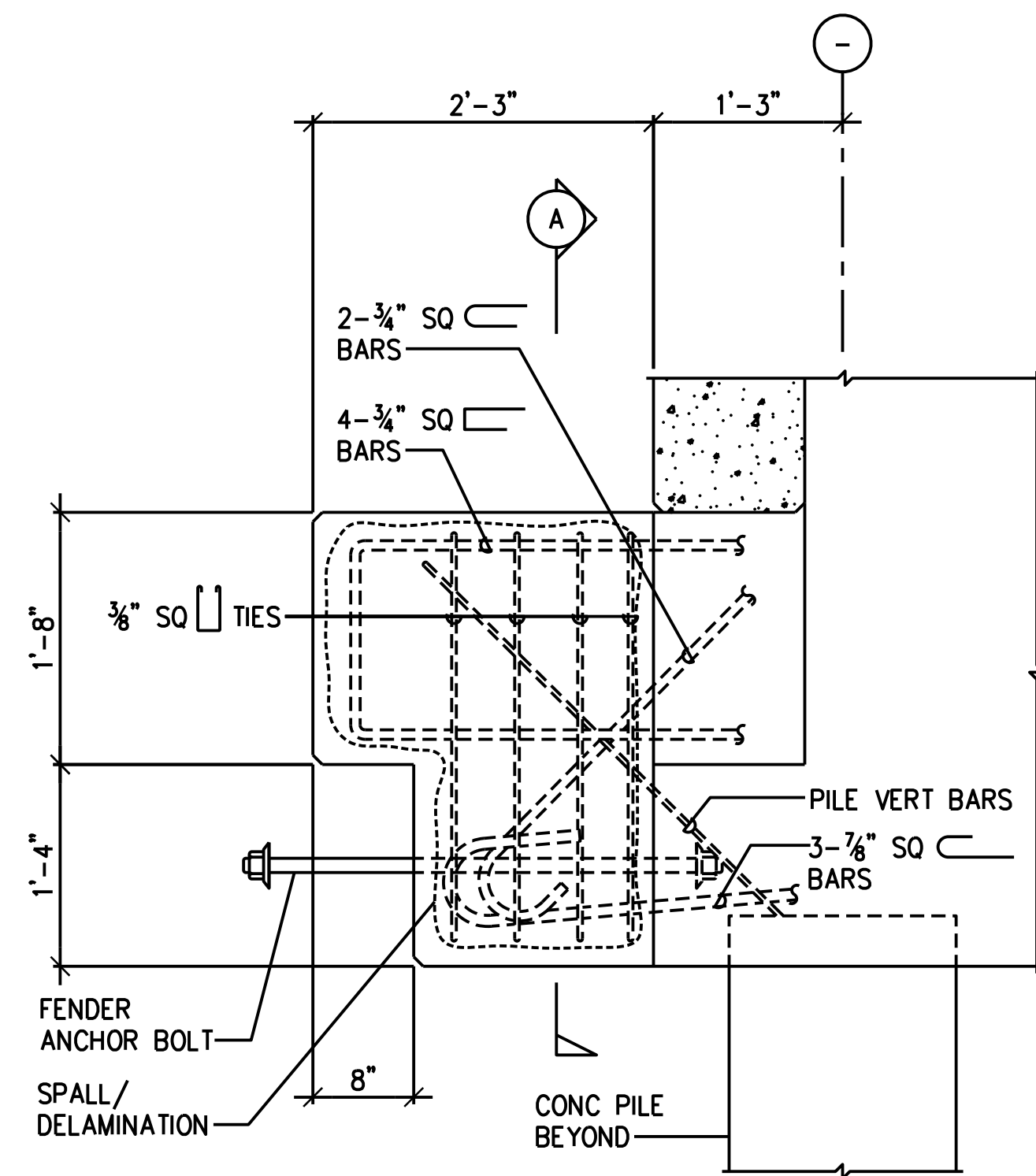
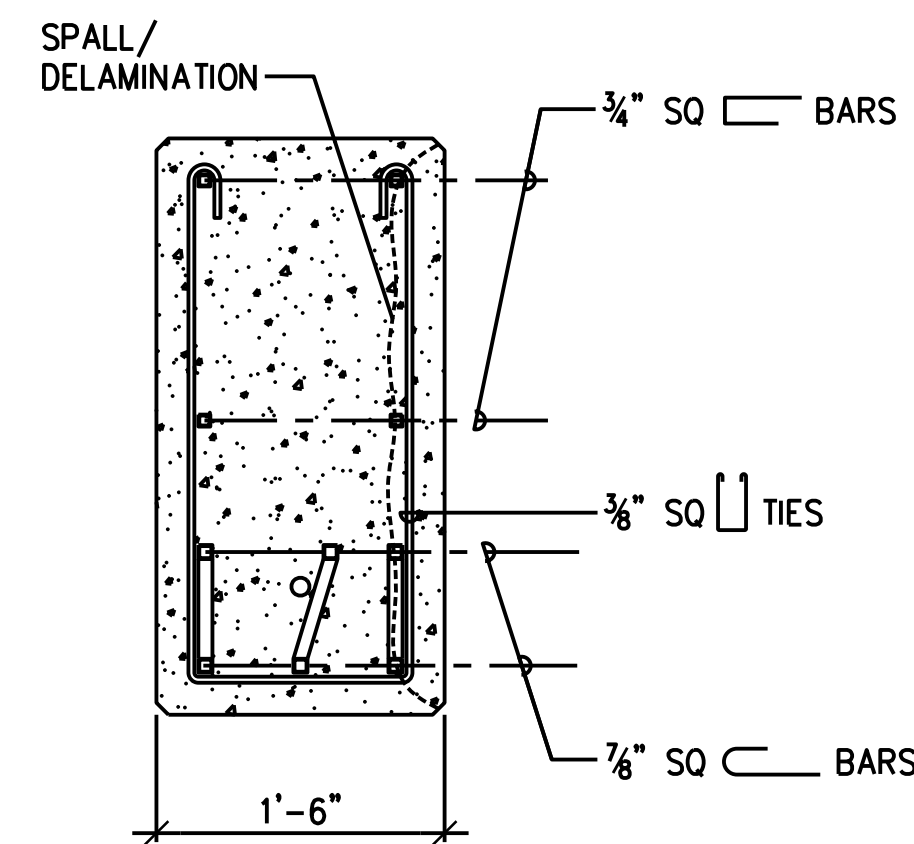




