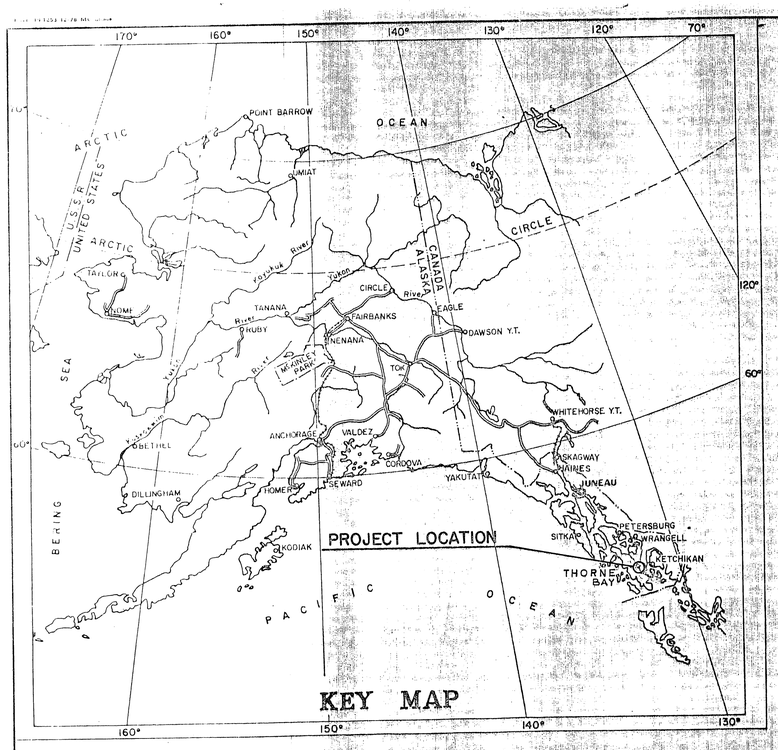


KEY MAP

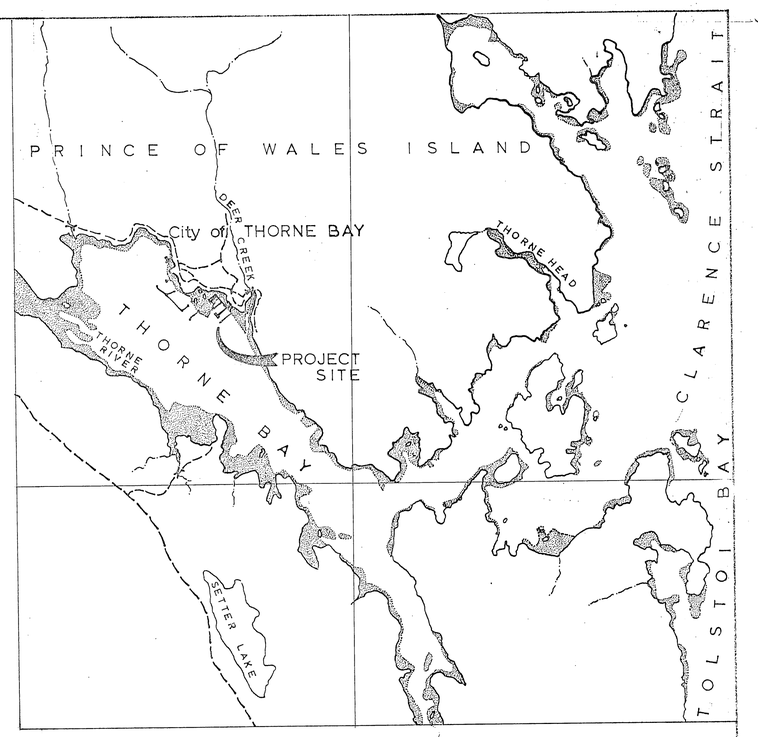
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

SOUTHEAST REGION
DESIGN & CONSTRUCTION

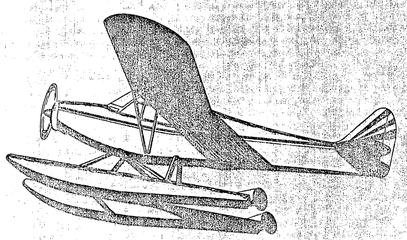
THORNE BAY
SEAPLANE FACILITIES

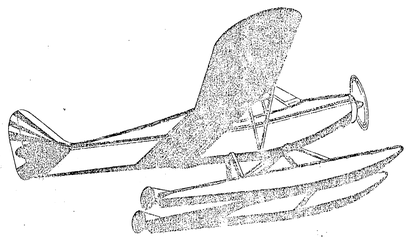
PROJECT NUMBER 69962

A. I. P. NO. 3-02-0297-01



INDEX OF SHEETS	
SHT. NO.	DESCRIPTION
1	TITLE SHEET
2	PROJECT LAYOUT
3	TYP. 10'WIDE TIMBER FLOAT
4	10'WIDE FLOAT LAYOUT
5	RAMP FLOAT LAYOUT
6	RAMP FLOAT SECTIONS
7	RAMP FRAMING DETAILS
8	RAMP FLOAT FLOTATION
9	RAMP FLOAT CONNECTION
10	SEAPLANE FLOAT LAYOUT
11	SEAPLANE FLOAT DETAILS
12	SEAPLANE FLOAT CONNECTION
13	MISC. DETAILS





A. E. Buist

START: OCTOBER 21, 1991

STOP: DECEMBER 12, 1991

CONTRACTOR: TAMICO, INC.

PROJECT ENGINEER: MARK HAZELWOOD

DATE: FEBRUARY 21, 1992

APPROVED

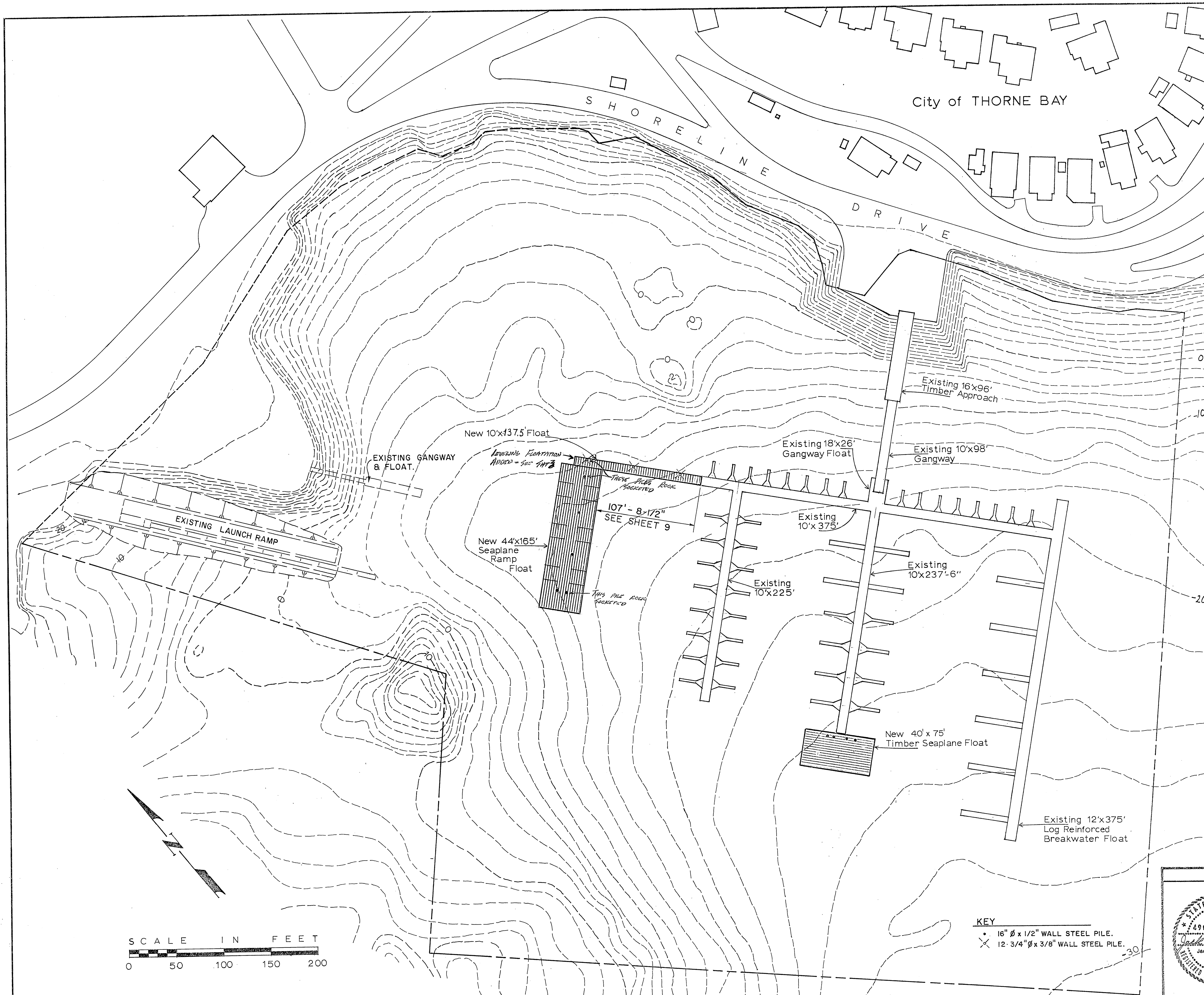
DIRECTOR, S.E. REGION DESIGN & CONSTRUCTION — 5/15/91 DATE

RECOMMENDED FOR APPROVAL

ENGINEERING MANAGER — 5/15/91 DATE

STATE OF ALASKA
49th
Jack Daniel Beedle
CE-5209
REGISTERED PROFESSIONAL ENGINEER

5-15-91



TIDE DATA

EHT = 20.0 (EST.)
MHHW = 15.4
MHW = 14.5
MTL = 8.2
MLLW = 0.0
ELT = -4.5 (EST.)

SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
110	MOBILIZATION & DEMOBILIZATION	L.S.	ALL REQ'D.
120(1)	DBE ADJUSTMENT	C.S.	ALL REQ'D.
301(1A)	12-3/4"ØX 3/8" WALL STR. STEEL PILES FURNISHED.	L.F.	~~211~~ 193.1
301(1B)	16"ØX1/2" WALL STR. STL. PILES, FURN.	L.F.	~~686~~ 699.4
301(2A)	12-3/4"ØX3/8" WALL STR. STL. PILES, DRIVEN.	EA.	3
301(2B)	16"ØX1/2" WALL STR. STL. PILES, DRIVEN.	EA.	9
301(3)	DRILLED PILE SOCKETS.	EA.	~~2~~ 3
311(1)	CONSTRUCT 10'X137.5' TIMBER FLOAT.	L.S.	ALL REQ'D.
311(2)	CONSTRUCT 40'X 75' TIMBER SEAPLANE FLOAT.	L.S.	ALL REQ'D.
311(3)	CONSTRUCT 44'X165' TIMBER RAMPED SEAPLANE FLOAT.	L.S.	ALL REQ'D.

AS BUILT
Mark [signature]
2/21/92

GENERAL NOTES

1. FLOAT PILES
   A. CUTOFF ELEVATION: + 32.0' MLLW.
   B. DESIGN PENETRATION: 25'
   C. DRIVING SHOES: OPEN END DRIVING SHOES ALL PILES.
   SHOES DELETED FROM 2 SOCKETED PILES (16"Ø) ON 165' FLOAT
2. VERTICAL CONTROL
   THE BASIS OF VERTICAL CONTROL FOR THIS PROJECT IS THE EXISTING APPROACH DECK ELEVATION OF + 24.0' MLLW.

STAMP: STATE OF ALASKA 49th — Jack Daniel Beedle, CE - 5309, REGISTERED PROFESSIONAL ENGINEER — 5-15-91

DO NOT SCALE THIS DRAWING — USE DIMENSIONS

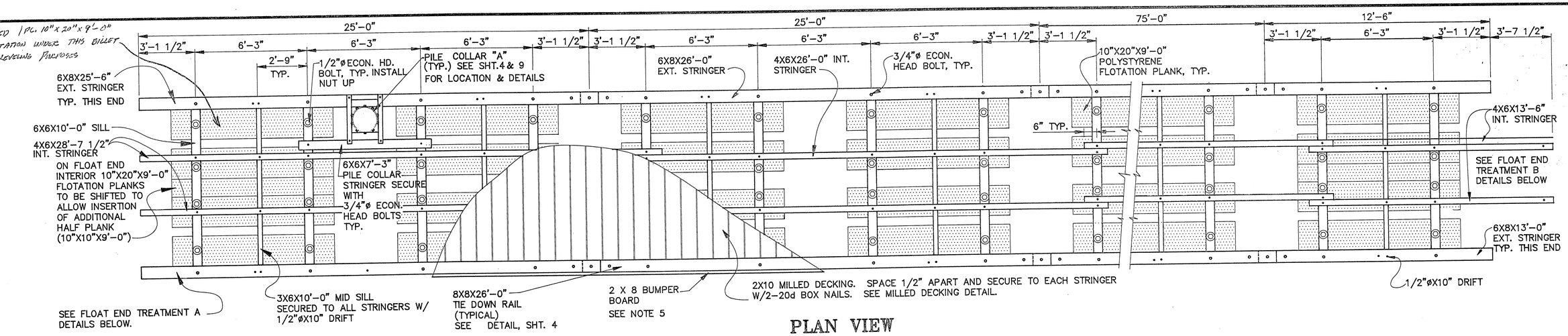
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

Thorne Bay, Alaska

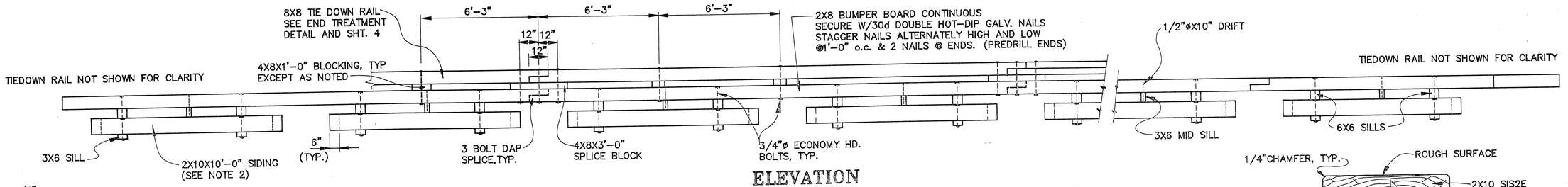
PROJECT LAYOUT

DESIGNED JDB	CHECKED WmN	DRAWN DWjr	DATE
PROJECT NUMBER 69962		SHEET 2 OF 13	

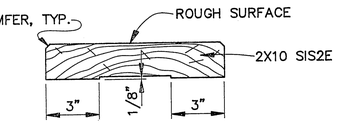
ADDED 1PC. 10"x20"x9'-0" FLOTATION UNDER THIS BILLET FOR LEVELING PURPOSS



PLAN VIEW



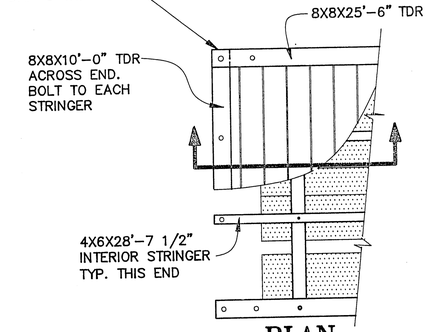
ELEVATION



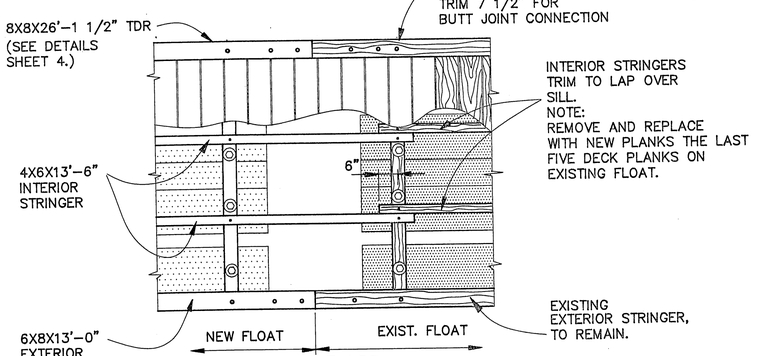
NOTE:
THE MILLED SIDE SHALL BE TOWARD THE INSIDE OF THE TREE.

