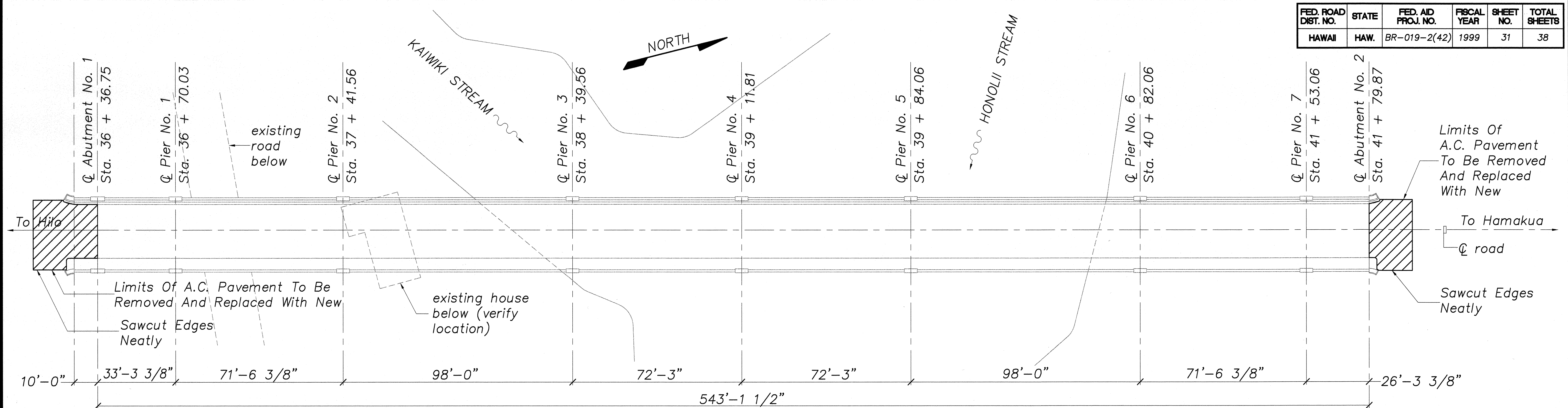
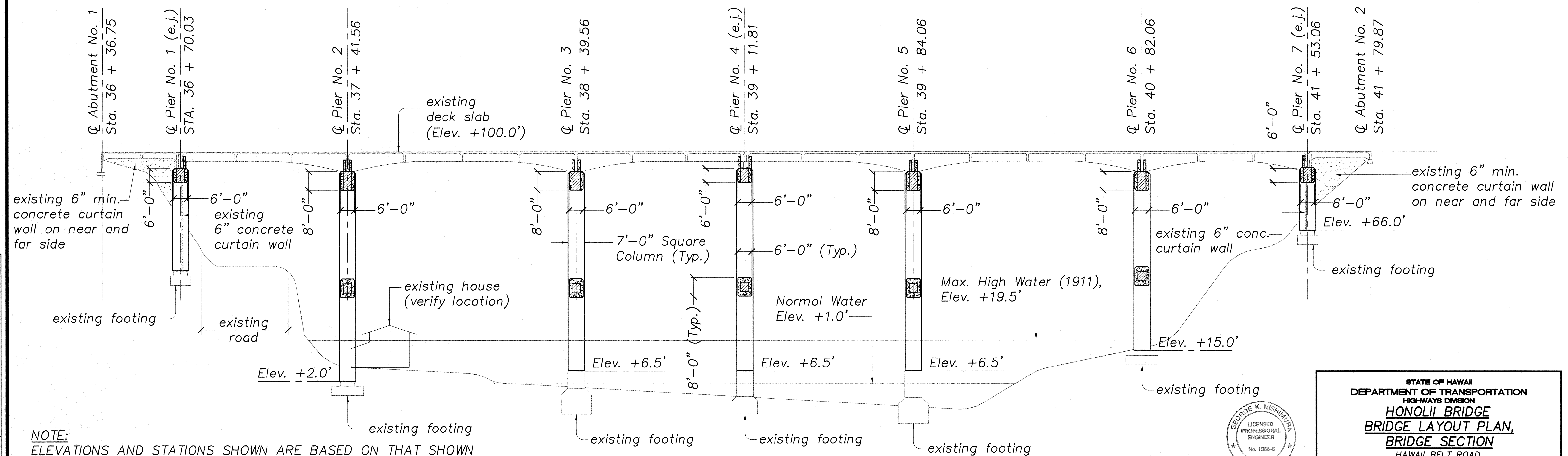


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-019-2(42)	1999	31	38



BRIDGE LAYOUT PLAN

Scale: 1"=20'-0"



NOTE:
ELEVATIONS AND STATIONS SHOWN ARE BASED ON THAT SHOWN
ON EXISTING DRAWINGS FOR THIS BRIDGE AND ARE FOR REFERENCE
ONLY. ACTUAL ELEVATIONS AND DIMENSIONS SHALL BE DETERMINED
BY THE CONTRACTOR.

BRIDGE SECTION ALONG CENTERLINE

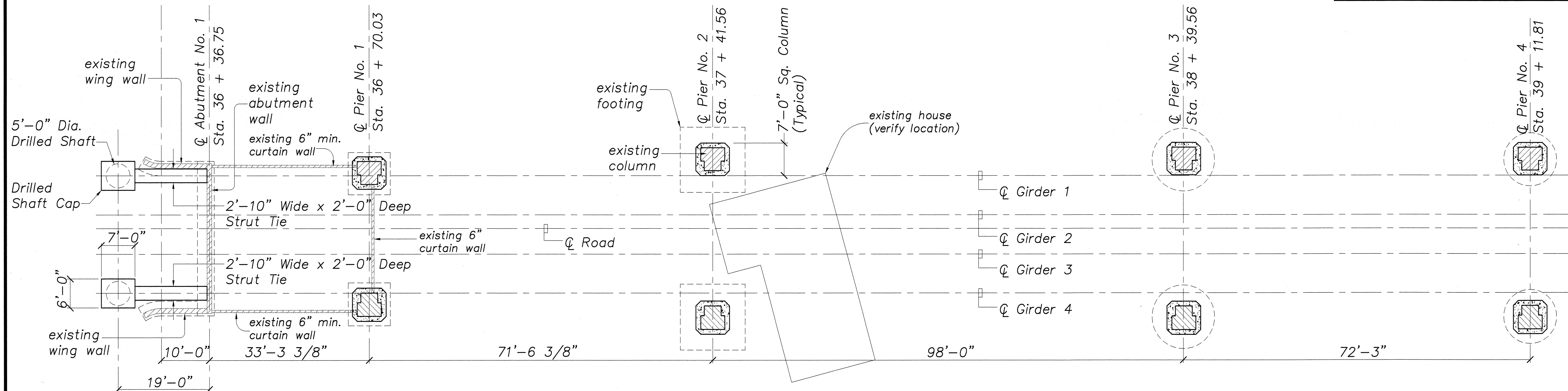
Scale: 1"=20'-0"



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ME OR UNDER MY SUPERVISION

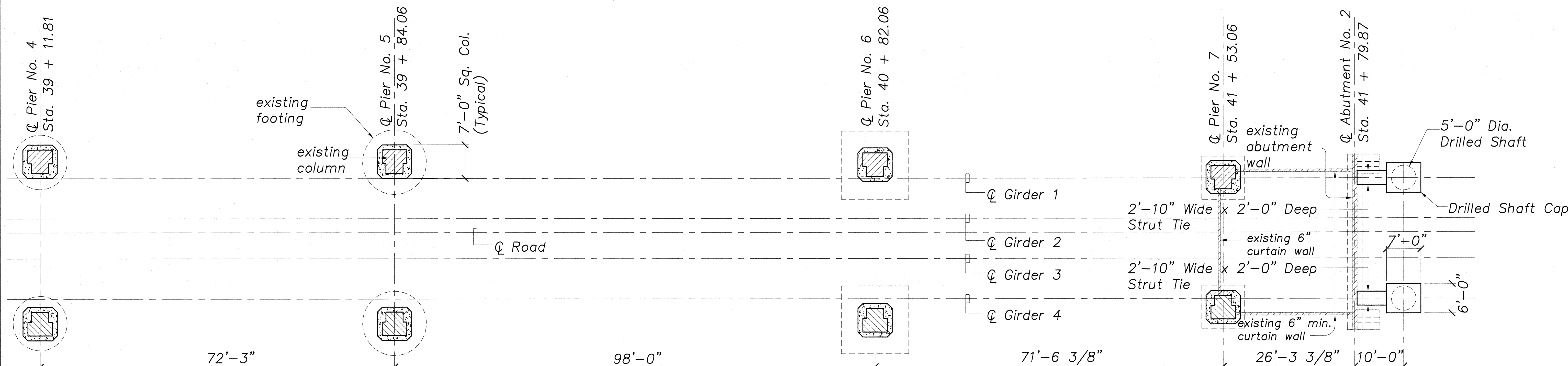

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HONOLULU BRIDGE
BRIDGE LAYOUT PLAN,
BRIDGE SECTION
HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF HILO
Federal Aid Project No. BR-019-2(42)
SCALE: AS NOTED DATE: APRIL 1998
SHEET No. S-5.1 OF 38 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-019-2(42)	1999	32	38



PARTIAL FOUNDATION PLAN

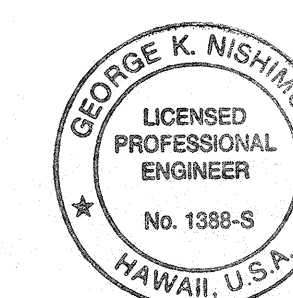
Scale: 1"=10'-0"



PARTIAL FOUNDATION PLAN

Scale: 1"=10'-0"

DATE	_____
DESIGNED BY	_____
CHECKED BY	_____
NO.	_____



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

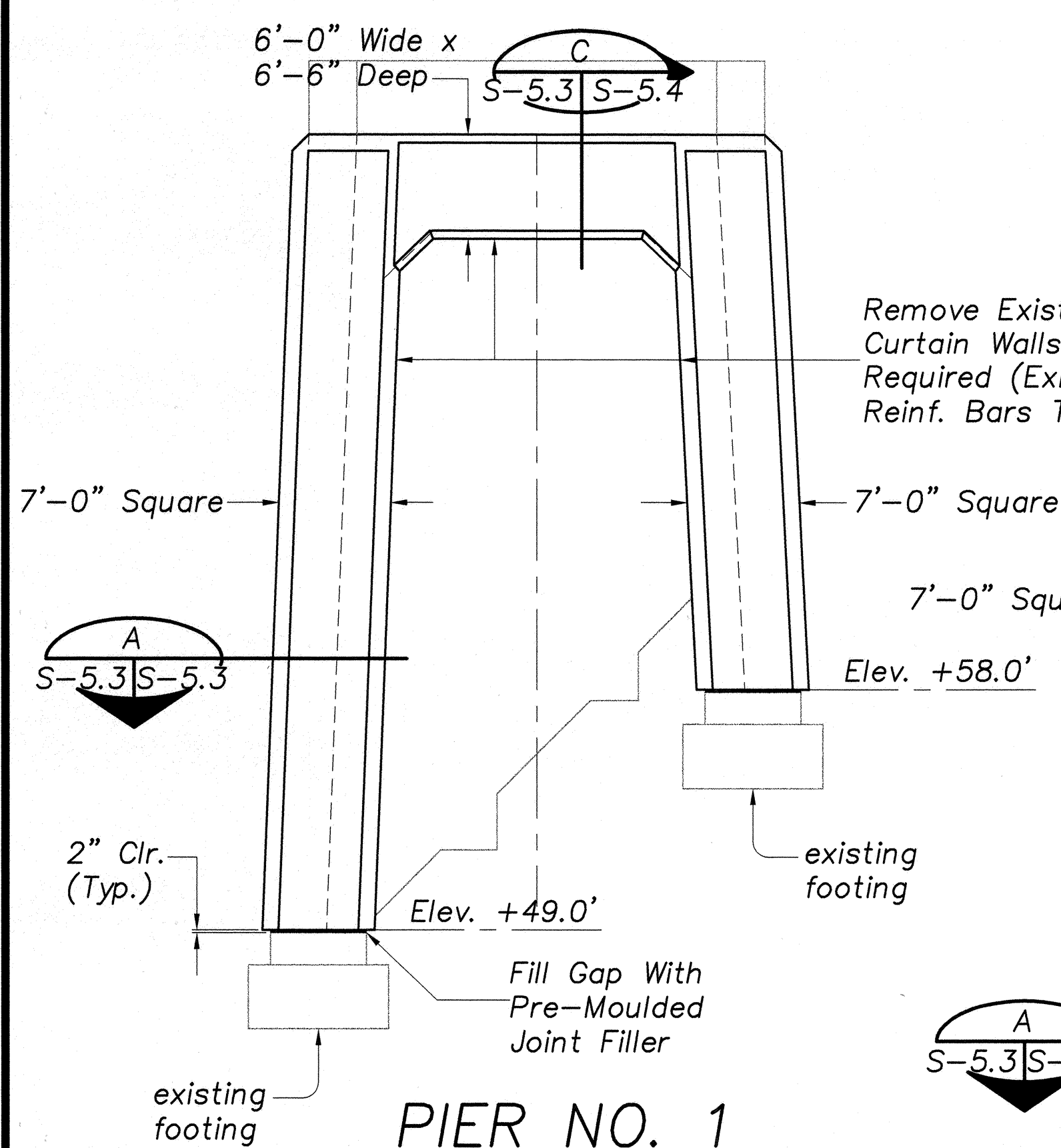
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HONOLULU BRIDGE
PARTIAL FOUNDATION PLAN

HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF HILO
Federal Aid Project No. BR-019-2(42)

SCALE: AS NOTED DATE: APRIL 1998

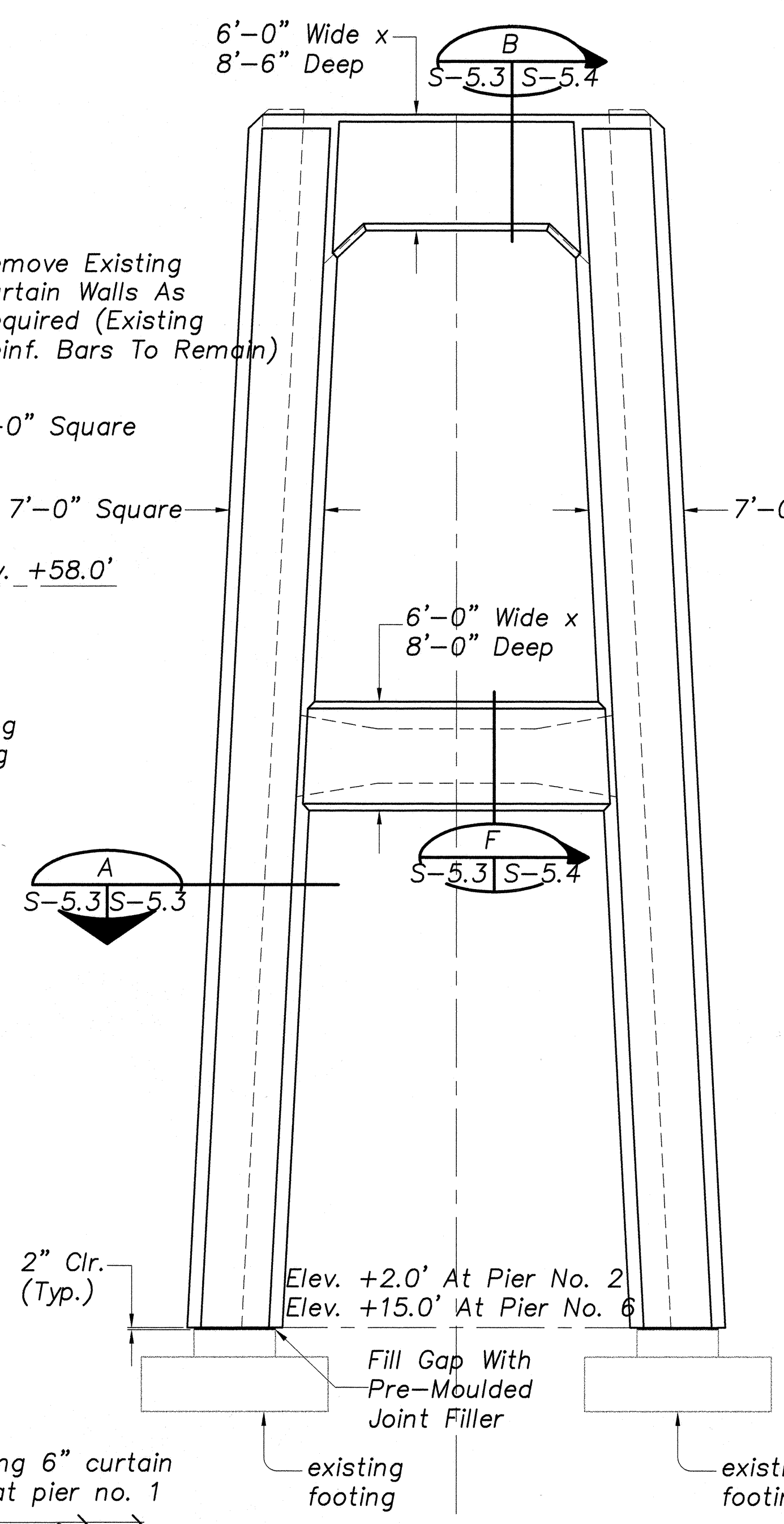
SHEET No. S-5.2 OF 38 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-019-2(42)	1999	33	38

