INDEX TO BRIDGE DRAWINGS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	42	274

SHT. NO.	DWG. NO.	SHEET TITLE
1	N1	Index to Bridge Drawings
42	N2	Structural General Notes
43 •	GP1	Partial General Plan
44 •	GP2	Partial General Plan
45	A1	Partial Deck Layout and Elevation I
46	A2	Partial Deck Layout and Elevation II
47	A3	Partial Deck Layout and Elevation III
48	A4	Partial Deck Layout and Elevation IV
49	A5	Partial Deck Layout and Elevation V
50	A6	Partial Deck Layout and Elevation VI
51	A7	Partial Deck Layout and Elevation VII
52	A8	Partial Deck Layout and Elevation VIII
53	A9	Partial Deck Layout and Elevation IX
54	A10	Partial Deck Layout and Elevation X
55	A11	Partial Deck Layout and Elevation XI
56	A12	Partial Deck Layout and Elevation XII
57	A13	Partial Deck Layout and Elevation XIII
58	A14	Partial Deck Layout and Elevation XIV
59	A15	Partial Deck Layout and Elevation XV
60	A16	Partial Deck Layout and Elevation XVI
61	A17	Partial Deck Layout and Elevation XVII
62	A18	Partial Deck Layout and Elevation XVIII
63	A19	Partial Deck Layout and Elevation XIX
64	A20	Partial Deck Layout and Elevation XX
65	A21	Partial Deck Layout and Elevation XXI
66	A22	Partial Deck Layout and Elevation XXII
67	A23	Partial Deck Layout and Elevation XXIII
68	A24	Partial Deck Layout and Elevation XXIV
69 •	FP1	Partial Foundation Plan I
70 •	FP2	Partial Foundation Plan II
71 •	FP3	Partial Foundation Plan III
72 •	FP4	Partial Foundation Plan IV
73 •	FP5	Partial Foundation Plan V
74 •	FP6	Partial Foundation Plan VI
75	FT1	Footing Layout & Schedule
76	FT2	Pile Cap Reinforcing Type I
77	FT3	Pile Cap Reinforcing Type II
78	FT4	Pile Cap Reinforcing Type III
79	FT5	Pile Cap Reinforcing Type IV
80	FT6	Pile Cap Reinforcing Type V
81	P1	5'-0" Pile Details
82	P2	6'-0" Pile Details
83	PS1	Pier Schedule
84	PS2	Pier Cross Sections
85	PS3	Pier Cap Reinforcing
86	PS4	Pier Control Elevations
87 •	AB1	Abutment Location Plans
88 •	AB2	Plans & Elevations: Inbound Abutment No. 1
89 •	AB3	Plans & Elevations: Outbound Abutment No. 1
90 •	AB4	Abutment No. 1 Sections I.B. & O.B. Structures
91 •	AB5	Wing Wall Sections
92 •	AB6	Retaining Wall Sections & Footing Details
93	AB7	Plans & Elevations: Inbound Abutment No. 2
94	AB8	Plans & Elevations: Outbound Abutment No. 2
95	AB9	Abutment Elevations
96	AB10A	Abutment Sections: Abutment No. 2 Inbound Structure
97	AB10B	Abutment Sections: Abutment No. 2 Outbound Structure
98	AB11	Wing Wall Sections
99	AB12	Abutment No. 1 Sections Inbound Structure
100 •	SB1	Slab Bridge Details
101 •	SB2	Details
102	CS1	Cross Sections Inbound Girder
103	CS2	Cross Sections Outbound Girder
104	G1	Treatment of Horizontal Curvature
105	S1	Segment Layout I I.B. Sta. 264+63.78 to 296+65.53
106	S2	Segment Layout II I.B. Sta. 296+65.53 to 330+77.29
107	S3	Segment Layout III O.B. Sta. 264+23.36 to 297+05.1
108	S4	Segment Layout IV O.B. Sta. 297+05.11 to 330+41.86
109	PB1	Box Girder Segment Dimensions
110	PB2	Box Girder Segment Reinforcing I
111	PB3	Box Girder Segment Reinforcing II
112	PB4A	Box Girder Segment Reinforcing III
113	PB4B	Box Girder Segment Reinforcing IV
114	PB4C	Box Girder Segment Reinforcing V
115	PB4D	Box Girder Segment Reinforcing VI
116	PB4E	Box Girder Segment Reinforcing VII
117	PB4F	Box Girder Segment Reinforcing VIII
118	PB5	Closure Joint Reinforcing
119 •	BG3	Deck Overlay Reinforcing
120	DP1A	Fixed Pier Segment Dimensions Type I
121	DP1B	Fixed Pier Segment Dimensions Type II
122	DP2A	Fixed Pier Segment P.T. Details Type I
123	DP2B	Fixed Pier Segment P.T. Details Type II
124	DP3A	Fixed Pier Segment Reinforcing Type I
125	DP3B	Fixed Pier Segment Reinforcing Type II
126	DP4	Fixed and Sliding Pier Segment Top Slab Reinforcing
127	DP5A	Sliding Pier Segment Dimensions Type I
128	DP5B	Sliding Pier Segment Dimensions Type II
129	DP6A	Sliding Pier Segment P.T. Details Type I
130	DP6B	Sliding Pier Segment P.T. Details Type II
131	DP7A	Sliding Pier Segment Reinforcing I Type I
132	DP7B	Sliding Pier Segment Reinforcing I Type II
133	DP8	Sliding Pier Segment Reinforcing II Type I
134	DP9	Fixed and Sliding Pier Segment Sign Support Reinforcing
135	DP10	Abutment 1 Segment Dimensions Inbound Structure
136	DP11	Abutment 1 Segment P.T. Details Inbound Structure
137	DP12	Abutment 1 Segment Reinforcing I Inbound Structure
138	DP13	Abutment 1 Segment Reinforcing II Inbound Structure
139	DP14	Abutment 1 Segment Dimensions Outbound Structure
140	DP15	Abutment 1 Segment P.T. Details Outbound Structure
141	DP16	Abutment 1 Segment Reinforcing I Outbound Structure
142	DP17	Abutment 1 Segment Reinforcing II Outbound Structure
143	DP18	Abutment 2 Segment Dimensions
144	DP19	Abutment 2 Segment P.T. Details
145	DP20	Abutment 2 Segment Reinforcing
146	DP21	Abutment 2 Segment Reinforcing II
147	HD1	Hinge Segment Dimensions I
148	HD2	Hinge Segment Dimensions II
149	HD3	Hinge Segment A P.T. Details
150	HD4	Hinge Segment A Reinforcing I
151	HD5	Hinge Segment A Reinforcing II
152	HD6	Hinge Segment B P.T. Details
153	HD7	Hinge Segment B Reinforcing I
154	HD8	Hinge Segment B Reinforcing II
155	HD9	Hinge Segment Temporary Blocking
156	SF1	Bulkhead Dimensions
157	TL1	P.T. Layout I Inbound A1 thru Pier 3
158	TL2	P.T. Layout II Inbound Pier 3 thru Pier 5
159	TL3	P.T. Layout III Outbound A1 thru Pier 3
160	TL4	P.T. Layout IV Outbound Pier 3 thru Pier 5
161	TL5	P. T. Layout V Inbound Pier 5 thru Pier 7
162	TL6	P. T. Layout VI Inbound Pier 7 thru Pier 9
163	TL7	P. T. Layout VII Outbound Pier 5 thru Pier 7
164	TL8	P. T. Layout VIII Outbound Pier 7 thru Pier 9
165	TL9	P. T. Layout IX Inbound Pier 9 thru Pier 11
166	TL10	P. T. Layout X Inbound Pier 11 thru Pier 13
167	TL11	P. T. Layout XI Outbound Pier 9 thru Pier 11
168	TL12	P. T. Layout XII Outbound Pier 11 thru Pier 13
169	TL13	P. T. Layout XIII Inbound Pier 13 thru Pier 15
170	TL14	P. T. Layout XIV Inbound Pier 15 thru Pier 17
171	TL15	P. T. Layout XV Outbound Pier 13 thru Pier 15
172	TL16	P. T. Layout XVI Outbound Pier 15 thru Pier 17
173	TL17	P. T. Layout XVII Inbound Pier 17 thru Pier 19
174	TL18	P. T. Layout XVIII Inbound Pier 19 thru Pier 21
175	TL19	P. T. Layout XIX Outbound Pier 17 thru Pier 19
176	TL20	P. T. Layout XX Outbound Pier 19 thru Pier 21
177	TL21	P. T. Layout XXI Inbound Pier 21 thru Pier 23
178	TL22	P. T. Layout XXII Inbound Pier 23 thru A2
179	TL23	P. T. Layout XXIII Outbound Pier 21 thru Pier 23
180	TL24	P. T. Layout XXIV Outbound Pier 23 thru A2
181	TA1	P.T. Details I Bottom Blocks
182	TA2A	P.T. Details IIA Top Blocks
183	TA2B	P.T. Details IIB Anchorage Details
184	TA3A	P.T. Details IIIA Typical Deviations
185	TA3B	P.T. Details IIIB Typical Deviations
186	TA4	P.T. Details IV Reinforcing I Bottom Blocks
187	TA5	P.T. Details V Reinforcing II Bottom Blocks
188	TA6	P.T. Details VI Reinforcing Top Blocks
189	TA7	P.T. Details VII Abutment Spans
190	TT1	Transverse Post Tensioning Details
191	BD1	Bearing Schedule
192	EJ1	Expansion Joint Schedule
193 •	EJ2	Expansion Joint Details Condition at Concrete Railing
194	SK1	Shear Key Schedule
195 •	CR1	Concrete Railing Details
196 •	CR2	Concrete Railing Details Faraday Shield Support
197 •	DD1	Deck Drain Details
198 •	ED1	Electric Manhole Details
199	PT1A	Contingency Tendon, Temp. P.T. Bars Layout I
200	PT1B	Contingency Tendon, Temp. P.T. Bars Layout II
201	PT1C	Contingency Tendon, Temp. P.T. Bars Layout III
202	PT1D	Contingency Tendon, Temp. P.T. Bars Layout IV
203	PT1E	Contingency Tendon, Temp. P.T. Bars Layout V
204	PT1F	Contingency Tendon, Temp. P.T. Bars Layout VI
205	PT2	Contingency Tendon Details Bottom Blocks
206	PT3	Contingency Tendon Details Top Blocks
207	CM1	Erection Schematic I
208	CM2	Erection Schematic II
209	CM3	Erection Schematic III
210		Not Used
211		Not Used
212		Not Used
213		Not Used
214		Not Used
215		Not Used
216		Not Used
217		Not Used
218		Not Used
219		Not Used
220		Not Used
221		Not Used
222		Not Used
223		Not Used
224		Not Used
225		Not Used
226		Not Used
227		Not Used
228		Not Used
229		Not Used
230		Not Used

NOTE: • INDICATES THAT DRAWINGS ARE UNCHANGED FROM ORIGINAL DESIGN.

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2379-S — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	UPDATED AND ADDED SHEETS.
01/04/91	UPDATED SHEETS AND ADDED SHEET TA3B.
10/08/90	UPDATED SHEET.
09/21/90	MOD. TO TA4A, PB1A . ADDED TA4B, PB1B AND TL5 THRU TL8.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

INDEX TO BRIDGE DRAWINGS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1990

SHEET No. N1 OF SHEETS

DRAWN BY — TRACED BY — DESIGNED BY — QUANTITIES BY — CHECKED BY — DATE

ORIGINAL PLAN — REVISED PLAN — DATE — No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	43	274

A. SPECIFICATIONS:

1. GENERAL SPECIFICATIONS: STATE OF HAWAII, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 1985 AND SPECIAL PROVISIONS WITH ADDENDUMS PREPARED FOR THIS CONTRACT.

2. DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, THIRTEENTH EDITION, 1983 AND INTERIM SUPPLEMENTS OF 1984 THROUGH 1987 AND MODIFICATIONS BY THE STATE OF HAWAII DEPARTMENT OF TRANSPORTATION.

B. DESIGN LOADS:

1. DEAD LOADS:

- UNIT WEIGHT OF CONCRETE: 160 PCF (150 PCF FOR COMPUTATION OF MODULUS OF ELASTICITY)
- 3" THICK OVERLAY: 40 PSF
- BRIDGE RAILING 500 PLF EACH
- ELECTRICAL LINE (OUTBOUND ONLY): 525 PLF
- STEEL POLES FOR ELECTROMAGNETIC PROTECTION: 2 KIPS EACH

2. LIVE LOADS:

ASSHTO HS 20-44 AND INTERSTATE HIGHWAY LOADING WITH IMPACT.

3. WIND LOADS:

DESIGN WIND VELOCITY: 100 MPH.

4. SEISMIC LOAD:

SEISMIC PERFORMANCE CATEGORY B IN ACCORDANCE WITH AASHTO GUIDE SPECIFICATION FOR SEISMIC DESIGN OF HIGHWAY BRIDGES, 1983. MINIMUM COMBINED RESPONSE COEFFICIENT SHALL BE EQUAL TO 0.06 OF THE DEAD LOAD.

5. THERMAL FORCES:

- COEFFICIENT OF THERMAL EXPANSION: 0.000006 PER DEGREE F
- TEMPERATURE RISE: 10°F
  TEMPERATURE FALL: 20°F
  ASSUMED TEMPERATURE AT THE TIME OF ERECTION: 75°F
- THERMAL GRADIENT IN THE LONGITUDINAL DIRECTION: ACCORDING TO NATIONAL COOPERATIVE RESEARCH PROGRAM REPORT 276: "THERMAL EFFECTS ON CONCRETE BRIDGE STRUCTURES."
- THERMAL GRADIENT IN THE TRANSVERSE DIRECTION: TEMPERATURE DIFFERENTIAL OF ± 10°F BETWEEN OUTSIDE AND INSIDE SURFACES OF THE BOX GIRDER.
- ONE-HALF MAXIMUM GRADIENT IS USED IN COMBINATION WITH LIVE LOADS.

6. CREEP AND SHRINKAGE:

STRAINS CALCULATED IN ACCORDANCE WITH CEB-FIP MODEL CODE FOR STRUCTURES. RELATIVE HUMIDITY: 75%

7. CONSTRUCTION LOADS:

- LAUNCHING GANTRY REACTIONS (ONE TRUSS):

  REAR SUPPORT DEAD LOAD: 77 K
  CENTRAL SUPPORT DEAD LOAD: 300 K
  GANTRY CRANE DEAD LOAD: 50 K
  GANTRY CRANE LIFTING TROLLEY AND SEGMENT: 190 K
  GANTRY LOAD ON CANTILEVER DURING LAUNCHING: 390 K

- TOTAL WEIGHT OF SEGMENT AND SEGMENT CARRIER: 200 K
- DISTRIBUTED CONSTRUCTION LIVE LOAD: 10 PSF
- LOADS ASSUMED TO COMPUTE MAXIMUM UNBALANCED MOMENT (SERVICE LOAD DESIGN)
  - UNBALANCED SEGMENT
  - CONSTRUCTION LIVE LOAD: 10 PSF ON ONE CANTILEVER ARM, 5 PSF ON THE OTHER
  - WIND UPLIFT: 5 PSF ON ONE CANTILEVER ARM
  - UNBALANCED DEAD LOAD: 2% OF THE DEAD LOAD APPLIED TO ONE CANTILEVER
- MAXIMUM UNBALANCED MOMENT (LOAD FACTOR DESIGN)

THE ACCIDENTAL RELEASE OR APPLICATION OF A PRECAST SEGMENT LOAD WILL BE TAKEN INTO ACCOUNT BY APPLYING AN IMPACT FACTOR OF 2.

LOAD COMBINATIONS:

1.1 (DL + DIFF) + 1.3 CE + 2 A

DL + CE + 2 A

DIFF = DIFFERENTIAL DEAD LOAD
CE = CONSTRUCTION EQUIPMENT
A = UNBALANCED SEGMENT

C. MATERIALS

1. CONCRETE:

- CAST IN PLACE PIERS AND FOOTINGS, CAST IN PLACE PILES: F'c = 4500 PSI
- ABUTMENTS, ABUTMENTS FOOTINGS, RAILINGS: CLASS A (F'c = 3000 PSI)
- 3" CONCRETE OVERLAY: CLASS BD (F'c = 3750 PSI)
- PRECAST DECK SEGMENTS AND CAST-IN-PLACE DECK ELEMENTS: F'c = 5500 PSI

2. REINFORCING STEEL:

- ASTM 615 GRADE 60 UNLESS OTHERWISE NOTED.
- THE MINIMUM CLEAR COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS UNLESS OTHERWISE SPECIFIED ON THE PLANS:
  - BOX GIRDER TOP SLAB: TOP BARS: 1½"; BOTTOM BARS: 1¼"
  - BOX GIRDER BOTTOM SLAB: TOP BARS: 1¼"; BOTTOM BARS: 1½"
  - BOX GIRDER WEBS: STIRRUPS AT OUTSIDE FACE: 1¼"; STIRRUP AT INSIDE FACE: 1"
  - ABUTMENTS, RETAINING WALLS: 2"
  - BRIDGE PIERS: 2½" TO TIES
  - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
- REINFORCING STEEL DETAILED IN ACCORDANCE WITH THE "MANUAL OF STANDARD PRACTICE" TWENTY-FOURTH EDITION BY CONCRETE REINFORCING STEEL INSTITUTE.
- ALL DIMENSIONS RELATING TO REINFORCING BARS (I.E. SPACING OF BARS, ETC.) ARE TO CENTERS OF BARS UNLESS NOTED OTHERWISE..
- END HOOPS FOR REINFORCING STEEL TO BE STANDARD HOOK UNLESS NOTED OTHERWISE.

3. POST-TENSIONING STEEL:

- STRAND: ASTM A416 GRADE 270 STRESS RELIEVED - LOW RELAXATION
- HIGH STRENGTH BARS: ASTM A722 - GRADE 150
- PRESTRESSING PARAMETERS:
  - FRICTION COEFFICIENT: 0.25 (STRANDS); 0.30 (BARS)
  - WOBBLE COEFFICIENT: 0.0002
  - MAXIMUM JACKING STRESS: 0.8 Fsu
  - MAXIMUM STRESS AFTER ANCHORING: 0.7 Fsu
  - ASSUMED ANCHOR SET: 3/8" (STRAND TENDONS); 1/16" (BARS)

D. ALLOWABLE STRESSES

1. REINFORCED CONCRETE: AS PER AASHTO
2. PRESTRESSED CONCRETE:

A) LONGITUDINAL CONCRETE STRESSES:

- F'ci = CONCRETE COMPRESSIVE STRENGTH AT THE TIME OF INITIAL PRESTRESS - F'ci > 0.7 F'c
- Fci = 0.55 F'ci MAXIMUM COMPRESSIVE STRESS AT THE TIME OF INITIAL PRESTRESS (OR OTHER CONSTRUCTION STAGES)
- Fc = 0.40 F'c MAXIMUM COMPRESSIVE STRESS AT SERVICE LOADS AFTER PRESTRESS LOSSES.
- MINIMUM COMPRESSIVE STRESS ACROSS THE JOINTS UNDER THE EFFECTS OF ALL LOADINGS: 200 PSI
- MAXIMUM TENSION ACROSS THE JOINTS DURING CONSTRUCTION STAGES: 0

B) TRANSVERSE CONCRETE STRESSES

- Fci = 0.55 F'ci MAXIMUM COMPRESSIVE STRESS AT THE TIME OF INITIAL PRESTRESS
- Fci = 0.40 F'c MAXIMUM COMPRESSIVE STRESS AT SERVICE LOADS AFTER PRESTRESS LOSSES
- MAXIMUM TENSION IN THE PRECOMPRESSED TENSILE ZONE: 0

C) BEARING STRESSES UNDER ANCHORAGES: ACCORDING TO AASHTO GUIDE SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF SEGMENTAL CONCRETE BRIDGES SECTION 9.2.3.

E. SEGMENTS CASTING AND ERECTION

1. REMOVAL OF FORMS:

MINIMUM CONCRETE STRENGTH: 2500 PSI

2. TRANSVERSE POST-TENSIONING:

INITIAL POST-TENSIONING FORCE UP TO 60% OF THE FINAL VALUE
MINIMUM CONCRETE STRENGTH: 2750 PSI

FULL POST-TENSIONING FORCE:
MINIMUM CONCRETE STRENGTH: 0.7 F'ci

COMPRESSION BEHIND ANCHORAGES NOT TO EXCEED VALUES GIVEN IN AASHTO GUIDE SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF SEGMENTAL CONCRETE BRIDGES SECTION 9.2.3.

3. SEGMENT HANDLING:

MINIMUM CONCRETE STRENGTH: 3000 PSI

4. SEGMENT ERECTION - LONGITUDINAL POST-TENSIONING:

MINIMUM CURING TIME: 28 DAYS

MINIMUM CONCRETE STRENGTH: 5500 PSI

5. CAST IN PLACE CLOSURE JOINTS:

MINIMUM COMPRESSIVE STRENGTH BEFORE POST-TENSIONING: 2750 PSI

6. TEMPORARY STRESSES ON EPOXY JOINTS:

MINIMUM COMPRESSIVE STRESS: 40 PSI.

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 5373-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME, OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	REVISED LAUNCHING GANTRY REACTIONS.
01/04/91	REVISED NOTES D.2.C AND E.2.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURAL GENERAL NOTES

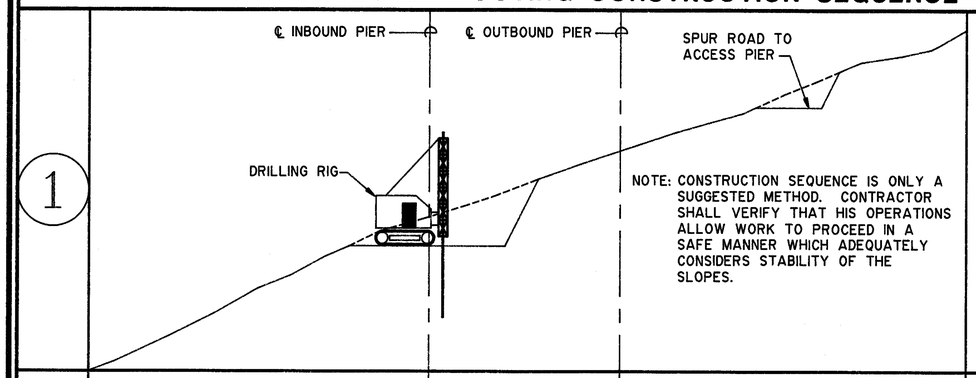
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1990

SHEET No. N2 OF SHEETS

GENERAL PLAN | NOTE BOOK | SURVEY PLOTTED BY | DEPTH BY | TRACED BY | QUANTITIES BY | CHECKED BY | DATE

SUGGESTED FOOTING CONSTRUCTION SEQUENCE



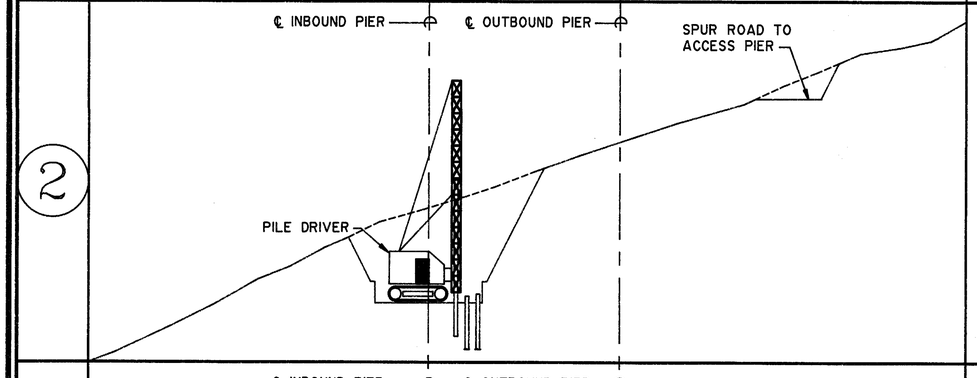
NOTE: CONSTRUCTION SEQUENCE IS ONLY A SUGGESTED METHOD. CONTRACTOR SHALL VERIFY THAT HIS OPERATIONS ALLOW WORK TO PROCEED IN A SAFE MANNER WHICH ADEQUATELY CONSIDERS STABILITY OF THE SLOPES.

A. SUBMIT ENGINEERED PLANS FOR SPUR ROADS AND EARTHWORK OPERATIONS.

B. CONSTRUCT SPUR ROADS TO ACCESS PIERS.

C. CUT PAD FOR DRILL RIG AT LOWER FOOTING.

D. DRILL 2 BORINGS AND OBTAIN SOIL AND ROCK SAMPLES PRIOR TO EXCAVATING FOR FOOTING.

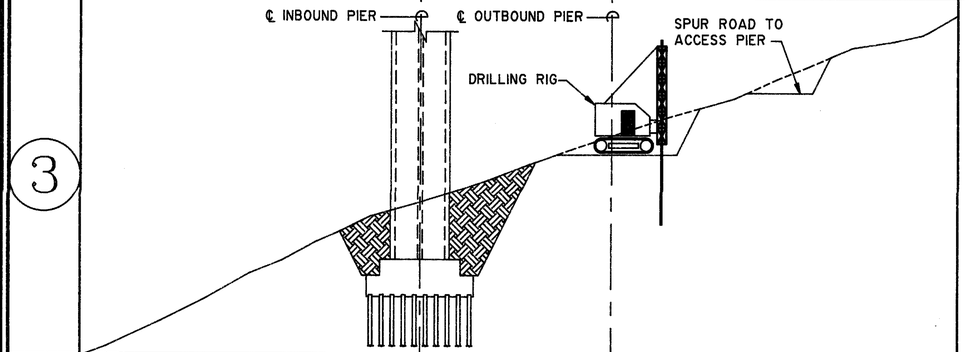


A. EXCAVATE FOR INBOUND FOOTING.

B. INSTALL TEST PILES AT INBOUND FOOTINGS.

C. PERFORM LOAD TESTS.

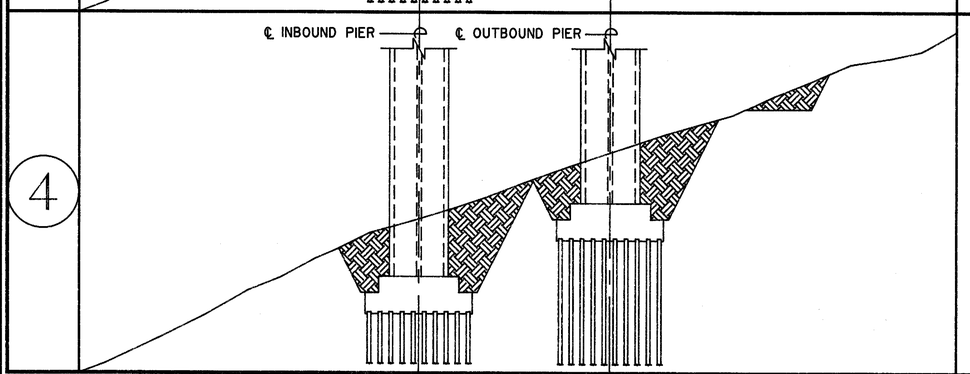
D. INSTALL PRODUCTION PILES AT INBOUND FOOTINGS.



A. CONSTRUCT INBOUND FOOTINGS AND PORTION OF PIER, AS REQUIRED.

B. BACKFILL INBOUND FOOTING.

C. REPEAT OPERATIONS FOR OUTBOUND PIER FOUNDATIONS.

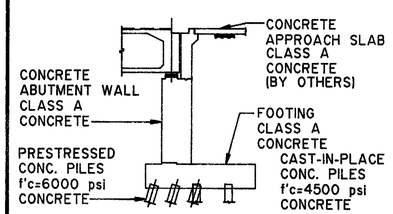


A. RESTORE AREA TO EXISTING GRADE OR AS INDICATED ON THE PLANS.

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

ESTIMATED QUANTITIES

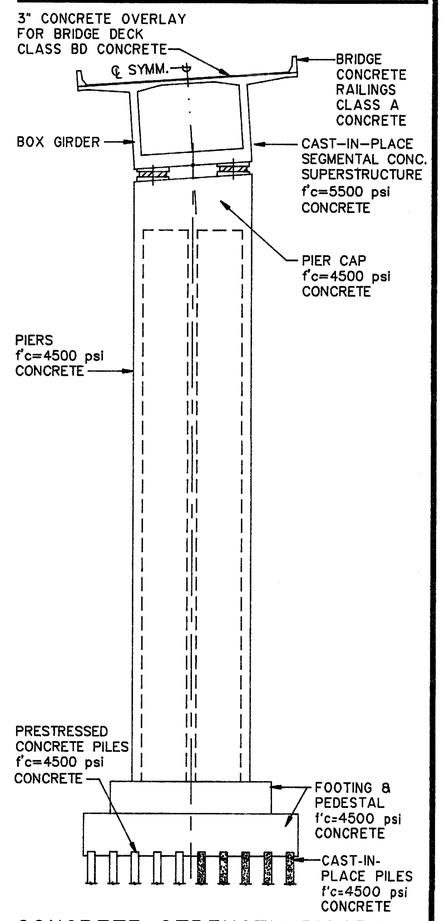
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
206.6000	STRUCTURE EXCAVATION FOR BRIDGES	CU. YD.	143,200.0
206.7300	STRUCTURE BACKFILL FOR BRIDGES	CU. YD.	1750.0
206.7800	MECHANICALLY STABILIZED SLOPE STRUCTURE BACKFILL	CU. YD.	94,500.0
206.8500	FILTER MATERIAL FOR BRIDGES	L.S.	300.0
208.1000	CONSTRUCTION OF SPUR ROADS(NOT TO EXCEED $2,000,000)	L.S.	L.S.
503.1092	CONCRETE IN WINDWARD VIADUCT PIERS & ABUTMENTS	L.S.	(26,875 CU. YD.)
503.1093	CONCRETE IN FOOTINGS FOR WINDWARD VIADUCT	L.S.	(28,400.0 CU. YD.)
503.1094	CONCRETE OVERLAY FOR BRIDGE DECK	L.S.	(4,900 CU. YD.)
504.7510	STRAND SLIPPAGE MEASUREMENT ON PILES	EACH	500.0
505.0001	PILE DRIVING EQUIPMENT EXPENSE(NOT TO EXCEED $100,000)	L.S.	L.S.
505.0011	STANDARD PILE LOAD TEST AND LOAD TO FAILURE - VERTICAL	EACH	9.0
505.0012	QUICK METHOD PILE LOAD TEST - VERTICAL	EACH	15.0
505.0013	PILE LOAD TEST - LATERAL	EACH	5.0
505.0430	PRESTRESSED CONCRETE PILES, FURNISHED	LIN. FT.	297,800.0
505.0431	PILE SPLICE	EACH	1225.0
505.0600	CAST-IN-PLACE CONCRETE PILES IN DRILLED HOLES	LIN. FT.	22,696.0
505.4300	PRESTRESSED CONCRETE PILES, DRIVEN	LIN. FT.	281,020.0
505.4400	RETAPPING PILES	F.A.	F.A.
505.6010	14" DIAMETER PREDRILLED HOLES FOR PRESTRESSED CONCRETE PILES	LIN. FT.	135,000.0
505.6030	20" DIAMETER PREDRILLED HOLES FOR PRESTRESSED CONCRETE PILES	LIN. FT.	45,000.0
505.8100	PILE SHOE	EACH	1,200.0
505.9000	EXTENSIONS OR "BUILD-UPS" OF PILES	F.A.	F.A.
505.9100	PILE DYNAMIC INSTRUMENTATION AND TESTING	F.A.	F.A.
505.9200	PILE DYNAMIC MEASUREMENT EQUIPMENT	L.S.	L.S.
507.5100	BRIDGE CONCRETE RAILING	LIN. FT.	26,500.0
509.0200	EXPLORATORY DRILLING THROUGH SOIL AT STRUCTURE FOOTINGS	LIN. FT.	6,500.0
509.0300	EXPLORATORY DRILLING THROUGH ROCK AT STRUCTURE FOOTINGS	LIN. FT.	1,300.0
510.0500	SPLIT-BARREL SOIL SAMPLE	EACH	480.0
510.0600	THIN-WALLED SOIL SAMPLE	EACH	120.0
511.2000	DECK EXPANSION JOINT 3"-6" MOVEMENT	LIN. FT.	188.5
511.3000	DECK EXPANSION JOINT 6"-12" MOVEMENT	LIN. FT.	319.0
511.4000	DECK EXPANSION JOINT 12"-15" MOVEMENT	LIN. FT.	76.0
515.1000	BRIDGE BEARINGS	L.S.	L.S.
520.1000	CONCRETE IN SEGMENTAL CONCRETE SUPERSTRUCTURE	L.S.	(58,120.0 CU. YD.)
520.2000	REINFORCING STEEL IN SEGMENTAL CONCRETE SUPERSTRUCTURE	L.S.	(11,553,000.0 LBS.)
520.3000	POST-TENSIONING FOR WINDWARD VIADUCT	L.S.	(4,400,000.0 LBS.)
601.1000	PIGMENT FOR CONCRETE	LBS.	2,000,000.0
602.0510	REINFORCING STEEL IN WINDWARD VIADUCT PIERS & ABUTMENTS	L.S.	(8,204,800.0 LBS.)
602.0520	REINFORCING STEEL IN WINDWARD VIADUCT FOOTINGS	L.S.	(2,892,800.0 LBS.)
604.2360	BRIDGE DECK DRAIN ASSEMBLY	EACH	237.0
612.0120	GROUTED RUBBLE SLOPE PROTECTION	CU. YD.	5,880.0



CONC. STRENGTH AT ABUT.
NOT TO SCALE

DATE	REVISION
6/30/89	REVISED SUGGESTED FOOTING CONSTRUCTION SEQUENCE AND ESTIMATED QUANTITIES.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	44	274



CONCRETE STRENGTH DIAGRAM
NOT TO SCALE

MYRON G. OKUBO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ESTIMATED QUANTITIES
GEN. SECTIONS & DETAILS

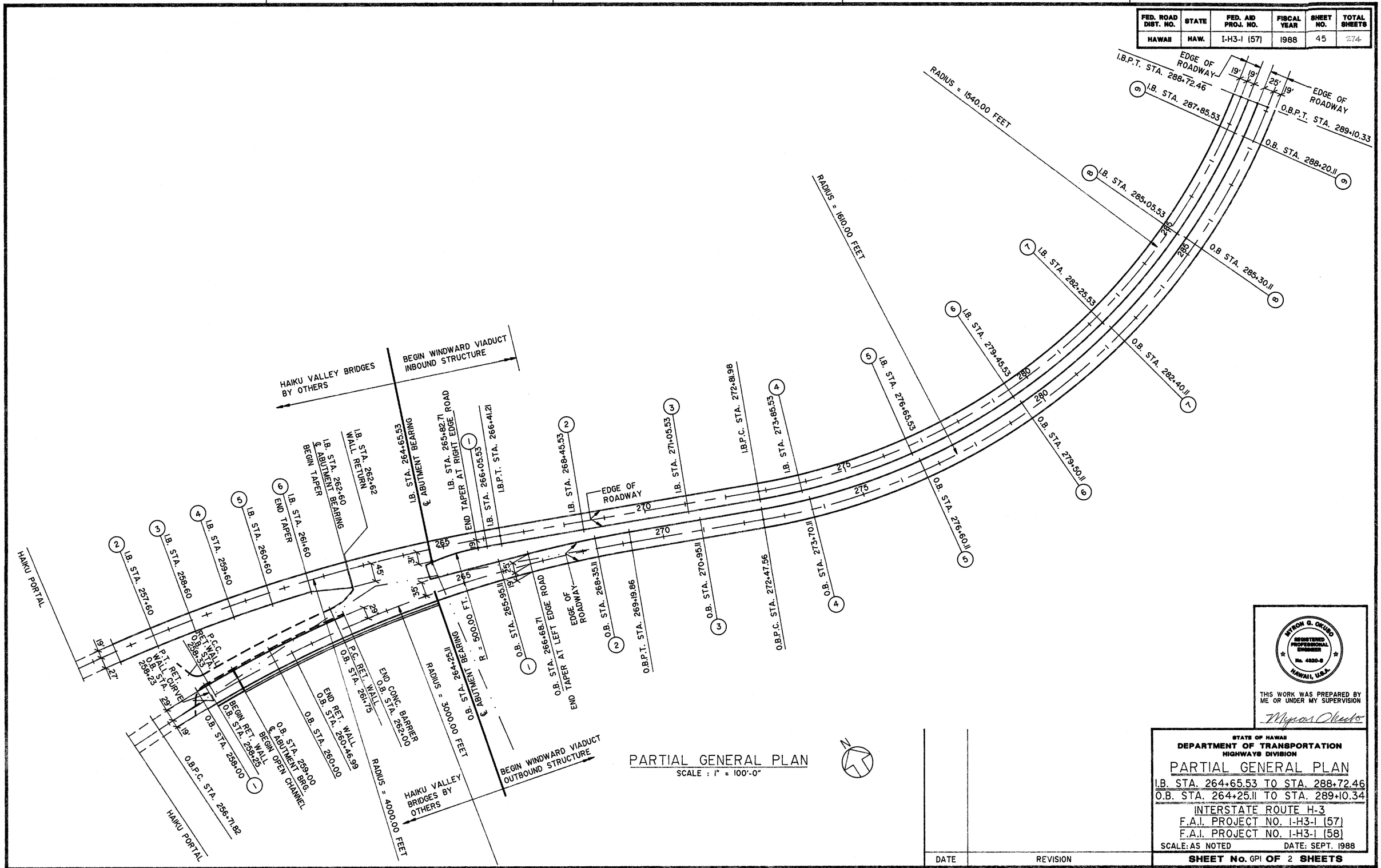
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. N3 OF 3 SHEETS

ADD. 44

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	45	274



PARTIAL GENERAL PLAN
SCALE : 1" = 100'-0"

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

MYRON G. OKUBO
REGISTERED PROFESSIONAL ENGINEER
No. 4820-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PARTIAL GENERAL PLAN

I.B. STA. 264+65.53 TO STA. 288+72.46
O.B. STA. 264+25.11 TO STA. 289+10.34

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

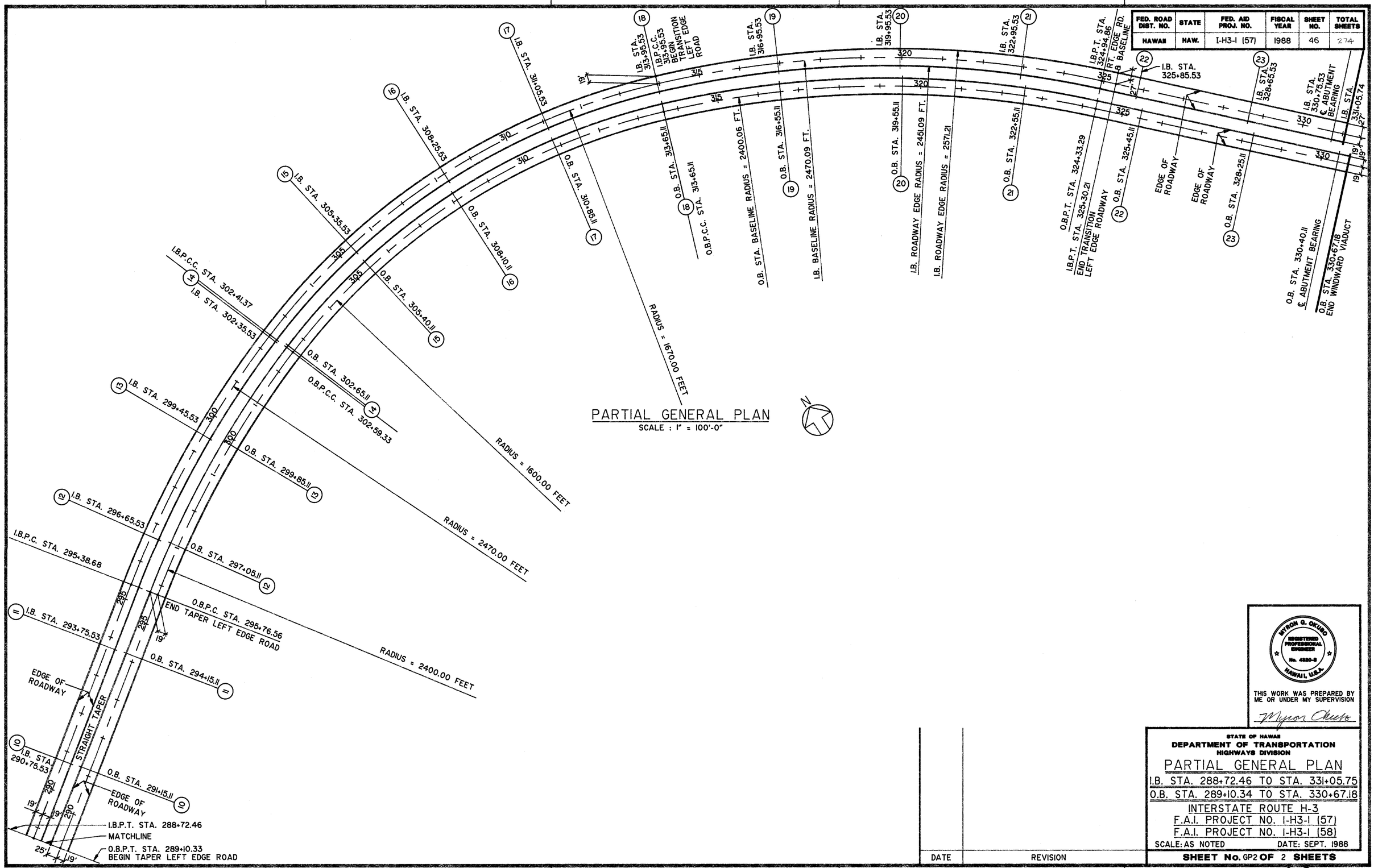
SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. GP1 OF 2 SHEETS

DATE	REVISION

45
FEB 21 1989

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	46	274



PARTIAL GENERAL PLAN

SCALE : 1" = 100'-0"

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

DATE	REVISION

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

MYRON G. OKUBO REGISTERED PROFESSIONAL ENGINEER No. 4320-S HAWAII, U.S.A.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PARTIAL GENERAL PLAN

I.B. STA. 288+72.46 TO STA. 331+05.75
O.B. STA. 289+10.34 TO STA. 330+67.18

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

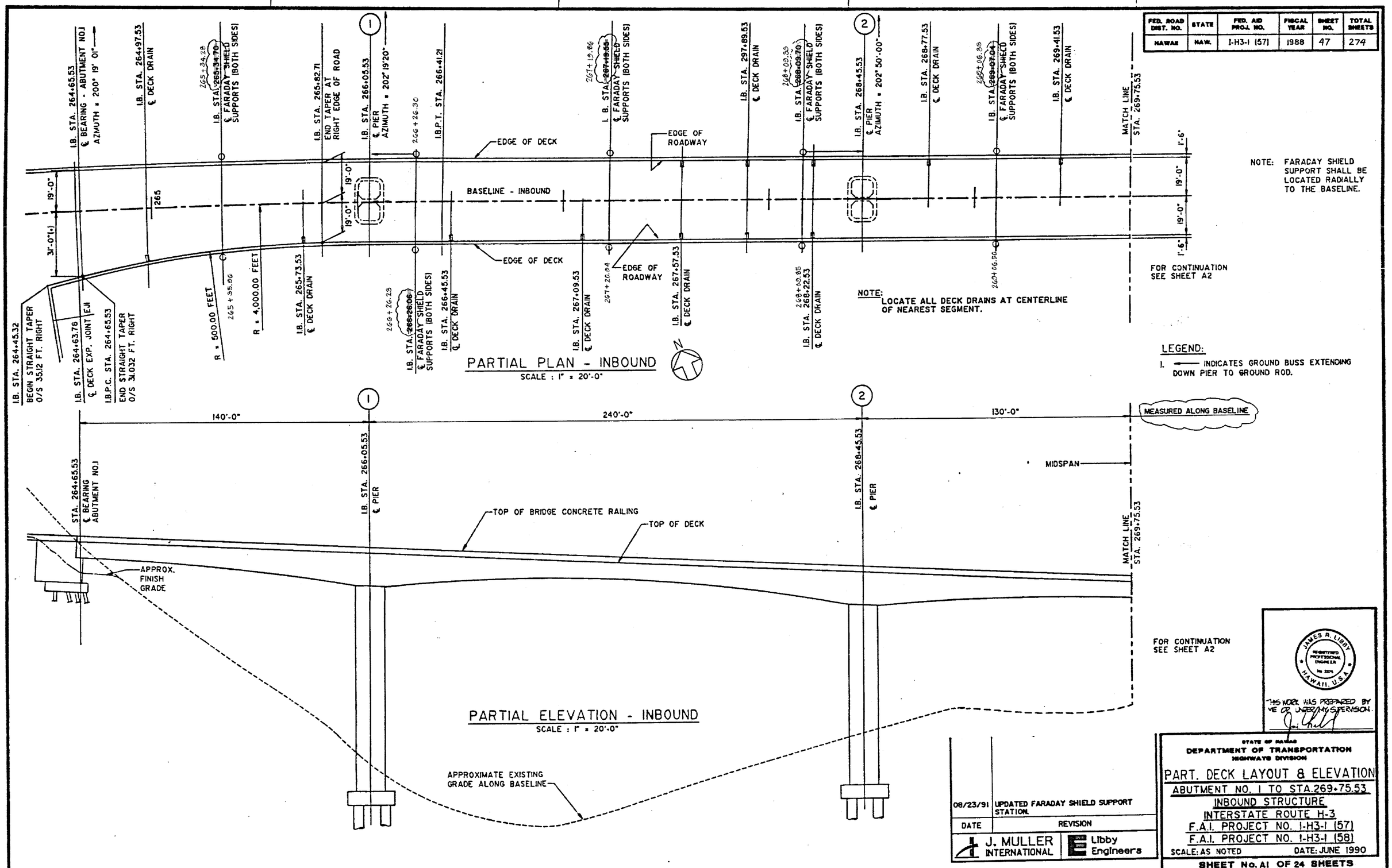
SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. GP2 OF 2 SHEETS

46

FEB 21 1989

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	47	274



PARTIAL PLAN - INBOUND

SCALE : 1" = 20'-0"

PARTIAL ELEVATION - INBOUND

SCALE : 1" = 20'-0"

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STATION

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2574 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION

ABUTMENT NO. 1 TO STA. 269+75.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A1 OF 24 SHEETS

47

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	48	274

MATCH LINE
I.B. STA. 269+75.53

270+04.91
I.B. STA. ~~270+04.70~~
℄ FARADAY SHIELD SUPPORTS (BOTH SIDES)

I.B. STA. 270+10.53
℄ DECK DRAIN

I.B. STA. 270+73.53
℄ DECK DRAIN

271+01.50
I.B. STA. ~~271+00.50~~
℄ FARADAY SHIELD SUPPORTS (BOTH SIDES)

(3)
I.B. STA. 271+05.53
℄ PIER
AZIMUTH = 202° 50' 00"

I.B. STA. 271+45.53
℄ DECK DRAIN

EDGE OF DECK

271+97.56
I.B. STA. ~~271+97.04~~
℄ FARADAY SHIELD SUPPORTS (BOTH SIDES)

I.B. STA. 272+09.53
℄ DECK DRAIN

EDGE OF ROADWAY

I.B. STA. 272+73.53
℄ DECK DRAIN

I.B.P.C. STA. 272+81.98

272+84.62
STA. ~~272+84.70~~
℄ FARADAY SHIELD SUPPORTS (BOTH SIDES)

R = 1,540.00 FEET

I.B. STA. 273+37.53
℄ DECK DRAIN

273+72.80
I.B. STA. ~~273+73.70~~
℄ FARADAY SHIELD SUPPORTS (BOTH SIDES)

(4)
I.B. STA. 273+85.53
℄ PIER
AZIMUTH = 18° 56' 54"

I.B. STA. 274+09.53
℄ DECK DRAIN

I.B. STA. 274+64.83
℄ EXPANSION JT. EJ2

274+77.52
I.B. STA. ~~274+77.04~~
℄ FARADAY SHIELD SUPPORTS (BOTH SIDES)

I.B. STA. 274+89.53
℄ DECK DRAIN

MATCH LINE
I.B. STA. 275+25.53

FOR CONTINUATION
SEE SHEET A3

270+04.93

FOR CONTINUATION
SEE SHEET A1

271+01.21

271+97.41

272+84.26

EDGE OF DECK

EDGE OF ROADWAY

273+19.12

I.B. STA. 274+66.91
℄ HINGE

274+16.34

NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

LEGEND:
L ⟵ INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

N

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

FOR CONTINUATION
SEE SHEET A1

130'-0" | 280'-0" | 140'-0" | MEASURED ALONG BASELINE

(3) I.B. STA. 271+05.53 ℄ PIER

(4) I.B. STA. 273+85.53 ℄ PIER

TOP OF BRIDGE CONCRETE RAILING

TOP OF DECK

MATCH LINE
I.B. STA. 269+75.53

SLIDE BEARING

I.B. STA. 274+66.91
℄ HINGE

MATCH LINE
I.B. STA. 275+25.53

FOR CONTINUATION
SEE SHEET A3

APPROXIMATE EXISTING GRADE ALONG BASELINE

PARTIAL ELEVATION - INBOUND
SCALE : 1" = 20'-0"

ORIGINAL PLAN

	DATE
SURVEY PLOTTED BY	2/90
DRAWN BY	
TRACED BY	2/90
QUANTITIES BY	
CHECKED BY	2/90
NOTEBOOK	
No.	

JAMES A. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 3575
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STATION.

J. MULLER INTERNATIONAL | Libby Engineers

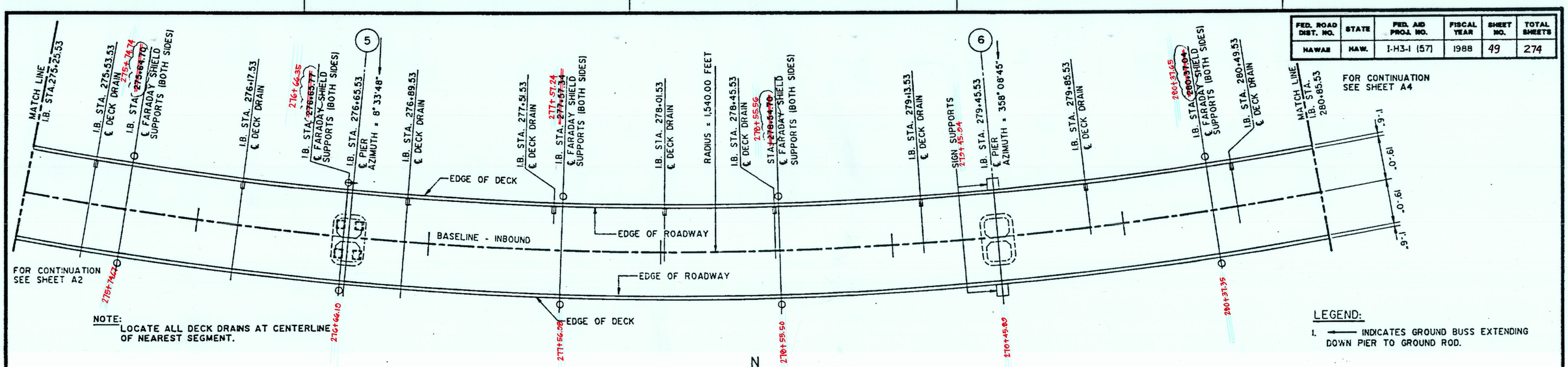
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION
STA. 269+75.53 TO STA. 275+25.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A2 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	49	274



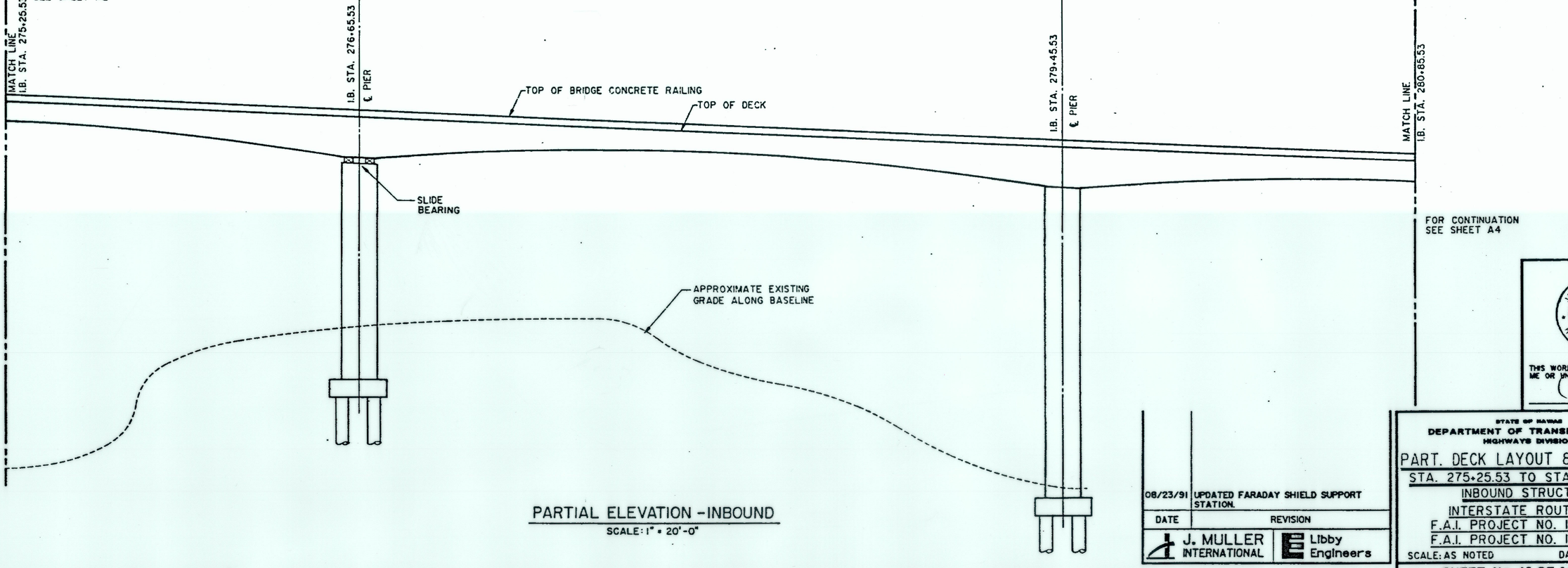
NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

LEGEND:

1. ——— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

PARTIAL PLAN – INBOUND

SCALE: 1" = 20'-0"



PARTIAL ELEVATION – INBOUND

SCALE: 1" = 20'-0"

ORIGINAL PLANS — SURVEY PLOTTED BY ___ DATE ___ DRAWN BY ___ TRACED BY ___ DESIGNED BY ___ QUANTITIES BY ___ CHECKED BY ___ NOTEBOOK No. ___

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STATION.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER HAWAII U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

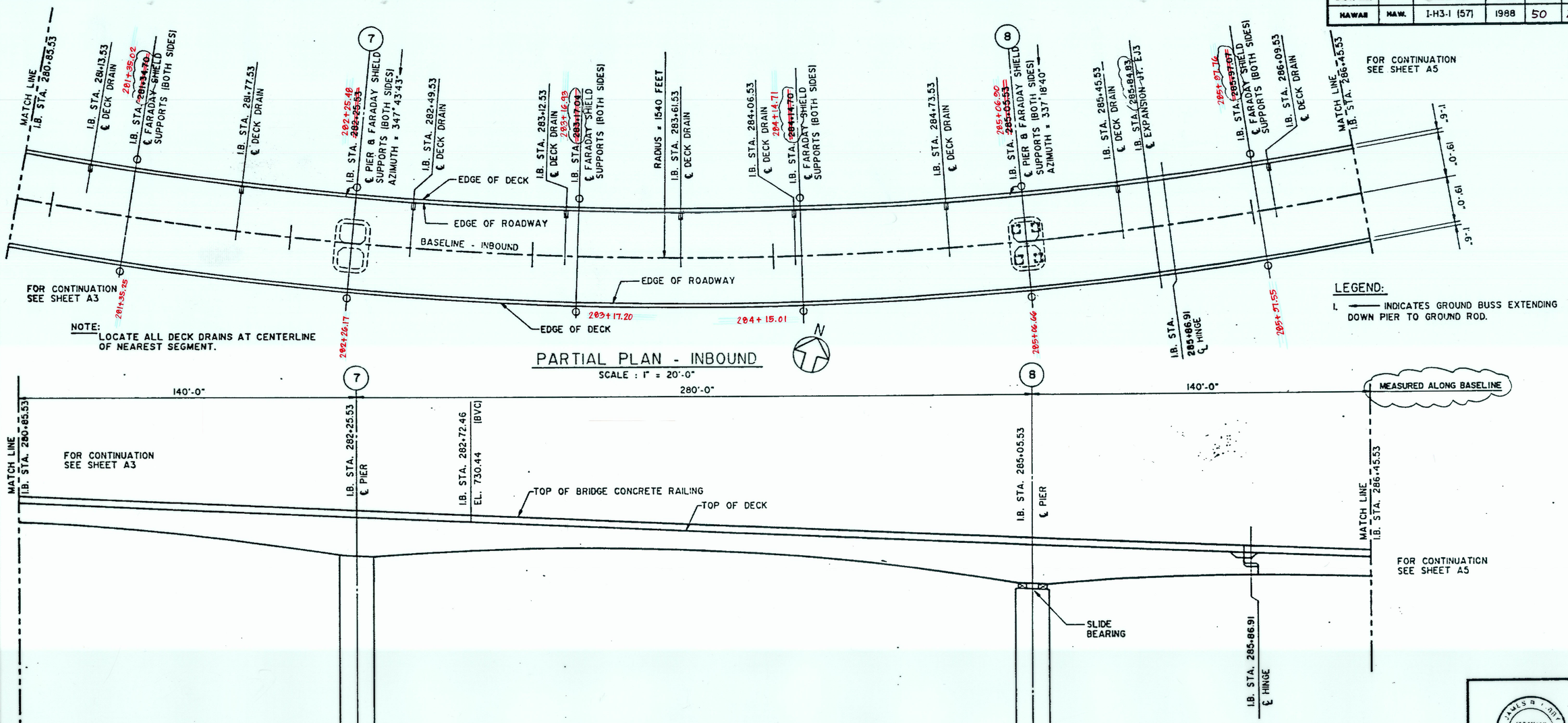
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION
STA. 275+25.53 TO STA. 280+85.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

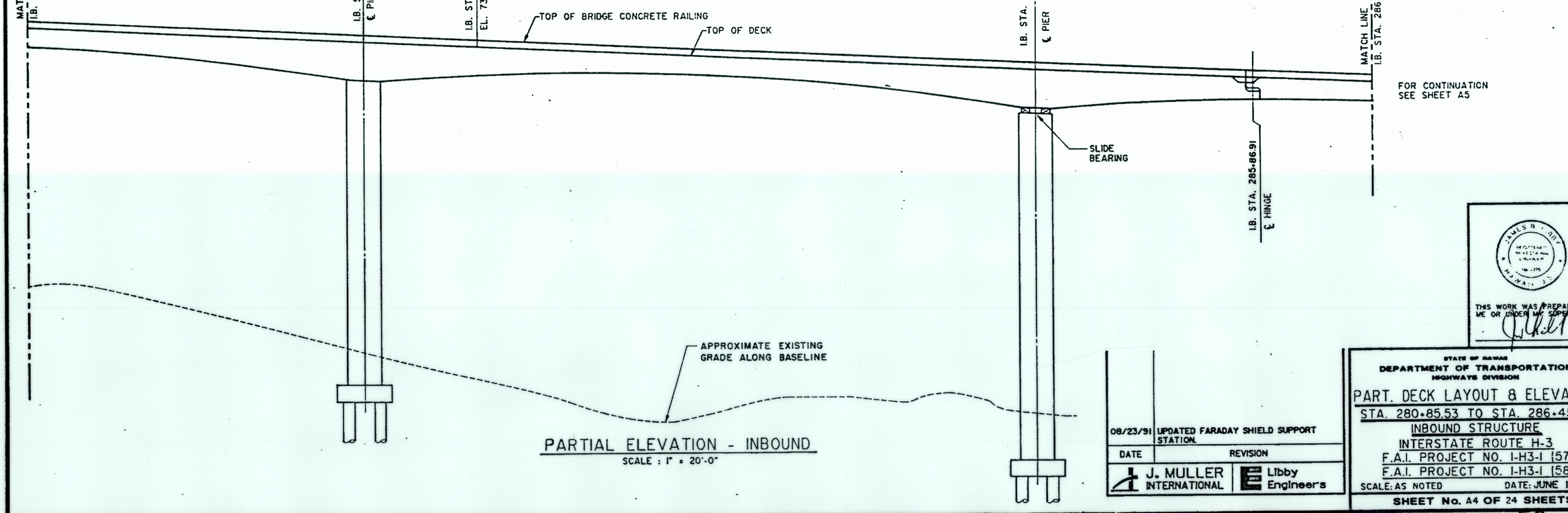
SHEET No. A3 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	50	274



PARTIAL PLAN - INBOUND

SCALE : 1" = 20'-0"



PARTIAL ELEVATION - INBOUND

SCALE : 1" = 20'-0"

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STATION.

J. MULLER INTERNATIONAL | Libby Engineers

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

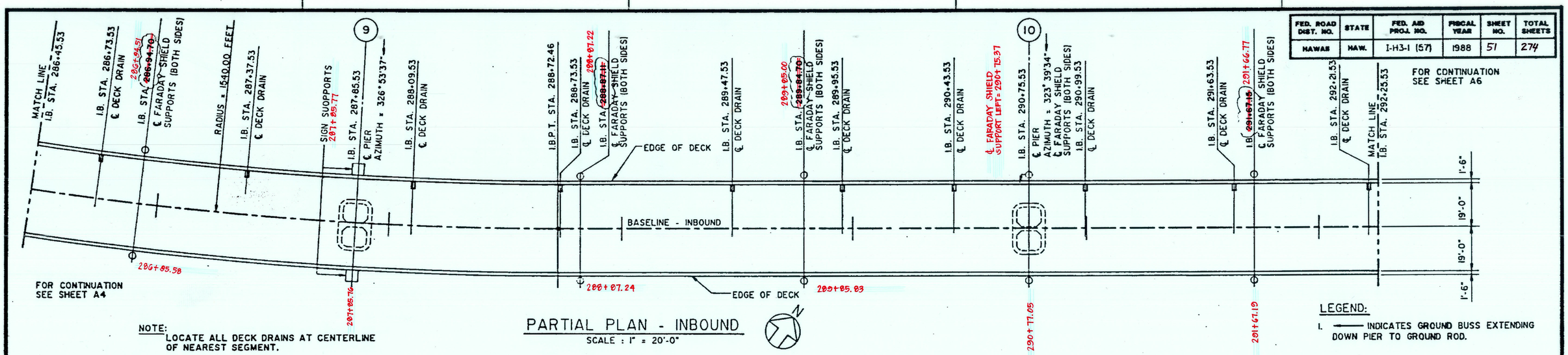
PART. DECK LAYOUT & ELEVATION

STA. 280+85.53 TO STA. 286+45.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A4 OF 24 SHEETS

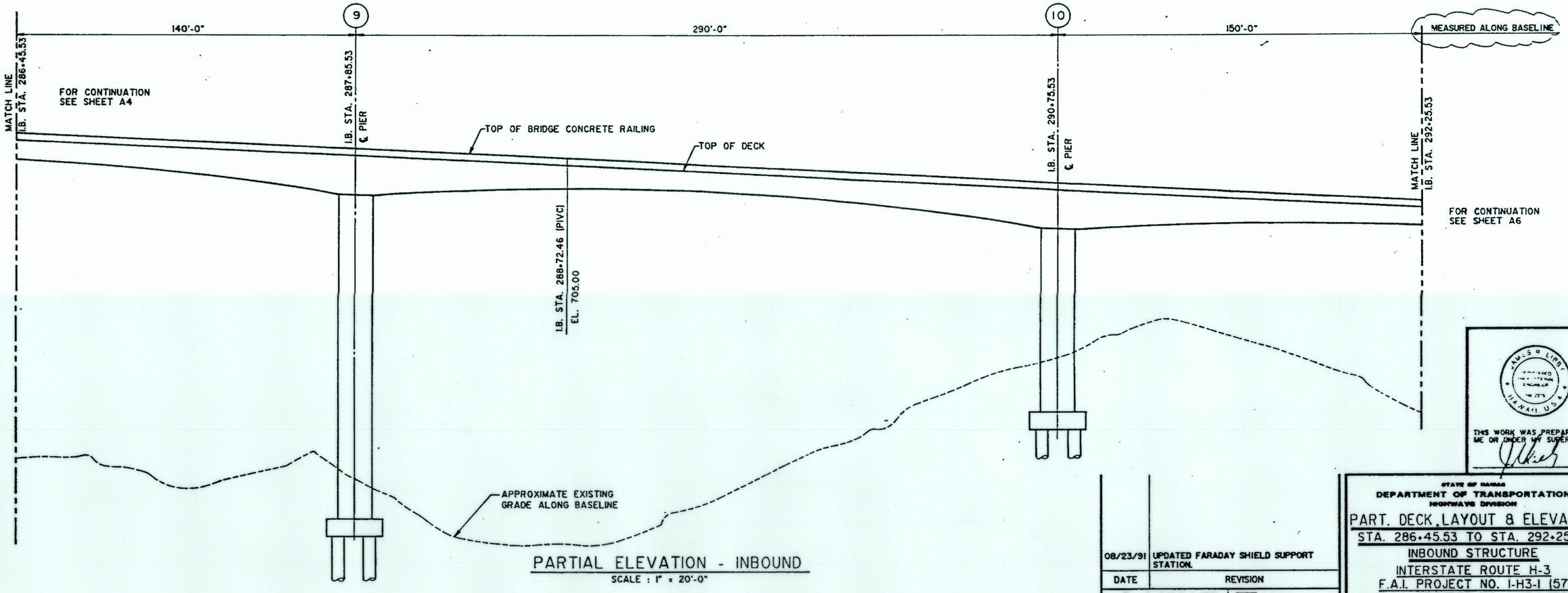
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	51	274



NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

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

LEGEND:
1. —— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.



PARTIAL ELEVATION - INBOUND
SCALE : 1" = 20'-0"

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

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STATION

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER HAWAII, U.S.A.

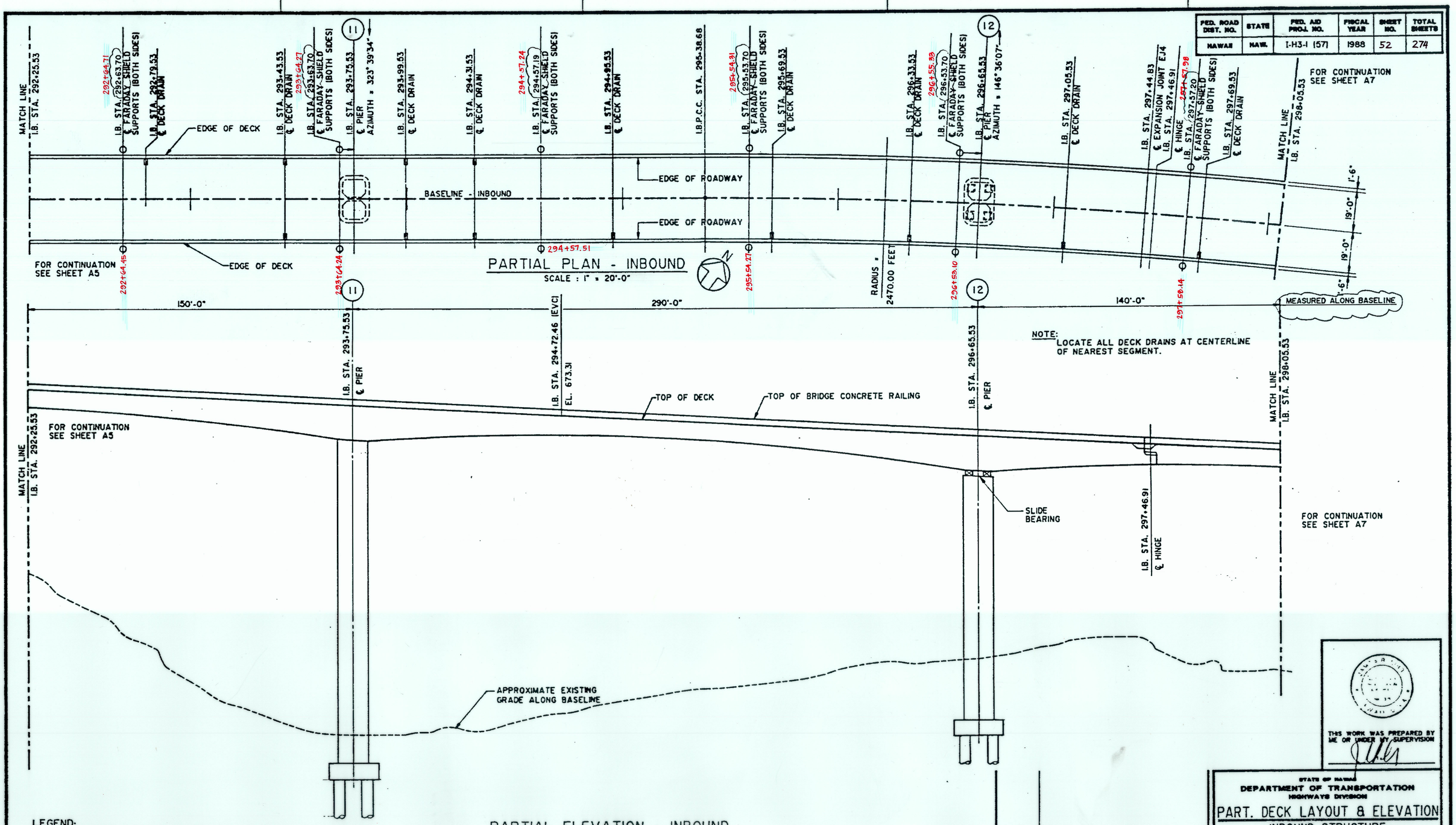
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION
STA. 286+45.53 TO STA. 292+25.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)
SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A5 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	52	274



LEGEND:

L —— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

PARTIAL ELEVATION - INBOUND

SCALE : 1" = 20'-0"

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

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STATION.

J. MULLER INTERNATIONAL | Libby Engineers

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

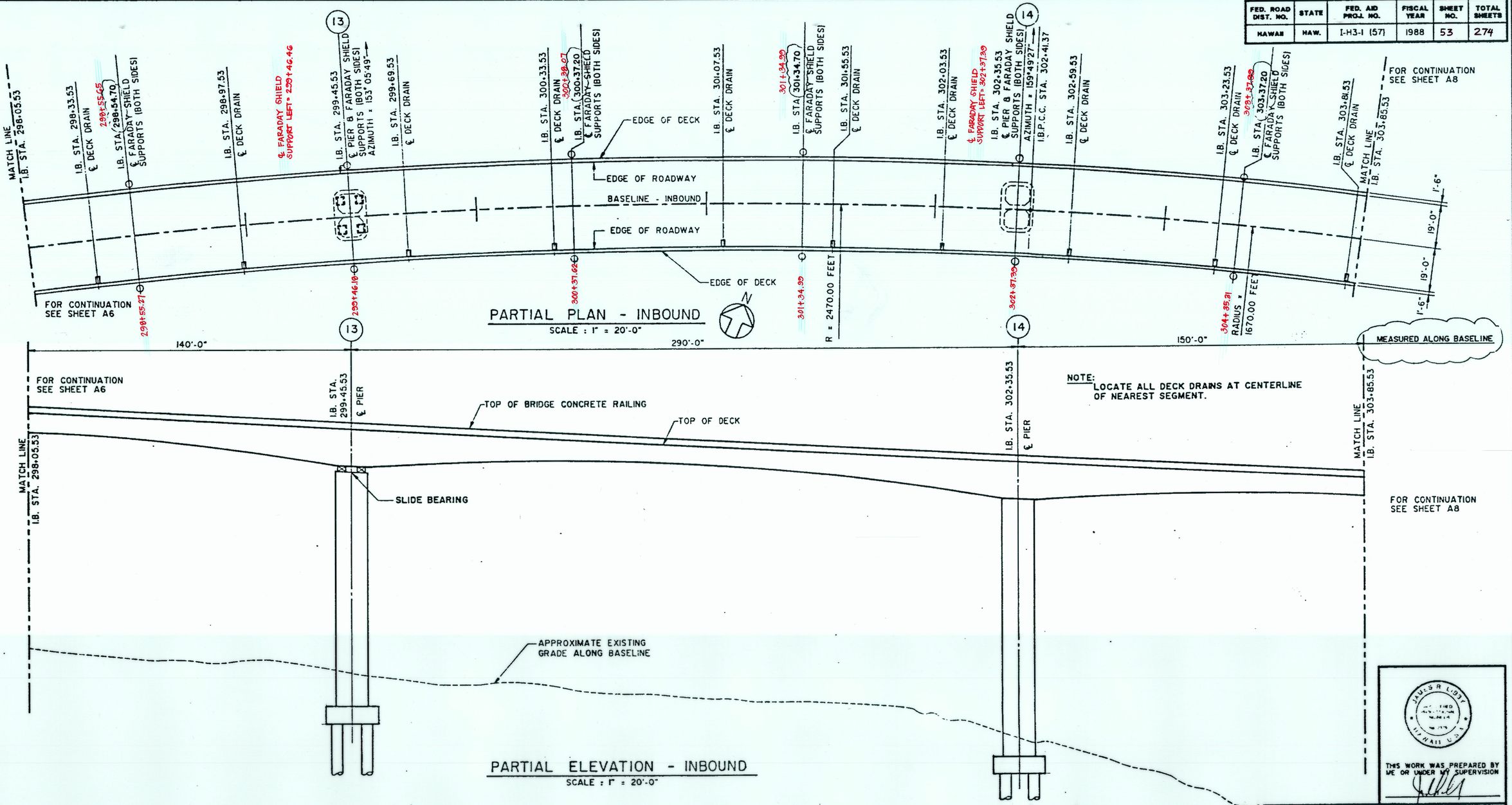
PART. DECK LAYOUT & ELEVATION

INBOUND STRUCTURE
STA. 292+25.53 TO STA. 298+05.53
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A6 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	53	274



PARTIAL PLAN - INBOUND

SCALE : 1" = 20'-0"

PARTIAL ELEVATION - INBOUND

SCALE : 1" = 20'-0"

NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

LEGEND:

1. ⟵ INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STA. AND REMOVED SIGN SUPPORT IP-14.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY HAWAII U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION
STA. 298+05.53 TO STA. 303+85.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

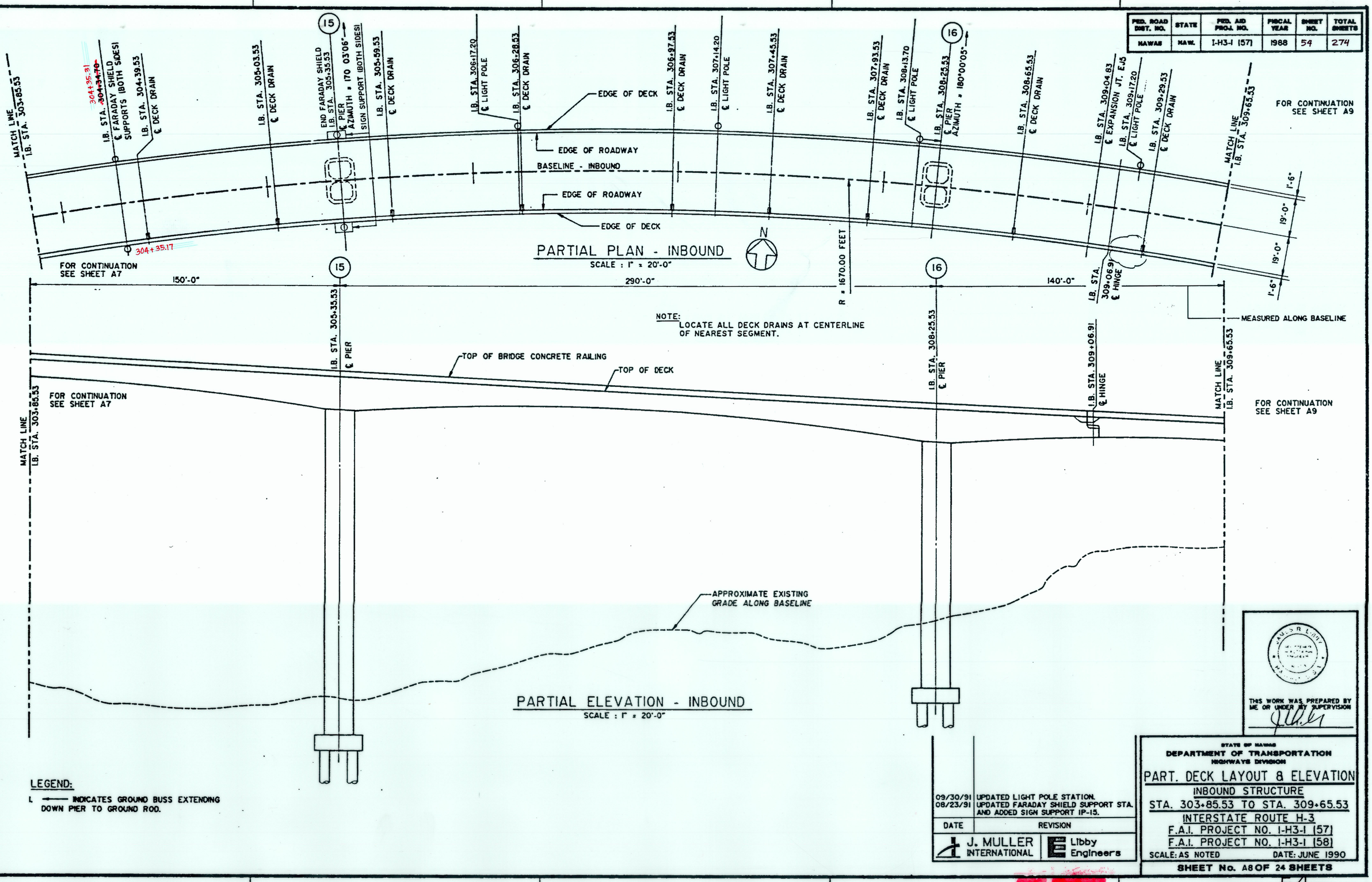
SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A7 OF 24 SHEETS

ORIGINAL PLANS — SURVEY PLOTTED BY — DRAWN BY — TRACED BY — NOTEBOOK — DESIGNED BY — QUANTITIES BY — CHECKED BY — DATE

53

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	54	274



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

NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

PARTIAL ELEVATION - INBOUND
SCALE : 1" = 20'-0"

LEGEND:
L ——— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

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

DATE	REVISION
09/30/91	UPDATED LIGHT POLE STATION.
08/23/91	UPDATED FARADAY SHIELD SUPPORT STA. AND ADDED SIGN SUPPORT IP-13.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — HAWAII

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

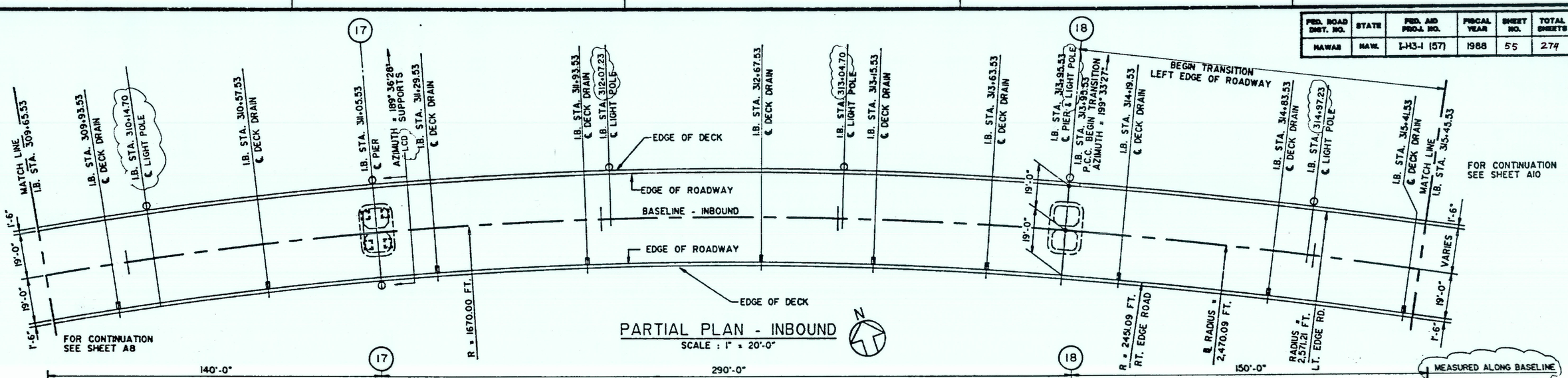
PART. DECK LAYOUT & ELEVATION

INBOUND STRUCTURE
STA. 303+85.53 TO STA. 309+65.53
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED — DATE: JUNE 1990

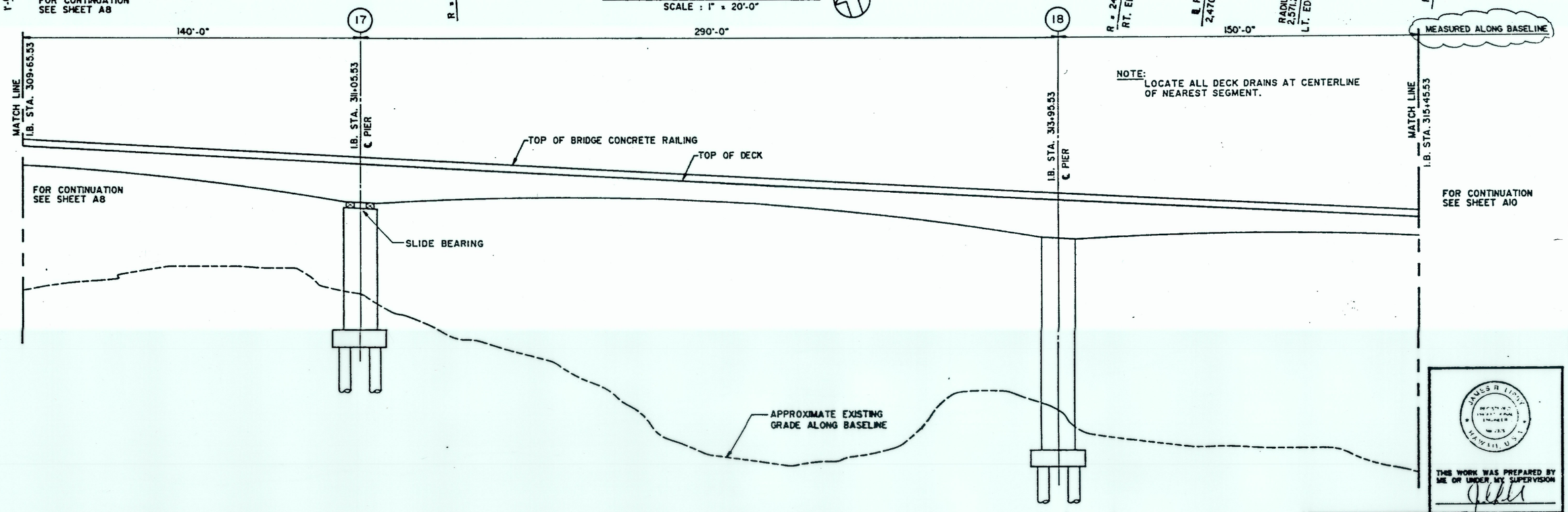
SHEET No. A8 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	55	274



PARTIAL PLAN - INBOUND

SCALE : 1" = 20'-0"



NOTE: LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

PARTIAL ELEVATION - INBOUND

SCALE : 1" = 20'-0"

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

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 7333 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	UPDATED LIGHT POLE STATIONS

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION

STA. 309+65.53 TO STA. 315+45.53

INBOUND STRUCTURE

INTERSTATE ROUTE H-3

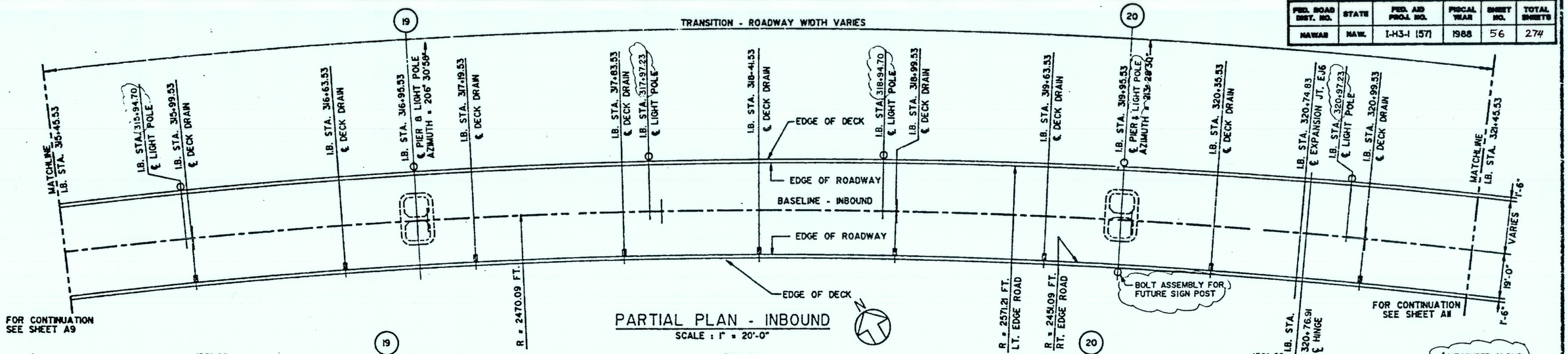
F.A.I. PROJECT NO. I-H3-1 (57)

F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

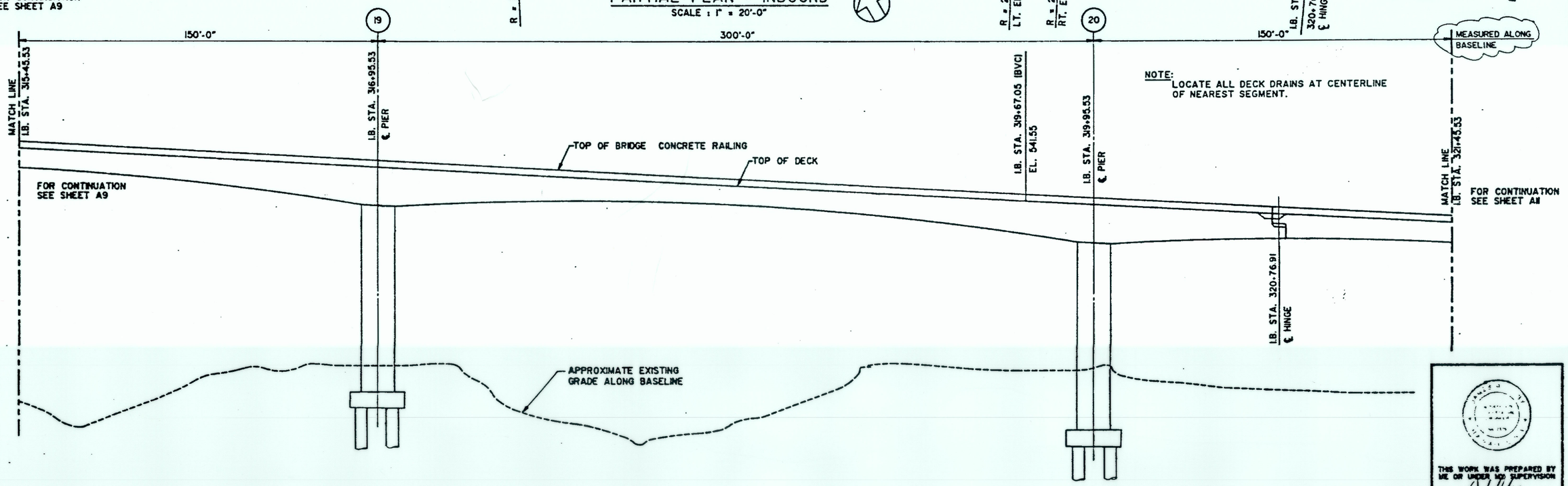
SHEET No. A9 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	56	274



PARTIAL PLAN - INBOUND

SCALE : 1" = 20'-0"



PARTIAL ELEVATION - INBOUND

SCALE : 1" = 20'-0"

NOTE: LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

LEGEND:

1. —— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.
2. O/R INDICATES OFFSET RIGHT OF BASELINE.
3. O/L INDICATES OFFSET LEFT OF BASELINE.

PLANS PREPARED BY ____ DATE
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
ORIGINAL PLANS
DETAILS

DATE	REVISION
08/23/91	UPDATED LIGHT POLE STATIONS & FUTURE SIGN POST.

J. MULLER INTERNATIONAL | Libby Engineers

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

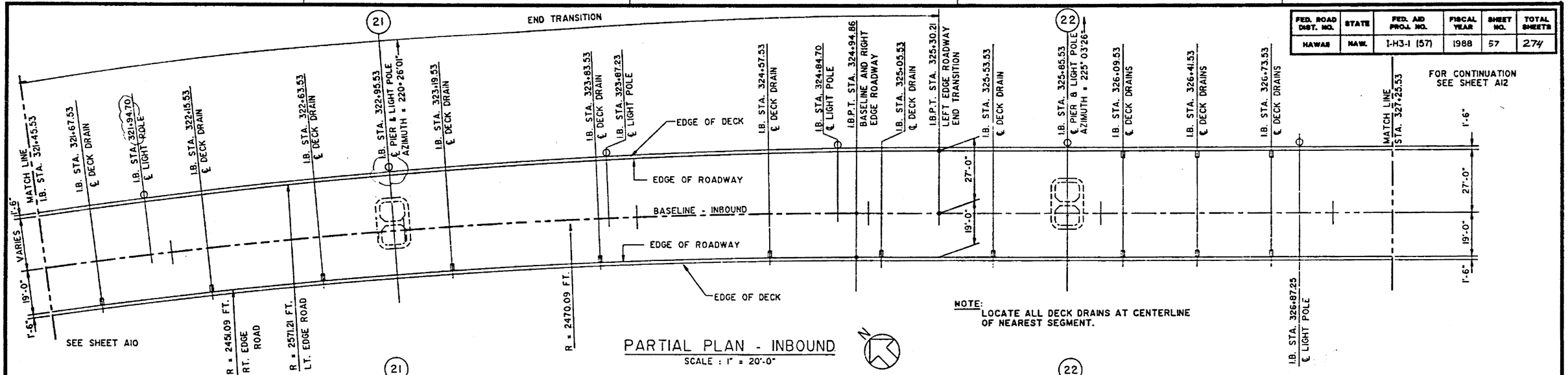
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION
STA. 315+45.53 TO STA. 321+45.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A10 OF 24 SHEETS

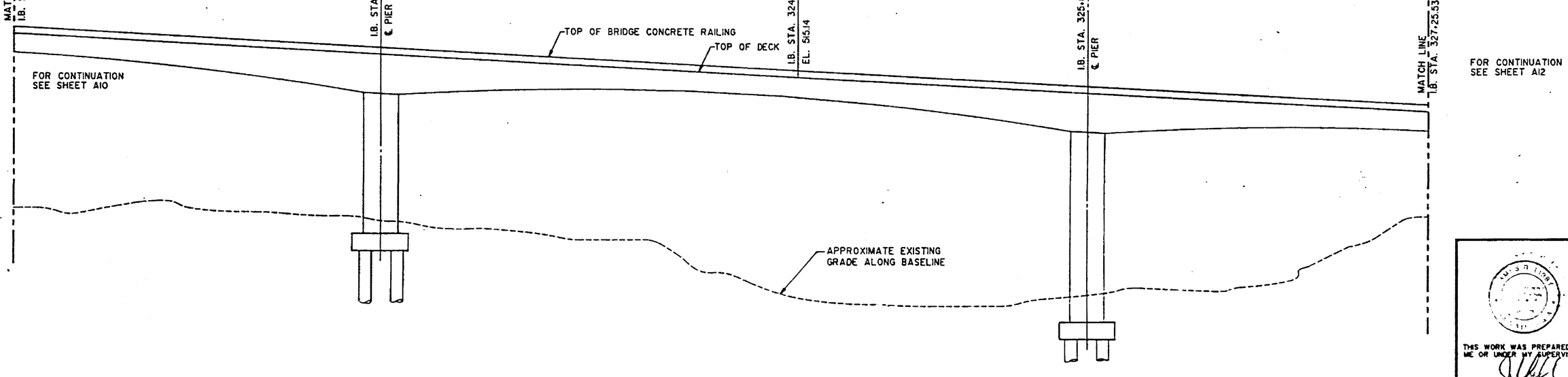
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	57	274



NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

PARTIAL PLAN - INBOUND

SCALE : 1" = 20'-0"



PARTIAL ELEVATION - INBOUND

SCALE : 1" = 20'-0"

LEGEND:

L —— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
09/30/91	UPDATED LIGHT POLE STATION.
08/23/91	UPDATED LIGHT POLE STATIONS.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

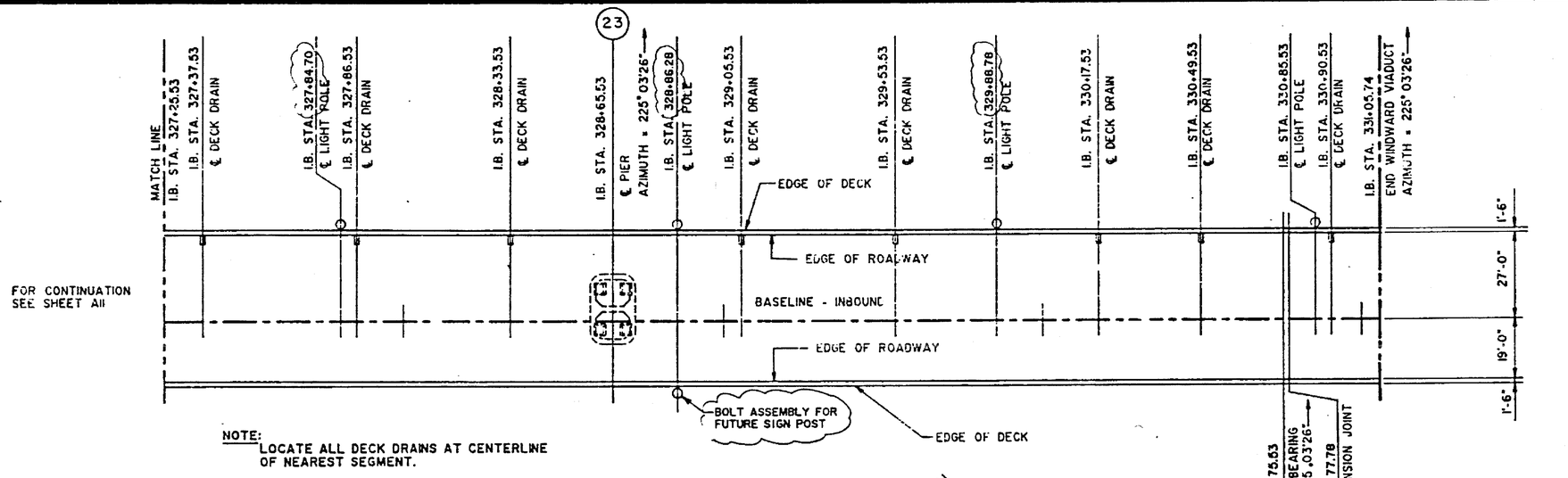
PART. DECK LAYOUT & ELEVATION
STA. 321+45.53 TO STA. 327+25.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A11 OF 24 SHEETS

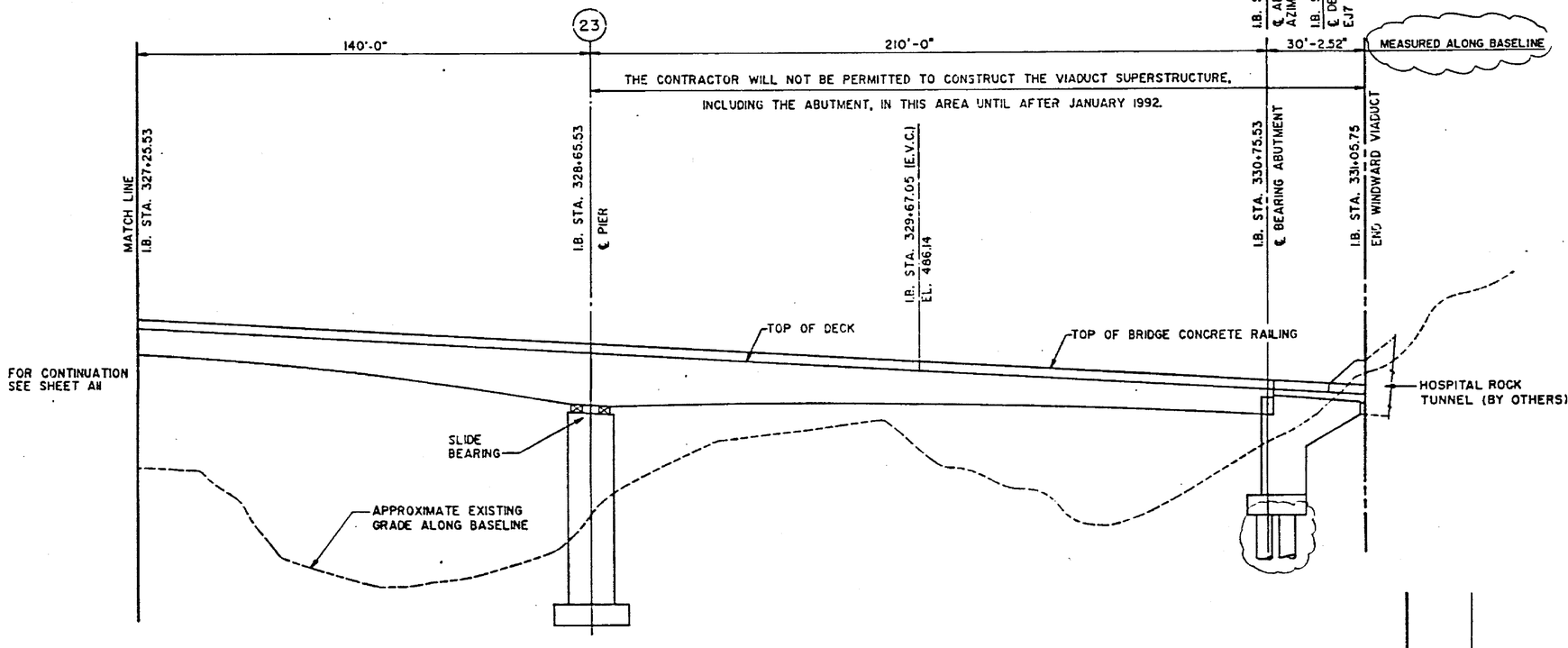
ORIGINAL FILM | NOTEBOOK No. ____ | SURVEY PLOTTED BY ____ DATE | DRAWN BY ____ | TRACED BY ____ | DESIGNED BY ____ | QUANTITIES BY ____ | CHECKED BY ____

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	58	274



NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

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



PARTIAL ELEVATION - INBOUND
SCALE : 1" = 20'-0"

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

DATE	REVISION
08/23/91	UPDATED LIGHT POLE STATIONS AND FUTURE SIGN POST.
07/02/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

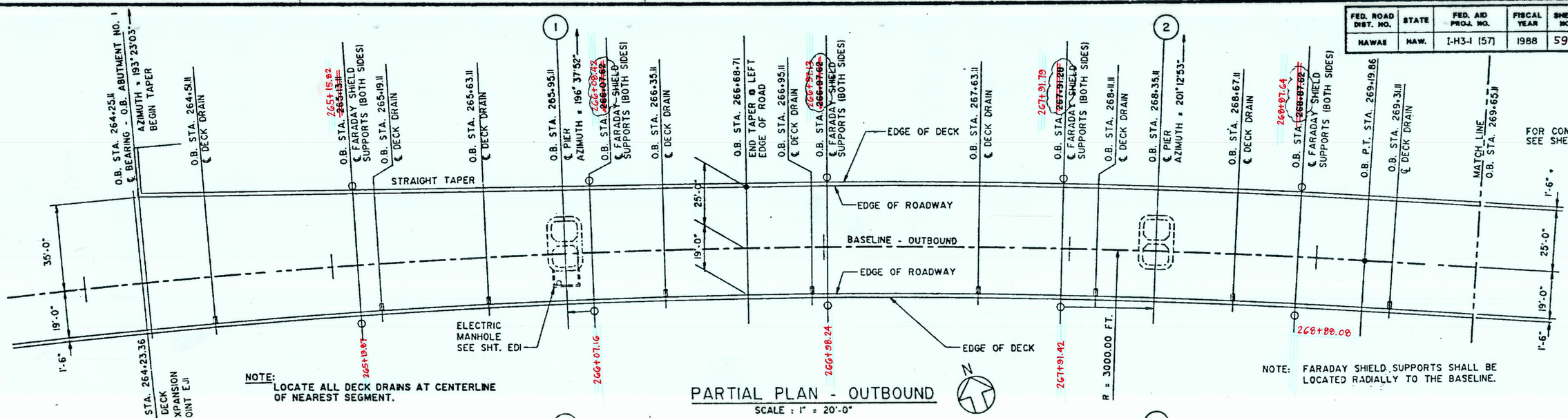
JAMES R. LIBBY — REGISTERED ENGINEER — HAWAII
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION
STA. 327+25.53 TO STA. 331+05.75
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)
SCALE: AS NOTED — DATE: JUNE 1990

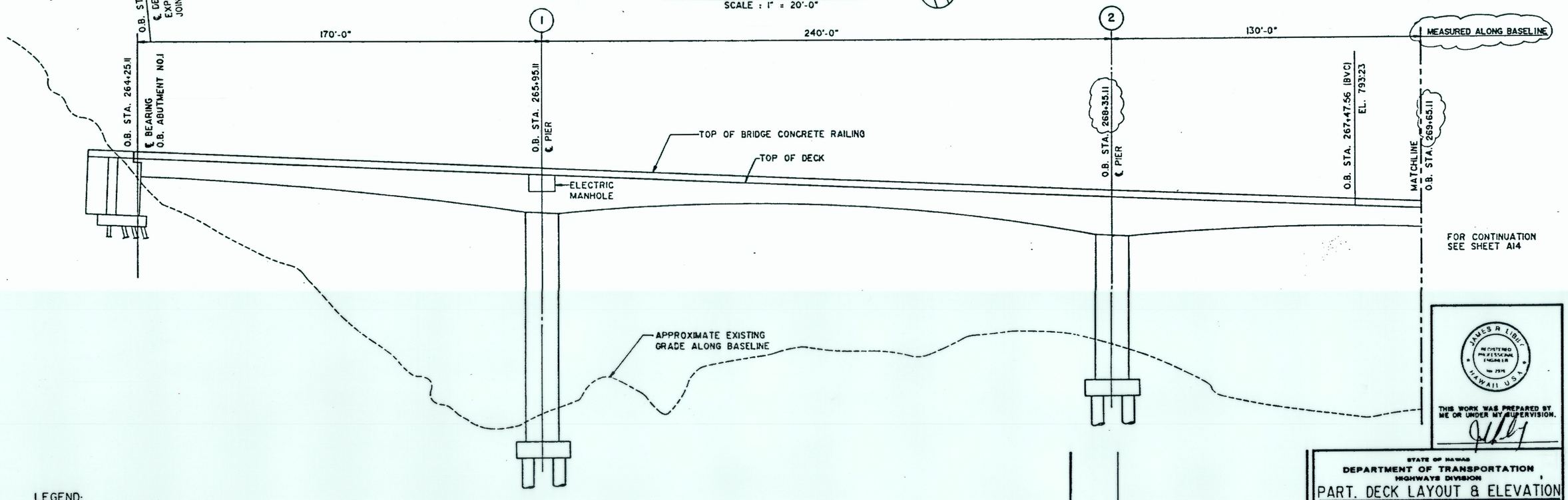
SHEET No. A12 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	59	274



PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"



PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"

LEGEND:

1. ——— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

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

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STA.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R LIBBY REGISTERED PROFESSIONAL ENGINEER NO. 7579 HAWAII U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION

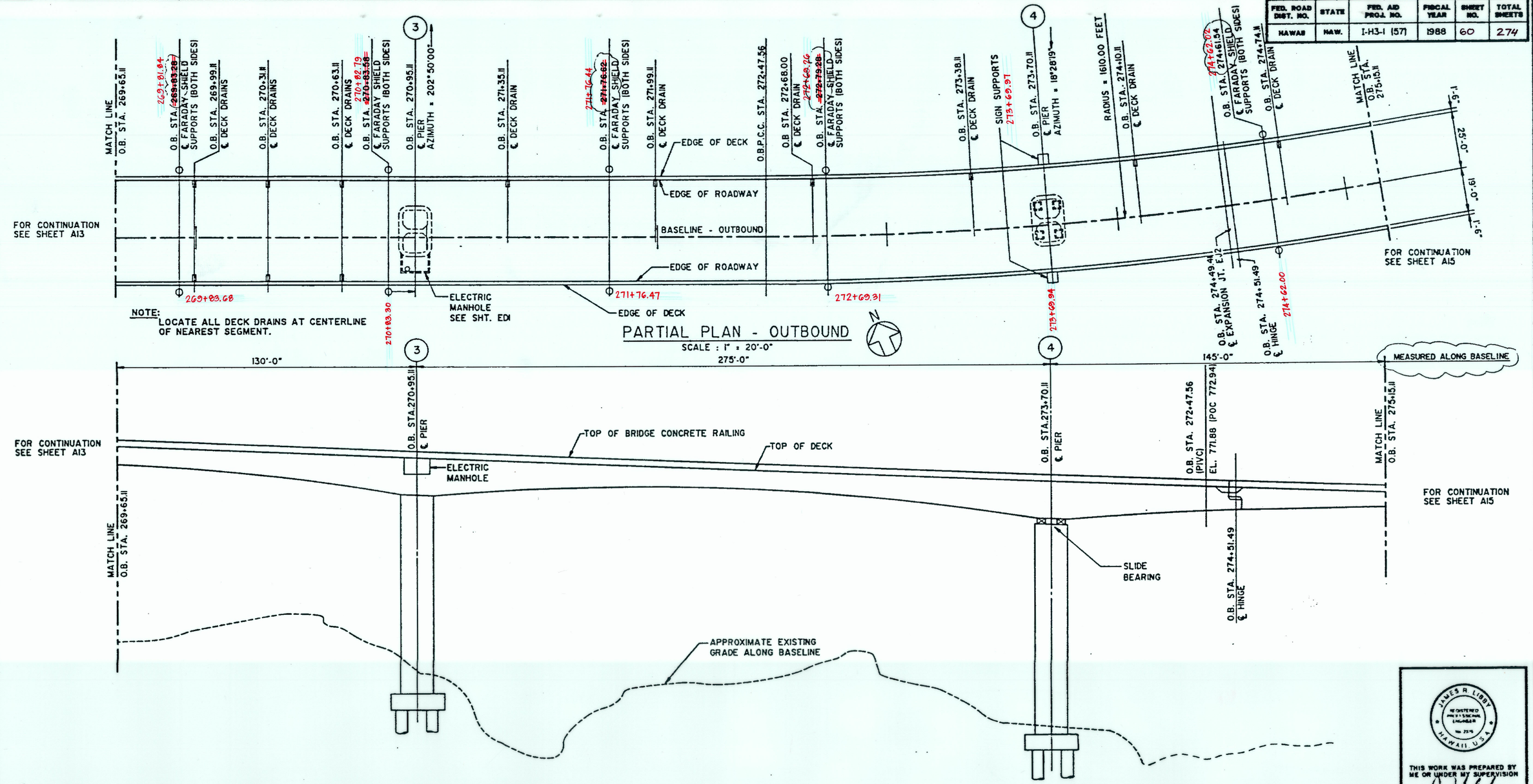
STA. 264+25.11 TO STA. 269+65.11
OUTBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A13 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	60	274



NOTE: LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"

PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"

LEGEND:

1. —— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.
2. O/R INDICATES OFFSET RIGHT OF BASELINE.
3. O/L INDICATES OFFSET LEFT OF BASELINE.

SURVEY PLOTTED BY ____ DATE
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
ORIGINAL PLAN | NOTE/NOSE | No.

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 7515 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STA.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION

STA. 269+65.11 TO STA. 275+15.11
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A14 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	61	274

MATCHLINE O.B. STA. 275+15.11

O.B. STA. 275+48.11 ℄ DECK DRAIN

O.B. STA. 275+60.08 ℄ FARADAY SHIELD SUPPORTS (BOTH SIDES)

O.B. STA. 276+12.11 ℄ DECK DRAIN

O.B. STA. 276+40.93 ℄ FARADAY SHIELD SUPPORTS (BOTH SIDES)

O.B. STA. 276+60.11 ℄ PIER AZIMUTH = 8° 09' 06"

O.B. STA. 276+84.11 ℄ DECK DRAIN

RADIUS = 1610.00 FEET

O.B. STA. 277+42.30 ℄ FARADAY SHIELD SUPPORTS (BOTH SIDES)

O.B. STA. 277+48.11 ℄ DECK DRAIN

EDGE OF DECK

EDGE OF ROADWAY

BASELINE - OUTBOUND

O.B. STA. 278+22.11 ℄ DECK DRAIN

O.B. STA. 278+28.05 ℄ FARADAY SHIELD SUPPORTS (BOTH SIDES)

O.B. STA. 278+70.11 ℄ DECK DRAIN

O.B. STA. 279+18.11 ℄ DECK DRAIN

O.B. STA. 279+22.00 ℄ FARADAY SHIELD SUPPORTS (BOTH SIDES)

O.B. STA. 279+50.11 ℄ PIER AZIMUTH = 357° 49' 53"

O.B. STA. 279+74.11 ℄ DECK DRAIN

O.B. STA. 280+22.12 ℄ FARADAY SHIELD SUPPORTS (BOTH SIDES)

O.B. STA. 280+38.11 ℄ DECK DRAIN

MATCH LINE O.B. STA. 280+95.11

3'-1"

25'-0"

19'-0"

3'-1"

FOR CONTINUATION SEE SHEET A14

FOR CONTINUATION SEE SHEET A16

ELECTRIC MANHOLE SEE SHT. ED1

NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

N

PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"

FOR CONTINUATION SEE SHEET A14

O.B. STA. 276+60.11 ℄ PIER

O.B. STA. 277+47.56 (EVC) EL. 754.76

TOP OF DECK

TOP OF BRIDGE CONCRETE RAILING

O.B. STA. 279+50.11 ℄ PIER

FOR CONTINUATION SEE SHEET A16

ELECTRIC MANHOLE

SLIDE BEARING

APPROXIMATE EXISTING GRADE ALONG BASELINE

MATCHLINE O.B. STA. 275+15.11

MATCHLINE O.B. STA. 280+95.11

145'-0"

290'-0"

145'-0"

MEASURED ALONG BASELINE

PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"

LEGEND:

L —— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER NO. 7573 HAWAII U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STA.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION

STA. 275+15.11 TO STA. 280+95.11

OUTBOUND STRUCTURE

INTERSTATE ROUTE H-3

F.A.I. PROJECT NO. I-H3-1 (57)

F.A.I. PROJECT NO. I-H3-1 (58)

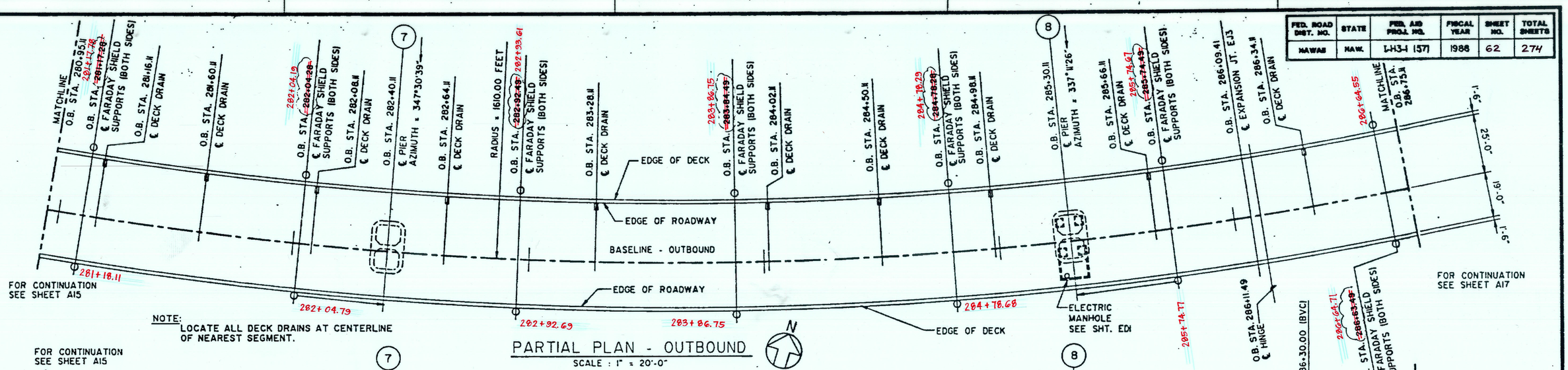
SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A15 OF 24 SHEETS

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

61

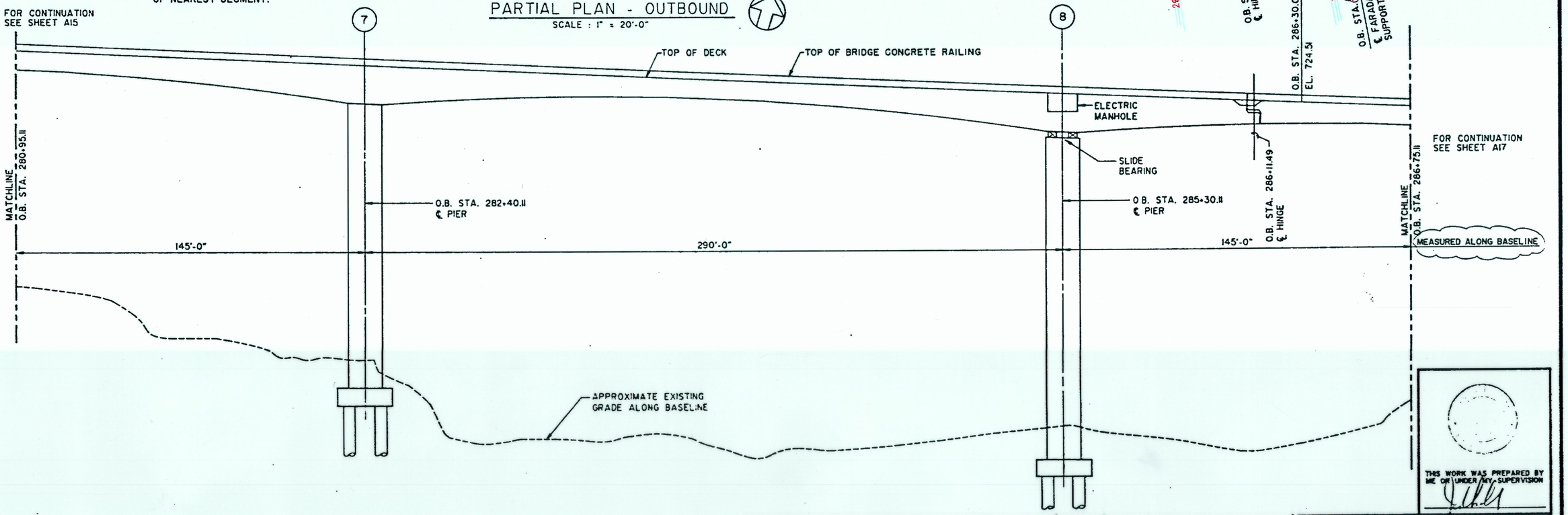
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	62	274



NOTE: LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"



LEGEND:

L —— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"

ORIGINAL PLOTTED BY — DATE
SHEET PLOTTED BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
NOTEBOOK No.

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STA.

J. MULLER INTERNATIONAL | Libby Engineers

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

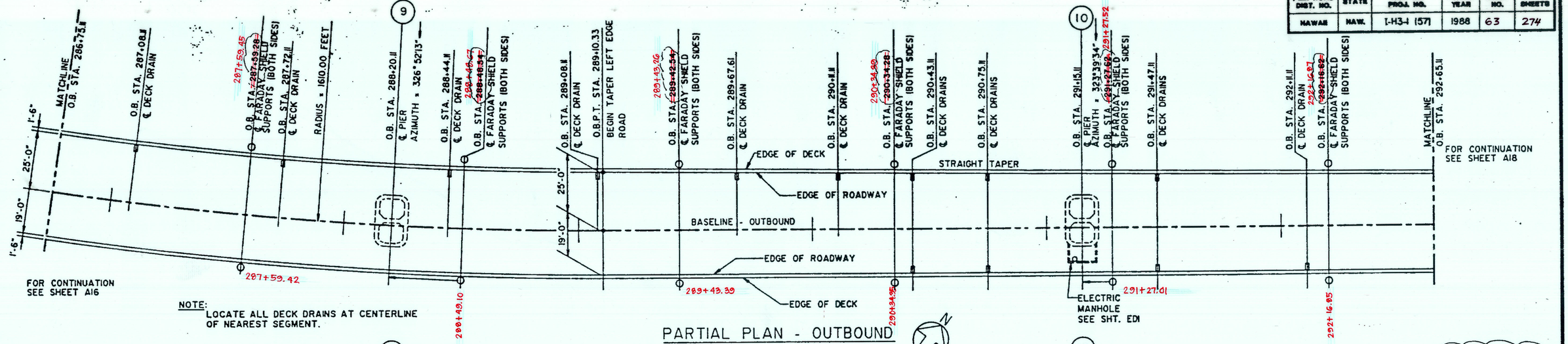
PART. DECK LAYOUT & ELEVATION

STA. 280+95.11 TO STA. 286+75.11
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED — DATE: JUNE 1990

SHEET No. A16 OF 24 SHEETS

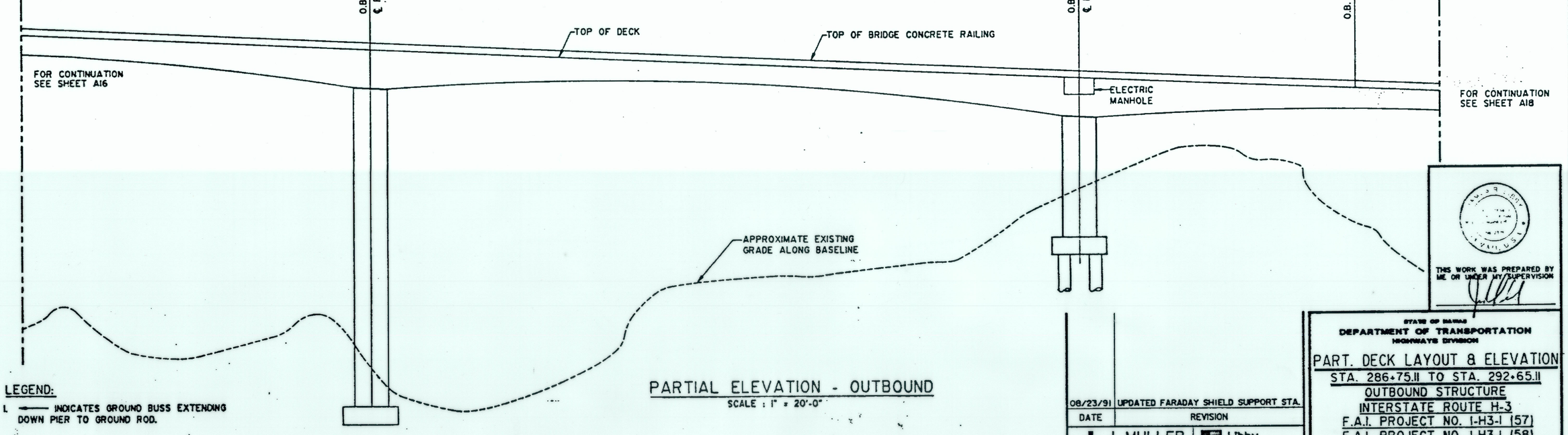
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	63	274



NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"



LEGEND:
L ⟵ INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STA.

J. MULLER INTERNATIONAL | Libby Engineers

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION

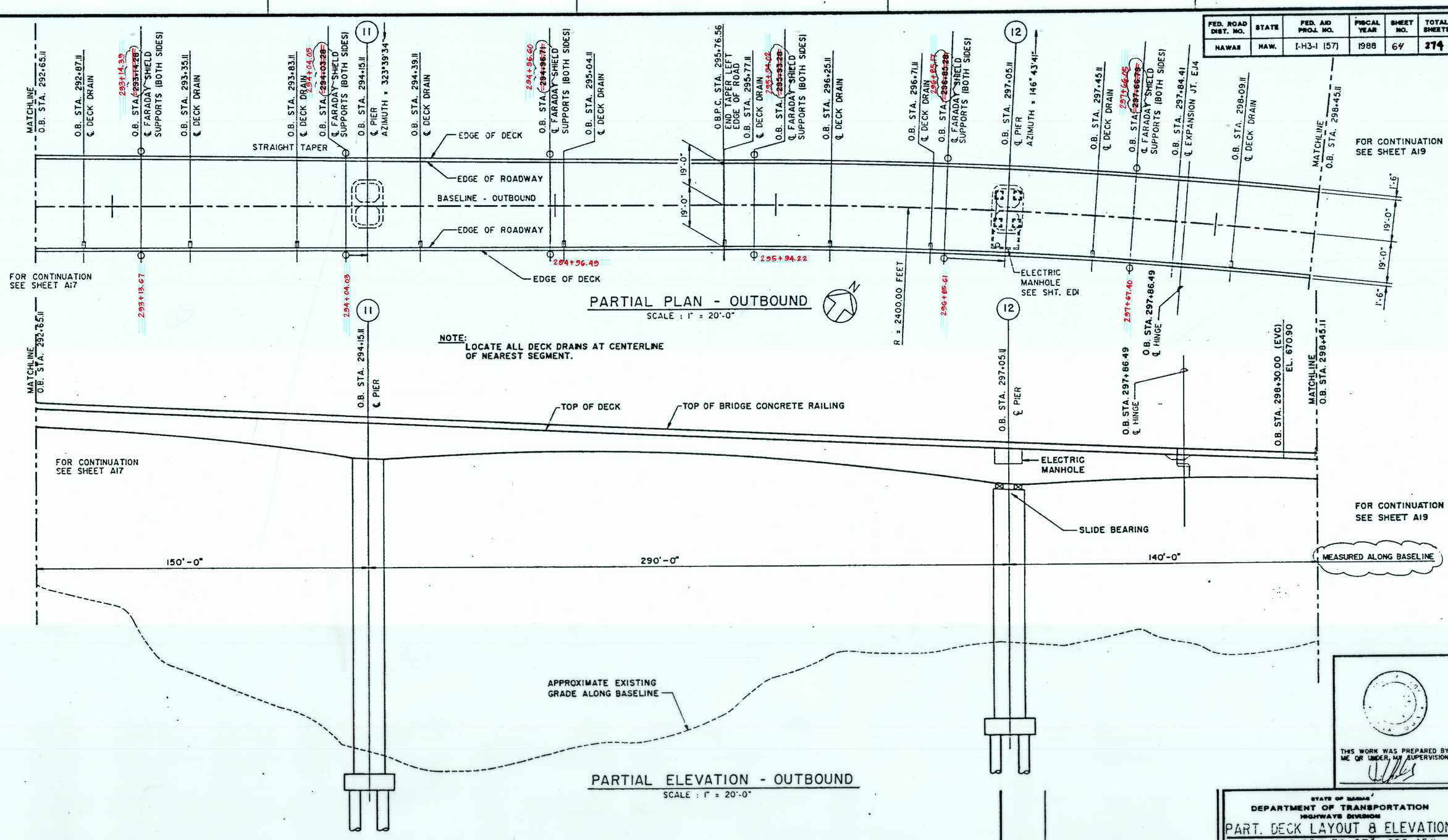
STA. 286+75.11 TO STA. 292+65.11
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A17 OF 24 SHEETS

63

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	64	274



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

NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

PARTIAL ELEVATION - OUTBOUND
SCALE : 1" = 20'-0"

LEGEND:
L ——— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STA.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION

STA. 292+65.11 TO STA. 298+45.11
OUTBOUND STRUCTURE

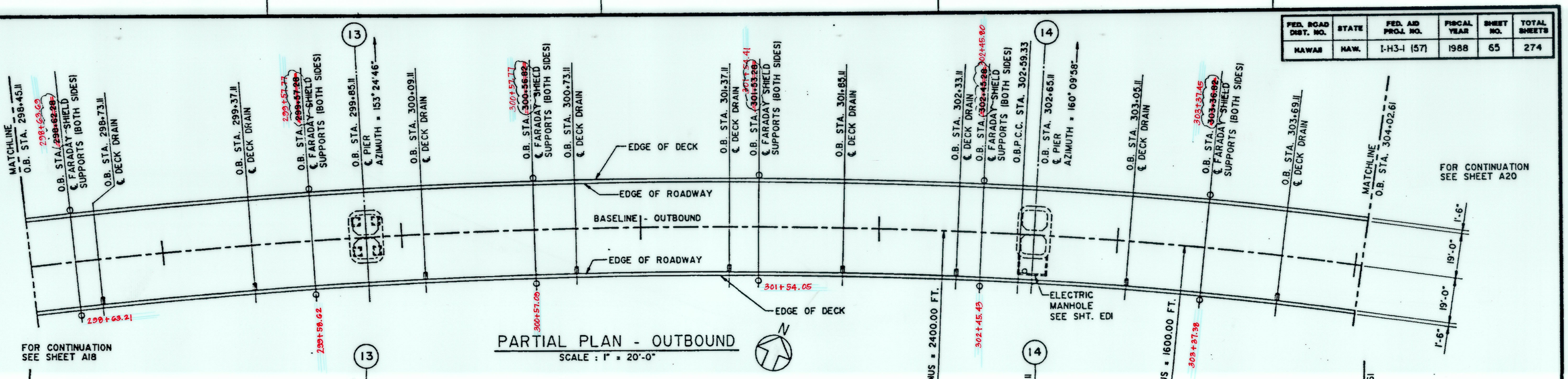
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A18 OF 24 SHEETS

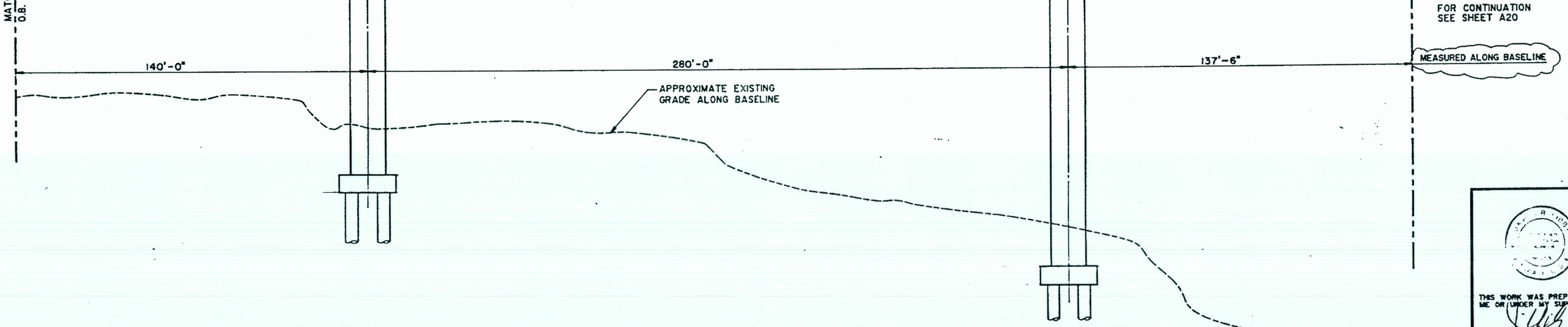
64

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	65	274



PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"



PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"

LEGEND:

L —— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

SURVEY PLOTTED BY ... DATE
DRAWN BY ... CHECKED BY
TRACED BY ... DESIGNED BY
PLANS PREPARED BY ... CHECKED BY

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STA.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION

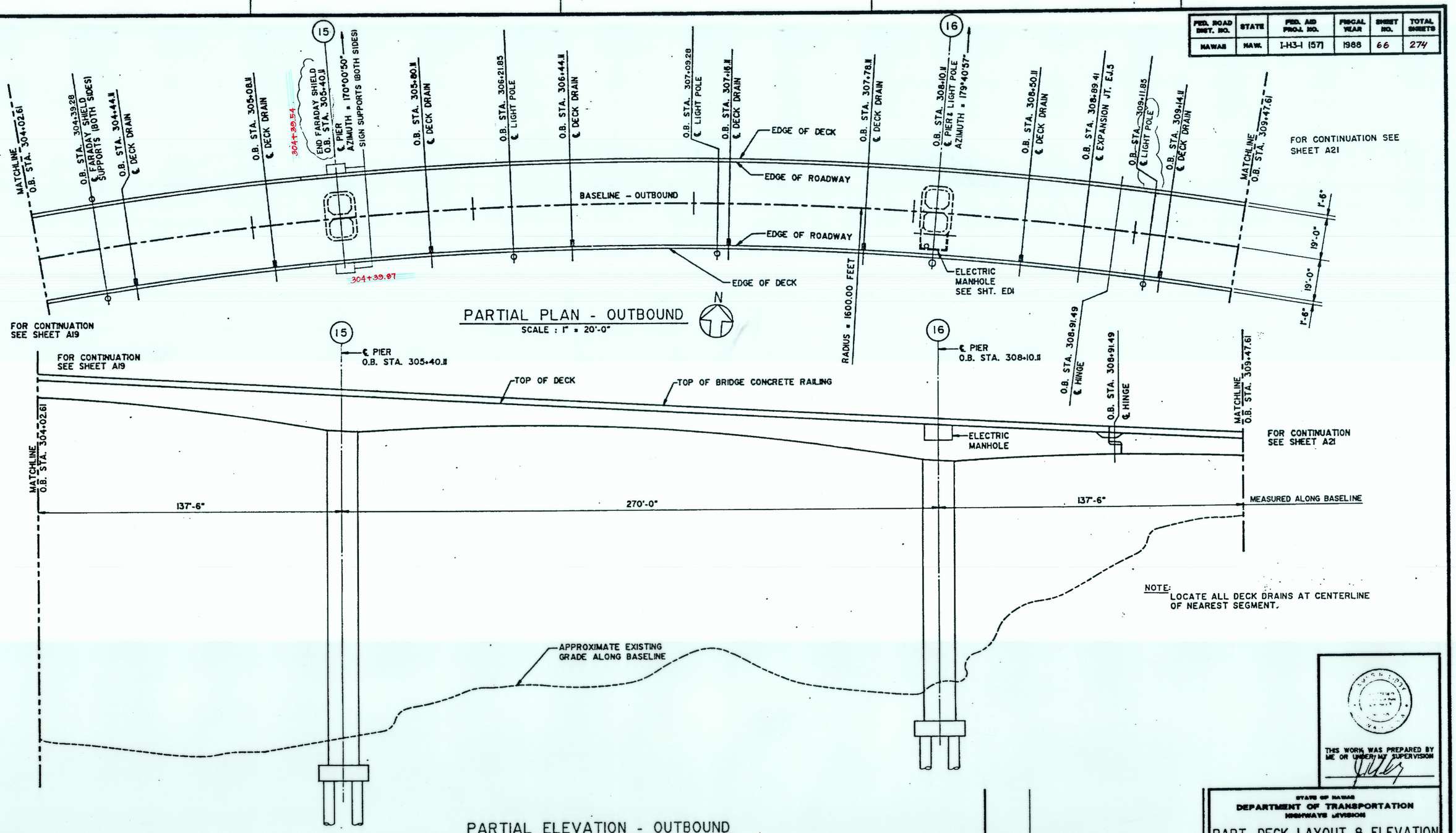
STA. 298+45.11 TO STA. 304+02.61
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A19 OF 24 SHEETS

65

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	66	274



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

PARTIAL ELEVATION - OUTBOUND
SCALE : 1" = 20'-0"

NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

LEGEND:
1. —— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.
2. O/R INDICATES OFFSET RIGHT OF BASELINE.
3. O/L INDICATES OFFSET LEFT OF BASELINE.

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE
NOTEBOOK
PG.

DATE	REVISION
09/30/91	UPDATED DRAWING.
08/23/91	UPDATED FARADAY SHIELD SUPPORT STA. AND SIGN SUPPORT.

J. MULLER INTERNATIONAL | Libby Engineers

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION

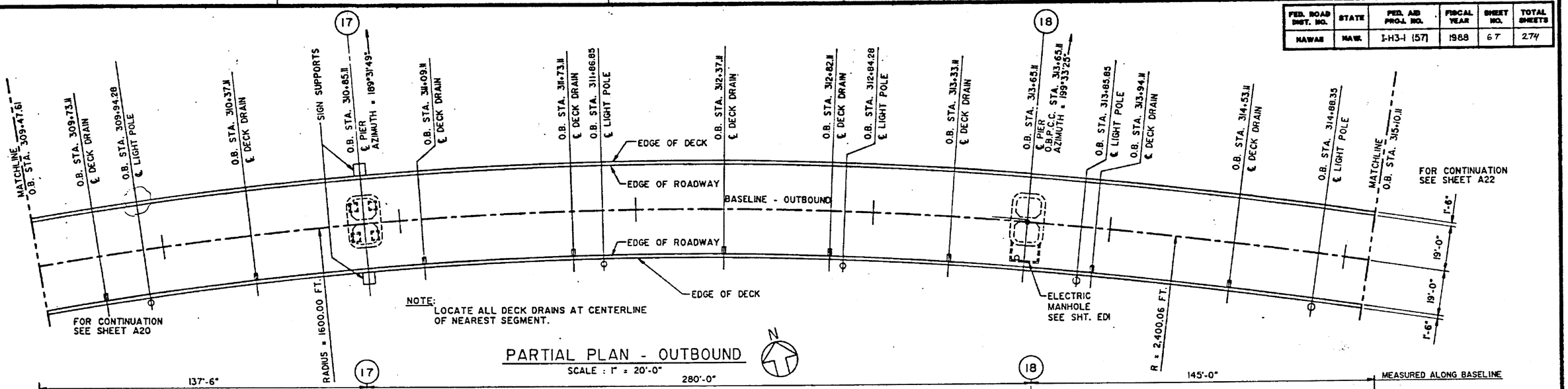
STA. 304+02.61 TO STA. 309+47.61
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A20 OF 24 SHEETS

66

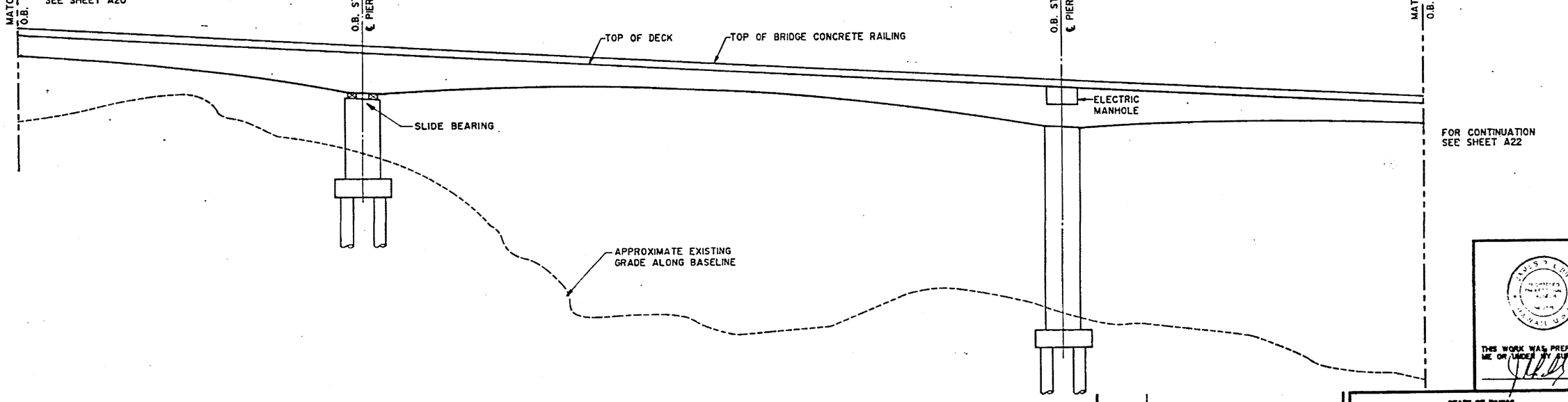
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	67	274



NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"



PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"

LEGEND:

L ⟵ INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

DATE	REVISION
09/30/91	UPDATED LIGHT POLE STATION.
08/23/91	UPDATED LIGHT POLE STATIONS.

J. MULLER INTERNATIONAL | Libby Engineers

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

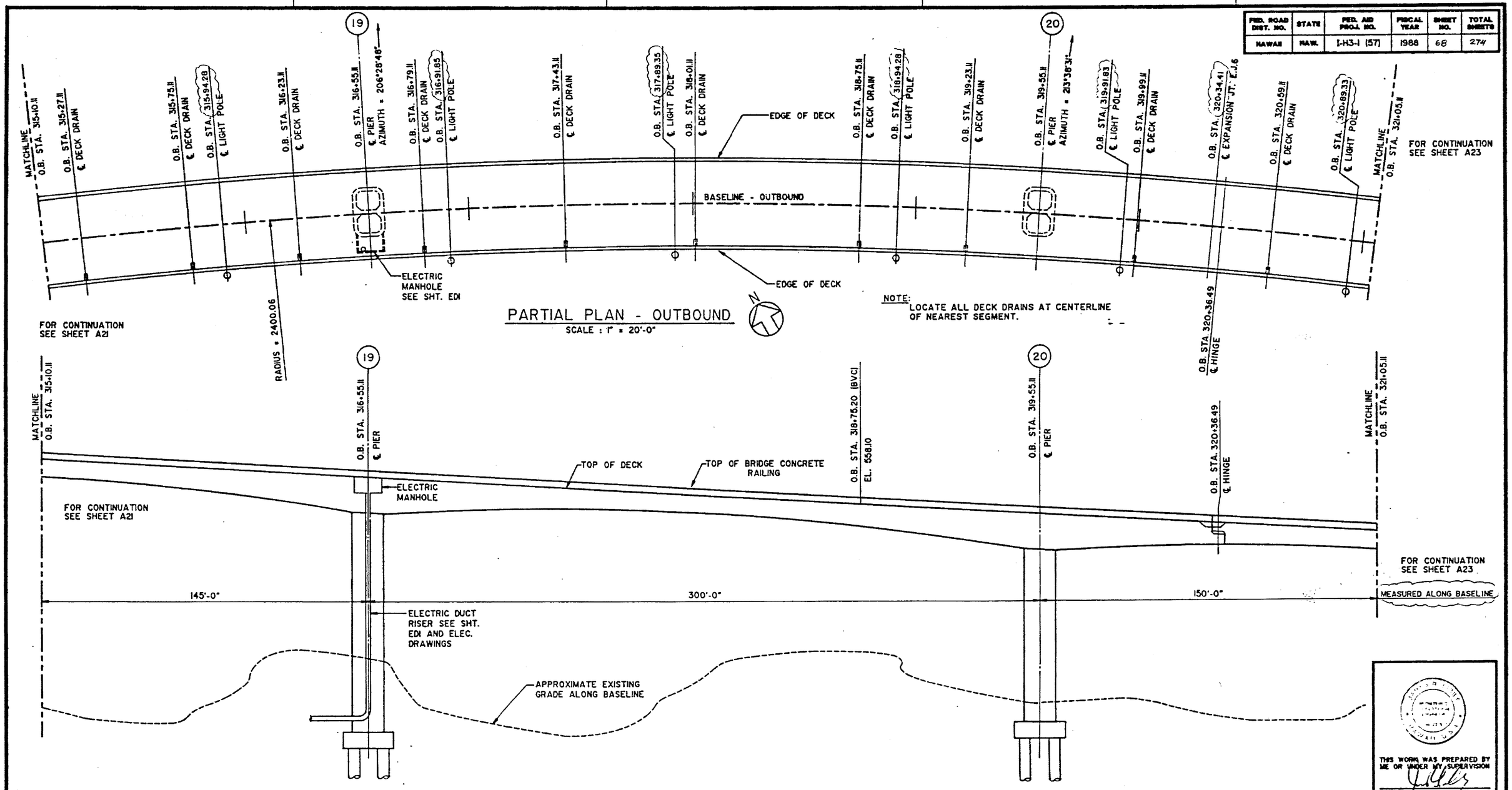
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION
STA. 309+47.61 TO STA. 315+10.11
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)
SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A21 OF 24 SHEETS

67

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	68	274



NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"

PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"

LEGEND:

1. L —— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.
2. O/R INDICATES OFFSET RIGHT OF BASELINE.
3. O/L INDICATES OFFSET LEFT OF BASELINE.

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	UPDATED LIGHT POLES & E.J. STA.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

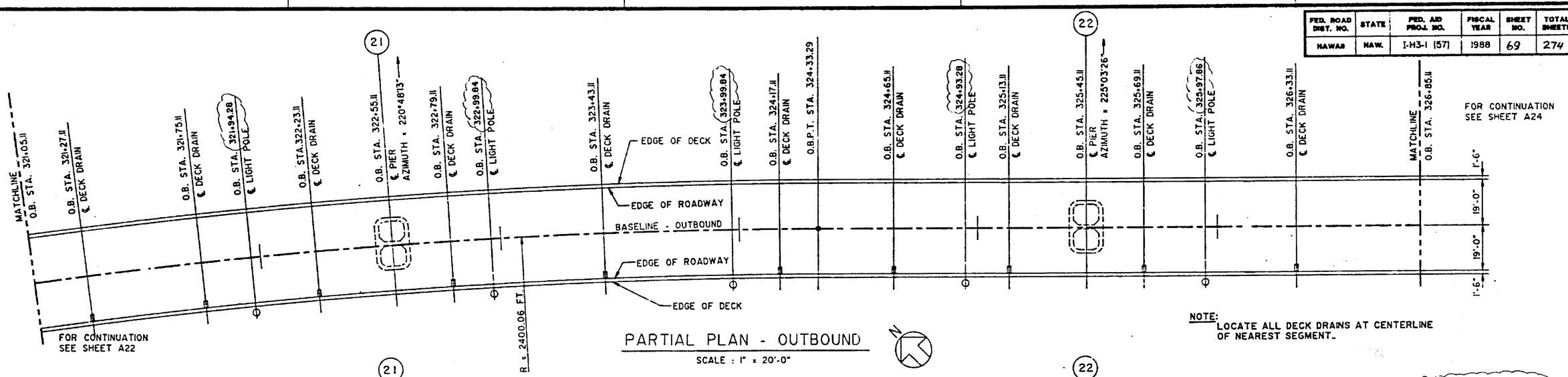
PART. DECK LAYOUT & ELEVATION

STA. 315+10.11 TO STA. 321+05.11
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A22 OF 24 SHEETS

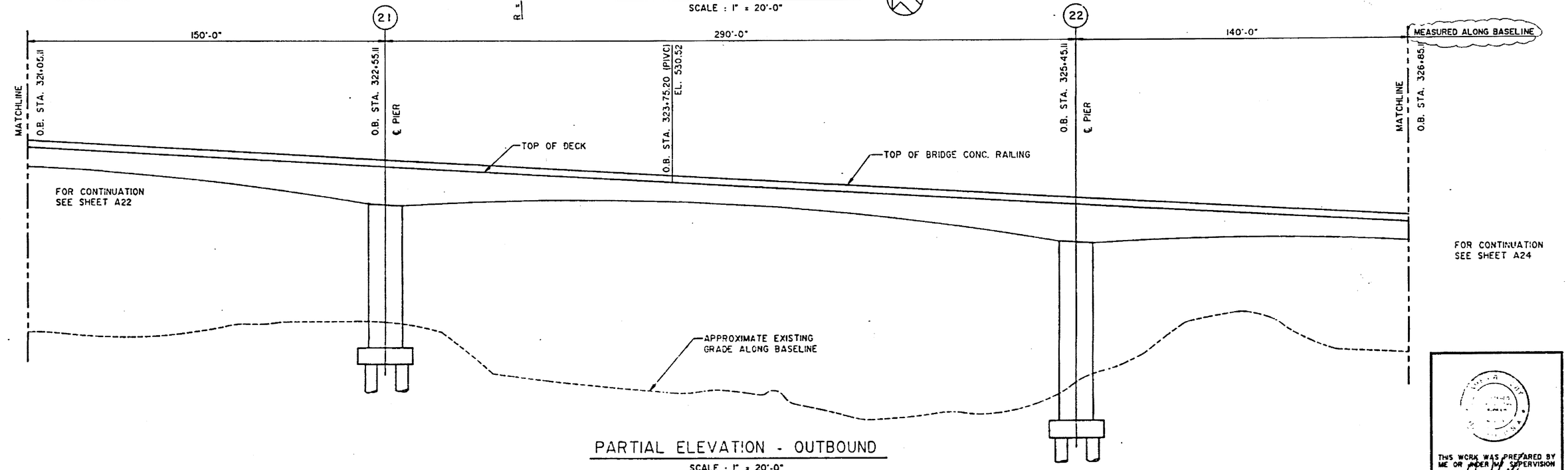
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	69	274



PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"

NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.



PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	UPDATED LIGHT POLES & E.J. STA.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

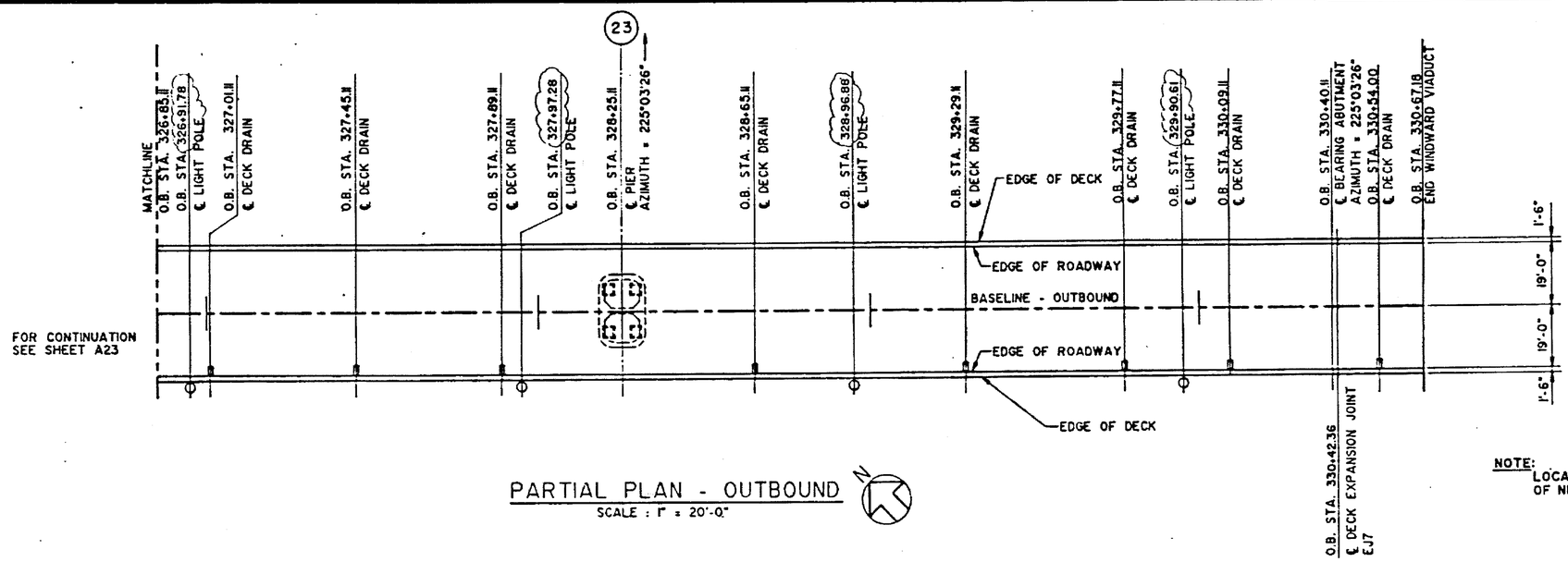
PART. DECK LAYOUT & ELEVATION

STA. 322+55.11 TO STA. 326+85.11
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED — DATE: JUNE 1990

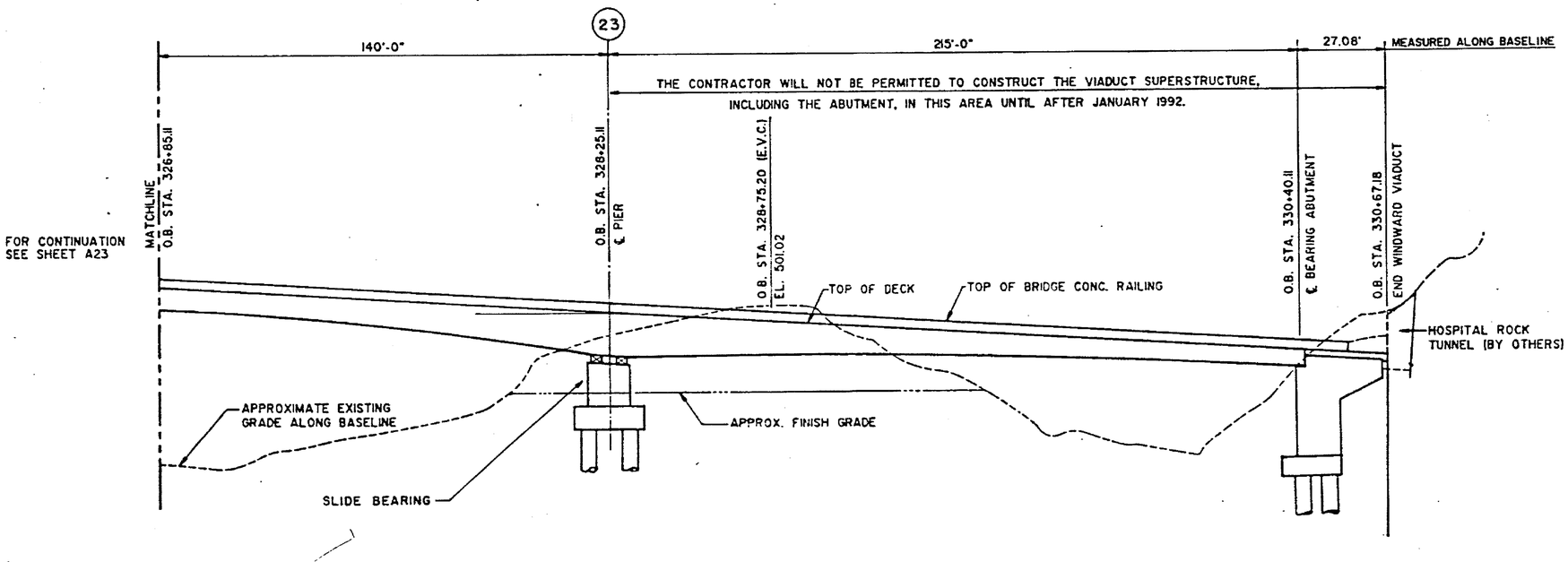
SHEET No. A23 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	70	274



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

NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.



PARTIAL ELEVATION - OUTBOUND
SCALE : 1" = 20'-0"

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

DATE	REVISION
08/23/91	UPDATED LIGHT POLES & E.J. STA.
07/02/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
HAWAII U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

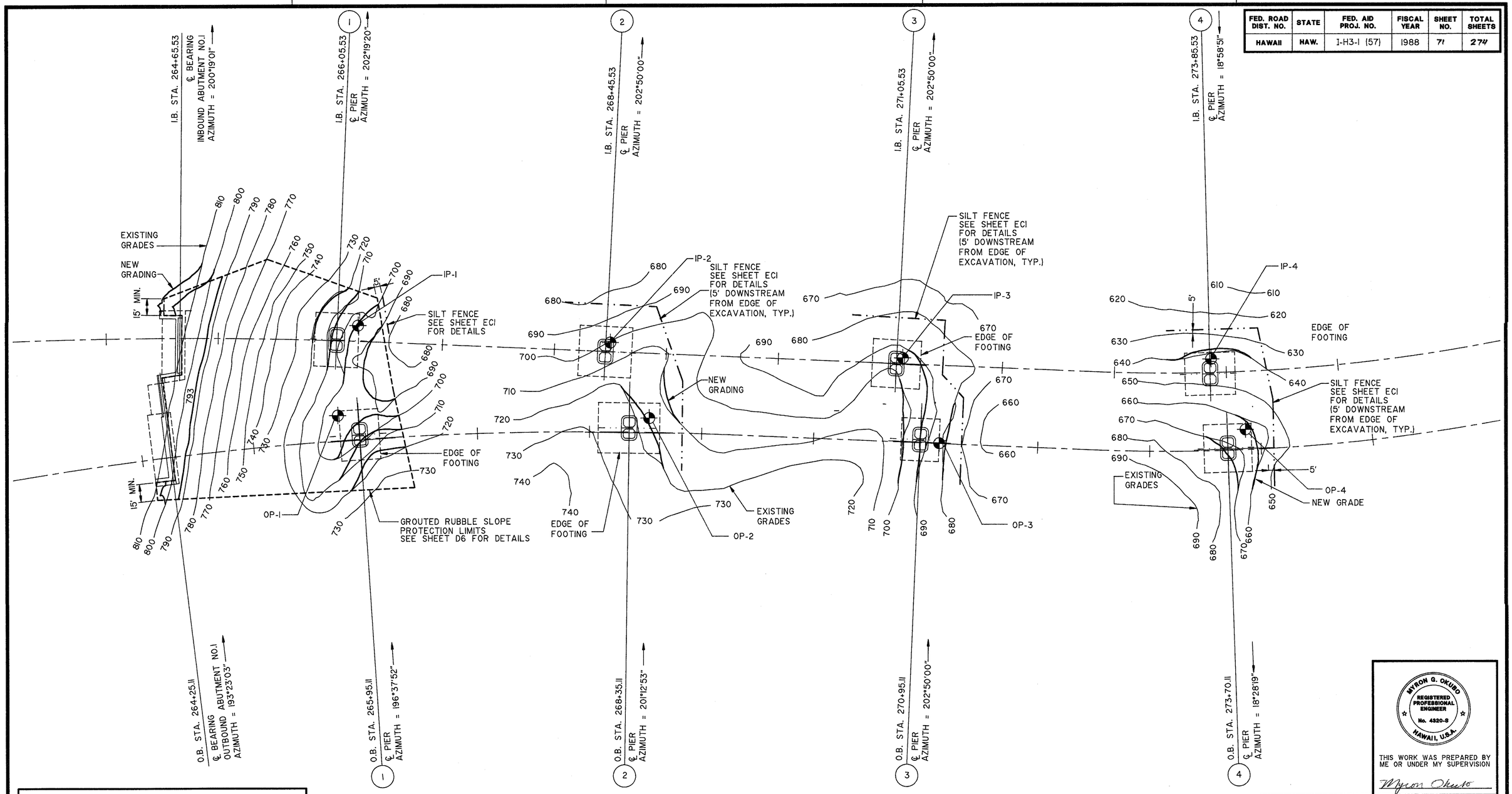
PART. DECK LAYOUT & ELEVATION

STA. 326+85.11 TO STA. 330+67.18
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET NO. A24 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	71	274



PARTIAL FOUNDATION PLAN

SCALE : 1" = 40'-0"

N

LEGEND

- FEWELL GEOTECHNICAL ENGINEERING LTD. BORING LOCATIONS
- WALTER LUM ASSOCIATES BORING LOCATIONS
- FOR BORING LOGS, SEE SHEET B-1
- FOR ℄ PIER OFFSET FROM ℄, SEE SHT. PS4

GENERAL NOTE:

GROUTED RUBBLE SLOPE PROTECTION AND GRP DRAINAGE PROTECTION SHALL EXTEND TO THE MINIMUM LIMITS SHOWN ON THE PLANS OR AS REQUIRED TO RESTORE EXCAVATED AREAS TO THE EXISTING GRADE.

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

DATE	REVISION
6/30/89	REVISED GRADING AT ABUTMENT; REMOVED GROUTED RUBBLE SLOPE PROTECTION AT PIERS 2, 3, & 4.

MYRON G. OKUBO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PARTIAL FOUNDATION PLAN

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

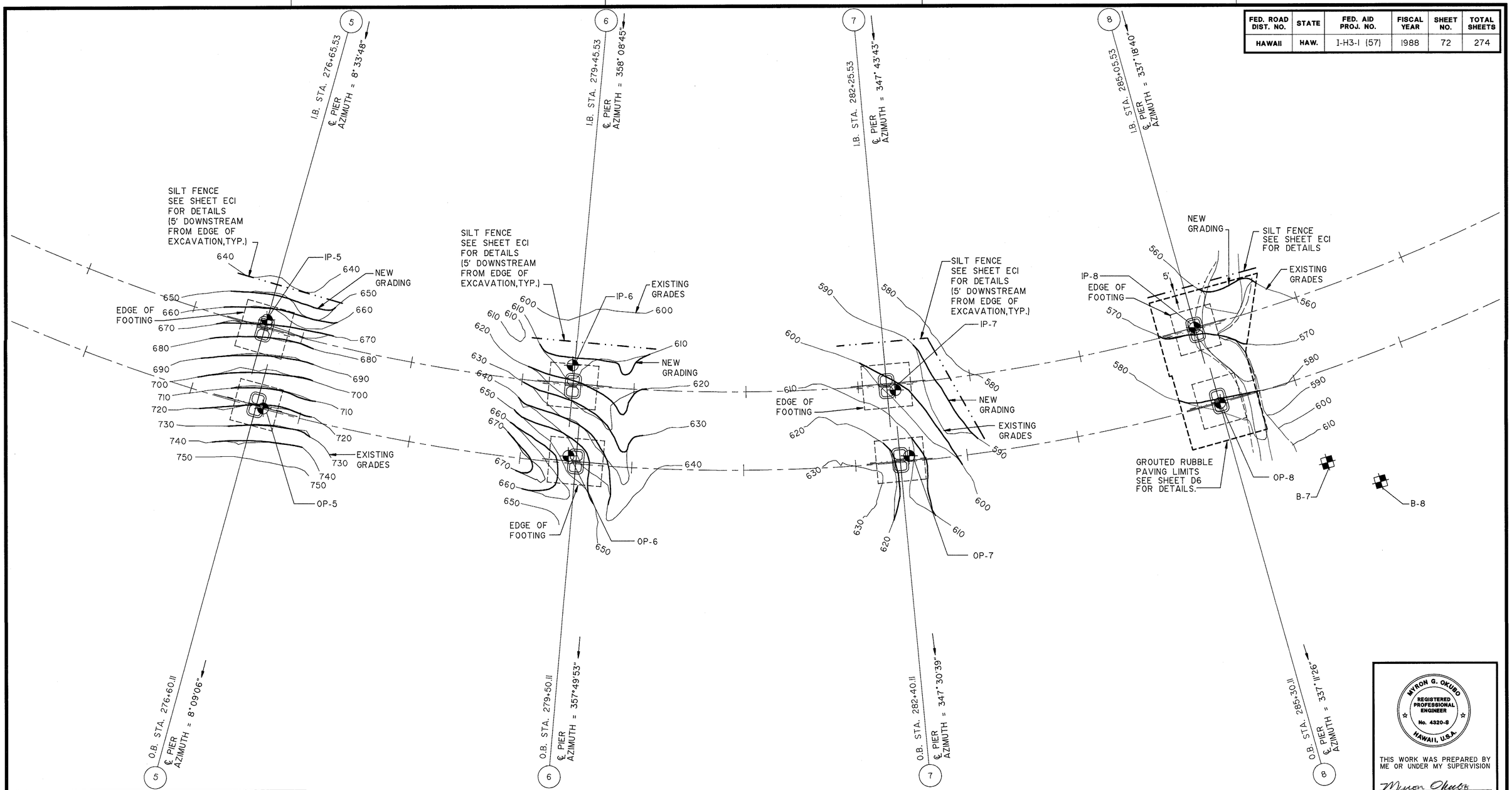
SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. FPI OF 6 SHEETS

ADD. 71

JUN 26 1989

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	72	274



PARTIAL FOUNDATION PLAN

SCALE : 1" = 40'-0"

N

LEGEND

- FEWELL GEOTECHNICAL ENGINEERING LTD. BORING LOCATIONS
- WALTER LUM ASSOCIATES BORING LOCATIONS
- FOR BORING LOGS, SEE SHEET B-1
- ℄ PIER OFFSET FROM ℬ, SEE SHT. PS4

GENERAL NOTE:

GROUTED RUBBLE SLOPE PROTECTION AND GRP DRAINAGE PROTECTION SHALL EXTEND TO THE MINIMUM LIMITS SHOWN ON THE PLANS OR AS REQUIRED TO RESTORE EXCAVATED AREAS TO THE EXISTING GRADE.

SURVEY PLOTTED BY ____ DATE
DRAWN BY "
TRACED BY "
DESIGNED BY "
QUANTITIES BY "
CHECKED BY "
ORIGINAL PLANS
NOTEBOOK No. ____

DATE	REVISION
6/30/89	REMOVED GROUTED RUBBLE SLOPE PROTECTION AT PIERS 5, 6 & 7.

MYRON G. OKUBO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PARTIAL FOUNDATION PLAN

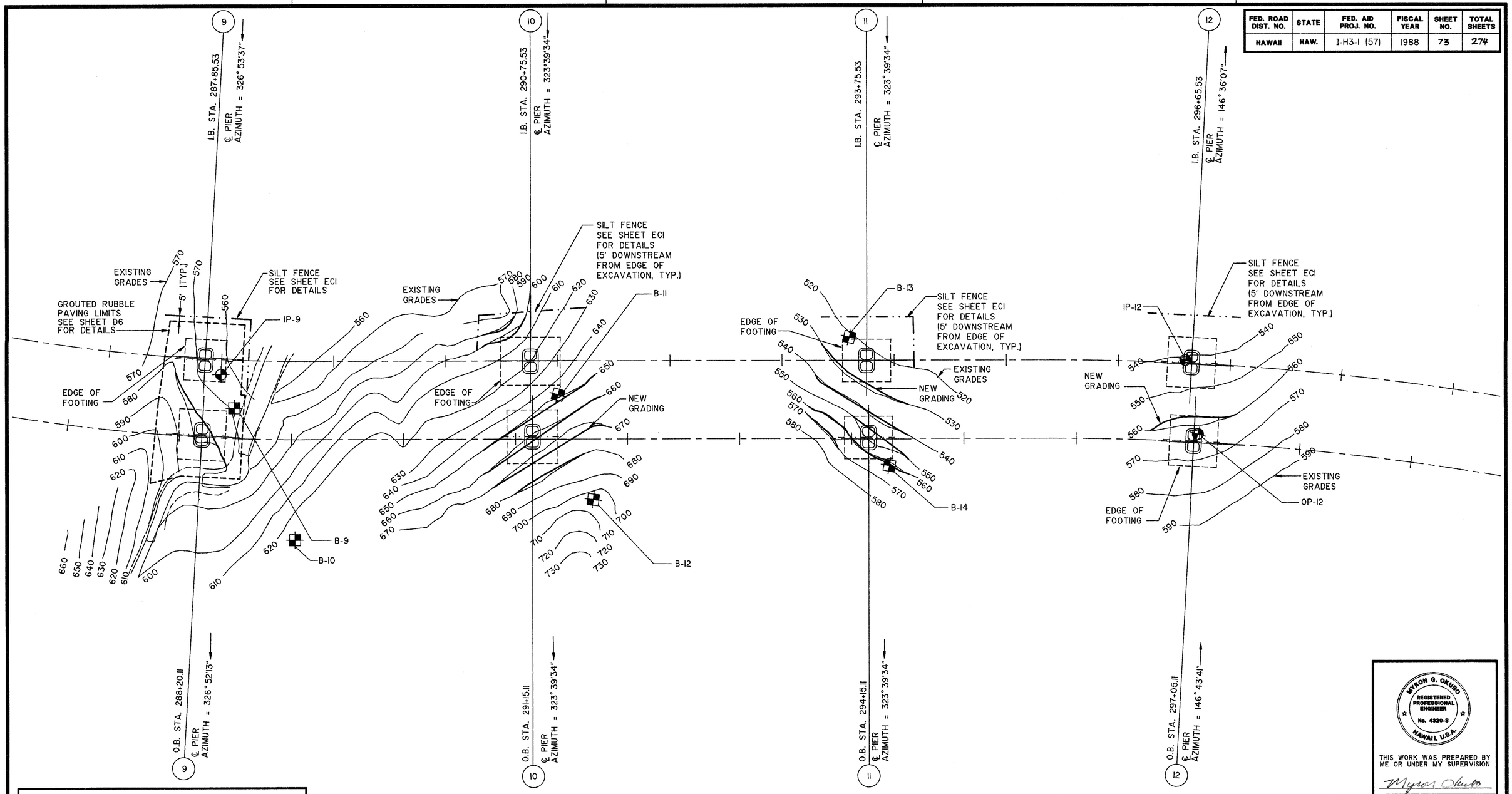
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. FP2 OF 6 SHEETS

ADD. 72

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	73	274



PARTIAL FOUNDATION PLAN

SCALE : 1" = 40'-0"

LEGEND

- FEWELL GEOTECHNICAL ENGINEERING LTD. BORING LOCATIONS
- WALTER LUM ASSOCIATES BORING LOCATIONS
- FOR BORING LOGS, SEE SHEET B-1
- FOR ℄ PIER OFFSET FROM ℄, SEE SHT. PS4

GENERAL NOTE:

GROUTED RUBBLE SLOPE PROTECTION AND GRP DRAINAGE PROTECTION SHALL EXTEND TO THE MINIMUM LIMITS SHOWN ON THE PLANS OR AS REQUIRED TO RESTORE EXCAVATED AREAS TO THE EXISTING GRADE.

DATE	REVISION
6/30/89	REMOVED GROUTED RUBBLE SLOPE PROTECTION AT PIERS 10, 11 & 12.

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

MYRON G. OKUBO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PARTIAL FOUNDATION PLAN

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

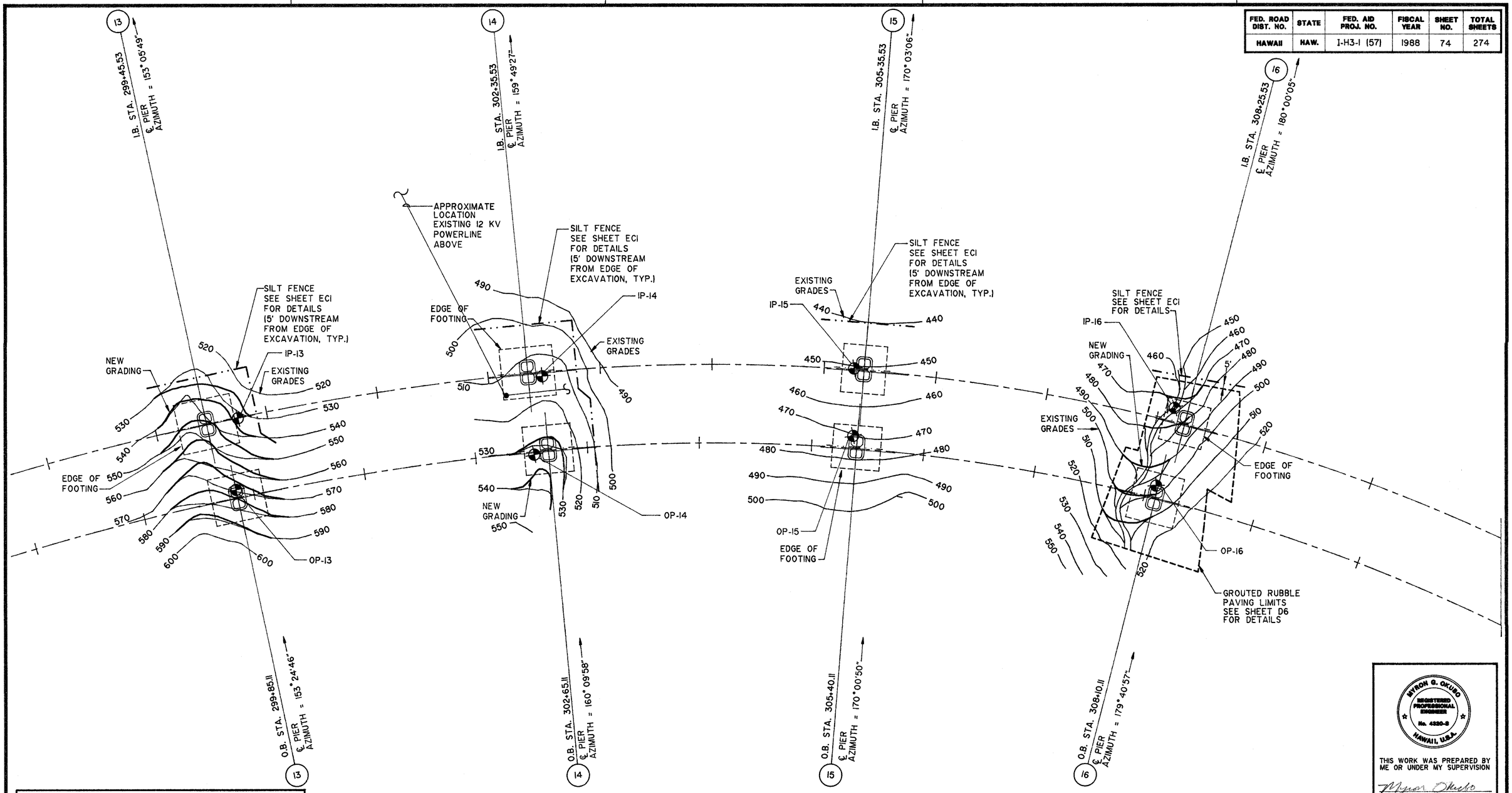
SCALE: AS NOTED — DATE: SEPT. 1988

SHEET No. FP3 OF 6 SHEETS

ADD. 73

JUN 26 19 9

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	74	274



PARTIAL FOUNDATION PLAN

SCALE : 1" = 40'-0"

LEGEND

- FEWELL GEOTECHNICAL ENGINEERING LTD. BORING LOCATIONS
- WALTER LUM ASSOCIATES BORING LOCATIONS
- FOR BORING LOGS, SEE SHEET B-1
- FOR ℄ PIER OFFSET FROM ℄, SEE SHT. PS4

GENERAL NOTE:

GROUTED RUBBLE SLOPE PROTECTION AND GRP DRAINAGE PROTECTION SHALL EXTEND TO THE MINIMUM LIMITS SHOWN ON THE PLANS OR AS REQUIRED TO RESTORE EXCAVATED AREAS TO THE EXISTING GRADE.

DATE	REVISION
6/30/89	REMOVED GROUTED RUBBLE SLOPE PROTECTION AT PIERS 13, 14 & 15; LOCATED POWER LINES ABOVE.

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

MYRON G. OKUNO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okuno

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PARTIAL FOUNDATION PLAN

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

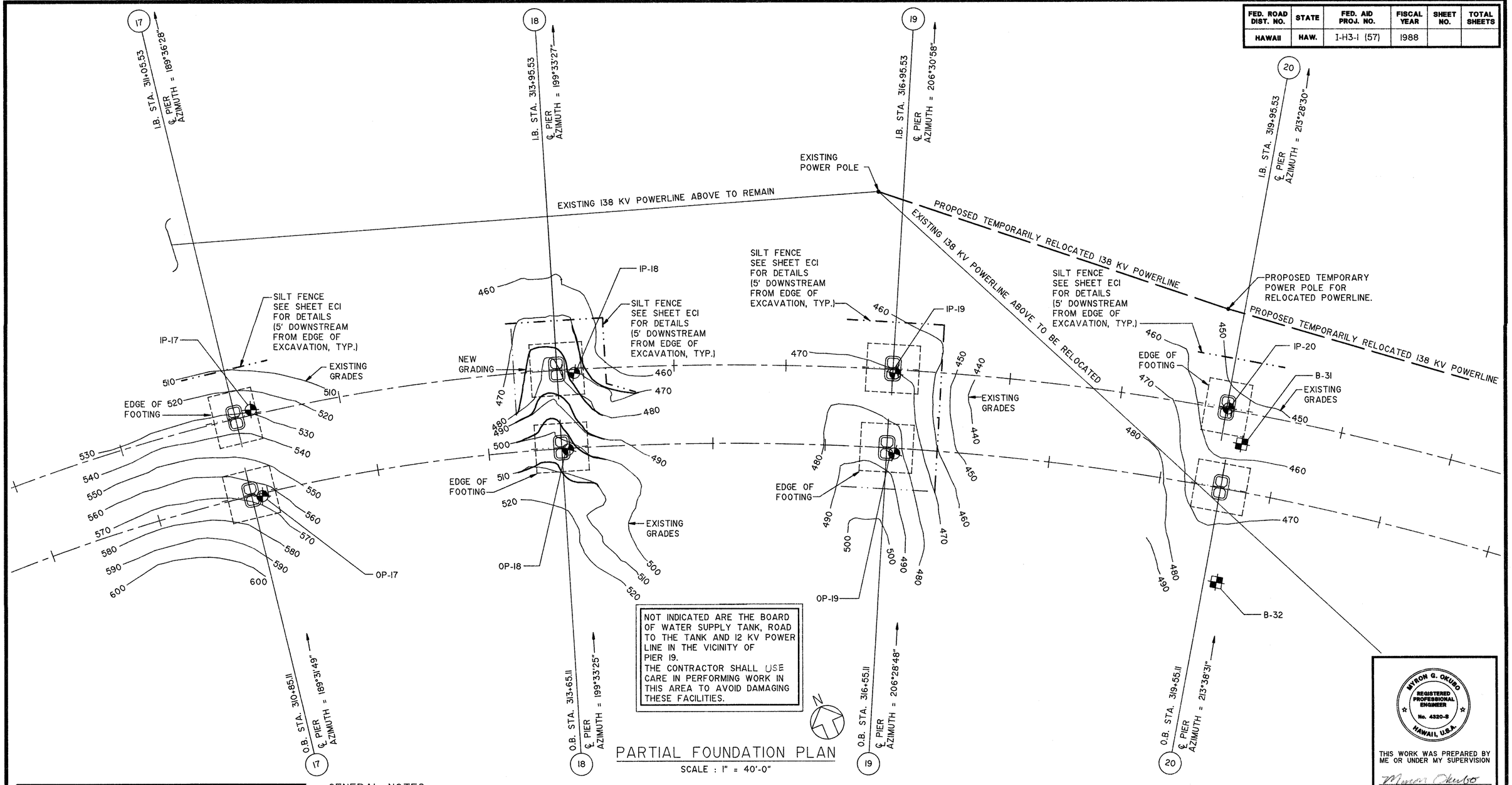
SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. FP4 OF 6 SHEETS

ADD. 74

JUN 29 1989

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



NOT INDICATED ARE THE BOARD OF WATER SUPPLY TANK, ROAD TO THE TANK AND 12 KV POWER LINE IN THE VICINITY OF PIER 19.
THE CONTRACTOR SHALL USE CARE IN PERFORMING WORK IN THIS AREA TO AVOID DAMAGING THESE FACILITIES.

PARTIAL FOUNDATION PLAN

SCALE : 1" = 40'-0"

LEGEND

- FEWELL GEOTECHNICAL ENGINEERING LTD. BORING LOCATIONS
- WALTER LUM ASSOCIATES BORING LOCATIONS

FOR BORING LOGS, SEE SHEET B-1

FOR ℄ PIER OFFSET FROM ℄, SEE SHT. PS4

GENERAL NOTES:

1. GROUTED RUBBLE SLOPE PROTECTION AND GRP DRAINAGE PROTECTION SHALL EXTEND TO THE MINIMUM LIMITS SHOWN ON THE PLANS OR AS REQUIRED TO RESTORE EXCAVATED AREAS TO THE EXISTING GRADE.
2. THE HECO 138 KV TRANSMISSION LINE IS TO BE TEMPORARILY RELOCATED AS INDICATED ON THE DRAWING. THE TEMPORARY RELOCATION IS TO ALLOW CONSTRUCTION OF THE VIADUCT BENEATH THE CURRENT 138 KV TRANSMISSION LINE LOCATION. THE TEMPORARY RELOCATION IS SCHEDULED FOR DECEMBER 1989. AT SUCH A TIME WHEN THE ENGINEER HAS DETERMINED THAT WORK WILL NOT AFFECT THE 138 KV LINE, HECO WILL INSTALL THE TRANSMISSION LINE BACK TO THE EXISTING PERMANENT ALIGNMENT. CONSTRUCTION OF THE TIE-BACK WALL AND STRUCTURES INTERFERING WITH THE TEMPORARY AND PERMANENT TRANSMISSION LINES WILL NOT BE ALLOWED. THE 138 KV TRANSMISSION LINE IS AN ESSENTIAL FACILITY AND ALL WORK AFFECTING THE LINE SHALL BE COORDINATED BY THE CONTRACTOR WITH HECO.

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

DATE	REVISION
6/30/89	REMOVED GROUTED RUBBLE SLOPE PROTECTION AT PIERS 17, 18, 19 & 20.

MYRON G. OKUBO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PARTIAL FOUNDATION PLAN

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

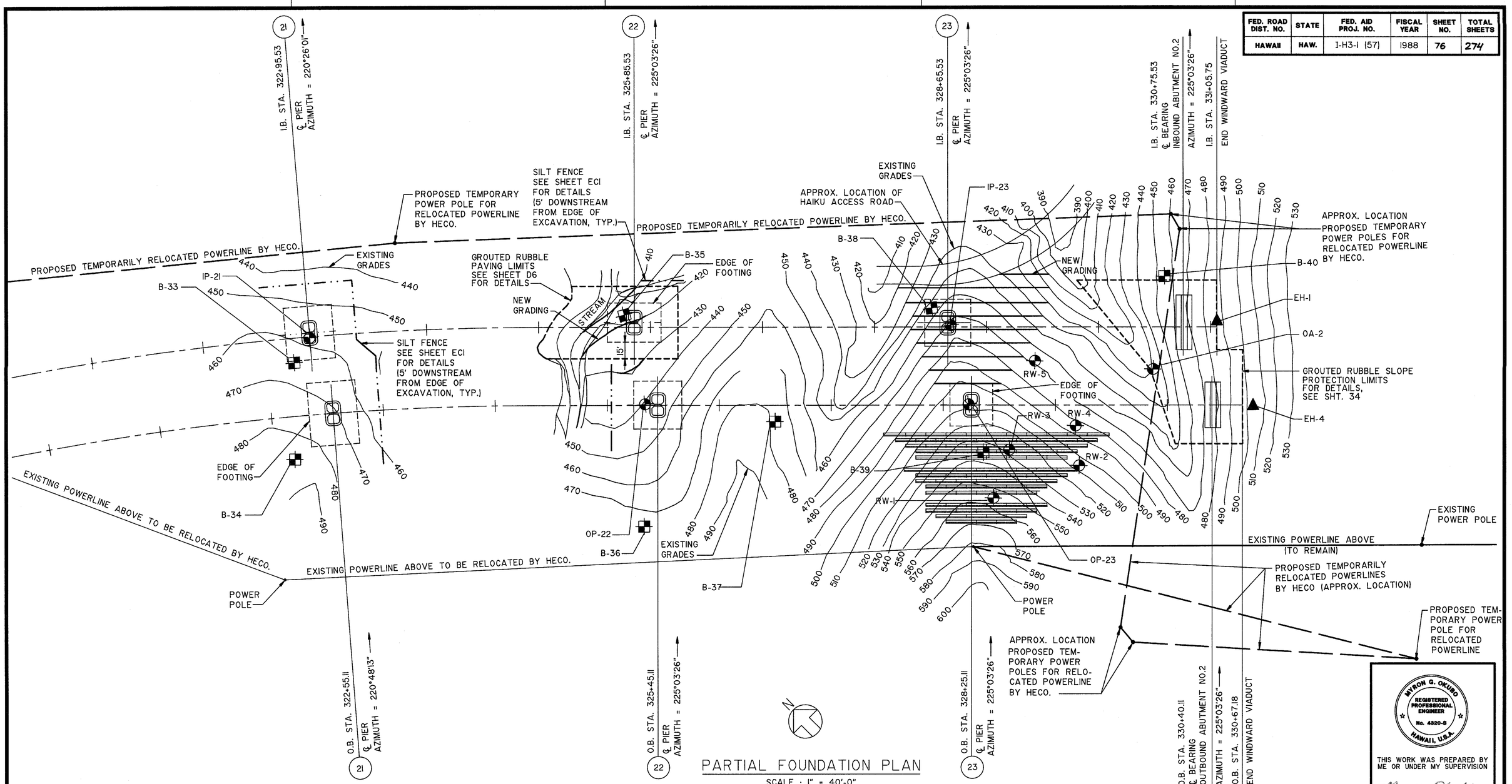
SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. FP5 OF 6 SHEETS

ADD. 75

JUN 26 1989

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	76	274



PARTIAL FOUNDATION PLAN

SCALE : 1" = 40'-0"

LEGEND

- FEWELL GEOTECHNICAL ENGINEERING LTD. BORING LOCATIONS
- WALTER LUM ASSOCIATES BORING LOCATIONS
- ERNEST K. HIRATA AND ASSOCIATES, INC. BORING LOCATIONS

FOR BORING LOGS, SEE SHEET B-1

FOR ℄ PIER OFFSET FROM ℄, SEE SHT. PS4

GENERAL NOTES:

1. GROUTED RUBBLE SLOPE PROTECTION AND GRP DRAINAGE PROTECTION SHALL EXTEND TO THE MINIMUM LIMITS SHOWN ON THE PLANS OR AS REQUIRED TO RESTORE EXCAVATED AREAS TO THE EXISTING GRADE.
2. THE HECO 138 KV TRANSMISSION LINE IS TO BE TEMPORARILY RELOCATED AS INDICATED ON THE DRAWING. THE TEMPORARY RELOCATION IS TO ALLOW CONSTRUCTION OF THE VIADUCT BENEATH THE CURRENT 138 KV TRANSMISSION LINE LOCATION. THE TEMPORARY RELOCATION IS SCHEDULED FOR DECEMBER 1989. AT SUCH A TIME WHEN THE ENGINEER HAS DETERMINED THAT WORK WILL NOT AFFECT THE 138 KV LINE, HECO WILL INSTALL THE TRANSMISSION LINE BACK TO THE EXISTING PERMANENT ALIGNMENT. CONSTRUCTION OF THE TIE-BACK WALL AND STRUCTURES INTERFERING WITH THE TEMPORARY AND PERMANENT TRANSMISSION LINES WILL NOT BE ALLOWED. THE 138 KV TRANSMISSION LINE IS AN ESSENTIAL FACILITY AND ALL WORK AFFECTING THE LINE SHALL BE COORDINATED BY THE CONTRACTOR WITH HECO.

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

DATE	REVISION
6/30/89	REMOVED GROUTED RUBBLE SLOPE PROTECTION AT PIERS 21 & 22; REMOVED GROUTED RUBBLE PAVING AT OUTBOUND PIER 22.

MYRON G. OKUNO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okuno

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PARTIAL FOUNDATION PLAN

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. FP6 OF 6 SHEETS

ADD. 76

JUN 16 1989

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	77	274

FOOTING SCHEDULE

	PIER NO.	TYPE	DIMENSIONS LONGIT. FOOTING	DIMENSIONS TRANS. FOOTING	DIMENSIONS THK. FOOTING	TOP OF FOOTING ELEVATION	BOTTOM OF FOOTING ELEVATION	PILE DATA SERVICE LOAD IN KIPS	PILE DATA PILE TIP ELEVATION	REINFORCING TOP BARS LONGITUDINAL	REINFORCING TOP BARS TRANSVERSE	REINFORCING BOTTOM BARS LONGITUDINAL 'A'	REINFORCING BOTTOM BARS LONGITUDINAL 'B'	REINFORCING BOTTOM BARS TRANSVERSE
INBOUND STRUCTURE	1	I	20'-0"	32'-0"	7'-9"	695.00	687.25	2000	562.25	44-#6@9"±	24-#7@10"±	11-#11@9"±	22-#11@9"±	24x2-#14@10"±
	2	I	20'-0"	32'-0"	7'-9"	687.00	679.25	1600	594.25	44-#6@9"±	20-#6@1'-0"±	11-#10@9"±	22-#10@9"±	20x2-#14@1'-0"±
	3	I	20'-0"	32'-0"	7'-9"	677.00	669.25	1800	574.25	44-#6@9"±	24-#7@10"±	11-#11@9"±	22-#11@9"±	24x2-#14@10"±
	4	I	20'-0"	32'-0"	7'-9"	636.00	628.25	2000	508.25	44-#6@9"±	24-#7@10"±	11-#11@9"±	22-#11@9"±	24x2-#14@10"±
	5	I	20'-0"	32'-0"	7'-9"	656.00	648.25	1800	579.00	38-#6@10"±	21-#6@1'-0"±	9-#11@10"±	20-#11@10"±	21x2-#14@1'-0"±
	6	I	20'-0"	32'-0"	7'-9"	606.00	598.25	2200	509.00	28-#7@1'-2"±	28-#9@9"±	7x2-#11@1'-2"±	14x2-#11@1'-2"±	28x2-#14@9"±
	7	I	20'-0"	32'-0"	7'-9"	588.00	580.25	2100	486.00	44-#7@9"±	37-#10@6±	11-#14@9"±	22-#14@9"±	19x2-#18@1'-1"±
	8	I	20'-0"	32'-0"	7'-9"	557.00	549.25	2100	460.00	28-#7@1'-2"±	19-#10@1'-1"±	7x2-#11@1'-2"±	14x2-#11@1'-2"±	19x2-#18@1'-1"±
	9	I	20'-0"	32'-0"	7'-9"	559.00	551.25	2000	456.00	44-#6@9"±	28-#6@9"±	11-#11@9"±	22-#11@9"±	28-#11&#14@9"±
	10	II	35'-0"	32'-0"	12'-9"	600.00	587.25	2000	536.00	44-#6@9"±	36-#6@1'-0"	11-#11&#18@9"±	22-#11&#18@9"±	36x2-#11@1'-0"±
	11	I	20'-0"	32'-0"	7'-9"	516.00	508.25	2200	418.00	44-#6@9"±	28-#6@9"±	11-#11@9"±	22-#11@9"±	28-#11&#14@9"±
	12	I	20'-0"	32'-0"	7'-9"	532.00	524.25	2000	439.00	44-#6@9"±	28-#6@9"±	11-#11@9"±	22-#11@9"±	28-#11&#14@9"±
	13	I	20'-0"	32'-0"	7'-9"	530.00	522.25	2000	448.00	44-#6@9"±	28-#6@9"±	11-#11@9"±	22-#11@9"±	28-#11&#14@9"±
	14	I	20'-0"	32'-0"	7'-9"	502.00	494.25	2300	406.00	31-#7@1'-0"±	23-#10@10"±	10-#14@9"±	20-#14@9"±	17x2-#18@1'-2"±
	15	I	20'-0"	32'-0"	7'-9"	442.00	434.25	2000	357.00	44-#6@9"±	28-#6@9"±	9-#14@10"±	18-#14@10"±	28x2#14@9"±
	16	IV	SEE SHEET FT5			461.00	444.25	2900	407.00	SEE SHEET FT5 FOR PIER 16 I.B. FOOTING REINFORCING				
	17	I	20'-0"	32'-0"	7'-9"	519.00	511.25	1600	451.25	44-#6@9"±	28-#6@9"±	11-#10@9"±	22-#10@9"±	28x2-#11@9"±
	18	I	20'-0"	32'-0"	7'-9"	471.00	463.25	2100	373.25	33-#7@1'-0"±	28-#7@9"±	8-#14@1'-0"	17-#14@1'0"±	28-#18@9"±
	19	I	20'-0"	32'-0"	7'-9"	461.00	453.25	1700	368.25	33-#7@1'-0"±	28-#6@9"±	8-#14@1'-0"	17-#14@1'0"±	28-#11&#14@9"±
	20	I	20'-0"	32'-0"	7'-9"	444.00	436.25	1900	346.25	33-#7@1'-0"±	28-#6@9"±	8-#14@1'-0"	17-#14@1'0"±	28-#11&#14@9"±
	21	I	20'-0"	32'-0"	7'-9"	437.00	429.25	1800	360.25	33-#7@1'-0"±	26-#6@9"±	8-#14@1'-0"±	17-#14@1'0"±	26x2-#14@9"±
	22	I	20'-0"	32'-0"	7'-9"	406.00	398.25	1700	330.25	44-#6@9"±	26-#6@9"±	11-#11@9"±	22-#11@9"±	26-#11&#14@9"±
	23	V	36'-0"	34'-0"	7'-0"	407.00	400.00	——	——	SEE SHEET FT6 FOR PIER 23 I.B. FOUNDATION REINFORCING				
OUTBOUND STRUCTURE	1	I	20'-0"	32'-0"	7'-9"	688.00	680.25	1700	580.25	44-#6@9"±	24-#7@10"±	11-#11@9"±	22-#11@9"±	24X2-#14@10"±
	2	I	20'-0"	32'-0"	7'-9"	713.00	705.25	1900	605.25	44-#6@9"±	24-#7@10"±	11-#11@9"±	22-#11@9"±	24X2-#14@10"±
	3	I	20'-0"	32'-0"	7'-9"	675.00	667.25	2300	552.25	44-#6@9"±	28-#7@9"±	8-#14@1'-0"±	16-#14@1'-0"±	26X2-#14@9"±
	4	I	20'-0"	32'-0"	7'-9"	661.00	653.25	2100	503.25	44-#6@9"±	24-#7@10"±	11-#11@9"±	22-#11@9"±	24X2-#14@10"±
	5	I	20'-0"	32'-0"	7'-9"	705.00	697.25	1600	623.00	44-#6@9"±	20-#6@1'-0"±	11-#10@9"±	22-#10@9"±	20X2-#14@1'-0"±
	6	I	20'-0"	32'-0"	7'-9"	628.00	620.25	2300	556.00	36-#6@11"±	28-#6@9"±	9-#14@11"±	18-#14@11"±	28X2-#14@9"±
	7	I	20'-0"	32'-0"	7'-9"	606.00	598.25	2000	524.00	28-#7@1'-2"±	19-#10@1'-1"±	7x2-#11@1'-2"±	14x2-#11@1'-2"±	19X2-#18@1'-1"±
	8	I	20'-0"	32'-0"	7'-9"	569.00	561.25	2100	512.00	44-#7@9"±	38-#9@6"±	11-#14@9"±	22-#14@9"±	19X2-#18@1'-1"±
	9	I	20'-0"	32'-0"	7'-9"	570.00	562.25	1900	488.00	44-#6@9"±	28-#6@9"±	11-#11@9"±	22-#11@9"±	28-#11&#14@9"±
	10	III	44'-9"	32'-0"	14'-9"	642.00	627.25	2100	587.00	SEE SHEET FT4 FOR PIER 10 O.B. FOOTING REINFORCING				
	11	I	20'-0"	32'-0"	7'-9"	536.00	528.25	2300	444.00	33-#6@11"±	28-#6@9"±	8-#14@11"±	17-#14@1'-1"±	28-#18@9"±
	12	I	20'-0"	32'-0"	7'-9"	555.00	547.25	1900	463.00	44-#6@9"±	28-#6@9"±	11-#11@9"±	22-#11@9"±	28-#10&#14@9"±
	13	I	20'-0"	32'-0"	7'-9"	558.00	550.25	2250	465.25	44-#6@9"±	24-#7@10"±	8-#14@1'-0"±	16-#14@1'-0"±	28X2-#14@9"±
	14	I	20'-0"	32'-0"	7'-9"	520.00	512.25	2100	432.25	44-#6@9"±	20-#10@1'-0"±	10-#14@9 1/2"±	20-#14@9 1/2"±	20x3-#14@1'-0"±
	15	I	20'-0"	32'-0"	7'-9"	463.00	455.25	1600	395.25	44-#6@9"±	24-#7@10"±	8-#14@11"±	19-#14@11"±	24X3-#14@10"±
	16	I	20'-0"	32'-0"	7'-9"	489.00	481.25	2000	441.25	44-#6@9"±	24-#7@10"±	8-#14@11"±	19-#14@11"±	24X3-#14@10"±
	17	I	20'-0"	32'-0"	7'-9"	551.00	543.25	2000	463.25	44-#6@9"±	28-#6@9"±	11-#11@9"±	22-#11@9"±	28-#11&#14@9"±
	18	I	20'-0"	32'-0"	7'-9"	490.00	482.25	2000	397.25	44-#6@9"±	28-#6@9"±	11-#11@9"±	22-#11@9"±	28-#11&#14@9"±
	19	I	20'-0"	32'-0"	7'-9"	476.00	468.25	1600	388.25	33-#7@1'-0"±	28-#6@9"±	8-#14@1'-0"±	17-#14@1'-0"±	28-#18@9"±
	20	I	20'-0"	32'-0"	7'-9	458.00	450.25	2000	370.25	33-#7@1'-0"±	28-#6@9"±	8-#14@1'-0"±	17-#14@1'-0"±	28x2-#14@9"±
	21	I	20'-0"	32'-0"	7'-9"	460.00	452.25	1800	360.00	44-#6@9"±	24-#7@10"±	11-#11@9"±	22-#11@9"±	24X2-#14@10"±
	22	I	20'-0"	32'-0"	7'-9"	432.00	424.25	1700	352.00	38-#7@10"±	20-#7@1'-0"±	10-#11@10"±	18-#11@10"±	20X2-#14@1'-0"±
	23	I	20'-0"	32'-0"	7'-9"	475.00	467.25	1700	424.00	38-#7@10"±	20-#7@1'-0"±	10-#11@10"±	18-#11@10"±	20X2-#14@1'-0"±

NOTES:

1. ALL EXCAVATION AND DRILLING OPERATIONS FOR FOUNDATIONS SCHEDULED ON THIS SHEET SHALL BE MONITORED BY THE ENGINEER.
2. EXCEPT AS NOTED, THESE NOTES PERTAIN ONLY TO THE PILES AND FOOTINGS SCHEDULED ON THIS SHEET.
3. BOTTOM OF EXCAVATIONS AND HOLES FOR CAST-IN-DRILLED-HOLE PILES SHALL BE CLEARED OF DEBRIS AND LOOSE MATERIAL PRIOR TO PLACING REINFORCING STEEL OR CONCRETE.
4. BOTTOM OF EXCAVATIONS AND HOLES FOR CAST-IN-DRILLED-HOLE PILES SHALL BE FREE OF WATER PRIOR TO PLACING REINFORCING STEEL OR CONCRETE.
5. BOTTOM OF FOOTING AND PILE TIP ELEVATIONS SHALL BE VERIFIED BY THE ENGINEER PRIOR TO PLACING CONCRETE.
6. EACH PIER LOCATION SHALL BE EXPLORED BY DRILLING AT LEAST ONE BORING TO VERIFY SOIL/ROCK CONDITIONS AND TO DETERMINE THE TYPE OF PILE (FRICTION OR END BEARING IN ROCK) APPLICABLE FOR THAT LOCATION.
7. CONCRETE SHALL NOT BE PLACED WITHOUT APPROVAL OF THE ENGINEER.
8. PILE LOAD TESTS SHALL BE PERFORMED AT PIERS IP2, OP3, IP7, OP11, IP19 AND IP14. REACTION PILES ARE LOCATED AS SHOWN ON SHEET FT2.
9. THE FOUR CORNERS AND THE CENTER OF EACH SPREAD FOOTING SHALL BE PROBED TO A DEPTH OF 10 FEET MINIMUM BELOW THE BOTTOM OF FOOTING ELEVATION. LIMITS OF CAVITIES ENCOUNTERED SHALL BE FULLY IDENTIFIED AND FILLED WITH CLASS 'D' CONCRETE.
10. SEE SPECIAL PROVISIONS SECTION 206 - EXCAVATION AND BACKFILL FOR CONDUITS AND STRUCTURES. SEE SPECIAL PROVISIONS SECTION 209 - MECHANICALLY STABILIZED SLOPES.
11. PILE TIP ELEVATIONS SHOWN ON THIS SCHEDULE OR ON THE ABUTMENT SHEET ARE ESTIMATED ELEVATIONS. THE ACTUAL PILE TIP ELEVATIONS WILL BE DETERMINED BY THE ENGINEER. BASED ON THE RESULTS OF THE BORING PROGRAM AND THE LOAD TEST PROGRAM.
12. END BEARING PILES IN ROCK:
    A. END BEARING PILES SHALL EXTEND A MINIMUM OF FIVE FEET INTO BEDROCK. THE DEPTH OF ROCK MATERIAL SHALL BE CONFIRMED AT END BEARING PILE LOCATIONS.
    B. THE ROCK SHALL BE EXPLORED AT EACH PILE LOCATION TO A DEPTH EQUAL TO THE SCHEDULED DEPTH PLUS THREE PILE DIAMETERS, OR AS DIRECTED BY THE ENGINEER.
    C. IF TEST RESULTS INDICATE THE BEARING STRATUM IS NOT ADEQUATE, THE ENGINEER SHALL BE NOTIFIED.
13. CONSTRUCTION OF CAST-IN-DRILLED-HOLE PILES SHALL COMPLY WITH THE "STANDARDS AND SPECIFICATIONS FOR THE FOUNDATION DRILLING INDUSTRY", REVISED NOV. 1988, BY ADSC: THE INTERNATIONAL ASSOCIATION OF FOUNDATION DRILLING.
14. SHAFTS WITHIN THREE DIAMETERS OF AN ADJACENT SHAFT SHALL NOT BE DRILLED WITHIN 8 HOURS OF COMPLETION OF CONCRETING OF THE ADJACENT SHAFT.
15. TOLERANCES:
    A. PLAN DIMENSION: THE TOP OF CAST-IN-DRILLED-HOLE PILES SHALL NOT BE MORE THAN THREE INCHES FROM THE LOCATION SHOWN IN PLAN.
    B. PLUMB: VERTICAL ALIGNMENT SHALL NOT VARY BY MORE THAN 2 PERCENT FROM THE ALIGNMENT SHOWN.

DATE	REVISION
9/06/91	REVISED PIER 14 O.B.
1/16/91	REVISE PIER 22 I.B.
12/13/90	ADD PIERS 21-23 I.B.
12/10/90	ADD PIERS 17-20 I.B.&O.B.
12/05/90	ADD PIERS 17-23 O.B.
10/25/90	REVISED PIERS 13-16 I.B. & 11,13-16 O.B.
10/17/90	REVISED PIERS 14,15 AND 16.
9/26/90	ADD PIERS 9-16 O.B. & CHANGE PIER 10 I.B. & PIER 6 I.B.
9/14/90	ADD PIERS 9,10&12 I.B.
8/30/90	ADD PILES-PIER 11 O.B. AND I.B.
6/29/90	ADD PIERS 5 & 6, ADD REINFORCING PIERS 5,6,7 & 8.
6/22/90	ADD PIERS 7,8 I.B.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2579 — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

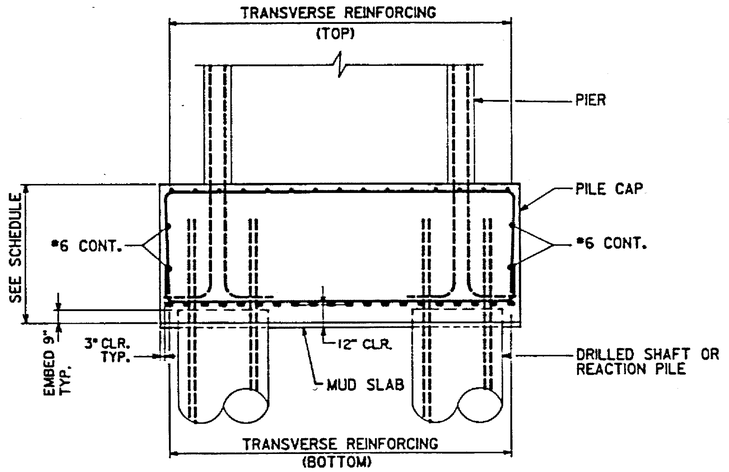
FOOTING SCHEDULE & NOTES

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUNE 1990

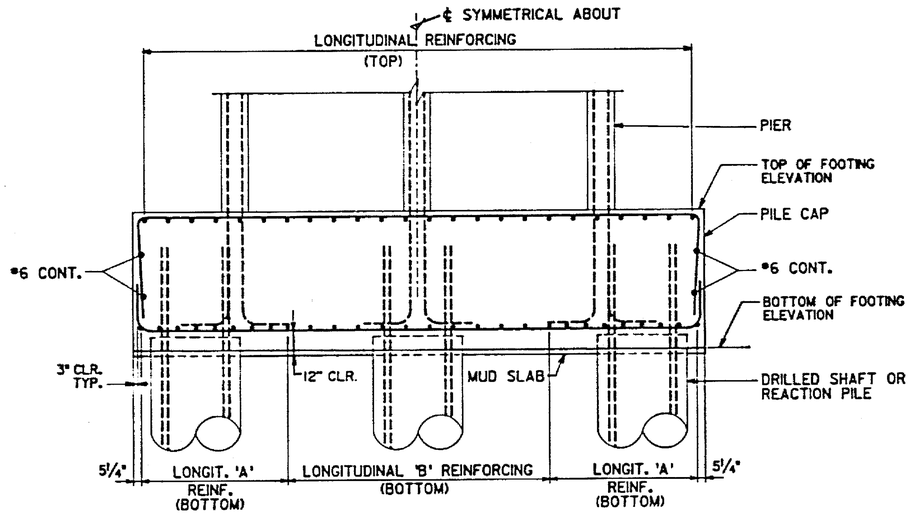
SHEET No. FT1 OF SHEETS

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

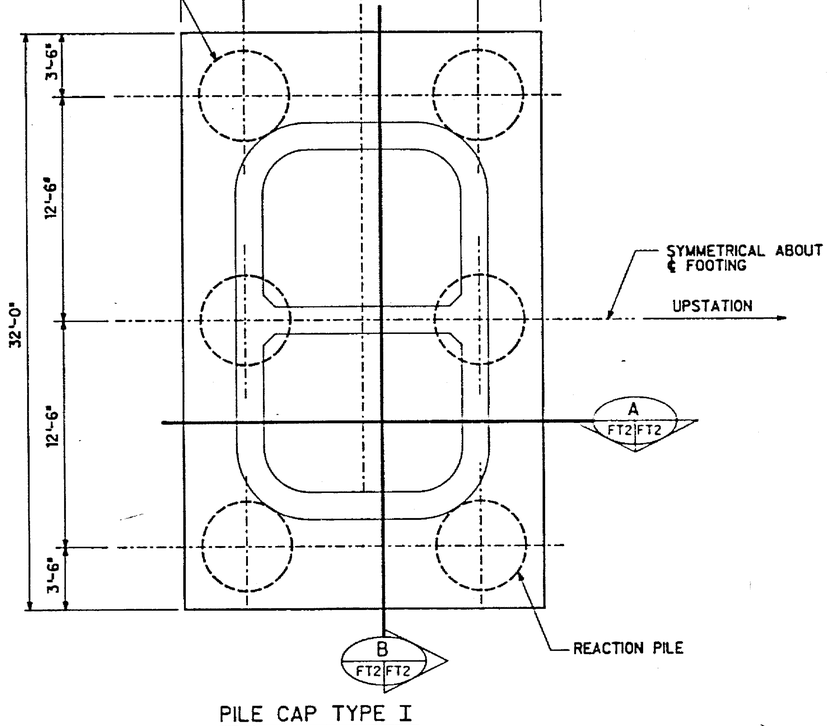
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	78	274



SECTION A
SCALE : 1/4" = 1'-0"



SECTION B
SCALE : 1/4" = 1'-0"



PILE CAP TYPE I
SCALE : 1/4" = 1'-0"

NOTES:

1. PILE CAP CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS OF AGE.
2. REINFORCING SHALL BE ASTM A615, GRADE 60.
3. THE CONTRACTOR SHALL COORDINATE PILE, PILE CAP AND PIER SHAFT REINFORCING STEEL TO AVOID CONFLICTS.
4. FOR 5'-0" PILE REINFORCING AND DETAILS SEE SHEET P1.
5. FOR PIER SHAFT REINFORCING (INCLUDING PILE CAP DOWELS) SEE SHEET PS1 AND PS2.
6. FOR PILE CAP REINFORCING SEE SHEET FT1.
7. REINFORCING STEEL FABRICATION SHALL BE IN CONFORMANCE WITH THE "MANUAL OF STANDARD PRACTICE" TWENTY FOURTH EDITION, BY CONCRETE REINFORCING STEEL INSTITUTE.
8. SPLICES IN PILE CAP REINFORCEMENT SHALL NOT BE PERMITTED.

ORIGINAL PLAN | NEWLY PLOTTED BY | DRAWN BY | TRACED BY | CHECKED BY | DATE | NOTE BOOK | No.

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

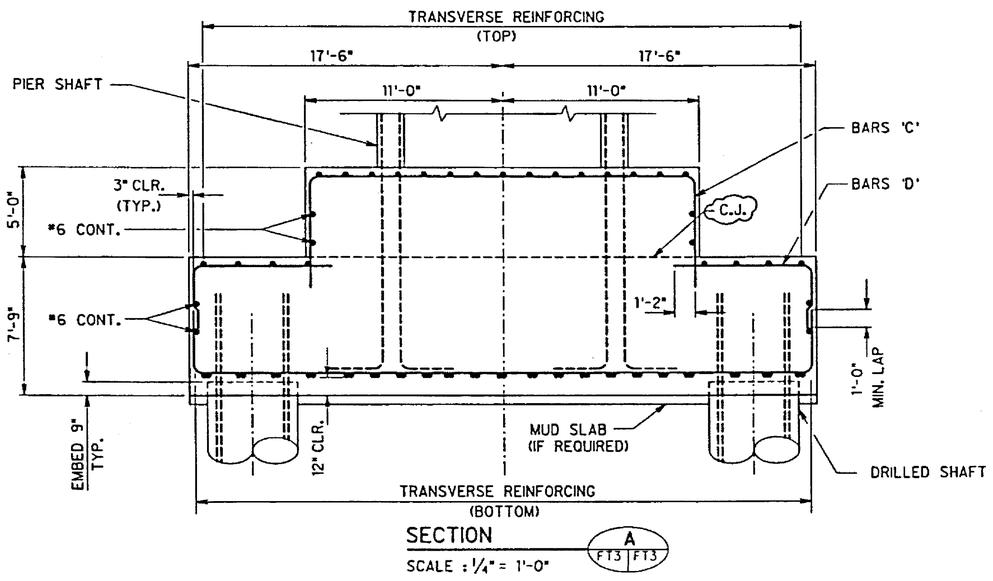
PILE CAP REINFORCING

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

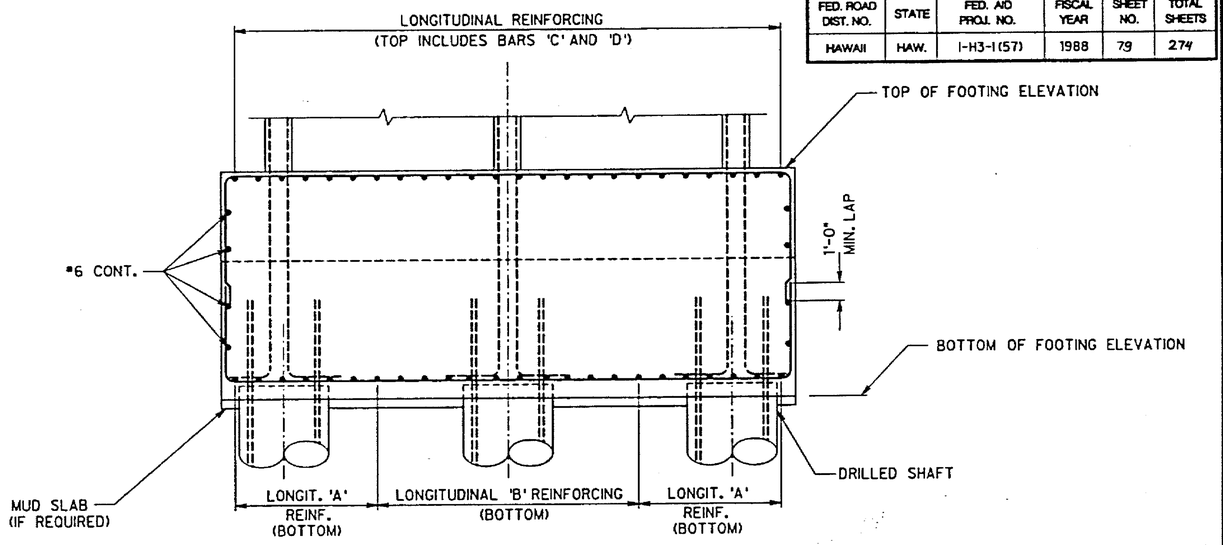
SCALE : AS NOTED DATE : JUNE 1990

SHEET No. FT2 OF SHEETS

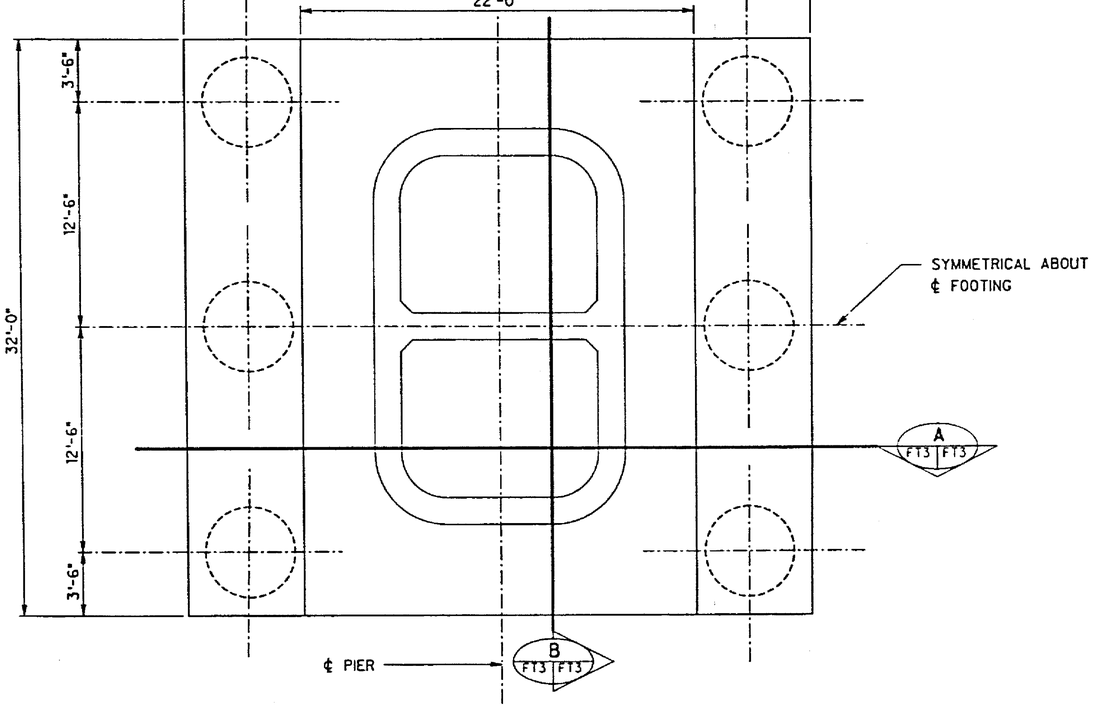
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	79	274



SECTION A
SCALE : 1/4" = 1'-0"



SECTION B
SCALE : 1/4" = 1'-0"



PILE CAP TYPE II
SCALE : 1/4" = 1'-0"

NOTES:

1. PILE CAP CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS OF AGE.
2. REINFORCING SHALL BE ASTM A615, GRADE 60.
3. THE CONTRACTOR SHALL COORDINATE PILE, PILE CAP AND PIER SHAFT REINFORCING STEEL TO AVOID CONFLICTS.
4. FOR 5'-0" PILE REINFORCING AND DETAILS SEE SHEET P1.
5. FOR PIER SHAFT REINFORCING (INCLUDING PILE CAP DOWELS) SEE SHEET PS1 AND PS2.
6. FOR PILE CAP REINFORCING SEE SHEET FT1.
7. REINFORCING STEEL FABRICATION SHALL BE IN CONFORMANCE WITH THE "MANUAL OF STANDARD PRACTICE" TWENTY FOURTH EDITION, BY CONCRETE REINFORCING STEEL INSTITUTE.
8. THE HARD ROCK DIKE AT INBOUND PIER 10 SHALL BE EXCAVATED TO A DEPTH OF AT LEAST ONE FOOT BELOW BOTTOM OF PILE CAP. THE EXCAVATION SHALL BE BACKFILLED WITH ON-SITE SOIL PLACED AT A MOISTURE CONTENT OF UP TO 65 PERCENT. THE SOIL SHOULD BE COMPACTED TO 95 PERCENT OF THE MODIFIED PROCTOR DRY DENSITY AT THE AS-PLACED MOISTURE CONTENT.
9. CONSTRUCTION JOINT (C.J.) SHALL BE ROUGHENED TO A FULL AMPLITUDE OF 1/4".

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-E HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
12/10/90	UPDATED DRAWING.
10/03/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

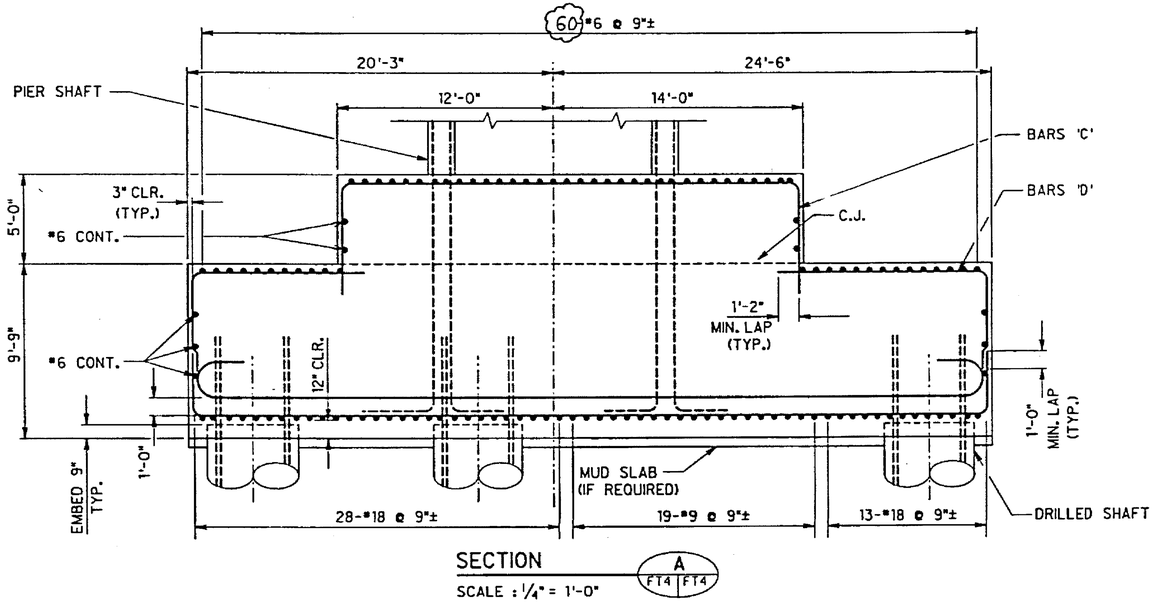
PILE CAP REINFORCING
TYPE II

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990

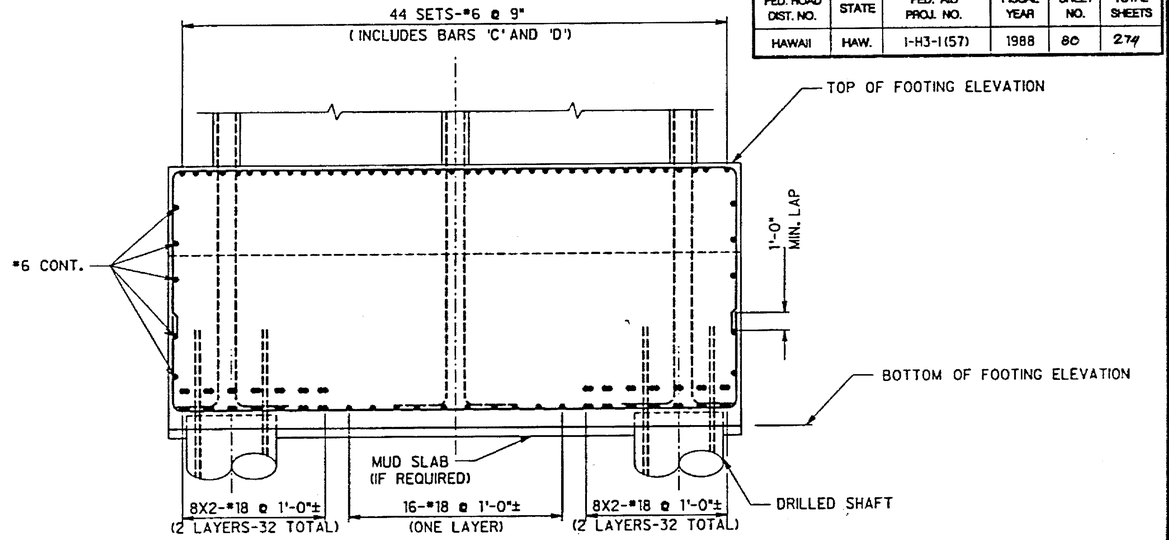
SHEET No. FT3 OF SHEETS

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

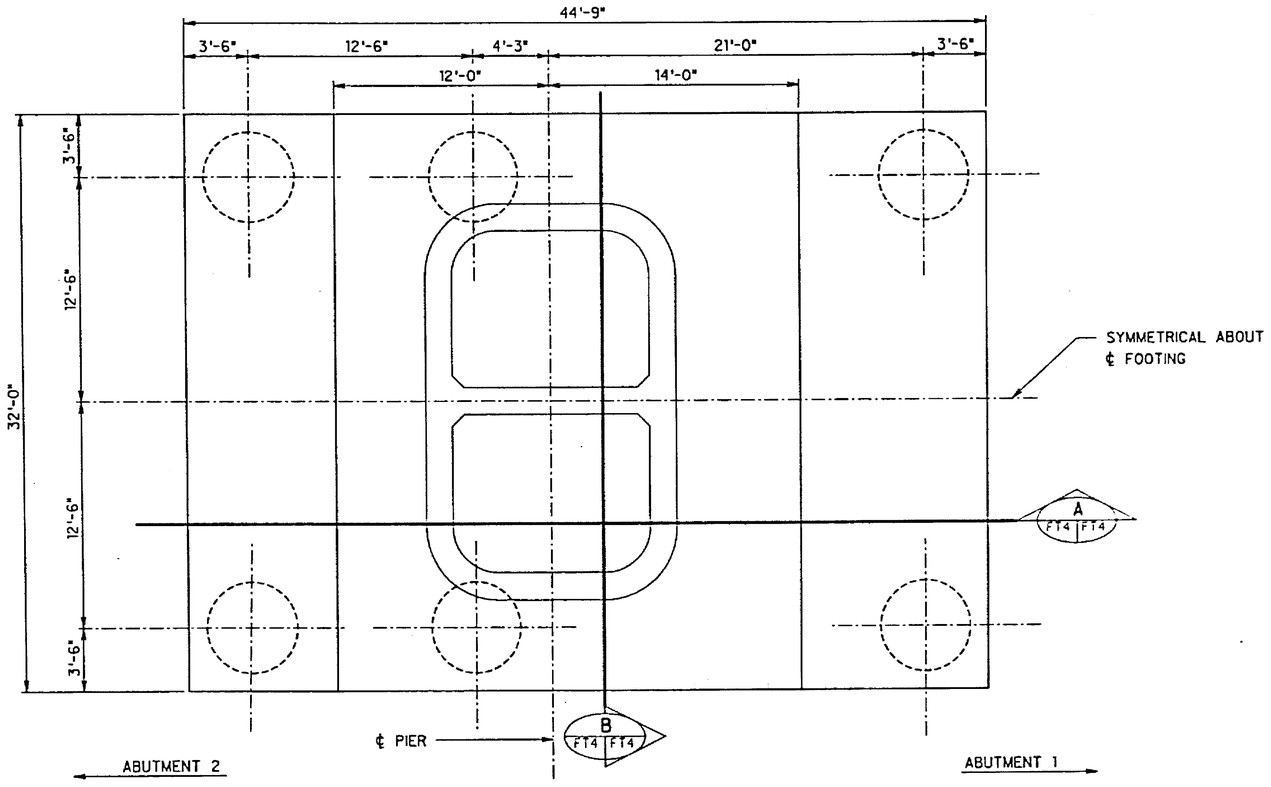
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	80	274



SECTION A
SCALE : 1/4" = 1'-0"



SECTION B
SCALE : 1/4" = 1'-0"



PILE CAP TYPE III
SCALE : 1/4" = 1'-0"

NOTES:

1. PILE CAP CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS OF AGE.
2. REINFORCING SHALL BE ASTM A615, GRADE 60.
3. THE CONTRACTOR SHALL COORDINATE PILE, PILE CAP AND PIER SHAFT REINFORCING STEEL TO AVOID CONFLICTS.
4. FOR 5'-0" PILE REINFORCING AND DETAILS SEE SHEET P1.
5. FOR PIER SHAFT REINFORCING (INCLUDING PILE CAP DOWELS) SEE SHEET PS1 AND PS2.
6. FOR PILE CAPACITIES AND FOOTING ELEVATIIONS SEE SHEET FT1.
7. REINFORCING STEEL FABRICATION SHALL BE IN CONFORMANCE WITH THE "MANUAL OF STANDARD PRACTICE" TWENTY FOURTH EDITION, BY CONCRETE REINFORCING STEEL INSTITUTE.
8. THE HARD ROCK DIKE AT OUTBOUND PIER 10 SHALL BE EXCAVATED TO A DEPTH OF AT LEAST ONE FOOT BELOW BOTTOM OF PILE CAP. THE EXCAVATION SHALL BE BACKFILLED WITH ON-SITE SOIL PLACED AT A MOISTURE CONTENT OF UP TO 65 PERCENT. THE SOIL SHOULD BE COMPACTED TO 95 PERCENT OF THE MODIFIED PROCTOR DRY DENSITY AT THE AS PLACED MOISTURE CONTENT.
9. CONSTRUCTION JOINT (C.J.) SHALL BE ROUGHENED TO A FULL AMPLITUDE OF 1/4".

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

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DATE	REVISION
12/10/90	UPDATED DRAWING.
10/03/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PILE CAP REINFORCING
TYPE III

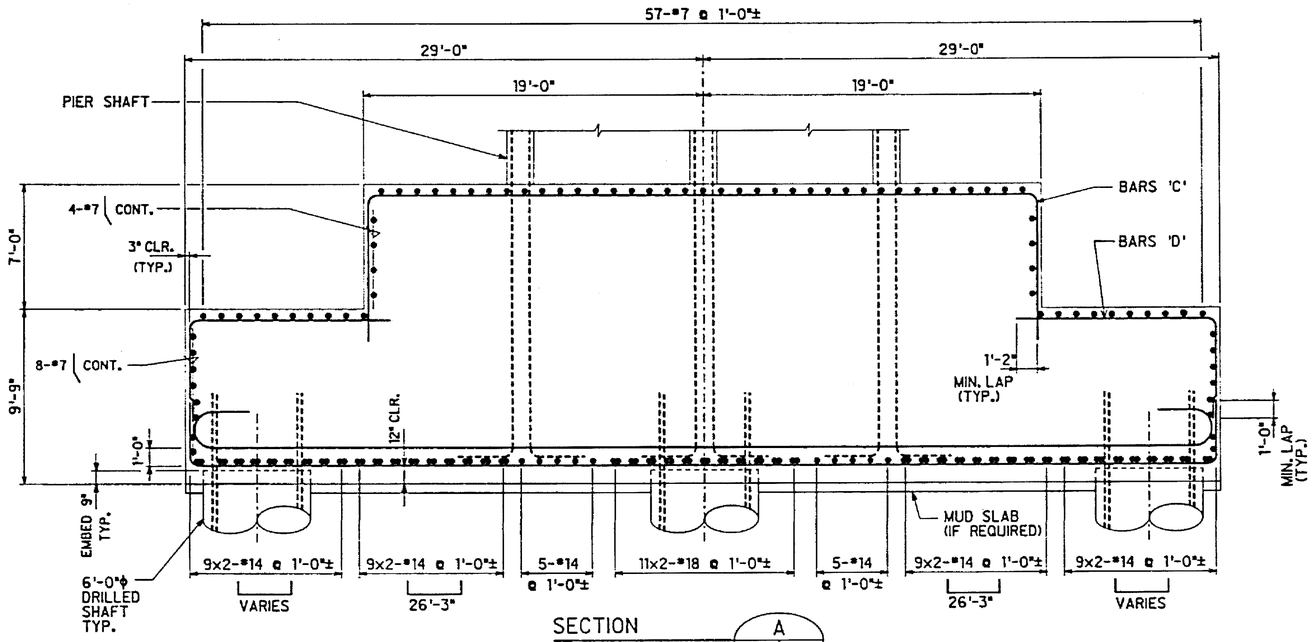
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990

SHEET No. FT4 OF SHEETS

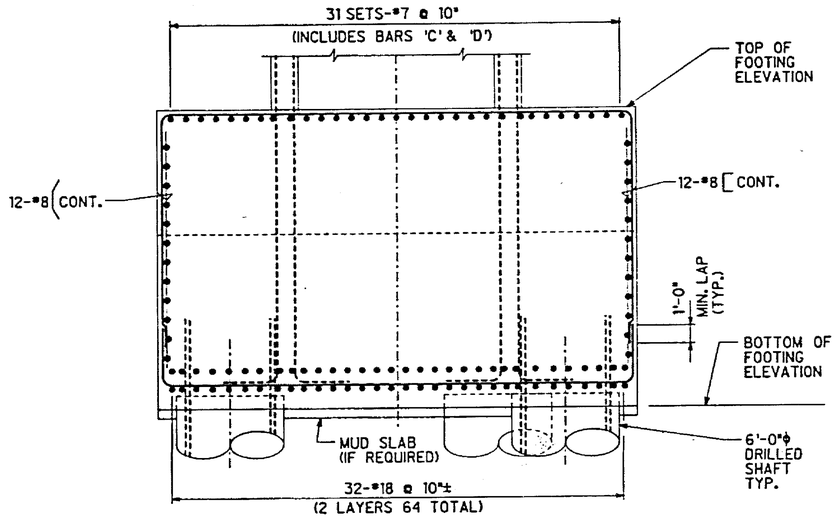
DRAWN BY ____ DATE
CHECKED BY ____ PLOTTED BY ____
QUANTITIES BY ____ DESIGNED BY ____
TRACED BY ____ CHECKED BY ____
NOTE BOOK ____ PAGE ____

80

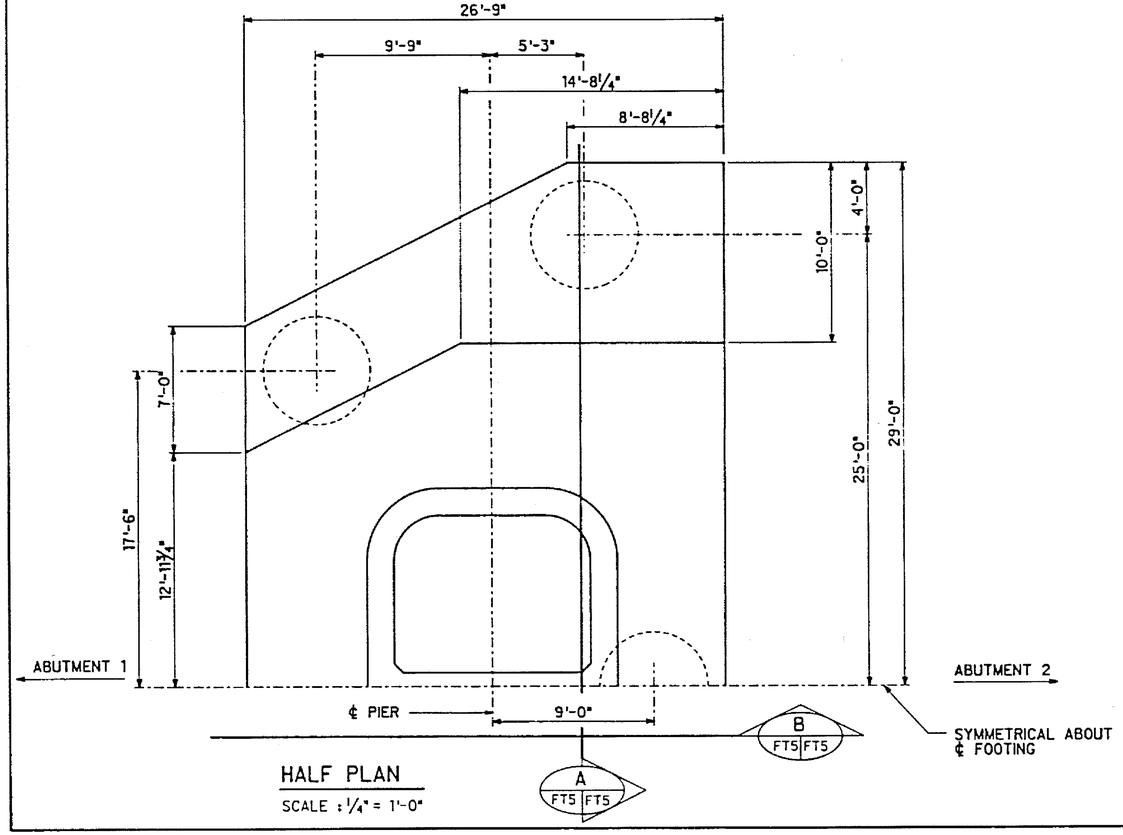
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	81	274



SECTION A
SCALE : 1/4" = 1'-0"
FT5 | FT5



SECTION B
SCALE : 1/4" = 1'-0"
FT5 | FT5



HALF PLAN
SCALE : 1/4" = 1'-0"

NOTES:

1. PILE CAP CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS OF AGE.
2. REINFORCING SHALL BE ASTM A615, GRADE 60.
3. THE CONTRACTOR SHALL COORDINATE PILE, PILE CAP AND PIER SHAFT REINFORCING STEEL TO AVOID CONFLICTS.
4. FOR 6'-0" PILE REINFORCING AND DETAILS SEE SHEET P2.
5. FOR PIER SHAFT REINFORCING (INCLUDING PILE CAP DOWELS) SEE SHEETS PS1 AND PS2.
6. FOR PILE CAPACITIES AND FOOTING ELEVATIONS SEE SHEET FT1.
7. REINFORCING STEEL FABRICATION SHALL BE IN CONFORMANCE WITH THE "MANUAL OF STANDARD PRACTICE" TWENTY FOURTH EDITION, BY CONCRETE REINFORCING STEEL INSTITUTE.
8. THE HARD ROCK DIKE AT INBOUND PIER 16 SHALL BE EXCAVATED TO A DEPTH OF AT LEAST ONE FOOT BELOW BOTTOM OF PILE CAP. THE EXCAVATION SHALL BE BACKFILLED WITH ON-SITE SOIL PLACED AT A MOISTURE CONTENT OF UP TO 65 PERCENT. THE SOIL SHOULD BE COMPACTED TO 95 PERCENT OF THE MODIFIED PROCTOR DRY DENSITY AT THE AS-PLACED MOISTURE CONTENT.

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

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DATE	REVISION
11/29/90	GENERAL

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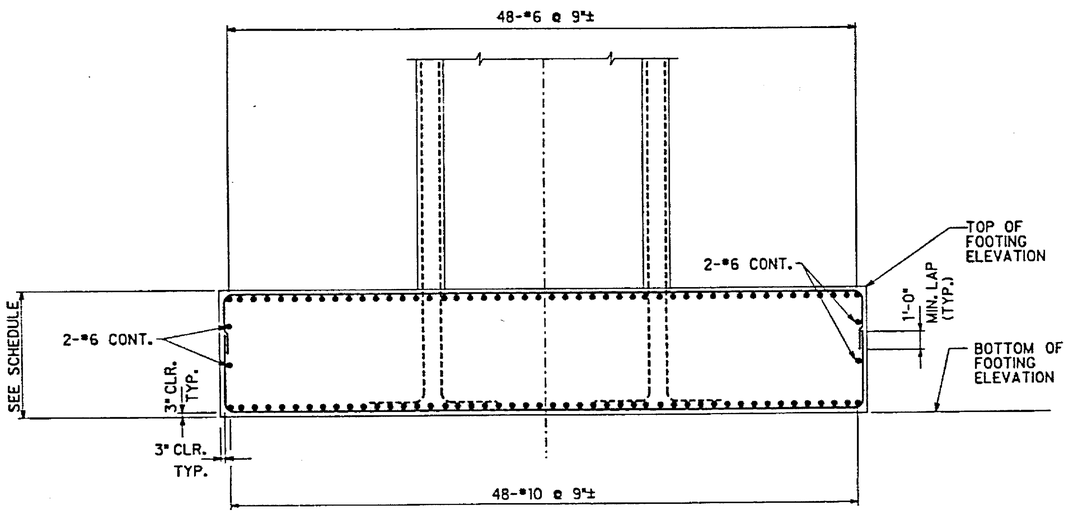
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PILE CAP REINFORCING
TYPE IV

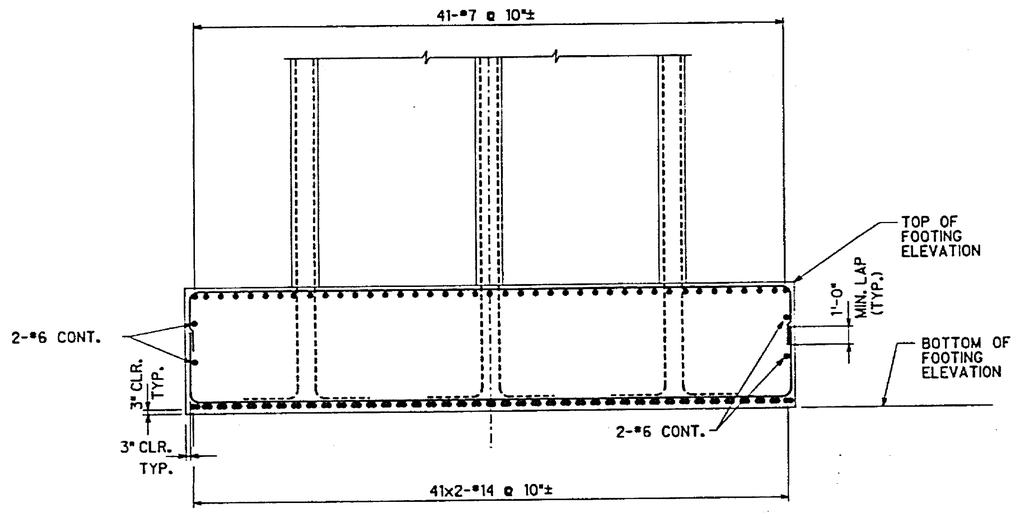
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : OCT. 1990

FT5

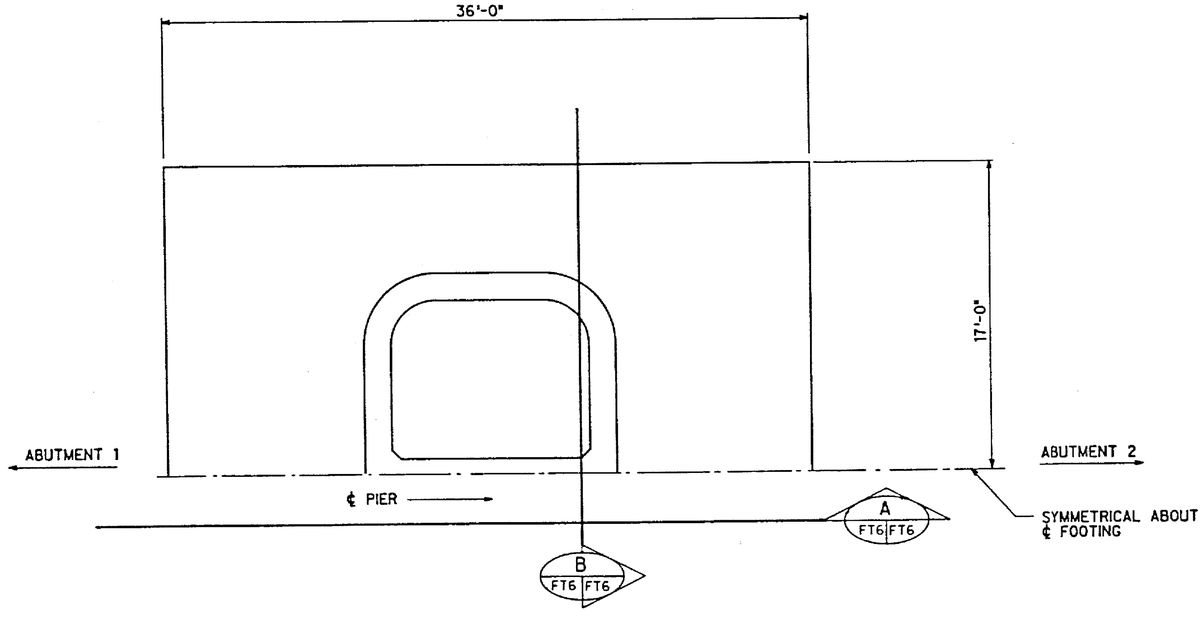
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	82	274



SECTION A (FT6 | FT6)
SCALE : 1/4" = 1'-0"



SECTION B (FT6 | FT6)
SCALE : 1/4" = 1'-0"



HALF PLAN
SCALE : 1/4" = 1'-0"

NOTES:

1. FOUNDATION CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS OF AGE.
2. REINFORCING SHALL BE ASTM A615, GRADE 60.
3. THE CONTRACTOR SHALL COORDINATE FOUNDATION AND PIER SHAFT REINFORCING STEEL TO AVOID CONFLICTS.
4. FOR PIER SHAFT REINFORCING (INCLUDING FOUNDATION DOWELS) SEE SHEETS PS1 AND PS2.
5. REINFORCING STEEL FABRICATION SHALL BE IN CONFORMANCE WITH THE "MANUAL OF STANDARD PRACTICE" TWENTY FOURTH EDITION, BY CONCRETE REINFORCING STEEL INSTITUTE.
6. SPLICES IN FOUNDATION REINFORCEMENT SHALL NOT BE PERMITTED.

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER NO. 7375 HAWAII, U.S.A.

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DATE	REVISION

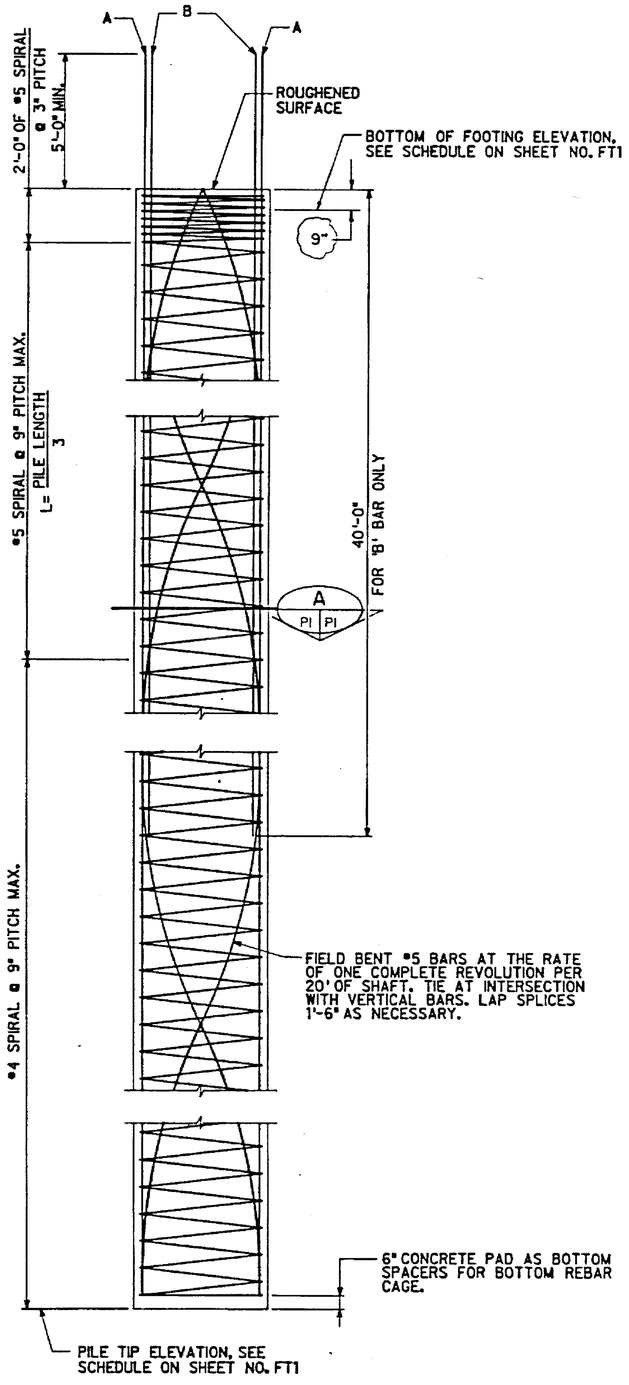
J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FOUNDATION REINFORCING TYPE V

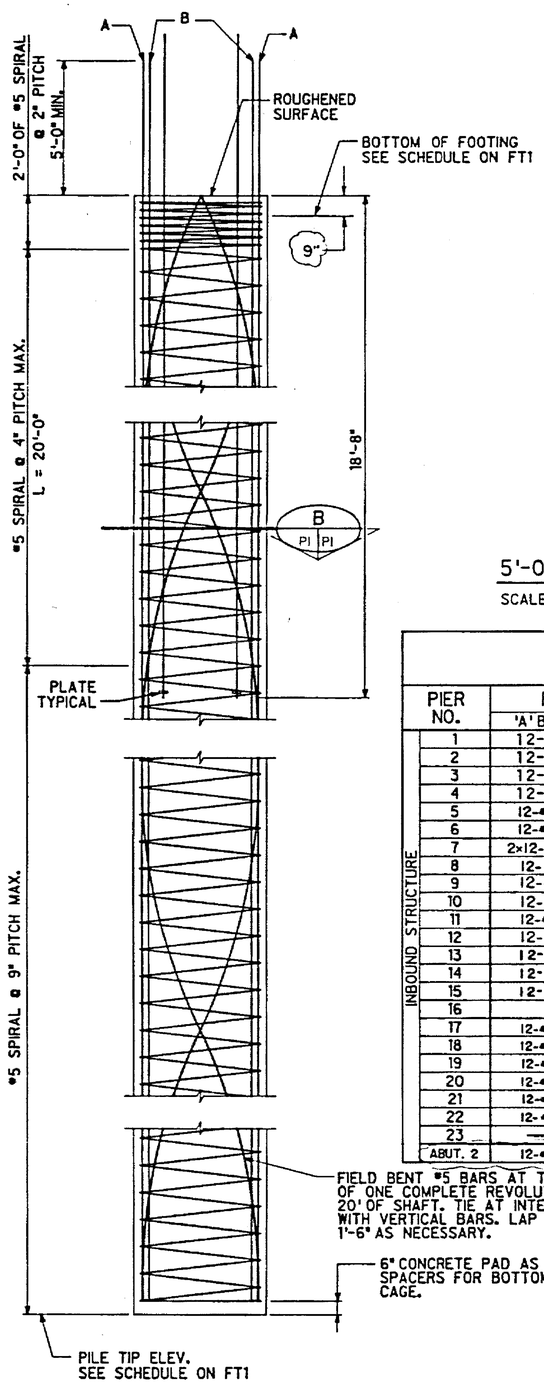
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : DEC. 1990
SHEET NO. FT6 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	83	274



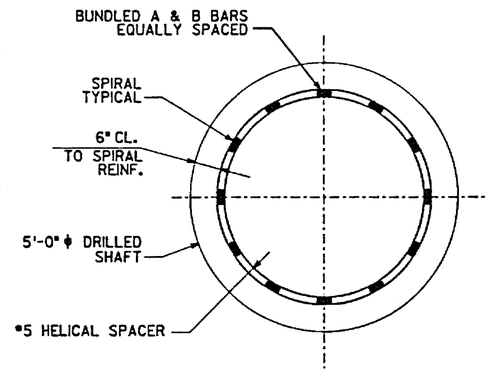
5'-0" ϕ TYPICAL PILE ELEVATION

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



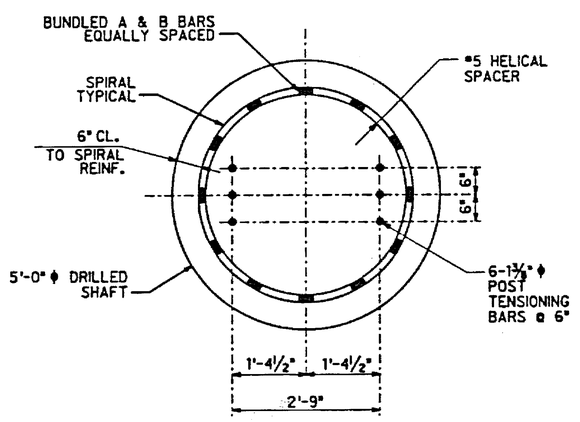
5'-0" ϕ REACTION PILE ELEVATION

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



5'-0" ϕ TYPICAL PILE SHAFT REINFORCING (A, P1 | P1)

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



5'-0" ϕ TYPICAL REACTION PILE REINFORCING (B, P1 | P1)

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

PILE SCHEDULE

PIER NO.	REINFORCING 'A' BARS	REINFORCING 'B' BARS	PIER NO.	REINFORCING 'A' BARS	REINFORCING 'B' BARS
1	12-#11	12-#11	1	12-#11	12-#11
2	12-#11	12-#11	2	12-#11	12-#11
3	12-#11	12-#11	3	12-#11	12-#11
4	12-#11	12-#11	4	12-#11	12-#11
5	12-#11	12-#11	5	12 - #11	12 - #11
6	12-#11	12-#14	6	12 - #11	12 - #11
7	2x12-#11	12-#11	7	12 - #11	12 - #11
8	12- #11	12- #11	8	12 - #11	12 - #14
9	12-#11	—	9	12-#11	—
10	12-#11	—	10	12-#11	12-#11
11	12-#11	12-#11	11	12- #11	12- #11
12	12-#11	—	12	12-#11	—
13	12-#11	12-#11	13	12-#11	12-#11
14	12-#11	12-#11	14	12-#11	12-#11
15	12-#11	12-#11	15	12-#11	12-#11
16	SEE SHEET P2		16	12-#11	12-#11
17	12-#11	12-#11	17	12-#11	—
18	12-#11	2x12-#11	18	12-#11	12-#14
19	12-#11	12-#14	19	12-#11	12-#11
20	12-#11	12-#14	20	12-#11	12-#11
21	12-#11	12-#11	21	12-#11	12-#14
22	12-#11	12-#11	22	12-#11	12-#14
23	—	—	23	12-#11	12-#11
ABUT. 2	12-#11	12-#11	ABUT. 2	12-#11	12-#11

INBOUND STRUCTURE / OUTBOUND STRUCTURE

NOTES:

1. BARS SHALL NOT BE SPLICED WITHIN 30 FEET OF THE BOTTOM OF THE PILE CAP.
2. NOT MORE THAN ONE HALF OF THE BARS SHALL BE SPLICED WITHIN ONE SPLICE LENGTH. SPLICED BARS SHALL ALTERNATE WITH CONTINUOUS BARS.
3. LAP LENGTH FOR LONGITUDINAL BARS SHALL BE 6'-1" MINIMUM.
4. LAP LENGTH FOR TRANSVERSE REINFORCEMENT SHALL BE 48 BAR DIAMETERS OR 12 INCHES MINIMUM.
5. CONCRETE SPACER BLOCKS SHALL BE USED TO MAINTAIN PROPER POSITION AND CLEARANCES TO THE REINFORCING BARS.
6. PILE CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS OF AGE.
7. REINFORCING SHALL BE ASTM A615, GRADE 60.
8. REINFORCING STEEL FABRICATION SHALL BE IN CONFORMANCE WITH THE "MANUAL OF STANDARD PRACTICE" TWENTY FOURTH EDITION, BY CONCRETE REINFORCING STEEL INSTITUTE.
9. BAR SIZE #14 SHALL NOT BE LAP SPLICED. IF MECHANICAL SPLICES ARE USED, THEY SHALL DEVELOP NOT LESS THAN 90% OF THE SPECIFIED ULTIMATE TENSILE STRENGTH OF THE REINFORCING.
10. 2x12 #XX INDICATES 12 2-BAR BUNDLES.

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375 HAWAII, U.S.A.

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DATE	REVISION
07/02/91	ADDED ABUTMENT 2.
12/13/90	ADD PIERS 21 & 22 I.B.
12/10/90	ADD PIERS 17,18,19 & 20 I.B.& O.B.
12/05/90	ADD PIERS 21,22&23 O.B.
10/25/90	ADD PIER 16 I.B.
9/26/90	ADD PIERS 9,10&12 O.B.
9/14/90	ADD PIERS 9,10&12 I.B.
8/30/90	ADD PIER 11 O.B. AND I.B.
06/29/90	ADD PIERS 5 & 6
06/22/90	ADD PIERS 7,8 I.B.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

5'-0" PILE DETAILS

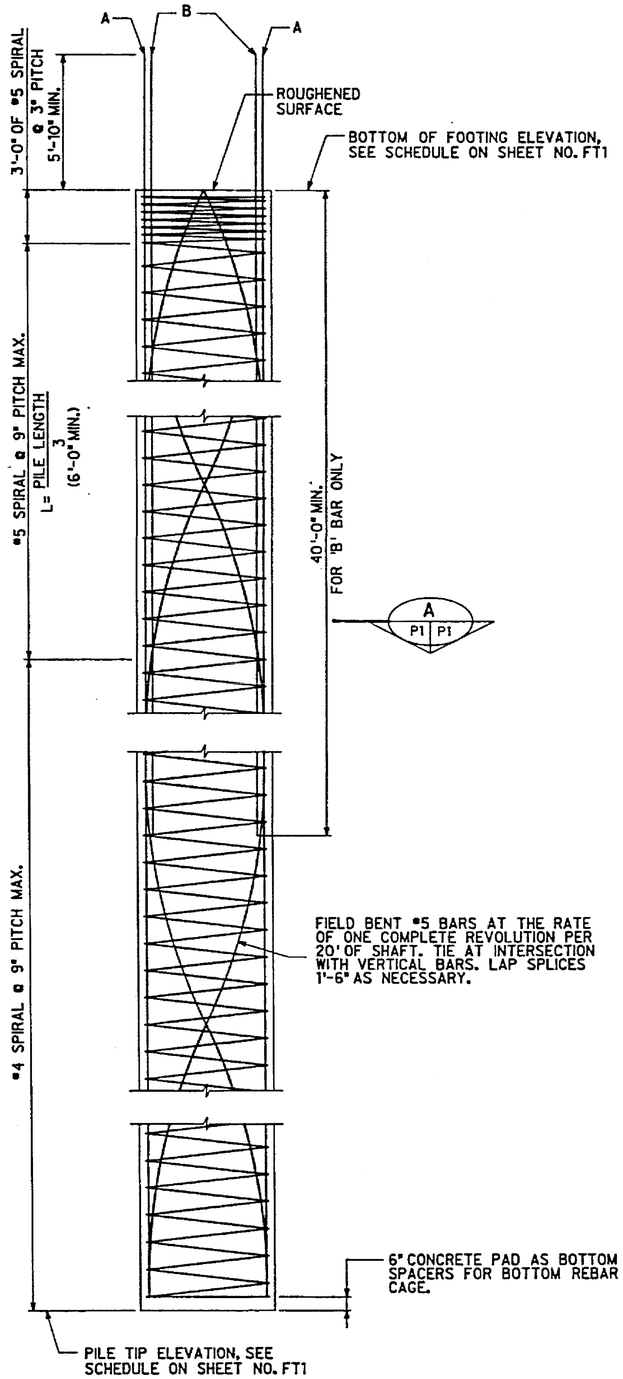
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUNE 1990

SHEET No. P1 OF SHEETS

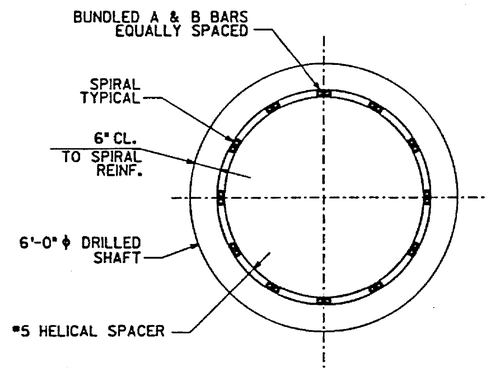
SURVEY PLOTTED BY / DRAWN BY / TRACED BY / DESIGNED BY / QUANTITIES BY / CHECKED BY / DATE
ORIGINAL PLAN / NOTE BOOK / No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	84	274



6'-0" ϕ TYPICAL PILE ELEVATION

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



6'-0" ϕ TYPICAL PILE SHAFT REINFORCING (A / P1 | P1)

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

PILE SCHEDULE

	PIER NO.	REINFORCING 'A' BARS	REINFORCING 'B' BARS		PIER NO.	REINFORCING 'A' BARS	REINFORCING 'B' BARS
INBOUND STRUCTURE	16	12-#11	2x12-#11	OUTBOUND STRUCTURE			

NOTES:
FOR PILE NOTES SEE SHEET P1

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DATE	REVISION
11/29/90	GENERAL

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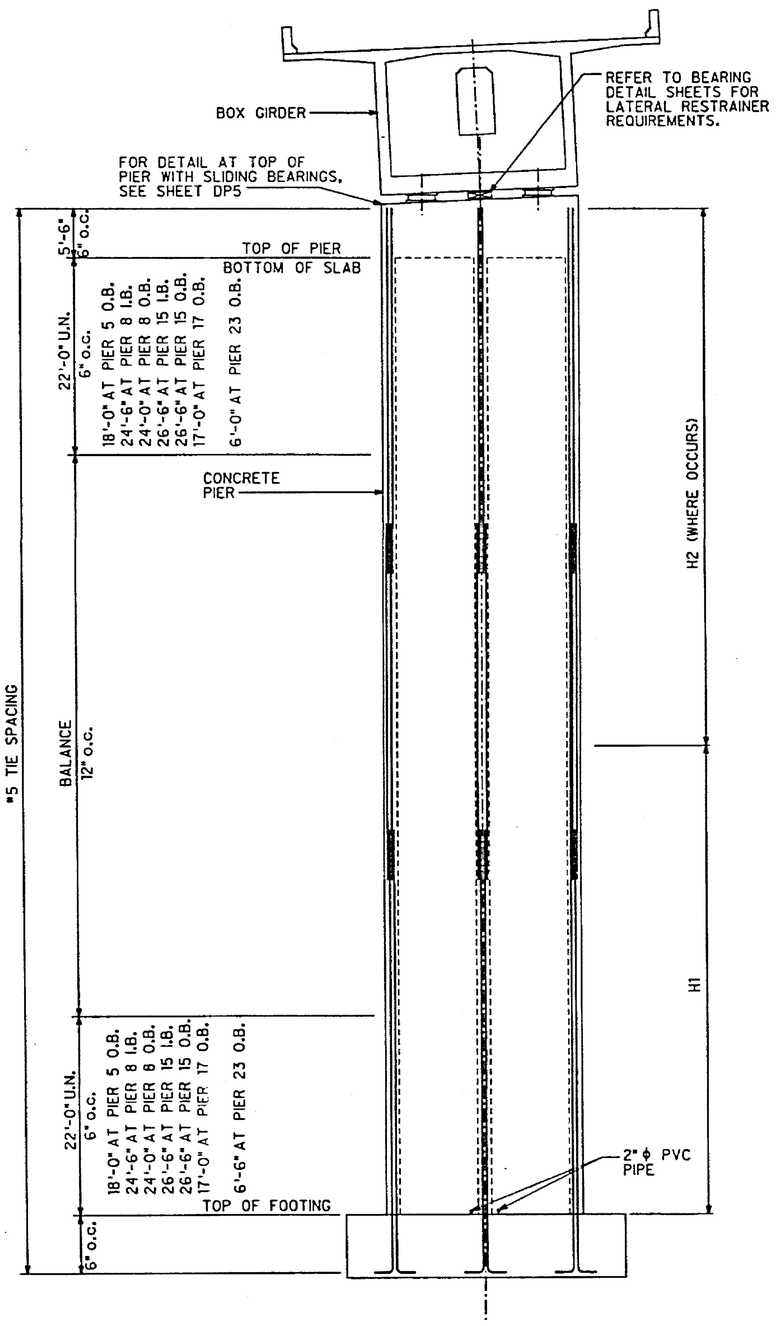
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

6'-0" PILE DETAILS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : OCT. 1990
SHEET NO. P2 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	85	274

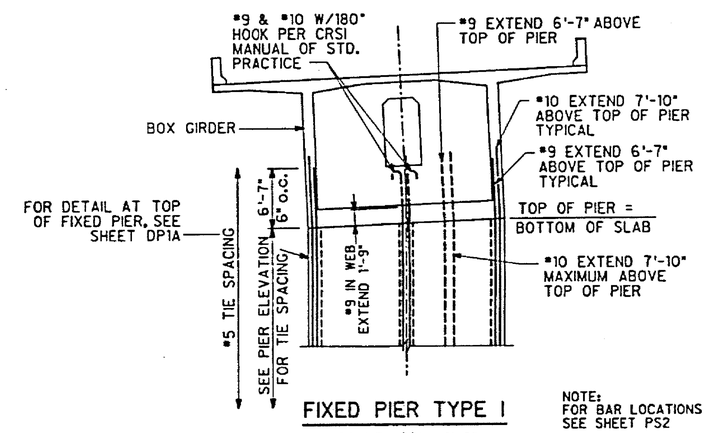


PIER ELEVATION

SCALE : 1/8" = 1'-0"

PIER NO. INBOUND	H1	REFERENCE SECTION	H2	REFERENCE SECTION	CONNECTION CONDITION	PIER SEGMENT TYPE
1	FULL HT.	A/PS2	N/A		FIXED	I
2	FULL HT.	A/PS2	N/A		FIXED	I
3	FULL HT.	A/PS2	N/A		FIXED	I
4	FULL HT.	A/PS2	N/A		SLIDING	I
5	FULL HT.	A/PS2	N/A		SLIDING	I
6	FULL HT.	A/PS2	N/A		FIXED	II
7	110'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
8	FULL HT.	A/PS2	N/A		SLIDING	II
9	FULL HT.	A/PS2	N/A		FIXED	II
10	FULL HT.	A/PS2	N/A		FIXED	II
11	FULL HT.	A/PS2	N/A		FIXED	II
12	FULL HT.	A/PS2	N/A		SLIDING	II
13	FULL HT.	A/PS2	N/A		SLIDING	II
14	50'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
15	50'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
16	50'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
17	FULL HT.	A/PS2	N/A		SLIDING	II
18	FULL HT.	A/PS2	N/A		FIXED	II
19	FULL HT.	A/PS2	N/A		FIXED	II
20	FULL HT.	A/PS2	N/A		FIXED	II
21	FULL HT.	A/PS2	N/A		FIXED	II
22	65'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
23	FULL HT.	A/PS2	N/A		SLIDING	II

PIER NO. OUTBOUND	H1	REFERENCE SECTION	H2	REFERENCE SECTION	CONNECTION CONDITION	PIER SEGMENT TYPE
1	FULL HT.	A/PS2	N/A		FIXED	I
2	FULL HT.	A/PS2	N/A		FIXED	I
3	FULL HT.	A/PS2	N/A		FIXED	I
4	FULL HT.	A/PS2	N/A		SLIDING	I
5	FULL HT.	A/PS2	N/A		SLIDING	I
6	FULL HT.	A/PS2	N/A		FIXED	II
7	90'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
8	FULL HT.	A/PS2	N/A		SLIDING	II
9	FULL HT.	A/PS2	N/A		FIXED	II
10	28'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
11	FULL HT.	A/PS2	N/A		FIXED	II
12	FULL HT.	A/PS2	N/A		SLIDING	II
13	FULL HT.	A/PS2	N/A		SLIDING	II
14	50'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
15	FULL HT.	A/PS2	N/A		FIXED	II
16	50'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
17	FULL HT.	A/PS2	N/A		SLIDING	II
18	FULL HT.	A/PS2	N/A		FIXED	II
19	FULL HT.	A/PS2	N/A		FIXED	II
20	FULL HT.	A/PS2	N/A		FIXED	II
21	40'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
22	50'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
23	FULL HT.	A/PS2	N/A		SLIDING	II



FIXED PIER TYPE I

SCALE : 1/8" = 1'-0"

NOTE:
FOR BAR LOCATIONS SEE SHEET PS2

DATE	REVISION
06/21/91	UPDATED DRAWING
05/03/91	UPDATED DRAWING.
04/05/91	UPDATED SCHEDULE.
12/13/90	ADD PIERS 21-23 I.B.
12/10/90	ADD PIERS 17-20 I.B. & O.B.
12/05/90	ADD PIERS 21-23 O.B.
10/25/90	ADD PIERS 13-16 I.B.
10/04/90	UPDATED DRAWING
9/26/90	ADD PIERS 9-16 O.B.
9/14/90	ADD PIERS 9,10, & 12 I.B.
7/16/90	SHOW REINFORCING ON FIXED PIER
6/29/90	ADD PIERS 5 & 6

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 3379-E
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

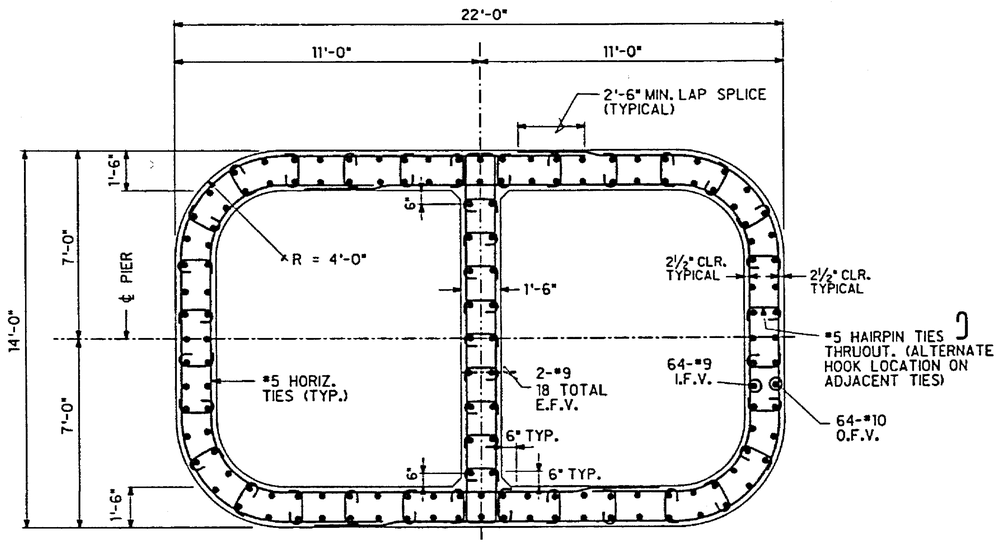
PIER SCHEDULE

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

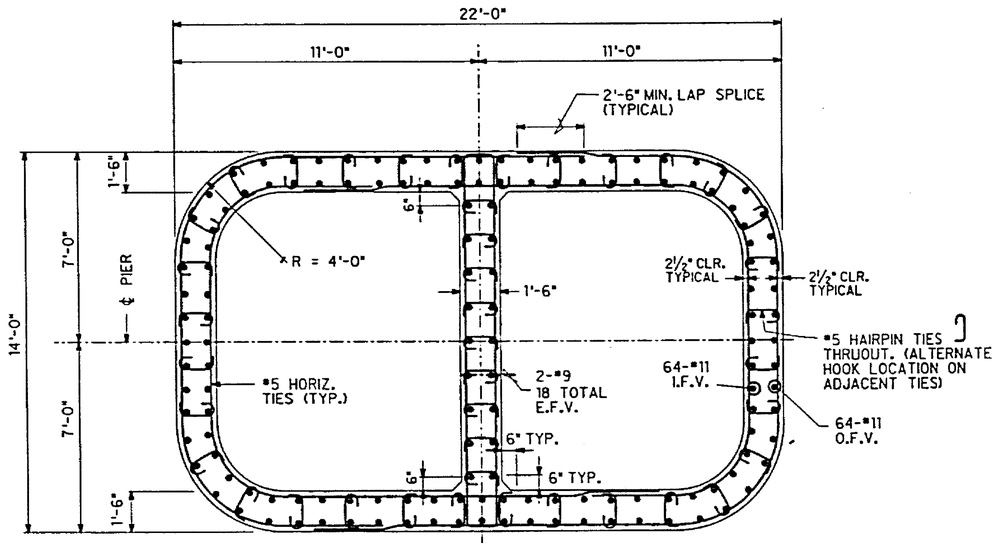
SCALE : AS NOTED DATE : JUNE 1990

SHEET NO. PS1 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	86	274



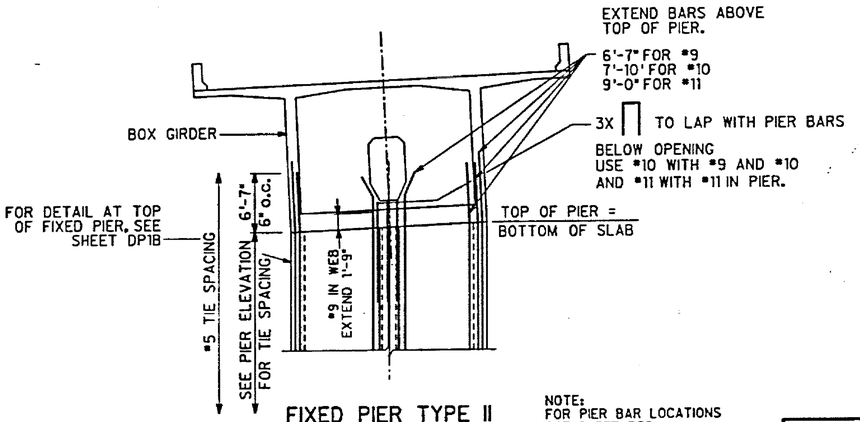
PIER PLAN - SECTION A
SCALE : 3/8" = 1'-0"
PS1 | PS2



PIER PLAN - SECTION B
SCALE : 3/8" = 1'-0"
PS1 | PS2

NOTES:

1. PIER SHAFT CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 4500 PSI.
2. PIER SHAFT REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
3. REINFORCING STEEL FABRICATION SHALL BE IN CONFORMANCE WITH THE "MANUAL OF STANDARD PRACTICE" TWENTY FOURTH EDITION, BY CONCRETE REINFORCING STEEL INSTITUTE.
4. NOT MORE THAN ONE HALF OF THE LONGITUDINAL BARS SHALL BE SPLICED WITHIN ONE SPLICE LENGTH. SPLICED BARS SHALL ALTERNATE WITH CONTINUOUS BARS.
5. LAP LENGTH FOR LONGITUDINAL BARS SHALL BE 3'-11" FOR A #9 BAR, 5'-0" FOR A #10 BAR AND 6'-1" FOR A # 11 BAR.



FIXED PIER TYPE II
SCALE : 1/8" = 1'-0"

NOTE:
FOR PIER BAR LOCATIONS SEE SHEET PS2

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2379-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
04/05/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PIER CROSS SECTIONS

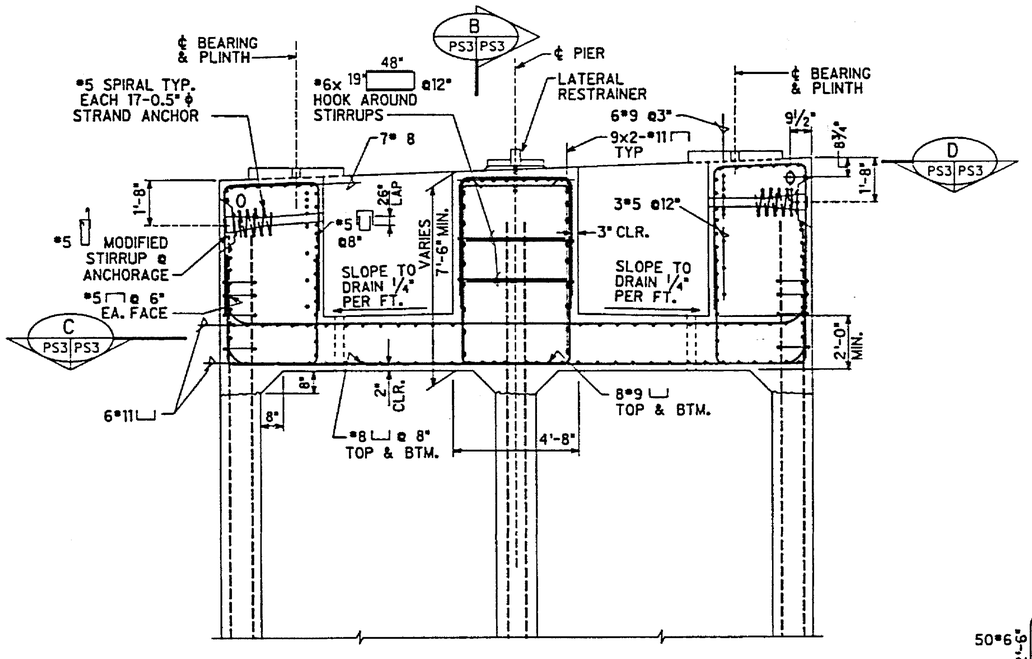
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUNE 1990

SHEET NO. PS2 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	87	274

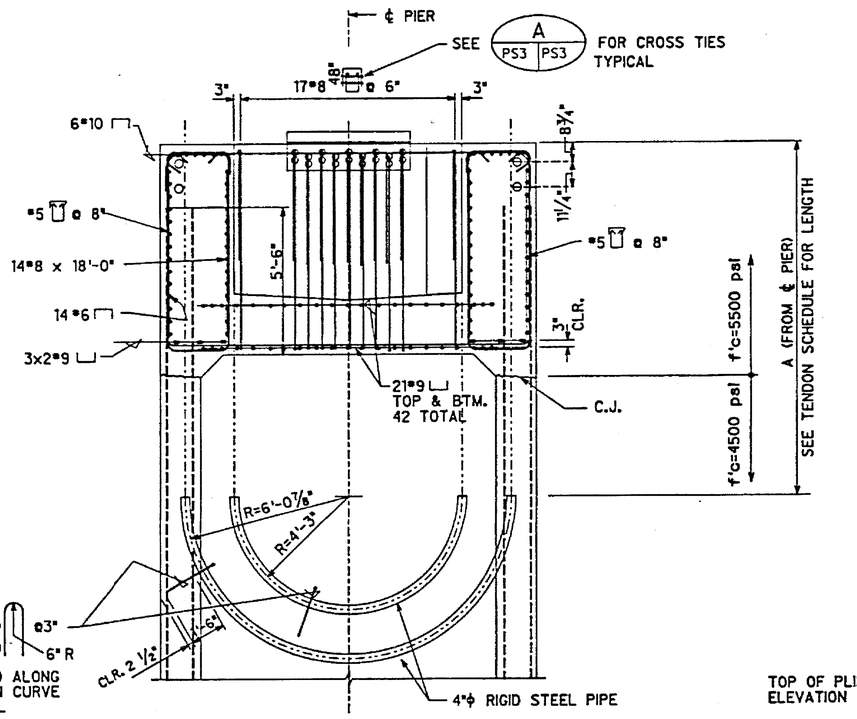
SLIDING PIER TENDON SCHEDULE

	PIER NO.	A		PIER NO.	A
INBOUND	4	14'-0"	OUTBOUND	4	14'-0"
	5	8'-0"		5	8'-0"
	8	14'-0"		8	14'-0"
	12	14'-0"		12	14'-0"
	13	14'-0"		13	14'-0"
	17	14'-0"		17	14'-0"
	23	14'-0"		23	14'-0"



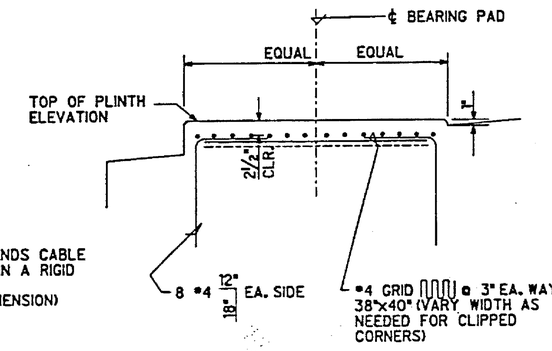
TYPICAL PIER CAP ELEVATION-
DETAIL FOR SLIDE BEARING (A PS3 PS3)

SCALE : ⅜" = 1'-0"



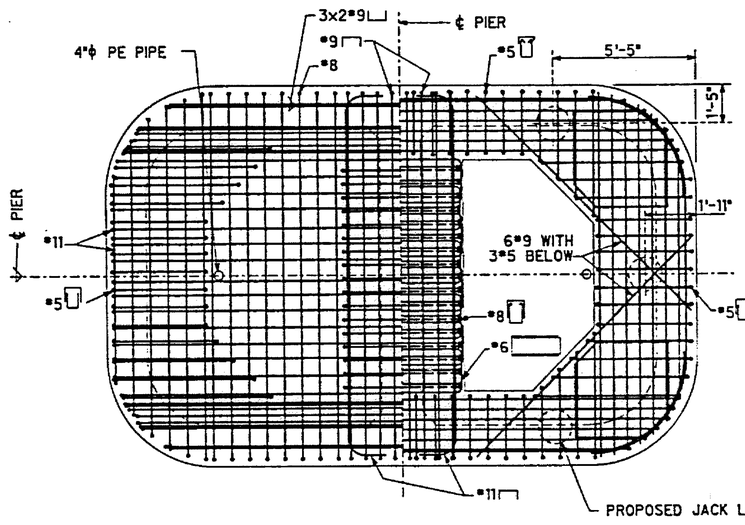
SECTION (B PS3 PS3)

SCALE : ⅜" = 1'-0"



PLINTH DETAIL AT PIERS (1 PS3 PS3)

SCALE : 1" = 1'-0"

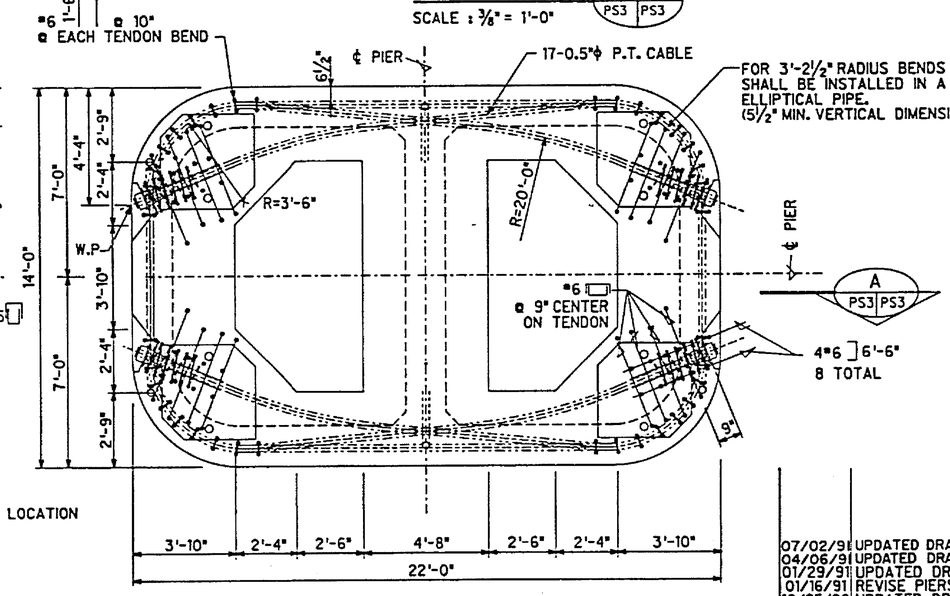


HALF SECTION (C PS3 PS3)

SCALE : ⅜" = 1'-0"

HALF SECTION (D PS3 PS3)

SCALE : ⅜" = 1'-0"



TENDON LAYOUT

SCALE : ⅜" = 1'-0"

DATE	REVISION
07/02/91	UPDATED DRAWING.
04/06/91	UPDATED DRAWING
01/29/91	UPDATED DRAWING
01/16/91	REVISE PIERS 4,5,8 & 12 I.B. & O.B.
10/25/90	UPDATED DRAWING

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY, REGISTERED PROFESSIONAL ENGINEER, No. 2275, HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

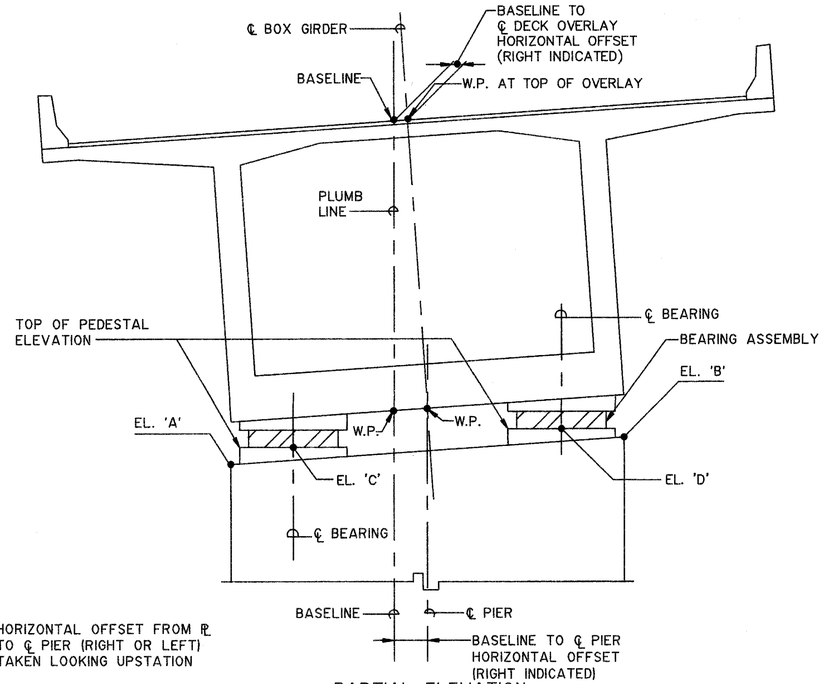
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PIER CAP REINFORCING

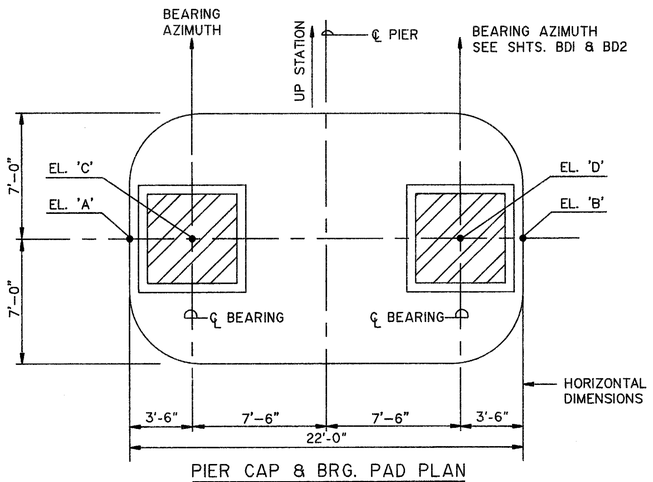
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUNE 1990

SHEET NO. PS3 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	88	274



PARTIAL ELEVATION



PIER CAP & BRG. PAD PLAN

PIER CAP & BRG. PAD ELEVATIONS (A, PS4 | PS4)

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

PIER NO. INBOUND	ELEVATION 'A'	ELEVATION 'B'	ELEVATION 'C'	ELEVATION 'D'	HORIZONTAL OFFSET (FT.) BASELINE TO ℄ PIER	HORIZONTAL OFFSET (FT.) BASELINE TO ℄ DECK OVERLAY
1 I.B.	782.97	782.20	783.35	782.83	0.566 LEFT	0.000
2 I.B.	772.40	772.65	772.94	773.11	0.184 RIGHT	0.000
3 I.B.	761.34	761.67	761.89	762.12	0.244 RIGHT	0.000
4 I.B.	748.60	750.08	749.33	750.34	1.091 RIGHT	0.000
5 I.B.	736.72	738.22	737.46	738.48	1.107 RIGHT	0.000
6 I.B.	725.13	726.63	725.87	726.89	1.107 RIGHT	0.000
7 I.B.	713.26	714.76	714.00	715.02	1.107 RIGHT	0.000
8 I.B.	700.86	702.36	701.60	702.62	1.11 RIGHT	0.000
9 I.B.	688.11	689.54	688.83	689.82	1.061 RIGHT	0.000
10 I.B.	674.97	675.30	675.52	675.75	0.244 RIGHT	0.000
11 I.B.	659.75	659.87	660.27	660.35	0.086 RIGHT	0.000
12 I.B.	644.89	643.87	645.22	644.53	0.750 LEFT	0.000
13 I.B.	630.39	629.37	630.73	630.03	0.750 LEFT	0.000
14 I.B.	615.23	613.86	615.51	614.57	1.013 LEFT	0.000
15 I.B.	599.15	597.74	599.42	598.46	1.038 LEFT	0.000
16 I.B.	583.83	582.42	584.10	583.14	1.038 LEFT	0.000
17 I.B.	568.58	567.17	568.85	567.89	1.038 LEFT	0.000
18 I.B.	553.96	552.58	554.24	553.30	1.017 LEFT	0.000
19 I.B.	537.93	536.91	538.27	537.57	1.043 LEFT	0.293 LEFT
20 I.B.	521.87	520.85	522.21	521.51	1.917 LEFT	1.168 LEFT
21 I.B.	505.36	504.37	505.70	505.00	3.362 LEFT	2.612 LEFT
22 I.B.	489.60	489.36	490.06	489.89	4.179 LEFT	4.000 LEFT
23 I.B.	473.19	473.52	473.75	473.97	3.756 LEFT	4.000 LEFT

PIER NO. OUTBOUND	ELEVATION 'A'	ELEVATION 'B'	ELEVATION 'C'	ELEVATION 'D'	HORIZONTAL OFFSET (FT.) BASELINE TO ℄ PIER	HORIZONTAL OFFSET (FT.) BASELINE TO ℄ DECK OVERLAY
1 O.B.	781.74	780.88	782.11	781.52	4.089 LEFT	3.456 LEFT
2 O.B.	771.55	770.73	771.92	771.36	3.602 LEFT	3.000 LEFT
3 O.B.	760.11	760.44	760.66	760.89	2.755 LEFT	3.000 LEFT
4 O.B.	748.65	750.09	749.38	750.36	1.934 LEFT	3.000 LEFT
5 O.B.	738.14	739.59	738.87	739.86	1.931 LEFT	3.000 LEFT
6 O.B.	728.43	729.88	729.16	730.15	1.931 LEFT	3.000 LEFT
7 O.B.	718.50	719.95	719.23	720.22	1.931 LEFT	3.000 LEFT
8 O.B.	708.32	709.77	709.05	710.04	1.931 LEFT	3.000 LEFT
9 O.B.	698.10	699.50	698.82	699.78	1.967 LEFT	3.000 LEFT
10 O.B.	687.50	687.28	687.97	687.82	2.239 LEFT	2.078 LEFT
11 O.B.	673.87	673.54	674.32	674.10	0.971 LEFT	0.727 LEFT
12 O.B.	659.44	658.40	659.77	659.06	0.768 LEFT	0.000
13 O.B.	644.38	643.34	644.71	644.00	0.768 LEFT	0.000
14 O.B.	629.19	627.76	629.47	628.49	1.057 LEFT	0.000
15 O.B.	613.74	612.29	614.01	613.02	1.075 LEFT	0.000
16 O.B.	598.85	597.40	599.12	598.13	1.075 LEFT	0.000
17 O.B.	583.68	582.23	583.95	582.96	1.075 LEFT	0.000
18 O.B.	568.48	567.05	568.75	567.78	1.053 LEFT	0.000
19 O.B.	552.28	551.24	552.61	551.90	0.768 LEFT	0.000
20 O.B.	535.47	534.43	535.80	535.09	0.768 LEFT	0.000
21 O.B.	518.20	517.16	518.53	517.83	0.768 LEFT	0.000
22 O.B.	502.00	501.67	502.45	502.22	0.246 LEFT	0.000
23 O.B.	485.55	485.22	486.00	485.78	0.244 LEFT	0.000

ELEVATIONS BASED ON ASSUMED DIMENSIONS OF POT BEARINGS INDICATED ON SHEETS BDI AND BD2. THE CONTRACTOR TO VERIFY THE DIMENSIONS OF THE ACTUAL BEARING USED AND ADJUST THE ELEVATIONS AS REQUIRED.