MILLED DECKING DETAIL

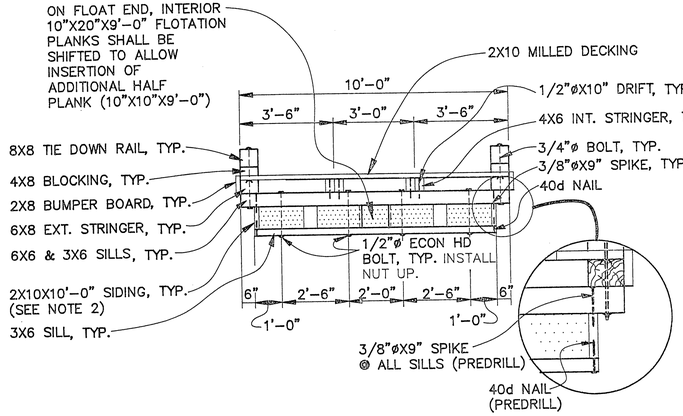
7 1/2"X7 1/2"X3 3/4" DAP @ THIS END



PLAN



PLAN

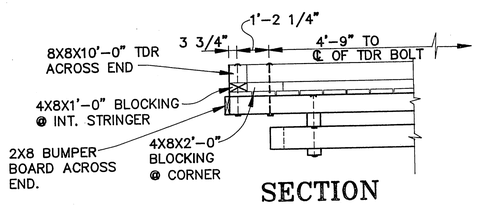


TYPICAL X-SECTION

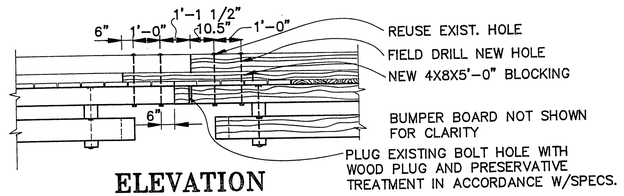
NOTES

1. COUNTERBORE FOR ALL BOLT HEADS FACING DECKING 3/8".
2. 2X10 SIDING IS A 2X12 (S4S) CUT TO 1 1/2"X10 1/4".
3. ALL TIMBER SHALL BE S4S EXCEPT DECKING (MILLED SIS2E) AND 2X10 SIDING.
4. ALL BOLTS ARE 3/4"ø ECONOMY HEAD TYPE WITH LUGS UNLESS OTHERWISE NOTED.
5. ALIGN BUMPER BOARD SPLICES WITH EXTERIOR STRINGER SPLICES. MINIMUM BUMPER BOARD LENGTH = 10'-0".

FLOATATION IS 1.25 lb/cf DENSITY - ACCEPTED BY DESIGN & CONSTRUCTION W/ON INSPECTION



SECTION



ELEVATION

END TREATMENT A

END TREATMENT B

As Built
Mark Thiessen
3/21/92

STAMP

STATE OF ALASKA
49th
JACK DANIEL BEEDLE
CE-5309
REGISTERED PROFESSIONAL ENGINEER
5/31/91

DO NOT SCALE FROM THIS DRAWING-USE DIMENSIONS

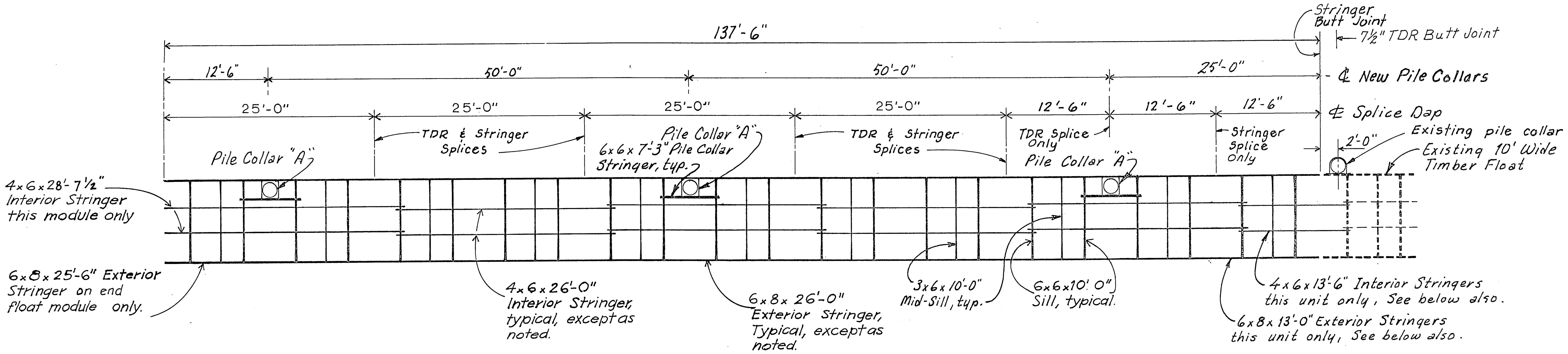
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

THORNE BAY ALASKA

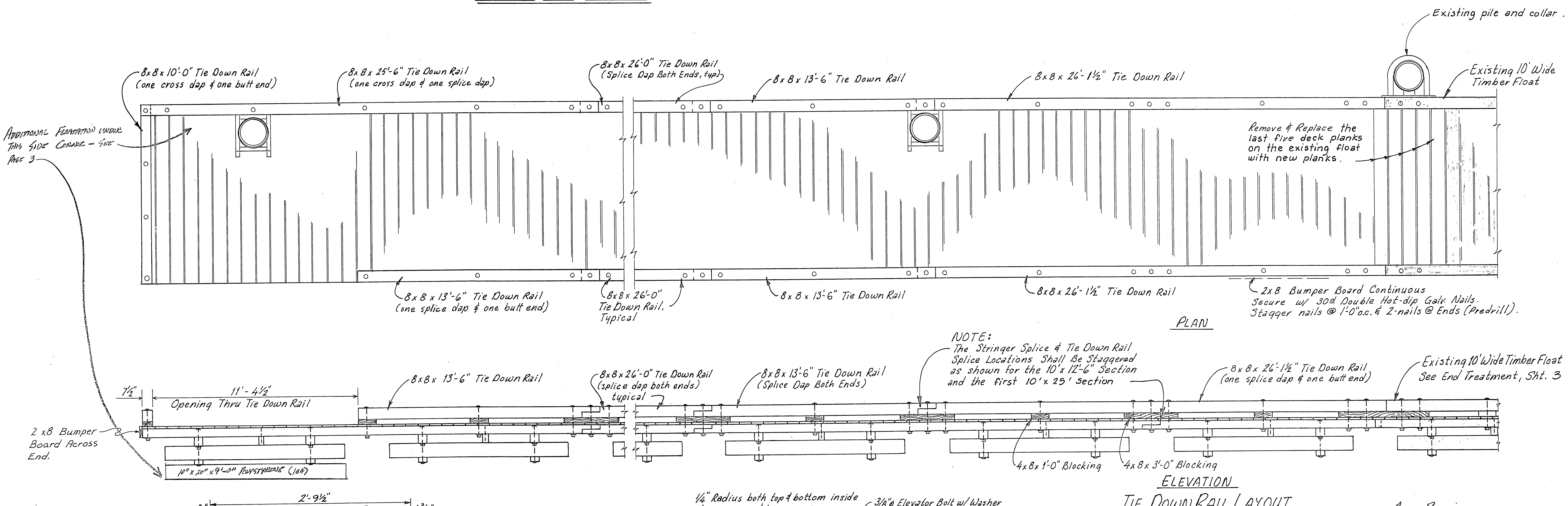
TYPICAL 10' WIDE TIMBER FLOAT

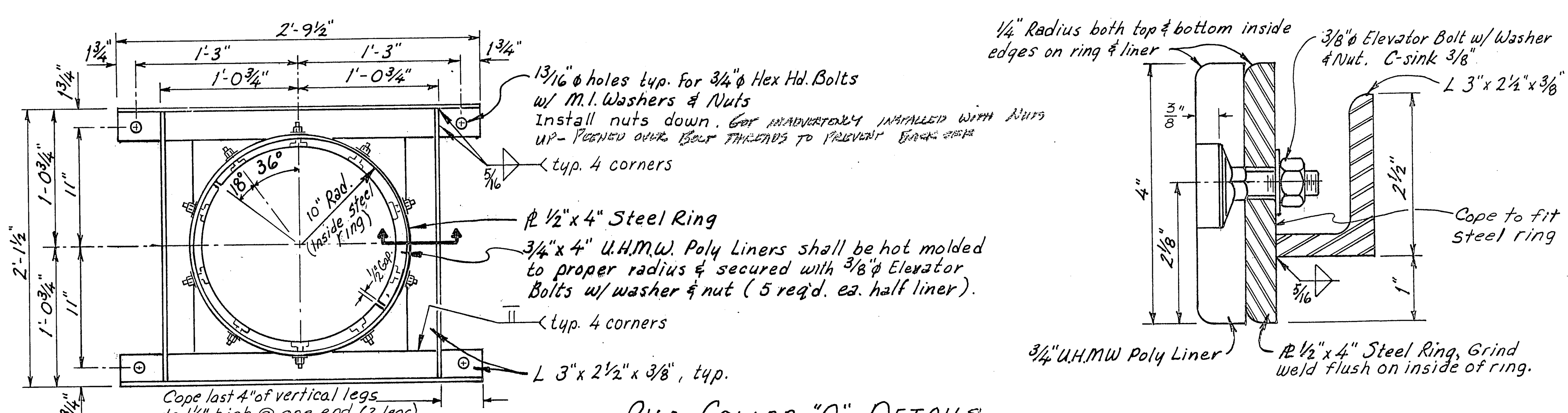
DESIGNED JDB	CHECKED WmN	DRAWN ACAD/CSA	DATE 6/1990
PROJECT NUMBER 69962		SHEET 3	OF 13

10FLOAT2.DWG



10'x 137'-6" FLOAT LAYOUT





PILE COLLAR "A" DETAILS

As Built
2/21/92

DO NOT SCALE THIS DRAWING – USE DIMENSIONS

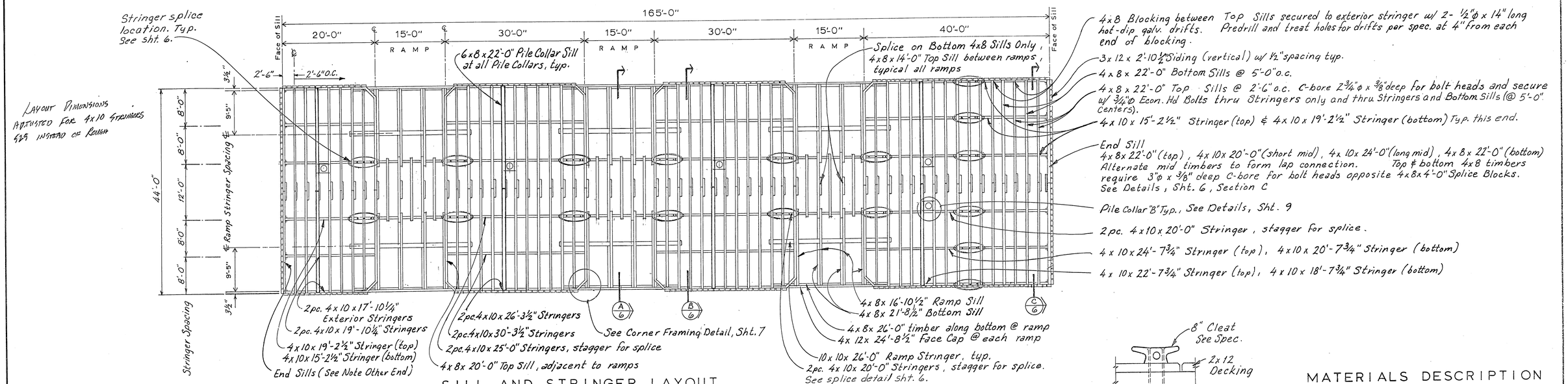
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

Thorne Bay — Alaska

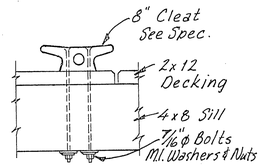
10' WIDE FLOAT LAYOUT

DESIGNED	WmN	CHECKED	JDB	DRAWN	DWjr	DATE	
PROJECT NUMBER	69962			SHEET	4	OF	13

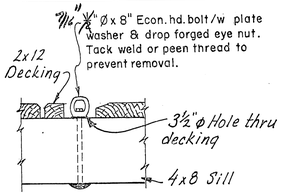
STAMP: State of Alaska, 49th, Jack Daniel Beedle, CE-5309, Registered Professional Engineer, 5/15/91



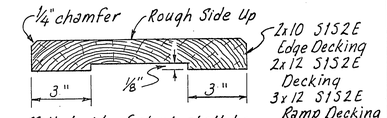
SILL AND STRINGER LAYOUT



CLEAT DETAIL



TIEDOWN RING DETAIL



Milled side of plank shall be toward center of tree.

