

DATE	JAN 90
SURVEY PLOTTED BY	CAJ
DRAWN BY	CAJ
DESIGNED BY	M. G. JAN
QUANTITIES BY	E. J. HALL
CHECKED BY	CAJ
ORIGINAL PLAN	
NOTE BOOK	
NO.	

SHT. NO.	TITLE	SHT. NO.	TITLE	SHT. NO.	TITLE	FED. ROAD DIST. NO.	STATE	FED. AD PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	GENERAL		CIVIL (CONT.)		GEOTECHNICAL (CONT.)	HAWAII	HAW.	1-H3-1(64)	1990	3	531
1 G1	TITLE SHEET	61 CA25	DRAINAGE/UTILITIES DETAILS - 1	120 FA10	BORING LOG NH-101 & NH-102	SHT. NO. TITLE					
2 G2	KEY PLAN	62 CA26	DRAINAGE/UTILITIES DETAILS - 2	121 FA11	BORING LOG NH-103	ARCHITECTURAL (CONT.)					
3 G3	LIST OF PLANS - 1	63 CA27	UTILITY PROFILES - 1, P11 & P12	122 FA12	BORING LOG NH-104	HALAWA PORTAL BUILDING - IB					
4 G4	LIST OF PLANS - 2	64 CA28	UTILITY PROFILES - 2, P22 & P23	123 FA13	BORING LOG NH-105	177 AN 1	LEVEL 1 PLAN	178 AN 2	LEVEL 2 PLAN	179 AN 3	LEVEL 3 PLAN
5 G5	LIST OF PLANS - 3	65 CA29	UTILITY PROFILES - 3, P24 & P25	124 FA14	BORING LOG NH-106 & NH-107	180 AN 4	LEVEL 4 PLAN	181 AN 5	ROOF LEVEL PLAN	182 AN 6	NORTH ELEVATION
6 G6	STANDARD PLANS SUMMARY	66 CA30	UTILITY DETAILS - 1	125 FA15	BORING LOG NH-108	183 AN 7	WEST ELEVATION	184 AN 8	SOUTH ELEVATION	185 AN 9	EAST ELEVATION
7 G7	ABBREVIATIONS, LEGEND & NOTES	67 CA31	UTILITY DETAILS - 2	126 FA16	BORING LOG NH-109	186 AN10	LONGITUDINAL SECTION A	187 AN11	LONGITUDINAL SECTION B	188 AN12	TRANSVERSE SECTION C
8 G8	HALAWA APPROACH LAYOUT	68 CA32	UTILITY DETAILS - 3	127 FA17	BORING LOG NH-110	189 AN13	LONGITUDINAL SECTION D	190 AN14	DETAIL SECTION AT PORTAL FACE	191 AN15	DETAIL SECTION AT LOADING DOCK FACE
9 G9	TUNNELS LAYOUT - 1	69 CA33	MANHOLES & INLETS, TYPES & LOCATION DATA	128 FA18	BORING LOG NH-111 & NH-112	192 AN16	PARTIAL PLANS AND INTERIOR ELEVATIONS	193 AN17	REFLECTED CEILING PLAN	194 AN18	SECTIONS AT CONCRETE DUCTWORK
10 G10	TUNNELS LAYOUT - 2	70 CA34	PCC PAVEMENT JOINT DETAILS	129 FA19	BORING LOG NH-113	195 AN19	STAIRS 1 & 2	196 AN20	STAIRS 3 & 4	197 AN21	SECTIONS AT ELEVATOR
11 G11	TUNNEL CROSS SECTION	71 CA35	SITE PAVEMENT DETAILS - 1	130 FA20	BORING LOG NH-114 & NH-115	HALAWA PORTAL BUILDING - OB					
12 G12	MILESTONE SCHEDULE	72 CA36	SITE PAVEMENT DETAILS - 2	131 FA21	BORING LOG NH-116	198 AO 1	LEVEL 1 PLAN	199 AO 2	LEVEL 2 PLAN	200 AO 3	LEVEL 3 PLAN
13 G13	HALAWA SUGGESTED CONSTRUCTION SEQUENCE - 1	73 CA37	SITE PAVEMENT DETAILS - 3	132 FA22	BORING LOG NH-117 & NH-118	201 AO 4	LEVEL 4 PLAN	202 AO 5	ROOF LEVEL PLAN	203 AO 6	NORTH ELEVATION
14 G14	HALAWA SUGGESTED CONSTRUCTION SEQUENCE - 2	74 CA38	SITE PAVEMENT DETAILS - 4	133 FA23	BORING LOG NH-119	204 AO 7	WEST ELEVATION	205 AO 8	SOUTH ELEVATION	206 AO 9	EAST ELEVATION
15 G15	HALAWA SUGGESTED CONSTRUCTION SEQUENCE - 3	75 CA39	SITE PAVEMENT DETAILS - 5	134 FA24	BORING LOG NH-120	207 AO10	LONGITUDINAL SECTION A	208 AO11	LONGITUDINAL SECTION B	209 AO12	TRANSVERSE SECTION C
16 G16	HALAWA SUGGESTED CONSTRUCTION SEQUENCE - 4	76 CA40	SITE PAVEMENT DETAILS - 6	135 FA25	BORING LOG NH-121, NH-122 & NH-123	210 AO13	LONGITUDINAL SECTION D	211 AO14	DETAIL SECTION AT PORTAL FACE	212 AO15	DETAIL SECTION AT LOADING DOCK FACE
17 G17	HALAWA SUGGESTED CONSTRUCTION SEQUENCE - 5	77 CA41	SITE PAVEMENT DETAILS - 7	136 FA26	BORING LOG NH-124 & NH-125	213 AO16	PARTIAL PLANS AND INTERIOR ELEVATIONS	214 AO17	REFLECTED CEILING PLAN	215 AO18	SECTIONS AT CONCRETE DUCTWORK
18 G18	CONTRACT AND PAY LIMITS	78 CA42	MISCELLANEOUS DETAILS - 1	137 FA27	BORING LOG NH-126	216 AO19	STAIRS 1 & 2	217 AO20	STAIRS 3 & 4	218 AO21	SECTIONS AT ELEVATOR
		79 CA43	MISCELLANEOUS DETAILS - 2	137S-1 FA27A	BORING LOG NH-25 & NH-26	DISPOSAL SITE					
		80 CA44	MISCELLANEOUS DETAILS - 3	138 FA28	PORTAL DEVELOPMENT PLAN - 1	147 FD1	LOCATION PLAN	148 FD2	GRADING PLAN - 1	149 FD3	GRADING PLAN - 2
		81 CA45	CROSS SECTIONS - 1	139 FA29	PORTAL DEVELOPMENT PLAN - 2	150 FD4	GRADING PLAN - 3	151 FD5	GRADING PLAN - 4	152 FD6	GRADING PLAN - 5
		82 CA46	CROSS SECTIONS - 2	140 FA30	O.B. - ELEVATIONS & SECTIONS	HALAWA TUNNELS					
		83 CA47	CROSS SECTIONS - 3	141 FA31	I.B. - ELEVATIONS & SECTIONS	153 FT1	GROUND SUPPORT - SAPROLITE	154 FT2	GROUND SUPPORT - ROCK	155 FT3	GROUND SUPPORT DETAILS
		84 CA48	CROSS SECTIONS - 4	142 FA32	PORTAL SECTION	156 FT4	CROSSPASSAGE - EXCAVATION PLANS	157 FT5	CROSSPASSAGE - GROUND SUPPORT	158 FT6	UTILITY TUNNEL - GROUND SUPPORT
		85 CA49	CROSS SECTIONS - 5	143 FA33	PORTAL DETAILS	159 FT7	TUNNEL WATERPROOFING MEMBRANE	160 FT8	EXCAVATION SEQUENCE - SAPROLITE	161 FT9	EXCAVATION SEQUENCE - ROCK
		86 CA50	CROSS SECTIONS - 6	144 FA34	RETAINING WALL RW-S1	162 FT10	TUNNEL INSTRUMENTATION	163 FT11	AS-BUILT CROWN DRIFT - OB	164 FT12	AS-BUILT CROWN DRIFT - IB
		87 CA51	CROSS SECTIONS - 7	145 FA35	RETAINING WALL RW-S2	ARCHITECTURAL					
		88 CA52	CROSS SECTIONS - 8	146 FA36	PORTAL INSTRUMENTATION	STANDARD					
		89 CA53	CROSS SECTIONS - 9	146S-1 FA36A	MPBX INSTRUMENTATION	165 A1	ABBREVIATIONS AND STANDARDS	166 A2	ROOF AND MISCELLANEOUS DETAILS	167 A3	CONCRETE DETAILS
		90 CA54	CROSS SECTIONS - 10	146S-2 FA36B	TIEBACK LAYOUT	168 A4	MISCELLANEOUS DETAILS - 1	169 A5	MISCELLANEOUS DETAILS - 2	170 A6	MISCELLANEOUS DETAILS - 3
		91 CA55	CROSS SECTIONS - 11	146S-3 FA36C	TIEBACK DETAILS	171 A7	MISCELLANEOUS DETAILS - 4	172 A8	MISCELLANEOUS DETAILS - 5	173 A9	MISCELLANEOUS DETAILS - 6
		92 CA56	PROFILES - 1, AR1, AR2 & AR5 LINES			HALAWA APPROACH					
		93 CA57	PROFILES - 2, AR3 LINES			174 AA1	KEY PLAN - HALAWA APPROACH	175 AA2	HECO SUBSTATION - PLAN AND ELEVATION	176 AA3	ELEVATIONS AT RETAINING WALLS
		94 CA58	PROFILES - 3, R3 & R5 LINES								
		95 CA59	PROFILES - 4, AR4 LINES								
		96 CA60	GRADING CROSS SECTIONS - 1								
		97 CA61	GRADING CROSS SECTIONS - 2								
		98 CA62	PORTAL GRADING DETAILS								
		99 CA63	MODIFIED TYPE 'CI' CATCH BASIN								
		100 CA64	RETAINING WALL LAYOUT DATA								
		100S-1	CA64A SPUR ROAD - PLAN & PROFILE								
		100S-2	CA64B SPUR ROAD - GEOTEXTILE REINF. ABUTMENT								
		100S-3	CA64C SPUR ROAD - BRIDGE & ROADWAY								
			HALAWA TUNNELS								
		101 CT1	DRAINAGE/UTILITIES PLAN - PORTAL TO STA. 607+50								
		102 CT2	DRAINAGE/UTILITIES PLAN - STA. 607+50 TO 612+40								
		103 CT3	DRAINAGE/UTILITIES PLAN - STA. 612+40 TO 617+30								
		104 CT4	DRAINAGE/UTILITIES PLAN - STA. 617+30 TO 622+20								
		105 CT5	DRAINAGE/UTILITIES PLAN - STA. 622+20 TO 627+10								
		106 CT6	CROSSPASSAGE PROFILE AND ENTRANCE DETAILS								
		107 CT7	DRAINAGE/UTILITIES DETAILS - 1								
		108 CT8	DRAINAGE/UTILITIES DETAILS - 2								
		109 CT9	DRAINAGE/UTILITIES DETAILS - 3								
		110 CT10	CATHODIC PROTECTION - F W								
			GEOTECHNICAL								
			HALAWA APPROACH								
		111 FA1	BORING LOCATION PLAN								
		112 FA2	BORING LEGEND & NOTES								
		113 FA3	BORING LOG NH-1 (1 OF 2)								
		114 FA4	BORING LOG NH-1 (2 OF 2) & NH-3 (1 OF 2)								
		115 FA5	BORING LOG NH-3 (2 OF 2)								
		116 FA6	BORING LOG NH-2 (1 OF 2)								
		117 FA7	BORING LOG NH-2 (2 OF 2)								
		118 FA8	BORING LOG NH-4								
		119 FA9	BORING LOG NH-5								



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION
William H. Hansen

10/11/90	ADDED SHTS 100S-1, 100S-2, 100S-3 & 137S-1
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
LIST OF PLANS - 1	
GENERAL	
INTERSTATE ROUTE H-3	
F.A.I. PROJ. NO. 1-H3-1(64)	
SCALE: NONE	DATE: JUN 1990
SHEET NO. G3 OF 18 SHEETS	

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TITLE

ARCHITECTURAL (CONT.)

CONTROL BUILDING

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219 AC1 PLAN - LEVEL 1
220 AC2 PLAN - LEVEL 2
221 AC3 PLAN - LEVEL 3
222 AC4 ROOF PLAN
223 AC5 WEST AND EAST ELEVATIONS AND SECTIONS
224 AC6 NORTH ELEVATIONS
225 AC7 SOUTH ELEVATIONS
226 AC8 ELEVATION - LINE B AND SECTION
227 AC9 PARTIAL WALL ELEVATIONS
228 AC10 WALL SECTIONS - 1
229 AC11 WALL SECTIONS - 2
230 AC12 STAIRS AND ELEVATOR

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HALAWA TUNNELS

23| AT| TYPICAL CROSSPASSAGE EXIT - ELEVATION & DETAILS

STRUCTURAL

STANDARDS

232	S1	STRUCTURAL NOTES AND ABBREVIATIONS
233	S2	INTERFACE EMBEDMENT AND ANCHOR BOLT DETAILS
234	S3	CURB/LEDGE ANGLE, HATCH COVERS AND MISC. DETAILS
235	S4	VENT DUCTS ACCESS DOORS & MISC. DETAILS
236	S5	ELECTRICAL MANHOLE
237	S6	MISCELLANEOUS DETAILS - 1
238	S7	MISCELLANEOUS DETAILS - 2
239	S8	STANDARD DETAILS - 1
240	S9	STANDARD DETAILS - 2
241	S10	ESTIMATED QUANTITIES AND MISCELLANEOUS DETAILS

HALAWA VIADUCT

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242 SV1  PLAN AND ELEVATIONS
243 SV2  FOUNDATION LAYOUT
244 SV3  FOUNDATION DETAILS
245 SV4  DRILLED C.I.P. CONCRETE PILE DETAILS
246 SV5  ABUTMENT 1 PLAN, ELEVATION AND SECTIONS
247 SV6  BENT 2 PLAN AND ELEVATION
248 SV7  BENT 3 PLAN AND ELEVATION
249 SV8  BENT 4 PLAN, ELEVATION AND SECTIONS
250 SV9  BENT 5 PLAN AND ELEVATION
251 SV10  BENT 6 PLAN, ELEVATION AND SECTIONS
252 SV11  BENT 7 PLAN, ELEVATION AND SECTIONS
253 SV12  ABUTMENT 8 PLAN, ELEVATION AND SECTIONS
254 SV13  CAP BEAM SECTIONS AND DETAILS
255 SV14  DECK FRAMING PLAN AND SECTIONS
256 SV15  FINISH DECK LAYOUT AND ELEVATIONS
257 SV16  DECK SLAB SECTIONS
258 SV17  TRANSITION SLAB SECTIONS AND DETAILS
259 SV18  PRESTRESSED GIRDER LAYOUT AND DETAILS
260 SV19  GIRDER, SECTIONS AND DETAILS
261 SV20  BEARING PAD DETAILS
262 SV21  DIAPHRAGM ELEVATION AND DETAILS
263 SV22  CONCRETE BARRIER AND LIGHT POST SUPPORT DETAILS
264 SV23  DECK DRAIN DETAILS
265 SV24  EXPANSION JOINT DETAILS
266 SV25  MISC. SECTIONS AND DETAILS - 1
267 SV26  MISC. SECTIONS AND DETAILS - 2

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ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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	TRACED BY	
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	QUANTITIES BY	
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TITLE

STRUCTURAL (CONT.)

