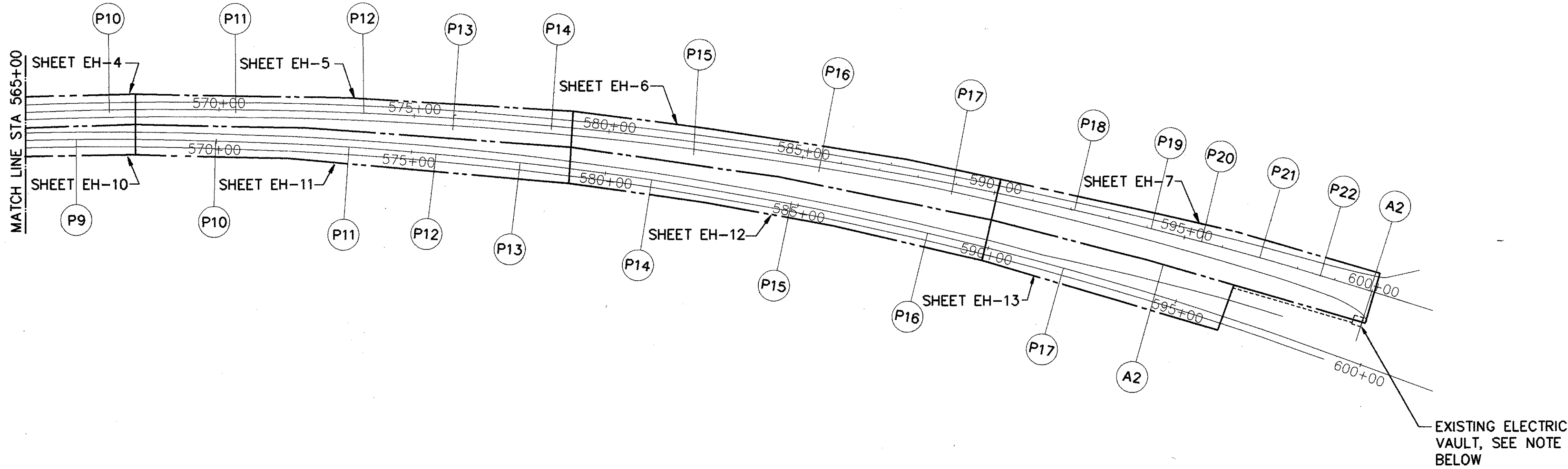
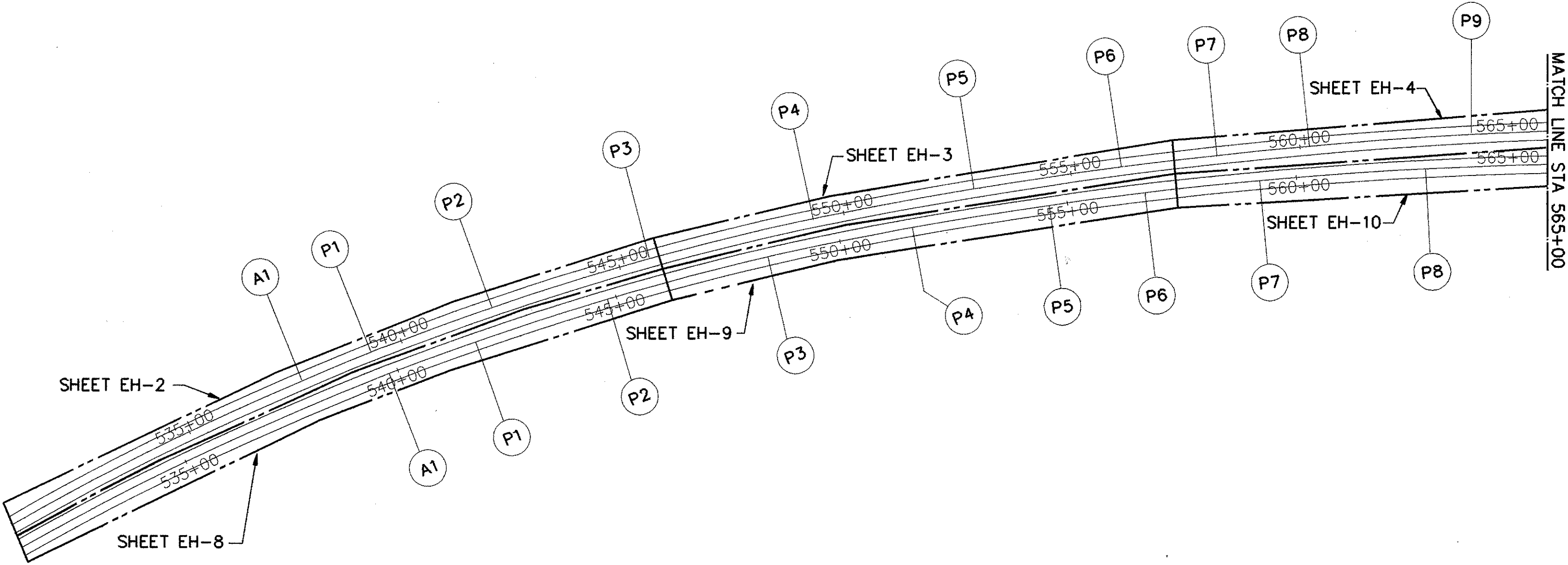


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	292	405



GENERAL ELECTRICAL PLAN - EXTERIOR
SCALE: 1"=200'

NOTE:
ALL (LIGHTING AND TRAFFIC CONTROLLER POWER FEEDERS TO BE INSTALLED IN EXISTING RACEWAYS AND TERMINATED TO RELATED PANELBOARDS AS INDICATED IN THE ONE-LINE DIAGRAM.

ELECTRICAL SYMBOLS AND LEGEND

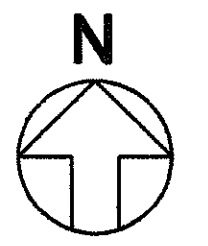
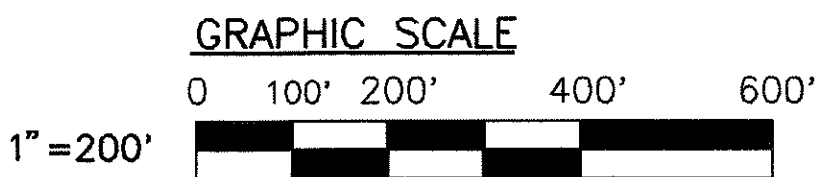
EXISTING	NEW	DESCRIPTION
	○	LIGHT STANDARD POLE (OWNER FURNISHED CONTRACTOR INSTALLED)
⊕		46KV MANHOLE ON GRADE, 6' X 11" X 6' DEEP
⊕		46KV MANHOLE ON STRUCTURE, 6' X 11" X 6' DEEP
⊕		TELEPHONE JUNCTION BOX, CAST METAL, WP, 34" X 10" X 6"D
■		LIGHTING J.B., CAST METAL, WP, 30" L X 10" W X 6" D
⊕		COMMUNICATION J.B., CAST METAL, WP, 24" L X 8" W X 6"D
⊕		EXISTING JUNCTION BOX GROUP
⊕		TRAFFIC DETECTOR LOOP, 6' X 6'
⊕		SIGNAL J.B., CAST METAL, WP, 24" L X 8" W X 6" D
---	---	ELECTRIC DUCT LINES
---	---	SIGNAL DUCT LINES
---	---	LIGHTING DUCT LINES
---	---	COMMUNICATION DUCT LINES
⊕		PANELBOARD
	(P)	PIER NUMBER AND LOCATION INDICATOR
	(A)	ABUTMENT NUMBER AND LOCATION INDICATOR
---	---	TELEPHONE DUCT LINES
---	---	EXISTING SIGNAL DUCT LINES
---	---	EXISTING LIGHTING DUCT LINES
---	---	EXISTING COMMUNICATION DUCT LINES
⊕		TYPICAL EXISTING EXPANSION JOINTS WITH SLEEVES

DETAIL INDICATOR

DETAIL 4" (Detail Designation)
EH-4|EH-5 (Sheet No. on which Detail is drawn)
Sheet on which detail is identified

SECTION INDICATOR

SECTION B" (Section Designation)
EH-6|EH-8 (Sheet No. on which Section is drawn)
Sheets on which Sections is taken



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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

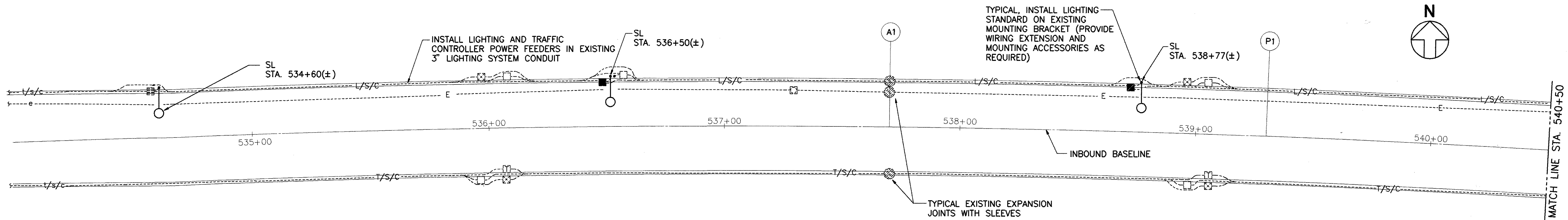
**GENERAL ELECTRICAL
PLAN-EXTERIOR**

NORTH HALAWA VALLEY VIADUCT
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

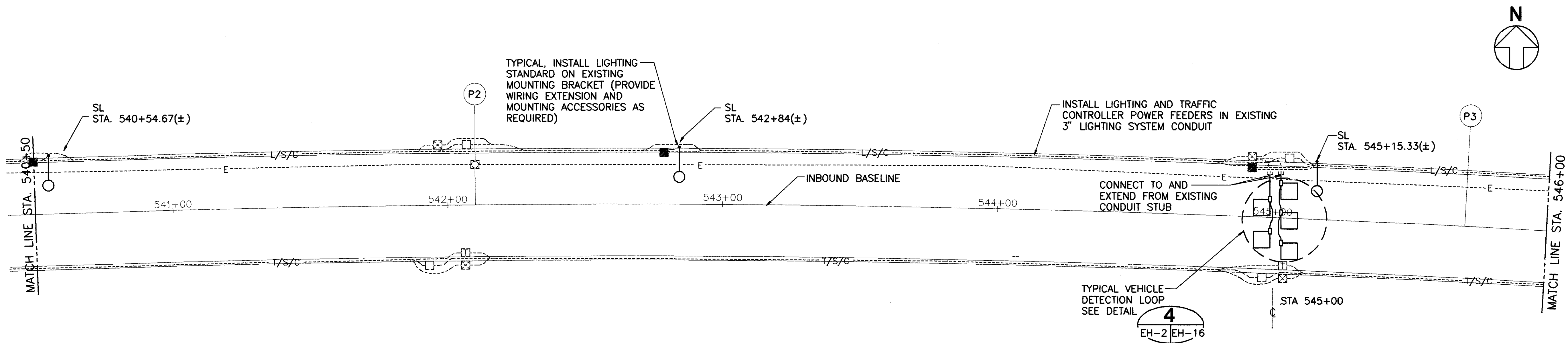
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SHEET NO. EH-1 OF 32 SHEETS

DATE	REVISION
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	293	405

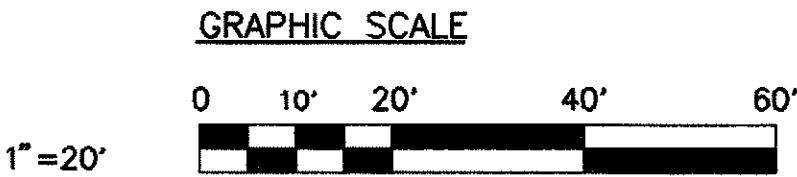


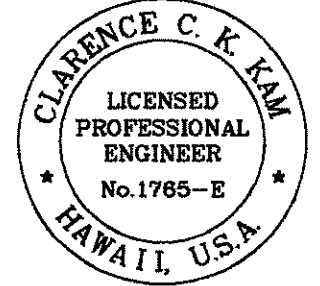
PARTIAL ELECTRICAL PLAN - INBOUND
 SCALE: 1"=20'



PARTIAL ELECTRICAL PLAN - INBOUND
 SCALE: 1"=20'

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





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PARTIAL ELECTRICAL PLAN - INBOUND EXTERIOR

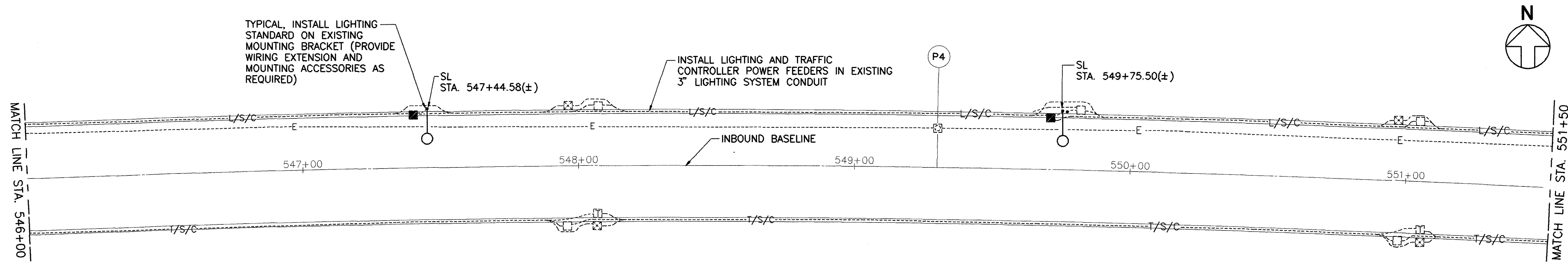
STA. 534+22.93 TO 546+00

INTERSTATE ROUTE H-3
 F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

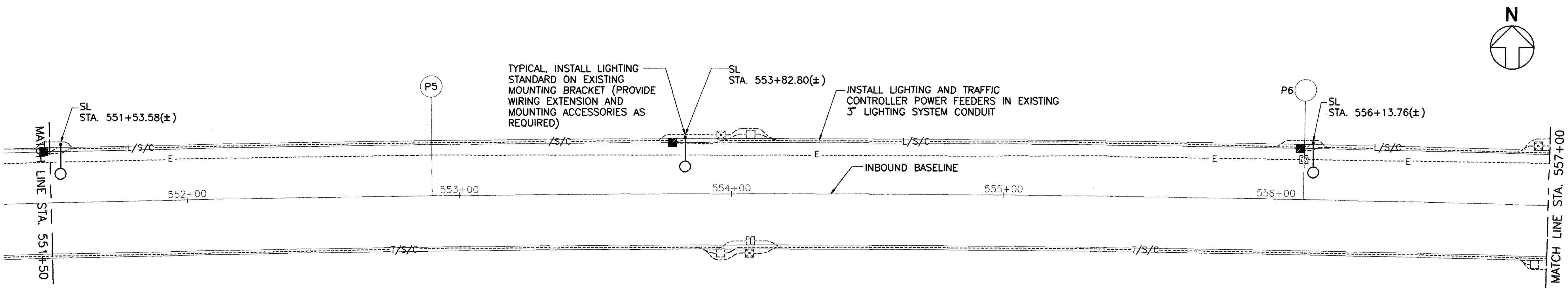
SCALE: 1" = 20' DATE: JAN. 1996
 SHEET NO. EH-2 OF 32 SHEETS

DATE	REVISION

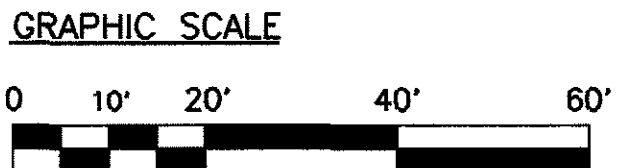
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	294	405



PARTIAL ELECTRICAL PLAN - INBOUND
SCALE: 1"=20'



PARTIAL ELECTRICAL PLAN - INBOUND
SCALE: 1"=20'



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**PARTIAL ELECTRICAL PLAN-
INBOUND EXTERIOR**

STA. 546+00 TO 557+00

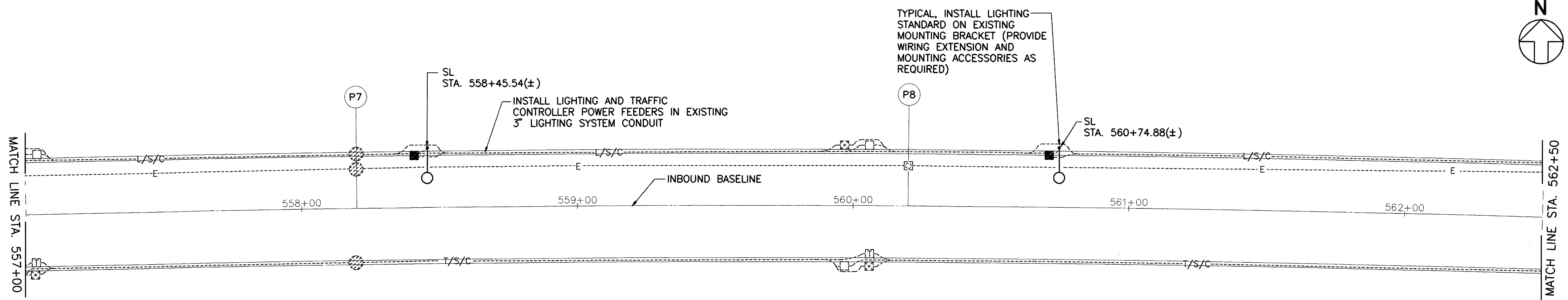
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: 1" = 20' DATE: JAN. 1996
SHEET NO. EH-3 OF 32 SHEETS

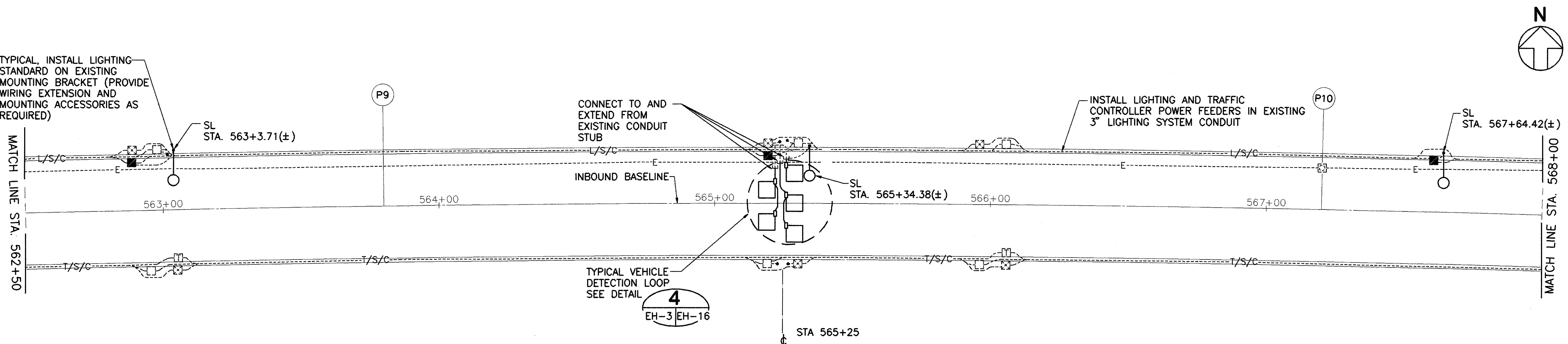
DATE	REVISION

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

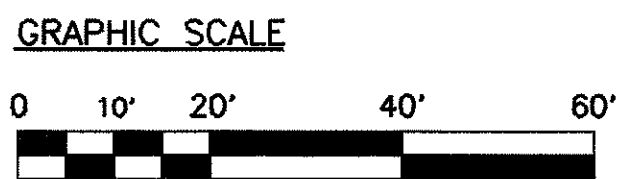
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	295	405



PARTIAL ELECTRICAL PLAN - INBOUND
SCALE: 1"=20'



PARTIAL ELECTRICAL PLAN - INBOUND
SCALE: 1"=20'



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SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTESBOOK	
No.	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**PARTIAL ELECTRICAL PLAN-
INBOUND EXTERIOR**

STA. 557+00 TO 568+00

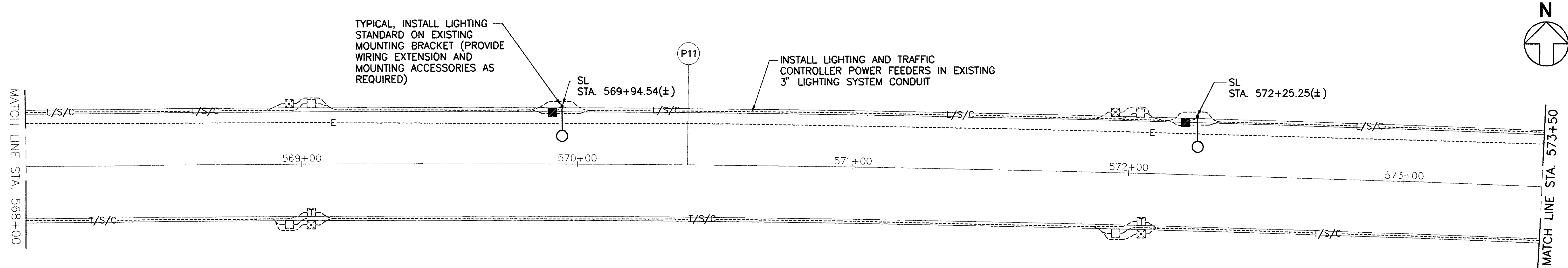
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: 1" = 20' DATE: JAN. 1996

SHEET NO. EH-4 OF 32 SHEETS

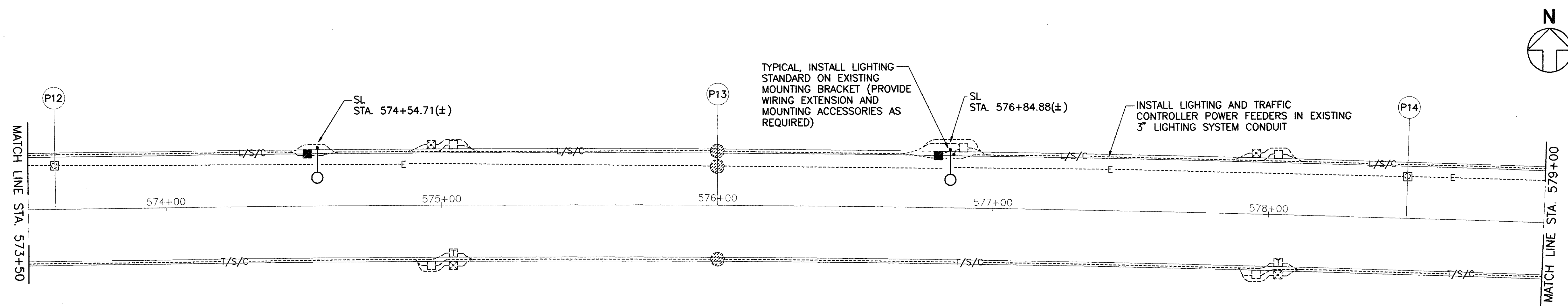
DATE	REVISION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	296	405



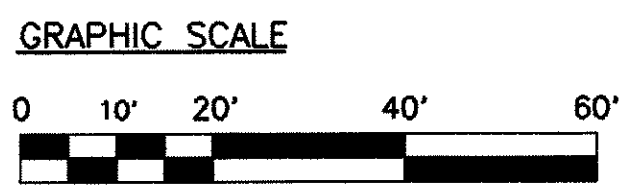
PARTIAL ELECTRICAL PLAN - INBOUND

SCALE: 1"=20'



PARTIAL ELECTRICAL PLAN - INBOUND

SCALE: 1"=20'



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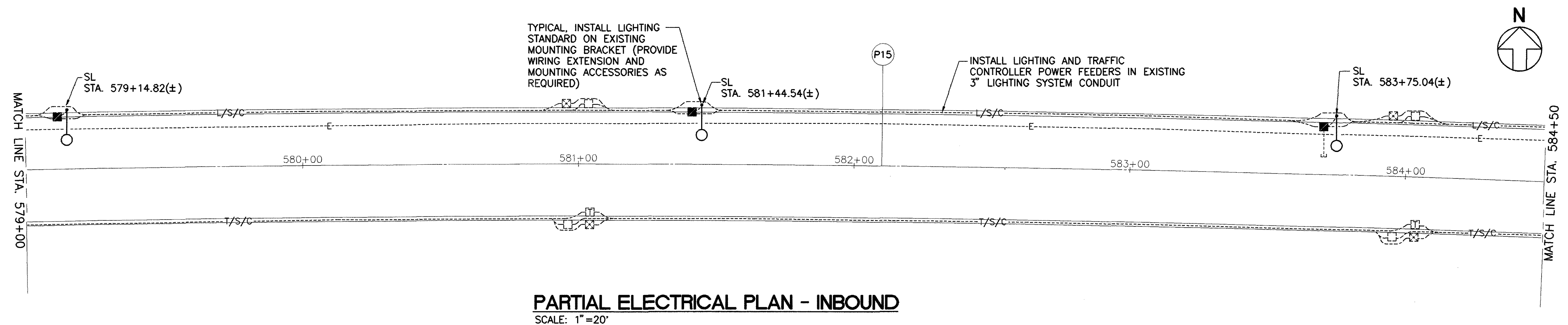
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**PARTIAL ELECTRICAL PLAN-
INBOUND EXTERIOR**
STA. 568+00 TO 579+00
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: 1" = 20' DATE: JAN. 1996
SHEET NO. EH-5 OF 32 SHEETS

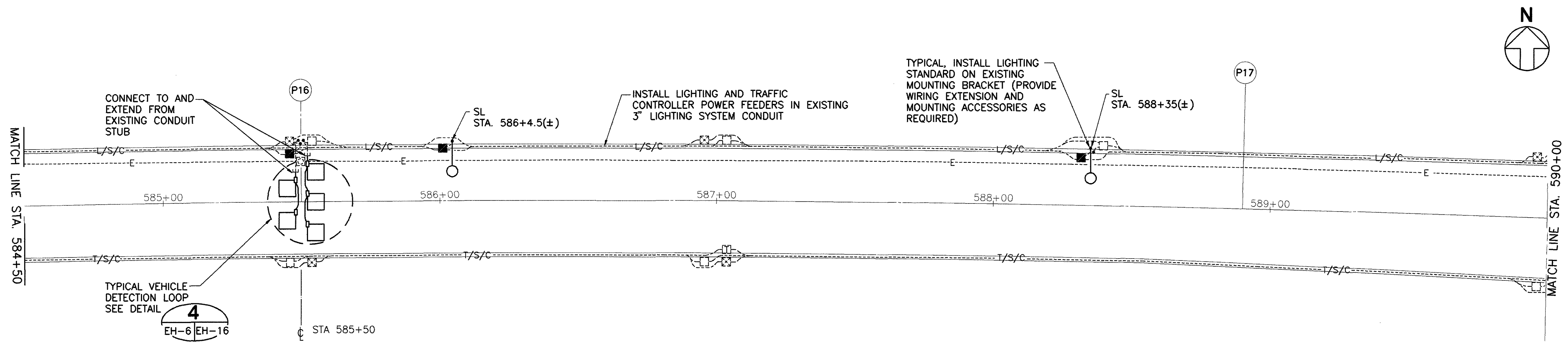
DATE	_____
DESIGNED BY	_____
DRAWN BY	_____
CHECKED BY	_____
NOTED BY	_____
REVISION	_____

DATE	REVISION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	297	405

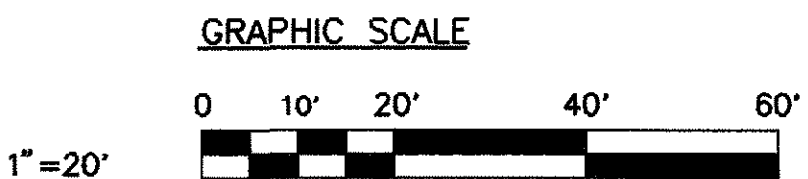


PARTIAL ELECTRICAL PLAN - INBOUND
SCALE: 1"=20'



PARTIAL ELECTRICAL PLAN - INBOUND
SCALE: 1"=20'

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITY BY	
CHECKED BY	
ORIGINAL PLAN	
NOTEBOOK	
No.	



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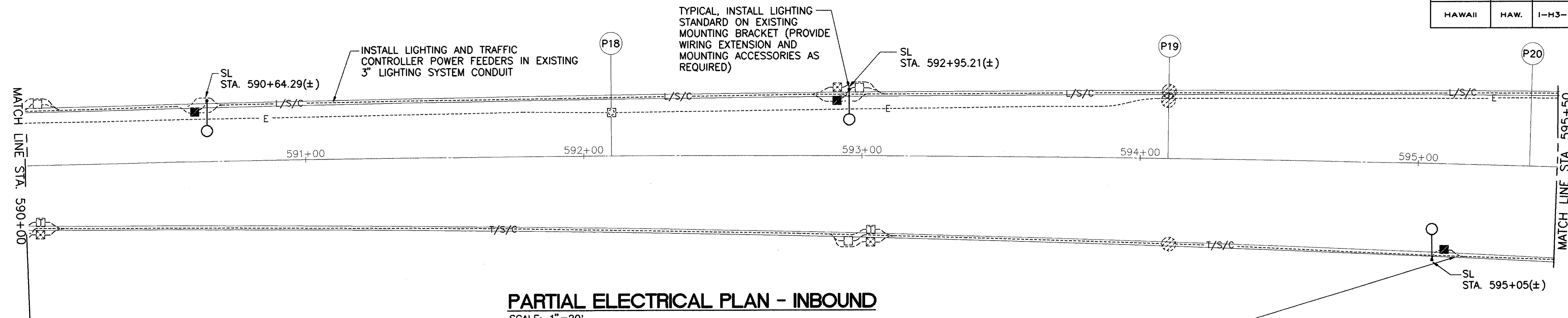
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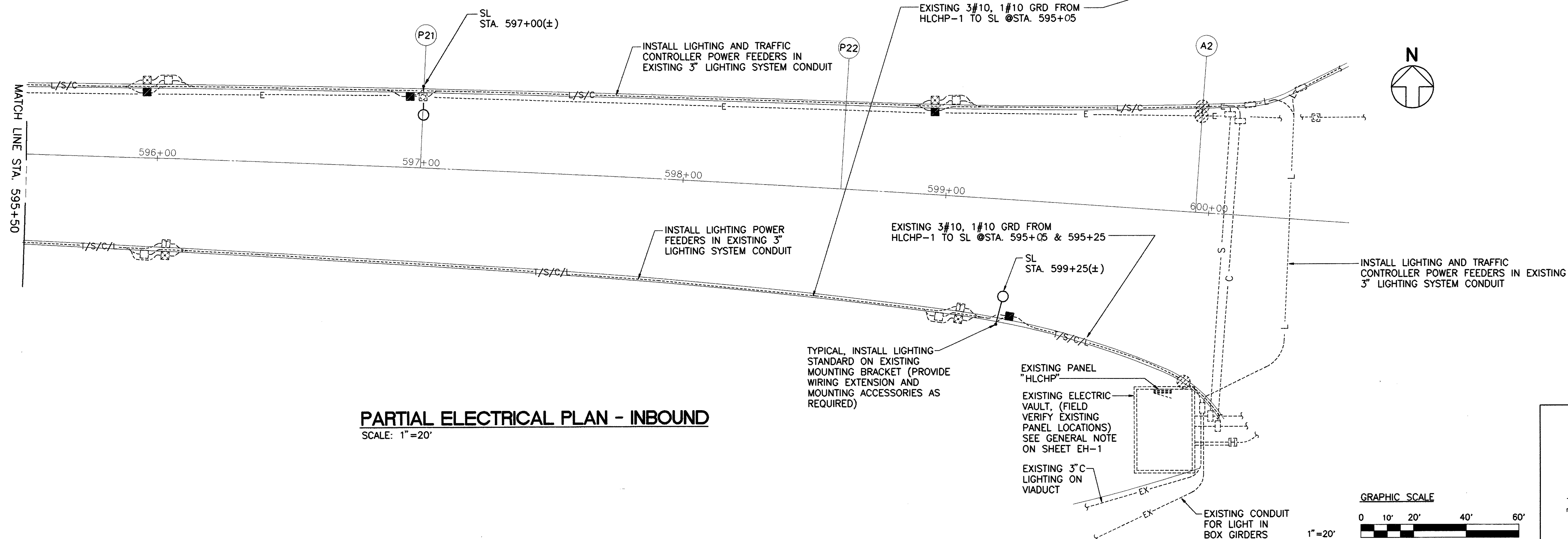
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**PARTIAL ELECTRICAL PLAN-
INBOUND EXTERIOR**
STA. 579+00 TO 590+00
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1
SCALE: 1" = 20' DATE: JAN. 1996
SHEET NO. EH-6 OF 32 SHEETS

DATE	REVISION
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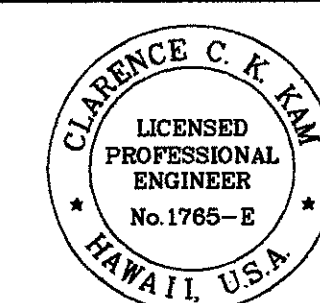
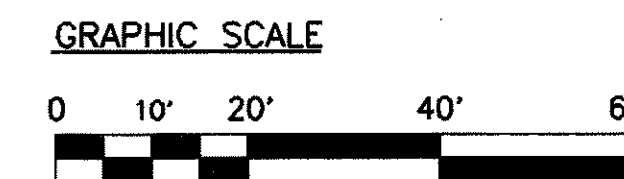
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	298	405



PARTIAL ELECTRICAL PLAN - INBOUND
SCALE: 1"=20'



PARTIAL ELECTRICAL PLAN - INBOUND
SCALE: 1"=20'



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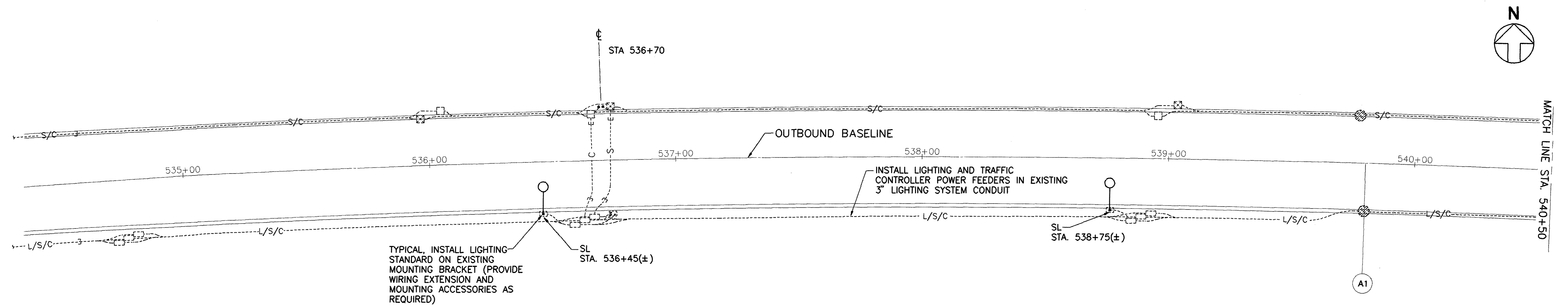
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**PARTIAL ELECTRICAL PLAN-
INBOUND EXTERIOR**
STA. 590+00 TO 599+00
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: 1" = 20' DATE: JAN. 1996
SHEET NO. EH-7 OF 32 SHEETS

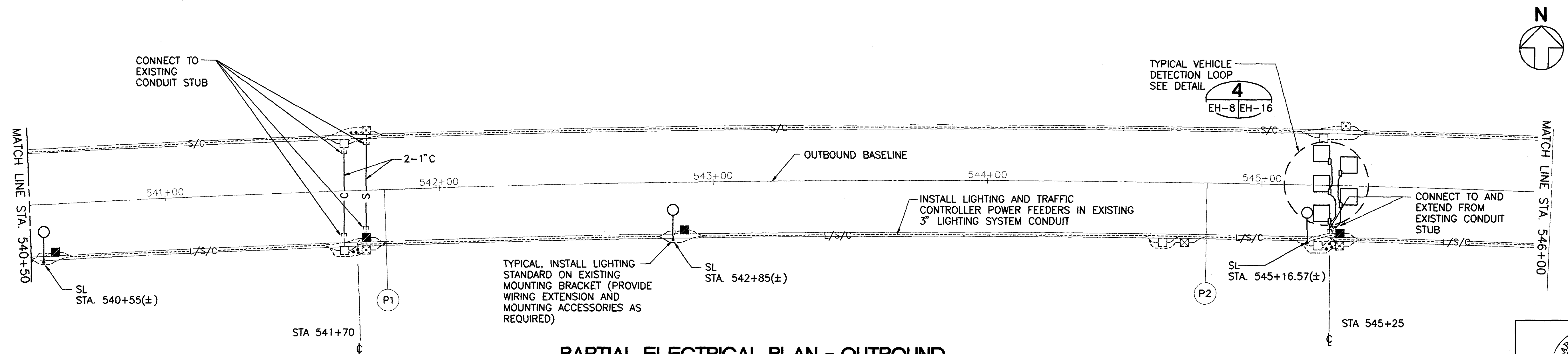
DATE REVISION

DATE	
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
NOTED BY	
CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	299	405

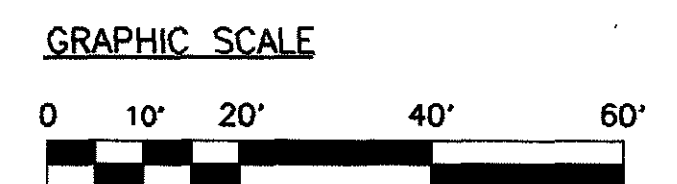


PARTIAL ELECTRICAL PLAN - OUTBOUND
SCALE: 1" = 20'



PARTIAL ELECTRICAL PLAN - OUTBOUND
SCALE: 1" = 20'

NOTE
REMOVE AND REPLACE THE PVC CONDUITS AND ADD TWO ONE-INCH CONDUITS, ONE FOR COMMUNICATION AND THE OTHER FOR THE SIGNAL SYSTEM IN THE VICINITY OF STA. 541+70 OF NORTH HALAWA VALLEY VIADUCT OUTBOUND.



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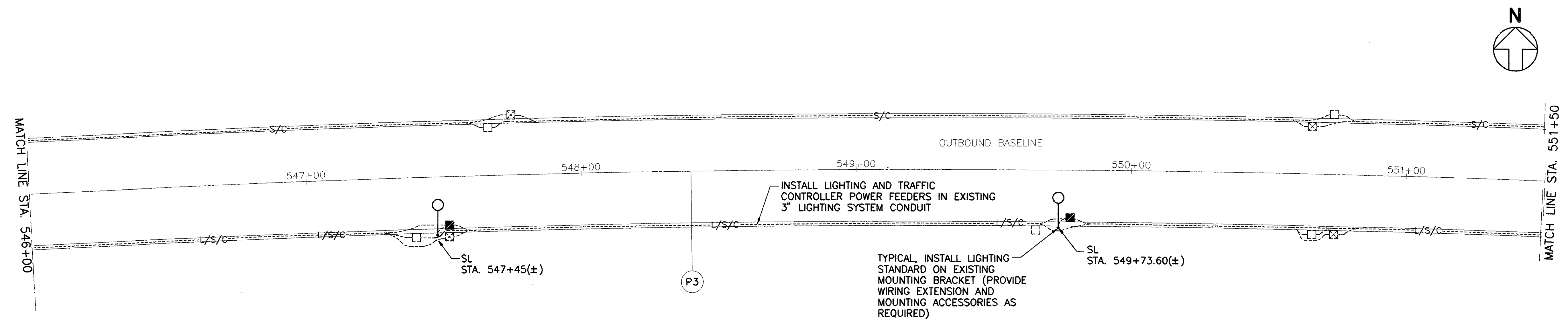
SIGNATURE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**PARTIAL ELECTRICAL PLAN-
OUTBOUND EXTERIOR**
STA. 534+58.24 TO 546+00
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1
SCALE: 1" = 20' DATE: JAN. 1996
SHEET NO. EH-8 OF 32 SHEETS

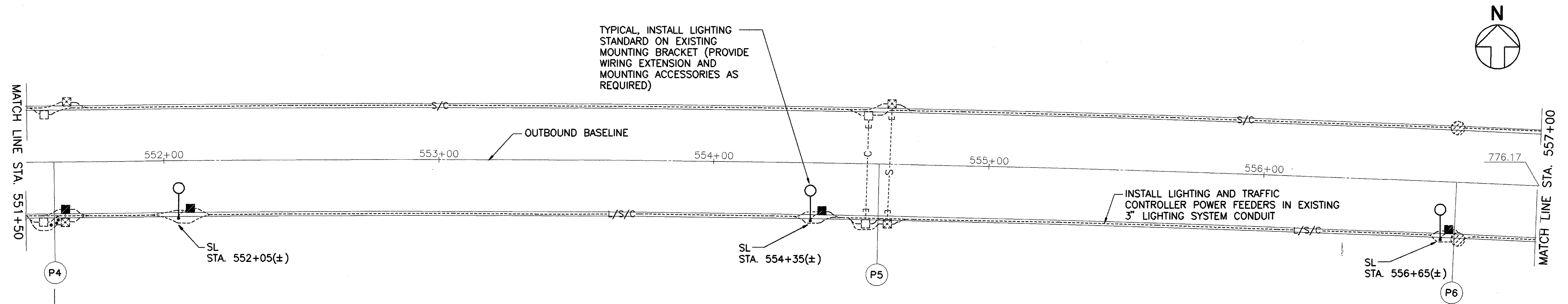
DATE	REVISION

SURVEY PLOTTED BY	DATE
DRAWN BY	
REVIEWED BY	
CHECKED BY	
ORIGINAL PLAN	
NO.	

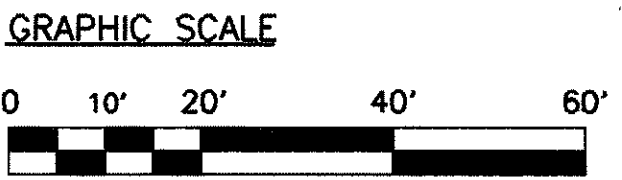
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	300	405



PARTIAL ELECTRICAL PLAN - OUTBOUND
SCALE: 1"=20'



PARTIAL ELECTRICAL PLAN - OUTBOUND
SCALE: 1"=20'



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No. 1766-E

HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**PARTIAL ELECTRICAL PLAN-
OUTBOUND EXTERIOR**

STA. 546+00 TO 557+00

INTERSTATE ROUTE H-3

F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

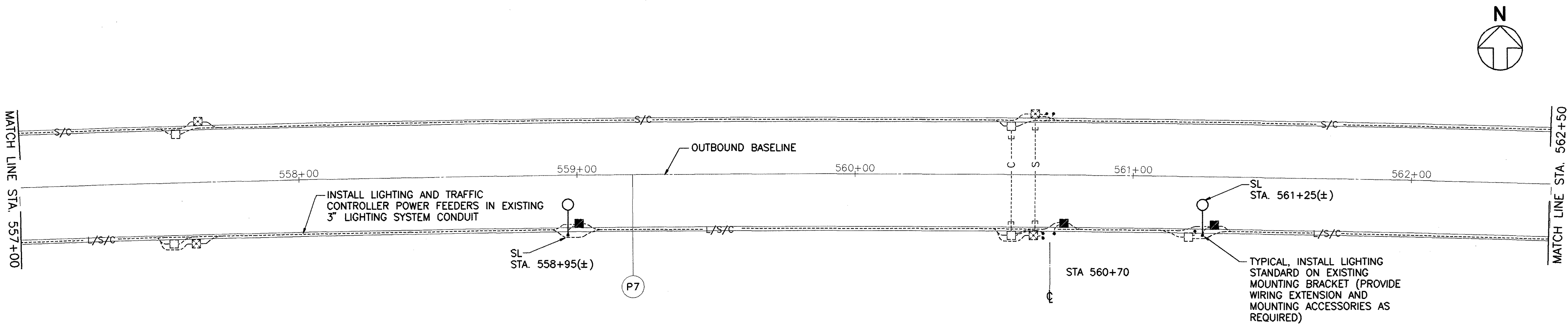
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SHEET NO. EH-9 OF 32 SHEETS

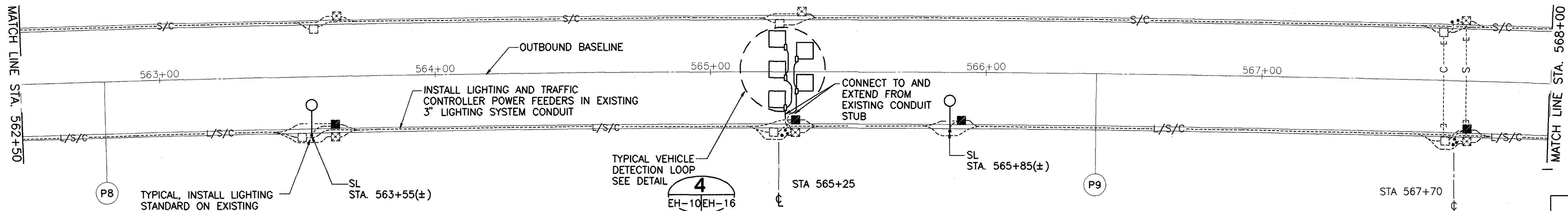
DATE	REVISION
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SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTEBOOK	
No.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	301	405

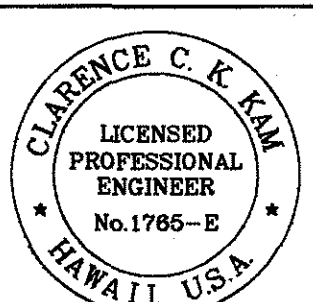


PARTIAL DECK ELEVATION PLAN - OUTBOUND
SCALE: 1"=20'



PARTIAL DECK ELEVATION PLAN - OUTBOUND
SCALE: 1"=20'

GRAPHIC SCALE



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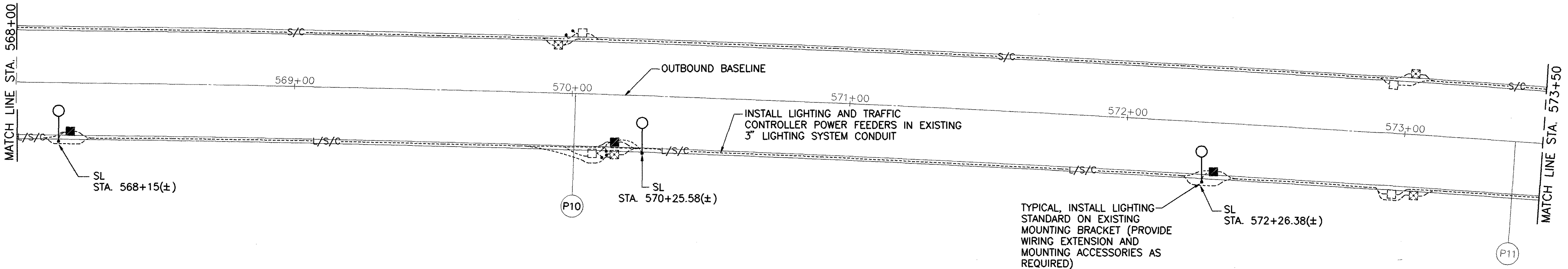
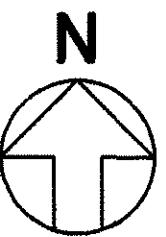
C. K. K.
SIGNATURE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**PARTIAL ELECTRICAL PLAN-
OUTBOUND EXTERIOR**
STA. 557+00 TO 568+00
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

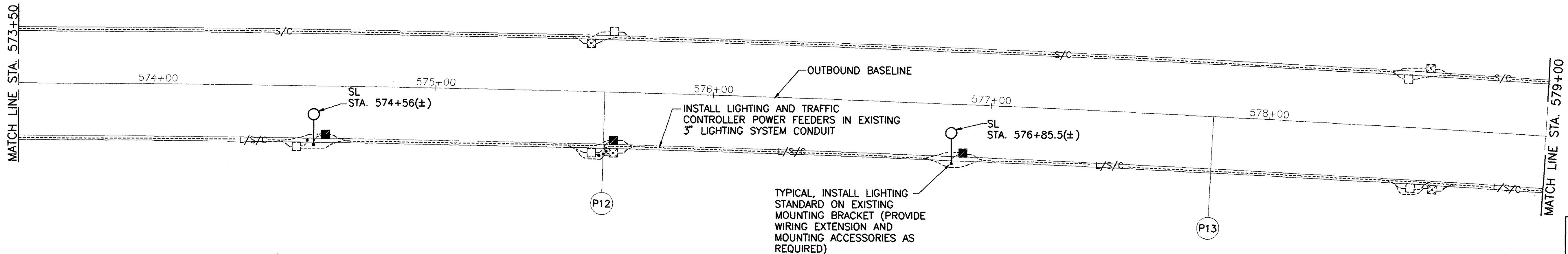
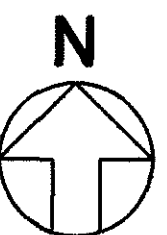
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SHEET NO. EH-10 OF 32 SHEETS

DATE REVISION

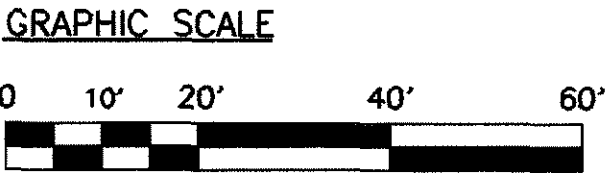
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	302	405



PARTIAL ELECTRICAL PLAN - OUTBOUND
SCALE: 1"=20'



PARTIAL ELECTRICAL PLAN - OUTBOUND
SCALE: 1"=20'



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No. 1785-E

HAWAII, U.S.A.

