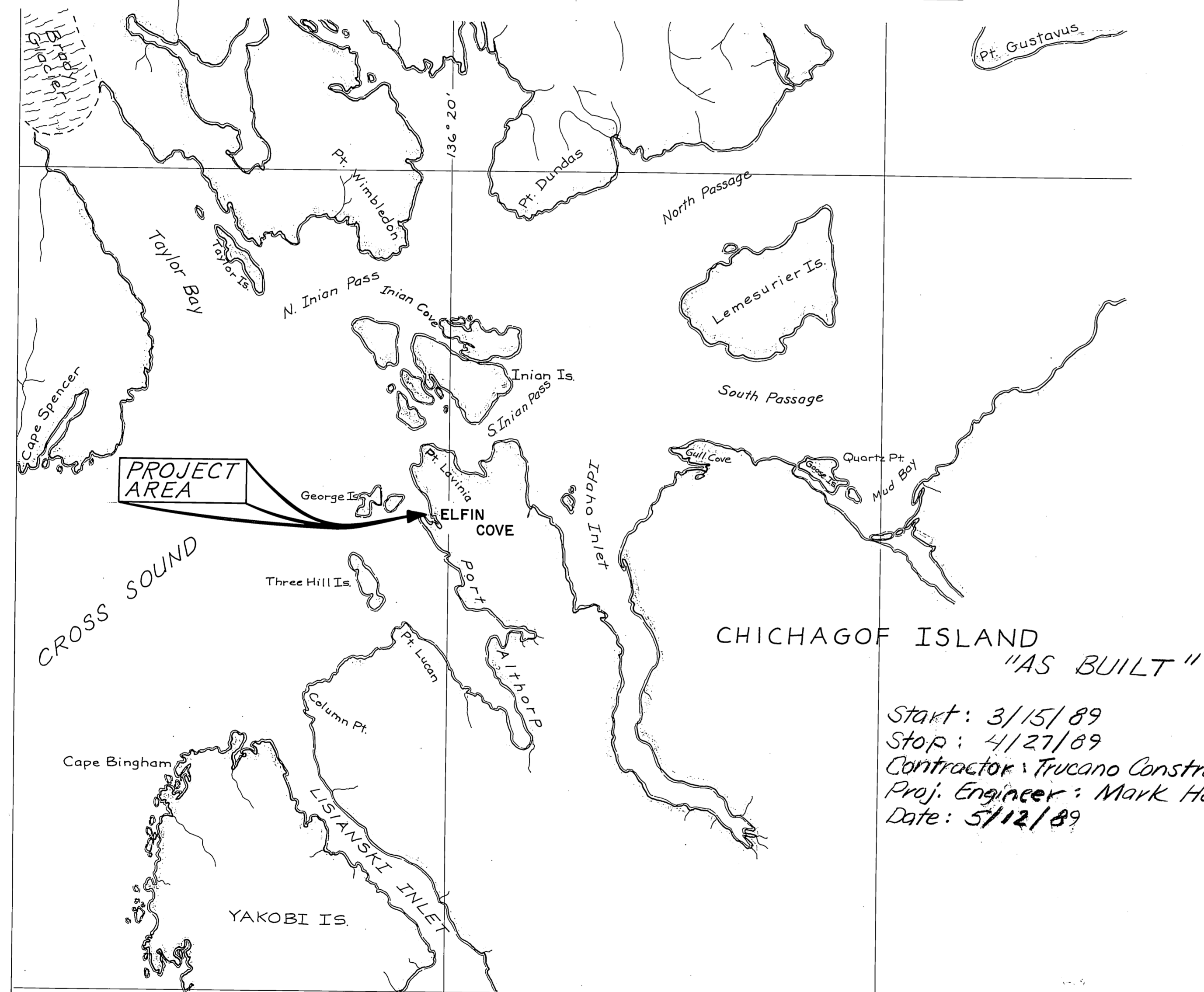


ELFIN COVE GANGWAY

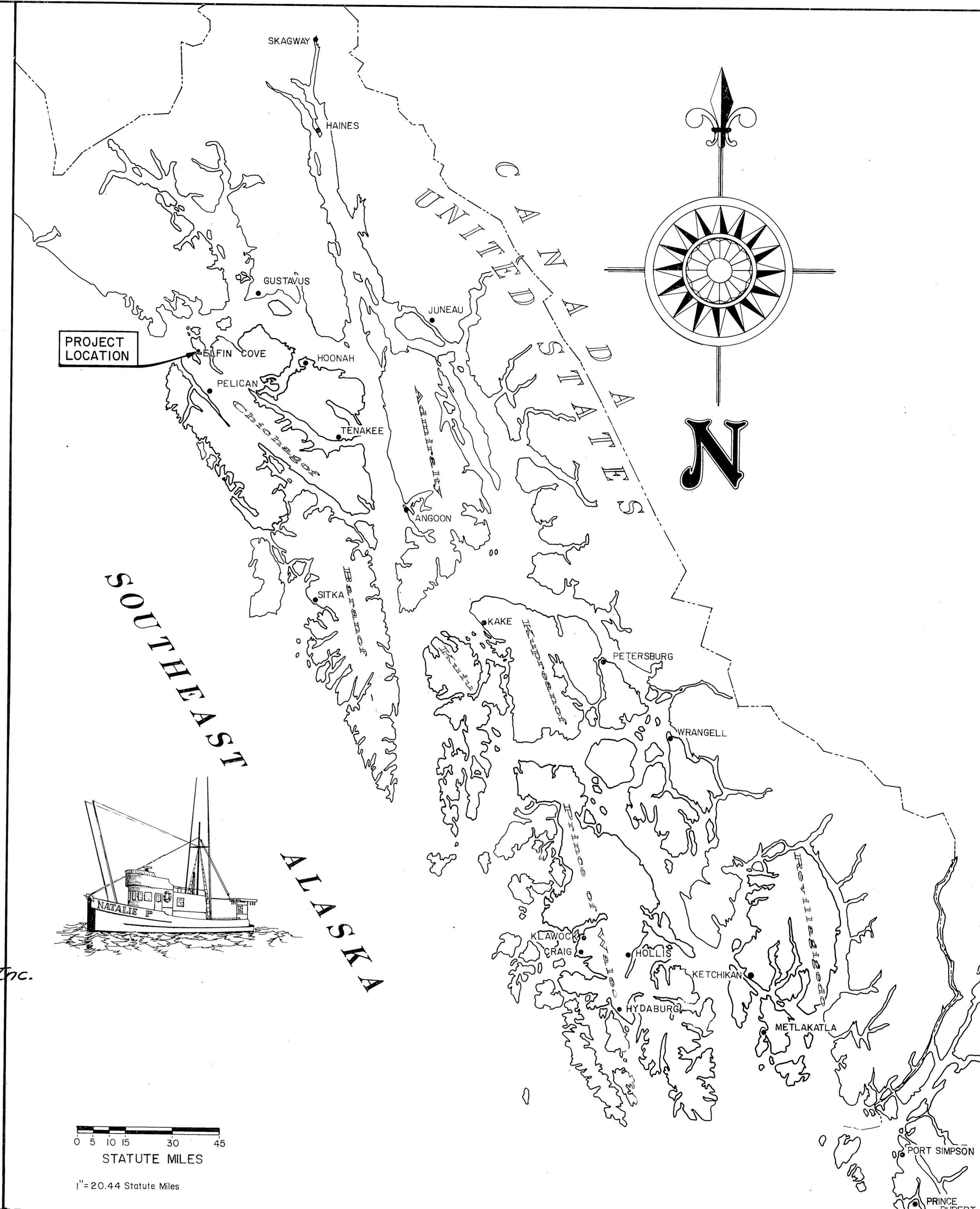
AND FLOAT REPAIRS

PROJECT NO. 69729



Start: 3/15/89
 Stop: 4/27/89
 Contractor: Trucano Construction Co., Inc.
 Proj. Engineer: Mark Halvorsen
 Date: 5/12/89

VICINITY MAP



0 5 10 15 30 45
 STATUTE MILES
 1" = 20.44 Statute Miles

STATE
 OF
 ALASKA

DEPARTMENT OF TRANSPORTATION
 & PUBLIC FACILITIES
 S.E. REGION DESIGN & CONSTRUCTION

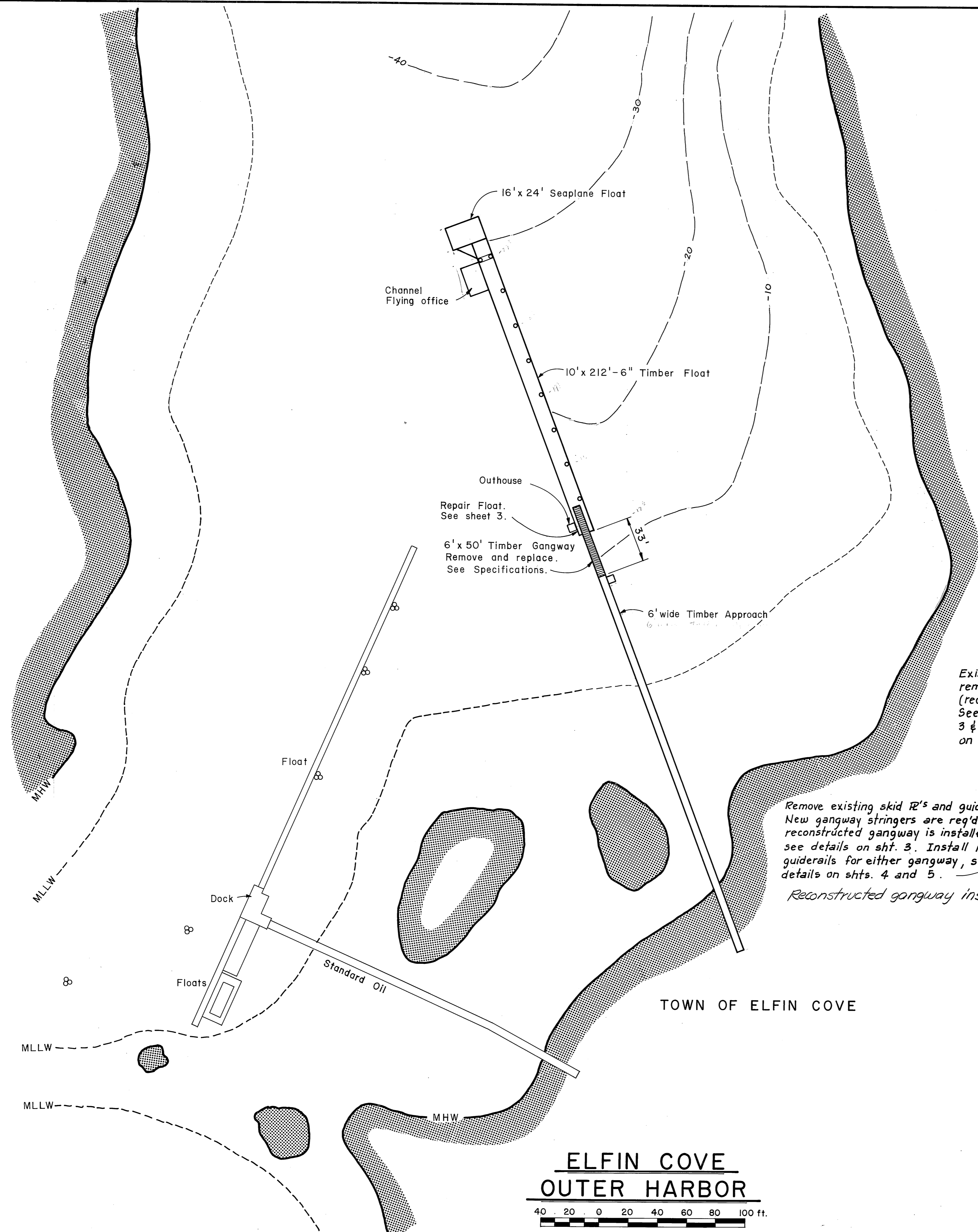
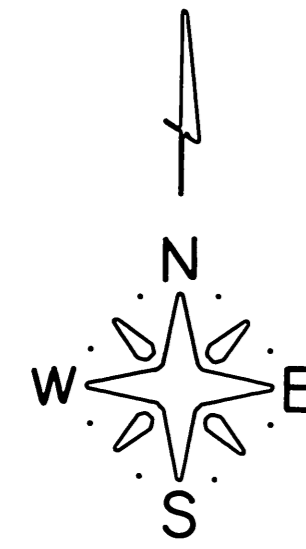
APPROVED
[Signature] 10-3-88
 Director S.E. D.&C. Date
 Recommend
 for Approval
[Signature] 10-3-88
 Design Chief Date

SHEET 1 of 6

INDEX TO SHEETS

NO.	TITLE	DATE	BY	CHKD.
1.	TITLE SHEET			
2.	PROJECT LAYOUT			
3.	FLOAT REPAIRS & RECONSTRUCTED STEEL GANGWAY DET.			
4.	RECONSTRUCTED STEEL GANGWAY MISC. DETAILS			
5.	NEW 6'x50' STEEL GANGWAY SHT. A			
6.	NEW 6'x50' STEEL GANGWAY SHT. B			

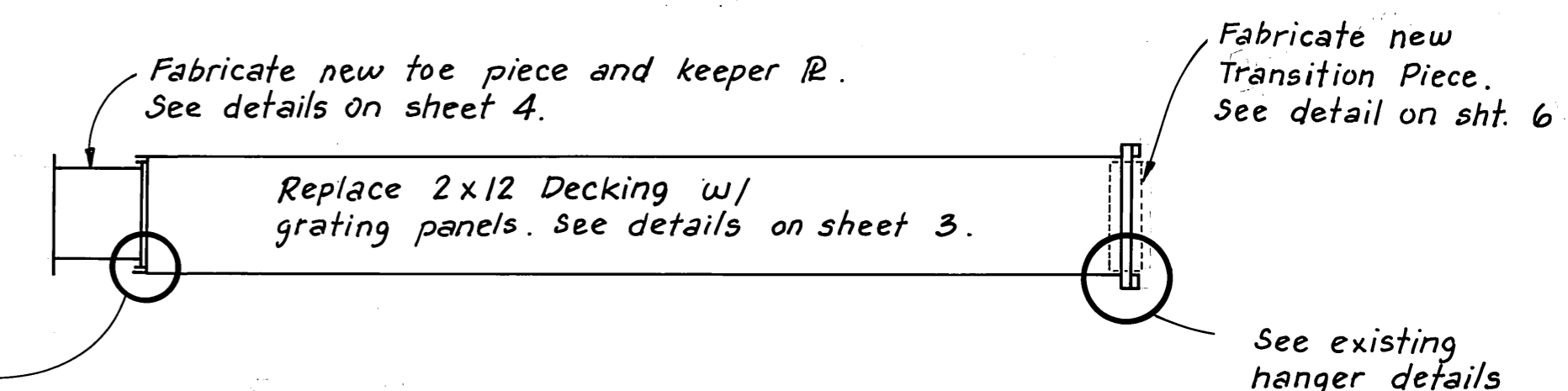
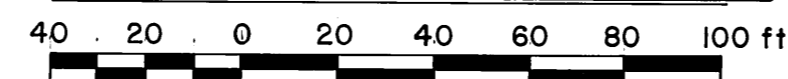
PROJECT & FILE NO.



CHICHAGOF ISLAND

TOWN OF ELFIN COVE

ELFIN COVE
OUTER HARBOR



RECONSTRUCT STATE FURNISHED STEEL GANGWAY

Replace roller axle and U bolts. See details on sheet 4.

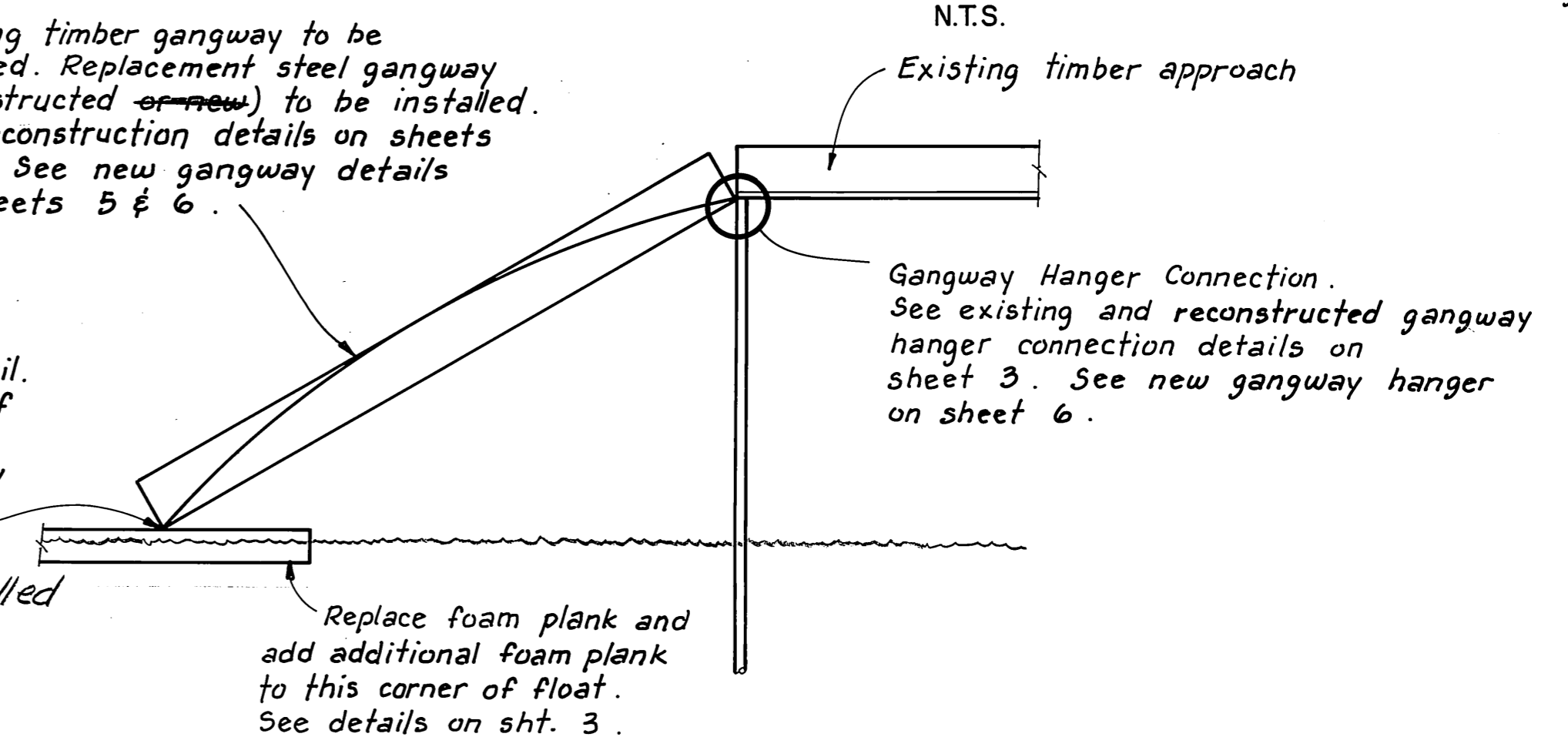
Replace 2x12 Decking w/ grating panels. See details on sheet 3.

