

HOMER SMALL BOAT HARBOR FLOAT IMPROVEMENTS

NOVEMBER, 2013
HOMER, ALASKA

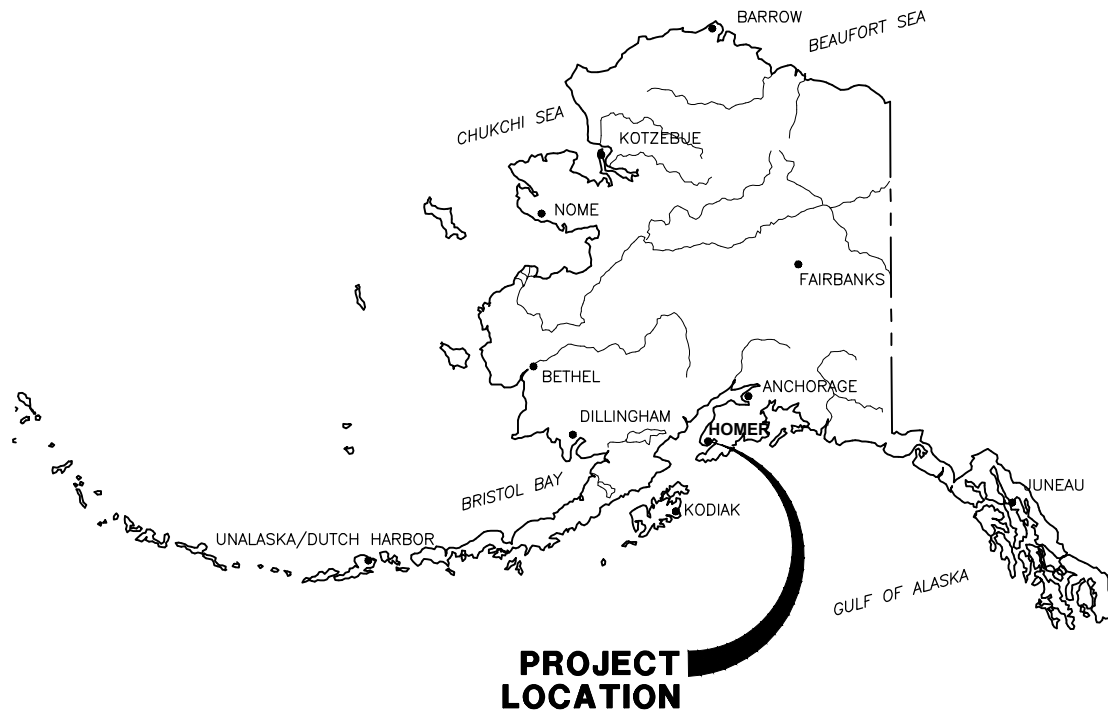
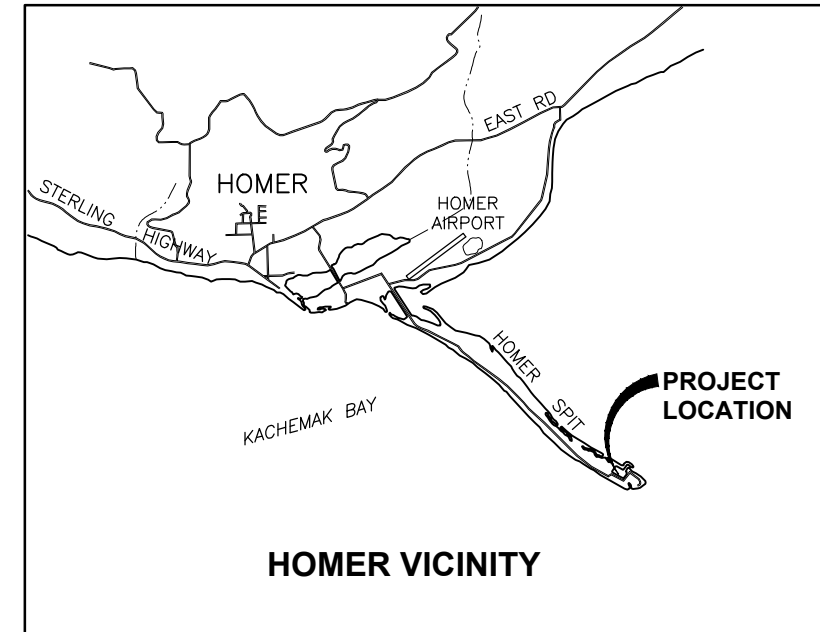


BETH WYTHE
MAYOR - CITY OF HOMER

WALT WREDE
CITY MANAGER - CITY OF HOMER

CAREY S. MEYER, P.E.
PUBLIC WORKS DIRECTOR - CITY OF HOMER

BRYAN HAWKINS
PORT DIRECTOR/HARBOR MASTER - CITY OF HOMER



STATE OF ALASKA

SHEET INDEX

TITLE SHEET AND INDEX	1	3-FT WIDE FINGER FLOATS	27	BORE HOLE LOGS	53
EXISTING CONDITIONS AND DEMOLITION PLAN	2	4-FT WIDE FINGER FLOATS	28	ELECTRICAL LEGEND & ONE-LINE DIAGRAM	E1
NEW SITE PLAN	3	5-FT WIDE FINGER FLOATS	29	ELECTRICAL DEMOLITION PLAN	E2
PILE SCHEDULE & DETAILS	4	6-FT WIDE FINGER FLOATS (1 OF 2)	30	ELECTRICAL REMODEL PLAN	E3
A & J FLOAT PLAN	5	6-FT WIDE FINGER FLOATS (2 OF 2)	31	ELECTRICAL DETAILS	E4
R & S FLOAT PLAN	6	PARTY FLOAT (1 OF 2)	32	ELECTRICAL ENLARGED PLANS AND PANEL SCHEDULES	E5
TYPICAL MAINWALK FLOAT DETAILS (1 OF 2)	7	PARTY FLOAT (2 OF 2)	33	ELECTRICAL SPECIFICATIONS	E6
TYPICAL MAINWALK FLOAT DETAILS (2 OF 2)	8	GANGWAY FLOAT	34		
HEADWALK A FLOATATION LAYOUT (1 OF 8)	9	FINGER CONNECTION DETAILS	35		
HEADWALK A FLOATATION LAYOUT (2 OF 8)	10	EXISTING MAINWALK TO NEW HEADWALK CONNECTION DETAILS	36		
HEADWALK A FLOATATION LAYOUT (3 OF 8)	11	NEW MAINWALK TO EXISTING HEADWALK CONNECTION DETAILS	37		
HEADWALK A FLOATATION LAYOUT (4 OF 8)	12	HEADWALK TRANSITION DETAILS	38		
HEADWALK A FLOATATION LAYOUT (5 OF 8)	13	GANGWAY STORAGE SHED	39		
HEADWALK A FLOATATION LAYOUT (6 OF 8)	14	PAVILION	40		
HEADWALK A FLOATATION LAYOUT (7 OF 8)	15	PARTY FLOAT STORAGE SHED	41		
HEADWALK A FLOATATION LAYOUT (8 OF 8)	16	MISCELLANEOUS DETAILS	42		
MAINWALK J FLOATATION LAYOUT (1 OF 4)	17	EXISTING WATER SERVICE PLAN / DEMOLITION	43		
MAINWALK J FLOATATION LAYOUT (2 OF 4)	18	FIRE & WATER SERVICE PLAN (1 OF 2)	44		
MAINWALK J FLOATATION LAYOUT (3 OF 4)	19	FIRE & WATER SERVICE PLAN (2 OF 2)	45		
MAINWALK J FLOATATION LAYOUT (4 OF 4)	20	SYSTEM 2 WATER SERVICE	46		
MAINWALK R FLOATATION LAYOUT (1 OF 3)	21	RAMP 2 & 4 WATER SERVICE	47		
MAINWALK R FLOATATION LAYOUT (2 OF 3)	22	WATER AND FIRE SERVICE DETAILS (1 OF 5)	48		
MAINWALK R FLOATATION LAYOUT (3 OF 3)	23	WATER AND FIRE SERVICE DETAILS (2 OF 5)	49		
MAINWALK S FLOATATION LAYOUT (1 OF 3)	24	WATER AND FIRE SERVICE DETAILS (3 OF 5)	50		
MAINWALK S FLOATATION LAYOUT (2 OF 3)	25	WATER AND FIRE SERVICE DETAILS (4 OF 5)	51		
MAINWALK S FLOATATION LAYOUT (3 OF 3)	26	WATER AND FIRE SERVICE DETAILS (5 OF 5)	52		

**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



PROJECT: **HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

TITLE: **TITLE SHEET AND INDEX**

DESIGNED BY: CDC/DCF	DATE: 11/21/13	SHEET NO: 1
CHECKED BY: DST	PROJECT NO: 121104	OF 53

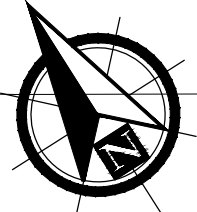
DEMOLITION SUMMARY

GENERAL

REMOVE EXISTING "J", "R", "S" FLOATS AND PORTIONS OF "A" FLOAT CONSISTING OF:

1. FLOAT PILES (APPROX 18 STEEL AND 29 TIMBER CREOSOTE).
2. CONCRETE FLOAT UNITS (APPROX 1350± LF) AND CONTINUOUS TIMBER FLOATS (APPROX 342± LF) AND ASSOCIATED FINGER FLOATS.
3. EXISTING WATER SERVICE FOR THE FLOATS. SEE WATER SERVICE PLANS FOR DETAILS.
4. SEE ELECTRICAL DRAWINGS FOR ELECTRICAL DEMOLITION REQUIREMENTS.

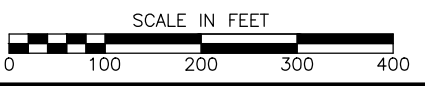
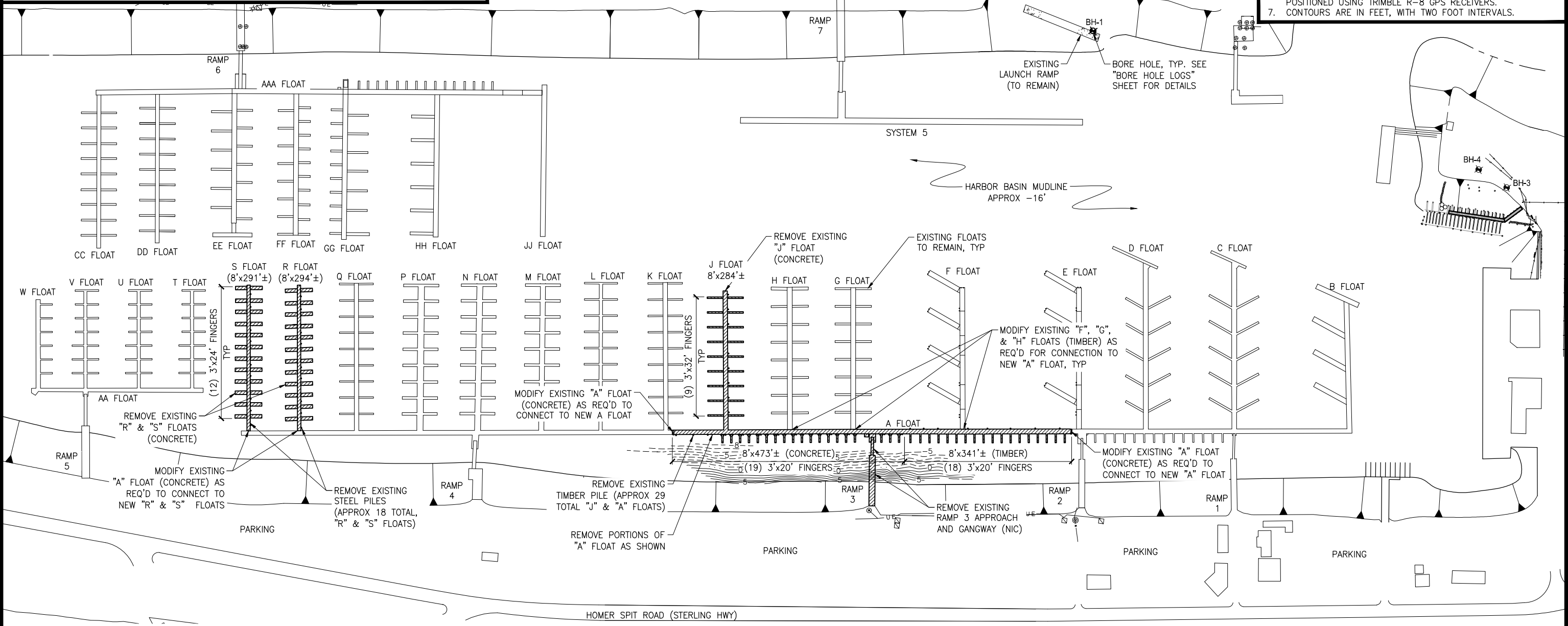
ALL MATERIALS SHALL BE DISPOSED OF BY THE CONTRACTOR ACCORDING TO ALL APPLICABLE LOCAL, STATE & FEDERAL REGULATIONS, UNLESS NOTED OTHERWISE.



NOTE:
SEE CONTRACT DOCUMENTS FOR STAGING AREA REQUIREMENTS

SURVEY NOTES

1. VERTICAL DATUM IS MEAN LOWER LOW WATER (MLLW).
2. SURVEY OF THE RAMP 3 SHORELINE AND EXISTING "A" FLOAT HEADWALK WAS PERFORMED JUNE 5-7, 2013. ALL OTHER FEATURES SHOWN ARE APPROXIMATE.
3. BASIS OF VERTICAL DATUM FOR 2013 SURVEY IS REFERENCED TO U.S.A.C.E. SURVEY CONTROL POINTS BOLL-1996, HB-9-2009 AND AUDREY AS SHOWN ON THE HOMER HARBOR PREDREDGE SURVEY DATED SEPTEMBER 7-8, 2011.
4. COORDINATES ARE NAD 83, ALASKA STATE PLANE ZONE 4 IN U.S. SURVEY FEET AS PER U.S.A.C.E. PREDREDGE SURVEY (SEE NOTE 2).
5. PROPERTY BOUNDARY SURVEY WAS NOT PERFORMED TO IDENTIFY R.O.W. OR PROPERTY BOUNDARIES.
6. BATHYMETRIC SOUNDINGS FOR THE 2013 SURVEY WERE OBTAINED UTILIZING AN ODOM HYDROTRAC SOUNDER AND POSITIONED USING TRIMBLE R-8 GPS RECEIVERS.
7. CONTOURS ARE IN FEET, WITH TWO FOOT INTERVALS.



EXISTING CONDITIONS & DEMOLITION PLAN

2013 SURVEY CONTROL

COORDINATE TABLE NAD 83 ASPZ 4				
PT #	NORTHING	EASTING	ELEVATION	DESCRIPTOR
10	2050682.880	1375195.750	35.48	COE MON "BOLL 1996"
20	2051199.610	1375120.240	32.01	COE MON "HB-9-2009"
30	2051507.880	1375406.600	33.31	COE MON "AUDREY"

ISSUED FOR BID
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

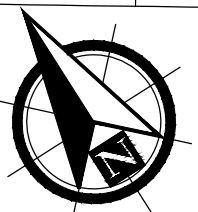
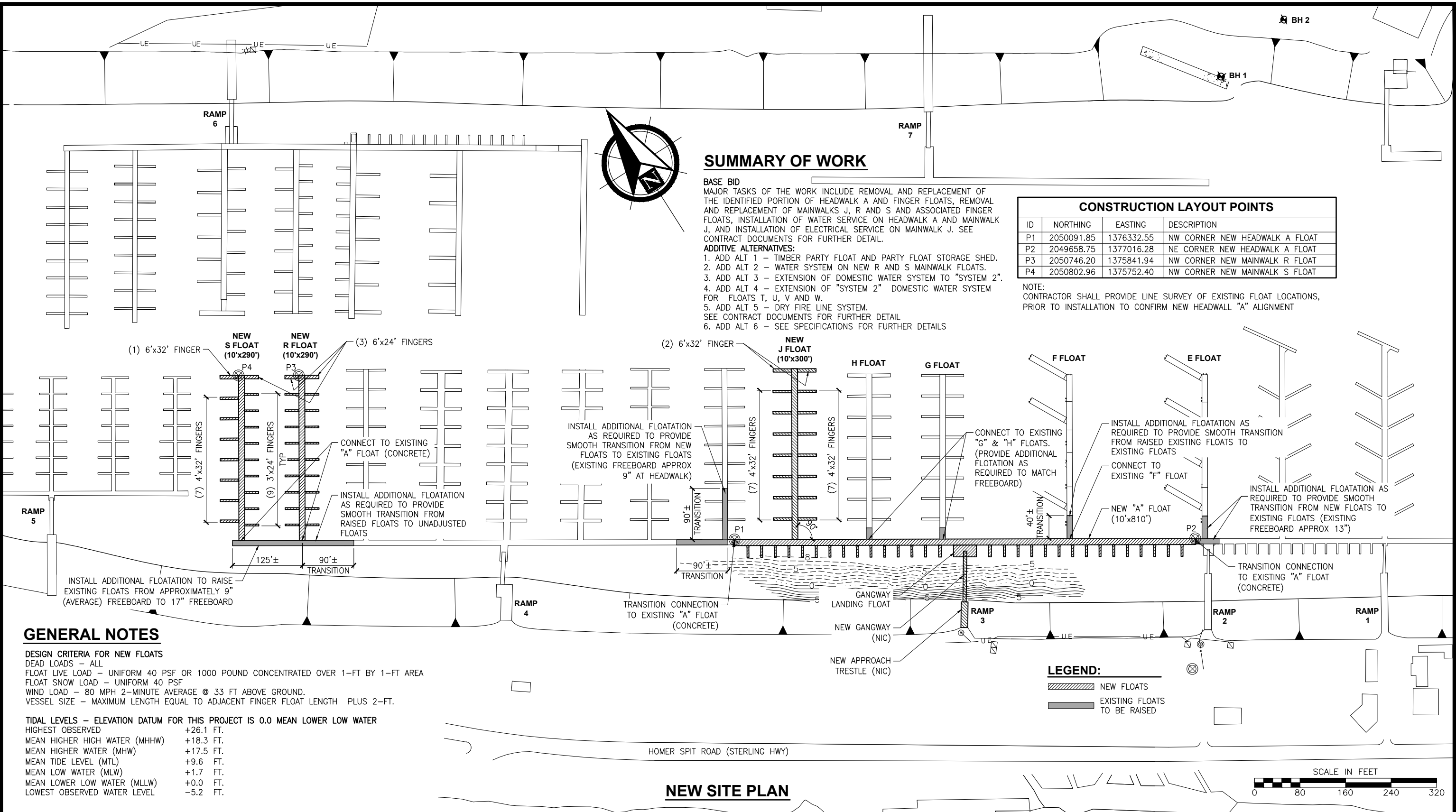


**HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

TITLE: **EXISTING CONDITIONS & DEMOLITION PLAN**

DESIGNED BY: CDC/DCF DATE: 11/21/13
CHECKED BY: DST PROJECT NO: 121104

SHEET NO: **2** OF **53**



SUMMARY OF WORK

BASE BID
 MAJOR TASKS OF THE WORK INCLUDE REMOVAL AND REPLACEMENT OF THE IDENTIFIED PORTION OF HEADWALK A AND FINGER FLOATS, REMOVAL AND REPLACEMENT OF MAINWALKS J, R AND S AND ASSOCIATED FINGER FLOATS, INSTALLATION OF WATER SERVICE ON HEADWALK A AND MAINWALK J, AND INSTALLATION OF ELECTRICAL SERVICE ON MAINWALK J. SEE CONTRACT DOCUMENTS FOR FURTHER DETAIL.

ADDITIVE ALTERNATIVES:
 1. ADD ALT 1 - TIMBER PARTY FLOAT AND PARTY FLOAT STORAGE SHED.
 2. ADD ALT 2 - WATER SYSTEM ON NEW R AND S MAINWALK FLOATS.
 3. ADD ALT 3 - EXTENSION OF DOMESTIC WATER SYSTEM TO "SYSTEM 2".
 4. ADD ALT 4 - EXTENSION OF "SYSTEM 2" DOMESTIC WATER SYSTEM FOR FLOATS T, U, V AND W.
 5. ADD ALT 5 - DRY FIRE LINE SYSTEM.
 SEE CONTRACT DOCUMENTS FOR FURTHER DETAIL.
 6. ADD ALT 6 - SEE SPECIFICATIONS FOR FURTHER DETAILS

CONSTRUCTION LAYOUT POINTS			
ID	NORTHING	EASTING	DESCRIPTION
P1	2050091.85	1376332.55	NW CORNER NEW HEADWALK A FLOAT
P2	2049658.75	1377016.28	NE CORNER NEW HEADWALK A FLOAT
P3	2050746.20	1375841.94	NW CORNER NEW MAINWALK R FLOAT
P4	2050802.96	1375752.40	NW CORNER NEW MAINWALK S FLOAT

NOTE:
 CONTRACTOR SHALL PROVIDE LINE SURVEY OF EXISTING FLOAT LOCATIONS, PRIOR TO INSTALLATION TO CONFIRM NEW HEADWALL "A" ALIGNMENT

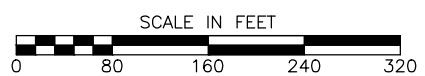
GENERAL NOTES

DESIGN CRITERIA FOR NEW FLOATS
 DEAD LOADS - ALL
 FLOAT LIVE LOAD - UNIFORM 40 PSF OR 1000 POUND CONCENTRATED OVER 1-FT BY 1-FT AREA
 FLOAT SNOW LOAD - UNIFORM 40 PSF
 WIND LOAD - 80 MPH 2-MINUTE AVERAGE @ 33 FT ABOVE GROUND.
 VESSEL SIZE - MAXIMUM LENGTH EQUAL TO ADJACENT FINGER FLOAT LENGTH PLUS 2-FT.

TIDAL LEVELS - ELEVATION DATUM FOR THIS PROJECT IS 0.0 MEAN LOWER LOW WATER
 HIGHEST OBSERVED +26.1 FT.
 MEAN HIGHER HIGH WATER (MHHW) +18.3 FT.
 MEAN HIGHER WATER (MHW) +17.5 FT.
 MEAN TIDE LEVEL (MTL) +9.6 FT.
 MEAN LOW WATER (MLW) +1.7 FT.
 MEAN LOWER LOW WATER (MLLW) +0.0 FT.
 LOWEST OBSERVED WATER LEVEL -5.2 FT.

LEGEND:

- NEW FLOATS
- EXISTING FLOATS TO BE RAISED



ISSUED FOR BID
 11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
 Anchorage, Alaska 99503
 Phone: 907.561.1011
 Fax: 907.563.4220
 www.pndengineers.com

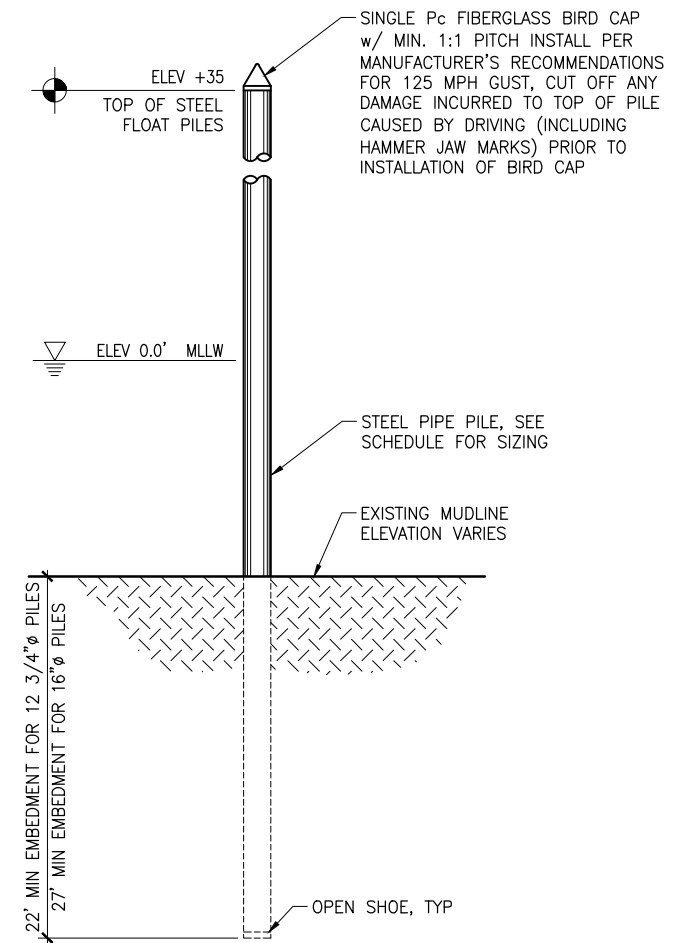


PROJECT: HOMER SMALL BOAT HARBOR FLOAT IMPROVEMENTS

TITLE: NEW SITE PLAN

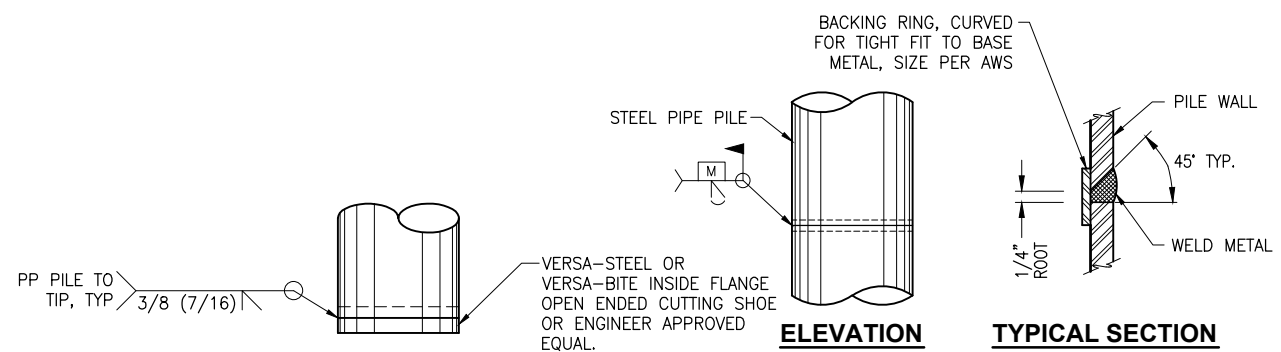
DESIGNED BY: CDC/DCF DATE: 11/21/13 SHEET NO: **3**
 CHECKED BY: DST PROJECT NO: 121104 OF **53**

PILE SCHEDULE					
PILE #	DIAMETER/ WALL THICKNESS	PILE SUPPLY LENGTH (FEET)	PILE #	DIAMETER/ WALL THICKNESS	PILE SUPPLY LENGTH (FEET)
A1	12 3/4" x 0.500"	80	JF13	12 3/4" x 0.500"	80
A2	12 3/4" x 0.500"	80	JF14	12 3/4" x 0.500"	80
A3	12 3/4" x 0.500"	80	JF15	12 3/4" x 0.500"	80
A4	12 3/4" x 0.500"	80	JF16	12 3/4" x 0.500"	80
A5	12 3/4" x 0.500"	80	R1	12 3/4" x 0.500"	80
A6	12 3/4" x 0.500"	80	R2	12 3/4" x 0.500"	80
A7	12 3/4" x 0.500"	80	R3	12 3/4" x 0.500"	80
A8	12 3/4" x 0.500"	80	R4	12 3/4" x 0.500"	80
A9	12 3/4" x 0.500"	80	R5	12 3/4" x 0.500"	80
A10	12 3/4" x 0.500"	80	R6	12 3/4" x 0.500"	80
A11	12 3/4" x 0.500"	80	R7	12 3/4" x 0.500"	80
A12	12 3/4" x 0.500"	80	R8	12 3/4" x 0.500"	80
A13	12 3/4" x 0.500"	80	R9	12 3/4" x 0.500"	80
A14	12 3/4" x 0.500"	80	R10	12 3/4" x 0.500"	80
A15	12 3/4" x 0.500"	80	RF1	16" x 0.500"	85
A16	12 3/4" x 0.500"	80	RF2	16" x 0.500"	85
J1	12 3/4" x 0.500"	80	S1	12 3/4" x 0.500"	80
J2	12 3/4" x 0.500"	80	S2	12 3/4" x 0.500"	80
J3	12 3/4" x 0.500"	80	S3	12 3/4" x 0.500"	80
J4	12 3/4" x 0.500"	80	S4	12 3/4" x 0.500"	80
J5	12 3/4" x 0.500"	80	S5	12 3/4" x 0.500"	80
JF1	12 3/4" x 0.500"	80	S6	12 3/4" x 0.500"	80
JF2	12 3/4" x 0.500"	80	S7	12 3/4" x 0.500"	80
JF3	12 3/4" x 0.500"	80	S8	12 3/4" x 0.500"	80
JF4	12 3/4" x 0.500"	80	SF1	12 3/4" x 0.500"	80
JF5	12 3/4" x 0.500"	80	SF2	12 3/4" x 0.500"	80
JF6	12 3/4" x 0.500"	80	SF3	12 3/4" x 0.500"	80
JF7	12 3/4" x 0.500"	80	SF4	12 3/4" x 0.500"	80
JF8	16" x 0.500"	85	SF5	12 3/4" x 0.500"	80
JF9	16" x 0.500"	85	SF6	12 3/4" x 0.500"	80
JF10	12 3/4" x 0.500"	80	SF7	12 3/4" x 0.500"	80
JF11	12 3/4" x 0.500"	80	SF8	16" x 0.500"	85
JF12	12 3/4" x 0.500"	80	SF9	16" x 0.500"	85



TYPICAL STEEL FLOAT PILE

NTS



OPEN SHOE DETAIL

NTS

TYPICAL PILE SPLICE WELD

TYPICAL FOR ALL SHOP & FIELD PIPE PILE SPLICES NTS

**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

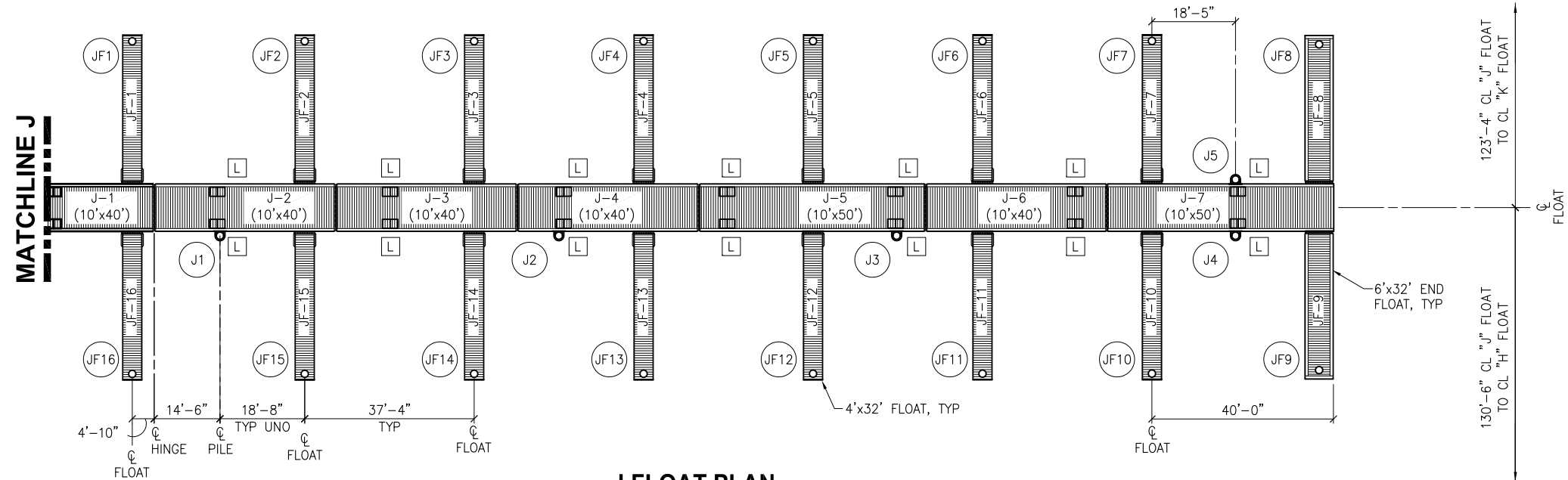
1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



**HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

PILE SCHEDULE & DETAILS

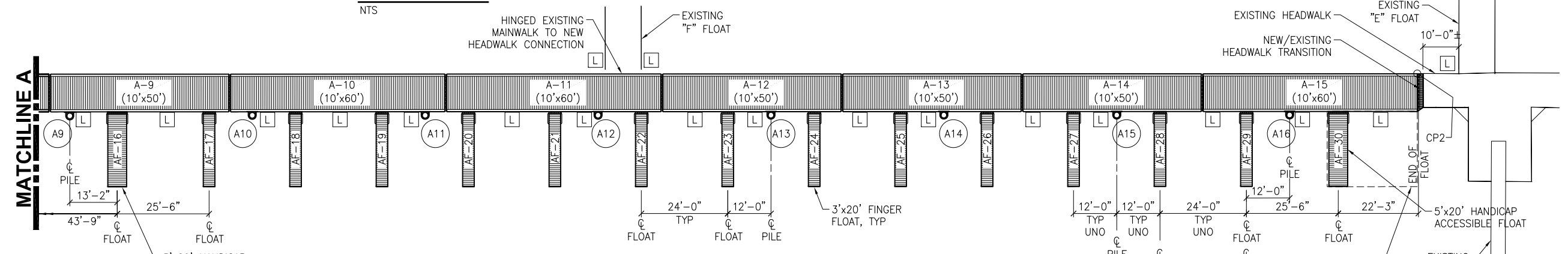
DESIGNED BY: CDC/DCF	DATE: 11/21/13	SHEET NO: 4
CHECKED BY: DST	PROJECT NO: 121104	OF 53



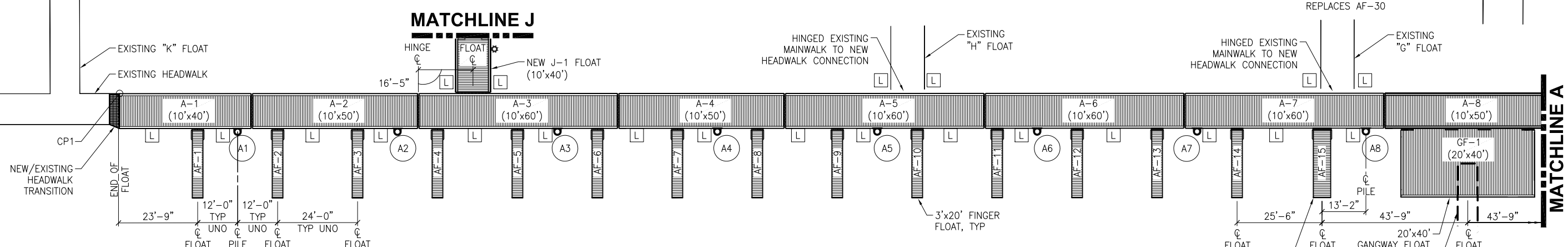
J FLOAT PLAN
NTS

LEGEND

- XX PILE DESIGNATION
- L LADDER LOCATION (57 TOTAL)
- ELECTRICAL PEDESTAL



A FLOAT PLAN
NTS



A FLOAT PLAN
NTS

ISSUED FOR BID
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

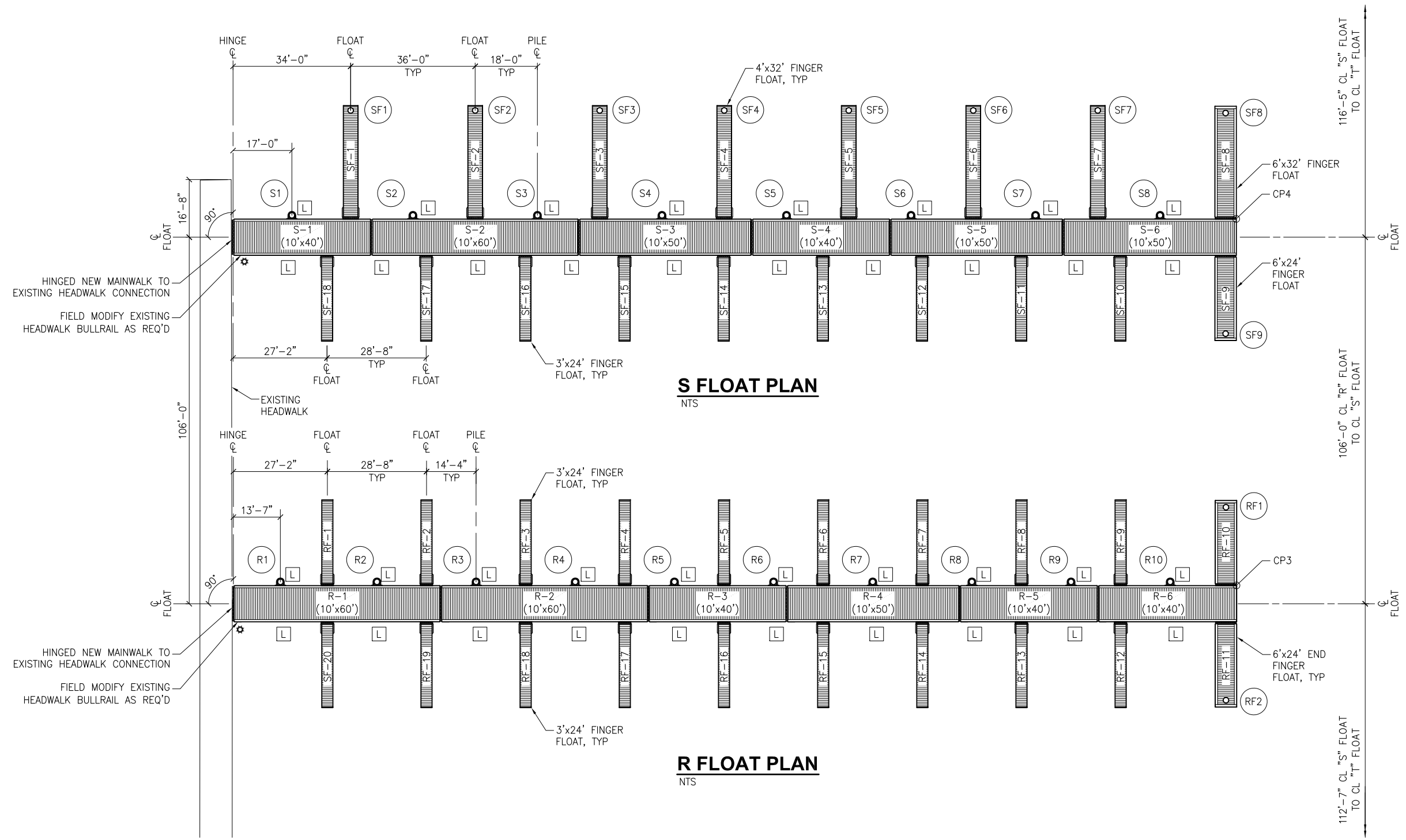
1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



PROJECT: **HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

TITLE: **A & J FLOAT PLAN**

DESIGNED BY: CDC/DCF	DATE: 11/21/13	SHEET NO: 5 OF 53
CHECKED BY: DST	PROJECT NO: 121104	



LEGEND

- XX PILE DESIGNATION
- L LADDER LOCATION (38 TOTAL)

ISSUED FOR BID
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

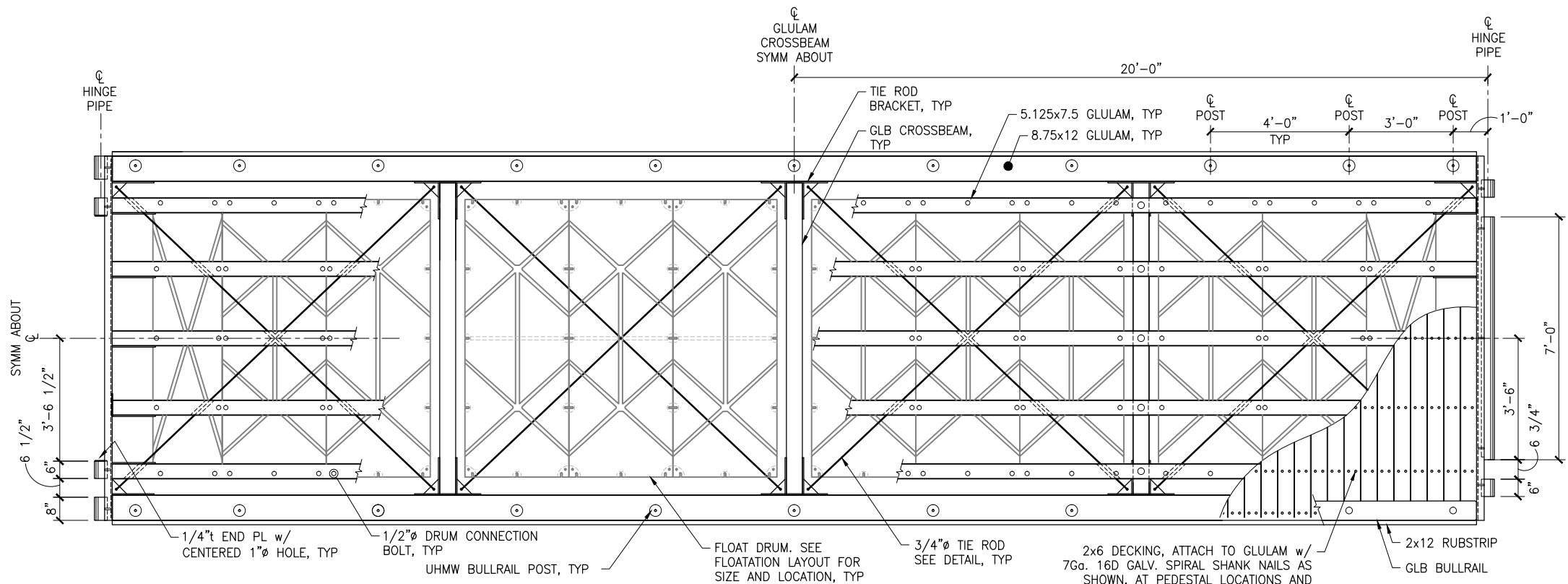
REV	DATE	DESCRIPTION

DATE: _____

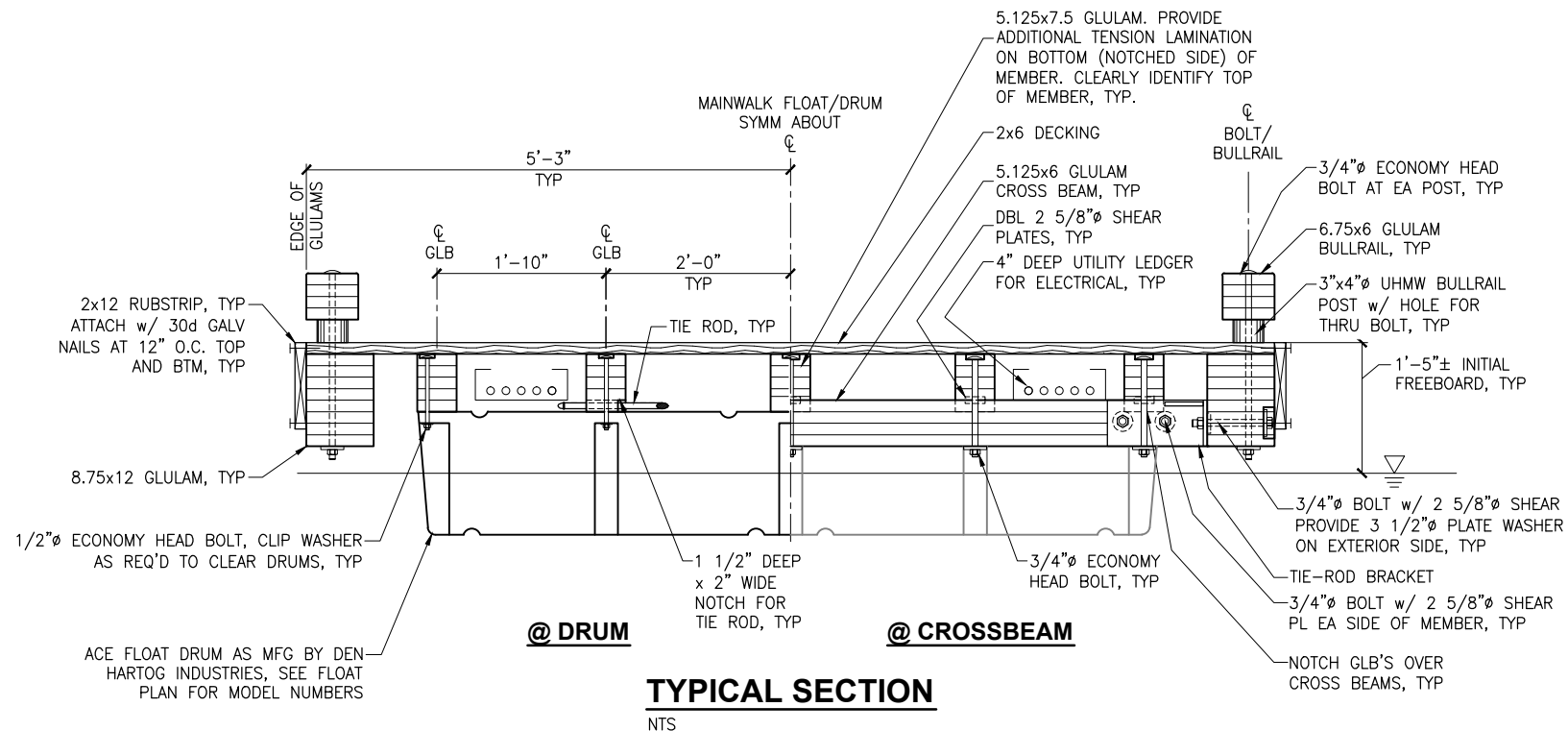
1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



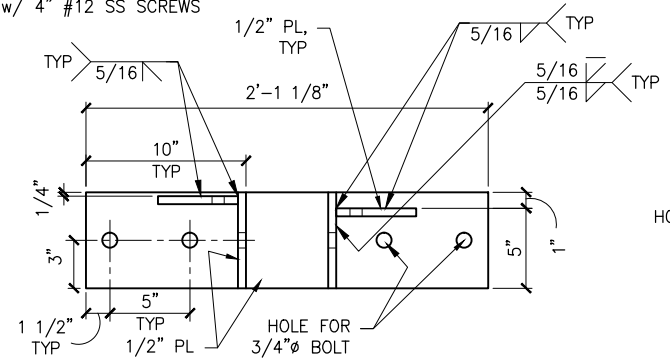
PROJECT: HOMER SMALL BOAT HARBOR FLOAT IMPROVEMENTS	
TITLE: R & S FLOAT PLAN	
DESIGNED BY: CDC/DCF	DATE: 11/21/13
CHECKED BY: DST	PROJECT NO: 121104
SHEET NO: 6 OF 53	



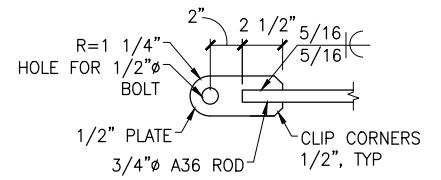
10'x40' FLOAT PLAN
NTS (82) DECK BOARDS EQ SPACED



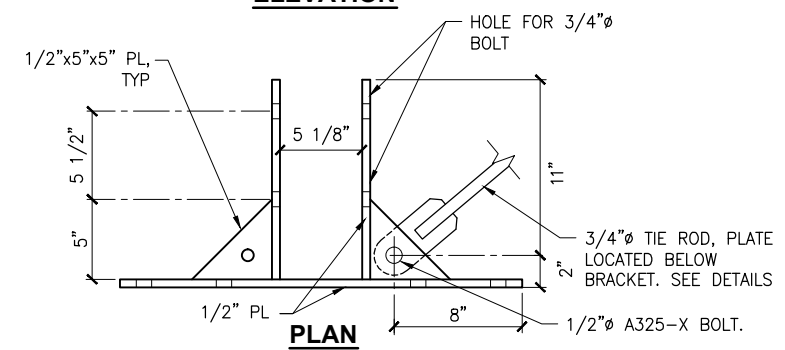
TYPICAL SECTION
NTS



ELEVATION



TIE ROD DETAIL
NTS



TIE ROD BRACKET
NTS

ISSUED FOR BID
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

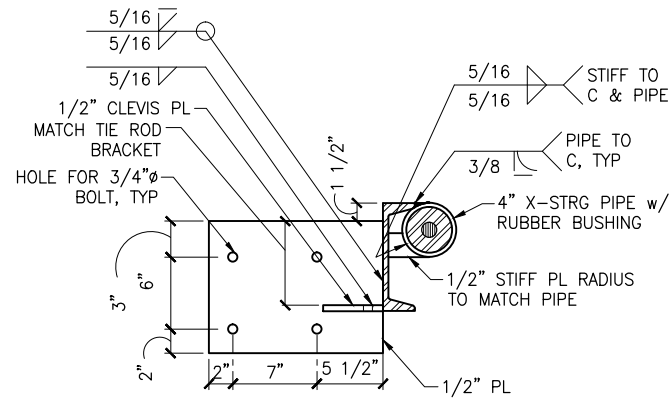


**HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

TITLE: **TYPICAL MAINWALK FLOAT DETAILS (1 OF 2)**

DESIGNED BY: CDC/DCF DATE: 11/21/13
CHECKED BY: DST PROJECT NO: 121104

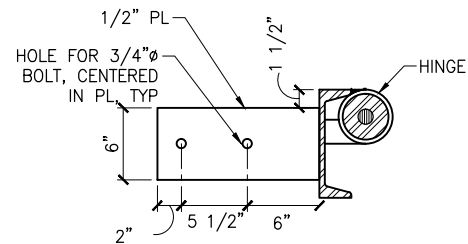
SHEET NO: **7** OF **53**



SECTION A

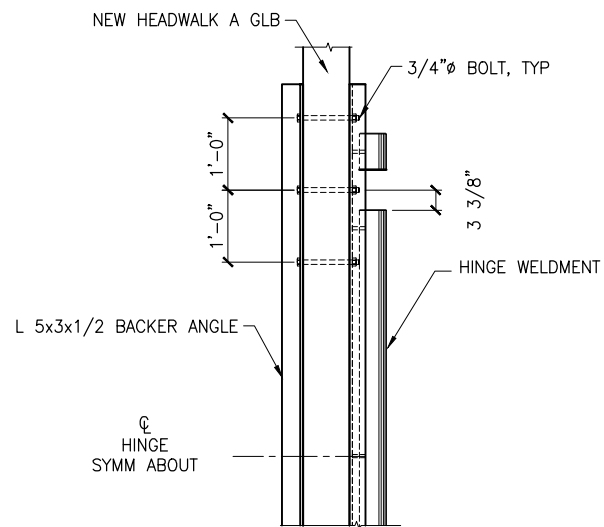
NTS

NOTE:
SEE FINGER CONNECTION
DETAILS SHEET FOR
ADDITIONAL DETAILS



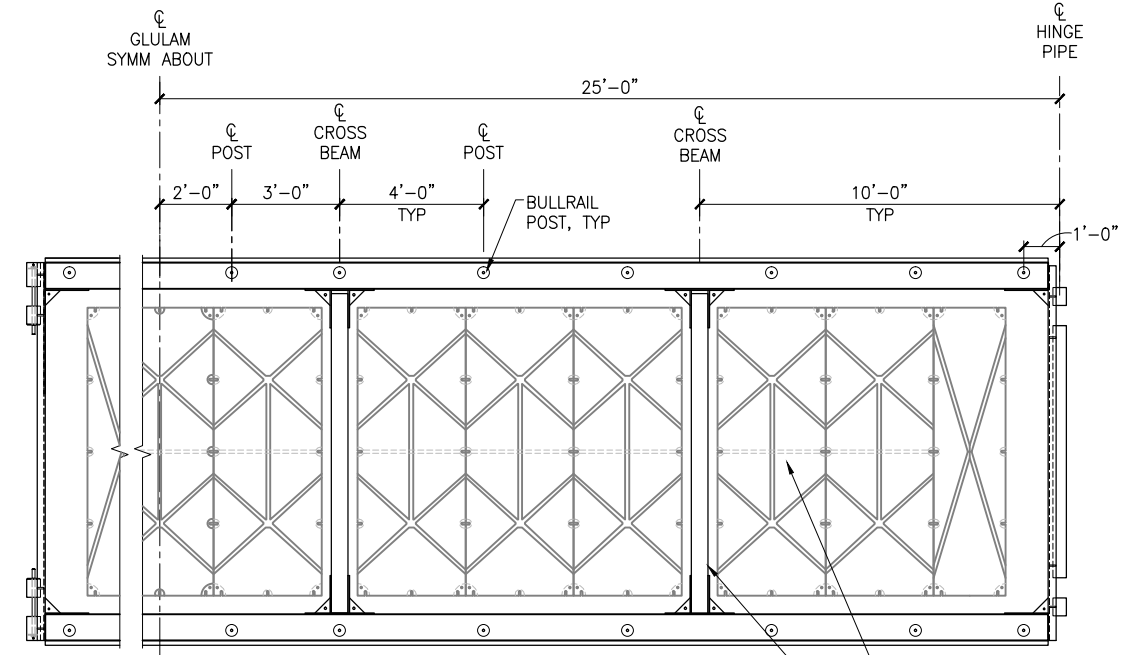
SECTION B

NTS



**NEW MAINWALK TO NEW
HEADWALK HINGE CONNECTION**

NTS

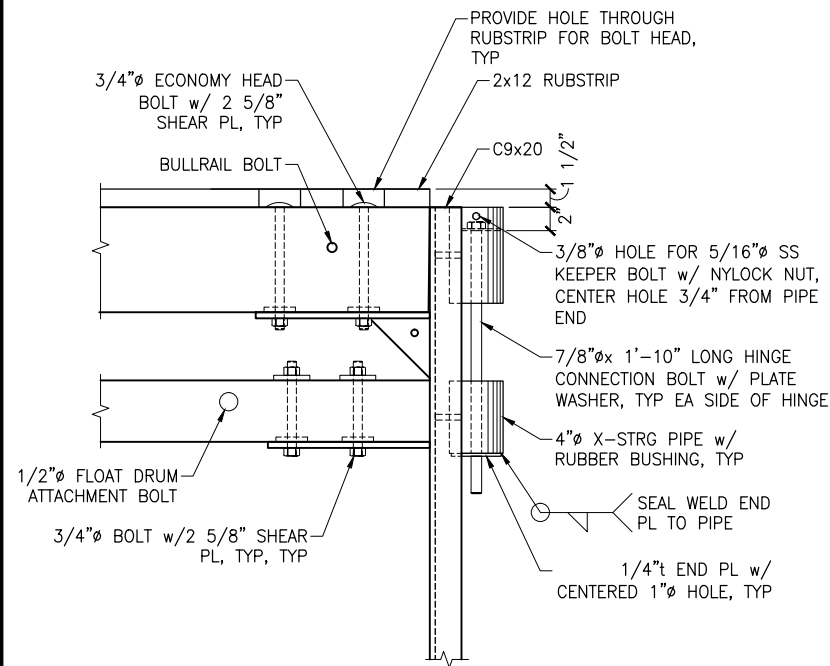


NOTE:
INTERIOR GLULAMS, TIE RODS AND
CONNECTIONS NOT SHOWN FOR
CLARITY. FLOAT DETAILS NOT SHOWN
SIMILAR TO 10'x40' FLOAT

10'x50' FLOAT PLAN

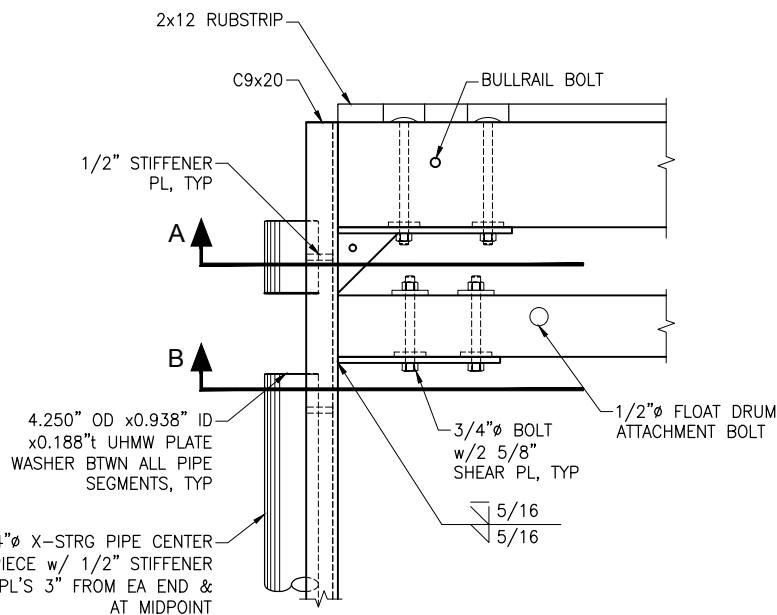
NTS
(103) DECK BOARDS EQ SPACED

FLOAT DRUM. SEE
FLOATION LAYOUT
FOR SIZE AND
LOCATION, TYP
CROSSBEAM, TYP



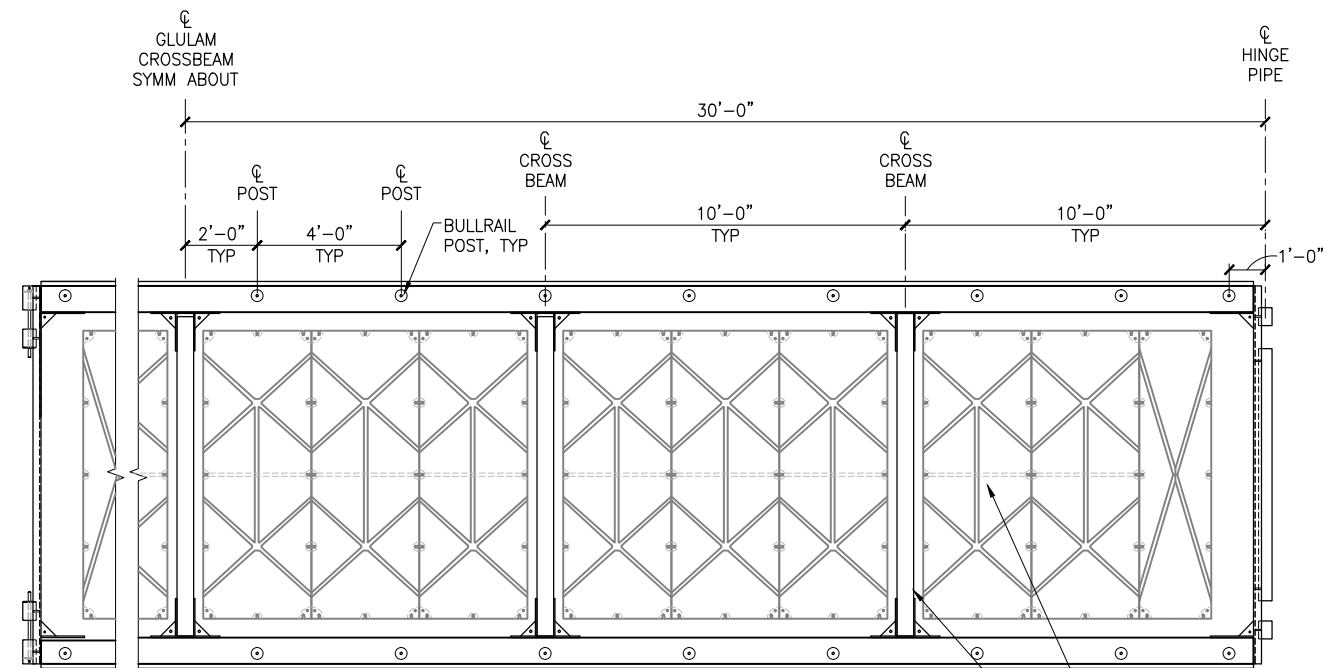
HINGE DETAIL

NTS



HINGE DETAIL

NTS



NOTE:
INTERIOR GLULAMS, TIE RODS AND
CONNECTIONS NOT SHOWN FOR
CLARITY. FLOAT DETAILS NOT SHOWN
SIMILAR TO 10'x40' FLOAT

10'x60' FLOAT PLAN

NTS
(124) DECK BOARDS EQ SPACED

FLOAT DRUM. SEE
FLOATION LAYOUT
FOR SIZE AND
LOCATION, TYP
CROSSBEAM, TYP

**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

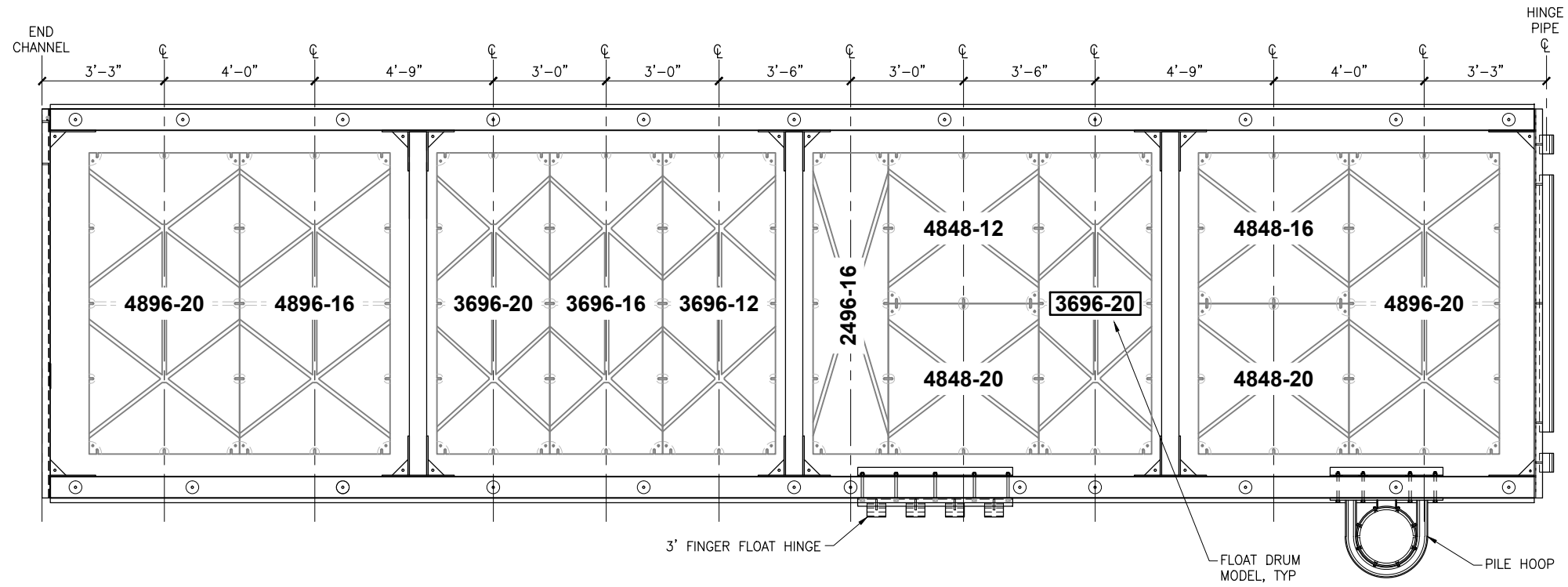


**HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

TITLE: **TYPICAL MAINWALK FLOAT DETAILS (2 OF 2)**

DESIGNED BY: CDC/DCF DATE: 11/21/13
CHECKED BY: DST PROJECT NO: 121104

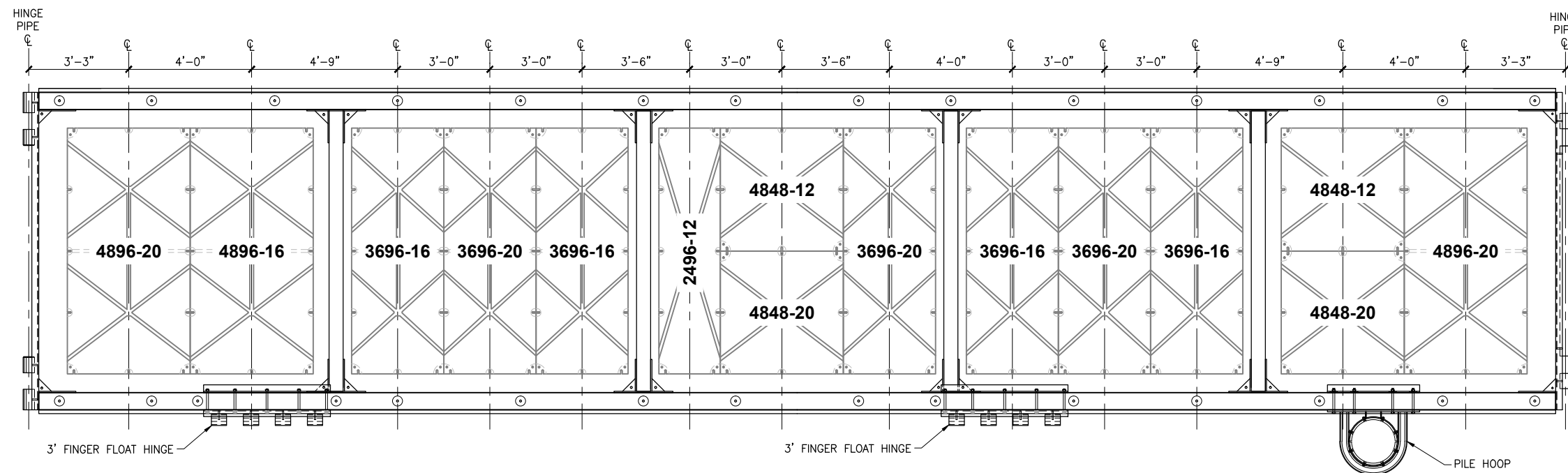
SHEET NO: **8** OF **53**



FLOAT A-1 - 40' FLOAT
NTS

XXXX-XX
WIDTH LENGTH DEPTH
FLOAT DRUM CALLOUT

NOTE:
DRAWING FOR FLOAT DRUM
LAYOUT AND CALLOUTS ONLY.
SEE FLOAT DRAWINGS FOR
DETAILS.