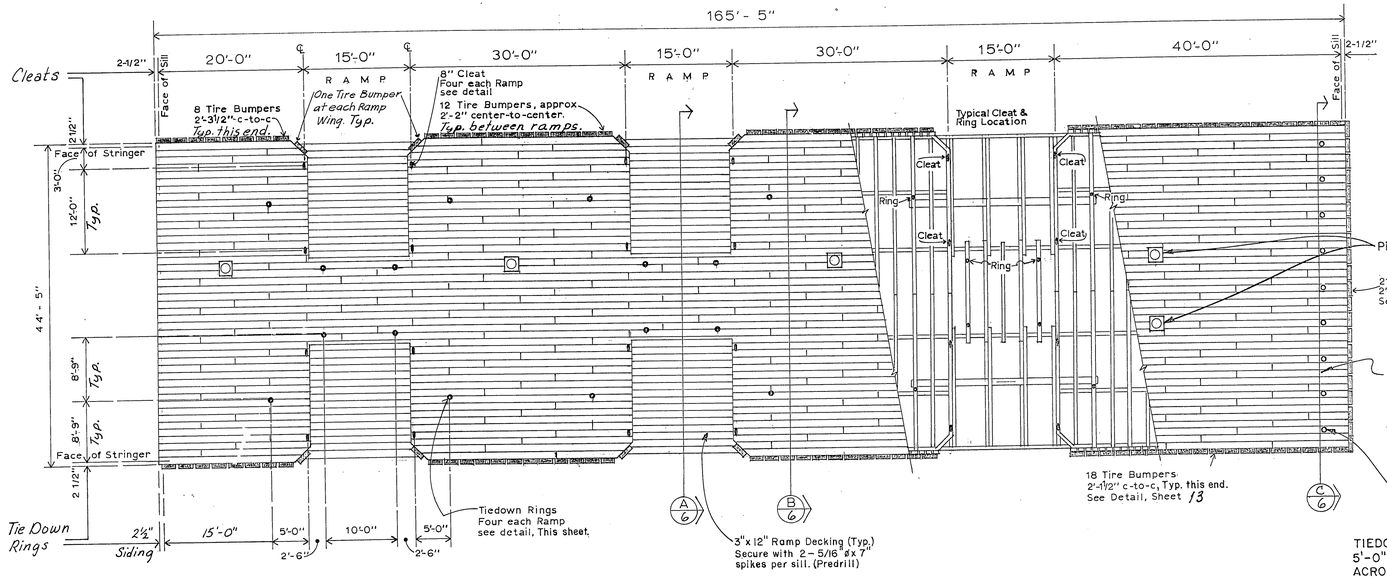
MILLED DECKING DETAIL

MATERIALS DESCRIPTION

1 All timber material, except ~~4x10 Stringers~~, 10x10 Ramp Stringers, 2x10 Edge Decking, 2x12 Decking and 3x12 Ramp Decking is to be S4S, with Preservative Treatment, in accordance with specifications. 4x10 STRINGERS CHANGED TO 525 ~~STRINGERS & SILLS TO BE SCRIBED~~

2 ~~4x10 Stringers and~~ 10x10 Ramp Stringers, to be rough cut (full 10 inch) with Preservative Treatment in accordance with specifications.. 4x10 STRINGERS CHANGED TO 525

3 2x10 Edge Decking, 2x12 Decking and 3x12 Ramp Decking to be milled S1S2E, install rough side up and Preservative Treat in accordance with specifications.. See milled decking detail this sheet.



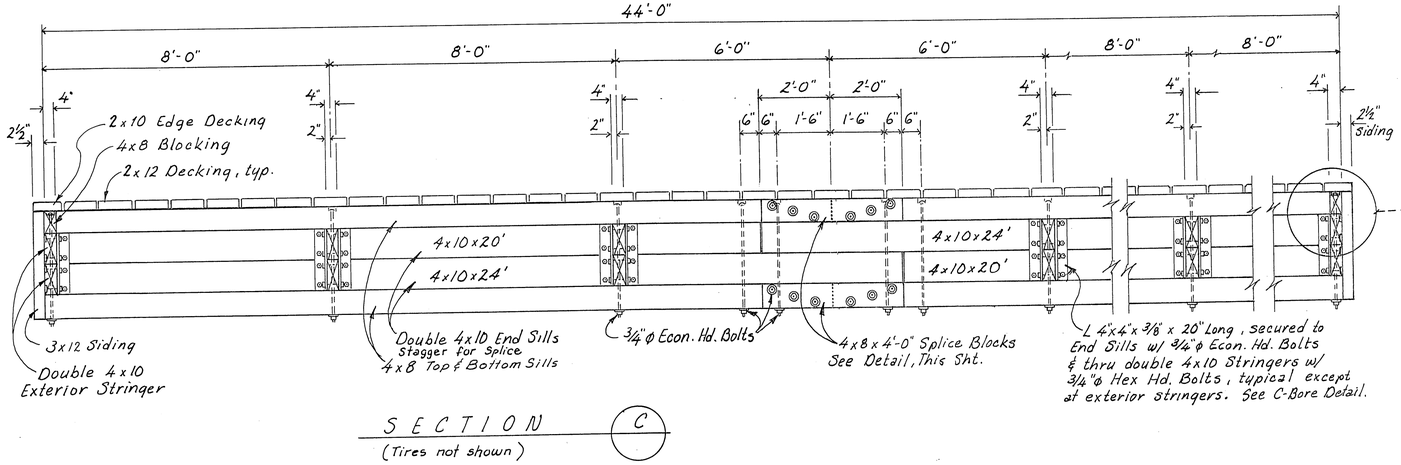
DECKING, RING AND CLEAT LAYOUT

10 0 5 10 20 40 FEET

As Built
Mark Habersaat
7/21/92

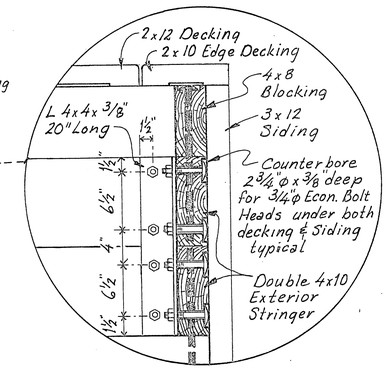
STAMP	DO NOT SCALE THIS DRAWING – USE DIMENSIONS
STATE OF ALASKA 49th Jack Daniel Boodle CE-5309 REGISTERED PROFESSIONAL ENGINEER 5-15-91	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES THORNE BAY ALASKA RAMP FLOAT LAYOUT DESIGNED JDB CHECKED WmN DRAWN DWjr DATE PROJECT NUMBER 69962 SHEET 5 OF 13

A/E SUPPLIES 122224

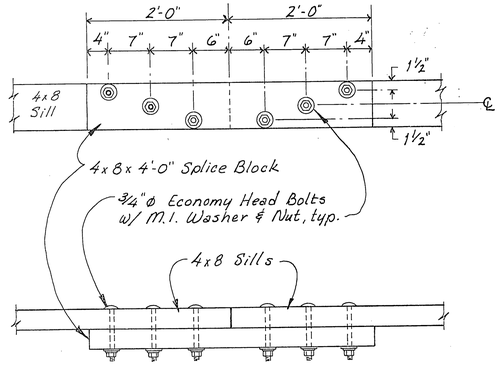


SECTION C

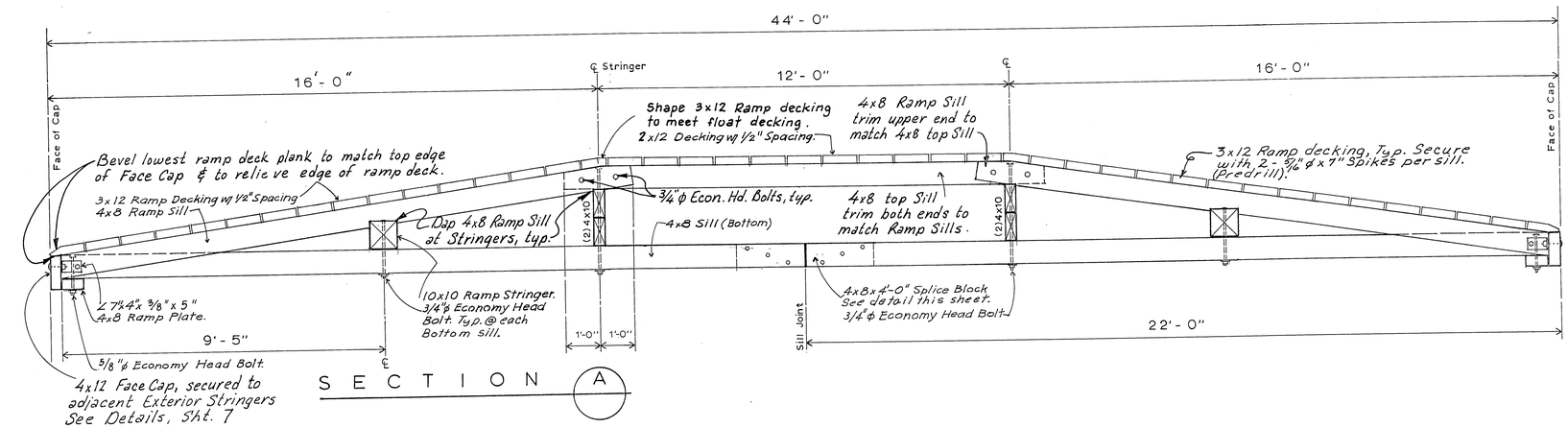
(Tires not shown)



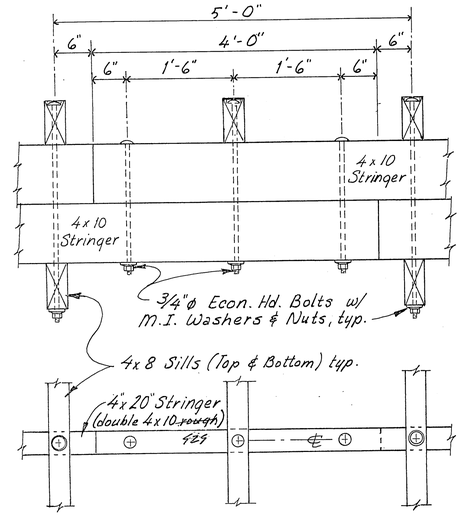
Counterbore Detail



SILL SPLICE DETAIL



SECTION A

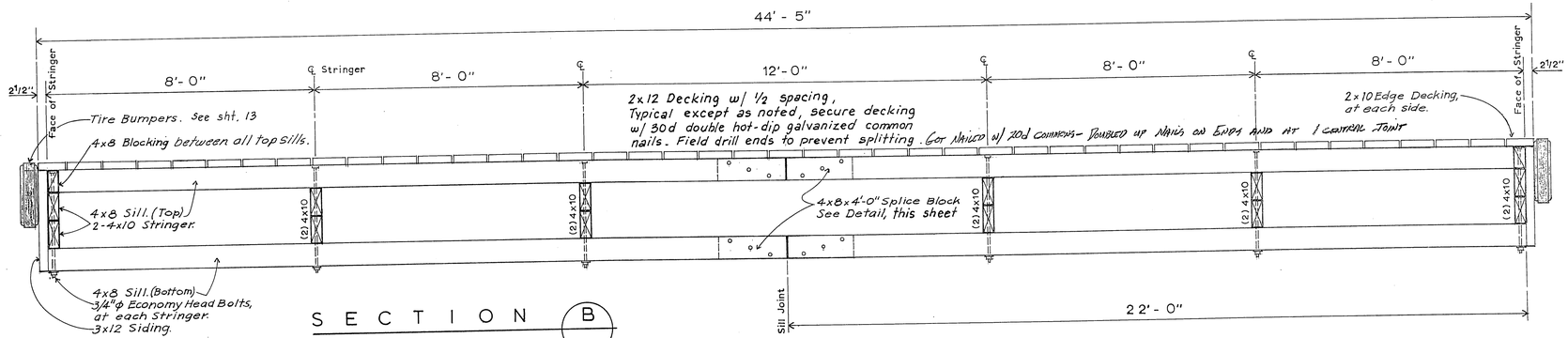


STRINGER SPLICE DETAIL

As Built

Mark Johnson

2/21/92



SECTION B

2 0 1 2 4 8 FEET

STAMP

STATE OF ALASKA
4913
Jack Daniel Boodle
CE - 5309
REGISTERED PROFESSIONAL ENGINEER
5-15-91

DO NOT SCALE THIS DRAWING — USE DIMENSIONS

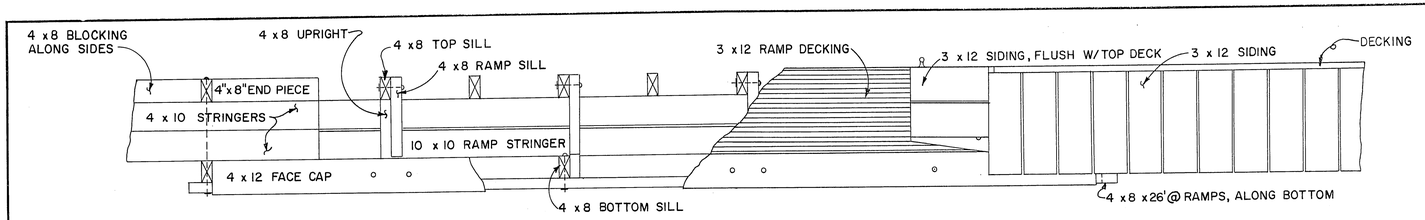
STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

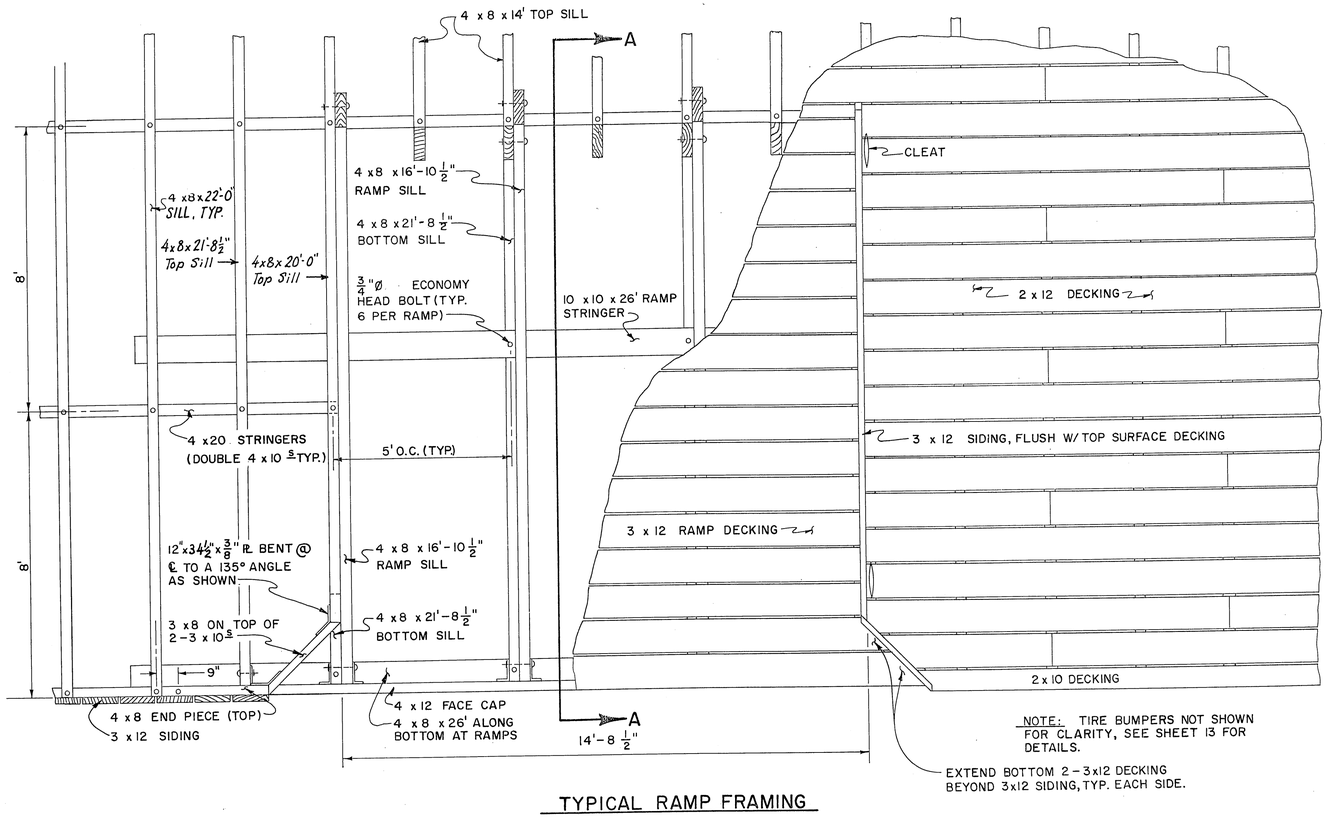
THORNE BAY ALASKA

RAMP FLOAT SECTIONS

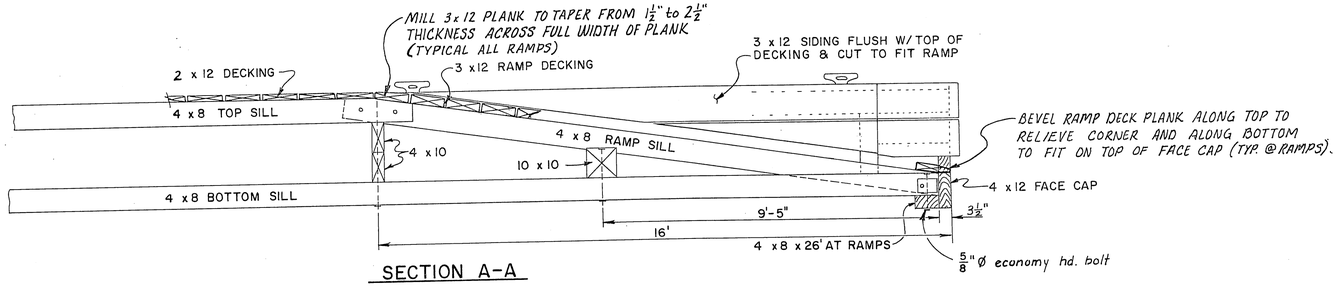
DESIGNED JDB	CHECKED WmN	DRAWN DWjr	DATE 1990
PROJECT NUMBER 69962		SHEET 6 OF 13	