HALAWA APPROACH

268 SA1 RETAINING WALLS RW - N1, N2 & N3 PLAN, ELEV. & DETS.
269 SA2 RETAINING WALL RW - N7, PLAN, AND SECTION
270 SA3 RETAINING WALL RW - N10, PLAN, ELEV. & DETAILS - 1
271 SA4 RETAINING WALL RW - N10, PLAN, ELEV. & DETAILS - 2
272 SA5 RETAINING WALL RW - C1, PLAN AND ELEVATION - 1
273 SA6 RETAINING WALL RW - C1, PLAN AND ELEVATION - 2
274 SA7 FACADE WALLS RW - C2 & C3, PLAN, ELEV. & DETS.
275 SA8 FACADE WALLS RW - C2 & C3, PLAN AND DETAILS
276 SA9 FACADE WALL RW - C4, PLAN AND ELEVATION
277 SA10 FACADE WALL RW - C4, DETAILS
278 SA11 RETAINING WALLS. RW - VI THRU V5, PLAN ELEV. & DETS.
279 SA12 RETAINING WALLS RW - V4 & V5, ELEVATIONS
280 SA13 RETAINING WALL RW - V6, PLAN, ELEV. & DETAILS
281 SA14 RETAINING WALL RW - A1, PLAN & ELEVATION
282 SA15 RETAINING WALLS RW - S1 & S2, PLANS ELEV. & DETS.
283 SA16 RETAINING WALL - TYPE 1
283S-1 SA16A CRIB RETAINING WALL SECTIONS AND DETAILS
284 SA17 RETAINING WALL DETAILS - 1
285 SA18 RETAINING WALL DETAILS - 2
286 SA19 CONCRETE PANEL RETAINING WALL
287 SA20 HECO SUBSTATION - SCREEN WALLS - 1
288 SA21 HECO SUBSTATION - SCREEN WALLS - 2
289 SA22 DRAINAGE STRUCTURE - PLANS
290 SA23 DRAINAGE STRUCTURE - SECTIONS & DETAILS - 1
291 SA24 DRAINAGE STRUCTURE - SECTIONS & DETAILS - 2
292 SA25 DRAINAGE STRUCTURE - SECTIONS & DETAILS - 3
293 SA26 EXPLORATORY TUNNEL ACCESS STRUCTURE - 1
294 SA27 EXPLORATORY TUNNEL ACCESS STRUCTURE - 2
295 SA28 VAULT AND MISCELLANEOUS FOUNDATIONS - 1
296 SA29 VAULT AND MISCELLANEOUS FOUNDATIONS - 2
297 SA30 VAULT AND MISCELLANEOUS FOUNDATIONS - 3
298 SA31 VAULT AND MISCELLANEOUS FOUNDATIONS - 4
299 SA32 IB ABUTMENT 2 PLANS & SECTIONS
300 SA33 IB ABUTMENT 2 REINFORCEMENT - 1
301 SA34 IB ABUTMENT 2 REINFORCEMENT - 2
302 SA35 IB ABUTMENT 2 DETAILS
302S-1 SA35A KNOLL MODIFICATIONS SITE PLAN
302S-2 SA35B KNOLL MODIFICATIONS SECTIONS

HALAWA PORTAL BUILDING - IB

303 SN1 FOUNDATION PLAN
304 SN2 FOUNDATION - SECTIONS & DETAILS - 1
305 SN3 FOUNDATION - SECTIONS & DETAILS - 2
306 SN4 LEVEL 1 PLAN
307 SN5 LEVEL 2 PLAN
308 SN6 LEVEL 3 PLAN
309 SN7 LEVEL 4 PLAN
310 SN8 ROOF PLANS
311 SN9 EXTERIOR WALL ELEVATION AT LINE A
312 SN10 EXTERIOR WALL ELEVATION AT LINE B
313 SN11 EXTERIOR WALL ELEVATION AT LINE D
314 SN12 WALL ELEVATION AT LINE 2 AND LINE 3.4
315 SN13 GIRDER DETAILS & SCHEDULE
316 SN14 LEVEL 1 SECTIONS & DETAILS
317 SN15 LEVEL 2 SECTIONS
318 SN16 LEVEL 2 AND 3 SECTIONS & DETAILS
319 SN17 ROOF SECTIONS
320 SN18 SUPPLY AIR DUCT SECTIONS
321 SN19 EXHAUST AIR DUCT SECTIONS
322 SN20 PORTAL FACADE SECTIONS
323 SN21 TYPICAL SECTIONS & DETAILS
324 SN22 INTERIOR WALL ELEVATIONS - 1
325 SN23 INTERIOR WALL ELEVATIONS - 2
326 SN24 INTERIOR WALL ELEVATIONS - 3
327 SN25 INTERIOR WALL ELEVATIONS - 4
328 SN26 VENT DUCTS REFLECTED CEILING PLAN & S
329 SN27 TUNNEL/BUILDING TRANSITION - SECTIONS

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TITLE

STRUCTURAL (CONT.)

HALAWA PORTAL BUILDING - OB

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330 S01 FOUNDATION PLAN
331 S02 FOUNDATION - SECTIONS & DETAILS - 1
332 S03 FOUNDATION - SECTIONS & DETAILS - 2
333 S04 LEVEL 1 PLAN
334 S05 LEVEL 2 PLAN
335 S06 LEVEL 3 PLAN
336 S07 LEVEL 4 PLAN
337 S08 ROOF PLANS
338 S09 EXTERIOR WALL REINF. ELEVATION AT LINE A
339 S010 EXTERIOR WALL REINF. ELEVATION AT LINE B
340 S011 EXTERIOR WALL REINF. ELEVATION AT LINE D
341 S012 WALL ELEVATION AT LINE 2 AND LINE 3.7
342 S013 GIRDER DETAILS & SCHEDULE
343 S014 LEVEL 1 SECTIONS & DETAILS
344 S015 LEVEL 2 SECTIONS
345 S016 LEVEL 2 AND 3 SECTIONS & DETAILS
346 S017 ROOF SECTIONS
347 S018 SUPPLY AIR DUCT SECTIONS
348 S019 EXHAUST AIR DUCT SECTIONS
349 S020 PORTAL FACADE SECTIONS
350 S021 TYPICAL SECTIONS & DETAILS
351 S022 INTERIOR WALL ELEVATIONS - 1
352 S023 INTERIOR WALL ELEVATIONS - 2
353 S024 INTERIOR WALL ELEVATIONS - 3
354 S025 INTERIOR WALL ELEVATIONS - 4
355 S026 VENT DUCTS REFLECTED CEILING PLAN & SECTION
356 S027 TUNNEL/BUILDING TRANSITION - SECTIONS

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CONTROL BUILDING

357 SC1 FOUNDATION PLAN AND SLAB-ON-GRADE
358 SC2 FOUNDATION SECTIONS AND DETAILS
359 SC3 LEVEL 2 FRAMING PLAN
360 SC4 MAIN ROOF AND PENTHOUSE ROOF FRAMING PLAN
361 SC5 TYPICAL SLAB REINFORCEMENT LAYOUT
362 SC6 TYPICAL BEAM REINFORCEMENT LAYOUT
363 SC7 SECTIONS
364 SC8 SECTIONS AND DETAILS
365 SC9 WALL ELEVATIONS - 1
366 SC10 WALL ELEVATIONS - 2
367 SC11 WALL ELEVATIONS - 3
368 SC12 WALL ELEVATIONS - 4
369 SC13 TYPICAL WALL TO SLAB CONNECTION DETAILS
370 SC14 CONCRETE STAIR PLAN & SECTIONS
371 SC15 MISCELLANEOUS DETAILS - 1
372 SC16 MISCELLANEOUS DETAILS - 2

HALAWA TUNNELS

373 ST1 TUNNEL LINING - 1
374 ST2 TUNNEL LINING - 2
375 ST3 CROSSPASSAGE - PLANS
375S-I ST3A CROSSPASSAGE - PLAN
376 ST4 CROSSPASSAGE - SECTIONS & DETAILS - 1
377 ST5 CROSSPASSAGE - SECTIONS & DETAILS - 2
378 ST6 CROSSPASSAGE - DETAILS & SECTIONS
379 ST7 VENTILATION OPENING LOCATION PLAN
380 ST8 TYPICAL CEILING & VENTILATION OPENINGS PLANS
381 ST9 SUPPLY FLUE & WALL OPENINGS - ELEV. & DET.
382 ST10 TYPICAL CEILING SECTIONS & DETAILS
383 ST11 WALL OPENING DETAILS - 1
384 ST12 WALL OPENING DETAILS - 2
385 ST13 UTILITY TUNNEL PLAN & SECTIONS
386 ST14 MISCELLANEOUS DETAILS



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION

William A. Harris

DATE	REVISION
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LIST OF PLANS - 2

GENERAL
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(64)

SCALE: NONE DATE: JUN 1990
SHEET NO. G4 OF 18 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(64)	1990	5	531

SHT. SHT. TITLE
NO. MECHANICAL (CONT.)

STANDARDS

- 387 M1 PLUMBING - LEGEND, SYMBOLS, ABBREV. & GEN. NOTES
388 M2 PLUMBING - WATER BALANCE DIAGRAM
389 M3 PLUMBING - PIPING DIAGRAM

HALAWA PORTAL BUILDING - IB

- 390 M4 FIRE PROTECTION - P & ID - 1
391 M5 FIRE PROTECTION - P & ID - 2
392 M6 PLUMBING DETAILS - 1
393 M7 PLUMBING DETAILS - 2
394 M8 PLUMBING DETAILS - 3
395 MN1 PLUMBING - LEVEL 1 PLAN
396 MN2 PLUMBING - LEVEL 2 PLANS & SECTION
397 MN3 PLUMBING - LEVEL 3 PLAN & SECTION
398 MN4 PLUMBING - LEVEL 4 PLAN & SECTION
399 MN5 PLUMBING - ROOF LEVEL PLAN
400 MN6 PUMP ROOM PARTIAL PLANS & SECTION
401 MN7 PUMP ROOM SECTIONS
402 MN8 FIRE PROTECTION - LEVEL 1 PLAN
403 MN9 FIRE PROTECTION - LEVEL 2 & LEVEL 3 PARTIAL PLANS
404 MN10 FIRE PROTECTION - LEVEL 4 & ROOF PARTIAL PLANS

HALAWA PORTAL BUILDING - OB

- 405 MO1 PLUMBING - LEVEL 1 PLAN
406 MO2 PLUMBING - LEVEL 2 PLANS & SECTION
407 MO3 PLUMBING - LEVEL 3 PLAN
408 MO4 PLUMBING - LEVEL 4 PLAN
409 MO5 PLUMBING - ROOF LEVEL PLAN
410 MO6 FIRE PROTECTION - LEVEL 1 PARTIAL PLAN
411 MO7 FIRE PROTECTION - LEVEL 2 & LEVEL 3 PARTIAL PLANS
412 MO8 FIRE PROTECTION - LEVEL 4 & ROOF PARTIAL PLANS

CONTROL BUILDING

- 413 MC1 PLUMBING - LEVEL 1 PLAN
414 MC2 PLUMBING - LEVEL 2 PLAN
415 MC3 PLUMBING - LEVEL 3 AND ROOF PARTIAL PLANS
416 MC4 FIRE PROTECTION - PARTIAL PLANS
417 MC5 FUEL OIL STORAGE TANK - PLAN & SECTION

HALAWA TUNNELS

- 418 MT1 FIRE PROTECTION - VALVE STATION LOCATION PLAN
419 MT2 FIRE PROTECTION - CROSSPASSAGE PARTIAL PLAN
420 MT3 FIRE PROTECTION - SECTIONS & DETAIL

ELECTRICAL

STANDARDS

- 421 E1 ELECTRICAL LEGEND
422 E2 CONDUIT STANDARDS - 1
423 E3 CONDUIT STANDARDS - 2
424 E4 GROUNDING STANDARDS
425 E5 RISER DIAGRAM - POWER
426 E6 RISER DIAGRAM - CONTROL

HALAWA APPROACH

- 427 EA1 UNDERGROUND DUCT PLAN - 1
428 EA2 UNDERGROUND DUCT PLAN - 2
429 EA3 UNDERGROUND DUCT SECTIONS & DETAILS - 1
430 EA4 UNDERGROUND DUCT SECTIONS & DETAILS - 2
431 EA5 CROSSOVER ELECTRICAL VAULT
432 EA6 LIGHTING - UTILITY TUNNEL
432S-1 EA6A 46KV DUCT BANK PROFILE
432S-2 EA6B 46KV DUCT BANK MISC. DETAILS

HALAWA PORTAL BUILDING - IB

- 433 EN1 GROUNDING - 1
434 EN2 GROUNDING - 2
435 EN3 POWER CONDUIT LEVEL 1 PLAN
436 EN4 POWER CONDUIT LEVEL 2 PLAN
437 EN5 POWER CONDUIT LEVEL 3 PLAN
438 EN6 POWER CONDUIT LEVEL 4 PLAN
439 EN7 POWER CONDUIT ROOF PLAN

SHT. SHT. TITLE
NO. ELECTRICAL (CONT.)

HALAWA PORTAL BUILDING - IB

- 440 EN8 LIGHTING CONDUIT LEVEL 1 PLAN
441 EN9 LIGHTING CONDUIT LEVEL 2 PLAN
442 EN10 LIGHTING CONDUIT LEVEL 3 PLAN
443 EN11 LIGHTING CONDUIT LEVEL 4 PLAN
444 EN12 LIGHTING CONDUIT ROOF PLAN
445 EN13 LIGHTING CONDUIT STAIR 1 PLAN
446 EN14 LIGHTING CONDUIT STAIR 2 PLAN
447 EN15 LIGHTING CONDUIT SECTIONS & DETAILS

HALAWA PORTAL BUILDING - OB

- 448 E01 GROUNDING - 1
449 E02 GROUNDING - 2
450 E03 POWER CONDUIT LEVEL 1 PLAN
451 E04 POWER CONDUIT LEVEL 2 PLAN
452 E05 POWER CONDUIT LEVEL 3 PLAN
453 E06 POWER CONDUIT LEVEL 4 PLAN
454 E07 POWER CONDUIT ROOF PLAN
455 E08 LIGHTING CONDUIT LEVEL 1 PLAN
456 E09 LIGHTING CONDUIT LEVEL 2 PLAN
457 E010 LIGHTING CONDUIT LEVEL 3 PLAN
458 E011 LIGHTING CONDUIT LEVEL 4 PLAN
459 E012 LIGHTING CONDUIT ROOF PLAN
460 E013 LIGHTING CONDUIT STAIR 1 PLAN
461 E014 LIGHTING CONDUIT STAIR 2 PLAN
462 E015 LIGHTING CONDUIT SECTIONS & DETAILS

CONTROL BUILDING

- 463 EC1 GROUNDING
464 EC2 POWER CONDUIT LEVEL 1 PLAN
465 EC3 POWER CONDUIT LEVEL 2 PLAN
466 EC4 POWER CONDUIT LEVEL 3 PLAN
467 EC5 LIGHTING CONDUIT LEVEL 1 PLAN
468 EC6 LIGHTING CONDUIT LEVEL 2 PLAN
469 EC7 LIGHTING CONDUIT LEVEL 3 PLAN
470 EC8 POWER CONDUIT GENERATOR ROOM

HALAWA TUNNELS

- 471 ET1 GROUNDING - 1
472 ET2 GROUNDING - 2
473 ET3 POWER CONDUIT PLAN PORTAL TO STA. 607+50
474 ET4 POWER CONDUIT PLAN STA. 607+50 TO 612+40
475 ET5 POWER CONDUIT PLAN STA. 612+40 TO 617+30
476 ET6 POWER CONDUIT PLAN STA. 617+30 TO 622+20
477 ET7 POWER CONDUIT PLAN STA. 622+20 TO 627+10
478 ET8 POWER CONDUIT SECTIONS - 1
479 ET9 POWER CONDUIT SECTIONS - 2
480 ET10 POWER CONDUIT SECTIONS - 3
481 ET11 POWER CONDUIT SECTIONS - 4
482 ET12 LIGHTING CONDUIT PLAN PORTAL
483 ET13 LIGHTING CONDUIT PLAN PORTAL TO STA. 607+50
484 ET14 LIGHTING CONDUIT PLAN STA. 607+50 TO 612+40
485 ET15 LIGHTING CONDUIT PLAN STA. 612+40 TO 617+30
486 ET16 LIGHTING CONDUIT PLAN STA. 617+30 TO 622+20
487 ET17 LIGHTING CONDUIT PLAN STA. 622+20 TO 627+10
488 ET18 LIGHTING CONDUIT SECTIONS AND DETAILS - 1
489 ET19 LIGHTING CONDUIT SECTIONS AND DETAILS - 2
490 ET20 LIGHTING CONDUIT SECTIONS AND DETAILS - 3
491 ET21 LIGHTING CONDUIT SECTIONS AND DETAILS - 4