FLOAT A-2 - 50' FLOAT
NTS

**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

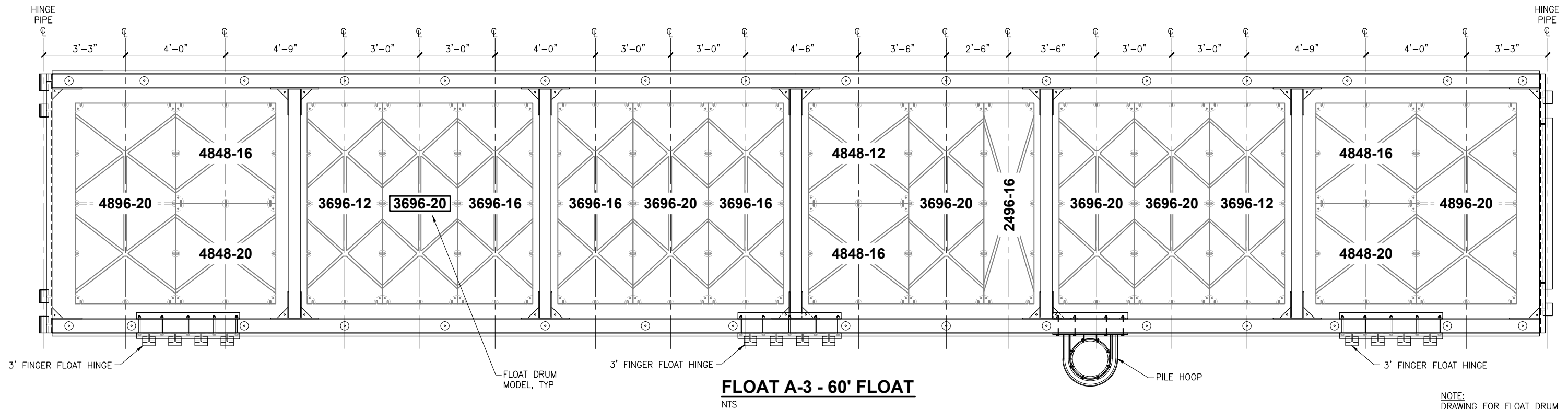


PROJECT: **HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

TITLE: **HEADWALK A FLOATATION LAYOUT (1 OF 8)**

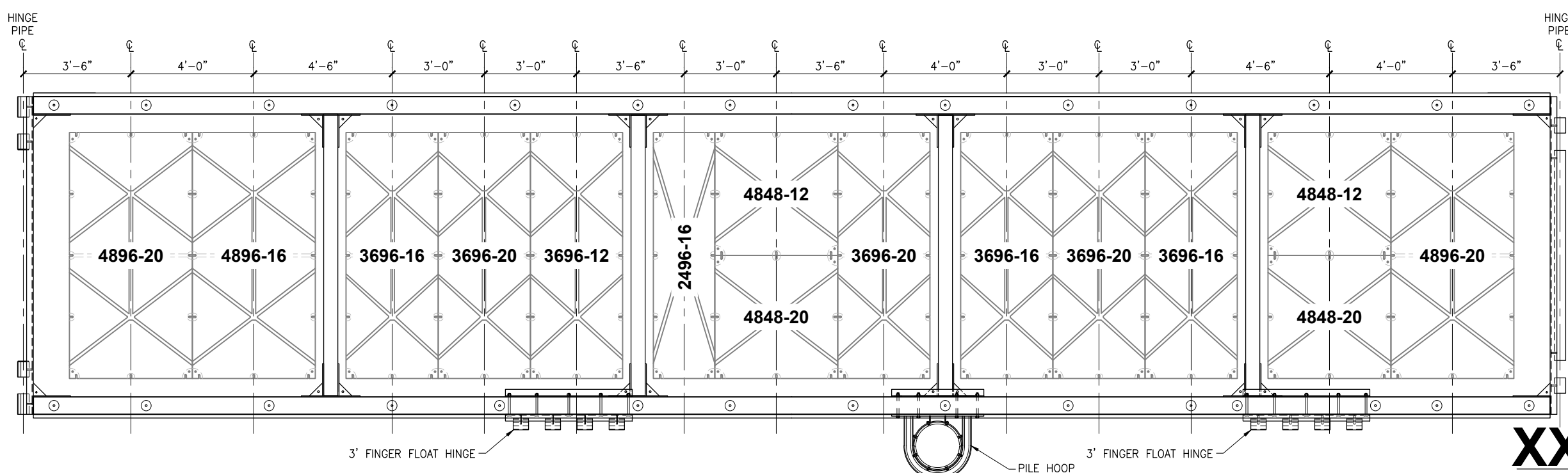
DESIGNED BY: CDC/DCF	DATE: 11/21/13	SHEET NO: 9
CHECKED BY: DST	PROJECT NO: 121104	

OF **53**



FLOAT A-3 - 60' FLOAT
NTS

NOTE:
DRAWING FOR FLOAT DRUM
LAYOUT AND CALLOUTS ONLY.
SEE FLOAT DRAWINGS FOR
DETAILS.



FLOAT A-4 - 50' FLOAT
NTS

XXXX-XX
WIDTH LENGTH DEPTH

FLOAT DRUM CALLOUT

**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

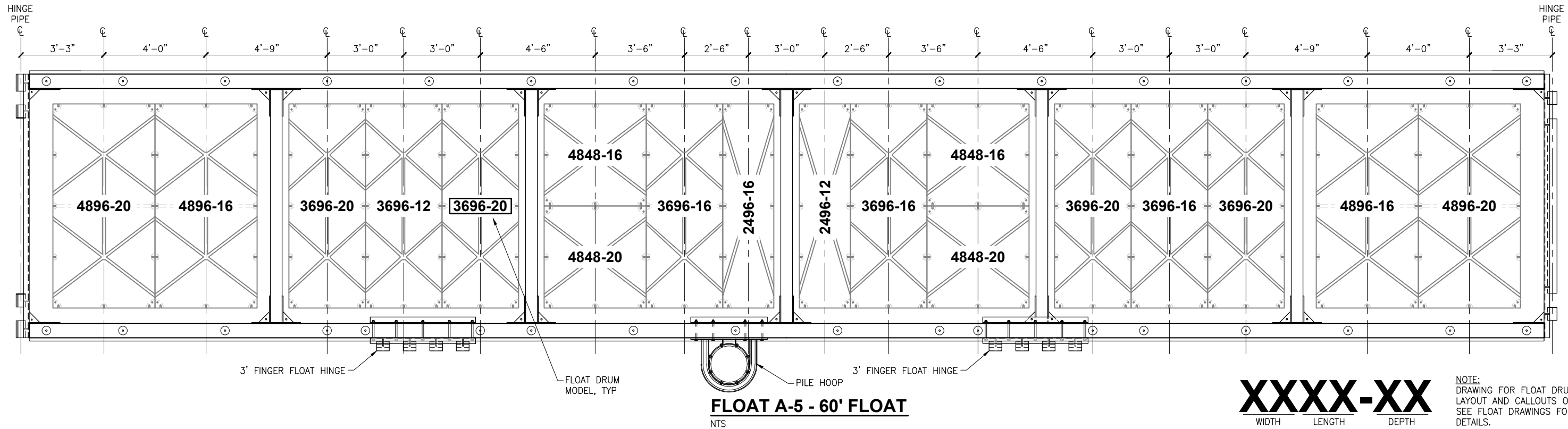
1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



PROJECT: **HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

TITLE: **HEADWALK A FLOATATION LAYOUT (2 OF 8)**

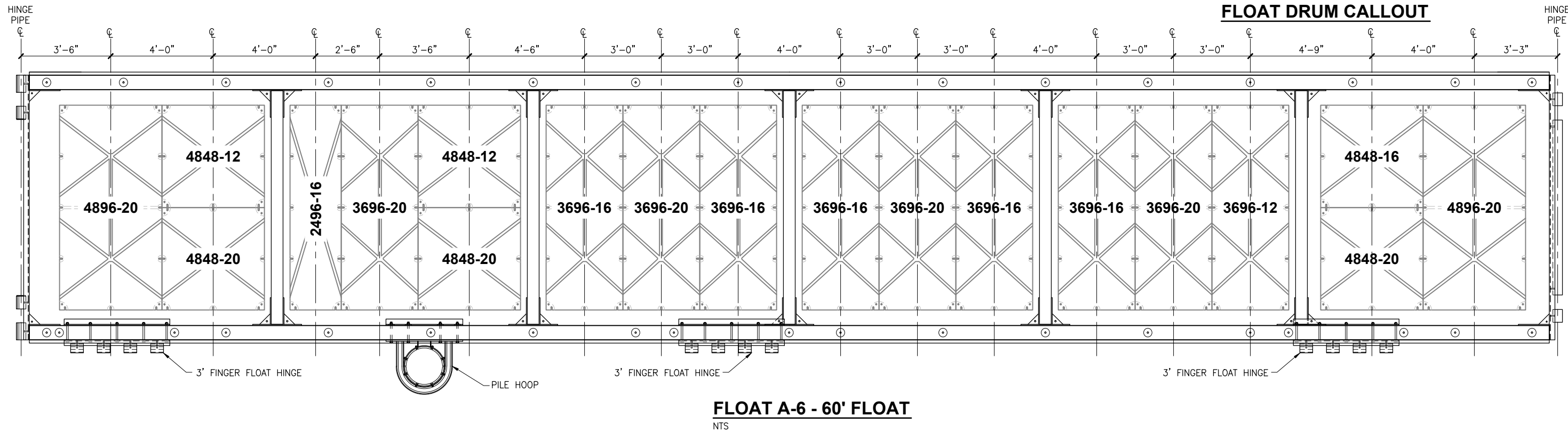
DESIGNED BY: CDC/DCF	DATE: 11/21/13	SHEET NO: 10 OF 53
CHECKED BY: DST	PROJECT NO: 121104	



XXXX-XX
WIDTH LENGTH DEPTH

NOTE:
DRAWING FOR FLOAT DRUM
LAYOUT AND CALLOUTS ONLY.
SEE FLOAT DRAWINGS FOR
DETAILS.

FLOAT DRUM CALLOUT



**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

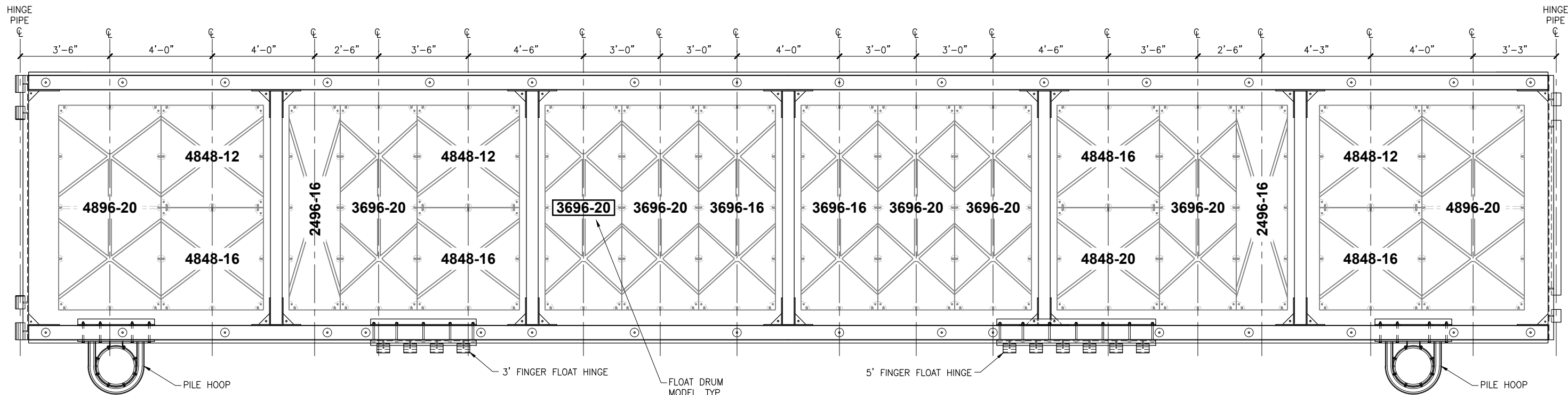
1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



PROJECT: **HOMER SMALL BOAT HARBOR FLOAT IMPROVEMENTS**

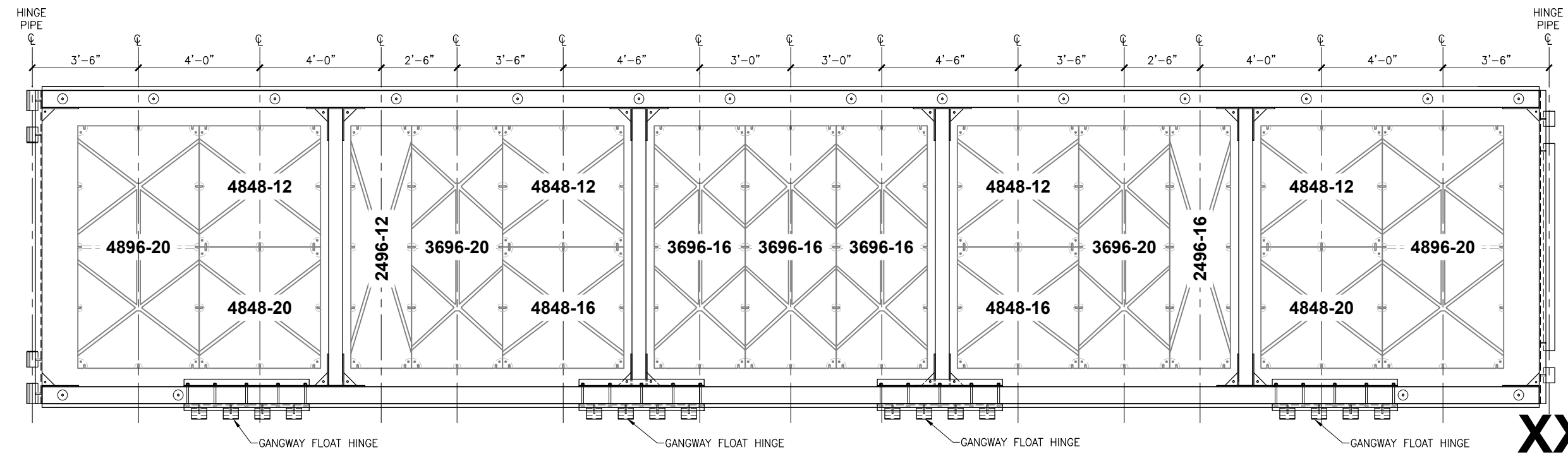
TITLE: **HEADWALK A FLOATATION LAYOUT (3 OF 8)**

DESIGNED BY: CDC/DCF	DATE: 11/21/13	SHEET NO: 11 OF 53
CHECKED BY: DST	PROJECT NO: 121104	



FLOAT A-7 - 60' FLOAT
NTS

NOTE:
DRAWING FOR FLOAT DRUM
LAYOUT AND CALLOUTS ONLY.
SEE FLOAT DRAWINGS FOR
DETAILS.



FLOAT A-8 - 50' FLOAT
NTS

XXXX-XX
WIDTH LENGTH DEPTH

FLOAT DRUM CALLOUT

**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

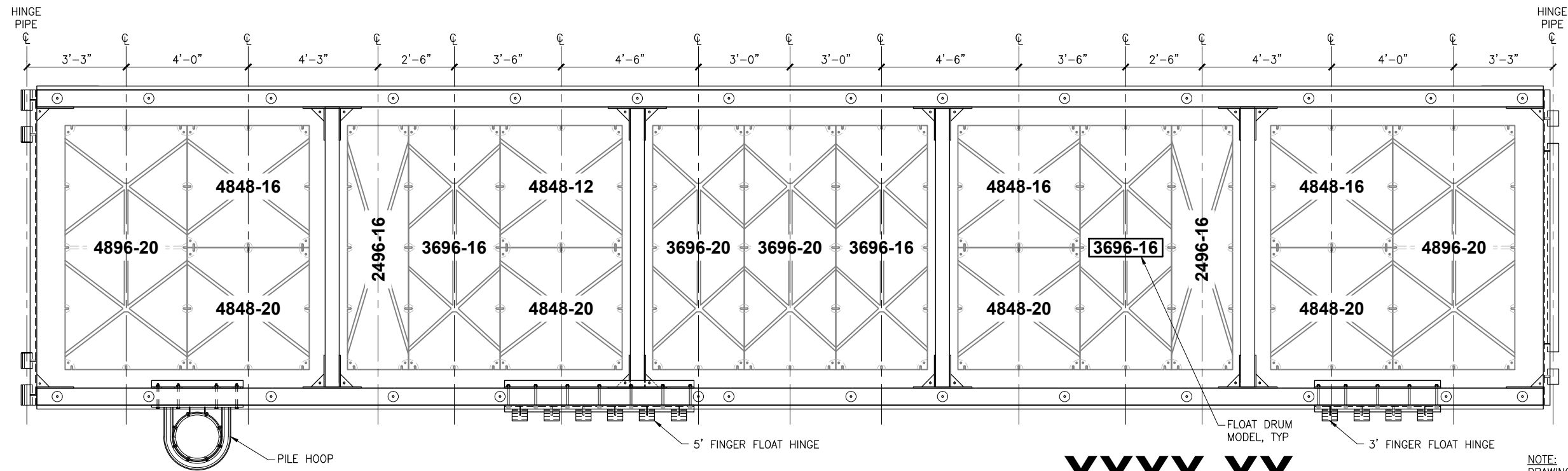
1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



PROJECT: **HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**
TITLE: **HEADWALK A FLOATATION LAYOUT (4 OF 8)**

DESIGNED BY: CDC/DCF DATE: 11/21/13
CHECKED BY: DST PROJECT NO: 121104

SHEET NO: **12** OF **53**

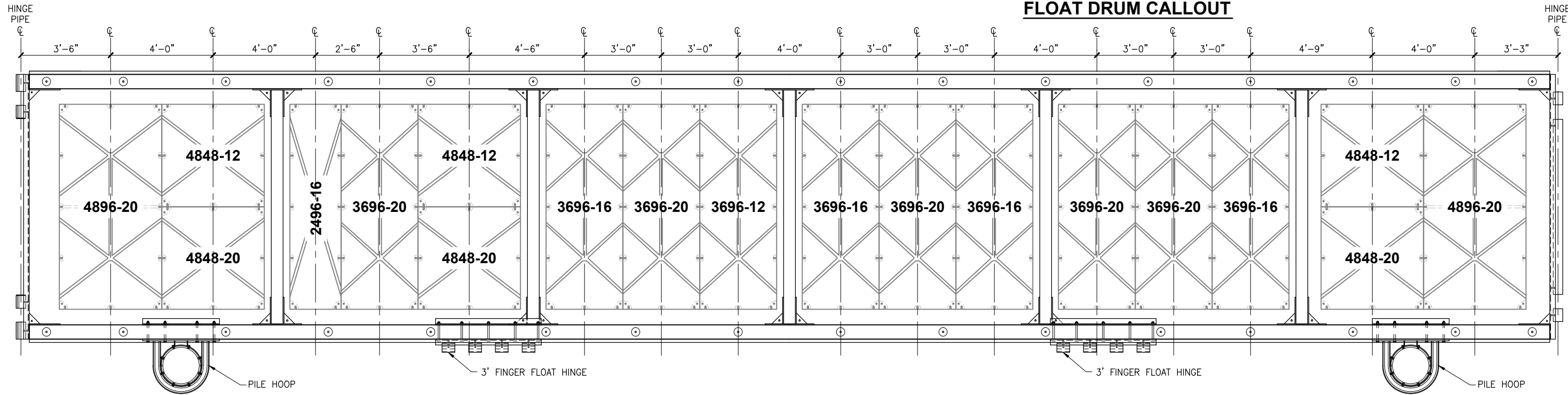


FLOAT A-9 - 50' FLOAT
NTS

XXXX-XX
WIDTH LENGTH DEPTH

NOTE:
DRAWING FOR FLOAT DRUM
LAYOUT AND CALLOUTS ONLY.
SEE FLOAT DRAWINGS FOR
DETAILS.

FLOAT DRUM CALLOUT



FLOAT A-10 - 60' FLOAT
NTS

**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

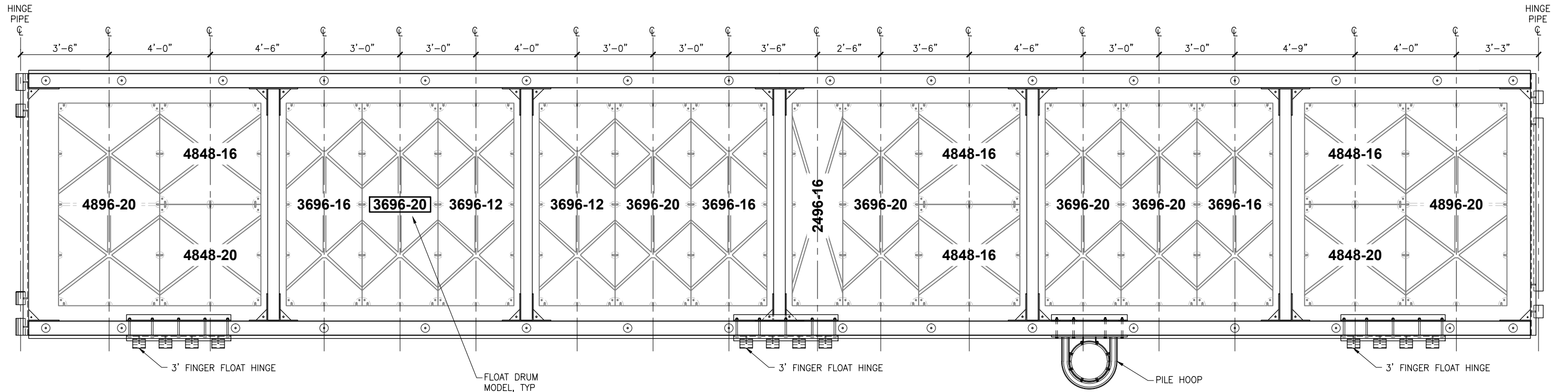
DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



PROJECT: **HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**
TITLE: **HEADWALK A FLOATATION LAYOUT (5 OF 8)**

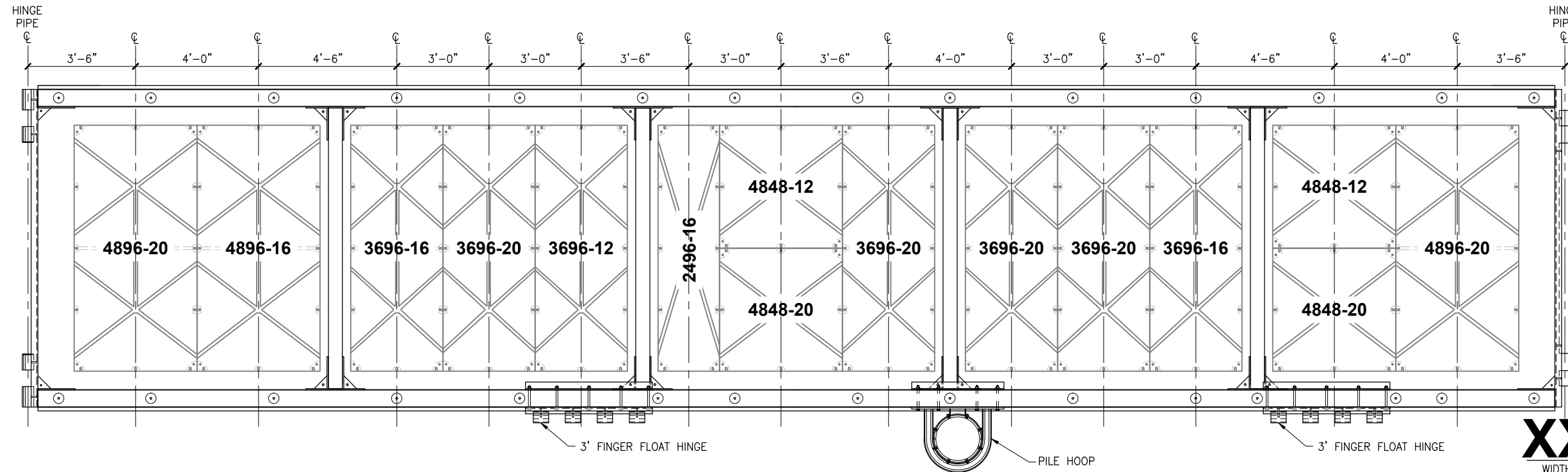
DESIGNED BY: CDC/DCF	DATE: 11/21/13	SHEET NO: 13 OF 53
CHECKED BY: DST	PROJECT NO: 121104	



FLOAT A-11 - 60' FLOAT

NTS

NOTE:
DRAWING FOR FLOAT DRUM
LAYOUT AND CALLOUTS ONLY.
SEE FLOAT DRAWINGS FOR
DETAILS.



FLOAT A-12 - 50' FLOAT

NTS

XXXX-XX
WIDTH LENGTH DEPTH

FLOAT DRUM CALLOUT

**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

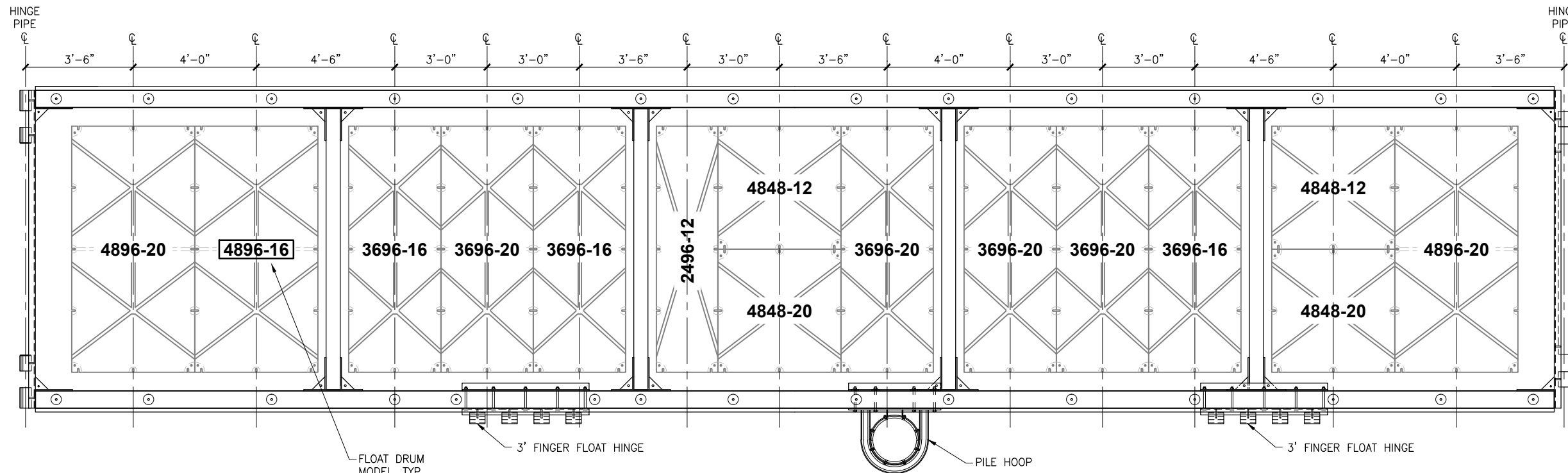
REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

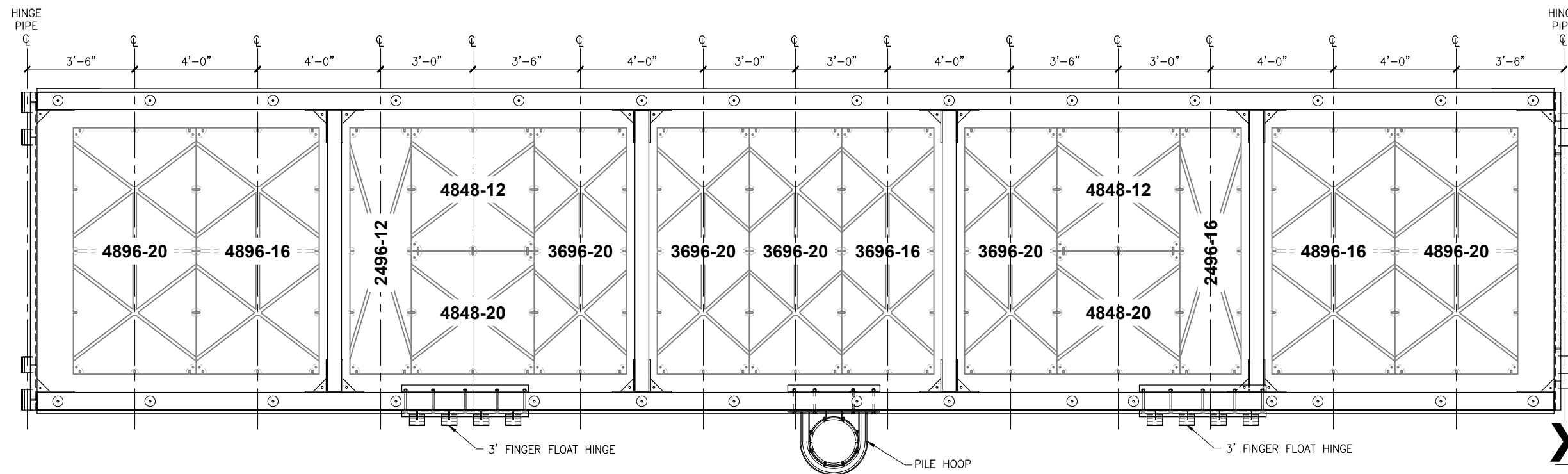
P | N | D
ENGINEERS, INC.

PROJECT: HOMER SMALL BOAT HARBOR FLOAT IMPROVEMENTS	
TITLE: HEADWALK A FLOATATION LAYOUT (6 OF 8)	
DESIGNED BY: CDC/DCF	DATE: 11/21/13
CHECKED BY: DST	PROJECT NO.: 121104
SHEET NO.: 14 OF 53	



FLOAT A-13 - 50' FLOAT
NTS

NOTE:
DRAWING FOR FLOAT DRUM
LAYOUT AND CALLOUTS ONLY.
SEE FLOAT DRAWINGS FOR
DETAILS.



FLOAT A-14 - 50' FLOAT
NTS

XXXX-XX
WIDTH LENGTH DEPTH

FLOAT DRUM CALLOUT

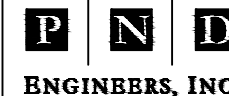
**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

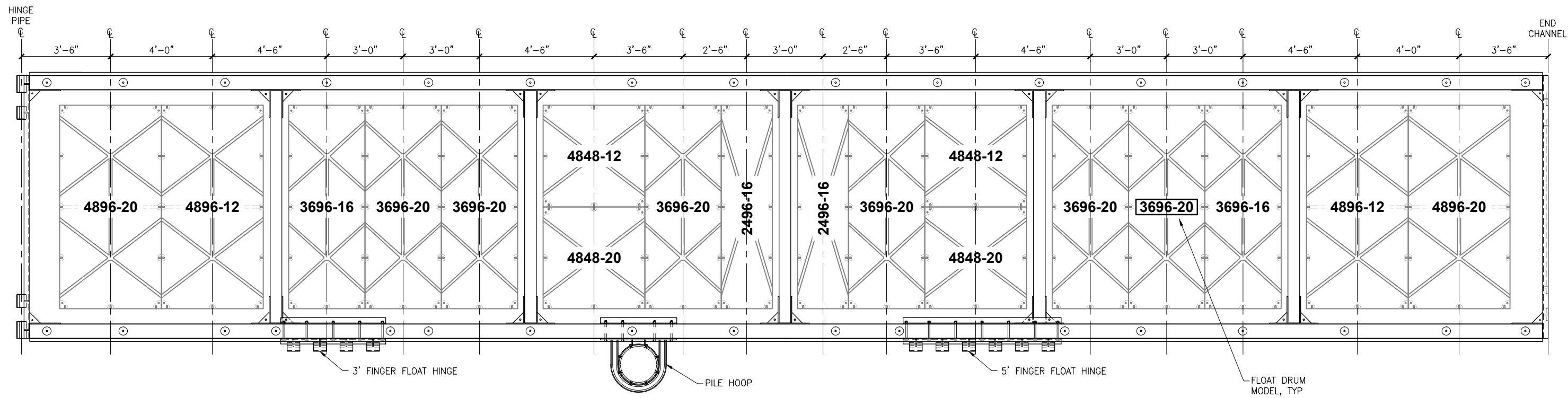
1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



PROJECT: **HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**
TITLE: **HEADWALK A FLOATATION LAYOUT (7 OF 8)**

DESIGNED BY: CDC/DCF DATE: 11/21/13
CHECKED BY: DST PROJECT NO: 121104

SHEET NO: **15** OF 53



FLOAT A-15 - 60' FLOAT
NTS

NOTE:
DRAWING FOR FLOAT DRUM
LAYOUT AND CALLOUTS ONLY.
SEE FLOAT DRAWINGS FOR
DETAILS.

XXXX-XX
WIDTH LENGTH DEPTH

FLOAT DRUM CALLOUT

**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

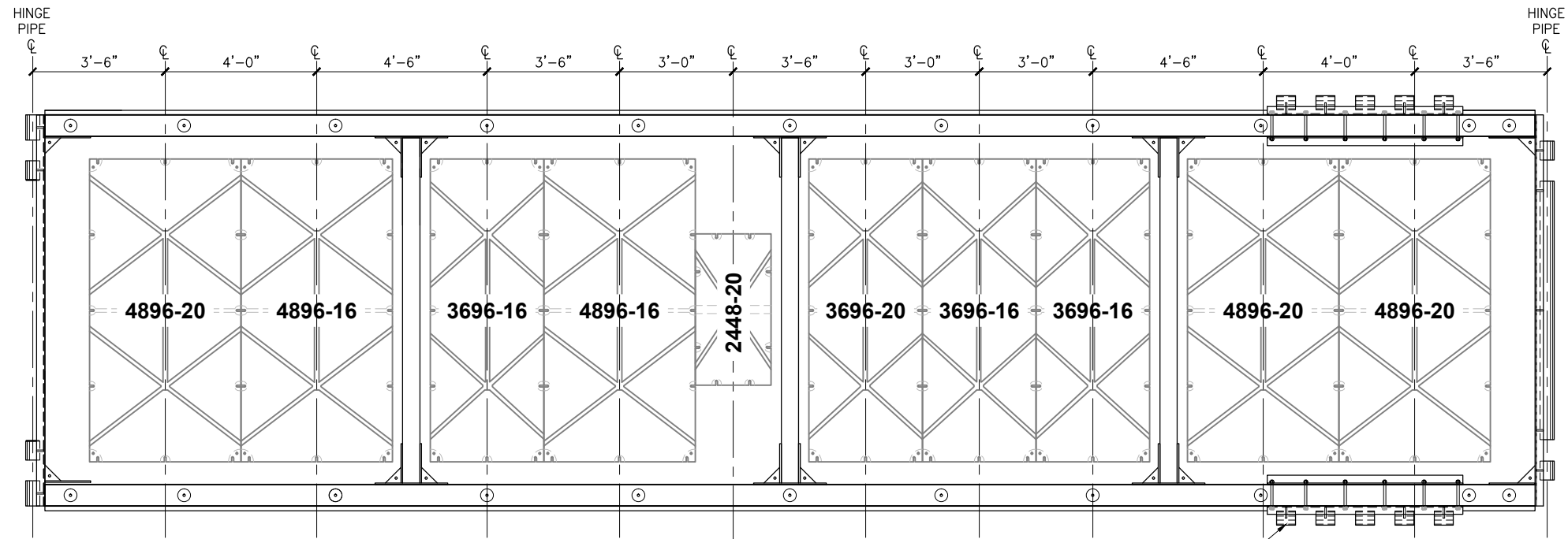
1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



PROJECT: **HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

TITLE: **HEADWALK A FLOATATION LAYOUT (8 OF 8)**

DESIGNED BY: CDC/DCF	DATE: 11/21/13	SHEET NO: 16
CHECKED BY: DST	PROJECT NO: 121104	OF 53



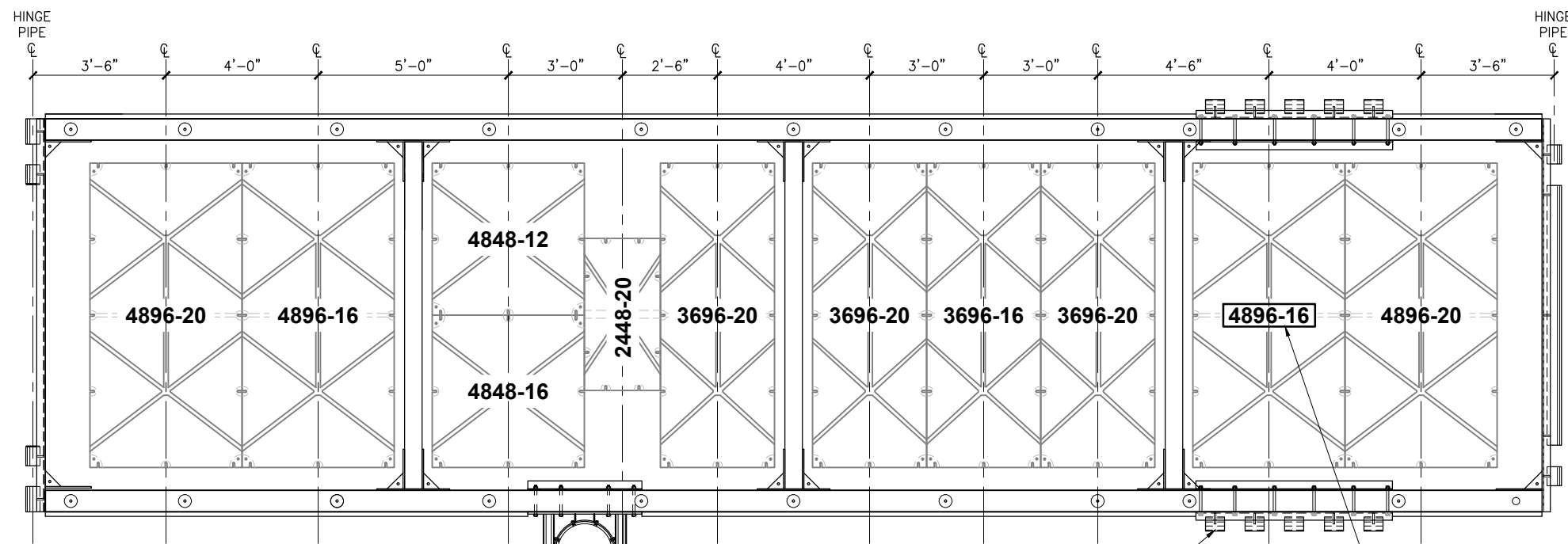
FLOAT J-1 - 40' FLOAT
NTS

4' FINGER FLOAT HINGE,
TYP

XXXX-XX
WIDTH LENGTH DEPTH

FLOAT DRUM CALLOUT

NOTE:
DRAWING FOR FLOAT DRUM
LAYOUT AND CALLOUTS ONLY.
SEE FLOAT DRAWINGS FOR
DETAILS.



FLOAT J-2 - 40' FLOAT
NTS

PILE HOOP

4' FINGER FLOAT HINGE,
TYP

FLOAT DRUM MODEL,
TYP

**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

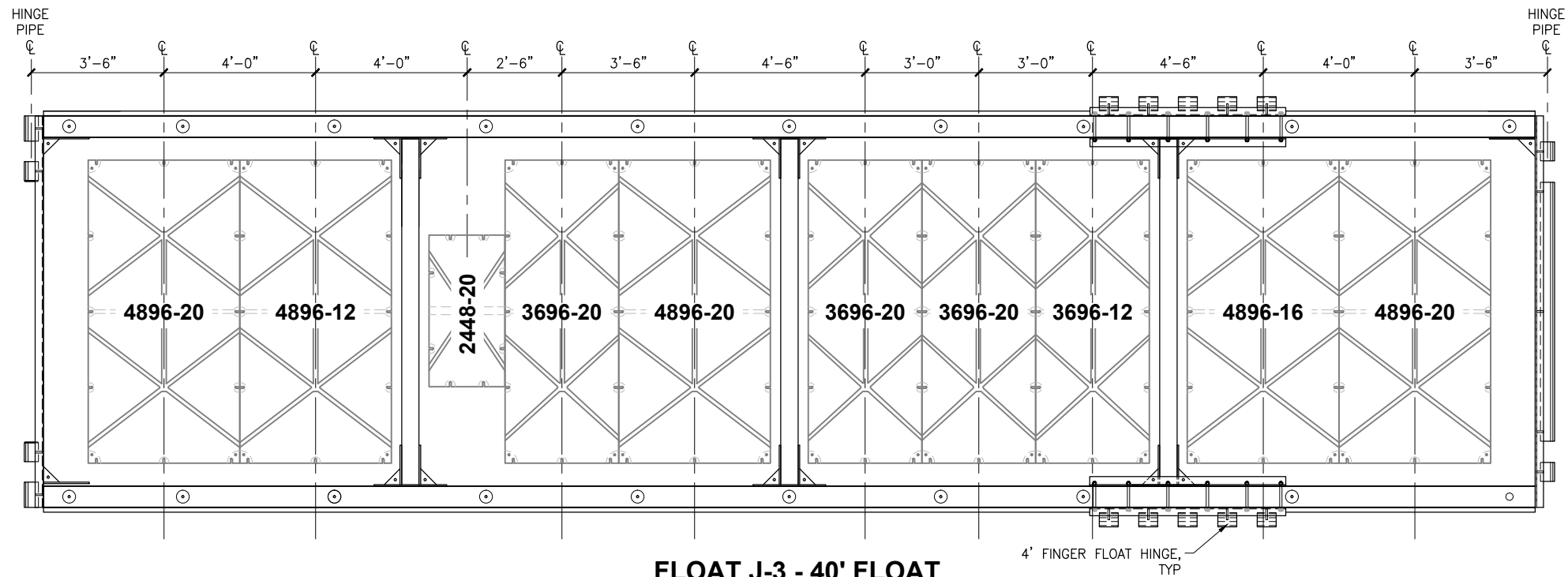
1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



PROJECT: **HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**
TITLE: **MAINWALK J FLOATATION LAYOUT (1 OF 4)**

DESIGNED BY: CDC/DCF DATE: 11/21/13
CHECKED BY: DST PROJECT NO: 121104

SHEET NO: **17** OF **53**

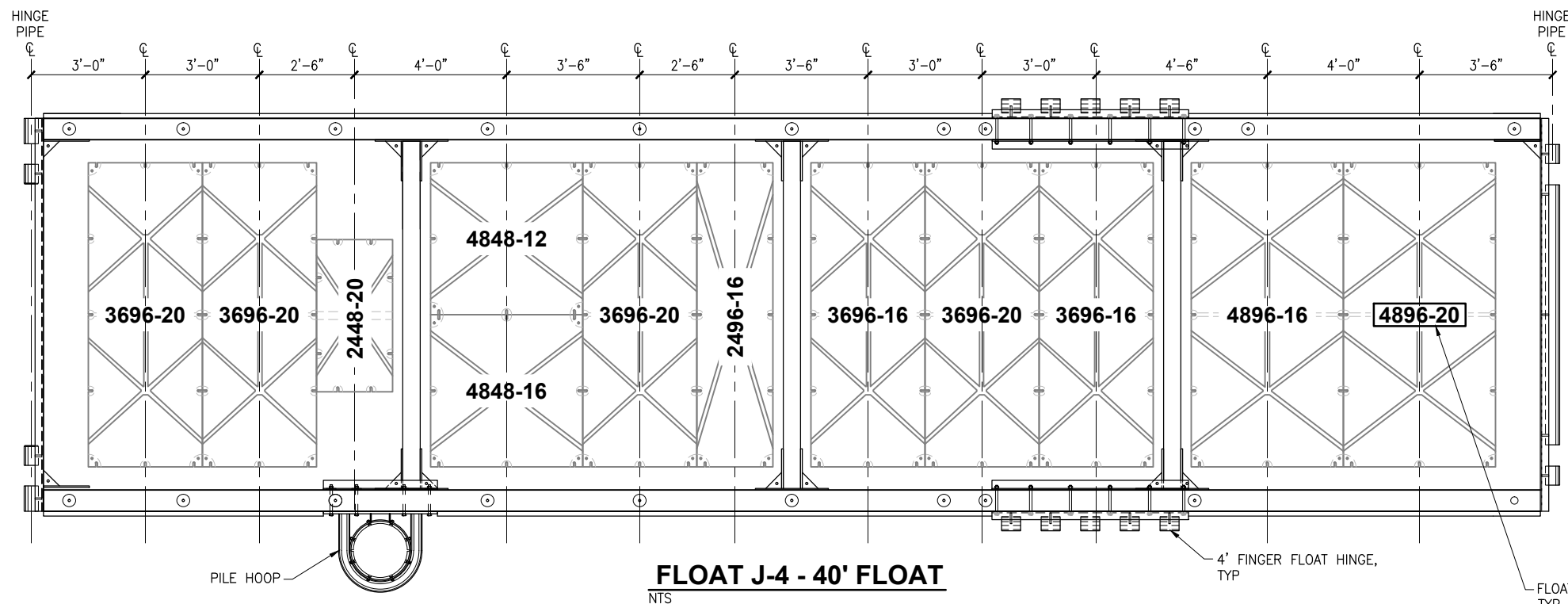


FLOAT J-3 - 40' FLOAT
NTS

XXXX-XX
WIDTH LENGTH DEPTH

FLOAT DRUM CALLOUT

NOTE:
DRAWING FOR FLOAT DRUM
LAYOUT AND CALLOUTS ONLY.
SEE FLOAT DRAWINGS FOR
DETAILS.



FLOAT J-4 - 40' FLOAT
NTS

4' FINGER FLOAT HINGE,
TYP

FLOAT DRUM MODEL,
TYP

**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

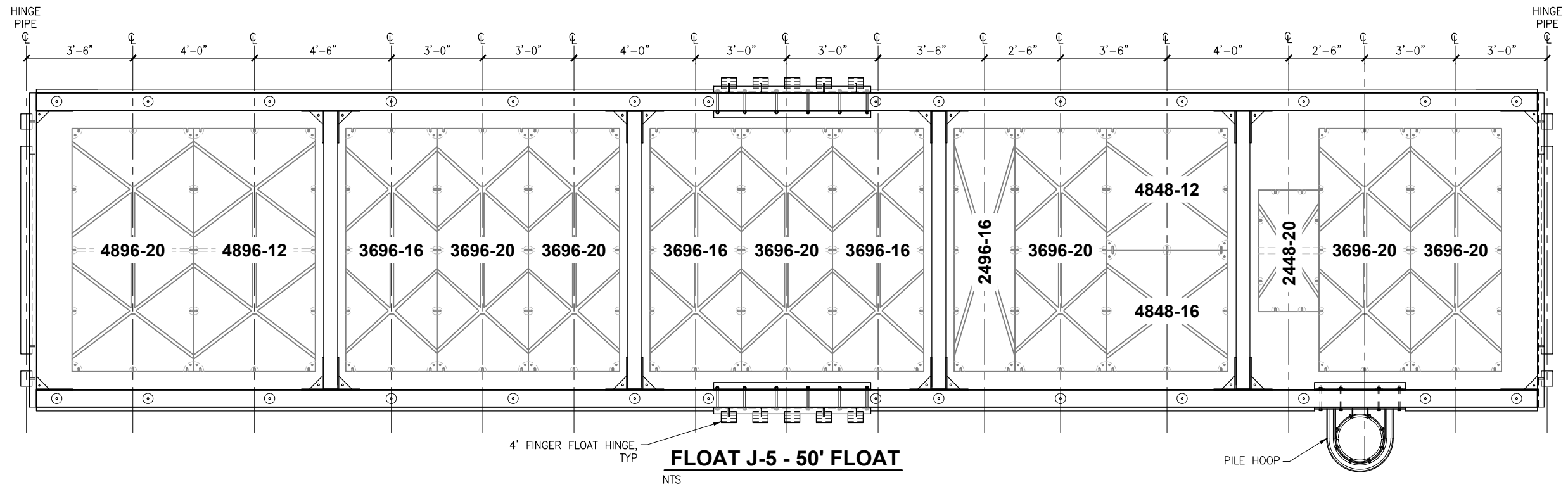
DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

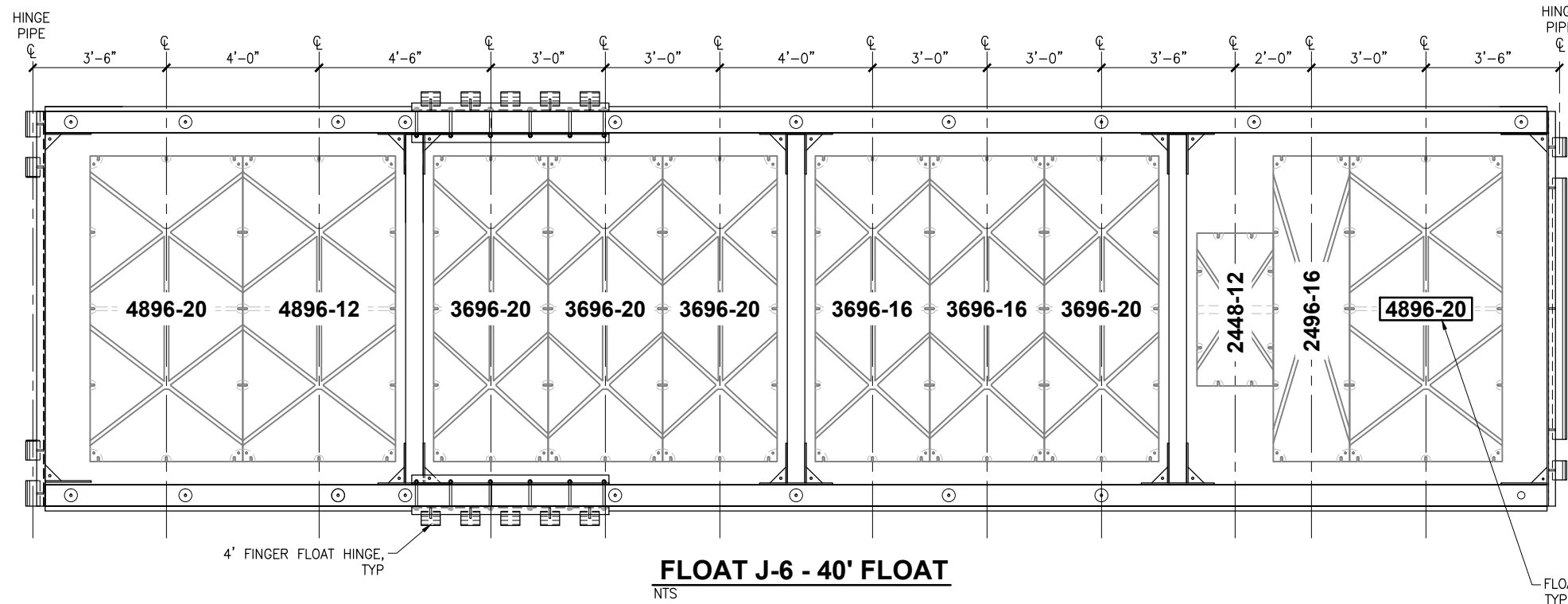


PROJECT: **HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**
TITLE: **MAINWALK J FLOATATION LAYOUT (2 OF 4)**

DESIGNED BY: CDC/DCF	DATE: 11/21/13	SHEET NO: 18
CHECKED BY: DST	PROJECT NO: 121104	OF 53



FLOAT J-5 - 50' FLOAT
NTS



FLOAT J-6 - 40' FLOAT
NTS

XXXX-XX
WIDTH LENGTH DEPTH

FLOAT DRUM CALLOUT

NOTE:
DRAWING FOR FLOAT DRUM
LAYOUT AND CALLOUTS ONLY.
SEE FLOAT DRAWINGS FOR
DETAILS.

**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

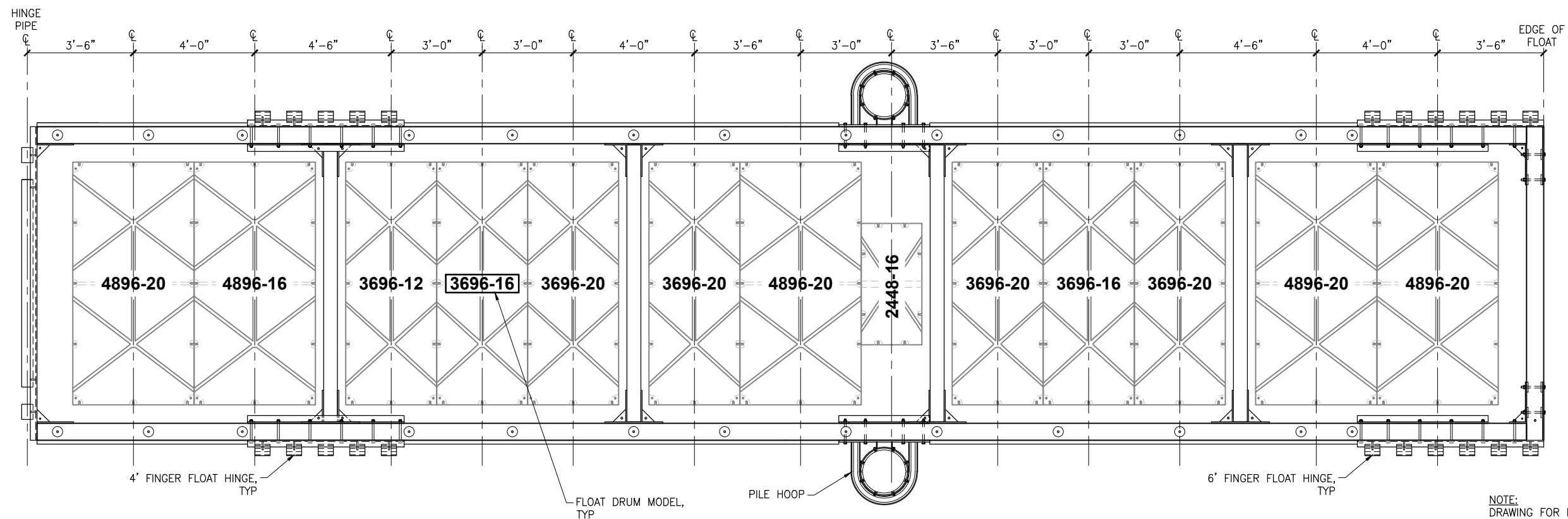
1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



PROJECT: **HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

TITLE: **MAINWALK J FLOATATION LAYOUT (3 OF 4)**

DESIGNED BY: CDC/DCF DATE: 11/21/13 SHEET NO: **19**
CHECKED BY: DST PROJECT NO: 121104 OF **53**



FLOAT J-7 - 50' FLOAT
NTS

NOTE:
DRAWING FOR FLOAT DRUM
LAYOUT AND CALLOUTS ONLY.
SEE FLOAT DRAWINGS FOR
DETAILS.