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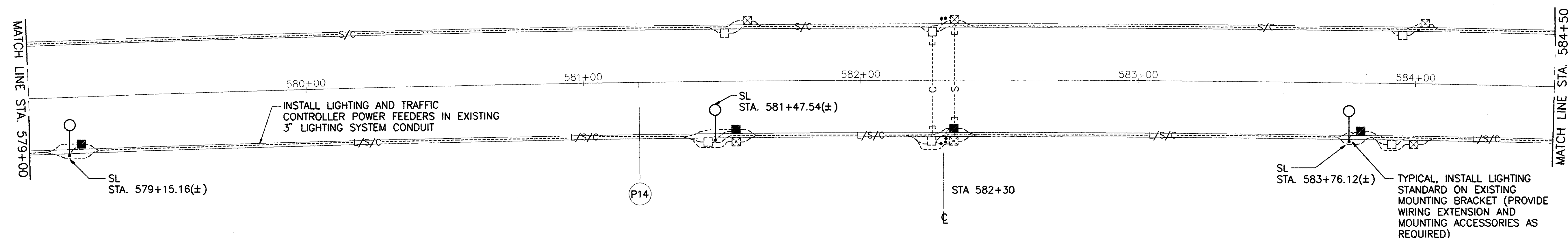
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**PARTIAL ELECTRICAL PLAN-
OUTBOUND EXTERIOR**
STA. 568+00 TO 579+00
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: 1" = 20' DATE: JAN. 1996
SHEET NO. EH-11 OF 32 SHEETS

DATE	REVISION
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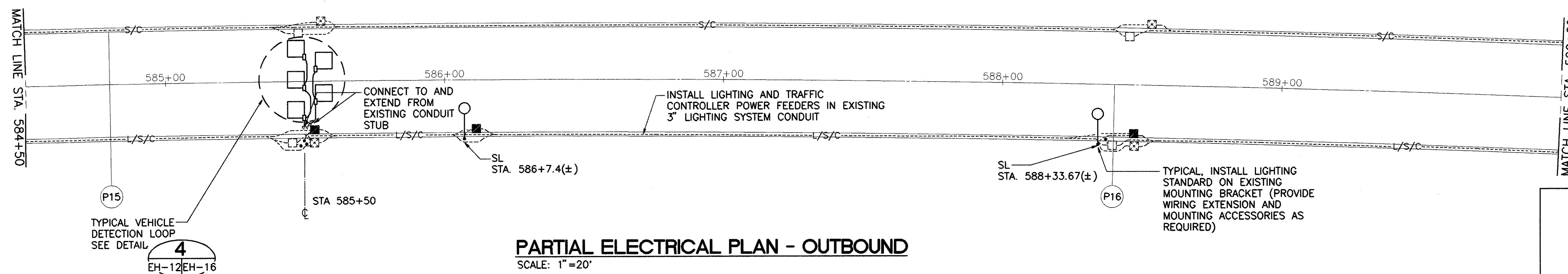
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
REVISION	
No.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	303	405



PARTIAL ELECTRICAL PLAN - OUTBOUND

SCALE: 1"=20'



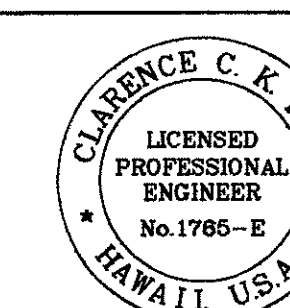
PARTIAL ELECTRICAL PLAN - OUTBOUND

SCALE: 1"=20'

GRAPHIC SCALE



1"=20'



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**PARTIAL ELECTRICAL PLAN-
OUTBOUND EXTERIOR**

STA. 579+00 TO 590+00

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

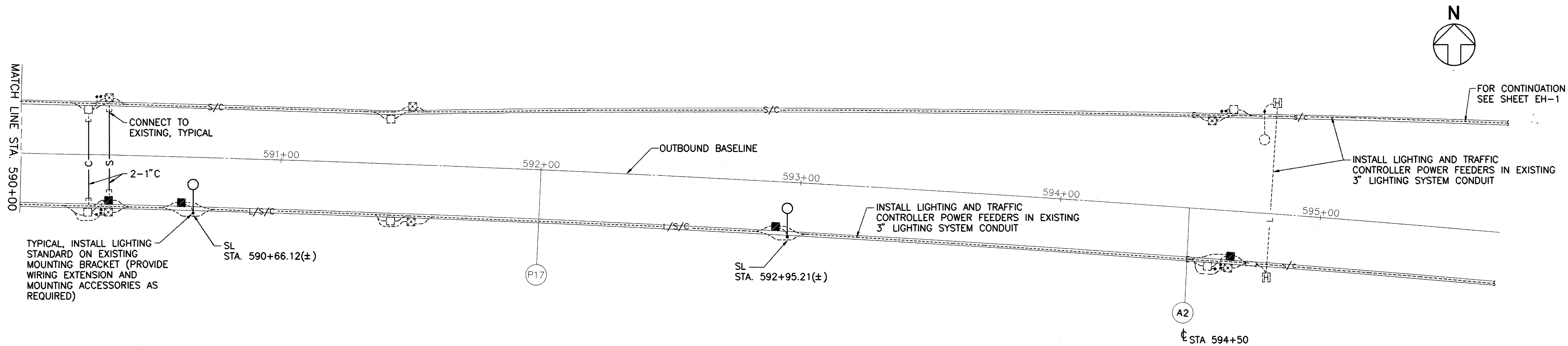
SCALE: 1" = 20' DATE: JAN. 1996

SHEET NO. EH-12 OF 32 SHEETS

DATE REVISION

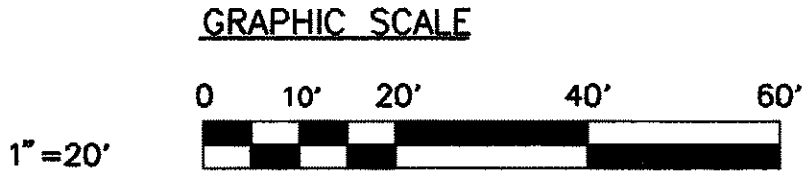
SURVEY PLATTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTES	
NO.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	304	405



PARTIAL DECK ELEVATION PLAN - OUTBOUND
 SCALE: 1"=20'

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTED BY	DRAWN BY	
NOTED BY	DESIGNED BY	
NOTED BY	CHECKED BY	



CLARENCE C. K. KIM
 LICENSED PROFESSIONAL ENGINEER
 No. 1765-B
 HAWAII, U.S.A.

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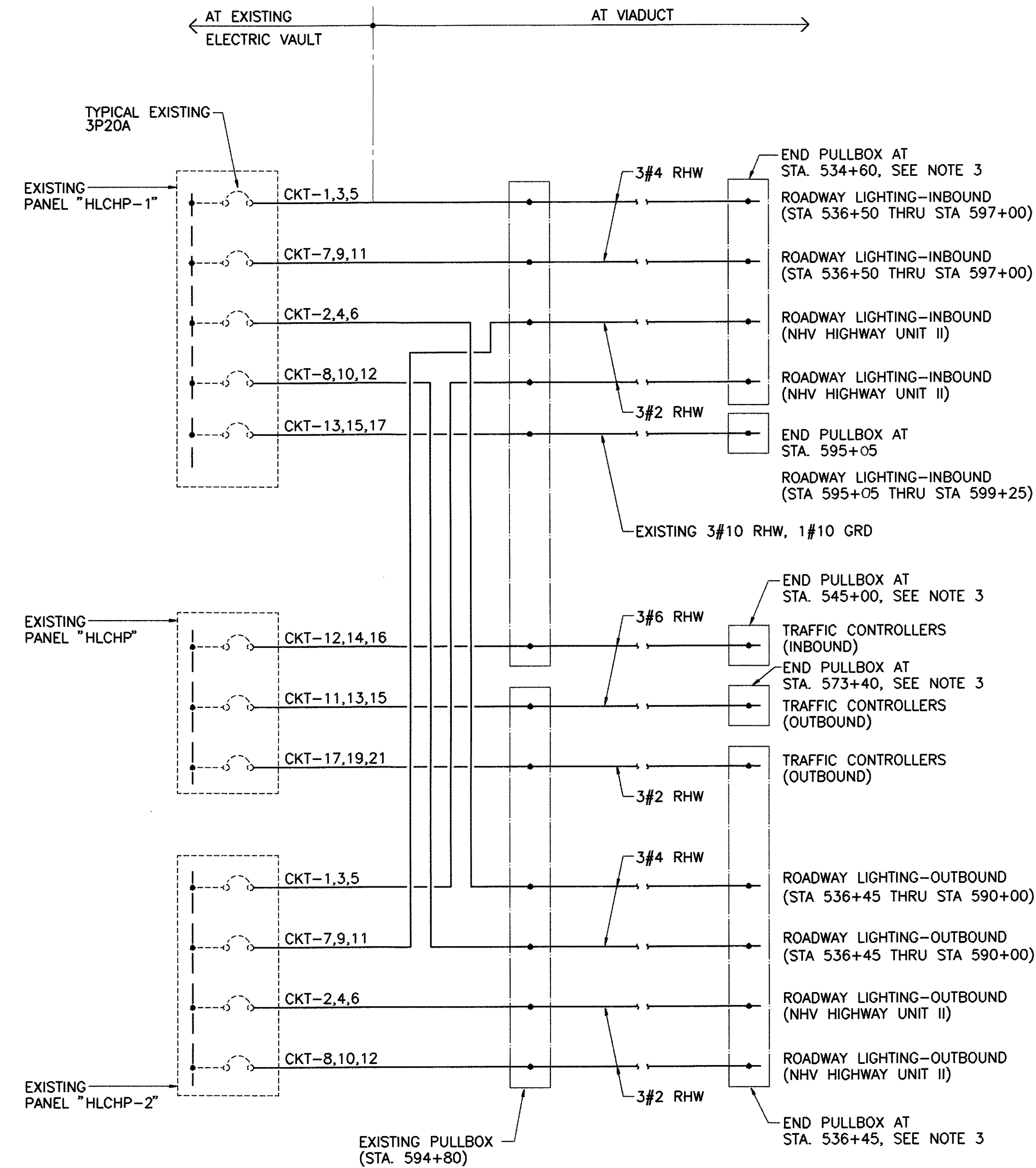
[Signature]
 SIGNATURE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
**PARTIAL ELECTRICAL PLAN-
 OUTBOUND EXTERIOR**
STA. 590+00 TO 594+50
 INTERSTATE ROUTE H-3
 F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: 1" = 20' DATE: JAN. 1996
 SHEET NO. EH-13 OF 32 SHEETS

DATE	REVISION
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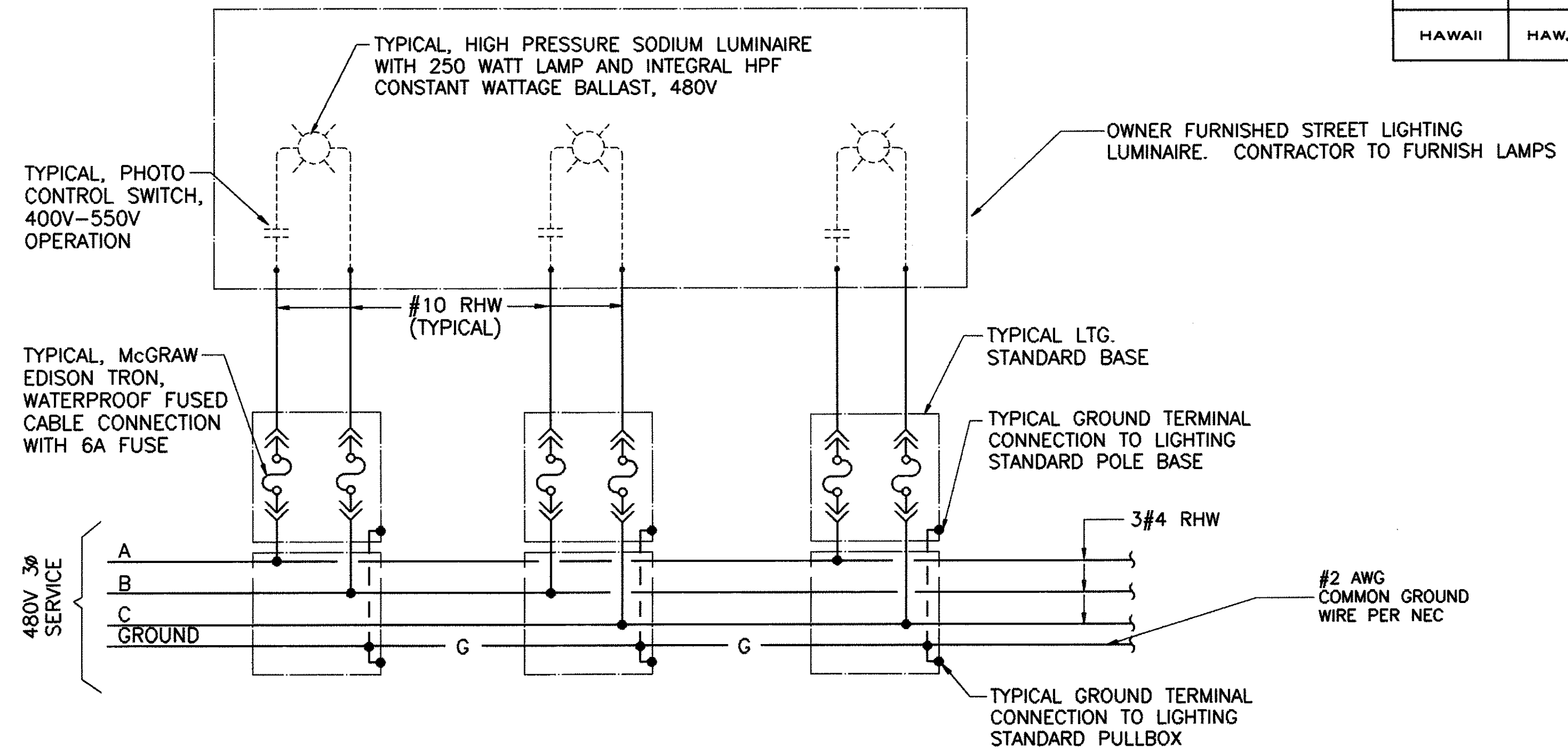
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	305	405



ONE-LINE DIAGRAM
NOT TO SCALE

NOTES:

1. ALL LINES IN DASH ARE EXISTING, SOLID ARE (NEW) TO BE PROVIDED IN THIS CONTRACT.
2. STREET LIGHTING AND TRAFFIC CONTROLLER'S CIRCUITS SHALL BE INSTALLED IN COMMON CONDUIT SYSTEM IN EACH VIADUCT. (PROVIDE COMMON GROUND WIRE PER NEC REQUIREMENT MIN. #2 AWG.)
3. TERMINATE POWER CABLES IN PULLBOX. PROVIDE MINIMUM 5 FEET SLACK AND SEAL ENDS AGAINST MOISTURE.



TYPICAL STREET LIGHTING WIRING DIAGRAM
NOT TO SCALE

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTES	
REVISION	



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Clarence C. K. K.M.
SIGNATURE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

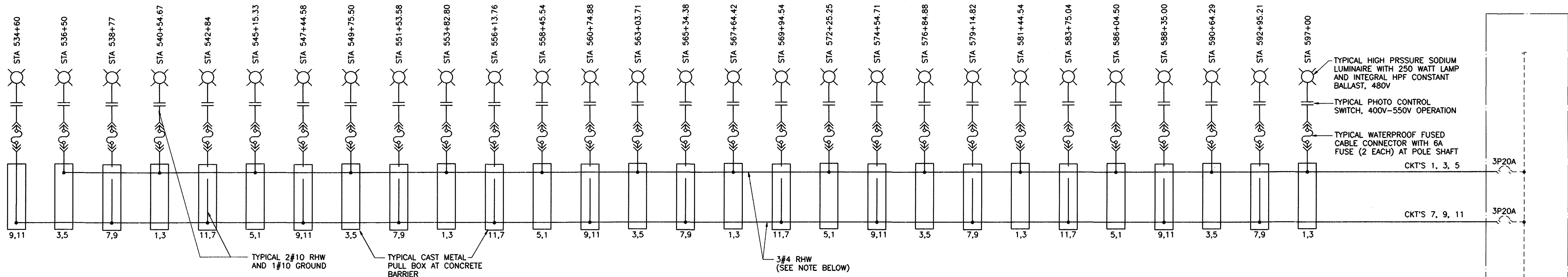
**ELECTRICAL
ONE-LINE DIAGRAM**

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

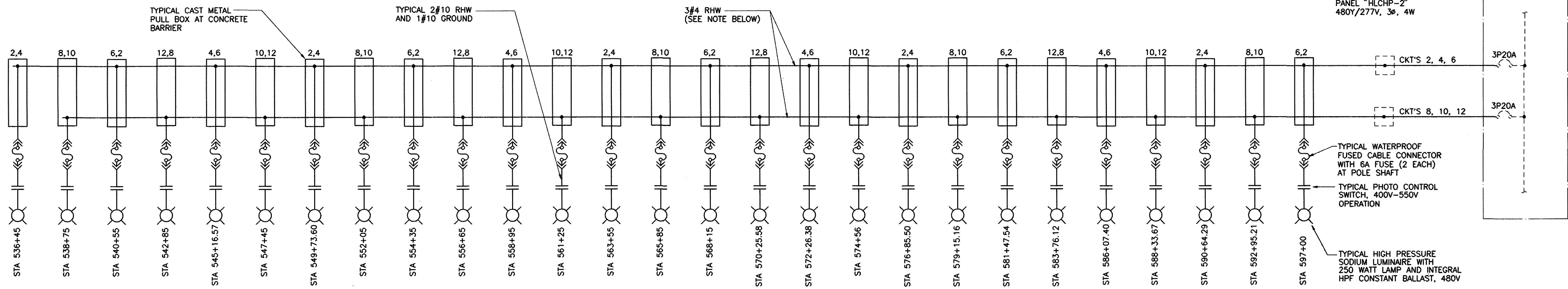
SCALE: 1" = 1' DATE: JAN. 1996
SHEET NO. EH-14 OF 32 SHEETS

DATE REVISION

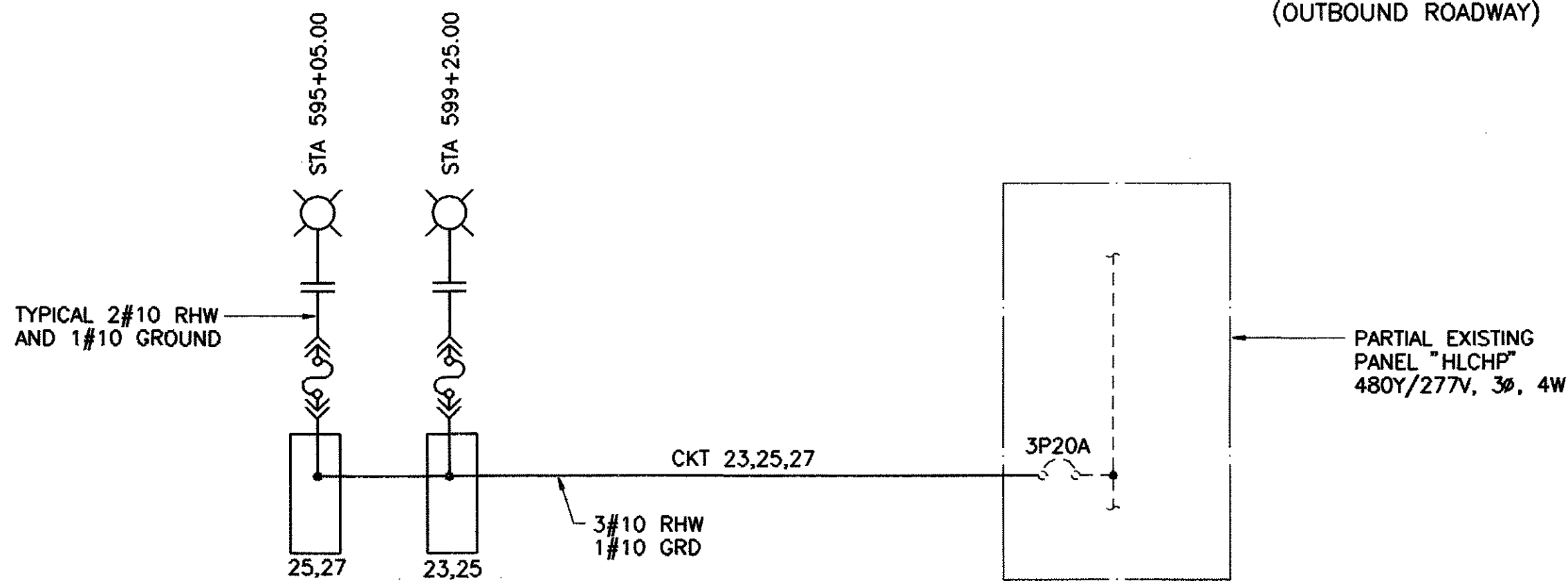
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75). UNIT 1	1996	306	405



STREET LIGHTING ONE-LINE DIAGRAM
(INBOUND ROADWAY)

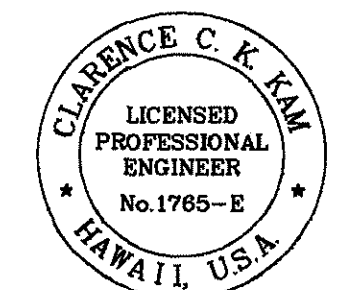
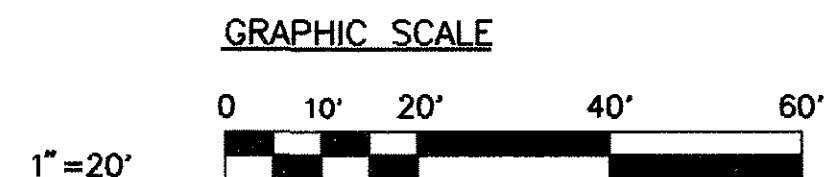


STREET LIGHTING ONE-LINE DIAGRAM
(OUTBOUND ROADWAY)



STREET LIGHTING ONE-LINE DIAGRAM
(INBOUND ROADWAY)

NOTE: STREET LIGHTING CIRCUITS WILL BE INSTALLED TOGETHER WITH COMMUNICATION POWER CIRCUITS IN ONE COMMON CONDUIT SYSTEM. PROVIDE #2 AWG COMMON GROUND WIRE PER NEC REQUIREMENT.



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STREET LIGHTING
ONE-LINE DIAGRAM

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: 1" = 20' DATE: JAN. 1996
SHEET NO. EH-15 OF 32 SHEETS

DATE REVISION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	308	405

ELECTRICAL SYMBOLS AND LEGEND		
EXISTING	NEW	DESCRIPTION
		FLUORESCENT LIGHT FIXTURE
		ELECTRIC LINES, EXPOSED ON STRUCTURE INTERIOR
		CONDUIT STUB
		ELECTRIC SERVICE EQUIPMENT
		DUPLEX RECEPTACLE, NEMA 5-15R, MTG. HT. 3'-0"
		WEATHERPROOF
		CAST IRON JUNCTION BOX, WEATHER PROOF
		PULLBOX, STAINLESS STEEL 18" x 12" x 6" DEEP
		PIER NUMBER AND LOCATION INDICATOR
		ABUTMENT NUMBER AND LOCATION INDICATOR
		CONTROL STATION
DETAIL INDICATOR DETAIL 4" EH-4 EH-5 Sheet on which detail is identified Sheet No. on which Detail is drawn SECTION INDICATOR SECTION B EH-6 EH-8 Sheets on which Sections is taken Sheet No. on which Section is drawn		

"AS-BUILT" NOTE
 CHANGE THE CONTRACT SPECIFIED GALVANIZED RIGID STEEL CONDUITS AND STAINLESS STEEL BOXES TO PVC SCHED. 80 CONDUITS AND BOXES INSIDE THE SEGMENTAL BRIDGES OF THE WINDWARD VIADUCT AND THE NORTH HALAWA VALLEY VIADUCT.

N

GRAPHIC SCALE

0 100' 200' 400' 600'

1"=200'

0 100' 200' 400' 600'

CLARENCE C. K. KIM

LICENSED PROFESSIONAL ENGINEER

No. 1765-E

HAWAII, U.S.A.

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Signature

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

GENERAL ELECTRICAL

PLAN - INTERIOR

NORTH HALAWA VALLEY VIADUCT

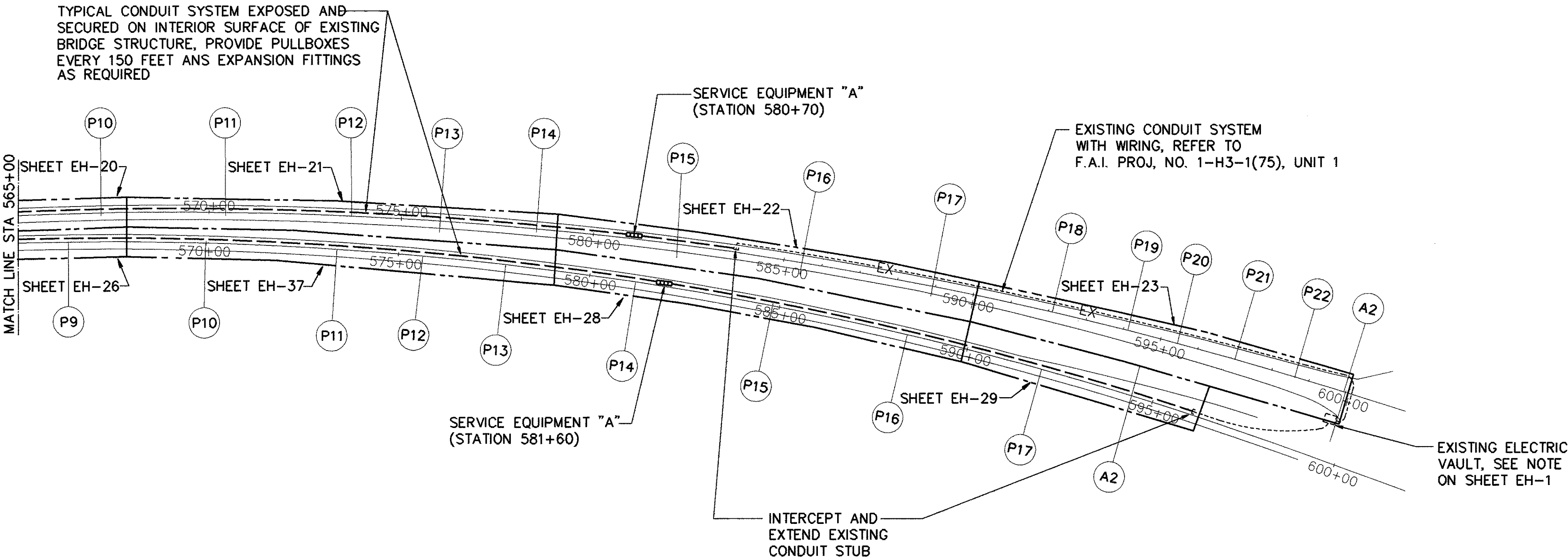
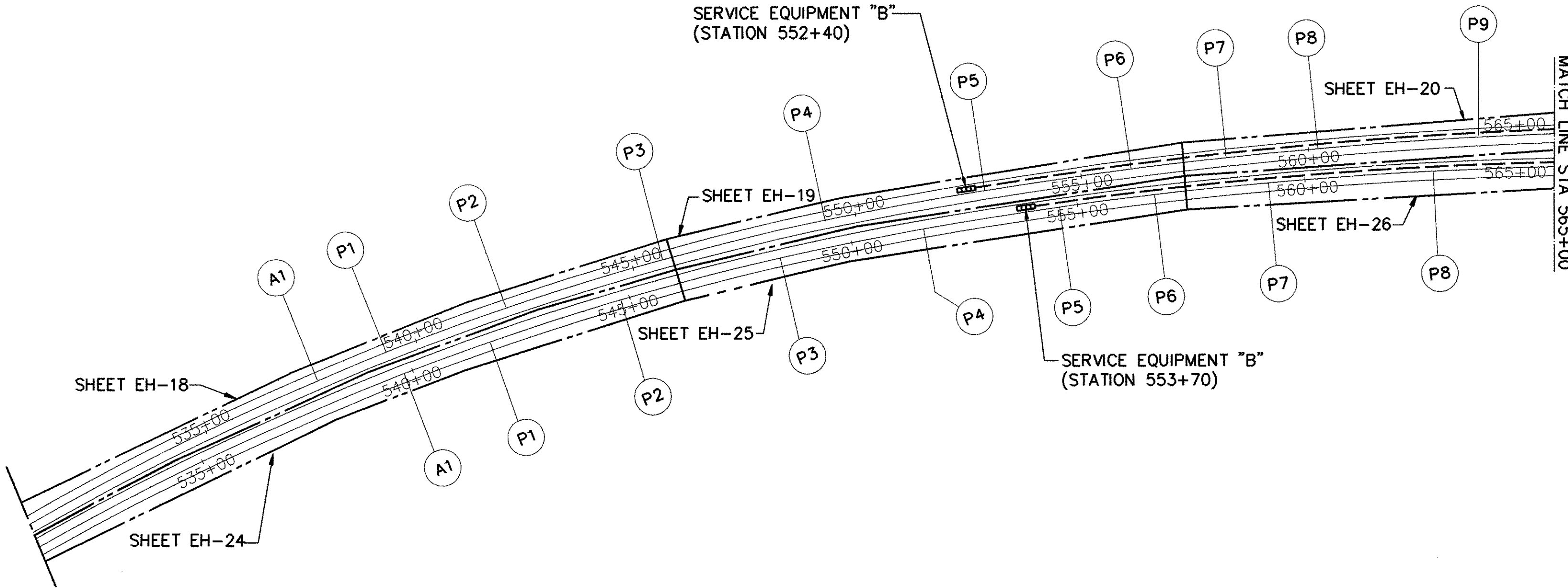
INTERSTATE ROUTE H-3

F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: 1" = 20'

DATE: JAN. 1996

SHEET NO. EH-17 OF 32 SHEETS



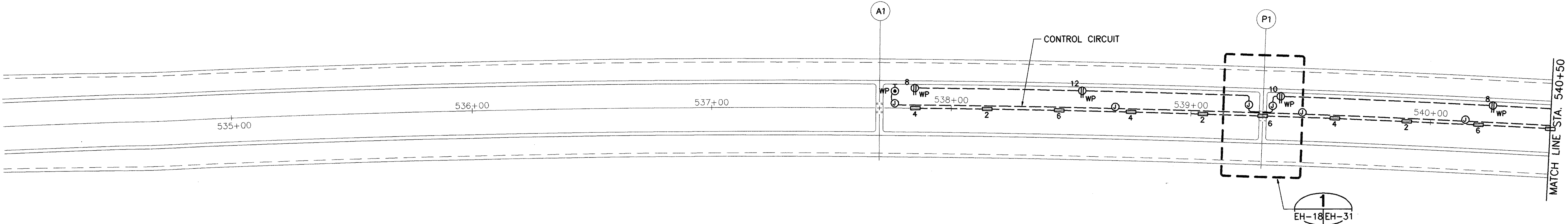
GENERAL ELECTRICAL PLAN - INTERIOR
 SCALE: 1"=200'

DATE	
DESIGNED BY	
CHECKED BY	
QUANTITY BY	
NOTED BY	
ORIGINAL PLAN	

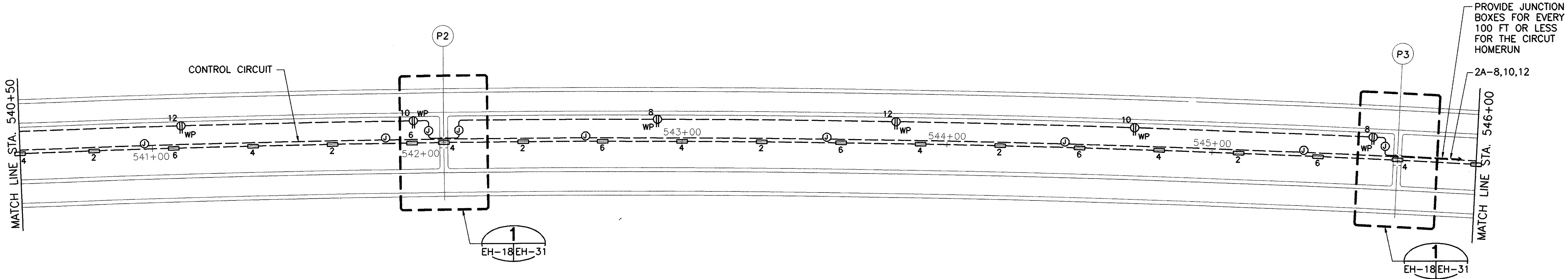
DATE

REVISION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	309	405

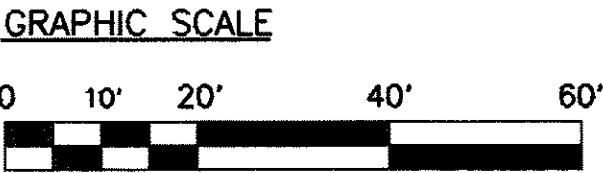


PARTIAL ELECTRICAL PLAN - INBOUND
SCALE: 1" = 20'



PARTIAL ELECTRICAL PLAN - INBOUND
SCALE: 1" = 20'

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTEBOOK	DRAWN BY	
	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	



CLARENCE C. K. KIM

LICENSED PROFESSIONAL ENGINEER

No. 1765-E

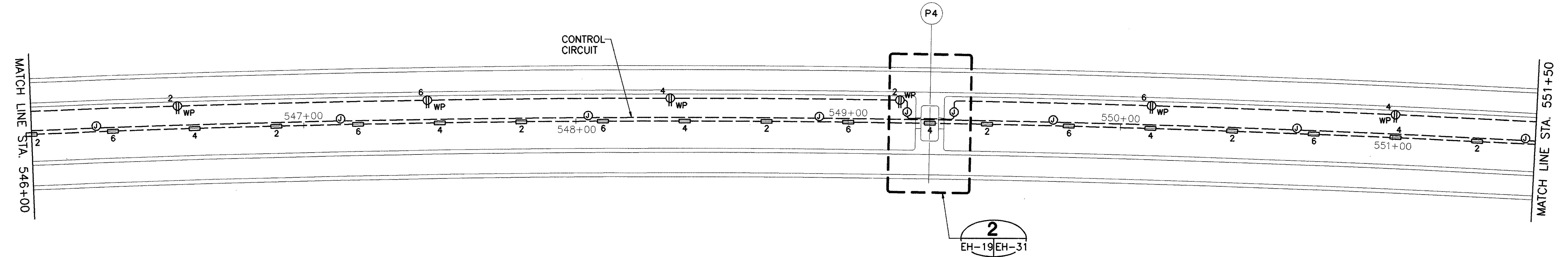
HAWAII, U.S.A.

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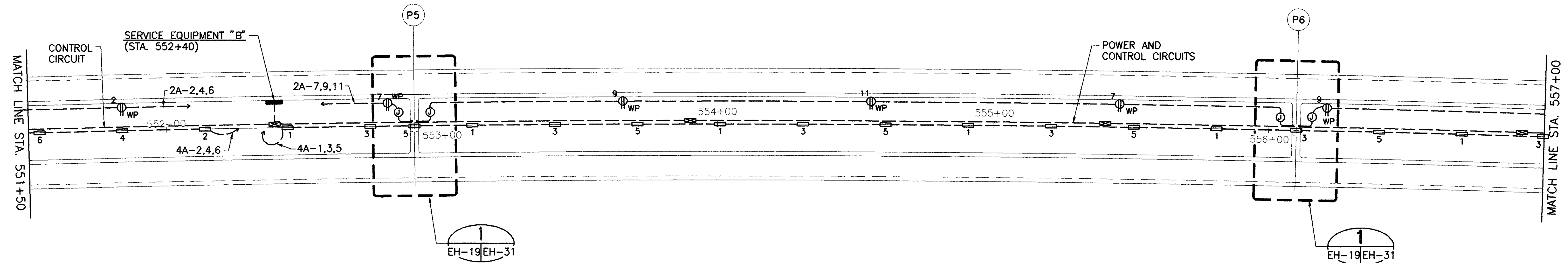
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DATE	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
	PARTIAL ELECTRICAL PLAN- INBOUND INTERIOR	
	STA. 534+22.93 TO 546+00	
	INTERSTATE ROUTE H-3 F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1	
SCALE: 1" = 20'		DATE: JAN. 1996
SHEET NO. EH-18 OF 32 SHEETS		
REVISION		

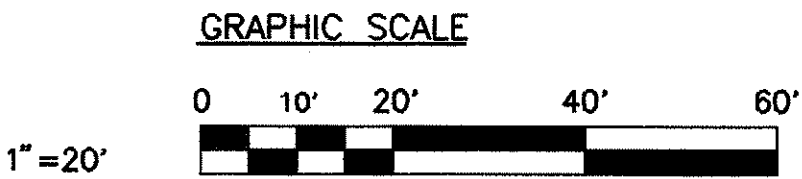
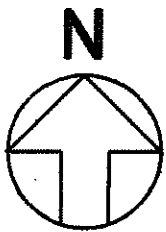
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	310	405



PARTIAL ELECTRICAL PLAN - INBOUND
 SCALE: 1" = 20'



PARTIAL ELECTRICAL PLAN - INBOUND
 SCALE: 1" = 20'



CLARENCE C. K. ILM

LICENSED PROFESSIONAL ENGINEER

No. 1765-E

HAWAII, U.S.A.

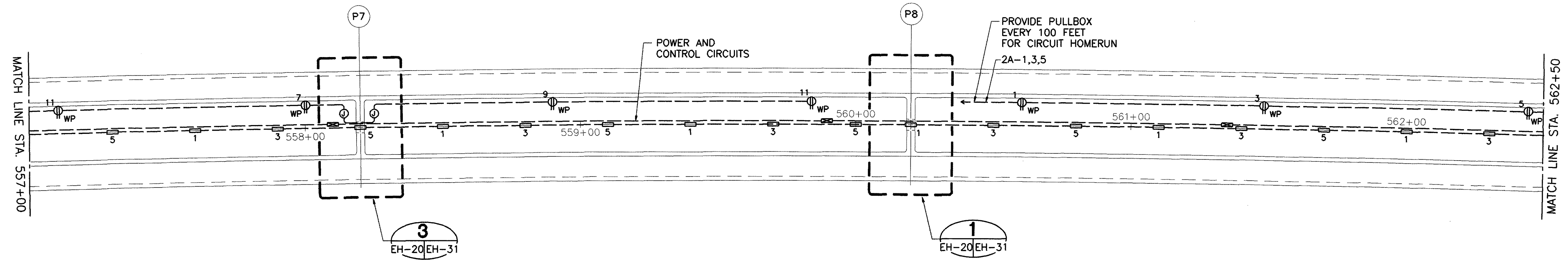
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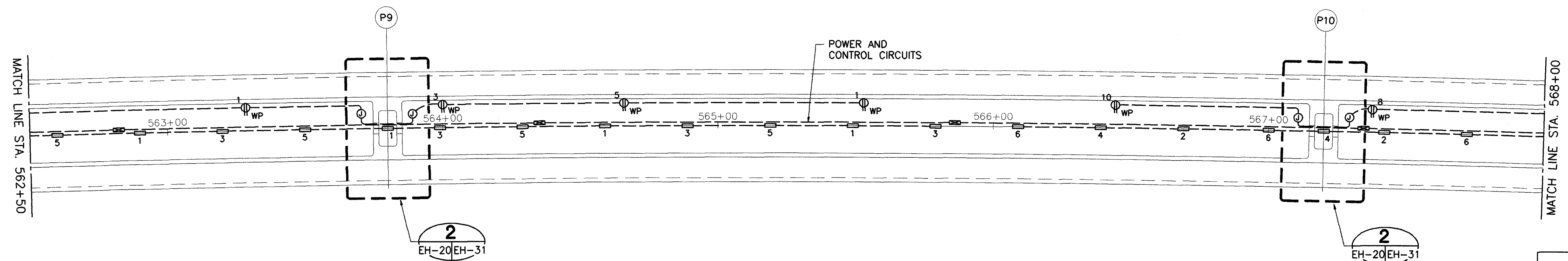
SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTEBOOK	
No.	

DATE	REVISION		STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION PARTIAL ELECTRICAL PLAN— INBOUND INTERIOR STA. 546+00 TO 557+00 INTERSTATE ROUTE H-3 F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1 SCALE: 1" = 20' DATE: JAN. 1996 SHEET NO. EH-19 OF 32 SHEETS

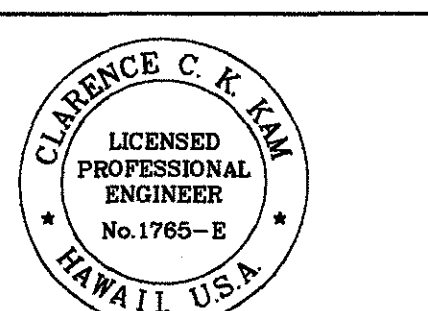
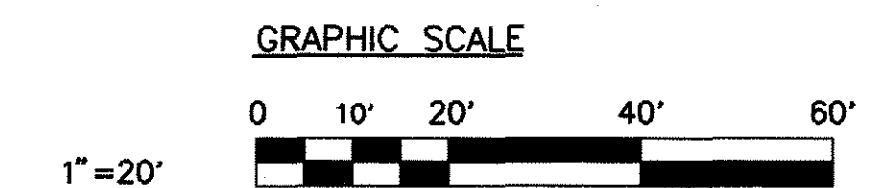
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	311	405



PARTIAL ELECTRICAL PLAN - INBOUND
SCALE: 1" = 20'



PARTIAL ELECTRICAL PLAN - INBOUND
SCALE: 1" = 20'



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C. Kail
SIGNATURE

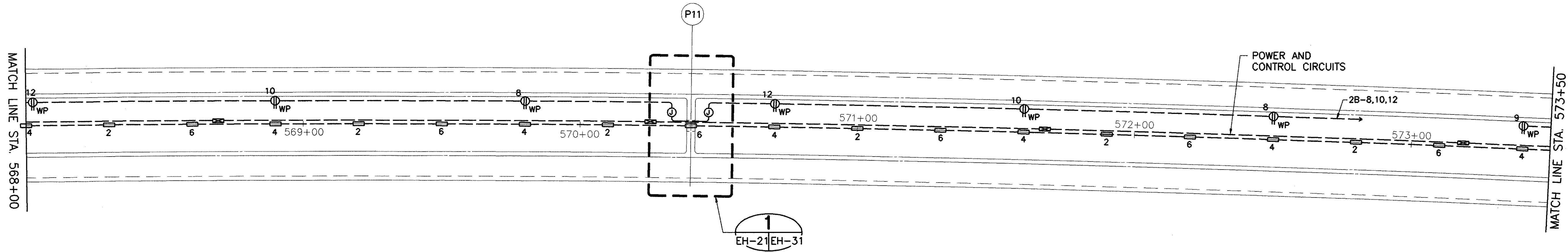
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PARTIAL ELECTRICAL PLAN - INBOUND INTERIOR
STA. 557+00 TO 568+00
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: 1" = 20' DATE: JAN. 1996
SHEET NO. EH-20 OF 32 SHEETS

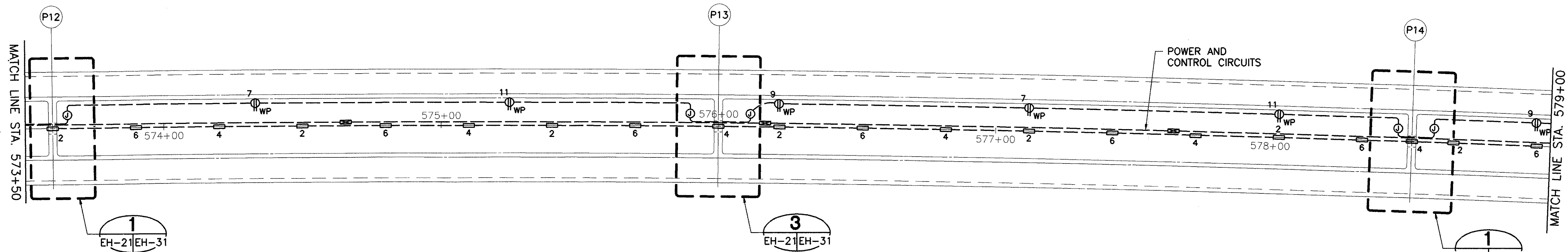
DATE REVISION

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTEBOOK	
No.	

