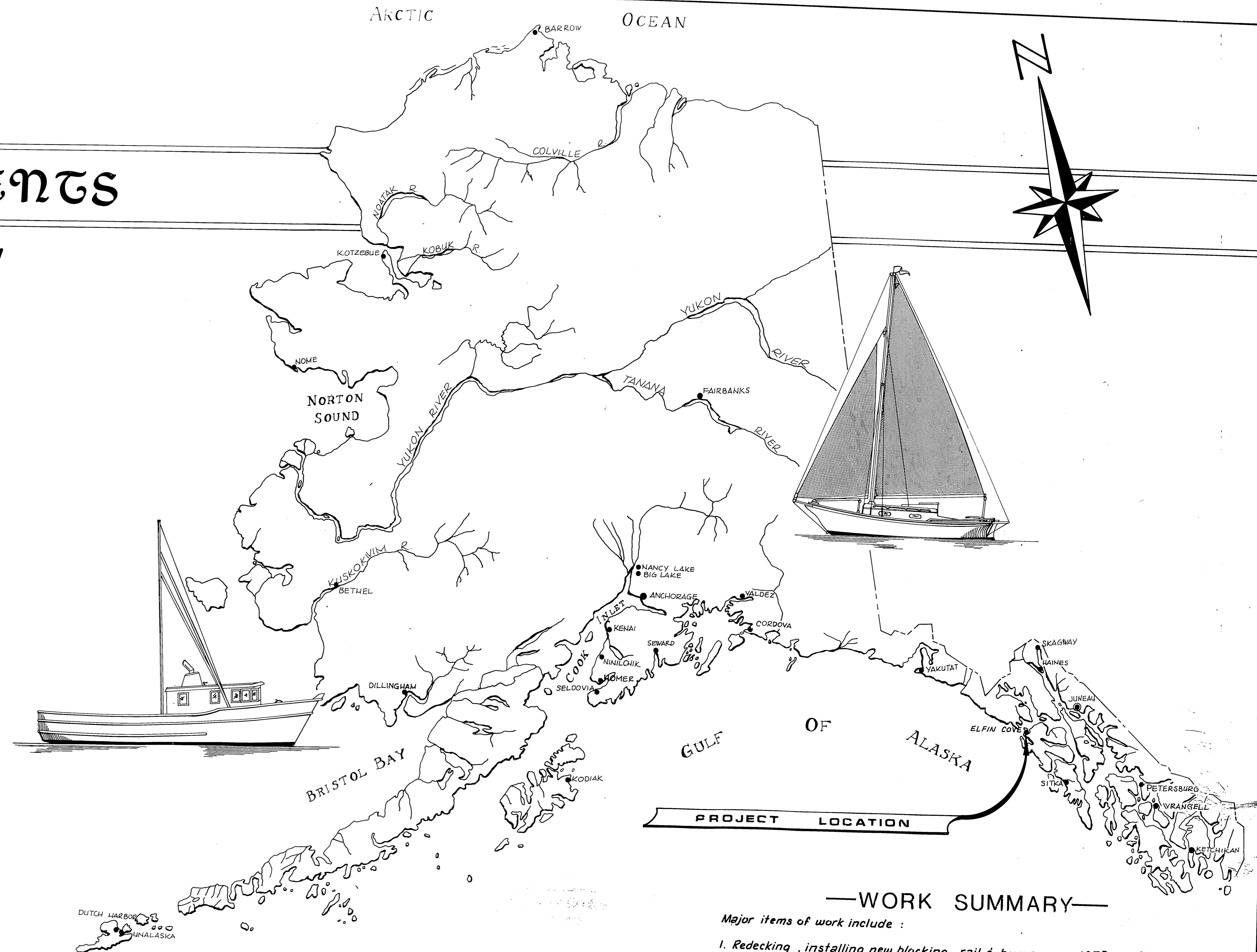


# ELFIN COVE HARBOR IMPROVEMENTS PROJECT NO. K-31107



### —WORK SUMMARY—

- Major items of work include :
1. Redecking , installing new blocking , rail & bumper on 1875 sq. ft. of 10' wide float and 900 sq. ft. of 6' wide float.
  2. Replacing the floatation of 1,125 sq. ft. of 6' wide float.
  3. Installing two new gangway stringers and new 6'x50' gangway.
  4. Reconstructing 20'x90' grid including approaches , bulkheads & misc. grading.

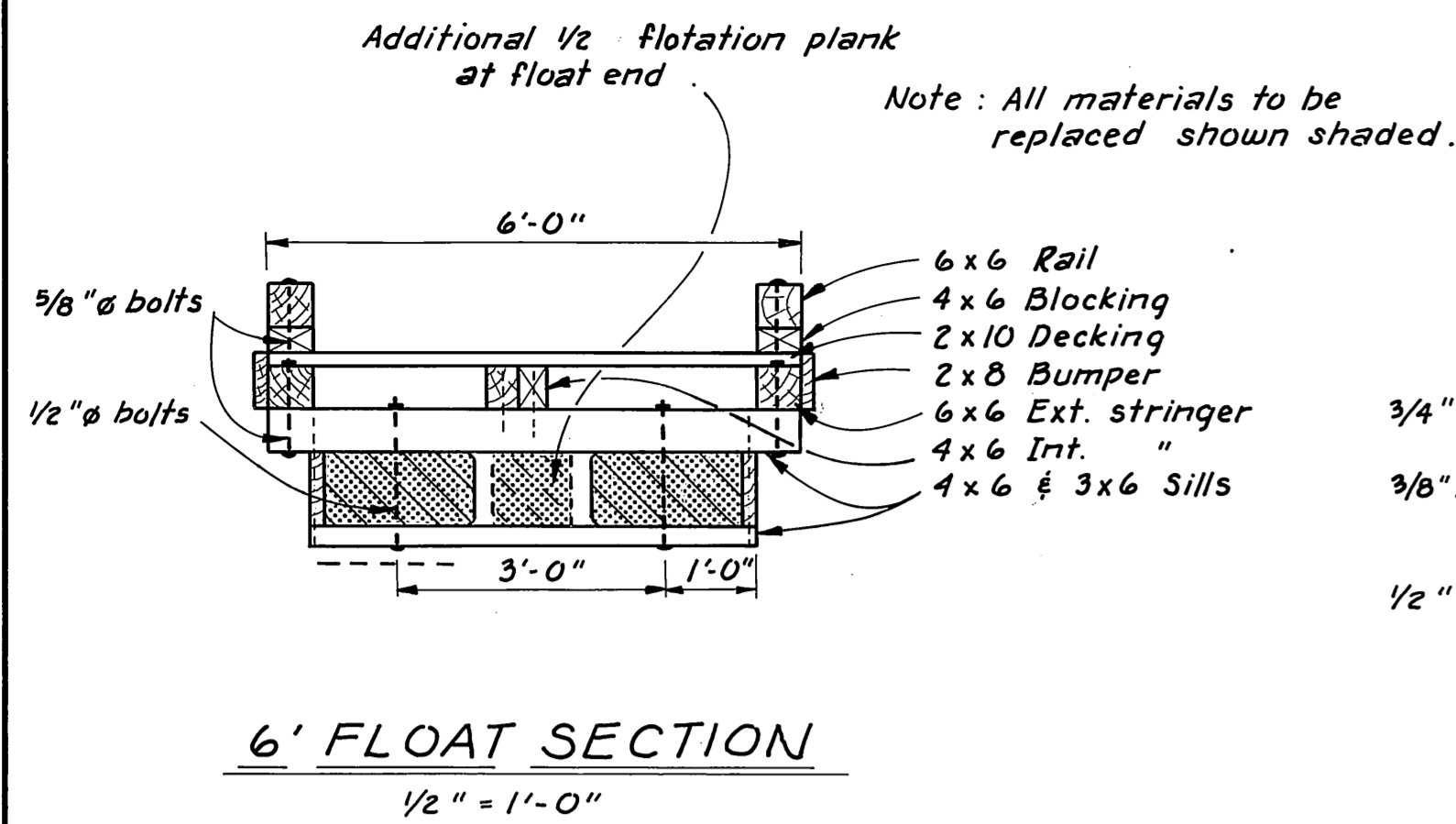
**AS-BUILT**  
Date: 8-5-82 GRF  
Division of Harbor Design  
and Construction

INDEX TO SHEETS	
1. TITLE & LOCATION	
2. PROJECT LAYOUT & 6' FLOAT DET.	
3. GRID "AS BUILT" & FLOAT DETAILS	
4. GRID RECONSTRUCTION DET.	
5. MISC. DETAILS	
6. TYP. 6'x50' STL. GNGWY. (SHT. A)	
7. TYP. STEEL GNGWY. (SHT. B)	

STATE  
OF  
ALASKA

DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
**DIVISION OF HARBOR  
DESIGN & CONSTRUCTION**

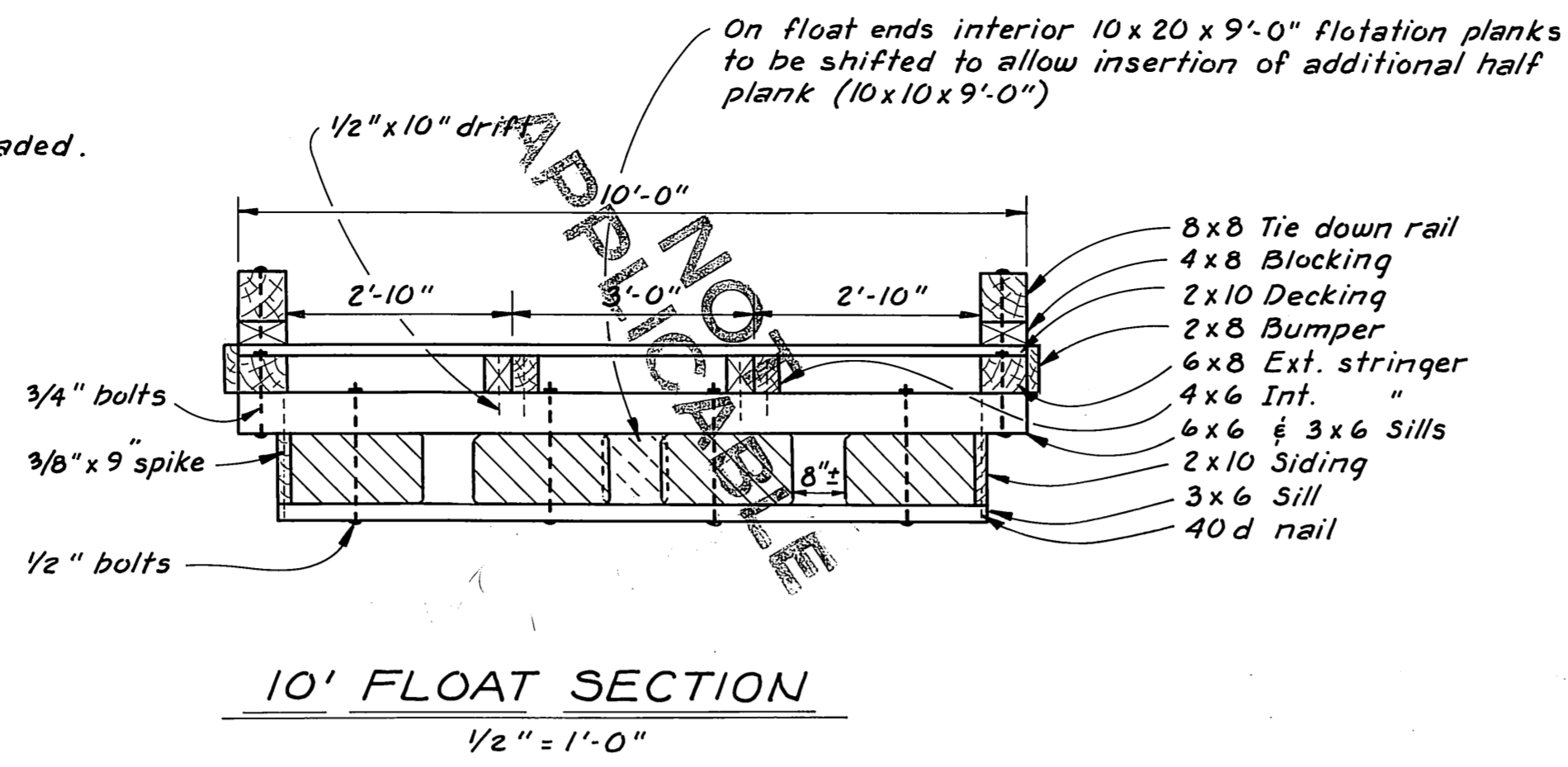
**APPROVED**  
*[Signature]*  
DATE 7/14/81  
SHEET **1** OF **7**



**6' FLOAT SECTION**

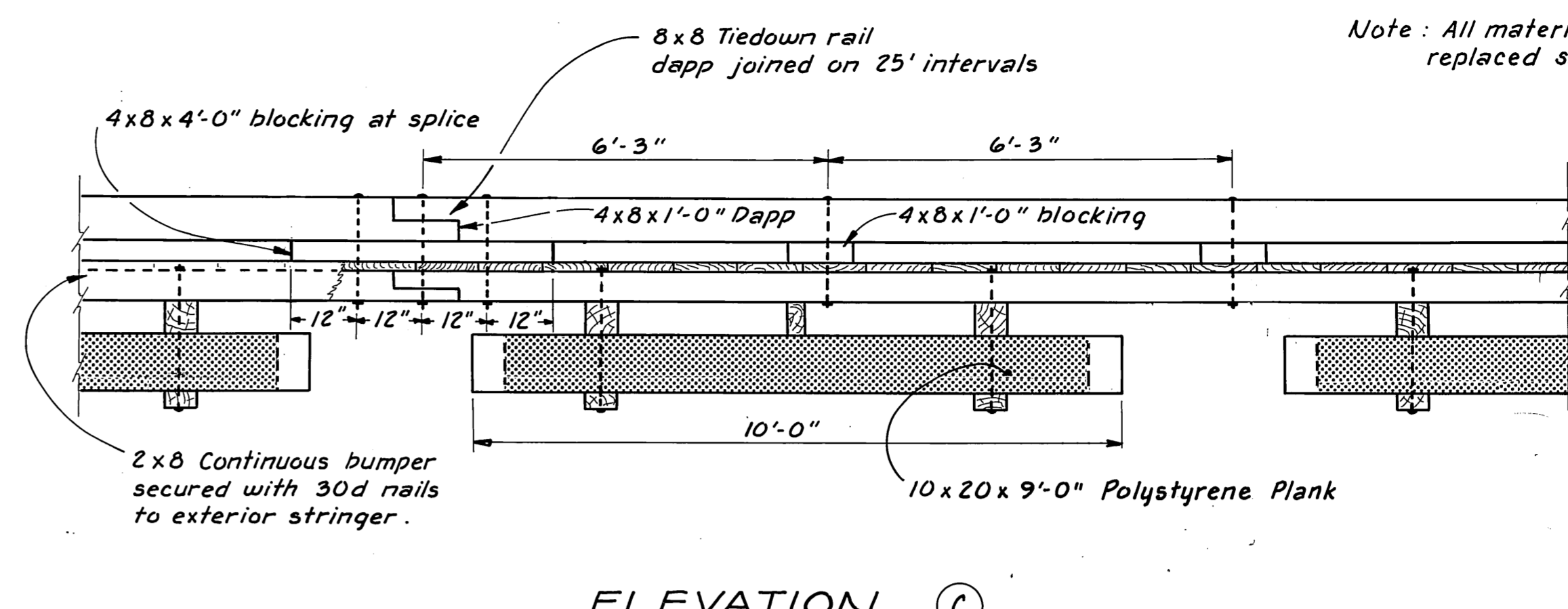
1/2" = 1'-0"

(C) Replace flotation only. (6'-0" x 187'-6")



**10' FLOAT SECTION**

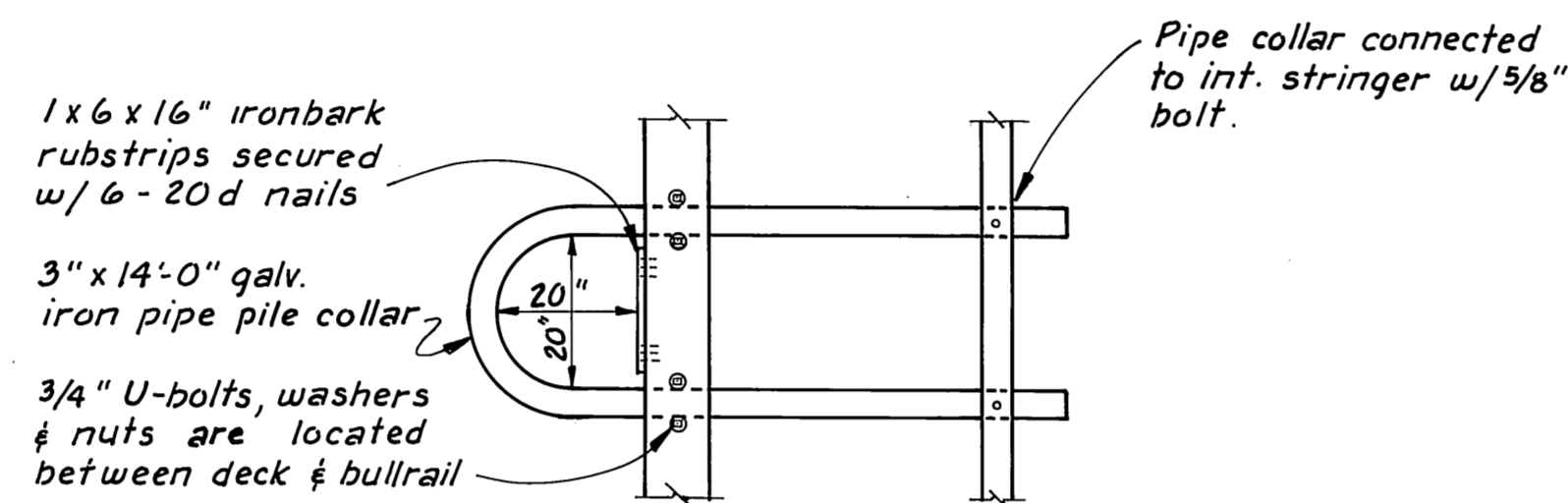
1/2" = 1'-0"



**ELEVATION (C)**

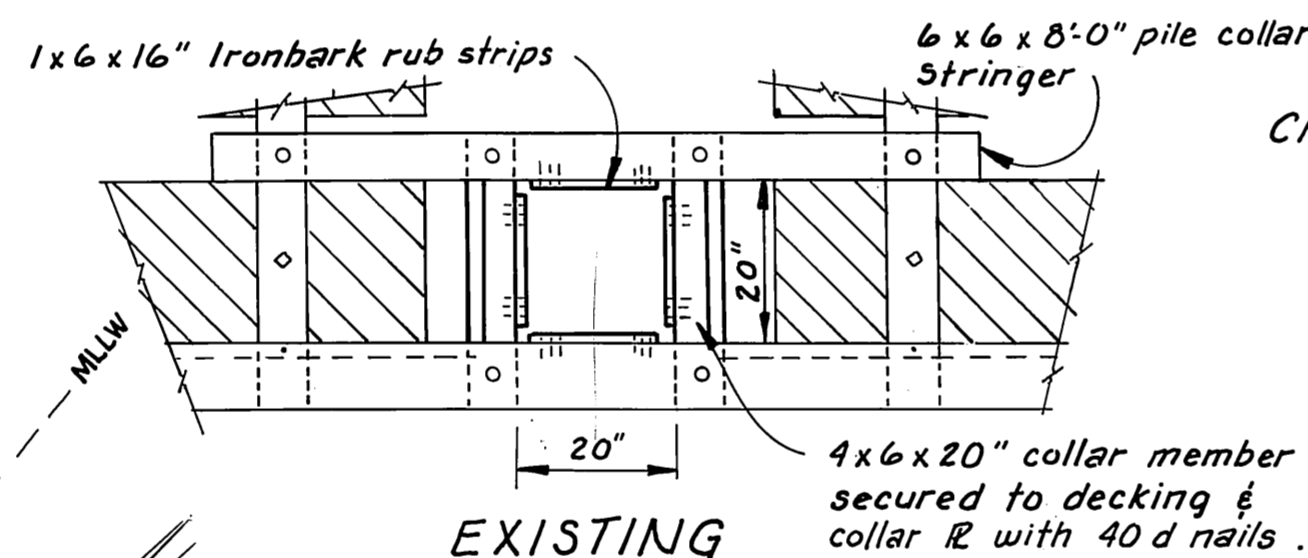
1/2" = 1'-0"

Note: All materials to be replaced shown shaded.