XXXX-XX
WIDTH LENGTH DEPTH

FLOAT DRUM CALLOUT

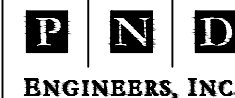
**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

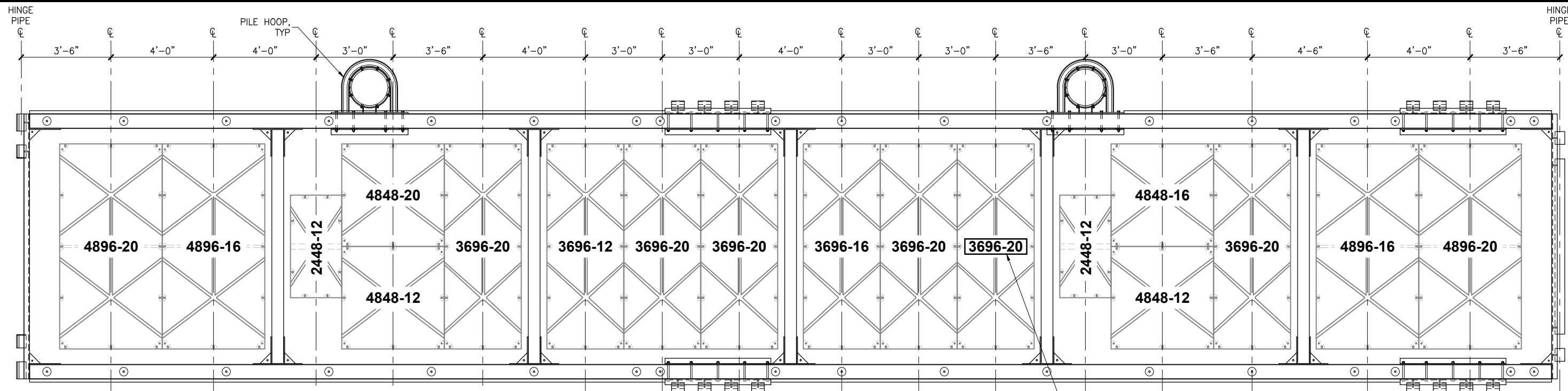
DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



PROJECT: **HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**
TITLE: **MAINWALK J FLOATATION LAYOUT (4 OF 4)**

DESIGNED BY: CDC/DCF	DATE: 11/21/13	SHEET NO: 20 OF 53
CHECKED BY: DST	PROJECT NO: 121104	



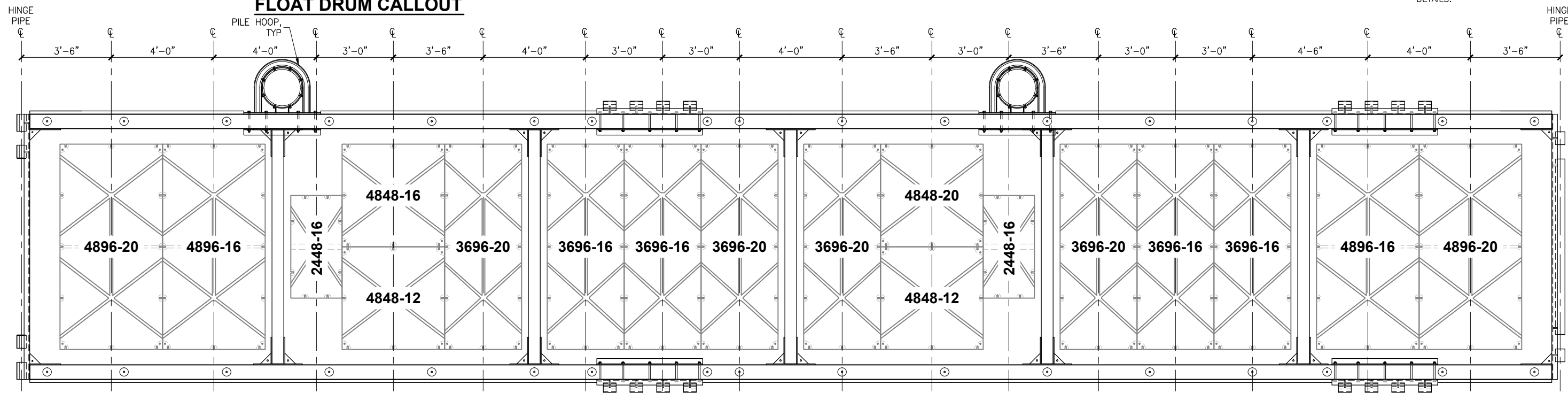
XXXX-XX
 WIDTH LENGTH DEPTH

FLOAT R-1 - 60' FLOAT
 NTS

FLOAT DRUM MODEL, TYP

NOTE:
 DRAWING FOR FLOAT DRUM LAYOUT AND CALLOUTS ONLY. SEE FLOAT DRAWINGS FOR DETAILS.

FLOAT DRUM CALLOUT



FLOAT R-2 - 60' FLOAT
 NTS

ISSUED FOR BID
 11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
 Anchorage, Alaska 99503
 Phone: 907.561.1011
 Fax: 907.563.4220
 www.pndengineers.com

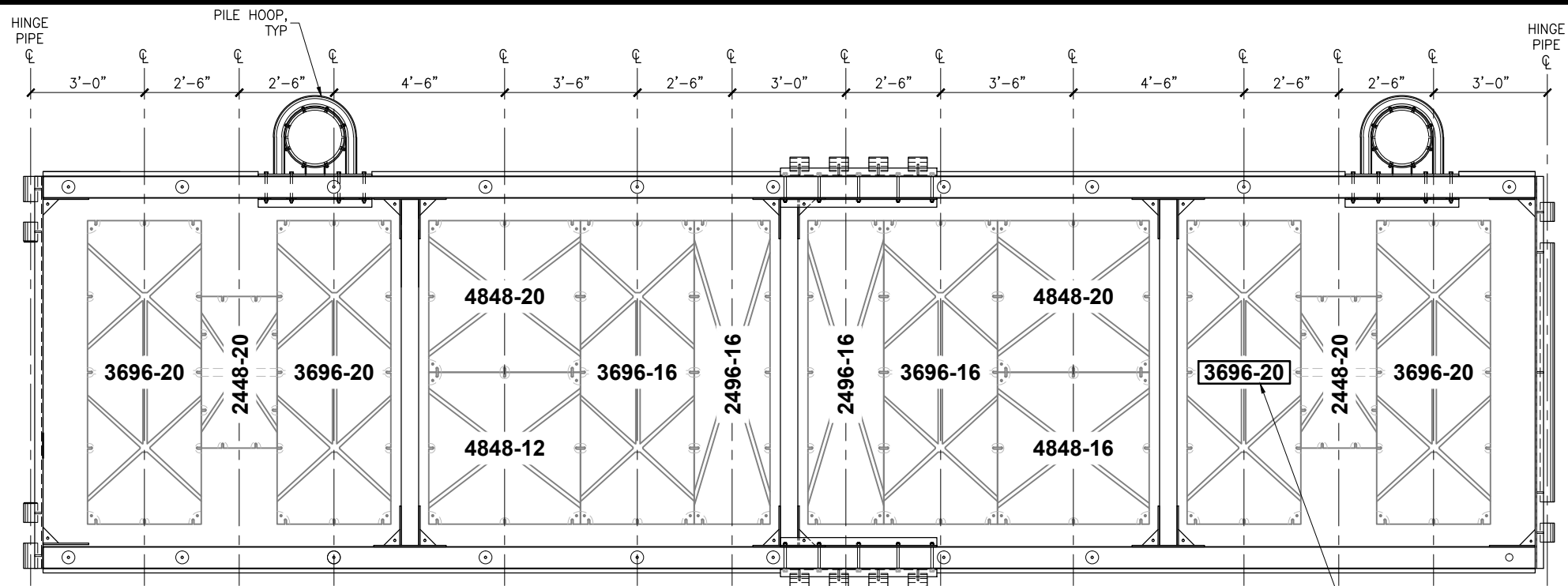


PROJECT: **HOMER SMALL BOAT HARBOR FLOAT IMPROVEMENTS**

TITLE: **MAINWALK R FLOATATION LAYOUT (1 OF 3)**

DESIGNED BY: CDC/DCF DATE: 11/21/13 SHEET NO: **21** OF **53**

CHECKED BY: DST PROJECT NO: 121104



FLOAT R-3 - 40' FLOAT
NTS

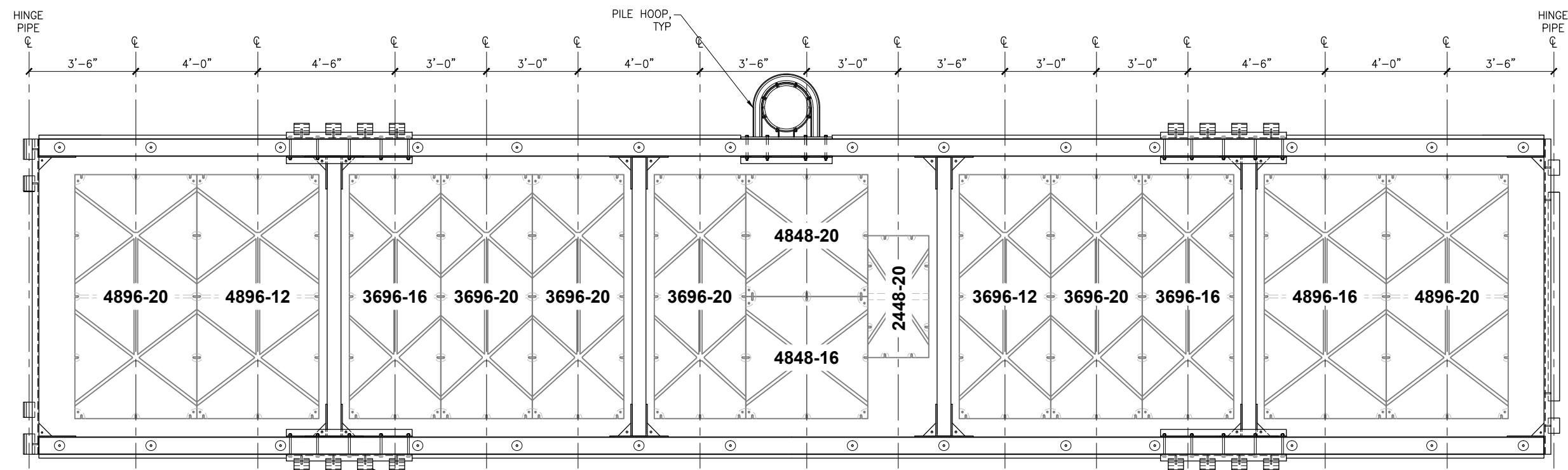
3' FINGER FLOAT HINGE, TYP

FLOAT DRUM MODEL, TYP

XXXX-XX
WIDTH LENGTH DEPTH

FLOAT DRUM CALLOUT

NOTE:
DRAWING FOR FLOAT DRUM LAYOUT AND CALLOUTS ONLY. SEE FLOAT DRAWINGS FOR DETAILS.



FLOAT R-4 - 50' FLOAT
NTS

ISSUED FOR BID
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

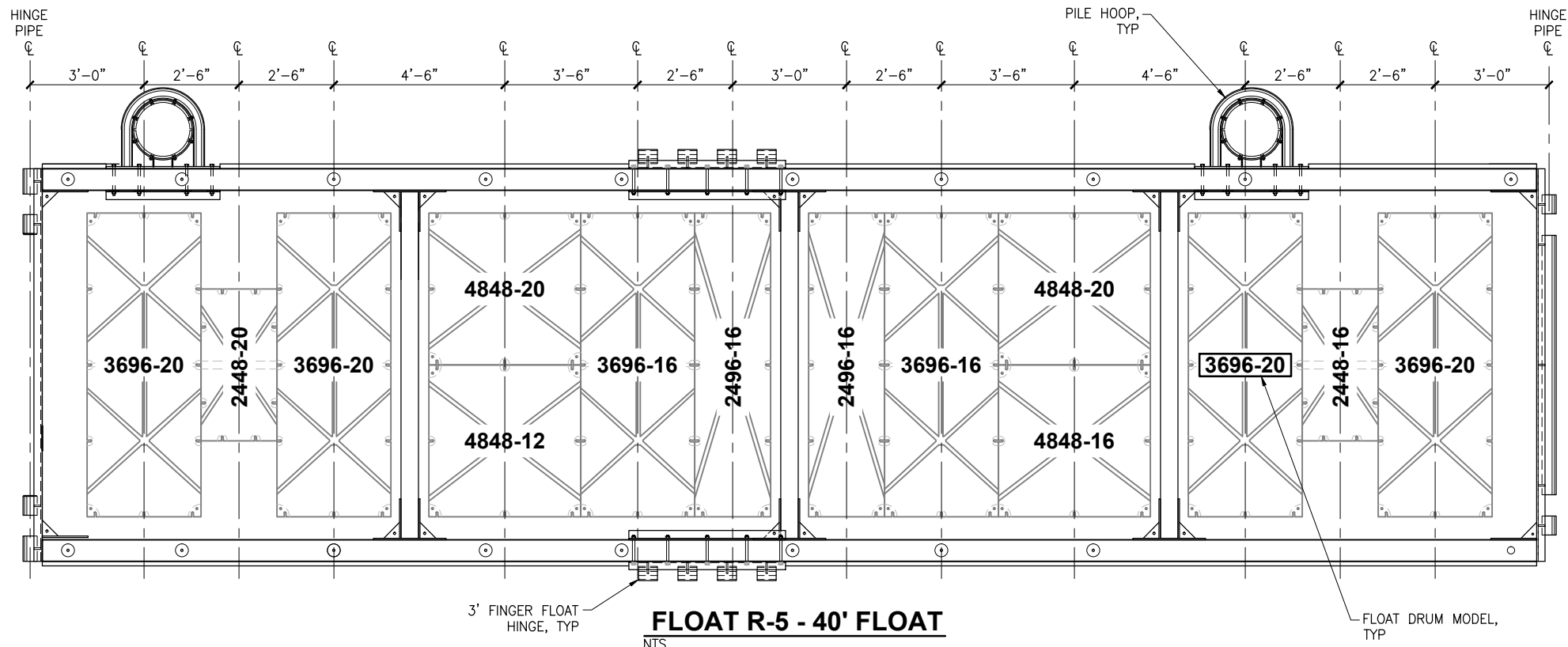
1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



PROJECT: **HOMER SMALL BOAT HARBOR FLOAT IMPROVEMENTS**
TITLE: **MAINWALK R FLOATATION LAYOUT (2 OF 3)**

DESIGNED BY: CDC/DCF DATE: 11/21/13
CHECKED BY: DST PROJECT NO: 121104

SHEET NO: **22** OF **53**

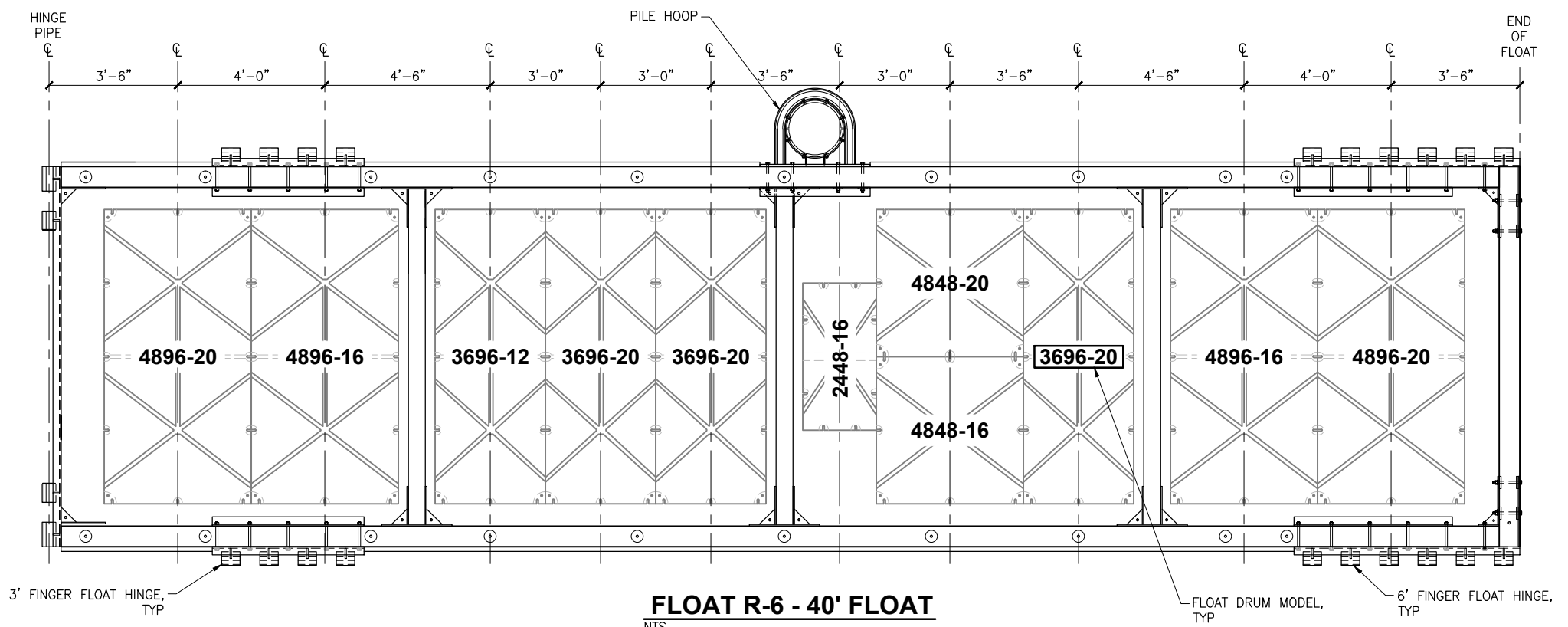


FLOAT R-5 - 40' FLOAT
NTS

XXXX-XX
WIDTH LENGTH DEPTH

FLOAT DRUM CALLOUT

NOTE:
DRAWING FOR FLOAT DRUM
LAYOUT AND CALLOUTS ONLY.
SEE FLOAT DRAWINGS FOR
DETAILS.



FLOAT R-6 - 40' FLOAT
NTS

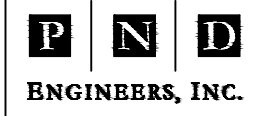
**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

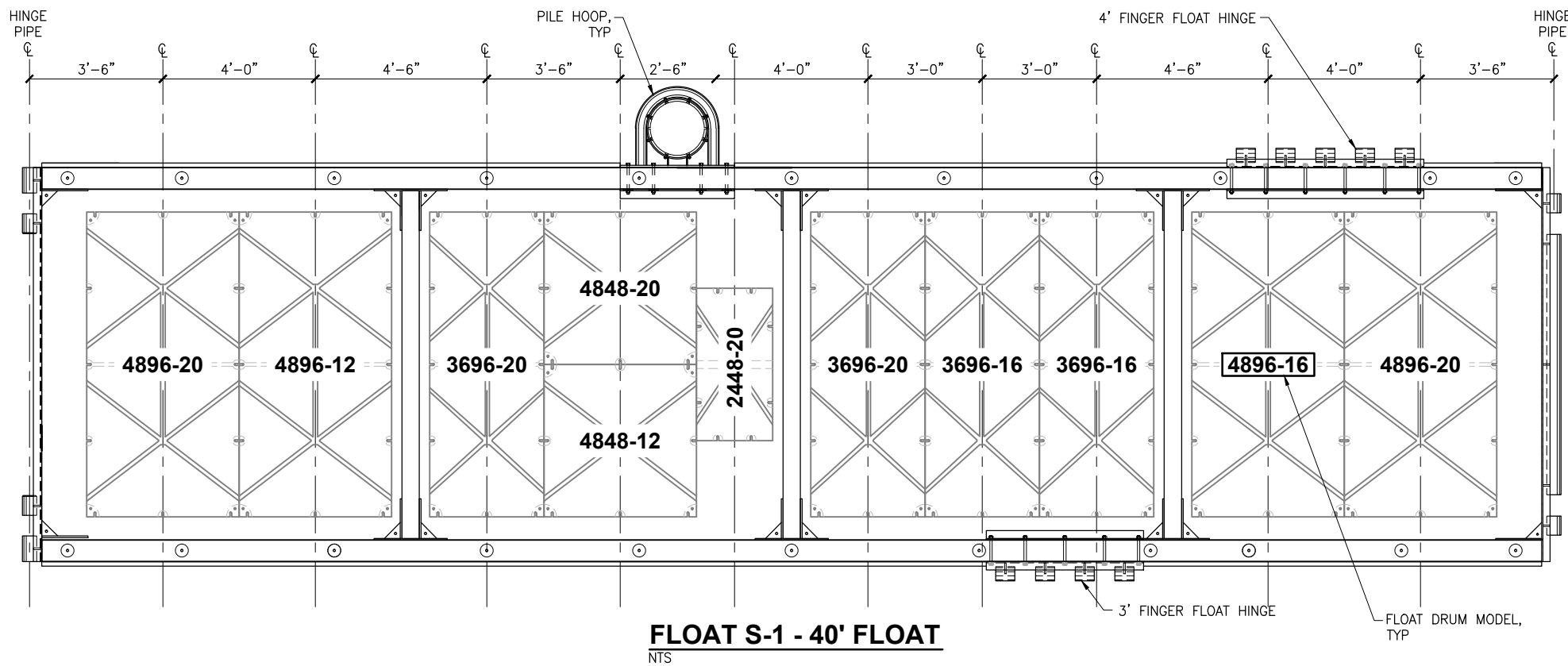
DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



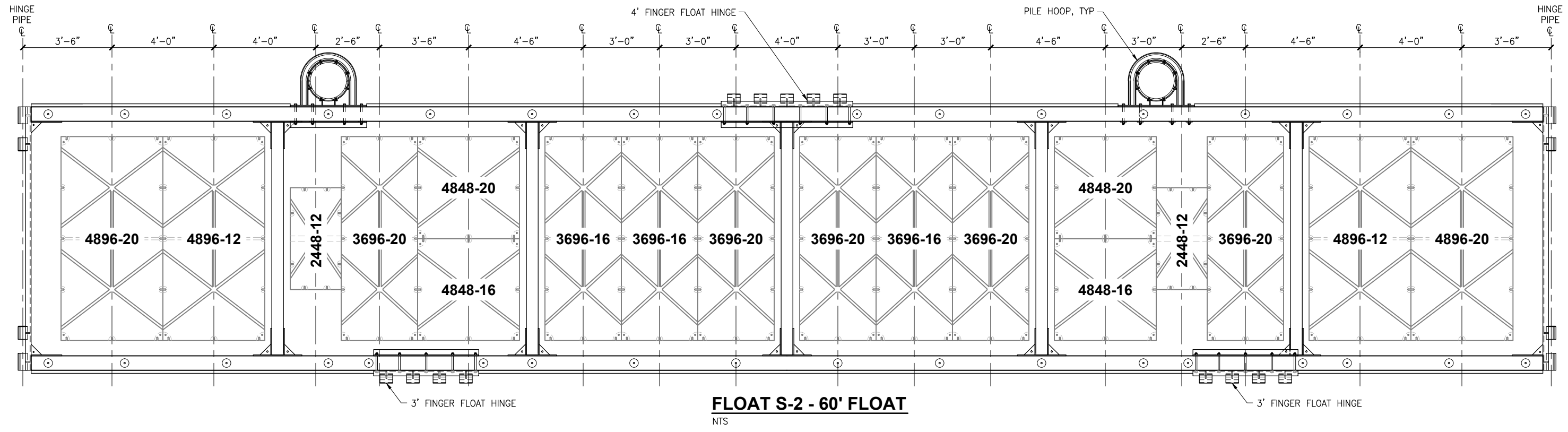
PROJECT: **HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**
TITLE: **MAINWALK R FLOATATION LAYOUT (3 OF 3)**

DESIGNED BY: CDC/DCF	DATE: 11/21/13	SHEET NO:
CHECKED BY: DST	PROJECT NO: 121104	23 OF 53



XXXX-XX
 WIDTH LENGTH DEPTH
FLOAT DRUM CALLOUT

FLOAT S-1 - 40' FLOAT
 NTS



FLOAT S-2 - 60' FLOAT
 NTS

ISSUED FOR BID
 11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

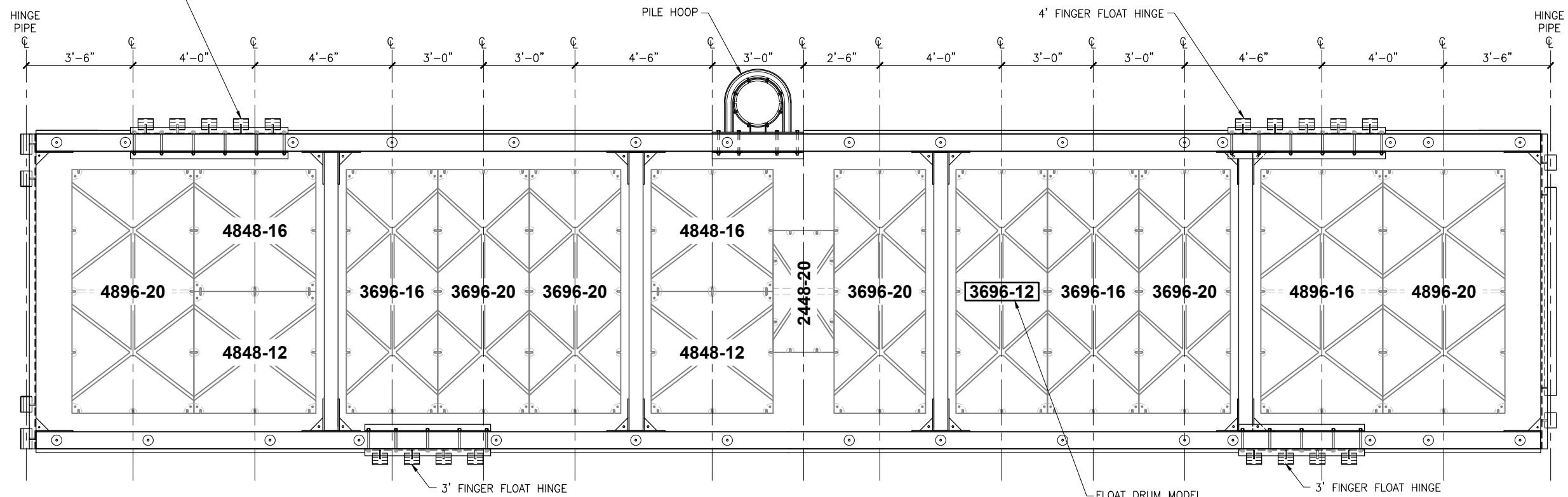
DATE: _____

1506 West 36th Avenue
 Anchorage, Alaska 99503
 Phone: 907.561.1011
 Fax: 907.563.4220
 www.pndengineers.com



PROJECT: **HOMER SMALL BOAT HARBOR FLOAT IMPROVEMENTS**
 TITLE: **MAINWALK S FLOATATION LAYOUT (1 OF 3)**

DESIGNED BY: CDC/DCF	DATE: 11/21/13	SHEET NO: 24
CHECKED BY: DST	PROJECT NO: 121104	OF 53



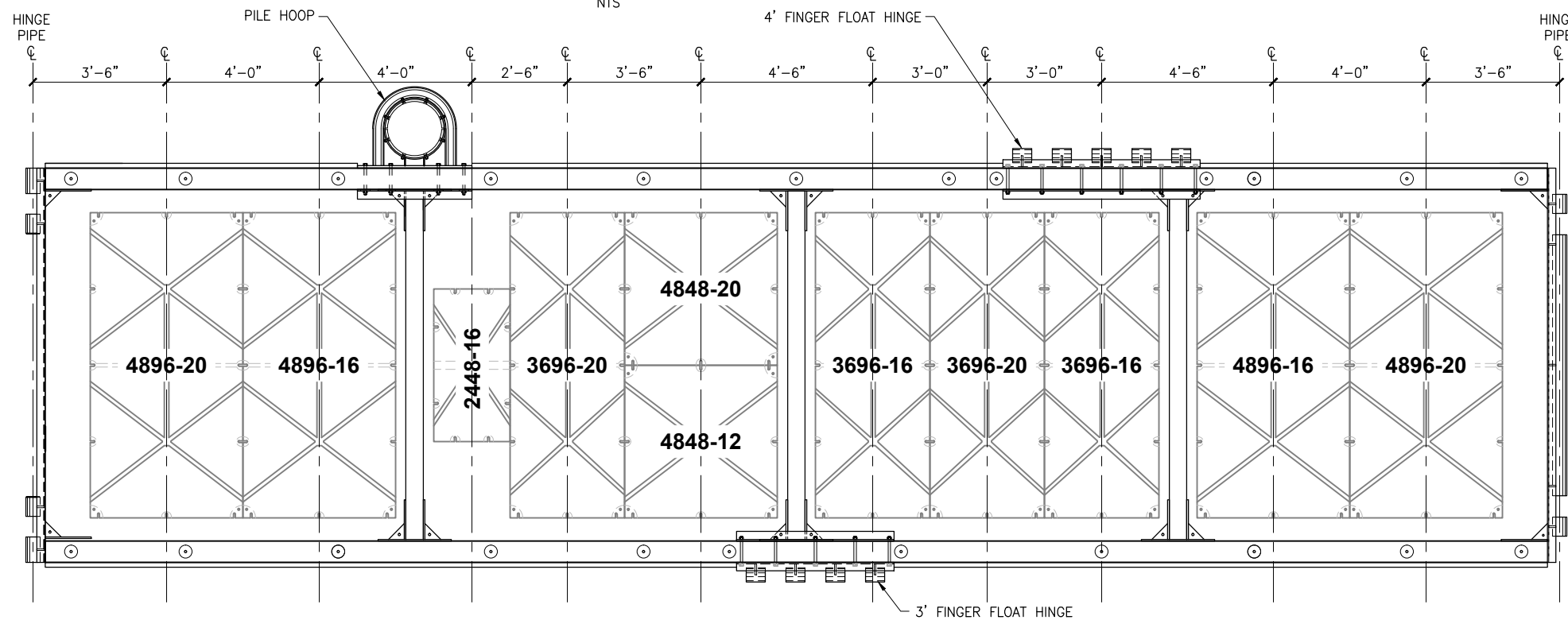
FLOAT S-3 - 50' FLOAT

NTS

NOTE:
DRAWING FOR FLOAT DRUM
LAYOUT AND CALLOUTS ONLY.
SEE FLOAT DRAWINGS FOR
DETAILS.

XXXX-XX
WIDTH LENGTH DEPTH

FLOAT DRUM CALLOUT



FLOAT S-4 - 40' FLOAT

NTS

**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

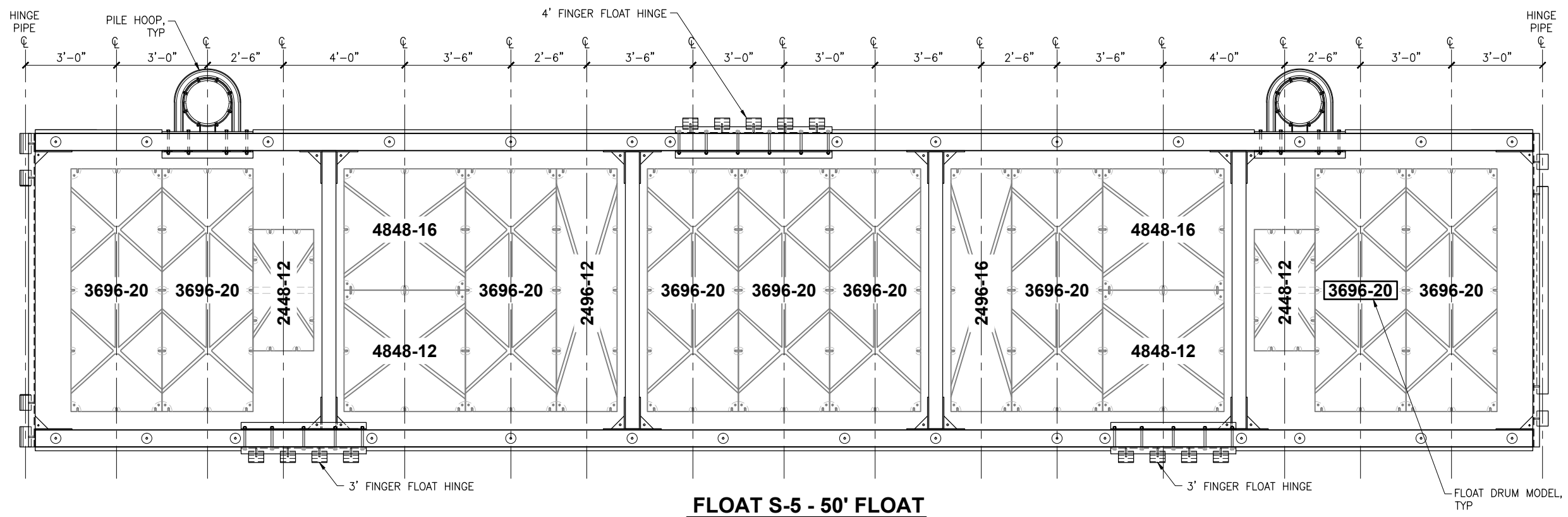
1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



PROJECT: **HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

TITLE: **MAINWALK S FLOATATION LAYOUT (2 OF 3)**

DESIGNED BY: CDC/DCF	DATE: 11/21/13	SHEET NO: 25 OF 53
CHECKED BY: DST	PROJECT NO: 121104	

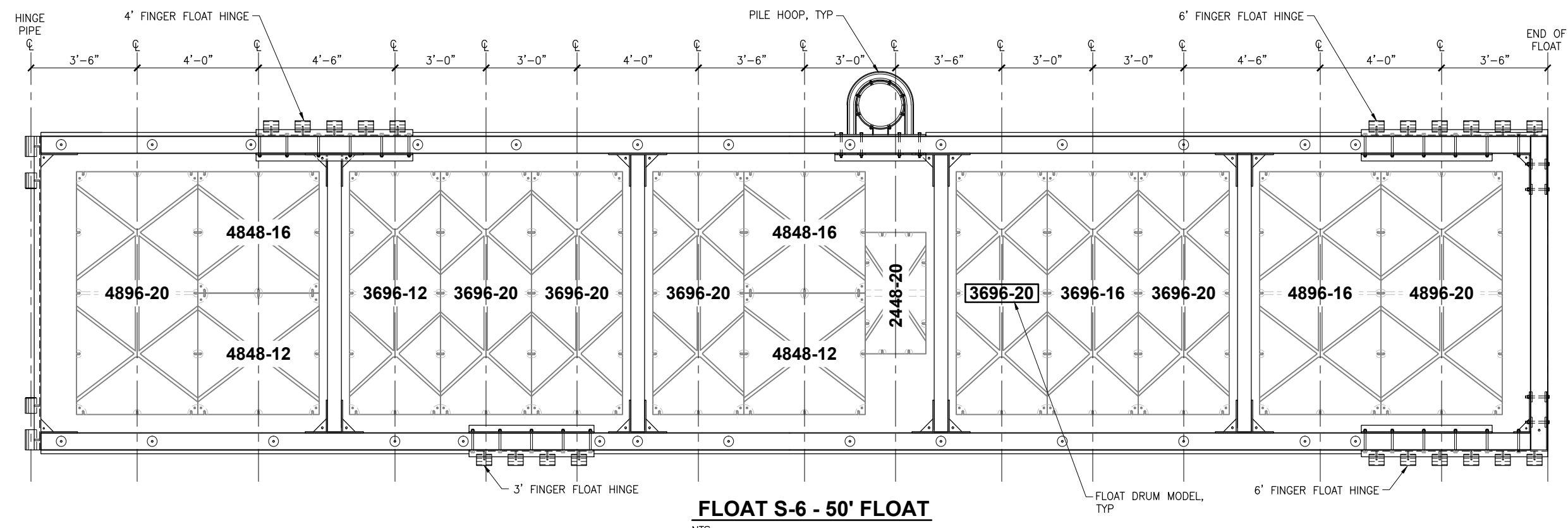


FLOAT S-5 - 50' FLOAT
NTS

NOTE:
DRAWING FOR FLOAT DRUM
LAYOUT AND CALLOUTS ONLY.
SEE FLOAT DRAWINGS FOR
DETAILS.

XXXX-XX
WIDTH LENGTH DEPTH

FLOAT DRUM CALLOUT



FLOAT S-6 - 50' FLOAT
NTS

**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

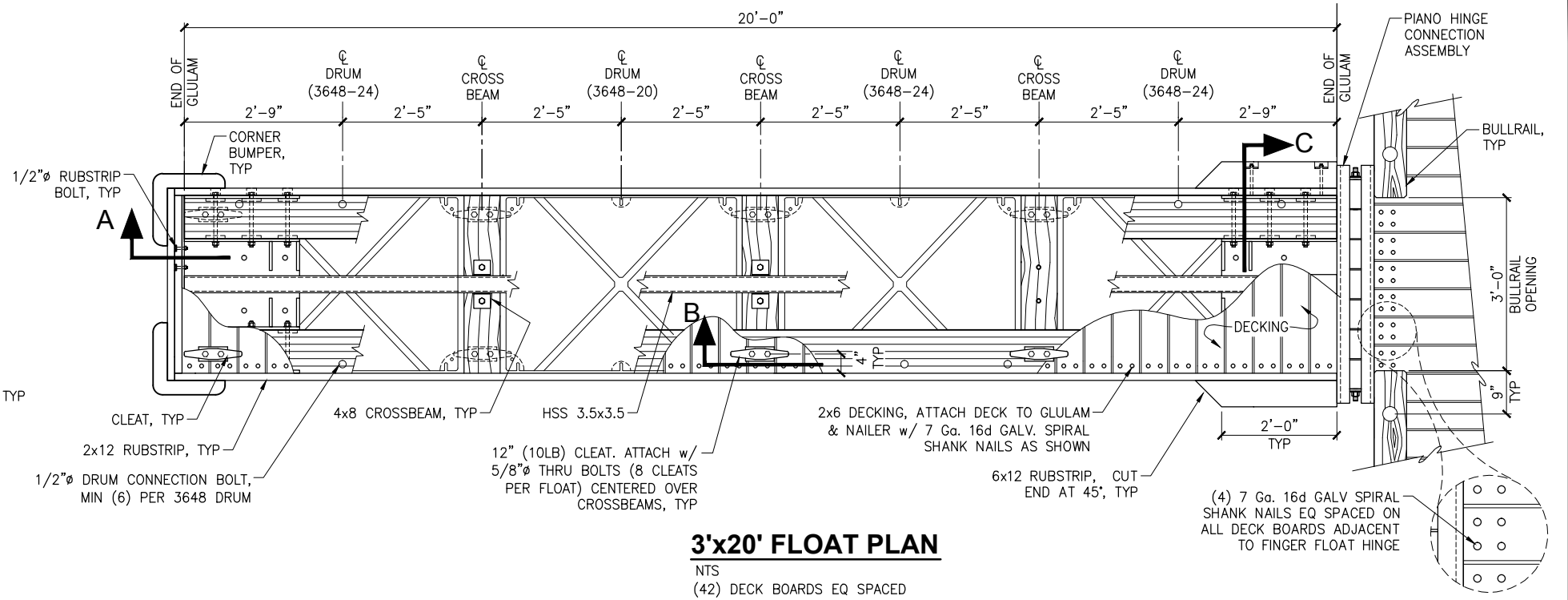
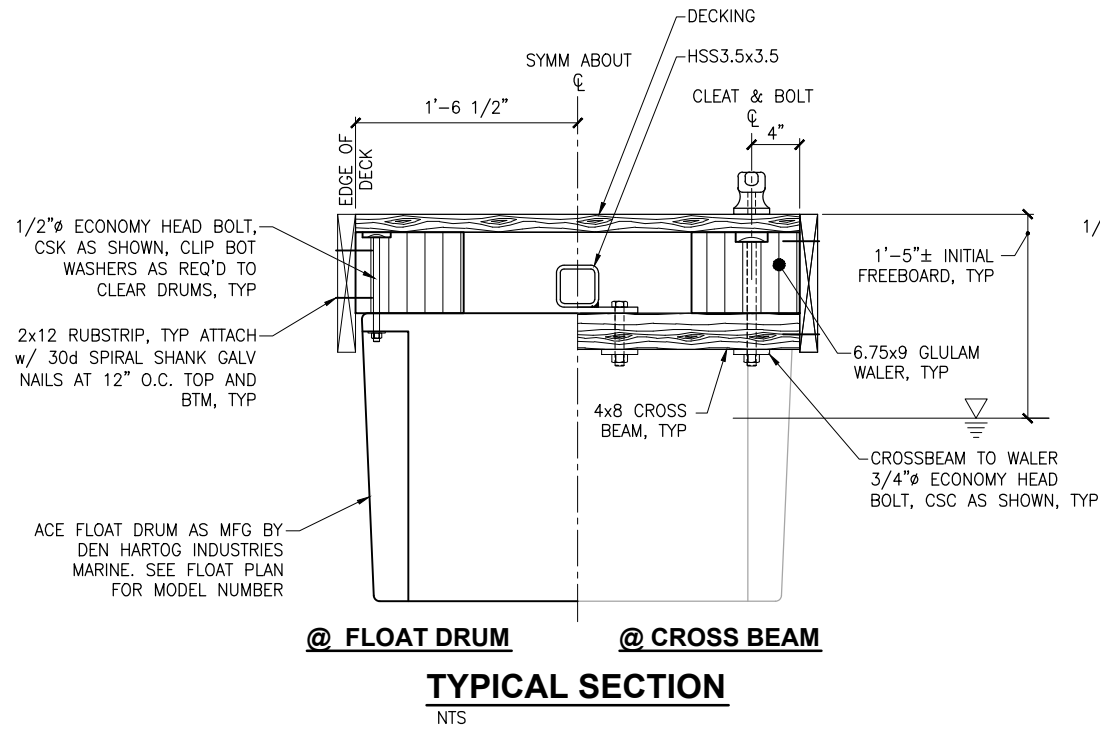


PROJECT: **HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

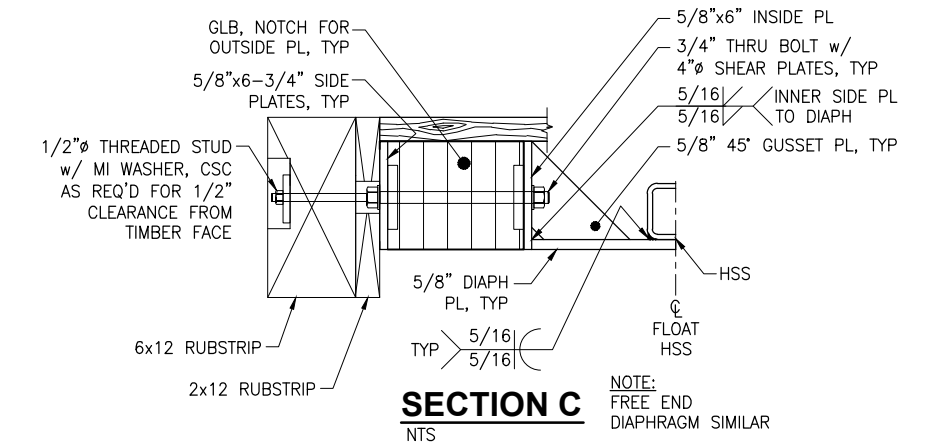
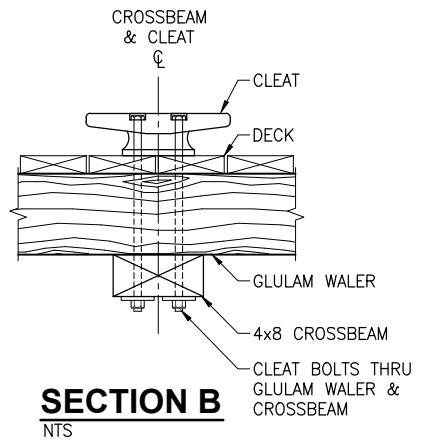
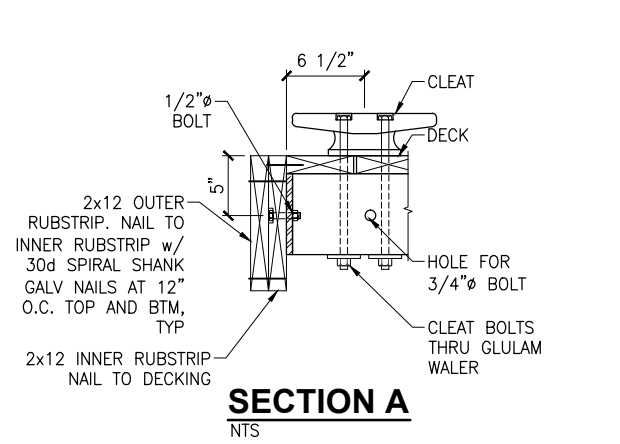
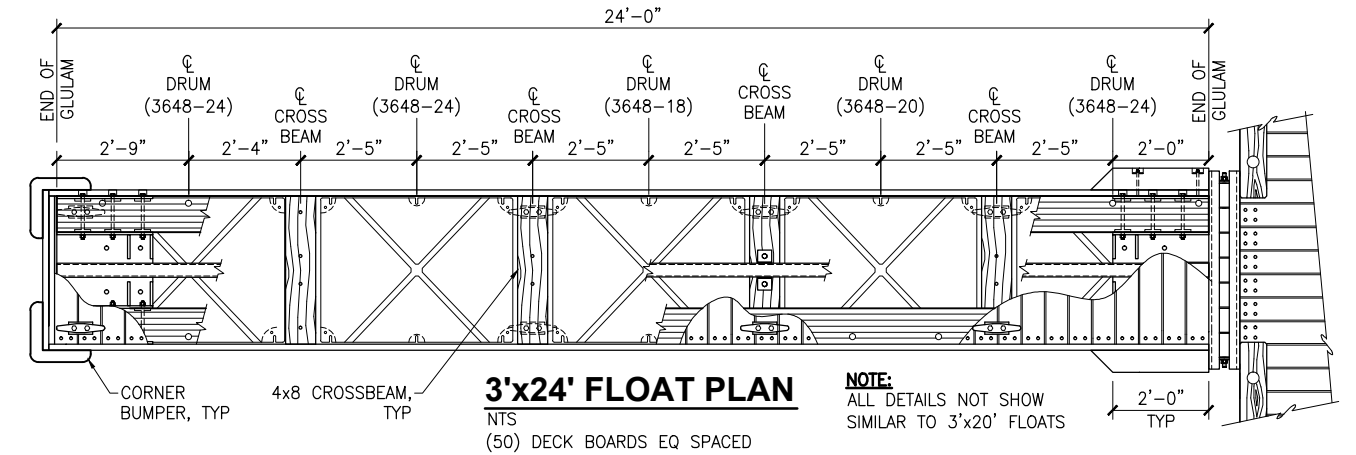
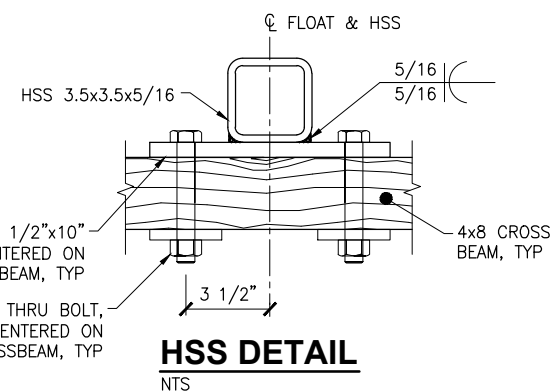
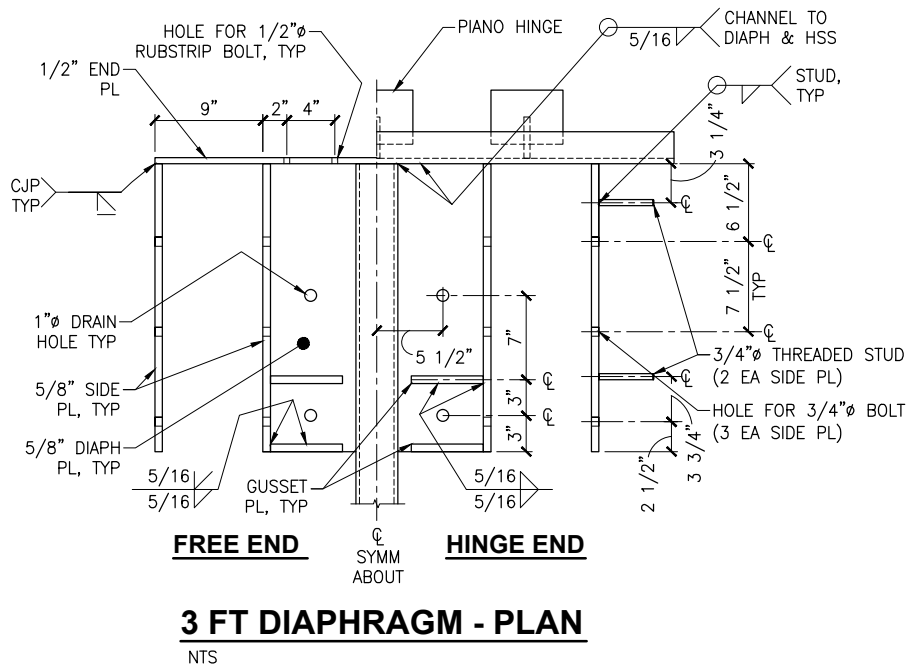
TITLE: **MAINWALK S FLOATATION LAYOUT (3 OF 3)**

DESIGNED BY: CDC/DCF DATE: 11/21/13 SHEET NO: **26** OF **53**

CHECKED BY: DST PROJECT NO: 121104



NOTE:
MEASURE & VERIFY HSS DIAPHRAGM ASSEMBLY HAS LESS THAN 1" TWIST, SWEEP PER AWS D1.1, CORRECT AS REQ'D PRIOR TO ASSEMBLY.



ISSUED FOR BID
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

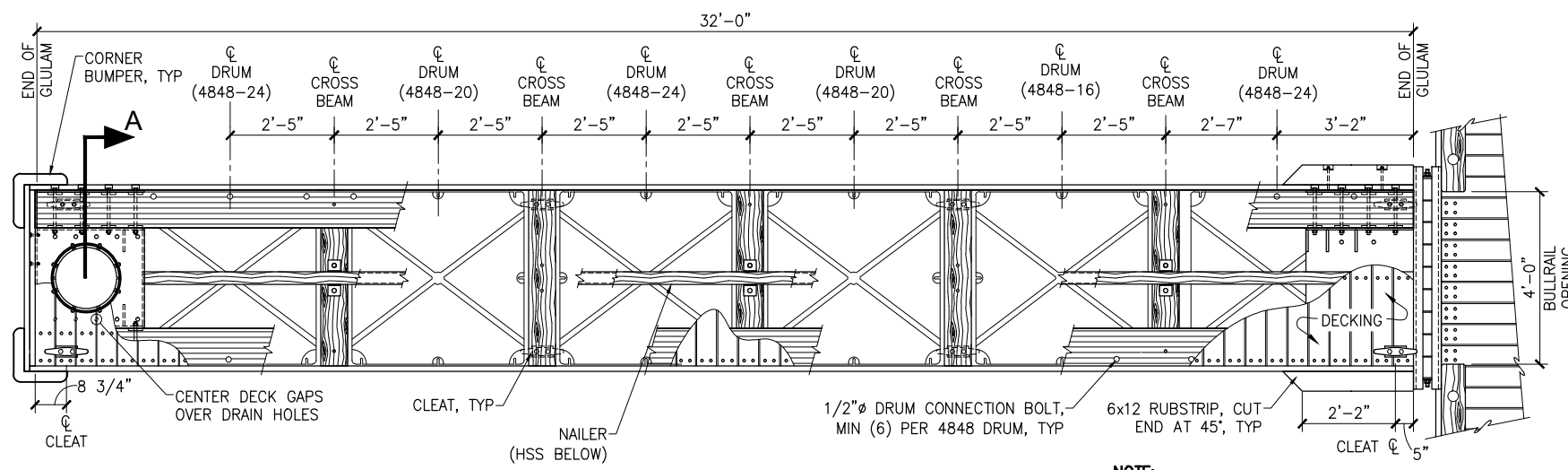


**HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

3-FT WIDE FINGER FLOATS

DESIGNED BY: CDC/DCF DATE: 11/21/13
CHECKED BY: DST PROJECT NO: 121104

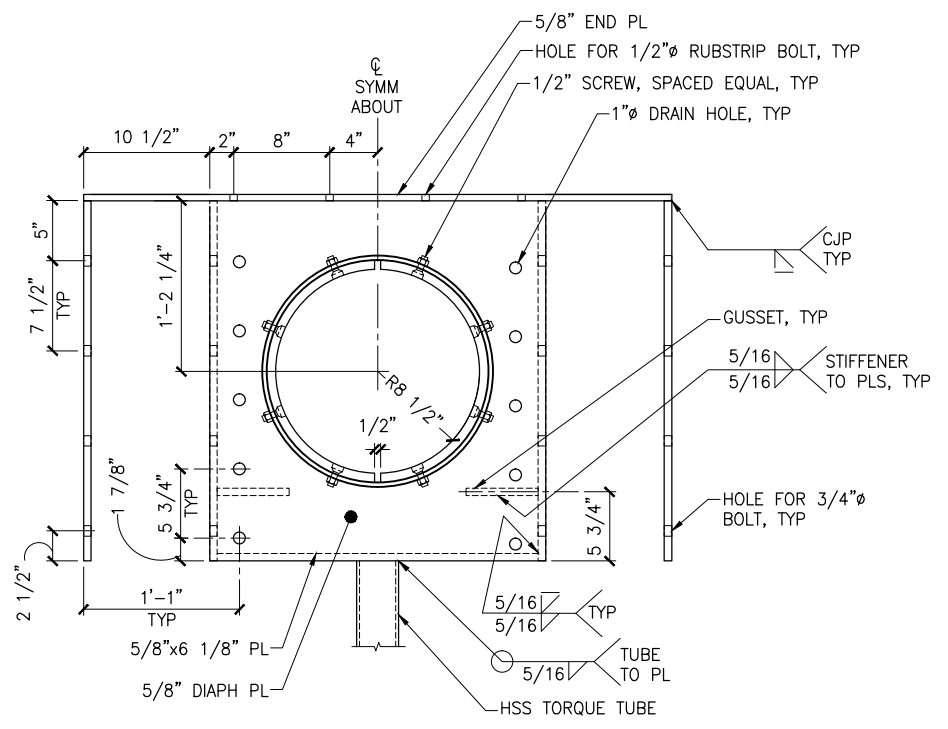
SHEET NO: **27** OF 53



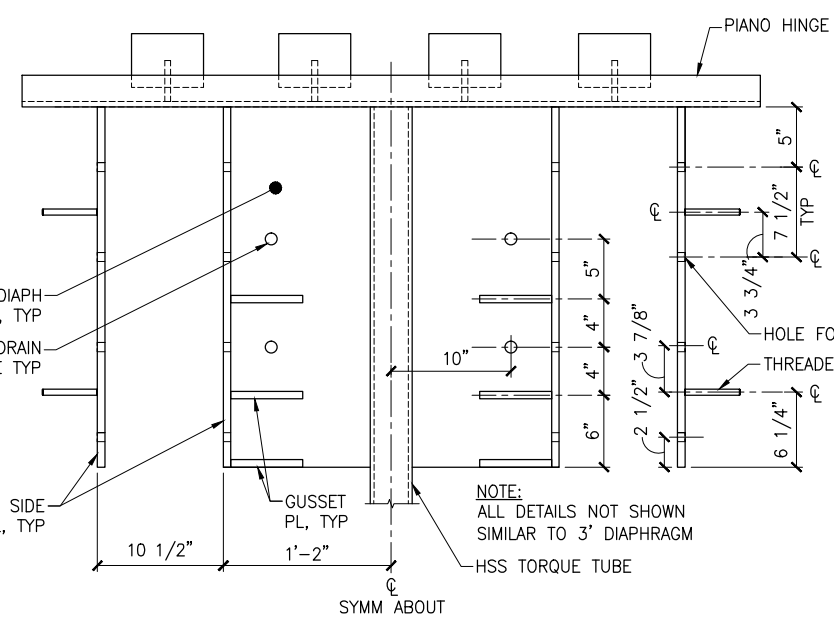
4'x32' FLOAT PLAN
 NTS
 (67) DECK BOARDS EQ SPACED

NOTE:
 ALL DETAILS NOT SHOWN
 SIMILAR TO 3' WIDE FINGERS

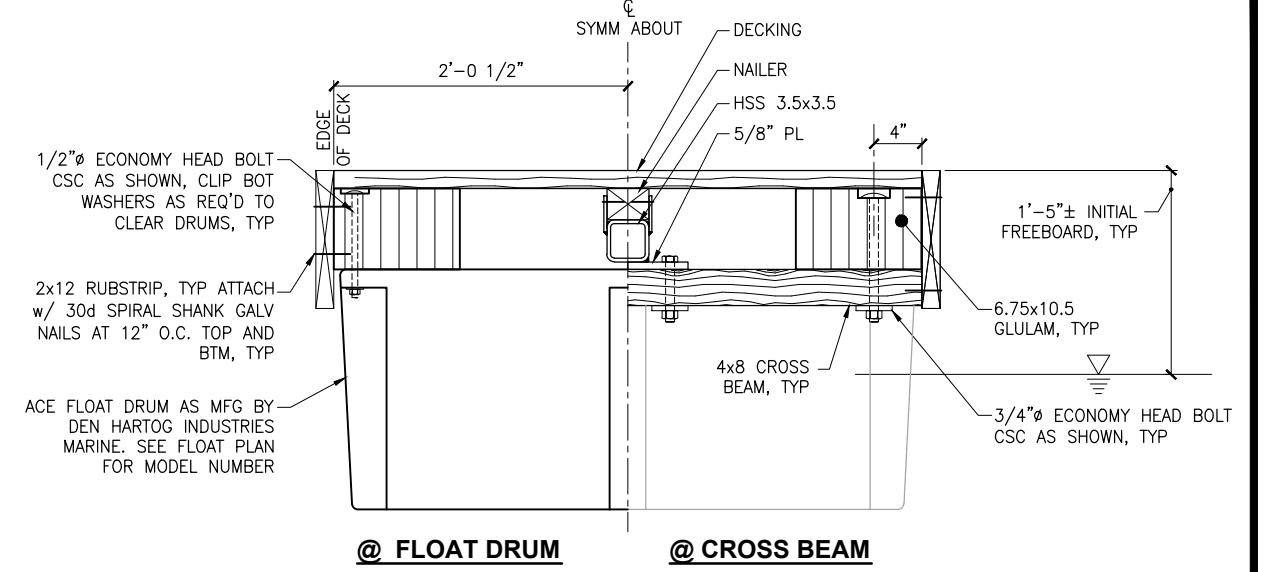
NOTE:
 MEASURE & VERIFY HSS DIAPHRAGM ASSEMBLY
 HAS LESS THAN 1" TWIST, SWEEP PER AWS
 D1.1, CORRECT AS REQ'D PRIOR TO ASSEMBLY.