See existing hanger details and hanger modification details on sheet 4. Typ. ea. side of gangway

Existing timber gangway to be removed. Replacement steel gangway (reconstructed or new) to be installed. See reconstruction details on sheets 3 & 4. See new gangway details on sheets 5 & 6.

Remove existing skid @'s and guiderail. New gangway stringers are req'd. if reconstructed gangway is installed, see details on sht. 3. Install new guiderails for either gangway, see details on shts. 4 and 5.

Reconstructed gangway installed



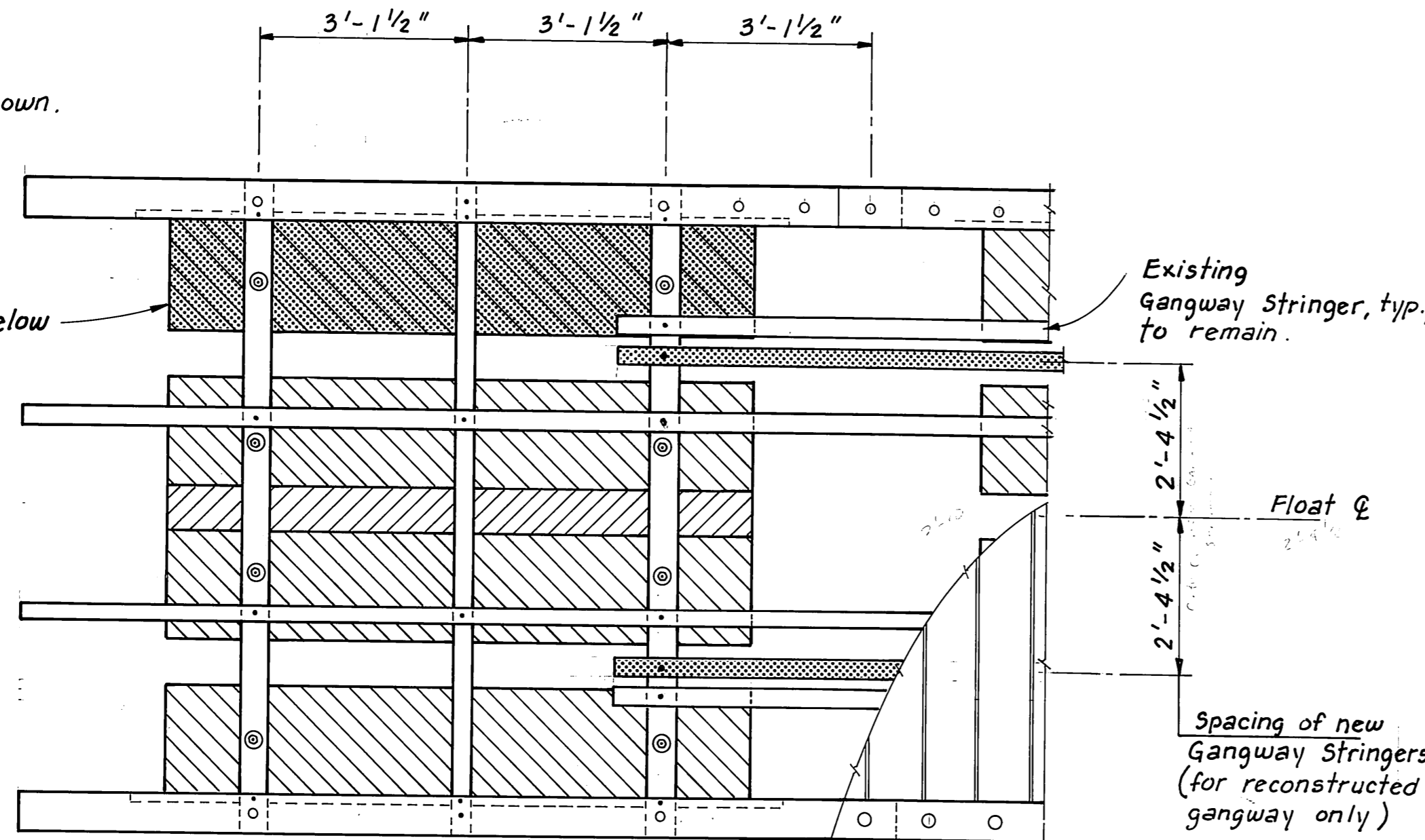
EXISTING STRUCTURES

AS BUILT

	DO NOT SCALE THIS DRAWING - USE DIMENSIONS						
	STATE OF ALASKA						
	DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES						
	ELFIN COVE		ALASKA				
PROJECT LAYOUT							
DESIGNED	JDB	CHECKED	JDB	DRAWN	TS	DATE	SEPT. 1988
PROJECT NUMBER	69729		SHEET	2	OF	6	

Note:
Outhouse not shown.

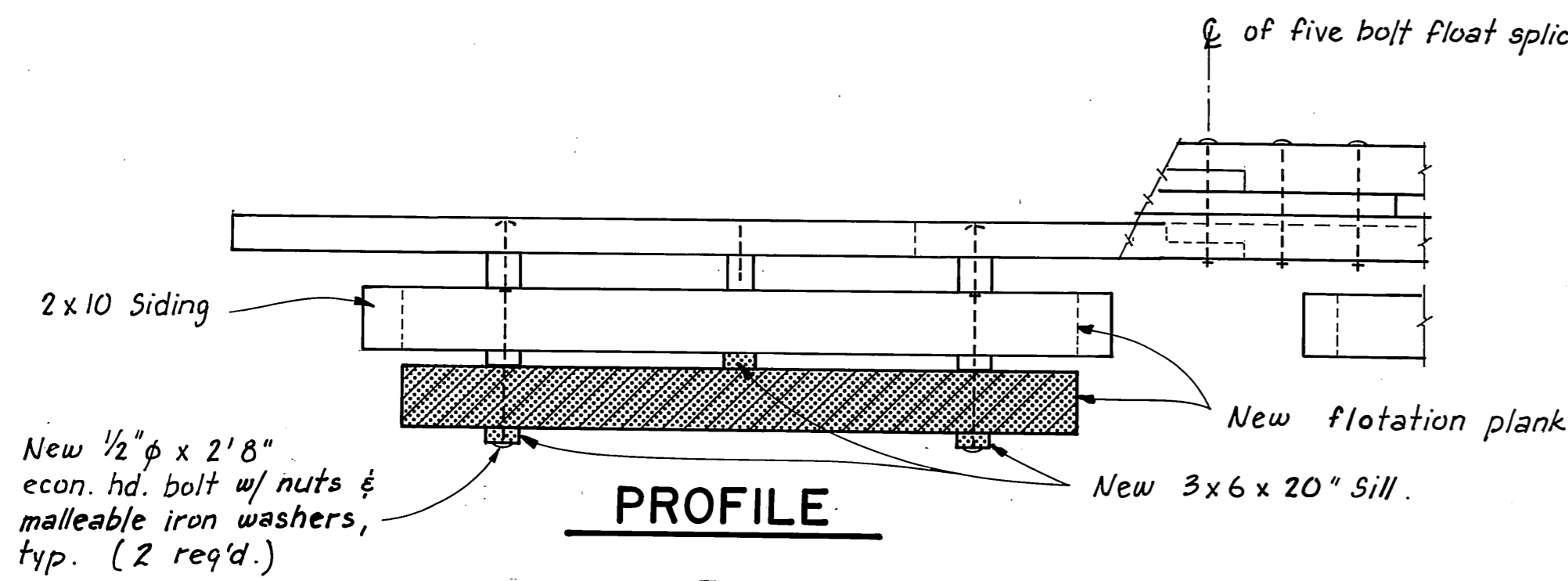
Replace existing flotation plank and add second plank below



PLAN

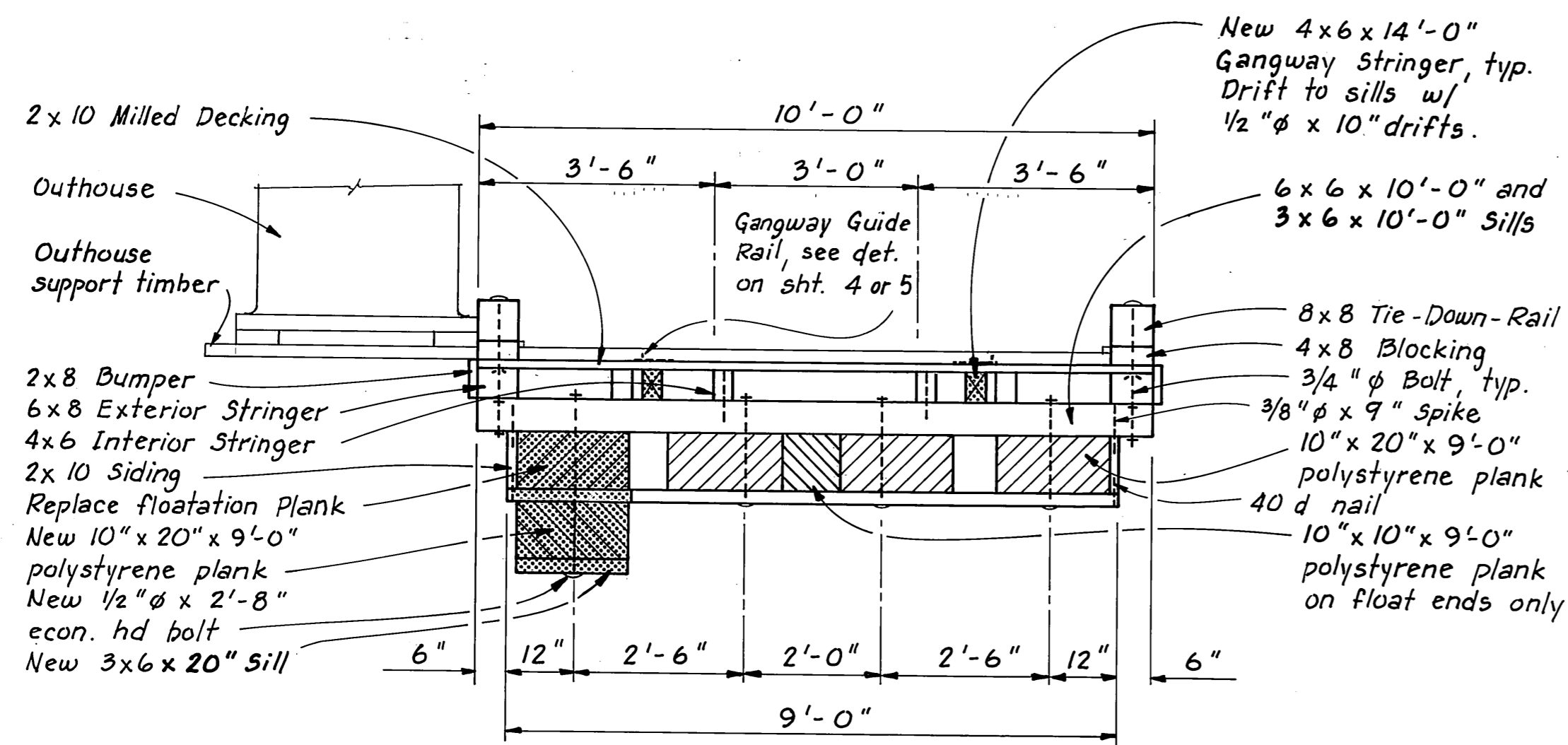
South end of float

NOTE:
Gangway guide rails not shown. See sht. 4 for reconstructed gangway guide rails. See sht. 5 for guide rails for new gangway. Reconstructed gangway installed



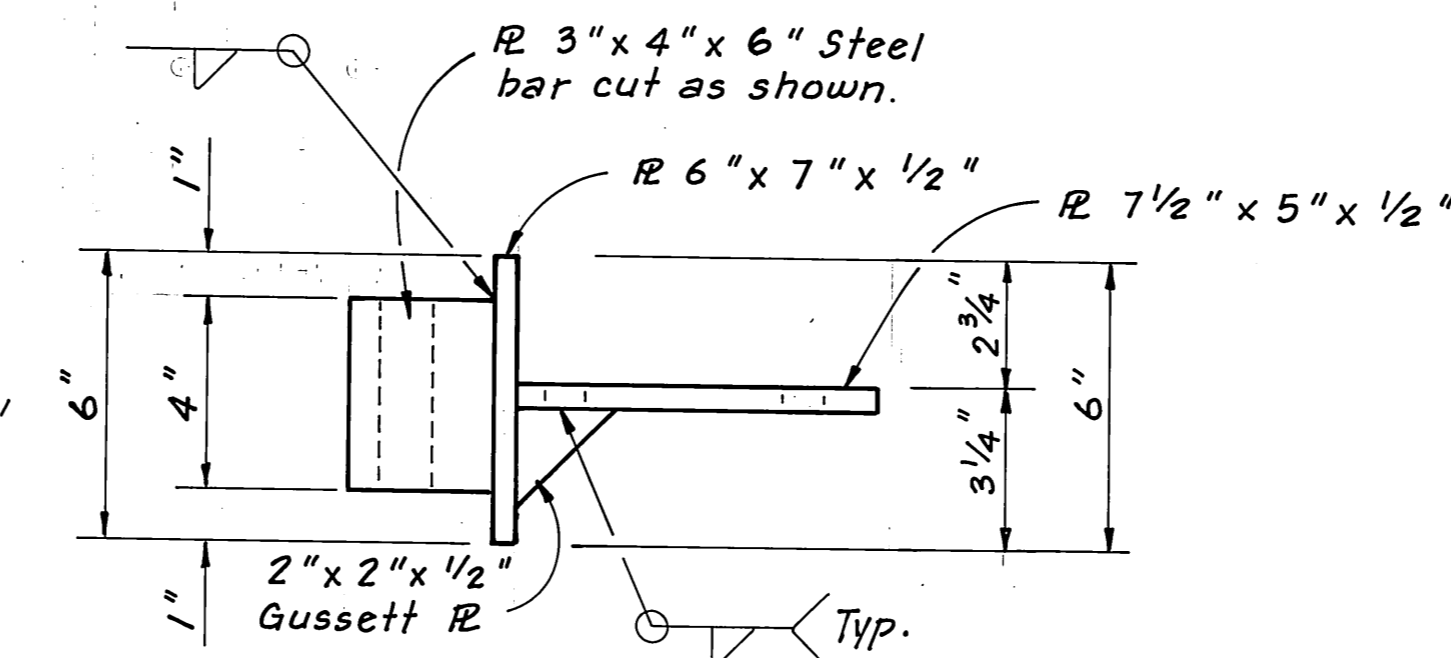
PROFILE

New 1/2" φ x 2'-8" econ. hd. bolt w/ nuts & malleable iron washers, typ. (2 req'd.)