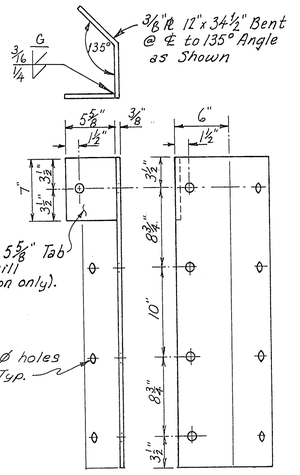
ELEVATION



TYPICAL RAMP FRAMING

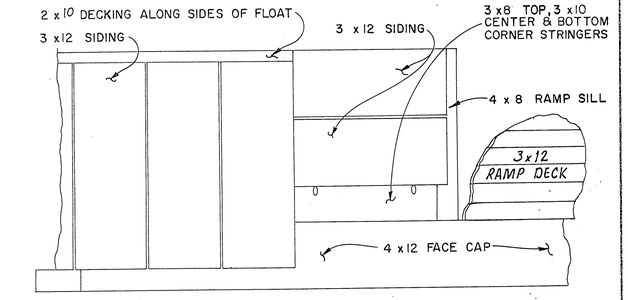


SECTION A-A

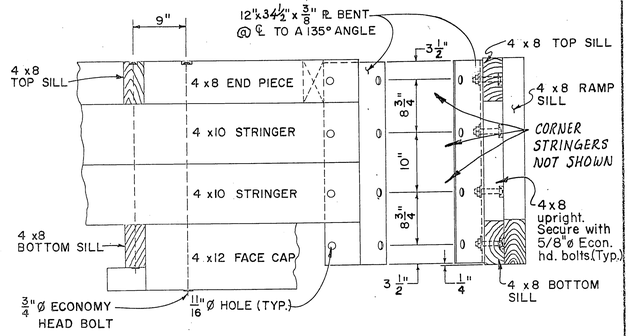


CORNER STRINGER BRACKET

(One as shown, One opposite hand, and Two without 7"x5 5/8" tab Req'd. Ea. Ramp)



ELEVATION



ELEVATION

TYPICAL CORNER FRAMING

As Built
Mark Schroeder
2/21/92

STAMP

STATE OF ALASKA
6911
Jack Daniel Beddia
CE - 5309
REGISTERED PROFESSIONAL ENGINEER
5/15/91

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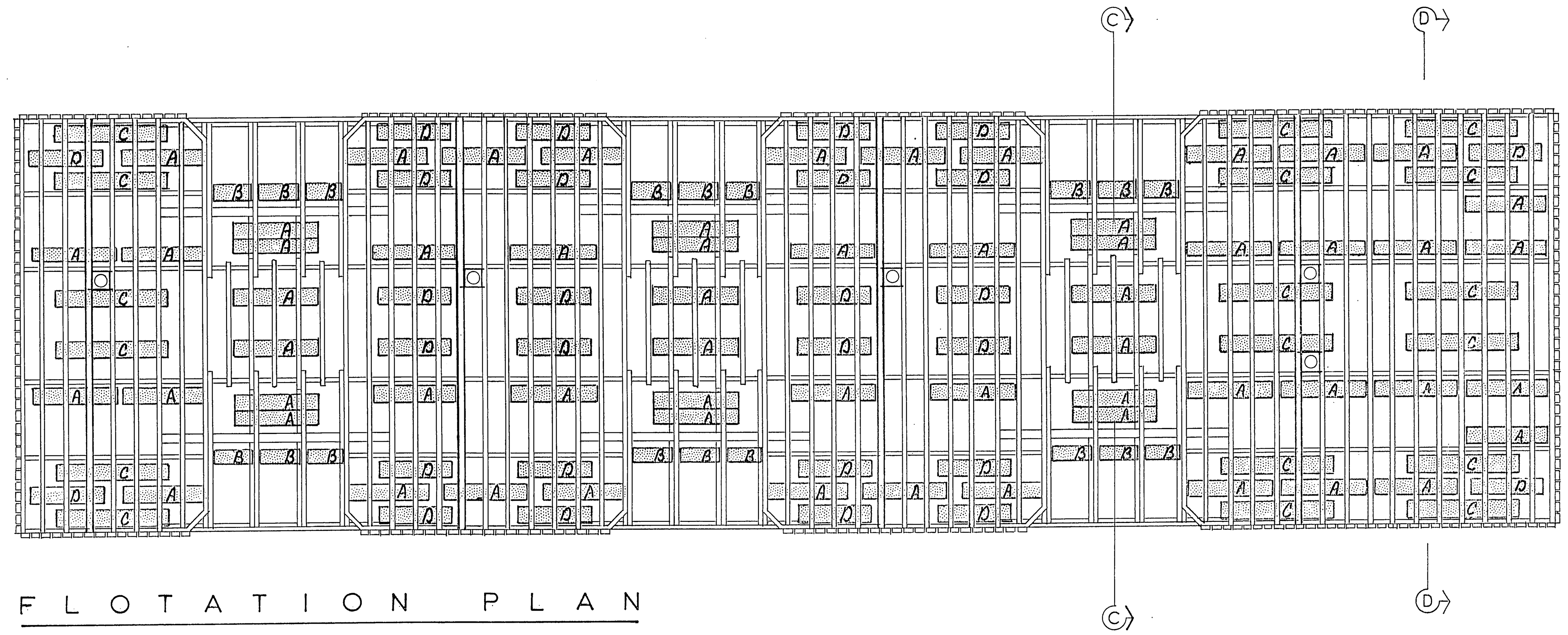
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

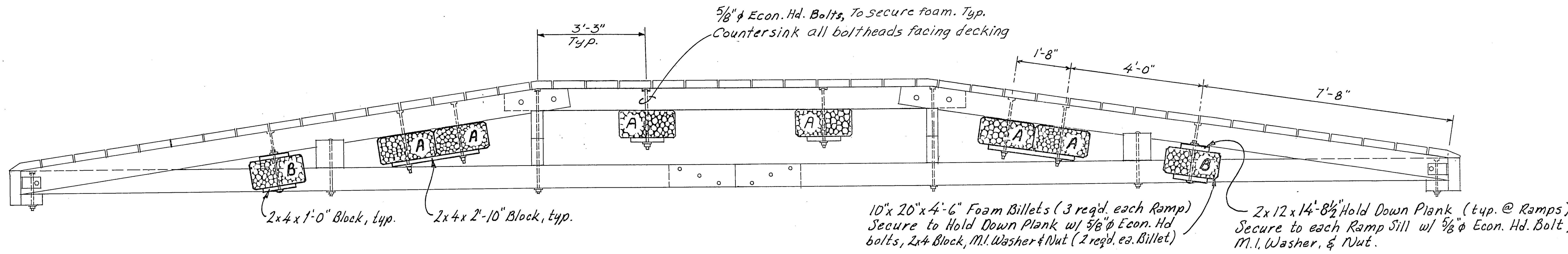
THORNE BAY ALASKA

RAMP FRAMING DETAILS

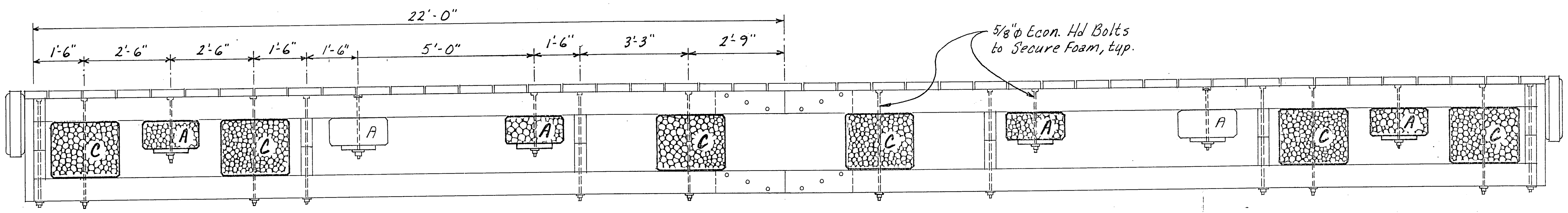
DESIGNED JDB	CHECKED WmN	DRAWN BA	DATE 1990
PROJECT NUMBER 69962		SHEET 7 OF 13	



FLOTATION PLAN



SECTION C - C



SECTION D - D

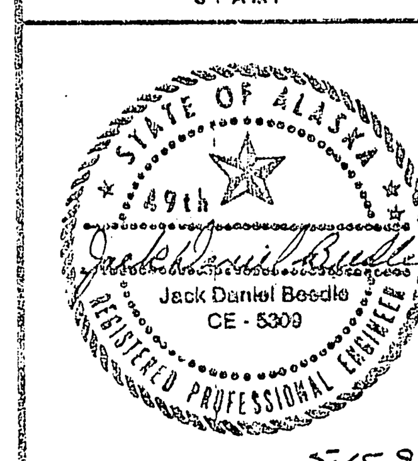
FOAM FLOTATION SCHEDULE

- (shaded) - Indicates location of Foam Billets
- A - 10"x 20"x 9'-0" Std. Foam Billet
- B - 10"x 20"x 4'-6" Half Std. Foam Billet
- C - 20"x 24"x 12'-0" Cut Foam Billet
- D - 20"x 24"x 8'-0" Cut Foam Billet

Foam Density is 1.25 lbs/ft³ – Accepted upon inspection by Construction & Design

As Built
Mark [signature]
2/21/92

STAMP



5-15-91

DO NOT SCALE THIS DRAWING – USE DIMENSIONS

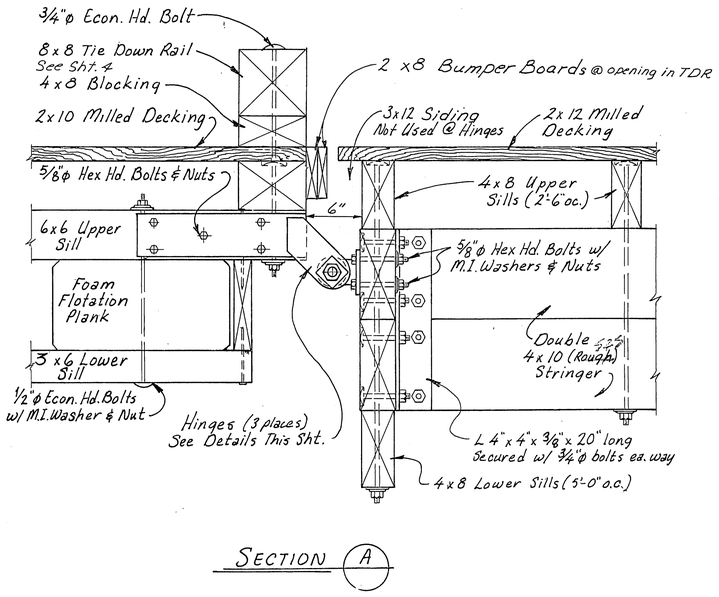
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