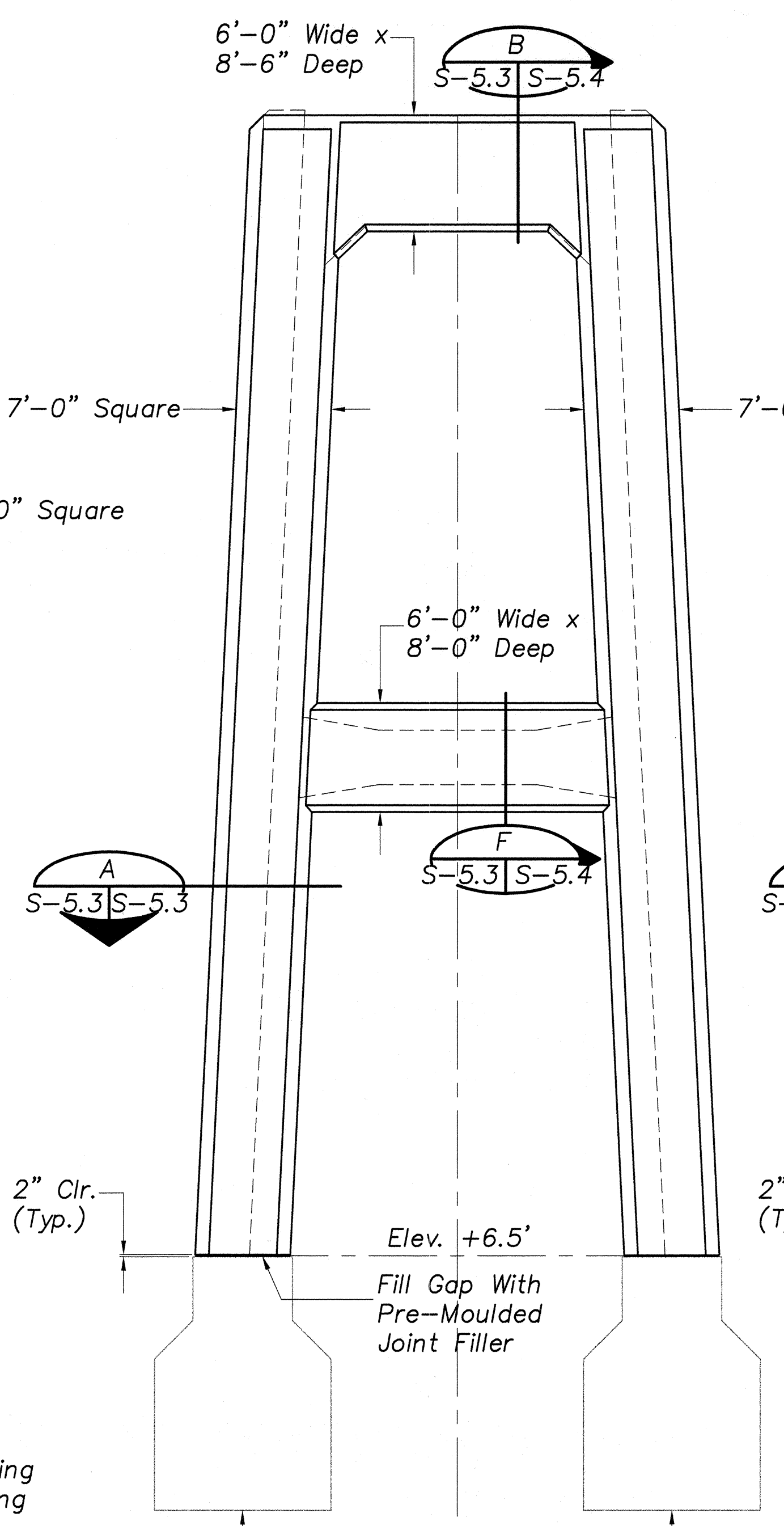


**PIER NO. 1
ELEVATION**
Scale: 1/8"=1'-0"

NOTE: CONTRACTOR MAY, FOR ACCESSIBILITY REMOVE PORTION OF EXISTING CURTAIN WALL AND REPLACE WITH NEW.

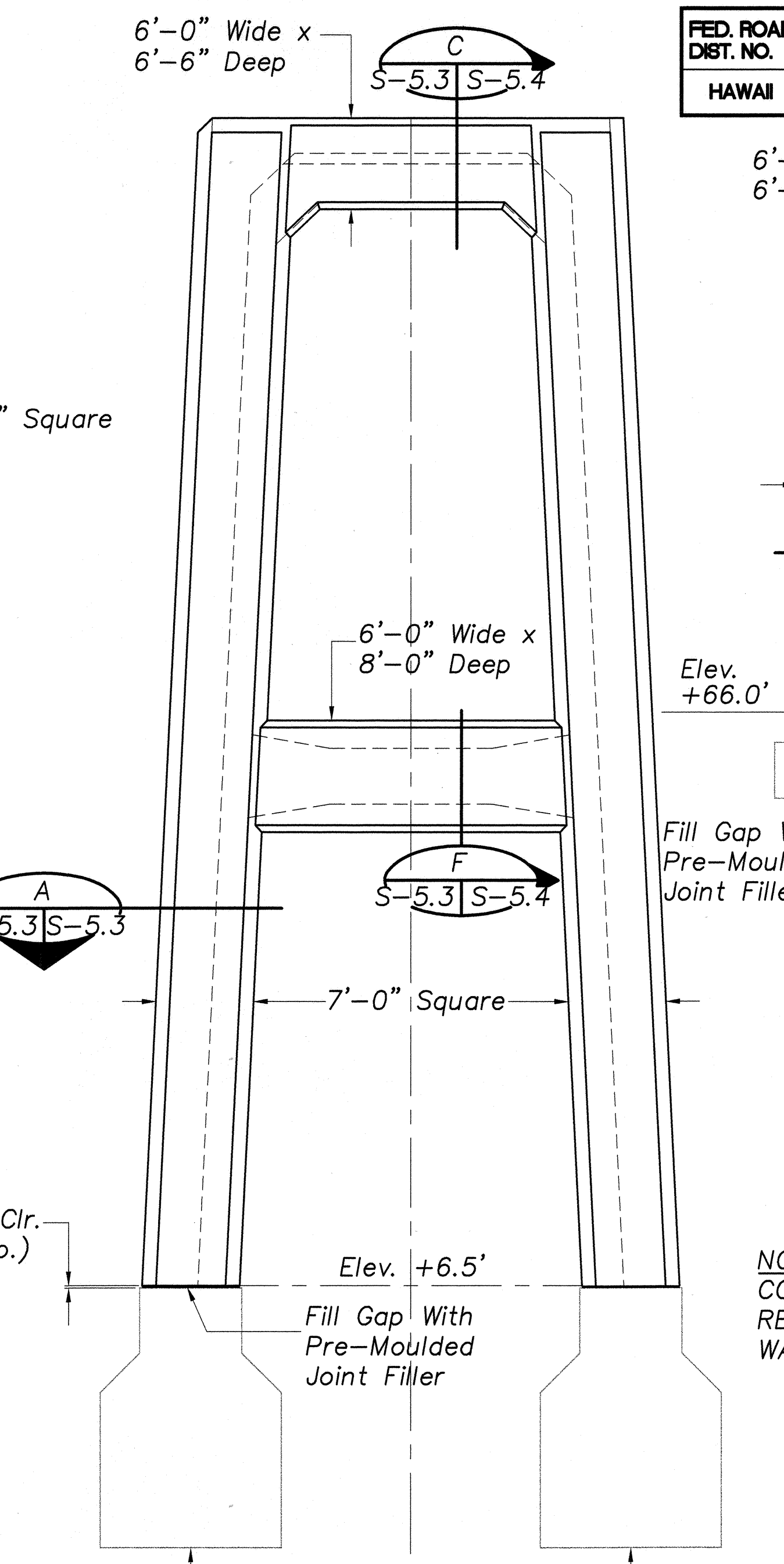


**PIER NO. 2 AND 6
ELEVATION**
Scale: 1/8"=1'-0"

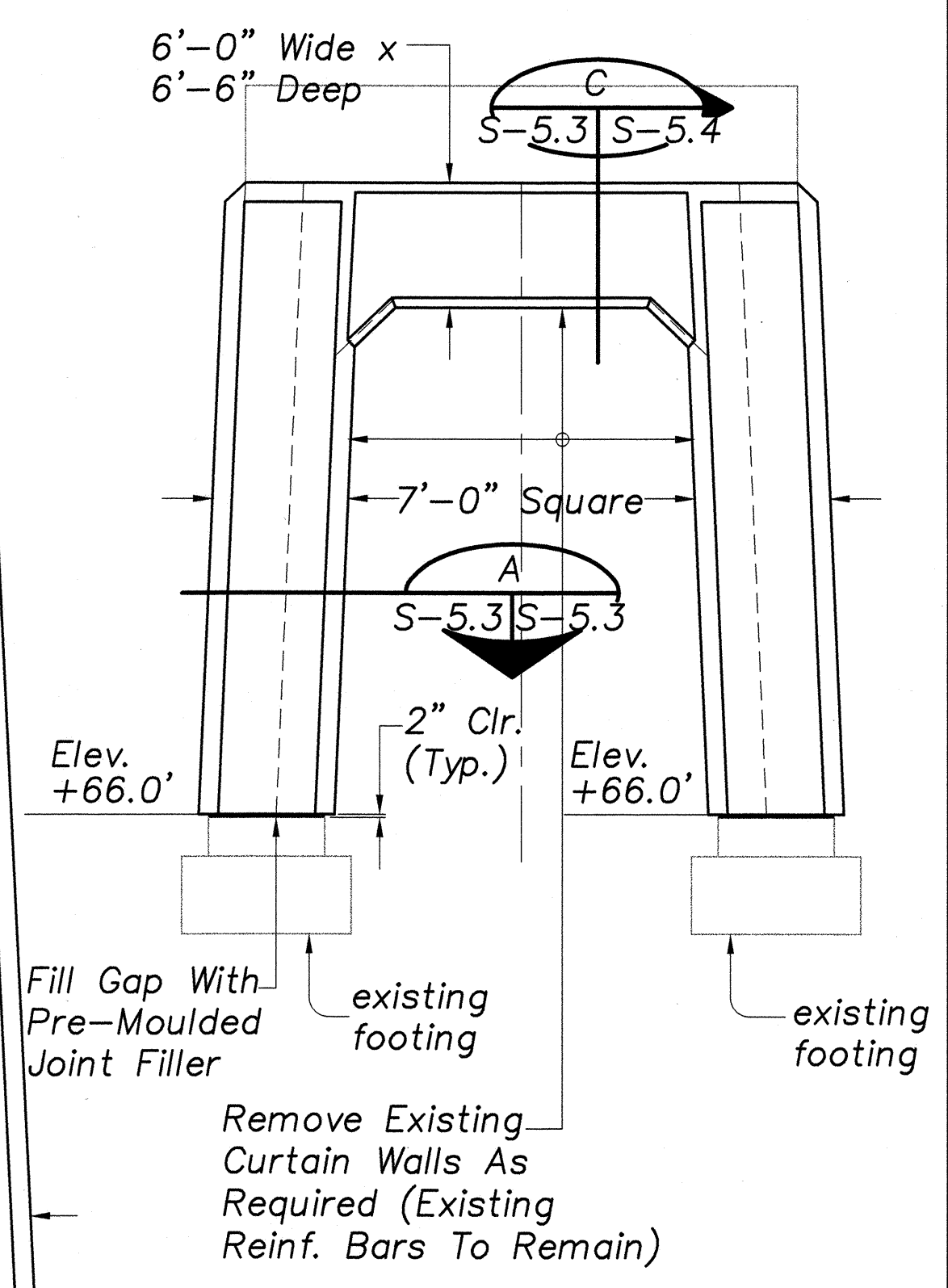


**PIER NO. 3 AND 5
ELEVATION**
Scale: 1/8"=1'-0"

NOTE: ELEVATIONS SHOWN ARE BASED ON THAT SHOWN ON EXISTING DRAWINGS FOR THIS BRIDGE AND ARE FOR REFERENCE ONLY. ACTUAL ELEVATIONS SHALL BE DETERMINED BY THE CONTRACTOR.

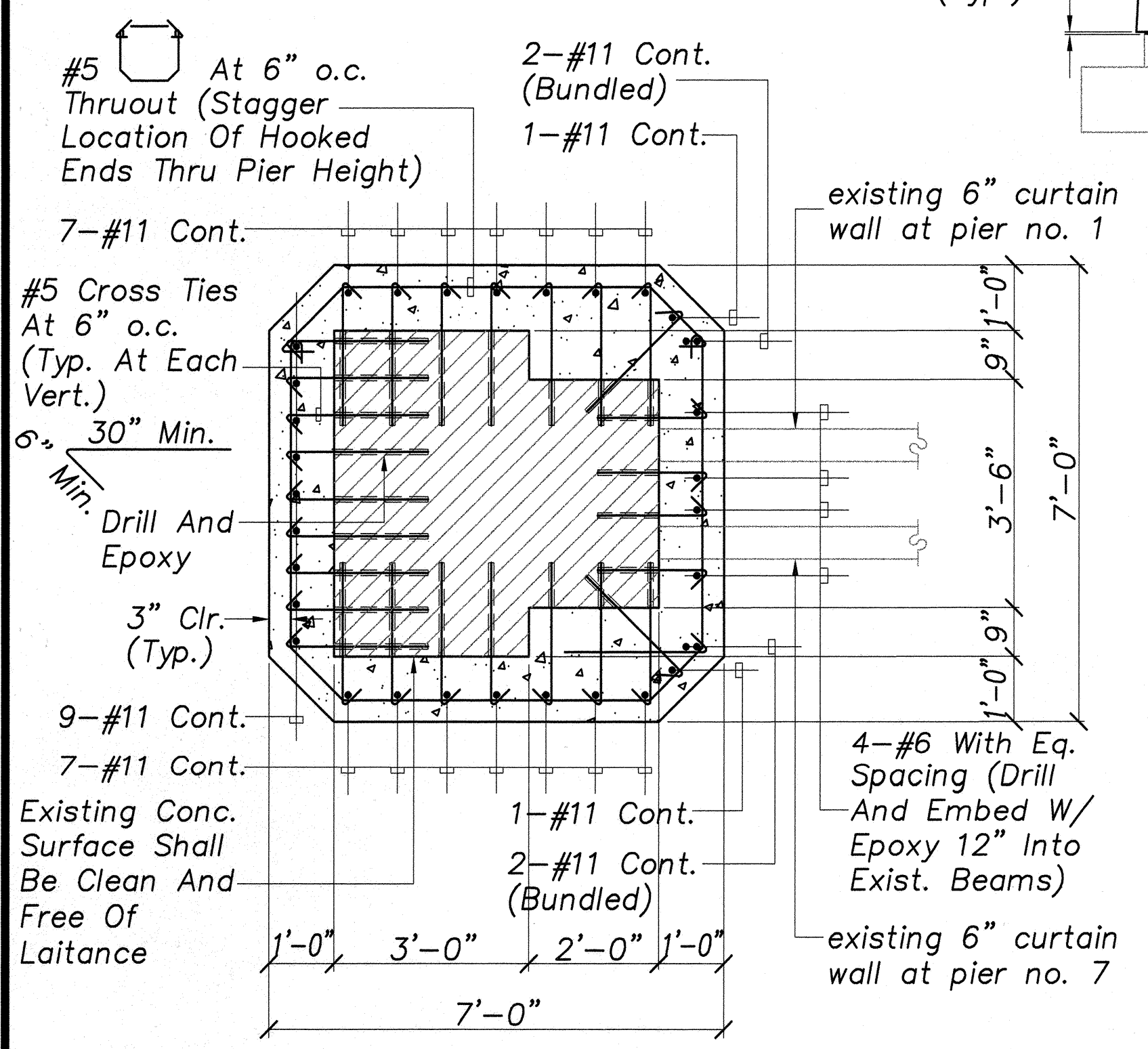


**PIER NO. 4
ELEVATION**
Scale: 1/8"=1'-0"



**PIER NO. 7
ELEVATION**
Scale: 1/8"=1'-0"

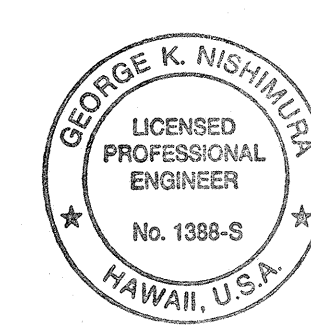
NOTE: CONTRACTOR MAY, FOR ACCESSIBILITY REMOVE PORTION OF EXISTING CURTAIN WALL AND REPLACE WITH NEW.