MYRON G. OKUBO REGISTERED PROFESSIONAL ENGINEER No. 4320-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PIER CONTROL ELEVATIONS

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. PS4 OF 4 SHEETS

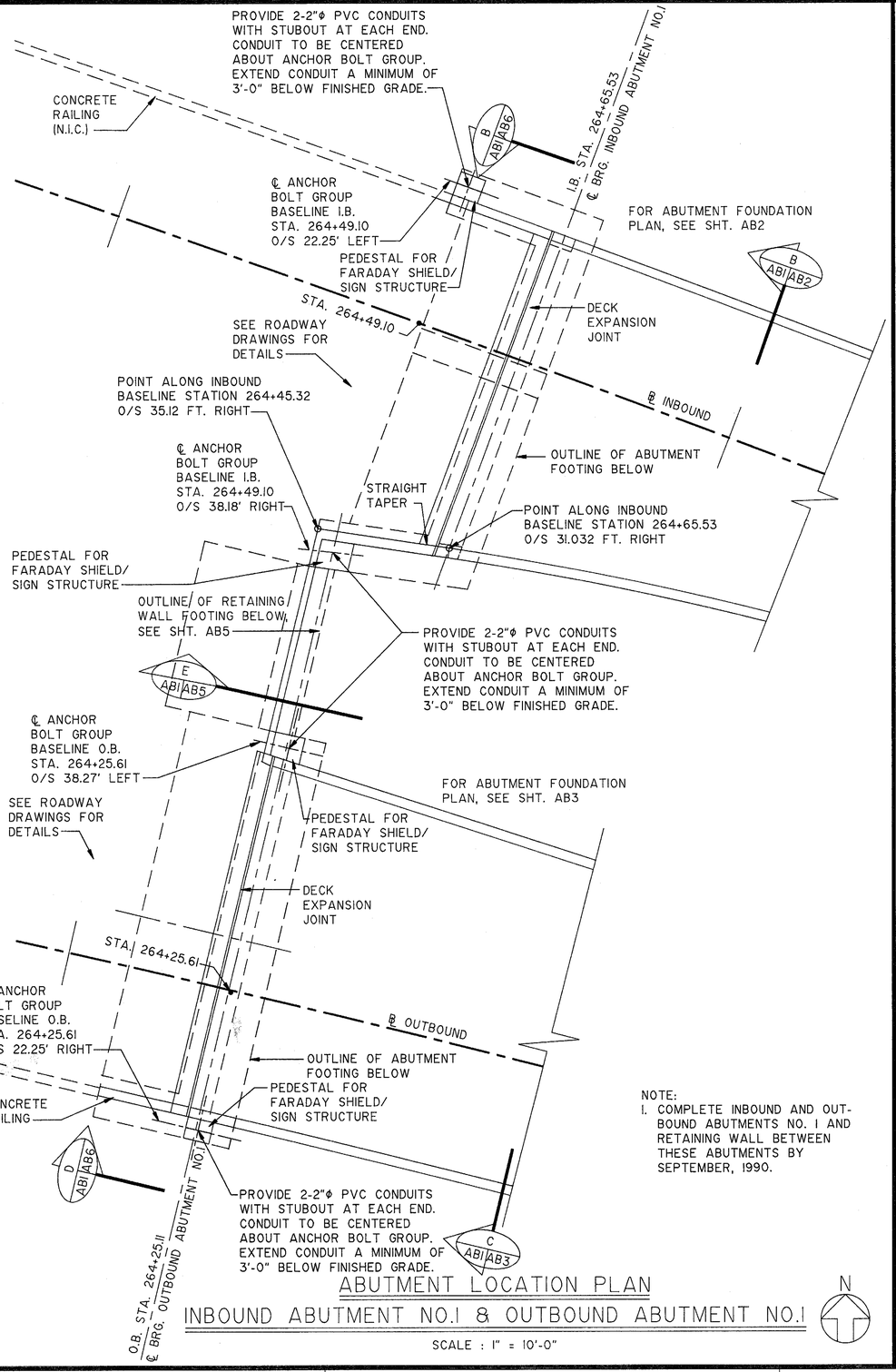
DATE	REVISION

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

ORIGINAL PLAN
NOTEBOOK
No.

MAY 04 1989

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	89	274



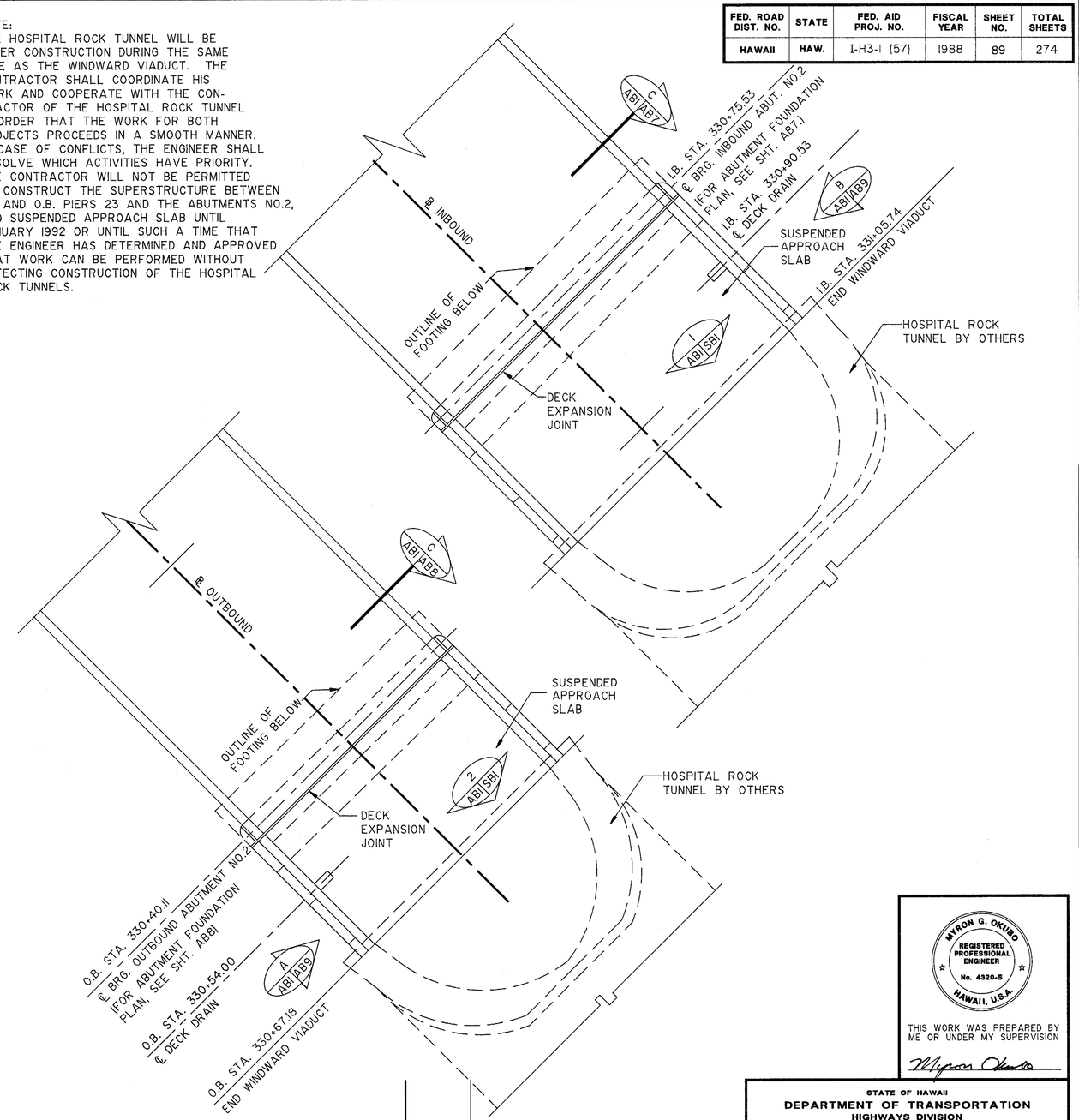
NOTE:
1. COMPLETE INBOUND AND OUTBOUND ABUTMENTS NO. 1 AND RETAINING WALL BETWEEN THESE ABUTMENTS BY SEPTEMBER, 1990.

ABUTMENT LOCATION PLAN
INBOUND ABUTMENT NO.1 & OUTBOUND ABUTMENT NO.1

N

SCALE : 1" = 10'-0"

NOTE:
THE HOSPITAL ROCK TUNNEL WILL BE UNDER CONSTRUCTION DURING THE SAME TIME AS THE WINDWARD VIADUCT. THE CONTRACTOR SHALL COORDINATE HIS WORK AND COOPERATE WITH THE CONTRACTOR OF THE HOSPITAL ROCK TUNNEL IN ORDER THAT THE WORK FOR BOTH PROJECTS PROCEEDS IN A SMOOTH MANNER. IN CASE OF CONFLICTS, THE ENGINEER SHALL RESOLVE WHICH ACTIVITIES HAVE PRIORITY. THE CONTRACTOR WILL NOT BE PERMITTED TO CONSTRUCT THE SUPERSTRUCTURE BETWEEN I.B. AND O.B. PIERS 23 AND THE ABUTMENTS NO.2, AND SUSPENDED APPROACH SLAB UNTIL JANUARY 1992 OR UNTIL SUCH A TIME THAT THE ENGINEER HAS DETERMINED AND APPROVED THAT WORK CAN BE PERFORMED WITHOUT AFFECTING CONSTRUCTION OF THE HOSPITAL ROCK TUNNELS.



ABUTMENT LOCATION PLAN
INBOUND ABUTMENT NO.2 & OUTBOUND ABUTMENT NO.2

N

SCALE : 1" = 10'-0"

DATE	REVISION
2/27/90	REVISED I.B & O.B. ABUTMENT NO.1 PLAN
7/11/89	REVISED I.B & O.B. ABUTMENT NO.1 PLAN
6/30/89	REVISED RETAINING WALL FOOTING.

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

MYRON G. OKUBO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ABUTMENT LOCATION PLANS
INBOUND & OUTBOUND STRUCTURES

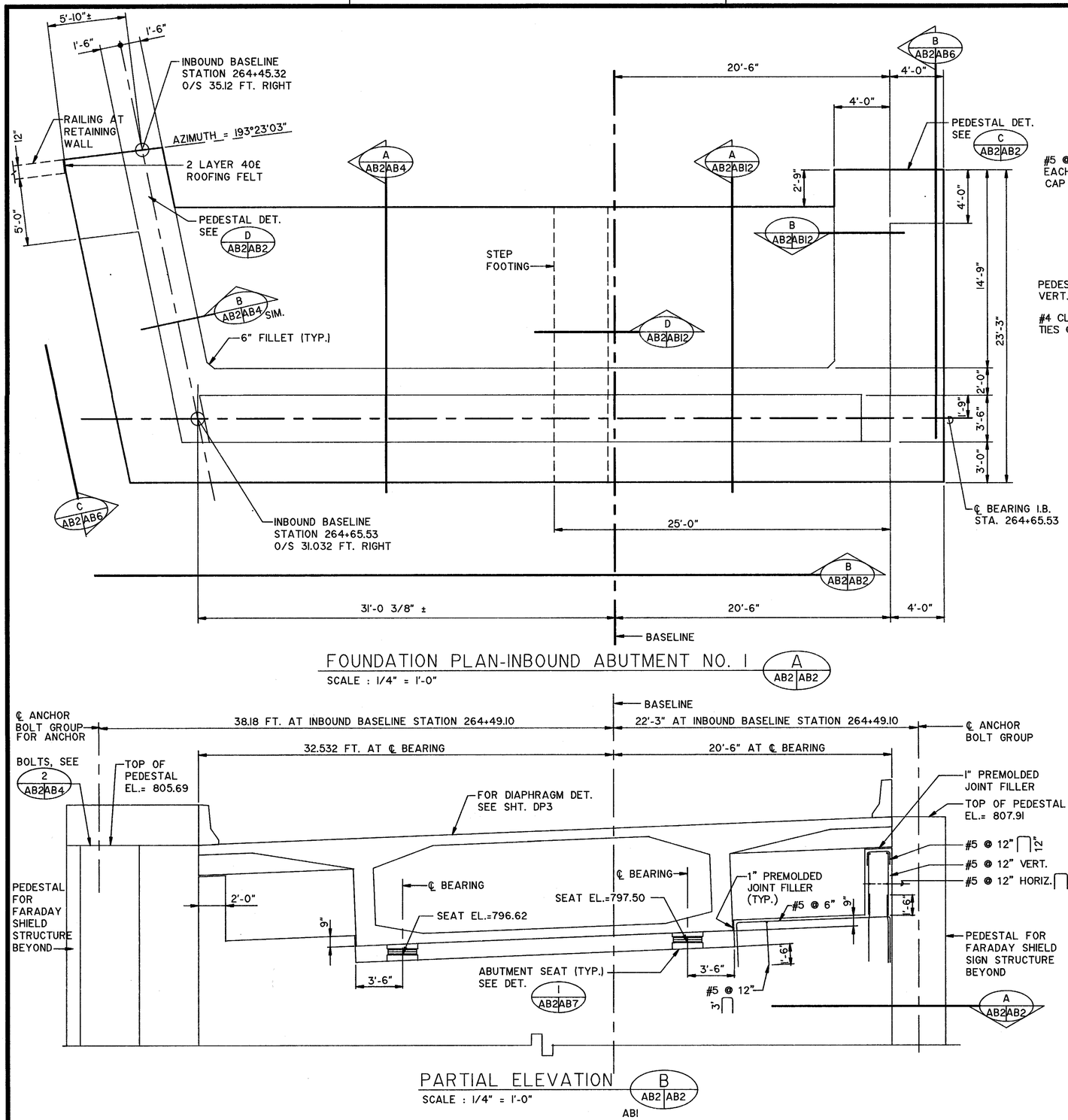
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. ABI OF II SHEETS

C.O.ADD. 89

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	90	274



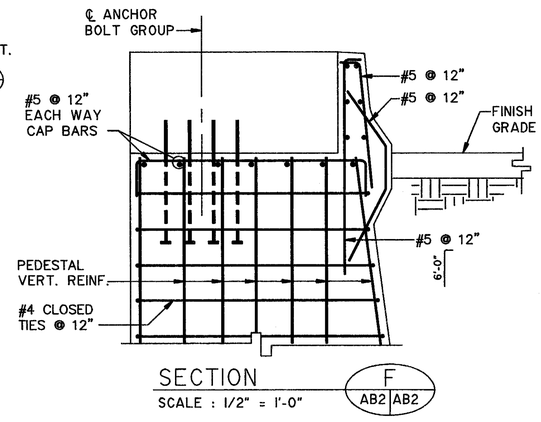
FOUNDATION PLAN-INBOUND ABUTMENT NO. 1 — A AB2|AB2

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

PARTIAL ELEVATION — B AB2|AB2

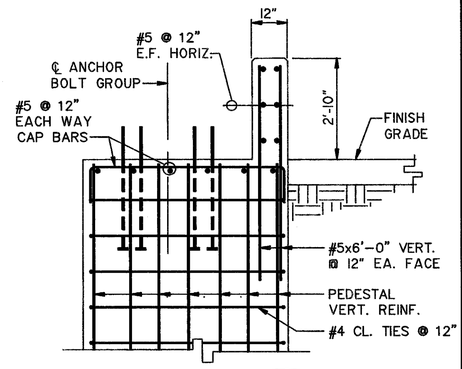
SCALE : 1/4" = 1'-0"

AB1



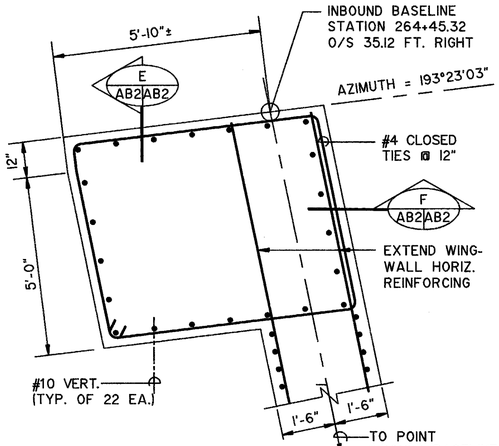
SECTION — F AB2|AB2

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



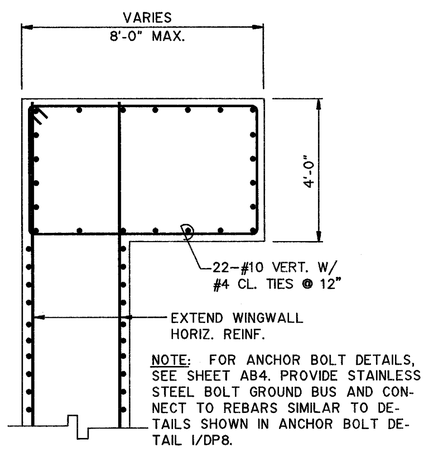
SECTION — E AB2|AB2

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



PLAN-SECTION — D AB2|AB2

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



NOTE: FOR ANCHOR BOLT DETAILS, SEE SHEET AB4. PROVIDE STAINLESS STEEL BOLT GROUND BUS AND CONNECT TO REBARS SIMILAR TO DETAILS SHOWN IN ANCHOR BOLT DETAIL 1/DP8.

PLAN-SECTION — C AB2|AB2

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

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

ORIGINAL PLAN
NOTEBOOK
No.

MYRON G. OKUBO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

DATE	REVISION
3/2/90	CHANGED DIMENSION SECTION C. CLARIFY REBAR CONFIGURATION SECTIONS E & F.
2/27/90	REVISED DETAIL A. CORRECTED VERT. REBAR ARRANGEMENT ON DETAILS C & D.
7/11/89	ADDED NOTE TO SECTION C

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PLANS & ELEVATIONS

INBOUND ABUTMENT NO.1

I.B. STA. 264+65.33

INTERSTATE ROUTE H-3

F.A.I. PROJECT NO. I-H3-1 (57)

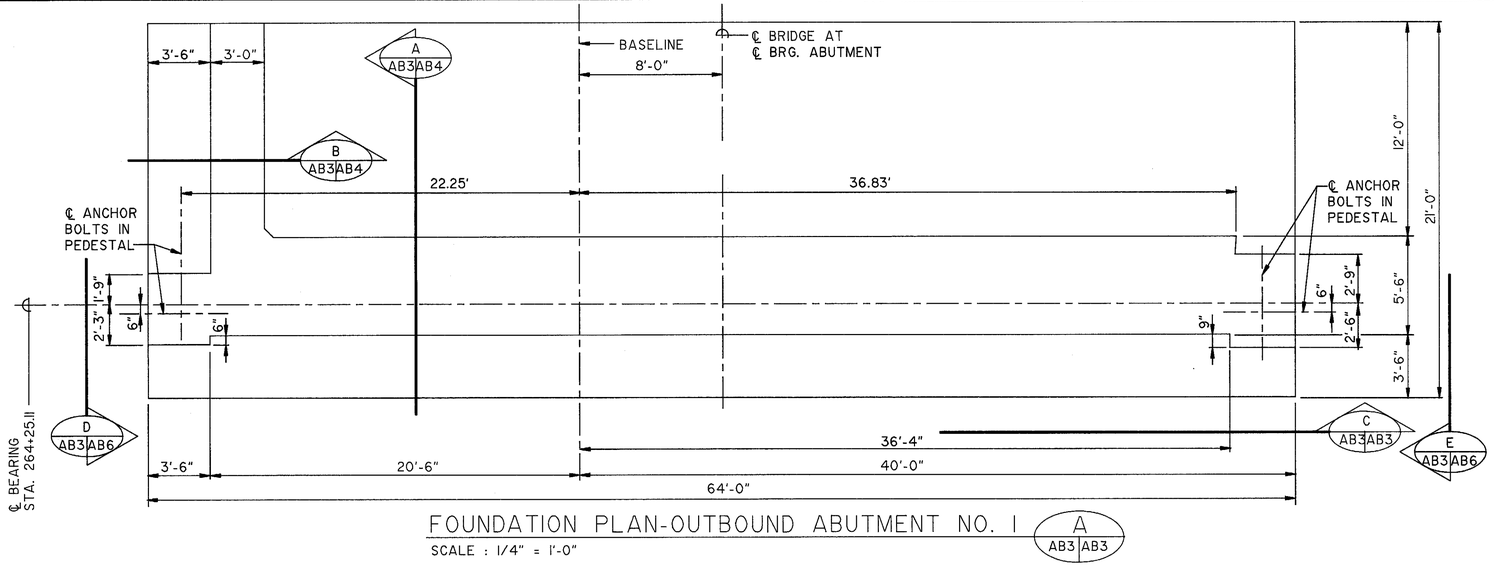
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. AB2 OF 11 SHEETS

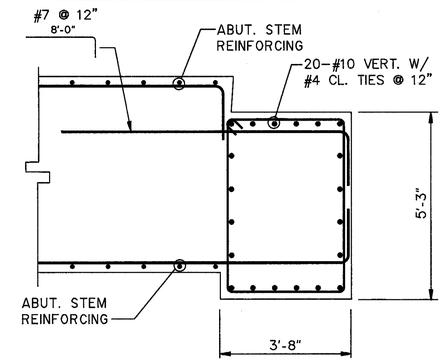
C.O.ADD. 90R

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	91	274



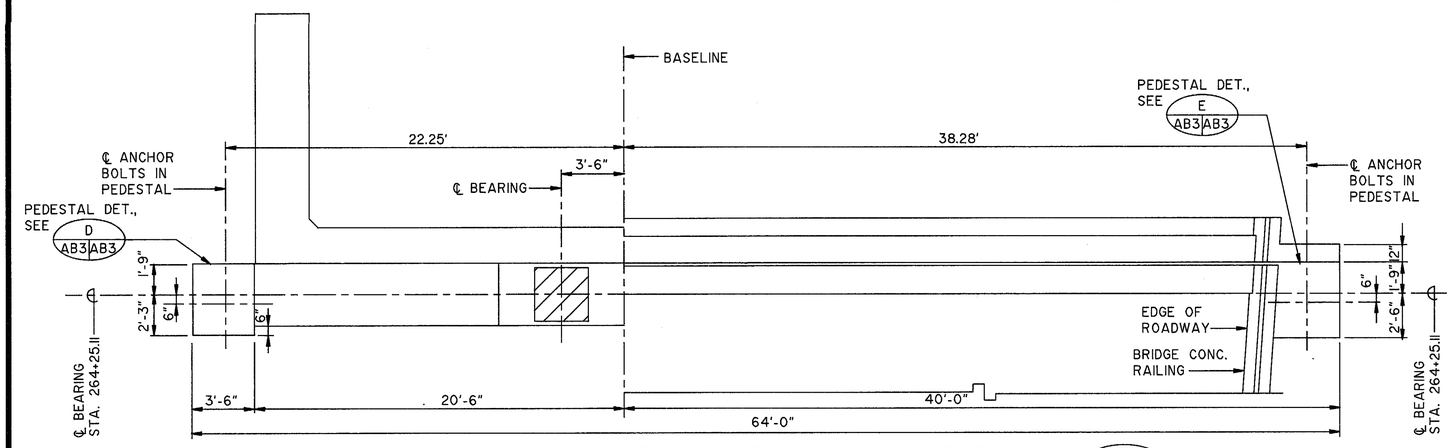
FOUNDATION PLAN-OUTBOUND ABUTMENT NO. 1 (A AB3 AB3)

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



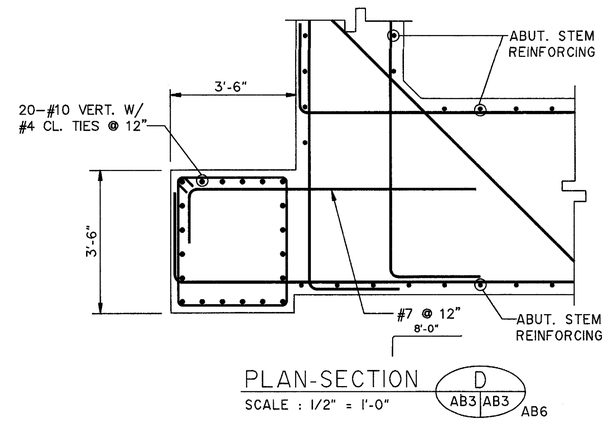
PLAN-SECTION (E AB3 AB3 AB6)

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



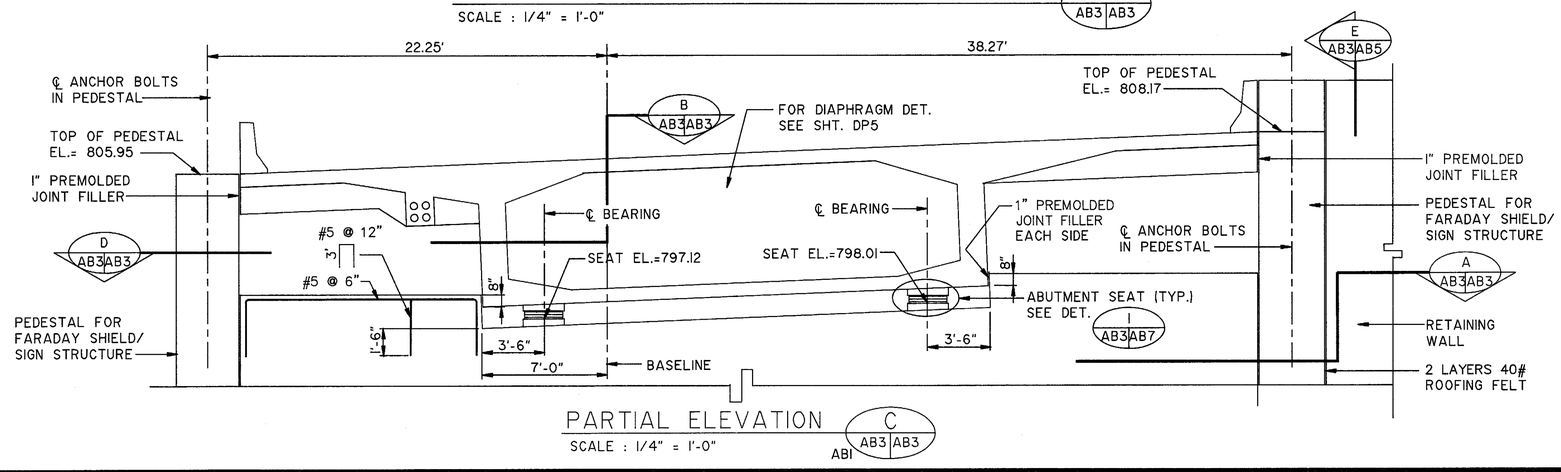
FOUNDATION PLAN-OUTBOUND ABUTMENT NO. 1 (B AB3 AB3)

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



PLAN-SECTION (D AB3 AB3 AB6)

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



PARTIAL ELEVATION (C AB3 AB3 AB1)

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

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

ORIGINAL PLAN
NOTEBOOK
No.

DATE	REVISION
3/2/90	CHANGED DIMENSIONS, DETAIL A.
2/27/90	REVISED DETAILS A & C.
6/30/89	REVISED FLAG DESIGNATION AT DETAIL C.

MYRON G. OKUBO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PLANS AND ELEVATIONS

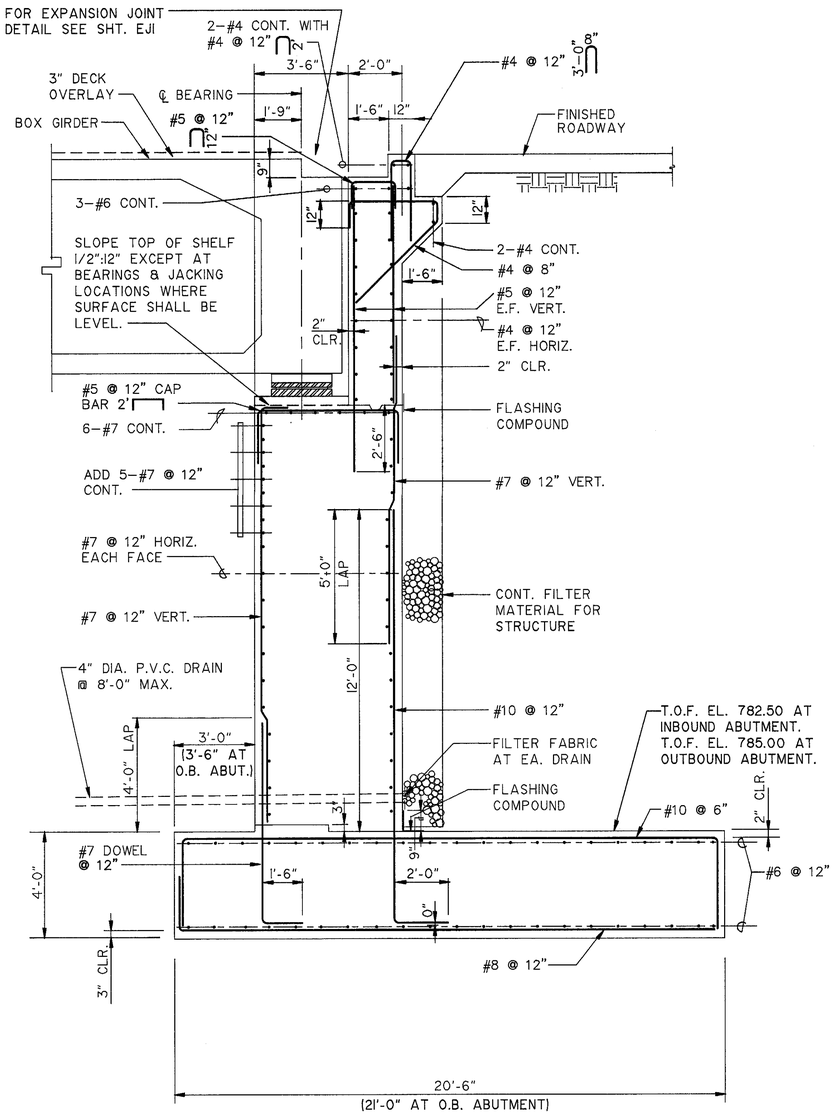
OUTBOUND ABUTMENT NO.1
O.B. STA. 264+25.11
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: SEPT. 1988

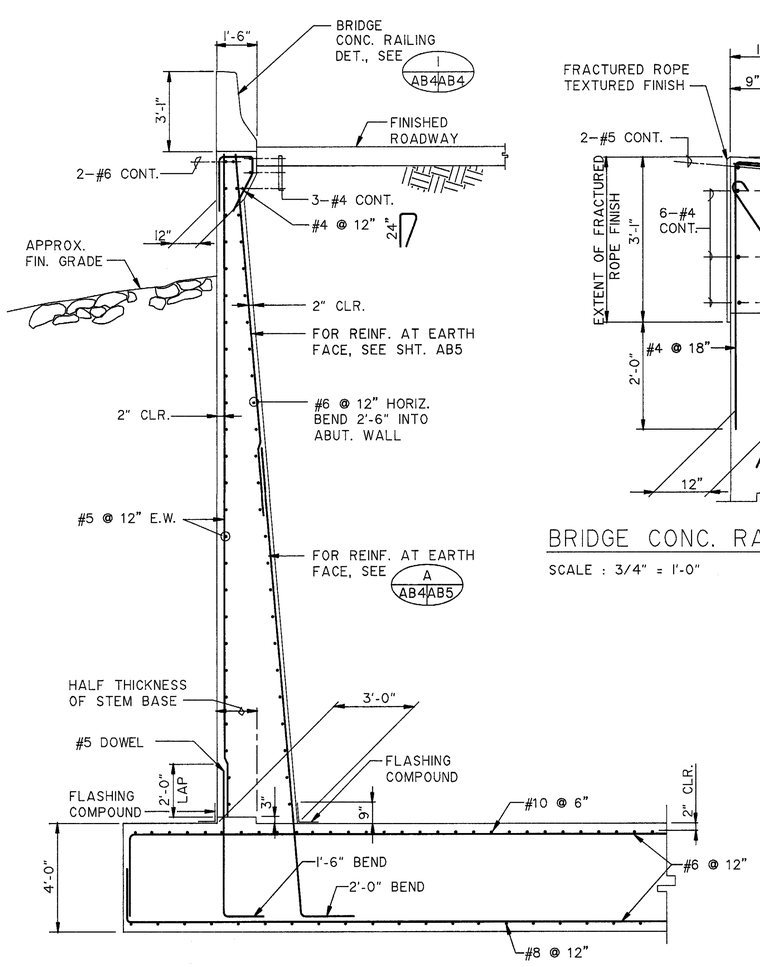
SHEET No. AB3 OF 11 SHEETS

C.O. ADD. 91R

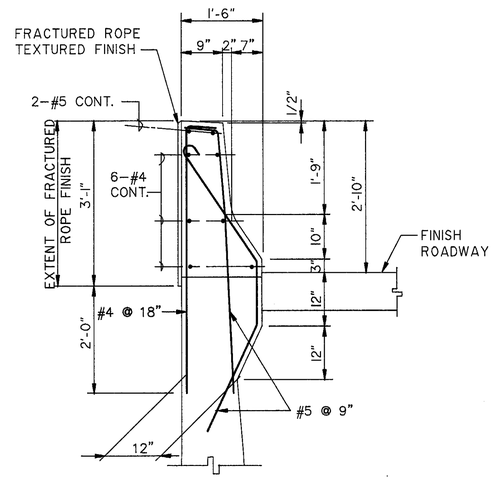
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I (57)	1988	92	274



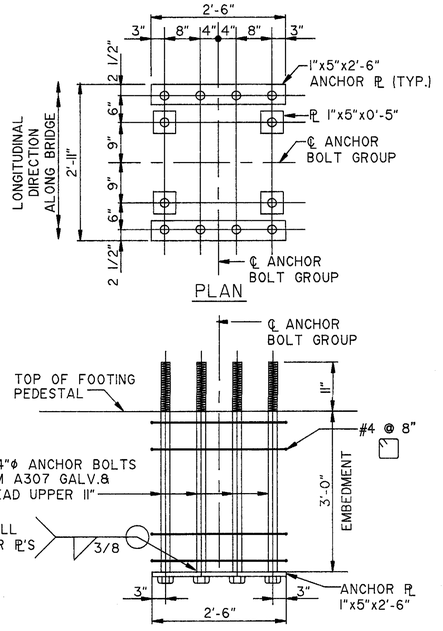
SECTION AT ABUTMENT A
AB4 | AB4
SCALE : 3/8" = 1'-0"
AB2, AB3



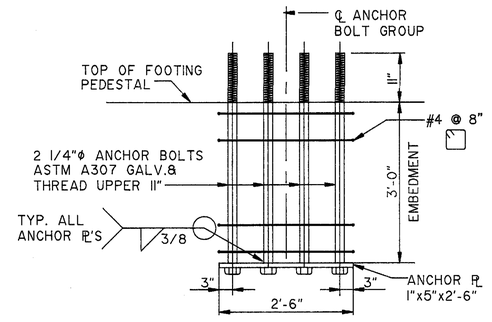
SECTION AT WING WALL B
AB4 | AB4
SCALE : 3/8" = 1'-0"
AB2, AB3



BRIDGE CONC. RAILING DET. 1 AB4 | AB4
SCALE : 3/4" = 1'-0"



PLAN



ELEVATION

ANCHOR BOLT DET. 2 AB4 | AB4
SCALE : 3/4" = 1'-0"

NOTE: THE CONTRACTOR SHALL USE RIGID TEMPLATES WHILE INSTALLING ALL ANCHOR BOLTS TO MAINTAIN THE PROPER LOCATIONS OF ANCHOR BOLTS. THE CONTRACTOR SHALL PROTECT ALL ANCHOR BOLTS FROM DAMAGE DURING ALL PHASES OF CONSTRUCTION. THE TEMPLATE AND METHOD OF PROTECTING ANCHOR BOLTS SHALL BE APPROVED BY THE ENGINEER.

MYRON G. OKUBO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

DATE	REVISION
2/27/90	REVISED SECTIONS A & B.
6/30/89	REVISED DETAIL 2

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ABUTMENT NO.1 SECTIONS

INBOUND & OUTBOUND STRUCTURES

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-I (57)
F.A.I. PROJECT NO. I-H3-I (58)

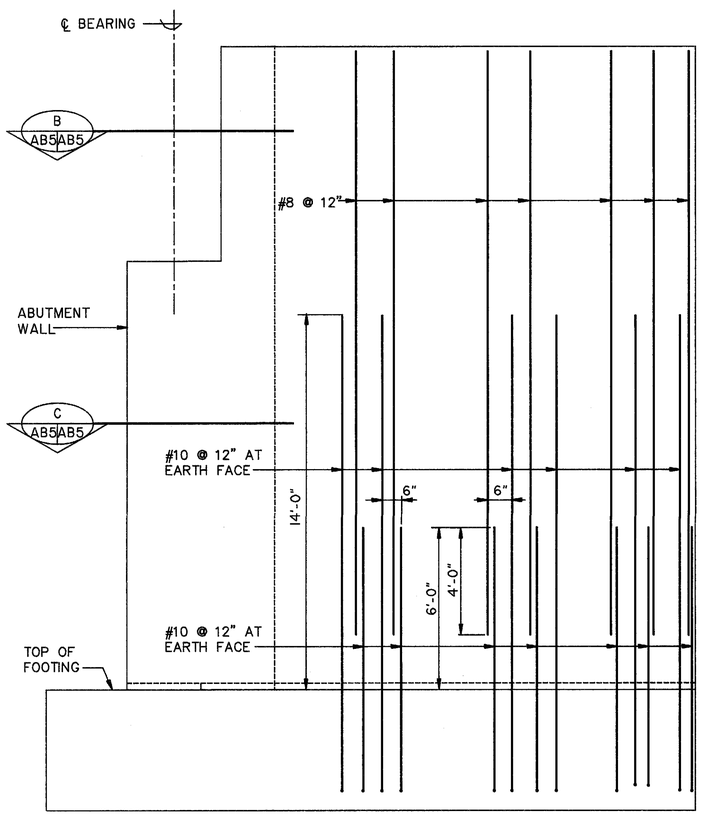
SCALE: AS NOTED DATE: SEPT. 1988

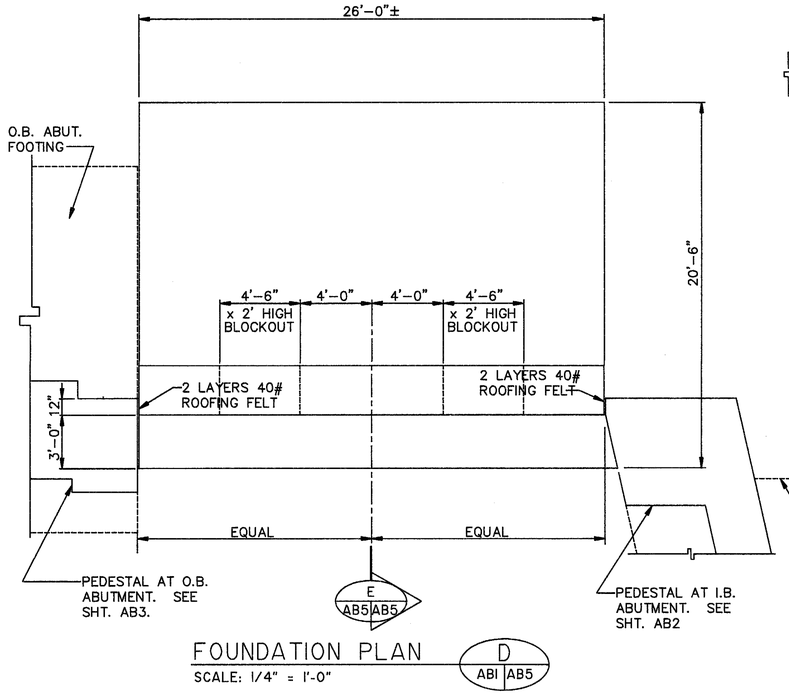
SHEET No. AB4 OF 11 SHEETS

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

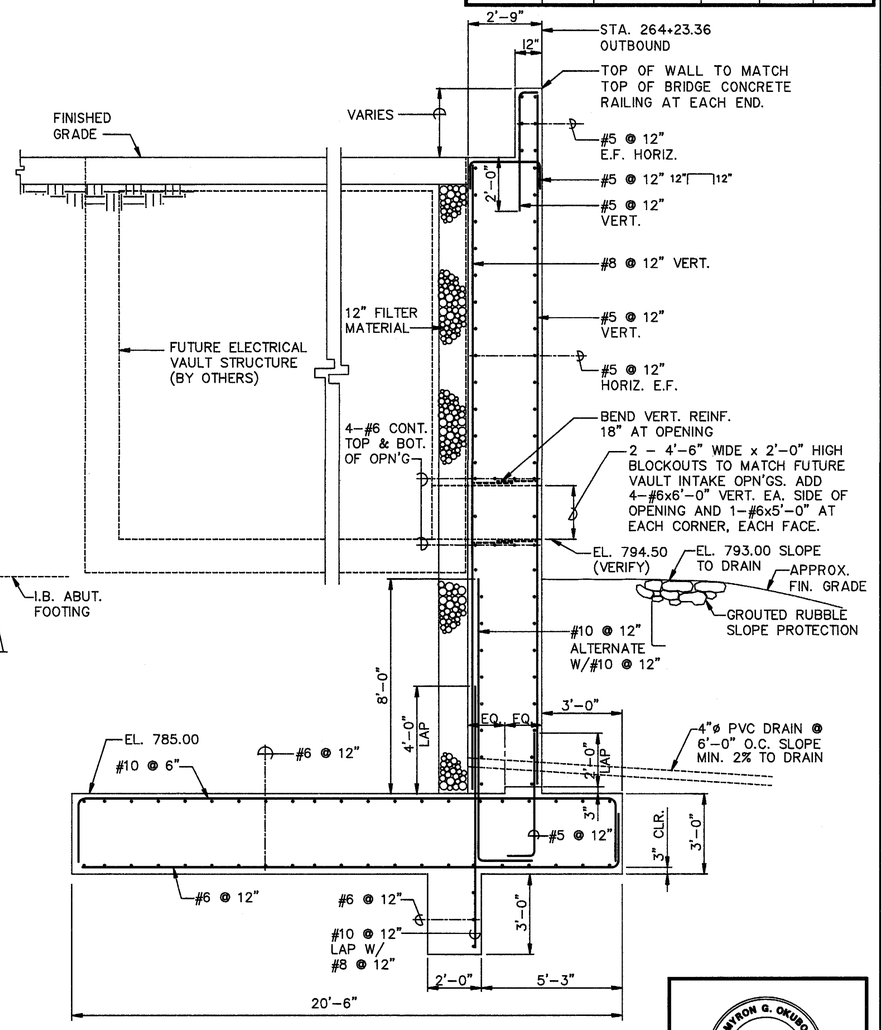
C.O.ADD. 92

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	93	274



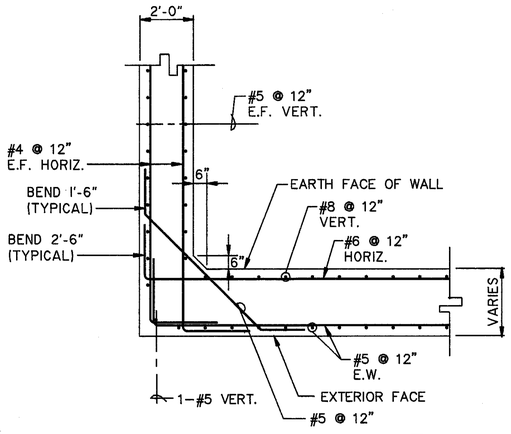


FOUNDATION PLAN — D (ABI | AB5)
SCALE: 1/4" = 1'-0"

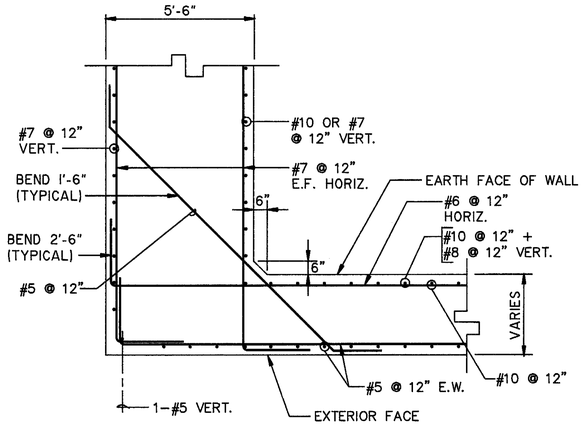


SECTION AT RETAINING WALL — E (AB5 | AB5; ABI, AB3)
SCALE : 3/8" = 1'-0"

WING WALL ELEVATION — A (AB4 | AB5; AB6)
SCALE : 3/8" = 1'-0"



PLAN - SECTION — B (AB5 | AB5)
SCALE : 3/8" = 1'-0"



PLAN - SECTION — C (AB5 | AB5)
SCALE : 3/8" = 1'-0"

DATE	REVISION
2/27/90	REVISED DETAILS A, D & E.
7/11/89	ADDED NOTES TO SECTION E
6/30/89	REVISED DETAILS D AND E.

MYRON G. OKUBO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WING WALL AND RETAINING WALL SECTIONS

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

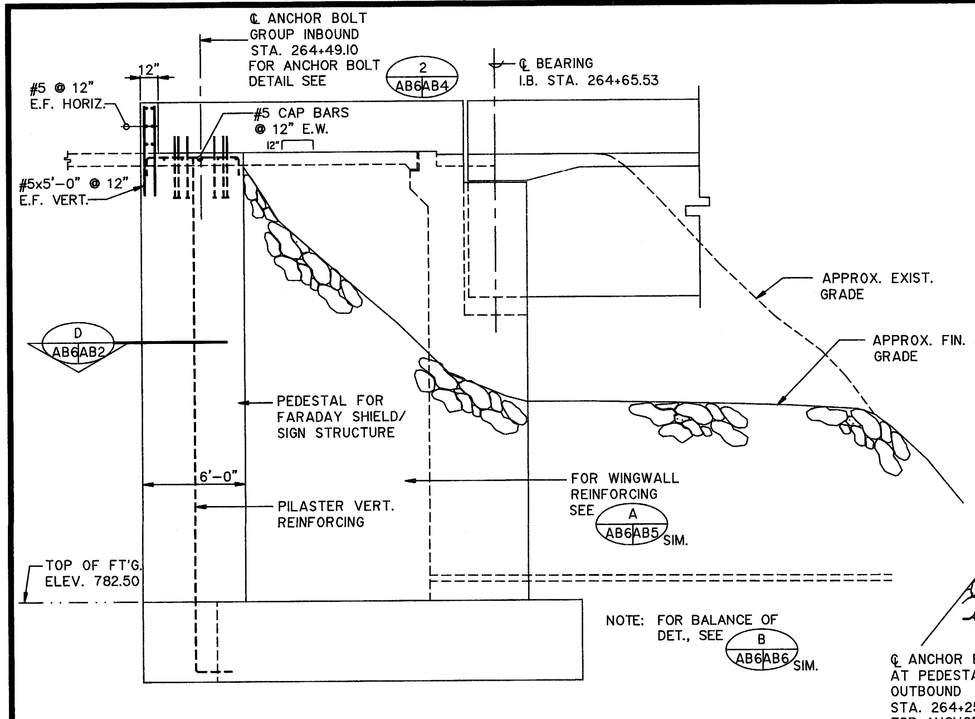
SCALE: AS NOTED DATE: SEPT. 1988

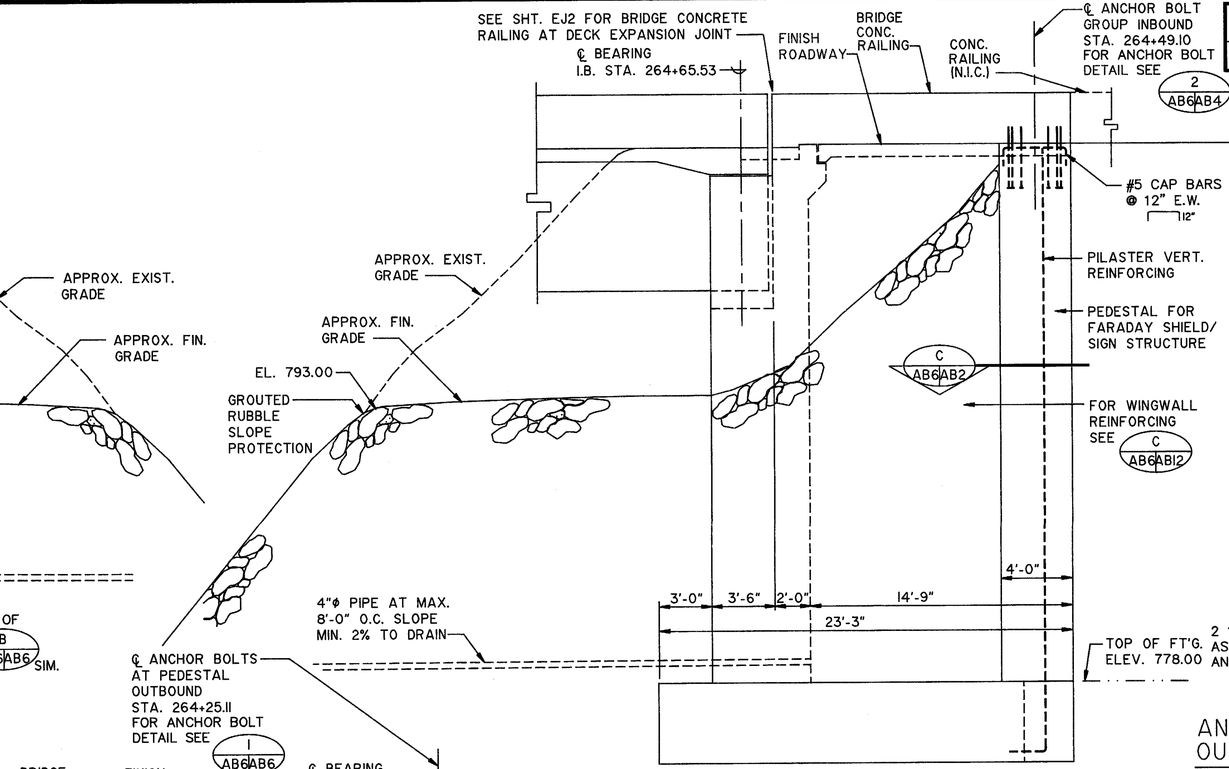
SHEET No. AB5 OF II SHEETS

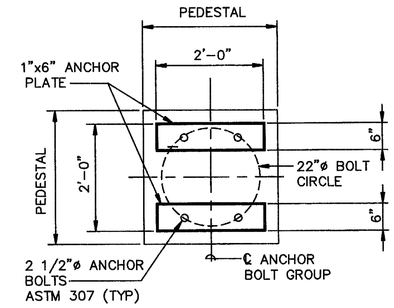
ORIGINAL PLAN
NOTEBOOK
No.
SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

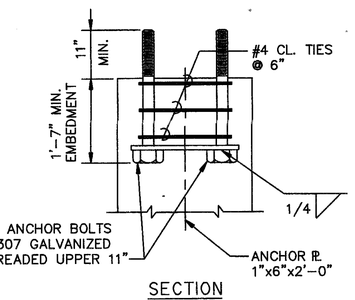
C.O.ADD. 93

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I (57)	1988	94	274









SECTION

ANCHOR BOLT DETAIL AT OUTBOUND ABUTMENT

I AB6|AB6

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

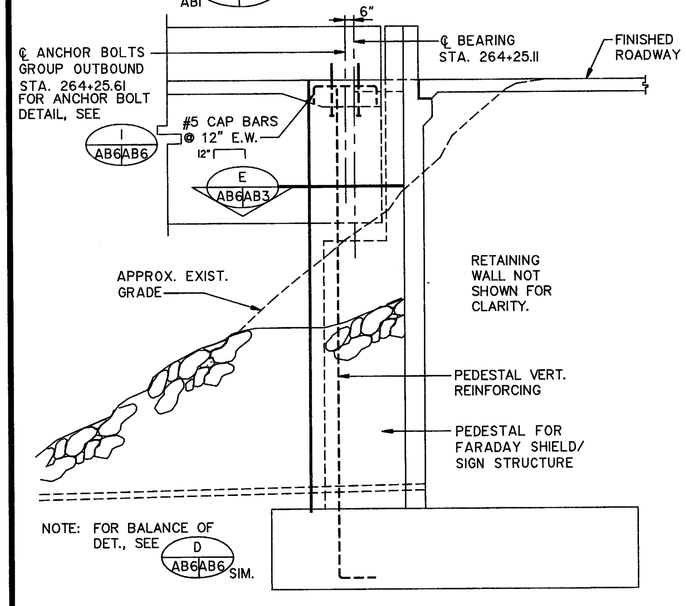
NOTE:

THE CONTRACTOR SHALL USE RIGID TEMPLATES WHILE INSTALLING ALL ANCHOR BOLTS TO MAINTAIN THE PROPER LOCATIONS OF ANCHOR BOLTS. THE CONTRACTOR SHALL PROTECT ALL ANCHOR BOLTS FROM DAMAGE DURING ALL PHASES OF CONSTRUCTION. THE TEMPLATE AND METHOD OF PROTECTING ANCHOR BOLTS SHALL BE APPROVED BY THE ENGINEER.

WING WALL ELEVATION

C AB2|AB6 ABI

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



WING WALL ELEVATION

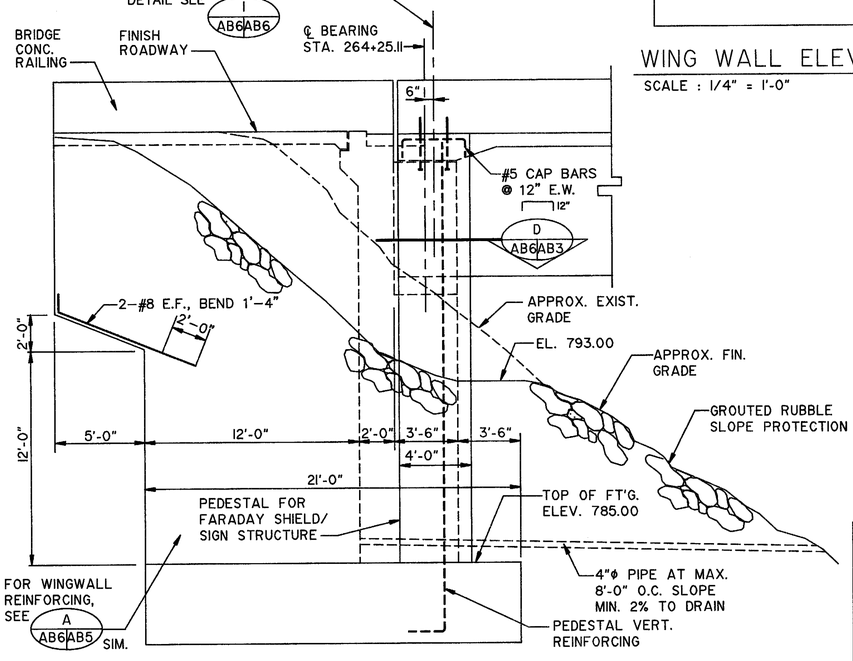
E AB3|AB6

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

WING WALL ELEVATION

B AB2|AB6 ABI

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



WING WALL ELEVATION

D AB3|AB6 ABI

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

DATE	REVISION
2/27/90	REVISED DETAILS B, C, D AND E. DELETED NOTES.
6/30/89	REVISED DETAILS B, C, D, AND E. DELETED DETAIL A. ADDED NOTES AND DETAIL 1.

DESIGNED BY
DRAWN BY
TRACED BY
CHECKED BY
QUANTITIES BY
CHECKED BY
AS PLOTTED / AS BUILT
DATE

MYRON G. OKUBO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WING WALL ELEVATIONS

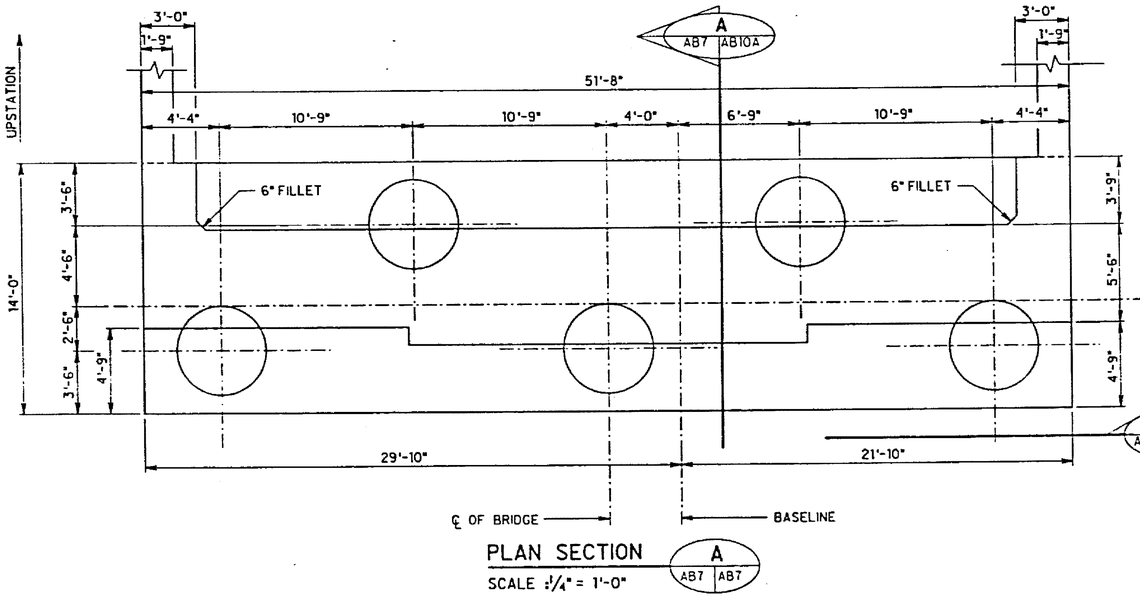
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-I (57)
F.A.I. PROJECT NO. I-H3-I (58)

SCALE: AS NOTED DATE: SEPT. 1988

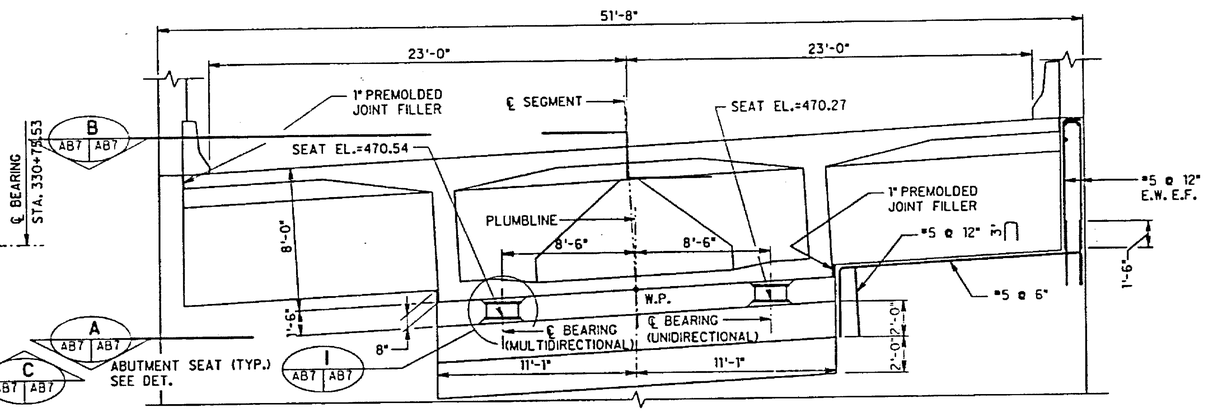
SHEET No. AB6 OF II SHEETS

C.O.ADD. 94

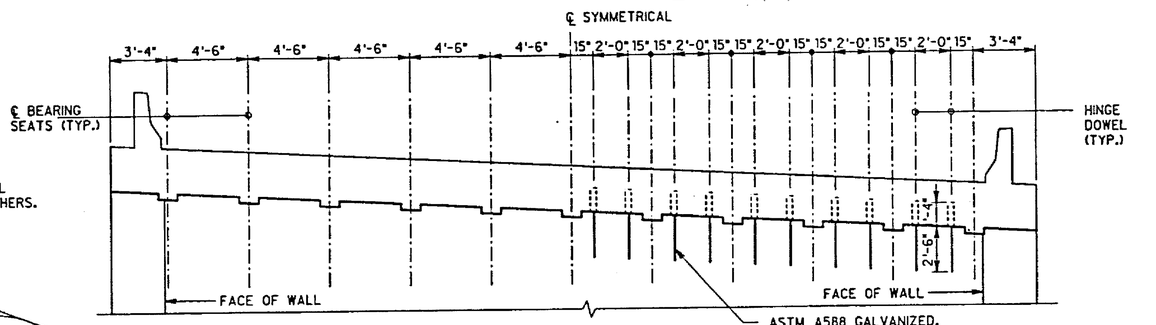
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	95	274



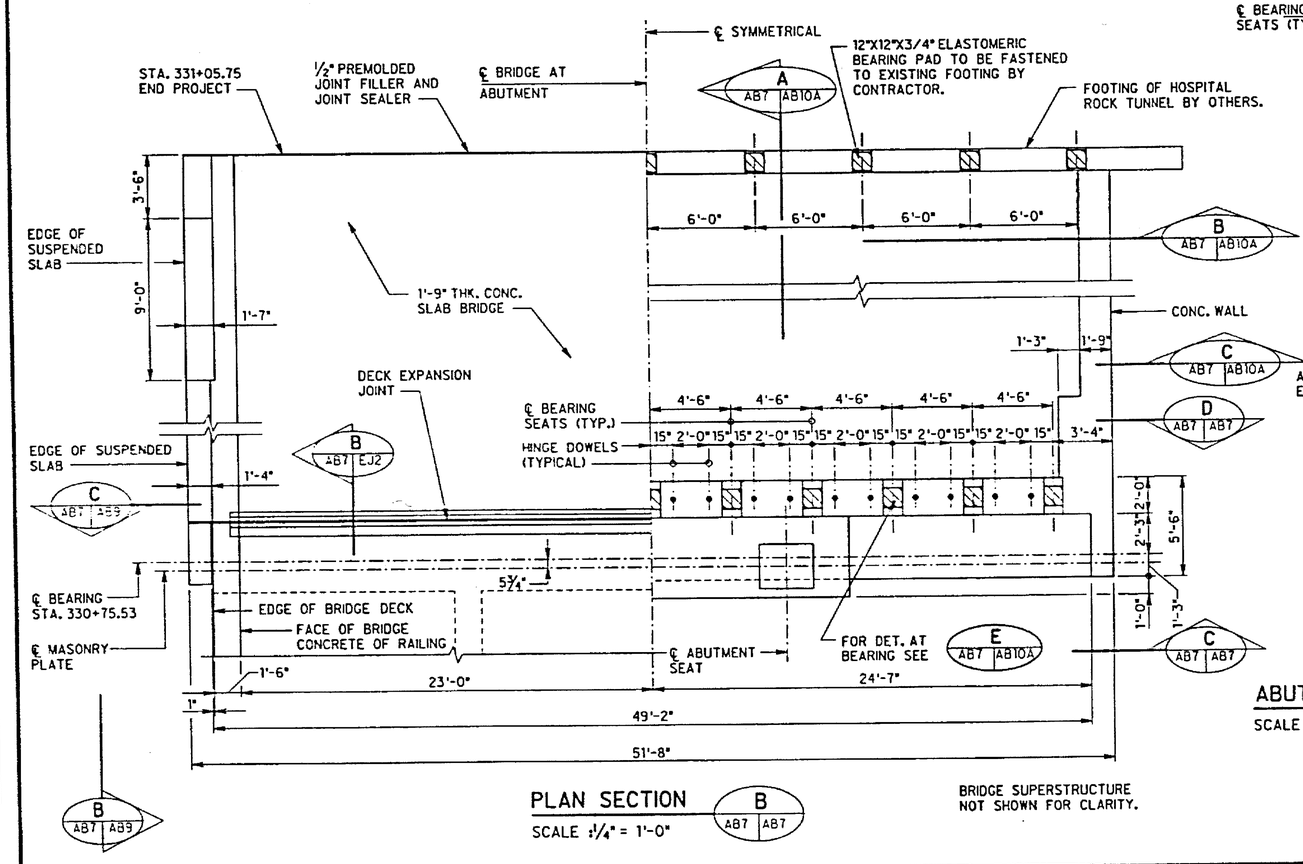
PLAN SECTION A (AB7 | AB7)
SCALE :1/4" = 1'-0"



PARTIAL ELEVATION C (AB7 | AB7)
SCALE :1/4" = 1'-0"

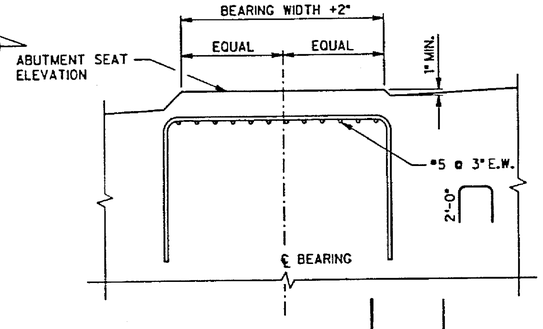


PARTIAL ELEVATION D (AB7 | AB7)
SCALE :1/4" = 1'-0"



PLAN SECTION B (AB7 | AB7)
SCALE :1/4" = 1'-0"

BRIDGE SUPERSTRUCTURE NOT SHOWN FOR CLARITY.



ABUTMENT SEAT DETAIL I (AB7 | AB7)
SCALE :1/4" = 1'-0"

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

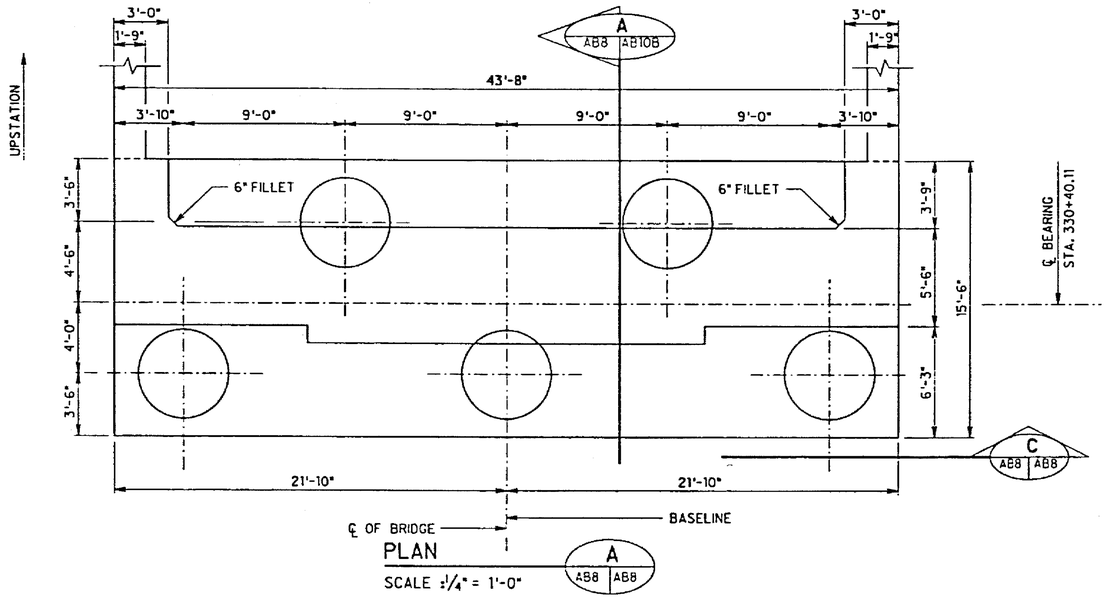
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PLANS AND ELEVATIONS
INBOUND ABUTMENT 2

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN 1991
SHEET No. AB7 OF SHEETS

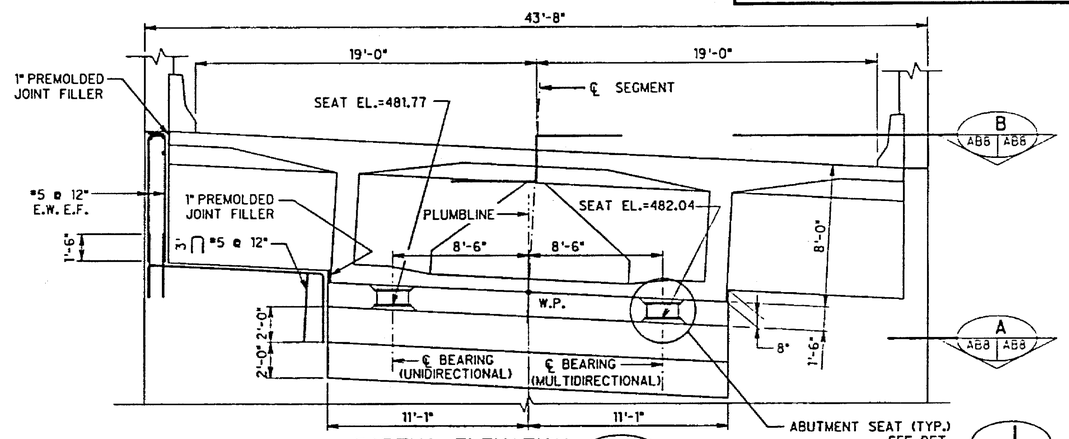
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | NOTE BOOK | No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	96	274



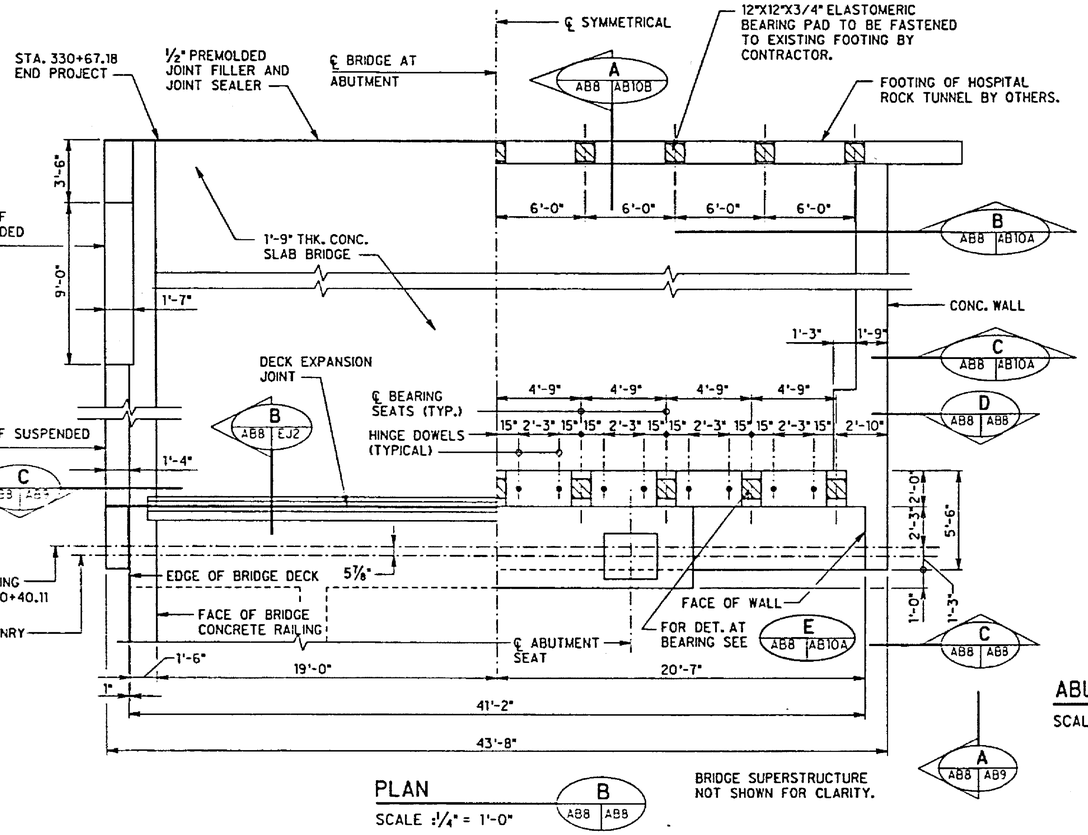
PLAN A AB8 | AB8

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



PARTIAL ELEVATION C AB8 | AB8

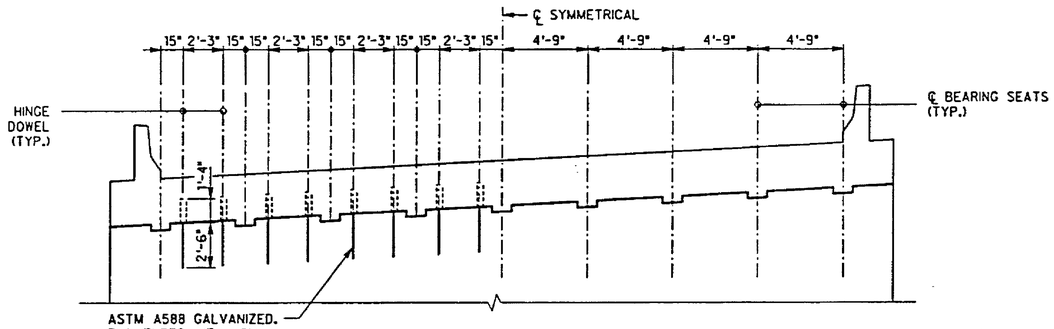
SCALE :1/4" = 1'-0"



PLAN B AB8 | AB8

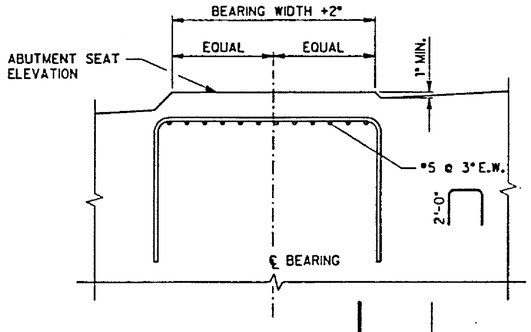
SCALE :1/4" = 1'-0"

BRIDGE SUPERSTRUCTURE NOT SHOWN FOR CLARITY.



PARTIAL ELEVATION D AB8 | AB8

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



ABUTMENT SEAT DETAIL I AB8 | AB8

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

JAMES R. LIBBY REGISTERED PROFESS ONAL ENGINEER No. 2379-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PLANS AND ELEVATIONS
OUTBOUND ABUTMENT 2

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN 1991

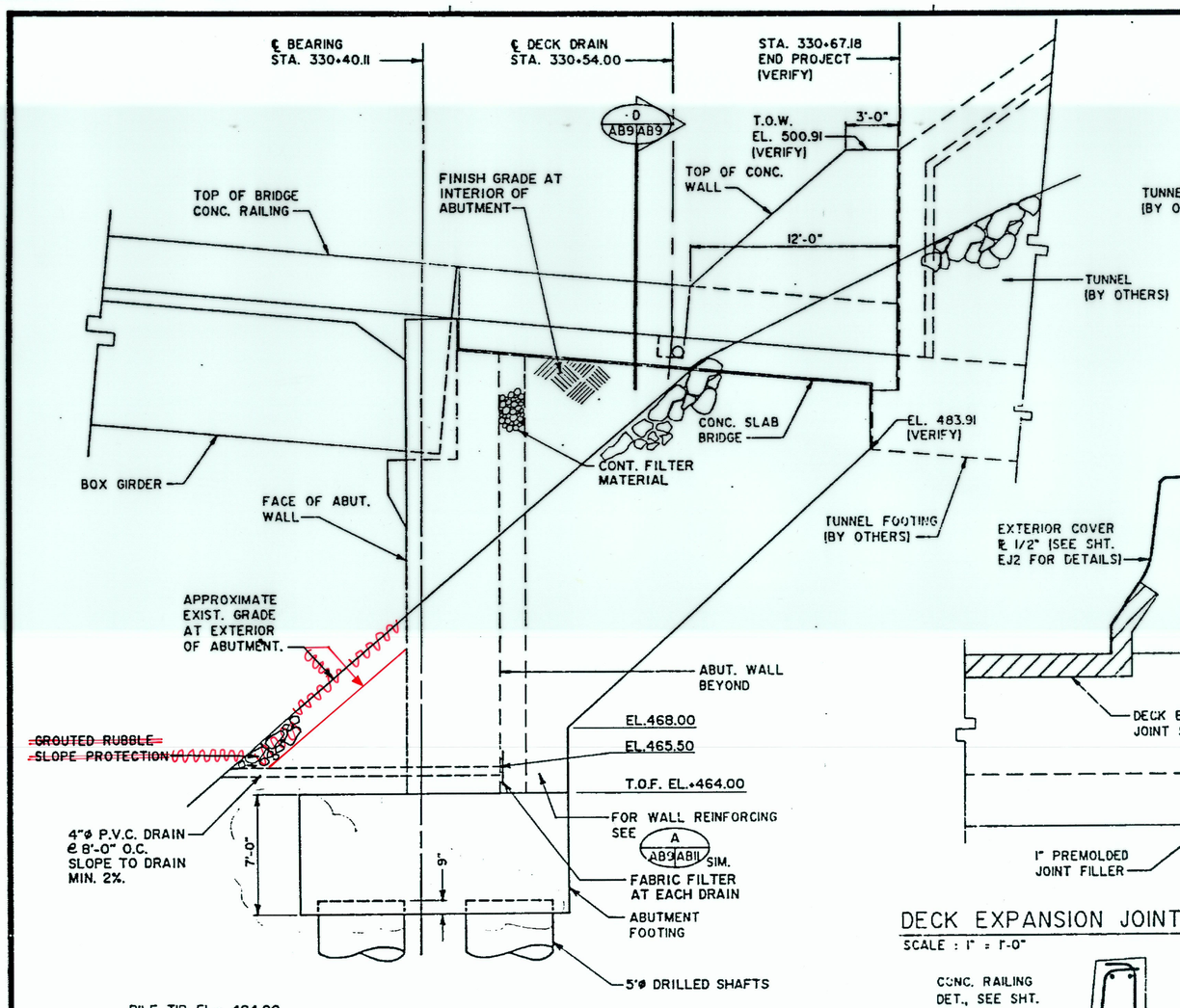
SHEET No. AB8 OF SHEETS

DATE	REVISION

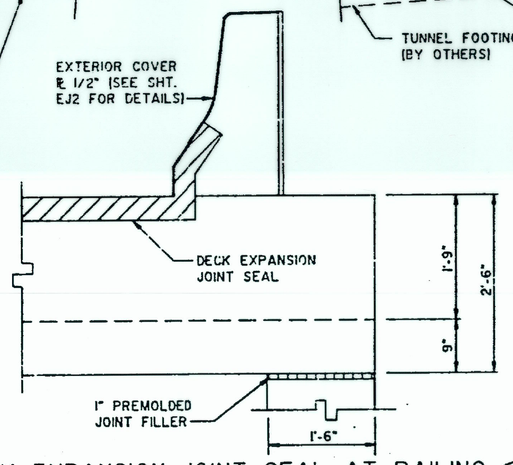
J. MULLER INTERNATIONAL | Libby Engineers

ORIGINAL PLAN — REVISED PLOTTED BY — DRAWN BY — TRACED BY — DESIGNED BY — QUANTITIES BY — CHECKED BY — DATE — NOTE BOOK — No.

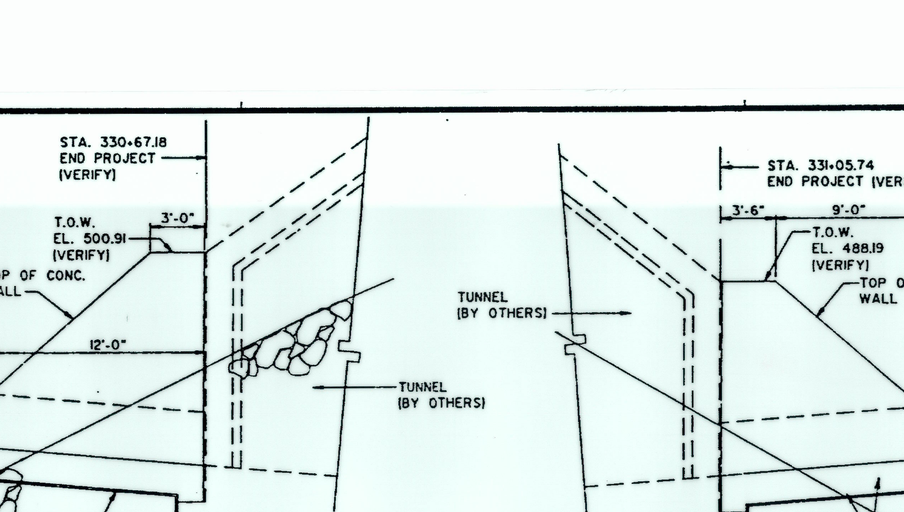
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	97	274



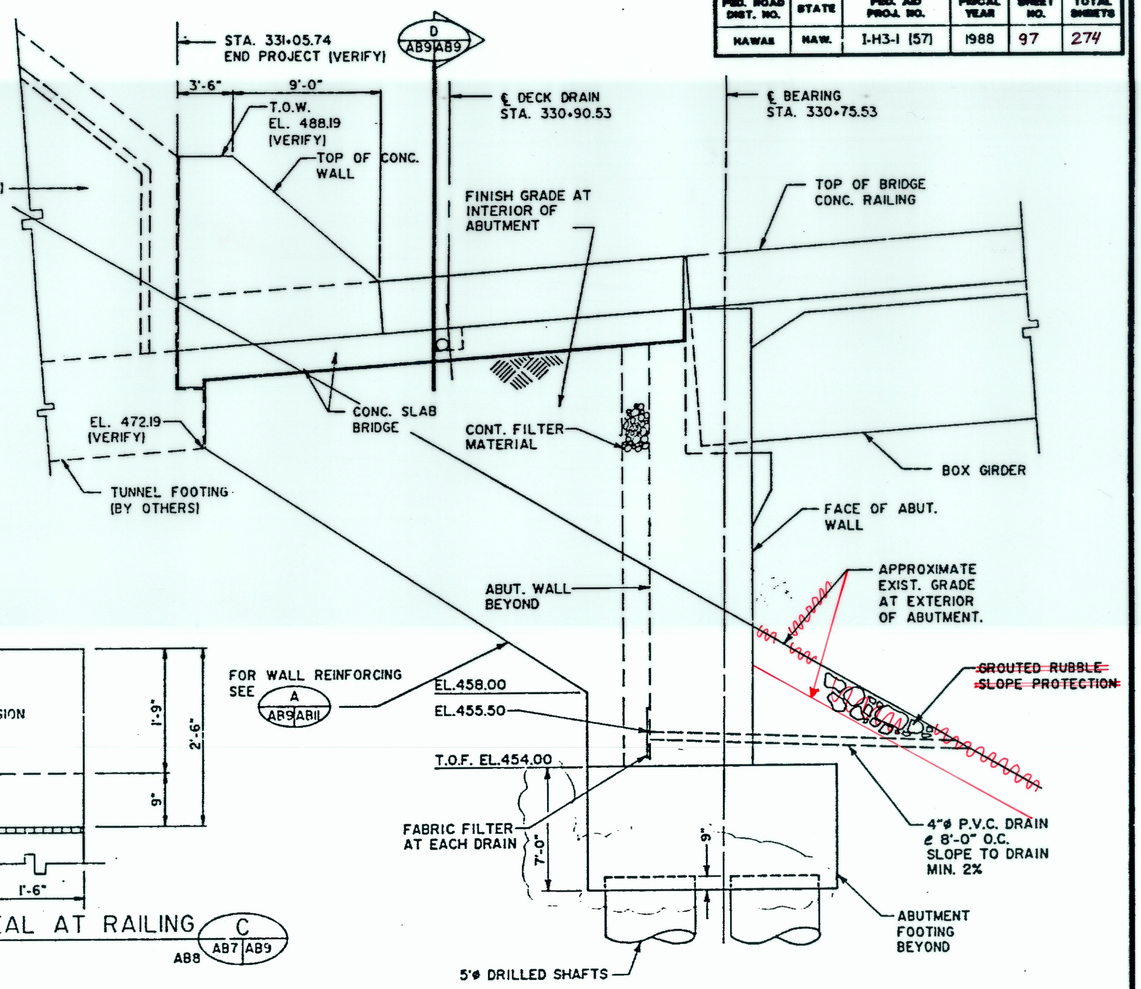
WALL ELEVATION - OUTBOUND A AB9|AB9
SCALE : 1/4" = 1'-0"
AB1, AB8



DECK EXPANSION JOINT SEAL AT RAILING C AB7|AB9
SCALE : 1" = 1'-0"
AB8



DECK DRAIN AT SLAB BRIDGE D AB9|AB9
SCALE : 1" = 1'-0"



WALL ELEVATION - INBOUND B AB9|AB9
SCALE : 1/4" = 1'-0"
AB1, AB7

CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS TO AVOID DISTURBING EXISTING HOSPITAL ROCK TUNNEL.

JAMES R. LIGHT REGISTERED PROFESSIONAL ENGINEER HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
09/30/91	UPDATED DRAWING.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ABUTMENT ELEVATIONS

INBOUND - STA. 330+75.53
OUTBOUND - STA. 330+40.11
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

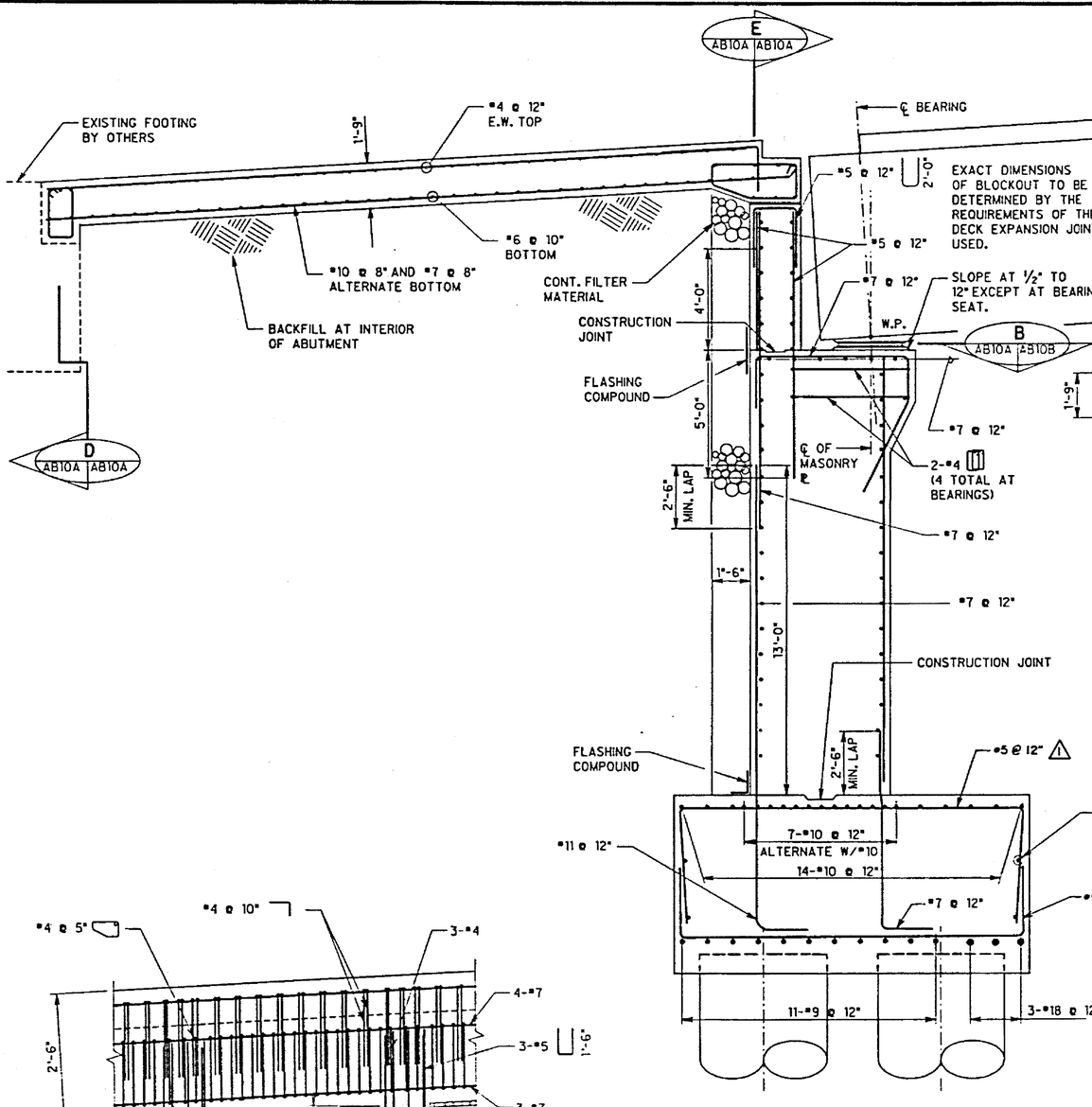
SCALE: AS NOTED DATE: SEPT. 1988

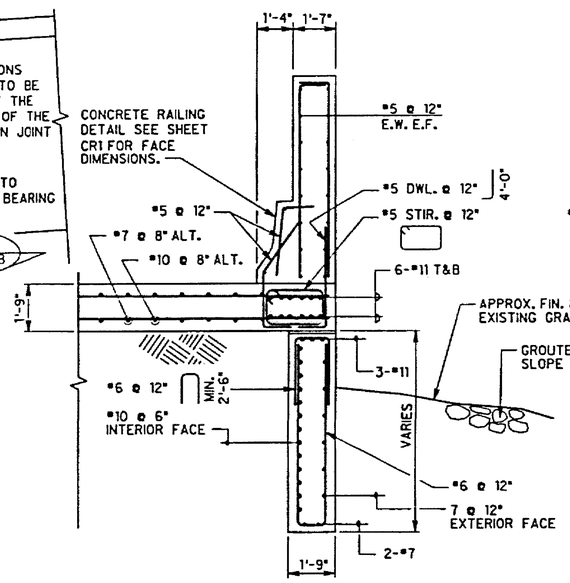
SHEET No. AB9 OF 1 SHEETS

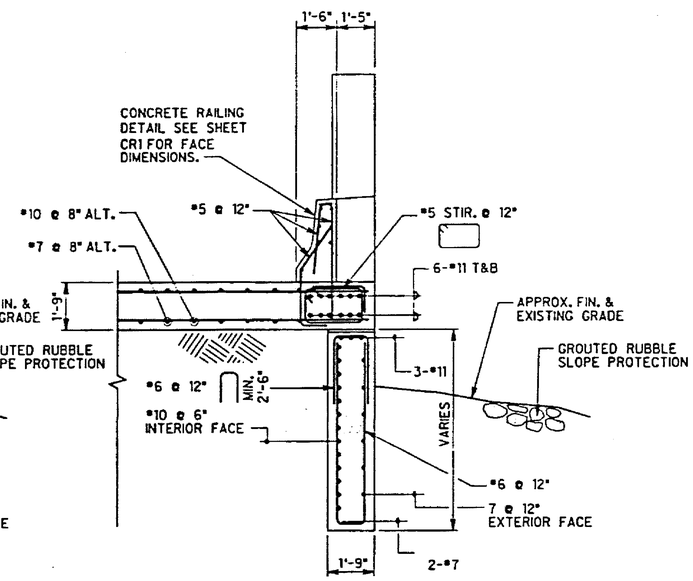
"AS-BUILT"

97

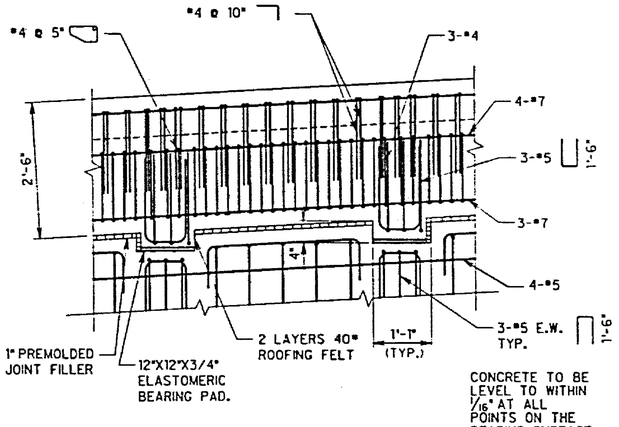
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	98	274







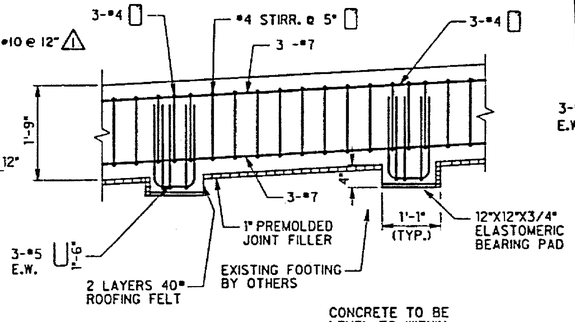
SECTION E
SCALE :3/8" = 1'-0"



CONCRETE TO BE LEVEL TO WITHIN 1/16" AT ALL POINTS ON THE BEARING SURFACE.

SECTION A
SCALE :3/8" = 1'-0"

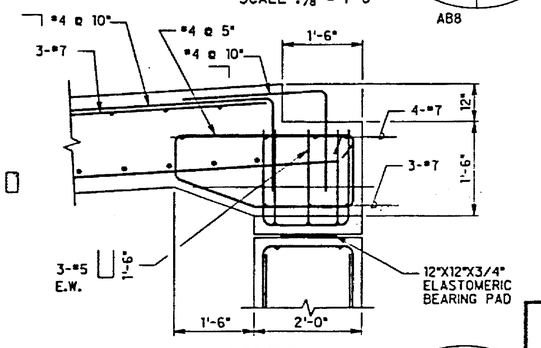
SECTION B
SCALE :3/8" = 1'-0"
AB8



CONCRETE TO BE LEVEL TO WITHIN 1/16" AT ALL POINTS ON THE BEARING SURFACE.

SECTION D
SCALE :3/8" = 1'-0"

SECTION C
SCALE :3/8" = 1'-0"
AB8



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

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 7375-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
11/21/91	⚠ ADDED REBAR CALLOUTS.
09/30/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

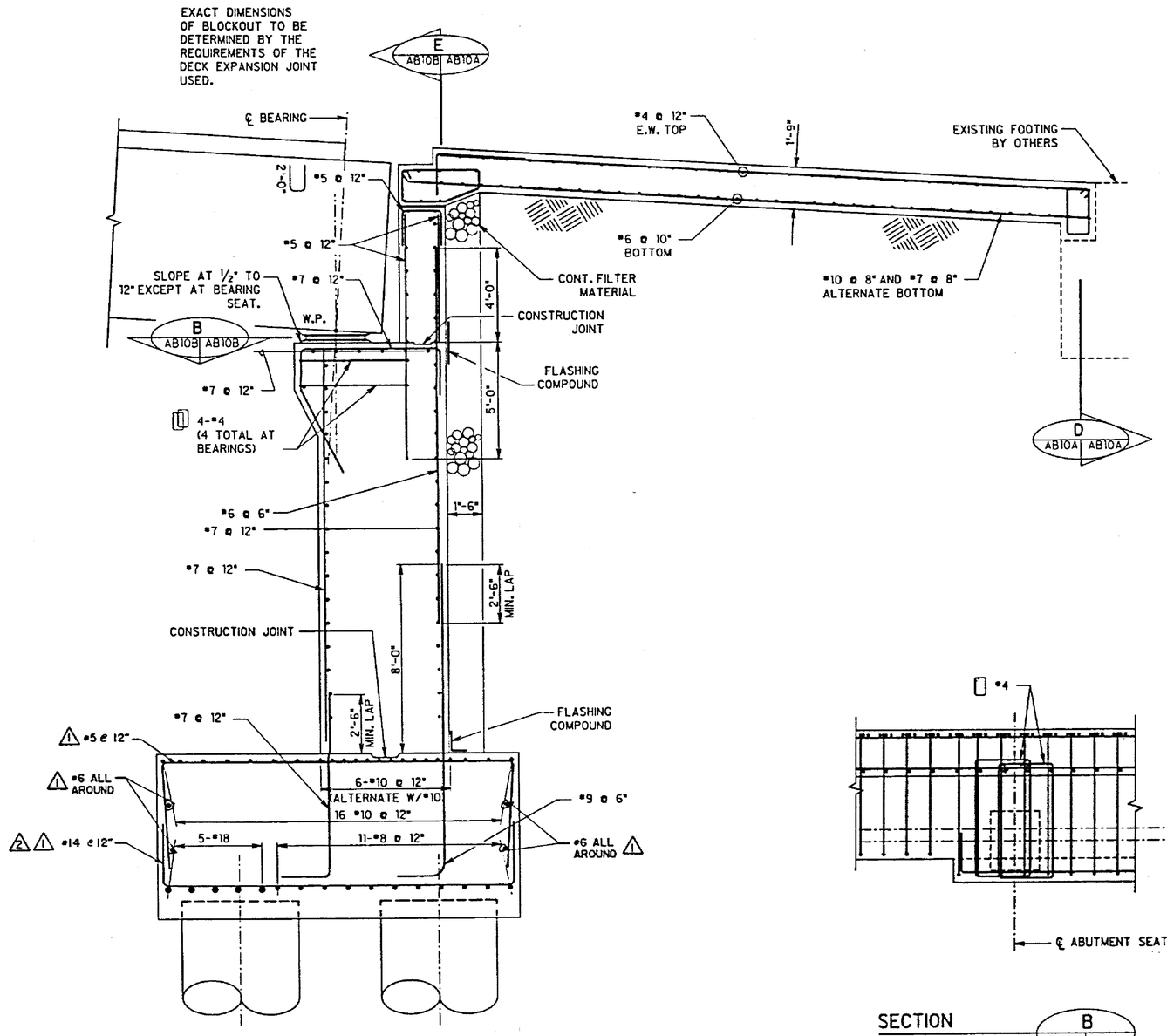
ABUTMENT SECTIONS
ABUTMENT NO.2
INBOUND STRUCTURES

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE :JUN 1990

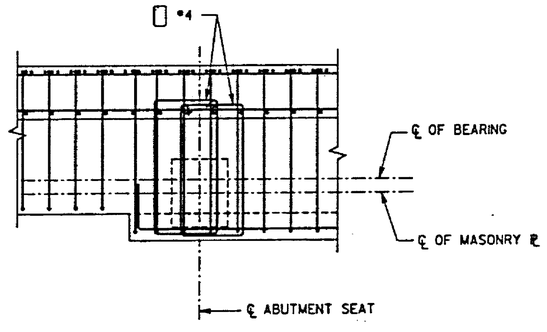
SHEET No. AB10A OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	99A	274



SECTION A AB8 AB10B
SCALE : 3/8" = 1'-0"



SECTION B AB10A AB10B
AB10B
SCALE : 3/8" = 1'-0"

DATE	REVISION
12/03/91	2 BAR #14 WAS #4.
11/21/91	1 ADDED REBAR CALLOUTS.
09/30/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

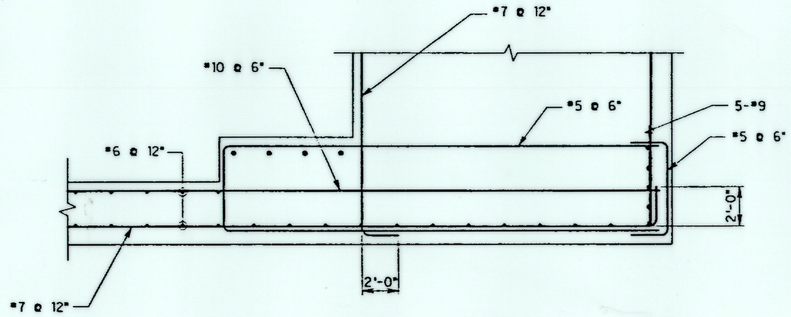
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ABUTMENT SECTIONS
ABUTMENT NO.2
OUTBOUND STRUCTURES

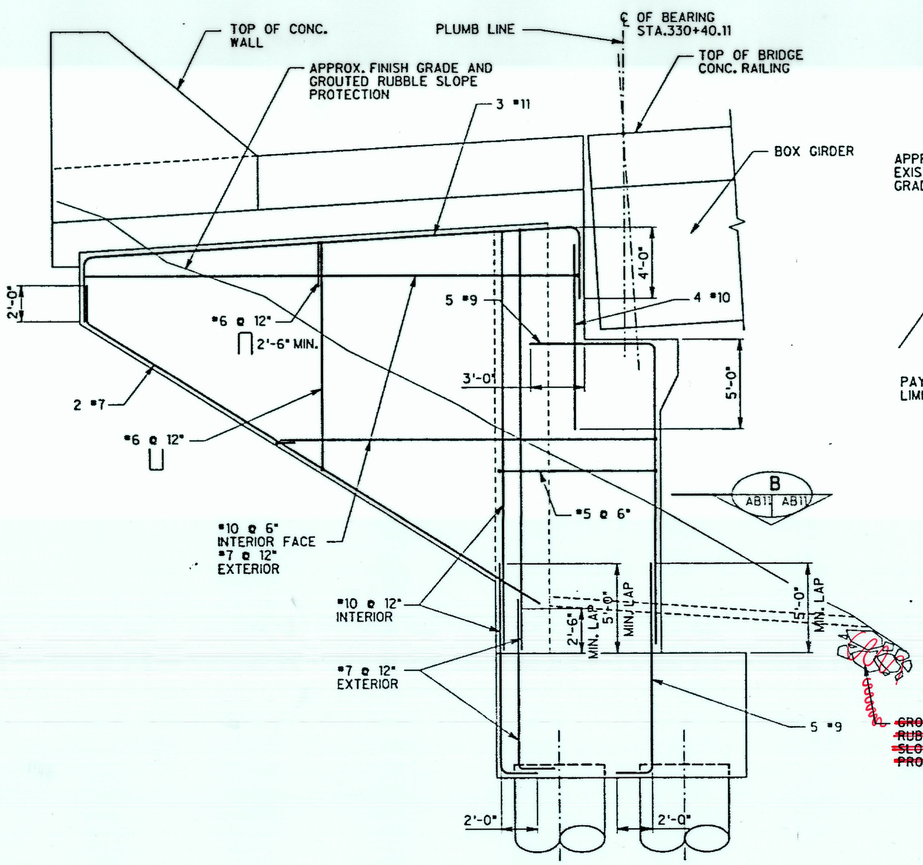
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN 1990
SHEET No. AB10B OF SHEETS

ORIGINAL PLAN | NOTE BOOK | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

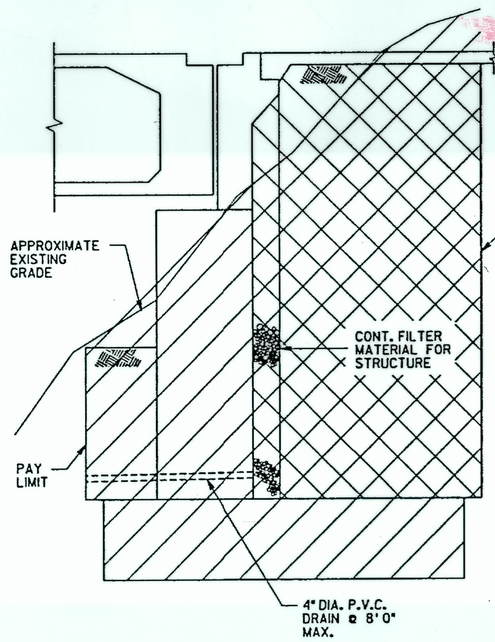
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	99B	274



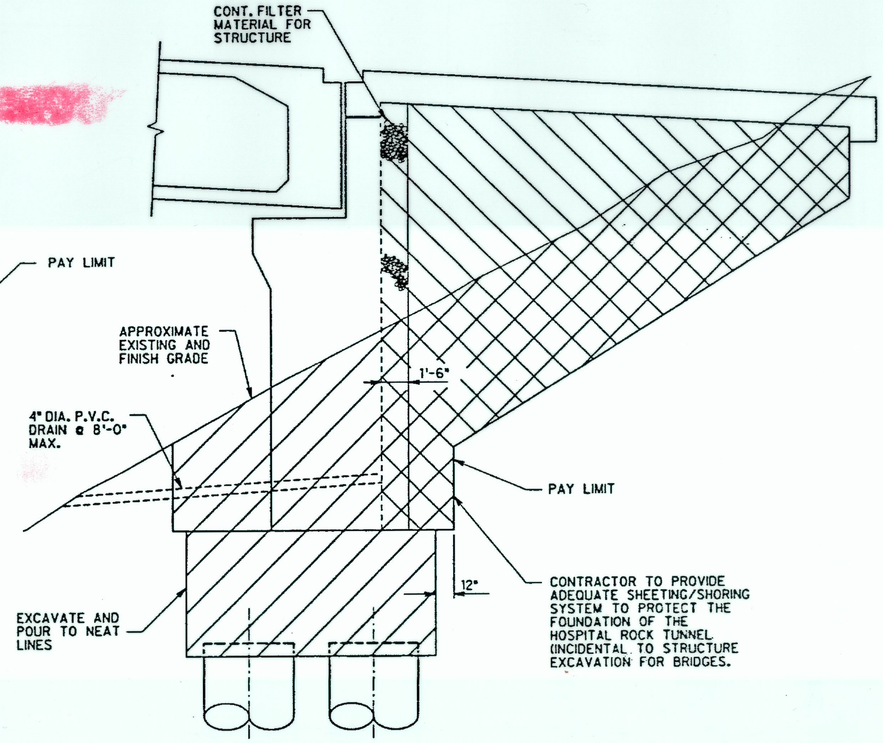
SECTION B (AB11 | AB11)
SCALE 1/2" = 1'-0"



WALL ELEVATION ABUTMENT NO. 2 (A | AB11 | AB11)
SCALE :1/4" = 1'-0'



PAYLIMITS AT ABUTMENTS NO. 1 AND RETAINING WALL (C | AB11 | AB11)
NOT TO SCALE



PAYLIMITS AT ABUTMENTS NO. 2 (D | AB11 | AB11)
NOT TO SCALE

ORIGINAL PLAN | NOTE BOOK | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2375-S — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
09/30/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

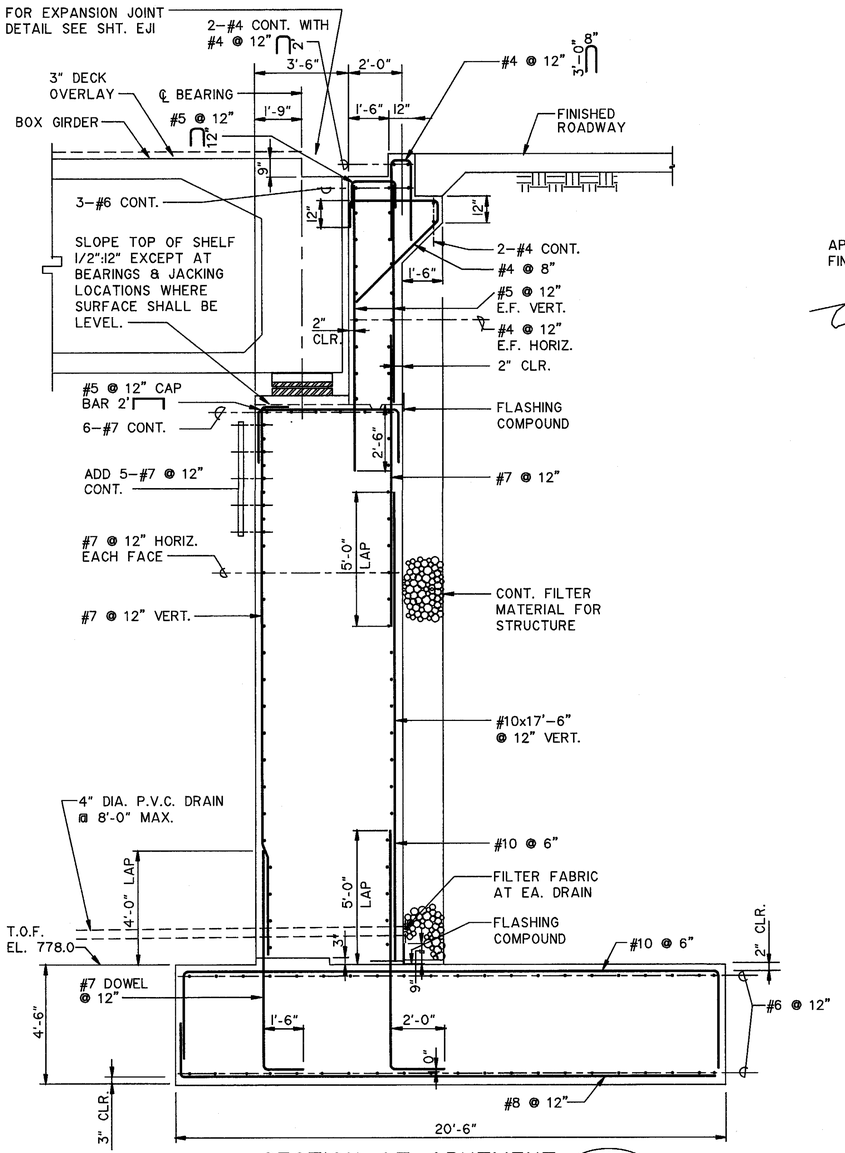
WING WALL SECTIONS AND PAYLIMITS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE :JUL 1990

SHEET No. AB11 OF SHEETS

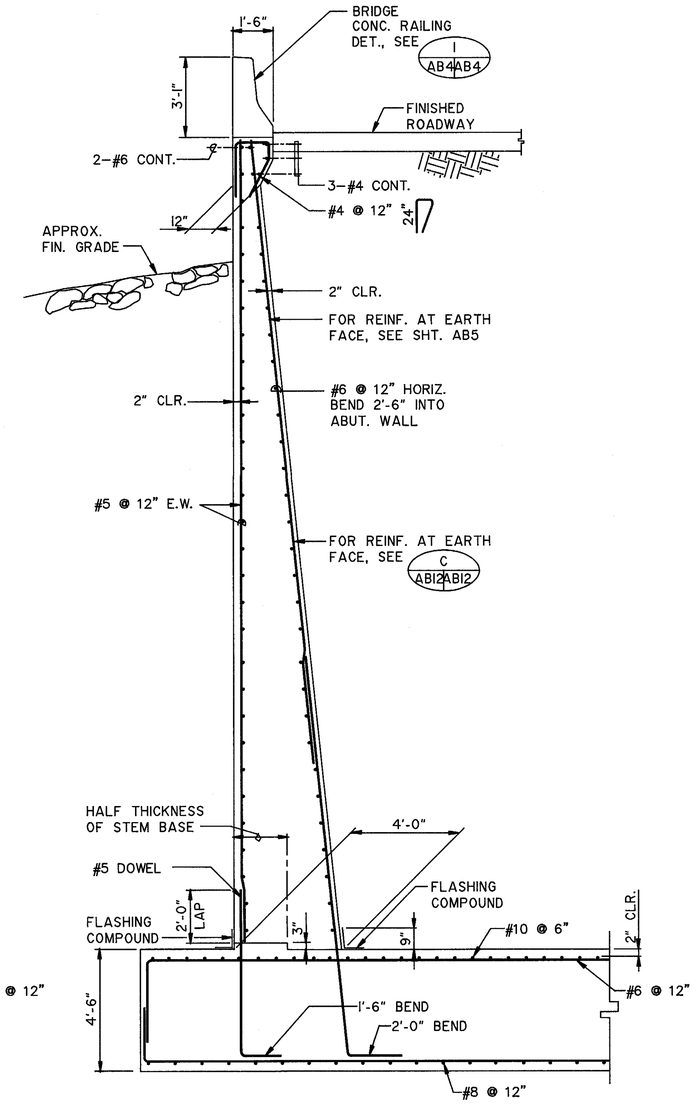
99B

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	C.O. 995-IR	274



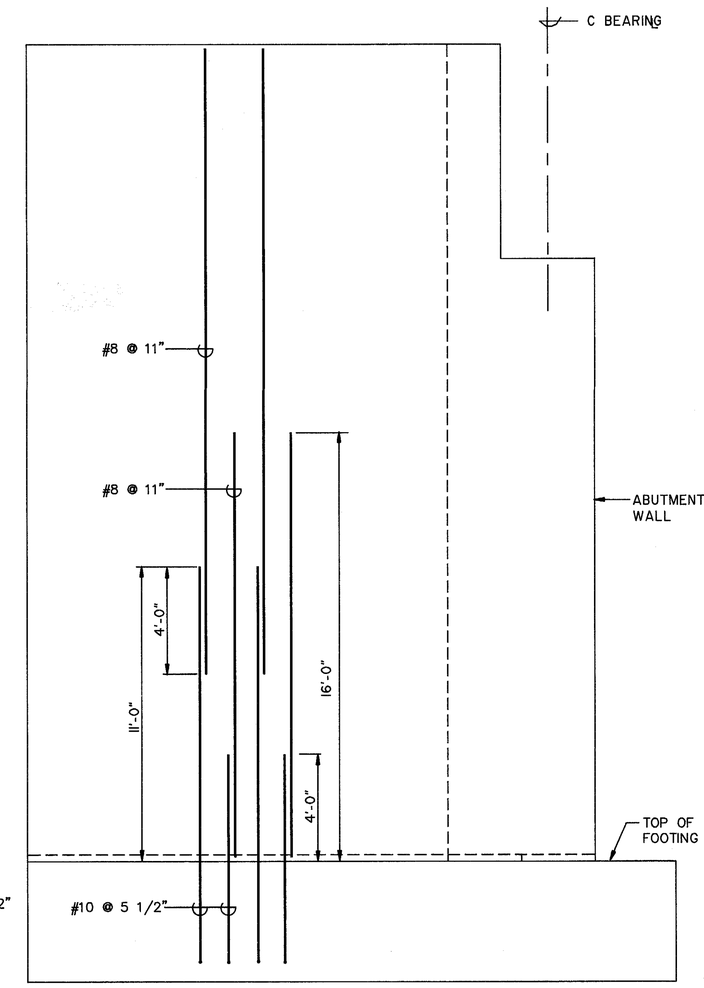
SECTION AT ABUTMENT (A) AB2 | AB12

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



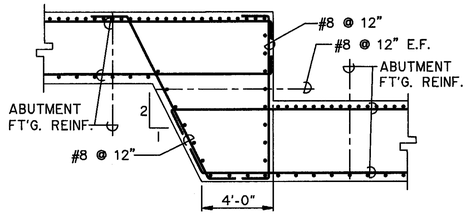
SECTION AT WING WALL (B) AB2 | AB12

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



WING WALL ELEVATION (C) AB12 | AB12

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



STEP FOOTING DETAIL (D) AB2 | AB12

N.T.S.

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

DATE	REVISION
3/2/90	CHANGED ELEVATION SECTION A. CHANGED SLOPE DETAIL D.
2/27/90	ADDED NEW SHEET

MYRON G. OKUBO REGISTERED PROFESSIONAL ENGINEER No. 4320-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ABUTMENT NO.1 SECTIONS

INBOUND STRUCTURE

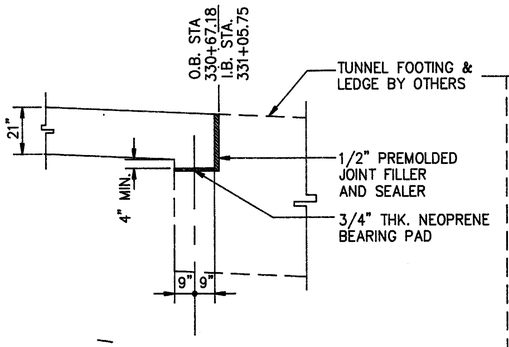
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: SEPT. 1988

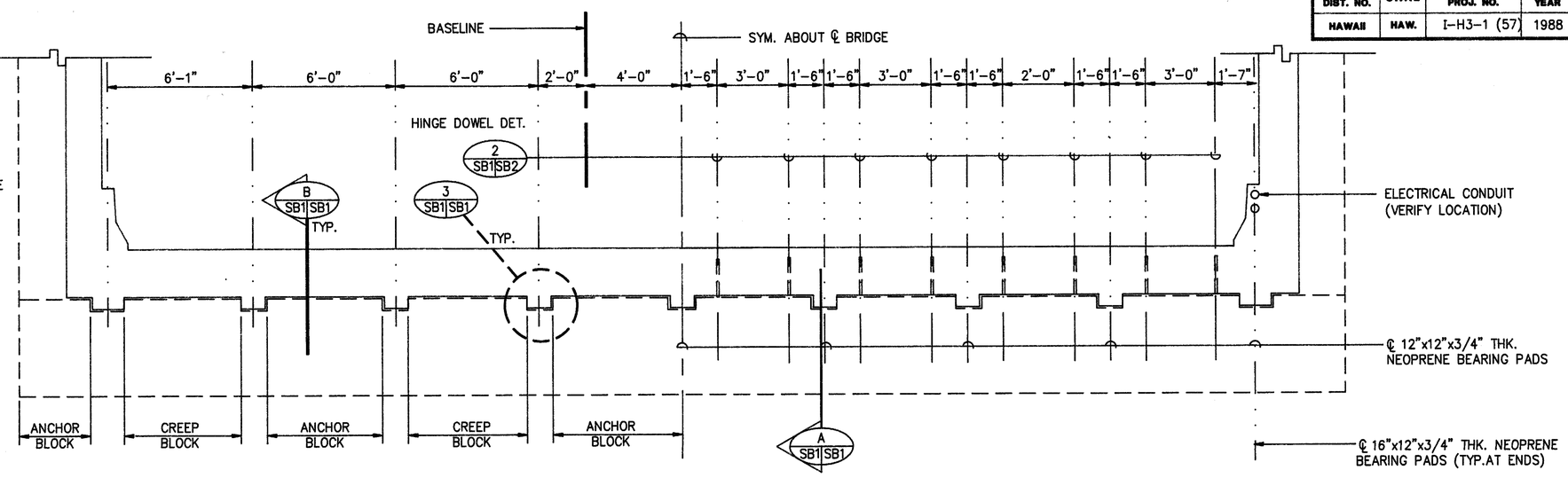
SHEET No. AB12 OF SHEETS

C.O. 995-IR

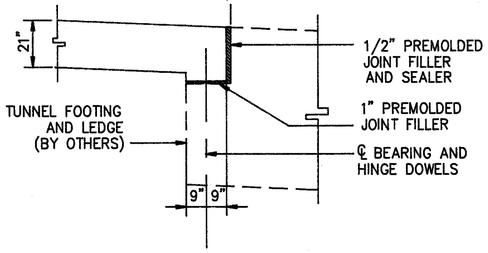
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	100	274



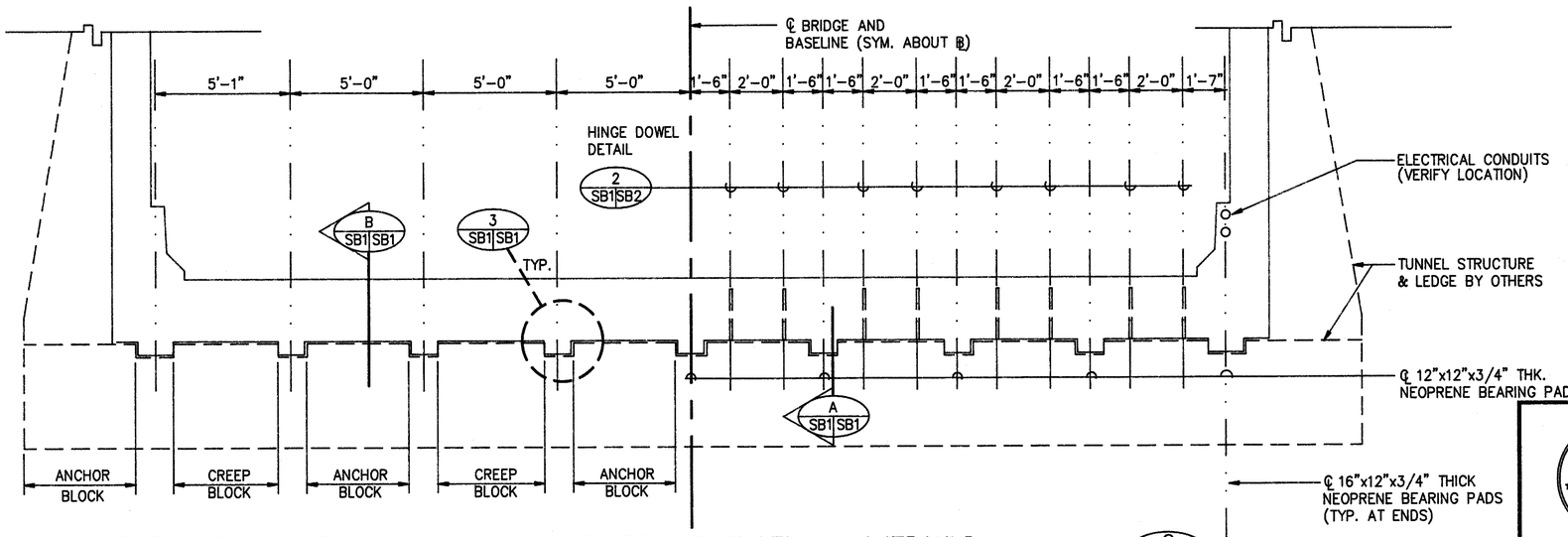
SECTION thru BEARING (A SB1|SB1)
SCALE : 3/8"=1'-0"



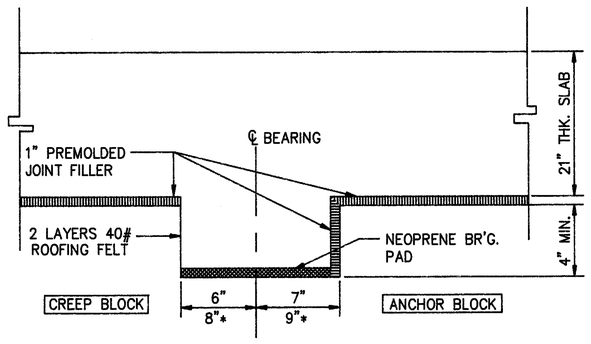
HOSPITAL ROCK PORTAL APPROACH SLAB LEDGE ELEVATION - INBOUND (AB1|SB1)
SCALE : 3/8"=1'-0"



SECTION thru BLOCKS (B SB1|SB1)
SCALE : 3/8"=1'-0"



HOSPITAL ROCK PORTAL APPROACH SLAB LEDGE ELEVATION - OUTBOUND (2 AB1|SB1)
SCALE : 3/8"=1'-0"



* COND. AT END BEARING PADS

BEARING DETAIL (3 SB1|SB1)
SCALE : 1 1/2"=1'-0"

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

BYRON G. OKUBO REGISTERED PROFESSIONAL ENGINEER No. 4320-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Byron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SLAB BRIDGE DETAILS

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: SEPT. 1988

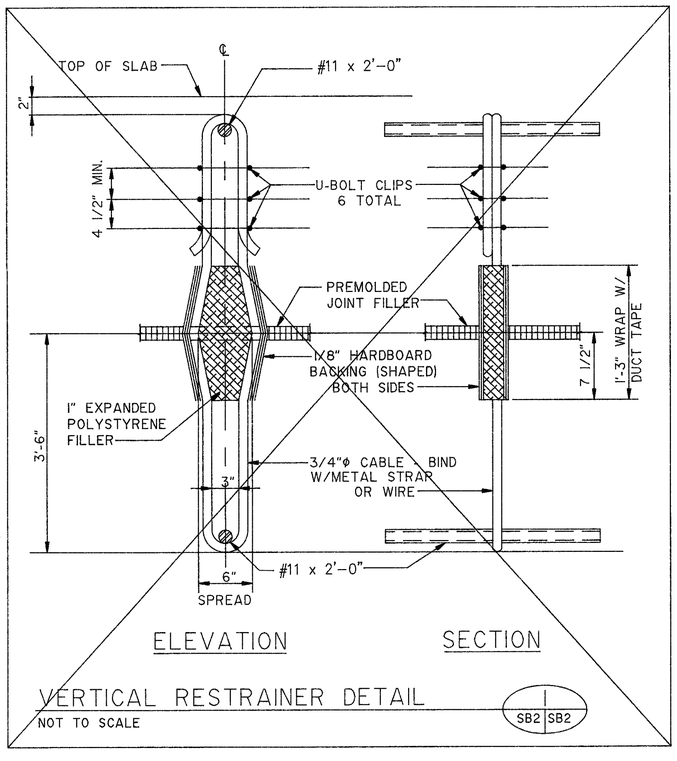
SHEET No. SB1 OF 2 SHEETS

DATE	REVISION

100

MAR 03 1989

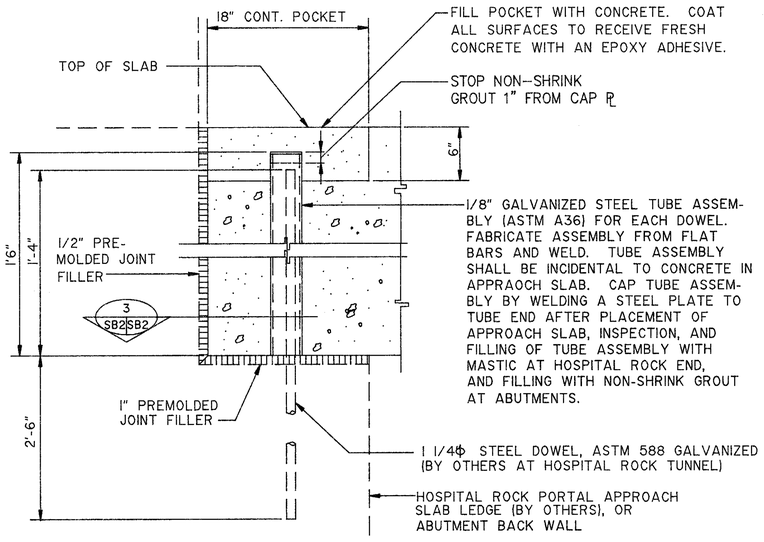
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	101	274



VERTICAL RESTRAINER DETAIL

NOT TO SCALE

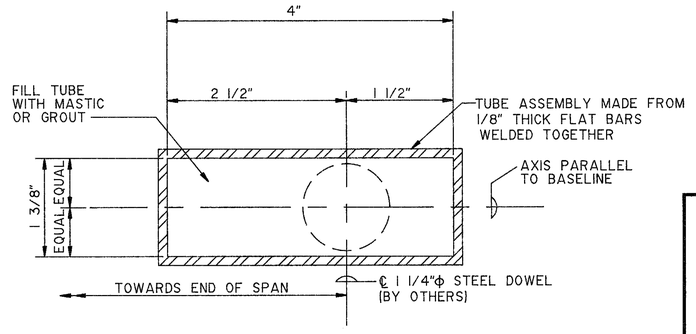
1 | SB2 | SB2



HINGE DOWEL DETAIL

NOT TO SCALE

2 | SB1 | SB2



TUBE ASSEMBLY PLAN

NOT TO SCALE

3 | SB2 | SB2

MYRON G. OKUBO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
7/11/89	DELETED DETAIL 1 AND REVISED TEXT OF DETAIL 3.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAILS

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: SEPT. 1988

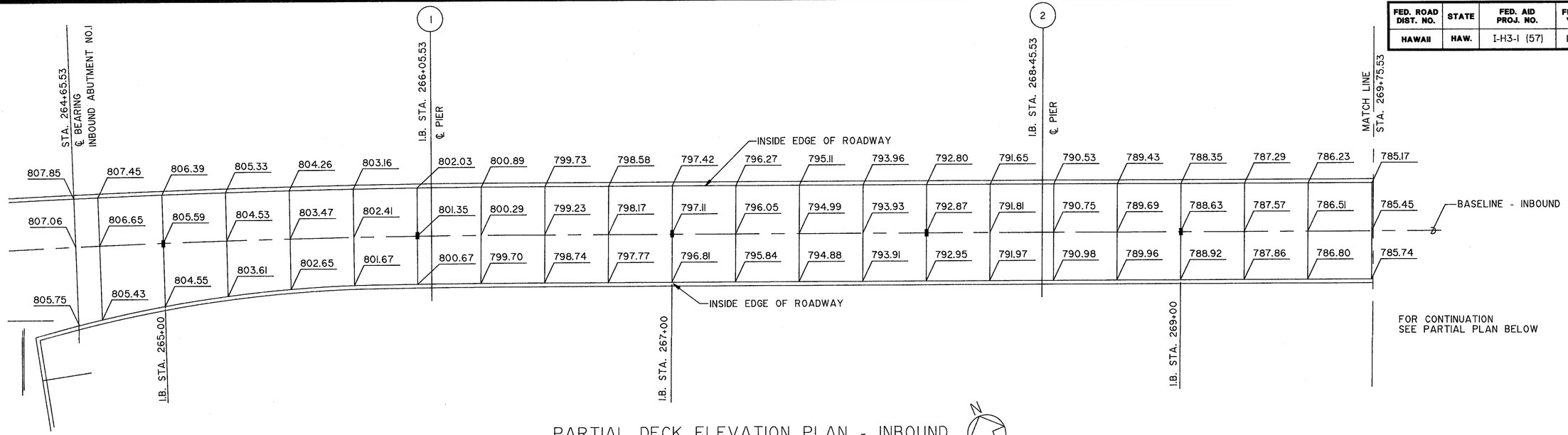
SHEET No. SB2 OF 2 SHEETS

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

ADD. 101

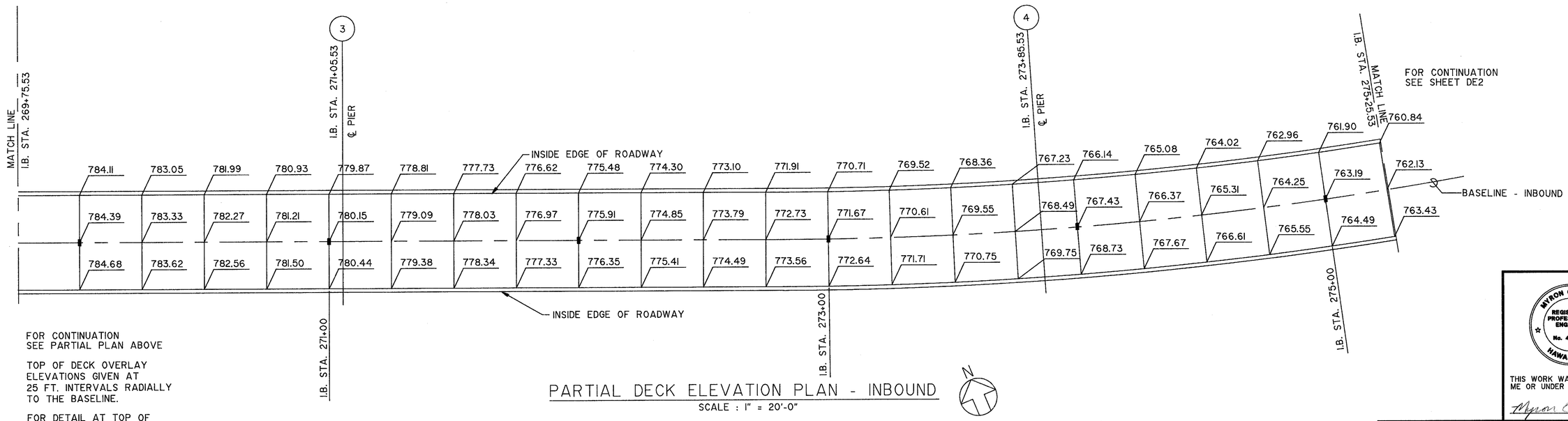
JUL 18 1989

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	102	274



PARTIAL DECK ELEVATION PLAN - INBOUND

SCALE : 1" = 20'-0"



FOR CONTINUATION
SEE PARTIAL PLAN ABOVE

TOP OF DECK OVERLAY
ELEVATIONS GIVEN AT
25 FT. INTERVALS RADIALLY
TO THE BASELINE.

FOR DETAIL AT TOP OF
DECK OVERLAY SEE A DE1 | DE12

PARTIAL DECK ELEVATION PLAN - INBOUND

SCALE : 1" = 20'-0"

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

MYRON G. OKUNO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okuno

DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK ELEVATION PLANS
STA. 264+65.53 TO STA. 275+25.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

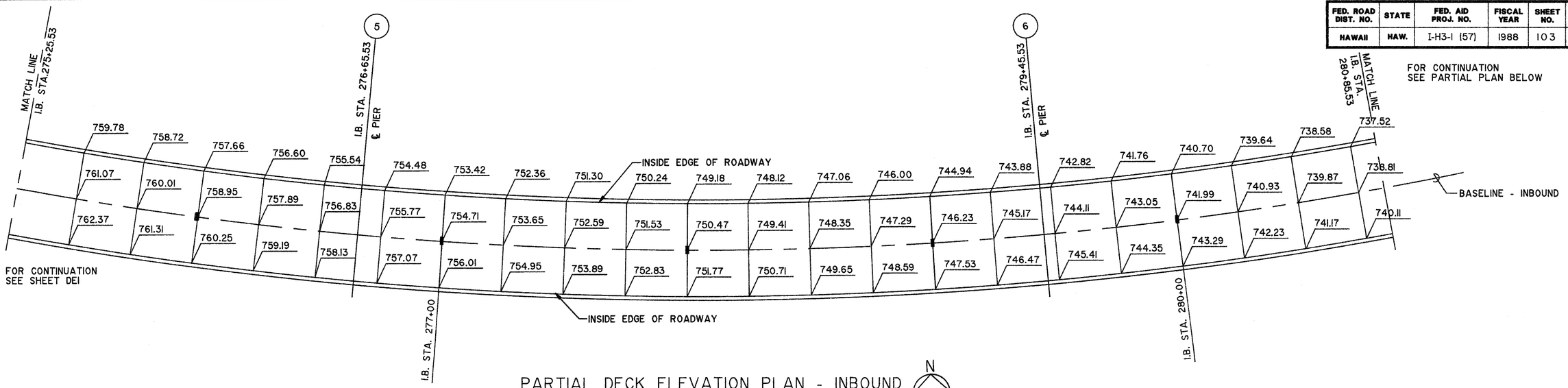
SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. DE1 **OF** 12 **SHEETS**

102

MAY 04 1990

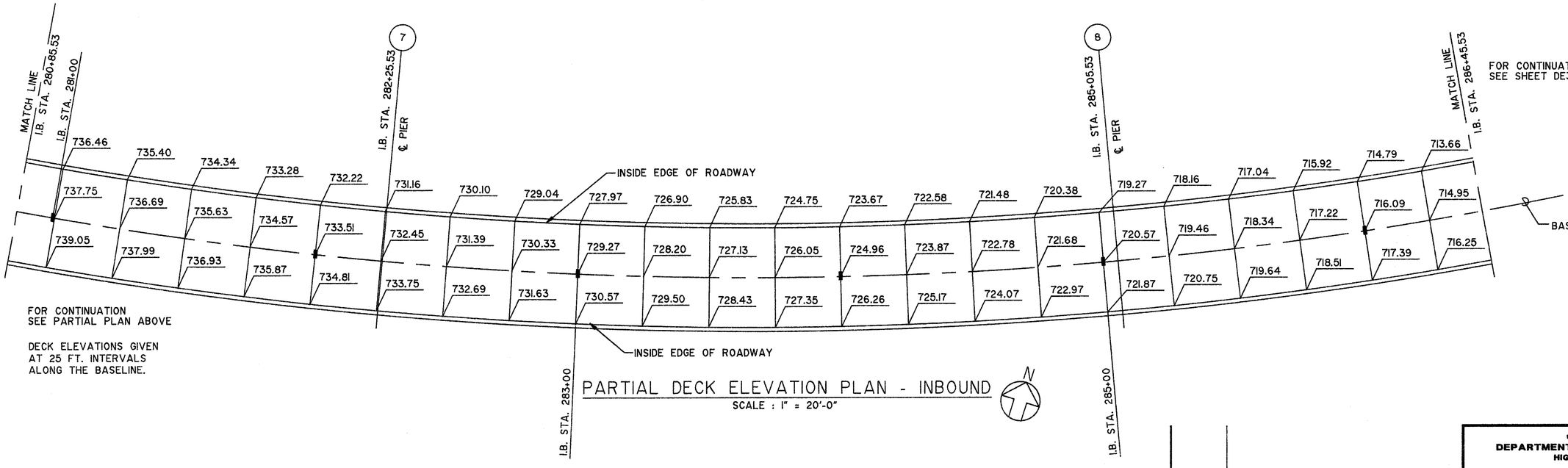
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	103	214



PARTIAL DECK ELEVATION PLAN - INBOUND

SCALE : 1" = 20'-0"

N



FOR CONTINUATION SEE PARTIAL PLAN ABOVE

DECK ELEVATIONS GIVEN AT 25 FT. INTERVALS ALONG THE BASELINE.

PARTIAL DECK ELEVATION PLAN - INBOUND

SCALE : 1" = 20'-0"

N

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

MYRON G. OKUBO REGISTERED PROFESSIONAL ENGINEER No. 4320-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK ELEVATION PLANS
STA. 275+25.53 TO STA. 286+45.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

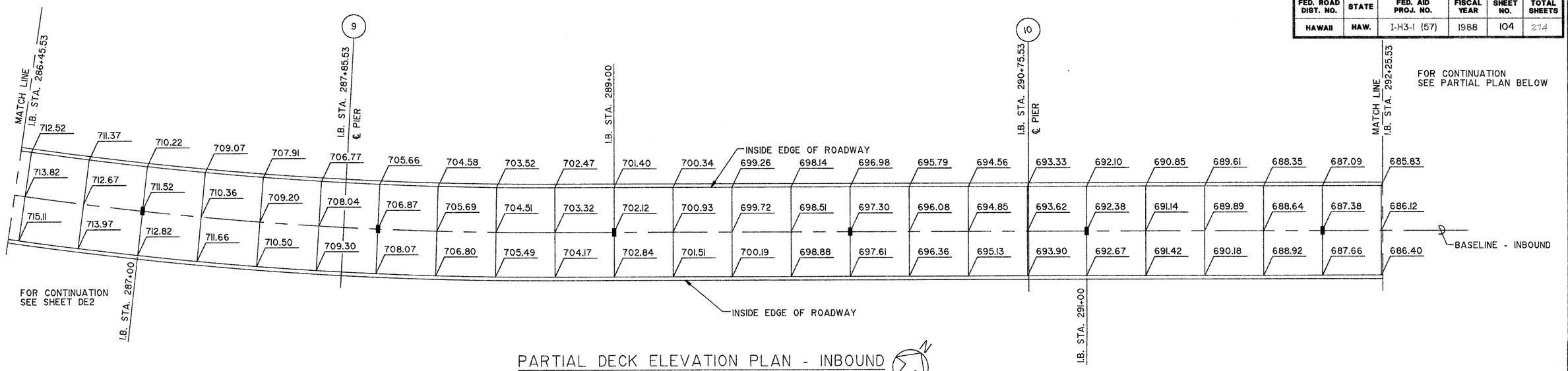
SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. DE2 OF 12 SHEETS

103

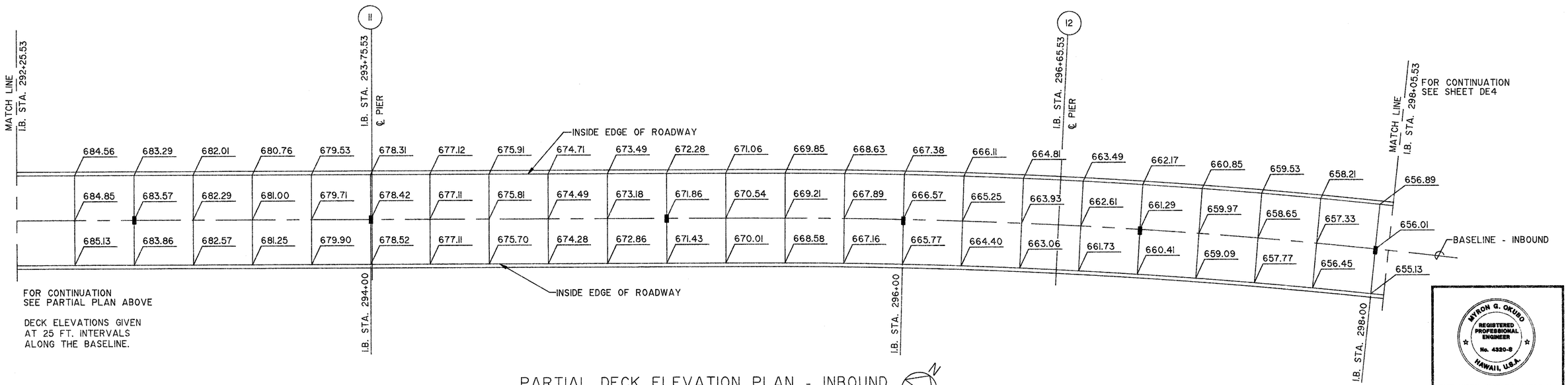
MAR 22 1989

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	104	274



PARTIAL DECK ELEVATION PLAN - INBOUND

SCALE : 1" = 20'-0"



PARTIAL DECK ELEVATION PLAN - INBOUND

SCALE : 1" = 20'-0"

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

MYRON G. OKUBO REGISTERED PROFESSIONAL ENGINEER No. 4320-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK ELEVATION PLANS
STA. 286+45.53 TO STA. 298+05.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: SEPT. 1988

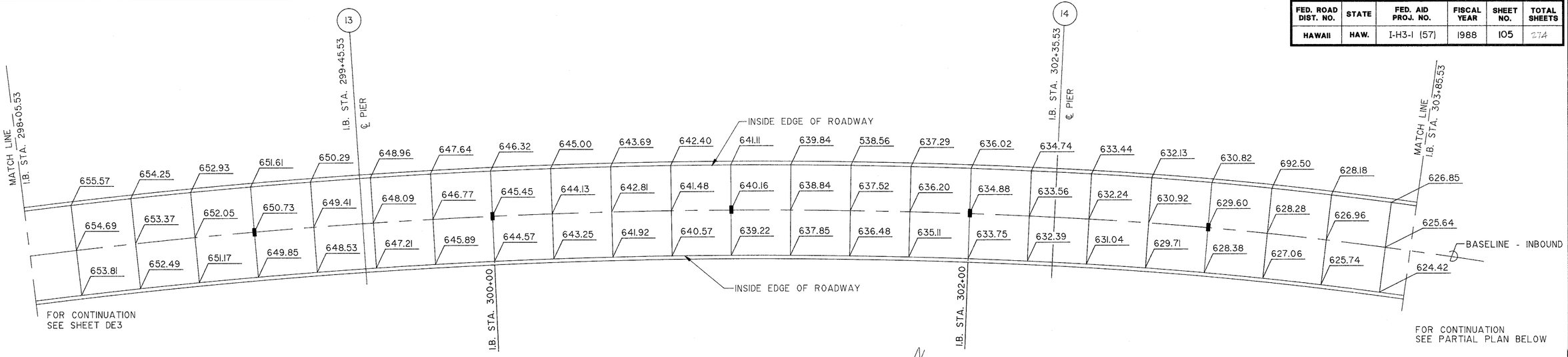
DATE	REVISION

SHEET No. DE3 OF 12 SHEETS

104

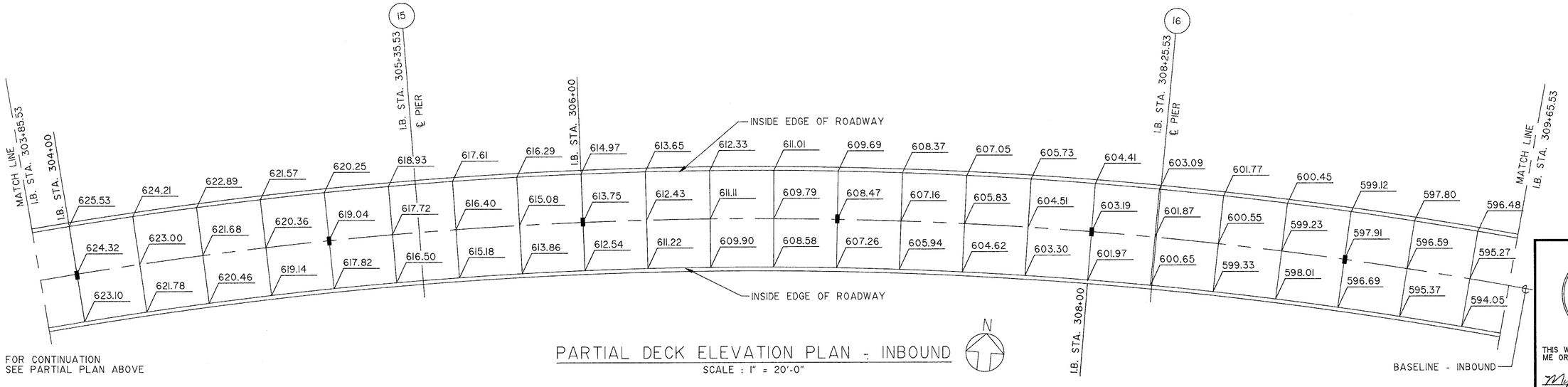
MAR 22 1989

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	105	274



PARTIAL DECK ELEVATION PLAN - INBOUND

SCALE : 1" = 20'-0"



PARTIAL DECK ELEVATION PLAN - INBOUND

SCALE : 1" = 20'-0"

FOR CONTINUATION
SEE PARTIAL PLAN ABOVE

DECK ELEVATIONS GIVEN
AT 25 FT. INTERVALS
ALONG THE BASELINE.