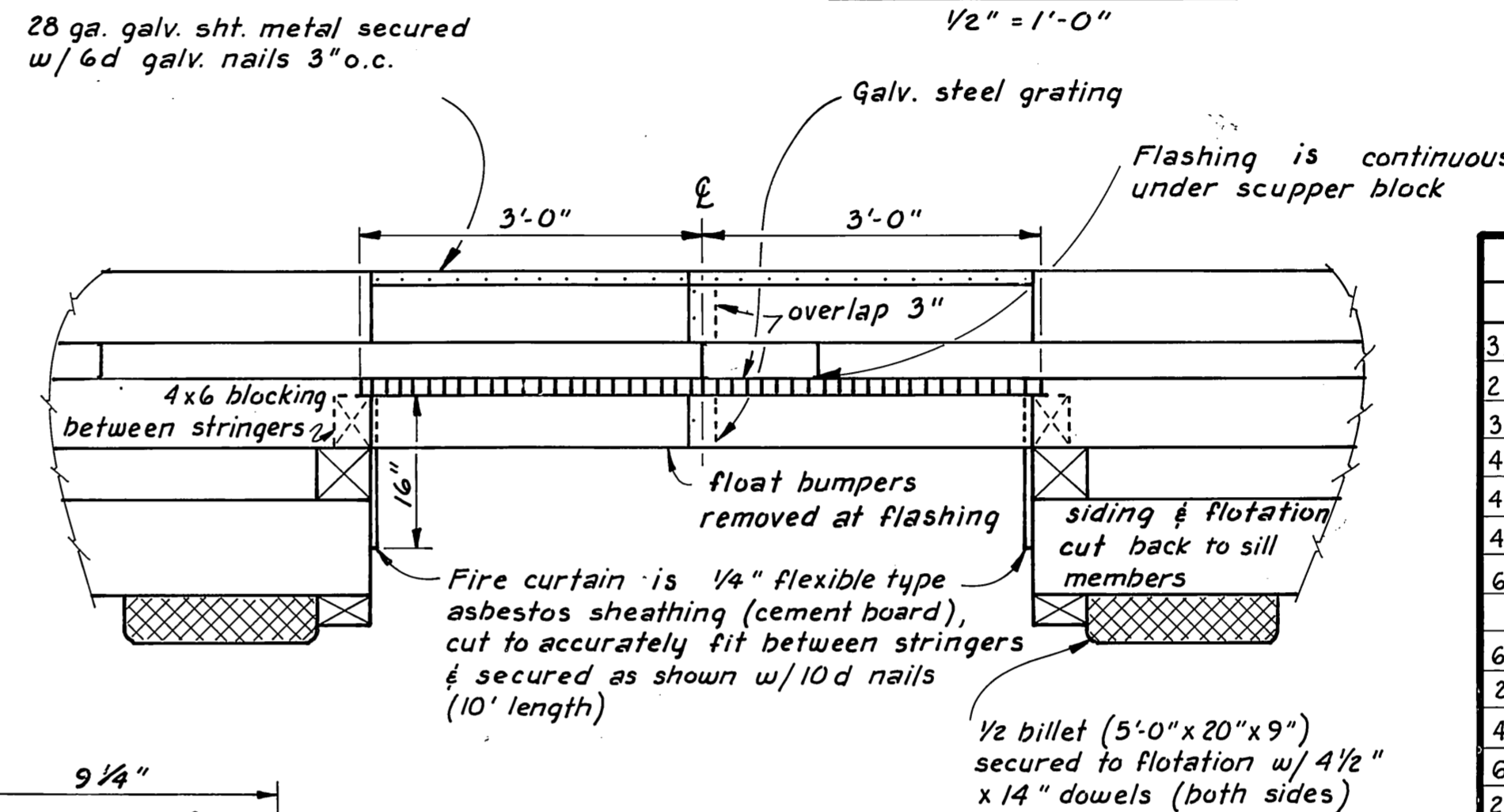
**EXISTING EXTERIOR COLLAR DETAIL**

1/2" = 1'-0"  
floats (B) & (C) only



**EXISTING INT. PILE COLLAR**

1/2" = 1'-0"  
float (A) only

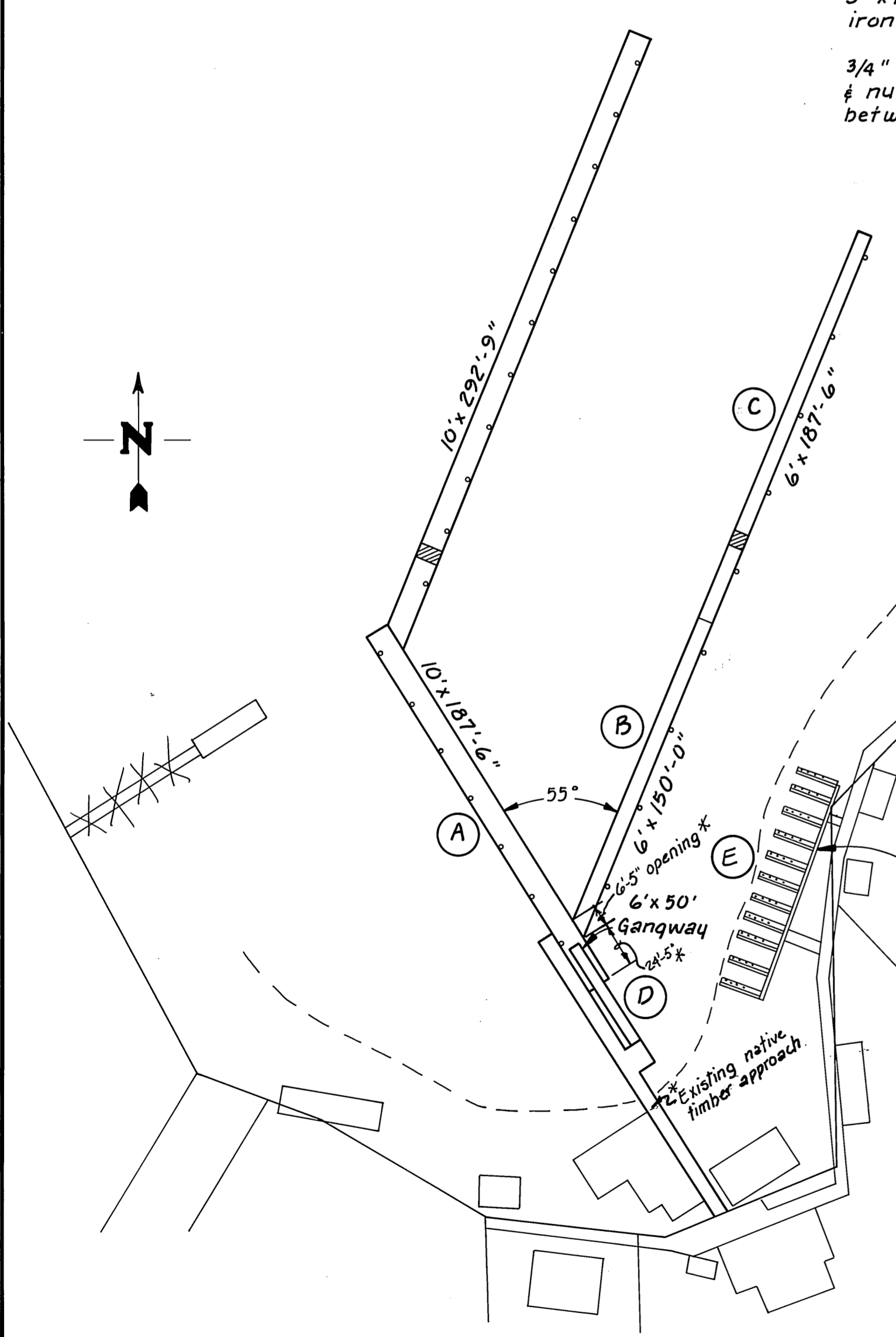


**EXISTING FIRE STOP DETAILS**

3/4" = 1'-0"

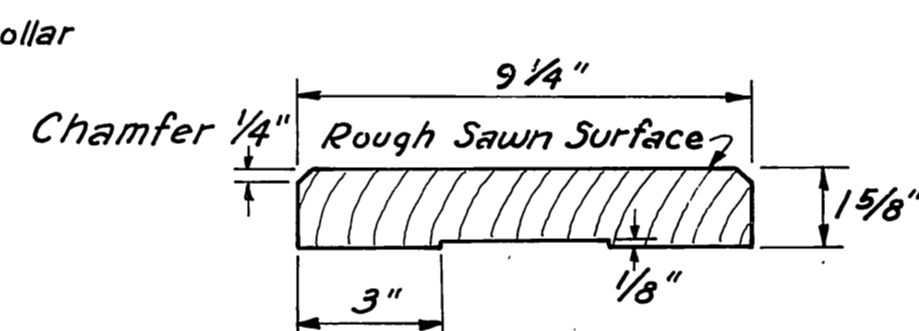
MATERIALS		
ITEM	DRESSING	TREATMENT
3x6-4x6 & 6x6 upper sill	S-1-E 1/8" off	12 lbs. ret.
2x10 Siding	2x10E	" "
3x6 Lower Sill	Rough	" "
4x4 & 3x6 Collar Plates	"	8 lbs. ref.
4x6 Collar Members	S-2-E	" "
4x6 Interior Stringers	" "	" "
6x6 & 6x8 Ext. Stringers	S-4-S	" "
6x6 Collar Stringers	" "	" "
2x10 Decking	Milled	Penta
4x6 & 4x8 Blocking	S-4-S	" "
6x6 & 8x8 Rail	" "	" "
2x8 Bumper	" "	" "

Replacement Materials



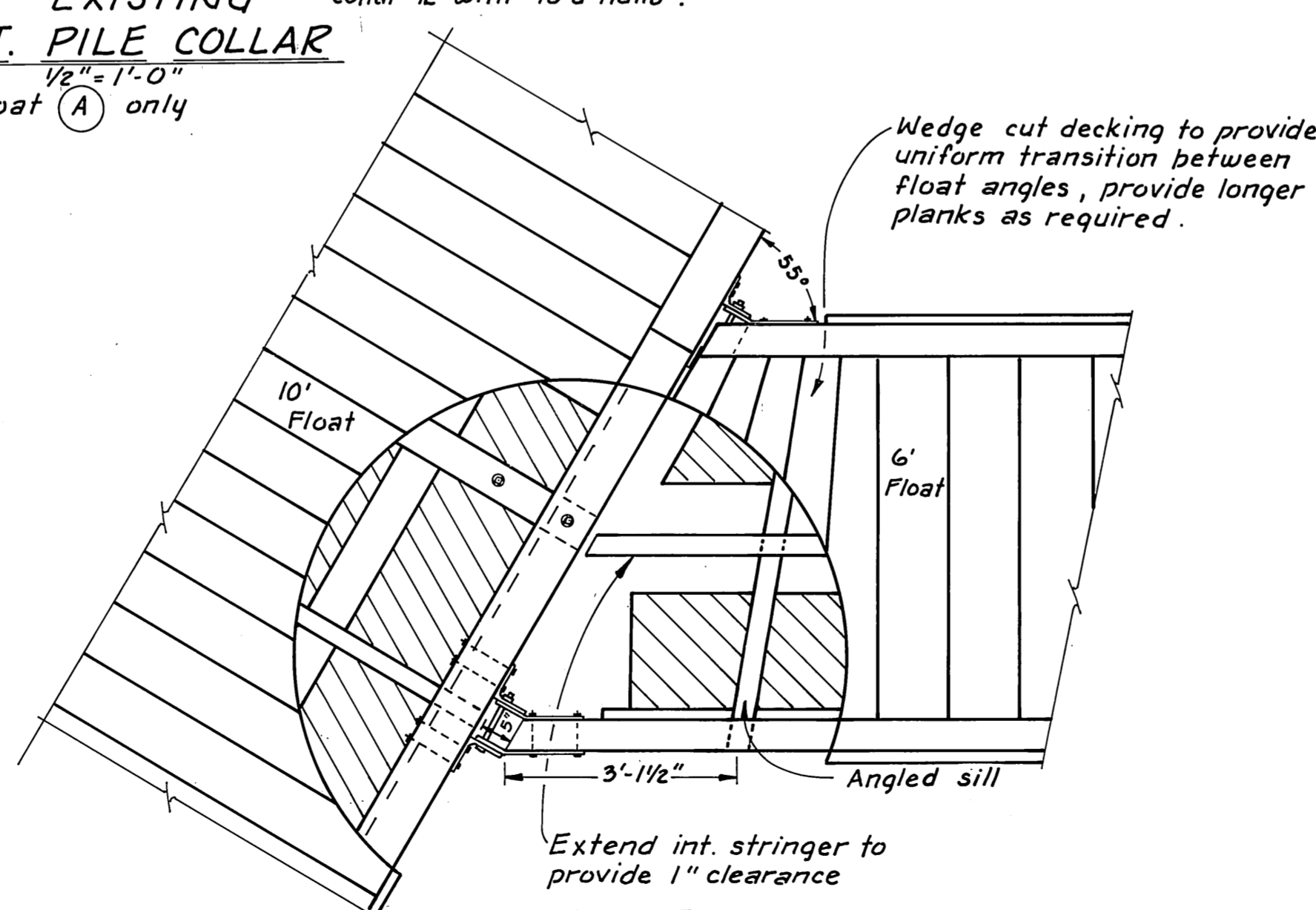
**ELFIN COVE PROJECT LAYOUT**

1" = 50'-0"



**MILLED DECKING DETAIL**

3" = 1'-0"



**EXISTING CONNECTION DETAIL**

1/2" = 1'-0"

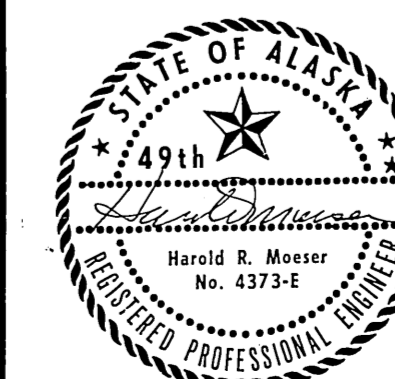
**NOTES**

A malleable iron washer shall be placed between all nut and wood surfaces. Tie down rails shall extend across all float ends except under gangway. All holes in the tie-down-rail & blocking shall be pre-drilled. All existing details shown for informational purposes only. Materials to be replaced shown shaded.

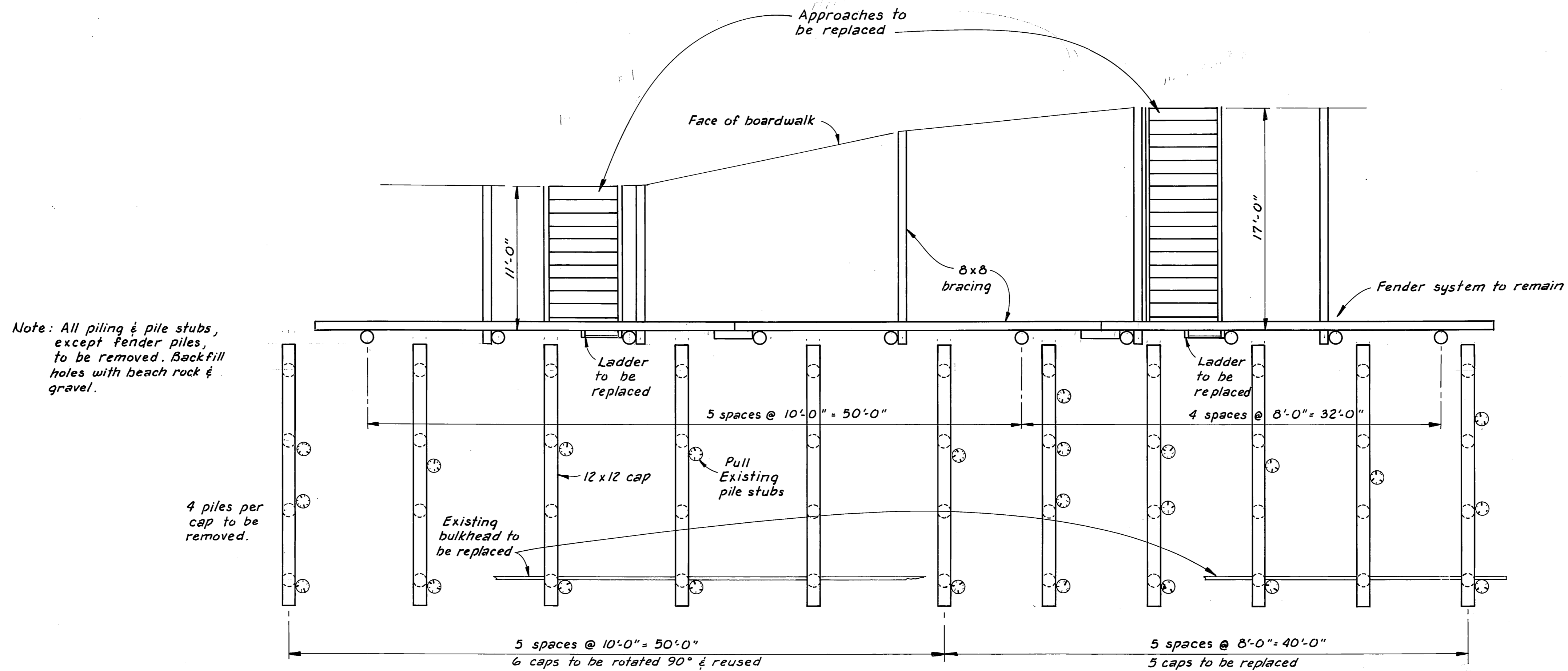
**REPAIR SCHEDULE**

- (A) Redeck & install new blocking, rail & bumper on main float (10'-0" x 187'-6") (new mid sills).
- (B) Redeck & install new blocking, rail & bumper on finger float (6'-0" x 150'-0") (new mid sills).
- (C) Replace flotation of 6'-0" x 187'-6" section of finger float. x 1/2" G.R. billets added between existing billets.
- (D) Install new gangway (6'-0" x 50'-0") & gangway stringers (2 ea.). x Gangway stringers not installed over looked by contractor.
- (E) Rebuild grid (20'-0" x 90'-0").