SHT. SHT. TITLE
NO. SYSTEMS

STANDARDS

- 492 T1 SYSTEMS LEGEND
493 T2 SYSTEMS CONDUIT RISER DIAGRAM

HALAWA APPROACH

- 494 TA1 SYSTEMS CONDUIT - ROADWAY LEVEL - 1
495 TA2 SYSTEMS CONDUIT - ROADWAY LEVEL - 2
496 TA3 SYSTEMS CONDUIT - ROADWAY LEVEL - 3
497 TA4 SYSTEMS CONDUIT - SECTIONS & DETAILS - 1
498 TA5 SYSTEMS CONDUIT - SECTIONS & DETAILS - 2
499 TA6 SYSTEMS CONDUIT - SECTIONS & DETAILS - 3
500 TA7 SYSTEMS - VEHICLE DETECTION DETAILS

HALAWA PORTAL BUILDING - IB

- 501 TN1 SYSTEMS CONDUIT - LEVEL 1 PLAN
502 TN2 SYSTEMS CONDUIT - LEVEL 2 PLAN
503 TN3 SYSTEMS CONDUIT - LEVEL 3 PLAN
504 TN4 SYSTEMS CONDUIT - LEVEL 4 PLAN
505 TN5 SYSTEMS CONDUIT - ROOF PLAN
506 TN6 SYSTEMS CONDUIT - SECTION B
507 TN7 SYSTEMS CONDUIT - SECTIONS & DETAILS - 1
508 TN8 SYSTEMS CONDUIT - SECTIONS & DETAILS - 2

HALAWA PORTAL BUILDING - OB

- 509 TO1 SYSTEMS CONDUIT - LEVEL 1 PLAN
510 TO2 SYSTEMS CONDUIT - LEVEL 2 PLAN
511 TO3 SYSTEMS CONDUIT - LEVEL 3 PLAN
512 TO4 SYSTEMS CONDUIT - LEVEL 4 PLAN
513 TO5 SYSTEMS CONDUIT - ROOF PLAN
514 TO6 SYSTEMS CONDUIT - SECTION B
515 TO7 SYSTEMS CONDUIT - SECTIONS & DETAILS - 1
516 TO8 SYSTEMS CONDUIT - SECTIONS & DETAILS - 2

CONTROL CENTER

- 517 TC1 SYSTEMS CONDUIT - LEVEL 1 PLAN
518 TC2 SYSTEMS CONDUIT - LEVEL 2 PLAN
519 TC3 SYSTEMS CONDUIT - ROOF PLAN
520 TC4 SYSTEMS CONDUIT - DETAILS - 1
521 TC5 SYSTEMS CONDUIT - DETAILS - 2

HALAWA TUNNELS

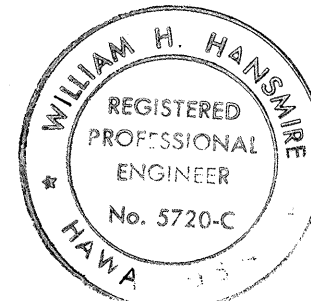
- 522 TT1 SYSTEMS CONDUIT PLAN - PORTAL TO STA. 609+75
523 TT2 SYSTEMS CONDUIT PLAN - STA. 609+75 TO 615+00
524 TT3 SYSTEMS CONDUIT PLAN - STA. 615+00 TO 622+73
525 TT4 SYSTEMS CONDUIT - SECTIONS-1
526 TT5 SYSTEMS CONDUIT - SECTIONS-2
527 TT6 SYSTEMS CONDUIT - SECTIONS & DETAILS-1
528 TT7 SYSTEMS CONDUIT - SECTIONS & DETAILS-2
529 TT8 SYSTEMS CONDUIT - SECTIONS & DETAILS-3
530 TT9 SYSTEMS CONDUIT - TYPICAL CEILING PLAN
531 TT10 SYSTEMS CONDUIT - SCHEDULES
531S-1 19 SUPPLY FAN PLAN & SECTIONS
531S-2 20 EXHAUST FAN PLAN & SECTION

REFERENCE PLANS

PROJECT	TOTAL	SHEET	TITLE
SHEET NO.	SHEETS	NO.	

FURNISHING, DELIVERING AND INSTALLING
TUNNEL VENTILATION FANS AND ACCESSORIES
F.A.I. PROJ. NO. I-H3-1(60)

20	24	19	SUPPLY FAN PLAN & SECTIONS
20	24	20	EXHAUST FAN PLAN & SECTIONS



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DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LIST OF PLANS - 3

GENERAL
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(64)

SCALE: NONE DATE: JUN 1990
SHEET NO. 65 OF 18 SHEETS

DATE JAN 90
DATE JAN 90
DATE JUN 90

SURVEY PLOTTED BY CDD
CHECKED BY M.S. LIN
DESIGNED BY K. CHU
NOTE BOOK NO.

STANDARD PLANS SUMMARY

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (64)	1990	6	531

Standard Plan No.	Title	Date
B-01	Notes and Miscellaneous Details	07/01/86
B-02		
B-03	Typical Structure Excavation and Backfill Pay Limits	07/01/86
B-04		
B-05		
B-06	Concrete Box Girder	07/01/86
B-07	Concrete Box Girder	07/01/86
B-08	Concrete Box Girder	07/01/86
B-09		
B-10		
B-11		
B-12	Prestressed Concrete Piles	07/01/86
B-13	Prestressed Concrete Piles	07/01/86

D-01	Chain Link Fence With Toprail	03/06/87
D-02	Chain Link Fence Without Toprail	07/01/86
D-03	Wire Fence With Metal Posts	07/01/86
D-04	Typical Details of Curbs and/or Gutters	07/01/86
D-05	Typical Details of Reinforced Concrete Drop Driveway	07/01/86
D-06	Centerline and Reference Survey Monument	07/01/86
D-07	Street Survey Monument	07/01/86
D-08	Landscaping Shrub and Tree Planting	07/01/86
D-09	Field Office	07/01/86
D-10	Field Office	07/01/86
D-11	Project Site Laboratory	07/01/86
D-12	Project Site Laboratory	07/01/86
D-13	Field Office & Project Site Laboratory	07/01/86

H-01	Type A, B, C and D Catch Basin	07/01/86
H-02	Type A1, B1, C1 and D1 Catch Basin	07/01/86
H-03	Type A2, B2, C2 and D2 Catch Basin	07/01/86
H-04	Typical Reinforcing Details for Catch Basins	07/01/86
H-05	Type A, B and C Storm Drain Manhole	07/01/86
H-06	Type D and E Storm Drain Manhole	07/01/86
H-07	Type F Storm Drain Manhole	07/01/86
H-08	Catch Basin and Manhole Casting	07/01/86
H-09	Type A-9 and A-9P Frames and Grates	07/01/86
H-10	Type A-9B Frames and Grates	07/01/86
H-11	Type 61614 and 61214 Grated Drop Inlet	07/01/86
H-12	Type 61616 Grated Drop Inlet	07/01/86
H-13	61214, 61614 & 61616 Steel Frames and Grates	07/01/86
H-14	61214B Steel Frame and Grates	07/01/86
H-15	61614B Steel Frame and Grates	07/01/86
H-16	Concrete and Cement Rubble Masonry Structures	07/01/86
H-17	Inlet Structures	07/01/86
H-18	Flared End Section for Culverts	07/01/86
H-19	Outlet Structures	07/01/86
H-20	Concrete Spillway Inlet	07/01/86
H-21	18" Slotted C. M. P. Drain	07/01/86
H-22	C. M. P. Coupling Details Standard Joint	07/01/86
H-23	Hat Shaped Coupling Band	07/01/86

Standard Plan No.	Title	Date
TE-01	Miscellaneous Sign Details	07/01/86
TE-02	Galvanized Flanged Channel Sign Post Mounting	07/01/86
TE-03	Galvanized Square Tube Sign Post Mounting	07/01/86
TE-04	Regulatory Signs	09/01/87
TE-05	Warning Signs	07/01/86
TE-06	Miscellaneous Signs	09/01/87
TE-07	Reserved	07/01/86
TE-08	Construction Signs	09/01/87
TE-09	Miscellaneous Intersection Signs	03/06/87
TE-10	Reserved	07/01/86
TE-11	Bike Route Sign and Supplementary Plates	07/01/86
TE-12	State Route Marker and Auxiliary Markers	07/01/86
TE-13	Interstate Route Marker	07/01/86
TE-14	State Route Marker and Border Detail for Guide Signs	07/01/86
TE-15	Route Marker Assemblies	07/01/86
TE-16	Miscellaneous Reflector Markers	07/01/86
TE-17	Type II Object Markers	07/01/86
TE-18	Mileposts	07/01/86
TE-19	Reserved	07/01/86
TE-20	Overhead Sign Supports	07/01/86
TE-21	Overhead Sign Support, Box Truss Type, Aluminum	07/01/86
TE-22	Foundation Details and Schedules	07/01/86
TE-23	Destination & Ground Mounted Expressway Signs	07/01/86
TE-24	Breakaway Sign Supports for Ground Mounted Guide Signs	07/01/86
TE-25	Laminated Aluminum Sign Panels (Overhead)	07/01/86
TE-26	Laminated Aluminum Sign Panels (Ground Mounted)	07/01/86
TE-27	Solid Aluminum Extruded Sign Panel and Accessory Details	07/01/86
TE-28	Guide Signs Luminaire Mountings	07/01/86
TE-29	Reserved	07/01/86
TE-30	Raised Pavement Markers and Striping	07/01/86
TE-31	Miscellaneous Pavement Markings	07/01/86
TE-32	Miscellaneous Pavement Markings	09/01/87
TE-33	Miscellaneous Pavement Markings	07/01/86
TE-34	Reserved	07/01/86
TE-35	Pavement Alphabets, Numbers & Symbols	07/01/86
TE-36	Pavement Alphabets, Numbers & Symbols	07/01/86
TE-37	Reserved	07/01/86
TE-38	Traffic Signal System, Miscellaneous Details	07/01/86
TE-39	Traffic Signal System, Miscellaneous Details	07/01/86
TE-40	Loop Detectors	03/06/87
TE-41	Pullboxes	07/01/86
TE-42	Type III Traffic Signal Standard	07/01/86
TE-43	Concrete Pullbox (2' x 3')	07/01/86
TE-44	Reserved	07/01/86

Standard Plan No.	Title	Date
TE-45	Reserved	07/01/86
TE-46	Reserved	07/01/86
TE-47	Reserved	07/01/86
TE-48	Reserved	07/01/86
TE-49	Reserved	07/01/86
TE-50	Metal Guardrail	03/06/87
TE-51	Metal Guardrail	09/01/87
TE-52	Metal Guardrail with Rubrail	07/01/86
TE-53	Metal Guardrail with Rubrail at Obstruction	09/01/87
TE-54	Beam Type Guardrail with Rubrail at Obstruction (Shoulder Installation)	09/01/87
TE-55	Metal Guardrail Connection to Concrete Barrier	09/01/87
TE-56	Concrete Barrier Transition	07/01/86
TE-57	Guardrail Type 3, Thrie Beam	09/01/87
TE-58	Approach End Flare, One & Two Way Roadway	07/01/86
TE-59	Trailing End Flare, One & Two Way Roadway	09/01/87
TE-60	Anchor Block Details	07/01/86
TE-61	Breakaway Cable Terminal (BCT)	03/06/87
TE-62	Breakaway Cable Terminal (BCT)	09/01/87
TE-63	Guardrail Type 4 (Rigid Barrier)	09/01/87
TE-64	Portable Concrete Guardrail	03/06/87
TE-65	Guardrail Type 4, Miscellaneous	09/01/87
TE-66	Barricades	07/01/86
TE-67	Delineation & Pavement Markings at Bridges	07/01/86
TE-68	Wheelchair Ramps	07/01/86
TE-69	Wheelchair Ramps	09/01/87

SURVEY PLOTTED BY	DATE
DRAWN BY	11/89
DESIGNED BY	11/89
CHECKED BY	12/89
NOTE BOOK	
No.	



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NOTE:
STANDARD PLANS APPLICABLE TO THIS
PROJECT ARE INDICATED BY A "●" NEXT TO
THE STANDARD PLAN NO. (B-03●)

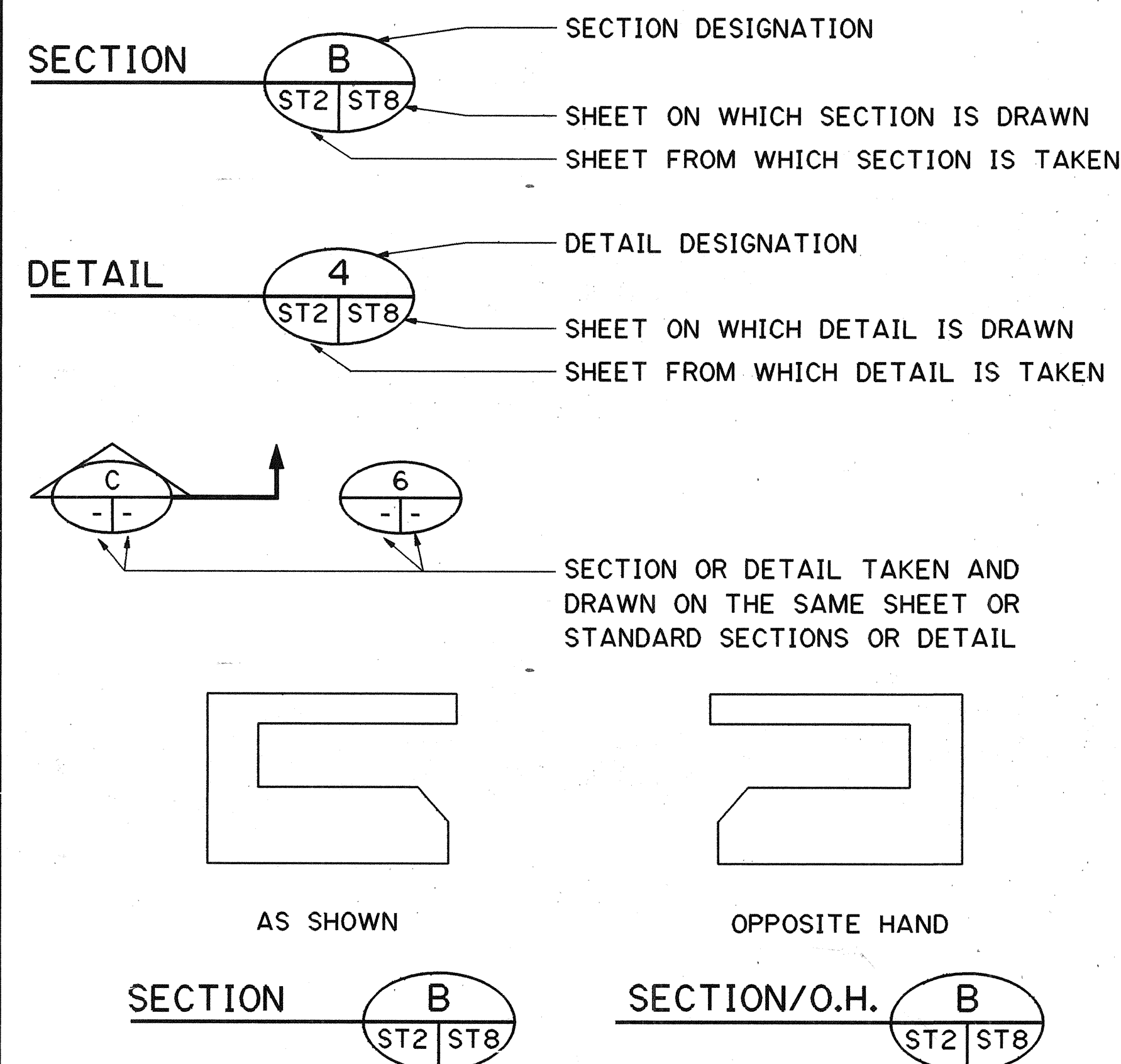
09/01/87	REVISED STANDARD PLANS TE-04, TE-06, TE-08, TE-32, TE-51, TE-53, TE-54, TE-55, TE-57, TE-59, TE-62, TE-63, TE-65 & TE-69.
03/06/87	REVISED STANDARD PLANS D-01, TE-09, TE-40, TE-50, TE-51, TE-57, TE-59, TE-61, TE-63 AND TE-64.
DATE	REVISION

