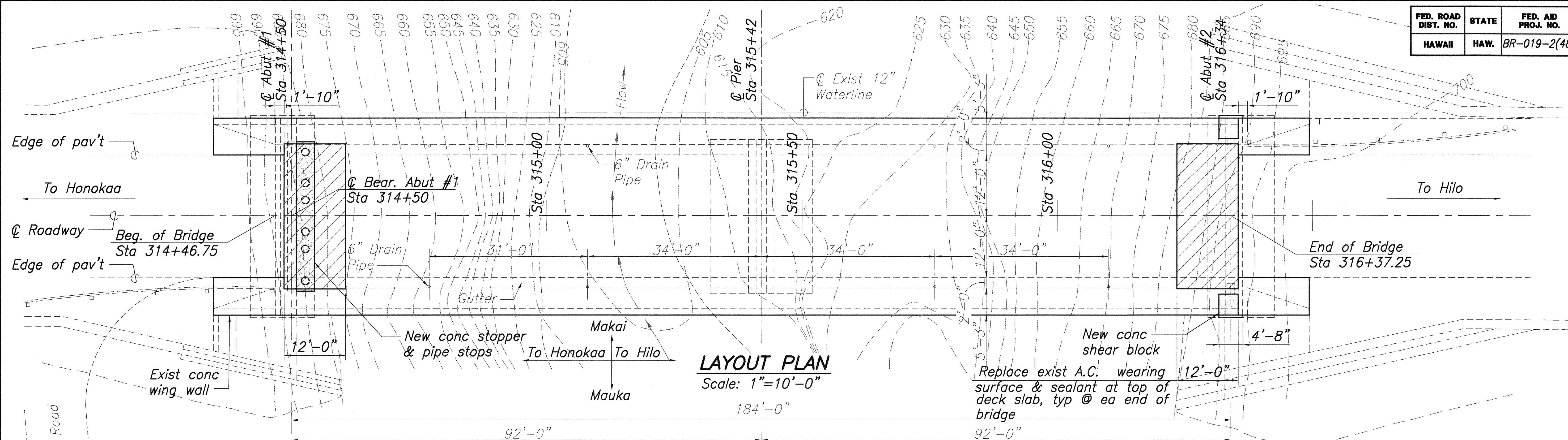