COLUMN SECTION
Scale: 1/2"=1'-0"

- NOTE:
- #11 COLUMN VERTICAL BARS SHALL BE SPLICED WITH MECHANICAL BUTT SPLICE COUPLERS ONLY. LOCATION OF SPLICES SHALL BE APPROVED BY THE ENGINEER.
 - CONTRACTOR SHALL VERIFY LOCATION OF EXISTING REINFORCING. DO NOT CUT EXISTING REINFORCING DURING DRILLING OPERATIONS.

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MECHANICAL SUPERVISION



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HONOLULU
HONOLULU BRIDGE
PIER ELEVATIONS

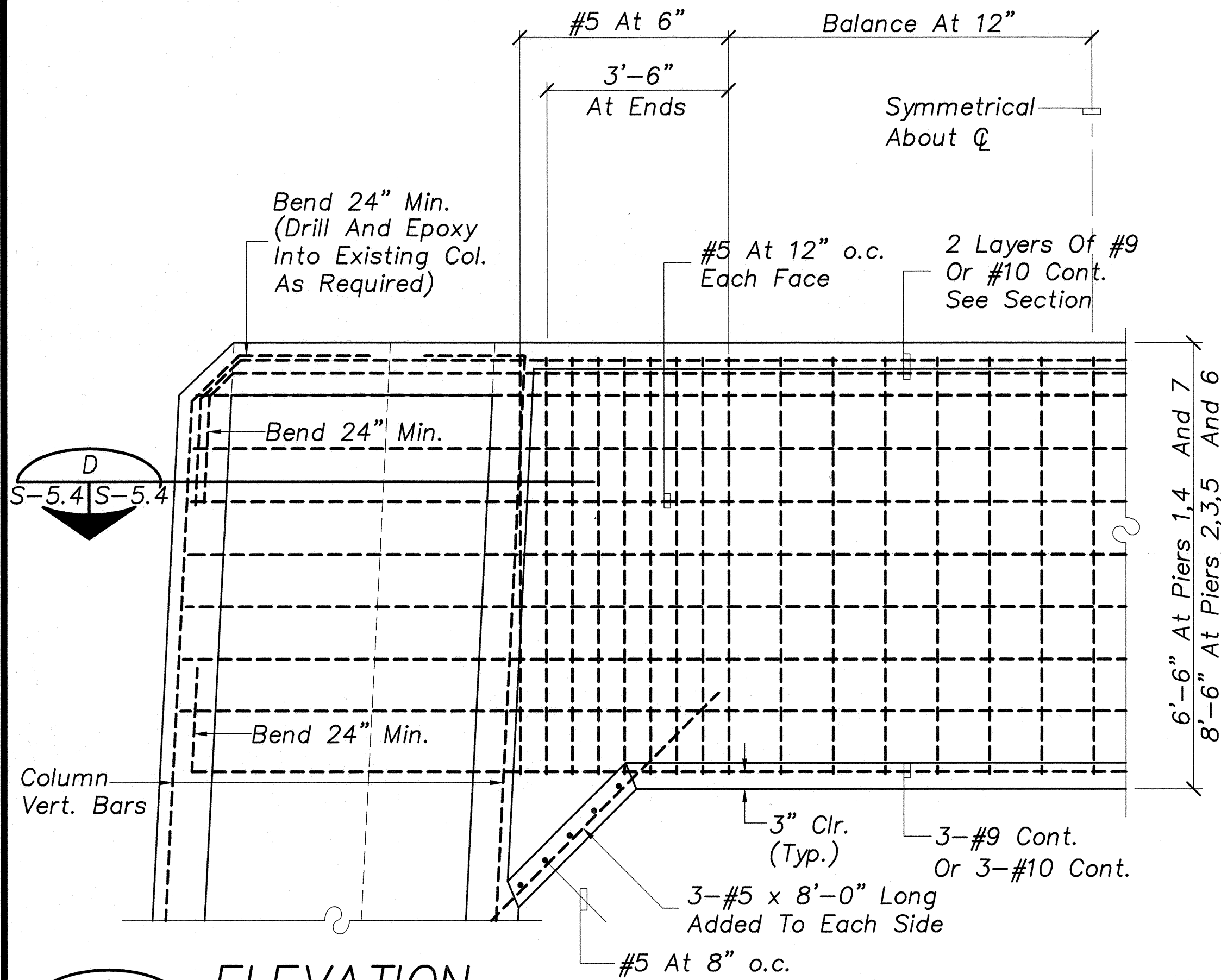
HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF HILO
Federal Aid Project No. BR-019-2(42)

SCALE: AS NOTED DATE: APRIL 1998

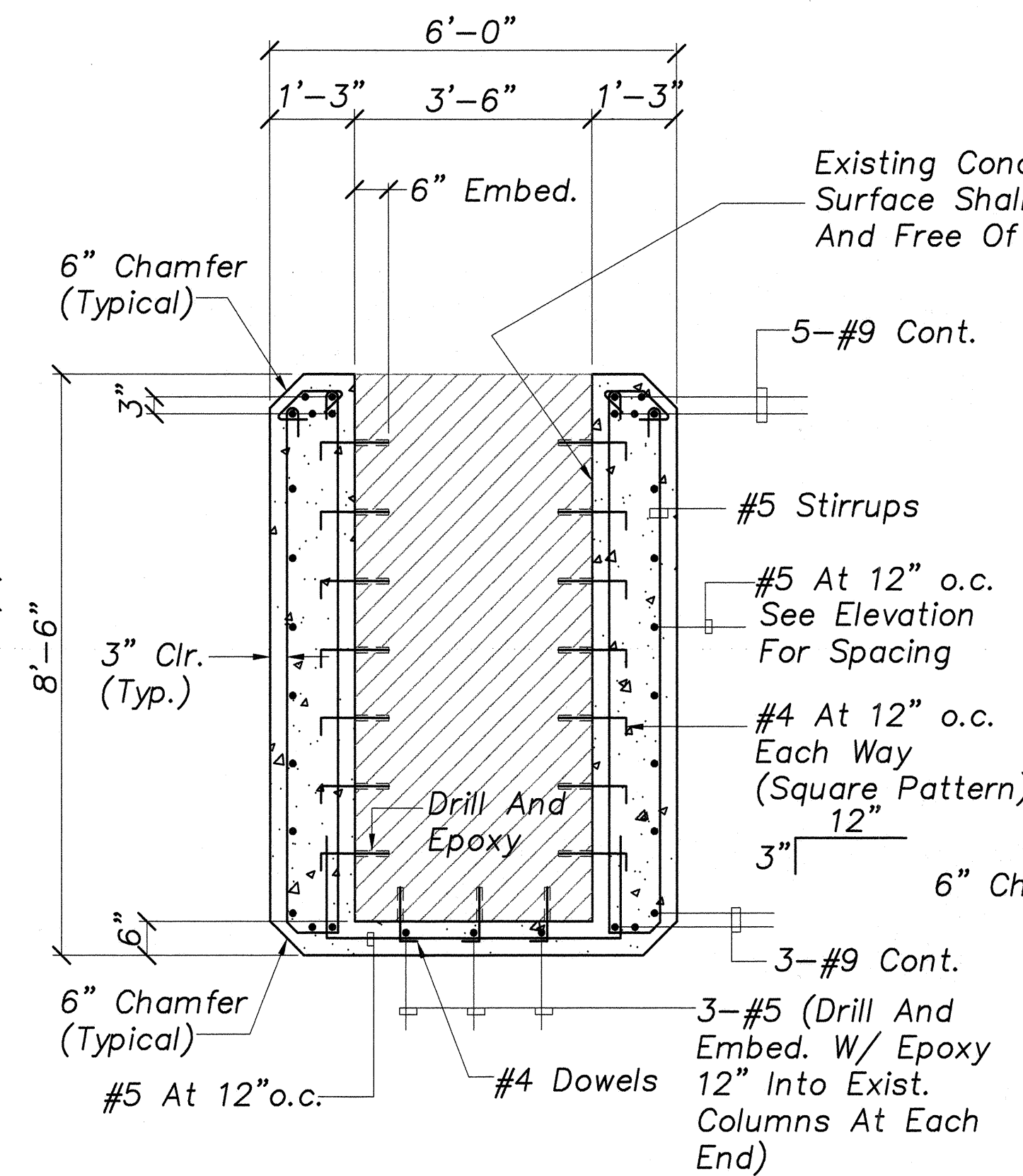
SHEET No. S-5.3 OF 38 SHEETS

ORIGINAL PLAN
DATE
DRAWN BY
CHECKED BY
NOTED BY
QUANTITIES BY

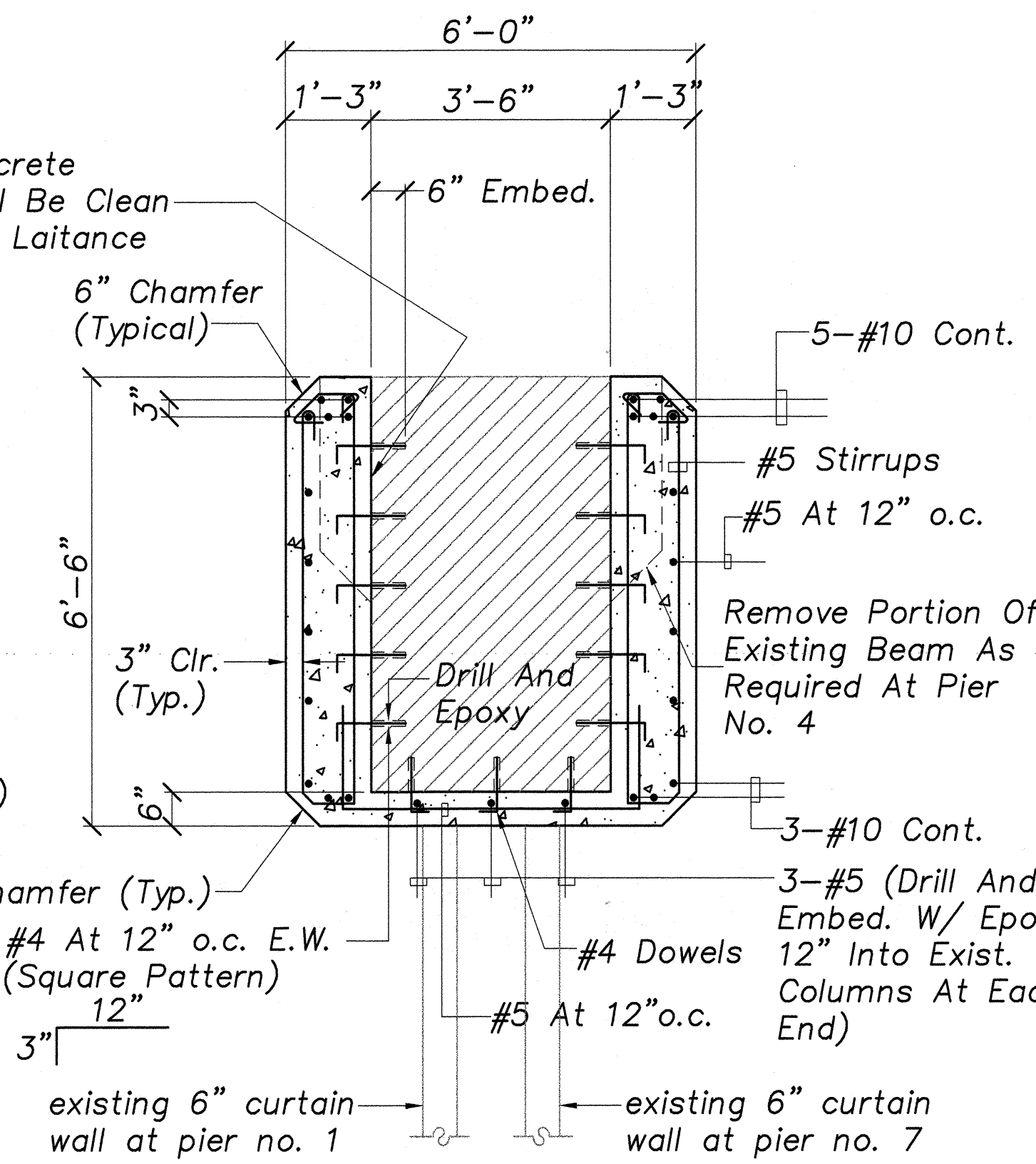
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-019-2(42)	1999	34	38



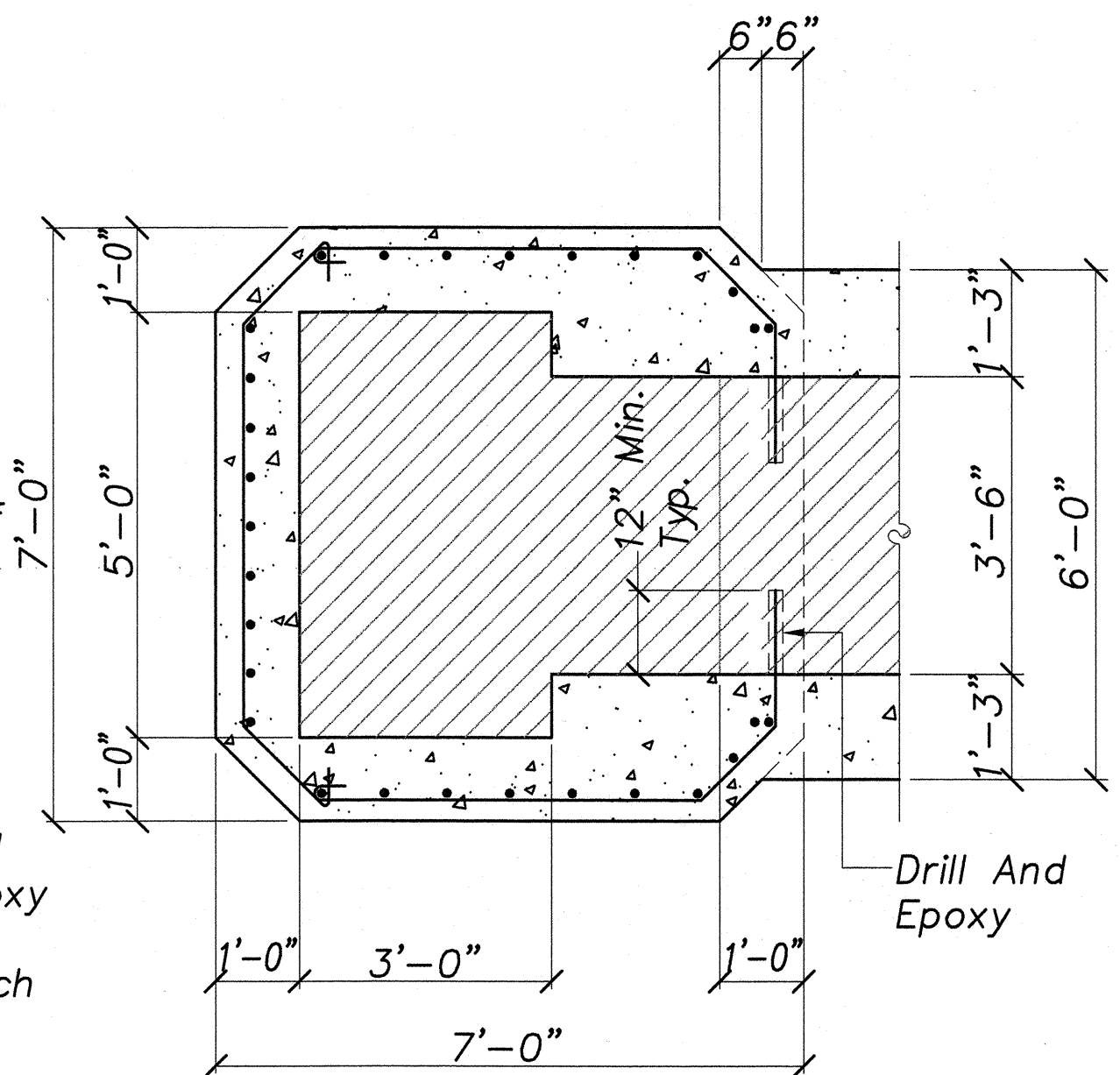
A ELEVATION
S-5.4 S-5.4 Scale: 1/2"=1'-0" NOTE: COLUMN TIES NOT SHOWN FOR CLARITY



