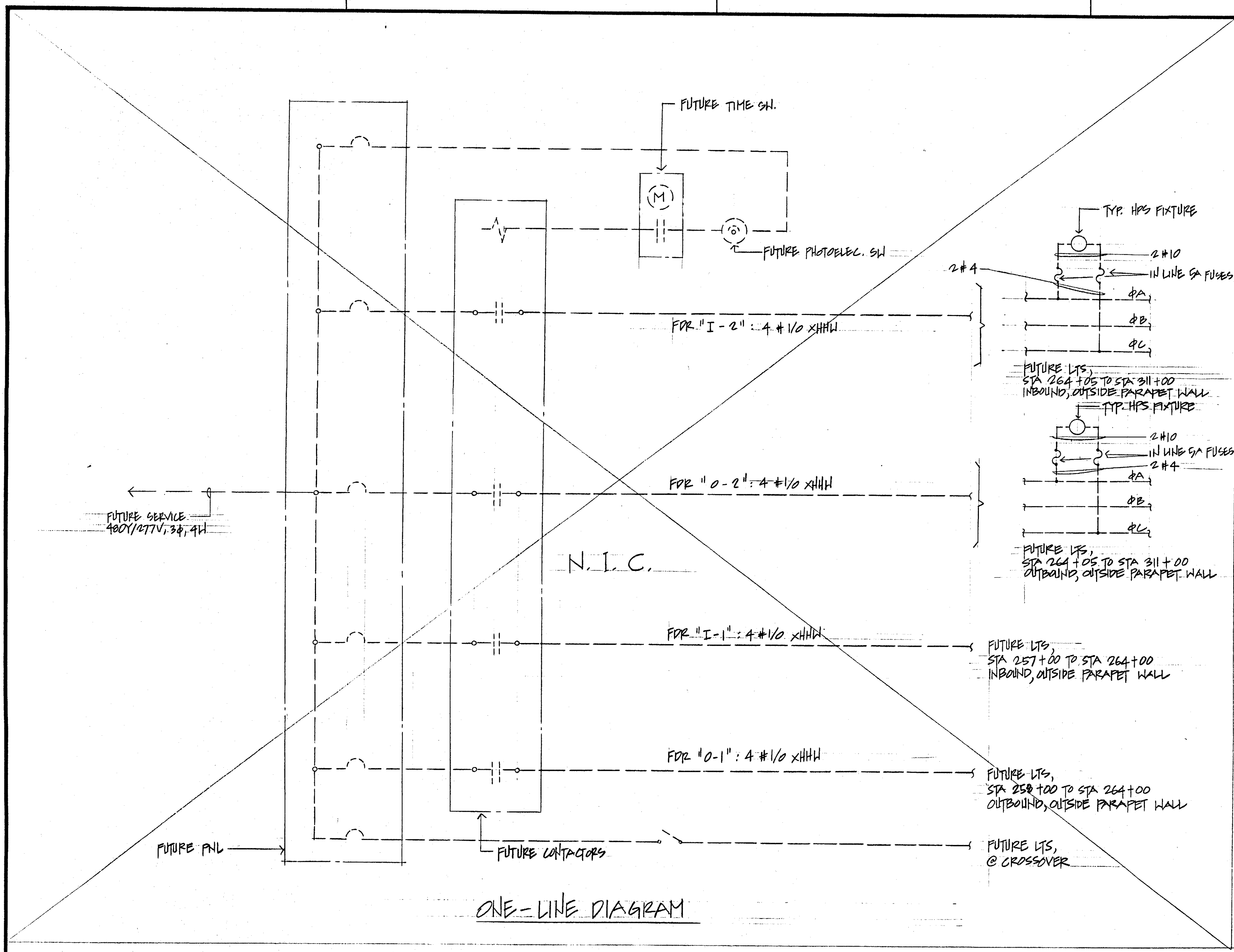


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(97)	1998	256	274

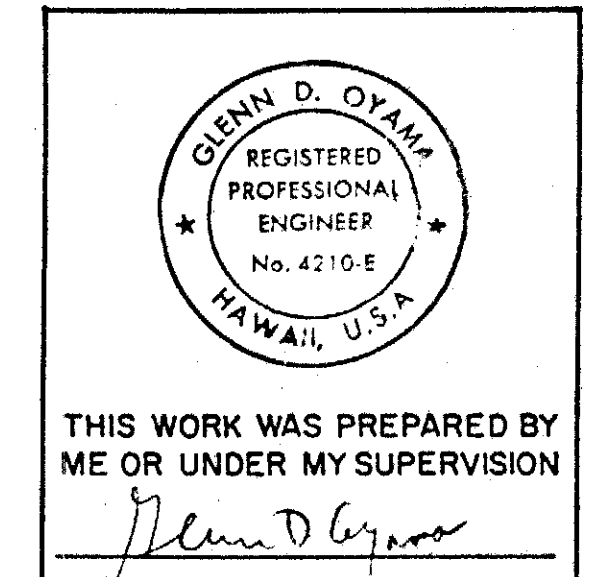
ELECTRICAL SYMBOL LIST		
EXIST	NEW	DESCRIPTION
	○	FUTURE LIGHT STANDARD POLE
	○	FUTURE PARAPET SHIELD POLE W/ LUMINAIRE
	□	40KV MANHOLE ON GRAPE
	□	40KV MANHOLE ON STRUCTURE
	□	POWER/SIGNAL J.B., CAST METAL, HP, 30"X10"X6"O
	□	LIGHTING J.B., CAST METAL, HP, 30"X10"X6"O
	□	COMMUNICATION J.B., CAST METAL, HP, 24"X8"X6"O
	□	EXIST JB GROUP
	□	TRAFFIC DETECTOR WWP, 6'X6'
	□	SIGNAL J.B., CAST METAL, HP, 24"X8"X6"O
	---	CONDUIT ON STRUCTURE
	---	CONDUIT EMBEDDED IN CONC. RAILING
	---	CONDUIT BELOW REF. GRADE, CONC.-ENCASED
	---	EXIST CONDUIT
	□	FUTURE TRAFFIC CONTROL CABINET
	▲	FUTURE POLE W/ LUMINAIRE



ORIGINAL PLAN	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

6-29-1990 ADDED ▲ ON SYMBOL LIST  
6-8-1990 REVISION ON SYMBOL LIST  
6-8-1990 REVISION ON PULLBOXES

DATE	REVISION
------	----------



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

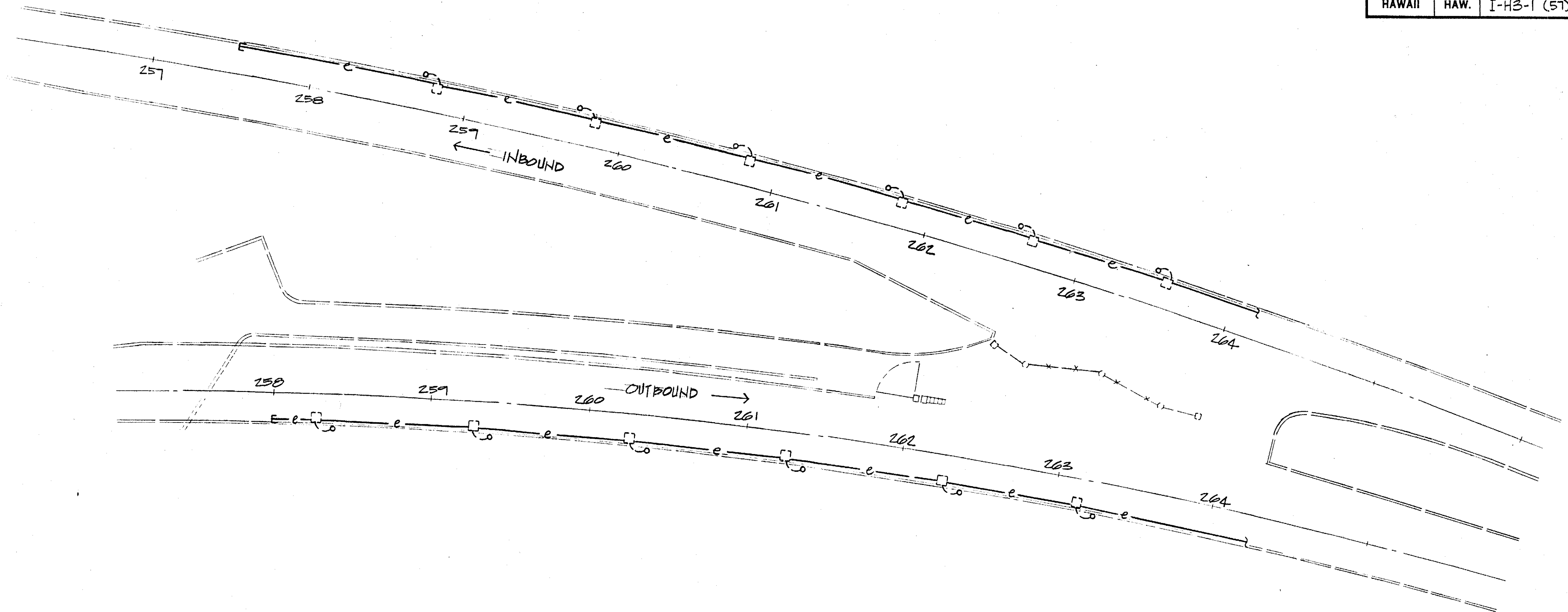
ELECTRICAL SYMBOL LIST &  
ONE-LINE DIAGRAM