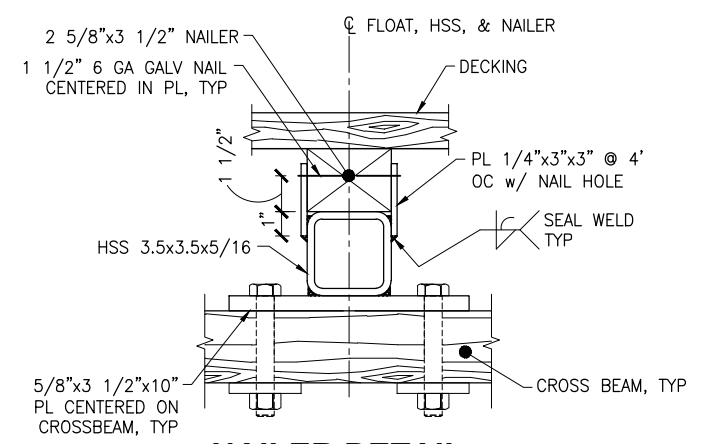
12 3/4"Ø PILE HOOP PLAN
 NTS



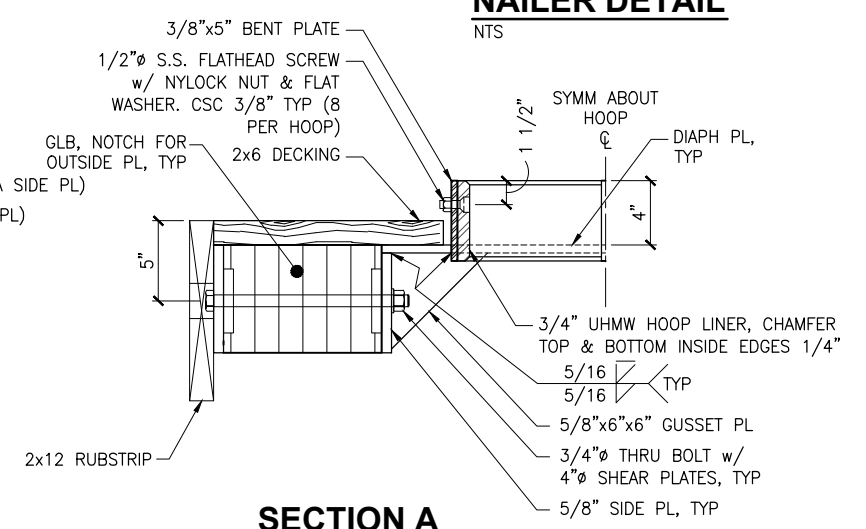
4 FT HINGE DIAPHRAGM - PLAN
 NTS



TYPICAL SECTION
 NTS



NAILER DETAIL
 NTS



SECTION A
 NTS

**ISSUED
 FOR BID**
 11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

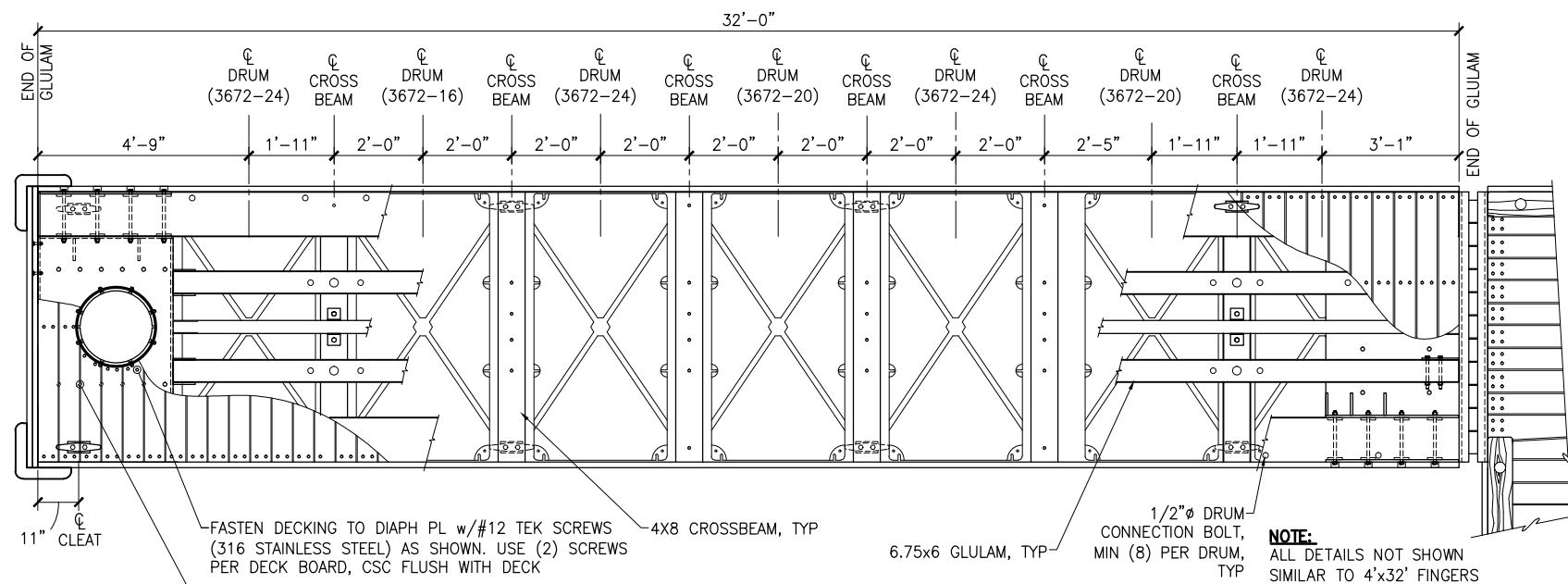
1506 West 36th Avenue
 Anchorage, Alaska 99503
 Phone: 907.561.1011
 Fax: 907.563.4220
 www.pndengineers.com



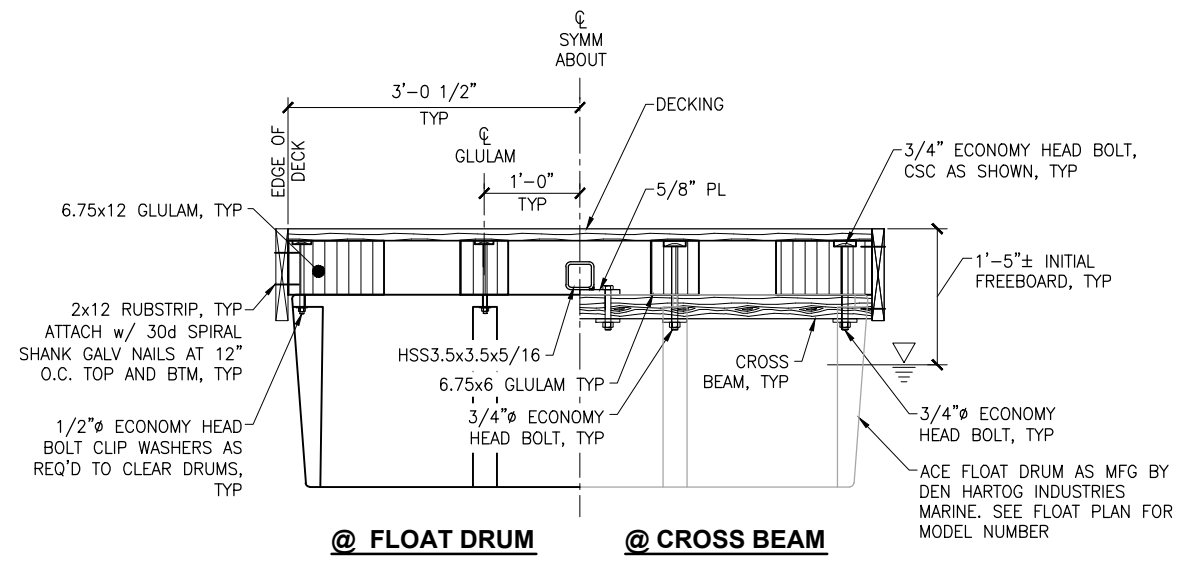
PROJECT: **HOMER SMALL BOAT HARBOR
 FLOAT IMPROVEMENTS**

TITLE: **4-FT WIDE FINGER FLOATS**

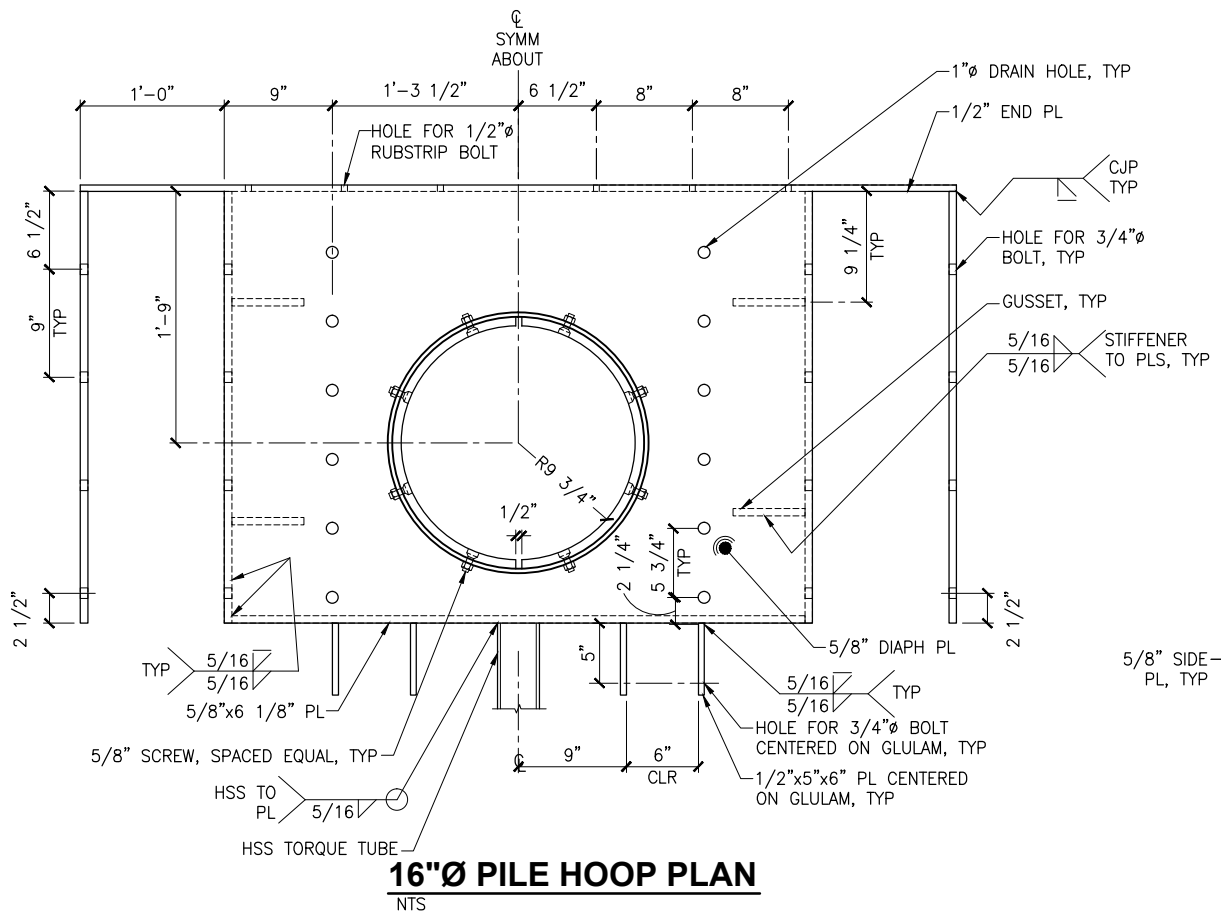
DESIGNED BY: CDC/DCF DATE: 11/21/13
 CHECKED BY: DST PROJECT NO: 121104 SHEET NO: **28** OF **53**



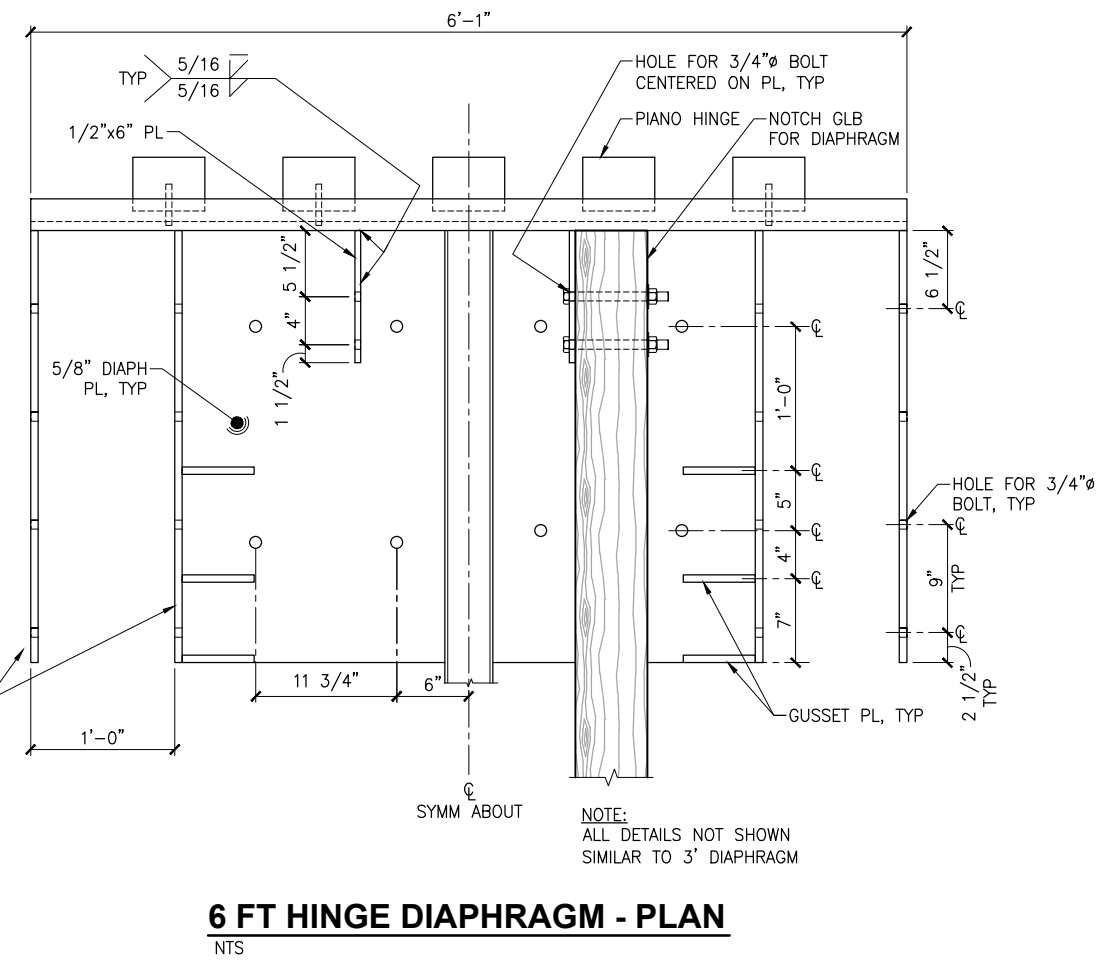
6'x32' FLOAT PLAN
NTS
(67) DECK BOARDS EQ SPACED



@ FLOAT DRUM @ CROSS BEAM
TYPICAL SECTION
NTS



16"Ø PILE HOOP PLAN
NTS



6 FT HINGE DIAPHRAGM - PLAN
NTS

ISSUED FOR BID
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

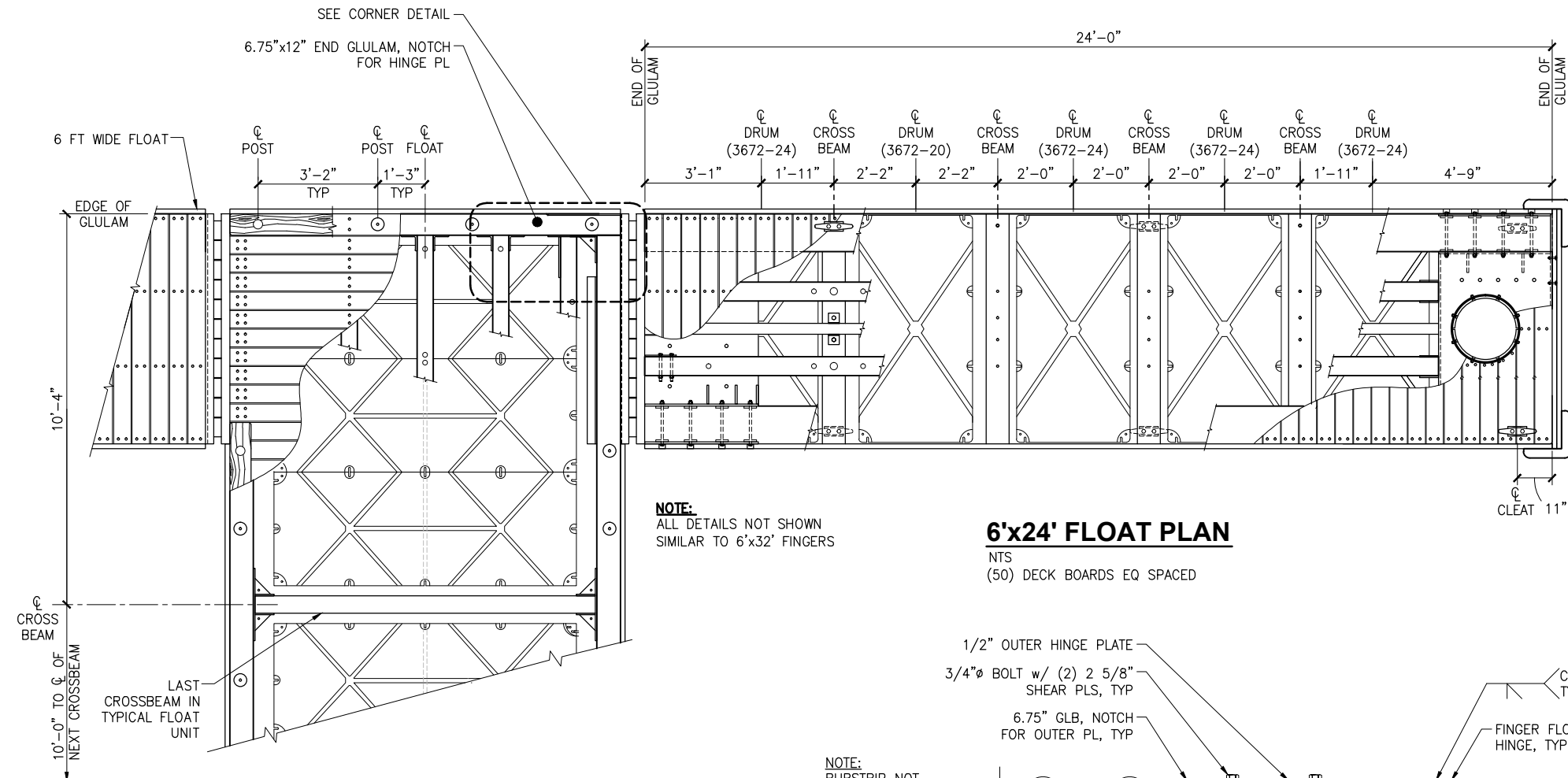


PROJECT: **HOMER SMALL BOAT HARBOR FLOAT IMPROVEMENTS**

TITLE: **6-FT WIDE FINGER FLOATS (1 OF 2)**

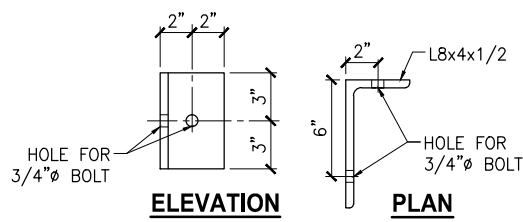
DESIGNED BY: CDC/DCF DATE: 11/21/13
CHECKED BY: DST PROJECT NO: 121104

SHEET NO: **30** OF **53**



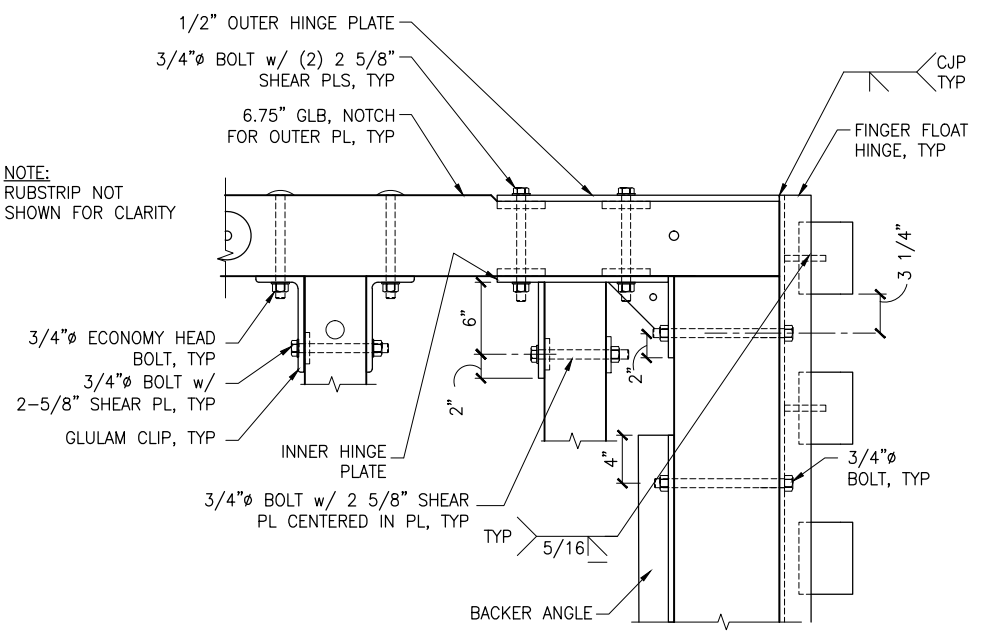
NOTE:
ALL DETAILS NOT SHOWN
SIMILAR TO 6'x32' FINGERS

6'x24' FLOAT PLAN
NTS
(50) DECK BOARDS EQ SPACED



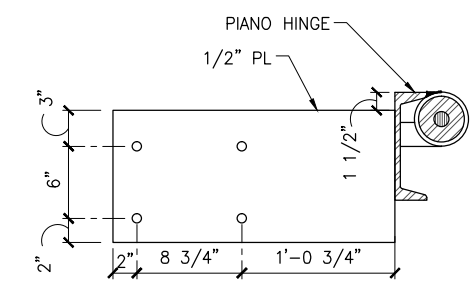
GLULAM CLIP
NTS

NOTE:
RUBSTRIP NOT
SHOWN FOR CLARITY

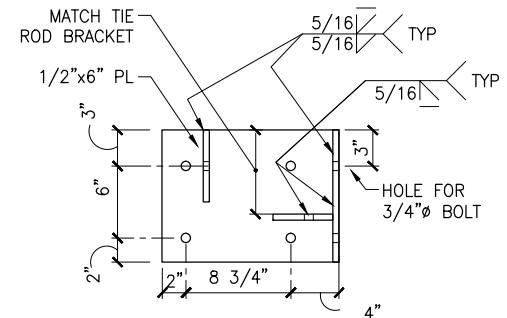


CORNER DETAIL
NTS

NOTE:
6' HINGE SIM TO 5' FLOAT HINGE,
SEE FINGER FLOAT CONNECTION
DETAILS



OUTER HINGE PLATE
NTS



INNER HINGE PLATE
NTS
(ALL 1/2" PL)

**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

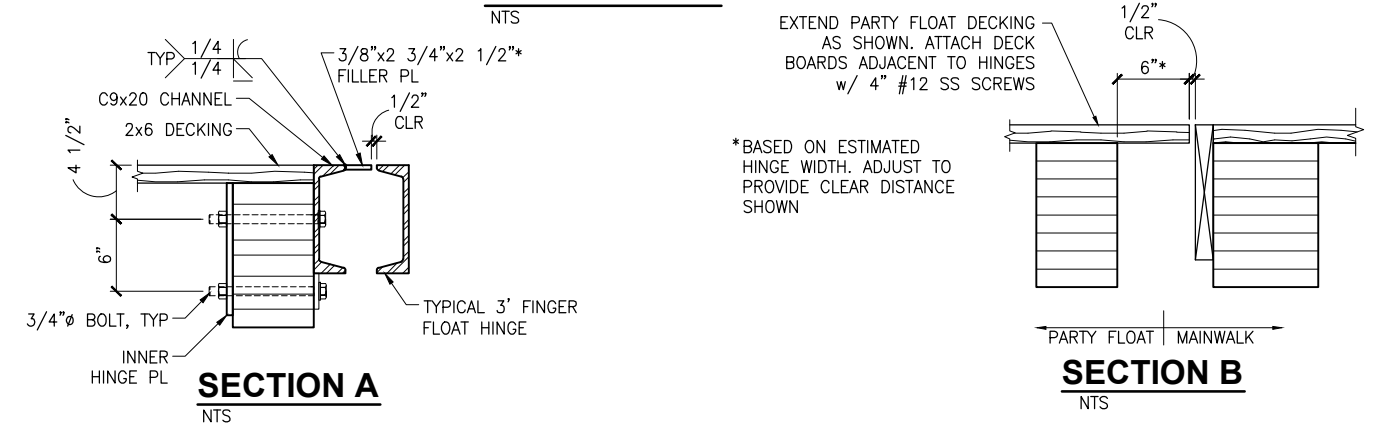
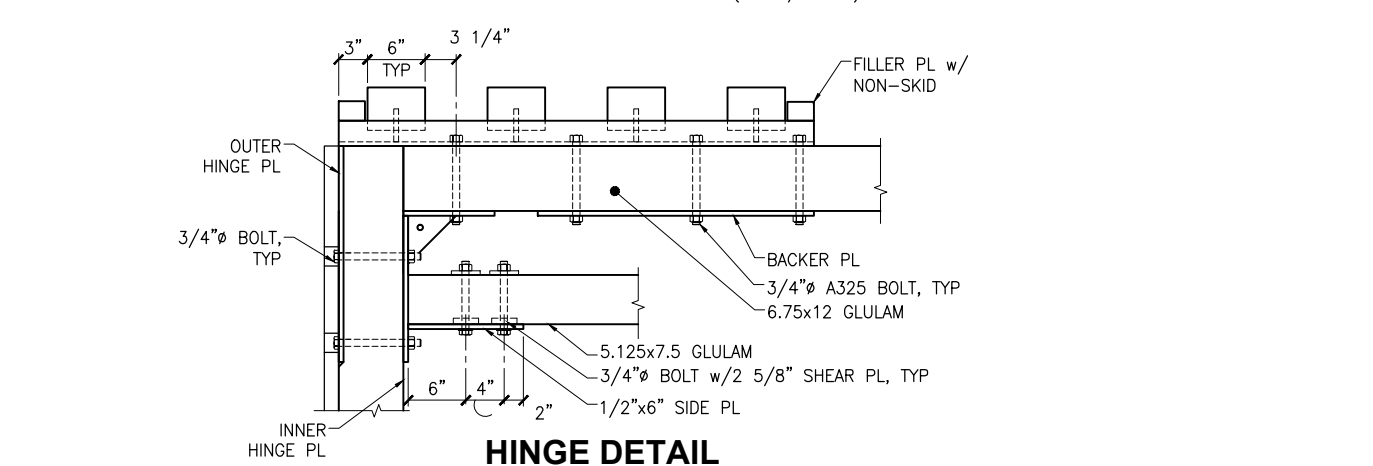
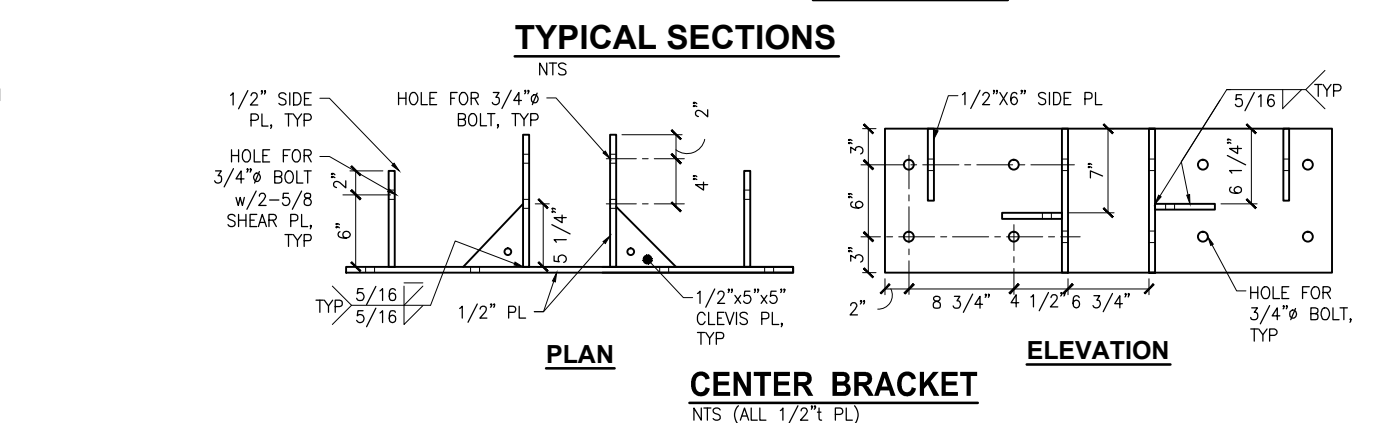
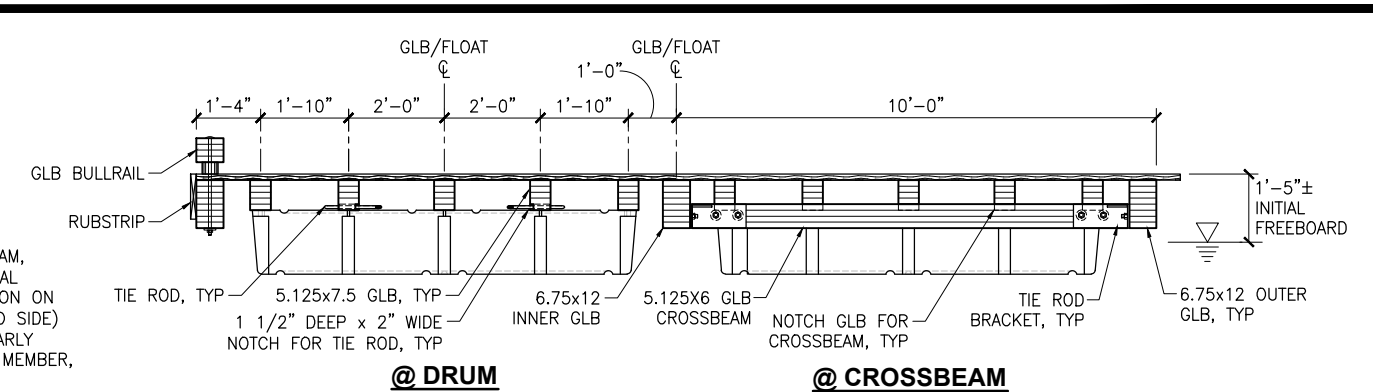
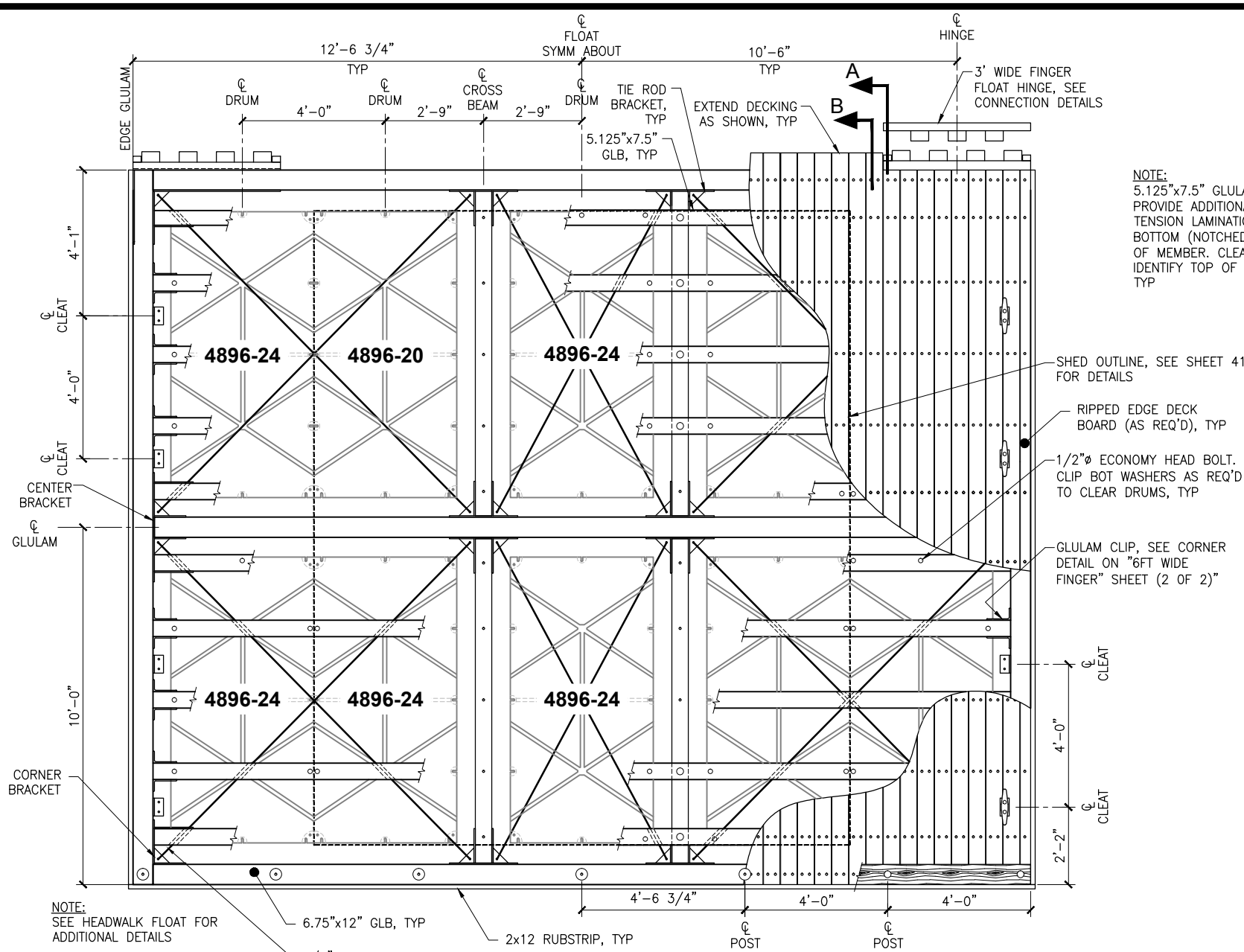
1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



PROJECT: **HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**
TITLE: **6-FT WIDE FINGER FLOATS (2 OF 2)**

DESIGNED BY: CDC/DCF	DATE: 11/21/13
CHECKED BY: DST	PROJECT NO: 121104

SHEET NO: **31** OF **53**



NOTE:
5.125"x7.5" GLULAM,
PROVIDE ADDITIONAL
TENSION LAMINATION ON
BOTTOM (NOTCHED SIDE)
OF MEMBER. CLEARLY
IDENTIFY TOP OF MEMBER,
TYP

SHED OUTLINE, SEE SHEET 41
FOR DETAILS
RIPPED EDGE DECK
BOARD (AS REQ'D), TYP
1/2" ECONOMY HEAD BOLT.
CLIP BOT WASHERS AS REQ'D
TO CLEAR DRUMS, TYP
GLULAM CLIP, SEE CORNER
DETAIL ON "6FT WIDE
FINGER" SHEET (2 OF 2)

NOTE:
SEE HEADWALK FLOAT FOR
ADDITIONAL DETAILS

EXTEND PARTY FLOAT DECKING
AS SHOWN. ATTACH DECK
BOARDS ADJACENT TO HINGES
w/ 4" #12 SS SCREWS

*BASED ON ESTIMATED
HINGE WIDTH. ADJUST TO
PROVIDE CLEAR DISTANCE
SHOWN

**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

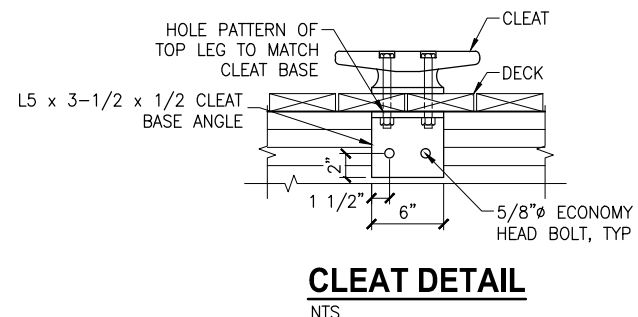
P | N | D
ENGINEERS, INC.

PROJECT: **HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

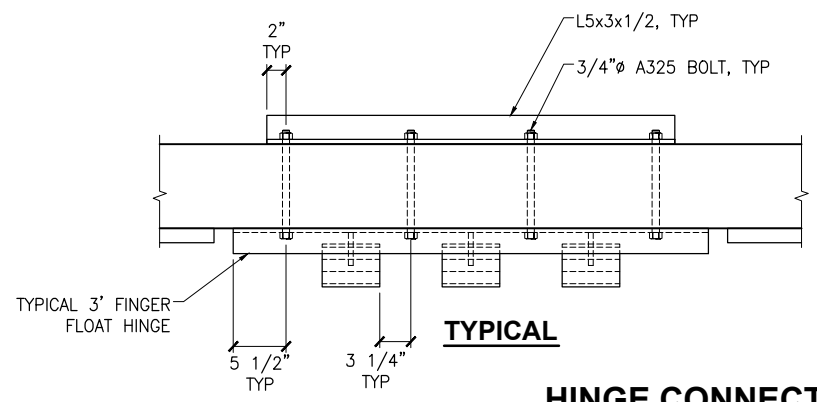
TITLE: **PARTY FLOAT (1 OF 2)**

DESIGNED BY: CDC/DCF DATE: 11/21/13
CHECKED BY: DST PROJECT NO: 121104

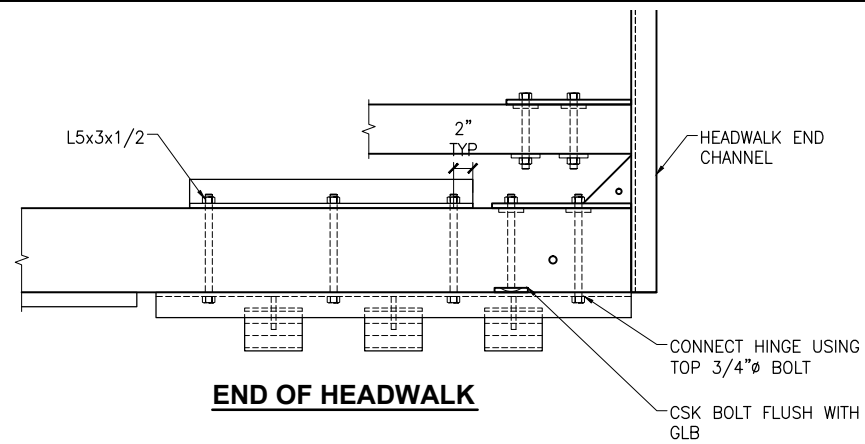
SHEET NO: **32** OF 53



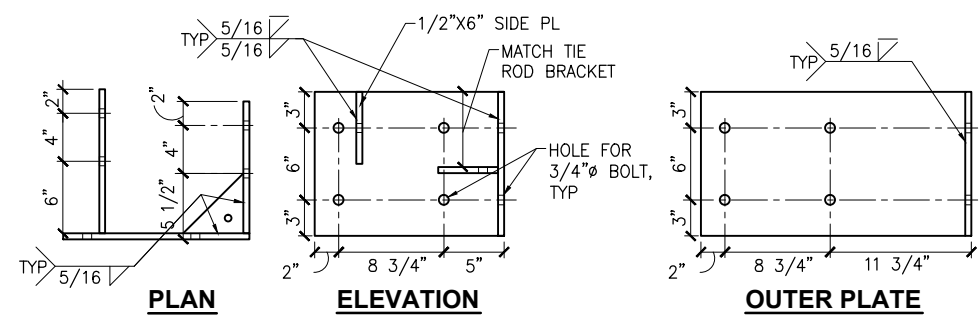
CLEAT DETAIL
NTS



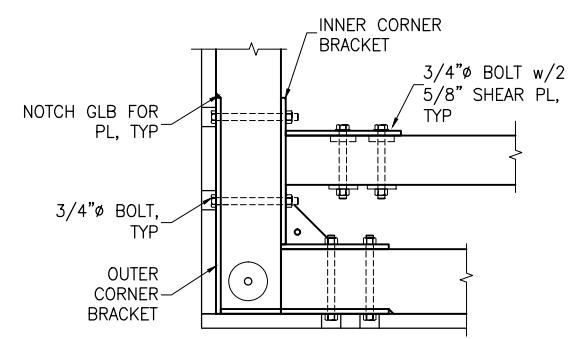
HINGE CONNECTION TO HEADWALK
NTS



END OF HEADWALK



CORNER BRACKET
NTS (ALL 1/2" PL)



CORNER DETAIL
NTS

ISSUED FOR BID
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

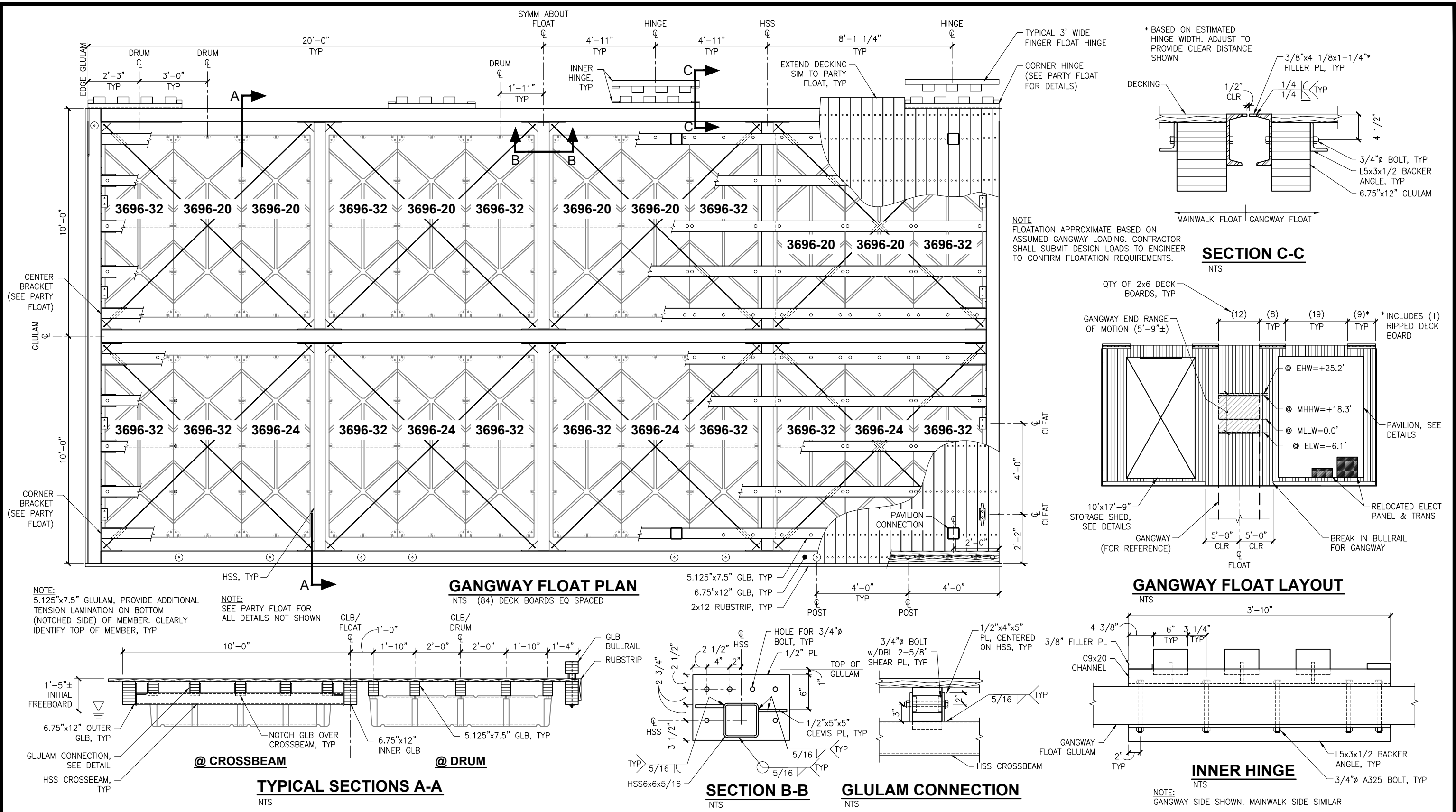
DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



PROJECT: **HOMER SMALL BOAT HARBOR FLOAT IMPROVEMENTS**
TITLE: **PARTY FLOAT (2 OF 2)**

DESIGNED BY: CDC/DCF	DATE: 11/21/13	SHEET NO: 33 OF 53
CHECKED BY: DST	PROJECT NO: 121104	



ISSUED FOR BID
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

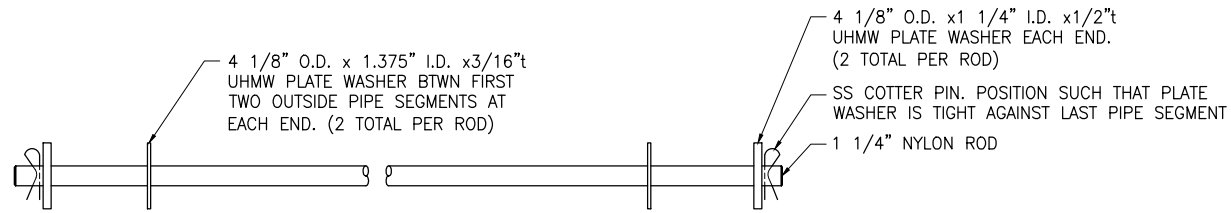


**HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

TITLE: **GANGWAY FLOAT**

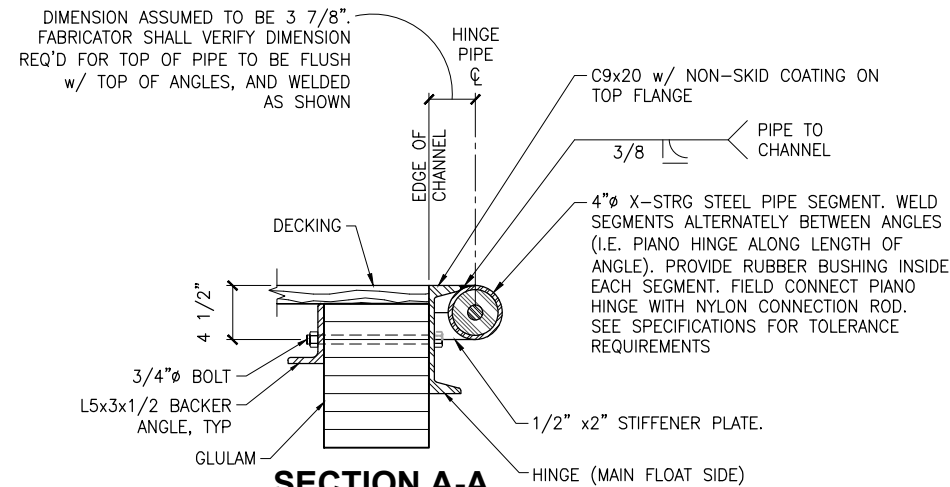
DESIGNED BY: CDC/DCF DATE: 11/21/13
CHECKED BY: DST PROJECT NO: 121104

SHEET NO: **34** OF 53



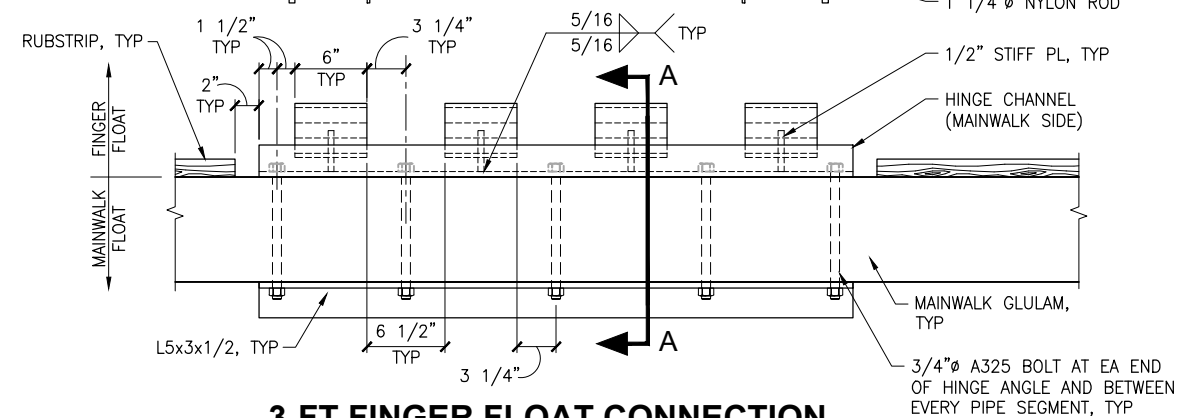
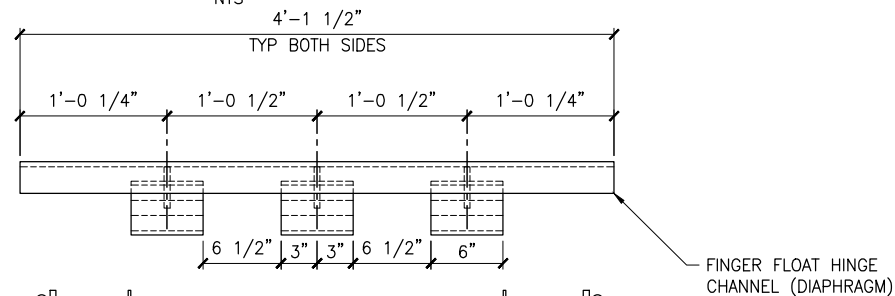
PIANO HINGE CONNECTION ROD

NTS



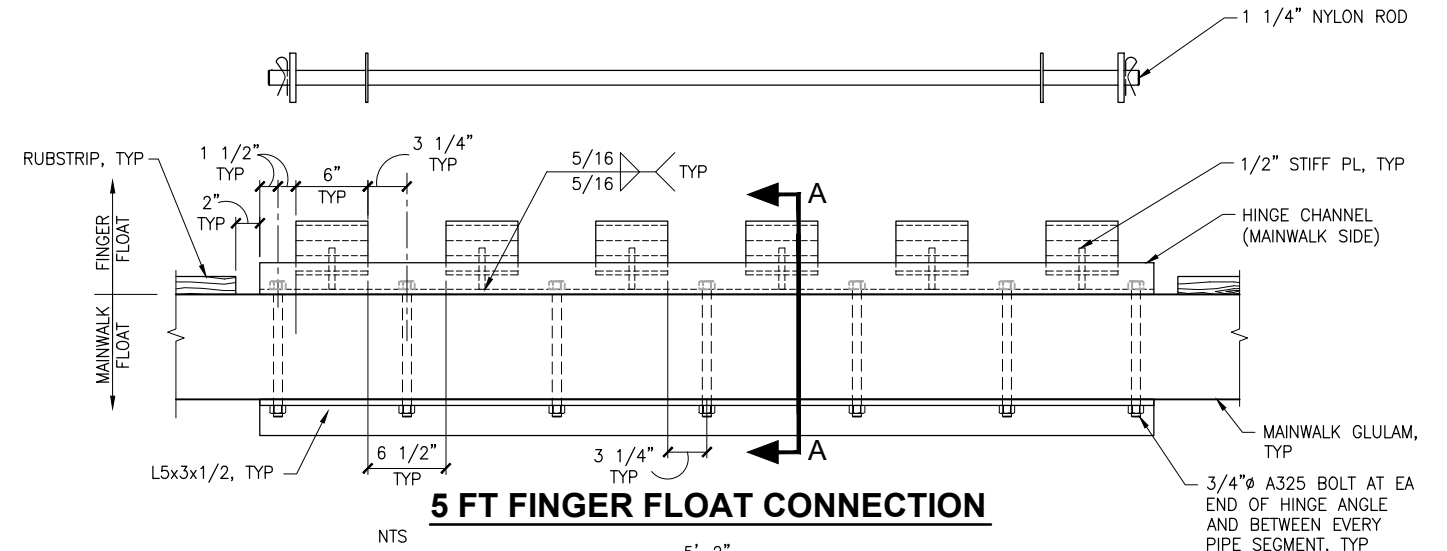
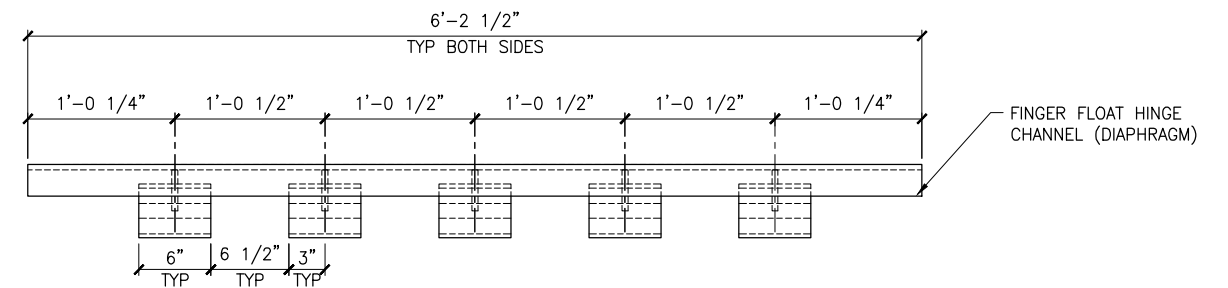
SECTION A-A

NTS



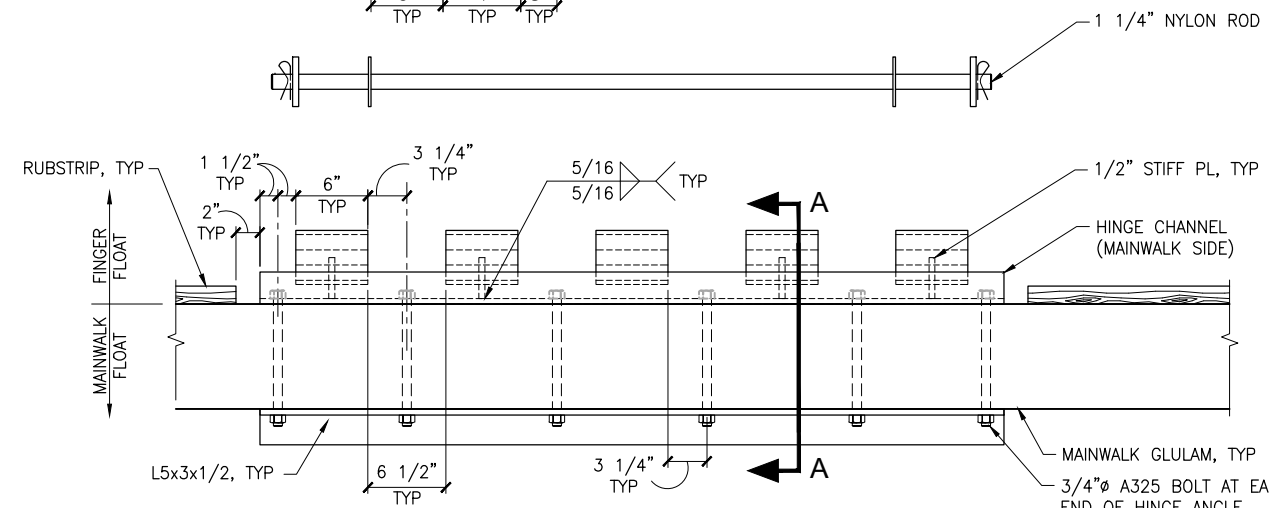
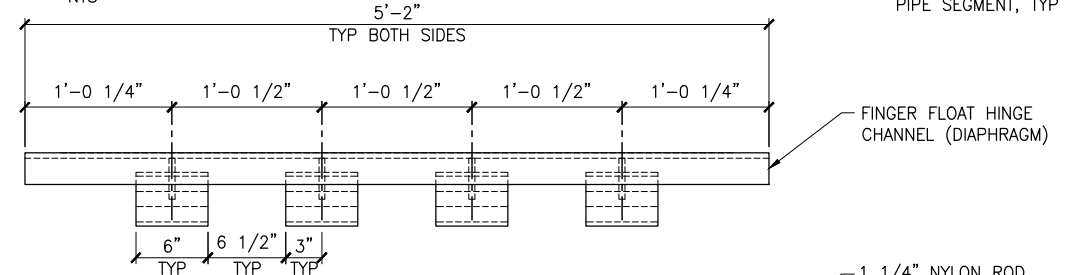
3-FT FINGER FLOAT CONNECTION

NTS



5 FT FINGER FLOAT CONNECTION

NTS



4-FT FINGER FLOAT CONNECTION

NTS

ISSUED FOR BID
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

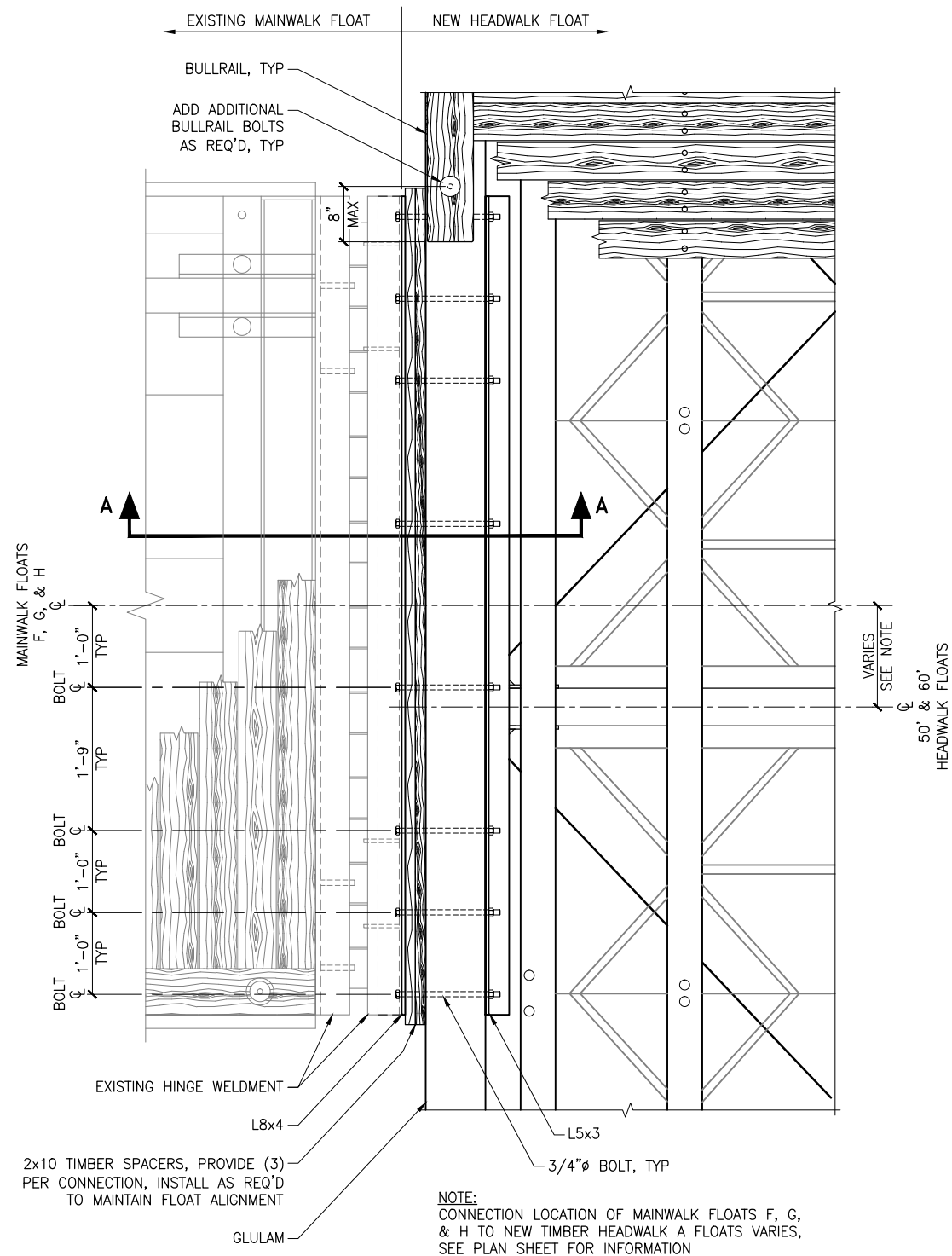
1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