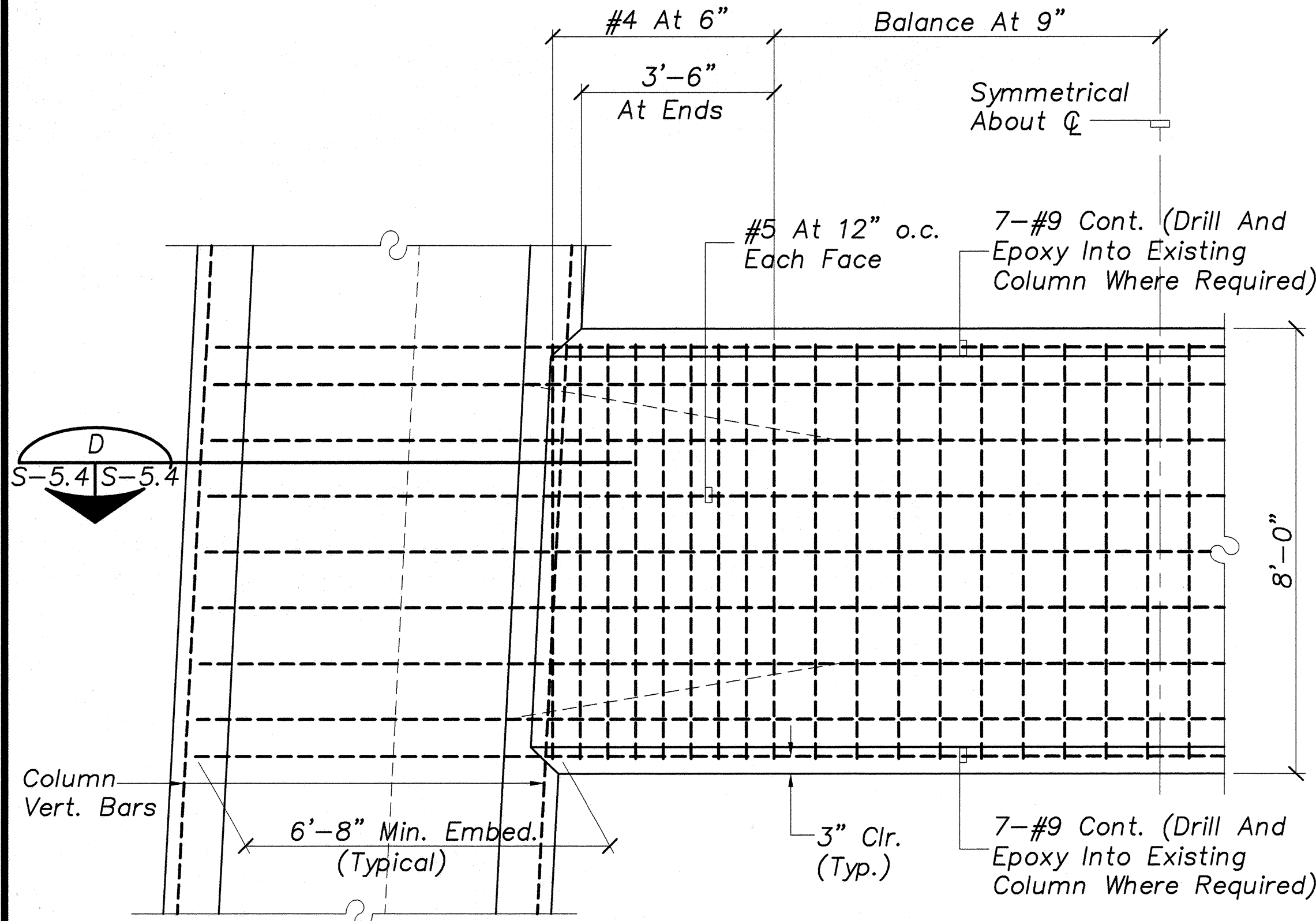
B SECTION
S-5.3 S-5.4 Scale: 1/2"=1'-0"



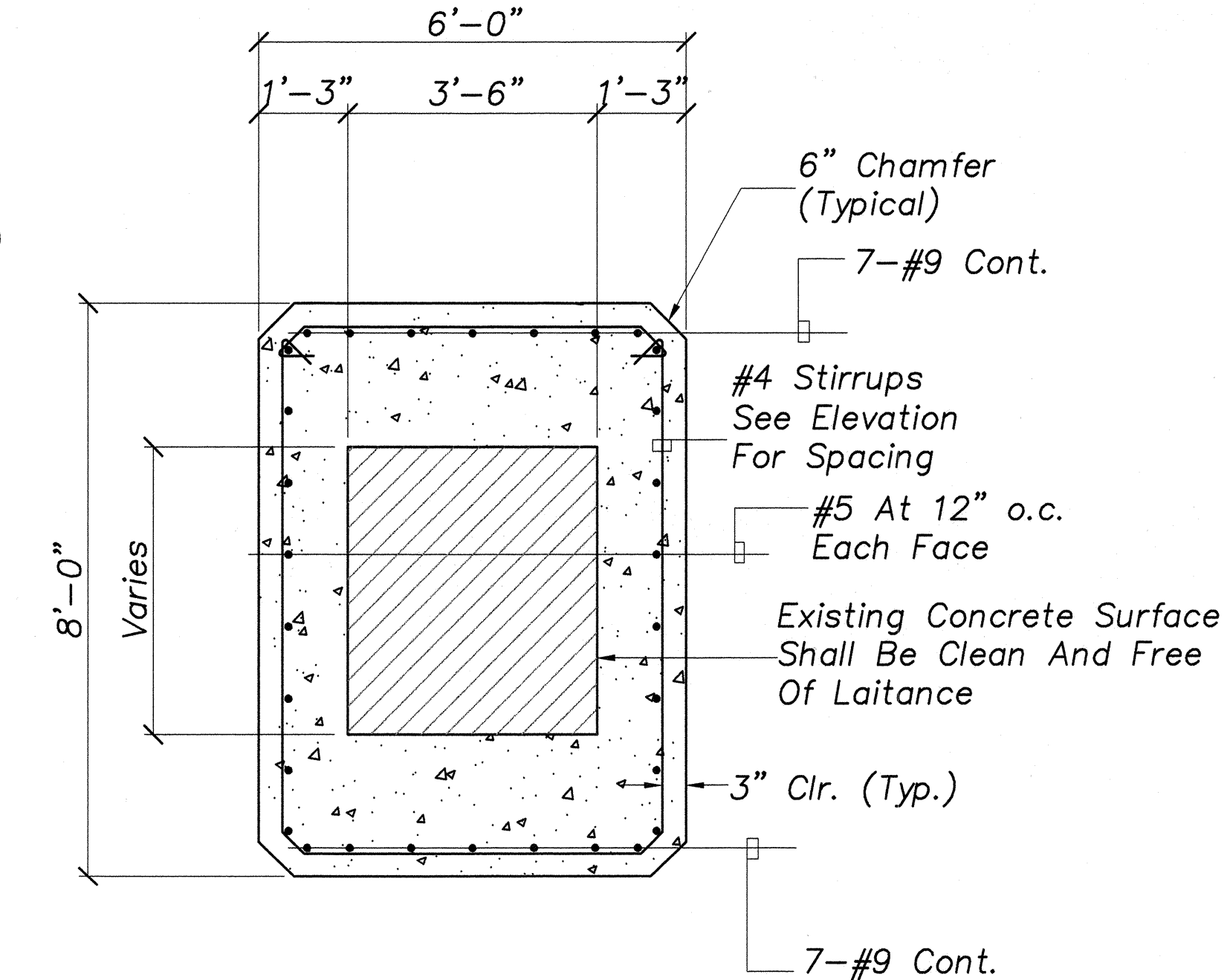
C SECTION
S-5.3 S-5.4 Scale: 1/2"=1'-0"



D SECTION
S-5.3 S-5.4 Scale: 1/2"=1'-0"

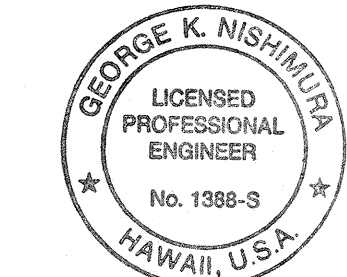


E ELEVATION
S-5.4 S-5.4 Scale: 1/2"=1'-0" NOTE: COLUMN TIES NOT SHOWN FOR CLARITY



F SECTION
S-5.3 S-5.4 Scale: 1/2"=1'-0"

- NOTE:
- #9 AND #10 CONTINUOUS BEAM BARS SHALL BE SPLICED WITH MECHANICAL BUTT SPLICE COUPLERS ONLY. LOCATION OF SPLICES SHALL BE APPROVED BY THE ENGINEER.
 - CONTRACTOR SHALL VERIFY LOCATION OF EXISTING REINFORCING. DO NOT CUT EXISTING REINFORCING DURING DRILLING OPERATIONS.



THIS WORK WAS PREPARED BY
MECHANICAL SUPERVISOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HONOLULU
HONOLULU BRIDGE
BEAM DETAILS

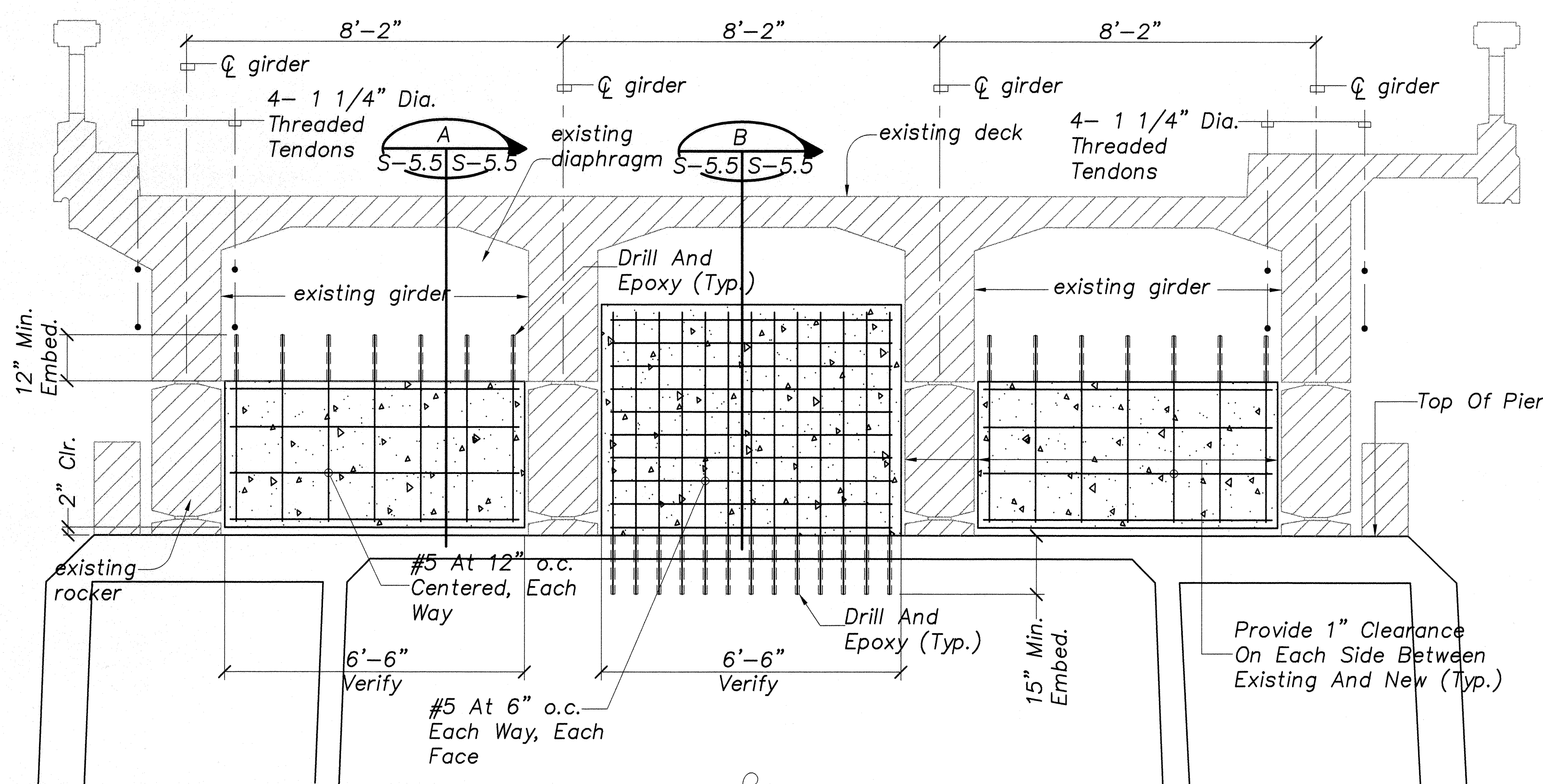
HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF HILO
Federal Aid Project No. BR-019-2(42)