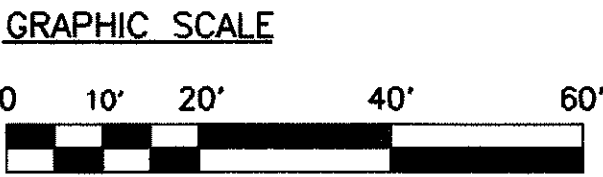
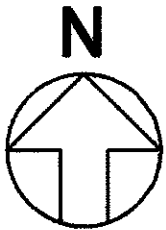
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	312	405



PARTIAL ELECTRICAL PLAN - INBOUND
 SCALE: 1" = 20'



PARTIAL ELECTRICAL PLAN - INBOUND
 SCALE: 1" = 20'



CLARENCE C. K. KIM
 LICENSED PROFESSIONAL ENGINEER
 No. 1765-E
 HAWAII, U.S.A.

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C. Kim
 SIGNATURE

DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
DESIGNED BY	_____
QUANTITIES BY	_____
CHECKED BY	_____
ORIGINAL PLAN	_____
NOTES	_____
IN	_____

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PARTIAL ELECTRICAL PLAN-
INBOUND INTERIOR

STA. 568+00 TO 579+00

INTERSTATE ROUTE H-3

F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

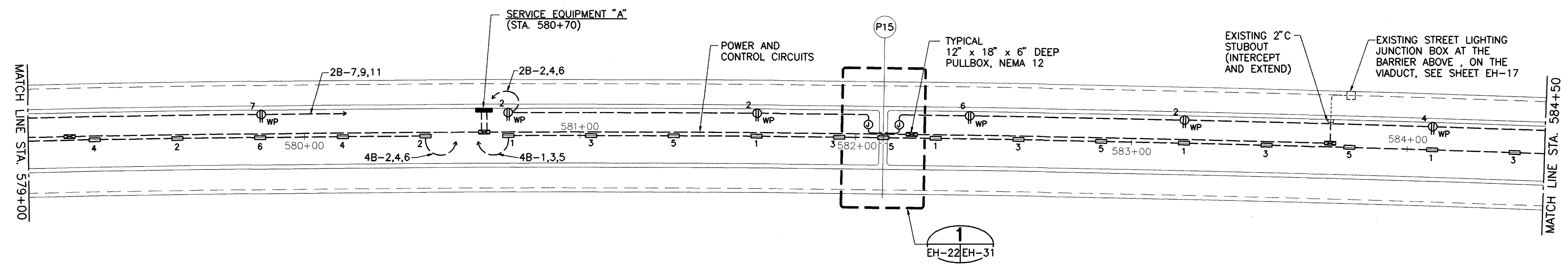
SCALE: 1" = 20'

DATE: JAN. 1996

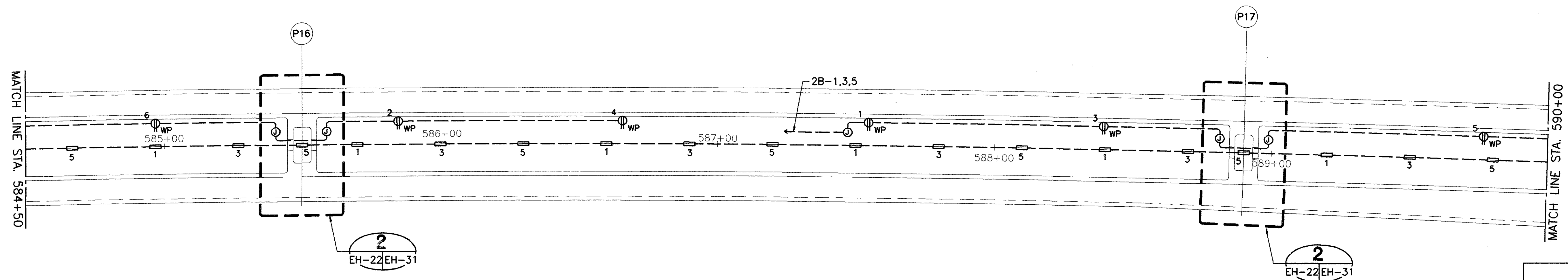
SHEET NO. EH-21 OF 32 SHEETS

DATE	REVISION

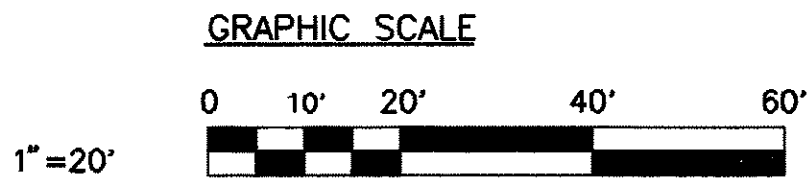
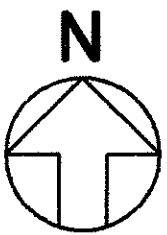
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	313	405



PARTIAL ELECTRICAL PLAN - INBOUND
 SCALE: 1" = 20'



PARTIAL ELECTRICAL PLAN - INBOUND
 SCALE: 1" = 20'



CLARENCE C. K. KWOK
 LICENSED PROFESSIONAL ENGINEER
 No. 1785-E
 HAWAII, U.S.A.

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C. Kwok
 SIGNATURE

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PARTIAL ELECTRICAL PLAN-
INBOUND INTERIOR

STA. 579+00 TO 590+00

INTERSTATE ROUTE H-3

F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: 1" = 20'

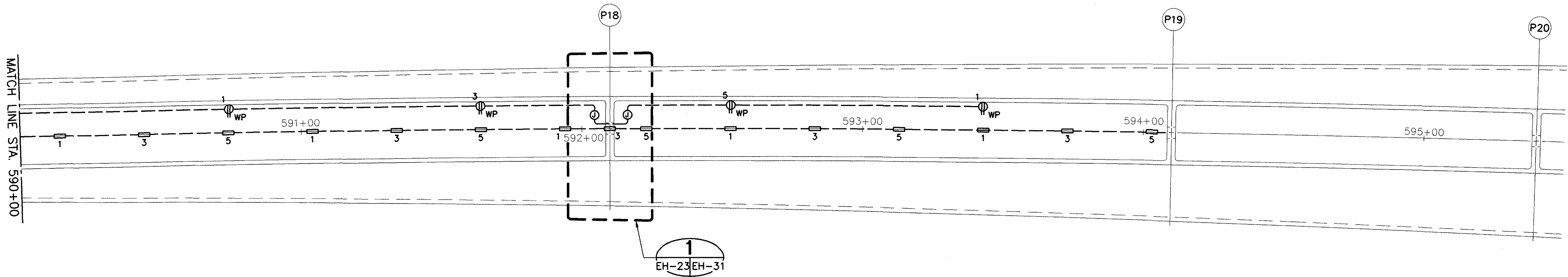
DATE: JAN. 1996

SHEET NO. EH-22 OF 32 SHEETS

DATE

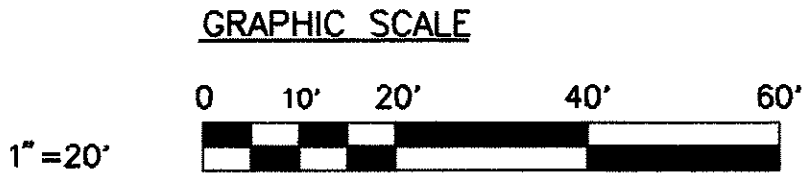
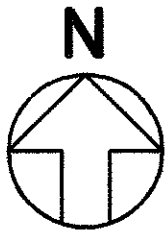
REVISION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	314	405



PARTIAL ELECTRICAL PLAN - INBOUND
 SCALE: 1" = 20'

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
QUANTITY BY	
PLANNED BY	
ORIGINAL PLAN	
NO.	



CLARENCE C. K. KWOK
 LICENSED PROFESSIONAL ENGINEER
 No. 1785-E
 HAWAII, U.S.A.

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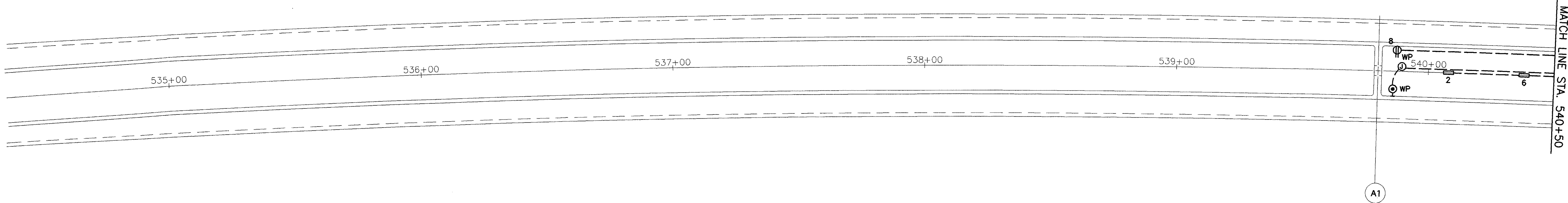
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 SIGNATURE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
PARTIAL ELECTRICAL PLAN—
INBOUND INTERIOR
STA. 590+00 TO 599+00
 INTERSTATE ROUTE H-3
 F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

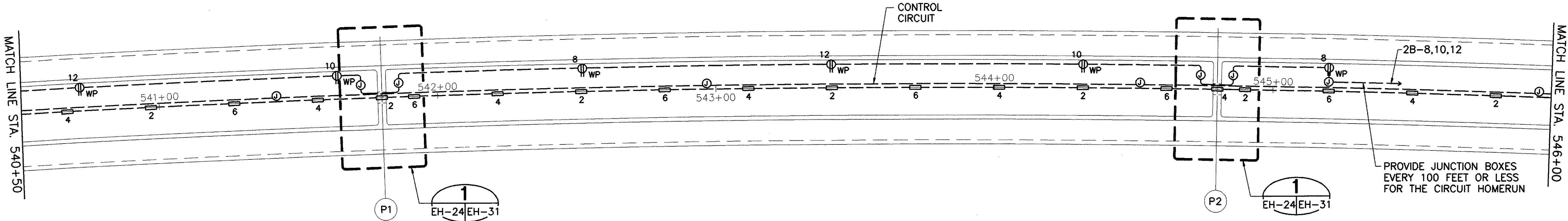
SCALE: 1" = 20' DATE: JAN. 1996
 SHEET NO. EH-23 OF 32 SHEETS

DATE	REVISION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	315	405

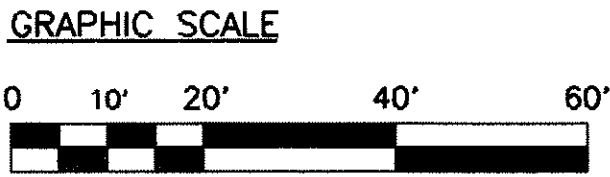


PARTIAL ELECTRICAL PLAN - OUTBOUND
SCALE: 1" = 20'



PARTIAL ELECTRICAL PLAN - OUTBOUND
SCALE: 1" = 20'

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



CLARENCE C. K. KIM
LICENSED PROFESSIONAL ENGINEER
No. 1765-E
HAWAII, U.S.A.

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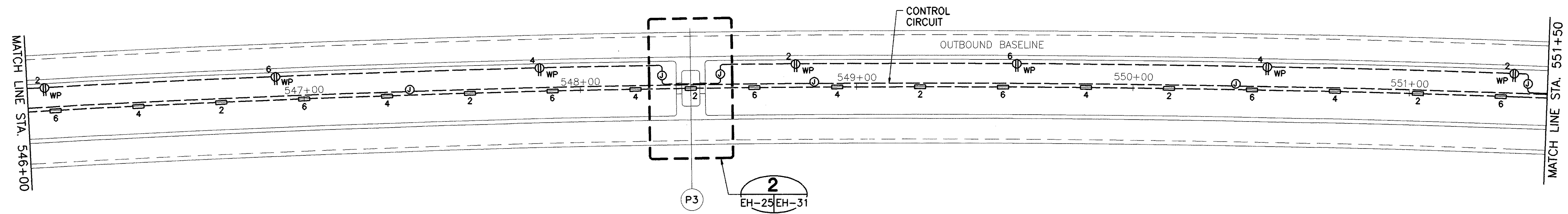
C. K. Kim
SIGNATURE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**PARTIAL ELECTRICAL PLAN-
OUTBOUND INTERIOR**
STA. 534+58.24 TO 546+00
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

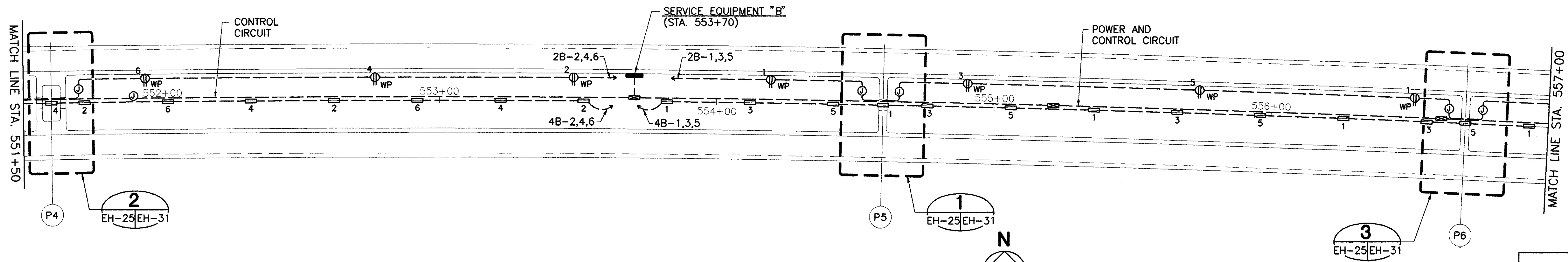
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SHEET NO. EH-24 OF 32 SHEETS

DATE	REVISION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	316	405

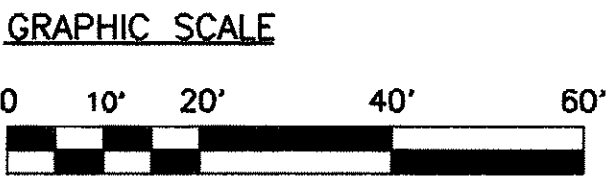


PARTIAL ELECTRICAL PLAN - OUTBOUND
SCALE: 1" = 20'



PARTIAL ELECTRICAL PLAN - OUTBOUND
SCALE: 1" = 20'

DATE	_____
DESIGNED BY	_____
DRAWN BY	_____
CHECKED BY	_____
NOTED BY	_____
QUANTITY BY	_____
DATE	_____



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Clarence C. K. Kim

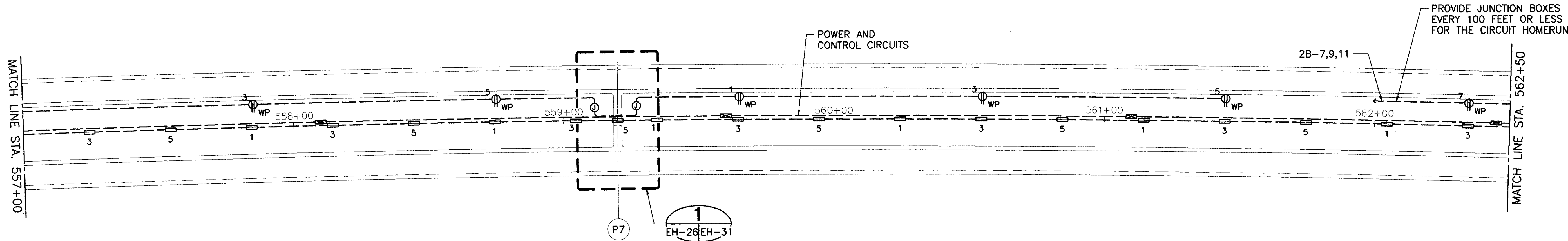
SIGNATURE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**PARTIAL ELECTRICAL PLAN-
OUTBOUND INTERIOR**
STA. 546+00 TO 557+00
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

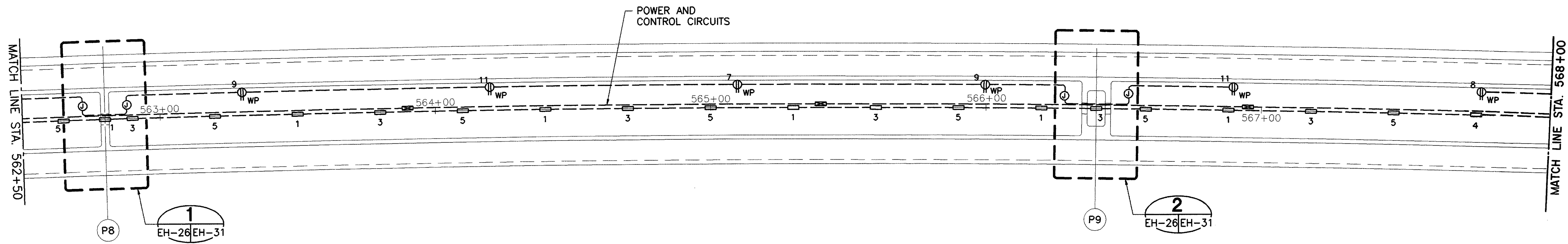
SCALE: 1" = 20' DATE: JAN. 1996
SHEET NO. EH-25 OF 32 SHEETS

DATE	REVISION

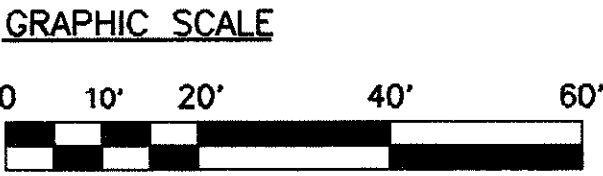
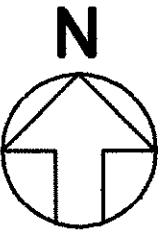
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	317	405



PARTIAL DECK ELEVATION PLAN - OUTBOUND
 SCALE: 1" = 20'



PARTIAL DECK ELEVATION PLAN - OUTBOUND
 SCALE: 1" = 20'



CLARENCE C. K. KAM

LICENSED PROFESSIONAL ENGINEER

No. 1785-E

HAWAII, U.S.A.

This work was prepared by me or under my supervision.

SIGNATURE

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
REVISION	

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

PARTIAL ELECTRICAL PLAN -

OUTBOUND INTERIOR

STA. 557+00 TO 568+00

INTERSTATE ROUTE H-3

F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: 1" = 20'

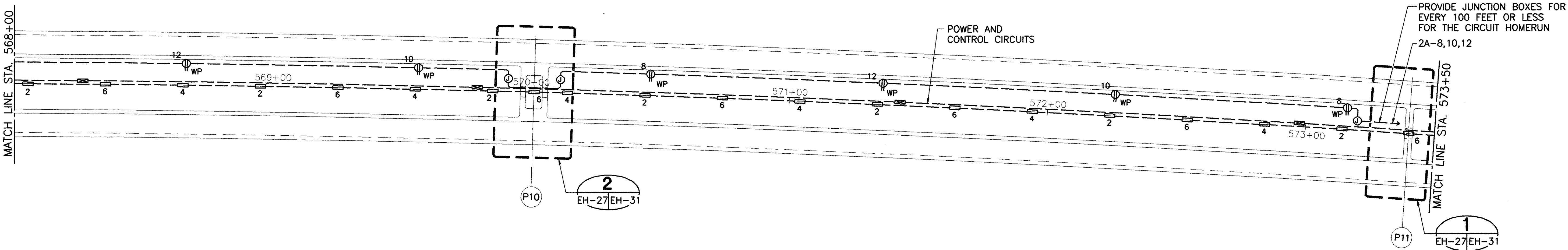
DATE: JAN. 1996

SHEET NO. EH-26 OF 32 SHEETS

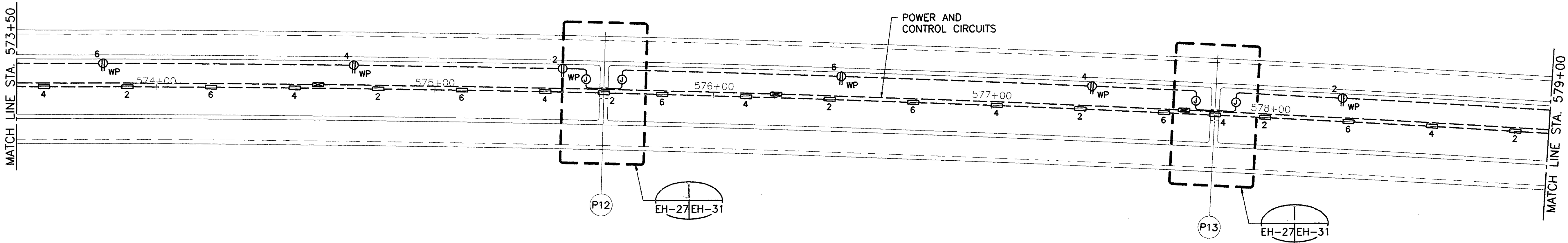
DATE

REVISION

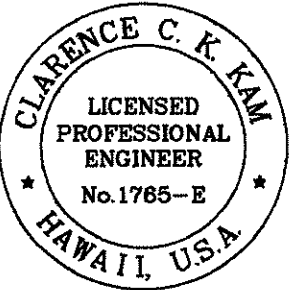
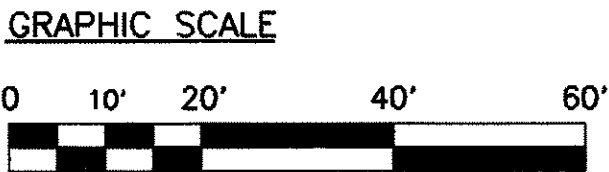
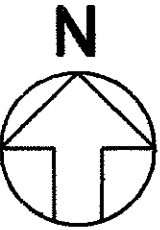
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	318	405



PARTIAL ELECTRICAL PLAN - OUTBOUND
 SCALE: 1" = 20'



PARTIAL ELECTRICAL PLAN - OUTBOUND
 SCALE: 1" = 20'



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[Signature]
 SIGNATURE

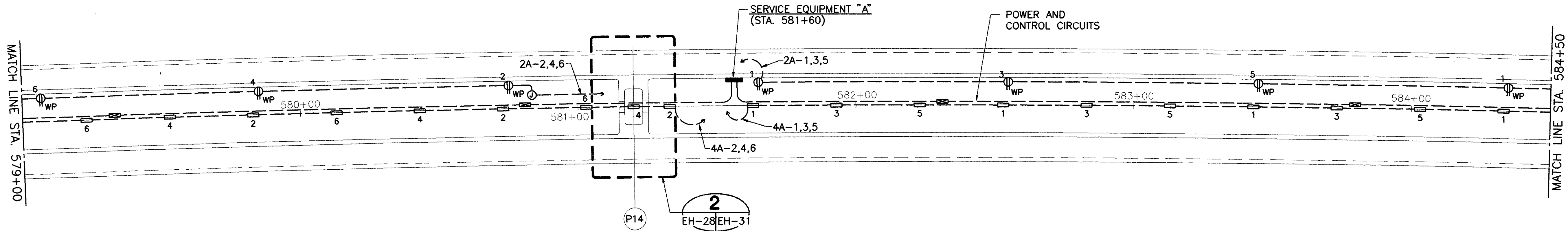
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
**PARTIAL ELECTRICAL PLAN-
 OUTBOUND INTERIOR**
 STA. 568+00 TO 579+00
 INTERSTATE ROUTE H-3
 F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: 1" = 20' DATE: JAN. 1996
 SHEET NO. EH-27 OF 32 SHEETS

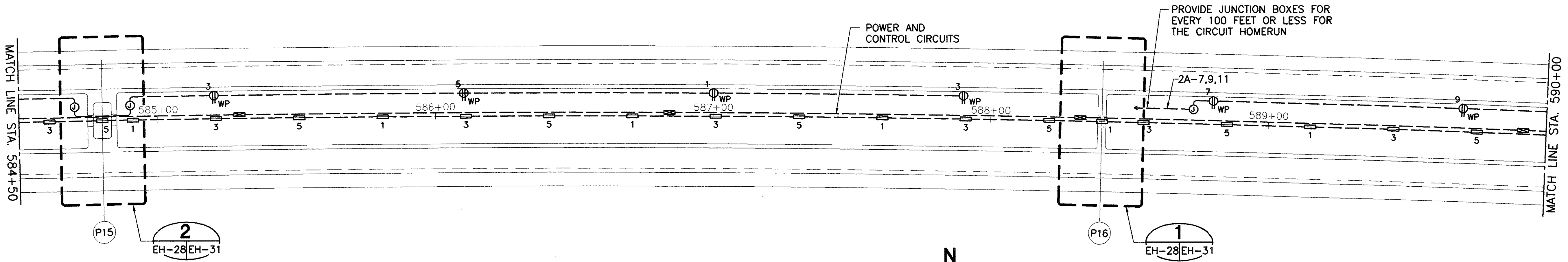
DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
ORIGINAL PLAN	
NO.	

DATE	REVISION	DATE: JAN. 1996
		SHEET NO. EH-27 OF 32 SHEETS

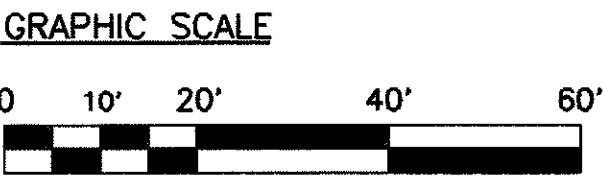
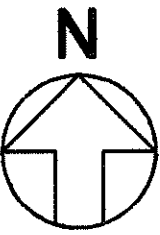
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	319	405



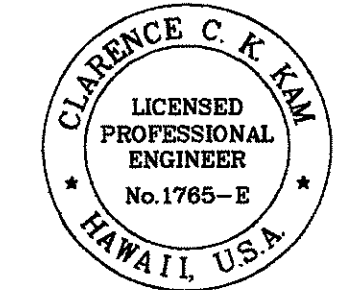
PARTIAL ELECTRICAL PLAN - OUTBOUND
 SCALE: 1" = 20'



PARTIAL ELECTRICAL PLAN - OUTBOUND
 SCALE: 1" = 20'



1" = 20'



CLARENCE C. K. KIM
 LICENSED PROFESSIONAL ENGINEER
 No. 1765-E
 HAWAII, U.S.A.

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[Signature]
 SIGNATURE

DATE	_____
DESIGNED BY	_____
TRACED BY	_____
DESIGNED BY	_____
QUANTITIES BY	_____
CHECKED BY	_____
ORIGINAL PLAN	_____
NO.	_____

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

PARTIAL ELECTRICAL PLAN-

OUTBOUND INTERIOR

STA. 579+00 TO 590+00

INTERSTATE ROUTE H-3

F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: 1" = 20'

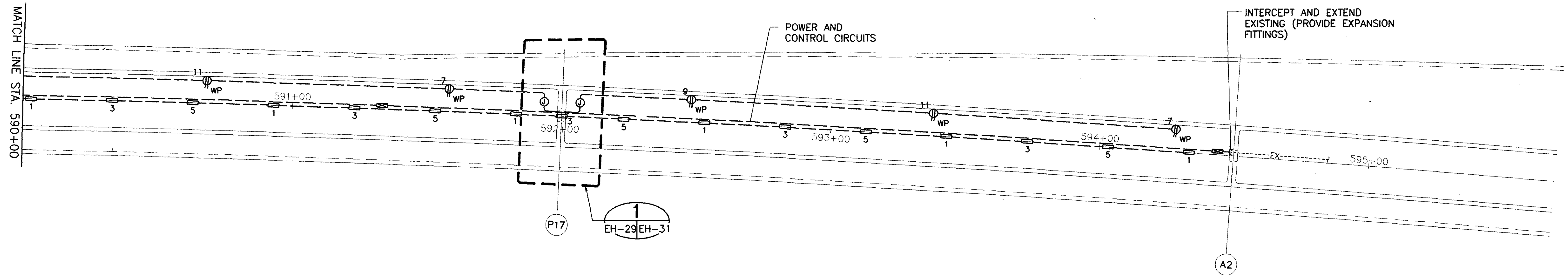
DATE: JAN. 1996

DATE	REVISION

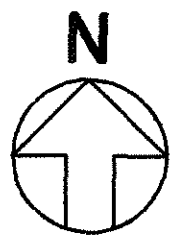
SHEET NO. EH-28 OF 32 SHEETS

319

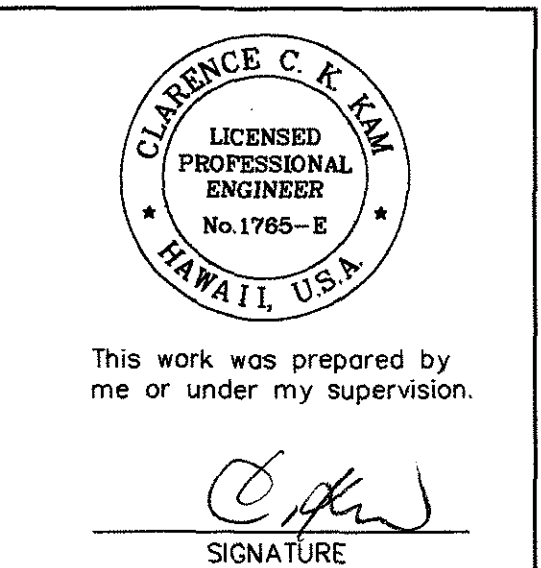
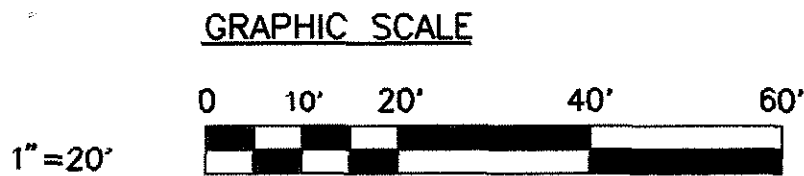
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	320	405



PARTIAL DECK ELEVATION PLAN - OUTBOUND
 SCALE: 1" = 20'



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

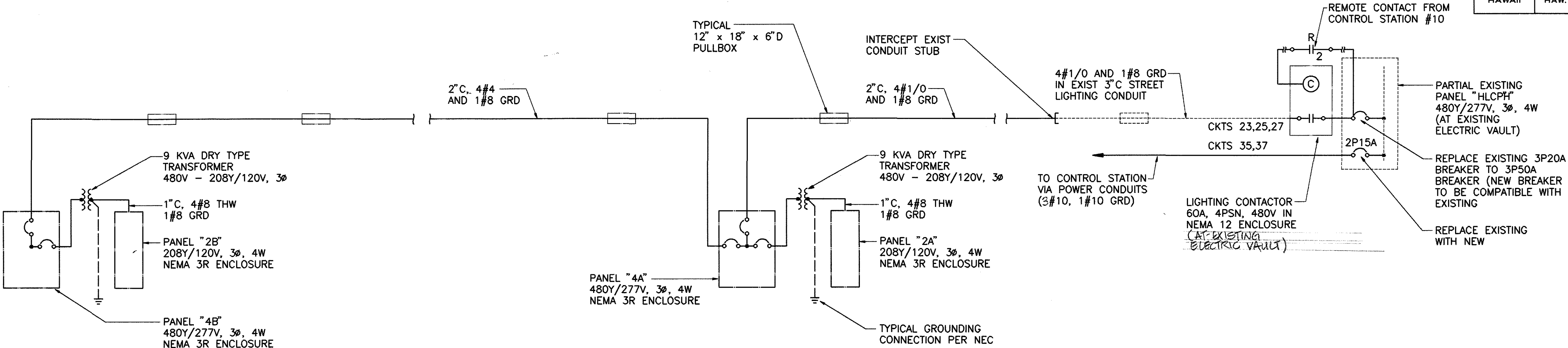


STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
PARTIAL ELECTRICAL PLAN -
OUTBOUND INTERIOR
STA. 590+00 TO 594+50
 INTERSTATE ROUTE H-3
 F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: 1" = 20' DATE: JAN. 1996
 SHEET NO. EH-29 OF 32 SHEETS

DATE REVISION

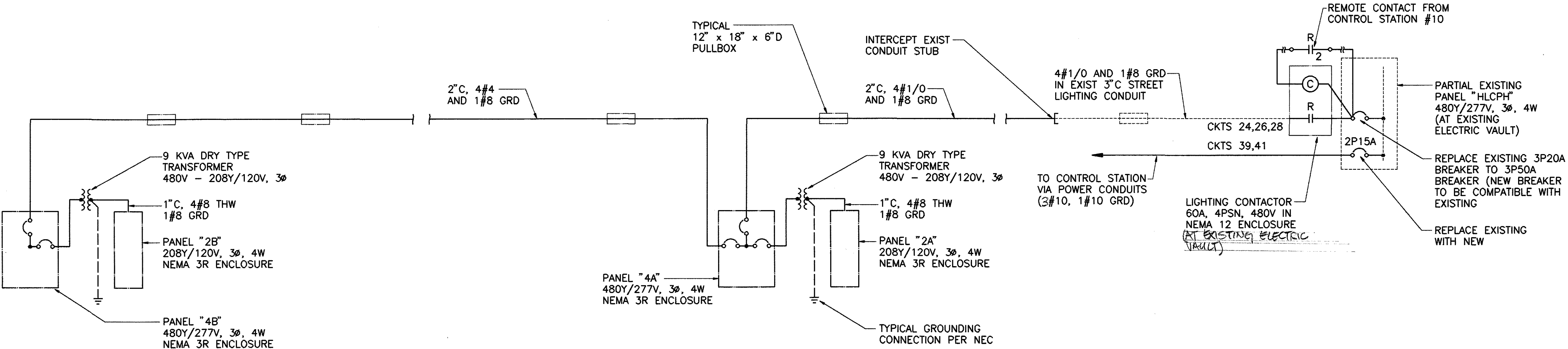
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	321	405



SERVICE EQUIPMENT "B"

SERVICE EQUIPMENT "A"

ONE-LINE DIAGRAM (INBOUND)

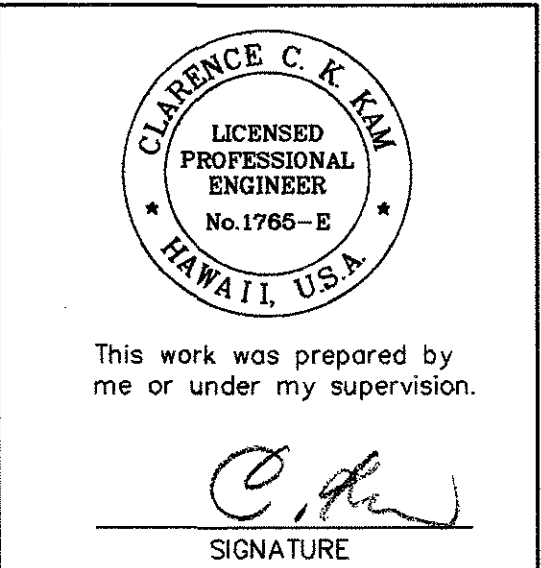


SERVICE EQUIPMENT "B"

SERVICE EQUIPMENT "A"

ONE-LINE DIAGRAM (OUTBOUND)

DATE	BY
DESIGNED BY	TRACED BY
NOTED BY	QUANTITIES BY
CHECKED BY	



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

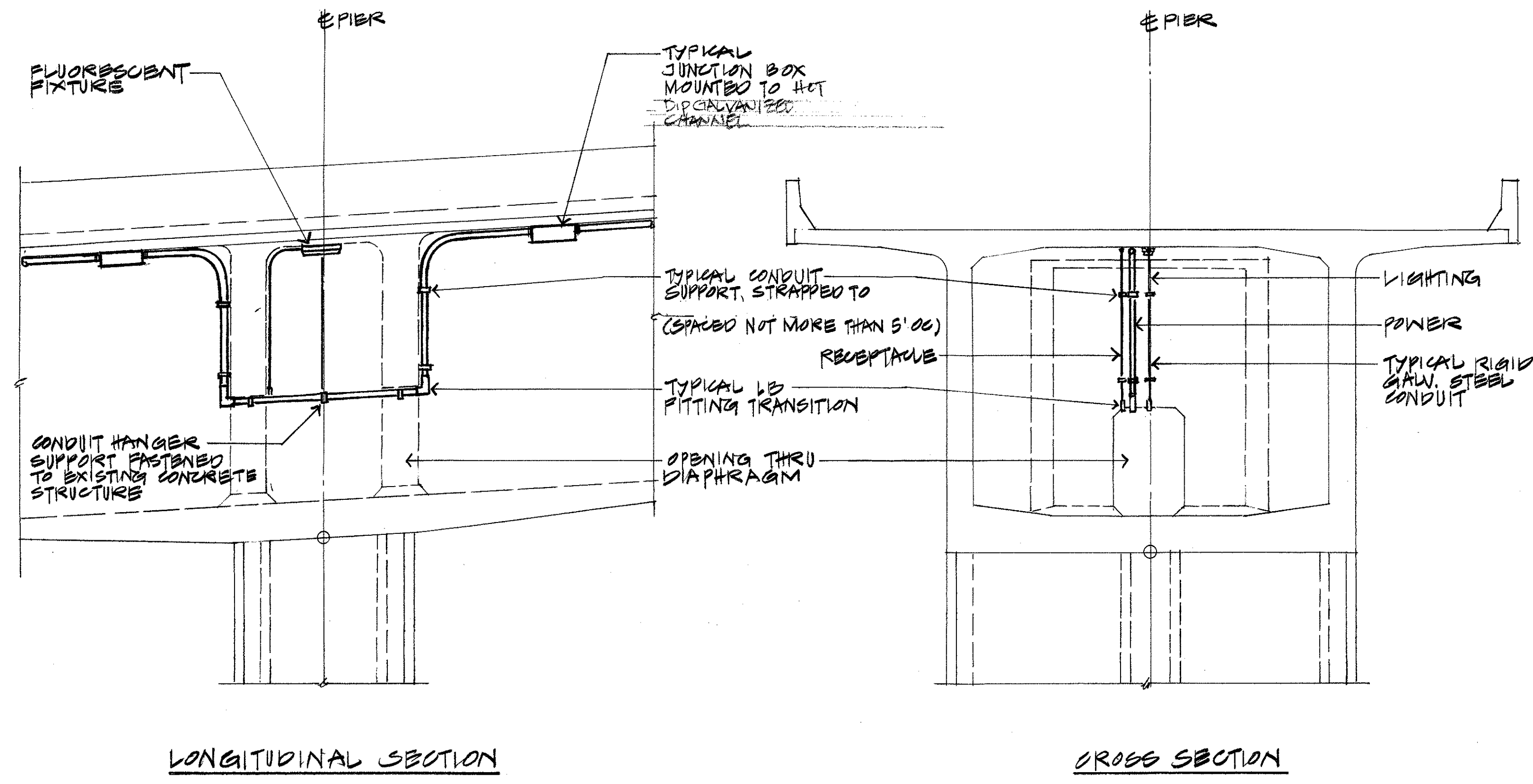
ONE-LINE DIAGRAM

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: 1" = 1' DATE: JAN. 1996
SHEET NO. EH-30 OF 32 SHEETS

DATE REVISION

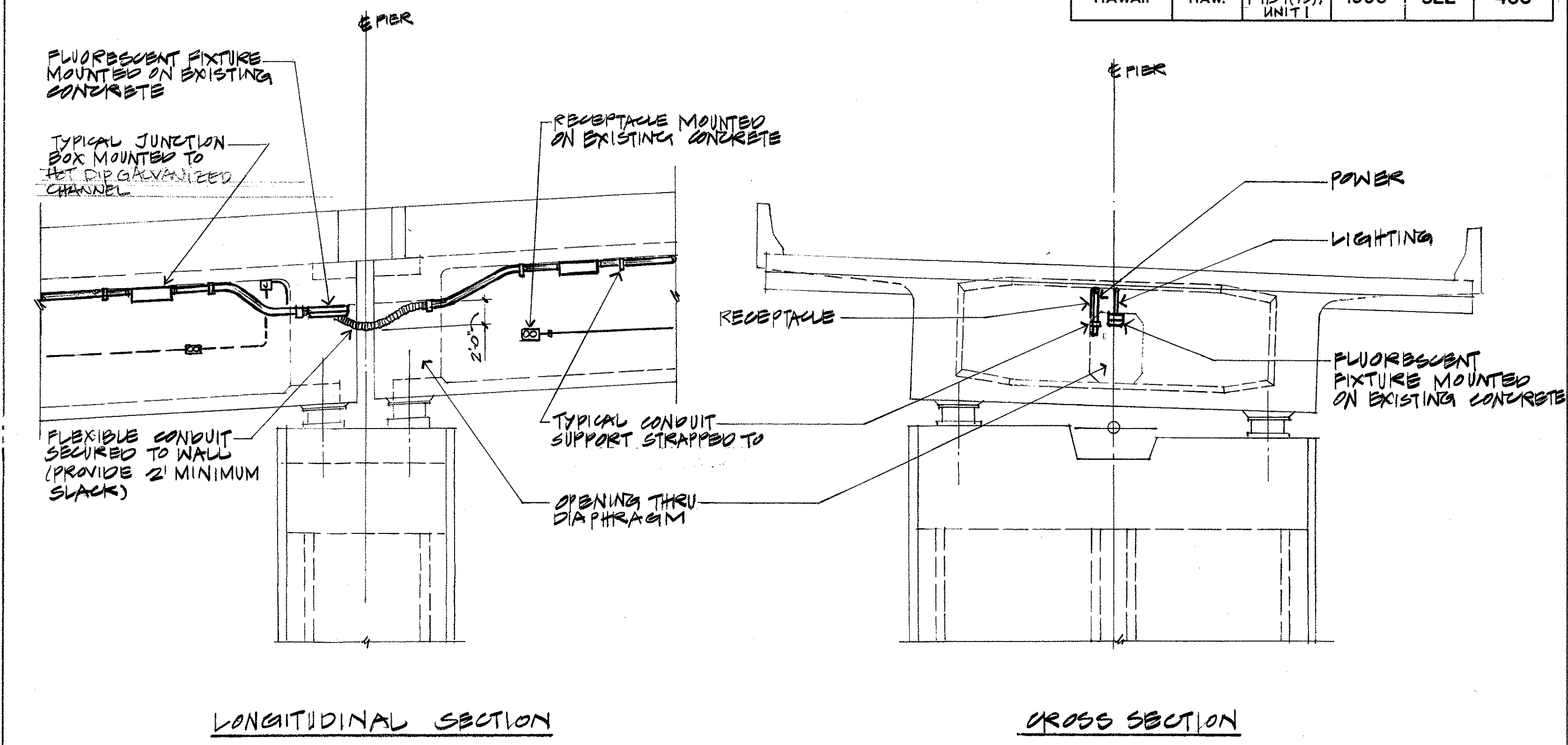
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H3-1(75), UNIT 1	1996	322	405



LONGITUDINAL SECTION

CROSS SECTION

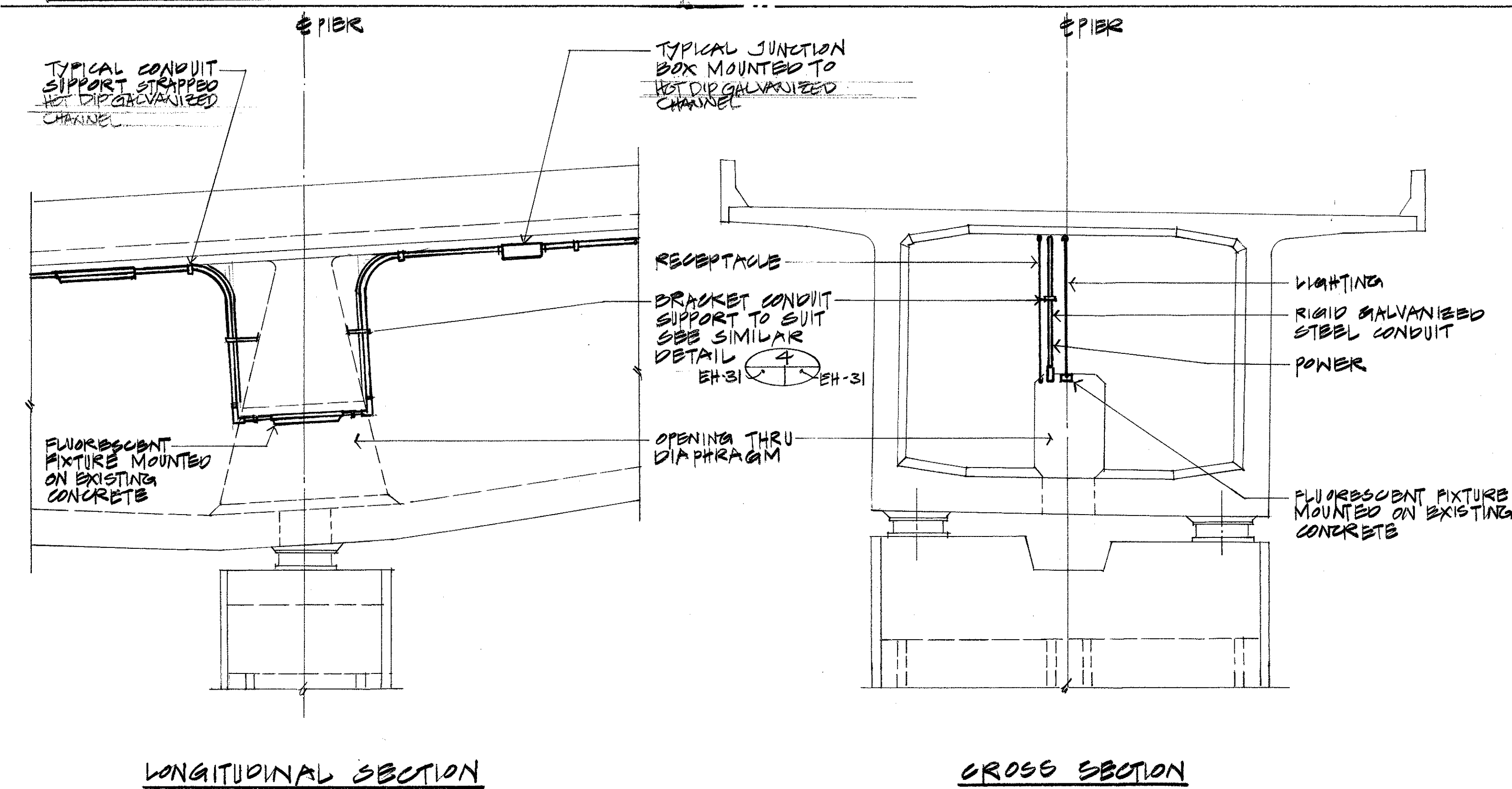
(TYPICAL)
2 TYPE I PIER DIAPHRAGM ELECTRICAL DETAIL
EH-19, EH-20, EH-21, EH-22, EH-23, EH-24, EH-25, EH-26, EH-27, EH-28
NOT TO SCALE (AS MAY APPLY)