1	5/25/23	ADDENDUM NO. 1	JM	AF
REV	DATE	DESCRIPTION	BY	APPROVED
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS DIVISION				
JOB TITLE FENDER REPAIRS AT PIER 3 HILO HARBOR, HILO, HAWAII				
PIER 3 - REPAIR DETAILS				
DESIGNED BY: JM			SHEET	
DRAWN BY: JM			3	
CHECKED BY: AF				
DATE: APR 2023	JOB NUMBER		3 of 5 SHEETS	
SCALE: AS SHOWN	\$50208			



ELEVATION



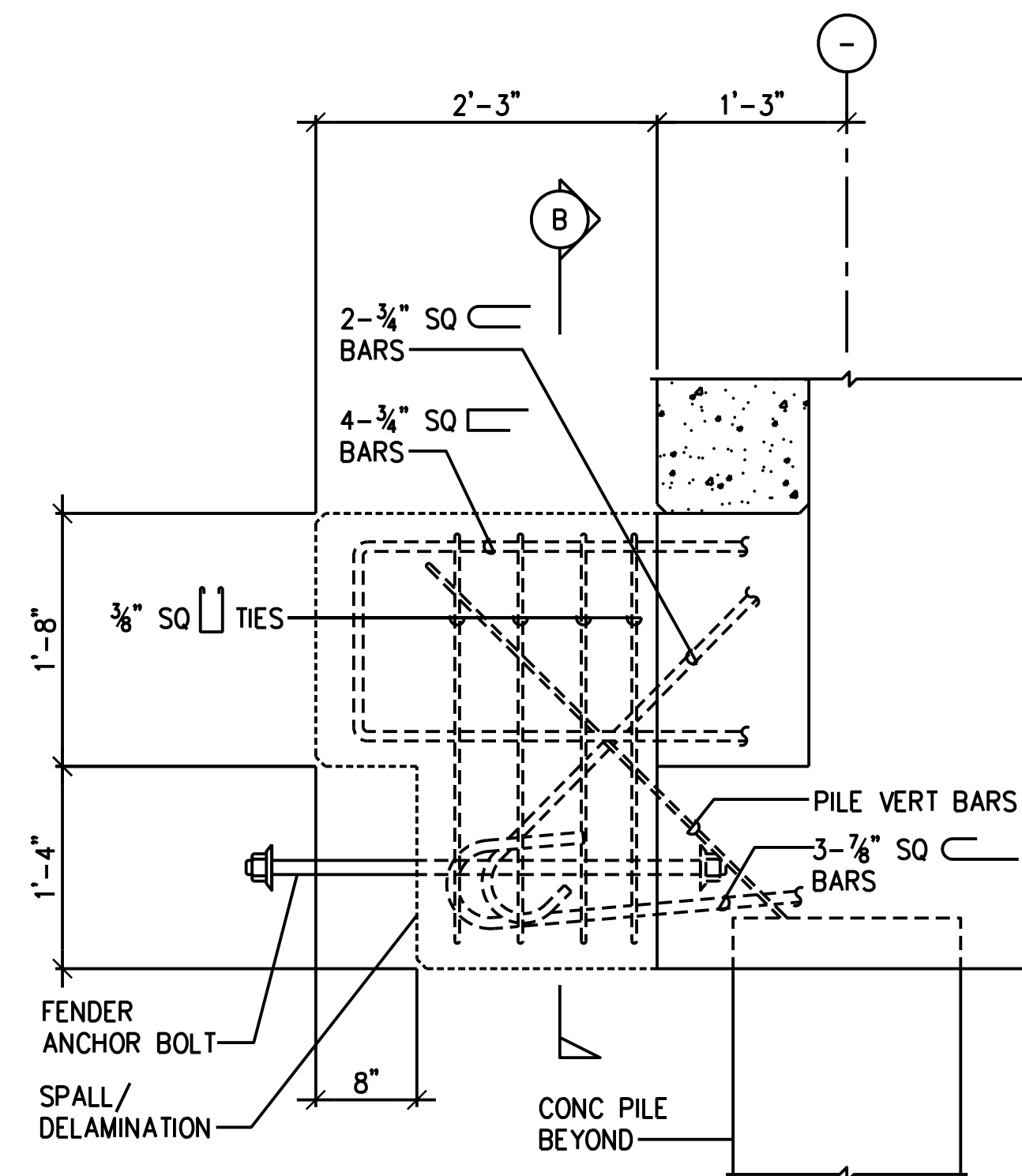
NOTE:
DIAGONAL BARS INCLUDING PILE VERT BARS
NOT SHOWN FOR CLARITY.