SCALE: AS NOTED DATE: APRIL 1998

SHEET No. S-5.4 OF 38 SHEETS

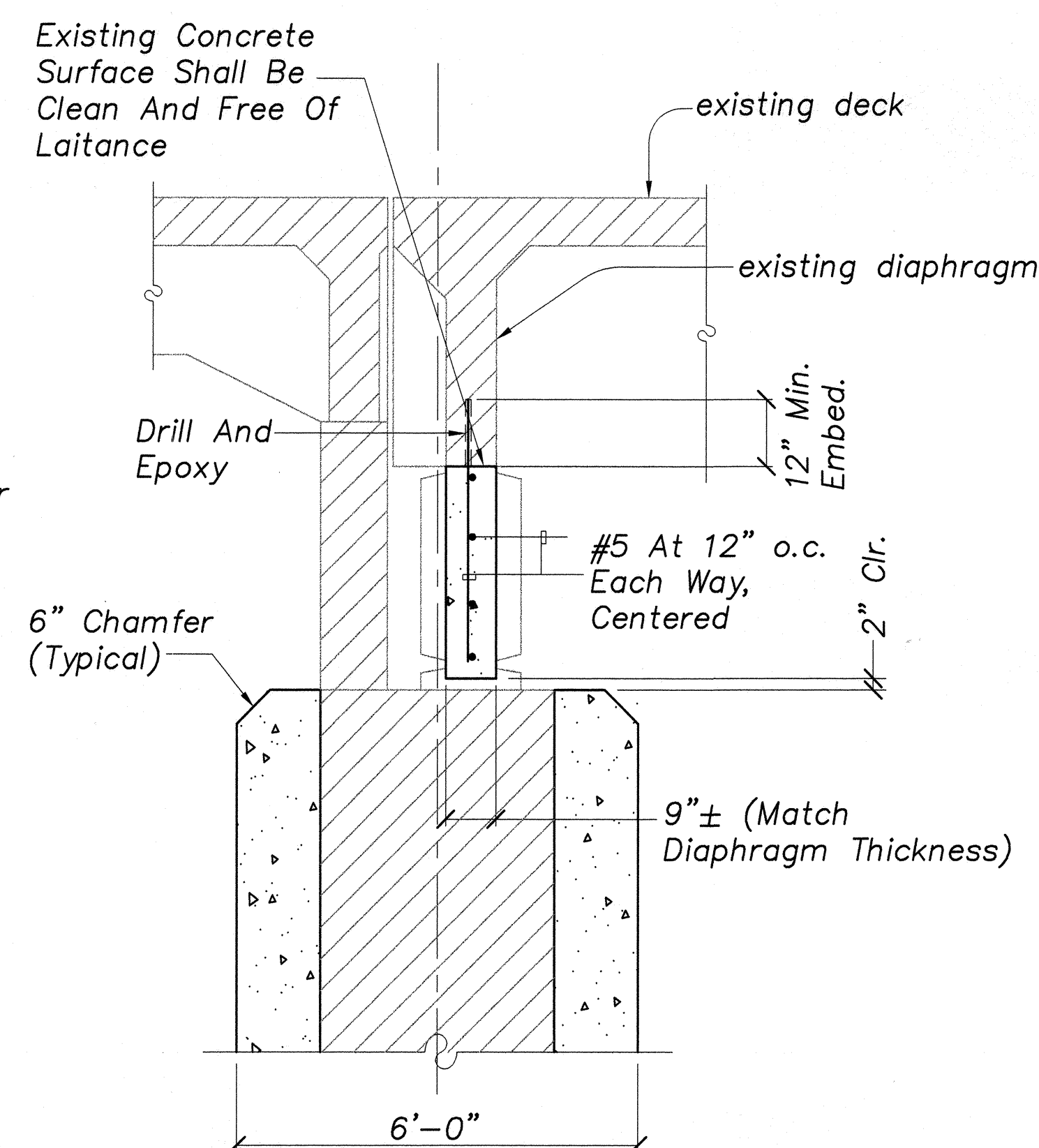
ORIGINAL
PLAN
NOTED BY
DATE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-019-2(42)	1999	35	38



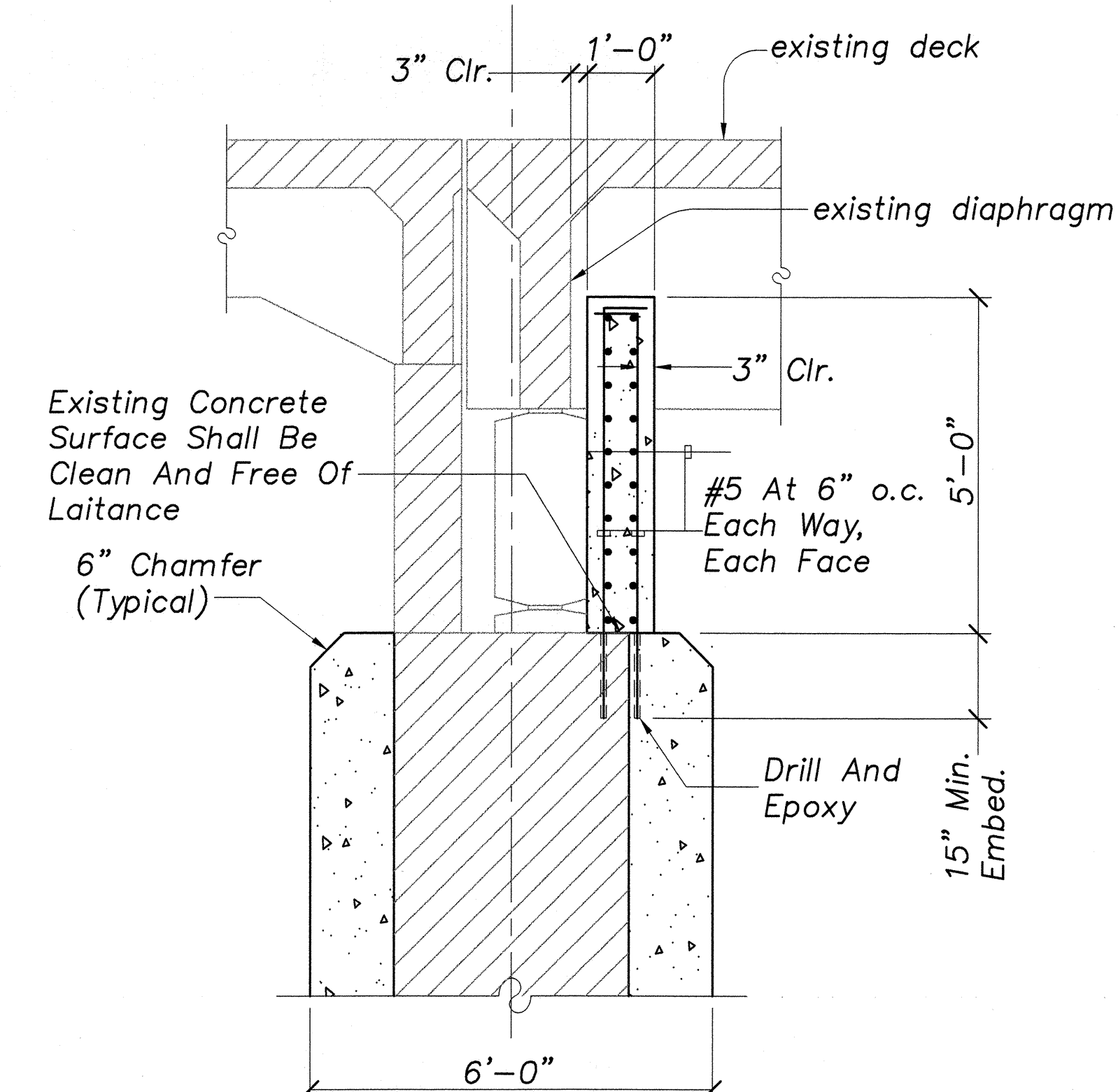
PIER NO. 1 ELEVATION (PIER NO. 7 SIM.)

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



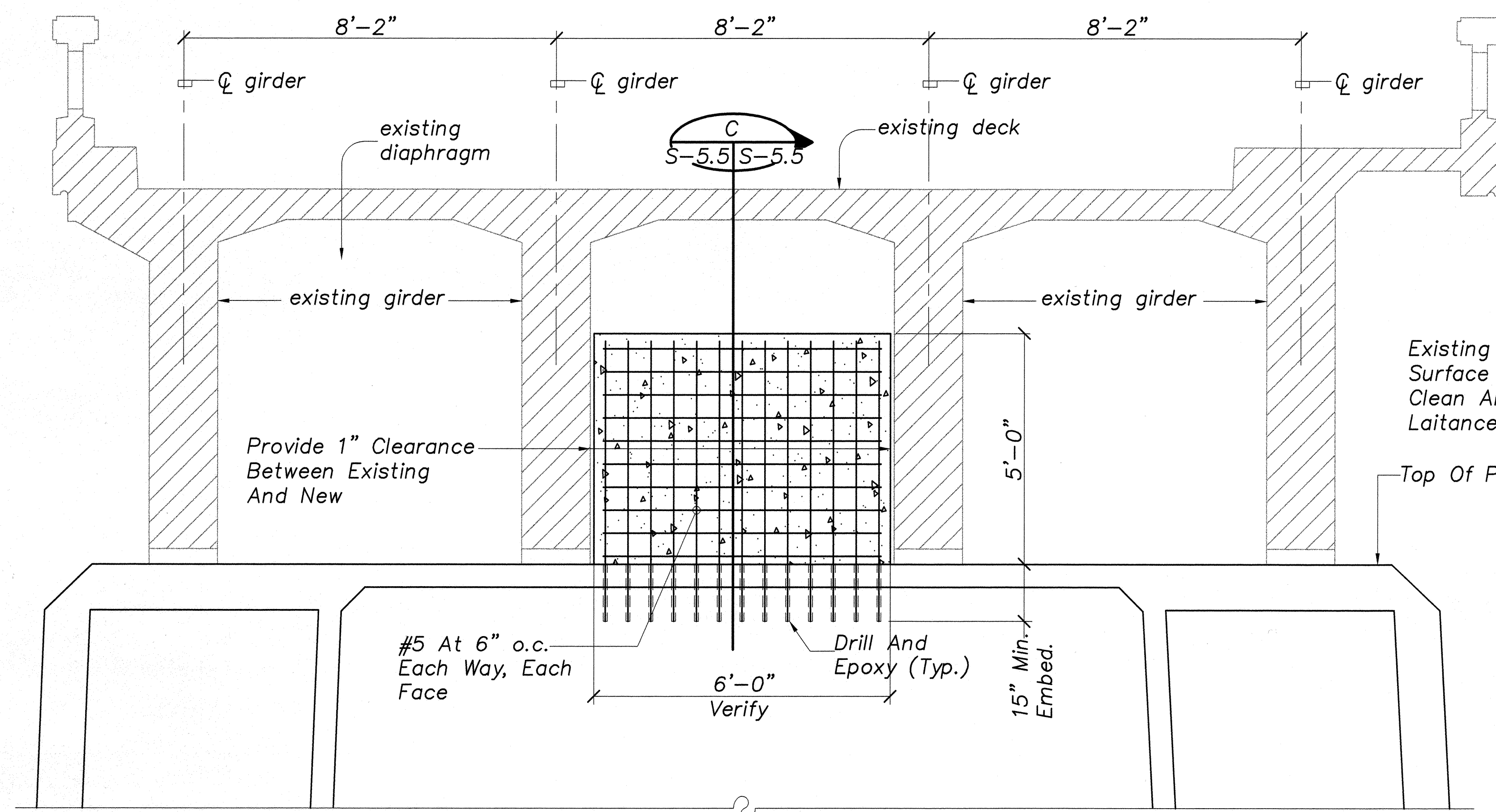
SECTION A

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



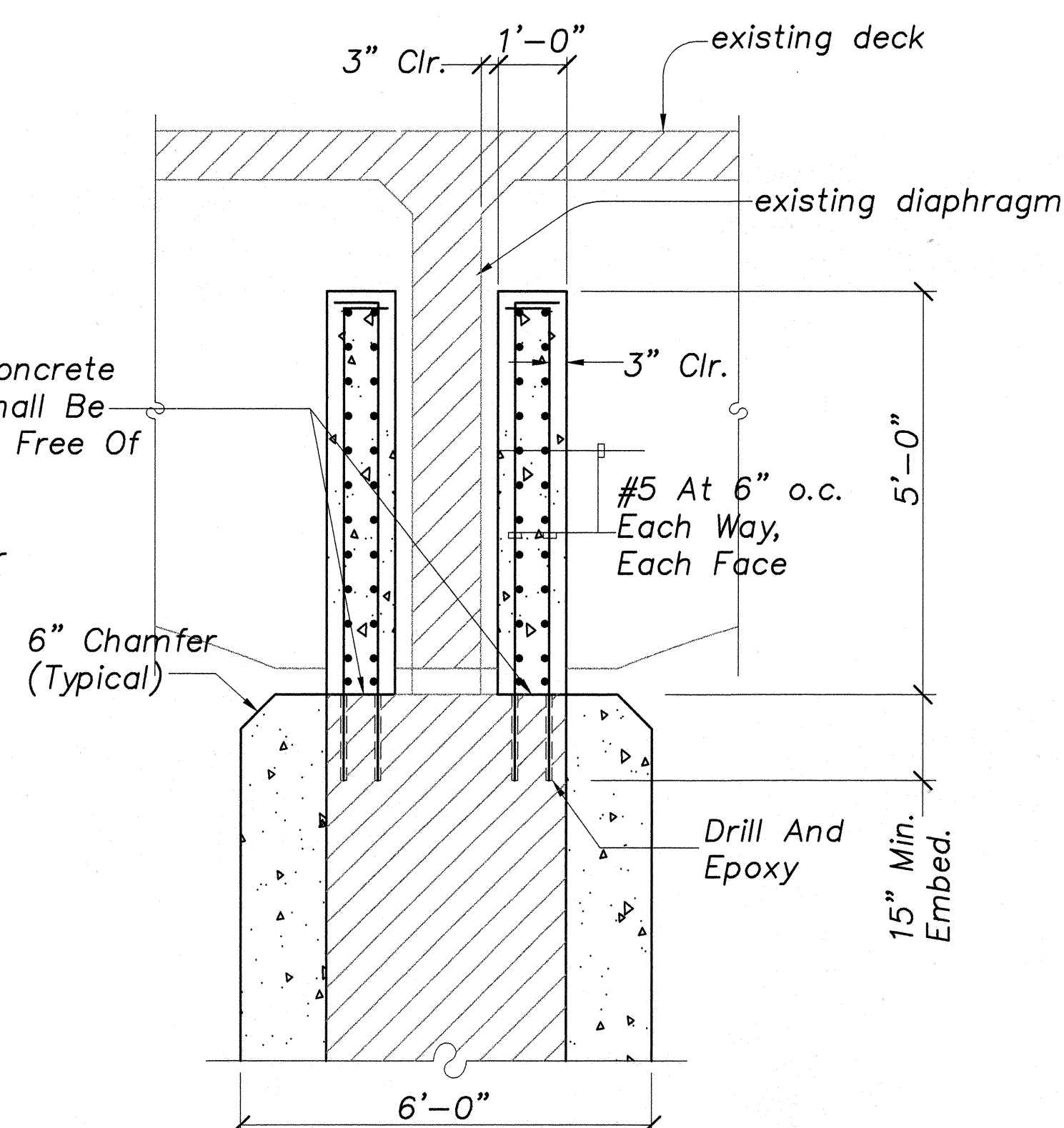
SECTION B

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



PIER NO. 2, 3, 5 AND 6 ELEVATIONS

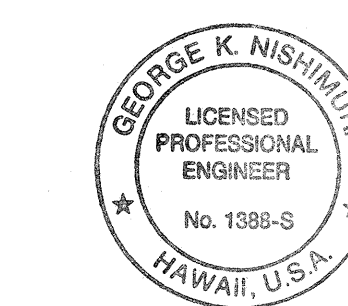
Scale: 1/2"=1'-0"



SECTION C

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

DATE	_____
SURVEY PLOTTED BY	_____
DESIGNED BY	_____
CHECKED BY	_____
ORIGINAL PLAN	_____
NOTE BOOK	_____
No.	_____



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MEOR UNDER MY SUPERVISION.

