PART 3 – EXECUTION**

#### **3.1 HANDRAILS**

- A. Install handrails on each side of gangway.
- B. Handrail location and design shall be in accordance with UBC.
- C. Handrail construction of steel pipe or tubing with minimum outside diameter of 1-1/2 inch. Provide smooth gripping surface.
- D. Handrail Stanchions: Per UBC clearance standards.

#### **3.2 GUARDRAIL**

- A. Provide kick plate 4 inches high and meeting OSHA standards.
- B. Provide intermediate horizontal side rails on each side, from deck to top of gangway truss of size and spacing as required. Side rails shall be steel angle, pipe or structural tubing.

#### **3.3 TRANSITION PLATES**

- A. Top Plate/Shore End:
  - 1. Fit top of gangway with hinged transition plate designed to operate through all gangway elevation changes.
  - 2. Provide maximum 1/4 inch rise between deck and gangway walking surface and top transition plate.
  - 3. Transition plate shall be slip-resistant material with top nose fitted with UHMWPE wear strip to minimize wear damage to the trestle deck.
- B. Bottom Plate/Dock End:
  - 1. Hinge bottom transition plate to allow smooth operation through maximum and minimum elevations of gangway.
  - 2. Provide maximum 1/4 inch rise between deck and gangway walking surface and bottom transition plate.

3. Transition plate shall be slip-resistant material with bottom nose fitted with UHMWPE wear strip to minimize wear damage to the landing float deck.

### 3.4 SKIDS

- A. Fit dock end of gangway with skid assembly to permit free movement of gangway on dock.
- B. Skids shall be constructed of an aluminum shoe plate and UHMWPE wear skid, as shown in the Drawings.

### 3.5 SHORE HINGE

- A. Fixed Shore Hinge: Shore side attachment/hinge for gangway shall be designed, fabricated, and installed to carry full dead load plus live load of gangway plus safety factor specified. Attachment shall allow full and free operation and movement of gangway through all high and low elevations.
- B. Drop Leaf Hinge: Attach gangway to floating dock to allow side movement. Drop leaf-type hinge shall be used as shore hinge to compensate for potential side loading on gangway. Attachment shall be designed, fabricated, and installed to carry full dead load plus live load of gangway plus safety factor specified.

### 3.6 FABRICATION

- A. Fabricate gangway ramps in accordance with the approved shop drawings.
- B. All joints shall be tightly fitting, securely fastened, square, plumb, straight and true.
- C. Drill or punch all holes required for the attachment of other trades and for bolted connections. Burned holes are not acceptable.

### 3.7 INSTALLATION

- A. Prior to installation of gangway ramp, carefully inspect the installed work of other trades affecting this Work, and verify that all such work is complete to the point where this installation may commence properly.
- B. Install gangway ramp in accordance with the Contract Drawings and approved shop drawings. Alignment shall be straight and true within a tolerance of 1 in 200.
- C. Adjust hinges, skids, and transition plates as necessary for a complete and operable installation.

**END OF SECTION**

## **TAB 5**

---

### **Design Criteria (Division 6)**

**SECTION 06100  
ROUGH CARPENTRY (TRESTLE)**

**PART 1 - GENERAL**

1.1 SECTION INCLUDES

- A. Shop fabrication, detailing, cutting, transporting, and delivery of lumber and associated items required for construction of the access trestle, floats, and other items. The extent and location of rough carpentry Work is indicated on the Drawings and as required for a complete and operable facility.

1.2. RELATED SECTIONS

- A. Section 05500 - Metal Fabrications
- B. Section 05600 – Gangway
- C. Section 06850 – Timber Float Units
- D. Section 02469 – Steel Pipe Piles

1.3 REFERENCES

- A. AWWA U1 – 2005. American Wood Preservers Association Standard Use Classifications.
- B. AWWA M4 - Standard for Care of Pressure Treated Wood Products
- C. APA PS 1-83 – American Plywood Association U.S. Product Standard
- D. WCLIB No. 17 - Grading and Dressing Rules
- E. UBC - Uniform Building Code, current edition.

1.4 QUALITY ASSURANCE

- A. Qualification of Workers: Provide sufficient supervisors and skilled workers who are thoroughly familiar with the type of construction involved and techniques required for the proper execution of the Work.
- B. Rejection: Rough carpentry improperly installed will be rejected and replaced at no additional cost to the Owner. Framing errors shall not be "repaired" or "remodeled."
- C. Shop fabricate carpentry work to the extent feasible and where shop fabrication will result in better workmanship than feasible for on-site fabrication.
- D. Comply with all applicable codes and regulations for wood treatment.
- E. Comply with all applicable environmental and safety rules and regulations.

## 1.5 SUBMITTALS

- A. Make all submittals in accordance with Section 01300–Submittals.
- B. Submit trestle and float system and appurtenance shop drawings showing full dimensions of each member, layout of entire structure, and other accessories prior to delivery of material to the site. Indicate all shop and erection details, including cuts, copes, connections, bolt hole patterns, and fastening devices.
- C. Submit material certificates for dimensional lumber. Indicate species and grade selected for each use as well as design values approved by the Board of Review of American Lumber Standards Committee.
- D. Submit product data, including specifications and installation instructions covering lumber, adhesives, fabrication process, and accessories.
- E. Wood Treatment Data, Carpentry: Submit four (4) copies of chemical treatment manufacturer's instructions for proper use of each type of treated materials.
  - 1. Pressure treatment: For each type specified, include certification by treating plant stating chemical and process used, net amount of salts retained, and conformance with applicable standard.
  - 2. Water-borne preservatives: Include statement that moisture content of treated materials was reduced to a maximum of 24 percent prior to shipment to project site.

## 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store all materials to ensure proper ventilation and drainage and to protect against damage and weather.
- B. Identify all material clearly with all grade marks legible. Separate all damaged material and stockpile to prevent use as structural members.
- C. Use all means necessary to protect installed work of other trades.
- D. In the event of damage, immediately make all repairs and replacement necessary to the approval of the Owner's Representative at no additional cost to the Owner.

## 1.7 MEASUREMENT AND PAYMENT

- A. See Section 01025.

## **PART 2 - PRODUCTS**

### 2.1 TIMBER

- A. All timber shall be new, graded in accordance with provisions of WCLIB No. 17. Surface as designated on Drawings. All timber shall be grade marked by a WCLIB licensed grader or shipped under mill certificate.

- B. Timber used in this project shall meet the following minimum grades: Douglas Fir-Larch, No. 1, appearance grade, surfaced dry, S4S with fb = 2,000 psi.
- C. Glued-laminated timber shall be combination symbol 24F-V8, DF/DF, with waterproof glue, conforming to Section 2303.1.2 of the 1997 UBC with fb = 2,400 psi.
- D. Plywood shall be grade CCX, using veneer graded for severe moisture service and of APA Designation Group 1 species, laid with exterior-rated adhesives. Plates shall bear the grademark of the American Plywood Association, certifying conformance to U.S. Product Standard PS 1-83 and marked "APA C-C EXT." Fabricated plates shall be preservative treated in accordance with AWWA Standard C-9 and AWPB Specification LP 22 with ACZA or CCA to 0.6 pounds per cubic foot minimum retention.
- E. All wood materials shall be pre-cut to size and length and holes drilled prior to preservative treatment as specified.

## 2.2 TREATMENT

- A. Preservative Treatment:
  1. All wood used in this Work shall be treated in accordance with AWWA U1-05.
  2. All members located above the waterline, such as glue-laminated timber wales, blocking, decking, and bumper boards shall be pressure treated with Ammoniacal Copper Zinc Arsenate (ACZA) to not less than 0.6 pcf net dry salt retention in accordance with AWWA U1-05 Use Category 4B (Salt Splash Zone).
  3. All members located below the waterline, such as submerged or partially submerged float framing, treat with creosote to 25 pcf minimum retention per AWWA U1-05, Use Category 5A (marine use).
  4. The trestle back wall and any stringer members that will be in contact with the ground shall be treated with creosote to retention of 12 pounds per cubic foot in accordance with AWWA U1-05 Use Category 4C (ground contact).
  5. Pre-drill and pre-cut all lumber prior to treatment.
  6. Mark each treated item to comply with AWWA quality mark requirement.
  7. After treatment, sawn timber shall be kiln dried to a maximum moisture content of 24 percent.
- B. Treat all cuts, holes, punctures, etc., made in timber after treatment in accordance with AWWA M4, at no additional cost to the Owner. Inspect each piece of lumber after drying and discard damaged or defective pieces.

## 2.3 FASTENERS

- A. Hardware, bolts, screws, and other fasteners shall be hot-dip galvanized per Section 05500, unless otherwise noted.

## **PART 3 - EXECUTION**

### **3.1 PREPARATORY REVIEW**

- A. Inspection: Prior to all Work of this section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence and be performed in strict accordance with original design and all pertinent codes and regulations.
- B. Discrepancies: Notify the Owner's Representative immediately in the event of discrepancy. Do not proceed with installation in areas of discrepancy until fully resolved.

### **3.2 WORKMANSHIP**

- A. General: Install rough carpentry to produce framing which is level or plumb with joints that are true, tight, and well nailed. Assemble all members in accordance with approved shop drawings and appropriate codes.
- B. Selection of Lumber: Select all lumber carefully. When cutting long lengths into short pieces, exercise care to avoid reducing grade. Owner's Representative may reject lumber at any time for faults or defects.

### **3.3 INSTALLATION**

- A. Do not notch, bore, dap, or cut structural member for pipes, conduit, ducts, or other reasons except as indicated on the Drawings, as called for in the Specifications, or as approved by the Owner's Representative.
- B. Bearings: Make all bearing surfaces full unless otherwise indicated on the Drawings.
- C. Fastening: Use galvanized fasteners only.
  - 1. Bolting:
    - a. Drill holes 1/16 inch larger in diameter than the bolts being used. Drill holes from one side only.
    - b. Bolt shall be of sufficient length that no threads bear on wood. Plate washers shall be used against wood. Flat washer with spring lock washer, regular hex nut and jamming nut shall be used against steel.
  - 2. Screws:
    - a. Pre-bore holes for screws and lag screw the same diameter as the root of threads. Enlarge holes to the shank diameter for the length of the shank.
    - b. Turn (do not drive) all screw fasteners into position.

- D. Discard units of material with defects which might impair quality of the Work and units which are too small to fabricate the Work with minimum joints or the optimum joint arrangement.
- E. Set carpentry Work accurately to required levels and lines with members plumb, true, and accurately cut and fitted.
- F. Attach carpentry Work securely to substrates by anchoring and fastening as shown and as required by recognized standards.
  - 1. Countersink all heads and nuts on exposed carpentry work.
  - 2. Use galvanized wire nails, except as otherwise indicated.
  - 3. Select fasteners of size that will not penetrate members where opposite side will be exposed to view or will receive finish materials.
  - 4. Make tight connections between members.
  - 5. Install fasteners without splitting wood; pre-drill as required.

**END OF SECTION**

**SECTION 06850  
TIMBER FLOAT UNITS**

**PART 1 - GENERAL**

1.1 SECTION INCLUDES

- A. Designing, manufacturing, transporting, delivering, offloading, and assembling all timber float units, including all associated items required for a complete and operable facility as shown on the Drawings and as specified.
- B. Float system designs and specifications must be submitted with the bid and shall include structural calculations and preliminary drawings sufficient in detail to describe the proposed float system in its entirety and to demonstrate that the proposed float system meets or exceeds the performance and materials criteria listed in these specifications.
- C. Float appurtenances.

1.2 RELATED SECTIONS

- A. Section 02469 – Steel Pipe Piles
- B. Section 05500 - Metal Fabrications
- C. Section 06100 - Rough Carpentry (Trestle)

1.3 QUALITY ASSURANCE (QA)

- A. The Design/Build Engineer shall have designed at least five (5) facilities of comparable scope and complexity as the float system proposed herein for vessels in a similar representative size range (up to 115 feet). Quality facilities shall have been in satisfactory operation for a period of at least one (1) year. The timber float manufacturing workshop shall provide proper environment, adequate work space, equipment, level construction surfaces, physical conditions and protection from direct sunlight, wind, moisture, and freezing necessary for construction of high quality floats.
- B. Fabrication shall be in accordance with appropriate industry standards of good practice for heavy marine timber, galvanized steel, and other materials.
- C. Structural and geotechnical calculations shall prepared and stamped by a registered professional Engineer(s), licensed in the State of Alaska. The Civil (Structural) Engineer shall have a minimum of five (5) years of experience in the design of floating moorage structures. The Engineer, or the firm which employs the Engineer, shall maintain Professional Liability Insurance in the amount of \$1.0 million, as a minimum. Provide the Owner with a Certificate of Insurance per occurrence for the Professional Liability Policy and a copy of the Engineer's Alaska Registration. Also provide a list of all outstanding litigation involving the Engineer or the firm which employs the Engineer, including a description of the litigation and the amount of the claims. If separate Engineers are utilized then the same requirements and information described above shall apply to each

Engineer or firm which employs the Engineer.

- D. The float system shall be designed by the Manufacturer in accordance with the 2003 IBC and 2002 NEC, as amended by Title 13 of the Alaska Administrative Code and shall consist of modular timber float units as required to provide the configuration shown in the drawings.
- E. Steel fabrications and connections shall be designed by the Float Manufacturer. Steel fabrication and associated connections to the timber floats shall be designed to develop the full capacity of the pertinent structural member connected.
- F. Pile locations, pile restraint guides and method of attachment to the floats shall be designed by the Manufacturer. Pile guides and connections to the timber floats shall be designed to transmit all anticipated loads from the float to the piles without failure to the timber float. This load shall not be less than the maximum lateral capacity of the pile (at estimated high tide, see the "Float System Performance Requirements" section of these specifications.). All directions of load shall be considered.
- G. All plans and calculations shall be signed and stamped with the seal of an Engineer registered in the State of Alaska.
- H. Float Tests and Inspections:
  - 1. Quality control during the fabrication process shall be given utmost priority. A Quality Control Plan shall be prepared and submitted to the Owner for approval prior to construction of any floats. The Quality Control Plan shall include the following, at a minimum:
    - a) Description of Fabrication Facilities
    - b) Process for Monitoring and Correcting Deficiencies
    - c) Name of Proposed Independent Testing Lab (s)
    - d) Sampling and Testing Procedures
    - e) Checklist of Contract Conformance Items

A Quality Control Supervisor shall be assigned to the project for the duration of the fabrication process. The Supervisor will be responsible for insuring that all products are constructed per the plans and specifications. A checklist of contract conformance items shall be prepared and submitted to the Owner for each float produced. No floats may be produced in the absence of the Quality Control Supervisor.

2. The Float Manufacturer shall provide testing and field or plant inspection service to the satisfaction of the Engineer. The Float Manufacturer shall hire an independent testing laboratory, as approved by the Owner, to provide on-site quality control services throughout the fabrication period. Sampling and testing shall be performed on-site or as otherwise approved by the Owner.
3. At a minimum, the following sampling and testing procedures shall be performed:
  - o All fillet welds shall be visually inspected.
  - o All complete penetration welds shall be tested ultrasonically or by use of a comparable approved method.
4. The plant facility shall be made available to the Owner's Representative for inspection of the products. The Owner's Representative may perform structural observation at any point during the manufacturing of the float modules. At a minimum, the Engineer will perform structural observation at the stages of construction listed below. The fabricator shall provide sufficient notice and access for the Engineer to perform these observations:
  - o During initial manufacture of the main float modules.
  - o During initial manufacture of the finger float modules.
- I. Welder Qualifications: All welders are required to be currently certified by AWS for structural welding. Float Manufacturer shall submit proof of certification prior to fabricating. All welding shall be in accordance with the American Welding Society Structural Code – Steel, ANSI/AWS D1.1, current edition. No welding shall be performed through paint, galvanized or other coatings.
- J. Timber treatment shall be applied by an organization regularly involved in the pressurized treatment of wood products. No field treatment will be permitted except for accidental cuts, nicks, abrasions, or punctures. Field cuts or trims shall not be allowed. All timber designated pressure-treated on the drawings or by these specifications shall conform to AWPA Standard U1-05, Use Category 4B for timber to be located above the waterline at the lowest freeboard condition (i.e., salt splash protection) and Use Category 5A for timber that requires protection for marine use. In addition, wood treated with waterborne salts shall bear the quality mark designation per AWPA.
- K. All floats shall be identified with the date of the manufacture, float type and intended layout location designation per the approved shop drawings. Markings shall be location on one side and on one for ease of field identification.
- L. For Floats, the Float Manufacturer's quality efforts shall include verification of material and treatment certificates against materials supplied before issuing them to the Engineer. This may involve inspection of materials prior to treatment to determine species. Float Manufacturer shall also provide documentation of verification of piece counts, section dimension and other random tolerance checks such as camber, sweep, crook, straightness, etc. The Float Manufacturer's quality control efforts shall also include provisions of survey control to determine theoretical versus actual positions and elevations. The Engineer shall undertake quality assurance inspection, as he deems necessary.
- M. Four copies of a certified mill test report covering chemical and physical tests

conducted on the piles shall be furnished to the Engineer for each heat number of metal included in the shipment.

- N. Four copies of Certificated of Inspection for galvanizing of piles shall be furnished to the Engineer.
- O. Qualification of Workers: Provide at least one person who shall be present at all times during execution of all portions of the Work, who shall be thoroughly familiar with the type of materials being manufactured and installed, the best methods for installation, and who shall direct all Work performed under this section.
- P. The Owner reserves the right to use criteria other than cost, such as overall quality of the proposed float system, during bid evaluation.

#### 1.4 DESIGN CRITERIA - LOADING

- A. Dead Loads: Design float for all dead loads, including weight of all float components (including floatation, fittings, decking, walers, fendering elements, power distribution systems, telephone and cable television conduit, gangway and pile guides or any other attached appurtenance), lighting equipment, as well as any weight due to water absorption or permanent capture. Include an allowance weight for future utilities, as indicated in the Drawings included with this Design-Build package and as specified in paragraph 1.8 Design Criteria – Services and Appurtenances.
- B. Live Loads: All loads, horizontal and vertical, that the float system must withstand in addition to the dead loads. Design timber float system to the following basic load cases as a minimum. Normal allowable stresses should be in accordance with the most recent edition of the UBC:
  - 1. Vertical live loads include:
    - a. A uniformly distributed load of 30 pounds per square foot (psf) over the entire surface area of the floats;
    - b. A uniformly distributed load of 50 psf over the area 10 feet in all directions at the intersection of main walkways with other structures, such as gangway, finger floats, or other appurtenances;
    - c. A concentrated load of 500 pounds distributed over an area of 1 square foot at any point on the float for all main floats. The maximum allowable twist of the float system under the 500 pound concentrated load shall be 1 inch in 8 feet;
    - d. A concentrated point load of 500 pounds (upward and downward) at the outboard edge or free end of any float module for all main floats. The maximum allowable twist of the float system under the 500 pound concentrated load shall be 1 inch in 8 feet.
  - 2. Horizontal live loads include:
    - a. Operating wind load generated by a peak wind (fastest mile) of 100 miles per hour (mph), exposure D, applied in any direction over the sail area of the design vessel, assuming float system is 100 percent used by design vessels. Design float system and associated piling to

accommodate rafting of vessels, two-deep at every side-to float face, as shown in the Drawings, Design Vessel Mix sheet.

- b. Storm wind load generated by a 3-second gust of 120 mph and peak wind (fastest mile) of 100 mph applied any direction over the entire float system assuming 100 percent occupancy.
  - c. Operational wave load generated by frequent boat wakes of 1 foot height and 2 second period or infrequent, short duration boat wakes of 2 foot height and 2 second period.
  - d. Impact Load: Forward vessel velocity of 1.0 knots, vessel berthing angle of 20 degrees from the float face, for largest boat normally using the float, striking at the end of a main float. Refer to Item 3 below for design vessels.
  - e. Current forces from the maximum tidal current through the basin.
  - f. The wale system shall be designed to resist opposing mooring forces of 3,000 pounds at any point along the length of the float.
3. A summer and winter design vessel mix and layout as shown in the Drawings, with the largest vessels having the following characteristics :

Design Vessel Length (feet)	90	100	115
Effective Profile Height (feet)	22.5	23.5	24.5
Displacement Tonnage (tons)	750	925	1175

4. Load Factor:
- a. For overall system design:
    - (1) 100 percent applied to boats berthed in the outermost (exposed) rank or row.
    - (2) 50 percent applied to boats berthed in the second (shielded) rank or row.
    - (3) 30 percent applied to all boats moored in the remaining ranks or rows.
    - (4) Assume 100 percent occupancy of slips, with rafting of vessels, two-deep at every side-to float face.
  - b. For design of individual floats:
    - (1) 100 percent applied to boats berthed in any location.
    - (2) Assume 100 percent occupancy of slips, with rafting of vessels, two-deep at every side-to float face.

C. Loading Conditions:

- 1. Dead Load Only: Design the float system so that the longest interconnected

subassembly will not fail during lifting and installation.

2. Live Load: Design the float system for an unsupported span for a wave of 2 second period and for a wave height of 1.5 feet with 5 second period for the following live load conditions:
  - a. Dead load plus 30 psf vertical uniform load plus operating wind plus boat wave plus current plus vessel berthing.
  - b. Dead load plus 500-pound vertical point load plus operating wind plus boat wave plus current plus vessel berthing.
  - c. Dead load plus 500-pound vertical edge load plus operating wind plus boat wave plus current plus vessel berthing.
  - d. Dead load plus storm wind plus storm wave plus current.
- D. If any loads other than those indicated are anticipated to be carried by the structure, it shall be immediately brought to the attention of the Owner's Representative.
- E. Design and reinforce units to withstand all handling and erection loads.
- F. Design and detail float units, walers, pile hoops, triangle frames, and float connections to accommodate stresses and loads to which they are subjected.

#### 1.5 DESIGN CRITERIA - FREEBOARD

- A. Dead Load Freeboard:
  1. Freeboard under dead load only shall be 20-inches (+/- 1-inch)
  2. The freeboard under all dead loads shall not be more than ½ inch below or more than one-inch above the specified freeboard at the end of the warranty period.
  3. The floats shall be designed such that future utility chaseways/conduits remain dry under application of full live load plus full dead load.
  4. Floats with special or eccentric dead loads shall have the same final freeboard as floats without special or eccentric loads. Supplemental flotation billets placed under the floats may not be used.
- B. Floats shall not slope more than 1 inch in 10 feet over the length or width at time of Owner's acceptance and shall not slope more than 1.5 inches in 10 feet over length or width at the end of the warranty period.
- C. Areas of floats that intersect other floating float units shall have sufficient flotation so freeboard at such intersection is not less than specified minimum freeboard.
- D. Deck surfaces of adjacent float units shall be level and at same elevation and slope. A difference in elevation of 1/4 inch or more between adjacent modular units is unacceptable.
- E. Live Load Freeboard: Sufficient flotation shall be provided to support a live load of not less than 20 pounds per square foot with a minimum freeboard of not less than 12 inches. The floats shall be designed so water and utility conduits remain dry under application of full live plus dead load.

- F. The float shall lose no more than 2 inches of freeboard with a 500 pound load applied 1 foot from the end of the float at the time of Owner's acceptance and shall lose no more than 3 inches under the same loading conditions at the end of the warranty period.
- G. There shall be no more than 2 inches of difference in freeboard of outside corners of a float when a 300 pound load is applied at one corner of the float at the time of Owner's acceptance and no more than 3 inches of difference in freeboard under the same loading conditions at the end of the warranty period.
- H. It is recognized that within the tolerances expected for this type of construction, some adjustments may be required to meet above requirements. Intent of this Specification is to ensure a level float system under all dead load conditions with the specified freeboard.

#### 1.6 DESIGN CRITERIA – DYNAMIC RESPONSE

- A. Design floats to resist rolling, surging, and twisting forces associated with design wave in combination with the design vessels moored continuously along face.
- B. Differential movement between any two adjacent floating units shall not exceed 1/4 inch.
- C. Float units shall employ passive water ballasting to enhance stability and reduce buoyant reaction to live loads and wave action. Ballasting shall maintain water level within float units at substantially similar levels to the waterline outside float by using a plurality of 3/8-inch diameter holes in float shell below waterline.
- D. Effective Dynamic Mass: Unless otherwise specified, all main floats shall be designed to resist reactive buoyant forces (uplift) from live loads with a minimum effective dynamic mass of 50 pounds per square foot of float area.

#### 1.7 DESIGN CRITERIA - ANCHORAGE

- A. Anchor the float system with fixed piling restrained to floats with free-sliding pile guides designed to resist the forces generated by the combination of dead loads and live loads.
- B. Geotechnical information is available in a separately bound package entitled "Volume 2–Supplemental Information." Geotechnical data contained in this package was not obtained for the Project and any subsurface soil conditions contained in the reports are not intended as representations or warranties of the continuity of such conditions between soil borings or between the borings and the project site. It is understood that the Owner will not be responsible for any interpretation or conclusion drawn therefrom by the Contractor or the Contractor's Engineer. This information is made available for the convenience of the Contractor.
- C. Additional soil borings and other exploratory operations may be made by the Contractor at no additional cost to the Owner, provided such operations are approved by the Owner. It is the responsibility of the Contractor and the Contractor's Engineer to determine if such additional borings or exploratory operations are required.

## 1.8 DESIGN CRITERIA – SERVICES AND APPURTENANCES

- A. Future potable water service is planned. Future electrical utilities (power, telephone and cable television) shall be distributed to power service centers, as shown on the Drawings, through raceways embedded in the float. Contractor shall furnish the following for future addition of utilities:
- B. Provide one (1) 4" nominal diameter chaseway for a potable water main, as shown in the Drawings.
- C. Provide sufficient chaseways and floatation to accommodate future Electrical utilities and equipment including:
  - a. A minimum of six (6) electrical cables on the Marginal Float and sixteen (16) 4" dia. cables on each of A Float and B Float, running down the center of the floats and sufficient floatation to support the cables plus two each transformers and panels, located as indicated on the Drawing. Assume weights as follows:
    - i. Cable: 3,878 pounds per 1,000 feet
    - ii. Transformer: 3,600 pounds.
    - iii. Panel: 900 pounds.
    - iv. Power/Light pedestal: 75 pounds.
  - b. Minimum bending radius for power cables shall be 18-inches.
  - c. Spaces between floatation or other means to allow service lines to run to the edges of floats and connect electrical cable to power pedestals and water service lines to hose bib attachments.
- D. Provide Utility Floats, located as generally indicated on the Drawing E01 and sized appropriately to allow sufficient working clearances to meet required codes. Provide a single ballasted sand bag on each Utility Float, equivalent to the weight of the equipment (i.e., transformer and/or panels) to be installed on the Utility Float. Utility Floats shall be connected to main floats by a minimum of three hinges or as otherwise approved by the Owner's Representative.