THORNE BAY ALASKA

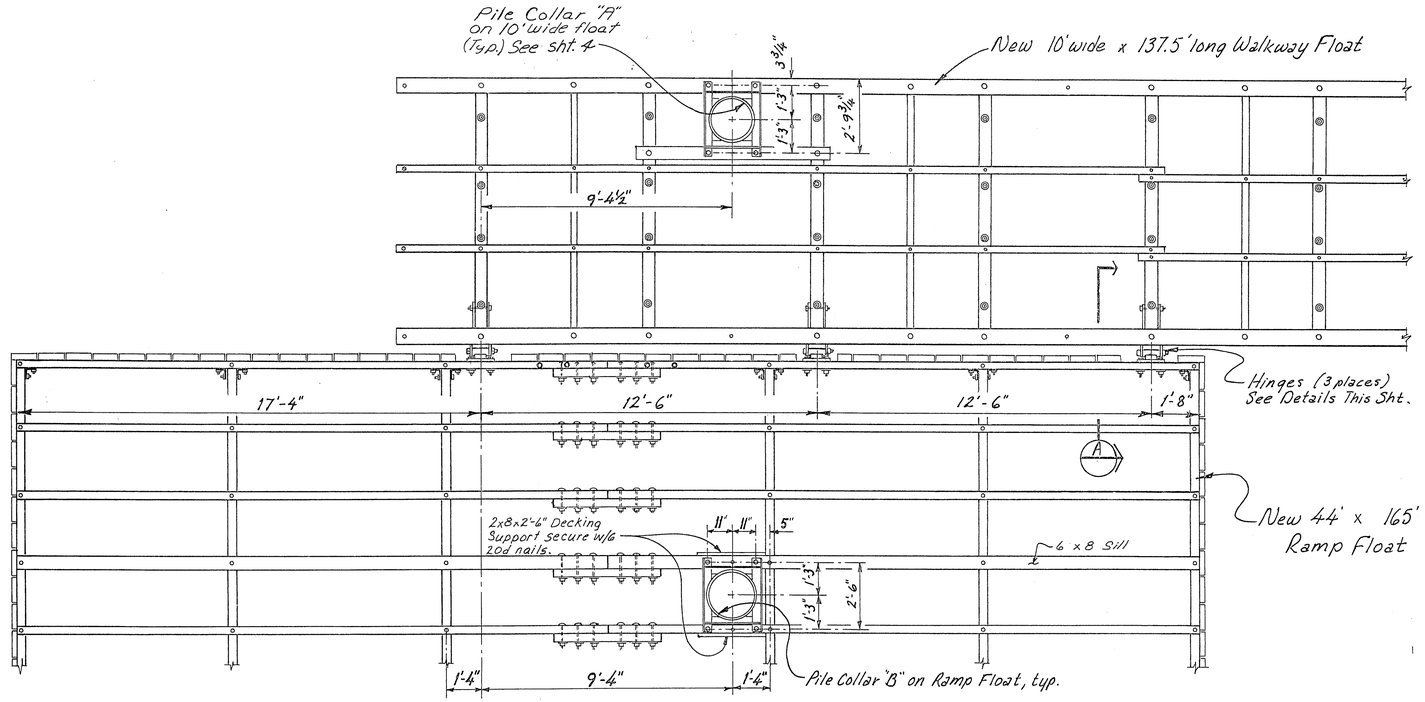
RAMP FLOAT FLOTATION

DESIGNED JDB	CHECKED WmN	DRAWN DWJr	DATE 1990
PROJECT NUMBER 69962		SHEET 8	OF 13

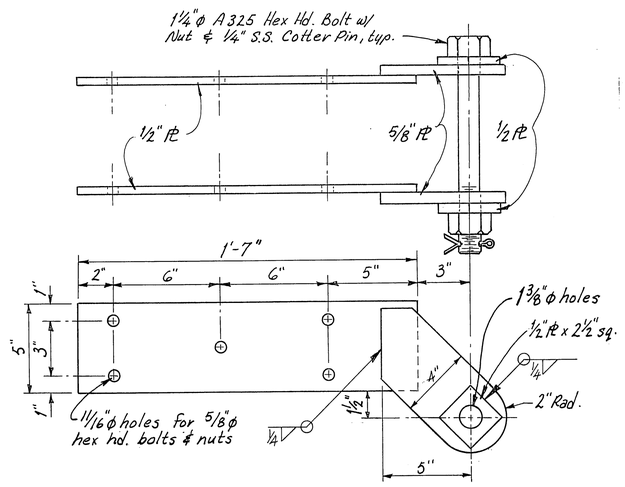
A/E SUPPLIES 122224



SECTION (A)

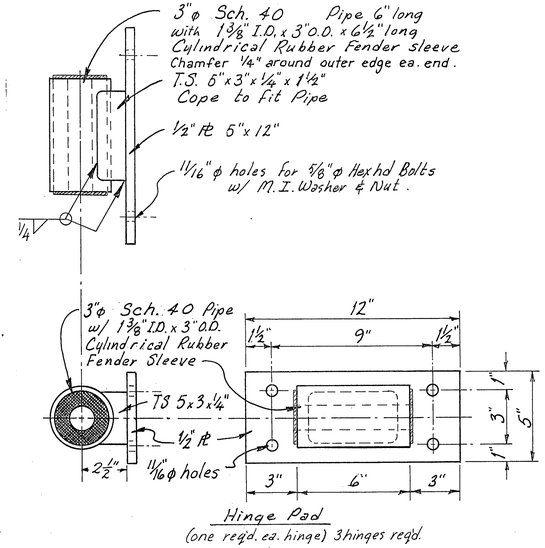


RAMP FLOAT CONNECTION PLAN



Hinge Plate

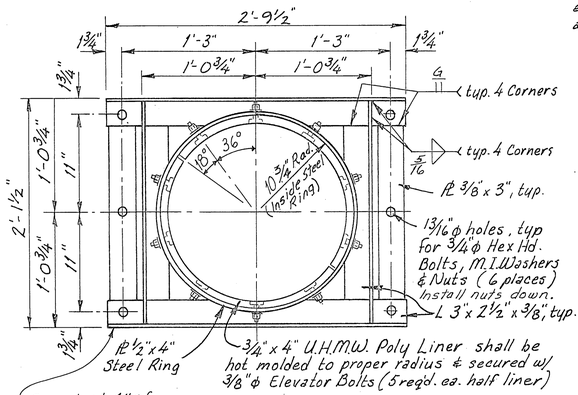
(one as shown & one op. hand req'd. ea. hinge) 3 hinges req'd.

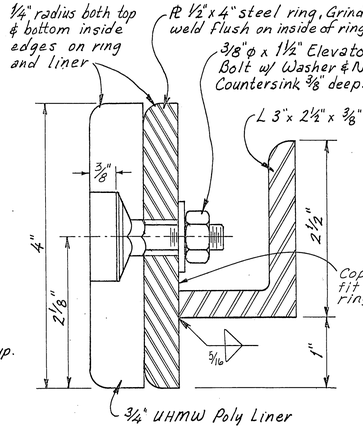


Hinge Pad

(one req'd. ea. hinge) 3 hinges req'd.

HINGE DETAILS





PILE COLLAR "B" DETAILS

As Built
Mark Halvorsen
2/21/97

STAMP

STATE OF ALASKA
A9918
Jack Daniel Beadle
CE - 5300
REGISTERED PROFESSIONAL ENGINEER
5-15-97

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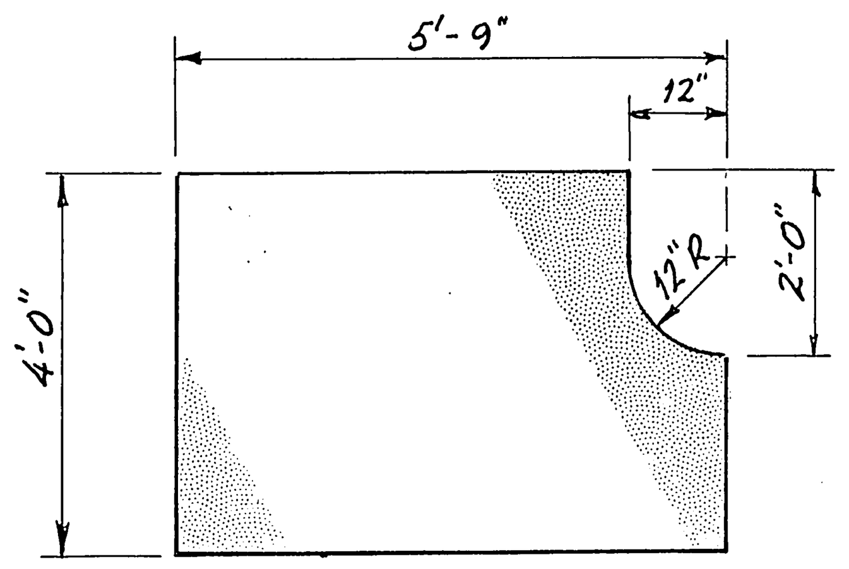
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

Thorne Bay Alaska

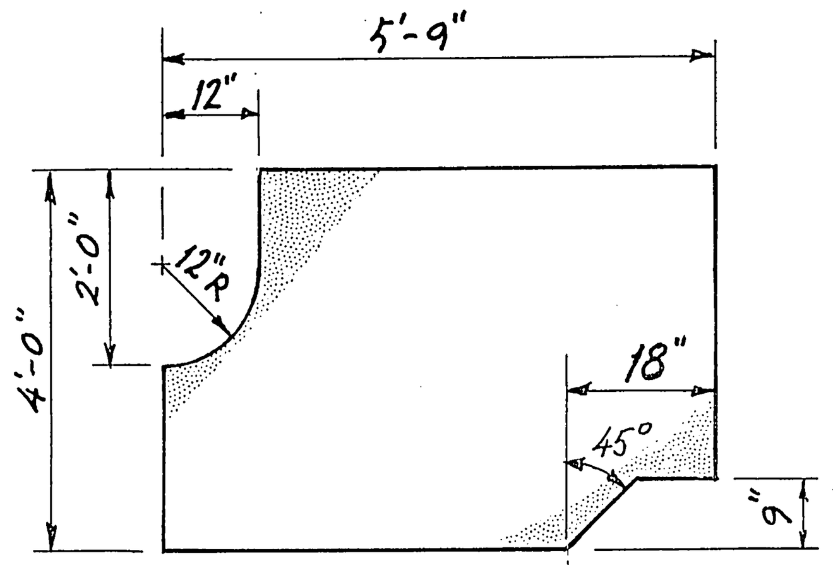
RAMP FLOAT CONNECTION DETAILS

DESIGNED WmN	CHECKED JDB	DRAWN WmN	DATE
PROJECT NUMBER 69962		SHEET 9 OF 13	

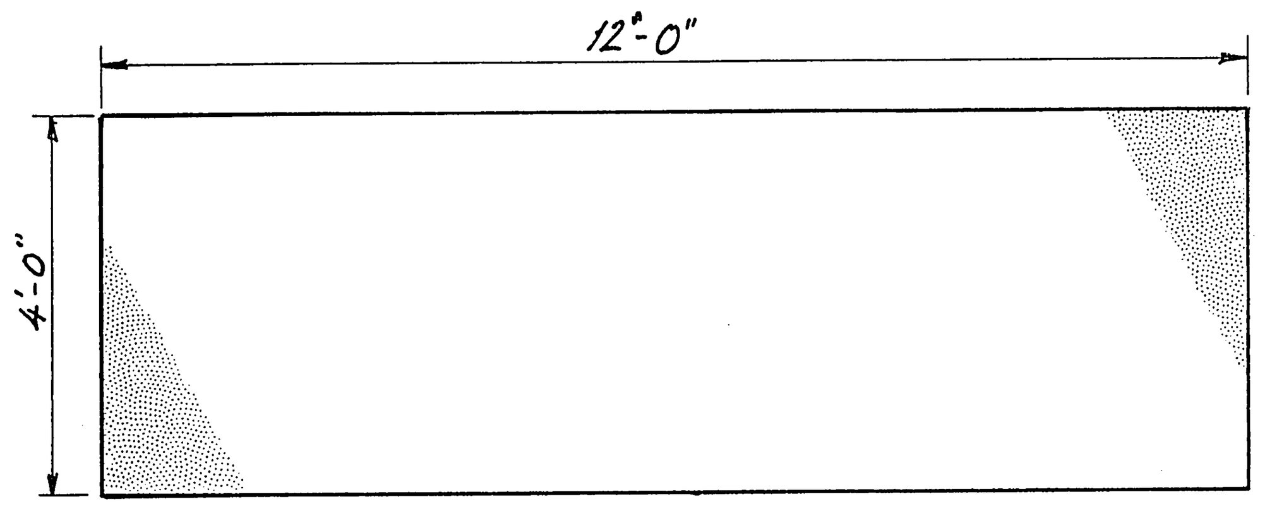
A/E SUPPLIES 122224



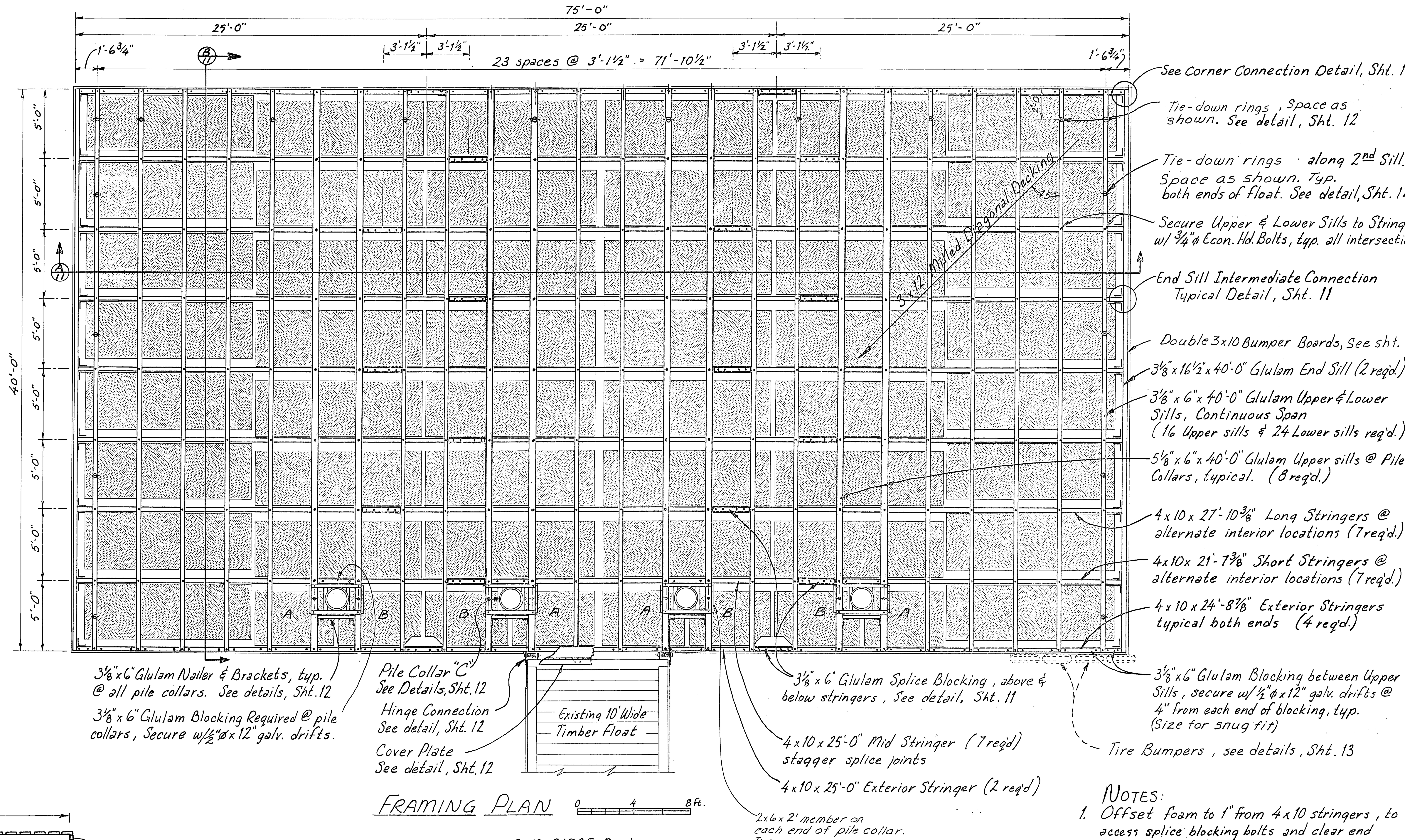
Flotation Billet "A"
4'-0" x 5'-9" x 9¼" deep, 4 req'd.