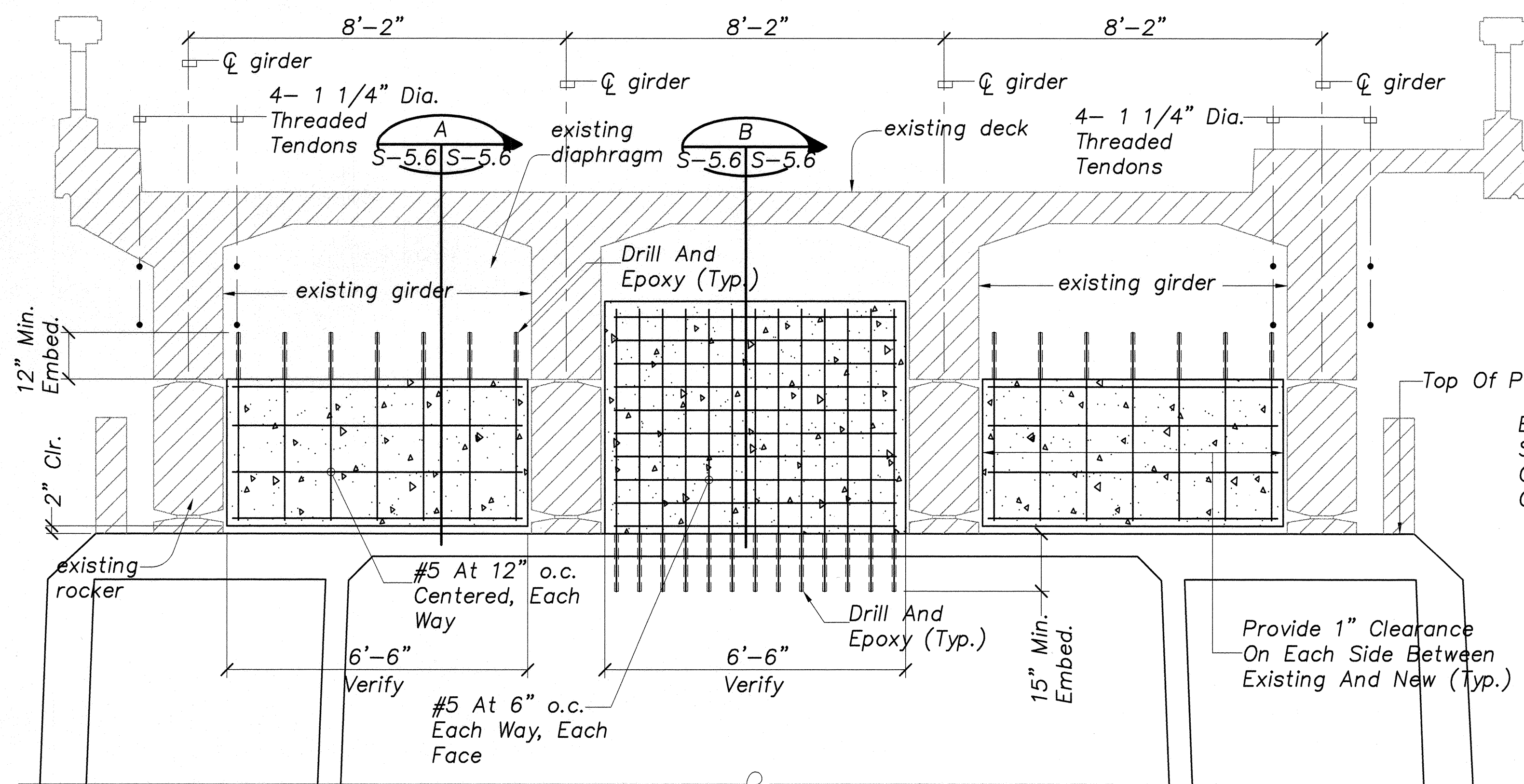
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HONOLULU BRIDGE
PIER ELEVATIONS AND SECTIONS

HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF HILO
Federal Aid Project No. BR-019-2(42)

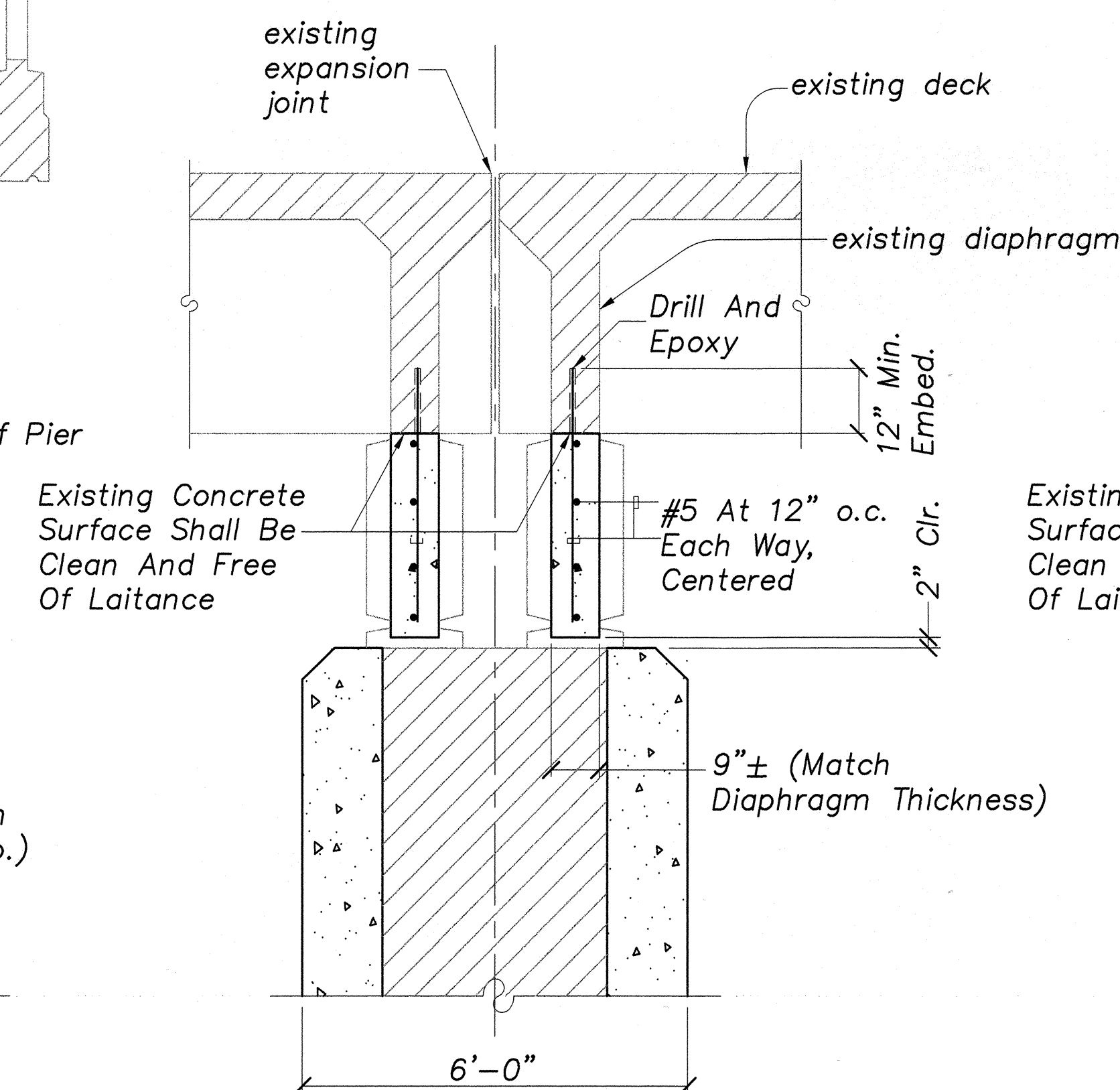
SCALE: AS NOTED DATE: APRIL 1998

SHEET No. S-5.5 OF 38 SHEETS

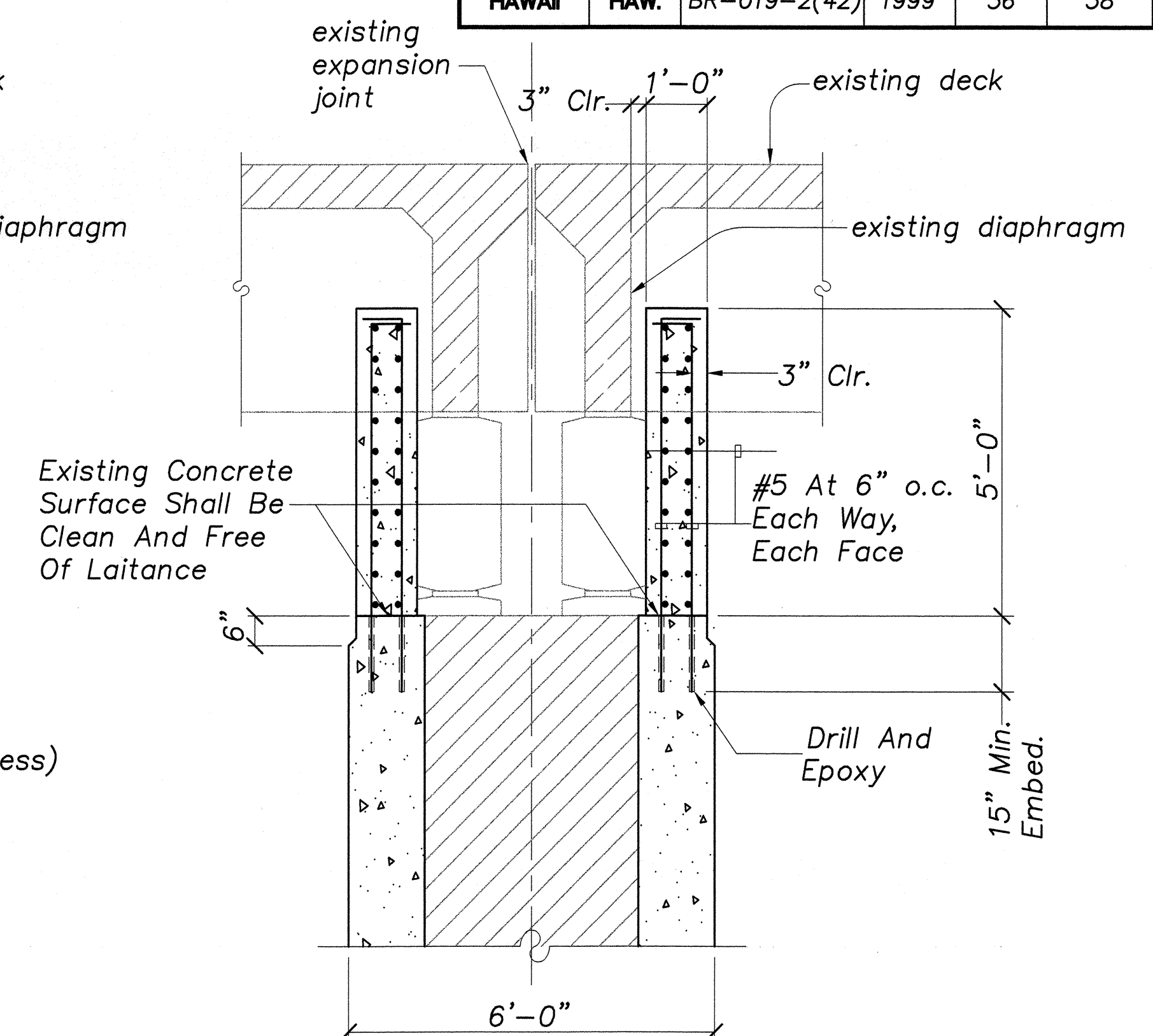
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-019-2(42)	1999	36	38



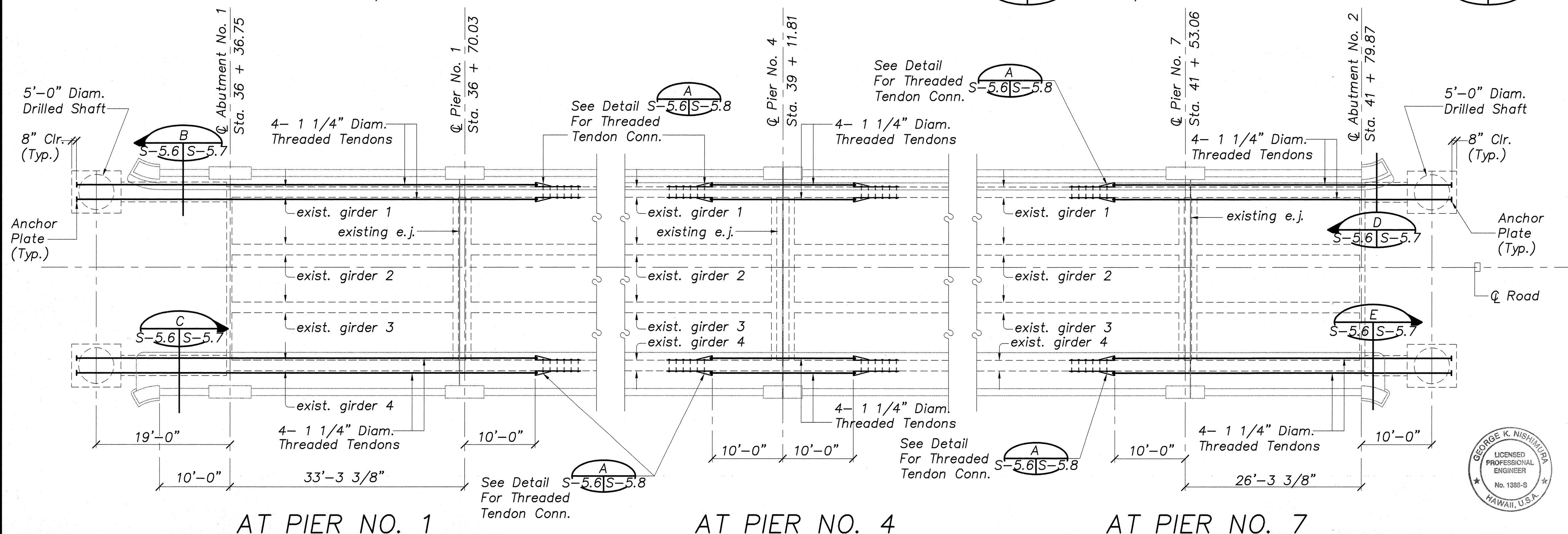
PIER NO. 4 ELEVATION
Scale: 1/2"=1'-0"



SECTION A
S-5.6 S-5.6 Scale: 1/2"=1'-0"



SECTION B
S-5.6 S-5.6 Scale: 1/2"=1'-0"

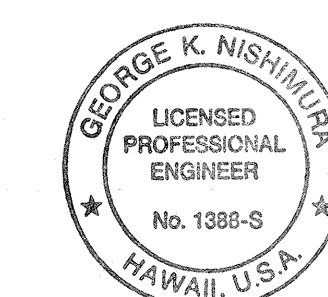


AT PIER NO. 1

AT PIER NO. 4

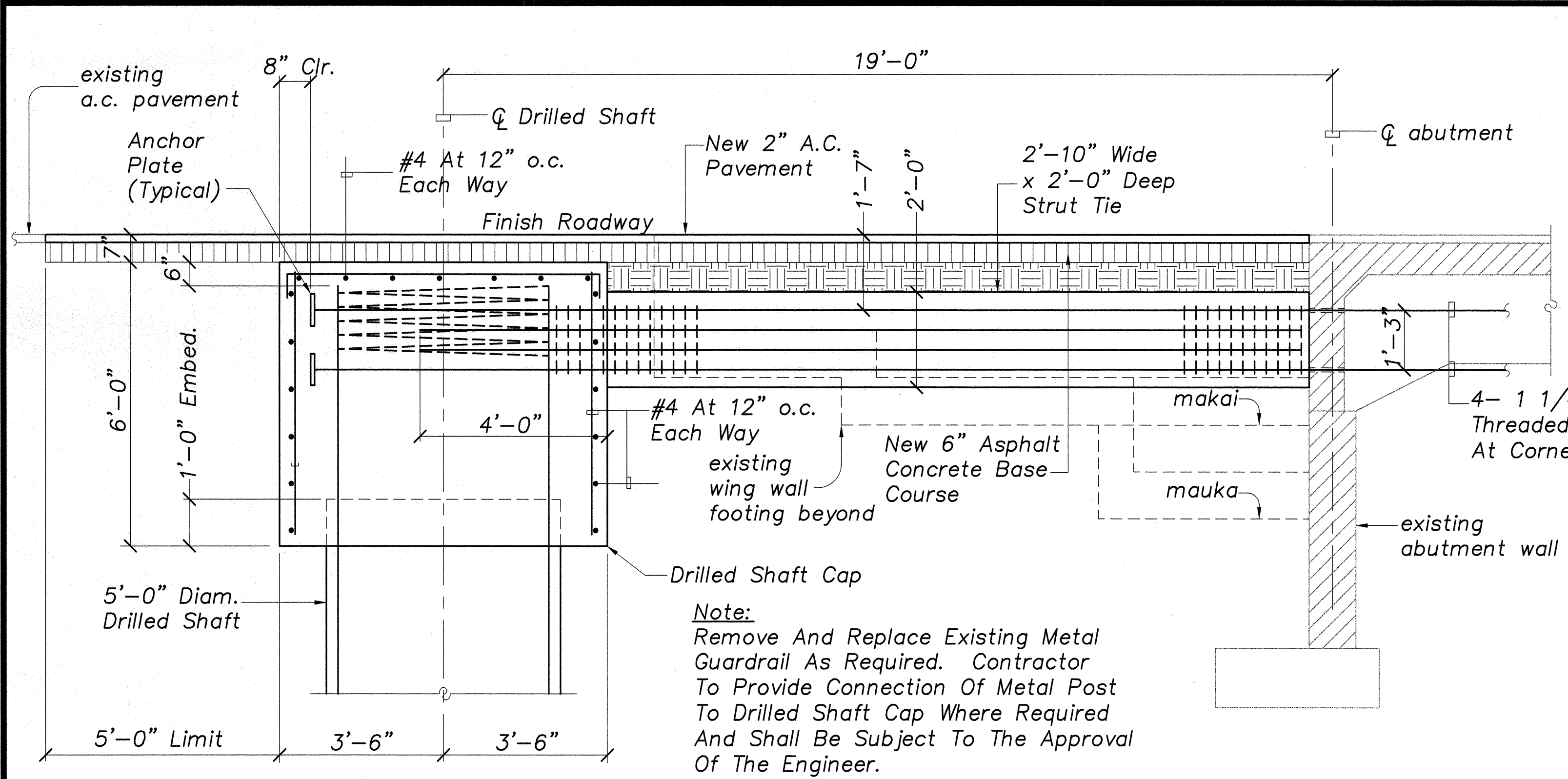
AT PIER NO. 7

PARTIAL FRAMING PLAN
Scale: 1/8"=1'-0"