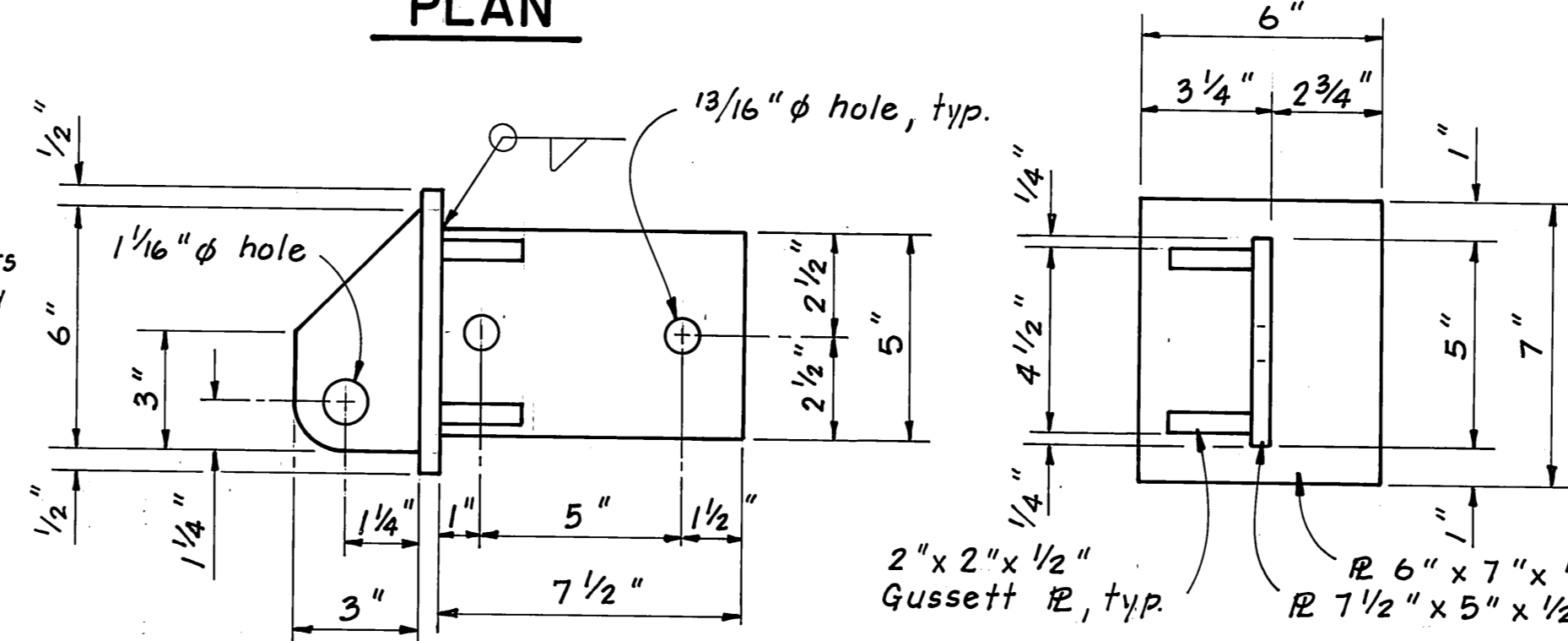


TYPICAL X-SECTION
TIMBER FLOAT DETAILS

Note: New items shown shaded.



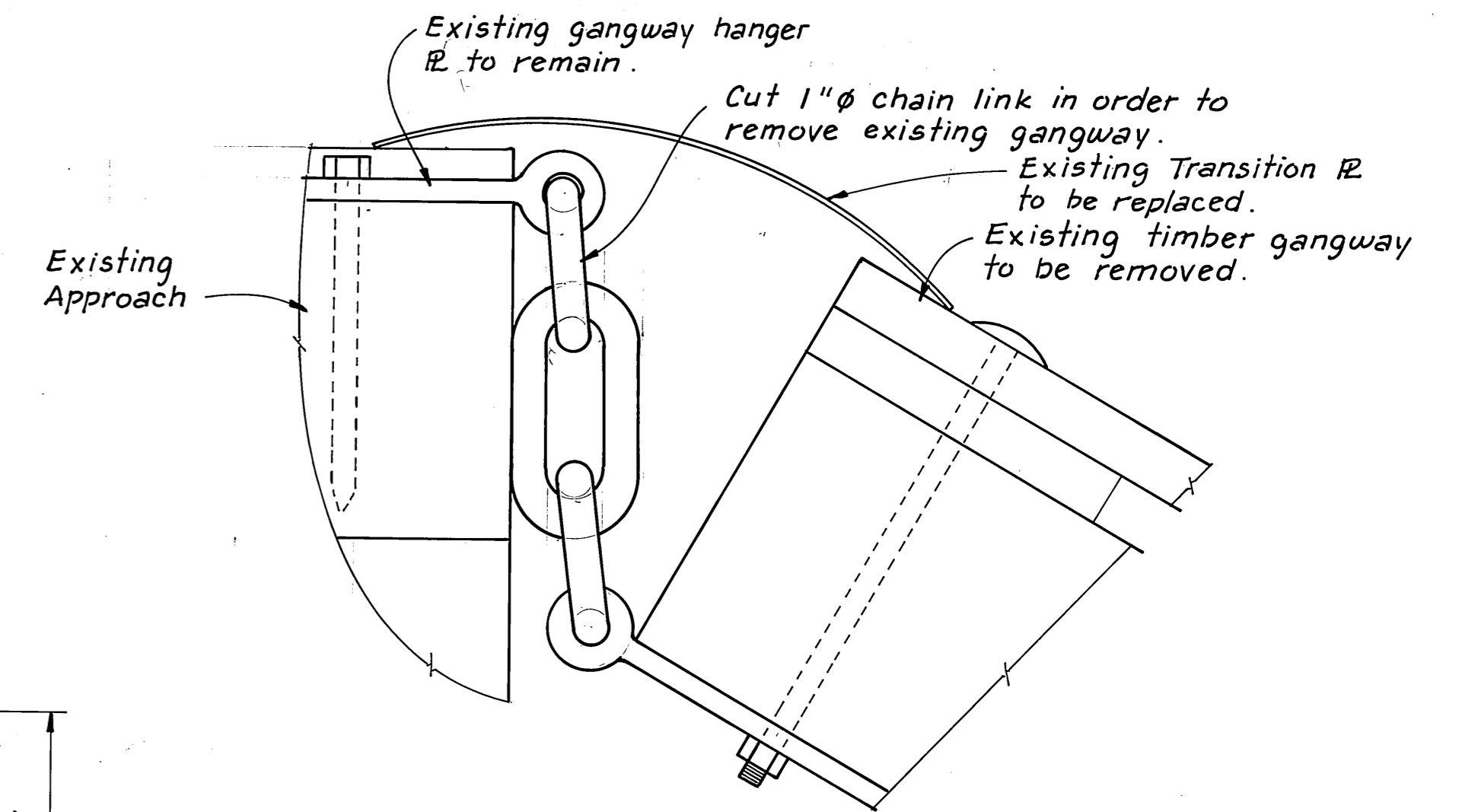
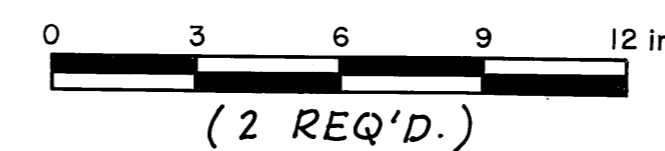
PLAN



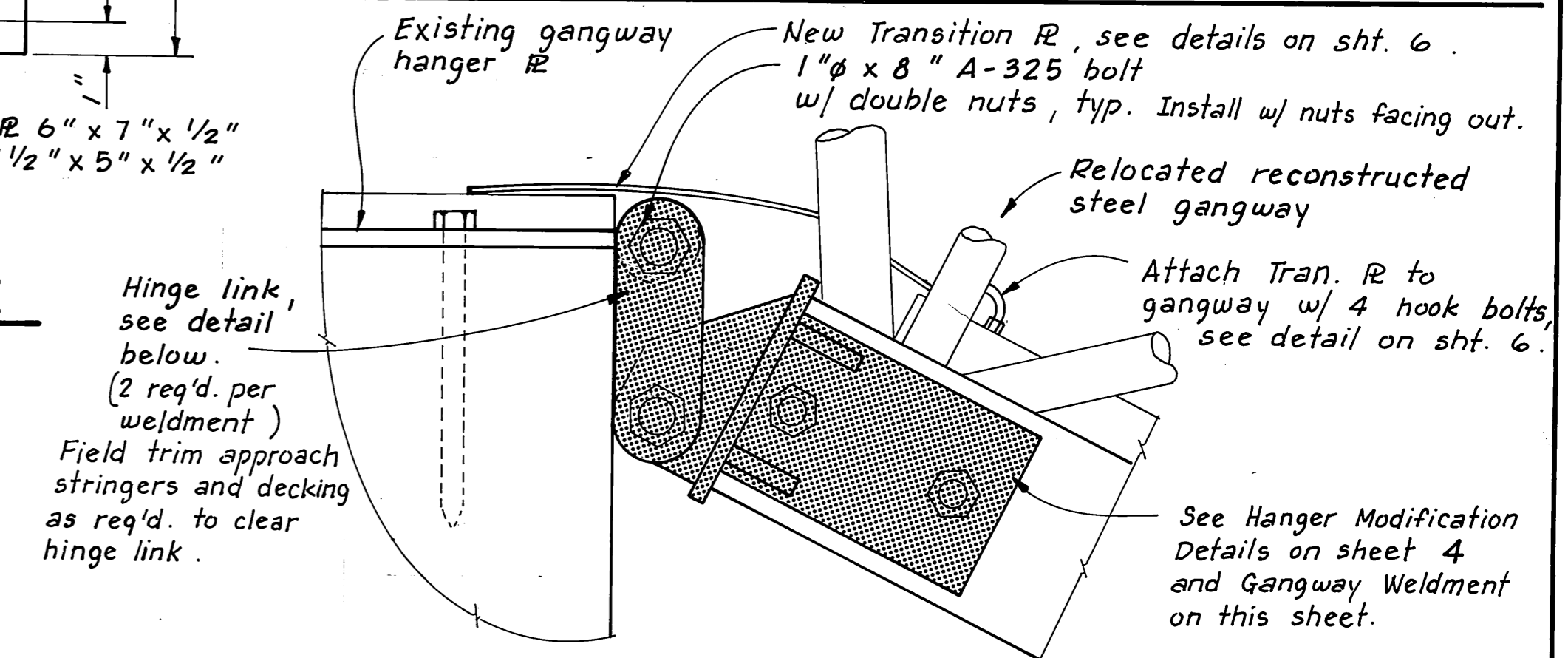
ELEVATION

PROFILE

HANGER WELDMENT



EXISTING TIMBER GANGWAY HANGER CONN.



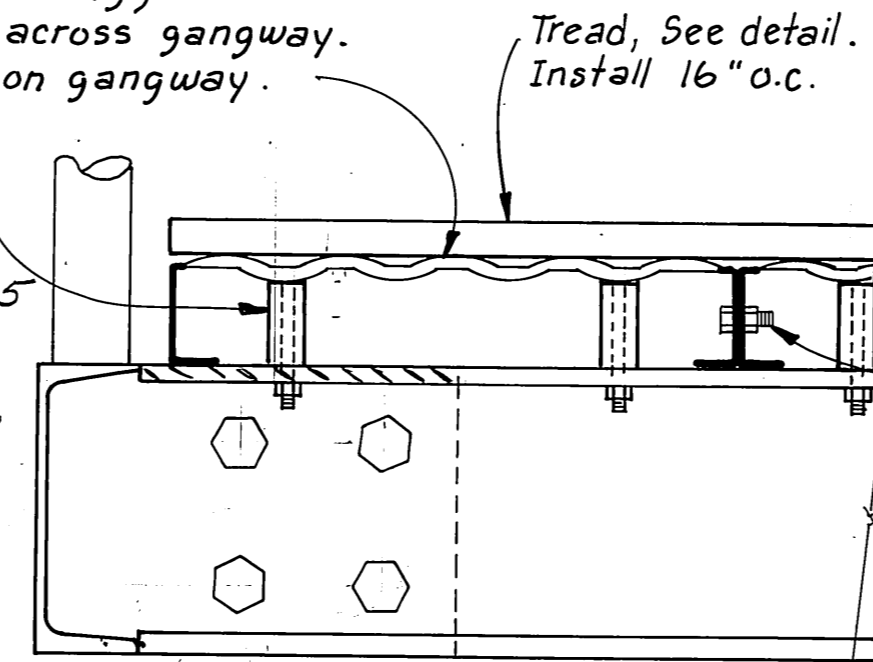
RECONSTRUCTED GANGWAY HANGER CONNECTION

Hinge link, see detail below. (2 req'd. per weldment)
Field trim approach stringers and decking as req'd. to clear hinge link.

See Hanger Modification Details on sheet 4 and Gangway Weldment on this sheet.

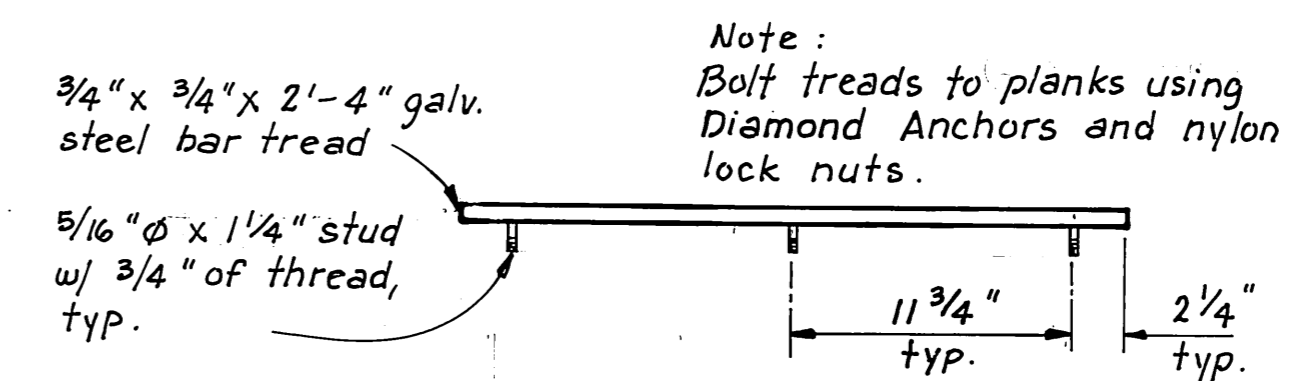
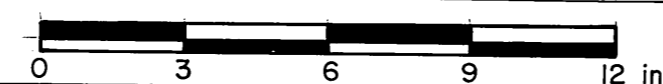
5 diamond, 1 3/4" wide x 2" deep alum. Grip Strut serrated safety grating plank, typ. (20 req'd., 12'-0" long)
Five rows of planks across gangway. Center middle plank on gangway.

1/2" φ sched. 80 pipe had to weld 1/2" thick metal tabs onto C&M 10.5 deck beams - both sides, both ends, all beams for decking support - no top plate existed on beams in these areas.



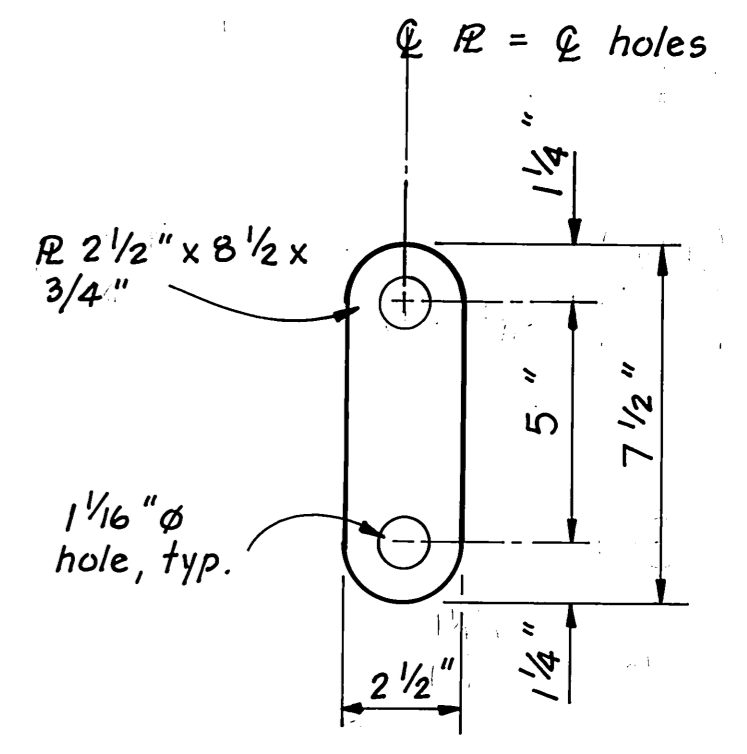
NOTE: Use existing holes in deck beams where possible. Where necessary field drill 3/8" φ holes in deck beams. Secure grating planks to deck beams w/ Diamond Anchors & 5/16" φ carriage hd. bolts w/ square shanks. Field cut 1/2" φ sched. 80 6061-T6 or 6063-T6 alum. pipe sleeves for all carriage bolts at grating plank splices. Cut sleeves appropriate length to resist plank deflection and provide a uniform transition between planks. Alternate deck bolts, one bolt per plank per deck beam, except at splices and ends where two bolts per plank shall be req'd. Use lock nuts on 5/16" φ carriage bolts. Splice new planks at same locations as existing timber decking.

DECKING DETAIL

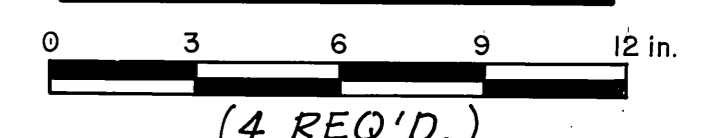


TREAD DETAIL

Bolt panels together every 2'-0" w/ 3/8" φ bolts w/ lock nuts.