LONGITUDINAL SECTION

CROSS SECTION

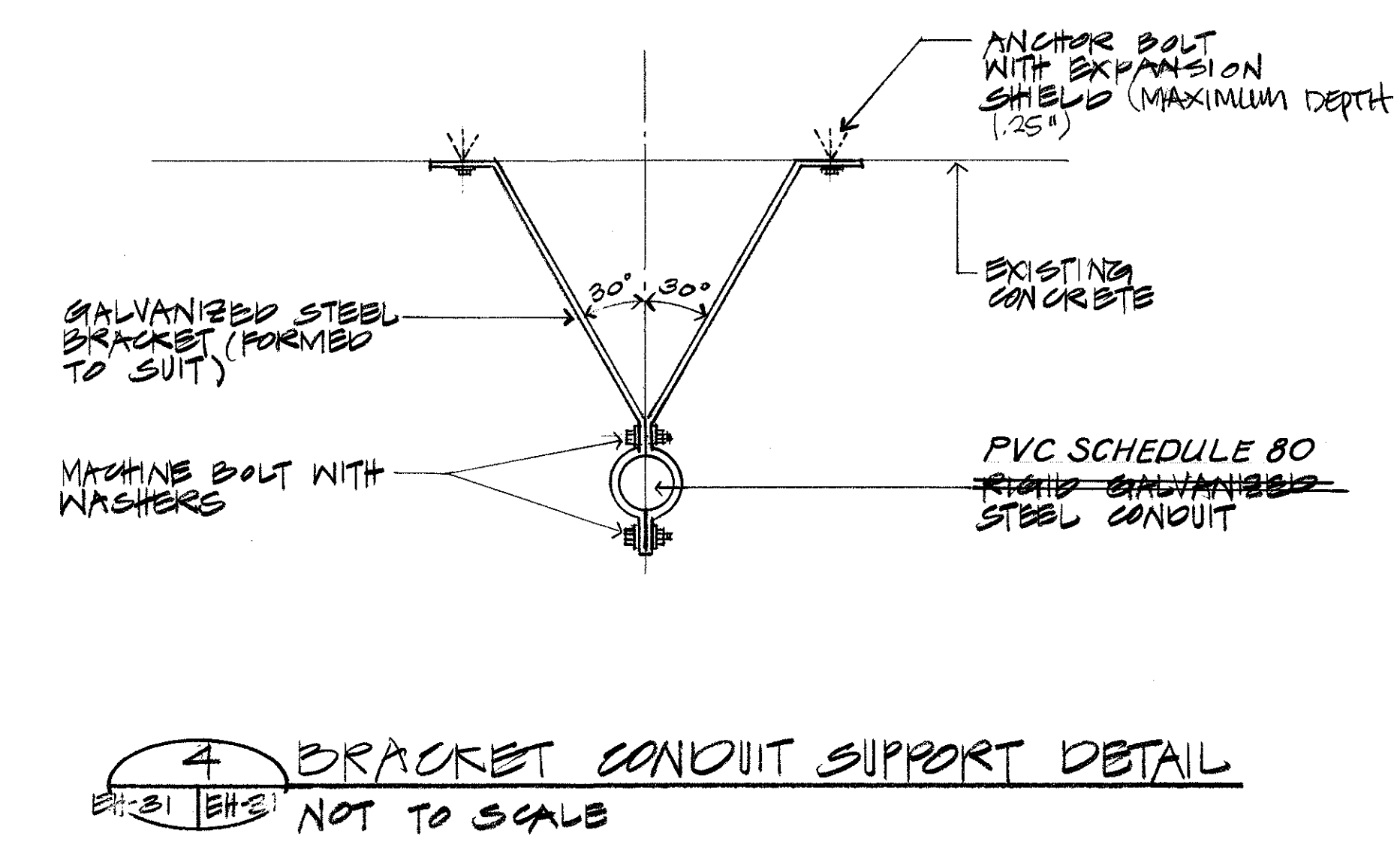
(TYPICAL)
3 END PIER DIAPHRAGM ELECTRICAL DETAIL
EH-21, EH-22, EH-23, EH-24, EH-25
NOT TO SCALE (AS MAY APPLY)



LONGITUDINAL SECTION

CROSS SECTION

(TYPICAL)
4 TYPE II PIER DIAPHRAGM ELECTRICAL DETAIL
EH-19, EH-20, EH-21, EH-22, EH-23, EH-24, EH-25, EH-26, EH-27, EH-28, EH-29
NOT TO SCALE (AS MAY APPLY)



4 BRACKET CONDUIT SUPPORT DETAIL
EH-31, EH-32, EH-33
NOT TO SCALE

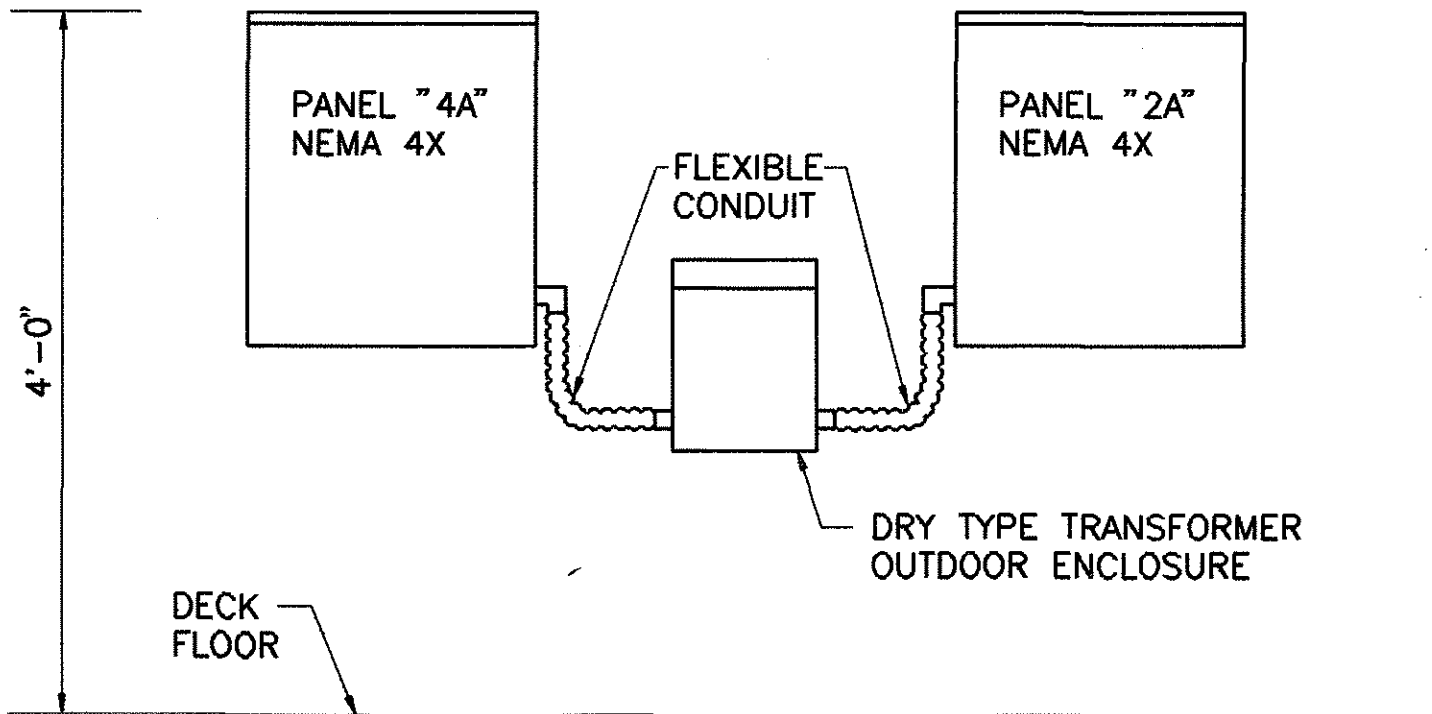
CLARENCE C. K. KIM
LICENSED PROFESSIONAL ENGINEER
No. 1765-E
HAWAII, U.S.A.
This work was prepared by me or under my supervision.
C. Kim
SIGNATURE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PIER DIAPHRAGM
ELECTRICAL DETAIL
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. 1-H3-1 (75) UNIT 1
SCALE: DATE: JAN. 1996
SHEET NO. EH-31 OF 32 SHEETS

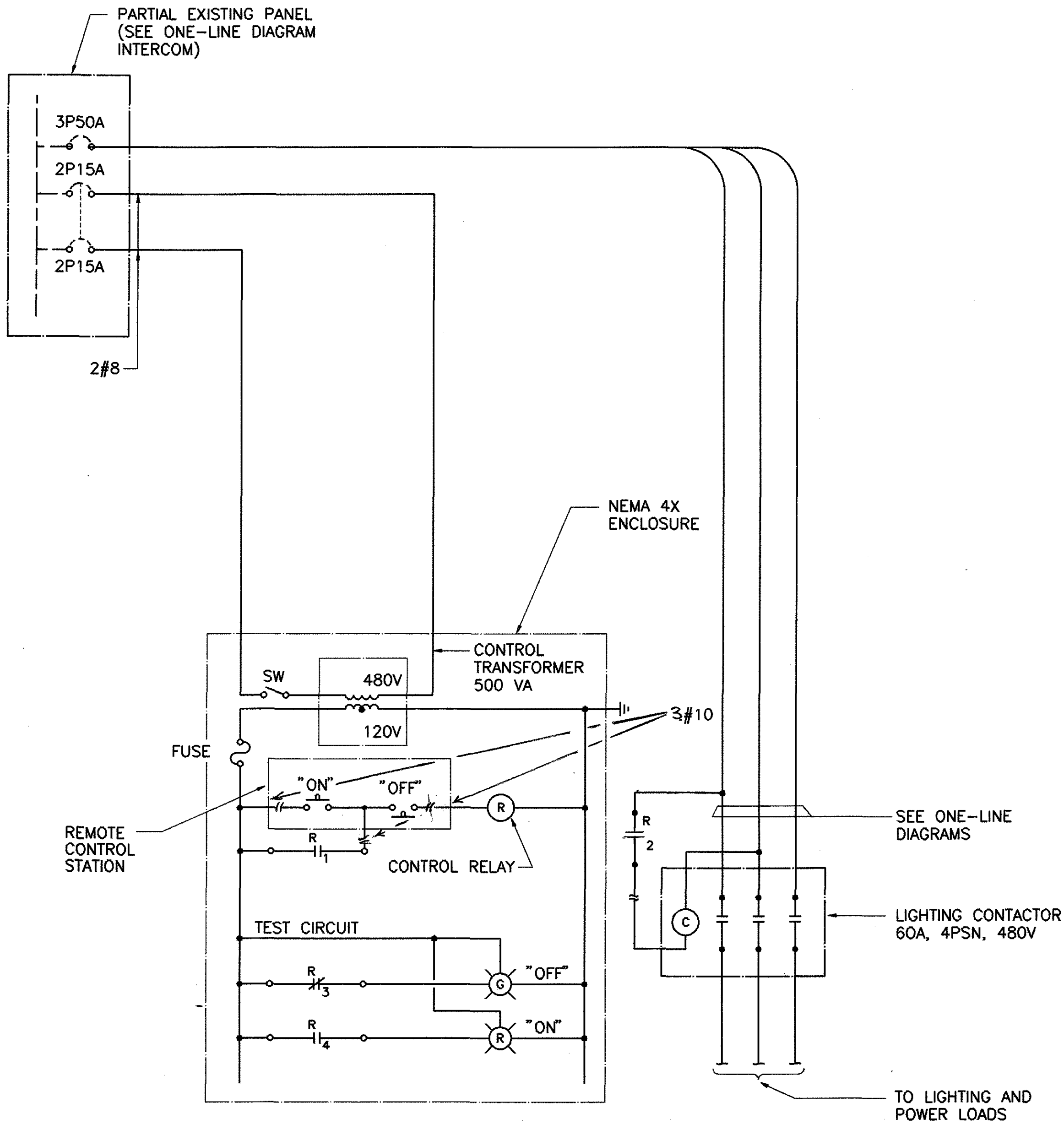
DATE	REVISION

DATE	
SURVEY PLOTTED BY	
DESIGNED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	
NO.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	323	405



1 **TYPICAL SERVICE EQUIPMENT DETAIL**
EH-32EH-32 NOT TO SCALE



2 **TYPICAL FULL WIRING CONTROL DIAGRAM**
EH-32EH-32 NOT TO SCALE

PANEL 2 A				208Y/120 VOLTS, 3 PHASE, 4 WIRES, 10,000 AIC MIN. 3P100A MAIN LUGS ONLY															
CIRCUIT DESCRIPTION		WIRE SIZE	BREAKER			CKT. NO.	LOAD (KVA)			CKT. NO.	BREAKER			WIRE SIZE	CIRCUIT DESCRIPTION				
			POLE	AMPS	NOTE		A	B	C		POLE	AMPS	NOTE						
	R	12	1	20		1	0.6 / 0.6			2	1	20	12	R					
	R	12	1	20		3		0.6 / 0.6		4	1	20	12	R					
	R	12	1	20		5			0.6 / 0.6	6	1	20	12	R					
	R	12	1	20		7	0.6 / 0.6			8	1	20	12	R					
	R	12	1	20		9		0.6 / 0.6		10	1	20	12	R					
	R	12	1	20		11			0.6 / 0.6	12	1	20	12	R					
	S		1	20		13	1.0 / 1.0			14	1	20		S					
	S		1	20		15		1.0 / 1.0		16	1	20		S					
	S		1	20		17			1.0 / 1.0	18	1	20		S					
CONNECTED KVA LOAD EACH BUS							4.4	4.4	4.4	SPECIAL INSTRUCTIONS:									
DEMAND FACTOR ALLOWED							0.7	0.7	0.7	MOUNTING:									
DEMAND KVA LOAD EACH BUS							3.1	3.1	3.1	LOCATION:									
MAXIMUM DESIGN AMPERES EACH BUS							25.7	25.7	25.7	TOTAL KVA LOAD: 9.2									
NOTES:															ABBREVIATION:				
1. TYPICAL FOR INBOUND AND OUTBOUND															L - LIGHT				
2. PANEL 2B SIMILAR															R - RECEPTACLE				
3.															S - SPARE BREAKER				
4.															PFB - PROVISIONS FOR BREAKER				
															IG - ISOLATED GROUND				
															GFCI - GROUND FAULT CIRCUIT INTERRUPTER				
															HACR - LISTED FOR HTG., A/C, REFRIG. EQUIP.				

PANEL 4 A				480Y/277 VOLTS, 3 PHASE, 4 WIRES, 14,000 AIC MIN. 3P50A MAIN BREAKER																							
CIRCUIT DESCRIPTION		WIRE SIZE	BREAKER		CKT. NO.	LOAD (KVA)			CKT. NO.	BREAKER		WIRE SIZE	CIRCUIT DESCRIPTION														
			POLE	AMPS		NOTE	A	B		C	POLE			AMPS	NOTE												
	L	10	1	20	1	1.5	/	1.5	2	1	20	10	L														
	L	10	1	20	3		1.5	/	1.5	4	1	20	10	L													
	L	10	1	20	5				1.5	6	1	20	10	L													
	PANEL "2A" XFMR	12	3	20	7	3.0	/	4.0		8	3	30	4	PANEL "4B"													
		12			9		3.0	/	4.0	10			4														
		12			11				3.0	12			4														
	S		1	20	13	1.0	/	1.0		14	1	20		S													
	S		1	20	15		1.0	/	1.0	16	1	20		S													
	S		1	20	17				1.0	18	1	20		S													
CONNECTED KVA LOAD EACH BUS						12.0	12.0	12.0	SPECIAL INSTRUCTIONS:																		
DEMAND FACTOR ALLOWED						0.7	0.7	0.7	MOUNTING:																		
DEMAND KVA LOAD EACH BUS						8.4	8.4	8.4	LOCATION:																		
MAXIMUM DESIGN AMPERES EACH BUS						30.3	30.3	30.3	TOTAL KVA LOAD: 25.2																		
NOTES:														ABBREVIATION:													
1. TYPICAL FOR INBOUND AND OUTBOUND														L - LIGHT													
2.														R - RECEPTACLE													
3.														S - SPARE BREAKER													
4.														PFB - PROVISIONS FOR BREAKER													
														IG - ISOLATED GROUND													
														GFCI - GROUND FAULT CIRCUIT INTERRUPTER													
														HACR - LISTED FOR HTG., A/C, REFRIG. EQUIP.													

PANEL		4	B		480Y/277 VOLTS, 3 PHASE, 4 WIRES, 14,000 AIC MIN. 3P50A MAIN BREAKER														
CIRCUIT DESCRIPTION				WIRE SIZE	BREAKER			CKT. NO.	LOAD (KVA)			CKT. NO.	BREAKER			WIRE SIZE	CIRCUIT DESCRIPTION		
					POLE	AMPS	NOTE		A	B	C		POLE	AMPS	NOTE				
L				10	1	20		1	1.5	/	1.5		2	1	20	10	L		
L				10	1	20		3		1.5	/	1.5		4	1	20	10	L	
L				10	1	20		5			1.5	/	1.5		6	1	20	10	L
S					1	20		7	1.0	/	1.0			8	1	20		S	
S					1	20		9		1.0	/	1.0		10	1	20		S	
S					1	20		11			1.0	/	1.0		12	1	20		S
S					1	20		13	1.0	/	1.0			14	1	20		S	
S					1	20		15		1.0	/	1.0		16	1	20		S	
S					1	20		17			1.0	/	1.0	18	1	20		S	
CONNECTED KVA LOAD EACH BUS									7.0	7.0	7.0	SPECIAL INSTRUCTIONS: NEMA 4X ENCLOSURE							
DEMAND FACTOR ALLOWED									0.7	0.7	0.7	MOUNTING: SURFACE							
DEMAND KVA LOAD EACH BUS									4.9	4.9	4.9	LOCATION:							
MAXIMUM DESIGN AMPERES EACH BUS									17.7	17.7	17.7	TOTAL KVA LOAD: 14.7							
NOTES:																		ABBREVIATION:	
1. TYPICAL FOR INBOUND AND OUTBOUND																		GFCI - GROUND FAULT CIRCUIT INTERRUPTER	
2.																		HACR - LISTED FOR HTG., A/C, REFRIG. EQUIP.	
3.																			
4.																			
																		L - LIGHT	
																		R - RECEPTACLE	
																		S - SPARE BREAKER	
																		PFB - PROVISIONS FOR BREAKER	
																		IG - ISOLATED GROUND	

DATE	_____
DESIGNED BY	_____
TRACED BY	_____
NOTED BY	_____
CHECKED BY	_____
ORIGINAL PLAN	_____
NO.	_____

This work was prepared by me or under my supervision.

Clarence C. K. Kim

SIGNATURE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS DIAGRAMS

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: 1" = 1'
DATE: JAN. 1996
SHEET NO. EH-32 OF 32 SHEETS

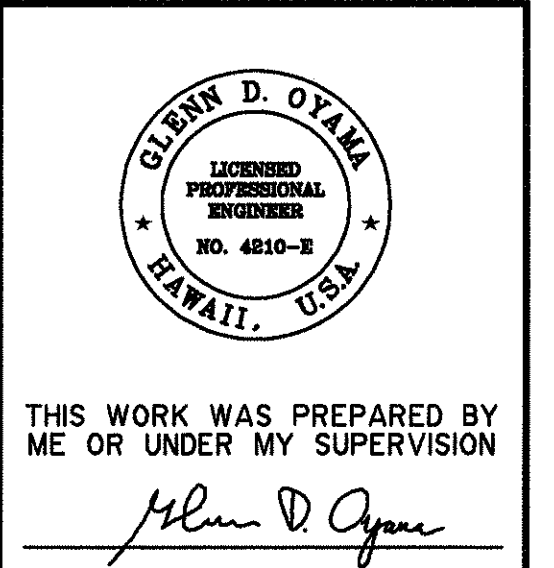
DATE	REVISION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT1	1996	324	405

ELECTRICAL SYMBOL LIST		
EXST	NEW	DESCRIPTION
		FLUORESCENT VAPOR-TIGHT LIGHT, STEM ON SURFACE MTD, W.P. SEE LIGHTING FIXTURE DETAIL ON SHEET EW-14.
		RECEPTACLE, SURFACE MTD W/ CAST METAL W.P. OUTLET BOX, NEMA 5-15R. +24" A.F.F.
		LARGE JB W/ HINGE COVER, SURF. CEIL MTD., W.P., 24" SQ. x 12" D.
		LARGE JB W/ HINGE COVER, WALL MTD, W.P., 24" SQ X 12" D
		LARGE JB W/ HINGE COVER, SURF. CEIL MTD., W.P., 36" L x 24" W x 10" D OR AS INDIC.
		LARGE JB W/ HINGE COVER, WALL MTD, W.P. 36" L X 24" W X 10" D OR AS INDICATED.
		SMALL JB, SURFACE MTD, W.P., 4" SQ X 2" D.
		PUSH-BUTTON, +48" A.F.F.
		SERVICE EQUIPMENT, SEE PLANS & ELEVATION ON SHEET EW15.
		NON-METALLIC FLEX. COND. W/ WIRES, LIQUID-TIGHT & SUNLIGHT PROTECTED.
		EXPOSED GALVANIZED RIGID STEEL CONDUIT W/ WIRES.
		GROUNDING SYSTEM FOR DISTRIBUTION EQUIPMENT
		DISTRIBUTION EQUIPMENT IDENTIFICATION, OUTBOUND #1 INDICATED
		RECEPTACLE CIRCUIT #1 SERVED BY OUTBOUND BRIDGE SEGMENT DIST. EQUIPMENT 01 INDICATED.
		LIGHTING CIRCUIT #1 SERVED BY OUTBOUND BRIDGE SEGMENT DIST. EQUIPMENT 01 INDICATED.
	WP	WEATHER PROOF
	JB	JUNCTION BOX
	A.F.F.	ABOVE FINISH FLOOR
	S.S.	STAINLESS STEEL.
	XFMR	TRANSFORMER

GENERAL NOTES:

- ALL EQUIPMENT SHOWN ARE NEW UNLESS INDICATED OTHERWISE.
- VERIFY LOCATIONS OF EXISTING REBARS AND TENDONS BEFORE CORING ANY EXISTING CONCRETE STRUCTURE. CONTRACT DRAWINGS FAIP 1-H3-1(57) & FAIP 1-H3-1(58) ARE AVAILABLE FOR REFERENCE.
- STEEL STRUT CHANNEL SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
- ALL FASTENERS, STRAPS AND HARDWARE SHALL BE STAINLESS STEEL UNLESS NOTED OTHERWISE.
- SEE TYPICAL BOX GIRDER LIGHTING PLAN ON SHEET EW-15 FOR ADDITIONAL LIGHTING REQUIREMENTS. NOT SHOWN ON PARTIAL ELECTRICAL PLANS.
SEE ADDITIONAL NOTE ON SHEET 308

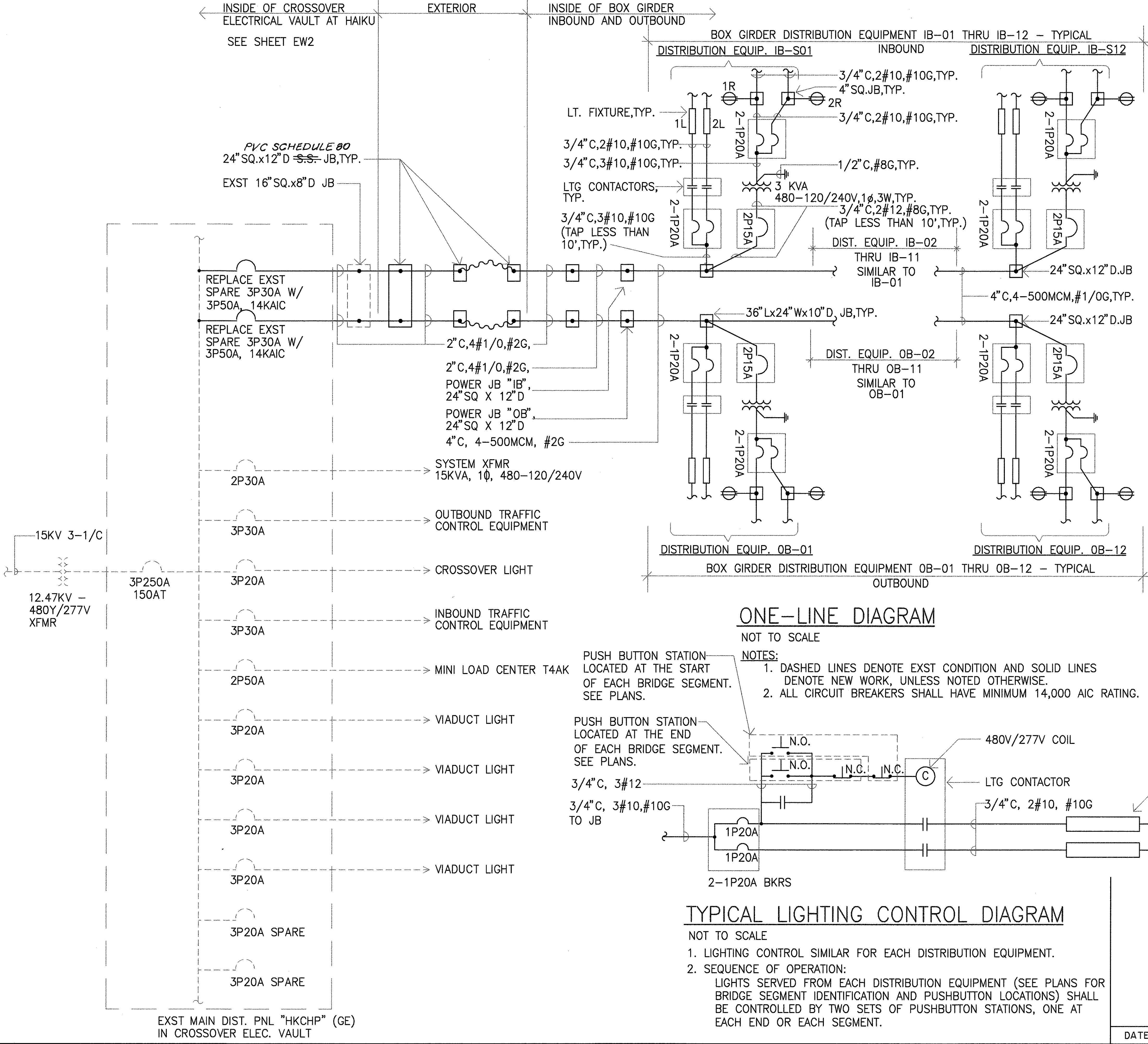


STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
ELECTRICAL SYMBOLS AND DIAGRAMS

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: AS NOTED DATE: JAN 1996

SHEET No. EW1 OF 19 SHEETS



ONE-LINE DIAGRAM

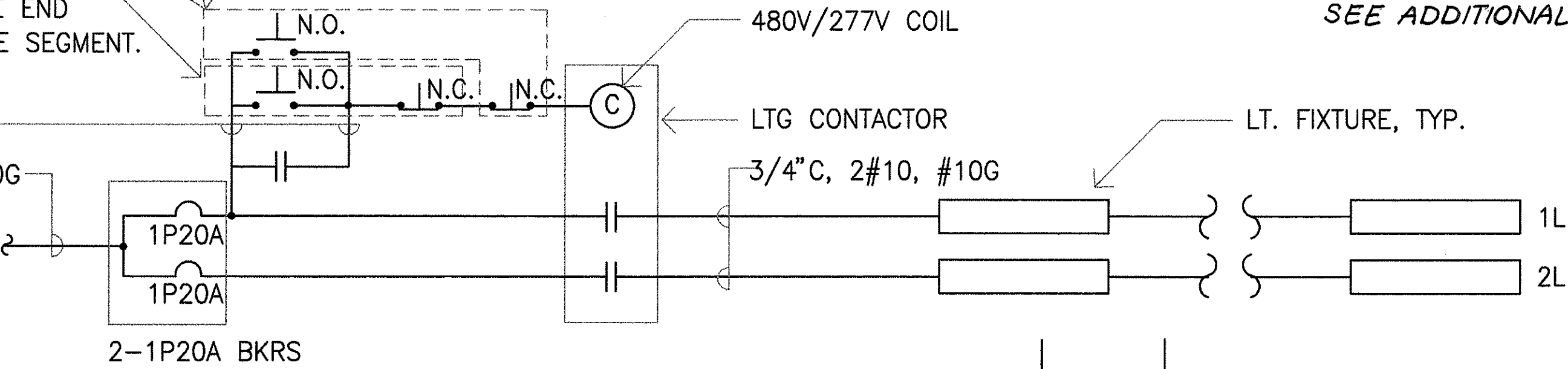
NOT TO SCALE

- NOTES:
- DASHED LINES DENOTE EXST CONDITION AND SOLID LINES DENOTE NEW WORK, UNLESS NOTED OTHERWISE.
 - ALL CIRCUIT BREAKERS SHALL HAVE MINIMUM 14,000 AIC RATING.

PUSH BUTTON STATION LOCATED AT THE START OF EACH BRIDGE SEGMENT. SEE PLANS.

PUSH BUTTON STATION LOCATED AT THE END OF EACH BRIDGE SEGMENT. SEE PLANS.

3/4" C, 3#12
3/4" C, 3#10, #10G TO JB



TYPICAL LIGHTING CONTROL DIAGRAM

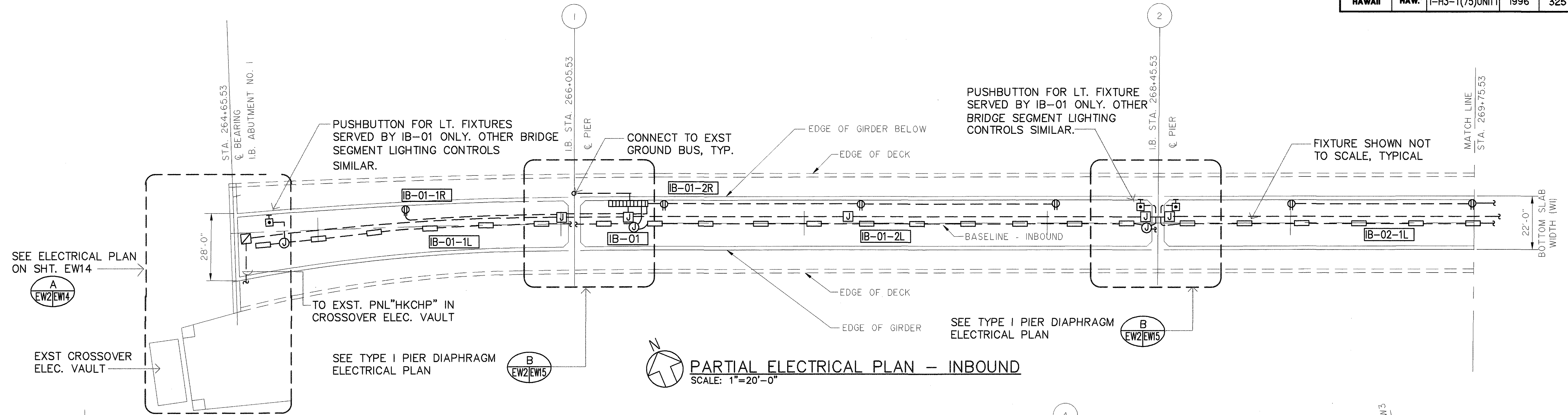
NOT TO SCALE

- LIGHTING CONTROL SIMILAR FOR EACH DISTRIBUTION EQUIPMENT.
- SEQUENCE OF OPERATION:
LIGHTS SERVED FROM EACH DISTRIBUTION EQUIPMENT (SEE PLANS FOR BRIDGE SEGMENT IDENTIFICATION AND PUSHBUTTON LOCATIONS) SHALL BE CONTROLLED BY TWO SETS OF PUSHBUTTON STATIONS, ONE AT EACH END OR EACH SEGMENT.

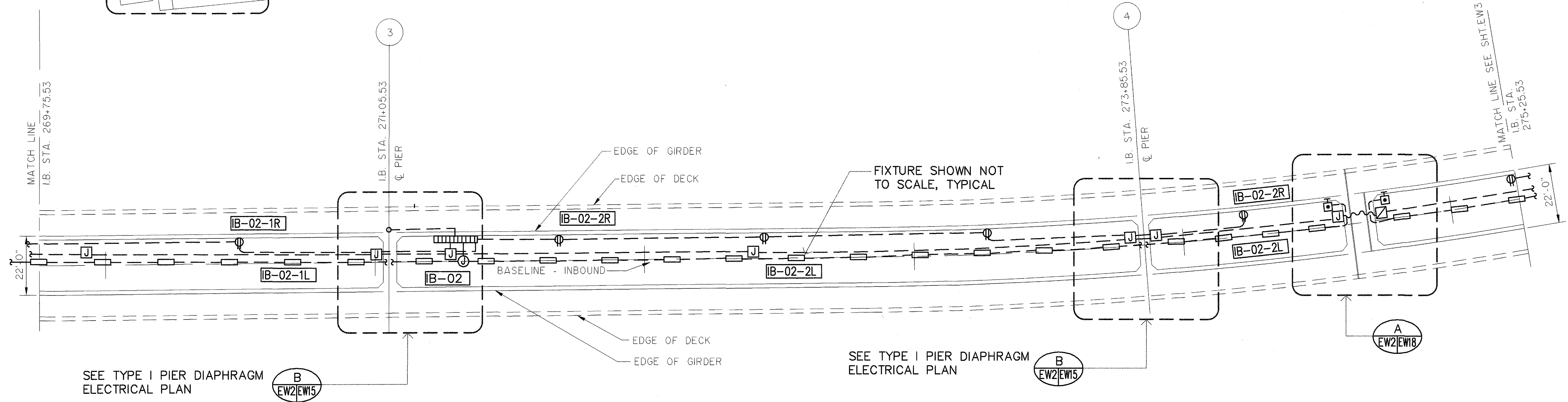
SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTED	
No.	

EXST MAIN DIST. PNL "HKCHP" (GE)
IN CROSSOVER ELEC. VAULT

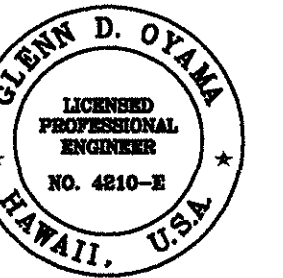
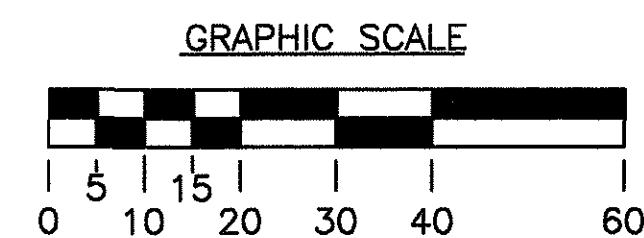
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT1	1996	325	405



PARTIAL ELECTRICAL PLAN - INBOUND
SCALE: 1"=20'-0"



PARTIAL ELECTRICAL PLAN - INBOUND
SCALE: 1"=20'-0"

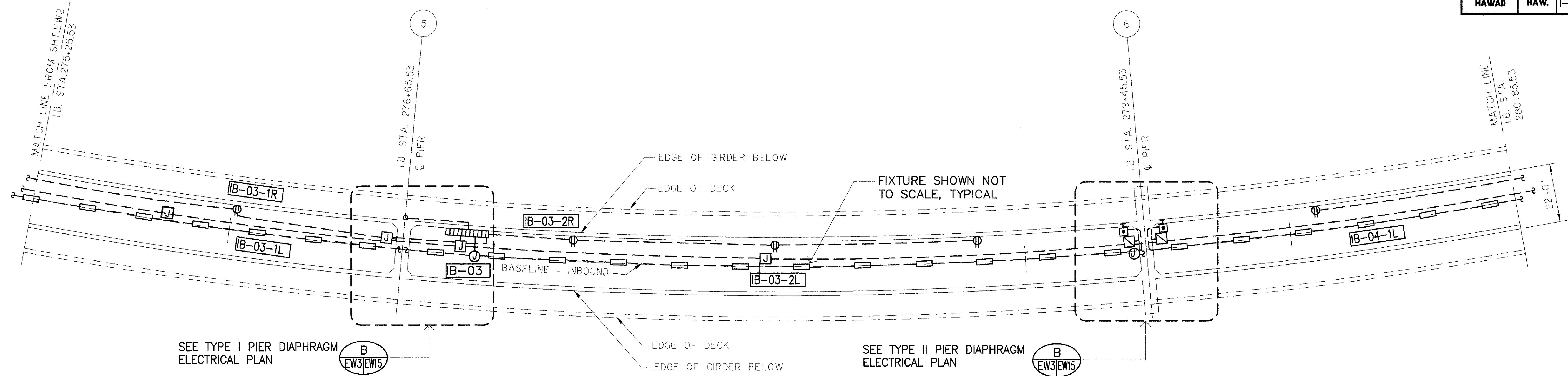


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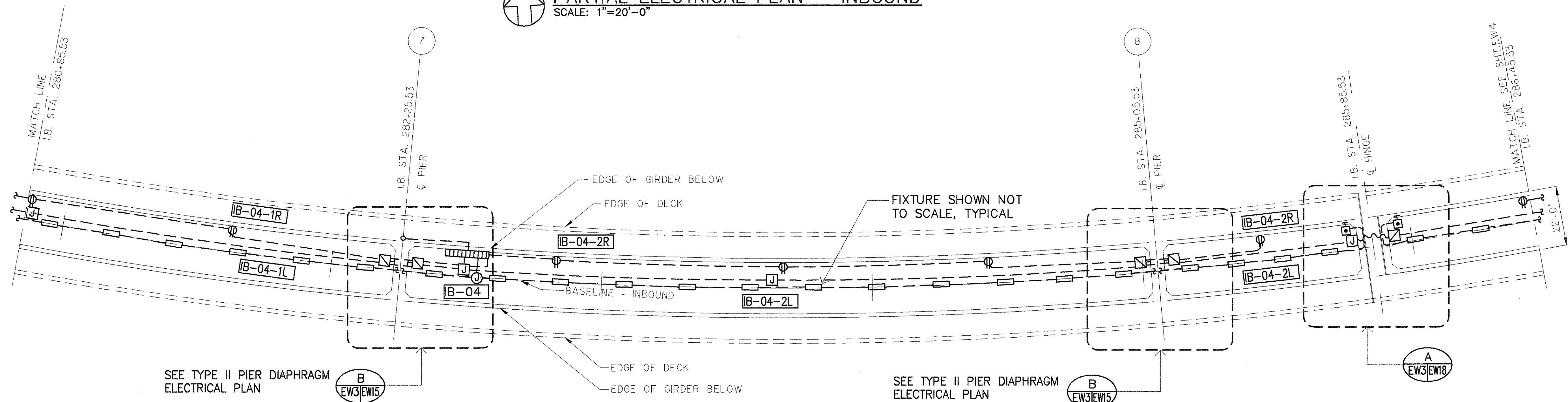
Glenn D. Oyama

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION WINDWARD VIADUCT PARTIAL ELEC PLANS - INBOUND INTERSTATE ROUTE H-3 F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1 SCALE: AS NOTED DATE: JAN 1996 SHEET No. EW2 OF 19 SHEETS
--

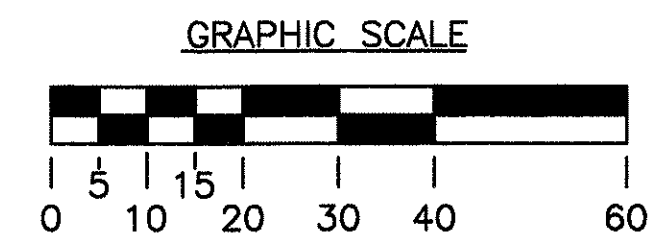
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT1	1996	326	405



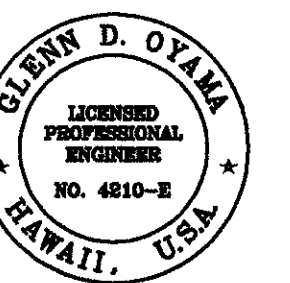
PARTIAL ELECTRICAL PLAN - INBOUND
SCALE: 1"=20'-0"



PARTIAL ELECTRICAL PLAN - INBOUND
SCALE: 1"=20'-0"



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
DESIGNED BY	DRAWN BY	
QUANTITIES BY	DESIGNED BY	
CHECKED BY	DESIGNED BY	
No.		