SECTION

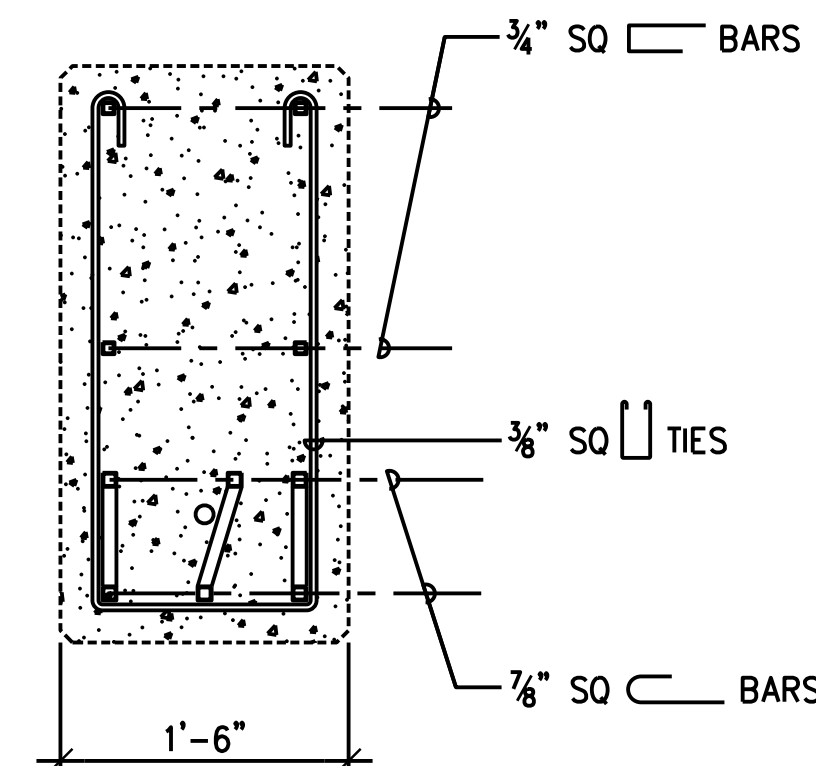
EXISTING PARTIAL HAUNCH SPALL

SCALE : NTS

A
4



ELEVATION



NOTE:
DIAGONAL BARS INCLUDING PILE VERT BARS
NOT SHOWN FOR CLARITY.