INTERSTATE ROUTE H-3  
F.A.I. PROJECT NO. I-H3-1(97)  
F.A.I. PROJECT NO. I-H3-1(98)  
SCALE: AS NOTED DATE: SEPT. 00

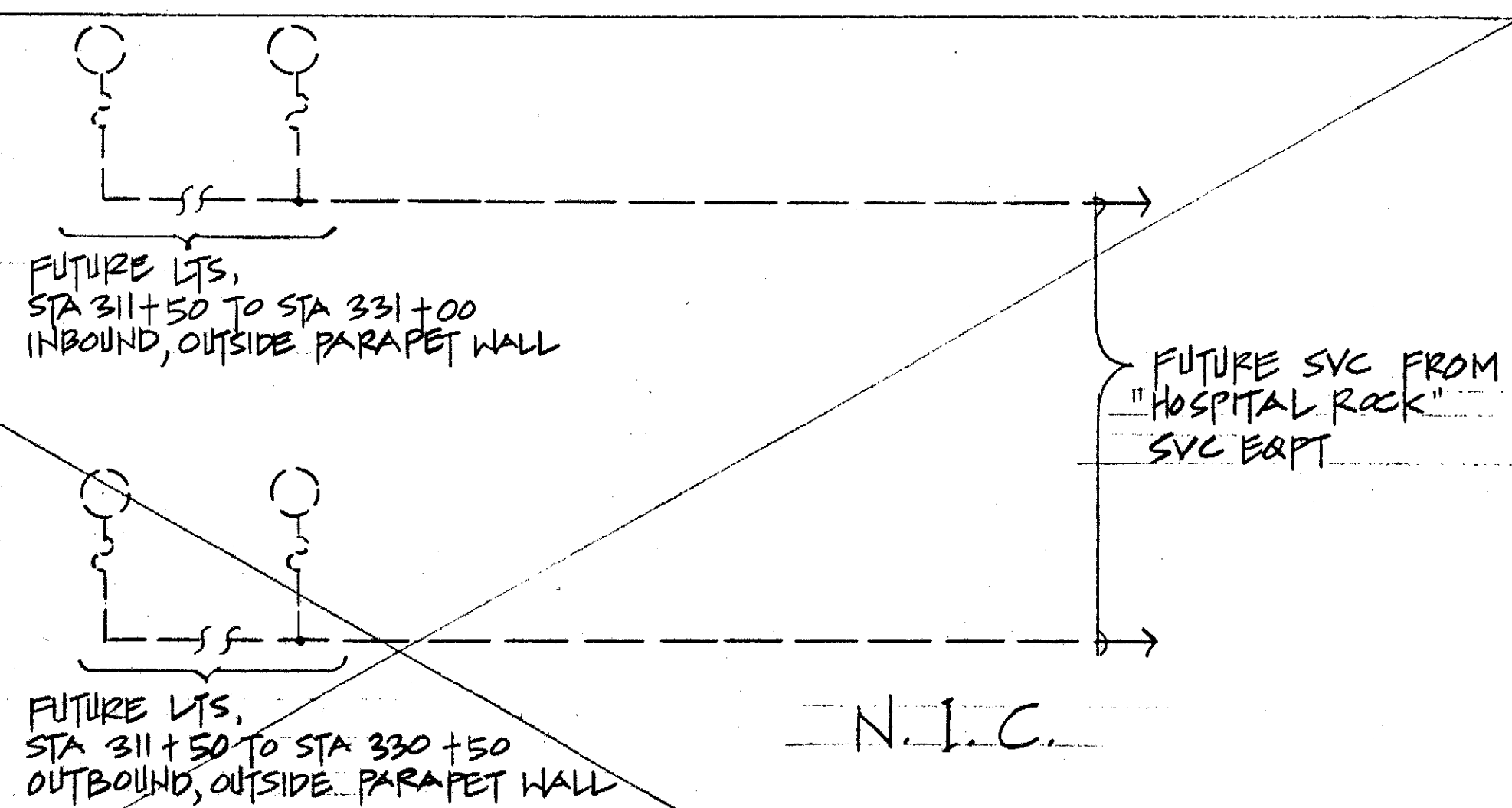
SHEET NO. 81 OF 9 SHEETS

CO. ADD. 263  
256

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	257	274



ELECTRICAL PLAN  
SCALE: 1" = 40'



ONE-LINE DIAGRAM

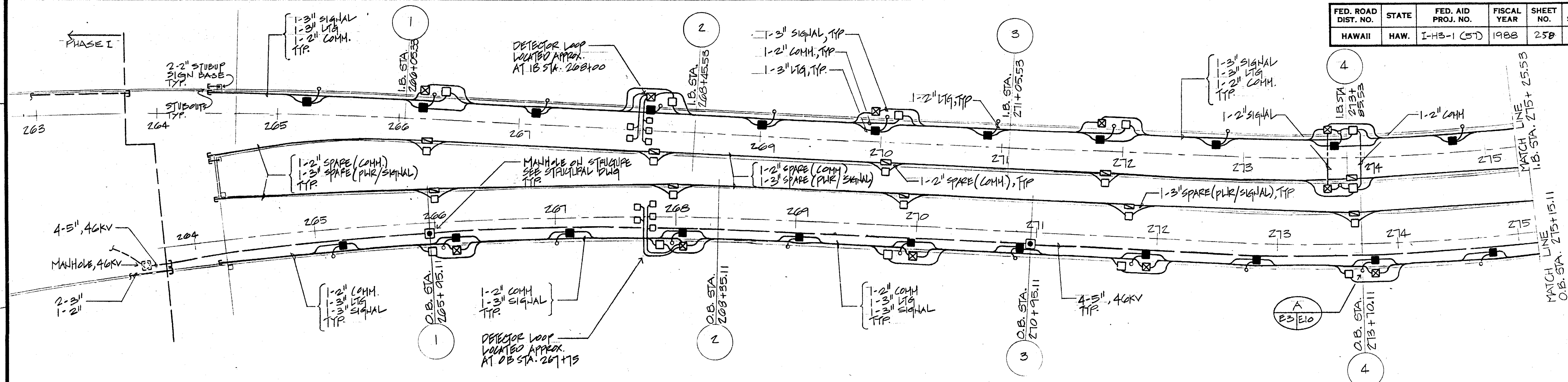
GLENN D. OYAMA  
REGISTERED  
PROFESSIONAL  
ENGINEER  
No. 4210-E  
HAWAII, U.S.A.  
THIS WORK WAS PREPARED BY  
ME OR UNDER MY SUPERVISION  
*[Signature]*

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
ELECTRICAL PLAN  
INTERSTATE ROUTE H-3  
F.A.I. PROJECT NO. I-H3-1(57):  
F.A.I. PROJECT NO. I-H3-1(58)  
SCALE: AS NOTED DATE: SEPT. 88  
SHEET No. 22 OF 2 SHEETS

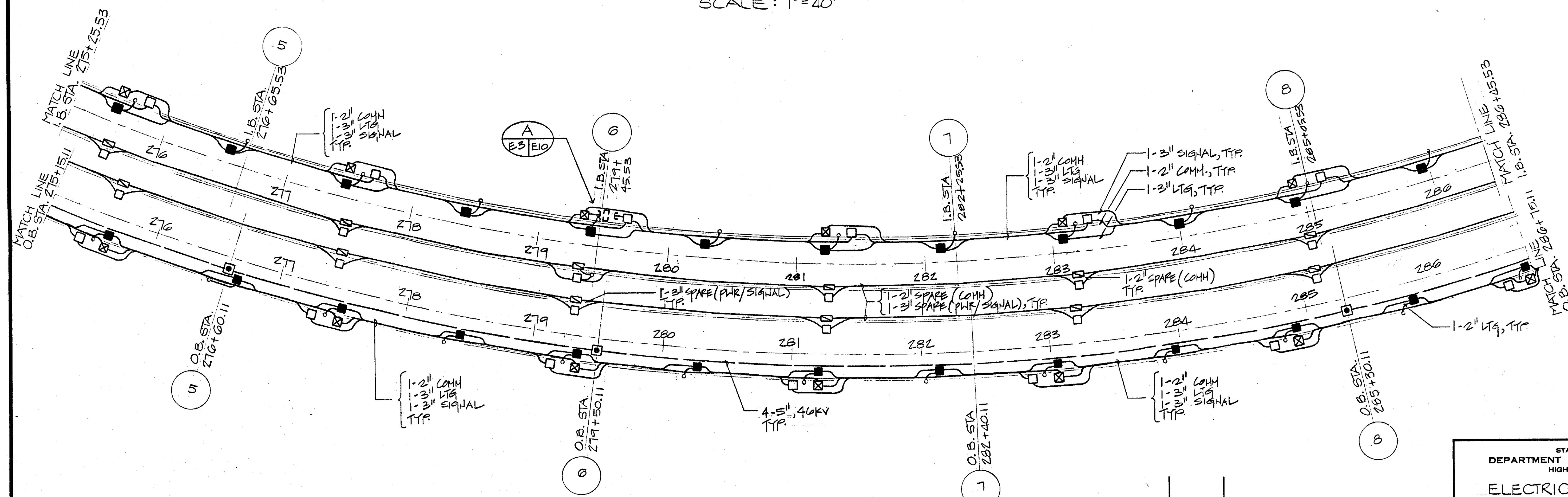
0-0-70 DELETING AN EXISTING PULLBOX AND  
POLE NEAR STUB OUT  
DATE REVISION

CO. ADD. 264

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	258	274



ELECTRICAL PLAN  
SCALE: 1" = 40'