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

MYRON G. OKUBO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK ELEVATION PLANS

STA. 298+05.53 TO STA. 309+65.53

INBOUND STRUCTURE

INTERSTATE ROUTE H-3

F.A.I. PROJECT NO. I-H3-1 (57)

F.A.I. PROJECT NO. I-H3-1 (58)

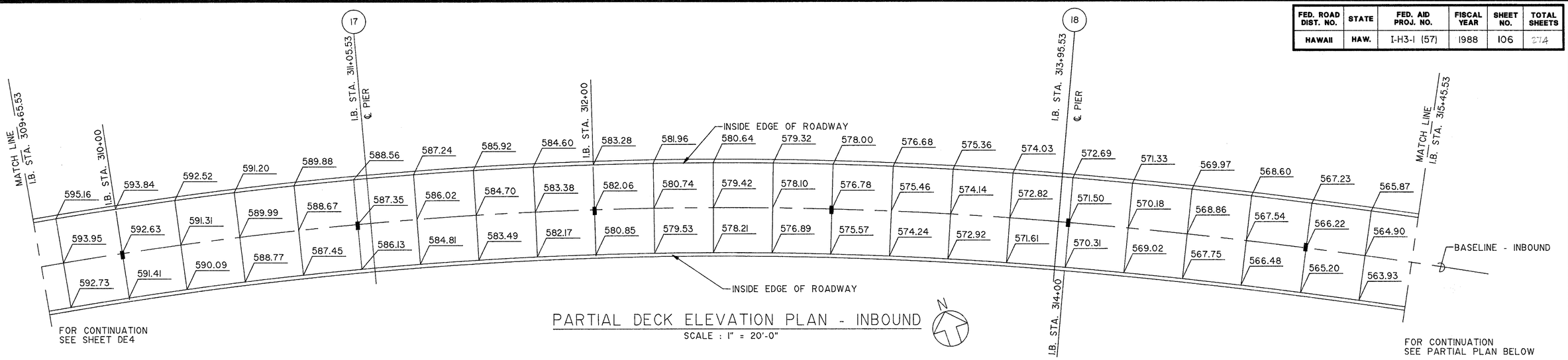
SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. DE4 **OF** 12 **SHEETS**

105

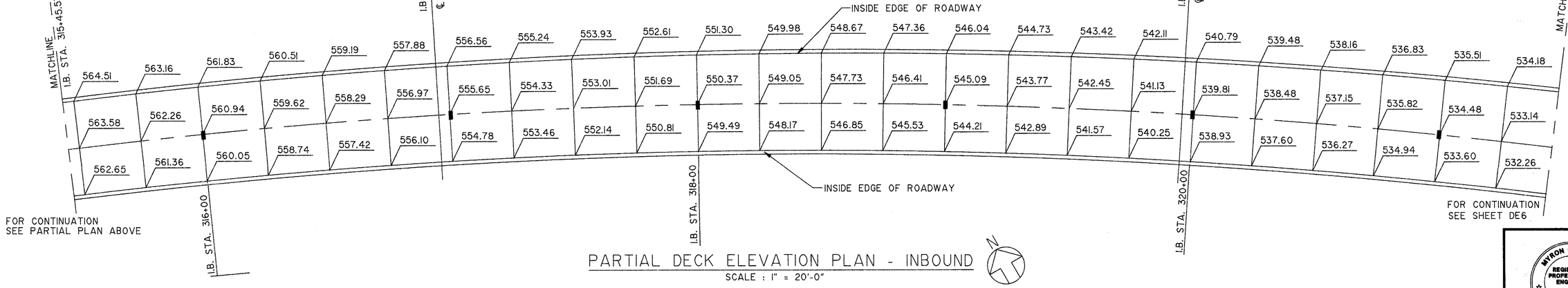
MAR 22 1989

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	106	274



PARTIAL DECK ELEVATION PLAN - INBOUND

SCALE : 1" = 20'-0"



PARTIAL DECK ELEVATION PLAN - INBOUND

SCALE : 1" = 20'-0"

ORIGINAL PLAN

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

MYRON G. OKUBO REGISTERED PROFESSIONAL ENGINEER No. 4320-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK ELEVATION PLANS

STA. 309+65.53 TO STA. 321+45.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: SEPT. 1988

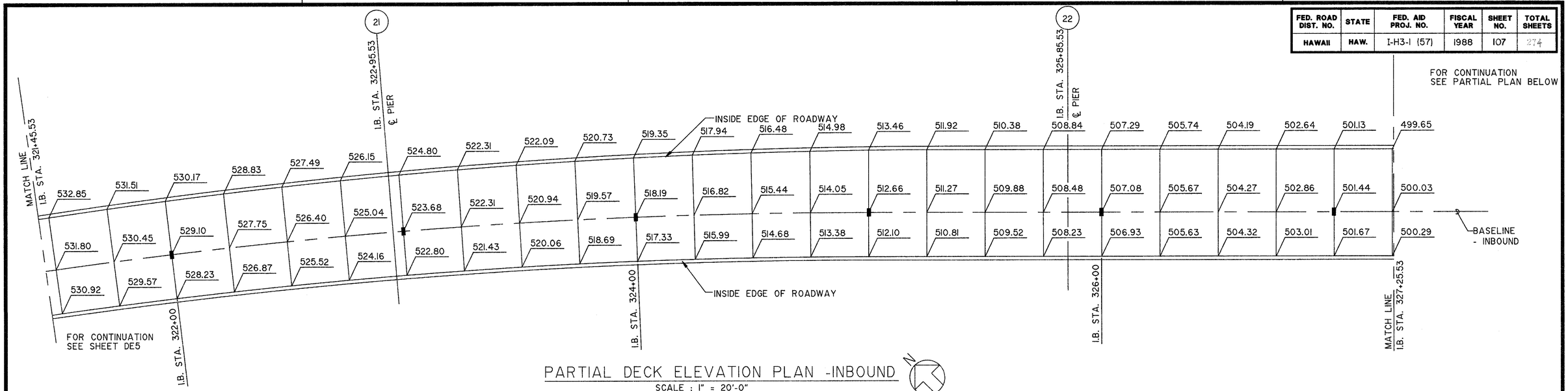
DATE	REVISION

SHEET No. DE5 OF 12 SHEETS

106

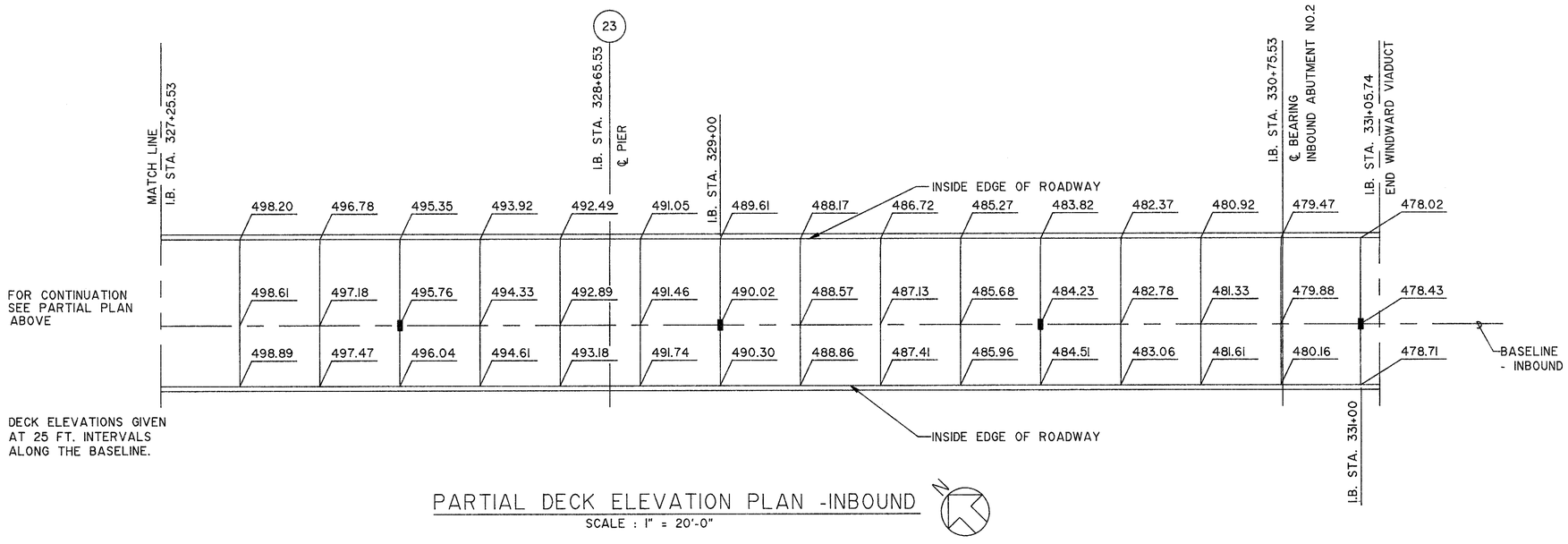
MAR 22 1989

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	107	274



PARTIAL DECK ELEVATION PLAN -INBOUND

SCALE : 1" = 20'-0"



PARTIAL DECK ELEVATION PLAN -INBOUND

SCALE : 1" = 20'-0"

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

MYRON G. OKUBO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK ELEVATION PLANS
STA. 321+45.53 TO STA. 331+05.74
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: SEPT. 1988

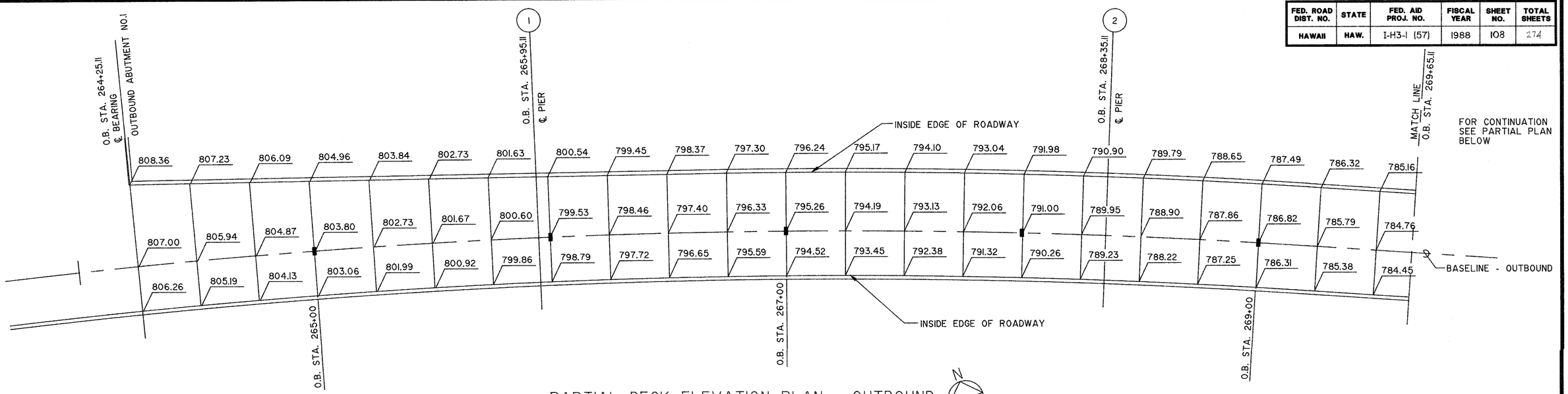
DATE	REVISION

SHEET No. DE6 **OF** 12 **SHEETS**

107

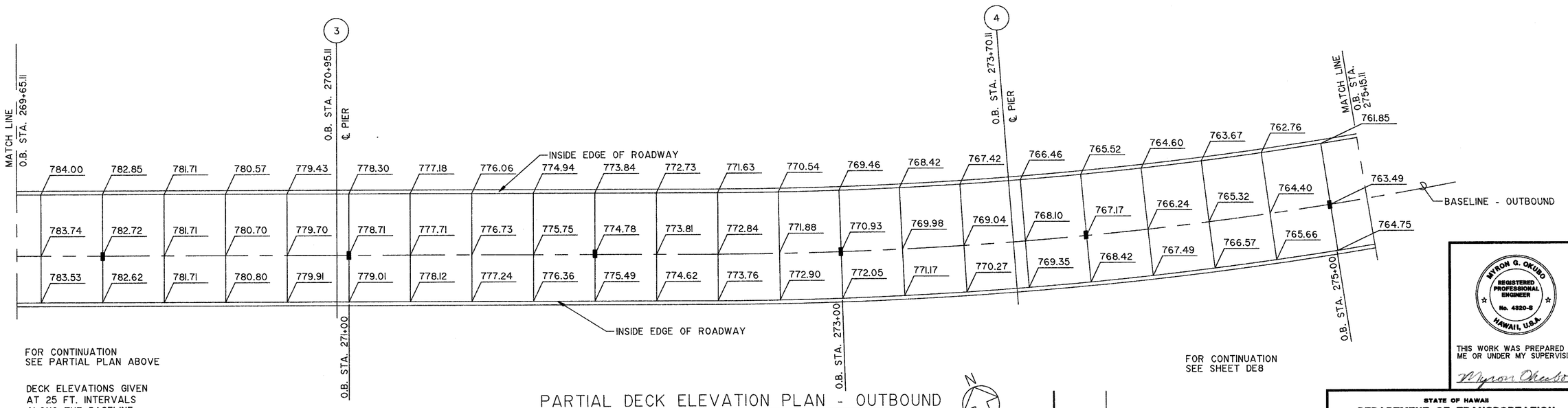
MAR 22 1989

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	108	274



PARTIAL DECK ELEVATION PLAN - OUTBOUND

SCALE : 1" = 20'-0"



FOR CONTINUATION
SEE PARTIAL PLAN ABOVE

DECK ELEVATIONS GIVEN
AT 25 FT. INTERVALS
ALONG THE BASELINE.

PARTIAL DECK ELEVATION PLAN - OUTBOUND

SCALE : 1" = 20'-0"

FOR CONTINUATION
SEE SHEET DE8

ORIGINAL PLAN

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

MYRON G. OKUBO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK ELEVATION PLANS
STA. 264+25.11 TO STA. 275+15.11
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: SEPT. 1988

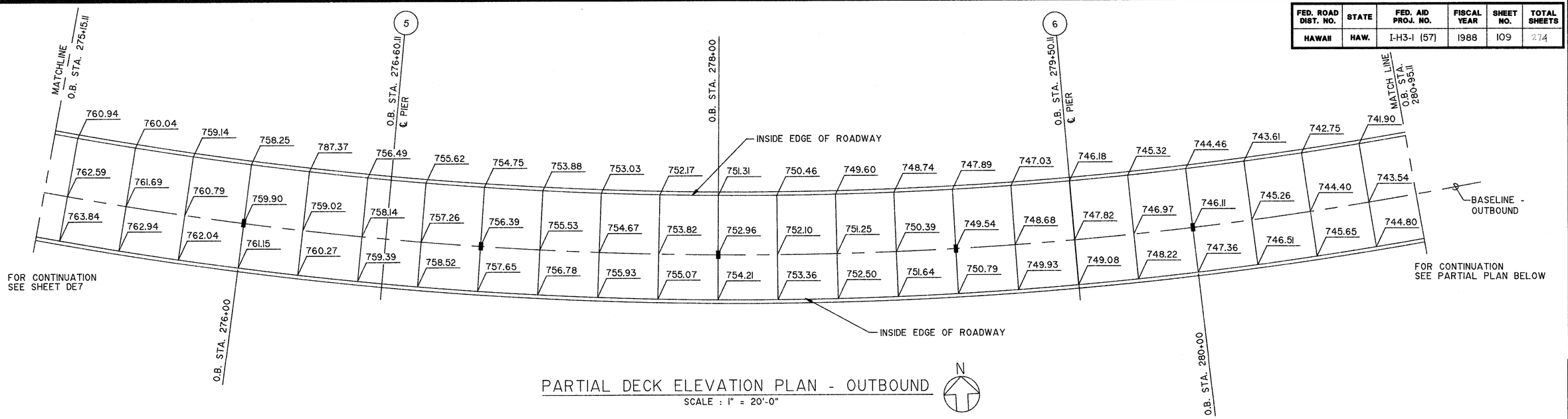
DATE	REVISION

SHEET No. DE7 OF 12 SHEETS

108

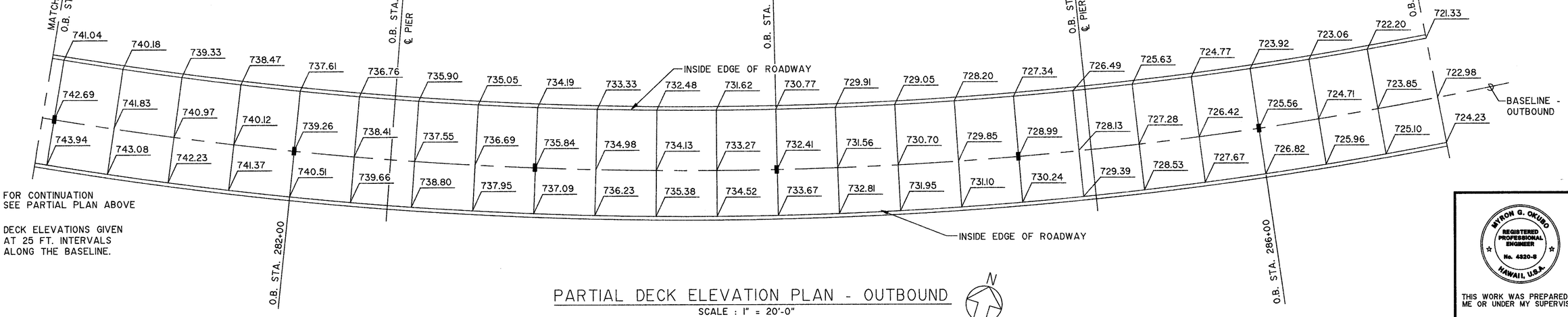
MAR 22 1989

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	109	274



PARTIAL DECK ELEVATION PLAN - OUTBOUND

SCALE : 1" = 20'-0"



PARTIAL DECK ELEVATION PLAN - OUTBOUND

SCALE : 1" = 20'-0"

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

MYRON G. OKUBO REGISTERED PROFESSIONAL ENGINEER No. 4320-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK ELEVATION PLANS

STA. 275+15.11 TO STA. 286+75.11

OUTBOUND STRUCTURE

INTERSTATE ROUTE H-3

F.A.I. PROJECT NO. I-H3-1 (57)

F.A.I. PROJECT NO. I-H3-1 (58)

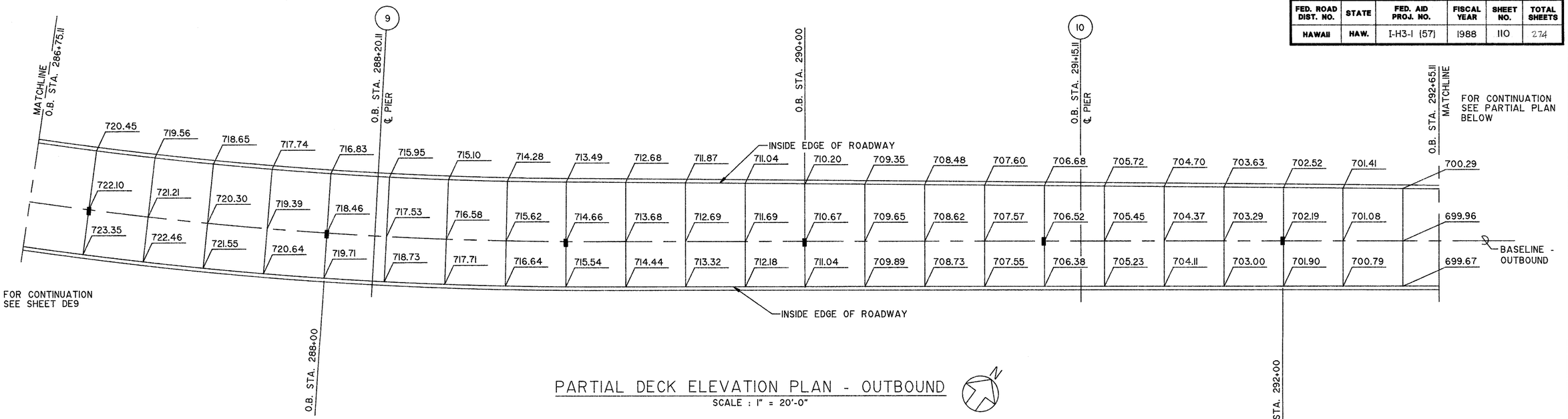
SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. DE8 OF 12 SHEETS

109

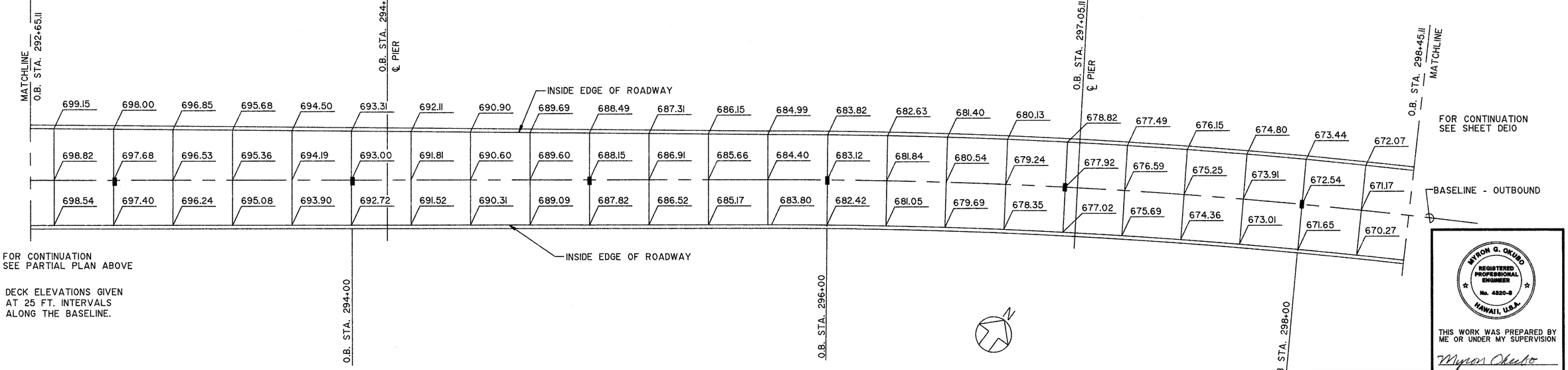
MAR 22 1989

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	110	274



PARTIAL DECK ELEVATION PLAN - OUTBOUND

SCALE : 1" = 20'-0"



PARTIAL DECK ELEVATION PLAN - OUTBOUND

SCALE : 1" = 20'-0"

ORIGINAL PLAN

SURVEY PLOTTED BY ____ DATE
DRAWN BY ____
TRACED BY ____
DESIGNED BY ____
QUANTITIES BY ____
CHECKED BY ____

NOTEBOOK ____
No. ____

MYRON G. OKUBO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK ELEVATION PLANS
STA. 286+75.11 TO STA. 298+45.11
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

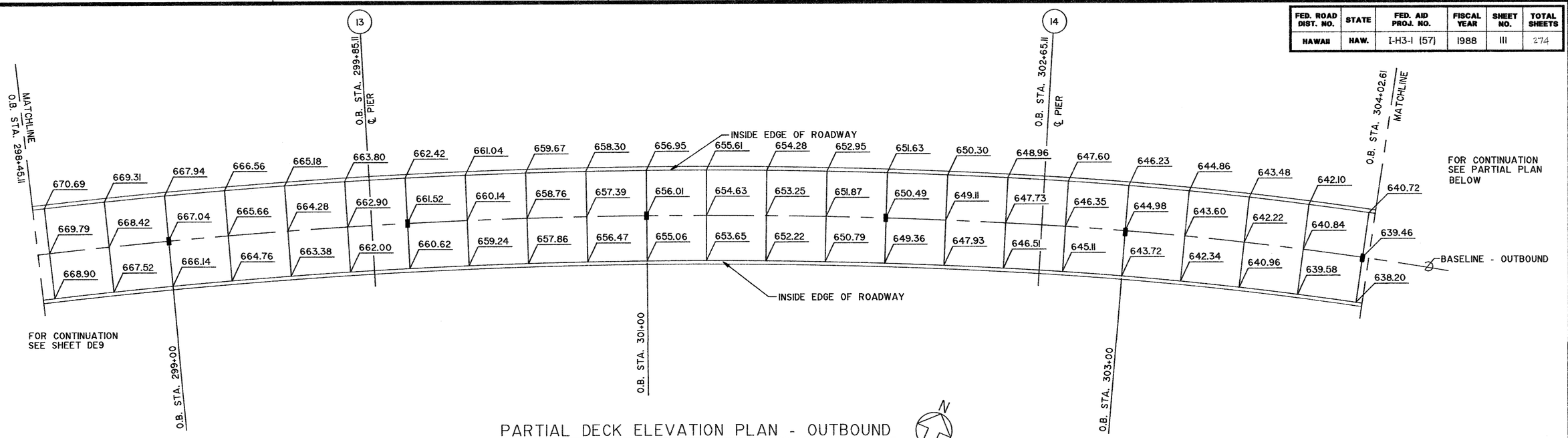
SCALE: AS NOTED DATE: SEPT. 1988

DATE	REVISION

SHEET No. DE9 OF 12 SHEETS

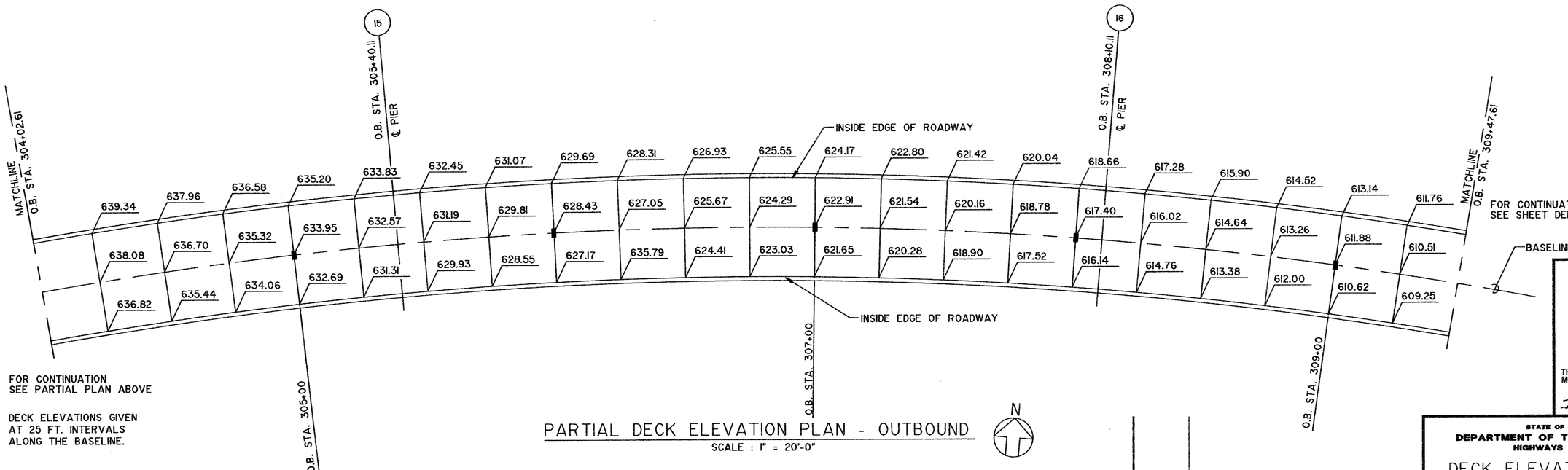
MAR 22 1989

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	111	274



PARTIAL DECK ELEVATION PLAN - OUTBOUND

SCALE : 1" = 20'-0"



FOR CONTINUATION
SEE PARTIAL PLAN ABOVE

DECK ELEVATIONS GIVEN
AT 25 FT. INTERVALS
ALONG THE BASELINE.

PARTIAL DECK ELEVATION PLAN - OUTBOUND

SCALE : 1" = 20'-0"

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

MYRON G. OKUBO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK ELEVATION PLANS
STA. 298+45.11 TO STA. 309+47.61
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

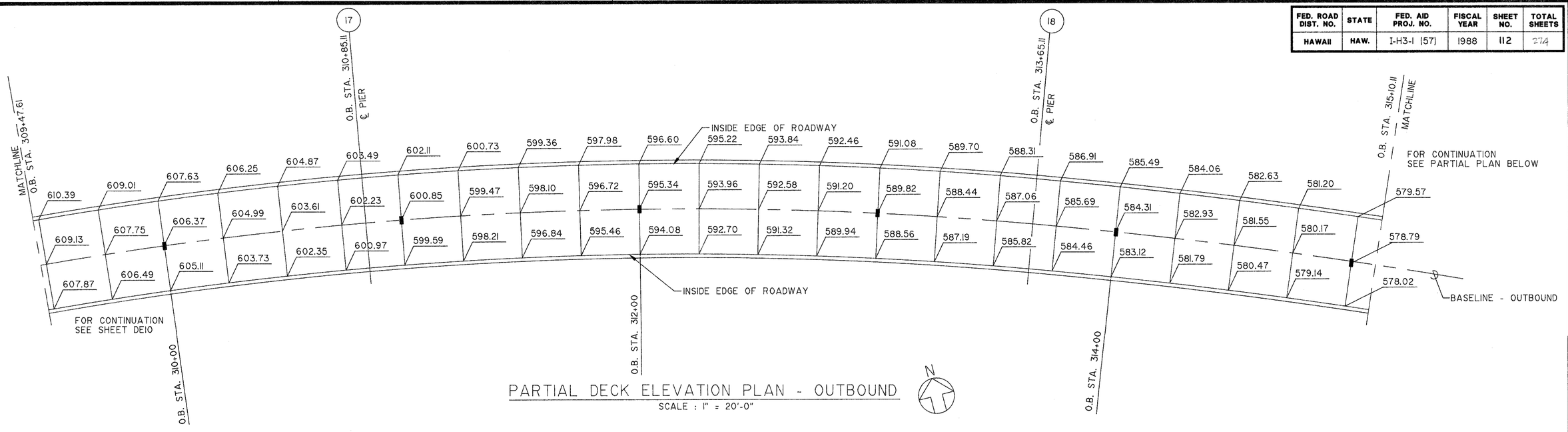
SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. DE10 OF 12 SHEETS

DATE	REVISION

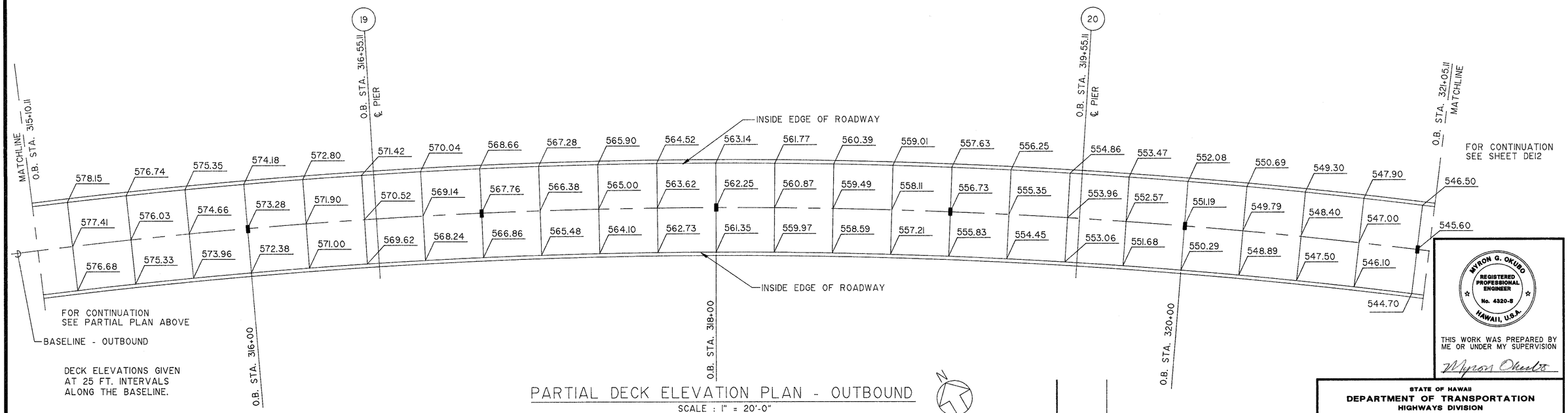
MAR 22 1989

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	112	274



PARTIAL DECK ELEVATION PLAN - OUTBOUND

SCALE : 1" = 20'-0"



DECK ELEVATIONS GIVEN AT 25 FT. INTERVALS ALONG THE BASELINE.

PARTIAL DECK ELEVATION PLAN - OUTBOUND

SCALE : 1" = 20'-0"

ORIGINAL PLAN

SURVEY PLOTTED BY ____ DATE ____
DRAWN BY ____
TRACED BY ____
DESIGNED BY ____
QUANTITIES BY ____
CHECKED BY ____

NOTEBOOK ____
No. ____

MYRON G. OKUBO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK ELEVATION PLANS

STA. 309+47.61 TO STA. 321+05.11

OUTBOUND STRUCTURE

INTERSTATE ROUTE H-3

F.A.I. PROJECT NO. I-H3-1 (57)

F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: SEPT. 1988

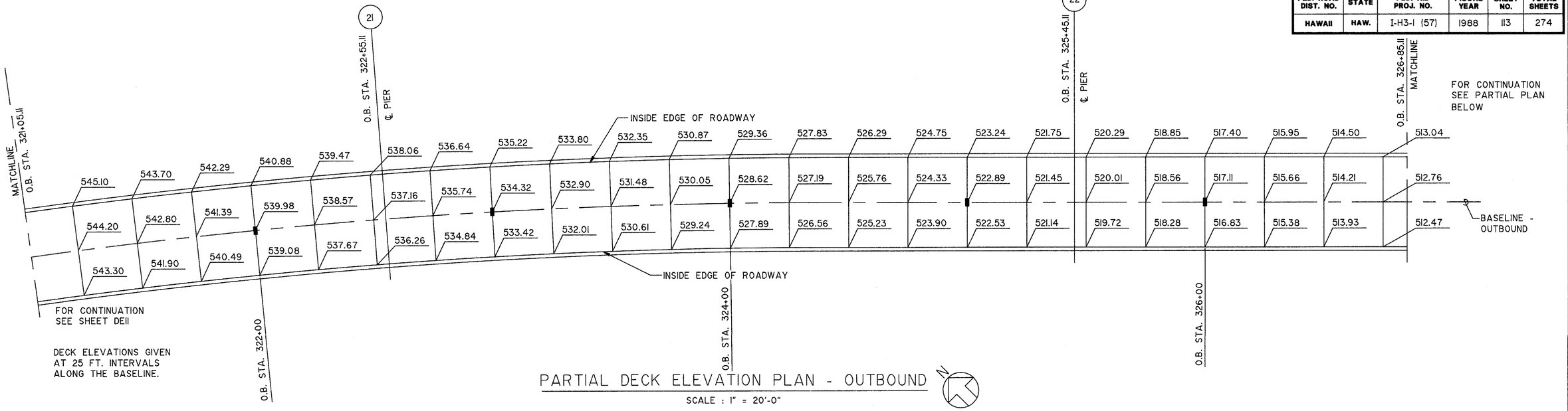
DATE	REVISION

SHEET No. DE11 OF 12 SHEETS

112

MAR 22 1989

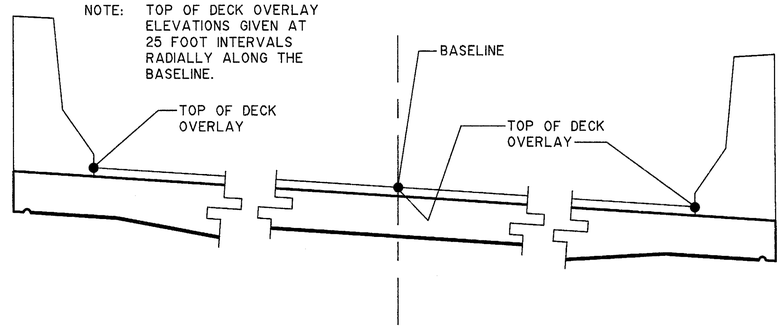
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	113	274



PARTIAL DECK ELEVATION PLAN - OUTBOUND

SCALE : 1" = 20'-0"

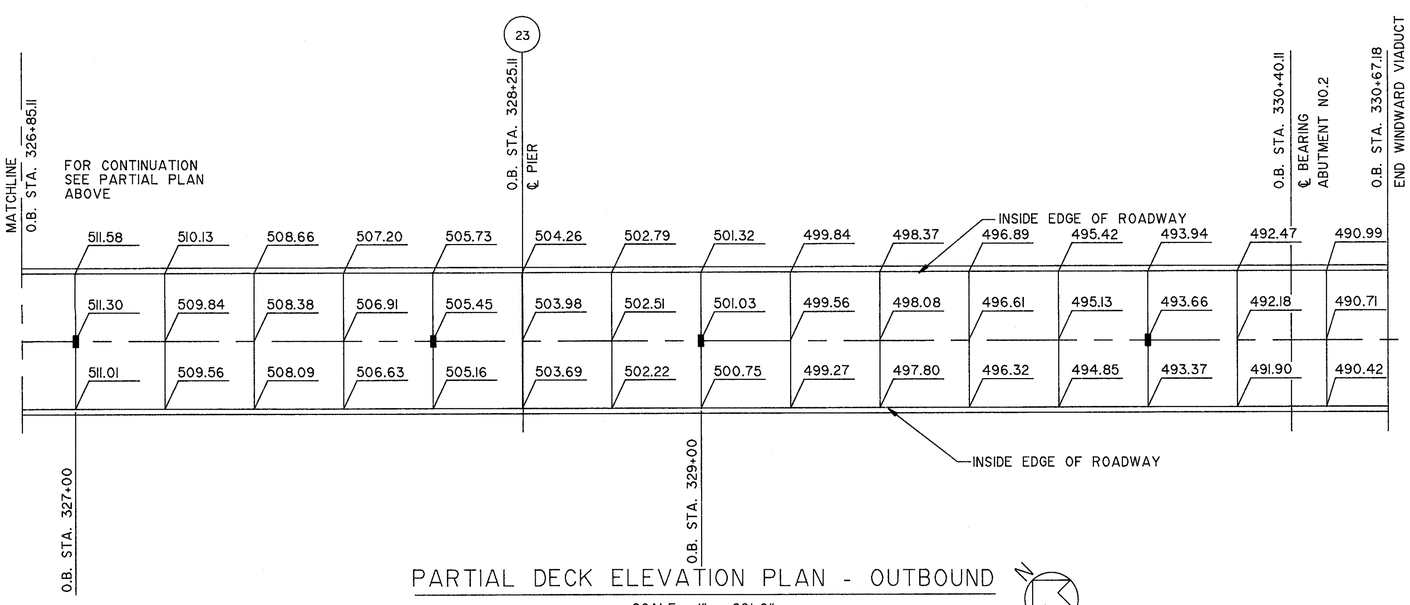
NOTE: TOP OF DECK OVERLAY ELEVATIONS GIVEN AT 25 FOOT INTERVALS RADIALLY ALONG THE BASELINE.



DETAIL A

NOT TO SCALE

DE11 | DE12



PARTIAL DECK ELEVATION PLAN - OUTBOUND

SCALE : 1" = 20'-0"

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

MYRON G. OKUBO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK ELEVATION PLANS

STA. 321+05.11 TO STA. 330+67.18

OUTBOUND STRUCTURE

INTERSTATE ROUTE H-3

F.A.I. PROJECT NO. I-H3-1 (57)

F.A.I. PROJECT NO. I-H3-1 (58)

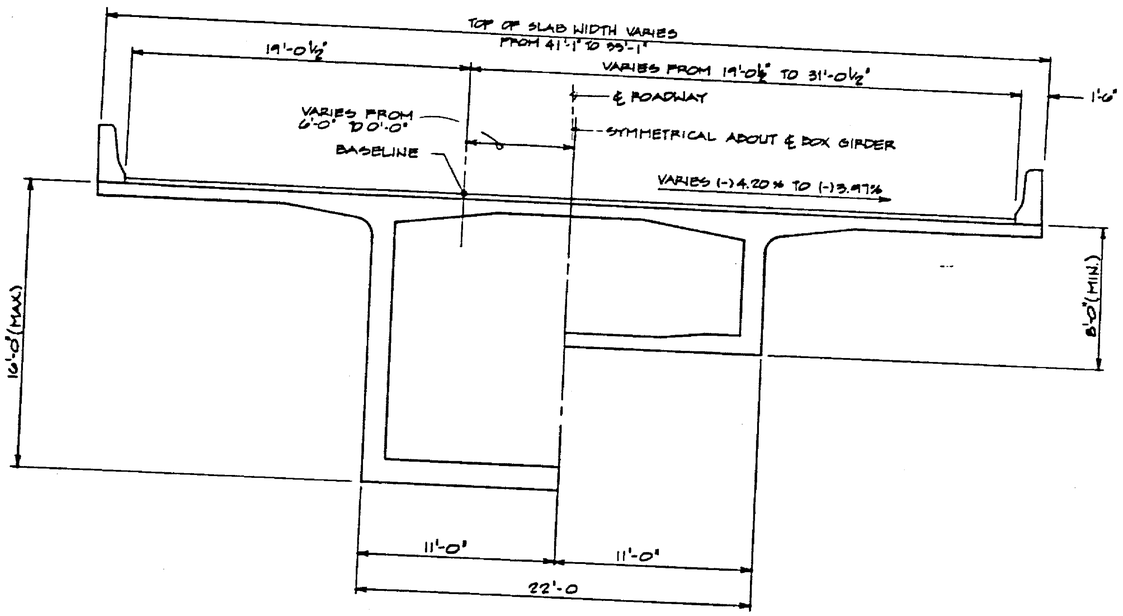
SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. DE12 OF 12 SHEETS

113

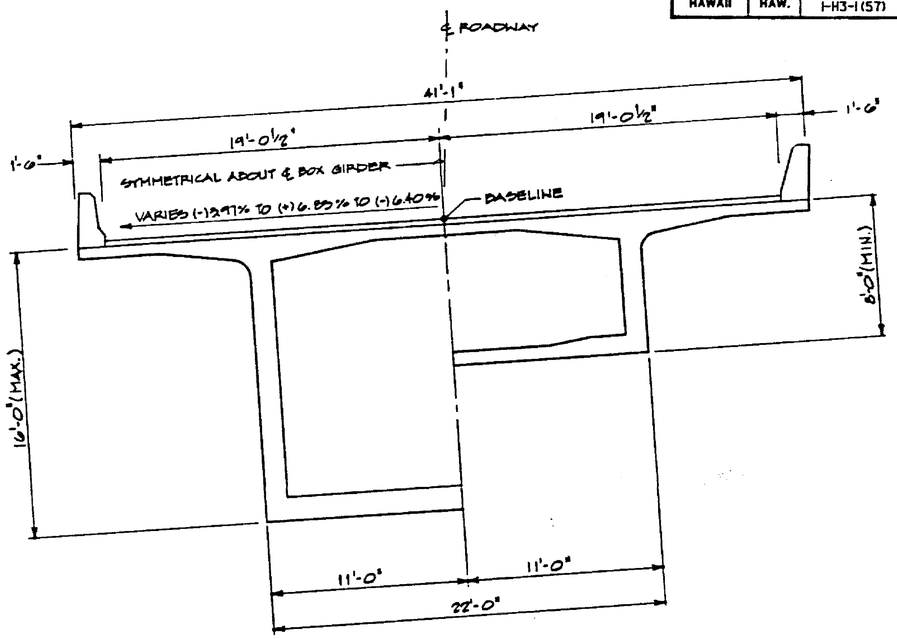
MAY 08 1989

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	114	274



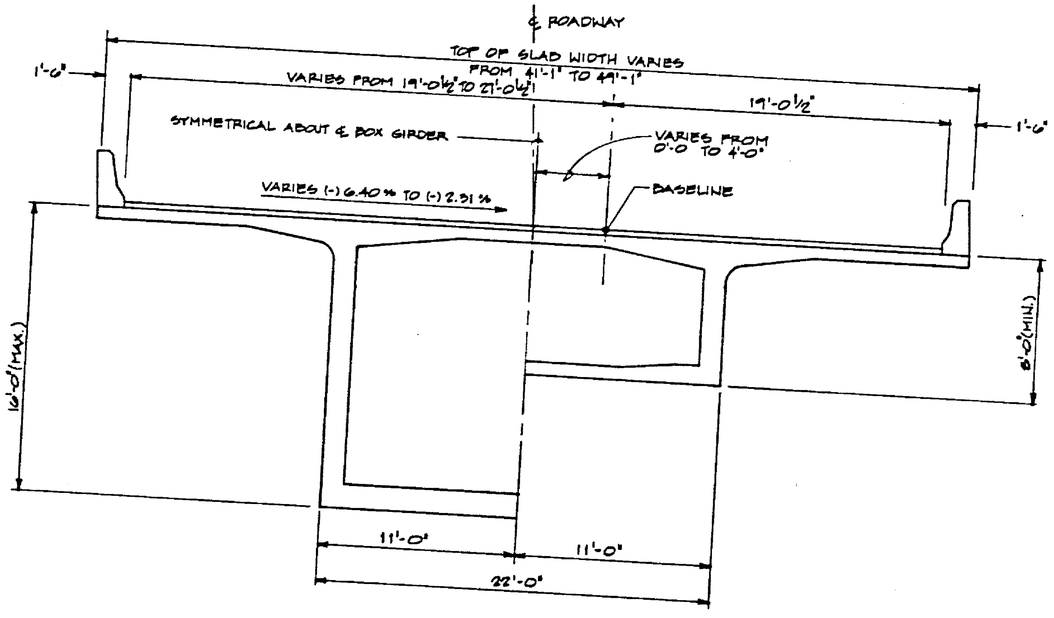
CROSS SECTION FROM STA. 264+65.53 TO STA. 265+82.71

LOOKING UPSTATION



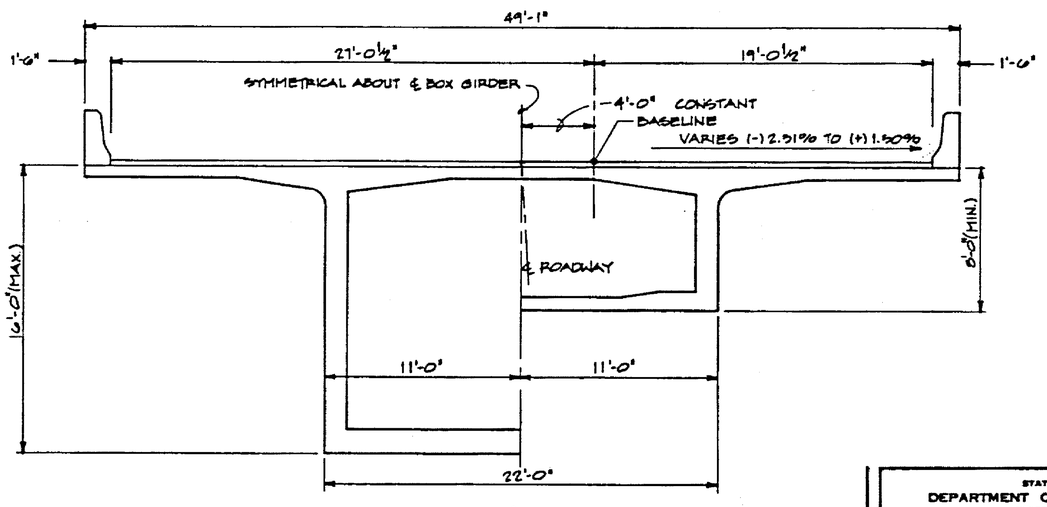
CROSS SECTION FROM STA. 265+82.71 TO STA. 313+95.53

LOOKING UPSTATION



CROSS SECTION FROM STA. 313+95.53 TO STA. 325+30.21

LOOKING UPSTATION



CROSS SECTION FROM STA. 325+30.21 TO STA. 330+75.53

LOOKING UPSTATION

ORIGINAL PLAN — M. HVEJ PLOTTED BY — DATE — TRACED BY — DESIGNED BY — QUANTITIES BY — CHECKED BY — NOTE BENK — No.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK CROSS SECTIONS

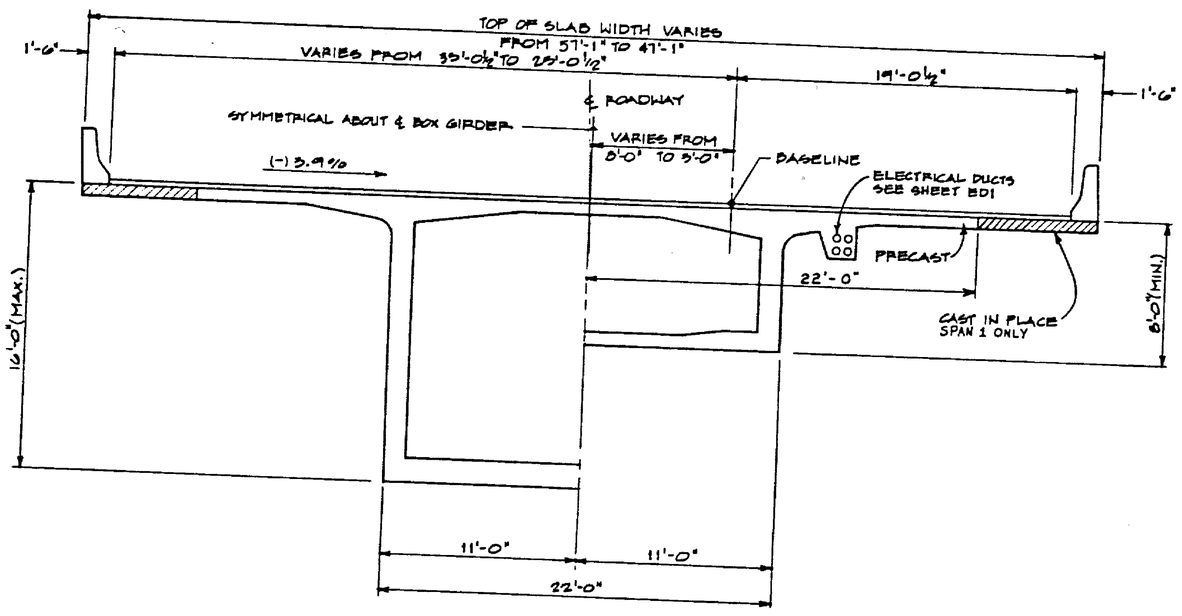
INBOUND

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : 1/4"=1'-0" DATE : JUN. 1990

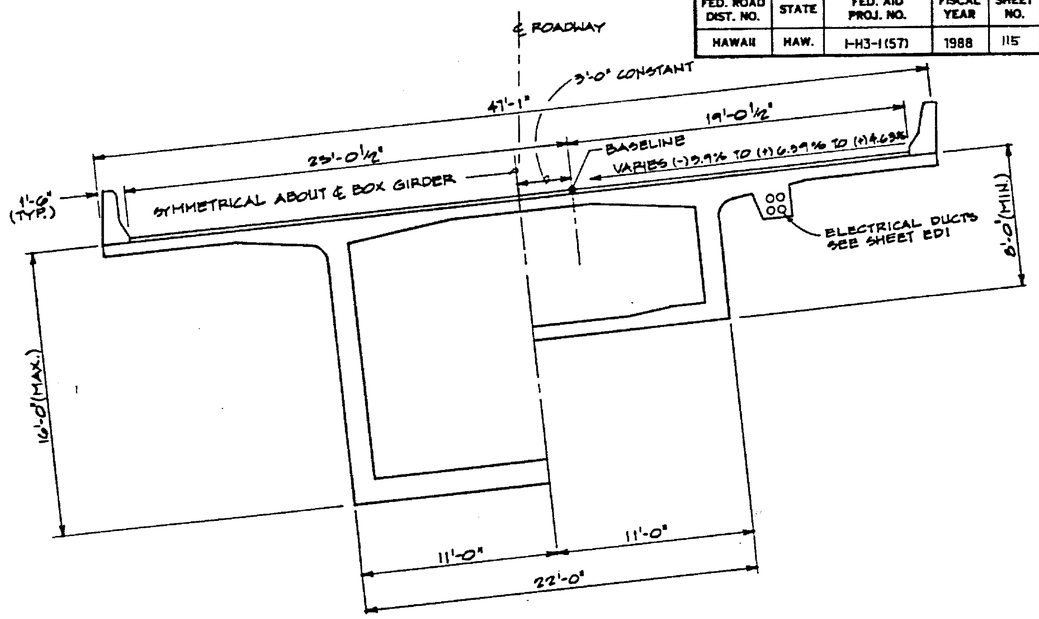
SHEET No. CSI OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	115	274



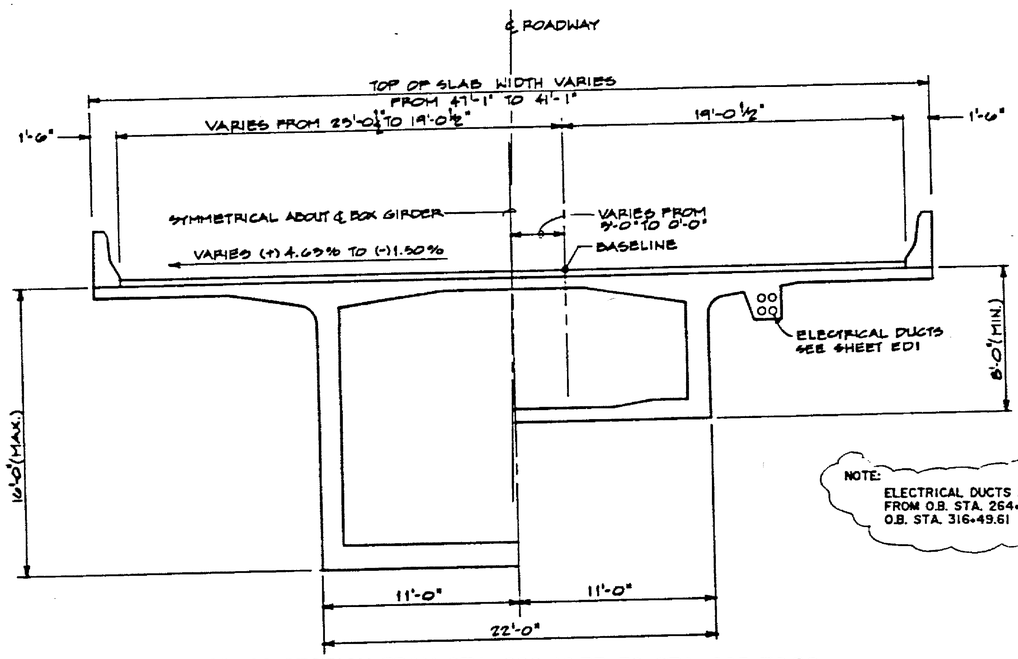
CROSS SECTION FROM STA. 264+25.11 TO STA. 266+68.71

LOOKING UPSTATION



CROSS SECTION FROM STA. 266+68.71 TO STA. 289+10.33

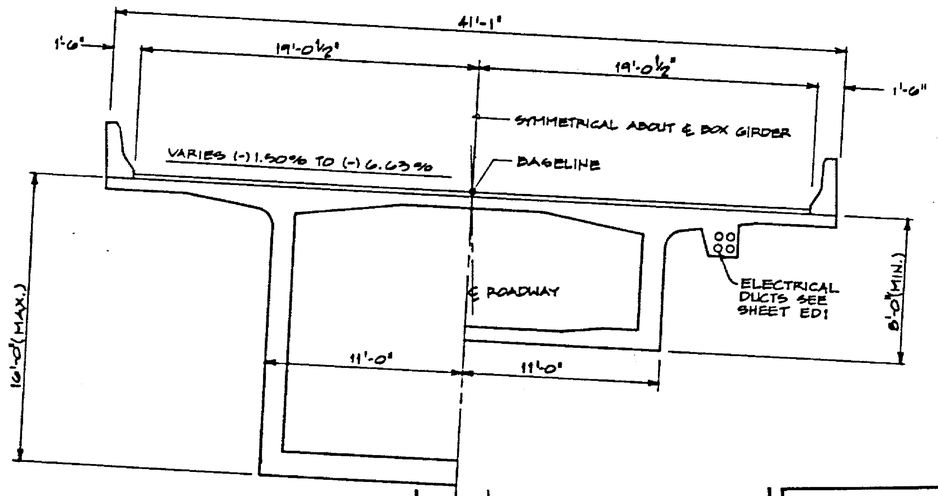
LOOKING UPSTATION



NOTE:
ELECTRICAL DUCTS ARE LOCATED FROM O.B. STA. 264+23.36 TO O.B. STA. 316+49.61

CROSS SECTION FROM STA. 289+10.33 TO STA. 295+76.56

LOOKING UPSTATION.



CROSS SECTION FROM STA. 295+76.56 TO STA. 331+05.74

LOOKING UPSTATION

DATE	REVISION
08/23/91	ADDED NOTE.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER NO. 7779 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK CROSS SECTIONS
OUTBOUND

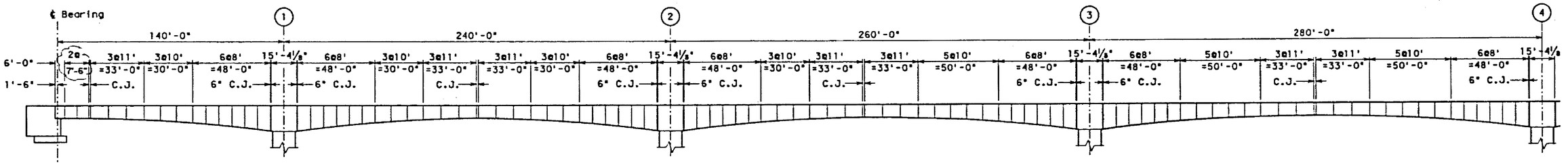
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

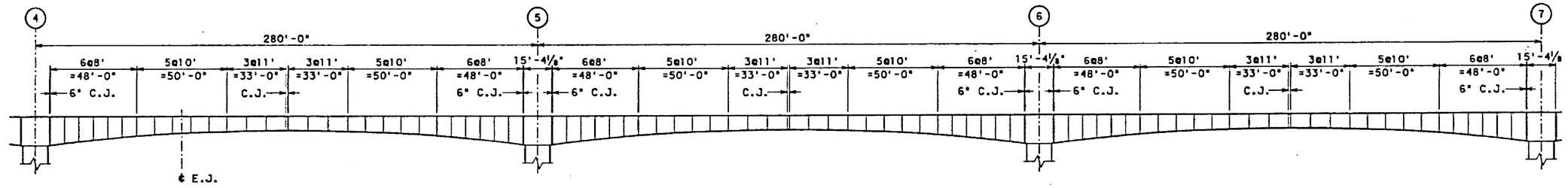
SCALE : 1/4"=1'-0" DATE : JUN. 1990

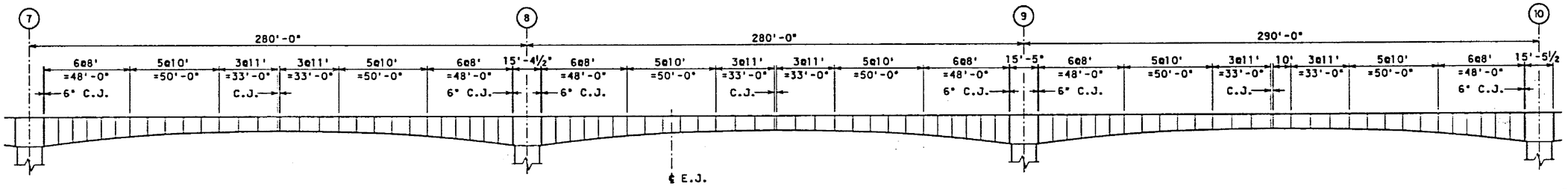
SHEET No. CS2 OF SHEETS

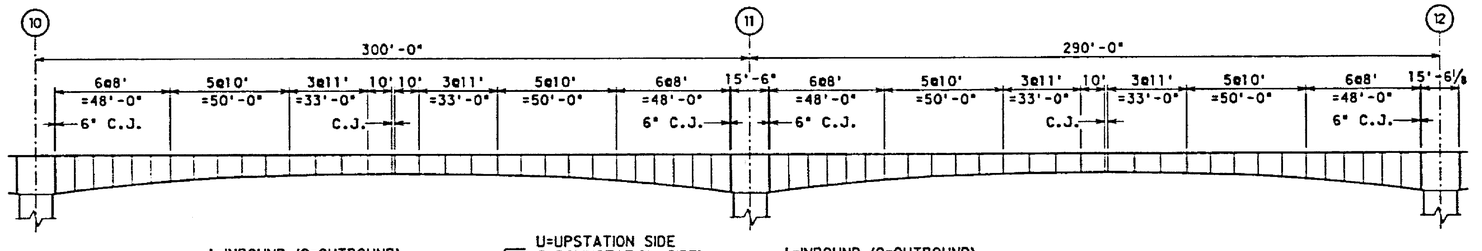
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE
NOTE BOOK | No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	116	279









SEGMENT DESIGNATION

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

DATE	REVISION
08/23/91	UPDATED IAI SEGMENT LENGTHS.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2379 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SEGMENT LAYOUT I

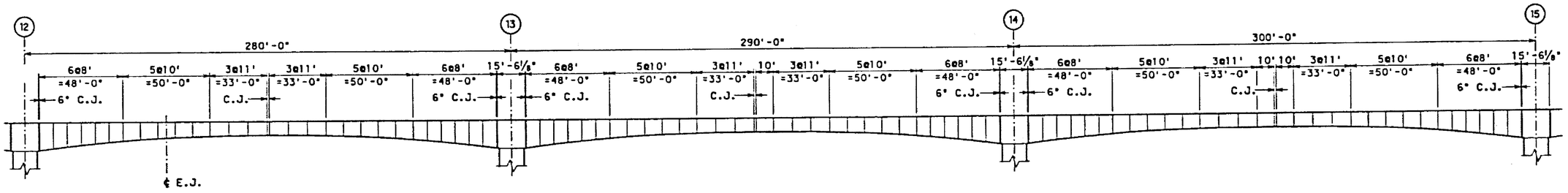
I.B. STA. 264+63.78 TO
I.B. STA. 296+65.53

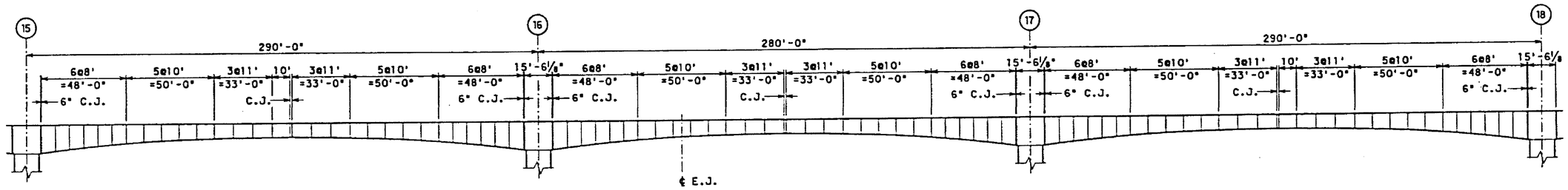
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

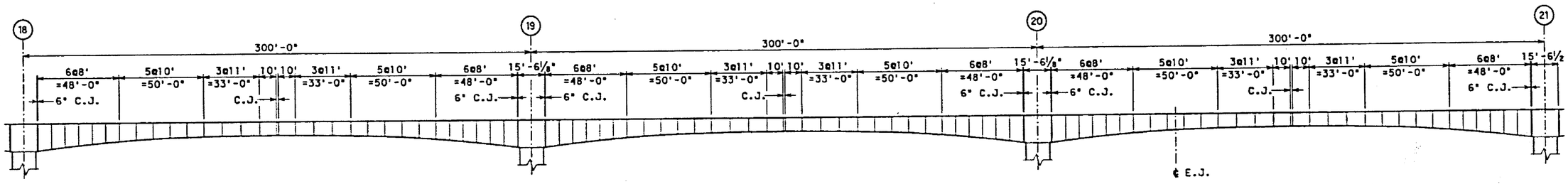
SCALE : AS NOTED DATE : JUN.1990

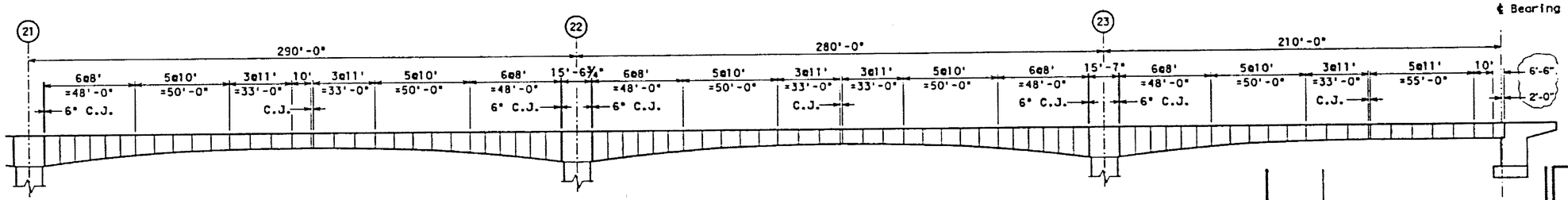
SHEET No. S1 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	117	274









I=INBOUND (O=OUTBOUND) — U=UPSTATION SIDE (D=DOWNSTATION SIDE)
I3-12U
PIER No. — SEGMENT RANGE No. IN THE CANTILEVER FROM THE PIER

I=INBOUND (O=OUTBOUND)
IA1-2
ABUTMENT No. — SEGMENT RANGE No. IN THE SPAN FROM THE ABUTMENT

SEGMENT DESIGNATION

DATE	REVISION
07/02/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SEGMENT LAYOUT II

I.B. STA. 296+65.53 TO
I.B. STA. 330+77.29

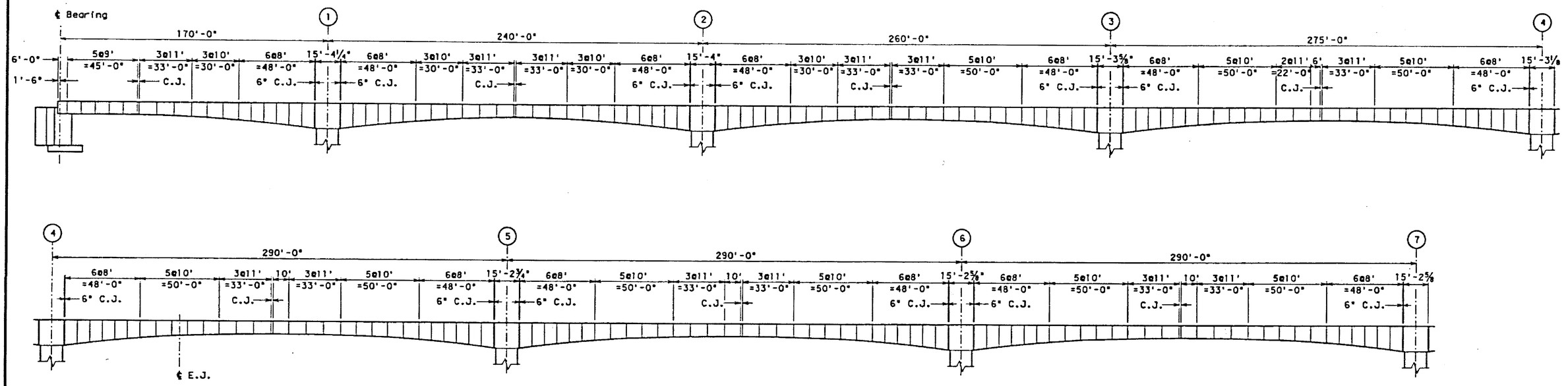
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

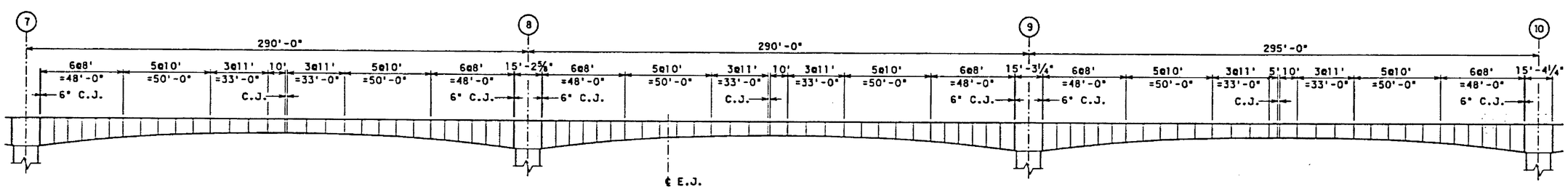
SCALE : AS NOTED DATE : JUN.1990

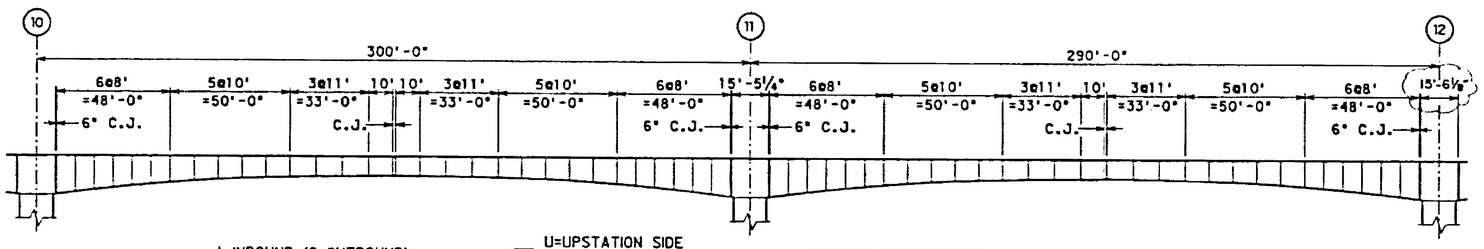
SHEET No. S2 OF SHEETS

ORIGINAL PLAN — SURVEY PLOTTED BY — DRAWN BY — TRACED BY — DESIGNED BY — QUANTITIES BY — CHECKED BY — DATE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	118	274







I=INBOUND (O=OUTBOUND) — U=UPSTATION SIDE (D=DOWNSTATION SIDE)

I3-12U

PIER No. — SEGMENT RANGE No. IN THE CANTILEVER FROM THE PIER

I=INBOUND (O=OUTBOUND)

IA1-2

ABUTMENT No. — SEGMENT RANGE No. IN THE SPAN FROM THE ABUTMENT

SEGMENT DESIGNATION

DATE	REVISION
08/23/91	UPDATED PIER SEGMENT LENGTH.

J. MULLER INTERNATIONAL

Libby Engineers

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2376 — HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SEGMENT LAYOUT III

O.B. STA. 264+23.36 TO
O.B. STA. 297+05.11

INTERSTATE ROUTE H-3

F.A.I. PROJECT No. I-H3-1(57)

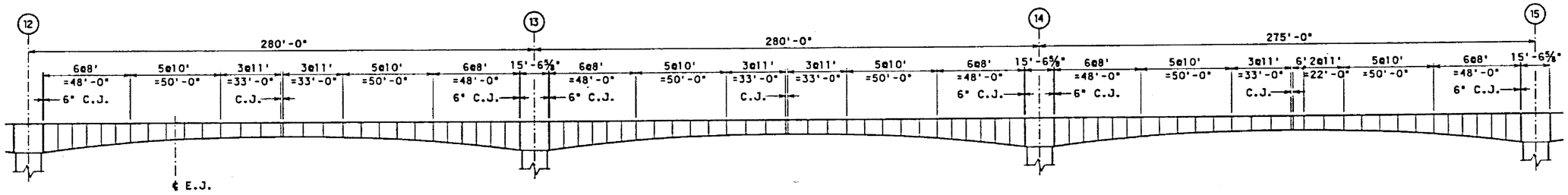
F.A.I. PROJECT No. I-H3-1(58)

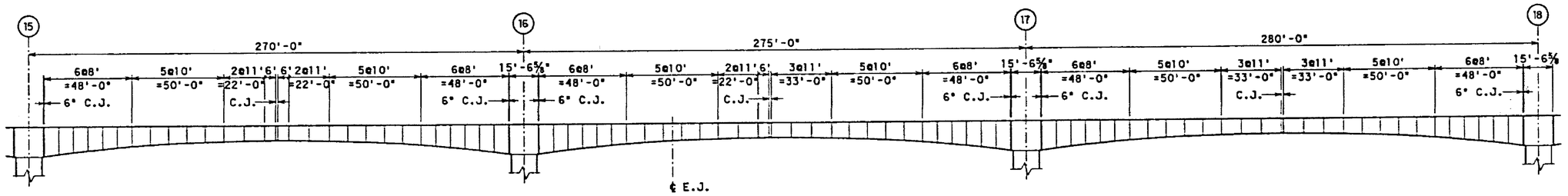
SCALE : AS NOTED DATE : JUN.1990

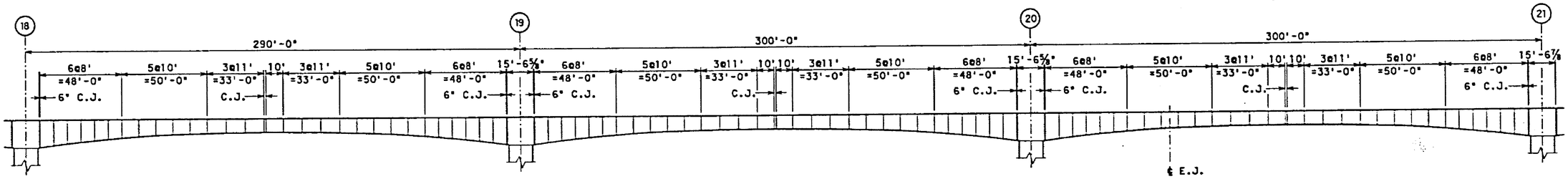
SHEET No. 53 OF SHEETS

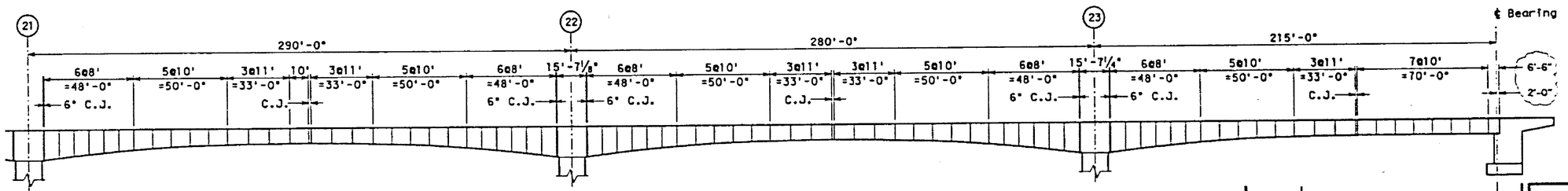
SURVEY PLOTTED BY — DATE
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
ORIGINAL PLAN
NOTE BOOK
No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	119	274









I=INBOUND (O=OUTBOUND) — U=UPSTATION SIDE (D=DOWNSTATION SIDE)

PIER No. — 13-12U — SEGMENT RANGE No. IN THE CANTILEVER FROM THE PIER

I=INBOUND (O=OUTBOUND) — A1-2

ABUTMENT No. — SEGMENT RANGE No. IN THE SPAN FROM THE ABUTMENT

SEGMENT DESIGNATION

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

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 7375 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
07/02/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SEGMENT LAYOUT IV

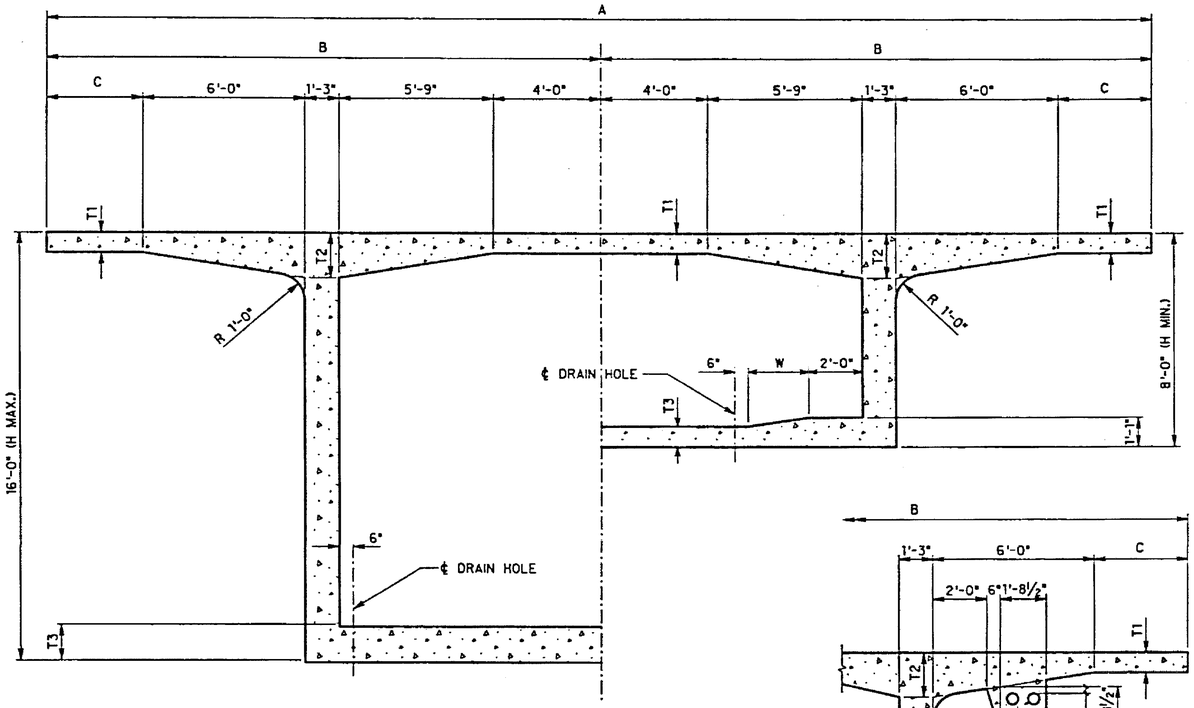
O.B. STA. 297+05.11 TO
O.B. STA. 330+41.86

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN.1990

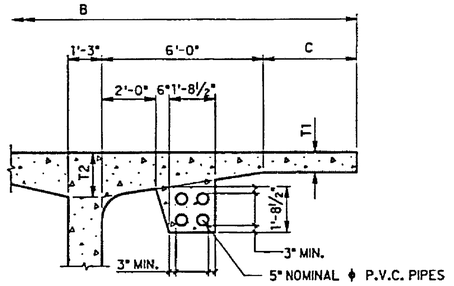
SHEET No. S4 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	120	274



CROSS SECTION

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

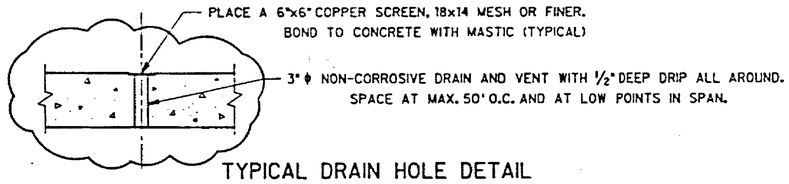


OUTBOUND WING DETAIL

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

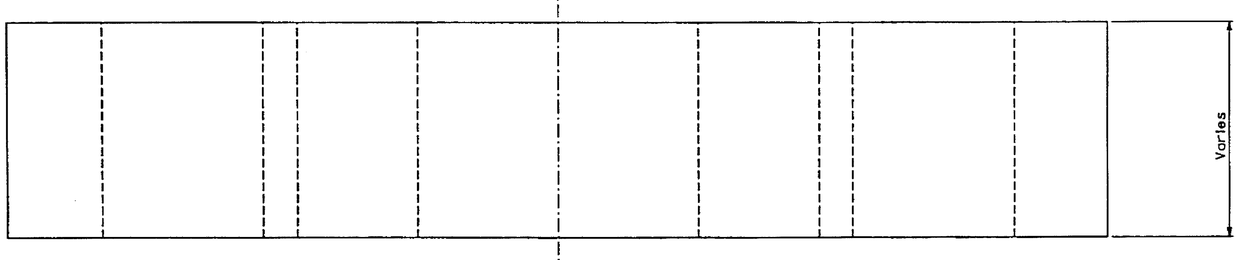
		FROM	TO	FROM	TO
INBOUND	A	51'-11 3/8"	49'-1"	49'-1"	41'-1"
	B	25'-11 11/16"	24'-6"	24'-6"	20'-6½"
	C	8'-11 11/16"	7'-6"	7'-6"	3'-6½"
OUTBOUND	A	56'-7¾"	49'-1"	49'-1"	47'-1"
	B	28'-3 3/8"	24'-6"	24'-6"	23'-6½"
	C	11'-3 3/8"	7'-6"	7'-6"	6'-6½"
T1		11"		9"	
T2		1'-10"		1'-8"	

NOTE : T1 AND T2 VARIATIONS ARE MADE IN SEGMENTS 1A1-2 AND 0-P1



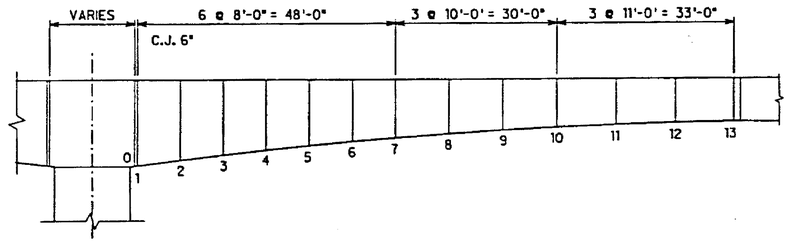
TYPICAL DRAIN HOLE DETAIL

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



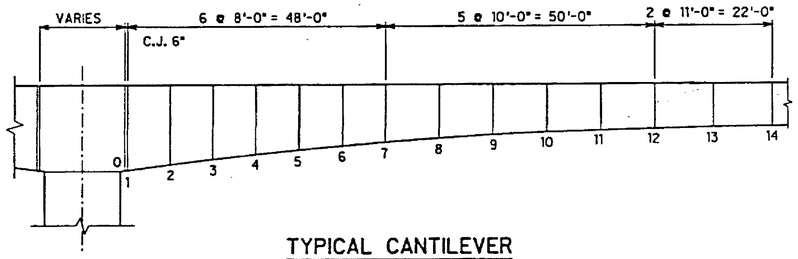
PLAN VIEW

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



SHORT CANTILEVER

(INBOUND, OUTBOUND PIERS 1 AND 2)



TYPICAL CANTILEVER

TYPICAL CANTILEVER			
JOINT No.	H	T3	W
1	16'-0"	1'-4"	0
2	14'-11 5/8"	1'-2¾"	0
3	14'-0 1/8"	1'-1 5/8"	0
4	13'-1 7/16"	1'-0½"	3⅜"
5	12'-3 5/8"	11⅜"	11⅜"
6	11'-6 11/16"	10¼"	1'-7"
7	10'-10 9/16"	9"	2'-3"
8	10'-1 5/8"		
9	9'-6"		
10	8'-11¾"		
11	8'-6 13/16"		
12	8'-3¼"		
13	8'-0 13/16"		
14	8'-0"	9"	2'-3"

SHORT CANTILEVER			
JOINT No.	H	T3	W
1	16'-0"	1'-4"	0
2	14'-11 5/8"	1'-2¾"	0
3	14'-0 1/8"	1'-1 5/8"	0
4	13'-1 7/16"	1'-0½"	3⅜"
5	12'-3 5/8"	11⅜"	11⅜"
6	11'-6 11/16"	10¼"	1'-7"
7	10'-10 9/16"	9"	2'-3"
8	10'-1 5/8"		
9	9'-6"		
10	8'-11¾"		
11	8'-6 7/16"		
12	8'-2 11/16"		
13	*	9"	2'-3"

* H = 8'-0" FOR SEGMENTS No. 1-12D AND 2-12U
H = 8'-1½" FOR SEGMENTS No. 1-12U AND 2-12D

NOTE : SEGMENT LENGTH ARE MEASURED ALONG BASE LINE

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
10/15/90	REPLACED DRAIN HOLE DETAIL.
10/04/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

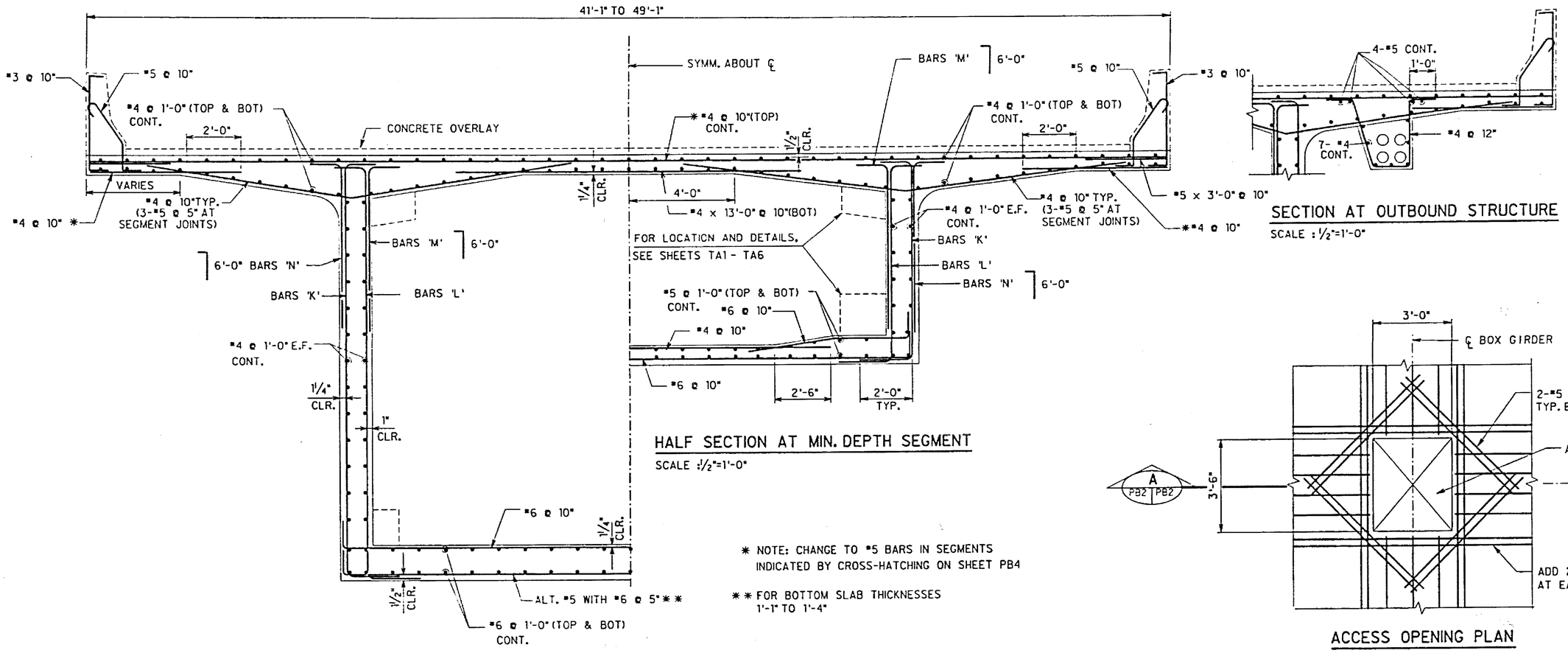
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BOX GIRDER SEGMENT
DIMENSIONS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990
SHEET No. P81 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	121	274



HALF SECTION AT MIN. DEPTH SEGMENT

SCALE : ½"=1'-0"

HALF SECTION AT MAX. DEPTH SEGMENT

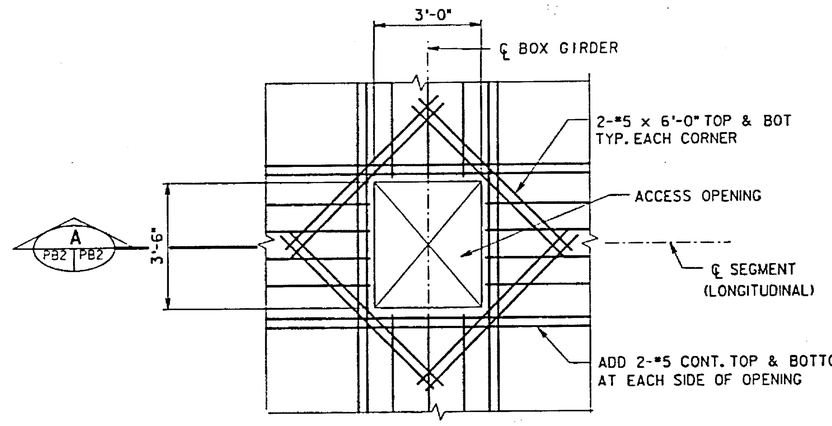
SCALE : ½"=1'-0"

* NOTE: CHANGE TO *5 BARS IN SEGMENTS INDICATED BY CROSS-HATCHING ON SHEET PB4

** FOR BOTTOM SLAB THICKNESSES 1'-1" TO 1'-4"

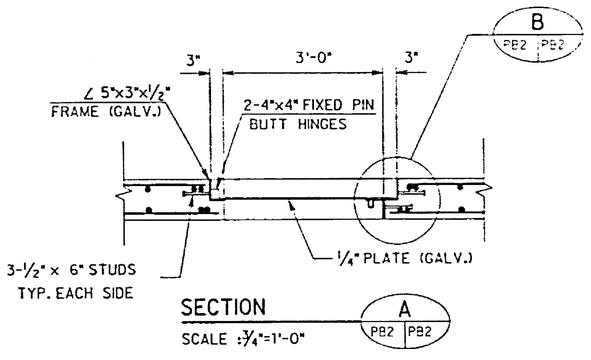
SECTION AT OUTBOUND STRUCTURE

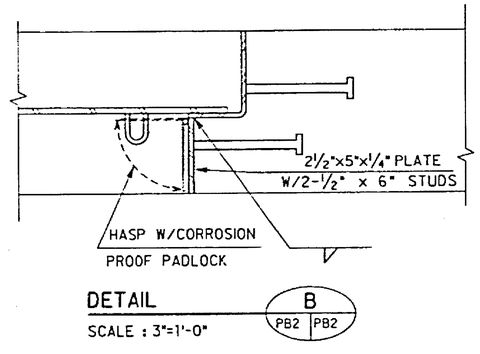
SCALE : ½"=1'-0"



ACCESS OPENING PLAN

SCALE : ½"=1'-0"
(LOCATED IN SEGMENT ADJACENT TO ABUTMENT SEGMENT)





NOTES:

1. FOR POST-TENSIONING DETAILS, SEE SHEETS TA1 - TA6
2. WORK THIS SHEET WITH SHEET NO PB4
3. FOR ADDITIONAL REINFORCING AROUND ANCHORAGES, SEE SHEET NO. TT1
4. FOR REINFORCING IN CONCRETE OVERLAY, SEE SHEET NO. BG3

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
04/05/91	UPDATED DRAWING.
09/14/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

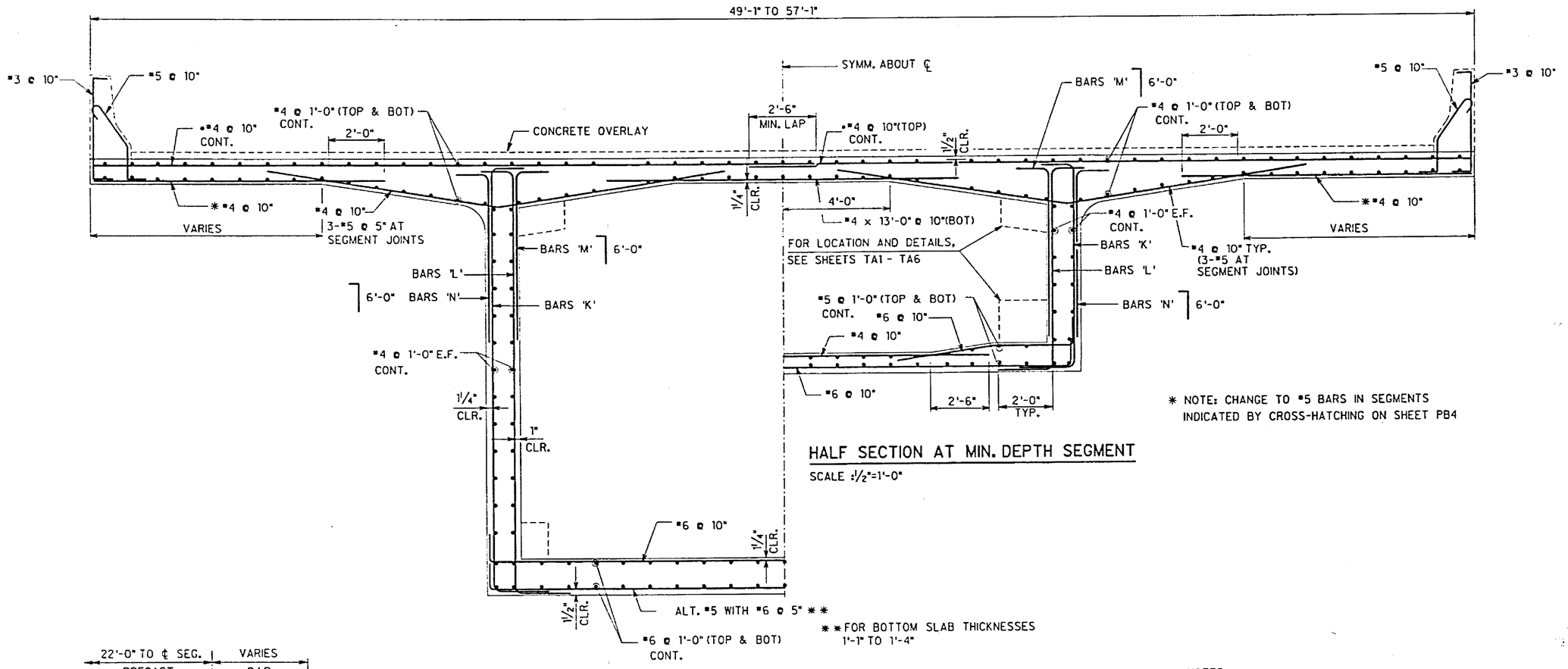
BOX GIRDER SEGMENT REINFORCING I

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. PB2 OF SHEETS

ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | NOTE BOOK

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	122	274



* NOTE: CHANGE TO *5 BARS IN SEGMENTS INDICATED BY CROSS-HATCHING ON SHEET PB4

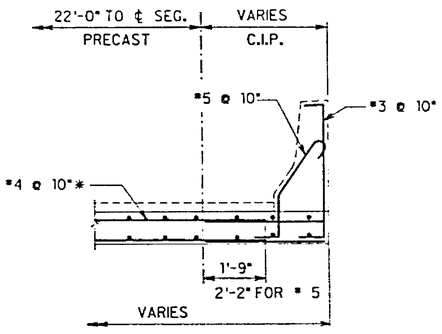
HALF SECTION AT MIN. DEPTH SEGMENT

SCALE :½"=1'-0"

* * FOR BOTTOM SLAB THICKNESSES 1'-1" TO 1'-4"

HALF SECTION AT MAX. DEPTH SEGMENT

SCALE :½"=1'-0"



DETAIL FOR C.I.P. WING

SCALE :½"=1'-0"

NOTES:

1. FOR POST-TENSIONING DETAILS, SEE SHEETS TA1 - TA6
2. WORK THIS SHEET WITH SHEET NO PB4
3. FOR ADDITONAL REINFORCING AROUND ANCHORAGES, SEE SHEET NOS. TT1
4. FOR REINFORCING IN CONCRETE OVERLAY SEE DRAWING BG3.

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2375-S — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
04/05/91	UPDATED DRAWING.
09/14/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BOX GIRDER SEGMENT
REINFORCING II

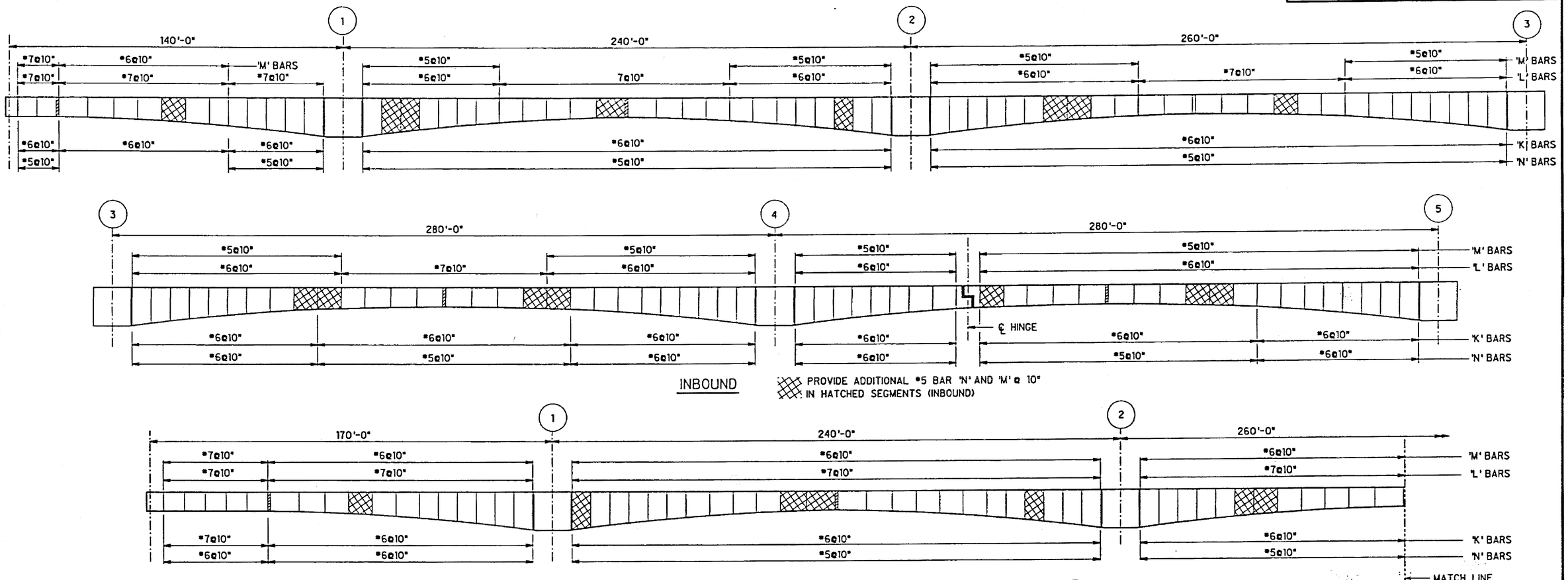
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1990

SHEET No. PB3 OF 22 SHEETS

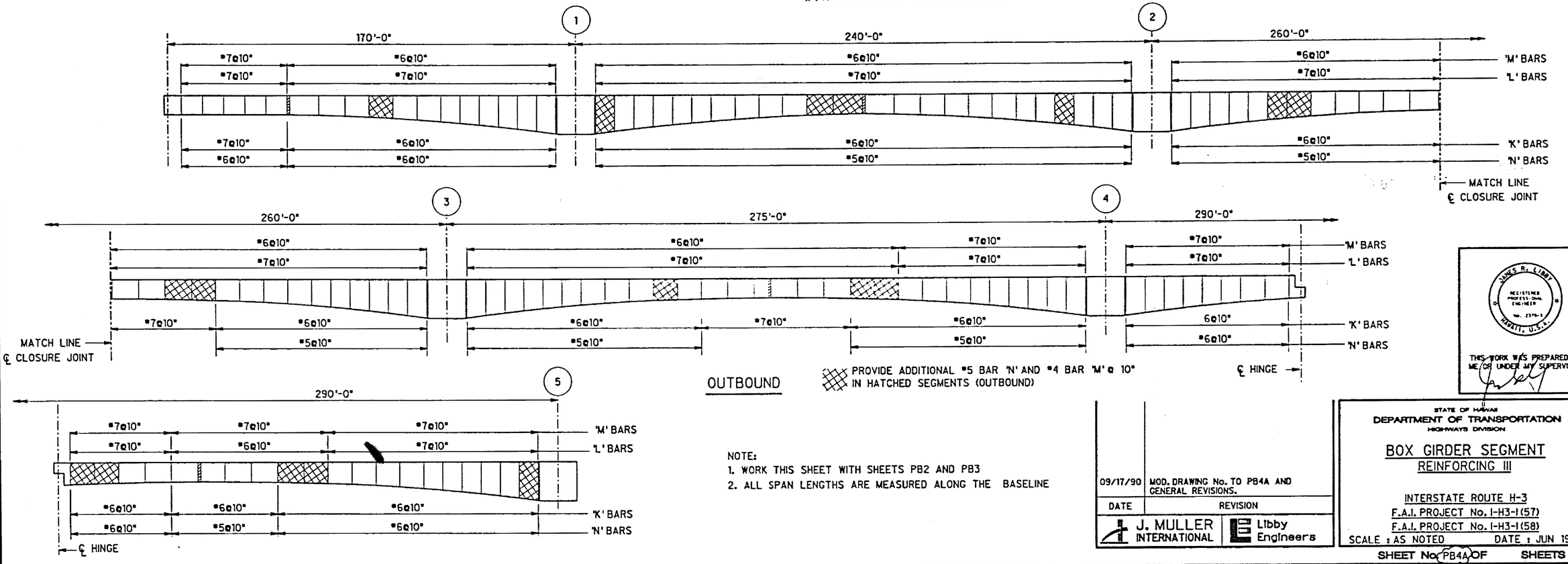
ORIGINAL PLANS | NOTE BOOK | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	123	274



INBOUND

▨ PROVIDE ADDITIONAL *5 BAR 'N' AND 'M' @ 10" IN HATCHED SEGMENTS (INBOUND)



OUTBOUND

▨ PROVIDE ADDITIONAL *5 BAR 'N' AND *4 BAR 'M' @ 10" IN HATCHED SEGMENTS (OUTBOUND)

NOTE:
1. WORK THIS SHEET WITH SHEETS PB2 AND PB3
2. ALL SPAN LENGTHS ARE MEASURED ALONG THE BASELINE

DATE	REVISION
09/17/90	MOD. DRAWING No. TO PB4A AND GENERAL REVISIONS.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2376-E — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BOX GIRDER SEGMENT
REINFORCING III

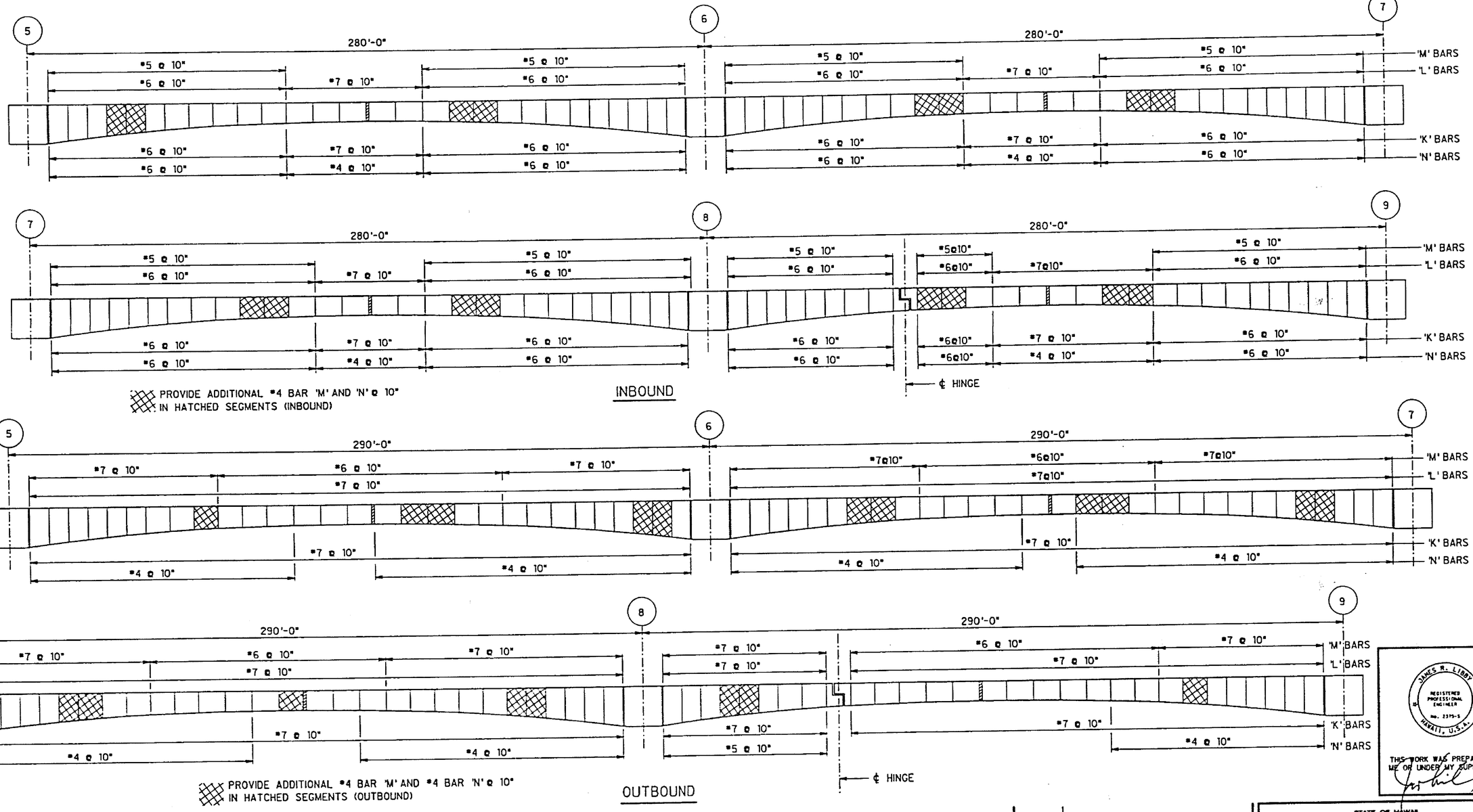
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN 1990

SHEET No. PB4A OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	124	274



NOTE:
1. WORK THIS SHEET WITH SHEETS PB2 AND PB3
2. ALL SPAN LENGTHS ARE MEASURED ALONG THE BASELINE

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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

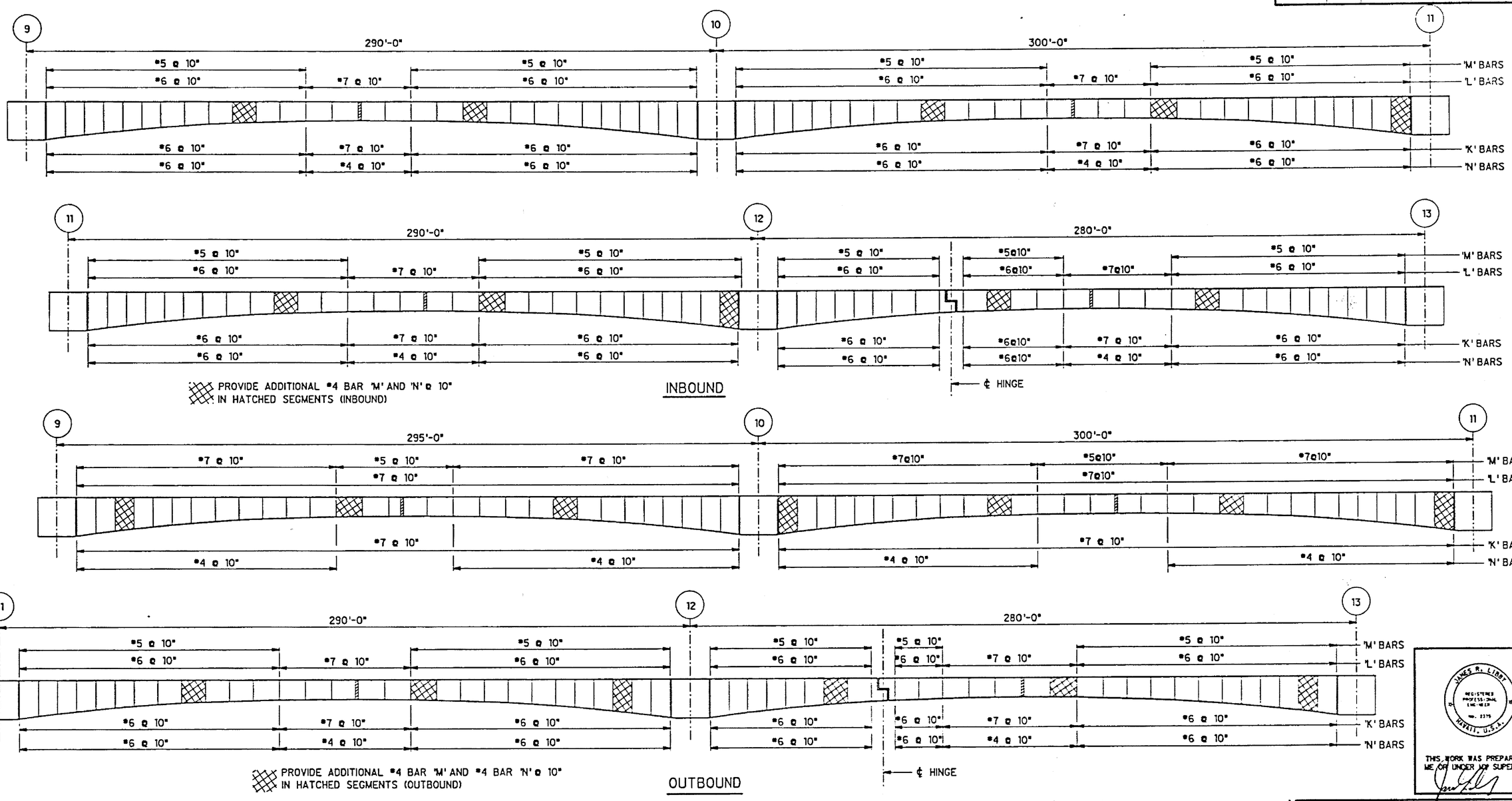
J. MULLER INTERNATIONAL
Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BOX GIRDER SEGMENT
REINFORCING IV

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990
SHEET No. PB4 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	125	274



NOTE:
1. WORK THIS SHEET WITH SHEETS PB2 AND PB3
2. ALL SPAN LENGTHS ARE MEASURED ALONG THE BASELINE
3. HATCHED SEGMENTS INDICATE FARADAY SHIELD SUPPORT LOCATIONS.

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

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER NO. 3379 HAWAII, U.S.A.

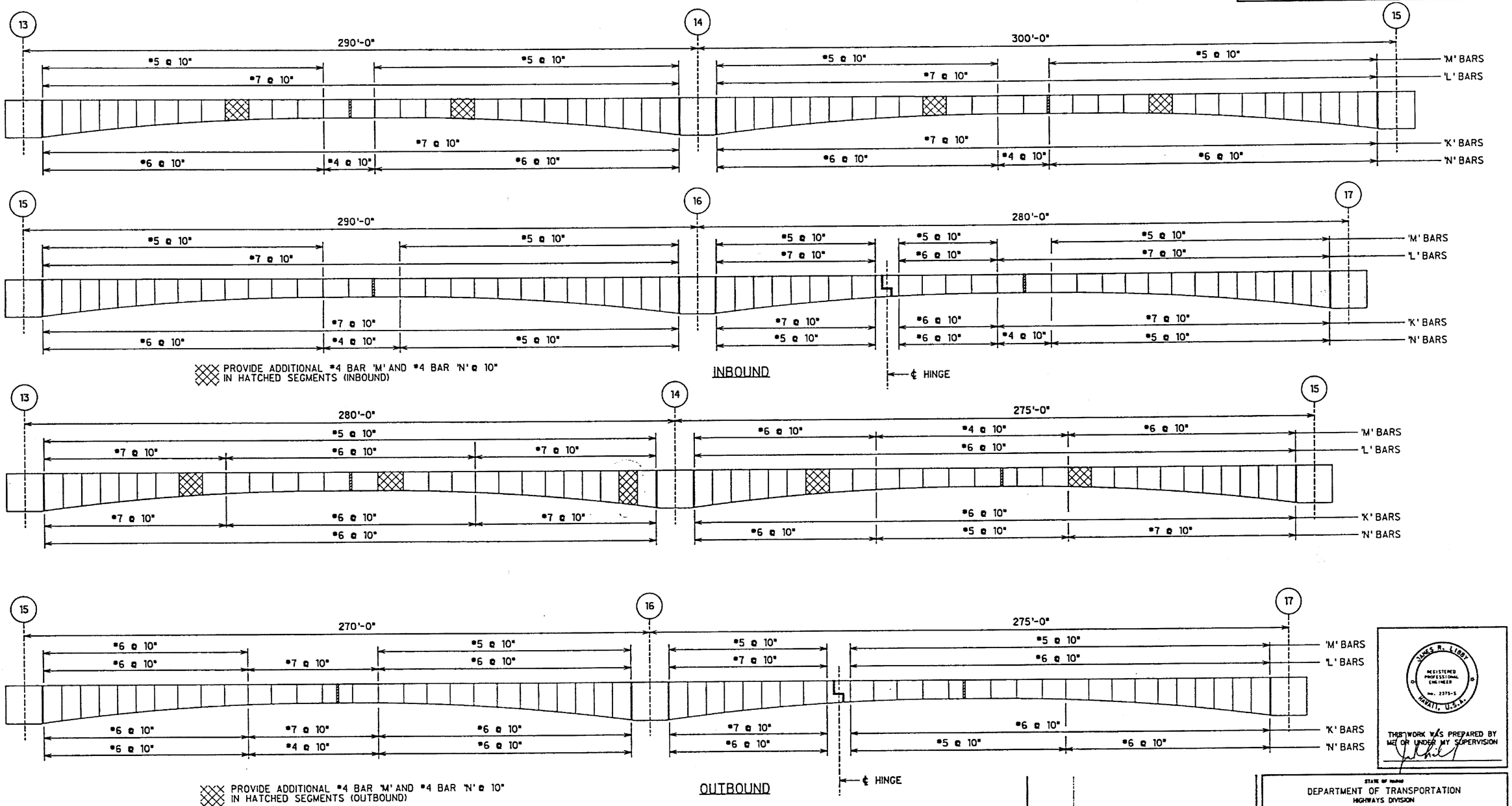
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BOX GIRDER SEGMENT
REINFORCING V

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990
SHEET No. PB4COF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	126	274



NOTE:
1. WORK THIS SHEET WITH SHEETS PB2 AND PB3.
2. ALL SPAN LENGTHS ARE MEASURED ALONG THE BASELINE.
3. HATCHED SEGMENTS INDICATE FARADAY SHIELD SUPPORT LOCATIONS.

DATE	REVISION
08/23/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2375-S — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

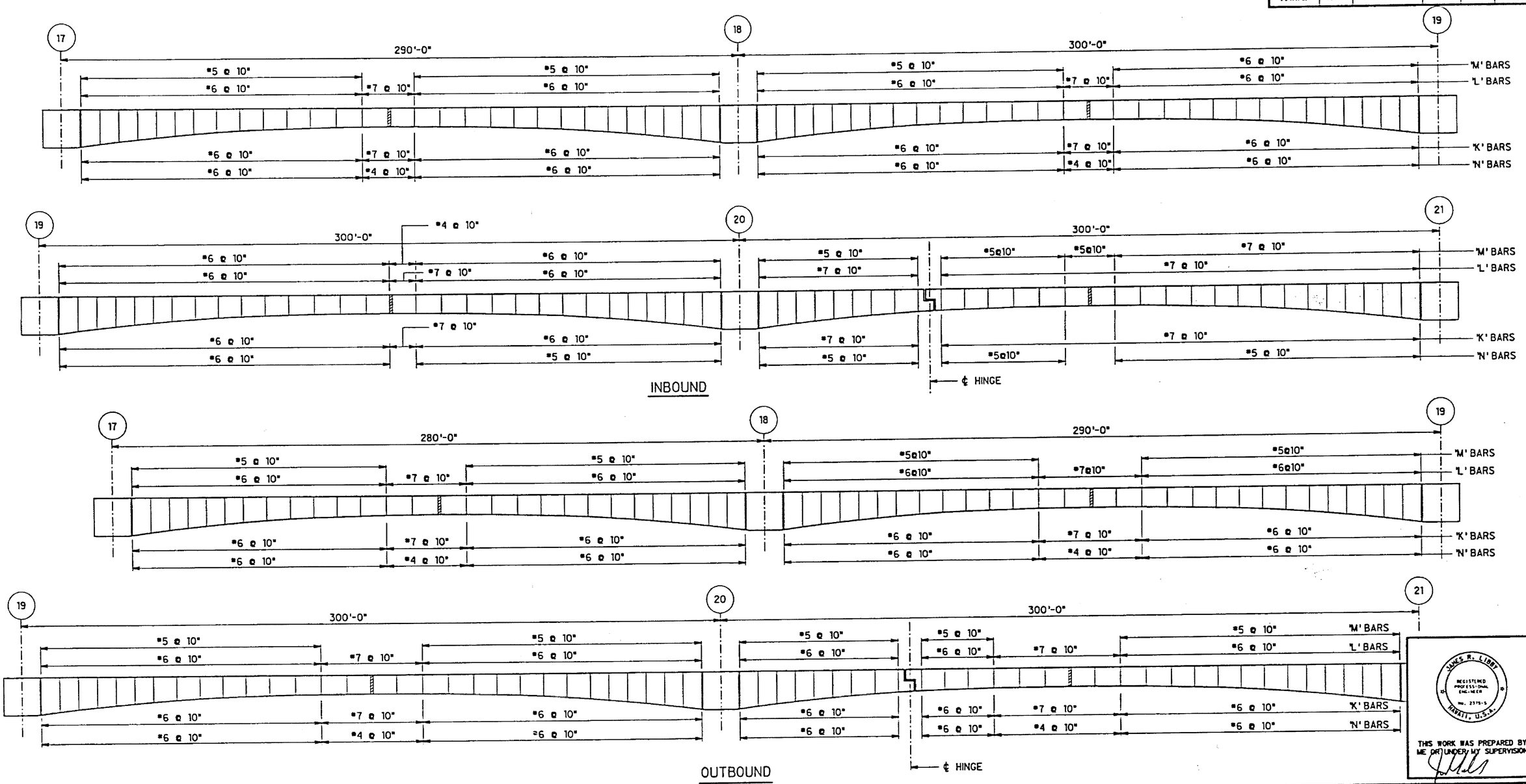
BOX GIRDER SEGMENT REINFORCING VI

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : APRIL 1991

SHEET NO. PB4D OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	127	274



NOTE:
1. WORK THIS SHEET WITH SHEETS PB2 AND PB3
2. ALL SPAN LENGTHS ARE MEASURED ALONG THE BASELINE

ORIGINAL PLAN

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

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

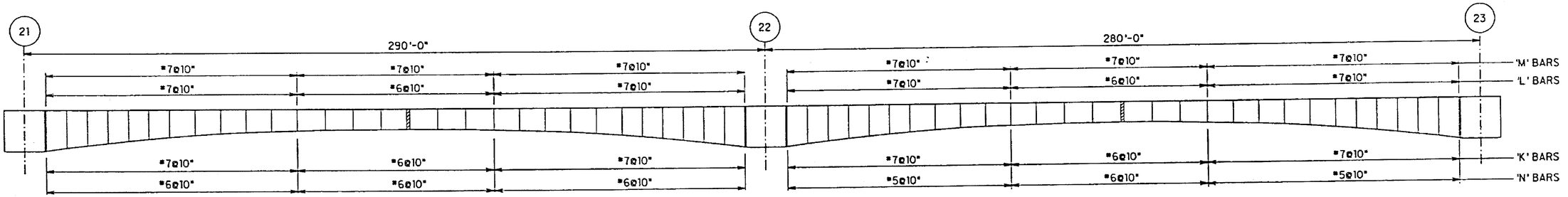
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

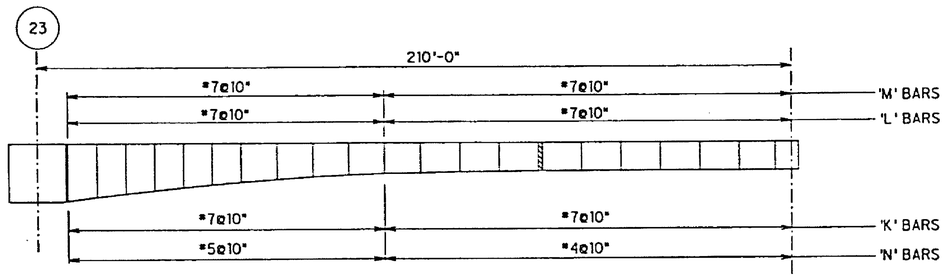
BOX GIRDER SEGMENT
REINFORCING VII

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : MAR. 1991

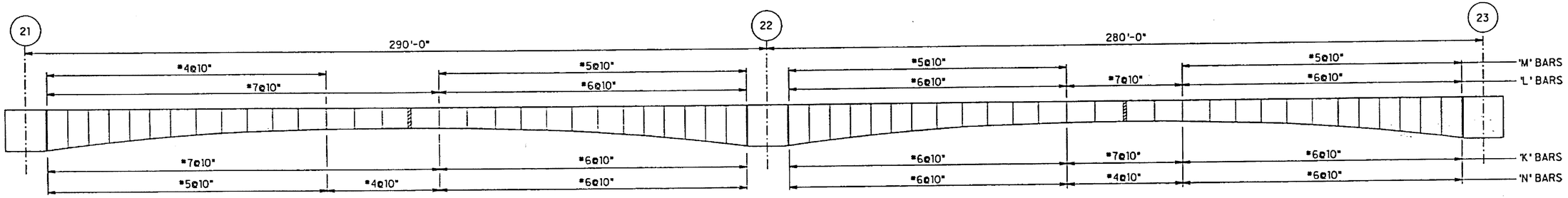
SHEET No. PB4 OF SHEETS

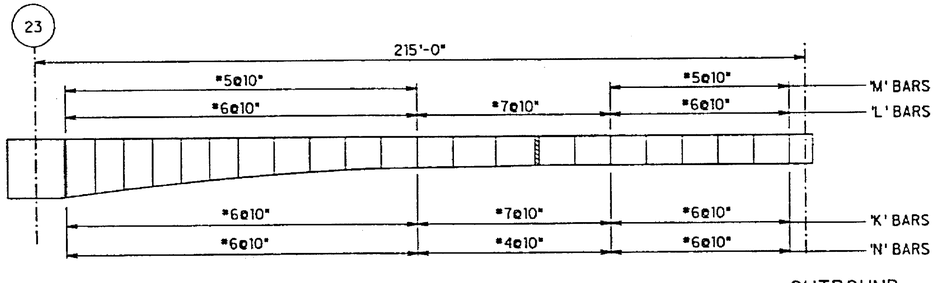
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	128	274





INBOUND





OUTBOUND

NOTE:
1. WORK THIS SHEET WITH SHEETS PB2 AND PB3
2. ALL SPAN LENGTHS ARE MEASURED ALONG THE BASELINE

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

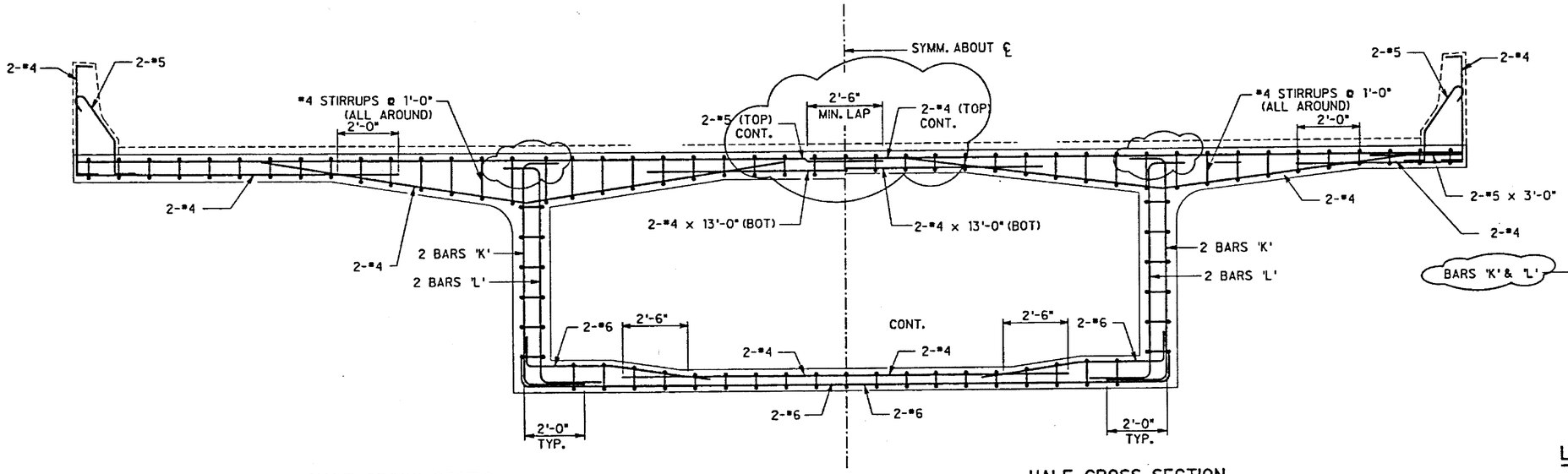
BOX GIRDER SEGMENT
REINFORCING VIII

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN 1991

SHEET No. PB4F OF SHEETS

SURVEY PLOTTED BY ____ DATE
DRAWN BY ____
TRACED BY ____
DESIGNED BY ____
NOTE BOOK ____
QUANTITIES 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(57)	1988	129	274



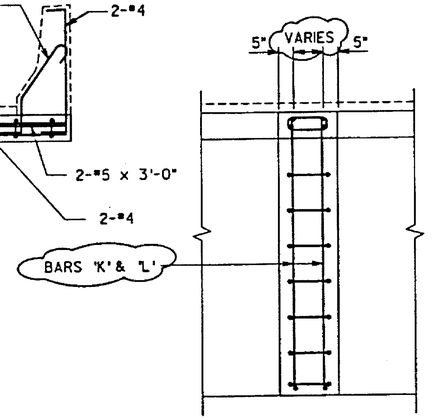
HALF CROSS-SECTION

FOR WIDTHS GREATER THAN 49'-1"
SCALE :½"=1'-0"

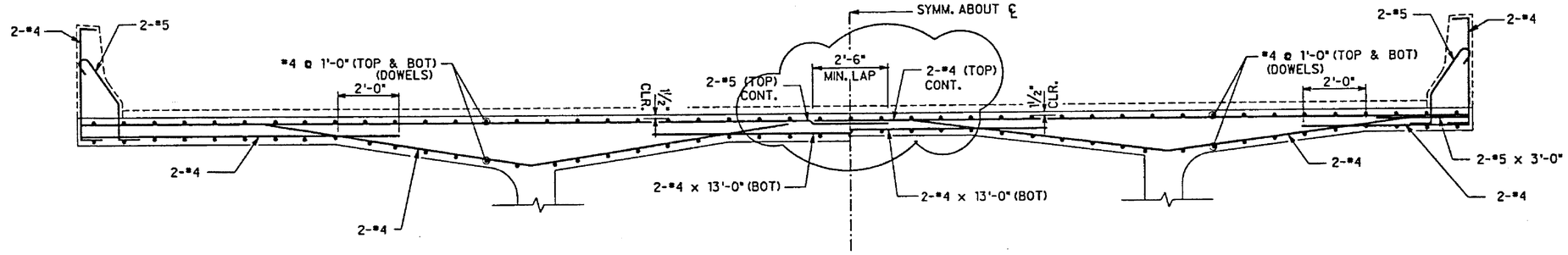
MIDSPAN CLOSURE JOINT

HALF CROSS-SECTION

FOR WIDTHS OF 49'-1" OR LESS
SCALE :½"=1'-0"



LONGITUDINAL ELEVATION

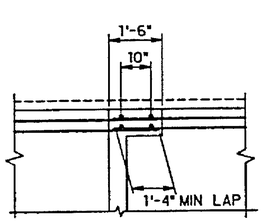


HALF CROSS-SECTION

FOR WIDTHS GREATER THAN 49'-1"
SCALE :½"=1'-0"

HALF CROSS-SECTION

FOR WIDTHS OF 49'-1" OR LESS
SCALE :½"=1'-0"



LONGITUDINAL ELEVATION

CLOSURE JOINT AT PIER

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
09/14/90	UPDATED DRAWING

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

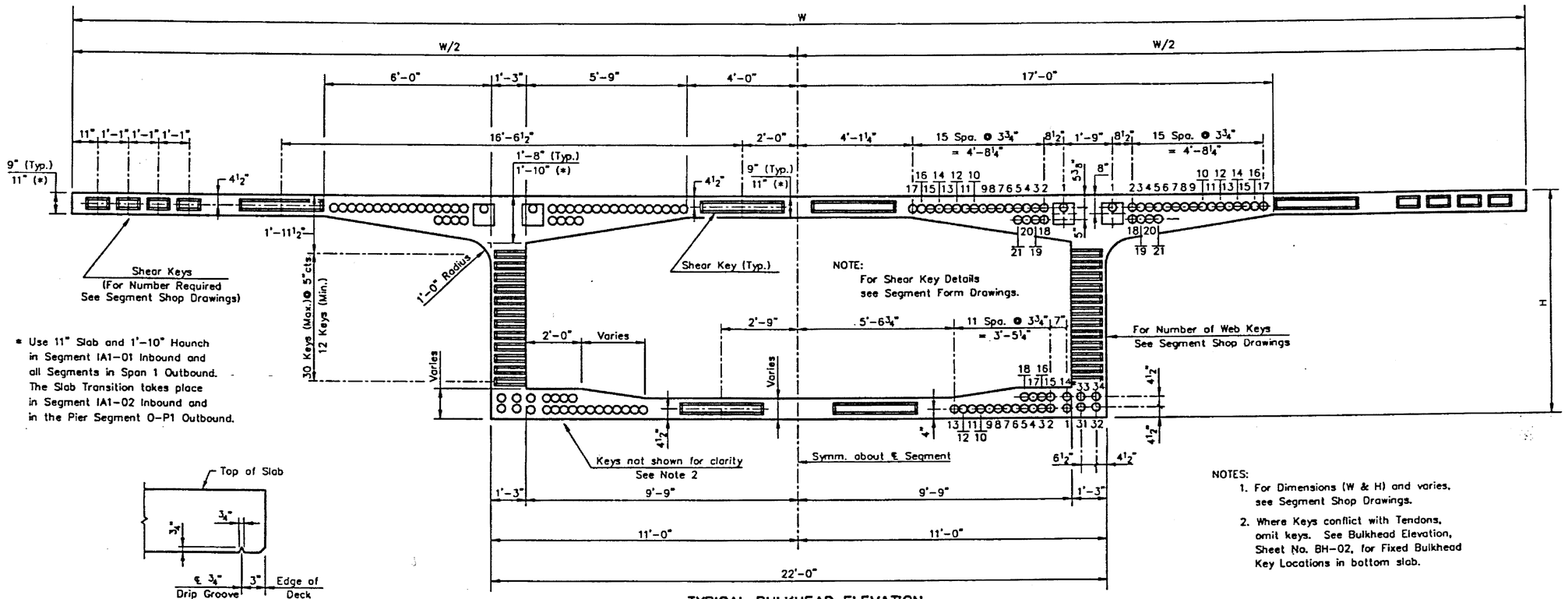
CLOSURE JOINT REINFORCING

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. PB5 OF SHEETS

129

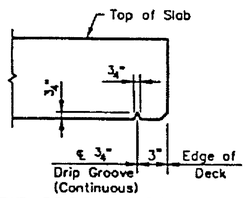
ORIGINAL PLAN | MYR BOOK
SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE
No.



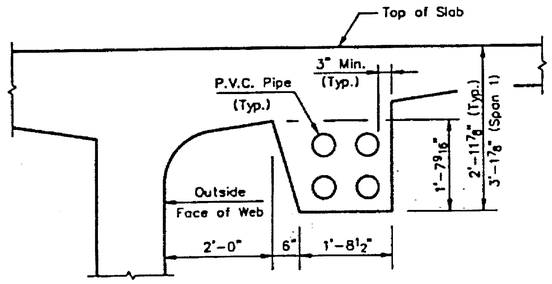
* Use 11" Slab and 1'-10" Haunch in Segment 1A1-01 Inbound and all Segments in Span 1 Outbound. The Slab Transition takes place in Segment 1A1-02 Inbound and in the Pier Segment 0-P1 Outbound.

TYPICAL BULKHEAD ELEVATION
MINIMUM DEPTH

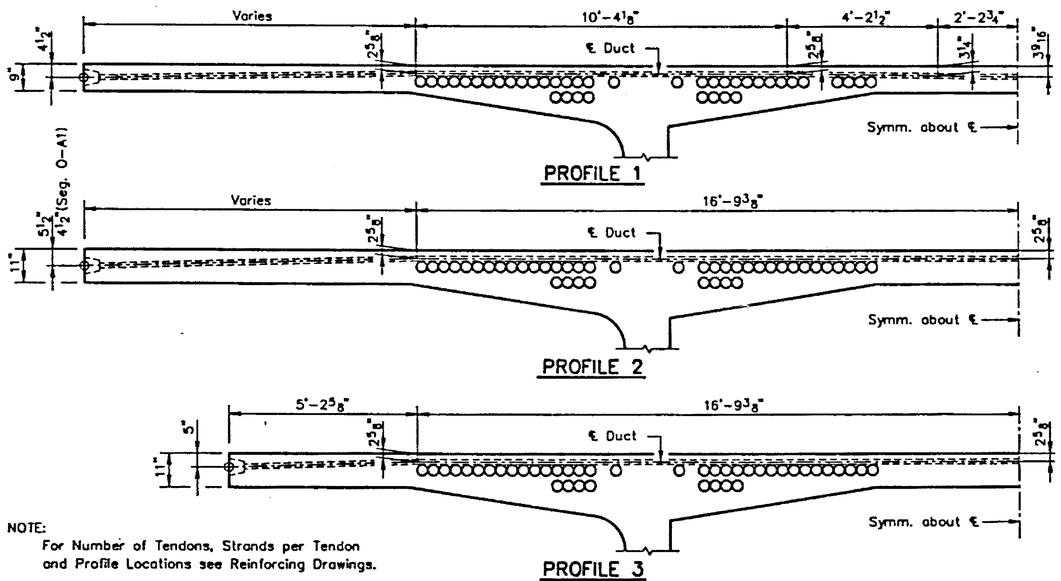
NOTES:
1. For Dimensions (W & H) and varies, see Segment Shop Drawings.
2. Where Keys conflict with Tendons, omit keys. See Bulkhead Elevation, Sheet No. BH-02, for Fixed Bulkhead Key Locations in bottom slab.



DRIP GROOVE DETAIL

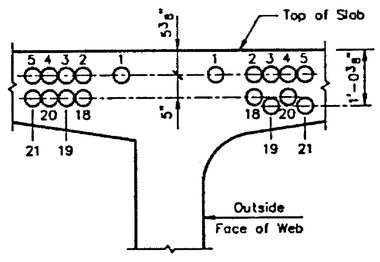


OUTBOUND WING DETAIL

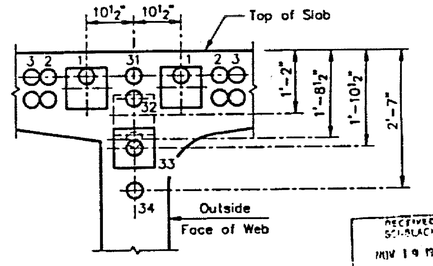


NOTE: For Number of Tendons, Strands per Tendon and Profile Locations see Reinforcing Drawings.

TRANSVERSE P.T. PROFILES



PARTIAL DETAIL AT PIERS



PARTIAL DETAIL AT HINGE CANTILEVER

PROJECT: H-3 WINDWARD VIADUCT Rev. 2

NO.	DATE	REVISION	BY	CKD
2	11/90	General Update	M.W.R.	J.A.L.
1	10/24/90	General Update	M.W.R.	J.A.L.

DESIGNED BY
DRAWN BY M.W.R. 8/90
CKD BY G.M.R. 8/90
APPVD BY
DATE

CLIENT: SCI/E.E. BLACK JOINT VENTURE

J. MULLER INTERNATIONAL, SAN DIEGO, CALIFORNIA

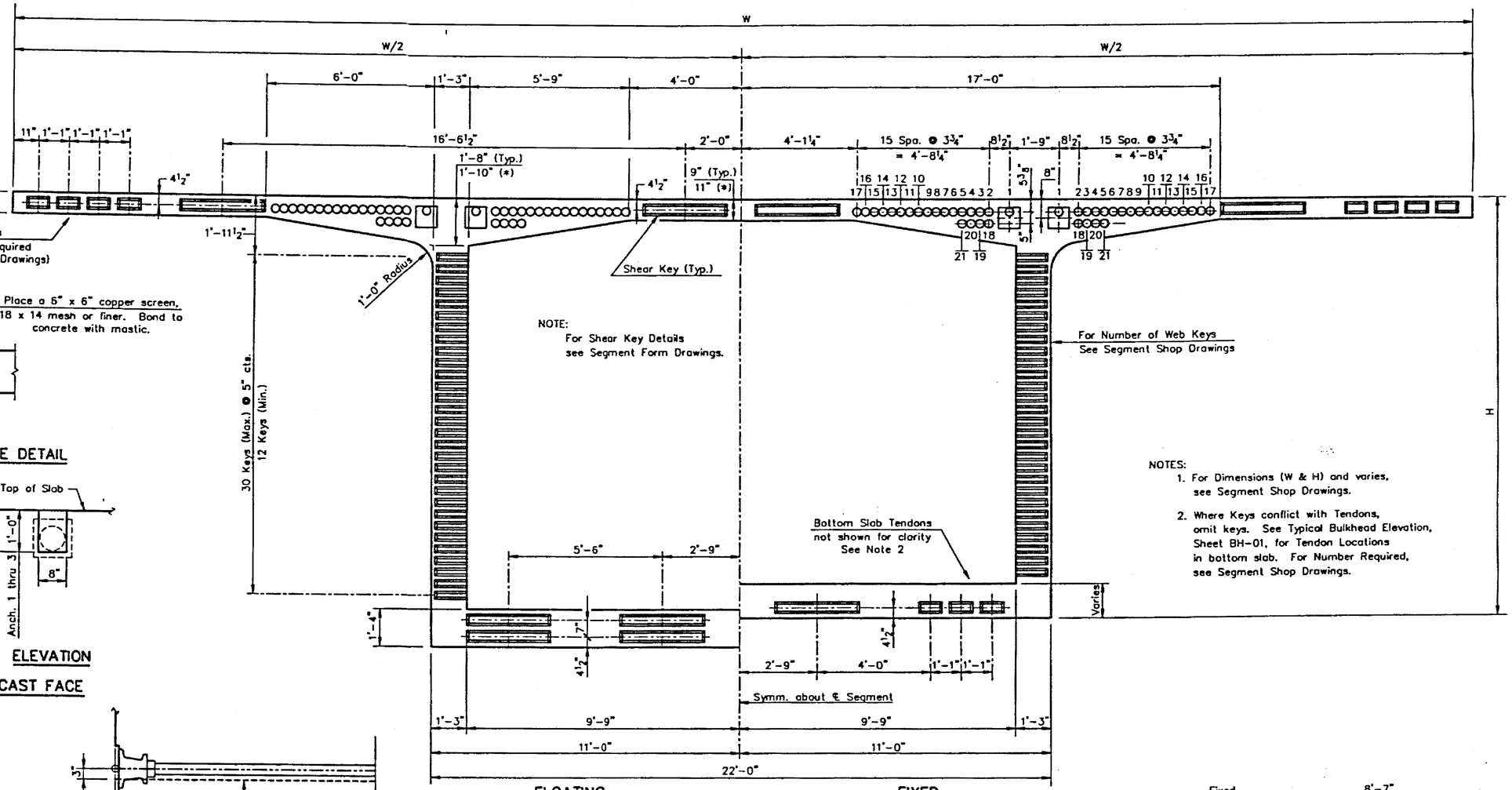
LoBuono, Armstrong & Associates, A DIVISION OF FREDERIC R. HARRIS, INC. San Pedro, California Tallahassee, Florida

SHEET TITLE: TYPICAL SEGMENT DIMENSIONS AND TENDON DUCT LOCATIONS 1 OF 2

SHEET BH-01 OF 2

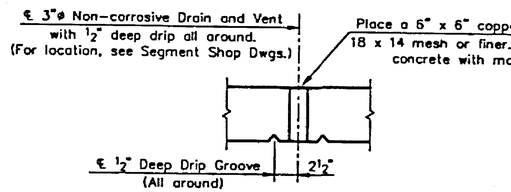
FILE: C:\CAD\PROJECTS\06223902\BH-0001 DATE: 11-16-1990 TIME: 23:27:12 CPU: HAL 2000

* Use 11" Slab and 1'-10" Haunch in Segment 1A1-01 Inbound and all Segments in Span 1 Outbound. The Slab Transition takes place in Segment 1A1-02 Inbound and in the Pier Segment 0-P1 Outbound.

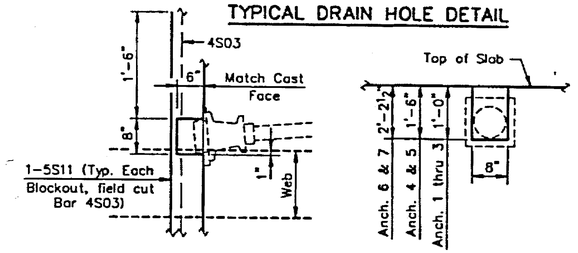


FLOATING

NOTES:
1. For Dimensions (W & H) and varies, see Segment Shop Drawings.
2. Where Keys conflict with Tendons, omit keys. See Typical Bulkhead Elevation, Sheet BH-01, for Tendon Locations in bottom slab. For Number Required, see Segment Shop Drawings.

