

1. GUARD RAIL TYPE 3 SINGLE CONNECTION TO
STRUCTURE OR RETAINING WALL FOR DETAIL SEE SHT. 133.

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

	D-1	D-2	D-3	W-4
△	41°57'00"	40°17'00"	41°57'00"	73°21'00"
✓ ₂	20°58'30"	2°08'30"	20°58'30"	30°40'30"
R	350.00	2000.00	315.18	10.00
T	134.18	74.70	120.83	7.45
Ch	250.57	144.48	225.84	11.95
LC	256.26	140.52	230.76	2.80

SCALE: 1" = 20'

26.0 FINISH PAVEMENT ELEV.

TOP OF SLOPE

BOTTOM OF SLOPE

- RIGHT-OF-WAY

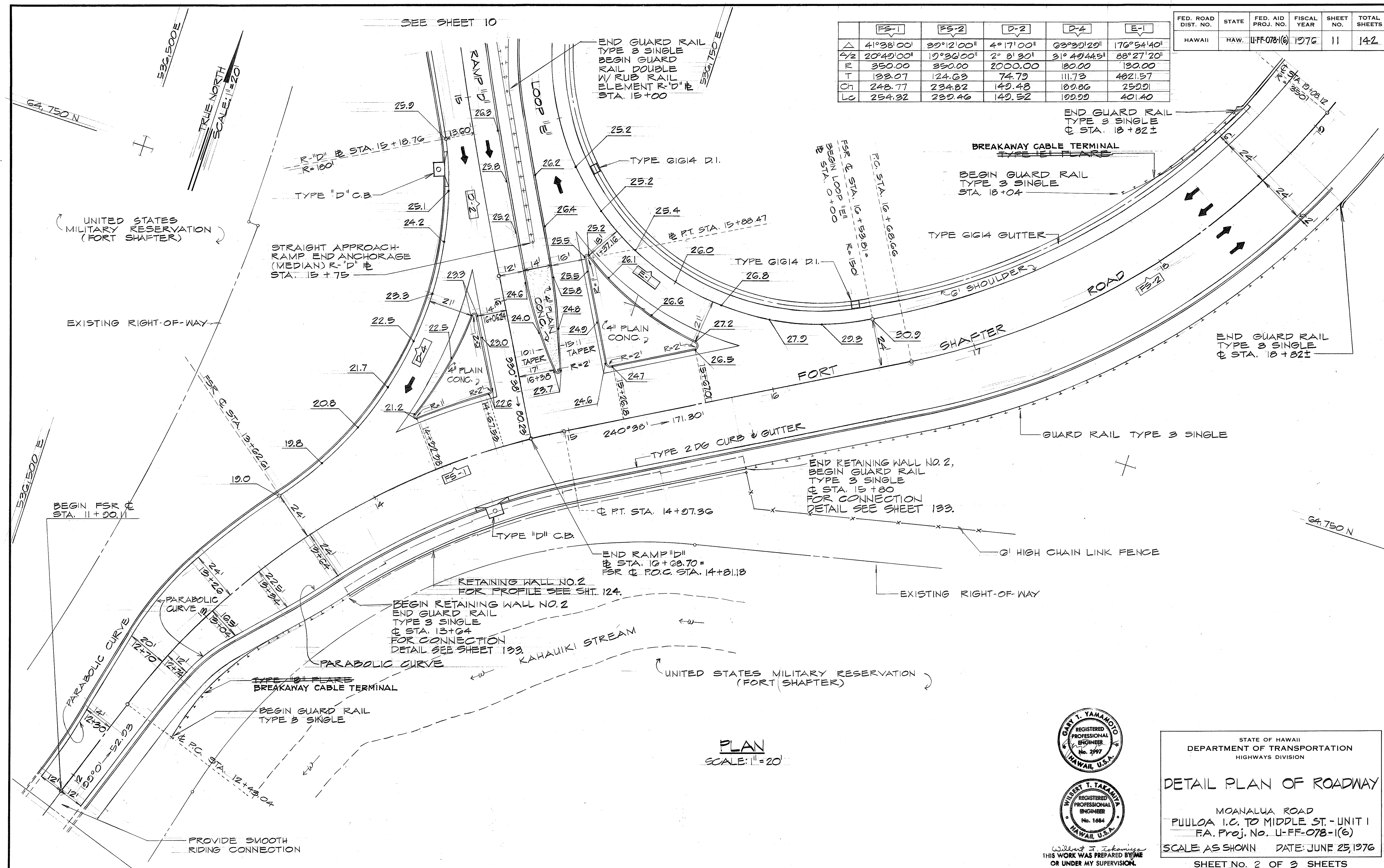


WILLIAM T. TAKAMIC
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SHEET No. 1 OF 3 SHEETS

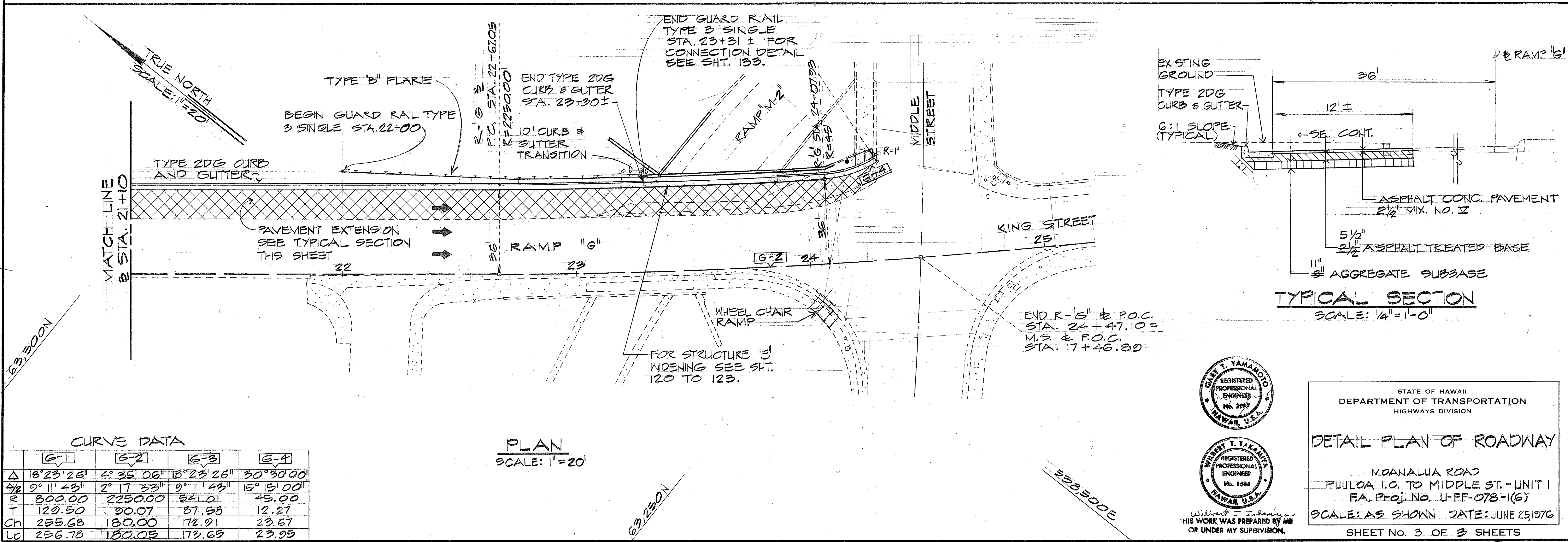
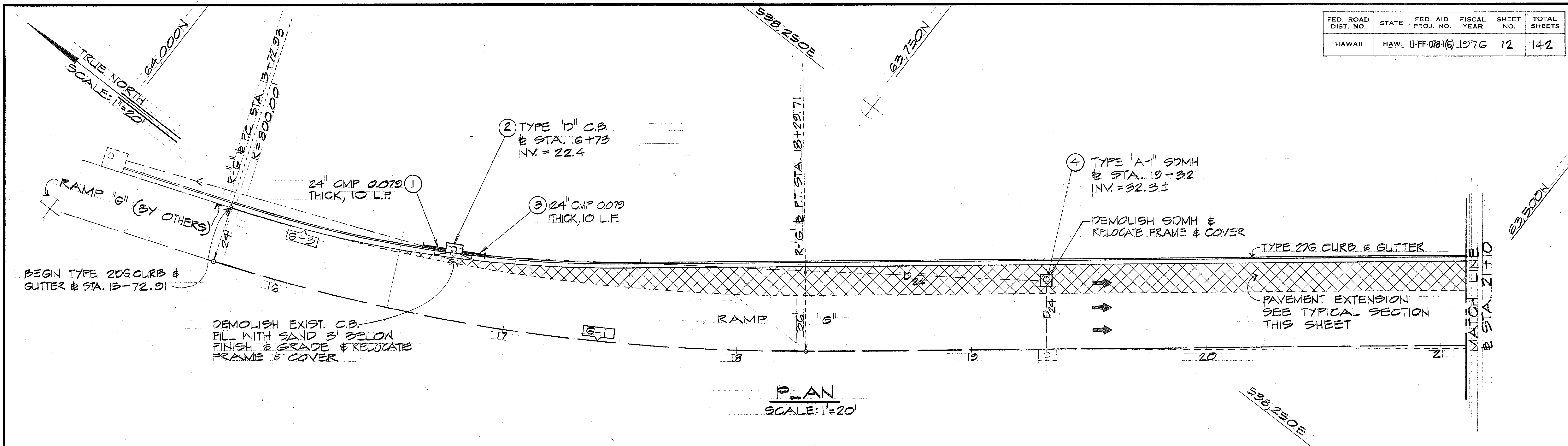
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEET
HAWAII	HAW.	LI-FF-078-1(6)	1976	11	142

	FS-1	FS-2	D-2	D-4	E-1
△	41°38'00"	32°12'00"	4°17'00"	Q33°21'20"	176°54'40"
4/2	20°42'00"	12°36'00"	2°8'30"	31°42'44.5"	88°27'20"
R	350.00	350.00	200.00	180.00	180.00
T	132.07	124.63	74.73	111.73	4821.57
Ch	248.77	234.82	149.48	182.68	252.91
Lc	254.32	232.46	149.52	182.22	401.40



