



## ADDENDUM TO THE CONTRACT

for the

### AURORA HARBOR REBUILD, PHASE III Contract No. DH23-015

**ADDENDUM NO.:** ONE

**CURRENT DEADLINE FOR BIDS:**

March 15, 2023

**PREVIOUS ADDENDA:** NONE

**ISSUED BY:**

City and Borough of Juneau  
ENGINEERING DEPARTMENT  
155 South Seward Street  
Juneau, Alaska 99801

**DATE ADDENDUM ISSUED:**

**March 6, 2023**

The following items of the contract are modified as herein indicated. All other items remain the same. This addendum has been issued and is posted online. Please refer to the CBJ Engineering Public Purchase webpage at: <https://www.publicpurchase.com/gems/juneau,ak/buyer/public/home>

**CLARIFICATIONS:**

Question: *“On page 02896-4 of the project manual section 2.2 - F it notes that “pile shoes shall have no dimension exceeding the outside diameter of the pipe.” On plan page F2 (sheet 8 of 72) it notes that the pile tips shall be inside flanged, and flush with the inside of the pipe. Is engineering requesting an inside fit/flange shoe which is flush with the outside diameter of the pile, or are they asking for an outside fit shoe which would be flush with the inside diameter of the pile?”*

Response: PILE SHOE SHALL BE COMPATIBLE WITH THE CONTRACTORS METHOD OF PILE SOCKET DRILLING. GENERALLY THIS MEANS AN OUTSIDE SHOE THAT IS FLUSH WITH THE INSIDE OF THE PIPE, HOWEVER, DIFFERENT DRILLING SYSTEMS MAY HAVE DIFFERENT PILE SHOE REQUIREMENTS, SO THE CONTRACTOR WILL SELECT A SHOE COMPATIBLE WITH THEIR DRILLING EQUIPMENT.

Question: *“Sheet F13- Is there Diag. bracing on the utility float?”*

Response: No

Question: *“Sheet F13- Clarify beam/float length”*

Response: Outside beam is 25'-6”, so overall float would be 10.25” wider than that, for an overall width of 26'-4.25”

Question: *“Sheet R2- Clarify electrical support posts”*

Response: The electrical support post BASES are existing in the float, and will be re-used. The electrical support POSTS shall be furnished new by the contractor.

## **PROJECT MANUAL:**

- Item No. 1 SECTION 00310 BID SCHEDULE **Replace** with attached Bid Schedule labeled Addendum 1.
- Item No. 2 SECTION 01025 MEASUREMENT AND PAYMENT **Replace** with attached SECTION 01025 labeled Addendum 1.

## **DRAWINGS:**

- Item No. 3 SHEET F4, HEADWALK DETAILED FLOAT PLAN **Replace** existing sheet with attached SHEET F4 labeled Addendum 1.
- Item No. 4 SHEET F5, MAINWALK DETAILED FLOAT PLAN, **Replace** existing sheet with attached SHEET F5 labeled Addendum 1.
- Item No. 5 SHEET F6, TEE FLOAT DETAILED FLOAT PLAN, **Replace** existing sheet with attached SHEET F6 labeled Addendum 1.
- Item No. 6 SHEET F18, 10' & 8' PIANO HINGE PLANS, **Replace** existing sheet with attached SHEET F18 labeled Addendum 1.
- Item No. 7 SHEET F28, INTERNAL PILE HOOP DETAILS, **Replace** existing sheet with attached SHEET F28 labeled Addendum 1.
- Item No. 8 SHEET ES3, ELECTRICAL SUPPORT POST DETAILS, **Replace** existing sheet with attached SHEET ES3 labeled Addendum 1.
- Item No. 9 SHEET E1, GENERAL NOTES, INDEX, AND LEGEND-GENERAL NOTES (APPLICABLE ALL SHEETS) **add** the following GENERAL NOTES

31. CONTRACTOR SHALL REVIEW STRUCTURAL PLANS AND FAMILIARIZE THEMSELVES WITH THE FLOAT DESIGN, FLOAT TRANSITIONS, GANGWAY & GANGWAY TRANSITIONS, AND STRUCTURAL ASSOCIATED WITH THE ELECTRICAL FLOAT BUILDING. CONTRACTOR IS RESPONSIBLE TO PLAN OUT AND EXECUTE ALL WORK ASSOCIATED WITH PULLING CABLES UNSPLICED FROM APPROACH DOCK, UNDER GANGWAY, WITHIN THE FLOATS, ETC... IT IS THE CONTRACTOR'S RESPONSIBILITY TO PLAN ALL PULLING PROCESSES, OBTAIN NEEDED TEMPORARY PULLING TOOLS & IMPLEMENTS, CONSIDER LOGISTICS INCLUDING CABLE SLACK AND COIL MANAGEMENT, AND TO COORDINATE WITH ALL OTHER TRADES REQUIRED TO SUCCESSFULLY PULL CABLES UNSPLICED END-TO-END. A MAJOR PULLING EFFORT IS ANTICIPATED WHICH WILL REQUIRE EXTENSIVE COORDINATION AND PLANNING WITH THE GENERAL CONTRACTOR AND OTHER TRADES.

32. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL STRUCTURAL ELEMENTS OUTLINED IN CIVIL SHEETS ES1-ES4. REVIEW THESE DRAWINGS AND PLAN ACCORDINGLY. BOTH THE STRUCTURAL CONTRACTOR FABRICATOR AND THE ELECTRICAL CONTRACTOR ARE REQUIRED TO SIGN OFF AND APPROVE (VIA SHOP DRAWINGS / SUBMITTALS PROCESS) ALL

STRUCTURAL ELEMENTS ASSOCIATED WITH THE MARINA POWER PEDESTALS & POSTS, MARINA LIGHT POLES & POSTS, AND HEAT TRACE J-BOXES DEPICTED ON THE ES1-ES4 SHEETS.

33. ALL SPARE CONDUCTORS NOT UTILIZED SHALL BE CAPPED WITH WIRE NUT AND TAPPED OFF SAFE WITH TWO LAYERS OF OVERLAPPING 3M TAPE. LEAVE A MINIMUM OF 12" OF SPARE CONDUCTOR AND LEAVE ONLY WITHIN PANELS, ENCLOSURES, AND JUNCTION BOXES FOR FUTURE ACCESSIBILITY.

- Item No. 10 SHEET E1, GENERAL NOTES, INDEX, AND LEGEND-GENERAL NOTES (APPLICABLE ALL SHEETS) NOTE 12. **Delete** 555.13(4) and **replace** with 555.34(B)(3).
- Item No. 11 SHEET E1, GENERAL NOTES, INDEX, AND LEGEND-GENERAL NOTES (APPLICABLE ALL SHEETS) NOTE 13 **add** the following: "IN SECURING CABLES ENSURE CABLE STRESS IS MINIMIZED AND THAT CABLES ARE ALLOWED NEEDED FLEXIBILITY AT ALL FLOAT, GANGWAY AND TRANSITION LOCATIONS."
- Item No. 12 SHEET E1, GENERAL NOTES, INDEX, AND LEGEND-GENERAL NOTES (APPLICABLE ALL SHEETS) NOTE 15 **delete** the first sentence of the note and **replace** with the following: "ALL ELECTRICAL, INCLUDING MAIN BREAKERS, TRANSFORMER, PANELBOARDS AND CONTACTORS ARE BY CONTRACTOR. SEE NOTE 16, SHEET E5 FOR EXAMPLE BILL OF MATERIAL INFORMATION USED AS BASIS OF DESIGN"
- Item No. 13 SHEET E2, GENERAL SITE PLAN-POWER, **delete** EXTG (4) 3"C, 4/C NO. 4 TYPE G CABLE REMOVE. REPLACE WITH (4) 4"C, 4/C NO. 4/0 TYPE G CABLE (FLOAT POWER CKT), (1) 1"C, 3/C NO. 10 TYPE CABLE (GFPE RELAY POWER) and **replace** with EXTG (4) 3"C, 4/C NO. 4 TYPE G CABLE TO BE REMOVED. REPLACE WITH (4) 4"C, 4/C NO. 4/0 TYPE G CABLE (FLOAT POWER CKT), (1) 1"C, 3/C NO. 8 TYPE G CABLE (GFPE RELAY POWER). SPARE CONDUITS SHALL ALSO BE PROVIDED FROM DOCK DOWN THE GANGWAY. SEE SECTION VIEWS ON SHEETS E23 & E24 FOR INFO.
- Item No. 14 SHEET E2, GENERAL SITE PLAN-POWER, SHEET NOTES, Note 2 **delete** first sentence and **replace** with the following: CIRCUIT TO PANEL H OR PANEL M AS APPLICABLE.
- Item No. 15 SHEET E3, GENERAL SITE PLAN- LIGHTING, SHEET NOTES, **add** the following: 6. ALL PEDESTAL LOCATIONS PER CIVIL.
- Item No. 16 SHEET E4, GENERAL SITE PLAN- HEAT TRACE **Replace** existing sheet with attached SHEET E4 labeled Addendum 1.
- Item No. 17 SHEET E5, SINGLE LINE DIAGRAM-OVERALL, NOTES, **add** the following note:
19. CONTRACTOR TO ENSURE PATH FROM PANEL M BREAKERS FOR FUTURE PANELS J AND K IS LEFT EMPTY FOR FUTURE CABLES FROM PANEL M, THROUGH ELECTRICAL BUILDING, AND ALONG HEADWALK TO THE NORTH. SEE SHEET E11 FOR MORE ON THIS PATHWAY.
- Item No. 18 SHEET E5, SINGLE LINE DIAGRAM-OVERALL **Delete** the phrase '1"C, 3/C NO. 10

TYPE G CABLE' and **replace** with '1"C, 3/C NO. 8 TYPE G CABLE' at the GFPE Panel adjacent to Uplands 800/3 breaker and at the left hand side of Panel M

- Item No. 19 SHEET E5, SINGLE LINE DIAGRAM-OVERAL **Add** the following sentence to the thermostat description at the bottom of the heat trace contactor:

COORDINATE PRECISE LOCATION OF REMOTE BULB WITH ENGINEER.

- Item No. 20 SHEET E6, SINGLE LINE DIAGRAM- PANEL H & GFPE BREAKER DETAIL, **Replace** existing sheet with attached SHEET E6 labeled Addendum 1.

- Item No. 21 SHEET E7, GANGWAY ELEVATION, NOTES, Note 4, **delete** the last two sentences and **replace** with the following:

SECURE CABLE GRIPS TO GANGWAY VIA EXISTING SUPPORT CHANNEL.  
PROVIDE CABLE GRIPS TO PREVENT CABLES FROM 'WALKING' TOWARDS THE FLOAT.

- Item No. 22 SHEET E7, GANGWAY ELEVATION, NOTES, Note 7, **delete** and **replace** with the following: NO NEW SUPPORT CHANNEL IS TO BE PROVIDED ALONG THE GANGWAY. USE EXISTING CHANNEL. EXACT CHANNEL LAYOUT, QUANTITIES, AND CONDITIONS NOT NOTED HERE. CONTRACTOR MAY UTILITIZE FIBERGLASS CONDUIT IN LIEU OF SCHE 80 PVC IF REQUIRED DUE TO THE LIMITED NUMBER OF SUPPORT CHANNEL POSITIONS ALONG THE GANGWAY. IF FIBERGLASS CONDUIT IS UTILIZED IT SHALL ALSO BE UTILIZED ALONG THE APPROACH DOCK FOR ALL CONDUITS.

- Item No. 23 SHEET E8, GANGWAY TO APPROACH DOCK ELEVATION, NOTES, Keynote 4, **add** the following sentences to the end of the note:

NOTE THAT LIGHTING CIRCUIT WORK OCCURS ON THE NORTH SIDE (FLOAT BLDG SIDE) OF GANGWAY. ALTERNATIVE TO WHAT IS SHOWN, CONTRACTOR MAY PROVIDE THE GANGWAY LIGHTING CIRCUIT FROM THE FLOAT BLDG IN A NEW 2" CONDUIT UNDER THE GANGWAY AND CONNECT TO THE BOX AT THE TOP OF THE GANGWAY ONLY, IN LIEU OF A BOX AT THE BOTTOM AND AT TOP THE OF GANGWAY SHOWN. CONTRACTOR RESPONSIBLE FOR ADDITIONAL CONDUIT AND SUPPORTS, ETC. REQUIRED.

- Item No. 24 SHEET E8, GANGWAY TO APPROACH DOCK ELEVATION, NOTES **add** the following note: 5. SEE NOTE 7, SHEET E7 FOR MORE ON THE REUSE OF GANGWAY SUPPORT CHANNEL AND CONSIDERATION OF ALTERNATE CONDUIT ROUTED ALONG UNDERSIDE OF GANGWAY.

- Item No. 25 SHEET E9, FLOAT TO GANGWAY ELEVATION, NOTES, keynote 3, **delete** the last two sentence and **replace** with the following:  
SECURE CABLE GRIPS TO GANGWAY VIA EXISTING SUPPORT CHANNEL.  
PROVIDE CABLE GRIPS TO PREVENT CABLES FROM 'WALKING' TOWARDS THE FLOAT.

- Item No. 26 SHEET E9, FLOAT TO GANGWAY ELEVATION, NOTES, keynote 7 **delete** the first sentence and **replace** with the following:  
PROVIDE 4/C, NO. 8 TYPE G CABLE FROM PANEL M TO LUMINAIRES ON GANGWAY.

Item No. 27 SHEET E9, FLOAT TO GANGWAY ELEVATION, NOTES, keynote 11 **add** the following sentence to the end of the note:

ALTERNATIVE TO WHAT IS SHOWN, CONTRACTOR MAY PROVIDE THE GANGWAY LIGHTING CIRCUIT FROM THE FLOAT BLDG IN A NEW 2" CONDUIT UNDER THE GANGWAY AND CONNECT TO THE BOX AT THE TOP OF THE GANGWAY ONLY, IN LIEU OF A BOX AT THE BOTTOM AND AT TOP THE OF GANGWAY SHOWN. CONTRACTOR RESPONSIBLE FOR ADDITIONAL CONDUIT AND SUPPORTS, ETC. REQUIRED.

Item No. 28 SHEET E9, FLOAT TO GANGWAY ELEVATION, NOTES **add** the following keynote: 12. SEE NOTE 7, SHEET E7 FOR MORE ON THE REUSE OF GANGWAY SUPPORT CHANNEL AND CONSIDERATION OF ALTERNATE CONDUIT ROUTED ALONG UNDERSIDE OF GANGWAY.

Item No. 29 SHEET E10, GANGWAY LANDING FLOAT AND HEADWALK PLAN, **Replace** existing sheet with attached SHEET E10 labeled Addendum 1.

Item No. 30 SHEET E11, ELECTRICAL BUILDING FLOOR PLAN & CABLE ROUTING, **Replace** existing sheet with attached SHEET E11 labeled Addendum 1.

Item No. 31 SHEET E12, MAINWALK CABLE ROUTING, **Replace** existing sheet with attached SHEET E12 labeled Addendum 1.

Item No. 32 SHEET E14, 10' FLOAT SECTIONS, **Add** the following general note:

NOTE: CONTRACTOR RESPONSIBLE FOR PROVIDING AND COORDINATING STRUCTURAL ELEMENTS ASSOCIATED WITH FLOAT MOUNTED ELECTRICAL. SEE GENERAL NOTE 32 ON SHEET E1 FOR MORE INFORMATION.

Item No. 33 SHEET E15, POWERHEAD AND PEDESTAL DETAILS, NOTES, **Add** the following:

3. CONTRACTOR RESPONSIBLE FOR PROVIDING AND COORDINATING STRUCTURAL ELEMENTS ASSOCIATED WITH FLOAT MOUNTED ELECTRICAL. SEE GENERAL NOTE 32 ON SHEET E1 FOR MORE INFORMATION.

Item No. 34 SHEET E16, POST MOUNTED PEDESTAL SUPPORT BASE DETAILS, SHEET NOTES, **add** the following:

7. CONTRACTOR RESPONSIBLE FOR PROVIDING AND COORDINATING STRUCTURAL ELEMENTS ASSOCIATED WITH FLOAT MOUNTED ELECTRICAL. SEE GENERAL NOTE 32 ON SHEET E1 FOR MORE INFORMATION.

Item No. 35 SHEET E17, POWERHEAD DETAILS, NOTE, **add** the following:

NOTE: CONTRACTOR RESPONSIBLE FOR PROVIDING AND COORDINATING STRUCTURAL ELEMENTS ASSOCIATED WITH FLOAT MOUNTED ELECTRICAL. SEE GENERAL NOTE 32 ON SHEET E1 FOR MORE INFORMATION.

- Item No. 36 SHEET E18, PEDESTAL WIRING DIAGRAMS, **Replace** existing sheet with attached SHEET E18 labeled Addendum 1.
- Item No. 37 SHEET E21, HEAT TRACE JUNCTION BOX DETAIL, **Add** the following general note:
- NOTE (APPLICABLE TO ALL DETAILS ON THIS SHEET): CONTRACTOR RESPONSIBLE FOR PROVIDING AND COORDINATING STRUCTURAL ELEMENTS ASSOCIATED WITH FLOAT MOUNTED ELECTRICAL. SEE GENERAL NOTE 32 ON SHEET E1 FOR MORE INFORMATION.
- Item No. 38 SHEET E21, HEAT TRACE JUNCTION BOX DETAIL, NOTES (APPLICABLE TO DETAIL 1), Note 3, **delete** and **replace** with the following:
3. (1) 3/C NO. 10 TYPE SOOW CORD HARDWIRED AT J-BOX, WITH CORD CAP AT WATER PEDESTAL. ROUTE CABLE LOOSE FROM JUNCTION BOX TO THE LB CONDULET ON THE WATER PEDESTAL. PROVIDE SS CABLE GRIPS ON THE SOOW CORD AT BOTH ENDS.
- Item No. 39 SHEET E21, HEAT TRACE JUNCTION BOX DETAIL, DETAIL 1, **delete** the following descriptive leader at the junction box on the detail: WP-GLAM TWIST LOCK RECEPTACLE

*Greg Smith*

By: \_\_\_\_\_  
Greg Smith,  
Contract Administrator

Total number of pages contained within this Addendum: 33

**SECTION 00310 – BID SCHEDULE**

**BASE BID – AURORA HARBOR REBUILD – PHASE III**

Pay Item No.	Pay Item Description	Pay Unit	Approximate Quantity	Unit Price		Amount	
				Dollars	Cents	Dollars	Cents
1505.1	Mobilization	LS	All Req'd	LUMP	SUM	\$	
2060.1	Demolition and Disposal	LS	All Req'd	LUMP	SUM	\$	
2601.1	Domestic Water System and Appurtenances	LS	All Req'd	LUMP	SUM	\$	
2611.1	Dry Fire Suppression System	LS	All Req'd	LUMP	SUM	\$	
2702.1	Construction Surveying	LS	All Req'd	LUMP	SUM	\$	
2718.1	Signage	LS	All Req'd	LUMP	SUM	\$	
2882.1	Marine Mammal Work Suspension	HR	20				
2895.1	Electrical Utility Float, 16' x 25'	LS	All Req'd	LUMP	SUM	\$	
2895.2	Headwalk Float, 10' x 126'	LS	All Req'd	LUMP	SUM	\$	
2895.3	Mainwalk Float H, 10' x 268'	LS	All Req'd	LUMP	SUM	\$	
2895.4	Finger Float, 6' x 48'	EA	1			\$	
2895.5	Finger Float, 8' x 60'	EA	3			\$	
2896.1	Furnish Steel Mooring Pile, 12.75" dia. x 0.500" thick	LF	210			\$	
2896.2	Furnish Steel Mooring Pile, 16" dia. x 0.500" thick	LF	960			\$	
2896.3	Install Steel Mooring Pile, 12.75" dia. x 0.500" thick		3				
2896.4	Install Steel Mooring Pile, 16" dia. x 0.500" thick	EA	12			\$	
2896.5	Contingent Work - Pile Socket	EA	5			\$	
2897.1	Supply Flotation Billet,	EA	20			\$	
2897.2	Install Flotation Billet	EA	20			\$	
2898.1	Refurbish Existing Aluminum Gangway	LS	All Req'd	LUMP	SUM		
2898.2	Refurbish Existing Gangway Landing Float	LS	All Req'd	LUMP	SUM		
2899.1	Life Ring and Base	EA	5			\$	
2899.2	Fire Extinguisher and Base	EA	5			\$	
2899.3	Hose Mount and Base	EA	6			\$	
13121.1	Electrical Utility Building	LS	All Req'd	LUMP	SUM	\$	
16000.1	Electrical System	LS	All Req'd	LUMP	SUM	\$	
16052.1	Electrical Support Assemblies	LS	All Req'd	LUMP	SUM	\$	

**TOTAL BASE BID AMOUNT IN FIGURES: \$** \_\_\_\_\_

**TOTAL BASE BID AMOUNT IN WORDS:** \_\_\_\_\_

**BIDDER NAME:** \_\_\_\_\_

**SECTION 00310 – BID SCHEDULE**

**ADDITIVE ALTERNATE A – FLOAT H3**

Pay Item No.	Pay Item Description	Pay Unit	Approximate Quantity	Unit Price		Amount	
				Dollars	Cents	Dollars	Cents
2895.2A	Headwalk Float H3, 10' x 54'	LS	1			\$	
2896.1A	Furnish Steel Mooring Pile, 12.75" dia. x 0.500" thick	LF	70			\$	
2896.3A	Install Steel Mooring Pile, 12.75" dia. x 0.500" thick	EA	1			\$	

**TOTAL ADDITIVE ALTERNATE A AMOUNT IN FIGURES: \$** \_\_\_\_\_

**TOTAL ADDITIVE ALTERNATE A AMOUNT IN WORDS:** \_\_\_\_\_

**BIDDER NAME:** \_\_\_\_\_



**SECTION 00310 – BID SCHEDULE**

**ADDITIVE ALTERNATE B – SOUTH FINGERS**

Pay Item No.	Pay Item Description	Pay Unit	Approximate Quantity	Unit Price		Amount	
				Dollars	Cents	Dollars	Cents
2895.4B	Finger Float, 6' x 48'	EA	5			\$	
2896.2B	Furnish Steel Mooring Pile, 16" dia. x 0.500" thick	LF	400			\$	
2896.4B	Install Steel Mooring Pile, 16" dia. x 0.500" thick	EA	5			\$	

**TOTAL ADDITIVE ALTERNATE B AMOUNT IN FIGURES: \$** \_\_\_\_\_

**TOTAL ADDITIVE ALTERNATE B AMOUNT IN WORDS:** \_\_\_\_\_

**BIDDER NAME:** \_\_\_\_\_

**SECTION 00310 – BID SCHEDULE**

**ADDITIVE ALTERNATE C – TEE FLOAT**

Pay Item No.	Pay Item Description	Pay Unit	Approximate Quantity	Unit Price		Amount	
				Dollars	Cents	Dollars	Cents
2895.6C	Tee Float 10' x 118'	LS	All Req'd	LUMP	SUM	\$	
2896.2C	Furnish Steel Mooring Pile, 16" dia. x 0.500" thick	LF	320			\$	
2896.4C	Install Steel Mooring Pile, 16" dia. x 0.500" thick	EA	4			\$	

**TOTAL ADDITIVE ALTERNATE C AMOUNT IN FIGURES: \$** \_\_\_\_\_

**TOTAL ADDITIVE ALTERNATE C AMOUNT IN WORDS:** \_\_\_\_\_

**BIDDER NAME:** \_\_\_\_\_

**SECTION 00310 – BID SCHEDULE**

**ADDITIVE ALTERNATE D – ANODES**

Pay Item No.	Pay Item Description	Pay Unit	Approximate Quantity	Unit Price		Amount	
				Dollars	Cents	Dollars	Cents
1505.1A	Mobilization	LS	All Req'd	LUMP	SUM	\$	
2996.1	Supply Pile Anode, Type A	EA	50			\$	
2996.2	Install Pile Anode, All Types	EA	50			\$	
2996.3	Anode Potential Readings and Continuity Testing	LS	All Req'd	LUMP	SUM	\$	

**TOTAL ADDITIVE ALTERNATE D AMOUNT IN FIGURES: \$** \_\_\_\_\_

**TOTAL ADDITIVE ALTERNATE D AMOUNT IN WORDS:** \_\_\_\_\_

**BIDDER NAME:** \_\_\_\_\_

## SECTION 01025 - MEASUREMENT AND PAYMENT

### PART 1 - GENERAL

#### 1.1 SCOPE

- A. Payment for the various items of the Bid Schedule, as further specified herein, shall include all compensation to be received by the CONTRACTOR for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidentals appurtenant to the items of WORK being described, as necessary to complete the various items of the WORK all in accordance with the requirements of the Contract Documents, including all appurtenances thereto, and including all costs of PERMITS and cost of compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA).
- B. No separate payment will be made for any pay item that is not specifically set forth in the Bid Schedule, and all costs therefore shall be included in the prices named in the Bid Schedule for the various appurtenant items of WORK.
- C. In addition to other incidental items of WORK listed elsewhere in the contract, the following items shall also be considered as incidental to other items of WORK under this contract:
  - 1. Removal and replacement of survey monuments and markers disturbed during construction, whether shown on the Plans or not.
  - 2. Re-vegetating areas disturbed during construction.
  - 3. Trench excavation and bedding as required for all piping, structures and vault installations.
  - 4. Siltation and pollution control.
  - 5. Maintenance of all services through the Project area, including water, storm, garbage pickup, mail delivery, other deliveries and emergency vehicles.
  - 6. All traffic control, including flaggers, safety barriers, etc., and preparation of satisfactory Traffic Control Plans.
  - 7. Minor grading of fill materials as required to match existing grades and maintain positive surface drainage.
  - 8. Minor changes in grades to fit site conditions.
  - 9. Miscellaneous connecting and attachment hardware as required to install new equipment.
  - 10. Excavating, bedding, and backfilling for all electrical equipment including transformers, junction boxes, vaults, and conduit.
  - 11. Pile splices required to make up the pile lengths shown in the pile schedule.
  - 12. Transport, shipping and delivery of all materials to the project site, undamaged and in new condition.
  - 13. Continual coordination with the Harbormaster for safe passage and transit of vessels entering and exiting the facility throughout the construction period.