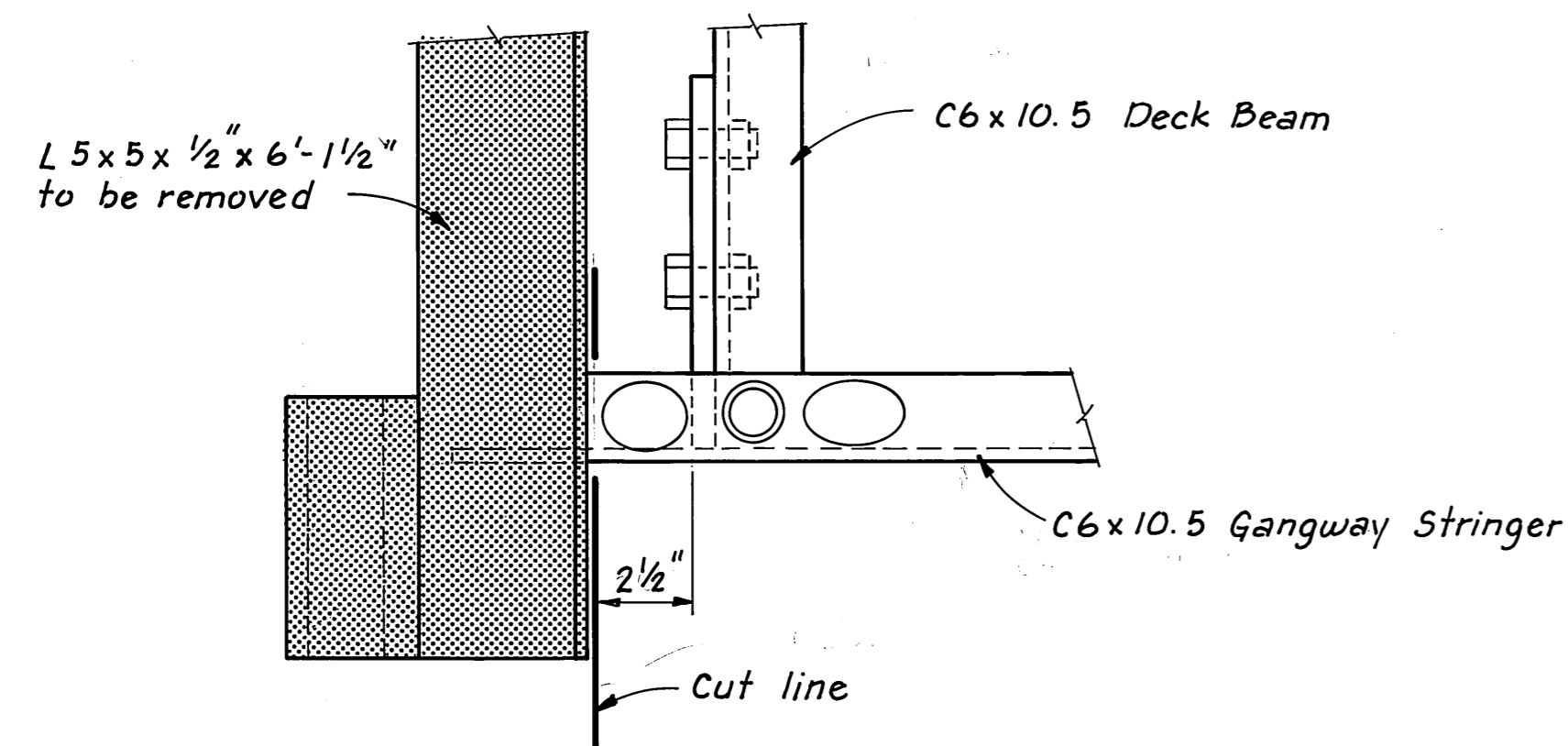


HINGE LINK



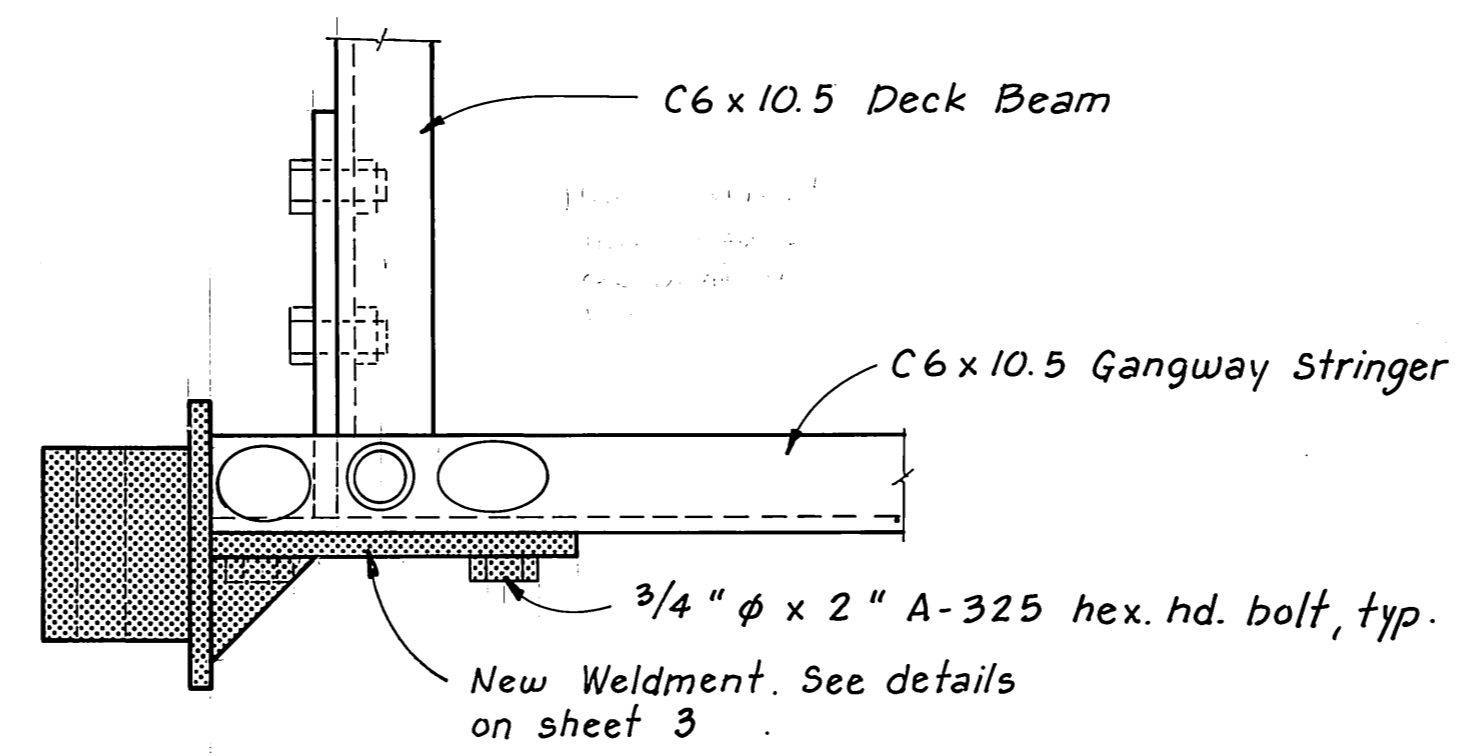
AS BUILT

STAMP		DO NOT SCALE THIS DRAWING - USE DIMENSIONS			
		STATE OF ALASKA			
		DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES			
ELFIN COVE		FLOAT REPAIRS & RECONSTRUCTED STEEL GANGWAY DETAILS		ALASKA	
DESIGNED TS	CHECKED JDB	DRAWN TS	DATE SEPT. 1988		
PROJECT NUMBER 69729	SHEET 3		OF 6		



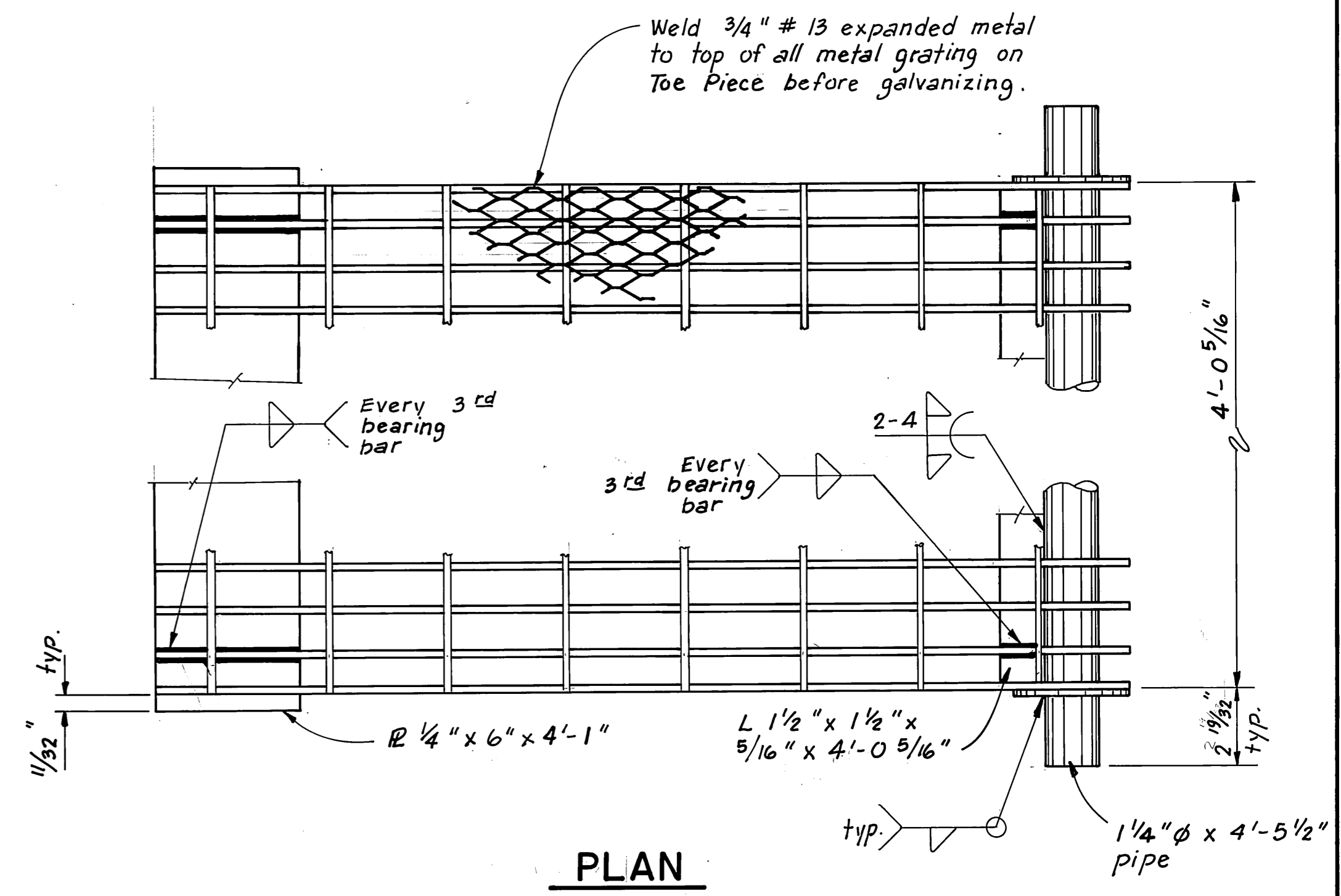
PLAN

PORTIONS OF GANGWAY TO BE REMOVED SHOWN SHADED.



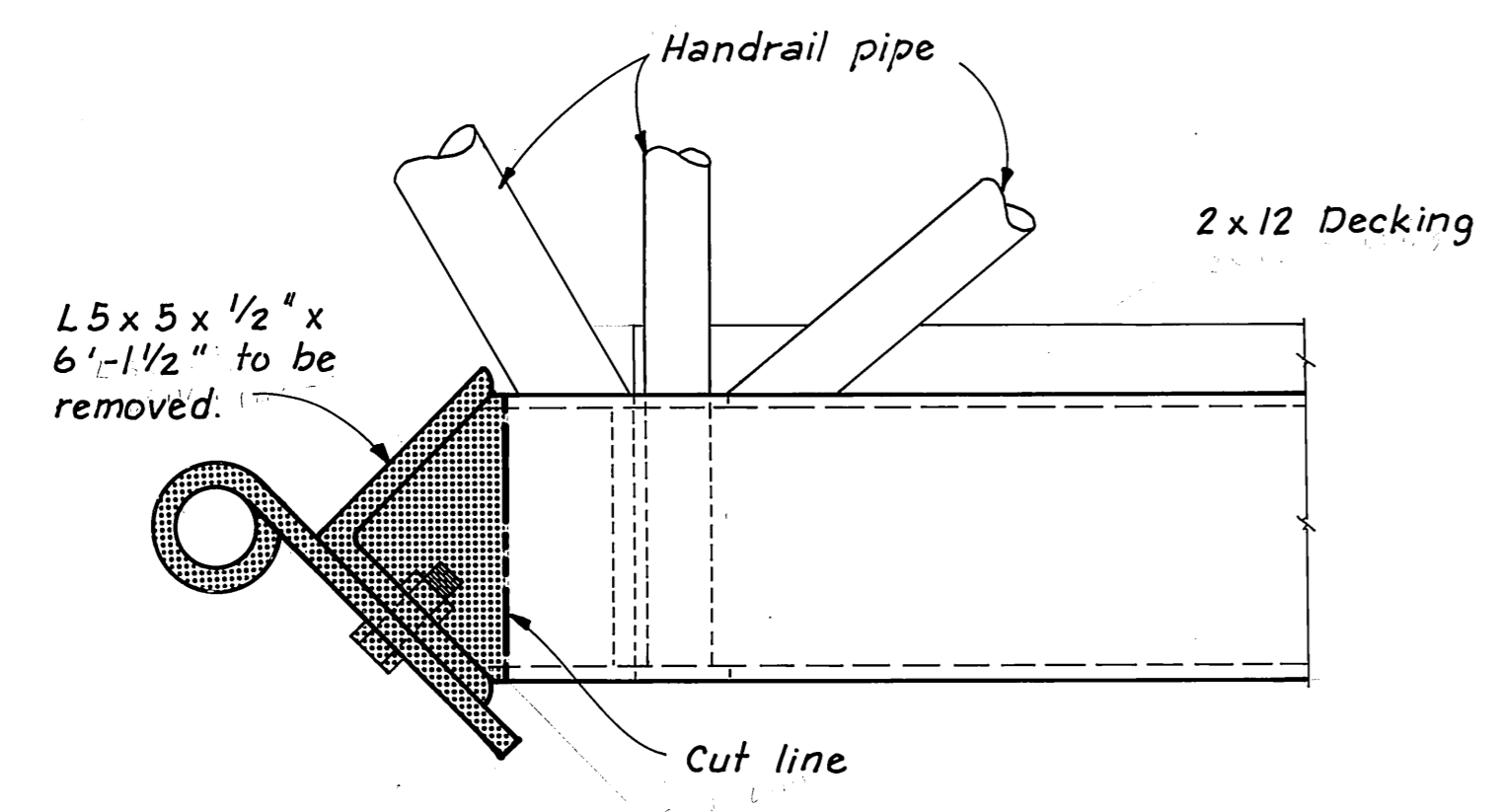
PLAN

NEW WELDMENT SHOWN SHADED



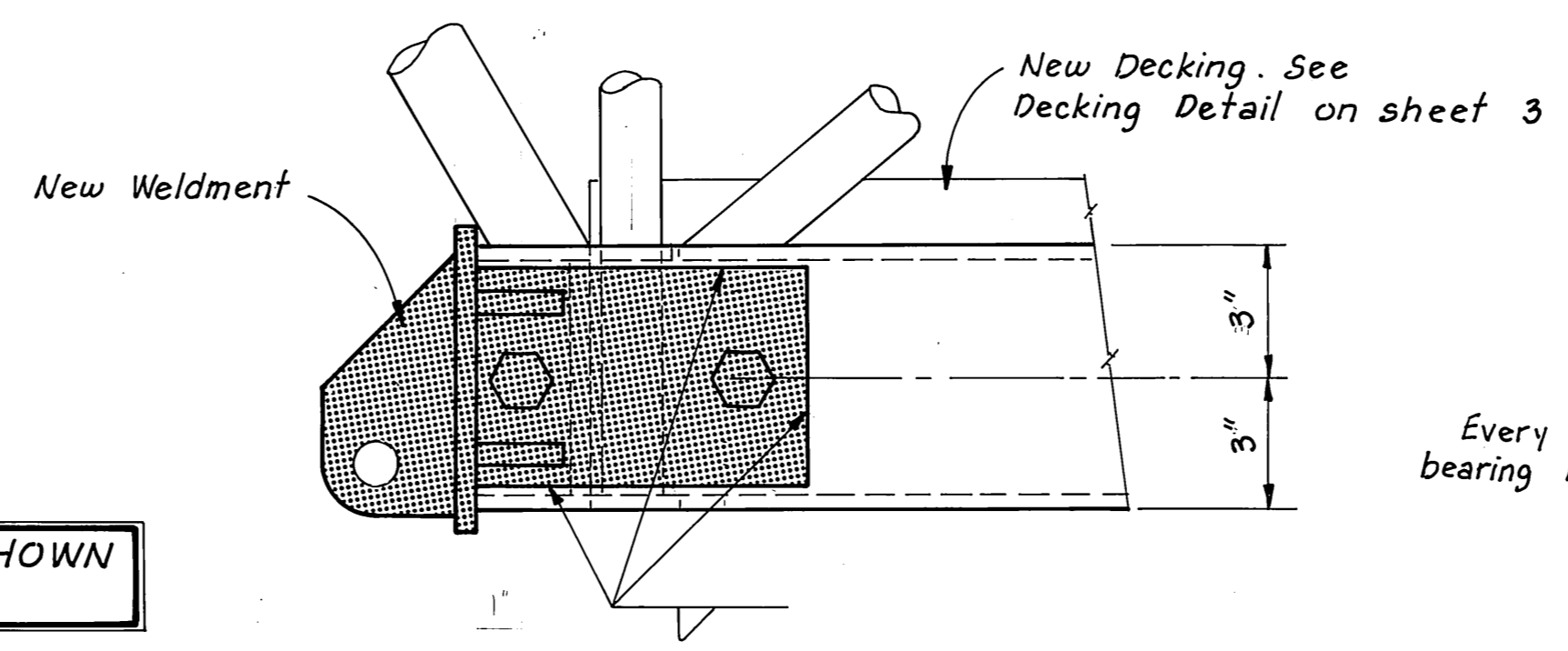
PLAN

Hot dip galvanized, welded serrated steel grating w/ 1 1/2" x 1/8" x 2'-9" bearing bars spaced 13/16" o.c. and 1/4" cross bars spaced 4" o.c. Weld every other bar to angles with fillets.