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

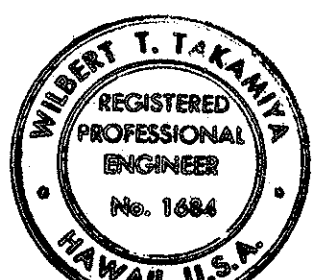
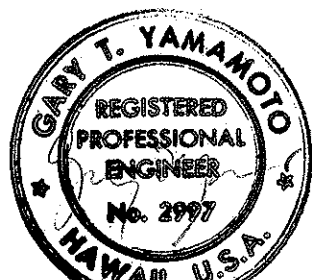
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-FF-078-1(6)	1976	12	142



CURVE DATA

	G-1	G-2	G-3	G-4
Δ	18°23'26"	4°35'06"	18°23'26"	30°30'00"
4/2	9°11'43"	2°17'33"	9°11'43"	15°15'00"
R	800.00	2250.00	341.01	45.00
T	129.50	20.07	87.58	12.27
Ch	255.68	180.00	172.91	23.67
Lc	256.78	180.05	173.65	23.95

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



Willbert T. Takamika
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAIL PLAN OF ROADWAY

MOANALUA ROAD
PUULOA I.C. TO MIDDLE ST. - UNIT 1
FA. Proj. No. U-FF-078-1(6)

SCALE: AS SHOWN DATE: JUNE 25, 1976

SHEET No. 3 OF 3 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-FF-078-1(G)	1976	CO.12 S-1	142

UNITED STATES MILITARY RESERVATION (FORT SHAFTER)

CURVE DATA

	K.S.-G	K.S.-M	K.S.-N	F.S.-4	F.S.-A	F.S.-B
Δ	16°29'00"	76°23'47"	84°05'20"	28°54'00"	35°26'00"	30°00'00"
Δ/2	8°14'30"	38°11'53.5"	42°02'40"	14°27'00"	17°43'00"	15°00'00"
R	1000.00	50.00	62.00	450.00	70.00	15.00
T	144.84	39.34	55.31	115.96	76.97	15.00
Ch	286.70	61.84	83.04	224.58	103.58	21.21
LC	287.69	66.67	90.93	226.98	110.53	23.56

NOTE:

- 2-0 PLANTER STRIP.
1. RELOCATE ALL SHRUBS IN FRONT OF EXIST. WALL INTO PLANTER STRIP.
2. RELOCATE ARECA PALMS IN BACK OF NEW WALL. EXACT LOCATION TO BE DETERMINED BY THE ENGINEER.
3. PLANT 18 CREEPING FIGS (1 GAL. SIZE, 2'-0" LONG) EQUALLY SPACED IN PLANTER STRIP.

GENERAL NOTES:

- CONNECTOR TO ADJUST EXISTING SPRINKLER SYSTEM AS NECESSARY.
- REFER TO HECO GENERAL NOTES 14 & 15 (CONTACT J. AYRES OF HECO PH. 842-9123).
- CONTRACTOR SHALL NOTIFY HECO (10) TEN WORKING DAYS PRIOR TO START OF CONSTRUCTION. (CONTACT H. OBATA OR S. INAMURA OF HECO PH. 548-3562)

TRUE NORTH
SCALE: 1"=20'

PROVIDE SMOOTH RIDING CONNECTION

PAVEMENT TRANSITION CONFORM TO EXISTING I.O.L.F.

REMOVE EXISTING ISLAND PAVEMENT AND PAVE TO CONFORM

INSTALL 2" COPPER LATERAL 77 L.F. 20' MIN. COVER FOR SPRINKLER SYSTEM PLUG BOTH ENDS

TEMPORARY CURB & GUTTER CONFORM TO EXIST. (10 L.F.)

SAW CUT CONC. GUTTER TO BE REMOVED

TYPE "C" C.B.

ROCK GARDEN TO BE RELOCATED

EXISTING GUARD HOUSE TO BE DEMOLISHED (ALL SALVAGED MATERIAL WILL COME UNDER CONTRACTOR'S OWNERSHIP.)

FOR SENTRYHOUSE DETAIL SEE SHT. CO.12 S-3

ARTILLERY SHELLS TO BE RELOCATED

APPROVED:

J. Karimoto
HAWAIIAN ELECTRIC CO., INC. 10-26-77
DATE

S. Yamahira
HAWAIIAN TELEPHONE CO. 10-20-77
DATE

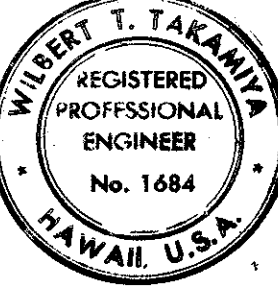
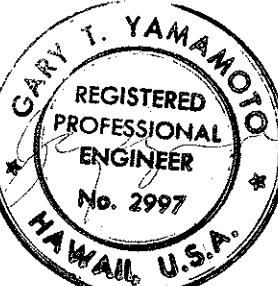
CUT & ABANDON EXIST. GUY ANCHOR. FURNISH AND INSTALL NEW TEMPORARY GUY POLE W/ ANCHOR PER HECO REQ. MT. GUYING TO BE DONE BY HECO & HECO.

PORTABLE CONC. BARRIER TERMINAL PANEL

CURB TYPE G 60 L.F.

PROVIDE SMOOTH CONNECTION

PLAN
SCALE: 1"=20'



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAIL PLAN OF ROADWAY

MOANALUA ROAD
PUULOA I.C. TO MIDDLE ST. - UNIT 1
F.A. Proj. No. U-FF-078-1(G)

SCALE: AS SHOWN DATE: 2/2/78
SHEET NO. OF SHEETS

CO.12 S-1

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

PAVEMENT ELEVATION

SCALE: 1"=20'

NOTE:
ELEVATION SHOWN ARE ULTIMATE FINISH ELEVATION. CONTRACTOR TO MINUS 1/4" (LAST LIFT OF A.C. PAVEMENT TO BE CONSTRUCTED BY OTHERS).