ELECTRICAL PLAN  
SCALE: 1" = 40'

DATE	REVISION
6-8-1990	REVISION ON PULLBOXES
7-10-1989	ADDED STUBS AT ABUTMENT #1
7-10-1989	DELETED ALL CONDUITS AND PULLBOXES AT CROSSOVER AREA
7-10-1989	ADDED POWER JB AT INBOUND PIERS 4, 6

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
ELECTRICAL PLAN

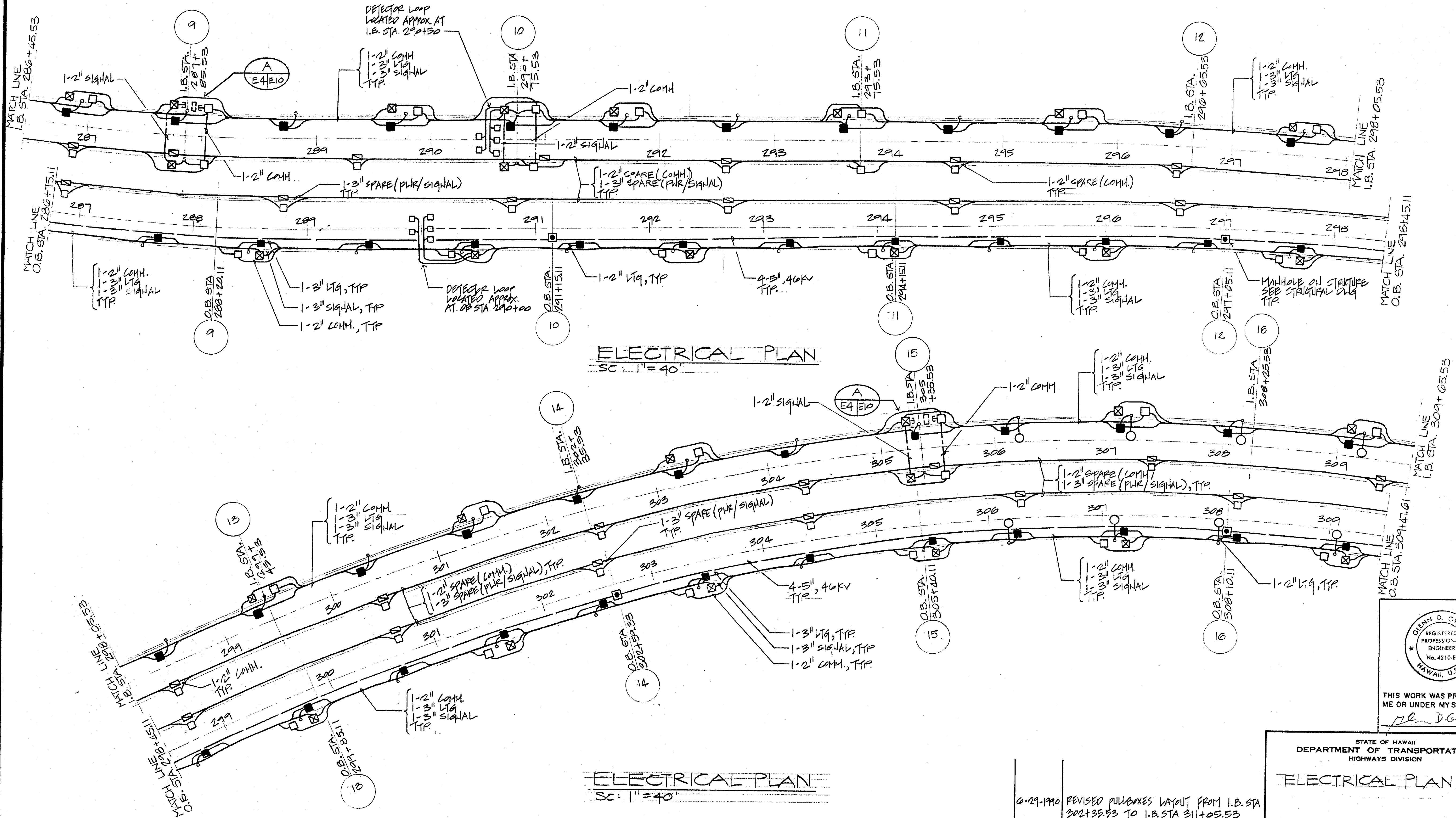
INTERSTATE ROUTE H-3  
F.A.I. PROJECT NO. I-H3-1(57)  
F.A.I. PROJECT NO. I-H3-1(58)  
SCALE: AS NOTED DATE: SEPT. 88  
SHEET No. E3 OF 9 SHEETS

GREEN D. OYAMA  
REGISTERED PROFESSIONAL ENGINEER  
HAWAII, U.S.A.  
THIS WORK WAS PREPARED BY  
ME OR UNDER MY SUPERVISION  
*Green D. Oyama*

CO. ADD. 265



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	259	274



ORIGINAL PLAN	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

GLENN D. OYAMA  
REGISTERED PROFESSIONAL ENGINEER  
No. 4210-E  
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

*Glenn D. Oyama*

DATE	REVISION
6-29-1990	REVISED PULLBOXES LAYOUT FROM I.B. STA 302+35.53 TO I.B. STA 311+05.53
6-8-1990	REVISION ON PULLBOXES
7-10-1989	ADDED POWER JG AT INBOUND PIERS 9, 10, 11, 14

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

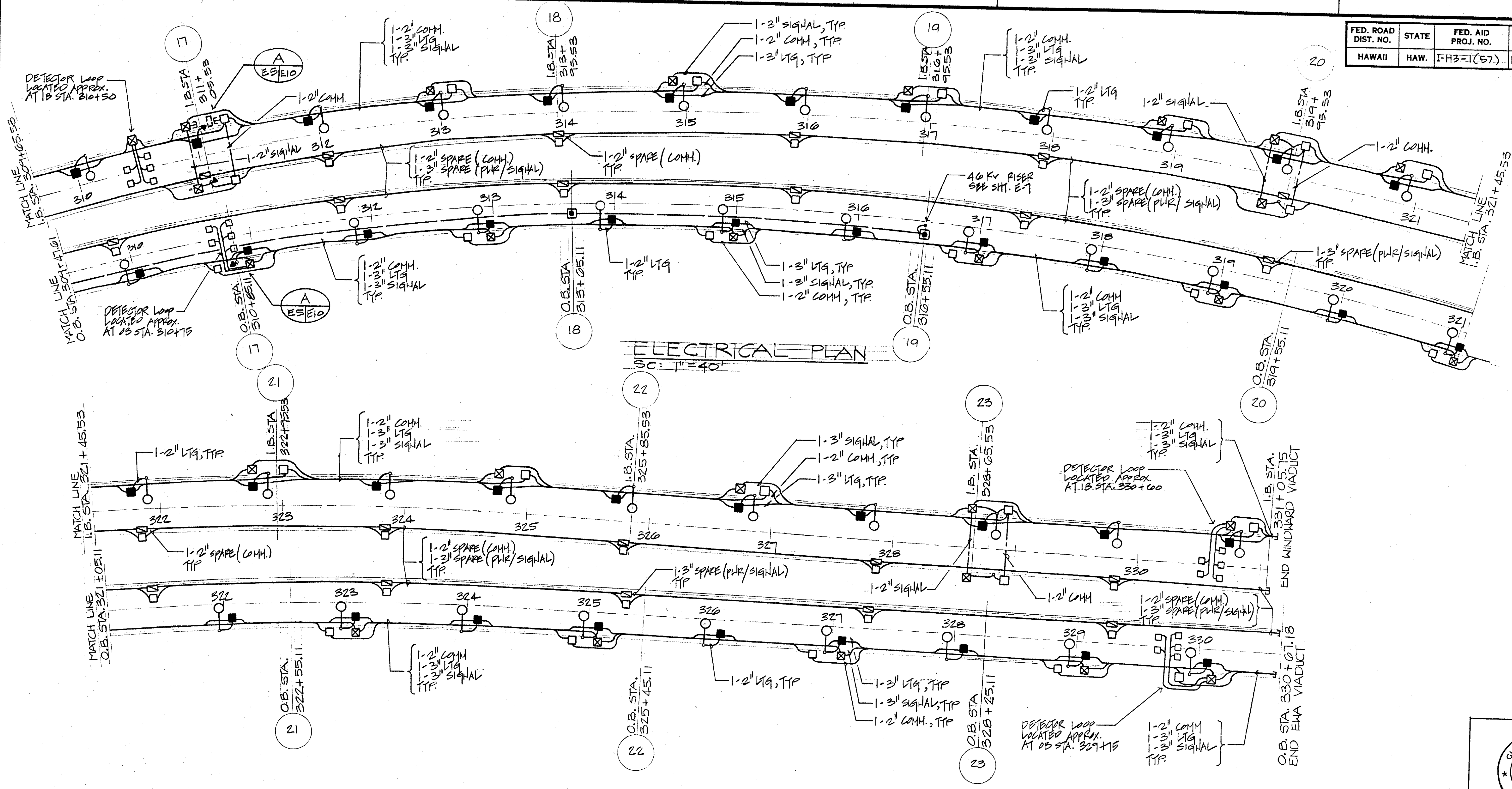
**ELECTRICAL PLAN**

INTERSTATE ROUTE H-3  
F.A.I. PROJECT NO. I-H3-1(57)  
F.A.I. PROJECT NO. I-H3-1(58)  
SCALE: AS NOTED DATE:

SHEET NO. E4 OF 9 SHEETS

CO. ADD. 266  
259

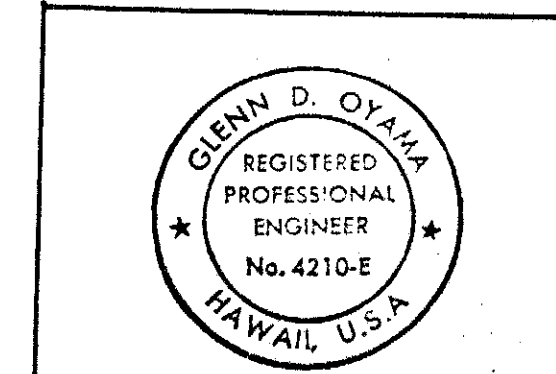
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	260	274



**ELECTRICAL PLAN**  
SC: 1" = 40'

6-29-1990 ADDED CMS AT I.B. STA. 311+05.53 & O.B. STA. 310+05.11  
6-8-1990 REVISION ON PULLBOXES  
7-10-1990 ADDED POWER JB AT INBOUND PIERS 17, 20, 23

DATE	REVISION
------	----------



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION  
Glenn D. Oyama

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**ELECTRICAL PLAN**

INTERSTATE ROUTE H-3  
F.A.I. PROJECT NO. I-H3-1(57)  
F.A.I. PROJECT NO. I-H3-1(58)  
SCALE: AS NOTED DATE: \_\_\_\_\_

SHEET No. 260 OF 274 SHEETS

ORIGINAL	DATE
PLAN	
DESIGNED BY	
NOTED BY	
CHECKED BY	
NO.	



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	261	274

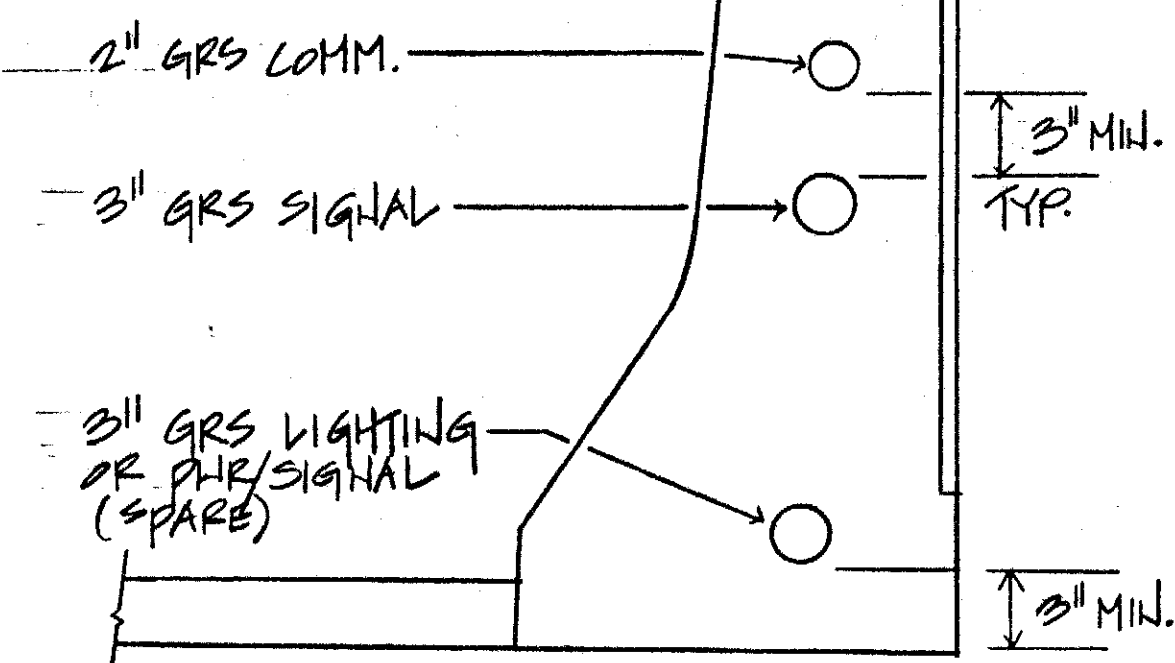
TYPE "A" ROADWAY LUMINAIRE 150W HPS  
W/ 400V BALLAST, I.E.S. TYPE II,  
MEDIUM OUTLET DISTRIBUTION &  
ISOFOOTCANDLE CURVE AS  
SHOWN IN THIS SHT.

N.I.C.

FOR DETAILS, SEE STRUCTURAL  
PHGS. & DET.

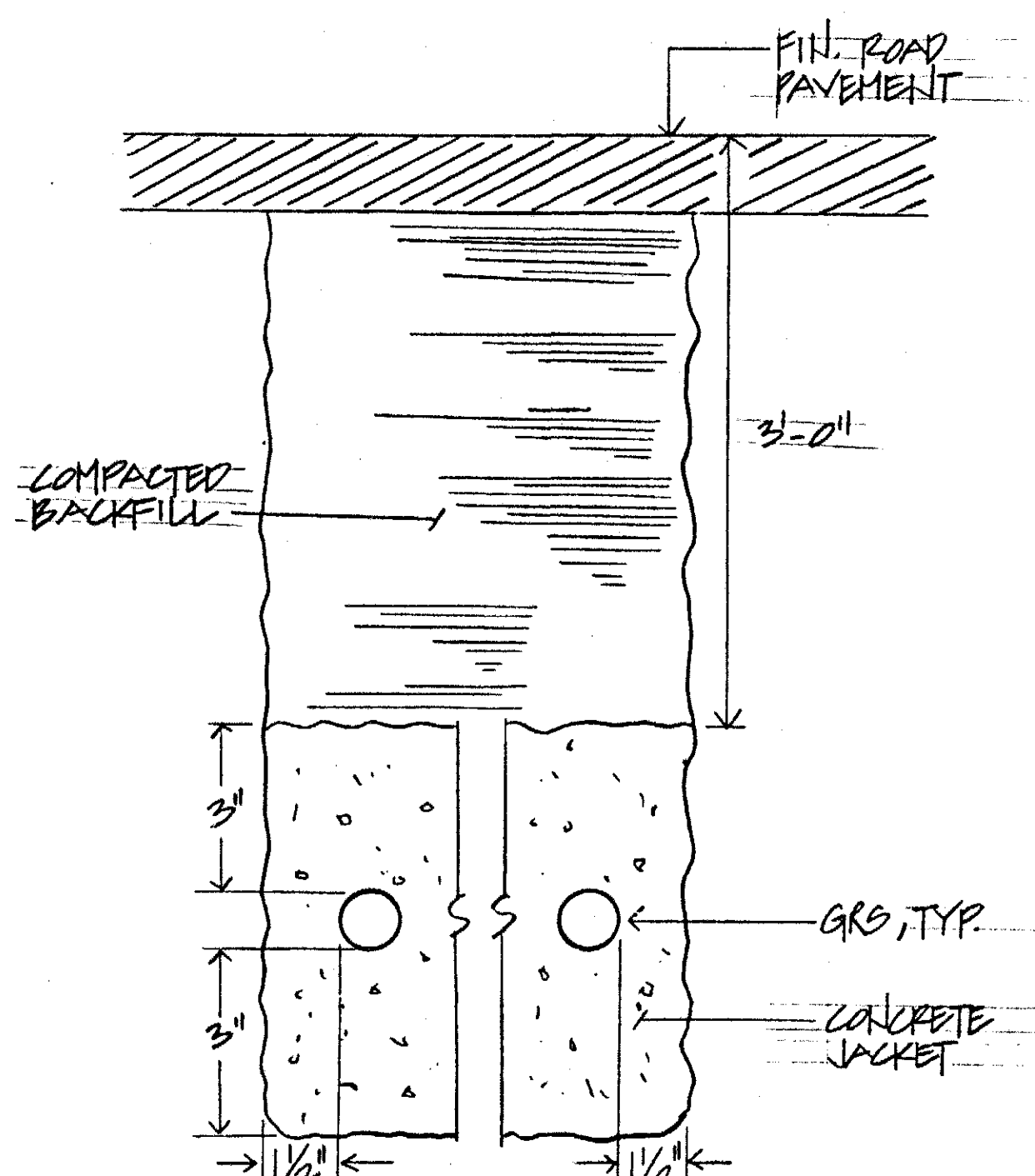
EGEG

LIGHT STANDARD DETAIL:  
N.T.S.