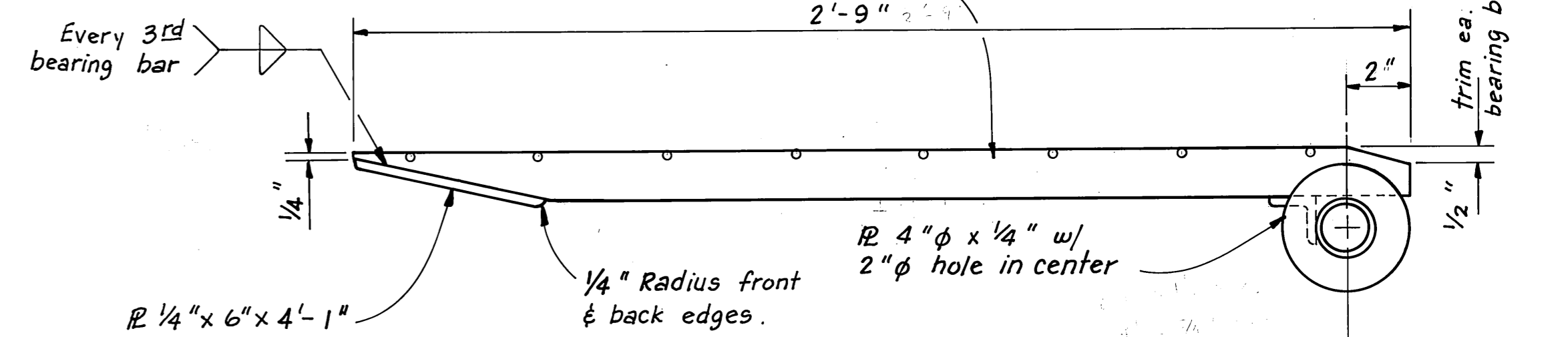


ELEVATION

DECKING NOT SHOWN IN PLAN VIEWS



ELEVATION

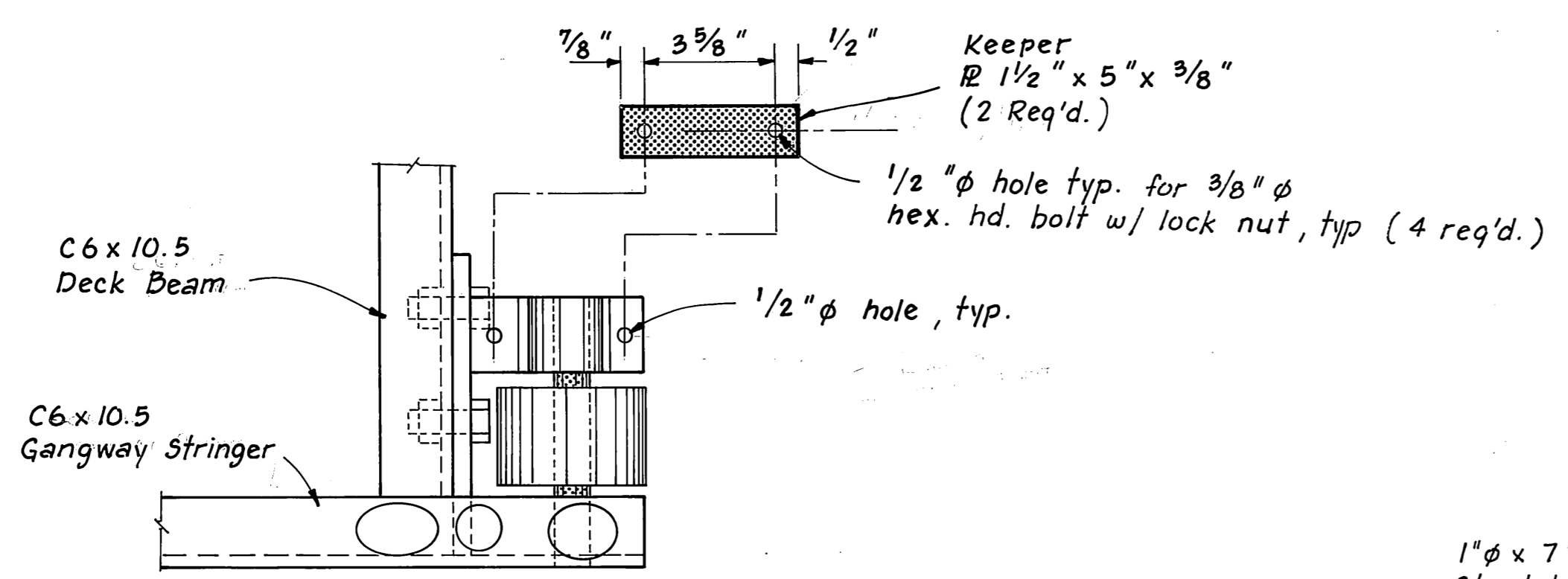


ELEVATION

TOE PIECE DETAILS

RECONST'D. STEEL GANGWAY HANGER DETAILS

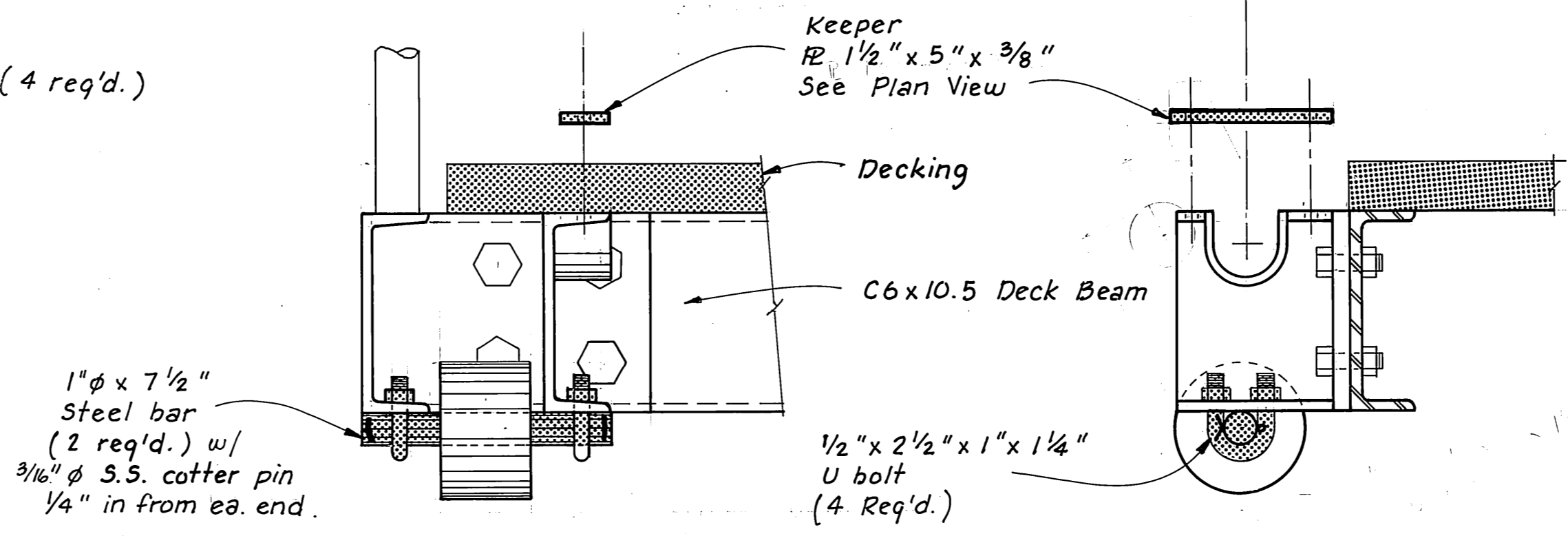
HANGER MODIFICATION DETAILS



PLAN

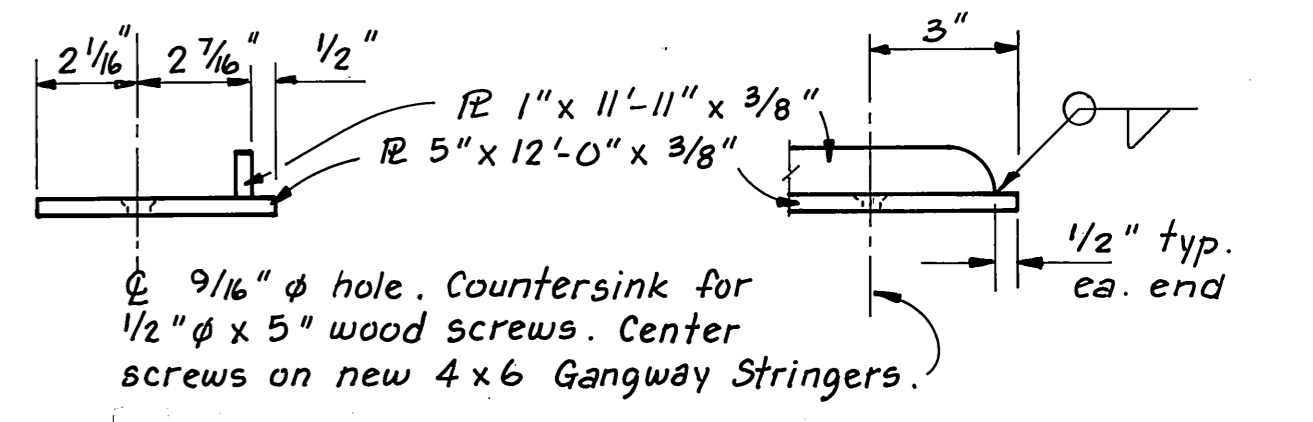
ITEMS TO BE REPLACED SHOWN SHADED

RECONSTRUCTED STEEL GANGWAY ROLLER DETAILS



ELEVATION

PROFILE



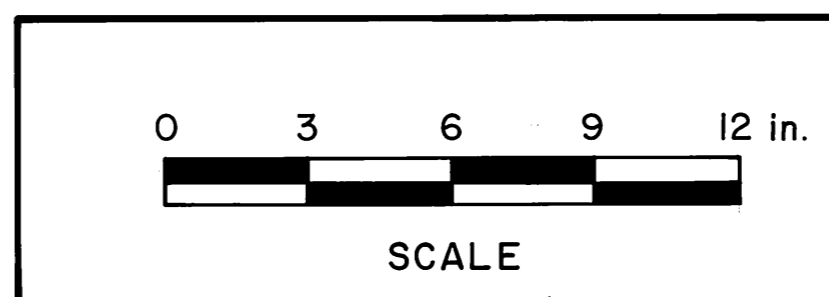
ELEVATION

PROFILE

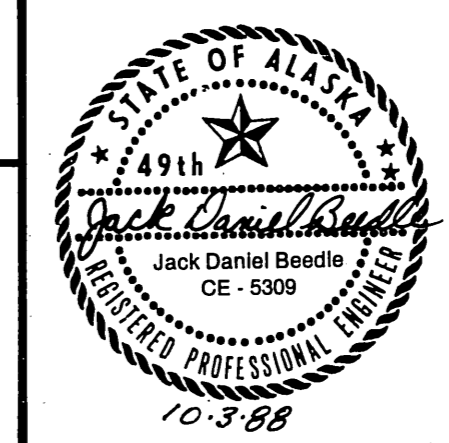
GUIDERAIL DETAILS (2 REQ'D.)

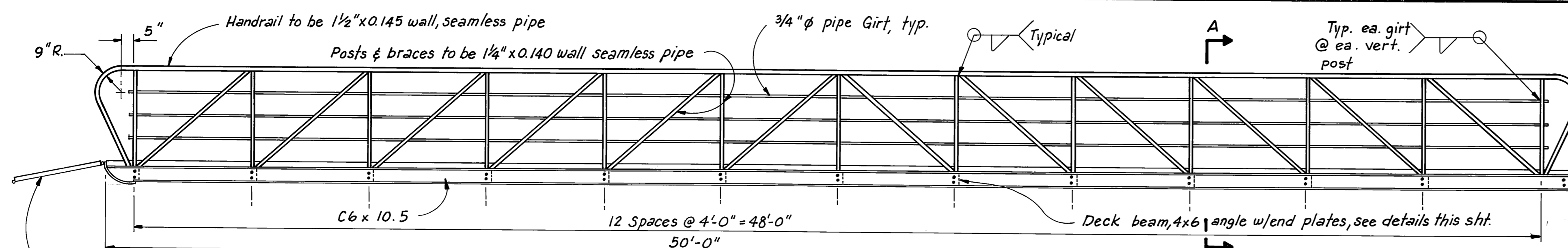
AS BUILT

- NOTES
1. New Transition R req'd. for reconstructed gangway. See detail on sheet 6.
 2. New safety chains req'd. at top of gangway. Eye bolt to approach handrail ea. side of gangway.

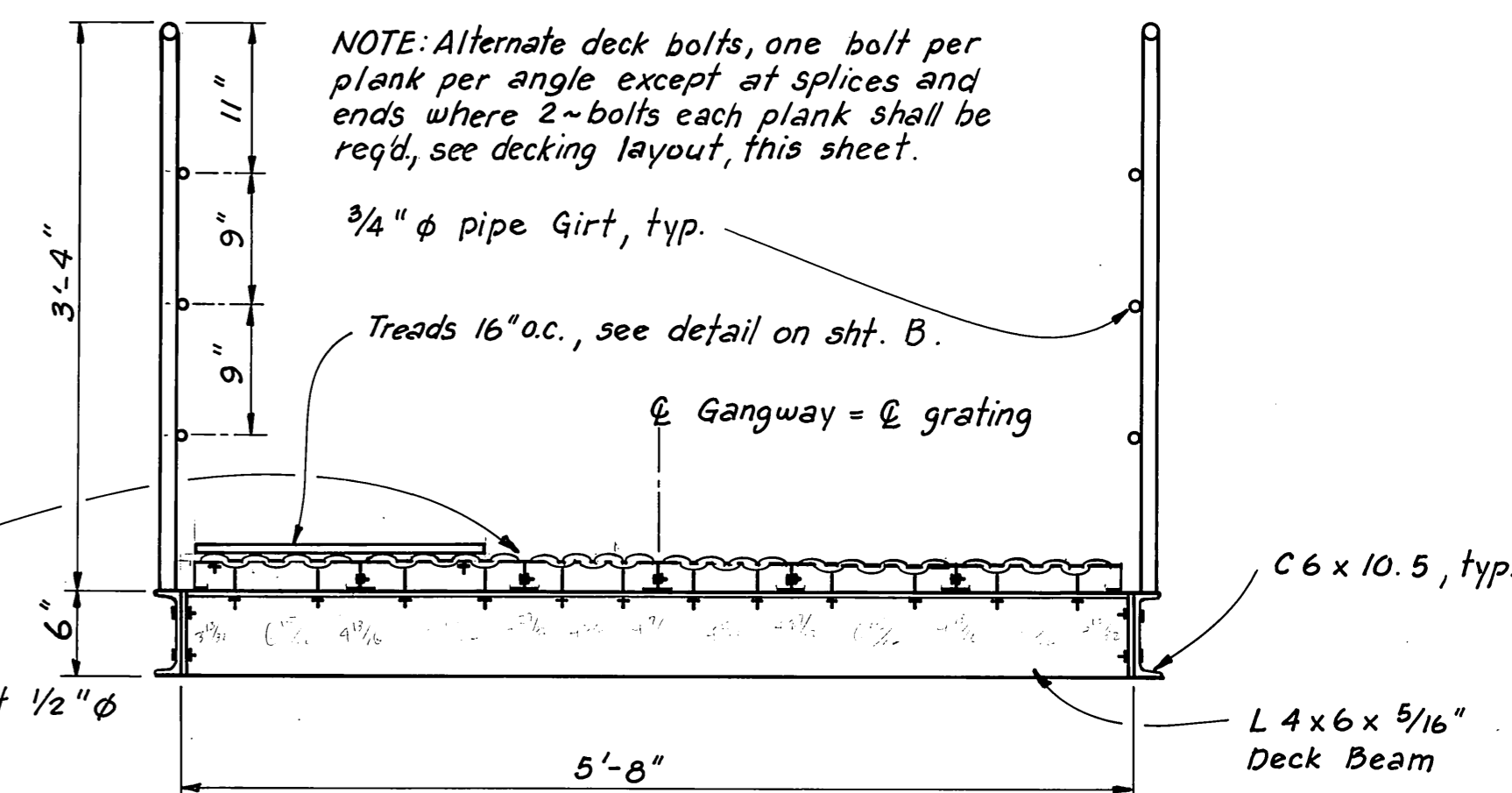


STAMP		DO NOT SCALE THIS DRAWING - USE DIMENSIONS	
STATE OF ALASKA			
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES			
ELFIN COVE		ALASKA	
RECONSTRUCTED STEEL GANGWAY			
MISC. DETAILS			
DESIGNED TS	CHECKED JDB	DRAWN TS	DATE SEPT. 1988
PROJECT NUMBER 69729	SHEET 4		OF 6