## 1.9 SUBMITTALS

- A. Make all submittals in accordance with Section 01300–Submittals.
- B. As part of the Design/Build Proposal, submit the following:
  - 1. Design brief that demonstrates that the floats meet all of the specified design criteria, including:
    - a. All design loads, including adequate shear capacity in floats to resist design lateral loads;
    - b. Required freeboard at time of construction and anticipated settlement due to foam absorption and other associated items;
    - c. Dynamic response criteria;
    - d. Corrosion allowances assumed for materials not protected from corrosion for the life of the floating system.

2. Design narratives for each discipline describing the various proposed systems;
3. Technical sketches as required to convey intent, construction and conformance to conceptual drawings and these specifications, including:
  - a. Detailed pile layout plan;
  - b. Float module framing illustrating each typical unit;
  - c. Blow-up of framing system for the floats, including marginal-to-main float connections, utility float-to-main connections, and gangway float connection;
  - d. Cross-sections of structures as required to convey construction and intent;
4. Specifications and/or cut sheets for all manufactured products proposed for use in the timber float system, including floats, connections and pile guides;
5. Affidavit from the Float Manufacturer/Fabricator (if applicable) certifying that the Project meets the requirements specified.

Note: Prior to fabrication and construction, all calculations and plans shall be sealed by a registered Professional Engineer in the State of Alaska.

- B. Shop Drawings: Shop drawings shall show the layout of floats, details of all connections, pile locations, pile guides and retainers, and all other details necessary and pertinent to the construction of the float system. These shop drawings should include, as a minimum, the following:
1. Plan view: Layout shall indicate location of all joints, framing, cleat layout, and anchorage system.
  2. Section views of main walkways and finger floats.
  3. Overall dimensions and timber thicknesses for the floating structure.
  4. Type, size, and extent of all welds.
  5. Pile retainer connection details.
  6. ladders and attachment hardware and mounting details.
  7. Hinges, transition plates, and associated hardware (if included in the Design).
  8. The Float Manufacturer shall furnish catalogue cuts of any proprietary items to the Owner's Representative for approval.
- C. Maintenance and Operation Manual: Prior to final payment, submit a complete maintenance and operation manual for the float system and appurtenances to the Owner in a three-ring binder. The manual shall contain at a minimum the following:
1. Float Manufacturer representative's name, address, and telephone number.
  2. Complete discussion of system handling for the winter season.
  3. Operational recommendations.

4. Drawings, diagrams, installation instructions and parts list.
5. Future utility layout drawing, including hose bib and power/light pedestal locations, main pipe/cable and service runs, etc.

#### 1.10 PRODUCT HANDLING

- A. Delivery, Storage, and Handling: Prior to delivery to the site, provide the proper off-site storage, which prevents cracking, distortion, warping, staining, and other physical damage.
- B. Protection: Use all means necessary to protect materials of this section before, during, and after installation, including installed work of other trades.
- C. Replacements: In the event of damage, immediately make all repairs and replacements necessary at no additional cost to Owner.

#### 1.11 WARRANTIES

- A. Provide a two-year warranty for the complete timber float units, including all appurtenances and associated installations.
- B. Provide a two (2)-year warranty on materials and workmanship of the float system.
- C. Provide a ten (10)-year warranty on the floatation.

#### 1.12 MEASUREMENT AND PAYMENT

- A. See Section 01025.

### **PART 2 - PRODUCTS**

#### 2.1 TIMBER FLOAT UNITS

- A. Fabricate timber float units to provide the overall length and minimum width dimension indicated on Drawings.
- B. The timber floats and associated connections shall be designed by the Manufacturer. The accompanying plans indicate minimum requirements for the proposed floats and utility connections. The drawings are intended to indicate basic configuration and appearance criteria. Structural design of the float elements and responsibility for insuring that utility chaseways are properly routed to avoid conflicts is the responsibility of the Manufacturer.
- C. Pile locations shall be determined by the Manufacturer. The drawings are intended to indicate the minimum number of piles to be provided and a basic pile configurations.
- D. Provide smooth runway pads or plates at the gangway landing float as a low-resistance rolling surface for the gangway skids. The pads must be durable and hard of metal or synthetic composition.
- E. Provide design and allowance for integral connection with possible future harbor expansion at each end of the Marginal Float to allow connections of floats at a

future date. Provide necessary closure and/or capping to protect connection hardware and/or assemblies from the elements.

- F. All structural bolts, including bullrail and cleat bolts, shall be through-bolted in the wales, unless noted otherwise on the plans, and shall be capable of developing their full allowable strength without causing damage to the timber float. Provide plate washers on all nut-bearing surfaces. Bolts bearing on timber surfaces shall be economy head type unless malleable iron washers are used.
- G. Walking surfaces of the floats shall be flush with adjoining float units. The maximum slope of the float deck under dead load is one inch per ten feet of float length or width.
- H. All surfaces exposed to the face of the piles shall be protected with a full circumference of UHMW plastic. Minimum thickness of UHMW shall be  $\frac{3}{4}$ -inch. UHMW shall be bolted to a steel backing plate of not less the  $\frac{1}{2}$ -inch thick. Bolts connecting the UHMW to the backing plate shall be countersunk  $\frac{3}{8}$ -inch and a UHMW plug shall be provided.
- I. The Float Manufacturer shall coordinate exact locations of the future on-float utilities (i.e., main utility runs, service runs, hose bib risers, power/light pedestals) and indicate these on a float system layout drawing, to be submitted to the Owner to facilitate future utility installation.

## 2.2 FLOTATION: POLYSTYRENE INNER CORE

- A. Float inner cores shall be closed-cell, expanded rigid cellular polystyrene in accordance with ASTM C-578. The density of the polystyrene shall be between 0.90 and 1.3 pounds per cubic foot and a maximum absorption of 4 percent by volume as tested by ASTM C-272. Polystyrene shall be virgin new material throughout. Material that has exceeded the manufacturer's recommended shelf life will not be allowed nor will molded, stuffed or reground material be permitted. Voids shall not exceed 1% by area as measured on any internal cross-sectional cut surface. The knit or weld between the individual bead cells shall be such that a minimum of 60% of the beads fracture rather than separate when subjected to bending stresses.
- B. All expanded polystyrene shall be aged six weeks prior to fabrication if molded in a conventional steam mold or seven days if molded in a new generation vacuum mold. The Owner's Representative may request certified test reports to substantiate foam density, compressive strength, absorption, and fusion aspects of this specification.
- C. All flotation surfaces shall be encased by one of the following, described in detail in the following paragraphs:
  - 1. Option 1: Molded, seamless, rigid polyethylene float shell.
  - 2. Option 2: Coating of 100% solids polyurethane.

## 2.3 FLOATATION: OUTER SHELL

- A. Rigid Polyethylene Float Shell (Option 1)

1. Polyethylene components shall be ultra high molecular weight (UHMW) in accordance with ASTM D-4020, manufactured from virgin material. The material shall be ultra-violet stabilized, shall be partially or fully chemically cross-linked, and suitable for long-term exposure. The material shall also be resistant to mechanical abrasion, chemical attack, ultraviolet deterioration, detergents, and animals. Color shall be black or as approved by the Owner.
2. Minimum nominal wall thickness shall be 3/16-inches, unless Contractor can demonstrate acceptability of alternate thickness and approved by the Owner's Representative.
3. Float shells shall meet or exceed the Hunt Falling Dart puncture and thickness test.

B. Polyurethane Coating (Option 2)

1. Polystyrene floatation billets may be coated to a minimum 60 mil thickness with approved 100% solids polyurethane similar to HT 2090 manufactured by Hydroseal Polymers, Inc., or approved equal. Coating shall be petroleum fuel resistant and be able to withstand the effects of ultraviolet exposure.
2. Prior to coating, polystyrene floatation billets shall be factory notched with a cross-wise notch at each sill connection to the depth indicated on the plans. Width of notch shall be the width of the supporting sill plus 2-inches. Provide additional notches and bevels where indicated to accommodate passage of electric cables. Notching shall be performed by hot-wire cutting methods.
3. Coatings must adhere to the polystyrene materials without damaging them.

## 2.4 STRUCTURAL AND MISCELLANEOUS STEEL AND HARDWARE

- A. All structural steel and structural steel fabrications, including but not limited to, pile guides, ladders, plates, and shapes shall be in accordance with ASTM A-36 or ASTM A-572. Pipe sections shall be in accordance with ASTM A-53, Type E or S, Grade B. Cold formed hollow structure sections shall be in accordance with ASTM A-500, Grade B. All steel fabrications and components shall be hot-dipped galvanized in accordance with ASTM A-123. Touch up galvanizing shall be in accordance with ASTM A-780, hot-stick repair using zinc-based alloys.
- B. Fasteners for timber members: Bolts shall conform to ASTM A-307 or A-36 as applicable, with ASTM A-563 hex nuts and flat washers. Malleable iron washers are required in all cases (except economy head bolts) where the bolt heads or nuts would otherwise bear directly on wood. Locking nuts shall be heavy hex head and self-locking type. Wood screws shall conform to ASME B18.6.1. Lag bolts shall conform to ASME B18.2.1. All bolts, lag bolts, wood screws, nuts, washers, etc. shall be hot-dipped galvanized in accordance with ASTM A-153. Touch up galvanizing shall be in accordance with ASTM A-780, hot-stick repair using zinc-based alloys.
- C. Bolts for float connections and metal fabrications shall be ASTM A-325 and shall be hot dip galvanized after fabrications in accordance with ASTM A-153.

- D. All bolts and lag bolts shall be minimum of 5/8-inch diameter.
- E. All steel shall have 3/8-inch minimum thickness.
- F. All holes shall be drilled or bunched 1/16-inch larger than the connecting bolt diameter. Do not flame cut holes.
- G. Design, fabrication and erection shall be in accordance with the "AISC Code of Standard Practice for Steel Buildings and Bridges".
- H. All welding shall conform to the AWS codes for arc and gas welding in building construction. Welding shall be performed in accordance with a welding procedure specification (WPS) as required in AWS D1.1 and approved by the structural engineer. The WPS variables shall be within the parameters established by the filler-metal Manufacturer. Welds shall be made using E70XX electrodes and shall be 3/16-inch minimum. Welding shall be by AWS certified welders.

## 2.5 PILE GUIDES

- I. Internal piles shall be used for all floats accommodating side-to berthing (i.e., Floats 2, 3, and 4).
- J. Pile guides shall be hot-dip galvanized units designed for the stress and loading conditions of the system.
- C. Pile guides shall be designed to accommodate round steel piles.
- D. Pile guides shall accommodate a maximum initial pile axis offset of plus or minus 2 inches in any direction.
- E. Pile guides shall be though-bolted and shall be designed to transfer lateral loads to opposite float side.

## 2.6 TIMBER WALE SYSTEM

- A. Wales shall be continuous on all float sections, employing motion dampening hinges to connect individual float units. Waler splices shall not be used.

## 2.7 TIMBER

- A. Lumber materials not specified in this section shall conform with Section 06100.
- B. Timber decking shall be attached to floats with 4-inch #12 stainless-steel screws at all locations requiring future access to utilities or connections. All other deck areas shall be attached with 4" hot-dipped galvanized helix spikes.

## 2.8 LIFE RING AND CABINETS

- A. Provide life rings of minimum 30-inch diameter with 200 feet of rope as manufactured by Cheyenne Manufacturing, Inc. or equal approved by Owner.
- B. Construct enclosure cabinet of fiberglass or High Density Polyethylene (HDPE). Cabinet shall be yellow and lockable with a breakaway glass to open for emergency. Mounting system on float per Manufacturer's recommendations, Cheyenne Life Ring Enclosure, or equal approved by Owner.

## 2.9 FIRE EXTINGUISHER AND CABINET

- A. Provide fire extinguishers having a minimum rating of 2A, 20-B:C.

- B. Fire extinguisher cabinets shall be fiberglass or HDPE. Red in color, as manufactured by Cheyenne Manufacturing, Inc., or approved equal.

## 2.10 SAFETY LADDERS

- A. Provide safety ladders, fabricated as indicated in the Drawings. Alternate safety ladder designs are subject to approval by the Owner's Representative.
- B. Safety ladders shall comply with the requirements of ANSI A14.3. Side rails shall be continuous steel pipe, minimum 1 ½-inch diameter, with eased edges. Rungs shall be ¾-inch diameter round steel bars.

## 2.11 RUBSTRIPS AND BUMPERS

- A. Rub strips to be sacrificial timber in 2 sections to allow an outer damaged section to be removed and replaced at a lesser cost than replacing a single, thicker section. Alternately, 1 section of UHMWPE lumber rubstrip may be used. Inner rub strips (or single UHMWPE rubstrip) for main floats shall be attached with 4-inch #12 stainless steel screws. Outer rub strips shall be attached with 4" hot-dipped galvanized helix spikes. Countersink hardware heads to provide a minimum ¼" clearance between head and face of rubstrip.
- B. Corner bumpers shall be SSR Corner Fenders Model 150H or approval equal.

## 2.12 OTHER MATERIALS

- A. All other materials, not specifically described but required for a complete and proper installation of the Work of this section, shall be as selected by the Contractor subject to approval by the Owner's Representative.
- B. Plastic lumber, if used for rubstrips, shall be a purified high-density polyethylene (HDPE) material made from 100% recycled plastic, in accordance with ASTM D-6662. The material shall be of uniform color, shall be color stabilized, and shall be resistant to ultra-violet deterioration, mechanical abrasion, chemical attack, detergents, and animals. The plastic lumber material shall be procured in 8-foot lengths, minimum. The material shall also be suitable for long-term exterior exposure. Color shall match the furnished wood float material or as approved by the Owner.
- C. Rubber components shall be butyl rubber (ASTM D-2000-75E Type BA) or neoprene (ASTM D-2000-75E Type BC) with shore durometer hardness of 45 to 55.

## 2.11 SPARE PARTS

- A. Provide spare parts of the type and quantity as follows, including all attachment hardware:
  1. One (1) each: Fire Extinguisher and cabinet
  2. One (1) each: Life Ring and cabinet
  3. Two (2) each: Safety ladder

## **PART 3 – EXECUTION**

### **3.1 FLOAT INSTALLATION**

- A. The timber float installation method shall be determined by the Design-Build contractor. Float modules shall be positioned such that the float system appears as shown on the Drawings and accurately located by land surveying methods. All land surveying shall be accomplished by a licensed land surveyor registered in the State of Alaska or other qualified personnel deemed acceptable to the Engineer. Suitable shore-control survey alignment stations shall be provided to insure positioning of floats.
- B. Transporting and lifting of float modules shall be performed without damage or resulting in excessive stresses. Design-Build contractor shall be responsible for protecting the floats from damage. After positioning, piles shall be driven through the pre-attached pile collars. Pile collars and floats shall be adequately blocked and restrained to prevent damage to float components during driving and installation.

### **3.2 LIFE RING INSTALLATION**

- C. Place life rings and cabinets at approximate locations shown on the Drawings. Submit proposed locations to Owner's Representative for approval, prior to installation. Mount the cabinets per Manufacturer's recommendation.

### **3.3 FIRE EXTINGUISHER INSTALLATION**

- D. Install fire extinguishers and cabinets. Submit proposed locations to Owner's Representative for approval, prior to installation. Mount cabinets per Manufacturer's recommendation.

### **3.4 SAFETY LADDER INSTALLATION**

- E. Install safety ladders at the approximate locations shown on the Drawings. Submit proposed locations to Owner's Representative for approval, prior to installation. Mount safety ladders as indicated in the Drawings.

**END OF SECTION**

## **TAB 6**

---

### **Permits**

Department of the Army Permit, POA2007-160-1, Isanotski Strait, dated June 7, 2007.

Letter from Alaska Department of Natural Resources, Office of Permitting and Project Management, dated April 2, 2007 indicating ACMP Consistency and Concurrence.



REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
U.S. ARMY ENGINEER DISTRICT, ALASKA  
REGULATORY DIVISION  
P.O. BOX 6898  
ELMENDORF AFB, ALASKA 99506-0898

RECEIVED

JUN 12 2007

Tryck Nymen Hayes, Inc.

JUN 07 2007

Regulatory Division  
POA-2007-160-1

Ms. Kimberly Nielsen, PE,  
Tryck Nymen Hayes, Inc.  
911 W. 8<sup>th</sup> Ave., Suite 300  
Anchorage, AK 99501

Dear Ms. Nielsen:

Enclosed is the signed Department of the Army permit, file number POA-2007-160-1, which authorizes construction of a new timber float system for boat moorage, including utilities and steel piling, plus an access trestle and gangway. Three main new floats will be constructed (A, B, and C Floats) consisting of over 2,000 linear feet of heavy duty timber marginal and main floats, plus 8 still floats, access trestle and gangway. The harbor will consist primarily of linear moorage along both sides of the main floats, plus 16 new dedicated slips. This project is located in sections 28 and 29, T. 61 S., R. 94 W., Seward Meridian; Latitude 54.8662° N., Longitude -163.4066° W.; approximately .5 miles north of the City of False Pass, on the eastern shore of Unimak Island on Isanotski Strait. Also enclosed is a Notice of Authorization which should be posted in a prominent location near the authorized work.

If changes to the plans or location of the work are necessary for any reason, plans must be submitted to us immediately. Federal law requires approval of any changes before construction begins.

Nothing in this letter excuses you from compliance with other Federal, State, or local statutes, ordinances, or regulations.

Valanne.glooschenko@poa02.usace.army.mil, by mail at the address above, by phone at (907) 753-2712, or toll free from within Alaska at (800) 478-2712, if you have questions. For additional information about our Regulatory Program, visit our web site at [www.poa.usace.army.mil/reg](http://www.poa.usace.army.mil/reg).

Sincerely,

Valanne Glooschenko  
Regulatory Specialist

Enclosures

# DEPARTMENT OF THE ARMY PERMIT

Permittee: Aleutians East Borough

Permit No.: POA-2007-160-1, Isanotski Strait

Issuing Office: U.S. Army Engineer District, Alaska

**NOTE:** The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

**Project Description:** This project will construct a new timber float system for boat moorage, including utilities and steel piling, plus an access trestle and gangway. Three main new floats will be constructed (A, B, and C Floats) consisting of over 2,000 linear feet of heavy duty timber marginal and main floats, plus 8 still floats, access trestle and gangway. The harbor will consist primarily of linear moorage along both sides of the main floats, plus 16 new dedicated slips.

All work will be performed in accordance with the attached plan, sheets [1-6], dated [12/05/2006].

**Project Location:** The proposed project is located in Sections 28 and 29, T. 61 S., R. 94 W., Seward Meridian; Latitude 54.8662° N., Longitude -163.4066° W.; approximately .5 miles north of the City of False Pass, on the eastern shore of Unimak Island on Isanotski Strait.

## Permit Conditions:

### General Conditions:

1. The time limit for completing the work authorized ends on **April 1, 2012**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

## Special Conditions:

The following special conditions will also be added to the DA permit:

1. Your use of the permitted activity must not interfere with the public's right to free navigation on all navigable waters of the U.S. [*Rationale: Protection of navigation and the general public's right of navigation on the water surface is a primary concern of the federal government. This condition is required by regulation. [33 CFR PART 320.4(o)(3)].*]
2. You must install and maintain, at your expense, any safety lights and signals prescribed by the U.S. Coast Guard (USCG), through regulations or otherwise, on your authorized facilities. The USCG may be reached at the following address and telephone number: Commander (OAN), 17th Coast Guard District, P.O. Box 25517, Juneau, Alaska 99802, (907) 463-2269. [*Rationale: The facility must be lighted to prevent navigation hazards and this condition is required by regulation. [33 CFR PART 320.4(o)(3)]*]
3. The permittee understands and agrees that, if future operations by the U.S. require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the U.S. No claim shall be made against the U.S. on account of any such removal or alteration. [*Rationale: This condition is required by regulation to protect free navigation and the interests of the United States in existing or future federal projects. [33 CFR PART 320.4(o)(3) and HQ memorandum].*]
4. Best Management Practices (BMPs) are to be used during construction to protect the soil and coastline from potential contamination associated with equipment leaks and spills. [*Rationale: This Special Condition is carried at the request of the applicant. Spillage of hydrocarbon fuels into aquatic ecosystems is hazardous to aquatic life such as benthic animals, larval and adult fish.*]
5. All pressure treated lumber stored on site prior to installation in the float system shall be stacked and bunked such that it is not in direct contact with the ground, and covered and secured to prevent contact with precipitation. [*Rationale: This Special Condition is carried at the request of the applicant. Pressure treated lumber contains a solution of chromated copper arsenate. Studies have shown that such lumber can leach chromium, copper and arsenic into the surrounding soil or be carried into aquatic systems where it may harm benthic animals, larval and adult fish.*]

## Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:
  - (x ) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
2. Limits of this authorization.
  - a. This permit does not obviate the need to obtain other Federal, State, or local authorization required by law.
  - b. This permit does not grant any property rights or exclusive privileges.
  - c. This permit does not authorize any injury to the property or rights of others.
  - d. This permit does not authorize interference with any existing or proposed Federal project.
3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:
  - a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
  - b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

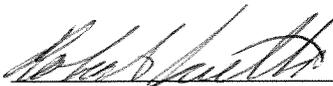
b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

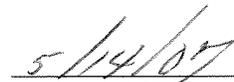
c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

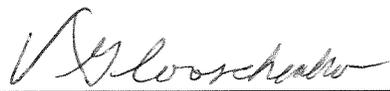
6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

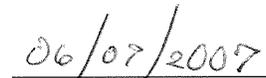
Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

  
\_\_\_\_\_  
(PERMITTEE) AND TITLE

  
\_\_\_\_\_  
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

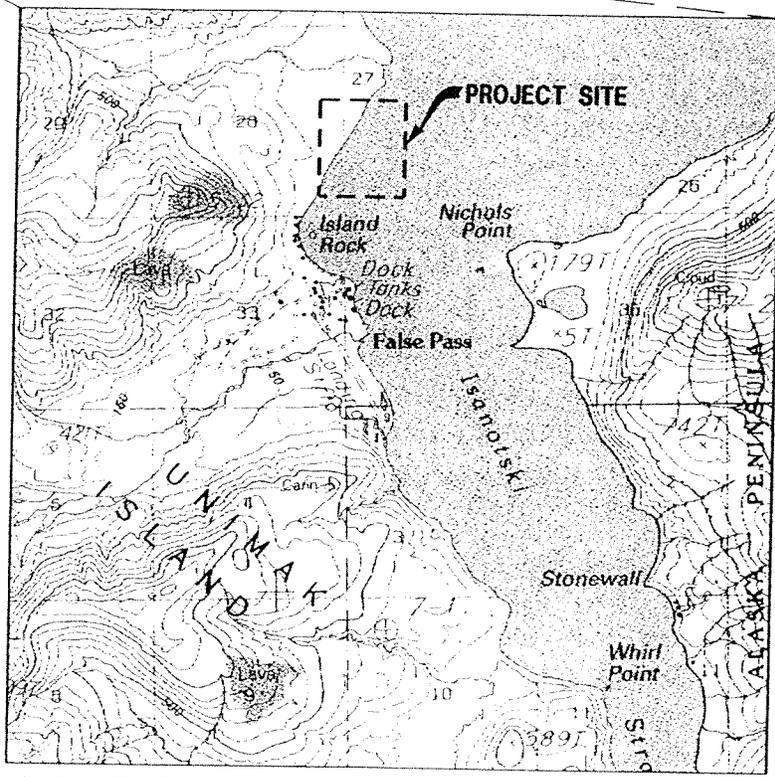
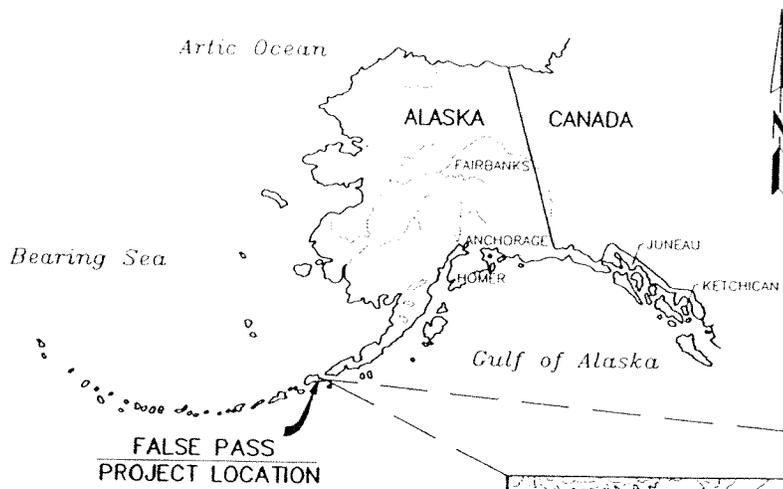
  
\_\_\_\_\_  
FOR: (DISTRICT ENGINEER) COL KEVIN J. WILSON  
VALANNE GLOOSCHENKO, REGULATORY SPECIALIST  
SOUTH BRANCH, REGULATORY DIVISION

  
\_\_\_\_\_  
(DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions have the transferee sign and date below.

\_\_\_\_\_  
(TRANSFEREE)

\_\_\_\_\_  
(DATE)



TIDAL INFORMATION	
NOAA UNALASKA STA. # 9462620	
HIGHEST OBSERVED WATER LEVEL	6.7'
HIGH TIDE LEVEL (H.T.L.)	(4.7') NP
MEAN HIGHER HIGH WATER (M.H.H.W.)	3.6'
MEAN HIGH WATER (M.H.W.)	3.3'
MEAN TIDE LINE (M.T.L.)	2.1'
MEAN LOWER LOW WATER (M.L.L.W.)	0.0'
LOWEST OBSERVED WATER LEVEL	-2.5'

NP = NOT PUBLISHED (ESTIMATED)

APPROXIMATE LATITUDE & LONGITUDE:  
54°51'N, 163°24'W

USGS FALSE PASS (D-5), ALASKA  
SCALE 1:63,000

PROPERTY OWNERS (UPLANDS)
ISANOTSKI CORP.
CITY OF FALSE PASS
FALSE PASS TRIBAL COUNCIL

**PURPOSE:**  
HARBOR FLOAT INSTALLATION

**PERMIT:** DEPT. OF ARMY SEC 10

**DATUM:** M.L.L.W. = 0.0'

**ADJACENT PROPERTY OWNERS:**  
UPLANDS: SEE ABOVE  
OFFSHORE: AEB/STAE OF ALASKA

**LOCATION AND VICINITY MAP**

SCALE: N.T.S.