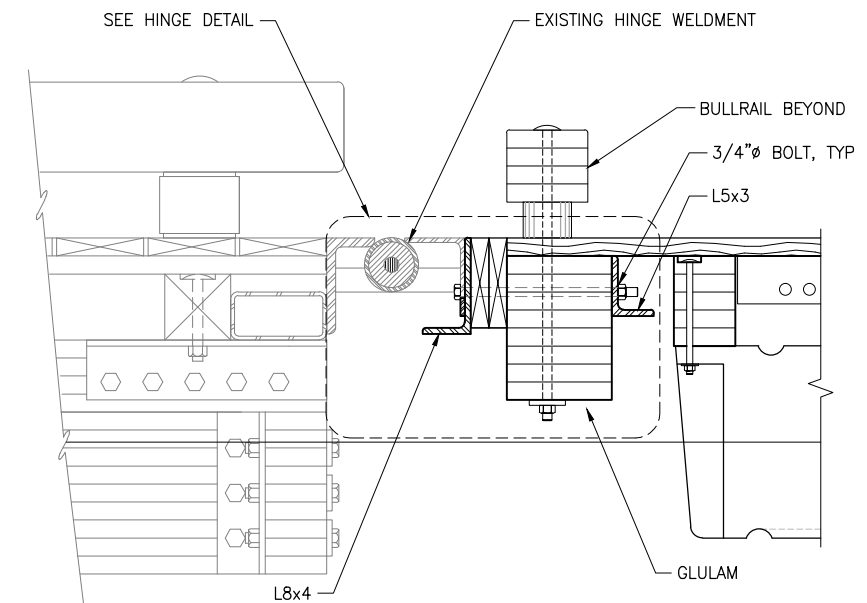
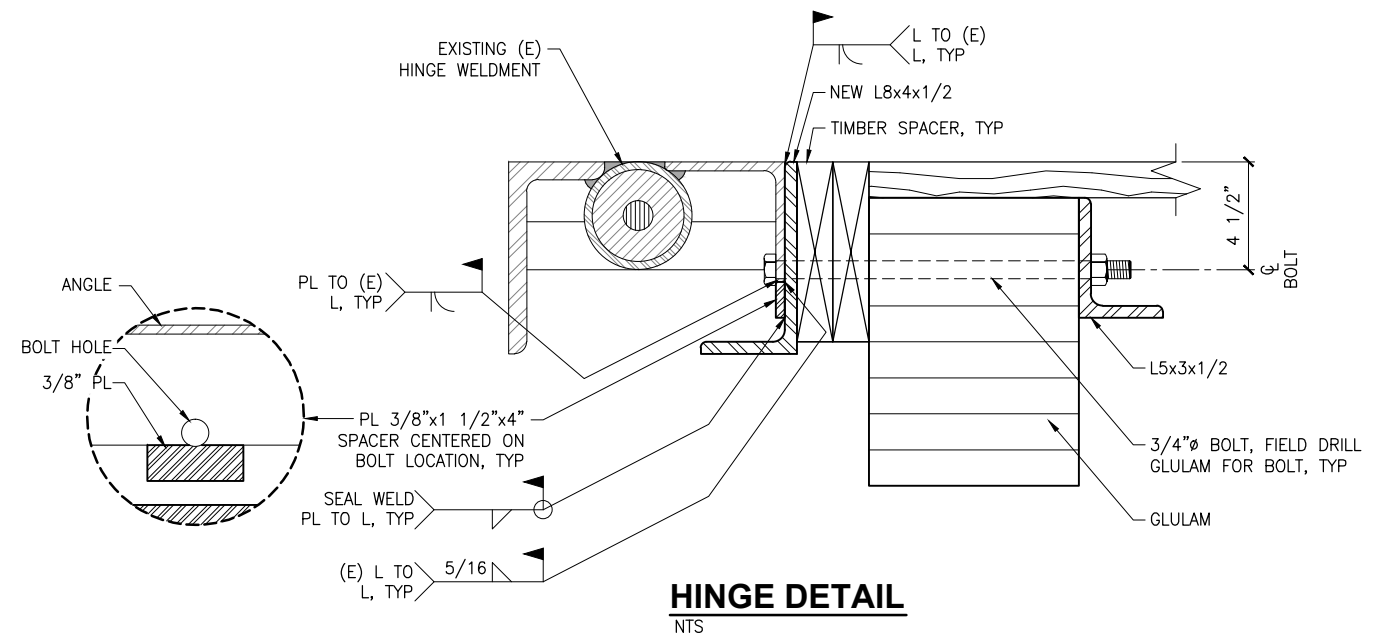
**HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

FINGER CONNECTION DETAILS

DESIGNED BY: CDC/DCF	DATE: 11/21/13	SHEET NO: 35 OF 53
CHECKED BY: DST	PROJECT NO: 121104	



F, G, & H MAIN FLOAT TO NEW HEADWALK FLOAT CONNECTION PLAN
NTS



ISSUED FOR BID
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



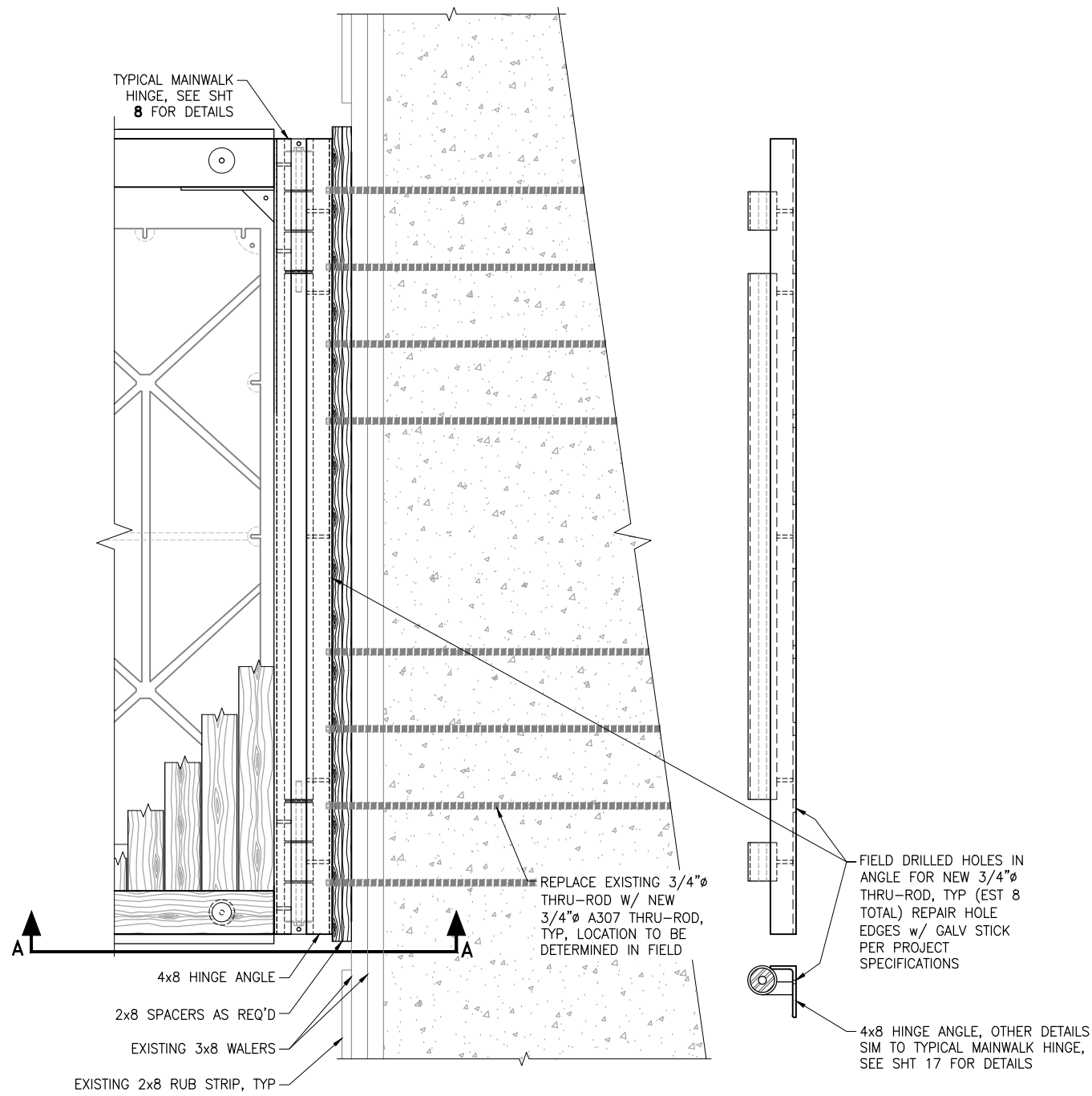
PROJECT: **HOMER SMALL BOAT HARBOR FLOAT IMPROVEMENTS**

TITLE: **EXISTING MAINWALK TO NEW HEADWALK CONNECTION DETAILS**

DESIGNED BY: CDC/DCF DATE: 11/21/13

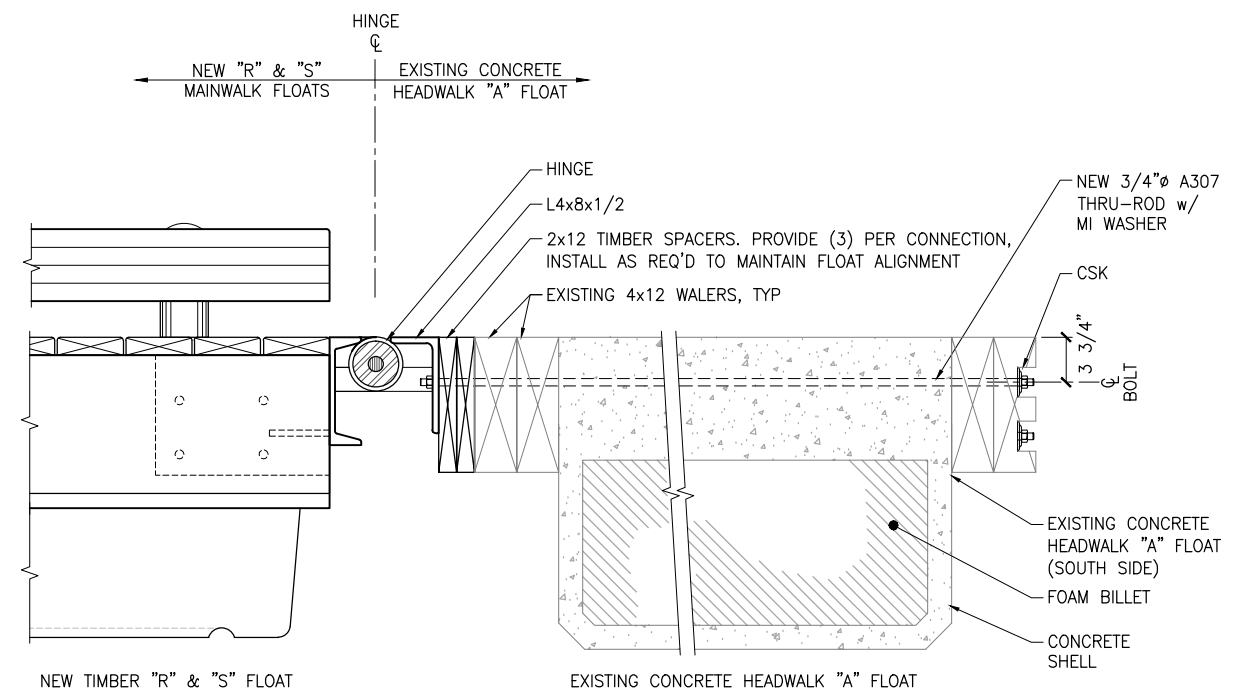
CHECKED BY: DST PROJECT NO: 121104

SHEET NO: **36** OF **53**



**R & S TIMBER MAINWALK FLOAT TO CONCRETE HEADWALK "A"
FLOAT CONNECTION PLAN**

NTS



NOTE:
PROVIDE NON-SKID COATING ON
TOP SURFACE OF HINGE ANGLES

SECTION A-A

NTS

**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

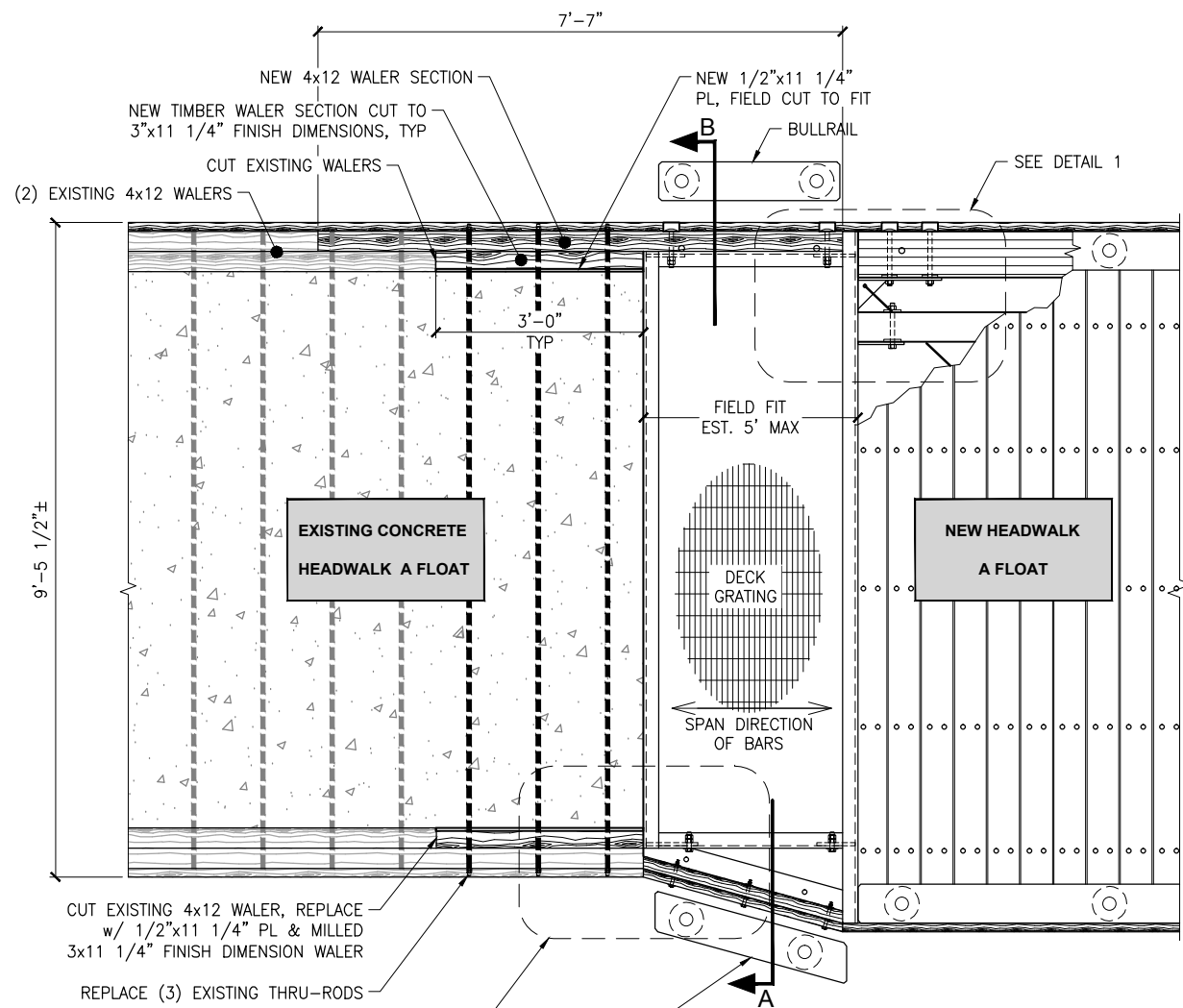
REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



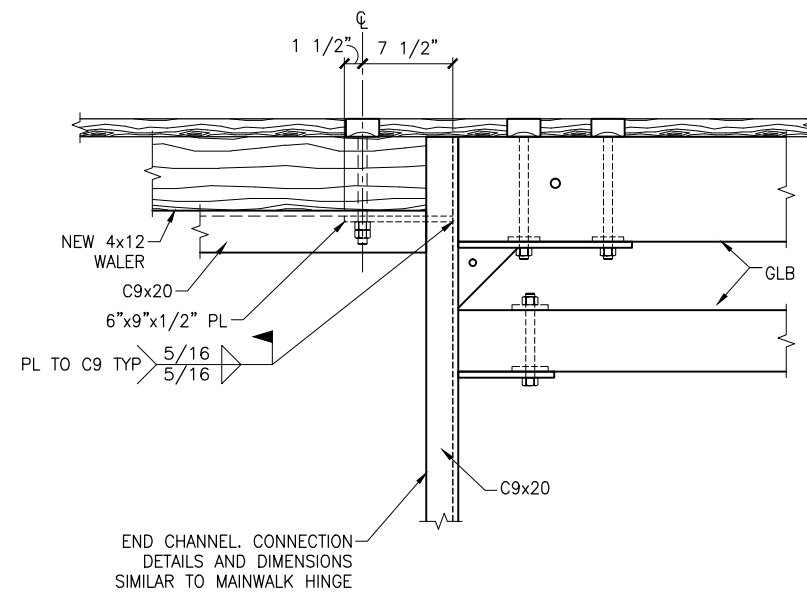
PROJECT: HOMER SMALL BOAT HARBOR FLOAT IMPROVEMENTS	
TITLE: NEW MAINWALK TO EXISTING HEADWALK CONNECTION DETAILS	
DESIGNED BY: CDC/DCF	DATE: 11/21/13
CHECKED BY: DST	PROJECT NO: 121104
SHEET NO: 37 OF 53	



PLAN

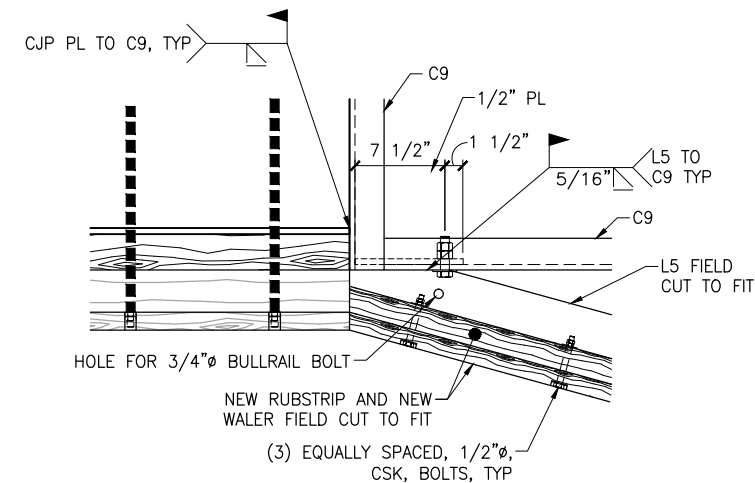
NTS

- NOTE:
 1. DETAILS SHOWN FOR SOUTH HEADWALK END, NORTH END OPPOSITE ORIENTATION, SIMILAR DETAILS.
 2. ALL FIELD CUT TIMBER SHALL BE TREATED PER MANUFACTURE



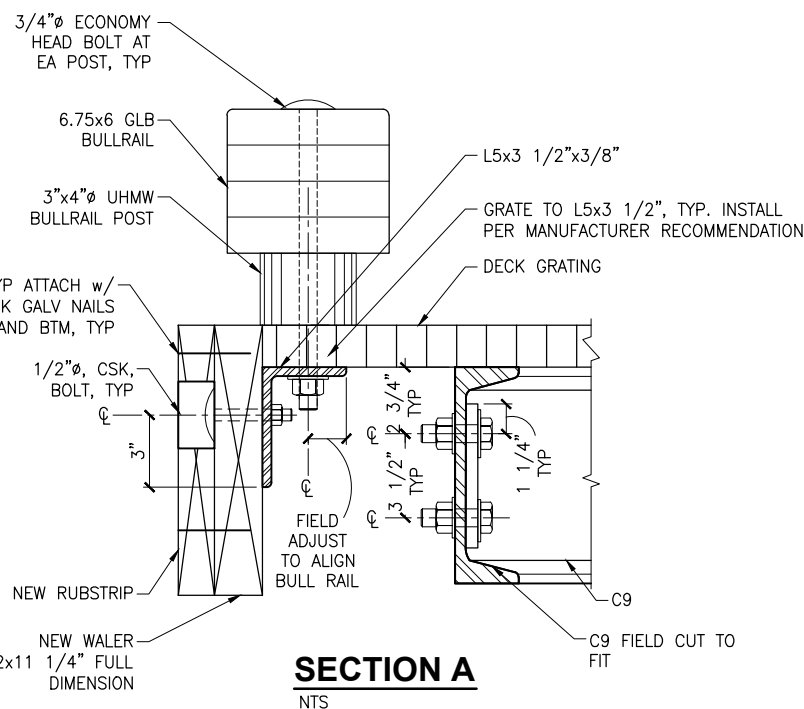
DETAIL 1

NTS



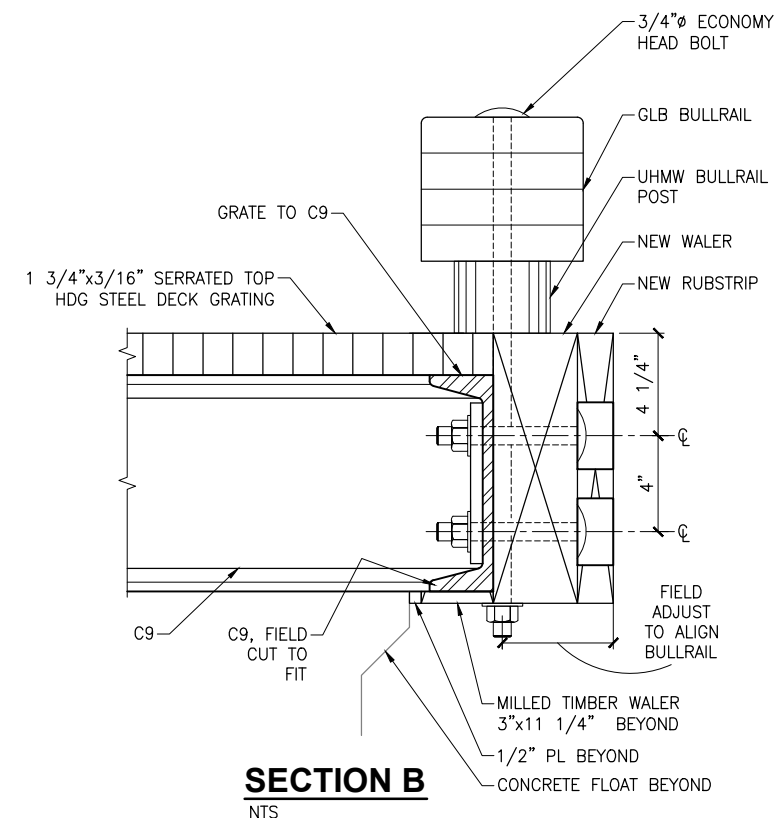
DETAIL 2

NTS



SECTION A

NTS



SECTION B

NTS

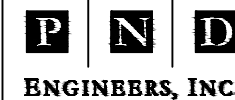
ISSUED FOR BID
 11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

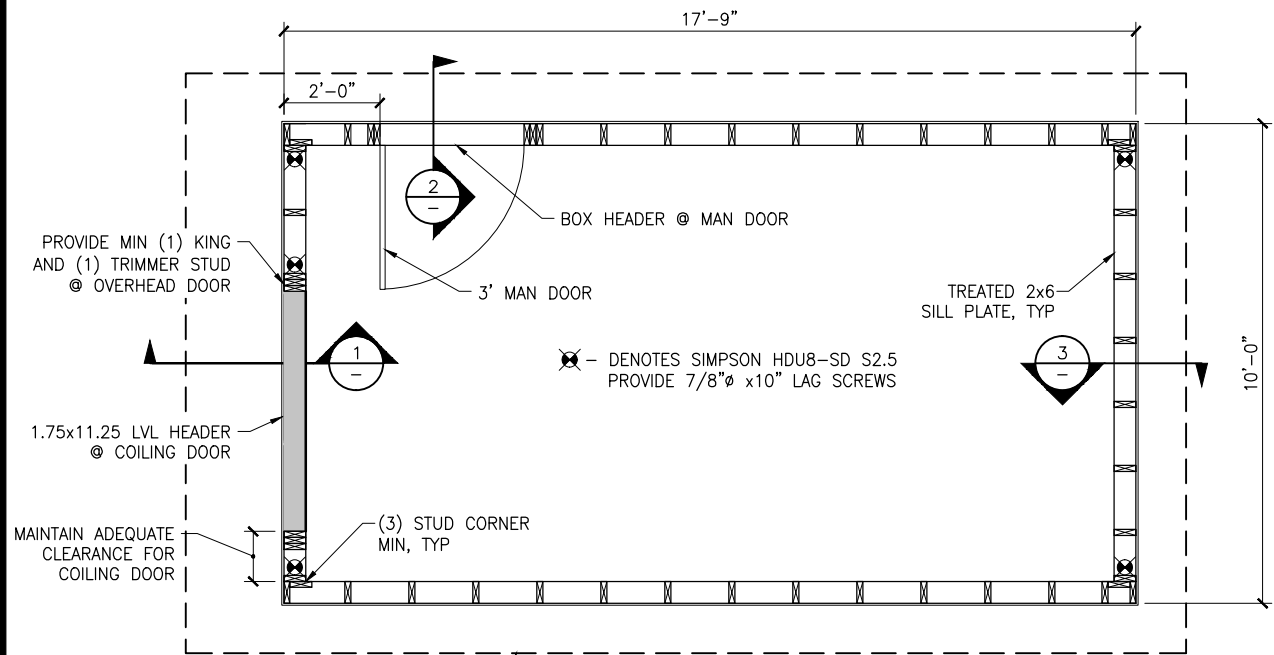
1506 West 36th Avenue
 Anchorage, Alaska 99503
 Phone: 907.561.1011
 Fax: 907.563.4220
 www.pndengineers.com



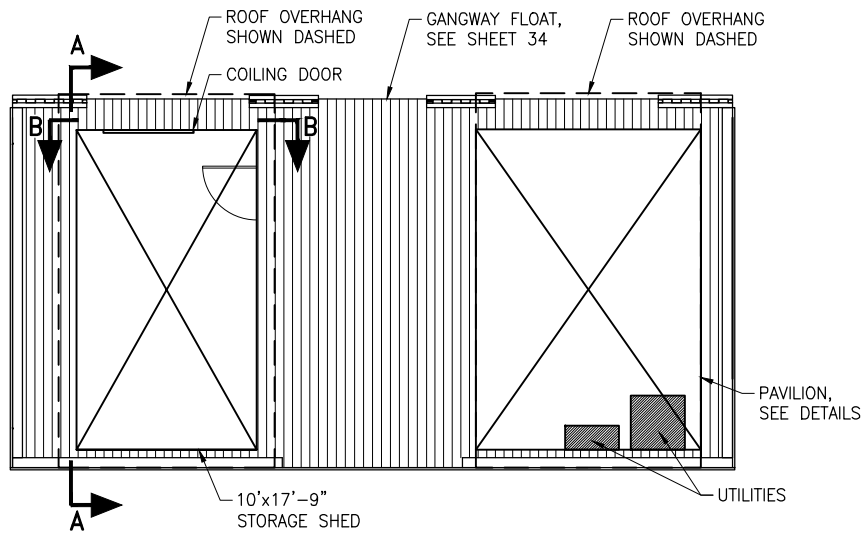
**HOMER SMALL BOAT HARBOR
 FLOAT IMPROVEMENTS**
 TITLE:
HEADWALK TRANSITION DETAILS

DESIGNED BY: CDC/DCF	DATE: 11/21/13	SHEET NO: 38
CHECKED BY: DST	PROJECT NO: 121104	

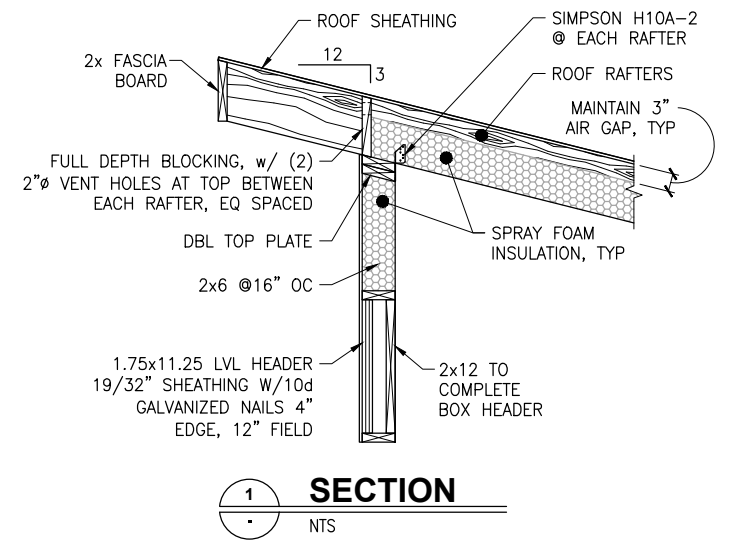
OF 53



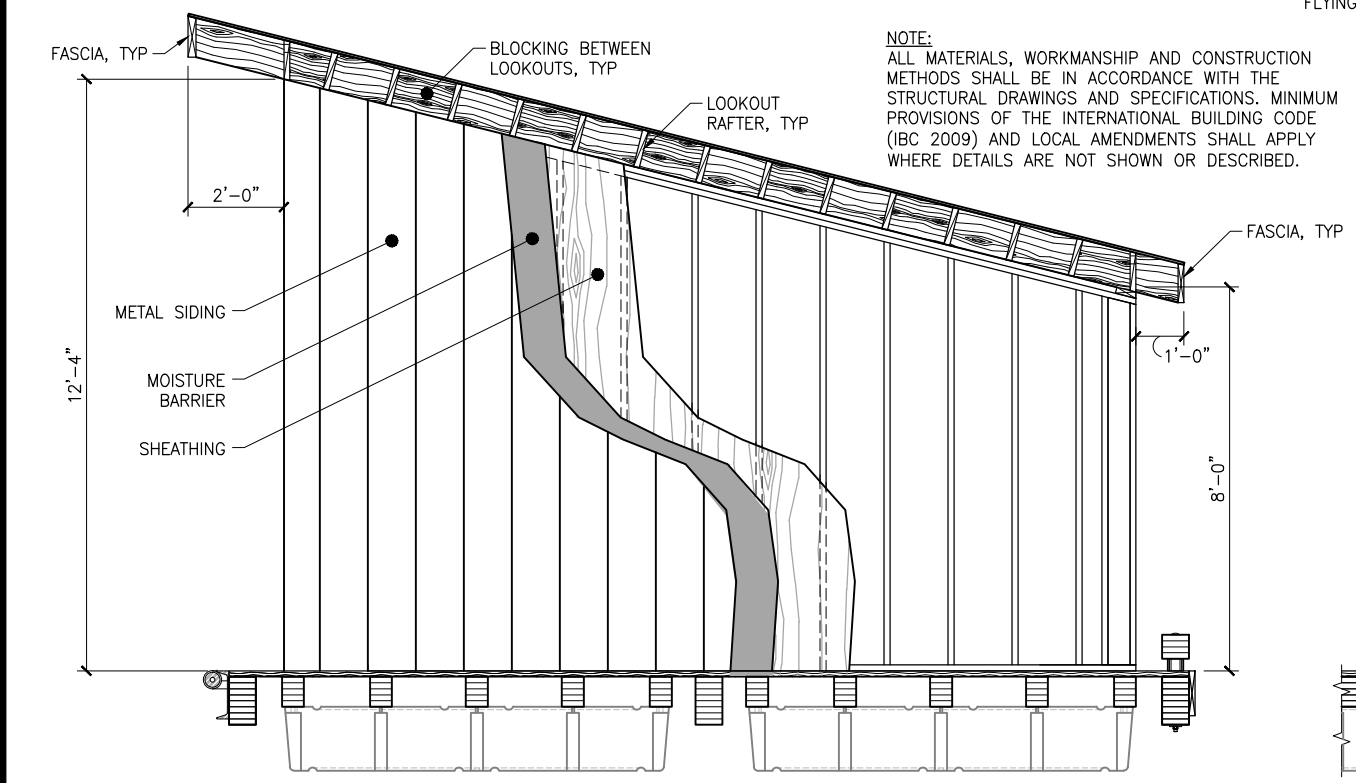
SHED PLAN
NTS



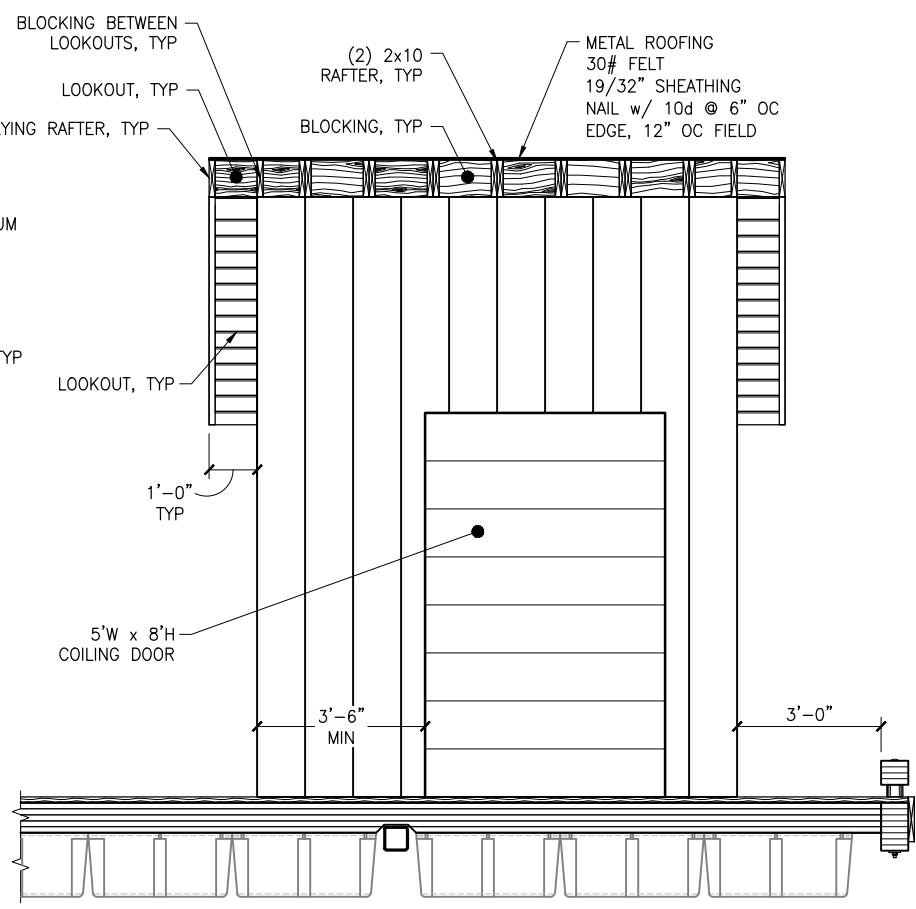
GANGWAY FLOAT & STORAGE SHED PLAN
NTS



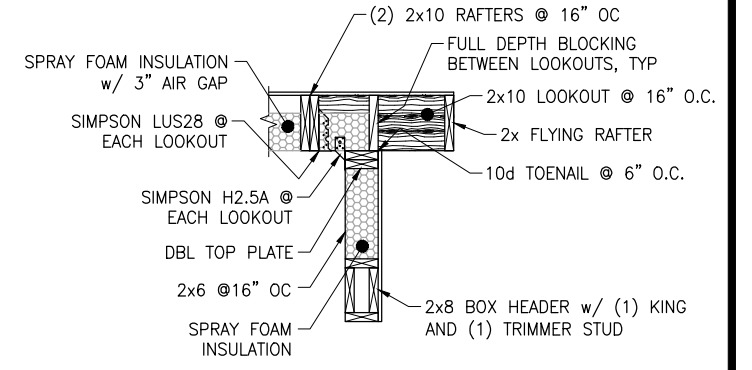
SECTION 1
NTS



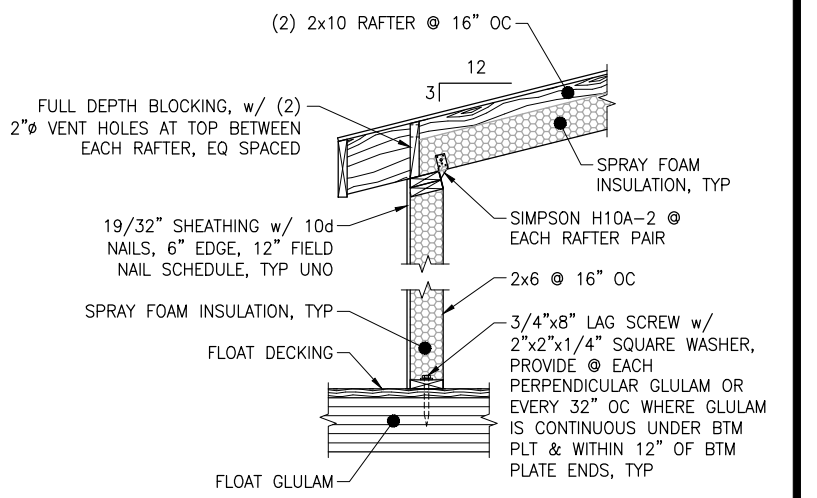
SHED ELEVATION A-A
NTS



SHED ELEVATION B-B
NTS



SECTION 2
NTS



SECTION 3
NTS

ISSUED FOR BID
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

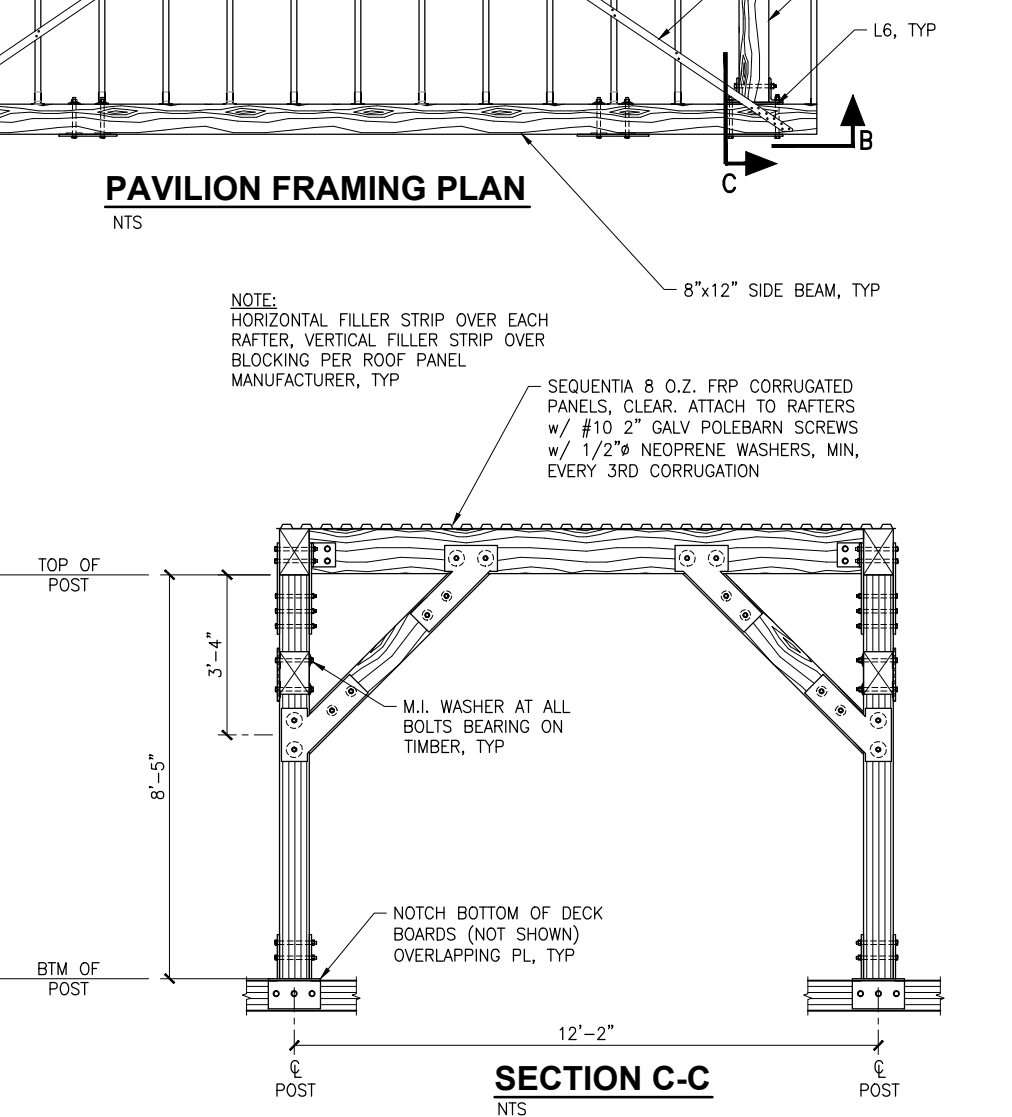
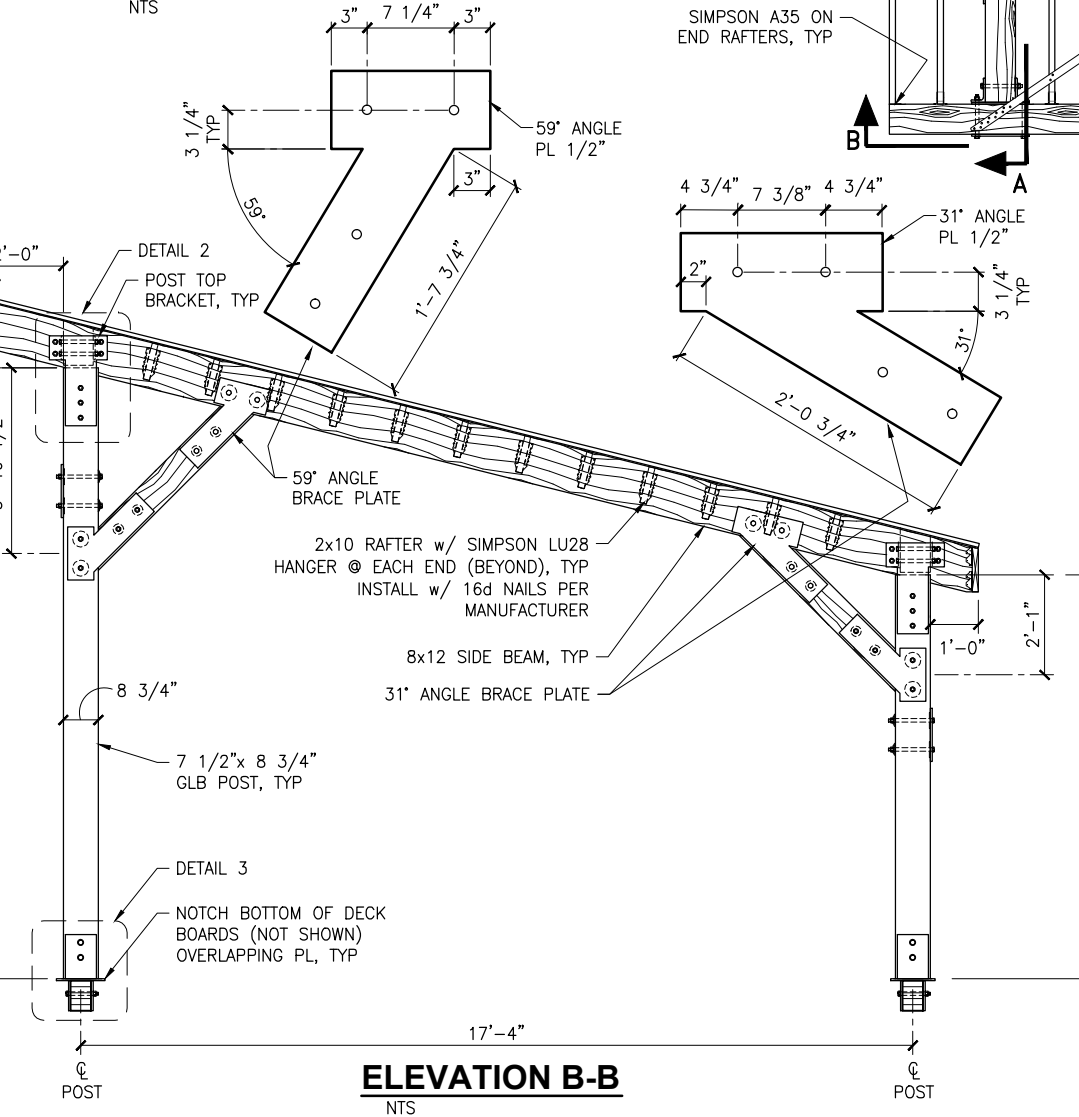
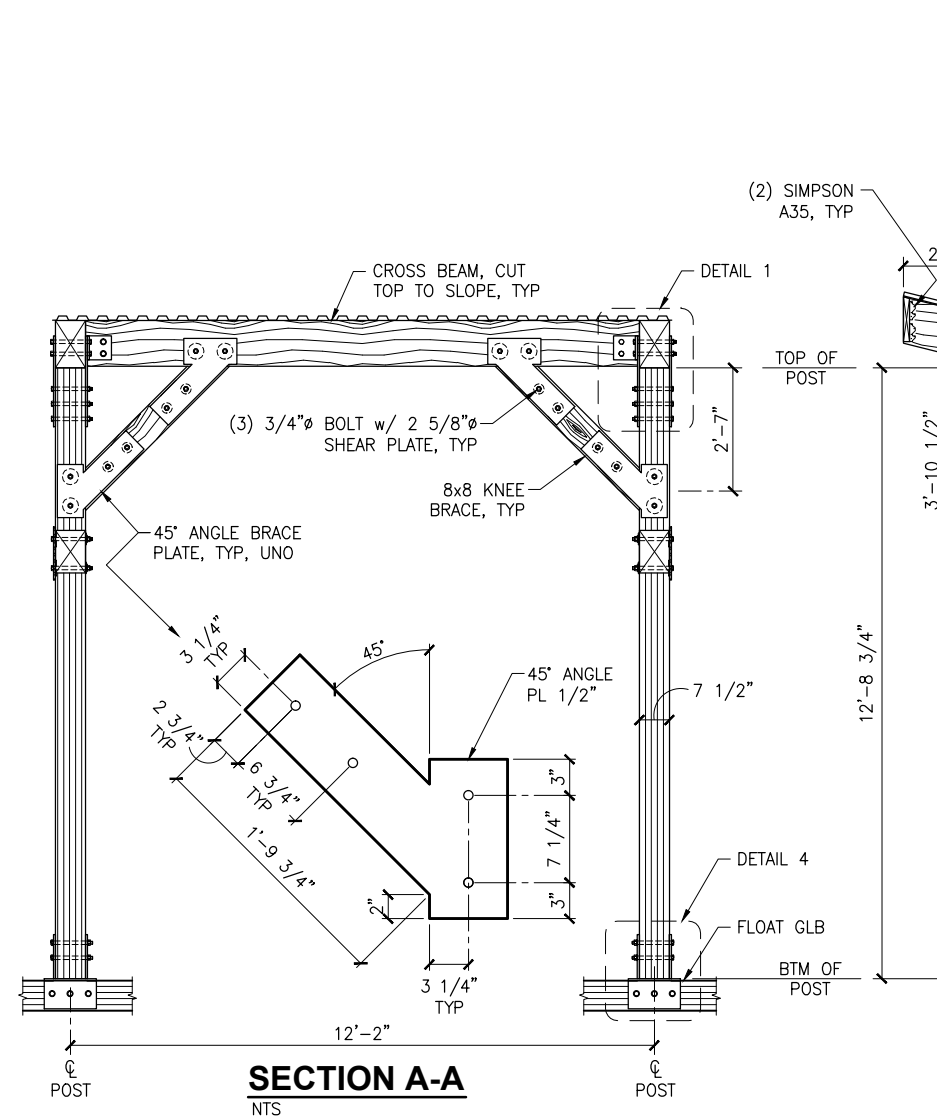
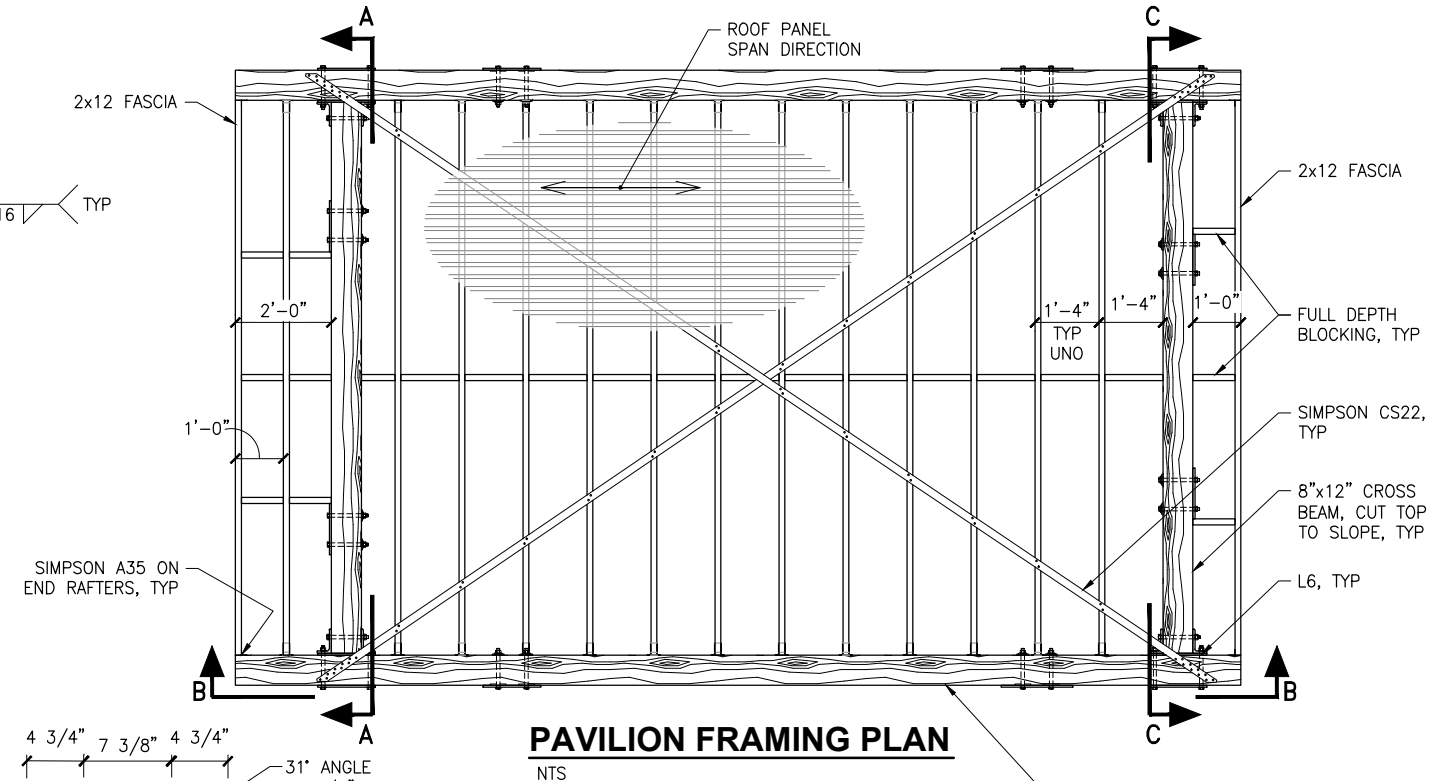
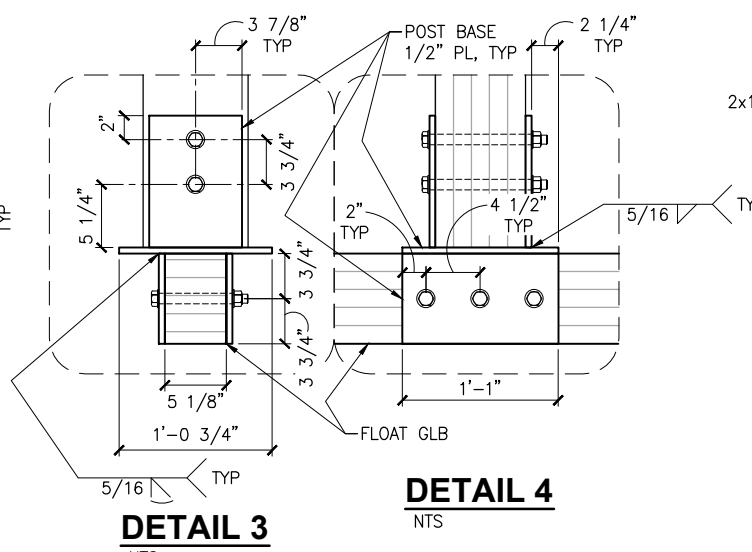
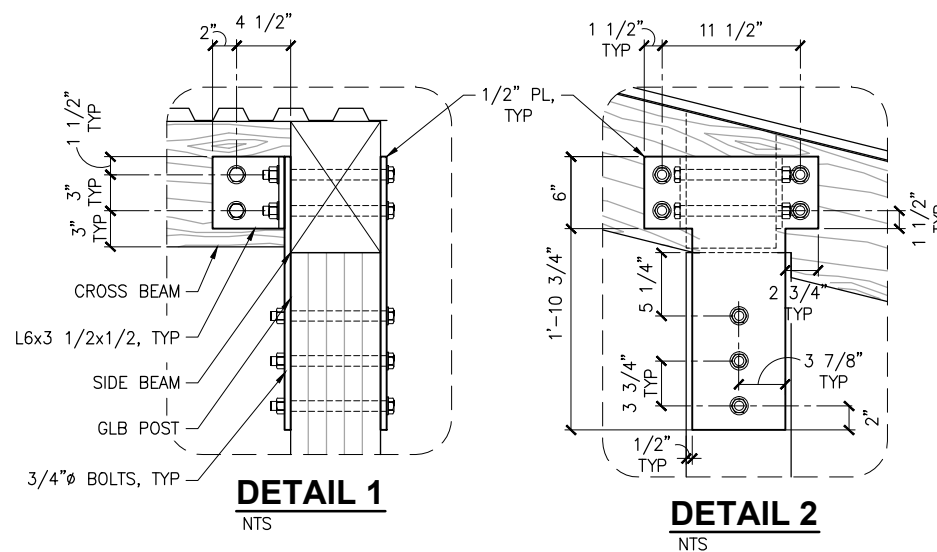


PROJECT: **HOMER SMALL BOAT HARBOR FLOAT IMPROVEMENTS**

TITLE: **GANGWAY STORAGE SHED**

DESIGNED BY: CDC/DCF DATE: 11/21/13 SHEET NO: **39** OF **53**

CHECKED BY: DST PROJECT NO: 121104



NOTE:
HORIZONTAL FILLER STRIP OVER EACH RAFTER, VERTICAL FILLER STRIP OVER BLOCKING PER ROOF PANEL MANUFACTURER, TYP

SEQUENTIA 8 O.Z. FRP CORRUGATED PANELS, CLEAR. ATTACH TO RAFTERS w/ #10 2" GALV POLEBARN SCREWS w/ 1/2" NEOPRENE WASHERS, MIN, EVERY 3RD CORRUGATION

M.I. WASHER AT ALL BOLTS BEARING ON TIMBER, TYP

NOTCH BOTTOM OF DECK BOARDS (NOT SHOWN) OVERLAPPING PL, TYP

ISSUED FOR BID
11/21/13

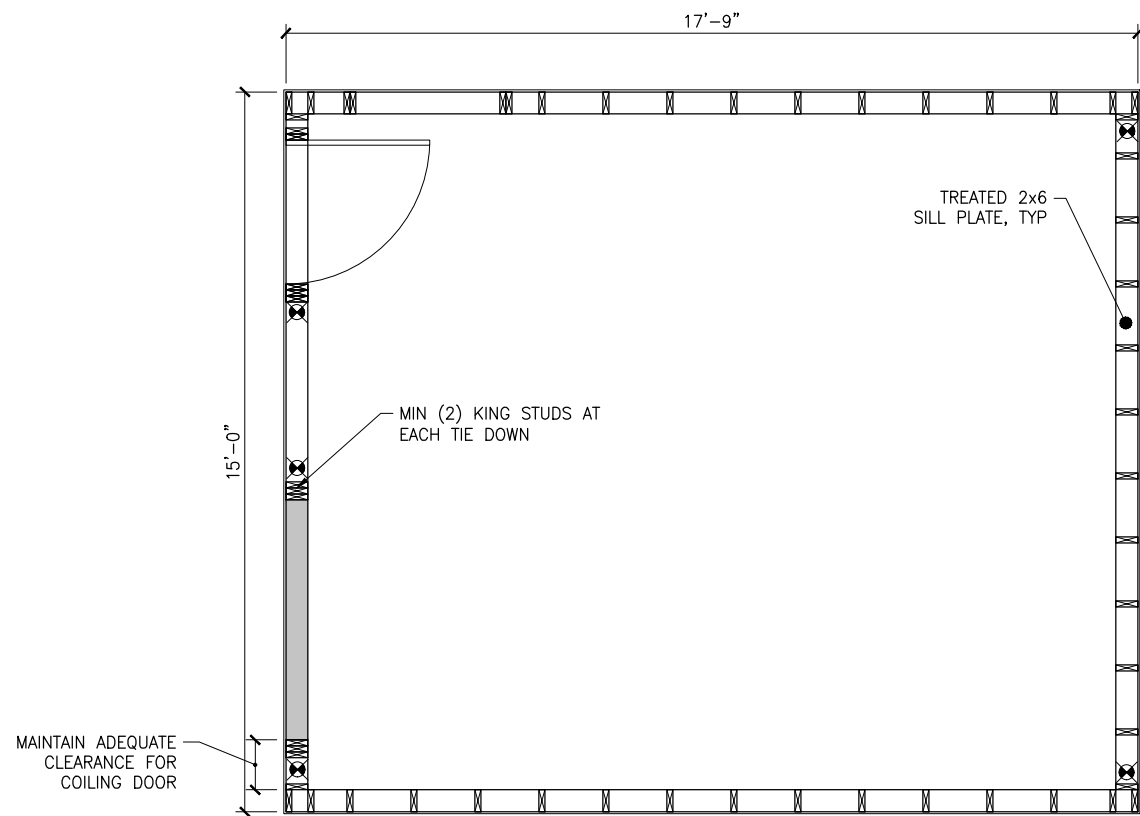
PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