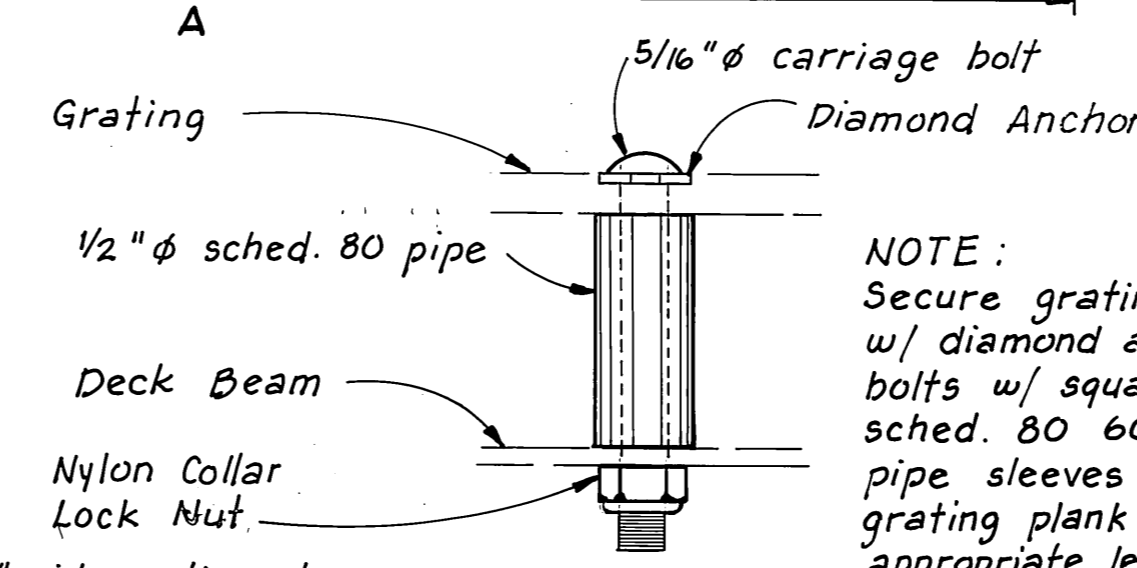
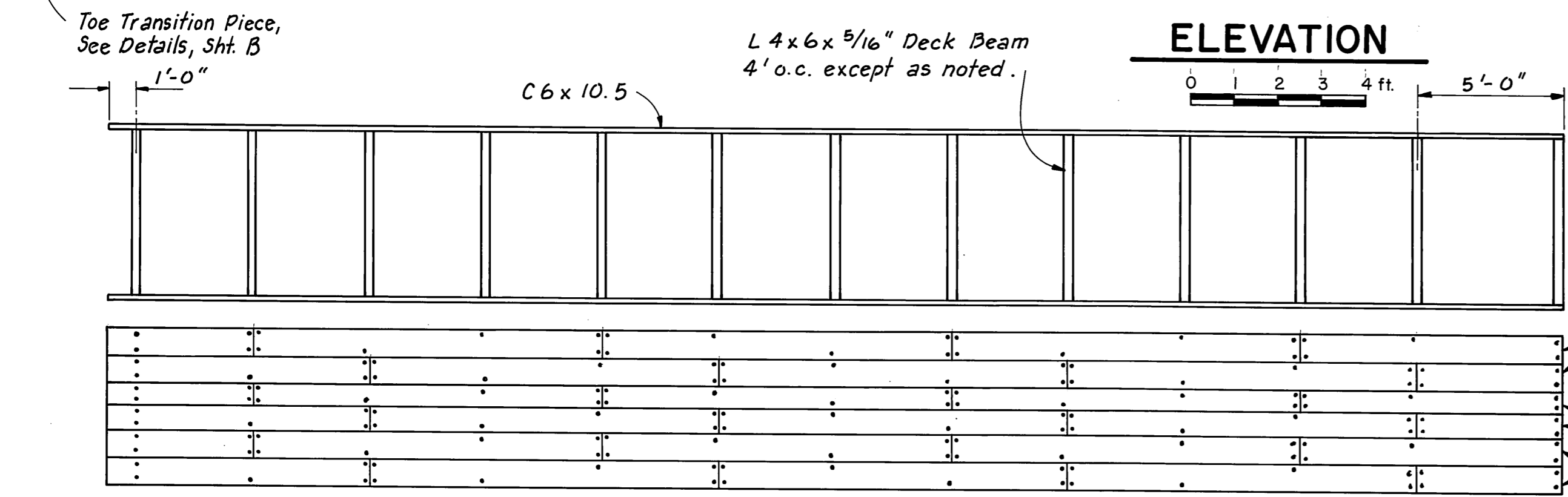
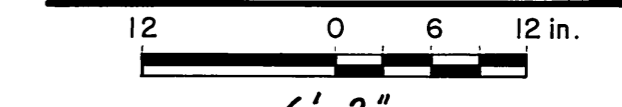




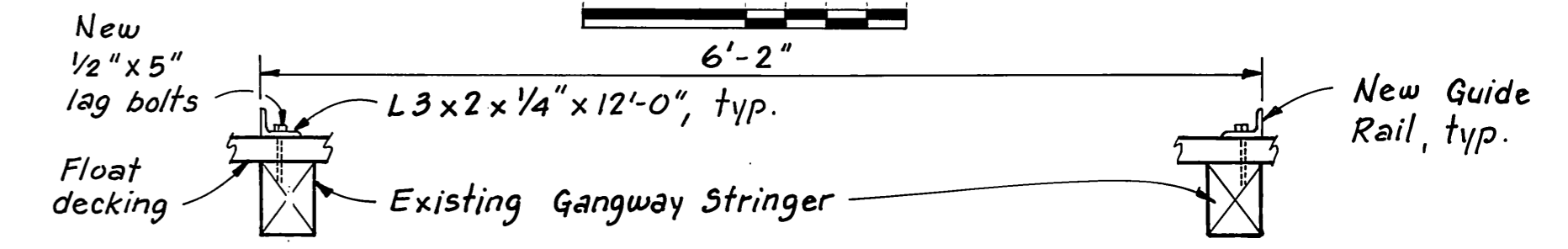
Weld eye to handrails and provide 5/16" x 3'-6" galv. steel safety chain, typ. ea. side. Secure to approach w/ 5/16" φ eyebolts.



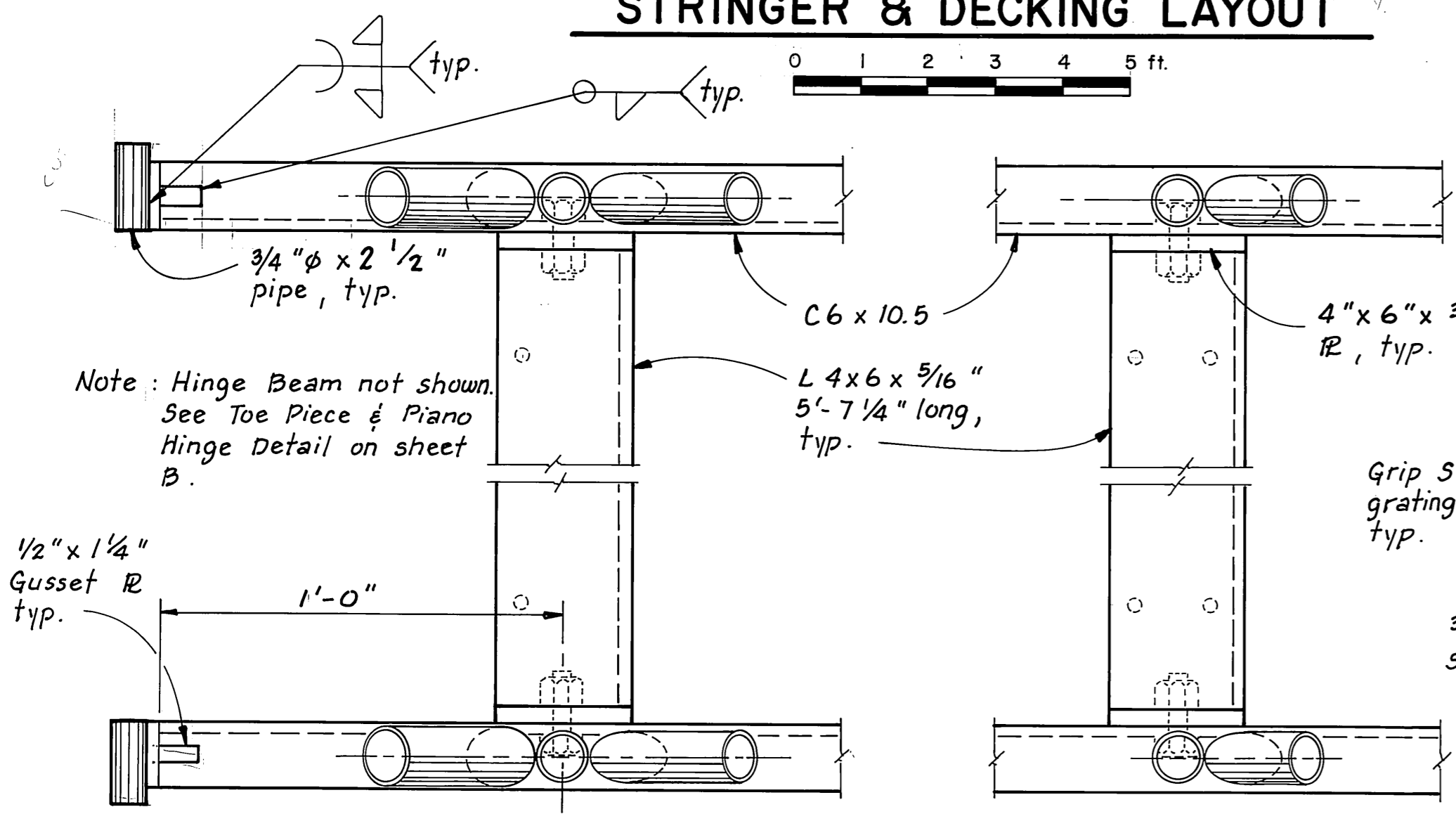
SECTION A - A



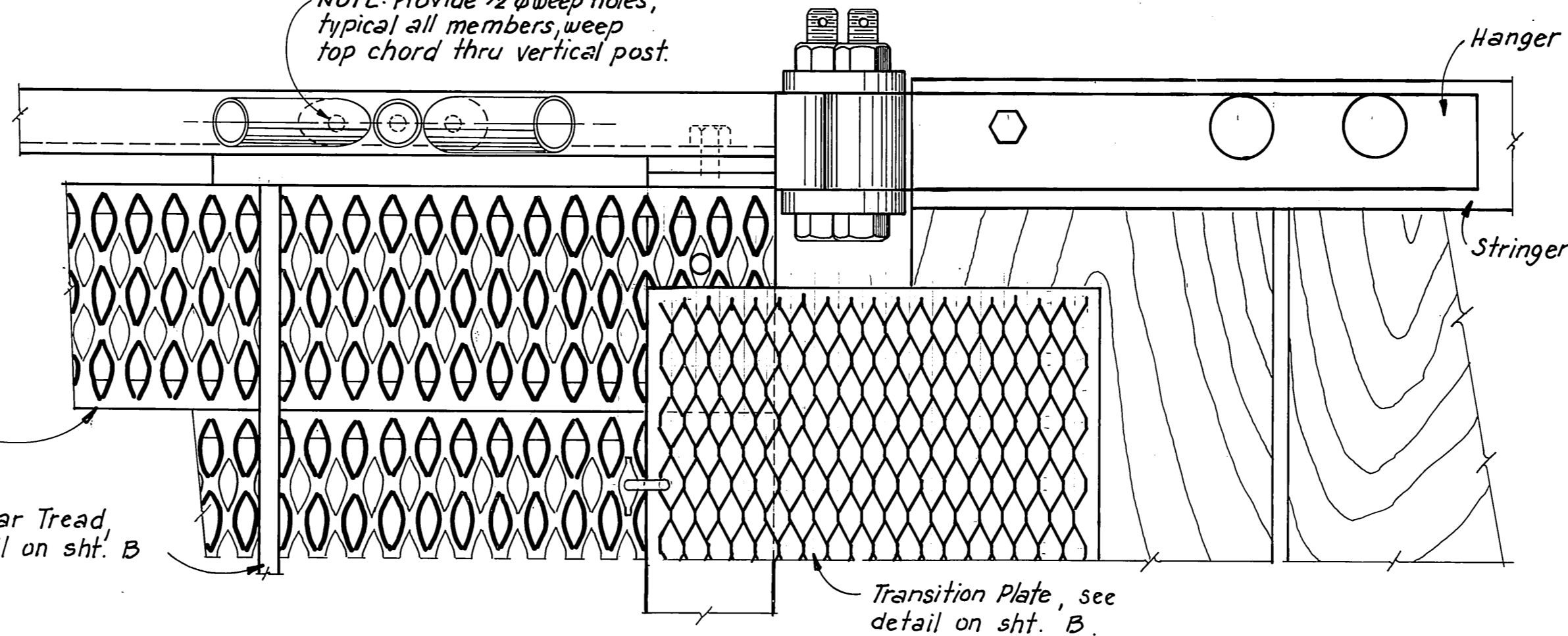
NOTE: Secure grating planks to deck beams w/ diamond anchors & 5/16" φ carriage bolts w/ square shanks & lock nuts. Field cut 1/2" φ sched. 80 6061-T6 or 6063-T6 Alum. pipe sleeves for all carriage bolts at grating plank splices, See detail P. Cut sleeves appropriate length to resist plank deflection and provide a uniform transition between planks. Bolt grating plank channels together every 2'-0" w/ 3/8" φ bolts w/ lock nuts.



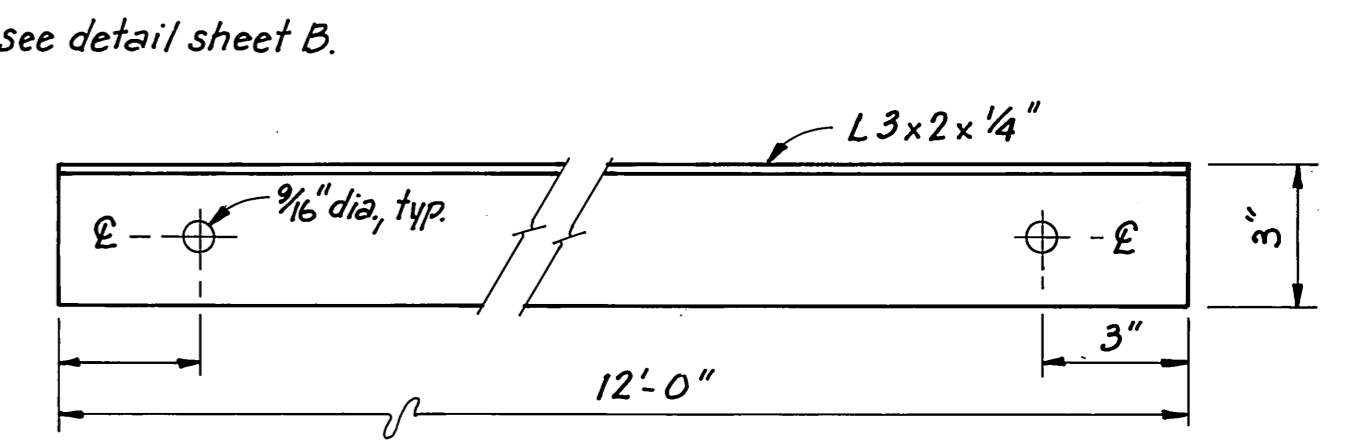
STRINGER & DECKING LAYOUT



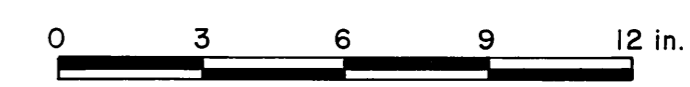
NOTE: Provide 1/2" φ weep holes, typical all members, weep top chord thru vertical post.



TIMBER FLOAT



GUIDE RAIL (2 REQ'D.)