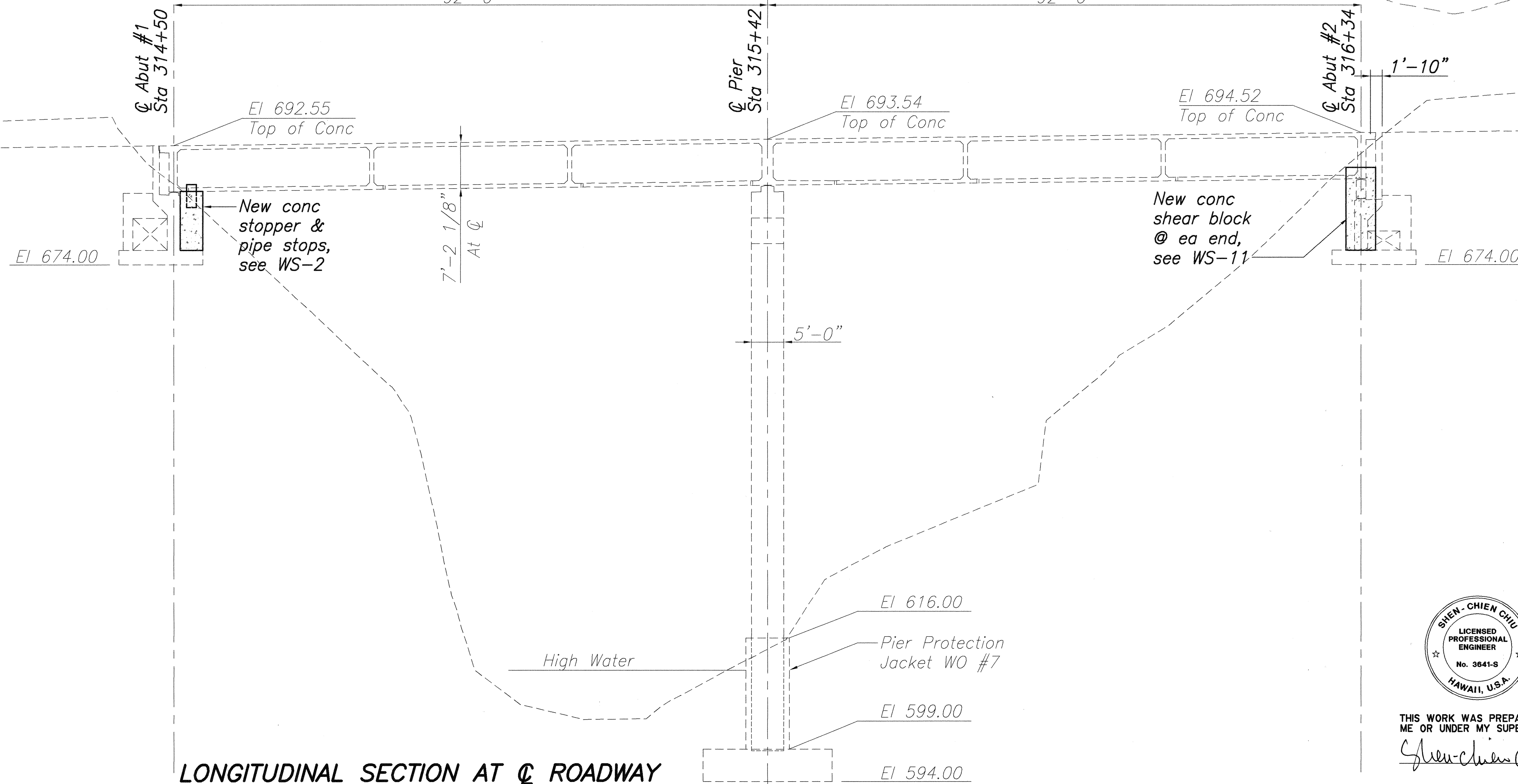