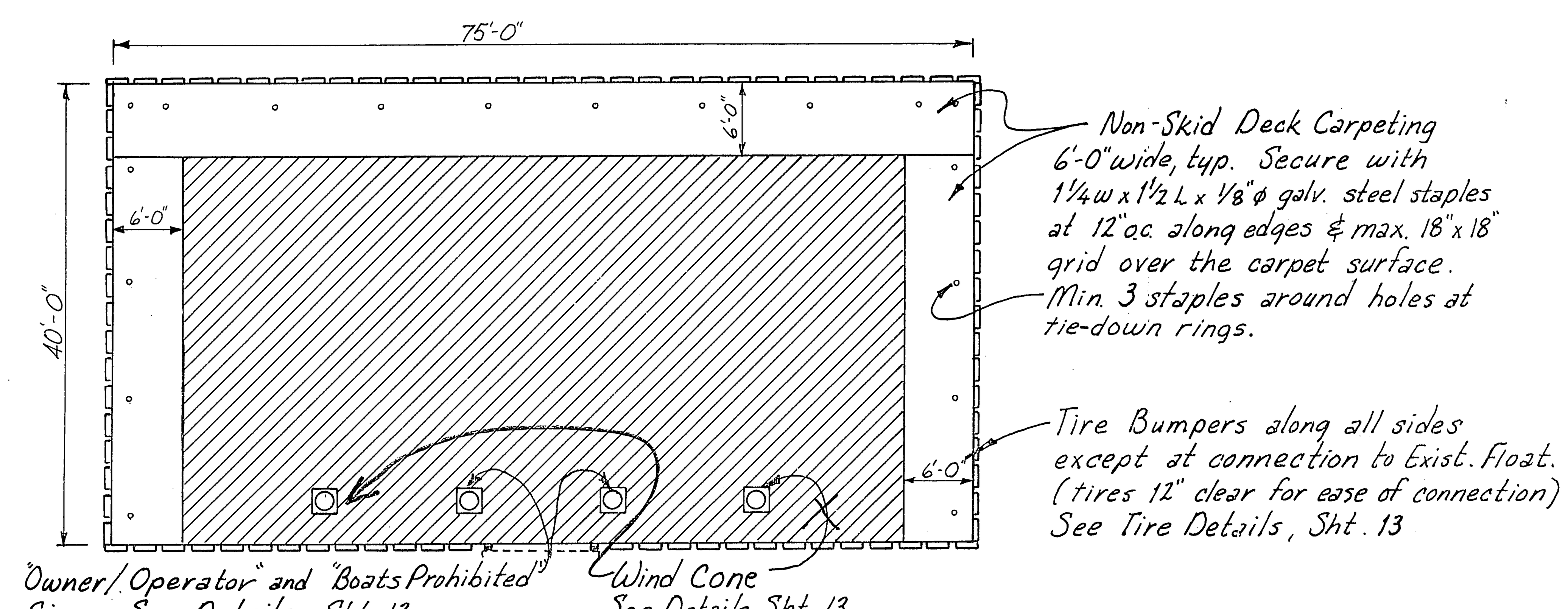
Flotation Billet "B"
4'-0" x 5'-9" x 9¼" deep, 4 req'd.



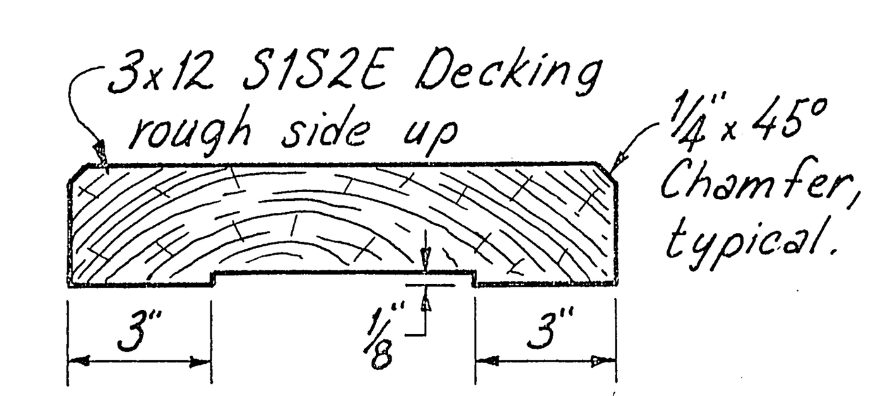
Typical Flotation Billet
4'-0" x 12'-0" x 9¼" deep, 44 req'd.



FRAMING PLAN 0 4 8 ft.



MISC. PLACEMENT PLAN
N.T.S.



Milled Decking Detail

Decking Notes:

1. 3x12 S1S2E Milled Decking spaced approximately ½" apart.
2. Apply 3x12 decking diagonally. Secure to every sill w/ 2-60d double hot-dipped nails. Predrill all ends to prevent splitting.
3. Milled side of 3x12 shall be toward inside of tree.
4. Decking splices shall be staggered so that only every third deck plank is spliced on the same sill. Average deck plank shall contact 5 sills min. Minimum length deck plank shall contact 3 sills, except at corners of float.

NOTES:

1. Offset foam to 1" from 4x10 stringers, to access splice blocking bolts and clear end connection hardware.
2. Apply non-skid deck carpet to decking as indicated on Misc. Placement Plan (this sht.)
3. Sills shall be full length members no splicing will be allowed.
4. Bumper Board minimum length is 10'-0". Secure bumper boards w/ 60d double hot-dipped galv. nails staggered @ 1'-0" o.c. & 2 nails at ends.
5. 4x10 Stringers Shall be S4S.

As Built
Mark Halvorsen
2/21/92

STAMP

STATE OF ALASKA 49th Jack Daniel Beedle CE-5300 REGISTERED PROFESSIONAL ENGINEER

5-15-91

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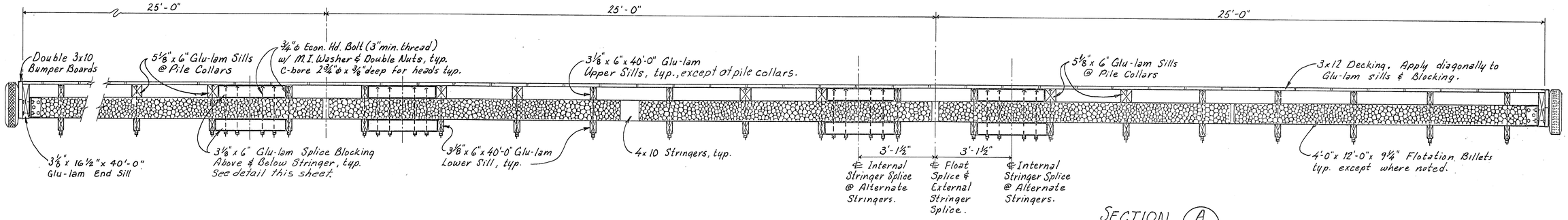
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

Thorne Bay, Alaska

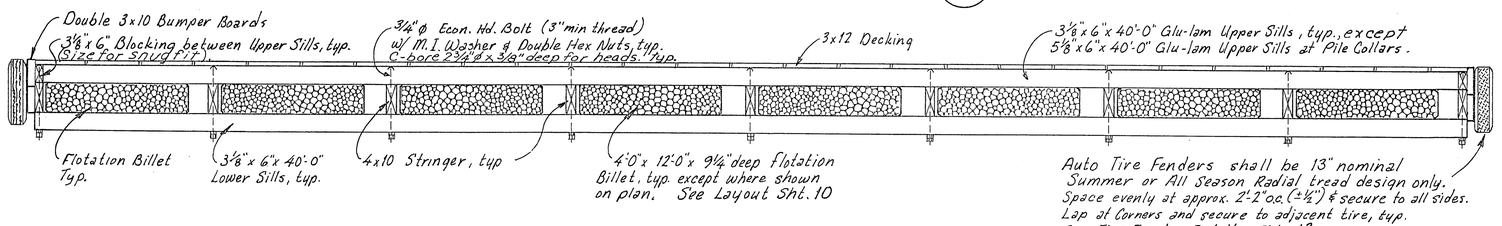
SEAPLANE FLOAT LAYOUT

DESIGNED WmN	CHECKED JDB	DRAWN WmN	DATE 1990
PROJECT NUMBER 69962		SHEET 10	OF 13

A/E SUPPLIES 122224

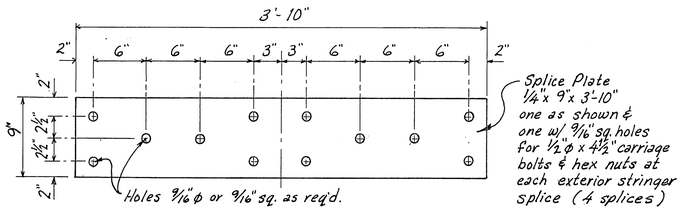


SECTION A

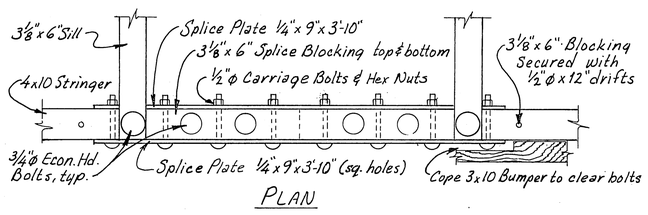


SECTION B

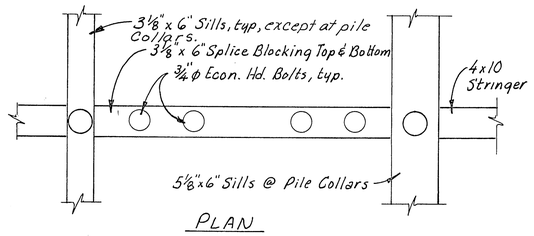
Flotation is 1.25 lb/ft³ Density - Approximate by Design & Construction upon inspection



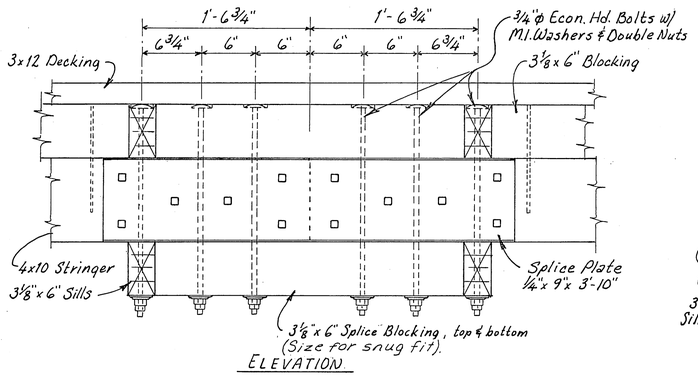
SPLICE PLATE DETAIL



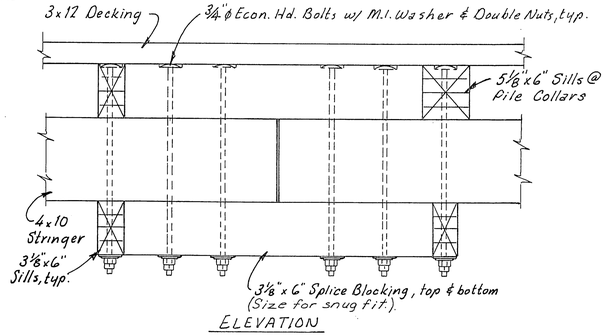
PLAN



PLAN



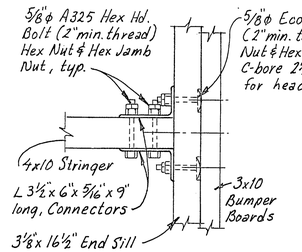
ELEVATION



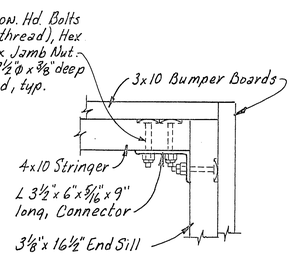
ELEVATION

EXTERNAL STRINGER SPLICE DETAILS

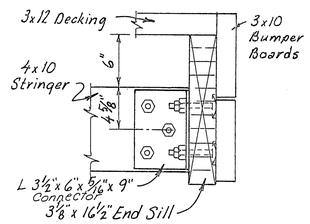
INTERNAL STRINGER SPLICE DETAILS



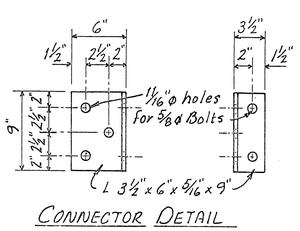
INTERMEDIATE CONNECTION @ END SILL



CORNER CONNECTION @ END SILL



TYP. CONNECTION ELEVATION @ END SILL



CONNECTOR DETAIL

STRINGER / END SILL CONNECTION DETAILS

As Built
Mark Johnson
7/21/92

STAMP

STATE OF ALASKA
1491
Jack Daniel Seedhouse
Jack Daniel Seedhouse
CE - 5309
REGISTERED PROFESSIONAL ENGINEER
5-15-91

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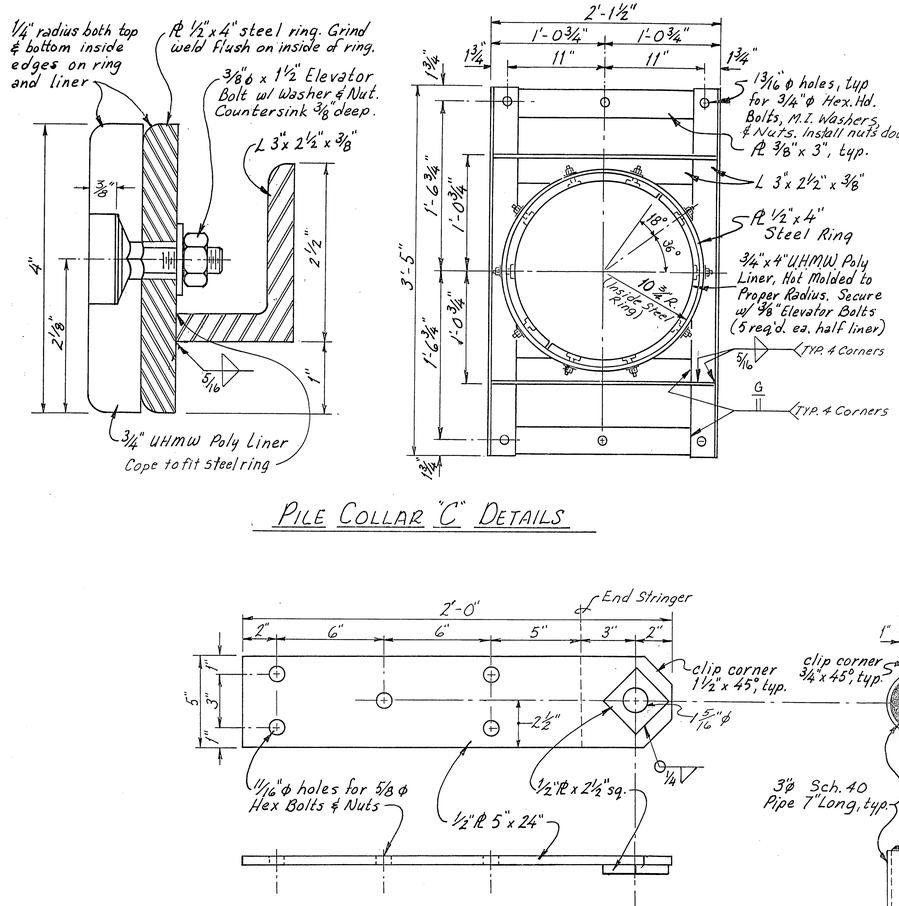
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