### PART 2 – PAY ITEMS

#### DIVISION 1 – GENERAL REQUIREMENTS

#### 1.2 MOBILIZATION (Pay Item Nos. 1505.1 and 1505.1A) PRICE BASED ON LUMP SUM

- A. Measurement for payment for Mobilization shall be based upon the completion of the entire WORK as a Lump Sum Pay unit, complete, all in accordance with the requirements of the Contract Documents.

## SECTION 01025 - MEASUREMENT AND PAYMENT

- B. Payment for Mobilization shall be made at the amount shown on the Bid Schedule under Pay Item No. 1505.1, which payment shall constitute full compensation for all WORK described in Section 01505 - Mobilization, as shown on the Plans and as directed by the ENGINEER.
- C. Payment for Mobilization shall be made at the amount shown on the Bid Schedule under Pay Item No. 1505.1A, which payment shall constitute full compensation for all WORK described in Section 01505 - Mobilization, as shown on the Plans and as directed by the ENGINEER.
- C. Partial payments will be made as the WORK progresses as follows:
  - 1. When 5% of the total original contract amount is earned from other pay items, 50% of the amount bid for Mobilization, or 5% of the original contract amount, whichever is lesser, will be paid.
  - 2. When 10% of the total original contract amount is earned from other pay items, 100% of the amount bid for Mobilization, or 10% of the original contract amount, whichever is lesser, will be paid.
    - a. Upon completion of all WORK on the Project, payment of any amount bid for Mobilization in excess of 10% of the total original contract amount will be paid.

### DIVISION 2 – SITE WORK

#### 2.1 DEMOLITION AND DISPOSAL (Pay Item No. 2060.1) PRICE BASED ON LUMP SUM

- A. Measurement for payment for Demolition and Disposal will be based upon the completion of the entire WORK as a Lump Sum Pay Unit, complete, and in accordance with the requirements of the Contract Documents.
- B. Payment for Demolition and Disposal shall be made at the amount shown on the Bid Schedule under Pay Item No. 2060.1, which payment will constitute full compensation for all WORK described in Section 02060 - Demolition and Disposal, as shown on the Plans and as directed by the ENGINEER.

#### 2.2 DOMESTIC WATER SYSTEM AND APPURTENANCES (Pay Item No. 2601.1) PRICE BASED ON LUMP SUM

- A. Measurement for payment for Domestic Water System and appurtenances shall be based upon the completion of the entire WORK as a Lump Sum Pay Unit, furnished and installed complete, all in accordance with the requirements of the Contract Documents and as shown on the Plans.
- B. Payment for Domestic Water System and appurtenances shall be made at the amount shown on the Bid Schedule under Pay Item No. 2601.1, which payment shall constitute full compensation for all WORK described in Section 02601 – Domestic Water System, as shown on the Plans, and as directed by the ENGINEER.

#### 2.3 DRY FIRE SUPPRESSION SYSTEM (Pay Item No. 2611.1) PRICE BASED ON LUMP SUM

- A. Measurement for payment for Dry Fire Suppression System shall be based upon the completion of the entire WORK as a Lump Sum Pay Unit, furnished and installed

## SECTION 01025 - MEASUREMENT AND PAYMENT

complete, all in accordance with the requirements of the Contract Documents and as shown on the Plans.

- B. Payment for Dry Fire Suppression System shall be made at the amount shown on the Bid Schedule under Pay Item No. 2611.1, which payment shall constitute full compensation for all WORK described in Section 02611 – Dry Fire Line System, as shown on the Plans, and as directed by the ENGINEER.

### 2.4 CONSTRUCTION SURVEYING (Pay Item No. 2702.1) PRICE BASED ON LUMP SUM

- A. Measurement for payment for Construction Surveying will be based upon the completion of the entire WORK as a Lump Sum Pay Unit, complete, all in accordance with the requirements of the Contract Documents and as shown on the Plans.
- B. Payment for Construction Surveying under the base bid shall be made at the amount shown on the Bid Schedule under Pay Item No. 2702.1, which payment will constitute full compensation for all WORK described in Section 02702 - Construction Surveying, as shown on the Plans and as directed by the ENGINEER.

### 2.5 SIGNAGE (Pay Item No. 2718.1) PRICED BASED ON LUMP SUM

- A. Measurement for payment for Signage shall be based on the completion of the entire WORK as a Lump Sum Pay Unit, furnished and installed, including signs, posts, bases and other appurtenant materials complete, all in accordance with the requirements of the Contract Documents and as shown on the Plans.
- B. Payment for Signage shall be made at the amount shown on the Bid Schedule under Pay Item No. 2718.1, which payment shall constitute full compensation for all WORK described in Section 02718 - Signage, as shown on the Plans, and as directed by the ENGINEER.

### 2.6 CONTINGENT WORK – MARINE MAMMAL WORK SUSPENSION (Pay Item No. 2882.1) PRICE BASED ON QUANTITY, HOUR

- A. Measurement for Payment for Contingent Work - Marine Mammal Work Suspension shall be per hour of work suspended by the OWNER based on marine mammal observations, complete, all in accordance with the requirements of the Permits and Contract Documents.
- B. CONTRACTOR shall fully comply with all Mitigation Measures outlined in the permit documents to receive compensation under this item.
- C. Payment for Contingent Work - Marine Mammal Work Suspension under the Base Bid shall be made at the Unit Price shown on the Bid Schedule under Pay Item No. 2882.1, which payment shall constitute full compensation for all WORK described in Section 02882 – Contingent Work, as shown on the Plans, and as directed by the ENGINEER.

### 2.7 [ ] FLOAT [ ] (Pay Item Nos. 2895.1, 2895.2, 2895.3, 2895.4, 2895.5, 2895.2A, 2895.4B, 2895.6C) PRICE BASED ON LUMP SUM

- A. Measurement for payment for [ ] Float [ ] shall be based on completion of the entire WORK as a Lump Sum Pay Unit, furnished and installed complete, all in accordance with the requirements of the Contract Documents and as shown on the Plans.

## SECTION 01025 - MEASUREMENT AND PAYMENT

- B. Payment for **Electrical Utility Float, 16'x25'** shall be made at the amount shown on the Bid Schedule under Pay Item No. **2895.1**, which payment shall constitute full payment for all WORK described in Section 02895 – Moorage Floats, as shown on the Plans and as directed by the ENGINEER.
  - C. Payment for **Headwalk Float, 10'x126'** shall be made at the amount shown on the Bid Schedule under Pay Item No. **2895.2**, which payment shall constitute full payment for all WORK described in Section 02895 – Moorage Floats, as shown on the Plans and as directed by the ENGINEER.
  - D. Payment for **Mainwalk Float H, 10'x268'**, shall be made at the amount shown on the Bid Schedule under Pay Item No. **2895.3**, which payment shall constitute full payment for all WORK described in Section 02895 – Moorage Floats, as shown on the Plans and as directed by the ENGINEER.
  - E. Payment for **Finger Float, 6'x48'**, shall be made at the amount shown on the Bid Schedule under Pay Item No. **2895.4**, which payment shall constitute full payment for all WORK described in Section 02895 – Moorage Floats, as shown on the Plans and as directed by the ENGINEER.
  - F. Payment for **Finger Float, 8'x60'**, shall be made at the amount shown on the Bid Schedule under Pay Item No. **2895.5**, which payment shall constitute full payment for all WORK described in Section 02895 – Moorage Floats, as shown on the Plans and as directed by the ENGINEER.
  - G. Payment for **Headwalk Float H3, 10'x54'**, shall be made at the amount shown on the Bid Schedule under Pay Item No. **2895.2A**, which payment shall constitute full payment for all WORK described in Section 02895 – Moorage Floats, as shown on the Plans and as directed by the ENGINEER.
  - H. Payment for **Finger Float, 6'x48'**, shall be made at the amount shown on the Bid Schedule under Pay Item No. **2895.4B**, which payment shall constitute full payment for all WORK described in Section 02895 – Moorage Floats, as shown on the Plans and as directed by the ENGINEER.
  - I. Payment for **Tee Float, 10'x118'**, shall be made at the amount shown on the Bid Schedule under Pay Item No. **2895.6C**, which payment shall constitute full payment for all WORK described in Section 02895 – Moorage Floats, as shown on the Plans and as directed by the ENGINEER.
- 2.8 FURNISH 12.75" DIA. STEEL PIPE PILE (Pay Item No. 2896.1, 2896.1A) PRICE BASED ON QUANTITY, LINEAR FOOT
- A. Measurement for Furnish 12.75-Inch dia. Steel Pipe Pile shall be per actual number of linear feet, furnished and supplied, all in accordance with the requirements of the Contract Documents and as shown on the Plans. Steel pipe piles shall be furnished by the CONTRACTOR in the lengths indicated on the Plans.
  - B. Payment for Furnish 12.75-Inch dia. Steel Pipe Pile shall be made at the Unit Price named in the Bid Schedule under Pay Item No. 2896.1, which payment shall constitute full compensation for all WORK described in Section 02896 - Steel Pipe Piles, as shown on the Plans and as directed by the ENGINEER.

## SECTION 01025 - MEASUREMENT AND PAYMENT

- C. Payment for Furnish 12.75-Inch dia. Steel Pipe Pile shall be made at the Unit Price named in the Bid Schedule under Pay Item No. 2896.1A, which payment shall constitute full compensation for all WORK described in Section 02896 - Steel Pipe Piles, as shown on the Plans and as directed by the ENGINEER.

### 2.9 FURNISH 16-INCH DIA. STEEL PIPE PILE (Pay Item No. 2896.2, 2896.2B, 2896.2C) PRICE BASED ON QUANTITY, LINEAR FOOT

- A. Measurement for Furnish 16-Inch dia. Steel Pipe Pile shall be per actual number of linear feet, furnished and supplied, all in accordance with the requirements of the Contract Documents and as shown on the Plans. Steel pipe piles shall be furnished by the CONTRACTOR in the lengths indicated on the Plans.
- B. Payment for Furnish 16-Inch dia. Steel Pipe Pile shall be made at the Unit Price named in the Bid Schedule under Pay Item No. 2896.2, which payment shall constitute full compensation for all WORK described in Section 02896 - Steel Pipe Piles, as shown on the Plans and as directed by the ENGINEER.
- C. Payment for Furnish 16-Inch dia. Steel Pipe Pile shall be made at the Unit Price named in the Bid Schedule under Pay Item No. 2896.2B, which payment shall constitute full compensation for all WORK described in Section 02896 - Steel Pipe Piles, as shown on the Plans and as directed by the ENGINEER.
- D. Payment for Furnish 16-Inch dia. Steel Pipe Pile shall be made at the Unit Price named in the Bid Schedule under Pay Item No. 2896.2C, which payment shall constitute full compensation for all WORK described in Section 02896 - Steel Pipe Piles, as shown on the Plans and as directed by the ENGINEER.

### 2.10 INSTALL [ ] 12.75-INCH DIA. STEEL PIPE PILE (Pay Item Nos. 2896.3, 2896.3A) PRICE BASED ON QUANTITY, EACH

- A. Measurement for payment for Install [ ] 12.75-Inch dia. Steel Pipe Pile shall be measured per each, furnished and installed complete in place, all in accordance with the requirements of the Contract Documents and as shown on the Plans.
- B. Payment for Install 12.75-Inch dia. Steel Pipe Pile shall be made at the Unit Price named in the Bid Schedule under Pay Item No. 2896.3, which payment shall constitute full compensation for all WORK described in Section 02896 - Steel Pipe Piles, as shown on the Plans and as directed by the ENGINEER.
- C. Payment for Install 12.75-Inch dia. Steel Pipe Pile shall be made at the Unit Price named in the Bid Schedule under Pay Item No. 2896.3A, which payment shall constitute full compensation for all WORK described in Section 02896 - Steel Pipe Piles, as shown on the Plans and as directed by the ENGINEER.

### 2.11 INSTALL [ ] 16-INCH DIA. STEEL PIPE PILE (Pay Item Nos. 2896.4, 2896.4B, 2896.4C ) PRICE BASED ON QUANTITY, EACH



## SECTION 01025 - MEASUREMENT AND PAYMENT

- A. Measurement for payment for Install [ ] 16-Inch dia. Steel Pipe Pile shall be measured per each, furnished and installed complete in place, all in accordance with the requirements of the Contract Documents and as shown on the Plans.
  - B. Payment for Install 16-Inch dia. Steel Pipe Pile shall be made at the Unit Price named in the Bid Schedule under Pay Item No. 2896.4, which payment shall constitute full compensation for all WORK described in Section 02896 - Steel Pipe Piles, as shown on the Plans and as directed by the ENGINEER.
  - C. Payment for Install 16-Inch dia. Steel Pipe Pile shall be made at the Unit Price named in the Bid Schedule under Pay Item No. 2896.4B, which payment shall constitute full compensation for all WORK described in Section 02896 - Steel Pipe Piles, as shown on the Plans and as directed by the ENGINEER.
  - D. Payment for Install 16-Inch dia. Steel Pipe Pile shall be made at the Unit Price named in the Bid Schedule under Pay Item No. 2896.4C, which payment shall constitute full compensation for all WORK described in Section 02896 - Steel Pipe Piles, as shown on the Plans and as directed by the ENGINEER.
- 2.12 CONTINGENT WORK - PILE SOCKET (Pay Item No. 2896.5), PRICE BASED ON QUANTITY, EACH
- A. Measurement for payment for Contingent Work - Pile Socket shall be measured per each socket, complete in place and suitable for pile installation, all in accordance with the requirements of the Contract Documents.
  - B. Payment for Contingent Work - Pile Socket shall be made at the Unit Price named in the Bid Schedule under Pay Item No. 2896.5, which payment shall constitute full compensation for all WORK described in Section 02896 - Steel Pipe Piles, as shown on the Plans and as directed by the ENGINEER.
- 2.13 [ ] FLOTATION BILLET (Pay Item Nos. 2897.1 and 2897.2) PRICED BASED ON QUANTITY, EACH
- A. Measurement for payment for [ ] Flotation Billet shall be measured per each, complete, all in accordance with the requirements of the Contract Documents.
  - B. Payment for Supply Flotation Billet shall be made at the Unit Price named in the Bid Schedule under Pay Item No. 2897.1, which payment shall constitute full compensation for all WORK described in Section 02897 - Flotation Billets, as shown on the Plans and as directed by the ENGINEER.
  - C. Payment for Install Flotation Billet shall be made at the Unit Price named in the Bid Schedule under Pay Item No. 2897.2, which payment shall constitute full compensation for all WORK described in Section 02897 - Flotation Billets, as shown on the Plans and as directed by the ENGINEER.
- 2.14 REFURBISH EXISTING [ ] (Pay Item Nos. 2898.1 and 2898.2) PRICE BASED LUMP SUM
- A. Measurement for payment for Refurbish Existing [ ] shall be based upon the completion of the entire WORK as a Lump Sum Pay Unit, complete including all hardware, and other appurtenances, all in accordance with the requirements of the Contract Documents and as shown on the Plans.

## SECTION 01025 - MEASUREMENT AND PAYMENT

- B. Payment for Refurbish Existing Aluminum Gangway shall be made at the amount shown on the Bid Schedule under Pay Item No. 2898.1, which payment shall constitute full payment for all WORK described in Section 02898 – Refurbished Structures, as shown on the Plans and as directed by the ENGINEER.
  - C. Payment for Refurbish Existing Gangway Landing Float shall be made at the amount shown on the Bid Schedule under Pay Item No. 2898.2, which payment shall constitute full payment for all WORK described in Section 02898 – Refurbished Structures, as shown on the Plans and as directed by the ENGINEER.
- 2.15 LIFE RING AND BASE (Pay Item No. 2899.1) PRICE BASED ON QUANTITY, PER EACH
- D. Measurement for payment for Life Ring and Base shall be measured per each, complete in place, all in accordance with the requirements of the Contract Documents and as shown on the Plans.
  - E. Payment for Life Ring and Base shall be made at the Unit Price named in the Bid Schedule under Pay Item No. 2899.1, which payment shall constitute full payment for all WORK described in Section 02899 – Float Appurtenances, as shown on the Plans and as directed by the ENGINEER.
- 2.16 FIRE EXTINGUISHER AND BASE (Pay Item No. 2899.2) PRICE BASED ON QUANTITY, PER EACH.
- F. Measurement for payment for Fire Extinguisher and Base shall be measured per each, complete in place, all in accordance with the requirements of the Contract Documents and as shown on the Plans.
  - G. Payment for Fire Extinguisher and base shall be made at the Unit Price named on the Bid Schedule under Pay Item No. 2899.2, which payment shall constitute full payment for all WORK described in Section 02899 – Float Appurtenances, as shown on the Plans and as directed by the ENGINEER.
- 2.17 HOSE MOUNT AND BASE (Pay Item No. 2899.3) PRICE BASED ON QUANTITY,PER EACH
- H. Measurement for payment for Hose Mount and Base shall be measured per each, complete in place, all in accordance with the requirements of the Contract Documents and as shown on the Plans.
  - I. Payment for hose mount and base shall be made at the Unit Price named on the Bid Schedule under Pay Item No. 2899.3, which payment shall constitute full payment for all WORK described in Section 02899 – Float Appurtenances, as shown on the Plans and as directed by the ENGINEER.
- 2.18 SUPPLY PILE ANODE (Pay Item No. 2996.1) PRICE BASED ON QUANTITY, PER EACH
- A. Measurement for payment for Supply Pile Anode shall be measured per each, complete in place, all in accordance with the requirements of the Contract Documents and as shown on the Plans.

## SECTION 01025 - MEASUREMENT AND PAYMENT

- B. Payment for Supply Pile Anode shall be made at the Unit Price named in the Bid Schedule under Pay Item No. 2996.1, which payment shall constitute full payment for all WORK described in Section 02996 – Pile Anodes, as shown on the Plans and as directed by the ENGINEER.
- 2.19 INSTALL PILE ANODE (Pay Item No. 2996.2) PRICE BASED ON QUANTITY, PER EACH
- C. Measurement for payment for Install Pile Anode shall be measured per each, complete in place, all in accordance with the requirements of the Contract Documents and as shown on the Plans.
  - D. Payment for Install Pile Anode shall be made at the Unit Price named in the Bid Schedule under Pay Item No. 2996.2, which payment shall constitute full payment for all WORK described in Section 02996 – Pile Anodes, as shown on the Plans and as directed by the ENGINEER.
- 2.20 ANODE POTENTIAL READINGS AND CONTINUITY TESTING (Pay Item No. 2996.3) PRICE BASED ON LUMP SUM
- A. Measurement for payment for Anode Potential Readings and Continuity Testing shall be based upon the completion of the entire WORK as a Lump Sum Pay Unit, complete in place, all in accordance with the requirements of the Contract Documents.
  - B. Payment for Anode Potential Readings and Continuity Testing shall be made at the amount shown on the Bid Schedule under Pay Item No. 2996.3, which payment shall constitute full payment for all WORK described in Section 02996 – Pile Anodes, as shown on the Plans and as directed by the ENGINEER.

### DIVISION 13 – SPECIAL CONSTRUCTION

- 13.1 Electrical Utility Building (Pay Item Nos. 13121.1) PRICE BASED ON LUMP SUM
- A. Measurement for payment for Electrical Utility Building shall be based upon the completion of the entire WORK as a Lump Sum Pay Unit, furnished, constructed and installed complete in place, all in accordance with the requirements of the Contract Documents.
  - B. Payment for Electrical Utility Building shall be made at the amount shown on the Bid Schedule under Pay Item No. 13121.1, which payment shall constitute full compensation for all WORK described in Section 13121 – Utility Building, as shown on the Plans and as directed by the ENGINEER.