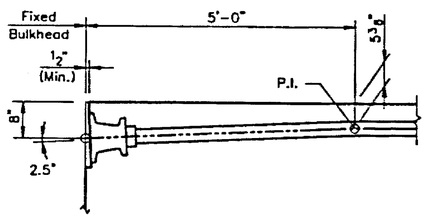


TYPICAL DRAIN HOLE DETAIL

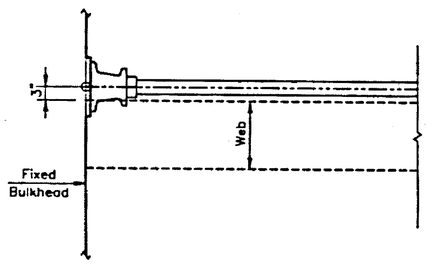


PLAN ELEVATION

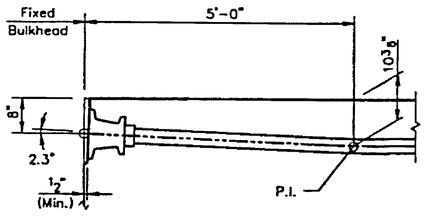
BLOCKOUT – MATCH CAST FACE



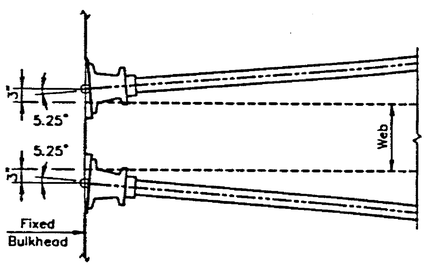
SECTION – ANCHORAGES 1 & 2



PLAN – ANCHORAGE 1

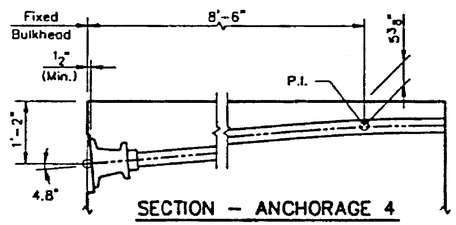


SECTION – ANCHORAGE 3

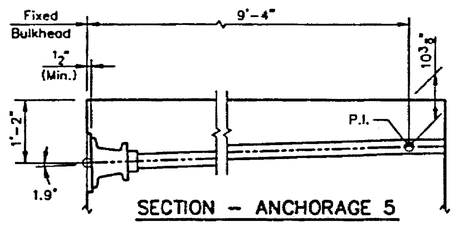


PLAN – ANCHORAGES 2 & 3

BULKHEAD ELEVATION

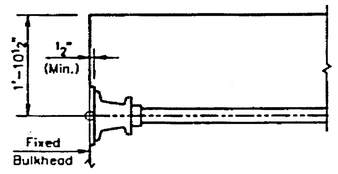


SECTION – ANCHORAGE 4

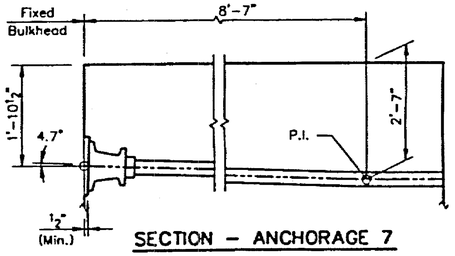


SECTION – ANCHORAGE 5

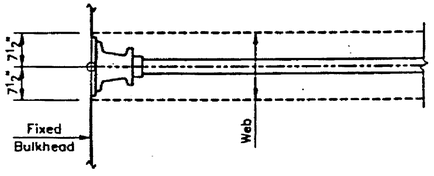
FIXED



SECTION – ANCHORAGE 6



SECTION – ANCHORAGE 7



PLAN – ANCHORAGES 4 THRU 7

NOTE: Use 30'-0" Minimum Tendon Radius, unless otherwise noted. (Typ.)

For Anchorage Type required, See Segment Shop Drawings.

RECEIVED SCI-B.A.C. NOV 19

PROJECT: H-3 WINDWARD VIADUCT Rev. 2

NO.	DATE	REVISION	BY	CKD
2	11/90	General Update	M.W.R.	J.A.L.
1	10/24/90	General Update	M.W.R.	J.A.L.

DESIGNED BY M.W.R. 8/90
DRAWN BY
CKD BY G.M.R. 8/90
APPROVED BY
DATE

CLIENT: SCI/E.E. BLACK JOINT VENTURE

J. MULLER INTERNATIONAL SAN DIEGO, CALIFORNIA

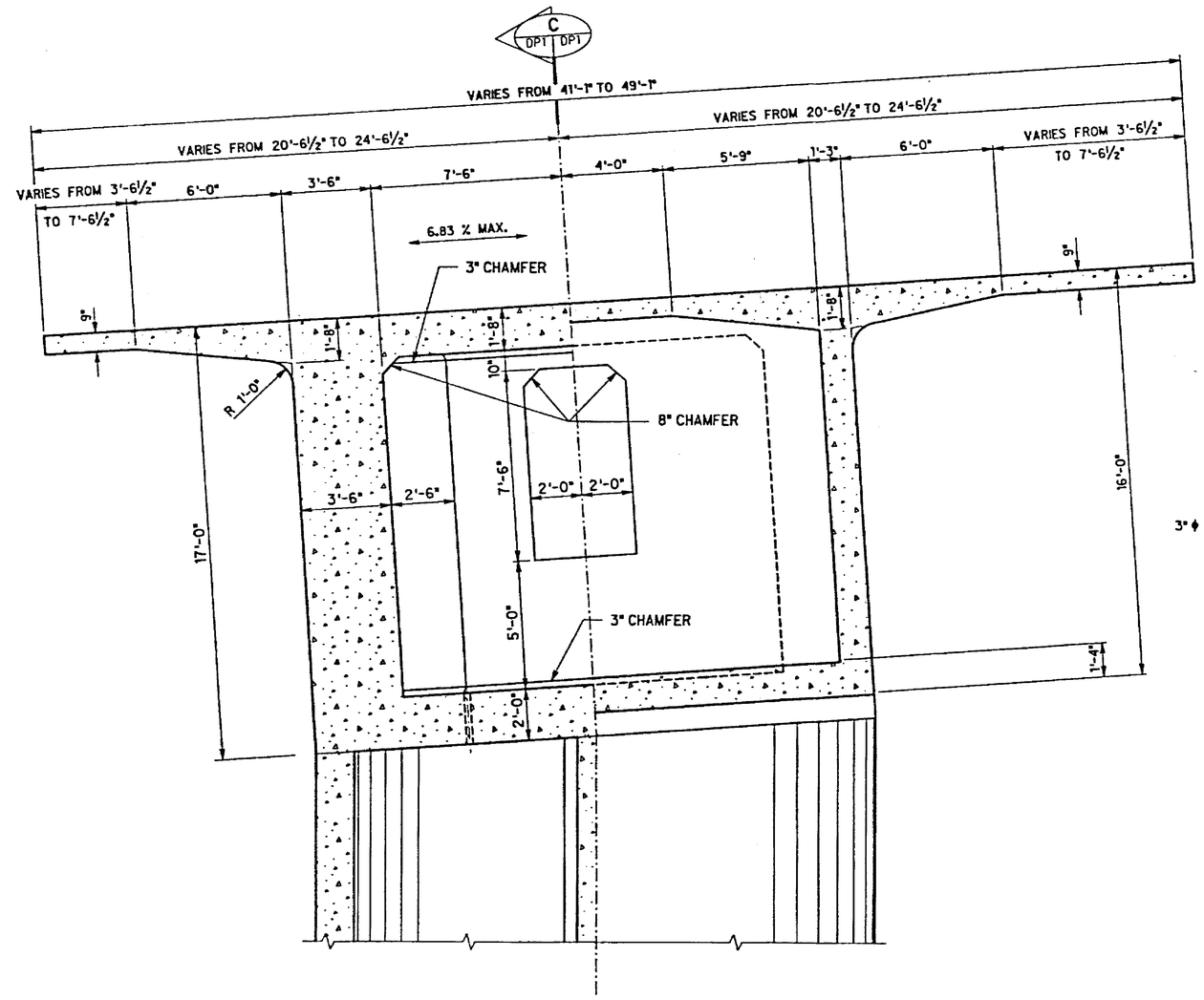
LoBuono, Armstrong & Associates A DIVISION OF FREDERIC R. HARRIS, INC. San Pedro, California Tallahassee, Florida

SHEET TITLE: TYPICAL SEGMENT DIMENSIONS AND TENDON DUCT LOCATIONS 2 OF 2

SHEET BH-02 OF 2

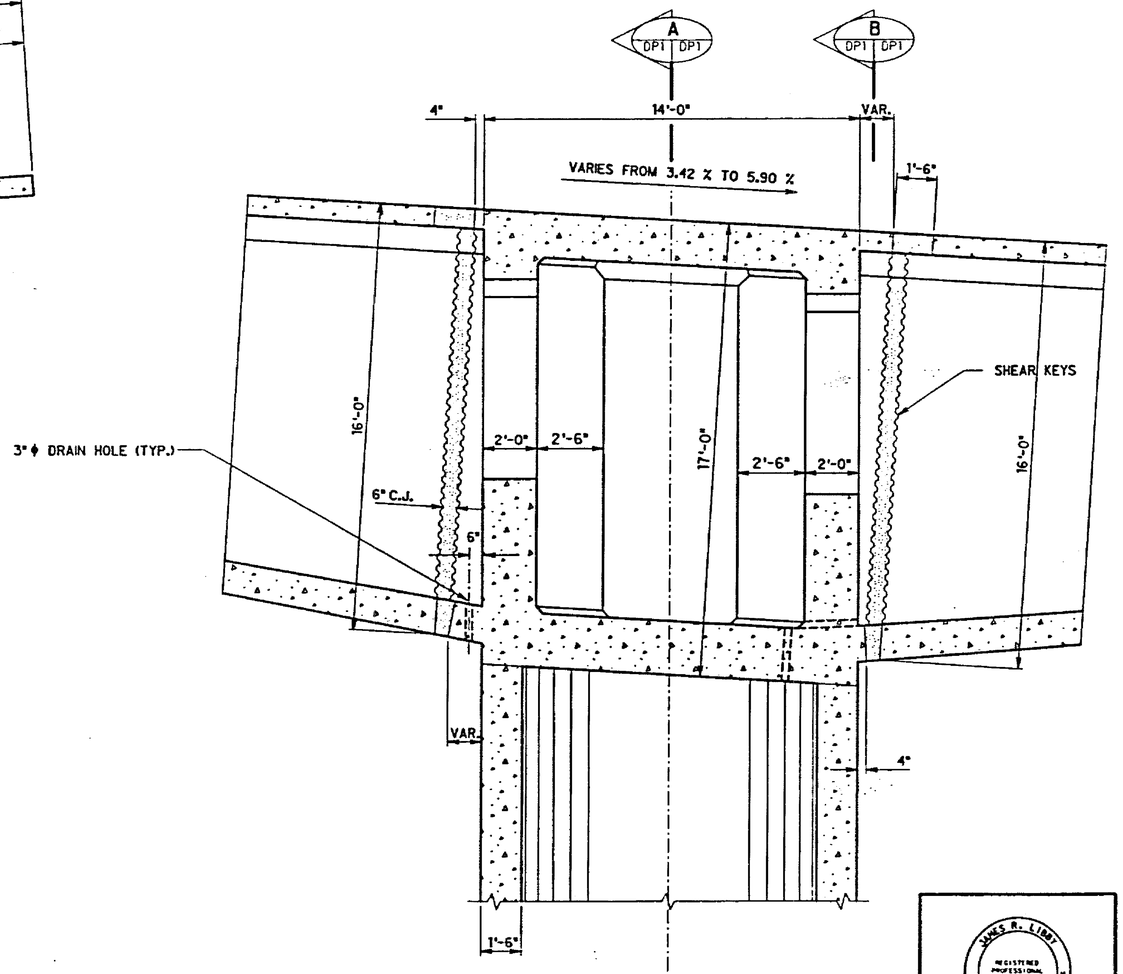
FILE: C:\CAD\PROJECTS\06223902\BH-0002 DATE: 11-16-1990 TIME: 23:41:18 CPU: HAL 2000

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	132	274



HALF SECTION A (DP1 | DP1)
SCALE : 3/8" = 1'-0"
SHOWING 20'-6½"

HALF SECTION B (DP1 | DP1)
SCALE : 3/8" = 1'-0"
SHOWING 24'-6½"



SECTION C (DP1 | DP1)
SCALE : 3/8" = 1'-0"

NOTE : TOP SLAB THICKNESS VARIES FROM 9" TO 11" AT OUTBOUND PIER 1 (SEE SHEET No. PB1)
FOR DRAIN HOLE DETAIL SEE SHEET PB1
FOR DETAILS OF CONNECTION AT CLOSURE JOINT SEE SHEET PB5

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

JAMES R. LIMA
REGISTERED PROFESSIONAL ENGINEER
No. 2575
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
04/05/91	UPDATED TITLE AND SHEET NO.

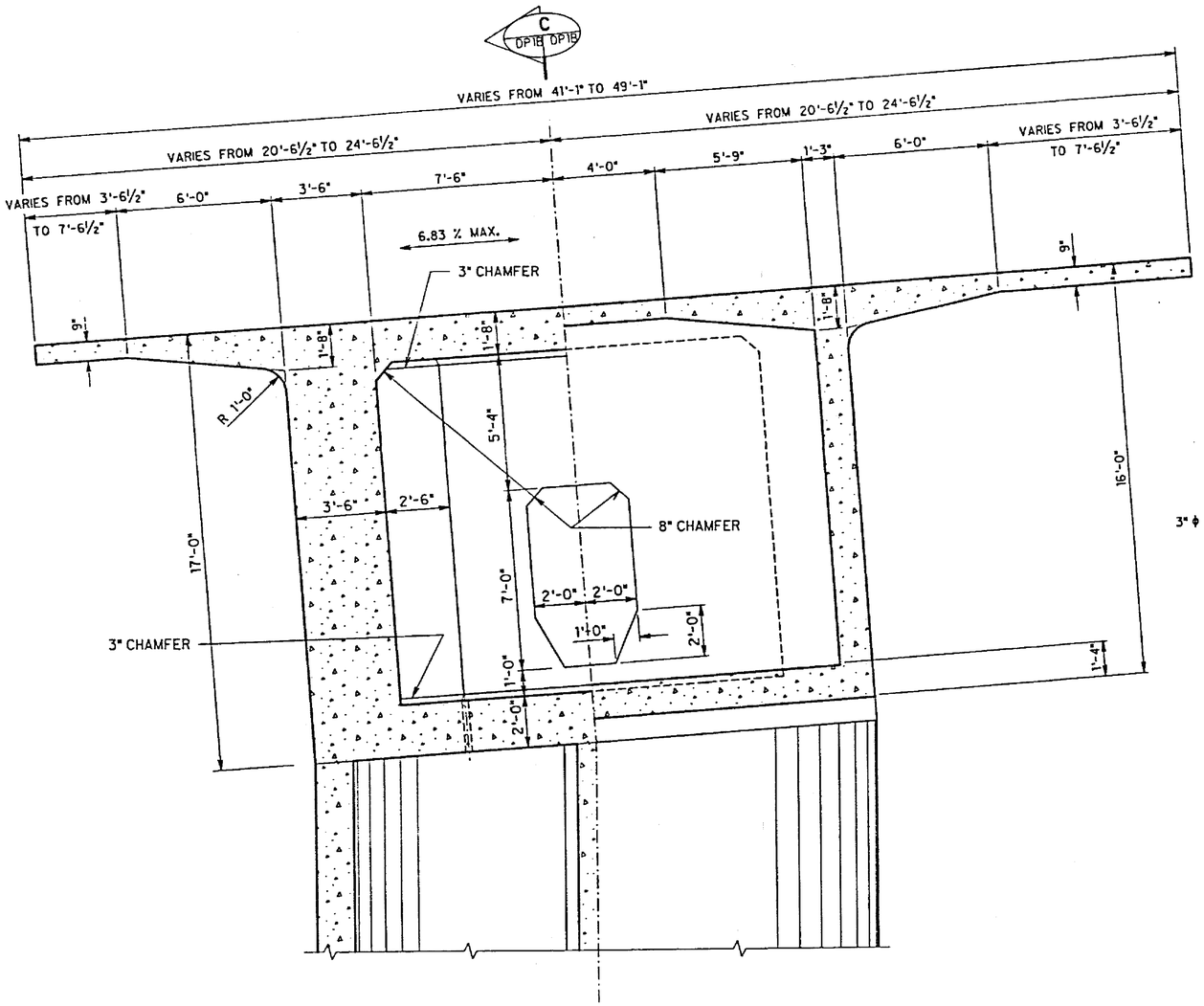
J. MULLER INTERNATIONAL | Libby Engineers

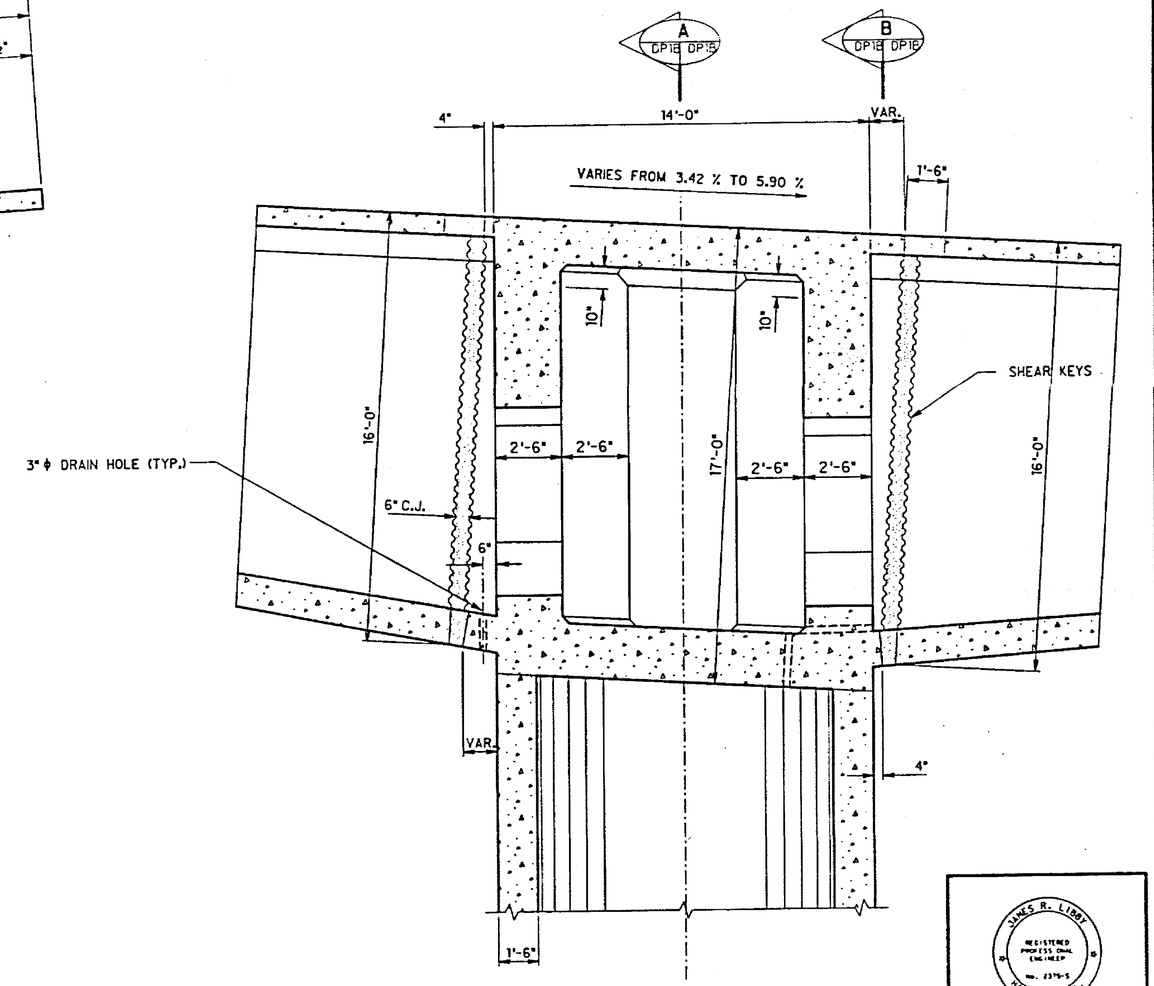
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FIXED PIER SEGMENT DIMENSIONS (TYPE I)

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990
SHEET No. DP1A OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	133	274





HALF SECTION A DP1B DP1B
3/8" = 1'-0"
SHOWING 20'-6½"

HALF SECTION B DP1B DP1B
3/8" = 1'-0"
SHOWING 24'-6½"

SECTION C DP1B DP1B
3/8" = 1'-0"

SEE SHEET PS1 FOR LOCATION OF TYPE II PIER SEGMENTS
FOR DRAIN HOLE DETAIL SEE SHEET PB1
FOR DETAILS OF CONNECTION AT CLOSURE JOINT SEE SHEET PB5

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 3379-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

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

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

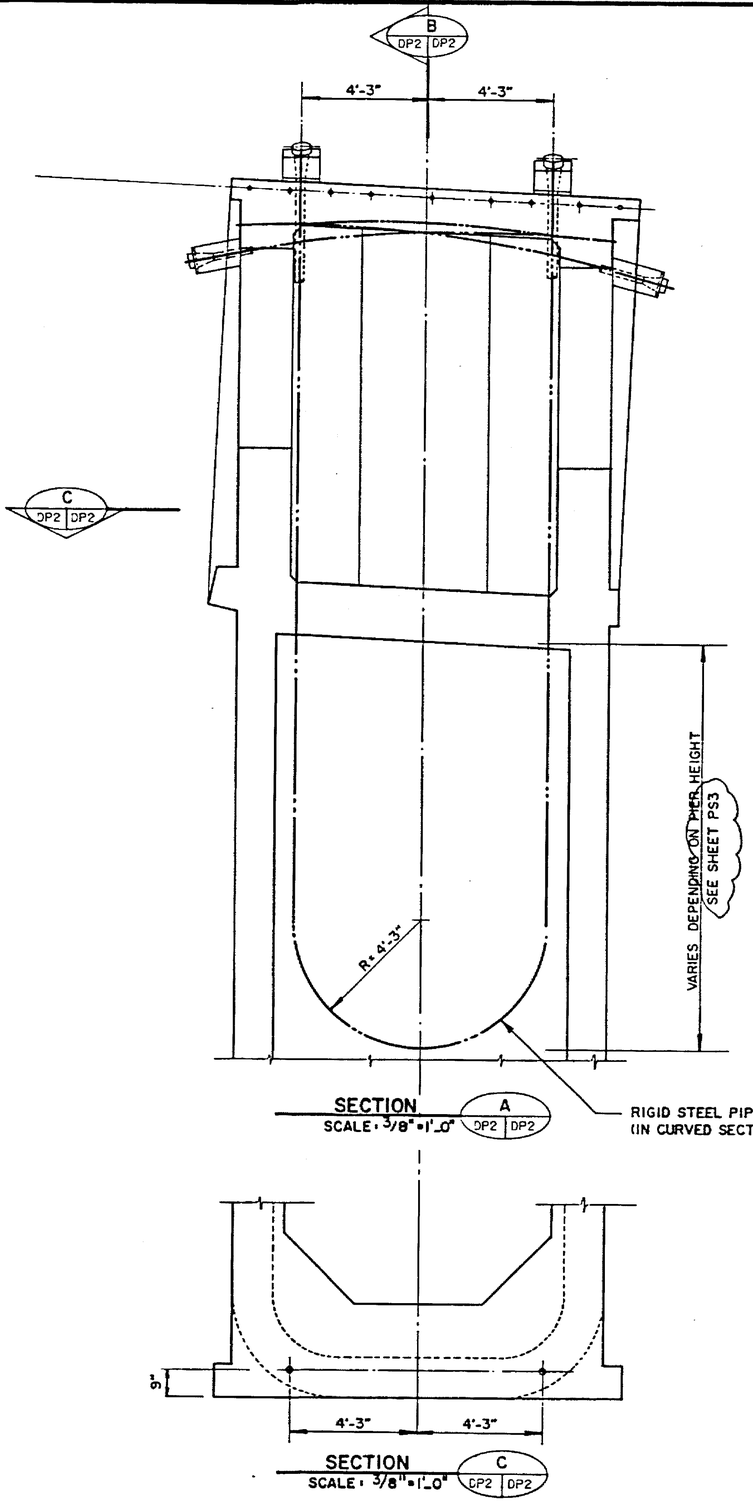
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FIXED PIER SEGMENT DIMENSIONS TYPE II

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : MARCH 1991

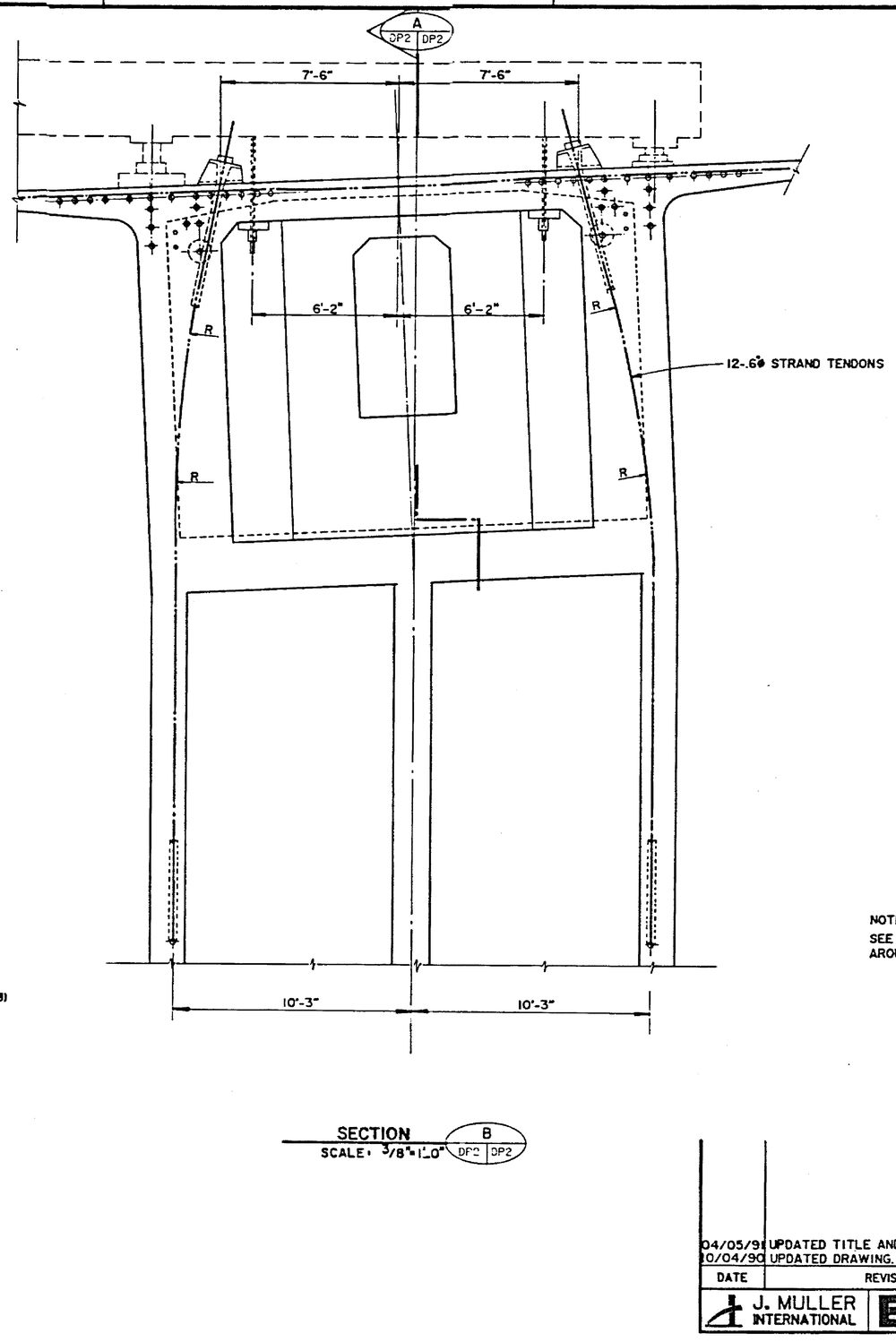
SHEET No. DP1B OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	134	274



SECTION A
SCALE: 3/8"=1'-0" DP2 DP2

SECTION C
SCALE: 3/8"=1'-0" DP2 DP2



SECTION B
SCALE: 3/8"=1'-0" DP2 DP2

NOTE:
SEE SHEET NO. PS3 FOR REINFORCING AROUND CURVED TENDON

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2379-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
04/05/91	UPDATED TITLE AND SHEET NO.
10/04/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FIXED PIER SEGMENT P.T. DETAILS

TYPE 1

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

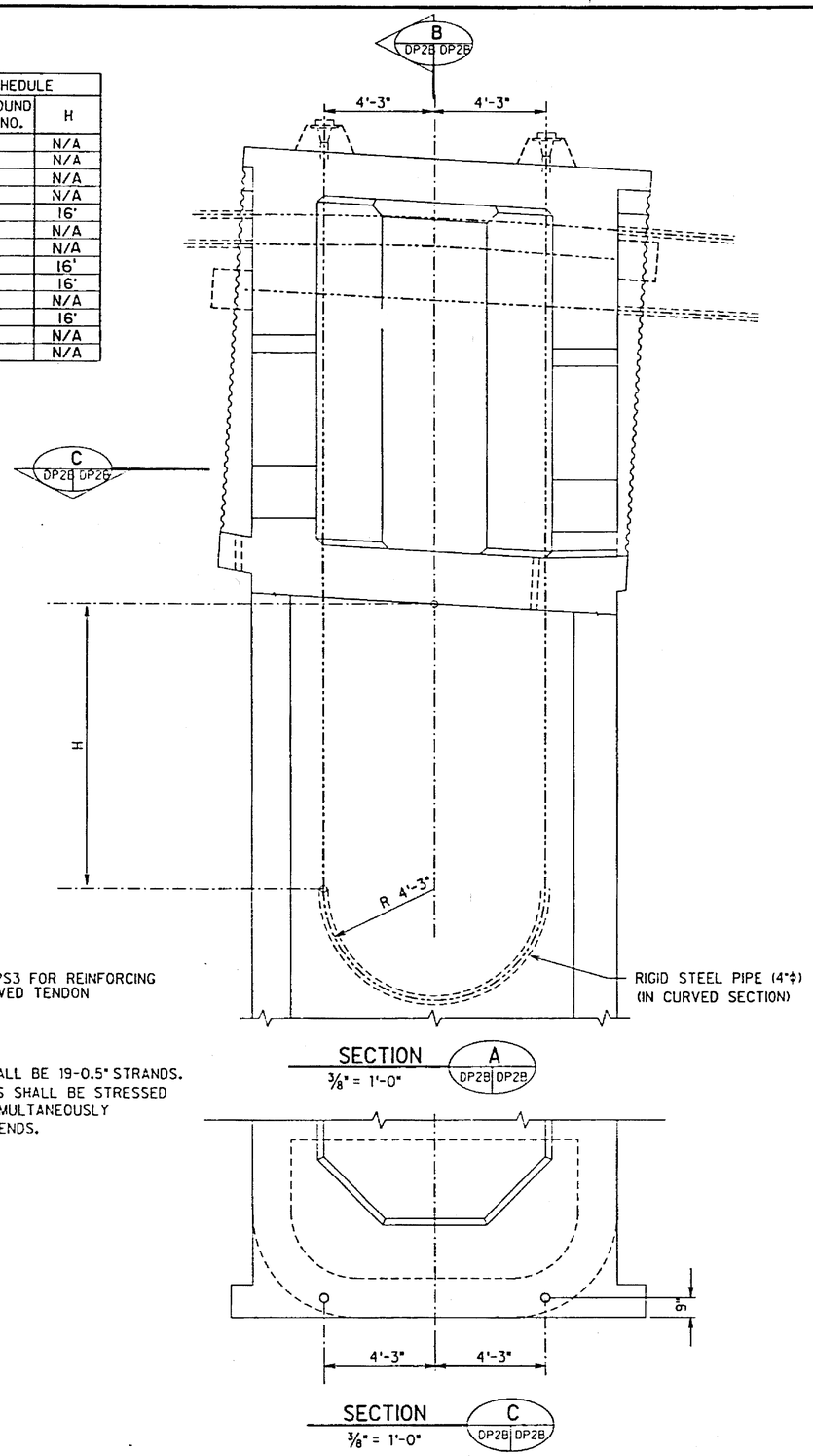
SCALE : AS NOTED DATE : JUN. 1990

SHEET NO. DP2A OF SHEETS

ORIGINAL PLAN | NOT IN MINK | No. | DATE
MYLAR PLOTTED BY
DRAWN BY
TRACED 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(57)	1988	135	274

FIXED PIER TENDON SCHEDULE			
INBOUND PIER NO.	H	OUTBOUND PIER NO.	H
6	N/A	6	N/A
7	N/A	7	N/A
9	16'	9	N/A
10	N/A	10	N/A
11	16'	11	16'
14	N/A	14	N/A
15	N/A	15	N/A
16	N/A	16	16'
18	16'	18	16'
19	16'	19	N/A
20	16'	20	16'
21	N/A	21	N/A
22	N/A	22	N/A

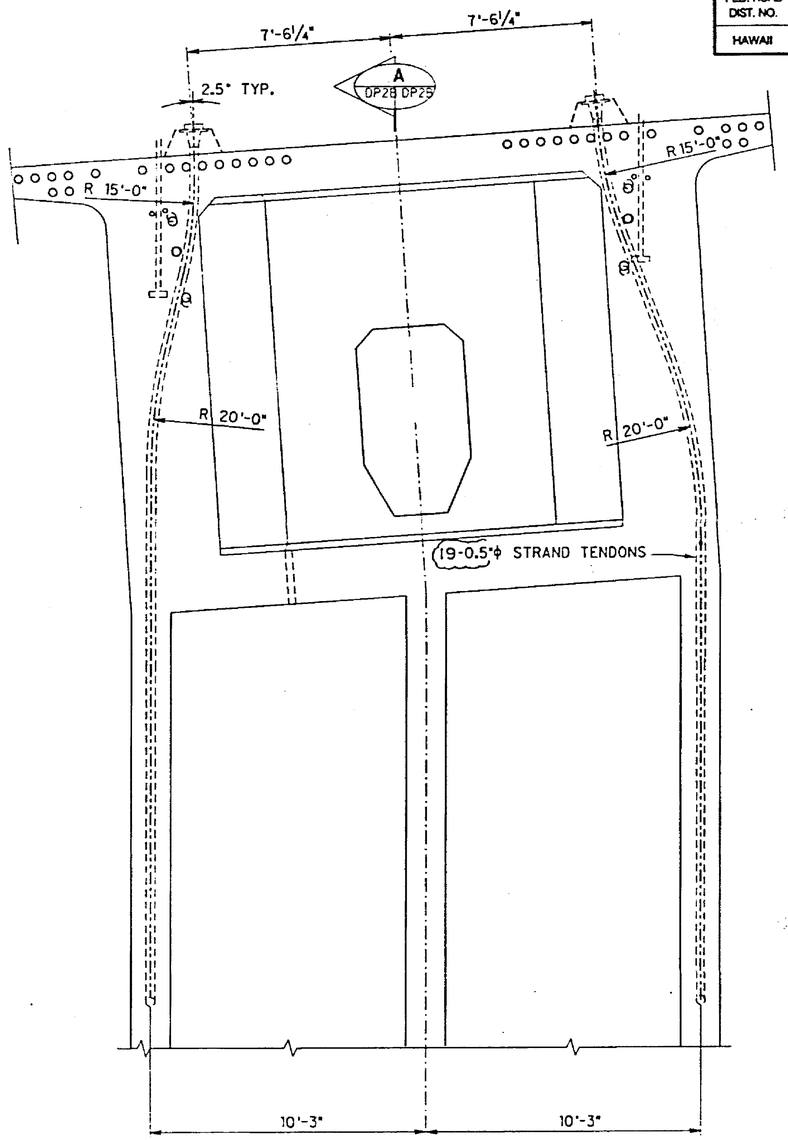


NOTE:
SEE SHEET PS3 FOR REINFORCING AROUND CURVED TENDON

TENDONS SHALL BE 19-0.5" STRANDS. THE TENDONS SHALL BE STRESSED TO 628 K SIMULTANEOUSLY FROM BOTH ENDS.

SECTION A
3/8" = 1'-0"
DP28 DP28

SECTION C
3/8" = 1'-0"
DP28 DP28



SECTION B
3/8" = 1'-0"
DP28 DP28

DATE	REVISION
07/02/91	UPDATED DRAWING.
05/03/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FIXED PIER SEGMENT
P.T. DETAILS
TYPE II

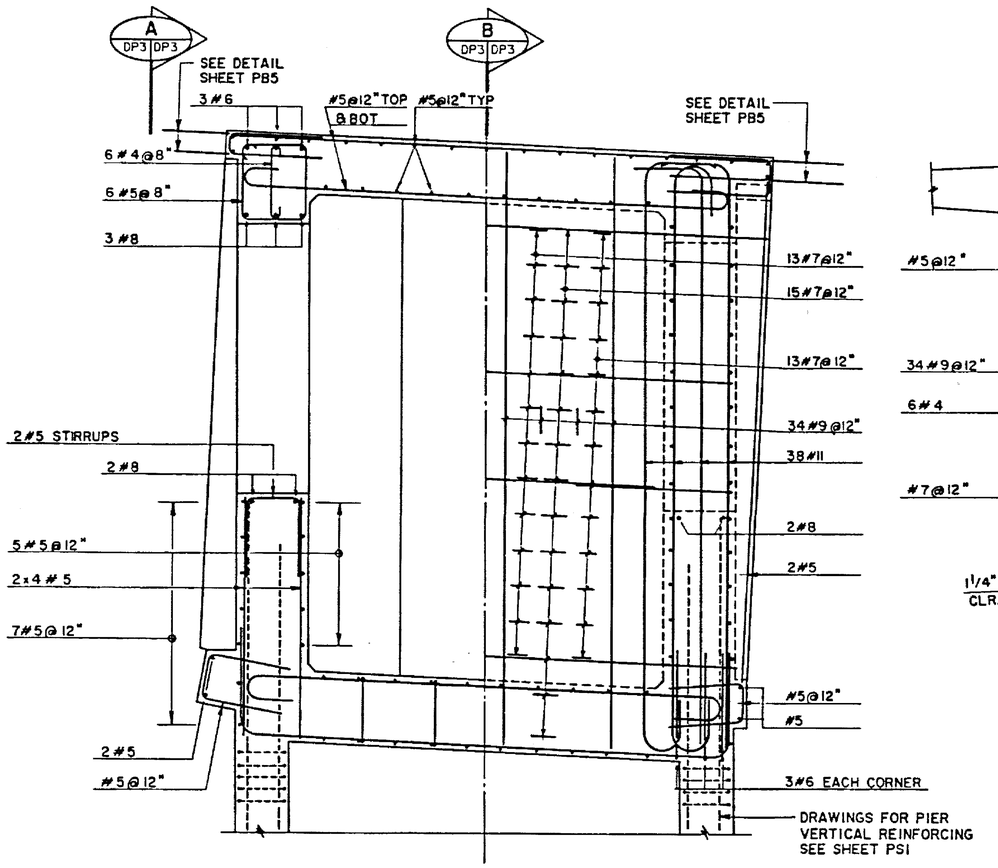
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

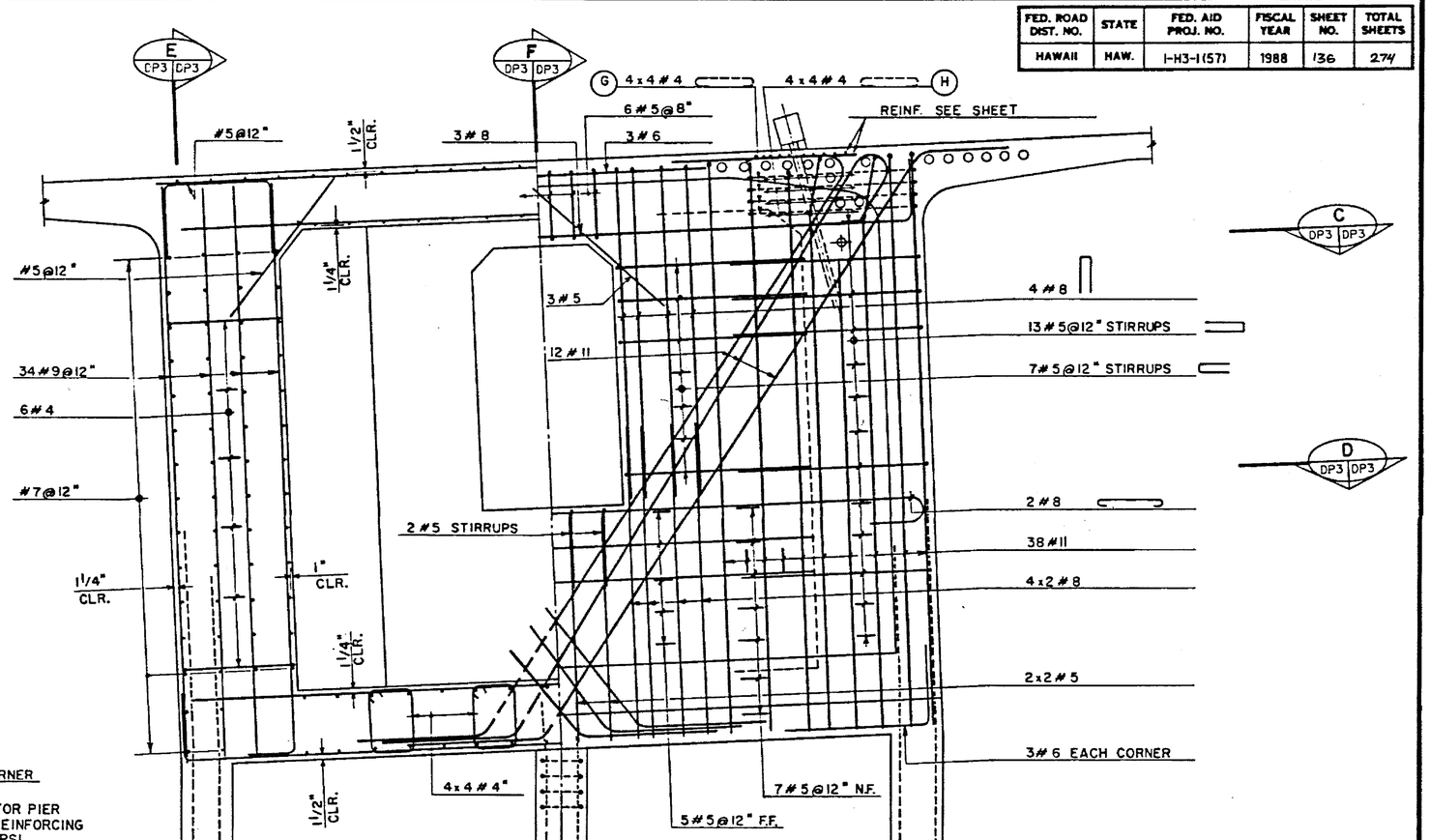
SCALE : AS NOTED DATE : MAR 1991

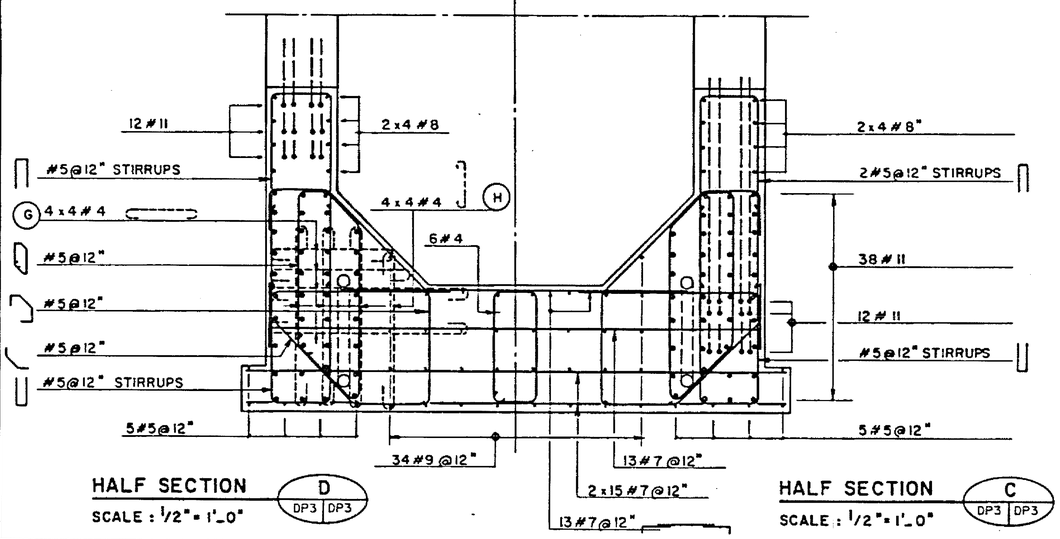
SHEET No. DP2B OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	136	274







HALF SECTION F DP3 DP3
SCALE : ½"=1'-0"

HALF SECTION E DP3 DP3
SCALE : ½"=1'-0"

HALF SECTION D DP3 DP3
SCALE : ½"=1'-0"

HALF SECTION C DP3 DP3
SCALE : ½"=1'-0"

HALF SECTION B DP3 DP3
SCALE : ½"=1'-0"

HALF SECTION A DP3 DP3
SCALE : ½"=1'-0"

NOTE:
FOR ELECTRICAL MANHOLE DETAILS SEE SHEET ED1

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

DATE	REVISION
04/05/91	UPDATED TITLE AND SHEET NO.

J. MULLER INTERNATIONAL
Libby Engineers

JAMES R. LIBBY HAWAII U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

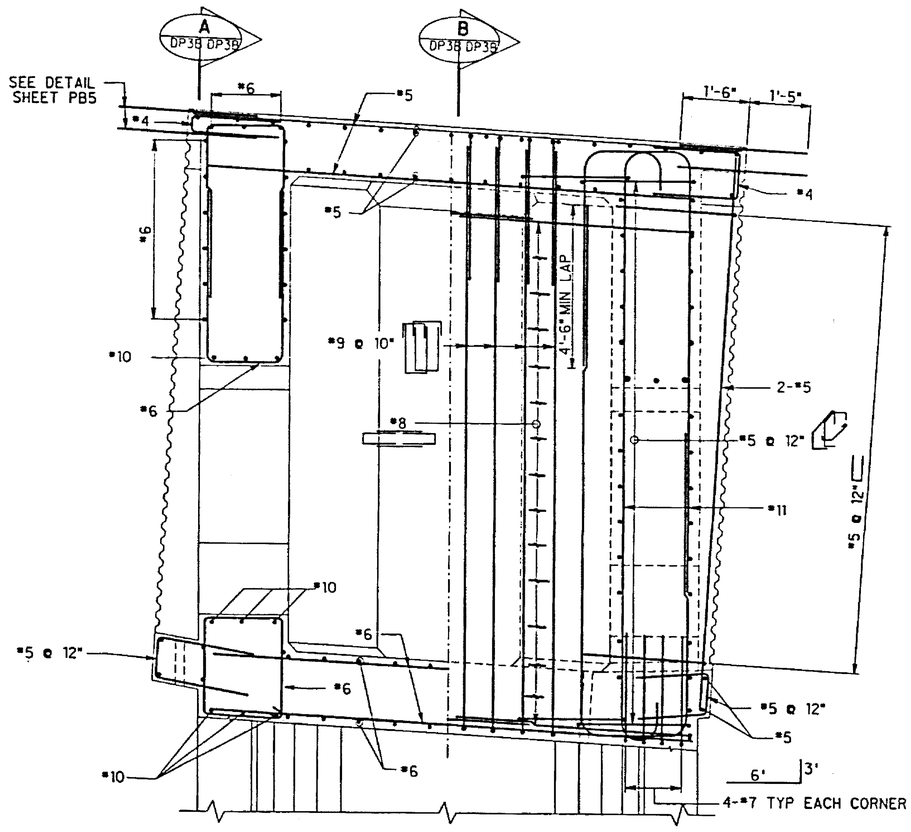
FIXED PIER SEGMENT REINFORCING (TYPE 1)

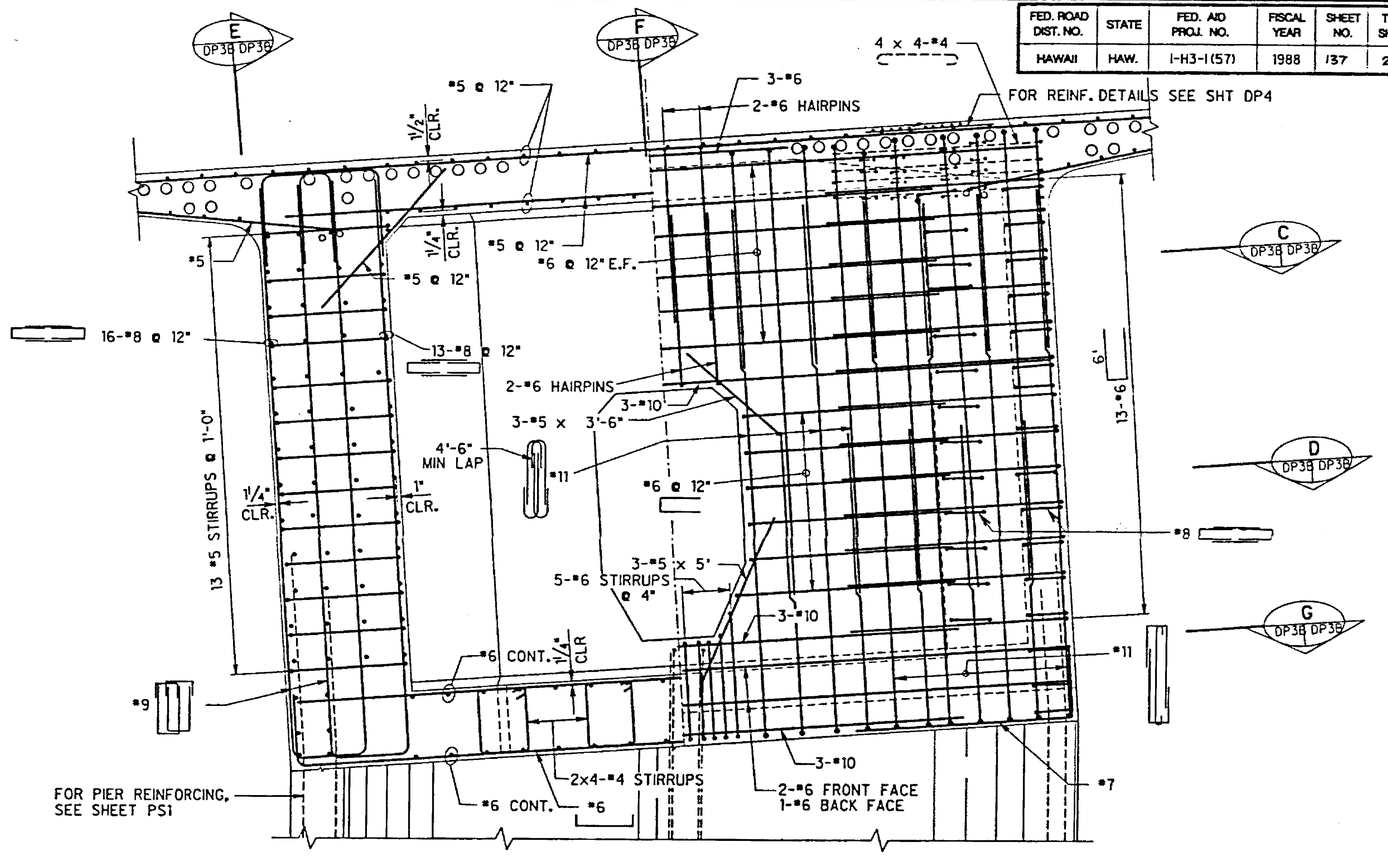
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1990

SHEET NO. DP3A OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	137	274



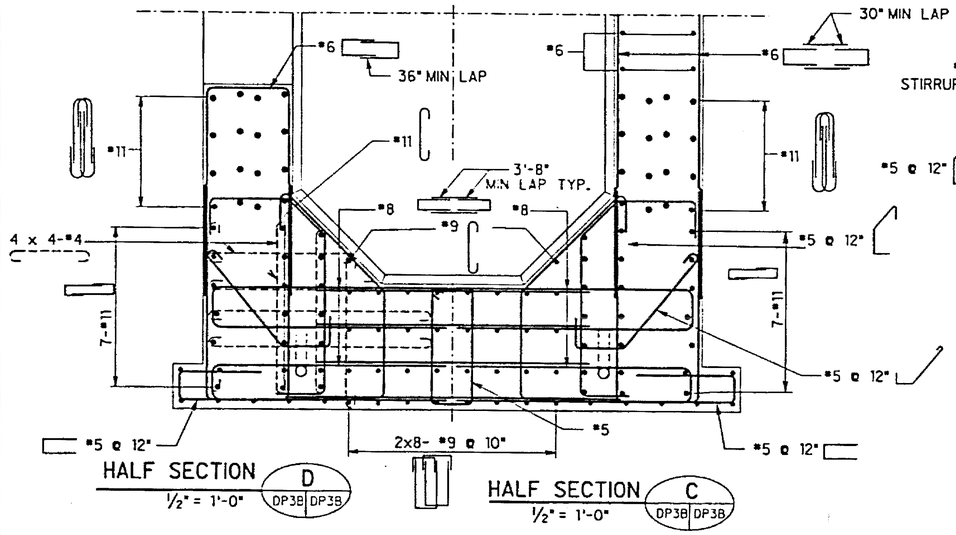


HALF SECTION F DP3B DP3B
½" = 1'-0"

HALF SECTION E DP3B DP3B
½" = 1'-0"

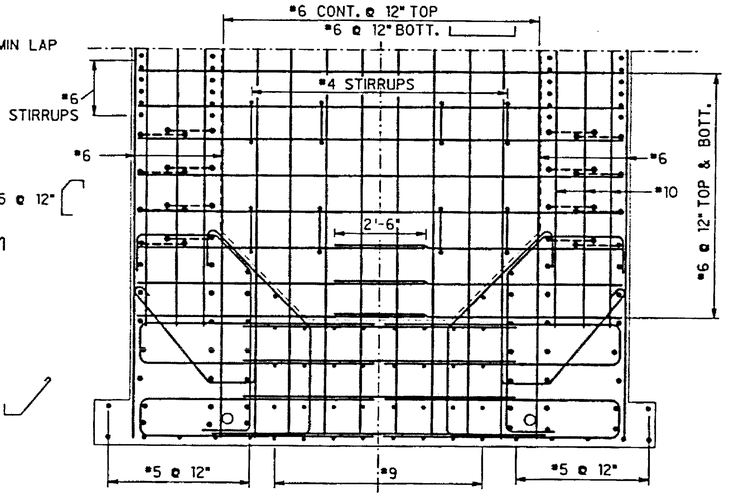
HALF SECTION B DP3B DP3B
½" = 1'-0"

HALF SECTION A DP3B DP3B
½" = 1'-0"



HALF SECTION D DP3B DP3B
½" = 1'-0"

HALF SECTION C DP3B DP3B
½" = 1'-0"



HALF SECTION G DP3B DP3B
½" = 1'-0"

NOTE: FOR ELECTRICAL MANHOLE DETAILS, SEE SHEET ED1

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2575-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FIXED PIER SEGMENT
REINFORCING
TYPE II

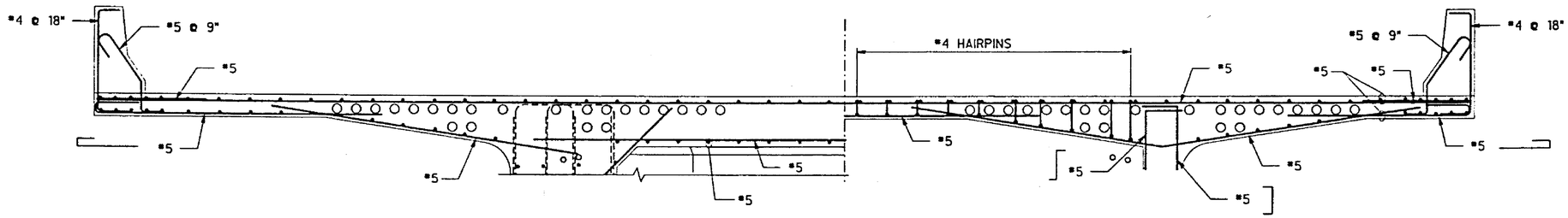
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : MAR 1991

SHEET No. DP3B OF SHEETS

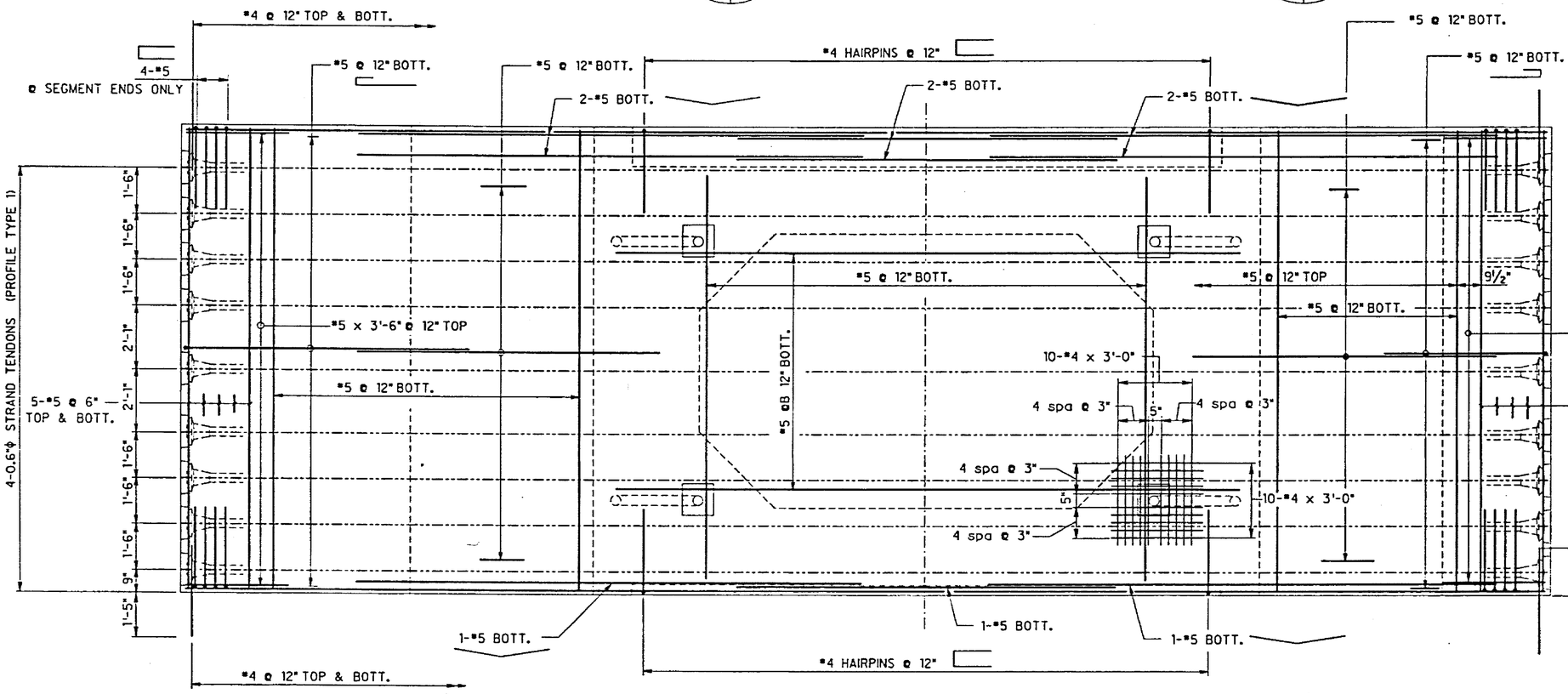
SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE
ORIGINAL PLAN
NOTE BOOK
No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	138	274



HALF SECTION B
1/2" = 1'-0"
DP4 | DP4

HALF SECTION A
1/2" = 1'-0"
DP4 | DP4



PLAN
1/2" = 1'-0"

NOTE: FOR TRANSVERSE TENDON PROFILES SEE SHEET TT1

DATE	REVISION
MAR 1991	REVISED DRAWING

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2379-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

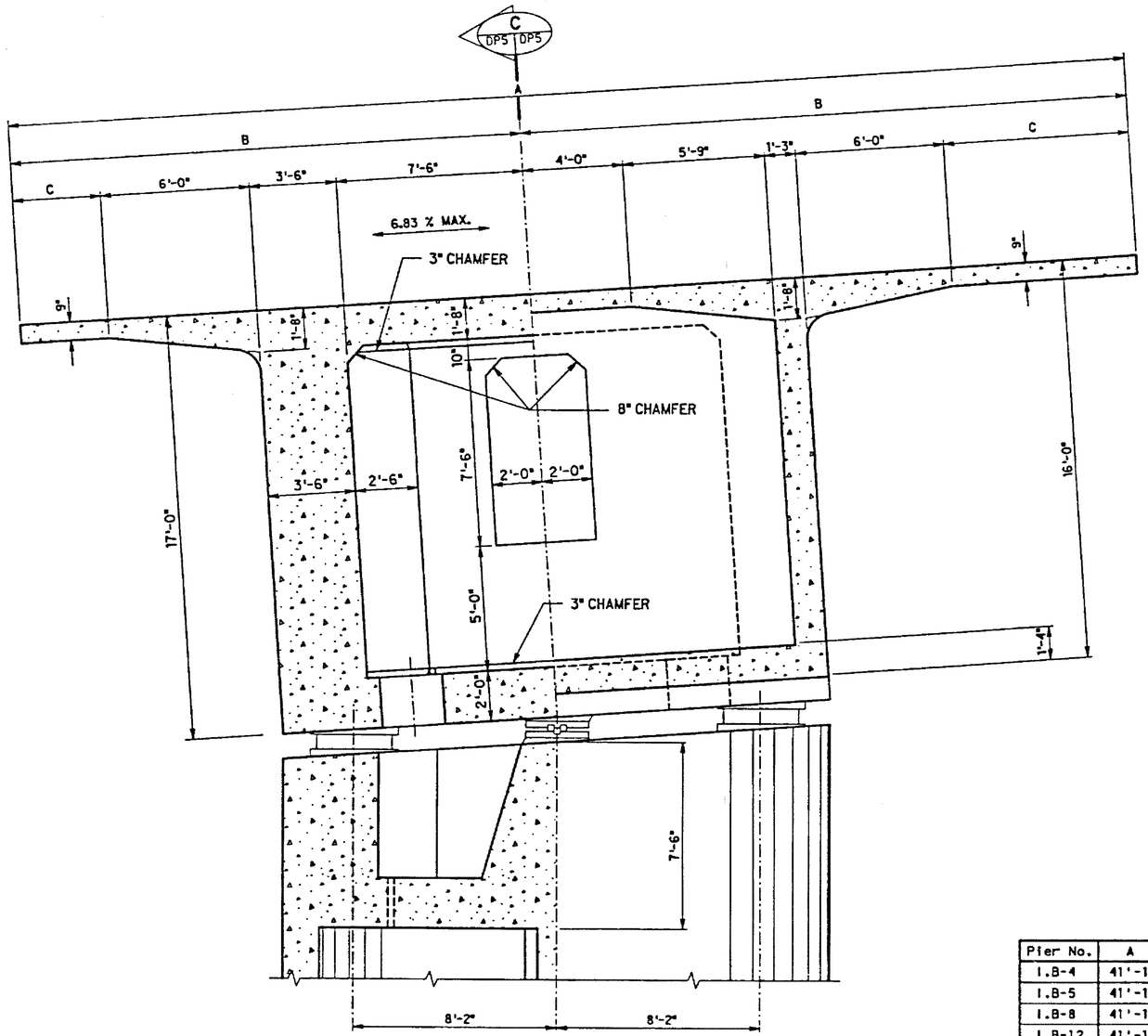
TOP SLAB PIER SEGMENTS
REINFORCING

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN 1990

SHEET No. DP4 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	139	274

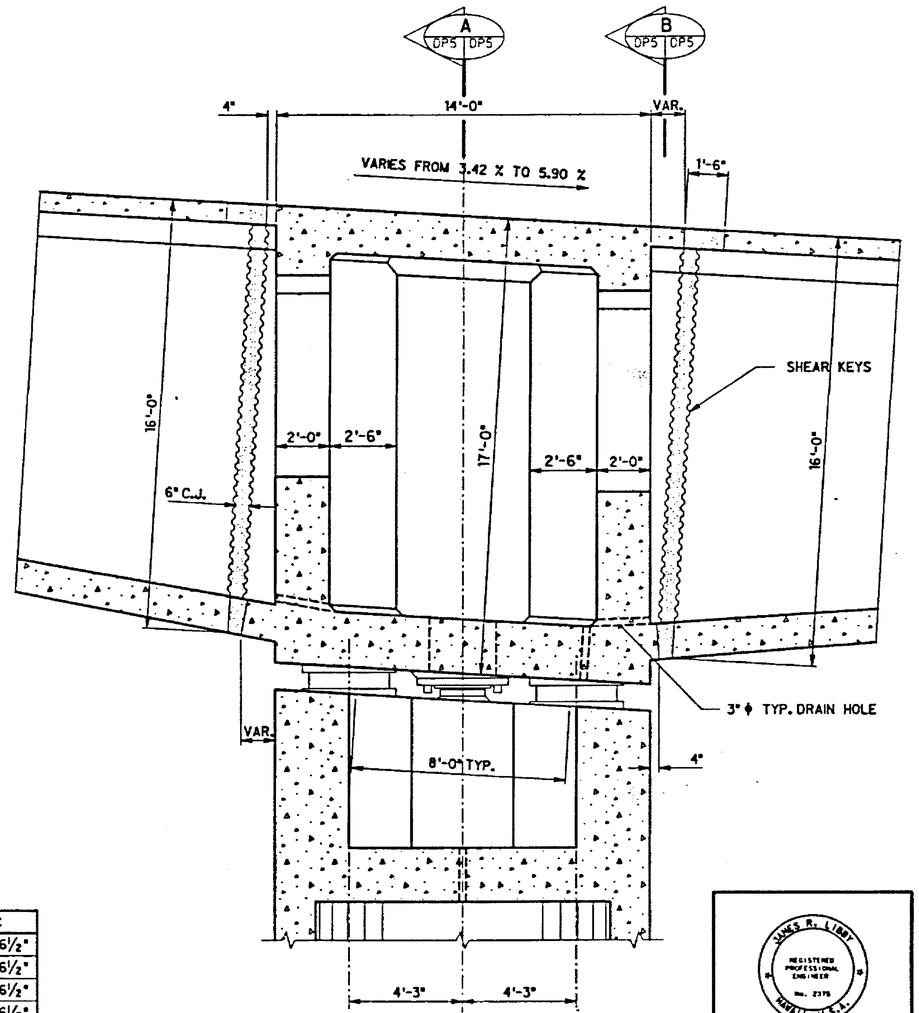


HALF SECTION A
SCALE : 3/8" = 1'-0"

HALF SECTION B
SCALE : 3/8" = 1'-0"

Pier No.	A	B	C
I.B-4	41'-1"	20'-6½"	3'-6½"
I.B-5	41'-1"	20'-6½"	3'-6½"
I.B-8	41'-1"	20'-6½"	3'-6½"
I.B-12	41'-1"	20'-6½"	3'-6½"
I.B-13	41'-1"	20'-6½"	3'-6½"
I.B-17	41'-1"	20'-6½"	3'-6½"
I.B-23	49'-1"	24'-6½"	7'-6½"
O.B-4	47'-1"	23'-6½"	6'-6½"
O.B-5	47'-1"	23'-6½"	6'-6½"
O.B-8	47'-1"	23'-6½"	6'-6½"
O.B-12	41'-1"	20'-6½"	3'-6½"
O.B-13	41'-1"	20'-6½"	3'-6½"
O.B-17	41'-1"	20'-6½"	3'-6½"
O.B-23	41'-1"	20'-6½"	3'-6½"

NOTE : FOR DRAIN HOLE DETAIL SEE SHEET PB1
FOR DETAILS OF CONNECTION AT CLOSURE JOINT SEE SHEET PB5



SECTION C
SCALE : 3/8" = 1'-0"

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
4/29/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL
Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

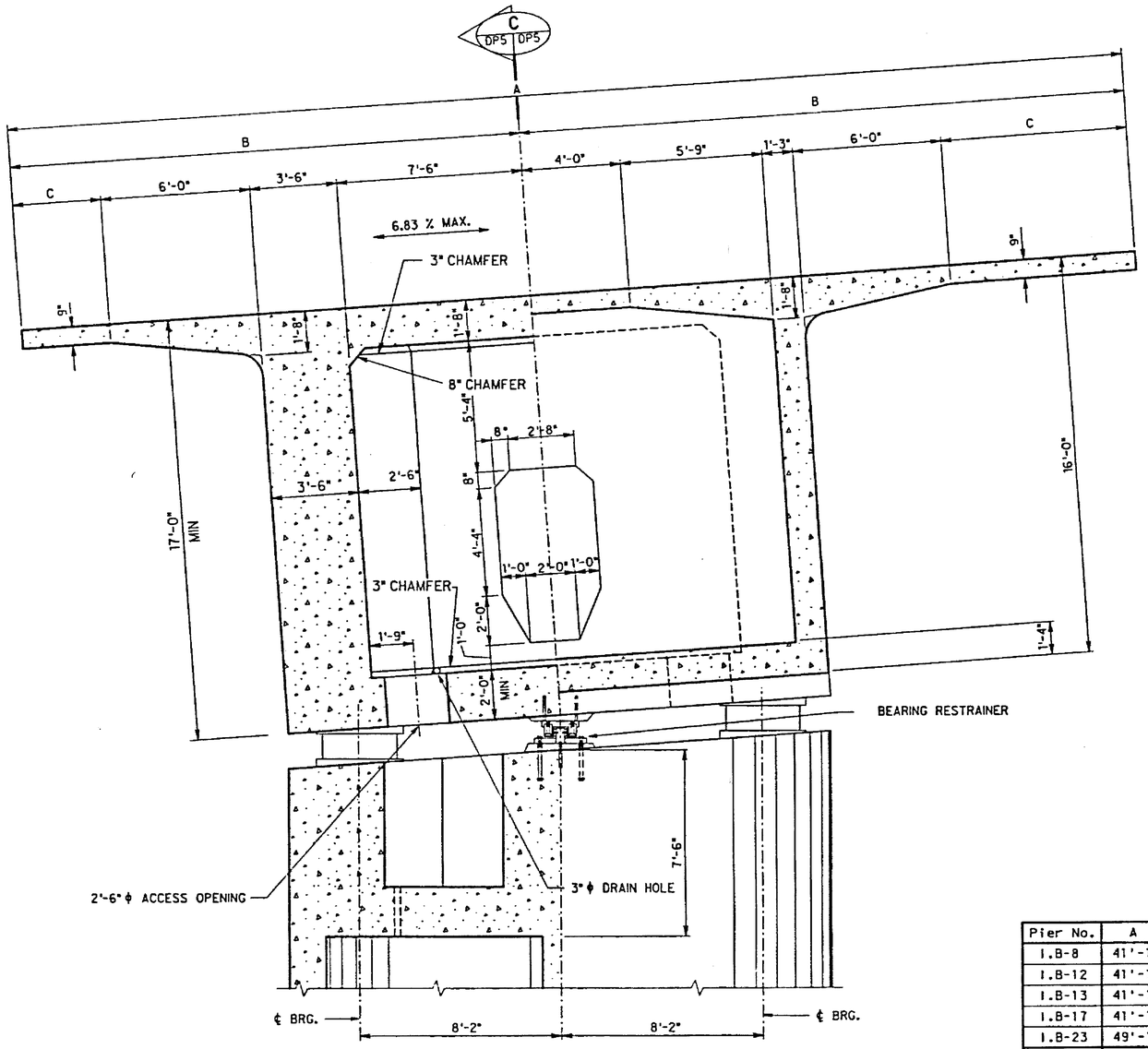
SLIDING PIER SEGMENT DIMENSIONS (TYPE 1)

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. DP5A OF SHEETS

ORIGINAL PLANS — SURVEY PLOTTED BY — DATA — LAYOUT BY — TRACED BY — NOTE BOOK — DESIGNED BY — QUANTITIES BY — CHECKED BY — No.

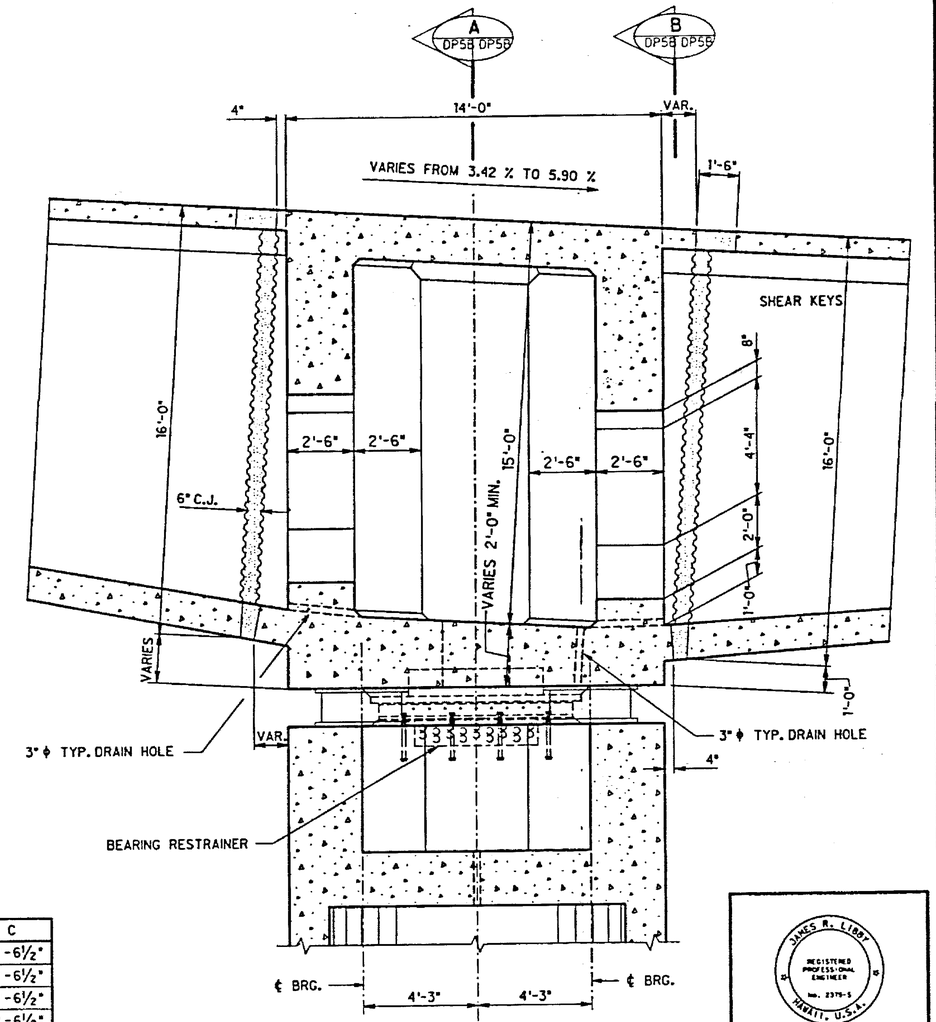
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	140	274



HALF SECTION A (DP5B DP5B)
SCALE : 3/8" = 1'-0"

HALF SECTION B (DP5B DP5B)
SCALE : 3/8" = 1'-0"

Pier No.	A	B	C
I.B-8	41'-1"	20'-6½"	3'-6½"
I.B-12	41'-1"	20'-6½"	3'-6½"
I.B-13	41'-1"	20'-6½"	3'-6½"
I.B-17	41'-1"	20'-6½"	3'-6½"
I.B-23	49'-1"	24'-6½"	7'-6½"
O.B-8	47'-1"	23'-6½"	6'-6½"
O.B-12	41'-1"	20'-6½"	3'-6½"
O.B-13	41'-1"	20'-6½"	3'-6½"
O.B-17	41'-1"	20'-6½"	3'-6½"
O.B-23	41'-1"	20'-6½"	3'-6½"



SECTION C (DP5B DP5B)
SCALE : 3/8" = 1'-0"

NOTE : FOR DRAIN HOLE DETAIL SEE SHEET PB1
FOR DETAILS OF CONNECTION AT CLOSURE JOINT SEE SHEET PB5

ORIGINAL PLANS — FINAL PLANS
PRINT PLOTTED BY ____ DATE ____
PLANS BY ____
TRACED BY ____
NOTE BOOK ____ DESIGNED BY ____
QUANTITIES BY ____
CHECKED BY ____
No. ____

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2379-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

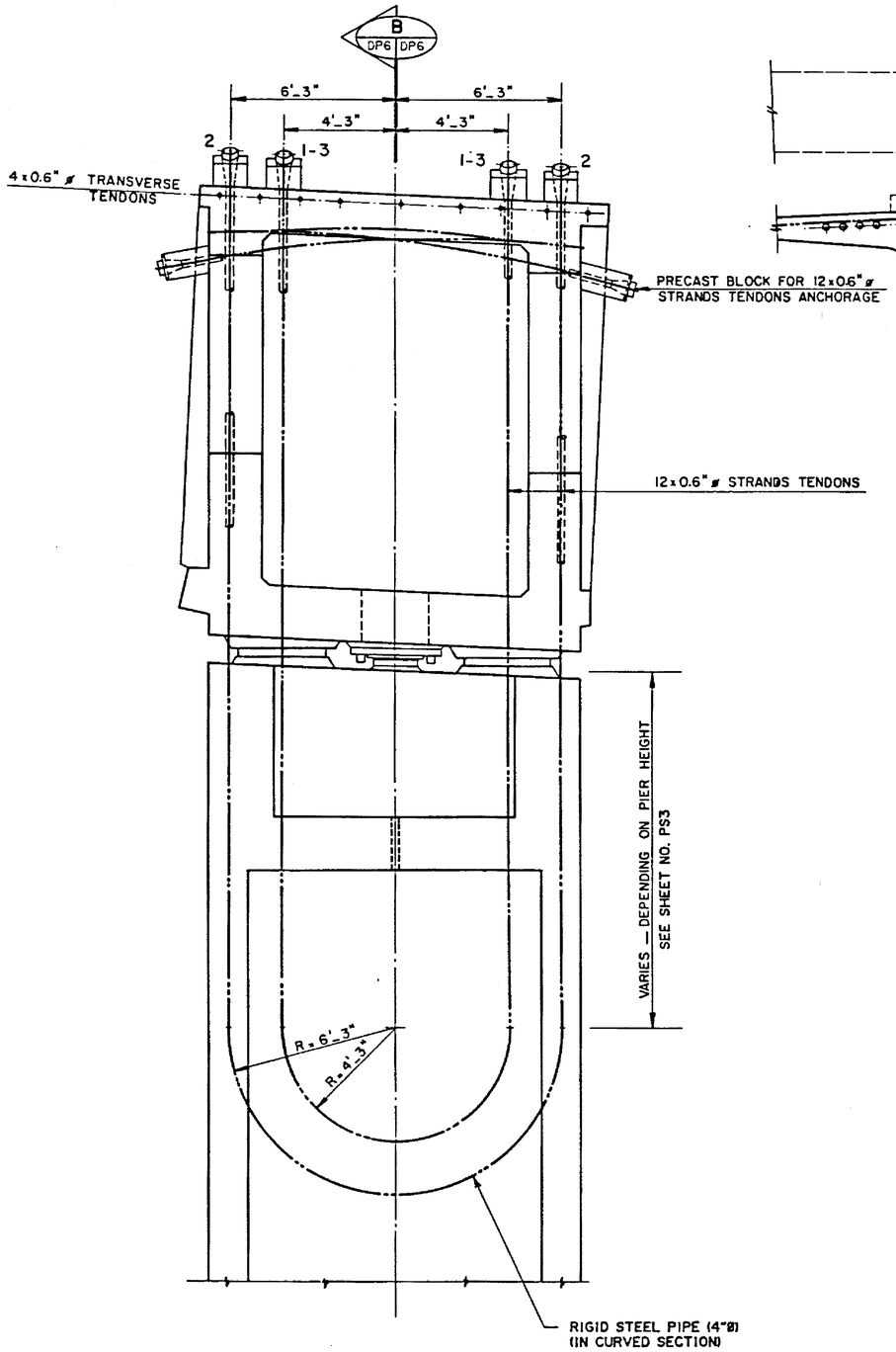
J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

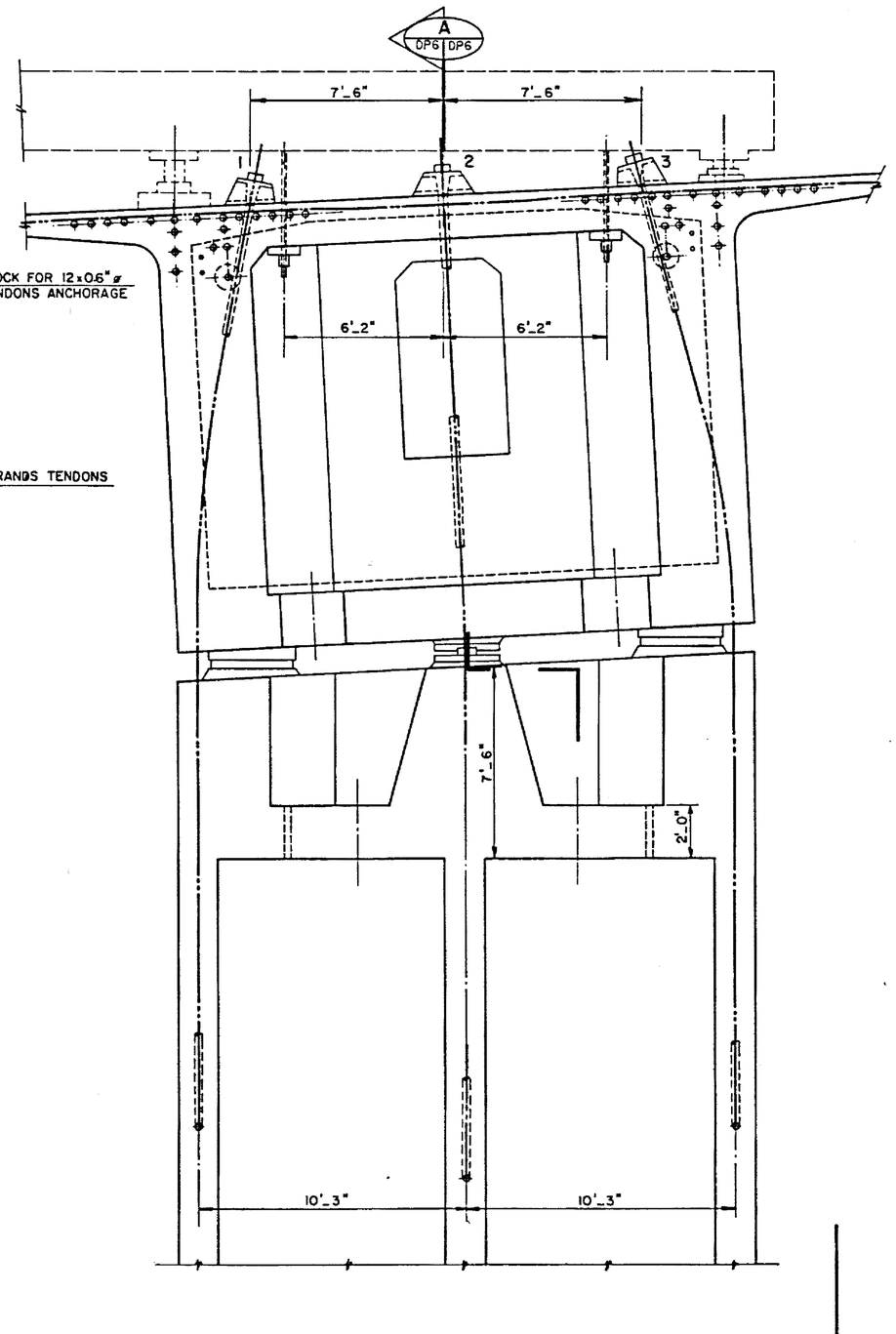
SLIDING PIER SEGMENT
DIMENSIONS
TYPE II

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : APR. 1991
SHEET No. DP5B OF SHEETS

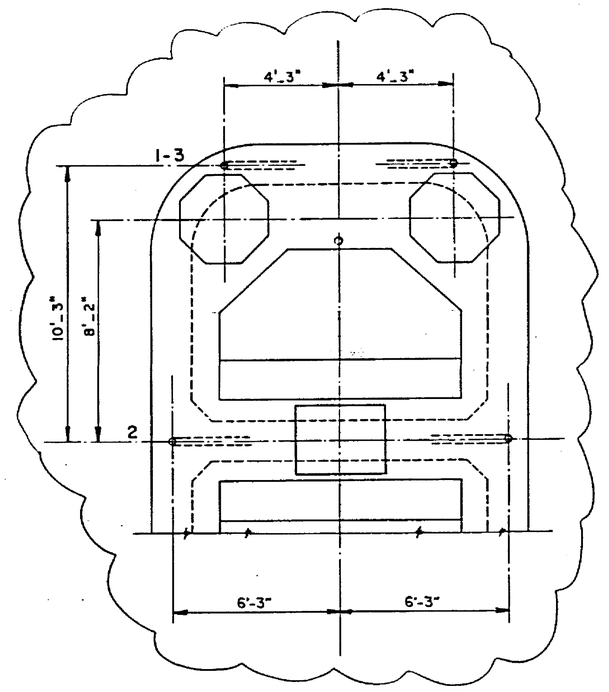
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	141	274



SECTION A
SCALE : 3/8" = 1'_0"



SECTION B
SCALE : 3/8" = 1'_0"



TOP OF PIER
SCALE : 3/8" = 1'_0"

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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
4/29/91	UPDATED DRAWING.
9/17/90	UPDATED DRAWING.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SLIDING PIER SEGMENT P.T. DETAILS

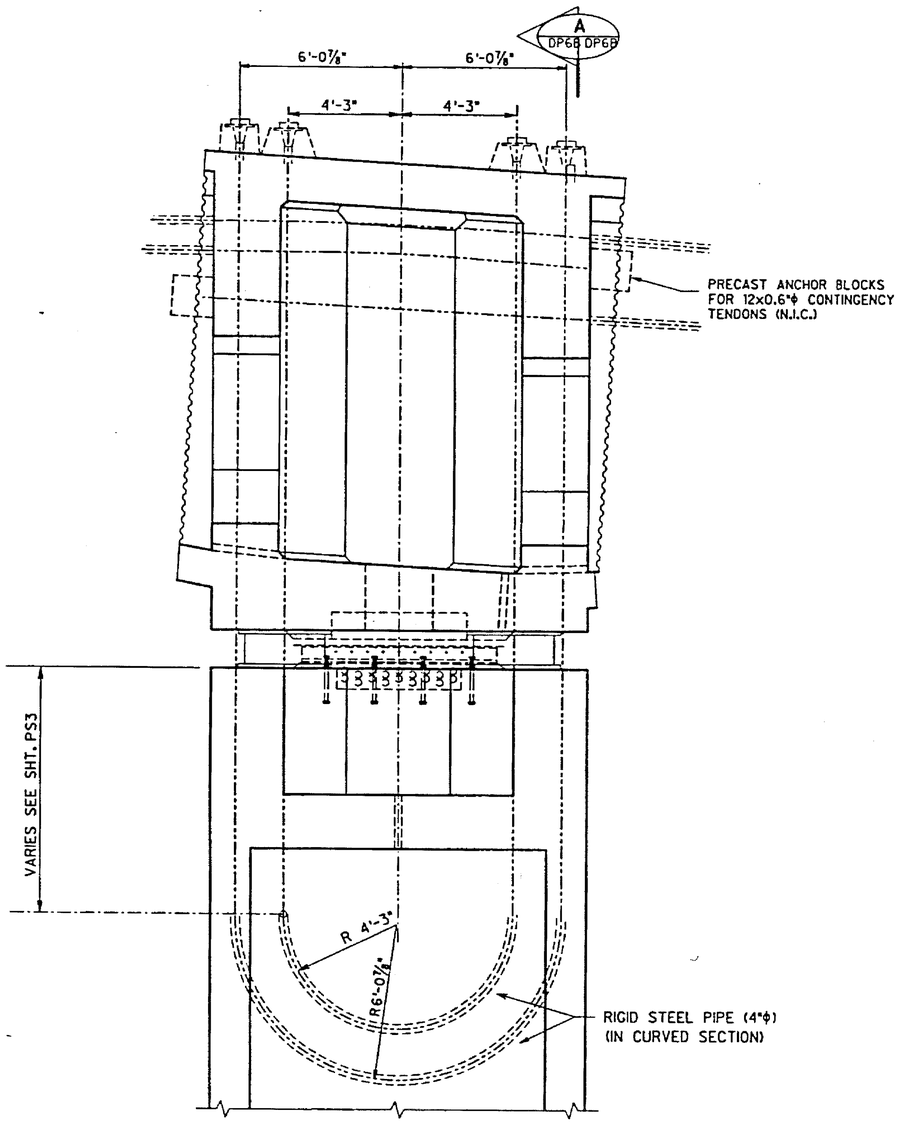
TYPE 1

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

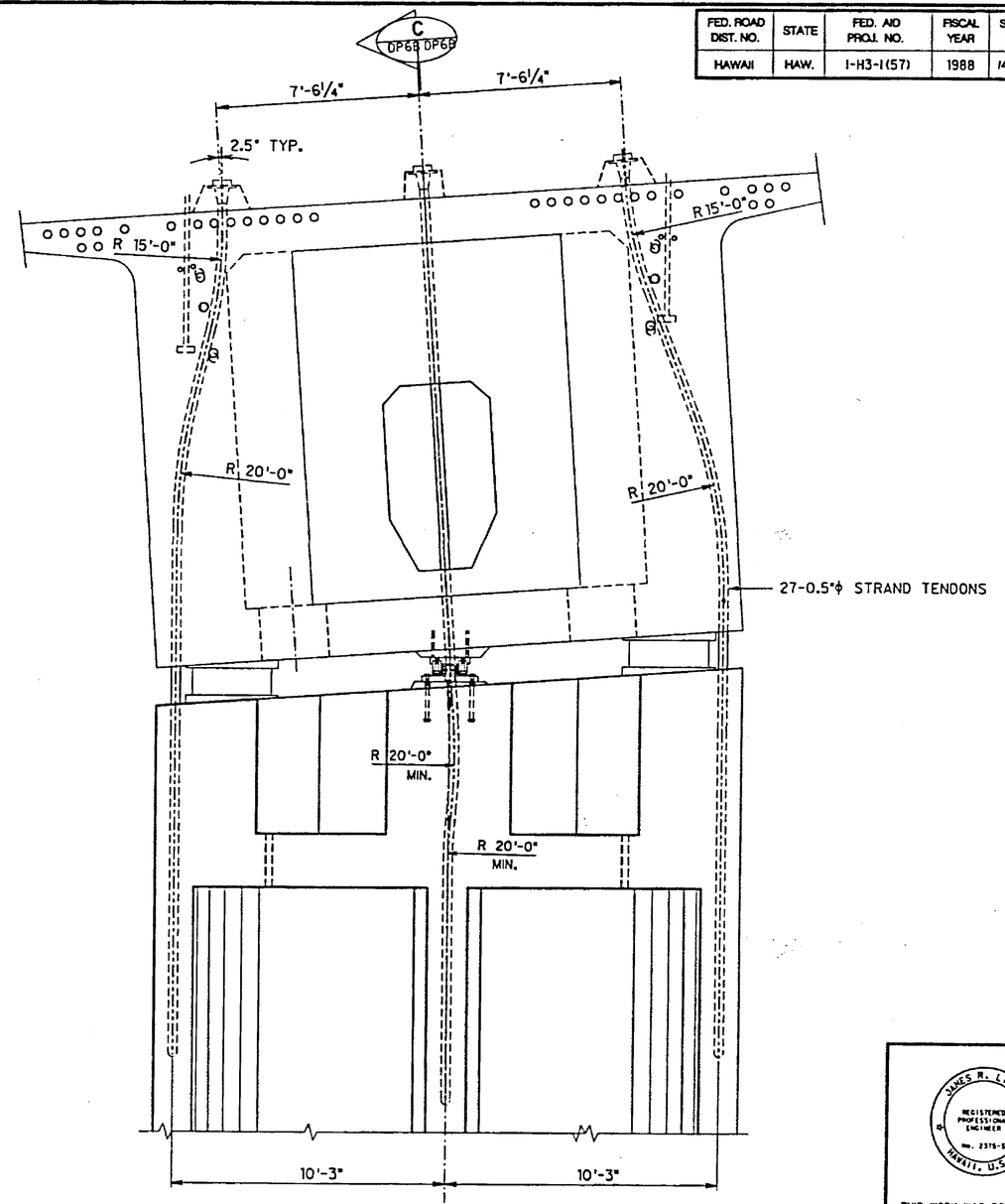
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. DP6 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	142	274



SECTION C DP6B DP6B
SCALE : ⅜" = 1'-0"



SECTION A DP6B DP6B
SCALE : ⅜" = 1'-0"

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

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

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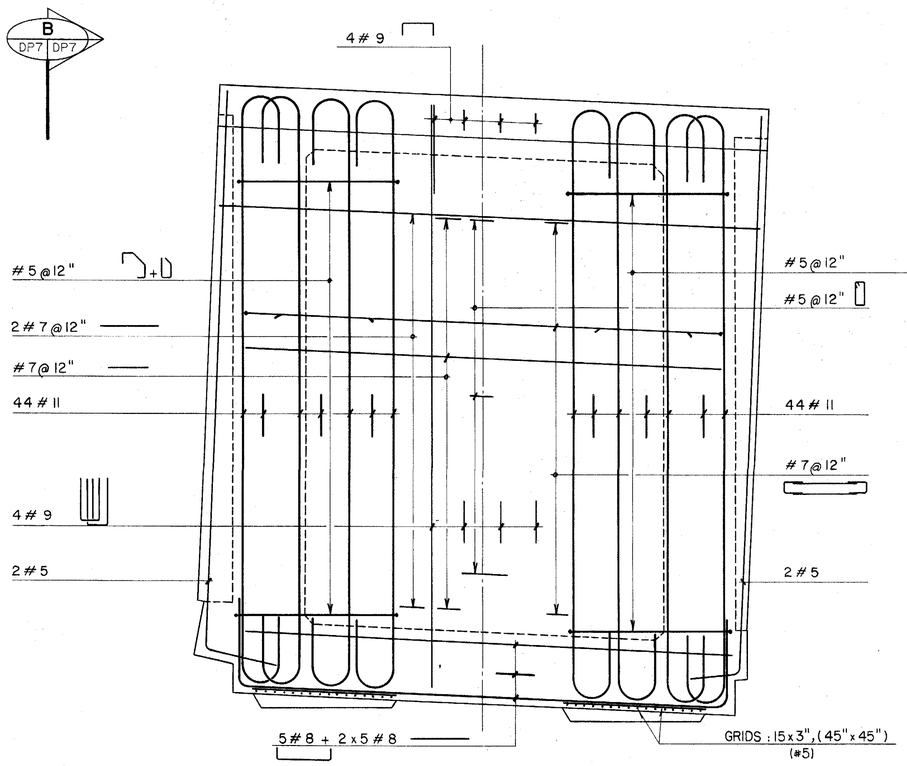
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

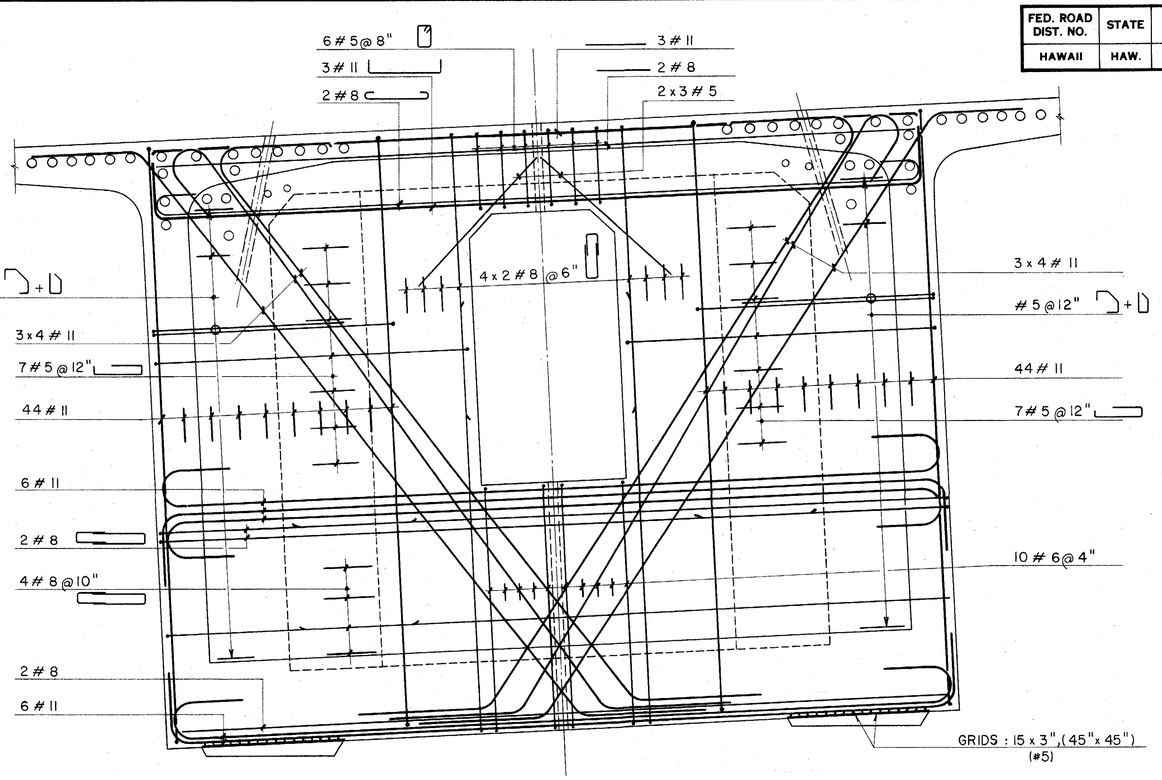
SLIDING PIER SEGMENT
P.T. DETAILS
TYPE II

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : APR. 1991

SHEET No. DP6B OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(57)	1988	193	274

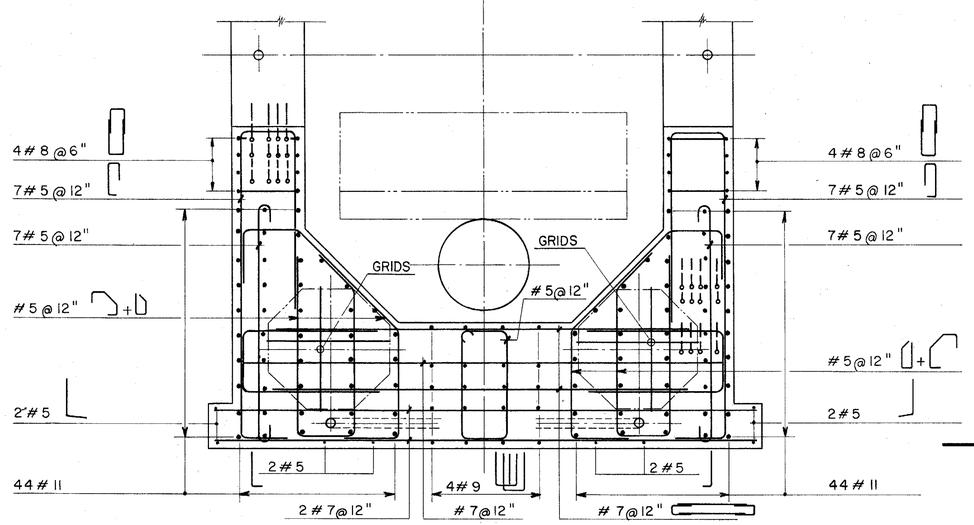




D DP7 DP7

C DP7 DP7

SECTION A DP7 DP7
SCALE : 1/2" = 1'-0"



A DP7 DP7

SECTION B DP7 DP7
SCALE : 1/2" = 1'-0"

HALF SECTION C DP7 DP7
SCALE : 1/2" = 1'-0"

HALF SECTION D DP7 DP7
SCALE : 1/2" = 1'-0"

ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

NOTE BOOK | No.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
4/29/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SLIDING PIER SEGMENT REINFORCING I

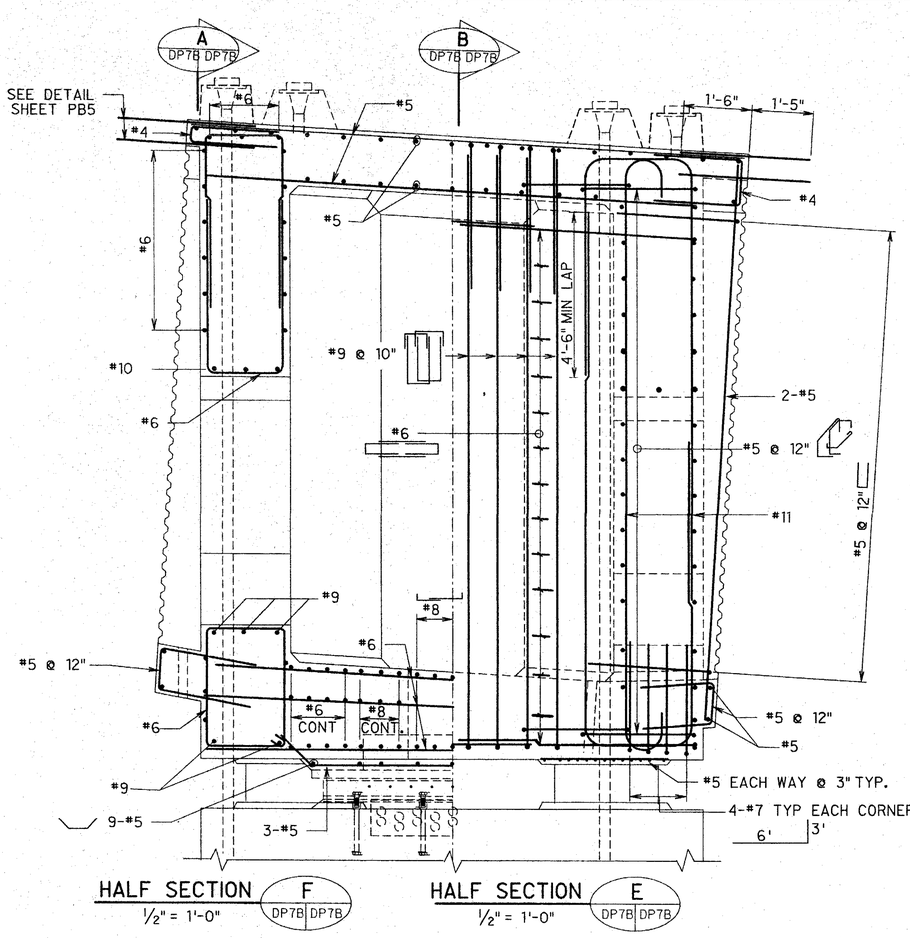
TYPE I

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-I(57)
F.A.I. PROJECT No. I-H3-I(58)

SCALE : AS NOTED DATE : JUN. 1990

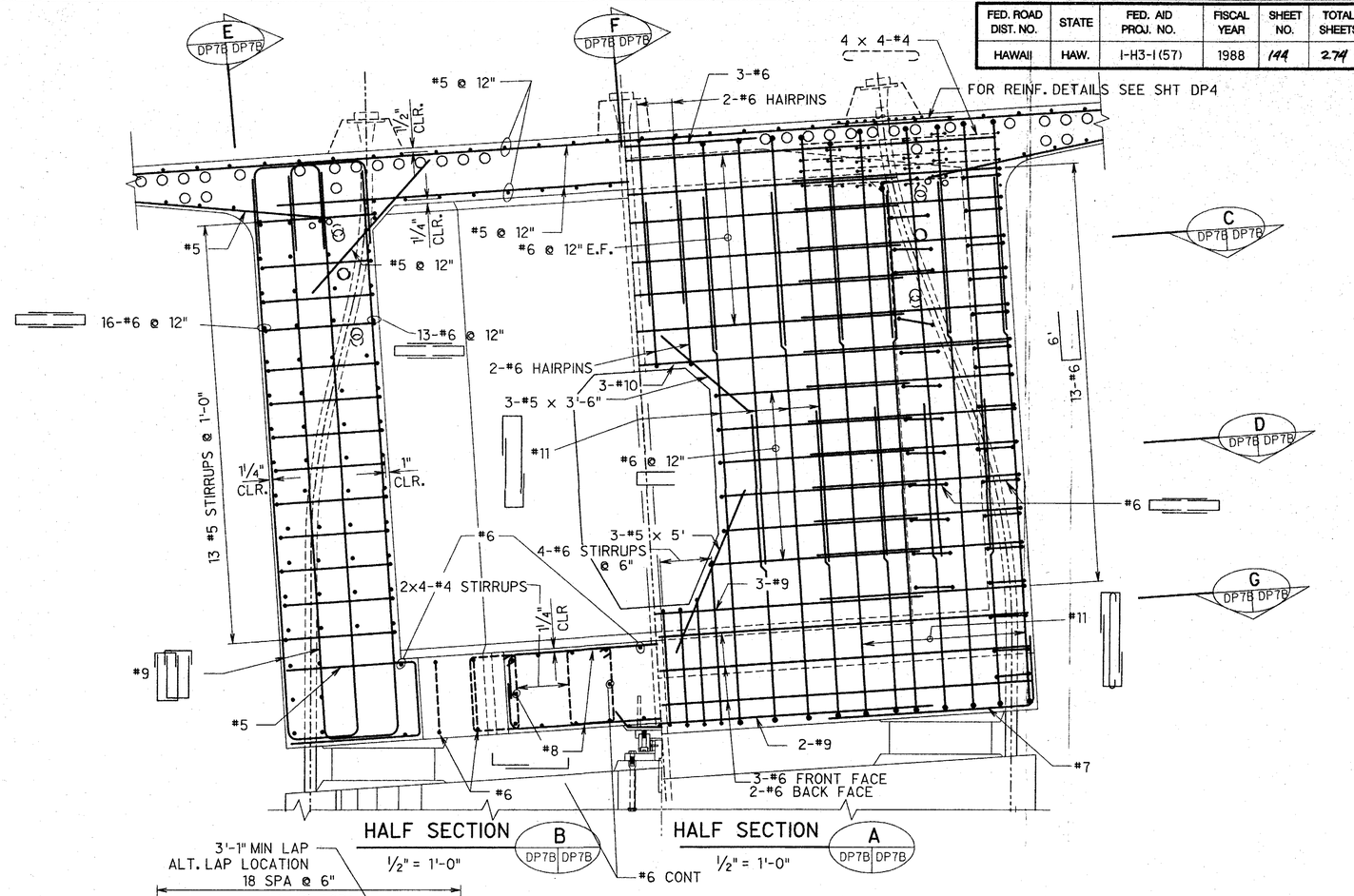
SHEET No. DP7 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	144	274



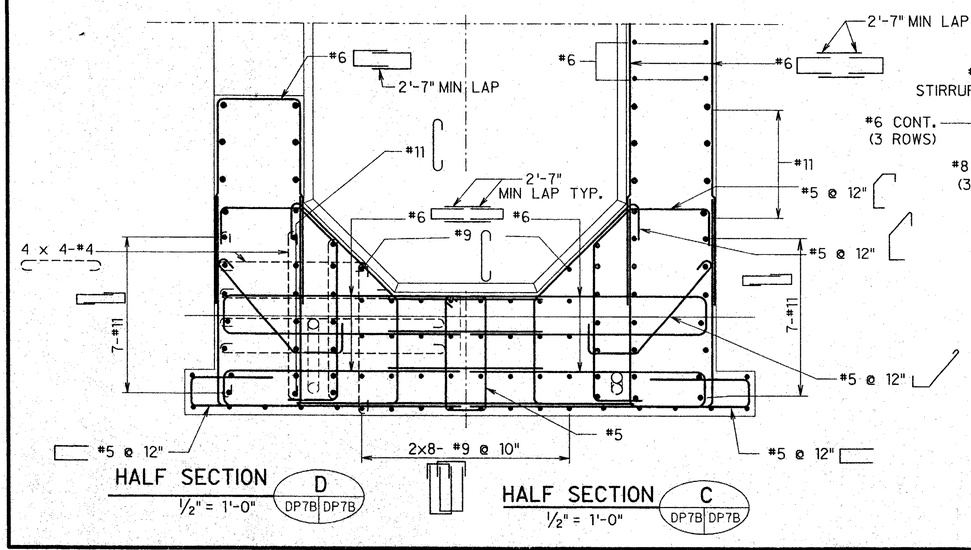
HALF SECTION F DP7B DP7B
1/2" = 1'-0"

HALF SECTION E DP7B DP7B
1/2" = 1'-0"



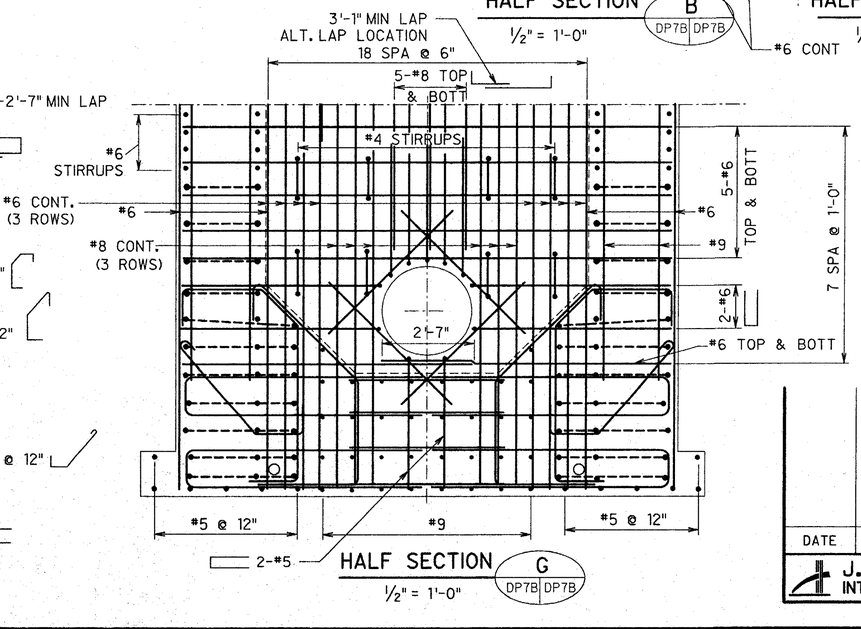
HALF SECTION B DP7B DP7B
1/2" = 1'-0"

HALF SECTION A DP7B DP7B
1/2" = 1'-0"



HALF SECTION D DP7B DP7B
1/2" = 1'-0"

HALF SECTION C DP7B DP7B
1/2" = 1'-0"



HALF SECTION G DP7B DP7B
1/2" = 1'-0"

NOTE: FOR ELECTRICAL MANHOLE DETAILS, SEE SHEET ED1

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

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DATE	REVISION

J. MULLER INTERNATIONAL
Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SLIDING PIER SEGMENT
REINFORCING
TYPE II

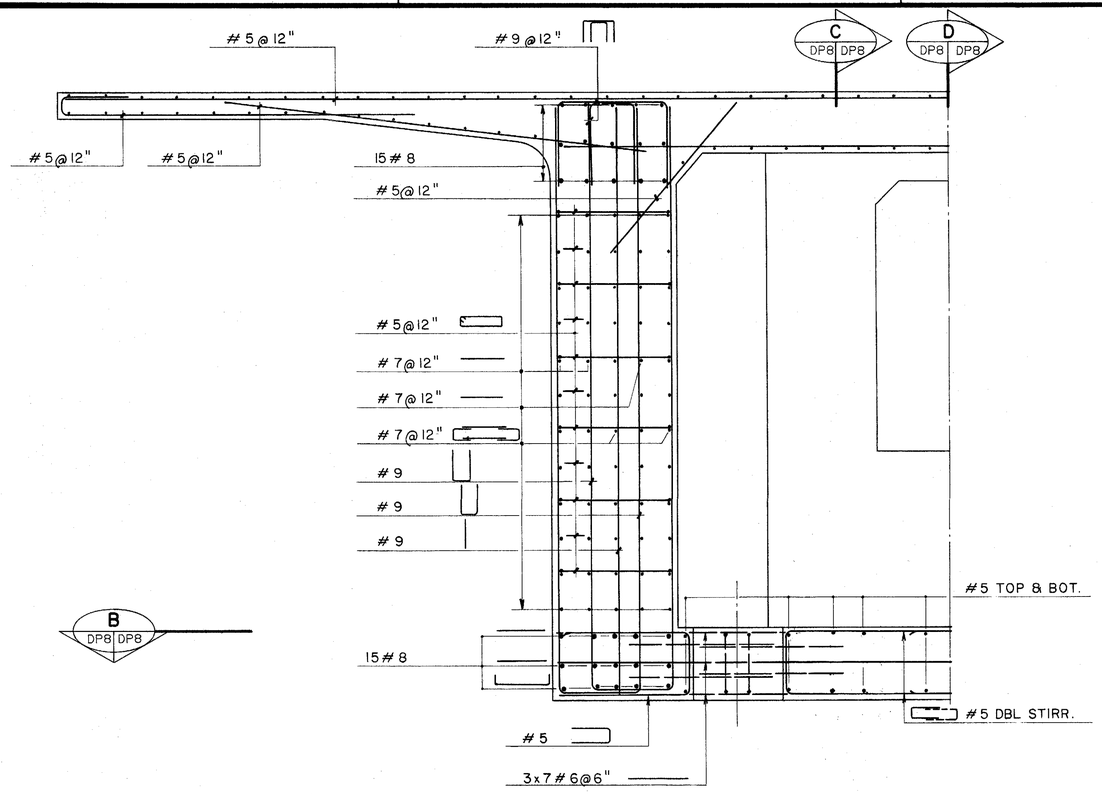
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

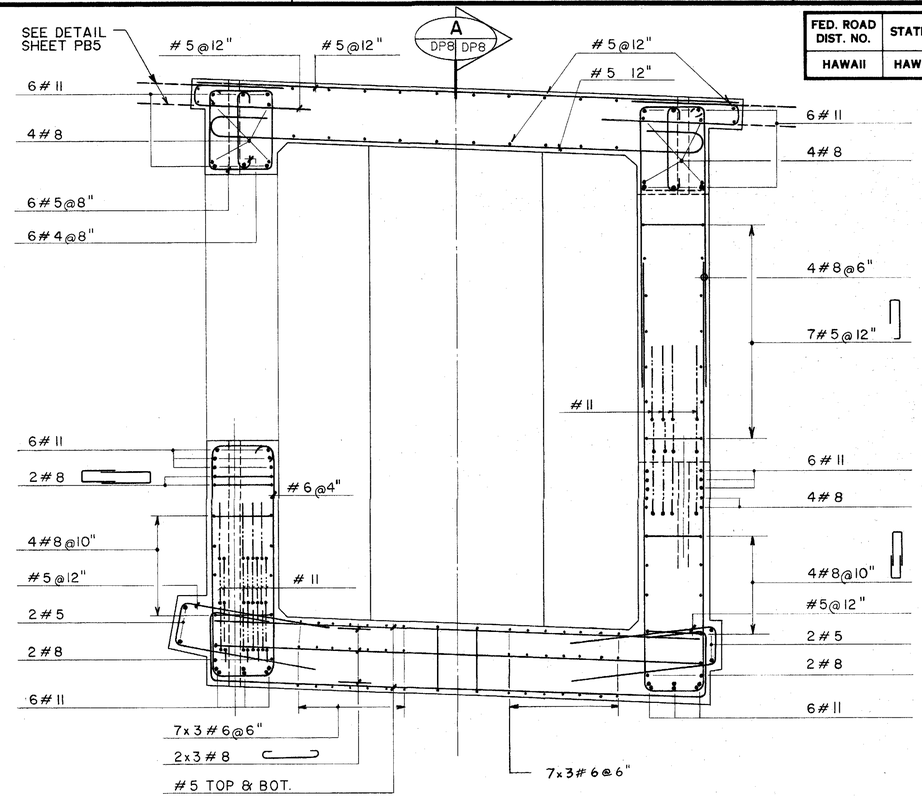
SCALE : AS NOTED DATE : APR 1991

SHEET No. DP7B OF SHEETS

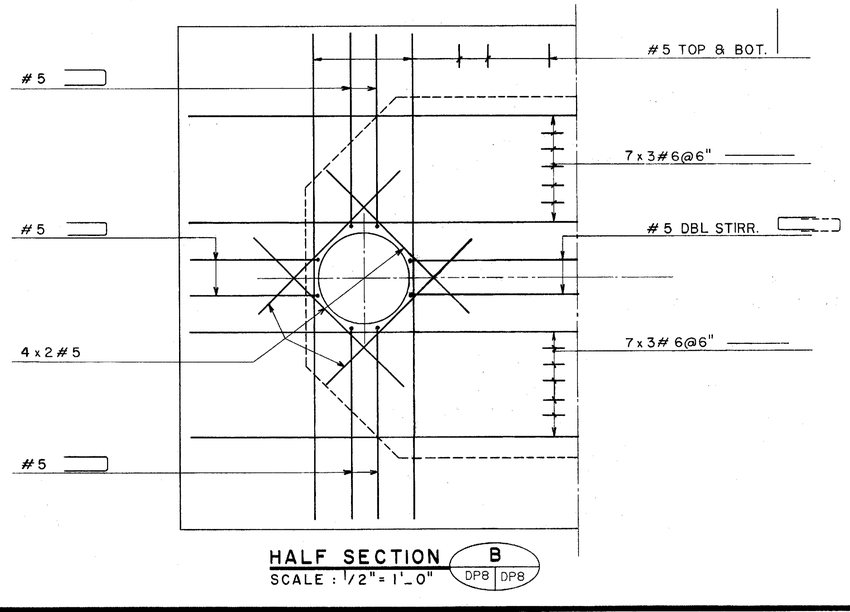
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	
	TRACED BY	
NOTE BOOK	DESIGNED BY	
No.	QUANTITIES BY	
	CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	145	274





HALF SECTION A DP8 DP8
SCALE : 1/2"= 1'_0"



HALF SECTION B DP8 DP8
SCALE : 1/2"= 1'_0"

HALF SECTION D DP8 DP8
SCALE : 1/2"= 1'_0"

HALF SECTION C DP8 DP8
SCALE : 1/2"= 1'_0"

DATE	REVISION
9/06/91	REVISED SHEET NO.
4/29/91	UPDATED DRAWING.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SLIDING PIER SEGMENT REINFORCING II

(TYPE I)

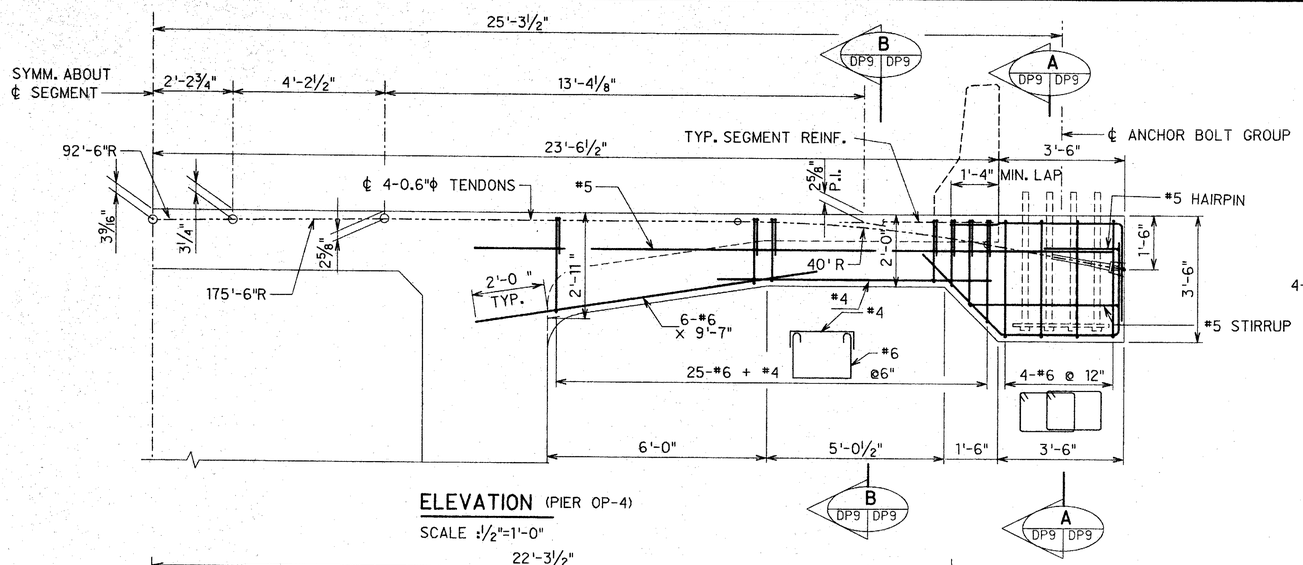
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN.1990

SHEET NO. DP8 OF SHEETS

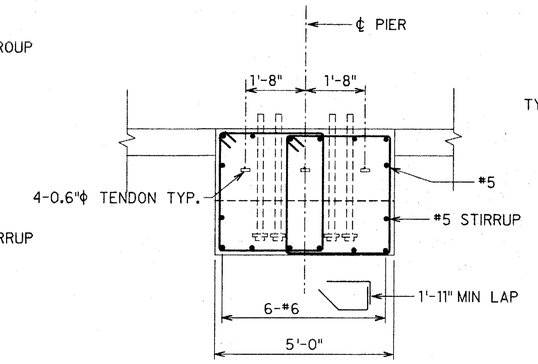
ORIGINAL PLANS	SURVEY PLOTTED BY	DATE
	DRAWN BY	
NOTE BOOK	TRACED BY	
	DESIGNED BY	
	QUANTITIES BY	
No.	CHECKED BY	

145

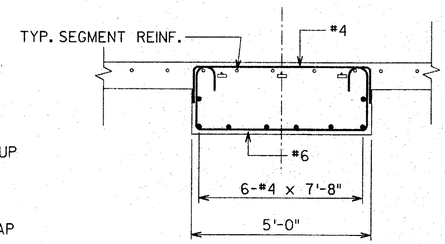
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	196	279



ELEVATION (PIER OP-4)
SCALE :½"=1'-0"

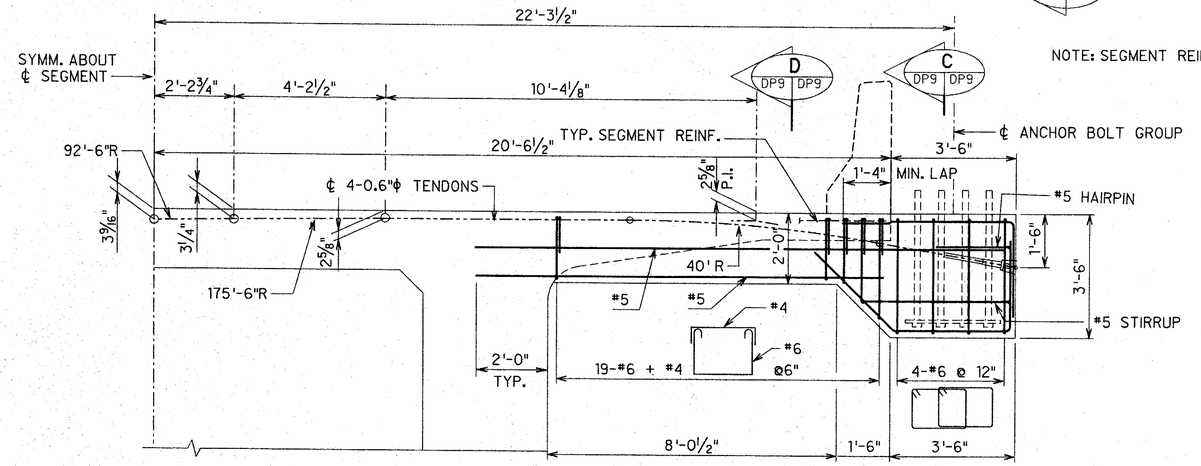


SECTION A DP9 DP9
SCALE :½"=1'-0"

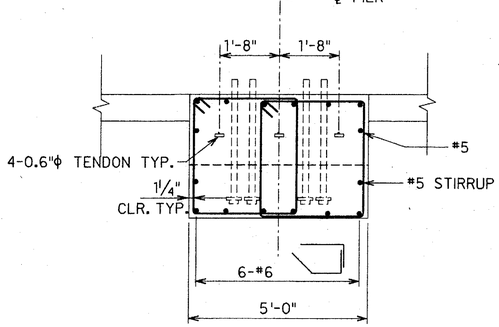


SECTION B DP9 DP9
SCALE :½"=1'-0"

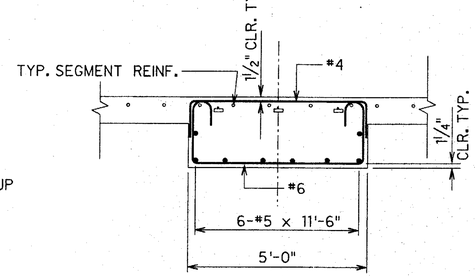
NOTE: SEGMENT REINFORCING NOT SHOWN FOR CLARITY



ELEVATION (PIERS IP-6, IP-9, IP-15 OP-15, OP-17)
SCALE :½"=1'-0"

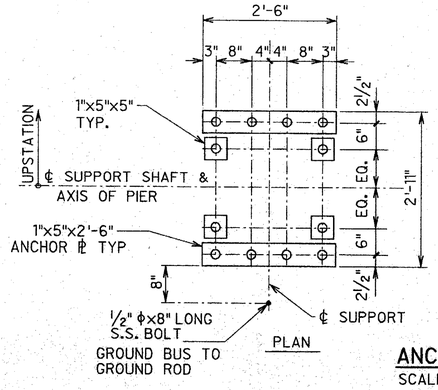


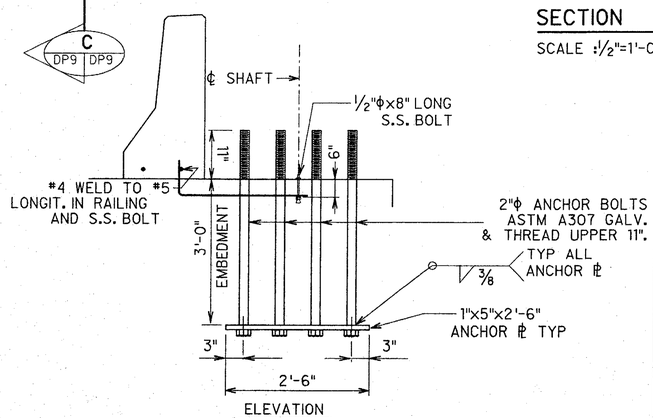
SECTION C DP9 DP9
SCALE :½"=1'-0"



SECTION D DP9 DP9
SCALE :½"=1'-0"

NOTE:
SEE DETAIL C/CR2 FOR CONNECTION OF WWF IN DECK OVERLAY AND PARAPET REINFORCING.





ANCHOR BOLT DETAILS
SCALE :¾"=1'-0"

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	TRACED BY	
	DESIGNED BY G. SHAFER	5/91
	QUANTITIES BY	
	CHECKED BY	
	No.	

DATE	REVISION
05/22/91	GENERAL REVISION.

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JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

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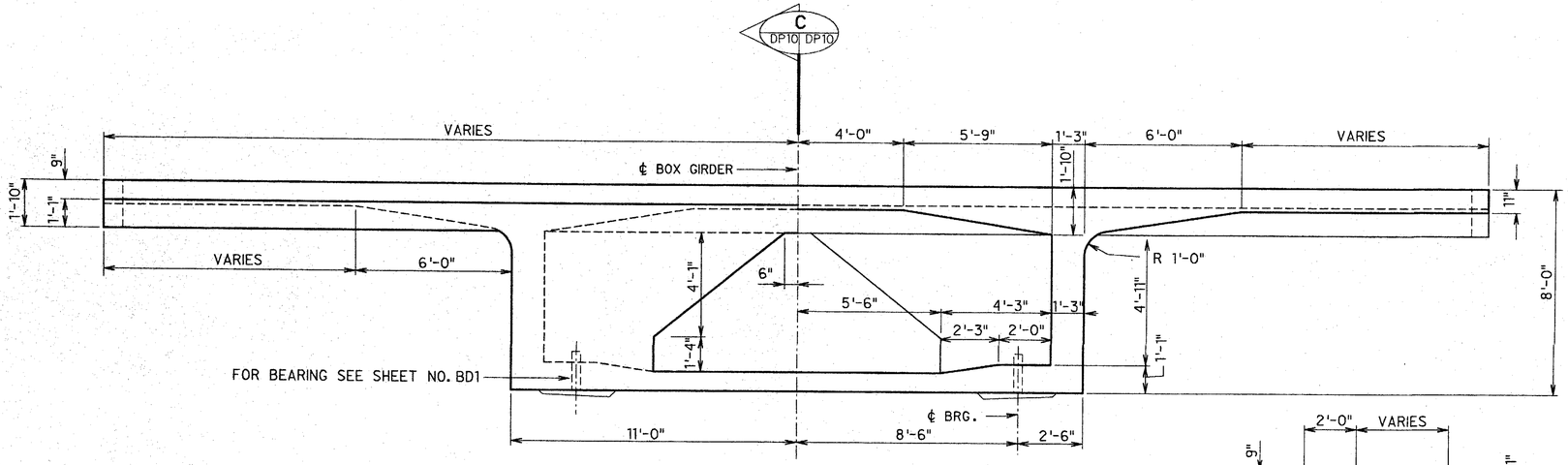
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FIXED AND SLIDING PIER SEGMENT
SIGN SUPPORT REINFORCING

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : MAY 1991

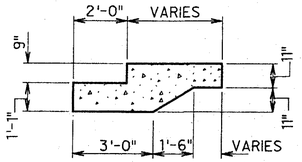
SHEET No. DP9 OF SHEETS

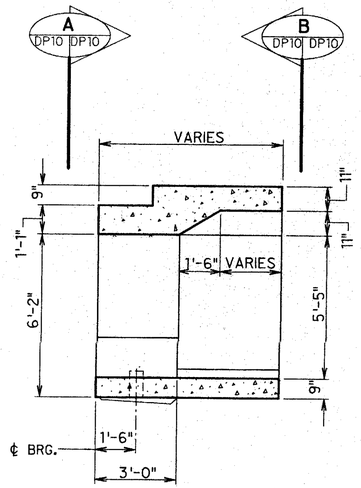
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	147	274



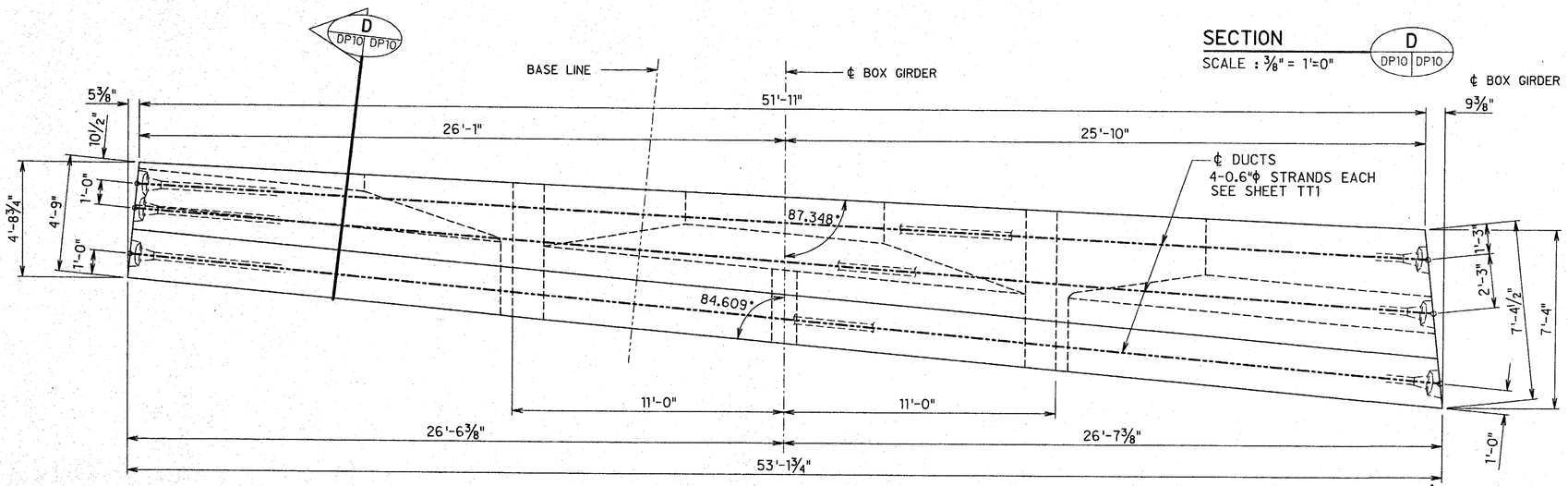
HALF VIEW — A (DP10 DP10)
SCALE : 3/8" = 1'-0"

HALF VIEW — B (DP10 DP10)
SCALE : 3/8" = 1'-0"



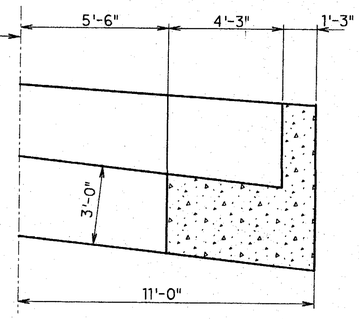


SECTION — C (DP10 DP10)
SCALE : 3/8" = 1'-0"



PLAN VIEW
SCALE : 3/8" = 1'-0"

SECTION — D (DP10 DP10)
SCALE : 3/8" = 1'=0"



HALF PLAN BOTTOM
SCALE : 3/8" = 1'-0"

NOTES:
1. FOR BEARING DETAILS, SEE SHEET NO. BD1
2. FOR EXPANSION JOINT DETAILS, SEE SHEET NO. EJ1
3. FOR POST-TENSIONING DETAILS, SEE SHEET NO. DP11.
4. FOR BULKHEAD DETAILS, SEE SHEET NO. SF1

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

DATE	REVISION
08/23/91	UPDATED NOTES.
10/04/90	MOD. PLAN VIEW & E.J. BEAM THICKNESS

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

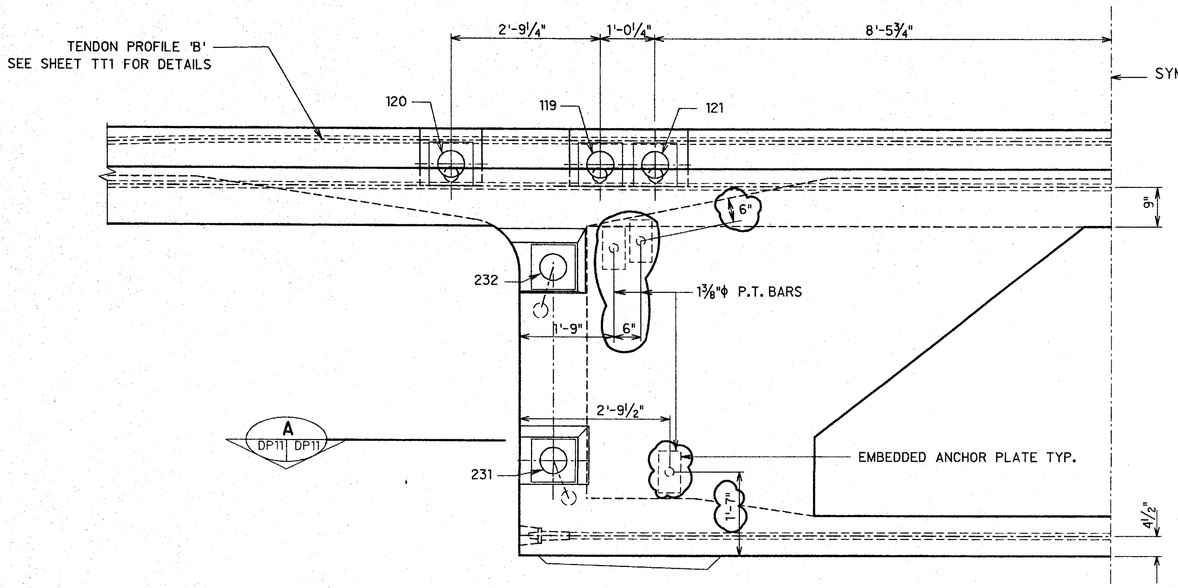
ABUTMENT 1 SEGMENT
DIMENSIONS
INBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. DP10 OF SHEETS

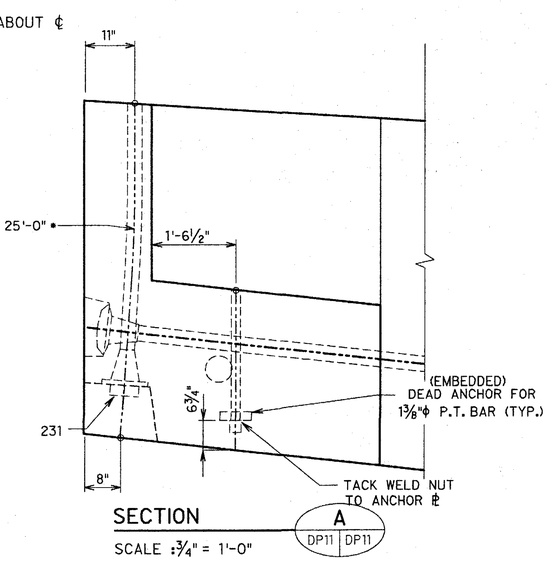
147

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	148	274



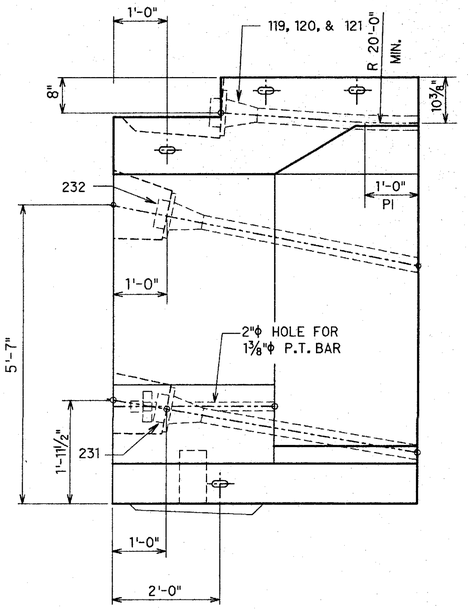
HALF CROSS SECTION

SCALE : ¾" = 1'-0"



SECTION A (DP11 | DP11)

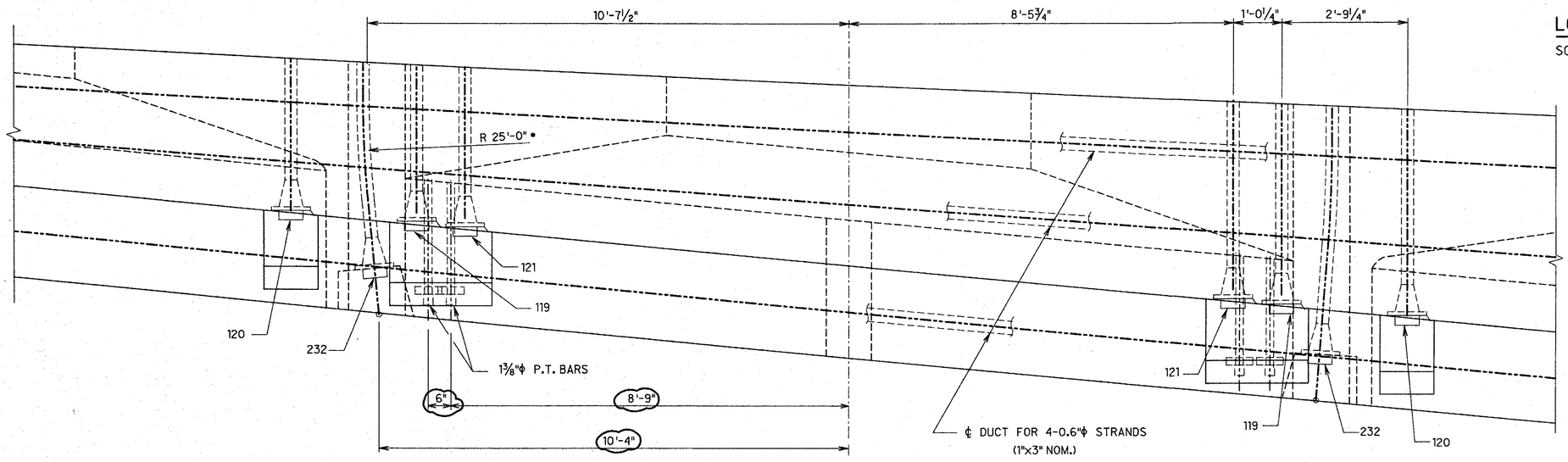
SCALE : ¾" = 1'-0"



LONGITUDINAL SECTION

SCALE : ¾" = 1'-0"

• MINIMUM RADIUS IN PLANE OF TENDON AXIS



PLAN VIEW

SCALE : ¾" = 1'-0"

NOTES:

1. ALL LONGITUDINAL TENDONS ARE 12-0.6"ϕ STRANDS EACH.
2. ALL TRANSVERSE TENDONS ARE 4-0.6"ϕ STRANDS EACH.
3. VARIATIONS (IF ANY) DUE TO HORIZONTAL CURVATURE NOT SHOWN
4. MINIMUM TENDON RADIUS IS 20' FOR 12-0.6"ϕ STRAND TENDONS UNLESS SHOWN OTHERWISE
5. STRESS TRANSVERSE TENDONS TO 216 ksi.
6. SEE SHEET DP10 FOR PLAN LOCATION OF TOP SLAB TRANSVERSE TENDONS.

ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

NOTE BOOK | No.