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-019-2(48)	1999	9	15



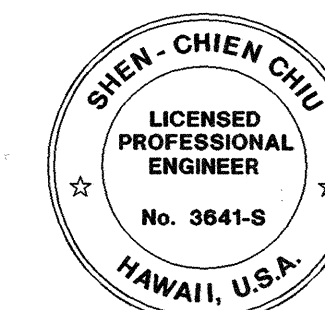
LAYOUT PLAN

Scale: 1"=10'-0"



LONGITUDINAL SECTION AT @ ROADWAY

Scale: 1"=10'-0"



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Shen-Chien Chiu

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
WAIPUNAHINA BRIDGE LAYOUT PLAN & SECTION
SEISMIC RETROFIT OF VARIOUS BRIDGES VICINITY OF NORTH OF PAAULO FEDERAL AID PROJECT NO. BR-019-2(48)
Date: August 16, 1999
SHEET No. WS-1 OF 15 SHEETS

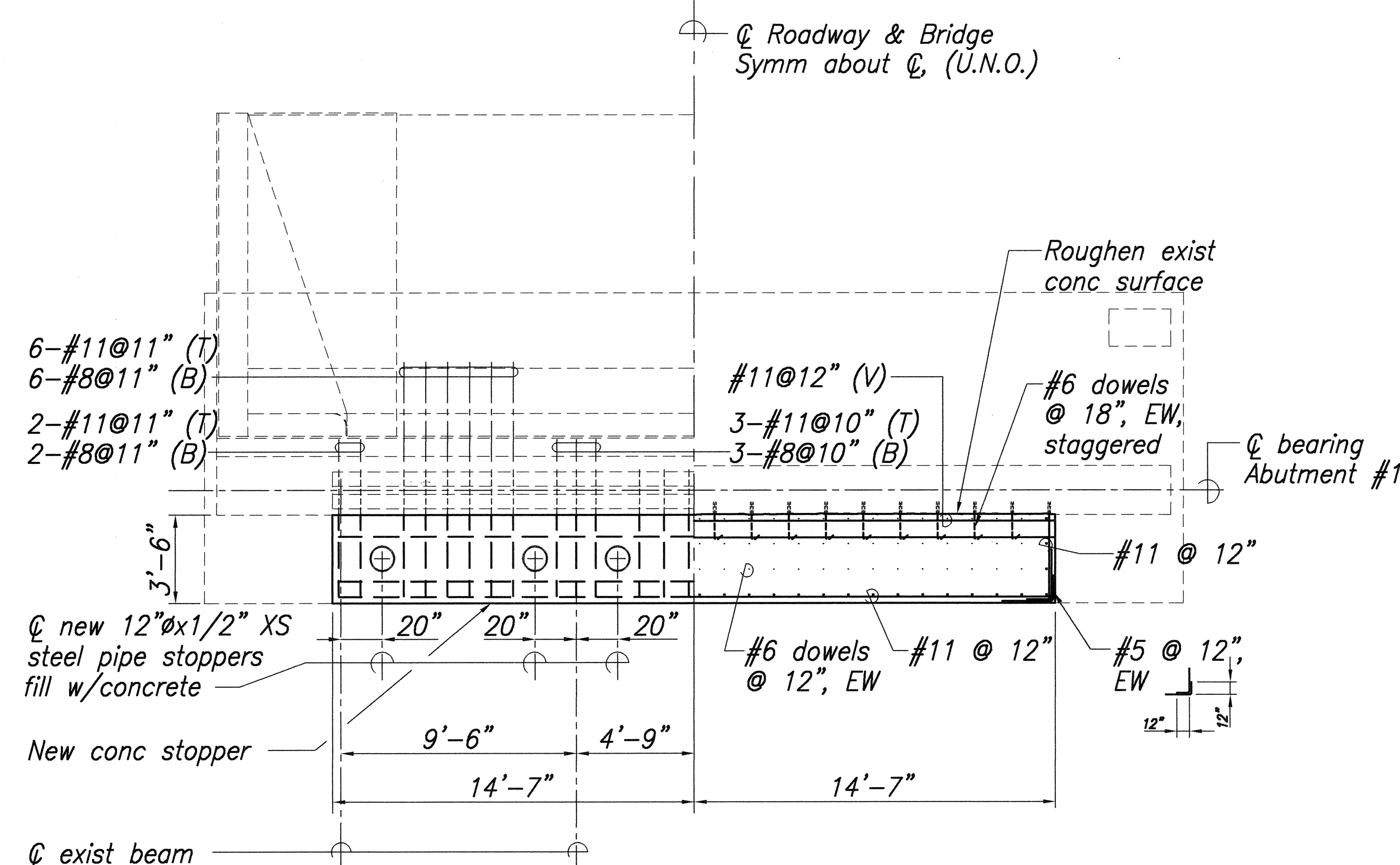
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NO. _____	