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
STANDARD PLANS SUMMARY
GENERAL INTERSTATE ROUTE H-3 F.A.I. PROJ. NO I-H3-1 (64)
SCALE: NONE DATE: JUN 1990
SHEET No.66 OF 18 SHEETS

ABBREVIATIONS

ALT.	ALTERNATE	M.H.	MANHOLE
ARCH.	ARCHITECTURAL	M.L.	MATCH LINE
A.C., AC	ASPHALT CONCRETE	MIN.	MINIMUM
A.I.S.I.	AMERICAN IRON AND STEEL INSTITUTE	MISC.	MISCELLANEOUS
ASTM	AMERICAN SOCIETY FOR TESTING MATERIAL	MSL	MEAN SEA LEVEL
AZ.	AZIMUTH	N	NORTH
		NIC	NOT IN CONTRACT
BEG.	BEGIN	NO., #	NUMBER
BK.	BACK	NTP	NOTICE TO PROCEED
BOT., BOTT.	BOTTOM	NTS	NOT TO SCALE
B.O.F.	BOTTOM OF FOOTING		
BULKHD.	BULKHEAD	OB	OUTBOUND
		O.C.	ON CENTER
C.B.	CATCH BASIN	O.H.	OPPOSITE HAND
CRM	CEMENT RUBBLE MASONRY	O/H	OVERHEAD
CL	CENTERLINE	O/S	OFFSET
C.J.	CONSTRUCTION JOINT	OPN'G.	OPENING
CL.	CLASS		
CONC.	CONCRETE	PAVT.	PAVEMENT
COND.	CONDUIT	PERF.	PERFORATED
CMP	CORRUGATED METAL PIPE	PC	POINT OF CURVATURE, PRECAST
CF	CUBIC FEET	PCC	POINT OF COMPOUND CURVATURE
CULV.	CULVERT		PORTLAND CEMENT CONCRETE
		PB	PULLBOX
DET.	DETAIL	PL., P	PLATE
D, DIA., Ø	DIAMETER	PROJ.	PROJECT
DIM.	DIMENSION	PT.	POINT
		PVC	POLYVINYL CHLORIDE
E	EAST		
EA.	EACH	R	RADIUS
EASMT.	EASEMENT	RC	REINFORCED CONCRETE
E.P.	EDGE OF PAVEMENT	RCP	REINFORCED CONCRETE PIPE
EL, ELEV.	ELEVATION	RD.	ROAD
ELEC.	ELECTRICAL	REF.	REFERENCE
EMB.	EMBANKMENT	REINF.	REINFORCING
ENG., ENGR.	ENGINEER	REQ., REQ'D.	REQUIRED
EO.	EQUAL	RGS	RIGID GALVANIZED STEEL
EXT.	EXTERIOR	RN	REFERENCE NORTH
		RT.	RIGHT
		R/W	RIGHT OF WAY
F.A.I.	FEDERAL AID INTERSTATE		
FT., '	FEET, FOOT	S	SOUTH
FH	FIRE HYDRANT	SECT.	SECTION
FW	FIRE WATER LINE	SF	SQUARE FEET
FWY.	FREEWAY	SIM.	SIMILAR
GALV.	GALVANIZED	SHT.	SHEET
GSP	GALVANIZED STEEL PIPE	SPC.	SPACING
GA.	GAUGE, GAGE	STA.	STATION
GCL	GRADE CONTROL LINE	STD.	STANDARD
		SY	SQUARE YARDS
HECO	HAWAII ELECTRIC COMPANY	SYM.	SYMMETRICAL
HT.	HEIGHT		
H.P.	HIGH POINT	T&B	TOP AND BOTTOM
HWY.	HIGHWAY	T.O.C.	TOP OF CONCRETE
HOR., HORIZ.	HORIZONTAL	THK.	THICK
HVB	HAIKU VALLEY BRIDGE	TYP.	TYPICAL
IB	INBOUND	U.N.O.	UNLESS NOTED OTHERWISE
IN., "	INCH		
INT.	INTERIOR	V	VALVE
INV.	INVERT	VAR.	VARIABLE, VARIES
		VENT.	VENTILATION
L.	LENGTH	VERT.	VERTICAL
LF	LINEAR FOOT		
LG	LONG	W.	WALL
LIN.	LINEAR	W	WEST
LT.	LEFT	W.P.	WORK POINT
LTG.	LIGHTING	WSP	WET STAND PIPE
		WWV	WINDWARD VIADUCT
MAT'L	MATERIAL		
MAX.	MAXIMUM		
MECH.	MECHANICAL		

LEGEND



EL. 812.00 DENOTES THE ELEVATION WITH RESPECT TO DATUM AT MSL

868.00 DENOTES BOTTOM OF FOUNDATION ELEVATION
WITH RESPECT TO DATUM AT MSL.

- (36) DENOTES F.A.I. PROJ. NO. I-H3-I(36)
HAIKU ACCESS ROAD PORTAL DRAINAGE DETAILS
- (37) DENOTES F.A.I. PROJ. NO. I-H3-I(37)
TRANS-KOOLAU EXPLORATORY TUNNEL
- (52) DENOTES F.A.I. PROJ. NO. I-H3-I(52)
HAIKU VALLEY BRIDGES
- (57 & 58) DENOTES F.A.I. PROJ. NO. I-H3-I(57 & 58)
WINDWARD VIADUCT
- (60) DENOTES F.A.I. PROJ. NO. I-H3-I(60)
FURNISHING AND INSTALLATION OF VENTILATION FANS
- (61) DENOTES F.A.I. PROJ. NO. I-H3-I(61)
HAIKU APPROACH AND TUNNELS
- (64) DENOTES F.A.I. PROJ. NO. I-H3-I(64)
HALAWA APPROACH AND TUNNELS
- (65) DENOTES F.A.I. PROJ. NO. I-H3-I(65)
FURNISHING AND INSTALLING SYSTEM COMPONENTS
- (66) DENOTES F.A.I. PROJ. NO. I-H3-I(66)
MECHANICAL, ELECTRICAL AND ARCHITECTURAL FINISH
- (71) DENOTES F.A.I. PROJ. NO. I-H3-I(71)
NORTH HALAWA VALLEY VIADUCT

NOTES:

1. THE ABBREVIATIONS ON THIS PLAN APPLY TO ALL PLANS, UNLESS NOTED OTHERWISE ON THE DISCIPLINE ABBREVIATION PLANS..
2. REFERENCE PLAN CALL OUT EXAMPLE: SHT. NO. H6(52) DENOTES SHEET NO. H6 OF F.A.J. PROJ. NO. I-H3-I(52) HAIKU VALLEY BRIDGES.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(64)	1990	7	531

DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ABBREVIATIONS
LEGEND & NOTES
GENERAL
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I(64)

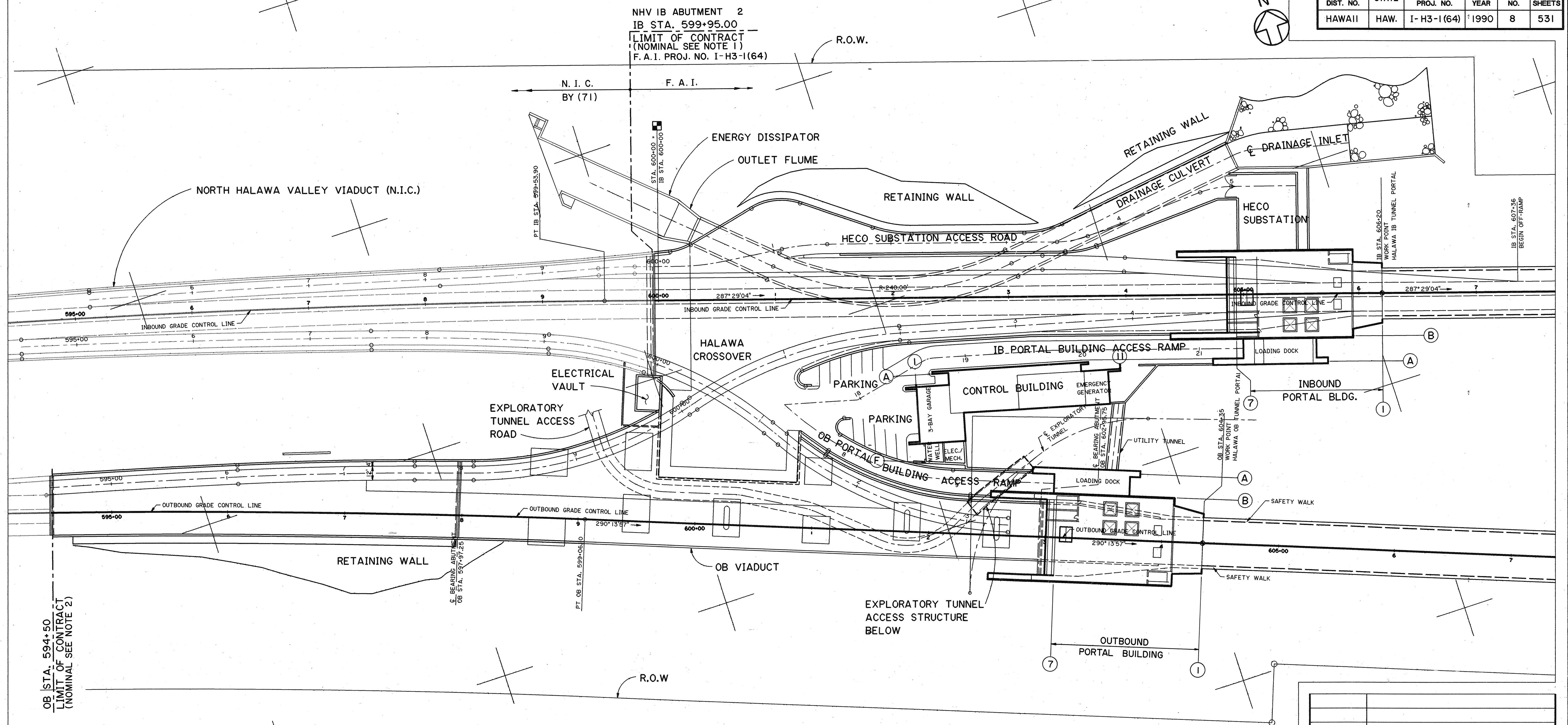
SCALE: NONE DATE: JUN 1990

SHEET NO. G7 OF 18 SHEETS



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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I- H3-1 (64)	1990	8	531



- NOTES :

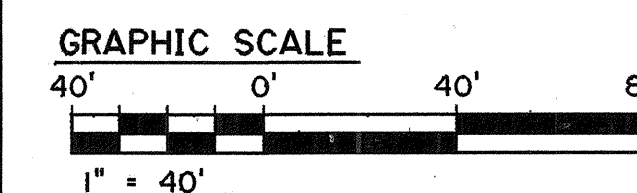
1. THE WORK ADJOINING THE "LIMIT THAT IS TO BE CONSTRUCTED UNDER THIS PROJECT" INCLUDES NHV 1B ABUTMENT 2, APPROACH SLAB, ELECTRICAL VAULT, RETAINING WALL, DRAINAGE OUTLET AND FINISH GRADE AT TOE OF NHV 1B ABUTMENT 2.
2. THE WORK ADJOINING THE "LIMIT" INCLUDES APPROACH SLAB, DROP INLET AND DRAINAGE OUTLET AT THE NORTH SIDE OF NHV 0B ABUTMENT 2. THE ABUTMENT ALONG WITH WING WALLS AND FINISH GRADE BY (71).

DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<u>HALAWA APPROACH</u> <u>LAYOUT</u> <u>GENERAL</u> <u>INTERSTATE ROUTE 11-3</u> <u>F.A.I. PROJ. NO. I-H3-1(64)</u>	
SCALE: AS NOTED	DATE: JUN 1960
SHEET NO. 68	OF 18 SHEETS

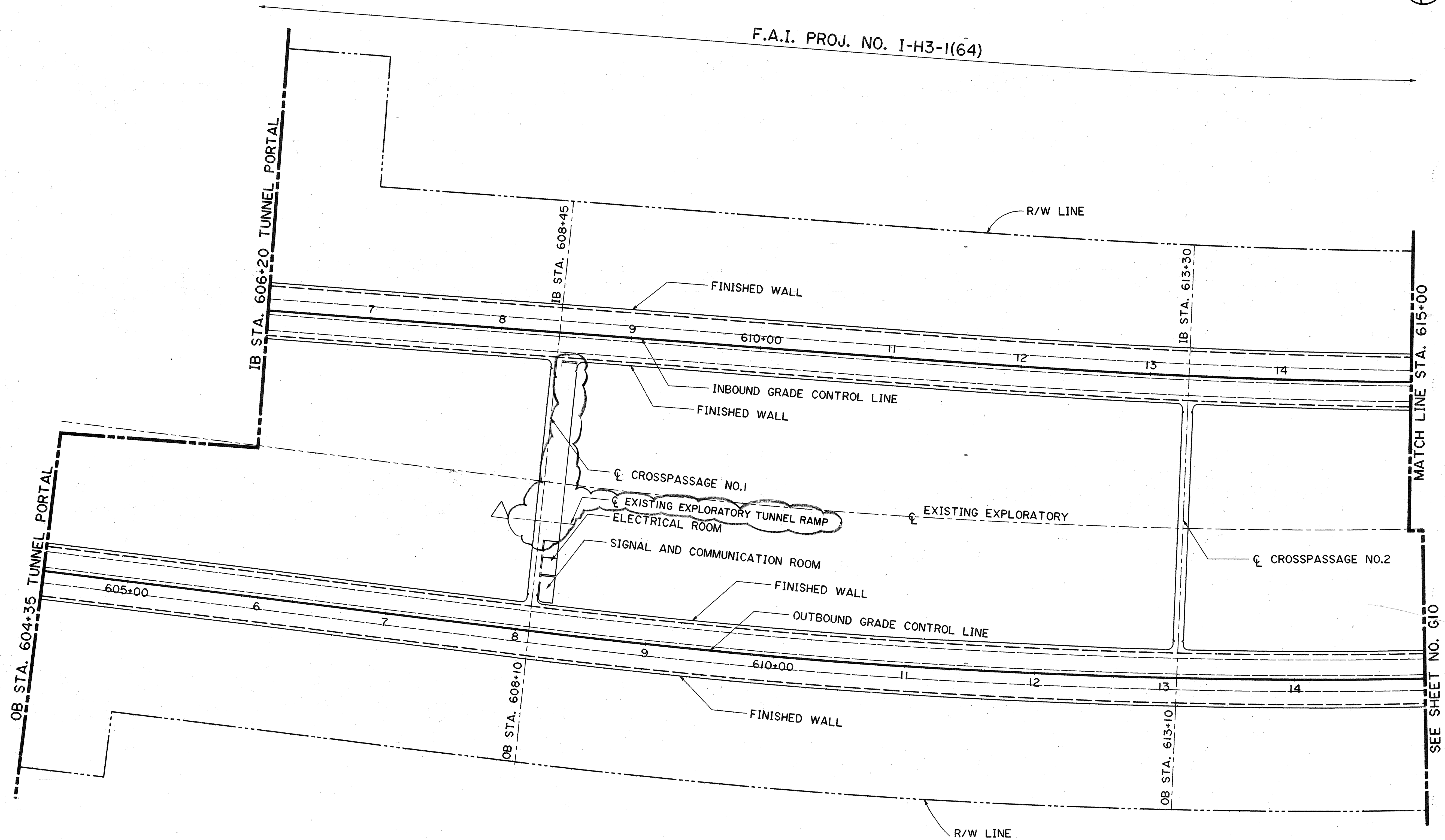


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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(64)	1990	9	531