### DIVISION 16 – ELECTRICAL

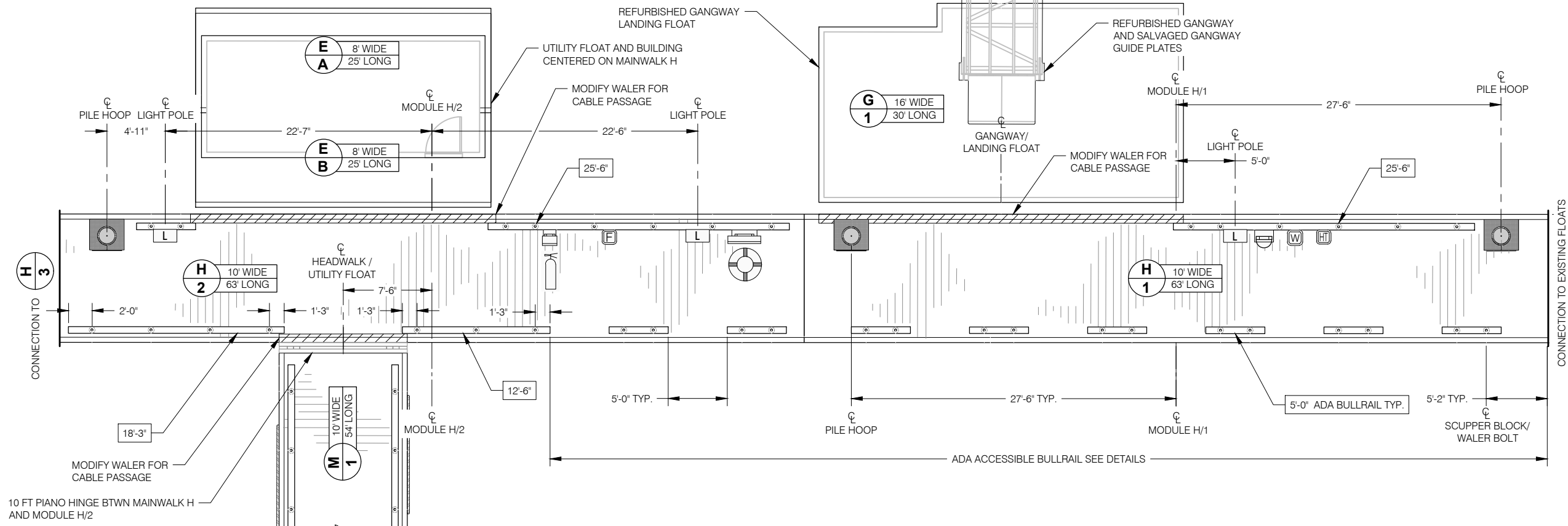
- 16.1 ELECTRICAL SYSTEM (Pay Item Nos. 16000.1) PRICE BASED ON LUMP SUM
- A. Measurement for electrical system shall be based upon the completion of the entire WORK as a Lump Sum Pay Unit, complete, all in accordance with the requirements of the Contract Documents.

## **SECTION 01025 - MEASUREMENT AND PAYMENT**

- B. Payment for electrical system shall be made at the amount shown on the Bid Schedule under Pay Item No. 16000.1, which payment will constitute full payment for all WORK as shown on the Plans and as directed by the ENGINEER.
- 16.2 ELECTRICAL SUPPORT ASSEMBLIES (Pay Item Nos. 16052.1) PRICE BASED ON LUMP SUM
- A. Measurement for Electrical Support Assemblies shall be based upon the completion of the entire WORK as a Lump Sum Pay Unit, complete, all in accordance with the requirements of the Contract Documents.
  - B. Payment for Electrical Support Assemblies shall be made at the amount shown on the Bid Schedule under Pay Item No. 16052.1, which payment will constitute full payment for all WORK as shown on the Plans and as directed by the ENGINEER.

### **PART 3 - EXECUTION (Not Used)**

**END OF SECTION**

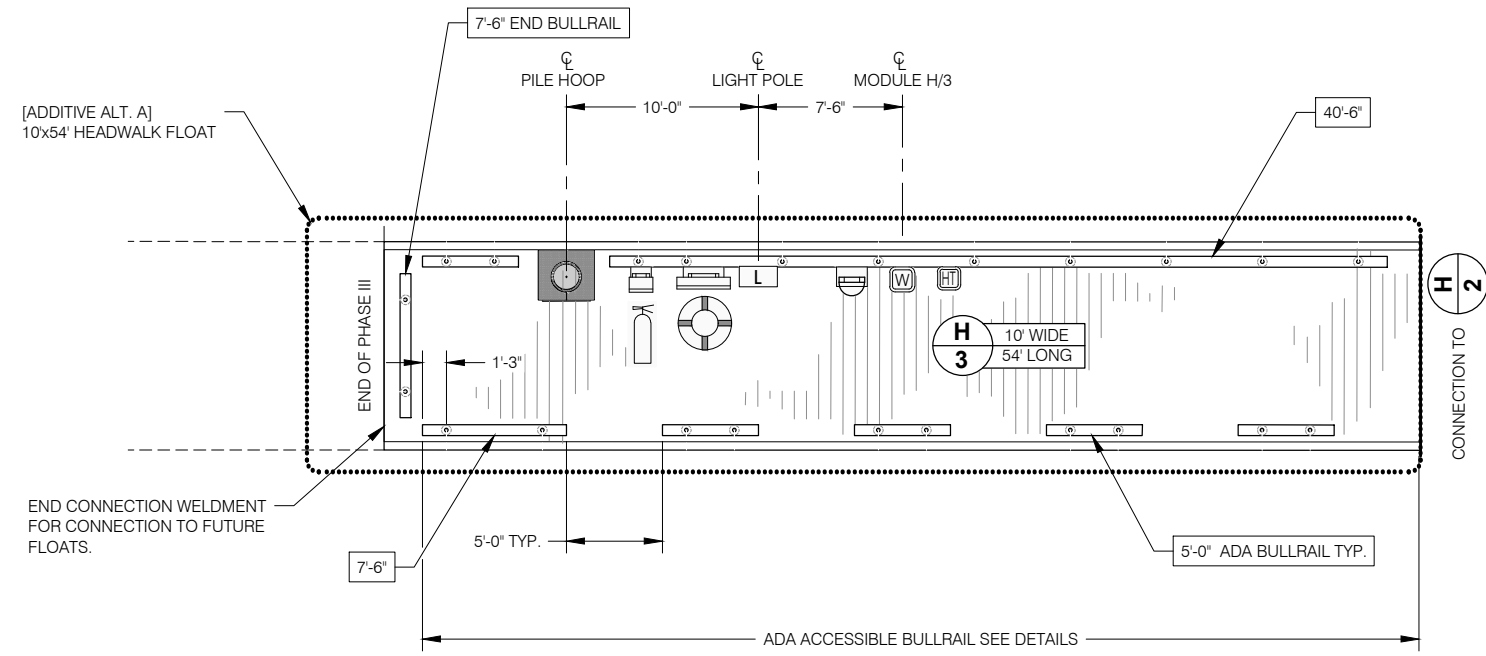


**BULLRAIL NOTE:**  
SEE BULLRAIL STANDARD DETAILS FOR SCUPPER BLOCK LOCATION, TYP. BULLRAIL END OVERHANG 1'-6" UNLESS NOTED OTHERWISE. TYPICAL BULLRAILS ARE 5'-0" LONG.

SEE NEXT SHEET FOR M1 DETAILED FLOAT NOTES.

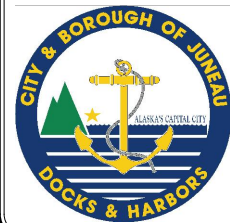
**NOTE:**  
PORTIONS OF DECKING MAY NEED TO BE INSTALLED AFTER ELECTRICAL CABLES AND/OR PEDESTALS. FABRICATOR SHALL COORDINATE w/ GENERAL CONTRACTOR AND ELECTRICAL CONTRACTOR AS REQUIRED.

- LEGEND:**
- = ELECTRICAL PEDESTAL W/ POWERHEADS
  - = FIRE HOSE CONNECTION
  - = WATER PEDESTAL
  - = HEAT TRACE
  - = HOSE MOUNT
  - = LIFE RING CABINET & LIFE RING
  - = FIRE EXTINGUISHER CABINET & EXTINGUISHER
  - = BULLRAIL LENGTH



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

F4 F5 F6 - Detailed Float Plan



REVISIONS					
REV	DATE	DESCRIPTION	DWN	CHK	APP
ADD. 1	03/02/2023	RE-ISSUE ENTIRE SHEET	MDS	CU	CU

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

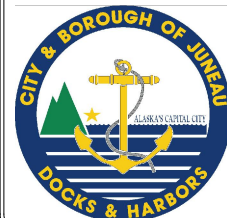


**HEADWALK DETAILED FLOAT PLAN**

**AURORA HARBOR REBUILD - PHASE III**

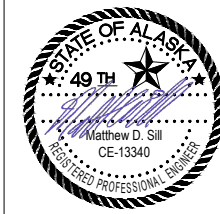
DESIGN:	MS	DATE:	FEBRUARY 21, 2023
CHECKED:	CU	CONTRACT NO.:	DH23-015
APPROVED:	CU	FILE NO.:	1541
		SHEET:	10 of 72

**F4**



REVISIONS					
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ADD. 1	03/02/2023	RE-ISSUE ENTIRE SHEET	MDS	CU	CU

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

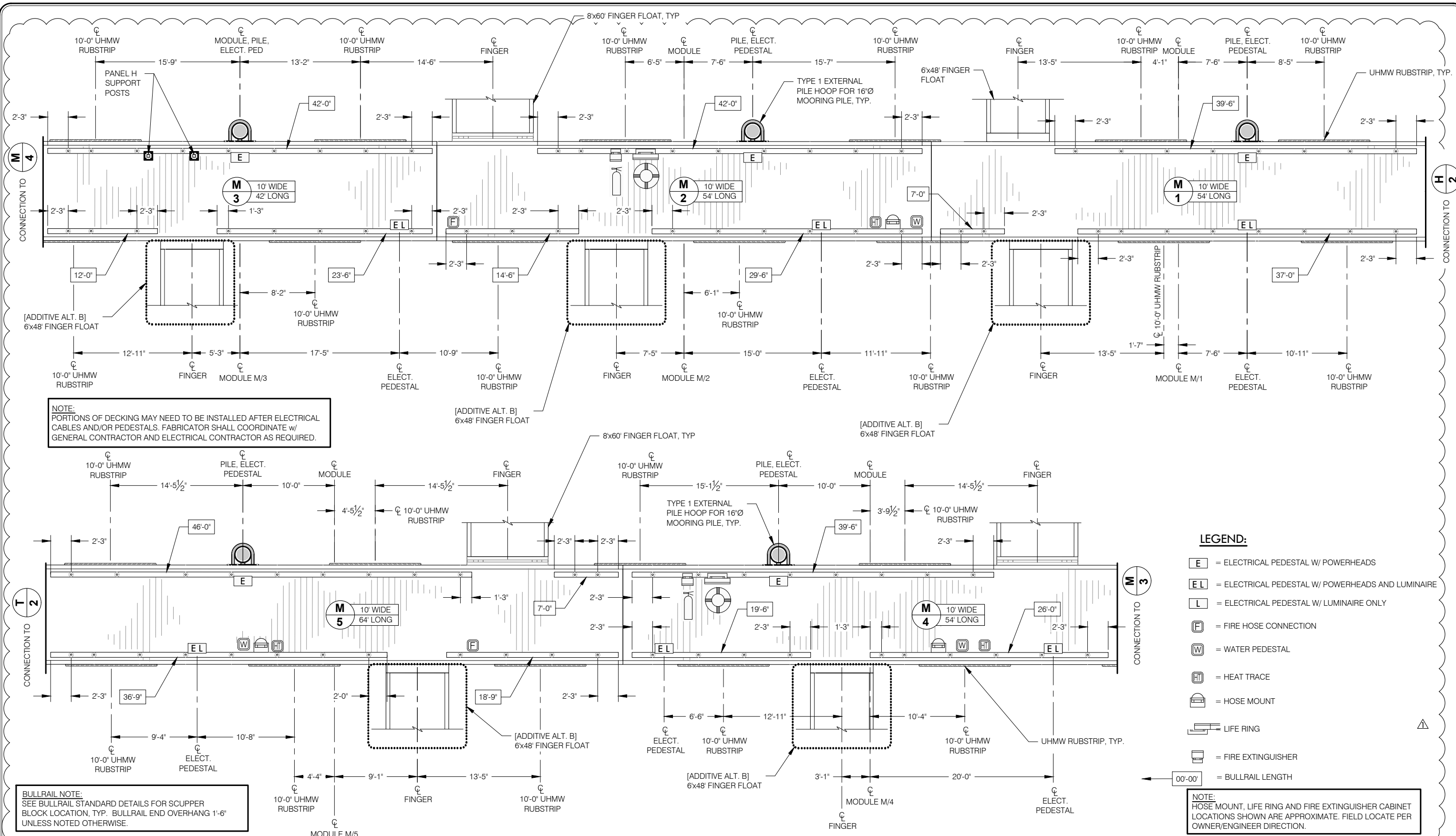


**MAINWALK DETAILED FLOAT PLAN**

AURORA HARBOR REBUILD - PHASE III

DESIGN:	MS	DATE:	FEBRUARY 21, 2023
CHECKED:	CU	CONTRACT NO.:	DH23-015
APPROVED:	CU	FILE NO.:	1541
		SHEET:	11 of 72

**F5**

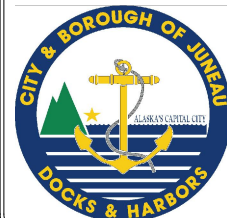


**NOTE:**  
 PORTIONS OF DECKING MAY NEED TO BE INSTALLED AFTER ELECTRICAL CABLES AND/OR PEDESTALS. FABRICATOR SHALL COORDINATE w/ GENERAL CONTRACTOR AND ELECTRICAL CONTRACTOR AS REQUIRED.

**BULLRAIL NOTE:**  
 SEE BULLRAIL STANDARD DETAILS FOR SCUPPER BLOCK LOCATION, TYP. BULLRAIL END OVERHANG 1'-6" UNLESS NOTED OTHERWISE.

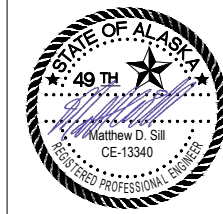
- LEGEND:**
- E = ELECTRICAL PEDESTAL W/ POWERHEADS
  - EL = ELECTRICAL PEDESTAL W/ POWERHEADS AND LUMINAIRE
  - L = ELECTRICAL PEDESTAL W/ LUMINAIRE ONLY
  - F = FIRE HOSE CONNECTION
  - W = WATER PEDESTAL
  - HT = HEAT TRACE
  - HM = HOSE MOUNT
  - LR = LIFE RING
  - FE = FIRE EXTINGUISHER
  - 00'-00" = BULLRAIL LENGTH

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



REVISIONS					
REV	DATE	DESCRIPTION	DWN	CHK	APP
ADD. 1	03/02/2023	RE-ISSUE ENTIRE SHEET	MDS	CU	CU

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

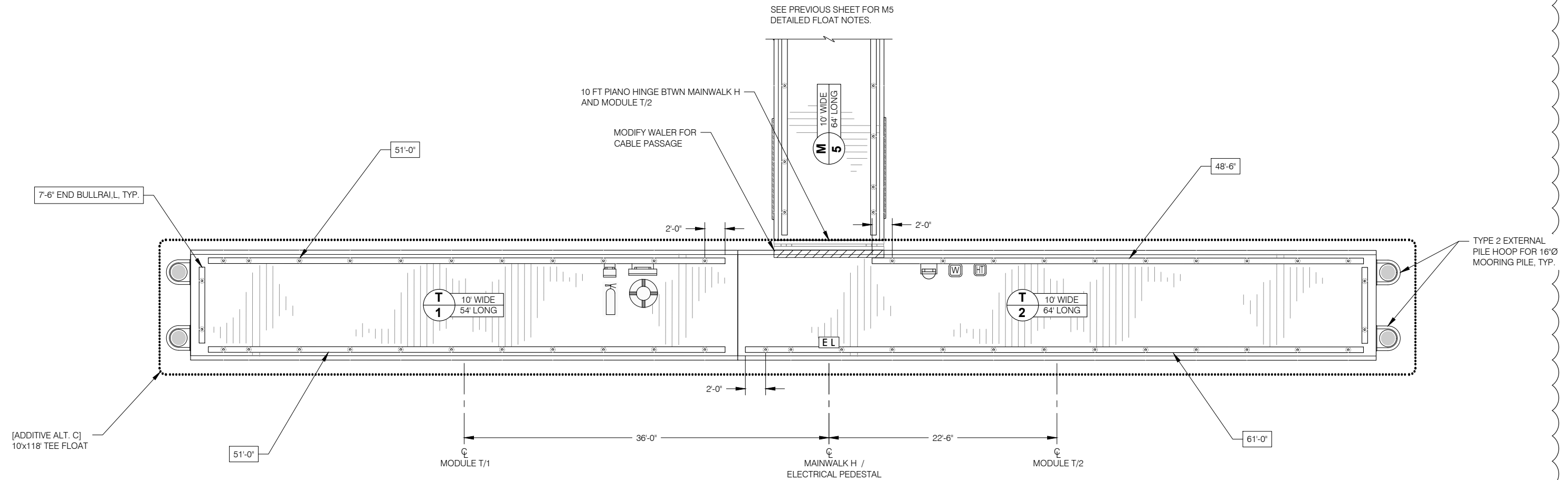


**TEE FLOAT DETAILED FLOAT PLAN**

AURORA HARBOR REBUILD - PHASE III

DESIGN:	MS	DATE:	FEBRUARY 21, 2023
CHECKED:	CU	CONTRACT NO.:	DH23-015
APPROVED:	CU	FILE NO.	1541
		SHEET:	12 of 72

**F6**



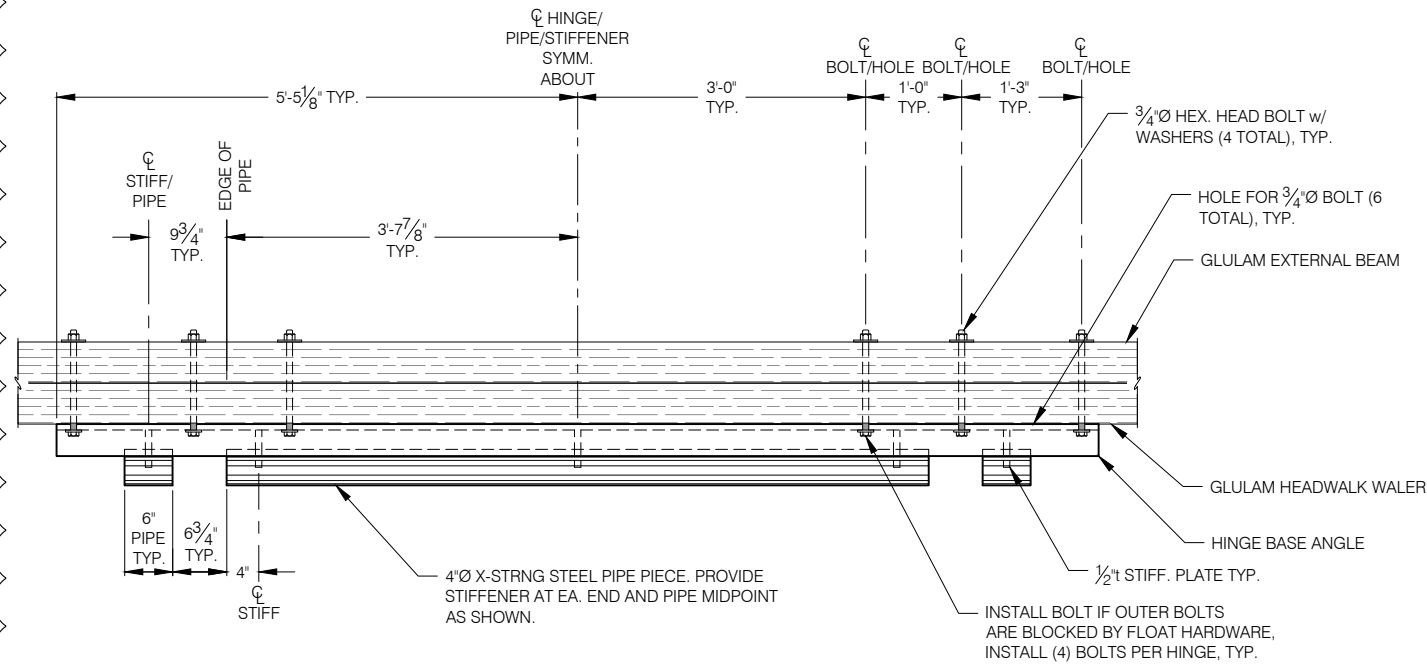
**BULLRAIL NOTE:**  
 SEE BULLRAIL STANDARD DETAILS FOR SCUPPER BLOCK LOCATION, TYP. BULLRAIL END OVERHANG 1'-6" UNLESS NOTED OTHERWISE.

