



DOCKS AND HARBORS BOARD AGENDA

November 17, 2022 at 5:00 PM

City Hall Conf. Room 224/Zoom Webinar

<https://juneau.zoom.us> or 1-253-215-8782 Meeting ID: 840 6485 3634 Passcode: 244394

- A. **CALL TO ORDER:** (5:00 p.m. in CBJ 224 and via Zoom)
- B. **ROLL CALL:** (James Becker, Paul Grant, Debbie Hart, David Larkin, Matthew Leither, Mark Ridgway, Annette Smith, Lacey Derr and Don Etheridge)
- C. **PORT DIRECTOR REQUESTS FOR AGENDA CHANGES**
MOTION: TO APPROVE THE AGENDA AS PRESENTED OR AMENDED.
- D. **PUBLIC PARTICIPATION ON NON-AGENDA ITEMS** (not to exceed five minutes per person, or twenty minutes total time)
- E. **APPROVAL OF MINUTES**
 - 1. October 27th, 2022 Regular Board Minutes
 - 2. November 9th, 2022 Special Board Minutes
- F. **CONSENT AGENDA**
 - a. Public Requests for Consent Agenda Changes
 - b. Board Members Requests for Consent Agenda Changes
 - c. Items for Action
 - 3. Assembly Authority for Negotiated Land Sale
Presentation by the Port Director

RECOMMENDATION: THAT THE ASSEMBLY AUTHORIZE DIRECT NEGOTIATIONS WITH GOLDBELT IN ACCORDANCE WITH 53.09.260 FOR A POTENTIAL LAND EXCHANGE AT THE SEADROME PROPERTY.
 - 4. Legislative Priority List
Presentation by Port Director

RECOMMENDATION: TO APPROVE THE LEGISLATIVE PRIORITY LIST AS PRESENTED.

MOTION: TO APPROVE THE CONSENT AGENDA AS PRESENTED
- G. **UNFINISHED BUSINESS - None**
- H. **NEW BUSINESS**
 - 5. Docks & Harbors Annual Report to the Assembly
Presentation by Port Director

Board Questions

Public Comment

Board Discussion/Action

MOTION: TO SUBMIT THE ANNUAL REPORT TO THE ASSEMBLY AS PRESENTED.

I. ITEMS FOR INFORMATION/DISCUSSION

6. Harbor Rate Study

Presentation by Tony Homan (HDR)

Committee Discussion/Public Comment

7. Site Characterization Workplan - 4400 Thane Road Property

Presentation by Jason Ginter (NORTECH)

Committee Discussion/Public Comment

8. Board Strategic Retreat

Presentation by Docks & Harbors Board Vice-Chair

Committee Discussion/Public Comment

9. Aurora Phase III Project Update

Presentation by Acting Port Engineer

Committee Discussion/Public Comment

10. UAS Property Update

Presentation by Port Director

Committee Discussion/Public Comment

J. COMMITTEE AND MEMBER REPORTS

- a. Operations Committee Meeting Report
- b. Assembly Lands Committee Liaison Report
- c. Auke Bay Neighborhood Association Liaison Report
- d. South Douglas/West Juneau Liaison Report
- e. Member Reports

K. PORT ENGINEER'S REPORT

L. HARBORMASTER'S REPORT

M. PORT DIRECTOR'S REPORT

N. ASSEMBLY LIAISON REPORT

O. BOARD ADMINISTRATIVE MATTERS

- a. Docks & Harbors Board Strategic Retreat - December 7th & 8th, 2022
- b. Ops/Planning Committee Meeting – Wednesday December 21st, 2022
- c. Board Meeting – Thursday December 29th, 2022

P. ADJOURNMENT

ADA accommodations available upon request: Please contact the Clerk's office 36 hours prior to any meeting so arrangements can be made for closed captioning or sign language interpreter services depending on the meeting format. The Clerk's office telephone number is 586-5278, TDD 586-5351, e-mail: city.clerk@juneau.org.

CBJ DOCKS AND HARBORS BOARD
REGULAR MEETING MINUTES
For Thursday, October 27th, 2022
CBJ Room 224 and via Zoom Meeting

- A. Call to Order** – Mr. Etheridge called the meeting to order at 5:00 p.m. in room 224 and via Zoom.

- B. Roll** – The following members attended in CBJ room 224 or via zoom meeting; James Becker, Debbie Hart, Mark Ridgway, Annette Smith, Lacey Derr and Don Etheridge.

Absent – Paul Grant, David Larkin and Matthew Leither.

Also in Attendance – Matthew Creswell – Acting Port Director, Matthew Sill – Acting Port Engineer and Teena Larson – Administrative Officer.

- C. Port Director Request for agenda changes** – Mr. Creswell had no changes.

MOTION By MS. DERR: TO APPROVE THE AGENDA AS PRESENTED AND ASK UNANIMOUS CONSENT.

Motion passed with no objection.

- D. Public Participation on Non-Agenda Items** - None

- E. Approval of Minutes**

1. September 29th, 2022 Regular Board Minutes – Hearing no objection the minutes were approved as presented.
2. October 21st, 2022 Special Board Minutes – Hearing no objection, the minutes were approved as presented.

- F. Consent Agenda** –

Public Requests for Consent Agenda Changes - None
Board Members Requests for Consent Agenda Changes – None

Items for Action

3. AELP Grant Agreement – Load Tap Changer Transformer @ Franklin Dock

RECOMMENDATION: TO RECOMMEND THE ASSEMBLY APPROVE AN AELP GRANT AGREEMENT FOR PURCHASE AND INSTALLATION OF A LOAD TAP CHANGER TRANSFORMER FOR THE FRANKLIN DOCK SUBSTATION.

4. Resolution in Support of Full Funding for the FY24 ADOT Harbor Facility Grant

CBJ DOCKS AND HARBORS BOARD
REGULAR MEETING MINUTES (CONTINUED)
For Thursday, October 27th, 2022

Section E, Item 1.

RECOMMENDATION: TO RECOMMEND THE ASSEMBLY ADOPT A RESOLUTION IN SUPPORT OF FULL FUNDING FOR THE FY24 ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES – HARBOR FACILITY GRANT PROGRAM.

5. Board 2023 Calendar

RECOMMENDATION: TO APPROVE THE 2023 CALENDAR AS PRESENTED.

MOTION By MS DERR: TO APPROVE THE CONSENT AGENDA AS PRESENTED AND ASK UNANIMOUS CONSENT.

Motion passed with no objection.

G. Items for Information/Discussion

6. Harbor Rate Study Presentation update

Mr. Creswell said the update on this topic is HDR will provide a presentation at our Regular Board meeting on November 17, 2022.

Board Discussion - None

Public Comment - None

7. Legislative Priority List Update

Mr. Creswell said he sent out the priority list after last weeks meeting and he had two responses and received two more tonight. He will bring the responses and rankings to the next Operations Planning Committee meeting.

Board Discussion -None

Public Comment - None

8. Omnibus Regulation Changes with Fiscal Notes - Update

Mr. Creswell said this was discussed at last weeks Operations Meeting and on page 37 are the regulation changes and fiscal notes. Mr. Creswell said he had not received any public comments on the proposed changes.

Board Discussion

Mr. Etheridge said these proposed changes were also discussed on Action Line - KINY Radio so the public has received ample notice.

Public Comment - None

9. Board Strategic Planning - Update

CBJ DOCKS AND HARBORS BOARD
REGULAR MEETING MINUTES (CONTINUED)
For Thursday, October 27th, 2022

Section E, Item 1.

Ms. Derr said this was discussed at the Operations meeting last week. The rate study will be the main focus.

Board Discussion - None

Public Comment -None

H. Staff, Committee and Member Reports

1. Member Reports

I. Port Engineer's Report –

Mr. Sill gave a highlight of the projects he is currently working on.

- Over 30% of the planning is done for Phase III of Aurora Harbor.
- Trucano Construction started driving piles this week for the Marine Park Deckover Project.
- The Statter Harbor bathroom project is in the early phase and he should have more information to share in the next few weeks.
- The Port has started the winterization of the Cruise Ship Docks and that has been going well.
- He is working on a Totem Pole project and they are currently trying to figure out how to safely attach the Totem Poles to the docks.
- Global Diving is planning to make repairs to the Statter Harbor Breakwater.

J. Harbormaster's Report –

Mr. Creswell reported –

- Comments are due for Senator Murkowski's Working Waterfront Plan by December 2, 2022.
- Winterization is almost complete at all of the Harbors.
- Our camera contractor is working hard to get everything up and working.
- Staff has seen very high volumes of vandalism at the Harris Harbor bathrooms. The South bathroom has been closed all week due to damage and graffiti. Mr. Creswell is planning to close the larger bathroom from 11 pm – 6 am.
- The US CGC HEALY is coming to town next week. He has been working with the Chamber of Commerce and Travel Juneau for activities for the crew.
- We are currently hiring for a full-time Administrative Assistant at the Aurora Harbor office and a Port Engineer.
- The City Manager's Office is working with Alaskan Representatives to get involved with the USCGC HEALY.

K. Port Director's Report - None

L. Assembly Liaison Report - None

M. Board Administrative Matters

CBJ DOCKS AND HARBORS BOARD
REGULAR MEETING MINUTES (CONTINUED)
For Thursday, October 27th, 2022

Section E, Item 1.

Mr. Ridgway said the Operations Planning Committee has been working on the Auke Bay/Statter Harbor speed limits. Mr. Brown, the City Attorney, made it clear that our jurisdiction does not go very far beyond the Harbors. They have also been discussing the rate study.

Mr. Etheridge reminded the Committee that there will be a Special Board Meeting on Wednesday November 9th, 2022 at 5:00 pm before the Operations Planning Committee meeting.

N. Adjournment – The meeting adjourned at 5:27pm.

**CBJ DOCKS AND HARBORS BOARD
SPECIAL BOARD MEETING MINUTES**

For Wednesday, November 9th, 2022

CBJ Room 224 and via Zoom Meeting

A. Call to Order – Mr. Etheridge called the meeting to order at 5:00 p.m. in room 224 and via Zoom.

B. Roll – The following members attended in CBJ room 224 or via Zoom; Paul Grant (arrived at 5:11 p.m.), Debbie Hart, David Larkin, Mark Ridgway, Lacey Derr and Don Etheridge.

Absent – James Becker, Matthew Leither and Annette Smith.

Staff Present – Carl Uchytel – Port Director, Matthew Creswell – Harbormaster, Jeremy Norbryhn – Deputy Harbormaster, Teena Larson – Administrative Officer, Kevin Dugan – Port Operations Supervisor and Nichole Benedict – Administrative Assistant.

C. Port Director Request for agenda changes – Mr. Uchytel had no changes.

MOTION By MS. DERR: TO APPROVE THE AGENDA AS PRESENTED AND ASK UNANIMOUS CONSENT.

Motion passed with no objection.

D. Public Participation on Non-Agenda Items – None

E. New Business

1. Omnibus Regulation Changes

a. Regulation Change - 05 CBJAC 07.010 (Inactive Vessel Management)
(Mr. Etheridge gave the gavel to Ms. Derr and recused himself from voting on this regulation change.)

Mr. Uchytel spoke about the Inactive Vessel Management summary on page four in the packet. This regulation change would add the National Guard Dock to the list of CBJ Inactive Vessel Management facilities.

Board Questions – None

Public Comment – None

Board Discussion/Action

CBJ DOCKS AND HARBORS BOARD
SPECIAL BOARD MEETING MINUTES (CONTINUED)
For Wednesday, November 9th, 2022

Section E, Item 2.

MOTION By MR. RIDGEWAY: TO RECOMMEND THE ASSEMBLY ADOPT PROPOSED CHANGES TO 05 CBJAC 07.010 (Inactive Vessel Management) AND ASK UNANIMOUS CONSENT.

Motion passed with no objection.

b. Regulation Change - 05 CBJAC 15.035 (Reservation Charge Policy)

Mr. Uchytel said this regulation change is to require vessels making a moorage reservation for more than seven days to pay the entire stay up front. The payment would be non-refundable.

Board Questions – None

Public Comment – None

Board Discussion/Action

MOTION By MS. DERR: TO RECOMMEND THE ASSEMBLY ADOPT PROPOSED CHANGES TO 05 CBJAC 15.035 (Reservation Charge Policy) AND ASK UNANIMOUS CONSENT.

Motion passed with no objection.

c. Regulation Change – 05 CBJAC 20.050 (Residence Surcharge)

Mr. Uchytel said the intent of this regulation change is to dissuade short-term rental or leasing of a vessel. All leasing must be in excess of six months.

Board Questions – None

Public Comment – None

Board Discussion/Action

MOTION By MS. DERR: TO RECOMMEND THE ASSEMBLY ADOPT PROPOSED CHANGES TO 05 CBJAC 20.050 (Residence Surcharge) AND ASK UNANIMOUS CONSENT.

Motion passed with no objection.

d. Regulation Change - 05 CBJAC 20.060 (Recreational Boat Launch Fees)

Mr. Uchytel said the intent of this regulation change is allow kayak launchers to use Statter Harbor at no cost.

CBJ DOCKS AND HARBORS BOARD
SPECIAL BOARD MEETING MINUTES (CONTINUED)
For Wednesday, November 9th, 2022

Section E, Item 2.

Board Questions – None

Public Comment – None

Board Discussion/Action

MOTION By MS. DERR: TO RECOMMEND THE ASSEMBLY ADOPT PROPOSED CHANGES TO 05 CBJAC 20.060 (Recreational Boat Launch Fees) AND ASK UNANIMOUS CONSENT.

Motion passed with no objection.

e. Regulation Change - 05 CBJAC 20.090 (Statter Boat Harbor Bus Lower Parking Lot Permit fee)

Mr. Uchytel said this regulation change is to amend the name of the bus parking lot at Statter Harbor.

Board Questions

Public Comment

Board Discussion/Action

MOTION By MS. DERR: TO RECOMMEND THE ASSEMBLY ADOPT PROPOSED CHANGES TO 05 CBJAC 20.090 (Statter Boat Harbor Lower Parking Lot Permit Fee) AND ASK UNANIMOUS CONSENT.

Motion passed with no objection.

f. Regulation Change - 05 CBJAC 20.110 (Crane Use Fees)

Mr. Uchytel said this changes previous language requiring crane usage to be paid in advance. We now use a key fob system.

Board Questions – None

Public Comment – None

Board Discussion/Action

MOTION By MS. DERR: TO RECOMMEND THE ASSEMBLY ADOPT PROPOSED CHANGES TO 05 CBJAC 20.110 (Crane Use Fees) AND ASK UNANIMOUS CONSENT.

CBJ DOCKS AND HARBORS BOARD
SPECIAL BOARD MEETING MINUTES (CONTINUED)
For Wednesday, November 9th, 2022

Section E, Item 2.

Motion passed with no objection.

g. Regulation Change - 05 CBJAC 20.130 (Storage Fees)

Mr. Uchtyl said this regulation change removes a lesser storage rate for patrons with reserved moorage. He said there is currently twelve patrons taking advantage of this lesser storage fee. This will increase revenue from \$250 to \$500 per month.

Board Questions – None

Public Comment – None

Board Discussion/Action

MOTION By MS. DERR: TO RECOMMEND THE ASSEMBLY ADOPT PROPOSED CHANGES TO 05 CBJAC 20.130 (Storage Fees) AND ASK UNANIMOUS CONSENT.

Motion passed with no objection.

h. Regulation Change - 05 CBJAC 20.160 (Parking Lot Fees)

Mr. Uchtyl said this regulation change is for Statter Harbor only. Previous language allowed for a reduced monthly parking fee in the summer. This will remove the discounted rate and make Statter Harbor parking free in the winter months.

Board Questions – None

Public Comment – None

Board Discussion/Action

MOTION By MS. DERR: TO RECOMMEND THE ASSEMBLY ADOPT PROPOSED CHANGES TO 05 CBJAC 20.160 (Parking Lot Fees) AND ASK UNANIMOUS CONSENT.

Motion passed with no objection.

i. Regulation Change - 05 CBJAC 20.190 (Auke Bay Loading Facility – Drive Down Float Fee)

Mr. Uchtyl said this regulation change removes the fee.

Board Questions – None

CBJ DOCKS AND HARBORS BOARD
SPECIAL BOARD MEETING MINUTES (CONTINUED)
For Wednesday, November 9th, 2022

Section E, Item 2.

Public Comment – None

Board Discussion/Action

MOTION By MS. DERR: TO RECOMMEND THE ASSEMBLY ADOPT PROPOSED CHANGES TO 05 CBJAC 20.190 (Auke Bay Loading Facility – Drive Down Float Fee) AND ASK UNANIMOUS CONSENT.

Motion passed with no objection.

j. Regulation Change - 05 CBJAC 25.060 (Summer Management)

Mr. Uchytel said this is the only regulation change that he received public comment on and the comment is on page nineteen in the packet. This change would require vessels in Statter Harbor to move every ten days for six consecutive hours. If they do not move, they will be required to pay the daily moorage rate instead of the discounted monthly rate.

Board Questions – None

Public Comment – None

Board Discussion/Action

MOTION By MS. DERR: TO RECOMMEND THE ASSEMBLY ADOPT PROPOSED CHANGES TO 05 CBJAC 25.060 (Summer Management) AND ASK UNANIMOUS CONSENT.

Motion passed with no objection.

k. Regulation Change - 05 CBJAC 25.080 (Winter Management)

Mr. Uchytel said this regulation change is for Statter Harbor only. This would change the lottery-style winter hot birth selection process. It will give more flexibility to the Deputy Harbormaster while assigning stalls.

Board Questions – None

Public Comment – None

Board Discussion/Action

MOTION By MS. DERR: TO RECOMMEND THE ASSEMBLY ADOPT PROPOSED CHANGES TO 05 CBJAC 25.080 (Winter Management) AND ASK UNANIMOUS CONSENT.

CBJ DOCKS AND HARBORS BOARD
SPECIAL BOARD MEETING MINUTES (CONTINUED)
For Wednesday, November 9th, 2022

Section E, Item 2.

Motion passed with no objection.

F. BOARD ADMINISTRATIVE MATTERS

Immediately following this meeting will be the Operations/Planning Committee meeting.

G. ADJOURNMENT – The meeting adjourned at 5:20 p.m.



Port of Juneau

155 S. Seward Street • Juneau, AK 99801
(907) 586-0292 Phone • (907) 586-0295 Fax

From: Port Director

To: Docks & Harbors Board

Via: Docks & Harbors Operations-Planning Committee

Date: November 4th, 2022

Re: ASSEMBLY AUTHORITY FOR NEGOTIATED LAND SALE

1. Docks & Harbors has been approached by two separate private entities requesting consideration to acquire CBJ owned land which is managed under Docks & Harbors. The next steps are to conduct appraisals and begin negotiations allowing the transitions to be considered and acted upon.
 - a. Goldbelt, Inc is proposing an exchange of parcels near the Seadrome Building to develop a new visitor oriented building in support of the Juneau tourism market. On August 25th, 2022 the Board approved Goldbelt's request with the following motion: "Direct staff to initiate an appraisal and establish a process to coordinate Docks & Harbors interests with Goldbelt's efforts to develop the Seadrome property."
 - b. Hansen-Gress has applied to the CBJ Lands & Resources Office to purchase CBJ owned tide lands which are managed by Docks & Harbors. On August 25th, 2022 the Board approved Hansen-Gress request with the following motion: "To advance the Hansen-Gress proposal that includes easements for future Docks & Harbors development as well as first right of refusal on the consolidated land and building sale as well as the evaluation of property by Docks & Harbors contracted appraiser that assumes the property as a single lot." At the September 26th Assembly LHED meeting, that Committee recommended the Assembly to "work with the original proposer in accordance with city Code 53.09.260."
2. The Hansen-Gress application has progressed through the Assembly and does not require action from the Board at this time. Goldbelt's request does require Board and Assembly authorization to move forward. Title 53 allow several options in disposing of CBJ lands: (1) auction sale, (2) over-the-counter sales, (3) sealed competitive bids or (4) by negotiated sale. 53.09.260 outlines the requirements for direct negotiated sale and specifies that the Assembly

approve that option by motion.

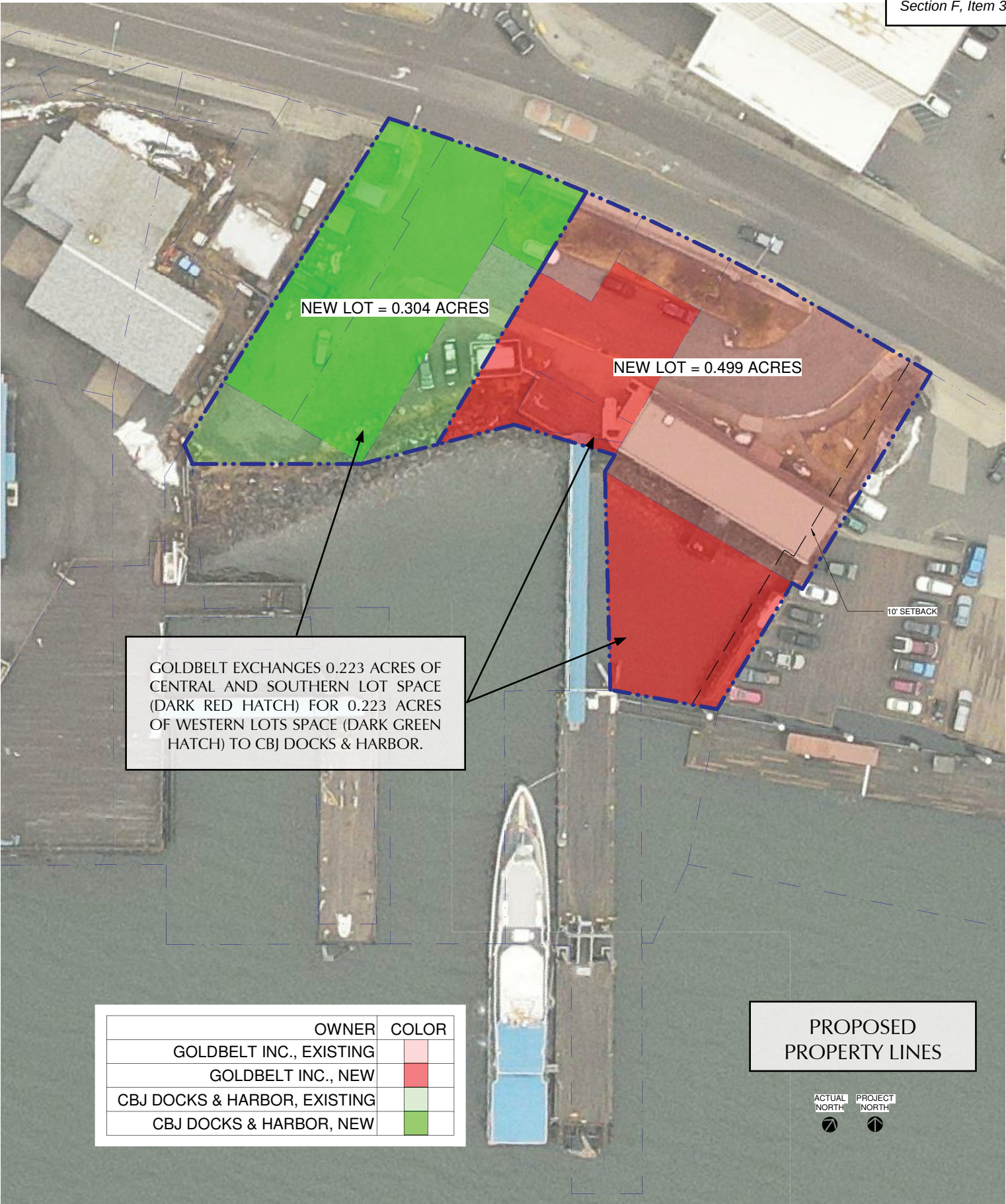
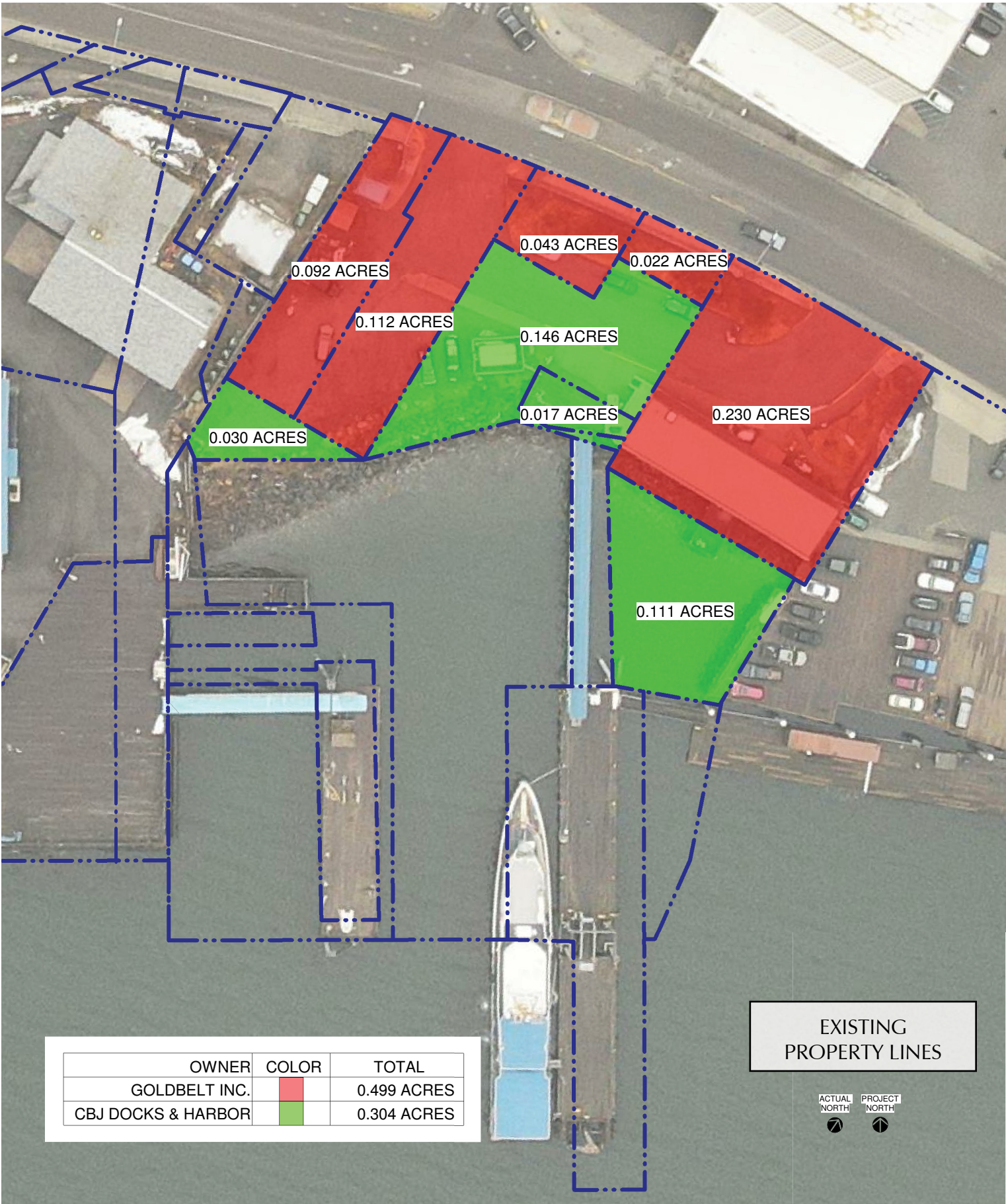
53.09.260 - Negotiated sales, leases, and exchanges.

(a)Application, initial review, assembly authority to negotiate. Upon application, approval by the manager, and payment of a \$500.00 fee, a person or business entity may submit a written proposal to lease, purchase, exchange, or otherwise acquire City and Borough land for a specified purpose. The proposal shall be reviewed by the assembly for a determination of whether the proposal should be further considered and, if so, whether by direct negotiation with the original proposer or by competition after an invitation for further proposals. Upon direction of the assembly by motion, the manager may commence negotiations for the lease, sale, exchange, or other disposal of City and Borough land.

3. Enclosure (1) was provided in the Goldbelt presentation on August 25th. The patchwork of CBJ owned versus Goldbelt owned property is readily apparent. The existing parcels are limiting to both CBJ and to Goldbelt for future development. The proposal to consolidate parcels in a coherent fashion will benefit both parties. It is appropriate that the land exchange discussions be continued with Goldbelt exclusively and that direct negotiations be authorized in accordance with 53.09.260.
4. I propose the Board make the following motion: To recommend the Assembly authorize direct negotiations with Goldbelt in accordance with 53.09.260 for a potential land exchange at the Seadrome property.

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Encl: (1) Seadrome Property Map



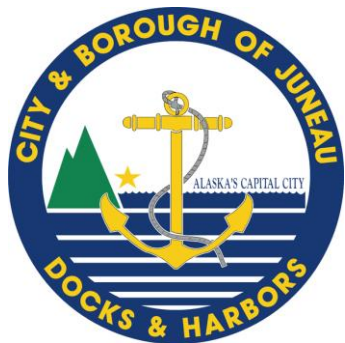
DEPARTMENT LEGISLATIVE PRIORITIES
For D&H Board Review and Ranking

Docks

Project Name	Board Priority	Rank Total	Amount Requested	Project Notes
Small Cruise Ship Infrastructure	1	8	\$30,000,000	This project would provide the necessary improvements to construct a new 350- foot concrete float which would expand opportunities for small, American flagged cruise ship to operate more efficiently and to maximize Juneau as a turn-around port.
Shore Power at Dock Cruise Ship Docks	2	10	\$25,000,000	The project would provide the final design and construct the electrical infrastructure (substation, load tap changer transformer, feeder cables, etc.) and shore power infrastructure (submarine cables, power connection floats, cable positioning devices) at the two CBJ-owned cruise ship docks.
Total			\$55,000,000	

Harbors

Project Name	Board Priority	Rank Total	Amount Requested	Project Notes
Auke Bay New Breakwater	1	13	\$5,000,000	The requested funding would allow for the preliminary planning and design phases, including permit acquisition. This opens the opportunity for the construction of a new breakwater at the end of the Statter Harbor.
Aurora Harbor Rebuild - Ph IV	2	16	\$1,000,000	Request for funding to continue the reconstruction of the Aurora Harbor Facility. Past work has been divided into segments. This request would continue preliminary design and begin permitting tasks.
Juneau Fisherman's Terminal	3	23	\$35,000,000	This project will expand harbor amenities to benefit the commercial fishing industry by constructing a drive-down repair/logistical float and doubling the linear foot capacity of the crane dock. The project also envisions creating upland improvement by providing a net repair shed and shoreside services such as bathrooms, showers, washer/dryers.
North Douglas Boat Ramp Expansion	4	29	\$250,000	Requested funding would accomplish the first steps to expanding the North Douglas Launch Ramp Facility. These include planning, research and permitting to initiate the project.
Marine Services Yard – Little Rock Dump	5	31	\$50,000,000	This project would develop approximately 5 acres of industrial property at the Little Rock Dump in support of boatyard repair and maintenance.
New Aurora Harbor Office Building (Potential Public-Private Partnership w/Marine Exchange of Alaska)	6	32	\$3,000,000	This project recapitalizes the existing harbor office with facilities appropriate to meet the Docks & Harbors’ mission.
Douglas Harbor Uplands Improvements	7	34	\$5,000,000	This project will expand Douglas Harbor amenities to include new bathrooms with showers, curb/cutter/paving and modest landscaping to improve the functionality and aesthetics at this facility. The proposed improvements will bring Douglas Harbor to a level enjoyed by the other three small boat harbors.
Auke Bay Bay Walk	8	40	\$250,000	The requested funding would accomplish the initial steps to build a Baywalk in Auke Bay.
Total			\$99,500,000	
Docks & Harbors Totals:			\$154,500,000	



Port of Juneau

155 S. Seward Street • Juneau, AK 99801
(907) 586-0292 Phone • (907) 586-0295 Fax

From: Port Director
To: Assembly
Thru: (1) Docks & Harbor Board
 (2) City Manager
Date: November xxth, 2022
Re: FY2022 Review - Docks & Harbors Operations

1. In accordance with 85.02.045, *Docks and Harbors Board shall, no later than November 30th each year, provide the assembly with a written review of docks and harbors department operations during the preceding fiscal year. The review shall include fee schedules, revenues by source, operating expenditures, customers served, and any recommended amendments to the Downtown Waterfront Development Plan.* The Docks & Harbors Board reviewed this letter at its November 17th meeting.
2. The FY22 end of year financial report shows the Harbor Enterprise is operating with positive cash flow with the Docks Enterprise running a deficit. The Docks Enterprise fund balance will provide \$130,200 to account for FY22 losses primarily due to only receiving 74 large vessel calls to the Port of Juneau during July, August, September and October 2021. In contrast, CY2022 received 637 calls within the Port of Juneau (four berths & lightering).

End of FY22	Harbor Enterprise	Docks Enterprise
Revenue	\$4,911,500	\$1,642,500
Expenditure	\$3,988,600	\$1,772,700
Debt Service	\$665,900	none
FY22 Net	\$922,900	<\$130,200>
Fund Balance ^{1, 2}	\$1,565,400	\$1,687,800

Graphic representation of historic Port Enterprise and Harbor Enterprise budgetary information is provided in enclosure (1). As a reference point, Docks & Harbors manages nearly \$400M in capital assets throughout its infrastructure portfolio.

The CY22 cruise ship season can best be described as a rebound year with 1,175,743 passengers arriving to Juneau. This is the second highest passenger numbers recorded with 2019 remaining the high watermark with nearly 1.3 million.

¹ Does not include \$791,271 of Bond Reserve

² Fund Balances as of 11/15/2022 are estimates and have not been finalized by Finance Department

Cruise ship passenger counts

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Large Cruise Ships ³	940,447	944,239	965,731	992,092	1,046,587	1,118,897	1,273,741	0	114,114	1,167,194
Small Cruise Ships	5,459	10,216	11,426	8,727	8,658	9,729	10,112	36	7,263	8,549
Total	945,906	954,455	977,157	1,000,819	1,055,245	1,128,626	1,283,857	36	121,377	1,175,743

3. The fee schedule, as required under 85.02.045 for FY23, is attached as enclosure (2). After Docks & Harbors held the requisite public meetings and hearings, the Assembly approved amendments to twenty-four regulations relating to fees on February 28th. Each of these fee changes pertain to annual Consumer Price Index (CPI) adjustments. Although the future rate increases will be modestly helpful for Docks & Harbors, the largest Harbor Enterprise source of revenue is moorage fee, which has previously been linked to CPI annual changes.
4. Docks & Harbors has been engaged in several capital improvement projects in the course of FY22.
 - a. Statter Harbor Phase III (For Hire Commercial Float and associated uplands). A contract was awarded to Dawson Construction for \$1.5M in October to construct restrooms and covered shelter in the Statter Harbor bus staging area. This project will be complete in mid-May 2023.
 - b. Marine Park Deckover. CBJ Engineering completed the design efforts and then transferred the bidding/construction management to Docks & Harbors. In June 2022, this \$2.5M project was awarded to Trucano Construction which will be completed by mid-April.
 - c. In late June 2022, Docks & Harbors was notified that we would be the recipient of a \$2M matching ADOT Municipal Harbor Grant for Aurora Harbor Phase III. This phase is currently under design using in-house resources and has an anticipated bid award in January 2023. The success of the recent voter approved 1% Sales Tax Initiative should allow Docks & Harbors to leverage local funds with ADOT Harbor Grant funding as early as FY25.
 - d. Downtown Waterfront Improvement Phase II. In 2020, the first phase completed Peratrovich Plaza. Phase II would construct a covered shelter area with restrooms for tourists awaiting transportation. This phase is on hold pending action to relocate the Juneau-Douglas City Museum along the waterfront.
 - e. Docks & Harbors has completed the Docks Electrification Study, authored by Haight & Associates. As a result of this study and direction from the Assembly, AELP has received the authority to proceed with purchasing the necessary infrastructure to upgrade the load tap changer transformer to the Franklin Dock Substation.
5. In April 2022, Docks & Harbors submitted three federal RAISE (Rebuilding American Infrastructure with Sustainability & Equity) grant applications:
 - a. \$25M for Downtown Cruise Ship Dock Electrification
 - b. \$25M for Small Cruise Ship Infrastructure
 - c. \$25M Juneau Fisheries Terminal

In September, we were informed that our submitted RAISE grants were not selected. The same result was realized in the application for the FY22 MARAD (US Maritime Administration) Port Infrastructure Development Program (PIDP) grant.