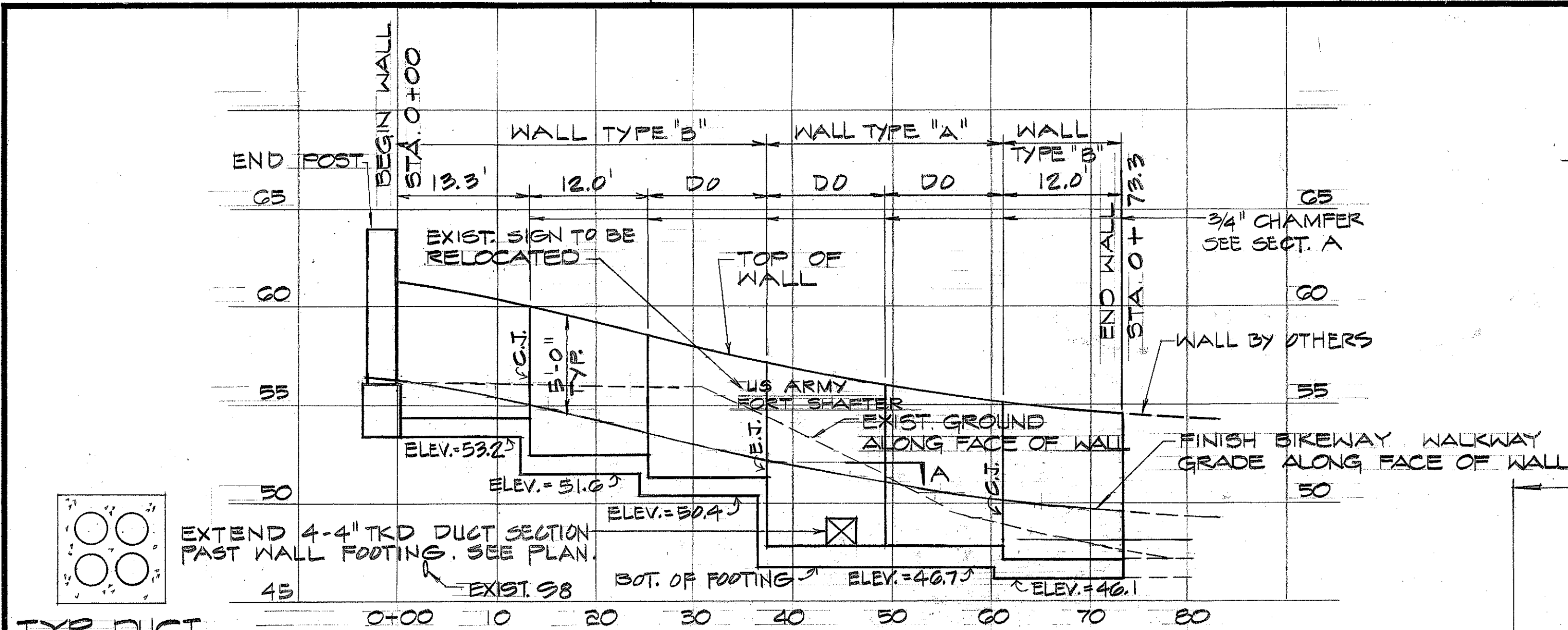
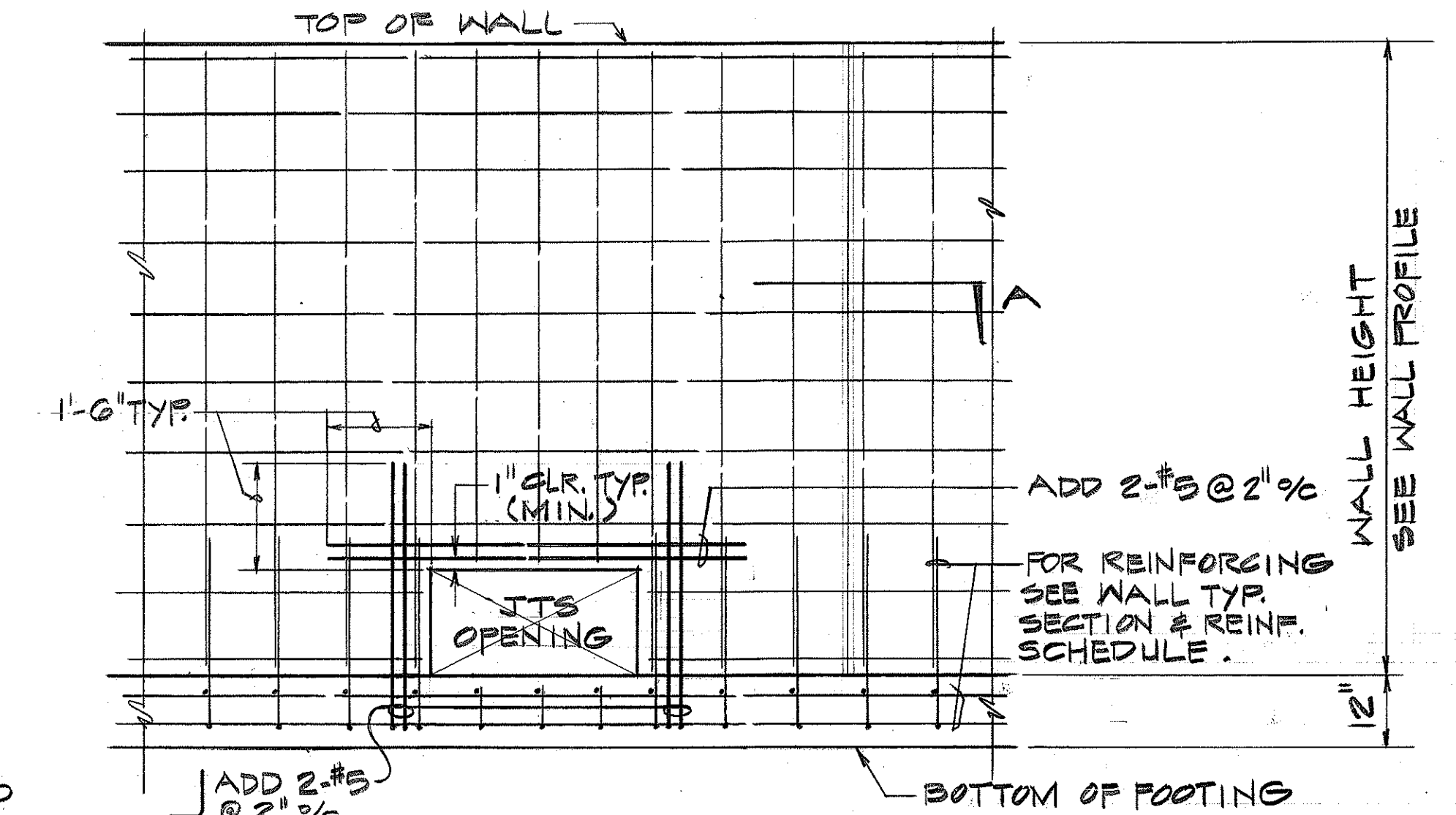
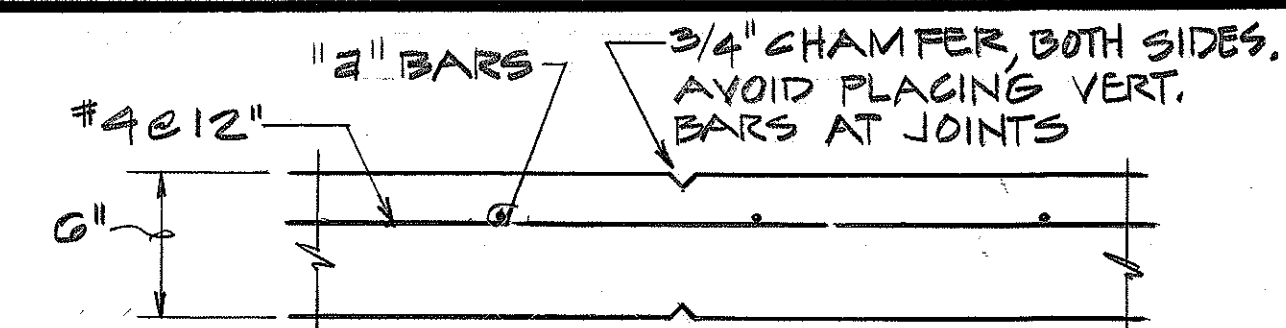
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-FF-078-1(6)	1976	601252	142

WALL TYPE	"A"	"B"
L	4'-0"	3'-0"
"2" BAR	#5@8"	#4@12"

REINFORCING SCHEDULE

NOTE:

BACKFILL FRONT OF WALL BEFORE
BACKFILLING BACK OF WALL OR
BACKFILL FRONT & BACK OF WALL
SIMULTANEOUSLY.



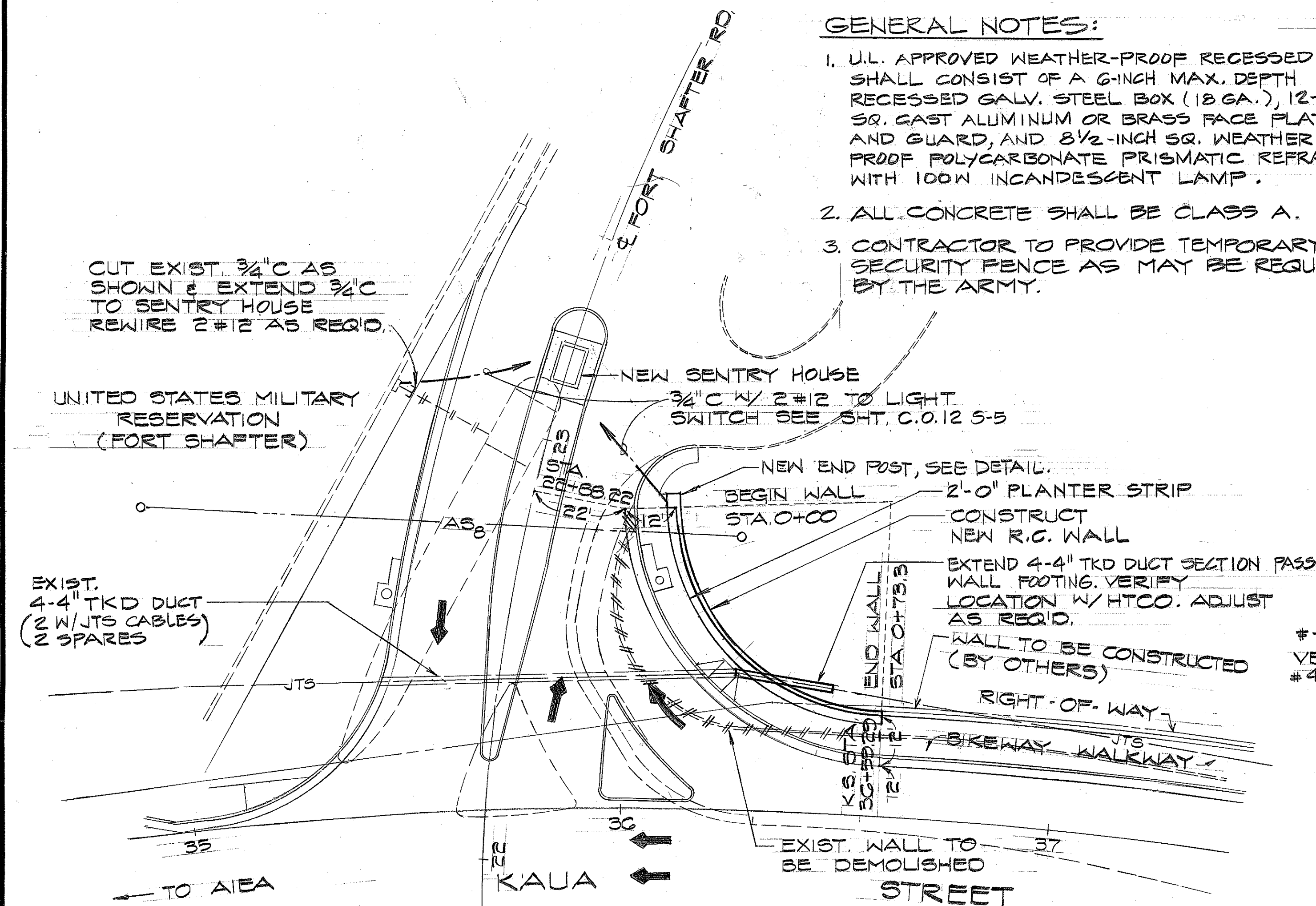
TYP. DUCT
SECTION
NO SCALE

WALL PROFILE

SCALES:
HORIZ: 1" = 10'
VERT: 1" = 5'

GENERAL NOTES:

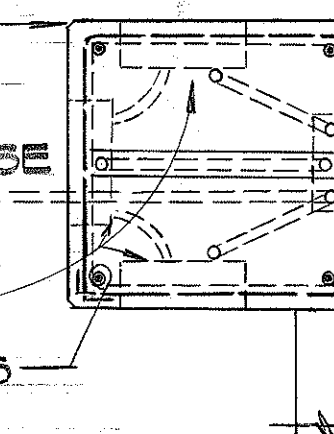
1. U.L. APPROVED WEATHER-PROOF RECESSED UNIT SHALL CONSIST OF A 6-INCH MAX. DEPTH RECESSED GALV. STEEL BOX (18 GA.), 12-INCH SQ. CAST ALUMINUM OR BRASS FACE PLATE AND GUARD, AND 8 1/2-INCH SQ. WEATHER-PROOF POLYCARBONATE PRISMATIC REFRACTOR WITH 100W INCANDESCENT LAMP.
2. ALL CONCRETE SHALL BE CLASS A.
3. CONTRACTOR TO PROVIDE TEMPORARY SECURITY FENCE AS MAY BE REQUIRED BY THE ARMY.