**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.

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

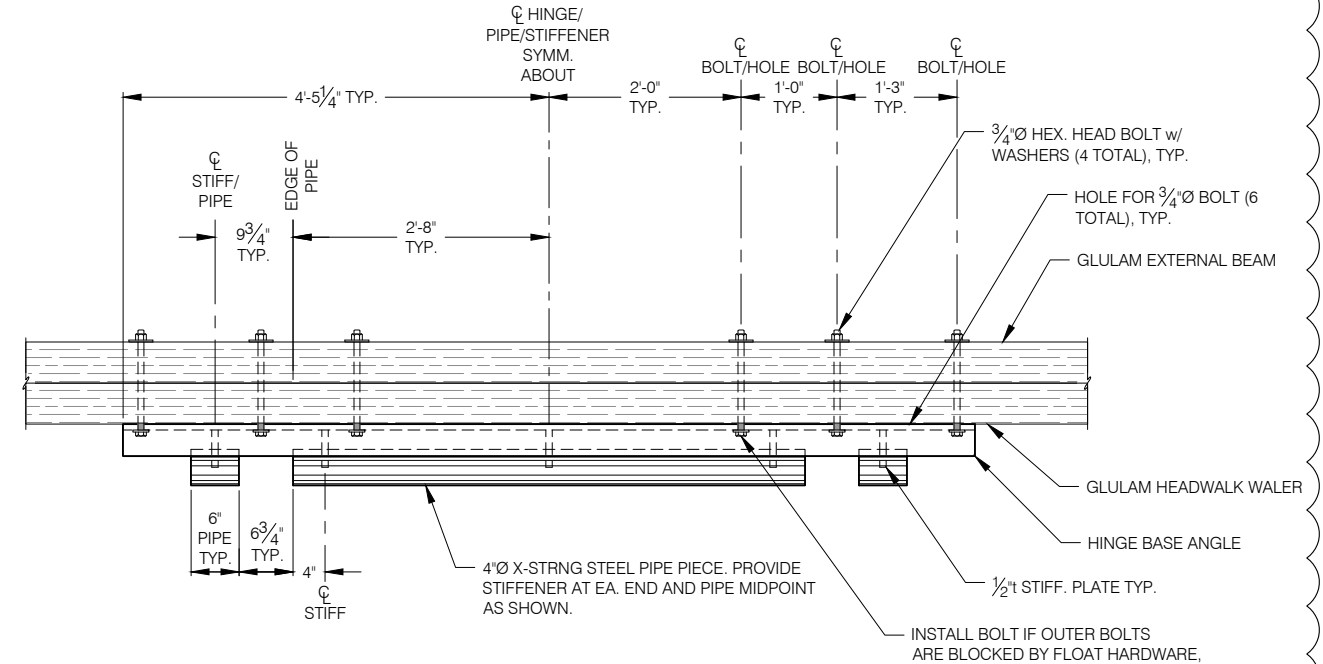
**LEGEND:**

- E** = ELECTRICAL PEDESTAL W/ POWERHEADS
- EL** = ELECTRICAL PEDESTAL W/ POWERHEADS AND LUMINAIRE
- L** = ELECTRICAL PEDESTAL W/ LUMINAIRE ONLY
- W** = WATER PEDESTAL
- HT** = HEAT TRACE
- HM** = HOSE MOUNT
- LR** = LIFE RING CABINET & LIFE RING
- FE** = FIRE EXTINGUISHER CABINET & EXTINGUISHER
- 00'-00'** = BULLRAIL LENGTH



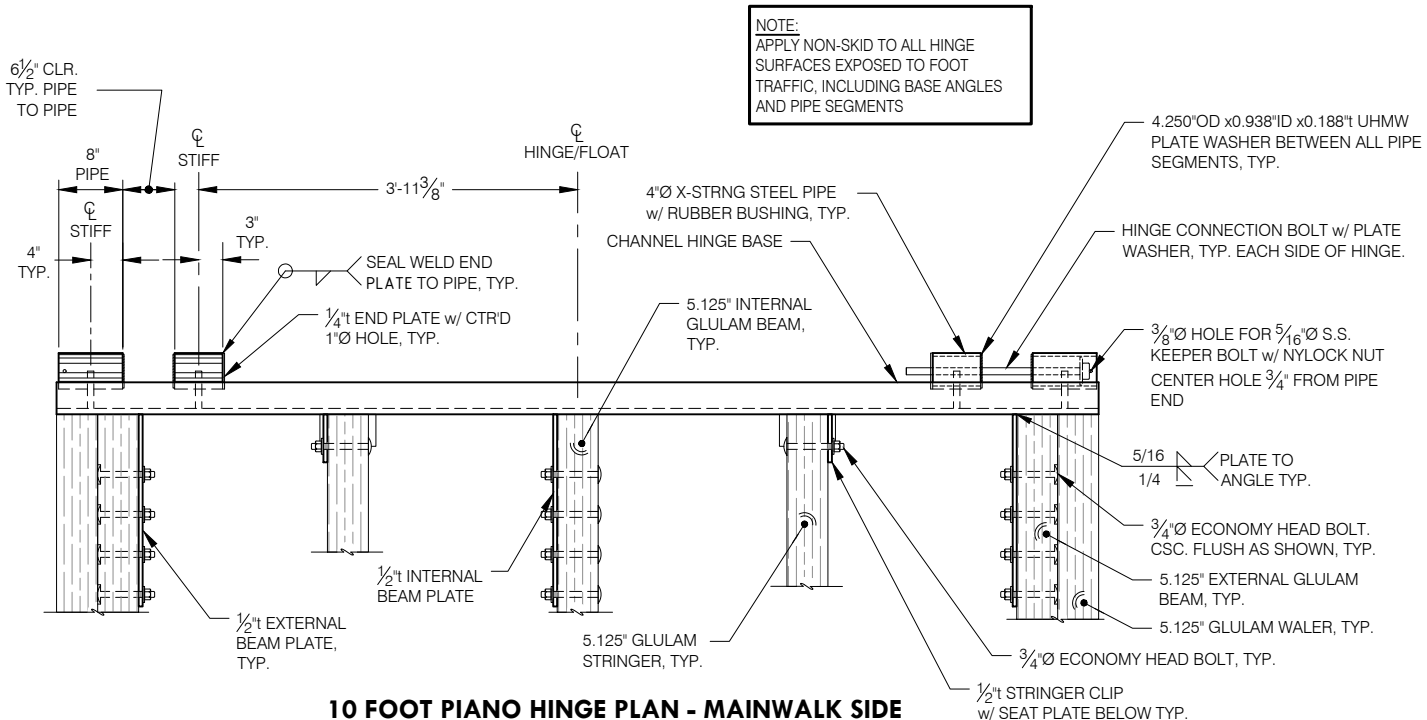
**10 FOOT PIANO HINGE PLAN - HEADWALK & TEE FLOAT SIDE**

NOTE: 10' WIDE SECTION SHOWN, 8' AND 6' FLOAT SECTIONS SIMILAR.



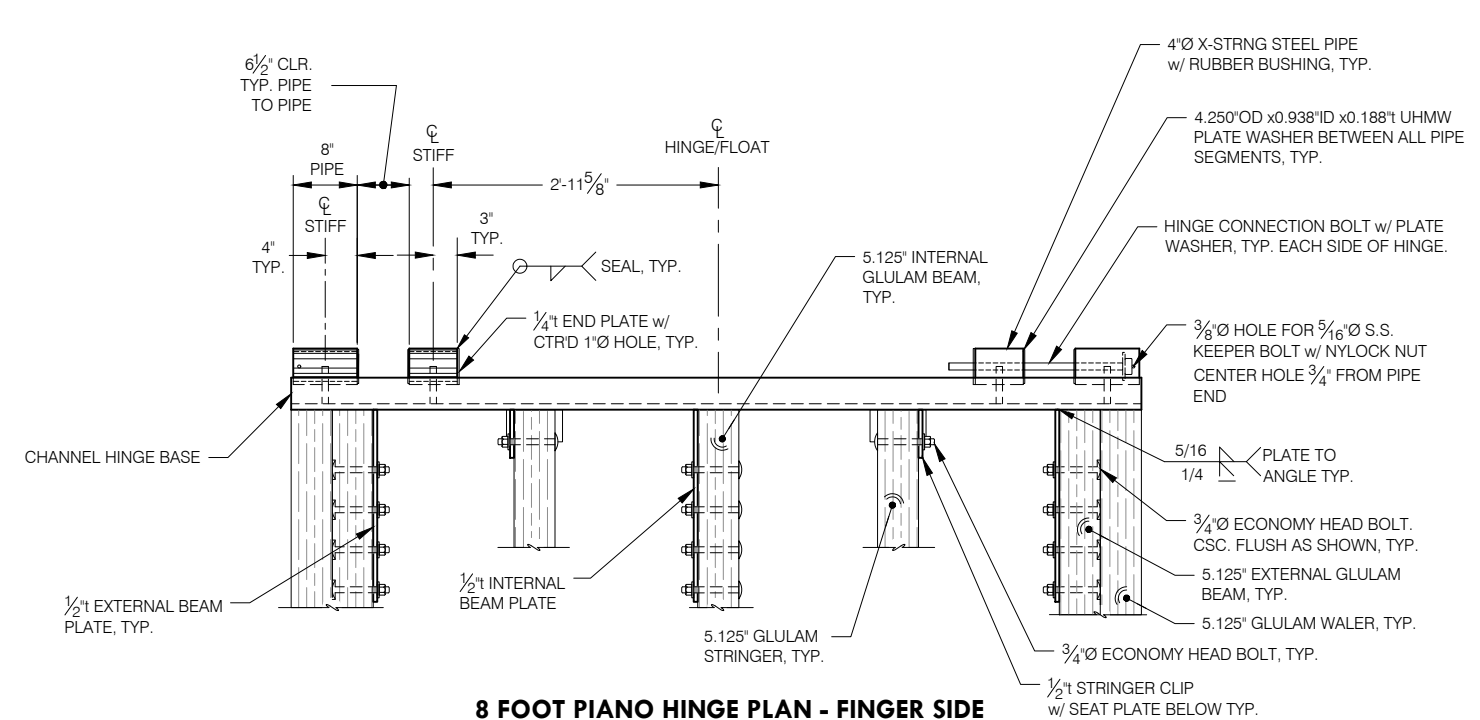
**8 FOOT PIANO HINGE PLAN - HEADWALK SIDE**

(8 FOOT PIANO HINGE SHOWN FOR 8x60 FINGER FLOAT AT HEADWALK)



**10 FOOT PIANO HINGE PLAN - MAINWALK SIDE**

NOTE: 10' WIDE SECTION SHOWN, 8' AND 6' FLOAT SECTIONS SIMILAR.

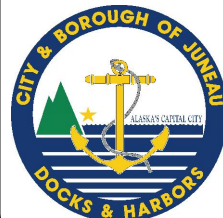


**8 FOOT PIANO HINGE PLAN - FINGER SIDE**

(8 FOOT PIANO HINGE SHOWN FOR 8x60 FINGER FLOAT)

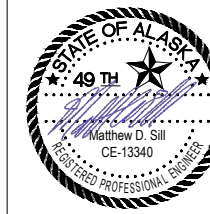
NOTE:  
APPLY NON-SKID TO ALL HINGE SURFACES EXPOSED TO FOOT TRAFFIC, INCLUDING BASE ANGLES AND PIPE SEGMENTS

F18 F19 F20 - Piano Hinge Details



REVISIONS					
REV	DATE	DESCRIPTION	DWN	CHK	APP
ADD. 1	02/28/2023	REVISE BOLT SPACING	MDS	CU	CU

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



**10' & 8' PIANO HINGE PLANS**

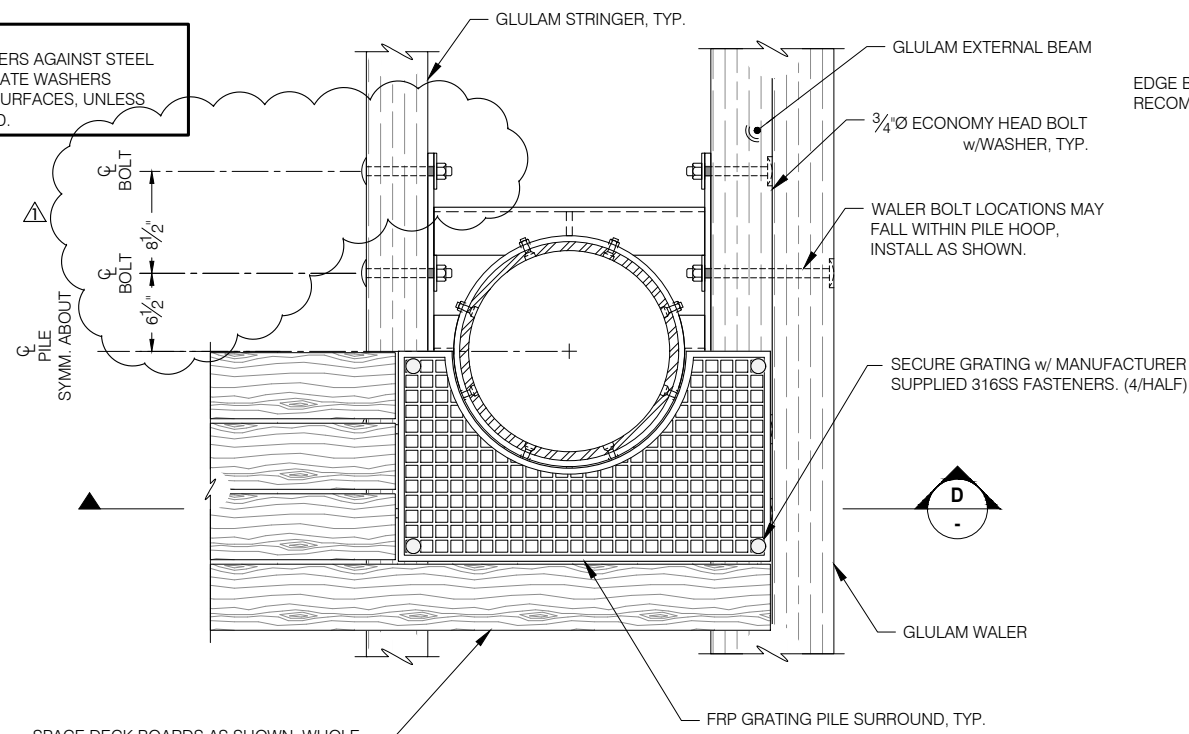
AURORA HARBOR REBUILD - PHASE III

DESIGN:	MS	DATE:	FEBRUARY 21, 2023
CHECKED:	CU	CONTRACT NO.:	DH23-015
APPROVED:	CU	FILE NO.	1541
		SHEET:	24 of 72

**F18**



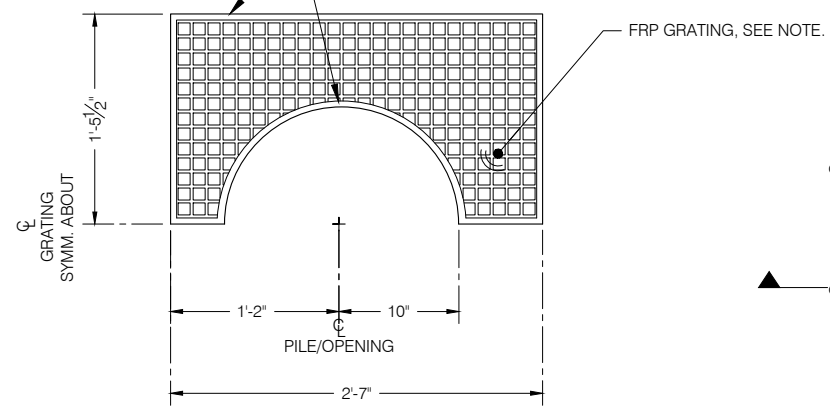
NOTE:  
UTILIZE CUT WASHERS AGAINST STEEL SURFACES AND PLATE WASHERS AGAINST TIMBER SURFACES, UNLESS OTHERWISE NOTED.



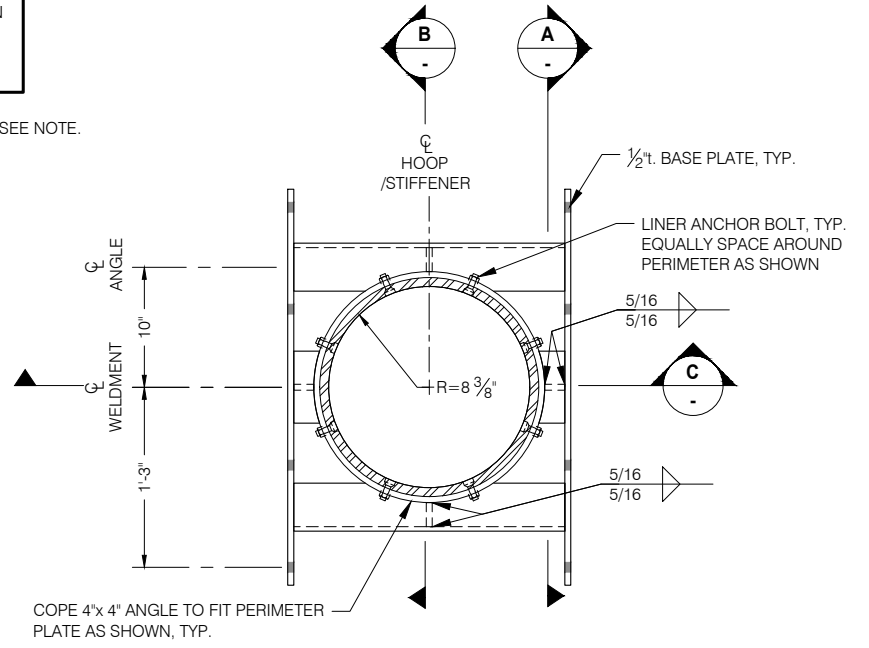
**INTERNAL PILE HOOP INSTALLATION - PLAN**

EDGE BAND FRP GRATING PER MANUFACTURER RECOMMENDATIONS w/ SS FASTENERS, TYP.

NOTE: PROVIDE FRP GRATING PILE SURROUND IN TWO HALVES (ONE HALF SHOWN). FASTEN TO BEAMS AND STRINGERS USING S.S. HARDWARE PER MANUFACTURER'S GUIDELINES, TYP.



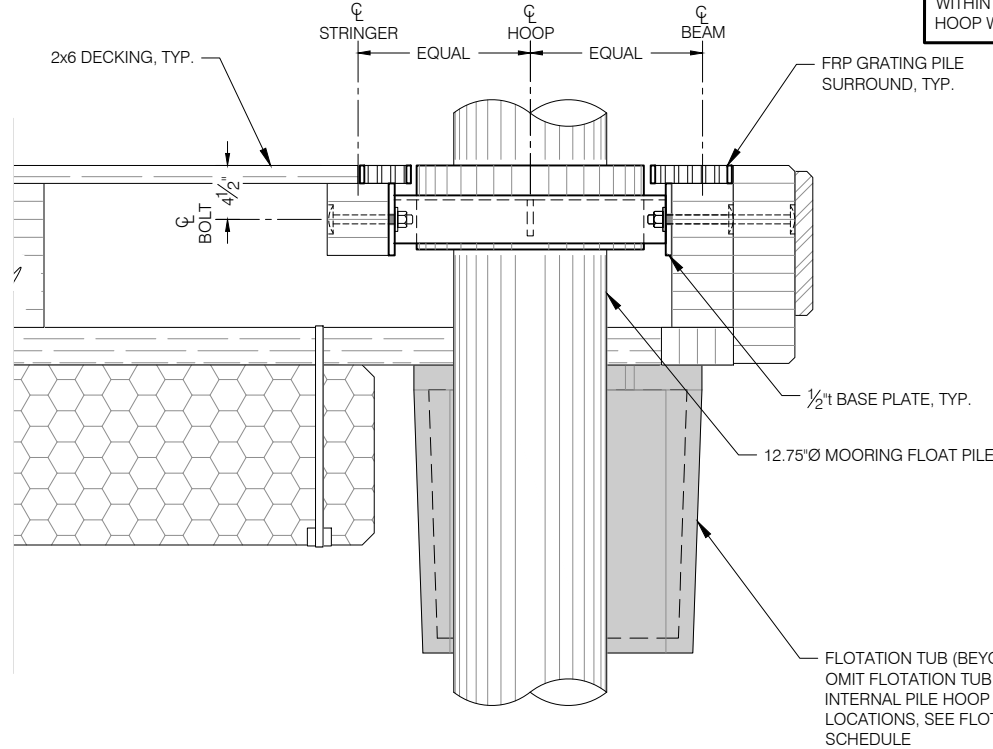
**FRP GRATING PILE SURROUND PLAN**



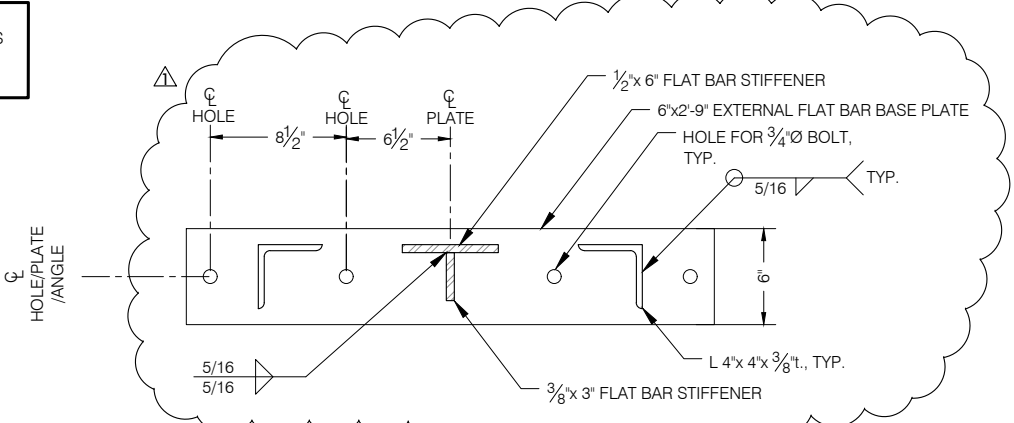
**INTERNAL PILE HOOP WELDMENT - PLAN**

SPACE DECK BOARDS AS SHOWN, WHOLE BOARDS ONLY. DO NOT RIP BOARDS TO FIT.

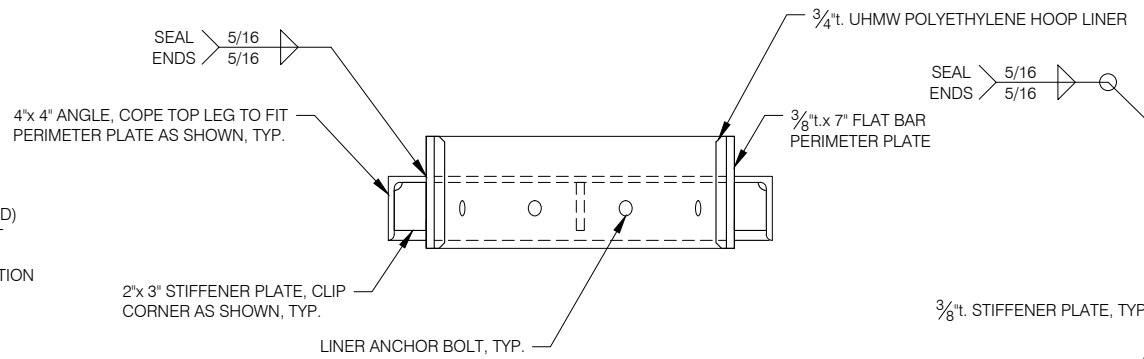
NOTE:  
OMIT UPPER WALER BOLTS WITHIN LIMITS OF PILE HOOP WELDMENT, TYP.