**AS-BUILT**  
Date: 8-5-82  
Division of Harbor Design and Construction



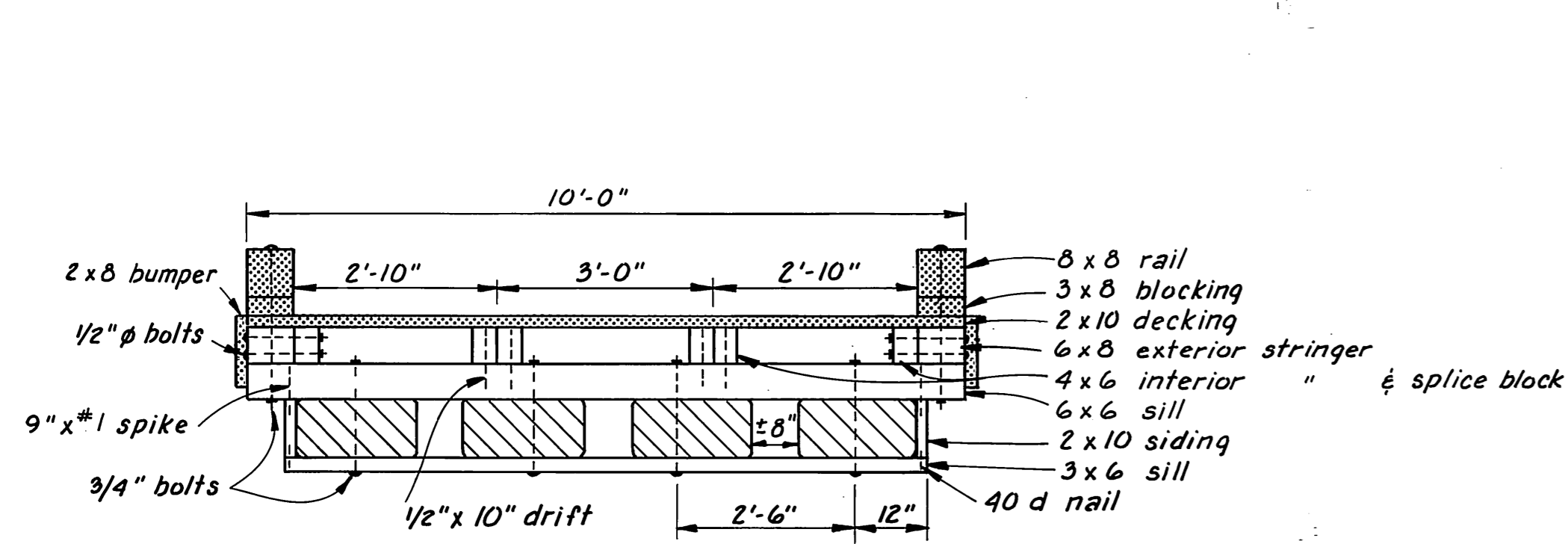
STAMP		DO NOT SCALE THIS DRAWING - USE DIMENSIONS	
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES DIVISION OF HARBOR DESIGN AND CONSTRUCTION			
Elfin Cove		Alaska	
PROJECT LAYOUT & 6'-0" FLOAT DETAILS			
SCALE: As Noted	SURVEYED:	APPROVED	
DESIGNED: JAL	DRAWN: T.S.	Robert P. Beck CHIEF OF DESIGN	
CHECKED:	DATE: 3-81		
PROJECT NUMBER: K31107	SHEET: 2 OF 7		



Note: All piling & pile stubs, except fender piles, to be removed. Backfill holes with beach rock & gravel.

**EXISTING GRID**

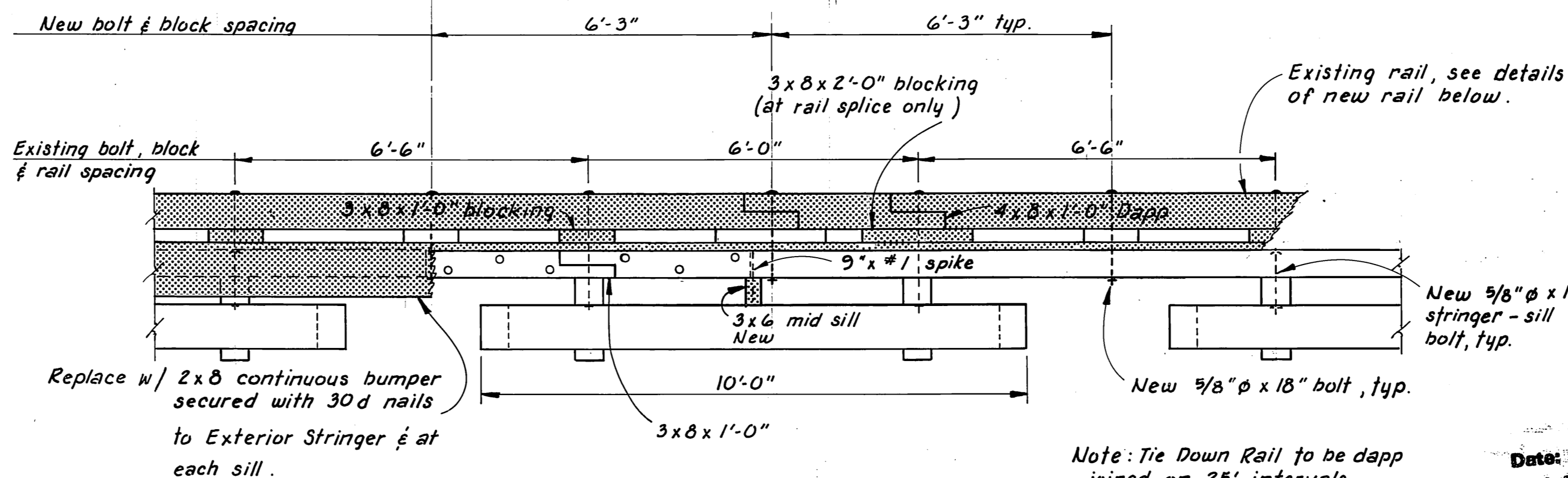
3/16" = 1'-0"



**10' FLOAT SECTION**

1/2" = 1'-0"

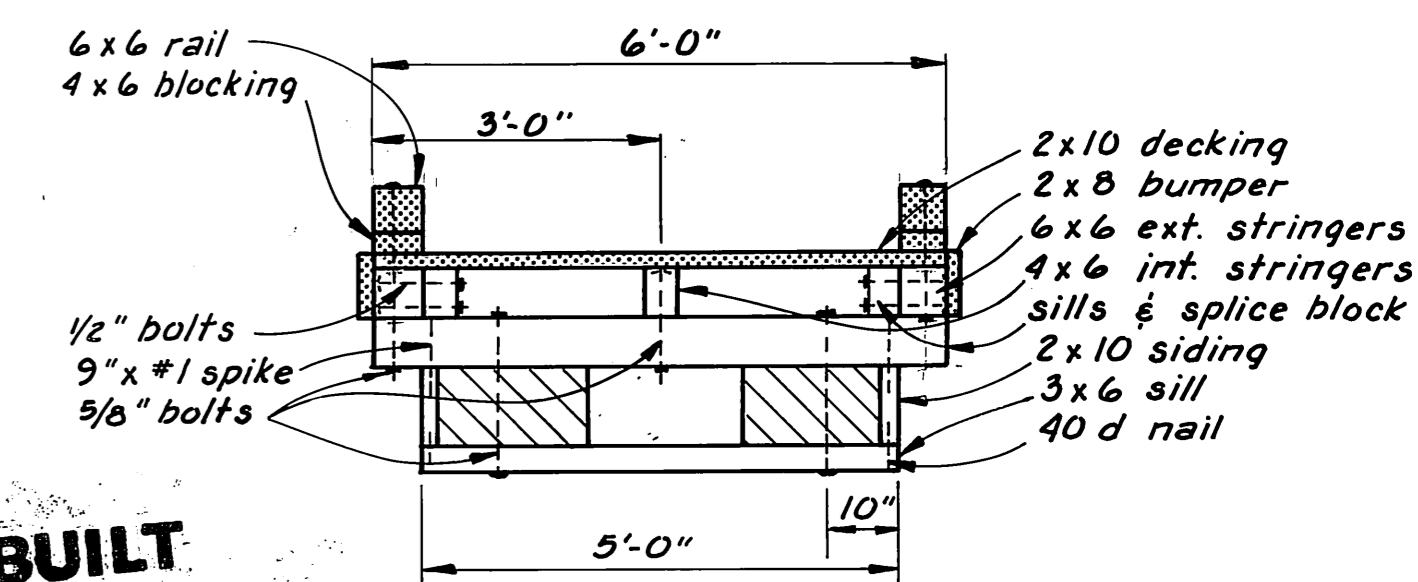
(A) Replace decking, rail, blocking & bumper only. (10'-0" x 187'-6")  
Add midsill (3x6 x 10'-0")



**ELEVATION**

1/2" = 1'-0"

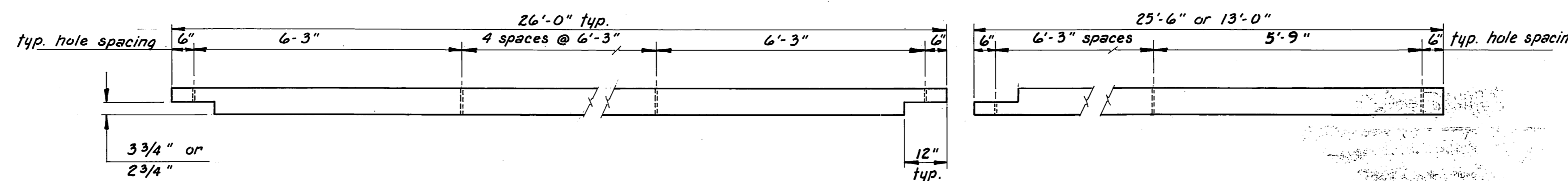
Note: Materials to be replaced shown shaded.



**6' FLOAT SECTION**

1/2" = 1'-0"

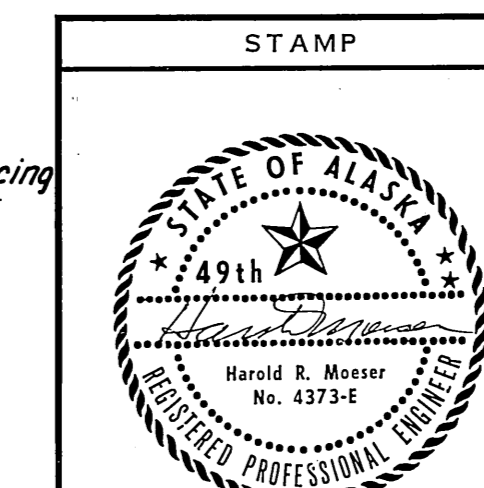
(B) Replace decking, rail, blocking & bumper only. (6'-0" x 150'-0")



**TYPICAL 6x6 or 8x8 RAIL DETAILS**

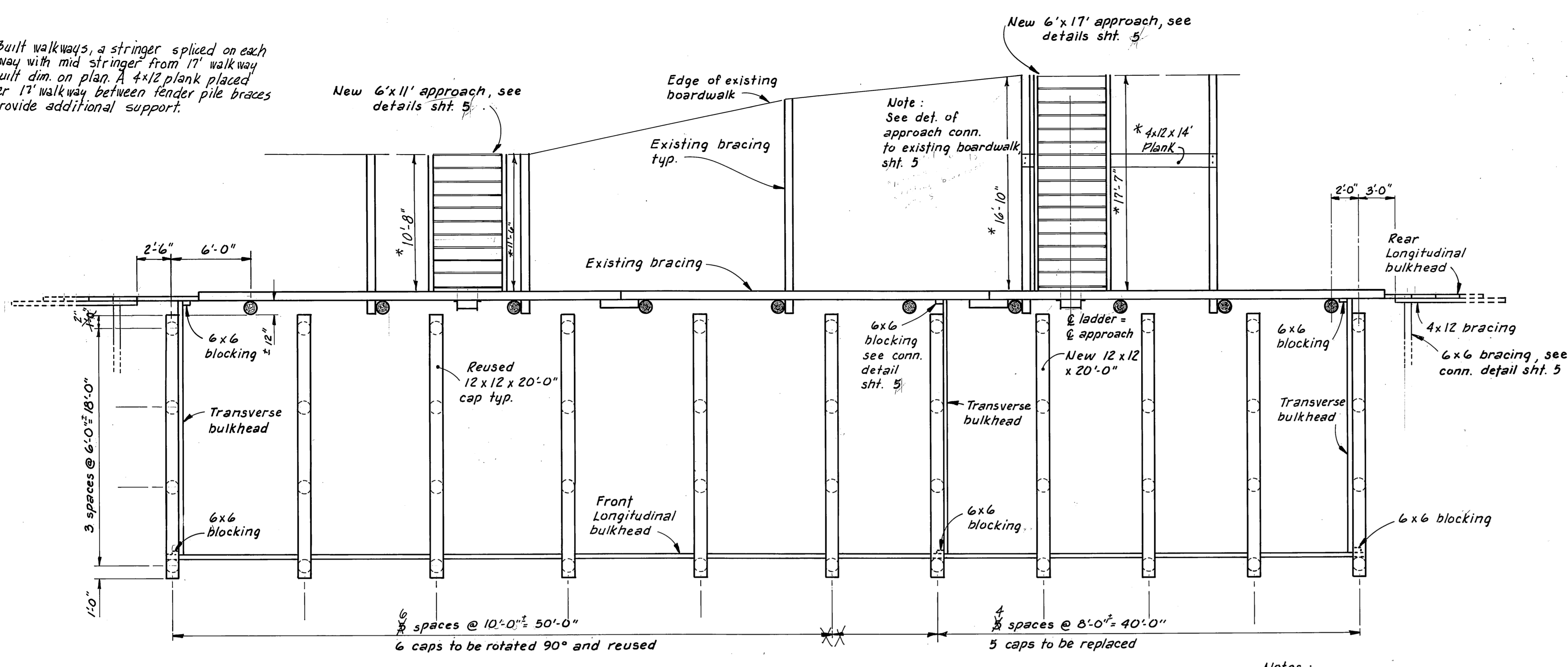
1/2" = 1'-0"

**AS-BUILT**  
Date: 8-8-82  
Division of Harbor Design and Construction



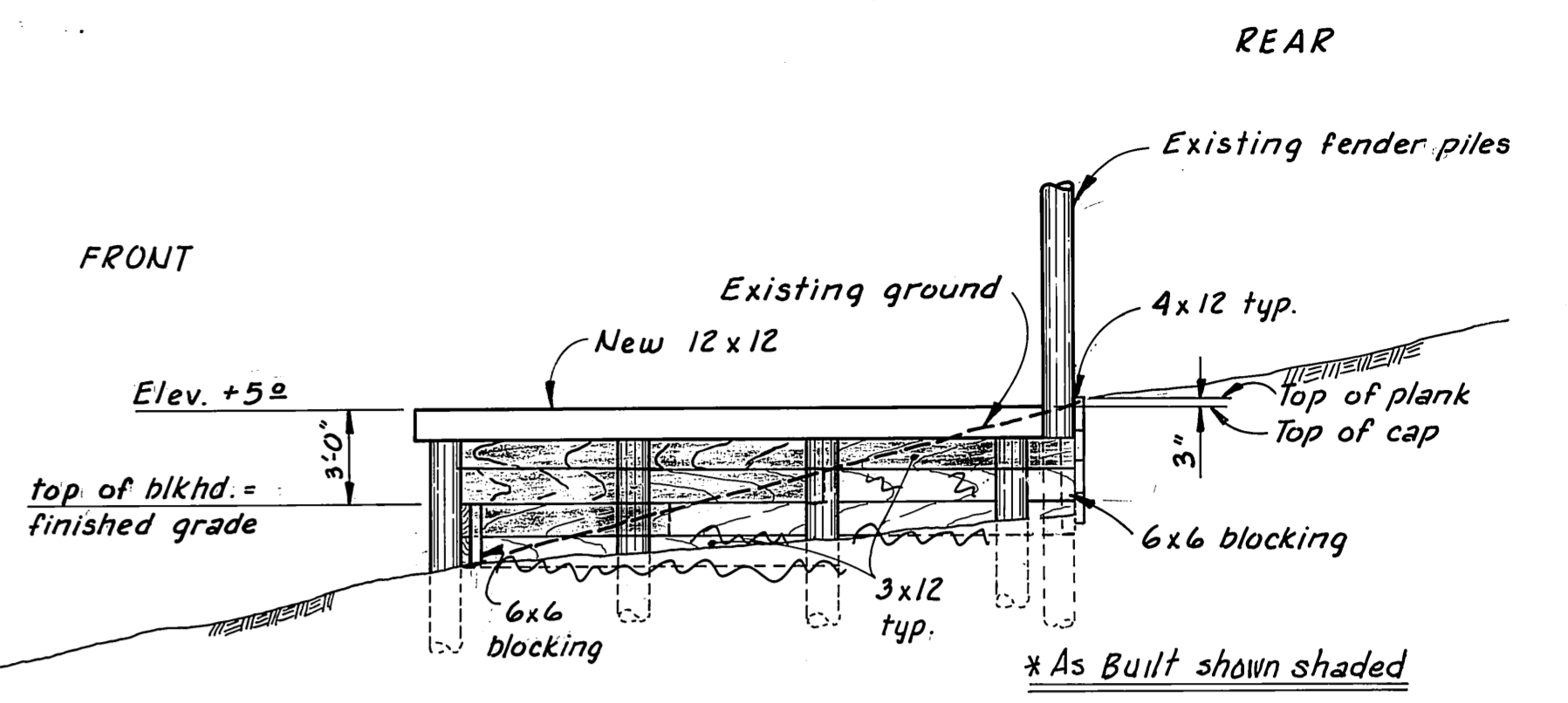
STAMP			DO NOT SCALE THIS DRAWING - USE DIMENSIONS		
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES DIVISION OF HARBOR DESIGN AND CONSTRUCTION					
Elfin Cove			Alaska		
<b>GRID "AS BUILT" &amp; FLOAT DET.</b>					
SCALE: <i>As Noted</i>	SURVEYED:	APPROVED:			
DESIGNED:	DRAWN: <i>T.S.</i>	<b>Robert P. Beck</b> CHIEF OF DESIGN			
CHECKED:	DATE: <i>4-81</i>				
PROJECT NUMBER: <i>K-31107</i>	SHEET <i>3</i> OF <i>7</i>				

As Built walkways, a stringer spliced on each walkway with mid stringer from 17' walkway as built dim. on plan. A 4x12 plank placed under 17' walkway between fender pile braces to provide additional support.