³ Revenue producing cruise ship passenger data only which is less than the total passenger embarkation

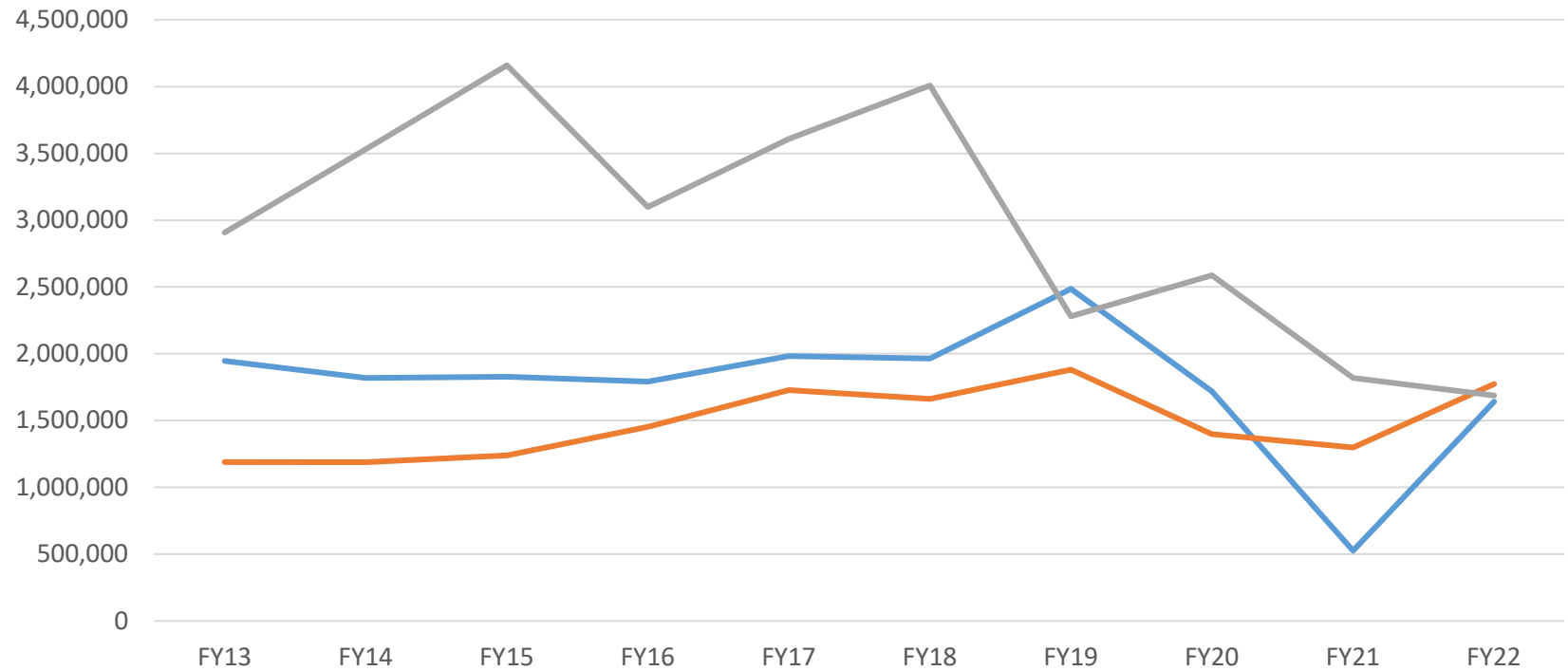
6. Docks & Harbors has received the *final finding and decision* from the Alaska Department of Natural Resources to convey approximately 4.73 acres of tide lands from the State to CBJ. Docks & Harbors has received the survey instructions from ADNDR to complete the required plat. The request for the conveyance was initiated by the Franklin Dock ownership who desire to modernize their facility with a floating berth similar to the other docks in Juneau.
7. CBJ is actively negotiating with UAS/UA Lands Director to secure the leased waterfront property from UAS between Harris and Aurora Harbors, commonly referred as Juneau Fisheries Terminal. The existing lease rent for the 2.8 acre property is approximately \$9500 annually which is under market value due to an agreement in 1988 with UAS in which CBJ provided funding for the Egan Library. The UAS lease allows for a one time renewal but at market value. The appraised value with a new lease would be \$230K annually. The Assembly has appropriated \$2M for the purchase of this property and the University is considering options regarding the overall conveyance plan.
8. Docks & Harbors is most appreciative of funding support from the Assembly, especially the consideration allowing harbors projects to be listed on the October 1% Sales Tax initiative. The Assembly's commitment will enable Docks & Harbors to continue to prosper with needed infrastructure improvements as well as keeping rate increases to a modest level.

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Encl:

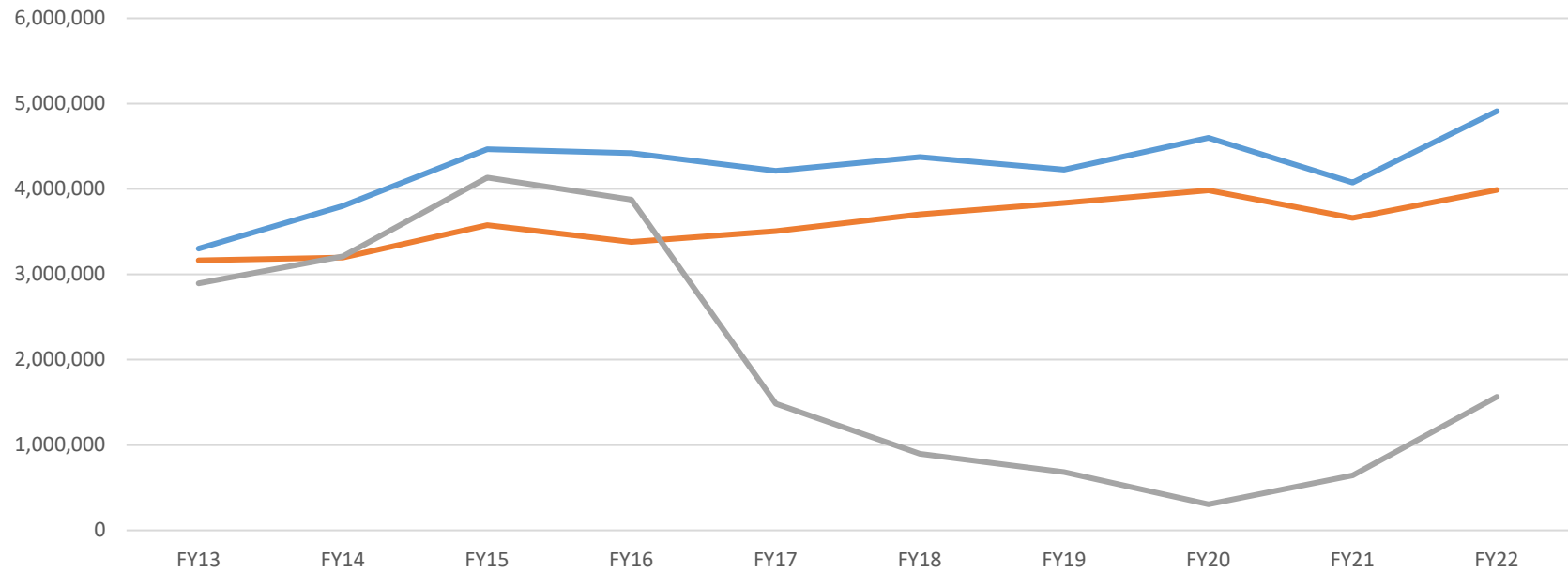
- (1) Budgetary Graphs (Docks Enterprise & Harbors Enterprise)
- (2) FY2022 & FY2023 Fee Schedule

Docks Overview



	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22
Docks Actual Revenue	1,946,900	1,820,000	1,828,400	1,792,800	1,983,100	1,964,484	2,485,900	1,718,800	526,000	1,642,500
Docks Actual Expense	1,189,800	1,188,500	1,238,600	1,454,100	1,727,600	1,663,167	1,881,100	1,399,100	1,297,800	1,772,700
Docks Fund Balance	2,907,240	3,531,061	4,159,525	3,098,254	3,609,037	4,009,076	2,279,623	2,586,600	1,818,000	1,687,800

Harbor Overview



	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22
Harbors Actual Revenue	3,301,200	3,800,400	4,466,300	4,418,400	4,213,000	4,374,735	4,227,700	4,597,600	4,076,700	4,911,500
Harbors Actual Expense	3,163,500	3,195,000	3,574,700	3,380,634	3,507,112	3,702,155	3,834,900	3,983,100	3,661,100	3,988,600
Harbors Fund Balance	2,893,416	3,210,757	4,133,190	3,874,843	1,485,483	895,149	682,000	305,000	642,500	1,565,400



DOCKS & HARBORS
 155 S. Seward St.
 Juneau, AK 99801
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www.juneau.org/harbors

Section H, Item 5.

FY23 Moorage Rates

DOUGLAS, HARRIS AND AURORA HARBORS		
	Effective thru June 30, 2022	Effective July 1, 2022
Skiff	\$300 per calendar year	\$314.70 per calendar year
Daily	58¢ per foot	61¢ per foot
Calendar Month	\$4.40 per foot	\$4.60 per foot
Bi-Annual (July 1 – Dec 31) & (Jan 1 – June 30) Annual (July 1 – June 30)	5% discount on 6-month advance payment 10% discount on 12-month advanced payment	5% discount on 6-month advance payment 10% discount on 12-month advance payment

STATTER HARBOR		
	Effective thru June 30, 2022	Effective July 1, 2022
Skiff	\$300 per calendar year	\$314.70 per calendar year
Daily	58¢ per foot	61¢ per foot
Calendar Month	\$7.30 per foot	\$7.66 per foot
Bi-Annual (July 1 – Dec 31) & (Jan 1 – June 30) Annual (July 1 – June 30)	5% discount on 6-month advance payment 10% discount on 12-month advanced payment	5% discount on 6-month advance payment 10% discount on 12-month advance payment
Reservations (May 1 – Sept 30)	Fishing Vessels Other Vessels <65' Other Vessels ≥ 65' Other Vessels ≥200'	\$1.50 per foot \$3.00 per foot per day \$5.00 per foot per day \$3.00 per foot per day

INTERMEDIATE VESSEL FLOAT (IVF)		
Daily (Oct. 1 – Apr. 30)	58¢ per foot	61¢ per foot
Monthly (Oct. 1 – Apr. 30)	\$4.40 per foot	\$4.60 per foot
Reservations (May 1 – Sept 30)	Fishing Vessels Other Vessels <65' Other Vessels ≥ 65' Other Vessels ≥200'	\$1.50 per foot \$3.00 per foot per day \$5.00 per foot per day \$3.00 per foot per day

Residence Surcharge

Per Month	\$72.38 + \$24.13/person above four persons
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- A 5% City & Borough of Juneau sales tax may apply to all fees

Launch Ramp Rates

Recreational – Calendar Year (includes Kayaks) Matching registrations are required to obtain two additional permits. Please see 05 CBJAC 20.060 – Recreational Boat Launch Fees.	\$94.41 \$5 per additional permit
Recreational – Day	\$15.73
Commercial – Calendar Year	\$262.25 per trailer
Commercial – Day	\$31.47
Freight Use – Commercial	Up to 1 hour \$60 Over 1 hour \$30 for each additional hour

Parking Rates

Douglas, Harris, Aurora Harbors	Free w/ permit (permits available at Aurora Harbor office, current vehicle registration required)
Statter Harbor – Summer (May, June, July, August, September)	\$1 per hour/\$5 per calendar day
Statter Harbor – Winter (October through April)	Free w/permit (permits available at Statter Harbor office, current vehicle registration required)
Downtown Taku Lot - Summer	\$2 per hour/3 hour limit

Shorepower

Connection Type	Daily Fee
20 amp (120V, 1 phase)	\$6.29
30 amp (120V, 1 phase)	\$9.44
50 amp (208V, 1 phase)	\$26.23
100 amp (208V, 3 phase)	\$90.21
100 amp (480V, 3 phase)	\$207.70

Connection Type	Summer Liveaboard Monthly	Summer Non-Liveaboard Monthly
20 and 30 amp	\$94.41	\$56.65
50 amp	\$188.82	\$113.29
100 amp/208 volt	\$440.58	\$264.35

Connection Type	Winter Liveaboard Monthly	Winter Non-Liveaboard Monthly
20 amp	\$125.88	\$75.53
30 amp	\$169.64	\$100.70
50 amp	\$314.70	\$188.82
100 amp/208 volt	\$755.28	\$440.58

Services Provided

Power

Potable water (Year round downtown and Statter A&B Floats)
Restrooms (Aurora Harbor, Harris Harbor & Statter Harbor)
Showers (Harris Harbor & Statter Harbor)
Free Sewage pump-out (Aurora, Douglas, Harris, and Statter)
Sewage pump-out cart available at Aurora Harbor & Douglas Harbor
Harris Harbor Grid (Fee: \$1.05 per foot per day)
Please make Grid reservation at Aurora Harbor Office



Port of Juneau – Docks & Harbors Rate Setting Project

City and Borough of Juneau

September 1, 2022

Executive Summary

The City and Borough of Juneau Docks and Harbors (D&H)¹ contracted HDR Engineering Inc. (HDR) to conduct a study of the D&H enterprise's rate fee structure and on the impact of any potential rate changes to D&H stakeholders.

Key findings include:

- Stakeholders are not likely sensitive to modest changes in rates.
- Based on anecdotal information provided by stakeholders selected by D&H, overall Rates are a small fraction of users' overall costs
- The use of the consumer price index for rate indexing should be re-assessed. Wage rates, which represent about one half of D&H expenditures, have greatly outpaced CPI over the last decade. The current indexation may be inadequate to keep up with cost pressures for D&H.
- To ensure alignment with the established rate setting principles, D&H's rates should be increased to ensure D&H assets are maintained in a state of good repair. Existing reserve balances are inadequate to maintain these assets.
- The magnitude of the required rate increases is dependent on D&H's future capital program for expansion / new assets. The greater the capital requirements, the higher the rate increase.
- Docks and Harbors should maintain a replacement reserve analysis and forward-looking capital plan to determine the degree to which Funds balances and rates are sufficient to deal with ongoing maintenance and future capital investment requirements.
- Future increases would be tied to any needs identified by the ongoing replacement reserve analysis plus reflect any investments in new assets.
- Based on the replacement reserve analysis conducted through this study, current D&H funding is insufficient to maintain assets in a state of good repair.
- The funding gap could be narrowed or eliminated in at least two different ways:
 1. Additional funding from CBJ.
 2. Increasing rates – D&H rates would have to increase about 9 percent to eliminate the gap.
 3. Some combination of the above.
- Overall Rates are a small fraction of users' overall costs which suggests a 9 percent rate increase could be obtained without any deleterious user impacts.

¹ D&H will be used in this report

1

Introduction & Purpose

The City and Borough of Juneau Docks and Harbors (D&H) is an Assembly administered Enterprise that serves recreational users, commercial fishers, commercial charter operators, live-aboard vessels, commercial boat yard use, and cruise ship passengers and crews. D&H oversees several harbors and the two downtown cruise berths.

The Docks enterprise oversees the cruise ship terminal docks. The primary stakeholders are the cruise lines that visit Juneau. The Harbors enterprise is responsible for several harbors used by commercial, recreational, and live-aboard vessel owners. These include Douglas Harbor, Harris Harbor, Aurora Harbor, and Statter Harbor. Users at these harbors include recreational vessels, commercial fishing vessels, and live-aboard vessel owners. Charter operators also use Statter Harbor, Auke Bay, and the downtown facilities. Harbor enterprise assets also includes launch ramps for vessels, parking, and other revenue generating assets.

D&H contracted HDR Engineering Inc. (HDR) to conduct a study of D&H Enterprise's rate fee structure. The current rates cover the full range of services, including permits (e.g., loading permits and tour sales permits), dockage, port maintenance, port development, moorage, passenger, and several other fees. D&H receives little support from other sources (e.g., state) so the revenue from these rates needs to cover current operating expenses as well as future capital expenditures. D&H faces a potential revenue shortfall as costs have increased in recent years and assets need to be maintained in a state of good repair in future years. Consequently, D&H will need to explore both mitigating expenditures and augmenting revenues.

As part of this effort, HDR considered both cost-based (i.e., based on costs of providing services) and market-based approaches. The latter includes both looking at market comparable metrics, as well as marked demand-based approaches (e.g., increasing rates in cases where demand outstrips supply). HDR performed the following services.

- Conducted a thorough review of applicable documents related to current tariffs, facilities, users, and D&H budget.
- Facilitated stakeholder outreach to tenants, key stakeholders, and other user groups. Meetings provided insights to sensitivity to rate changes and the potential effects of those changes on usage. Meetings also provided information for later tasks such as the tariff review and proposed harbor rate schedule.
- Review of D&H's current tariff structure with an emphasis on potential pricing anomalies and rates creating potential market distortions.
- Developed a rate methodology for proposed types of adjustments to rates to address revenue objectives to recoup costs (operating and future capital projects to maintain assets in a state of good repair and for any improvements). Per discussions with D&H, HDR was to focus on the largest revenue generating user categories, generally those revenue sources that accounted for about 80 percent of total revenues.
- The rate methodology is founded on a "replacement reserve" type of analysis to identify the level of annual cashflow needed to appropriately maintain D&H's assets to ensure they are maintained in a state of good repair and additional reserves are available for new capital assets.² The details of the analysis are documented in an MS Excel proforma financial model that is provided as a project deliverable. The model can be updated over time to ensure that sufficient reserves are available in the future.

² Based on cost information provided by D&H as opposed to an independent assessment of needs as would be the case in a rigorous replacement reserve analysis.

2

D&H Revenues & Expenditures³

Revenues

D&H has revenue streams for each of the Docks Enterprise and Harbor Enterprise. Revenues are not commingled between Docks and Harbors. Revenues for Docks in fiscal year (FY) 2021 was historically low due to COVID and its impact on the cruise line industry worldwide. Juneau is the Southeast Alaska cruise hub and the largest cruise destination for the state. 99% of all cruise visitors in the region visit Juneau compared to 90 percent for Ketchikan.⁴ Historically, revenues have been nearly \$2 million per year, with a positive spike in FY2019. Dock revenue comes from moorage and vessel weight-based charges for cruise ships. Head tax related charges for cruise passengers do not accrue to D&H but rather are received by D&H from CBJ to fund projects and to cover dock related debt service. Cruise related charges for the passenger head tax are lower than that of Ketchikan, the next largest cruise destination.

Revenues for Harbors were nearly \$4.1 million in FY2021 and in the previous five years were between \$4.2 and \$4.6 million. Harbors revenues come from a more diverse set of sources and user groups. The largest sources of revenue by vessel user groups include recreation vessels, commercial fishing, luxury charters, launch ramp users, and the live-aboard community. At about \$1.7 million, recreational vessels are the largest source of revenue by far. Other important user groups include commercial leases, vendor booth permits, and parking.⁵

COVID-19 had a major impact on the distribution of D&H revenues by source. Examining pre-COVID revenues (2019 CY (calendar year)) provides a better picture for rate planning purposes. Revenues derived from recreational vessels and cruise ships accounted for 56.6 percent of total D&H revenues in 2019. Commercial leases are the next largest source at 16.1 percent. More than 80% of D&H revenues are concentrated from recreation vessels, cruise ships, commercial leases, commercial fishing, and vendor booth permits. A myriad of other revenues sources comprises the remaining revenue base.

For the vessel user groups, revenue from moorage fees at the four primary harbors (Statter Harbor, Douglas Harbor, Harris Harbor, and Aurora Harbor) are the largest source of revenues. D&H does not differentiate between user types but does set differential charges for daily, monthly, bi-annual, and annual. One can also pay for reserved space at Statter Harbor. In addition to moorage fees, there is also a residence surcharge for live-aboard users. Launch ramp users pay for either a daily or annual permit and D&H has different rates for recreational and commercial users.

An important issue to note is that there is common usage at many of the harbors thus D&H is not able to differentiate charges by type of user. It is also not certain based on our financial review if costs of providing services (especially at Douglas Harbor, Harris Harbor, and Aurora Harbor) are different at each of the relevant harbors. This would also apply to different ramps used by ramp users.

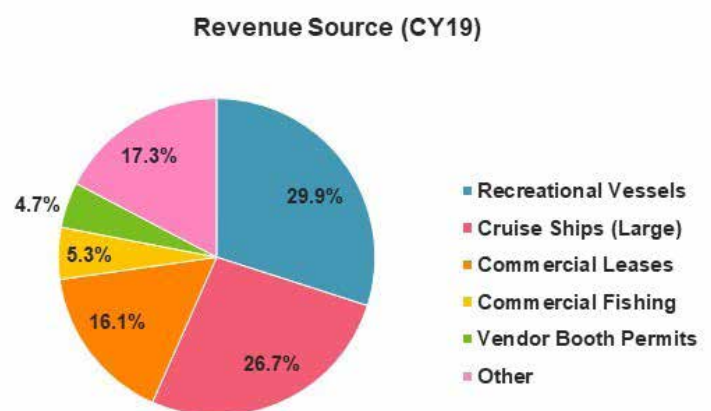


Figure 1. Distribution of CBJ Revenues, 2019 CY

³ Revenue and expenditure data provided by D&H to HDR on December 15, 2021, email attachments "Docks Funds Balance Overview" and Harbor Fund Balance Overview'.

⁴ Economic Impact Report, Cruise Lines International Association - Alaska. <https://akcruise.org/economy/economic-impact-by-region/>

⁵ An October 8, 2021, memo from the Port Director to the Dock and Harbors Finance Sub-Committee (Defining Docks & Harbors User Groups) lists revenues by user groups.

D&H moorage rates for daily and monthly are in general much lower than that from other Alaska port facilities (see [Figure 2](#) and [Figure 3](#)). D&H differentiates moorage rates by facility for monthly (and annual) for downtown harbors versus Auke Bay which is remote.

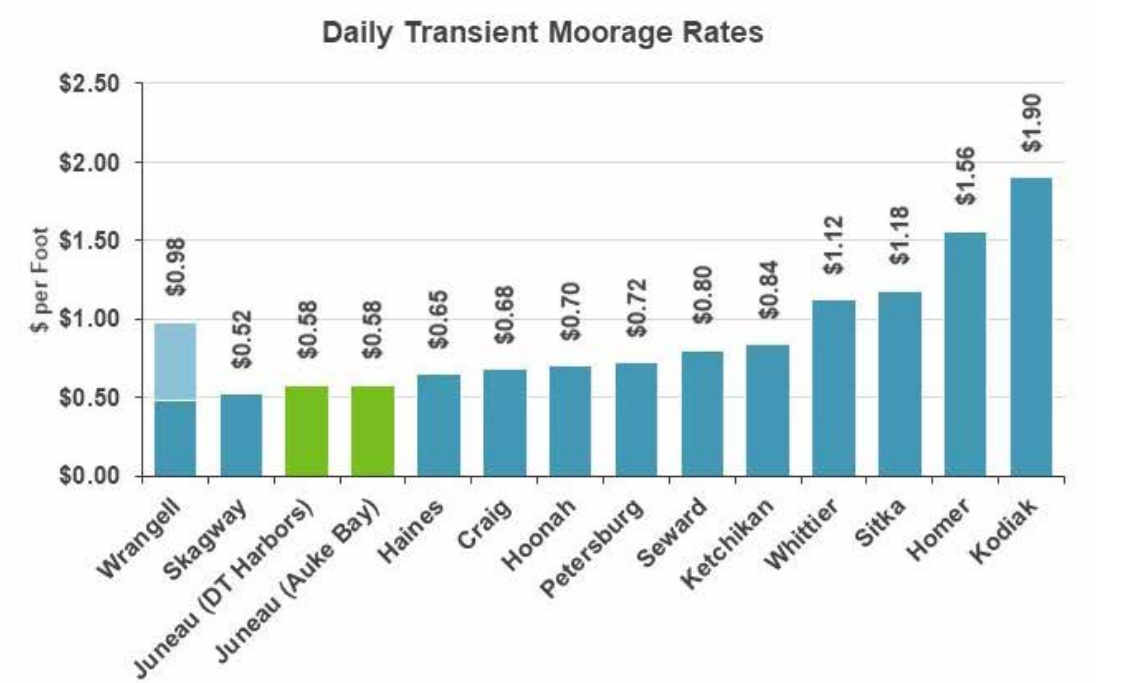


Figure 2. 2020 Comparison of Daily Moorage Rates, dollars per foot, 2020
Light blue area reflects the difference between the pre-paid rates at Wrangell (\$0.48/foot) and the invoiced rates at Wrangell (\$0.98/foot)

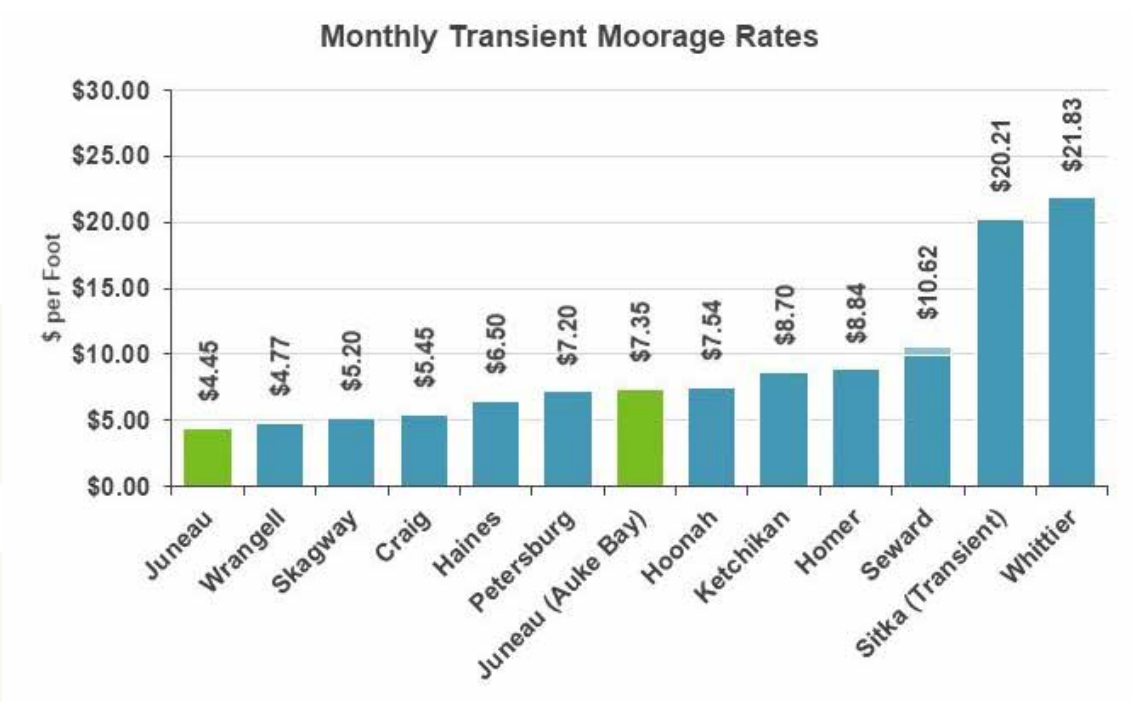


Figure 3. Comparison of Monthly Moorage Rates, dollars per foot, 2020
Light blue area reflects the difference between the reserved rates at Seward (\$9.97/foot) and the transient rates at Seward (\$10.92/foot)

When annual moorage rates are examined, D&H downtown rates are higher than most other facilities, with the exception of Homer, Whittier and D&H's Auke Bay facility.

In general, about half of D&H moorage revenues for both downtown harbors and Statter Harbor are based on the monthly tariff. For downtown, less than 10 percent of revenues are based on the daily tariff whereas for Statter Harbor, about 27% of revenues are based on the daily tariff.⁶

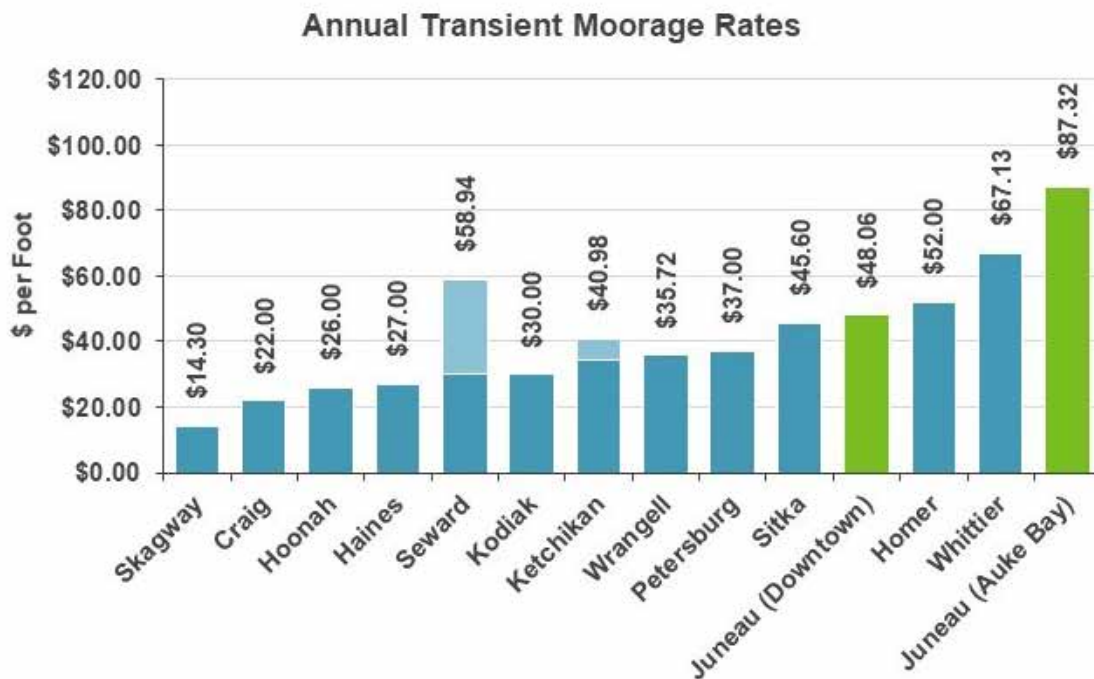


Figure 4. Comparison of Annual Moorage Rates, dollars per foot, 2020

Light blue area for Seward reflects the difference between the reserved rates at Seward (\$26.97/foot) and the transient rates at Seward (\$58.94/foot). Light blue area for Ketchikan reflects the difference between the Inside City rates at Ketchikan (\$34.48/foot) and the Outside City rates at Ketchikan (\$40.98/foot).

Port Expenditures

Use of revenues from Docks and Harbors users is not commingled and goes to providing services and maintaining assets in a state of good repair for each area, respectively.

COVID had a significant negative impact on cruise ship passenger counts which form the basis of revenues for Docks. Pre-COVID, the budgeted expenses for Docks were \$1.95 million and actual expenses were \$1.71 million. In the previous five years actual expenses ranged from about \$1.19 million to about \$1.73 million. While in most years actual expenses were less than budgeted expenses, there was a shortfall in FY 2021. Combined with reduced revenue due to COVID, the Docks funds balance decreased substantially in FY 2021. The FY 2021 fund balance is about \$1.82 million. The Dock Fund balance in 2021 is less than half of 2018 levels due to COVID-19 and capital investments in 2019.

COVID did not have much of an impact on Harbor revenues as most of the user base is local. As noted above, revenues have been steadily increasing from about \$3.4 million in FY 2013 to nearly \$4.6 million in FY 2021. During this time, budgeted expenses have also gone up proportionally with actual expenses increasing somewhat less. Harbors fund balances have also declined materially since 2013, amounting to \$1.4M at the end of FY2021, of which \$791,900 is restricted for debt service. The drawdown in balances mainly relates to capital outlays of about \$7.4M over that time-period. As with Docks, Harbors needs to set aside these funds for future contingencies. Unlike Docks, Harbors serve a wider range of stakeholders. As such, there is a more diverse set of possible issues to deal with in the future.

⁶ Based on 2019 fiscal year data.

D&H needs to set aside these funds for future contingencies. This includes years with poor financial results (2021) and years when D&H incurs additional costs to maintain assets in a state of good repair. As assets age, these expenses can increase exponentially. This is especially so for higher valued assets used for servicing cruise vessels. As such, it is especially important to maintain a robust funds balance to be able to service and replace assets at their scheduled time.

Almost half⁷ of D&H expenditures (excluding capital) are related to personnel. While D&H rates are now indexed to inflation, we have seen that general wage inflation has far exceeded that of the Consumer Price Index. If these trends continue, the indexation of D&H rates will likely be insufficient to keep up with changes to labor rates. Other measures of inflation may be more suitable for indexing D&H rates.

Figure 5 and Figure 6 provide a summary of revenue, expenditure, and fund balances from 2013 to 2021.

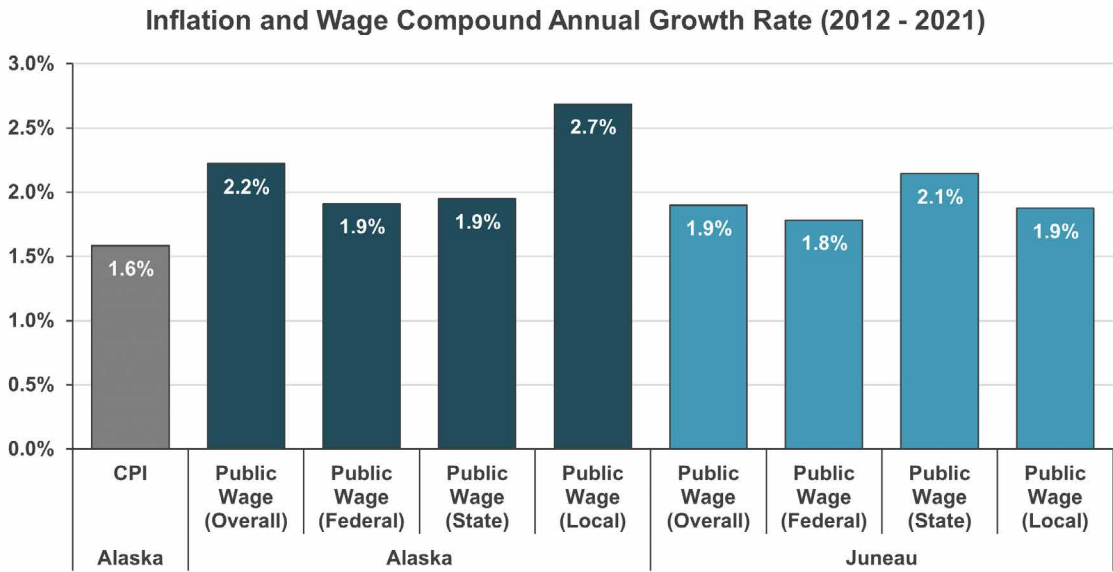


Figure 5. Wage versus CPI Inflation, 2012 - 2021

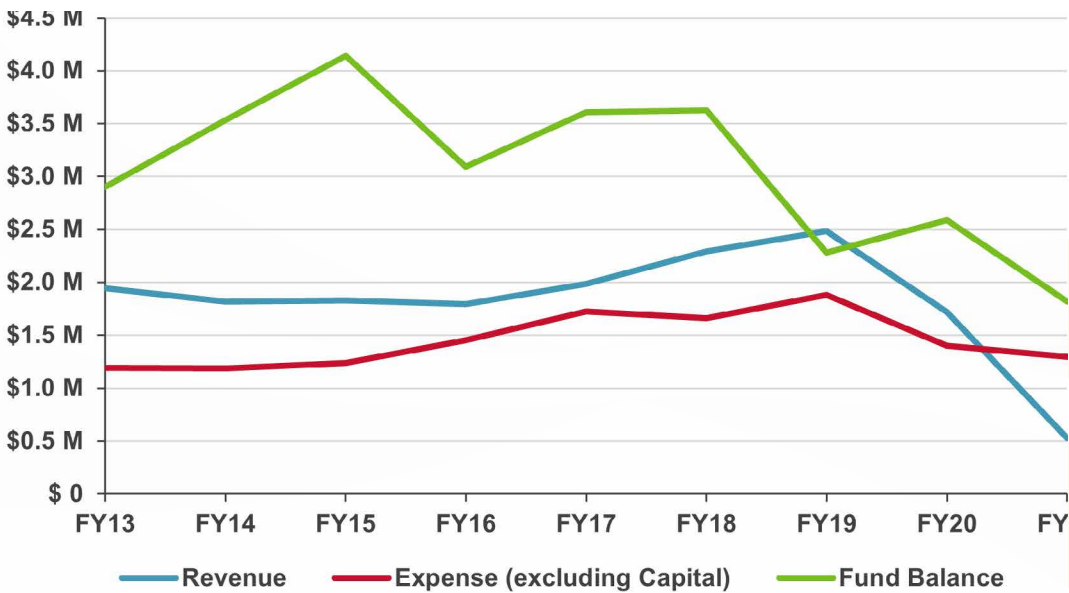
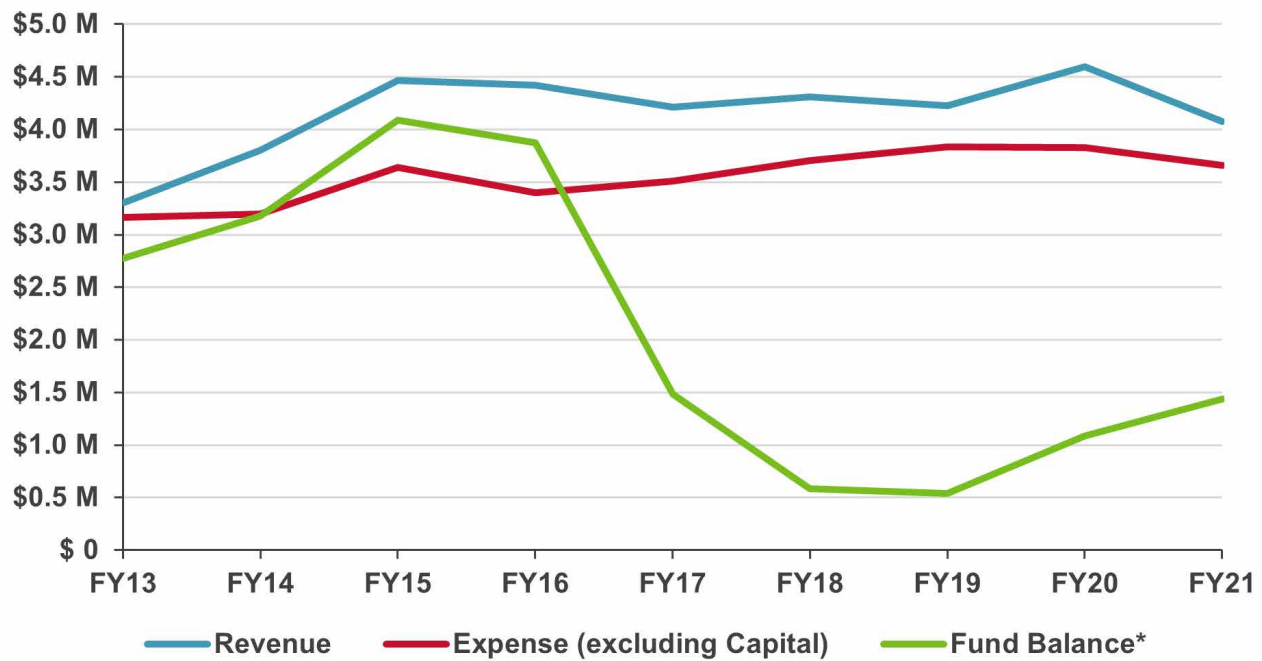


Figure 6. CBJ Docks Fund Balance, 2013 to 2021

⁷ From FY2013 to FY 2021, personnel expenditures were 48% of non-capital expenditures. This data was provided by D&H for 2013-2021.