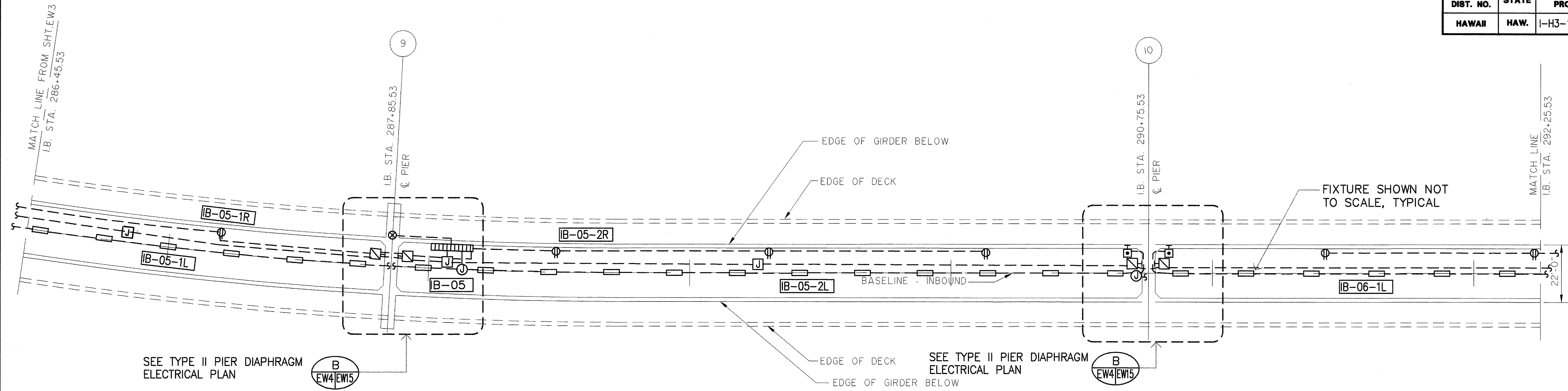
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Glenn D. Oyama

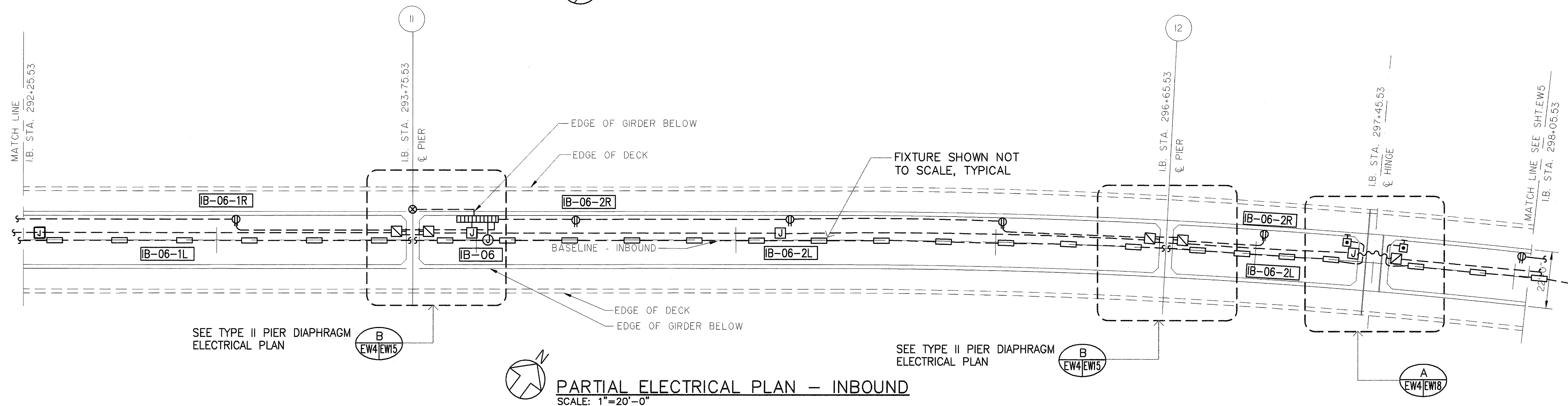
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
PARTIAL ELEC PLANS-INBOUND
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: AS NOTED DATE: JAN 1996
SHEET No. EW3 OF 19 SHEETS

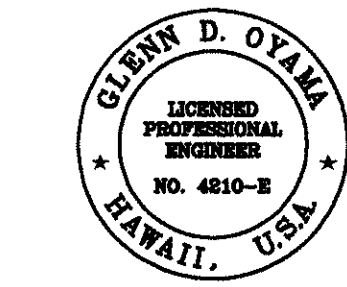
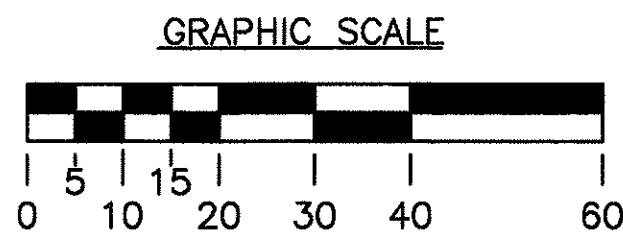
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT1	1996	327	405



PARTIAL ELECTRICAL PLAN - INBOUND
SCALE: 1"=20'-0"



PARTIAL ELECTRICAL PLAN - INBOUND
SCALE: 1"=20'-0"

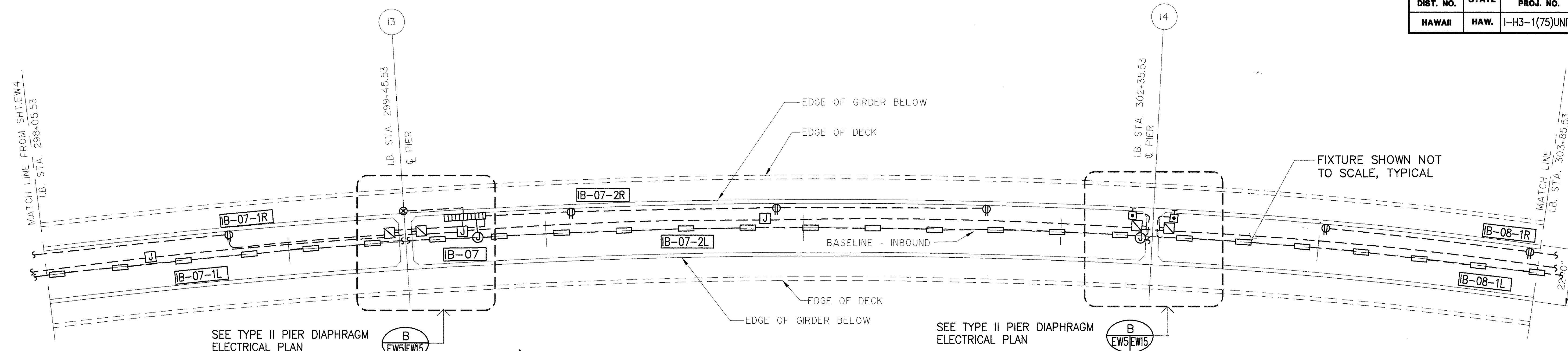


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Glenn D. Oyama

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
PARTIAL ELEC PLANS-INBOUND
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1
SCALE: AS NOTED DATE: JAN 1996
SHEET NO. EW4 OF 19 SHEETS

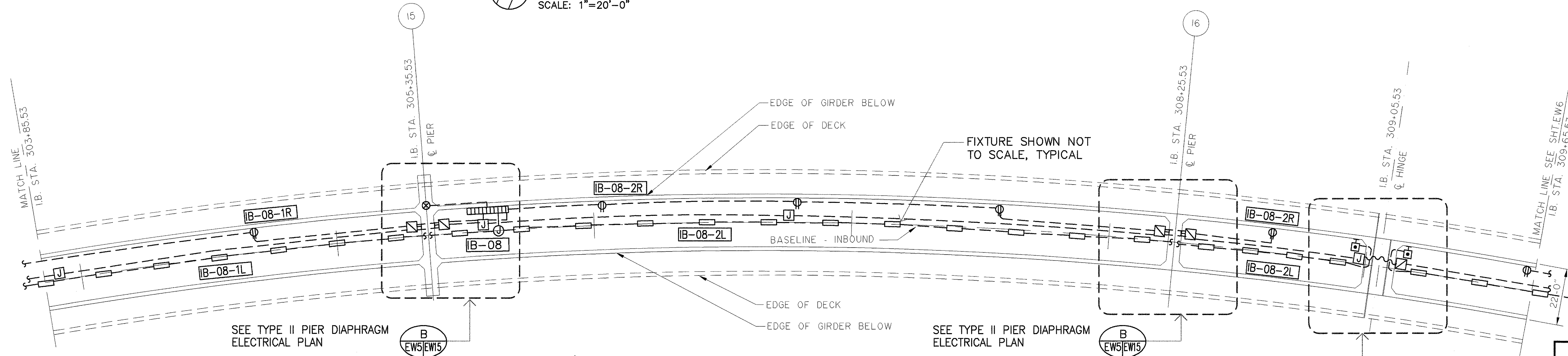
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTED	
NO.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT1	1996	328	405



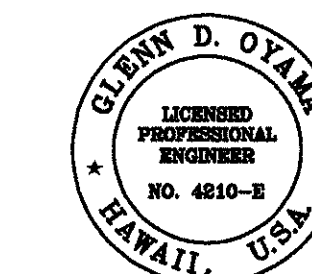
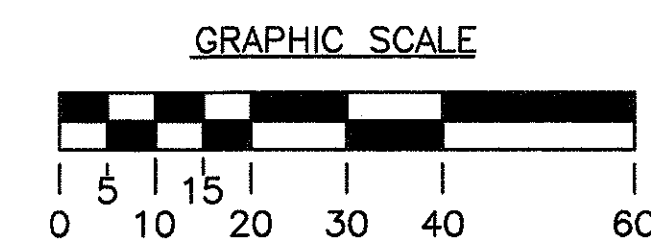
PARTIAL ELECTRICAL PLAN - INBOUND

SCALE: 1"=20'-0"



PARTIAL ELECTRICAL PLAN - INBOUND

SCALE: 1"=20'-0"



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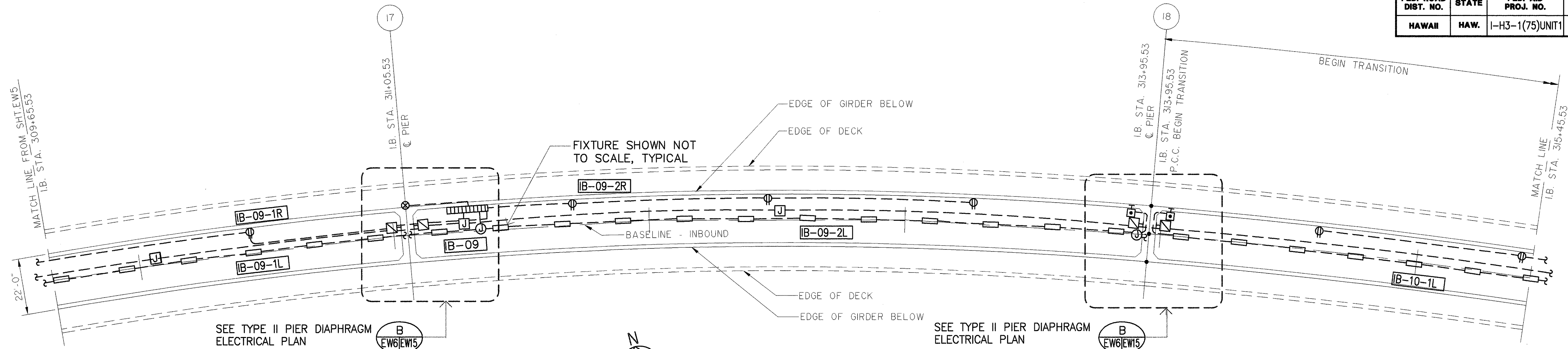
Glenn D. Oyama

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
WINDWARD VIADUCT PARTIAL ELEC PLANS-INBOUND	
INTERSTATE ROUTE H-3 F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1	
SCALE: AS NOTED	DATE: JAN 1996
SHEET No. EW5 OF 19 SHEETS	

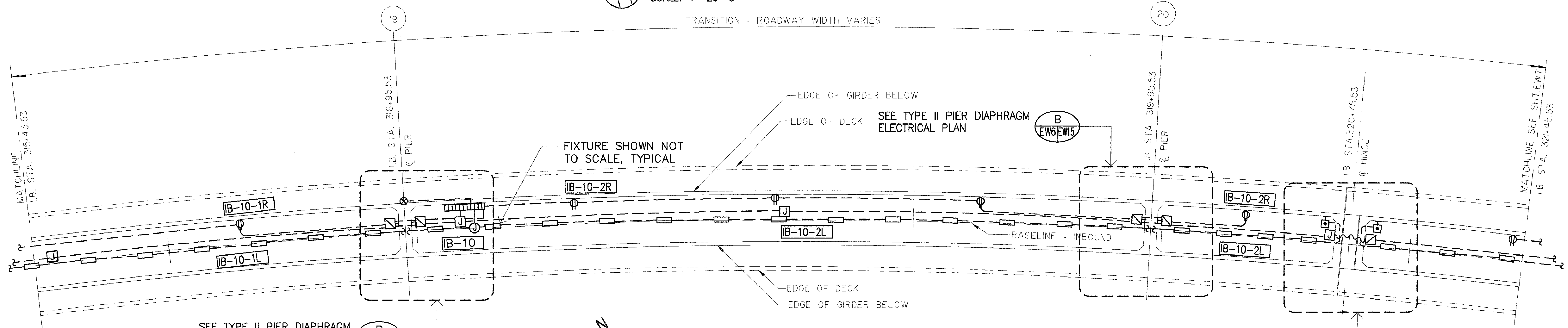
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	No.
NOTEBOOK	

DATE	REVISION
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT1	1996	329	405

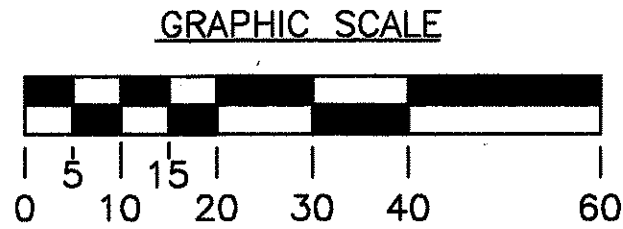


PARTIAL ELECTRICAL PLAN - INBOUND
SCALE: 1"=20'-0"



PARTIAL ELECTRICAL PLAN - INBOUND
SCALE: 1"=20'-0"

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
CHECKED BY	
QUANTITIES BY	
NO.	



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Glenn D. Oyama

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WINDWARD VIADUCT
PARTIAL ELEC PLANS-INBOUND

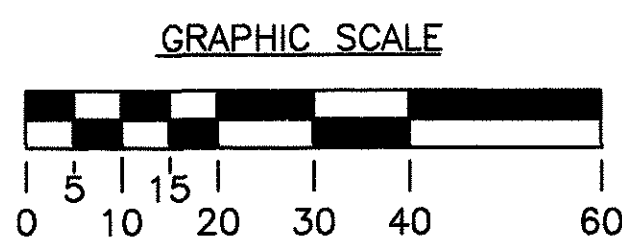
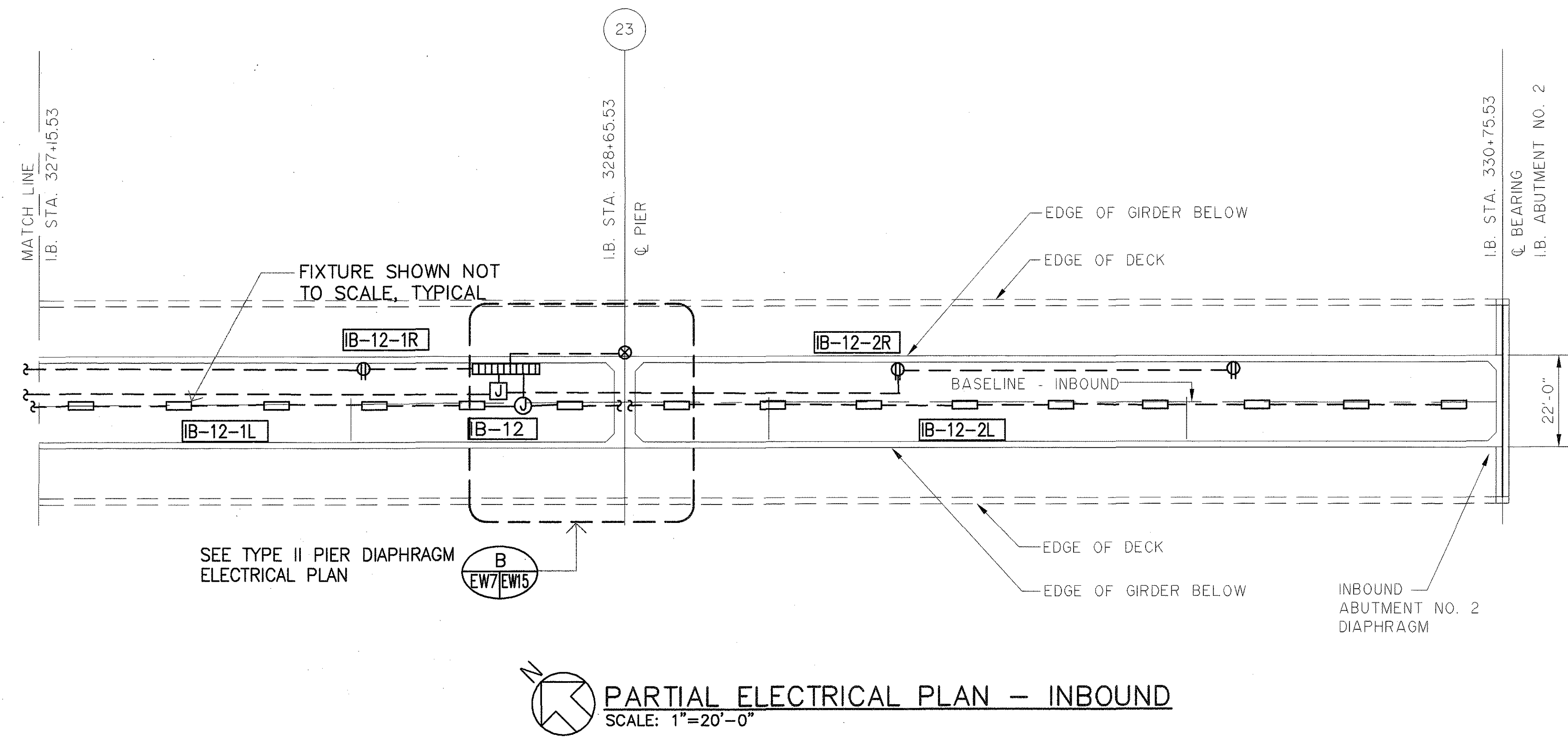
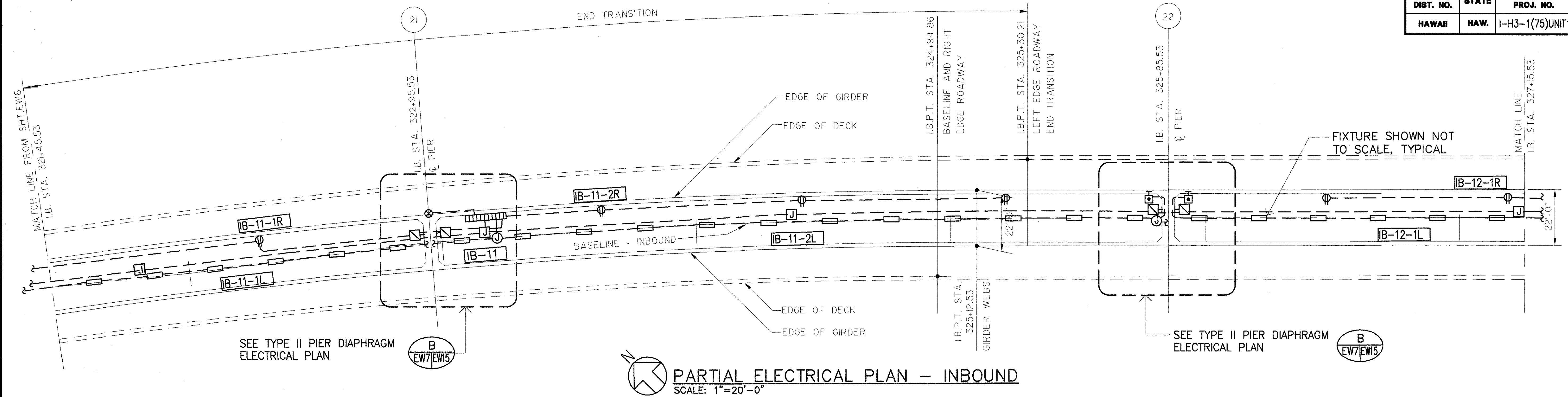
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: AS NOTED DATE: JAN 1996

SHEET No. EW6 OF 19 SHEETS

DATE	REVISION
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT1	1996	330	405



GLENN D. OYAM
LICENSED PROFESSIONAL ENGINEER
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HAWAII, U.S.A.

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Glenn D. Oyam

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WINDWARD VIADUCT
PARTIAL ELEC PLANS-INBOUND

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

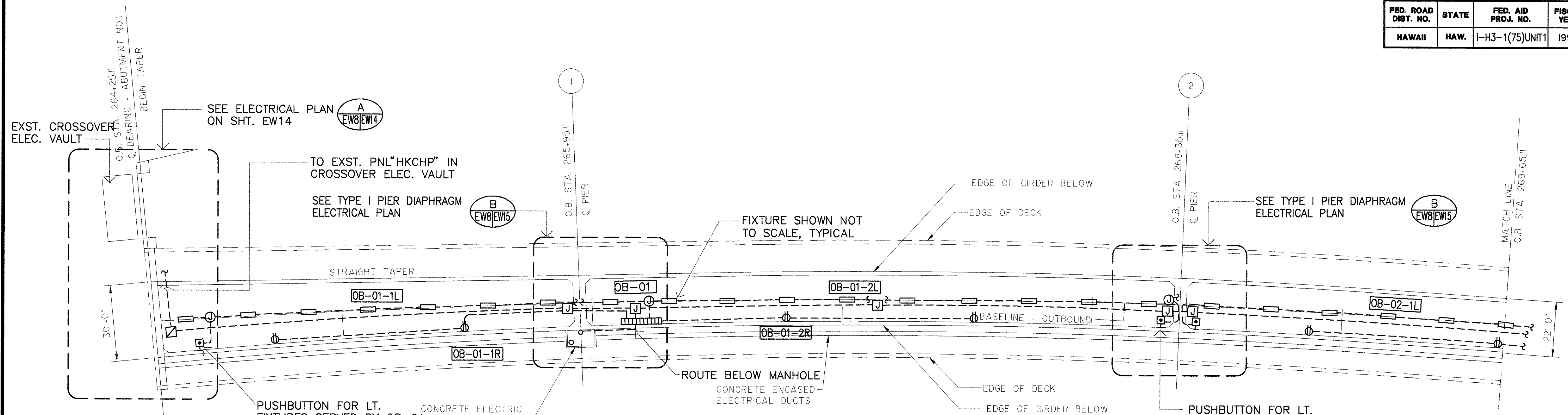
SCALE: AS NOTED DATE: JAN 1996

SHEET No. EW7 OF 19 SHEETS

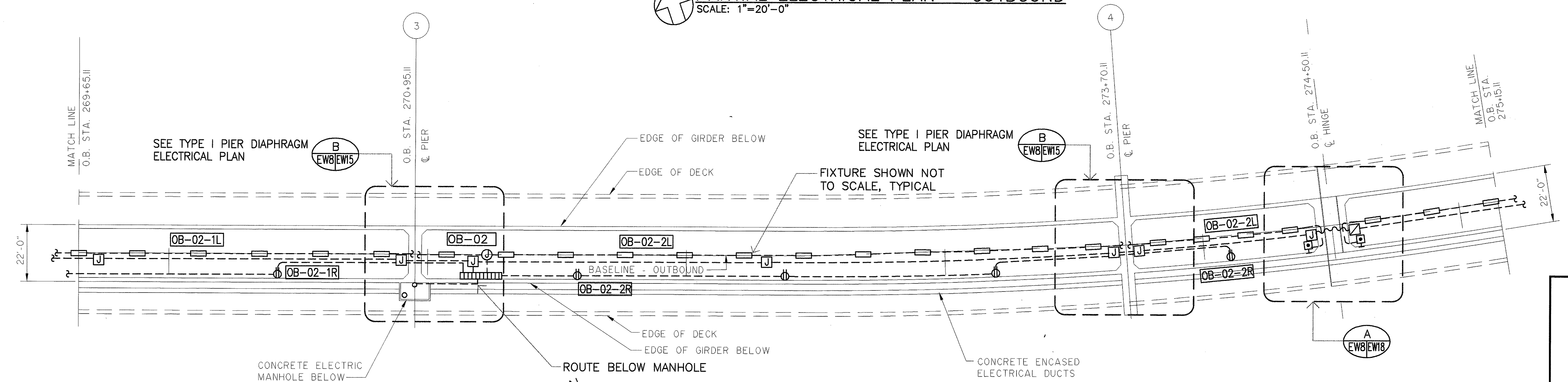
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTEBOOK	
No.	

DATE	REVISION
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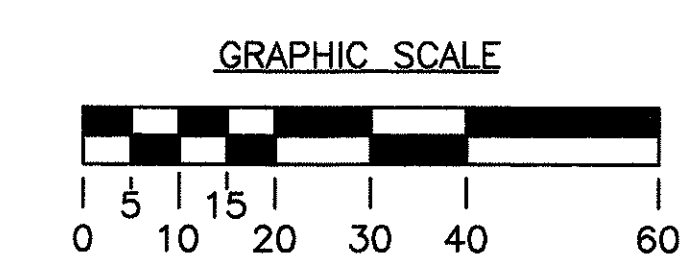
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT1	1996	331	405



PARTIAL ELECTRICAL PLAN - OUTBOUND
SCALE: 1"=20'-0"



PARTIAL ELECTRICAL PLAN - OUTBOUND
SCALE: 1"=20'-0"



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

GLENN D. OYAK
LICENSED PROFESSIONAL ENGINEER
NO. 4210-B
HAWAII, U.S.A.

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Glenn D. Oyak

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WINDWARD VIADUCT

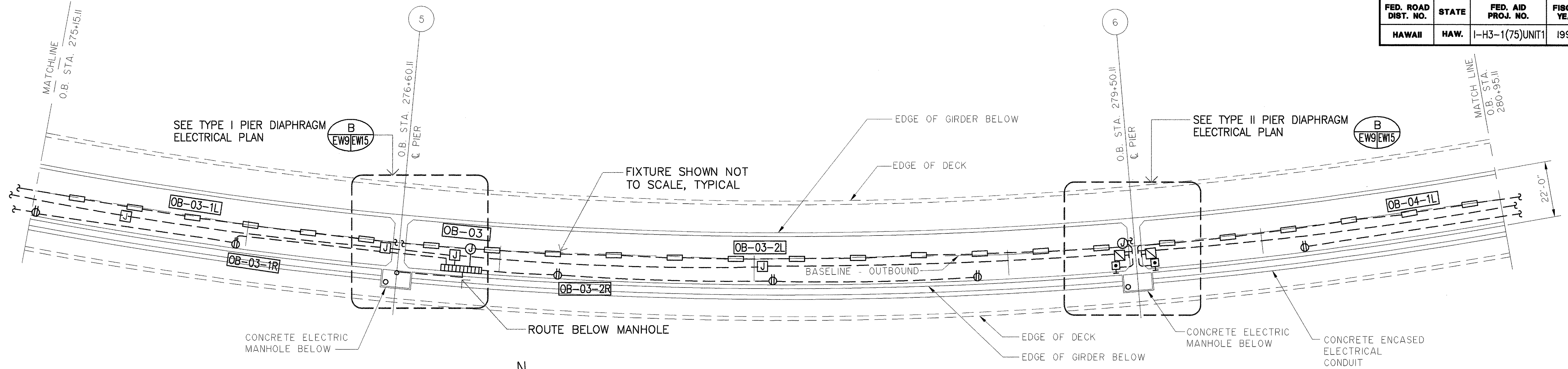
PARTIAL ELEC PLANS-OUTBOUND

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

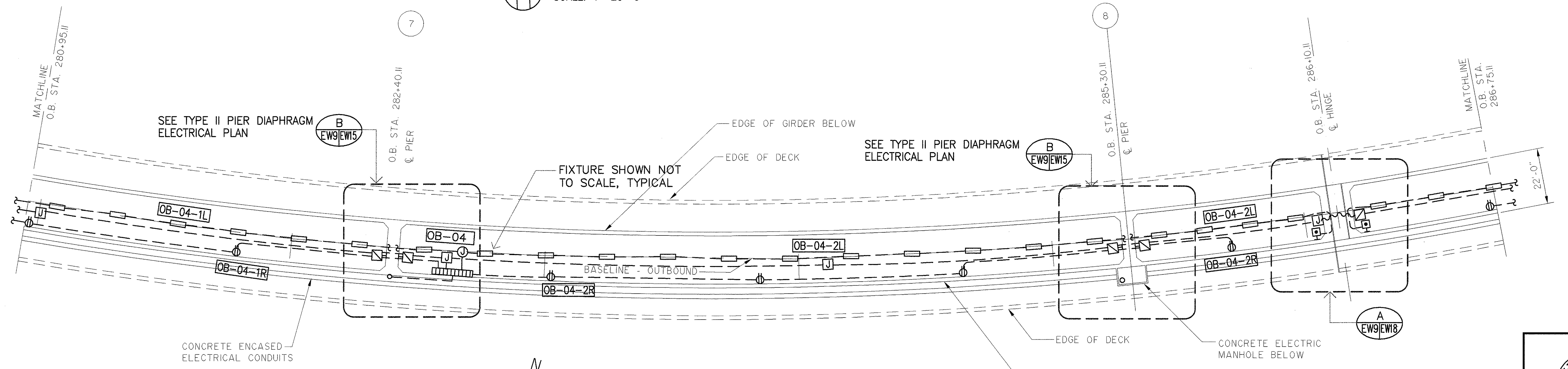
SCALE: AS NOTED DATE: JAN 1996

SHEET No. EW8 OF 19 SHEETS

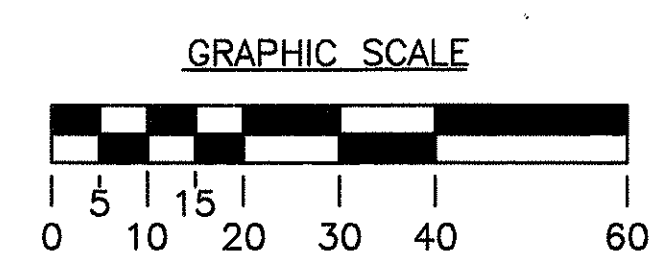
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT1	1996	332	405



PARTIAL ELECTRICAL PLAN - OUTBOUND
 SCALE: 1"=20'-0"



PARTIAL ELECTRICAL PLAN - OUTBOUND
 SCALE: 1"=20'-0"



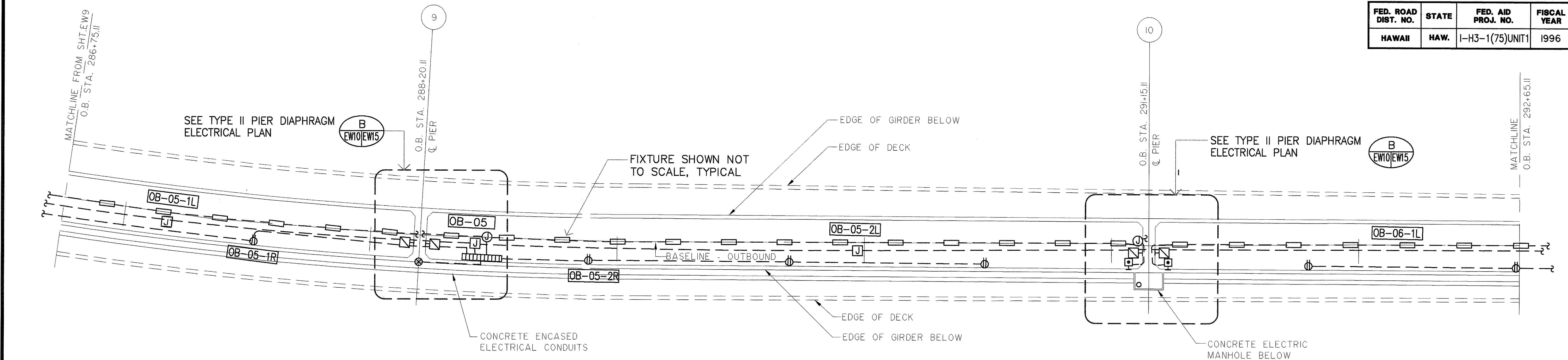
SURVEY PLOTTED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	

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Glenn D. Oyama

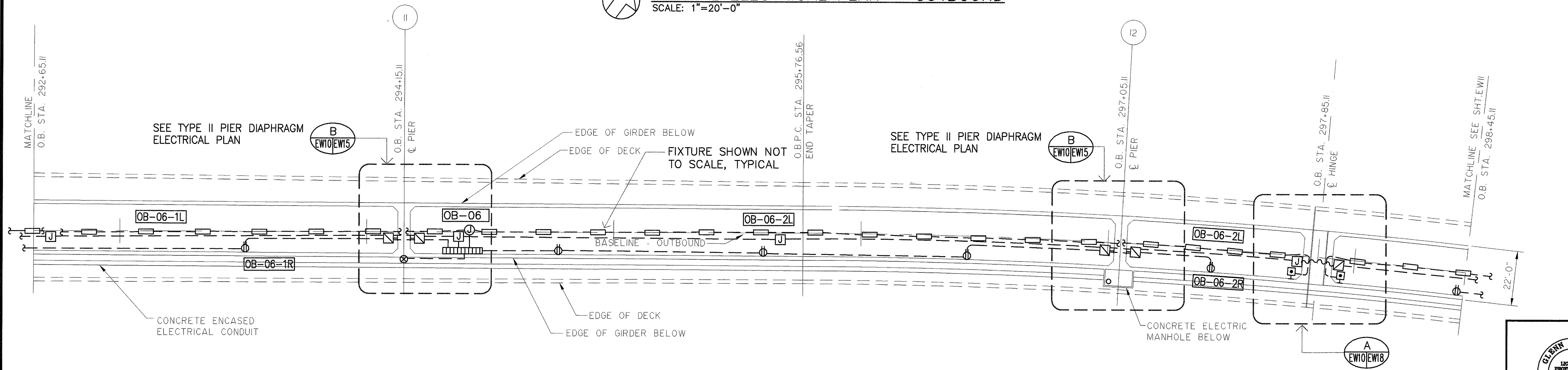
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
 WINDWARD VIADUCT
 PARTIAL ELEC PLANS-OUTBOUND
 INTERSTATE ROUTE H-3
 F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1
 SCALE: AS NOTED DATE: JAN 1996
 SHEET No. EW9 OF 19 SHEETS

DATE	REVISION
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT1	1996	333	405

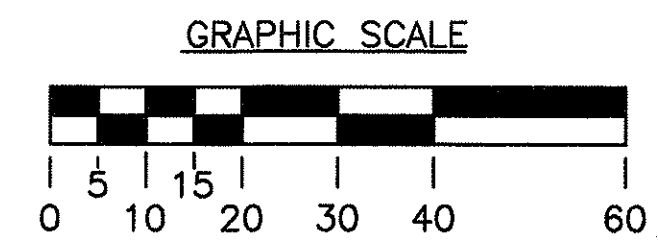


PARTIAL ELECTRICAL PLAN - OUTBOUND
 SCALE: 1"=20'-0"



PARTIAL ELECTRICAL PLAN - OUTBOUND
 SCALE: 1"=20'-0"

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
DESIGNED BY	DESIGNED BY	DESIGNED BY
NOTED BY	NOTED BY	NOTED BY
CHECKED BY	CHECKED BY	CHECKED BY
NO.	NO.	NO.



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Glenn D. Oyama

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

WINDWARD VIADUCT

PARTIAL ELEC PLANS-OUTBOUND

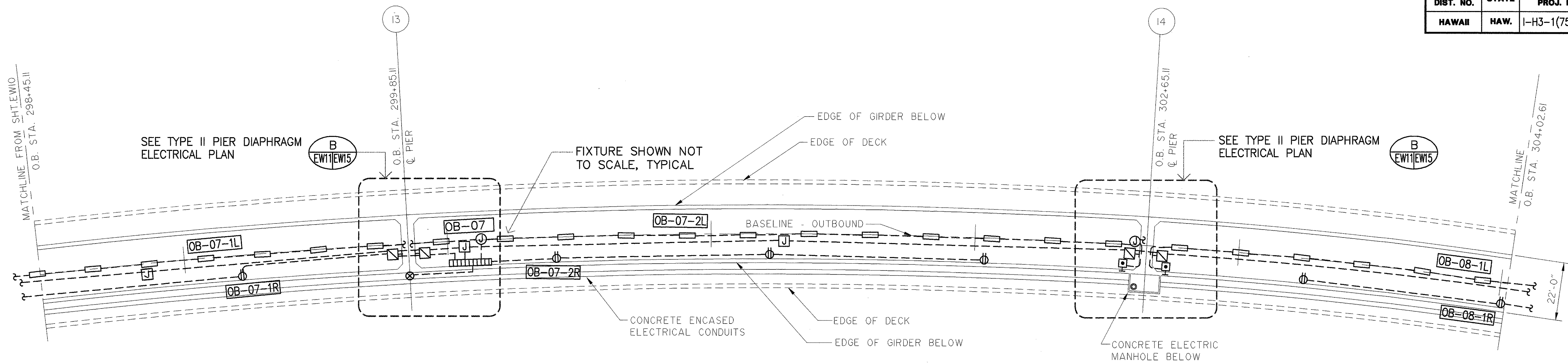
INTERSTATE ROUTE H-3
 F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: AS NOTED DATE: JAN 1996

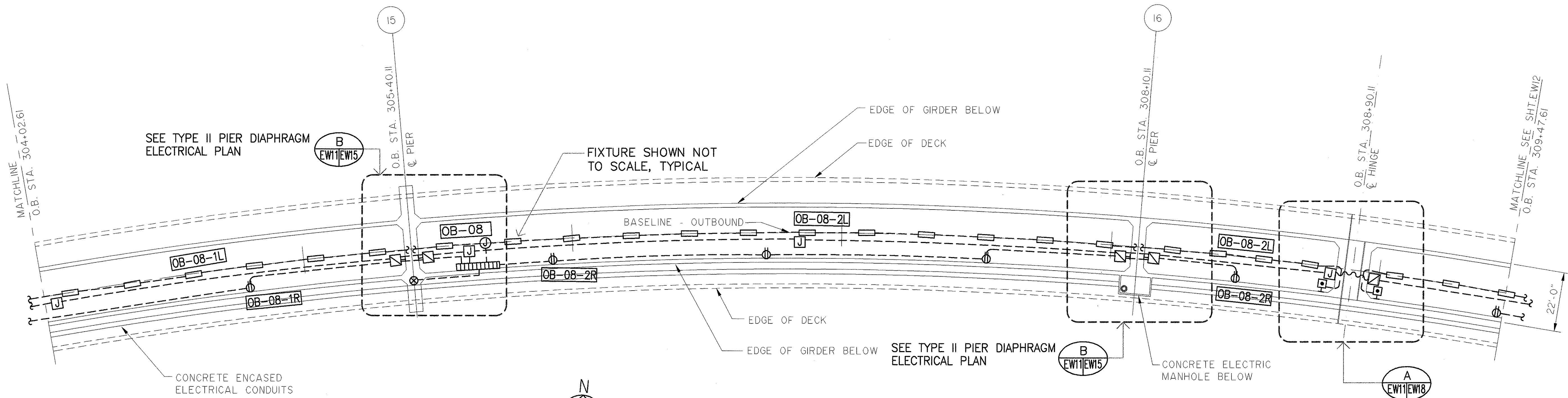
SHEET No. EW10 OF 19 SHEETS

DATE	REVISION
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT1	1996	334	405

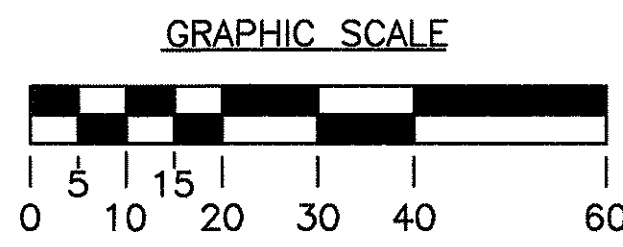


PARTIAL ELECTRICAL PLAN - OUTBOUND
SCALE: 1"=20'-0"



PARTIAL ELECTRICAL PLAN - OUTBOUND
SCALE: 1"=20'-0"

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



GLENN D. OYAM
LICENSED PROFESSIONAL ENGINEER
NO. 4810-B
HAWAII, U.S.A.

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Glenn D. Oyam

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WINDWARD VIADUCT
PARTIAL ELEC PLANS-OUTBOUND

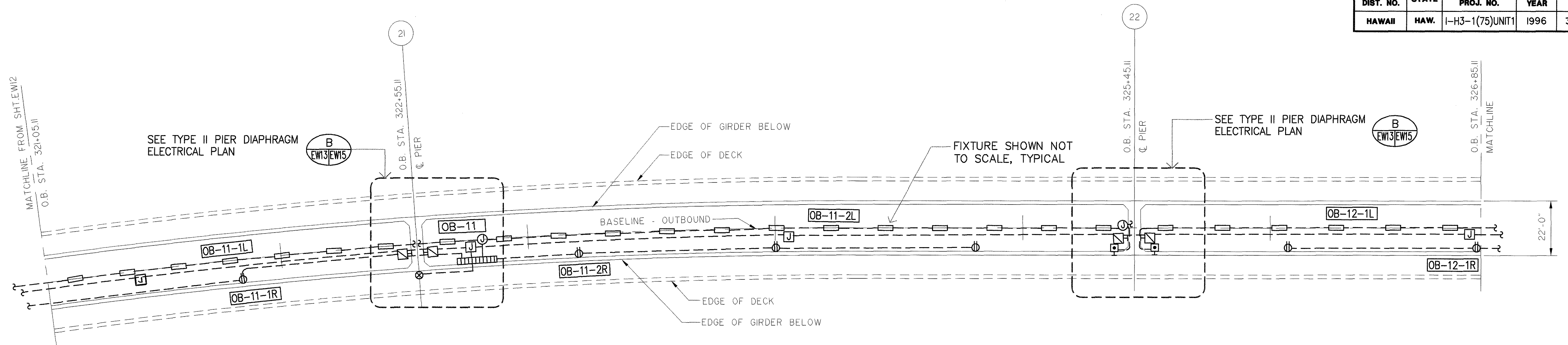
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: AS NOTED DATE: JAN 1996

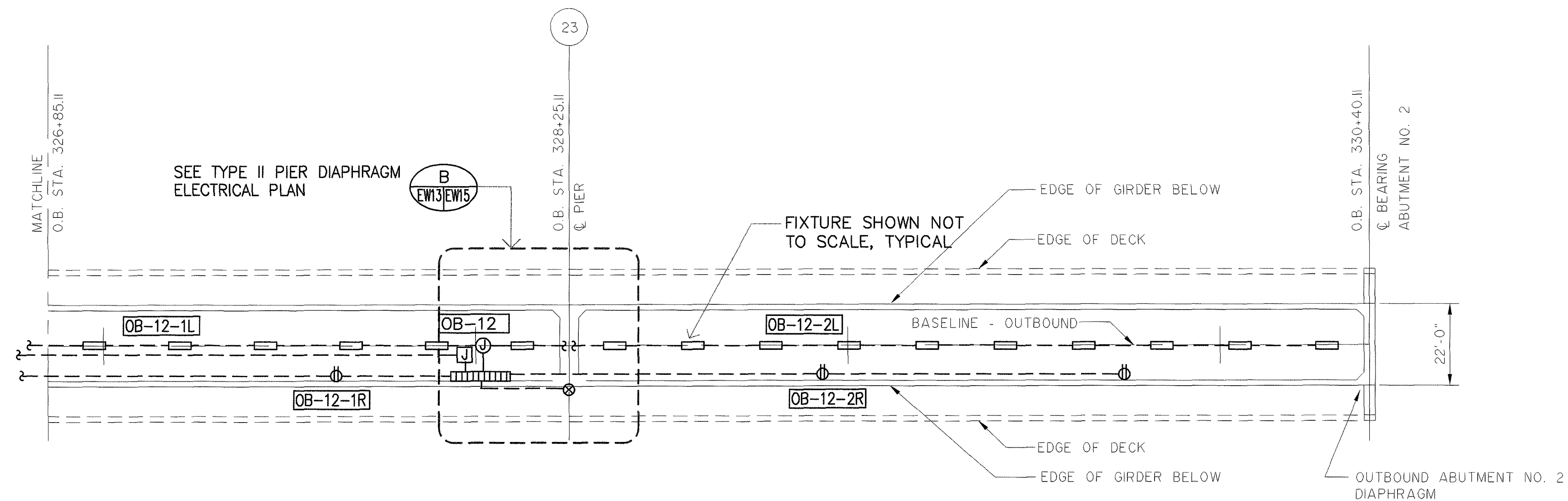
SHEET No. EW1 OF 19 SHEETS

DATE	REVISION
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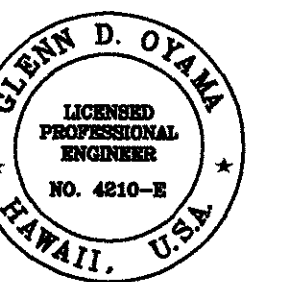
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT1	1996	336	405



PARTIAL ELECTRICAL PLAN - OUTBOUND
SCALE: 1"=20'-0"



PARTIAL ELECTRICAL PLAN - OUTBOUND
SCALE: 1"=20'-0"



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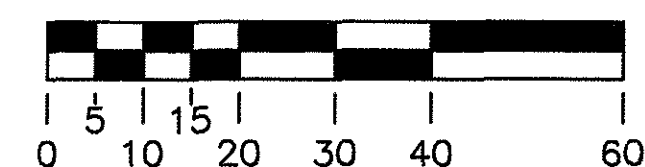
Glenn D. Oyama

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
PARTIAL ELEC PLANS-OUTBOUND
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: AS NOTED DATE: JAN 1996

SHEET No. EW13 OF 19 SHEETS

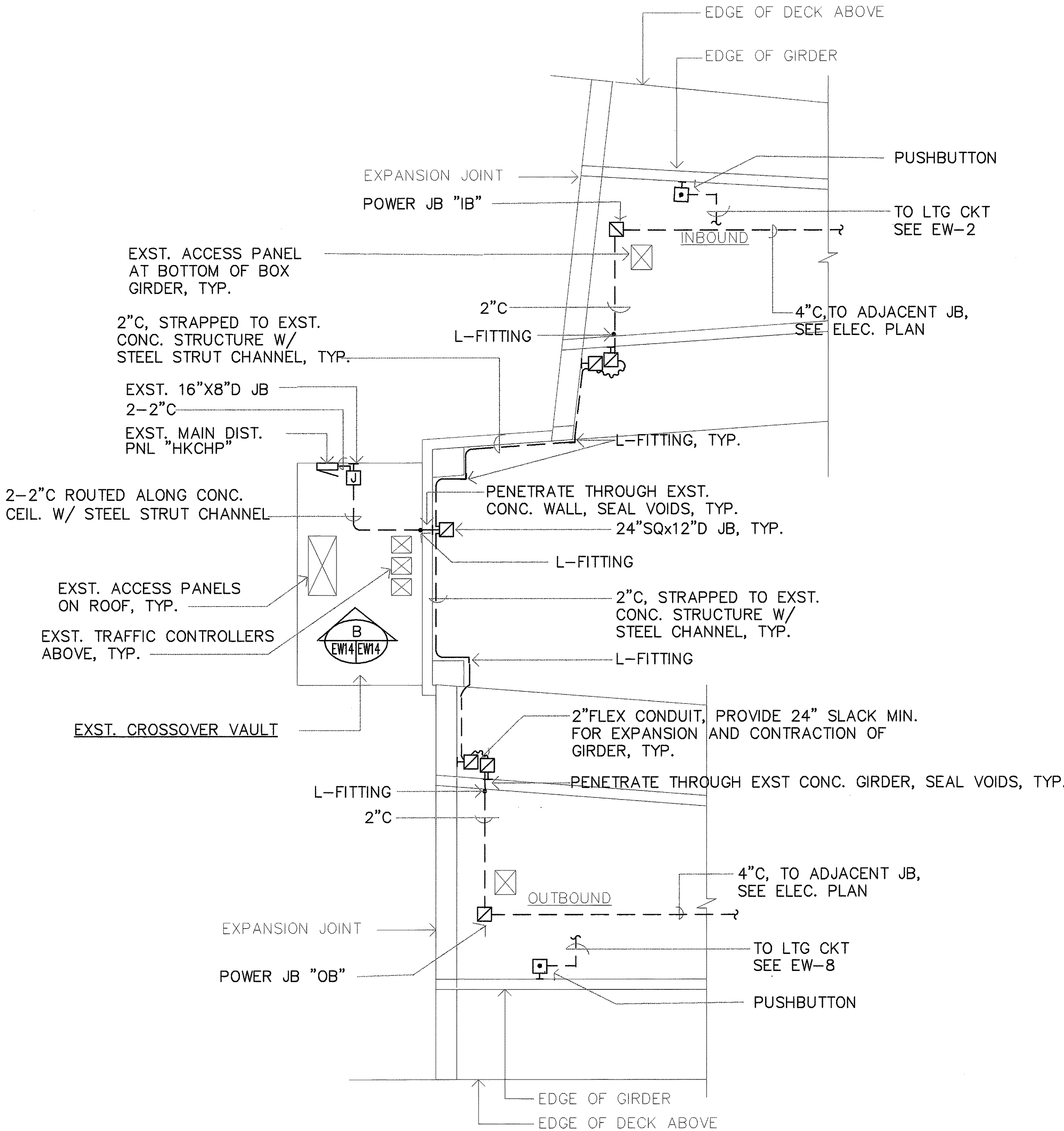
GRAPHIC SCALE



DATE REVISION

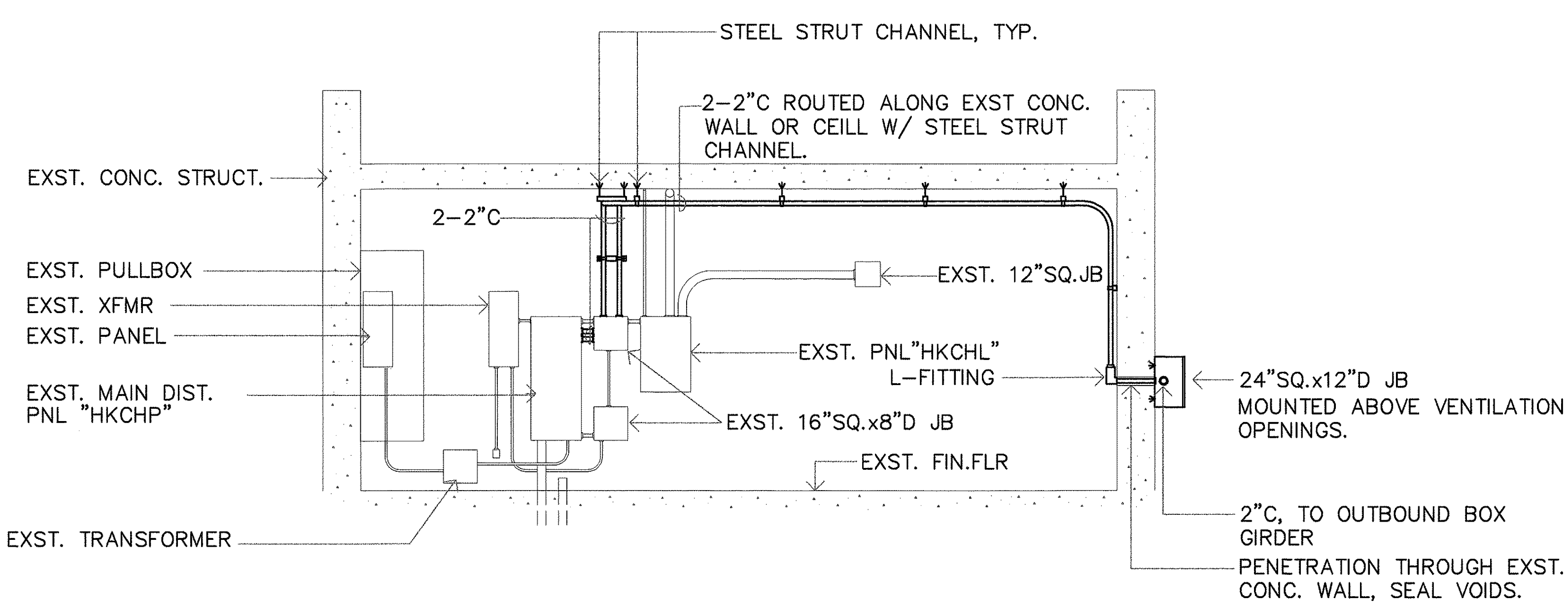
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H3-1(75)UNIT1	1996	337	405



MAIN ELECTRICAL DISTRIBUTION PLAN

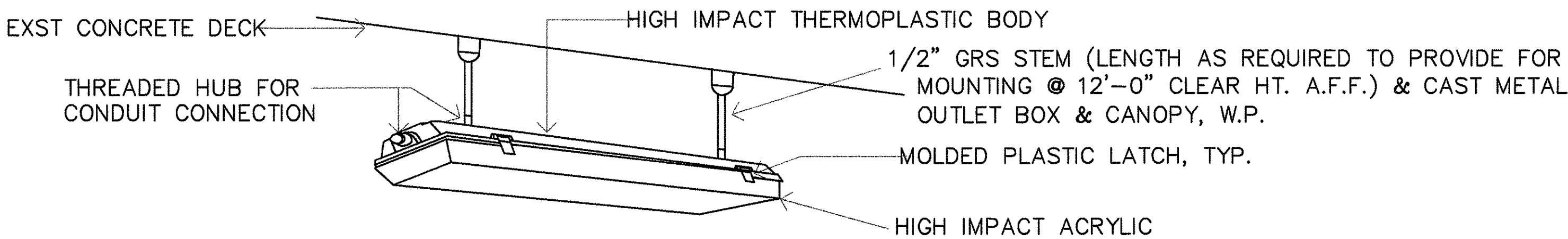
SCALE: 1"=10'-0"



MAIN DISTRIBUTION EQUIPMENT ELEVATION

(AT CROSSOVER VAULT)

NOT TO SCALE



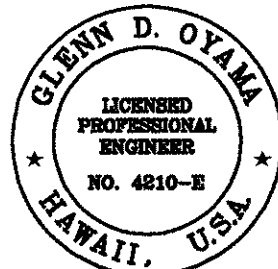
LAMP / WATTS	DESCRIPTION	MFR OR APP'D EQ.
2-34W T-8 OCTRON	FLUORESCENT, SURFACE, 51"L X 7 1/4"W X 4 3/4"H, VAPOR-TIGHT, FULLY ENCLOSED, HIGH IMPACT THERMOPLASTIC BODY W/ HIGH IMPACT ACRYLIC ENCLOSURE. CONTINUOUS COMPRESSIBLE NEOPRENE GASKET TO SEAL ENCLOSURE TO BODY. HUBS FOR CONDUIT/STEM CONNECTIONS, UL LISTED DAMP AND WET LOCATIONS. SIX PLASTIC TAB LATCHES. INTERNAL STEEL WIRING COMPARTMENT FINISHED W/ WHITE POLYESTER POWDER COATING, ELECTRONIC BALLAST, 277 V. PROVIDE MOUNTING ACCESSORIES FOR STEM MOUNTING UNLESS SURFACE MOUNTING INDICATED.	DAY-BRITE VAPORLUME SERIES PRUDENTIAL LIGHTING P5360 SERIES METALUX VT2 SERIES

LIGHTING FIXTURE DETAIL

NOT TO SCALE

LIGHTING PERFORMANCE CRITERIA:

1. MINIMUM 2 FOOT-CANDLE AVERAGE MAINTAINED.
2. MINIMUM 3 TO 1 RATIO FOR AVERAGE/MINIMUM.
3. SUBMIT COMPUTER PRINT-OUT OF POINT-TO-POINT FOOTCANDLE LEVEL WITH FIXTURES AT 23 FT O.C. FOR APPROVAL.