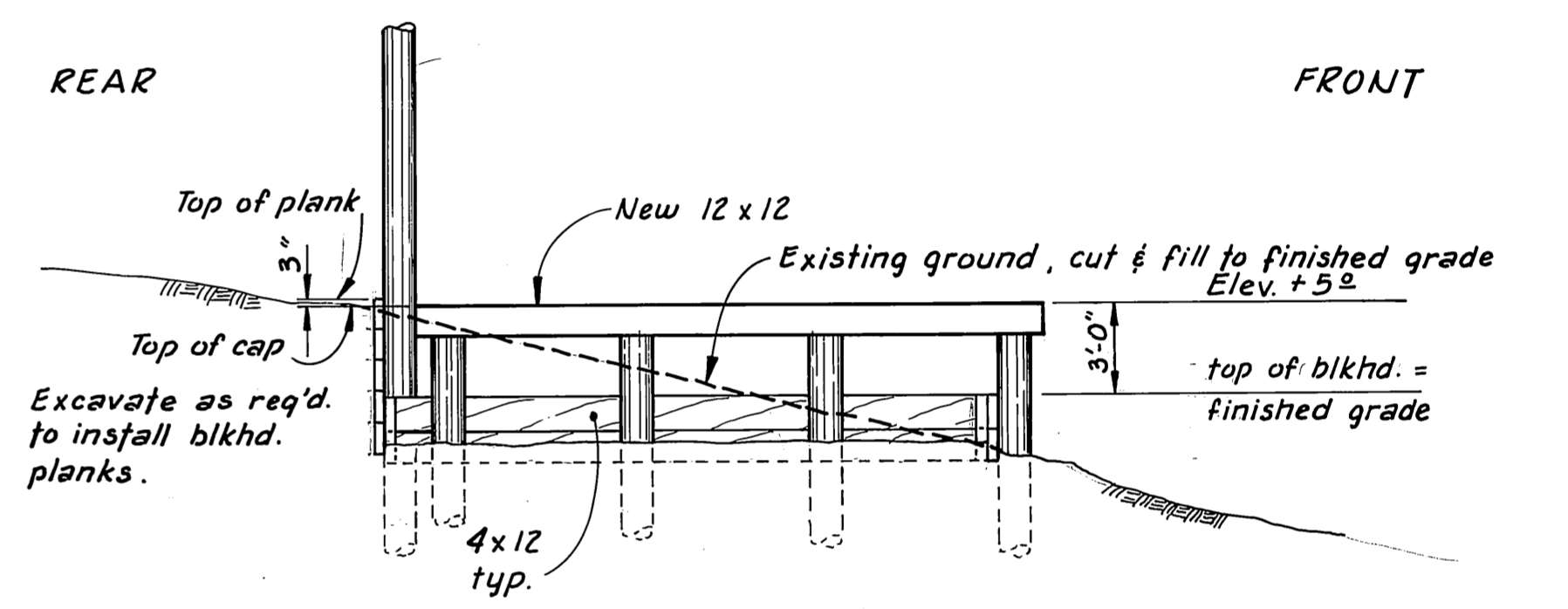


PLAN  
3/16" = 1'-0"

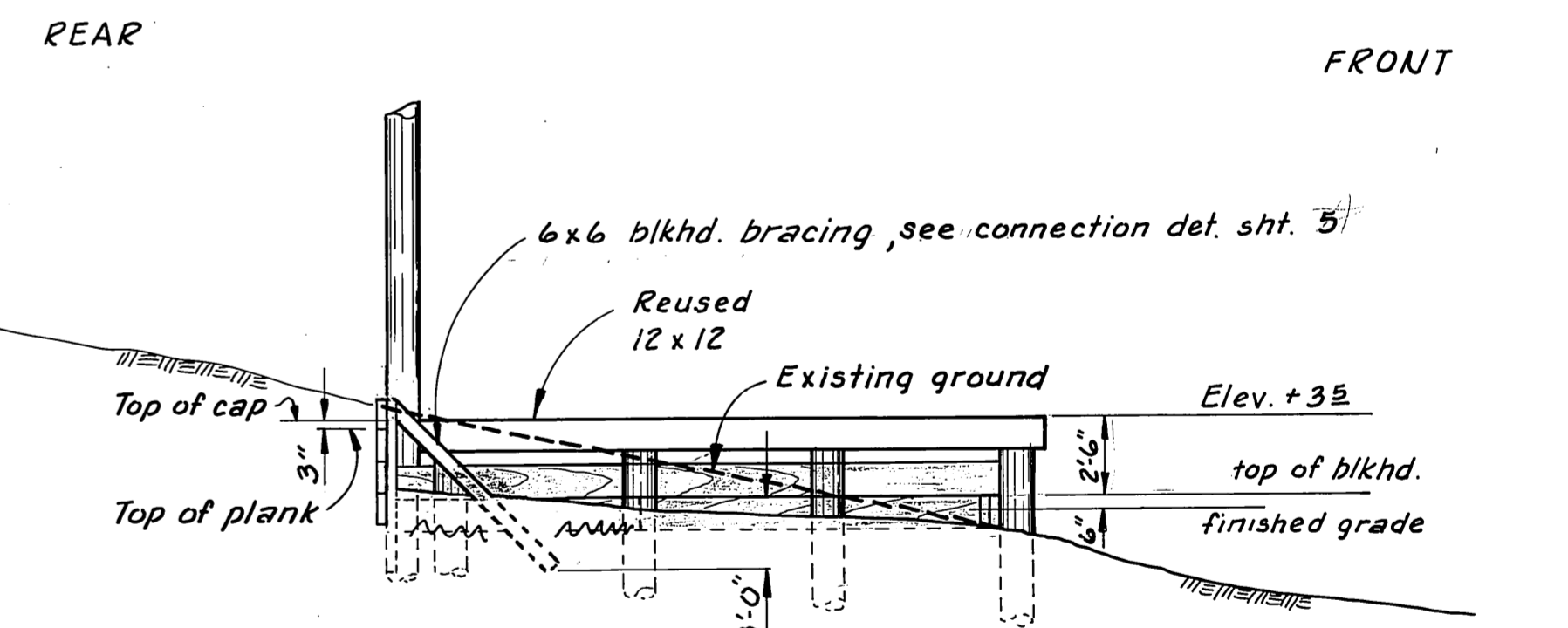
- Notes:
- Utilize angular material from beach adjacent to grid for work pad base course within blkhd. confines. Min. thickness 4"
  - Caps to be secured to piles w/ 3/4"  $\phi$  x 24" drift pins w/ clinch rings.
  - 4x12 blkhd. planking secured to piles w/ 3/8" x 9" spikes. Predrill 4x12 1/16" undersize, 2 per contact. Stagger planking splices, typ.



SECTION C  
3/16" = 1'-0"

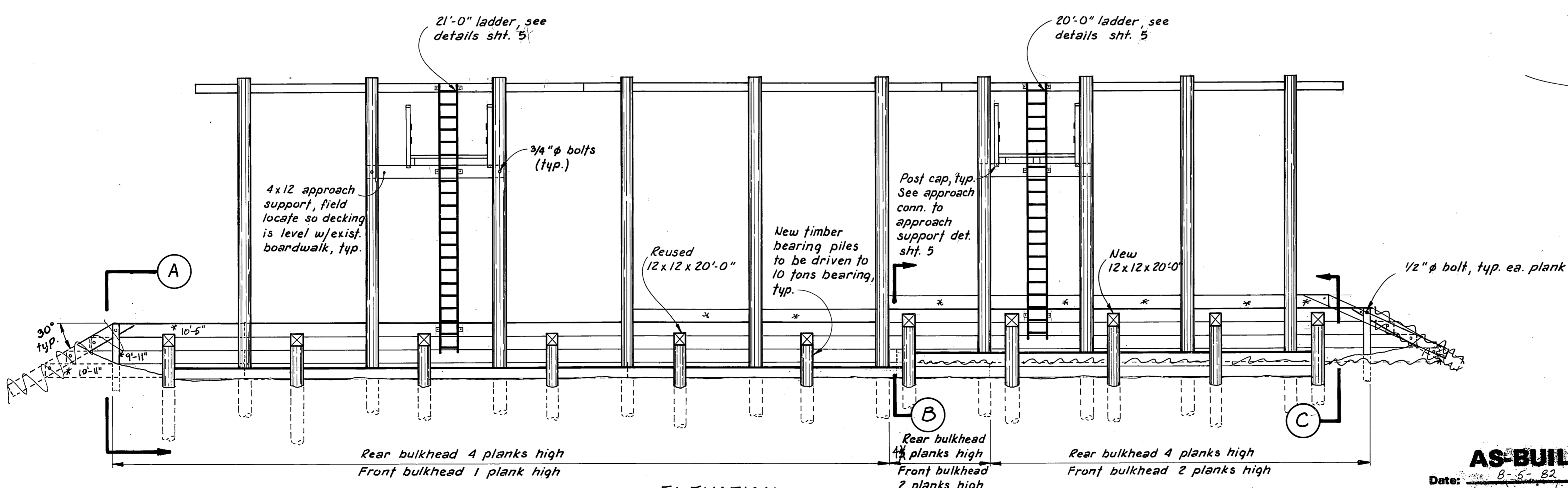


SECTION B  
3/16" = 1'-0"



SECTION A  
3/16" = 1'-0"

\* As Built grid work pad graded 6" below pile cut off on fender pile side of grid to 2'-6" below pile cut off on outside pile due to shallow penetration of inside piles. Bulkhead planks stepped up twice to better accommodate existing grade and anticipated shallow pene. of fender piles