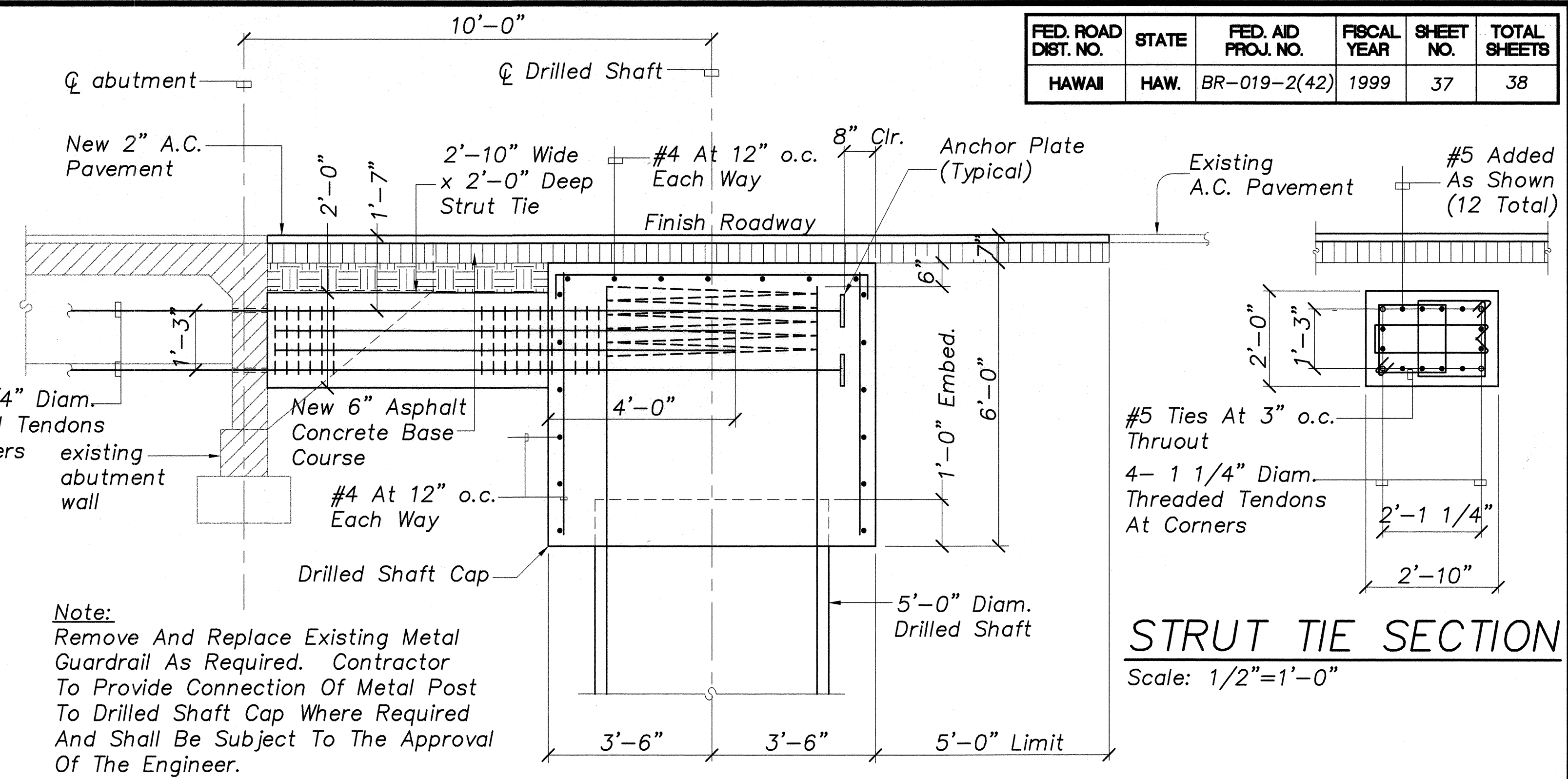


STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HONOLULU BRIDGE
PIER ELEVATIONS AND SECTIONS
PARTIAL FRAMING PLAN
HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF HILO
Federal Aid Project No. BR-019-2(42)
SCALE: AS NOTED
DATE: APRIL 1998
SHEET No. S-5.6 OF 38 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-019-2(42)	1999	37	38

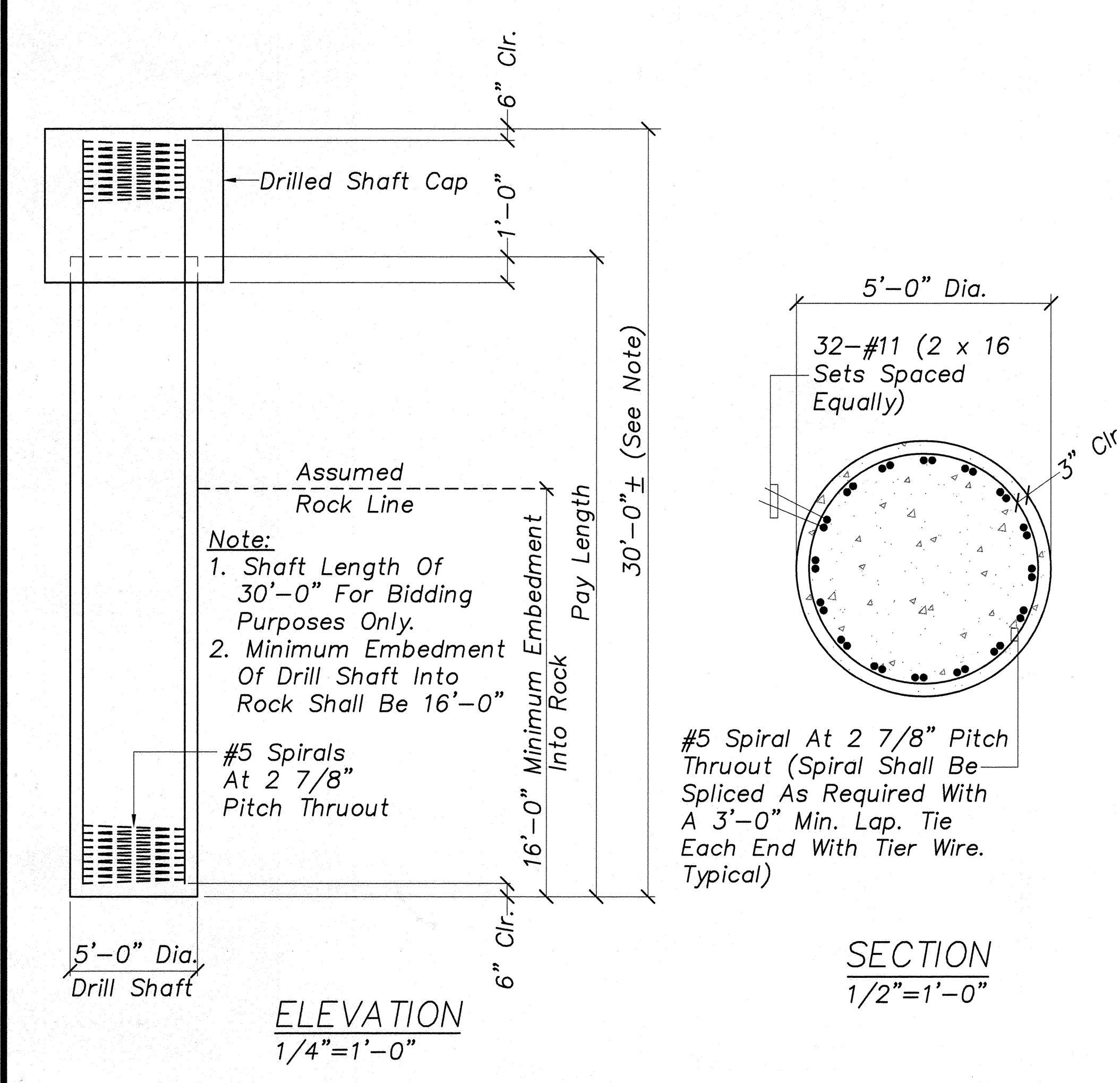


ELEVATION AT ABUTMENT NO. 1
Scale: 1/2"=1'-0"

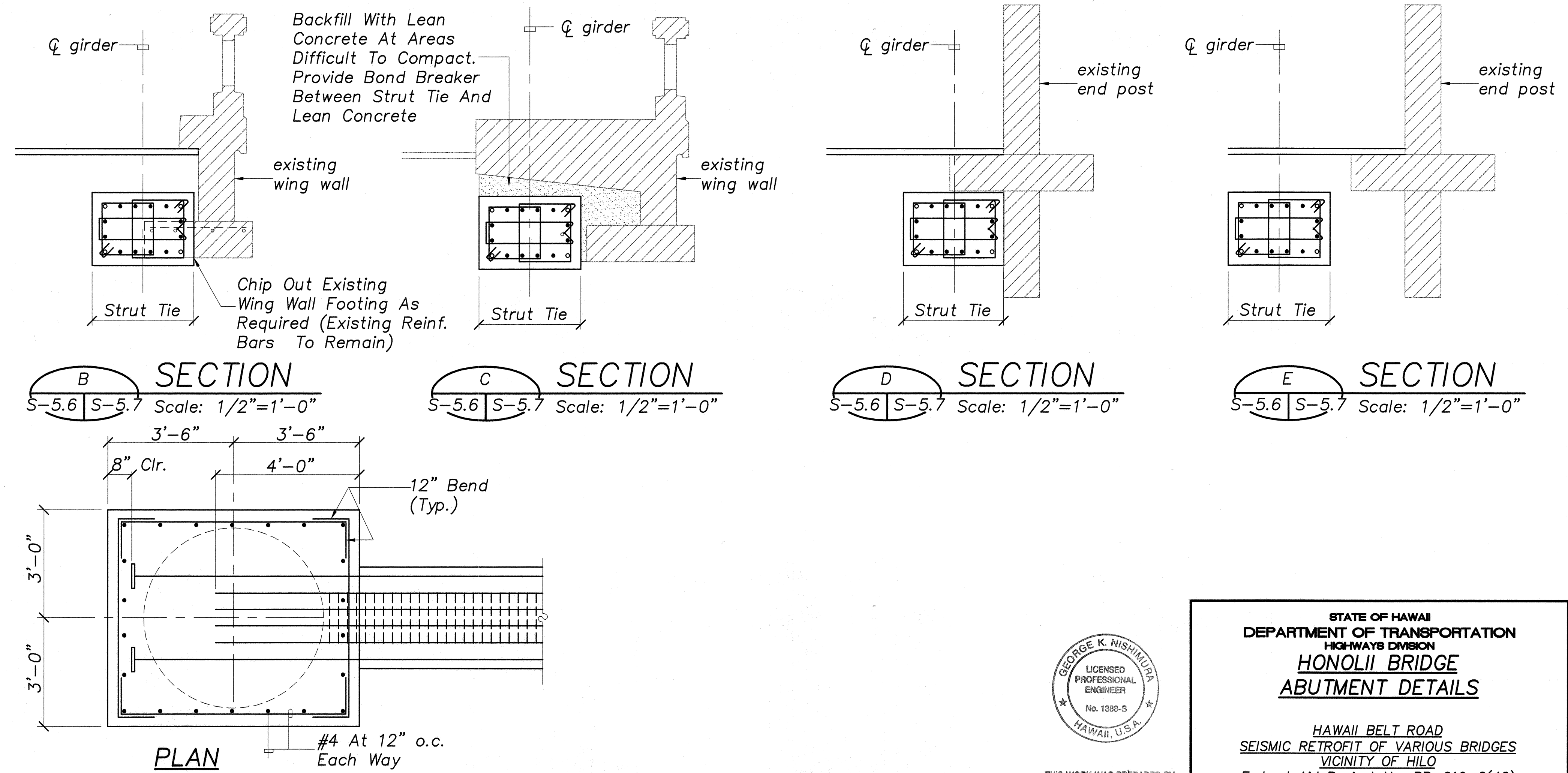


ELEVATION AT ABUTMENT NO. 2
Scale: 1/2"=1'-0"

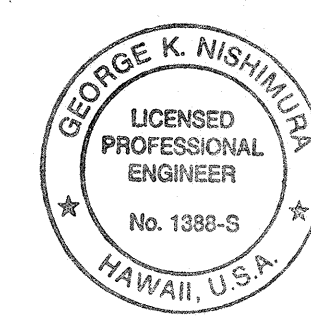
STRUT TIE SECTION
Scale: 1/2"=1'-0"



DRILLED SHAFT DETAILS
Scale: As Noted



DRILLED SHAFT CAP DETAIL
Scale: 1/2"=1'-0"



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HONOLULU BRIDGE
ABUTMENT DETAILS

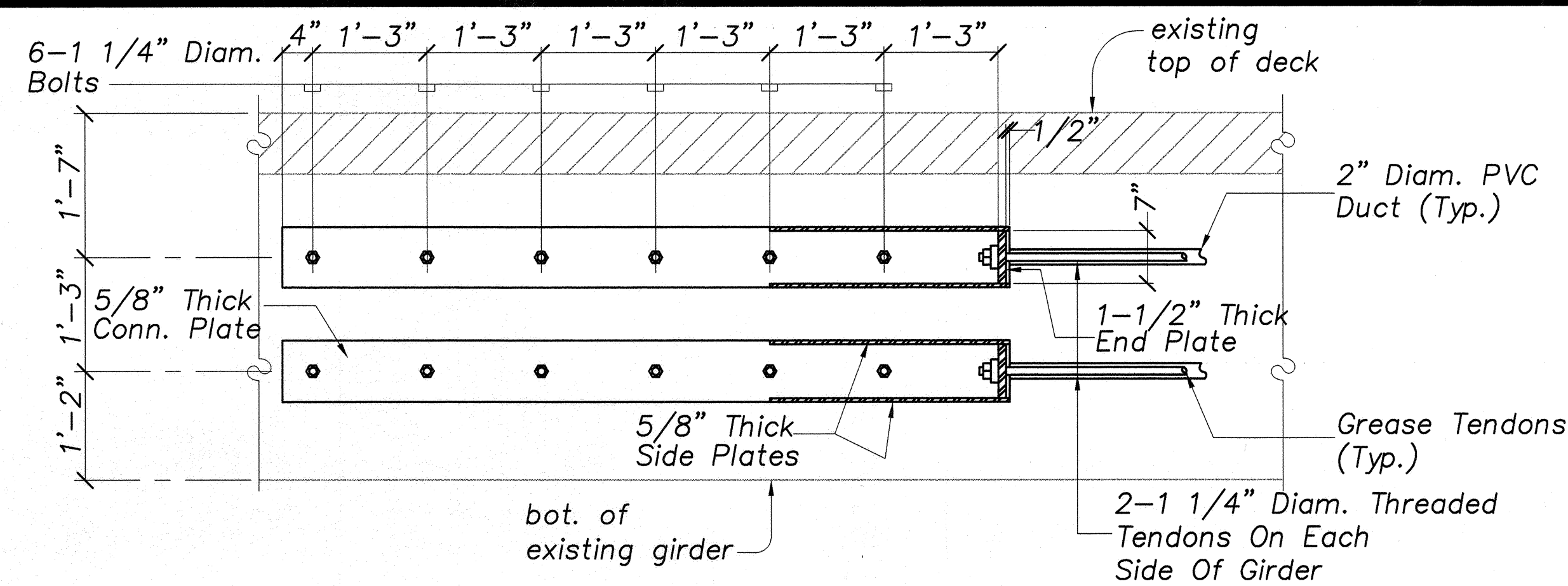
HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF HILO
Federal Aid Project No. BR-019-2(42)