08/16/99 n:\dwg\6102-01\struct\ws

08:31

WS-1.DWG

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-019-2(48)	1999	10	15

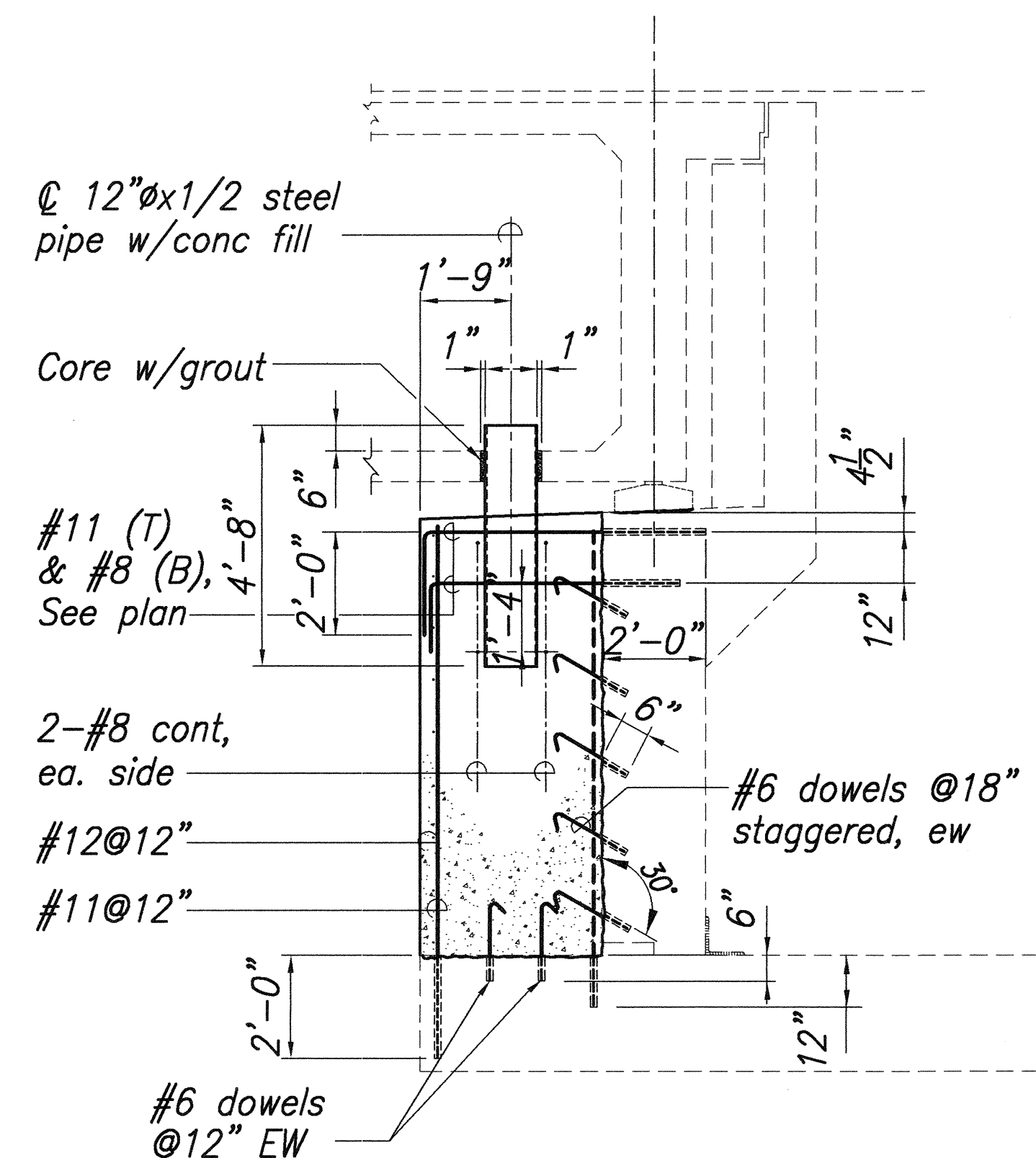


HALF TOP PLAN

HALF FOOTING PLAN