SECTION

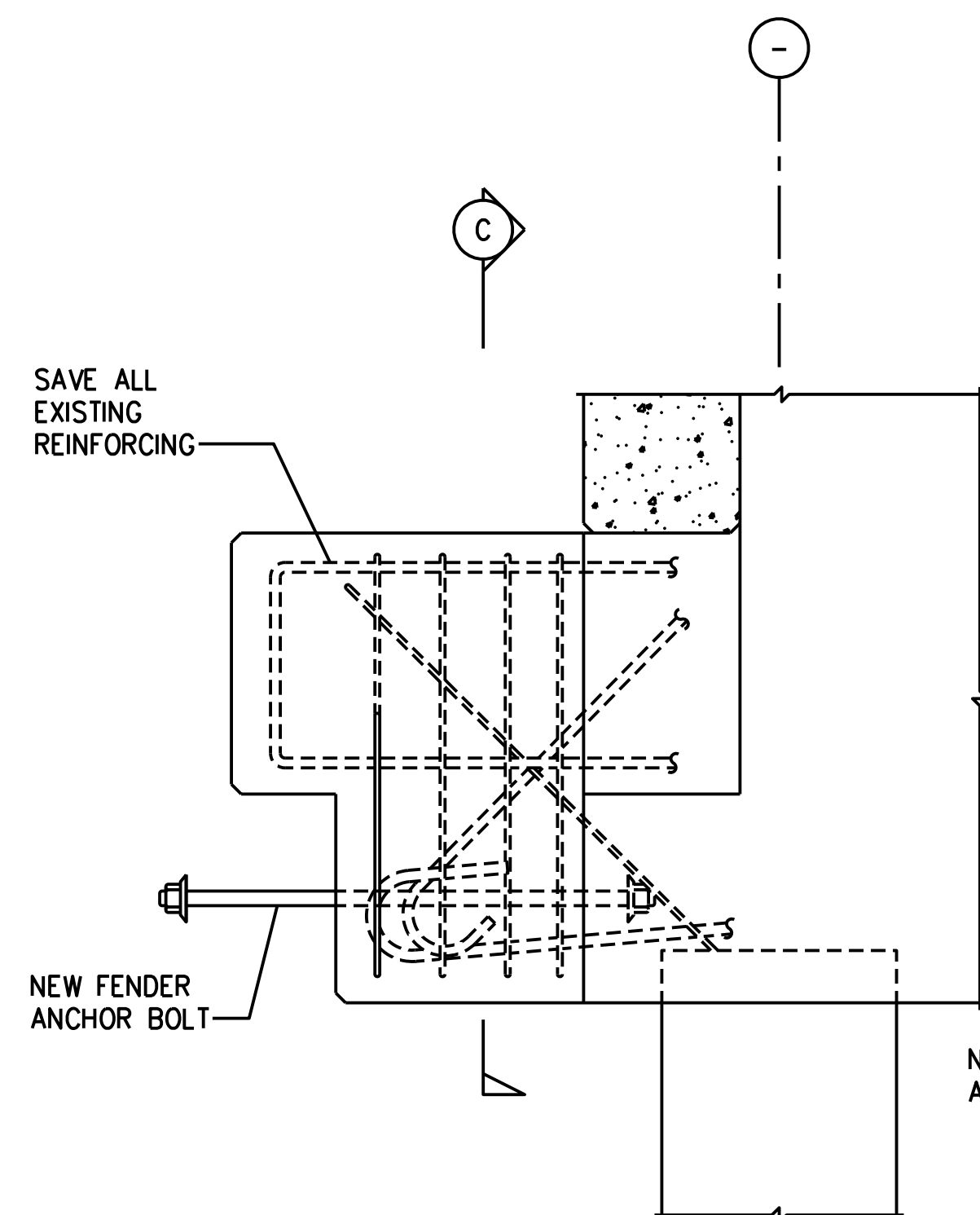
EXISTING FULL HAUNCH SPALL

SCALE : NTS

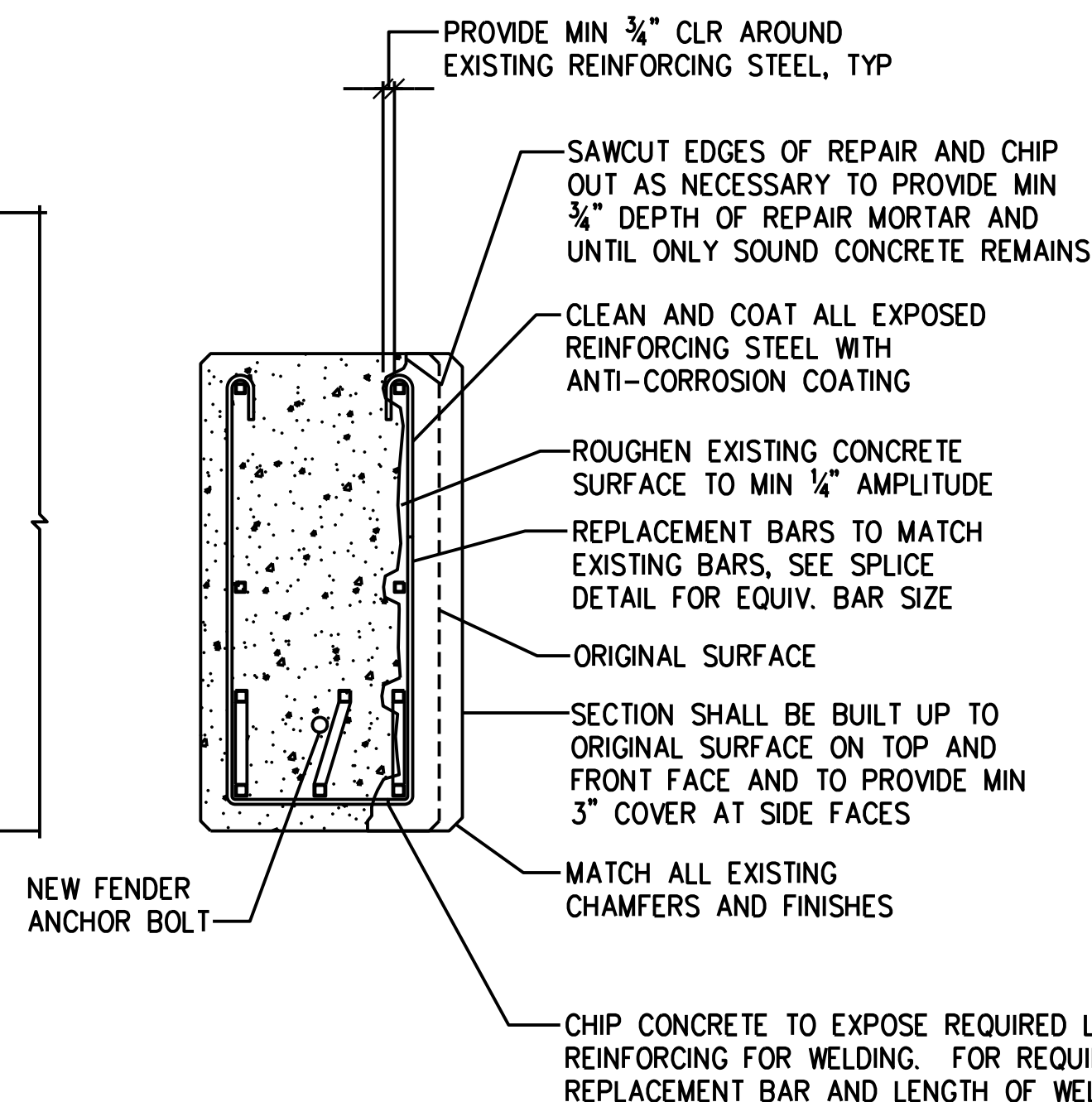
C
4

NOTES:

- FOR CLARITY TIMBER MEMBERS OF FENDER SYSTEM NOT SHOWN.
- HAUNCH REPAIRS SHALL BE PERFORMED PRIOR TO INSTALLING BOTTOM WALE.
- FRONT, TOP AND BOTTOM SURFACES SHALL BE BUILT UP TO THEIR ORIGINAL SURFACE. CONCRETE REPAIRS ON THE SIDES SHALL BE BUILT UP TO PROVIDE MIN 3" COVER AND TO FACILITATE REPAIR WORK.
- MATCH ALL EXISTING CHAMFERS AND FINISHES.
- PAY AREA SHALL BE THE TOTAL REPAIRED AREA ON ALL HAUNCH FACES.
- LOCATION OF HAUNCH SPALLS ARE NOT SHOWN ON PLANS AND SHALL BE DETERMINED AFTER REMOVAL OF THE EXISTING FENDER SYSTEM.
- SEE SPECIFICATIONS FOR CONCRETE REPAIR INFORMATION.