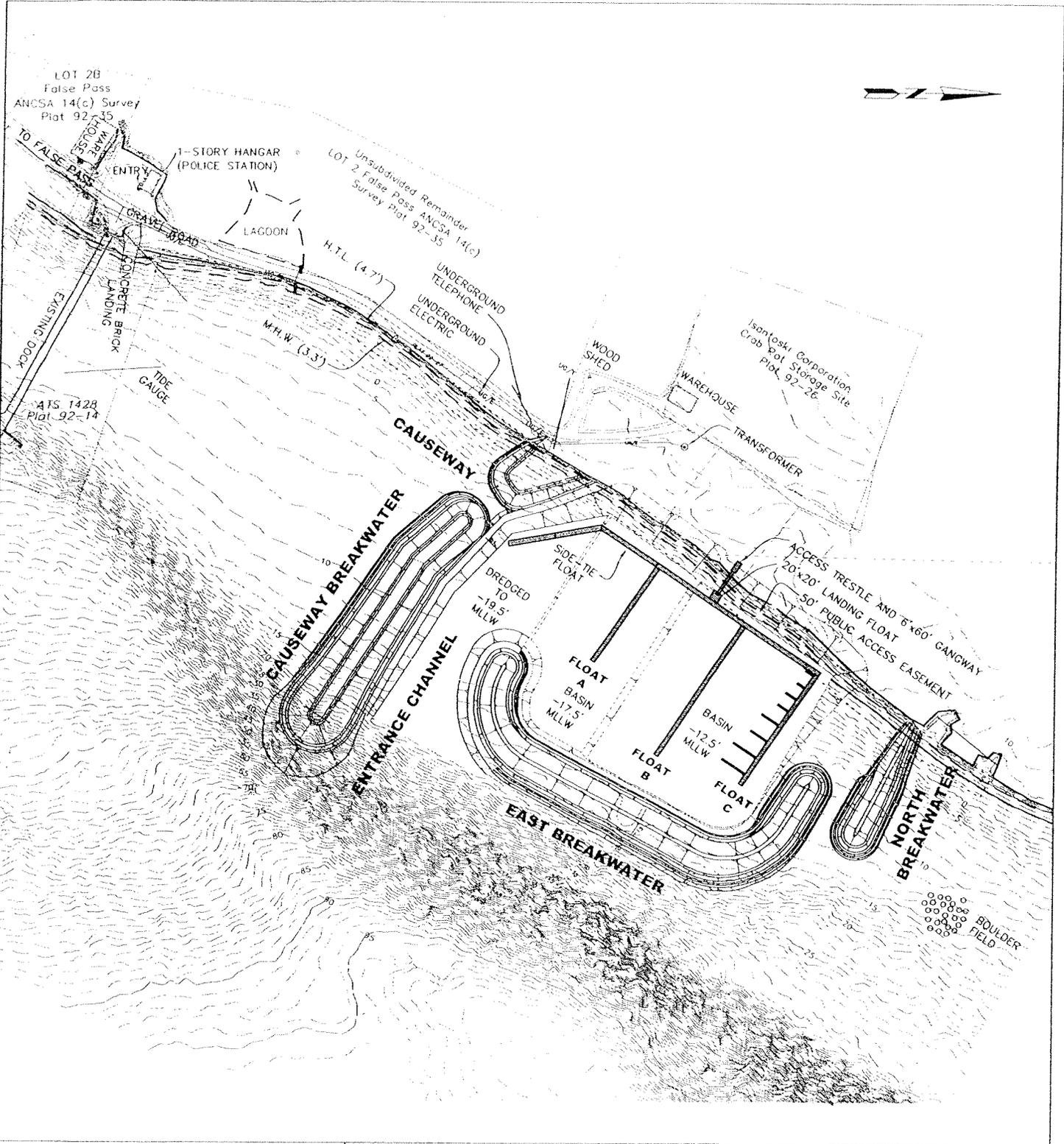
ALEUTIANS EAST BOROUGH  
3380 C ST., #205  
ANCHORAGE, ALASKA 99503

**FALSE PASS HARBOR**

IN: ISANOTSKI STRAIT  
AT: FALSE PASS

APPLICATION BY:  
ALEUTIANS EAST BOROUGH  
3380 C ST., # 205  
ANCHORAGE, ALASKA 99503

SHEET 1 OF 6 DATE: 12/05/06

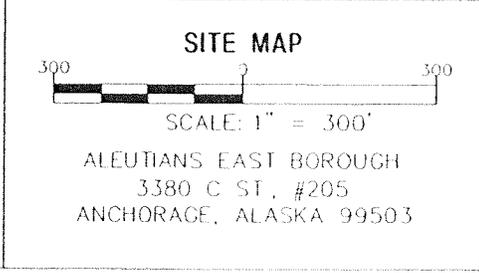


**PURPOSE:**  
HARBOR FLOAT INSTALLATION

**PERMIT:** DEPT. OF ARMY SEC. 10

**DATUM:** M.L.L.W. = 0.0'

**ADJACENT PROPERTY OWNERS:**  
UPLANDS: SEE SHEET 1  
OFFSHORE: AEB/STAE OF ALASKA

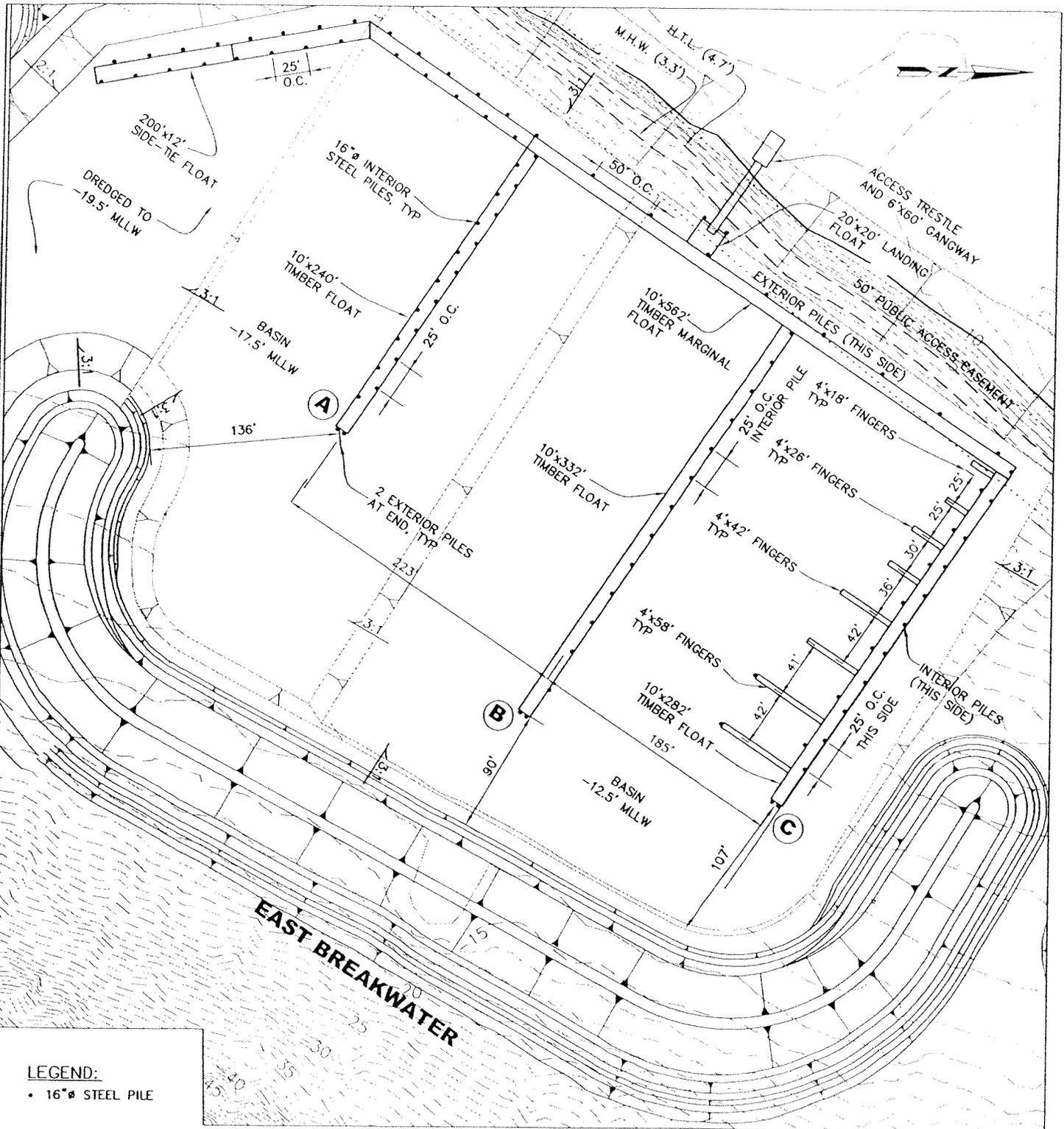


**FALSE PASS HARBOR**

IN: ISANOTSKI STRAIT  
AT: FALSE PASS

APPLICATION BY:  
ALEUTIANS EAST BOROUGH  
3380 C ST., # 205  
ANCHORAGE, ALASKA 99503

SHEET: 2 OF 6    DATE: 12/05/06



**LEGEND:**  
 • 16" Ø STEEL PILE

**PURPOSE:**  
 HARBOR FLOAT INSTALLATION

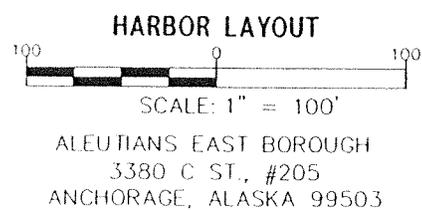
**PERMIT:** DEPT. OF ARMY SEC. 10

**DATUM:** M.L.L.W. = 0.0'

**ADJACENT PROPERTY OWNERS:**

**UPLANDS:** SEE SHEET 1

**OFFSHORE:** AEB/STAE OF ALASKA

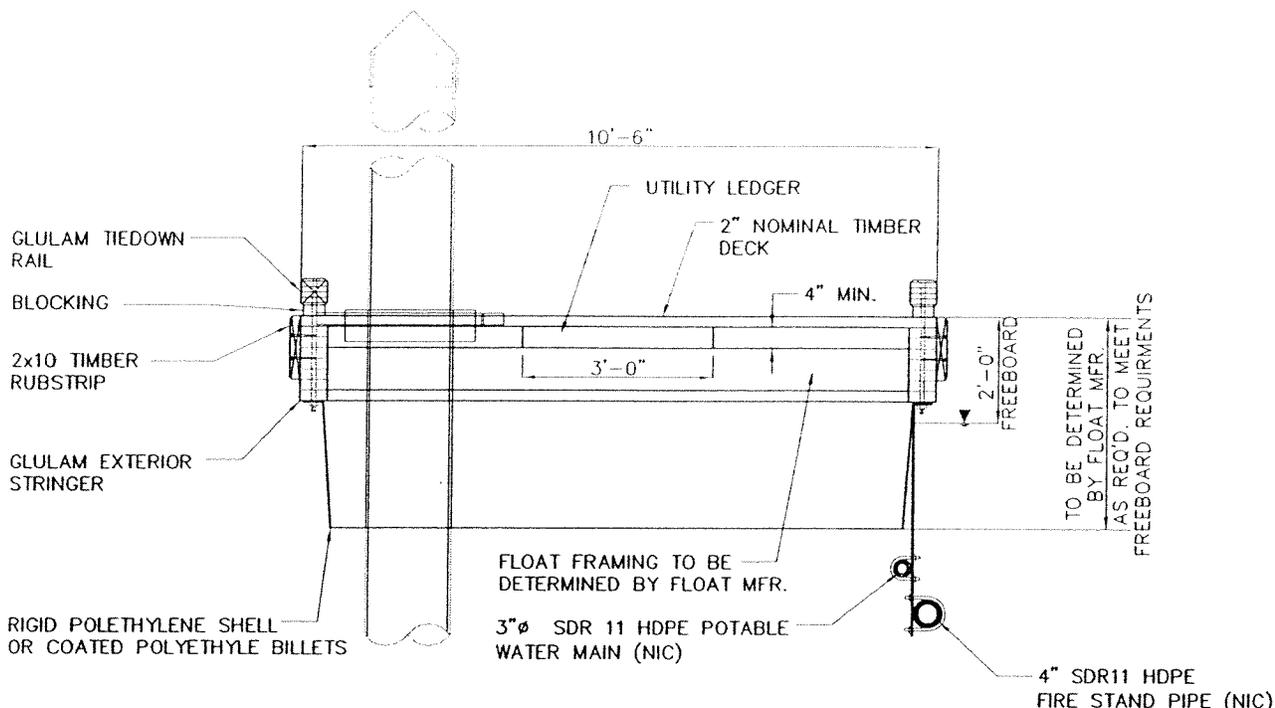


**FALSE PASS HARBOR**

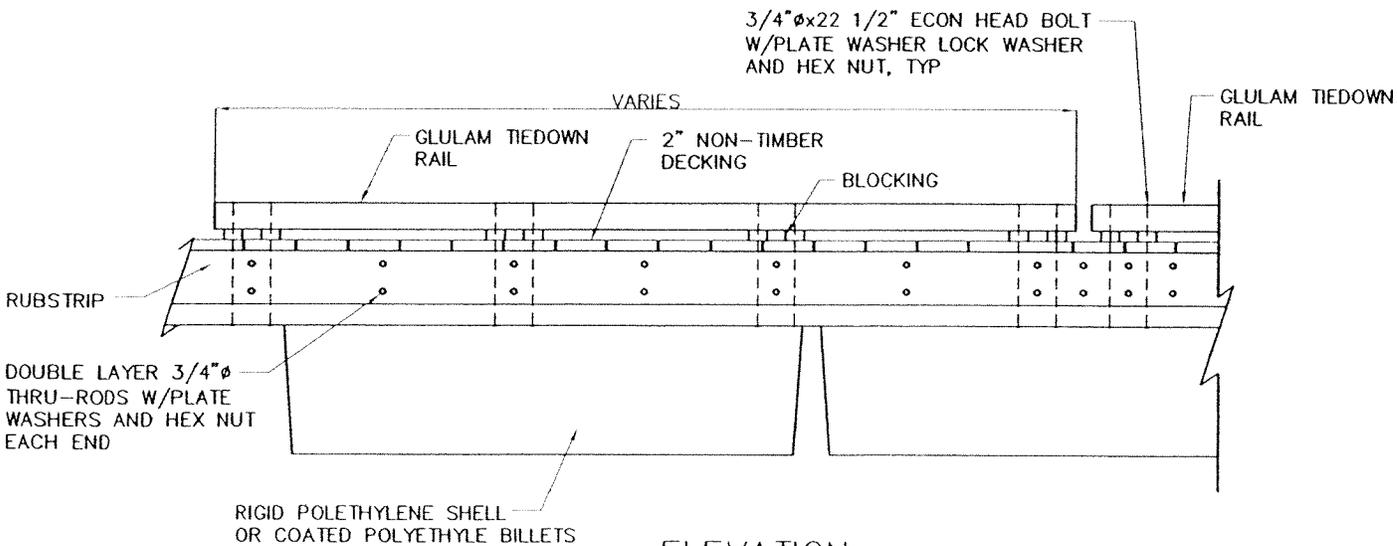
IN: ISANOTSKI STRAIT  
 AT: FALSE PASS

APPLICATION BY:  
 ALEUTIANS EAST BOROUGH  
 3380 C ST., # 205  
 ANCHORAGE, ALASKA 99503

SHEET: 3 OF 6    DATE: 12/05/06



TYPICAL SECTION



ELEVATION

PURPOSE:  
**HARBOR FLOAT INSTALLATION**

PERMIT: DEPT. OF ARMY SEC. 10

DATUM: M.L.L.W. = 0.0'

ADJACENT PROPERTY OWNERS:  
 UPLANDS: SEE SHEET 1  
 OFFSHORE: AEB/STAE OF ALASKA

**TYPICAL FLOAT**

SCALE: N.T.S.

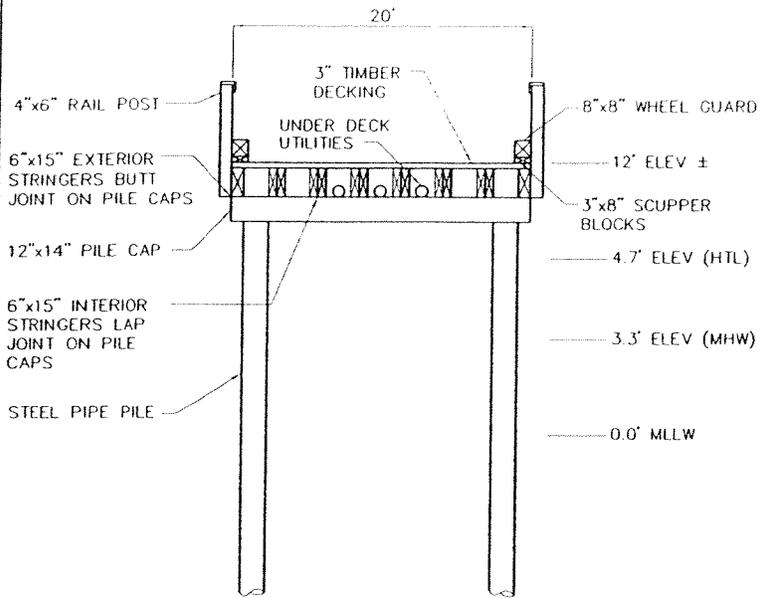
ALEUTIANS EAST BOROUGH  
 3380 C ST., #205  
 ANCHORAGE, ALASKA 99503

**FALSE PASS HARBOR**

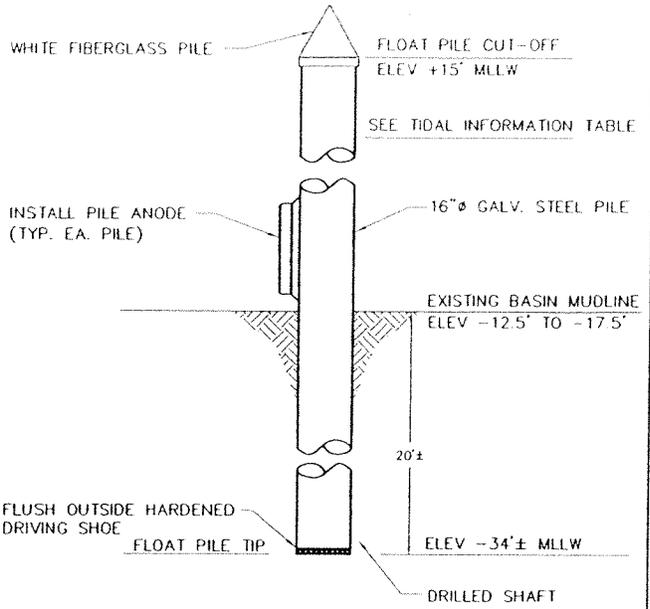
IN: ISANOTSKI STRAIT  
 AT: FALSE PASS

APPLICATION BY:  
 ALEUTIANS EAST BOROUGH  
 3380 C ST., # 205  
 ANCHORAGE, ALASKA 99503

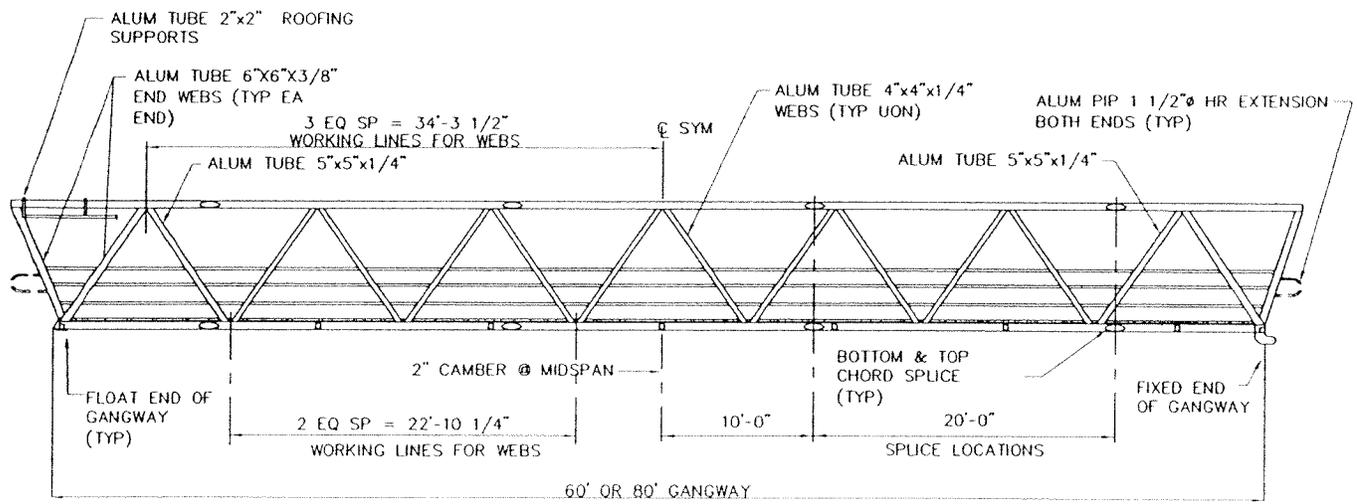
SHEET: **4** OF **6** DATE: 12/05/06



TRESTLE



PILE DETAIL



GANGWAY

**PURPOSE:**  
HARBOR FLOAT INSTALLATION

**PERMIT:** DEPT. OF ARMY SEC. 10

**DATUM:** M.L.L.W. = 0.0'

**ADJACENT PROPERTY OWNERS:**  
UPLANDS: SEE SHEET 1  
OFFSHORE: AEB/STAE OF ALASKA

**TRESTLE/GANGWAY/PILE DETAIL**



SCALE: N.T.S.

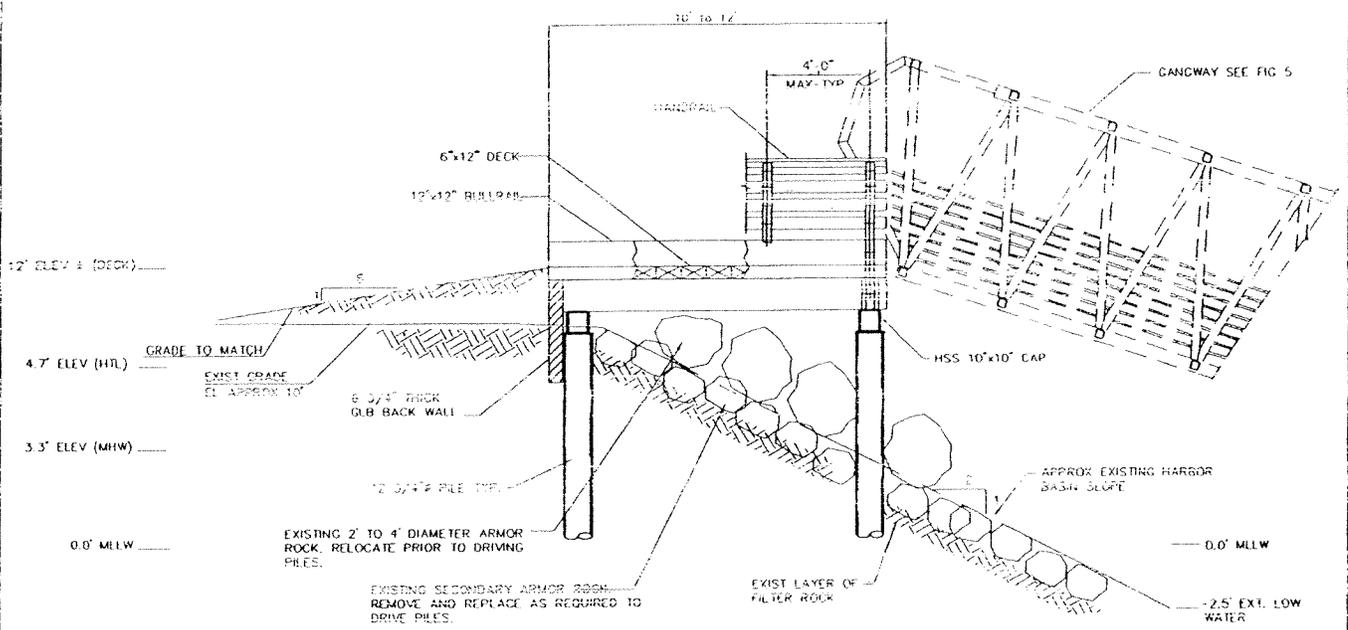
ALEUTIANS EAST BOROUGH  
3380 C ST., #205  
ANCHORAGE, ALASKA 99503

**FALSE PASS HARBOR**

IN: ISANOTSKI STRAIT  
AT: FALSE PASS

APPLICATION BY:  
ALEUTIANS EAST BOROUGH  
3380 C ST., # 205  
ANCHORAGE, ALASKA 99503

SHEET: 5 OF 6 DATE: 12/05/06



**PROPERTY OWNERS (UPLANDS)**  
 ISANOTSKI CORP.  
 CITY OF FALSE PASS  
 FALSE PASS TRIBAL COUNCIL

TIDAL INFORMATION	
NOAA ALASKA STA # 9462620	
HIGHEST OBSERVED WATER LEVEL	6.7'
HIGH TIDE LEVEL (H.T.L.)	(4.7')NP
MEAN HIGHER HIGH WATER (M.H.H.W.)	3.6'
MEAN HIGH WATER (M.H.W.)	3.3'
MEAN TIDE LINE (M.T.L.)	2.1'
MEAN LOWER LOW WATER (M.L.L.W.)	0.0'
LOWEST OBSERVED WATER LEVEL	-2.5'

NP = NOT PUBLISHED (ESTIMATED)

**PURPOSE:**  
 HARBOR FLOAT INSTALLATION

PERMIT DEPT. OF ARMY SEC. 10

DATUM: M.L.L.W. = 0.0'

ADJACENT PROPERTY OWNERS:  
 UPLANDS: SEE ABOVE  
 OFFSHORE: AEB/STAL OF ALASKA

**TRESTLE ELEVATION**

SCALE: N.T.S.