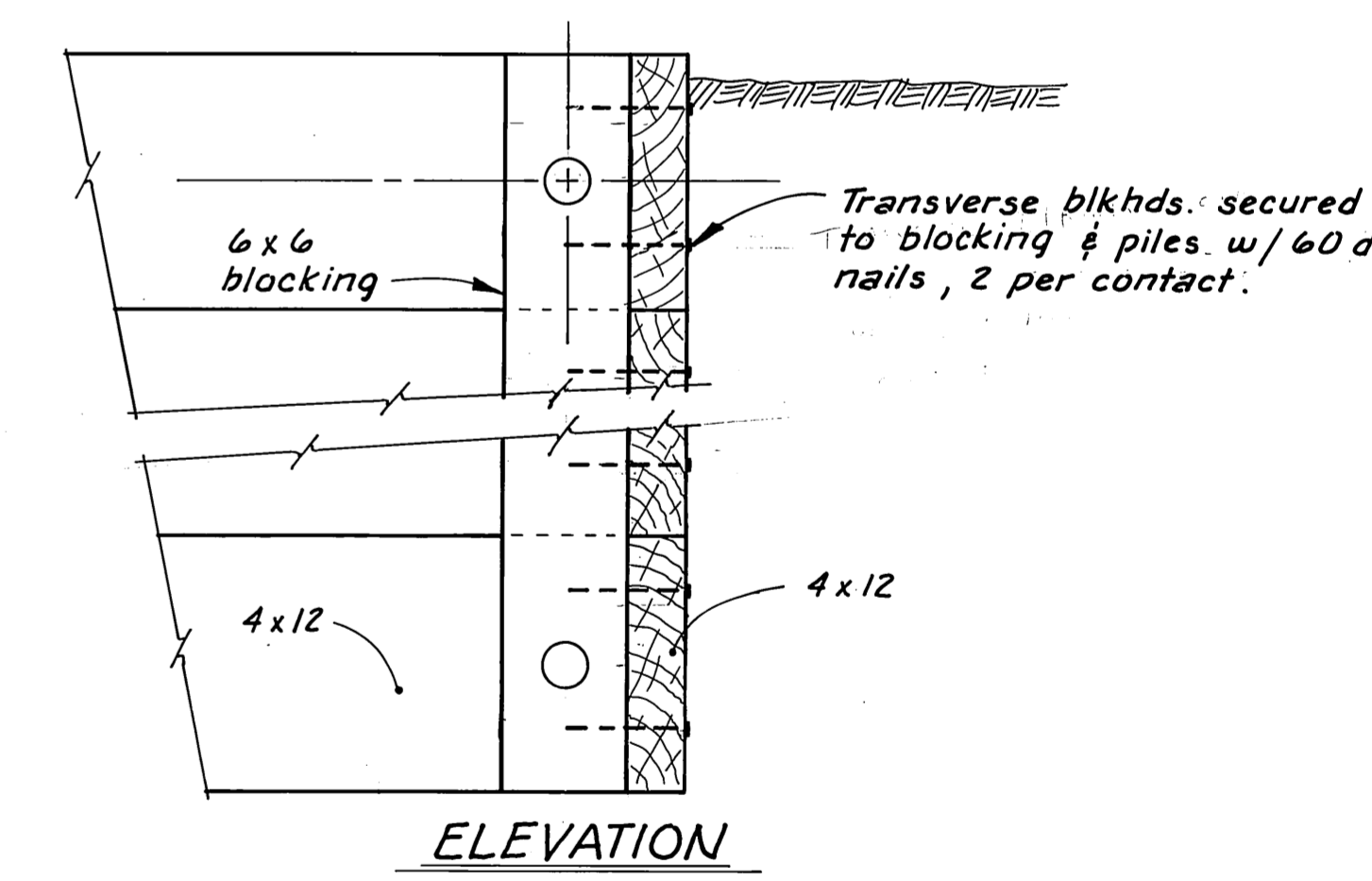
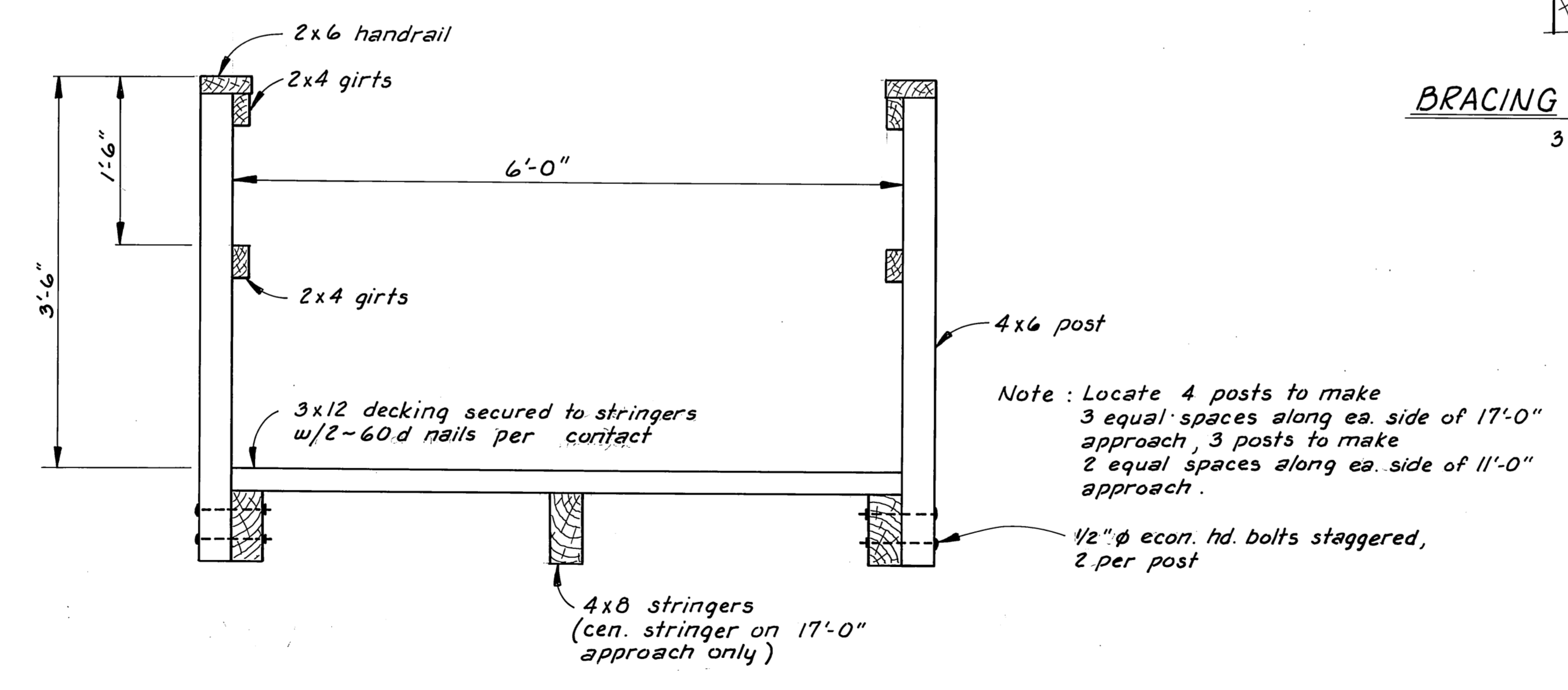
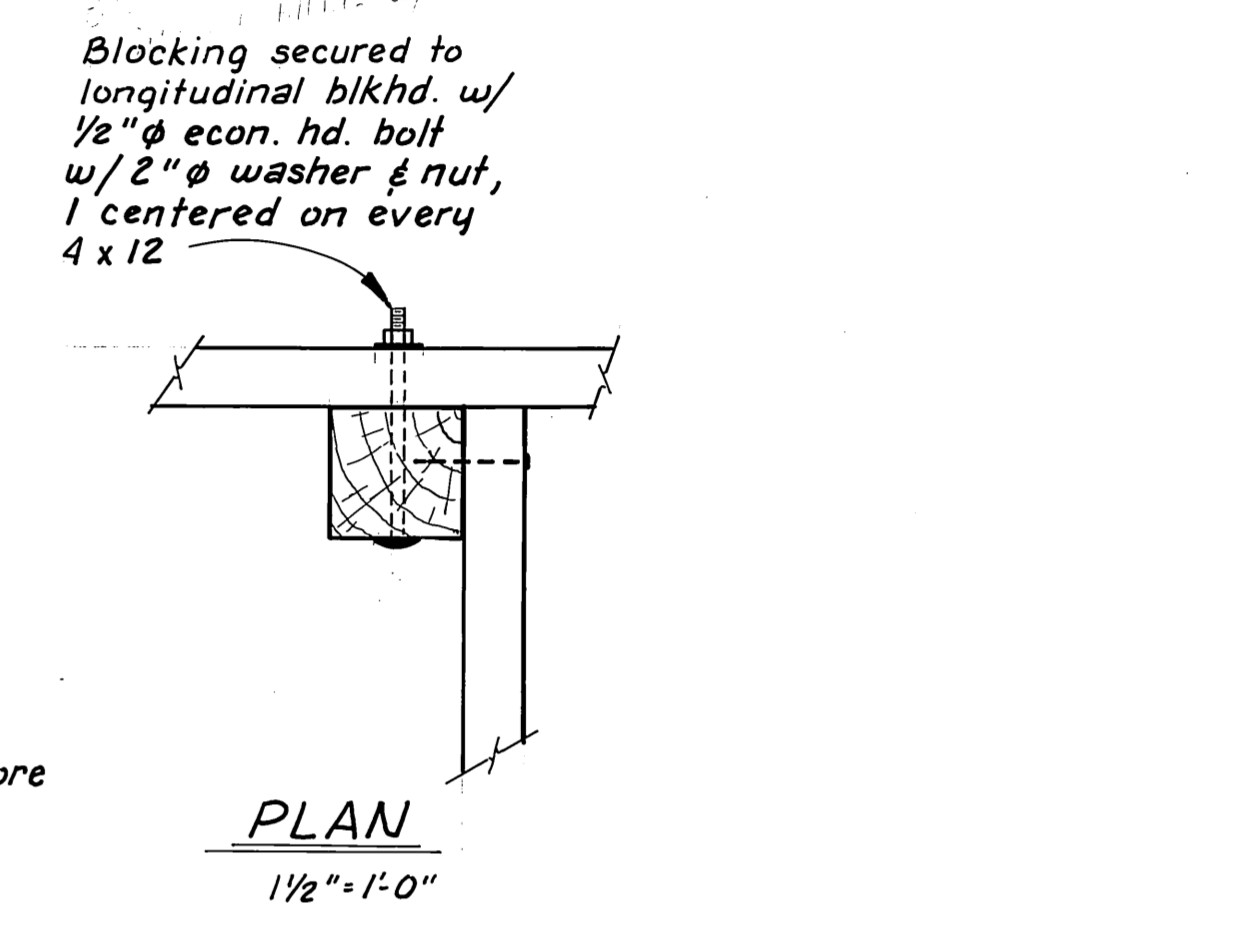
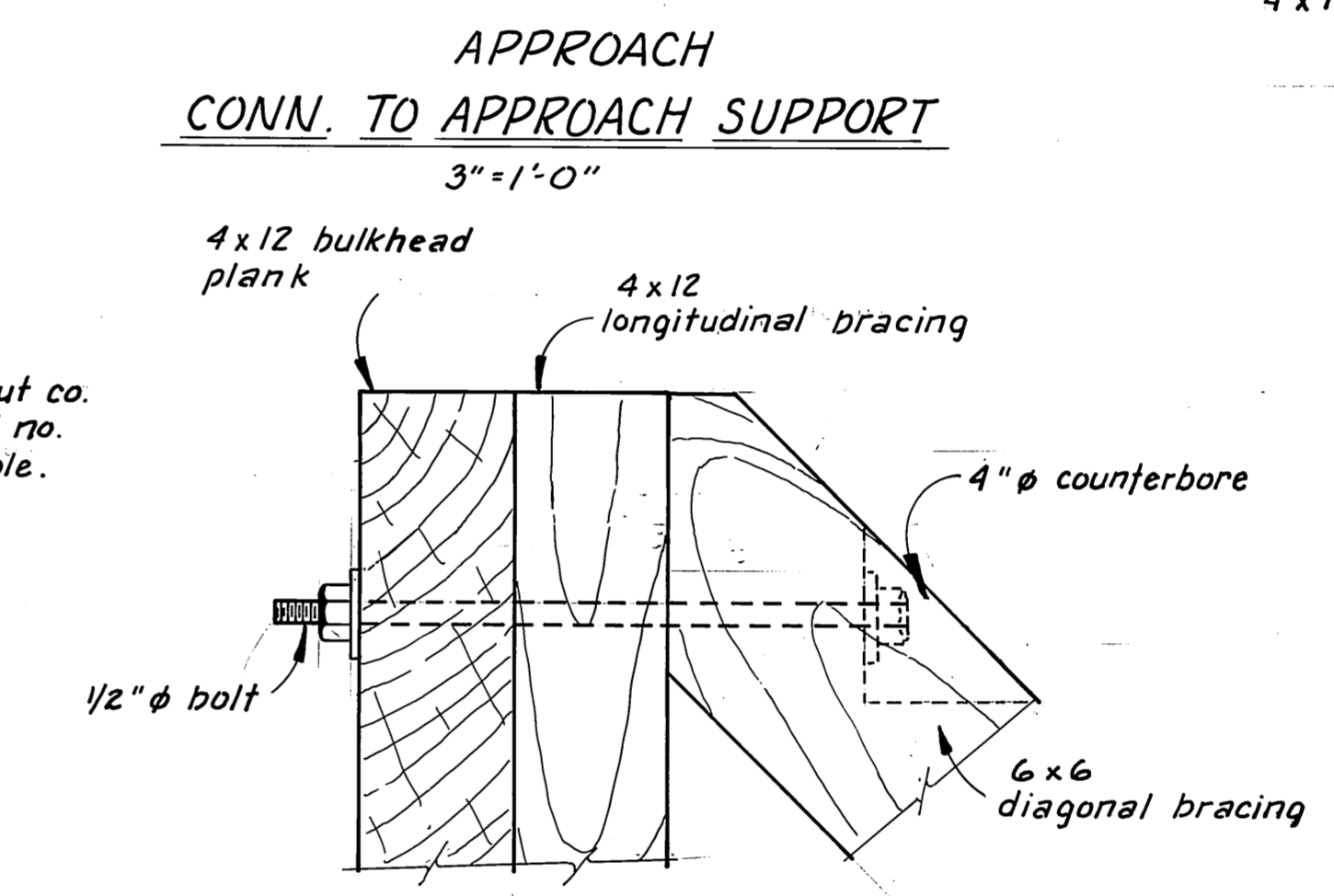
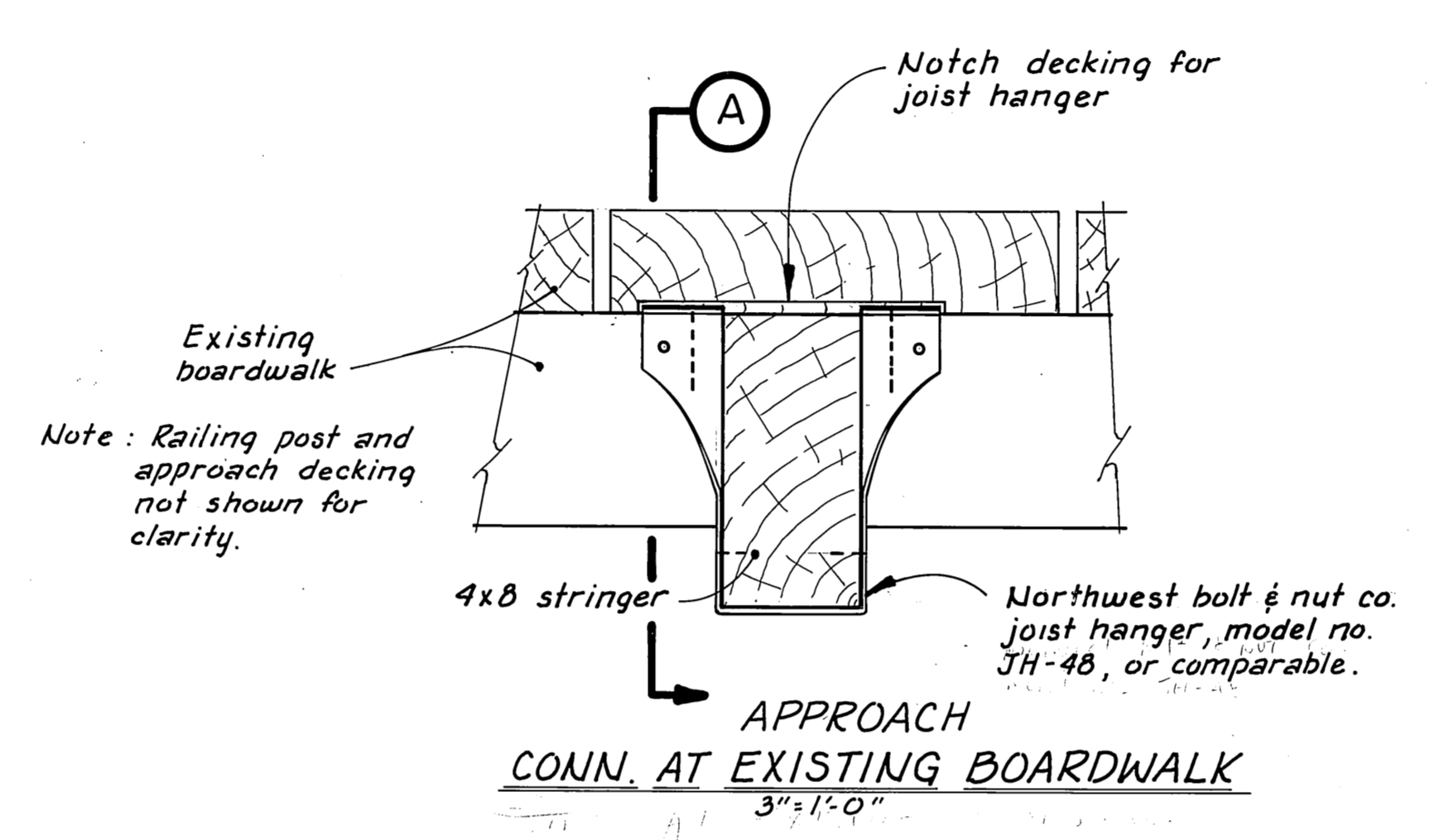
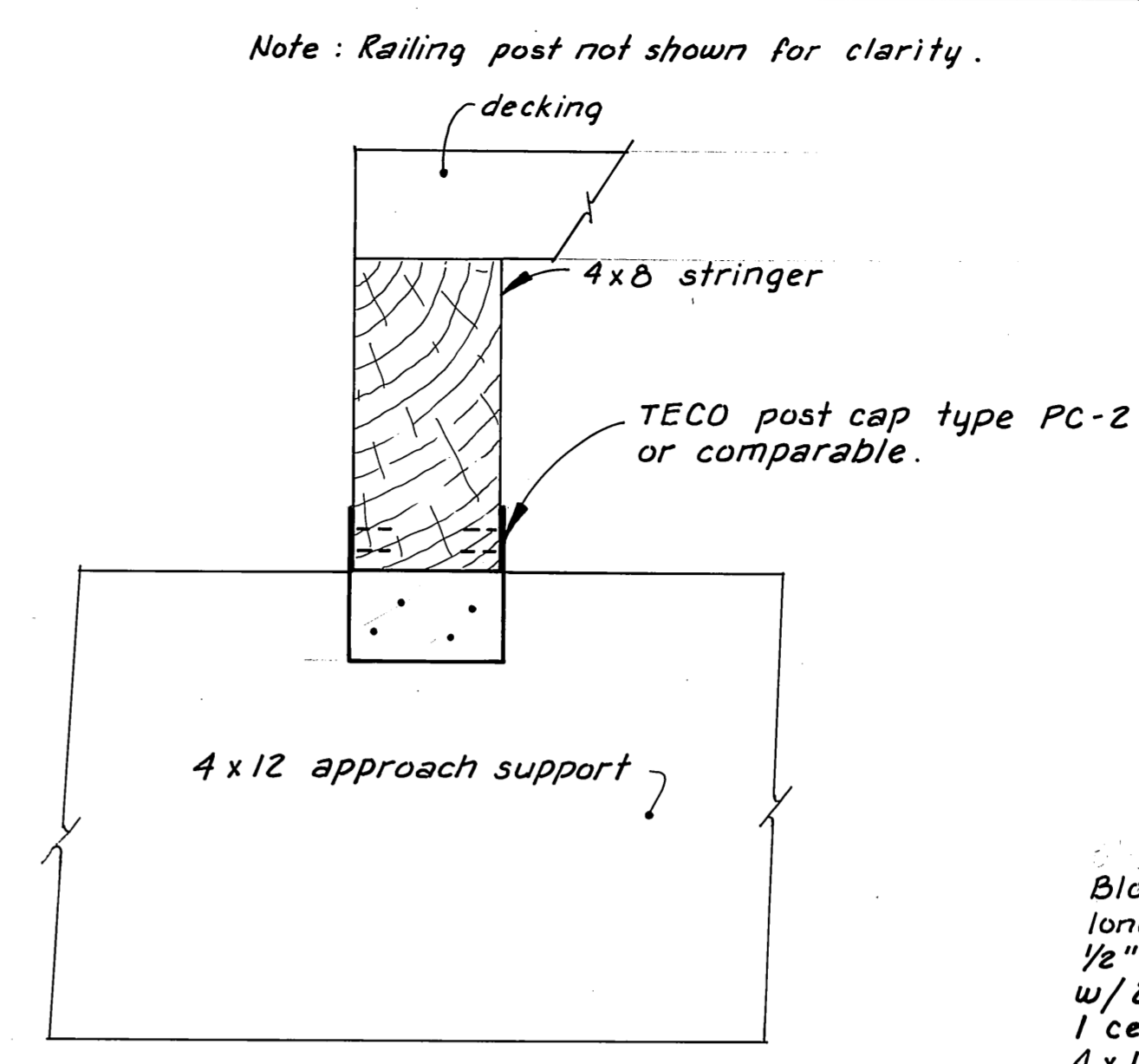
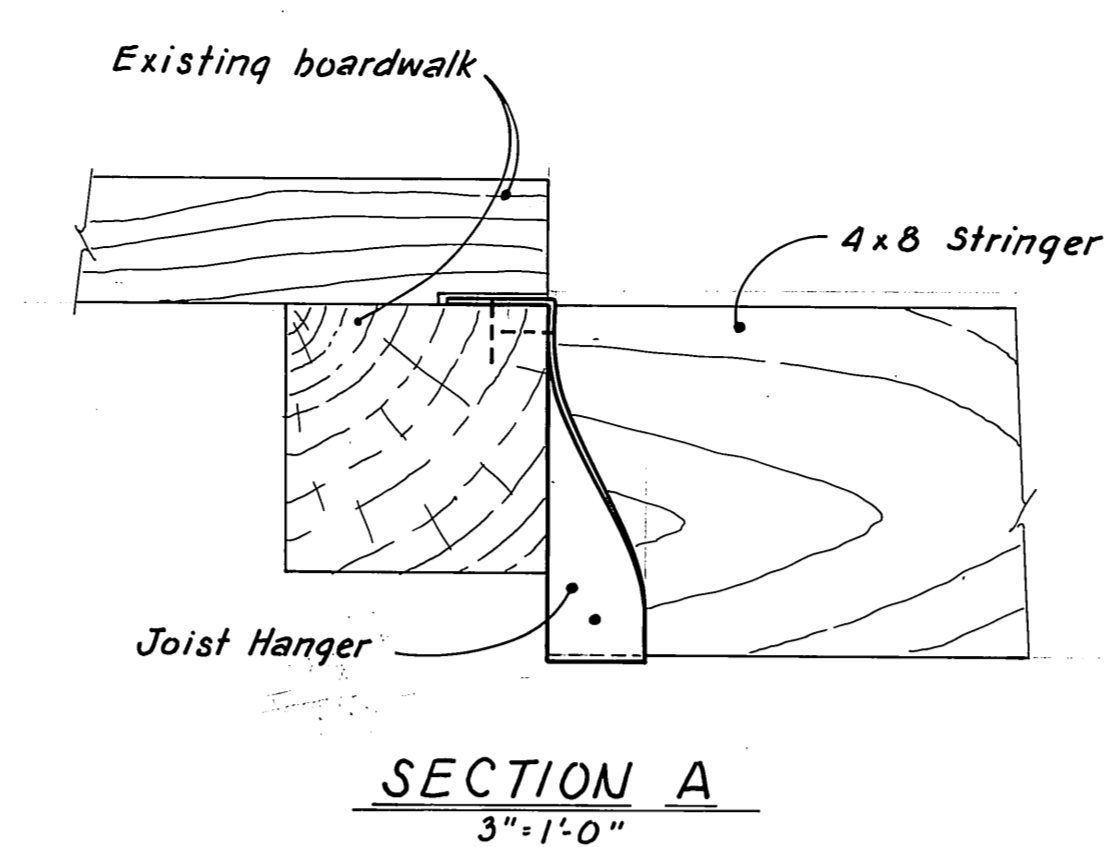
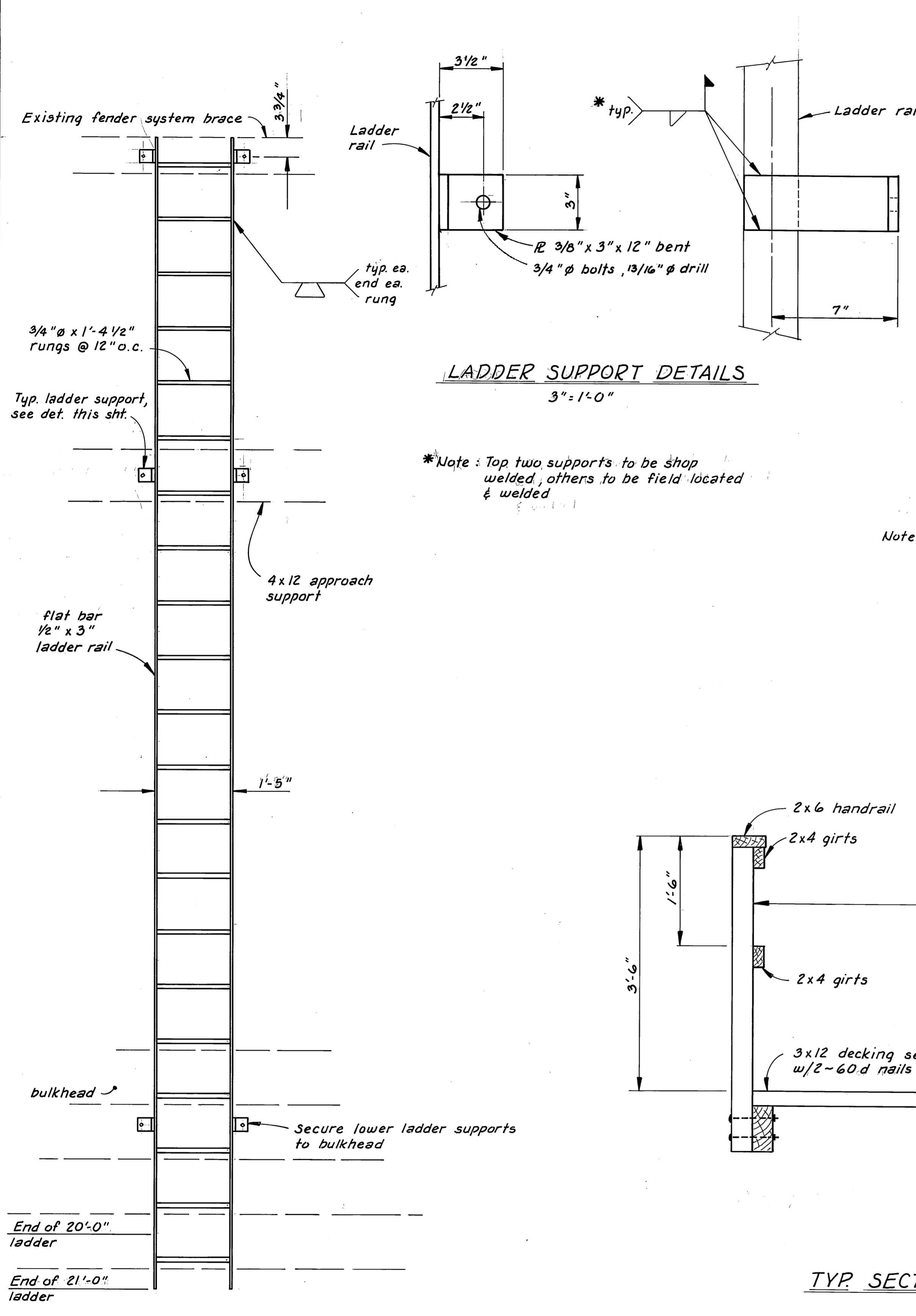


ELEVATION  
3/16" = 1'-0"

Note: It is estimated that the average penetration required to achieve design bearing is 7'-0"

**AS-BUILT**  
Date: 8-5-82  
Division of Harbor Design and Construction

STAMP		DO NOT SCALE THIS DRAWING - USE DIMENSIONS	
		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES DIVISION OF HARBOR DESIGN AND CONSTRUCTION	
		Elfin Cove Alaska	
		<b>GRID RECONSTRUCTION</b>	
SCALE: As Noted	SURVEYED:	APPROVED	
DESIGNED: JAL	DRAWN: TS	Robert P. Beck CHIEF OF DESIGN	
CHECKED:	DATE: 4-81		
PROJECT NUMBER: K-31107	SHEET: 4 OF 7		

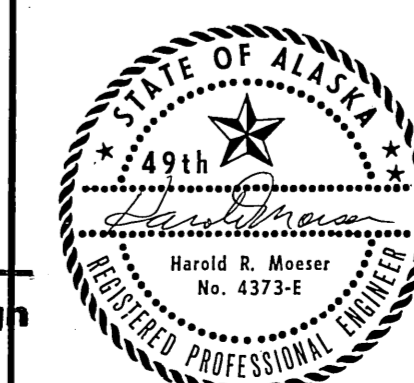


**TYP. SECTION OF APPROACH**  
1" = 1'-0"

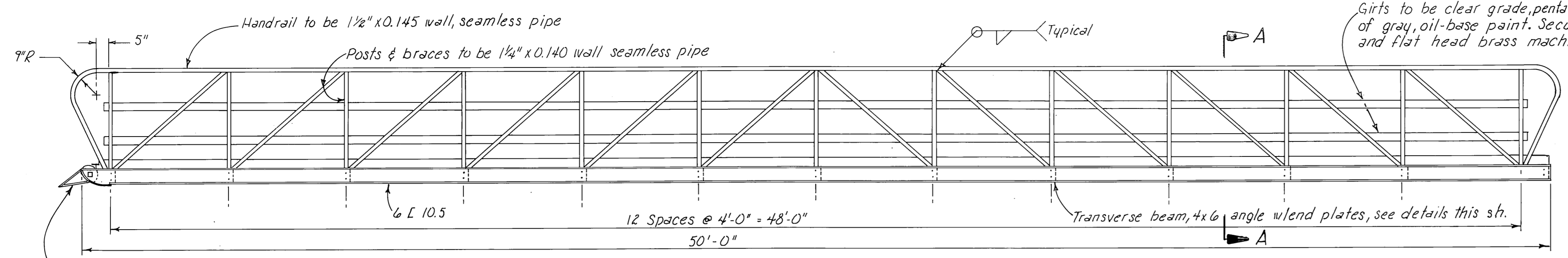
**LADDER DETAIL**  
3/4" = 1'-0"