TO SENTRY HOUSE

RECESSED UNIT
FOR LIGHTS —

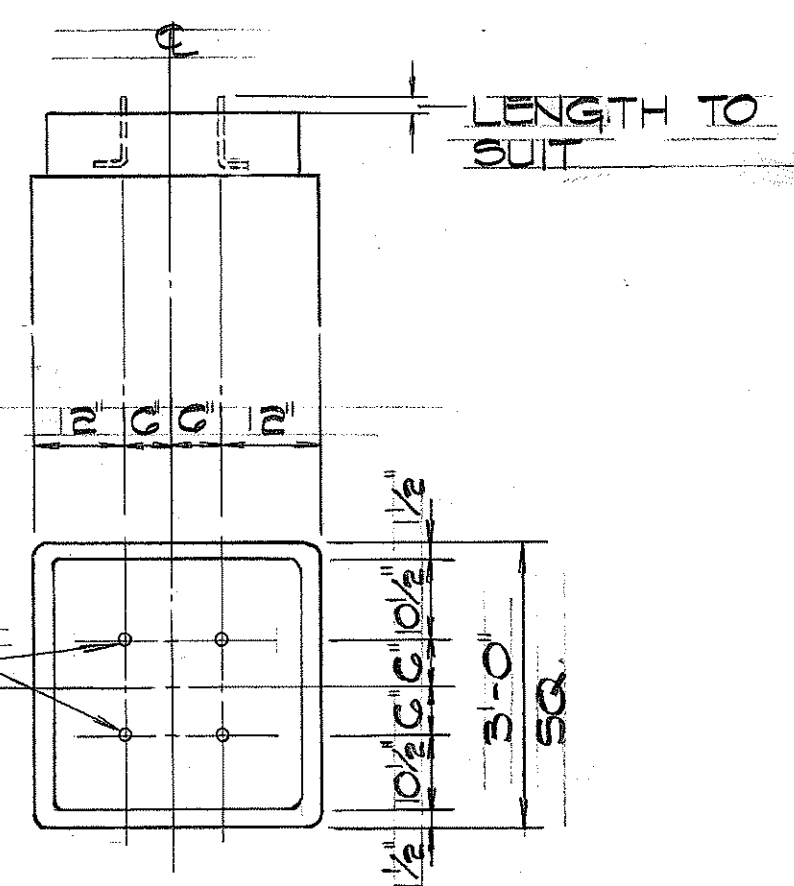
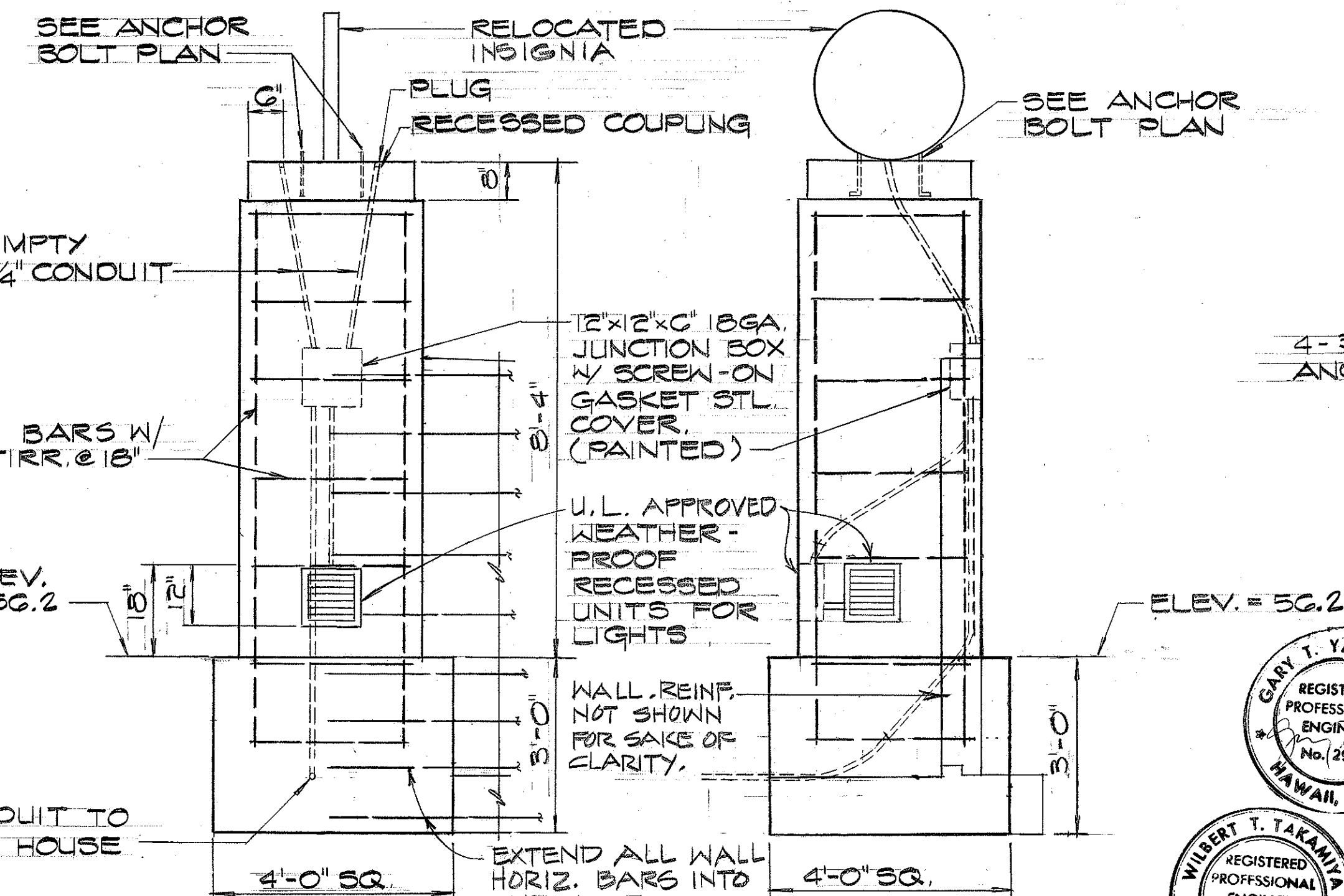
4 - # 7 VERT. BARS



—JUNCTION BOX

4 # 4 @ 18" O.C.

CHAMFER ABOVE
WALL ONLY



ANCHOR BOLT PLAN
FOR INSIGNIA
SCALE: $\frac{1}{2}" = 1'-0"$

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

R.C. WALL & END POST
AT FORT SHAFTER GATE

MOANALUA ROAD
PUULOA I.C. TO MIDDLE ST. - UNIT I
F.A. Proj. No. U-FF-076-1(G)

SHEET No. | OF | SHEETS

C.O.12 S-2

APPROVED BY :

HAWAIIAN TELEPHONE CO.