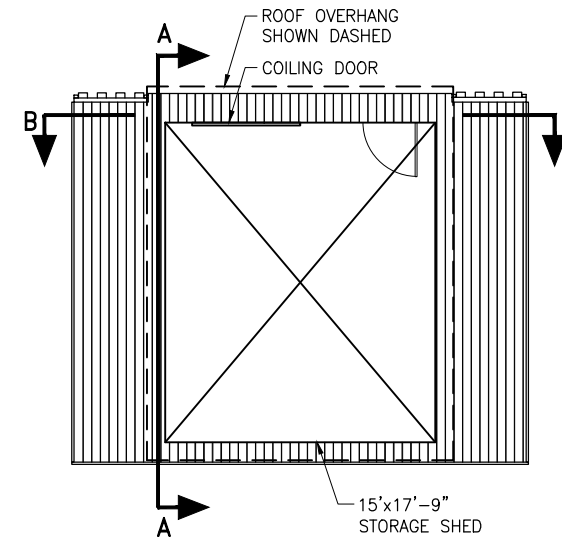
PROJECT: HOMER SMALL BOAT HARBOR FLOAT IMPROVEMENTS	
TITLE: PAVILION	
DESIGNED BY: CDC/DCF	DATE: 11/21/13
CHECKED BY: DST	PROJECT NO.: 121104
SHEET NO.: 40 OF 53	



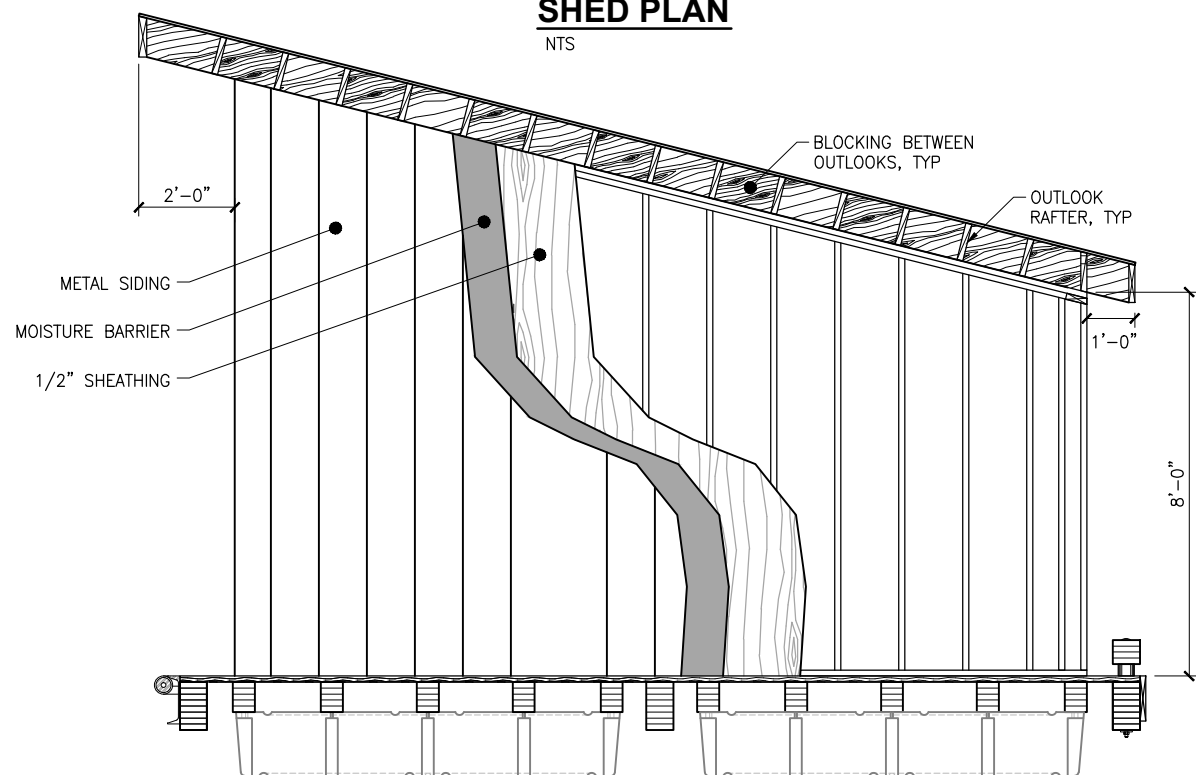
SHED PLAN
NTS

NOTE:
ALL DETAILS ON THIS SHEET ARE ADDITIVE
ALTERNATIVE 4 UNLESS NOTED OTHERWISE

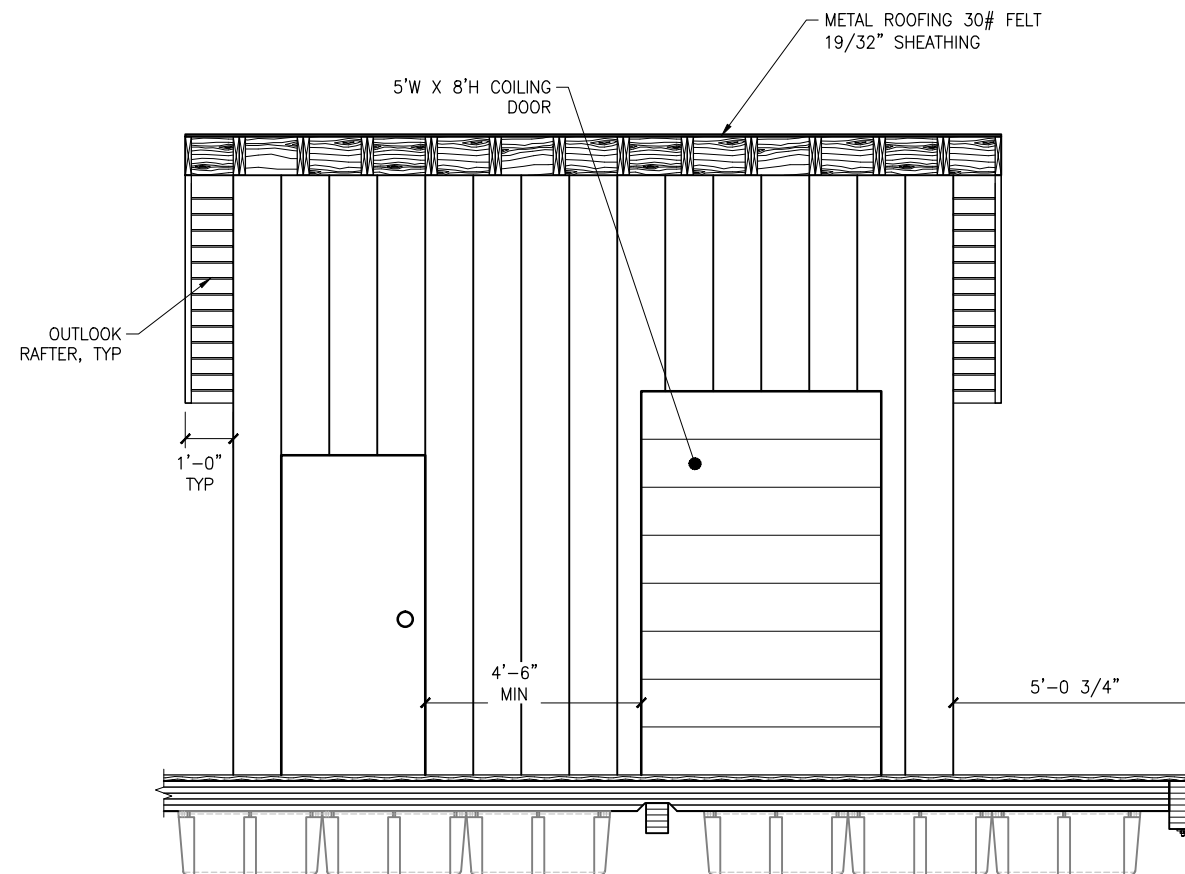
NOTE:
SEE GANGWAY FLOAT
SHED FOR MORE
INFORMATION



FLOAT PLAN
NTS



SHED ELEVATION A-A
NTS



SHED ELEVATION B-B
NTS

**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

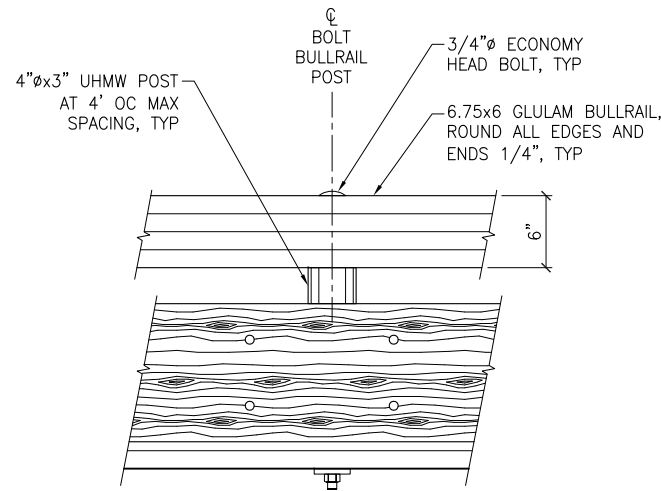
1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



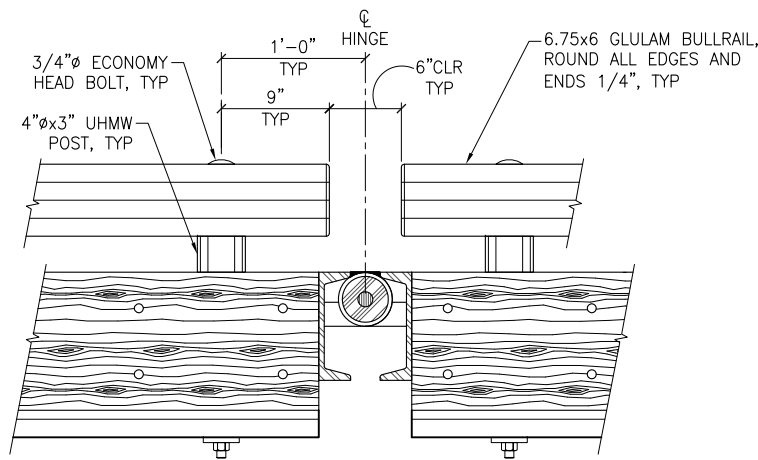
PROJECT: **HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**
TITLE: **PARTY FLOAT STORAGE SHED**

DESIGNED BY: CDC/DCF DATE: 11/21/13
CHECKED BY: DST PROJECT NO: 121104

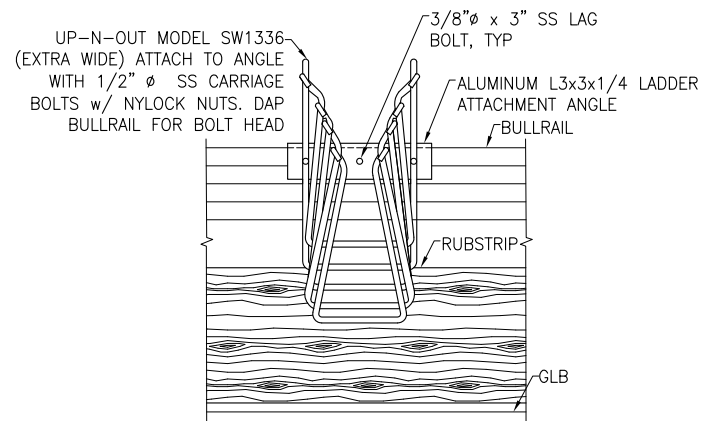
SHEET NO: **41** OF **53**



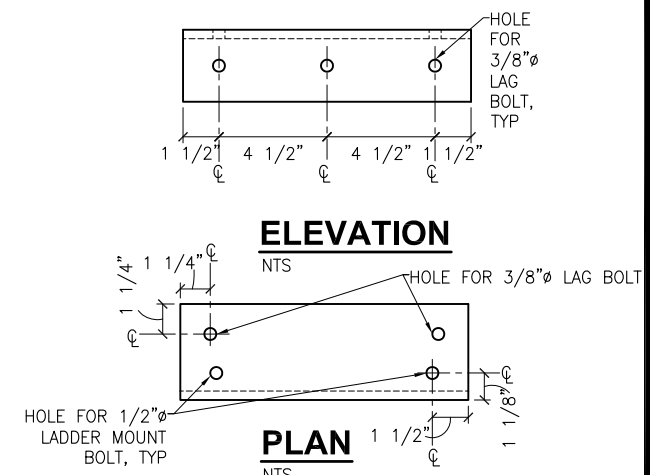
BULLRAIL ELEVATION
NTS



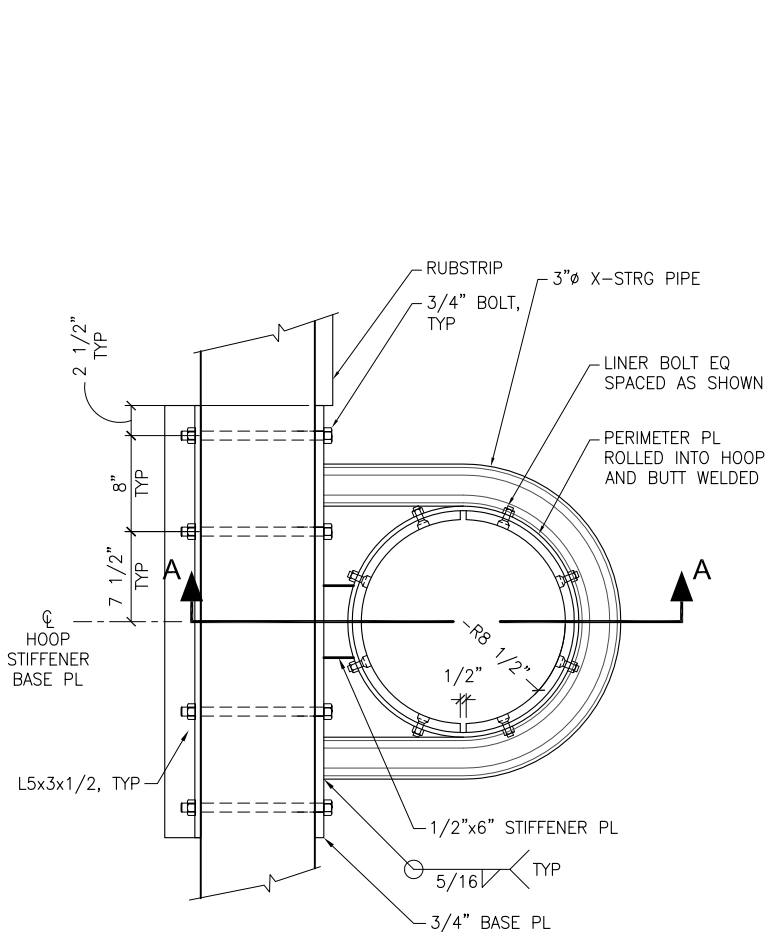
BULLRAIL END
NTS



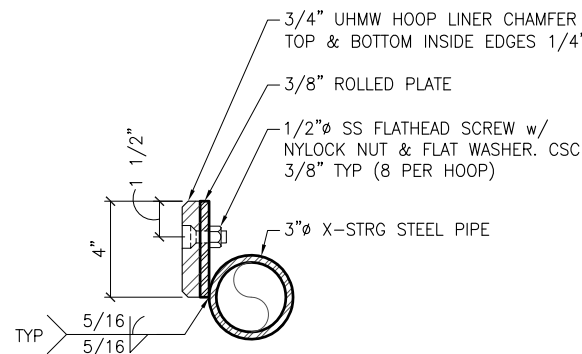
LADDER DETAIL
NTS



LADDER ATTACHMENT ANGLE
NTS



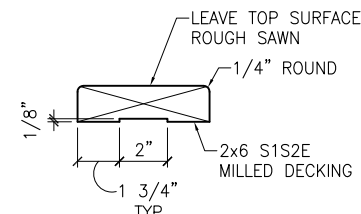
12 3/4" EXTERIOR PILE HOOP -PLAN
NTS



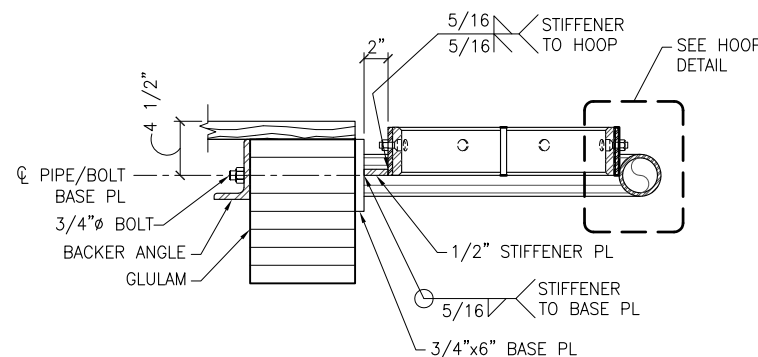
HOOP DETAIL
NTS

NOTES:

- 2x6 DECKING MILL S1S2E ROUGH SIDE UP. MILLED SIDE SHALL BE TOWARDS THE CENTER OF THE TREE.
- SECURE WITH 7Ga, 16d GALV SPIRAL SHANK NAILS AT EACH LOCATION UNLESS OTHERWISE NOTED. PREDRILL TO PREVENT SPLITTING.
- SEE FLOAT PLANS FOR ENGINEER'S ESTIMATED DECKING BOARDS FOR EACH FLOAT. CONTRACTOR SHALL CONFIRM DECK BOARD ESTIMATE BASED ON A 1/4"± GAP.



TIMBER DECKING DETAIL
NTS



SECTION A-A
NTS

ISSUED FOR BID
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

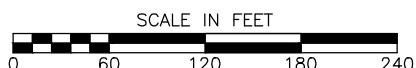
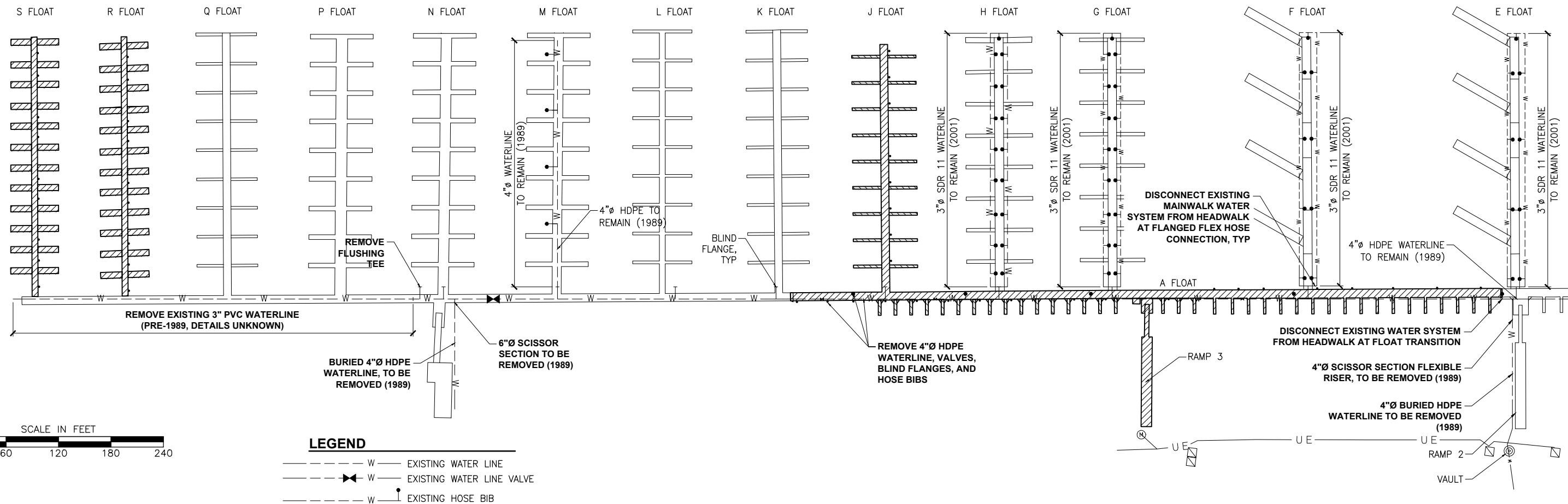
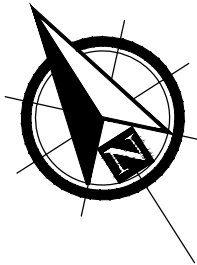
1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



PROJECT: **HOMER SMALL BOAT HARBOR FLOAT IMPROVEMENTS**
TITLE: **MISCELLANEOUS DETAILS**

DESIGNED BY: CDC/DCF DATE: 11/21/13
CHECKED BY: DST PROJECT NO: 121104

SHEET NO: **42** OF **53**



LEGEND

- W --- EXISTING WATER LINE
- W --- EXISTING WATER LINE VALVE
- W --- EXISTING HOSE BIB

EXISTING WATER SERVICE PLAN / DEMOLITION

DEMOLITION SUMMARY

GENERAL

- REMOVE ALL EXISTING WATER SYSTEM COMPONENTS FROM HEADWALK A EXTENDING FROM RAMP 2 TO MAINWALK S.
- REMOVE EXISTING RAMP 4 AND RAMP 2 SCISSORS LIFTS AND BURIED HDPE WATER LINE.

ALL MATERIALS SHALL BE DISPOSED OF BY THE CONTRACTOR ACCORDING TO ALL APPLICABLE LOCAL, STATE & FEDERAL REGULATIONS, UNLESS NOTED OTHERWISE.

EXISTING MAINWALK WATER SYSTEM COMPONENTS TO REMAIN (E FLOAT, F FLOAT, G FLOAT, H FLOAT AND M FLOAT).

NOTE:
EXACT DETAILS OF WATER SYSTEM UNKNOWN.
DRAWING BASED ON AVAILABLE INFORMATION
COMPILED FROM PREVIOUS DESIGN DRAWINGS.
AS BUILT CONDITIONS MAY DIFFER.

**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

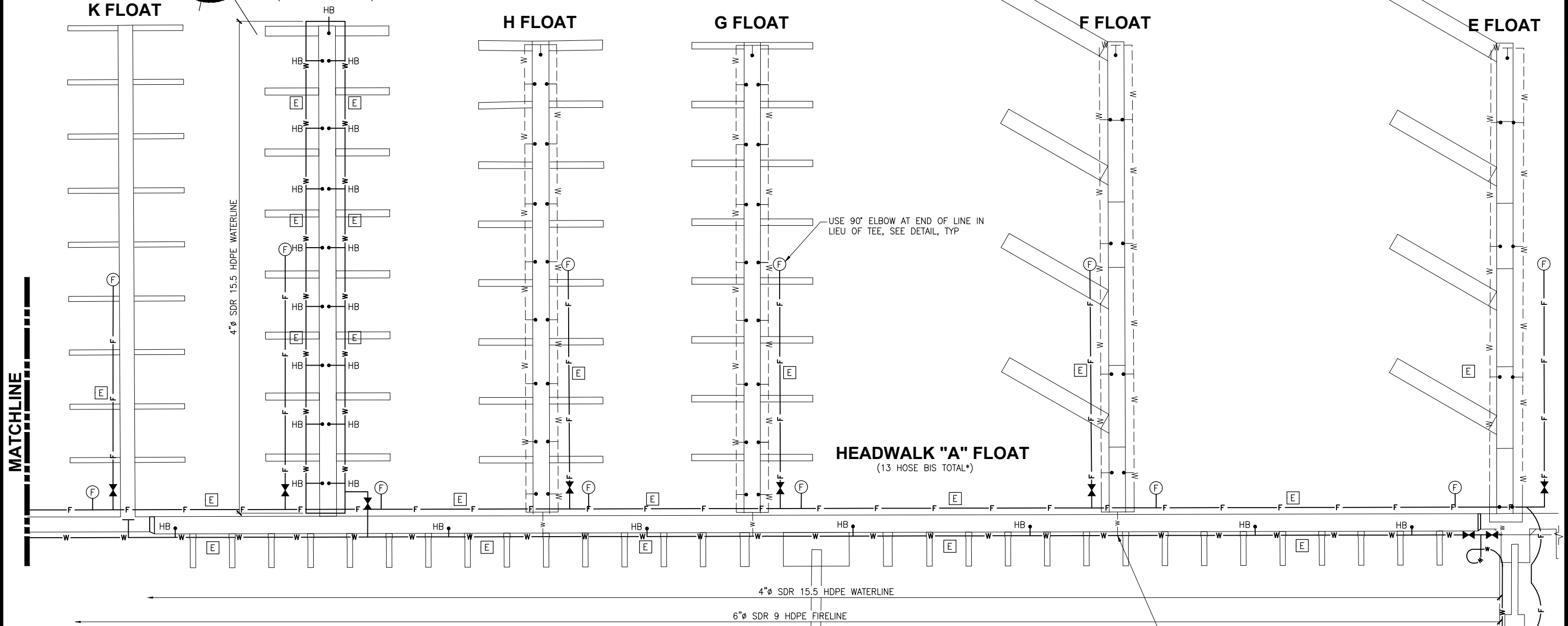
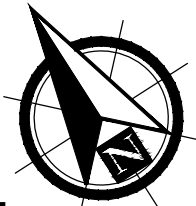


**HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

TITLE: **EXISTING WATER SERVICE PLAN / DEMOLITION**

DESIGNED BY: CDC/DCF DATE: 11/21/13
CHECKED BY: DST PROJECT NO: 121104

SHEET NO: **43** OF **53**



LEGEND

(F)	FIRE STANDPIPE
HB	HOSE BIB
(E)	EXPANSION LOOP
F	FIRE LINE
W	WATER LINE (NEW)
-w-	WATER LINE (EXISTING)
⋈	VALVE

NOTE:
 LOCATE ONE (1) FIRE STANDPIPE AT A MAXIMUM OF 150 FEET FROM THE FREE END OF EACH MAINWALK FLOAT. LOCATE ONE (1) FIRE STANDPIPE ON THE HEADWALK NEAR EACH MAINWALK/HEADWALK INTERFACE.

HOSE BIB LOCATIONS ALONG HEADWALK TO BE VERIFIED WITH OWNER PRIOR TO INSTALLATION

NOTE:
 ALL FIRE LINE COMPONENTS ARE ADDITIVE ALTERNATIVE 5 UNLESS NOTED OTHERWISE

EXISTING MAIN FLOAT WATER LINE TO NEW A HEADWALK WATER LINE, TYP, SEE DETAIL

ISSUED FOR BID
 11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

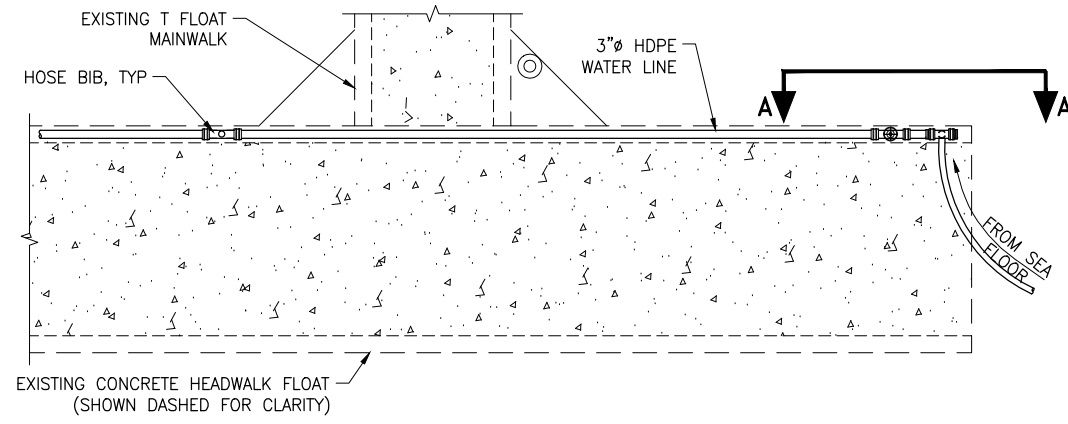
1506 West 36th Avenue
 Anchorage, Alaska 99503
 Phone: 907.561.1011
 Fax: 907.563.4220
 www.pndengineers.com



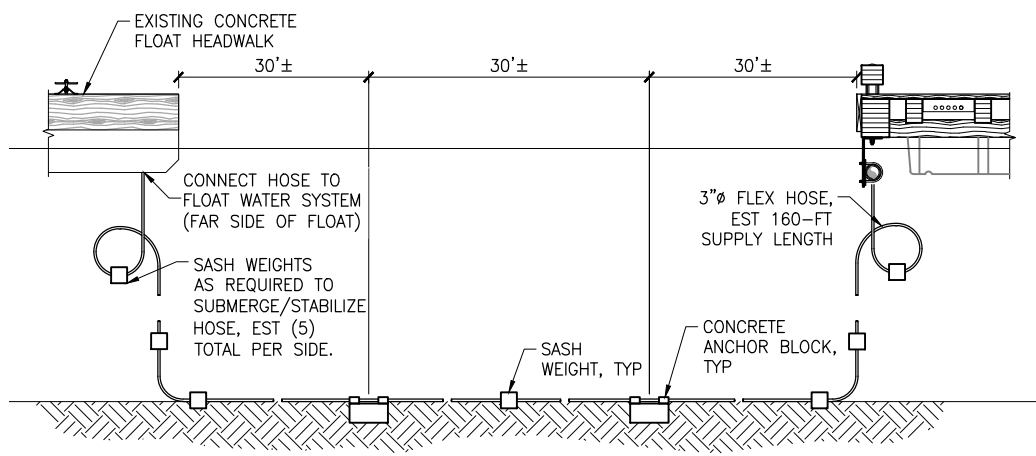
PROJECT: HOMER SMALL BOAT HARBOR FLOAT IMPROVEMENTS	
TITLE: FIRE & WATER SERVICE PLAN (2 OF 2)	
DESIGNED BY: CDC/DCF	DATE: 11/21/13
CHECKED BY: DST	PROJECT NO: 121104
SHEET NO: 45 OF 53	



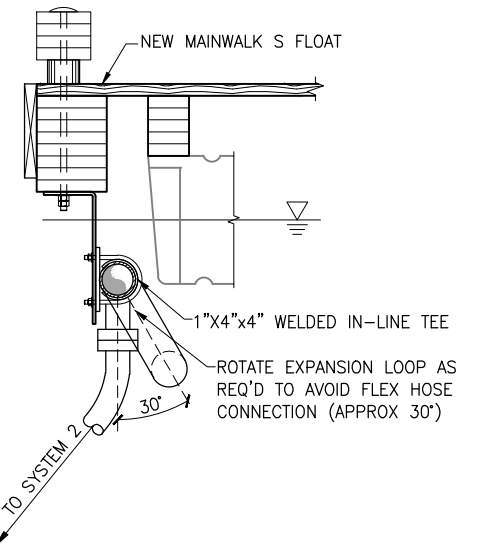
NOTE:
ALL DETAILS ON THIS SHEET ARE ADDITIVE
ALTERNATIVE 3 UNLESS NOTED OTHERWISE



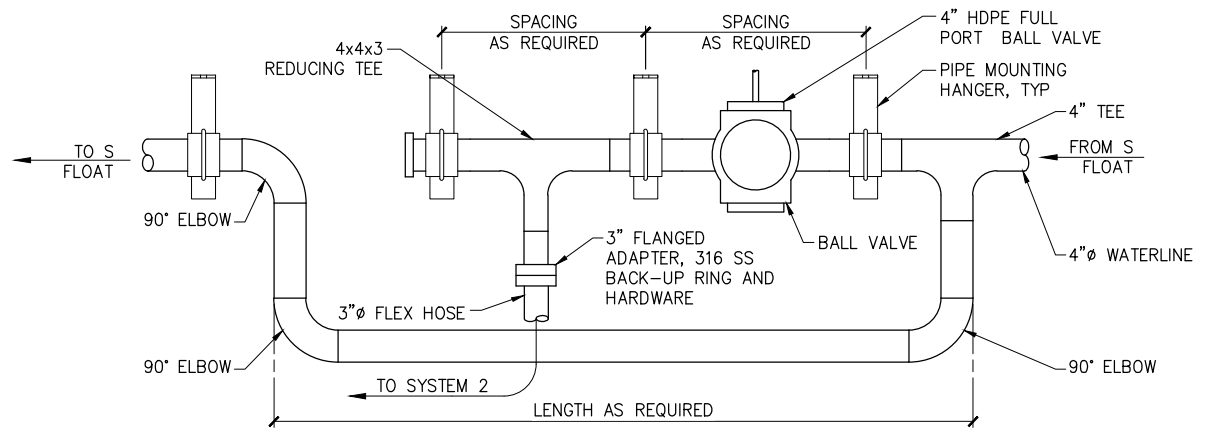
SYSTEM 2 WATER CONNECTION PLAN
NTS



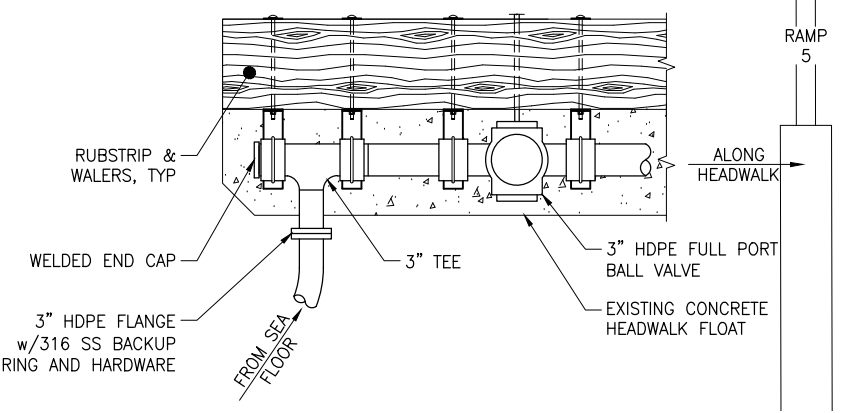
SYSTEM 2 WATER CONNECTION ELEVATION
NTS



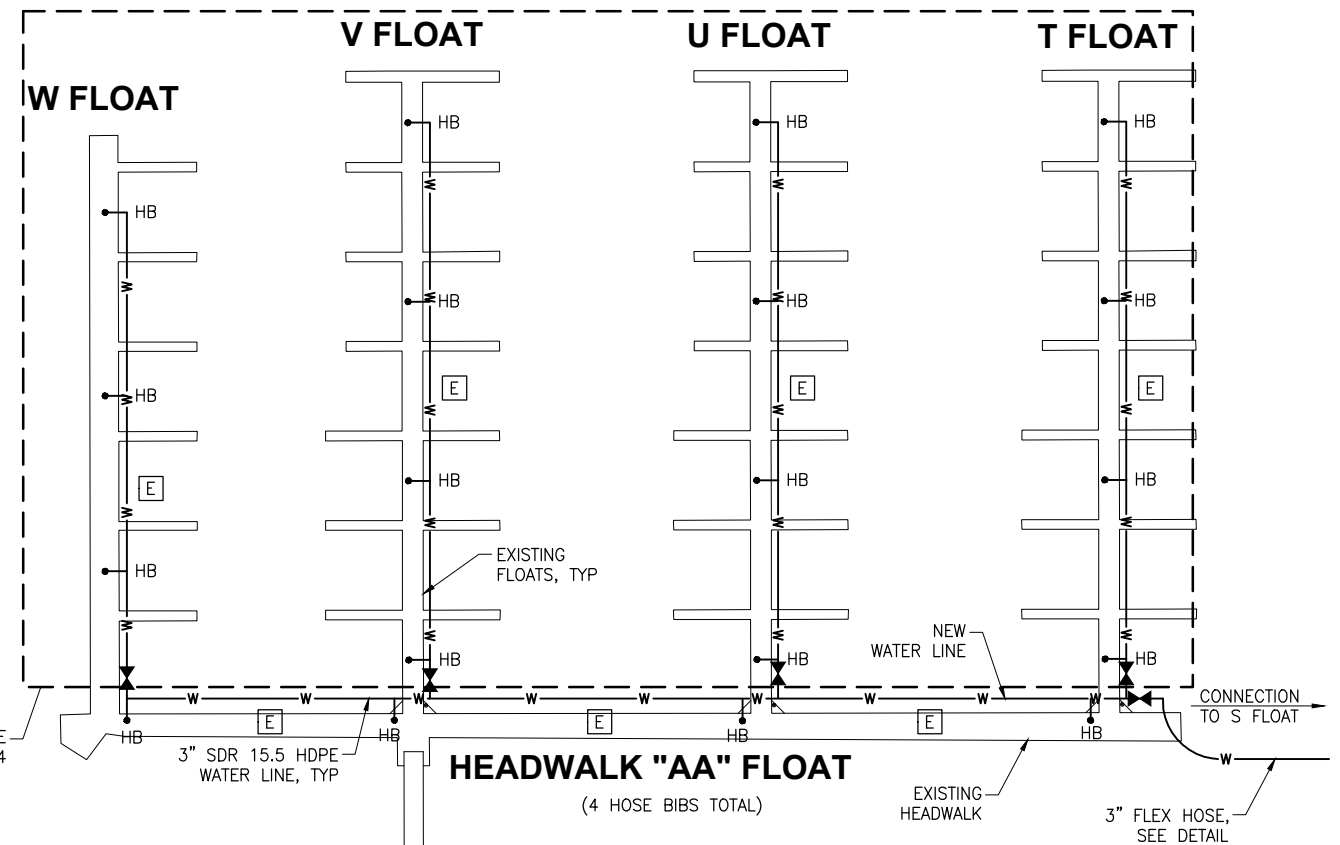
SYSTEM 2 WATER CONNECTION
NTS



SYSTEM 2 WATER CONNECTION ON S FLOAT
NTS



DETAIL A-A
NTS



HEADWALK "AA" FLOAT
(4 HOSE BIBS TOTAL)

NOTE:
PROVIDE BLIND FLANGE TEE AT
MAINWALKS T,U,V AND W IF ADDITIVE
ALTERNATIVE 4 IS NOT AWARDED.

- LEGEND**
- HB — HOSE BIB
 - [E] — EXPANSION LOOP
 - W — WATER LINE
 - X — VALVE



**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

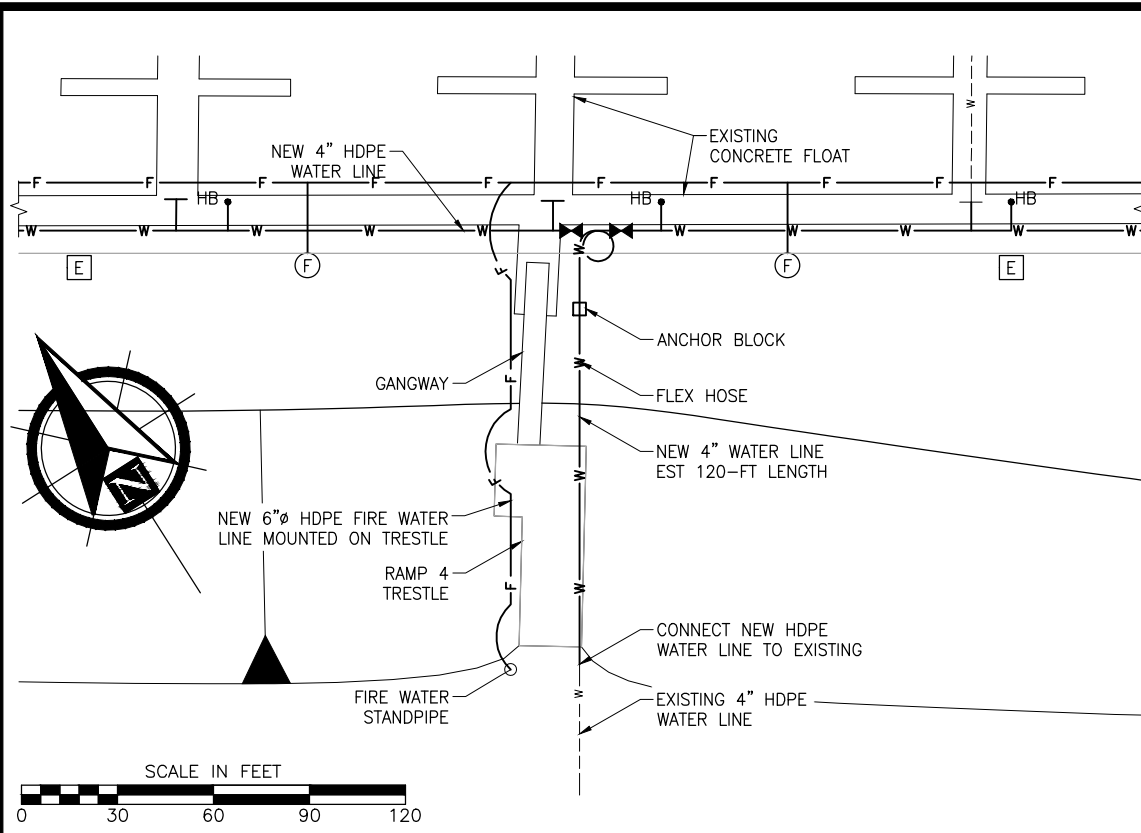
1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



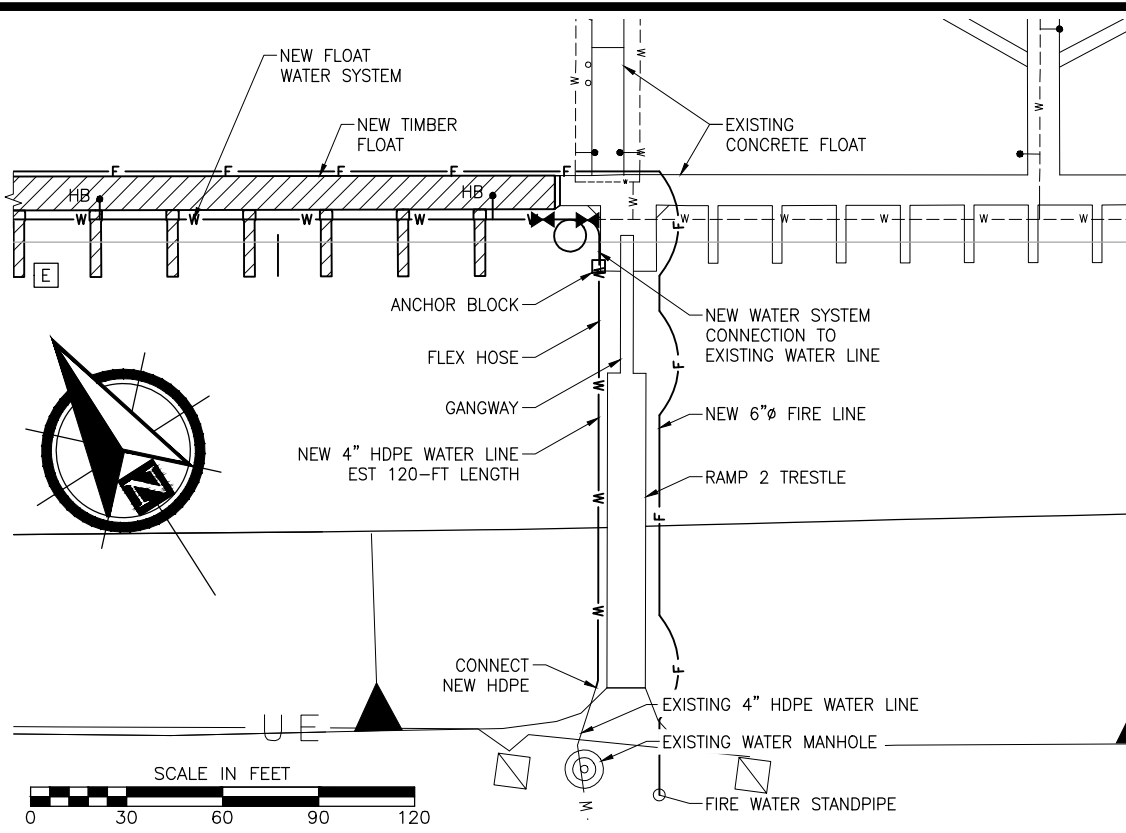
PROJECT: HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS

TITLE: SYSTEM 2 WATER SERVICE

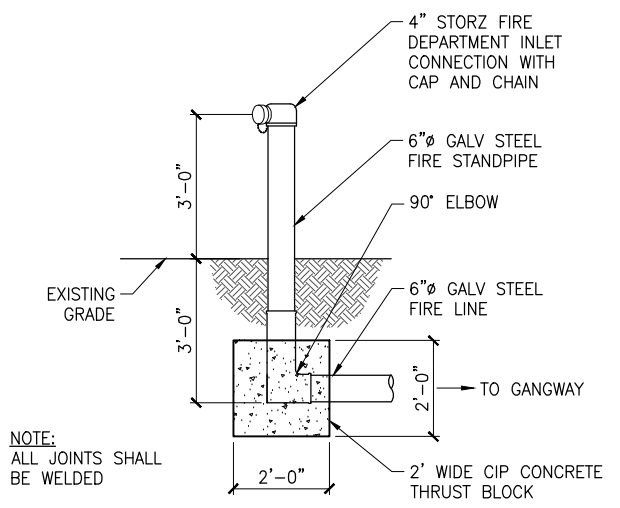
DESIGNED BY: CDC/DCF DATE: 11/21/13 SHEET NO: 46 OF 53
CHECKED BY: DST PROJECT NO: 121104



RAMP 4 WATER PLAN

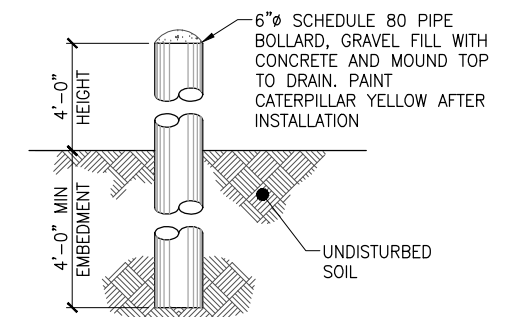


RAMP 2 WATER PLAN

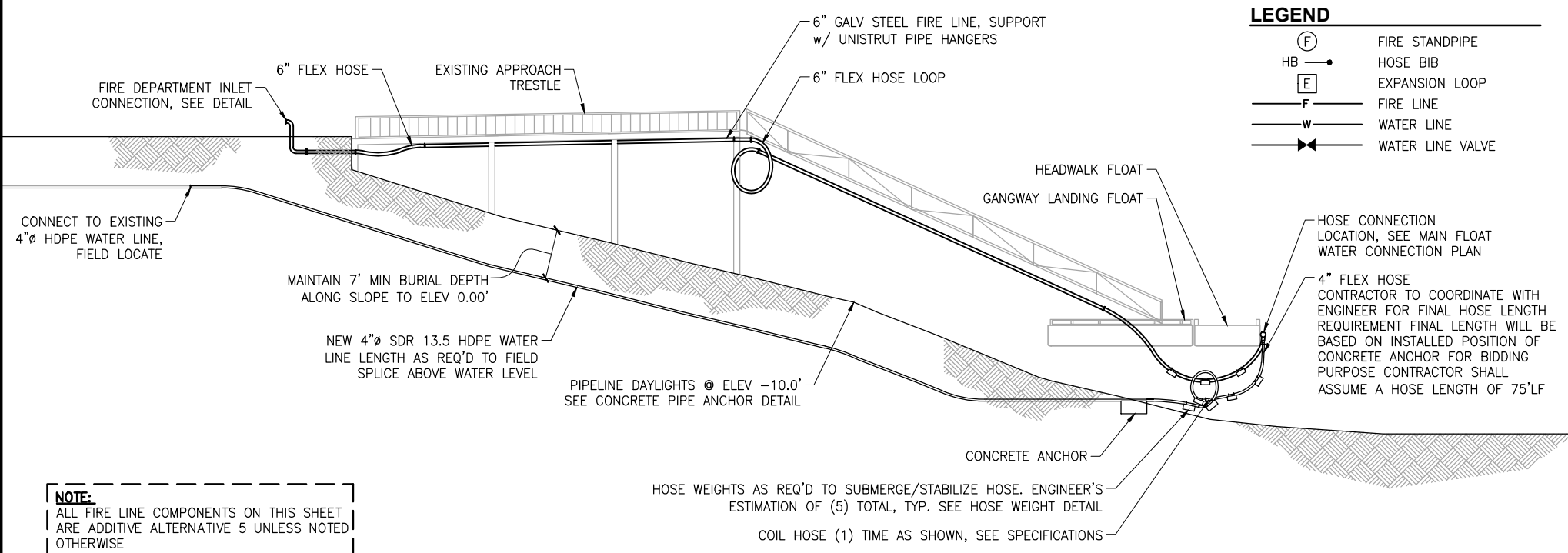


FIRE DEPARTMENT INLET CONNECTION
NTS

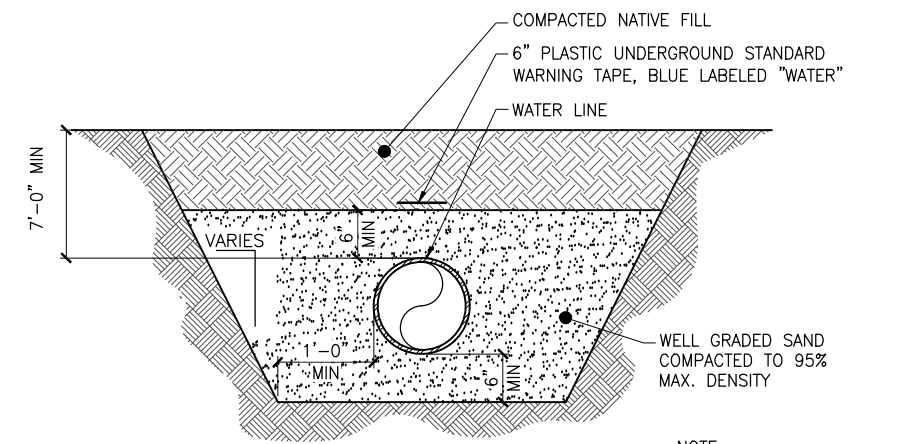
NOTE:
LOCATE (4) BOLLARDS 4-FT FROM CENTER OF HYDRANT



TYPICAL PROTECTIVE BOLLARD
NTS



TYPICAL WATER AND FIRE LINE PROFILE



TYPICAL TRENCH SECTION
NTS

NOTE:
TRENCH WALL SLOPES WILL VARY WITH SOIL STRENGTH AND CHARACTER PER OSHA

LEGEND

(F)	FIRE STANDPIPE
HB	HOSE BIB
(E)	EXPANSION LOOP
F	FIRE LINE
W	WATER LINE
W	WATER LINE VALVE

NOTE:
ALL FIRE LINE COMPONENTS ON THIS SHEET ARE ADDITIVE ALTERNATIVE 5 UNLESS NOTED OTHERWISE

ISSUED FOR BID
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

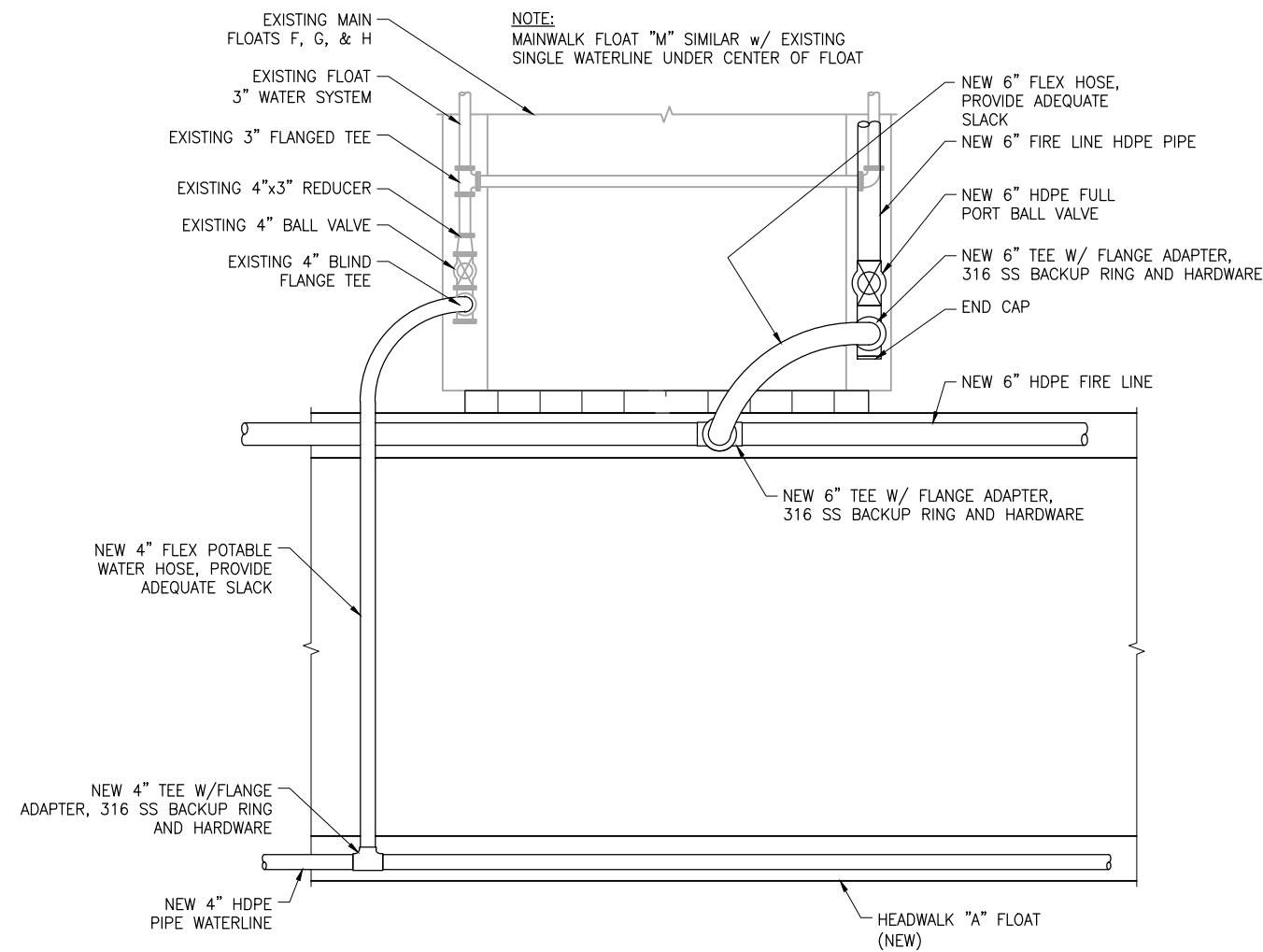


PROJECT: **HOMER SMALL BOAT HARBOR FLOAT IMPROVEMENTS**

TITLE: **RAMP 2 & 4 WATER SERVICE**

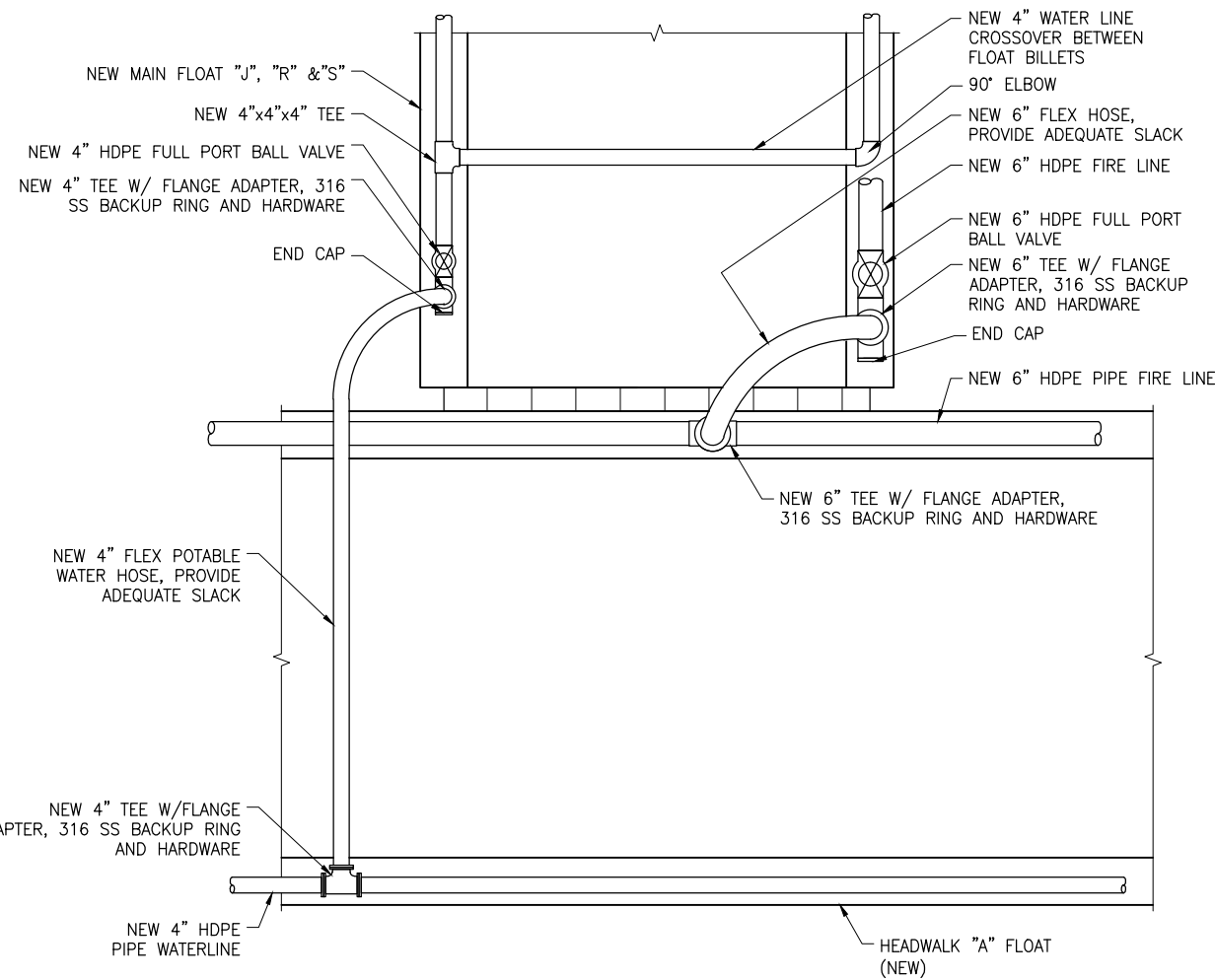
DESIGNED BY: CDC/DCF DATE: 11/21/13 SHEET NO: **47** OF **53**

CHECKED BY: DST PROJECT NO: 121104



HEADWALK "A" TO EXISTING MAIN FLOAT "F", "G" & "H" WATERLINE CONNECTION

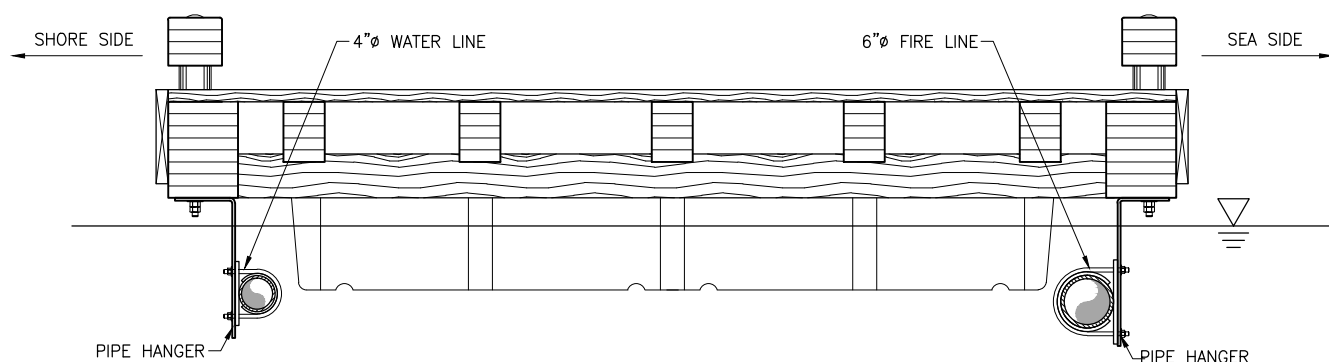
NTS (BOTTOM VIEW)