ALEUTIANS EAST BOROUGH  
 3380 C ST., #205  
 ANCHORAGE, ALASKA 99503

**FALSE PASS HARBOR**  
 IN: ISANOTSKI STRAIT  
 AT: FALSE PASS

APPLICATION BY:  
 ALEUTIANS EAST BOROUGH  
 3380 C ST., # 205  
 ANCHORAGE, ALASKA 99503

SHEET: **6** OF **6** DATE: 01/18/07

M:\05054.000\_False Pass Boat Harbor\Permits\Drawings

# STATE OF ALASKA

**DEPARTMENT OF NATURAL RESOURCES**  
*OFFICE OF PROJECT MANAGEMENT AND PERMITTING*  
*ALASKA COASTAL MANAGEMENT PROGRAM*

**SARAH PALIN**  
**GOVERNOR**

■ **SOUTHCENTRAL REGIONAL OFFICE**  
550 W. 7<sup>TH</sup> AVENUE, SUITE 705  
ANCHORAGE, ALASKA 99501  
PH: (907) 269-7470 / FAX: (907) 269-3981

□ **CENTRAL OFFICE**  
P.O. BOX 110030  
JUNEAU, ALASKA 99801-0030  
PH: (907) 465-3562 / FAX: (907) 465-3075

□ **PIPELINE COORDINATOR'S OFFICE**  
411 WEST 4<sup>TH</sup> AVENUE, SUITE 2C  
ANCHORAGE, ALASKA 99501-2343  
PH: (907) 257-1351 / FAX: (907) 272-3829

[www.alaskacoast.state.ak.us](http://www.alaskacoast.state.ak.us)

April 2, 2007

Ms. Kimberly Nielsen  
Tryck Nyman Hayes, Inc.  
911 West 8<sup>th</sup> Avenue  
Anchorage, AK 99501

Subject: Harbor Expansion at False Pass, Alaska  
State ID NO. AK 0702-04AA  
Final Consistency Response

Dear Ms. Nielsen:

The Office of Project Management & Permitting (OPMP) has completed coordinating the State's review of your proposed project for consistency with the Alaska Coastal Management Program (ACMP). OPMP has developed the attached final consistency response based on reviewers' comments.

Based on an evaluation of your project by the Alaska Departments of Environmental Conservation, Fish and Game, and Natural Resources and the Aleutians East Borough Coastal District, OPMP *concurs* with your certification that the project is consistent with the ACMP and affected coastal district's enforceable policies. This concurrence is also based on your modification of the project proposal to achieve consistency with the ACMP enforceable policies.

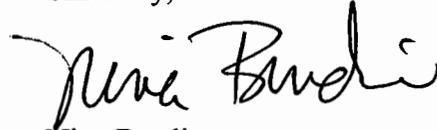
This is the *final consistency decision* for your project.

This consistency response is only for the project as described. If you propose any changes to the approved project, including its intended use, prior to or during its siting, construction, or operation, you must contact this office immediately to determine if further review and approval of the revised project is necessary.

By copy of this letter, I am informing the U.S. Army Corps of Engineers of OPMP's final finding.

If you have any questions regarding this process, please contact me at 907-334-2563 or email [nina\\_brudie@dnr.state.ak.us](mailto:nina_brudie@dnr.state.ak.us).

Sincerely,



Nina Brudie  
Project Review Coordinator

#### Enclosures

ecc: Robert Juettner, Administrator, AEB, Anchorage  
William Ashton, DEC, Anchorage  
Ashley Reed, ACMP Liaison, DMLW, Anchorage  
Linda Markham, ADOT/PF, Anchorage  
Margie Goatley, DNR, SHPO, Anchorage  
Stewart Seaberg, DNR/OHMP, Anchorage  
Tina Anderson, Coastal Coordinator, AEB, Sand Point  
Mark Fink, DFG, Anchorage  
Ellen Simpson, DFG, Anchorage  
Valanne Glooschenko, USACE, Regulatory Branch  
City Manager, City of Sand Point  
Tammy Stromberg, City of Akutan, Anchorage  
Gary Hennigh, City Manager, King Cove  
Jeanne Hanson, NMFS, Anchorage  
Janet Herr, NMFS, Anchorage  
Michele Powdrill, DNR/OPMP, Juneau

**ALASKA COASTAL MANAGEMENT PROGRAM  
FINAL CONSISTENCY RESPONSE  
CONCURRENCE**

**DATE ISSUED: APRIL 2, 2007**

**PROJECT TITLE: HARBOR EXPANSION AT FALSE PASS, ALASKA**

**STATE ID. NO.: AK 0702-04AA**

**AFFECTED COASTAL RESOURCE DISTRICT: ALEUTIANS EAST BOROUGH**

**PROJECT DESCRIPTION:** Construct a new timber float system for boat moorage, a timber access trestle and a 6' by 60' aluminum gangway. Three main new floats will be constructed (A, B and C Floats) consisting of approximately 1,616 linear feet of heavy duty timber marginal and main floats, plus 8 stall floats on the C Float. The floats will be secure in place by galvanized steel piling. The harbor will consist primarily of linear (side tie) moorage along both sides of the main floats, plus 16 new dedicated slips. Construction will begin in May 2007 and continue through the 2010 construction season.

The project is located approximately one half mile north of False Pass, Alaska in Isanotski Strait, within sections 27 and 28, Township 61 South, Range 94 West, Seward Meridian, in the Aleutians East Borough.

**SCOPE OF THE PROJECT SUBJECT TO REVIEW:** The project subject to this consistency review is to construct a new timber float system for boat moorage, a timber access trestle and a 6' by 60' aluminum gangway. Three main new floats will be constructed (A, B and C Floats) consisting of approximately 1,616 linear feet of heavy duty timber marginal and main floats, plus 8 stall floats on the C Float. The floats will be secure in place by galvanized steel piling. The harbor will consist primarily of linear (side tie) moorage along both sides of the main floats, plus 16 new dedicated slips. Construction will begin in May 2007 and continue through the 2010 construction season.

The applicant proposes to use Best Management Practices (BMP) to avoid equipment leaks and spills during construction of this project to protect important habitat in the area. All pressure treated lumber stored on site (if not directly installed into the water) prior to installation in the float system will be stacked and bunked such that it is not in direct contact with the ground and shall be covered and secured to prevent contact with precipitation.

**CONSISTENCY STATEMENT:** OPMP concurs with the consistency certification submitted by the Aleutians East Borough.

**AUTHORIZATIONS:** State agencies shall issue the following authorizations within five days after

OPMP issues the final consistency determination that concurs with the applicant's consistency certification, unless the resource agency considers additional time to be necessary to fulfill its statutory or regulatory authority.

U.S. Army Corps of Engineers (COE)  
Section 10 Permit No. POA-2007-160-1

**The Department of Environmental Conservation (DEC) will review any activities subject to DEC permits, certifications, approvals, and authorizations for consistency with 11 AAC 112.310. The issuance of the permits, certifications, approvals, and authorizations by DEC establishes consistency with 11 AAC 112.310 for those specific activities.**

Please note that, in addition to their consistency review, State agencies with permitting responsibilities will evaluate this proposed project according to their specific permitting authorities. Agencies will issue permits and authorizations only if they find the proposed project complies with their statutes and regulations in addition to being consistent with the coastal program. An agency permit or authorization may be denied even though the State concurs with the ACMP. Authorities outside the ACMP may result in additional permit/lease conditions. If a requirement set out in the project description (per 11 AAC 110.260) is more or less restrictive than a similar requirement in a resource agency authorization, the applicant shall comply with the more restrictive requirement. Applicants may not use any State land or water without Department of Natural Resources (DNR) authorization.

**APPEAL:** This final consistency response is a final administrative order and decision under the ACMP and for purposes of Alaska Appellate Rules 601-612. Any appeal from this decision to the superior court of Alaska must be made within thirty (30) days of the date this determination is issued.

**ENFORCEMENT:** Pursuant to 11 AAC 110.260(e) and 110.445(e), if after receiving this final consistency response, the applicant fails to implement an adopted alternative measure, or if the applicant undertakes a project modification not incorporated into the final determination and not reviewed under 11 AAC 110.800-11 AAC 110.820, State resource agency may take enforcement action according to the resource agency's statutory and regulatory authorities, priorities, available resources, and preferred methods.

**ADVISORIES:**

Please be advised that although the OPMP concurs with your certification that the project is consistent with the ACMP, you are still required to meet all applicable State and federal laws and regulations. This consistency finding may include reference to specific laws and regulations, but this in no way precludes your responsibility to comply with other applicable laws and regulations.

If the proposed activities reveal cultural or paleontological resources, please stop any work that would disturb such resources and immediately contact the State Historic Preservation Office

(907-269-8720) and the U.S. Army Corps of Engineers (907-753-2712) so that consultation per section 106 of the National Historic Preservation Act may proceed.

Final Consistency Response Prepared By:  
Nina Brudie, Project Review Coordinator  
550 W. 7<sup>th</sup> Ave., Suite 705  
Anchorage, AK 99501  
(907) 334-2563



---

4/2/07

---

## ACMP CONSISTENCY EVALUATION

Pursuant to the following evaluation, the project as proposed is consistent with applicable ACMP statewide and affected coastal resource district enforceable policies (copies of the policies are available on the ACMP web site at <http://www.alaskacoast.state.ak.us>).

<b>STATEWIDE ENFORCEABLE POLICIES</b>
<b>11 AAC 112.200. Coastal development</b>
a) In planning for and approving development in or adjacent to coastal waters, districts and state agencies shall manage coastal land and water uses in such a manner that those uses that are economically or physically dependent on a coastal location are given higher priority when compared to uses that do not economically or physically require a coastal location.
(b) Districts and state agencies shall give, in the following order, priority to <ol style="list-style-type: none"><li>(1) water-dependent uses and activities;</li><li>(2) water-related uses and activities; and</li><li>(3) uses and activities that are neither water-dependent nor water-related for which there is no practicable inland alternative to meet the public need for the use or activity</li></ol>
<b>Evaluation:</b>
b) The proposed project is water-dependent and is intended for water related use.
c) OPMP defers to the United States COE to interpret compliance with the referenced standards.
<b>11 AAC 112.210. Natural hazard areas</b>
<b>Evaluation:</b> The applicant has taken appropriate measures in the planning, design and siting of the project to protect public safety, services and the environment from potential damage caused by known natural hazards.
<b>11 AAC 112.220. Coastal access</b>
<b>Evaluation:</b> The proposed project and activity will increase public access to coastal waters.
<b>11 AAC 112.230. Energy facilities</b>
<b>Evaluation:</b> N/A
<b>11 AAC 112.240. Utility routes and facilities</b>
<b>Evaluation:</b> The applicant proposes to bury utility transmission lines where appropriate to lessen impact on wildlife transit and has designed the project to minimize impact to surface and ground water drainage patterns. The floating system is supported on piles to minimize impact to fish migration.
<b>11 AAC 112.250. Timber harvest and processing</b>
<b>Evaluation:</b> N/A
<b>11 AAC 112.260. Sand and gravel extraction</b>
<b>Evaluation:</b> No sand or gravel will be extracted from coastal waters for the proposed project.

<p><b>11 AAC 112.270. Subsistence</b></p> <p><b>Evaluation:</b> The applicant has considered access to subsistence activities in the project's siting and design. Shore-based subsistence uses would be minimally impacted, and subsistence fishing activities would be enhanced by the increased moorage. The harbor facilities would not prohibit access to adjacent beaches used for subsistence activities.</p>
<p><b>11 AAC 112.280. Transportation routes and facilities</b></p> <p><b>Evaluation:</b> The proposed activity is a transportation facility and is sited in an area designated for harbor use. The project has been designed to minimize impact to wildlife transit and would not block, alter or negatively impact existing or traditional marine navigation routes.</p>
<p><b>11 AAC 112.300. Habitats</b></p> <p>The Habitat Standard requires that habitats in the coastal area be managed so as to avoid, minimize, or mitigate significant adverse impacts to habitat.</p> <p><b>Evaluation:</b> The Aleutians East Borough Coastal Management Program as identified the project area as important habitat because of the presence of eelgrass. The applicant proposes to use Best Management Practices to avoid equipment leaks or spills and minimize impact to known important habitat in the project area. The applicant further proposes to store all pressure treated lumber (if not directly installed into the water) prior to installation in the float system stacked and bunked such that it is not in direct contact with the ground, and would cover and secure the lumber to prevent contact with precipitation.</p>
<p><b>11 AAC 112.310. Air, land, and water quality.</b></p> <p><b>Evaluation:</b> Notwithstanding any other provision of this chapter, the statutes and regulations of the Department of Environmental Conservation with respect to the protection of air, land, and water quality identified in AS 46.40.040(b) are incorporated into the program and, as administered by that department, constitute the exclusive components of the program with respect to those purposes. (Eff. 7/1/2004, Register 170)</p>
<p><b>11 AAC 112.320. Historic, prehistoric, and archeological resources.</b></p> <p><b>Evaluation:</b> Comments from the district and the State did not identify the proposed project location as an area which is important to the study, understanding, or illustration of national, state, or local history or prehistory. The applicant has been advised to contact DNR/SHPO and the U.S. Army Corps of Engineers and the Alaska State Troopers should a site of cultural or historical significance be suspected or revealed and to stop any work that would disturb any resources.</p>
<p><b>AFFECTED COASTAL RESOURCE DISTRICT ENFORCEABLE POLICIES</b></p>
<p><b>Aleutians East Borough (AEB) Coastal District</b></p>
<p><b>A1 Priority Use</b></p> <p><b>Evaluation:</b> The project design and construction will be timed to avoid impact to migrating or spawning fish in the area.</p>
<p><b>A2 Habitat Alteration</b></p> <p><b>Evaluation:</b> The floating dock system has been designed to minimize impact to saltwater</p>

wetlands habitat.
<b>A3 Mitigation</b>
<b>Evaluation:</b> The project would not have significant impact to offshore or wetland habitat. Access to subsistence, personal and recreational use would be enhanced by the proposed project.
<b>A5 Maintenance of Fish Passage and Stream Characteristics</b>
<b>Evaluation:</b> No streams are located within the project area. The proposed project design, siting would be conducted so as not to alter fish passage in the project area.
<b>A8 Seabird Colonies and Marine Mammal Haul-outs</b>
<b>Evaluation:</b> No known seabird colonies or marine mammal haul-outs are located within the project area.
<b>A9 Gray Whale Migration and Feeding</b>
<b>Evaluation:</b> The AEB has not identified the proposed project location as an area where activities would interfere with Gray Whale migration and feeding.
<b>B. Air and Water Quality Standards</b>
<b>Evaluation:</b> N/A
<b>C1 Geophysical Hazards</b>
<b>Evaluation:</b> The proposed floating system is located within a harbor constructed by the Corps of Engineers. The applicant has taken appropriate measures in the siting, design, construction, and operation of the proposed activity to protect public safety, services, and the environment from potential damage caused by known natural hazards.
<b>C2 Erosion</b>
<b>Evaluation:</b> The proposed project is designed to avoid coastal erosion by using a pile supported access trestle.
<b>C3 Coastal Seiche/Tsunami Flooding</b>
<b>Evaluation:</b> The project is designed to allow the timber floats and slips to float above the highest recorded water levels for the area.
<b>C6 Seismic Hazards</b>
<b>Evaluation:</b> See item C1, above.
<b>D1 Consolidation and Subsequent Use</b>
<b>Evaluation:</b> The proposed project has been designed to be adaptable to foreseen uses in the future.
<b>D4 Commercial Fishing</b>
<b>Evaluation:</b> The proposed project and activity are intended to support commercial fishing activities and operations.
<b>D5 Navigational Obstruction</b>
<b>Evaluation:</b> The project is located within a designated harbor area constructed by the Corps of Engineers and designed to comply with industry standards for navigation.
<b>D7 Floating Facilities</b>
<b>Evaluation:</b> The applicant has taken measures in the project design and siting to comply with this standard and proposes to use Best Management Practice to minimize impact to surrounding habitat.
<b>D9 Coordination</b>
<b>Evaluation:</b> AEB is the applicant. The AEB Coastal Management Program has provided comments and found the proposed project and activity consistent with the program's enforceable

policies.

**H1 Transportation and Utility Corridors**

**Evaluation:** Future installation of a potable water and utility system associated with this project will be coordinated with the Alaska Department of Environmental Conservation (DEC) and is not subject to this consistency review.

**H2 Minimize Impacts**

**Evaluation:** The project has been designed to minimize impact to wildlife transit and would not block, alter or negatively impact existing or traditional marine navigation routes.

**H3 Land Use Area Designation**

**Evaluation:** The proposed project is located within an area designated for harbor use on city owned land. The AEB is the applicant and has found the proposed activity consistent with AEB CMP enforceable policies.

**I1 Access to Resources**

**Evaluation:** The proposed project and activity is designed to minimize impact to access to shore based subsistence activities and would enhance access to subsistence fishing activities.

**J1 Coordination**

**Evaluation:** The applicant held a public hearing January 24, 2006 and has coordinated with state, federal and local agencies during the permitting process.

**J2 Protection of Recreation Values**

**Evaluation:** The proposed project is intended to enhance access to recreational activities and has been designed to minimize impacts to land based recreational activities.

**K1 Coordination**

**Evaluation:** The applicant has coordinated with the AEB Assembly, Isanotski Corporation and City of False Pass regarding coastal access to the project area.

**L1 Resource Protection**

**Evaluation:** Comments from the district and the State did not identify the proposed project location as an area known to be important to the study, understanding, or illustration of national, state, or local history or prehistory. The applicant has been advised to contact DNR/SHPO and the U.S. Army Corps of Engineers and the Alaska State Troopers should a site of cultural or historical significance be suspected or revealed and to stop any work that would disturb any resources.

# TAB 7

---

## Drawings

False Pass Boat Harbor Float System  
Conceptual Plans (13 Sheets)

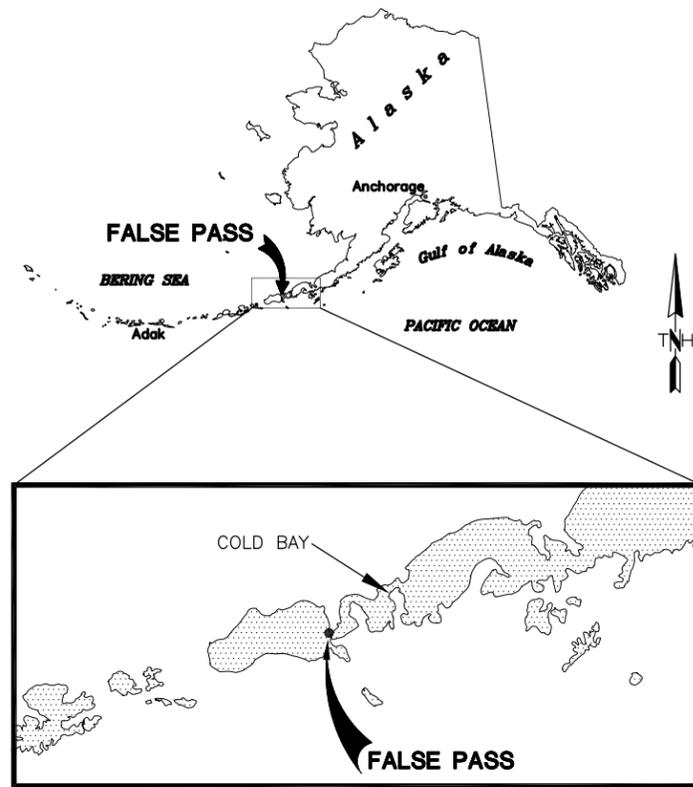
# FALSE PASS HARBOR DESIGN-BUILD

**FNZ**  
ENGINEERING/SURVEYING  
& LANDSCAPE ARCHITECTURE  
TRYCK NYMAN HAYES, INC.  
911 W. 8TH AVENUE, SUITE 300  
ANCHORAGE, AK 99501  
TEL: (907) 278-0543 • FAX: (907) 278-7879

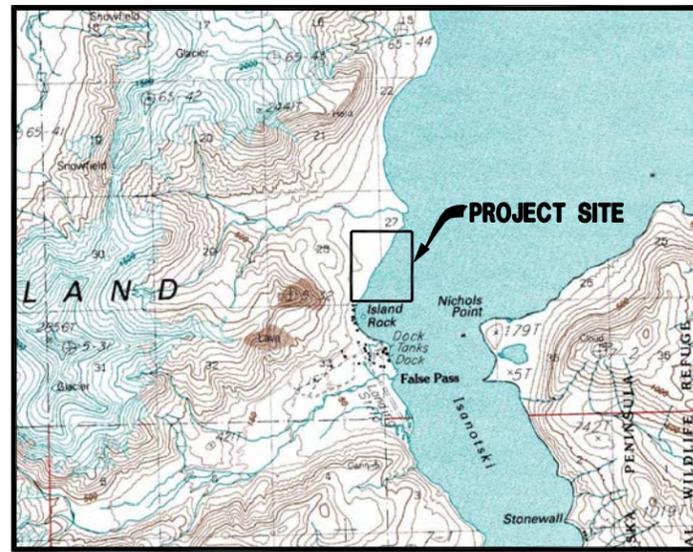
NOTES / REVISIONS:

ALEUTIANS EAST BOROUGH  
EDA PROJECT NO. 07-79-06433  
**FALSE PASS BOAT HARBOR FLOAT SYSTEM**  
FALSE PASS, ALASKA  
LOCATION, VICINITY, AND SITE MAPS

PROJECT NO: 05054.000  
DATE: 02/23/2007  
DESIGNED:  
DRAWN BY: RAC  
CHECKED BY: KN  
CAD DWG FILE:  
01\_G01\_Ttl Sht.dwg  
SHEET:  
**G01**  
PAGE:  
1 OF 13

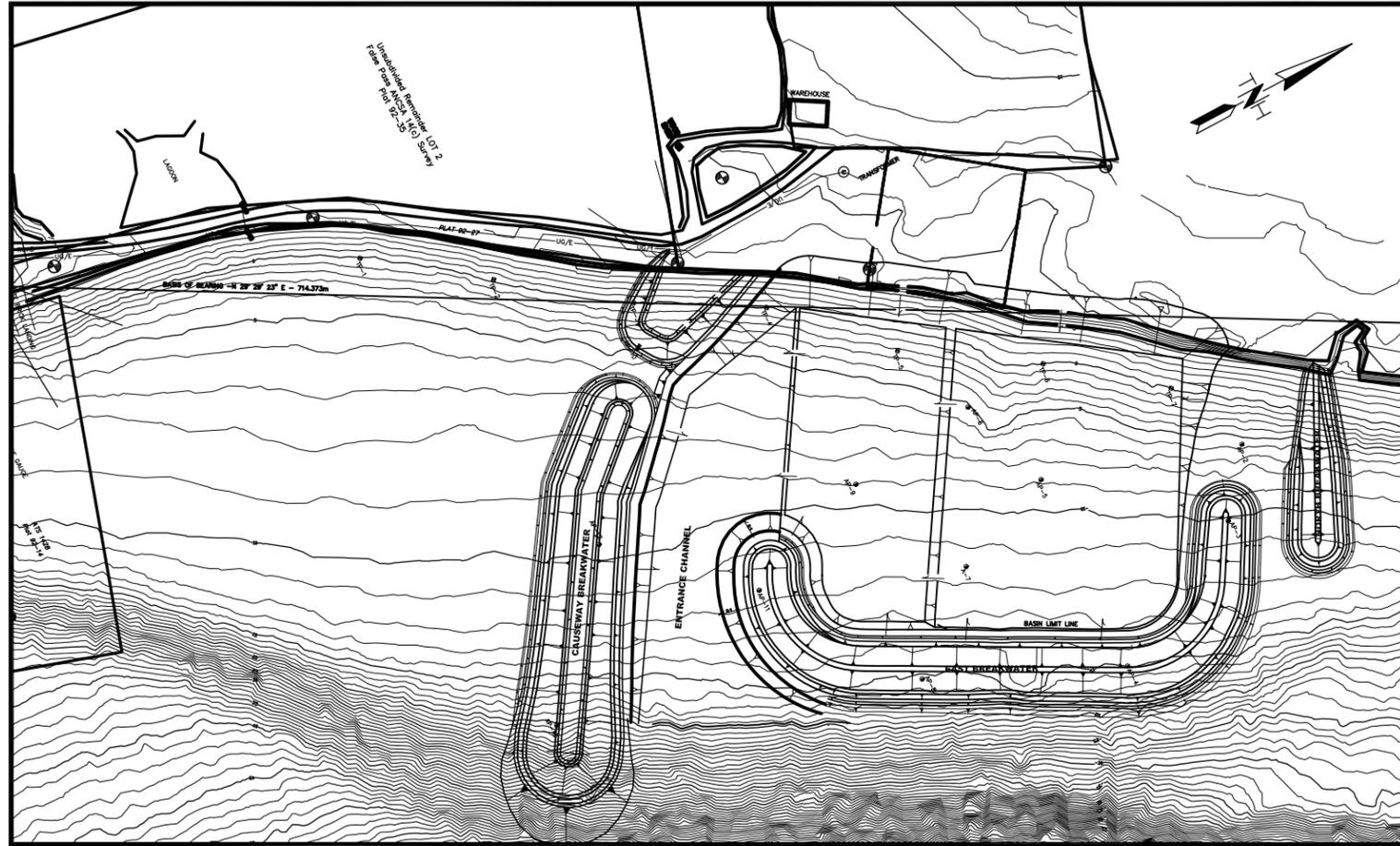


**LOCATION MAP**  
SCALE: NOT TO SCALE



APPROXIMATE LATITUDE & LONGITUDE: 54°51'N, 163°24'W  
USGS FALSE PASS (D-5), ALASKA

**VICINITY MAP**  
SCALE: NOT TO SCALE



**SITE MAP  
FALSE PASS HARBOR**  
SCALE: 1" = 5,000'

100% DRAFT - NOT FOR CONSTRUCTION

DRAWING PATH: W:\05054.000 - False Pass Boat Harbor\Design\Working Drawings\False Pass - Design Build.dwg  
PLOTTED: 6/12/2007 12:31 PM

**GENERAL NOTES**

**SCOPE OF WORK**

FURNISHING ALL MATERIALS, LABOR AND EQUIPMENT NECESSARY TO DESIGN, FABRICATE, & SUPPLY APPROXIMATELY 8,900 SQ. FT. OF NEW TIMBER FLOATS FOR THE NEW FALSE PASS BOAT HARBOR. THIS PROJECT INCLUDES COMPLETED FLOAT SYSTEM INCLUDING FLOATS, PILE SIZE AND LAYOUTS, CORNER PROTECTION, PILE COLLARS, UTILITY TRAYS, TRANSITION PLATES, CLEATS, BULLRAILS, UTILITY VAULTS AND OTHER FEATURES SHOWN HEREIN. THE POTABLE WATER SYSTEM, FIRE PROTECTION SYSTEM AND ELECTRICAL SYSTEM WILL BE FURNISHED AND INSTALLED AT A LATER DATE UNDER A SEPARATE CONTRACT. DETAILS FOR THESE SYSTEMS ARE SHOWN IN THE PLANS FOR INFORMATION ONLY SO THAT APPROPRIATE PROVISIONS ARE INCLUDED IN THE FLOATS TO ACCOMMODATE THEM IN THE FUTURE. THE SELECTED DESIGN-BUILD CONTRACTOR WILL INSTALL THE FLOATS IN FALSE PASS HARBOR BY NOVEMBER 30, 2007.