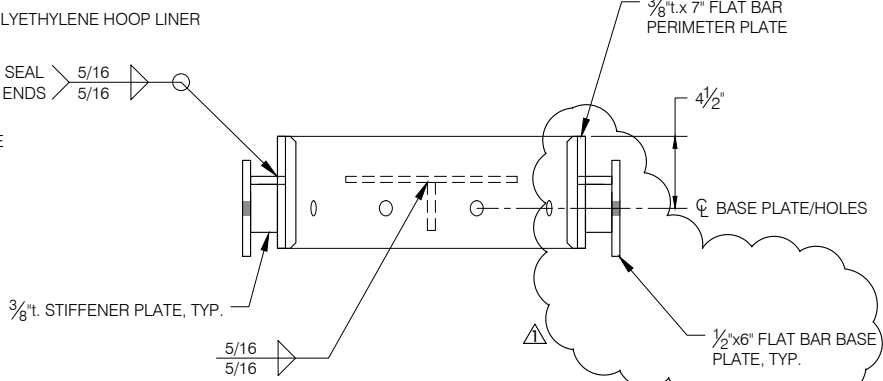
**INTERNAL PILE HOOP INSTALLATION - SECTION D**



**INTERNAL PILE HOOP WELDMENT - SECTION A**

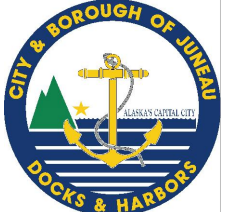


**INTERNAL PILE HOOP WELDMENT - SECTION B**



**INTERNAL PILE HOOP WELDMENT - SECTION C**

F28 - INTERNAL Pile Hoop Details



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REV	DATE	DESCRIPTION	DWN	CHK	APP
ADD. 1	02/28/2023	REVISE PLATE LENGTH AND BOLT SPACING	MDS	CU	CU

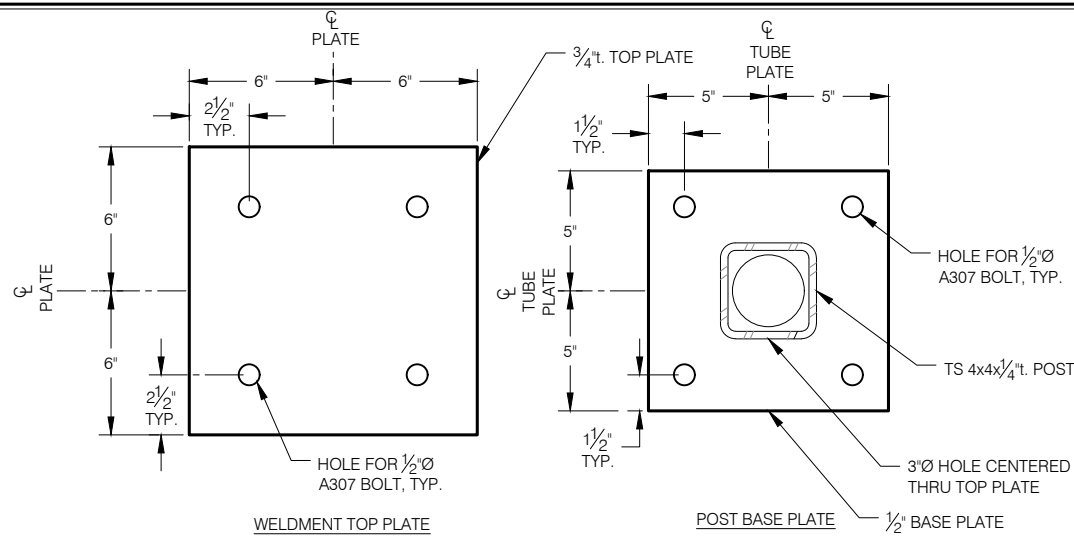
CITY AND BOROUGH OF JUNEAU  
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155 SOUTH SEWARD STREET  
JUNEAU, ALASKA 99801  
PHONE: 907-586-0292



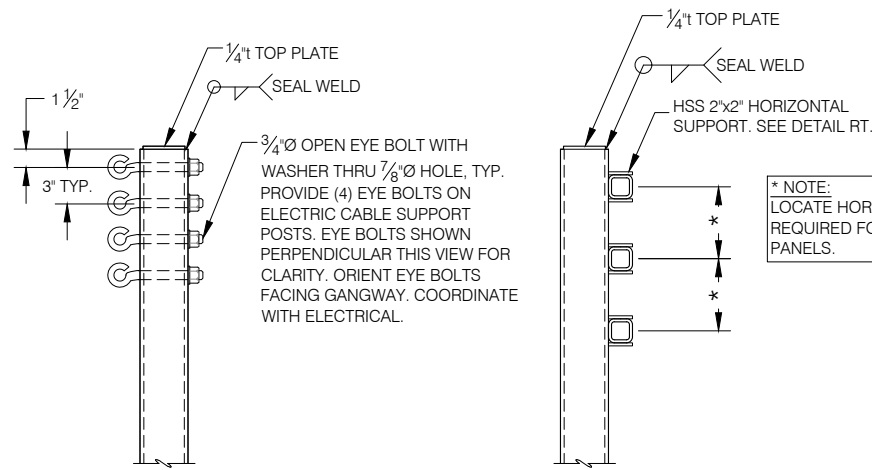
**INTERNAL PILE HOOP DETAILS**  
AURORA HARBOR REBUILD - PHASE III

DESIGN:	MS	DATE:	FEBRUARY 21, 2023
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**F28**



**ELECTRICAL SUPPORT POST PLATE DETAILS**

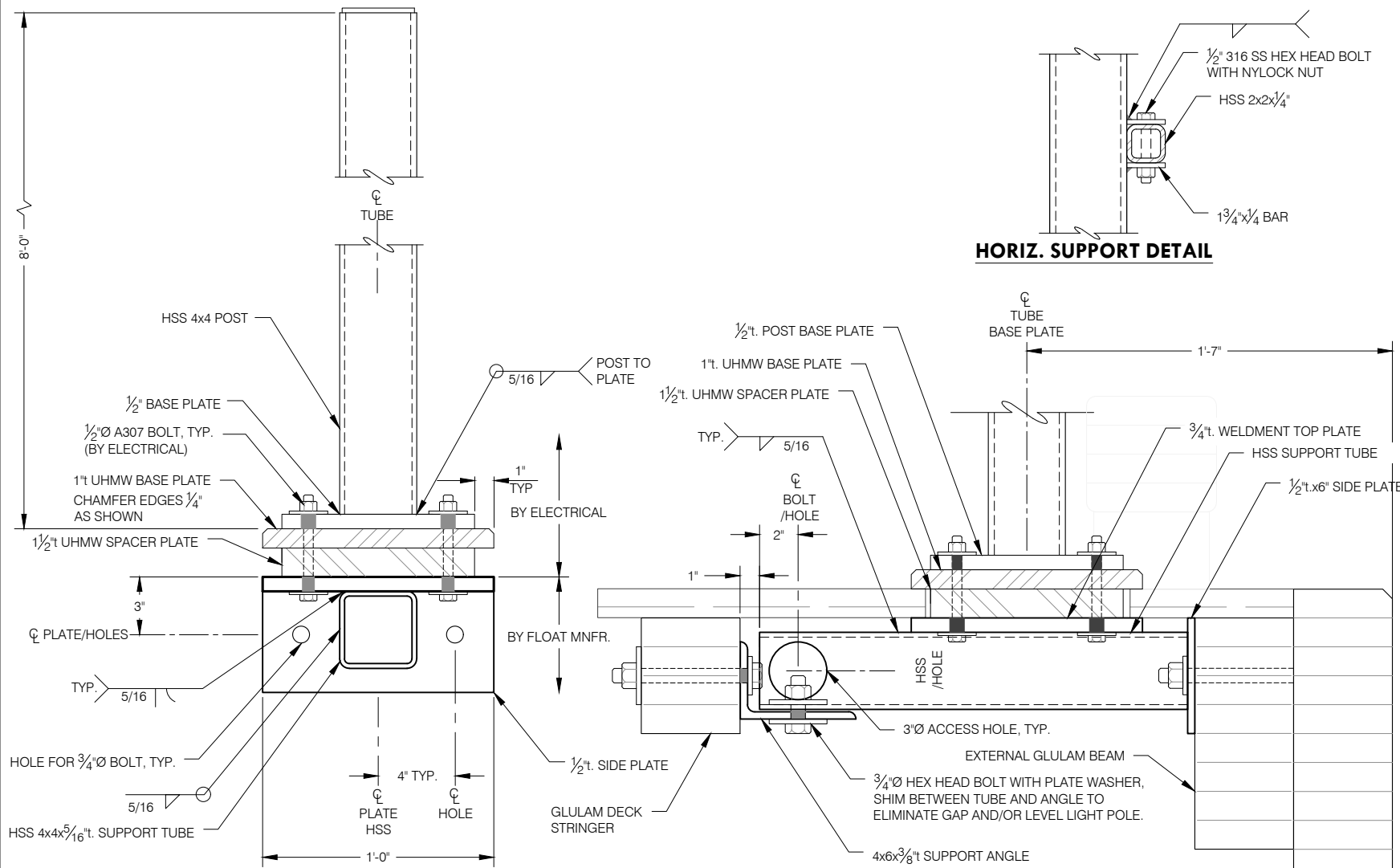


**CABLE SUPPORT POST**

**PANEL SUPPORT POST**

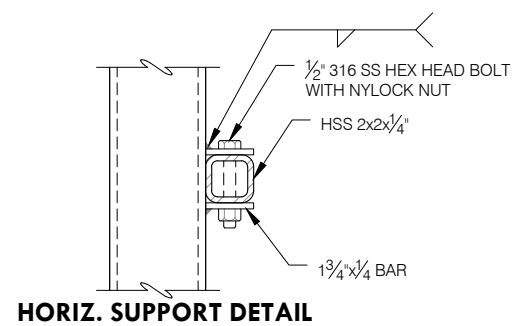
\* NOTE:  
LOCATE HORIZ. SUPPORT AS  
REQUIRED FOR ELECTRICAL  
PANELS.

NOTE:  
LOCATION AND QUANTITY OF HSS  
HORIZONTAL SUPPORTS SHALL MATCH  
PANEL H. HSS HORIZONTAL SUPPORTS  
MAY REQUIRE FASTENERS OR STRUT  
(NOT SHOWN) TO SUPPORT PANEL H.

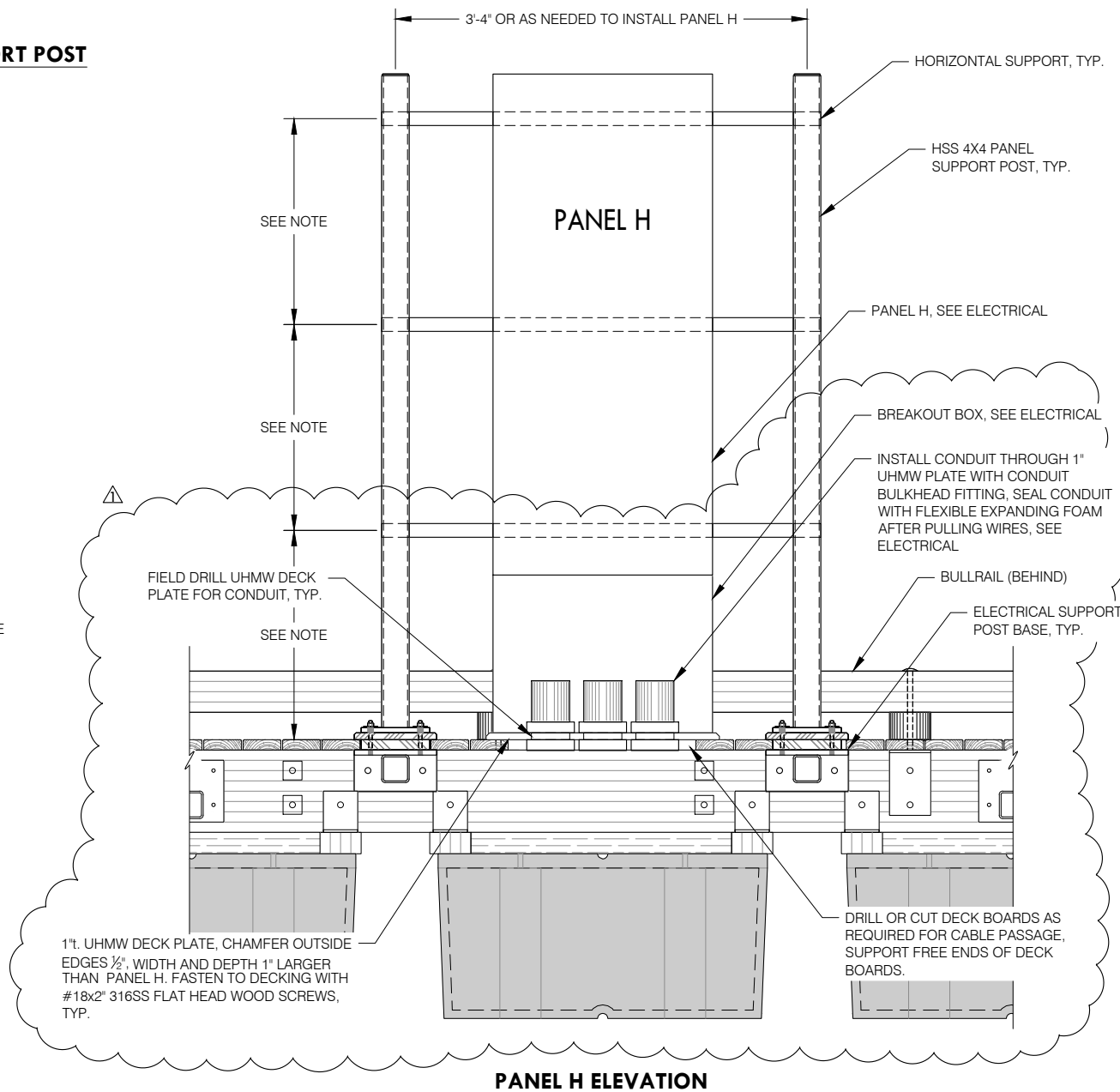


**ELECTRICAL SUPPORT POST - FRONT ELEVATION**

**ELECTRICAL SUPPORT POST - SIDE ELEVATION**

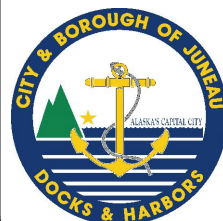


**HORIZ. SUPPORT DETAIL**



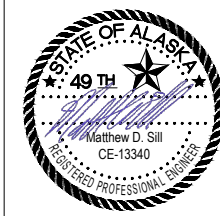
**PANEL H ELEVATION**

ES1 ES2 ES3 - ELECTRICAL SUPPORT DETAILS



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ADD. 1	02/28/2023	REVISE DECK PENETRATION DETAIL & ADD BREAKOUT BOX	MDS	CU	CU

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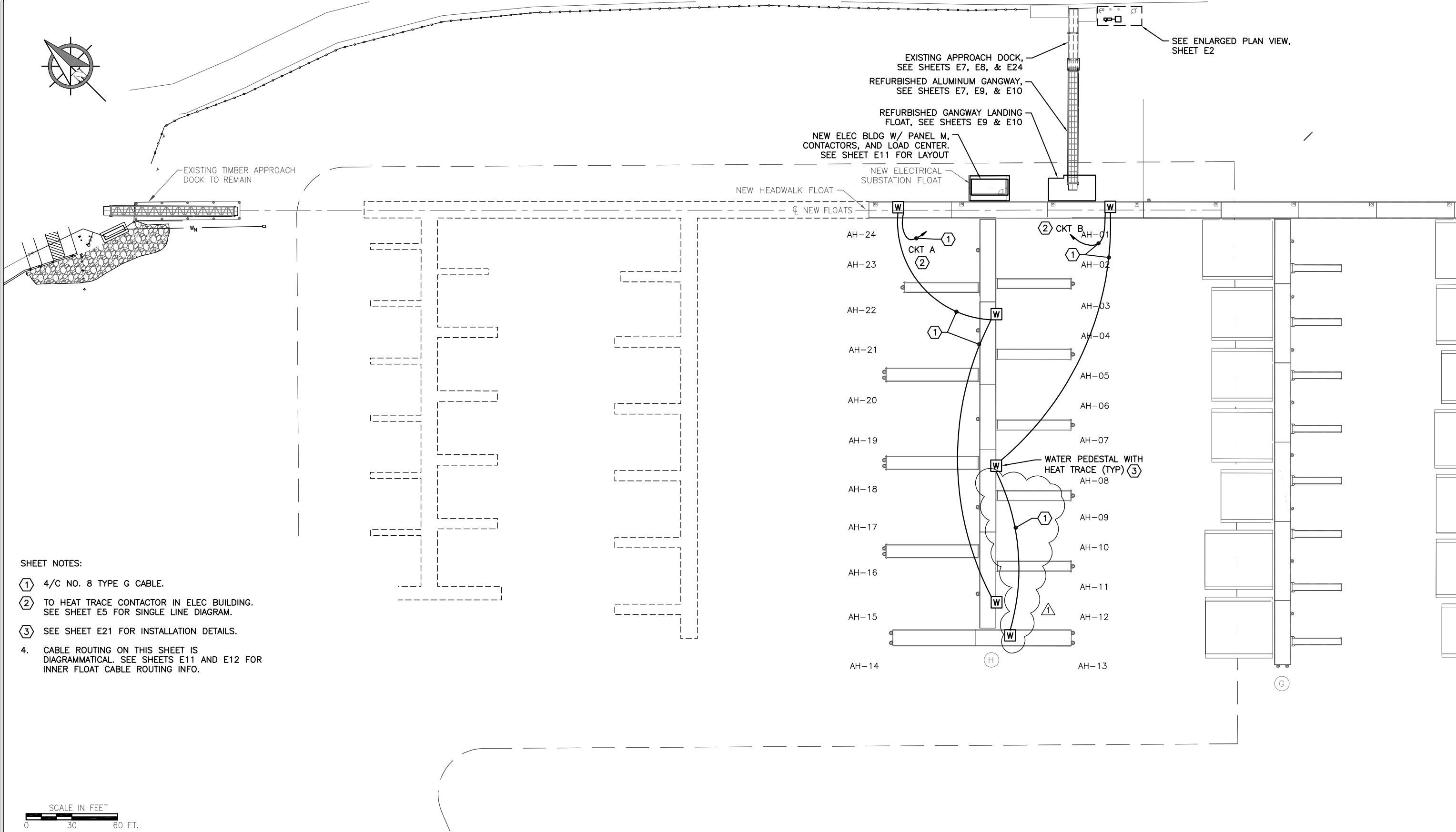
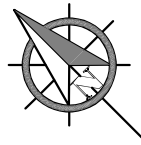
**ELECTRICAL SUPPORT POST DETAILS**

AURORA HARBOR REBUILD - PHASE III

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**ES3**

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- SHEET NOTES:**
- ① 4/C NO. 8 TYPE G CABLE.
  - ② TO HEAT TRACE CONTACTOR IN ELEC BUILDING. SEE SHEET E5 FOR SINGLE LINE DIAGRAM.
  - ③ SEE SHEET E21 FOR INSTALLATION DETAILS.
  - 4. CABLE ROUTING ON THIS SHEET IS DIAGRAMMATICAL. SEE SHEETS E11 AND E12 FOR INNER FLOAT CABLE ROUTING INFO.



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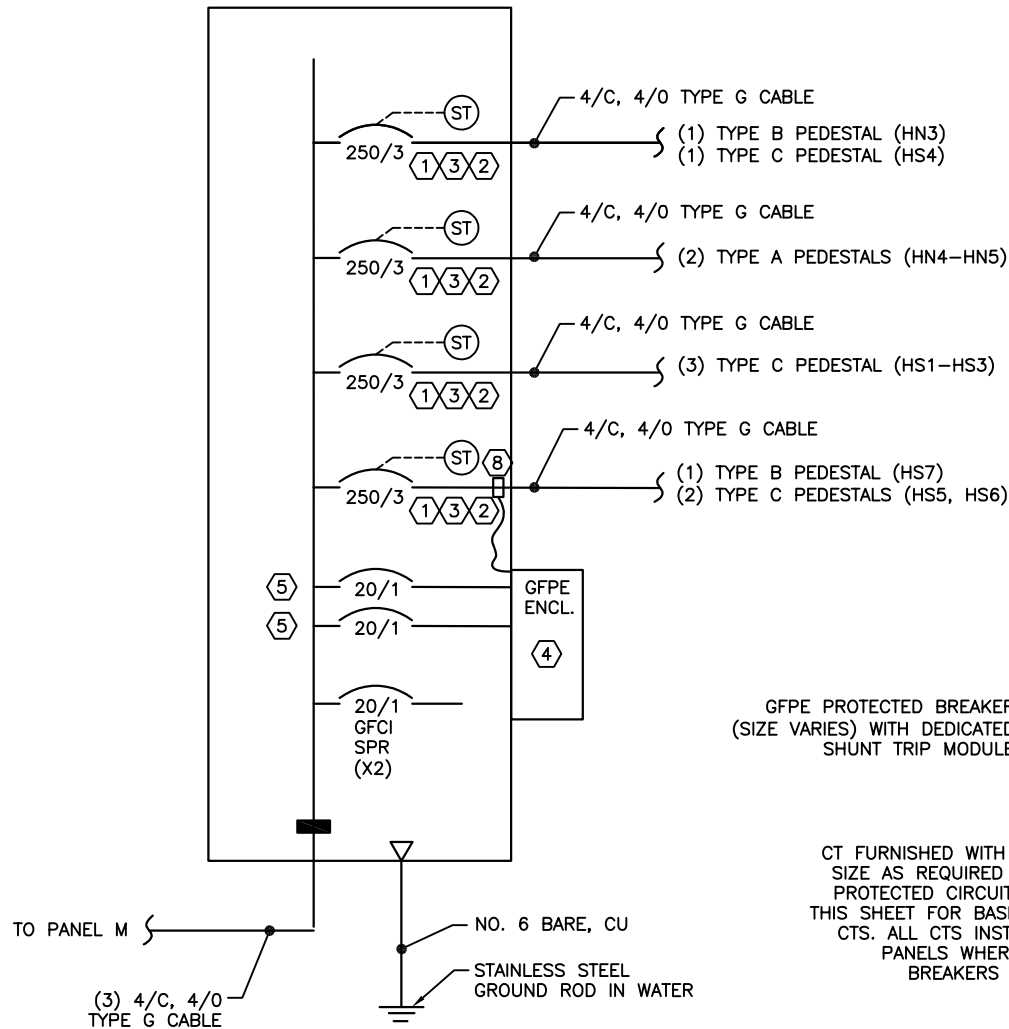
**GENERAL SITE PLAN - HEAT TRACE**  
 AURORA HARBOR REBUILD - PHASE III

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**E4**

Y:\113\_CBJ\41\_aurora harbor phase iii\working drawings\SINGLE LINE DIAGRAM - PANEL H 3/3/2023 10:23 AM

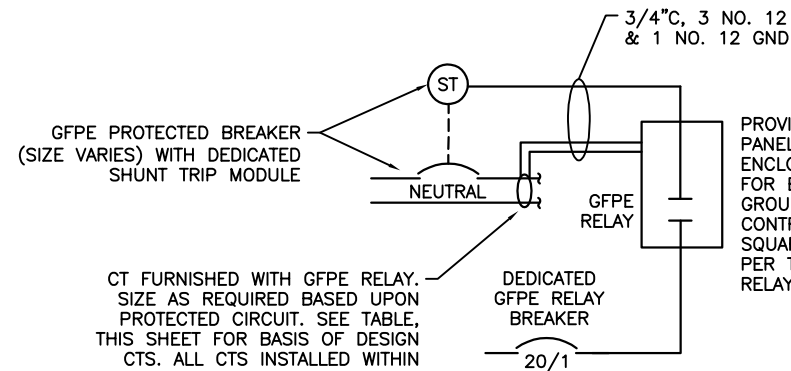
**PANEL H**  
120/208V, 3PH, 4W, 800A IN NEMA 4X  
SS ENCLOSURE. PROVIDE WITH BREAKERS  
SHOWN, GROUND & NEUTRAL KITS, AND  
BLANK FILLER PLATES AS REQUIRED. SQ-D  
HCP I-LINE SERIES OR EQUAL



① SINGLE LINE DIAGRAM - PANEL H

KEYNOTES (APPLICABLE TO DETAIL 1):

- ① CIRCUIT BREAKER WITH INTEGRAL SHUNT TRIP RELAY. RELAY CONTROLLED BY EXTERNAL GFPE RELAY WITH ADJUSTABLE TRIP. SEE KEYNOTE 4, THIS SHEET.
- ② UL 489 LISTED 100% CIRCUIT BREAKER, MINIMUM 35 KAIC RATED.
- ③ 250A BREAKER, 35 KAIC MINIMUM WITH SHUNT TRIP, ADJUSTABLE 'LI' FUNCTIONS SQ-D I-LINE LJ SERIES OR EQUAL.
- ④ GROUND FAULT EQUIPMENT PROTECTION (GFPE) RELAYS SHALL BE HOUSED IN ENCLOSURE MOUNTED NEXT TO PANEL H. PROVIDE NECESSARY WIRING BETWEEN GFPE UNITS AND SHUNT TRIP MODULES ON THE DESIGNATED BREAKERS (BREAKERS WITH KEYNOTE 1) GFPE'S POWERED FROM DEDICATED 120V, 20/1 BREAKERS IN PANEL H. SEE DETAIL 2, THIS SHEET, FOR MORE INFO.
- ⑤ 20A BREAKER, 25 KAIC MINIMUM. SQ-D I-LINE BG SERIES OR EQUAL.
6. BASIS OF DESIGN ELECTRICAL PACKAGE IS SQUARE-D PRODUCTS AS NOTED. REFER TO SQUARE D PROPOSAL NO. P-220427-3011075 / QUOTE NO. Q-3853031 TO OBTAIN THE DESIGNED BILL OF MATERIAL, DIMENSIONAL DRAWINGS, ETC. NOT ALL PRODUCTS REQUIRED ARE CONTAINED WITHIN THIS REFERENCED SQUARE-D MATERIAL. CONTRACTOR RESPONSIBLE TO CONFIRM AND PROVIDE ALL ELECTRICAL NEEDED. THIS REFERENCED FILE IS FOR GENERAL INFORMATION ONLY.
7. TYPE G CABLE IS FINELY STRANDED AND MAY NOT PROPERLY SECURE DOWN WITHIN THE CIRCUIT BREAKER CONNECTIONS ON THE PROJECT. CONTRACTOR SHALL PROVIDE FEMALE-TO-MALE FERRULE CRIMP CONNECTORS AS REQUIRED TO ENSURE PROPER TORQUE IS ACHIEVED AT BREAKER LUGS.
- ⑧ PROVIDE CT (1 PER CIRCUIT BREAKER), CT WIRING, AND SHUNT TRIP WIRING TO GFPE RELAY IN BOX. MOUNT CTS IN PANELS AND CIRCUIT BREAKER ENCLOSURES. ONLY ONE CT AT PANEL H SHOWN. PROVIDE ALL REQUIRED. SEE DETAIL 2, THIS SHEET FOR WIRING DIAGRAM. SHUNT TRIP WIRING NOT SHOWN HERE.