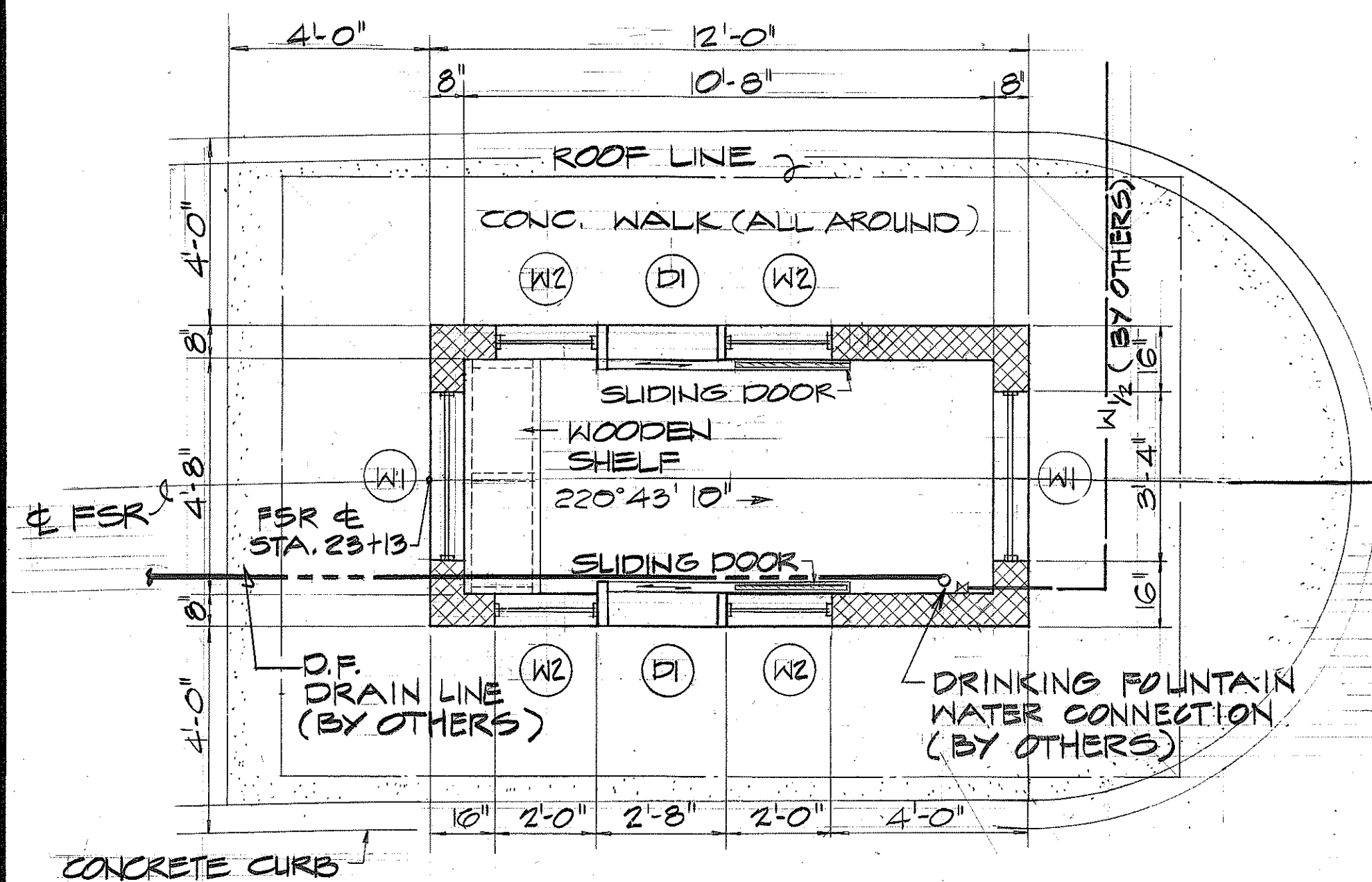
2-1-78
DATE

ELEVATIONS
END POST DETAIL

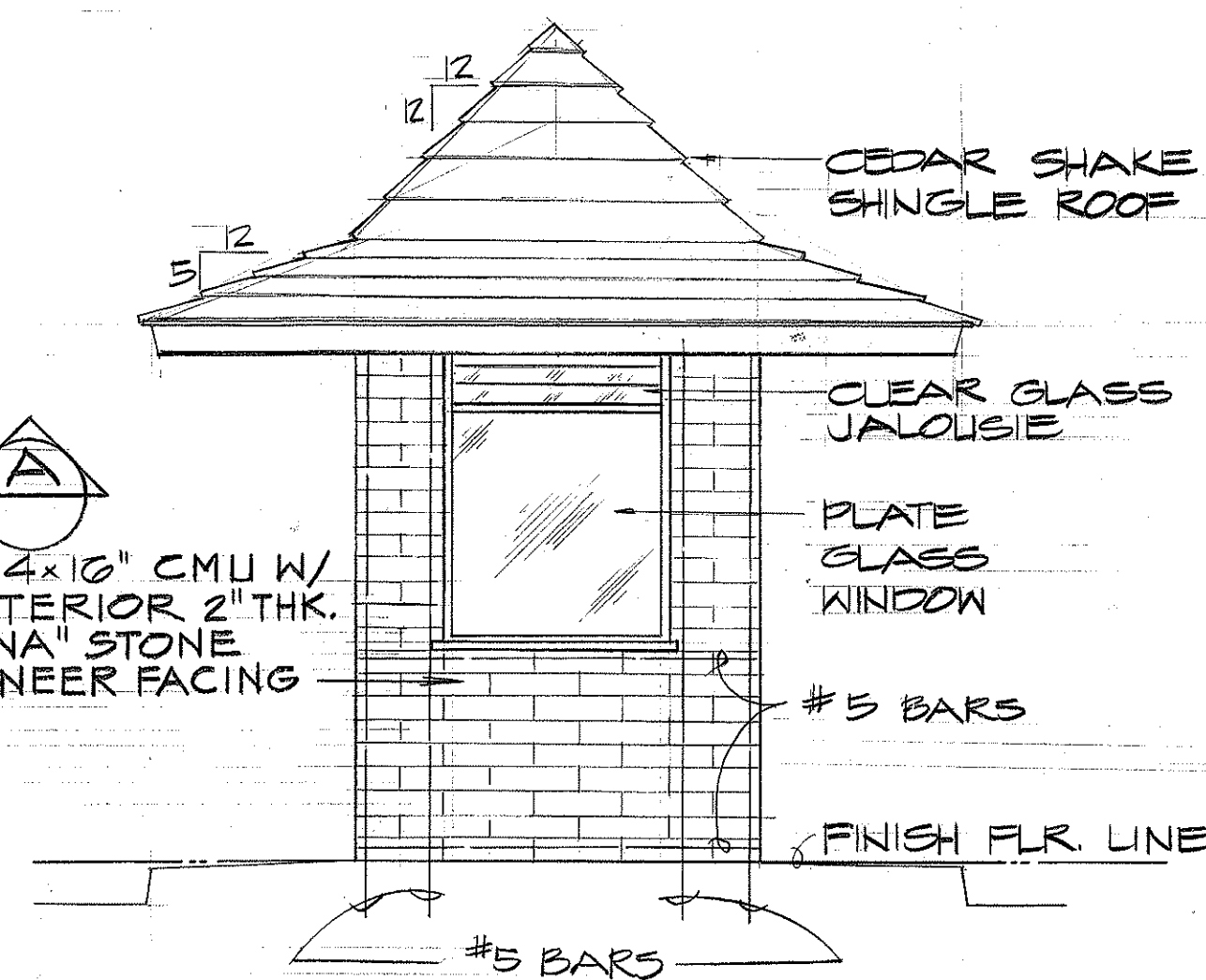


WILBERT T. TAKEMIZU
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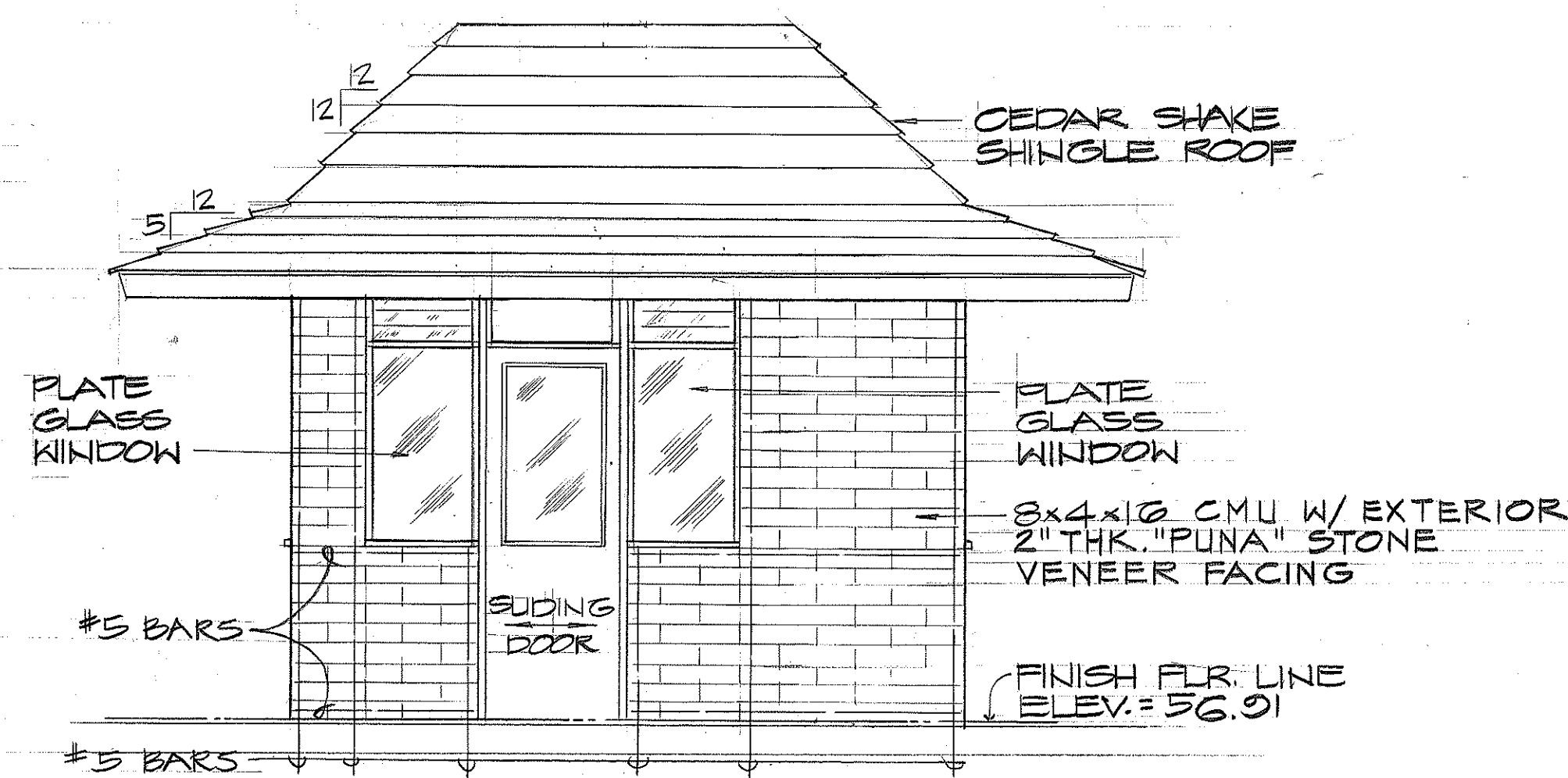
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-FF-078-1(6)	1976	C01253	142