End of 20'-0" ladder  
End of 21'-0" ladder

**AS-BUILT**  
Date: 8-6-82  
Division of Harbor Design and Construction

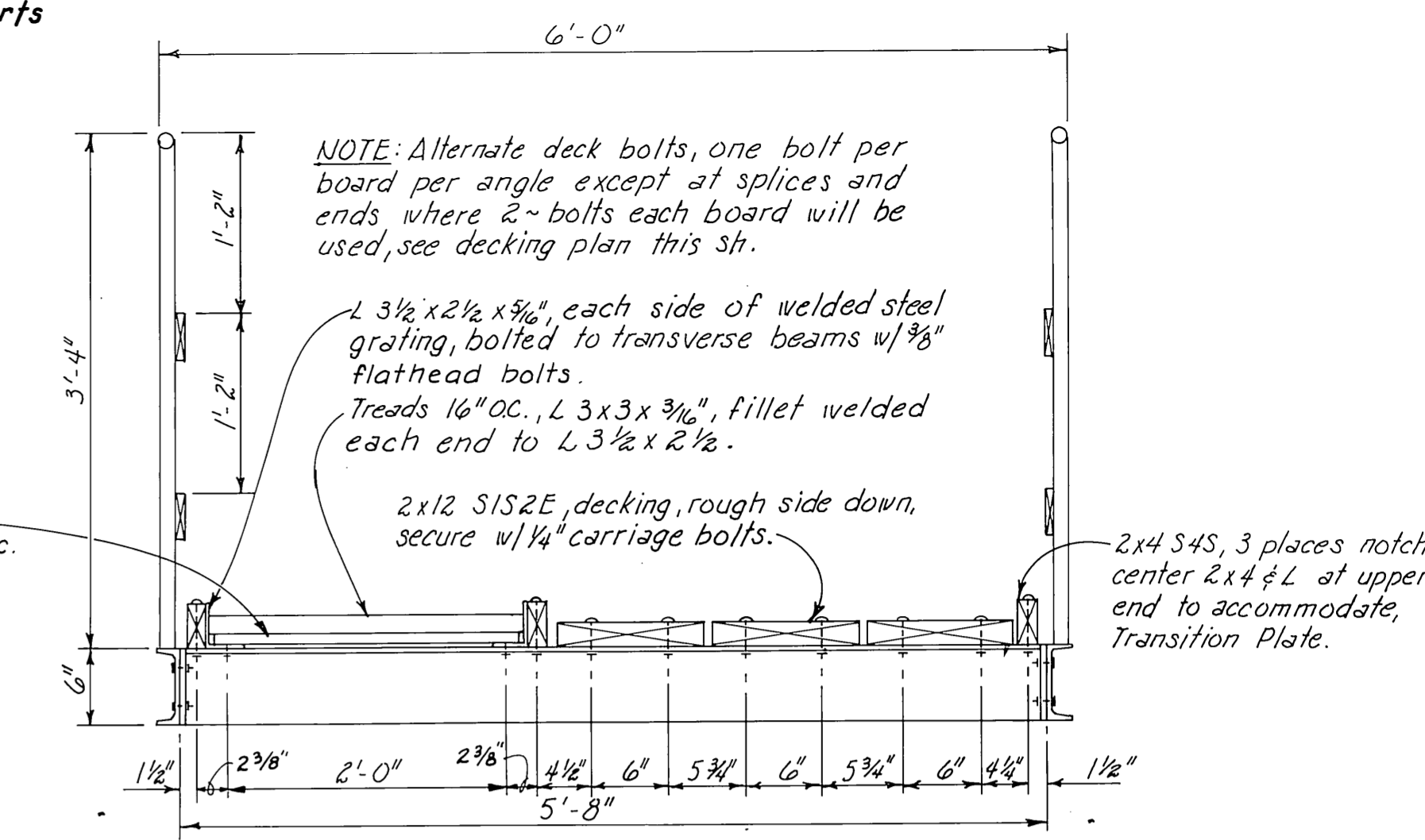


STAMP		DO NOT SCALE THIS DRAWING - USE DIMENSIONS	
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES DIVISION OF HARBOR DESIGN AND CONSTRUCTION			
Elfin Cove		Alaska	
<b>MISC. DETAILS</b>			
SCALE: As Noted	SURVEYED:	APPROVED:	
DESIGNED: JAL	DRAWN: TS	Robert P. Beck CHIEF OF DESIGN	
CHECKED:	DATE: 4-81		
PROJECT NUMBER: K-31107	SHEET: 5 OF 7		

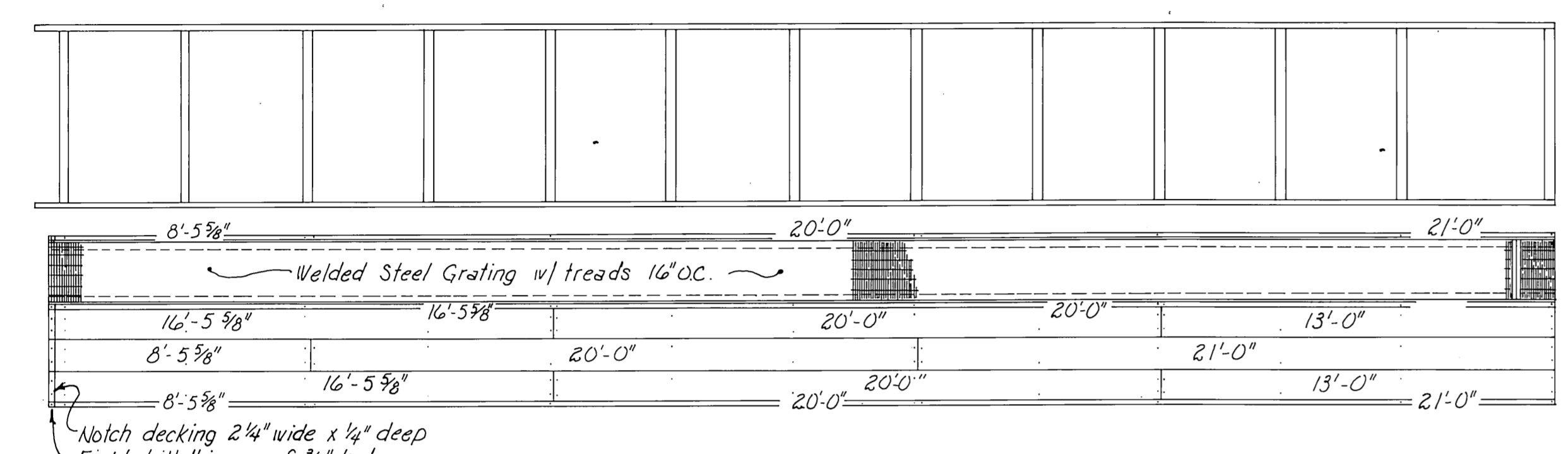


**ELEVATION**  
3/8" = 1'-0"

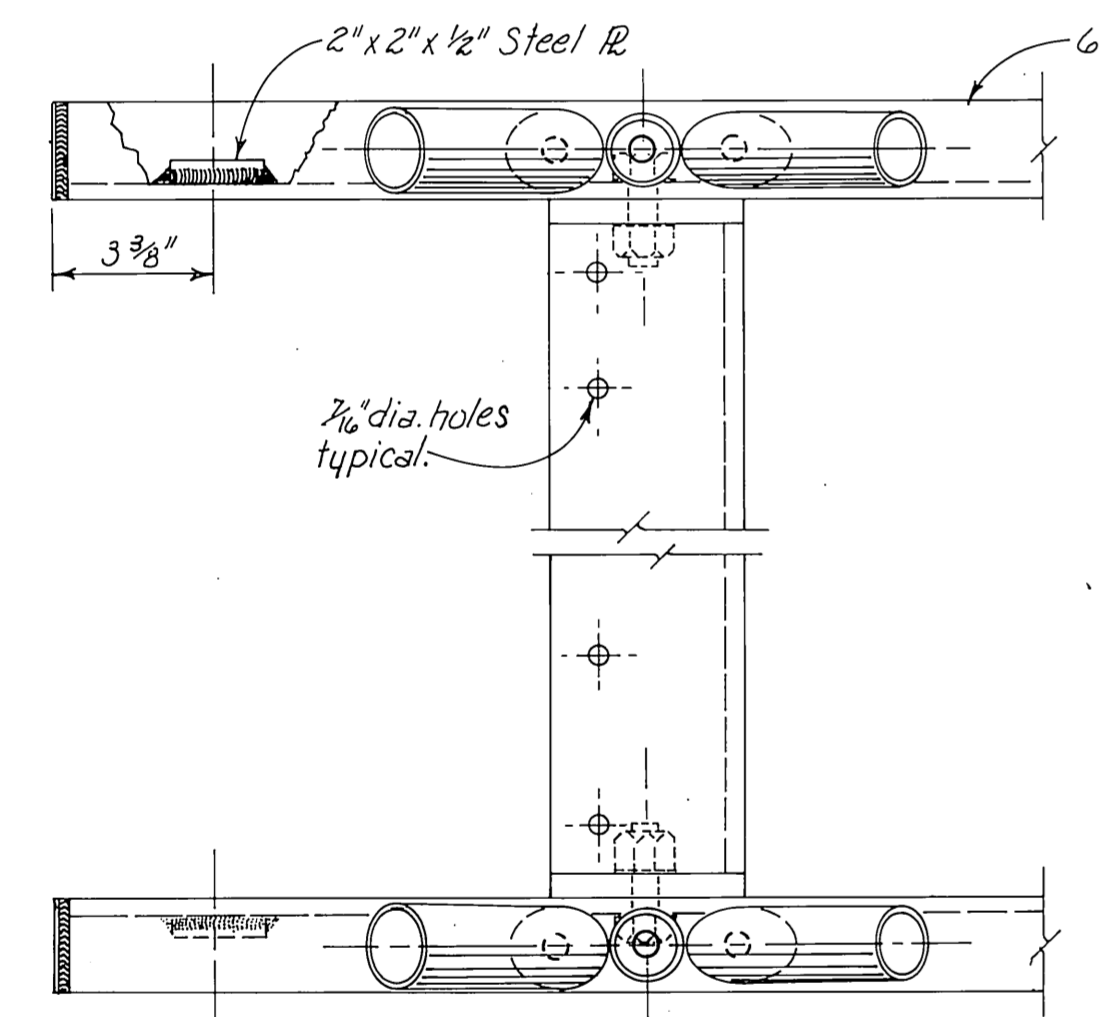
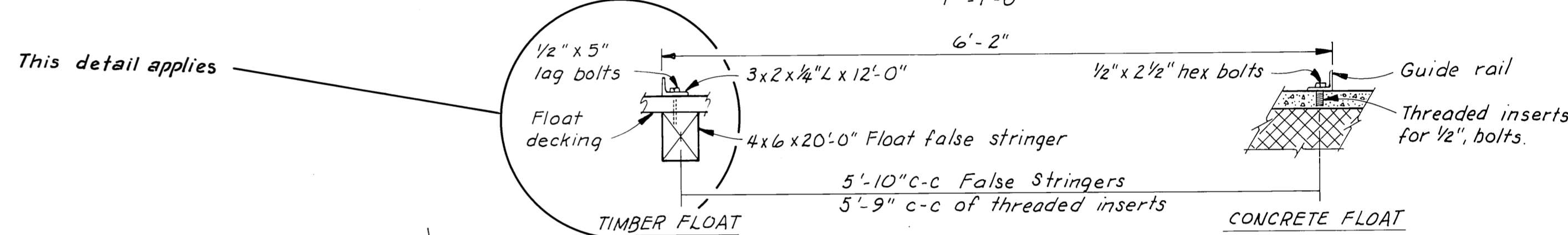
Welded steel grating with 1" x 1/8" x 1'-11 1/2" bearing bars spaced at 1 3/16" centers and 1/4" cross bars spaced at 4" centers. Wearing surface of bearing and cross bars shall be serrated. The grating shall be hot dip galvanized. Every 4th bearing bar to be welded with 3/4" long fillet to L 3 1/2 x 2 1/2, or secure with std. grating clips 8' o.c.



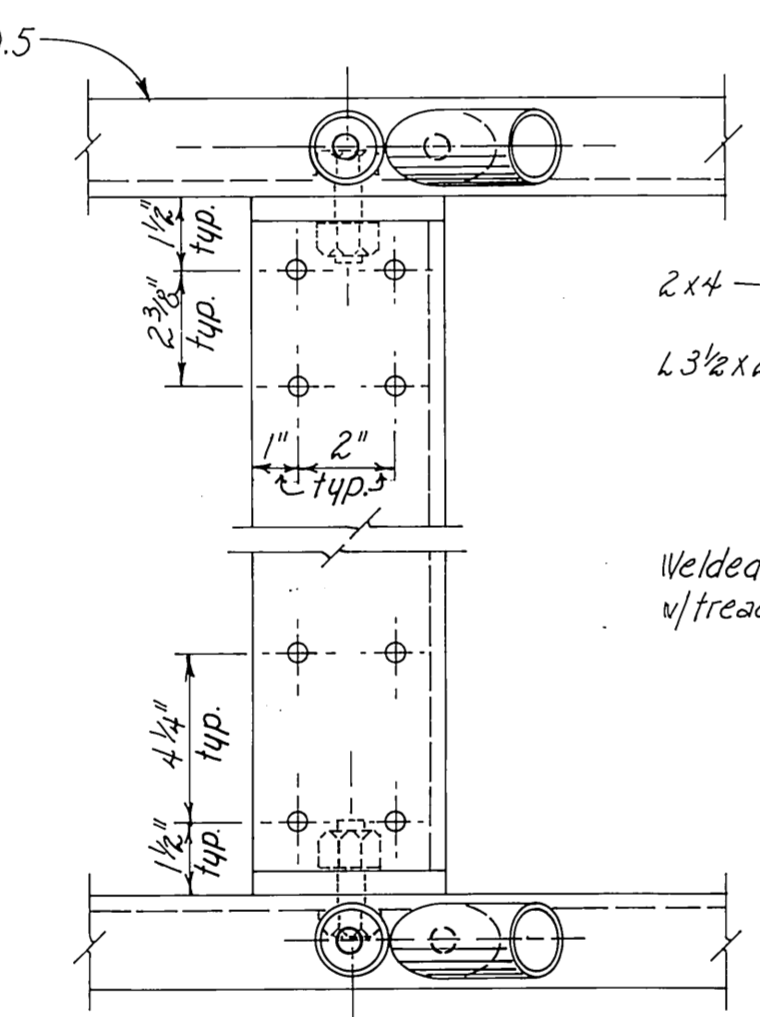
**SECTION A-A**  
1" = 1'-0"



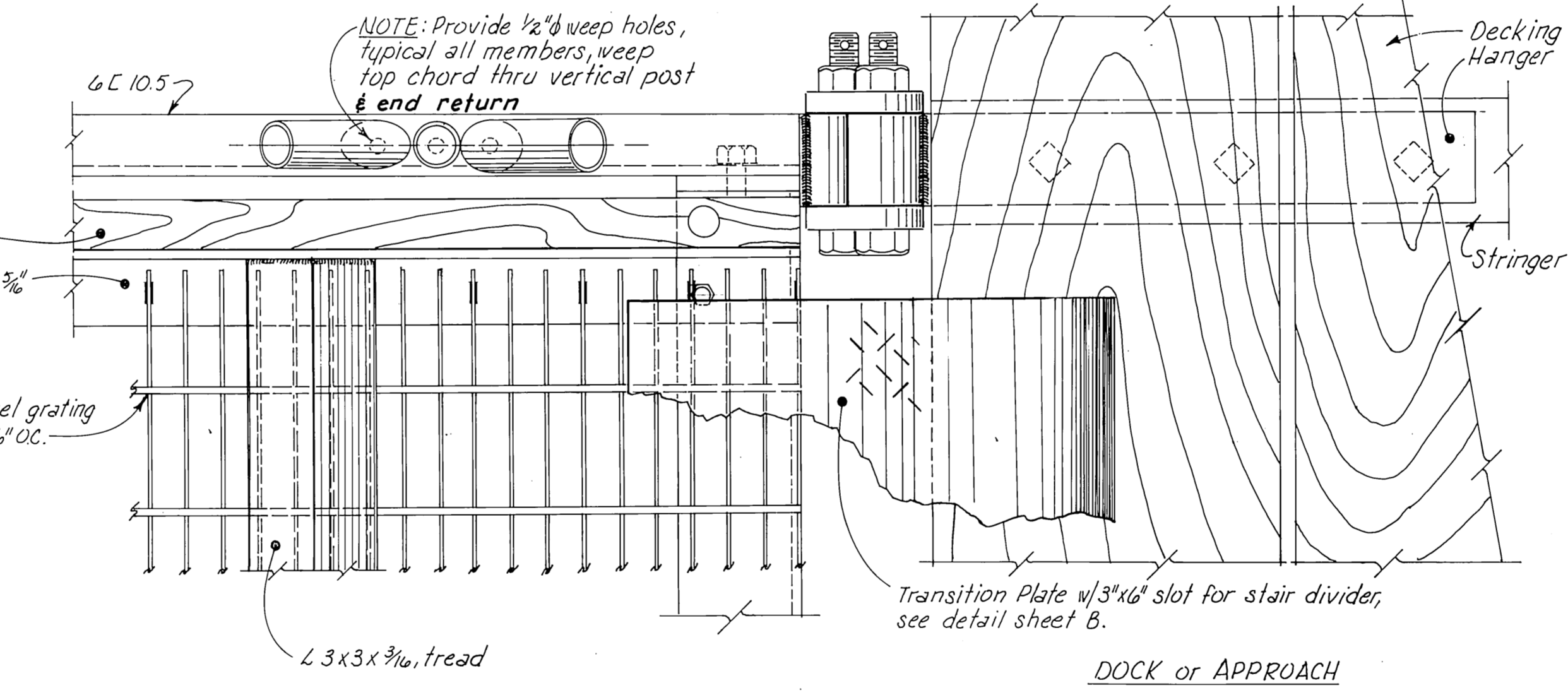
**STRINGER & DECKING LAYOUT**  
1/4" = 1'-0"



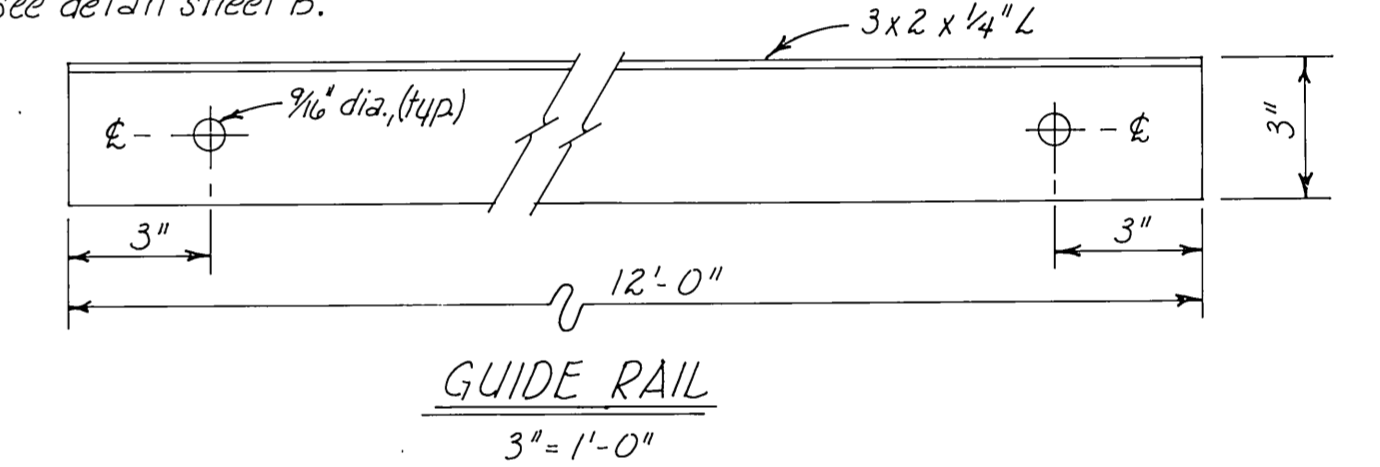
**GANGWAY DETAILS**  
3" = 1'-0"