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DESIGNED BY	7/89
NO.	CHECKED BY	JUN 90



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1-10-92	REVISED CROSSPASSAGE NO. 1 PER DCN 64-018
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION TUNNELS LAYOUT - 1 GENERAL INTERSTATE ROUTE H-3 F.A.I. PROJ. NO. I-H3-1(64) SCALE: 1"=40' DATE: JUN 1990 SHEET NO. 69 OF 18 SHEETS	

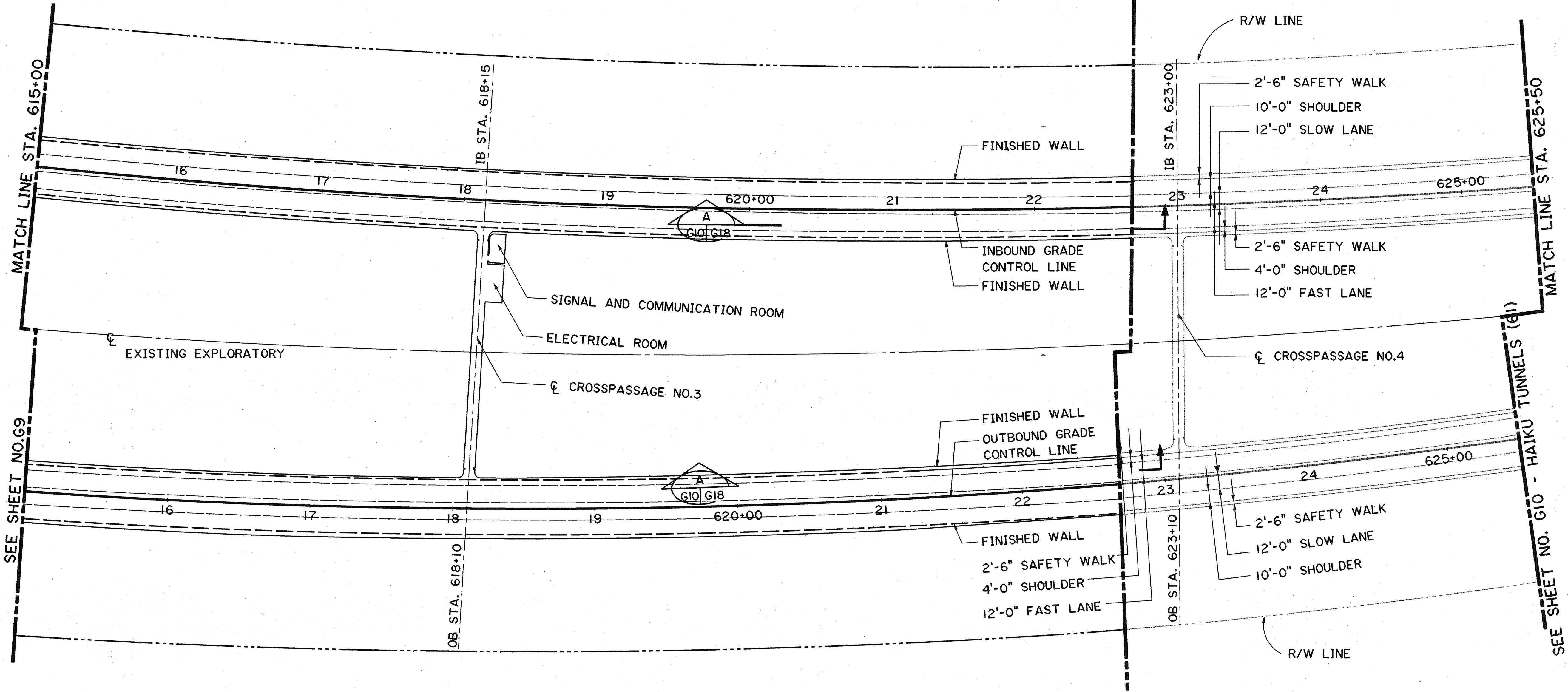
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(64)	1990	10	531



F.A.I. PROJ. NO. I-H3-1(64)

NOT IN CONTRACT (BY (61))

STA. 622+88
LIMIT OF CONTRACT



DATE	7/89
SURVEY PLOTTED BY	CADD
TRACED BY	M. S. OWYANG
QUANTITIES BY	M. LIN
CHECKED BY	JUN 12
ORIGINAL PLAN	
NOTE BOOK	
NO.	

DATE	REVISION



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William H. Hays

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

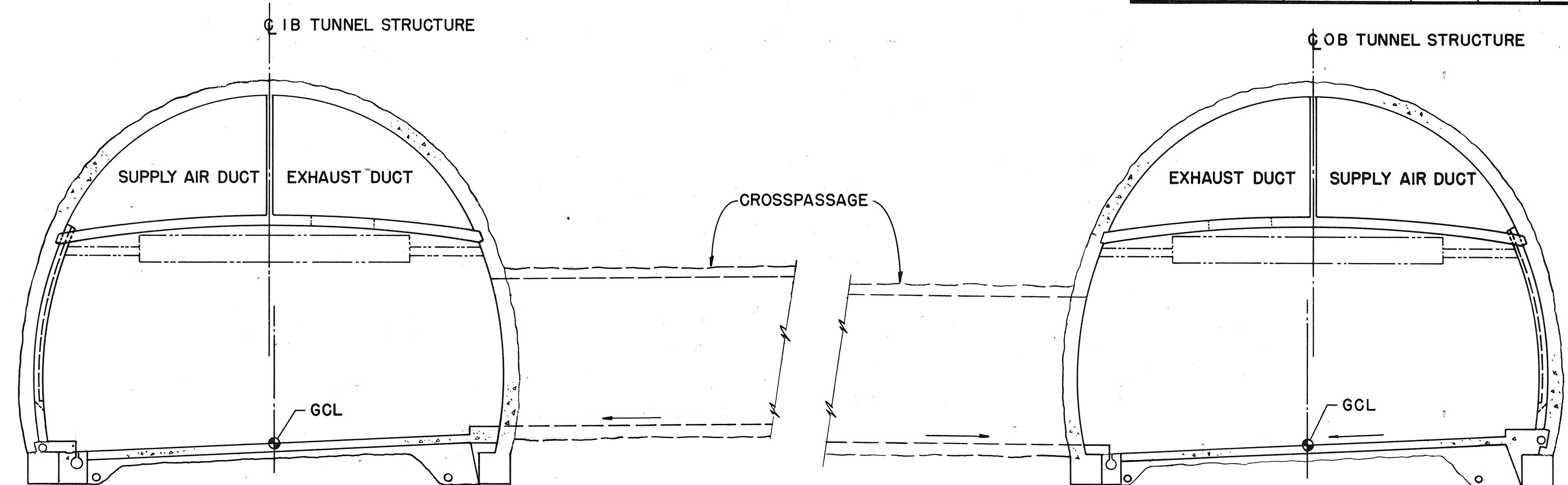
TUNNELS LAYOUT - 2

GENERAL
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(64)

SCALE: 1"=40' DATE: JUN 1990

SHEET NO. G10 OF 18 SHEETS

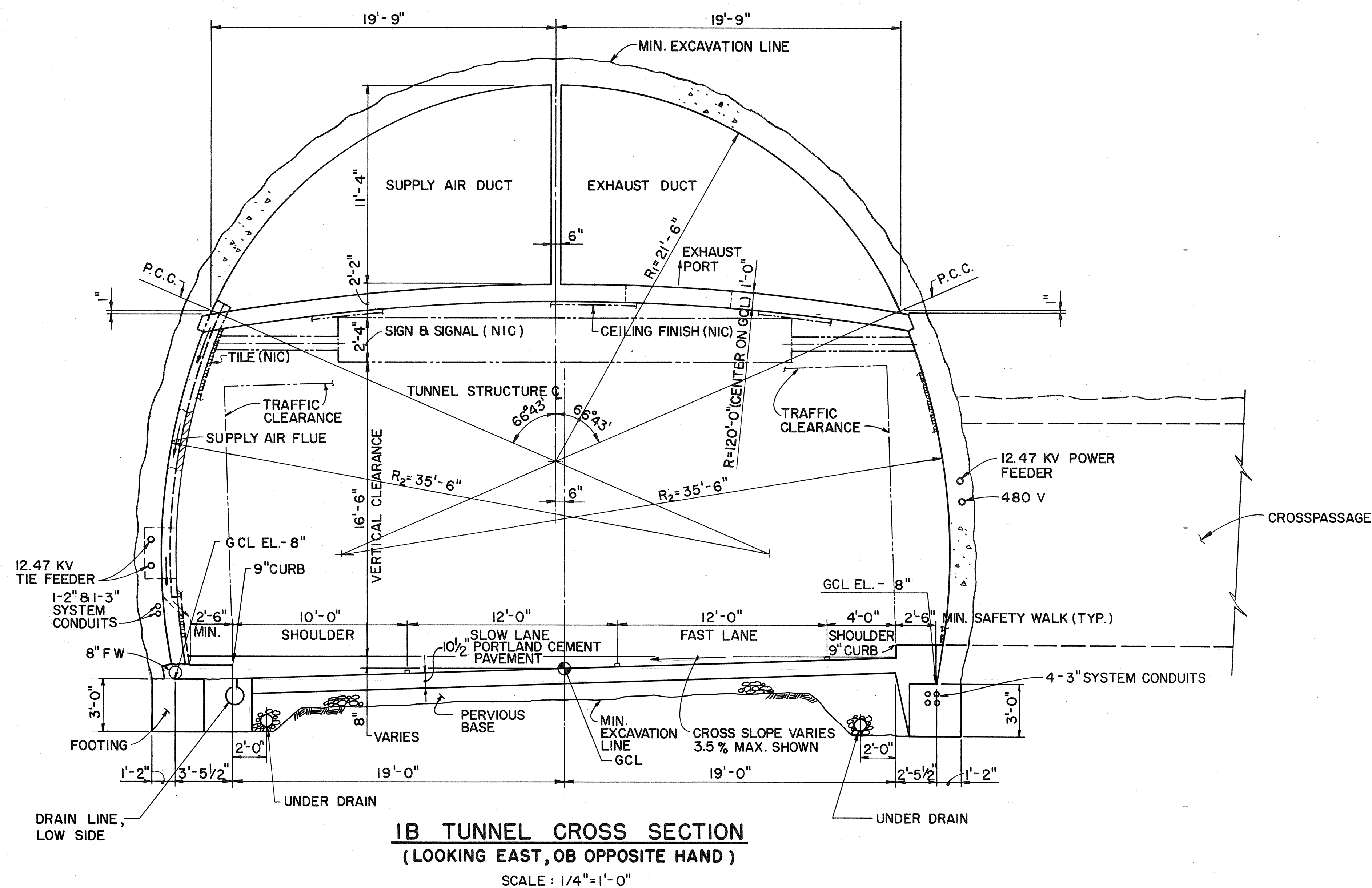
FED. ROAD DIST. NO.	STATE	FED. AID. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H3-1(64)	1990	11	531



TYPICAL CROSS SECTION
(LOOKING EAST)
SCALE : 1/8" = 1'-0"

NOTE:

THIS PLAN SHOWS THE GENERAL ARRANGEMENT OF THE TUNNELS. SEE GEOTECHNICAL, CIVIL, STRUCTURAL ARCHITECTURAL, MECHANICAL AND ELECTRICAL PLANS FOR THE CONSTRUCTION DETAILS.



IB TUNNEL CROSS SECTION
(LOOKING EAST, OB OPPOSITE HAND)
SCALE: 1/4"=1'-0"

DATE	REVISION

STATE OF HAWAII [†]

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

TUNNEL CROSS SECTION

GENERAL

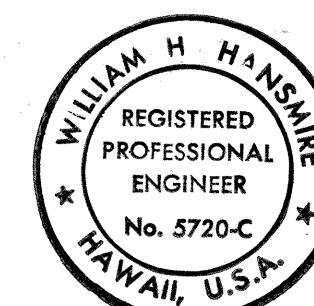
INTERSTATE ROUTE H-3

F.A.I. PROJ. NO. I-H3-1 (64)

SCALE: AS NOTED

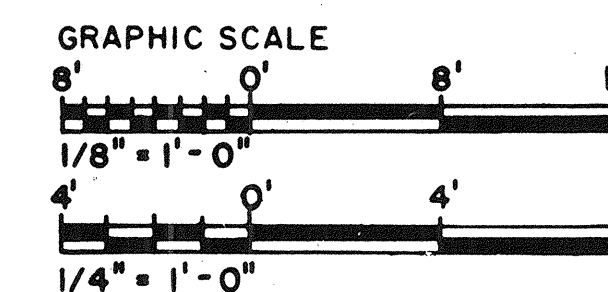
DATE: JUN 1990

SHEET NO. 611 OF 18 SHEETS



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION

William H. Hunsicker

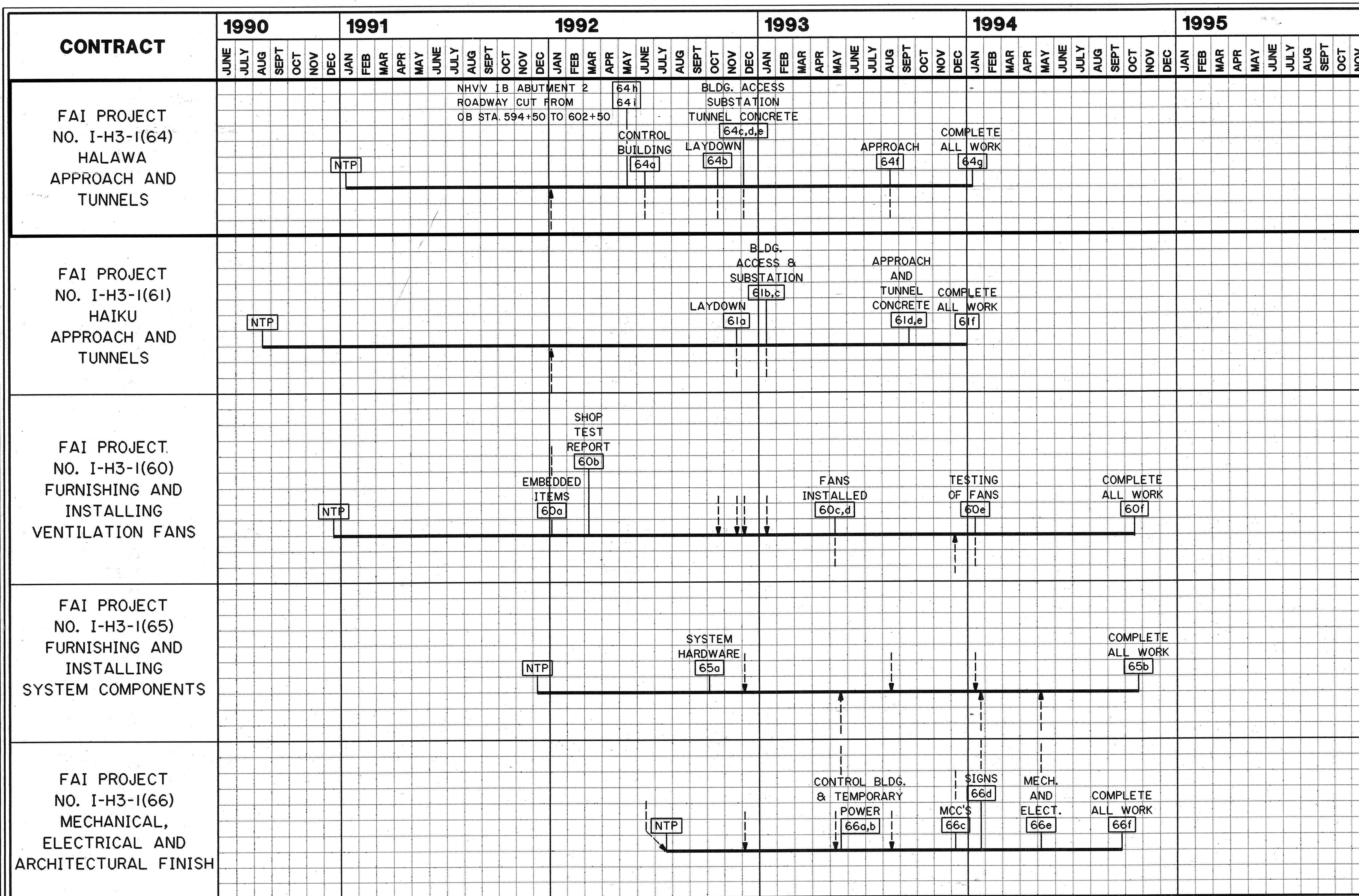


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(64)	1990	12	531

(60) ... : F.A.I. PROJ. NO. (60)