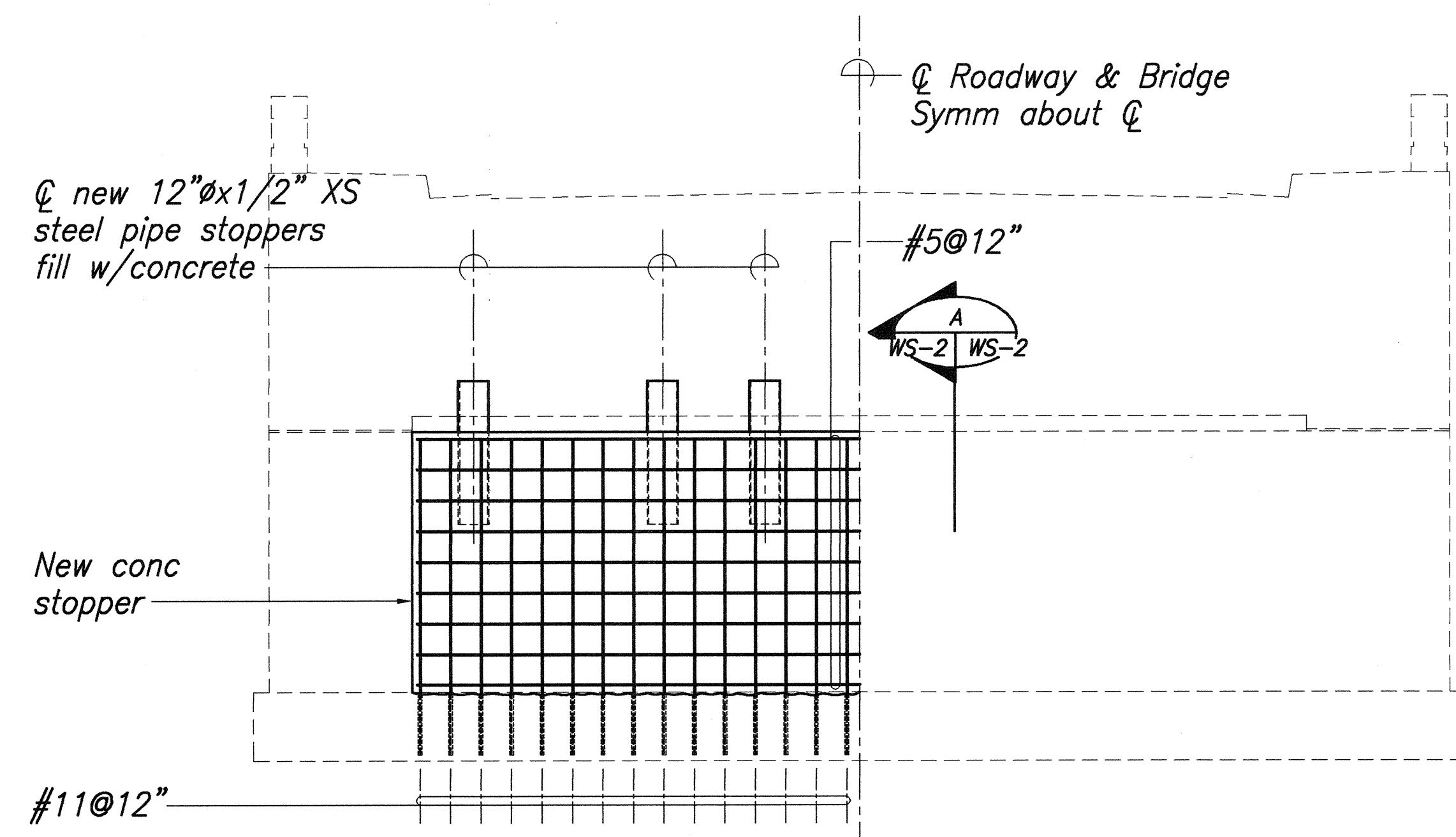
PLAN - ABUTMENT NO. 1

Scale: 1/4"=1'-0"



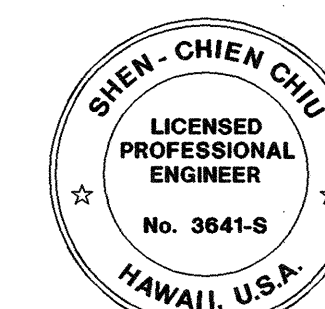
SECTION "A"

Scale: 3/8"=1'-0"



SECTION - ELEVATION - ABUTMENT NO. 1

Scale: 1/4"=1'-0"