Harbors Fund



**Portion of the balance is reserved for debt repayment*

Figure 7. CBJ Harbors Fund Balance, 2013 - 2021

Expenditures for both Docks and Harbors consist of fixed personnel and building costs and some generally fixed operations and maintenance costs. As noted above, maintaining assets in a state of good repair also requires variable costs that occur every few years and can result in spikes in expenditures.⁸ Additionally, some of the variable costs will be for major rehabilitation and even entire replacement of assets that require a significant infusion of funds that require setting aside money in reserves. This would also apply to any proposed new assets.

As such, HDR recommends that D&H maintain a rigorous replacement reserve analysis to determine the amount of funds needed to deal with these state of good repair issues. This would allow D&H to establish rates to accumulate adequate reserves every year to have these funds (i.e., escrow funds annually to pay for major expenses when they occur). Part of this exercise would include assigning annual cost schedules for each of the facilities D&H maintains. Some of the costs are specific to maintaining the infrastructure and others are shared costs (e.g., general D&H personnel costs). Having a better idea of future expenditures is essential for establishing the revenues required to fund these expenditures. Once that is established, it also provides a better framework for establish rates to meet these revenue targets.

Through this rate setting project, HDR developed a financial model to estimate to establish a replacement reserve analysis that can be used to determine the level of rates required to maintain D&H's assets in a state of good repair and to provide for future capital needs. Using D&H asset and cost inputs⁹, HDR has estimated the rate increase necessary to fund D&H's financial needs.

⁸ A November 19, 2021, memo from the Port Director to the Board and City Manager (FY2021 Review - Docks & Harbors Operations) highlights several recent projects (see item #5).

⁹ The cost information was exogenous to this study and provided by D&H. HDR has not independently validated these inputs.

3

Stakeholder Perspectives

Between April 5th and 9th, 2022, HDR conducted outreach with different D&H user groups. HDR conducted the outreach to ascertain sensitivity to any changes in rates and services and how any changes might affect their business model (commercial users) and harbor usage (non-commercial users). The responses are confidential and as such are not included in the report.¹⁰

Outreach User Group participants were:

- Cruise Lines
- Charter Operators
- Recreation Boaters
- Launch Ramp Users
- Live-Aboard Community
- Commercial Fishing

General points raised during the outreach included:

Docks

- Alaska is a world class cruise line destination and the stop at Juneau is an integral part of the cruise (e.g., taking in a whale watching charter).
- Current cruise related taxes and fees (D&H, state, etc.) are a small part of total Cruise trip costs for passengers (cruise, airfare to Seattle, charters, and other expenses). Any modest changes to these taxes are not likely to alter a decision to take a cruise to Alaska.
 - » However, D&H needs to take into consideration any rate change at other ports.
- Cruise lines would value certainty in any potential rate increase and would prefer any increase to be set 12 to 18 months in advance to adequately incorporate into their business model and itineraries.

Harbors

- For recreational boaters in general, the fees paid to D&H are only a small component of the total costs of boating. The major cost drivers include the costs of the boat, fuel, insurance, etc. Boating is a way of life for recreational boaters. The more price sensitive recreational boaters may opt for using launch ramps instead of paying moorage, but this also implies that they bear the costs of storing and transporting the boat (truck, and trailer chassis). In some cases, a recreational boater may both moor a vessel and use launch ramps depending on a variety of circumstances.
- There are not many substitutes to the services D&H offers recreational boaters and most are pleased with existing service levels. Given this and that D&H related costs are not a large component of total costs, recreational boaters would not likely change their behavior much if there were a modest fee increase.
- Nearly all charter boat customers are out-of-state visitors disembarking from cruise lines. The Juneau cruise is often an integral component of their trip. If you take a cruise to Alaska, you are likely going to take a charter in Juneau unless price points change drastically for them.
- Moorage is not one of the top cost drivers for charter operators. That being said, typical charter rates range from \$140-\$200 so there is relatively more price sensitivity to D&H rates than for cruise lines. This presents more of an issue if the rate in question were a head tax rather than a moorage rates; the latter being a small component

¹⁰ Responses are not to be interpreted as results from a census of all users, but rather responses from groups of individuals selected by D&H.

of total costs for charter operators.

- D&H related costs are not a top cost driver for commercial fishing vessels. Primary cost drivers are vessel costs, crew, fuel, etc. However, they may be price takers (i.e., accept what processors offer) and their ability to pass along costs may depend as much on general prices for their products increasing. In the case of vertically integrated fisheries/processors this is less of an issue.
- The live-aboard community use their vessels as both house boats and for recreational boating. Boating is more than just a way of life (i.e., primary hobby) but also where they live. Since there is also a monthly residence surcharge (in addition to moorage), D&H fees make up a higher share of costs than for purely recreation vessels. However, as these vessels are also house boats, D&H fees not only need to be put in context of recreational vessels costs but also costs of housing. As such, one can consider D&H related fees as a percentage of recreational boating and housing costs. In many cases, these house boats are somewhat larger than a purely recreational vessel and entail greater operational costs than a purely recreational vessel due to their dual purpose. The live-aboard option represents a lower-cost housing option for the community which may be in the interest of the municipality. However, the community shares and competes for space with other users and as such are not any different from that standpoint to D&H with respect to setting fair and equitable rates for D&H services.
- The demand for parking at Statter Harbor is greater than supply.
- The demand for reserved spaces is greater than supply.
- Nearly all stakeholders would rather not have a cut in service levels, and many would be willing to pay a modest amount more to maintain or increase service levels.

4

Perspectives on Changing Rates and Elasticity of Demand

When setting rates (and any prices in general), gauging the sensitivity of users to price changes is paramount. The economic term for this sensitivity is “price elasticity.” Changes that reduce output less (less elastic) are more economically efficient than those that lead to larger changes in the demand for services. Often this entails charging different prices for different users or differential pricing based on quantity or quality. This exercise becomes more challenging when pricing for shared facilities so differential pricing by group is not practical and often politically risky. D&H’s current rate structure does provide for discounts based on quantity, or to be precise duration (daily, monthly, semi-annual, and annual). Moving forward there are a few points to consider that are useful in providing rate recommendations.

- The more substitutes are available for a product or service, the more “elastic” or sensitive demand is to changes in prices. Conversely, when fewer substitutes are available prices are less elastic.
- When the cost of the service in question is only a small component of total user costs, changes in the costs of that service matter less to the overall usage of the overall service (e.g., costs of state license plates as a ratio of costs to operating a vehicle).
- A product or service is currently underpriced if demand for it is greater than the available supply.
- Products or services that provide more value should be priced higher than services that provide less value.
- Differential pricing (by group, quantity, or quality) that increases overall demand the most is more economically efficient. Conversely, rate increases that decrease output the least are more efficient than rate increases that decrease output more.
- Economically efficient differential pricing is based on charging lower elasticity groups relatively more. This is the essence of “Ramsey pricing” that is used in rate setting by utilities and other similar entities.
- Providing better (lower per unit) pricing when buying in bulk or for longer-term contracts makes economic sense if it increases demand more than uniform pricing.
 - » However, these discounts need to be put in context of the user. For example, if the longer-term contract also provides more value (over and above the price break) to the user (e.g., improved certainty of having a parking spot in your office building’s garage) then D&H needs to be cautious in providing too large a price break.
 - » Similarly, longer-term users may be less price elastic to changes in rates since the overall service (e.g., less uncertainty on finding a space, less hassle compared to getting daily permits, etc.) is of great value. As above, D&H needs to exercise caution in setting too large a price break. Further, given the likelihood of the group being less price elastic to changes in rates, one would expect to see less changes to demand than with changes to relatively more elastic daily users.
 - » A review of moorage rates shows that in many cases the implied daily rate of paying monthly (assuming you use the service daily) is only about a $\frac{1}{4}$ of the daily rate. This appears to be a steep discount. For launch ramp users the implied daily rate is much lower.

5

Rate Setting Principles

When reviewing potential rate setting actions, it is critical to review and understand not just the users of the service but also the principles or objectives that the rate setter has established. It is important to note that the D&H Enterprise funds are operated and financed in a manner similar to private business with the objective to provide goods and services to the general public on a continuing basis and be financed or recovered primarily through user charges.

D&H Docks and Harbors has a well-articulated set of principles/criteria and are documented in the **Docks & Harbors - Rate Setting Policy** that we summarize and paraphrase below. Any rate changes or restructuring must be aligned with these principles.

4. Rates must be fair and reasonable – a defined and consistent approach and striving to allocate an equitable share of the cost to every user.
5. Rates must be consistent - establishing this rate setting policy we will have a consistent approach to every rate and rate change.
6. Rates must be supported by data and an explanation of how the data justifies the rate.
7. Rates must be sufficient to support the operations of docks and harbors.
8. Rates must replace capital investments.
9. Rates must build reserves for contingencies and future growth.
10. Where currently significant disparity exists between the cost allocation to user groups these need to be adjusted in a fair and appropriate manner.

The rate setting policy is quite robust and broadly consistent with policies applied in other ports. The policy is set with a focus of the D&H Enterprise to operate as a business entity and not as a public entity with broader societal objectives; that purpose rests at the municipality itself. The D&H Enterprises must set rates to cover operational costs, maintain existing assets and to build reserves to fund future growth. In establishing new rates, care must be taken to ensure that the rates are fair, consistent, and equitable across user groups.

In assessing how the current rates align with the **Docks & Harbors - Rate Setting Policy**, we offer the following:

1. Rates must be fair and reasonable:
 - a. Passenger head tax rates for Docks apply to cruise passengers are lower than that charged at Ketchikan but higher than that charged at Skagway. Juneau is the featured Alaska cruise destination and has the largest number of cruise visitors per year than any other Alaska destination. The rates are in general a very small share of a passenger's total cost for that cruise.
 - b. Rates for Harbors are established without differentiation between individual user groups and can therefore be considered fair. The equity and value of having such large discounts provided for longer term users relative to daily users is an issue worth exploring further. Overall Harbor rates are a small portion of any one user's total usage cost.
2. Rates must be consistent.
 - a. D&H have now established rates to be inflation adjusted going forward to facilitate consistency. Existing rates are now indexed to consumer inflation. Other inflation indices may be better aligned with port related cost drivers and should be considered.

3. Rates must be supported by data and an explanation of how the data justifies the rate.
 - a. From a market-oriented viewpoint existing rates are well supported.
 - b. Rates are a small fraction of users' overall costs.
 - c. Facility utilization is high.
 - d. There are no real competitive alternatives.
 - e. Users have indicated that they are not sensitive to modest price changes which is consistent with the evidence in a-to-d above.
 - f. From a cost orientation viewpoint, there is not well documented evidence of the cost by service or a projection of the future costs for asset renewal and new infrastructure.
4. Rates must be sufficient to support the operations of docks and harbors.
 - a. Rates currently do cover annual operational expenses for Harbors and pre-COVID covered Docks operational expenses.
5. Rates must replace capital investments.
 - a. It is unclear from existing financial data and reports that existing rates are sufficient to build reserves to fund new assets and existing asset replacement. Existing fund balances for both Docks and Harbors are significantly lower than previous levels. The replacement reserve analysis that follows indicates that existing rates are not sufficient.
6. Rates must build reserves for contingencies and future growth.
 - a. It is unclear from existing financial data and reports that existing rates are sufficient to build reserves to fund new assets and existing asset replacement. Existing fund balances for both Docks and Harbors are significantly lower than previous levels. The replacement reserve analysis that follows indicates that existing rates are not sufficient.
7. Where currently significant disparity exists between the cost allocation to user groups these need to be adjusted in a fair and appropriate manner.
 - a. For Harbors, the rate approach does not distinguish between user groups. There is a large price differential between daily rates versus the implicit daily rate associated with the longer-term rates. This equity related to this disparity should be explored further.

The following observations/reservations are based on the above:

1. D&H should continue to view their rate setting philosophy with a business-oriented philosophy.
2. D&H could raise rates from existing levels without any deleterious impacts on users or any negative competitive consequences for Docks and Harbors.
3. D&H should assess the relative price differentials and implied "volume" discounts between daily and long-term moorage rates.
4. D&H should set future rates to augment fund balances so that funds are available to maintain existing infrastructure and support the acquisition of future assets.
5. The reserve analysis that follows indicates that current rates are inadequate to maintain assets in a state of good repair and support future growth.
6. D&H should consider other mechanisms for indexing rates as opposed to consumer inflation.

6

Replacement Reserve Analysis (RRA)

A replacement reserve analysis is a long run capital planning process that will help D&H anticipate the financial requirements for the repair and replacement of port facilities and the acquisition of additional assets. The output of the replacement reserve analysis is an estimate of the annual reserve that should be set aside to maintain D&H's facilities in a state of good repair.¹¹

To conduct the RRA, the following inputs are required for each D&H facility:

- Average remaining life of the facility;
- The replacement cost of the facility; and,
- The potential external funding available for the asset replacement from non-D&H funding sources.

These inputs were collected for all D&H facilities and documented in the financial model provided as a project deliverable.¹² The total replacement value in 2022 dollars for all D&H facilities is estimated to be \$195.2 million.

The annual profile of the required replacement expenditures over the next 40 years is provided below. These estimates are net of potential external funding that could be used to fund the facility replacements at least partially. These external funding sources include but are not limited to federal discretionary grant funding, passenger fees and ADOT Harbor Grants.

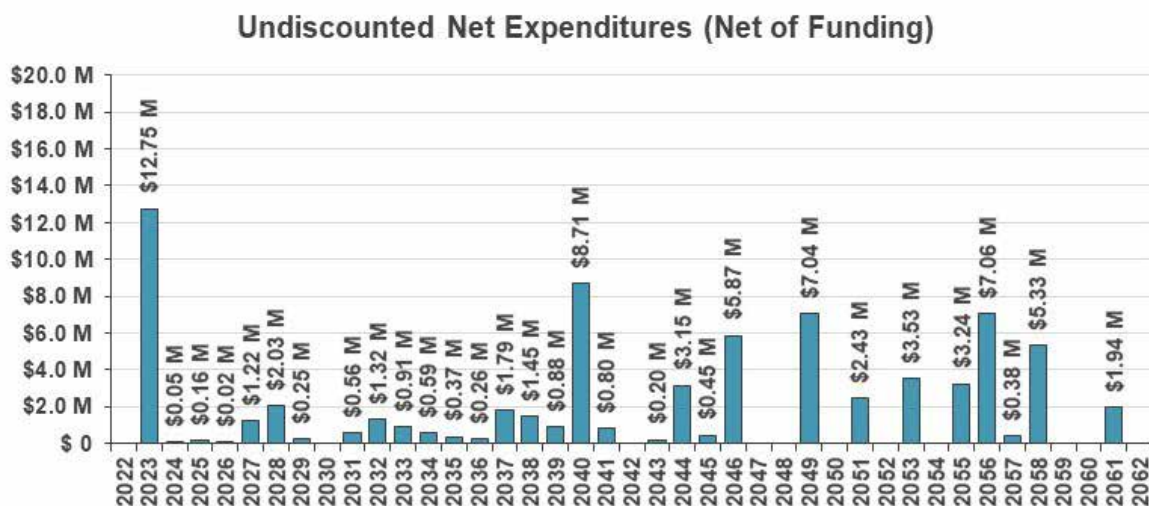


Figure 8. Annual reserve requirements by year, 2020

The RRA assumes that when an asset reaches the end of its “average remaining life”, it is fully replaced and therefore funding is required. As illustrated in Figure 8, there are some years in which there are no assets reach the end of their remaining life and no replacement expenditures required. In other years, some assets do reach the end of their remaining life and they are assumed to be replaced with large funding requirements such as in 2040 where \$8.7M is required.

The total reserve requirement by facility is provided below in 2022 dollars. Some of the replacements will receive funding from external sources and are therefore for D&H, the net expenditure estimates are the most relevant.

¹¹ HDR discussed the need to have such an analysis during monthly Board meetings. This exercise is a result of those suggestions and discussions with D&H during the development of the report.

¹² The data was provided by D&H staff. HDR did not independently verify these data.

	GROSS EXPENDITURES	FUNDING	NET EXPENDITURES
Statter	\$31.0 M	\$15.2 M	\$15.8 M
S Aurora	\$24.3 M	\$11.6 M	\$12.7 M
Douglas	\$13.9 M	\$6.6 M	\$7.3 M
Harris	\$13.4 M	\$6.4 M	\$7.0 M
ABLF	\$7.0 M	\$ 0	\$7.0 M
N Aurora	\$7.2 M	\$3.6 M	\$3.6 M
Wayside Park Float	\$3.1 M	\$ 0	\$3.1 M
ABLF Uplands	\$3.0 M	\$ 0	\$3.0 M
Statter Uplands	\$2.4 M	\$ 0	\$2.4 M
Taku Harbor	\$4.3 M	\$2.1 M	\$2.3 M
ABMS	\$1.6 M	\$ 0	\$1.6 M
Seawalk	\$31.3 M	\$29.8 M	\$1.5 M
Norway Point Float	\$1.4 M	\$ 0	\$1.4 M
National Guard Dock	\$1.3 M	\$ 0	\$1.3 M
Port of Juneau Uplands	\$19.2 M	\$18.3 M	\$0.9 M
Harris Harbor Uplands	\$0.7 M	\$ 0	\$0.7 M
Amalga	\$2.2 M	\$1.6 M	\$0.6 M
AS Pontoon	\$11.8 M	\$11.2 M	\$0.6 M
CT Pontoon	\$10.0 M	\$9.5 M	\$0.5 M
N Douglas Boat Launch	\$0.8 M	\$0.4 M	\$0.4 M
Echo Cove	\$0.5 M	\$0.3 M	\$0.3 M
Aurora Harbor Uplands	\$0.3 M	\$ 0	\$0.3 M
Douglas Harbour Uplands	\$0.2 M	\$ 0	\$0.2 M
IVF	\$2.6 M	\$2.5 M	\$0.1 M
PFO	\$1.6 M	\$1.5 M	\$0.1 M
TOTAL	\$195.2 M	\$120.4 M	\$74.7 M

The RRA converts the 40 years of annual replacement related expenditures to an equivalent annual amount. To do this, the 40 years of expenditures are discounted to a present value using a real discount rate of 3%.¹³ Then, this present value is converted into an annual equivalent amount reflecting the 40-year planning horizon.

The annual amount required to maintain D&H facilities in a state of good repair going forward is \$1.9M. That is, to maintain D&H's existing facilities, D&H revenues must exceed expenditures by \$1.9 M per year to be able to establish reserves that can be used to maintain and replace assets once they reach the end of their asset life. This \$1.9 M estimate excludes any capital needs for new facilities or other assets.

If we examine the three years prior to COVID-19, D&H revenues exceeded non-capital expenditures by about \$1.2 M (in 2022\$) per year which is about \$0.7M less than that identified through the RRA. Existing fund balances can be used to contribute to the replacement of assets, but the total fund balance is only \$3.3M at the end of fiscal 2021 which is equivalent to only \$0.1 million per year over a 40-year horizon. D&H's funding gap, excluding any net capital investment in new infrastructure, is about \$0.6M a year. Any planned capital projects would have to also be funded which would add to this shortfall.

The RRA was conducted for the combined assets of D&H. Managing D&H assets and rates from a holistic perspective would provide D&H management greater flexibility in financial planning.

The details (e.g., data inputs, assumptions, and methods) of the RRA are provided as a separate deliverable – the D&H Financial Model coded in MS Excel.

¹³ See OMB Circular A-4 p.33 https://www.whitehouse.gov/wp-content/uploads/legacy_drupal_files/omb/circulars/A4/a-4.pdf

7

Rate Recommendations

Setting rates is a policy issue that must be determined by D&H. It must reflect D&H's rate setting principles, policy objectives and future capital program. If we re-examine, D&H's rating principles we note that it is core to principles that rates must be sufficient to support the operations of docks and harbors, rates must replace capital investments, and that rates must build reserves for contingencies and future growth.

We find that based on the RRA, D&H's existing funding is inadequate to achieve these objectives. To meet D&H's policy objectives, additional funding is required to provide sufficient reserves to fund asset replacement to fund any capital investment in new infrastructure. The additional funding could come from: direct new funding from D&H, through increasing D&H rates, or through any combination of the above.

To eliminate the funding gap solely through D&H rates, an average increase of about nine percent would be required. We do believe that a rate increase of that magnitude would not have any deleterious impacts on D&H users.

HDR makes the following recommendations:

1. D&H make a one-time increase for all rates to meet their capital replacement requirements as well as their future capital program. Based on the Replacement Reserve Analysis, the magnitude of the increase would have to be nine percent to for asset replacements. The actual rate increase should also reflect their capital plan for new infrastructure investments.
2. D&H provide an advance notice to users of the one-time increase of 12 months.
3. D&H maintain the indexation of rates and fees. However, using consumer inflation to adjust rates is not entirely reflective of D&H Docks and Harbors cost pressures (e.g., rising wage rates greater than the CPI) and alternative cost indices more reflective of the D&H operating environment should be explored.
4. D&H should consider removing the firewall between docks and harbors to provide greater flexibility in meeting financial obligations (i.e., balancing financial statements).
5. For the purposes of this study, HDR is proposing an across-the-board increase. In the future, D&H may wish to differentiate increases by source (facility) but that is outside the scope of this report.



Port of Juneau Rate Setting Project
City and Bureau of Juneau
September 1, 2022



THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

Department of Environmental Conservation
Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

555 Cordova Street
Anchorage, AK 99501
Main: 907-269-7558
Fax: 907-269-7687
www.dec.alaska.gov

File No.: 1513.38.125
Hazard ID: 27727

September 15, 2022

Sent Via Electronic Mail

Carl Uchytel, Port Director
Docks & Harbors, City and Borough of Juneau
76 Egan Drive
Juneau, AK 99801
carl.uchytel@juneau.org

Re: ADEC Approval Letter for – “Site Characterization Workplan Cultural Immersion Park 4400/4402 Thane Road, Juneau, Alaska,” dated August 10, 2022

Dear Mr. Carl Uchytel,

The Alaska Department of Environmental Conservation (ADEC) Contaminated Sites Program (CSP) received the “Site Characterization Workplan Cultural Immersion Park 4400/4402 Thane Road, Juneau, Alaska,” dated August 10, 2022, via electronic mail on August 15, 2022. The work plan is **approved**.

As a reminder, files containing up to 20MB may be emailed to me at CS.Submittals@alaska.gov and files larger than 20 MB up to a limit of 8 GB may be submitted to me through the Alaska ZendTo "drop-off" option at <https://drop.state.ak.us/drop/>. The CSP prefers electronic only submittals and no longer requires that hard copies be submitted.

Please contact me at (907) 269-7556 or alena.voigt@alaska.gov if you have any questions or if any deviations from the approved workplan are expected to occur.

Sincerely,

Alena D. Voigt

Alena Voigt
Project Manager
Contaminated Sites Program

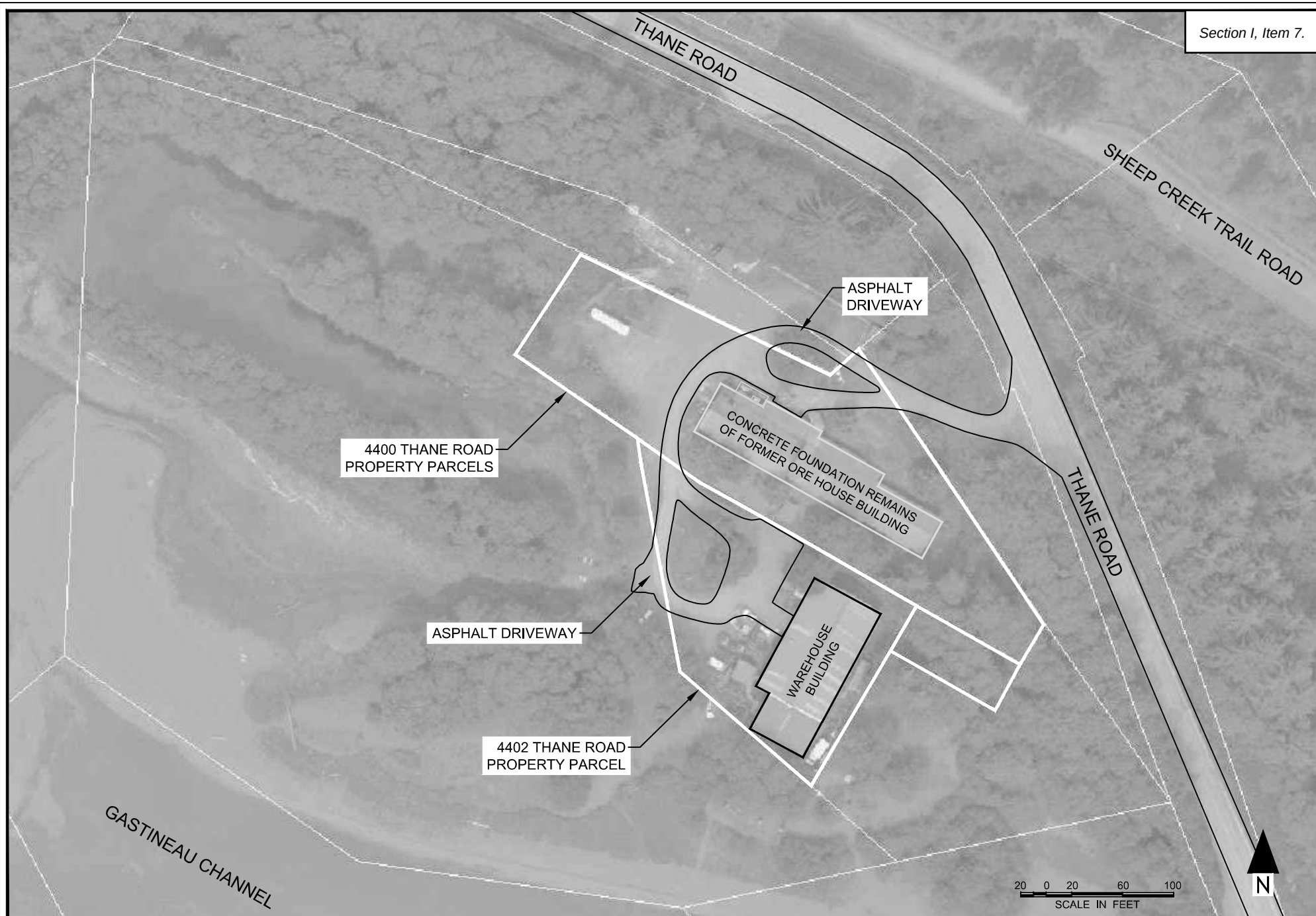
Carl Uchytel
Docks & Harbors
City and Borough of Juneau

2

September 15, 2022

Section I, Item 7.

cc: Lisa Krebs-Barsis, ADEC, via lisa.krebs-barsis@alaska.gov
Jason Ginter, NORTECH, via Jason.Ginter@nortechengr.com

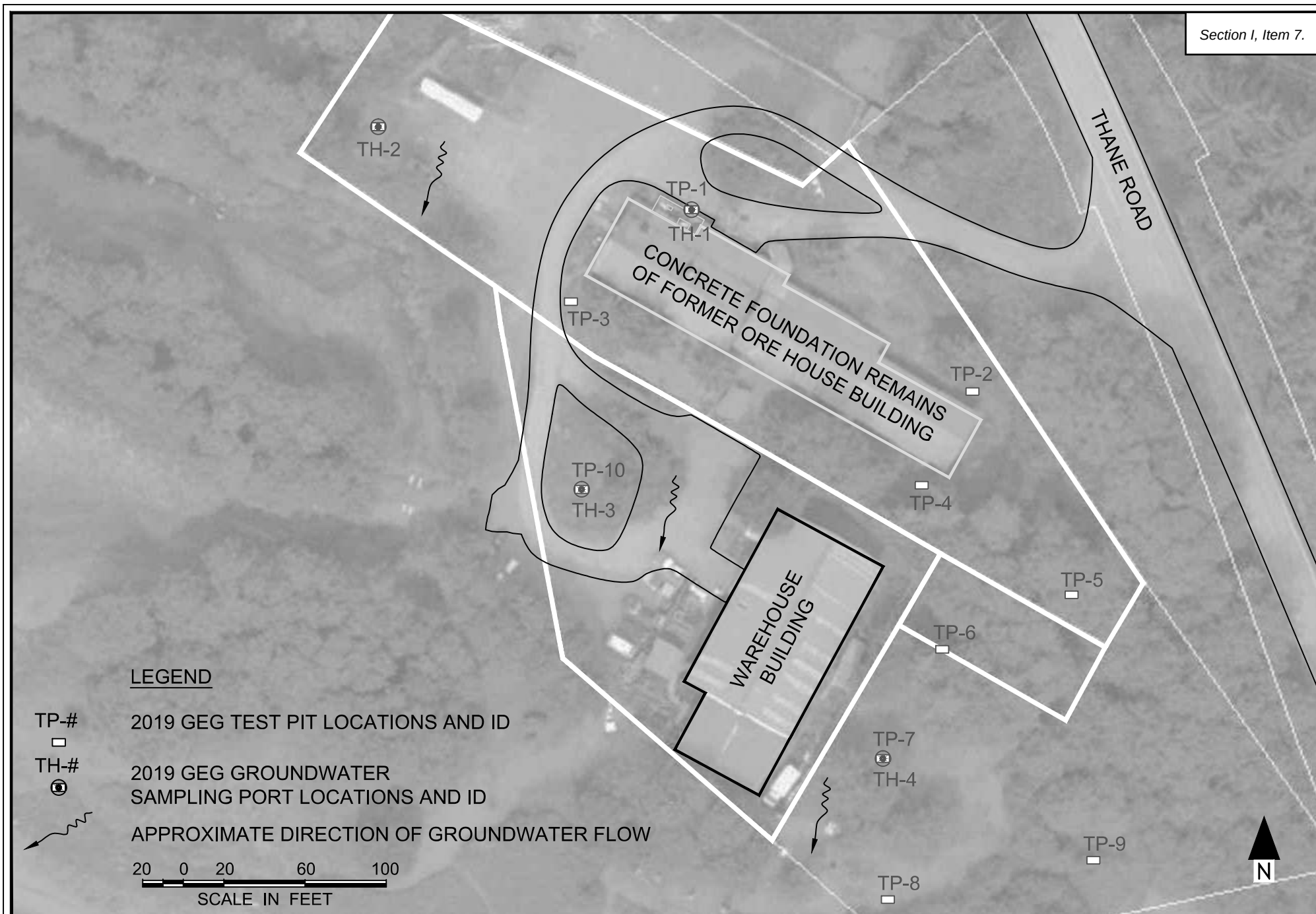


ENVIRONMENT, ENERGY, HEALTH & SAFETY CONSULTANTS
 2400 College Road, Fairbanks, AK. 99709, 907-452-5688
 3105 Lakeshore Dr., Anchorage, AK. 99517 907-222-2445
 5438 Shaune Dr., Juneau, Alaska 99801 907-586-6813

Vicinity Map
 Immersion Park Site Characterization Workplan
 4400/4402 Thane Road, Juneau, Alaska

DATE: 017/28/2022	SCALE: 1" = 100'
DESIGN: JLS	PROJECT: 22-2653
DRAWN: RJP	DWG: 222653a(02)

FIGURE
 44



ENVIRONMENT, ENERGY, HEALTH & SAFETY CONSULTANTS
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 3105 Lakeshore Dr., Anchorage, AK. 99517 907-222-2445
 5438 Shaune Dr., Juneau, Alaska 99801 907-586-6813

2019 G.E.G. Test Pit and Groundwater Sampling Locations
 Immersion Park Site Characterization Workplan
 4400/4402 Thane Road, Juneau, Alaska

DATE: 07/29/2022	SCALE: 1" = 60'
DESIGN: JLS	PROJECT: 22-2653
DRAWN: RJP	DWG: 222653a(03)

FIGURE

45



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 5438 Shaune Dr., Juneau, Alaska 99801 907-586-6813

Proposed Soil Boring Locations and Sampling Grid
 Immersion Park Site Characterization Workplan
 4400/4402 Thane Road, Juneau, Alaska

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DESIGN: JLS	PROJECT: 22-2653
DRAWN: RJP	DWG: 222653a(04)

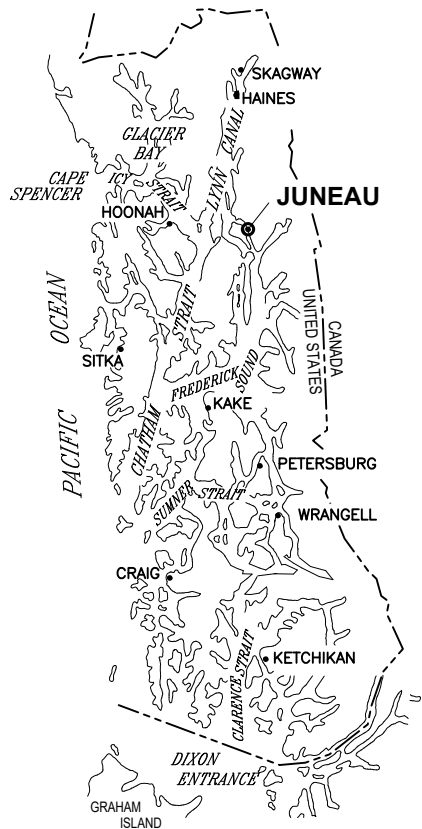
FIGURE

46

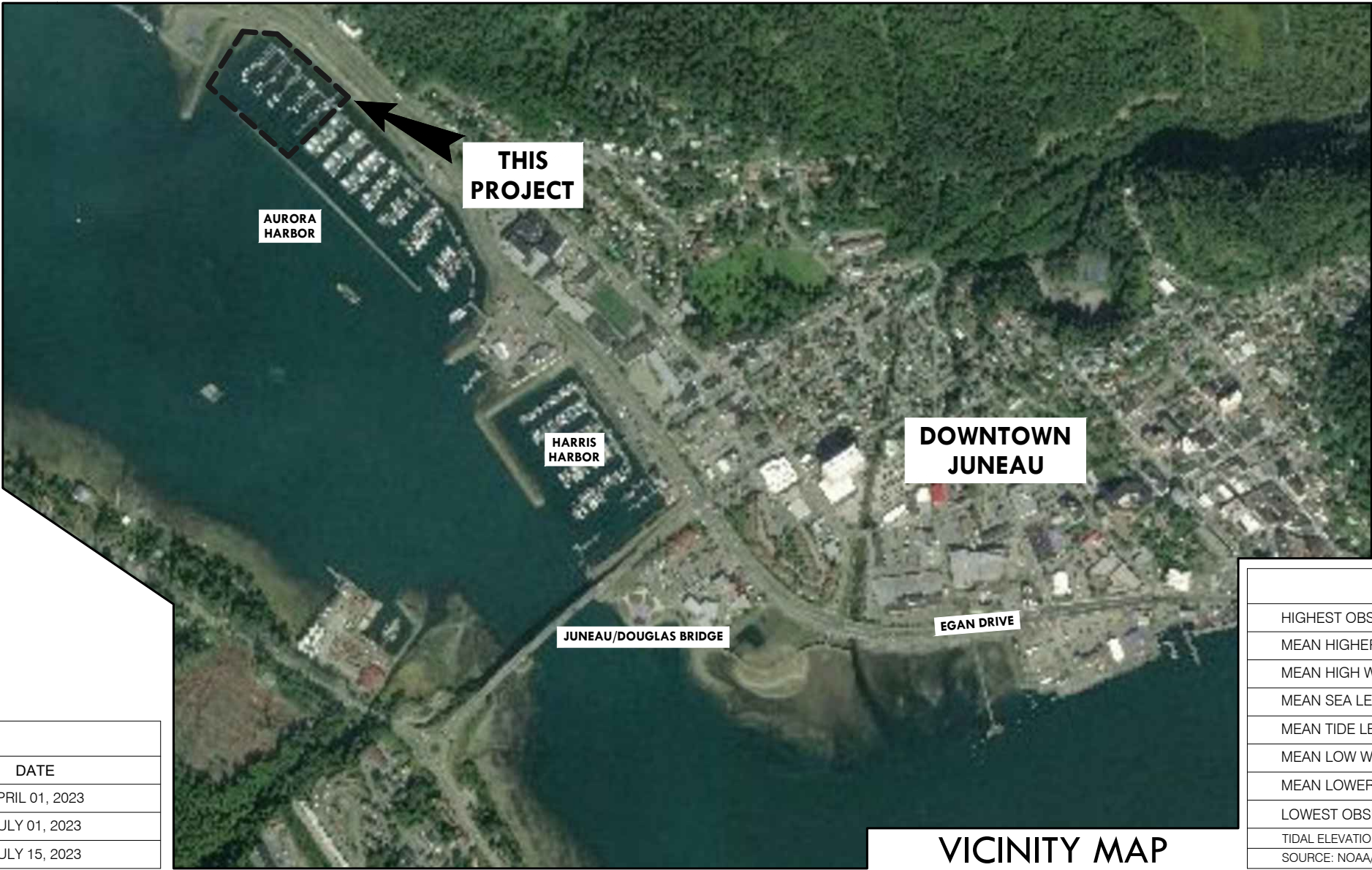
CITY AND BOROUGH OF JUNEAU, ALASKA

AURORA HARBOR REBUILD - PHASE III

CBJ CONTRACT - DH 23-014



SOUTHEAST ALASKA

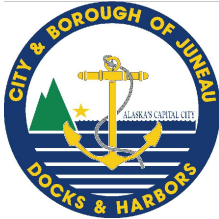


LOCATION MAP

PROJECT SCHEDULE	
MILESTONE	DATE
EARLIEST FIELD START	APRIL 01, 2023
SUBSTANTIAL COMPLETION	JULY 01, 2023
FINAL COMPLETION	JULY 15, 2023