ELEVATION

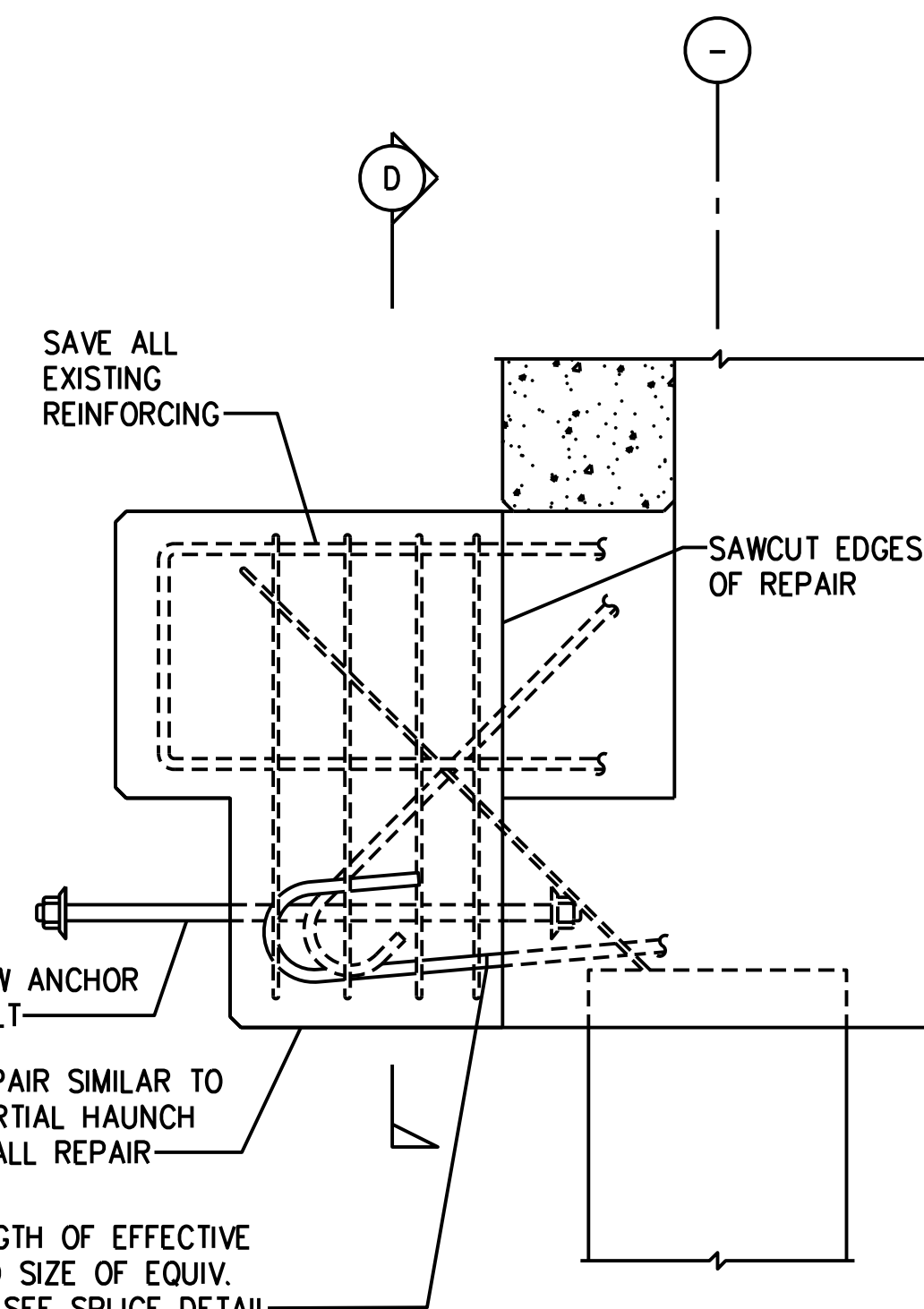


SECTION

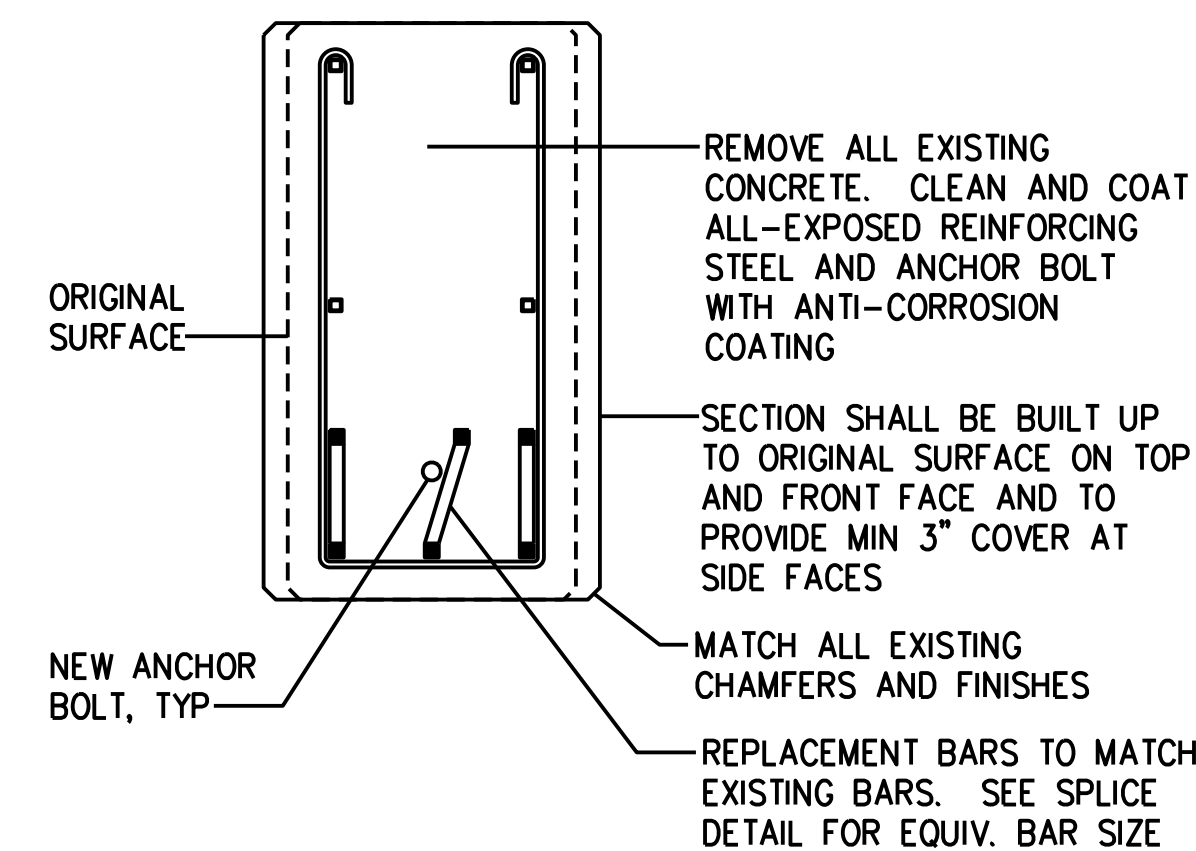
PARTIAL HAUNCH SPALL REPAIR

SCALE : NTS

B
4



ELEVATION



SECTION

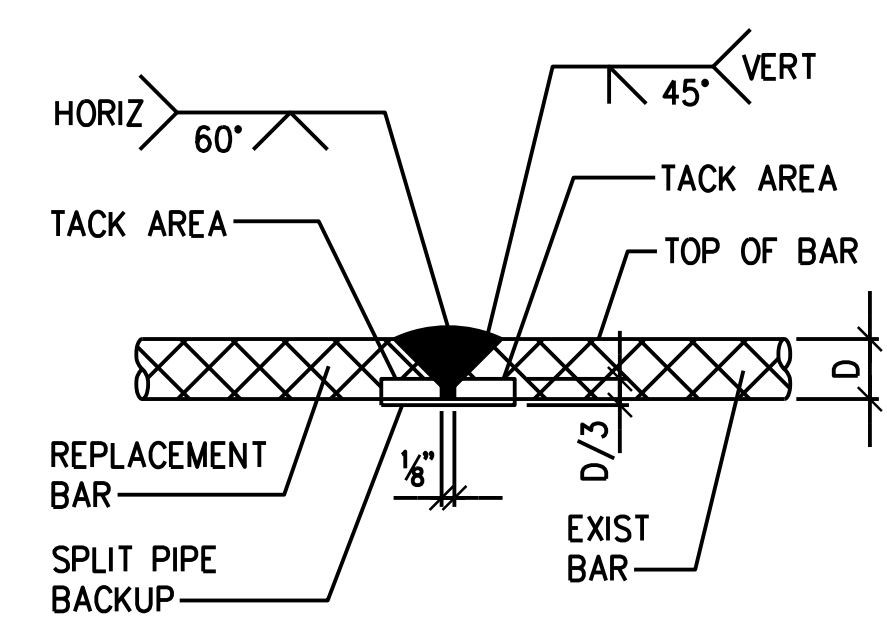
FULL HAUNCH SPALL REPAIR

SCALE : NTS

D
4

REV	DATE	DESCRIPTION	BY	APPROVED
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS DIVISION				
JOB TITLE FENDER REPAIRS AT PIER 3 HILO HARBOR, HILO, HAWAII				
PIER 3 - REPAIR DETAILS				
DESIGNED BY: JM				SHEET
DRAWN BY: JM				4
CHECKED BY: AF				4 OF 5 SHTS.
DATE: APR 2023				
SCALE: AS SHOWN				