DATE	REVISION
10/04/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

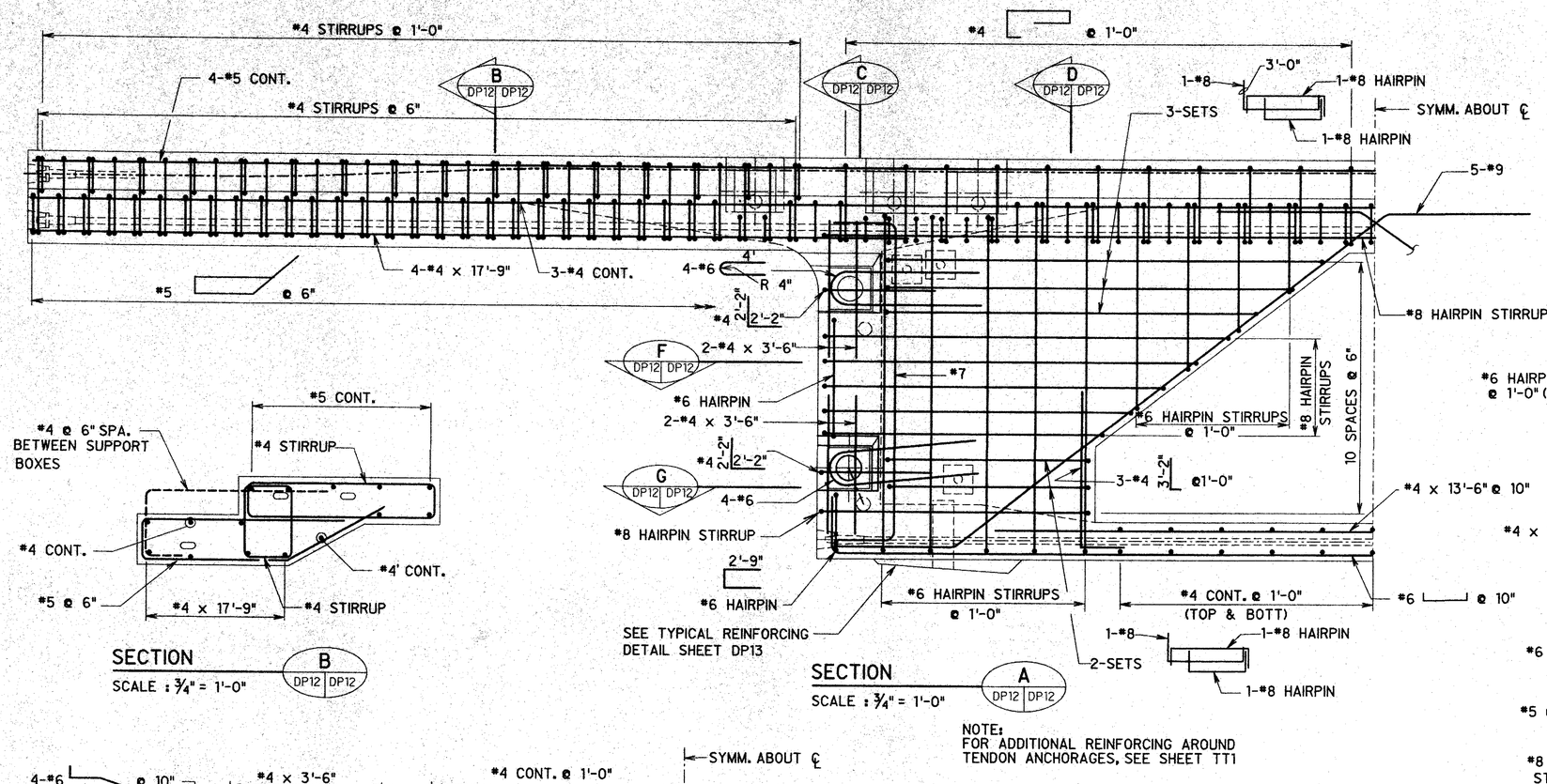
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

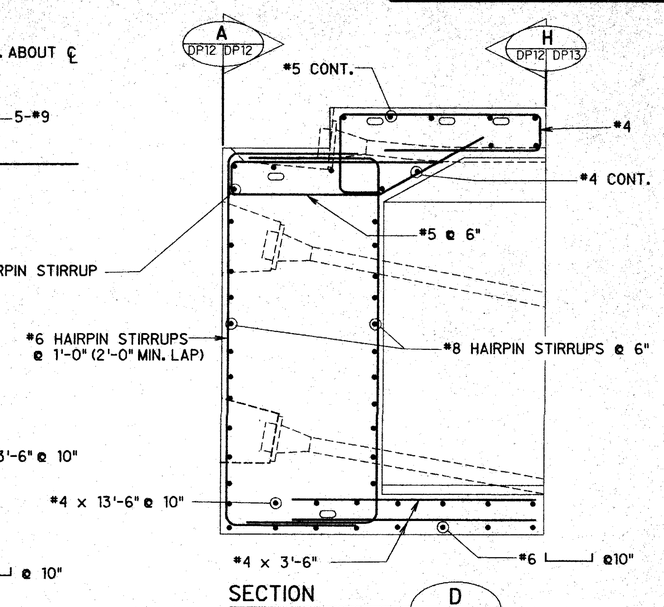
ABUTMENT 1 SEGMENT
P.T. DETAILS
INBOUND STRUCTURE

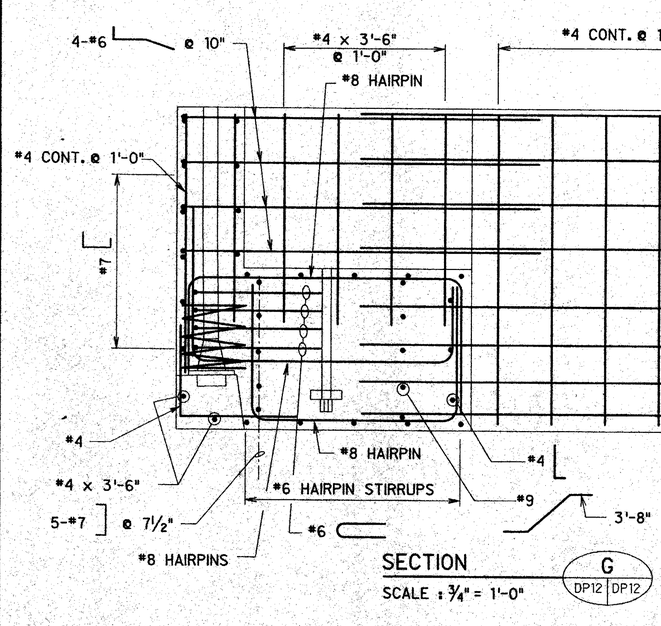
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

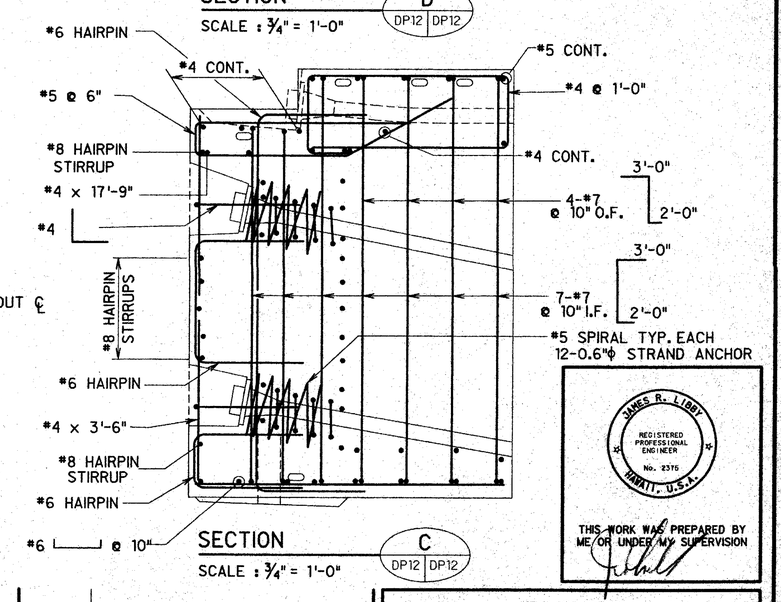
SHEET No. DP11 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	149	274









JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

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

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

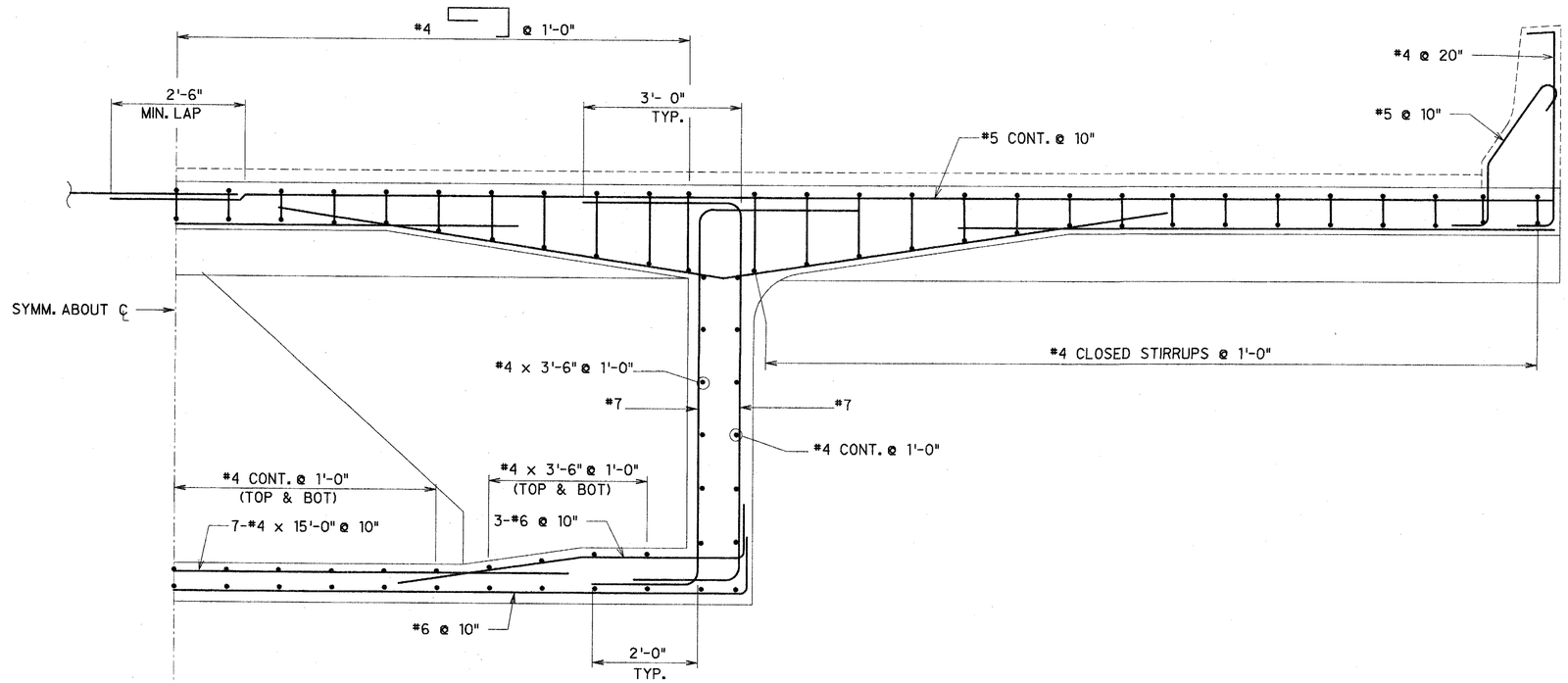
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ABUTMENT 1 SEGMENT REINFORCING I INBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

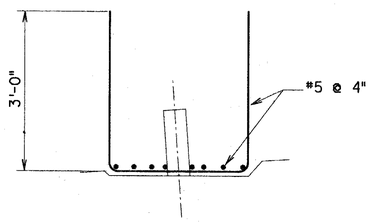
SHEET No. DP12 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	150	274



VIEW H (DP12 | DP13)

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



TYPICAL CONCRETE BEARING PAD REINFORCING

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

ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

NOTE BOOK | No.

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ABUTMENT SEGMENT 1
REINFORCING II
INBOUND STRUCTURE

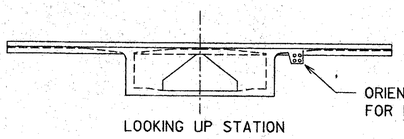
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

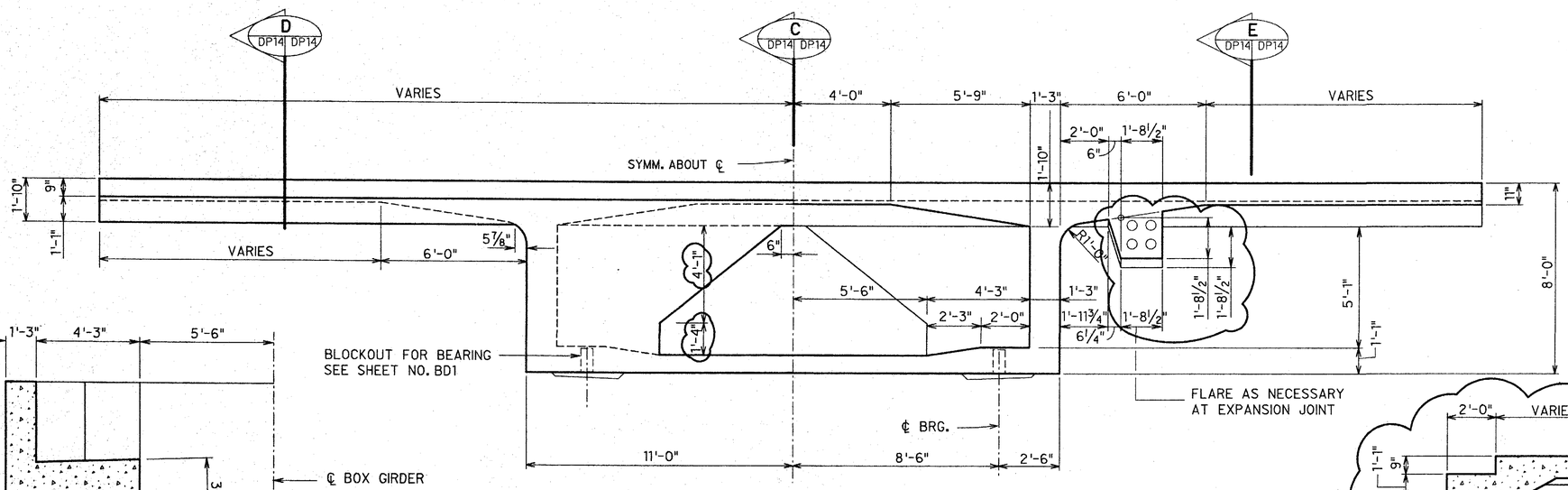
SCALE : AS NOTED DATE : JUN. 1990

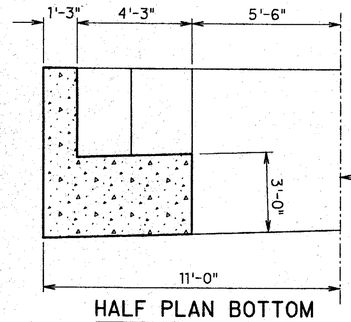
SHEET No. DP13 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	151	274

NOTES:
1. FOR BEARING DETAILS, SEE SHEET NO. BD1
2. FOR EXPANSION JOINT DETAILS, SEE SHEET NO. EJ1.
3. FOR POST-TENSIONING DETAILS, SEE SHEET NO. DP15 & TT1
4. FOR BULKHEAD DETAILS, SEE SHEET NO. SF1.



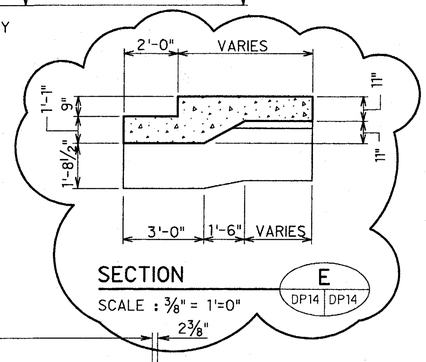




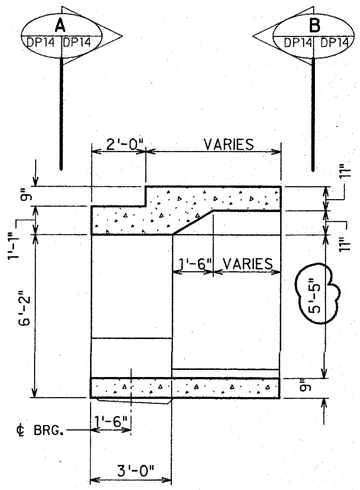
HALF PLAN BOTTOM
SCALE : ⅜" = 1'-0"

HALF VIEW A DP14 DP14
SCALE : ⅜" = 1'-0"

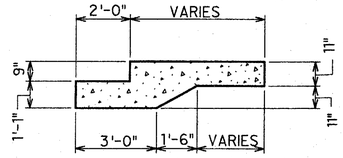
HALF VIEW B DP14 DP14
SCALE : ⅜" = 1'-0"



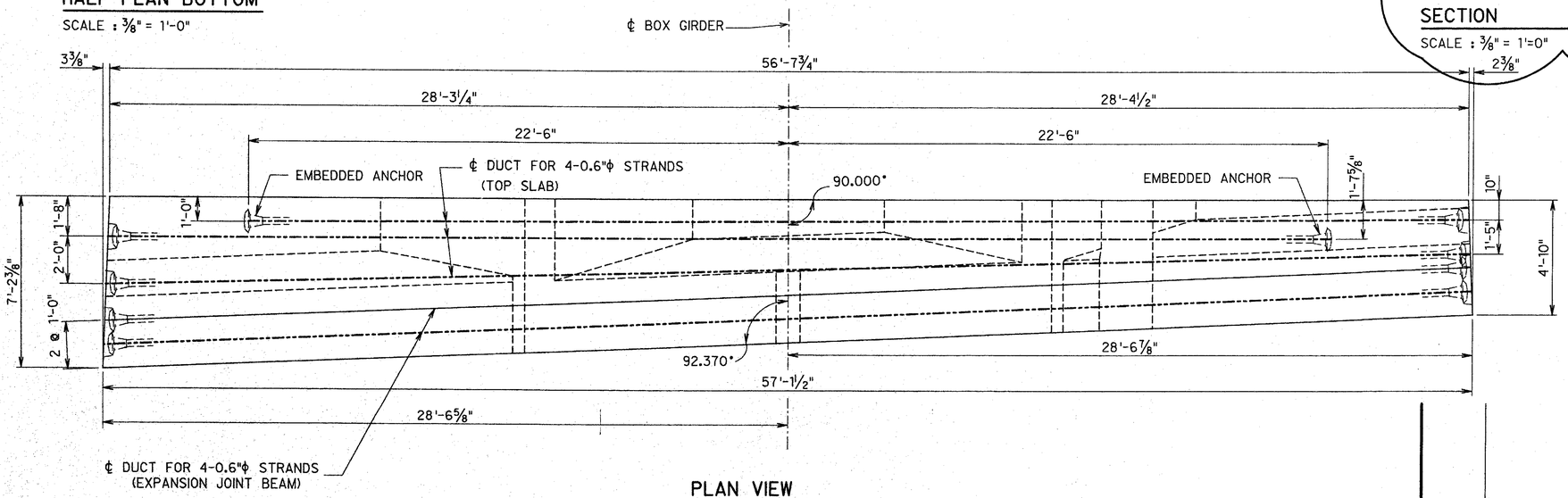
SECTION E DP14 DP14
SCALE : ⅜" = 1'-0"



SECTION C DP14 DP14
SCALE : ⅜" = 1'-0"



SECTION D DP14 DP14
SCALE : ⅜" = 1'-0"



PLAN VIEW
SCALE : ⅜" = 1'-0"

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

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2376-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
10/04/90	UPDATED DRAWING & MOD. PLAN VIEW.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

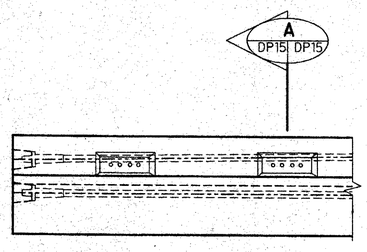
ABUTMENT 1 SEGMENT
DIMENSIONS
OUTBOUND STRUCTURE

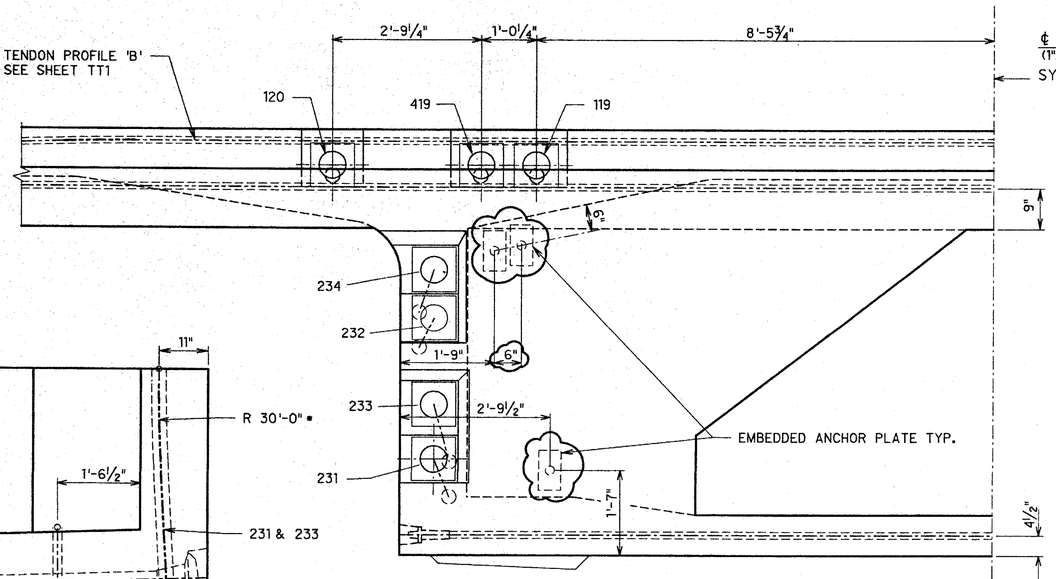
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. DP14 OF SHEETS

151

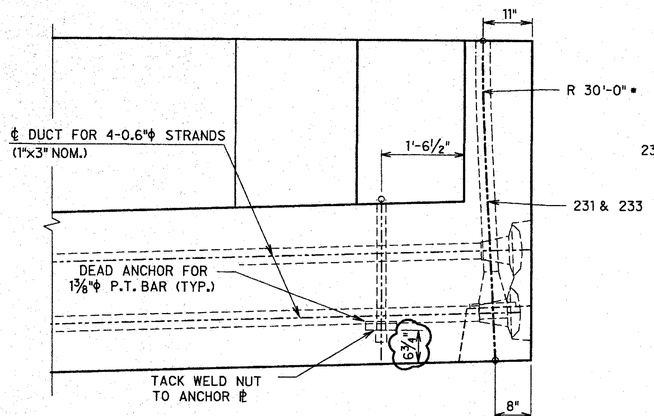
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	152	274





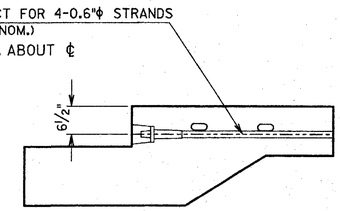
HALF CROSS SECTION

SCALE : ¾" = 1'-0"



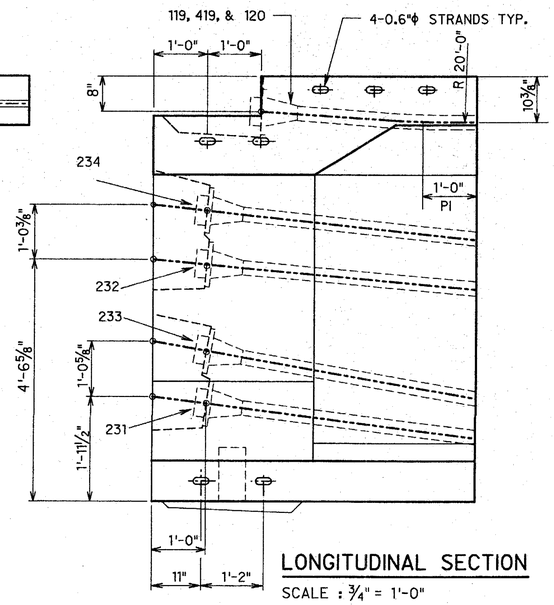
PARTIAL PLAN BOTTOM

SCALE : ¾" = 1'-0"



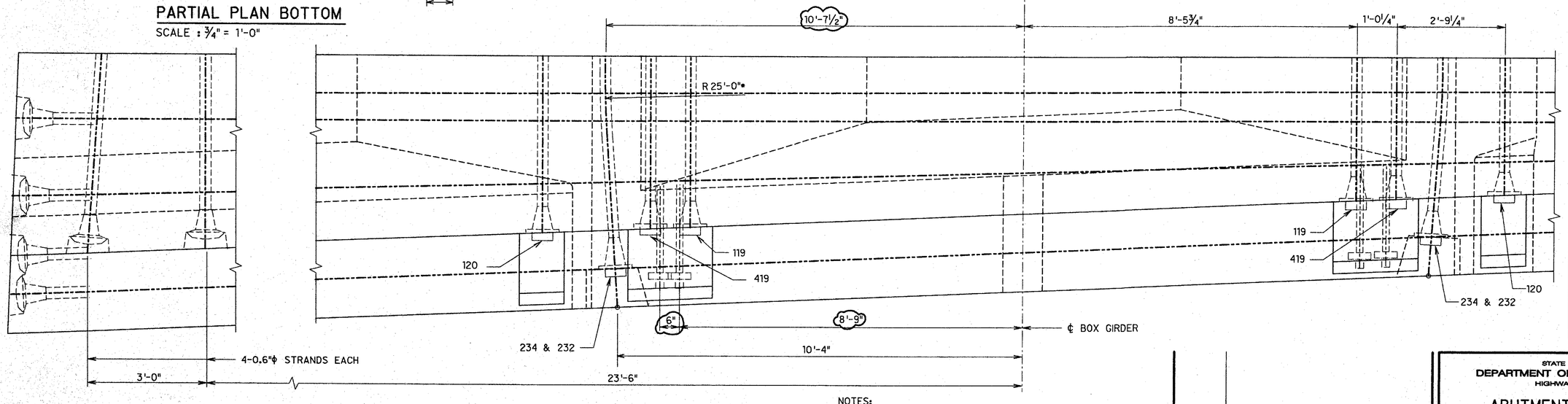
SECTION A (DP15 | DP15)

SCALE : ¾" = 1'-0"



LONGITUDINAL SECTION

SCALE : ¾" = 1'-0"



PLAN VIEW

SCALE : ¾" = 1'-0"

NOTES:
1. ALL LONGITUDINAL TENDONS ARE 12-0.6"ϕ STRANDS EACH.
2. ALL TRANSVERSE TENDONS ARE 4-0.6"ϕ STRANDS EACH.
3. VARIATIONS (IF ANY) DUE TO HORIZONTAL CURVATURE NOT SHOWN
4. MINIMUM RADIUS IS 20' FOR 12-0.6"ϕ TENDONS UNLESS SHOWN OTHERWISE
5. STRESS TRANSVERSE TENDONS TO 216 ksi.
6. SEE SHEET DP14 FOR PLAN LOCATION OF TOP SLAB TRANSVERSE TENDONS.

DATE	REVISION
10/04/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ABUTMENT 1 SEGMENT
P.T. DETAILS
OUTBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

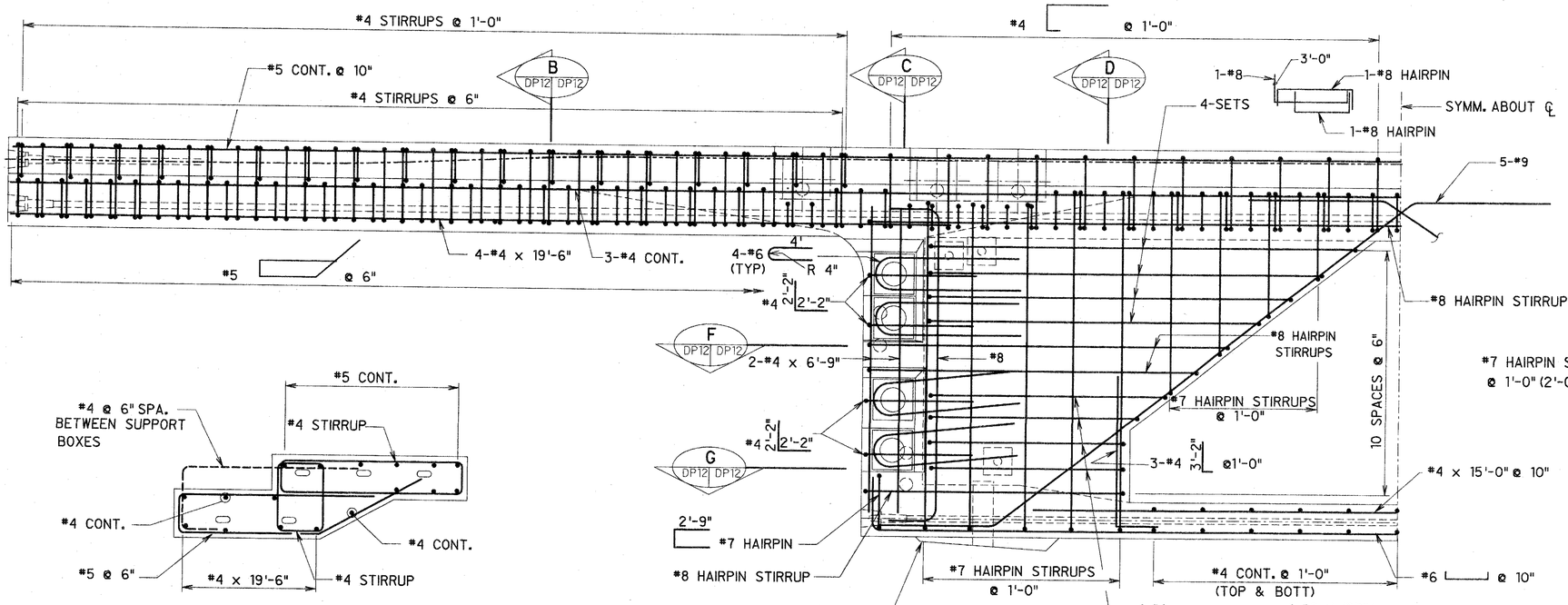
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. DP15 OF SHEETS

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

152

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	153	274

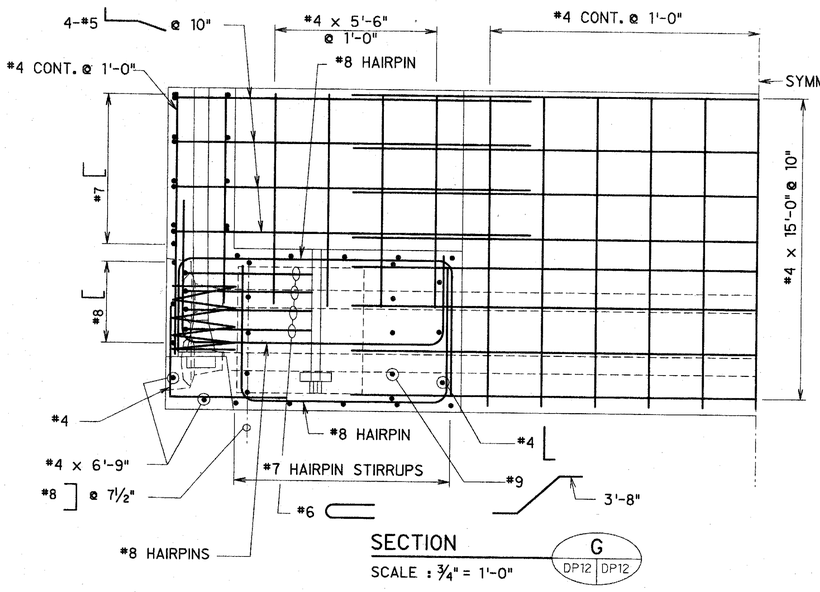


SECTION B
SCALE : 3/4" = 1'-0"

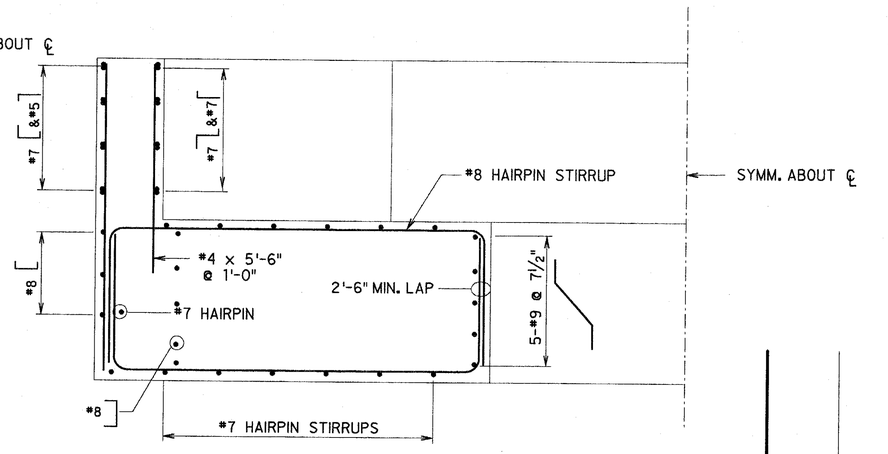
SECTION A
SCALE : 3/4" = 1'-0"

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

NOTE:
1. FOR ADDITIONAL REINFORCING AROUND TENDON ANCHORAGES, SEE SHEET TT1
2. SKEW OF SEGMENT HAS NOT BEEN SHOWN FOR CLARITY



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



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

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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL
Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

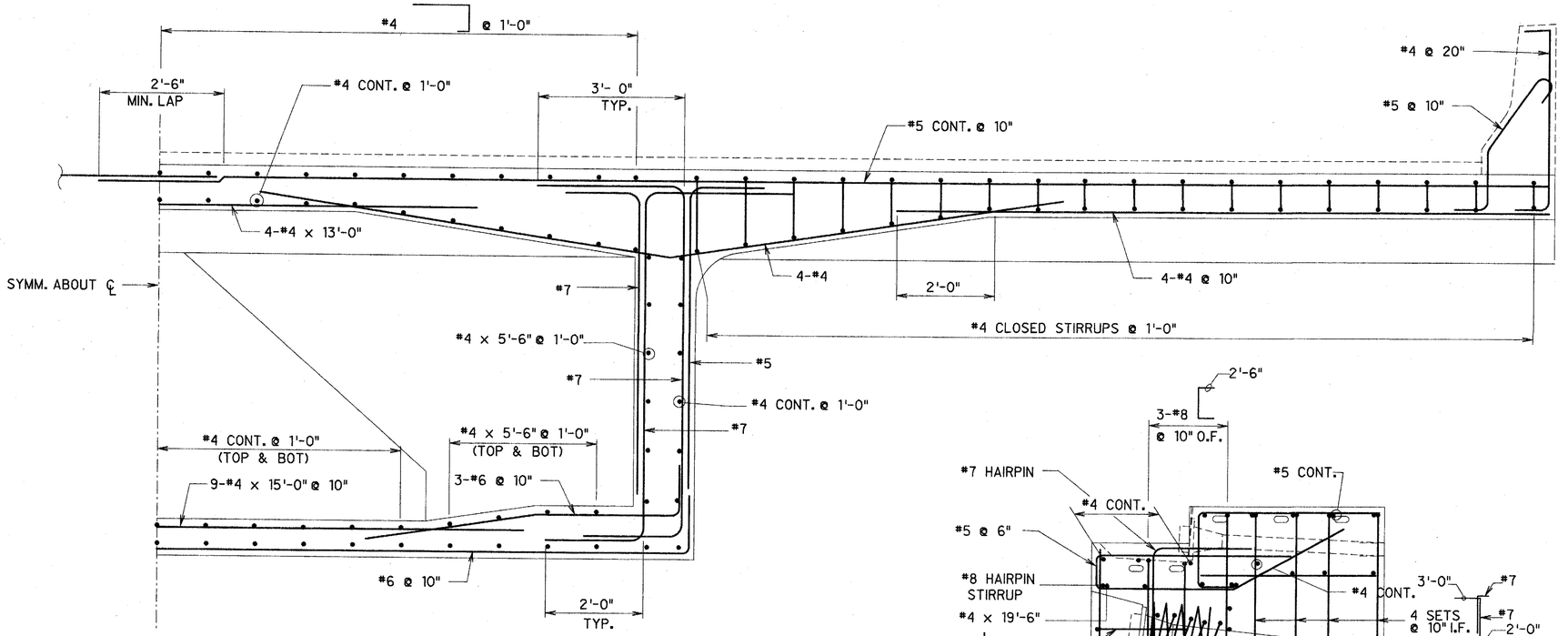
ABUTMENT 1 SEGMENT REINFORCING I OUTBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. DP16 OF SHEETS

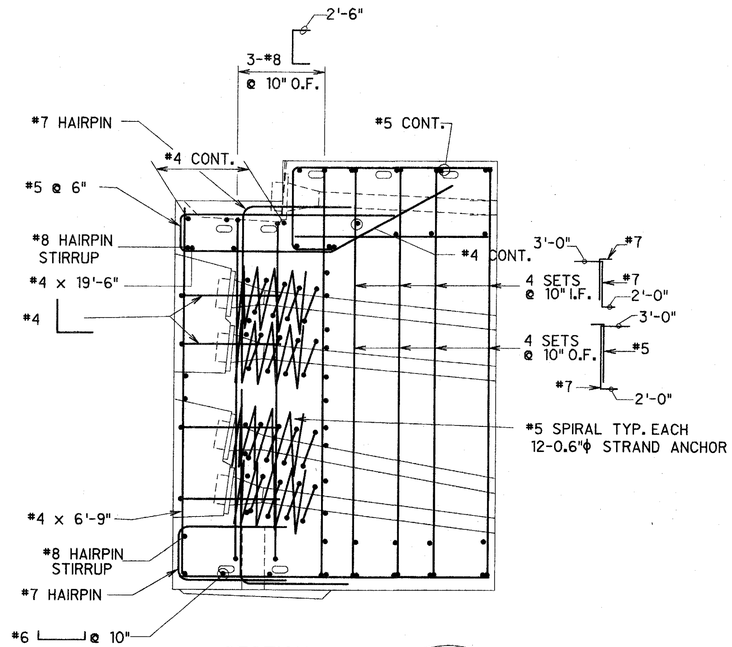
153

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	154	274



VIEW H (DP16 | DP17)
SCALE : 3/4" = 1'-0"

ELECTRICAL DUCT REINFORCING DETAIL
SCALE : 3/4" = 1'-0"



SECTION C (DP16 | DP17)
SCALE : 3/4" = 1'-0"

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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

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DATE	REVISION

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

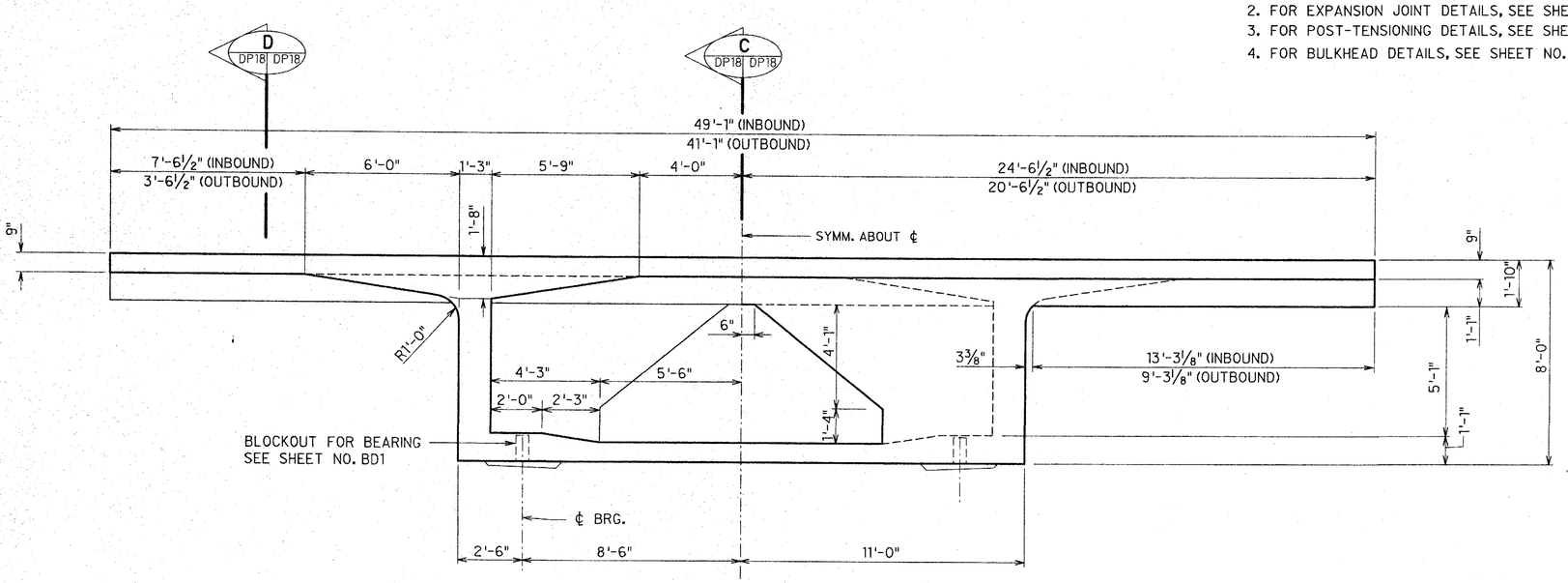
ABUTMENT SEGMENT 1
REINFORCING II
OUTBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. DP17 **OF** **SHEETS**

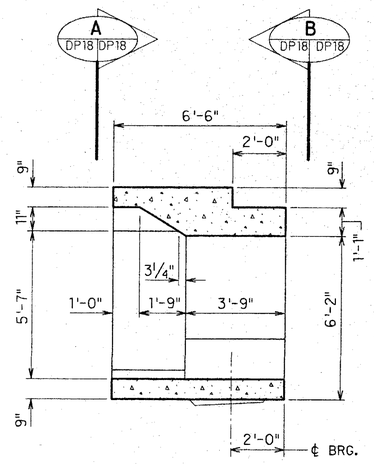
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	155	274

NOTES:
1. FOR BEARING DETAILS, SEE SHEET NO. BD1
2. FOR EXPANSION JOINT DETAILS, SEE SHEET NO. EJ1.
3. FOR POST-TENSIONING DETAILS, SEE SHEET NO. DP19 & TT1
4. FOR BULKHEAD DETAILS, SEE SHEET NO. SF1.

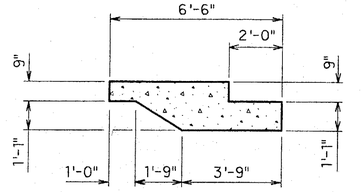


HALF VIEW — A DP18 DP18
SCALE : ⅜" = 1'-0"

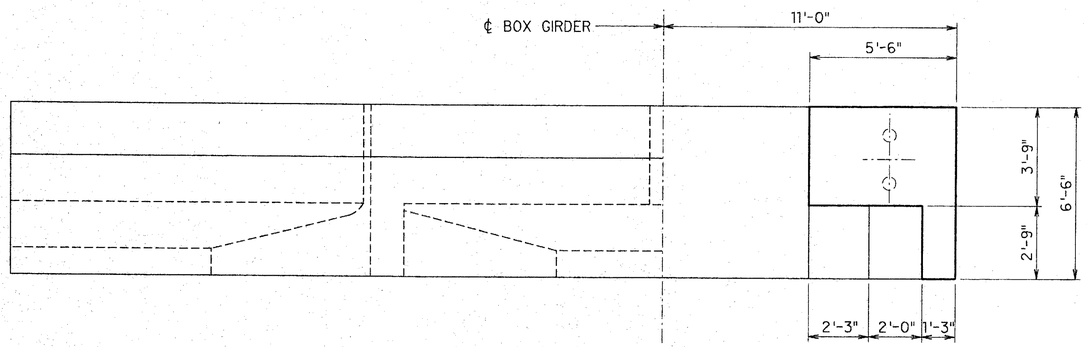
HALF VIEW — B DP18 DP18
SCALE : ⅜" = 1'-0"



SECTION — C DP18 DP18
SCALE : ⅜" = 1'-0"



SECTION — D DP18 DP18
SCALE : ⅜" = 1'-0"



HALF TOP VIEW

HALF BOTTOM VIEW

PLAN VIEW
SCALE : ⅜" = 1'-0"

ORIGINAL PLAN
NOTE BOOK
SURVEY PLOTTED BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

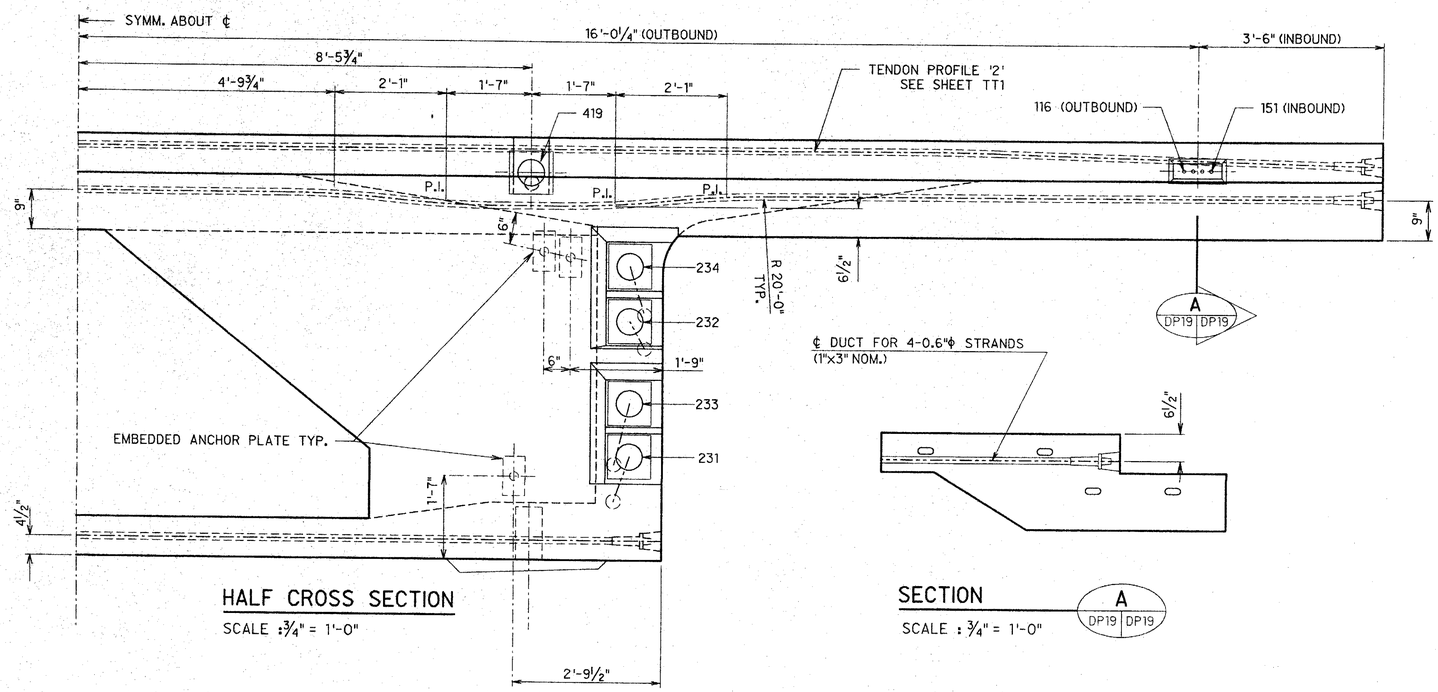
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ABUTMENT 2 SEGMENT
DIMENSIONS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1991
SHEET No. DP18 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	156	274



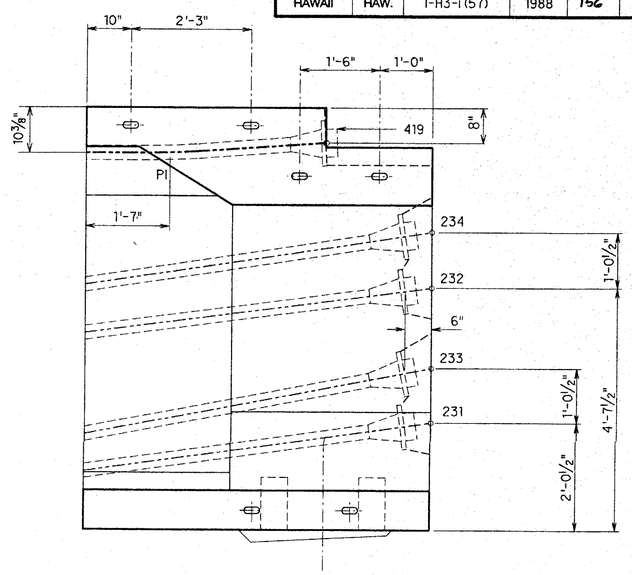
HALF CROSS SECTION

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

SECTION

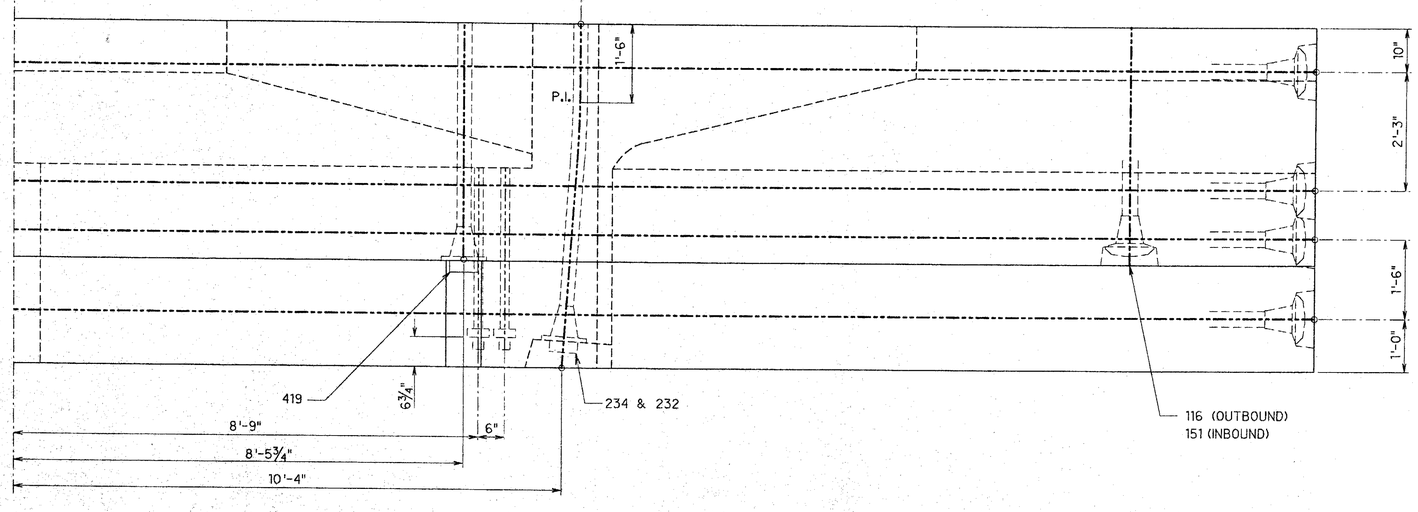
SCALE : 3/4" = 1'-0"

A
DP19 | DP19



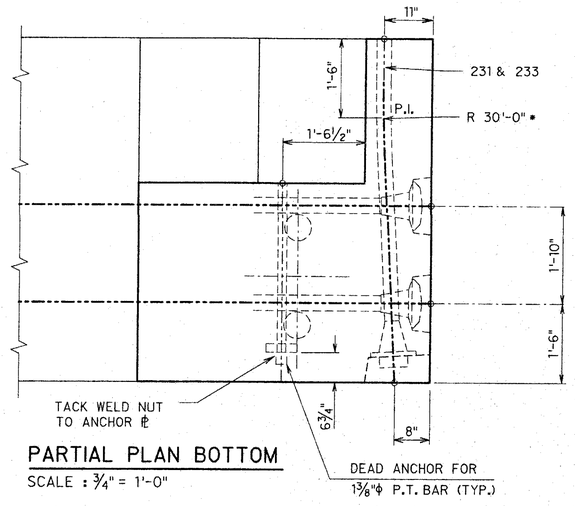
LONGITUDINAL SECTION

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



HALF TOP VIEW

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



PARTIAL PLAN BOTTOM

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

NOTES:
1. ALL LONGITUDINAL TENDONS ARE 19-0.5"ϕ STRANDS EACH.
2. ALL TRANSVERSE TENDONS ARE 4-0.6"ϕ STRANDS EACH.
3. VARIATIONS (IF ANY) DUE TO HORIZONTAL CURVATURE NOT SHOWN
4. MINIMUM RADIUS IS 20' FOR 19-0.5"ϕ TENDONS UNLESS SHOWN OTHERWISE
5. STRESS TRANSVERSE TENDONS TO 205 ksi EXCEPT BOTTOM SLAB TENDONS WHICH SHALL BE STRESSED TO 216 ksi.

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

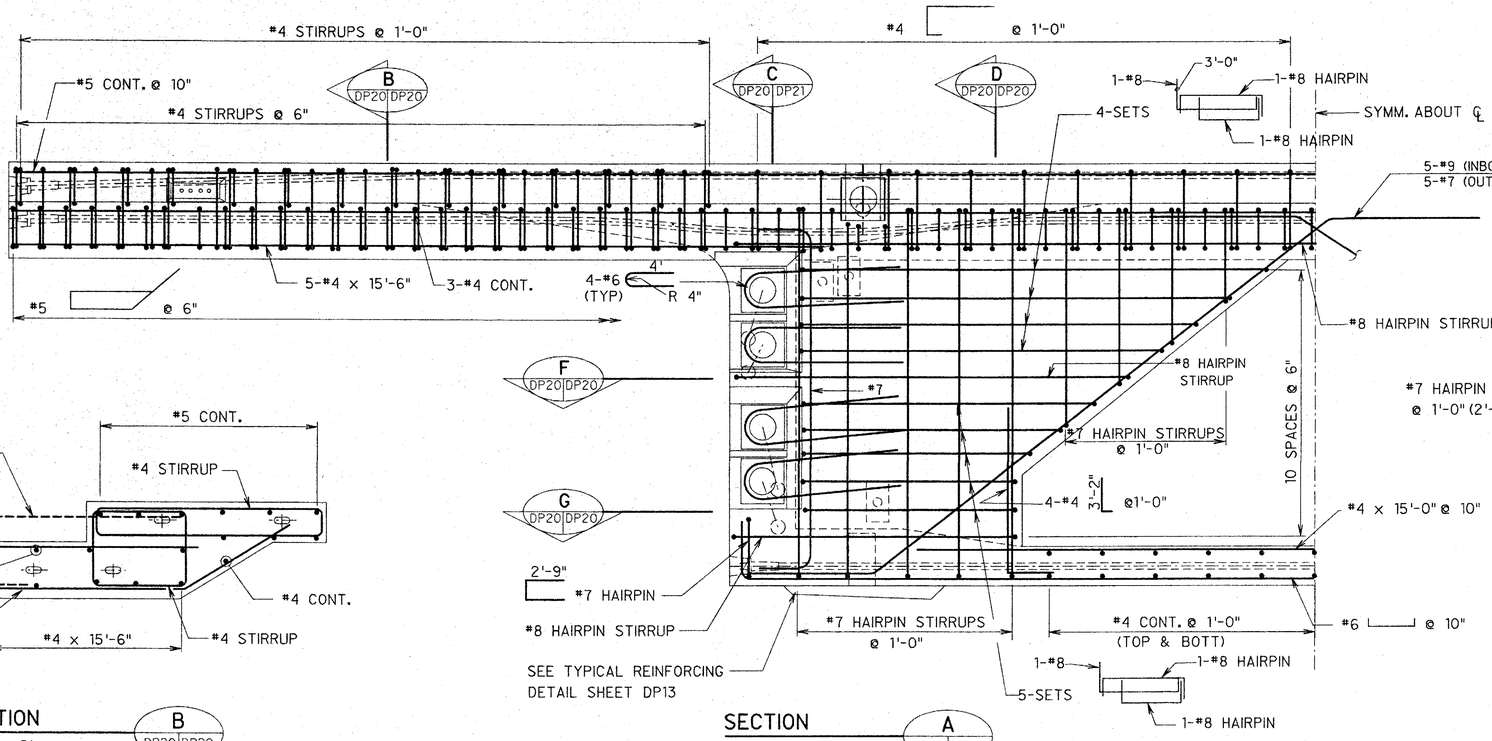
ABUTMENT 2 SEGMENT
P.T. DETAILS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1991

SHEET No. DP19 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	157	274

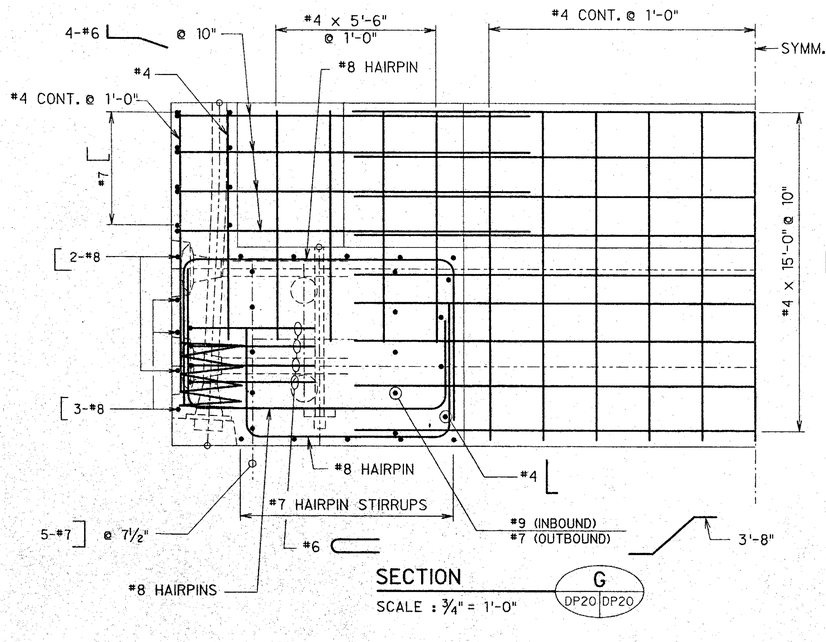


SECTION B DP20 DP20
SCALE : 3/4" = 1'-0"

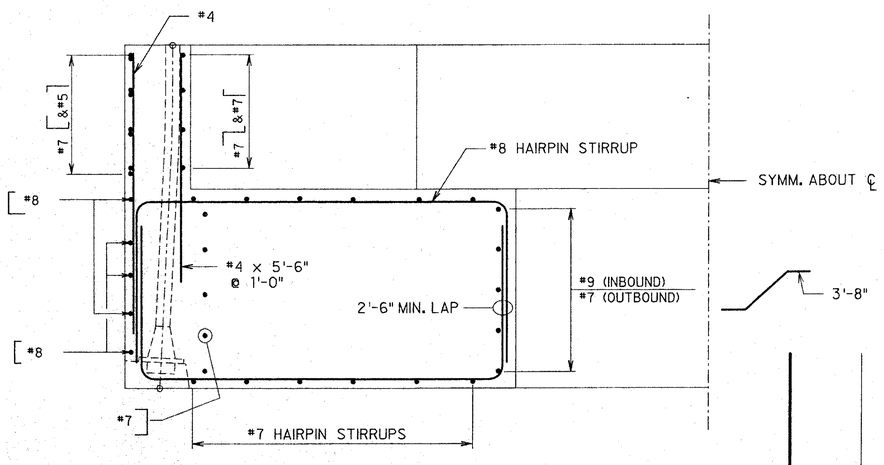
SECTION A DP20 DP20
SCALE : 3/4" = 1'-0"

SECTION D DP20 DP20
SCALE : 3/4" = 1'-0"

NOTE:
1. FOR ADDITIONAL REINFORCING AROUND TENDON ANCHORAGES, SEE SHEET TT1



SECTION G DP20 DP20
SCALE : 3/4" = 1'-0"



SECTION F DP20 DP20
SCALE : 3/4" = 1'-0"

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

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

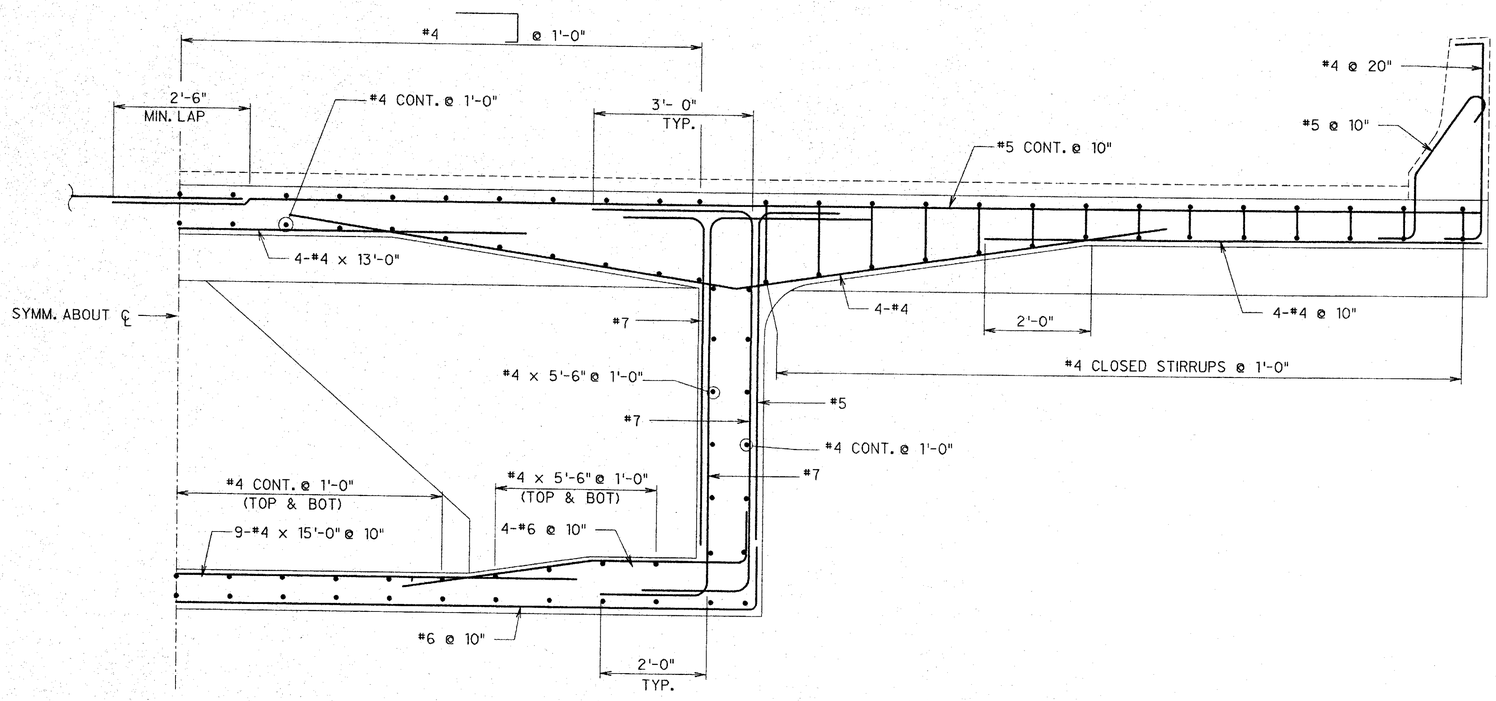
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ABUTMENT 2 SEGMENT
REINFORCING 1

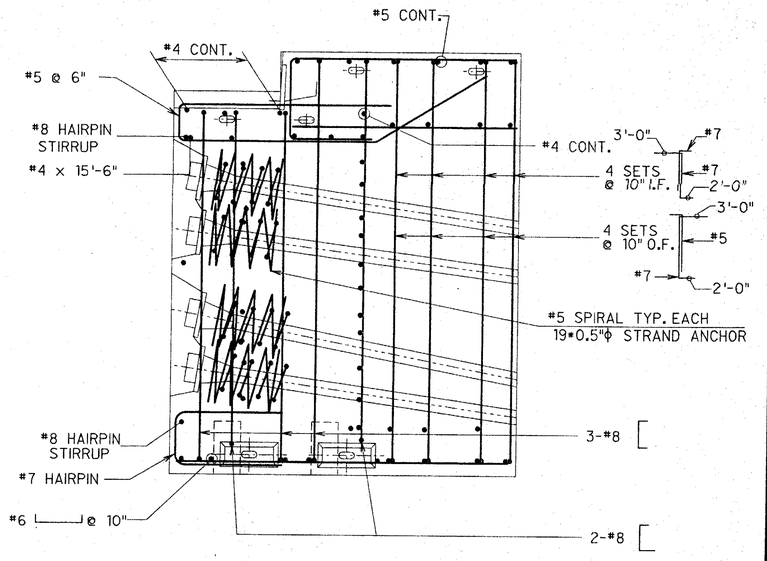
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN.1991

SHEET No. DP20 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	158	274



VIEW H (DP20 | DP21)
SCALE : 3/4" = 1'-0"



SECTION C (DP20 | DP21)
SCALE : 3/4" = 1'-0"

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

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2375 — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

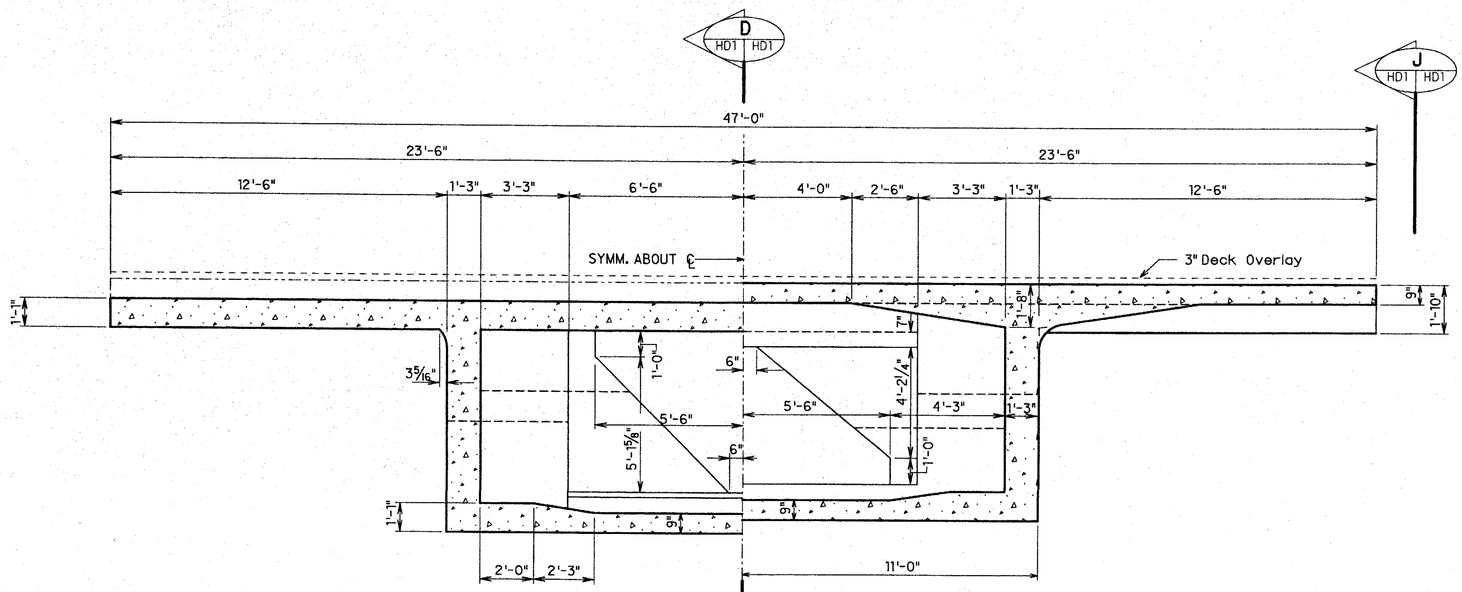
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ABUTMENT 2 SEGMENT
REINFORCING II

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN.1991

SHEET No. DP21 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	159	274



SEGMENT 'A'

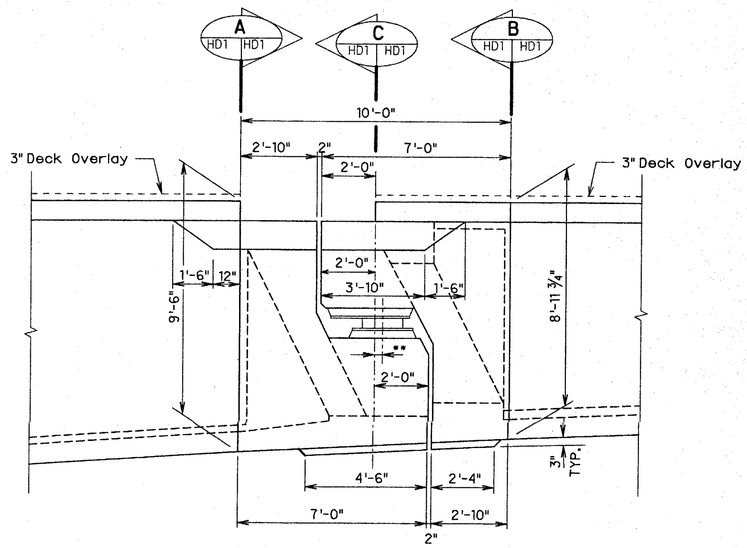
HALF SECTION A

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

SEGMENT 'B'

HALF SECTION B

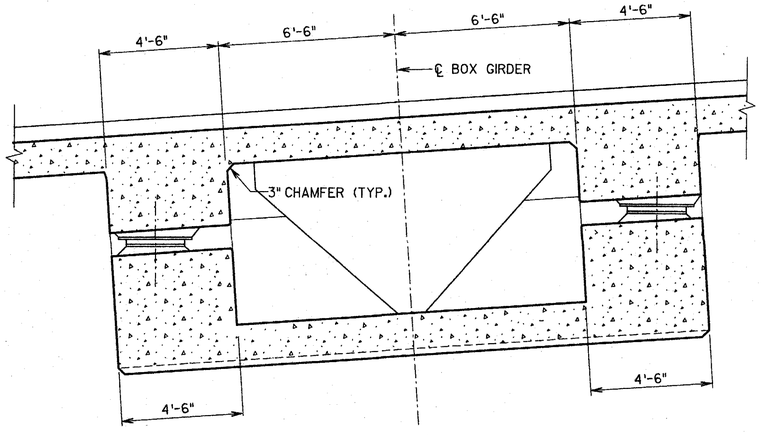
SCALE : 3/8"=1'-0"



SEGMENT 'A' SEGMENT 'B'

VIEW J

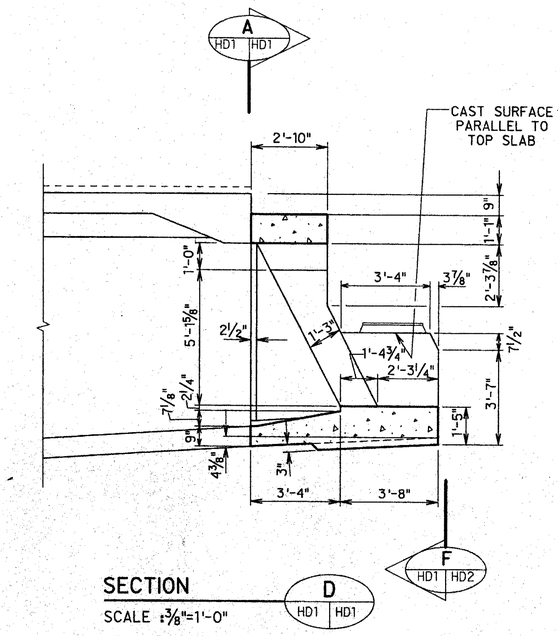
SCALE : 3/8"=1'-0"



SECTION C

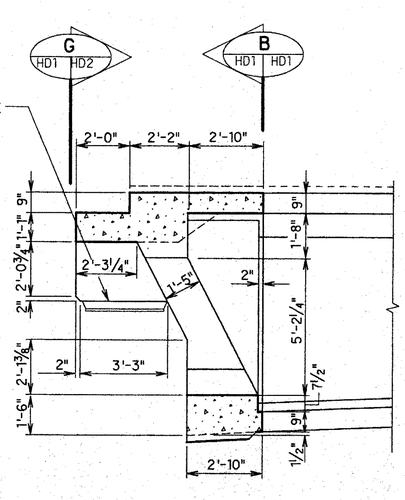
SCALE : 3/8"=1'-0"

(SHOWING MAX. SUPERELEVATION)



SECTION D

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



SECTION E

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

NOTES:

1. FOR BEARING DETAILS, SEE SHEET NO. BD1.
2. FOR EXPANSION JOINT DETAILS, SEE SHEET NO. EJ1.
3. FOR POST-TENSIONING DETAILS, SEE SHEET NOS. HD3 AND HD4.
4. FOR ADDITIONAL SEGMENT DIMENSIONS, SEE SHEET No. PB1.
5. LONGITUDINAL GRADE NOT SHOWN..
6. FOR BULKHEAD DETAILS, SEE SHEET SF1
- **7. SEE DIMENSION "e" SHEET No. BD1.

DATE	REVISION
10/04/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HINGE SEGMENT
DIMENSIONS I

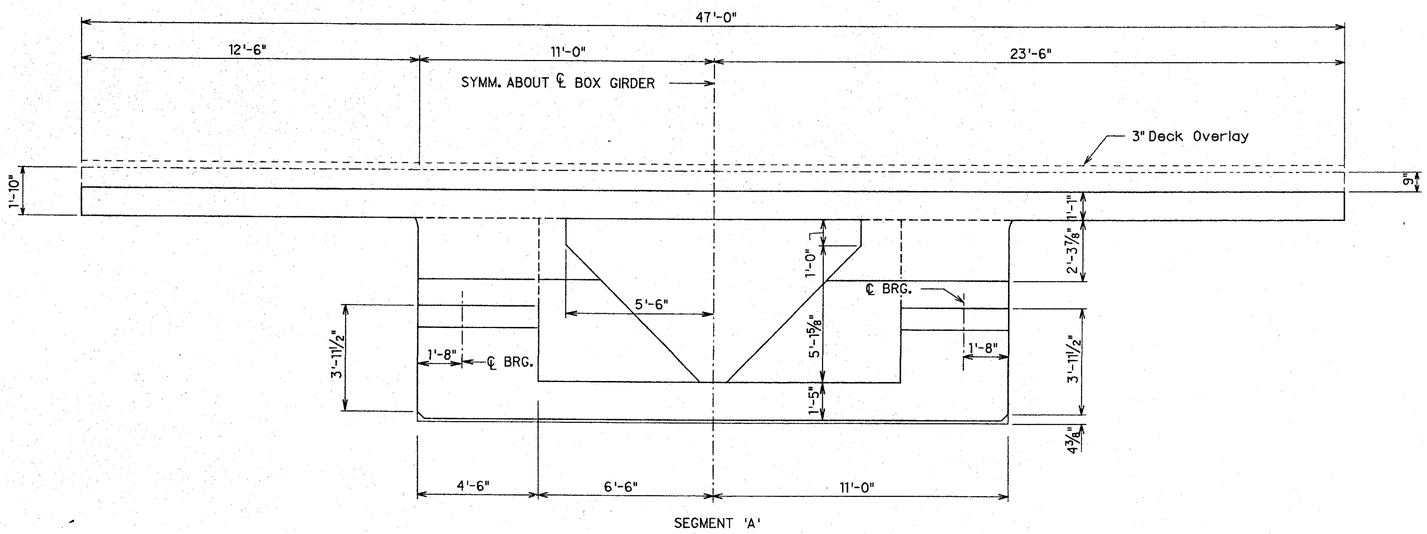
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : SEP. 1990

SHEET No. HD1 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	160	274

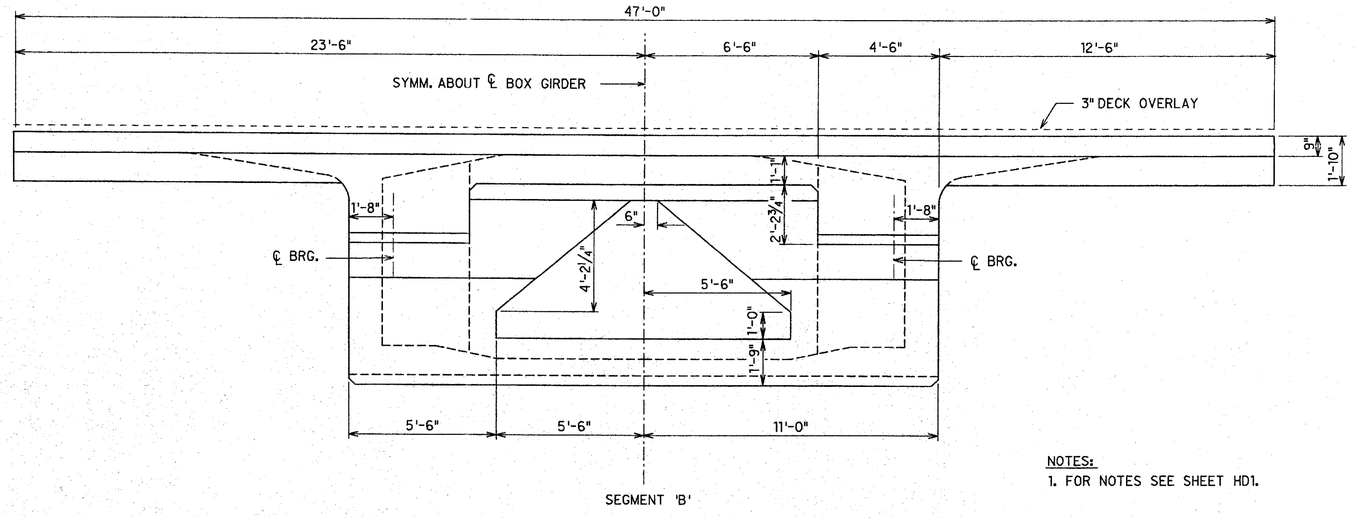


SEGMENT 'A'

SECTION F

SCALE : ⅜"=1'-0"

HD1 | HD2



SEGMENT 'B'

SECTION G

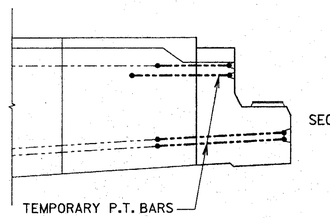
SCALE : ⅜"=1'-0"

HD1 | HD2

NOTES:

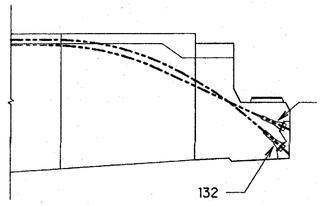
1. FOR NOTES SEE SHEET HD1.

ERECTION SEQUENCE



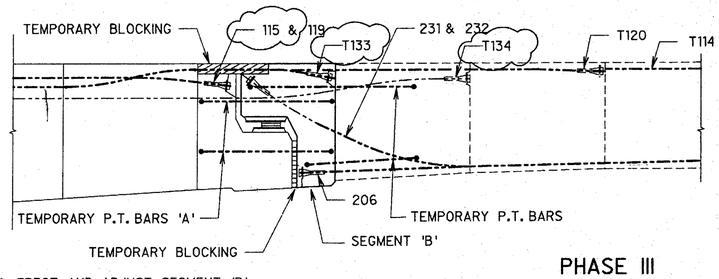
PHASE 1

PLACE SEGMENT 'A' AND STRESS TEMPORARY P.T. BARS



PHASE II

1. PLACE CORRESPONDING CANTILEVER SEGMENTS AND STRESS TENDONS 132 & 131 RESPECTIVELY
2. INSTALL BEARINGS



PHASE III

1. ERECT AND ADJUST SEGMENT 'B'
2. PLACE TEMPORARY SHIMS IN THE EXPANSION JOINT GAP AND STRESS TEMPORARY P.T. BARS 'A'
3. INSTALL TEMPORARY BLOCKING ACCORDING TO DETAILS SHOWN ON SHEET HD9
4. ERECT SEGMENT AT OPPOSITE END OF CANTILEVER
5. INSTALL AND STRESS TENDONS T134 AND 119
6. ERECT REMAINING PAIRS OF CANTILEVER SEGMENTS, STARTING WITH THE DOWNSTATION SEGMENT. STRESS TENDONS T133, T120, 115, T114, & T116.
7. FOLLOWING CLOSURE AND STRESSING OF CONTINUITY TENDONS IN THE SPAN UPSTATION OF THE HINGED SPAN AND AFTER THE ERECTION GANTRY CENTER LEGS HAS BEEN MOVED TO THE THIRD PIER AFTER THE HINGE, THE HINGE WILL BE RELEASED AS FOLLOWS:
   a. RELEASE TEMPORARY P.T. BARS 'A' THROUGH THE HINGE SEGMENT.
   b. RELEASE TEMPORARY TENDONS IN THE FOLLOWING ORDER: T133, T120, T114, T116
   c. REMOVE TEMPORARY BLOCKING

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

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DATE	REVISION
10/04/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

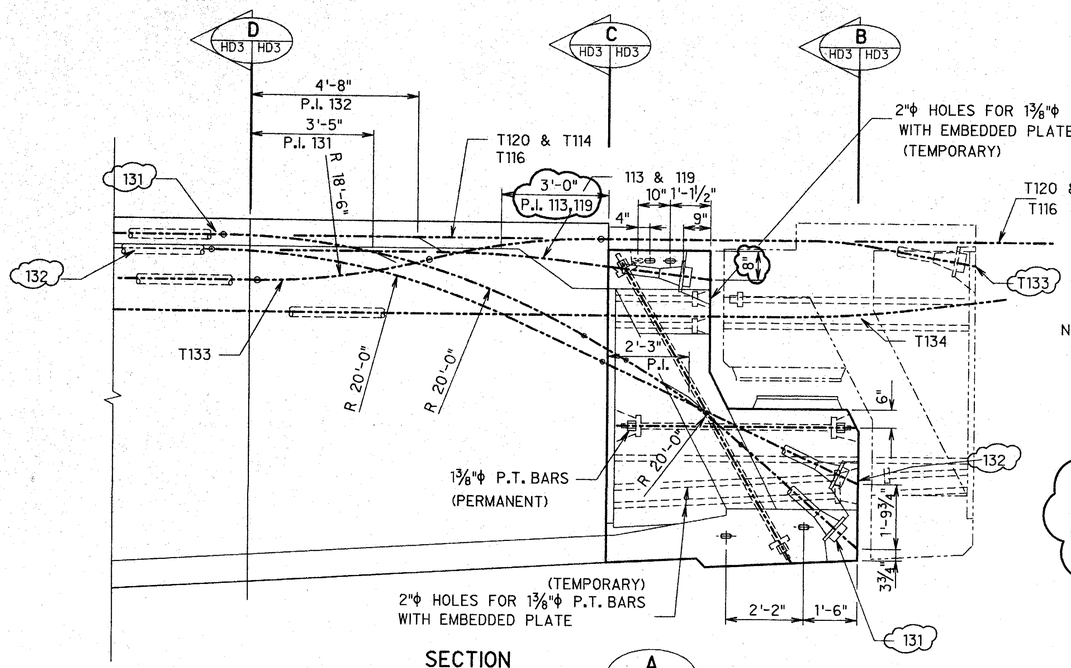
HINGE SEGMENT
DIMENSIONS II

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990

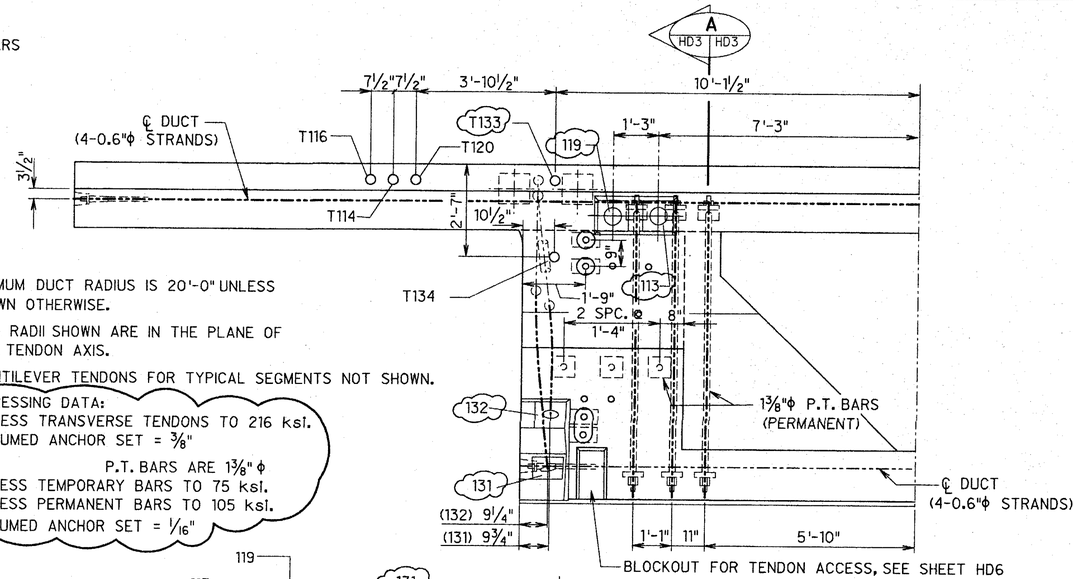
SHEET No. HD2 OF SHEETS

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

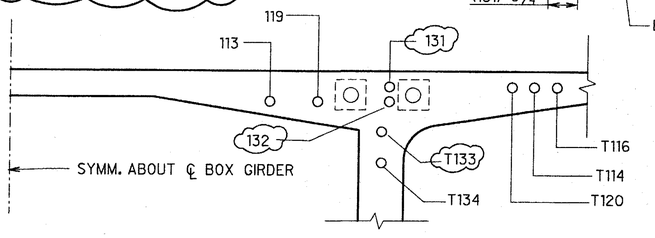
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	161	274



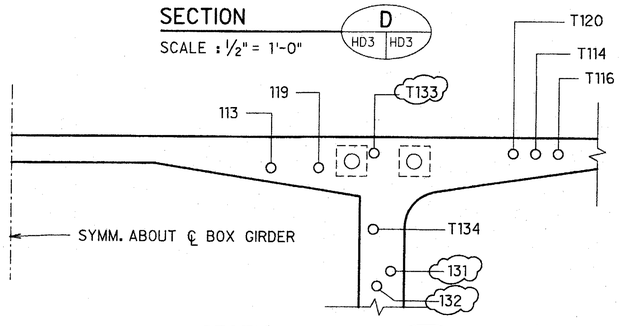
SECTION A
SCALE : ½" = 1'-0"



SECTION B
SCALE : ½" = 1'-0"

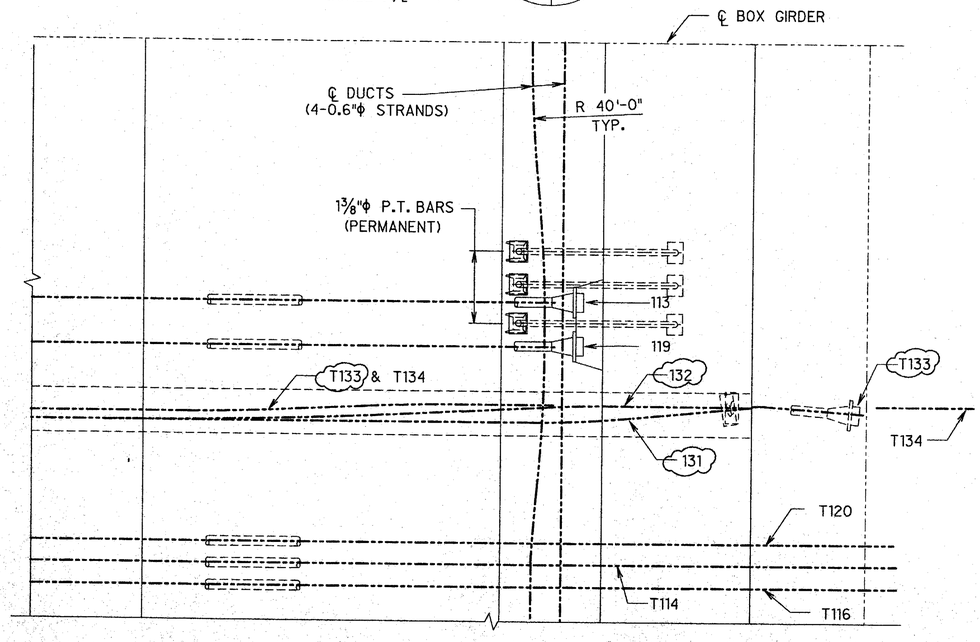


SECTION C
SCALE : ½" = 1'-0"



SECTION D
SCALE : ½" = 1'-0"

NOTES:
1. MINIMUM DUCT RADIUS IS 20'-0" UNLESS SHOWN OTHERWISE.
2. ALL RADII SHOWN ARE IN THE PLANE OF THE TENDON AXIS.
3. CANTILEVER TENDONS FOR TYPICAL SEGMENTS NOT SHOWN.
4. STRESSING DATA:
   STRESS TRANSVERSE TENDONS TO 216 ksi.
   ASSUMED ANCHOR SET = ⅜"
5. ALL P.T. BARS ARE 1⅜"ϕ
   STRESS TEMPORARY BARS TO 75 ksi.
   STRESS PERMANENT BARS TO 105 ksi.
   ASSUMED ANCHOR SET = 1/16"



PLAN VIEW
SCALE : ½" = 1'-0"

DATE	REVISION
10/04/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

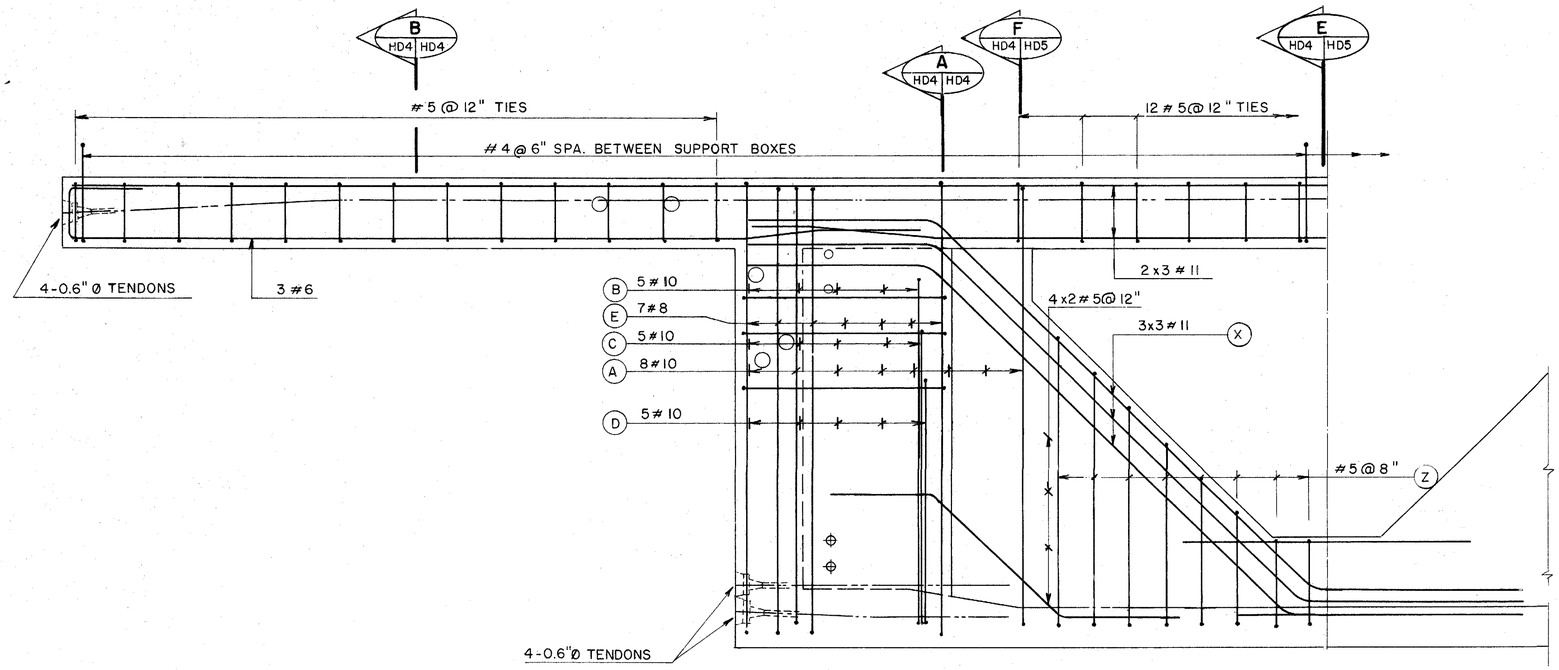
HINGE SEGMENT A
POST-TENSIONING DETAILS

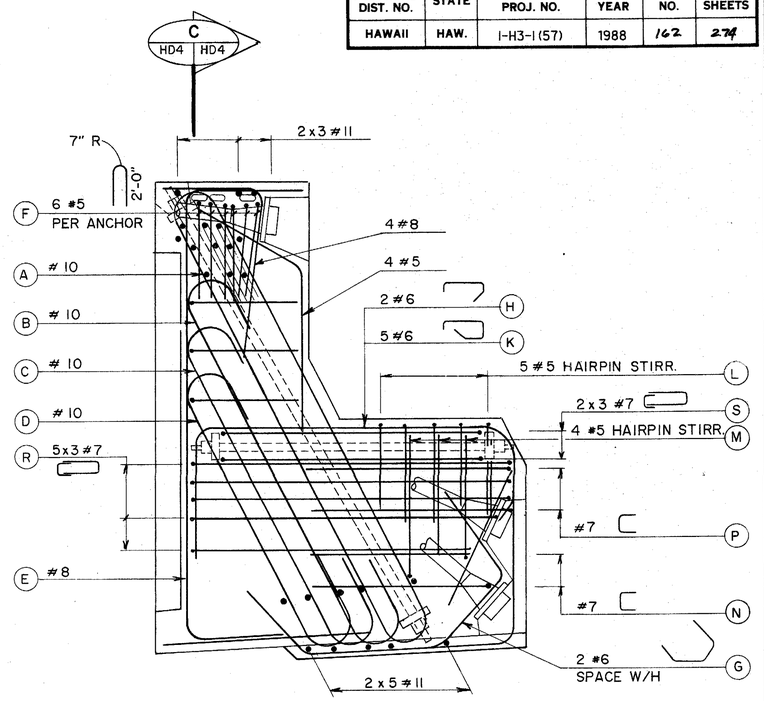
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990

SHEET No. HD3 OF SHEETS

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

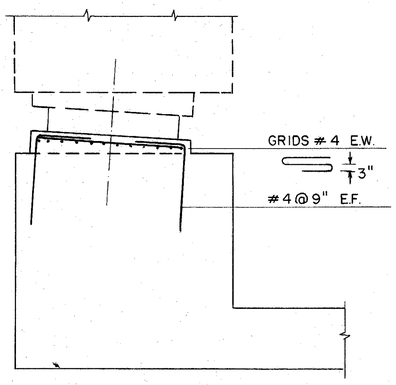
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(57)	1988	162	274



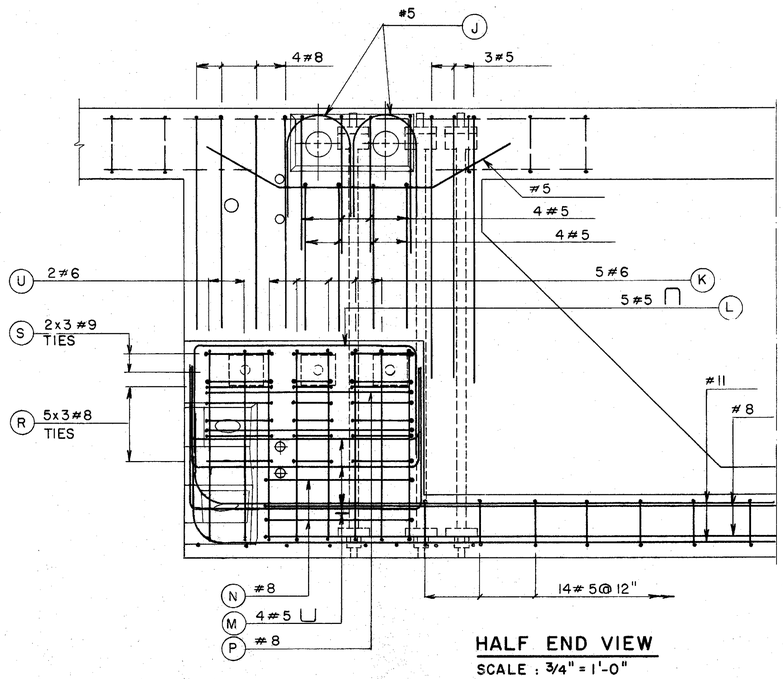


SECTION C HD4 HD4
SCALE : 3/4" = 1'-0"

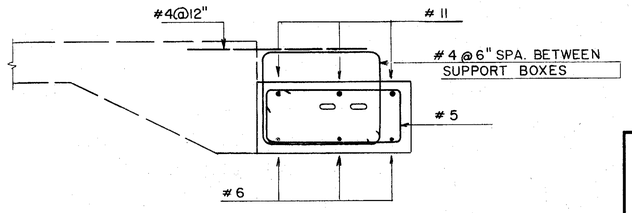
SECTION A HD4 HD4
SCALE : 3/4" = 1'-0"



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



HALF END VIEW
SCALE : 3/4" = 1'-0"



SECTION B HD4 HD4
SCALE : 3/4" = 1'-0"

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JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2974 HAWAII, U.S.A.

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

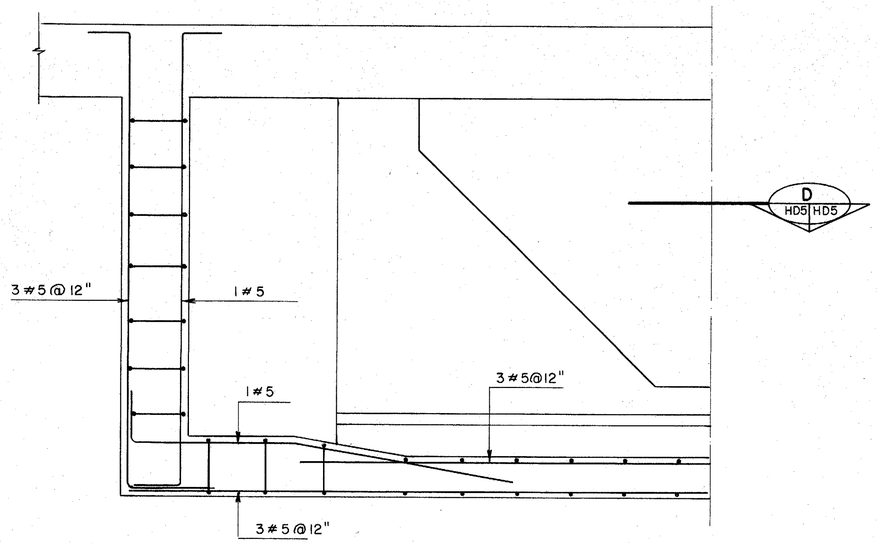
HINGE SEGMENT A
REINFORCING I

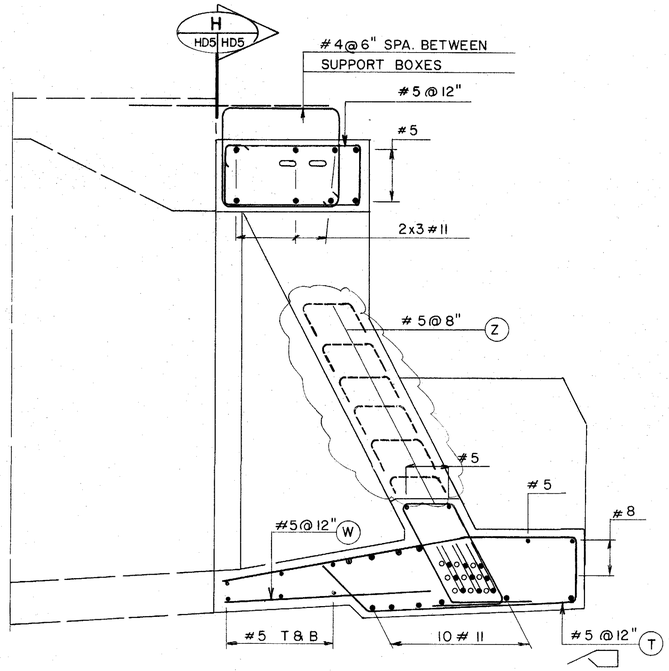
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-I(57)
F.A.I. PROJECT No. I-H3-I(58)
SCALE : AS NOTED DATE : JUN. 1990

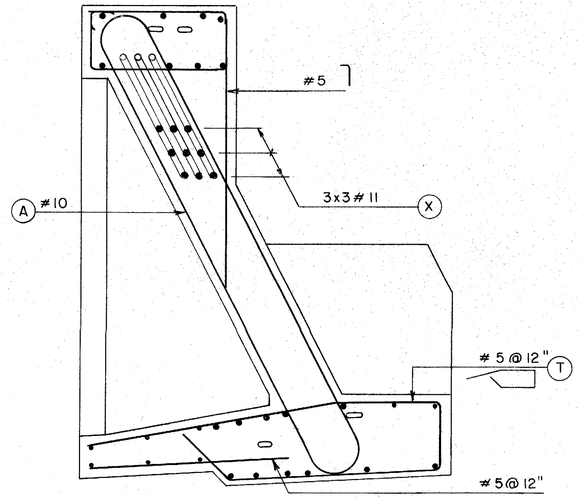
SHEET No. HD4 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	163	274



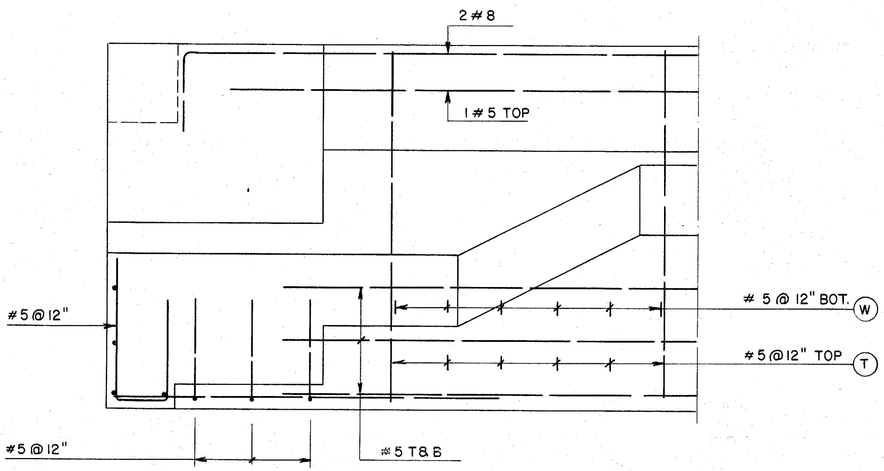




VIEW H
SCALE : 3/4" = 1'-0" HD5 HD5

SECTION E
SCALE : 3/4" = 1'-0" HD4 HD5

SECTION F
SCALE : 3/4" = 1'-0" HD4 HD5



SECTION D
SCALE : 3/4" = 1'-0" HD5 HD5

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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2075
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL
Libby Engineers

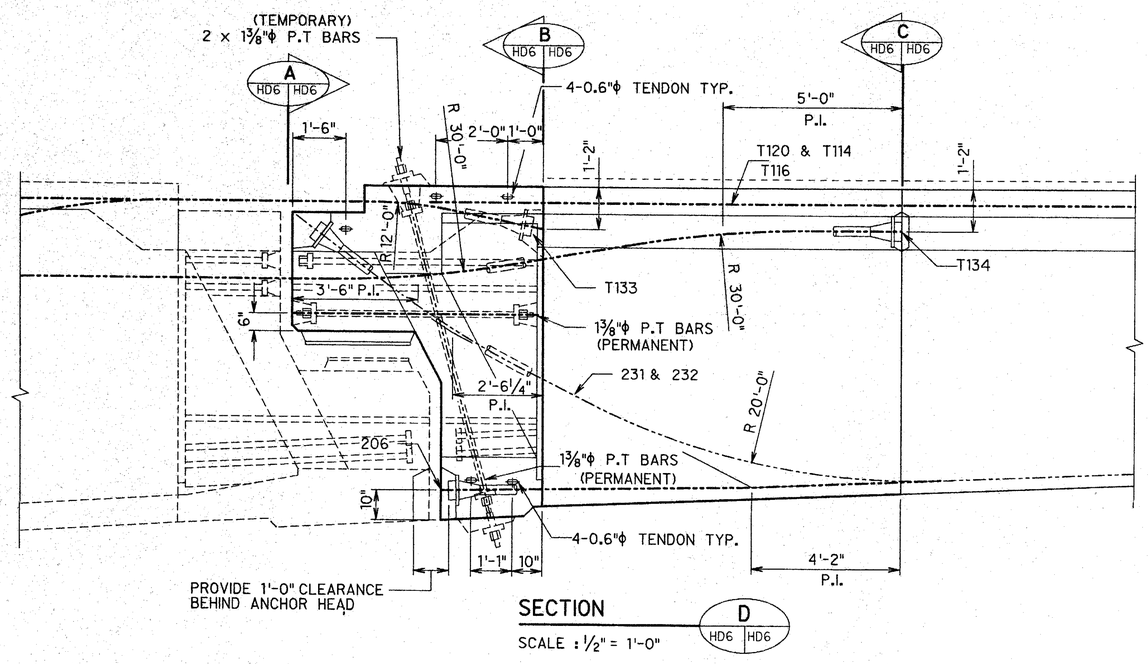
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HINGE SEGMENT A
REINFORCING II

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

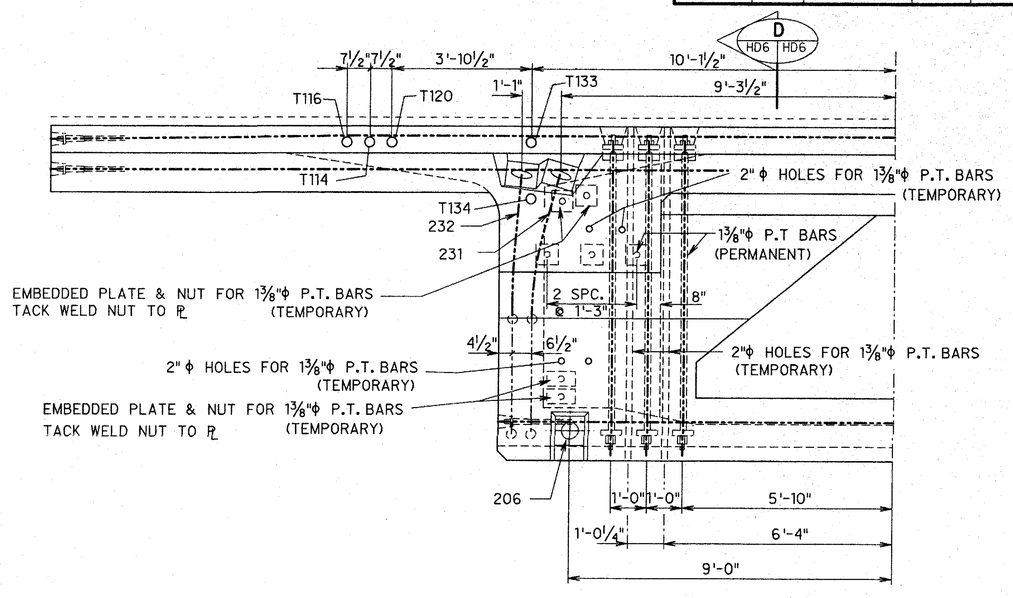
SHEET No. HD5 OF SHEETS

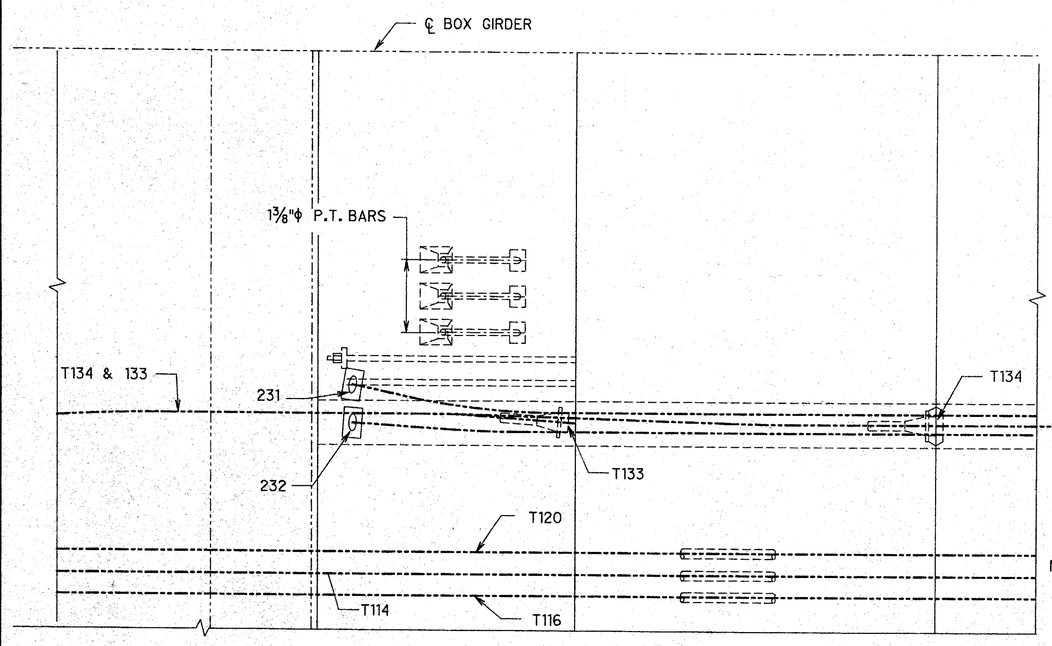
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	164	274



SECTION D HD6 HD6

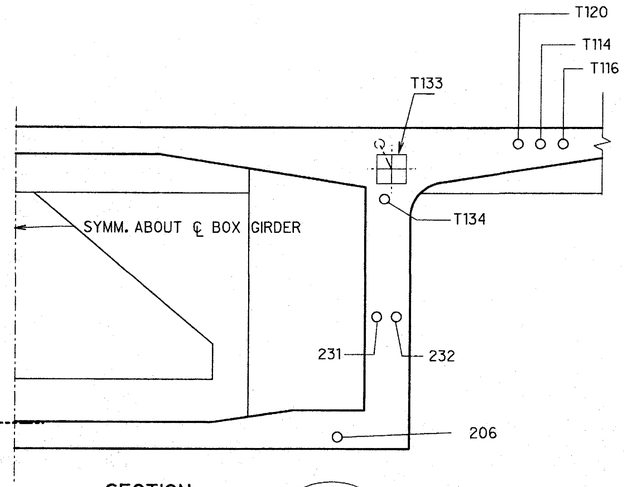
SCALE : ½" = 1'-0"





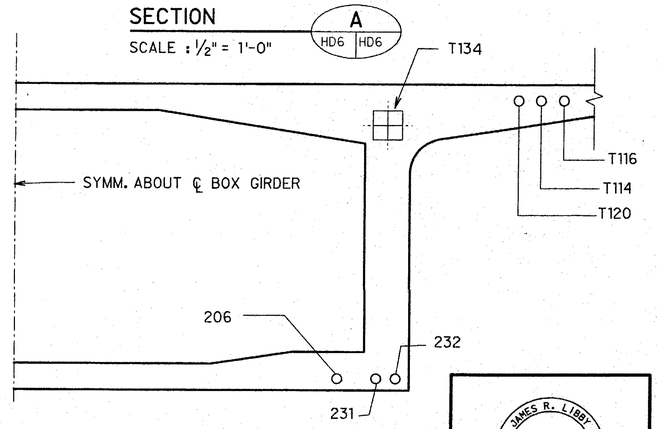
PLAN VIEW

SCALE : ½" = 1'-0"



SECTION B HD6 HD6

SCALE : ½" = 1'-0"



SECTION A HD6 HD6

SCALE : ½" = 1'-0"

SECTION C HD6 HD6

SCALE : ½" = 1'-0"

NOTES:

1. MINIMUM DUCT RADIUS IS 20'-0" UNLESS SHOWN OTHERWISE.
2. ALL RADII SHOWN ARE IN PLANE OF THE TENDON AXIS.
3. CANTILEVER TENDONS FOR TYPICAL SEGMENTS NOT SHOWN.
4. TRANSVERSE TENDONS:
   STRESS TENDONS TO 216ksi.
   ASSUMED ANCHOR SET= ⅜"
5. ALL P.T. BARS ARE 1⅜"
   STRESS ALL PERMANENT AND VERTICAL TEMPORARY BARS TO 105ksi.
   STRESS ALL HORIZONTAL TEMPORARY BARS TO 75ksi.

DATE	REVISION
05/13/91	REVISED NOTE 5.
10/04/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HINGE SEGMENT B
POST-TENSIONING DETAILS

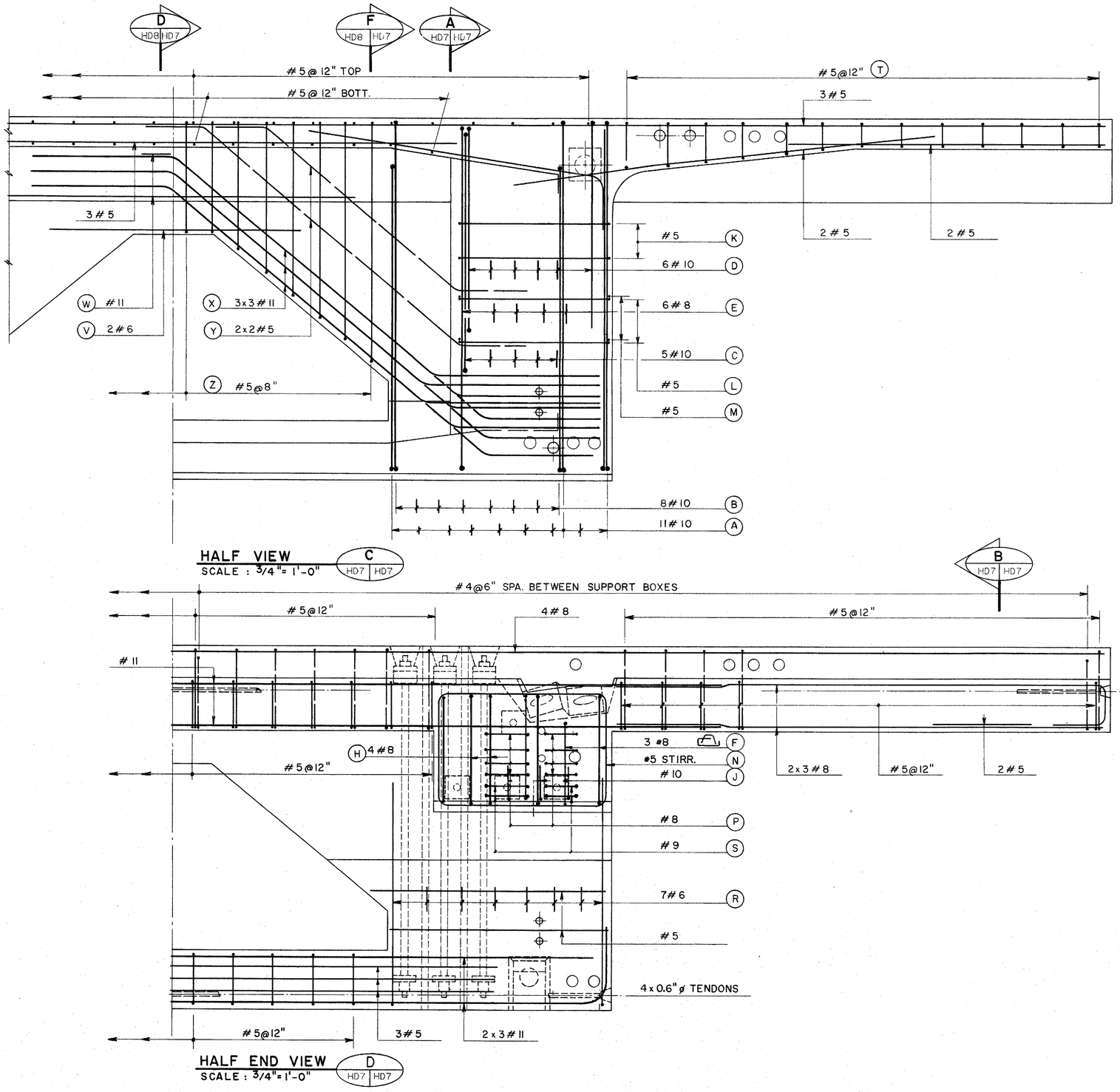
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : SEP. 1990

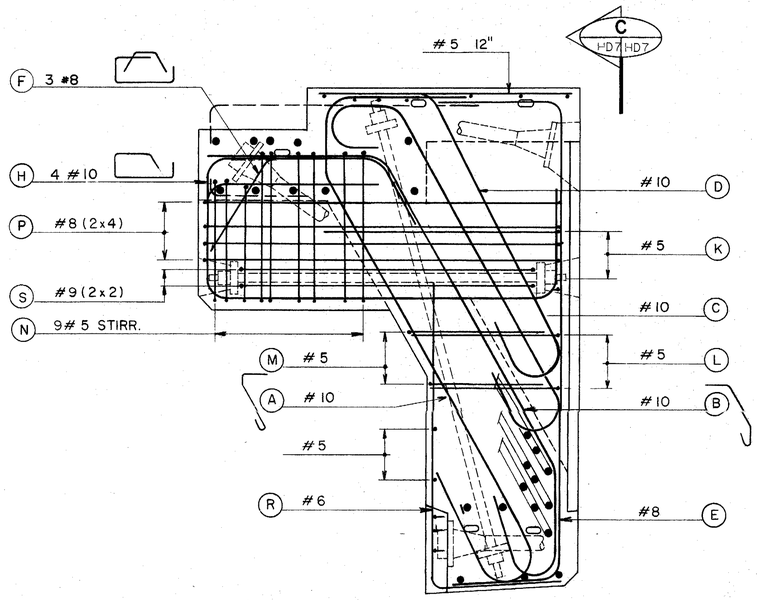
SHEET No. HD6 OF SHEETS

ORIGINAL PLAN | NOTE BOOK | No. | DATE
SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED 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(57)	1988	165	274

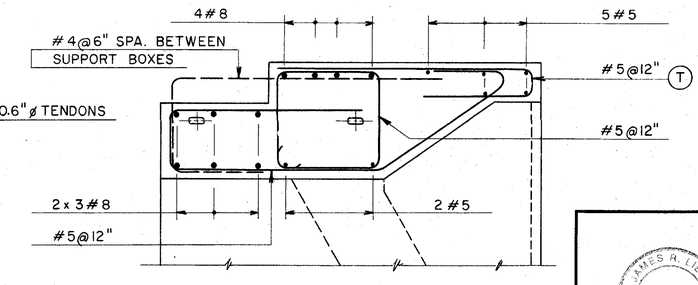


HALF VIEW C HD7 HD7
SCALE : 3/4"= 1'-0"



SECTION A HD7 HD7
SCALE : 3/4"= 1'-0"

HALF END VIEW D HD7 HD7
SCALE : 3/4"= 1'-0"



SECTION B HD7 HD7
SCALE : 3/4"= 1'-0"

JAMES H. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2315 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

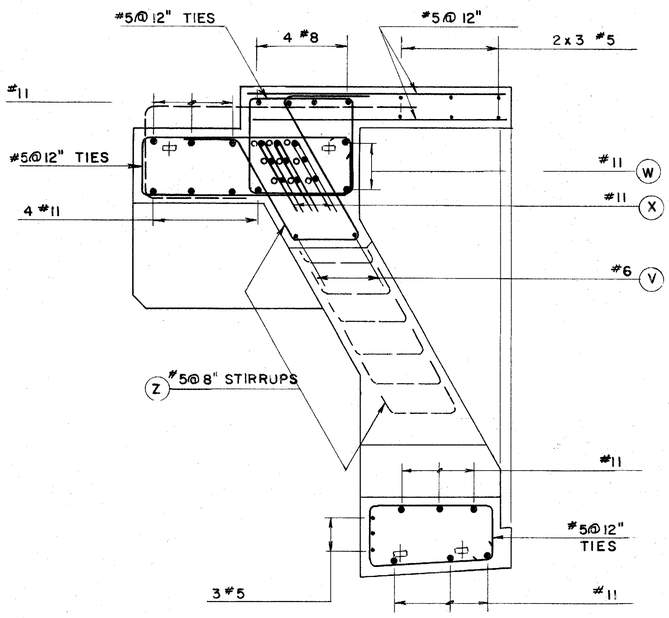
HINGE SEGMENT B
REINFORCING I

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

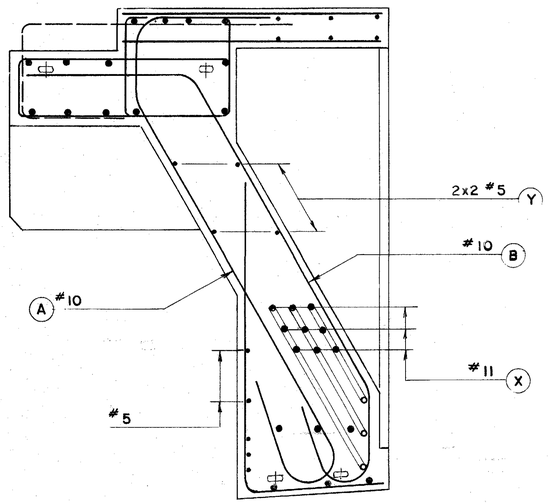
SHEET No. HD7 OF SHEETS

ORIGINAL PLANS | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE
NOTE BOOK | No

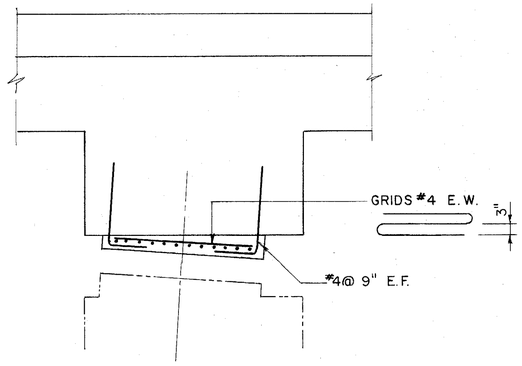
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	166	274



SECTION D
SCALE : 3/4" = 1'-0"
HD7 | HD8



SECTION F
SCALE : 3/4" = 1'-0"
HD7 | HD8



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

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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 3275
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

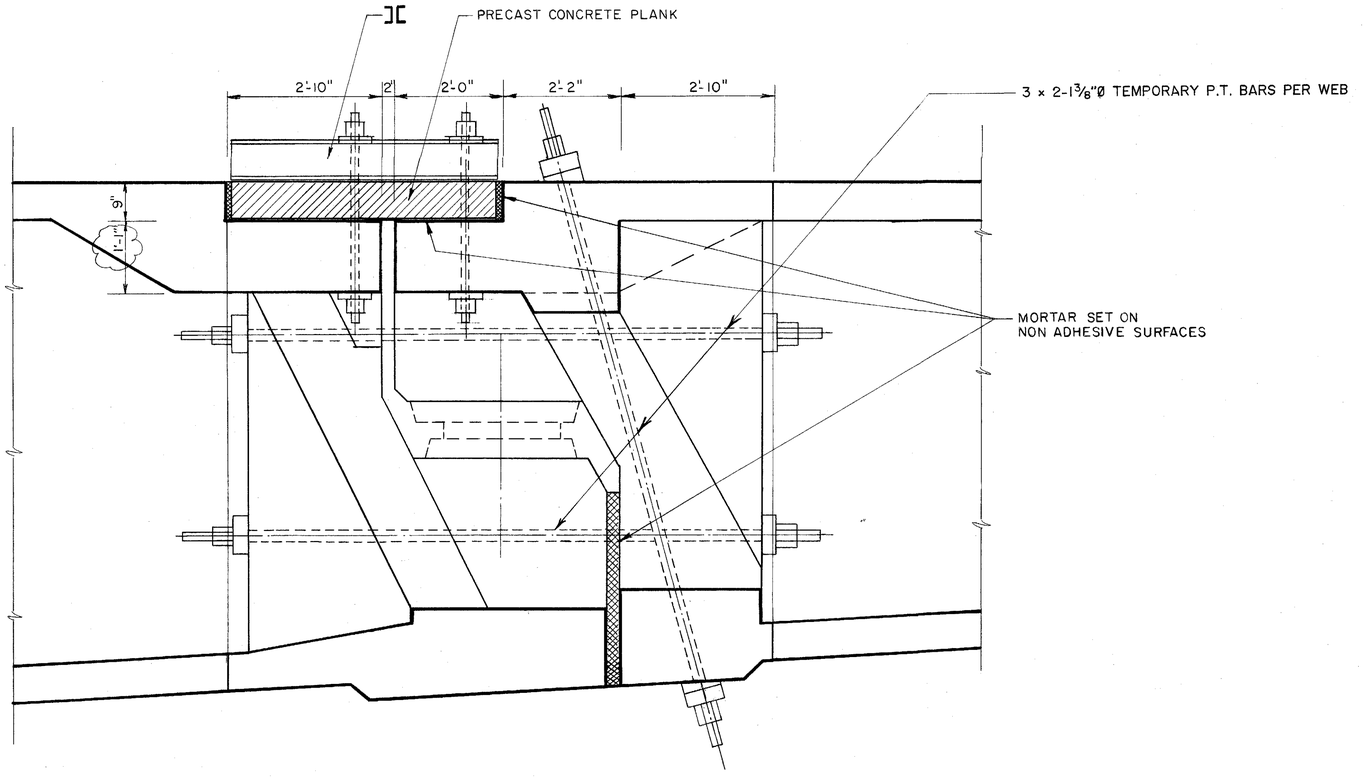
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HINGE SEGMENT B REINFORCING II

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. HD8 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	167	274



SCHEME OF PRINCIPLE
SCALE: 3/4 = 1'-0"

ORIGINAL PLAN	SURVEY PLOTTED BY J.V.L. DATE
NOTE BOOK	DRAWN BY J.V.L.
No.	TRACED BY M.M.
	DESIGNED BY
	QUANTITIES BY
	CHECKED BY

DATE	REVISION
08/23/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

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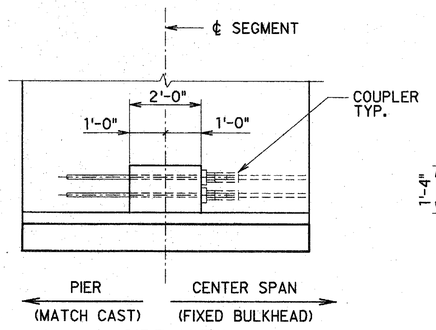
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HINGE SEGMENTS TEMPORARY BLOCKING

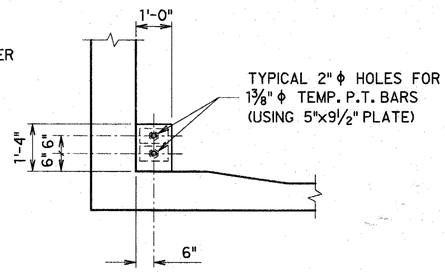
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. HD9 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	168	274



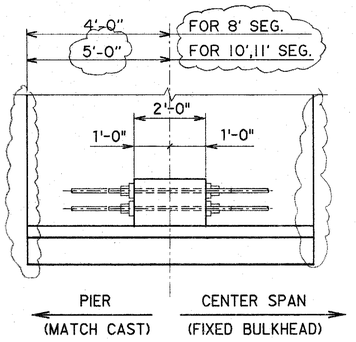
SIDE VIEW



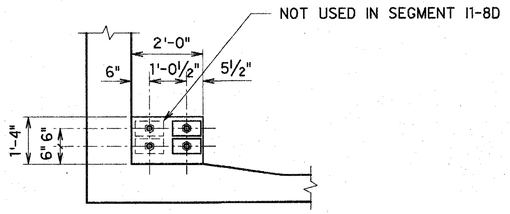
FRONT VIEW

BLOCK A

SCALE : ½" = 1'-0"



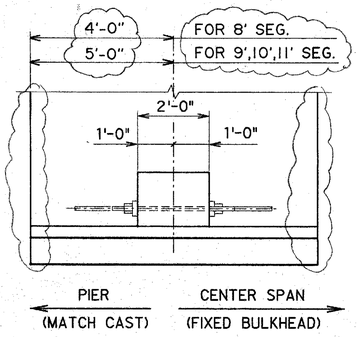
SIDE VIEW



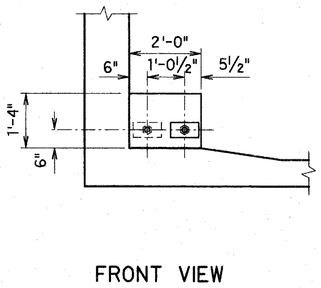
FRONT VIEW

BLOCK B1

SCALE : ½" = 1'-0"



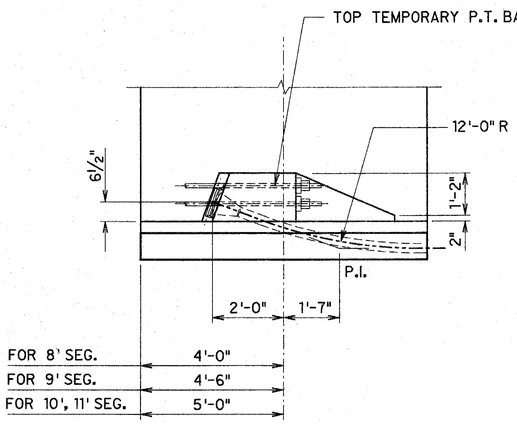
SIDE VIEW



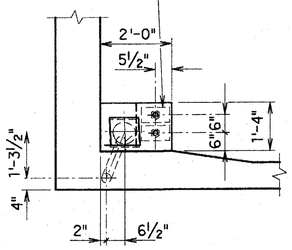
FRONT VIEW

BLOCK B2

SCALE : ½" = 1'-0"



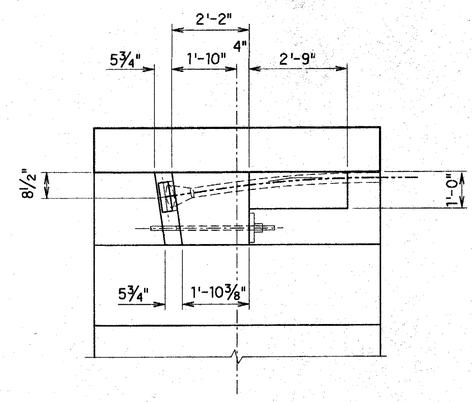
SIDE VIEW



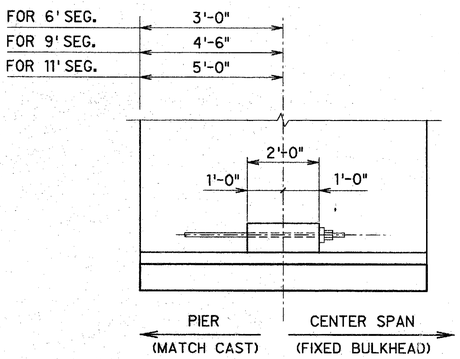
FRONT VIEW

BLOCKS C1,C2

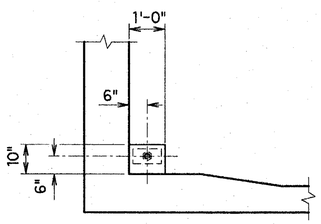
SCALE : ½" = 1'-0"



TOP VIEW



SIDE VIEW



FRONT VIEW

BLOCK D

SCALE : ½" = 1'-0"

NOTE : FOR BLOCKS B3 THRU B5, C3, C4, E1, E2 SEE SHEET No. PT2

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
02/25/91	UPDATED DRAWING.
07/25/90	UPDATED DRAWING

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

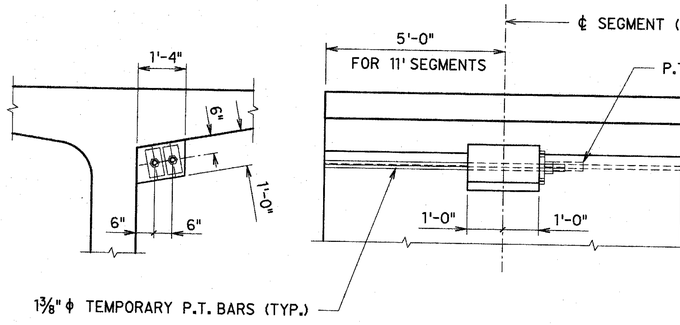
POST-TENSIONING DETAILS I
BOTTOM BLOCKS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. TA1 OF SHEETS

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

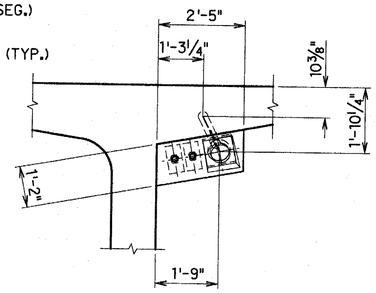
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	169	274



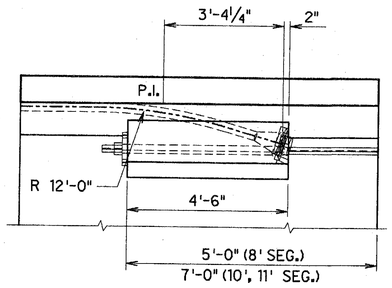
FRONT VIEW
TYPICAL P.T. BARS LOCATION

SIDE VIEW
PIER (MATCH CAST) ← → CENTER SPAN (FIXED BULKHEAD)

BLOCK 1
SCALE : ½" = 1'-0"

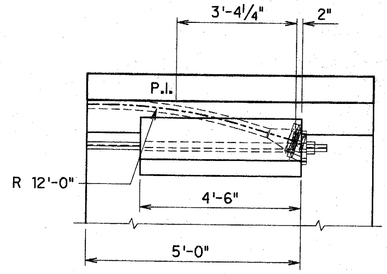


FRONT VIEW

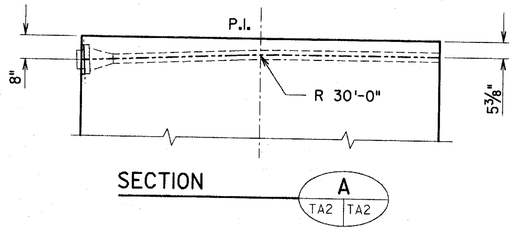


SIDE VIEW
CENTER SPAN (FIXED BULKHEAD) ← → PIER (MATCH CAST)

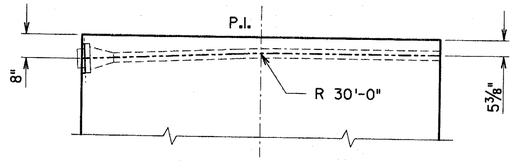
BLOCK 2
SCALE : ½" = 1'-0"



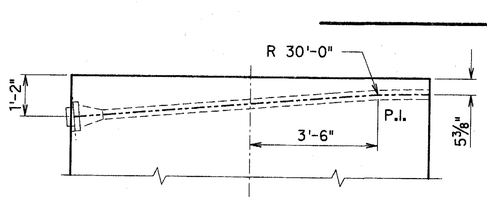
SIDE VIEW AT SEG. 01-2U
PIER (MATCH CAST) ← → CENTER SPAN (FIXED BULKHEAD)



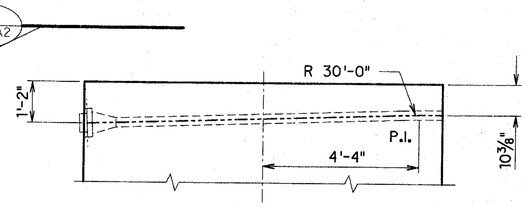
SECTION A (TA2 | TA2)



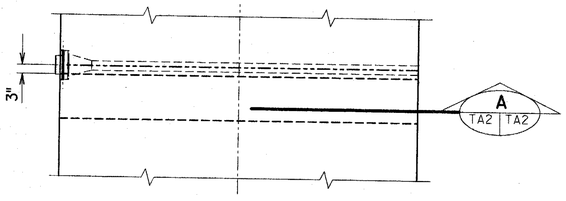
SECTION B (TA2 | TA2)



ANCHORAGE 4 D (TA2 | TA2)
SCALE : ½" = 1'-0"

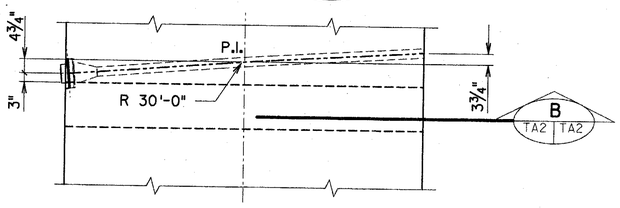


ANCHORAGE 5 D (TA2 | TA2)
SCALE : ½" = 1'-0"



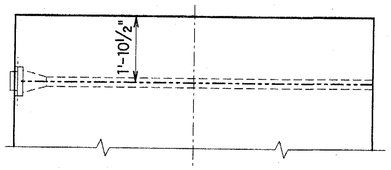
TOP VIEW

ANCHORAGE 1
SCALE : ½" = 1'-0"

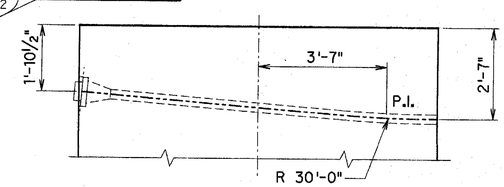


TOP VIEW

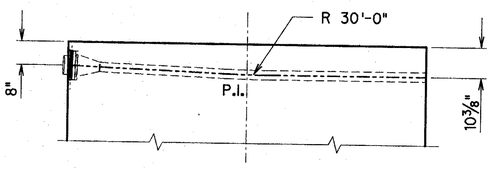
ANCHORAGE 2, 3
SCALE : ½" = 1'-0"



ANCHORAGE 6 D (TA2 | TA2)
SCALE : ½" = 1'-0"

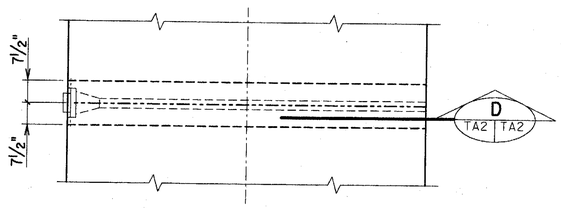


ANCHORAGE 7 D (TA2 | TA2)
SCALE : ½" = 1'-0"



SECTION B (TA2 | TA2)

ANCHORAGE 3
SCALE : ½" = 1'-0"



TOP VIEW C (TA2 | TA2)
SCALE : ½" = 1'-0"

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

DATE	REVISION
02/06/91	REVISED SHEET NO. AND TITLE.
07/25/90	REV. BLOCKS 1,2 ANCHORAGES 6, 7

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

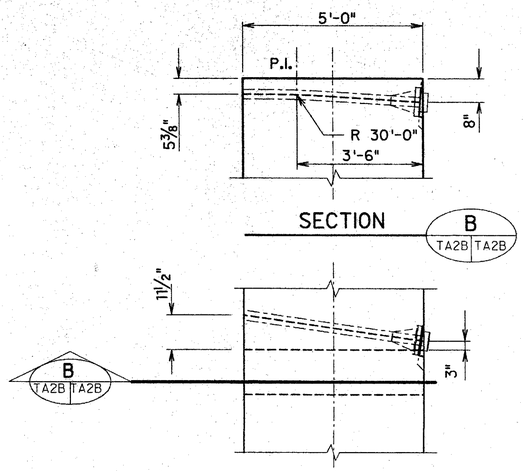
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING DETAILS IIA
TOP BLOCKS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990
SHEET No. TA2A OF SHEETS

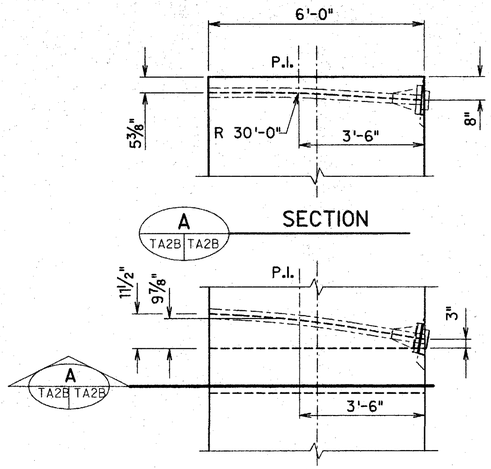
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	170	279



TOP VIEW

ANCHORAGE 8

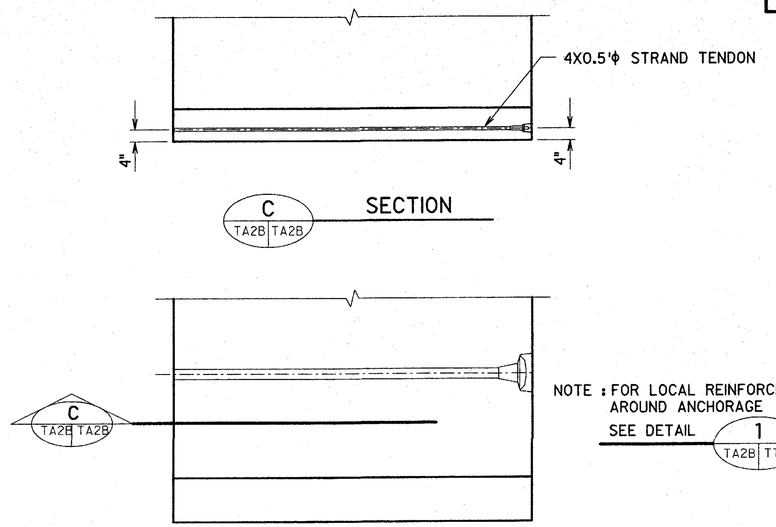
SCALE : ½" = 1'-0"



TOP VIEW

ANCHORAGE 9

SCALE : ½" = 1'-0"



TOP VIEW

ACHORAGE 10

SCALE : ½" = 1'-0"

ORIGINAL PLAN

SURVEY PLOTTED BY ____ DATE
DRAWN BY ____ .
TRACED BY ____ .
DESIGNED BY ____ .
QUANTITIES BY ____ .
CHECKED BY ____ .