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Glenn D. Oyama

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WINDWARD VIADUCT
ELEC PLANS & ELEVATIONS

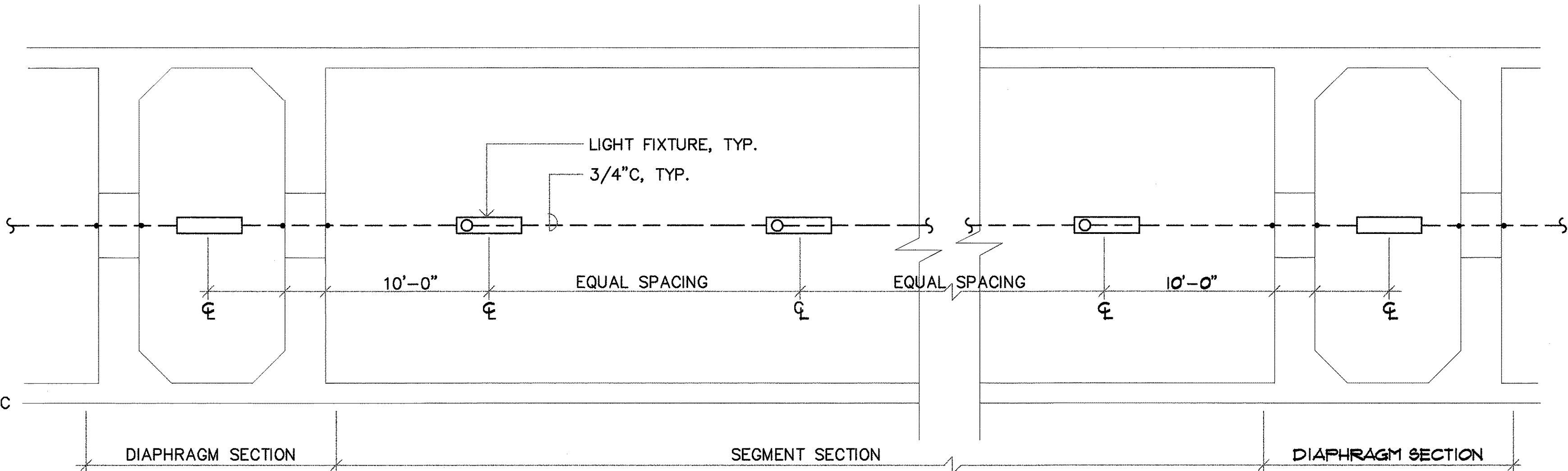
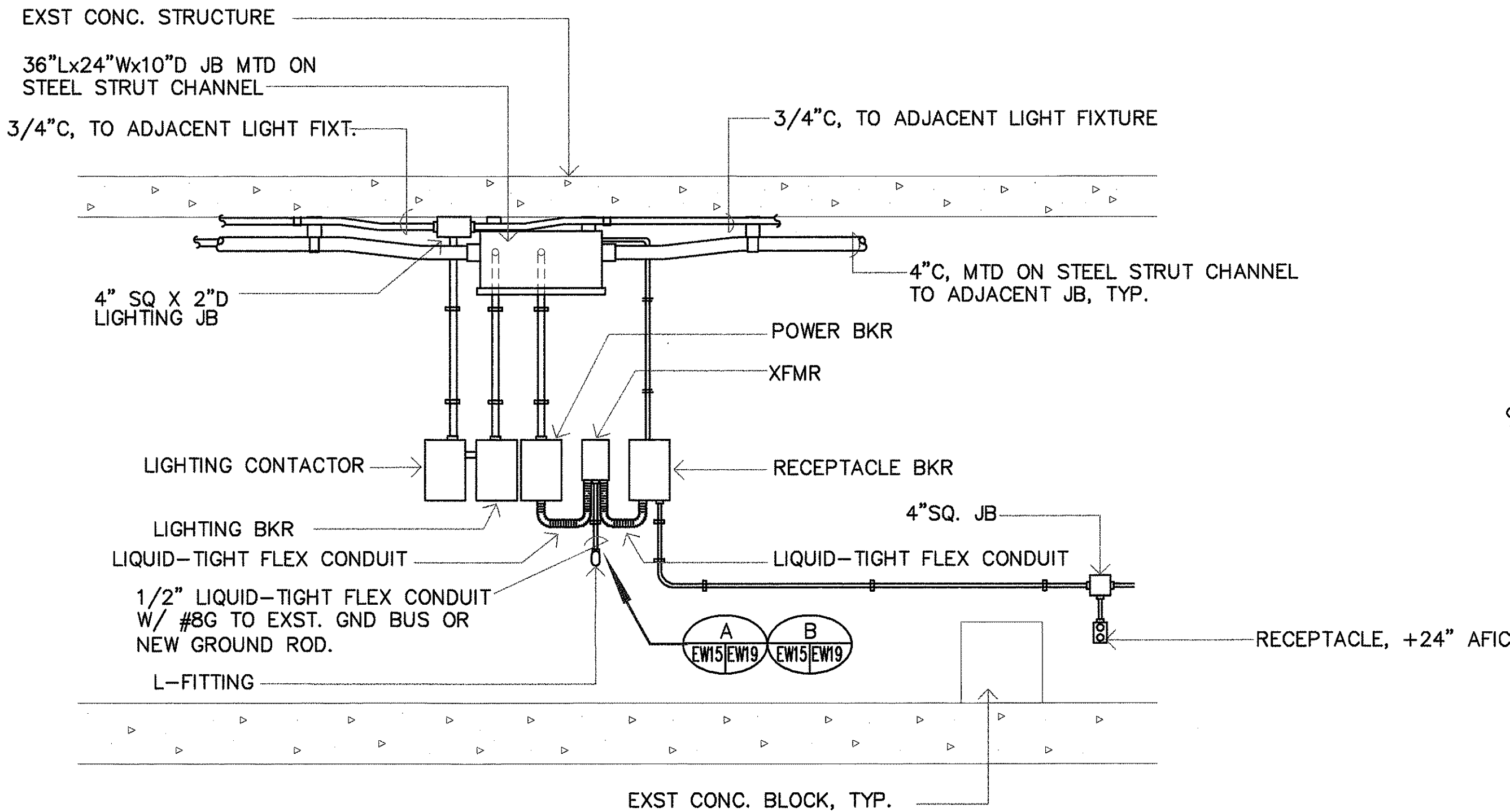
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. 1-H3-1 (75) UNIT 1

SCALE: AS NOTED DATE: JAN 1996

SHEET No. EW OF 19 SHEETS

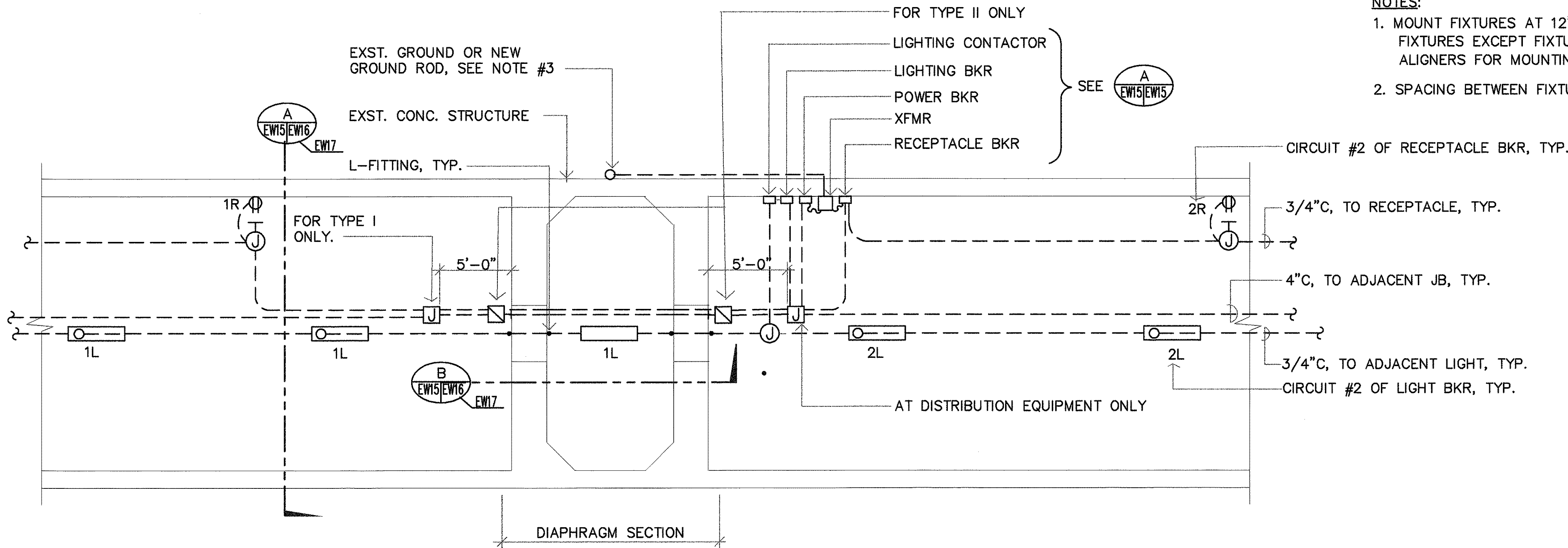
DATE REVISION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT1	1996	338	405



A TYPICAL BOX GIRDER ELECTRICAL DISTRIBUTION EQUIPMENT ELEVATION DETAIL
NOT TO SCALE

TYPICAL BOX GIRDER LIGHTING PLAN
NOT TO SCALE

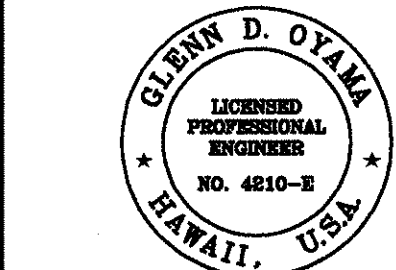


- NOTES:
1. MOUNT FIXTURES AT 12'-0" CLEAR ABOVE FINISH FLOOR HEIGHT WHERE FEASIBLE W/ EXST BOX GIRDER CEIL HEIGHT FOR ALL LIGHTING FIXTURES EXCEPT FIXTURES INSIDE PIER DIAPHRAGMS, WHICH ARE TO BE MOUNTED ON CEILING. PROVIDE FIXTURE STEMS, SWIVEL BALL ALIGNERS FOR MOUNTING. SEE AS-BUILT STRUCTURAL PLANS FOR BOX GIRDER CEIL HEIGHTS.
 2. SPACING BETWEEN FIXTURES APPROXIMATELY 23 FT & VARIES FROM EACH SEGMENT.

B TYPE I & II PIER DIAPHRAGM ELECTRICAL PLAN
NOT TO SCALE

- NOTES:
1. FOR TYPE I PIER DIAPHRAGM DETAILS, SEE SHEET EW16.
 2. FOR TYPE II PIER DIAPHRAGM DETAILS, SEE SHEET EW17.
 3. FOR GROUNDING AT DISTRIBUTION EQUIPMENT FOR IB-01 TO IB-07 & OB-01 TO OB-07, SEE DETAIL A/EW19; OTHERWISE SEE DETAIL B/EW19.

SURVEY PLOTTED BY	DATE
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTEBOOK	
No.	



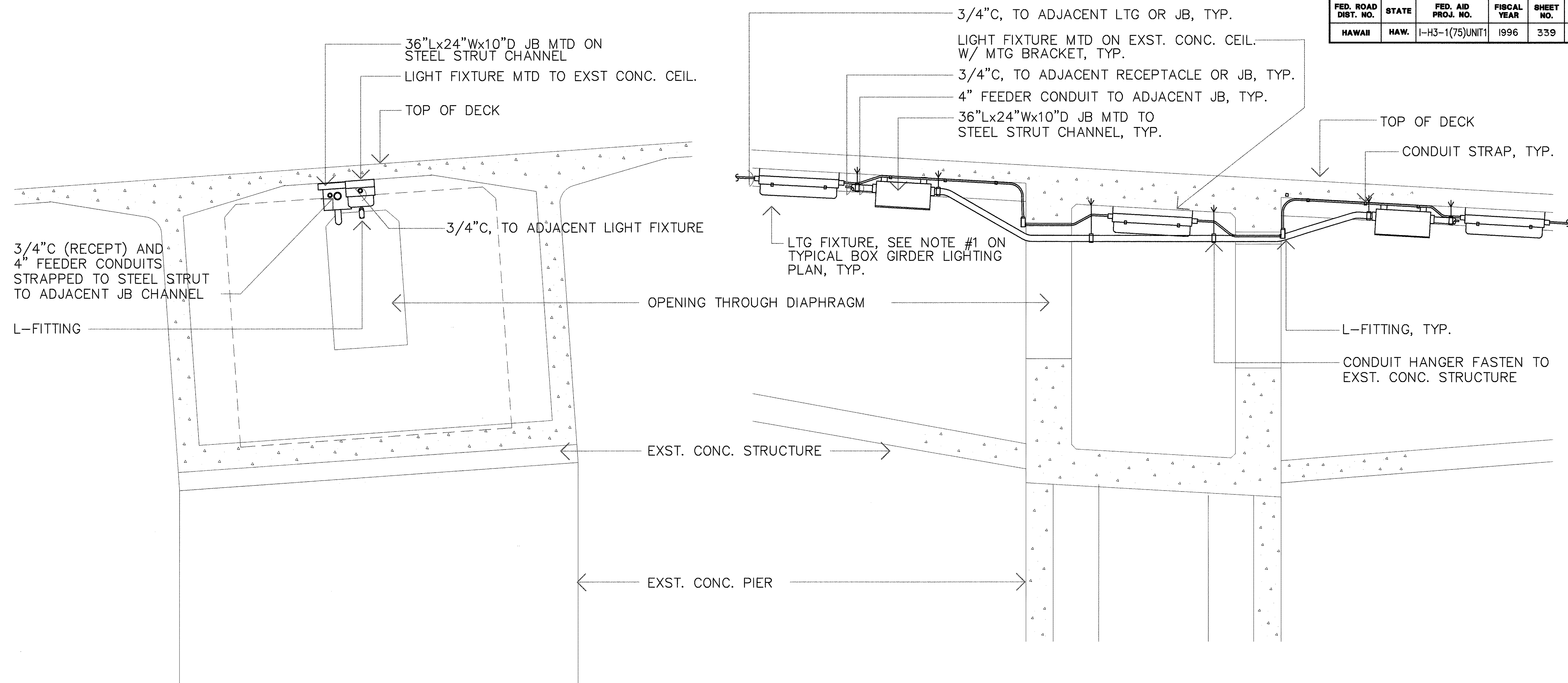
THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

Glenn D. Oyama

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
WINDWARD VIADUCT ELEC. PLANS AND DETAILS	
INTERSTATE ROUTE H-3 F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1	
SCALE: AS NOTED	DATE: JAN 1996
SHEET No. EW5 OF 19 SHEETS	

DATE REVISION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT1	1996	339	405



A CROSS SECTION

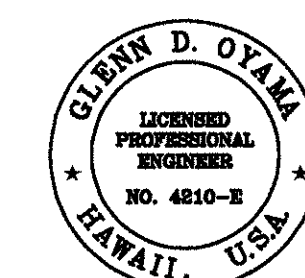
B LONGITUDINAL SECTION

TYPE I PIER DIAPHRAGM ELECTRICAL DETAIL

NOT TO SCALE

NOTES;

- SEE SHEET EW15 FOR LOCATIONS OF LIGHT FIXTURES AND JB'S.



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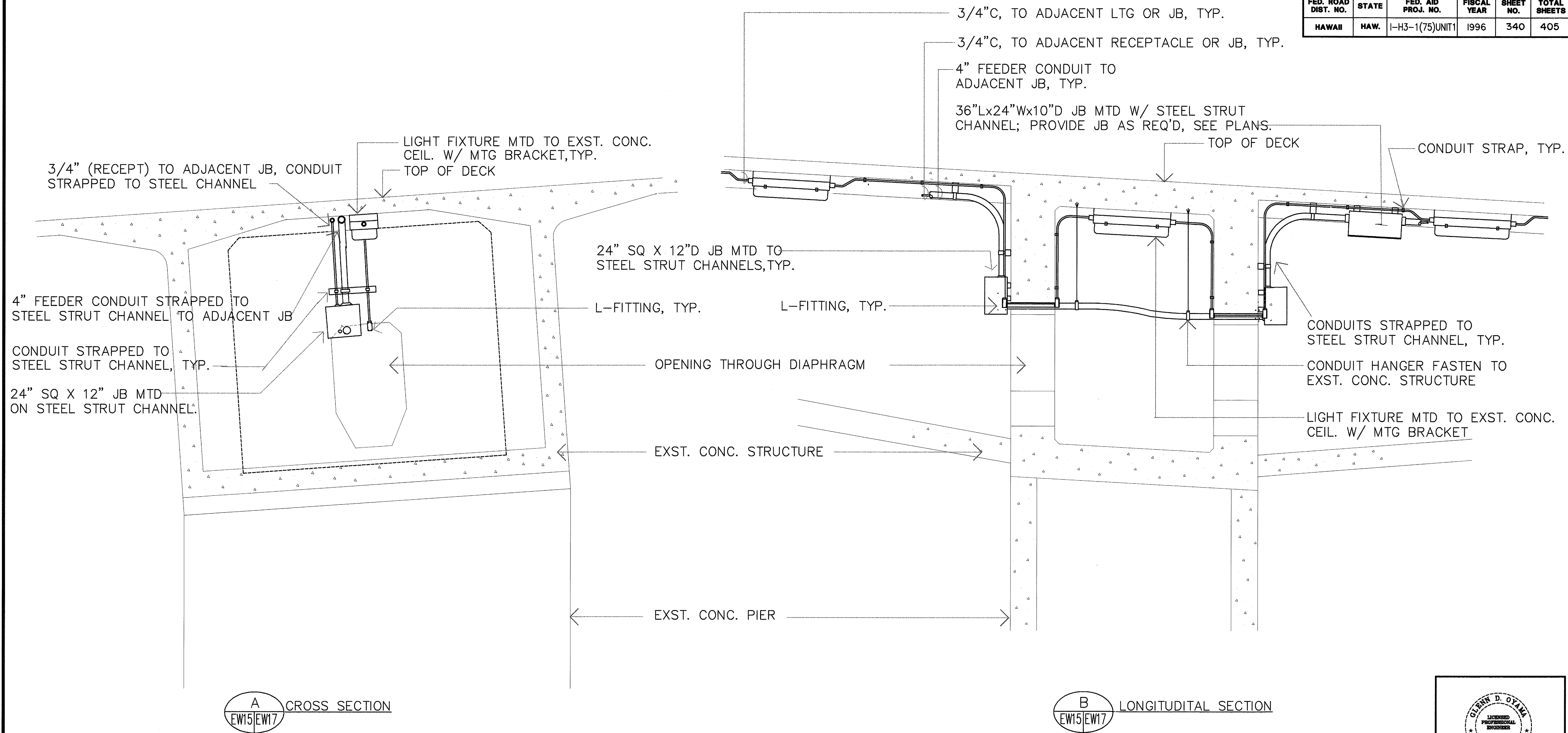
Glenn D. Oyama

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
WINDWARD VIADUCT TYPE I PIER DIAPHRAGM ELEC DETAILS
INTERSTATE ROUTE H-3 F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1
SCALE: AS NOTED DATE: JAN 1996
SHEET No. EW16 OF 19 SHEETS

DATE REVISION

SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT1	1996	340	405



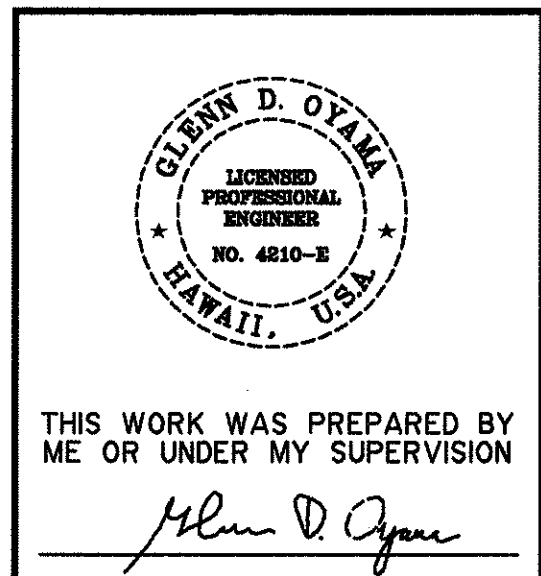
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTEBOOK	
No.	

TYPE II PIER DIAPHRAGM ELECTRICAL DETAIL NOT TO SCALE

NOTES:

- SEE SHEET EW15 FOR LOCATIONS OF LIGHT FIXTURES AND JB'S.

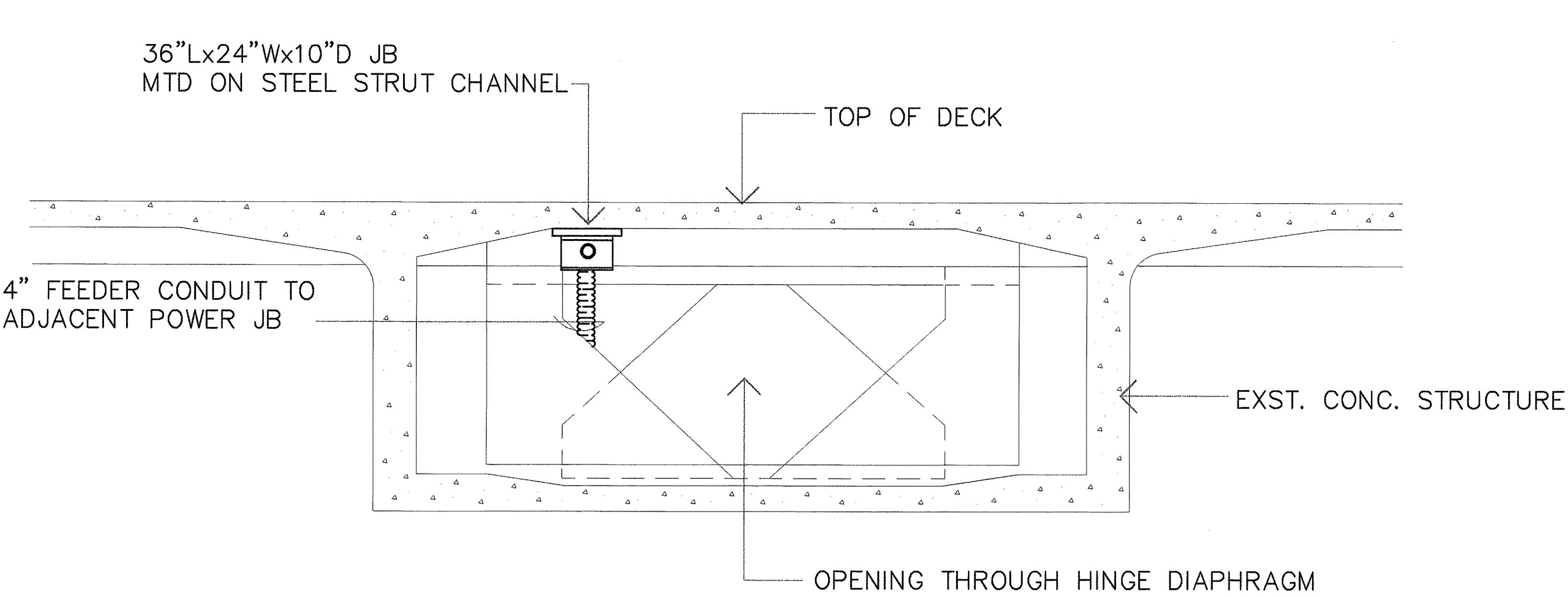
B LONGITUDINAL SECTION



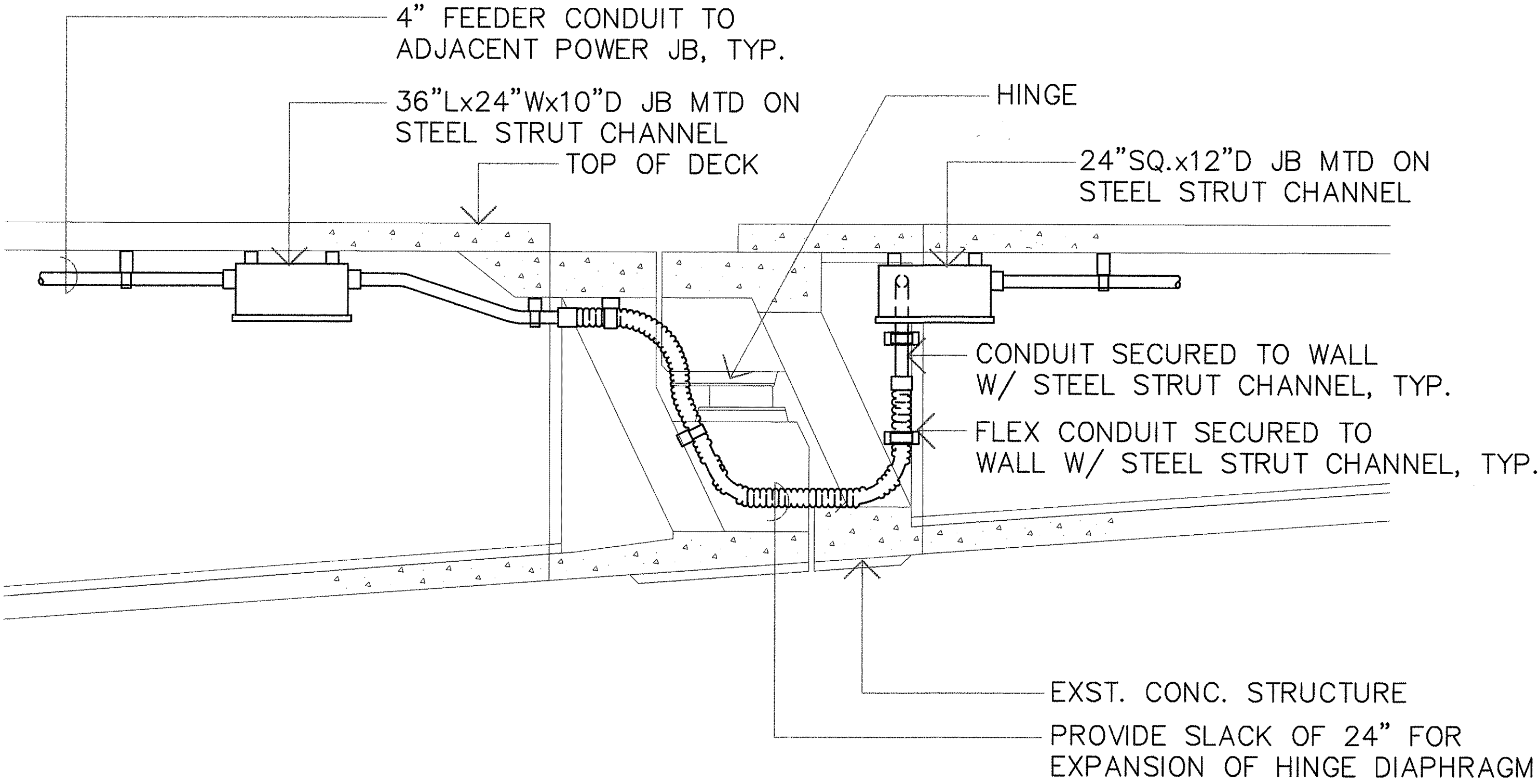
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
WINDWARD VIADUCT	
TYPE II PIER DIAPHRAGM ELEC DETAILS	
INTERSTATE ROUTE H-3 F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1	
SCALE: AS NOTED	DATE: JAN 1996
SHEET No. EW17 OF 19 SHEETS	

DATE	REVISION
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT1	1996	341	405



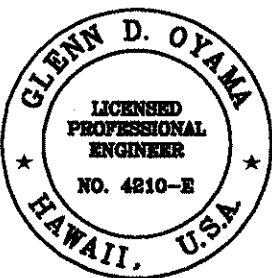
CROSS SECTION



LONGITUDINAL SECTION

EW2,EW11,EW10,EW9,EW8,EW6,EW5,EW4,EW3 HINGE DIAPHRAGM ELECTRICAL DETAILS
NOT TO SCALE

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTED BY	DRAWN BY	
NOTED BY	DESIGNED BY	
NOTED BY	QUANTITIES BY	
NOTED BY	CHECKED BY	
No.		



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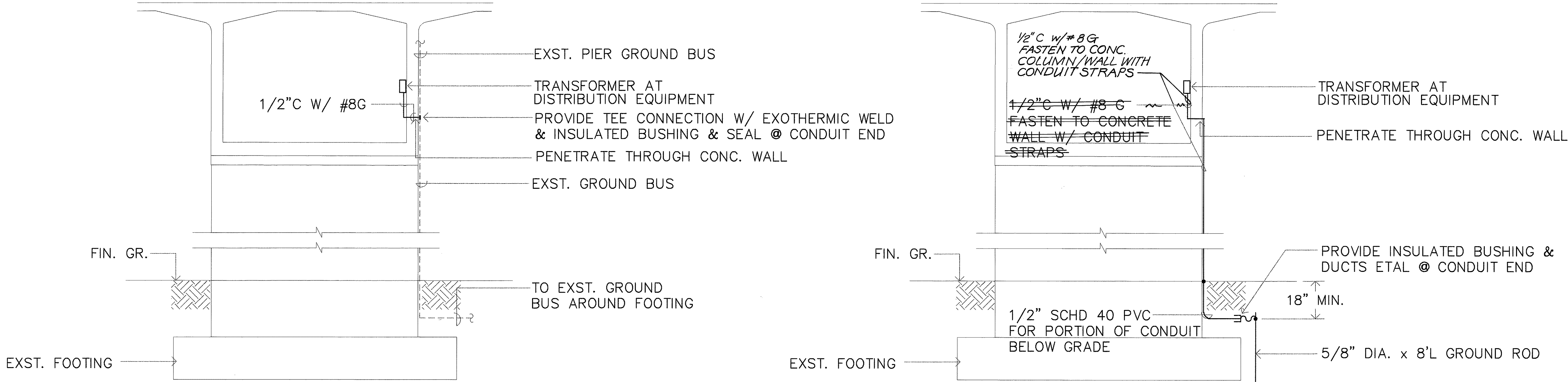
Glenn D. Oyam

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION WINDWARD VIADUCT HINGE DIAPHRAGM ELEC DETAILS INTERSTATE ROUTE H-3 F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1 SCALE: AS NOTED DATE: JAN 1996 SHEET No. EW8 OF 19 SHEETS
--

DATE

REVISION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT1	1996	342	405



A SERVICE GROUND W/ EXISTING PIER GROUNDING

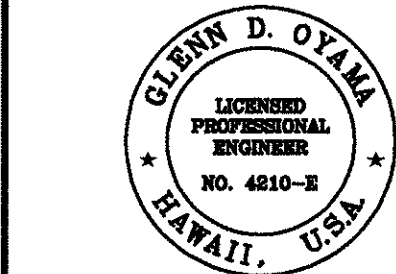
B SERVICE GROUND W/ NEW PIER GROUNDING

SERVICE GROUND DETAILS

NOT TO SCALE

NOTE
 PROVIDE FLEXIBLE CONDUIT CONNECTION WHERE SLIDING BEARINGS OCCUR. PROVIDE SLACK FOR MAX 8" MOVEMENT BY SLIDING BEARINGS AT 1B PIERS 5, 13, 17, 23 AND 0B PIERS 13, 17 AND 23.

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTEBOOK	
No.	



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STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

WINDWARD VIADUCT
 SERVICE GROUND DETAIL

INTERSTATE ROUTE H-3
 F.A.I. PROJECT NO. I-H3-1 (75) UNIT 1

SCALE: AS NOTED DATE: JAN 1996

SHEET No. 342 OF 19 SHEETS

DATE REVISION

"AS-BUILT"

342

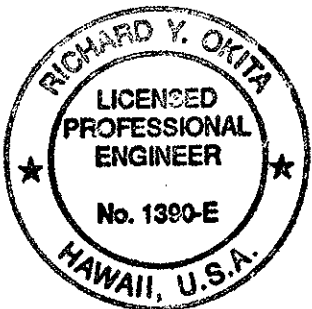
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-113-1(75) UNIT I	1990	343	405

ELECTRICAL SYMBOL LIST		
NEW	EXISTING	DESCRIPTION
		STREET LIGHT STANDARD
		LIGHT, FLUORESCENT, CEILING SURFACE MOUNTED (2-48" LAMPS)
		3'x5' ELECTRIC HANDHOLE
		2'x4' COMMUNICATION PULLBOX
		1'x28" STREET LIGHT PULLBOX
\$		SWITCH, FLUSH TUMBLER, WALL MOUNTED
\$3		SWITCH, 3-WAY, FLUSH TUMBLER, WALL MOUNTED
"a"		INDICATES FIXTURE OR DEVICE CONTROLLED BY "a". OTHER LETTERS SAME.
		RECEPTACLE, DUPLEX, WEATHERPROOF, WALL MOUNTED
ⓐ		JUNCTION BOX, 4" SQ X 2" D, PVC, WP, GUA. MTG.
ⓑ		JUNCTION BOX, 12" SQ X 6" D, PVC, WP, GUA. MTG.
		ELECTRIC PANEL
-#-		RACEWAY, EXPOSED NUMBER OF WIRES WITHIN
→		ARROW, HOMERUN TO PANEL OR CABINET NO. HASHMARKS
H		TRANSFORMER, DRY-TYPE, WALL MOUNTED
②		DETAIL INDICATOR UPPER HALF: DETAIL NUMBER LOWER HALF: SHEET NO. (DETAIL LOCATION)
Ⓐ		FIXTURE INDICATOR UPPER HALF: FIXTURE TYPE LOWER HALF: NO. OF LAMPS & LENGTH
⑦		NOTE INDICATOR
H-3		JUNCTION BOX, WP, MTD. ON CONC. BARRIER. "B" = ELECTRIC; "C" = COMMUNICATION; "SL" = STREET LIGHT.

GENERAL NOTES:

- DASHED LINES (---) INDICATE EXISTING CONDITION UNLESS OTHERWISE NOTED.
- SOLID LINES (—) INDICATE NEW WORK UNLESS OTHERWISE NOTED.

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



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P. Okita

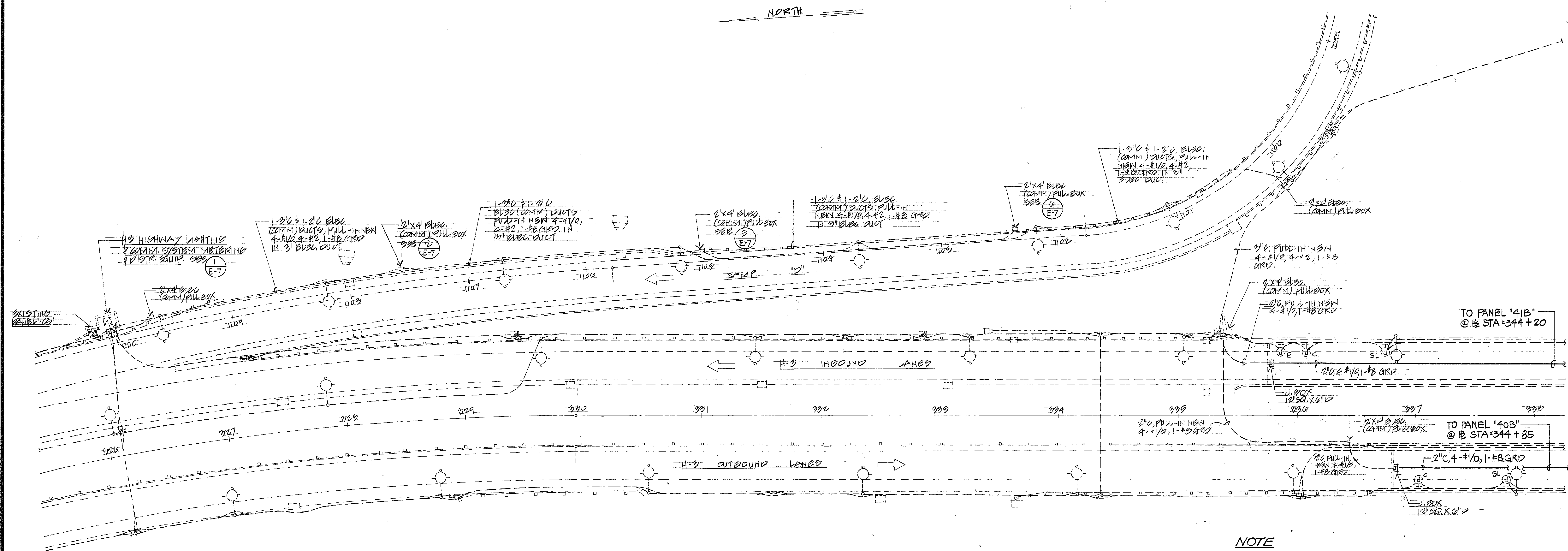
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL SITE AND SHEET LAYOUT PLAN,
ELECTRICAL SYMBOL LIST.
KANEOHE INTERCHANGING
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. 1-113-1(75) UNIT I

SCALE: AS NOTED
DATE: JAN. 1990

SHEET No. E1 OF 7 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-40-1(79) UNIT I	1990	344	405



SECTION I ~ EXISTING SITE ELECTRICAL PLAN
SCALE: 1"=20'

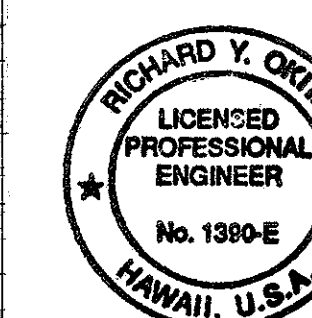
NOTE

REPLACE EXISTING DAMAGED COMMUNICATION DUCTS
AT WINDWARD HIGHWAY STA. 335+45:RT TO STA. 336+15:RT.

- REMOVE 100L.F. ± OF EXIST. GUARDRAIL.
- EXPOSE 100L.F. ± OF DAMAGED DUCTS.
- REPLACE 100L.F. ± OF DAMAGED DUCTS.
- PLACE BASE COURSE FOR PIPE CUSHION AND BACKFILL W/3/4 C AND COMPACT.
- REDRIVE GUARDRAIL POSTS AND REINSTALL GUARDRAIL.

[illegible]

PANEL "21BA" SCHED		120/240 VOLTS, 1 PHASES, 3 WLN					
(PANELS "21BB", "20BA" & "20BB" SIMILAR)		BREAKER MIN. A.I.C. 10,000					
		SURFACE MTG. 30A MAIN BKR					
CKT. NO.	USE	CIRCUIT BREAKER		CONNECTED LOAD (KVA)			WIR SIZE
		POLES	AMPS	A	B	C	
1	RECEP.	1	20	1.2			10
2				1.2			
3					1.2		
4					1.2		✓
5	SPARE			1.0			
6				1.0			
7					1.0		
8					1.0		✓
TOTAL LOAD / PHASE				4.8	4.8		
TOTAL				9.6	KVA		
DEMAND FACTOR				0.25			
DEMAND LOAD				2.4	KVA		

[illegible][illegible]

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

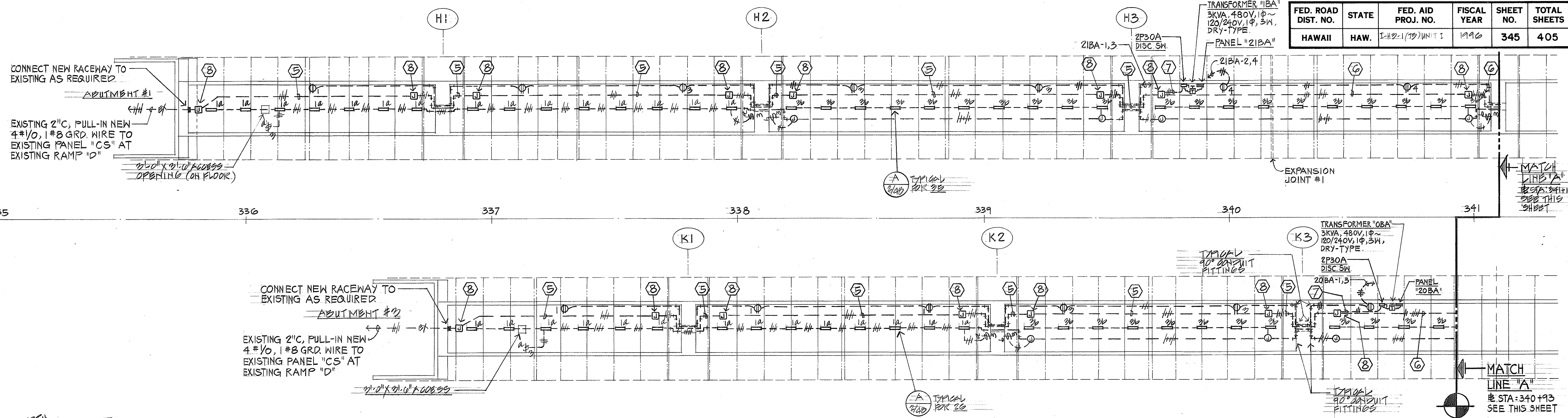
SECTION I ~ EXISTING SITE ELECTRICAL PLAN

KANAB/DHE INTERCHANGE
INTERSTATE ROUTE H-3
E.A. 1. PROJECT NO. 1-H3-1(75) UNIT 1

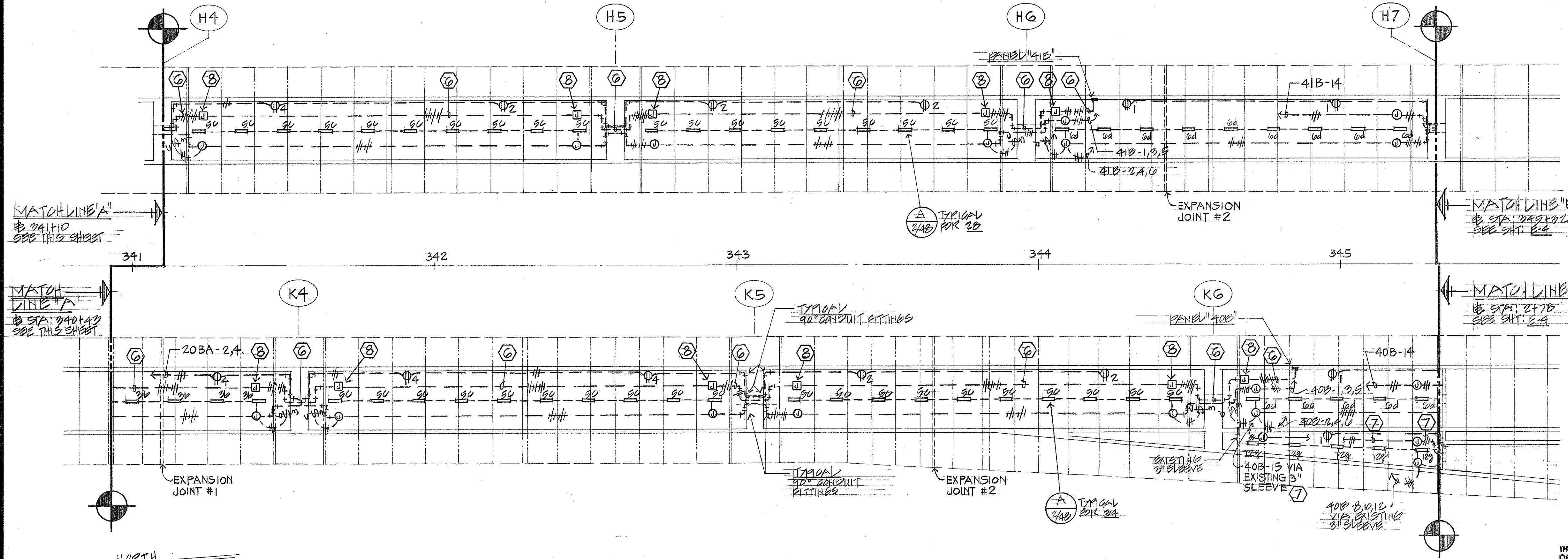
SCALE = AS NOTED DATE = JAN. 1996

"AS-BUILT"	344 ^{245.033}
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-12-1(79) UNIT 1	1996	345	405

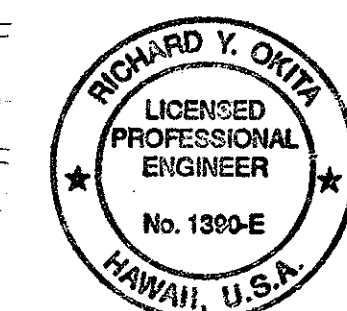


SECTION I - VIADUCT BOX GIRDER LIGHTING and ELECTRICAL PLAN



SECTION II - VIADUCT BOX GIRDER LIGHTING and ELECTRICAL PLAN

- GENERAL NOTES:
- ALL RACEWAYS SHALL BE POLYVINYL CHLORIDE (PVC) SCHEDULE 40.
 - ALL OUTLET BOXES SHALL BE MOUNTED PVC BUILT OR BUILT WITH MATCHING WEATHERPROOF BOXES.
 - ALL JUNCTION BOXES AND PANELS SHALL BE PVC OR FIBERGLASS AND RATED NEMA 4X.
 - PROVIDE #10 GROUND WIRE MIN. THROUGHOUT ENTIRE RACEWAY SYSTEM UNLESS OTHERWISE NOTED.
 - 2" C, 4 #10, 1 #8 GROUND STRAPPED TO CEILING AT 5'-0" ON CENTER MINIMUM.
 - 2" C, 4 #10, 1 #8 GROUND #34" C, 2 #6, 1 #10 GRD (CKT-13) STRAPPED TO CEILING AT 5'-0" O.C. MIN.
 - 34" C, 2 #6, 1 #10 GRD (CKT-13) STRAPPED TO CEILING AT 5'-0" ON CENTER MINIMUM.
 - 12" X 12" X 6" D JUNCTION BOX, CEILING MTD., BOTTOM ACCESS.