USE DETAIL A FOR #7 BARS AND LARGER



BUTT SPlice

SCALE : NTS

A
5

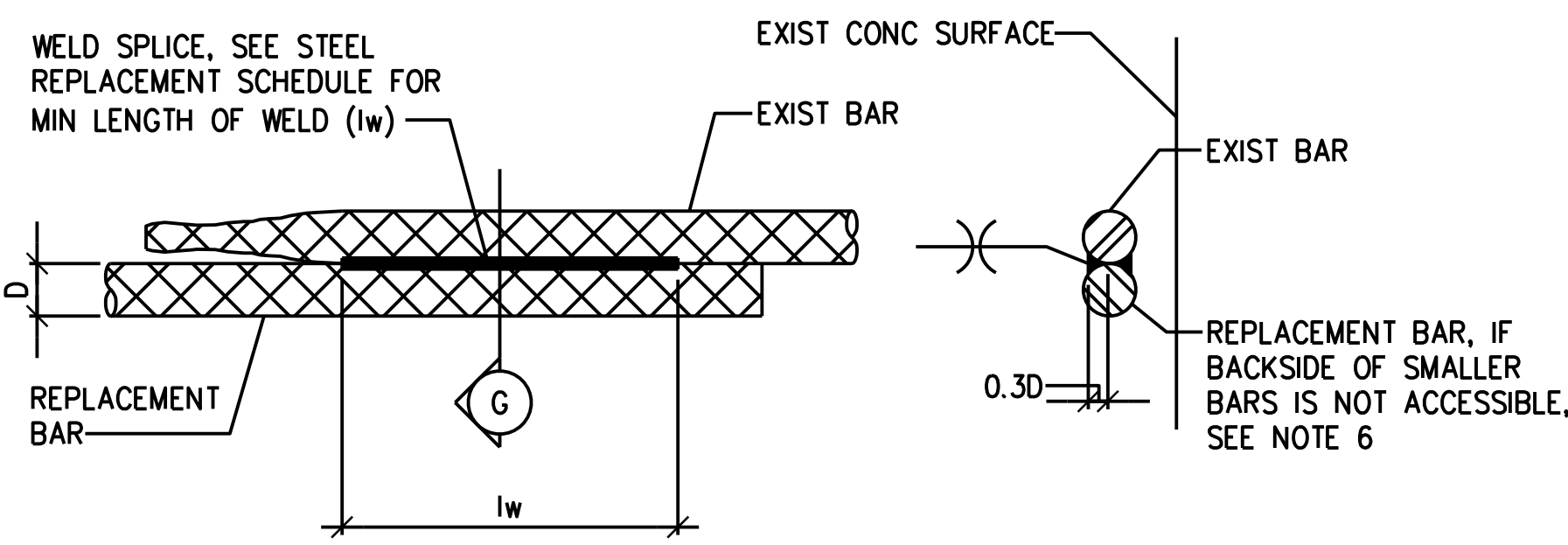
REINFORCING STEEL WELDING NOTES:

1. CHIP, GRIND, OR GOUGE TO SOUND METAL BEFORE WELDING.
2. CLEAN EXIST REBAR AND PREPARE ACCORDING TO SPECIFICATIONS. APPLY COATING AFTER WELDING.
3. SEE STEEL REPLACEMENT SCHEDULE BELOW FOR REPLACEMENT BAR SIZE.
4. USE E70 ELECTRODES.
5. SEE AWS D1.4 FOR WELDING PROCESS AND OTHER DETAILS.
6. FOR WELDING OF #3, #4, AND #5 REPLACEMENT REINFORCING, WELDING MAY BE PERFORMED ON ONE SIDE ONLY, IF l_w IS INCREASED TO l_{w1} AS FOLLOWS

STEEL REPLACEMENT SCHEDULE				
SIZE OF EXISTING REINFORCING		SIZE OF REPLACEMENT REINFORCING	MINIMUM LENGTH OF WELD EACH SIDE (l_w)	MINIMUM LENGTH OF WELD ONE SIDE (l_{w1})
SQUARE	ROUND			
3/8"	#3, #4	#4	2"	4"
1/2"	#5	#5	2 1/2"	5"
5/8"	#6	#6	3 1/2"	-
3/4"	#7	#7	-	-
7/8"	#8	#8	-	-