TIDAL DATA	ELEVATION
HIGHEST OBSERVED WATER LEVEL	+24.58 FT
MEAN HIGHER HIGH WATER (MHHW)	+16.30 FT
MEAN HIGH WATER (MHW)	+15.34 FT
MEAN SEA LEVEL (MSL)	+8.56 FT
MEAN TIDE LEVEL (MTL)	+8.47 FT
MEAN LOW WATER (MLW)	1.60 Ft
MEAN LOWER LOW WATER (MLLW)	0.0 FT
LOWEST OBSERVED WATER LEVEL	-6.12
TIDAL ELEVATION SHOWN RELATIVE TO MLLW = 0.0 FEET	
SOURCE: NOAA/ NOS/CO-OPS STATION ID: 9452210 JUNEAU, ALASKA	

G1 - COVER SHEET



REVISIONS					
REV	DATE	DESCRIPTION	DWN	CHK	APP

CITY AND BOROUGH OF JUNEAU
DOCKS & HARBORS DEPT.
155 SOUTH SEWARD STREET
JUNEAU, ALASKA 99801
PHONE: 907-586-0292



COVER SHEET, VICINITY MAP AND TIDAL DATA			
AURORA HARBOR REBUILD - PHASE III			
DESIGN:	MS	DATE:	NOVEMBER 15, 2022
CHECKED:	ES	CONTRACT NO.	DH23-014
APPROVED:	CU	FILE NO.	1539

GENERAL		
SHEET NO.	DWG. NO.	TITLE
	G1	COVER SHEET, VICINITY MAP AND TIDAL DATA
	G2	DRAWING INDEX
	G3	EXISTING CONDITIONS AND SALVAGE PLAN
	G4	GENERAL SITE PLAN

SALVAGED MATERIALS		
SHEET NO.	DWG. NO.	TITLE
	S1	GANGWAY SALVAGE PLAN, ELEVATION AND DETAILS
	S2	GANGWAY LANDING FLOAT SALVAGE PLAN, ELEVATION AND DETAILS

MOORING FLOATS		
SHEET NO.	DWG. NO.	TITLE
	F1	OVERALL FLOAT PLAN AND PILE LAYOUT
	F2	FLOAT PILE PLAN AND DETAILS
	F3	HEADWALK DETAILED FLOAT PLAN
	F4	MAINWALK DETAILED FLOAT PLAN
	F5	TEE FLOAT DETAILED FLOAT PLAN
	F6	FLOTATION SCHEDULE
	F7	TYPICAL 10x42 MODULE PLAN & ELEVATION
	F8	TYPICAL 10x54 MODULE PLAN & ELEVATION
	F9	TYPICAL 10x64 MODULE PLAN & ELEVATION
	F10	8X60 FINGER FLOAT PLAN & ELEVATION
	F11	6x48 FINGER GLOAT PLAN & ELEVATION
	F12	16x25 ELECTRICAL EQUIPMENT FLOAT
	F13	TYPICAL 8' & 10' FLOAT SECTIONS
	F14	TYPICAL 6' FLOAT SECTIONS & DETAILS
	F15	END CONNECTION PLANS & ELEVATIONS

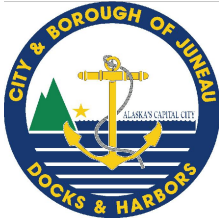
MOORING FLOATS (CONT.)		
SHEET NO.	DWG. NO.	TITLE
	F16	PILE HOOP DETAILS
	F17	FLOAT APPURTENANCE SUPPORT DETAILS
	F18	SIGNAGE

UTILITIES		
SHEET NO.	DWG. NO.	TITLE
	U1	WATER AND FIRE SCHEMATIC SITE PLAN
	U2	WATER AND FIRE SYSTEMS ROUTING
	U3	FLOAT MOUNTED UTILITY DETAILS
	U4	WATER AND FIRE SYSTEMS DETAILS

ELECTRICAL SUPPORT ASSEMBLIES		
SHEET NO.	DWG. NO.	TITLE
	ES1	ELECTRICAL SUPPORT ASSEMBLIES
	ES2	ELECTRICAL SUPPORT ASSEMBLY DETAILS
	ES3	ELECTRICAL SUPPORT ASSEMBLY DETAILS

ELECTRICAL		
SHEET NO.	DWG. NO.	TITLE
	E1	GENERAL SITE PLAN - ELECTRICAL
	E2	SINGLE LINE DIAGRAM - OVERALL
	E3	SINGLE LINE DIAGRAM - PANEL H
	E4	POWERHEAD AND PEDESTAL DETAILS
	E5	POST MOUNTED PEDESTAL SUPPORT BASE DETAILS
	E6	ELECTRICAL SUPPORT DETAILS
	E7	FLOOR PLAN

G1 – COVER SHEET

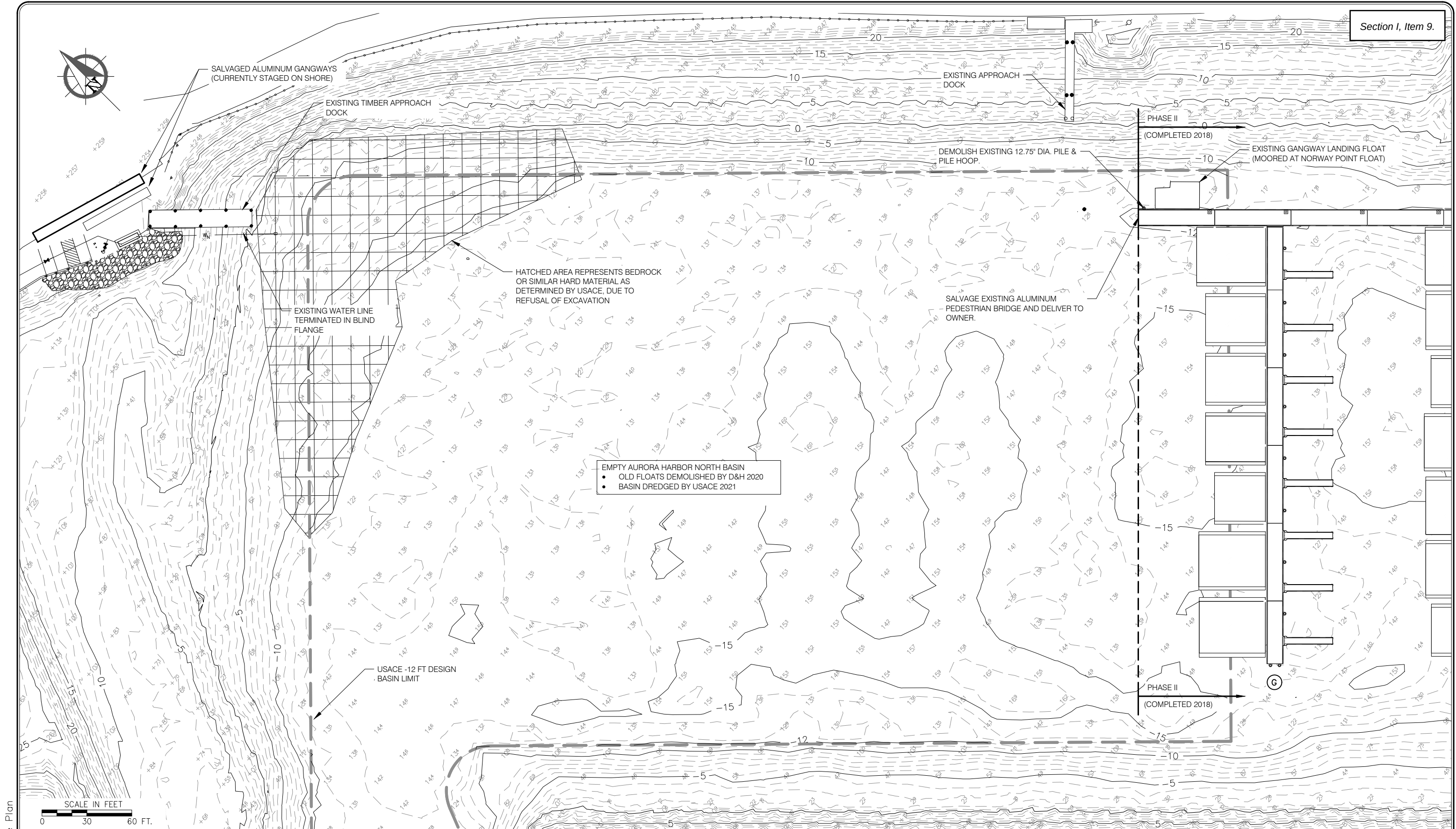


REVISIONS					
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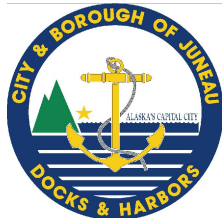
CITY AND BOROUGH OF JUNEAU
DOCKS & HARBORS DEPT.
155 SOUTH SEWARD STREET
JUNEAU, ALASKA 99801
PHONE: 907-586-0292



DRAWING INDEX			
AURORA HARBOR REBUILD - PHASE III			
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G3 – Existing Site Plan



REVISIONS					
REV	DATE	DESCRIPTION	DWN	CHK	APP

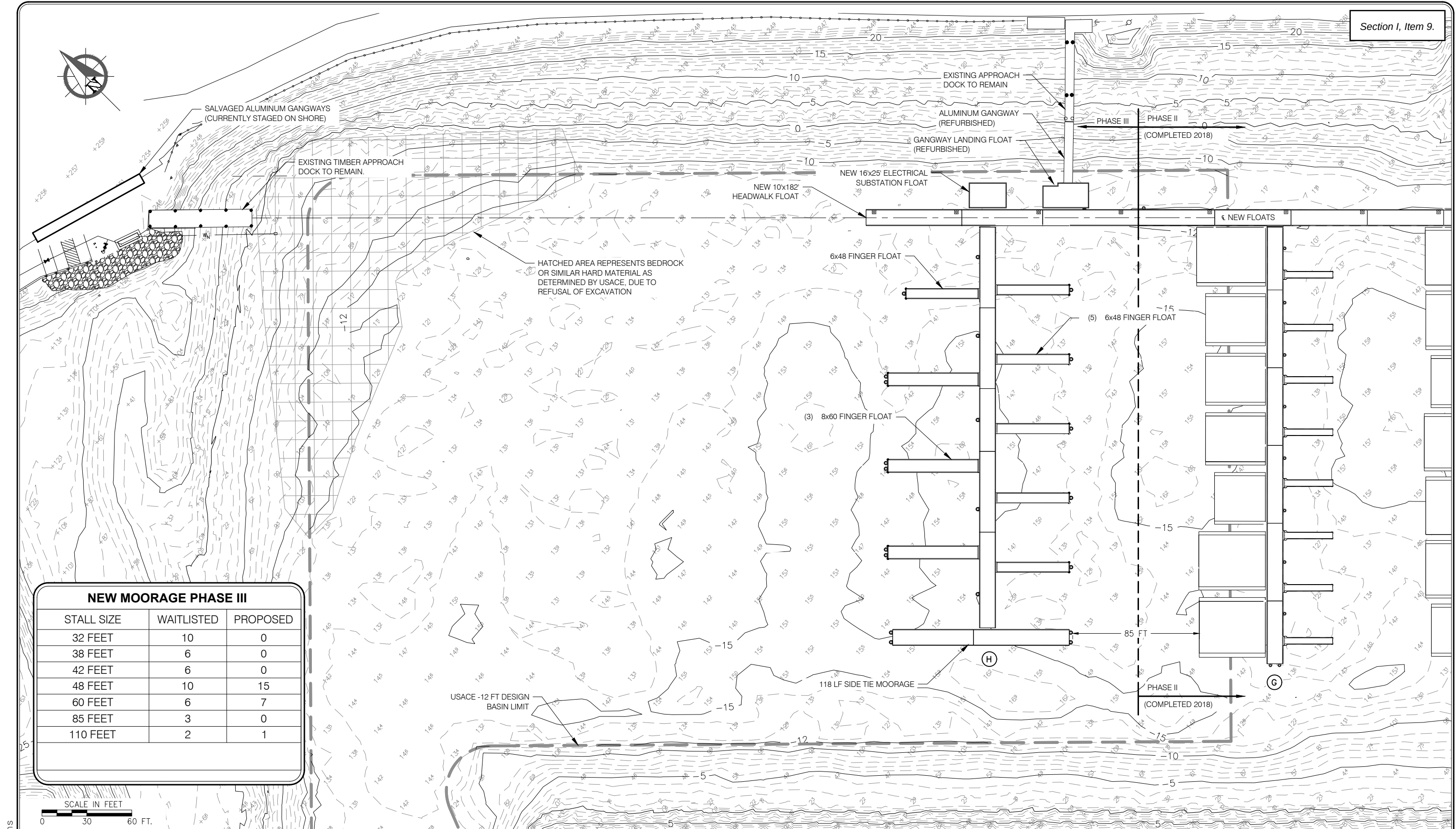
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DOCKS & HARBORS DEPT.
155 SOUTH SEWARD STREET
JUNEAU, ALASKA 99801
PHONE: 907-586-0292



EXISTING CONDITIONS AND SALVAGE PLAN

AURORA HARBOR REBUILD - PHASE III

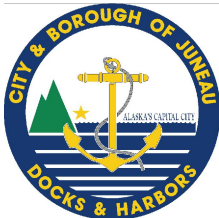
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NEW MOORAGE PHASE III

STALL SIZE	WAITLISTED	PROPOSED
32 FEET	10	0
38 FEET	6	0
42 FEET	6	0
48 FEET	10	15
60 FEET	6	7
85 FEET	3	0
110 FEET	2	1

G3 G4 – Site Plans



REVISIONS

REV	DATE	DESCRIPTION	DWN	CHK	APP

CITY AND BOROUGH OF JUNEAU
DOCKS & HARBORS DEPT.
155 SOUTH SEWARD STREET
JUNEAU, ALASKA 99801
PHONE: 907-586-0292

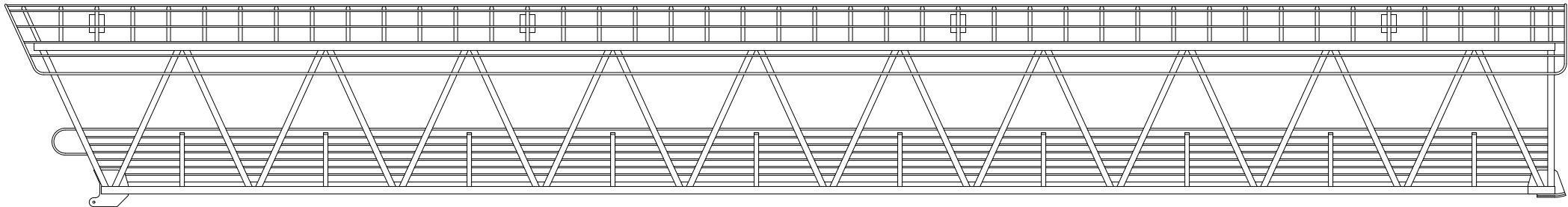


GENERAL SITE PLAN

AURORA HARBOR REBUILD - PHASE III

DESIGN:	MS	DATE:	NOVEMBER 15, 2022
CHECKED:	ES	CONTRACT NO.	DH23-014
APPROVED:	CU	FILE NO.	1539

S1 S2 – SALVAGED MATERIALS



SALVAGED GANGWAY ELEVATION

SALVAGE NOTES:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING THE SALVAGED GANGWAY FROM THE UPLANDS ADJACENT TO THE AURORA HARBOR BASIN.

THE CONTRACTOR SHALL DEMOLISH THE EXISTING XX FOOT LONG BY XX FOOT WIDE FRP GRATING WALKING SURFACE AND REPLACE WITH FIBERGRATE MODEL #XXXX. CONTRACTOR SHALL UTILIZE MANUFACTURER SUPPLIED 316 STAINLESS FASTENERS TO FASTEN THE GRATING TO THE GANGWAY.

THE CONTRACTOR SHALL ADDITIONALLY DEMOLISH THE EXISTING FRP TRACTION PLATES ON BOTH END TRANSITIONS AND REPLACE WITH NEW FRP TRACTION PLATES. CONTRACTOR SHALL UTILIZE MANUFACTURER-SUPPLIED 316 STAINLESS FASTENERS TO FASTEN THE TRACTION PLATES TO THE END TRANSITIONS.

THE CONTRACTOR SHALL DEMOLISH THE EXISTING LIGHTS MOUNTED ON THE GANGWAY AND REPLACE IN ACCORDANCE WITH THE LIGHTING SCHEDULE. SEE ELECTRICAL.

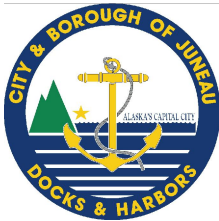
THE CONTRACTOR SHALL FURNISH AND INSTALL REPLACEMENT GANGWAY HINGE BOLTS, WASHERS AND UHMW BUSHINGS.

THE CONTRACTOR SHALL DEMOLISH AND INSTALL NEW UHMW SKID PLATES ON THE SALVAGED GANGWAY

SALVAGED GANGWAY PHOTO

SALVAGED GANGWAY DETAIL 1

SALVAGED GANGWAY DETAIL 2



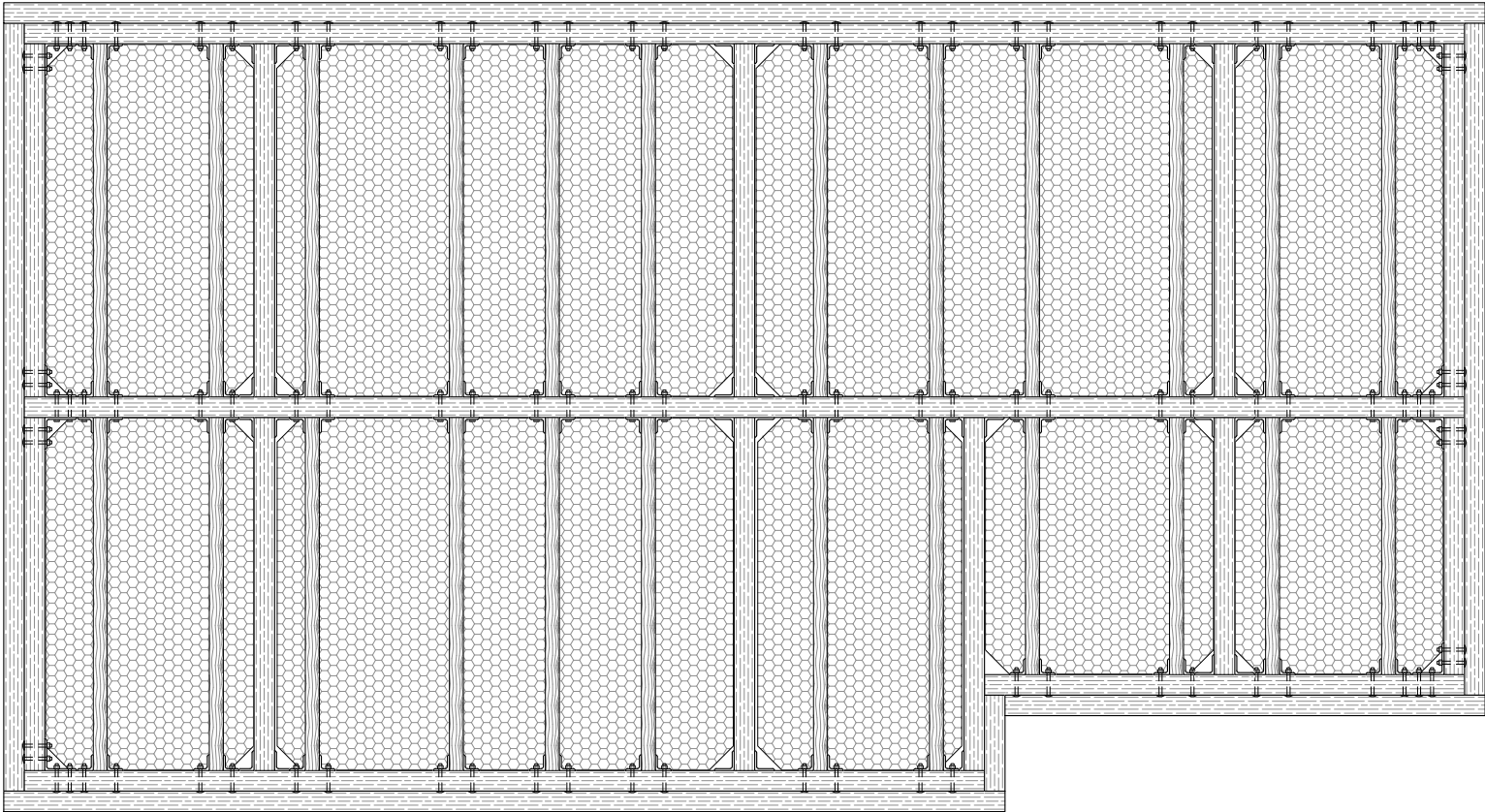
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CITY AND BOROUGH OF JUNEAU
DOCKS & HARBORS DEPT.
155 SOUTH SEWARD STREET
JUNEAU, ALASKA 99801
PHONE: 907-586-0292



**GANGWAY SALVAGE PLAN, ELEVATION
AND DETAILS**
AURORA HARBOR REBUILD - PHASE III

DESIGN:	MS	DATE:	NOVEMBER 15, 2022
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APPROVED:	CU	FILE NO.	1539



SALVAGED GANGWAY LANDING FLOAT

SALVAGE NOTES:

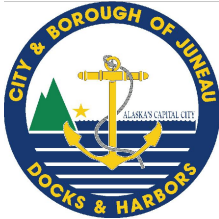
THE GANGWAY LANDING FLOAT IS CURRENTLY IN THE WATER, AND TIED UP AT THE NORWAY POINT FLOAT. THE CONTRACTOR SHALL REMOVE THE FLOAT FROM THE WATER, AND TRANSPORT THE FLOAT TO A LOCATION SUITABLE FOR MAKING THE REPAIRS DESCRIBED BELOW:

THE EXISTING DECKING SHALL BE REMOVED WITHIN THE REGION SHOWN ON THE DRAWING, ALONG WITH ALL OF THE COATED FLOTATION BILLETS, AND FLOTATION BILLET BLOCKING. NEW COATED FLOTATION BILLETS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR IN THE SIZES SHOWN.

NEW HINGES SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AS DETAILED.

EXISTING GANGWAY BEARING PLATES, HANDRAILS AND SKID PLATES SHALL BE SALVAGED AND REINSTALLED ON THE FLOAT.

HINGE DETAIL



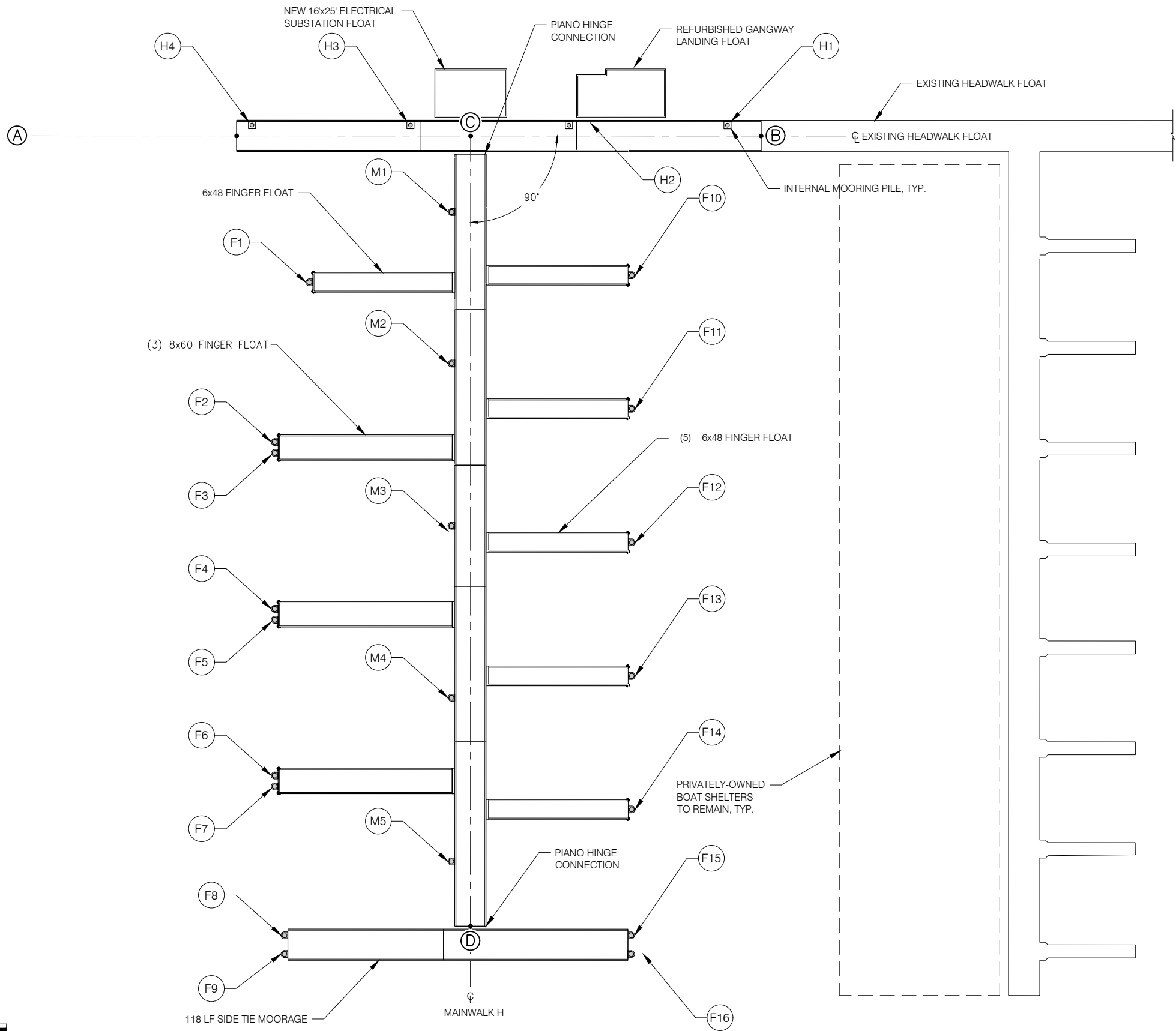
REVISIONS					
REV	DATE	DESCRIPTION	DWN	CHK	APP

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PHONE: 907-586-0292



GANGWAY LANDING FLOAT SALVAGE PLAN
ELEVATION AND DETAILS
AURORA HARBOR REBUILD - PHASE III

DESIGN:	MS	DATE:	NOVEMBER 15, 2022
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FLOAT LAYOUT TABLE	
POINT NO.	POINT DESCRIPTION
A	CENTERLINE EXISTING APPROACH DOCK
B	CENTERLINE EXISTING FLOAT MODULE
C	INTERSECTION OF HEADWALK AND CENTERLINE MAINWALK H
D	CENTERLINE OF MAINWALK H

FLOAT DESIGN CRITERIA

DEAD LOAD:

- WEIGHT OF ALL MATERIALS OF CONSTRUCTION

LIVE LOAD:

- 35 PSF UNIFORM
- 400 LB WHEEL LOAD

SNOW LOAD:

- GROUND SNOW LOAD = 50 PSF UNIFORM

WIND LOAD:

- 105 MPH 3 SECOND GUST - CBJ STRUCTURAL DESIGN CRITERIA

FREEBOARD:

- UNLOADED (DEAD LOAD ONLY) FREEBOARD = 22" MINIMUM
- LOADED (DEAD LOAD + LIVE LOAD) FREEBOARD = 6" MINIMUM

MOORAGE CRITERIA:

- FINGER FLOATS: DESIGN VESSEL LENGTH NOT TO EXCEED 105% OF THE LENGTH OF THE FINGER FLOAT.



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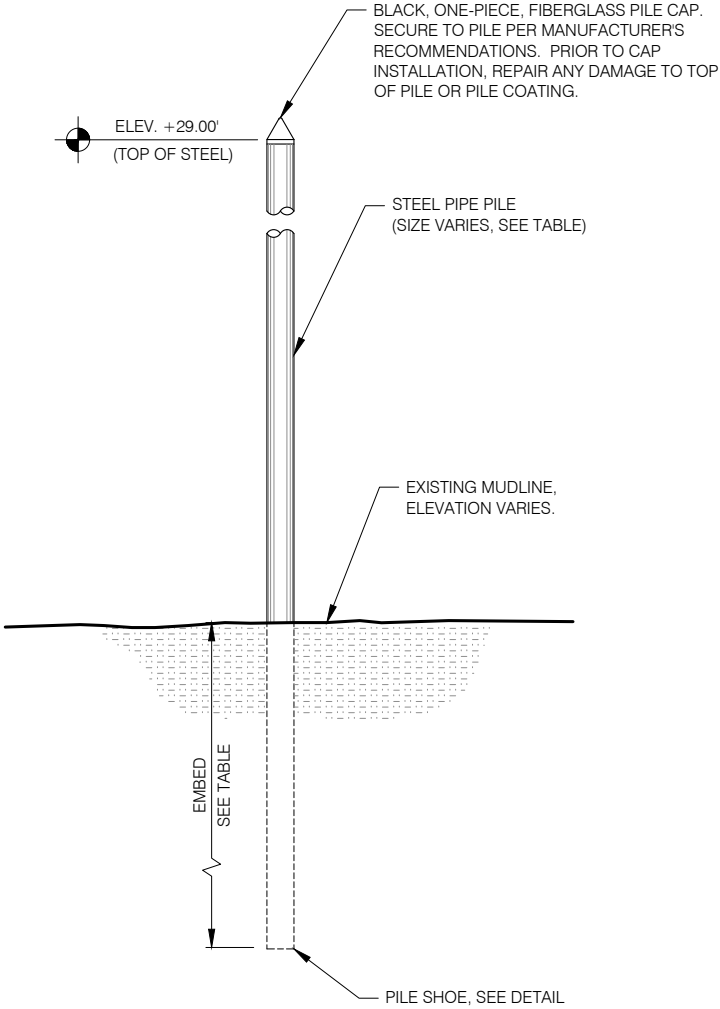
OVERALL FLOAT PLAN AND PILE LAYOUT

AURORA HARBOR REBUILD - PHASE III

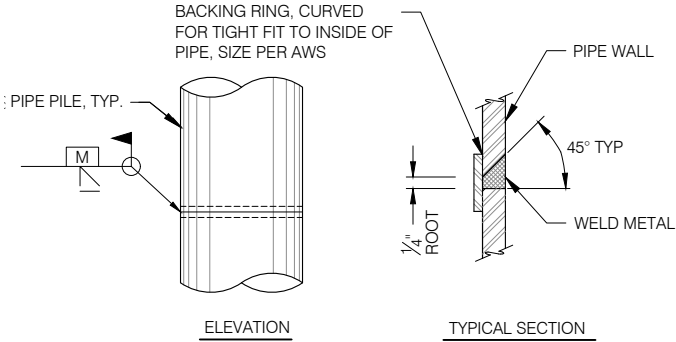
DESIGN:	MS	DATE:	NOVEMBER 15, 2022
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APPROVED:	CU	FILE NO.	1539

FLOAT PILE SCHEDULE			
PILE #	LOCATION	MIN. PILE LENGTH (FT)	PILE SIZE
1	H1	70'	12.75"Ø x 0.500"t.
2	H2	70'	12.75"Ø x 0.500"t.
3	H3	70'	12.75"Ø x 0.500"t.
4	H4	70'	12.75"Ø x 0.500"t.
5	M1	80'	16"Ø x 0.500"t.
6	M2	80'	16"Ø x 0.500"t.
7	M3	80'	16"Ø x 0.500"t.
8	M4	80'	16"Ø x 0.500"t.
9	M5	80'	16"Ø x 0.500"t.
10	F1	80'	16"Ø x 0.500"t.
11	F2	80'	16"Ø x 0.500"t.
12	F3	80'	16"Ø x 0.500"t.
13	F4	80'	16"Ø x 0.500"t.
14	F5	80'	16"Ø x 0.500"t.
15	F6	80'	16"Ø x 0.500"t.
16	F7	80'	16"Ø x 0.500"t.
17	F8	80'	16"Ø x 0.500"t.
18	F9	80'	16"Ø x 0.500"t.
19	F10	80'	16"Ø x 0.500"t.
20	F11	80'	16"Ø x 0.500"t.
21	F12	80'	16"Ø x 0.500"t.
22	F13	80'	16"Ø x 0.500"t.
23	F14	80'	16"Ø x 0.500"t.
24	F15	80'	16"Ø x 0.500"t.
25	F16	80'	16"Ø x 0.500"t.

NOTE:
SEE "OVERALL FLOAT PLAN AND PILE LAYOUT" FOR LOCATION OF
PILES WITHIN FLOAT SYSTEM.

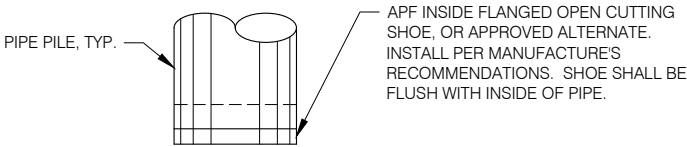


PILE INSTALLATION DETAIL



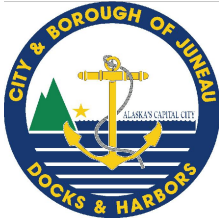
TYPICAL SPLICE DETAIL

TYPICAL FOR ALL SHOP & FIELD PIPE PILE SPLICES.
CONTRACTOR MAY SUBMIT ALTERNATIVE PILE SPLICE DETAIL
FOR ENGINEER APPROVAL.