**TYPICAL @ DECKING SPLICE**  
3" = 1'-0"



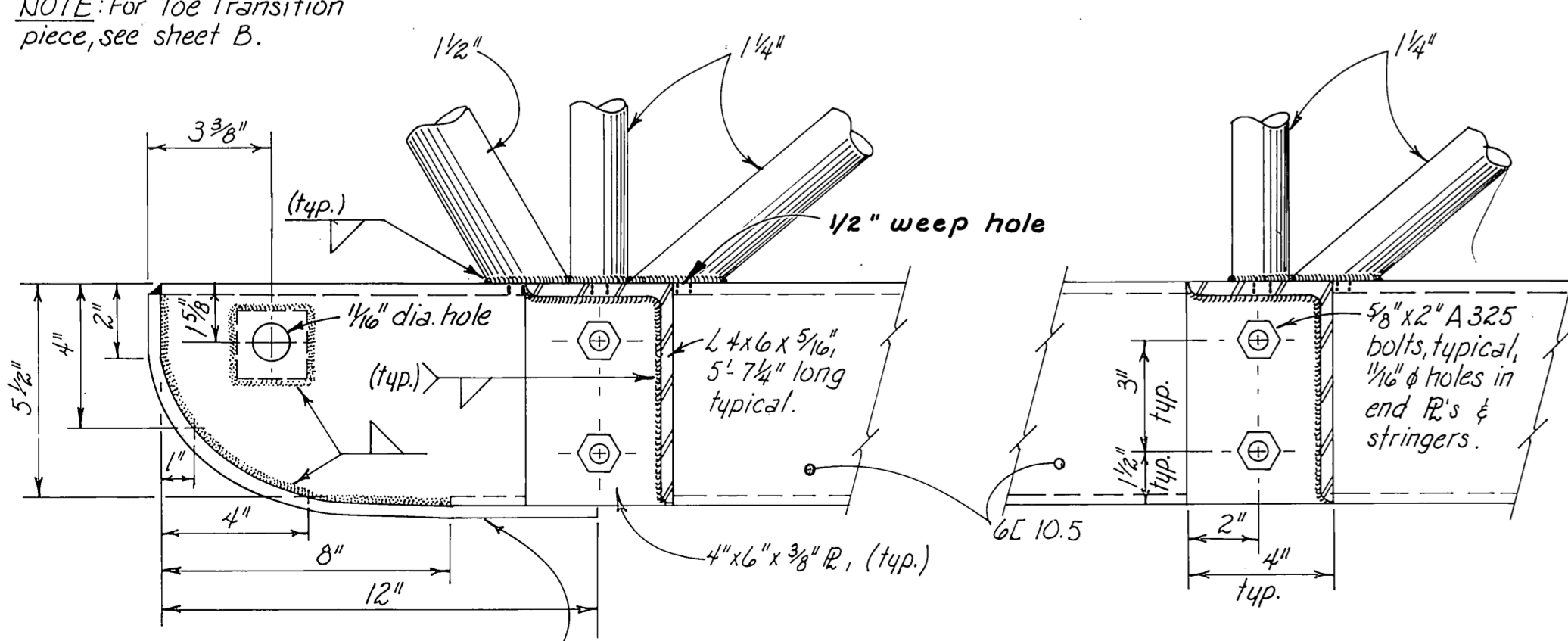
**GANGWAY HEAD DETAILS**  
3" = 1'-0"



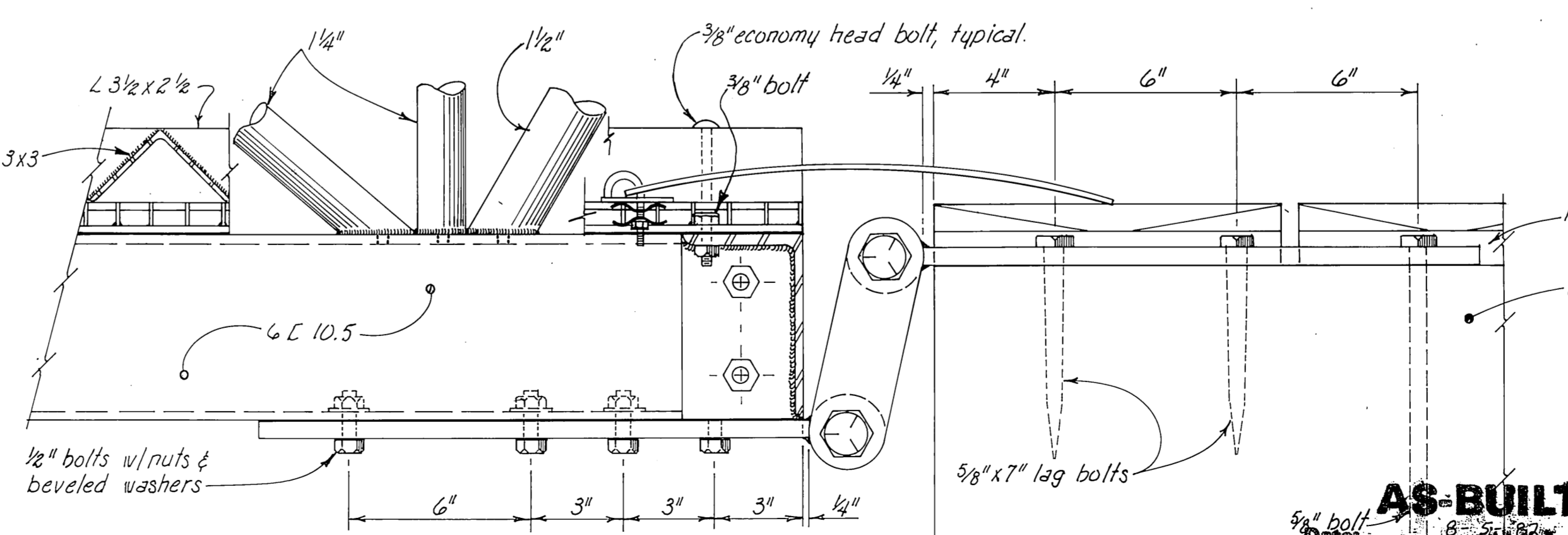
**GUIDE RAIL**  
3" = 1'-0"

- NOTES**
- Design load, 35 psf on gangway or 85 psf on treaded walkway only.
  - All seamless pipe shall conform to ASTM A-53, Grade B or ASTM A-500.
  - All shapes & plates shall conform to ASTM A-36.
  - Trusses shall be shop fabricated & assembled including hangers.
  - Splices shall be held to a minimum and where necessary shall be made in a manner that will not reduce the strength of the truss.
  - No tubing or channel splices will be permitted within 10' of the center of the truss structure.
  - Trusses & transverse beams shall be hot dipped galvanized after fabrication and in accordance with ASTM A-23, A-384, A-385 & A-386.
  - All steel hardware & fasteners shall be hot dipped galvanized in accordance with ASTM A-153.
  - Decking & deck spacers shall be No.1 grade HEM-FIR penta pressure treated to 0.4 lb. cu. ft. retention and shall be field drilled to match shop drilled holes in transverse members.
  - Assembly shop drawing shall be submitted for approval.
  - 8x8 Gangway stringers to be S4S penta treated to 0.4 lbs. cu. ft. retention.**

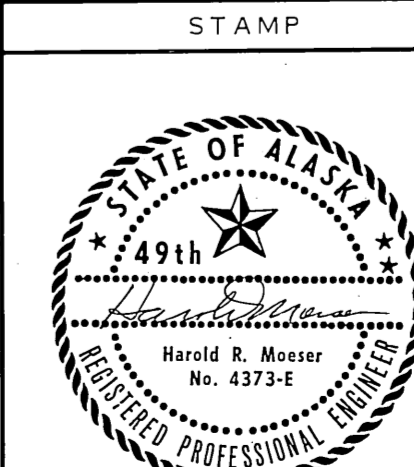
NOTE: For Toe Transition piece, see sheet B.



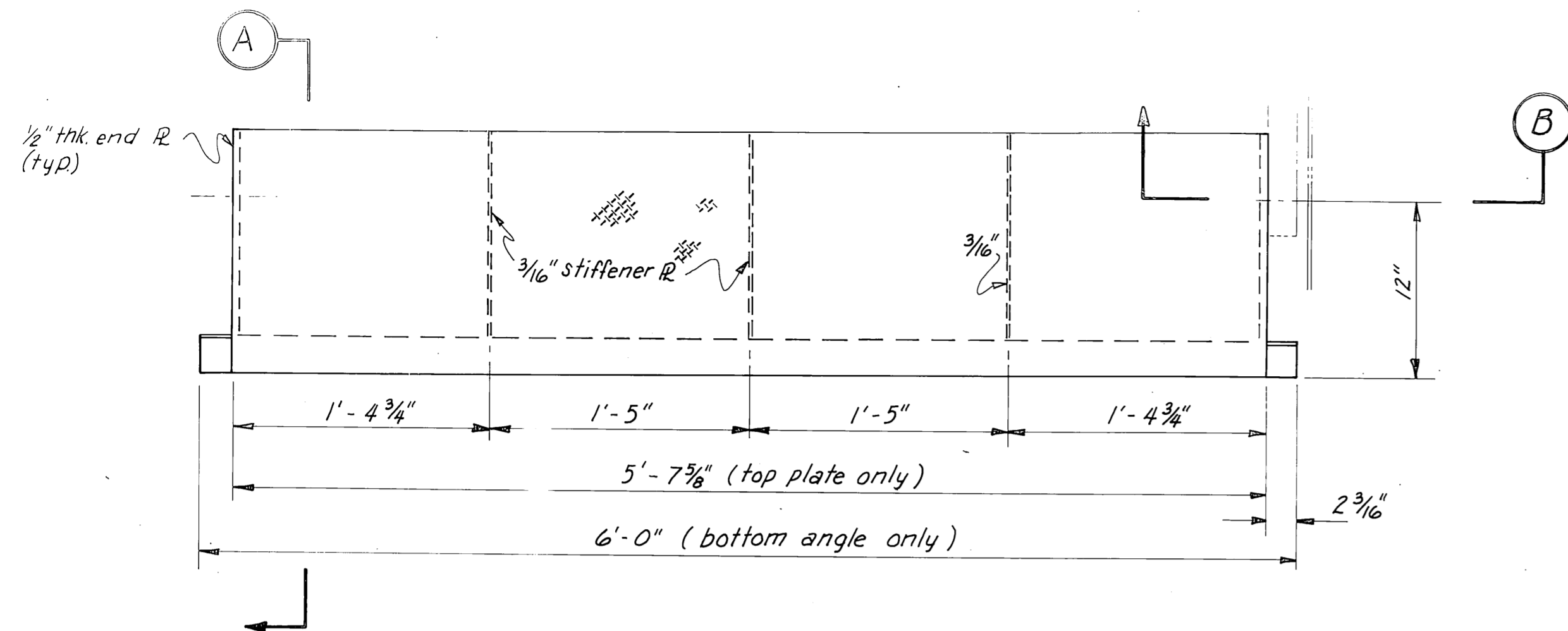
**SECTIONAL ELEVATIONS**  
3" = 1'-0"



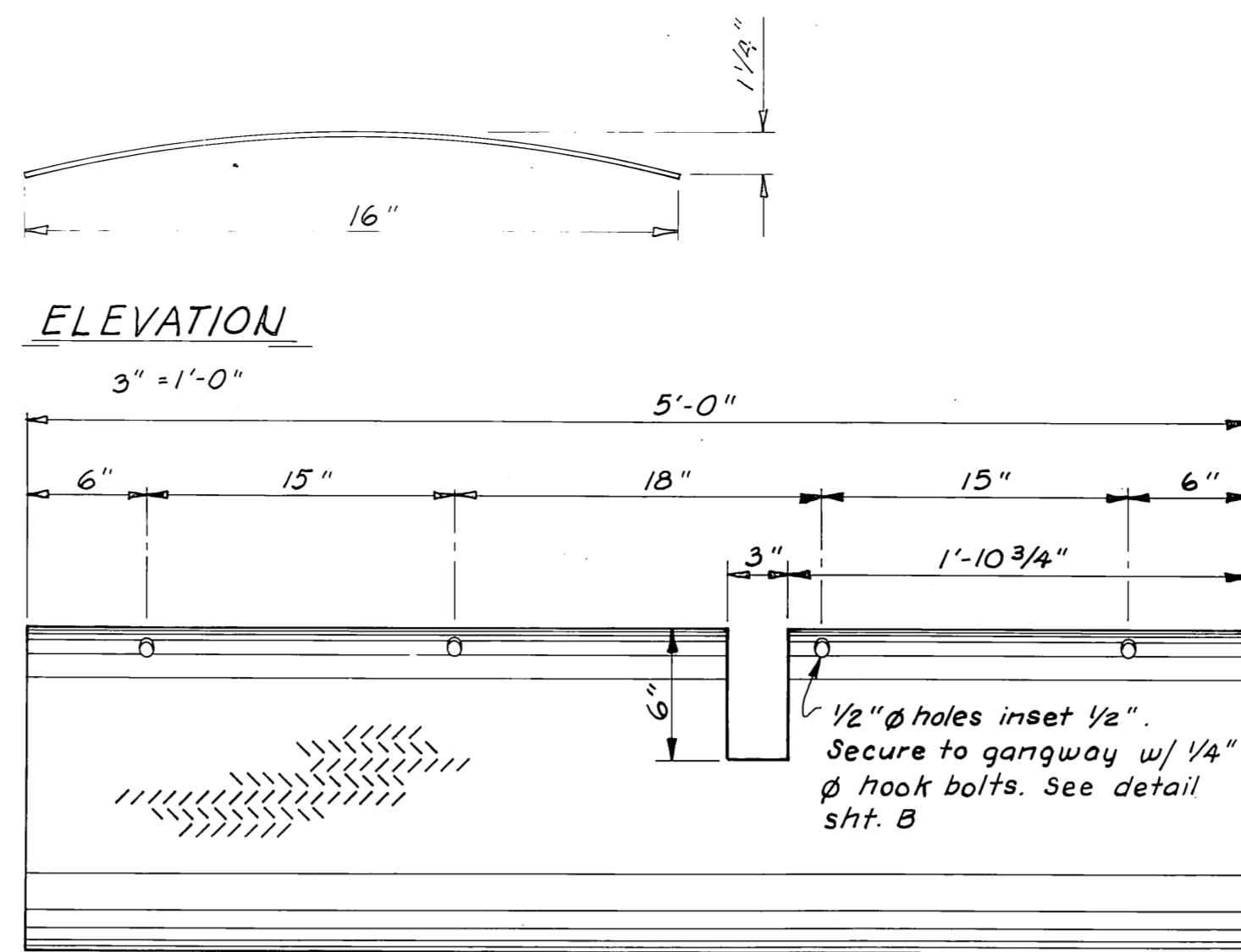
**AS-BUILT**  
Date: 8-21-1979  
Division of Harbor Design and Construction



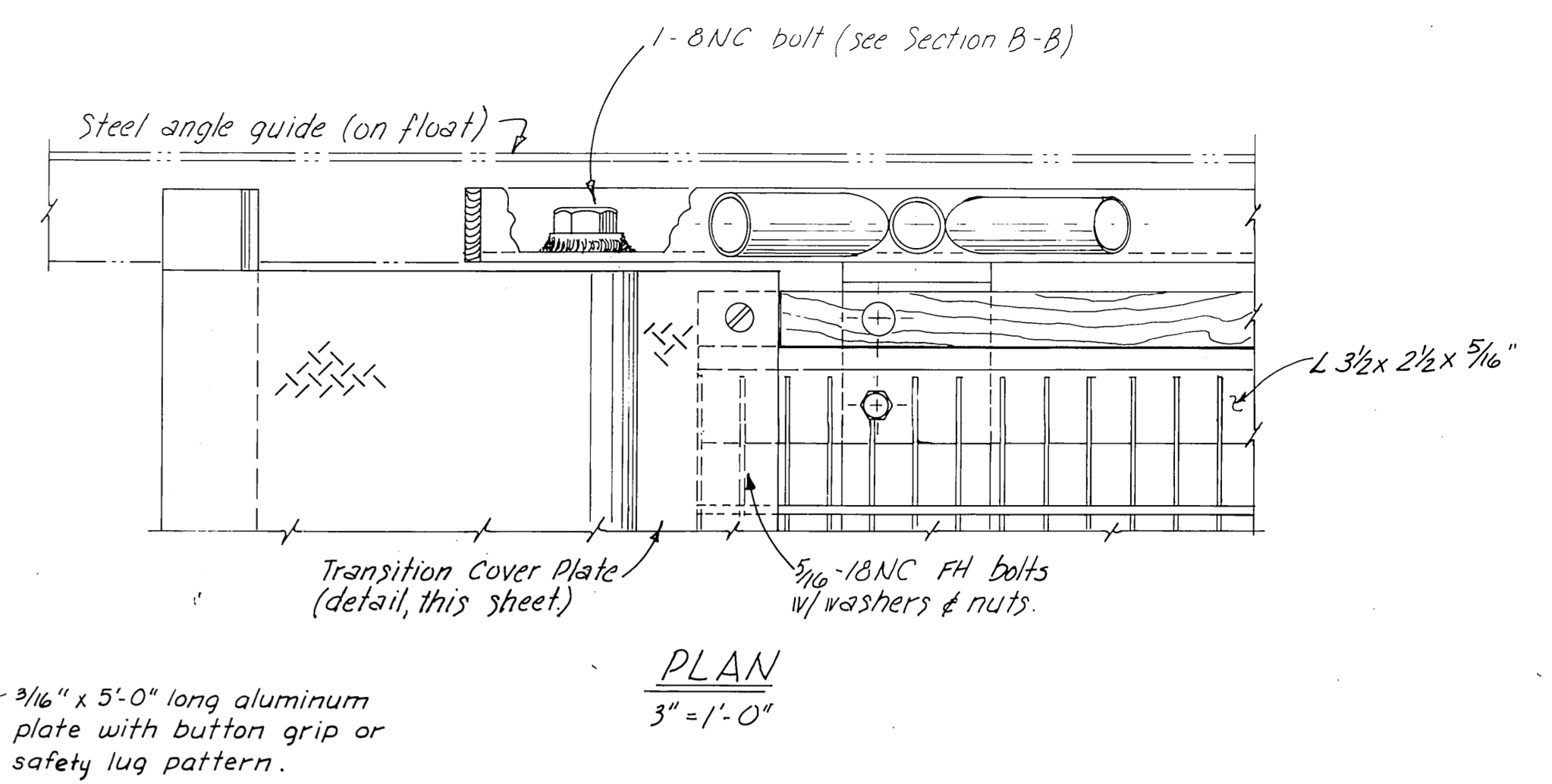
DO NOT SCALE THIS DRAWING - USE DIMENSIONS		
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES DIVISION OF HARBOR DESIGN AND CONSTRUCTION		
EIPin Cove		Alaska
TYPICAL 6'x50'-0" STEEL GANGWAY (SHEET A)		
SCALE As noted	SURVEYED ~	APPROVED
DESIGNED ~	DRAWN GRF	Robert P. Beck
CHECKED ~	DATE Dec. 1979	CHIEF OF DESIGN
PROJECT NUMBER K-31107	SHEET 6 OF 7	



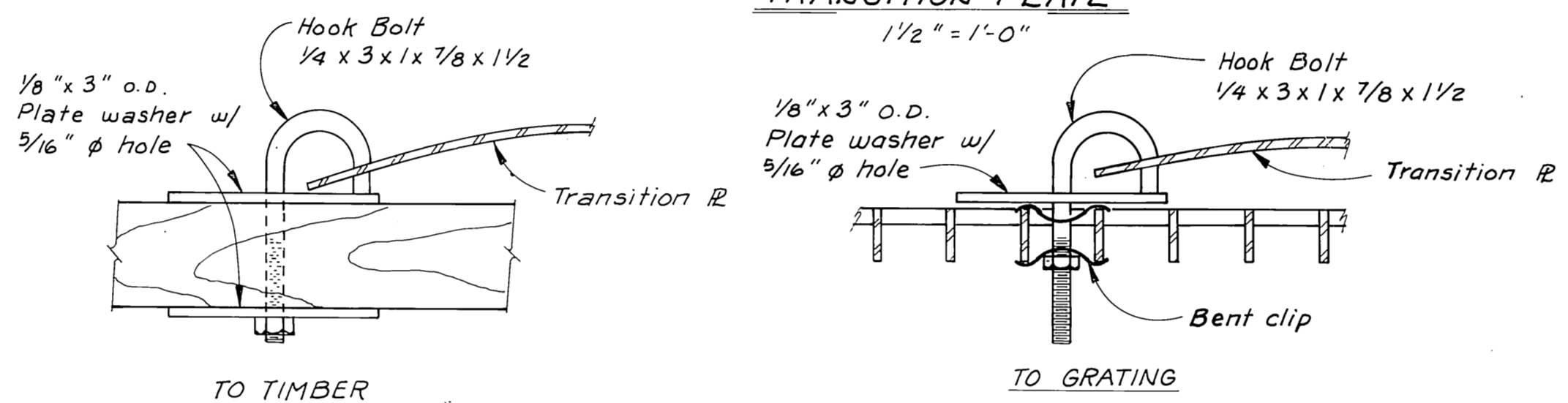
**PLAN VIEW**  
1/2" = 1'-0"