**FLOAT DESIGN CRITERIA**

FREEBOARD ON FLOATS SHALL BE 20" ± 1".  
 NO STRUCTURAL TIMBER SHALL BE LOCATED BELOW THE WATERLINE.  
 FLOAT LIVE LOAD (LL) - 30 PSF UNIFORM.  
 WIND LOAD - 100 MPH, EXPOSURE D, FASTEST MILE ON MOORED VESSELS.  
 DESIGN WAVE - 2.0 FT HIGH W/ VARYING WAVE LENGTHS OF 1 TO 3 SEC PERIODS.  
 DESIGN CURRENT - 2 KTS IN ANY DIRECTION.  
 GANGWAY LOAD ON FLOAT - ACTUAL DEAD LOAD PLUS LIVE LOAD REACTION. FLOAT LAYOUT SHALL BE IN ACCORDANCE WITH ASCE "PLANNING AND DESIGN GUIDELINES FOR SMALL CRAFT HARBORS".  
 GANGWAY DESIGN CRITERIA NOTES ARE ON SHEET S06.  
 TRESTLE DESIGN CRITERIA NOTES ARE ON SHEET S07.

**FLOAT GENERAL NOTES**

TIMBER FLOATS SHALL BE SHOP FABRICATED IN NOMINAL MODULE LENGTHS. TIMBER MATERIALS SHALL BE OF THE HIGHEST QUALITY CONFORMING TO THE MINIMUM GRADING AND STRENGTH REQUIREMENTS LISTED BELOW. TIMBER MEMBERS WITH EXCESSIVE SPLITS, WARPING AND OTHERWISE NOTICEABLE DEFECTS WILL NOT BE PERMITTED FOR USE. FLOATS SHALL BE CONSTRUCTED WITH LEVEL AND FLUSH SURFACES CONFORMING TO THE NOMINAL DIMENSIONS INDICATED ON THE PLANS. THE FLOATS SHALL BE PROPERLY SUPPORTED AND PROTECTED FROM DAMAGE DURING LIFTING, SHIPPING AND STORAGE. PROVIDE LEVELING FLOTATION BILLETS FOR IN FIELD LEVELING OF GANGWAY FLOAT.

**PILING**

CONTRACTOR SHALL FURNISH AND INSTALL PILING ASSOCIATED WITH CONSTRUCTING THE TRESTLE AND INSTALLING THE FLOATS. THE CONTRACTOR SHALL SUBMIT DESIGN OF PILE SYSTEM INCLUDING LAYOUT, LATERAL LOAD ANALYSIS, SPLICE AND CAP DETAILS AS REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING PILES OF SUFFICIENT LENGTH AND SUITABLE PILE DRIVING EQUIPMENT TO OBTAIN THE REQUIRED PENETRATION AND CAPACITY NECESSARY TO MEET ALL APPLICABLE CODES AND STANDARDS AS SPECIFIED. A WAVE EQUATION ANALYSIS WILL BE REQUIRED FOR TRESTLE PILING.

PILES WILL BE NEW ASTM A252 Gr. 3 GALVANIZED PILING OF THE MINIMUM DIMENSIONS INDICATED. DRIVING SHOES FOR THE NEW TRESTLE. NO EXTERIOR PILES WILL BE ALLOWED ON "A" FLOAT, "B" FLOAT, OR HARBOR/SEAWARD SIDE OF THE MARGINAL FLOAT.

**ANODES**

ANODES SHALL BE GALVALUM 3 OR EQUAL AND SHALL BE ATTACHED TO EACH PILE THAT IS SUBJECTED TO SEAWATER IMMERSION AS FOLLOWS: PROVIDE ONE (1) 100 LB. ANODE PER 12"Ø PILE AND ONE (1) 130 LB. ANODE PER 16"Ø PILE WELDED TO PILES AS INDICATED ON THE PLANS.

**GANGWAY**

A 6x60 ALUMINUM GANGWAY SHALL BE FURNISHED AND INSTALLED AS PART OF THIS CONTRACT. THE NOTE SPECIFICATIONS FOR THIS GANGWAY ARE INCLUDED ON THE GANGWAY DRAWING IN THIS PLAN SET.

**STRUCTURAL STEEL**

STRUCTURAL STEEL SHAPES AND PLATES - ASTM A 36. ALL STEEL PLATES AND SHAPES SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.

**GALVANIZED COATINGS**

ALL STEEL MEMBERS INCLUDING PILE COLLARS, CONNECTION PLATES, HINGES AND CONNECTION HARDWARE SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A 123 AND ASTM A 153. ITEMS REQUIRING FABRICATION SHALL BE GALVANIZED AFTER FABRICATION. DAMAGED AREAS OF COATING AND AREAS GROUND FREE OF COATING FOR WELDING WILL BE REPAIRED WITH SPRAY METALIZING IN ACCORDANCE WITH ASTM A 780.

**WELDING**

WELDERS SHALL BE QUALIFIED AS SPECIFIED IN AWS FOR THE PARTICULAR PROCESS AND PROCEDURE THAT THE WELDER WILL PERFORM. PROCEDURE QUALIFICATION TEST RECORDS FOR THE MATERIAL AND PROCEDURE PERFORMED WILL BE REQUIRED IN ACCORDANCE WITH AWS D1.1 SECTION 4.1.3.

**SAWN LUMBER**

DOUGLAS FIR LARCH #1 OR BETTER, PER WCLIB OR WPA GRADING RULES S45 EXCEPT DECKING SHALL BE S1S2E. SAWN PRODUCTS SHALL CONFORM TO AWP A U1-05 COMMODITY SPECIFICATION A.

**GLUE LAMINATED TIMBER**

GLULAM MEMBERS SHALL BE DESIGNED FOR EXTERIOR USE, STRESS CLASS 24F-V4 DF/DF OR BETTER WITH A MINIMUM EXTREME FIBER IN BENDING STRENGTH OF 2,400 PSI IN ACCORDANCE WITH AITC 117-87 SPECIFICATIONS. FOR SIMPLE-SPAN USE, NO CAMBER REQUIRED. INDUSTRIAL APPEARANCE MANUFACTURED W/ ADHESIVES MEETING WET-USE SERVICE REQUIREMENTS, MARKED W/ APA EWS TRADEMARK, AND WRAPPED W/ A WATER RESISTANT COVERING FOR SHIPMENT AND STORAGE. SUBMIT CERTIFICATE OF CONFORMANCE TO ANSI A190.1.

**TIMBER PRESERVATIVE TREATMENT**

ALL TIMBER MATERIALS SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWP A U1-2005 AS FOLLOWS:

SAWN LUMBER, PLYWOOD, AND GLULAM MEMBERS LOCATED ABOVE THE WATERLINE (I.E., FLOAT AND TRESTLE FRAMING AND DECKING, TRESTLE BULLRAILS), SHALL BE TREATED WITH ACZA TO NOT LESS THAN 0.6 PCF NET DRY SALT RETENTION PER AWP A-U1 USE CLASS 4B, (SALT SPLASH ZONE).

SAWN LUMBER AND GLULAM MEMBERS LOCATED BELOW THE WATERLINE, SUCH AS ANY SUBMERGED OR PARTIALLY SUBMERGED FLOAT FRAMING, SHALL BE TREATED WITH CREOSOTE TO 25 PCF MIN. RETENTION PER AWP A-U1 USE CLASS 5A, (MARINE USE).

TRESTLE BACKWALL AND ANY GLULAM MEMBERS IN CONTACT WITH THE GROUND SHALL BE TREATED WITH CREOSOTE TO 12 PCF RETENTION PER AWP A-U1 USE CLASS 4C (GROUND CONTACT).

TIMBER MEMBERS SHALL BE CUT TO LENGTH, DRILLED AND DAPPED PRIOR TO PRESSURE TREATING. ALL FIELD CUTS, NICKS ABRASIONS AND HOLES SHALL BE SATURATED WITH CREOSOTE OIL OR COPPER NAPHTHENATE SOLUTION AS APPLICABLE.

CONFORM TO AWP A STANDARD M4 AND HAVE A COPY OF M4 AT THE PROJECT SITE. FOLLOW WWPI BEST MANAGEMENT PRACTICE. ACCREDITED ALS C 3RD PARTY INSPECTION AGENCY SHALL APPLY THEIR QUALITY MARK TO EACH PIECE.

**FASTENERS AND CONNECTION HARDWARE**

ALL TIMBER CONNECTION BOLTS SHALL BE ASTM A 307 GRADE C MIN. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A 153. ALL BOLTS IN CONTACT WITH WOOD MEMBERS SHALL HAVE ECONOMY HEADS AND/OR MALLEABLE IRON WASHERS UNLESS OTHERWISE NOTED. COUNTER BORE ALL BOLT HEADS FACING DECKING BY 3/8". HINGE CONNECTION BOLTS SHALL BE ASTM A 325.

NAILS SHALL BE COMMON OR BOX NAILS OF THE NOMINAL SIZE AND TYPE INDICATED ON THE PLANS. NAILS SHALL BE HOT DIP GALVANIZED. PILOT HOLES SHALL BE PREDRILLED AT ALL LOCATIONS WHERE EDGE OR END SPLITTING COULD OCCUR.

**FLOTATION**

FLOTATION SHALL BE CONSTRUCTED FROM CLOSED CELL EXPANDED POLYSTYRENE AS PER ASTM D-1621, HAVING A MINIMUM DENSITY OF 1.3 PCF. POLYSTYRENE MATERIALS SHALL HAVE A MAXIMUM WATER ABSORPTION OF 4 % BY VOLUME IN ACCORDANCE WITH ASTM C-272. THE FLOTATION SHALL BE ENCLOSED IN A RIGID POLYETHYLENE SHELL OR POLYETHYLENE SPRAY COATING TO 60 MIL. MIN. THICKNESS.

**TIE-DOWN RAILS**

PROVIDE 6"x6" GALVANIZED STEEL SQUARE TUBE TIE-DOWN RAILS ON FLOATS AS INDICATED IN DRAWINGS.

**UTILITIES**

PROVIDE UTILITY TRAYS AND CHASEWAYS, REMOVABLE DECK BOARDS, SUFFICIENT FLOTATION SEPARATION AND CLEARANCE, AND OTHER PROVISIONS FOR FUTURE UTILITIES INSTALLATION AS ILLUSTRATED IN THESE PLANS. ELECTRIC CHASE: ASSUME MIN. BENDING RADIUS FOR CABLES = 18". ELECTRICAL CABLE WEIGHT AVERAGES 3,878 LBS. PER 1,000 FEET, ASSUME 6 CABLES. RUNNING DOWN THE GANGWAY AND SPLITTING, 3 EACH TO "A" FLOAT PANEL AND "B" FLOAT PANEL. ALLOW 36" WORKING CLEARANCE IN FUTURE PEDESTAL LOCATIONS AND LOCATE OTHER ITEMS SUCH AS LIFE RINGS AND FIRE EXTINGUISHERS ACCORDINGLY. ASSUME TRANSFORMER WEIGHT OF 3,600 LBS EACH AND ELECTRICAL PANEL WEIGHT OF 900 LBS EACH. ASSUME 16 CABLES OF THE SAME WEIGHT RUNNING DOWN FLOATS "A" AND "B".

**DRAWING SCALES**

DRAWING SCALES ARE PROVIDED ON SOME DRAWING FOR CONVENIENCE, SCALES SHOWN ARE FOR FULL SIZED DRAWINGS, REDUCED SCALED DRAWINGS SHALL BE INTERPRETED ACCORDINGLY. DIMENSIONS AND NOTES SHALL TAKE PRECEDENCE OVER SCALES.

SCHEDULE OF DRAWINGS		
GENERAL		
REF. NO.	SHEET NO.	SHEET TITLE
G01	1 OF 13	LOCATION & VICINITY MAPS
G02	2 OF 13	GENERAL NOTES & SCHEDULE OF DRAWINGS
G03	3 OF 13	SURVEY CONTROL PLAN
G04	4 OF 13	DESIGN VESSEL MIX
STRUCTURAL		
S01	5 OF 13	HARBOR FLOAT LAYOUT
S02	6 OF 13	FLOAT UTILITY CHASE AND SAFETY EQUIPMENT PLAN
S03	7 OF 13	TYPICAL FLOAT CROSS SECTIONS AND DETAILS
S04	8 OF 13	GANGWAY FLOAT LAYOUT AND MISC. DETAILS
S05	9 OF 13	GANGWAY
S06	10 OF 13	TRESTLE
CIVIL		
C01	11 OF 13	WATER SERVICE DETAILS (NIC)
C02	12 OF 13	TYPICAL SAFETY EQUIPMENT DETAILS
ELECTRICAL		
E01	13 OF 13	ELECTRICAL CHASE PLAN

**ABBREVIATIONS / SYMBOLS**

Ø	= DIAMETER	MFR	= MANUFACTURER
B/W	= BETWEEN	MHW	= MEAN HIGH WATER
EA	= EACH	MIN	= MINIMUM
ECON	= ECONOMY	MHHW	= MEAN HIGHER HIGH WATER
CL	= CENTERLINE	MLLW	= MEAN LOWER LOW WATER
CAP	= CAPACITY	MTL	= MEAN TIDE LINE
CLR	= CLEARANCE	N.I.C.	= NOT IN CONTRACT
DET	= DETAIL	NO.	= NUMBER
DIA	= DIAMETER	NPT	= NATIONAL PIPE THREAD
EA	= EACH	N.T.S.	= NOT TO SCALE
ELECT	= ELECTRIC	O.C.	= ON CENTER
EL	= ELEVATION	PE	= POLYETHYLENE
ELEV	= ELEVATION	PSF	= POUNDS PER SQUARE FOOT
ESMT	= EASEMENT	PVC	= POLYVINYL CHLORIDE
EXT	= EXTERIOR	PL	= PLATE
FLEX	= FLEXIBLE	REQ'D	= REQUIRED
FRP	= FIBERGLASS REINFORCED PLASTIC	SCH.	= SCHEDULE
FT(')	= FEET	SDR	= STANDARD DIMENSION RATIO
GALV	= GALVANIZED	SQ.	= SQUARE
HD	= HEAD	S.S.	= STAINLESS STEEL
HDPE	= HIGH DENSITY POLYETHYLENE	TYP.	= TYPICAL
IN(")	= INCHES	UHMW	= ULTRA HIGH MOLECULAR WEIGHT
INT	= INTERIOR	UV	= ULTRAVIOLET
LBS	= POUNDS	W/	= WITH
MAX	= MAXIMUM		

PAGE DETAIL REFERENCED  PAGE DETAIL DRAWN

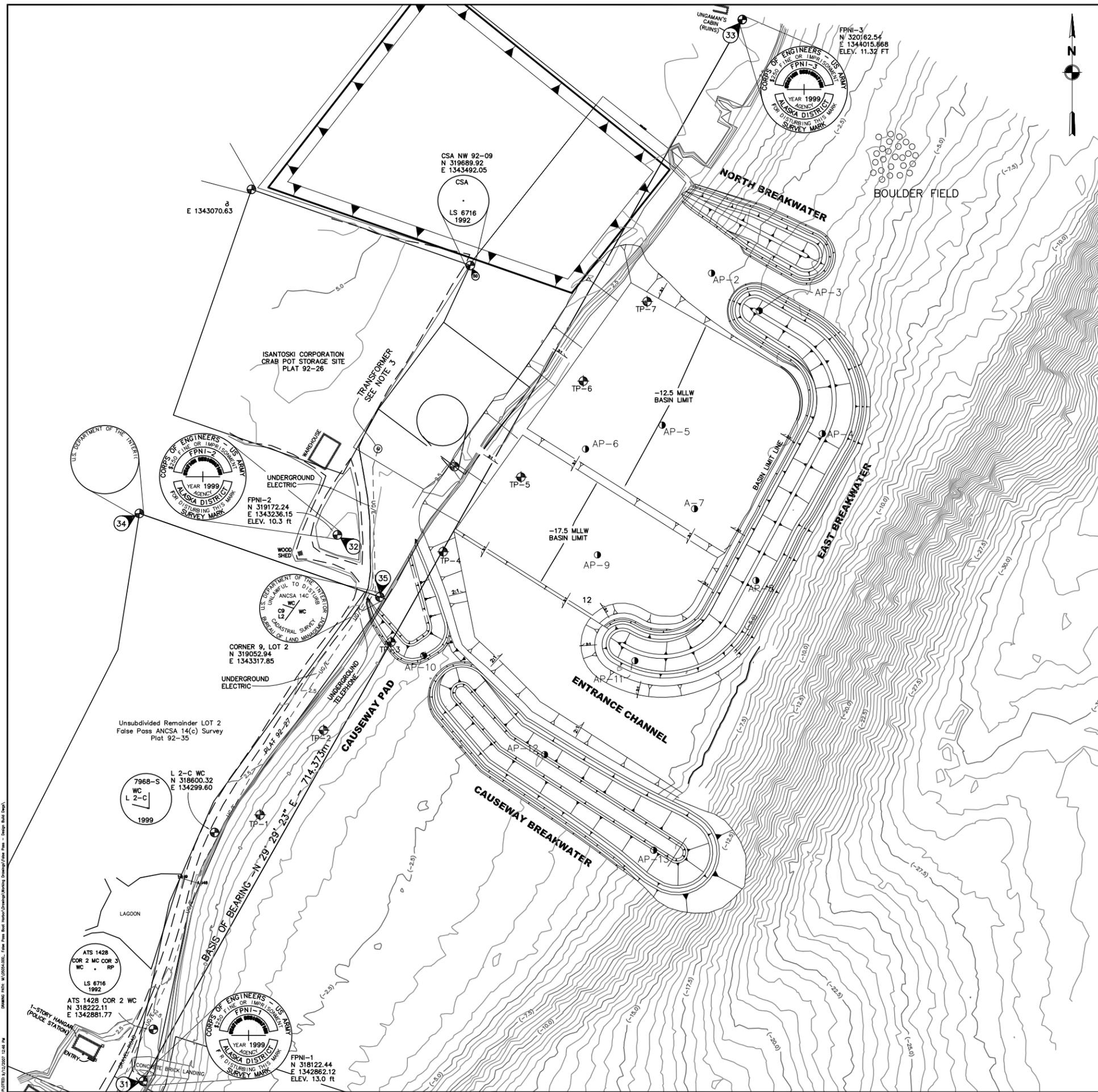
100% DRAFT - NOT FOR CONSTRUCTION



NOTES / REVISIONS:

ALEUTIANS EAST BOROUGH  
 EDA PROJECT NO. 07-79-06433  
**FALSE PASS BOAT HARBOR FLOAT SYSTEM**  
 FALSE PASS, ALASKA  
 GENERAL NOTES AND SCHEDULE OF DRAWINGS

PROJECT NO:	05054.000
DATE:	02/23/2007
DESIGNED:	
DRAWN BY:	RAC
CHECKED BY:	KN
CAD DWG FILE:	02_G02_GEN_NOTES.dwg
SHEET:	<b>G02</b>
PAGE:	2 OF 13



**PRIMARY SURVEY CONTROL POINTS**

POINT	NORTHING	EASTING	Elevation (Ft)
31	318122.44	1342862.12	13.0
32	319172.24	1343236.15	10.3
33	320162.54	1344015.87	11.3

**SURVEY CONTROL**

**HORIZONTAL CONTROL** - ALASKA STATE PLANE ZONE 7, NAD83 (1997) IN METERS. THE BASIS OF COORDINATES IS A CONTINUOUSLY OPERATING REFERENCE STATION (CORS) "BAY 1" LOCATED AT COLD BAY, ALASKA HAVING A VALUE OF N 132,711.398 AND E 454,966.582. COORDINATES AND BEARINGS WERE DERIVED FROM GPS OBSERVATIONS AT THE PROJECT DURING THE PERIOD OF AUGUST 25 THROUGH 31, 1999.

**VERTICAL CONTROL** - USC&GS MLLW ELEVATIONS ARE MLLW IN FEET. THE BASIS OF ELEVATIONS IS USC&GS TIDAL BENCH MARK "1 1923", HAVING A VALUE OF 6.992 FEET ABOVE MEAN LOWER LOW WATER.

THE PROJECT COMBINED SCALE FACTOR IS 0.99999747.

**HYDROGRAPHIC SURVEY** WAS CONDUCTED AUGUST 24 TO SEPTEMBER 1, 1999 BY TSL ALASKA, INC. OF SIDNEY B.C. SOUNDING DATA WERE OBTAINED BY TSL ALASKA, INC. WITH AN ISD 448 DIGITAL DEPTH SOUNDER WITH A 200KHZ NARROW BEAM (2.75 DEG) TRANSDUCER. ALL SOUNDINGS WERE ADJUSTED USING A BAR CHECKING DEVICE. DIGITAL SOUNDING FILES WERE REVIEWED USING THE ANALOG PAPER CHART RECORD. DEPTHS WERE ADJUSTED FOR TIDE READINGS COLLECTED WITH A DIGITAL TIDE GAUGE ON FIVE MINUTE INTERVALS. POSITIONING DATA FOR SOUNDINGS WERE OBTAINED ONCE PER SECOND USING ASHTECH GPS RECEIVERS IN REAL TIME DIFFERENTIAL MODE.

UPLANDS WERE SURVEYED USING LIECA GPS RECEIVERS IN STATIC MODE FOR CONTROL AND A TOP CON TOTAL STATION TO COLLECT TOPOGRAPHIC INFORMATION. DEFERENTIAL LEVELS WERE USED FOR VERTICAL CONTROL.

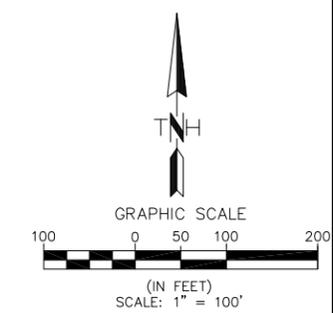
TIDAL INFORMATION	
NOAA UNALASKA STA.# 2285	
HIGHEST OBSERVED WATER LEVEL	6.7'
HIGH TIDE LEVEL (H.T.L.)	(4.7') NP
MEAN HIGHER HIGH WATER (M.H.H.W.)	3.6'
MEAN HIGH WATER (M.H.W.)	3.3'
MEAN TIDE LINE (M.T.L.)	2.1'
MEAN LOWER LOW WATER (M.L.L.W.)	0.0'
LOWEST OBSERVED WATER LEVEL	-2.5'

NP = NOT PUBLISHED (ESTIMATED)

- LEGEND**
- SURVEY MONUMENT
  - AP-1 TEST BORING
  - TP-1 TEST PIT (APPROX.)
  - BUILDING
  - UNDERGROUND ELECTRIC
  - UNDERGROUND TELEPHONE

**GENERAL NOTES**

- EXISTING GROUND CONTOURS BASED ON 1999 DOWL ENGINEERS HYDROGRAPHIC SURVEY.
- TEST BORINGS WERE DRILLED BY THE ALASKA DISTRICT CORPS OF ENGINEERS IN SEPTEMBER 2001. INVESTIGATION REPORT AND BORING LOGS INCLUDED IN THE SUPPLEMENTAL INFORMATION INCLUDED WITH WITH THE DESIGN BUILD PACKAGE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD LOCATING EXISTING UTILITIES IN THE PROJECT AREA. THE CONTRACTOR SHALL TAKE ALL PROPER PRECAUTIONS TO AVOID DISTURBANCE OF SUCH UTILITIES AND SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE TO SUCH UTILITIES DURING CONSTRUCTION. KNOWN UTILITIES INCLUDE UNDERGROUND ELECTRIC AND TELEPHONES LINES SHOWN ON THE DRAWINGS AND A TRANSFORMER LOCATED APPROXIMATELY 18.5 METERS TO THE EAST OF THE NE CORNER OF THE BUILDING AT THE POT STORAGE YARD AT GPS COORDINATES N 54 51.980' W 163 24.639' USING GPSMAP 196 BY GARMIN, AND MAP DATUM WGS84.
- IF, DURING THE PERFORMANCE OF WORK THE CONTRACTOR REMOVES OR DESTROYS ANY PREVIOUSLY SET SURVEY MONUMENTS HE SHALL REPLACE THOSE MONUMENTS AT HIS EXPENSE.
- SURVEY CONTROL AND HARBOR BREAKWATER LIMITS AS PROVIDED BY US ARMY CORPS OF ENGINEERS, ALASKA DISTRICT. DESIGN-BUILD CONTRACTOR SHALL VERIFY BASIN LIMITS IN FIELD PRIOR TO FLOAT INSTALLATION.