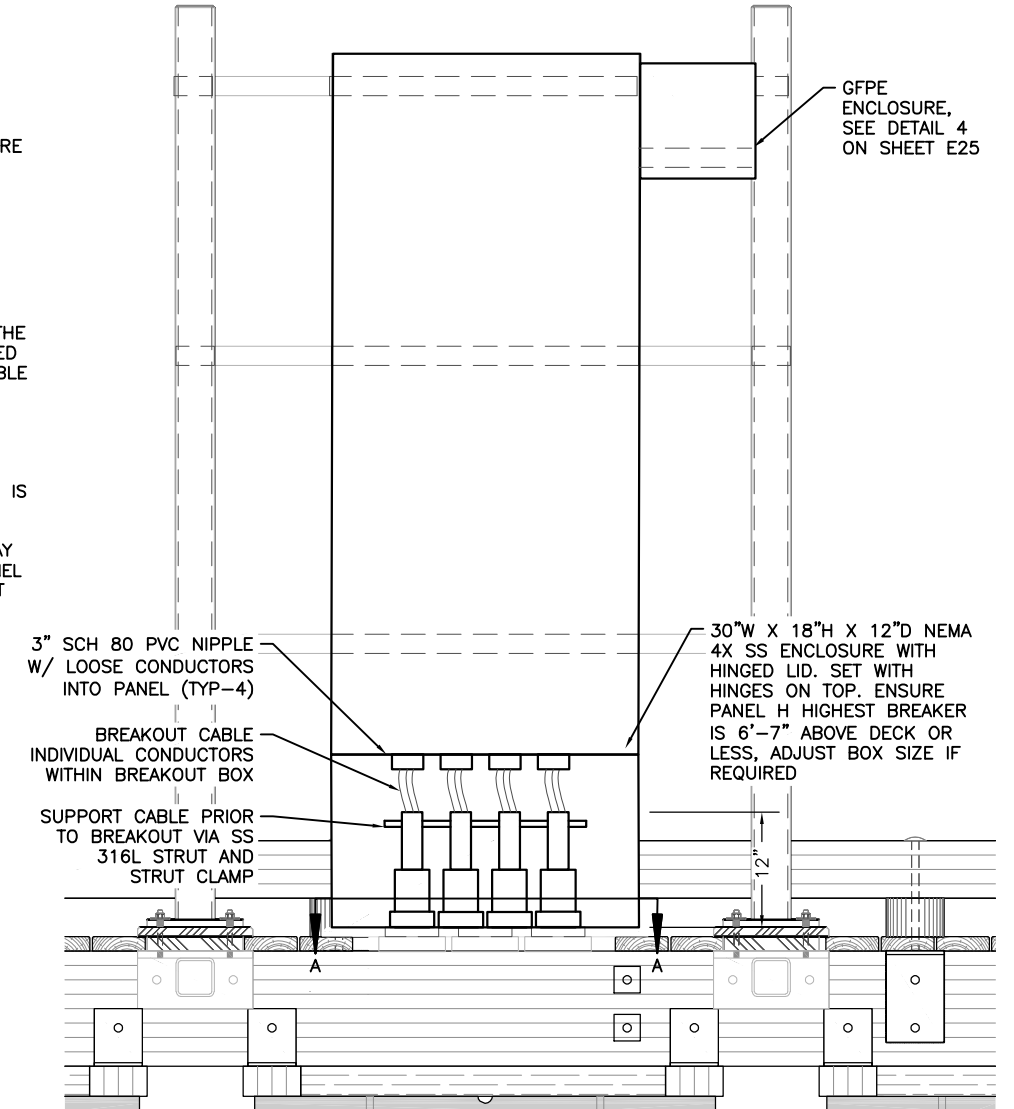
② GFPE BREAKER DETAIL (TYP)

NOTE: DETAIL IS TYPICAL WIRING FOR ALL GFPE PROTECTED RELAYS NOTED IN THE PLANS. ONE GFPE RELAY PER PROTECTED CIRCUIT BREAKER. CONTROL VOLTAGE CIRCUITS CAN BE SHARED BETWEEN GFPE RELAYS.

**GFPE RELAY CT SIZING & QUANTITY TABLE**

I-NOM.	INSIDE DIA.	BOD MODEL	QNTY
1600A	11" X 4.5" (RECTANGLE)	SQ-D #56053	2
630A	11.81" (CIRCLE)	SQ-D #50442	2
400A	7.87" (CIRCLE)	SQ-D #50441	1
250A	4.7" (CIRCLE)	SQ-D #50440	6
160A	3.1" (CIRCLE)	SQ-D #50439	1

TABLE NOTES:  
1. ALL VALUES ARE MINIMUMS  
2. I-NOM=NOMINAL CURRENT RATING, BOD=BASIS OF DESIGN  
3. VENDOR TO ENSURE CT IS COMPATIBLE WITH PAIRED GFPE



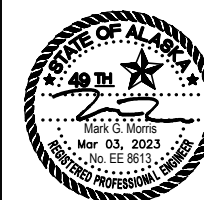
③ PANEL H - FRONT ELEVATION  
NO SCALE

DETAIL 3 NOTE: BOX AND CONDUITS STUBBED UP THROUGH DECK & UHMW MATERIAL AND SECURED PER CIVIL. SEE SHEET ES3 PANEL H ELEVATION FOR MORE DETAILS.



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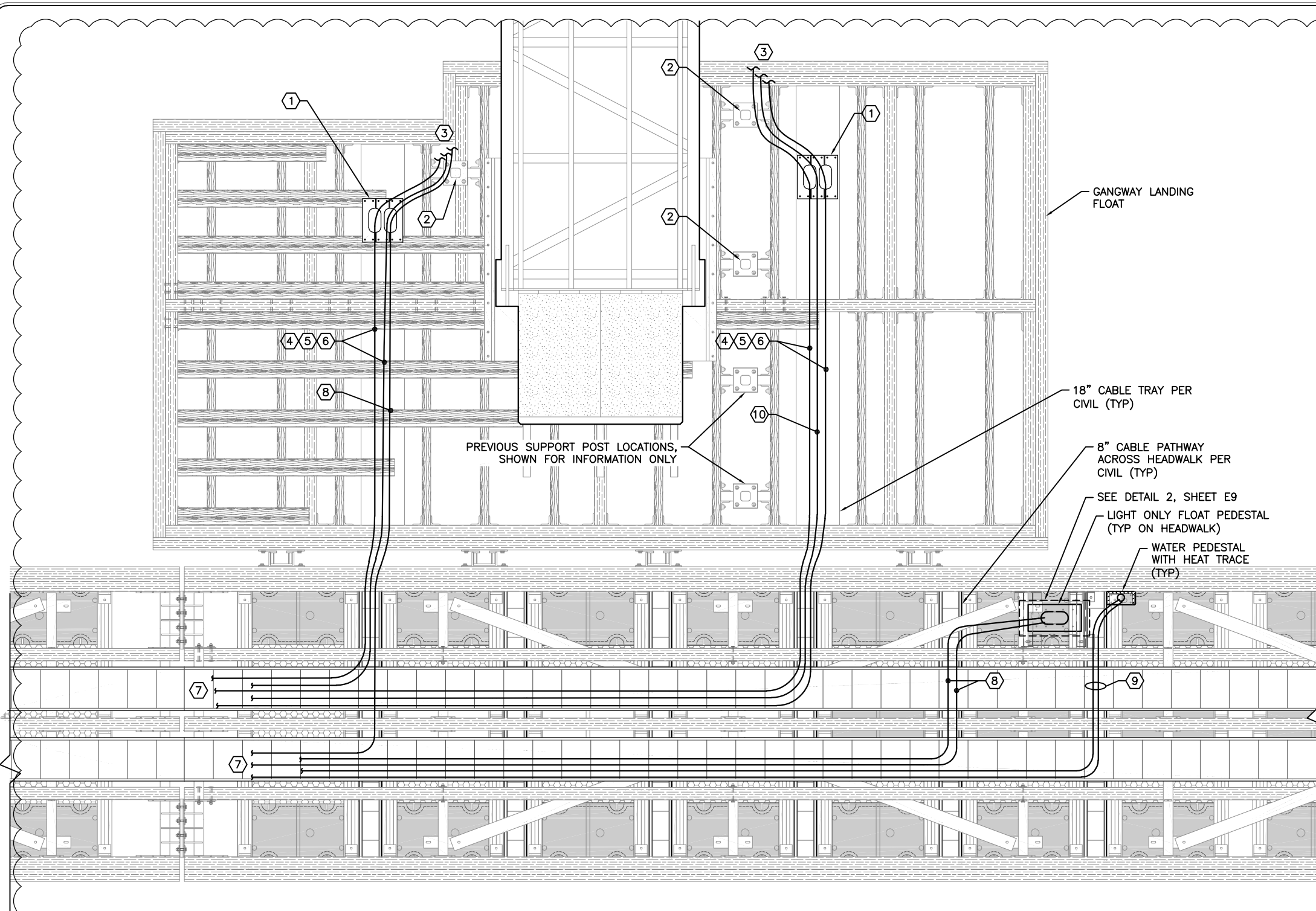


**SINGLE LINE DIAGRAM - PANEL H & GFPE BREAKER DETAIL**  
AURORA HARBOR REBUILD - PHASE III

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**E6**

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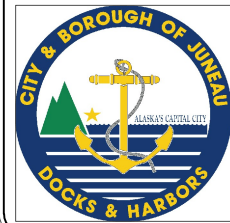


SHEET NOTES:

- ① CABLE GUARDS PER CIVIL. ROUTE ALL CABLES FROM GANGWAY INTO GANGWAY FLOAT VIA THE CABLE GUARDS. PROVIDE ANTI-CHAFING PROTECTION.
- ② RELOCATED SUPPORT POSTS PER CIVIL WITH EYEBOLTS FOR CABLE GRIPS.
- ③ CABLES TRANSITIONED FROM CONDUITS UNDER GANGWAY ACROSS SUPPORT POSTS SUPPORTED BY CABLE GRIPS, INTO GANGWAY FLOAT.
- ④ 4/C, 4/0 TYPE G CABLES IN PARALLEL, (2) CABLES ON EACH SIDE OF GANGWAY, FROM UPLANDS MAIN CIRCUIT BREAKER TO ELEC BUILDING. PROVIDE SUFFICIENT SLACK IN THE SHORTED RUN TO ENSURE OVERALL CABLE LENGTHS ARE THE SAME LENGTH END TO END.
- ⑤ ROUTE CABLE THROUGH FLOAT IN CABLE TRAY AND ON FOAM AND TUBS. DO NOT STACK CABLE IN CABLE TRAY. SUPPORT CABLE BETWEEN GANGWAY LANDING FLOAT AND HEADWALK WITH 'U' SHAPED STRAPS. SEE CIVIL.
- ⑥ CABLE MAY BE ROUTED ON TOP OF THE FLOAT TUBS AND FOAM IN THE LOCATIONS SHOWN ON THE GANGWAY LANDING FLOAT ELEVATION. THESE SPACES ARE PARALLEL TO THE 8" CABLE TRAY. HOWEVER, THESE SPACES DO NOT LINE UP WITH OPENINGS IN THE HEADWALK FLOAT. SO, ALL CABLE ROUTED INTO HEADWALK FLOAT HAS TO TRANSITION TO THE 8" TRAYS.
- ⑦ TO THE ELECTRICAL BUILDING, SEE SHEET E11 FOR CONTINUATION.
- ⑧ 4/C NO. 8 TYPE G CABLE FROM LIGHTING CONTACTOR IN ELEC BUILDING. ROUTE FROM BUILDING TO HEADWALK LIGHT PEDESTAL (FOR CKT B), CONTINUE TO GANGWAY LIGHTS AND POLE LUMINAIRE ON APPROACH DOCK (CKT C).
- ⑨ 4/C NO. 8 TYPE G CABLE FROM HEAT TRACE CONTACTOR IN ELEC BUILDING. ROUTE FROM BUILDING TO HEADWALK WATER PEDESTAL, THEN CONTINUE CIRCUIT TO NEXT WATER PEDESTAL ON HEADWALK/MAINWALK.
- ⑩ 4/C NO. 8 TYPE G CABLE FROM PANEL M DEDICATED 20/1 C/B. CABLE TO POWER GFPE RELAY AT 800/3 C/B IN UPLANDS.
- 11. CONTRACTOR RESPONSIBLE FOR ALL PLANNING, COORDINATION, AND EXECUTION WORK REQUIRED FOR PULLING CABLES WITHIN FLOATS UNSPICED END-TO-END. SEE GENERAL NOTE 31 ON SHEET E1 FOR MORE INFORMATION.
- 12. CONTRACTOR RESPONSIBLE FOR PROVIDING AND COORDINATING STRUCTURAL ELEMENTS ASSOCIATED WITH FLOAT MOUNTED ELECTRICAL. SEE GENERAL NOTE 32 ON SHEET E1 FOR MORE INFORMATION.
- 13. CABLES IN GANGWAY AND HEADWALK FLOATS CONTINUE UNDER FLOOR TO SOURCES WITHIN THE ELECTRICAL BUILDING FLOAT. COORDINATE ALL PENETRATIONS WITH FLOAT CONTRACTOR. THE ARRANGEMENT OF CABLES IN EACH TRAY IN ALL FLOATS AND INSIDE BUILDING ARE GRAPHICAL ONLY. CONTRACTOR RESPONSIBLE FOR FINAL ARRANGEMENTS AS REQUIRED THAT MEET CODE. UTILIZE DESIGNATED CABLE TRAYS AND ELECTRICAL PATHWAYS AS MUCH AS POSSIBLE. WHERE REQUIRED, CABLES WILL TRANSITION OUT OF CABLE TRAYS AND WILL BE ROUTED DIRECTLY ALONG FLOATATION TUBS, ACROSS STRUCTURAL MEMBERS, AND THROUGH OPENINGS WITHIN STRUCTURES. PATHS SHOWN ON THE ELECTRICAL SHEETS ARE NOT ANTICIPATED TO BE FOLLOWED PRECISELY. ADJUSTMENTS IN ROUTING FOR BEST FINAL FIT, FOR MAINTAINING MINIMUM BENDING RADII, ETC. ARE EXPECTED.



① GANGWAY LANDING FLOAT AND HEADWALK PLAN



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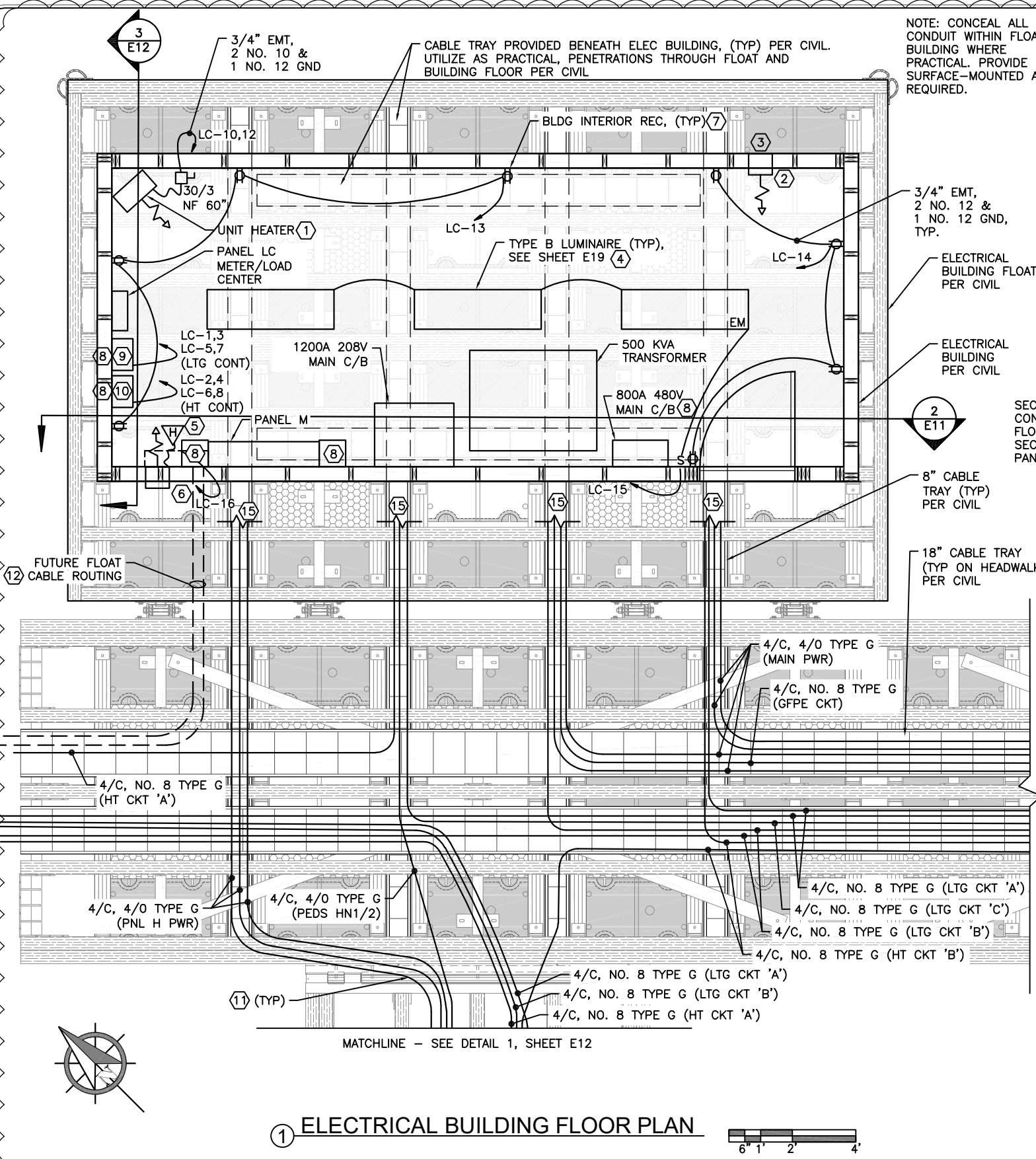
GANGWAY LANDING FLOAT AND HEADWALK PLAN

AURORA HARBOR REBUILD - PHASE III

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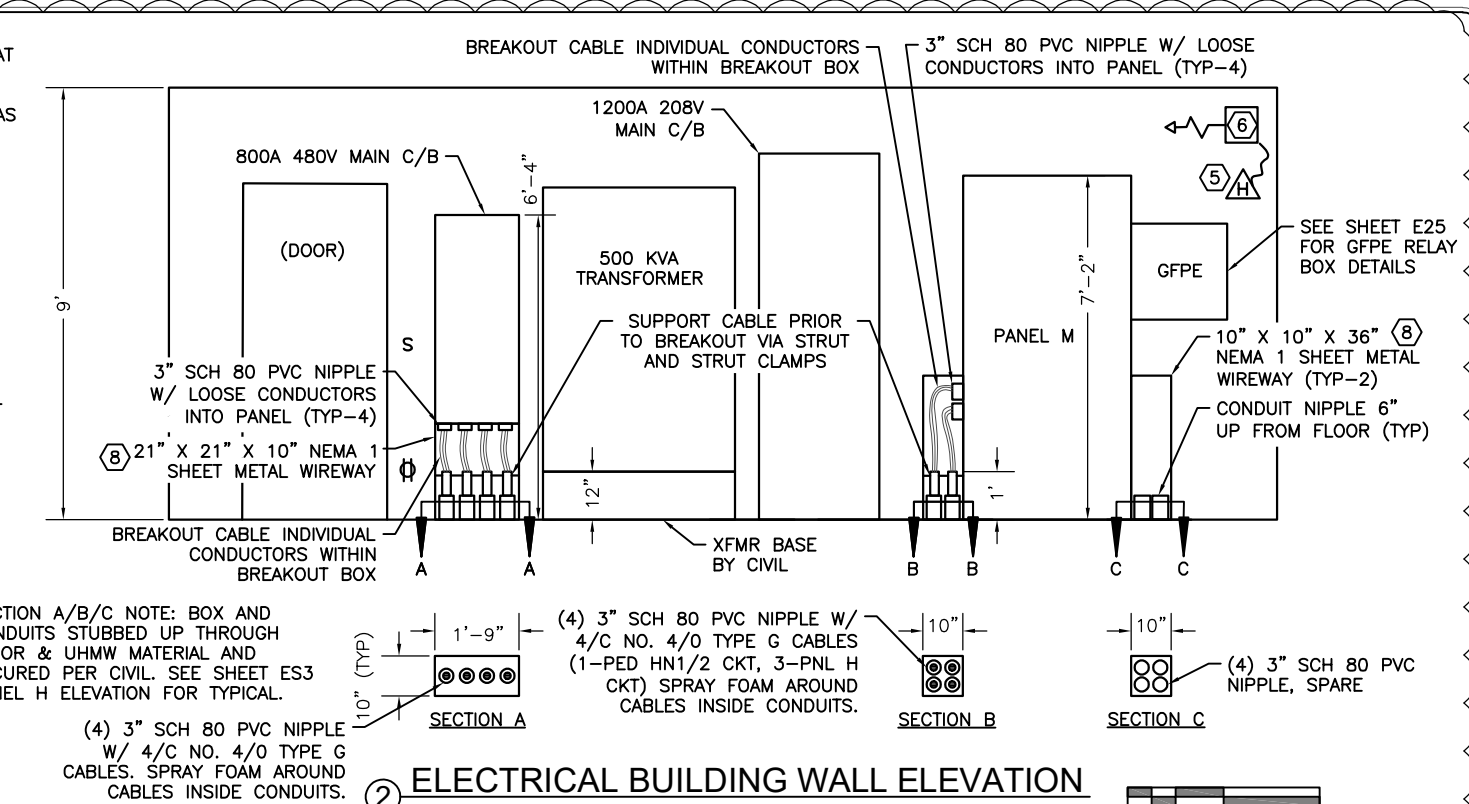
**E10**

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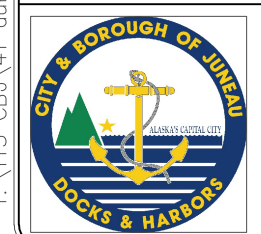
1 ELECTRICAL BUILDING FLOOR PLAN

NOTE: CONCEAL ALL CONDUIT WITHIN FLOAT BUILDING WHERE PRACTICAL. PROVIDE SURFACE-MOUNTED AS REQUIRED.