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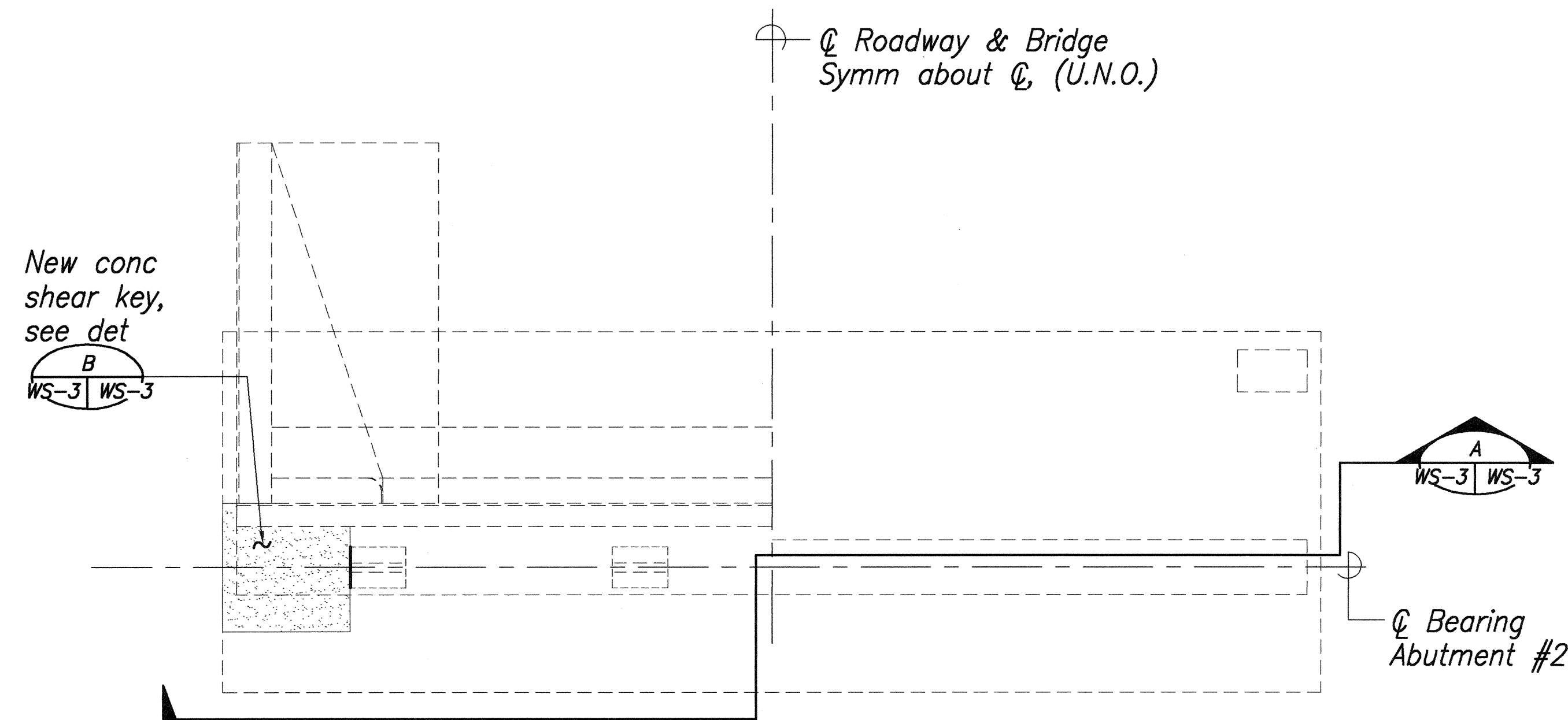
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WAIPUNAHINA BRIDGE
ABUTMENT NO. 1 RETROFIT
PLAN, ELEVATION & SECTIONS
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF NORTH OF PAAULO
FEDERAL AID PROJECT NO. BR-019-2(48)

Date: August 16, 1999

SHEET No. WS-2 OF 15 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-019-2(48)	1999	11	15