HEADWALK "A" TO NEW MAIN FLOAT "J", "R" & "S" WATERLINE CONNECTION

NTS (BOTTOM VIEW)

NOTE:
SCHEMATIC DRAWING
ACTUAL LOCATIONS AND
ROUTING MAY VARY



NEW HEADWALK FLOAT SECTION

NTS

NOTE:
ALL FIRE LINE COMPONENTS ARE ADDITIVE
ALTERNATIVE 5 UNLESS NOTED OTHERWISE

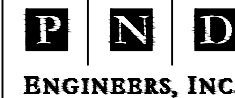
**ISSUED
FOR BID**
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

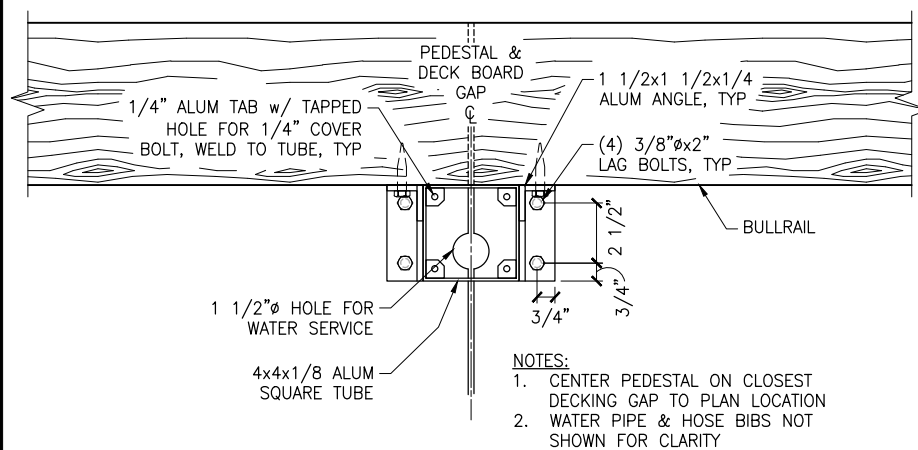


**HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

TITLE: **WATER AND FIRE SERVICE DETAILS (2 OF 5)**

DESIGNED BY: CDC/DCF DATE: 11/21/13
CHECKED BY: DST PROJECT NO: 121104

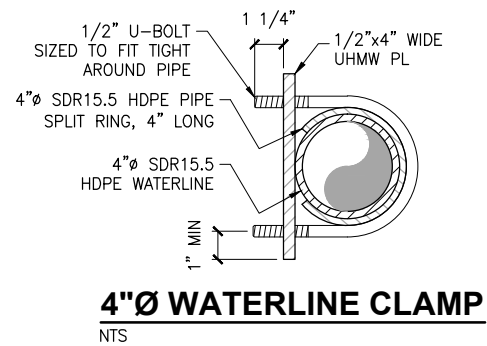
SHEET NO: **49** OF **53**



WATER PEDESTAL - PLAN

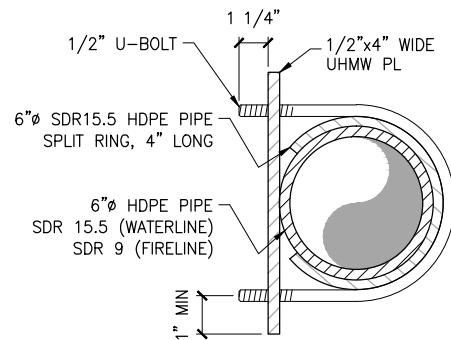
NTS

- NOTES:
1. CENTER PEDESTAL ON CLOSEST DECKING GAP TO PLAN LOCATION
 2. WATER PIPE & HOSE BIBS NOT SHOWN FOR CLARITY



4"Ø WATERLINE CLAMP

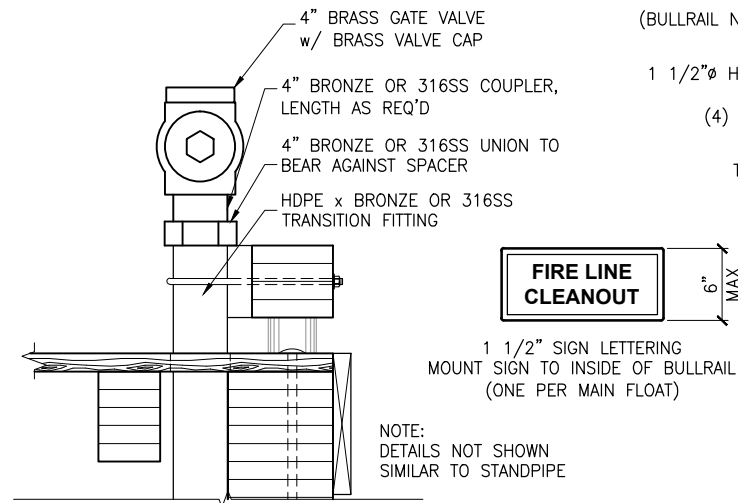
NTS



6"Ø WATERLINE CLAMP

NTS

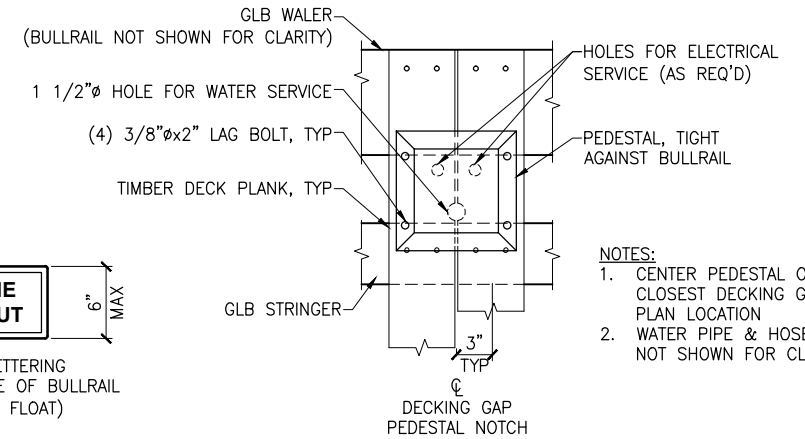
NOTE:
ALL FIRE LINE COMPONENTS ARE ADDITIVE ALTERNATIVE 5 UNLESS NOTED OTHERWISE



FIRE LINE CLEANOUT

NTS

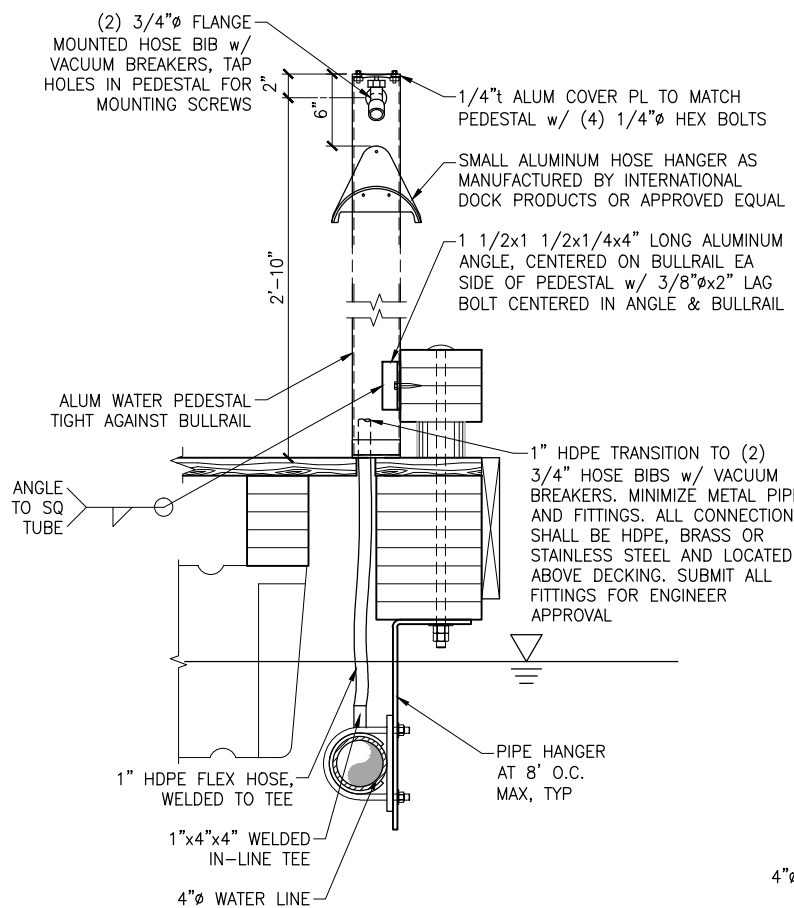
NOTE:
DETAILS NOT SHOWN SIMILAR TO STANDPIPE



ELECTRICAL PEDESTAL PLAN

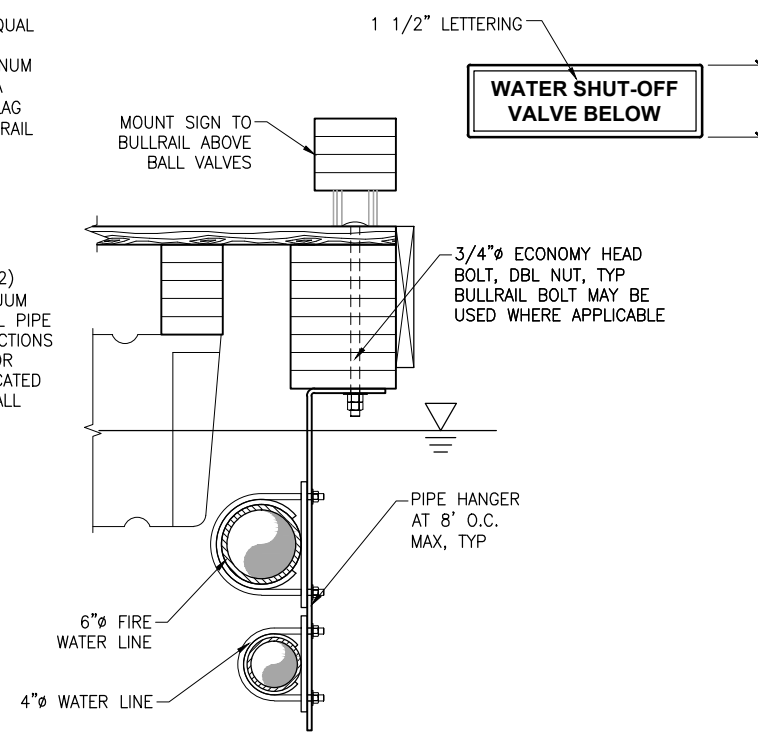
NTS

- NOTES:
1. CENTER PEDESTAL ON CLOSEST DECKING GAP TO PLAN LOCATION
 2. WATER PIPE & HOSE BIBS NOT SHOWN FOR CLARITY



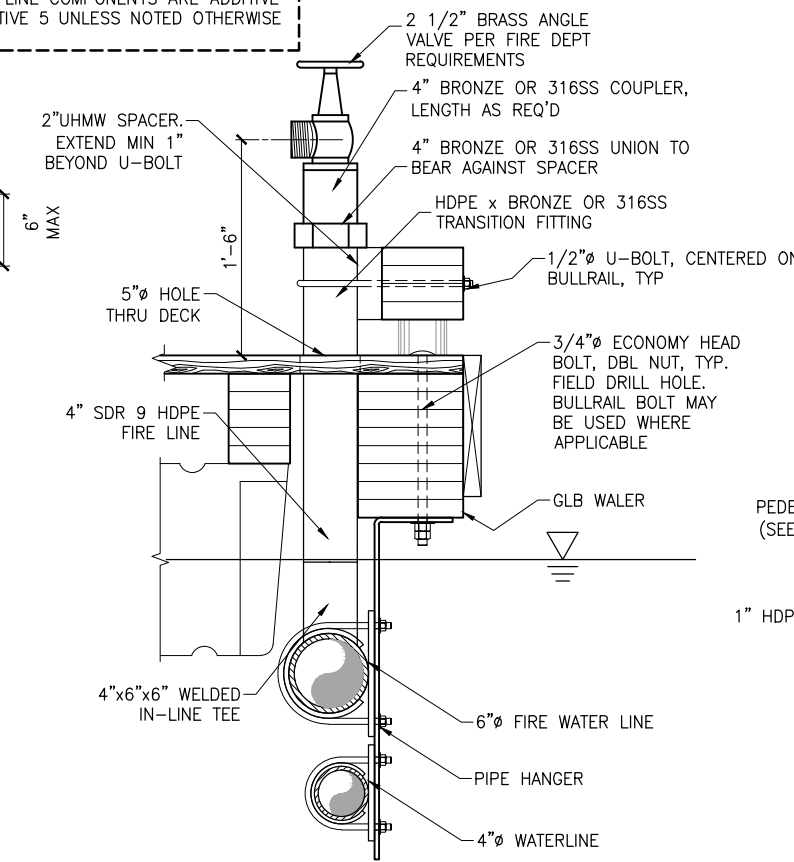
WATER PEDESTAL ON NEW FLOAT

NTS



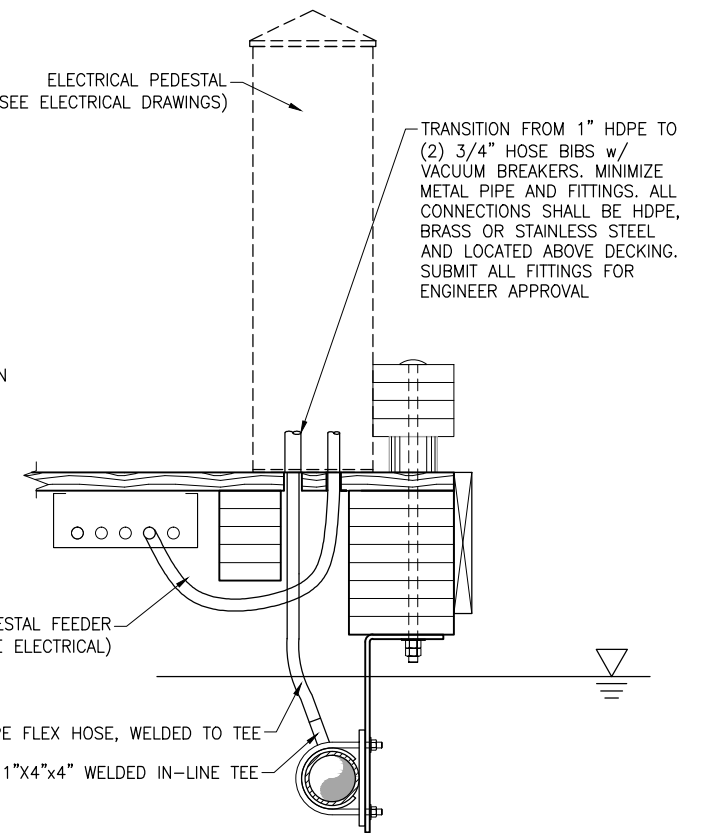
WATER LINE/FIRE LINE ON NEW MAINWALK

NTS



FIRE LINE STANDPIPE CONNECTION ON NEW MAINWALK

NTS



ELECTRICAL PEDESTAL w/ HOSE BIBS ON NEW MAINWALK

NTS

ISSUED FOR BID
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE:

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

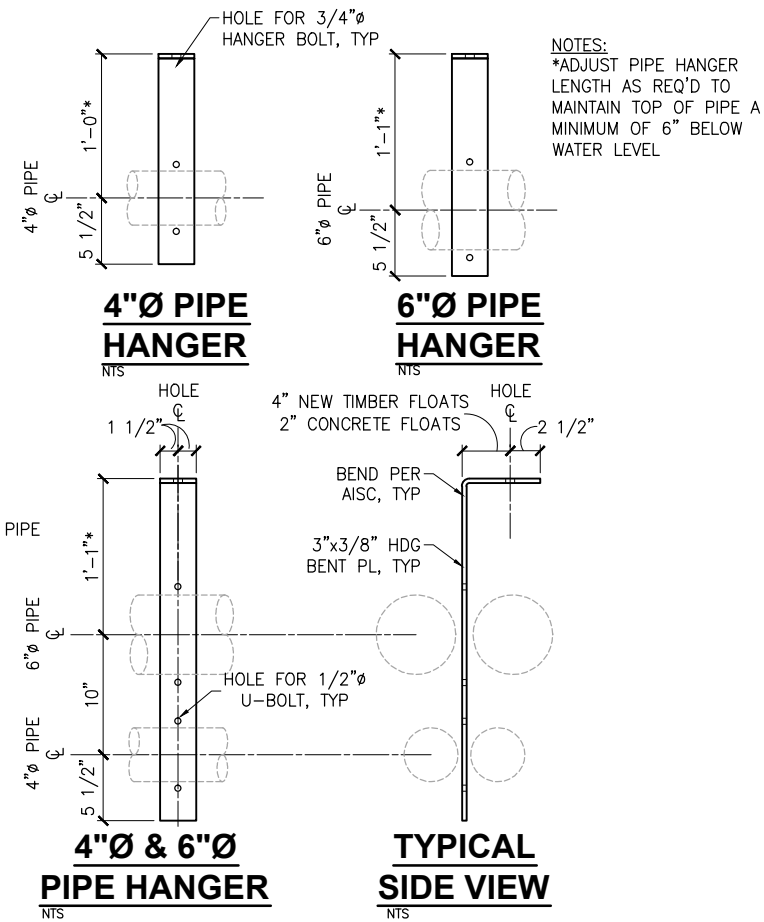
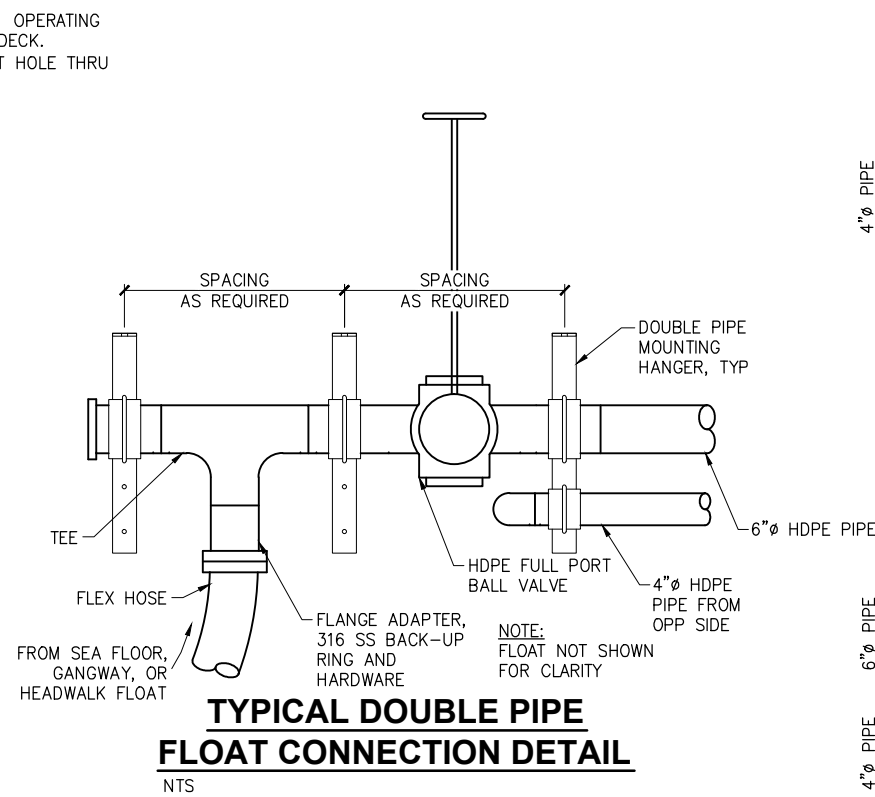
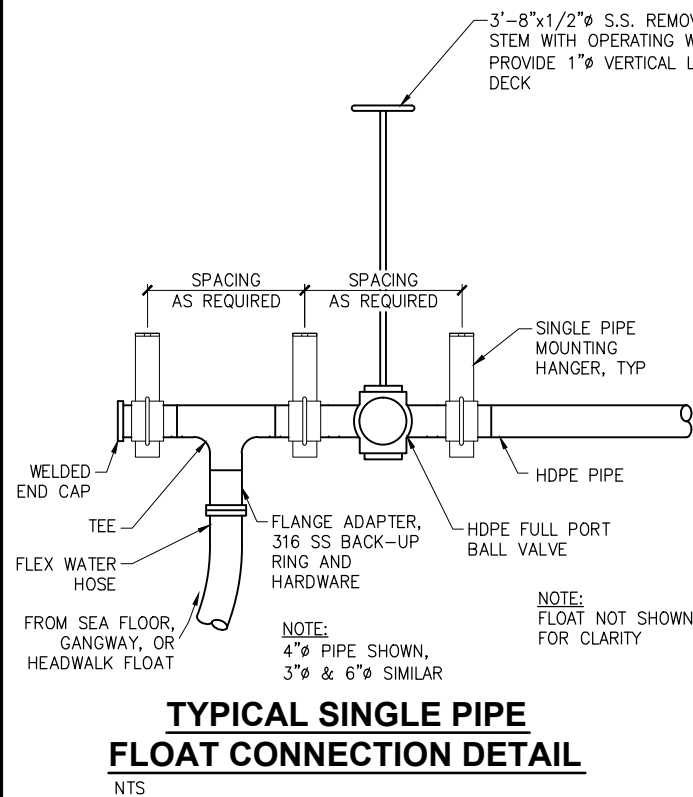


PROJECT: **HOMER SMALL BOAT HARBOR FLOAT IMPROVEMENTS**

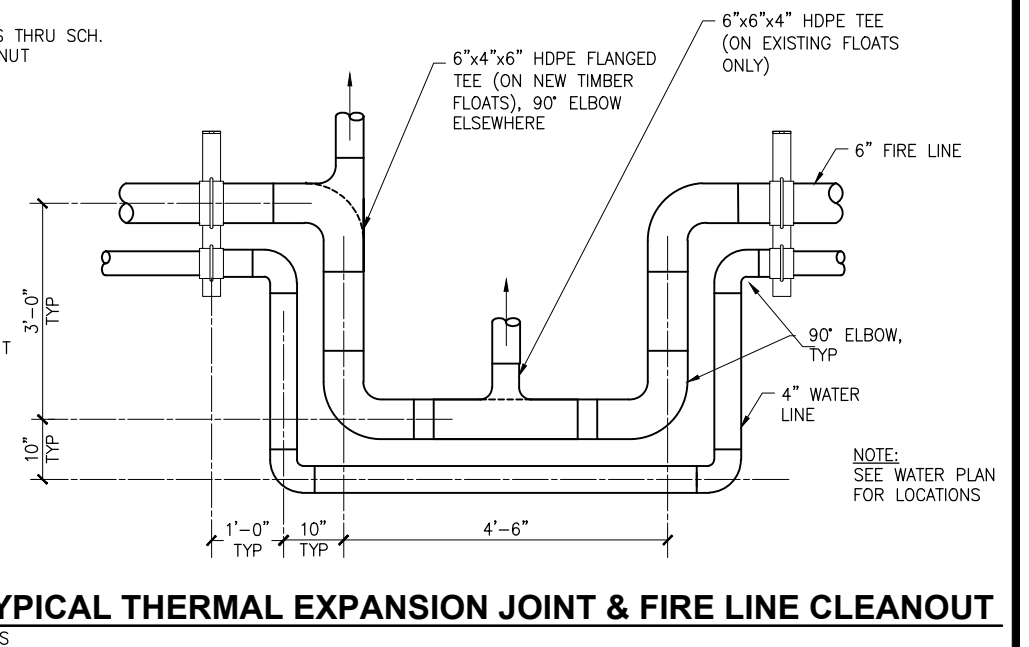
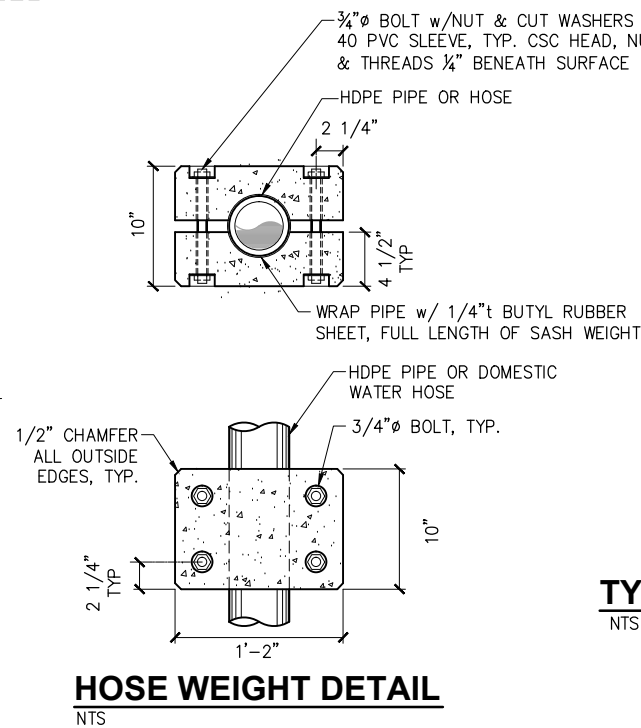
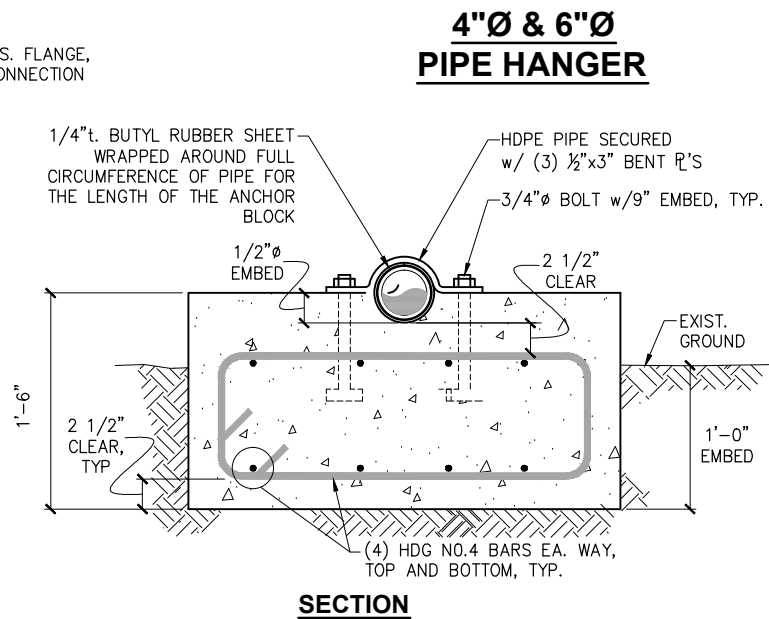
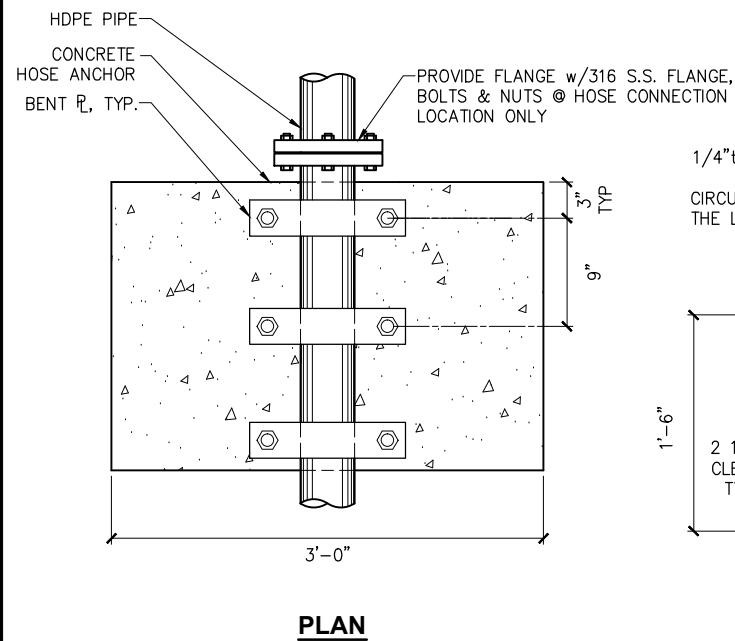
TITLE: **WATER AND FIRE SERVICE DETAILS (3 OF 5)**

DESIGNED BY: CDC/DCF DATE: 11/21/13 SHEET NO: **50** OF **53**

CHECKED BY: DST PROJECT NO: 121104



NOTE: ALL FIRE LINE COMPONENTS ARE ADDITIVE ALTERNATIVE 5 UNLESS NOTED OTHERWISE



ANCHOR BLOCK DETAIL

NTS

ISSUED FOR BID

11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

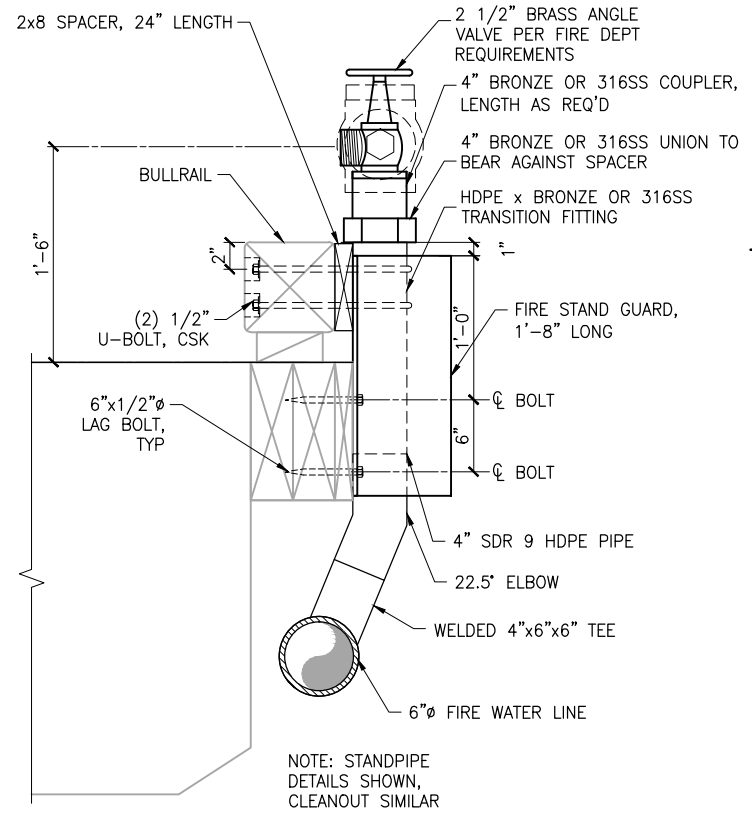
REV	DATE	DESCRIPTION

DATE: _____

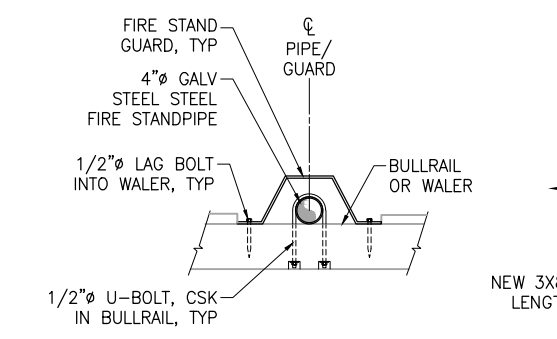
1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

P | N | D
ENGINEERS, INC.

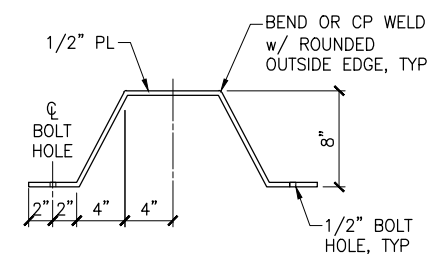
PROJECT: HOMER SMALL BOAT HARBOR FLOAT IMPROVEMENTS	
TITLE: WATER AND FIRE SERVICE DETAILS (4 OF 5)	
DESIGNED BY: CDC/DCF	DATE: 11/21/13
CHECKED BY: DST	PROJECT NO: 121104
SHEET NO: 51 OF 53	



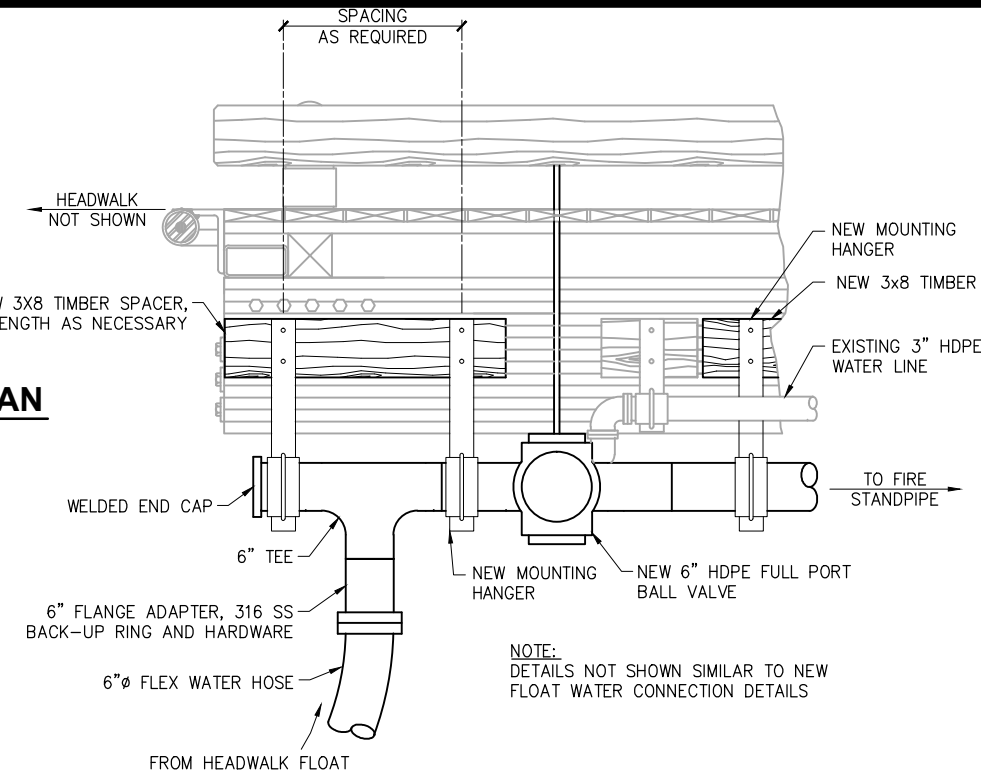
EXISTING CONCRETE FLOAT FIRE STANDPIPE / CLEANOUT CONNECTION
NTS



EXISTING FLOAT FIRE PIPE - PLAN
NTS

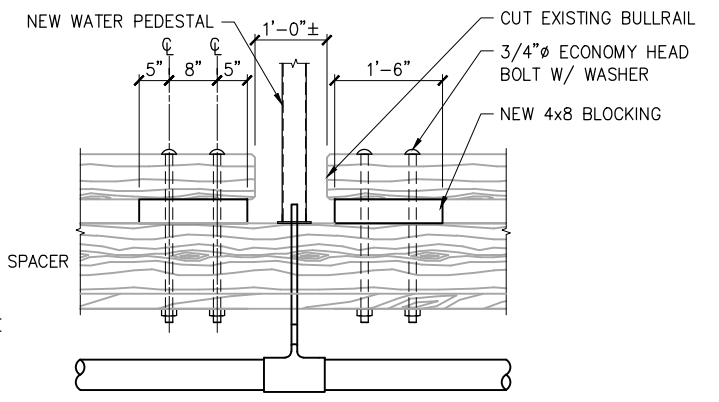


FIRE STAND GUARD
NTS

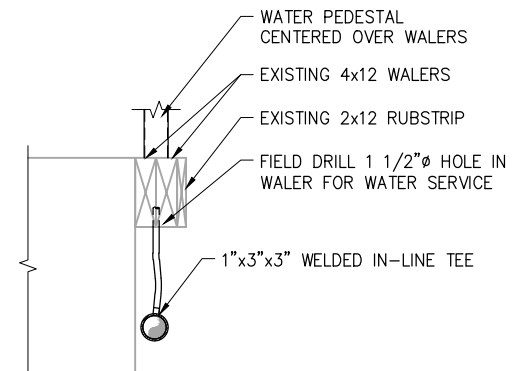


EXISTING TIMBER FLOAT FIRELINE CONNECTION
NTS

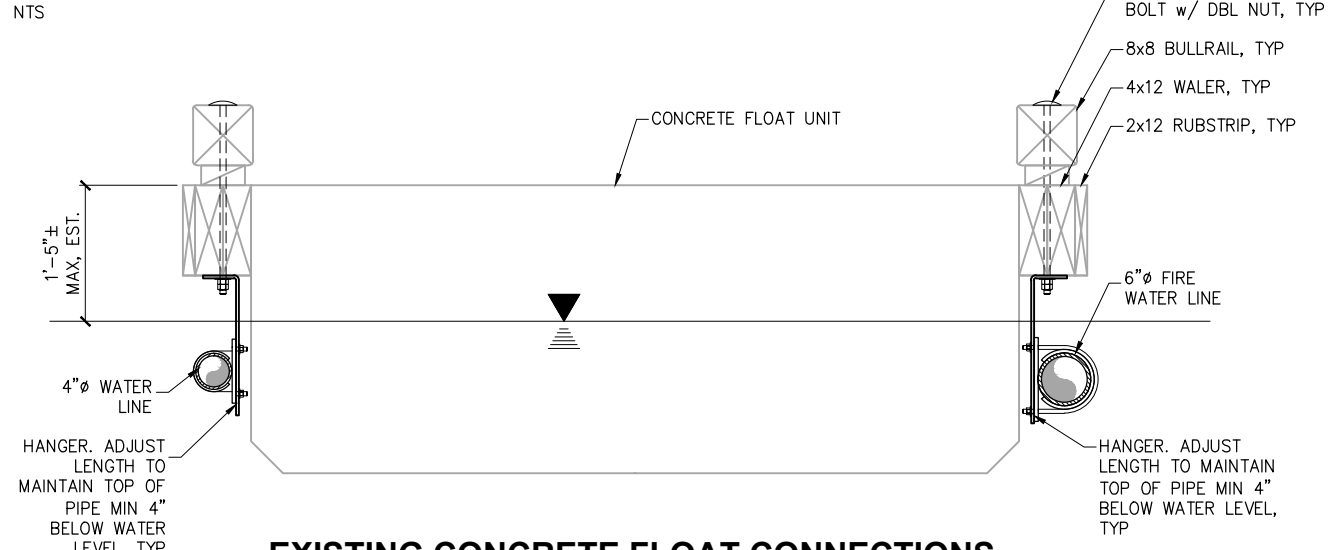
NOTE:
ALL FIRE LINE COMPONENTS ARE ADDITIVE ALTERNATIVE 5 UNLESS NOTED OTHERWISE



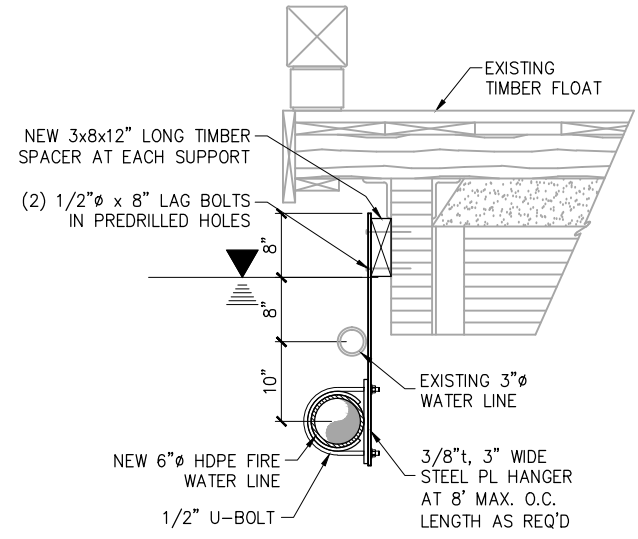
EXISTING CONCRETE FLOAT BULLRAIL MODIFICATIONS DETAIL
NTS



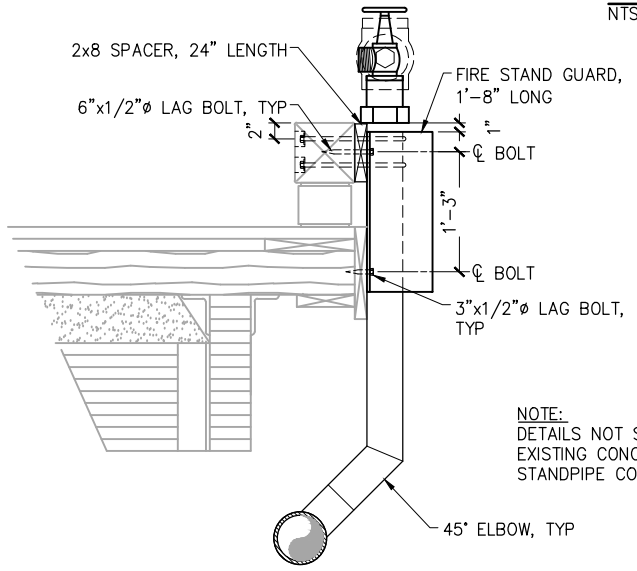
CONCRETE FLOAT WATER SERVICE CONNECTION
NTS



EXISTING CONCRETE FLOAT CONNECTIONS
NTS



EXISTING TIMBER FLOAT FIRE LINE MOUNT
NTS



EXISTING TIMBER FLOAT FIRE STANDPIPE / CLEANOUT CONNECTION
NTS

ISSUED FOR BID
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



PROJECT: **HOMER SMALL BOAT HARBOR FLOAT IMPROVEMENTS**

TITLE: **WATER AND FIRE SERVICE DETAILS (5 OF 5)**

DESIGNED BY: CDC/DCF	DATE: 11/21/13	SHEET NO: 52 OF 53
CHECKED BY: DST	PROJECT NO: 121104	

SOILS CLASSIFICATION, CONSISTENCY AND SYMBOLS

CLASSIFICATION: Identification and classification of the soil is accomplished in general accordance with the ASTM version of the Unified Soil Classification System (USCS) as presented in ASTM Standard D 2487-93. The standard is a qualitative method of classifying soil into the following major divisions (1) coarse grained (2) fine-grained, (3) highly organic soils. Classification is performed on the soils passing the 75 mm (3 inch) sieve and if possible the amount of oversize material (> 75 mm particles) is noted on the soil logs. This is not always possible for drilled test holes because the oversize particles are typically too large to be captured in the sampling equipment. Oversize materials greater than 300 mm (12 inches) are termed boulders, while materials between 75 mm and 300 mm are termed cobbles. Coarse grained soils are those having 50% or more of the non-oversize soil retained on the No. 200 sieve; if a greater percentage of the coarse grains is retained on the No. 4 sieve the coarse grained soil is classified as gravel, otherwise it is classified as sand. Fine grained soils are those having more than 50% of the non-oversize material passing the No. 200 sieve; these may be classified as silt or clay depending their Atterberg liquid and plastic limits or observations of field consistency. Refer to ASTM D 2487-93 for a complete discussion of the classification method.

SOIL CONSISTENCY - CRITERIA: Soil consistency as defined below and determined by normal field and laboratory methods applies only to non-frozen material. For these materials, the influence of such factors as soil structure, i.e. fissure systems, shrinkage cracks, slicken sides, etc., must be taken into consideration in making any correlation with the consistency values listed below. In permafrost zones, the consistency and strength of frozen soils may vary significantly and unexplainably with ice content, thermal regime and soil type.

Relative Density of Sands According to results of Standard Penetration Test		Consistency of Clay in Terms of Unconfined Compressive Strength (tsf)	
N*(blows/ft)	Relative Density	Very Soft	0 - 0.25
Loose	0 - 10	Soft	0.25 - 0.5
Medium Dense	10 - 30	Stiff	0.5 - 1.0
Dense	30 - 60	Firm	1.0 - 2.0
Very Dense	> 60	Very Firm	2.0 - 4.0
		Hard	> 4.0

* Standard Penetration, "N": Blows per foot of a 140-pound hammer falling 30 inches on a 1.4" ID split-spoon sampler except where noted.

DRILLING SYMBOLS

AB: After Boring
ACR: After Casing Removal
BCR: Before Casing Removal
DCI: Dry Cave In

TD: Total Depth
WCI: Wet Cave In
WD: While Drilling

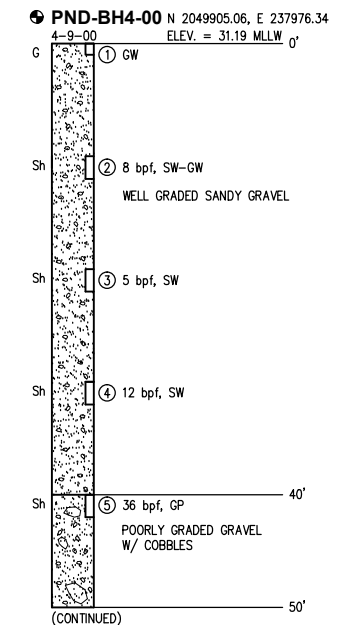
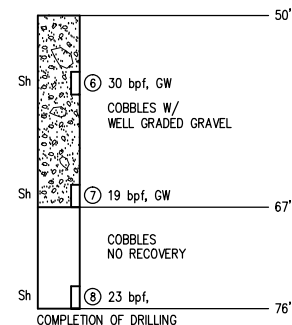
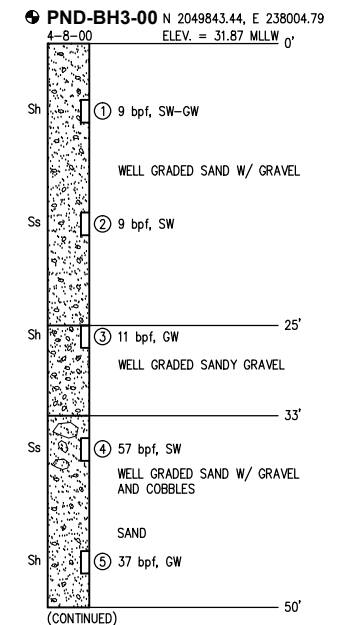
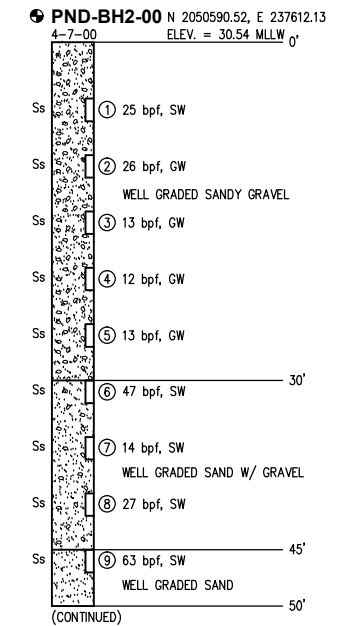
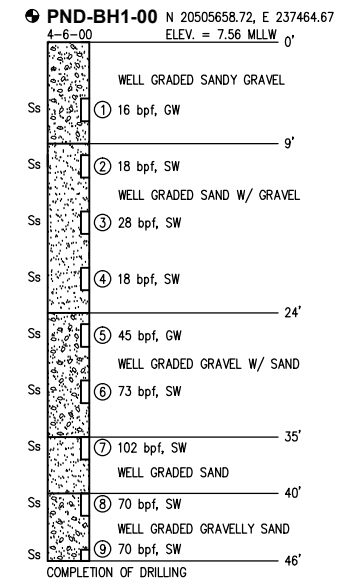
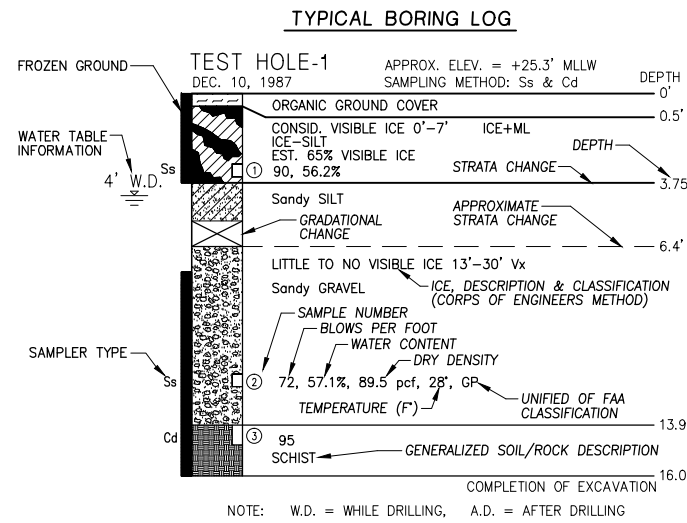
WL: Water Level
WO: Wash Out
WS: While Sampling

Note: Water levels indicated on the boring logs are the levels measured in the boring at the time(s) indicated. In pervious unfrozen soils, the indicated elevations are considered to represent actual ground water conditions. In impervious and frozen soils, accurate determinations of ground water elevations cannot be obtained within a limited period of limited period of observation and other evidence of ground water elevations and conditions are required.

SAMPLER TYPE SYMBOLS

St 1.4" Split Spoon W/ 47# Hammer	Ts Shelby Tube
Ss 1.4" Split Spoon W/ 140# Hammer	Tm Modified 2.5'O.D. Shelby Tube
Sl 2.5" Split Spoon W/ 140# Hammer	Pb Pitcher Barrel
Sm 2.5" Split Spoon W/ 300# Hammer	Cs Core Barrel W/ Single Tube
Sh 2.5" Split Spoon W/ 340# Hammer	Cd Core Barrel W/ Double Tube
Sp 2.5" Split Spoon, Pushed	Bs Bulk Sample
Hs 1.4" Split Spoon Driven W/ Air Hammer	A Auger Sample
HI 2.5" Split Spoon Driven W/ Air Hammer	G Grab Sample
Sx 2.0" Split Spoon Driven W/ 140# Hammer	

- NOTES: 1. SAMPLER TYPES ARE EITHER NOTED ABOVE THE BORING LOG OR ADJACENT TO IT AT THE RESPECTIVE DEPTH.
2. SPLIT SPOON SAMPLER SIZES PRESENTED ABOVE REFER TO THE INSIDE DIAMETER OF THE SAMPLER.



ISSUED FOR BID
11/21/13

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

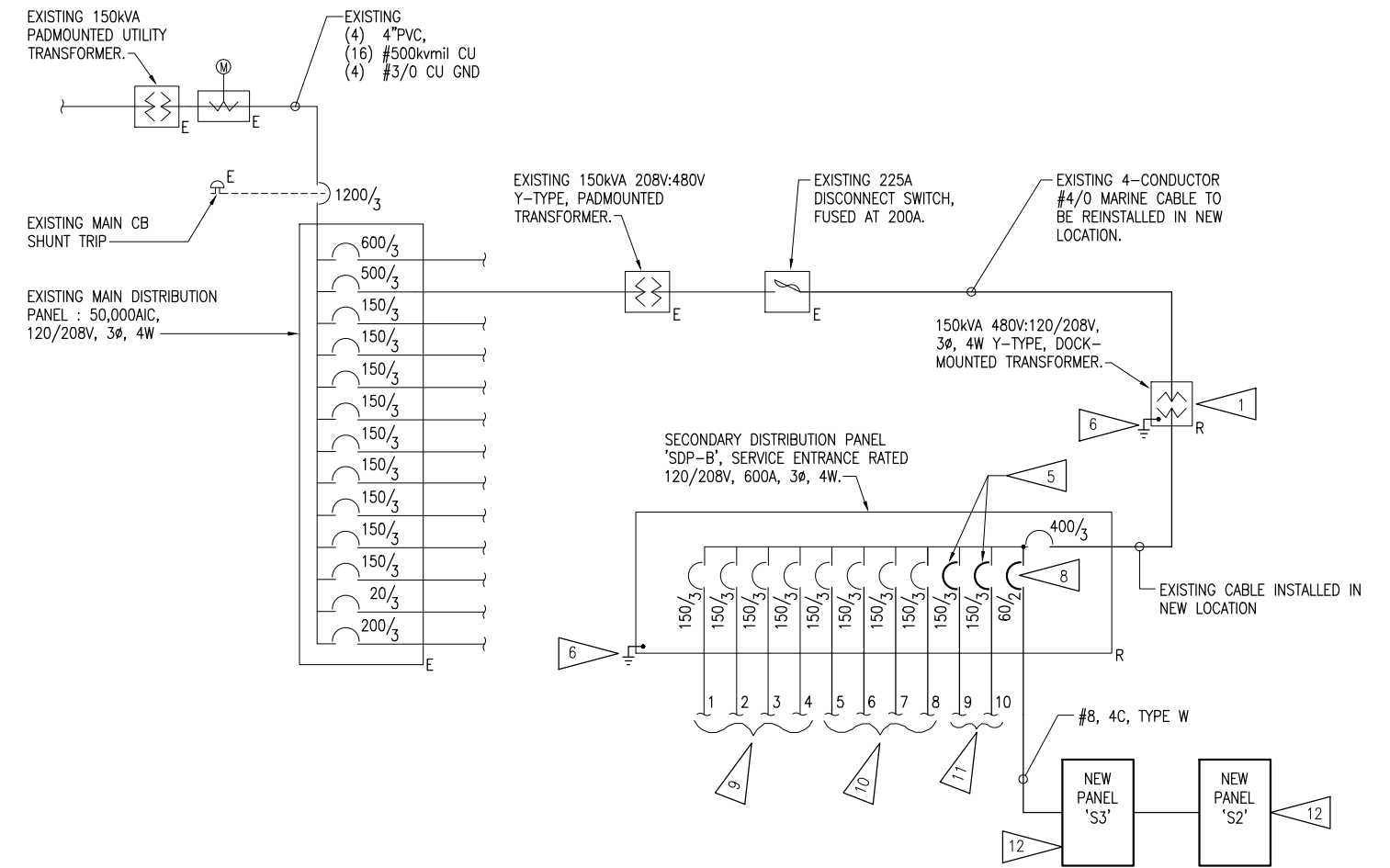
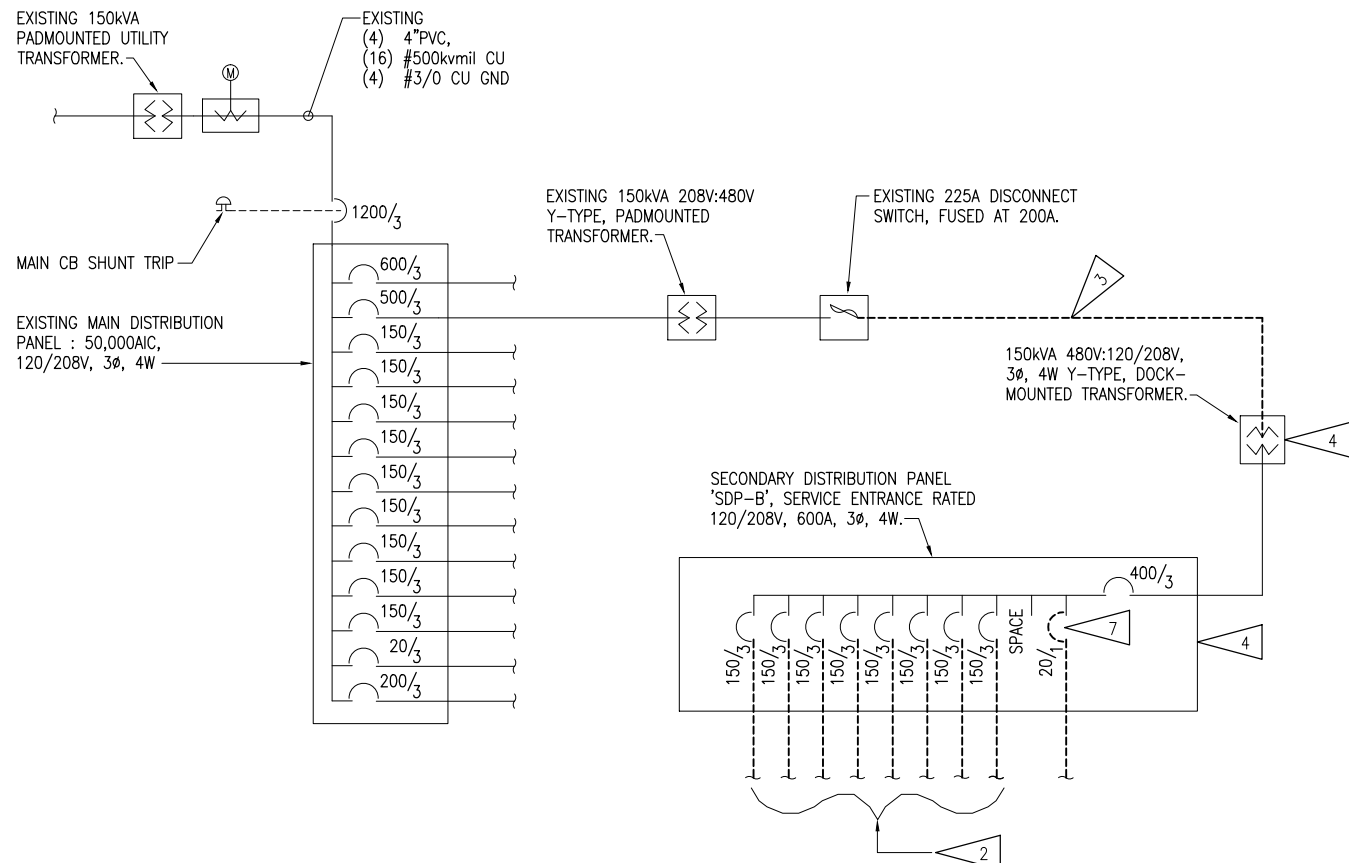
1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

P N D
ENGINEERS, INC.

PROJECT: **HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

TITLE: **BORE HOLE LOGS**

DESIGNED BY: CDC/DCF DATE: 11/21/13
CHECKED BY: DST PROJECT NO: 121104 SHEET NO: **53** OF 53



1 DEMOLITION OVER ONE LINE DRAWING
NO SCALE

2 REMOVE ONE LINE OVER DRAWING
NO SCALE

LEGEND	
	CONDUIT, CONCEALED
	NUMBER AND SIZE OF WIRES (NO MARKS = 3 #12)
	HOMERUN TO PANEL (PANEL AND CIRCUIT No.)
	OVERHEAD ELECTRICAL LINE (12470/7200V UON)
	PANEL
	DISCONNECT SWITCH (FUSED)
	PADMOUNT TRANSFORMER
	IN GRADE EXTERIOR JUNCTION BOX
	DUPLEX RECEPTACLE TO BE REMOVED (DASHED OR DOTTED LINES INDICATE ITEMS TO BE REMOVED TYPICAL)
	NOTE TAG (No. INDICATES NOTE)
AFG	ABOVE FINISHED GRADE
C	CONDUIT
E	DENOTES EXISTING ITEM
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUGS ONLY
NEC	NATIONAL ELECTRICAL CODE
R	DENOTES EXISTING ITEM THAT HAS BEEN RELOCATED
TYP.	TYPICAL

DEMOLITION NOTES:

- THE INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM 2001 DOCK UPGRADE DESIGN DOCUMENTS AND A NON-DESTRUCTIVE WALK-THROUGH OF THE FACILITY. THERE IS NO WARRANTY OR GUARANTEE AS TO THE ACCURACY OF THE INFORMATION SHOWN HERE-IN. THE CONTRACTOR SHALL FIELD VERIFY ALL ITEMS SCHEDULED FOR DEMOLITION PRIOR TO START OF WORK.
- THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL SALVAGEABLE MATERIALS. THE CONTRACTOR SHALL DELIVER SALVAGED MATERIALS TO A WAREHOUSE AS DIRECTED BY THE OWNER. THE CONTRACTOR SHALL DISPOSE OF, OFF SITE, ALL UNWANTED MATERIALS.
- DASHED OR DOTTED LINES INDICATE ITEMS TO BE REMOVED. SOLID LINES INDICATE EXISTING ITEMS TO REMAIN.