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SECTION I & II - VIADUCT BOX GIRDER LIGHTING and ELECTRICAL PLAN

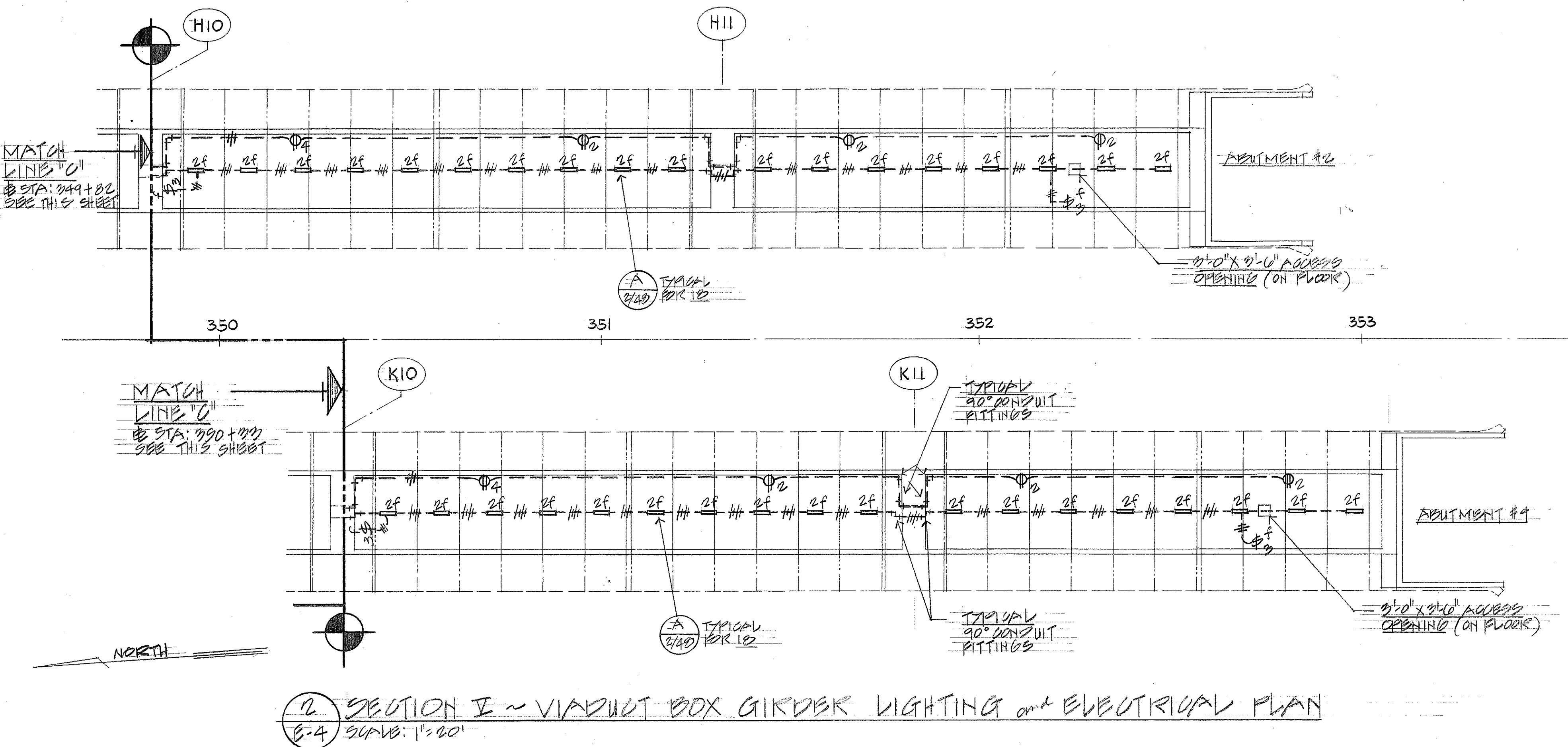
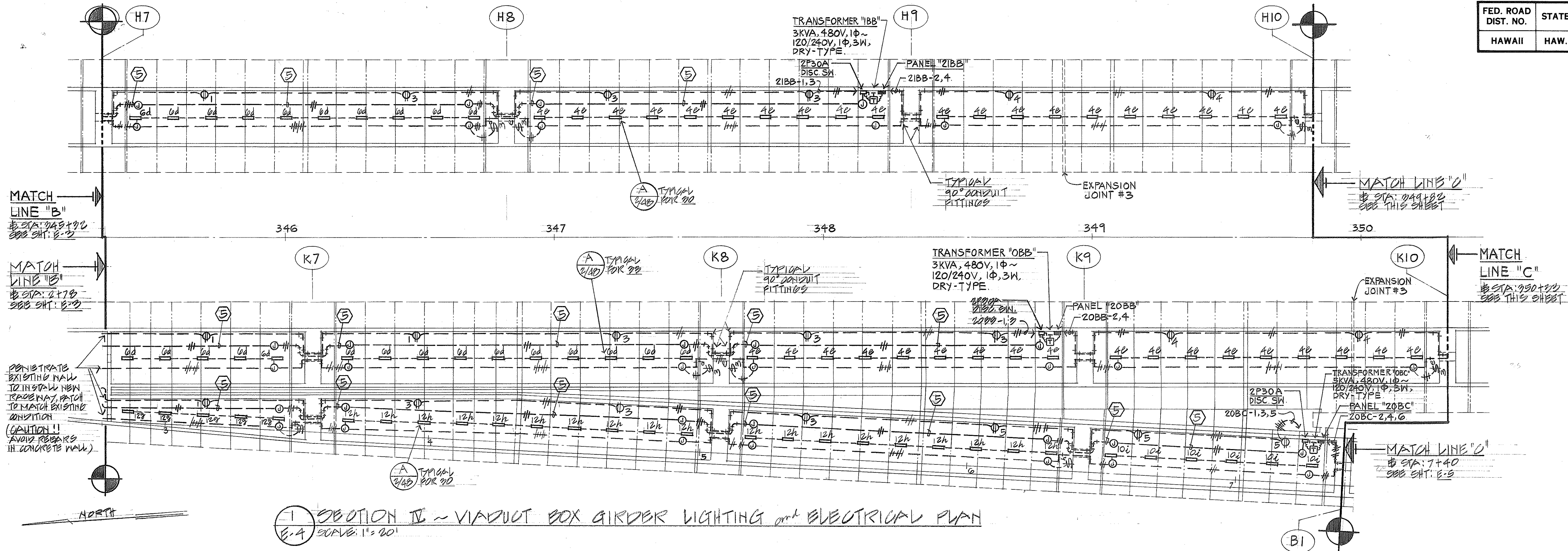
KANOEHI INTERCHANGE
INTERSTATE ROUTE H-1

E.A. PROJECT NO. I-12-1(79) UNIT 1

SCALE: AS NOTED DATE: JAN. 1996

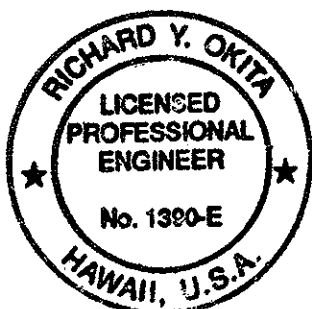
SHEET NO. E3 OF 7 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-19-1(79) UNIT I	1990	346	405



GENERAL NOTES:

- ALL RACEWAYS SHALL BE POLYVINYL CHLORIDE (PVC) 20H20UL96 40.
- ALL OUTLET BOXES SHALL BE MOLDED PVC FULLY GASKETED WITH MATCHING WEATHERPROOF COVERS.
- ALL JUNCTION BOXES AND PANELS SHALL BE PVC OR FIBERGLASS AND RATED NEMA 4X.
- PROVIDE #10 GROUND WIRE MIN. THROUGH OUT ENTIRE RACEWAY SYSTEM UNLESS OTHERWISE NOTED.
- 3/4" C, 2 #6, 1 #10 GROUND STRAPPED TO CEILING AT 5'-0" ON CENTER MINIMUM.



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R. Ohta

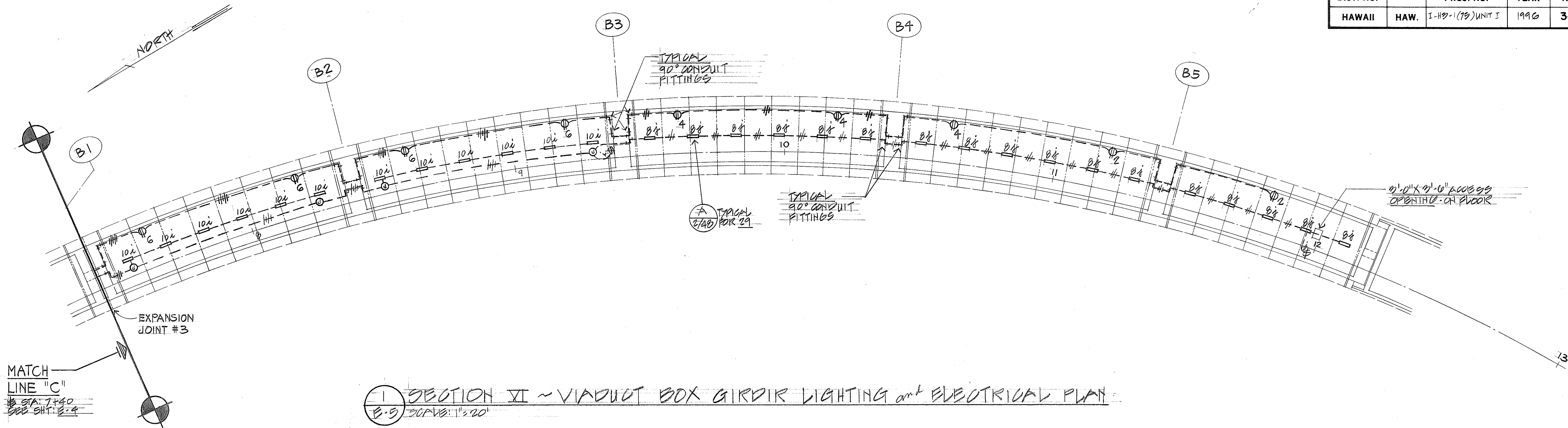
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SECTION II - VIADUCT BOX GIRDER LIGHTING and ELECTRICAL PLAN
KANEOHE INTERCHANGE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-19-1(79) UNIT I

SCALE: AS NOTED DATE: JAN. 1990

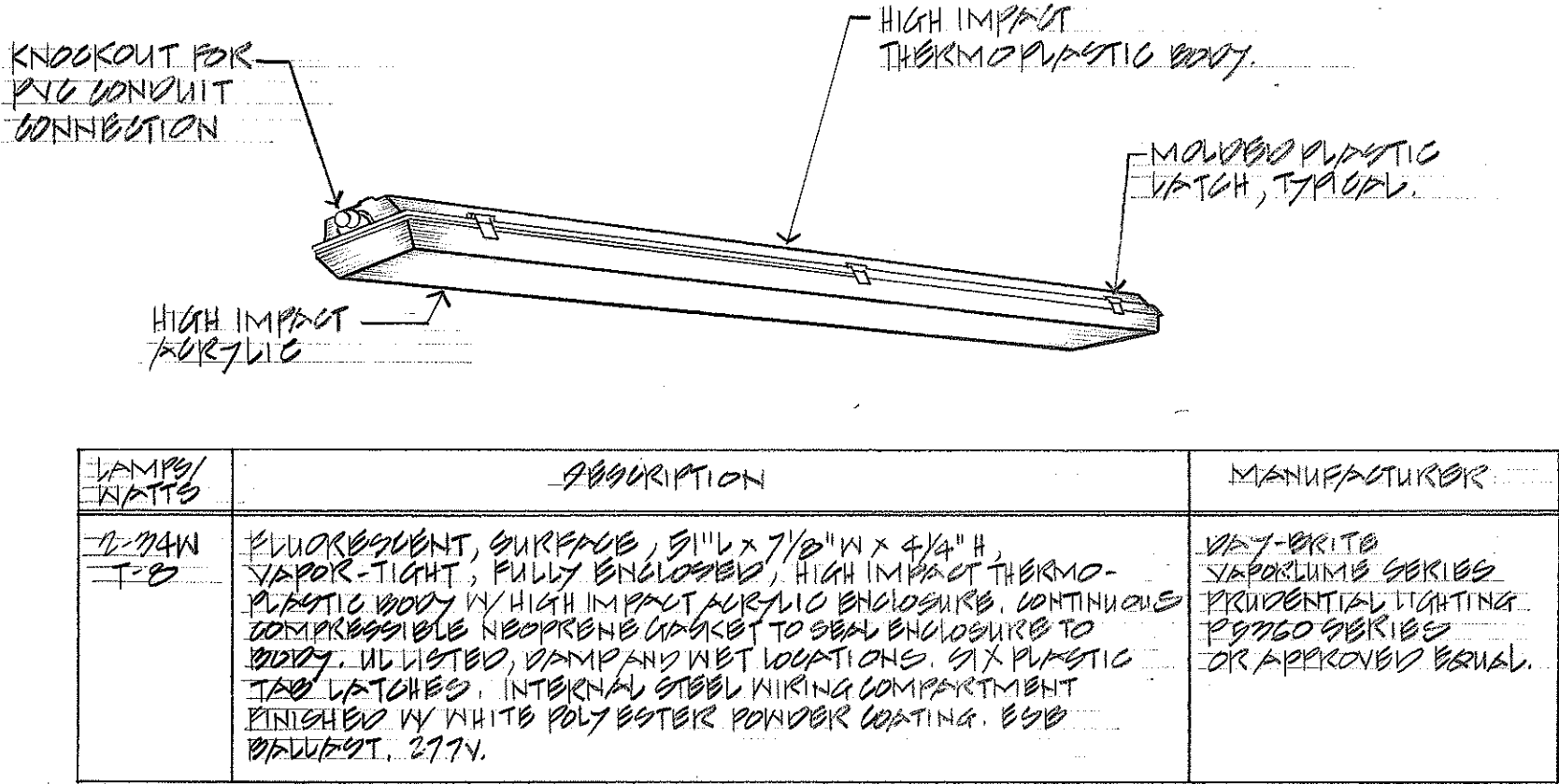
SHEET NO. E-4 OF 7 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-15-1(79) UNIT I	1990	347	405

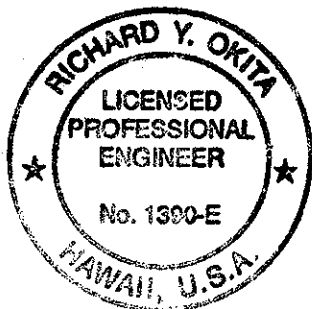


SECTION VI - VIADUCT BOX GIRDER LIGHTING and ELECTRICAL PLAN

- GENERAL NOTES:
1. ALL RACEWAYS SHALL BE POLYVINYL CHLORIDE (PVC) SCHEDULE 40.
 2. ALL OUTLET BOXES SHALL BE MOLDED PVC FULLY DEFLECTED WITH MATCHING WEATHERPROOF COVERS.
 3. ALL JUNCTION BOXES AND PANELS SHALL BE PVC OR FIBERGLASS AND RATED NEMA 4X.
 4. PROVIDE #10 GROUND WIRE MIN. THROUGH OUT ENTIRE RACEWAY SYSTEM UNLESS OTHERWISE NOTED.



LIGHT FIXTURE TYPE "A"



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R. Ohta

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SECTION VI - VIADUCT BOX
GIRDER LIGHTING and ELECTRICAL PLAN
KANEHOE INTERCHANGE
INTERSTATE ROUTE H-2
P.A.I. PROJECT NO. I-15-1(79) UNIT I

DATE: JAN. 1990
SHEET NO. 68 OF 7 SHEETS

TRANSFORMER SCHEDULE

TRANSFORMER	KVA	PRIMARY VOLTAGE AND PHASE	PRIMARY FEEDER	SECONDARY VOLTAGE AND PHASE	SECONDARY FEEDER
T-1	3.0	480V, 1Φ	3/4" C, 2-#6, 1-#10 GRD.	120/240V, 1Φ	3/4" C, 3-#10 1-#10 GRD.
T-2	5.0	480V, 1Φ	3/4" C, 2-#6, 1-#10 GRD.	120/240V, 1Φ	3/4" C, 3-#10 1-#10

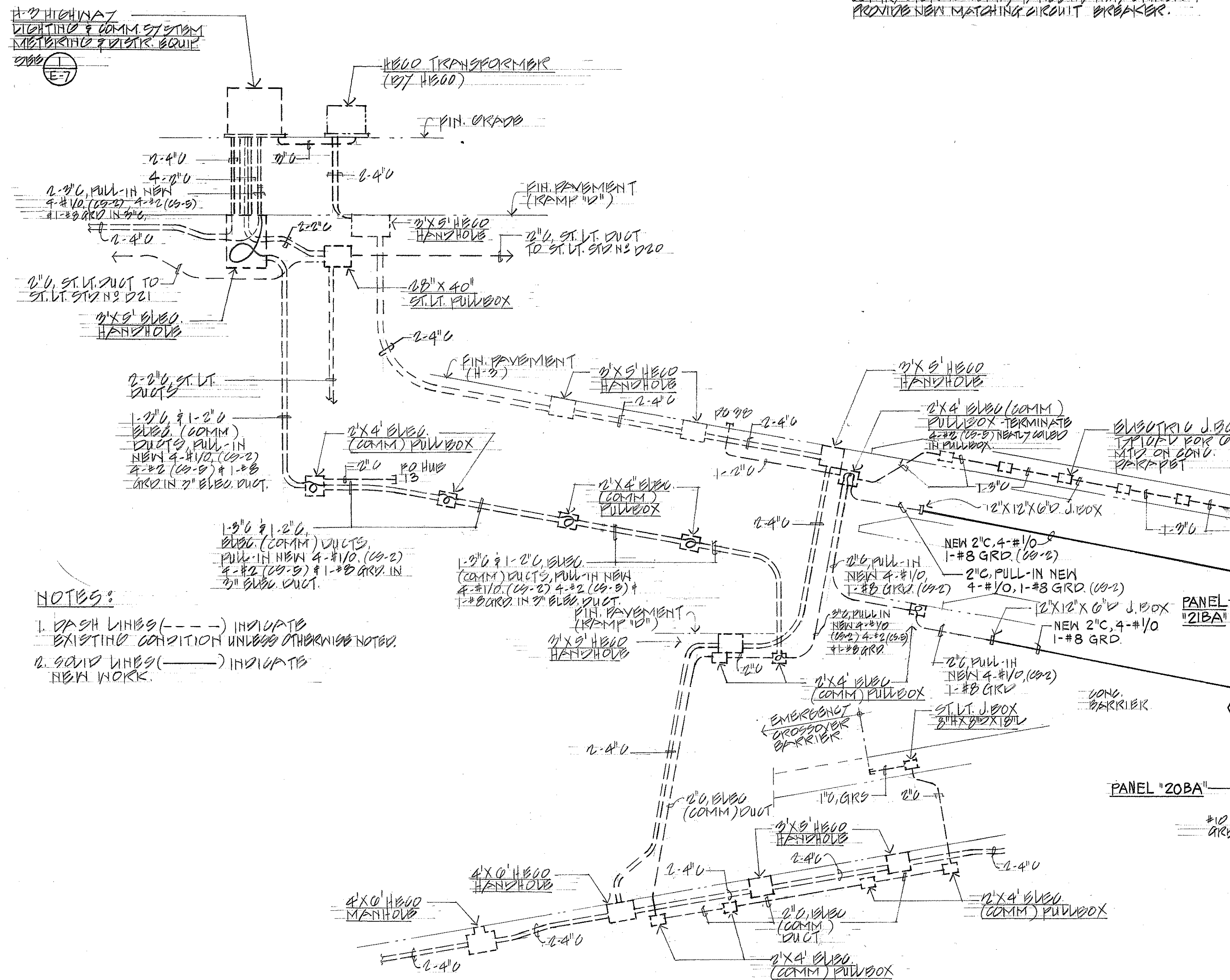
EXISTING		480Y/277 VOLTS, 3Φ, 4 WIRE				
PANEL "00"		BREAKER MIN. A.I.G. 14,000				
SCHEDULE		SUBPDRS MTR 100A MAIN WBS ONLY				
CKT. NO.	USG	CIRCUIT BREAKER	CONNECTION WBS (KVA)			WIRE SIZE
		POLES/AMPS	A	B	C	
1	PNL "00A" SUBPDR (TUNNEL)	2	30	4.2	4.2	2
2	VIA DUCT	3	50	13.9	13.9	1/0
3	PPB	1	50			2.0
4	VIA DUCT	—	50			13.9
5	TO 38, 39 & 40	3	20	2.0	2.0	2
6	FUTURE TO	3	20	2.0	2.0	2

NOTE:
CONTRACTOR TO VERIFY PANEL MANUFACTURER & PROVIDE NEW MATCHING CIRCUIT BREAKER.

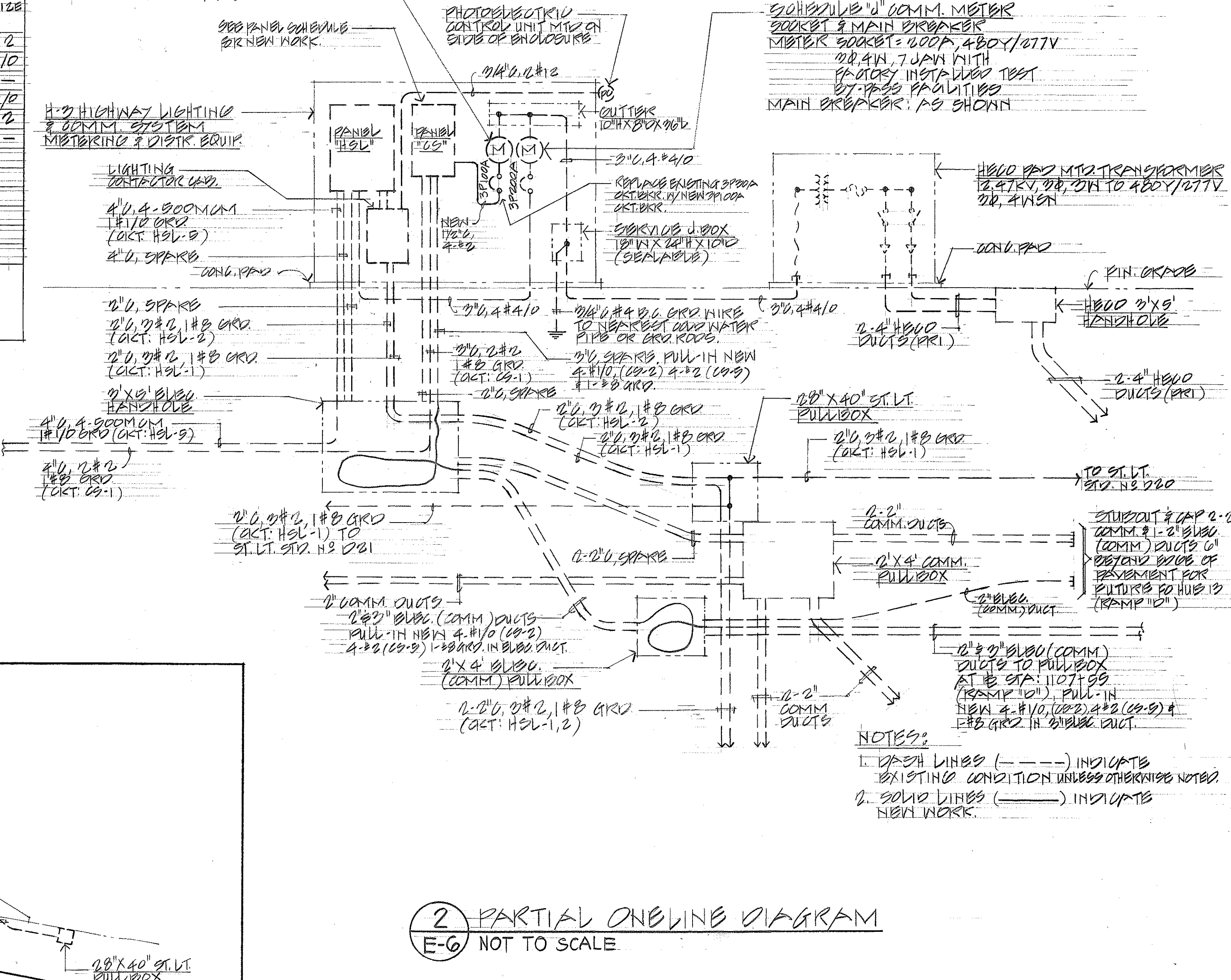
SCHEDULE "A" COMM. METER
SOCKET & MAIN BREAKER
METER SOCKET: 600P, 480Y/277V
2Φ, 4W, 7 JAM WITH
PHOTOS INSTALLED TEST
BY PASS FACILITIES
MAIN BREAKER: AS SHOWN

PHOTOELECTRIC
CONTROL UNIT MTR ON
SIDE OF ENCLOSURE

SCHEDULE "B" COMM. METER
SOCKET & MAIN BREAKER
METER SOCKET: 600P, 480Y/277V
2Φ, 4W, 7 JAM WITH
PHOTOS INSTALLED TEST
BY PASS FACILITIES
MAIN BREAKER: AS SHOWN

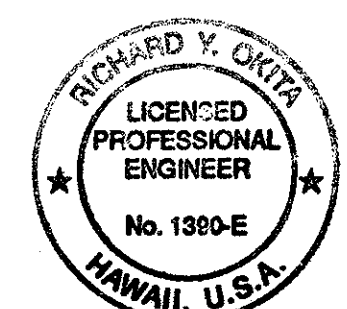


1 PARTIAL ELECTRICAL DISTRIBUTION ONE-LINE DIAGRAM
E-6 NOT TO SCALE



NOTES:
1. DASH LINES (---) INDICATE
EXISTING CONDITION UNLESS OTHERWISE NOTED.

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

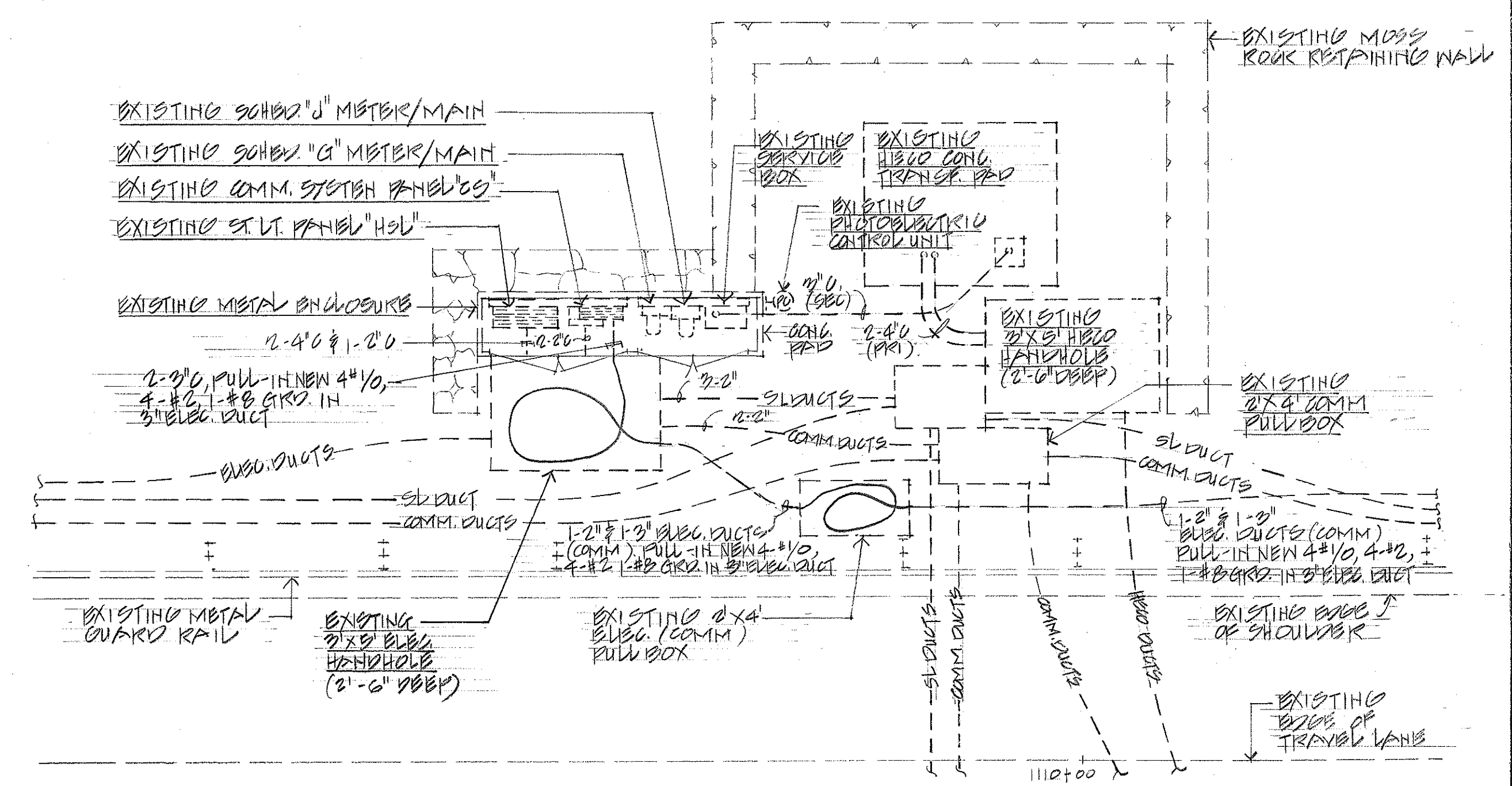


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WILL BE UNDER MY SUPERVISION

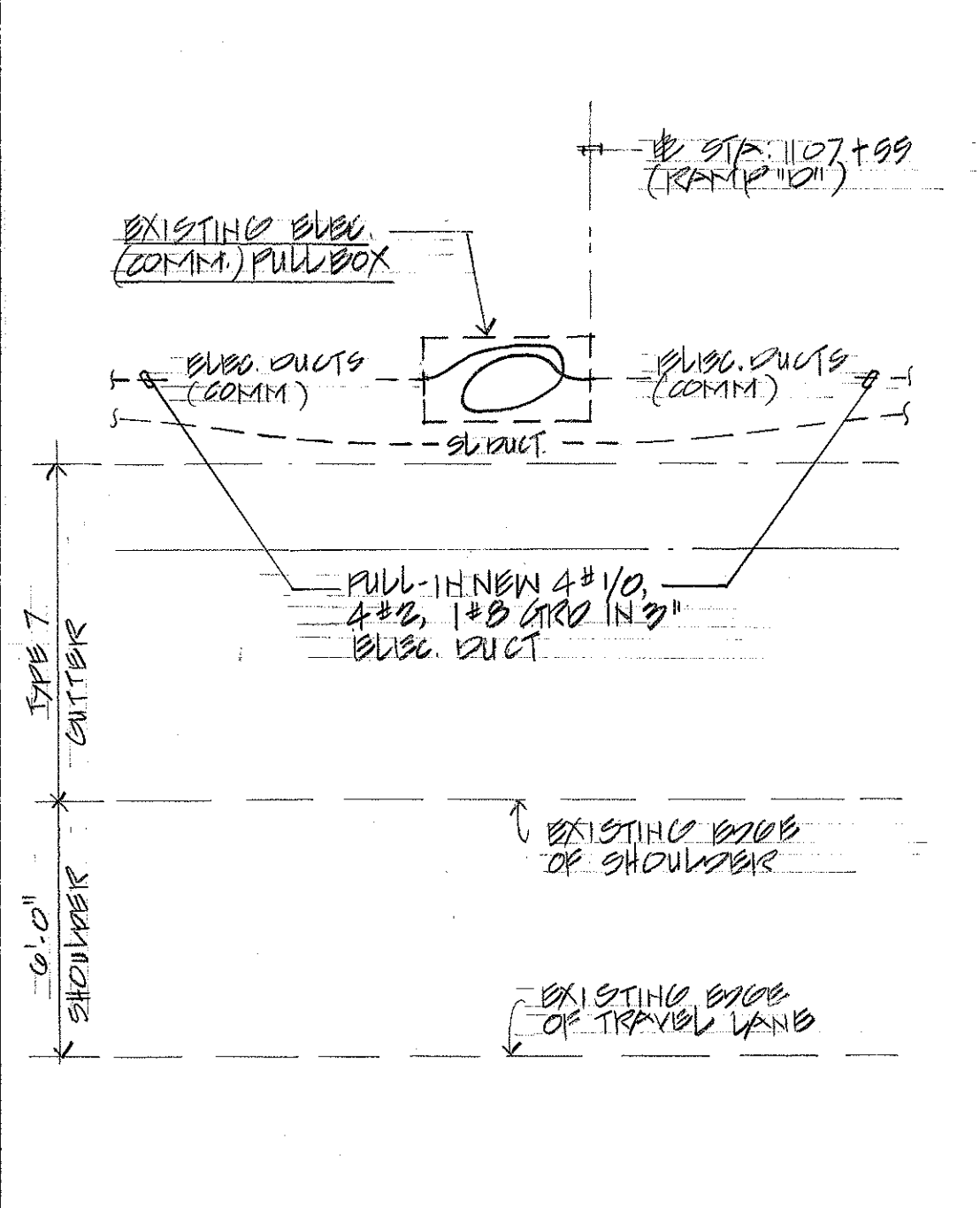
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ELECTRICAL DISTRIBUTION ONE-LINE
DIAGRAM AND ONE-LINE DIAGRAM
KANEHOE INTERCHANGE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. 1-H3-1(75) UNIT I

SCALE = AS NOTED DATE = JAN. 1996
SHEET No. EG OF 7 SHEETS

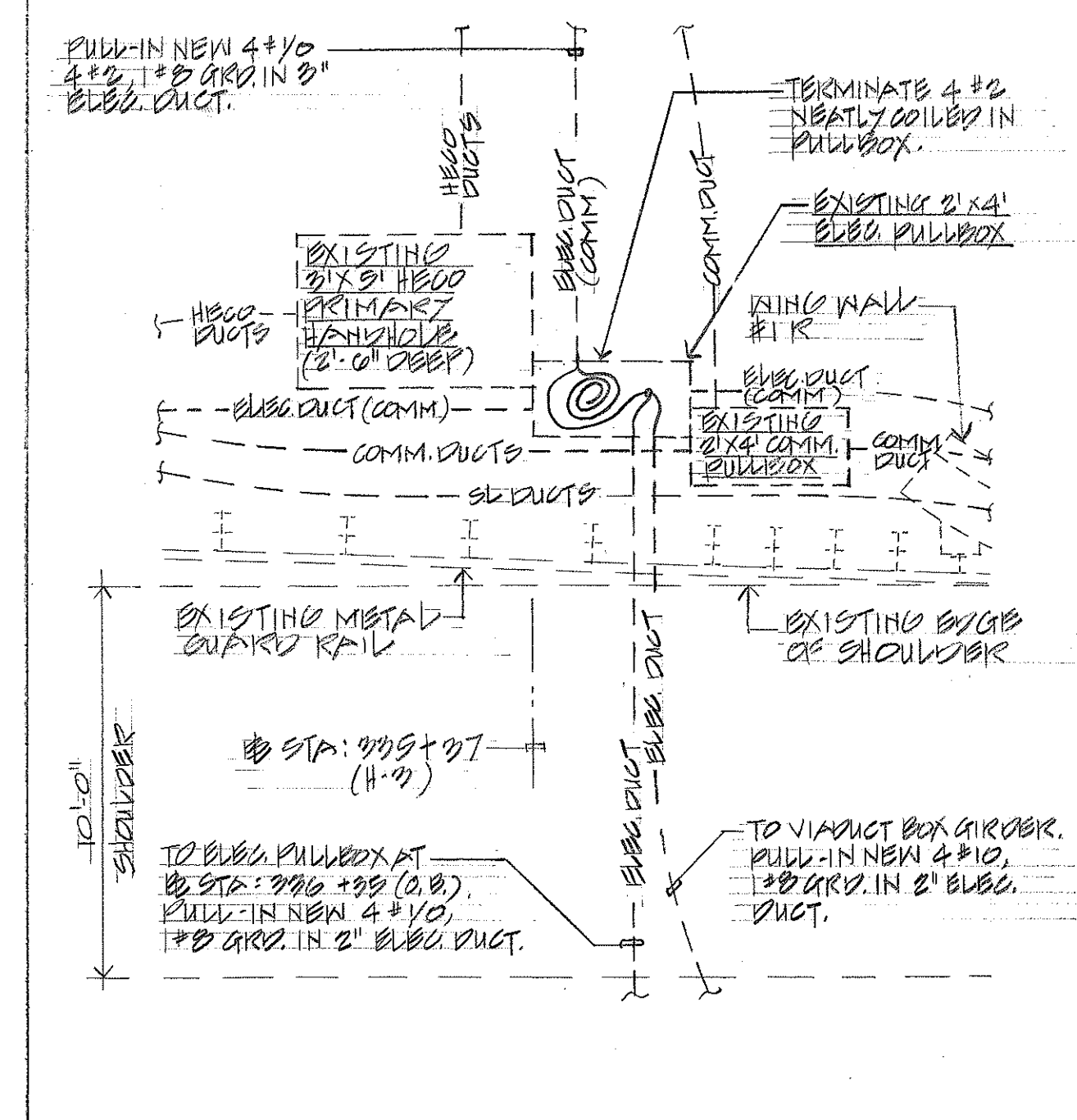
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H3-1(75) UNIT I	1990	349	405



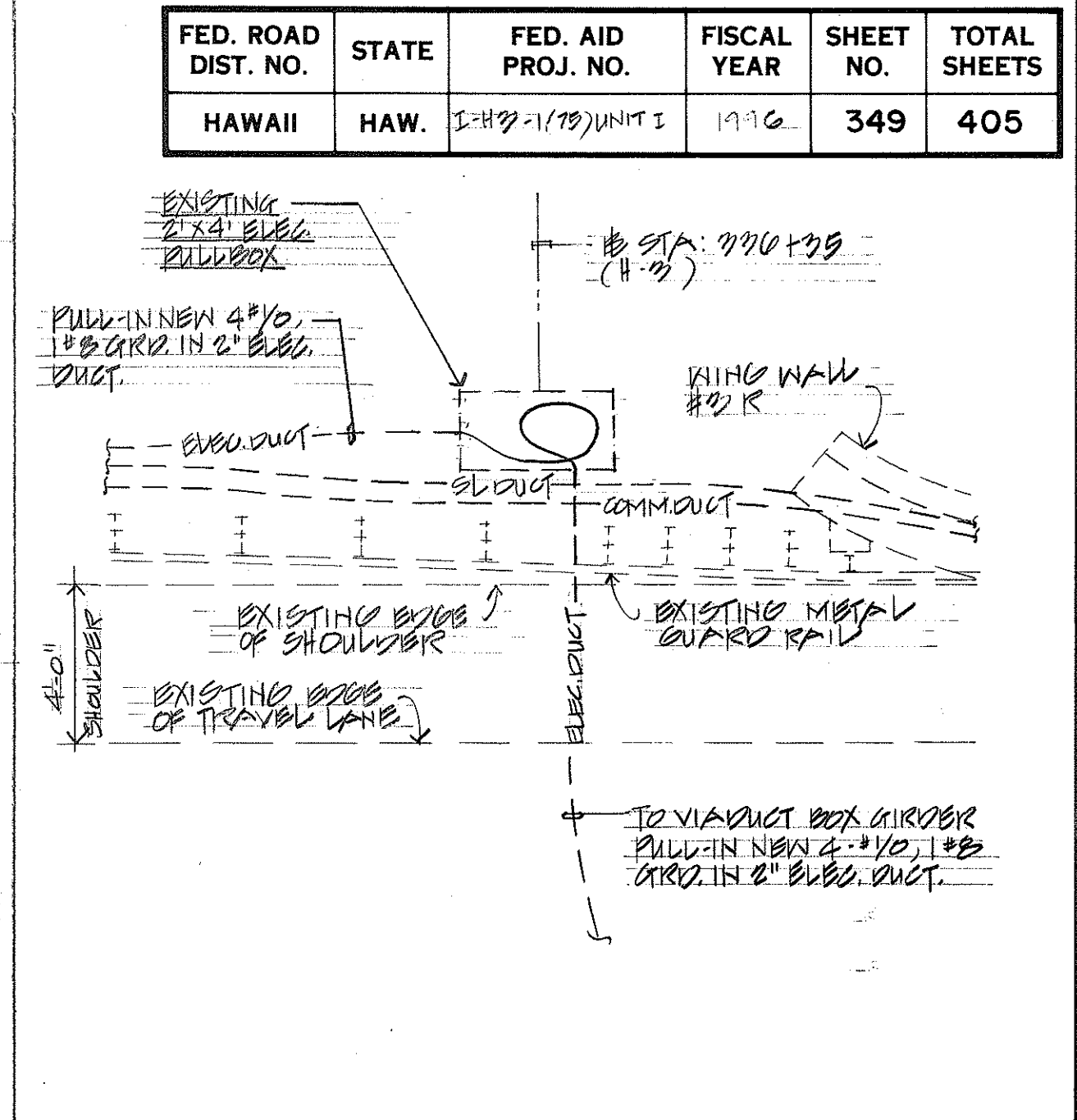
1 EXISTING HANDHOLE GROUP AT STA: 110+04
E-7 (RAMP "D" RT)
NOT TO SCALE



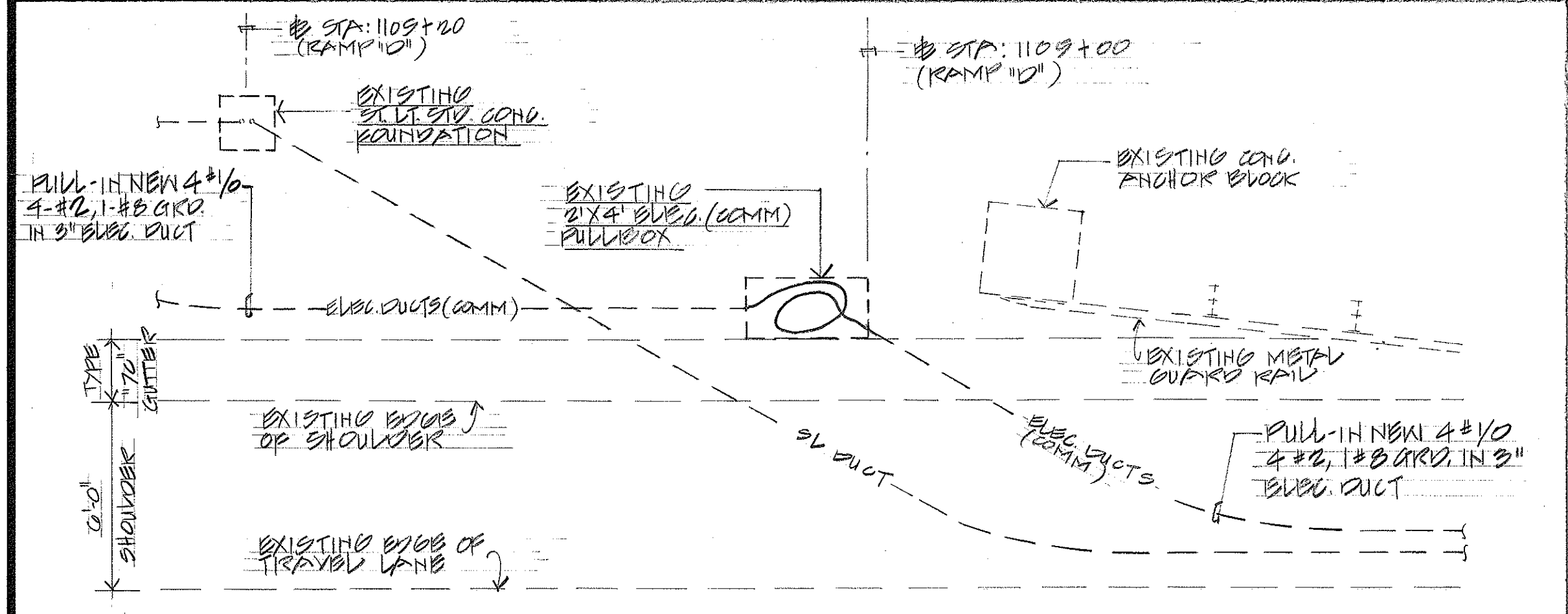
2 EXISTING HANDHOLE GROUP
E-7 AT STA: 1107+55 (RAMP "D")
NOT TO SCALE