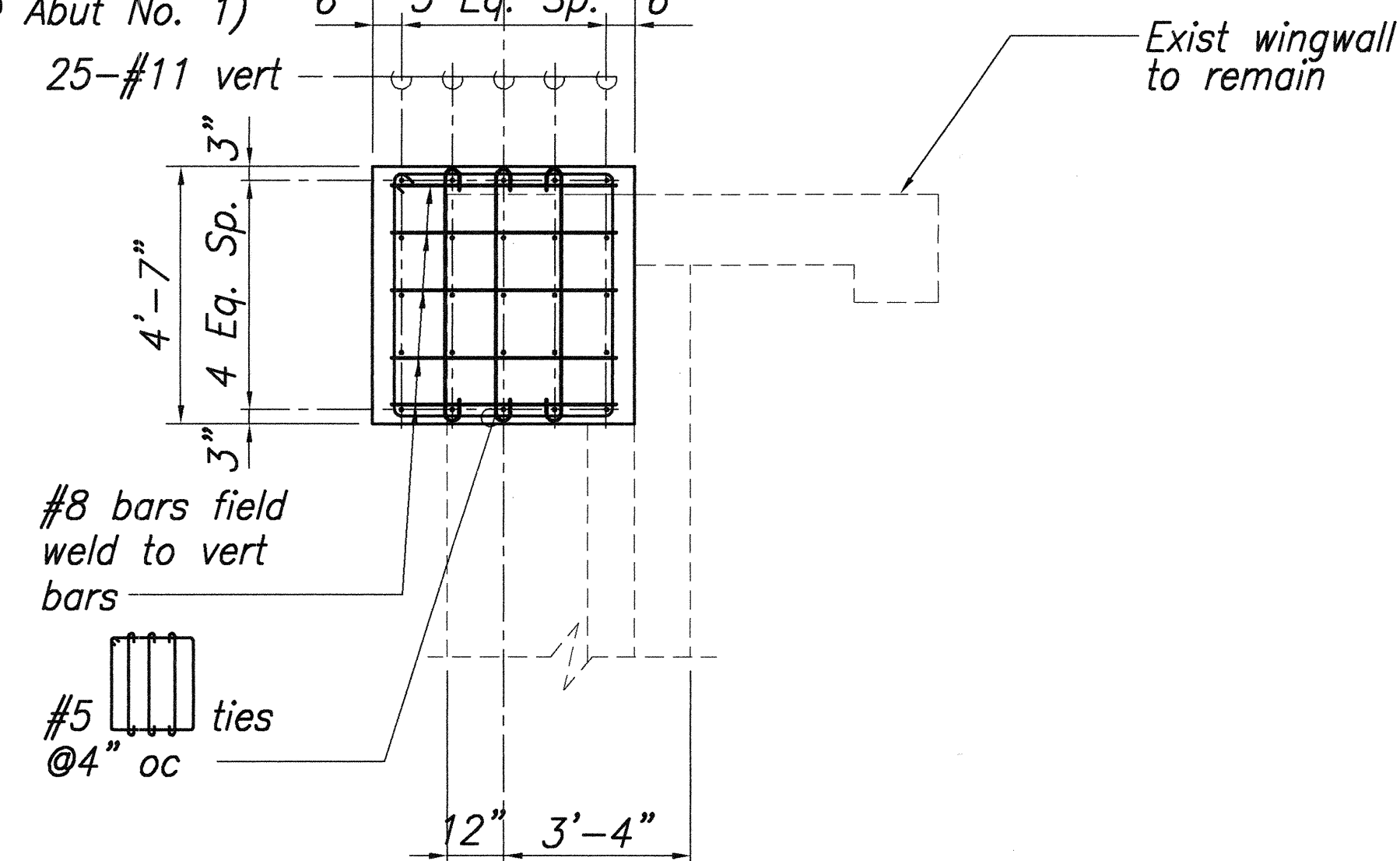


PLAN - ABUTMENT NO. 2
Scale: 1/4"=1'-0"

Shear blk. below
(See detail
WS-2 WS-2
for Shear Block
@ Abut. No. 1)

⊙ Bearing Abutment No. 2,
(Reverse similar for Abutment No. 1)