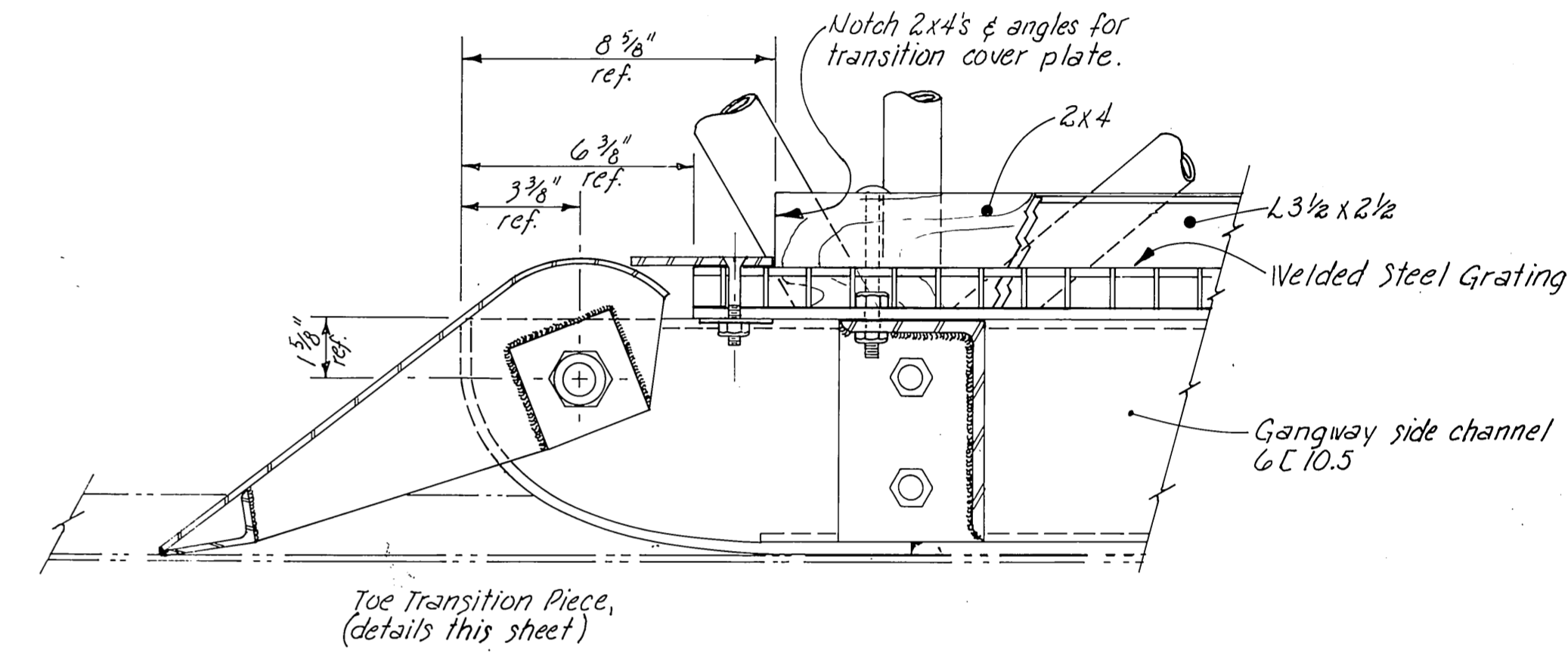
**ELEVATION**  
3" = 1'-0"



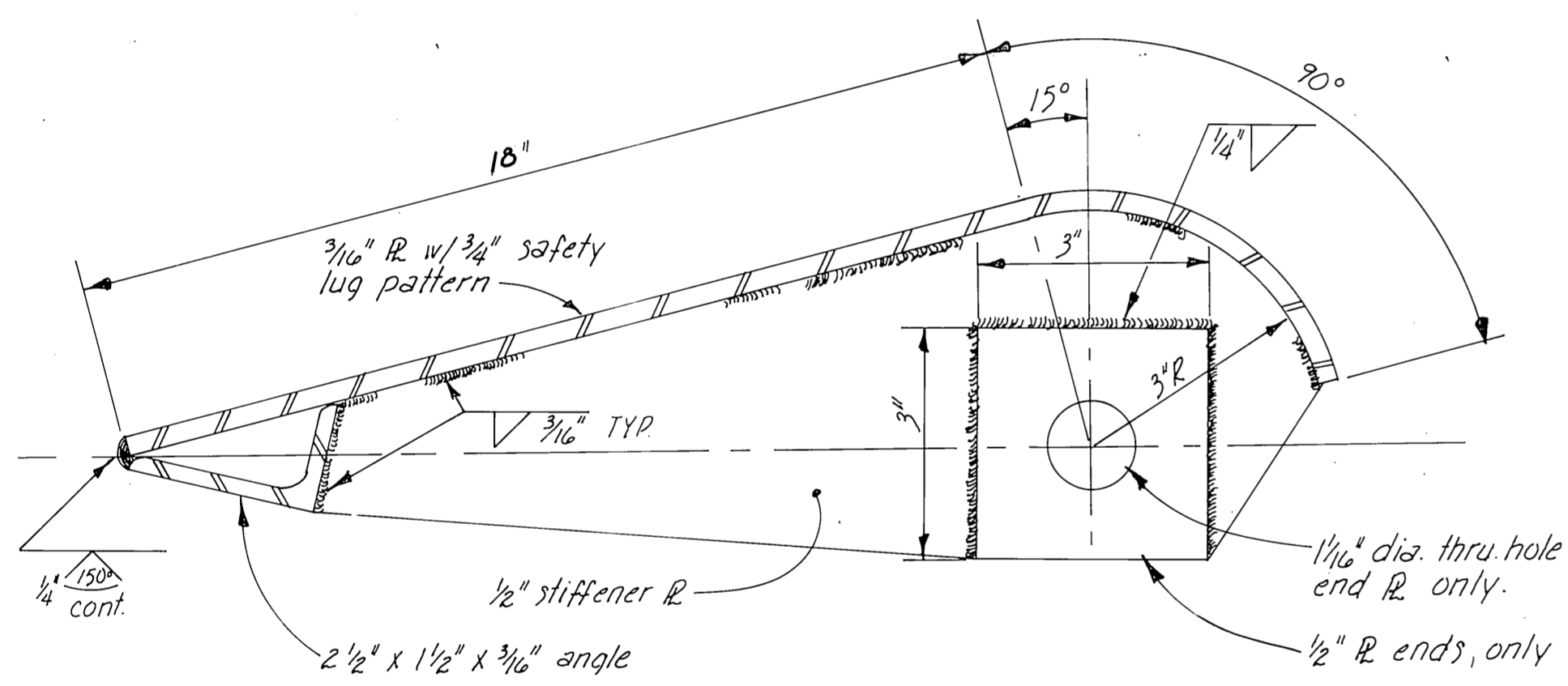
**PLAN**  
3" = 1'-0"



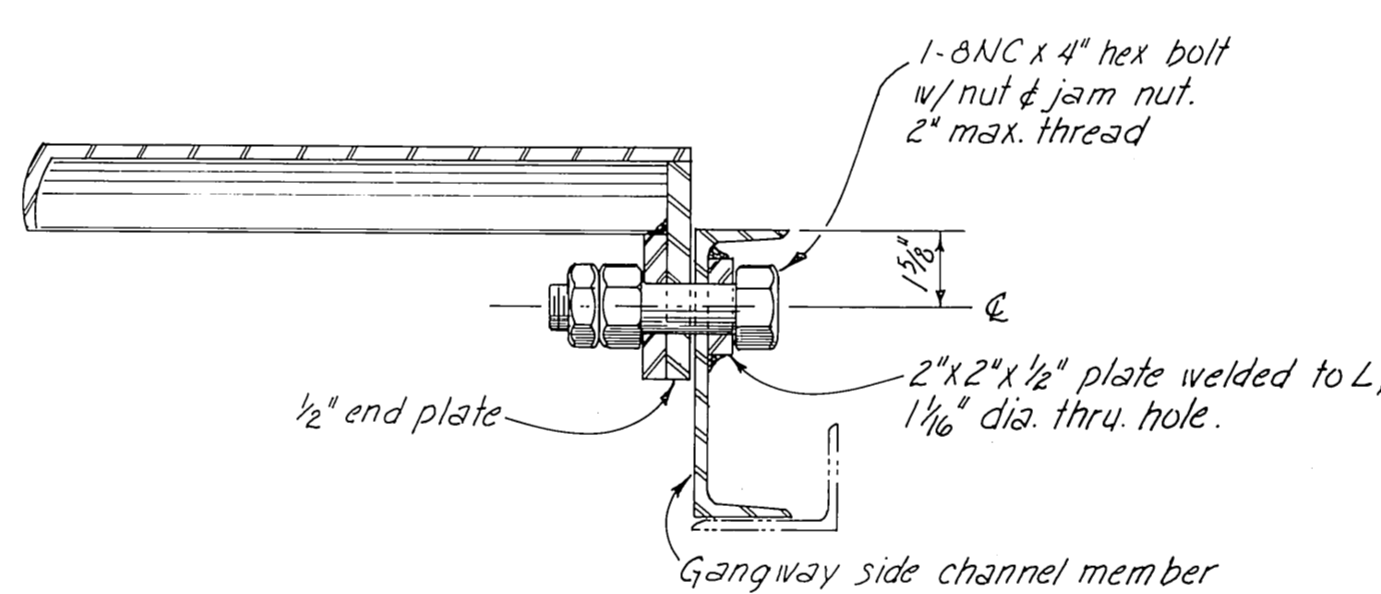
**TRANSITION PLATE CONNECTORS**  
1/2" = 1"



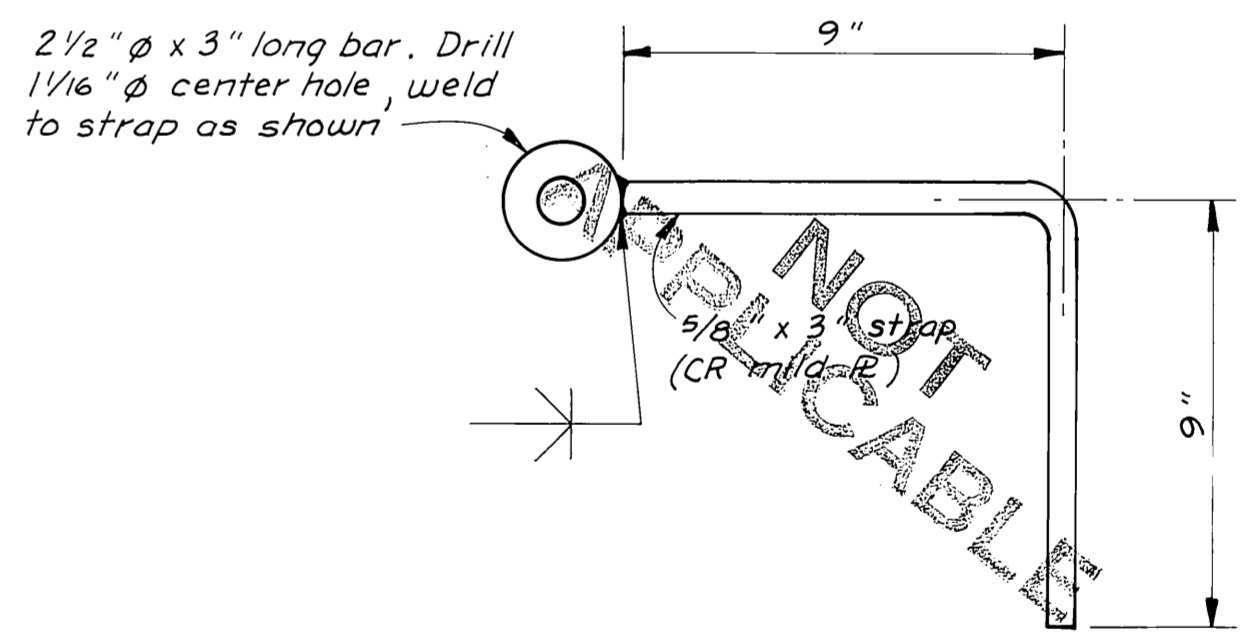
**SECTIONAL ELEVATION**  
3" = 1'-0"  
Assembly Detail



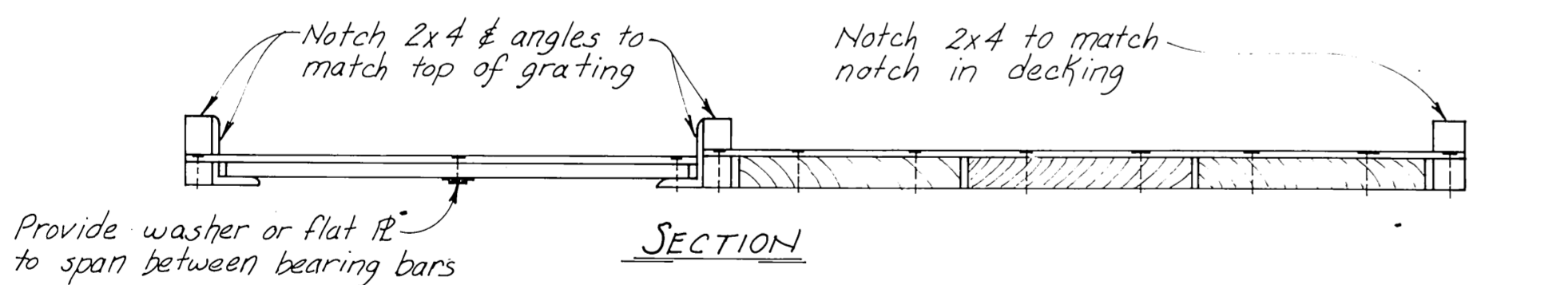
**SECTION A-A**  
HALF SIZE



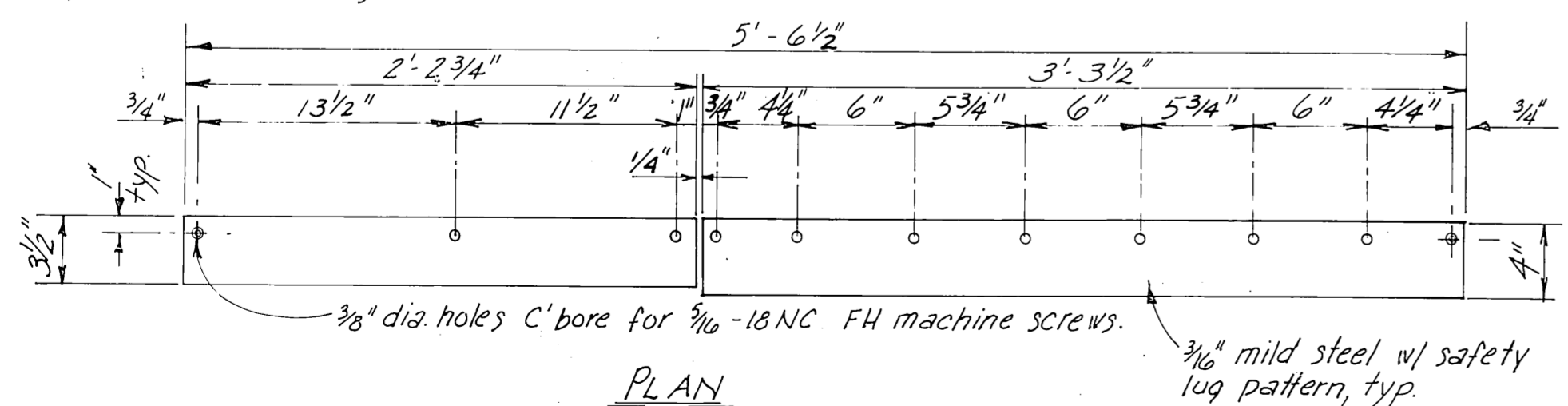
**SECTION B-B**  
3" = 1'-0"  
(Typ. ea end)



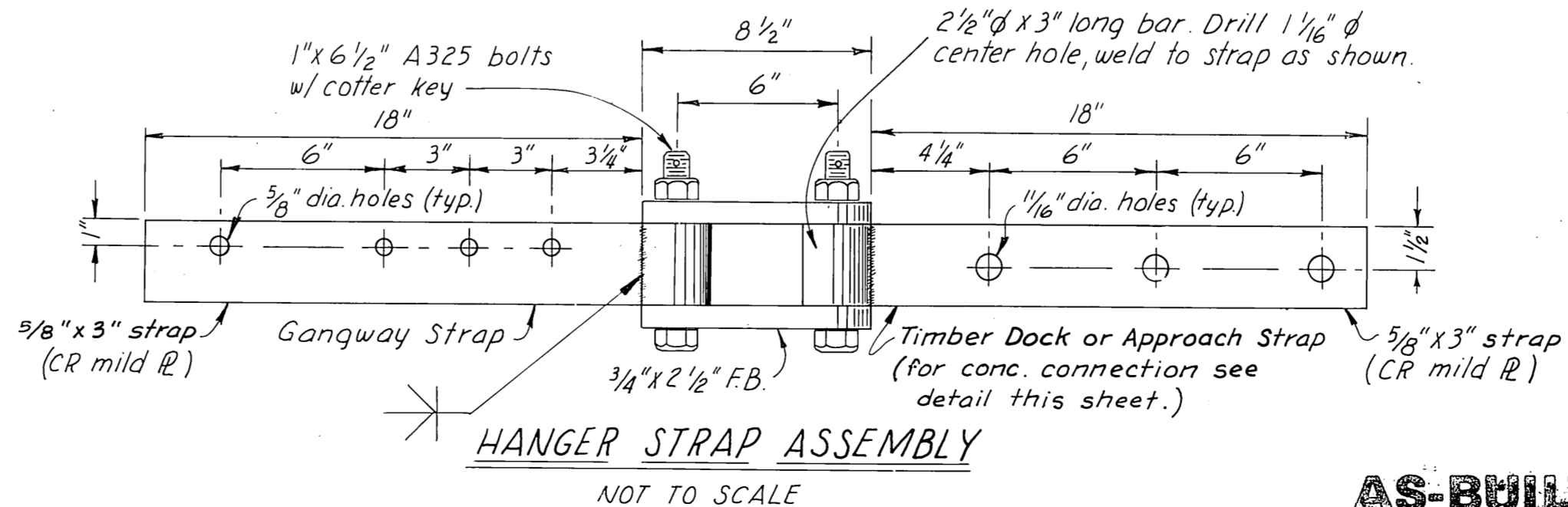
**DOCK or APPROACH STRAP FOR CONCRETE**  
3" = 1'-0"



**SECTION**



**PLAN**  
**TRANSITION COVER PLATES**  
1/2" = 1'-0"



**HANGER STRAP ASSEMBLY**  
NOT TO SCALE

Note:  
For notes pertaining to fabrication and galvanizing, See sht. A

**AS-BUILT**  
Date: 8-5-82  
Division of Harbor Design and Construction



DO NOT SCALE THIS DRAWING - USE DIMENSIONS		
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES DIVISION OF HARBOR DESIGN AND CONSTRUCTION		
Elfin Cove		ALASKA
TYPICAL STEEL GANGWAY (SHEET B)		
SCALE: As Noted	SURVEYED: _____	APPROVED: _____
DESIGNED: _____	DRAWN: GRF	DATE: JAN. 1979
CHECKED: _____	Robert P. Beck CHIEF OF DESIGN	
PROJECT NUMBER: K-31107	SHEET 7 OF 7	