SHEET NOTES:

- EXISTING EQUIPMENT IN NEW LOCATION. SEE 1/E3.
- EXISTING POWER CABLES TO POWER PEDESTALS ON FLOAT E, FLOAT G, AND FLOAT H TO BE DISCONNECTED FROM SECONDARY DISTRIBUTION PANEL 'SDP-B' AND PULLED BACK FROM FLOAT A TO ACCOMMODATE FLOAT DEMOLITION AND REUSED. SEE 2/E1.
- EXISTING CABLE TO BE DISCONNECTED AND REMOVED BACK TO SOURCE TO ACCOMMODATE DEMOLITION OF FLOAT A. CABLE TO BE REUSED, SEE 2/E1.
- EXISTING FLOAT HOLDING SECONDARY DISTRIBUTION PANEL 'SDP-B' AND STEPDOWN TRANSFORMER TO BE REMOVED TO ACCOMMODATE DEMOLITION OF FLOAT A AND RELOCATED ON GANGWAY LANDING FLOAT. POWER PEDESTAL CONDUCTORS TO BE DISCONNECTED PER NOTE #2 AND TRANSFORMER FEEDERS TO BE DISCONNECTED PER NOTE #3.
- PROVIDE NEW CUTLER-HAMMER SERIES C INDUSTRIAL RATED BREAKER, SIZED AS INDICATED, LISTED FOR USE IN THE EXISTING SKYLINE DISTRIBUTION PANEL, AND MATCHING OR EXCEEDING THE AIC RATING OF THE LOWEST RATED DEVICE IN THE PANEL.
- RECONNECT TO EXISTING GROUNDING SYSTEM.
- EXISTING SINGLE-POLE, 20-AMP BREAKER TO BE REMOVED AND EXISTING LOADS RELOCATED TO NEW FEED-THROUGH BREAKER, SEE 2/E1.
- INSTALL NEW FEED-THROUGH BREAKER BETWEEN EXISTING THERMOSTAT AND GFCI DUPLEX RECEPTACLE. TAP BUS DOWNSTREAM OF MAIN BREAKER. CUT HOLE FOR BREAKER TOGGLE IN PANELBOARD DEAD-FRONT. SEE 1/E6.
- RECONNECT TO EXISTING POWER PEDESTALS ON FLOAT F USING EXISTING CABLING. SEE 1/E3.
- PROVIDE NEW CABLE TO REFEED EXISTING PEDESTALS ON FLOATS G AND H. SEE 1/E3.
- PROVIDE NEW CABLE TO FEED NEW PEDESTALS ON FLOAT J. SEE 1/E3.
- SEE SHEET E6 FOR ADDITIONAL PANEL INFORMATION.

RSA Engineering, Inc.
MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS
222 A Street, Suite 200 Anchorage, Alaska 99501
Phone: 907.561.1011 Fax: 907.563.4220 www.pndengineers.com

ISSUED FOR BID

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

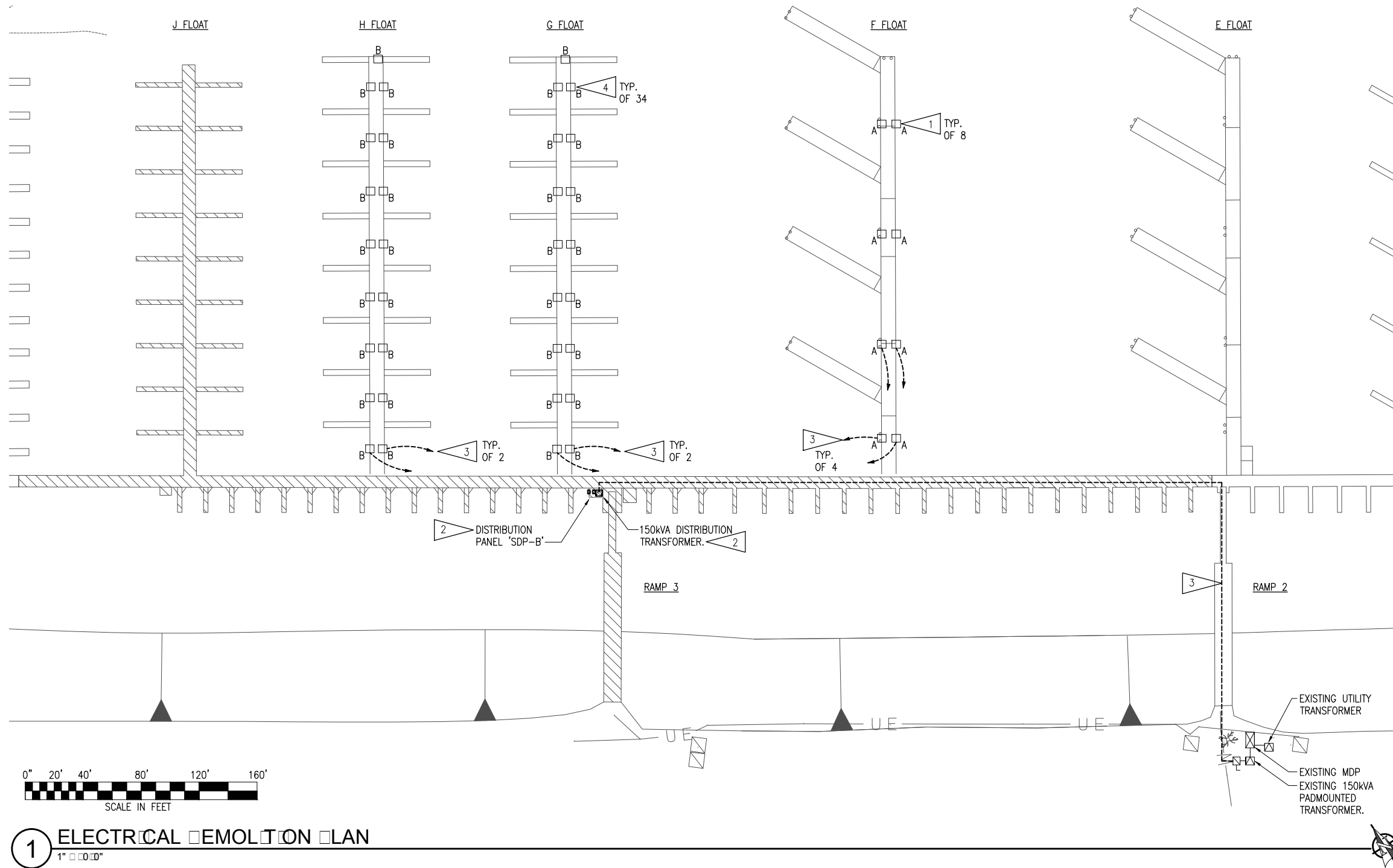
P N D
ENGINEERS, INC.

**HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

ELECTRICAL LEGEND AND ONE-LINE DIAGRAMS

DESIGNED BY:	WKR	DATE:	11/13/13
CHECKED BY:	TEH	PROJECT NO:	121104

SHEET NO:
E1

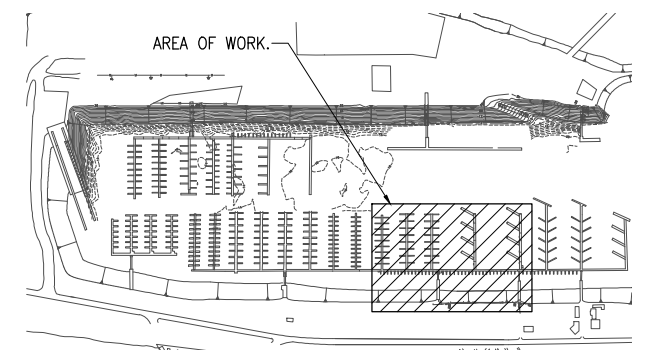


DEMOLITION NOTES:

- A. THE INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM 2001 DOCK UPGRADE DESIGN DOCUMENTS AND A NON-DESTRUCTIVE WALK-THROUGH OF THE FACILITY. THERE IS NO WARRANTY OR GUARANTEE AS TO THE ACCURACY OF THE INFORMATION SHOWN HERE-IN. THE CONTRACTOR SHALL FIELD VERIFY ALL ITEMS SCHEDULED FOR DEMOLITION PRIOR TO START OF WORK.
- B. THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL SALVAGEABLE MATERIALS. THE CONTRACTOR SHALL DELIVER SALVAGED MATERIALS TO A WAREHOUSE AS DIRECTED BY THE OWNER. THE CONTRACTOR SHALL DISPOSE OF, OFF SITE, ALL UNWANTED MATERIALS.
- C. DASHED OR DOTTED LINES INDICATE ITEMS TO BE REMOVED. SOLID LINES INDICATE EXISTING ITEMS TO REMAIN.

SHEET NOTES:

- 1. EXISTING POWER PEDESTAL WITH (2) 30A, 120V, 1Ø AND (2) 50A, 120V, 1Ø RECEPTACLES TO REMAIN.
- 2. EXISTING ELECTRICAL DISTRIBUTION EQUIPMENT TO BE DISCONNECTED TO ALLOW REPLACEMENT OF FLOAT. SEE 1/E3.
- 3. EXISTING FEEDERS TO BE DISCONNECTED AND REMOVED AS INDICATED TO ACCOMMODATE DOCK DEMOLITION. SEE 1/E1 FOR DEMOLITION ONE-LINE DIAGRAM.
- 4. EXISTING POWER PEDESTAL WITH (2) 30A, 120V POWER PLUGS.



1 ELECTRICAL DEMOLITION PLAN
1" = 100'

KEY PLAN
1" = 100'

RSA Engineering, Inc.
MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS
222 A STREET, SUITE 200 ANCHORAGE, ALASKA 99501
PHONE: 907.561.1011 FAX: 907.563.4220 WWW.RSAENGINEERS.COM

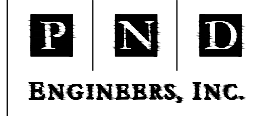
ISSUED FOR BID

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

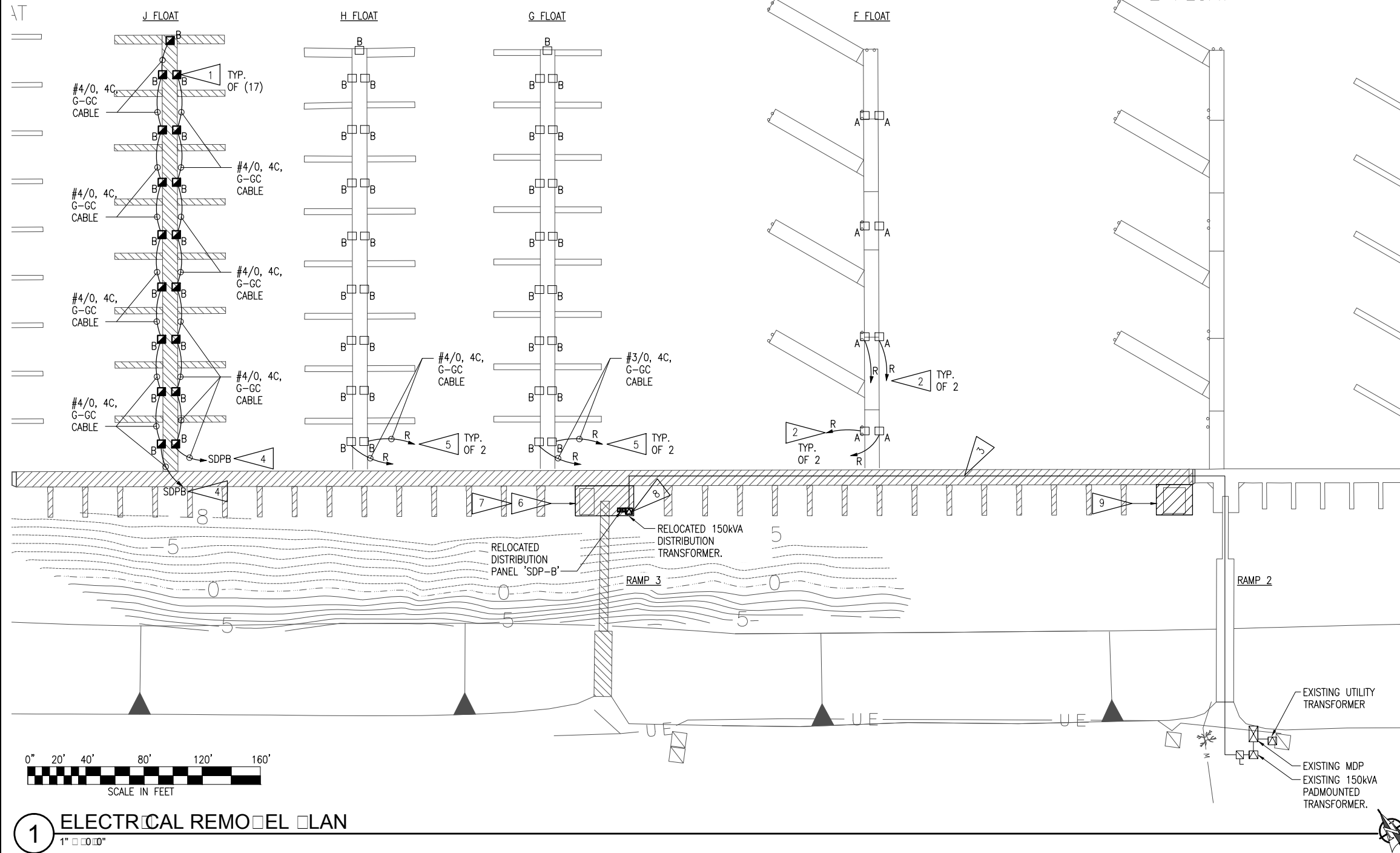


**HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

ELECTRICAL DEMOLITION PLAN

DESIGNED BY: WKR DATE: 11/13/13
CHECKED BY: TEH PROJECT NO: 121104

E2

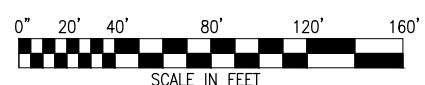


GENERAL NOTES:

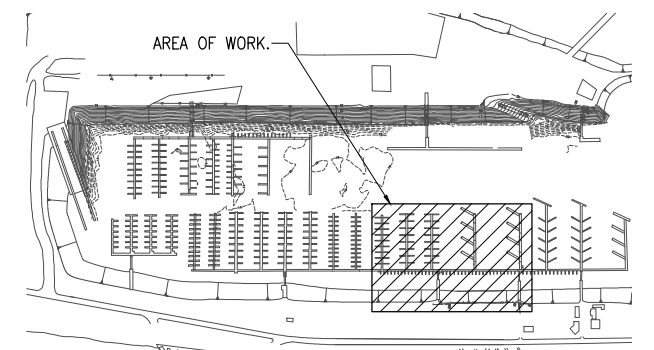
A. SEE 2/E1 FOR REMODEL POWER ONE-LINE DIAGRAM.

SHEET NOTES:

1. NEW FLOATSIDE POWER PEDESTAL WITH (2) 30A, 120V POWER RECEPTACLES. TYPICAL UNLESS OTHERWISE NOTED. SEE 1/E4.
2. EXTEND EXISTING PEDESTAL FEEDER THROUGH NEW FLOATS AND RECONNECT TO EXISTING BREAKER IN RELOCATED DISTRIBUTION PANEL 'SDP-B'. UPDATE CIRCUIT SPACE PLACARD LABELS AS NECESSARY TO REFLECT CIRCUITRY CHANGES.
3. ROUTE RELOCATED CABLE THROUGH NEW FLOATS AND RECONNECT TO EXISTING DISTRIBUTION EQUIPMENT. SEE 2/E1 FOR ONE-LINE DIAGRAM.
4. PROVIDE NEW HOMERUN TO NEW BREAKER IN EXISTING DISTRIBUTION PANEL INDICATED. PROVIDE AND INSTALL NEW IDENTIFYING PLACARD IN DISTRIBUTION PANEL DENOTING LOAD(S) SERVED.
5. PROVIDE NEW HOMERUN AND RECONNECT TO THE EXISTING BREAKER IN PANEL 'SDP-B'.
6. SEE 2/E5 AND 3/E5 FOR ENLARGED PLANS.
7. SEE 1/E5 FOR ENLARGED PLAN.
8. SEE 2/E4 FOR EQUIPMENT ELEVATION VIEW.
9. PROVIDE CONNECTION FOR NEW SHED UNDER ALTERNATE #1 SIMILAR TO RAMP 3 SHED. SEE 2/E5.



1 ELECTRICAL REMODEL PLAN
1" = 100'



KEY PLAN
1" = 100'

RSA Engineering, Inc.
MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS
222 A STREET, SUITE 200, ANCHORAGE, ALASKA 99501
PHONE: 907.561.1011 FAX: 907.563.4220

ISSUED FOR BID

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

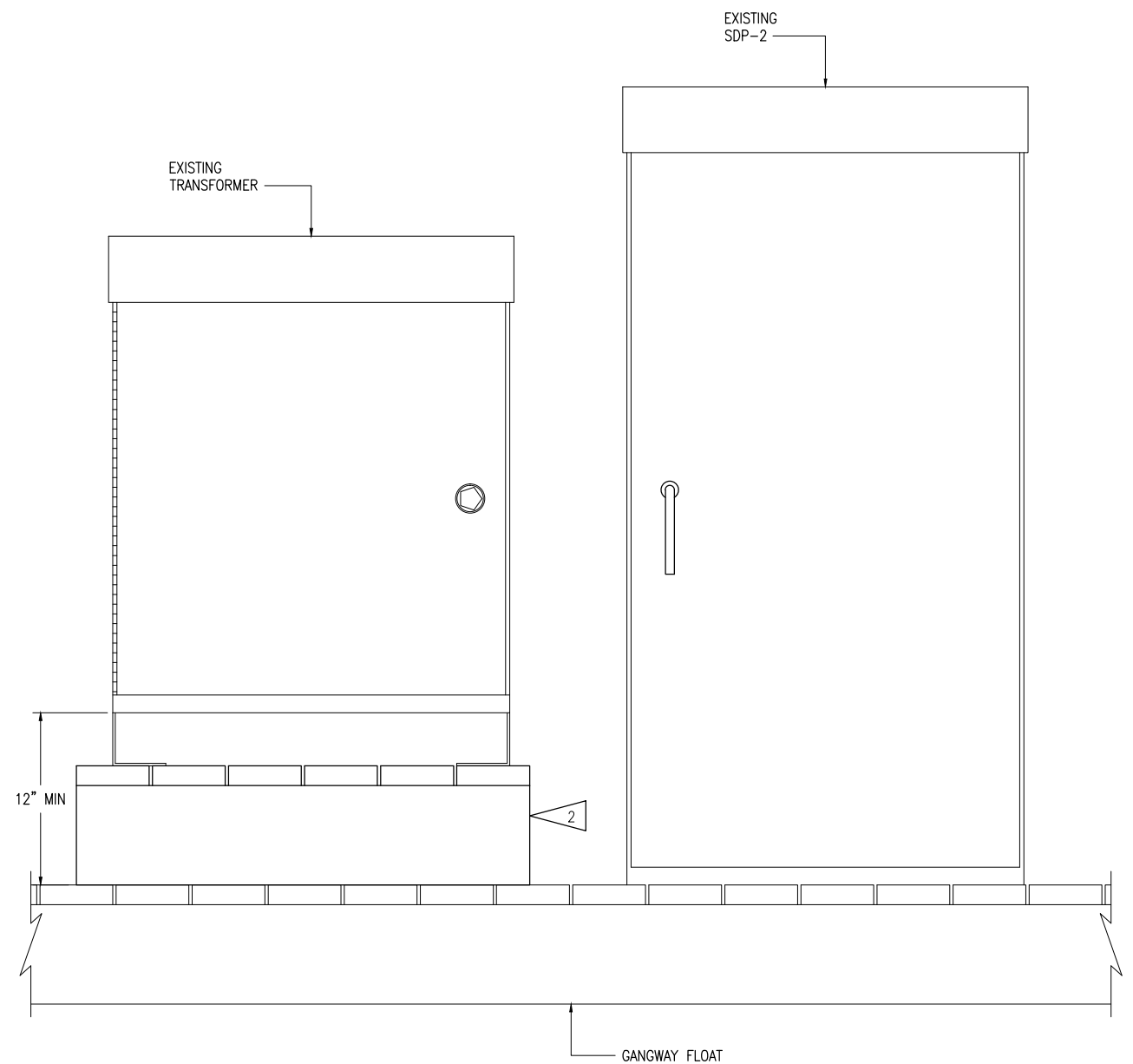
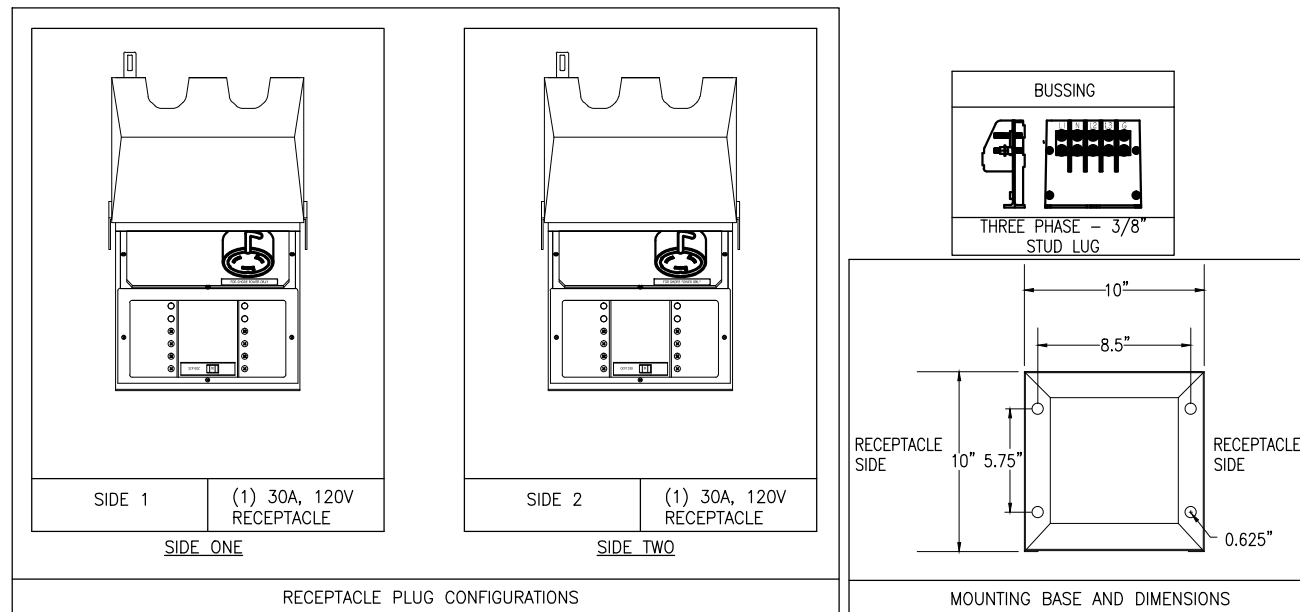


**HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

ELECTRICAL REMODEL PLAN

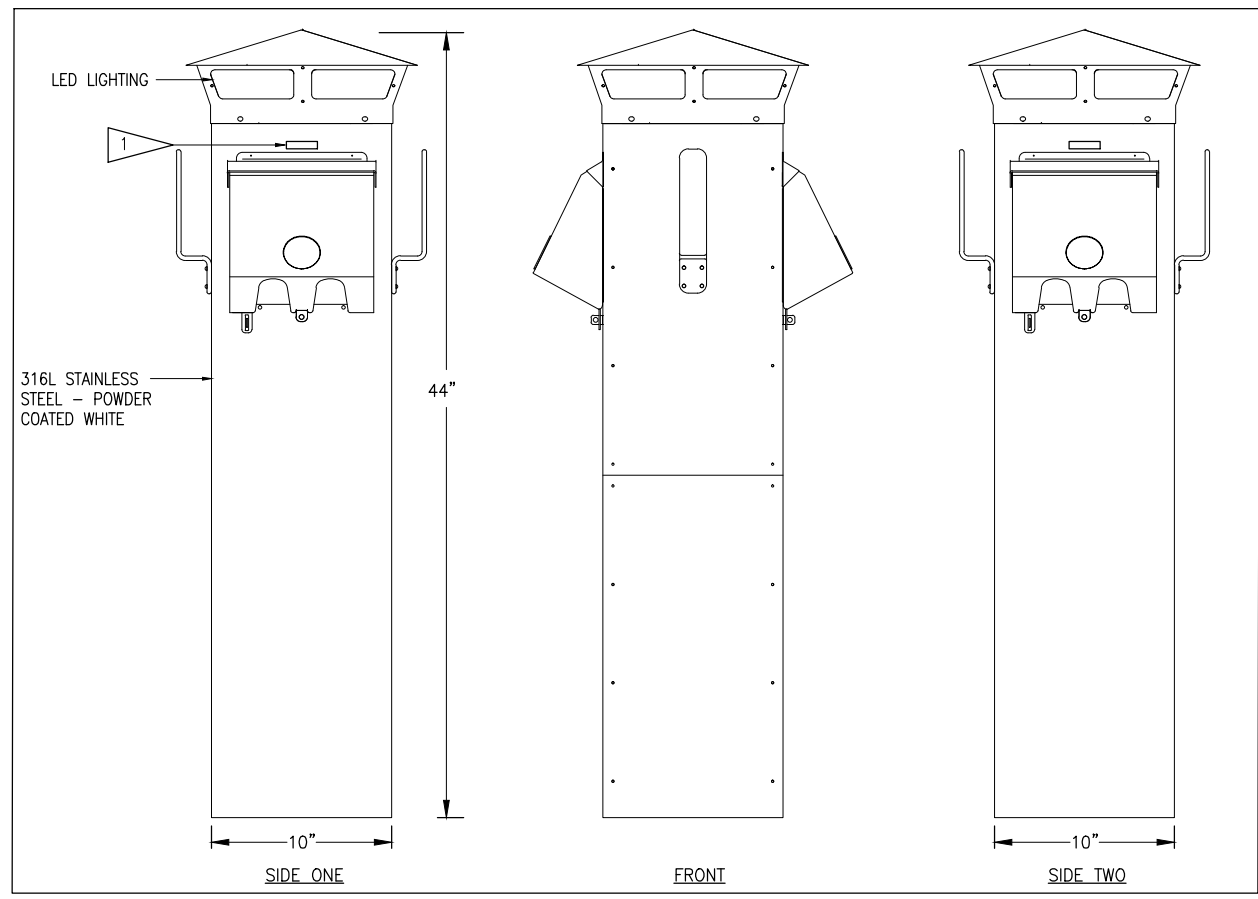
DESIGNED BY: WKR DATE: 11/13/13
CHECKED BY: TEH PROJECT NO: 121104

E3



2 TRANSFORMER AND METER ELEVATION
NTS

- NOTES:**
1. PEDESTAL DIGITAL KILOWATT HOUR METER.
 2. PROVIDE BASE TO RAISE BOTTOM OF TRANSFORMER ENCLOSURE 12" ABOVE THE TOP OF GANGWAY FLOAT DECK



1 TYPICAL SHORE POWER PEDESTAL FLOAT
NTS

RSA Engineering, Inc.
MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS
222 A STREET, SUITE 200 ANCHORAGE, ALASKA 99503

ISSUED FOR BID

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

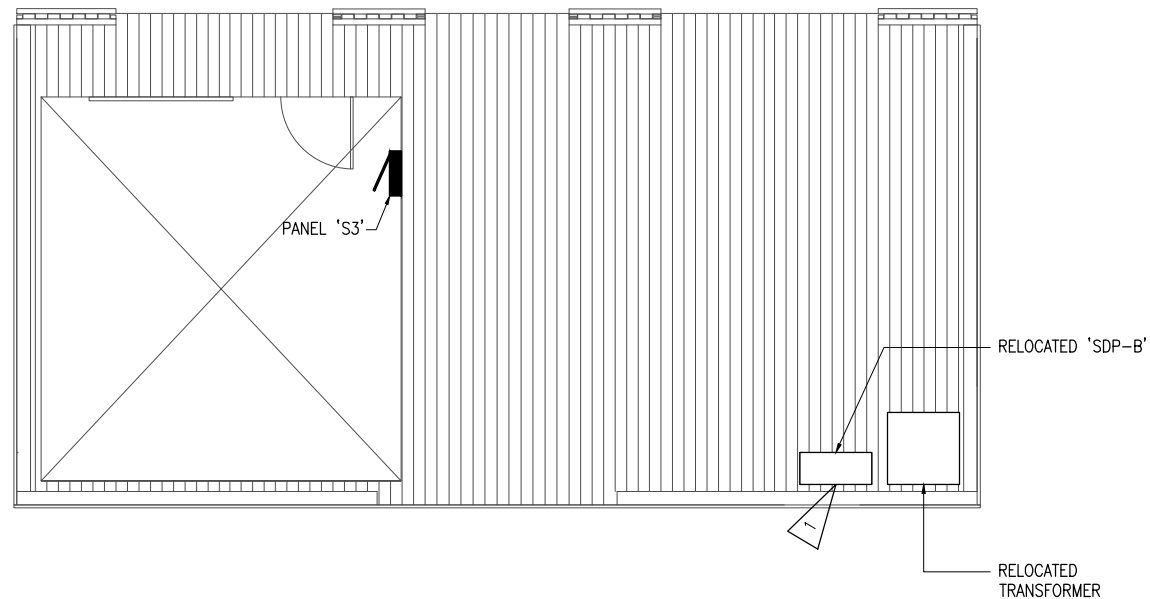
1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com



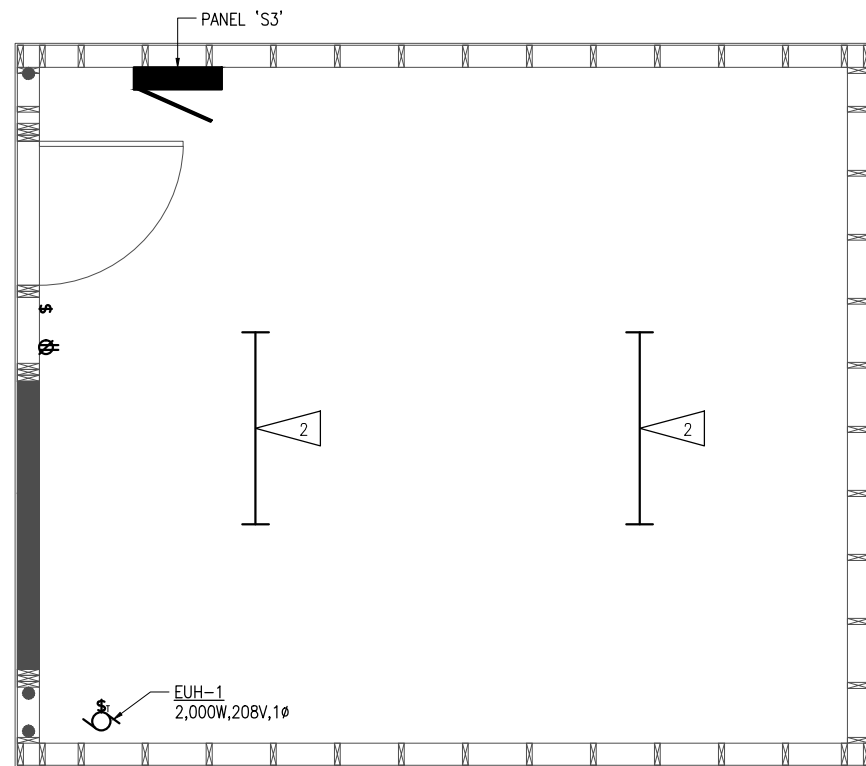
**HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

ELECTRICAL DETAILS

DESIGNED BY:	WKR	DATE:	11/13/13	SHEET NO: E4
CHECKED BY:	TEH	PROJECT NO:	121104	



1 ENLARGED PLAN LOAD PLAN
1/2" = 1'-0"



SHEET NOTE:

1. RECONNECT EXISTING STRIP LIGHT, HEATER, AND DUPLEX RECEPTACLE IN 'SDP-B' TO NEW CIRCUIT IN PANEL 'S3'.
2. 46"Lx2.13"W SURFACE MOUNT FLUORESCENT STRIP LIGHT WITH COLD-ROLLED STEEL HOUSING, HIGH-GLOSS BAKED WHITE ENAMEL FINISH AND WIREGUARD. LITHONIA #Z 2 32 MVOLT GEB10IS WZ48 OR APPROVED EQUAL.

2 ENLARGED SECTION PLAN RAM 3 RAM 2 SIMILAR ALT 1
1/2" = 1'-0"

PANEL 'S2'													
MFR/MODEL: SQUARE 'D' TYPE NQ				VOLTS: 120/240V, 1PH, 3W				ENCLOSURE: NEMA 1		125 A			
TYPE: PANELBOARD				VOLT-AMPS				MTG: SURFACE					
NOTE	CIRC	POLE	AMPS	SERVICE	TYPE	A	B	TYPE	SERVICE	AMPS	POLE	CIRC	NOTE
	1	1	20	LIGHTS AND RECEP	MISC	500	1,000		SPEC HEATER	15	2	2	
a	3	1	20	SDP-2 RECEP AND HEAT	MISC		1,200	1,000	SPEC AA	15	2	4	
	5											6	a
	7											8	a
	9											10	
	11											12	
TOTAL V-A						1,500	2,200	3,700 VA					
TOTAL AMPS						13	18	15 A					
A.I.C. RATING: 10,000													
CONNECTED LOAD IN KVA (THIS PANEL):						LTG	RECP	MOTR	LG.MT	MISC	SPEC	TOTAL	AMPS
						0.00	0.00	0.00	0.00	1.70	2.00	3.7 KVA	15 A
TOTAL CONNECTED LOAD IN KVA:						0.00	0.00	0.00	0.00	1.70	2.00	3.7 KVA	15 A
DEMAND LOAD IN KVA:						0.00	0.00	0.00	0.00	1.70	2.00	3.7 KVA	15 A
PANEL NOTES:								PANEL OPTIONS:					
a PROMDE IN PANEL S3 ONLY													
b													
c													
d													
e													

PANEL 'S3'													
MFR/MODEL: SQUARE 'D' TYPE NQ				VOLTS: 120/240V, 1PH, 3W				ENCLOSURE: NEMA 1		125 A			
TYPE: PANELBOARD				VOLT-AMPS				MTG: SURFACE					
NOTE	CIRC	POLE	AMPS	SERVICE	TYPE	A	B	TYPE	SERVICE	AMPS	POLE	CIRC	NOTE
	1	1	20	LIGHTS AND RECEP	MISC	500	1,000		SPEC HEATER	15	2	2	
a	3	1	20	SDP-2 RECEP AND HEAT	MISC		1,200	1,000	SPEC AA	15	2	4	
a	5	1	20	GANGWAY 3 LIGHTS	LTG	500	1,500		FEDR PANEL S2	30	2	6	a
	7							2,200	FEDR AA	30	2	8	a
	9											10	
	11											12	
TOTAL V-A						3,500	4,400	7,900 VA					
TOTAL AMPS						29	37	33 A					
A.I.C. RATING: 10,000													
CONNECTED LOAD IN KVA (THIS PANEL):						LTG	RECP	MOTR	LG.MT	MISC	SPEC	TOTAL	AMPS
						0.50	0.00	0.00	0.00	1.70	2.00	4.2 KVA	18 A
TOTAL CONNECTED LOAD IN KVA:						0.50	0.00	0.00	0.00	1.70	2.00	4.2 KVA	33 A
DEMAND LOAD IN KVA:						0.63	0.00	0.00	0.00	1.70	2.00	4.3 KVA	18 A
PANEL NOTES:								PANEL OPTIONS:					
a PROMDE IN PANEL S3 ONLY													
b													
c													
d													
e													

RSA Engineering, Inc.
MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS
2224 B STREET, SUITE 200
ANCHORAGE, ALASKA 99503
1315 S. ALASKA STREET, SUITE 100
ANCHORAGE, ALASKA 99508

ISSUED FOR BID

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503
Phone: 907.561.1011
Fax: 907.563.4220
www.pndengineers.com

P | N | D
ENGINEERS, INC.

HOMER SMALL BOAT HARBOR FLOAT IMPROVEMENTS			
ELECTRICAL ENLARGED PLANS AND PANEL SCHEDULES			
DESIGNED BY:	WKR	DATE:	11/13/13
CHECKED BY:	TEH	PROJECT NO:	121104
SHEET NO:			E5

ELECTRICAL SPECIFICATIONS

SCOPE OF WORK – FURNISH AND INSTALL ALL MATERIAL AND EQUIPMENT FOR A COMPLETE AND WORKABLE ELECTRICAL SYSTEM AS INDICATED ON THE DRAWINGS AND IN THESE SPECIFICATIONS.

STANDARDS, CODES AND REGULATIONS – COMPLY WITH THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE, UNIFORM BUILDING CODE, AND UNIFORM FIRE CODE AND THE NATIONAL ELECTRICAL SAFETY CODE INCLUDING ALL STATE AND LOCAL AMENDMENTS TO THESE CODES.

DRAWINGS – THE DRAWINGS ARE DIAGRAMMATIC, NOT NECESSARILY SHOWING ALL OFFSETS OR EXACT LOCATIONS OF FIXTURES, EQUIPMENT, ETC. UNLESS SPECIFICALLY DIMENSIONED. REVIEW THE DRAWINGS AND SPECIFICATIONS FOR EQUIPMENT FURNISHED BY OTHER CRAFTS BUT INSTALLED IN ACCORDANCE WITH THIS SECTION. BRING QUESTIONABLE OR OBSCURE ITEMS, APPARENT CONFLICTS BETWEEN PLANS AND SPECIFICATIONS, GOVERNING CODES OR UTILITIES REGULATIONS TO THE ATTENTION OF THE ARCHITECT. CODES, ORDINANCES, REGULATIONS, MANUFACTURER'S INSTRUCTIONS OR STANDARDS TAKE PRECEDENCE WHEN THEY ARE MORE STRINGENT OR CONFLICT WITH THE DRAWINGS AND SPECIFICATIONS.

RECORD DRAWINGS – MARK UP A CLEAN SET OF DRAWINGS AS THE WORK PROGRESSES TO SHOW THE DIMENSIONED LOCATION AND ROUTING OF ALL ELECTRICAL WORK WHICH WILL BECOME PERMANENTLY CONCEALED. SHOW ROUTING OF WORK IN PERMANENTLY CONCEALED BLIND SPACES WITHIN THE BUILDING. SHOW COMPLETE ROUTING AND SIZING OF ANY SIGNIFICANT REVISIONS TO THE SYSTEMS SHOWN.

WORKMANSHIP – INSTALLATION OF ALL WORK SHALL BE MADE SO THAT ITS SEVERAL COMPONENT PARTS SHALL FUNCTION AS A WORKABLE SYSTEM COMPLETE WITH ALL ACCESSORIES NECESSARY FOR ITS OPERATION. ALL MATERIAL AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, INSTRUCTIONS AND/OR INSTALLATION DRAWINGS AND IN ACCORDANCE WITH NECA STANDARDS. MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL CONFORM WITH APPLICABLE INDUSTRY STANDARDS, NEMA STANDARDS AND UNDERWRITERS LABORATORIES STANDARDS WHERE APPLICABLE.

SUBMITTALS – PROVIDE MATERIAL AND EQUIPMENT SUBMITTALS CONTAINING A COMPLETE LISTING OF MATERIAL AND EQUIPMENT SHOWN ON THE DRAWINGS. INCLUDE CATALOG NUMBERS, WIRING DIAGRAMS, ROUGH-IN DIMENSIONS AND PERFORMANCE DATA FOR ALL MATERIAL AND EQUIPMENT. SUBMITTALS SHALL BE BOUND IN HARD COVER, LOOSELEAF BINDERS SEPARATE FROM WORK FURNISHED UNDER OTHER DIVISIONS. INDEX AND CLEARLY IDENTIFY ALL MATERIAL AND EQUIPMENT BY ITEM, NAME OR DESIGNATION USED ON THE DRAWINGS. SUBMITTAL REVIEW IS FOR GENERAL DESIGN AND ARRANGEMENT ONLY AND DOES NOT RELIEVE THE CONTRACTOR FROM ANY REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE SUBMITTALS ARE NOT CHECKED FOR QUANTITY, DIMENSION, OR FOR PROPER OPERATION. WHERE DEVIATIONS OF A SUBSTITUTE PRODUCT OR SYSTEM PERFORMANCE HAVE NOT BEEN SPECIFICALLY NOTED IN THE SUBMITTAL BY THE CONTRACTOR, PROVISIONS OF A COMPLETE AND SATISFACTORY WORKING INSTALLATION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

OPERATION AND MAINTENANCE MANUALS – PROVIDE OPERATION AND MAINTENANCE MANUALS FOR TRAINING OF THE OWNER'S PERSONNEL. DESCRIBE THE PROCEDURES NECESSARY TO OPERATE THE SYSTEM INCLUDING START-UP, OPERATION, EMERGENCY OPERATION AND SHUTDOWN. PROVIDE INSTRUCTIONS AND A SCHEDULE OF PREVENTIVE MAINTENANCE IN TABULAR FORM FOR ALL ROUTINE CLEANING, INSPECTION AND LUBRICATION WITH RECOMMENDED LUBRICANTS. PROVIDE INSTRUCTIONS FOR MINOR REPAIR OR ADJUSTMENTS REQUIRED FOR PREVENTIVE MAINTENANCE ROUTINES. PROVIDE MANUFACTURER'S DESCRIPTIVE LITERATURE INCLUDING APPROVED SHOP DRAWINGS COVERING DEVICES USED IN ANY CONTRACTOR-PROVIDED EQUIPMENT OR SYSTEMS WITH ILLUSTRATION, EXPLODED VIEWS, ETC.

WARRANTY – THE CONTRACTOR SHALL GUARANTEE ALL WORK EXECUTED UNDER THIS CONTRACT TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM BENEFICIAL OCCUPANCY. ANY FAULTY MATERIALS OR WORKMANSHIP SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER DURING THE GUARANTEE PERIOD.

PERMITS – SECURE AND PAY FOR ALL FEES, PERMITS, ETC. REQUIRED BY LOCAL AND STATE AGENCIES.

REFERENCE SYMBOLS – THE ELECTRICAL "LEGEND" ON THE DRAWINGS IS A STANDARDIZED VERSION, AND ALL SYMBOLS SHOWN MAY NOT BE USED. USE THE "LEGEND" AS A REFERENCE FOR THE SYMBOLS USED ON THE DRAWINGS.

ELECTRICAL DEMOLITION – DEMOLITION DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION AND EXISTING RECORD DRAWING. REPORT DISCREPANCIES TO ARCHITECT/ENGINEER BEFORE DISTURBING THE EXISTING INSTALLATION. OBTAIN PERMISSION FROM OWNER AT LEAST 24 HOURS BEFORE PARTIALLY OR COMPLETELY DISABLING SYSTEM. MINIMIZE OUTAGE DURATION AND MAKE TEMPORARY CONNECTIONS TO MAINTAIN SERVICE IN AREAS ADJACENT TO WORK AREA. WHEN WORK MUST BE PERFORMED ON ENERGIZED EQUIPMENT OR CIRCUITS, USE PERSONNEL EXPERIENCED IN SUCH OPERATIONS. REMOVE ABANDONED WIRING TO SOURCE OF SUPPLY. REMOVE EXPOSED ABANDONED CONDUIT. WHERE ABANDONED CONDUIT ENTERS EXISTING SURFACES TO REMAIN, CUT CONDUIT FLUSH WITH SURFACE, AND PATCH SURFACES. DISCONNECT ABANDONED OUTLETS AND REMOVE DEVICES. DISCONNECT AND REMOVE ABANDONED PANELBOARDS AND DISTRIBUTION EQUIPMENT. DISCONNECT AND REMOVE ELECTRICAL DEVICES AND EQUIPMENT SERVING UTILIZATION EQUIPMENT THAT HAS BEEN REMOVED. REPAIR ADJACENT CONSTRUCTION AND FINISHES DAMAGED DURING DEMOLITION AND EXTENSION WORK. MAINTAIN ACCESS TO EXISTING ELECTRICAL INSTALLATIONS WHICH REMAIN ACTIVE.

IDENTIFICATION – PROVIDE ENGRAVED THREE-LAYER LAMINATED PLASTIC NAMEPLATES WITH WHITE LETTERS ON A BLACK BACKGROUND TO IDENTIFY ALL ELECTRICAL DISTRIBUTION AND CONTROL EQUIPMENT, LOADS SERVED AND AS NOTED ON THE DRAWINGS. LETTER HEIGHTS SHALL BE 1/8 INCH FOR INDIVIDUAL SWITCHES, MOTOR STARTERS AND LOADS SERVED AND 1/4 INCH ON PANELBOARDS AND SWITCHBOARDS. SECURE NAMEPLATES TO EQUIPMENT FRONTS USING SCREWS, OR RIVETS. THE USE OF ADHESIVES IS NOT ACCEPTABLE. SECURE NAMEPLATE TO INSIDE FACE OF RECESSED PANELBOARD DOORS IN FINISHED LOCATIONS.

CONDUIT – INSTALL AN INSULATED EQUIPMENT GROUNDING CONDUCTOR IN ALL RACEWAYS. UTILIZE GALVANIZED RIGID STEEL FOR EXPOSED FEEDERS IN WET LOCATIONS, SCHEDULE 40 PVC OR HDPE CONDUIT MAY BE USED BELOW GRADE. COMPLETELY AND THOROUGHLY SWAB RACEWAY SYSTEM BEFORE INSTALLING CONDUCTORS OR CABLES.

CONDUCTORS – ALL CONDUCTORS SHALL BE COPPER WITH TYPE XHHW INSULATION. PULL ALL CONDUCTORS INTO THE RACEWAY AT THE SAME TIME. USE UL LISTED WIRE PULLING LUBRICANT FOR PULLING 4 AWG AND LARGER WIRES. COLOR CODE CONDUCTORS AS FOLLOWS: 120/208 VOLT SYSTEMS. USE PROPERLY SIZED INSULATED SPRING WIRE CONNECTORS WITH PLASTIC CAPS FOR ALL CONDUCTORS #8 AWG AND SMALLER. TERMINATE #6 AWG AND LARGER CONDUCTORS WITH CRIMP OR COMPRESSION TYPE CONNECTORS INSTALLED WITH TOOL RECOMMENDED BY CONNECTION MANUFACTURER AND INSULATE WITH PROPERLY SIZED 600 VOLT RATED HEAT SHRINK TUBING.

DOCK/MARINE CABLE – INDUSTRIAL/MINING CABLE: UL LISTED TYPE W OR G/GC PER UL 1650 AND NEMA WC-58. CONDUCTOR: ROPE-LAY STRANDED, BUNCHED MEMBERS, ANNEALED COPPER CONDUCTORS. INSULATION: POLYESTER OR PAPER TAPE SEPARATES THE COPPER CONDUCTORS FROM THE EP RUBBER INSULATION. THE INSULATED CONDUCTORS ARE ASSEMBLED ROUND WITH FILLERS AS NEEDED. JACKET/SHEATH: CPE RUBBER JACKET. JACKETS ARE REINFORCED BY A BRAID OR SERVE OF SYNTHETIC MATERIAL.

PROVIDE PROTECTION FOR EXPOSED CABLES WHERE SUBJECT TO DAMAGE. USE SUITABLE CABLE FITTINGS AND CONNECTORS. FIELD INSPECTION AND TESTING WILL BE PERFORMED UNDER PROVISIONS OF DIVISION 1. INSPECT WIRE AND CABLE FOR PHYSICAL DAMAGE AND PROPER CONNECTION. TORQUE CONDUCTOR CONNECTIONS AND TERMINATIONS TO MANUFACTURER'S RECOMMENDED VALUES. PERFORM CONTINUITY TEST ON ALL POWER AND EQUIPMENT BRANCH CIRCUIT CONDUCTORS. VERIFY PROPER PHASING CONNECTIONS.

OUTLET BOXES – PROVIDE GALVANIZED OR CADMIUM PLATED, ONE PIECE PRESSED STEEL OUTLET BOXES 4 INCH SQUARE OR OCTAGONAL, 1 1/2 INCHES DEEP MINIMUM SIZE FOR USE IN INTERIOR AREAS. PROVIDE GALVANIZED STEEL, MARINE GRADE ALUMINUM, STAINLESS STEEL OR FIBERGLASS REINFORCED NEMA 4X BOXES WITH GASKETED COVER, THREADED HUBS FOR USE IN EXTERIOR OR WET LOCATIONS. SUPPORT BOXES INDEPENDENTLY OF CONDUIT. COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF OUTLETS MOUNTED ABOVE COUNTERS, BENCHES AND BACKSPASHES.

SHORE POWER PEDESTALS – POWER PEDESTAL: UL LISTED FOR ALL OPTIONS LISTED. CONFIGURED TO MEET NFPA STANDARDS FOR MARINAS (NFPA 303) IN ADDITION TO MEETING NEC REQUIREMENTS. WARRANTY: MANUFACTURER SHALL PROVIDE 5 YEAR WARRANTY FROM DATE OF ACCEPTANCE FROM OWNER FOR ALL EQUIPMENT. HOUSING: UL LISTED MOLDED STAINLESS STEEL HOUSING SHALL BE IMPACT AND CORROSION RESISTANT, WITH STAINLESS STEEL HARDWARE. RECEPTACLES: RATING AS SHOWN ON DRAWINGS. UL LISTED AND CONSTRUCTED IN CONFORMANCE WITH IEC 309-1 AND IEC 309-2. POLYCARBONATE CORROSION AND IMPACT RESISTANT HOUSING. MOLDED CASE CIRCUIT BREAKERS: NEMA AB1; PROVIDE CIRCUIT BREAKERS WITH INTEGRAL THERMAL AND INSTANTANEOUS MAGNETIC TRIP IN EACH POLE. BREAKER COVERS: EACH BREAKER SHALL BE COVERED SEPARATELY BY A HINGED-SPRING LOADED LOCKABLE COVER. COVER SHALL BE IMPACT AND TEMPERATURE RESISTANT POLYCARBONATE. METERS: ONE DIGITAL ELECTRONIC KILOWATT HOUR METER WITH WATERPROOF ELECTROMECHANICAL COUNTER SHALL BE INSTALLED FOR EACH RECEPTACLE INSTALLED IN THE POWER PEDESTAL. LIGHTING: PROVIDE TWO 13WATT COMPACT FLUORESCENT LIGHTS CONTROLLED BY PHOTO-ELECTRIC SENSOR TO AUTOMATICALLY TURN LIGHT ON AND OFF. LIGHT FIXTURE SHALL BE PROTECTED BY FUSE OR CIRCUIT BREAKER. FIXTURE SHALL BE CAPABLE OF STARTING TO TEMPERATURE OF -20°

VERIFY THAT DOCK SURFACE IS READY TO RECEIVE WORK. THE MOUNTING SURFACE MUST BE FLAT AND LEVEL. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. INSTALL SAFETY LABELS TO NEMA 260.

PANELBOARDS – PROVIDE DEAD-FRONT CIRCUIT BREAKER PANELBOARDS WITH BUS SIZE, SHORT CIRCUIT RATING, NUMBER AND SIZE OF BRANCH CIRCUITS AS SHOWN ON THE DRAWINGS. BUSSING SHALL BE COPPER. CABINETS SHALL BE 6 INCHES DEEP BY 20 INCHES WIDE MINIMUM. PROVIDE WITH SURFACE FRONTS, WITH CONCEALED TRIM CLAMPS, CONCEALED HINGE AND FLUSHLOCK. FINISH IN MANUFACTURER'S STANDARD GRAY ENAMEL MOLDED CASE CIRCUIT BREAKERS SHALL BE BOLT-ON THERMAL MAGNETIC TRIP TYPE WITH COMMON TRIP HANDLE FOR ALL POLES. INSTALL PANELBOARDS PLUMB WITH TOP OF CABINET 6"-6" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED ON THE DRAWINGS. PROVIDE TYPED CIRCUIT DIRECTORIES FOR EACH PANELBOARD. MEASURE STEADY STATE LOAD CURRENTS OF EACH PANELBOARD FEEDER AND REARRANGE BRANCH CIRCUITS AS REQUIRED TO MAINTAIN A MAXIMUM 20 PERCENT DIFFERENCE BETWEEN PHASES. REVISE CIRCUIT DIRECTORY TO REFLECT CIRCUITING CHANGES REQUIRED TO BALANCE PHASE LOADS.

RECEPTACLES – PROVIDE NEMA 5-20R DUPLEX GROUNDING TYPE RECEPTACLES WITH IVORY FINISH, UL NO. 498 APPROVED, SELF-GROUNDING, CERTIFIED TO COMPLY WITH NEMA WD-1-4.02 THROUGH 4.11, 1979 TESTS. SCREW TERMINAL OR SCREW CLAMP TYPE ONLY. SPRING CLAMPED TYPE TERMINATIONS ARE NOT ACCEPTABLE. PROVIDE DUPLEX CONVENIENCE RECEPTACLES WITH CLASS "A" INTEGRAL GROUND FAULT CURRENT INTERRUPTER AND LOCKOUT FUNCTION. PROVIDE WEATHER-RESISTANT RECEPTACLES FOR ALL 20A RECEPTACLES INSTALLED IN DAMP AND WET LOCATIONS. PROVIDE SPECIFIC-USE RECEPTACLES WHERE INDICATED ON THE DRAWINGS. UNLESS OTHERWISE NOTED ON THE DRAWINGS, INSTALL RECEPTACLES 18 INCHES ABOVE FINISH FLOOR, 4 INCHES ABOVE COUNTERS AND BACKSPASHES WITH GROUNDING POLE ON BOTTOM. UNLESS OTHERWISE NOTED DIMENSIONS ARE TO CENTERLINE OF OUTLET.

SWITCHES – PROVIDE NEMA WD-1 20 AMPERE, 120/277 VOLT AC GENERAL-USE SNAP SWITCH, UL NO. 20 LISTED, SELF-GROUNDING BINDING SCREW TYPE TERMINALS WITH IVORY TOGGLE, SINGLE POLE, DOUBLE POLE, THREE WAY OR FOUR WAY AS INDICATED ON THE DRAWINGS. PROVIDE LINE VOLTAGE RED-LIGHTED NEON TOGGLE PILOT LIGHT SWITCHES AS INDICATED ON THE DRAWINGS. INSTALL SWITCHES 48 INCHES ABOVE FINISHED FLOOR, OFF POSITION DOWN.

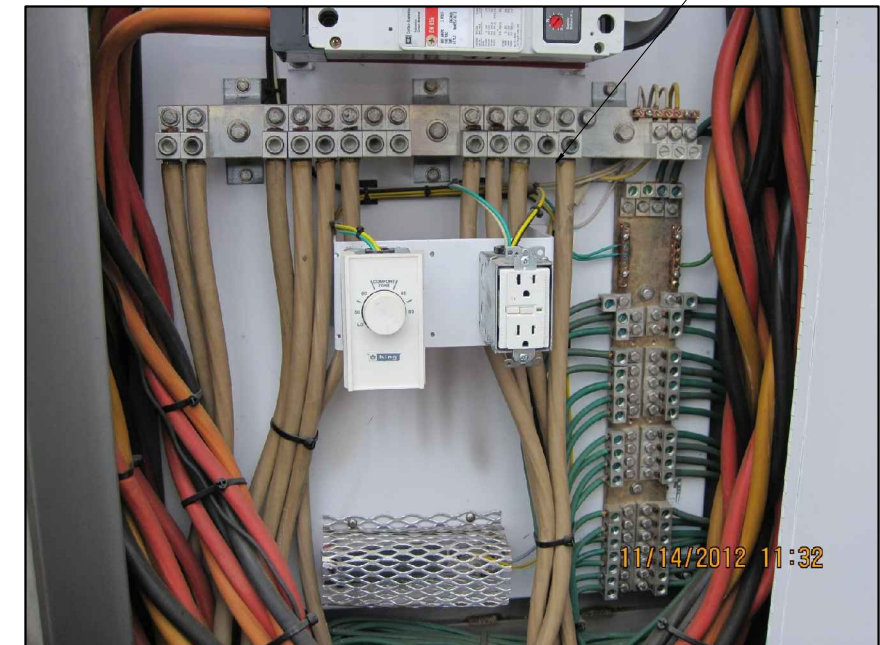
DEVICE PLATES – PROVIDE UL LISTED, CAST ALUMINUM, HINGED OUTLET COVER/ENCLOSURE WITH GASKET BETWEEN THE ENCLOSURE AND THE MOUNTING SURFACE, SUITABLE FOR WET LOCATION WHILE IN USE FOR ALL OUTLETS ON THE EXTERIOR OF THE BUILDING. PROVIDE 1/2 INCH RAISED, SQUARE, GALVANIZED OR CADMIUM PLATED, PRESSED STEEL COVER PLATE SUPPORTING DEVICES INDEPENDENT OF THE OUTLET BOX FOR ALL EXPOSED WORK.

LIGHTING EQUIPMENT – PROVIDE AND INSTALL ALL LIGHTING EQUIPMENT OR APPROVED EQUAL AS SHOWN ON THE DRAWINGS AND DESCRIBED IN THE "FIXTURE SCHEDULE". PROVIDE LIGHTING EQUIPMENT COMPLETE, WIRED, ASSEMBLED, WITH PROPER FLANGES, MOUNTING SUPPORTS, HARDWARE, ETC.

EQUIPMENT CONNECTIONS – PROVIDE WIRING AND CONNECTION OF EQUIPMENT REQUIRING ELECTRICAL POWER BUT SPECIFIED UNDER OTHER DIVISIONS OF THE SPECIFICATIONS. EQUIPMENT SHALL INCLUDE BUT IS NOT LIMITED TO OVERHEAD DOORS, FOOD SERVICE EQUIPMENT, ELEVATORS, MOTORS, PUMPS, WATER HEATERS, HVAC EQUIPMENT, ETC. REVIEW EQUIPMENT SUBMITTALS PRIOR TO INSTALLATION AND ELECTRICAL ROUGH-IN. VERIFY LOCATION, SIZE, TYPE OF CONNECTIONS, AND THAT EQUIPMENT IS READY FOR ELECTRICAL CONNECTION. MAKE WIRING CONNECTIONS IN CONTROL PANEL OR IN WIRING COMPARTMENT OF PREWIRED EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. PROVIDE INTERCONNECTING WIRING AND DISCONNECTS WHERE REQUIRED.

FRACTIONAL HORSEPOWER MANUAL STARTER – NEMA ICS 2; AC GENERAL-PURPOSE CLASS A MANUALLY OPERATED, NUMBER OF POLES AS REQUIRED BY THE LOAD SERVED, FULL-VOLTAGE CONTROLLER FOR FRACTIONAL HORSEPOWER INDUCTION MOTORS, WITH THERMAL OVERLOAD UNIT, RED LED PILOT LIGHT, AND KEY OPERATOR.

REARRANGE AND PROVIDE NEW CIRCUIT BREAKER. SEE NOTE 8, SHEET E1.



1 ESTIM PANEL SBOX NTS

ISSUED FOR BID

PND Engineers, Inc. (PND) is not responsible for safety programs, methods or procedures of operation, or the construction of the design shown on these drawings. Where specifications are general or not called out, the specifications shall conform to standards of industry. Drawings are for use on this project only and are not intended for reuse without written approval from PND. Drawings are also not to be used in any manner that would constitute a detriment directly or indirectly to PND.

REV	DATE	DESCRIPTION

DATE: _____

1506 West 36th Avenue
Anchorage, Alaska 99503

Phone: 907.561.1011

Fax: 907.563.4220

www.pndengineers.com

P | N | D
ENGINEERS, INC.

**HOMER SMALL BOAT HARBOR
FLOAT IMPROVEMENTS**

ELECTRICAL SPECIFICATIONS

DESIGNED BY:	WKR	DATE:	11/13/13
CHECKED BY:	TEH	PROJECT NO:	121104

SHEET NO:
E6

RSA Engineering, Inc.
MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS
2224 B Street, Suite 200 Anchorage, Alaska 99503
131 S. A Street, Suite 100 Anchorage, Alaska 99503