PILE SHOE DETAIL

REQUIRED EMBEDMENT		
PILE SIZE	SOFTER SOIL	DENSE TIL
12 ³ / ₄ "Ø	20'	15'
16"Ø	25'	20'



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FLOAT PILE SCHEDULE AND DETAILS

AURORA HARBOR REBUILD - PHASE III

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REVISIONS					
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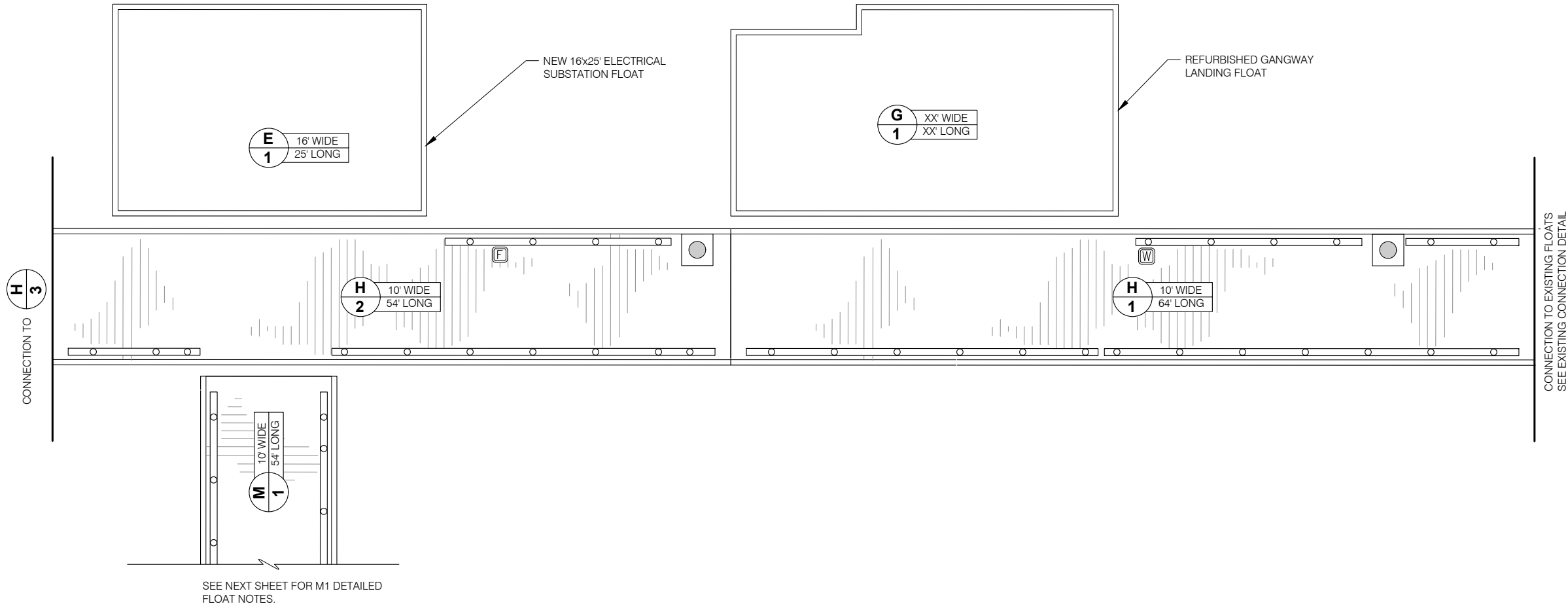
CITY AND BOROUGH OF JUNEAU
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JUNEAU, ALASKA 99801
PHONE: 907-586-0292



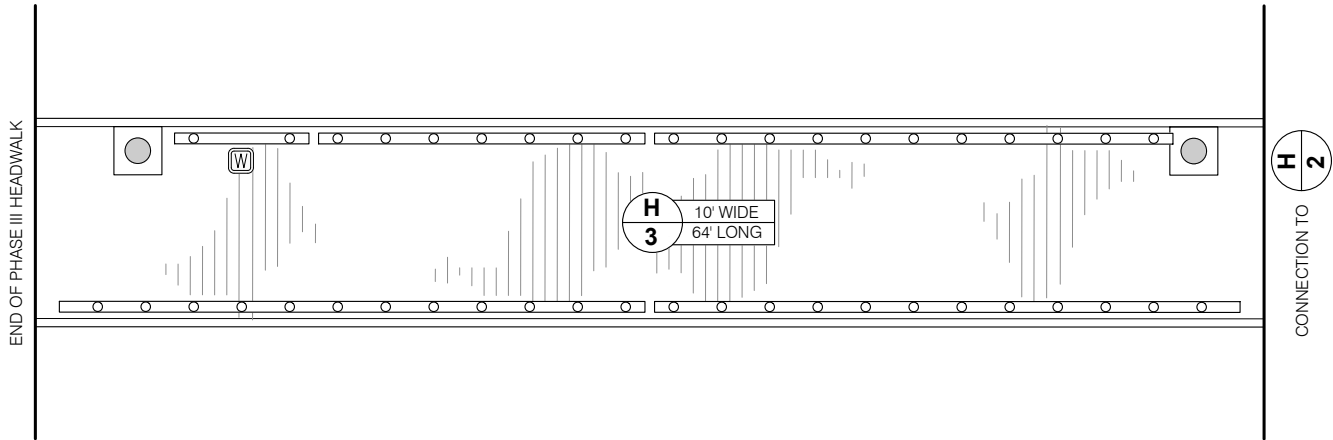
HEADWALK DETAILED FLOAT PLAN

AURORA HARBOR REBUILD - PHASE III

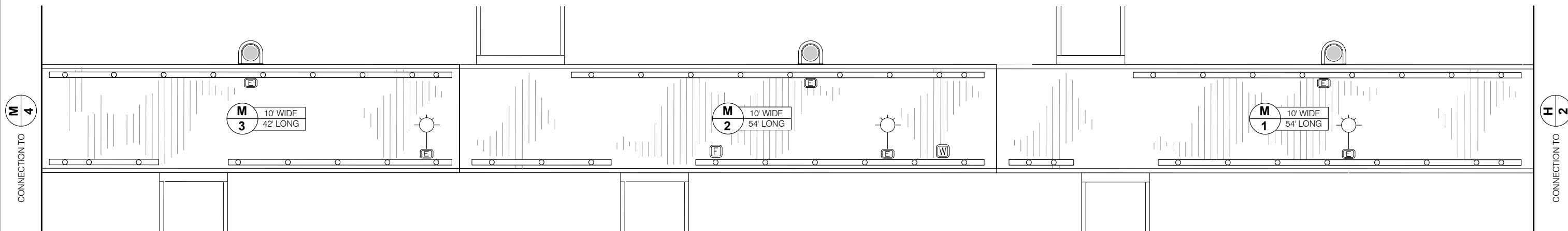
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- NOTE:
PORTIONS OF DECKING MAY NEED TO BE INSTALLED AFTER ELECTRICAL CABLES AND/OR PEDESTALS. FABRICATOR SHALL COORDINATE w/ GENERAL CONTRACTOR AND ELECTRICAL CONTRACTOR AS REQUIRED.
- BULLRAIL NOTE:
SEE BULLRAIL STANDARD DETAILS FOR SCUPPER BLOCK LOCATION, TYP. OVERALL LENGTH AS SHOWN ON INDIVIDUAL FLOAT UNIT PLANS.
- NOTE:
HOSE MOUNT, LIFE RING AND FIRE EXTINGUISHER CABINET LOCATIONS SHOWN ARE APPROXIMATE. FIELD LOCATE PER OWNER/ENGINEER DIRECTION.



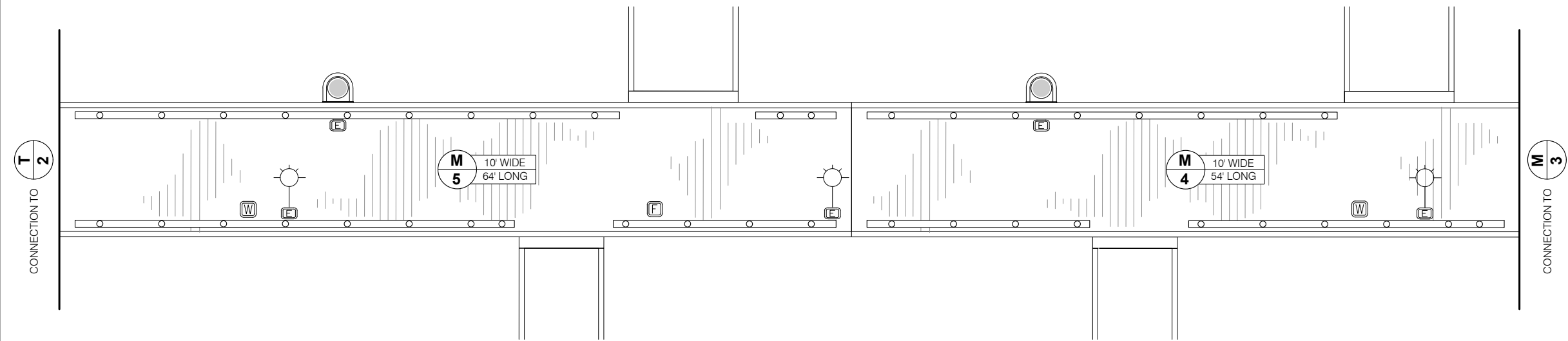
- LEGEND:
- [Symbol] = LIGHT POLE w/ ELECTRICAL PEDESTAL
 - [Symbol] = LIGHT POLE ONLY
 - [Symbol] = ELECTRICAL PEDESTAL ONLY
 - [Symbol] = FIRE HOSE CONNECTION
 - [Symbol] = FIRE DEPARTMENT CONNECTION
 - [Symbol] = FIRE LINE PUMPOUT
 - [Symbol] = WATER PEDESTAL
 - [Symbol] = HEAT TRACE
 - [Symbol] = HOSE MOUNT
 - [Symbol] = LIFE RING
 - [Symbol] = FIRE EXTINGUISHER



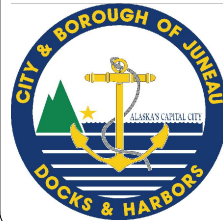
NOTE:
PORTIONS OF DECKING MAY NEED TO BE INSTALLED AFTER ELECTRICAL
CABLES AND/OR PEDESTALS. FABRICATOR SHALL COORDINATE w/
GENERAL CONTRACTOR AND ELECTRICAL CONTRACTOR AS REQUIRED.

BULLRAIL NOTE:
SEE BULLRAIL STANDARD DETAILS FOR SCUPPER
BLOCK LOCATION. TYP. OVERALL LENGTH AS SHOWN
ON INDIVIDUAL FLOAT UNIT PLANS.

NOTE:
HOSE MOUNT, LIFE RING AND FIRE EXTINGUISHER CABINET
LOCATIONS SHOWN ARE APPROXIMATE. FIELD LOCATE PER
OWNER/ENGINEER DIRECTION.



- LEGEND:**
- = LIGHT POLE w/ ELECTRICAL PEDESTAL
 - = LIGHT POLE ONLY
 - = ELECTRICAL PEDESTAL ONLY
 - = FIRE HOSE CONNECTION
 - = FIRE DEPARTMENT CONNECTION
 - = FIRE LINE PUMPOUT
 - = WATER PEDESTAL
 - = HEAT TRACE
 - = HOSE MOUNT
 - = LIFE RING
 - = FIRE EXTINGUISHER



REVISIONS					
REV	DATE	DESCRIPTION	DWN	CHK	APP

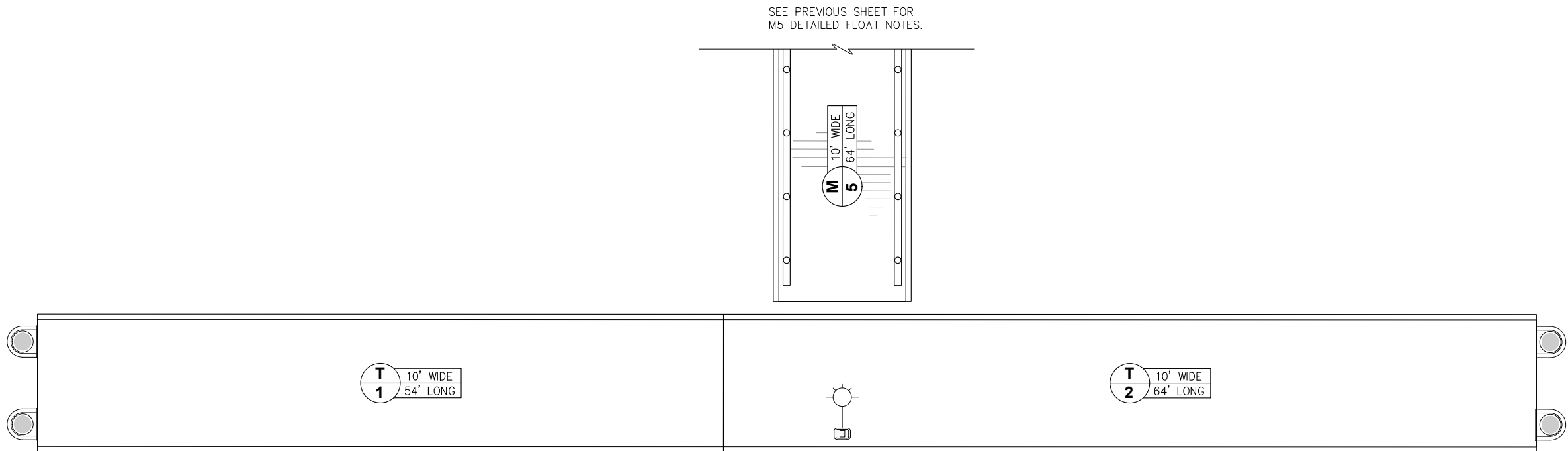
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MAINWALK DETAILED FLOAT PLAN

AURORA HARBOR REBUILD - PHASE III

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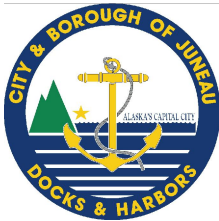
BULLRAIL NOTE:
SEE BULLRAIL STANDARD DETAILS FOR SCUPPER
BLOCK LOCATION. TYP. OVERALL LENGTH AS SHOWN
ON INDIVIDUAL FLOAT UNIT PLANS.

NOTE:
HOSE MOUNT, LIFE RING AND FIRE EXTINGUISHER CABINET
LOCATIONS SHOWN ARE APPROXIMATE. FIELD LOCATE PER
OWNER/ENGINEER DIRECTION.

NOTE:
PORTIONS OF DECKING MAY NEED TO BE INSTALLED AFTER ELECTRICAL
CABLES AND/OR PEDESTALS. FABRICATOR SHALL COORDINATE w/
GENERAL CONTRACTOR AND ELECTRICAL CONTRACTOR AS REQUIRED.

LEGEND:

-  = LIGHT POLE w/ ELECTRICAL PEDESTAL
-  = LIGHT POLE ONLY
-  = ELECTRICAL PEDESTAL ONLY
-  = FIRE HOSE CONNECTION
-  = FIRE DEPARTMENT CONNECTION
-  = FIRE LINE PUMPOUT
-  = WATER PEDESTAL
-  = HEAT TRACE
-  = HOSE MOUNT
-  = LIFE RING
-  = FIRE EXTINGUISHER



REVISIONS					
REV	DATE	DESCRIPTION	DWN	CHK	APP

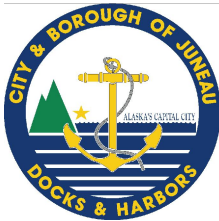
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JUNEAU, ALASKA 99801
PHONE: 907-586-0292



TEE FLOAT DETAILED FLOAT PLAN

AURORA HARBOR REBUILD - PHASE III

DESIGN:	MS	DATE:	NOVEMBER 15, 2022
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REVISIONS					
REV	DATE	DESCRIPTION	DWN	CHK	APP

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FLOTATION SCHEDULE

AURORA HARBOR REBUILD - PHASE III

DESIGN:	MS	DATE:	NOVEMBER 15, 2022
CHECKED:	ES	CONTRACT NO.	DH23-014
APPROVED:	CU	FILE NO.	1539

MODULE: H1 (64)	LENGTH	WIDTH	HEIGHT	QUANTITY
ITEM DESCRIPTION				
FLOTATION TUB	48	24	24	24
FLOTATION TUB	48	36	24	4
BALLAST TANK	48	36	24	6
POLYSTYRENE BILLET	SEE DETAILS		18	10
POLYSTYRENE BILLET	SEE DETAILS		16	10
POLYSTYRENE BILLET (CB)	SEE DETAILS		18	2

F	F	F	F	F	F	F	F	F	F	F	F	F
18P	18P	18P	18P	18P	18P	18P	18P	18P	18P	18P	18P	18P
B	B	B	B	F	F	F	F	B	B	B	B	CB
16P	16P	16P	16P	16P	16P	16P	16P	16P	16P	16P	16P	16P
F	F	F	F	F	F	F	F	F	F	F	F	F

** SEE NOTE 1 THIS SHEET.

MODULE: H2 (54)	LENGTH	WIDTH	HEIGHT	QUANTITY
ITEM DESCRIPTION				
FLOTATION TUB	48	24	24	20
FLOTATION TUB	48	36	24	4
BALLAST TANK	48	36	24	4
POLYSTYRENE BILLET	SEE DETAILS		12	8
POLYSTYRENE BILLET	SEE DETAILS		20	8
POLYSTYRENE BILLET (CB)	SEE DETAILS		18	2

F	F	F	F	F	F	F	F	F	F	F	F	F
12P	12P	12P	12P	12P	12P	12P	12P	12P	12P	12P	12P	12P
B	B	B	F	F	F	F	B	B	B	CB		
20P	20P	20P	20P	20P	20P	20P	20P	20P	20P	20P	20P	20P
F	F	F	F	F	F	F	F	F	F	F	F	F

** SEE NOTE 1 THIS SHEET.

MODULE: H3 (64)	LENGTH	WIDTH	HEIGHT	QUANTITY
ITEM DESCRIPTION				
FLOTATION TUB	48	24	24	24
FLOTATION TUB	48	36	24	4
BALLAST TANK	48	36	24	6
POLYSTYRENE BILLET	SEE DETAILS		18	10
POLYSTYRENE BILLET	SEE DETAILS		16	10
POLYSTYRENE BILLET (CB)	SEE DETAILS		18	2

F	F	F	F	F	F	F	F	F	F	F	F	F
18P	18P	18P	18P	18P	18P	18P	18P	18P	18P	18P	18P	18P
B	B	B	F	F	F	F	B	B	B	B	CB	
16P	16P	16P	16P	16P	16P	16P	16P	16P	16P	16P	16P	16P
F	F	F	F	F	F	F	F	F	F	F	F	F

** SEE NOTE 1 THIS SHEET.

MODULE: M1(54)	LENGTH	WIDTH	HEIGHT	QUANTITY
ITEM DESCRIPTION				
FLOTATION TUB	48	24	24	20
FLOTATION TUB	48	36	24	4
BALLAST TANK	48	36	24	4
POLYSTYRENE BILLET	SEE DETAILS		12	8
POLYSTYRENE BILLET	SEE DETAILS		20	8
POLYSTYRENE BILLET (CB)	SEE DETAILS		18	2

F	F	F	F	F	F	F	F	F	F	F	F	F
12P	12P	12P	12P	12P	12P	12P	12P	12P	12P	12P	12P	12P
B	B	B	F	F	F	F	B	B	B	CB		
20P	20P	20P	20P	20P	20P	20P	20P	20P	20P	20P	20P	20P
F	F	F	F	F	F	F	F	F	F	F	F	F

** SEE NOTE 1 THIS SHEET.

MODULE: M2 (54)	LENGTH	WIDTH	HEIGHT	QUANTITY
ITEM DESCRIPTION				
FLOTATION TUB	48	24	24	20
FLOTATION TUB	48	36	24	4
BALLAST TANK	48	36	24	4
POLYSTYRENE BILLET	SEE DETAILS		12	8
POLYSTYRENE BILLET	SEE DETAILS		20	8
POLYSTYRENE BILLET (CB)	SEE DETAILS		18	2

F	F	F	F	F	F	F	F	F	F	F	F	F
12P	12P	12P	12P	12P	12P	12P	12P	12P	12P	12P	12P	12P
B	B	B	F	F	F	F	B	B	CB			
20P	20P	20P	20P	20P	20P	20P	20P	20P	20P	20P	20P	20P
F	F	F	F	F	F	F	F	F	F	F	F	F

** SEE NOTE 1 THIS SHEET.

MODULE: M3 (42)	LENGTH	WIDTH	HEIGHT	QUANTITY
ITEM DESCRIPTION				
FLOTATION TUB	48	24	24	16
FLOTATION TUB	48	36	24	2
BALLAST TANK	48	36	24	4
POLYSTYRENE BILLET	SEE DETAILS		14	6
POLYSTYRENE BILLET	SEE DETAILS		18	6
POLYSTYRENE BILLET (CB)	SEE DETAILS		18	2

F	F	F	F	F	F	F	F	F	F	F	F	F
14P	14P	14P	14P	14P	14P	14P	14P	14P	14P	14P	14P	14P
B	B	B	F	F	B	B	CB					
18P	18P	18P	18P	18P	18P	18P	18P	18P	18P	18P	18P	18P
F	F	F	F	F	F	F	F	F	F	F	F	F

** SEE NOTE 1 THIS SHEET.

MODULE: M4 (54)	LENGTH	WIDTH	HEIGHT	QUANTITY
ITEM DESCRIPTION				
FLOTATION TUB	48	24	24	20
FLOTATION TUB	48	36	24	4
BALLAST TANK	48	36	24	4
POLYSTYRENE BILLET	SEE DETAILS		12	8
POLYSTYRENE BILLET	SEE DETAILS		20	8
POLYSTYRENE BILLET (CB)	SEE DETAILS		18	2

F	F	F	F	F	F	F	F	F	F	F	F	F
12P	12P	12P	12P	12P	12P	12P	12P	12P	12P	12P	12P	12P
B	B	B	F	F	F	F	B	B	CB			
20P	20P	20P	20P	20P	20P	20P	20P	20P	20P	20P	20P	20P
F	F	F	F	F	F	F	F	F	F	F	F	F

** SEE NOTE 1 THIS SHEET.

MODULE: M5 (64)	LENGTH	WIDTH	HEIGHT	QUANTITY
ITEM DESCRIPTION				
FLOTATION TUB	48	24	24	24
FLOTATION TUB	48	36	24	4
BALLAST TANK	48	36	24	6
POLYSTYRENE BILLET	SEE DETAILS		18	10
POLYSTYRENE BILLET	SEE DETAILS		16	10
POLYSTYRENE BILLET (CB)	SEE DETAILS		18	2

F	F	F	F	F	F	F	F	F	F	F	F	F
18P	18P	18P	18P	18P	18P	18P	18P	18P	18P	18P	18P	18P
B	B	B	F	F	F	F	B	B	B	CB		
16P	16P	16P	16P	16P	16P	16P	16P	16P	16P	16P	16P	16P
F	F	F	F	F	F	F	F	F	F	F	F	F

** SEE NOTE 1 THIS SHEET.

FINGER 48'	LENGTH	WIDTH	HEIGHT	QUANTITY
ITEM DESCRIPTION				
FLOTATION TUB	48	24	24	18
BALLAST TANK	48	36	24	2
POLYSTYRENE BILLET	SEE DETAILS		19	9

F	F	F	B	F	F	F	F	F	F	F	F	F
P	P	P		P	P	P	P	P	P	P	P	P
F	F	F	B	F	F	F	F	F	F	F	F	F

** SEE NOTE 1 THIS SHEET.

FINGER 60'	LENGTH	WIDTH	HEIGHT	QUANTITY
ITEM DESCRIPTION				
FLOTATION TUB	48	24	24	24
BALLAST TANK	48	36	24	5
POLYSTYRENE BILLET	SEE DETAILS		20	7

F	F	F	F	F	F	F	F	F	F	F	F	F
P	B	P	B	P	B	P	B	P	B	P	P	P
F	F	F	F	F	F	F	F	F	F	F	F	F

** SEE NOTE 1 THIS SHEET.

MODULE: T1 (54)	LENGTH	WIDTH	HEIGHT	QUANTITY
ITEM DESCRIPTION				
FLOTATION TUB	48	24	24	20
FLOTATION TUB	48	36	24	4
BALLAST TANK	48	36	24	4
POLYSTYRENE BILLET	SEE DETAILS		12	8
POLYSTYRENE BILLET	SEE DETAILS		20	8
POLYSTYRENE BILLET (CB)	SEE DETAILS		18	2

F	F	F	F	F	F	F	F	F	F	F	F	F
12P	12P	12P	12P	12P	12P	12P	12P	12P	12P	12P	12P	12P
B	B	B	F	F	F	F	B	B	CB			
20P	20P	20P	20P	20P	20P	20P	20P	20P	20P	20P	20P	20P
F	F	F	F	F	F	F	F	F	F	F	F	F

** SEE NOTE 1 THIS SHEET.

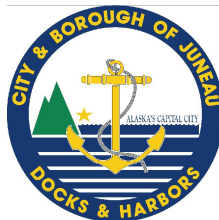
MODULE: T2 (64)	LENGTH	WIDTH	HEIGHT	QUANTITY
ITEM DESCRIPTION				
FLOTATION TUB	48	24	24	24
FLOTATION TUB	48	36	24	4
BALLAST TANK	48	36	24	6
POLYSTYRENE BILLET	SEE DETAILS		18	10
POLYSTYRENE BILLET	SEE DETAILS		16	10
POLYSTYRENE BILLET (CB)	SEE DETAILS		18	2

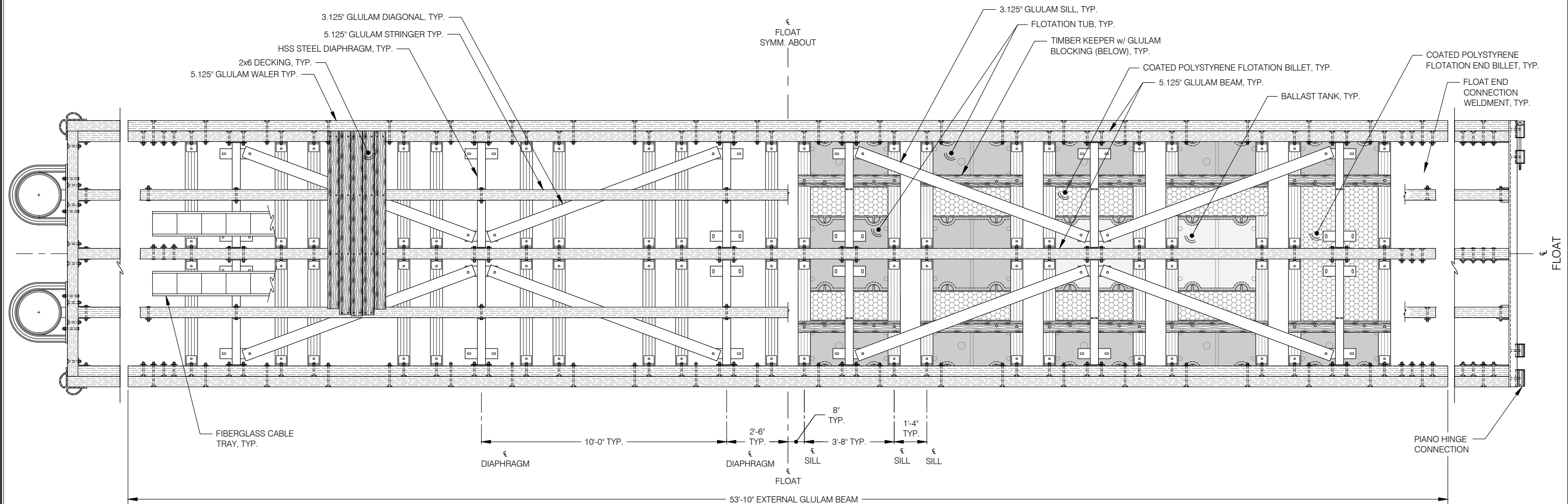
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18P	18P	18P	18P	18P	18P	18P	18P	18P	18P	18P	18P	18P
B	B	B	F	F	F	F	B	B	B	CB		
16P	16P	16P	16P	16P	16P	16P	16P	16P	16P	16P	16P	16P
F	F	F	F	F	F	F	F	F	F	F	F	F

** SEE NOTE 1 THIS SHEET.

NOTES:

- HEIGHT SHOWN IN TABLE REFERS TO DISTANCE FROM BOTTOM OF SILL TO BOTTOM OF BILLET, NOT OVERALL HEIGHT OF BILLET. SEE FLOTATION BILLET DETAILS SHEET FOR BILLET DIMENSIONS AND DETAILS.
- BALLAST TANK WALL THICKNESS TO BE 0.375".
- FLOTATION TUB WALL THICKNESS TO BE 0.175"
- F= FLOTATION TUB
B= BALLAST TANK
P= POLYSTYRENE BILLET
CB= CENTER POLYSTYRENE BILLET
GB= GANGWAY POLYSTYRENE BILLET
- ORIENTATION OF FLOATS ON THIS SHEET MATCHES ORIENTATION SHOWN ON DETAILED FLOAT PLANS.





NOTE:
SUBSTITUTE MODULE END
CONNECTION w/ END GLULAM AND
PILE HOOPS, AS SHOWN, FLOAT
MODULE

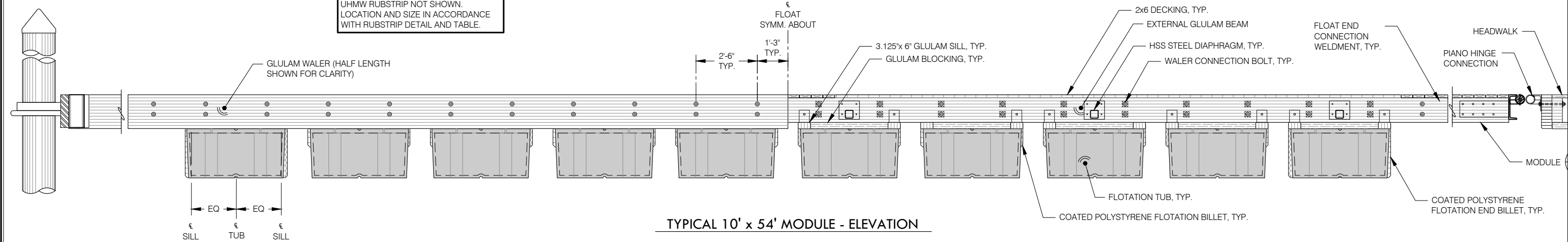
NOTE:
SEE DETAILED FLOAT PLAN FOR FINGER
FLOAT, PILE HOOP, ELECTRIC PEDESTAL
AND BULLRAIL LOCATIONS.

NOTE:
UHMW RUBSTRIP NOT SHOWN.
LOCATION AND SIZE IN ACCORDANCE
WITH RUBSTRIP DETAIL AND TABLE.

TYPICAL 10' x 54' MODULE - PLAN

NOTE:
TYPICAL FLOAT UNIT COMPONENTS INCLUDING HSS DIAPHRAGMS, GLULAM SILLS,
FLOTATION TUBS, FLOTATION BILLETS, BALLAST TANKS, DIAGONALS AND TYPICAL TIMBER
FRAMING ARE SYMMETRIC ABOUT CENTERLINE OF FLOAT UNIT, UNLESS OTHERWISE
NOTED.

NOTE:
SUBSTITUTE MODULE END CONNECTION
w/ PIANO HINGE CONNECTION, AS
SHOWN, FLOAT MODULE



TYPICAL 10' x 54' MODULE - ELEVATION

F8 - 10x54 Module



REVISIONS					
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JUNEAU, ALASKA 99801
PHONE: 907-586-0292

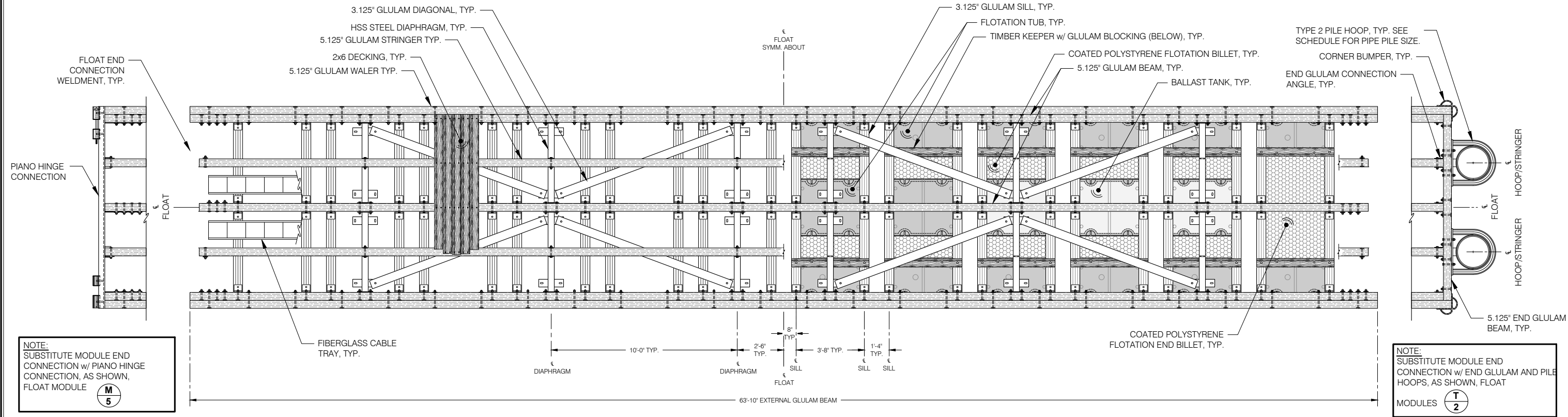
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TYPICAL 10x54 MODULE PLAN & ELEVATION

AURORA HARBOR REBUILD - PHASE III

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F 60

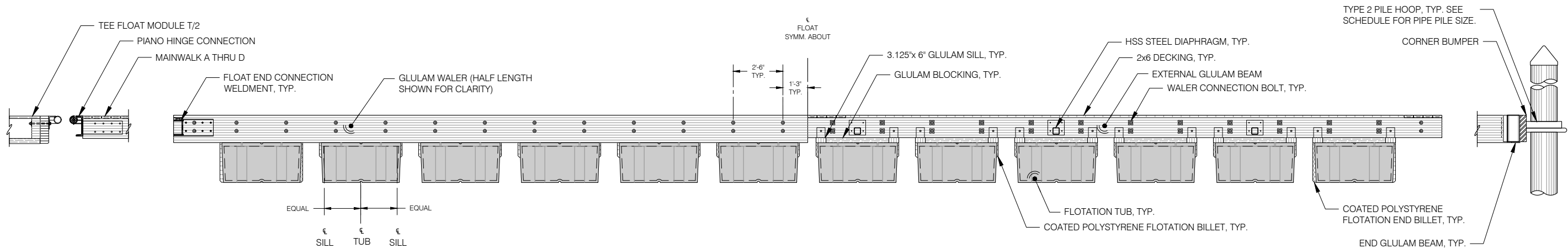


TYPICAL 10' x 64' MODULE - PLAN

NOTE:
SEE DETAILED FLOAT PLAN FOR FINGER
FLOAT, PILE HOOP, ELECTRIC
PEDESTAL AND BULLRAIL LOCATIONS.

NOTE:
UHMW RUBSTRIP NOT SHOWN.
LOCATION AND SIZE IN ACCORDANCE
WITH RUBSTRIP DETAIL AND TABLE.

NOTE:
TYPICAL FLOAT UNIT COMPONENTS INCLUDING HSS DIAPHRAGMS, GLULAM
SILLS, FLOTATION TUBS, FLOTATION BILLETS, BALLAST TANKS, DIAGONALS AND
TYPICAL TIMBER FRAMING ARE SYMMETRIC ABOUT CENTERLINE OF FLOAT UNIT,
UNLESS OTHERWISE NOTED.



TYPICAL 10' x 64' MODULE - ELEVATION

F9 - 10x64 Module



REVISIONS					
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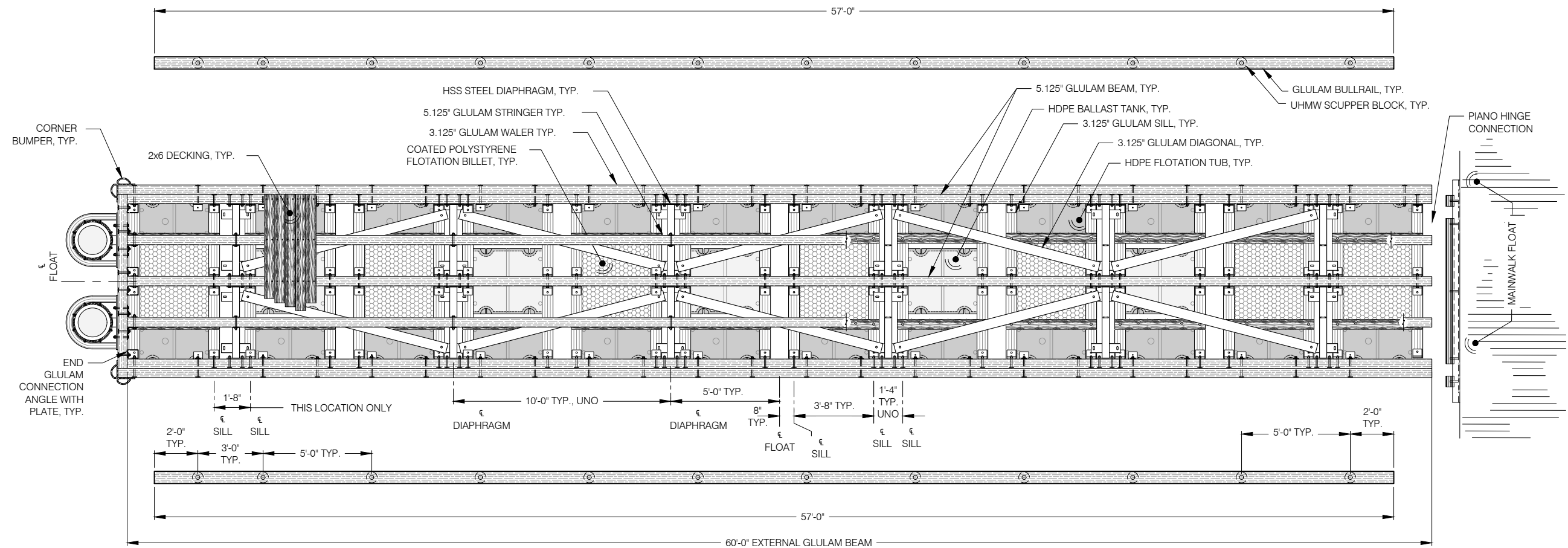
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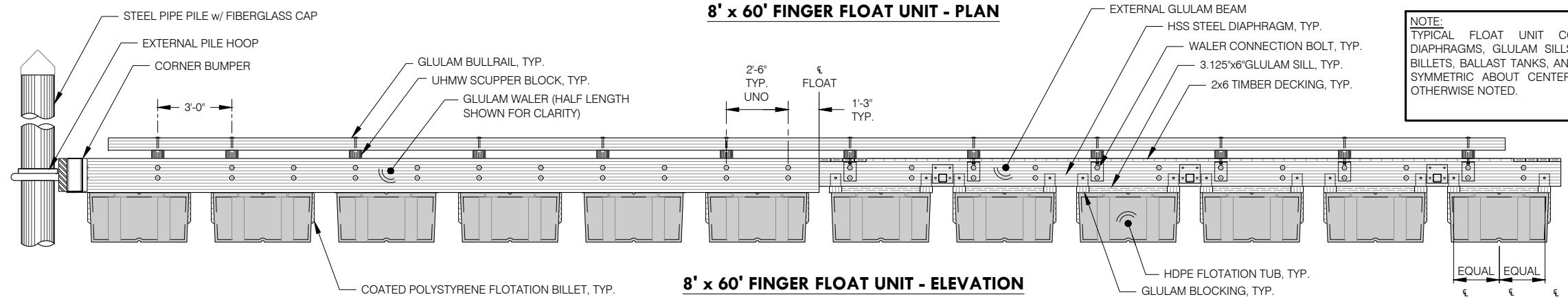
TYPICAL 10x64 MODULE PLAN & ELEVATION

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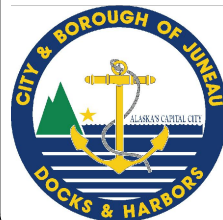


8' x 60' FINGER FLOAT UNIT - PLAN



8' x 60' FINGER FLOAT UNIT - ELEVATION

NOTE:
TYPICAL FLOAT UNIT COMPONENTS INCLUDING HSS DIAPHRAGMS, GLULAM SILLS, FLOTATION TUBS, FLOTATION BILLETS, BALLAST TANKS, AND TYPICAL TIMBER FRAMING ARE SYMMETRIC ABOUT CENTERLINE OF FLOAT UNIT, UNLESS OTHERWISE NOTED.