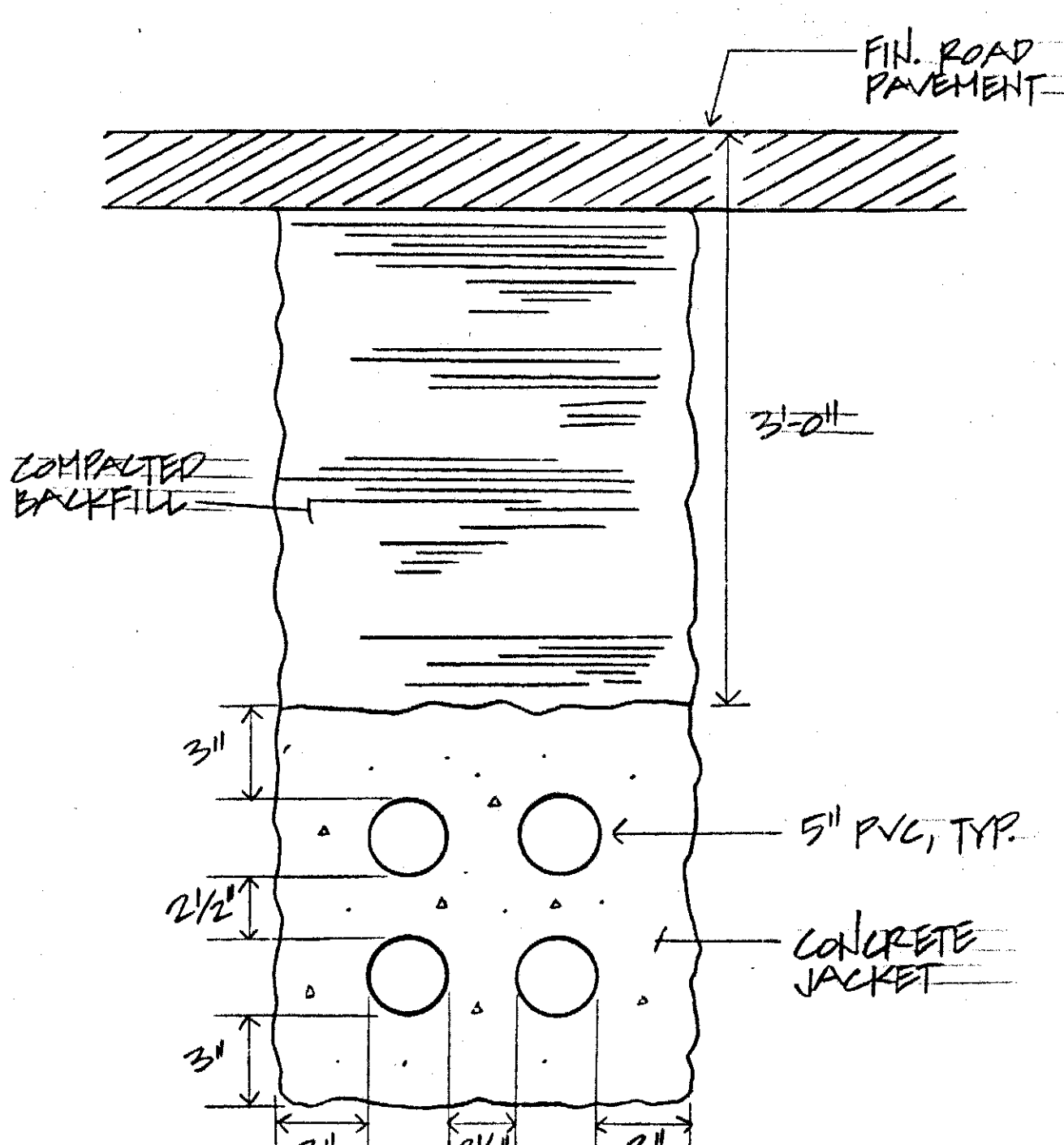


TYPICAL DUCT SECTION THROUGH  
PARAPET WALL

N.T.S.  
NOTE:  
1. SEE PLANS FOR NUMBER OF CONDUITS REQUIRED



POWER, LIGHTING OR COMMUNICATION  
DUCT SECTION  
N.T.S.

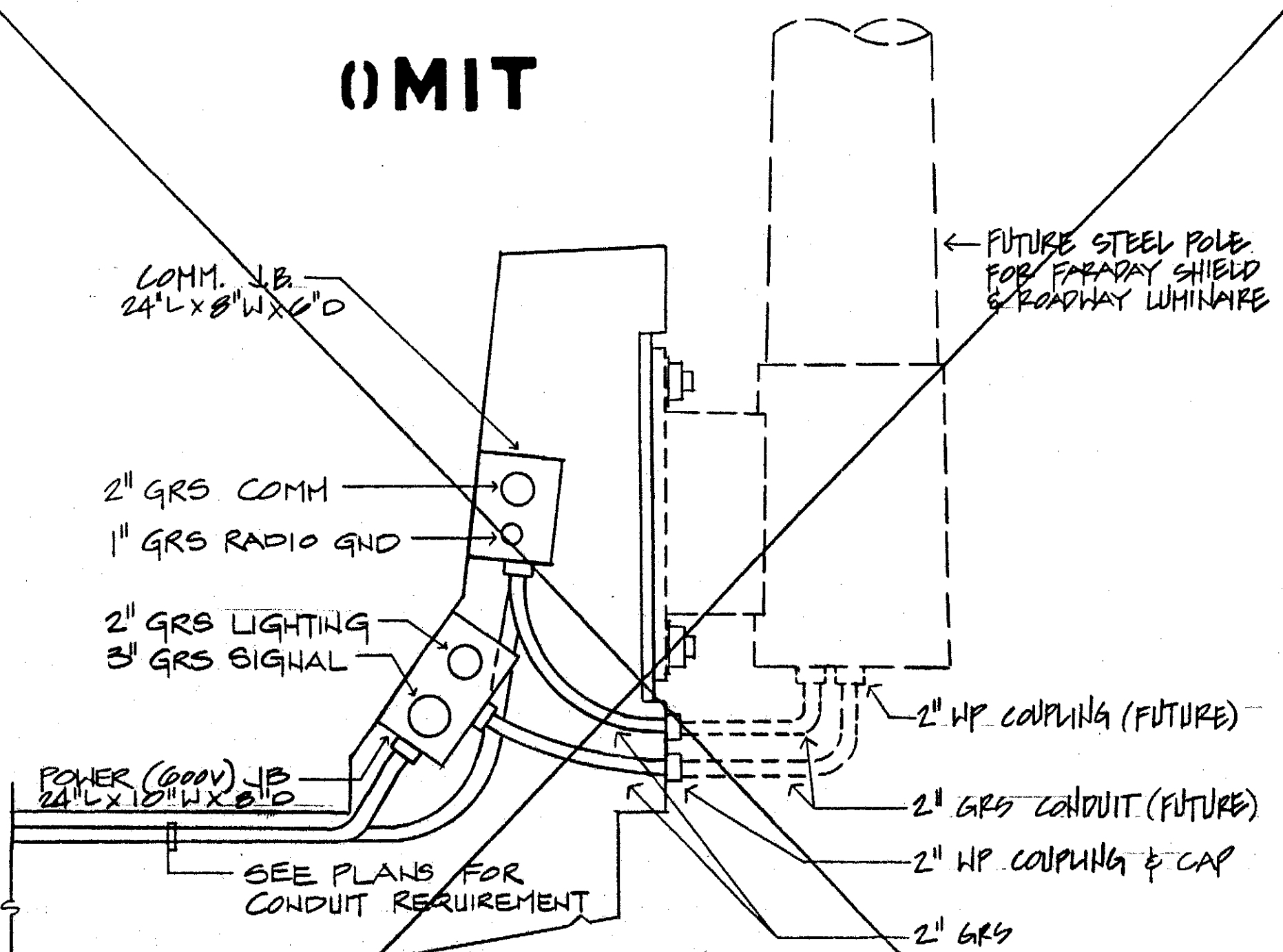


HECO 46KV DUCTLINE  
DUCT SECTION  
N.T.S.