NOTE BOOK
NO. ____

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
04/01/91	ADDED ANCHORAGE 9 AND 10.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

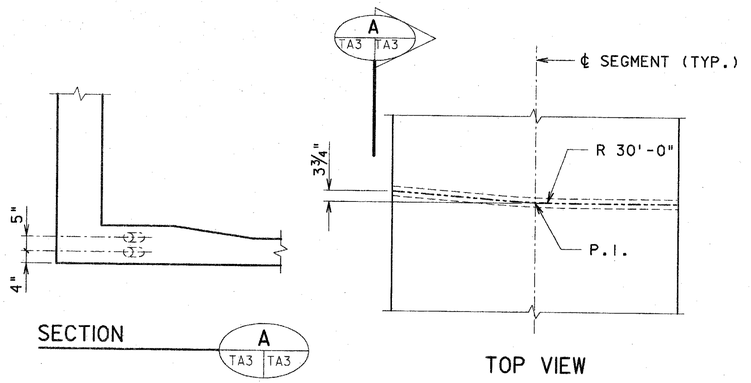
POST-TENSIONING DETAILS IIB
ANCHORAGE DETAILS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

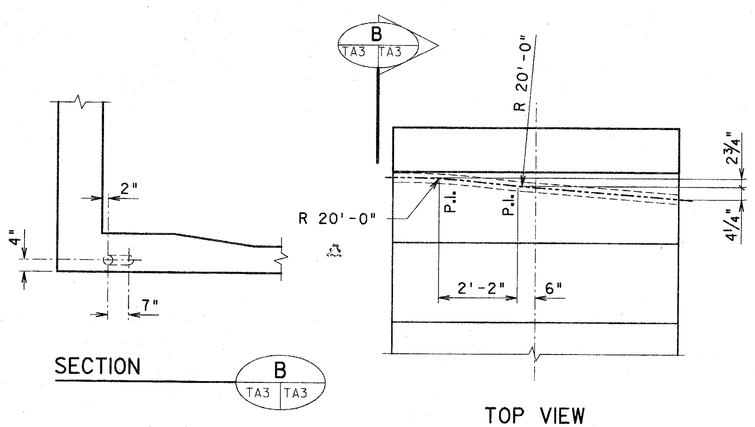
SCALE : AS NOTED DATE : FEB. 1991

SHEET No. TA2B OF SHEETS

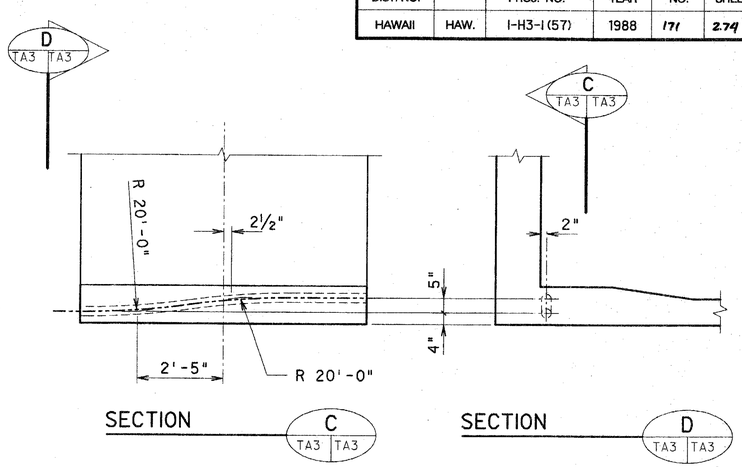
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	171	274



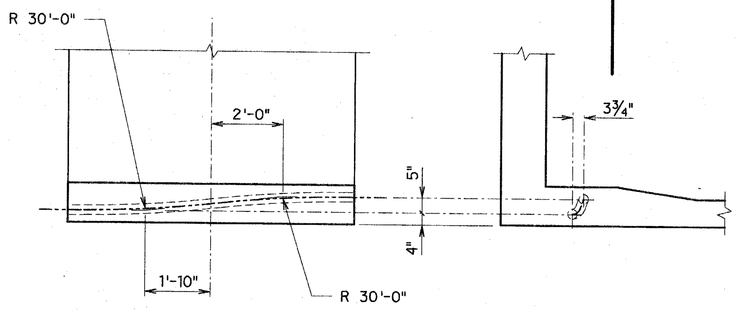
DEVIATION 1
SCALE : ½" = 1'-0"

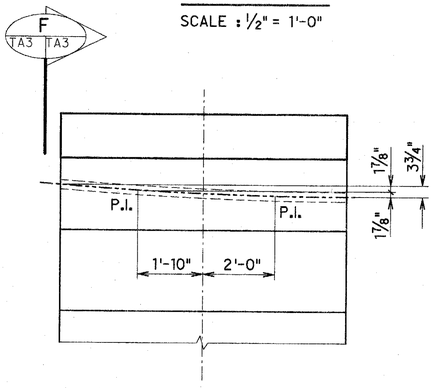


DEVIATION 2
SCALE : ½" = 1'-0"

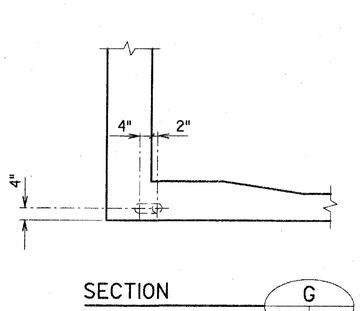


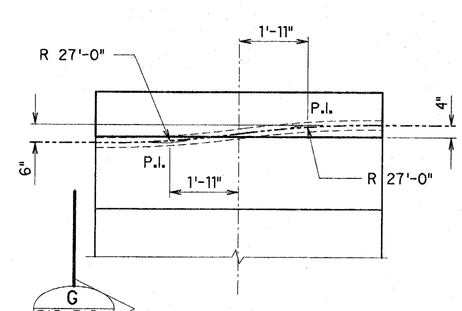
DEVIATION 3
SCALE : ½" = 1'-0"



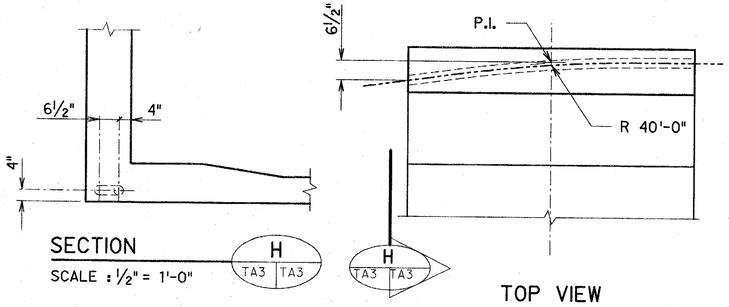


DEVIATION 4
SCALE : ½" = 1'-0"

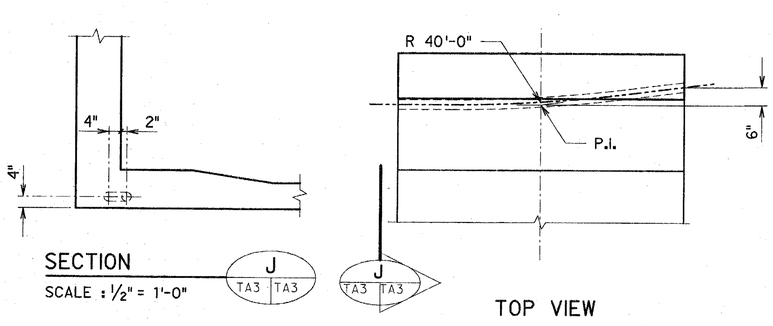




DEVIATION 5
SCALE : ½" = 1'-0"



DEVIATION 6
SCALE : ½" = 1'-0"



DEVIATION 7
SCALE : ½" = 1'-0"

NOTE : DEVIATIONS SHOWN MAY APPLY TO BOTH TOP AND BOTTOM SLAB TENDONS

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
01/04/91	TA3A WAS TA3.

J. MULLER INTERNATIONAL
Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

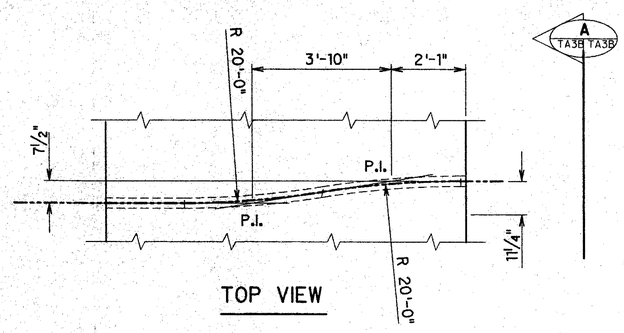
POST-TENSIONING DETAILS III
TYPICAL DEVIATIONS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

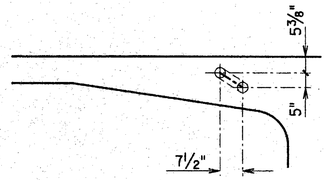
SHEET No. TA3A OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	172	274

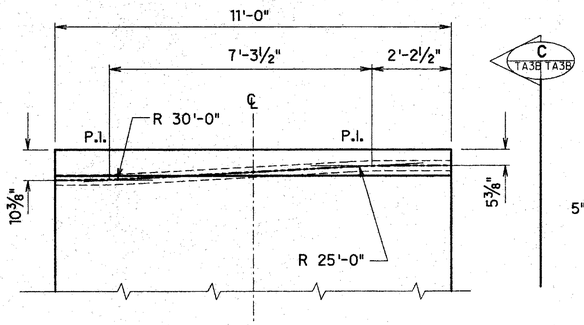


TOP VIEW

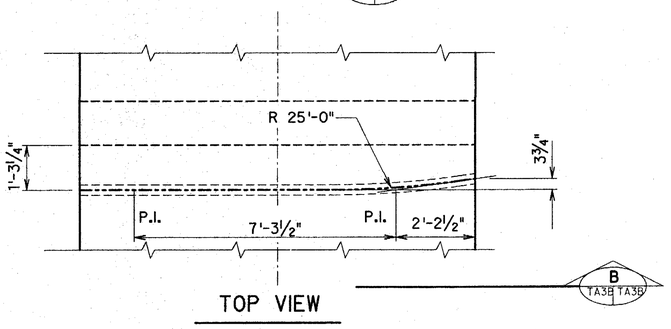


SECTION A TA3B TA3B

TYPICAL DEVIATION 8

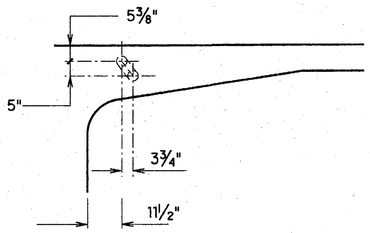


SECTION B TA3B TA3B

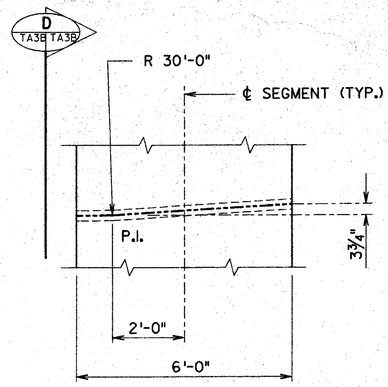


TOP VIEW B TA3B TA3B

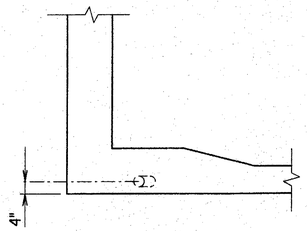
TYPICAL DEVIATION 9



SECTION C TA3B TA3B

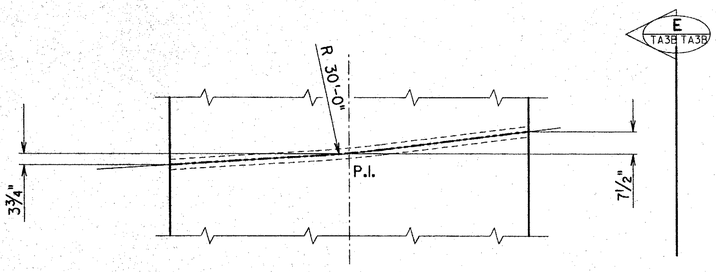


TOP VIEW

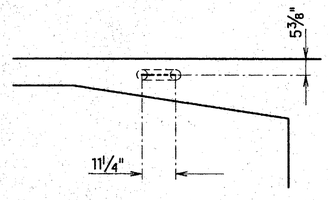


SECTION D TA3B TA3B

DEVIATION 10

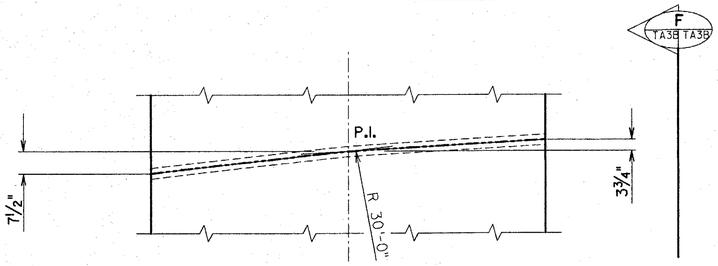


TOP VIEW

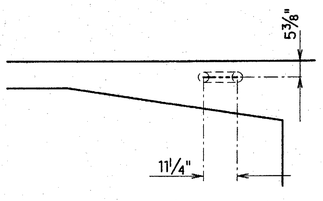


SECTION E TA3B TA3B

TYPICAL DEVIATION 11



TOP VIEW



SECTION F TA3B TA3B

TYPICAL DEVIATION 12

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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
04/01/91	ADDED DEVIATIONS 10, 11 AND 12.
02/05/91	ADDED DEVIATION.

J. MULLER INTERNATIONAL | Libby Engineers

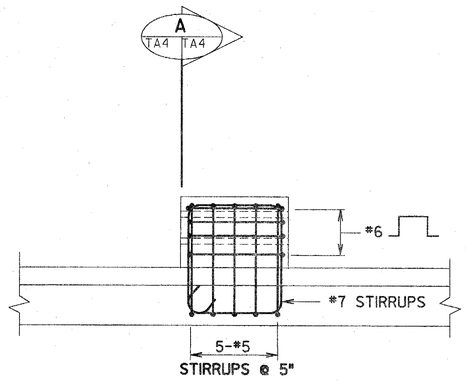
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING DETAILS IV
TYPICAL DEVIATIONS

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

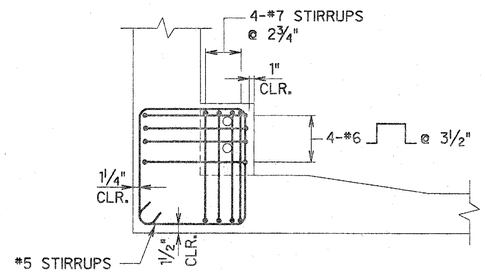
SHEET No. TA3B OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	173	274



ELEVATION

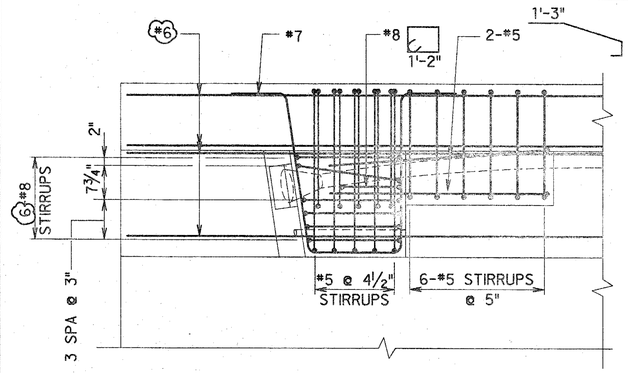
SCALE : 3/4" = 1'-0"



SECTION A (TA4 | TA4)

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

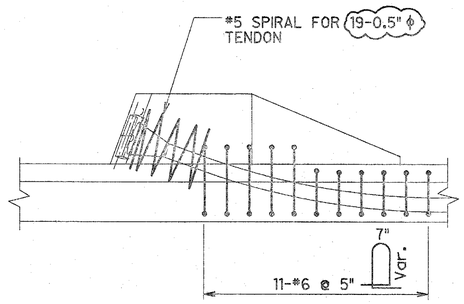
BLOCK A



PLAN

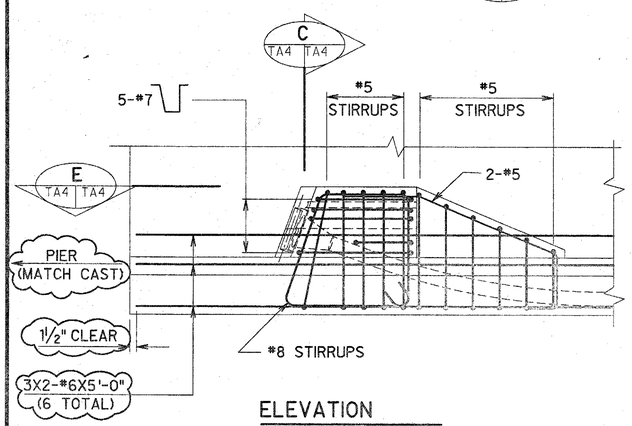
SCALE : 3/4" = 1'-0"

E (TA4 | TA4)



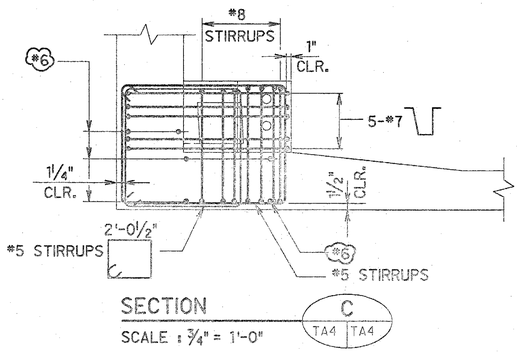
REINFORCING AT ANCHORAGE AND TENDON

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



ELEVATION

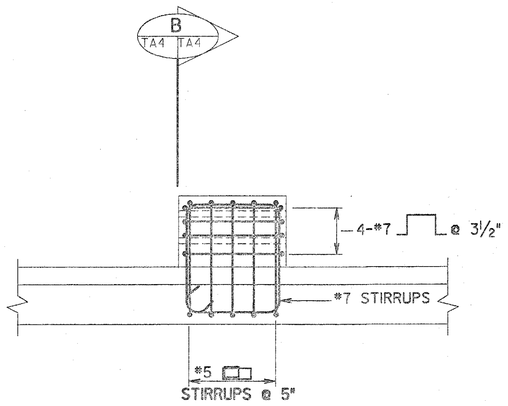
SCALE : 3/4" = 1'-0"



SECTION C (TA4 | TA4)

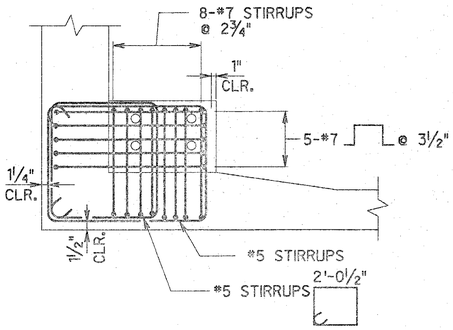
SCALE : 3/4" = 1'-0"

BLOCK C



ELEVATION

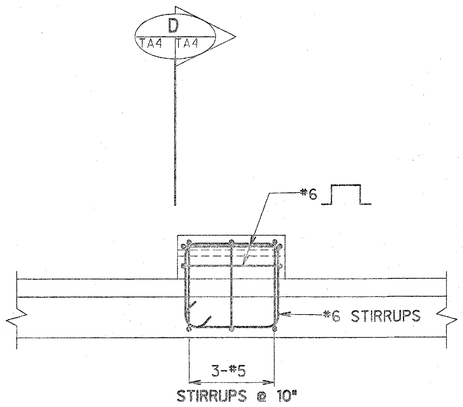
SCALE : 3/4" = 1'-0"



SECTION B (TA4 | TA4)

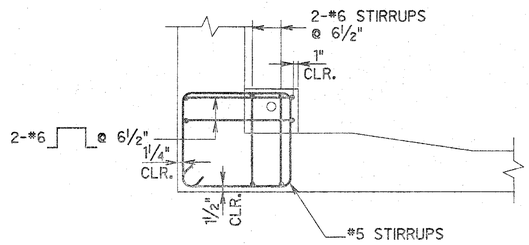
SCALE : 3/4" = 1'-0"

BLOCK B



ELEVATION

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



SECTION D (TA4 | TA4)

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

BLOCK D

ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

NOTE BOOK | No.

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
01/21/91	REVISED REINFORCING.
07/25/90	UPDATED DRAWING

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

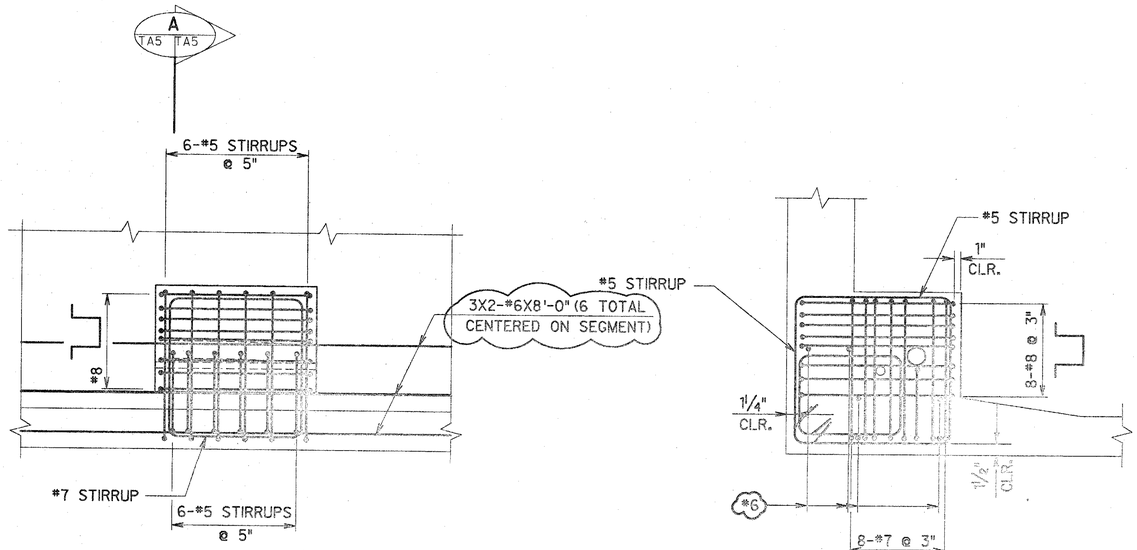
POST-TENSIONING DETAILS IV
REINFORCING I
BOTTOM BLOCKS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1990

SHEET No. TA4 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	174	274



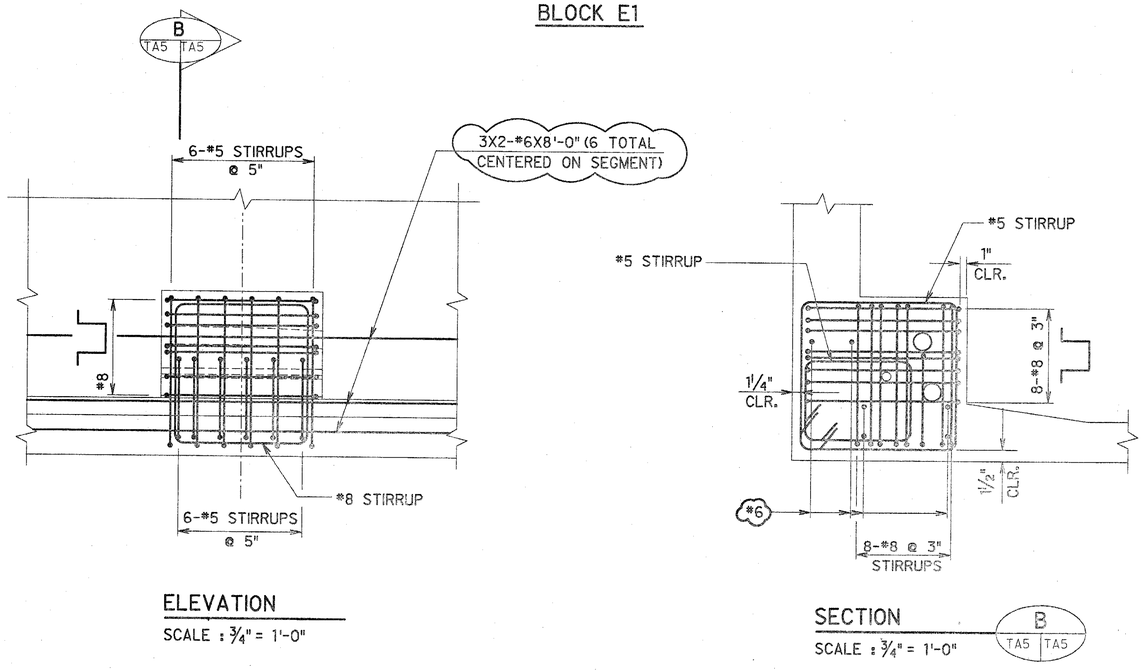
ELEVATION

SCALE : ¾" = 1'-0"

SECTION A TA5 | TA5

SCALE : ¾" = 1'-0"

BLOCK E1



ELEVATION

SCALE : ¾" = 1'-0"

SECTION B TA5 | TA5

SCALE : ¾" = 1'-0"

BLOCK E2

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

ORIGINAL PLAN

NOTE BOOK
No.

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
01/21/91	REVISED REINFORCING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING DETAILS V

REINFORCING II

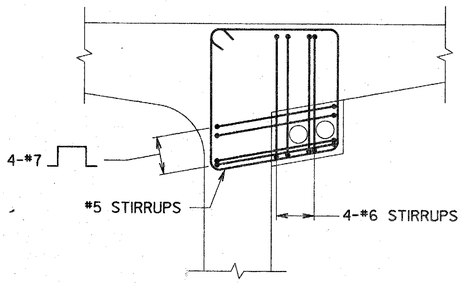
BOTTOM BLOCKS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

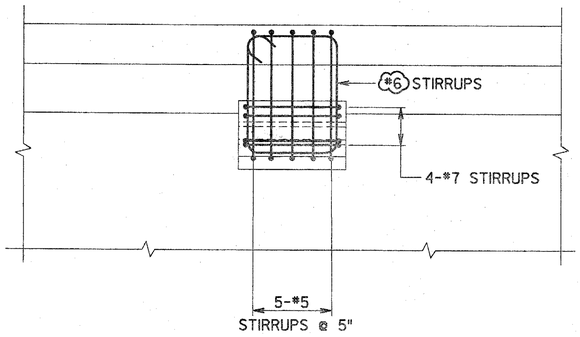
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. TA5 OF SHEETS

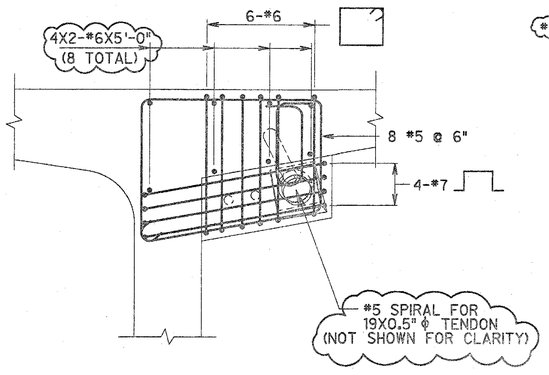
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	175	274



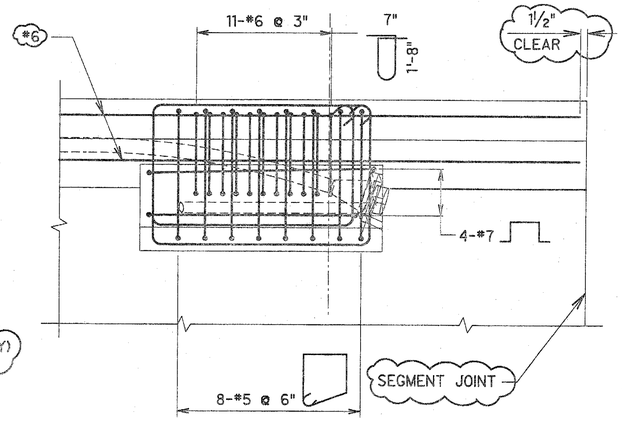
FRONT VIEW



SIDE VIEW



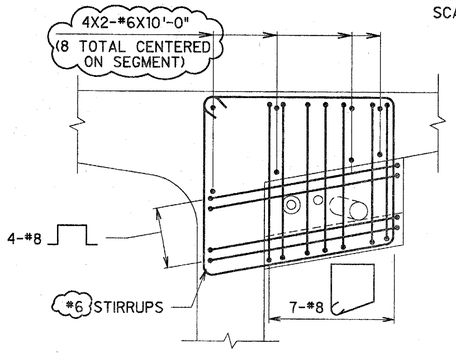
FRONT VIEW



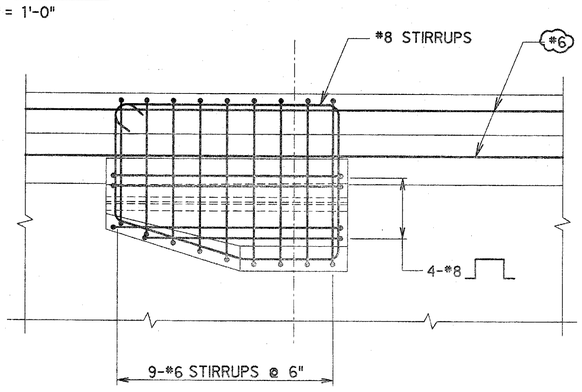
SIDE VIEW

TOP BLOCK 1 & 3

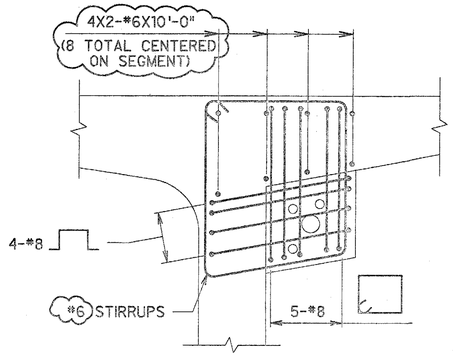
SCALE : ¾" = 1'-0"



FRONT VIEW



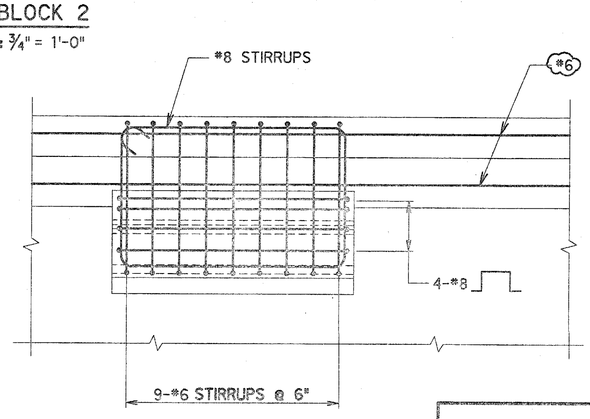
SIDE VIEW



FRONT VIEW

TOP BLOCK 2

SCALE : ¾" = 1'-0"



SIDE VIEW

TOP BLOCK 4

SCALE : ¾" = 1'-0"

TOP BLOCK 5

SCALE : ¾" = 1'-0"

DATE	REVISION
01/21/91	REVISED REINFORCING.
07/25/90	UPDATED DRAWING

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

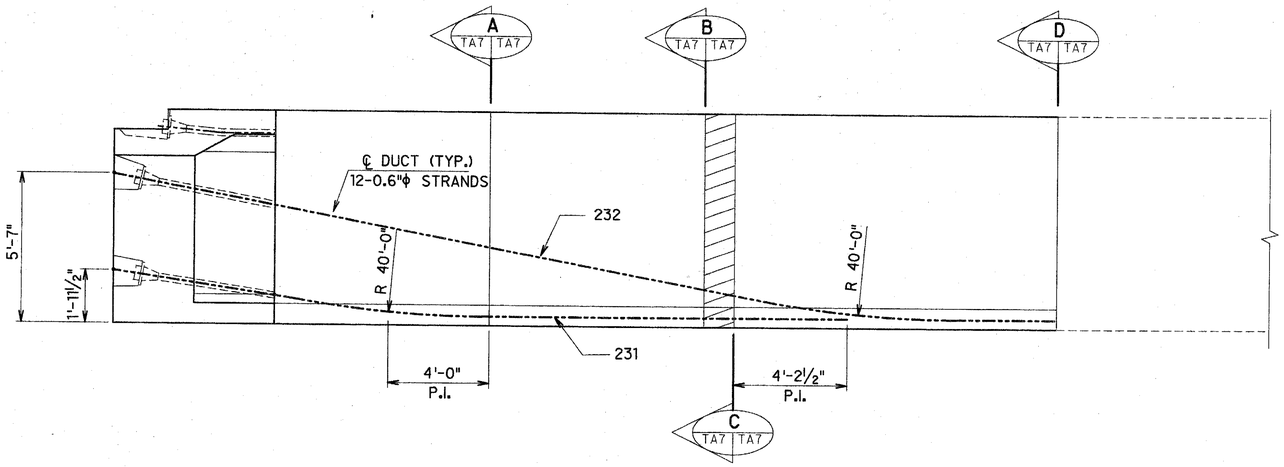
POST-TENSIONING DETAILS VI
REINFORCING TOP BLOCK

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. TA6 OF SHEETS

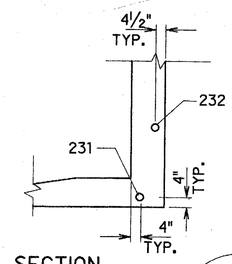
ORIGINAL PLAN | NOTE BOOK | No.
SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	176	274



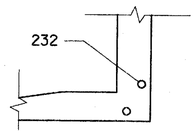
ELEVATION - ABUTMENT SPAN

SCALE : ⅜"=1'-0" (INBOUND)



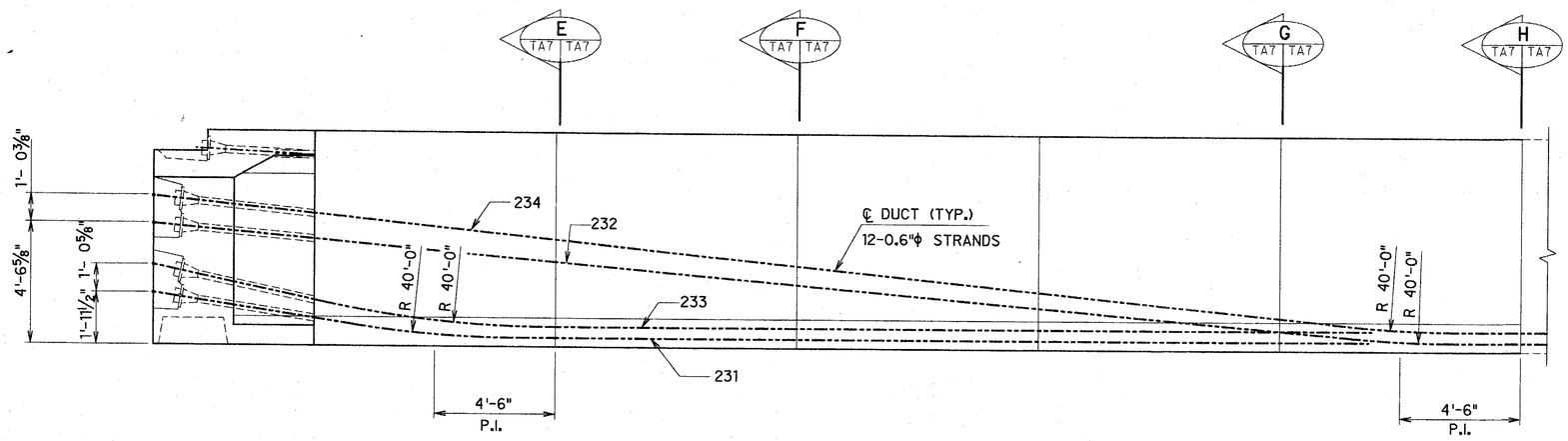
SECTION A TA7 TA7

SCALE : ⅜"=1'-0"



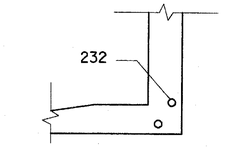
SECTION B TA7 TA7

SCALE : ⅜"=1'-0"



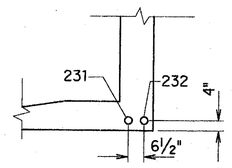
ELEVATION - ABUTMENT SPAN

SCALE : ⅜"=1'-0" (OUTBOUND)



SECTION C TA7 TA7

SCALE : ⅜"=1'-0"

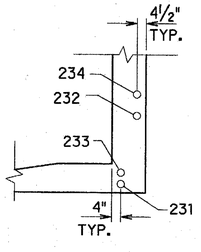


SECTION D TA7 TA7

SCALE : ⅜"=1'-0"

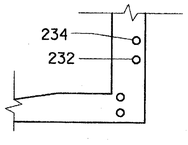
NOTE:

1. VARIATIONS (IF ANY) DUE TO HORIZONTAL CURVATURE NOT SHOWN
2. ALL TENDONS SHOWN ARE 12-0.6"ϕ STRANDS EACH.



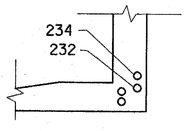
SECTION E TA7 TA7

SCALE : ⅜"=1'-0"



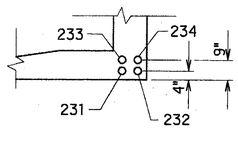
SECTION F TA7 TA7

SCALE : ⅜"=1'-0"



SECTION G TA7 TA7

SCALE : ⅜"=1'-0"



SECTION H TA7 TA7

SCALE : ⅜"=1'-0"

ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

NOTE BOOK | No.

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2376 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING DETAILS VII
ABUTMENT SPANS

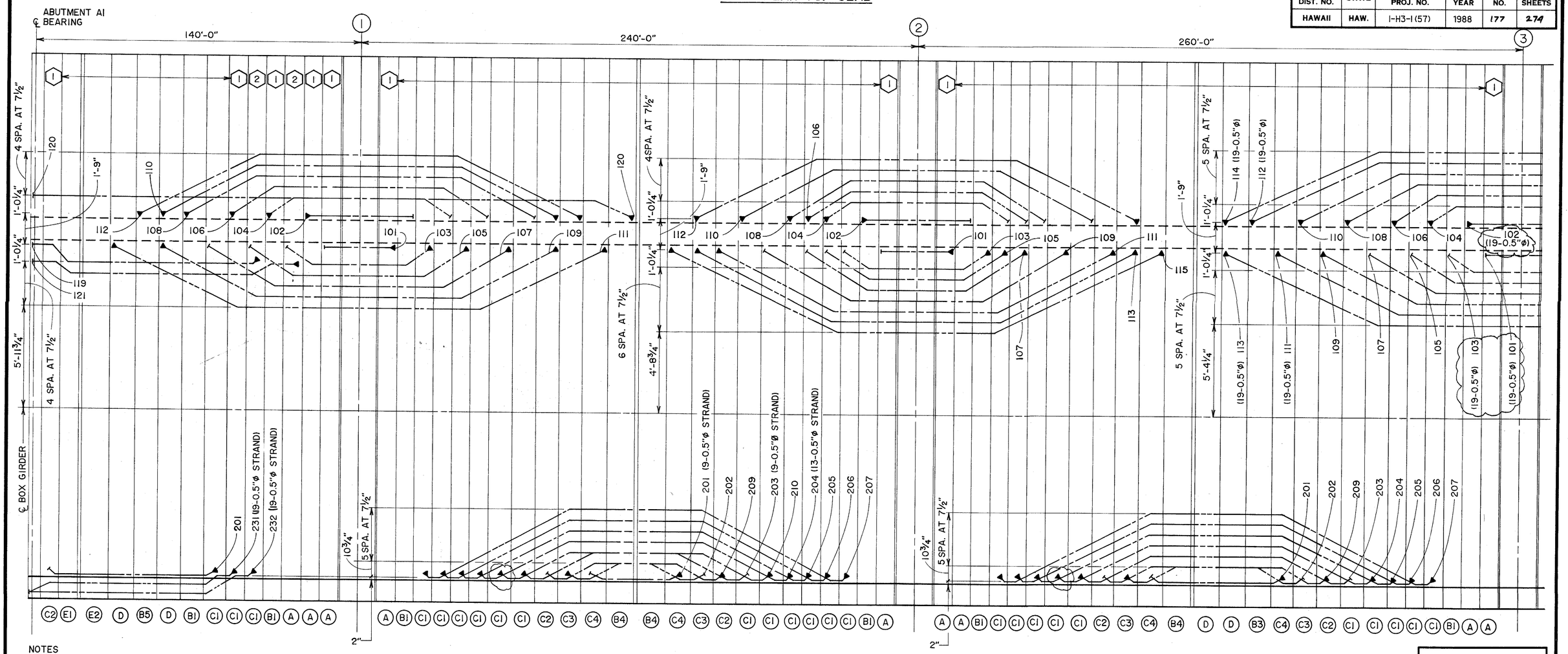
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN 1990

SHEET No. TA7 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	177	274

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ø STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES, FOR DETAILS SEE SHEETS TA1 AND PT2
3. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3
4. ▶—— DENOTES STRESSING END
5. ⊢—— DENOTES NON-STRESSING END
6. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.

ORIGINAL PLANS | SURVEY PLOTTED BY | DRAWN BY PC | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE
NOTE BOOK | No.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
03/07/91	UPDATED DRAWING.
11/16/90	UPDATED DRAWING.
10/08/90	UPDATED DRAWING.
08/27/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT I
INBOUND A1 THRU PIER 3

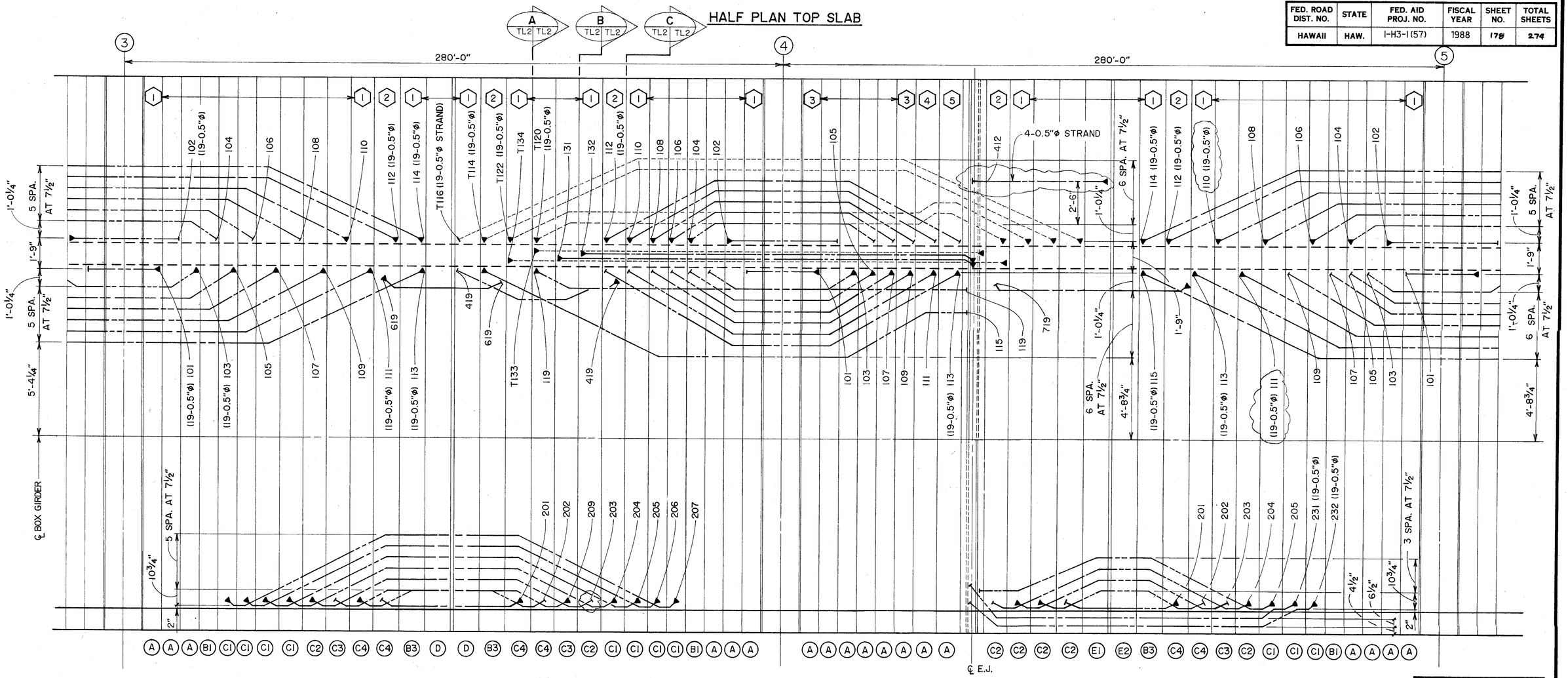
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : NO SCALE DATE : JUN. 1990

SHEET No. TL1 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(57)	1988	178	274

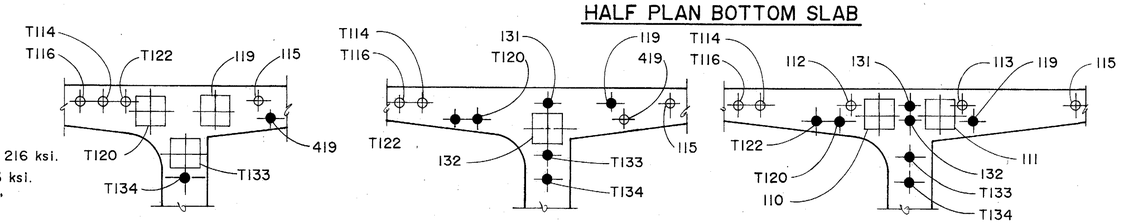
HALF PLAN TOP SLAB



NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3
5. ▶——— DENOTES STRESSING END
6. |——— DENOTES NON-STRESSING END
7. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.
8. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
9. ● DENOTES STRAIGHT TENDON LOCATION.
10. ○ DENOTES DEVIATED TENDON LOCATION.

HALF PLAN BOTTOM SLAB



SECTION A TL2 TL2

SECTION B TL2 TL2

SECTION C TL2 TL2

DATE	REVISION
08/23/91	REV. TENDON 110 & 111 CANTILEVER 5.
04/23/91	REVISED TENDON 412.
03/07/91	UPDATED DRAWING.
02/15/91	UPDATED TENDON 203.
12/28/90	UPDATED DRAWING.
11/16/90	UPDATED DRAWING.
10/04/90	UPDATED DRAWING.
08/28/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

ORIGINAL PLAN | NOTE BOOK | No. | DATE | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGN BY | QUANTITIES BY | CHECKED BY

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

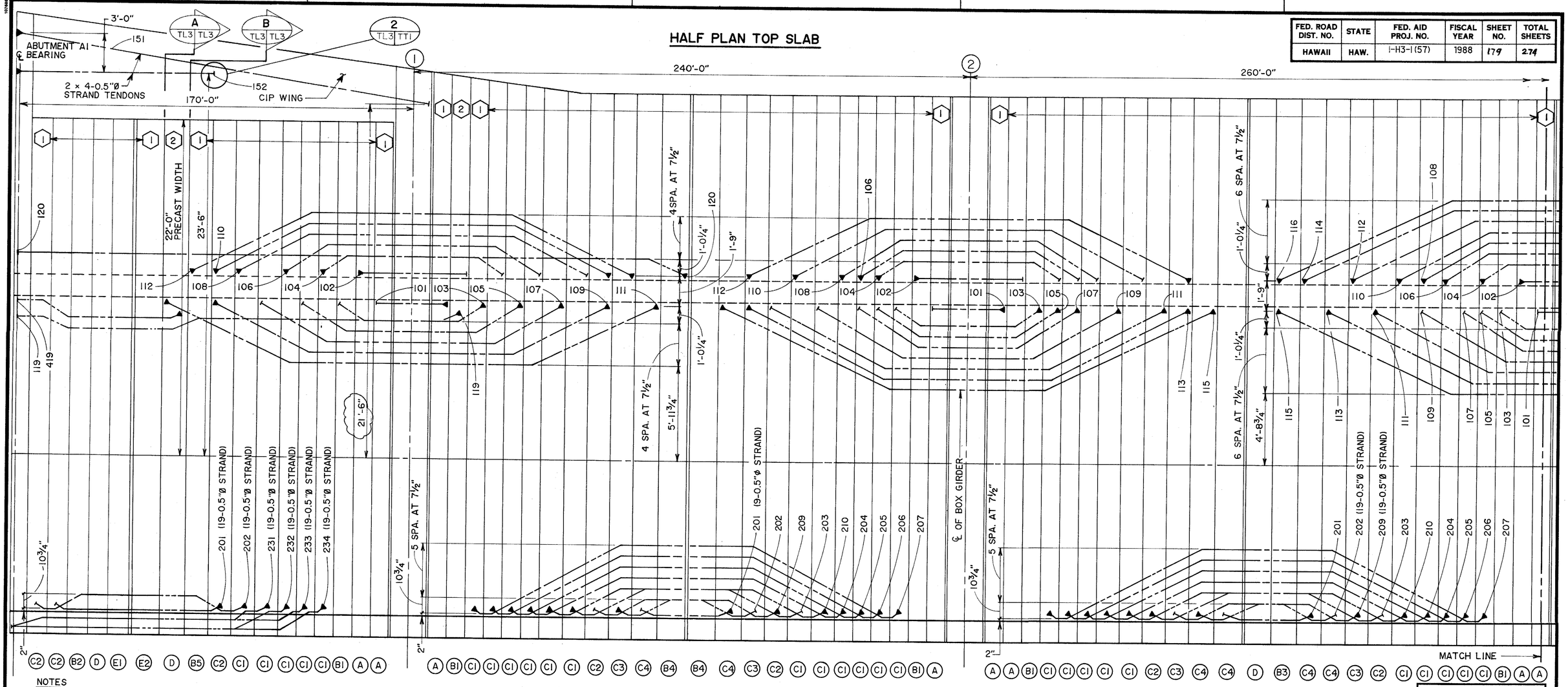
POST-TENSIONING LAYOUT II
INBOUND PIER 3 THRU PIER 5

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-I(57)
F.A.I. PROJECT No. I-H3-I(58)
SCALE : NO SCALE DATE : JUN. 1990

SHEET No. TL2 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(57)	1988	179	274

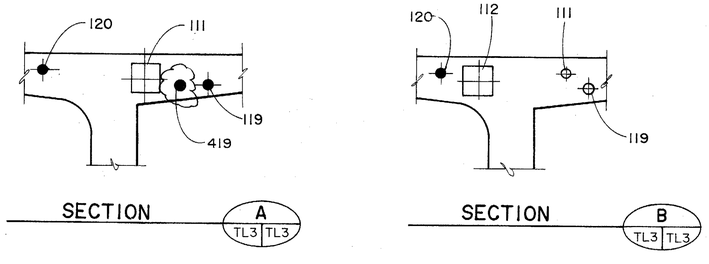
HALF PLAN TOP SLAB



NOTES

1. ALL TENDONS SHOWN ARE 12-0.5 ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2
3. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3
4. ▶—— DENOTES STRESSING END
5. |—— DENOTES NON-STRESSING END
6. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ● DENOTES STRAIGHT TENDON LOCATION
9. ○ DENOTES DEVIATED TENDON LOCATION

HALF PLAN BOTTOM SLAB



DATE	REVISION
12/03/90	UPDATED DRAWING.
11/16/90	UPDATED DRAWING.
10/23/90	UPDATED DRAWING
10/08/90	UPDATED DRAWING.
08/28/90	UPDATED DRAWING

J. MULLER INTERNATIONAL | Libby Engineers

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT III
OUTBOUND A1 THRU PIER 3

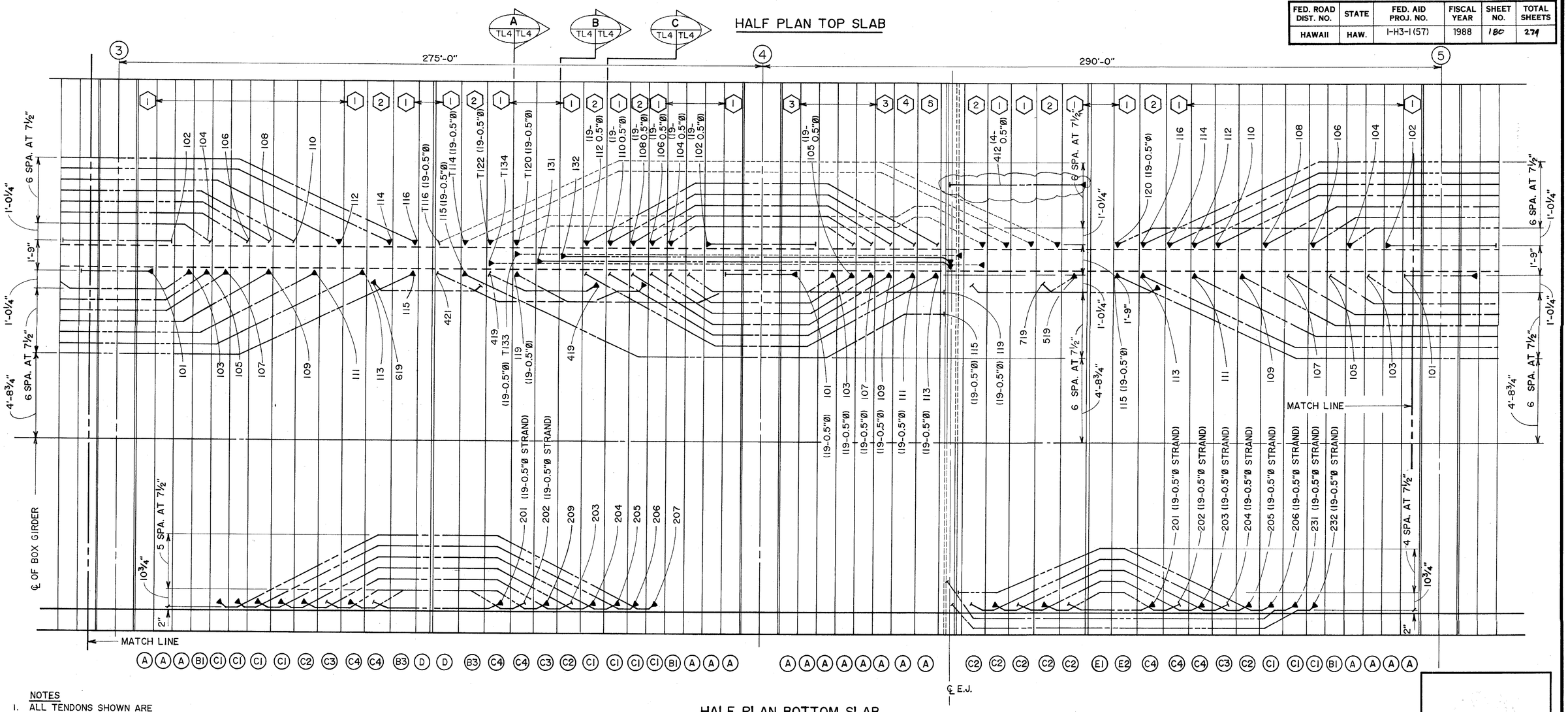
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-I(57)
F.A.I. PROJECT No. I-H3-I(58)
SCALE : NO SCALE DATE : JUN. 1990

SHEET No. TL3 OF SHEETS

ORIGINAL PLANS — NOTE BOOK — No.
SURVEY PLOTTED BY — DRAWN BY — TRACED BY — DESIGNED BY — QUANTITIES BY — CHECKED BY — DATE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(57)	1988	180	274

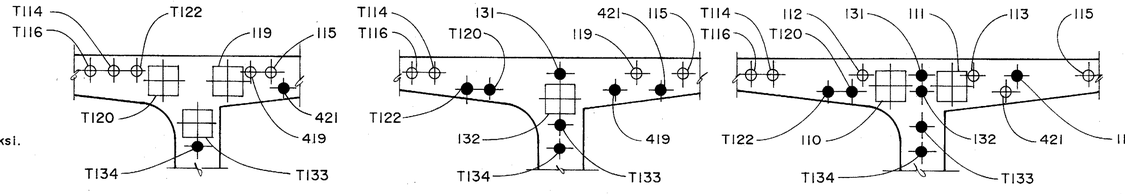
HALF PLAN TOP SLAB



NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ℄ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2
3. "T" DENOTES TEMPORARY TENDONS
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3
5. ▶---- DENOTES STRESSING END
6. |---- DENOTES NON-STRESSING END
7. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.
8. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.

HALF PLAN BOTTOM SLAB



SECTION A TL4 TL4 — SECTION B TL4 TL4 — SECTION C TL4 TL4

DATE	REVISION
04/23/91	REVISED TENDON 412.
12/28/90	UPDATED DRAWING.
12/03/90	UPDATED DRAWING.
11/16/90	UPDATED DRAWING.
10/23/90	UPDATED DRAWING
10/04/90	UPDATED DRAWING.
08/28/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT IV
OUTBOUND PIER 3 THRU PIER 5

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-I(57)
F.A.I. PROJECT No. I-H3-I(58)

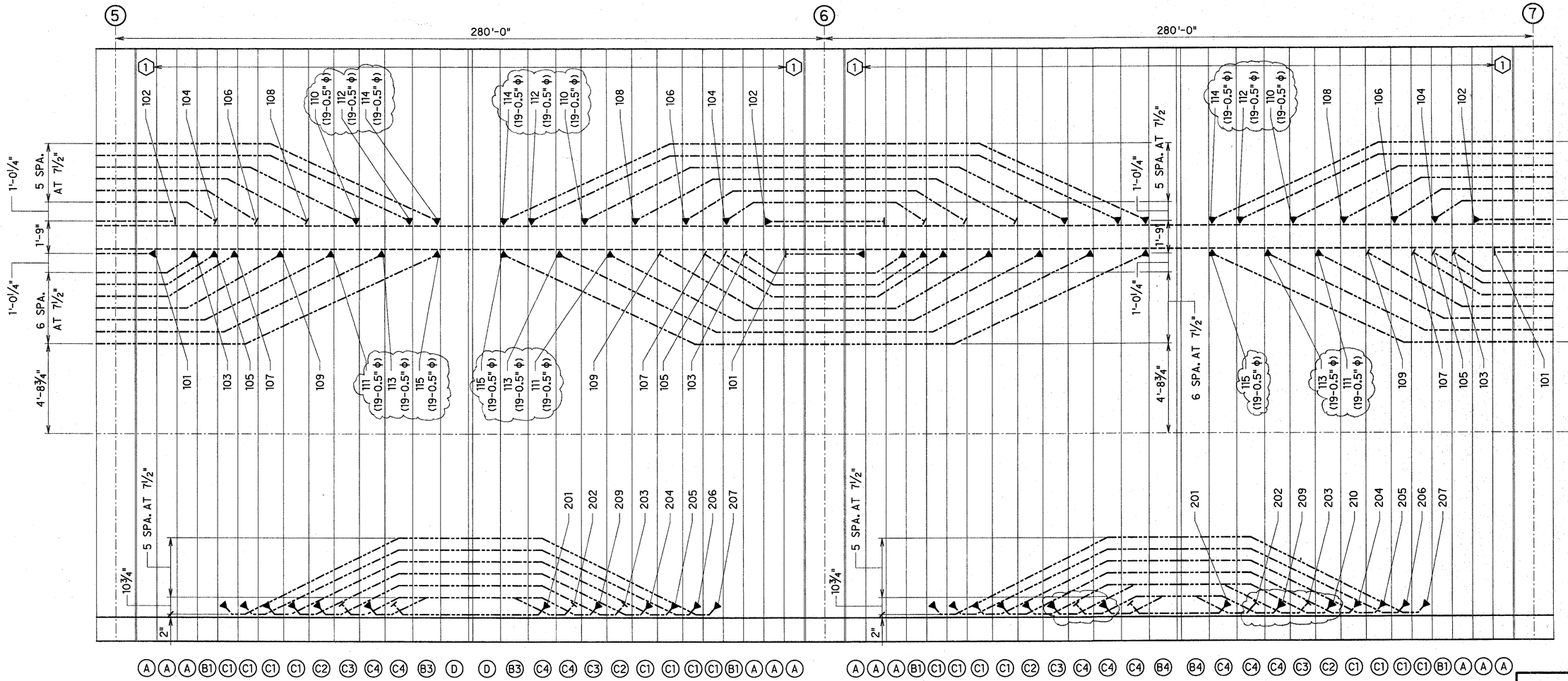
SCALE : NO SCALE DATE : JUN. 1990

SHEET No. TL4 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	181	274

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
5. ▶------ DENOTES STRESSING END.
6. ⊢------ DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.

ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGN BY | QUANTITIES BY | CHECKED BY | DATE
NOTE BOOK | NO.

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
02/14/91	UPDATED DRAWING.
01/04/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

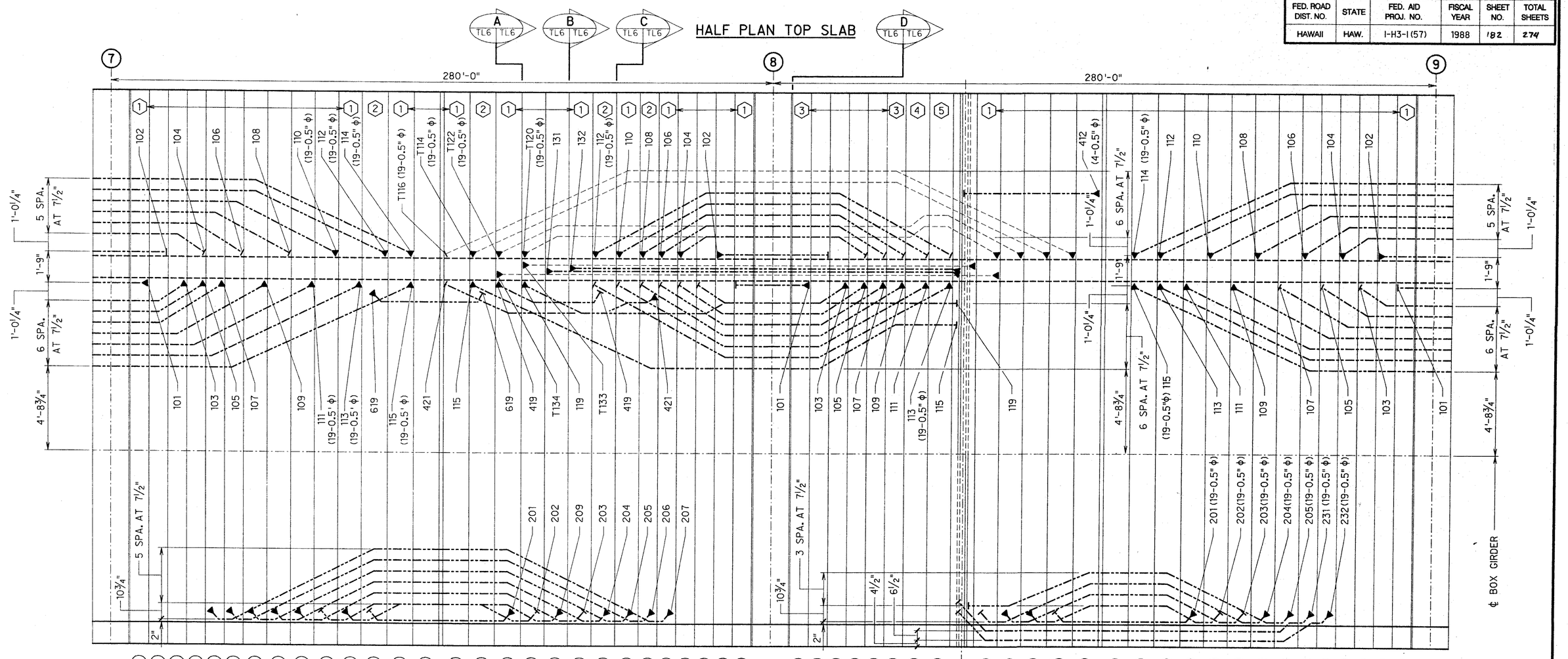
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

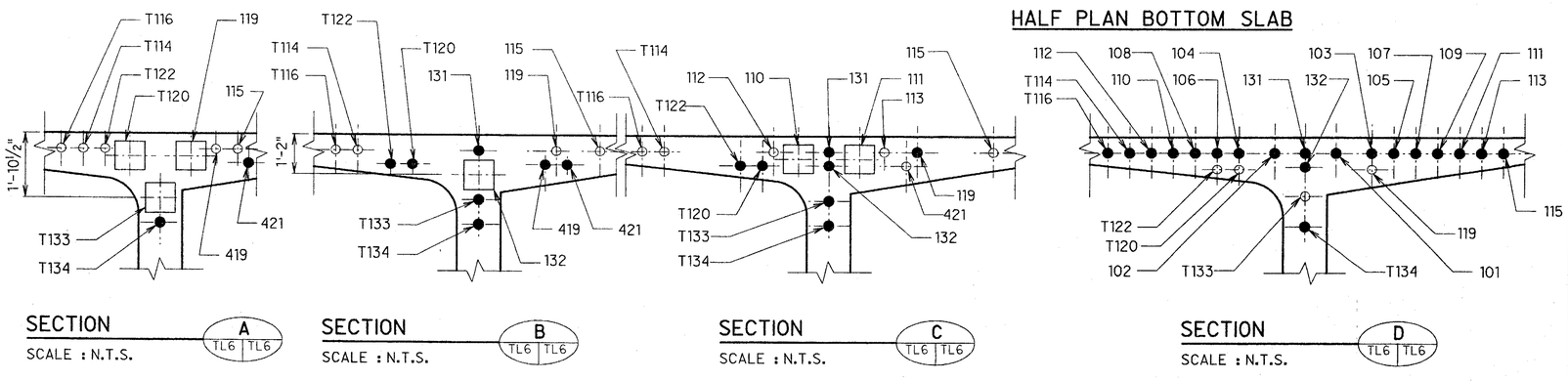
POST-TENSIONING LAYOUT V
INBOUND PIER 5 THRU PIER 7

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990

SHEET No. TL5 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	182	274





NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
5. ▶------ DENOTES STRESSING END.
6. |------ DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.
9. ● DENOTES STRAIGHT TENDON LOCATION.
10. O DENOTES DEVIATED TENDON LOCATION.

DATE	REVISION
04/22/91	REVISED TENDON 412.
02/14/91	UPDATED DRAWING.
02/02/91	UPDATED LAYOUT ON CANTILEVER 9 AND SECTIONS.
01/04/91	UPDATED LAYOUT AND SECTIONS ON CANTILEVER 8.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT VI
INBOUND PIER 7 THRU PIER 9

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990

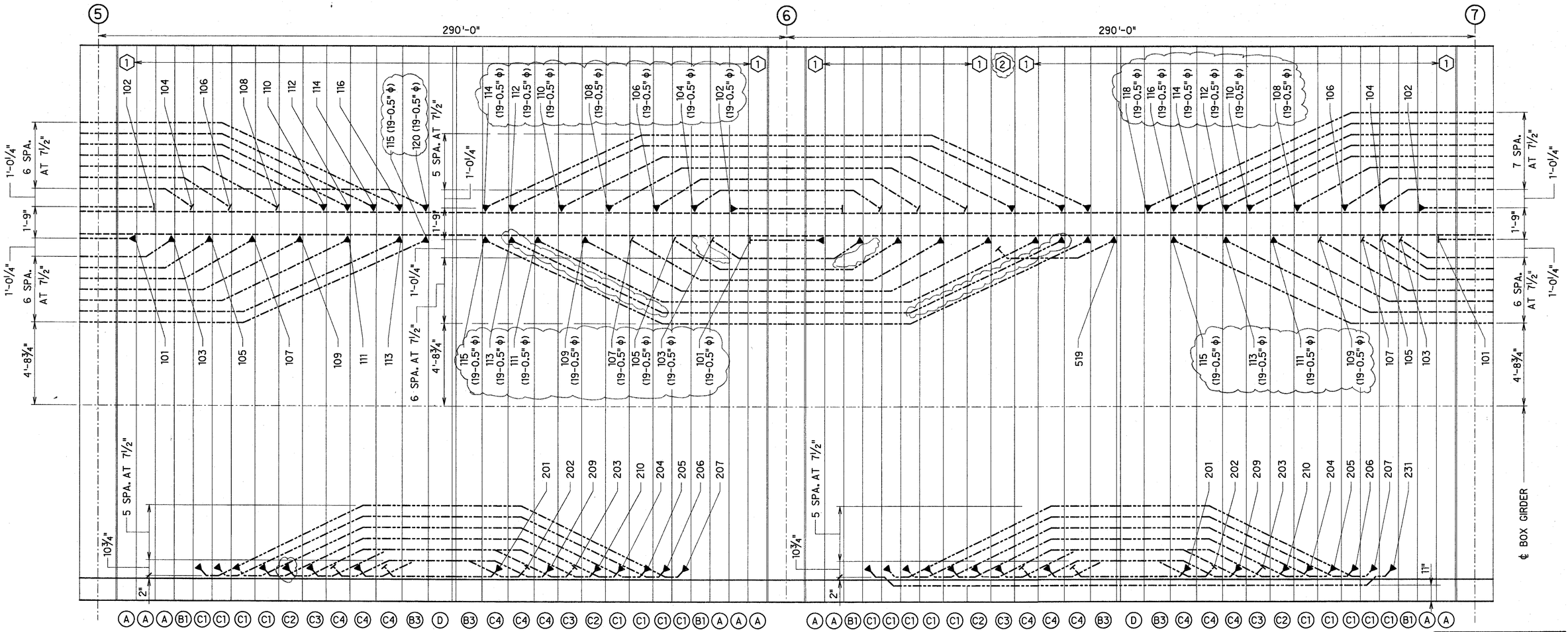
SHEET No. TL6 OF SHEETS

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

182

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	183	274

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
5. ▶------ DENOTES STRESSING END.
6. ⊢------ DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.

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

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
02/14/91	UPDATED DRAWING.
01/04/91	REVISED LAYOUT ON CANTILEVER 5.

J. MULLER INTERNATIONAL | Libby Engineers

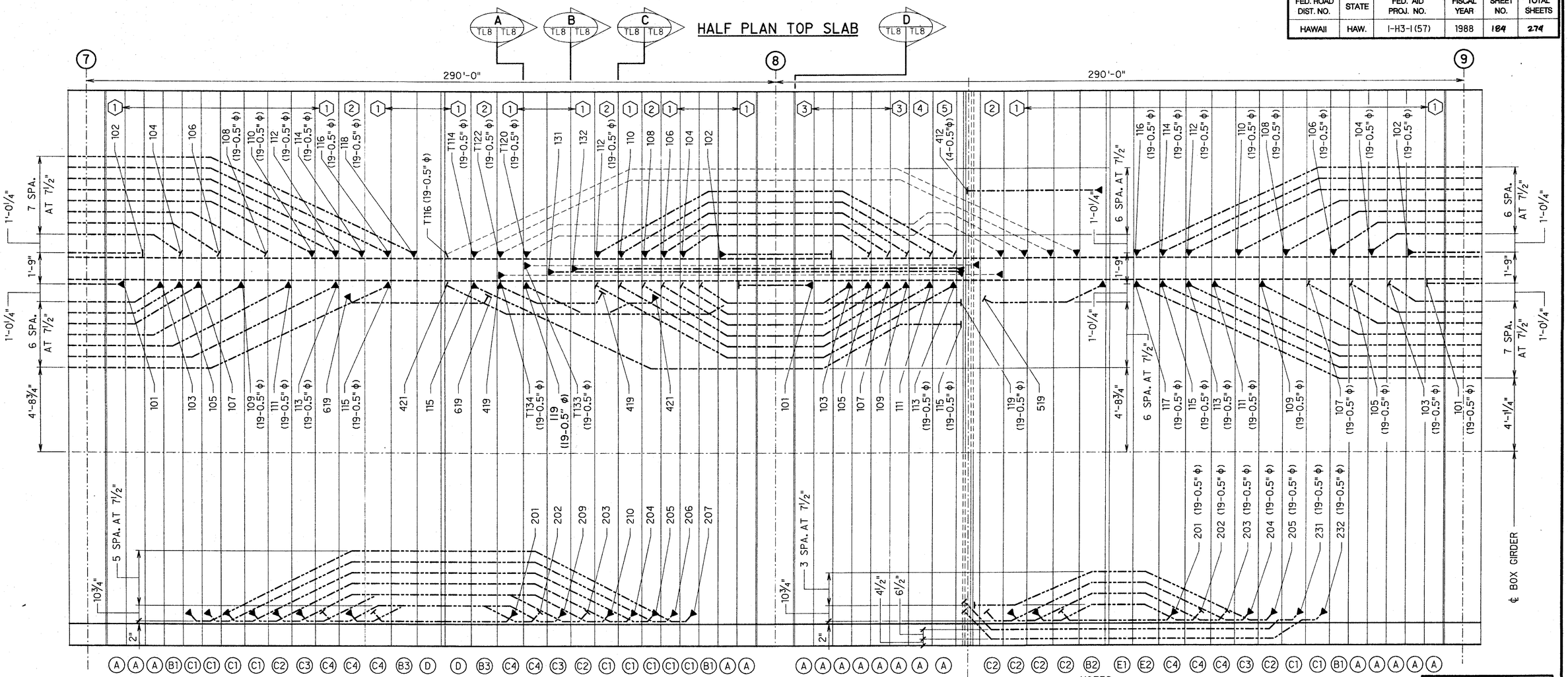
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

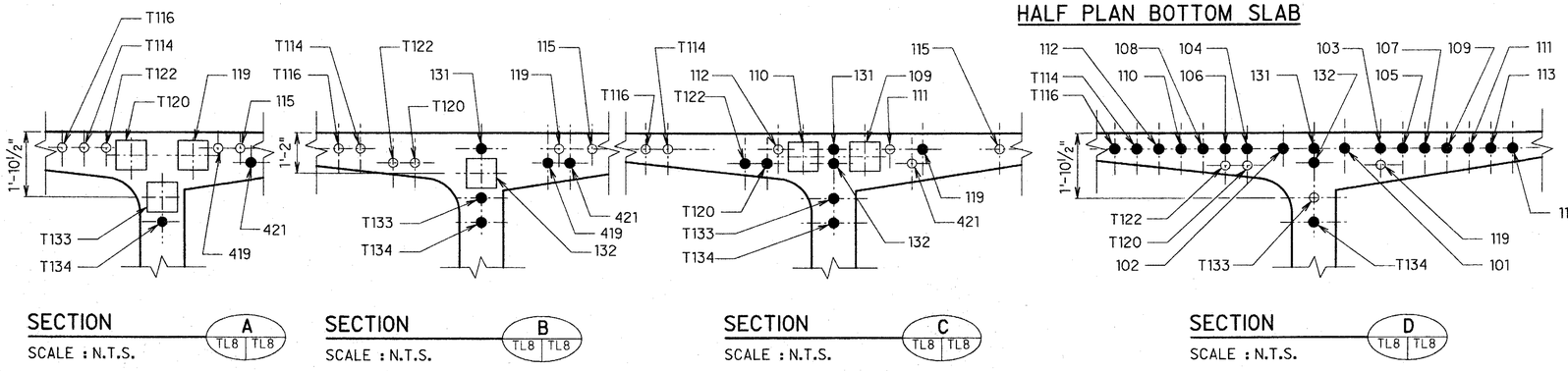
POST-TENSIONING LAYOUT VII
OUTBOUND PIER 5 THRU PIER 7

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990

SHEET No. TL7 **OF** **SHEETS**

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	184	274





NOTES

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3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
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6. ⊢——— DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.
9. ● DENOTES STRAIGHT TENDON LOCATION.
10. ○ DENOTES DEVIATED TENDON LOCATION.

DATE	REVISION
01/15/92	REVISED TENDON 119 CANTILEVER 8.
04/22/91	REVISED TENDON 412.
02/14/91	UPDATED DRAWING.
01/04/91	UPDATED LAYOUT AND SECTIONS ON CANTILEVER 8.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT VIII
OUTBOUND PIER 7 THRU PIER 9

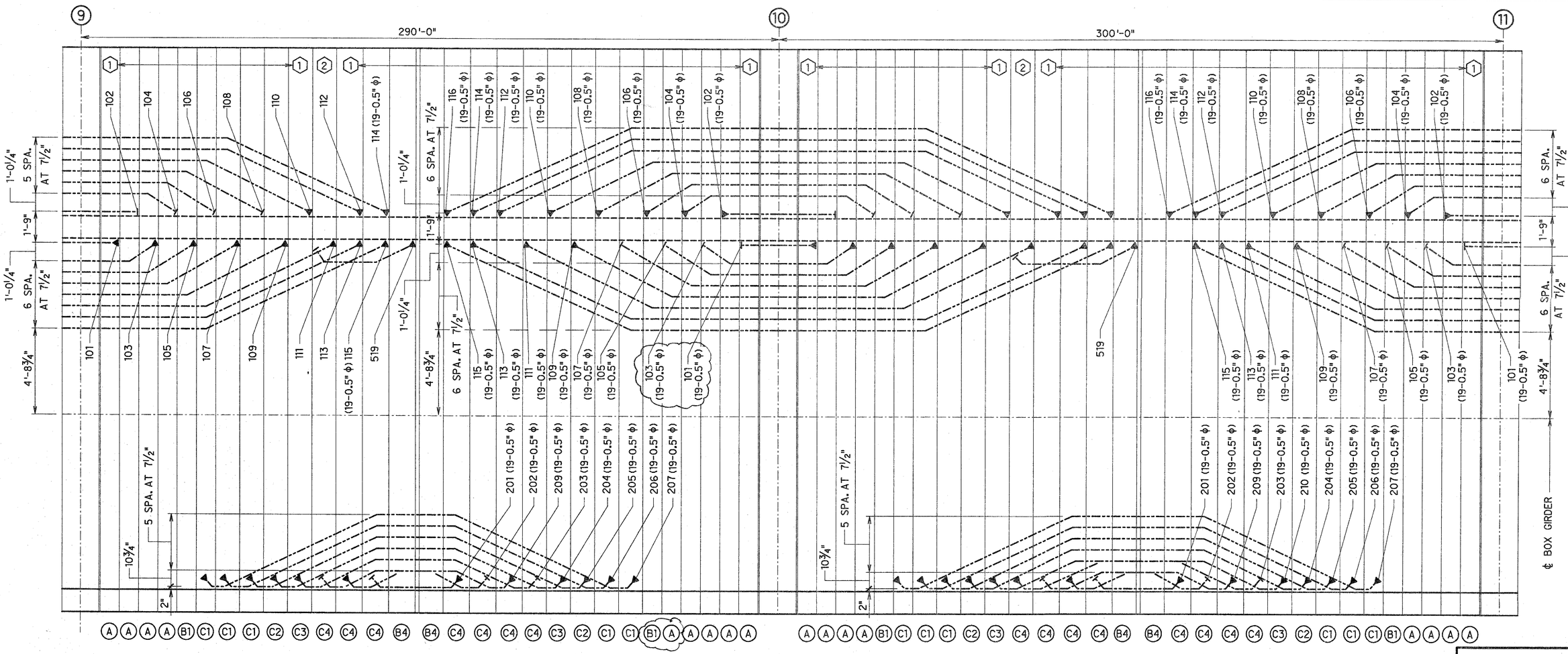
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990

SHEET No. TL8 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	185	279

HALF PLAN TOP SLAB



NOTES

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5. ▶------ DENOTES STRESSING END.
6. ⊢------ DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.

HALF PLAN BOTTOM SLAB

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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
04/02/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

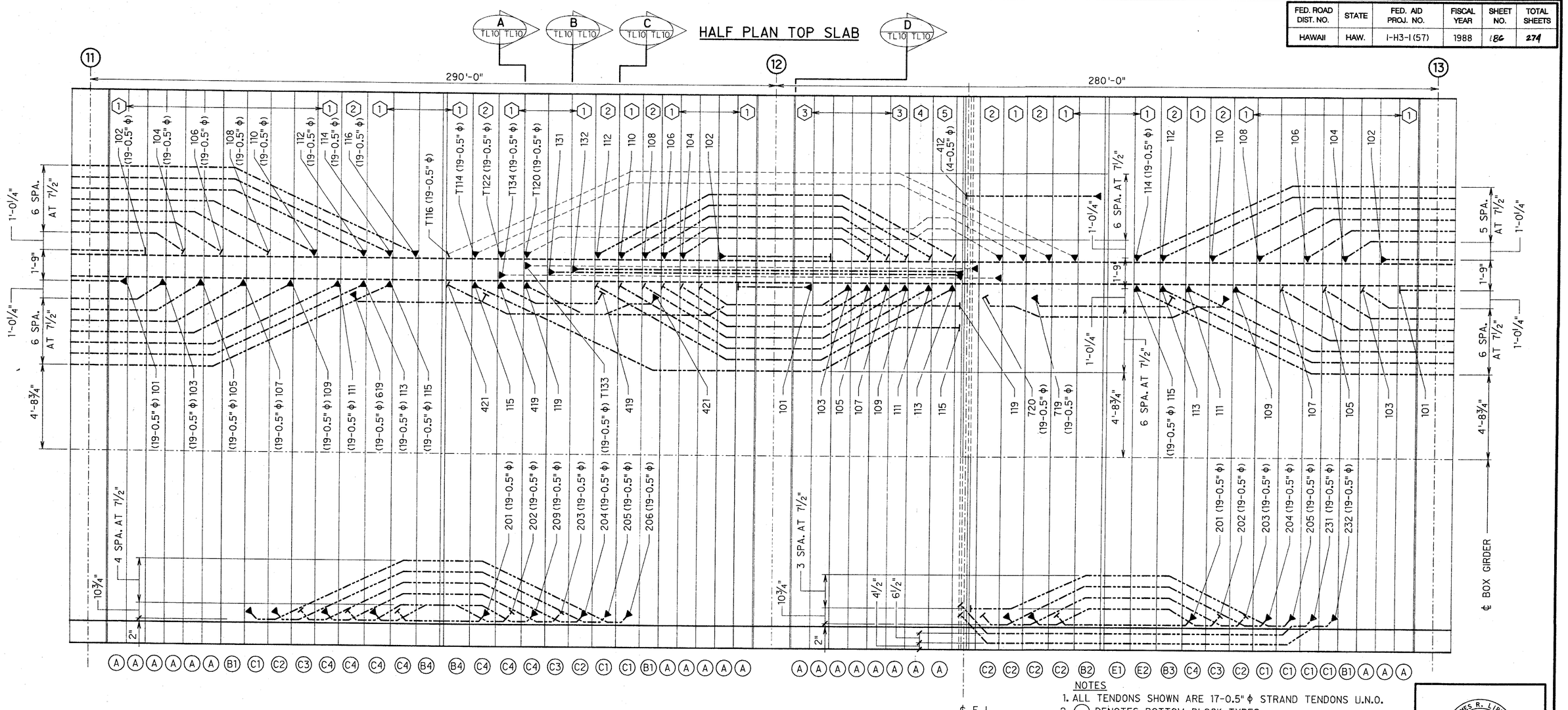
POST-TENSIONING LAYOUT IX
INBOUND PIER 9 THRU PIER 11

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JAN. 1991

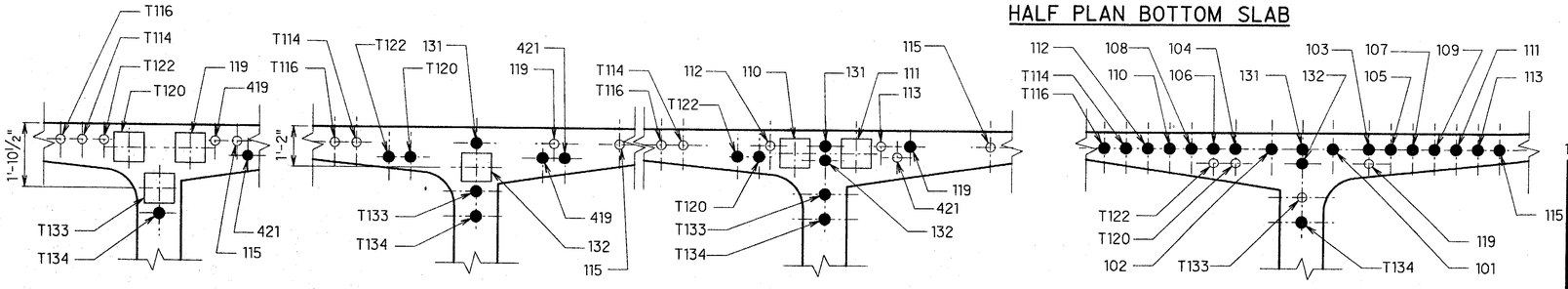
SHEET No. TL9 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	186	274

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB



SECTION A TL10 TL10 — SCALE : N.T.S.

SECTION B TL10 TL10 — SCALE : N.T.S.

SECTION C TL10 TL10 — SCALE : N.T.S.

SECTION D TL10 TL10 — SCALE : N.T.S.

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
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6. ⊢------ DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.
9. ● DENOTES STRAIGHT TENDON LOCATION.
10. ○ DENOTES DEVIATED TENDON LOCATION.

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2375-S — HAWAII, U.S.A.

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DATE	REVISION
04/22/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT X
INBOUND PIER 11 THRU PIER 13

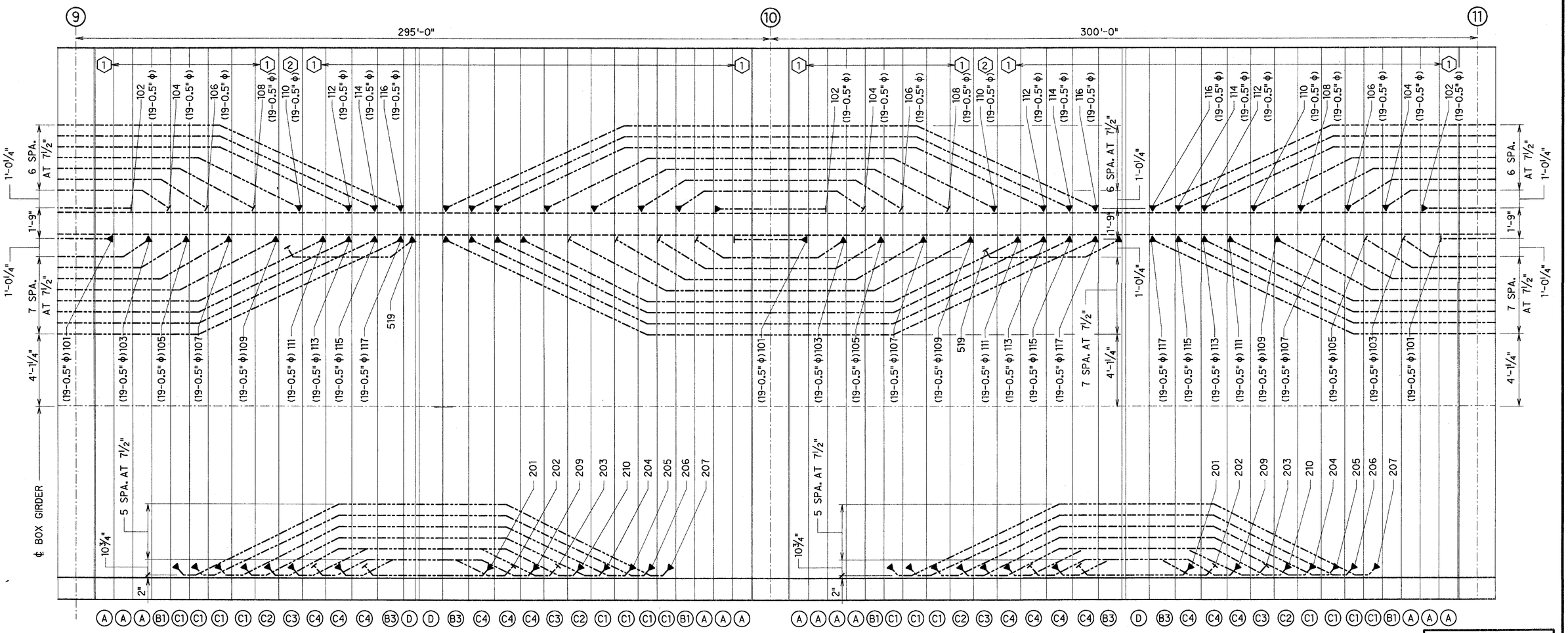
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JAN. 1991

SHEET No. TL10 OF SHEETS

ORIGINAL PLAN | NOTE BOOK | DRWG PLOTTED BY | DRAFT BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	187	274

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5"ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
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5. ▶------ DENOTES STRESSING END.
6. ⊢------ DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.

ORIGINAL PLANS — SURVEY PLOTTED BY — DRAWN BY — TRACED BY — DESIGNED BY — QUANTITIES BY — CHECKED BY — DATE — NOTE BOOK — No.

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

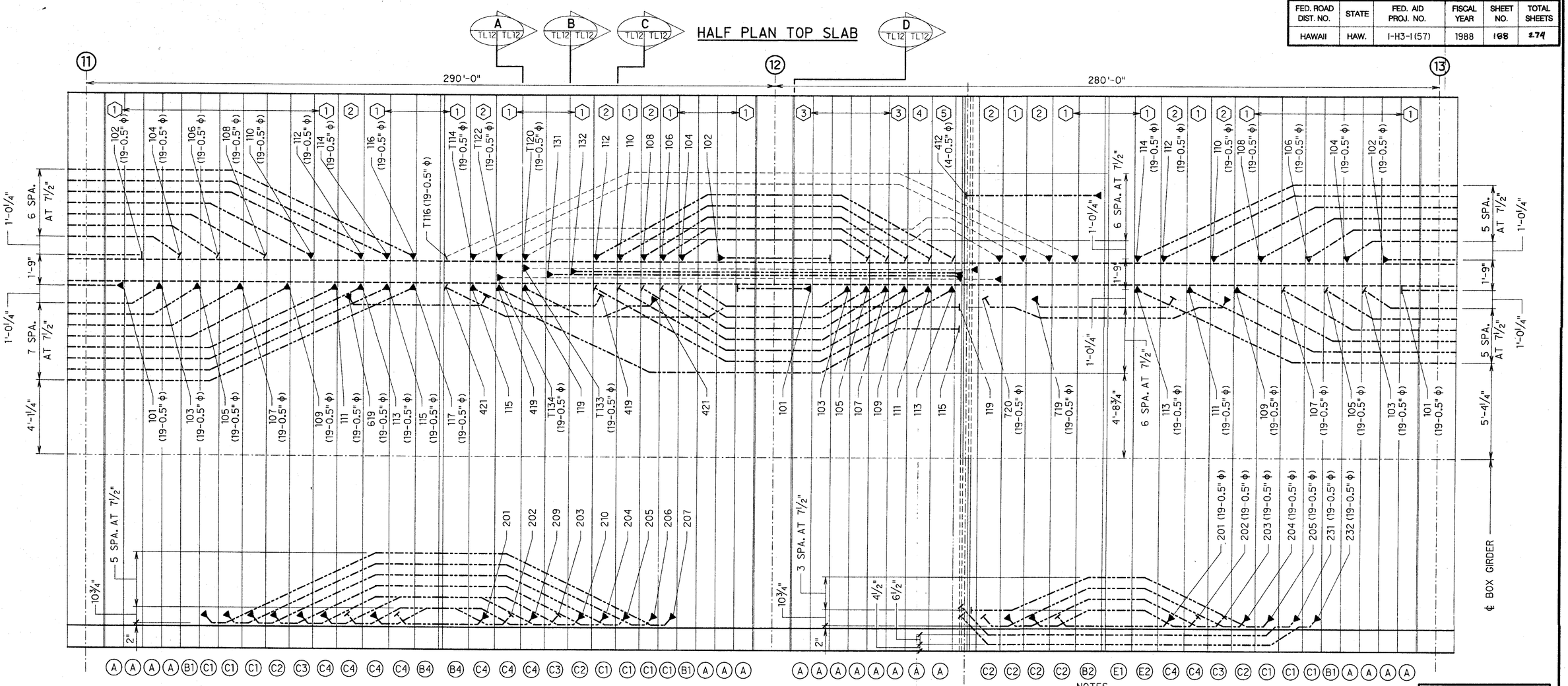
POST-TENSIONING LAYOUT XI
OUTBOUND PIER 9 THRU PIER 11

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JAN. 1991

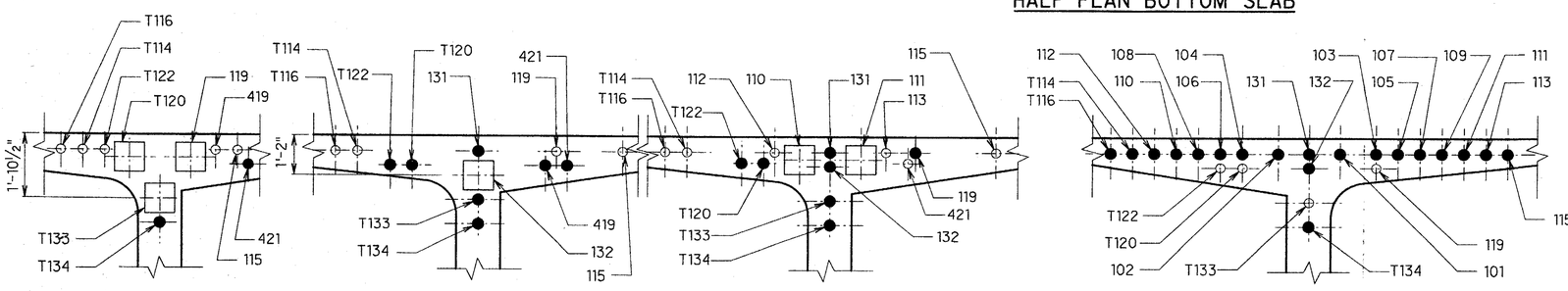
SHEET No. TL11 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	188	274

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB



SECTION A (TL12 TL12) — SCALE : N.T.S.

SECTION B (TL12 TL12) — SCALE : N.T.S.

SECTION C (TL12 TL12) — SCALE : N.T.S.

SECTION D (TL12 TL12) — SCALE : N.T.S.

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
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8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.
9. ● DENOTES STRAIGHT TENDON LOCATION.
10. ○ DENOTES DEVIATED TENDON LOCATION.

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
04/22/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT XII
OUTBOUND PIER 11 THRU PIER 13

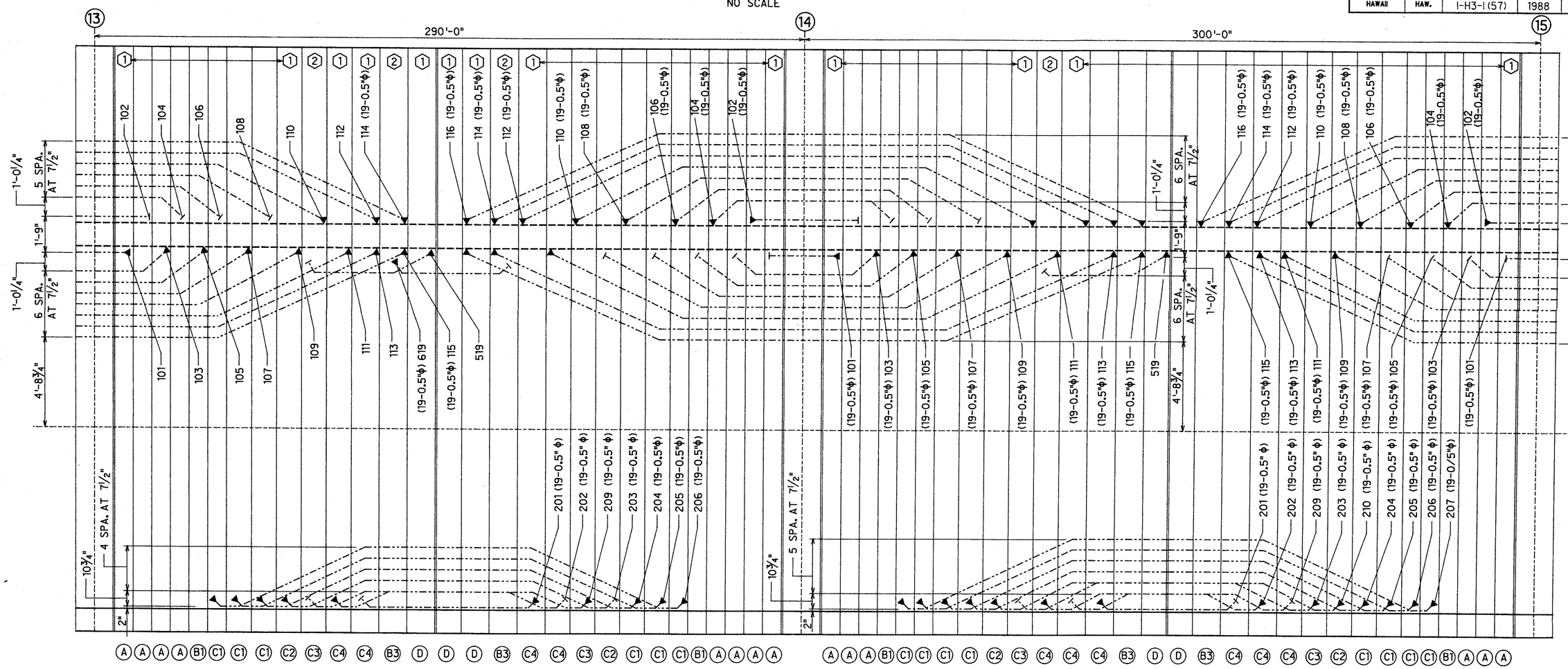
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JAN. 1991

SHEET No. TL12 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(57)	1988	189	274

HALF PLAN TOP SLAB
NO SCALE



HALF PLAN BOTTOM SLAB
NO SCALE

NOTES
1. ALL TENDONS SHOWN ARE 17-0.5" Φ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
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5. ▶-------- DENOTES STRESSING END.
6. |-------- DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

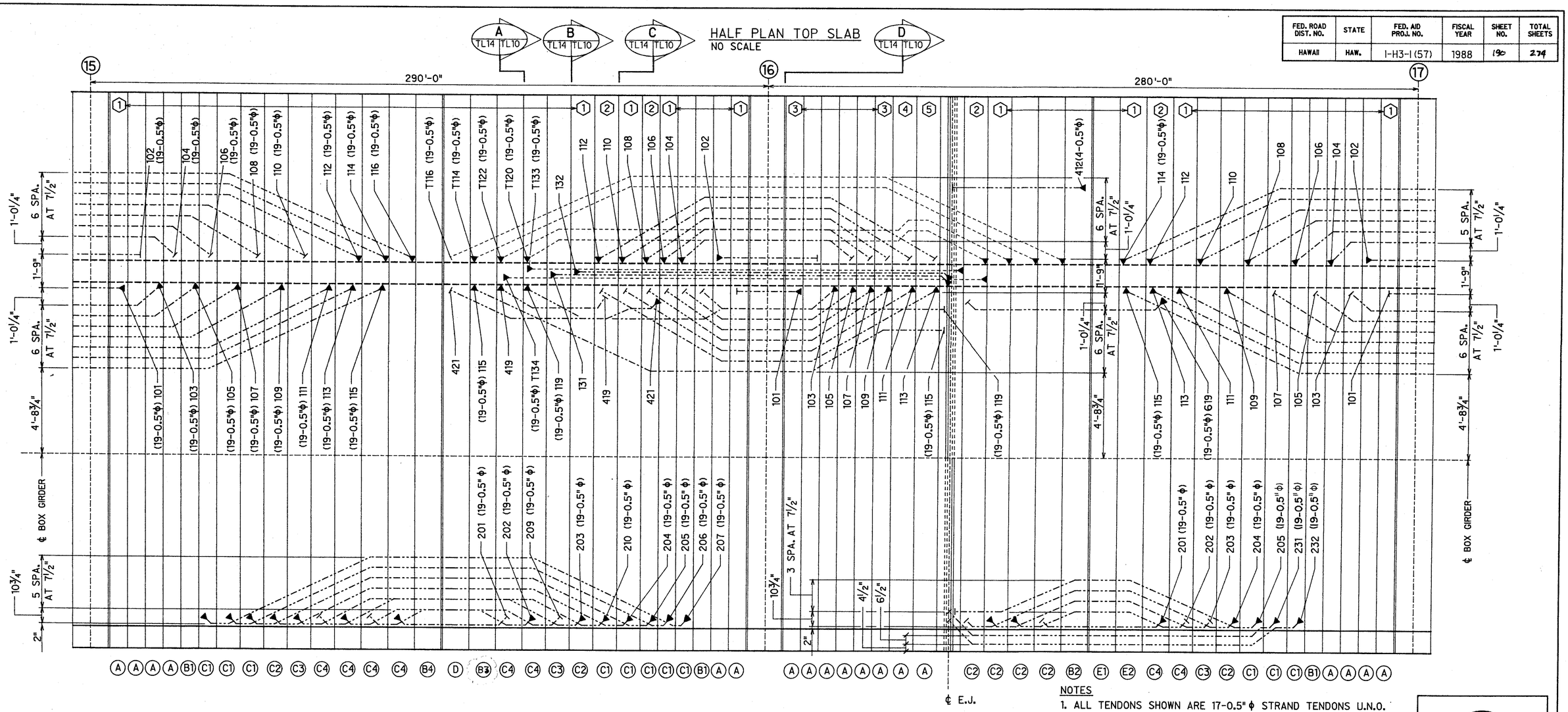
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT
INBOUND PIER 13 THRU PIER 15

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-I(57)
F.A.I. PROJECT No. I-H3-I(58)
SCALE : AS NOTED DATE : APRIL 1991

SHEET NO. TL13 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(57)	1988	190	274



HALF PLAN TOP SLAB
NO SCALE

HALF PLAN BOTTOM SLAB
NO SCALE

NOTES
1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
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JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

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DATE	REVISION
08/23/91	UPDATED DRAWING.
5/29/91	TENDON LAYOUT

J. MULLER INTERNATIONAL | Libby Engineers

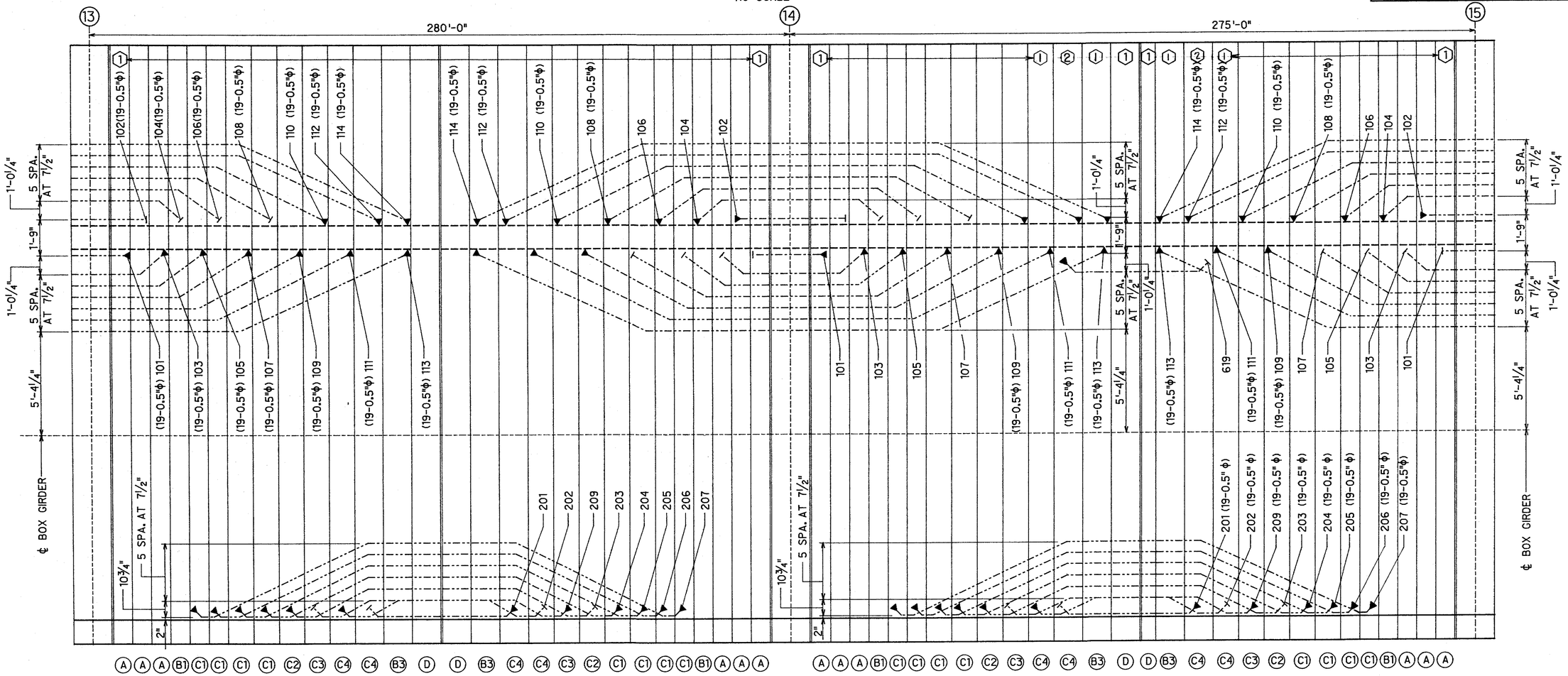
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT
INBOUND PIER 15 THRU PIER 17

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-I(57)
F.A.I. PROJECT No. I-H3-I(58)
SCALE : AS NOTED DATE : APRIL 1991
SHEET NO. TL14 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	191	274

HALF PLAN TOP SLAB
NO SCALE



HALF PLAN TOP SLAB
NO SCALE

NOTES

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8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2378-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

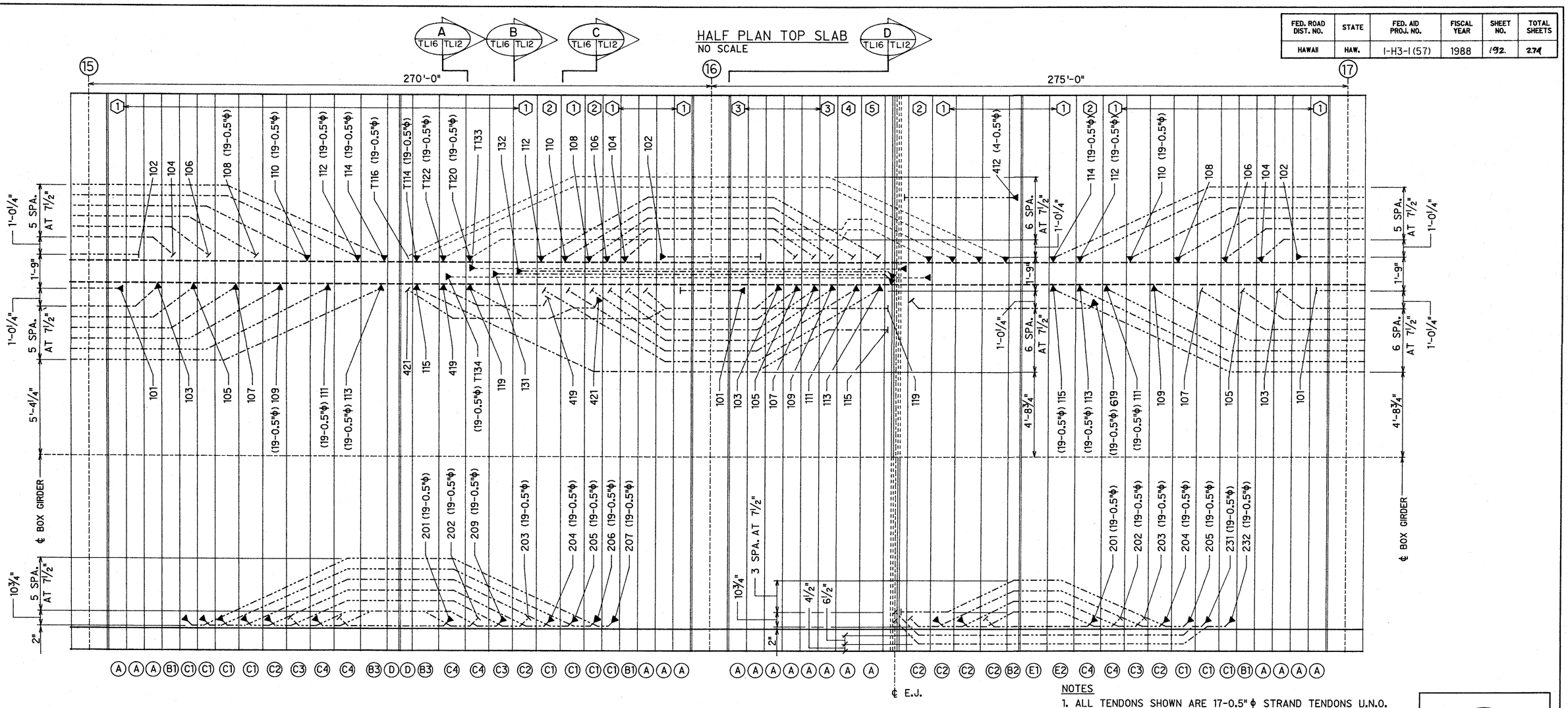
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT
OUTBOUND PIER 13 THRU PIER 15

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : APRIL 1991

SHEET NO. TL15 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	192.	274



HALF PLAN TOP SLAB
NO SCALE

HALF PLAN BOTTOM SLAB
NO SCALE

NOTES

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JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL
Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

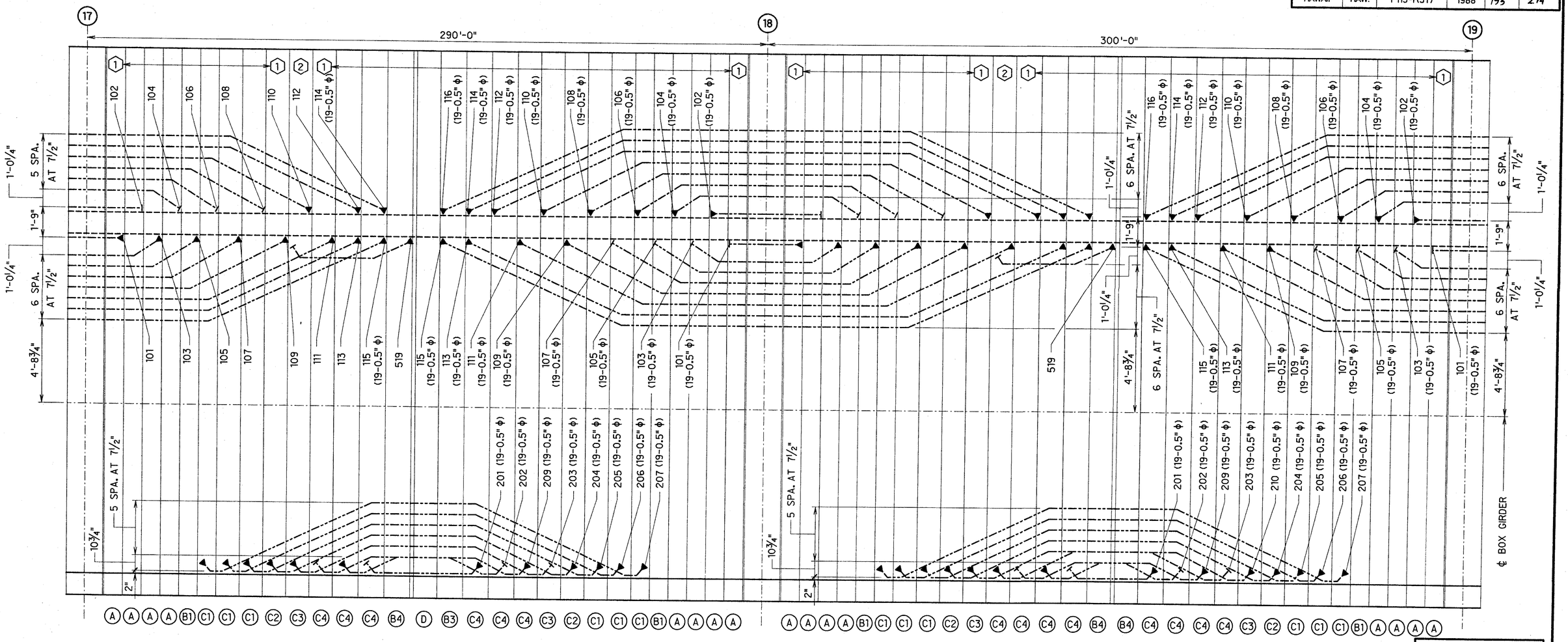
POST-TENSIONING LAYOUT
OUTBOUND PIER 15 THRU PIER 17

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : APRIL 1991

SHEET NO. TL16 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	193	274

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB

NOTES

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ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

NOTE BOOK | No.

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
04/12/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

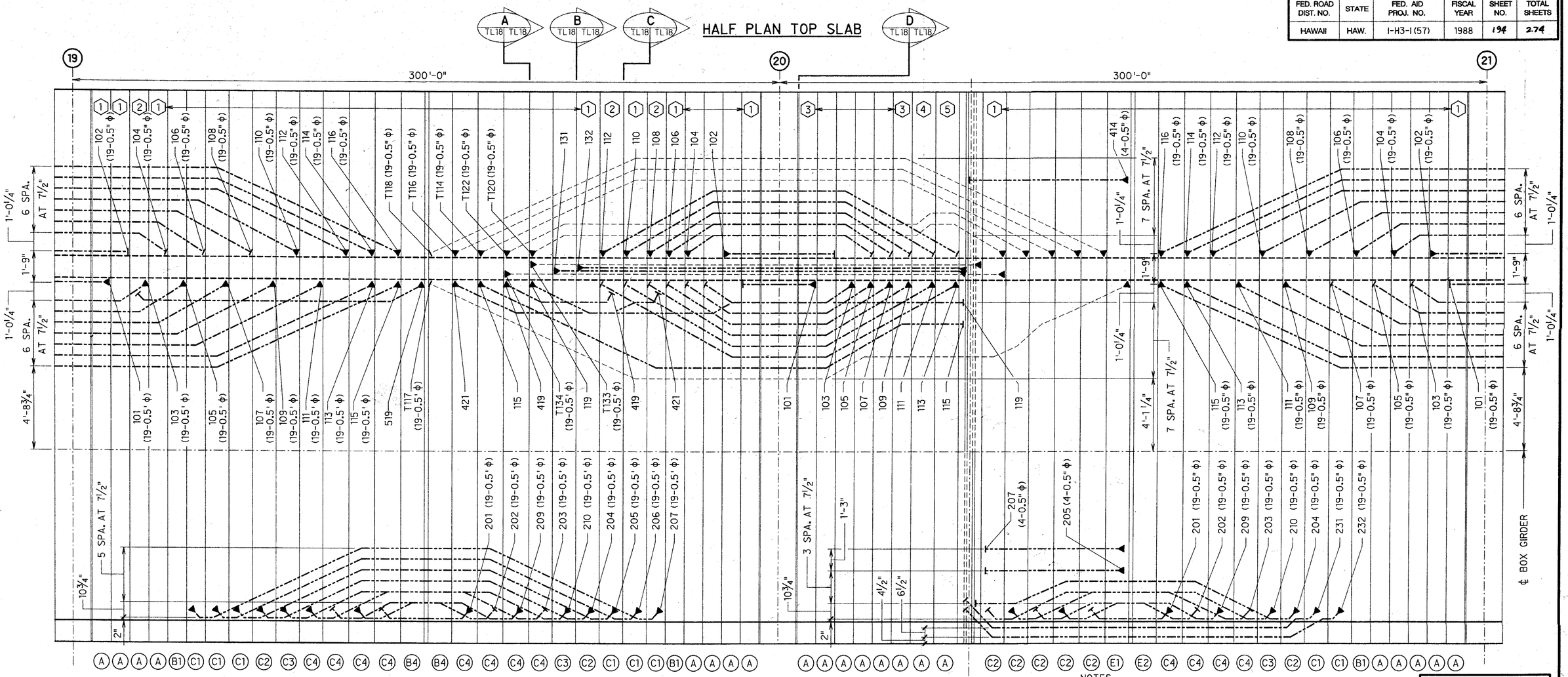
POST-TENSIONING LAYOUT XVII
INBOUND PIER 17 THRU PIER 19

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : MAR. 1991

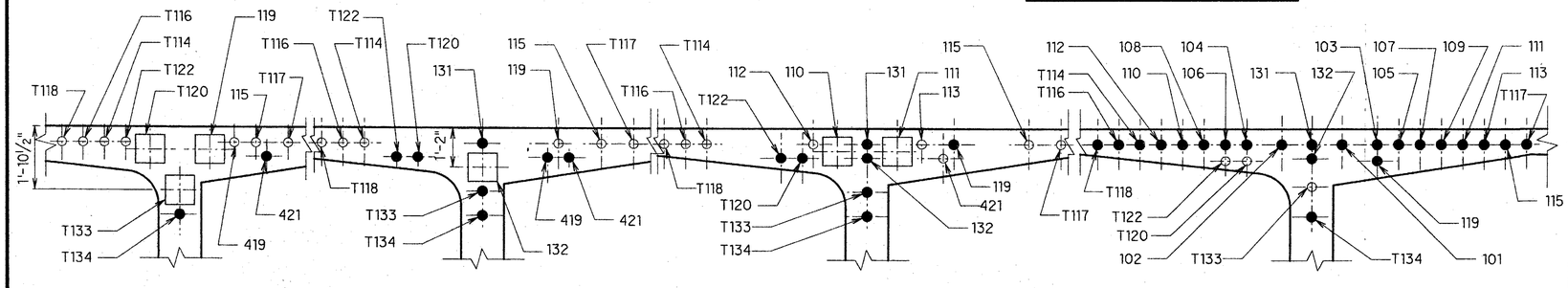
SHEET No. TL17 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	194	274

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB



SECTION A TL18 TL18
SCALE : N.T.S.

SECTION B TL18 TL18
SCALE : N.T.S.

SECTION C TL18 TL18
SCALE : N.T.S.

SECTION D TL18 TL18
SCALE : N.T.S.

NOTES
1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
5. ▶------ DENOTES STRESSING END.
6. |------ DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.
9. ● DENOTES STRAIGHT TENDON LOCATION.
10. O DENOTES DEVIATED TENDON LOCATION.

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
05/06/91	TENDON 414 WAS 412.
04/22/91	REVISED TENDON 412.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT XVIII
INBOUND PIER 19 THRU PIER 21

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

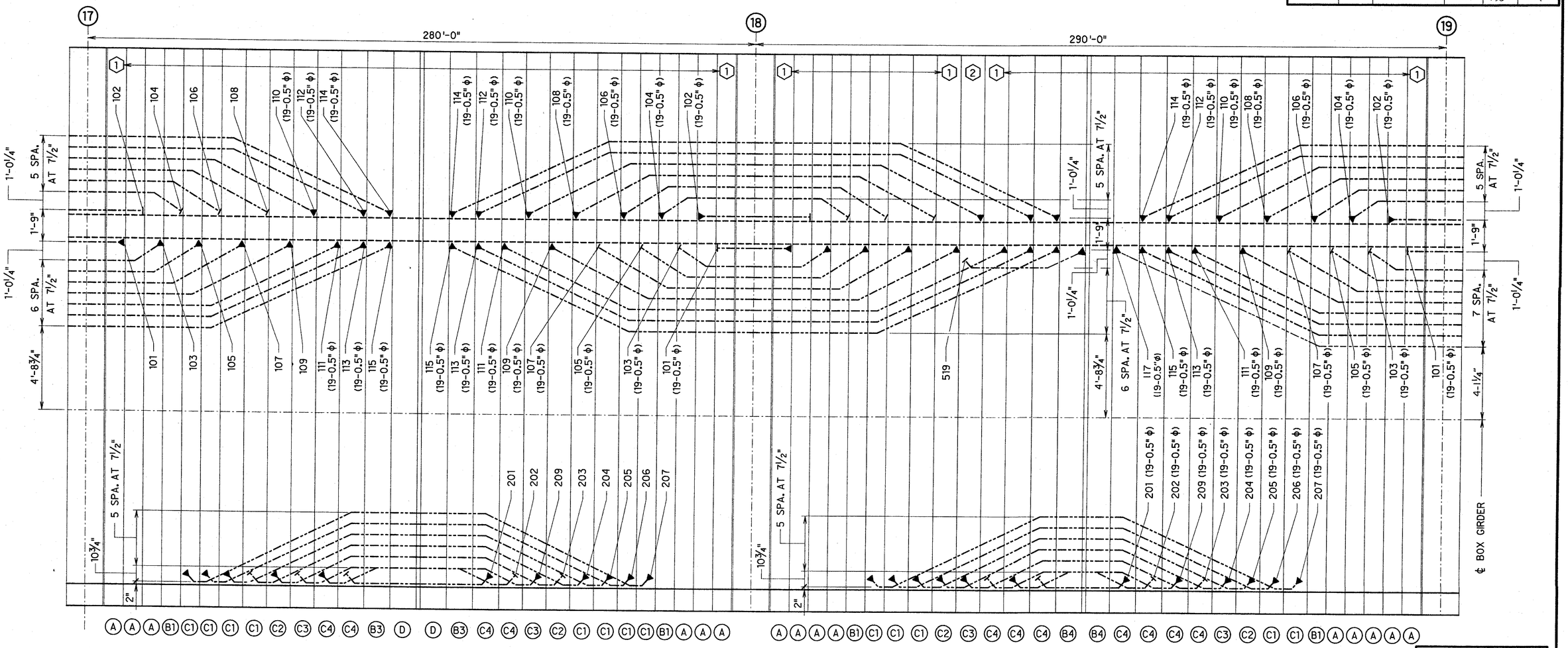
SCALE : AS NOTED DATE : MAR. 1991

SHEET No. TL18 OF SHEETS

ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE
NOTE BOOK | N.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	195	274

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB

NOTES

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2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
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ORIGINAL PLAN | NOTE BOOK No. | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2375-S — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	DELETED TENDON 116 AND ADDED TENDON 117 FOR CANTILEVER 19.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

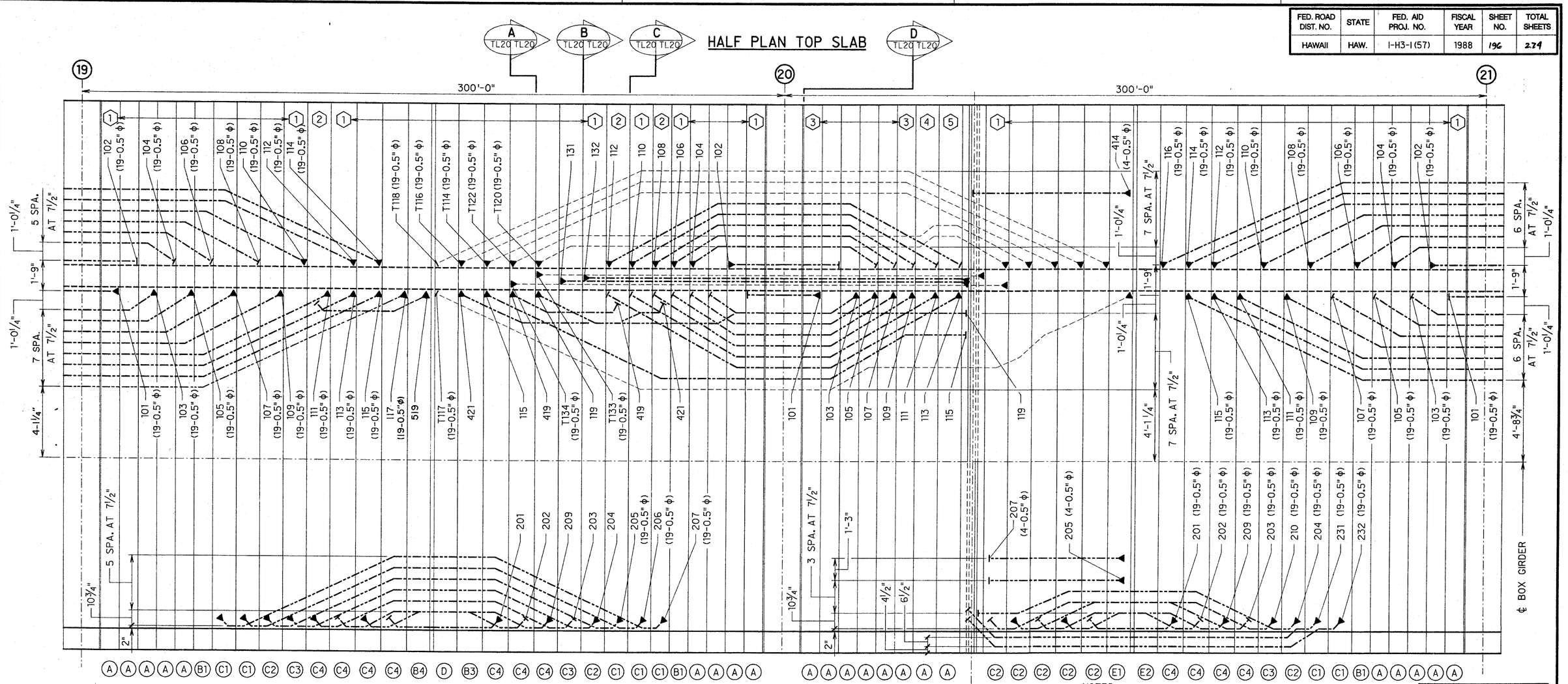
POST-TENSIONING LAYOUT XIX
OUTBOUND PIER 17 THRU PIER 19

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : MAR. 1991

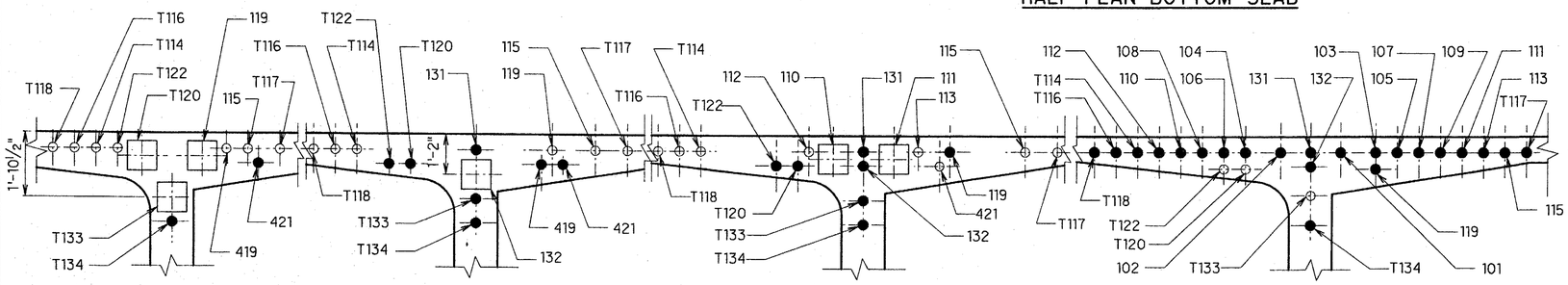
SHEET No. TL19 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	196	279

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB



SECTION A TL20 TL20
SCALE : N.T.S.

SECTION B TL20 TL20
SCALE : N.T.S.

SECTION C TL20 TL20
SCALE : N.T.S.

SECTION D TL20 TL20
SCALE : N.T.S.

NOTES
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9. ● DENOTES STRAIGHT TENDON LOCATION.
10. O DENOTES DEVIATED TENDON LOCATION.

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	DELETED TENDON 116 AND ADDED TENDON 117 FOR CANTILEVER 19.
05/06/91	TENDON 414 WAS 412.
04/22/91	REVISED TENDON 412.

J. MULLER INTERNATIONAL — Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT XX
OUTBOUND PIER 19 THRU PIER 21

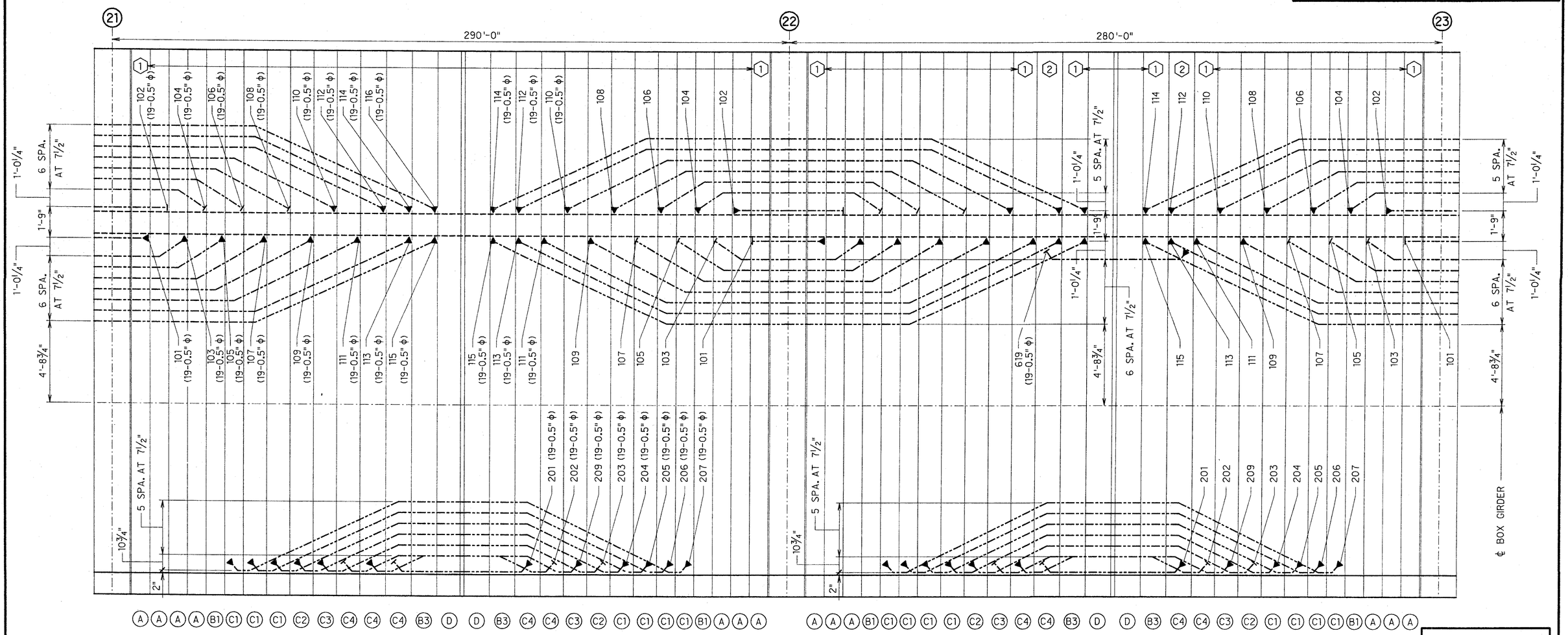
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : MAR. 1991

SHEET No. TL20 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	197	279

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
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ORIGINAL PLAN | NOTE BOOK No. | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

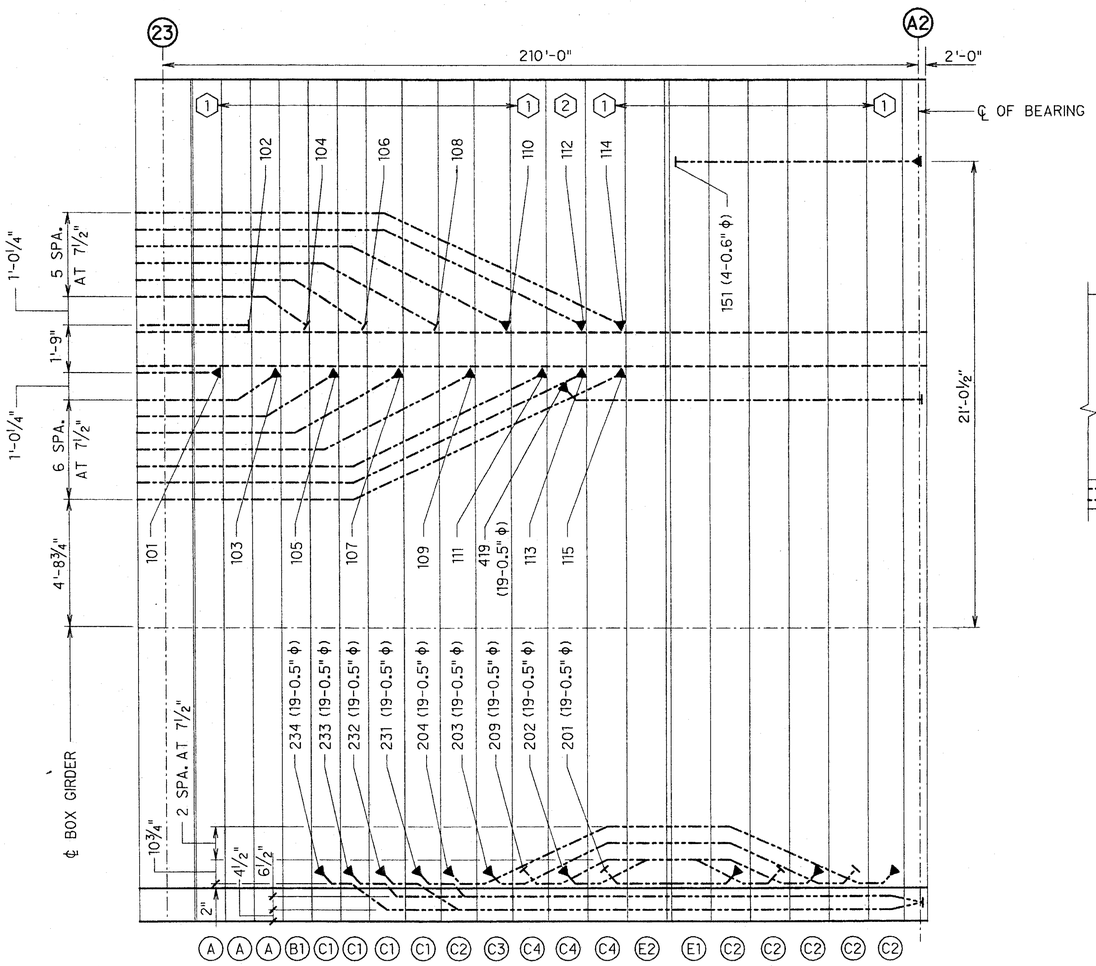
POST-TENSIONING LAYOUT XXI
INBOUND PIER 21 THRU PIER 23

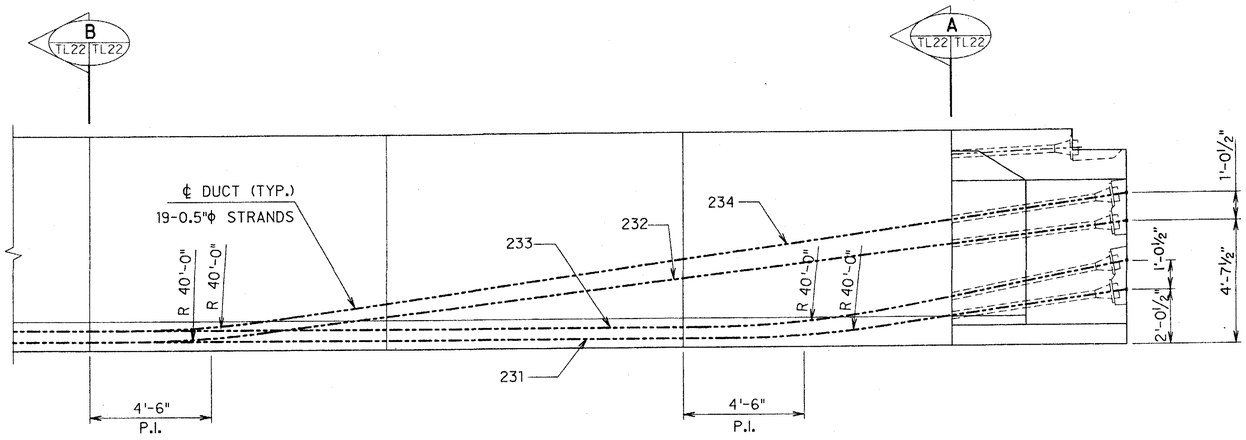
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1991

SHEET No. TL21 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	198	274

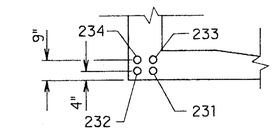
HALF PLAN TOP SLAB





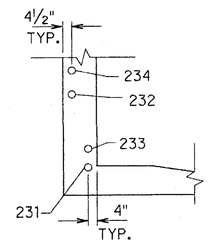
ELEVATION - ABUTMENT SPAN

SCALE : ⅜"=1'-0"



B TL22 TL22 SECTION

SCALE : ⅜"=1'-0"



A TL22 TL22 SECTION

SCALE : ⅜"=1'-0"

NOTES

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ORIGINAL PLAN | NOTE BOOK | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT XXII

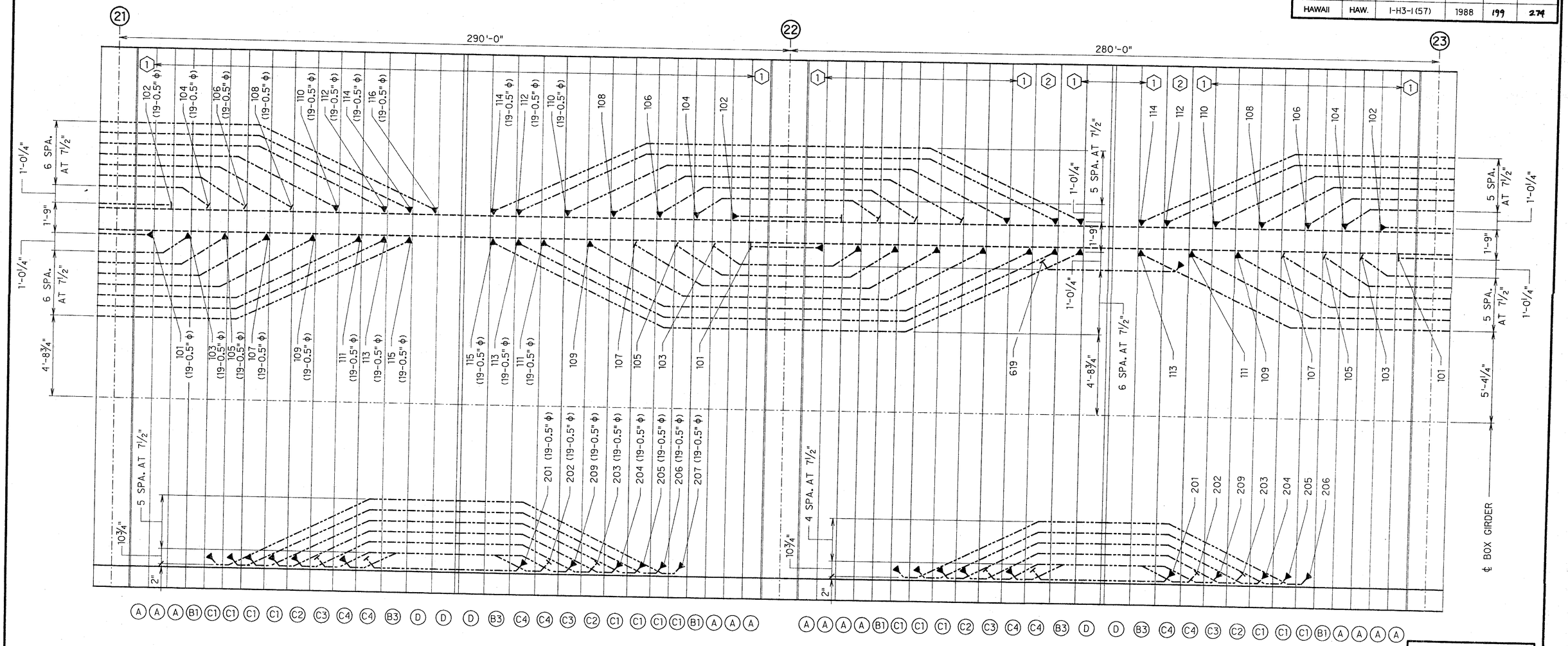
INBOUND PIER 23 THRU ABUTMENT 2

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1991

SHEET No. TL22 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(57)	1988	199	274

HALF PLAN TOP SLAB



NOTES

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HALF PLAN BOTTOM SLAB

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

ORIGINAL PLAN
NOTE BOOK
NO.