REINFORCING STEEL SPLICE DETAIL
NOT TO SCALE

USE DETAIL B FOR #6 BARS AND SMALLER

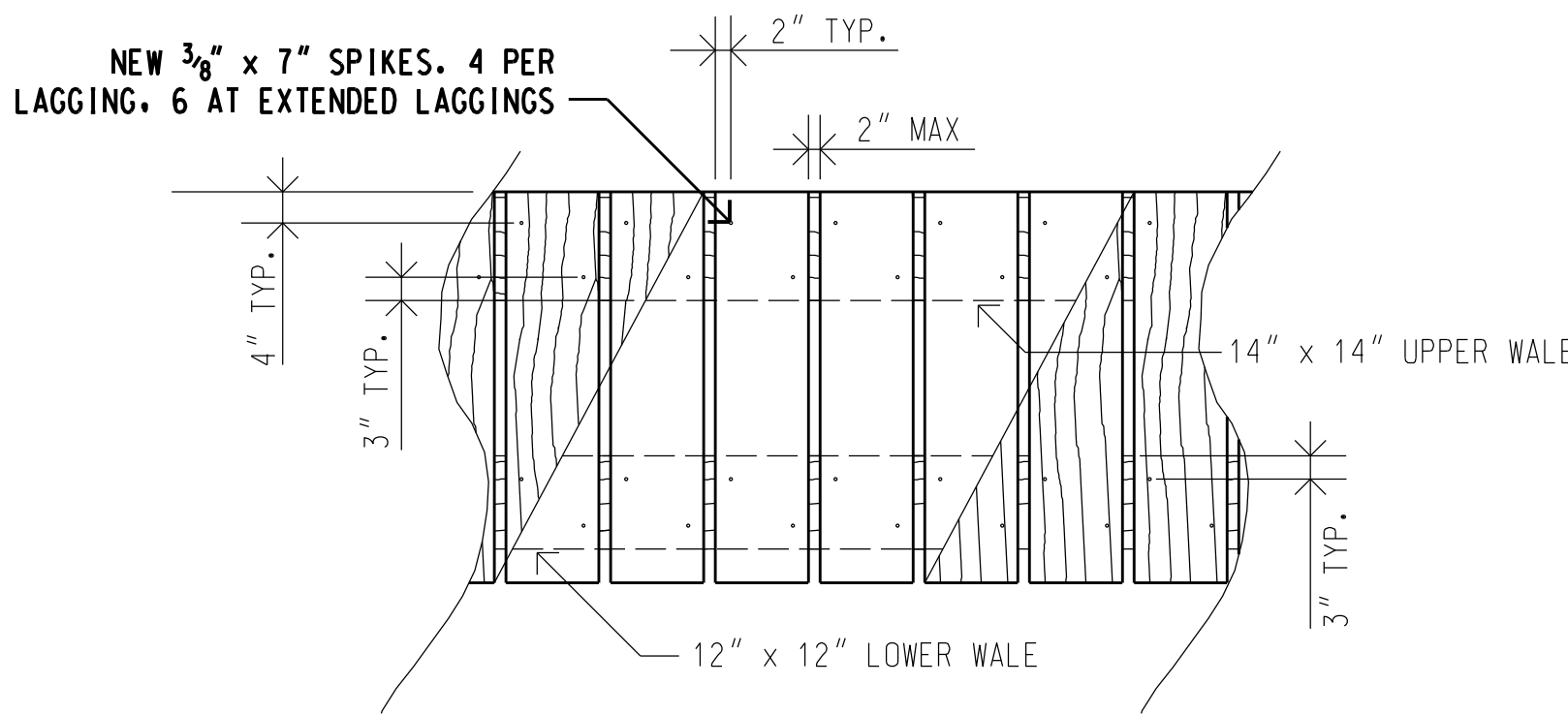


NOTE:
 l_w = LENGTH OF WELD EACH SIDE
(SEE STEEL REPLACEMENT SCHEDULE)

LAP SPlice

SCALE : NTS

B
5

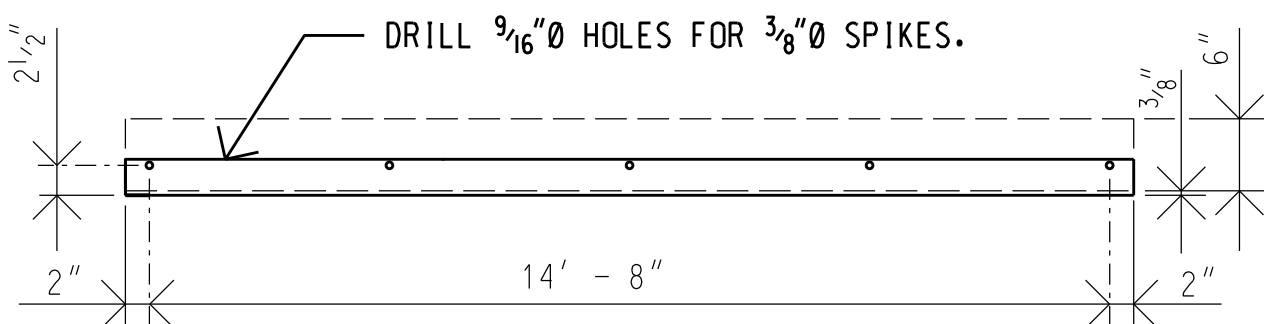


- NOTE: 1. STAGGER SPIKES TO PREVENT SPLITTING OF WALES.
2. PRE-DRILL LAGGINGS FOR SPIKES TO PREVENT SPLITTING W/ 3/8"Ø HOLE

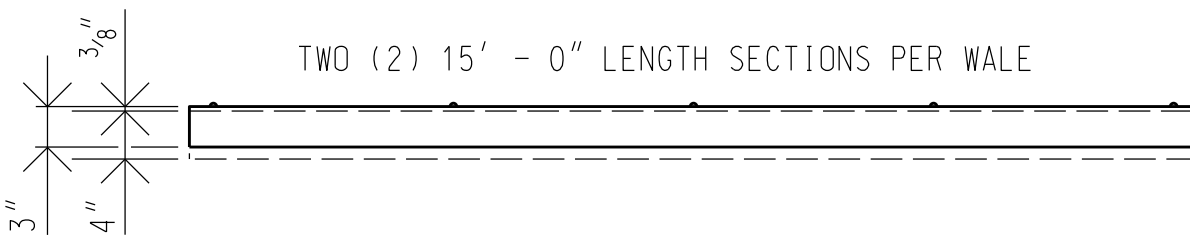
LAGGING DETAIL

SCALE: 1/2" = 1' - 0"

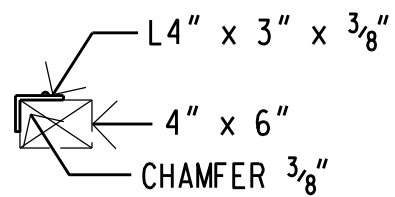
C
5



PLAN



ELEVATION



SECTION

NOTE: TO REUSE THE EXISTING EDGE PROTECTORS, INSPECTION AND APPROVAL MUST BE GIVEN FROM THE CONSTRUCTION ENGINEER AND HARBOR AGENT.

EDGE PROTECTOR DETAIL

SCALE: 3/4" = 1' - 0"

D
5

REV	DATE	DESCRIPTION	BY	APPROVED
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JOB TITLE FENDER REPAIRS AT PIER 3 HILO HARBOR, HILO, HAWAII				
PIER 3 - REPAIR DETAILS				
DESIGNED BY: JM	JOB NUMBER S50208			SHEET 5
DRAWN BY: JM				5 of 5 SHTS.
CHECKED BY: AF				
DATE: APR 2023				
SCALE: AS SHOWN				