OMIT

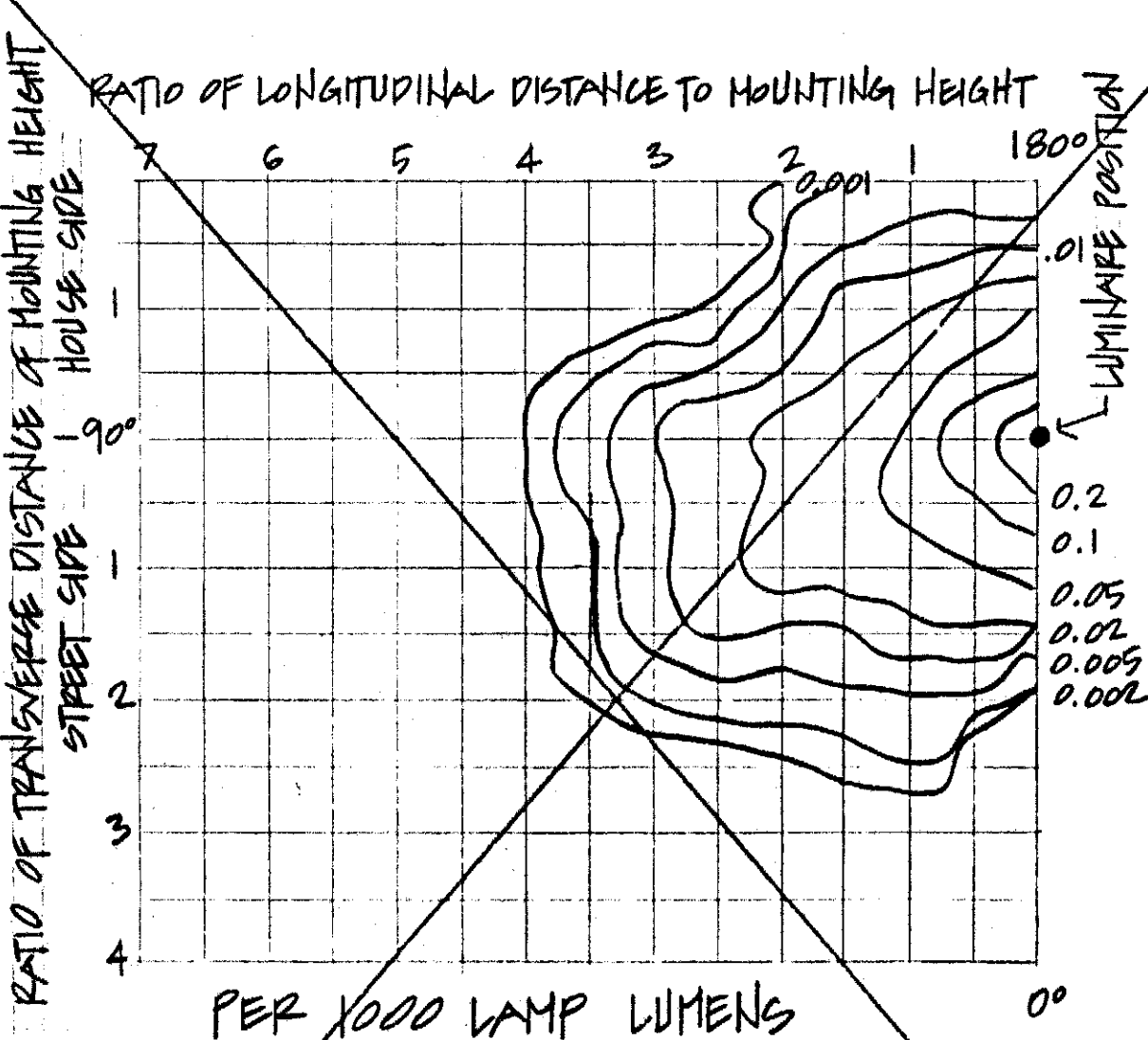
N.I.C.

N.I.C.

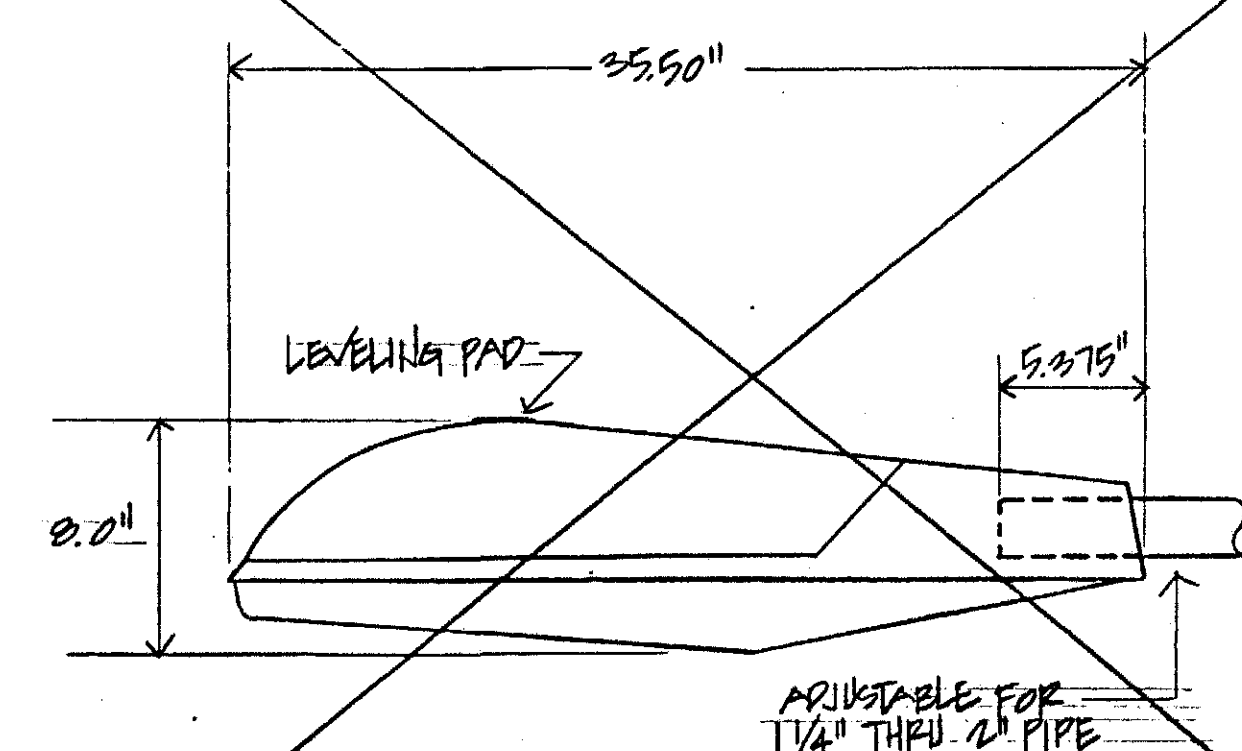


TYPICAL POWER (600V) & COMM. JUNCTION  
BOX DETAIL ON PARAPET WALL  
N.T.S.

NOTE:  
1. JUNCTION BOXES SHALL BE WATERTIGHT, CAST METAL TYPE  
2. STAGGER COMM. & POWER JB'S LOCATION ON PLAN



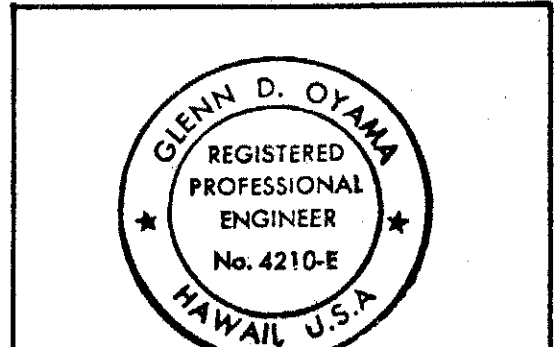
ISOFOOTCANDLE CURVES - TYPE "A" LUMINAIRE



TYPICAL ROADWAY LUMINAIRE - TYPE "A"  
N.T.S.

6-8-1990	DELETED TYPICAL POWER & COMM JUNCTION BOX DETAIL ON PARAPET WALL
6-8-1990	REVISION ON DUCT SECTION THROUGH PARAPET WALL
7-10-1989	REVISED DETAIL ON PARAPET WALL

DATE REVISION



THIS WORK WAS PREPARED BY  
ME OR UNDER MY SUPERVISION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS

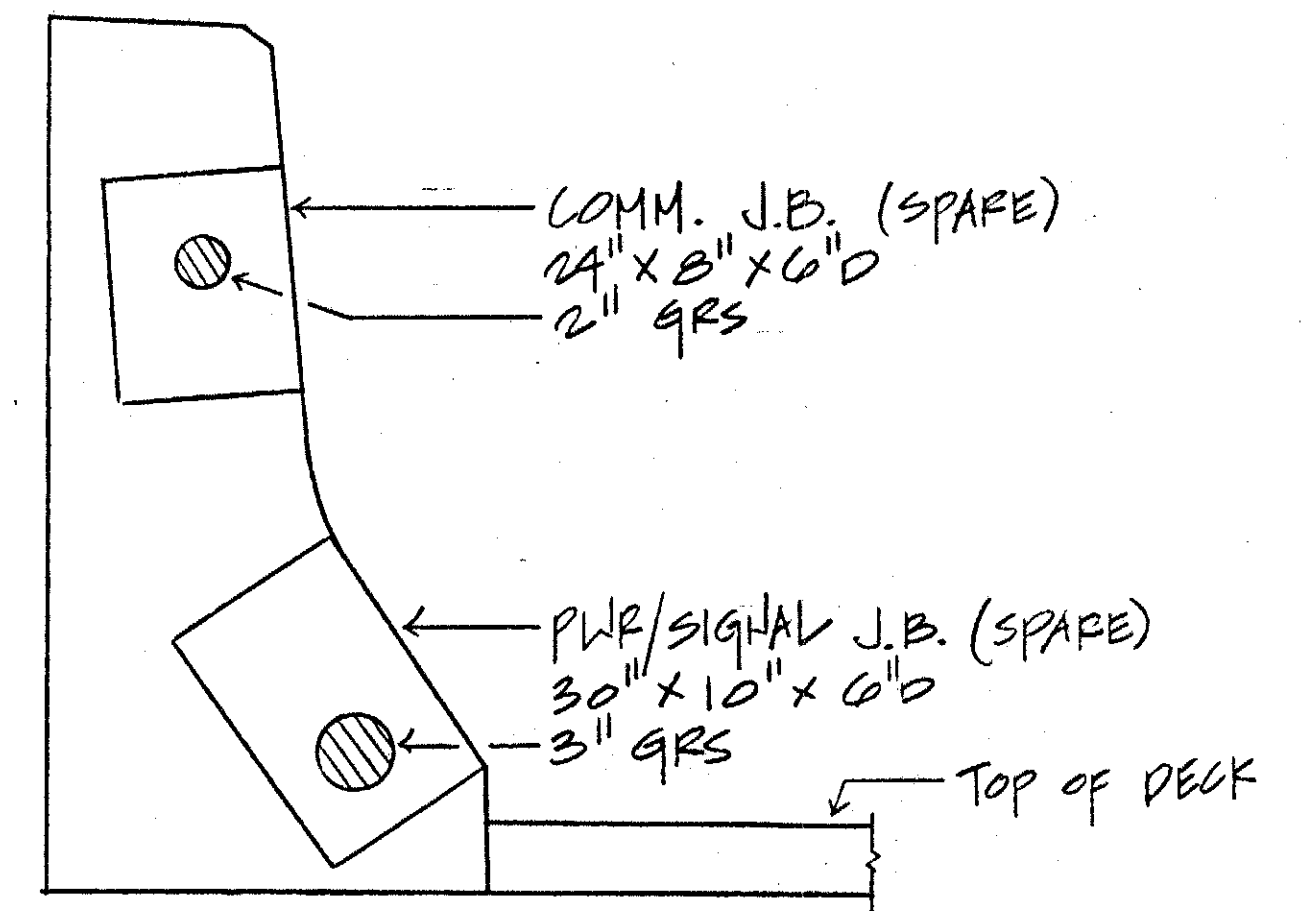
INTERSTATE ROUTE H-3  
F.A.I. PROJECT NO. I-H3-1 (57)  
F.A.I. PROJECT NO. I-H3-1 (50)  
SCALE: AS NOTED DATE:

SHEET NO. 6 OF 9 SHEETS

CD-AID-268

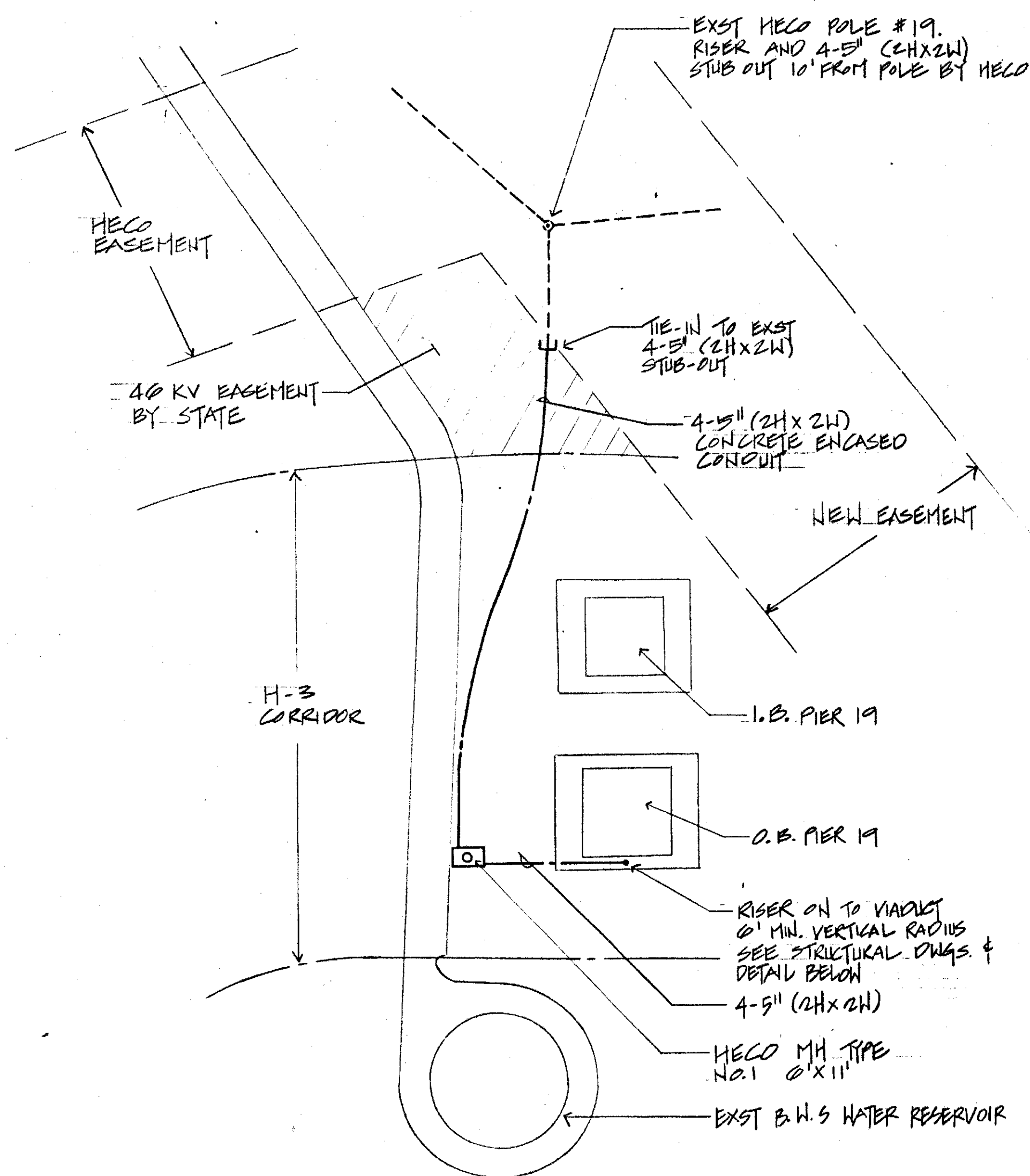
261

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H3-1(57)	1988	262	274

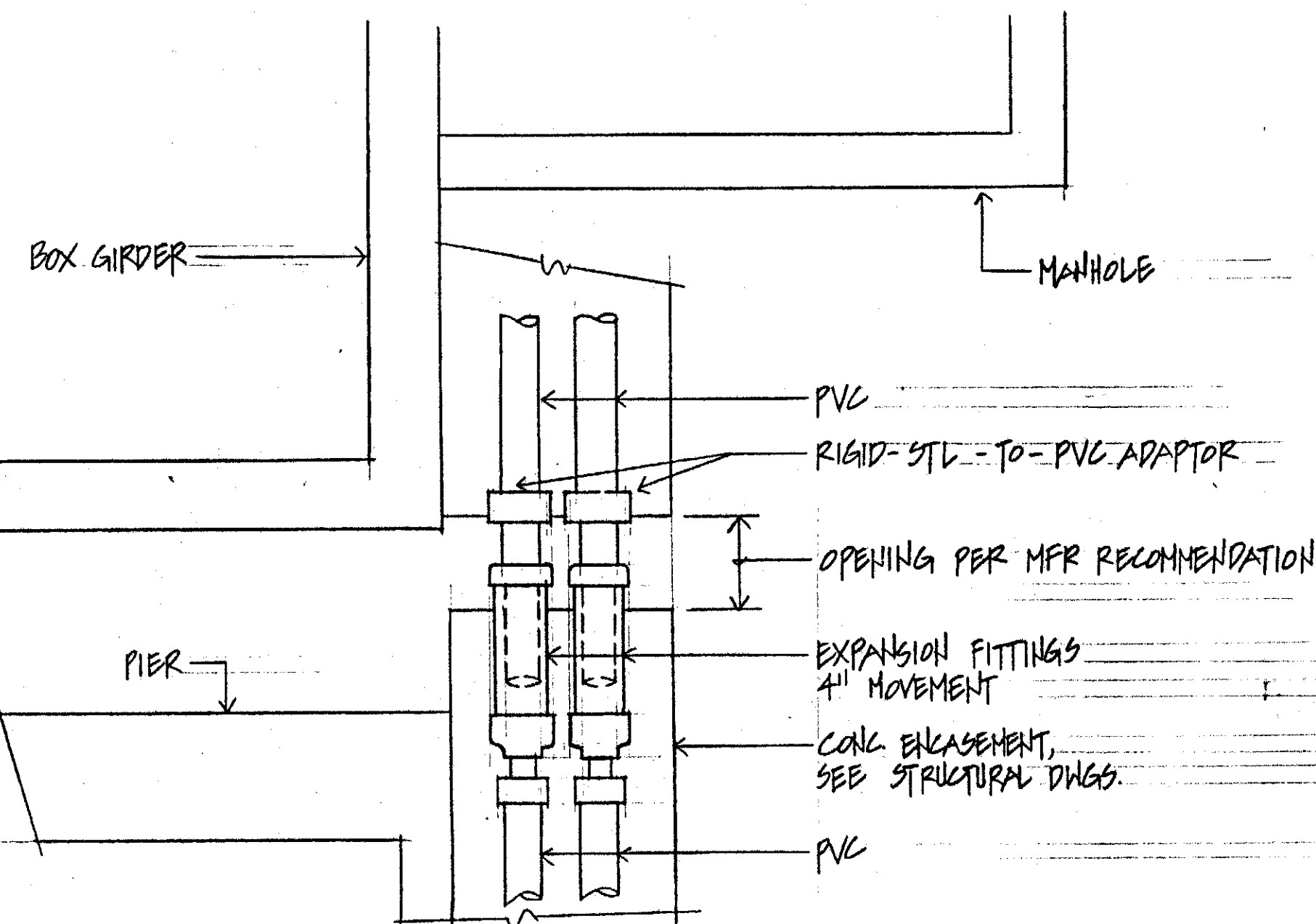


TYPICAL COMM. & PWR/SIGNAL J.B.  
DETAIL ON PARAPET WALL INSIDE BARRIER  
N.T.S.