Thorne Bay, Alaska

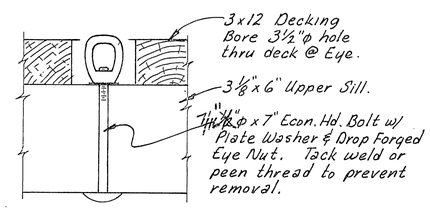
SEAPLANE FLOAT DETAILS

DESIGNED	WmN	CHECKED	JDB	DRAWN	WmN	DATE	1990
PROJECT NUMBER	69962			SHEET	11	OF	13

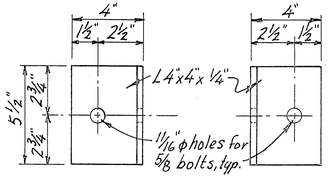
A/E SUPPLIES 122224



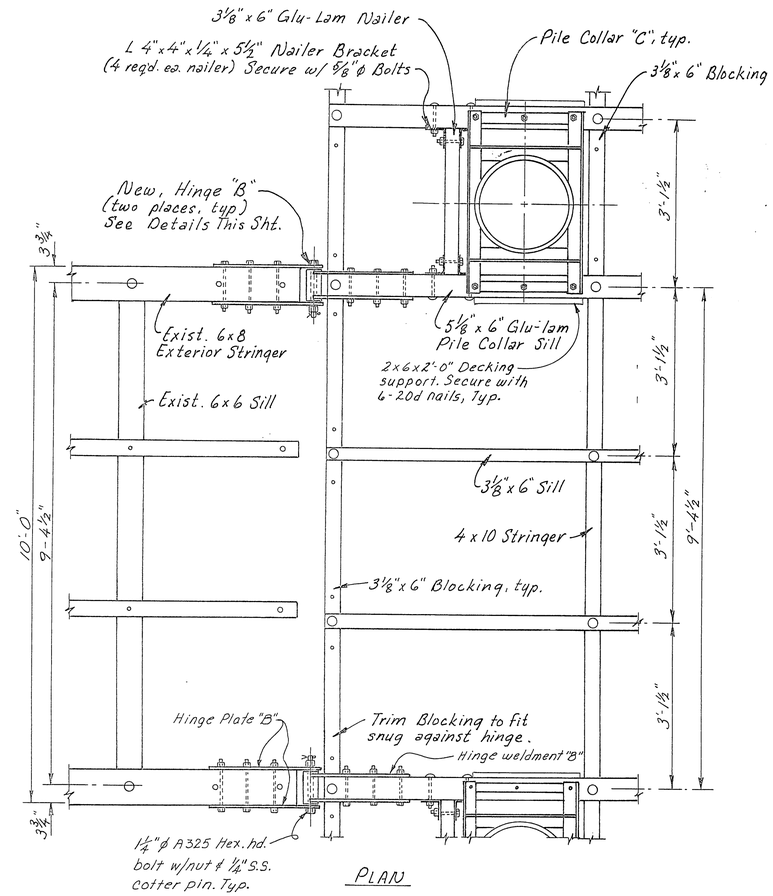
PILE COLLAR "C" DETAILS



TIE-DOWN RING DETAIL

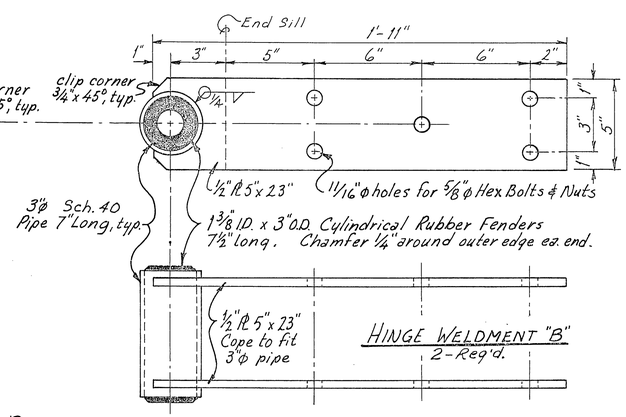


NAILER BRACKET



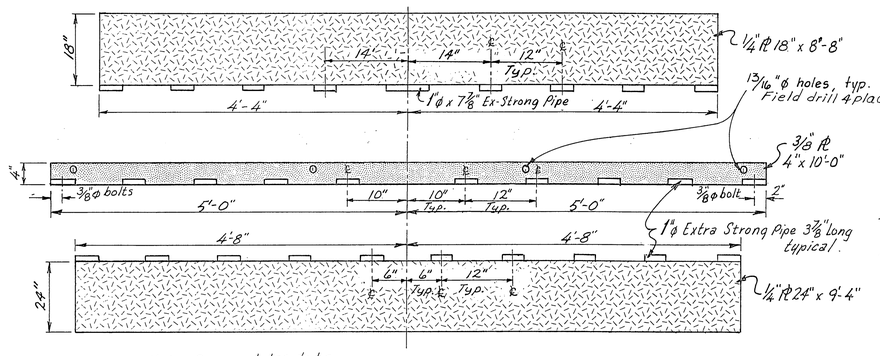
PLAN

HINGE PLATE "B"
4 Req'd.

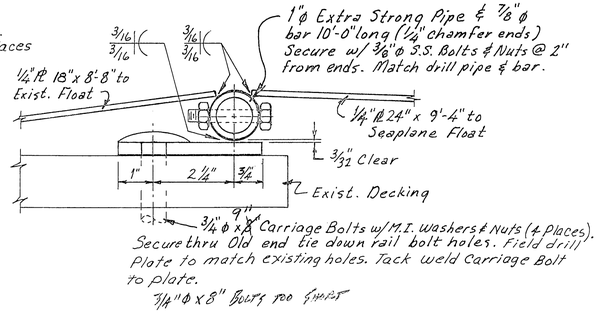


HINGE WELDMENT "B"
2-Req'd.

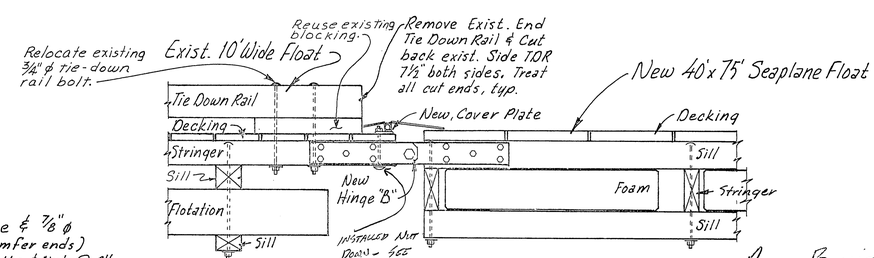
HINGE "B" DETAILS



Note: Cover plates to be A36 steel patterned plate.



COVER PLATE DETAILS



ELEVATION

SEAPLANE FLOAT CONNECTION

As Built
Mark Halvorsen
7/21/92

STAMP

STATE OF ALASKA
49th
Jack Daniel Buedle
CE - 5309
REGISTERED PROFESSIONAL ENGINEER
5.15.91

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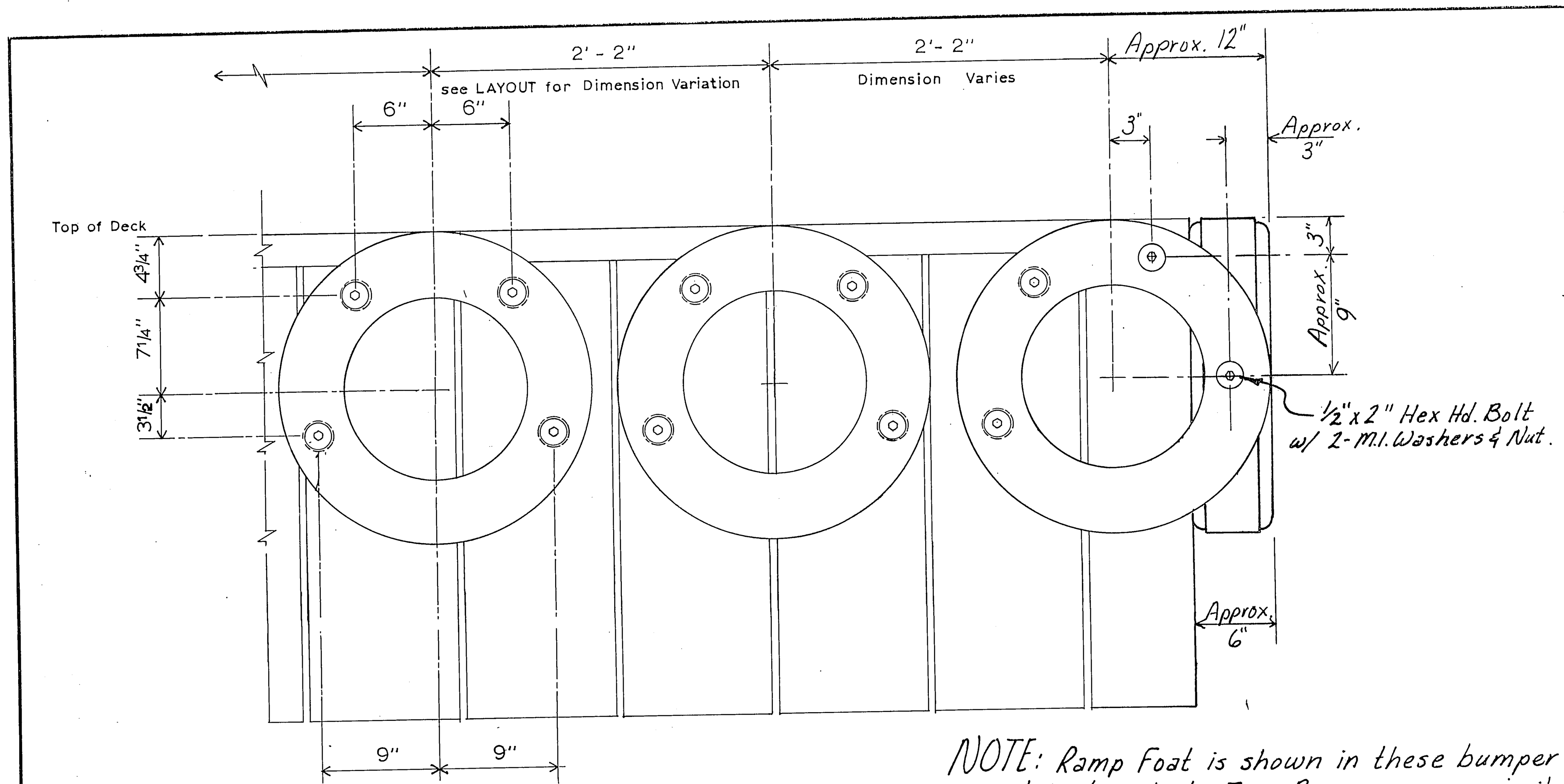
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

Thorne Bay Alaska

SEAPLANE FLOAT CONNECTION

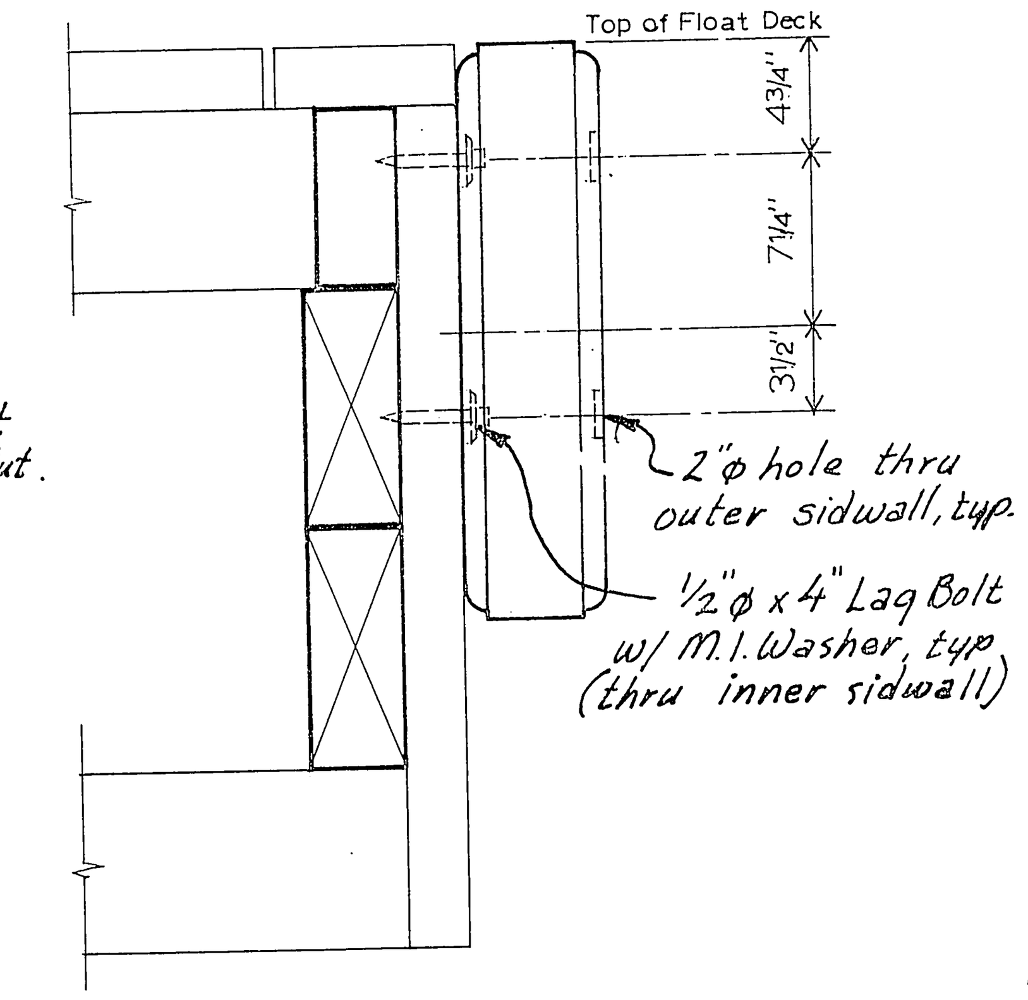
DESIGNED	WN	CHECKED	JDB	DRAWN	WN	DATE	1990
PROJECT NUMBER	69962			SHEET	12	OF	13