REVISIONS					
REV	DATE	DESCRIPTION	DWN	CHK	APP

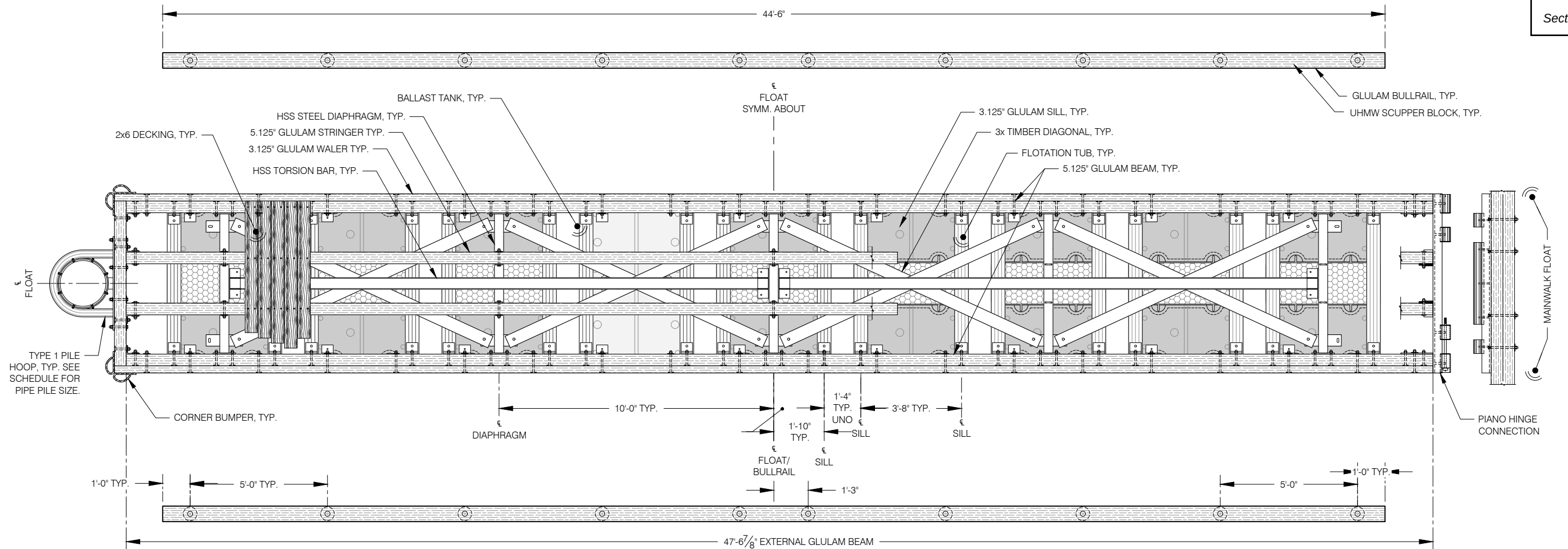
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8x60 FINGER FLOAT PLAN & ELEVATION

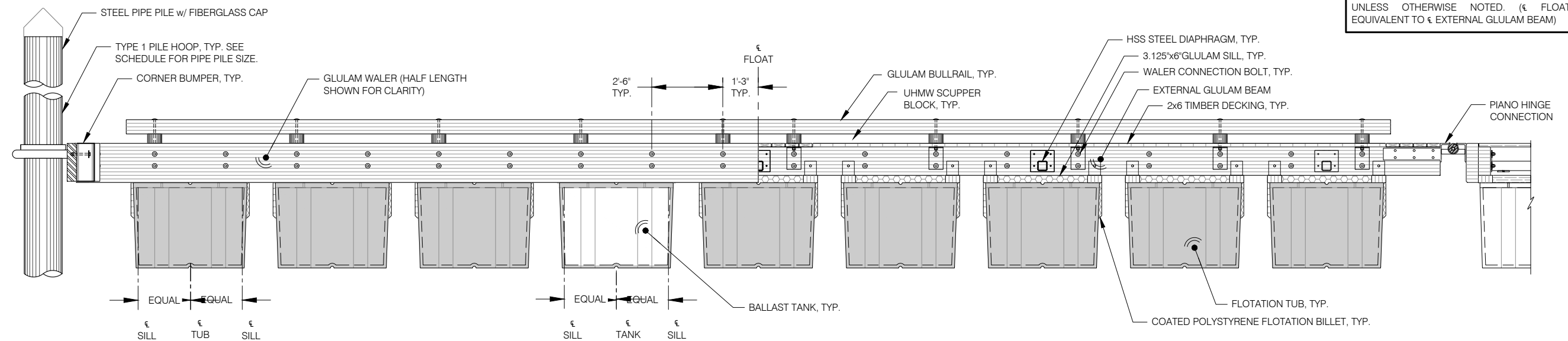
AURORA HARBOR REBUILD - PHASE III

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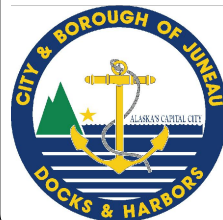


6' x 48' FINGER FLOAT MODULE - PLAN

NOTE:
TYPICAL FLOAT UNIT COMPONENTS INCLUDING HSS DIAPHRAGMS, GLULAM SILLS, FLOTATION BILLETS, DIAGONALS AND TYPICAL TIMBER FRAMING ARE SYMMETRIC ABOUT CENTERLINE OF FLOAT UNIT, UNLESS OTHERWISE NOTED. (€ FLOAT UNIT EQUIVALENT TO € EXTERNAL GLULAM BEAM)



6' x 48' FINGER FLOAT MODULE - ELEVATION



REVISIONS					
REV	DATE	DESCRIPTION	DWN	CHK	APP

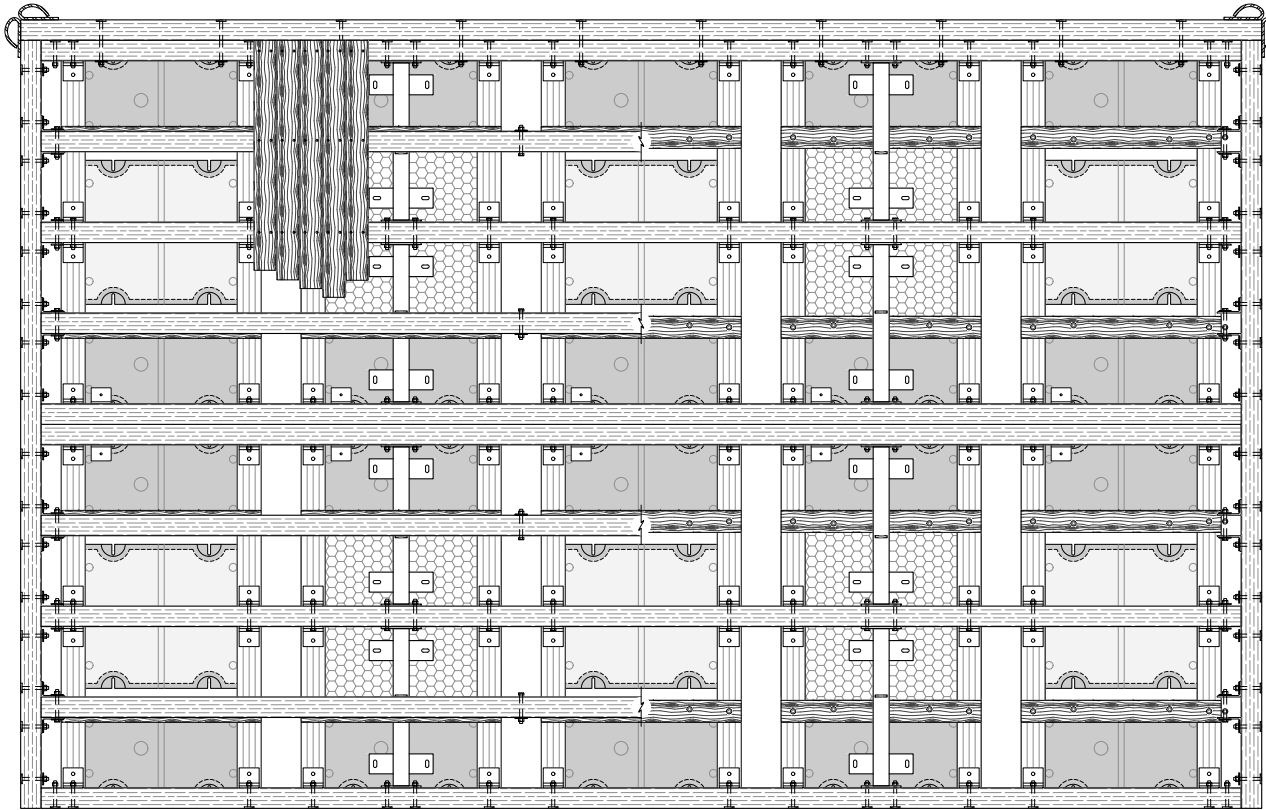
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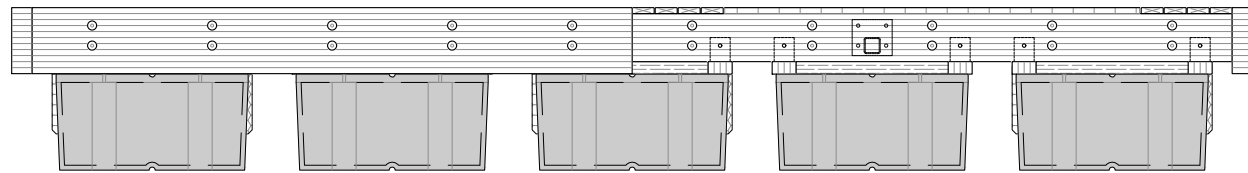
6x48 FINGER PLAN & ELEVATION

AURORA HARBOR REBUILD - PHASE III

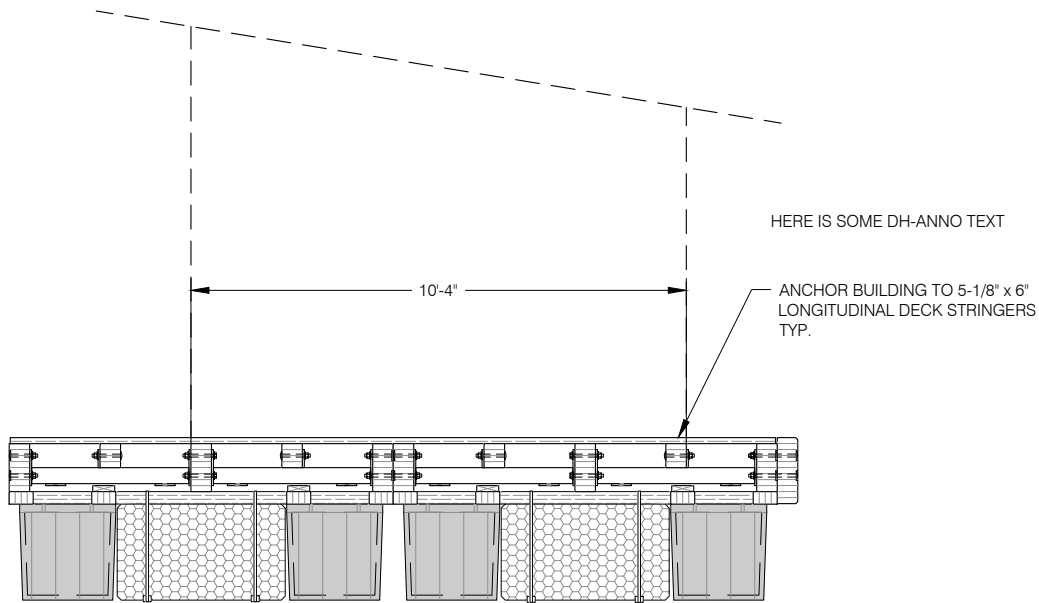
DESIGN:	MS	DATE:	NOVEMBER 15, 2022
CHECKED:	ES	CONTRACT NO.	DH23-014
APPROVED:	CU	FILE NO.	1539



16' x 25' ELECTRICAL EQUIPMENT FLOAT - PLAN



16' x 25' ELECTRICAL EQUIPMENT FLOAT - ELEVATION



16' x 25' ELECTRICAL EQUIPMENT FLOAT - SECTION

FXX - 16x24 ELECTRICAL EQUIPMENT FLOAT



REVISIONS					
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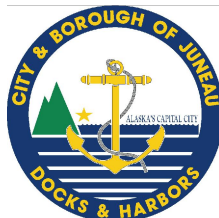
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16x25 ELECTRICAL EQUIPMENT FLOAT

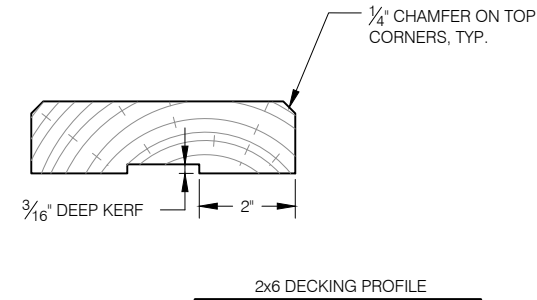
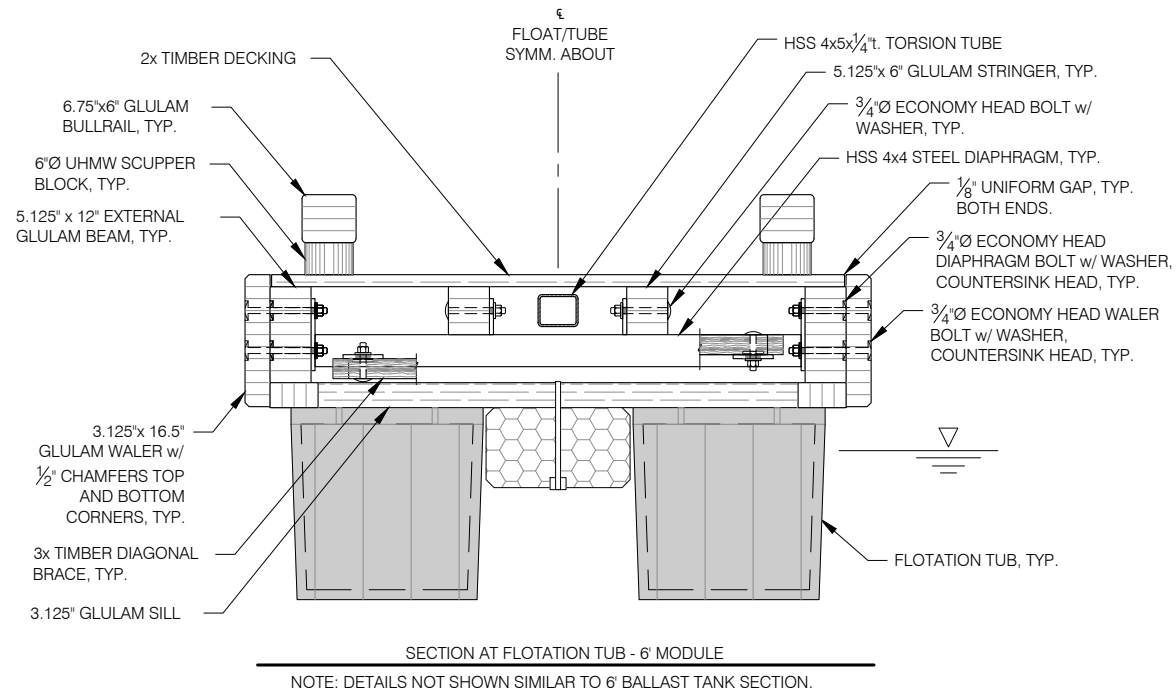
AURORA HARBOR REBUILD - PHASE III

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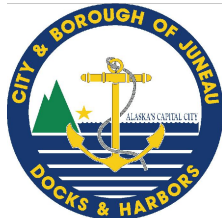
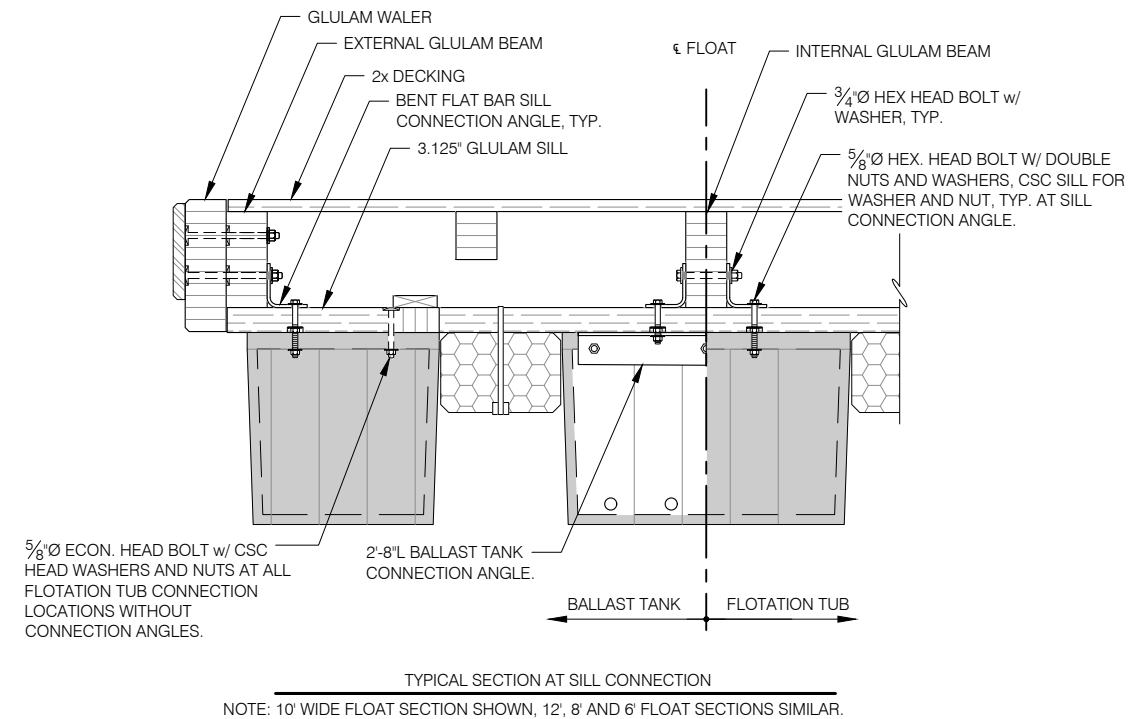
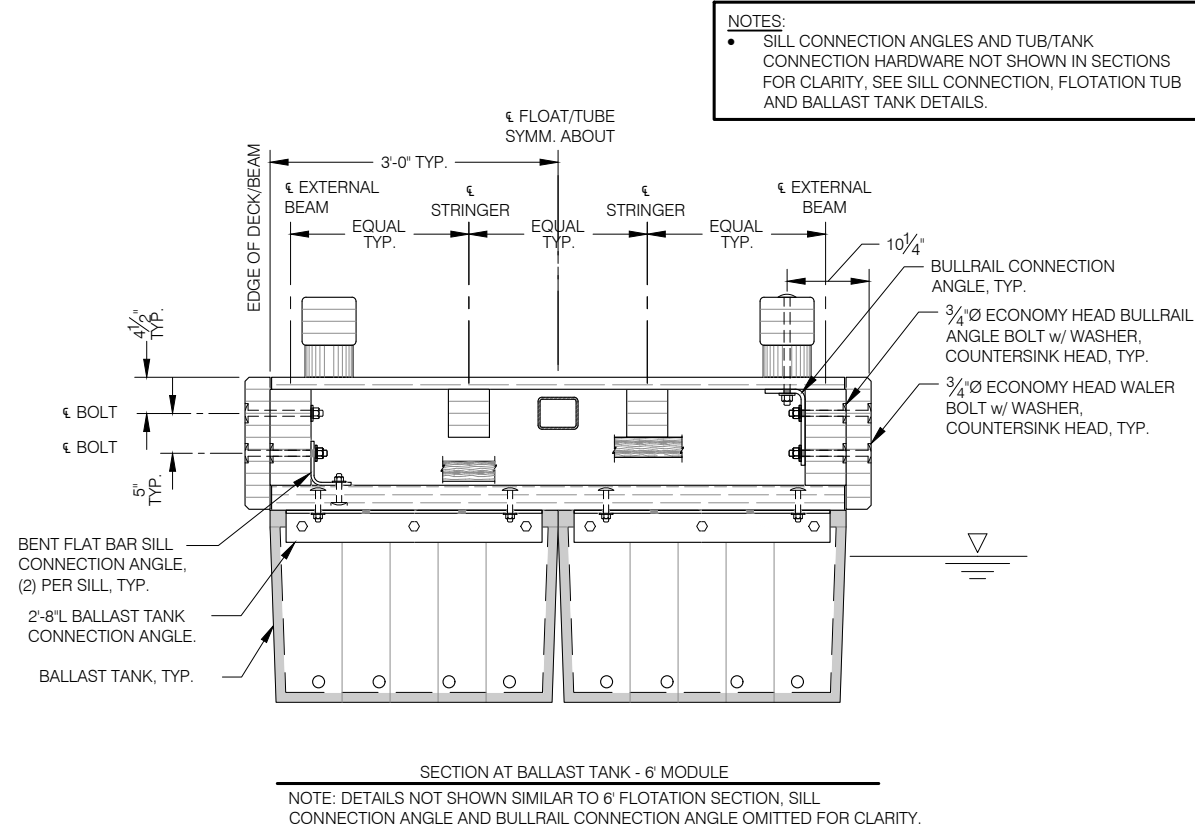


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- NOTES:
1. SEE SPECIFICATIONS FOR COMPLETE DECKING REQUIREMENTS.
 2. NO DECKING SHALL BE INCORPORATED INTO THE WORK THAT FALLS OUTSIDE OF THE SPECIFIED GRADING.
 3. NO DECKING WITH WANE ON THE TOP OF SURFACE SHALL BE INCORPORATED IN THE WORK.
 4. FASTEN 2x DECKING TO GLULAM w/ 9 GAUGE 16d HOT DIP GALVANIZED SPIRAL SHANK NAILS AS SHOWN IN PLAN.
 5. PREDRILL ALL DECKING. SIZE HOLE AS REQUIRED PER AITC TO PREVENT SPLITTING.



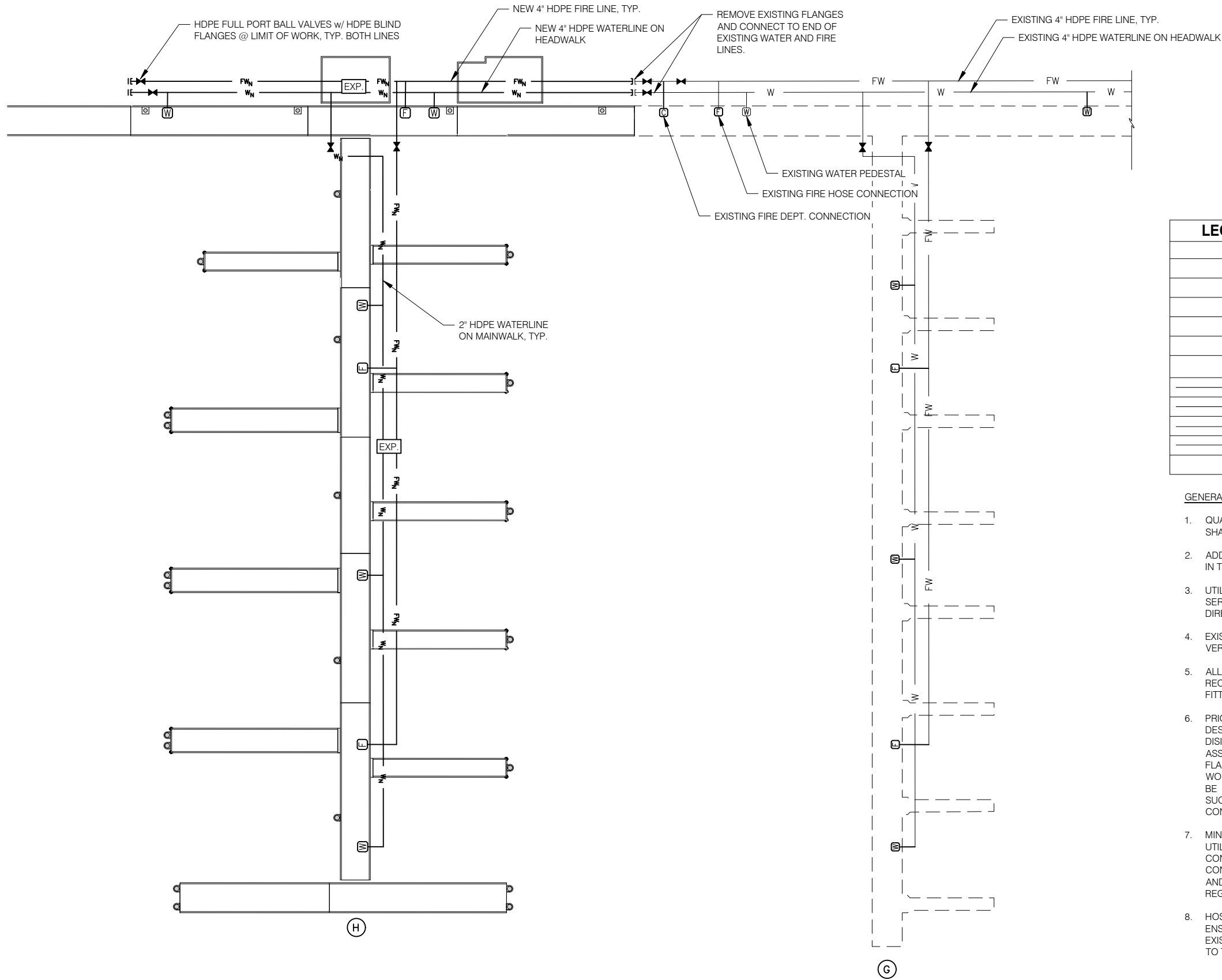
REVISIONS					
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TYPICAL 6' FLOAT SECTIONS & DETAILS

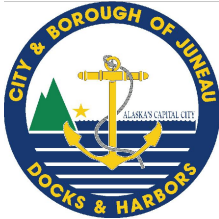
AURORA HARBOR REBUILD - PHASE III			
DESIGN:	MS	DATE:	NOVEMBER 15, 2022
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LEGEND & ESTIMATE OF MATERIAL QUANTITIES		
SYMBOL	DESCRIPTION	QUANTITY
	VALVE	9
	WATER PEDESTAL	12
	FIRE HOSE CONNECTION	9
	FIRE LINE PUMPOUT	1
	FIRE DEPT. CONNECTION	1
	EXPANSION LOOP	6
	WATERLINE (SIZE VARIES)	1320 LF
	4" FIRE LINE	1170 LF
	EXISTING WATERLINE	N/A
	EXISTING FIRE LINE	N/A
	EXISTING VALVE	N/A

- GENERAL UTILITY NOTES:
- QUANTITIES ESTIMATED FOR REFERENCE PURPOSES ONLY, CONTRACTOR SHALL CONFIRM ALL QUANTITIES PRIOR TO MATERIAL ORDER.
 - ADDITIONAL QUANTITIES SHALL BE PROVIDED FOR SPARE PARTS AS LISTED IN THE TECHNICAL SPECIFICATIONS.
 - UTILITY LINES AND APPURTENANCES SHOWN APPROXIMATE, LOCATE SERVICES ACCORDING TO FLOAT PLAN AND DETAILS AND PER ENGINEER DIRECTION.
 - EXISTING SERVICES ARE SHOWN APPROXIMATE, CONTRACTOR SHALL FIELD VERIFY.
 - ALL BENDS IN THE PIPE THAT EXCEED THE PIPE MANUFACTURER'S RECOMMENDED BENDING RADII SHALL BE COMPLETED WITH ELBOW FITTINGS AS REQUIRED, (INCIDENTAL).
 - PRIOR TO MAKING FINAL CONNECTIONS TO THE EXISTING WATER SYSTEM DESIGNATED TO REMAIN THE CONTRACTOR SHALL CONSTRUCT, FLUSH, DISINFECT, AND PRESSURE TEST THE NEW WATERLINE AND FLEXIBLE HOSE ASSEMBLIES. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY BLIND FLANGES, TAPS, FITTINGS AND VALVES AS REQUIRED TO COMPLETE THE WORK IN ACCORDANCE WITH SPECIFICATIONS. FINAL CONNECTION SHALL BE COORDINATED WITH THE ENGINEER, OWNER AND CBS WATER DEPT. SUCH THAT SYSTEM DOWN TIME IS LIMITED TO 4 HOURS MAXIMUM. FINAL CONNECTIONS SHALL BE DISINFECTED IAW AWWA C651.
 - MINOR FITTINGS AND VARIOUS SYSTEM APPURTENANCES NOT SHOWN IN UTILITY SHEETS MAY BE REQUIRED TO CONSTRUCT UTILITY SYSTEMS. CONTRACTOR SHALL USE INDUSTRY STANDARD PRACTICES TO ACHIEVE ALL CONNECTIONS NOT DETAILED IN ACCORDANCE WITH THE SPECIFICATIONS AND CONSISTENT WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS PER ENGINEER DIRECTION (INCIDENTAL).
 - HOSES SHALL BE MONITORED THROUGH MULTIPLE TIDAL CYCLES TO ENSURE NO BINDING, STRETCHING OR OTHERWISE DAMAGING CONDITIONS EXISTING UNSATISFACTORY HOSE SHALL BE RECONFIGURED OR REPLACED TO THE SATISFACTION OF THE ENGINEER AT NO COST TO THE OWNER.

U1 – WATER AND FIRE SCHEMATIC SITE PLAN



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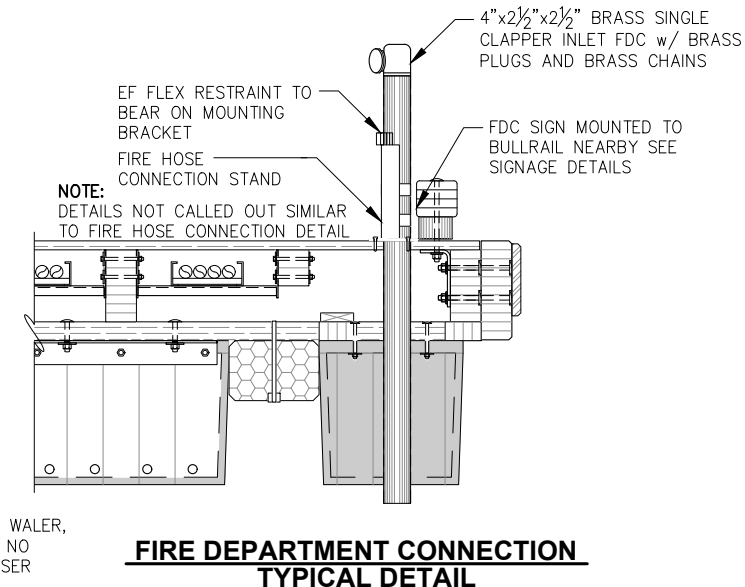
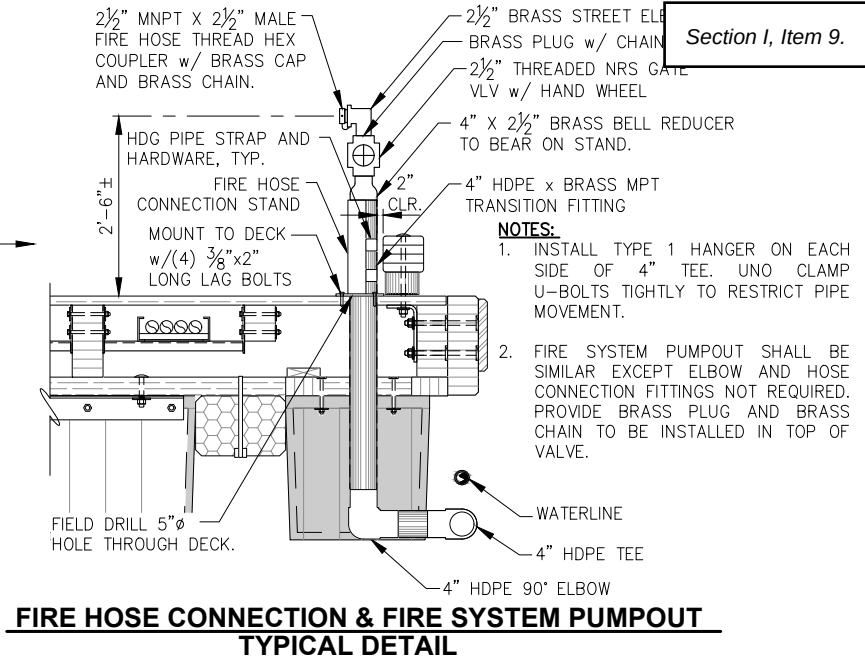
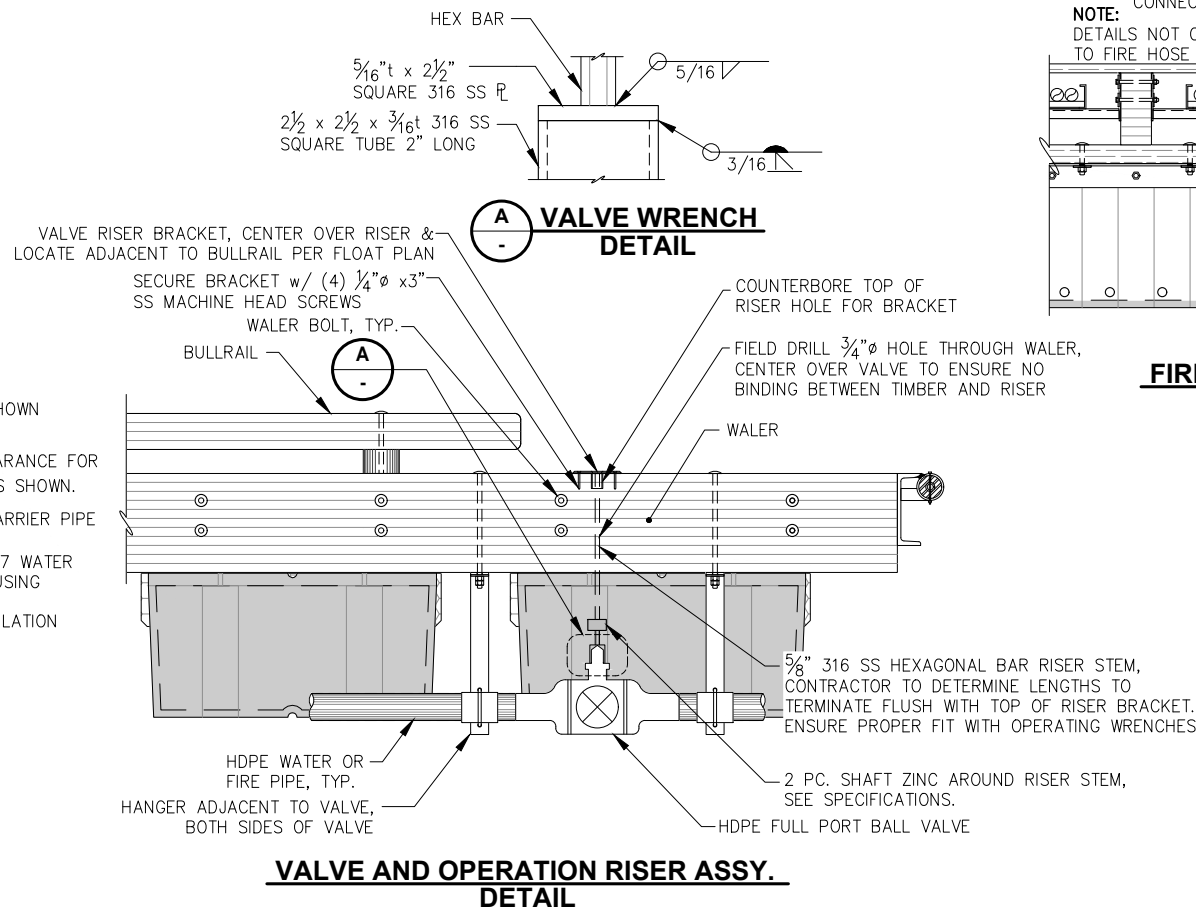
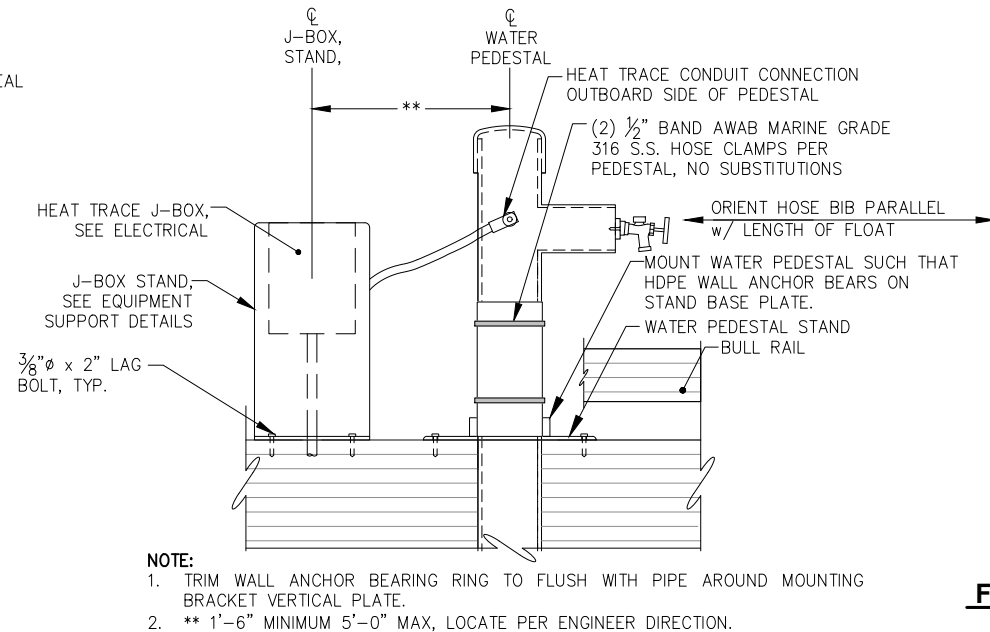
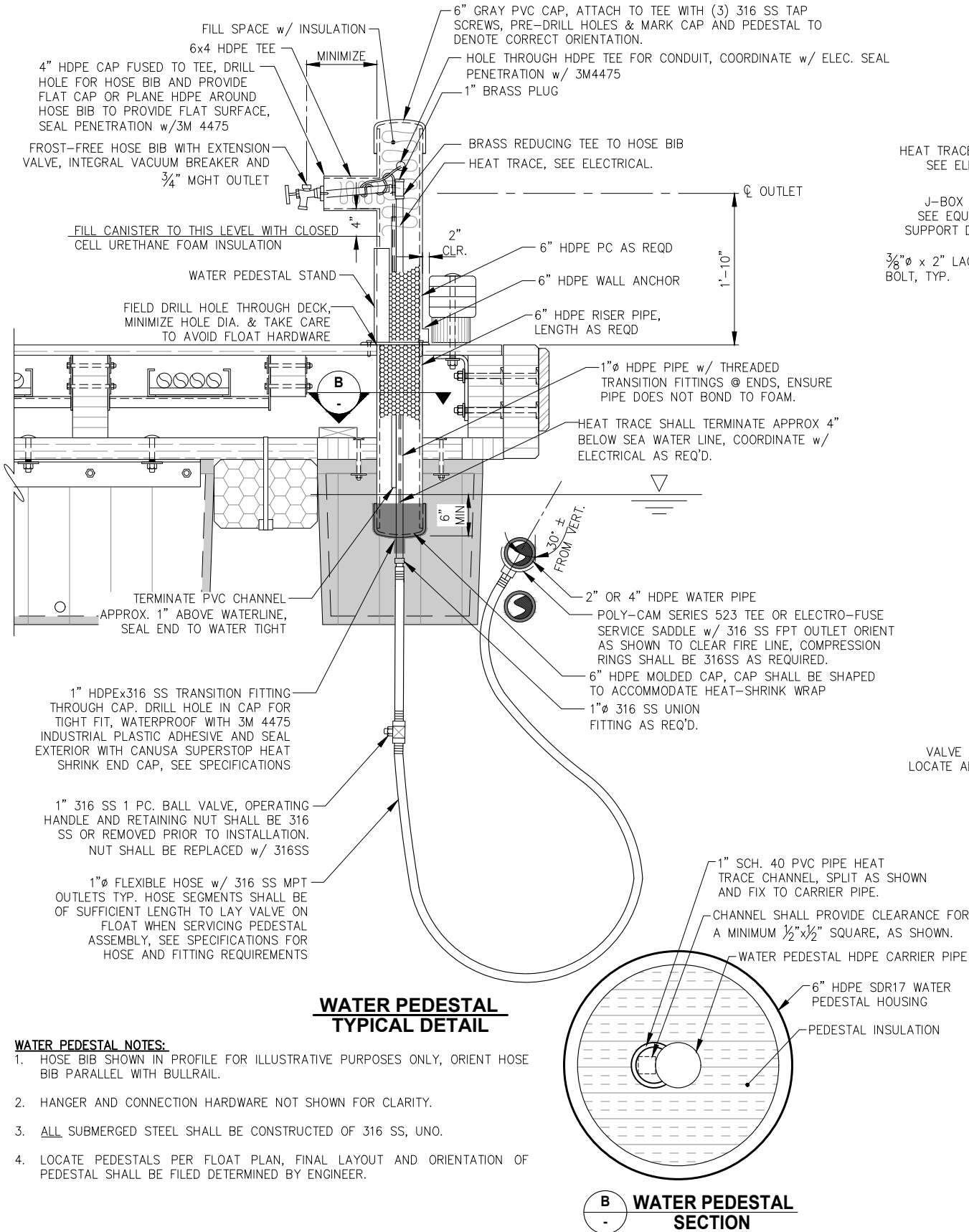
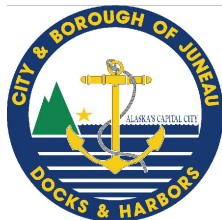
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WATER AND FIRE SCHEMATIC SITE PLAN