NTP : NOTICE TO PROCEED

61a : ACTIVITY NO.
SEE PROPOSAL FORM

: MILESTONE COMPLETION BY
OTHER PROJECT[illegible]

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MILESTONE SCHEDULE

GENERAL
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(64)

SCALE: NONE DATE: JUN 1990

SHEET NO. 612 OF 18 SHEETS

THIS WORK WAS PREPARED BY
OR UNDER MY SUPERVISION

William H. Hume

NOTICE TO PROCEED

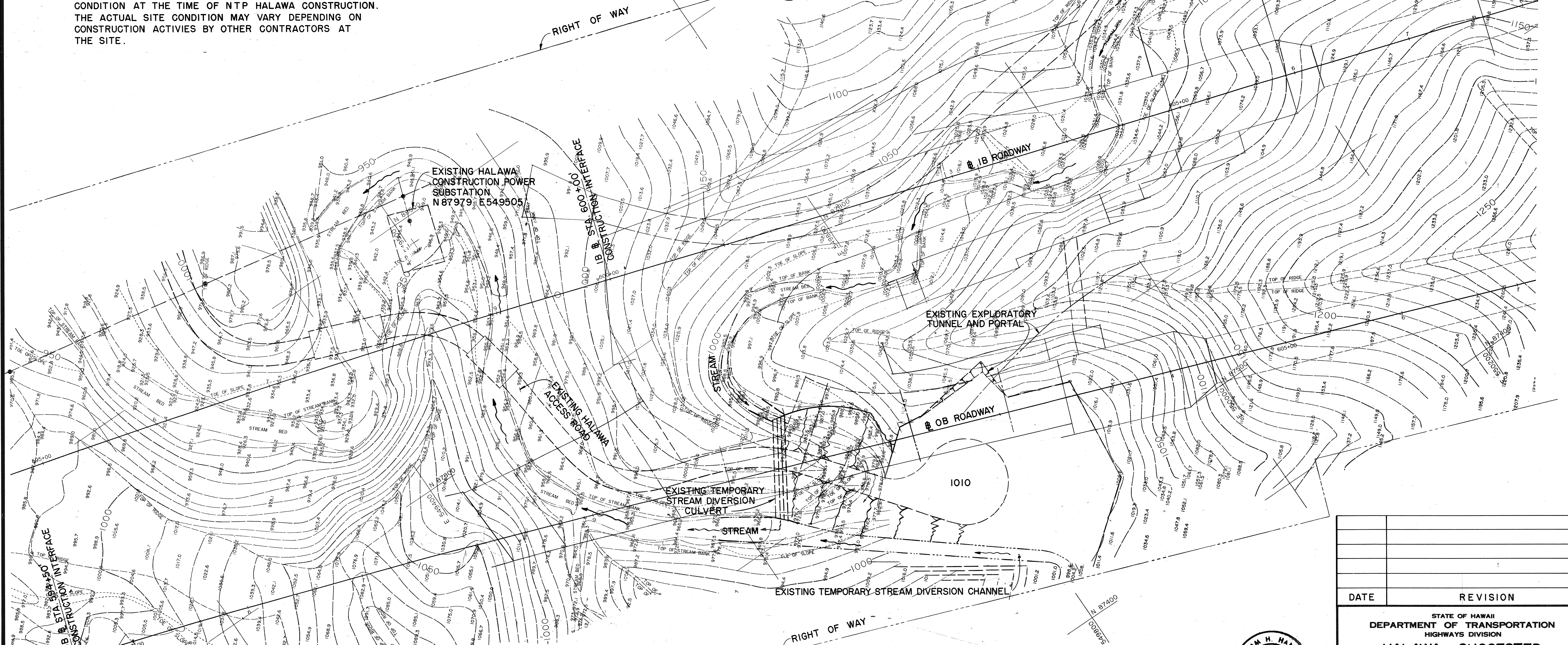
TASKS



NOTICE TO PROCEED --

NOTE :

THIS PLAN DEPICTS THE ANTICIPATED HALAWA SITE
CONDITION AT THE TIME OF NTP HALAWA CONSTRUCTION.
THE ACTUAL SITE CONDITION MAY VARY DEPENDING ON
CONSTRUCTION ACTIVITIES BY OTHER CONTRACTORS AT
THE SITE.



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

HALAWA - SUGGESTED
CONSTRUCTION SEQUENCE — I

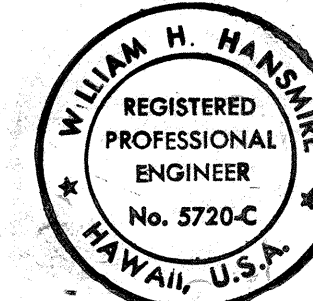
GENERAL

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1 (64):

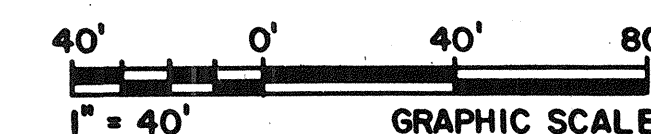
SCALE : 1" = 40' **DATE : JUN 1990**

SHEET NO. 613 OF 18 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	JAN 20
	TRACED BY	
NOTE BOOK	DESIGNED BY	JAN 20
	QUANTITIES BY	
No.	CHECKED BY	MAY 20



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OR UNDER MY SUPERVISION



HALAWA CONSTRUCTION PHASE I

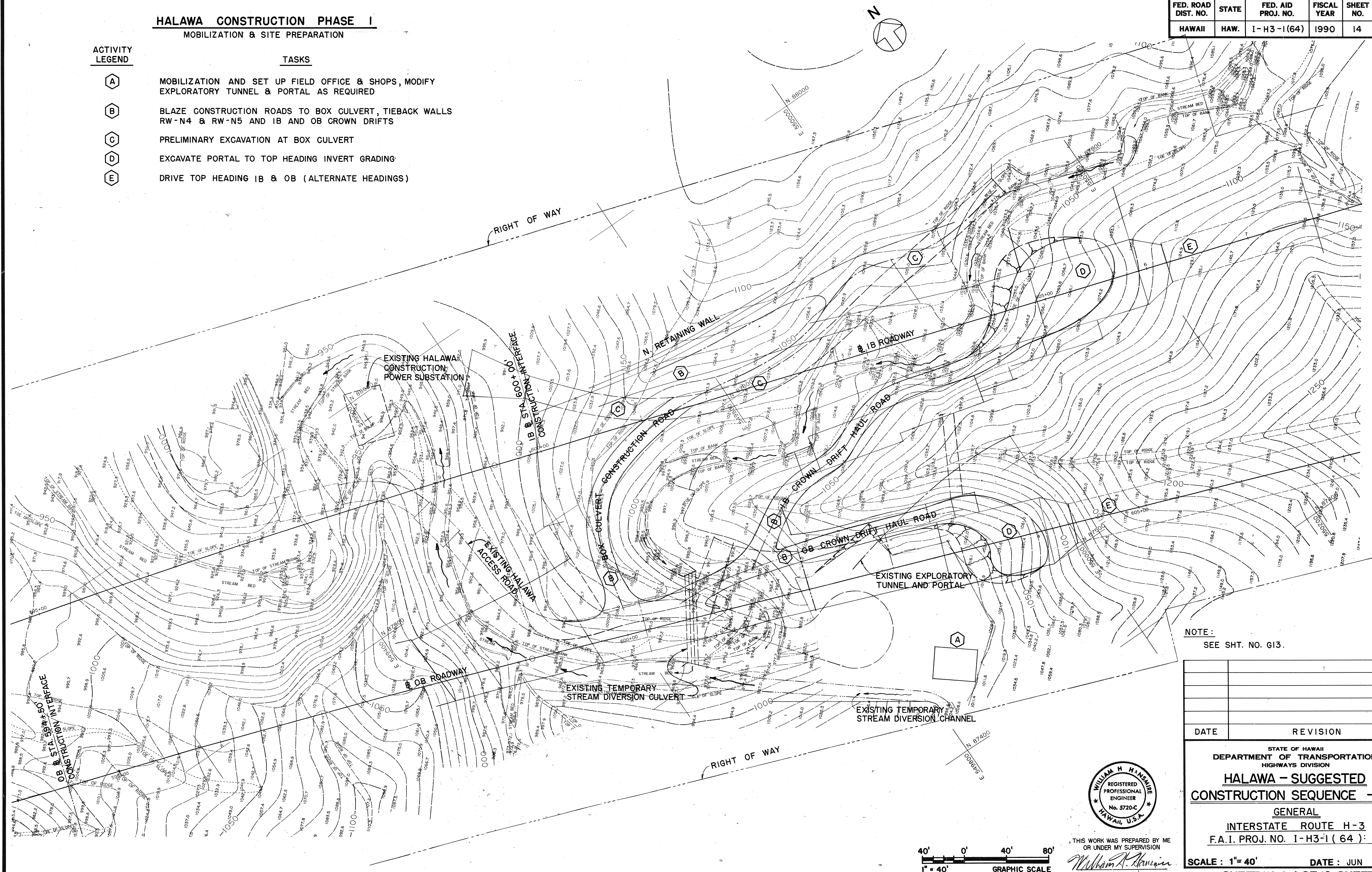
MOBILIZATION & SITE PREPARATION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(64)	1990	14	531

ACTIVITY LEGEND

TASKS

- (A) MOBILIZATION AND SET UP FIELD OFFICE & SHOPS, MODIFY EXPLORATORY TUNNEL & PORTAL AS REQUIRED
- (B) BLAZE CONSTRUCTION ROADS TO BOX CULVERT, TIEBACK WALLS RW-N4 & RW-N5 AND 1B AND 0B CROWN DRIFTS
- (C) PRELIMINARY EXCAVATION AT BOX CULVERT
- (D) EXCAVATE PORTAL TO TOP HEADING INVERT GRADING
- (E) DRIVE TOP HEADING 1B & 0B (ALTERNATE HEADINGS)



NOTE:
SEE SHT. NO. G13.

DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HALAWA - SUGGESTED
CONSTRUCTION SEQUENCE — 2

GENERAL

INTERSTATE ROUTE H-3

F.A.I. PROJ. NO. I-H3-1 (64):

SCALE : 1"= 40' **DATE : JUN 1990**
SHEET NO. 614 OF 18 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE: <u>JAN 92</u>
	DRAWN BY <u>K. CHU</u>	
	TRACED BY _____	
	QUANTITIES BY <u>M. LIN</u>	
	CHECKED BY <u>M. LIN</u>	
INC.		<u>MAY 92</u>

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OR UNDER MY SUPERVISION

William A. Hammer

14

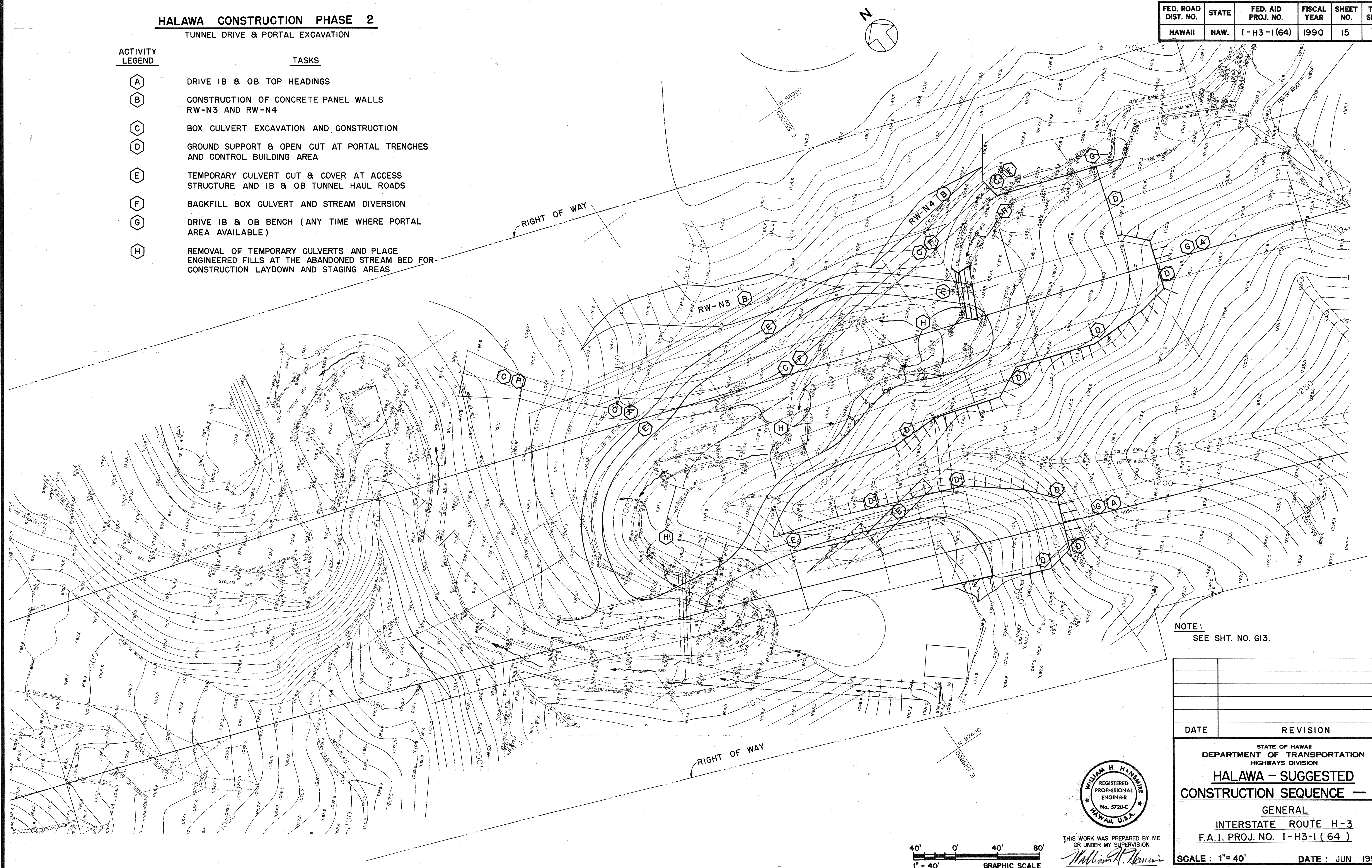
HALAWA CONSTRUCTION PHASE 2 TUNNEL DRIVE & PORTAL EXCAVATION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(64)	1990	15	531

ACTIVITY LEGEND

TASKS

- A** DRIVE IB & OB TOP HEADINGS
- B** CONSTRUCTION OF CONCRETE PANEL WALLS RW-N3 AND RW-N4
- C** BOX CULVERT EXCAVATION AND CONSTRUCTION
- D** GROUND SUPPORT & OPEN CUT AT PORTAL TRENCHES AND CONTROL BUILDING AREA
- E** TEMPORARY CULVERT CUT & COVER AT ACCESS STRUCTURE AND IB & OB TUNNEL HAUL ROADS
- F** BACKFILL BOX CULVERT AND STREAM DIVERSION
- G** DRIVE IB & OB BENCH (ANY TIME WHERE PORTAL AREA AVAILABLE)
- H** REMOVAL OF TEMPORARY CULVERTS AND PLACE ENGINEERED FILLS AT THE ABANDONED STREAM BED FOR CONSTRUCTION LAYDOWN AND STAGING AREAS



NOTE:
SEE SHT. NO. G13.

DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

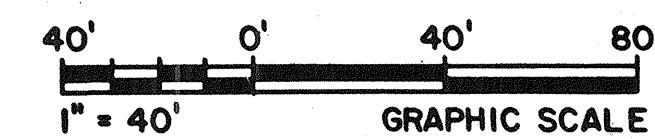
**HALAWA - SUGGESTED
CONSTRUCTION SEQUENCE — 3**

GENERAL
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(64)

SCALE: 1"= 40' DATE: JUN 1990
SHEET NO. G15 OF 18 SHEETS



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William H. Hansme



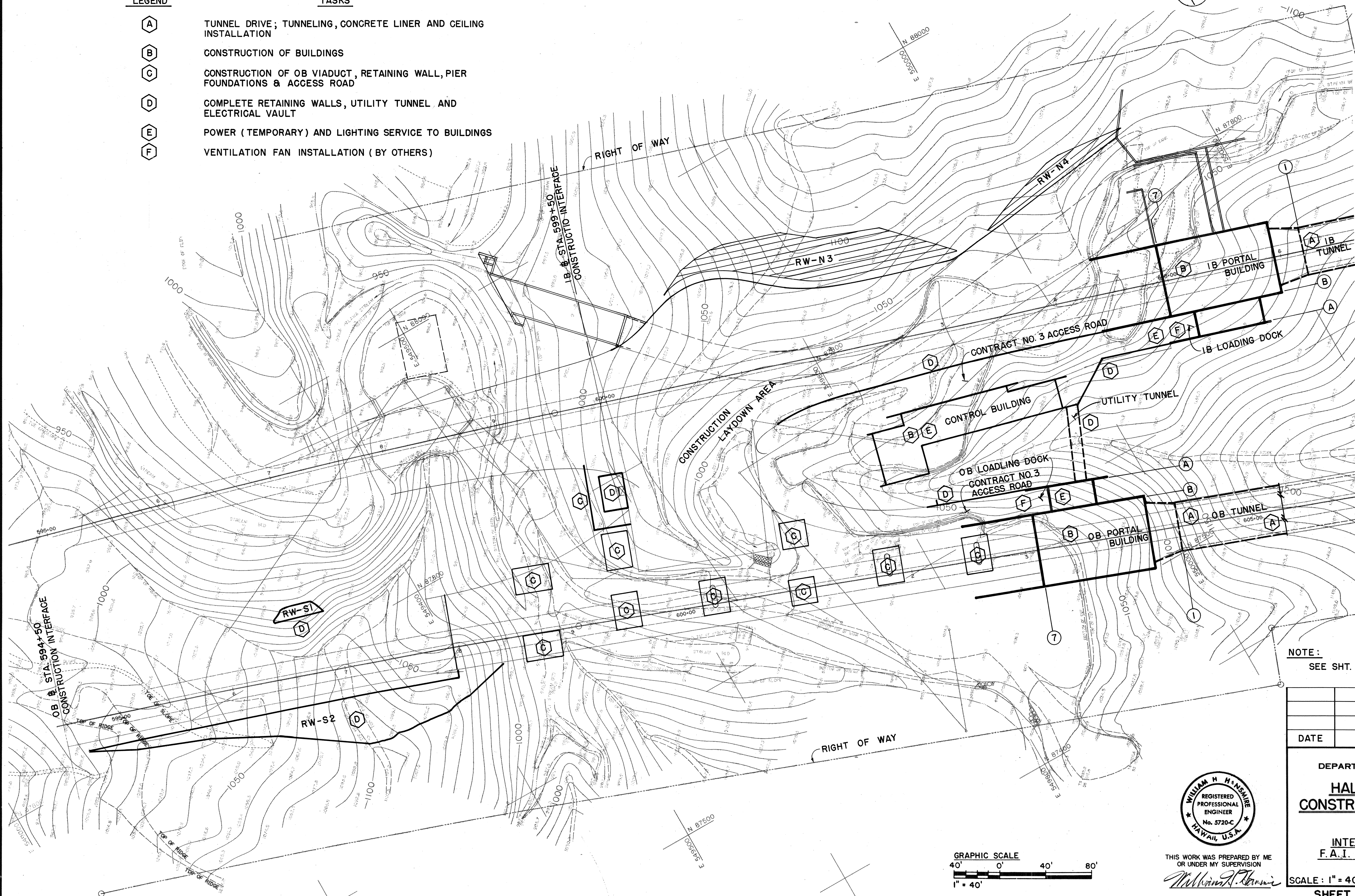
ORIGINAL PLAN	DATE
DRAWN BY: J. L. J.	1/28/90
DESIGNED BY: J. L. J.	1/28/90
CHECKED BY: J. L. J.	1/28/90
NO.	

TUNNEL DRIVE AND BUILDING CONSTRUCTION

ACTIVITY LEGEND

TASKS

- | | |
|-----|--|
| (A) | TUNNEL DRIVE; TUNNELING, CONCRETE LINER AND CEILING INSTALLATION |
| (B) | CONSTRUCTION OF BUILDINGS |
| (C) | CONSTRUCTION OF OB VIADUCT, RETAINING WALL, PIER FOUNDATIONS & ACCESS ROAD |
| (D) | COMPLETE RETAINING WALLS, UTILITY TUNNEL AND ELECTRICAL VAULT |
| (E) | POWER (TEMPORARY) AND LIGHTING SERVICE TO BUILDINGS |
| (F) | VENTILATION FAN INSTALLATION (BY OTHERS) |



NOTE:
SEE SHT. NO. GI3.

DATE	REVISION

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

HALAWA SUGGESTED

CONSTRUCTION SEQUENCE - 4

GENERAL

INTERSTATE ROUTE H-3

F.A.I. PROJ. NO. I-H3-I (64)

SCALE: 1" = 40'

DATE: JUN 1990

SHEET NO. 616 OF 18 SHEETS



A circular professional engineer seal. The outer ring contains the text "WILLIAM H HENSMIRE" at the top and "HAWAII, U.S.A." at the bottom, separated by two stars. The inner circle contains the text "REGISTERED PROFESSIONAL ENGINEER" and "No. 5720-C".

THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION

William L. Hornsby

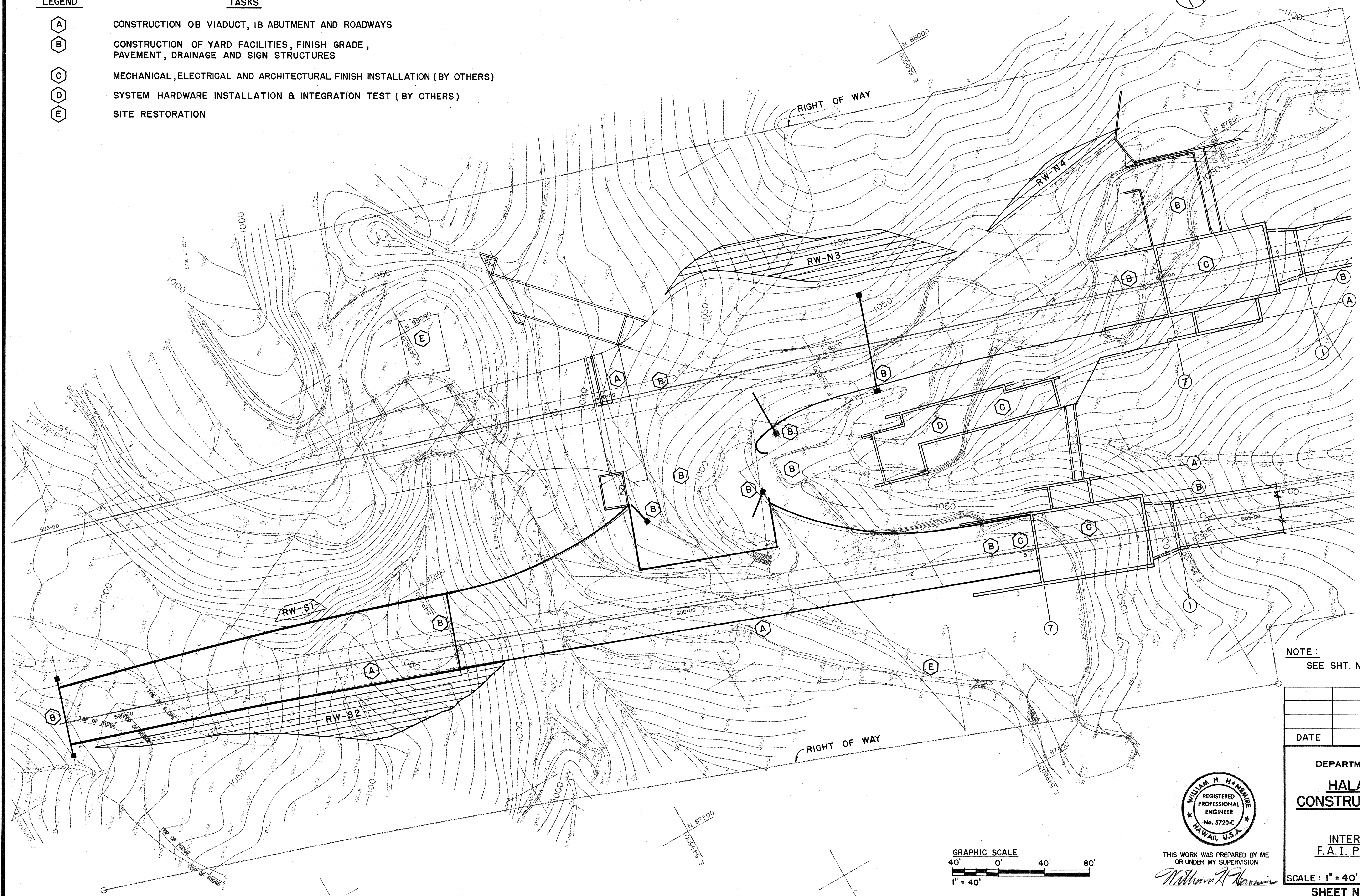
HALAWA CONSTRUCTION PHASE 4 FINISH & SITE RESTORATION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(64)	1990	17	531

ACTIVITY LEGEND

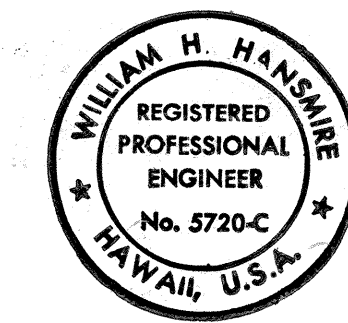
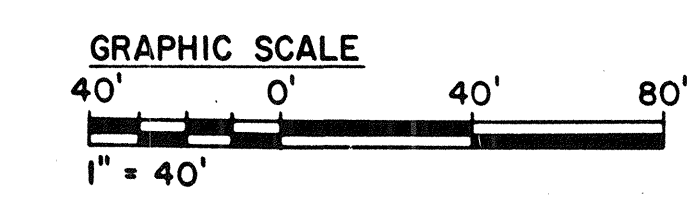
TASKS

- (A) CONSTRUCTION OF VIADUCT, ABUTMENT AND ROADWAYS
- (B) CONSTRUCTION OF YARD FACILITIES, FINISH GRADE, PAVEMENT, DRAINAGE AND SIGN STRUCTURES
- (C) MECHANICAL, ELECTRICAL AND ARCHITECTURAL FINISH INSTALLATION (BY OTHERS)
- (D) SYSTEM HARDWARE INSTALLATION & INTEGRATION TEST (BY OTHERS)
- (E) SITE RESTORATION



NOTE:
SEE SHT. NO. G13.

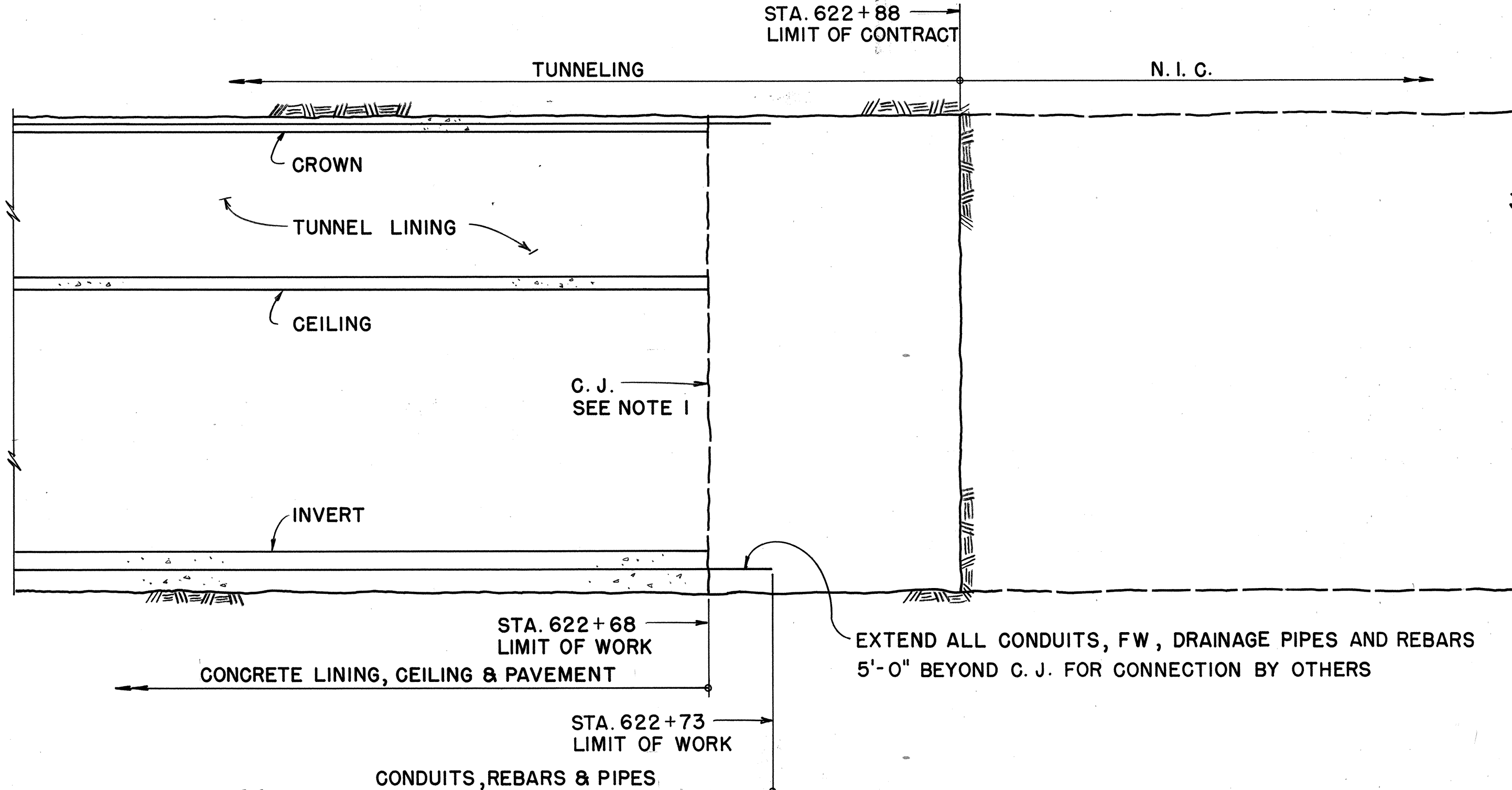
ORIGINAL PLAN	DATE
DRAWN BY	JAN 90
DESIGNED BY	JAN 90
QUANTITIES BY	JAN 90
CHECKED BY	MAY 92