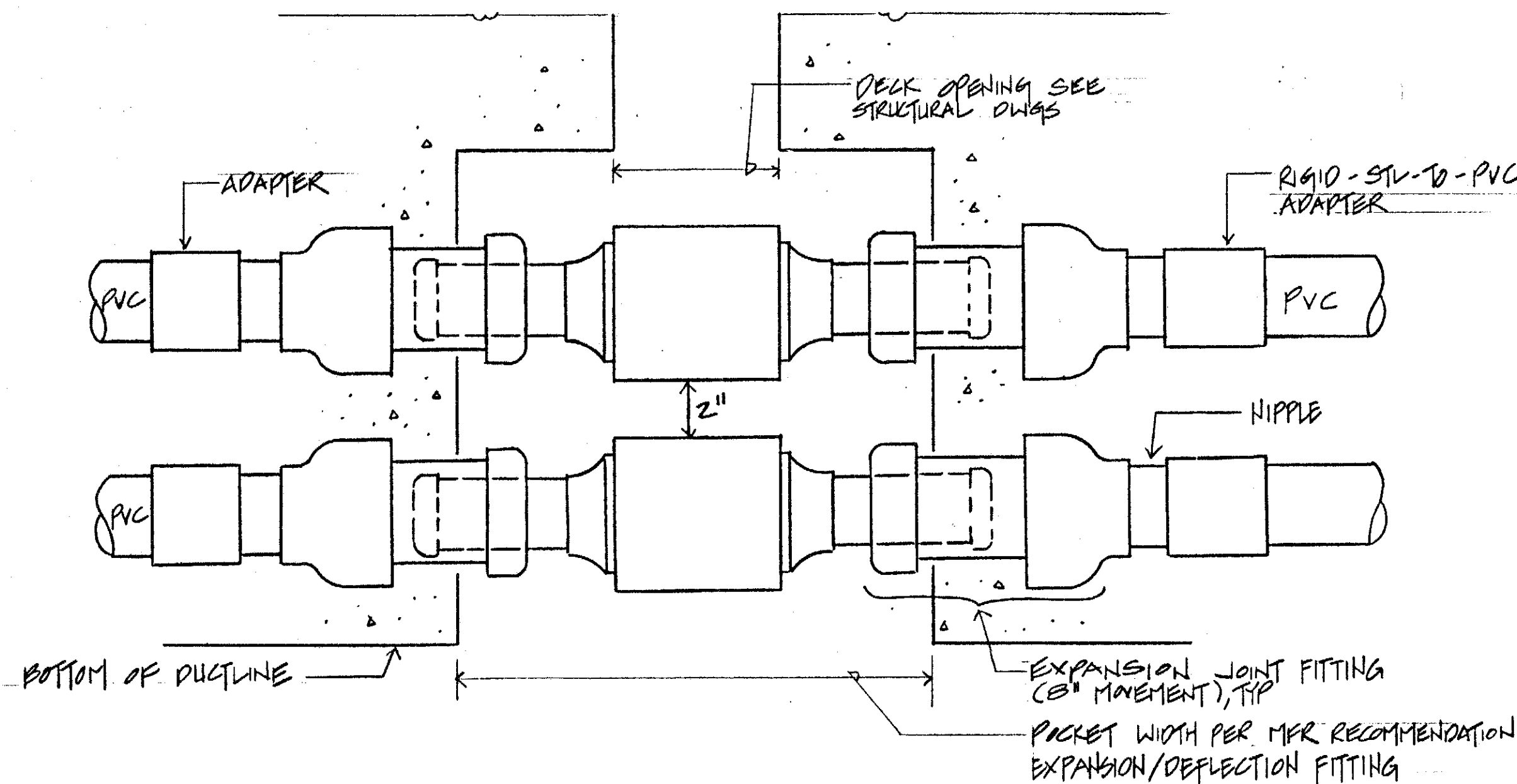
- NOTE:**
1. JUNCTION BOXES SHALL BE WATERTIGHT, CAST METAL TYPE.
  2. STAGGER COMM. & POWER/SIGNAL J.B. LOCATION ON PLAN



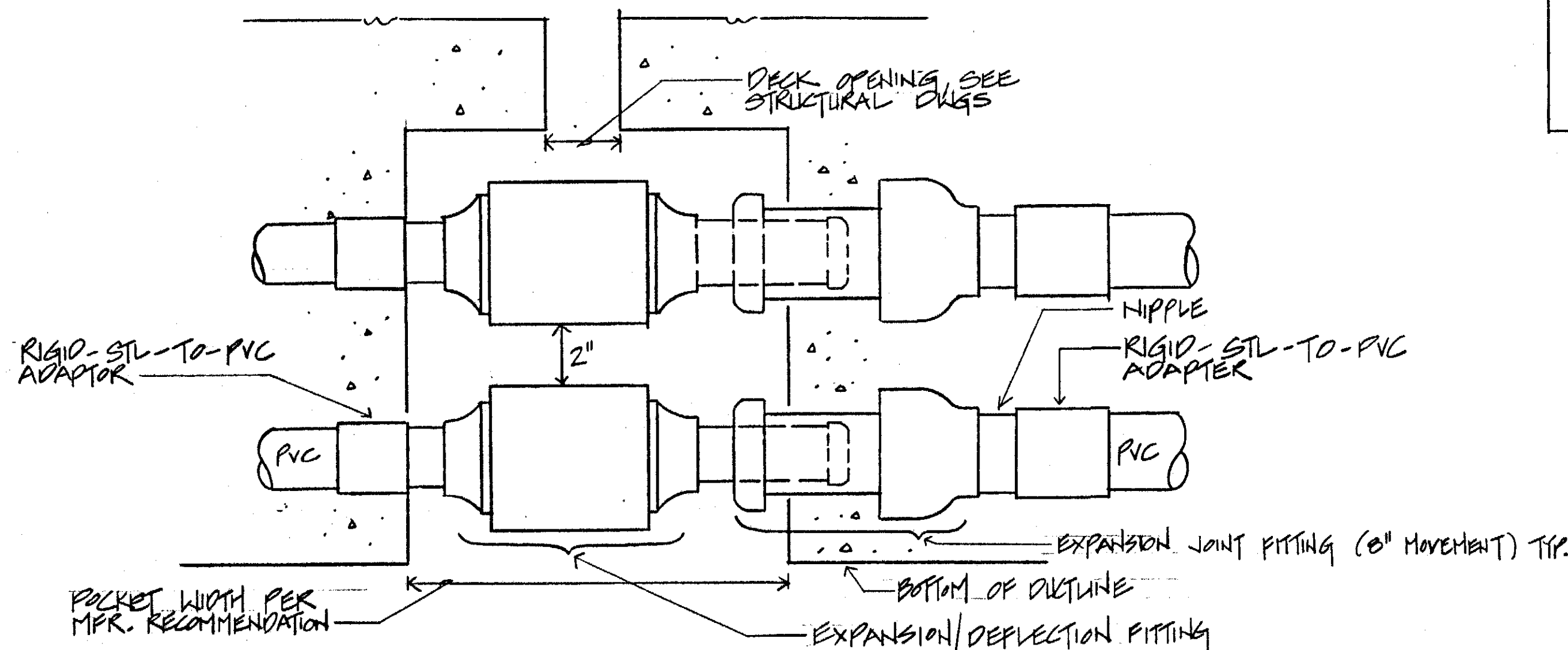
PLAN - 46 KV DUCTLINE  
SCALE: 1" = 40'-0"



46 KV RISER SECTION-ELEVATION  
N.T.S.



46 KV DUCTLINE - TYPICAL EXPANSION/DEFLECTION  
FITTINGS DETAIL (12\"/>



46 KV DUCTLINE - TYPICAL EXPANSION/DEFLECTION  
FITTINGS DETAIL (FOR 3\"/>

**GENERAL NOTES:**

1. EXPANSION/DEFLECTION FITTING DETAIL FOR SIGNAL, POWER, U.G. & COMM. DUCTLINE SHALL BE SIMILAR.
2. SEE STRUCTURAL DWG. FOR LOCATION OF DECK EXPANSION JOINTS.

6-8-1990	REVISED COMM. & PWR/SIGNAL J.B. DETAIL
6-8-1990	REVISED GENERAL NOTES
7-10-1989	REVISED DETAIL ON PARAPET WALL
DATE	REVISION

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>WINDWARD VIADUCT</b>	
PLAN AND MISCELLANEOUS DETAILS	
INTERSTATE ROUTE H-3	
F.A.I. PROJECT NO. I-H3-1 (57)	
P.A.I. PROJECT NO. I-H3-1 (58)	
SCALE: AS NOTED	DATE:
SHEET NO. E-7 OF 9 SHEETS	

**60-ADD-269**