A/E SUPPLIES 122224

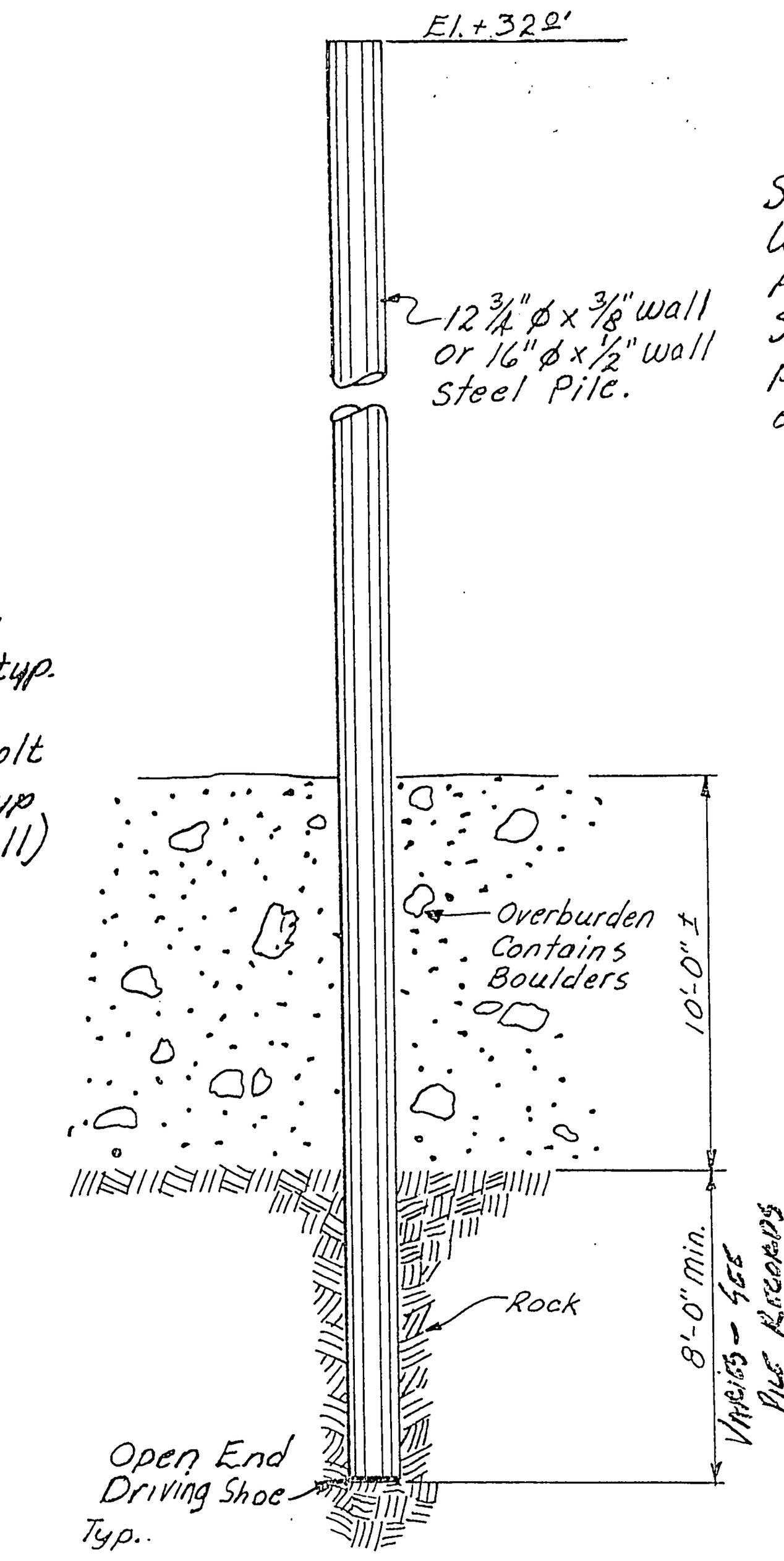


NOTE: Ramp Foat is shown in these bumper details, but Tire Bumpers are similar on Ramp Float & 40'x75' Seaplane Float.

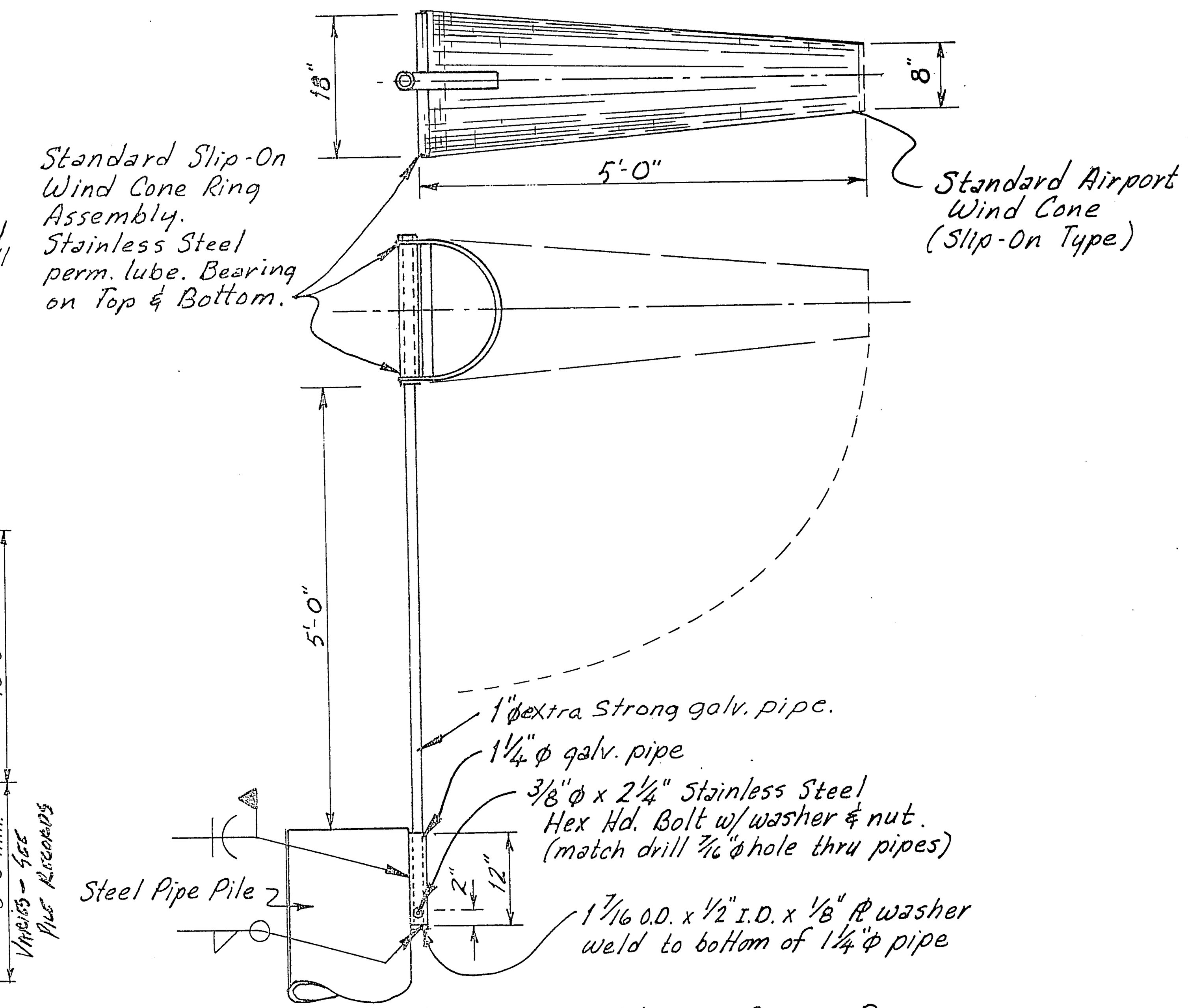
ELEVATION TIRE BUMPERS



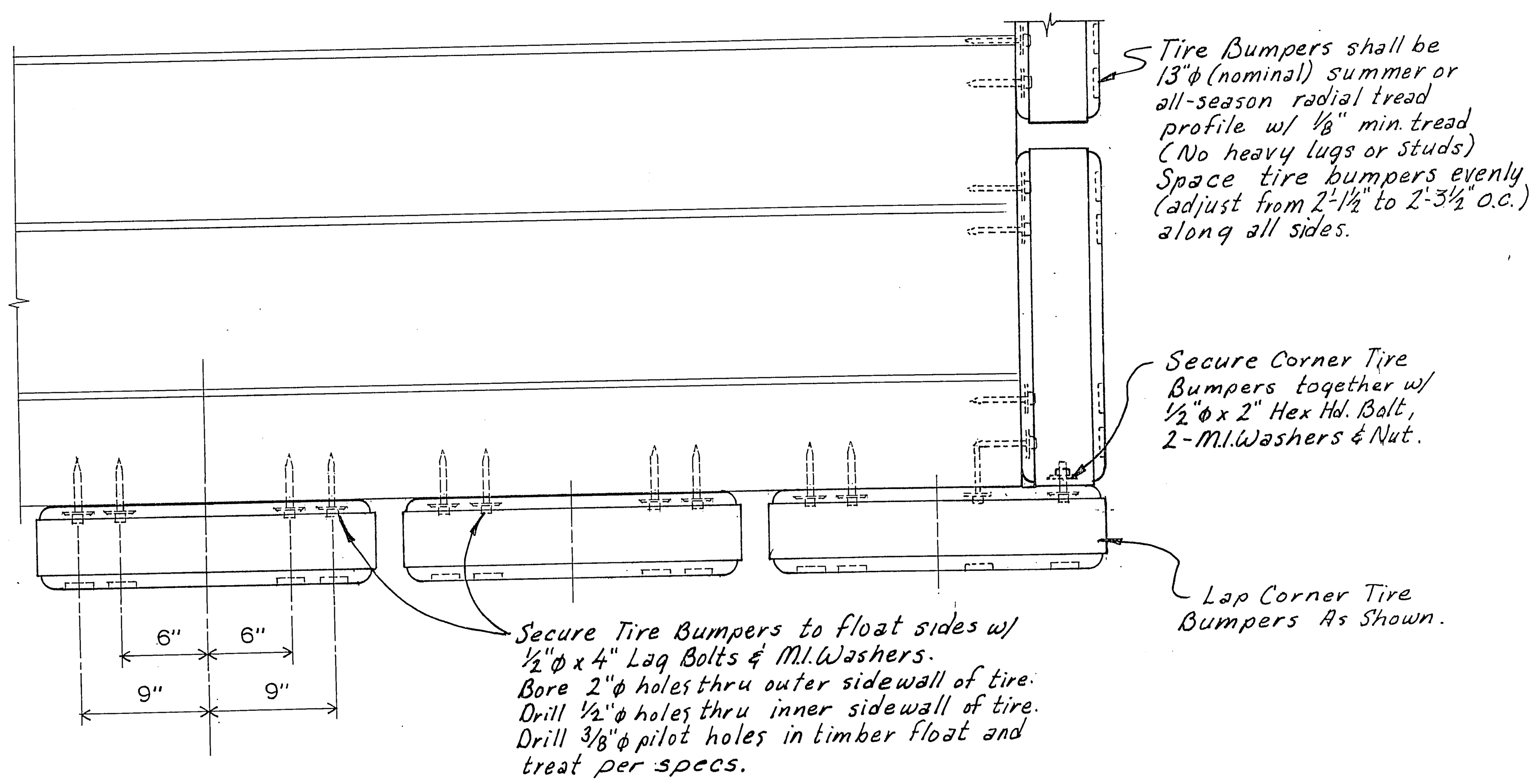
SECTION



STEEL PILE SOCKET DETAIL

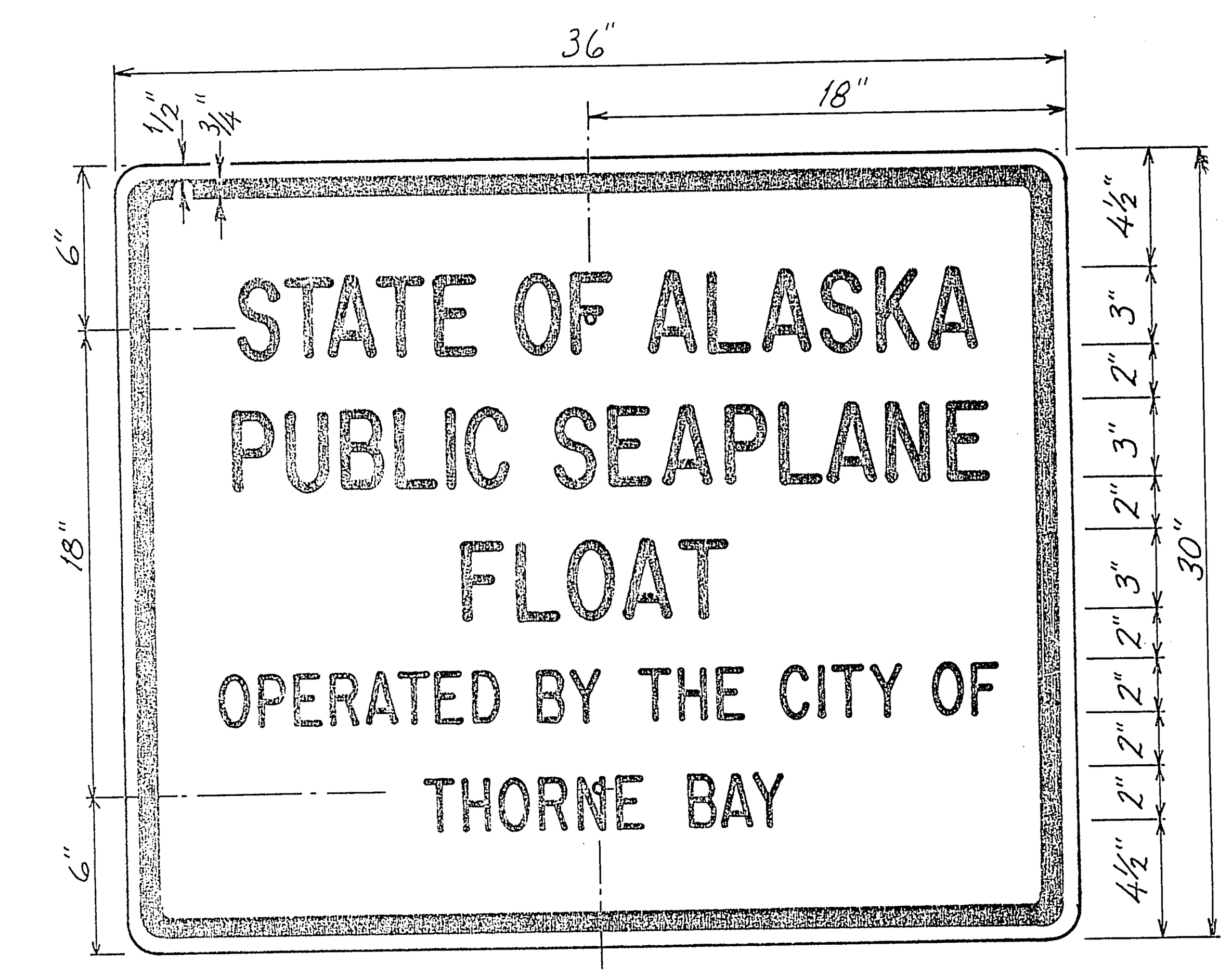


SLIP-ON WIND CONE DETAILS



PLAN CORNER BUMPER

"BOATS PROHIBITED" SIGN



"OWNER / OPERATOR" SIGN

SIGN NOTES:
Locate signs as directed by the Engineer, Allign top of sign with the top of the float piles, so that signs are visible when approaching from the southwest.
Secure the signs by welding the heads of two - 1/2"φ Stainless Steel bolts to ea. pile.
Place the sign and install 1/2" Flat Stainless Steel washers & nuts. Used Galvanized Bolts, Nuts & Washers — No Stainless Steel Available Local & Couldn't Find Shipped Bolts

As Built
Mark [signature]
2/21/92

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STATE OF ALASKA · 49th · Jack Daniel Beadle · CE-5309 · REGISTERED PROFESSIONAL ENGINEER · 5-15-91	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES			
	Thorne Bay — Alaska MISC. DETAILS			
	DESIGNED JDB	CHECKED WmN	DRAWN DWjr	DATE 1990
	PROJECT NUMBER 69962		SHEET 13	OF 13

A/E SUPPLIES 122224