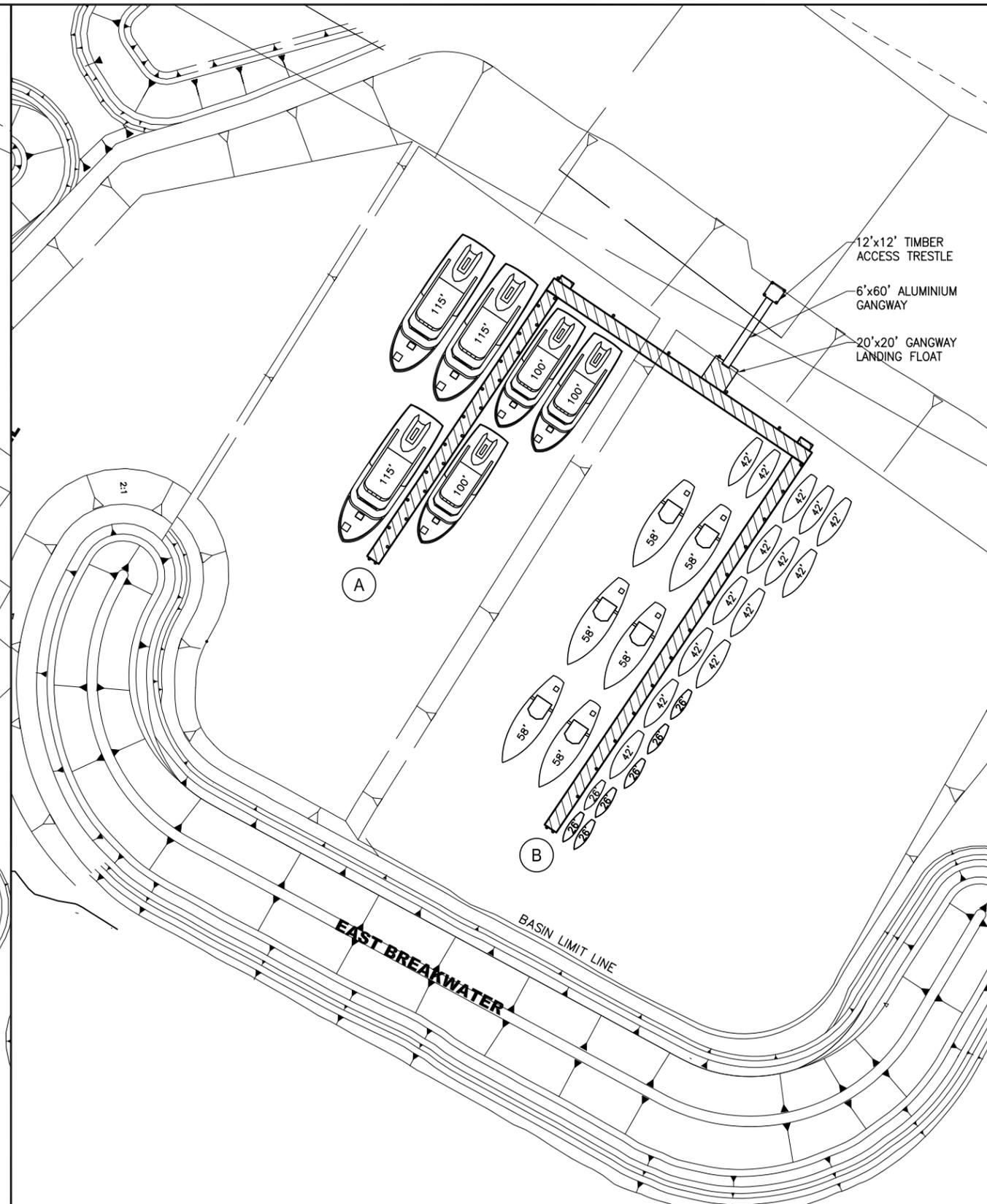
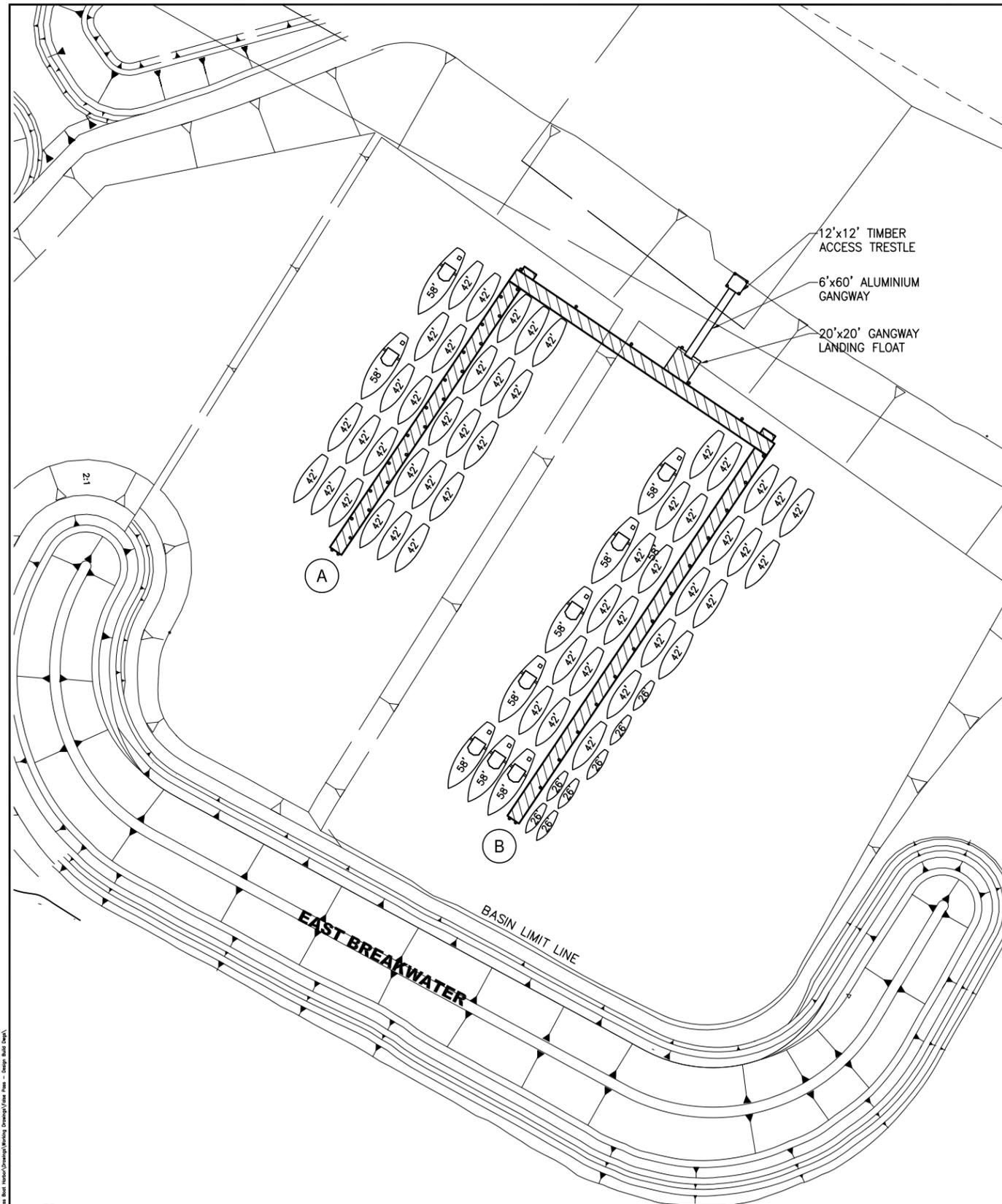
100% DRAFT - NOT FOR CONSTRUCTION

**ENGINEERING/SURVEYING & LANDSCAPE ARCHITECTURE**  
**TRYCK NYMAN HAYES, INC.**  
 911 W. 8TH AVENUE, SUITE 300  
 ANCHORAGE, AK 99501  
 TEL: (907) 278-0543 FAX: (907) 278-7879

NOTES / REVISIONS:

ALUTIANS EAST BOROUGH  
 EDA PROJECT NO. 07-79-06433  
**FALSE PASS BOAT HARBOR FLOAT SYSTEM**  
 FALSE PASS, ALASKA  
 SURVEY CONTROL PLAN

PROJECT NO:	05054.000
DATE:	02/23/2007
DESIGNED BY:	RAC
DRAWN BY:	KN
CAD DWG FILE:	03_G03_SVY CTRL.dwg
SHEET:	<b>G03</b>
PAGE:	3 OF 13

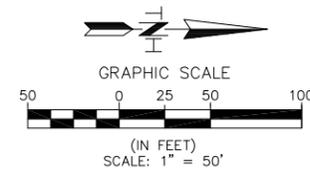


**1 SUMMER VESSEL MIX LAYOUT**  
 G04 G04 SCALE: 1"=50'

**2 WINTER VESSEL MIX LAYOUT**  
 G04 G04 SCALE: 1"=50'

- LEGEND**
- 16" DIA. STEEL PILE
  - ▨ NEW TIMBER FLOAT
  - ◌ 42' VESSEL (LENGTH SHOWN)

- NOTES:**
1. REFER TO DESIGN-BUILD MANUAL FOR TYPICAL DESIGN VESSEL CHARACTERISTICS.



100% DRAFT - NOT FOR CONSTRUCTION

**ENGINEERING/SURVEYING  
 & LANDSCAPE ARCHITECTURE**  
**TRYCK NYMAN HAYES, INC.**  
 911 W. 8TH AVENUE, SUITE 300  
 ANCHORAGE, AK 99501  
 TEL: (907) 278-0543 • FAX: (907) 278-7878

NOTES / REVISIONS:

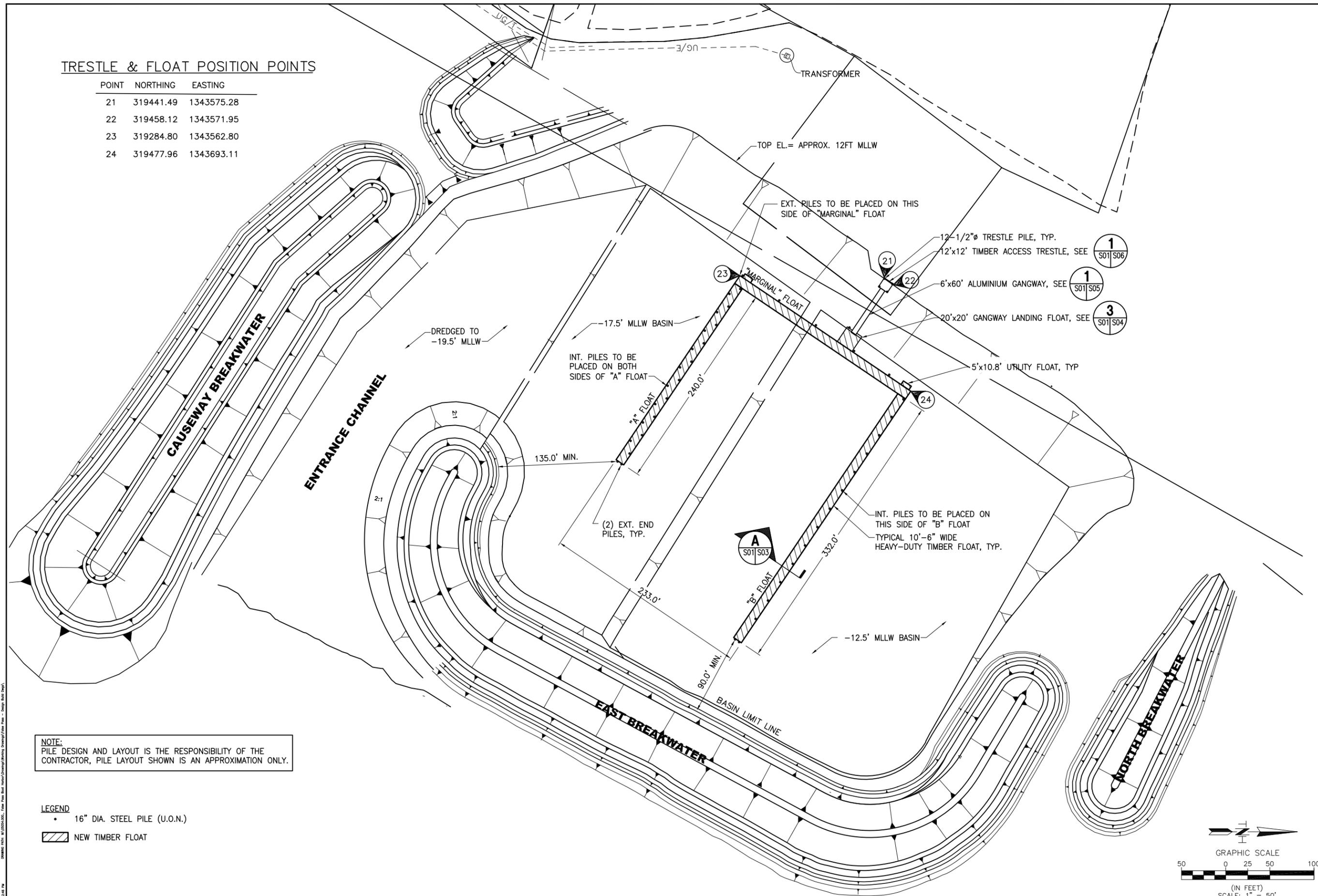
**FALSE PASS BOAT HARBOR FLOAT SYSTEM**  
 ALEUTIANS EAST BOROUGH  
 EDA PROJECT NO. 07-79-06433  
 FALSE PASS, ALASKA  
 DESIGN VESSEL MIX

PROJECT NO:	05054.000
DATE:	02/23/2007
DESIGNED:	
DRAWN BY:	RAC
CHECKED BY:	KN
CAD DWG FILE:	04_G04_VESL MIX.dwg
SHEET:	<b>G04</b>
PAGE:	4 OF 13

DRAWING PATH: W:\05054\000 - False Pass Boat Harbor\Design\Working Drawings\False Pass - Design Build.dwg  
 PLOT DATE: 02/23/2007 12:41 PM

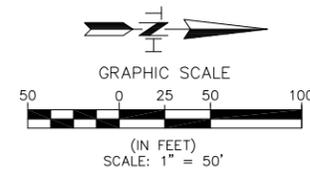
TRESTLE & FLOAT POSITION POINTS

POINT	NORTHING	EASTING
21	319441.49	1343575.28
22	319458.12	1343571.95
23	319284.80	1343562.80
24	319477.96	1343693.11



NOTE:  
PILE DESIGN AND LAYOUT IS THE RESPONSIBILITY OF THE CONTRACTOR, PILE LAYOUT SHOWN IS AN APPROXIMATION ONLY.

- LEGEND
- 16" DIA. STEEL PILE (U.O.N.)
  - ▨ NEW TIMBER FLOAT



100% DRAFT - NOT FOR CONSTRUCTION

ENGINEERING/SURVEYING  
& LANDSCAPE ARCHITECTURE  
TRYCK NYMAN HAYES, INC.  
911 W. 8TH AVENUE, SUITE 300  
ANCHORAGE, AK 99501  
TEL: (907) 278-0643 • FAX: (907) 278-7879

NOTES / REVISIONS:

ALEUTIANS EAST BOROUGH  
EDA PROJECT NO. 07-79-06433

### FALSE PASS BOAT HARBOR FLOAT SYSTEM

FALSE PASS, ALASKA  
HARBOR FLOAT LAYOUT

PROJECT NO:	05054.000
DATE:	02/23/2007
DESIGNED BY:	
DRAWN BY:	RAC
CHECKED BY:	KN
CAD DWG FILE:	05_S01_FALSE PASS PH.Z.d
SHEET:	<b>S01</b>
PAGE:	5 OF 13

DRAWING PATH: W:\05054\000 - False Pass Boat Harbor\Drawing\Working Drawings\False Pass - Design Build\Drawn

NOTES / REVISIONS:

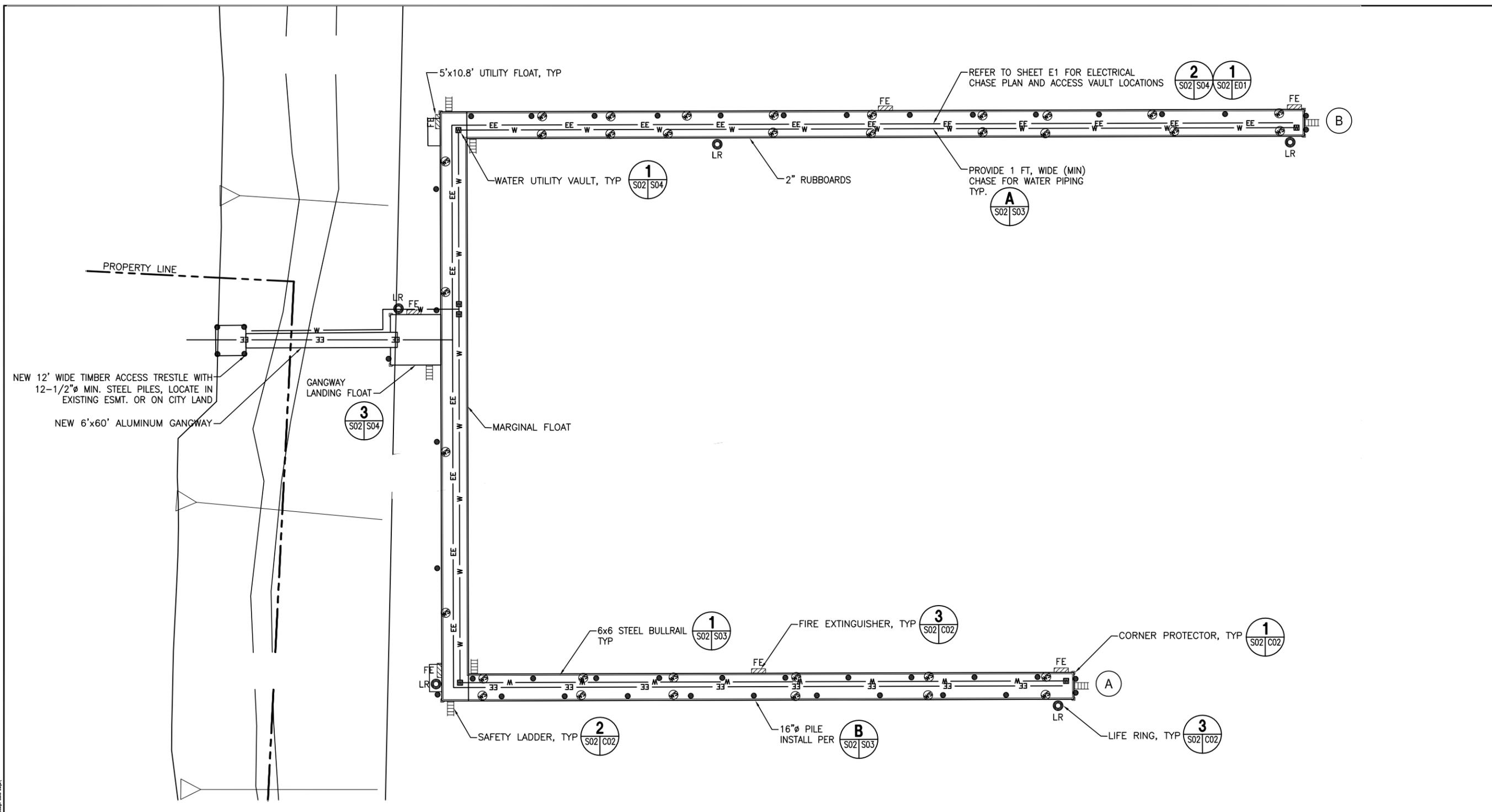
ALEUTIANS EAST BOROUGH  
 EDA PROJECT NO. 07-79-06433

## FALSE PASS BOAT HARBOR FLOT SYSTEM

FALSE PASS, ALASKA

FLOT UTILITY CHASE AND SAFETY EQUIPMENT PLAN

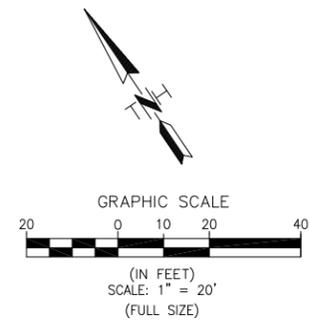
PROJECT NO:	05054.000
DATE:	02/23/2007
DESIGNED BY:	
DRAWN BY:	RAC
CHECKED BY:	KN
CAD DWG FILE:	06_S02_UTIL_pln.dwg
SHEET:	<b>S02</b>
PAGE:	6 OF 13



- NOTES:**
- PILE LAYOUT SHOWN FOR ESTIMATE PURPOSES ONLY, DESIGN/BUILD CONTRACTOR IS RESPONSIBLE FOR PILE DESIGN (SIZING AND LAYOUT).
  - POTABLE WATER, AND ELECTRIC LIGHTING AND POWER UTILITIES SHOWN FOR INFORMATION ONLY. THESE UTILITIES WILL BE INSTALLED BY OTHERS AT A LATER DATE.
  - PROVIDE UTILITY TRAYS, CHASE WAYS, REMOVABLE DECK BOARDS, SUFFICIENT SEPARATION AND CLEARANCE BETWEEN FLOTATION TO ACCOMMODATE FUTURE UTILITY SERVICES AS SHOWN.
  - SEE SHEET E1 FOR FUTURE POWER AND LIGHTING PLAN.

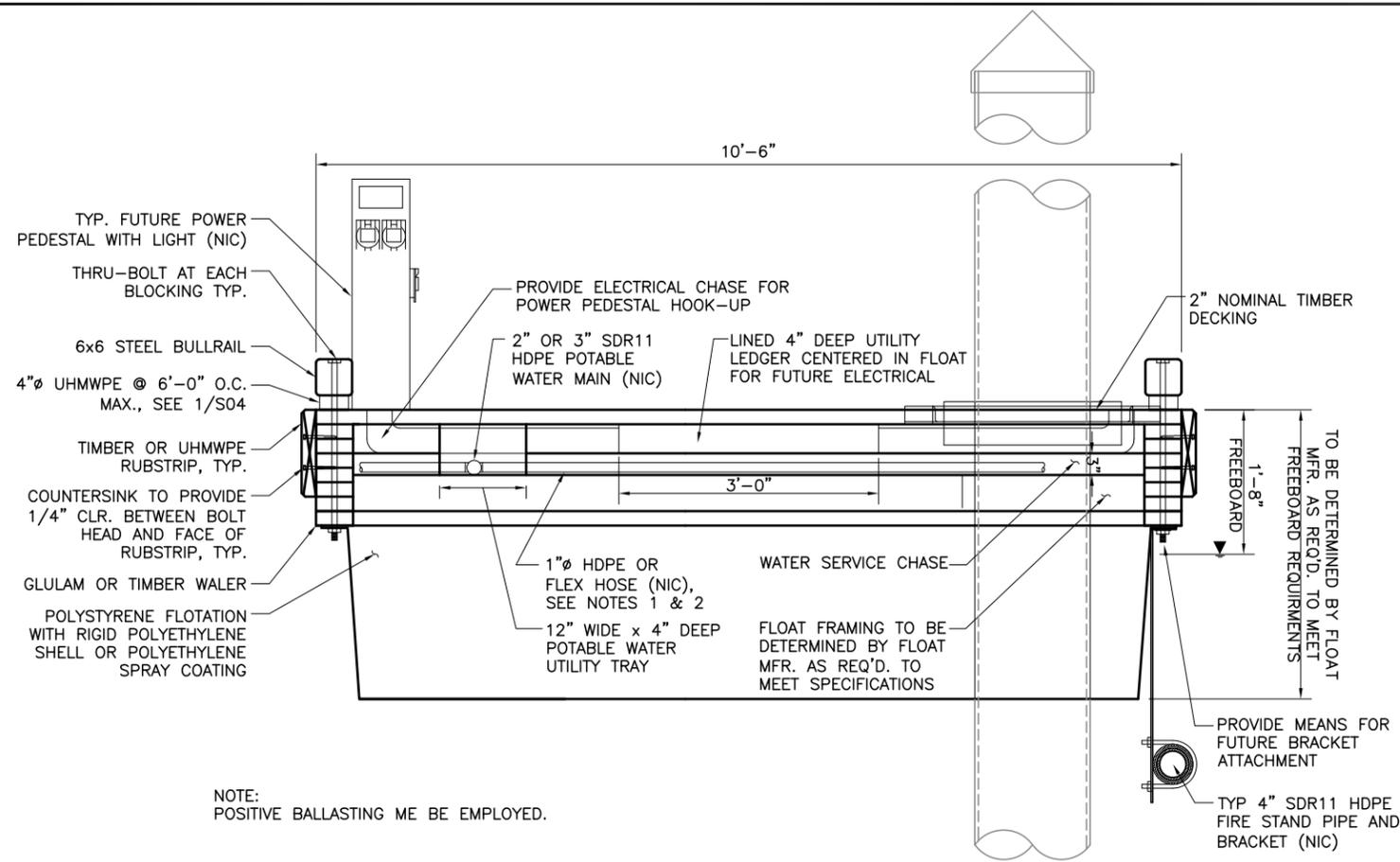
**LEGEND**

FUTURE WATER SERVICE RISER/DOUBLE HOSEBIB CONNECTION	SAFETY LADDER
WATER UTILITY VAULT	STEEL PILE (SEE NOTE 1)
FLOAT CORNER PROTECTOR	FUTURE POTABLE WATER PIPE (NIC, SEE NOTES 2 & 3)
LIFE RING/CABINET	FUTURE ELECTRIC SERVICE (NIC, SEE NOTES 2-4)
FIRE EXTINGUISHER/CABINET	



100% DRAFT - NOT FOR CONSTRUCTION

DWG: 02/23/07 12:47 PM  
 PLOT: 02/23/07 12:47 PM  
 FILE: W:\05054\000\_False Pass Boat Harbor\Design\Working Drawings\Utility Plan - Design Build.dwg

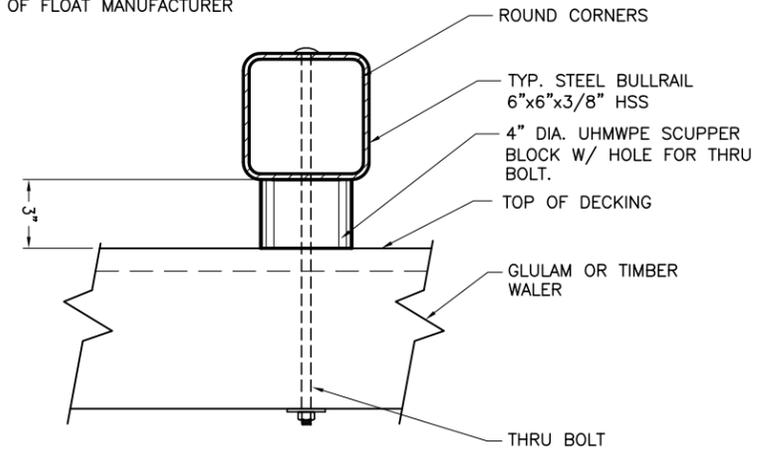


NOTE:  
POSITIVE BALLASTING ME BE EMPLOYED.