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

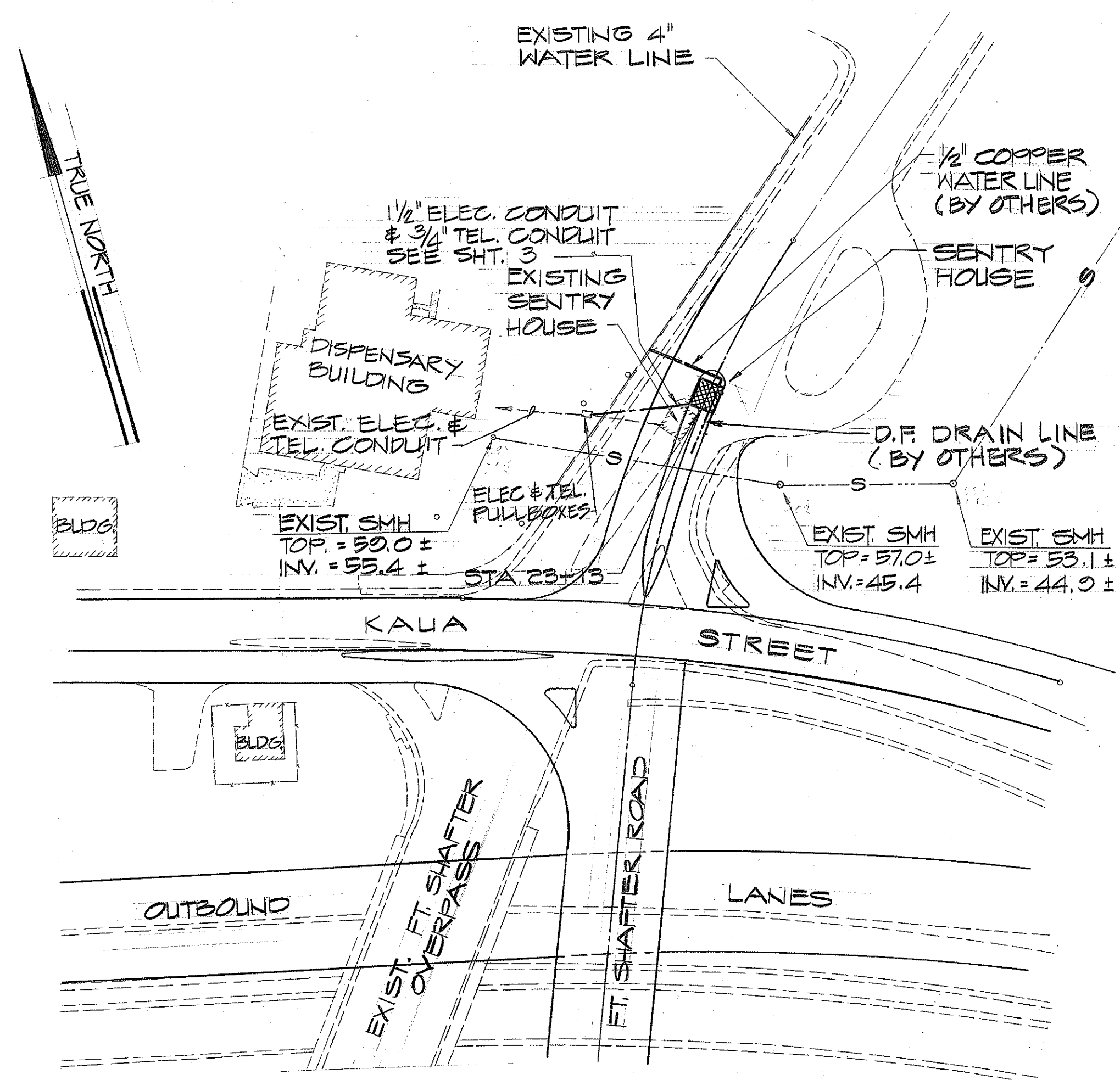


FRONT ELEVATION
SCALE: 3/8" = 1'-0"

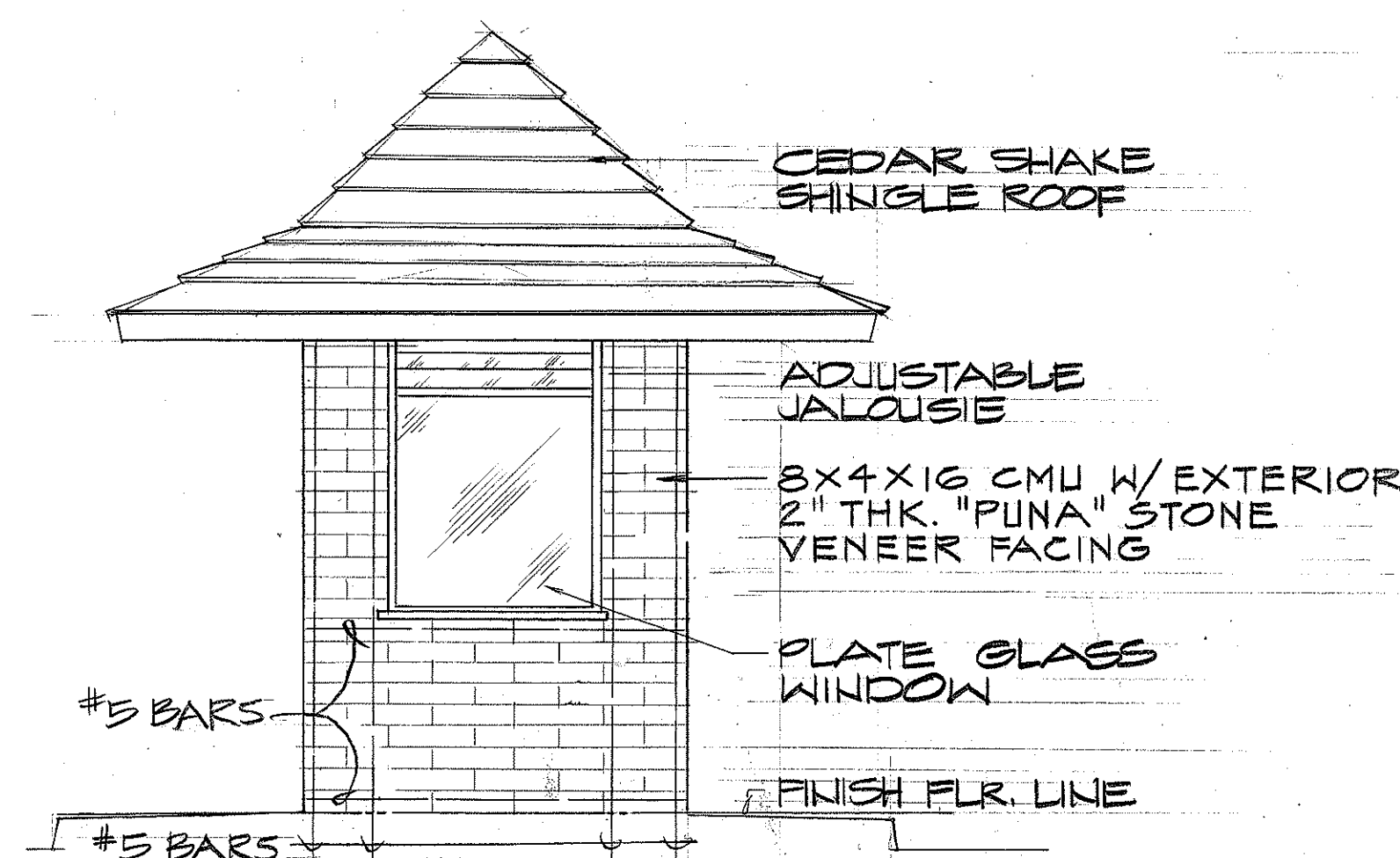


TYP. SIDE ELEVATION
(OPPOSITE HAND)
SCALE: 3/8" = 1'-0"

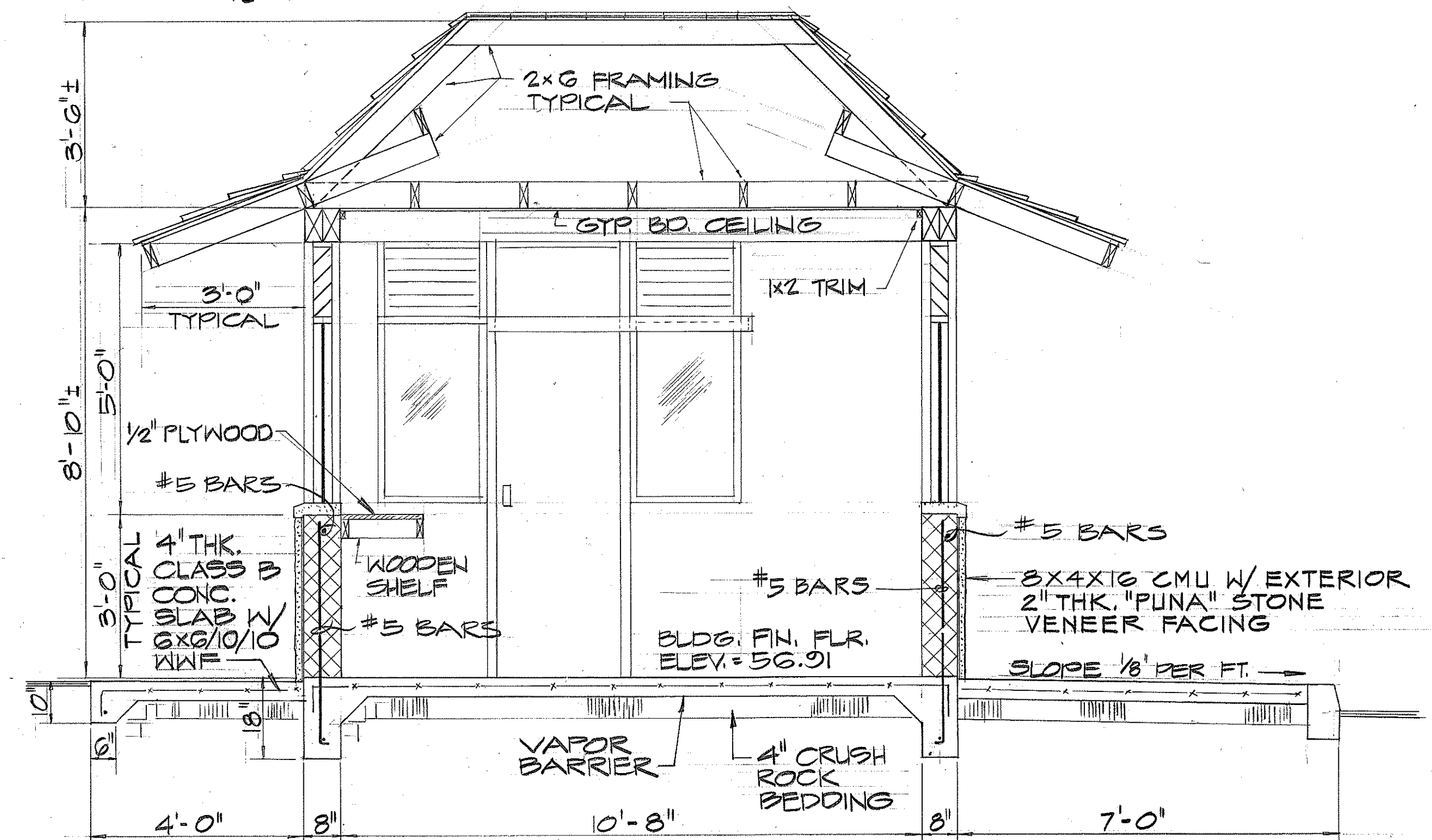
- NOTES:**
1. CMU WITH REINFORCING CELLS TO BE FILLED WITH CONCRETE.
 2. SEE SHT. C.O. 125-4 FOR GENERAL NOTES.