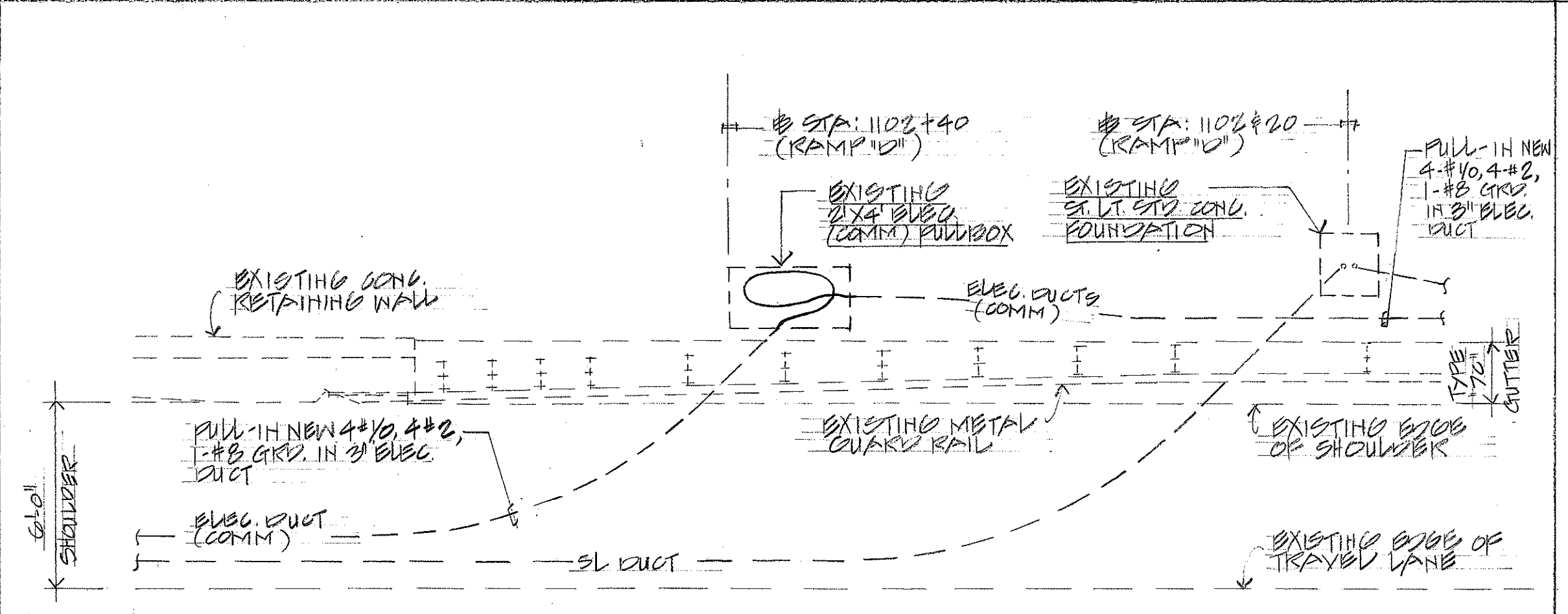
3 EXISTING HANDHOLE GROUP AT
E-7 STA: 335+37 (H-3 INBOUND)
NOT TO SCALE



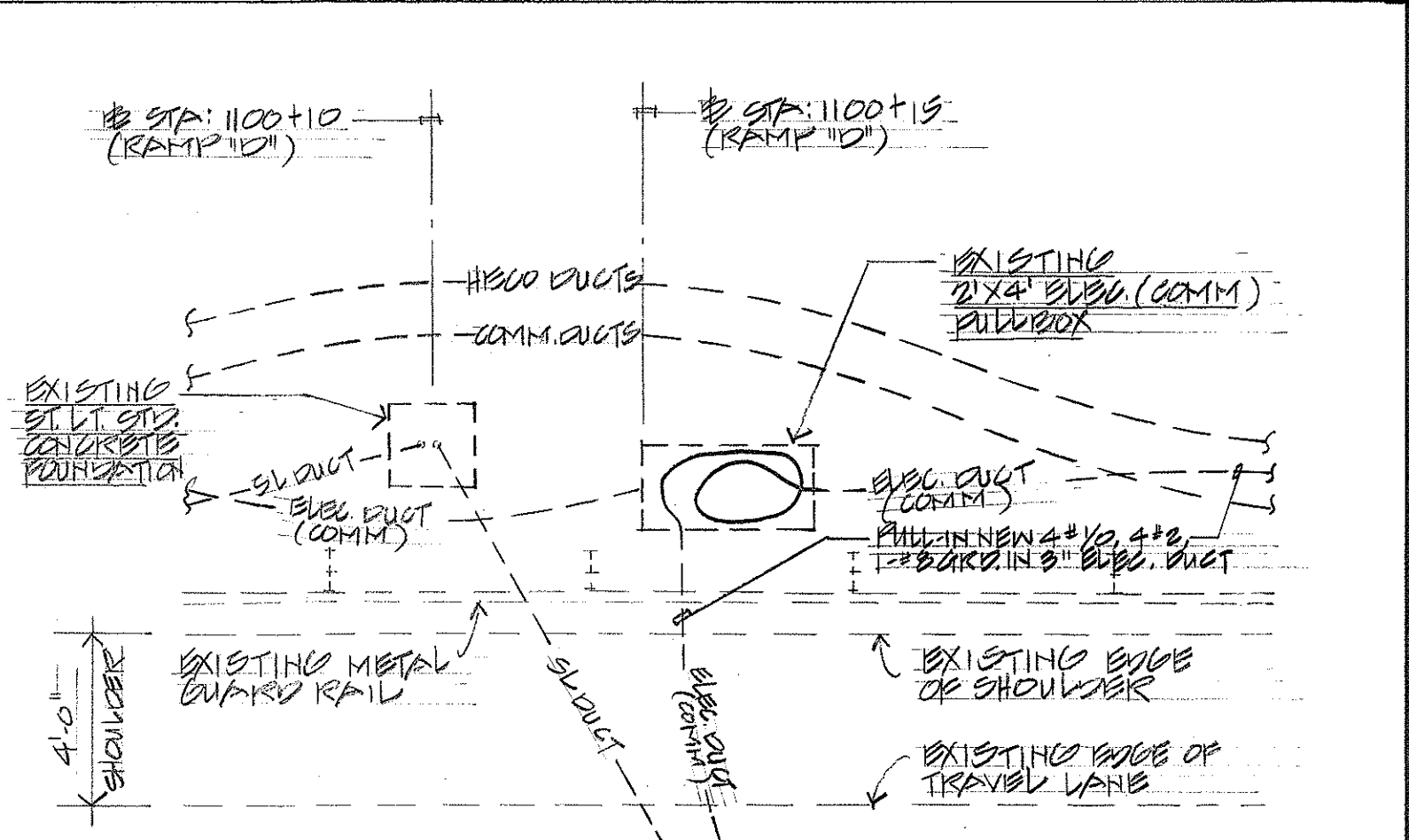
4 EXISTING HANDHOLE GROUP AT
E-7 STA: 336+35 (H-3 OUTBOUND)
NOT TO SCALE



5 EXISTING HANDHOLE GROUP AT STA: 1109+00
E-7 (RAMP "D")
NOT TO SCALE



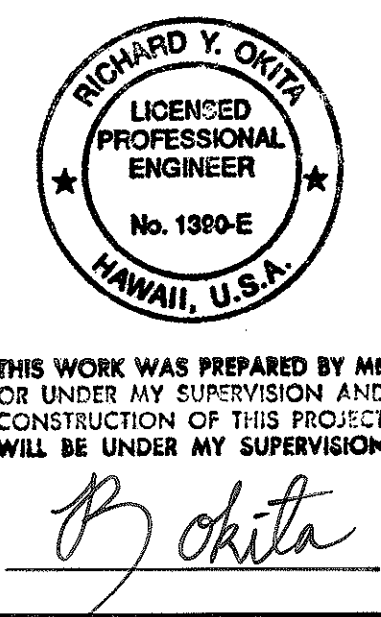
6 EXISTING HANDHOLE GROUP AT STA: 1102+40
E-7 (RAMP "D")
NOT TO SCALE



7 EXISTING HANDHOLE GROUP AT STA: 1100+15
E-7 (RAMP "D")
NOT TO SCALE

NOTE 3:
SLIGHT VARIATION MAY OCCUR WHEN
REFERENCE TO STATION ASSIGNMENT
IS MADE.
SEE SHEET 344 FOR ADDITIONAL NOTE.

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



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HANDHOLE GROUPS

KANBOHE INTERCHANGE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. 1-H3-1(75) UNIT I

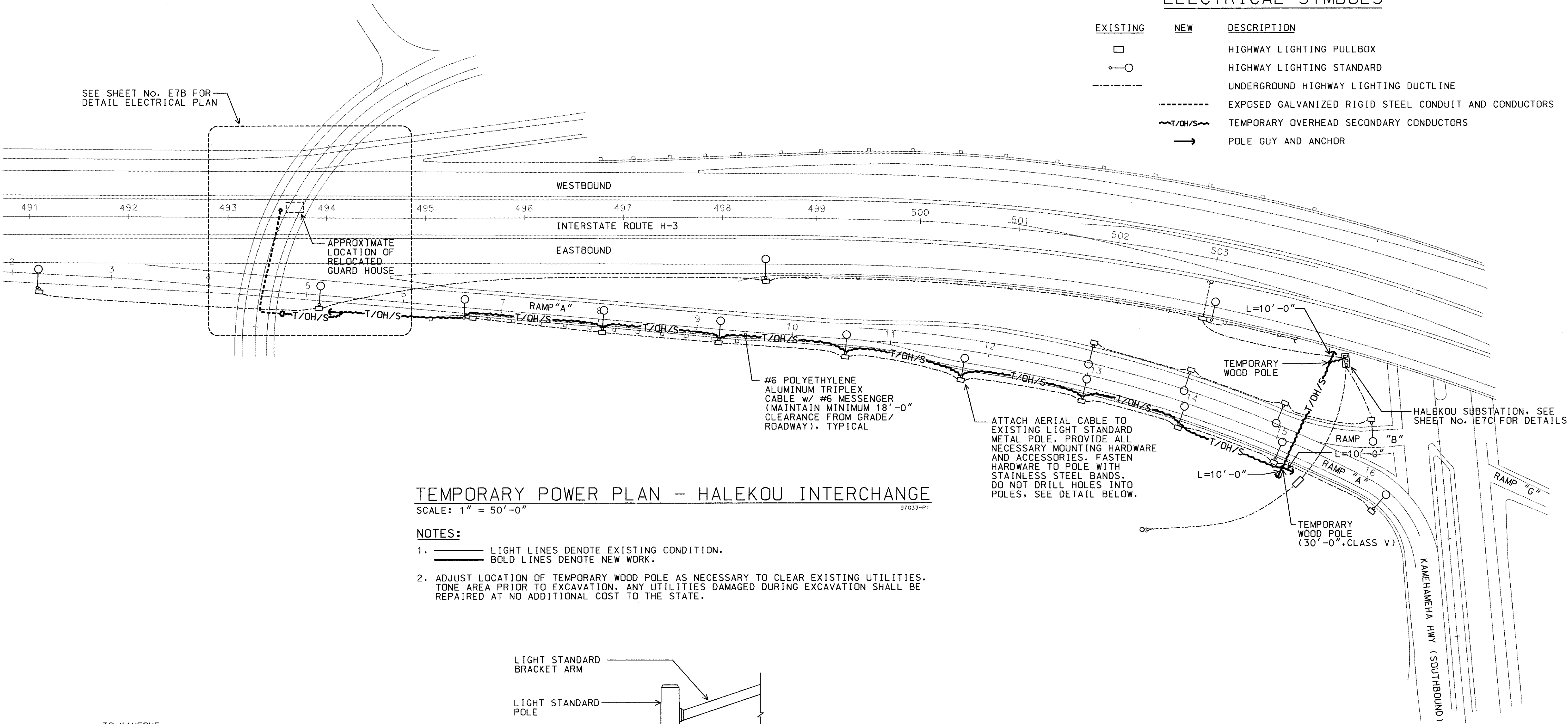
SCALE: AS NOTED. DATE: JAN. 1990

SHEET NO. E7 OF 7 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	C.O.349 S-1	405

ELECTRICAL SYMBOLS

EXISTING	NEW	DESCRIPTION
		HIGHWAY LIGHTING PULLBOX
		HIGHWAY LIGHTING STANDARD
		UNDERGROUND HIGHWAY LIGHTING DUCTLINE
		EXPOSED GALVANIZED RIGID STEEL CONDUIT AND CONDUCTORS
		TEMPORARY OVERHEAD SECONDARY CONDUCTORS
		POLE GUY AND ANCHOR

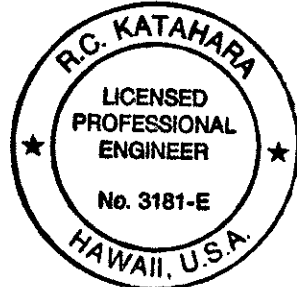
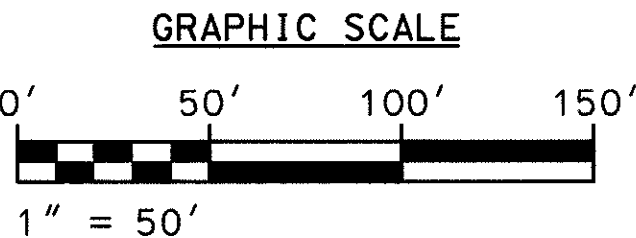
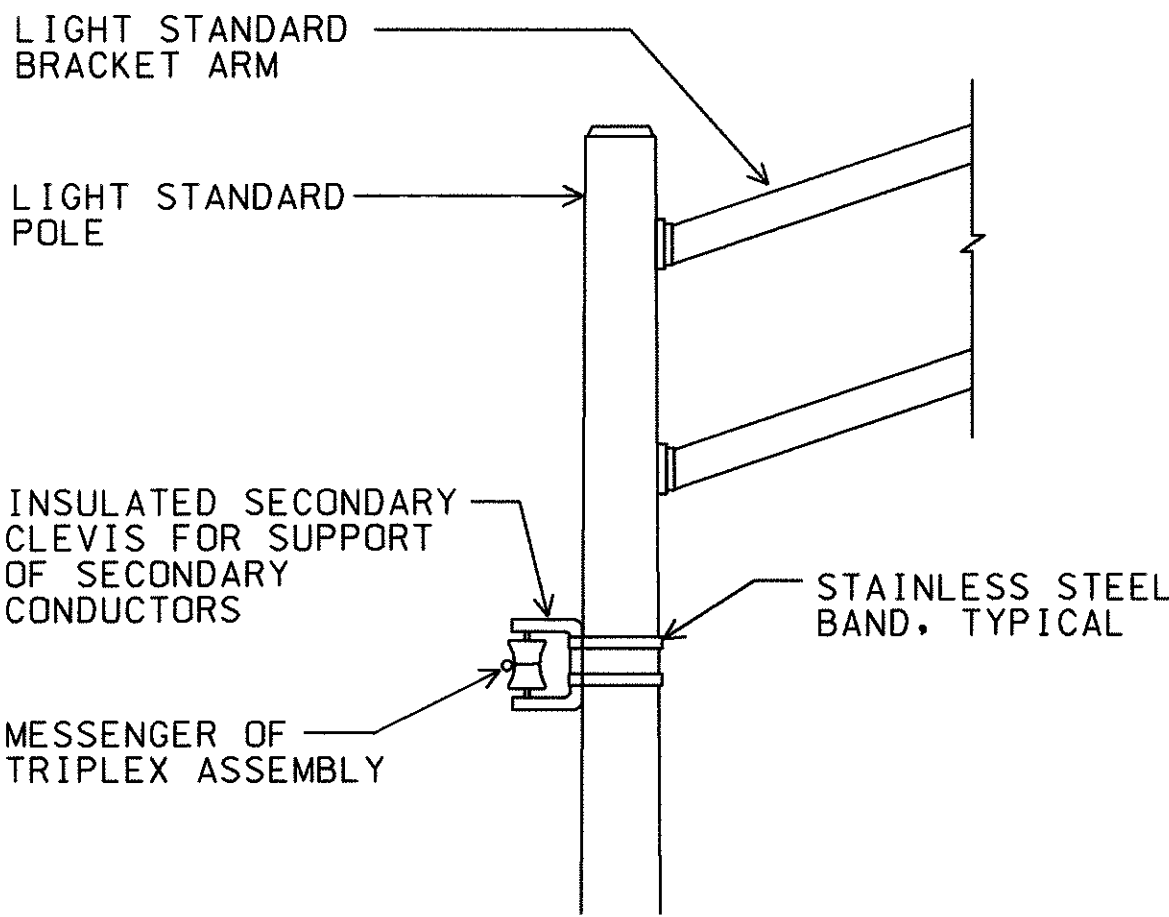
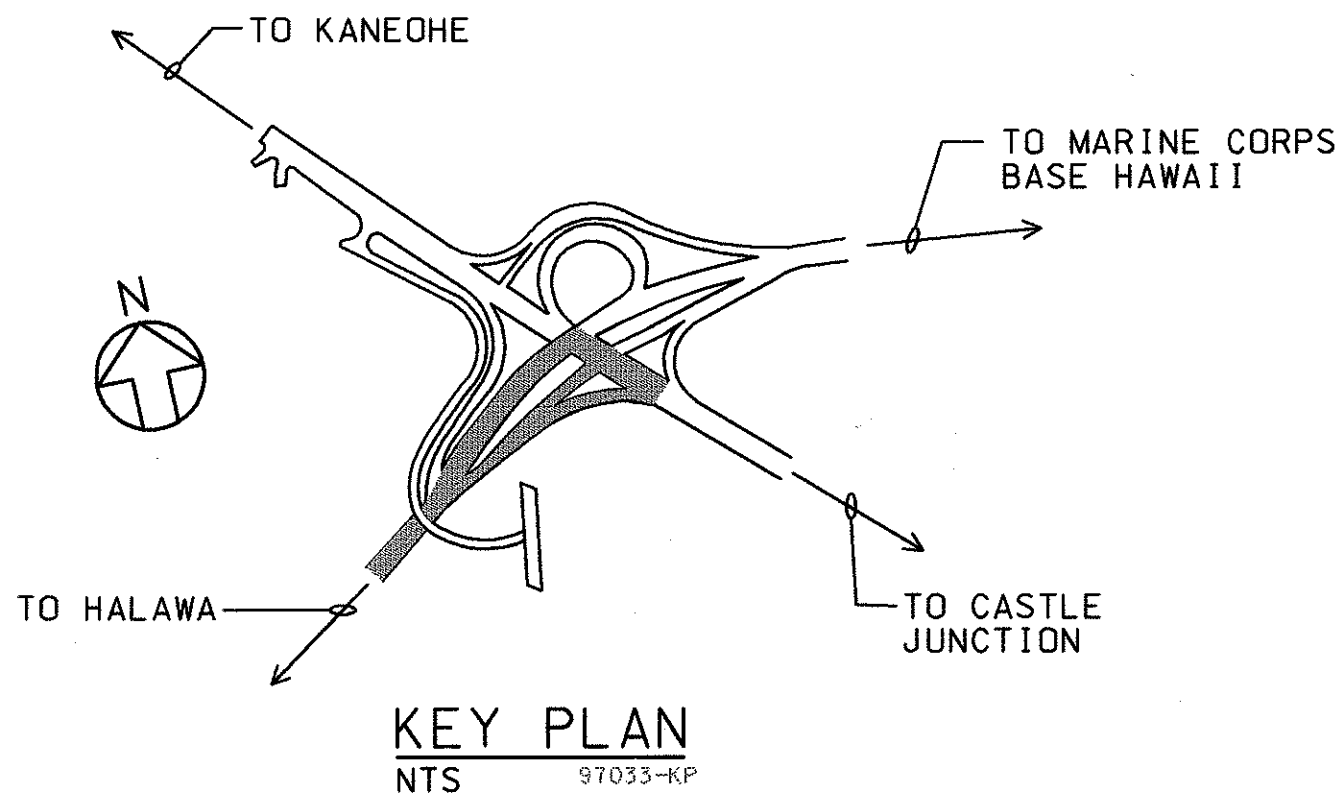


TEMPORARY POWER PLAN - HALEKOU INTERCHANGE

SCALE: 1" = 50'-0"

NOTES:

1. LIGHT LINES DENOTE EXISTING CONDITION.
 BOLD LINES DENOTE NEW WORK.
2. ADJUST LOCATION OF TEMPORARY WOOD POLE AS NECESSARY TO CLEAR EXISTING UTILITIES. TONE AREA PRIOR TO EXCAVATION. ANY UTILITIES DAMAGED DURING EXCAVATION SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE STATE.



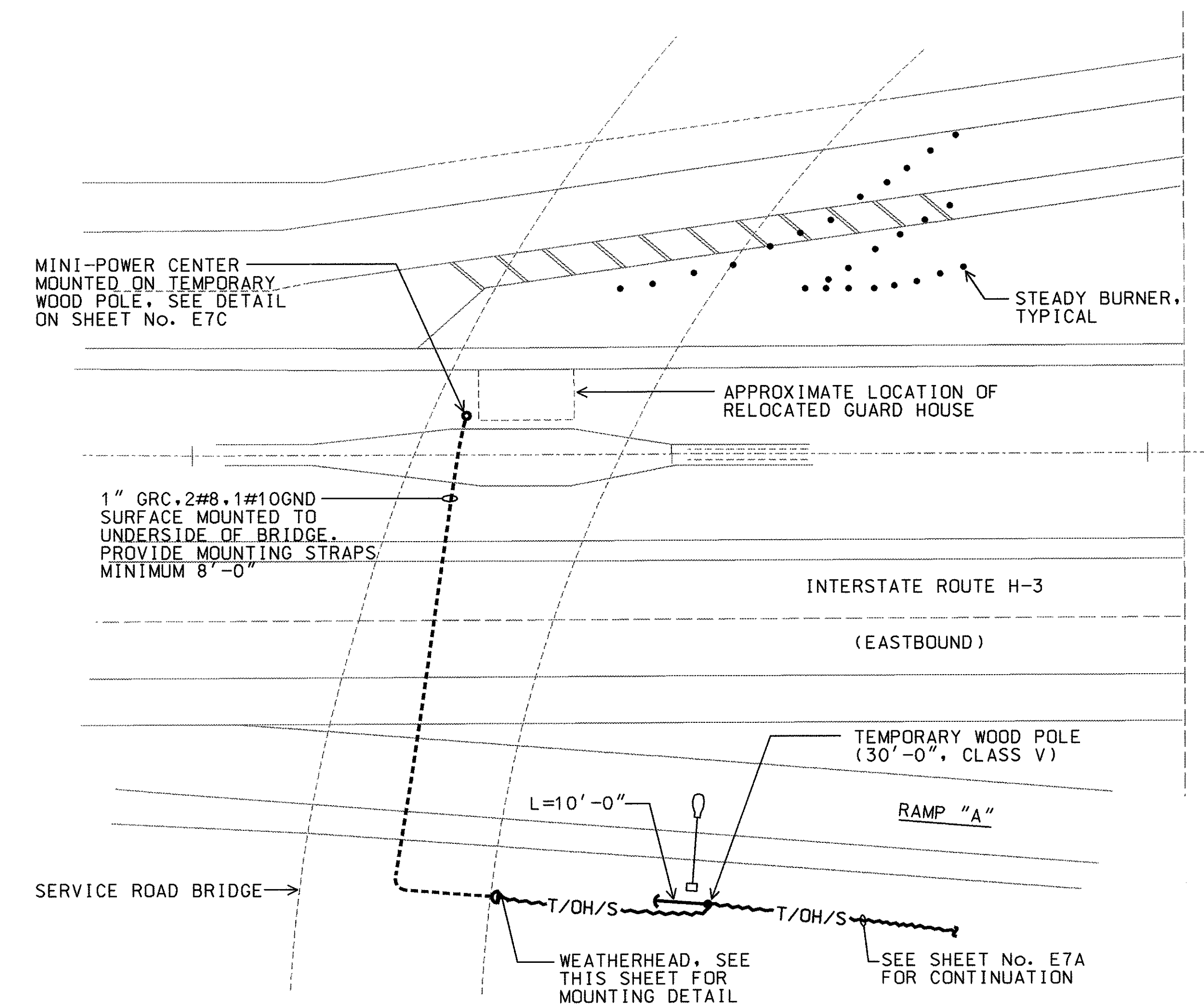
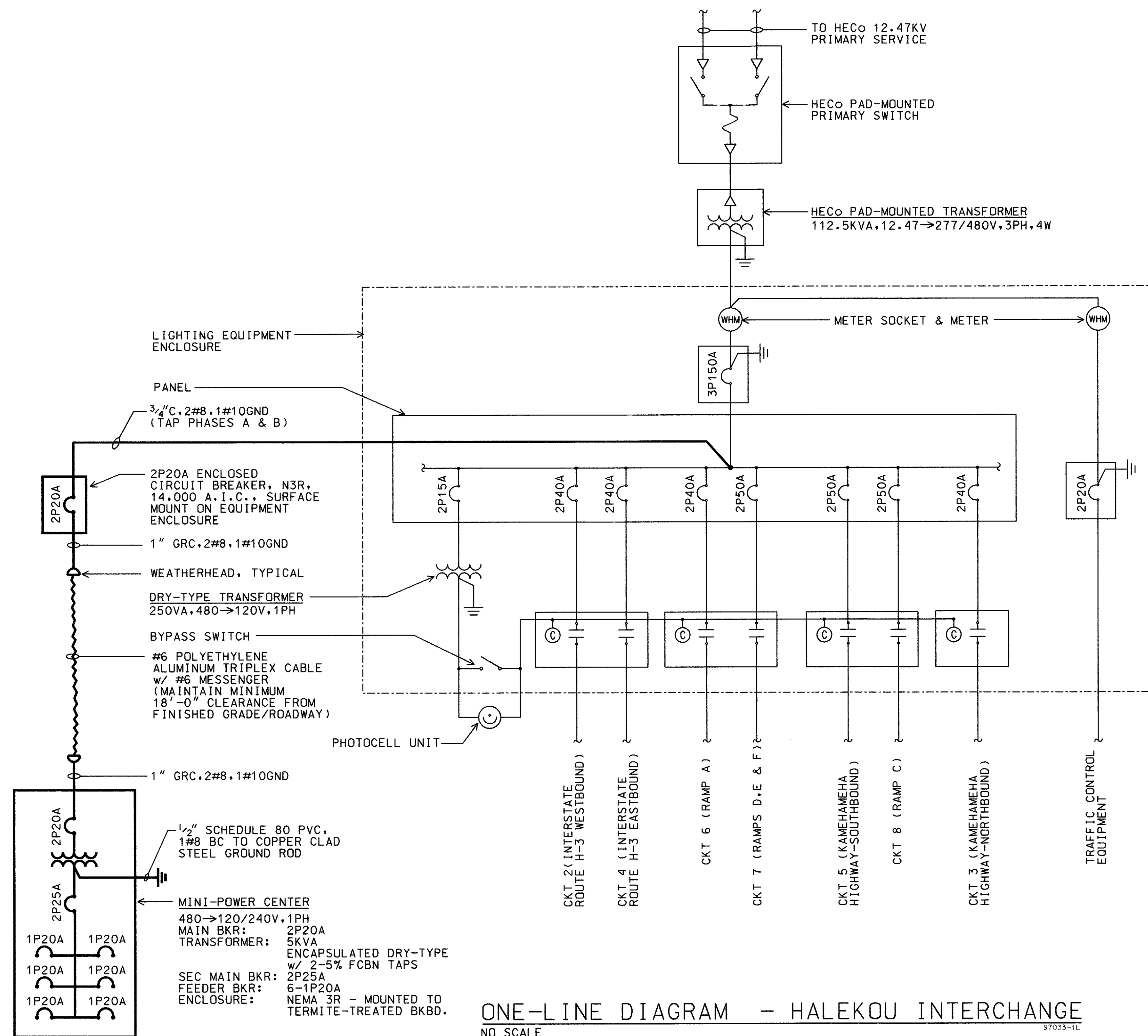
THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.
R.C. Katakara 3/4/97
MK ENGINEERS, LTD.

ADDED THIS SHEET	
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION SECURITY GUARD HOUSE AT HALEKOU INTERCHANGE INTERSTATE ROUTE H-3 FAIP NO. I-H3-1(75), UNIT I SCALE: AS NOTED DATE:	
SHEET NO. E7A OF 7 SHEETS	

C.O. 349 S-1

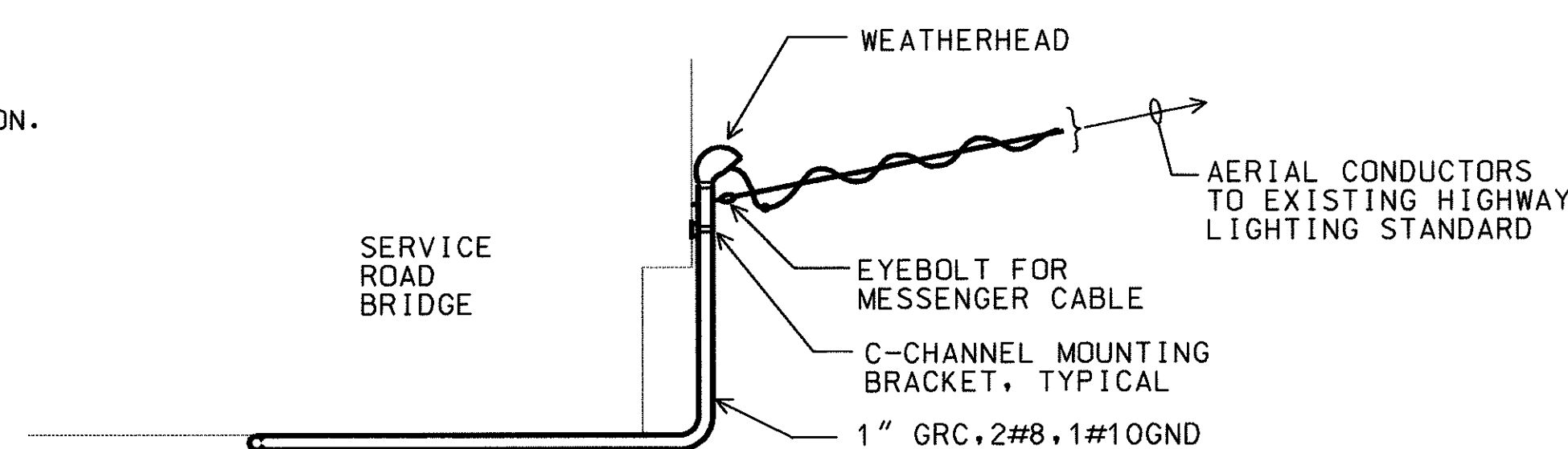
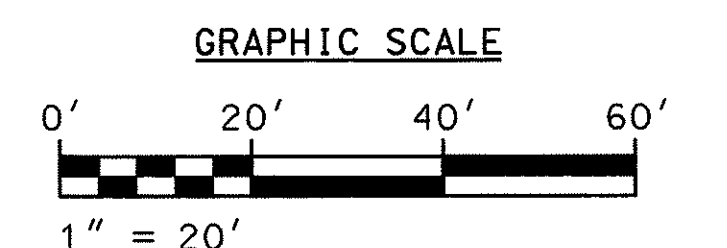
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
DESIGNED BY	TRACED BY	
CHECKED BY	DESIGNED BY	
No.	CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	C.O.349 S-2	405



DETAIL ELECTRICAL PLAN - RELOCATED GUARD HOUSE
SCALE: 1" = 20'-0" 97033-01

- NOTES:**
1. _____ LIGHT LINES DENOTE EXISTING CONDITION.
_____ BOLD LINES DENOTE NEW WORK.



WEATHERHEAD DETAIL @ SERVICE ROAD BRIDGE

	ADDED THIS SHEET
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SECURITY GUARD HOUSE
AT HALEKOU INTERCHANGE

INTERSTATE ROUTE H-3
F&P NO. I-H3-1(75), UNIT I

SCALE: AS NOTED	DATE:
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SHEET NO. E7B OF 7 SHEETS

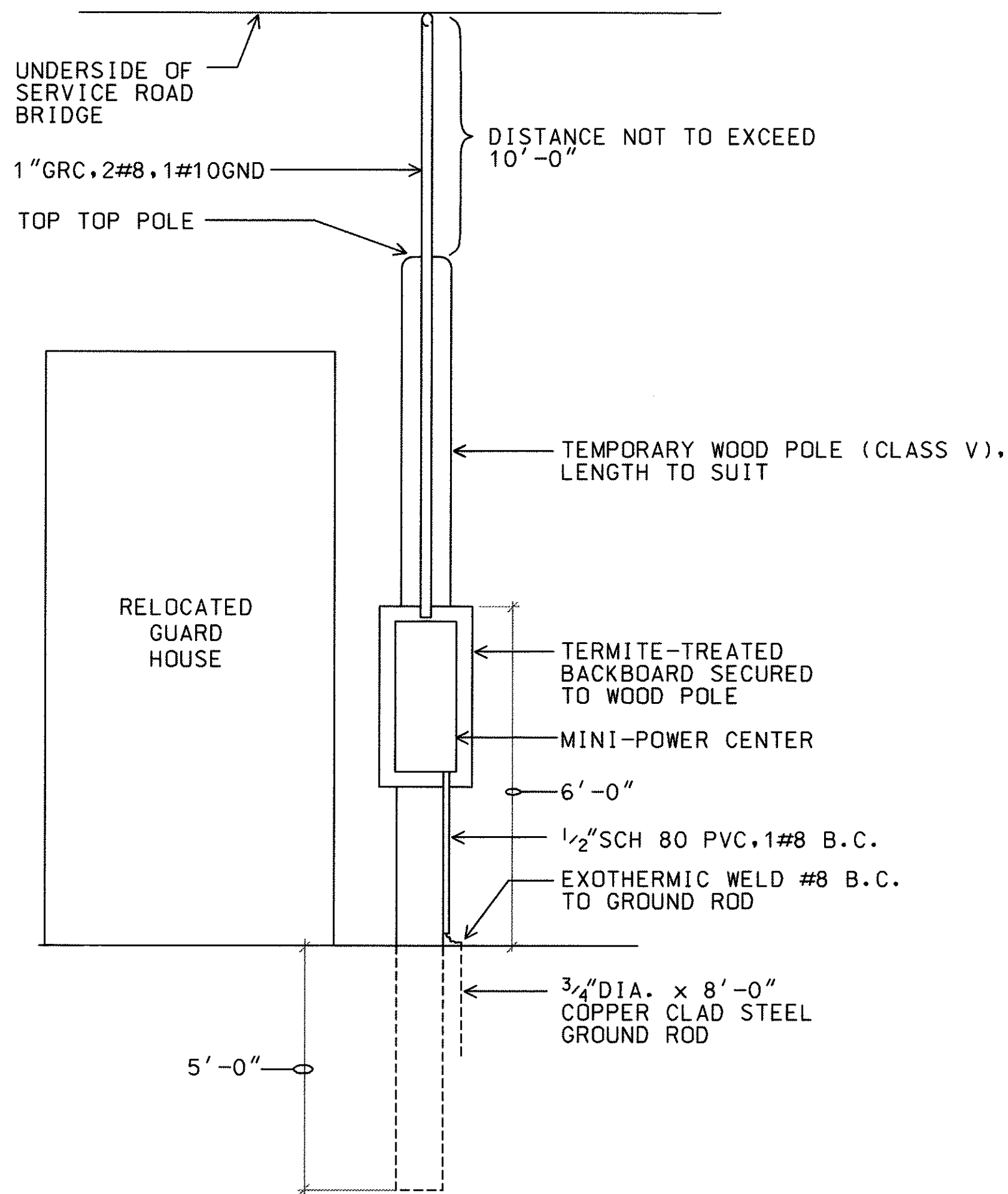


THIS WORK WAS PREPARED
OR UNDER MY SUPERVISOR
RC Katakara
MK ENGINEERS, LTD.

C.O. 349 S-2

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

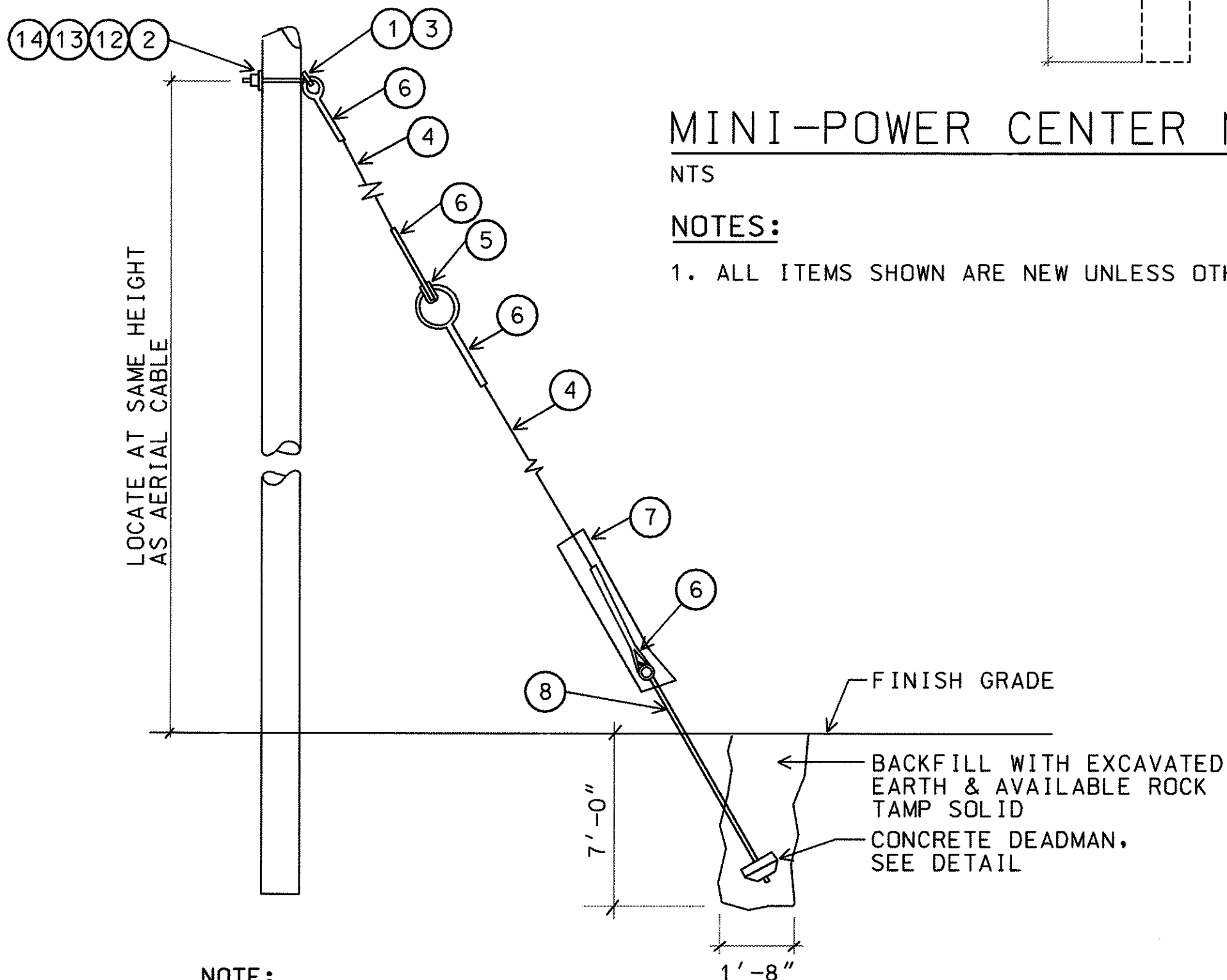
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	C.O.349 S-3	405



MINI-POWER CENTER MOUNTING DETAIL

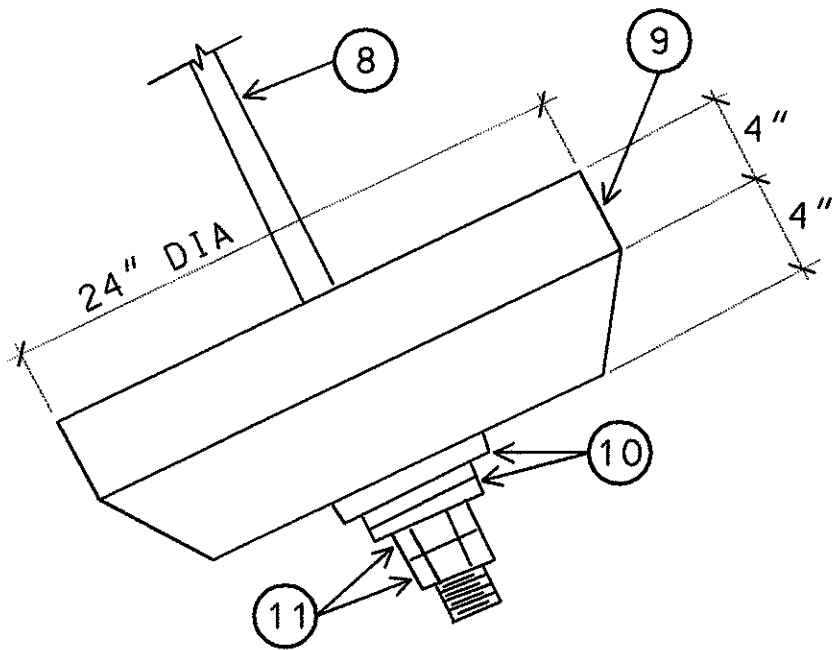
NTS 97033-04

NOTES:
1. ALL ITEMS SHOWN ARE NEW UNLESS OTHERWISE NOTED.



NOTE:
1. COAT ANCHOR ROD & OTHER METALLIC ITEMS BELOW GRADE AND UP TO +12" ABOVE GRADE WITH 2 COATS ASPHALTIC BASE PAINT.

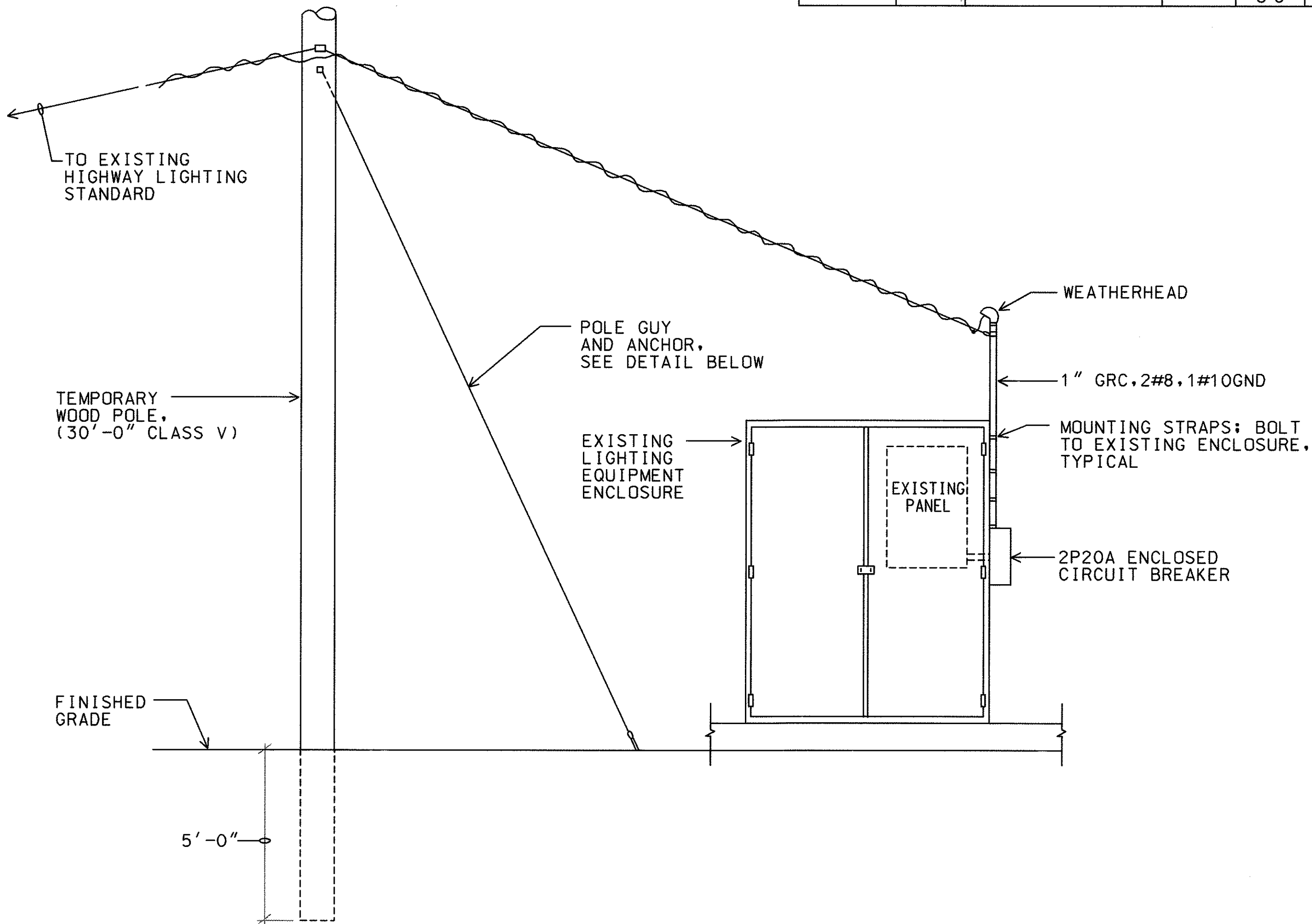
ELEVATION AT POLE



CONCRETE DEADMAN DETAIL

GUY ANCHOR DETAIL

NOT TO SCALE 97033-05

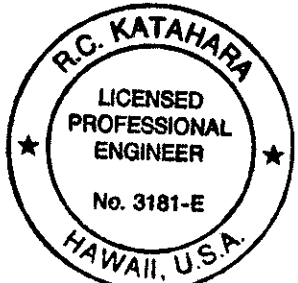


TEMPORARY WOOD POLE MOUNTING DETAIL - HALEKOU SUBSTATION

NTS 97033-03

NOTES:
1. ALL ITEMS SHOWN ARE NEW UNLESS OTHERWISE NOTED.

ITEM	DESCRIPTION
①	SCREW, LAG, GALVANIZED, 1/2"x4"
②	ANGLE THIMBLE EYE BOLT, 3/4" (WOOD POLES)
③	LIFT PLAT, 3 HOLE, 1/4" STEEL PLATE
④	GALVANIZED STRANDED GUY WIRE, 1/2"
⑤	GUY STRAIN INSULATOR
⑥	GUY GRIP, GALVANIZED
⑦	GUY PROTECTOR, 8'-0" PVC OR VINYL
⑧	ANCHOR ROD, TWIN EYE, 8'-0"x1"
⑨	CONCRETE ANCHOR
⑩	WASHER, SQUARE, GALVANIZED, 1"
⑪	NUT, GALVANIZED, SQUARE HEAD, 1"
⑫	WASHER, ROUND, GALVANIZED, 3/4"
⑬	NUT, SQUARE HEAD, GALVANIZED, 3/4"
⑭	M-F LOCKNUT, 3/4" SIZE



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.
R.C. KATAHARA 2/4/97
MK ENGINEERS, LTD.

ADDED THIS SHEET	
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION SECURITY GUARD HOUSE AT HALEKOU INTERCHANGE INTERSTATE ROUTE H-3 FAIP NO. I-H3-1(75), UNIT I SCALE: AS NOTED DATE: SHEET NO. E7C OF 7 SHEETS C.O. 349 S-3	