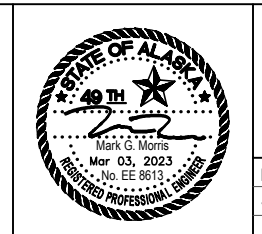
2 ELECTRICAL BUILDING WALL ELEVATION WEST

- NOTES:
- 1 ELECTRICAL UNIT HEATER WITH BUILT IN THERMOSTAT AND WALL MOUNT KIT. MARLEY MUH0581 OR EQUAL. MOUNT ON WALL 6" BELOW CEILING.
  - 2 6"W X 8"H COUNTER BALANCED BAROMETRIC RELIEF AIR DAMPER WITH BALL BEARING 316 STAINLESS STEEL FRAME, BLADES, AND BEARINGS. GREEN HECK SEBR-32 SERIES. FLANGE ON INTAKE. TRIM AROUND DAMPER WITH 3/18" X 3" FIR WITH WATCO OIL FINISH. ADJUST LOUVER TO OPEN WHEN VENTILATION FAN RUNS. MOUNT TOP 6" BELOW CEILING.
  - 3 316 STAINLESS STEEL INTAKE HOOD. SIZED TO FIT OVER RELIEF AIR DAMPER FULL WIDTH AND HEIGHT OF DAMPER. BOTTOM OF HOOD SHALL EXTEND MIN. 8" OFF WALL, PROVIDE WITH 316 STAINLESS STEEL BIRD SCREEN.
  - 4 SURFACE MOUNT LIGHT FIXTURES TO CEILING WITH STAINLESS STEEL HARDWARE. SPACE EQUI-DISTANCE ACROSS ROOM AND CENTER.
  - 5 HUMIDISTAT 120V, 7 AMP, 20-80 PERCENT HUMIDITY SWITCH CLOSES AND ENERGIZED THE FAN ON AN INCREASE IN RELATIVE HUMIDITY. A DECREASE IN HUMIDITY TO THE SET POINT MINUS THE DIFFERENTIAL, BREAKS THE SWITCH TO STOP THE FAN.
  - 6 THROUGH THE WALL VENTILATION FAN (70 CFM, 120V) WITH EXTERIOR HOOD. PANASONIC FV-08WQI. MOUNT TOP 6" BELOW CEILING.
  - 7 MOUNT ALL RECEPTACLES AT 36" ALL RECEPTACLES SHALL BE 20A, 120V, INDUSTRIAL SPEC GRADE, GFI TYPE. NO WIRING BELOW 15" AFF.
  - 8 WIREWAY OR ENCLOSURE USED AS TYPE G CABLE BREAKOUT BOX. SECURE CABLE TO STRUT AT 12" AFF AND SEPARATE OUT CONDUCTORS PRIOR TO PANEL ENTRY.
  - 9 LIGHTING CONTACTOR, SEE SHEET E5 FOR FULL DESCRIPTION. MOUNT SIDE-BY-SIDE TO HEAT TRACE CONTACTOR. SEE SHEET E12 FOR ELEVATION.
  - 10 HEAT TRACE CONTACTOR, SEE SHEET E5 FOR FULL DESCRIPTION. MOUNT SIDE-BY-SIDE TO LIGHTING CONTACTOR. SEE SHEET E12 FOR ELEVATION.
  - 11 SUPPORT CABLES WITH "U" SHAPED CABLE SUPPORT WHEN ROUTING CABLE BETWEEN HEADWALK, MAINWALK, AND ALL FLOAT SECTIONS. SEE CIVIL FOR DETAILS OF CABLE SUPPORT (TYPICAL).
  - 12 PATH FOR FUTURE PANELS J AND K FEEDER CABLES. DO NOT RUN ANY PROJECT CABLING IN THIS PORTION OF THE FLOAT. IT IS RESERVED FOR FUTURE CABLES.
  - 13 CONTRACTOR RESPONSIBLE FOR ALL PLANNING, COORDINATION, AND EXECUTION WORK REQUIRED FOR PULLING CABLES WITHIN FLOATS UNSPICED END-TO-END. SEE GENERAL NOTE 31 ON SHEET E1 FOR MORE INFORMATION.
  - 14 CONTRACTOR RESPONSIBLE FOR PROVIDING AND COORDINATING STRUCTURAL ELEMENTS ASSOCIATED WITH FLOAT MOUNTED ELECTRICAL. SEE GENERAL NOTE 32 ON SHEET E1 FOR MORE INFORMATION.
  - 15 CABLES IN HEADWALK CONTINUE UNDER FLOOR TO SOURCES WITHIN ELECTRICAL BUILDING. PATHS WITHIN BUILDING NOT SHOWN. COORDINATE ALL PENETRATIONS WITH FLOAT CONTRACTOR. THE ARRANGEMENT OF CABLES IN EACH TRAY, IN ALL FLOATS, AND INSIDE BUILDING ARE GRAPHICAL ONLY. CONTRACTOR RESPONSIBLE FOR FINAL ARRANGEMENTS AS REQUIRED THAT MEET CODE. UTILIZE DESIGNATED CABLE TRAYS AND ELECTRICAL PATHWAYS AS MUCH AS POSSIBLE. WHERE REQUIRED, CABLES WILL TRANSITION OUT OF CABLE TRAYS AND WILL BE ROUTED DIRECTLY ALONG FLOTATION TUBS, ACROSS STRUCTURAL MEMBERS, AND THROUGH OPENINGS WITHIN STRUCTURES. PATHS SHOWN ON THE ELECTRICAL SHEETS ARE NOT ANTICIPATED TO BE FOLLOWED PRECISELY. ADJUSTMENTS IN ROUTING FOR BEST FINAL FIT, FOR MAINTAINING MINIMUM BENDING RADII, ETC. ARE EXPECTED.



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**ELECTRICAL BUILDING FLOOR PLAN & CABLE ROUTING**

AURORA HARBOR REBUILD - PHASE III

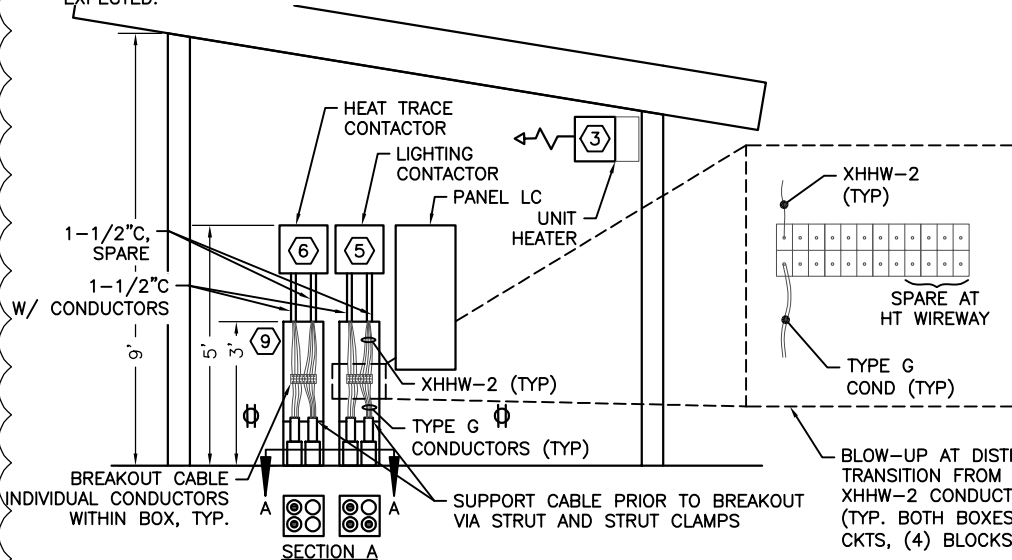
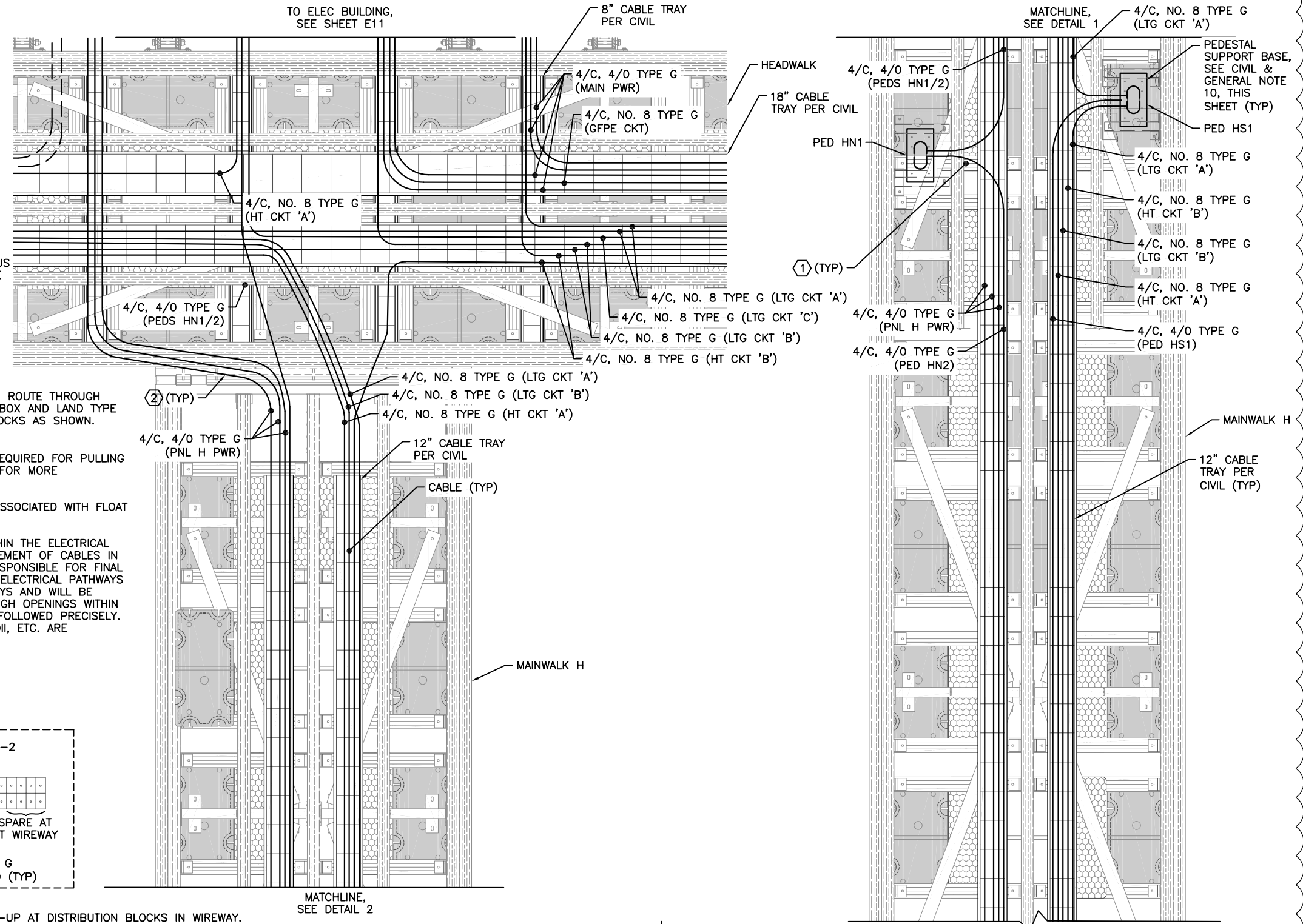
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**NOTES:**

- ① SUPPORT CABLE WITH CABLE GRIP WHEN ROUTED BETWEEN SILLS AS THERE IS NO FOAM OR TUB FOR CABLE TO LAY ON (TYPICAL).
- ② SUPPORT CABLES WITH "U" SHAPED CABLE SUPPORT WHEN ROUTING CABLE BETWEEN HEADWALK, MAINWALK, AND ALL FLOAT SECTIONS. SEE CIVIL FOR DETAILS OF CABLE SUPPORT (TYPICAL).
- ③ ELECTRICAL UNIT HEATER WITH BUILD IN THERMOSTAT AND WALL MOUNT KIT. MARLEY MUH0581 OR EQUAL. MOUNT ON WALL 6" BELOW CEILING.
- ④ NOT USED.
- ⑤ LIGHTING CONTACTOR, SEE SHEET E5 FOR FULL DESCRIPTION. MOUNT SIDE-BY-SIDE TO HEAT TRACE CONTACTOR. SEE SHEET E12 FOR ELEVATION.
- ⑥ HEAT TRACE CONTACTOR, SEE SHEET E5 FOR FULL DESCRIPTION. MOUNT SIDE-BY-SIDE TO LIGHTING CONTACTOR. SEE SHEET E12 FOR ELEVATION.
7. NOT ALL CABLES IN FLOAT ARE SHOWN FOR CLARITY. REVIEW CIVIL DRAWINGS TO UNDERSTAND HOW TO ROUTE CABLES IN THE FLOAT. ROUTE CABLES TO AVOID STRUCTURAL MEMBERS IN A MANNER THAT USES THE LARGEST POSSIBLE BENDING RADIUS OF THE CABLE. WRAP CHAFE PROTECTION AROUND CABLE WHERE IT CROSSES THE EDGE OF A FLOAT MEMBER TO PREVENT CHAFING. USE SECTIONS OF RUBBER CABLE JACKET THAT WAS STRIPED FOR TERMINATING CABLE FOR THIS PROTECTION. SECURE TO CABLE WITH TIE WRAPS.
8. THE CABLE ROUTING PLANS ARE NOT COMPREHENSIVE BUT ARE MEANT TO SHOW THE ROUTING CHANGES BASED UPON WHERE ON THE FLOAT THE PEDESTALS ARE LOCATED. STUDY ALL CIVIL DRAWINGS WHICH SHOW PEDESTAL LOCATIONS TO UNDERSTAND FLOAT STRUCTURE IN ORDER TO DETERMINE HOW TO ROUTE CABLES.
- ⑨ TRANSITION THE TYPE G CABLES INTO THE ELECTRICAL FLOAT PANELS AND CONTACTORS. ROUTE THROUGH UHMW-PE MATERIAL AND INTO NEMA 1 BREAKOUT BOX. PROVIDE UNISTRUT WITHIN THE BOX AND LAND TYPE G CABLE CONDUCTORS TO XHHW STRANDED CONDUCTORS ON POWER DISTRIBUTION BLOCKS AS SHOWN. UNISTRUT HEIGHT TO BE 13" AFF OR HIGHER.
10. CONTRACTOR RESPONSIBLE FOR ALL PLANNING, COORDINATION, AND EXECUTION WORK REQUIRED FOR PULLING CABLES WITHIN FLOATS UNSPICED END-TO-END. SEE GENERAL NOTE 31 ON SHEET E1 FOR MORE INFORMATION.
11. CONTRACTOR RESPONSIBLE FOR PROVIDING AND COORDINATING STRUCTURAL ELEMENTS ASSOCIATED WITH FLOAT MOUNTED ELECTRICAL. SEE GENERAL NOTE 32 ON SHEET E1 FOR MORE INFORMATION.
12. CABLES IN GANGWAY AND HEADWALK FLOATS CONTINUE UNDER FLOOR TO SOURCES WITHIN THE ELECTRICAL BUILDING FLOAT. COORDINATE ALL PENETRATIONS WITH FLOAT CONTRACTOR. THE ARRANGEMENT OF CABLES IN EACH TRAY IN ALL FLOATS AND INSIDE BUILDING ARE GRAPHICAL ONLY. CONTRACTOR RESPONSIBLE FOR FINAL ARRANGEMENTS AS REQUIRED THAT MEET CODE. UTILIZE DESIGNATED CABLE TRAYS AND ELECTRICAL PATHWAYS AS MUCH AS POSSIBLE. WHERE REQUIRED, CABLES WILL TRANSITION OUT OF CABLE TRAYS AND WILL BE ROUTED DIRECTLY ALONG FLOATATION TUBS, ACROSS STRUCTURAL MEMBERS, AND THROUGH OPENINGS WITHIN STRUCTURES. PATHS SHOWN ON THE ELECTRICAL SHEETS ARE NOT ANTICIPATED TO BE FOLLOWED PRECISELY. ADJUSTMENTS IN ROUTING FOR BEST FINAL FIT, FOR MAINTAINING MINIMUM BENDING RADII, ETC. ARE EXPECTED.



③ ELECTRICAL BUILDING WALL ELEVATION NORTH



① HEADWALK TO MAINWALK H CABLE ROUTING



② MAINWALK H CABLE ROUTING



REVISIONS					
REV	DATE	DESCRIPTION	DWN	CHK	APP
△	3/03/23	ADDENDUM 1			

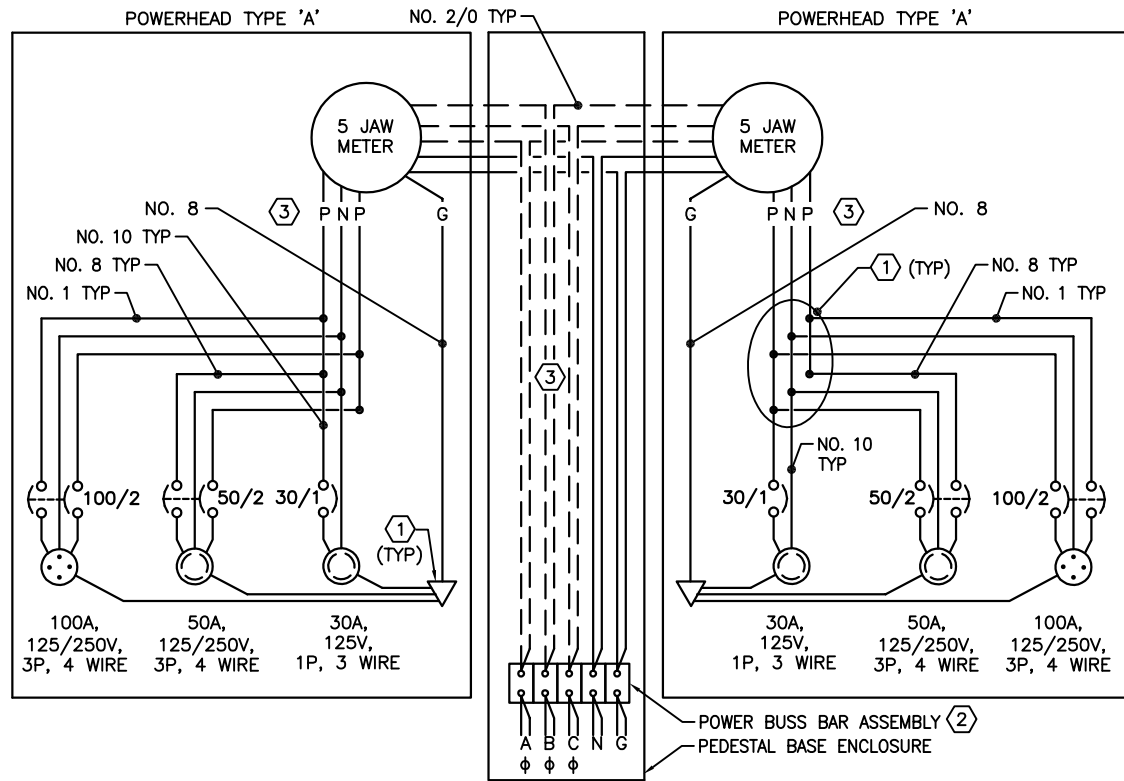
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JUNEAU, ALASKA 99801  
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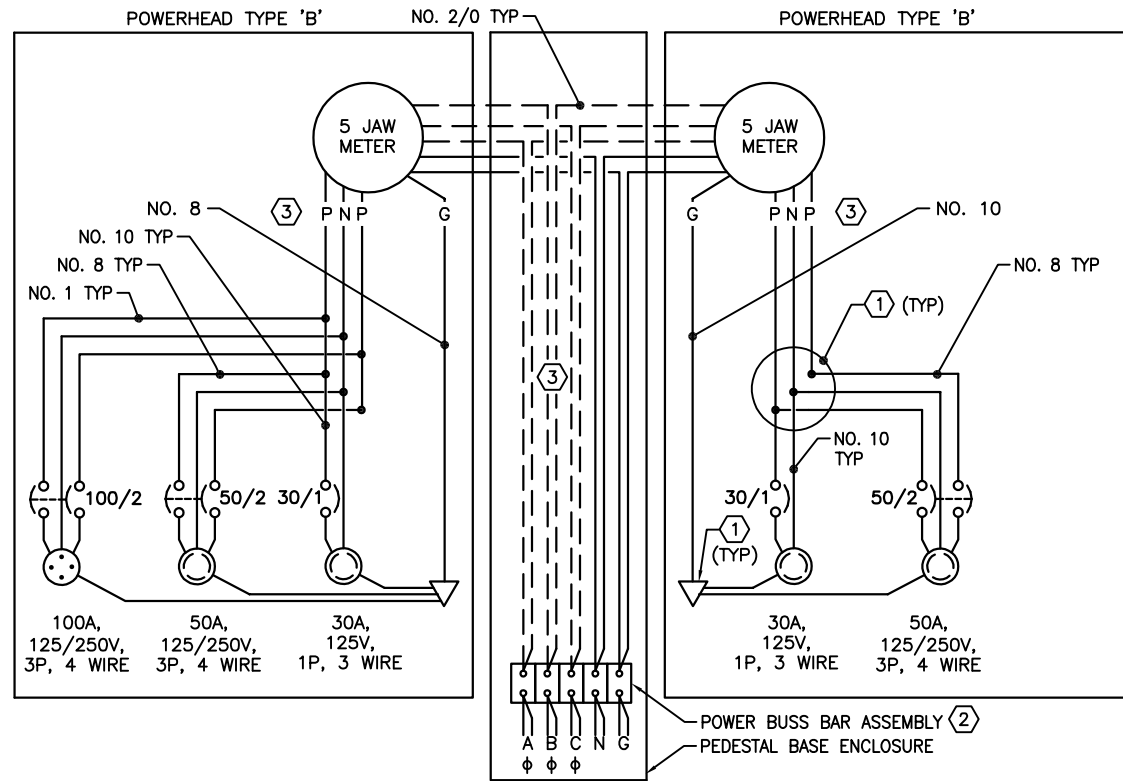
<b>MAINWALK CABLE ROUTING</b>			
AURORA HARBOR REBUILD - PHASE III			
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**E12**