AURORA HARBOR REBUILD - PHASE III

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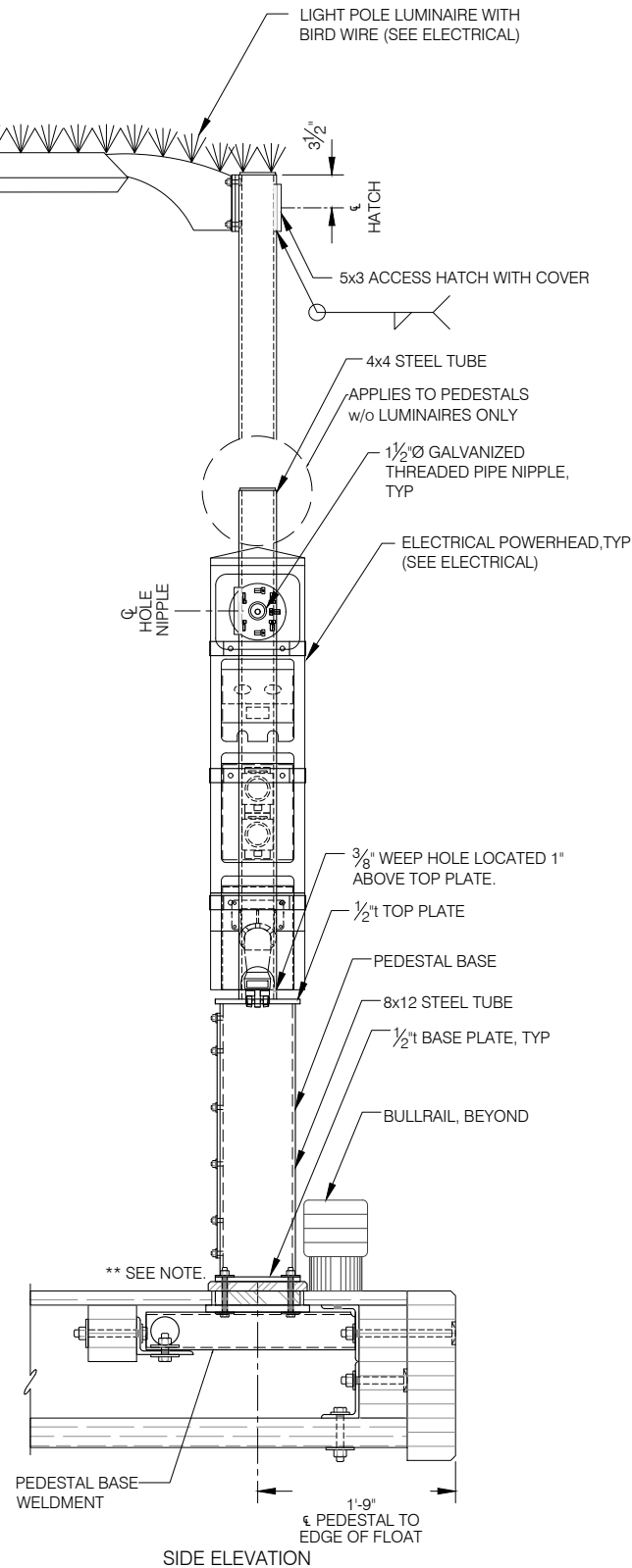


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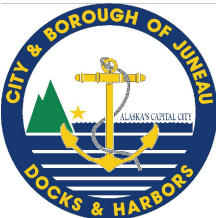
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FLOAT MOUNTED UTILITY DETAILS
AURORA HARBOR REBUILD - PHASE III

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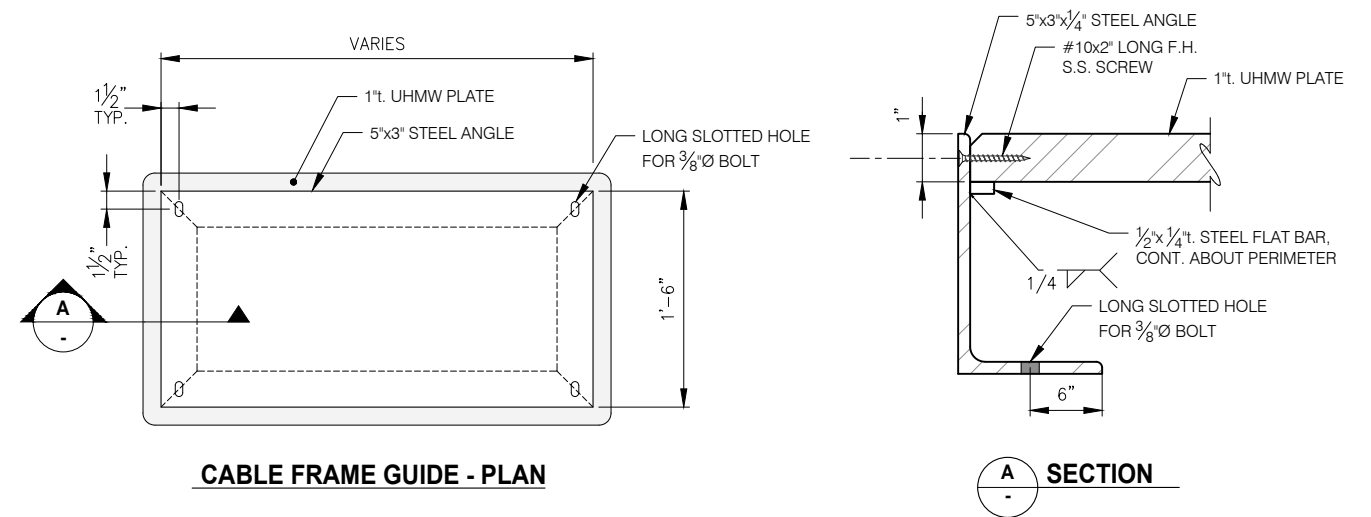
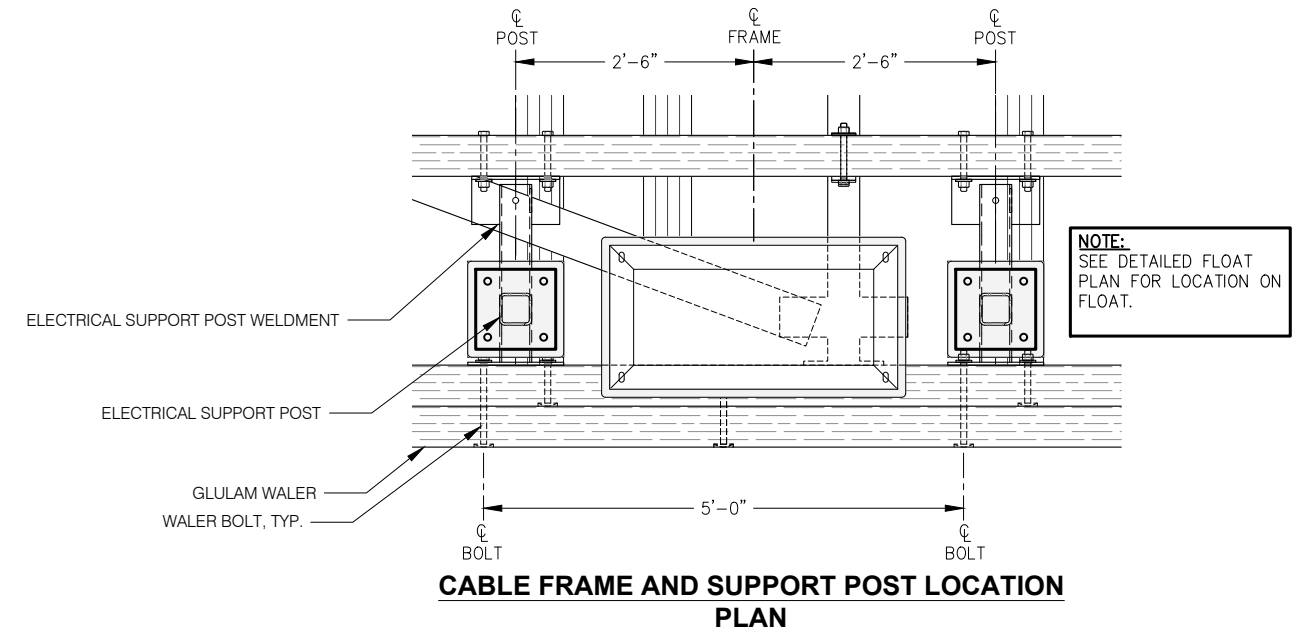
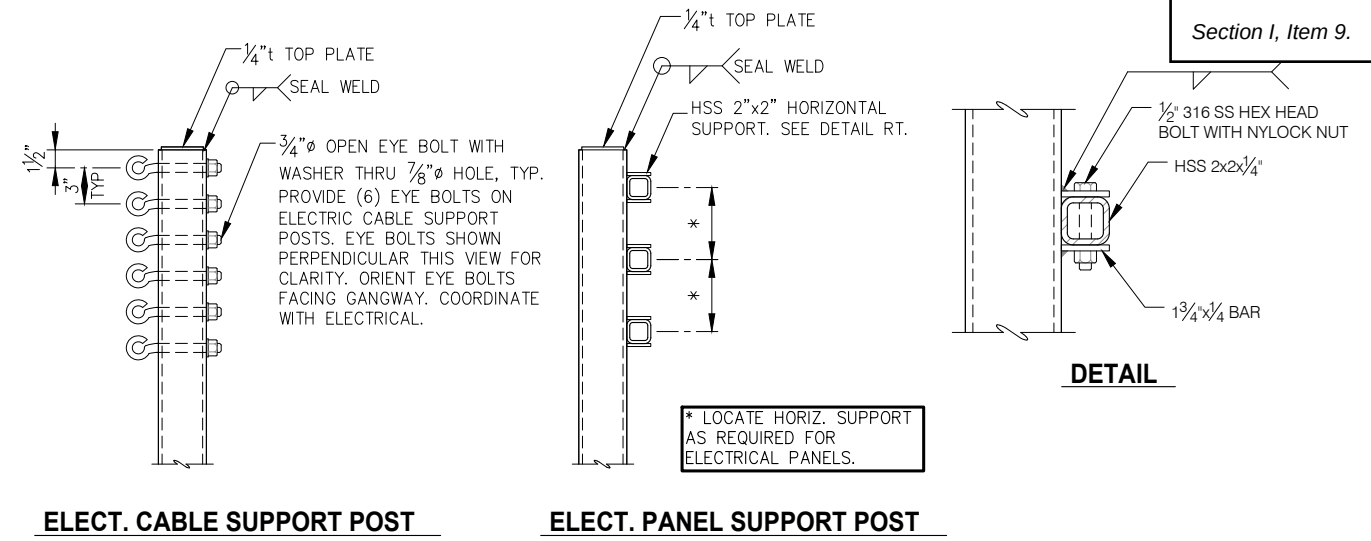
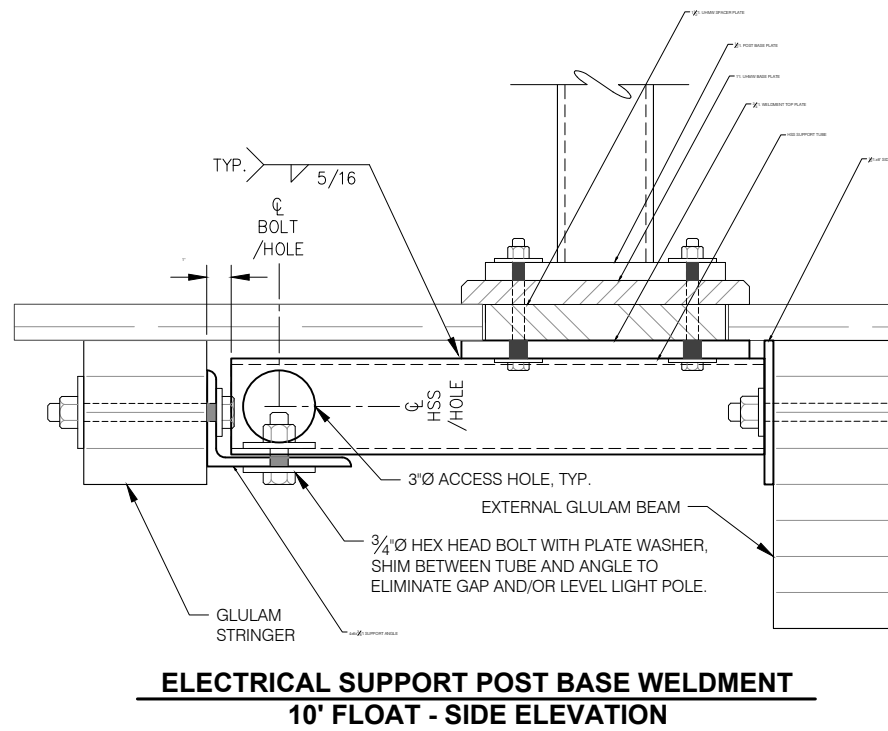
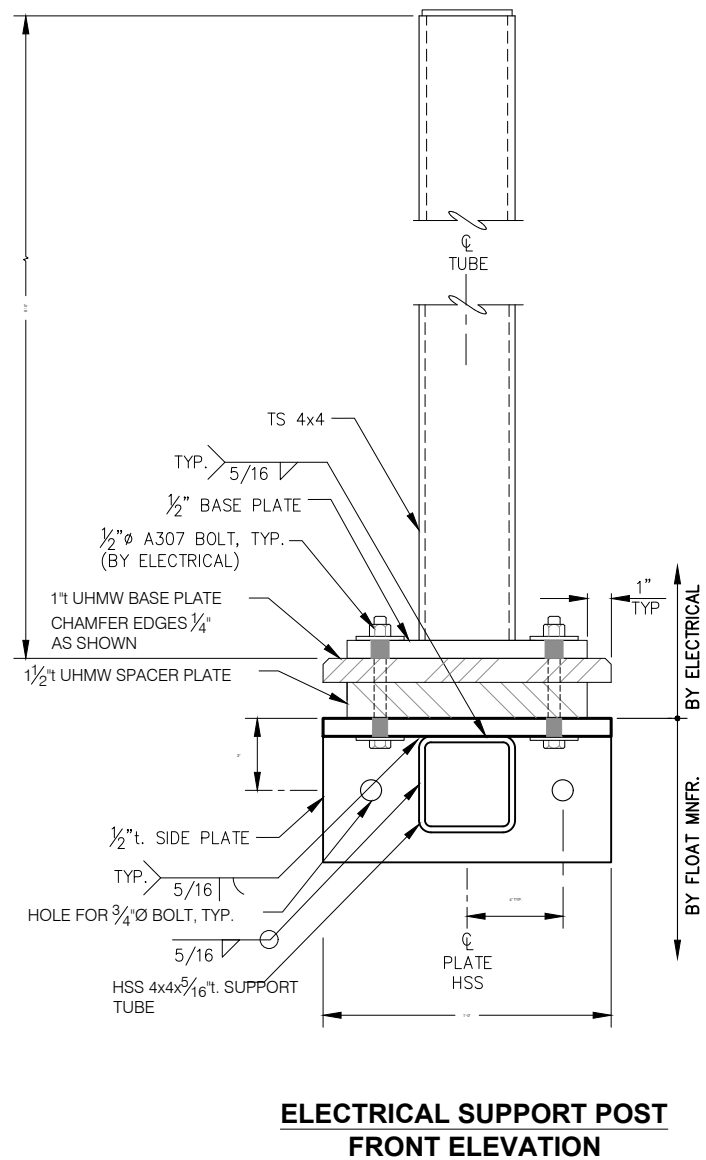
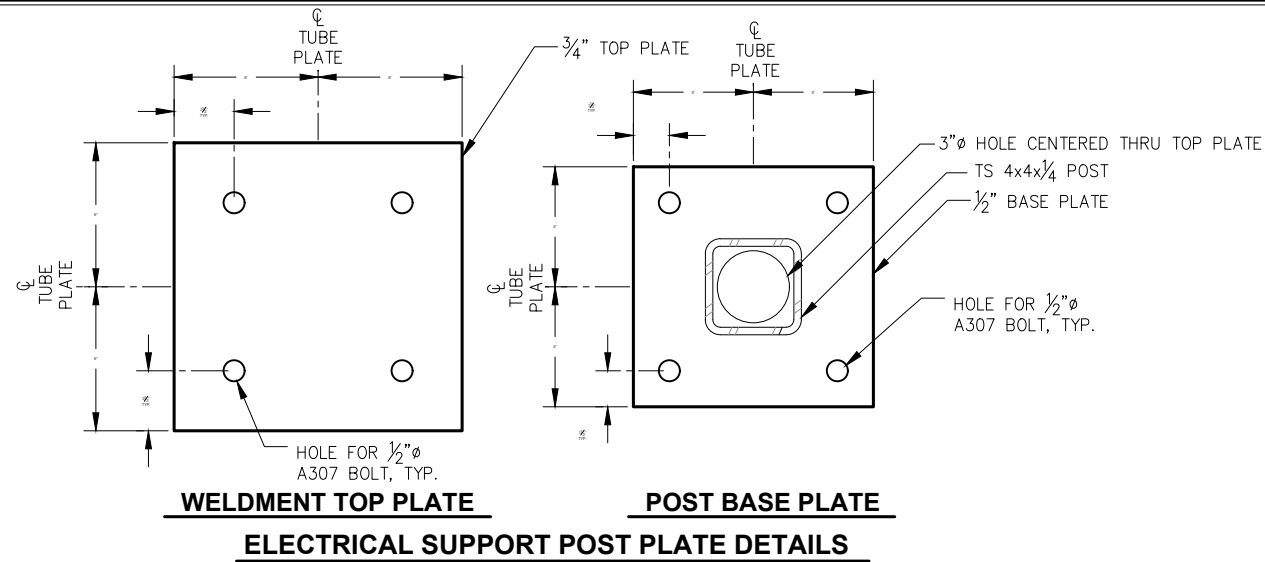
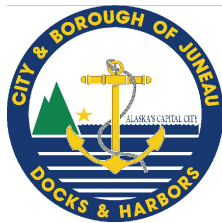
LIGHT POLE HANDHOLE



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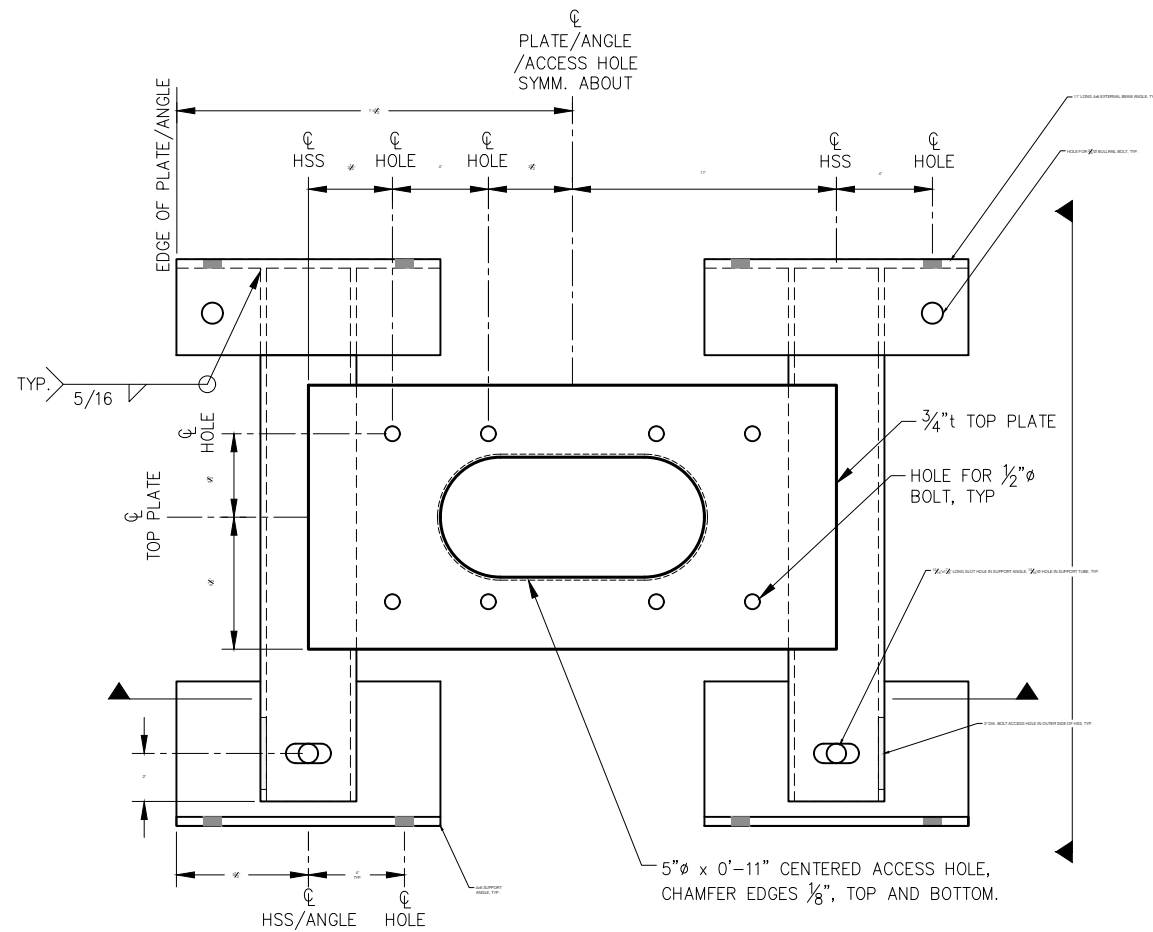


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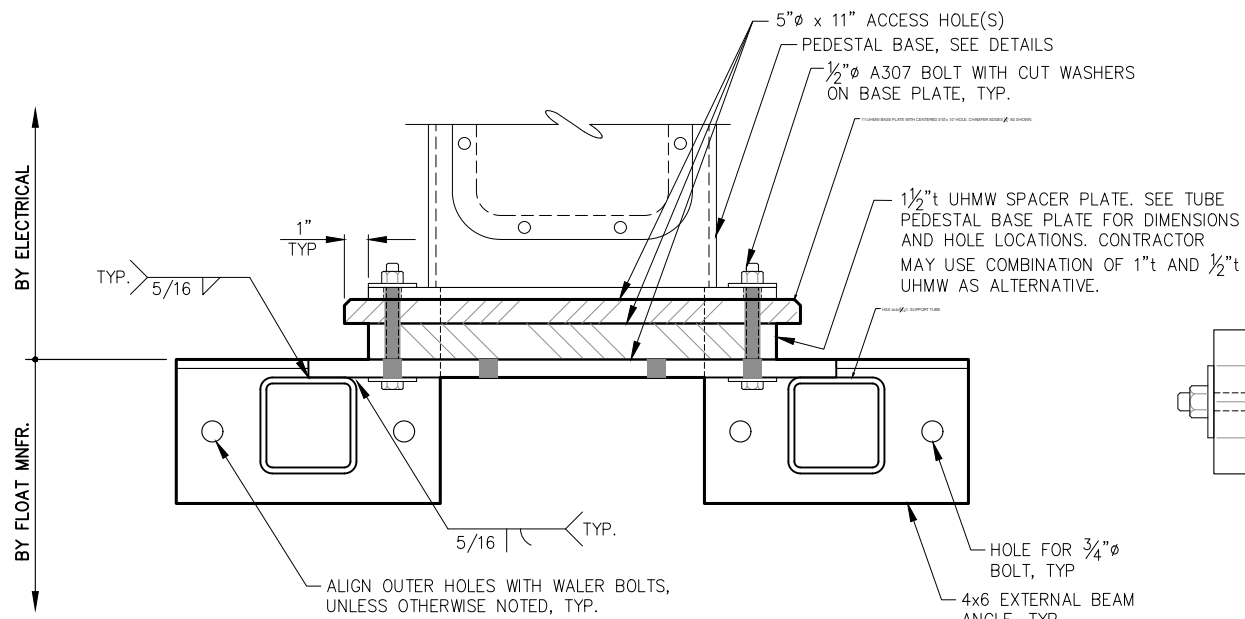
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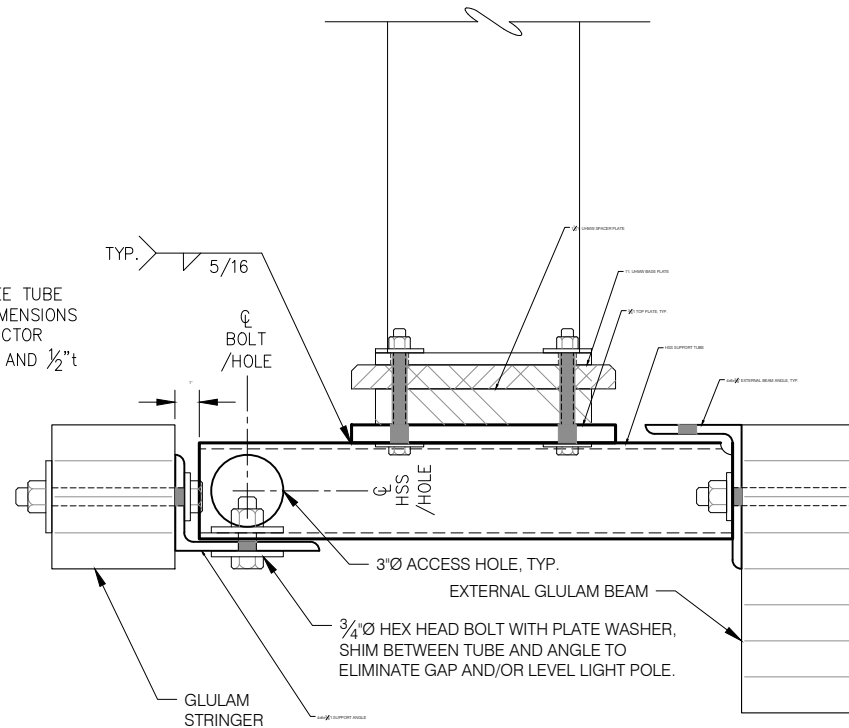
ELECTRICAL SUPPORT ASSEMBLY DETAILS			
AURORA HARBOR REBUILD - PHASE III			
DESIGN:	MS	DATE:	NOVEMBER 15, 2022
CHECKED:	ES	CONTRACT NO.	DH23-014
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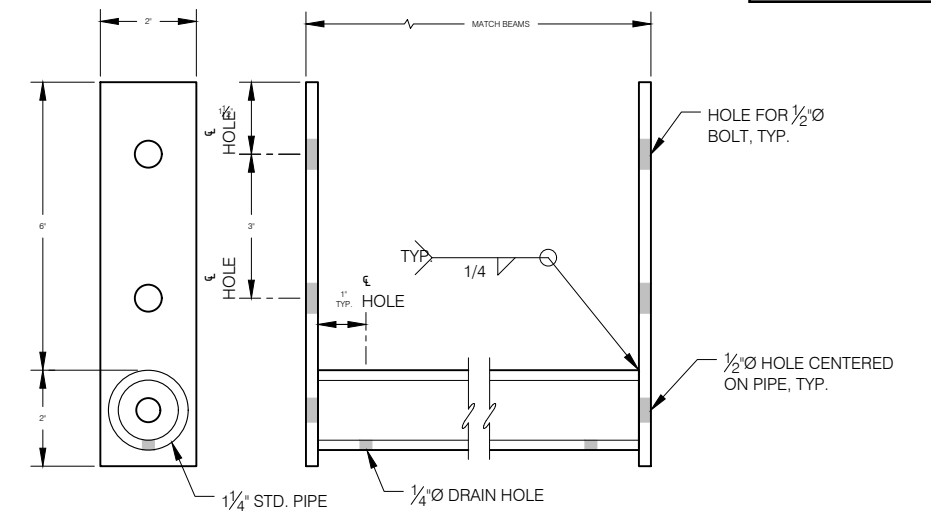
ELECTRICAL PEDESTAL BASE WELDMENT - PLAN



**ELECTRICAL PEDESTAL BASE WELDMENT
FRONT ELEVATION**



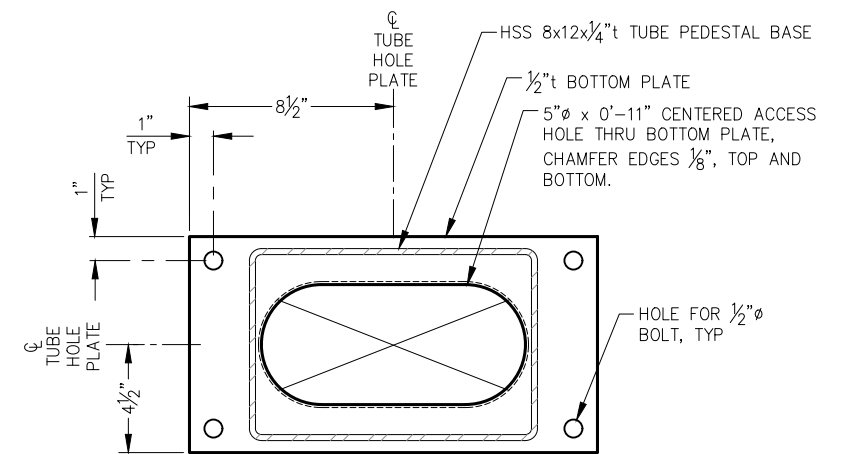
**ELECTRICAL PEDESTAL BASE WELDMENT
10' FLOAT - SIDE ELEVATION**



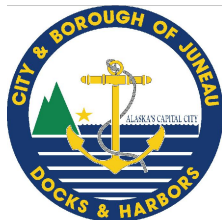
SECTION ELEVATION

CABLE TRAY SUPPORT

(LOCATE 2'-6" FROM THE END OF EACH MODULE UNLESS OTHERWISE NOTED.)