**A** TYPICAL 10'-6" WIDE FLOAT CROSS SECTION

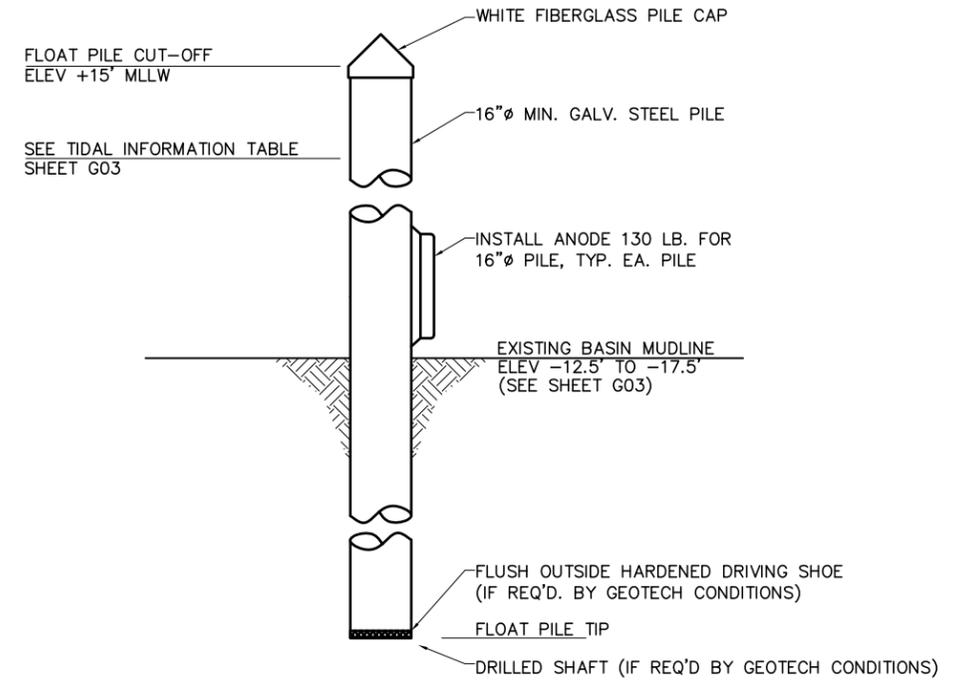
S01/S03  
S02 SCALE: 1"=1'-0"

NOTE:  
ATTACHMENT DESIGN AT OPTION  
OF FLOAT MANUFACTURER



**1** TYPICAL STEEL TIE-DOWN RAIL

S02 S04 S03 SCALE: 3"=1'-0"



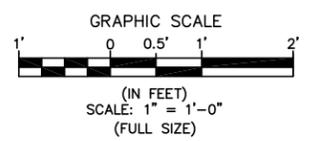
NOTE:  
EMBEDMENT AND TIP ELEVATION TO BE  
DETERMINED BY THE DESIGN/BUILD ENGINEER.

**B** TYPICAL FLOAT PILE INSTALLATION

S02/S03 SCALE: 1/2"=1'-0"

**NOTES:**

- POTABLE WATER, FIRE PROTECTION AND ELECTRIC UTILITIES ARE SHOWN FOR INFORMATION AND PROVISIONING ONLY. UTILITIES WILL BE INSTALLED BY OTHERS IN A SEPARATE CONTRACT AT A LATER DATE.



100% DRAFT - NOT FOR CONSTRUCTION

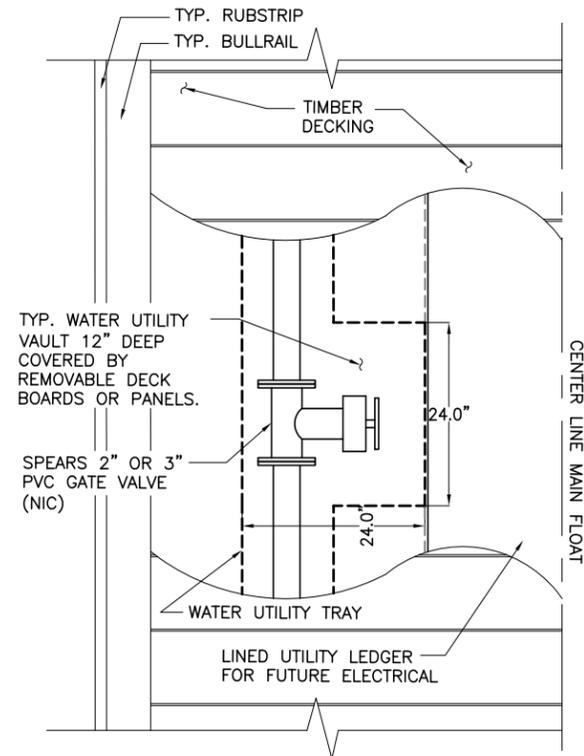
**ENGINEERING/SURVEYING & LANDSCAPE ARCHITECTURE**  
**TRYCK NYMAN HAYES, INC.**  
 911 W. 8TH AVENUE, SUITE 300  
 ANCHORAGE, AK 99501  
 TEL: (907) 278-0543 FAX: (907) 278-7878

NOTES / REVISIONS:

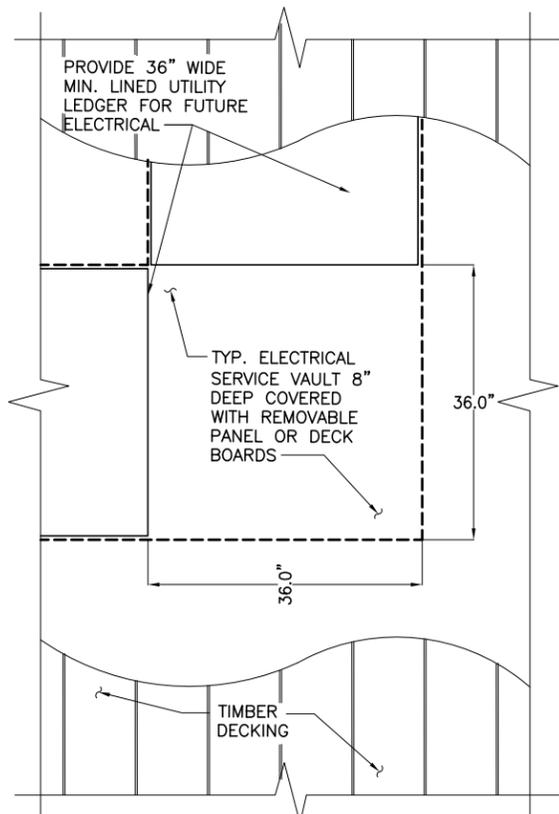
**FALSE PASS BOAT HARBOR FLOAT SYSTEM**  
 FALSE PASS, ALASKA  
 TYPICAL FLOAT CROSS SECTION & DETAILS

PROJECT NO:	05054.000
DATE:	02/23/2007
DESIGNED BY:	
DRAWN BY:	RAC
CHECKED BY:	KN
CAD DWG FILE:	07_S03_STRUCT SECS.dwg
SHEET:	<b>S03</b>
PAGE:	7 OF 13

PLOT DATE: 02/23/2007 12:47 PM  
 DWG PATH: W:\05054.000 - False Pass Boat Harbor\Design\Working Drawings\Structural\07 - Design Build.dwg

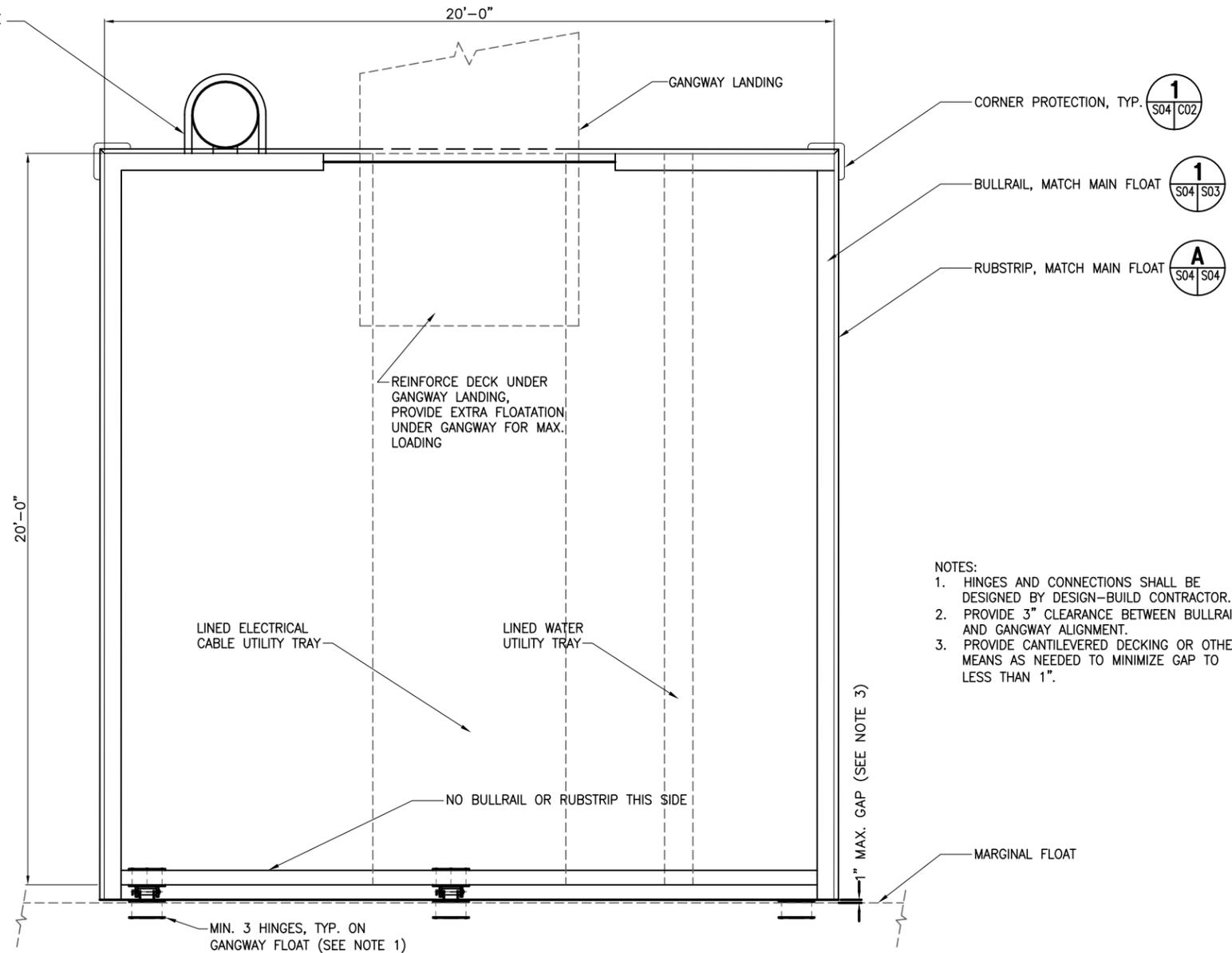


**1 TYPICAL WATER UTILITY VAULT**  
 S02 | S04 SCALE: 1"=1'-0"



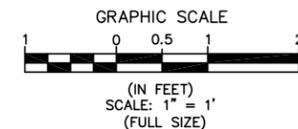
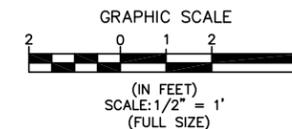
**2 TYPICAL ELECTRICAL SERVICE VAULT**  
 S02 | S04 SCALE: 1"=1'-0"

PILE COLLAR GUIDE, MIN ONE PER LANDING FLOAT AT A LOCATION TO BE DETERMINED BY THE CONTRACTOR



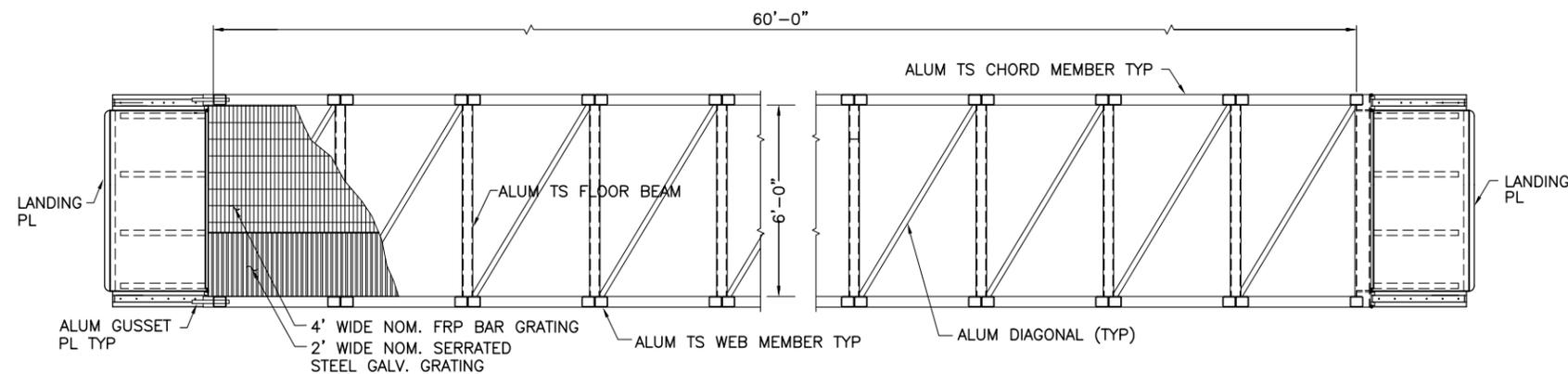
**3 TYPICAL GANGWAY FLOAT LAYOUT**  
 S02 | S01 | S04 SCALE: 1/2"=1'-0"

- NOTES:
- HINGES AND CONNECTIONS SHALL BE DESIGNED BY DESIGN-BUILD CONTRACTOR.
  - PROVIDE 3" CLEARANCE BETWEEN BULLRAIL AND GANGWAY ALIGNMENT.
  - PROVIDE CANTILEVERED DECKING OR OTHER MEANS AS NEEDED TO MINIMIZE GAP TO LESS THAN 1".

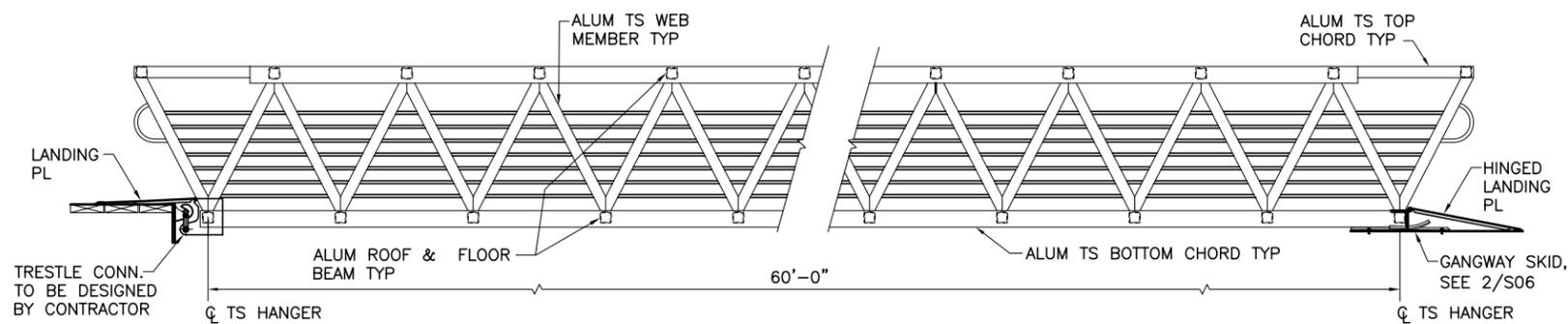


100% DRAFT - NOT FOR CONSTRUCTION

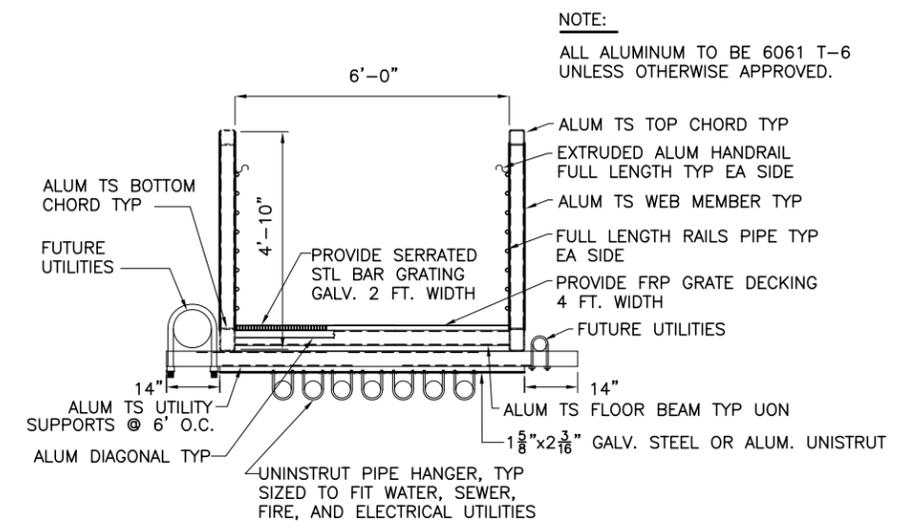
NOTES / REVISIONS:



**PLAN**

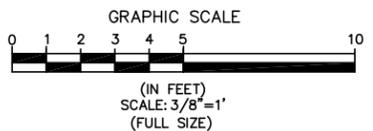


**ELEVATION**



**END VIEW**

**NOTE:**  
ALL ALUMINUM TO BE 6061 T-6 UNLESS OTHERWISE APPROVED.



**1 TYPICAL 6'x60' GANGWAY**  
SCALE: 3/8" = 1'

**TYPICAL GANGWAY NOTES:**

**GENERAL**  
GANGWAYS ARE SHOWN SCHEMATICALLY. DESIGN OF GANGWAYS SHALL BE THE RESPONSIBILITY OF THE MANUFACTURER. ALTERNATIVES TO THE GENERAL FEATURES AND MATERIALS NOTED MAY BE PROPOSED FOR APPROVAL BY THE OWNER'S REPRESENTATIVE/ENGINEER. SUPPORTING DOCUMENTATION SHALL BE PERFORMED BY A REGISTERED ENGINEER IN THE STATE OF ALASKA. DETAILED SHOP DRAWINGS AND PRODUCT DATA SHALL BE PROVIDED FOR REVIEW PRIOR TO FABRICATION.

**DESIGN CRITERIA**  
ALL DESIGN AND FABRICATION SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING CODES:

1. CONTRACT DOCUMENTS AND TECHNICAL SPECIFICATIONS
2. UNIFORM BUILDING CODE, CURRENT EDITION
3. ALUMINUM DESIGN MANUAL, CURRENT EDITION
4. AASHTO GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES, CURRENT EDITION.
5. AISC STEEL CONSTRUCTION MANUAL CURRENT EDITION.
6. AWS D1.1 & D1.2, STRUCTURAL WELDING CODE, CURRENT EDITION.
7. APPLICABLE ASTM STANDARDS

**LOADS**  
DEAD LOADS - ALL  
LIVE LOADS - UNIFORM, 85 PSF, CONCENTRATED, 1,000 LBS  
WIND LOAD - 100 MPH, EXPOSURE D  
ELECTRICAL UTILITY SUPPORTS - 150 LBS/LF  
WATER/SEWER UTILITY SUPPORTS - 50 LBS/LF

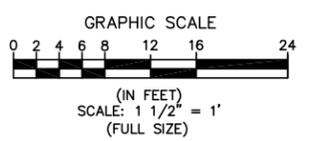
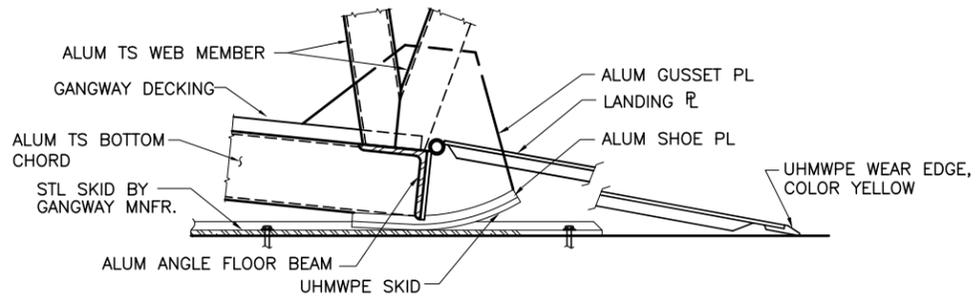
**MATERIALS**  
ALUMINUM - ASTM 6061-T6  
STRUCTURAL STEEL - PLATES AND SHAPES SHALL BE ASTM A36. PIPE SHALL BE ASTM A53, GRADE B.

**HARDWARE** - ALL BOLTS AND HARDWARE SHALL BE ASTM A325 AND HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A123.

**DECK GRATING** - ADA COMPLIANT FRP DECK GRATING SHALL BE INSTALLED ACROSS THE WIDTH OF THE GANGWAY AS NOTED ON THE DRAWINGS. DECK MATERIALS SHALL BE "FIBERGRATE" BRAND SAFE-T-SPAN T2510 OR APPROVED EQUAL WITH A SLIP RESISTANT GRIT SURFACE ACROSS 4 FT OF THE DECK AND COMPATIBLE SERRATED, GALVANIZED STEEL BAR GRATING SHALL BE PROVIDED ON REMAINING 2 FT.

**TRANSITION PLATES** - TRANSITION PLATES SHALL BE FULL SIZE ALUMINUM SHEET STOCK WITH A "SLIP-NOT" FINISH OR APPROVED EQUAL.

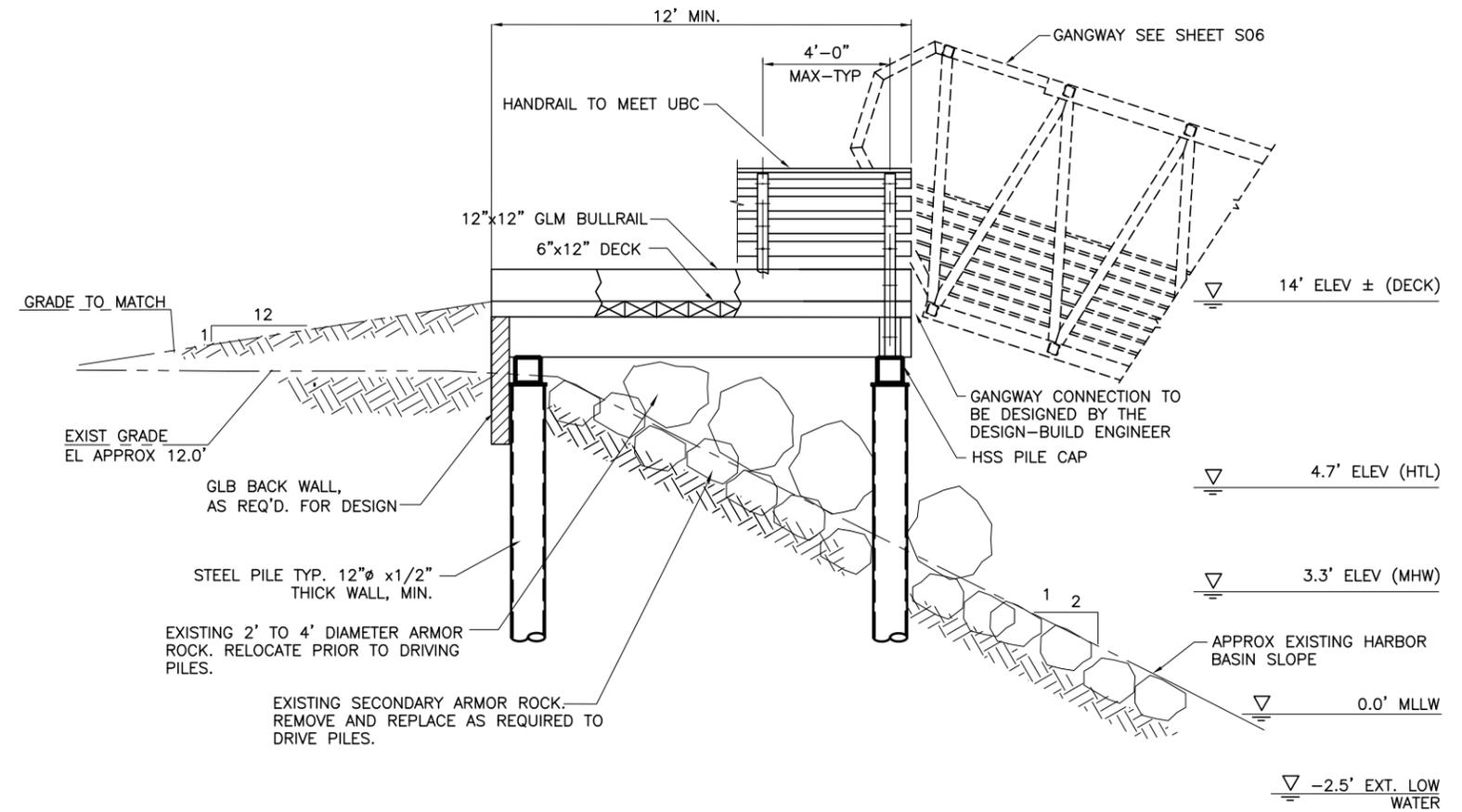
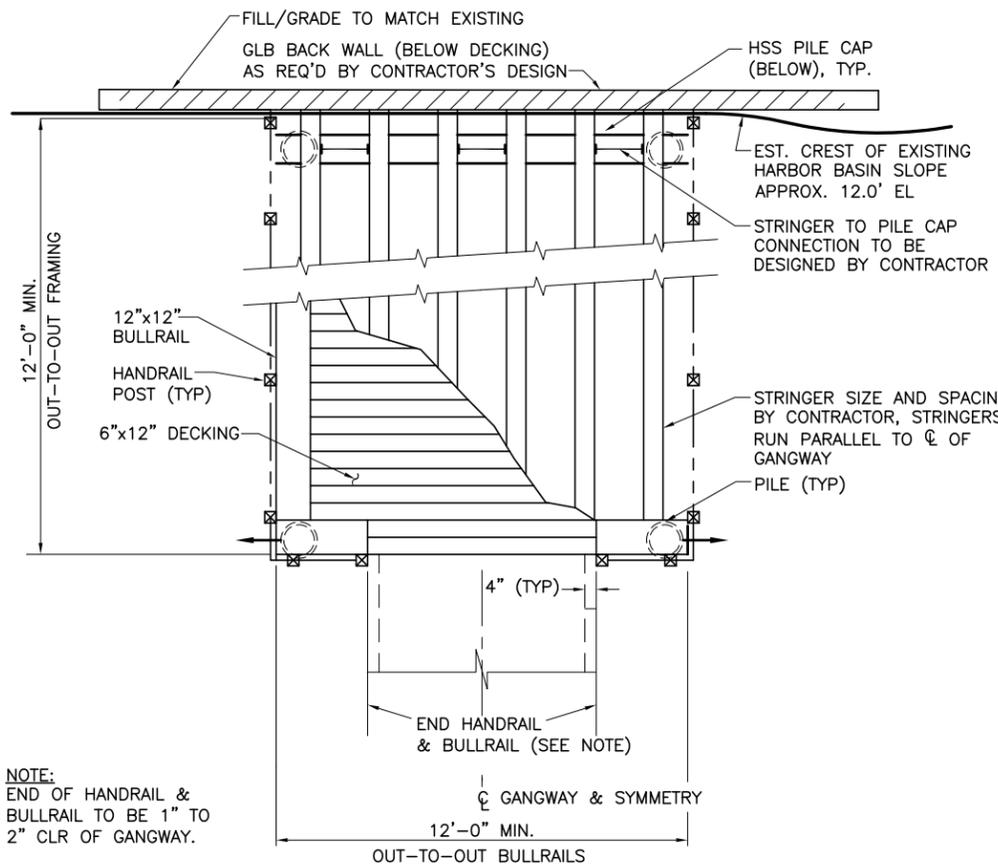
**UHMWPE** - ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE SHALL BE MADE FROM MATERIALS CONFORMING TO ASTM 4020. MATERIAL SHALL BE CHEMICALLY CROSS LINKED, ULTRA-VIOLET LIGHT STABILIZED, AND SUITABLE FOR LONG TERM EXPOSURE. UHMWPE SHALL BE BLACK IN COLOR, U.O.N.