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION
William H. Hansme

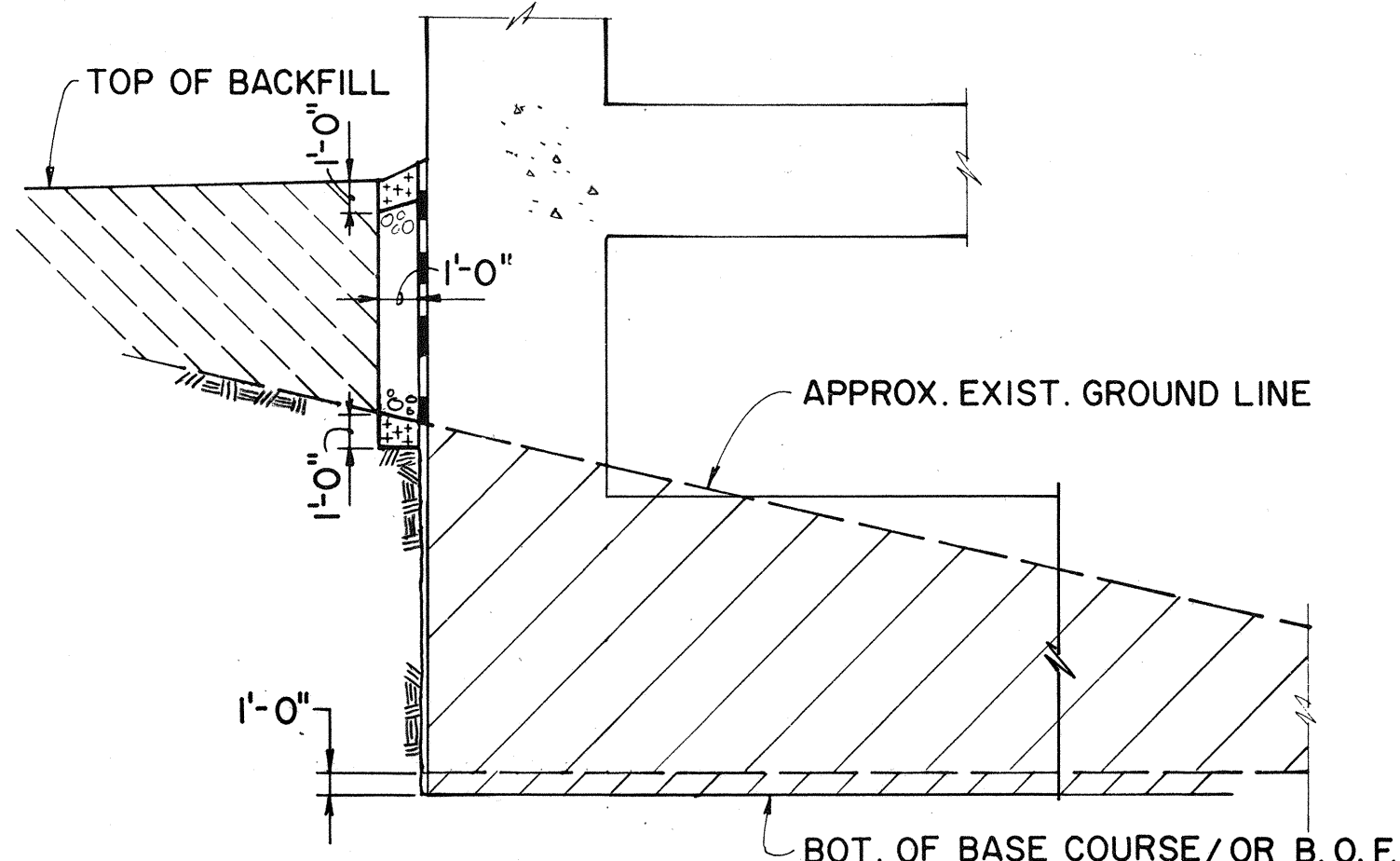
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION HALAWA SUGGESTED CONSTRUCTION SEQUENCE - 5 GENERAL INTERSTATE ROUTE H-3 F.A.I. PROJ. NO. I-H3-1(64) SCALE: 1" = 40' DATE: JUN 1990 SHEET NO. G17 OF 18 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(64)	1990	18	531

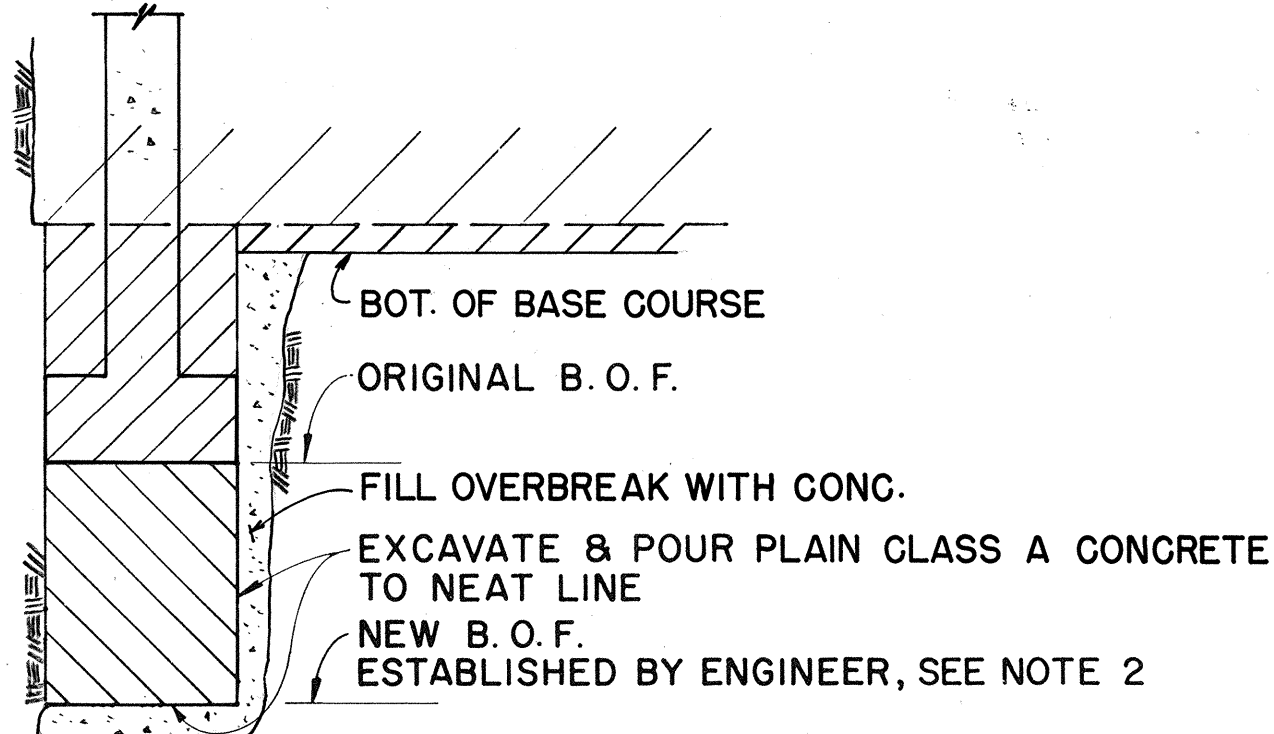


SECTION
(CONTRACT LIMIT)

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



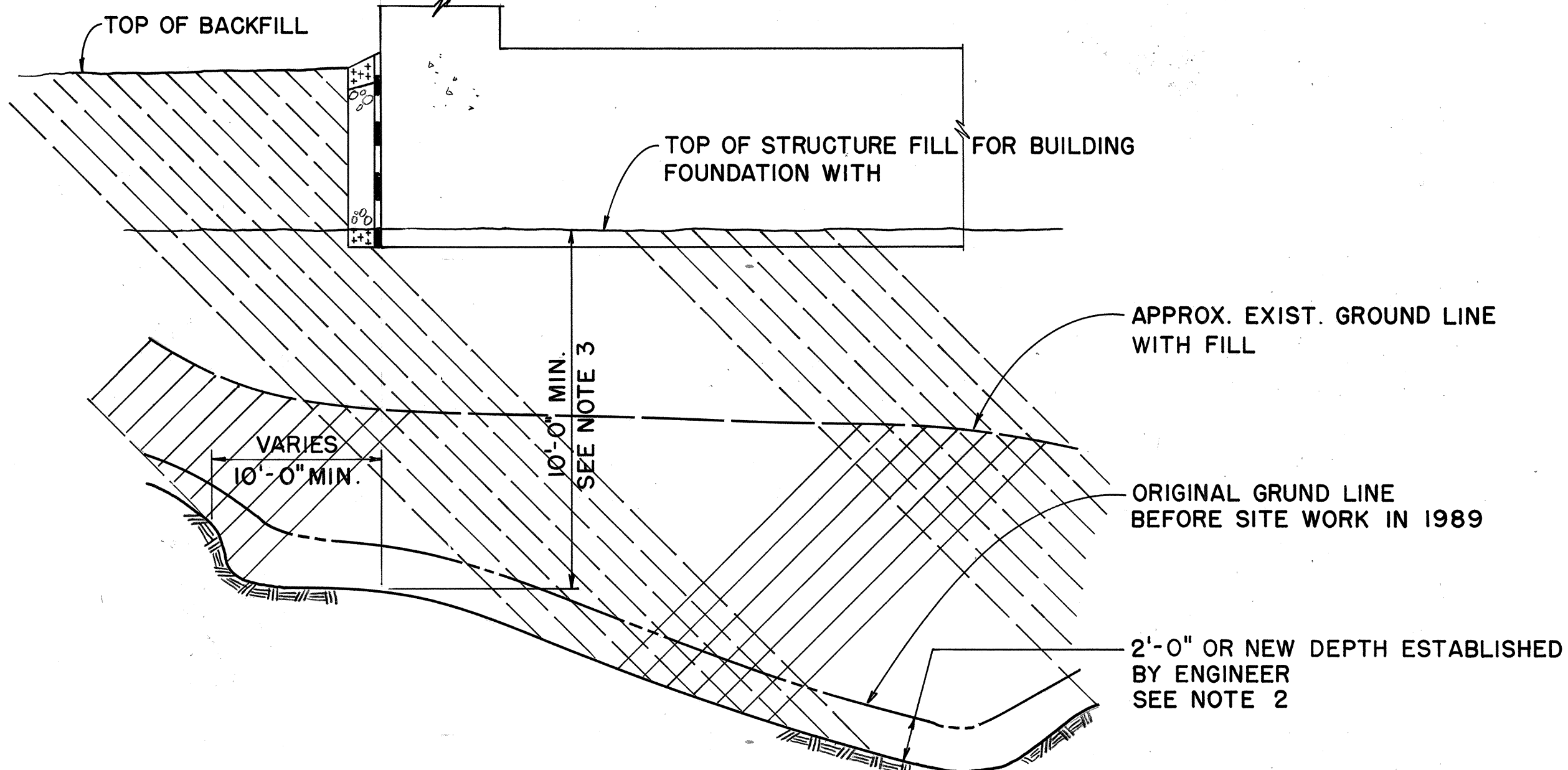
AT PORTAL BUILDING FOUNDATION ON CUT



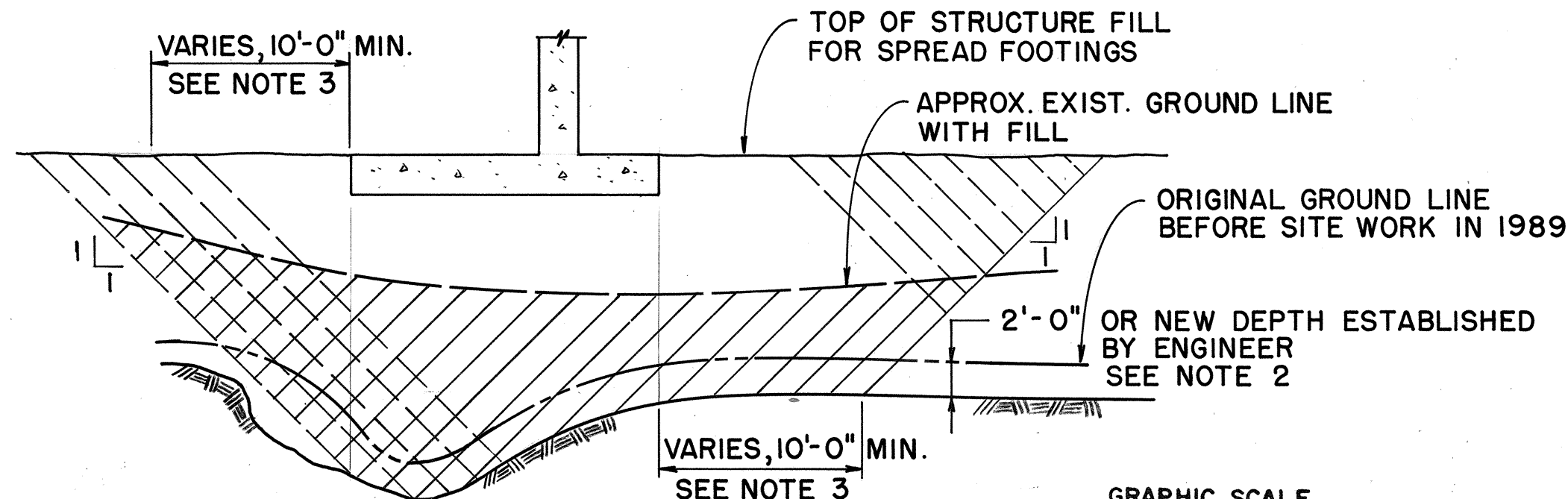
AT SPREAD FOOTING ON CUT
WITH OVEREXCAVATION AS DIRECTED BY ENGINEER

EXCAVATION AND BACKFILL PAY LIMITS

NOTE : PAY LIMITS SHOWN ARE IN ADDITION TO THOSE ON STANDARD PLAN B-03



AT PORTAL BUILDING FOUNDATION ON STRUCTURE FILL



AT SPREAD FOOTING ON STRUCTURE FILL

GRAPHIC SCALE
8' 0' 8' 16'
1/8" = 1' - 0"

- NOTES:

1. PLACE C.C. AT EDGE OF NEXT TO LAST SUPPLY FLUE WITH BLOCKOUTS FOR INSTALLATION OF ONE ADDITIONAL SUPPLY FLUE AND WALL OPENINGS BY OTHERS, SEE SHEET NO. ST10, SECTIONS C & D.
2. NEW B.O.F. TO BE ESTABLISHED BY GEOTECHNICAL TESTING IN ACCORDANCE WITH THE SPECIFICATION.
3. THE DEPTH OF THE STRUCTURE FILL BELOW THE BUILDING FOUNDATION SHALL BE UNIFORM ALONG THE WIDTH PERPENDICULAR TO GCL, OTHERWISE 10'-0" MIN. STRUCTURE FILL SHALL BE PROVIDED BELOW THE FOUNDATION FOR A COMPATIBLE SETTLEMENT ACROSS THE WIDTH OF THE FOUNDATION. THE STRUCTURE FILL SHALL COMPLY WITH MATERIAL SELECTION AND COMPACTION REQUIREMENTS OF THE SPECIFICATION.

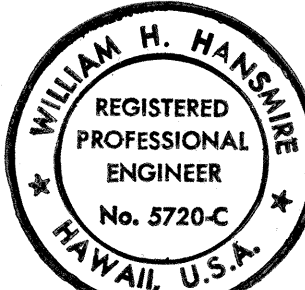
[illegible]

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONTRACT AND PAY LIMITS

GENERAL
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1 (64)

SCALE: AS NOTED DATE: JUN 1990
SHEET NO. 618 OF 18 SHEETS



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION

William T. Harmsen

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	JAN 90
	TRACED BY	
NOTE BOOK	DESIGNED BY	JAN 90
	QUANTITIES BY	
No.	CHECKED BY	MAY 90