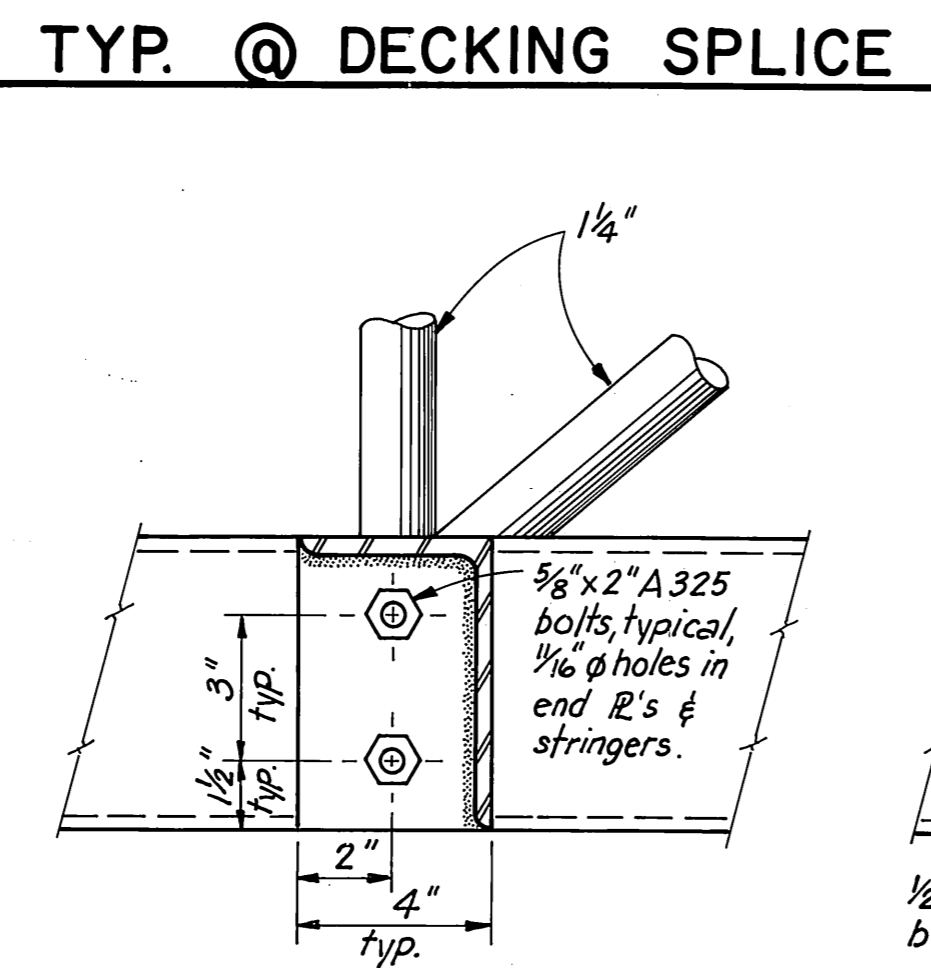
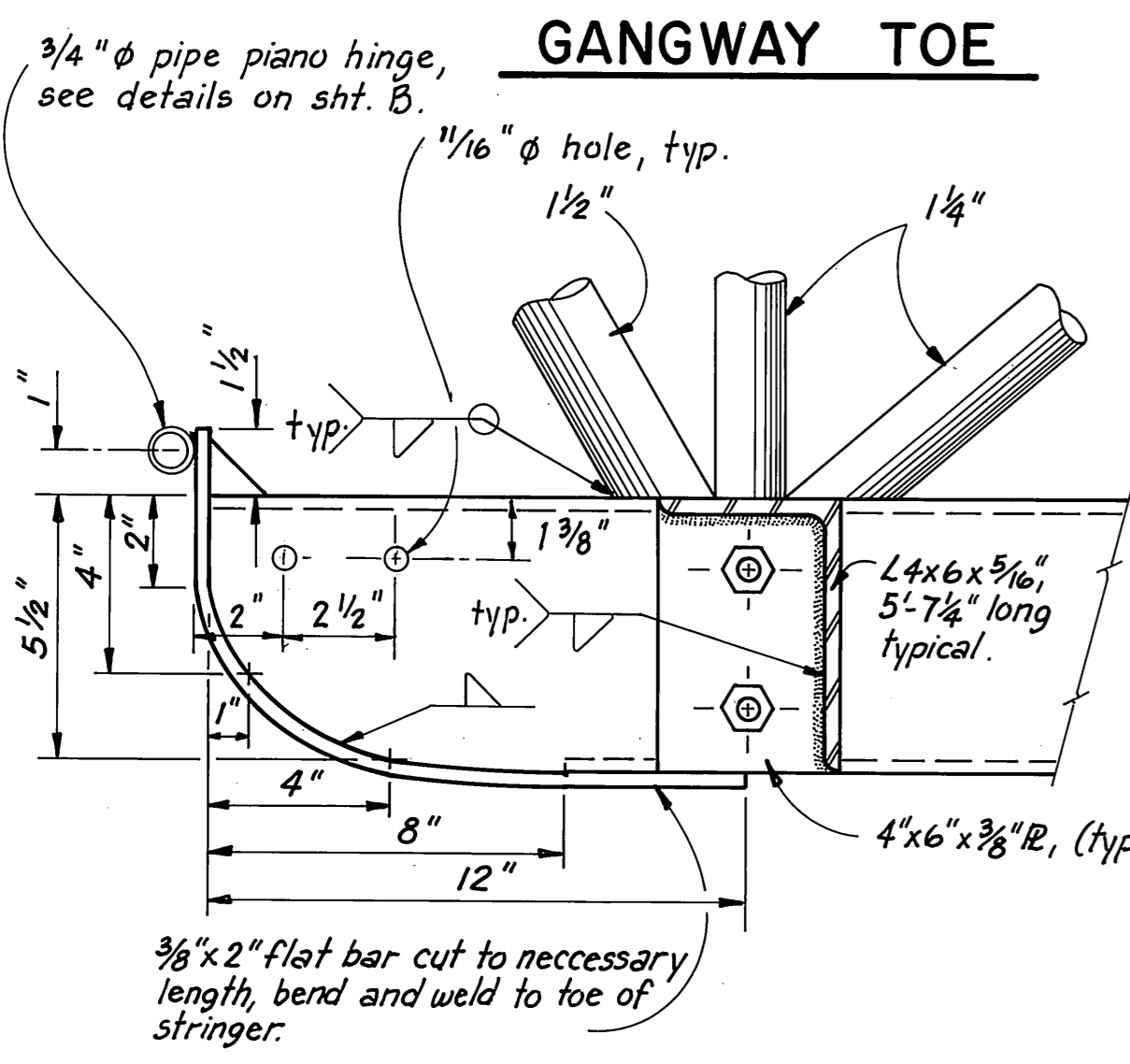


NOTES

1. Design load, 35 psf.
2. All seamless pipe shall conform to ASTM A-53, Grade B or ASTM A-500.
3. All shapes & plates shall conform to ASTM A-36.
4. Trusses shall be shop fabricated & assembled including hangers.
5. 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.
6. No tubing or channel splices will be permitted within 10' of the center of the truss structure.
7. Trusses & transverse beams shall be hot dip galvanized after fabrication and in accordance with ASTM A-23, A-384, A-385 & A-386.
8. All steel hardware & fasteners shall be hot dipped galvanized in accordance with ASTM, A-153.
9. Assembly shop drawing shall be submitted for approval.
10. Remove existing hanger strap & bolts. Fill existing bolt holes w/ treated plugs. See specs.

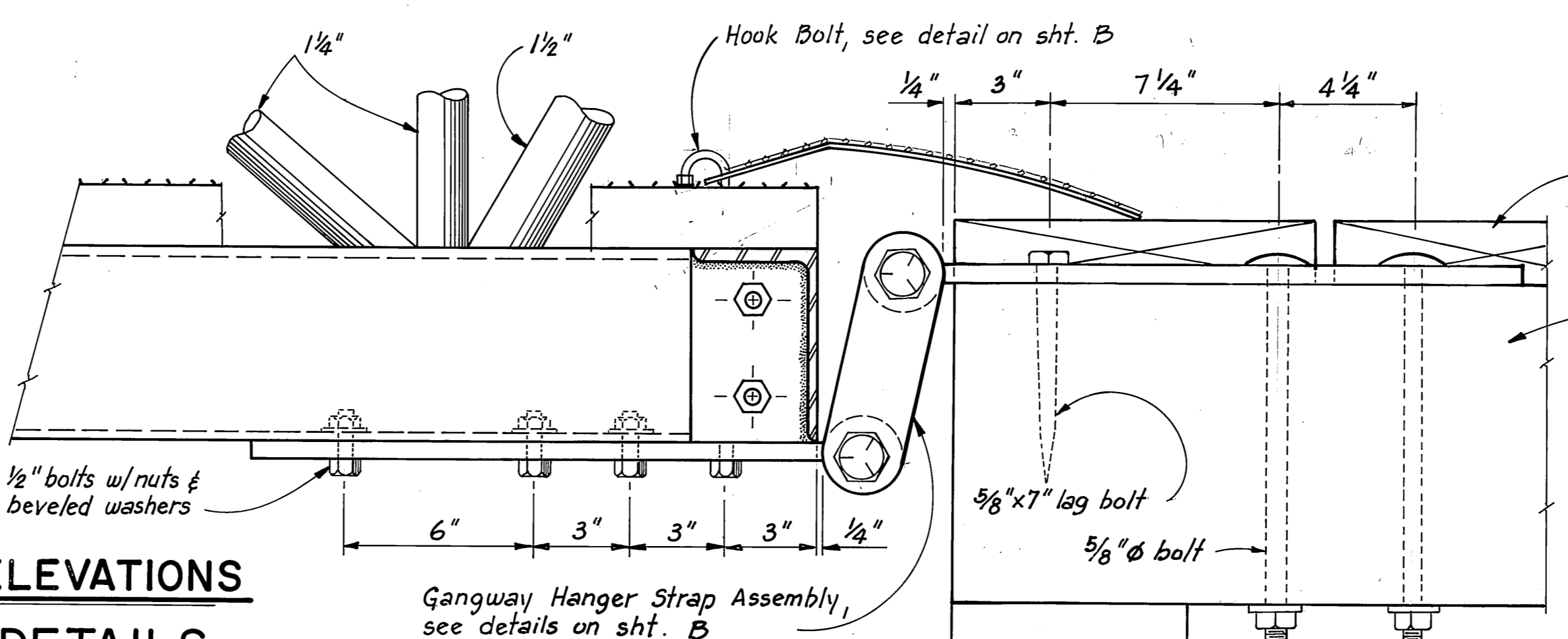
Reconstructed gangway installed on project

AS BUILT

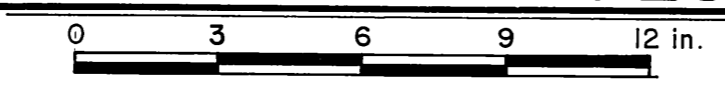


GANGWAY HEAD

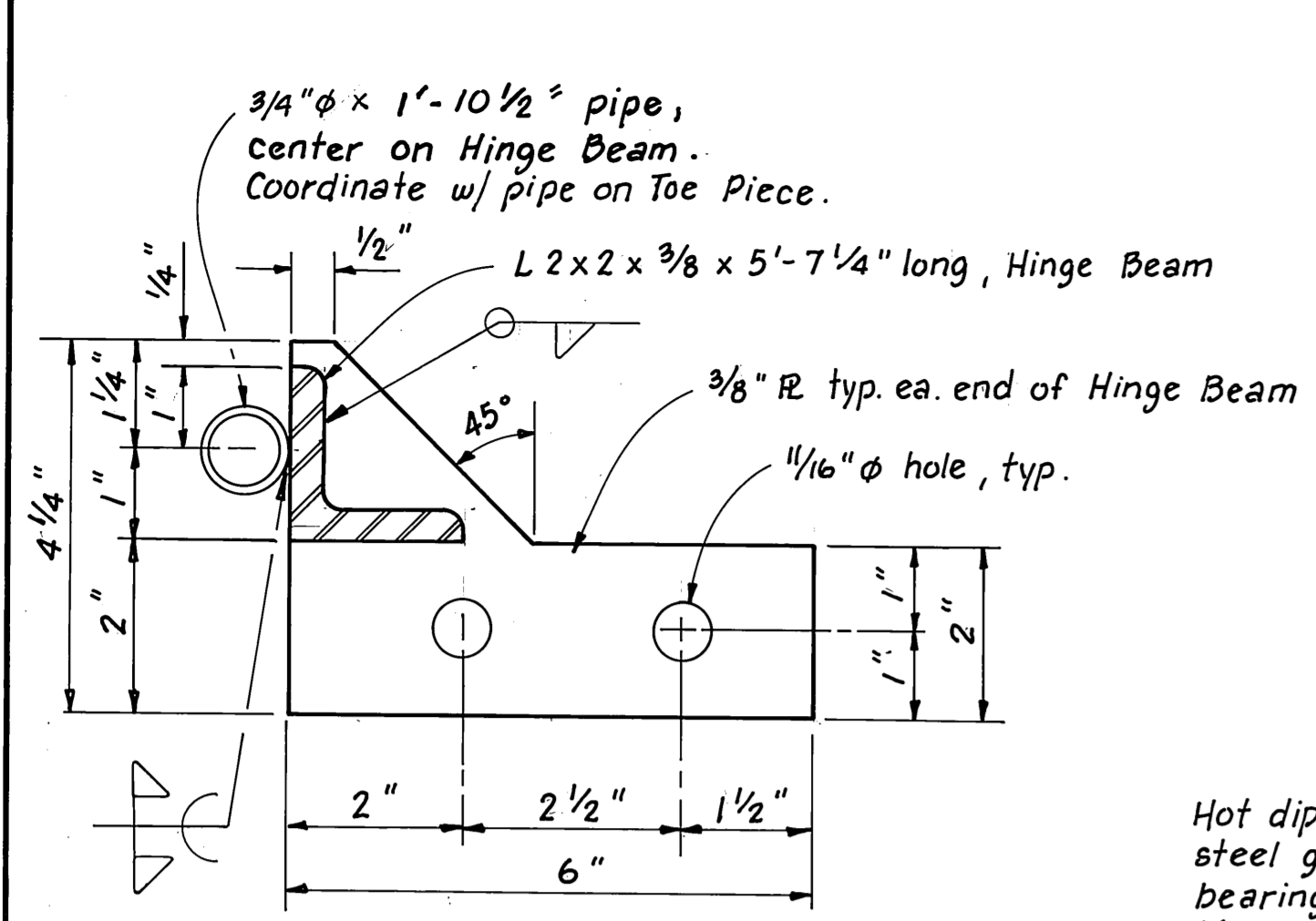
DOCK OR APPROACH



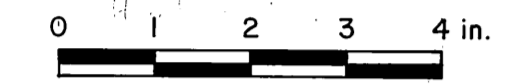
SECTIONAL ELEVATIONS
 GANGWAY DETAILS



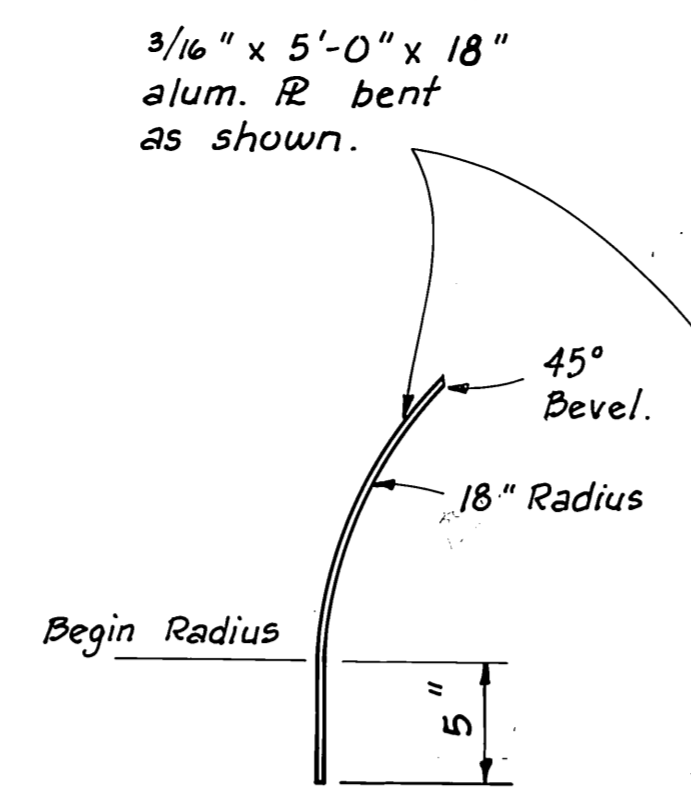
	DO NOT SCALE THIS DRAWING - USE DIMENSIONS						
	STATE OF ALASKA						
	DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES						
	ELFIN COVE		ALASKA				
TYPICAL 6' x 50' STEEL GANGWAY							
(SHEET A)							
DESIGNED	TS	CHECKED	JDB	DRAWN	I.S.	DATE	SEPT. 1988
PROJECT NUMBER	69729		SHEET	5	OF	6	