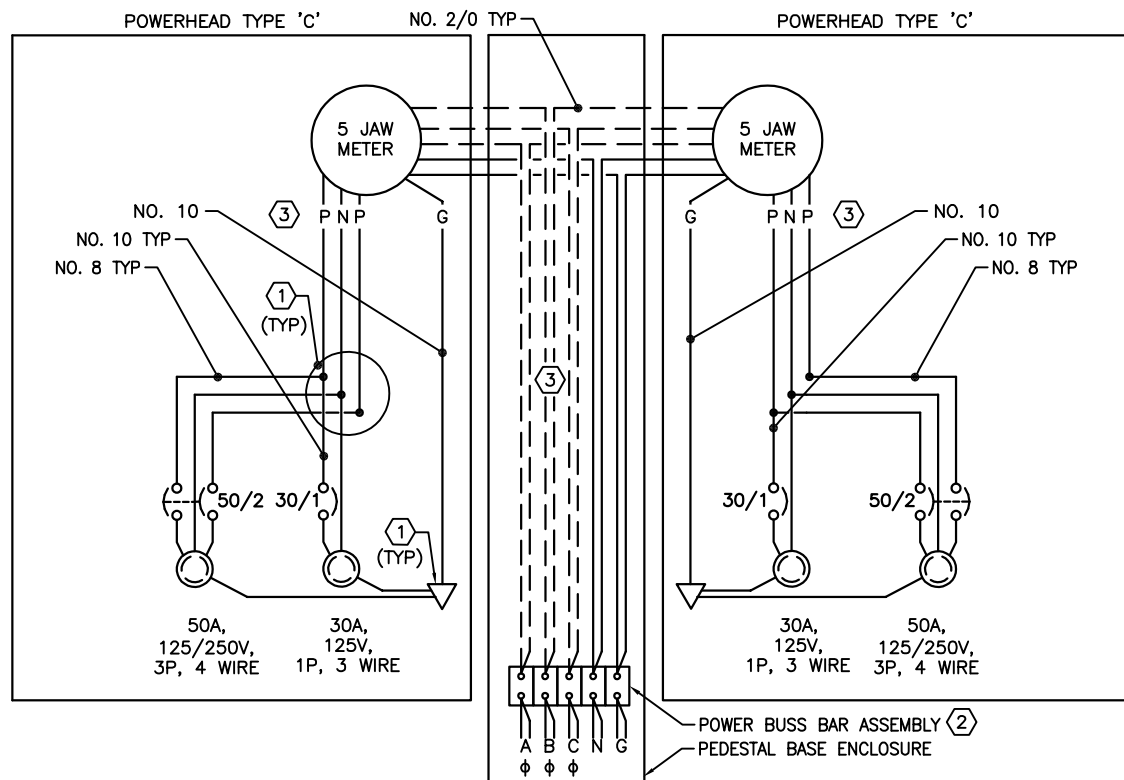
Y:\113\_CBJ\41\_aurora harbor phase iii\working drawings\E18 PEDESTAL WIRING DIAGRAMS 3/3/2023 10:23 AM



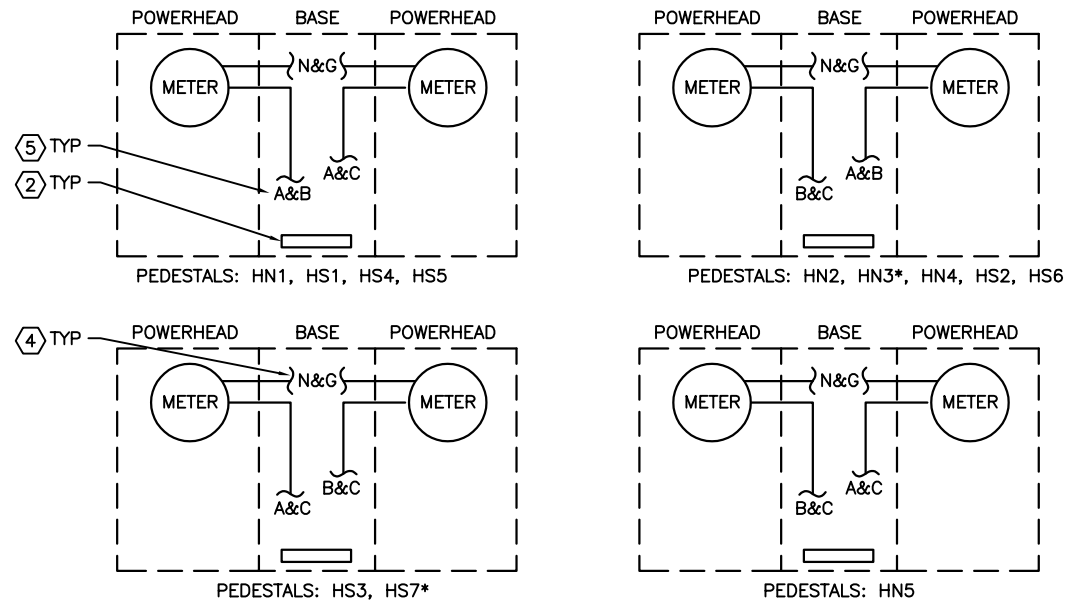
1 WIRING DIAGRAM - DUAL 100A/50A/30A PEDESTAL (TYPE A - HN4 & HN5 PEDESTALS)



2 WIRING DIAGRAM - 100A/50A/30A:50A/30A PEDESTAL (TYPE B - HN3 & HS7 PEDESTALS)



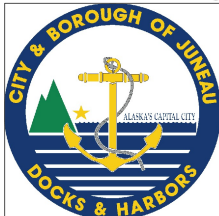
3 WIRING DIAGRAM - DUAL 50A/30A PEDESTAL (TYPE C - HN1, HN2, HS1-HS6 PEDESTALS)



4 POWERHEAD PHASE ARRANGEMENTS

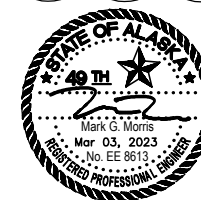
SHEET NOTES:

- 1 PROVIDE A POWER BUS BAR ASSEMBLY (AMP RATED AS REQUIRED) FOR THESE CONNECTIONS INCLUDING GROUND. COMPLY WITH REQUIREMENTS SHOWN ON SHEET E16 FOR BUS BARS AND WIRING TYPICAL ALL POWERHEADS.
  - 2 EACH POWER PEDESTAL TO BE FED WITH 3-PHASE CIRCUIT, COMMON CIRCUITING OF PEDESTALS PER POWER SITE PLAN AND PANEL SCHEDULES.
  - 3 FROM THE POWER BUS BAR AT EACH PEDESTAL THE POWERHEADS ARE TO BE CIRCUITED FOR SINGLE PHASE LOADS TO THE PEDESTAL METERS. PHASE ARRANGEMENTS TO USE FOR EACH POWERHEAD AS SHOWN ON DETAIL 4, THIS SHEET. SPECIFIC ARRANGEMENTS CALLED OUT IN ORDER TO BALANCE THE SINGLE PHASE LOADS ACROSS THE 3-PHASE CIRCUITS AT SOURCE PANEL AS MUCH AS PRACTICAL.
  - 4 NEUTRAL AND GROUND CIRCUIT CONNECTIONS FROM PEDESTAL POWER BUS BARS TO METER BASES SHALL BE MADE IN ALL PEDESTALS.
  - 5 PHASES TO CONNECT FROM PEDESTAL POWER BUS BAR ASSEMBLY IN BASE UP TO POWERHEAD METERS.
  6. ALL TYPICAL PEDESTAL WIRE SIZES SHOWN ARE MINIMUM. AT CONTRACTOR OPTION CONDUCTORS CAN ALL BE SIZED UP TO MATCH LARGEST IN THE POWERHEAD. ENSURE ALL BREAKERS AND LUGS WILL ACCOMMODATE INTERNAL CONDUCTOR SIZES.
  7. ALL PEDESTALS SHALL HAVE 30 MILLI-AMP GFI PROTECTION BUILT INTO EACH CIRCUIT BREAKER IN THE PEDESTALS. (POWERHEAD).
  8. ALL WIRING TERMINATED ON POWER BUS BAR ASSEMBLIES ON THE LOADSIDE OF THE METER (BETWEEN THE METERS AND CIRCUIT BREAKERS) SHALL BE PER NOTE 4 ON SHEET E16 (I.E. RING TERMINALS, HEAT SHRINK, ETC.) THIS INCLUDES NEUTRALS AND GROUNDS. THE POWER BUS BAR ASSEMBLY SHALL BE EASILY ACCESSIBLE FROM THE ADJACENT ACCESS PANEL.
- \* CIRCUIT HN3 SLIP WITH 100A REC FROM B&C PHASES, CIRCUIT HS7 SLIP WITH 100A REC FROM A&C PHASES.



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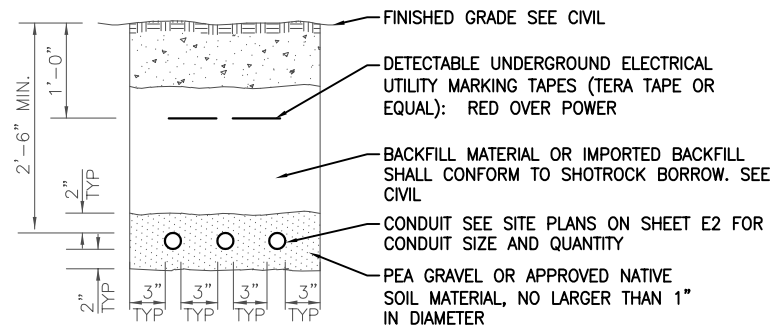
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PEDESTAL WIRING DIAGRAMS			
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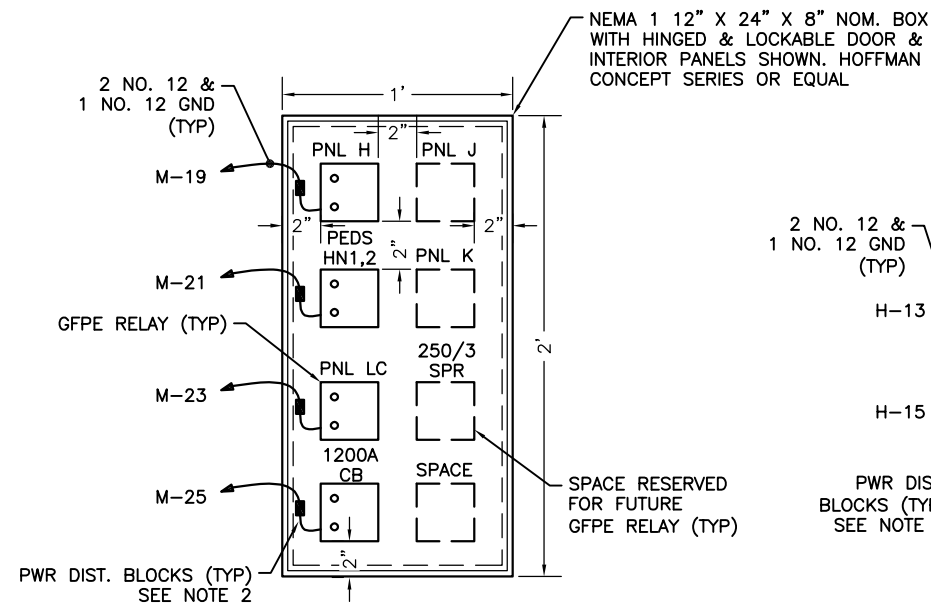
Y:\113\_CBJ\41\_aurora harbor phase iii\working drawings\TRENCH AND HANDHOLE DETAILS 3/3/2023 10:23 AM



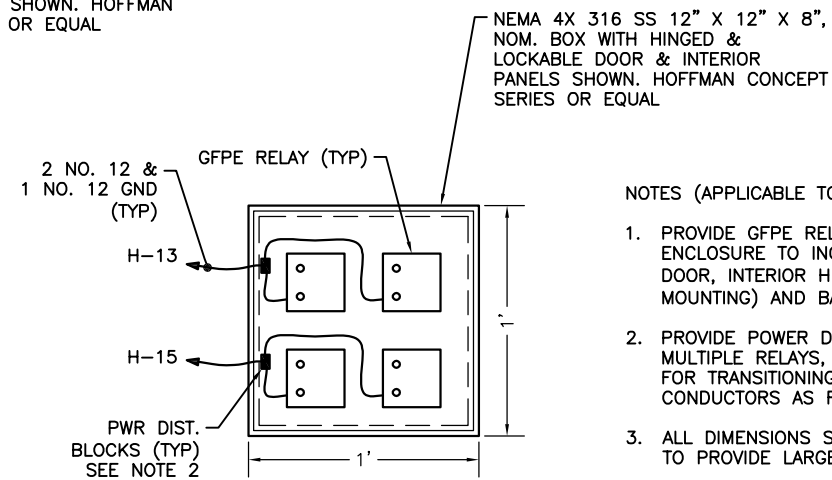
① TRENCH DETAIL  
NO SCALE

NOTES:

- ALL DIMENSIONS ARE MINIMUM.
- THE LOCATION OF ALL EXISTING PIPING, CONDUIT, ETC MAY NOT BE WHERE SHOWN AND MAY NOT BE SHOWN. ALL LOCATIONS THAT ARE SHOWN ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED. OBTAIN PRIVATE LOCATES PRIOR TO DIGGING. DIG WITH CAUTION. AVOID FUEL, WATER, SEWER, DRAINAGE PIPES AND OTHER CONFLICTS.
- MAINTAIN 12 INCHES MINIMUM SEPARATION (ALL DIRECTIONS) BETWEEN POWER AND OTHER EXISTING CONDUITS, PIPES, ETC.
- CUT AND REPLACE EXISTING ASPHALT, CONCRETE, ETC. AS NECESSARY.
- ALL TRENCHES SHALL BE 18" WIDE MIN. COMPACT BACKFILL PER CIVIL. TOP 6" OF MATERIAL PER CIVIL.
- MAINTAIN 36" MINIMUM LATERAL SEPARATION FROM WATER, SEWER, AND OTHER UNDERGROUND UTILITIES.
- TRENCH DETAIL ASSUMES AS SOIL CONDITIONS AS SHOWN EXIST BETWEEN APPROACH DOCK AND THE UPLANDS UNISTRUT RACK. EXACT CONDITIONS ARE UNKNOWN. IF CONDITIONS PROVE DIFFICULT, RIPRAP IS DISCOVERED, ETC., CONTRACTOR MAY GO SHALLOWER WITH THE CONDUITS THAN WHAT IS DEPICTED. IF MINIMUM DETAIL DEPTH CANNOT BE ACHIEVED PROVIDE CONCRETE ENCASEMENT OF CONDUITS. OBTAIN APPROVAL FROM ENGINEER PRIOR TO WORK IF CONDUITS ARE RAN SHALLOWER. DESIGN ASSUMES NEW CONDUITS ARE PROVIDED UNDERGROUND. AT CONTRACTOR OPTION EXISTING 3" UNDERGROUND CONDUITS MAY BE UTILIZED INSTEAD IF CONDUITS IN GOOD WORKING CONDITION AND REUSE MEETS ALL APPLICABLE NEC REQUIREMENTS. OBTAIN APPROVAL FROM ENGINEER PRIOR TO REUSE OF UNDERGROUND CONDUIT.



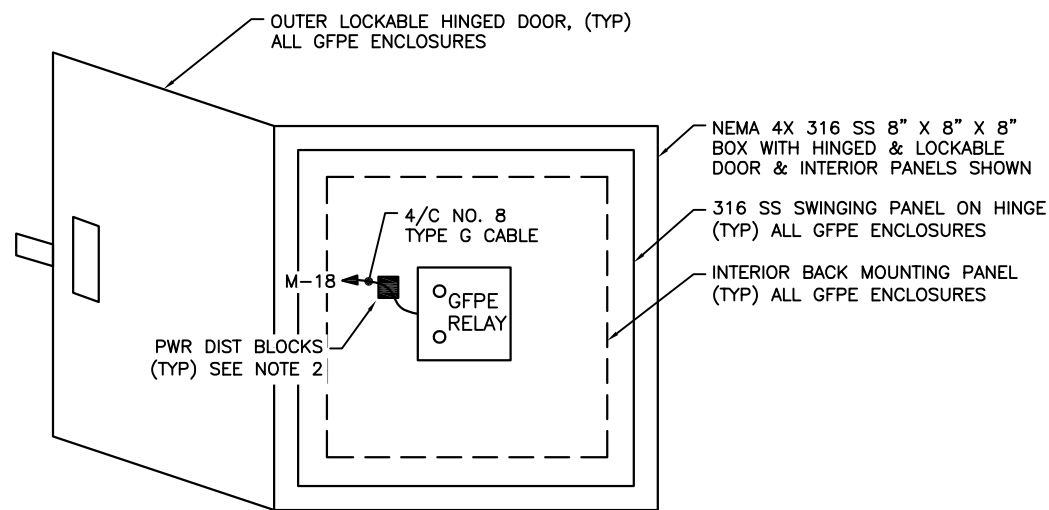
③ GFPE BOX AT PANEL M  
NO SCALE



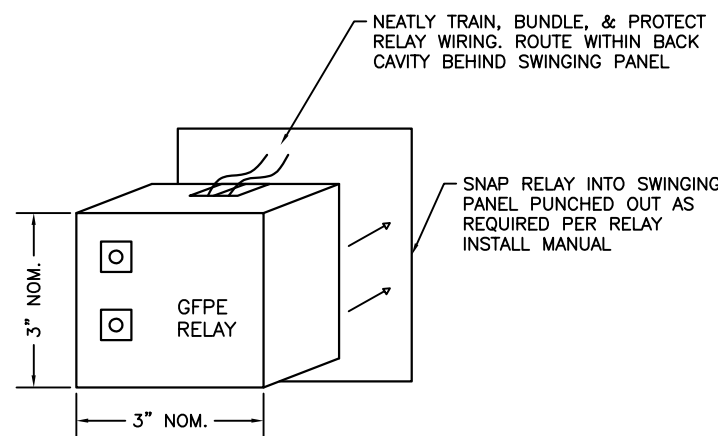
④ GFPE BOX AT PANEL H  
NO SCALE

NOTES (APPLICABLE TO DETAILS 2, 3, 4, 5):

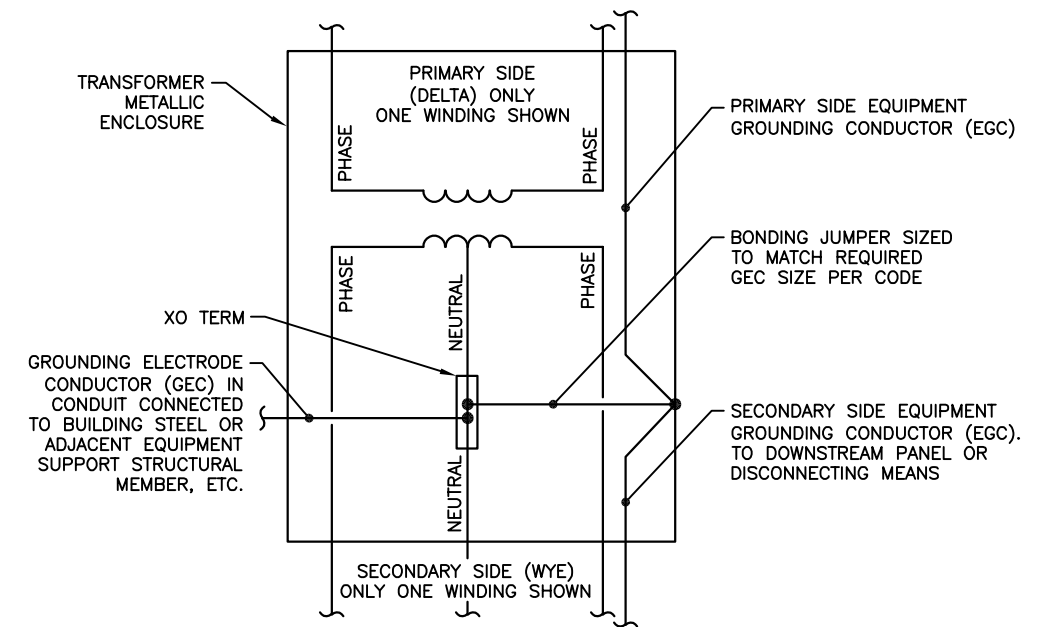
- PROVIDE GFPE RELAYS WITHIN ENCLOSURES. EACH ENCLOSURE TO INCLUDE LOCKABLE OUTER HINGED DOOR, INTERIOR HINGED DEADFRONT (FOR GFPE MOUNTING) AND BACK PANEL INSIDE.
- PROVIDE POWER DISTRIBUTION BLOCKS FOR FEEDING MULTIPLE RELAYS, THE 120V CONTROL POWER AND FOR TRANSITIONING FROM TYPE G TO XHHW-2 CONDUCTORS AS REQUIRED.
- ALL DIMENSIONS SHOWN ARE MINIMUM. CONTRACTOR TO PROVIDE LARGER ENCLOSURES IF NECESSARY.
- ARRANGEMENT OF RELAYS IS GRAPHICAL IN NATURE ONLY. MAINTAIN 2" SEPARATION ALL SIDES. COORDINATE LOCATION OF ALL ELEMENTS AS REQUIRED FOR FINAL FIT.
- ALL RELAY WIRING SHALL ENTER ENCLOSURES VIA INSULATED CONDUIT NIPPLES, NOT SHOWN IN THESE DETAILS.
- GROUND ENCLOSURE AND BACK PANEL TO CONDUIT AS REQUIRED.
- PROVIDE PHENOLIC LABELS ON THE FRONT OF EACH ENCLOSURE.



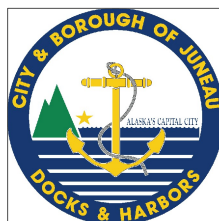
② GFPE BOX AT 800/3 CB  
IN UPLANDS  
NO SCALE



⑤ RELAY DETAIL  
(TYP-ALL GFPE RELAY PANELS)  
NO SCALE



⑥ STEP-DOWN TRANSFORMER GROUNDING DETAIL  
NO SCALE



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TRENCH AND GFPE BOX DETAILS			
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