SCALE: AS NOTED DATE: APRIL 1998

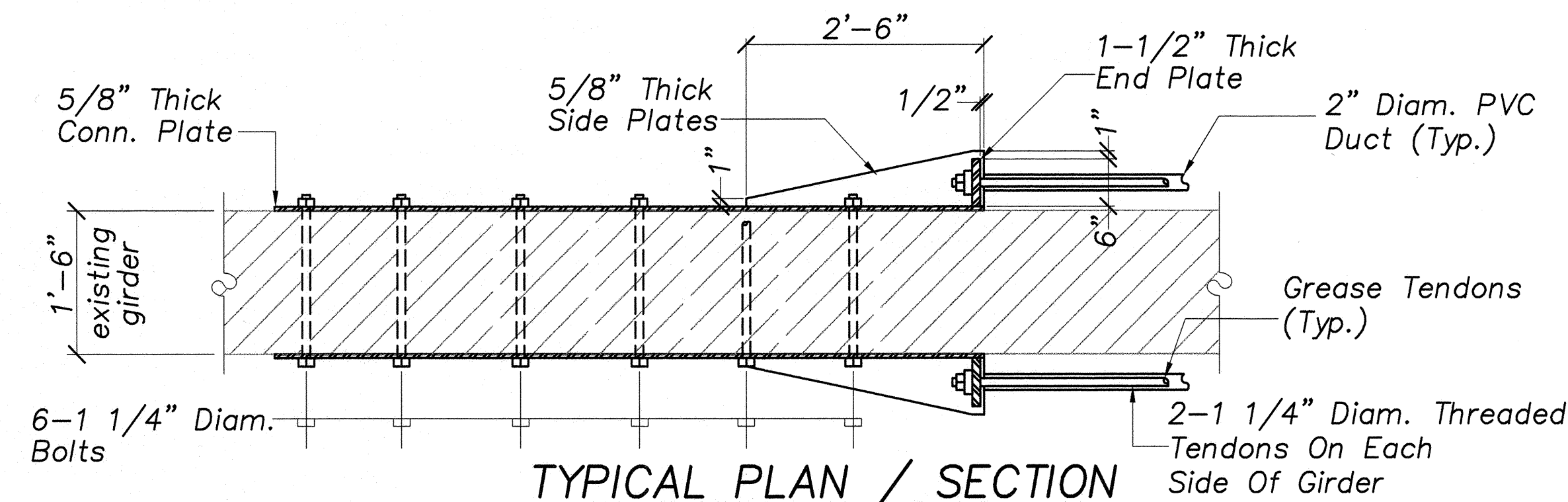
SHEET No. S-5.7 OF 38 SHEETS

ORIGINAL PLAN	DATE
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	
NO. 6	
NO. 7	
NO. 8	
NO. 9	
NO. 10	
NO. 11	
NO. 12	
NO. 13	
NO. 14	
NO. 15	
NO. 16	
NO. 17	
NO. 18	
NO. 19	
NO. 20	
NO. 21	
NO. 22	
NO. 23	
NO. 24	
NO. 25	
NO. 26	
NO. 27	
NO. 28	
NO. 29	
NO. 30	
NO. 31	
NO. 32	
NO. 33	
NO. 34	
NO. 35	
NO. 36	
NO. 37	
NO. 38	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-019-2(42)	1999	38	38



ELEVATION AT EXISTING GIRDER

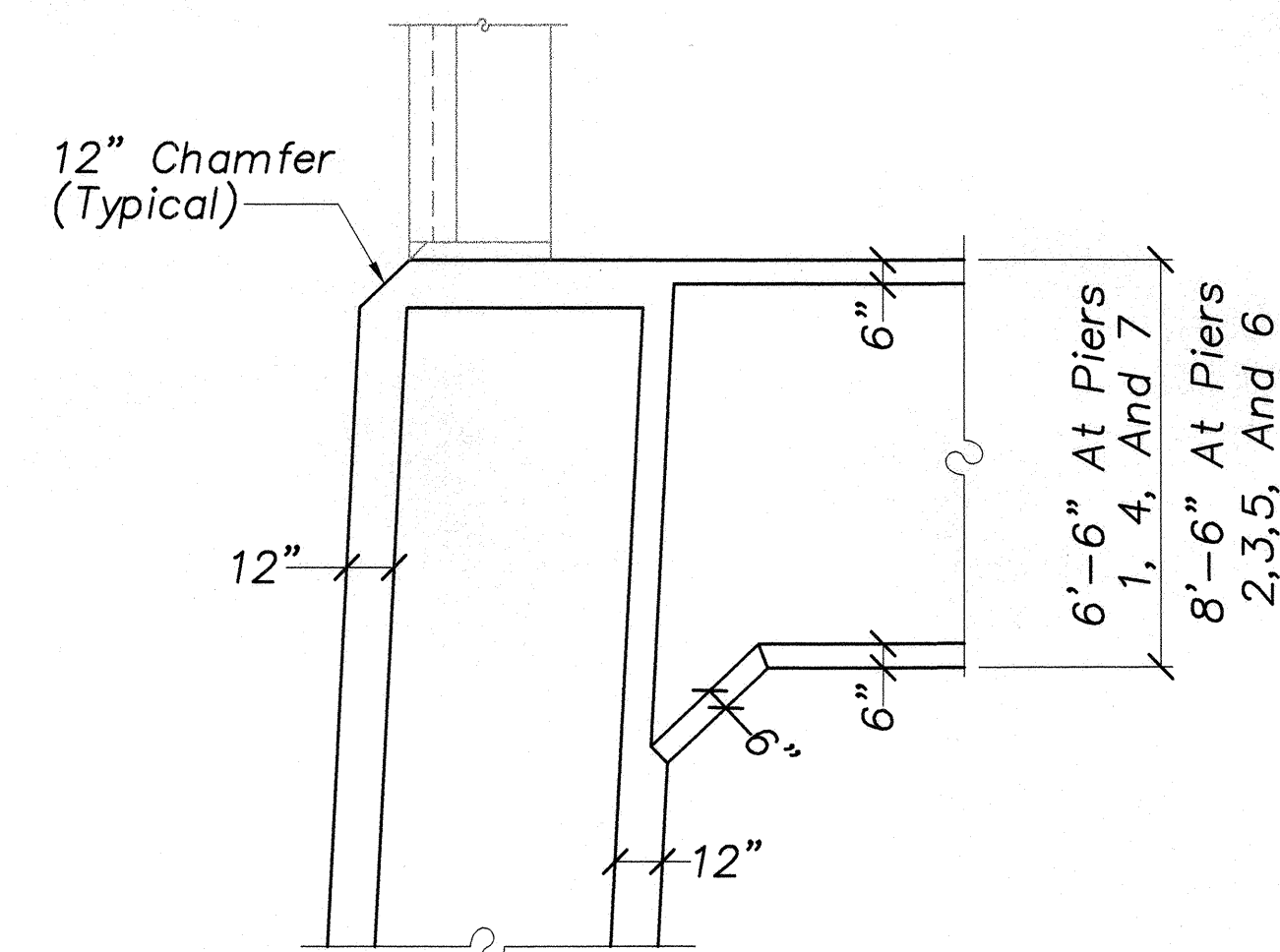


TYPICAL PLAN / SECTION

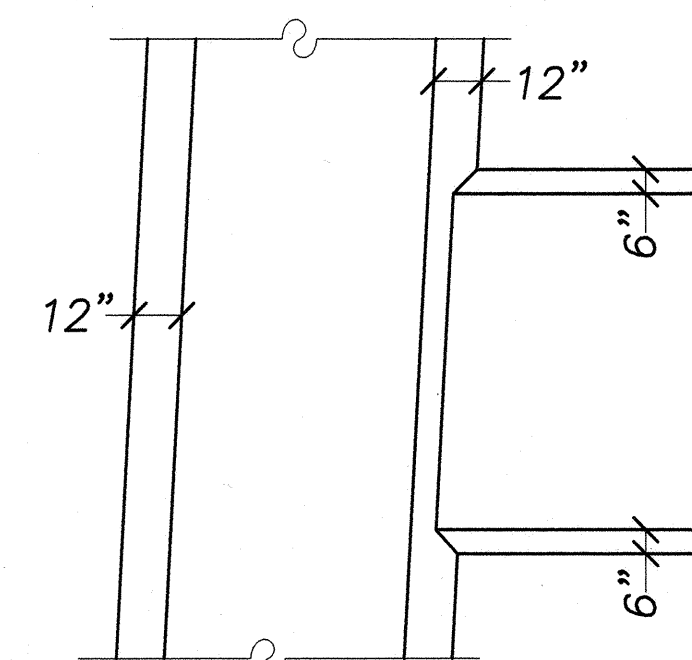
NOTES:

1. AT PIER NO. 1 AND NO. 7 ANCHORS FOR THREADED TENDONS AT THE EXISTING GIRDER END SHALL BE BACKED OFF 3/4" DURING A WEATHER TEMPERATURE OF 70° F TO 80° F.
2. TACK WELD ALL NUTS AND BOLTS OR TENDONS AFTER INSTALLATION COMPLETE.
3. WHERE TENDONS PASS THROUGH EXISTING DIAPHRAGMS AND ABUTMENT WALLS, ALL HOLES SHALL BE PRESSURE GROUTED WITH EPOXY.
4. ALL EXPOSED PORTIONS OF THE THREADED TENDONS SHALL BE GREASED AND ENCASED WITH A 2-INCH DIAMETER PVC DUCT. ALL JOINTS IN THE PVC DUCTS SHALL BE SEALED WATER TIGHT.

THREADED TENDON CONNECTION DETAIL
Scale: 3/4"=1'-0"

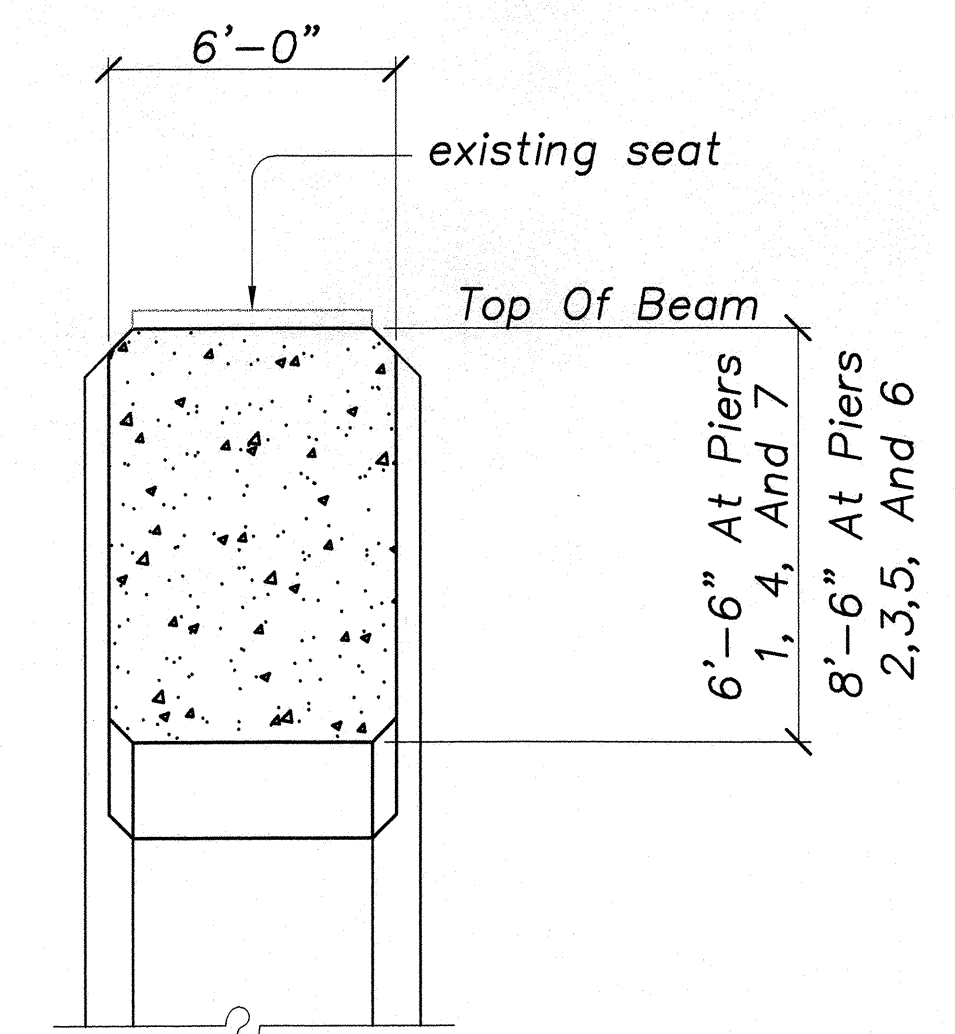


ELEVATION

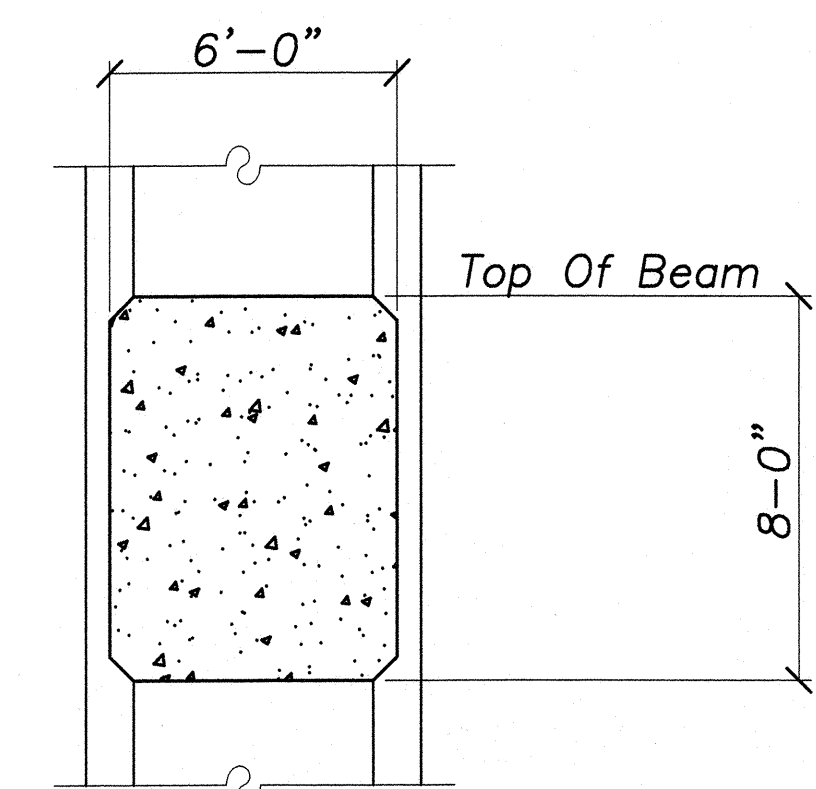


ELEVATION

TYPICAL PIER BEAM AND COLUMN DETAIL
SCALE: 1/4"=1'-0"

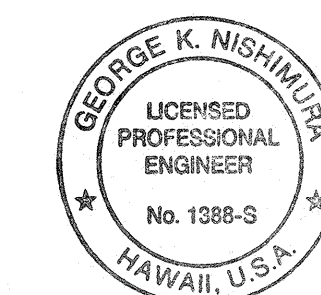


SECTION



SECTION

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	CHECKED BY	
	DESIGNED BY	
	NO. 1	



THIS WORK WAS PREPARED BY
MECHANICAL SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**HONOLULU BRIDGE
MISC. DETAILS**

HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF HILO
Federal Aid Project No. BR-019-2(42)

SCALE: AS NOTED DATE: APRIL 1998

SHEET No. S-5.8 OF 38 SHEETS