TUBE PEDESTAL BASE PLATE



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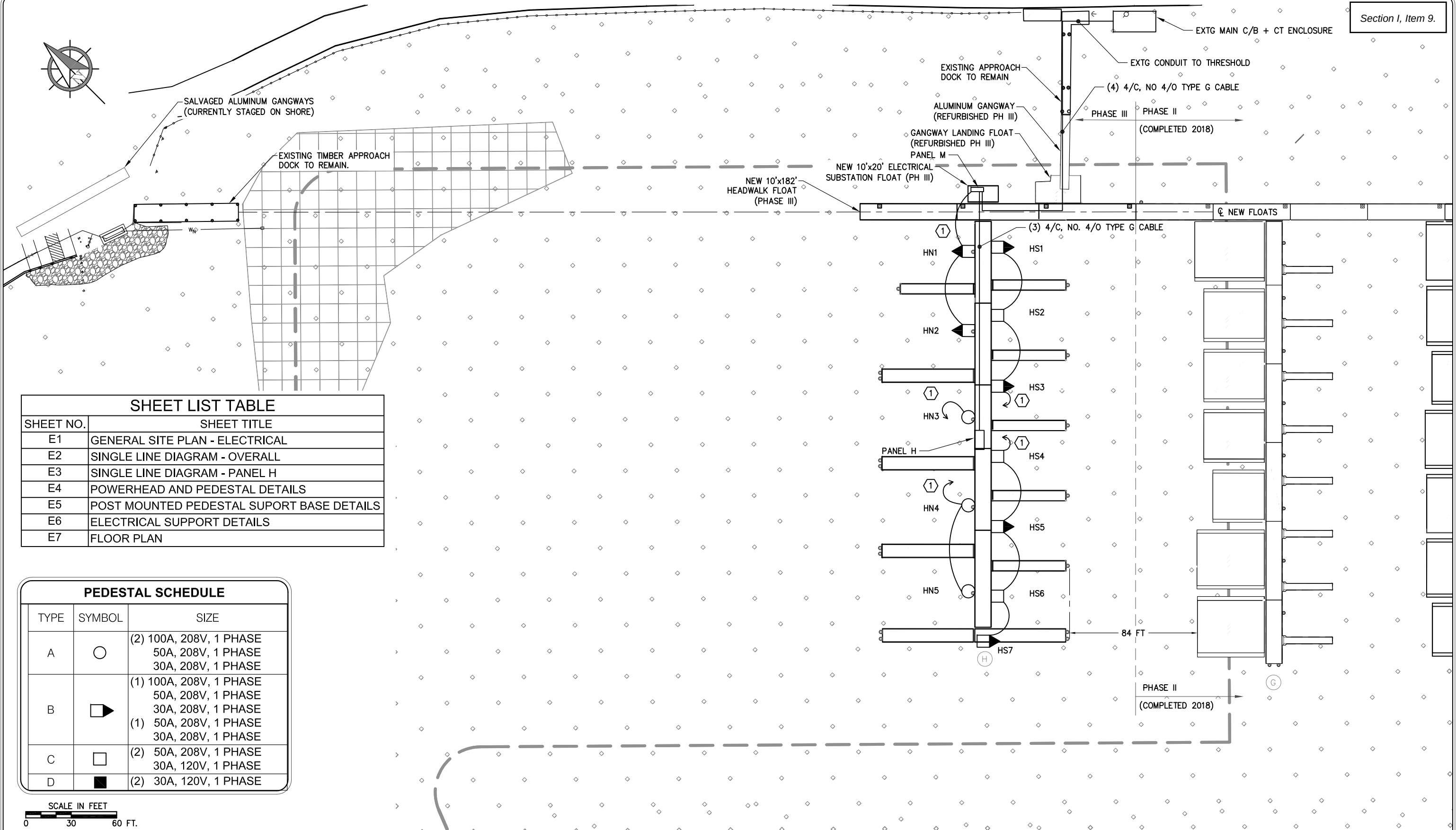
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ELECTRICAL SUPPORT ASSEMBLY DETAILS

AURORA HARBOR REBUILD - PHASE III

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SHEET LIST TABLE	
SHEET NO.	SHEET TITLE
E1	GENERAL SITE PLAN - ELECTRICAL
E2	SINGLE LINE DIAGRAM - OVERALL
E3	SINGLE LINE DIAGRAM - PANEL H
E4	POWERHEAD AND PEDESTAL DETAILS
E5	POST MOUNTED PEDESTAL SUPORT BASE DETAILS
E6	ELECTRICAL SUPPORT DETAILS
E7	FLOOR PLAN

PEDESTAL SCHEDULE		
TYPE	SYMBOL	SIZE
A	○	(2) 100A, 208V, 1 PHASE 50A, 208V, 1 PHASE 30A, 208V, 1 PHASE
B	◻	(1) 100A, 208V, 1 PHASE 50A, 208V, 1 PHASE 30A, 208V, 1 PHASE (1) 50A, 208V, 1 PHASE 30A, 208V, 1 PHASE
C	◻	(2) 50A, 208V, 1 PHASE 30A, 120V, 1 PHASE
D	■	(2) 30A, 120V, 1 PHASE



G3 G4 - Site Plans



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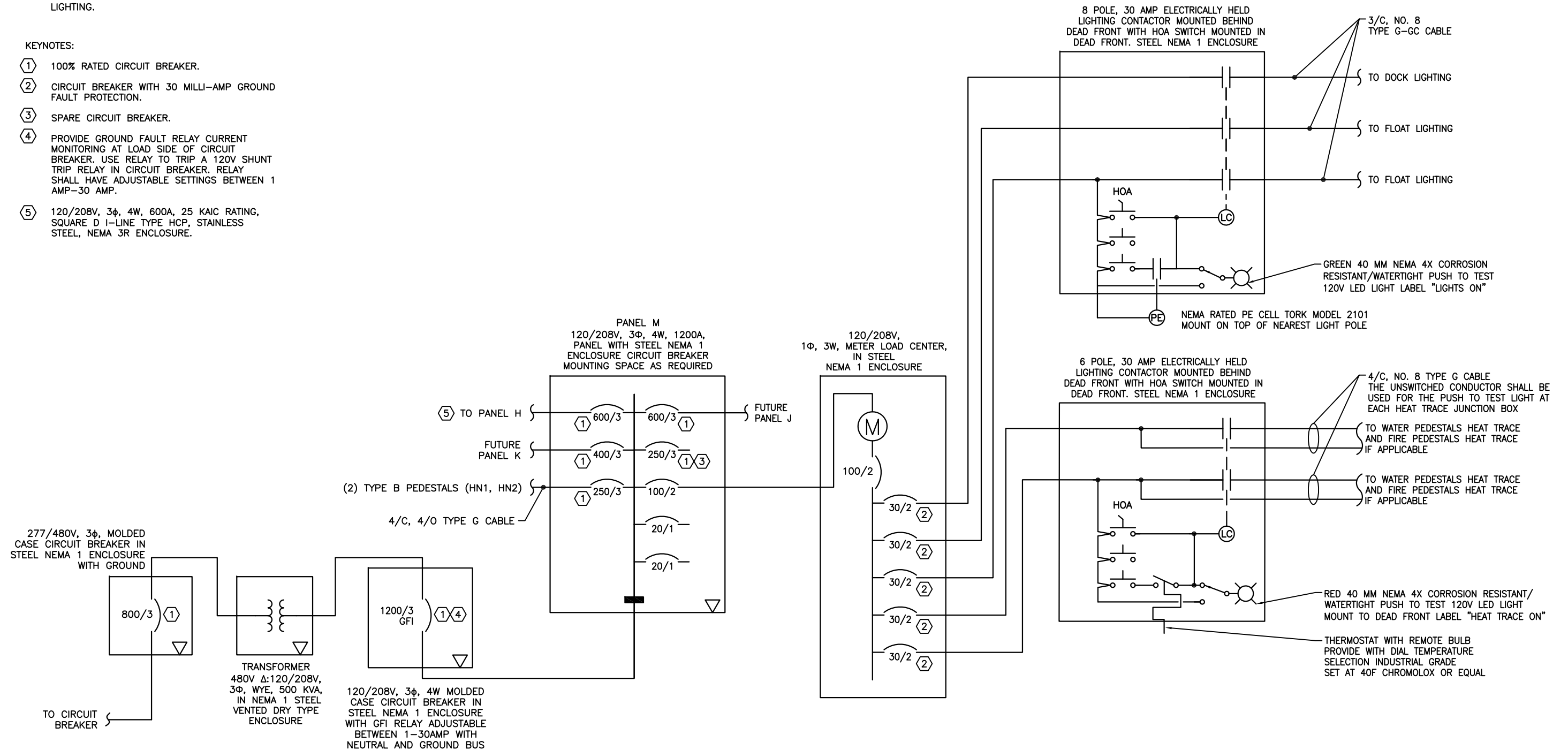
GENERAL SITE PLAN - ELECTRICAL AURORA HARBOR REBUILD - PHASE III			
DESIGN:	MGM	DATE:	DECEMBER XX, 2022
CHECKED:	BM	CONTRACT NO.	DH23-014
APPROVED:	MGM	FILE NO.	1539

SHEET NOTES:

1. PROVIDE DISTRIBUTION PANEL BOARD WITH MINIMUM (2) SPARE FEEDER CIRCUIT BREAKERS.
2. PROVIDE METER LOAD CENTER AND CONTACTORS FOR LIGHTING.

KEYNOTES:

- ① 100% RATED CIRCUIT BREAKER.
- ② CIRCUIT BREAKER WITH 30 MILLI-AMP GROUND FAULT PROTECTION.
- ③ SPARE CIRCUIT BREAKER.
- ④ PROVIDE GROUND FAULT RELAY CURRENT MONITORING AT LOAD SIDE OF CIRCUIT BREAKER. USE RELAY TO TRIP A 120V SHUNT TRIP RELAY IN CIRCUIT BREAKER. RELAY SHALL HAVE ADJUSTABLE SETTINGS BETWEEN 1 AMP-30 AMP.
- ⑤ 120/208V, 3 ϕ , 4W, 600A, 25 KAIC RATING, SQUARE D I-LINE TYPE HCP, STAINLESS STEEL, NEMA 3R ENCLOSURE.



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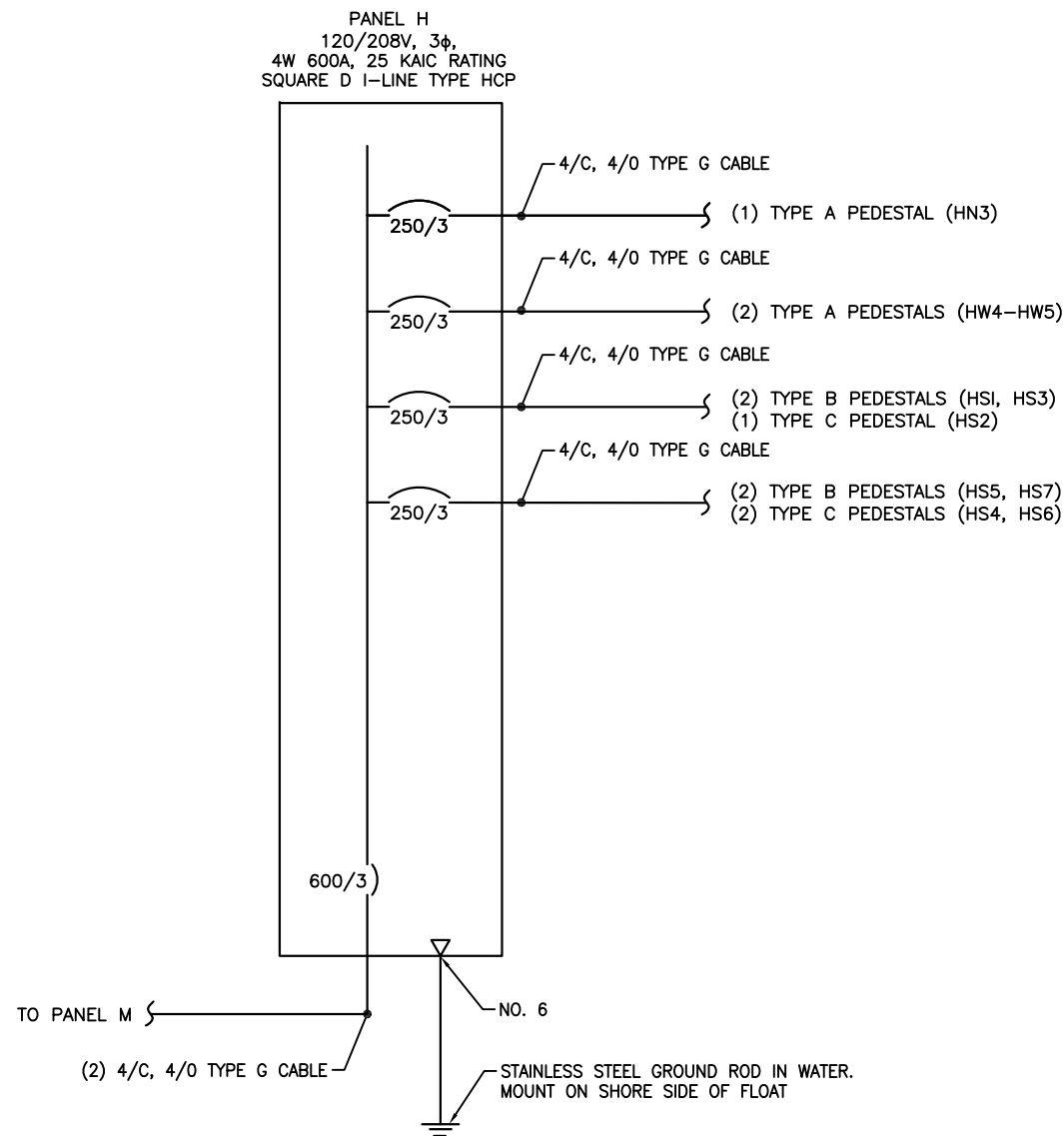
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DRAFT

SINGLE LINE DIAGRAM - OVERALL

AURORA HARBOR REBUILD - PHASE III

DESIGN:	MGM	DATE:	DECEMBER XX, 2022
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① SINGLE LINE DIAGRAM - PANEL H

SINGLE LINE DIAGRAM - PANEL H



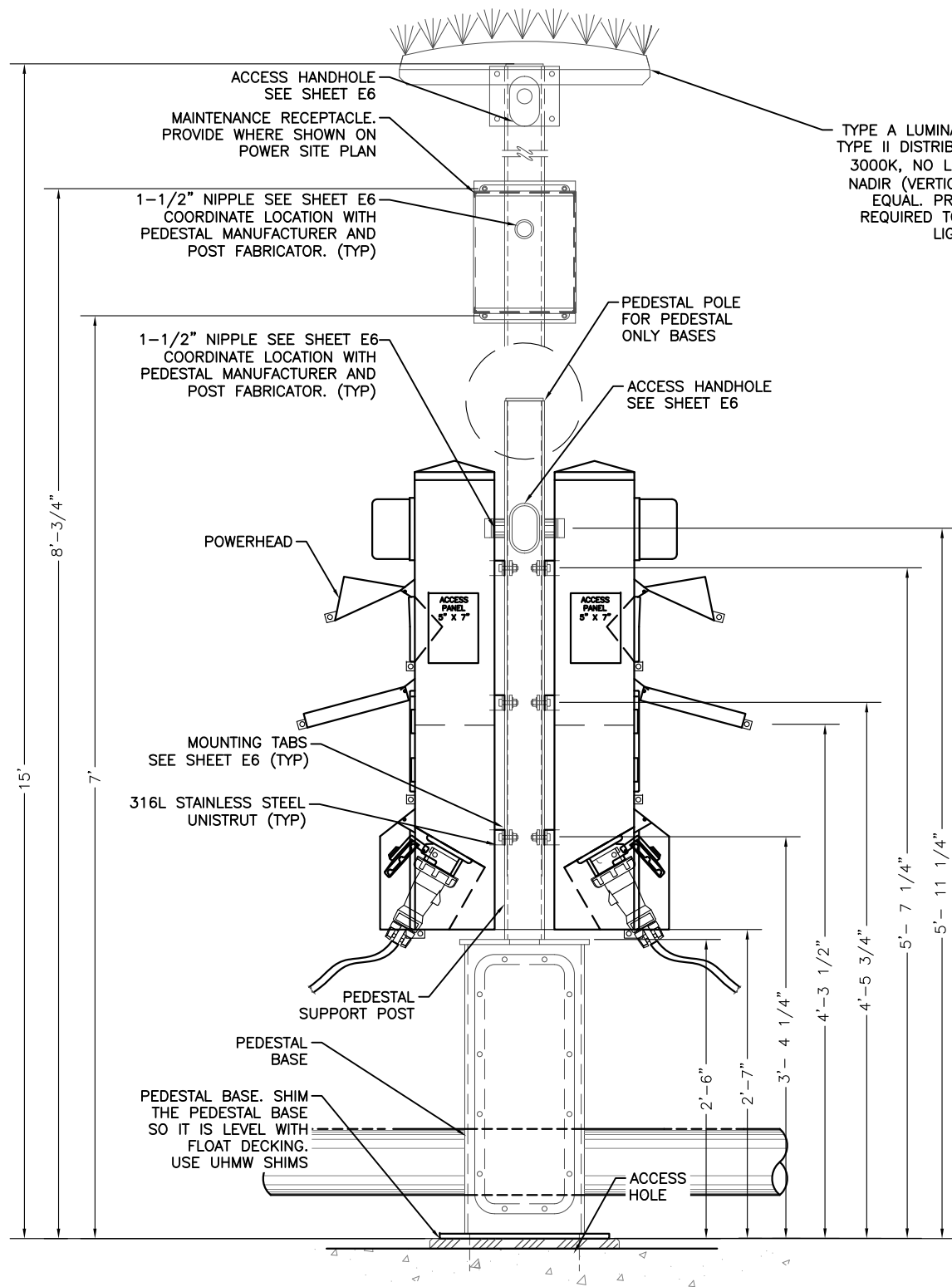
REVISIONS					
REV	DATE	DESCRIPTION	DWN	CHK	APP

CITY AND BOROUGH OF JUNEAU
DOCKS & HARBORS DEPT.
155 SOUTH SEWARD STREET
JUNEAU, ALASKA 99801
PHONE: 907-586-0292



SINGLE LINE DIAGRAM - PANEL H
AURORA HARBOR REBUILD - PHASE III

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CENTER OF NIPPLE (ALL FLOATS)
CENTER OF TAB ON POST (ALL FLOATS)

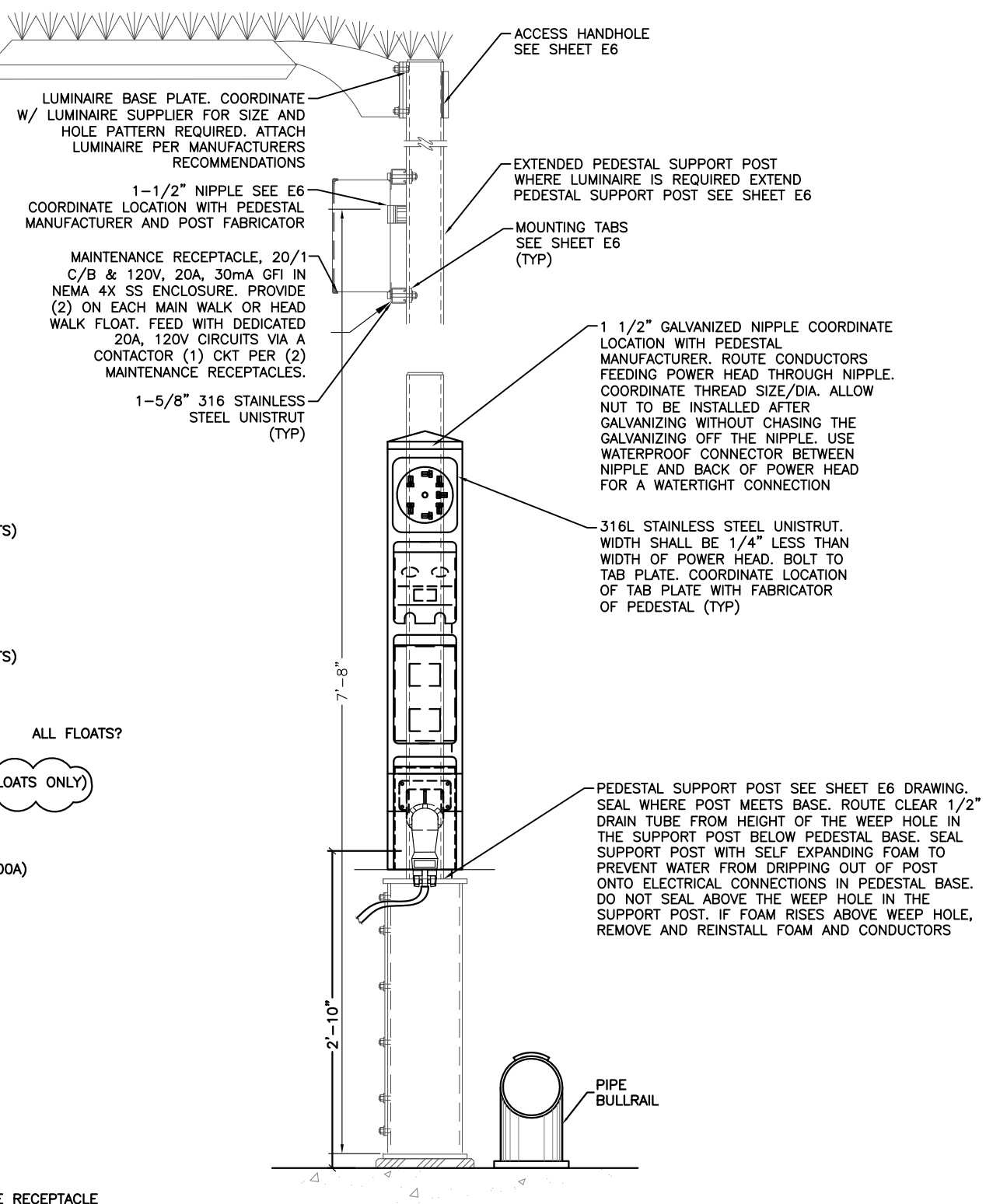
CENTER OF TAB ON POST (ALL FLOATS)
BOTTOM OF POWERHEAD (30A/50A)

CENTER OF TAB ON POST (D & C FLOATS ONLY)

BOTTOM OF POWERHEAD (30A/50A/100A)

NOTE:
VERIFY DIMENSIONS OF MAINTENANCE RECEPTACLE ENCLOSURE AND ADJUST HEIGHTS ACCORDINGLY. VERIFY TAB LOCATIONS ON PEDESTAL POLE ARE IN CORRECT LOCATIONS FOR BOTH MAINTENANCE RECEPTACLE AND POWER HEADS.

① POST MOUNTED PEDESTAL
SIDE VIEW INSTALLATION



② POST MOUNTED PEDESTAL
FRONT VIEW INSTALLATION



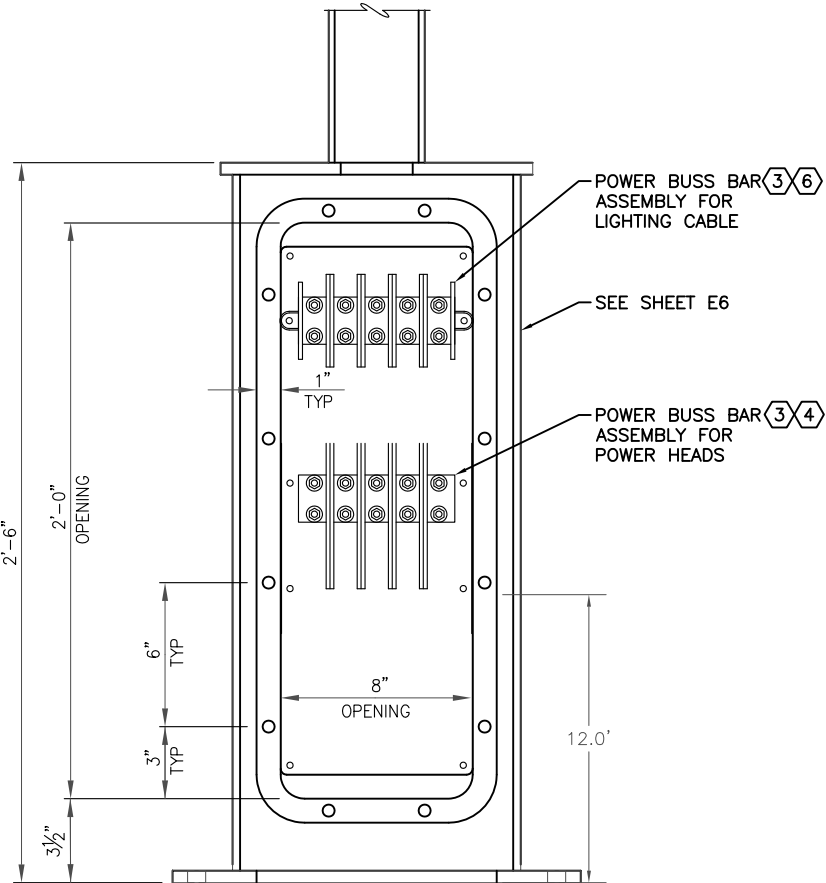
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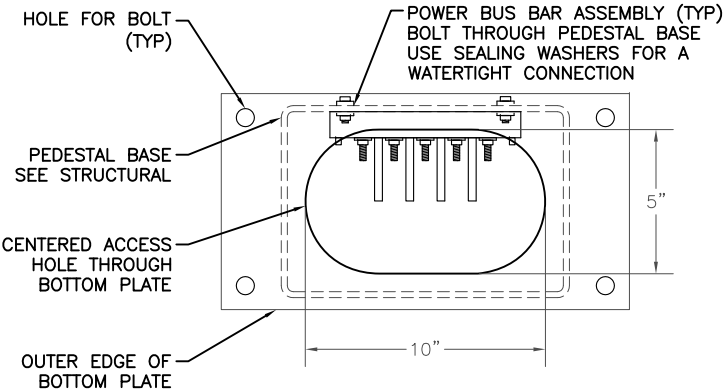
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POWERHEAD AND PEDESTAL DETAILS
AURORA HARBOR REBUILD - PHASE III

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① PEDESTAL BASE - FRONT VIEW
NO SCALE



② PEDESTAL BASE - TOP VIEW
NO SCALE

SHEET NOTES:

1. PROVIDE SIZE AND QUANTITY OF POWER DISTRIBUTION BLOCKS AS REQUIRED.
2. MOUNT POWER BUS BAR ASSEMBLY IN PEDESTAL BASE BY USING STAINLESS BOLTS, RUBBER WASHERS, STAINLESS WASHERS AND SEALANT FOR A WATERTIGHT INSTALLATION.

- ③ LOCATE BLOCKS MINIMUM 12" ABOVE DECK PER NEC.
- ④ PROVIDE COPPER BUS BARS FOR POWERHEADS RATED AT 250 AMPS, 600V. PROVIDE (2) COPPER OR BRONZE STUDS PER POLE SIZED FOR NO. 4/0 LOOP FEED. USE COMPRESSION RING TERMINALS (BURNDY OR EQUAL) TO SECURE CABLE TO STUDS. USE ANTI-OXIDATION COMPOUND, BRONZE WASHERS AND NUTS. APPLY COLORED HEAT SHRINK OVER COMPRESSION CONNECTION 2" LONG MINIMUM. COLOR PER VOLTAGE AND CONDUCTOR TYPE (BLACK, RED, BLUE FOR A,B,C PHASE, WHITE FOR NEUTRAL, GREEN FOR GROUND). SIZE AND CONFIGURATION AS REQUIRED. LABEL CONDUCTORS FEEDING POWERHEAD ON LEFT SIDE OF POST WITH "L", RIGHT SIDE WITH "R". CONDUCTORS SHALL BE TINNED COPPER WITH XHHW INSULATION (TYPICAL). COAT CONDUCTORS WITH ANTI-OXIDATION COMPOUND. TORQUE PER MANUFACTURER'S RECOMMENDATION. USE SAME METHOD FOR CONDUCTORS FEEDING POWERHEADS. NO ALUMINUM LUGS, NO STAINLESS STUDS, WASHERS, NUTS, OR BOLTS MAY BE USED WITH THE BUS BARS AND THE TERMINATION OF THE CONDUCTORS.
5. ALL PEDESTALS SHALL HAVE 30 MILLI-AMP GFI PROTECTION BUILT INTO EACH CIRCUIT BREAKER IN THE PEDESTALS (POWERHEAD).
- ⑥ PROVIDE BUS BARS FOR LIGHTING IN SAME MANNER AS POWERHEADS. SIZE STUDS FOR NO. 8 LOOP FEED. ATTACH CONDUCTORS IN SAME MANNER. BUS BAR TO BE RATED AT 50A, 600V.

E2 PEDESTAL BASE DETAILS



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POST MOUNTED PEDESTAL SUPORT BASE
DETAILS
AURORA HARBOR REBUILD - PHASE III

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NOTE:
LOCATION/SPACING OF
TABS AND PIPE NIPPLE
LENGTH SHALL BE
COORDINATED w/
ELECTRICAL AND
INCLUDED IN SHOP
DRAWINGS TO BE
REVIEWED BY ENGINEER.



NEOPRENE RUBBER: Neoprene rubber gasket shall be UV stabilized, have durometer hardness of 60 and color black.

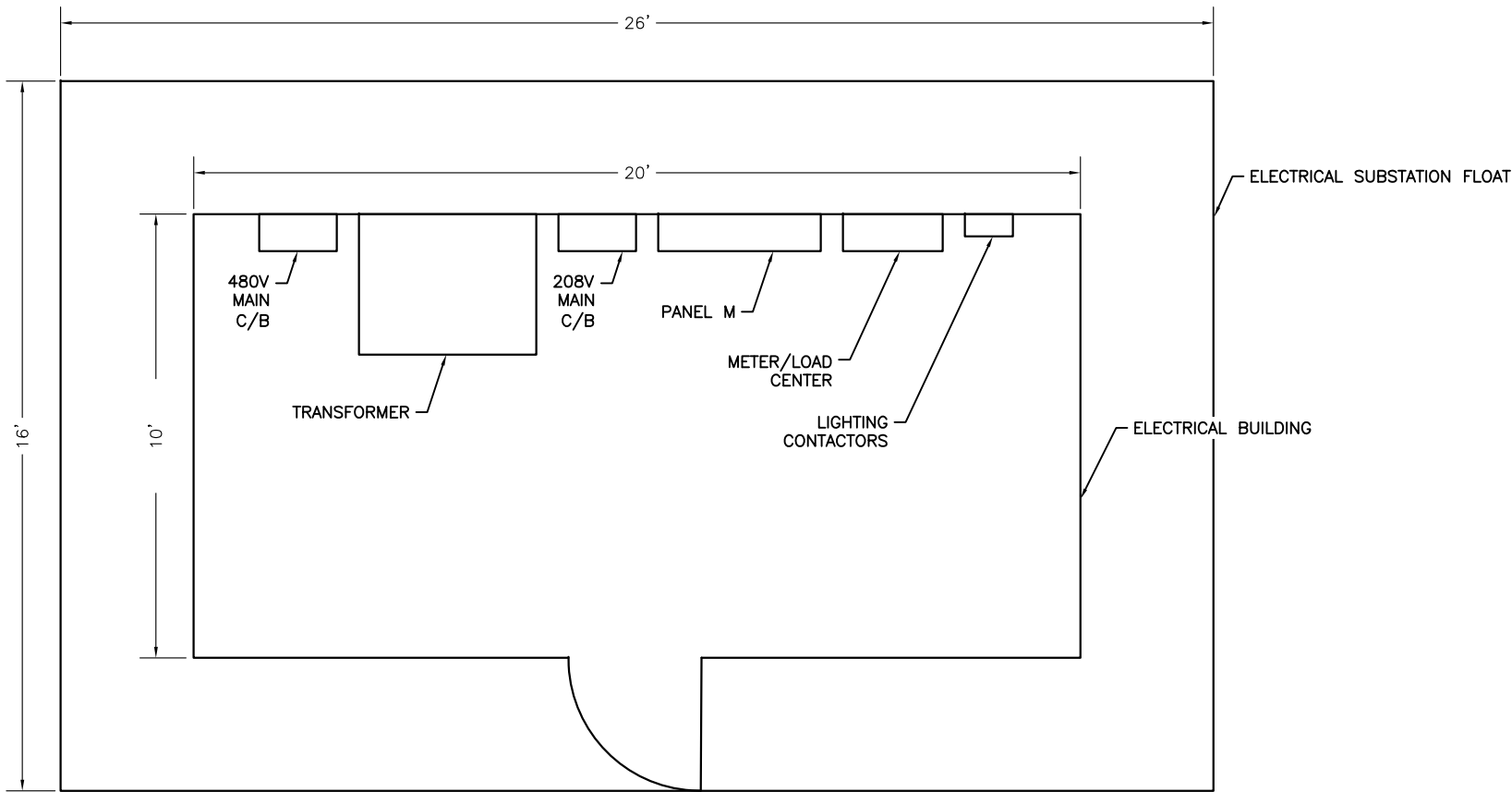


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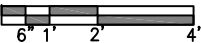


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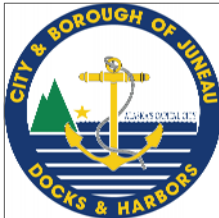
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① ELECTRICAL BUILDING FLOOR PLAN



FLOOR PLAN



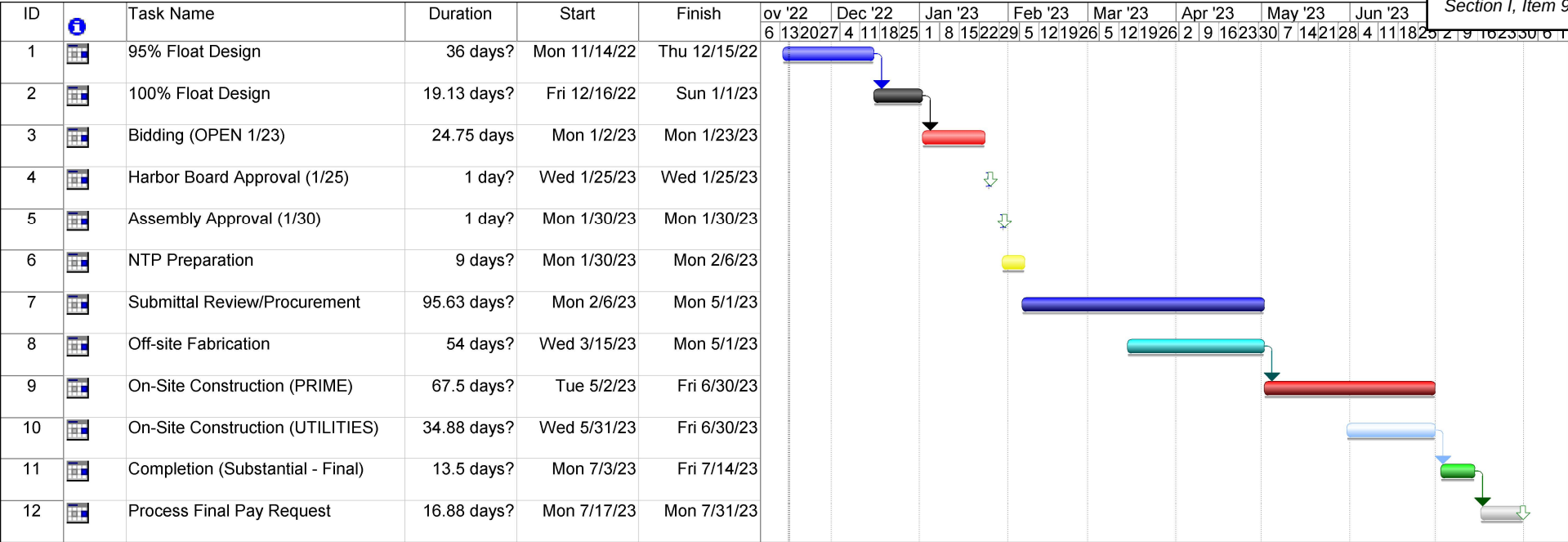
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FLOOR PLAN
AURORA HARBOR REBUILD - PHASE III

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Project: Aurora Harbor Phase III Sche
Date: Wed 11/16/22

Task

Split

Progress

Milestone

Summary

Project Summary

External Tasks

External Milestone

Deadline

1 INTRODUCTION

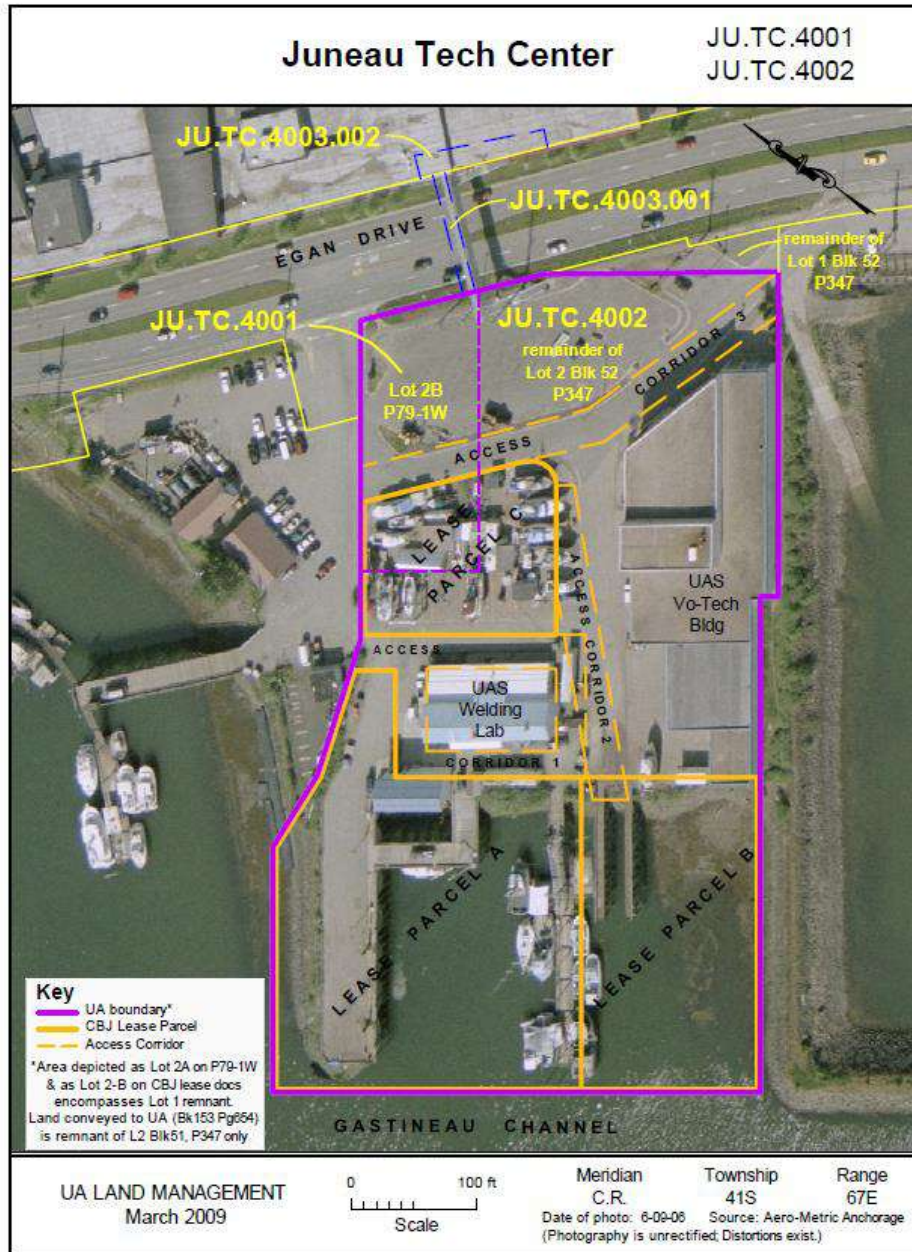


Figure 1.1 - Outline of a larger tract highlighting the subject lease parcels and shared access corridors.