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL
Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT XXIII
OUTBOUND PIER 21 THRU PIER 23

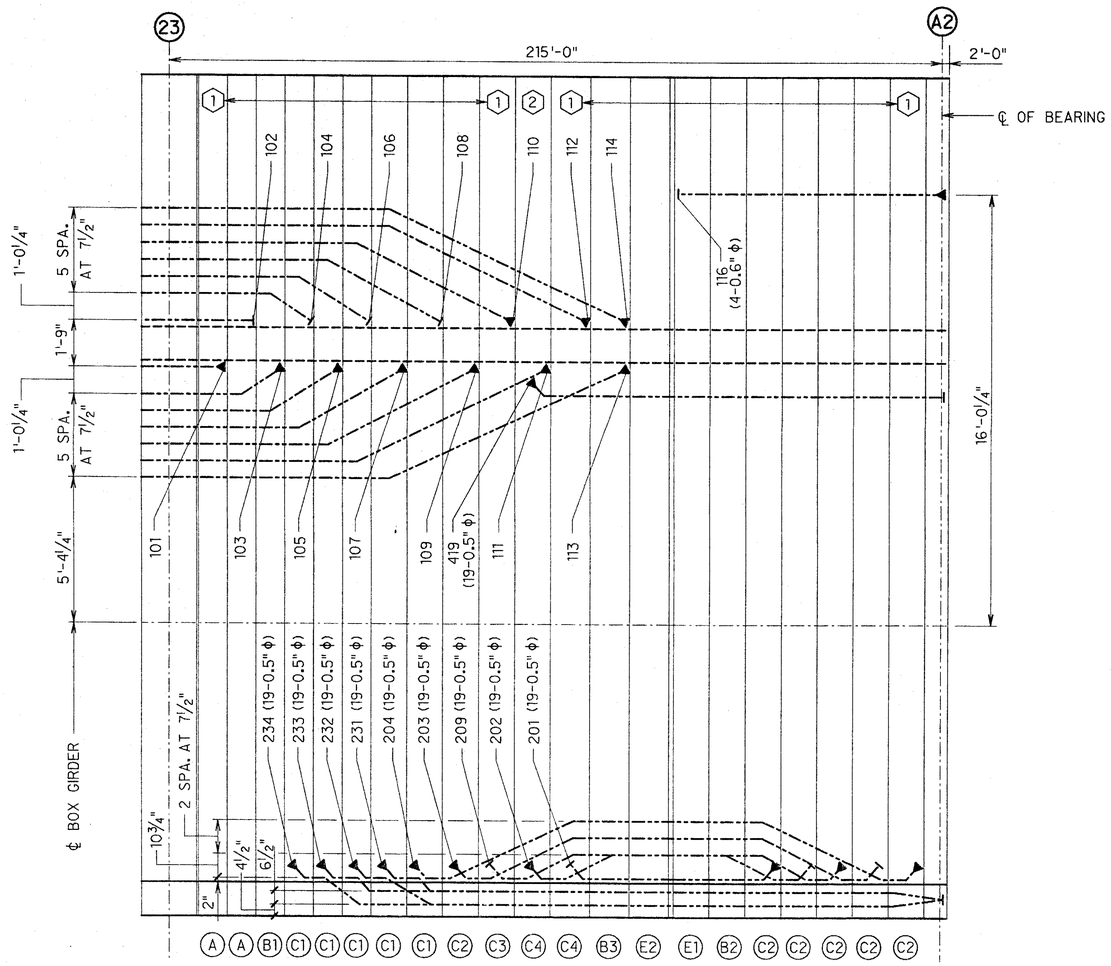
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-I(57)
F.A.I. PROJECT No. I-H3-I(58)
SCALE : AS NOTED DATE : JUN. 1991

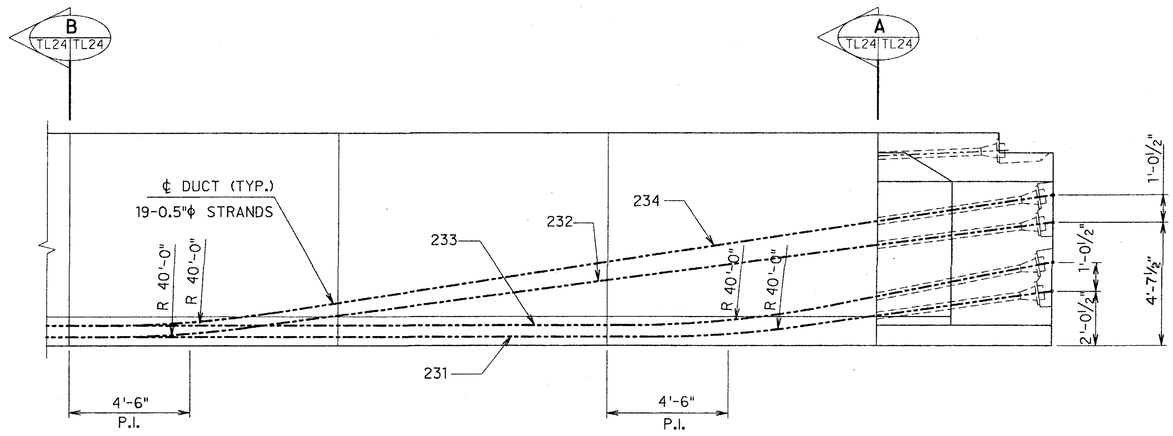
SHEET No. TL23 OF SHEETS

199

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	200	274

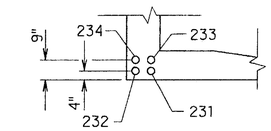
HALF PLAN TOP SLAB





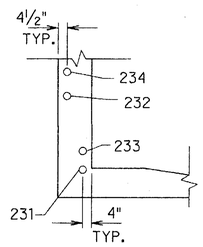
ELEVATION - ABUTMENT SPAN

SCALE : ⅜"=1'-0"



B TL24 TL24 SECTION

SCALE : ⅜"=1'-0"



A TL24 TL24 SECTION

SCALE : ⅜"=1'-0"

NOTES

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

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT XXIV

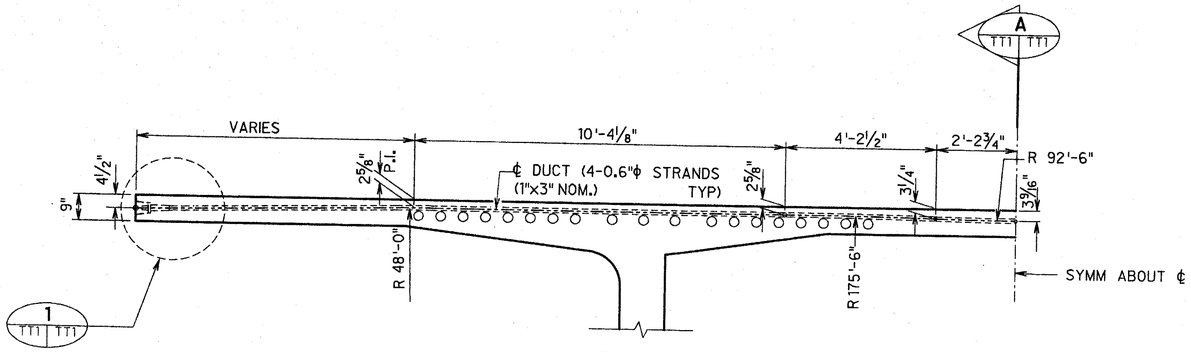
OUTBOUND PIER 23 THRU ABUTMENT 2

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1991

SHEET No. TL24 OF SHEETS

200

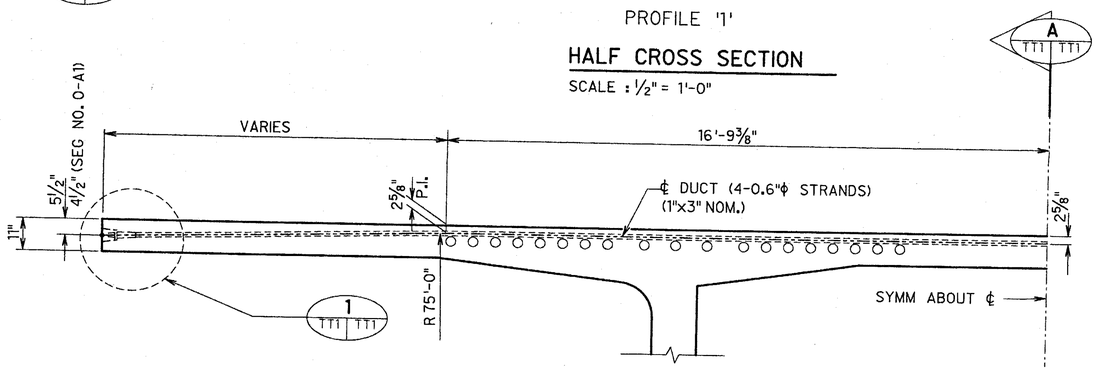
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	201	274



PROFILE '1'

HALF CROSS SECTION

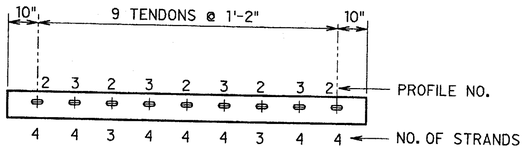
SCALE : 1/2" = 1'-0"



PROFILE '2'
OUTBOUND SPAN 1

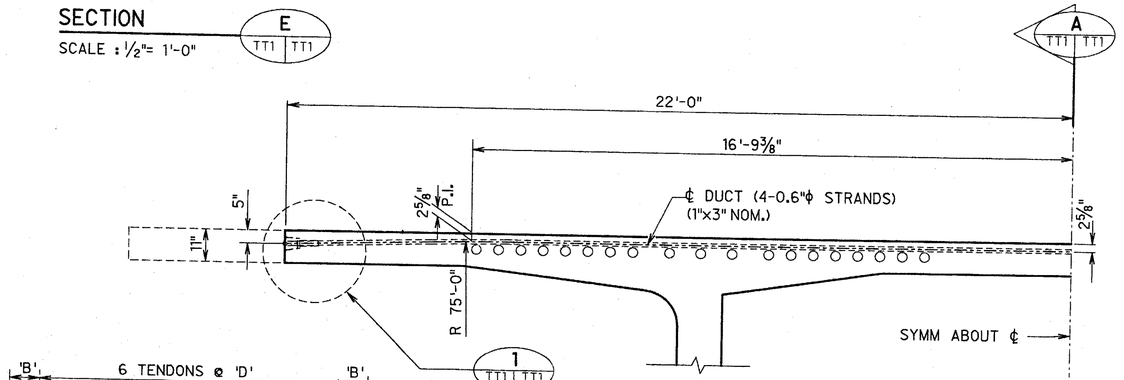
HALF CROSS SECTION

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



SECTION E

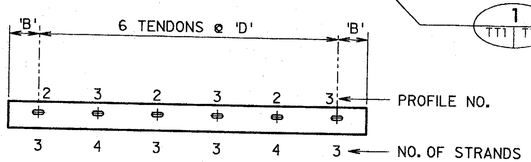
SCALE : 1/2"= 1'-0"



PROFILE '3'
OUTBOUND SPAN 1

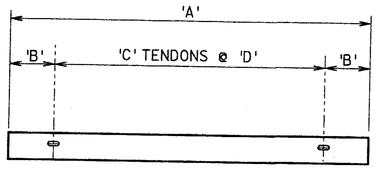
HALF CROSS SECTION

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



SECTION D

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

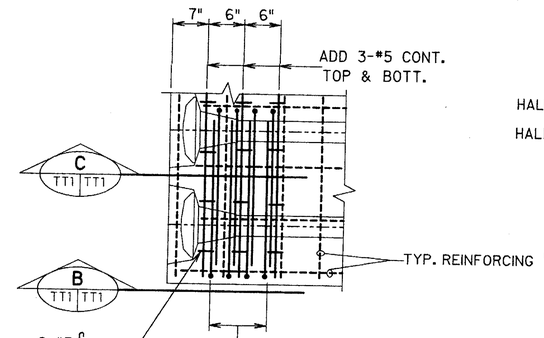


SECTION A

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

TENDON PROFILE	SEGMENT WIDTH	'A'	NO FARADAY SHIELD			FARADAY SHIELD		
			'B'	'C'	'D'	'B'	'C'	'D'
'1'	TO 44'-1"	8'-0"	1'-4"	3	2'-8"	1'-0"	4	2'-0"
		10'-0"	1'-3"	4	2'-6"	1'-0"	5	2'-0"
		11'-0"	1'-4 1/2"	4	2'-9"	1'-1"	5	2'-2 1/2"
	TO 49'-1"	8'-0"	1'-0"	4	2'-0"	10"	5	1'-7"
		10'-0"	1'-0"	5	2'-0"	10"	6	1'-8"
		11'-0"	11"	6	1'-10"	9"	7	1'-7"
OUTBOUND '2' ALT W/'3'	TO 53'-0"	8'-0"	1'-0"	4	2'-0"			
		10'-0"	10"	*	1'-8"	10"	6	1'-8"
		11'-0"	11"	*	1'-10"			
	TO 57'-0"	8'-0"	10 1/2"	6	1'-3"			
		10'-0"	11"	8	1'-2"			
		11'-0"	SEE SECTION E					

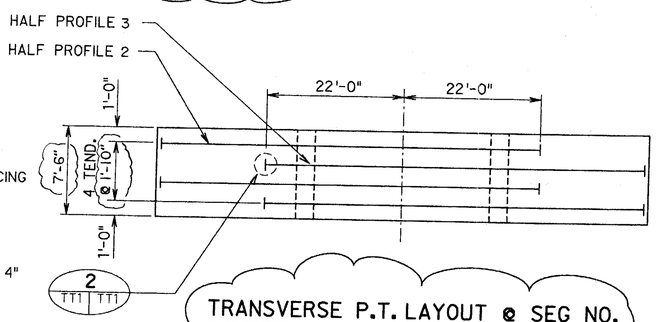
* SEE SECTION D



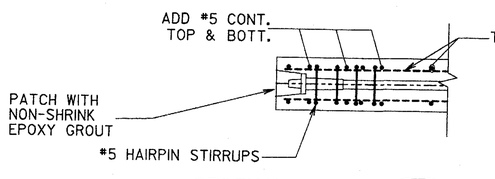
DETAIL 1

SCALE : 1" = 1'-0"

NOTE:
STRESS TENDONS TO 205 ksi.
ASSUMED ANCHOR SET = 3/8"

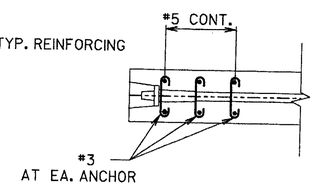


TRANSVERSE P.T. LAYOUT @ SEG NO. IA1-1U & IA1-2U



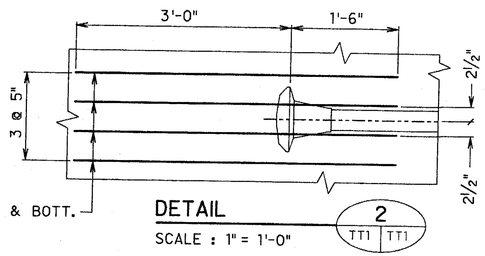
SECTION B

SCALE : 1" = 1'-0"



SECTION C

SCALE : 1" = 1'-0"



DETAIL 2

SCALE : 1" = 1'-0"

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
8/23/91	UPDATED DRAWING.
9/17/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRANSVERSE POST-TENSIONING DETAILS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

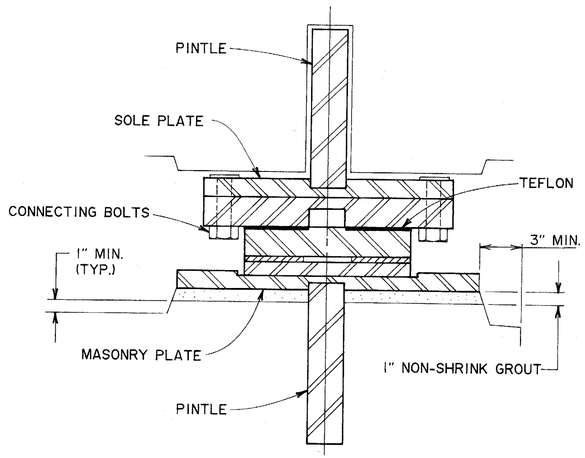
SCALE : AS NOTED DATE : SEP. 1990

SHEET No. TT1 OF SHEETS

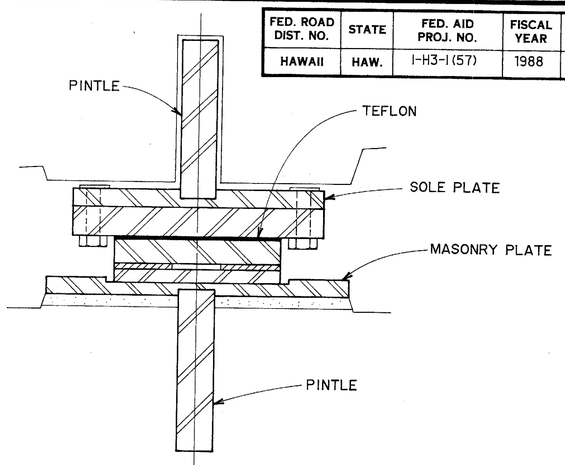
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAFT BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | NOTE BOOK | No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	202	274

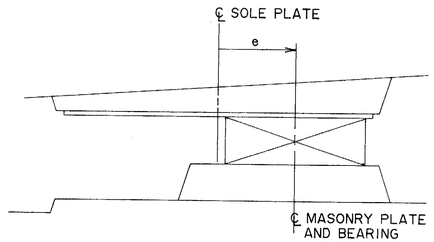
LOCATION	DEAD LOAD REACTION (kips)	LATERAL CAPACITY (kips)	VERTICAL CAPACITY (kips)	TOTAL MOVEMENT	INSTALLATION DISTANCE ("e")	BEARING HEIGHT	BEARING AZIMUTH
INBOUND STRUCTURE							
ABUTMENT 1	500	200	1000	7"	2"	11 5/8"	291° 22' 29"
PIER 4	1400	0	3000	7"	-2 1/2"	9 3/8"	288° 58' 51"
HINGE 1	700	200	1000	12"	+6"	10"	283° 12' 51"
PIER 5	1600	0	3000	7"	2 1/2"	9 3/8"	278° 33' 48"
PIER 8	2000	0	3000	7"	-3 1/2"	9 3/8"	247° 18' 40"
HINGE 2	550	200	1000	12"	+5 1/2"	10"	245° 17' 2"
PIER 12	1800	0	3000	7"	-3 1/2"	9 3/8"	236° 36' 07"
HINGE 3	600	200	1000	12"	+6	10"	241° 29' 36"
PIER 13	1600	0	3000	7"	2 1/2"	9 3/8"	250° 22' 48"
HINGE 4	650	200	1000	12"	5 1/2"	10"	278° 57' 10"
PIER 17	1700	0	3000	7"	+2"	9 3/8"	279° 36' 28"
HINGE 5	650	200	1000	12"	+5"	10"	304° 54' 34"
PIER 23	1700	0	3000	7"	-2"	9 3/8"	314° 26' 18"
ABUTMENT 2	600	200	1000	7"	-2 1/2"	11 5/8"	314° 36' 59"
OUTBOUND STRUCTURE							
ABUTMENT 1	500	200	1000	7"	2"	11 5/8"	287° 54' 43"
PIER 4	1600	0	3000	7"	-2 1/2"	9 3/8"	288° 28' 19"
HINGE 1	700	200	1000	12"	+6"	10"	282° 53' 54"
PIER 5	1700	0	3000	7"	2 1/2"	9 3/8"	278° 9' 6"
PIER 8	2000	0	3000	7"	-3 1/2"	9 3/8"	247° 11' 26"
HINGE 2	700	200	1000	12"	+5 1/2"	10"	245° 14' 33"
PIER 12	1700	0	3000	7"	-3 1/2"	9 3/8"	236° 43' 41"
HINGE 3	650	200	1000	12"	+6"	10"	241° 26' 48"
PIER 13	1600	0	3000	7"	2 1/2"	9 3/8"	250° 27' 16"
HINGE 4	650	200	1000	12"	5 1/2"	10"	278° 28' 01"
PIER 17	1500	0	3000	7"	+2"	9 3/8"	279° 31' 49"
HINGE 5	650	200	1000	12"	+5"	10"	305° 10' 23"
PIER 23	1400	0	3000	7"	-2"	9 3/8"	314° 58' 25"
ABUTMENT 2	600	200	1000	7"	-2 1/2"	11 5/8"	315° 01' 22"



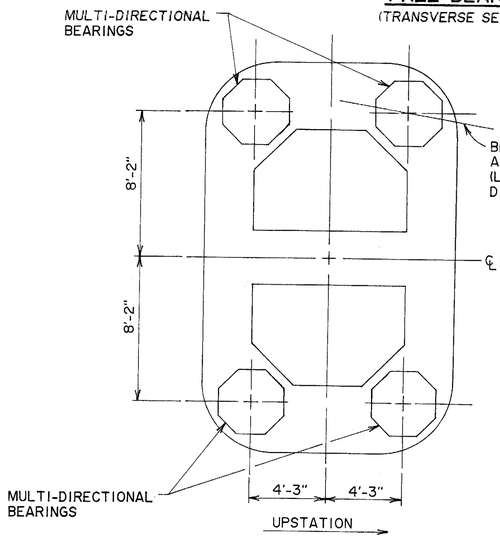
GUIDED BEARING
(TRANSVERSE SECTION)



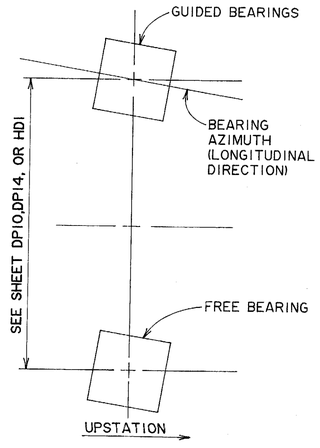
FREE BEARING
(TRANSVERSE SECTION)



INSTALLATION DISTANCE



PIER BEARINGS
(WHERE APPLICABLE)



HINGE AND ABUTMENT BEARINGS

NOTES:

1. ALL BEARINGS SHALL ALLOW A MINIMUM ROTATION OF 0.015 RADIANS.
2. THE HORIZONTAL AND VERTICAL CAPACITY GIVEN IN THE TABLE ARE FOR ONE BEARING AND THE ACTUAL CAPACITY OF THE BEARING PROVIDED SHALL BE EQUAL TO OR GREATER THAN THE VALUE GIVEN. THE LATERAL CAPACITY IS FOR THE TRANSVERSE DIRECTION ON THE UNIDIRECTIONAL GUIDED BEARINGS ONLY.
3. THE BEARINGS SHALL BE DESIGNED TO BE REPLACEABLE BY JACKING THE BRIDGE UP, REMOVING THE CONNECTING BOLTS AND EXTRACTING THE BEARING.
4. THE UPPER PINTLE SHALL BE CAST WITH THE SLIDING PIER SEGMENT OR GROUTED INTO THE PRECAST HINGE OR ABUTMENT SEGMENT AFTER THE SEGMENT HAS BEEN SET TO GRADE AND ELEVATION.
5. THE MASONRY PLATE SHALL BE GROUTED WITH NON-SHRINK GROUT TO THE BEARING SEAT AFTER THE BEARING HAS BEEN SET TO GRADE AND ELEVATION.
6. THE BEARING HEIGHTS GIVEN REPRESENT THE TOTAL HEIGHT FROM THE BASE OF THE MASONRY PLATE TO THE TOP OF THE SOLE PLATE AT THE CENTERLINE OF BEARING UNDER FULL DESIGN LOAD. THE CONTRACTOR WILL VERIFY THESE DIMENSIONS TO REFLECT THE HEIGHT OF THE BEARING ACTUALLY SUPPLIED. WHERE GUIDED AND MULTI-DIRECTIONAL BEARINGS ARE USED, THE HEIGHT IS GIVEN FOR THE GUIDED BEARING.
7. THE INSTALLATION DISTANCE, e, IS POSITIVE FOR THE CENTERLINE OF THE BEARING AND MASONRY PLATE UPSTATION OF THE CENTERLINE OF THE SOLE PLATE.
8. THE BEARING AZIMUTHS ARE GIVEN UPSTATION BASED FROM TRUE SOUTH.

ORIGINAL PLANS	SURVEY PLOTTED BY	DATE
NOTE BOOK	TRACED BY J. GONZALEZ	
No.	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	

DATE	REVISION
06/21/91	UPDATED DRAWING.
05/03/91	UPDATED DRAWING.
04/02/91	UPDATED DRAWING.
02/08/91	UPDATED DRAWING.
10/04/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

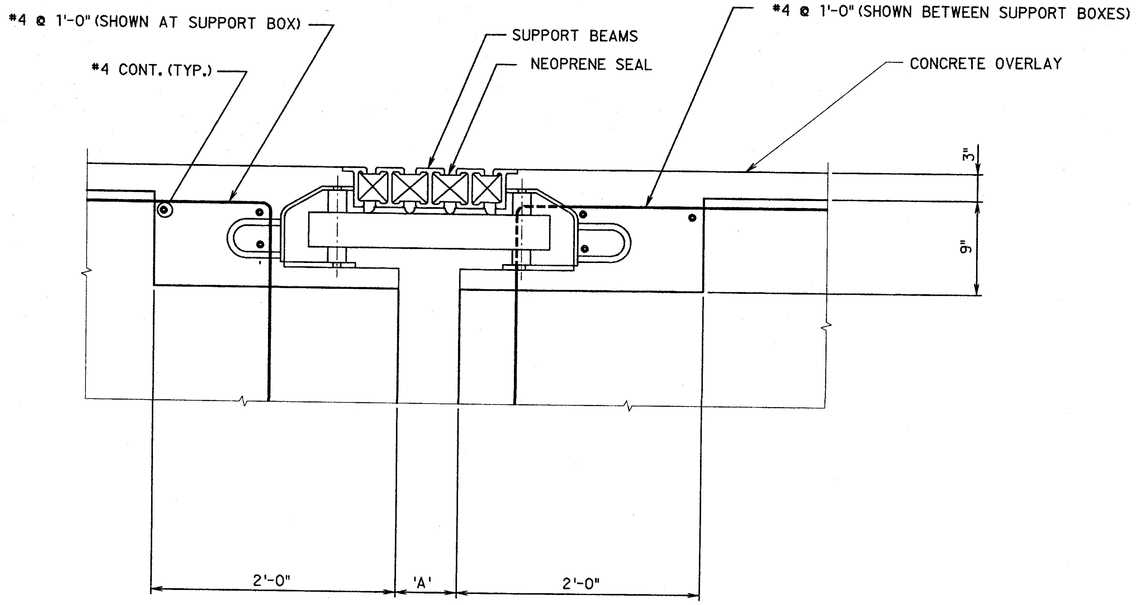
BEARING SCHEDULE

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. BD1 OF SHEETS

202

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	203	274



CROSS SECTION

SCALE : NONE

		'A' MIN	'A' MAX	'A' @ 75°F	TOTAL MOVEMENT
INBOUND	ABUT. 1	6.3"	11.3"	7.3"	6.0"
	HINGE 1	3.0"	13.5"	4.1"	12.0"
	HINGE 2	2.0"	13.5"	3.1"	12.0"
	HINGE 3	3.3"	13.3"	3.7"	12.0"
	HINGE 4	3.9"	12.2"	4.7"	12.0"
	HINGE 5	2.8"	7.2"	3.3"	12.0"
	ABUT. 2	2.8"	7.2"	3.3"	6.0"
OUTBOUND	ABUT. 1	6.6"	11.6"	7.6"	6.0"
	HINGE 1	3.0"	13.5"	4.1"	12.0"
	HINGE 2	2.0"	13.5"	2.9"	12.0"
	HINGE 3	2.9"	12.9"	3.4"	12.0"
	HINGE 4	3.3"	11.7"	4.1"	12.0"
	HINGE 5	2.7"	7.1"	3.2"	12.0"
	ABUT. 2	2.9"	7.4"	3.3"	6.0"

NOTES:

1. THE DETAILS SHOWN INDICATE THE GENERAL DECK EXPANSION JOINT INSTALLATION REQUIREMENTS. THE EXACT DETAILS SHALL BE ADJUSTED TO SUIT THE RECOMMENDATIONS OF THE MANUFACTURER OF THE ACTUAL EXPANSION JOINT USED. THE CONTRACTOR SHALL VERIFY ALL INSTALLATION REQUIREMENTS AND SUBMIT SHOP DRAWINGS INDICATING THE ACTUAL INSTALLATION REQUIREMENTS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
2. DECK EXPANSION JOINTS SHALL NOT BE INSTALLED UNTIL A MINIMUM OF 60 DAYS AFTER ALL POST-TENSIONING WORK HAS BEEN COMPLETED FOR ADJACENT FRAMES.
3. ASSUMED TEMPERATURE AT THE TIME OF JOINT INSTALLATION IS 75°F.
4. DECK EXPANSION JOINTS SHALL BE INSTALLED PERPENDICULAR TO SEGMENT CENTERLINE FOR HINGE LOCATIONS AND RADIAL TO THE BASELINE FOR ABUTMENT LOCATIONS. SEE SHEET EJ2 FOR CONDITION AT BRIDGE CONCRETE RAILING.
5. THE 'A' MINIMUM AND 'A' MAXIMUM VALUES ARE THE EXTREMES EXPECTED AFTER THE JOINT HAS BEEN SET.

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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
06/21/91	UPDATED DRAWING
05/03/91	UPDATED DRAWING.
04/01/91	UPDATED DRAWING.
10/04/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

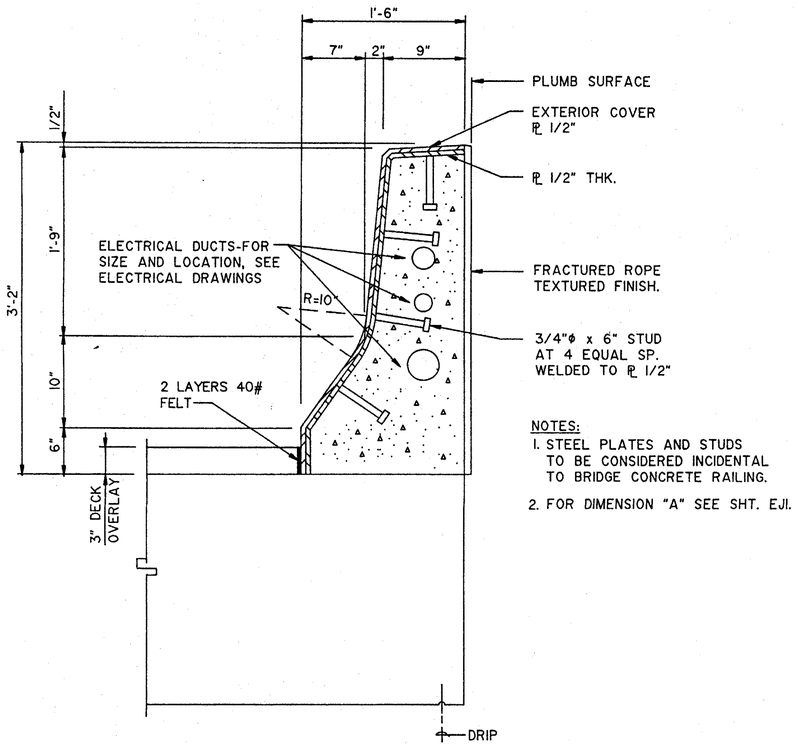
EXPANSION JOINT SCHEDULE

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. EJ1 OF SHEETS

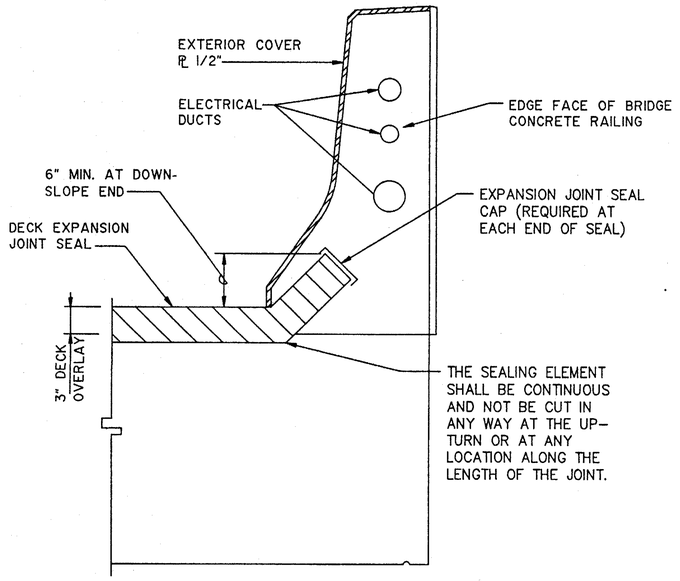
203

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	204	274

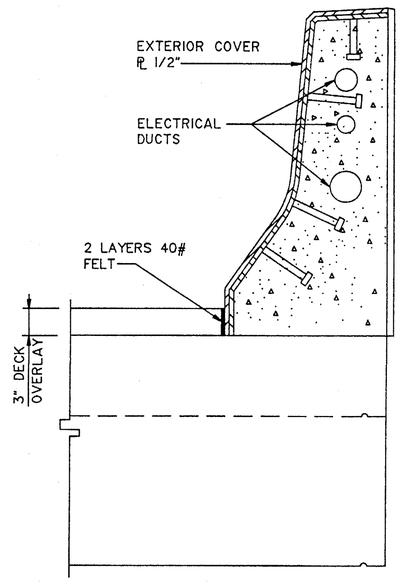


NOTES:
1. STEEL PLATES AND STUDS TO BE CONSIDERED INCIDENTAL TO BRIDGE CONCRETE RAILING.
2. FOR DIMENSION "A" SEE SHT. EJI.

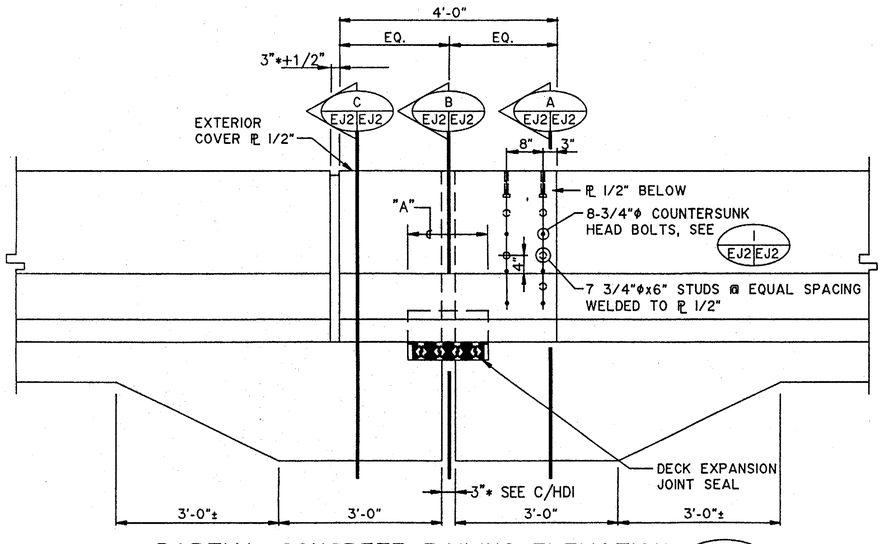
CONCRETE RAILING DETAIL (A EJ2|EJ2)
SCALE : 1 1/2" = 1'-0"



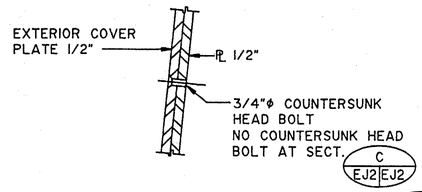
DECK EXPANSION JOINT SEAL AT RAILING (B EJ2|EJ2)
SCALE : 1 1/2" = 1'-0"



CONCRETE RAILING DETAIL (C EJ2|EJ2)
SCALE : 1 1/2" = 1'-0"



PARTIAL CONCRETE RAILING ELEVATION (D EJ2|EJ2)
SCALE : 3/4" = 1'-0"
AB7, AB8



EXTERIOR COVER PLATE DET. (I EJ2|EJ2)
NO SCALE

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

MYRON Q. OKUBO REGISTERED PROFESSIONAL ENGINEER No. 4320-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

DATE	REVISION
6/30/89	REVISED DETAILS B,C, AND D.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EXPANSION JOINT DETAILS
CONDITION AT CONCRETE RAILING

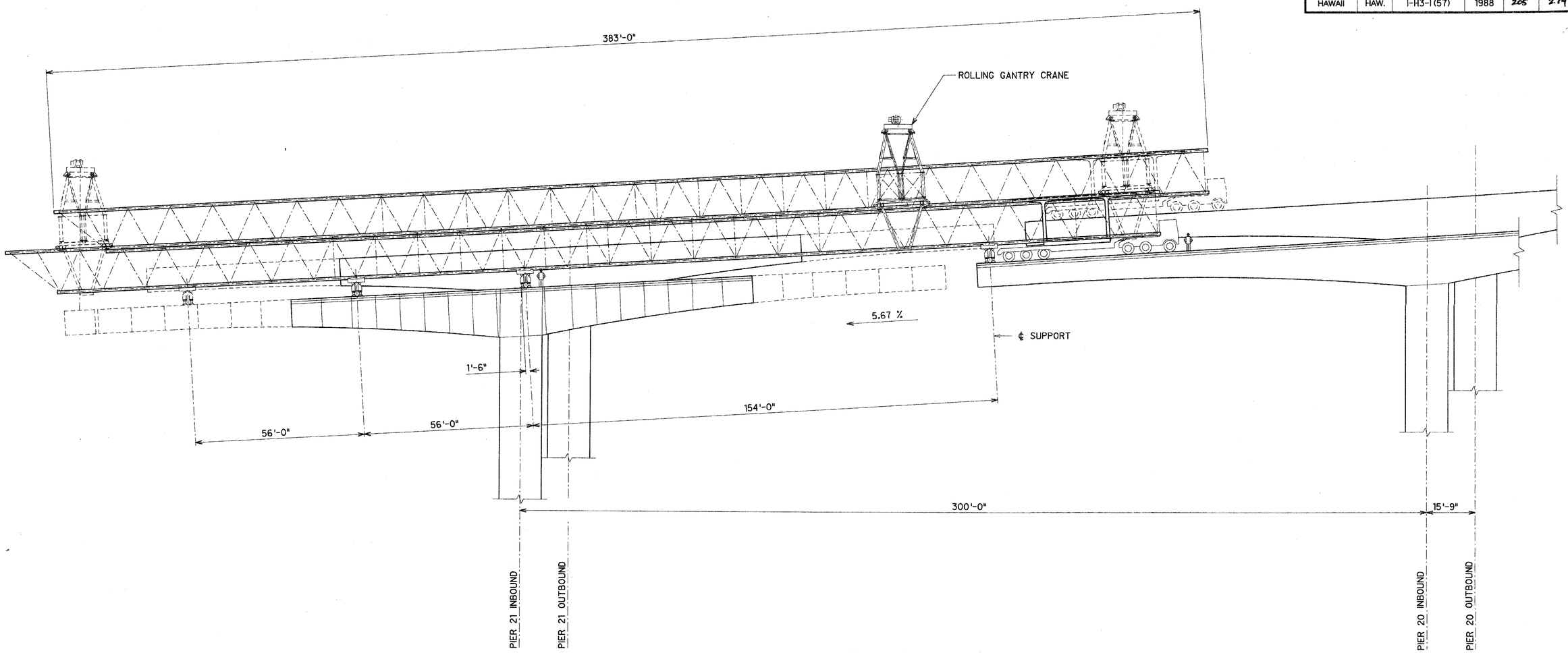
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. EJ2 OF 2 SHEETS

ADD. 216
204 JUN 2 1989

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	205	279



SURVEY PLOTTED BY ____ DATE
DRAWN BY ____ . . . .
TRACED BY ____
DESIGNED BY ____
QUANTITIES BY ____
CHECKED BY ____

ORIGINAL PLAN
NOTE BOOK
No.

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

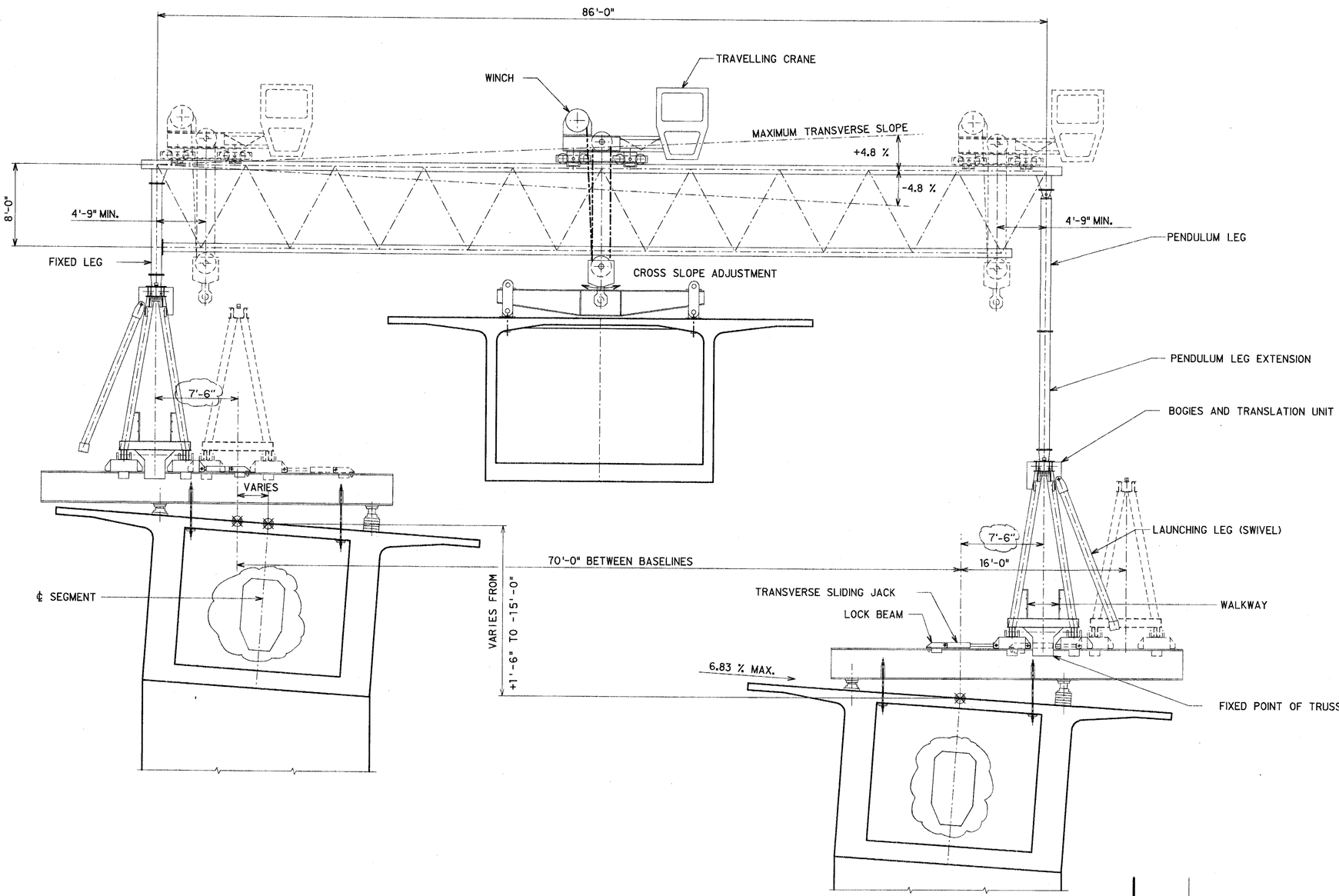
ERECTION SCHEMATIC I

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. CM1 **OF** **SHEETS**

205

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	206	274



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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL
Libby Engineers

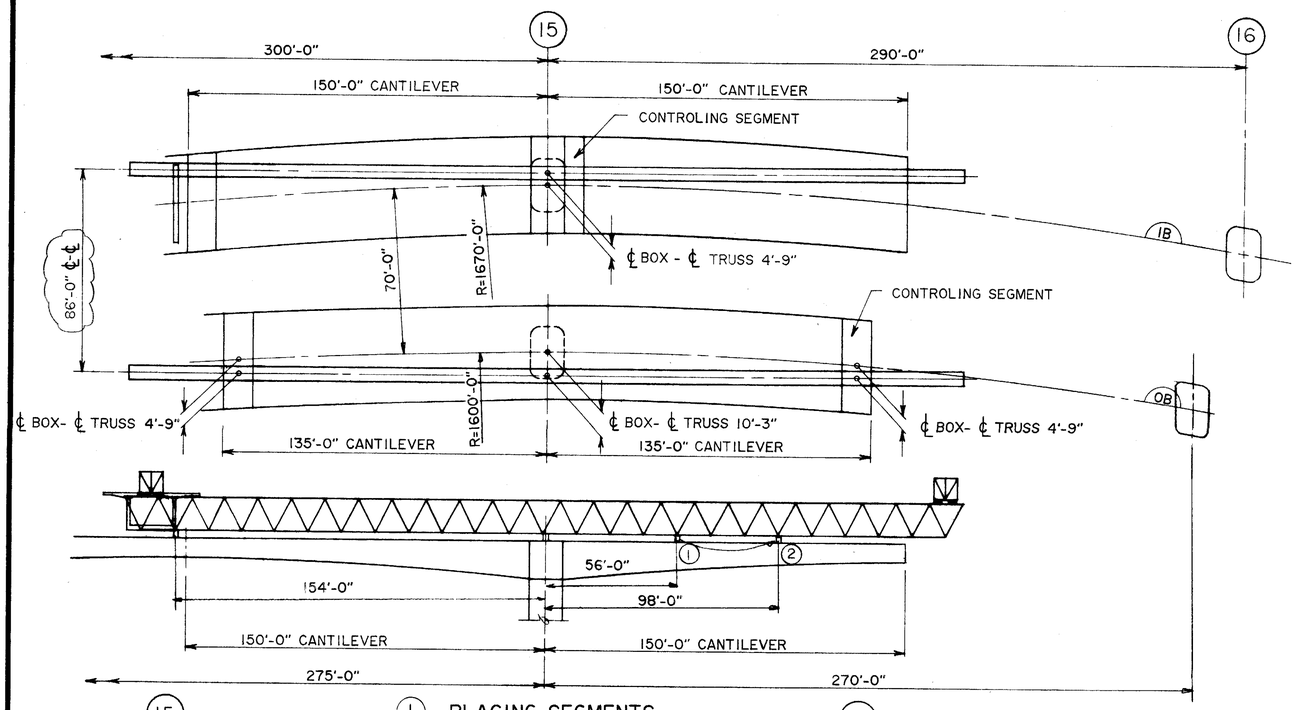
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ERECTION SCHEMATIC II

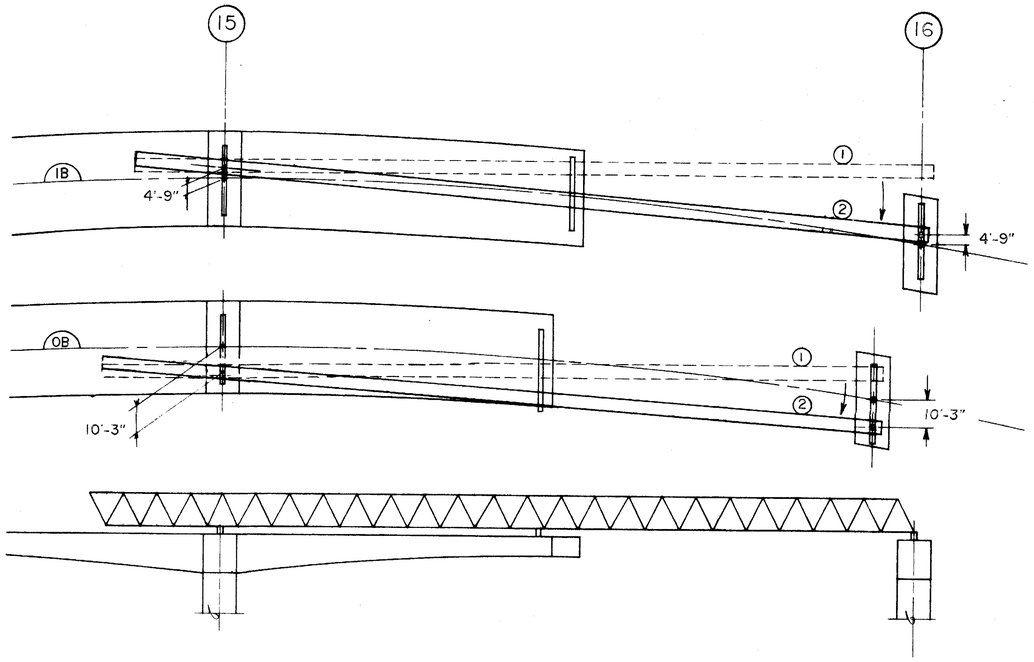
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. CM2 **OF** **SHEETS**

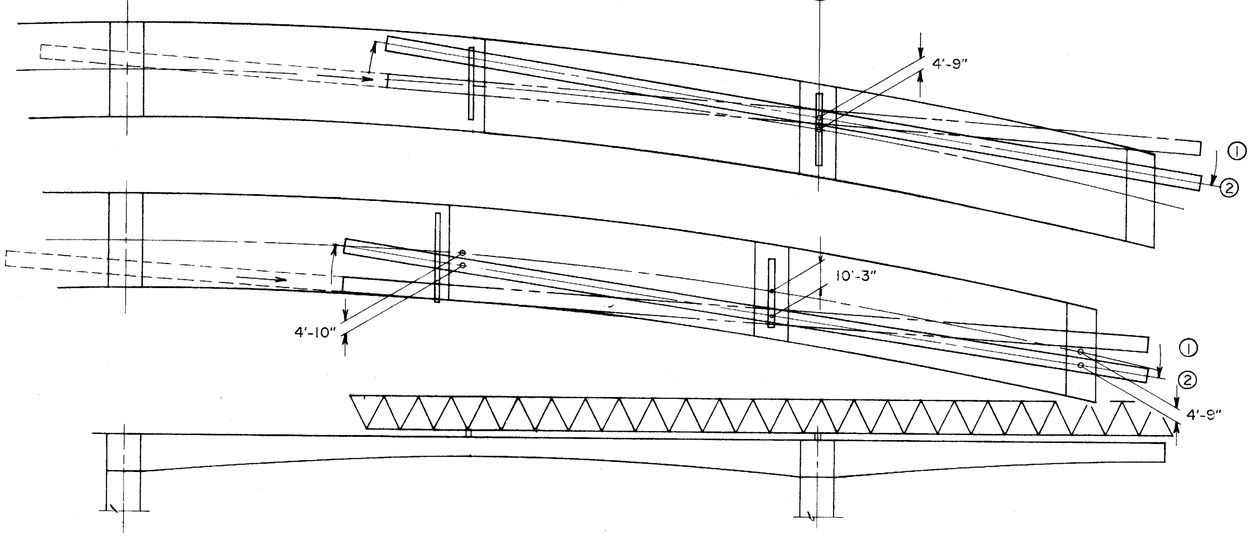
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	207	274



① PLACING SEGMENTS



② LAUNCHING TRUSSES - PHASE I



③ LAUNCHING TRUSSES - PHASE II

DATE	04/90
SURVEY PLOTTED BY	
DRAWN BY	DB
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL

Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

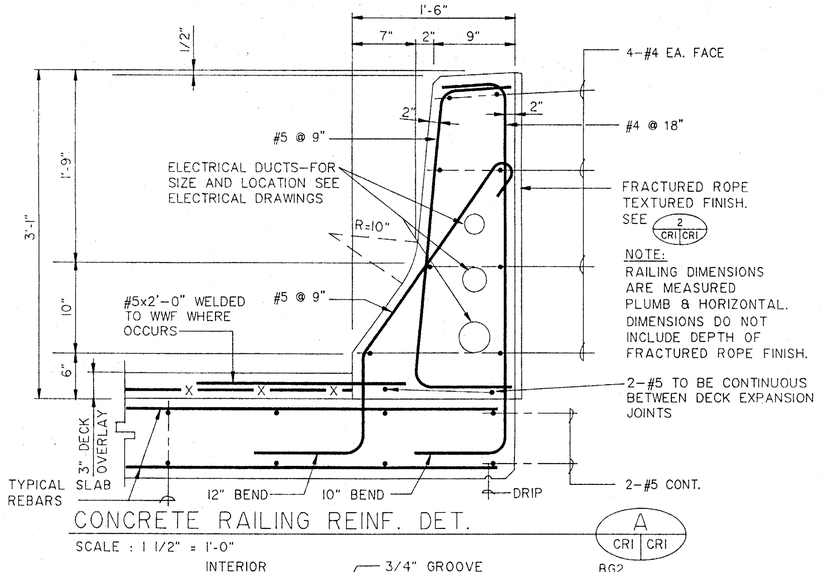
ERECTION SCHEMATIC III

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : NO SCALE DATE : APR. 1990

SHEET No. CM3 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	208	274

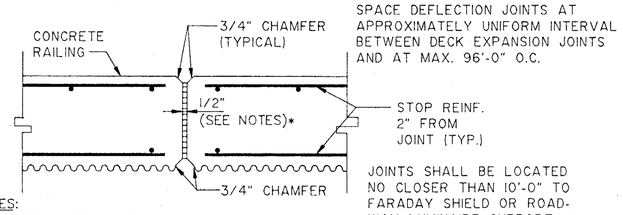


NOTE:
RAILING DIMENSIONS ARE MEASURED PLUMB & HORIZONTAL. DIMENSIONS DO NOT INCLUDE DEPTH OF FRACTURED ROPE FINISH.

CONCRETE RAILING REINF. DET. — A (CRI | CRI)

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

BG2



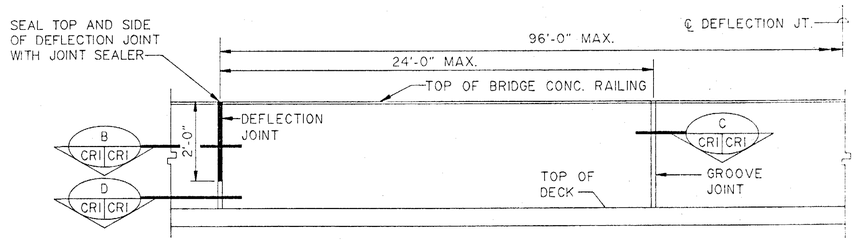
SPACE DEFLECTION JOINTS AT APPROXIMATELY UNIFORM INTERVAL BETWEEN DECK EXPANSION JOINTS AND AT MAX. 96'-0" O.C.

JOINTS SHALL BE LOCATED NO CLOSER THAN 10'-0" TO FARADAY SHIELD OR ROADWAY LUMINAIRE SUPPORT.

* NOTES:
1. 1/2" PREMOLDED JOINT FILLER AT CONCRETE RAILING DEFLECTION JOINT.

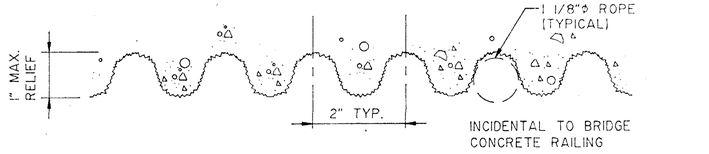
BRIDGE CONC. RAILING DEFLECTION JOINT — B (CRI | CRI)

NO SCALE



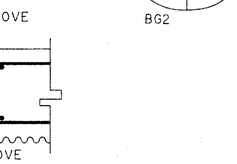
BRIDGE CONCRETE RAILING-INTERIOR ELEVATION — I (CRI | CRI)

NO SCALE



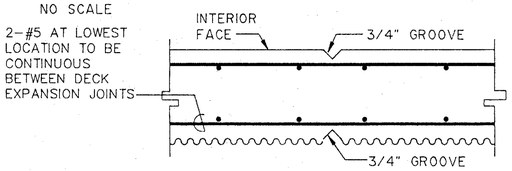
FRACTURED ROPE FINISH DET. — 2 (CRI | CRI)

NO SCALE



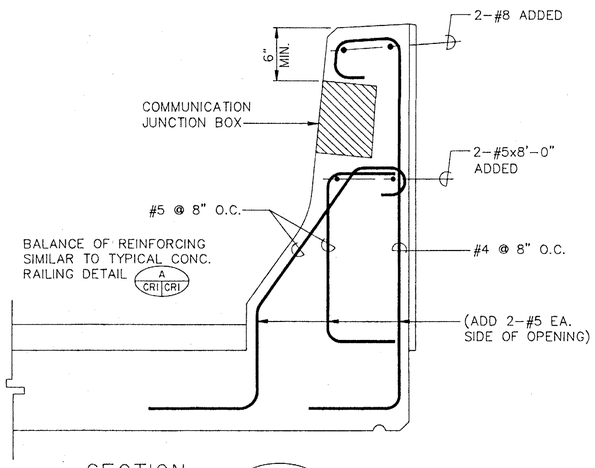
BRIDGE CONCRETE RAILING GROOVE JOINT — C (CRI | CRI)

NO SCALE



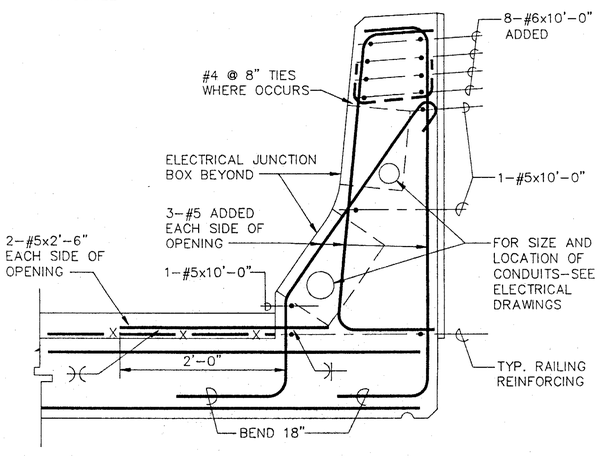
BRIDGE CONCRETE RAILING GROOVE JOINT — D (CRI | CRI)

NO SCALE



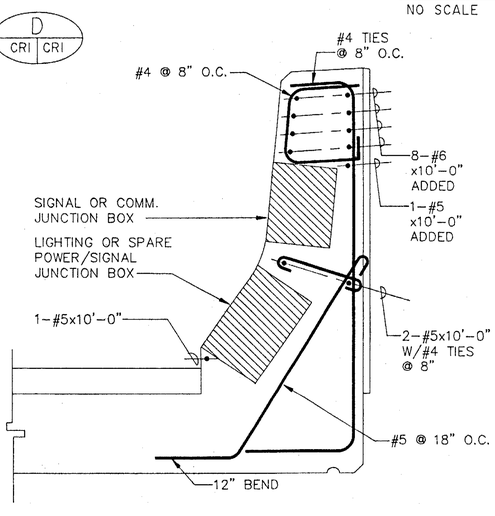
SECTION — I (CRI | CRI)

NO SCALE



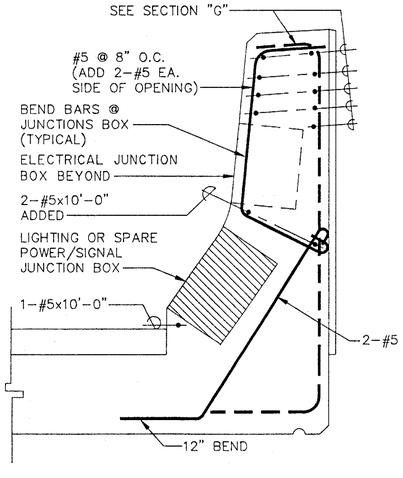
SECTION — F (CRI | CRI)

NO SCALE



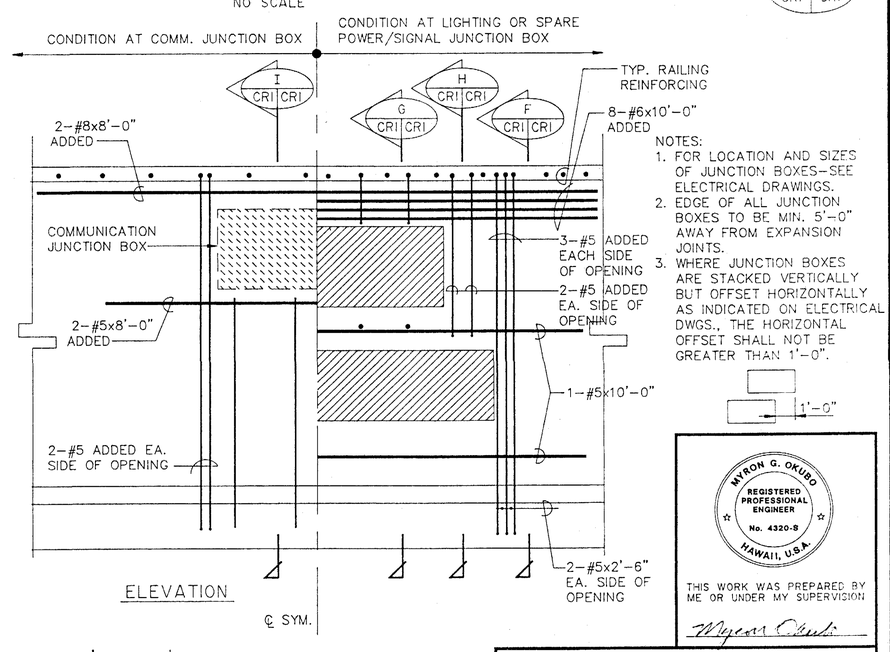
SECTION — G (CRI | CRI)

NO SCALE



SECTION — H (CRI | CRI)

NO SCALE



NOTES:
1. FOR LOCATION AND SIZES OF JUNCTION BOXES-SEE ELECTRICAL DRAWINGS.
2. EDGE OF ALL JUNCTION BOXES TO BE MIN. 5'-0" AWAY FROM EXPANSION JOINTS.
3. WHERE JUNCTION BOXES ARE STACKED VERTICALLY BUT OFFSET HORIZONTALLY AS INDICATED ON ELECTRICAL DWGS., THE HORIZONTAL OFFSET SHALL NOT BE GREATER THAN 1'-0".

1'-0"

ELEVATION

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

MYRON G. OKUBO REGISTERED PROFESSIONAL ENGINEER No. 4320-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVICION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONCRETE RAILING DETAILS

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

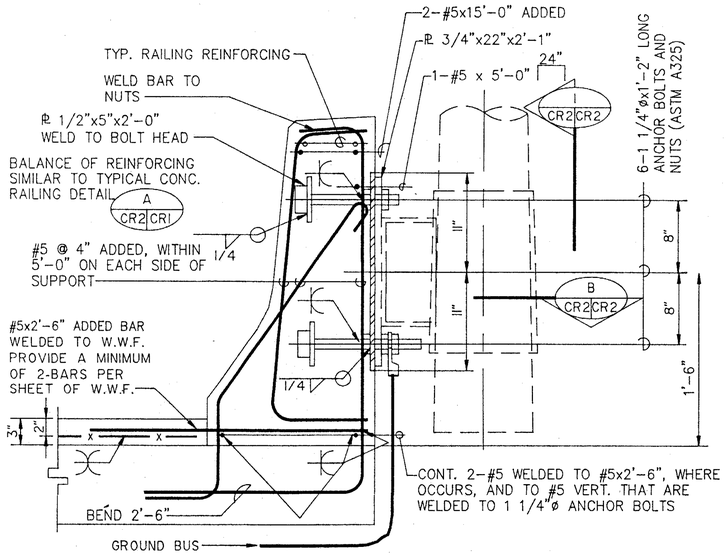
SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. CRI OF 2 SHEETS

DATE	REVISION
6/8/90	REVISED ALL DETAILS EXCEPT B,C,D,I & 2.

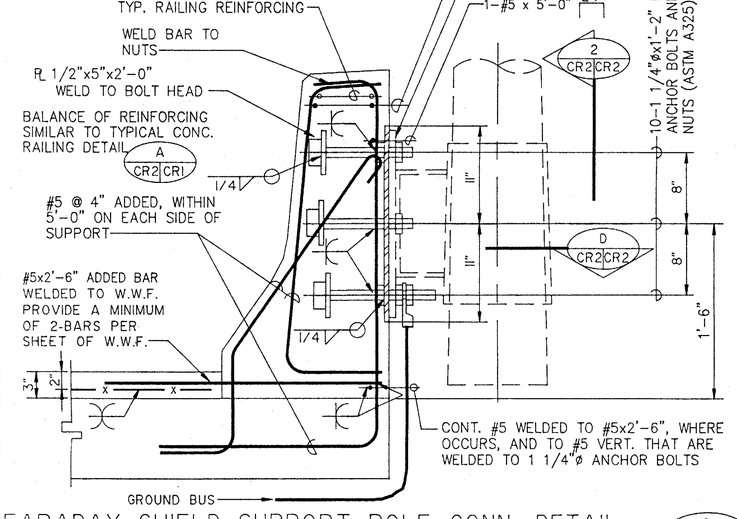
C.O. 225
208

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I (57)	1988	209	274



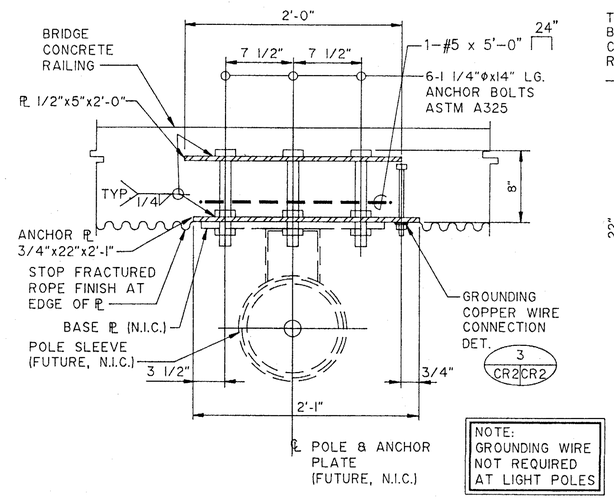
TYP. FARADAY SHIELD SUPPORT/LIGHT POLE CONN. DET. A CR2 CR2

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



PLAN - SECTION B CR2 CR2

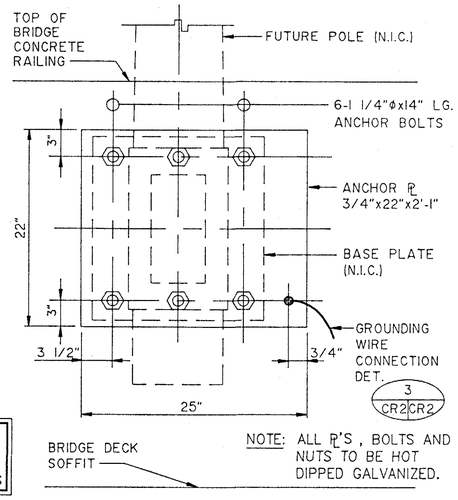
SCALE: 1 1/2"=1'-0"



NOTE: GROUNDING WIRE NOT REQUIRED AT LIGHT POLES

FRONT VIEW 1 CR2 CR2

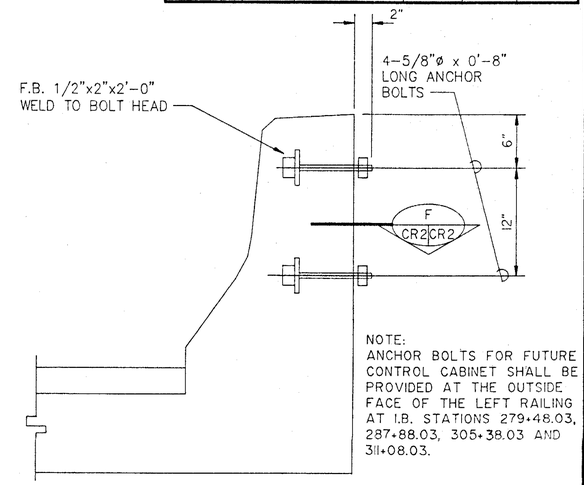
SCALE: 1 1/2"=1'-0"



NOTE: ALL ℄'S, BOLTS AND NUTS TO BE HOT DIPPED GALVANIZED.

FUTURE CONTROL CABINET CONN. DET. E CR2 CR2

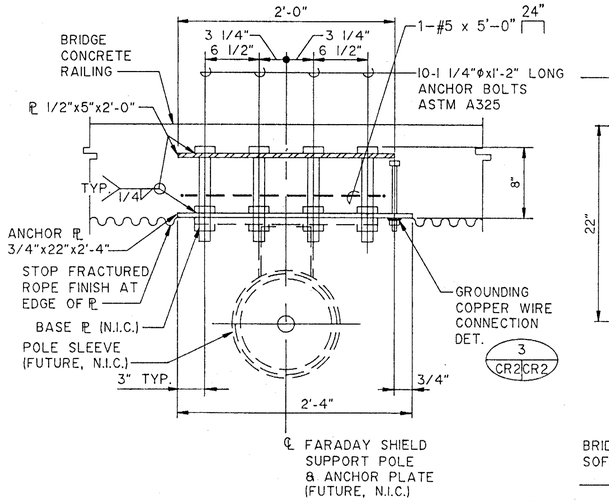
SCALE : 1 1/2" = 1'-0"



NOTE: ANCHOR BOLTS FOR FUTURE CONTROL CABINET SHALL BE PROVIDED AT THE OUTSIDE FACE OF THE LEFT RAILING AT I.B. STATIONS 279+48.03, 287+88.03, 305+38.03 AND 311+08.03.

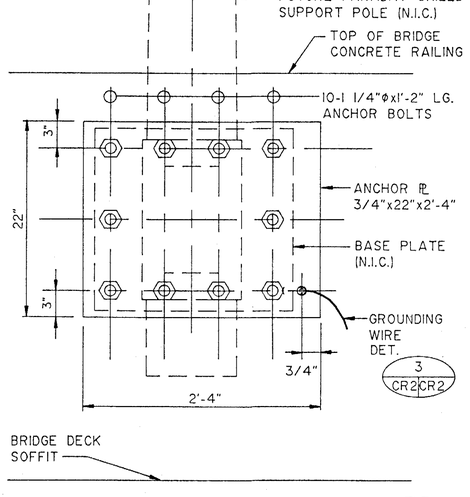
PLAN - SECTION D CR2 CR2

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



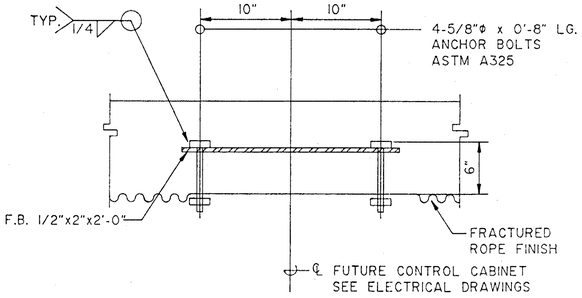
FRONT VIEW 2 CR2 CR2

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



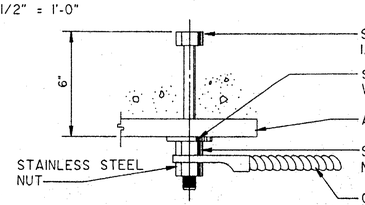
PLAN - SECTION F CR2 CR2

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



FARADAY SHIELD SUPPORT POLE CONN. DETAIL C CR2 CR2

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



NOTE: STAINLESS STEEL TO BE TYPE 304.

GROUND WIRE CONN. DETAIL 3 CR2 CR2

NOT TO SCALE

NOTES:

1. AT INBOUND STATIONS 274+82.53 AND OUTBOUND STATIONS 297+62.49
   297+62.20 304+30.30
   USE BOLT PATTERN AS SHOWN ON C CR2 CR2
   USE TYPICAL BOLT PATTERNS AS SHOWN IN A CR2 CR2 AT ALL OTHER LOCATIONS.
   FOR FUTURE INSTALLATION OF SIGNS ALONG ROADWAY AT INBOUND STATIONS
   311+05.53 (BOTH SIDES)
   319+93.00 (OUTSIDE FACE OF RIGHTSIDE BARRIER)
   328+85.53 (OUTSIDE FACE OF RIGHTSIDE BARRIER)
   PROVIDE BOLT PATTERN AS SHOWN IN A CR2 CR2
2. FOR LOCATIONS AND SIZES OF JUNCTION BOXES SEE ELECTRICAL DRAWINGS.
3. EDGE OF ALL JUNCTION BOXES SHALL BE MIN. 6 FT. FROM ℄ FARADAY SHIELD SUPPORT POLE.

DATE	REVISION
6/29/90	REVISED NOTES, NOS. 1 & 3. REVISED NOTE DETAIL E.
6/8/90	CHANGED ANCHOR PLATE SIZE, DET. 1 CHANGED NOTE 1. I.B. SIGN STATIONS.
2/15/90	REVISED NOTE AND DETAIL A, B, C, & E.
7/11/89	ADDED DETAILS E AND F.
6/30/89	REVISED NOTES AND DETAIL B.

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

MYRON G. OKUBO REGISTERED PROFESSIONAL ENGINEER No. 4320-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONCRETE RAILING DETAILS
FARADAY SHIELD SUPPORT

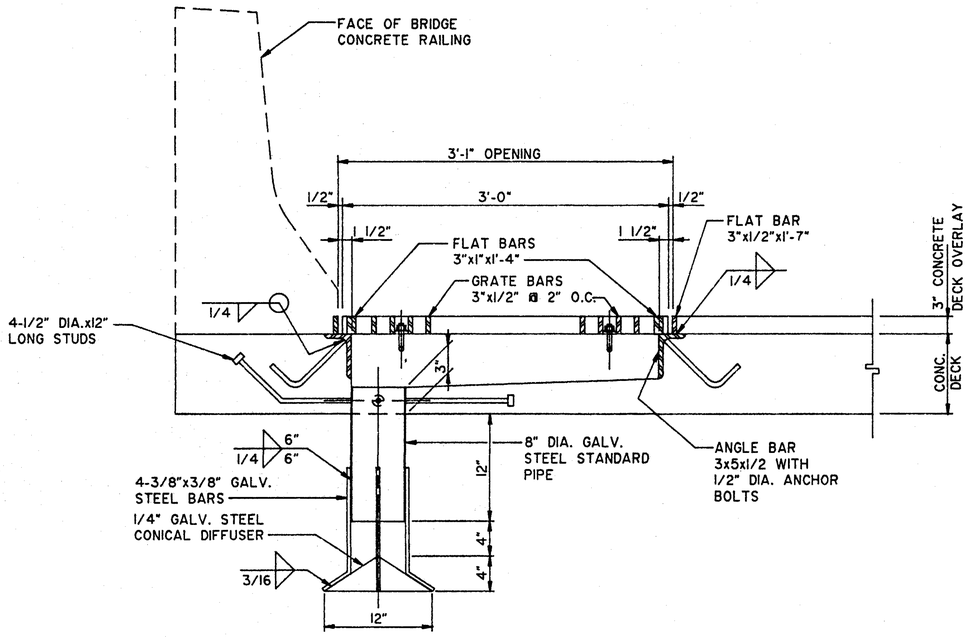
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-I (57)
F.A.I. PROJECT NO. I-H3-I (58)

SCALE: AS NOTED DATE: SEPT. 1988

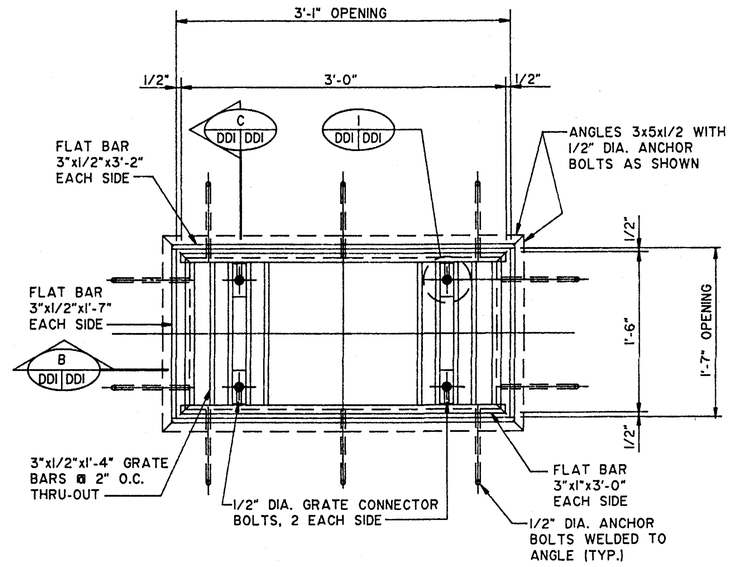
SHEET No. CR2 OF 2 SHEETS

C.O. ADD. 226R

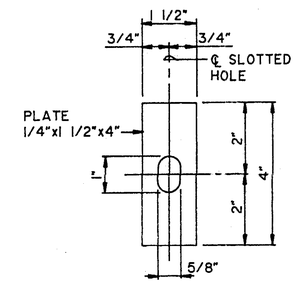
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	210	274



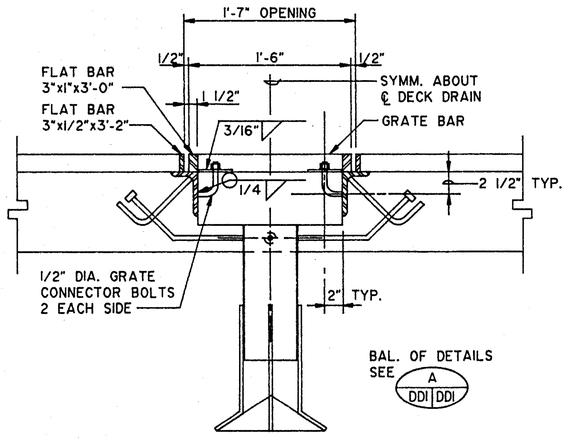
SECTION B (DDI | DDI)
SCALE : 1 1/2" = 1'-0"



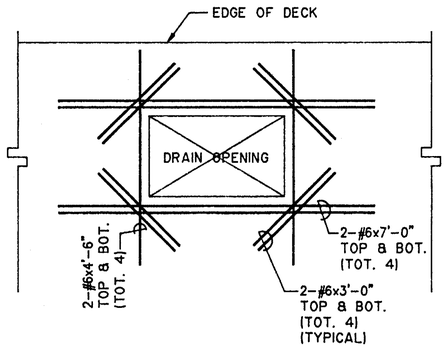
PLAN - GRATE A (DDI | DDI)
SCALE : 1 1/2" = 1'-0"



PLAN - DETAIL I (DDI | DDI)
NO SCALE



SECTION C (DDI | DDI)
SCALE : 1 1/2" = 1'-0"



ADDED REINF. AT DECK DRAIN DETAIL 2 (DDI | DDI)
NOT TO SCALE

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

MYRON Q. OKUBO REGISTERED PROFESSIONAL ENGINEER No. 4230-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK DRAIN DETAILS

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

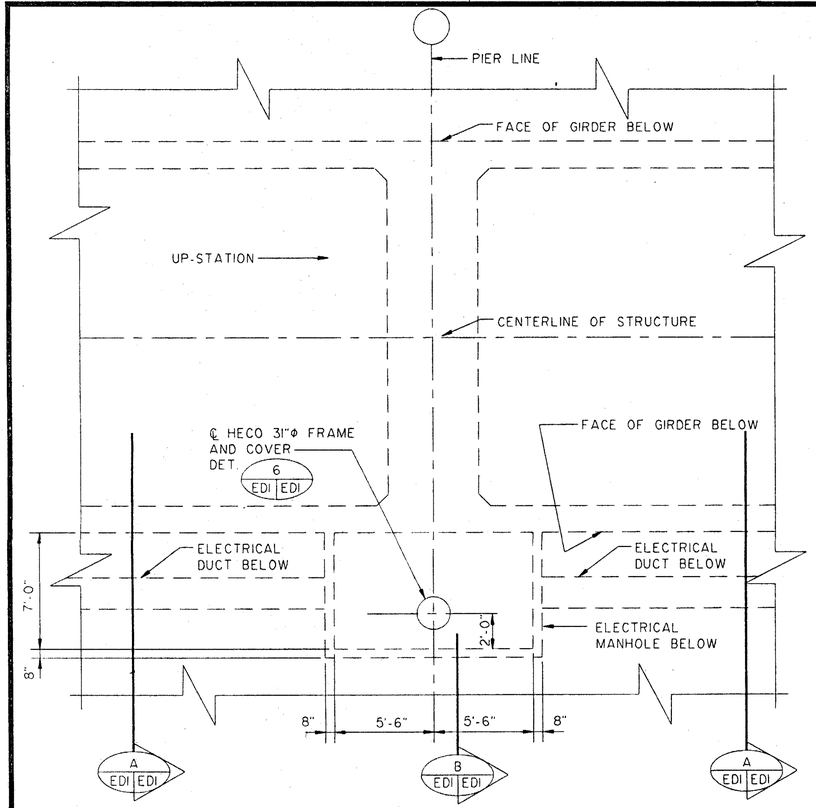
SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. DDI OF I SHEETS

DATE	REVISION

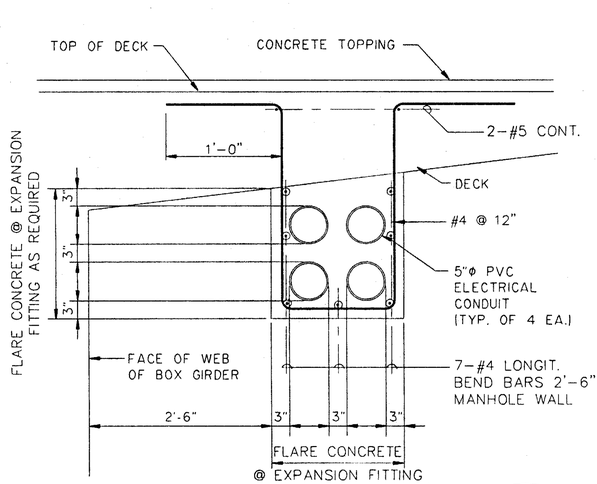
227
210 MAY 04 1989

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	211	274



PARTIAL DECK FRAMING PLAN - OUTBOUND

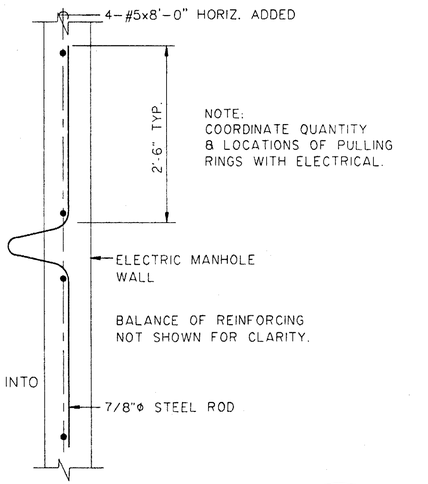
SCALE : 1/4" = 1'-0"



SECTION

SCALE : 1" = 1'-0"

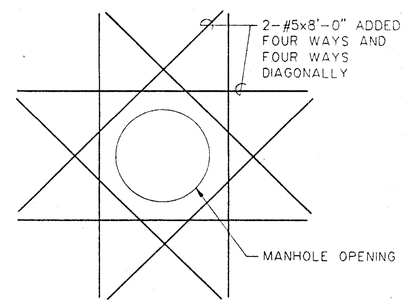
A EDI EDI



PULLING RING DETAIL

SCALE : 1" = 1'-0"

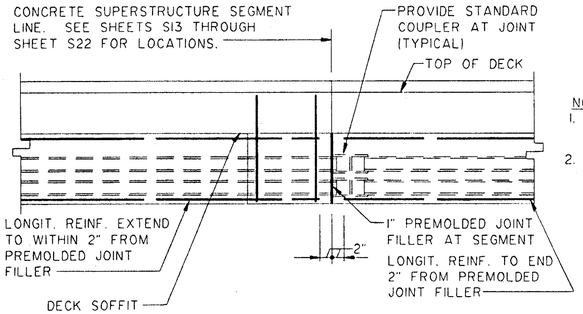
1 EDI EDI



ADDED DECK REINF. AT SLAB OPENING

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

2 EDI EDI

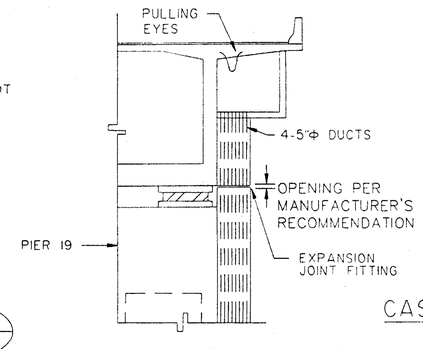


ELEVATION

SCALE : 1" = 1'-0"

3 EDI EDI

NOTES:
1. BALANCE OF REINF. NOT SHOWN FOR CLARITY.
2. MANHOLE TO BE CLASS A CONCRETE.



SECTION @ PIER 19

NOT TO SCALE

D EDI EDI

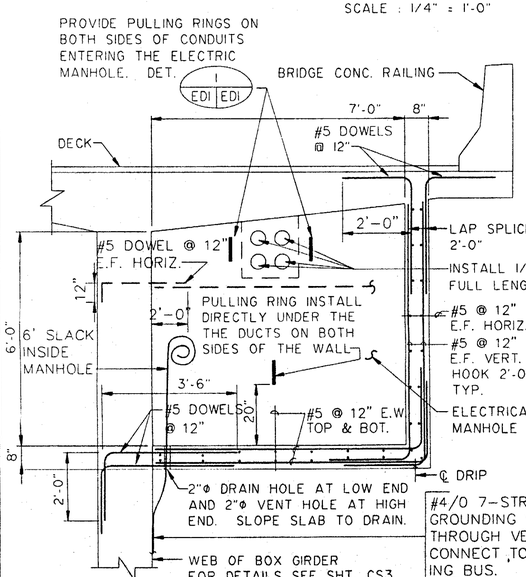
ELECTRIC

NOTE:
PROVIDE CAST IRON FRAME TYPE A USED WHERE FRAME IS EMBEDDED INTO SLAB OR DECK.

CAST IRON COVER DETAIL

NOT TO SCALE

6 EDI EDI

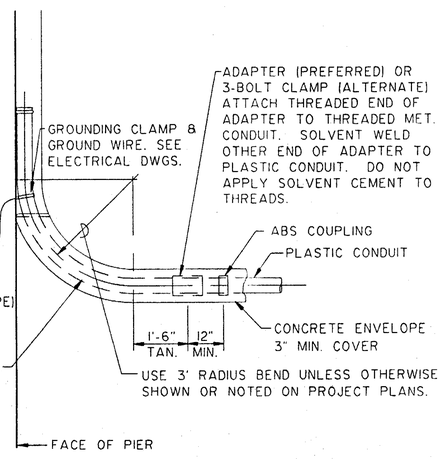


SECTION

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

B EDI EDI

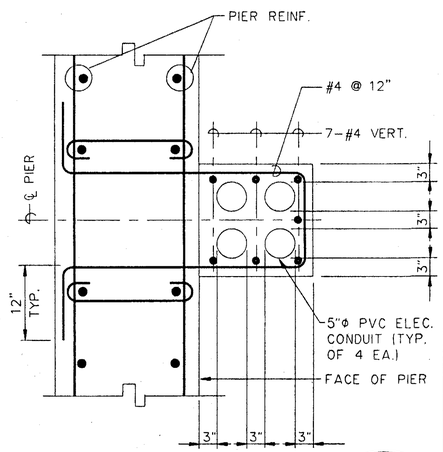
C EDI EDI



TYPICAL ELEVATION - CONDUIT RISER

1/2" = 1'-0"

5 EDI EDI



PLAN-SECTION

SCALE : 1" = 1'-0"

C EDI EDI

NOTE: FOR THE ELECTRICAL ITEMS INDICATED ON THIS SHEET, CONCRETE AND REINFORCING STEEL TO BE PAID UNDER THE SEGMENTAL CONCRETE SUPERSTRUCTURE. DUCTS, RUNGS, FRAMES, COVERS, PULLING RINGS, ETC., TO BE CONSIDERED INCIDENTAL TO CONCRETE IN SEGMENTAL CONCRETE SUPERSTRUCTURE.

MYRON G. OKUBO REGISTERED PROFESSIONAL ENGINEER No. 4320-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

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

DATE	REVISION
4/19/91	REVISED SECTION B-ADDED GROUNDING WIRE.
11/2/90	REVISED SECTION B/ED1.
6/8/90	PARTIAL DECK FRAMING PLAN - OUTBOUND, RELOCATED HECO FRAME AND COVER.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELEC. MANHOLE DETAILS

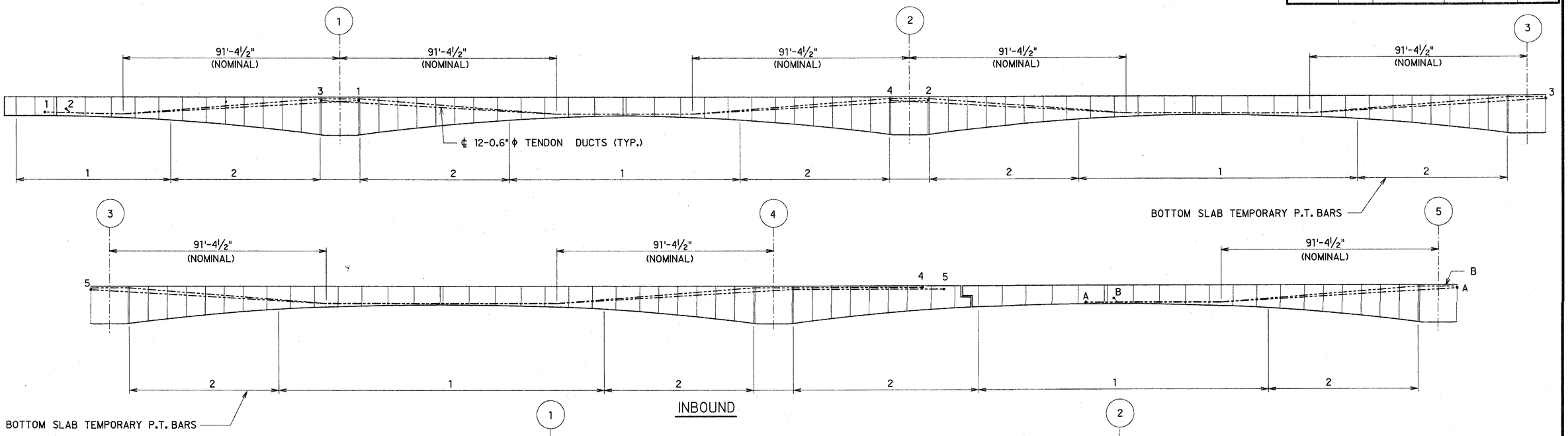
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. EDI OF 1 SHEETS

C.O. 288

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(57)	1988	212	274



NOTES:

1. ALL TENDONS ARE 12-0.6"ϕ STRANDS.
2. ALL SPAN LENGTHS ARE MEASURED ALONG BASELINE.
3. FOR POST-TENSIONING DETAILS, SEE SHEETS PT2, PT3.
4. ALL TEMPORARY P.T.BARS ARE 1⅜"ϕ
   STRESS BARS TO 75 ksi.
   ASSUMED ANCHOR SET: 1/16"
5. TEMPORARY P.T. BARS PER WEB.
   TOP SLAB : 2
   BOTTOM SLAB : AS NOTED

DATE	REVISION
08/23/91	UPDATED DRAWING.
02/07/91	UPDATED DRAWING.
12/28/90	TENDON 6 DELETED AND TENDON 4 EXTENDED ON PIER 4 IB AND OB.
10/04/90	UPDATED DRAWING & MOD. PT1 TO PT1A.

J. MULLER INTERNATIONAL | Libby Engineers

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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

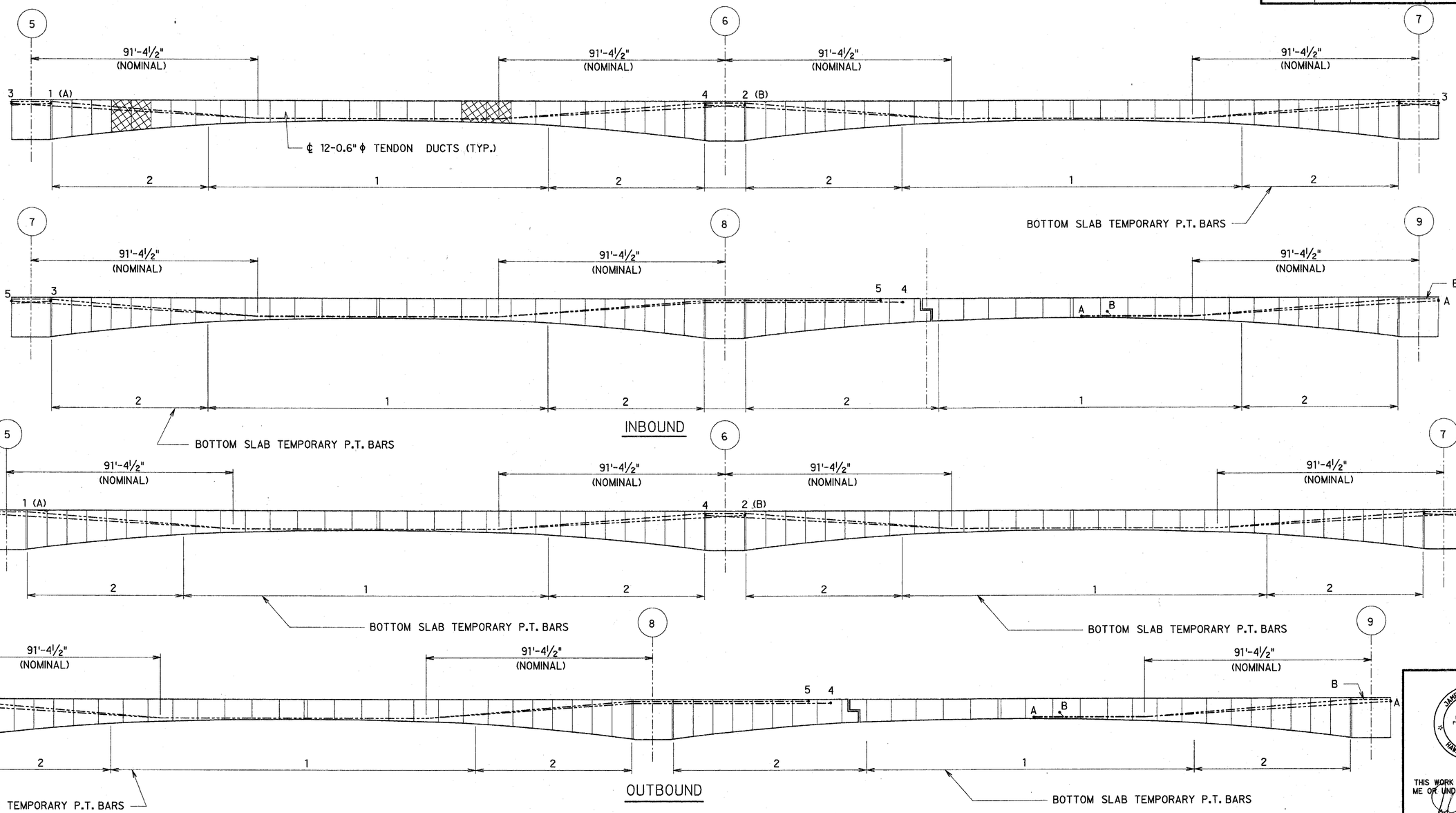
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMPORARY P.T. & CONTINGENCY TENDON LAYOUT I

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-I(57)
F.A.I. PROJECT No. I-H3-I(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. PT1A OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	213	274



NOTE:

1. ALL TENDONS ARE 12-0.6"ϕ STRANDS.
2. ALL SPAN LENGTHS ARE MEASURED ALONG BASELINE.
3. FOR POST-TENSIONING DETAILS, SEE SHEETS PT2, PT3.
4. ALL TEMPORARY P.T.BARS ARE 1⅜"ϕ
   STRESS BARS TO 75 ksi.
   ASSUMED ANCHOR SET: 1/16"
5. TEMPORARY P.T. BARS PER WEB,
   TOP SLAB : 2
   BOTTOM SLAB : AS NOTED

DATE	REVISION
08/23/91	UPDATED DRAWING.
07/01/91	UPDATED DRAWING.
02/07/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMPORARY P.T. & CONTINGENCY TENDON LAYOUT II

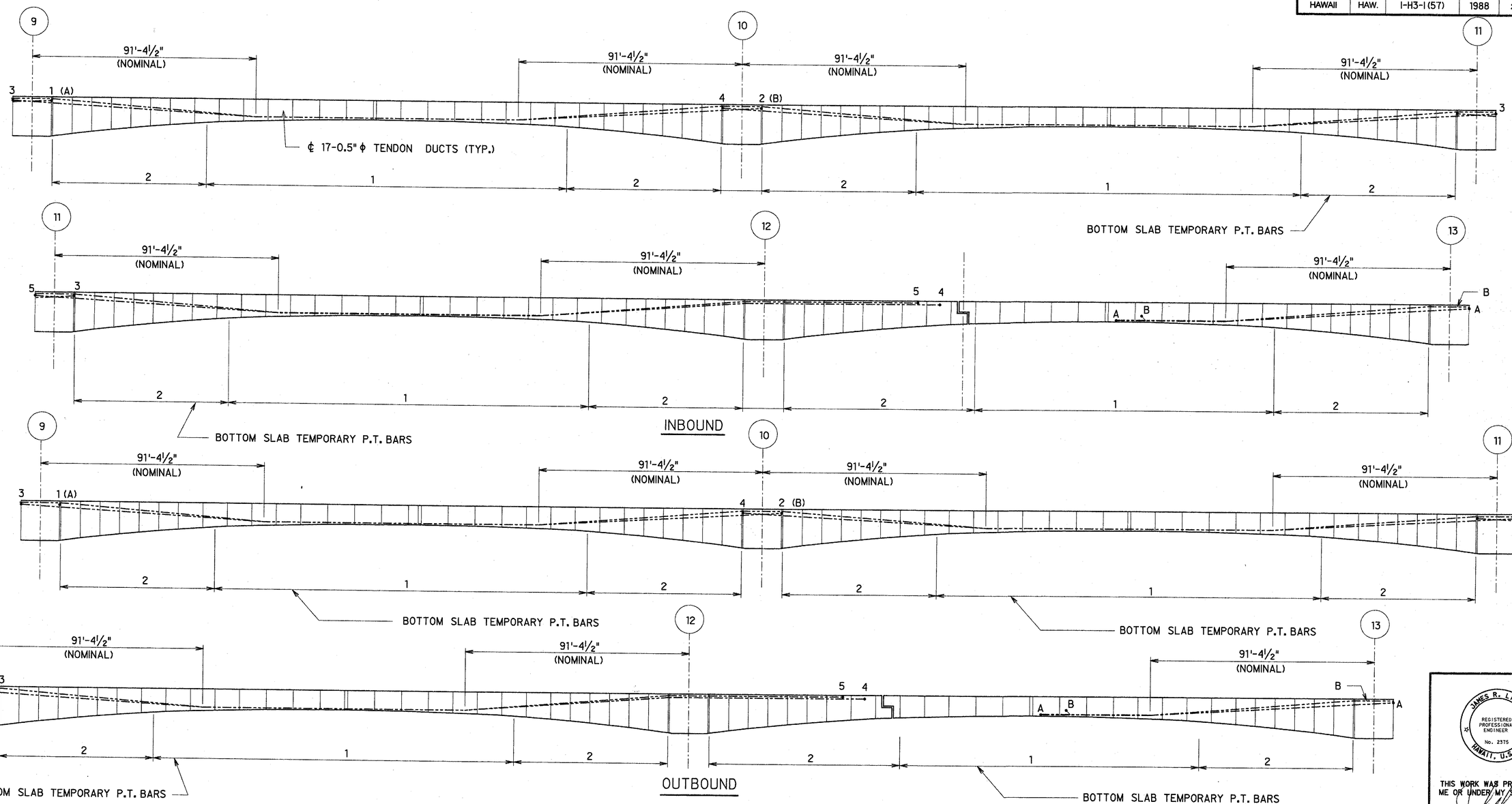
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990

SHEET No. PT1B OF SHEETS

213

ORIGINAL PLANS | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE
NOTE BOOK | No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	214	274



NOTE:
1. ALL TENDONS ARE 17-0.5"ϕ STRANDS.
2. ALL SPAN LENGTHS ARE MEASURED ALONG BASELINE.
3. FOR POST-TENSIONING DETAILS, SEE SHEETS PT2, PT3.
4. ALL TEMPORARY P.T.BARS ARE 1⅜"ϕ
   STRESS BARS TO 75 ksi.
   ASSUMED ANCHOR SET: 1/16"
5. TEMPORARY P.T. BARS PER WEB,
   TOP SLAB : 2
   BOTTOM SLAB : AS NOTED

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

DATE | REVISION

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

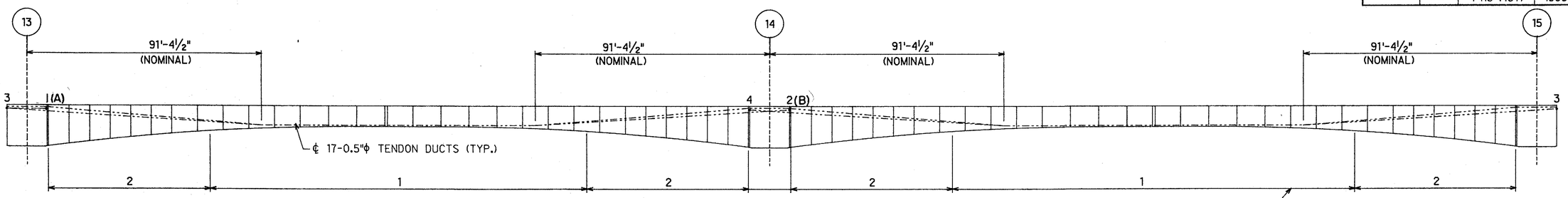
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMPORARY P.T. & CONTINGENCY TENDON LAYOUT III

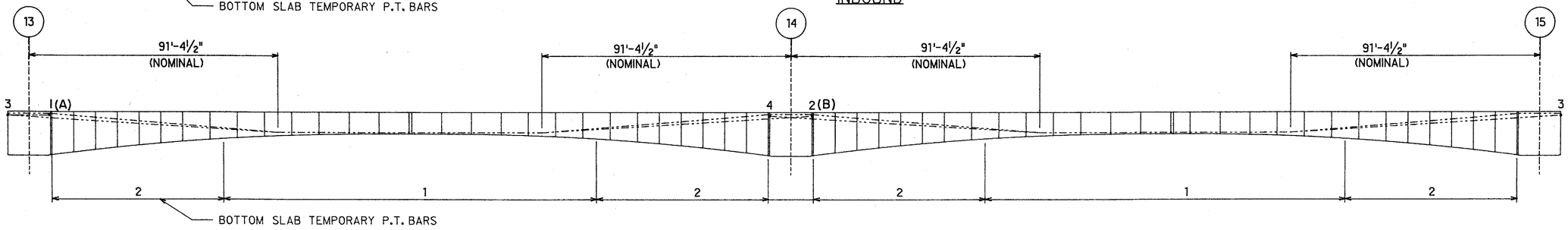
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JAN. 1991

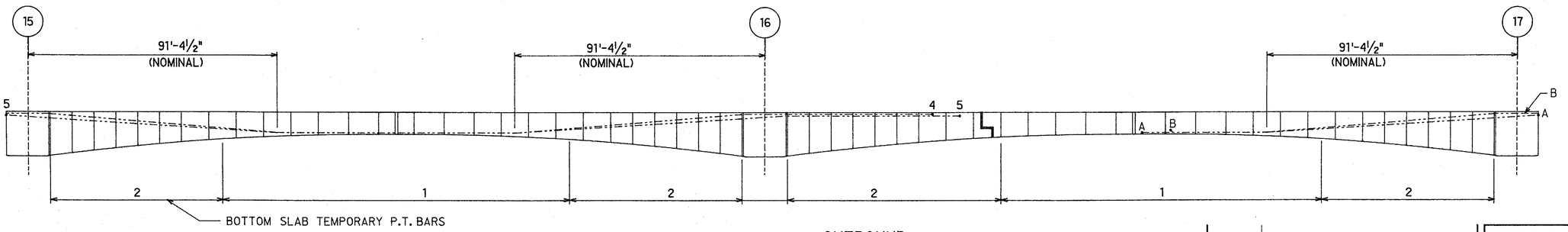
SHEET No. PT1C OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	215	274



INBOUND





OUTBOUND

NOTES:
1. ALL TENDONS ARE 17-0.5"ϕ STRANDS.
2. ALL SPAN LENGTHS ARE MEASURED ALONG BASELINE.
3. FOR POST-TENSIONING DETAILS, SEE SHEETS PT2 AND PT3.
4. ALL TEMPORARY P.T. BARS ARE 1⅜"ϕ
   STRESS BARS TO 75 KSI
   ASSUMED ANCHOR SET: 1/16"
5. TEMPORARY P.T. BARS PER WEB
   TOP SLAB: 2
   BOTTOM SLAB: AS NOTED

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMPORARY P.T. & CONTINGENCY TENDON LAYOUT IV

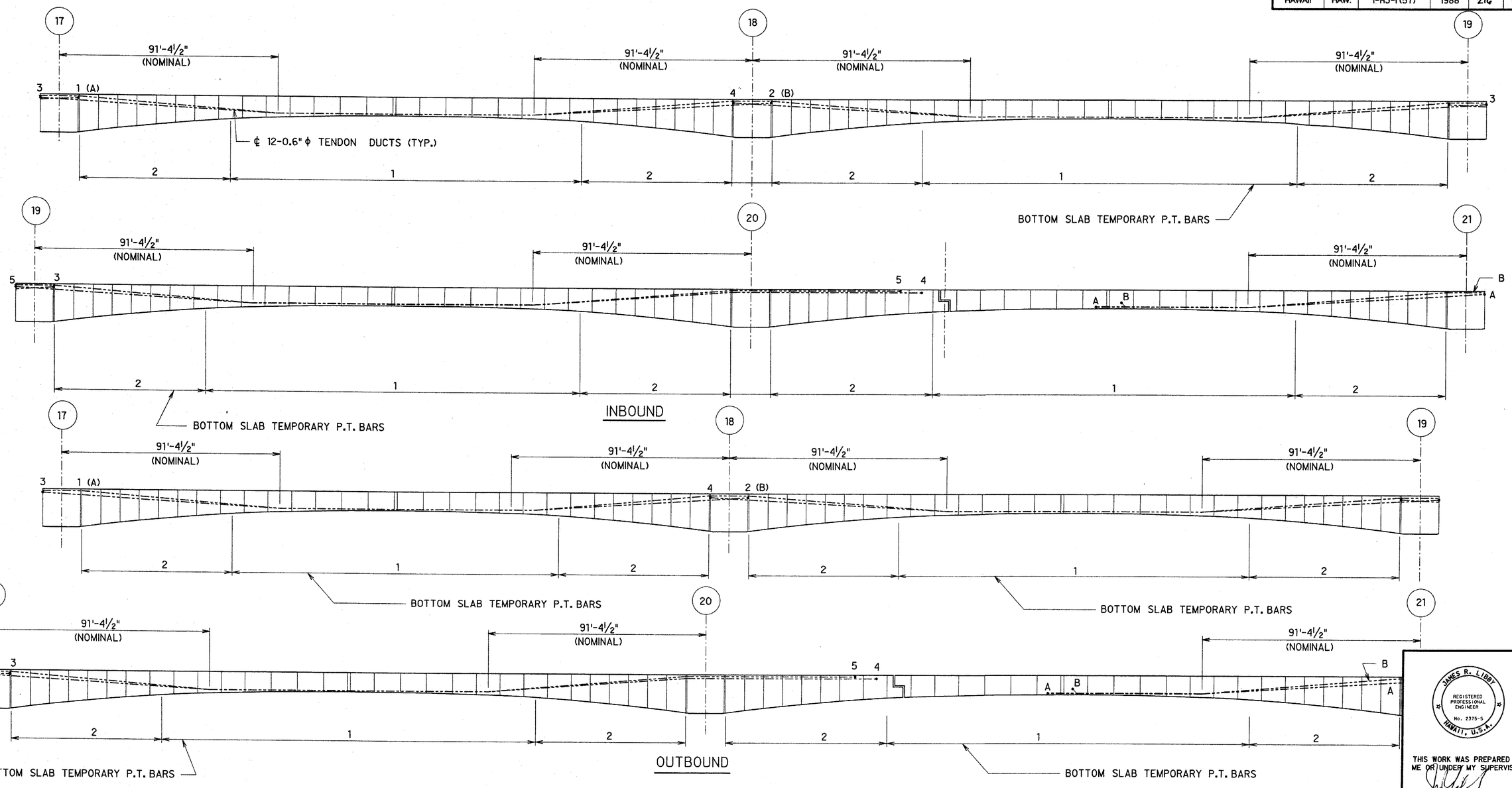
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : APRIL 1991

SHEET NO. PT1D OF SHEETS

215

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	216	274



NOTE:

1. ALL TENDONS ARE 12-0.6"ϕ STRANDS.
2. ALL SPAN LENGTHS ARE MEASURED ALONG BASELINE.
3. FOR POST-TENSIONING DETAILS, SEE SHEETS PT2, PT3.
4. ALL TEMPORARY P.T.BARS ARE 1⅜"ϕ
   STRESS BARS TO 75 ksi.
   ASSUMED ANCHOR SET: 1/16"
5. TEMPORARY P.T. BARS PER WEB,
   TOP SLAB : 2
   BOTTOM SLAB : AS NOTED

DATE	REVISION
08/23/91	UPDATED DRAWING.
04/09/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

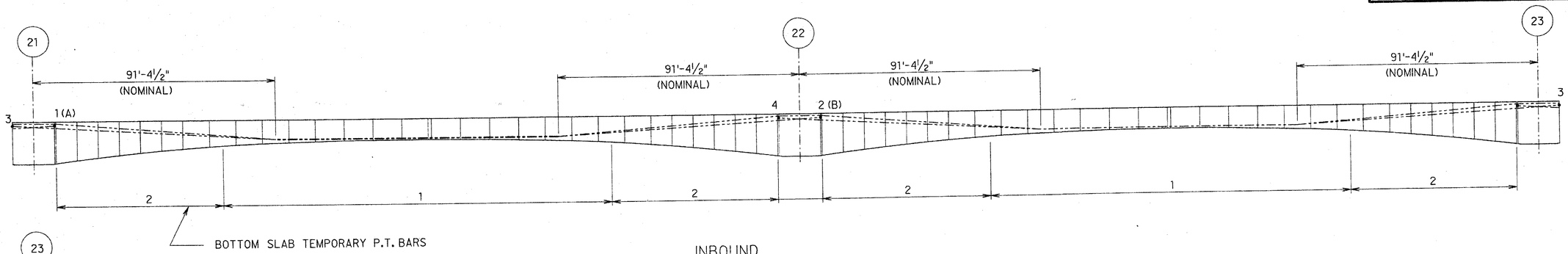
TEMPORARY P.T. & CONTINGENCY TENDON LAYOUT V

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : MAR. 1991

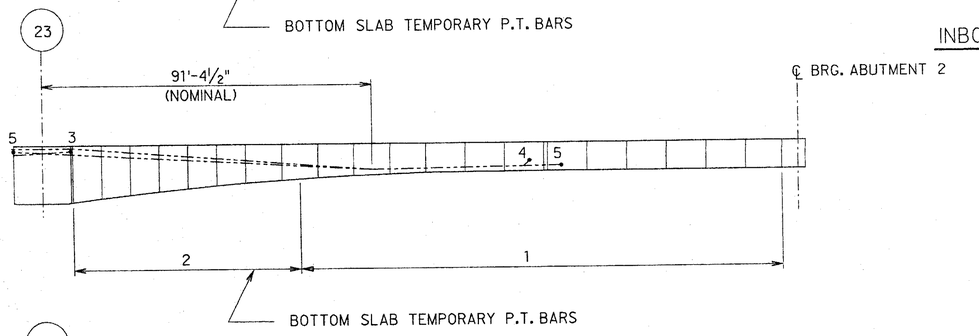
SHEET No. PT1E OF SHEETS

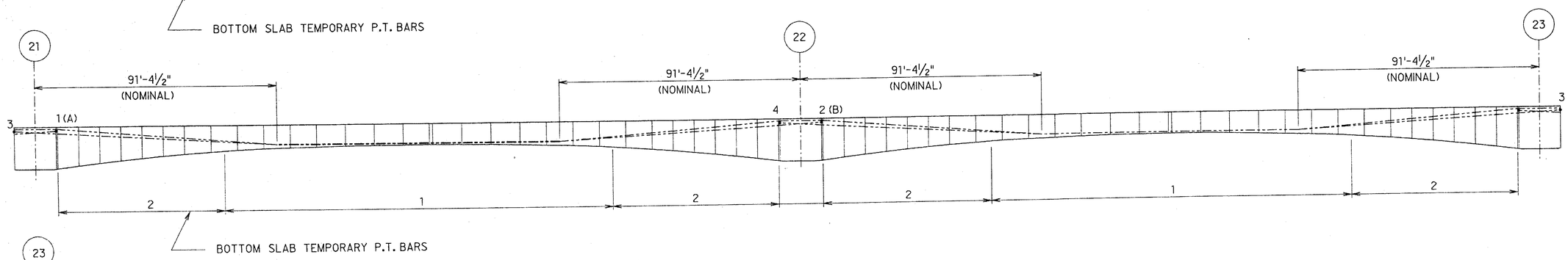
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE
NOTE BOOK No.

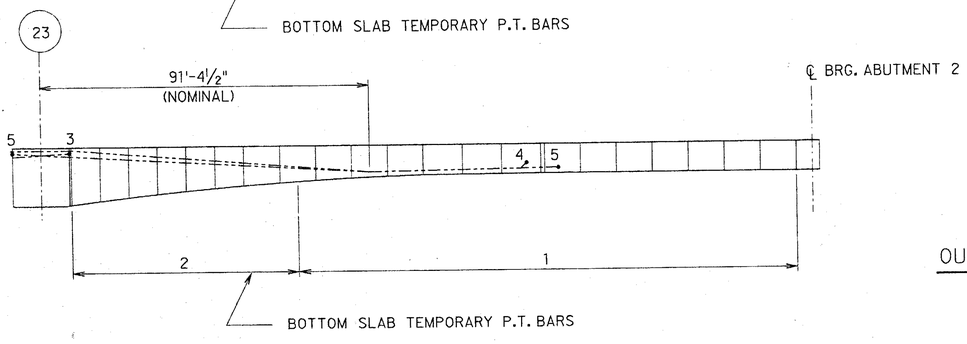
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	217	274



INBOUND







OUTBOUND

NOTES:
1. ALL TENDONS ARE 12-0.6"ϕ STRANDS.
2. ALL SPAN LENGTHS ARE MEASURED ALONG BASELINE.
3. FOR POST-TENSIONING DETAILS, SEE SHEETS PT2, PT3.
4. ALL TEMPORARY P.T.BARS ARE 1⅜"ϕ
   STRESS BARS TO 75 ksi.
   ASSUMED ANCHOR SET: 1/16"
5. TEMPORARY P.T. BARS PER WEB,
   TOP SLAB : 2
   BOTTOM SLAB : AS NOTED

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

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

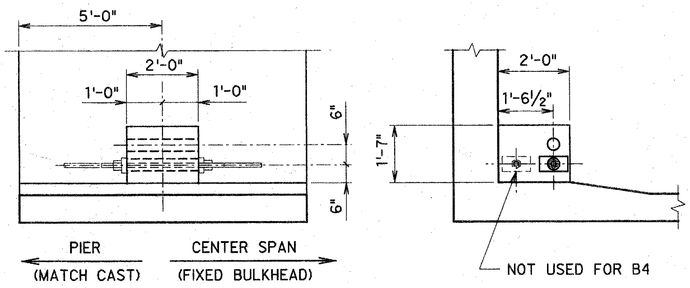
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMPORARY P.T. & CONTINGENCY TENDON LAYOUT VI

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1991

SHEET No. PT1F OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	218	274

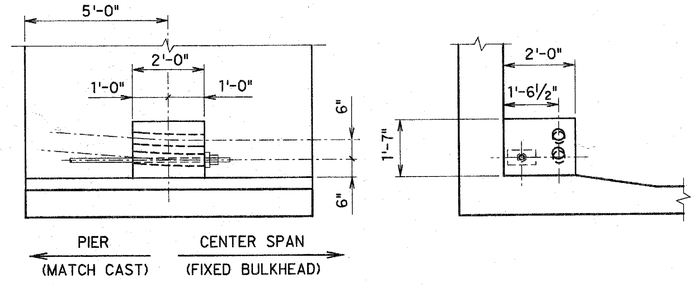


SIDE VIEW

FRONT VIEW

BLOCK B3, B4

SCALE : ½" = 1'-0"

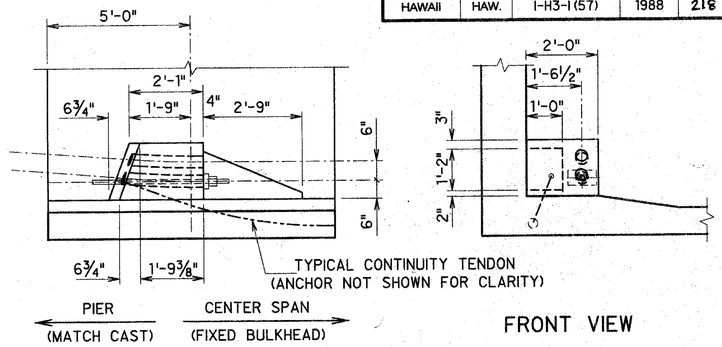


SIDE VIEW

FRONT VIEW

BLOCK B5

SCALE : ½" = 1'-0"

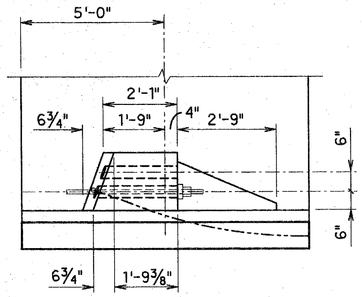


SIDE VIEW

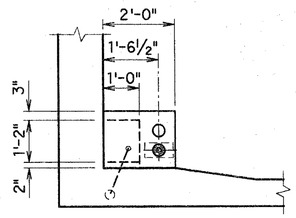
FRONT VIEW

BLOCK C3

SCALE : ½" = 1'-0"



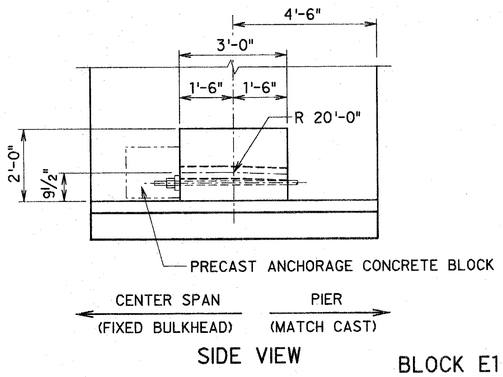
SIDE VIEW



FRONT VIEW

BLOCK C4

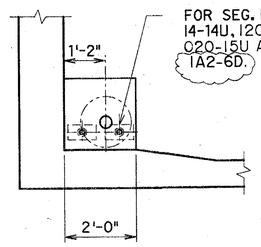
SCALE : ½" = 1'-0"



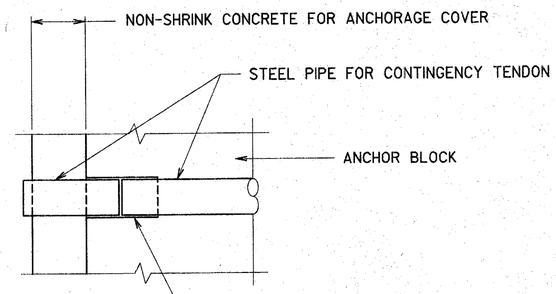
SIDE VIEW

BLOCK E1

SCALE : ½" = 1'-0"

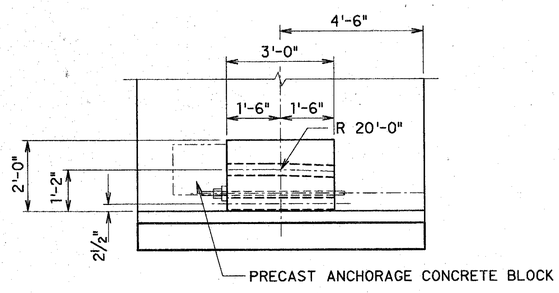


FRONT VIEW



DUCT CONNECTION DETAIL

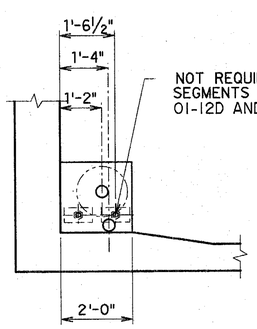
SCALE : 1½" = 1'-0"



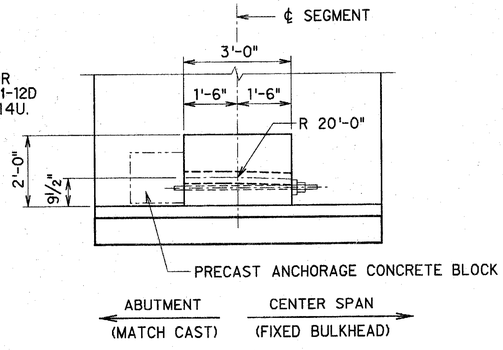
SIDE VIEW

BLOCK E2

SCALE : ½" = 1'-0"



FRONT VIEW



SIDE VIEW AT SEG. IA1-2, 0A1-5

BLOCK E1

SCALE : ½" = 1'-0"

NOTE : FOR LOCATION OF TENDON ANCHORAGE AND P.T. BARS SEE SHEET No. TA1

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	UPDATED DRAWING.
07/02/91	UPDATED DRAWING.
04/09/91	UPDATED DRAWING.
04/02/91	UPDATED DRAWING.
02/07/91	UPDATED DRAWING.
10/04/90	UPDATED DRAWING.
07/25/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

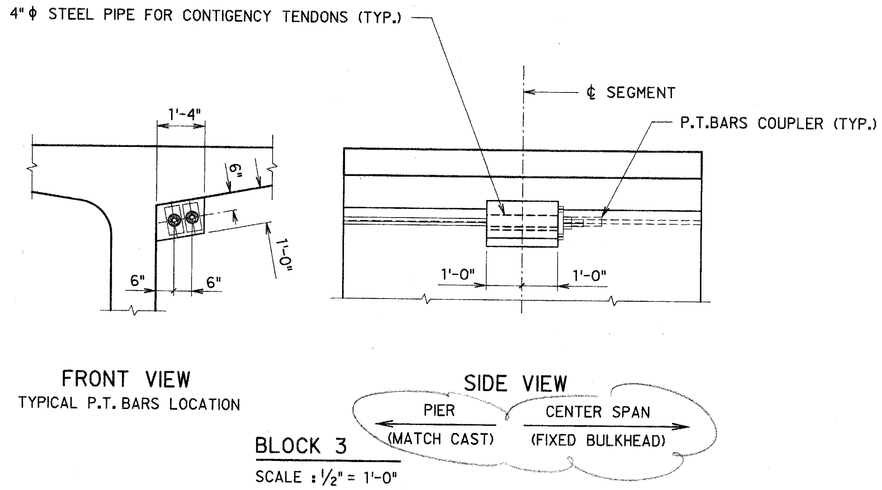
CONTINGENCY TENDON DETAILS
BOTTOM BLOCKS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. PT2 OF SHEETS

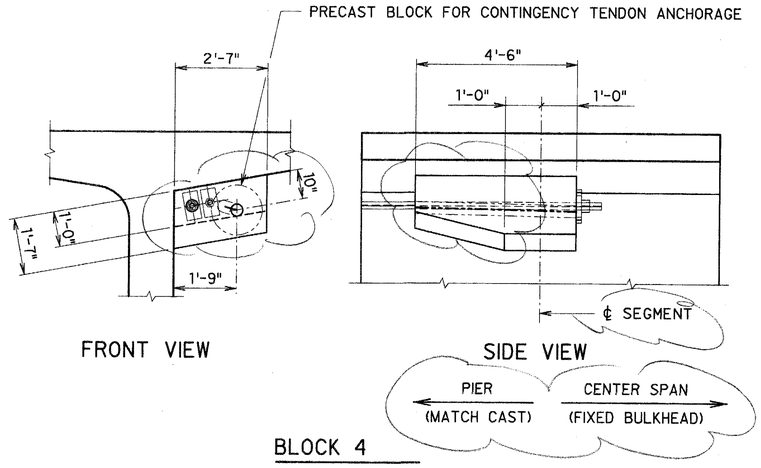
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE
NOTE BOOK | No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	219	274



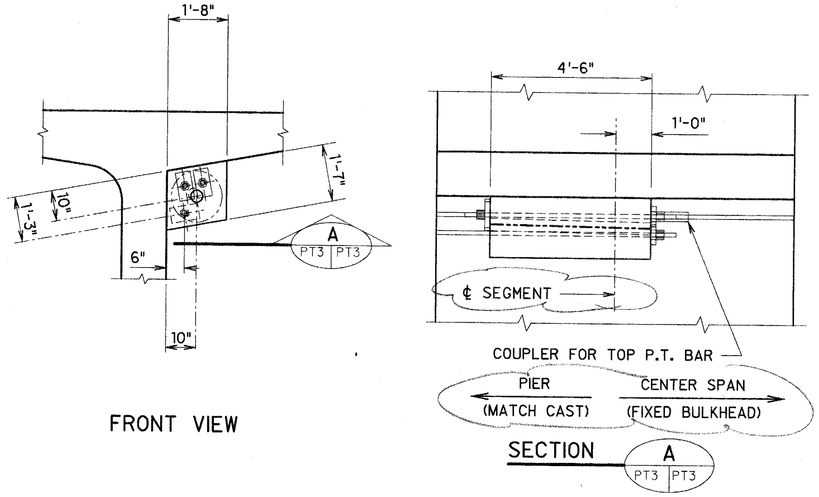
BLOCK 3

SCALE : ½" = 1'-0"



BLOCK 4

SCALE : ½" = 1'-0"



BLOCK 5

SCALE : ½" = 1'-0"

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	
NOTE BOOK	TRACED BY	
	DESIGNED BY	
N.	QUANTITIES BY	
	CHECKED BY	

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
07/25/90	REV. BLOCKS 3, 4, 5

J. MULLER INTERNATIONAL

Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

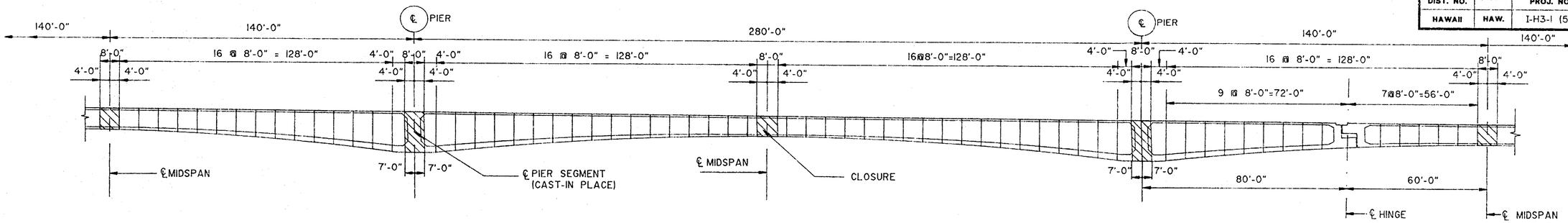
CONTINGENCY TENDON LAYOUT
TOP BLOCKS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1990

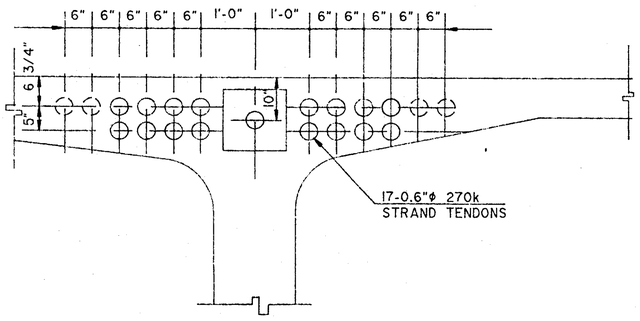
SHEET No. PT3 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	220	274

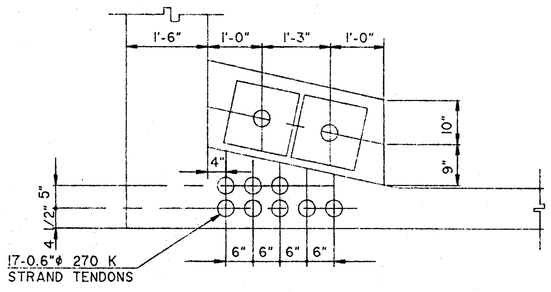


PARTIAL SEGMENT LAYOUT ELEVATION - PRECAST ALTERNATE

SCALE: 1" = 20' - 0"

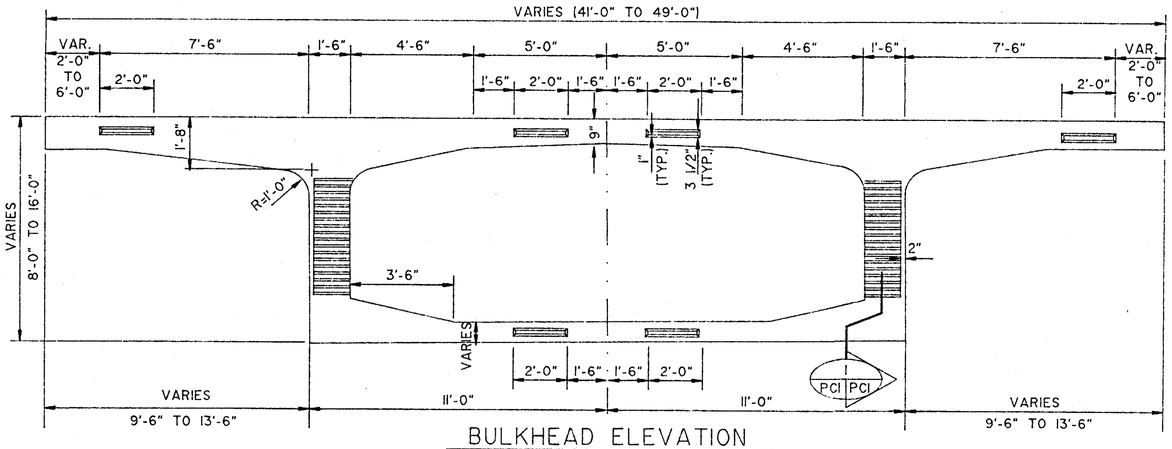


TOP SLAB TENDONS
(TYPICAL SECTION NEAR PIER)

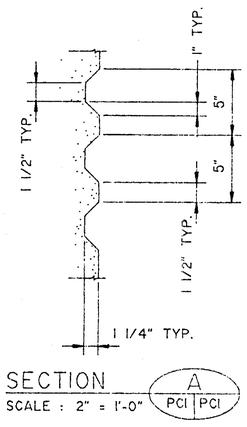


BOTTOM SLAB TENDONS
(TYPICAL SECTION IN FRONT OF BUTTRESS)

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



BULKHEAD ELEVATION
(TYPICAL FOR END OF ALL SEGMENTS)
SCALE: 3/8"=1'-0"



SECTION A
SCALE : 2" = 1'-0"
PCI | PCI

NOTE: THIS SHEET HAS BEEN PREPARED TO PROVIDE THE CONTRACTOR WITH CONCEPTUAL DETAILS FOR A PRECAST SEGMENTAL ALTERNATE. IF DESIRED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY DEVELOPING A COMPLETED DESIGN USING PRECAST METHODS, WHICH SATISFIES THE REQUIREMENTS OF THE SPECIAL PROVISIONS SECTION 521-ALTERNATE SEGMENTAL CONCRETE SUPERSTRUCTURE CONSTRUCTION.

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

MYRON G. OKUBO
REGISTERED PROFESSIONAL ENGINEER
No. 4320-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
6/30/89	REVISED NOTES

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ALTERNATE DETAILS
PRECAST CONSTRUCTION METHOD

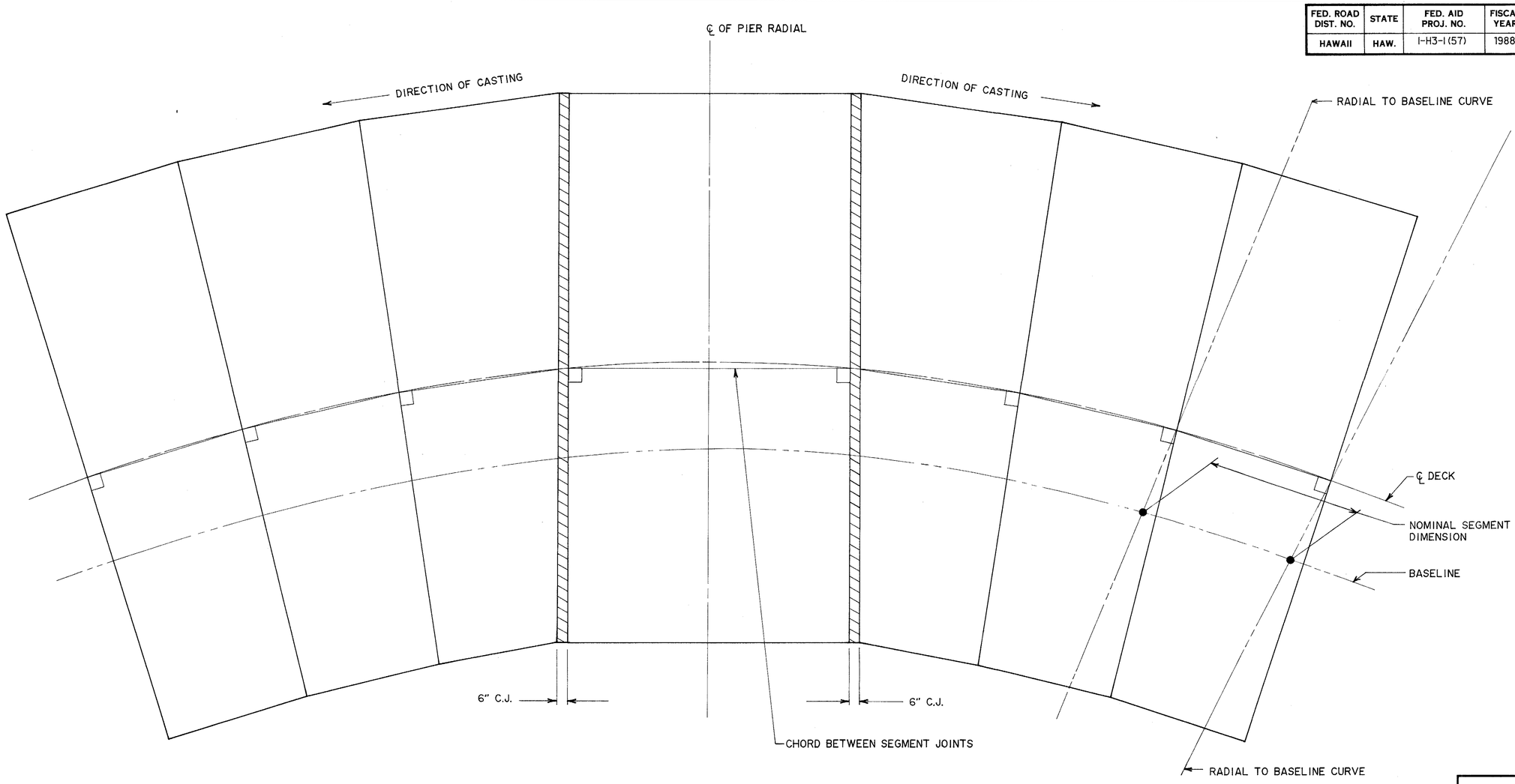
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: SEPT. 1988

SHEET No. PCI OF 1 SHEETS

ADD. 230
220 UL 17133

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	221	274



NOTE:
BULKHEAD FACES ARE PERPENDICULAR TO THE CHORD

SURVEY PLOTTED BY ____ DATE
DRAWN BY ____ "
TRACED BY ____ "
DESIGNED BY ____ "
QUANTITIES BY ____ "
CHECKED BY ____ "

ORIGINAL PLAN
NOTE BOOK
No. ____

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

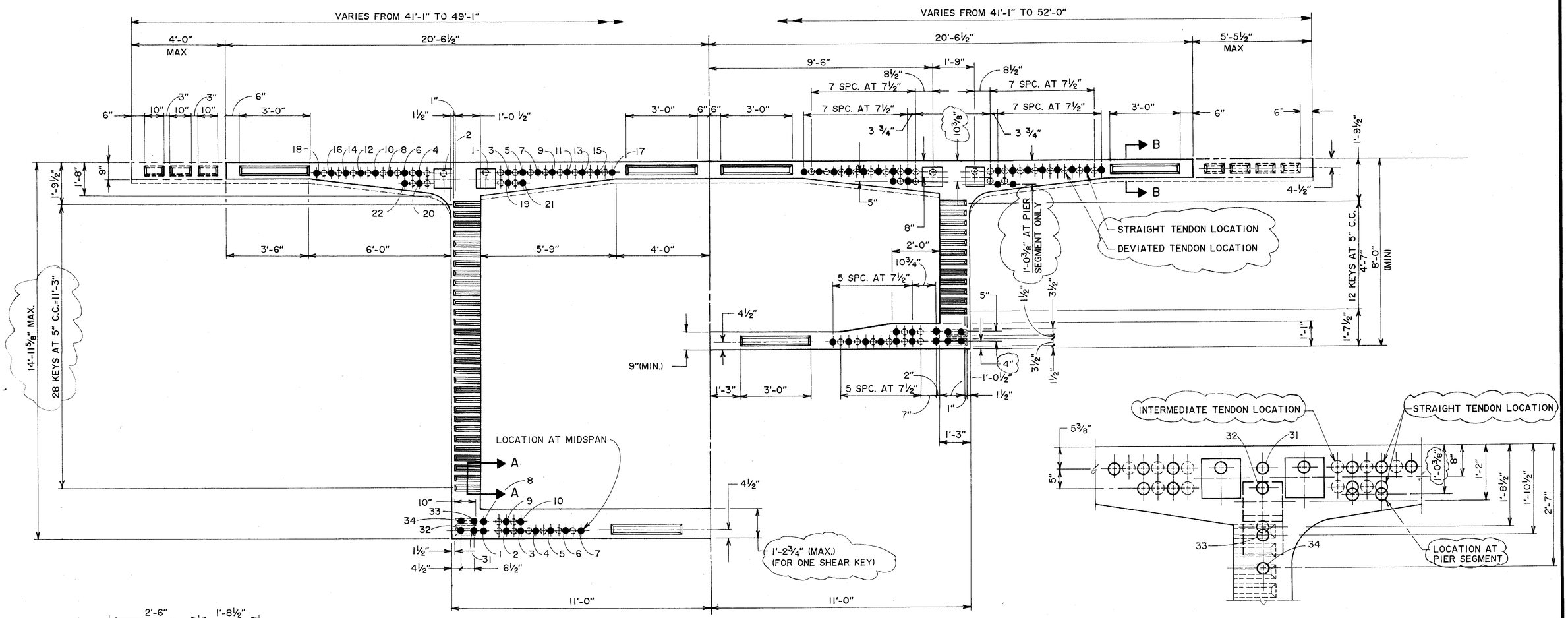
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

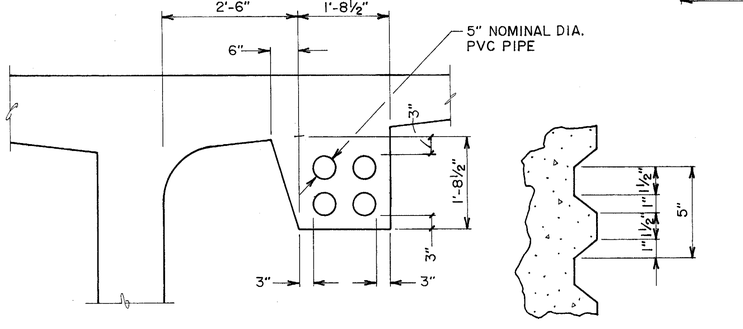
HORIZONTAL CURVE TREATMENT

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. G1 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	222	274

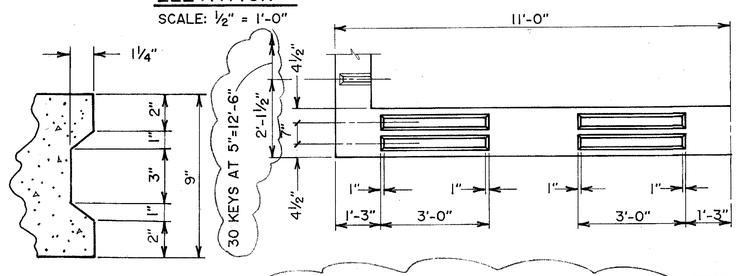




OUTBOUND WING DETAIL
SCALE: ¾" = 1'-0"

SECTION A
SCALE: 3'-0"= 1"
SFI | SFI

ELEVATION
SCALE: ½" = 1'-0"



SECTION B
SCALE: 3'-0"= 1"
SFI | SFI

BOTTOM SLAB DETAIL AT FLOATING BULKHEAD
SCALE: ½" = 1'-0"

PARTIAL DETAIL AT HINGE CANTILEVER
SCALE: 1"=1'-0"

NOTE: FOR DUCT HOLES IN WEB OF ABUTMENT AND EXPANSION JOINTS SPAN, SEE DETAIL SHEET TA7, HD3,6.

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

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DATE	REVISION
9/04/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BULKHEAD DIMENSIONS

INTERSTATE ROUTE H-3
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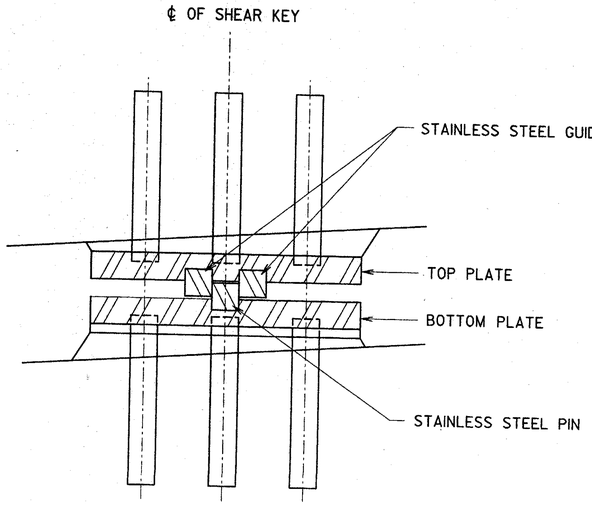
SHEET No. SFI OF SHEETS

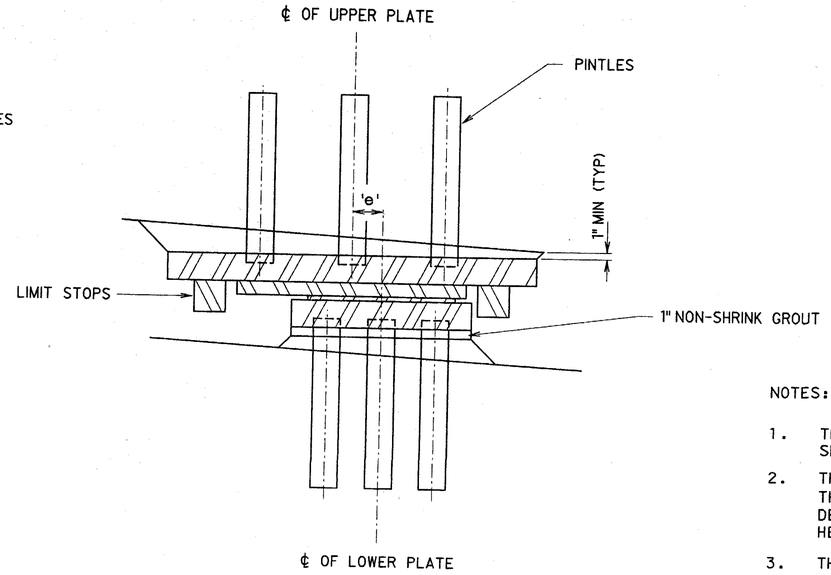
222

ORIGINAL PLAN | NOTE BOOK | No.
SURVEY PLOTTED BY | DRAWN BY D. BENT | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE 04/90

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	223	274



TRANSVERSE ELEVATION
SCALE: NONE



LONGITUDINAL ELEVATION
SCALE: NONE

	LOCATION	LATERAL CAPACITY	TOTAL MOVEMENT	HEIGHT	INSTALLATION DISTANCE 'e'	AZIMUTH
INBOUND	PIER 4	1000 KIPS	7"	8"	-2½"	292°-33'-36"
	PIER 5	1000 KIPS	7"	8"	+2½"	270°-36'-7"
	PIER 8	1000 KIPS	7"	8"	-3½"	255°-16'-22"
	PIER 12	1000 KIPS	7"	8"	-3½"	234°-03'-54"
	PIER 13	1000 KIPS	7"	8"	+2½"	250°-22'-48"
	PIER 17	1000 KIPS	7"	8"	+2"	288°-43'-41"
	PIER 23	1000 KIPS	7"	8"	-2"	314°-26'-18"
OUTBOUND	PIER 4	1000 KIPS	7"	8"	-2½"	292°-23'-5"
	PIER 5	1000 KIPS	7"	8"	+2½"	270°-39'-54"
	PIER 8	1000 KIPS	7"	8"	-3½"	254°-40'-40"
	PIER 12	1000 KIPS	7"	8"	-3½"	234°-0'-57"
	PIER 13	1000 KIPS	7"	8"	+2½"	250°-27'-16"
	PIER 17	1000 KIPS	7"	8"	+2"	288°-41'-54"
	PIER 23	1000 KIPS	7"	8"	-2"	314°-58'-25"

NOTES:

1. THE LOWER PLATE SHALL BE GROUTED WITH NON-SHRINK GROUT TO THE SHEAR KEY SEAT AFTER THE SHEAR KEY HAS BEEN SET TO GRADE AND ELEVATION.
2. THE BEARING HEIGHTS GIVEN REPRESENT THE TOTAL HEIGHT FROM THE BASE OF THE LOWER PLATE TO THE TOP OF THE UPPER PLATE AT THE CENTERLINE OF DEVICE. THE CONTRACTOR WILL VERIFY THESE DIMENSIONS TO REFLECT THE HEIGHT OF THE SHEAR KEY ACTUALLY SUPPLIED.
3. THE INSTALLATION DISTANCE, e, IS POSITIVE FOR THE CENTERLINE OF THE LOWER PLATE UP STATION OF THE CENTERLINE OF THE UPPER PLATE.
4. THE SHEAR KEY SHALL BE PLACED LEVEL AND ORIENTED AT THE GIVEN AZIMUTH. THE AZIMUTHS ARE GIVEN UP STATION BASED FROM TRUE SOUTH.
5. THE SHEAR KEY SHALL HAVE LONGITUDINAL LIMIT STOPS WITH A CAPACITY OF 20% OF THE TOTAL DEAD LOAD REACTION ON THE PIER.
6. THE SHEAR KEYS SHALL BE DESIGNED TO BE REPLACEABLE BY JACKING THE BRIDGE UP, PRYING THE UPPER AND LOWER PLATES FROM THE PINTLES AND EXTRACTING THE SHEAR KEY.

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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

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DATE	REVISION
06/21/91	UPDATED DRAWING
05/03/91	UPDATED DRAWING.
04/01/91	UPDATED DRAWING.
02/06/91	UPDATED DRAWING.
10/04/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL
Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SHEAR KEY SCHEDULE

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223