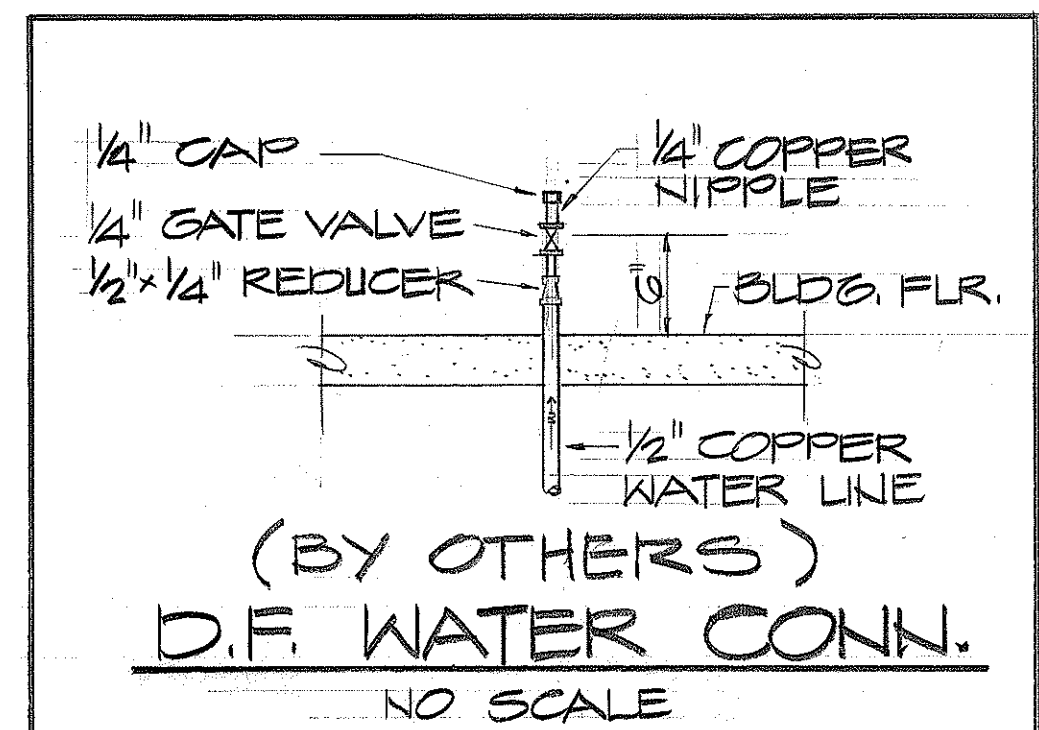
LOCATION PLAN
SCALE: 1" = 50'



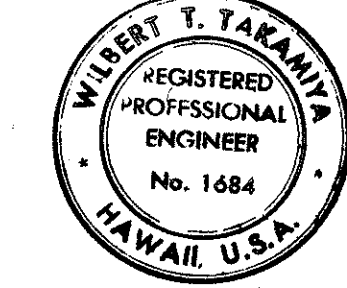
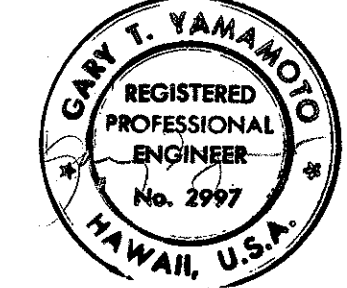
REAR ELEVATION
SCALE: 3/8" = 1'-0"



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



D.F. WATER CONN.
NO SCALE



Willbert T. Tanaka
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FORT SHAFTER SENTRY HOUSE

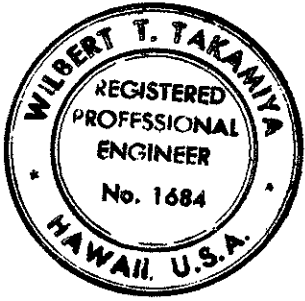
MOANALUA ROAD
PUULOA I.C. TO MIDDLE ST. - UNIT 1
FA. PROJ. NO. U-FF-078-1(6)

SCALE: AS SHOWN DATE: 2/2/78
SHEET NO. 1 OF 3 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-FF-078-16	1976	CO1234	142

GENERAL NOTES

- UNLESS OTHERWISE INDICATED, COST FOR ALL ITEMS SHOWN ON SHTS. C.O.12S-3, C.O.12S-4, AND C.O.12S-5 SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR "SENTRY HOUSE."
- CONCRETE, BAR REINFORCEMENT, AND WELDED WIRE FABRIC SHALL CONFORM TO APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS.
- ALL ANCHOR BOLTS SHALL CONFORM TO ASTM A307.
- VAPOR BARRIER SHALL BE POLYETHYLENE FILM, 0.006-INCH THICK.
- ALL GLASS SHALL CONFORM TO THE REQUIREMENTS OF FEDERAL SPECIFICATION DD-G-451.
 - 1/4-INCH THICK CLEAR PLATE FOR PLATE GLASS WINDOWS.
 - 3/16-INCH THICK JALOUSIE BLADES, 4-INCH WIDE CLEAR GLASS.
- THE PERIPHERY OF ALL OPENINGS AND OTHER LOCATIONS WHERE JOINTS OCCUR, OUTSIDE OR INSIDE AND CREVICES REQUIRING SEALING, SHALL BE CAULKED TO PROVIDE WEATHERPROOF CLOSURES WITH A GUN-GRADE CAULKING COMPOUND THE COLOR TO BE SELECTED BY THE ENGINEER.
- PLYWOOD SHALL BE EXTERIOR TYPE, APA GRADE - TRADEMARK C-D OR BETTER, WITH EXTERIOR GLUE.
- LUMBER, NEW, AS SPECIFIED BELOW:
 - ROUGH CARPENTRY - DOUGLAS FIR "CONSTRUCTION" GRADE, MARKED IN ACCORDANCE WITH CURRENT W.C.L.I.B. GRADING RULES, UNIFORMITY SIZED S4S, DRIED TO MOISTURE CONTENT AS HEREIN SPECIFIED.
 - FINISH CARPENTRY, MILLWORK, AND CASEWORK. THE FOLLOWING SPECIES AND CUTS, GRADED AND STAMPED IN ACCORDANCE WITH APPLICABLE ASSOCIATIONS, SHALL BE PROVIDED FOR THE VARIOUS ITEMS OF WORK INDICATED ON THE DRAWINGS. MOISTURE CONTENT SHALL BE UNIFORM AS HEREIN SPECIFIED.
 - ALL EXPOSED WOODWORK SHALL BE KILN DRIED "B AND BETTER" VERTICAL GRAIN DOUGLAS FIR PER W.C.L.I.B. LATEST GRADING AND DRESSING RULES.
 - CONCEALED LUMBER SHALL BE KILN DRIED, NO. 1 COMMON DOUGLAS FIR SELECTED FOR PURPOSE INTENDED.
 - REDWOOD FOR CANT STRIPS SHALL BE CONSTRUCTION HEART.
- CEDAR SHAKES AND SHINGLES SHALL BE COMPOSED OF #1 GRADE WESTERN RED CEDAR. BACKING SHINGLES SHALL BE GRADED UNDER ACCEPTABLE INDUSTRY STANDARDS AND BOTH COMPLY WITH THE GRADING AND PACKING RULES OF THE RED CEDAR SHINGLE AND HANDSPLIT SHAKE BUREAU.
- ALL CONCEALED FRAMING LUMBER AND PLYWOOD SHALL BE TREATED BY A PRESSURE METHOD WITH WOLMAN SALTS (FCAP-A) OR OSMO SALTS (FCAP-B) OR EQUAL AND SHALL BE DRIED TO 19% MOISTURE CONTENT ON 1-INCH AND 2-INCH LUMBER AFTER TREATMENT IN ACCORDANCE WITH AWPI STANDARD LP-2.
- ALL EXPOSED LUMBER 2 INCHES NOMINAL THICKNESS AND OVER, CEDAR SHAKES AND SHINGLES, STRUCTURAL LUMBER, AND SIMILAR LUMBER THAT WILL BE EXPOSED TO VIEW IN THE FINISH WORK SHALL BE UNINCISED AND TREATED WITH A CLEAN, LIGHT PETROLEUM SOLVENT WATER REPELLENT PENTA PRESERVATIVE SOLUTION IN ACCORDANCE WITH AWPI STANDARD LO-3.
- ALL FINISH LUMBER UNDER 2 INCHES NOMINAL THICKNESS, FINISH PLYWOOD SHELVING, AND SIMILAR WOODWORK THAT WILL BE EXPOSED TO VIEW IN THE FINISH WORK SHALL BE IMMERSED TREATED WITH WATER REPELLENT PENTA PRESERVATIVE SOLUTION ACCORDING TO U.S. COMMERCIAL STANDARDS CS 262-63 FOR A MINIMUM PERIOD OF THIRTY (30) MINUTES.