**2 GANGWAY SKID DETAIL**  
SCALE: 1 1/2" = 1'

NOTES / REVISIONS:

PROJECT NO:	05054.000
DATE:	02/23/2007
DESIGNED BY:	
DRAWN BY:	RAC
CHECKED BY:	KN
CAD DWG FILE:	09_S05_GANGWAY.dwg
SHEET:	<b>S05</b>
PAGE:	9 OF 13



**1 TYPICAL TRESTLE PLAN**

S01/S06 SCALE: NTS

**2 TYPICAL TRESTLE ELEVATION**

S07/S06 SCALE: NTS

**TYPICAL TRESTLE NOTES:**

- DESIGN-BUILD CONTRACTOR MAY PROPOSE ALTERNATE TRESTLE LAYOUT AND DESIGN. TYPICAL DESIGN SHOWN ILLUSTRATES TRYPCIAL LAYOUT THAT MEETS REQUIRED CODES.
- DESIGN-BUILD CONTRACTOR TO DETERMINE REQUIRED AXIAL PILE CAPACITY, TIP ELEVATION, AND EMBEDMENT.
- PILES SHALL BE A MIN. OF 12"Øx1/2" THICK WALL GALV. STEEL PIPE PILES AND SHALL BE CONTINUOUS, NO SPLICES.
- DRIVE USING INSIDE HARDENED DRIVING SHOE ON ALL TRESTLE PILING.
- DESIGN CRITERIA  
ALL DESIGN AND FABRICATION SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING CODES:
  - CONTRACT DOCUMENTS AND TECHNICAL SPECIFICATIONS
  - UNIFORM BUILDING CODE, CURRENT EDITION
  - AMERICAN WOOD PRESERVER'S ASSOCIATION (AWPA) STANDARD U1 (LATEST EDITION)
  - AASHTO GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES, CURRENT EDITION.
  - AWS D1.1 & D1.2, STRUCTURAL WELDING CODE (LATEST EDITION)
  - APPLICABLE ASTM STANDARDS
- LOADS:
  - DEAD LOADS - ALL
  - LIVE LOADS - UNIFORM, 85 PSF, CONCENTRATED, 2,000 LBS
  - WIND LOAD - 100 MPH, EXPOSURE D
- STEEL PILING AND PILE CAPS SHALL CONFORM TO ASTM A252 AND TECHNICAL SPECIFICATIONS.
- SEAL ALL WELDS.
- ALL STEEL, BOLTS, AND CONNECTORS SHALL BE HOT DIPPED GALVANIZED.
- HOT STICK REPAIR GALVANIZING AT ALL WELDS.
- ALL TIMBER SHALL BE TREATED IN ACCORDANCE WITH AWPA U1-05 AND THE TECHNICAL SPECIFICATIONS.
- DECKING SHALL BE MILLED S1S2E WITH TOP SURFACE ROUGH HEWN.



NOTES / REVISIONS:

ALEUTIANS EAST BOROUGH  
EDA PROJECT NO. 07-79-06433

**FALSE PASS BOAT HARBOR FLOAT SYSTEM**

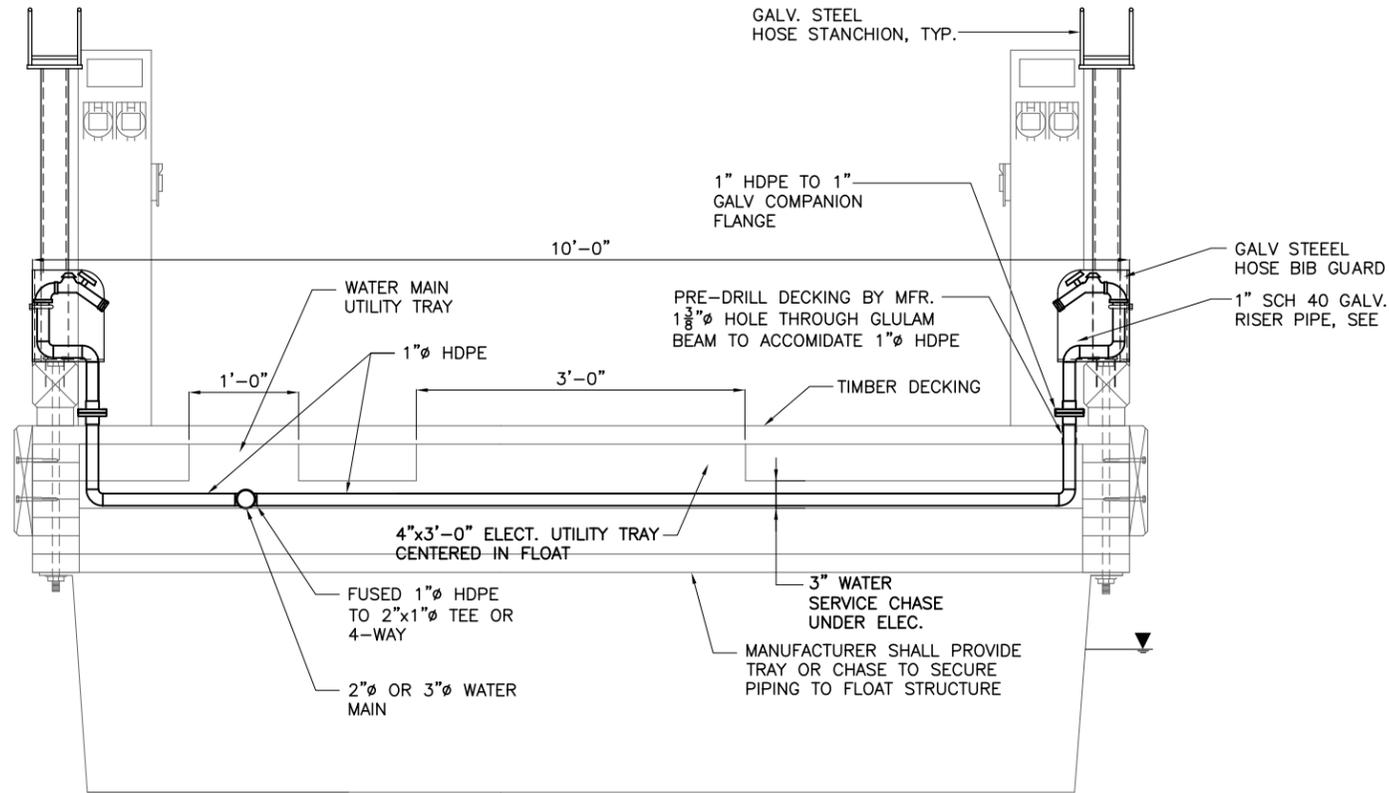
FALSE PASS, ALASKA  
TRESTLE

PROJECT NO: 05054.000  
DATE: 02/23/2007  
DESIGNED:  
DRAWN BY: RAC  
CHECKED BY: KN  
CAD DWG FILE:  
10\_S06\_Trestle.dwg

SHEET:  
**S06**

PAGE:  
10 OF 13

100% DRAFT - NOT FOR CONSTRUCTION



SECTION VIEW  
TYPICAL MAIN FLOAT

NOTE:  
ALL UTILITY CHASEWAYS SHALL BE LOCATED  
SUCH THAT THE UTILITIES WILL REMAIN ABOVE  
WATERLINE WHEN FLOAT IS FULLY LOADED.  
(SEE SPECIFICATIONS FOR DESIGN LOADS)

**1** TYPICAL FUTURE WATER SERVICE (NIC)  
SCALE: N.T.S.

**ZN**  
ENGINEERING/SURVEYING  
& LANDSCAPE ARCHITECTURE  
TRYCK NYMAN HAYES, INC.  
911 W. 8TH AVENUE, SUITE 300  
ANCHORAGE, AK 99501  
TEL: (907) 278-0543 • FAX: (907) 278-7879

NOTES / REVISIONS:

ALEUTIANS EAST BOROUGH  
EDA PROJECT NO. 07-79-06433  
**FALSE PASS BOAT HARBOR FLOAT SYSTEM**  
FALSE PASS, ALASKA  
WATER SERVICE DETAILS

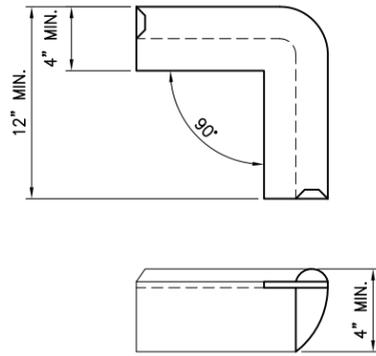
NOTES:

- POTABLE WATER SHOWN FOR INFORMATION ONLY, UTILITIES WILL BE INSTALLED BY OTHERS IN A SEPARATE CONTRACT AT A LATER DATE.
- CONTRACTOR MUST PROVIDE ALL NECESSARY UTILITY CHASEWAYS, AND SUPPORT SYSTEMS AS REQUIRED TO ACCOMMODATE THESE UTILITIES IN THE FUTURE.

PROJECT NO:	05054.000
DATE:	02/23/2007
DESIGNED BY:	
DRAWN BY:	RAC
CHECKED BY:	KN
CAD DWG FILE:	11_12_C01-C02_UTIL
SHEET:	C01
PAGE:	11 OF 13

**NOT IN CONTRACT - FOR INFORMATION ONLY**

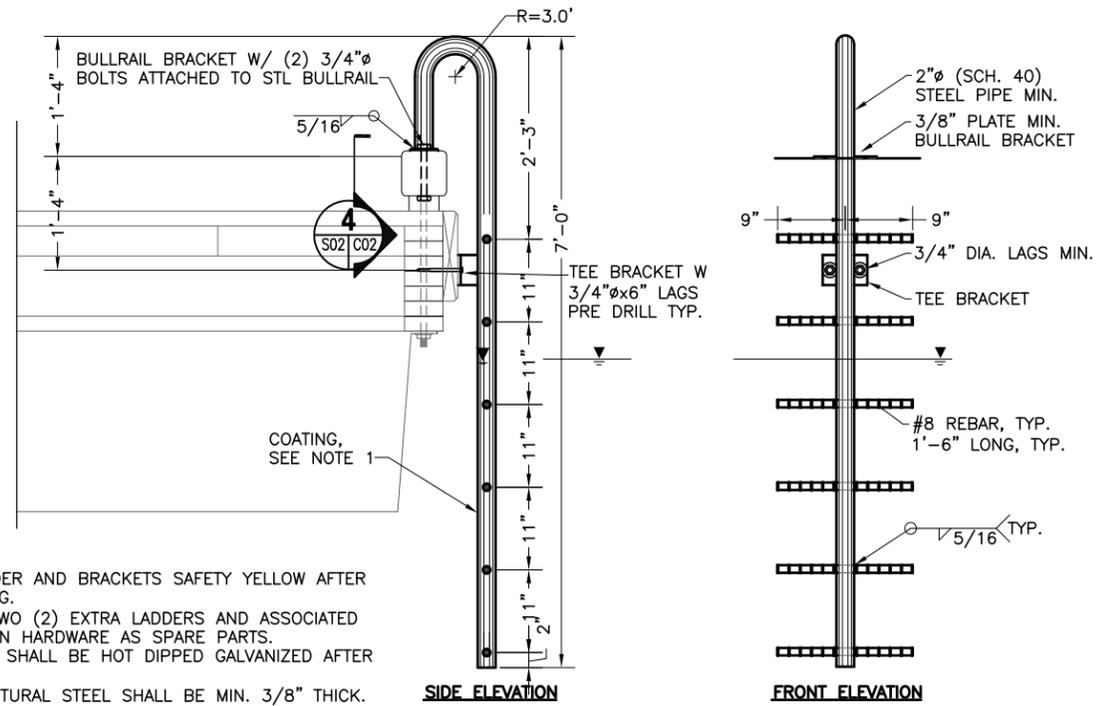
100% DRAFT - NOT FOR CONSTRUCTION



**NOTE:**  
 FLOAT CORNER BUMPERS SHALL BE HEAVY DUTY, MARINE GRADE VINYL, RESISTANT TO UV DECAY, AND SECURED TO TIMBER, RUBSTRIP, AND/OR DECKING WITH GALVANIZED SCREWS OR LAG BOLTS.

**1 TYPICAL FLOAT CORNER PROTECTION**

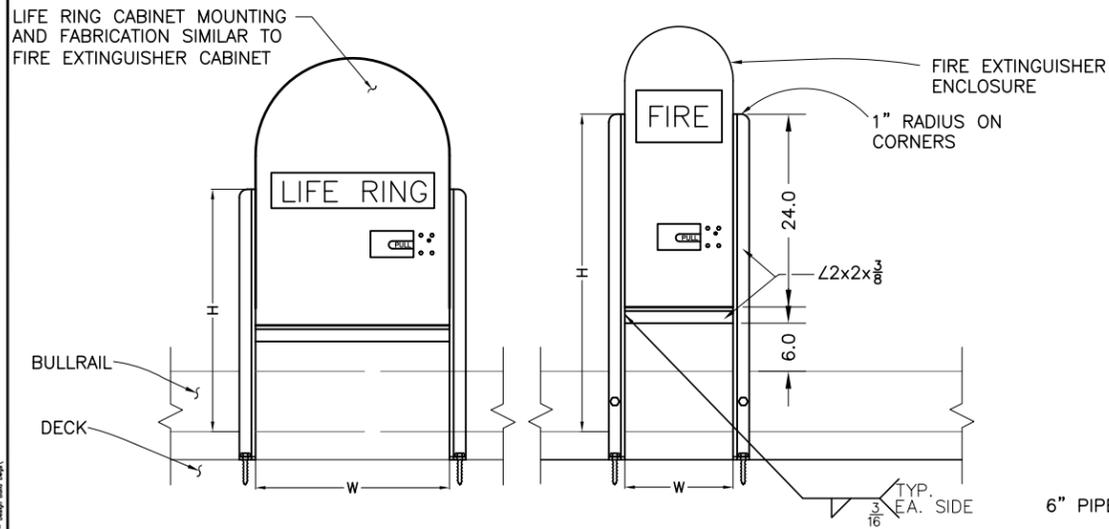
SCALE: N.T.S.



**NOTE:**  
 1. COAT LADDER AND BRACKETS SAFETY YELLOW AFTER GALVANIZING.  
 2. PROVIDE TWO (2) EXTRA LADDERS AND ASSOCIATED CONNECTION HARDWARE AS SPARE PARTS.  
 3. ALL STEEL SHALL BE HOT DIPPED GALVANIZED AFTER WELDING.  
 4. ALL STRUCTURAL STEEL SHALL BE MIN. 3/8" THICK.

**2 TYPICAL SAFETY LADDER**

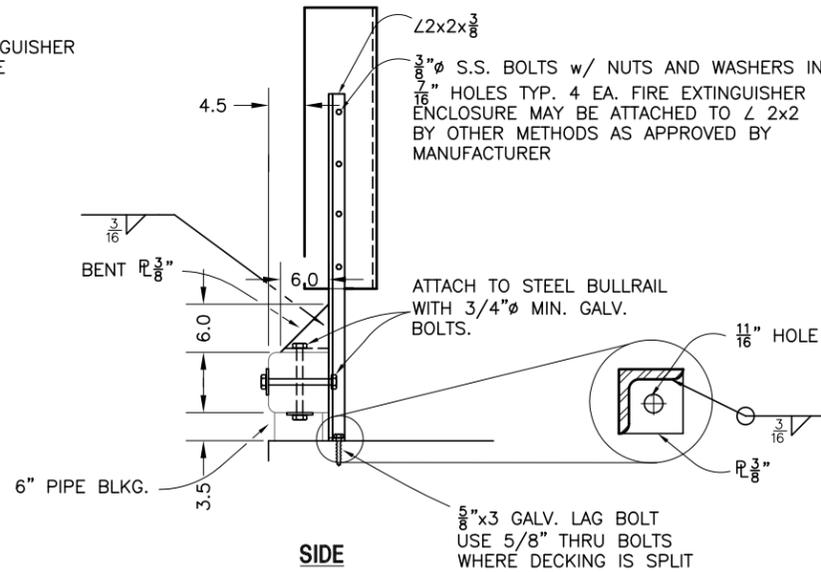
SCALE: N.T.S.



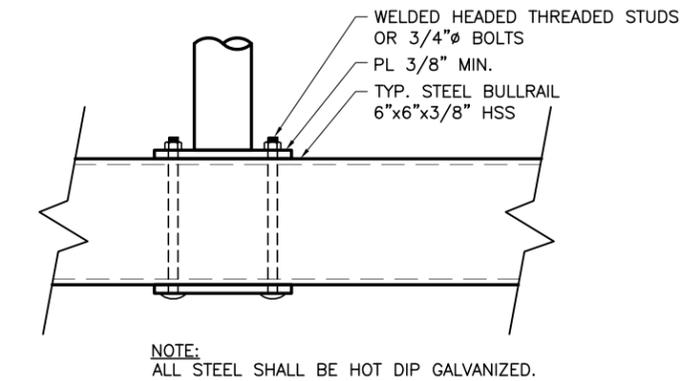
**NOTE:**  
 W & H TO BE DETERMINED BY MANUFACTURER, TYP.

**3 TYPICAL FIRE EXTINGUISHER AND LIFE RING CABINETS**

SCALE: N.T.S.



**NOTES:**  
 1. FIRE EXTINGUISHER CABINET SHALL BE LOCATED AS GENERALLY NOTED ON DRAWINGS. CLEAR DISTANCE SHALL BE 2'. AVOID CONFLICTS WITH UTILITIES AND OTHER FLOAT APPURTENANCES.  
 2. LIFE RING CABINETS SHALL MEET U.S. COAST GUARD STANDARDS FOR DOCK APPLICATION AND SHALL CONTAIN A THROWABLE PERSONAL FLOTATION DEVICE MEETING USCG REQUIREMENTS. LIFE RING CABINETS WILL BE LOCATED AS GENERALLY NOTED ON DRAWINGS. LOCATE ON FLOAT TO AVOID CONFLICTS WITH UTILITIES AND OTHER FLOAT APPURTENANCES.



**NOTE:**  
 ALL STEEL SHALL BE HOT DIP GALVANIZED.

**4 LADDER TO BULLRAIL ATTACHED DETAIL**

SCALE: N.T.S.

NOTES / REVISIONS:

**FALSE PASS BOAT HARBOR FLOAT SYSTEM**

ALEUTIANS EAST BOROUGH  
 EDA PROJECT NO. 07-79-06433

FALSE PASS, ALASKA

TYPICAL SAFETY EQUIPMENT DETAILS

PROJECT No: 05054.000

DATE: 02/23/2007

DESIGNED:

DRAWN BY: RAC

CHECKED BY: KN

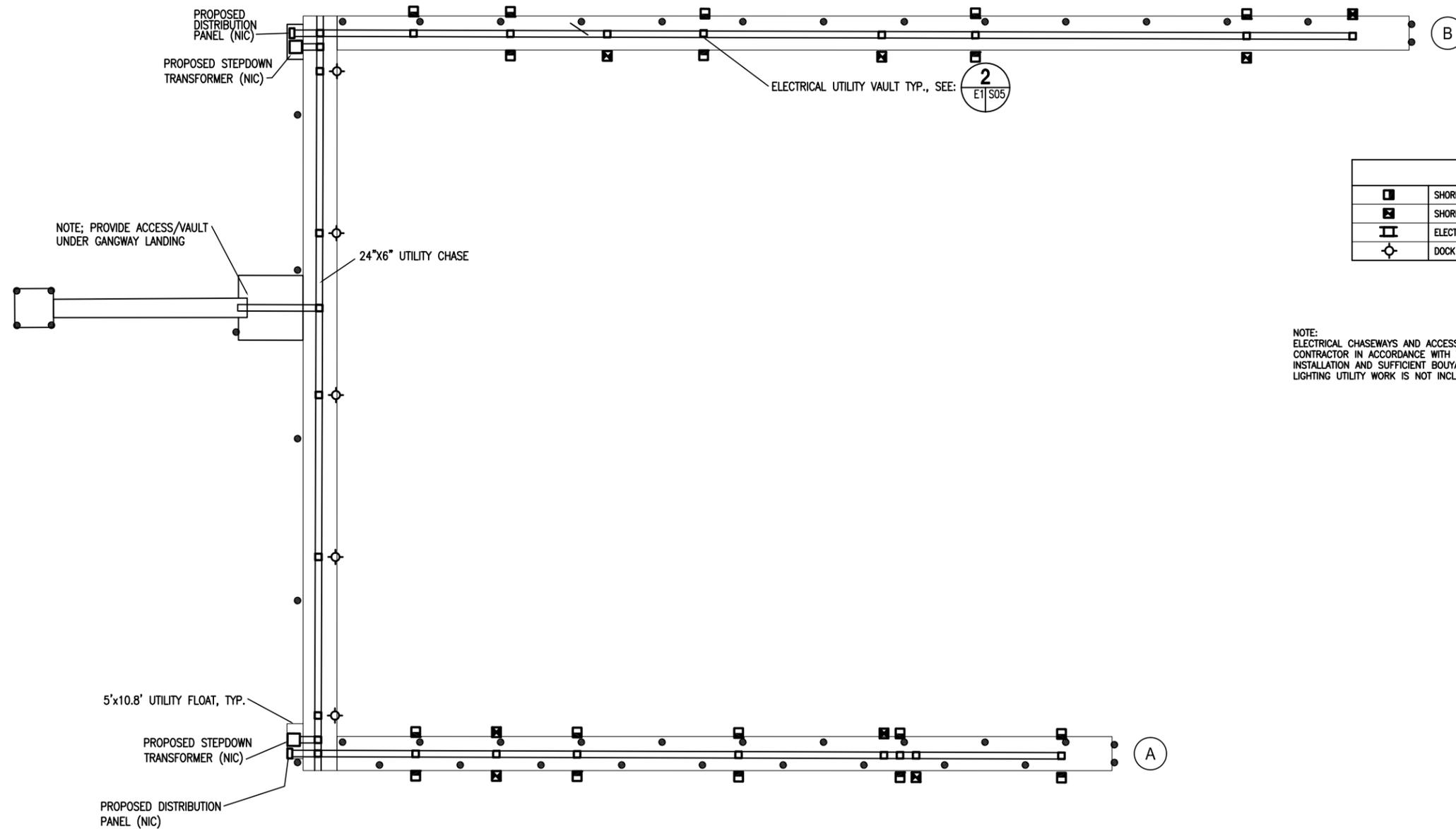
CAD DWG FILE: 11\_12\_C01-C02\_UTIL SECT.

SHEET:

**C02**

PAGE: 12 OF 13

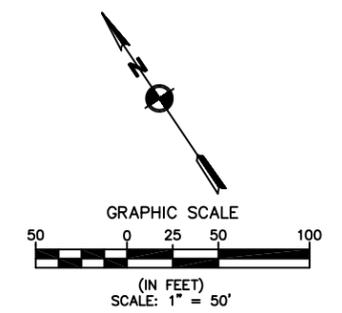
P:\PLOTS\11\12\2007\12231.dwg



LEGEND	
	SHORE POWER PEDESTAL (4) EA. 120/240V, 50A (NIC)
	SHORE POWER PEDESTAL (2) EA. 120/240V, 60A (NIC)
	ELECTRICAL CHASE ACCESS VAULT
	DOCK LIGHTING (NIC)

NOTE:  
ELECTRICAL CHASEWAYS AND ACCESS VAULTS ARE TO BE PROVIDED IN FLOATS BY THE CONTRACTOR IN ACCORDANCE WITH THIS PLAN TO ALLOW FUTURE POWER AND LIGHTING INSTALLATION AND SUFFICIENT BOUYANCY FLOATATION FOR UTILITY FLOATS. POWER AND LIGHTING UTILITY WORK IS NOT INCLUDED IN THIS CONTRACT.

1 ELECTRICAL CHASE PLAN  
1" = 20'



100% DRAFT - NOT FOR CONSTRUCTION

**ZH**  
ENGINEERING/SURVEYING  
& LANDSCAPE ARCHITECTURE  
TRYCK NYMAN HAYES, INC.  
911 W. 8TH AVENUE, SUITE 300  
ANCHORAGE, AK 99501  
TEL: (907) 278-0543 • FAX: (907) 278-7879

**RISA**  
Engineering, Inc.  
MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS  
2023 Arctic Road, Suite 200  
Anchorage, AK 99503-2518  
Phone: (907) 278-0521 Fax: (907) 278-1701

NOTES / REVISIONS:

ALEUTIANS EAST BOROUGH  
EDA PROJECT NO. 07-79-06433  
  
**FALSE PASS BOAT HARBOR FLOAT SYSTEM**  
  
FALSE PASS, ALASKA  
ELECTRICAL CHASE PLAN

PROJECT NO:	05054.000
DATE:	02/23/2007
DESIGNED BY:	JHE
DRAWN BY:	JHE
CHECKED BY:	TEH
CAD DWG FILE:	13_E01_Elect.dwg
SHEET:	<b>E01</b>
PAGE:	13 OF 13