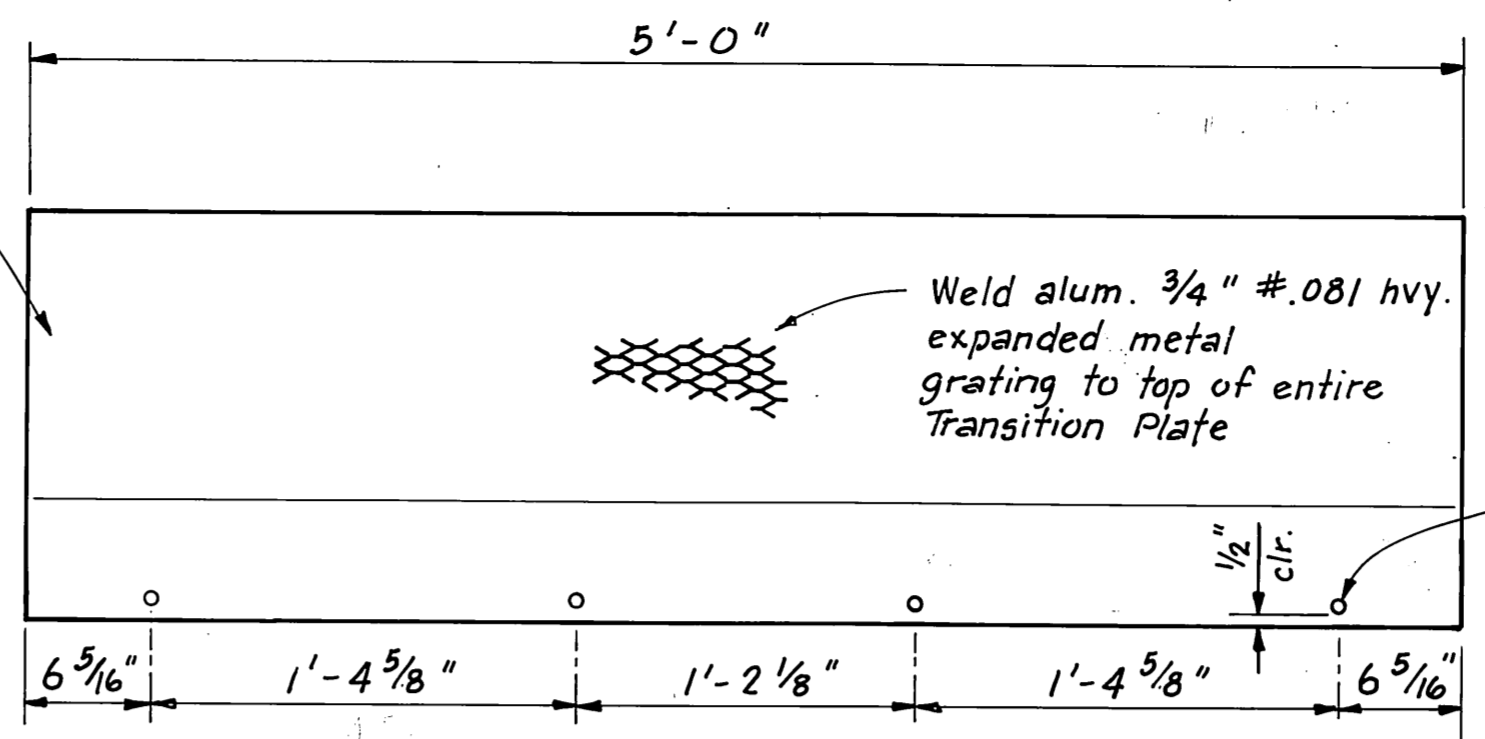
HINGE BEAM



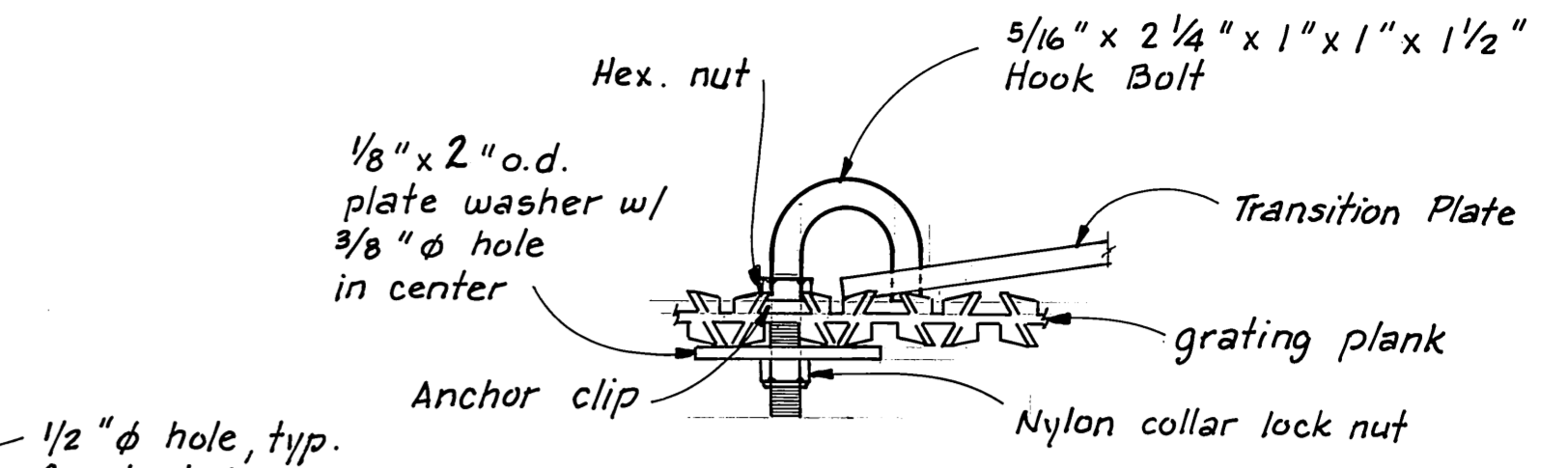
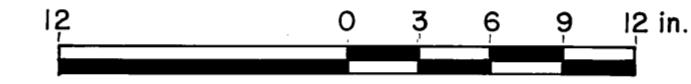
Hot dip galvanized, welded, serrated steel grating w/ 1 1/2" x 1/8" x 2'-7 1/2" bearing bars spaced 1 3/16" o.c. and 1/4" cross bars spaced 4" o.c.



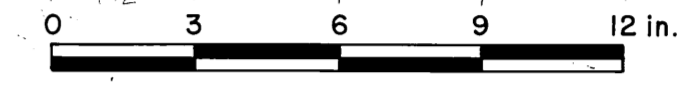
PROFILE



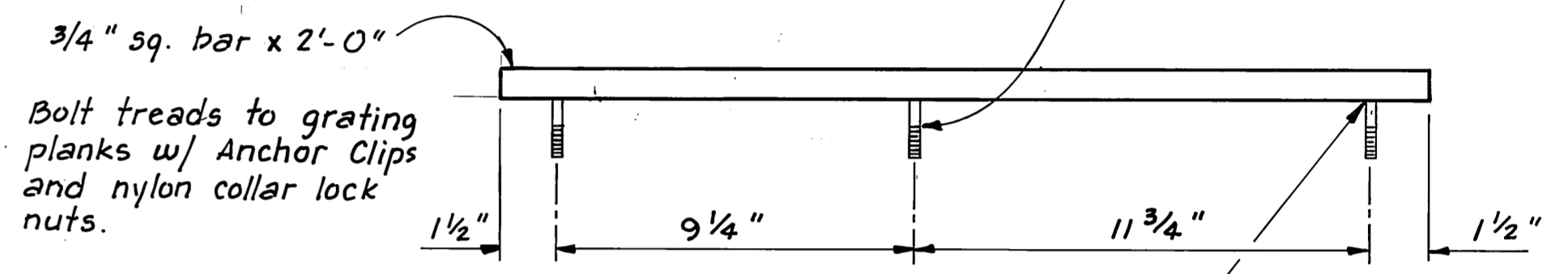
PLAN TRANSITION PLATE



HOOK BOLT



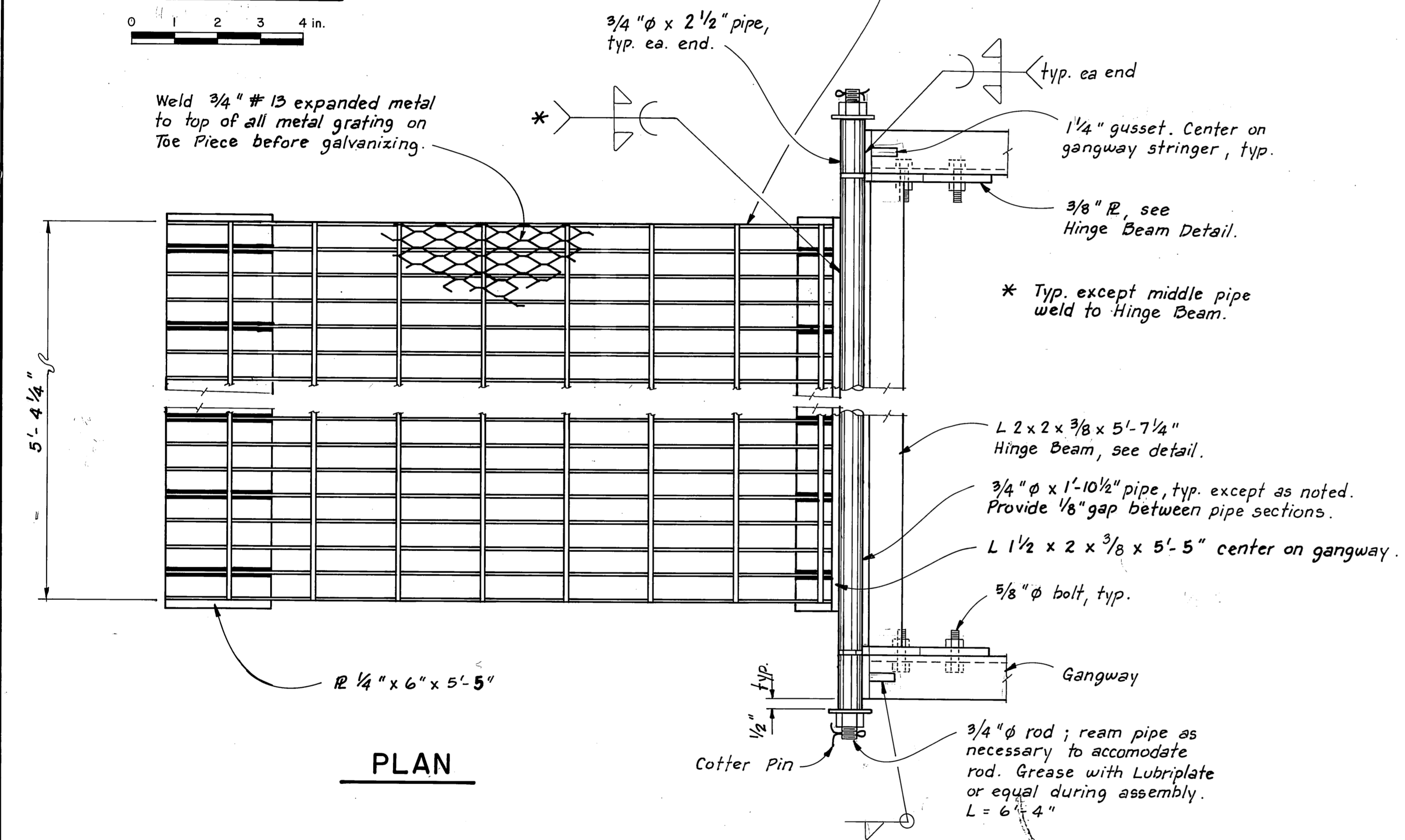
1/2 inch diameter hole, typical for hook bolt.



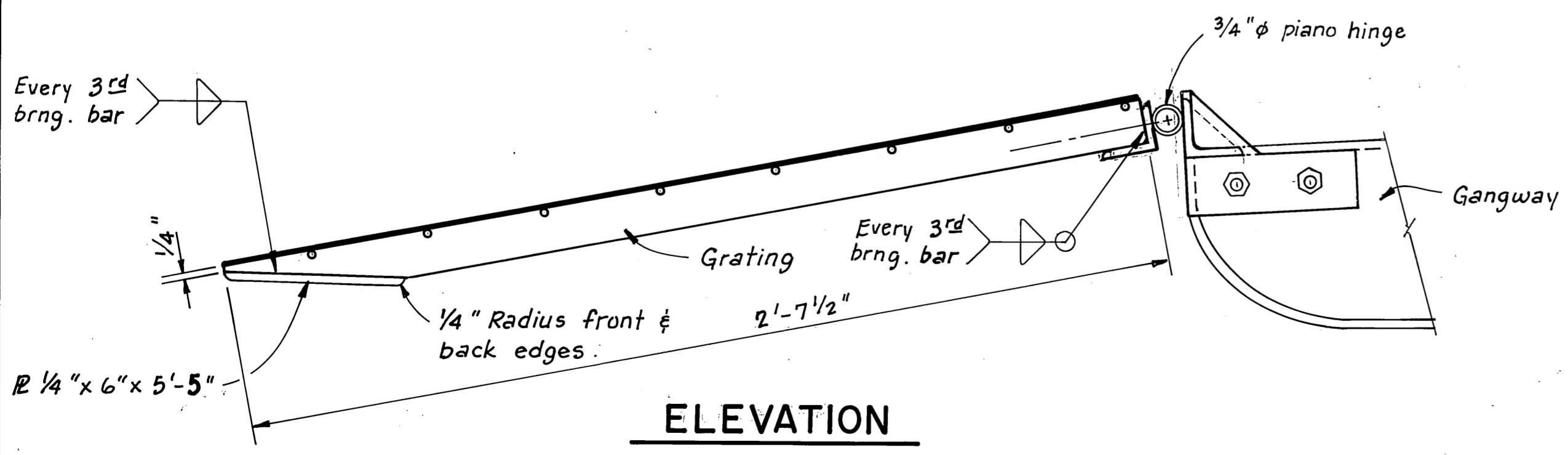
TREAD DETAIL

N.T.S.

NOTE: Bolt treads to grating planks w/ Anchor Clips and nylon collar lock nuts.

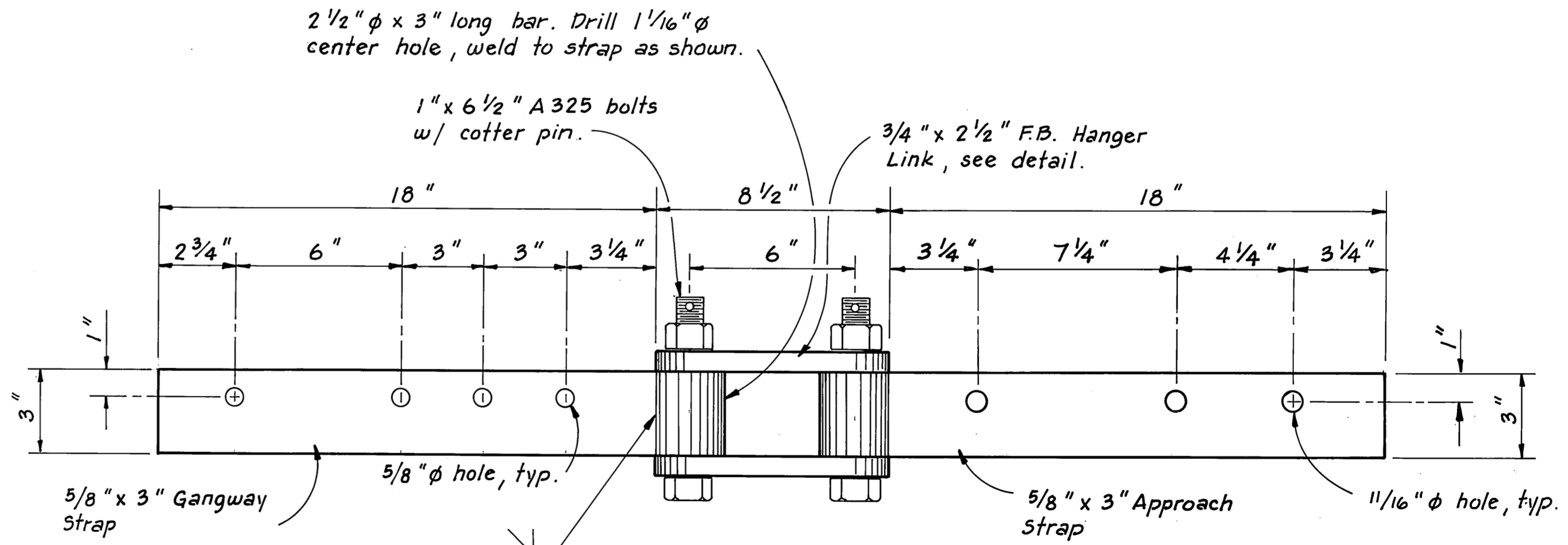
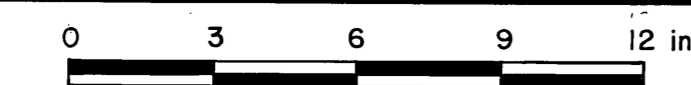


PLAN

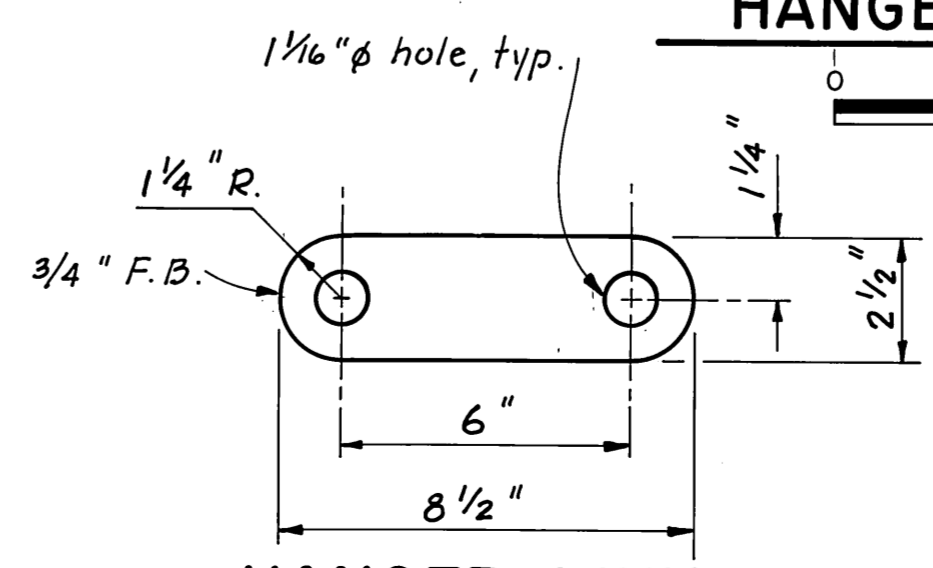
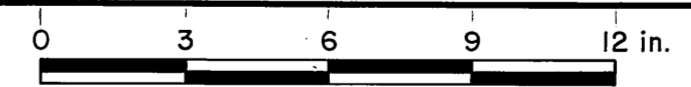


ELEVATION

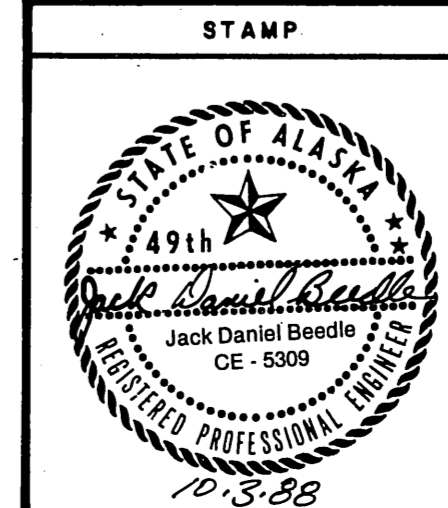
TOE PIECE & PIANO HINGE DETAILS



HANGER STRAP ASSY.



HANGER LINK



DO NOT SCALE THIS DRAWING - USE DIMENSIONS			
STATE OF ALASKA			
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES			
ELFIN COVE		ALASKA	
TYPICAL 6'x50' STEEL GANGWAY			
(SHEET B)			
DESIGNED	T.S.	CHECKED	JDB
DRAWN	T.S.	DATE	SEPT. 1988
PROJECT NUMBER	69729	SHEET	6 OF 6

Reconstructed gangway installed this project
As Built