2'-4" 2'-4"
6" 3 Eq. Sp. 6"
25-#11 vert

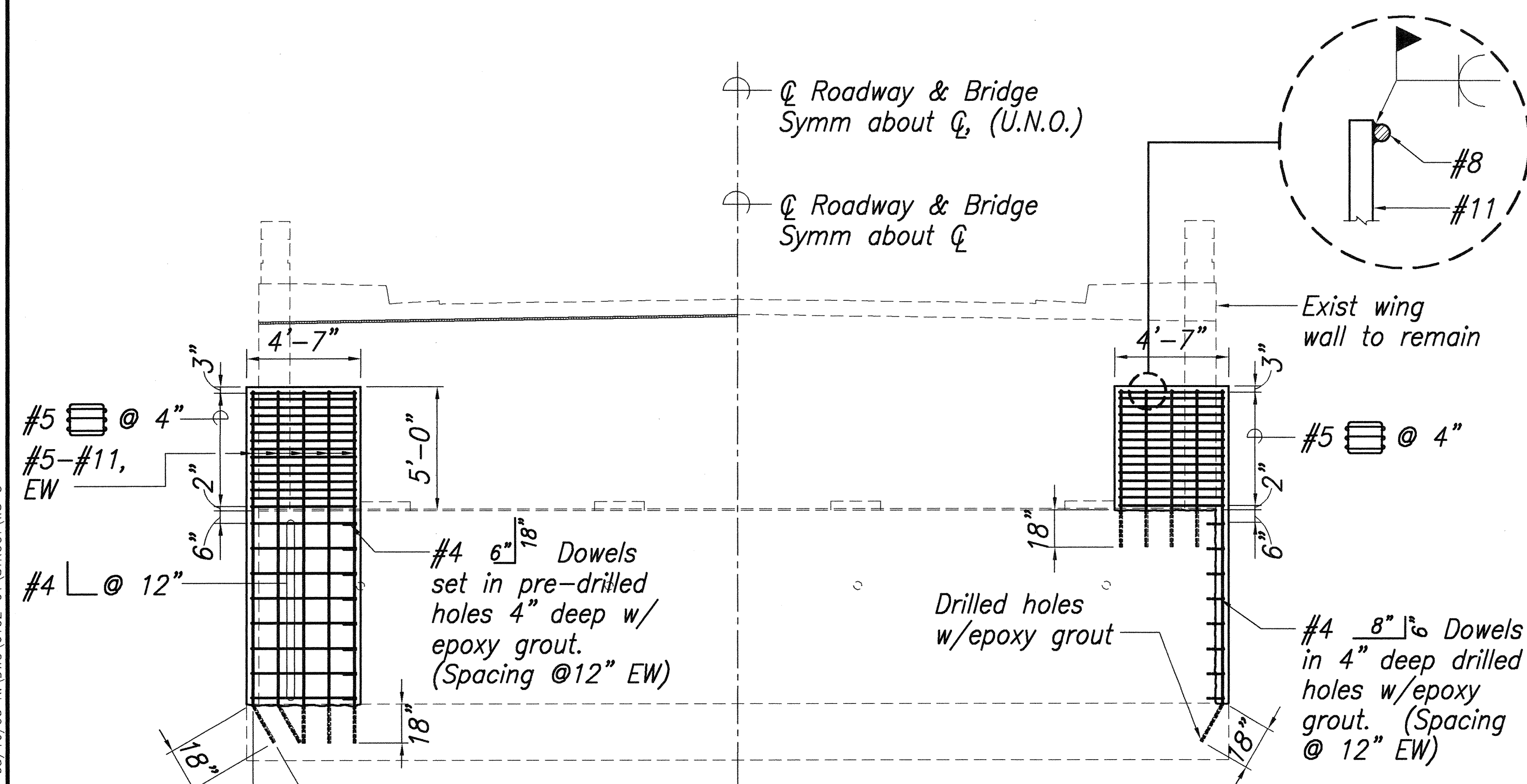
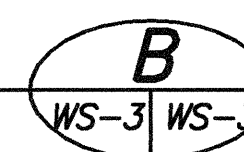


Note:

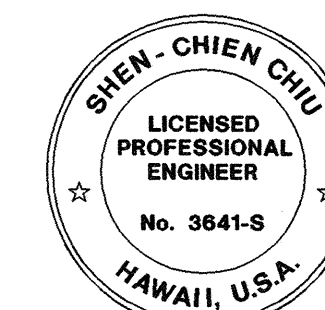
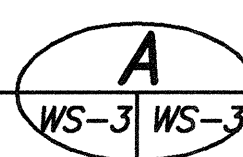
1. Backwall construction detail for Abut #1 not shown, but similar.

SECTION

Scale: 3/8"=1'-0"



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



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Shien-Chien Chu

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WAIPUNAHINA BRIDGE
ABUTMENT NO. 2 RETROFIT
PLAN, ELEVATION, & SECTION
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF NORTH OF PAAULO
FEDERAL AID PROJECT NO. BR-019-2(48)

Date: August 16, 1999

SHEET No. WS-3 OF 15 SHEETS