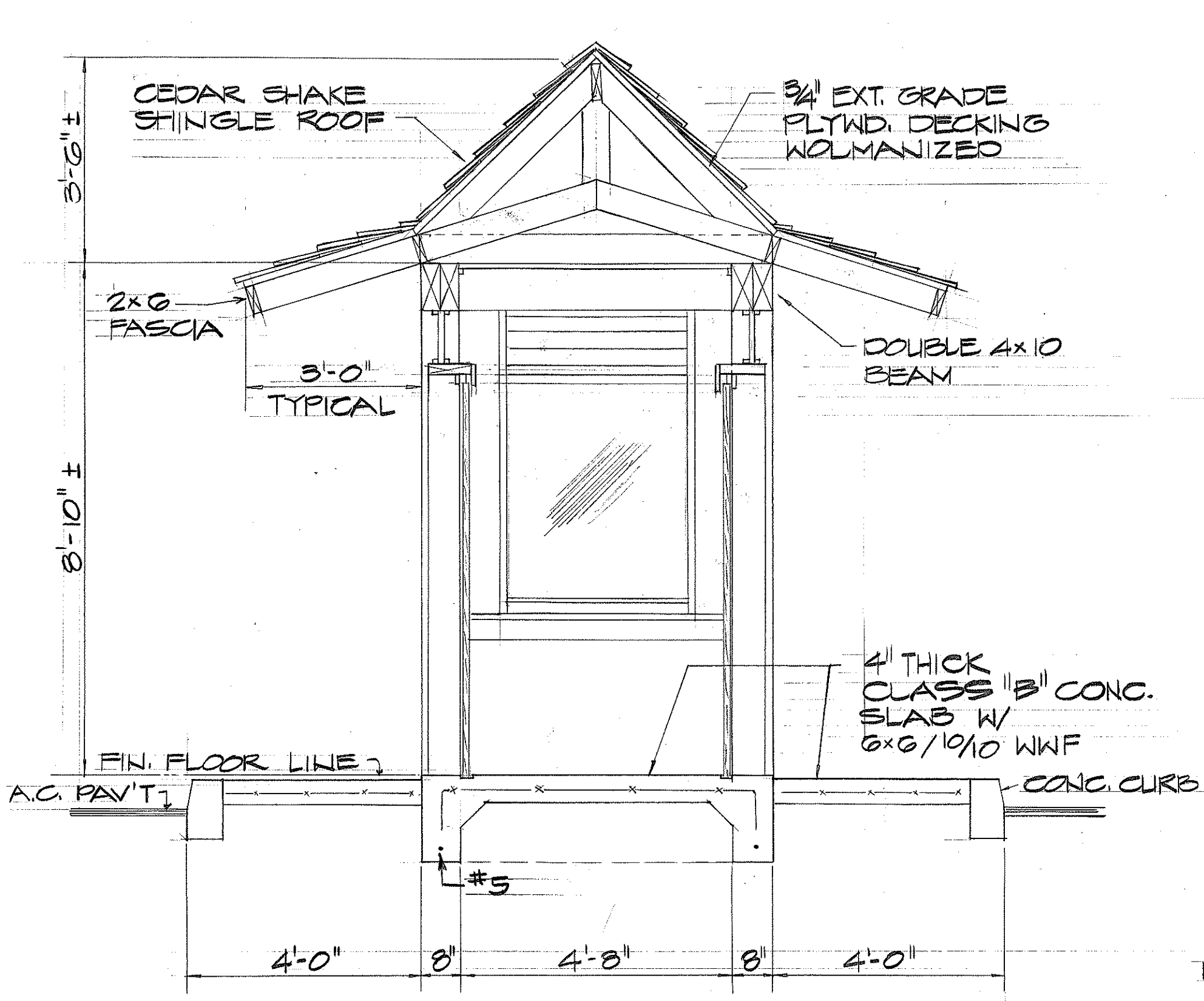


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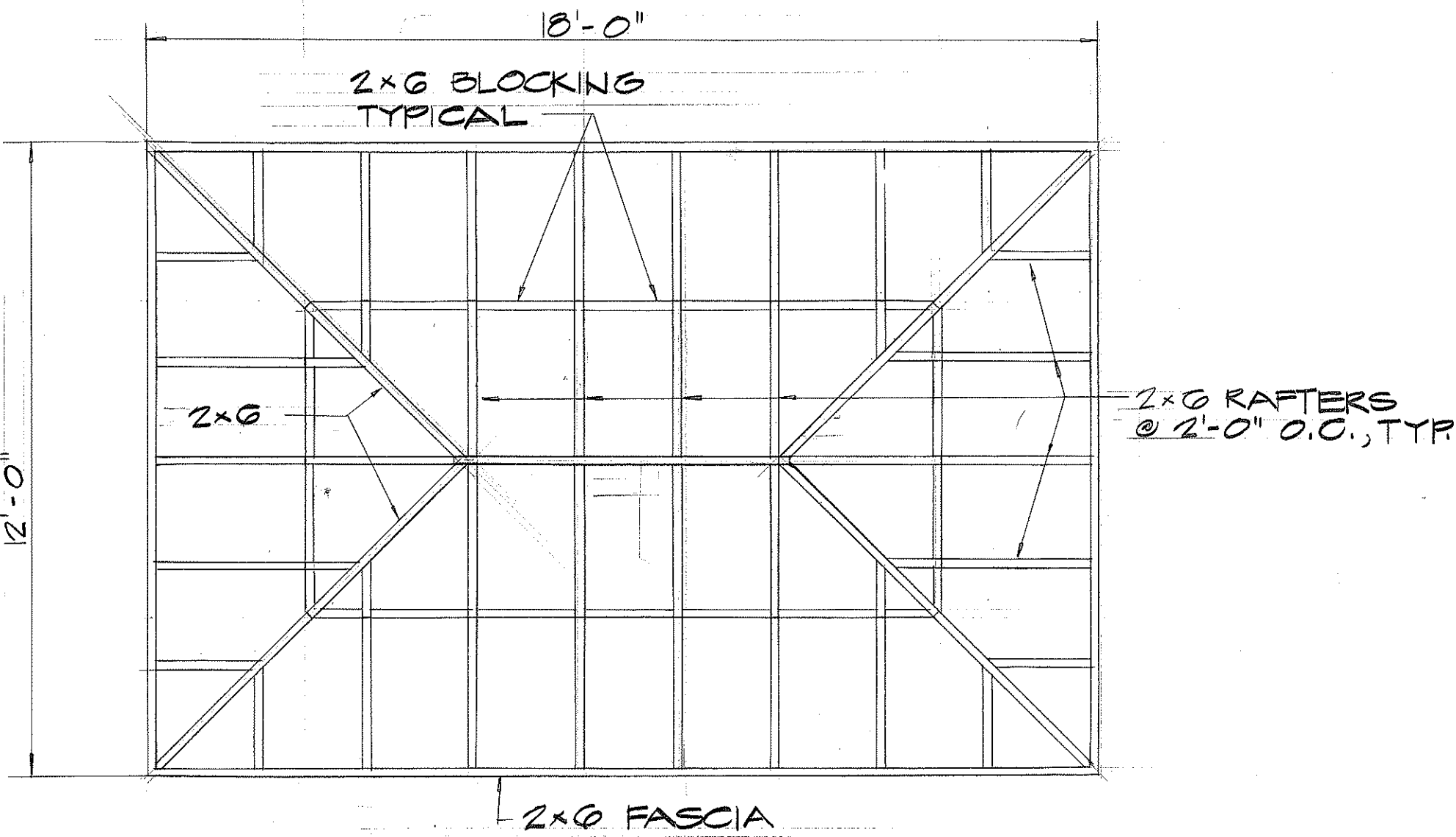
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

 FORT SHAFTER SENTRY HOUSE

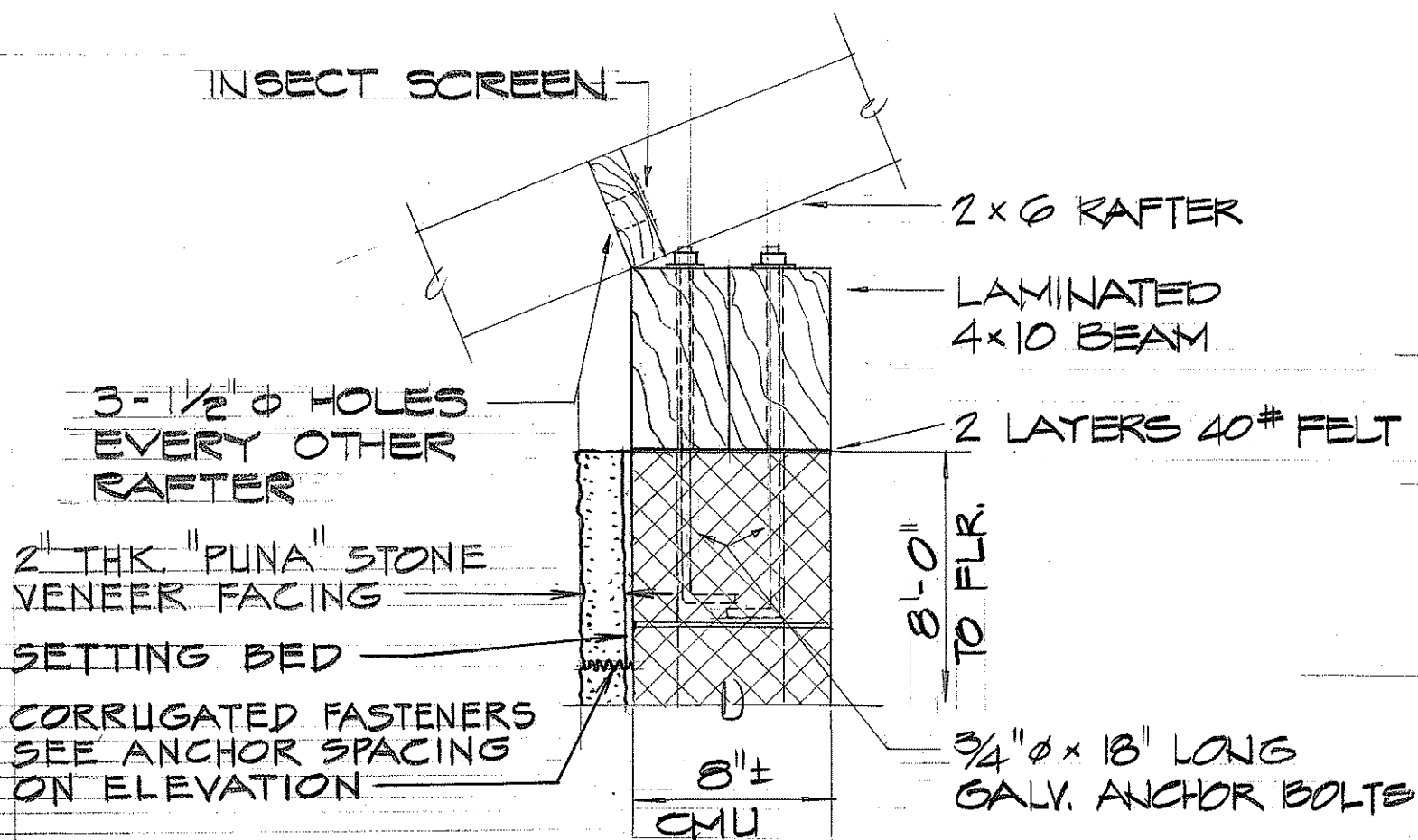
 MOANALUA ROAD
 PUULOA I.C. TO MIDDLE ST. UNIT 1
 (A. Proj. NO. U-FF-078-1(6))
 SCALE: AS SHOWN DATE: 2/2/78
 SHEET NO. 2 OF 3 SHEETS



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



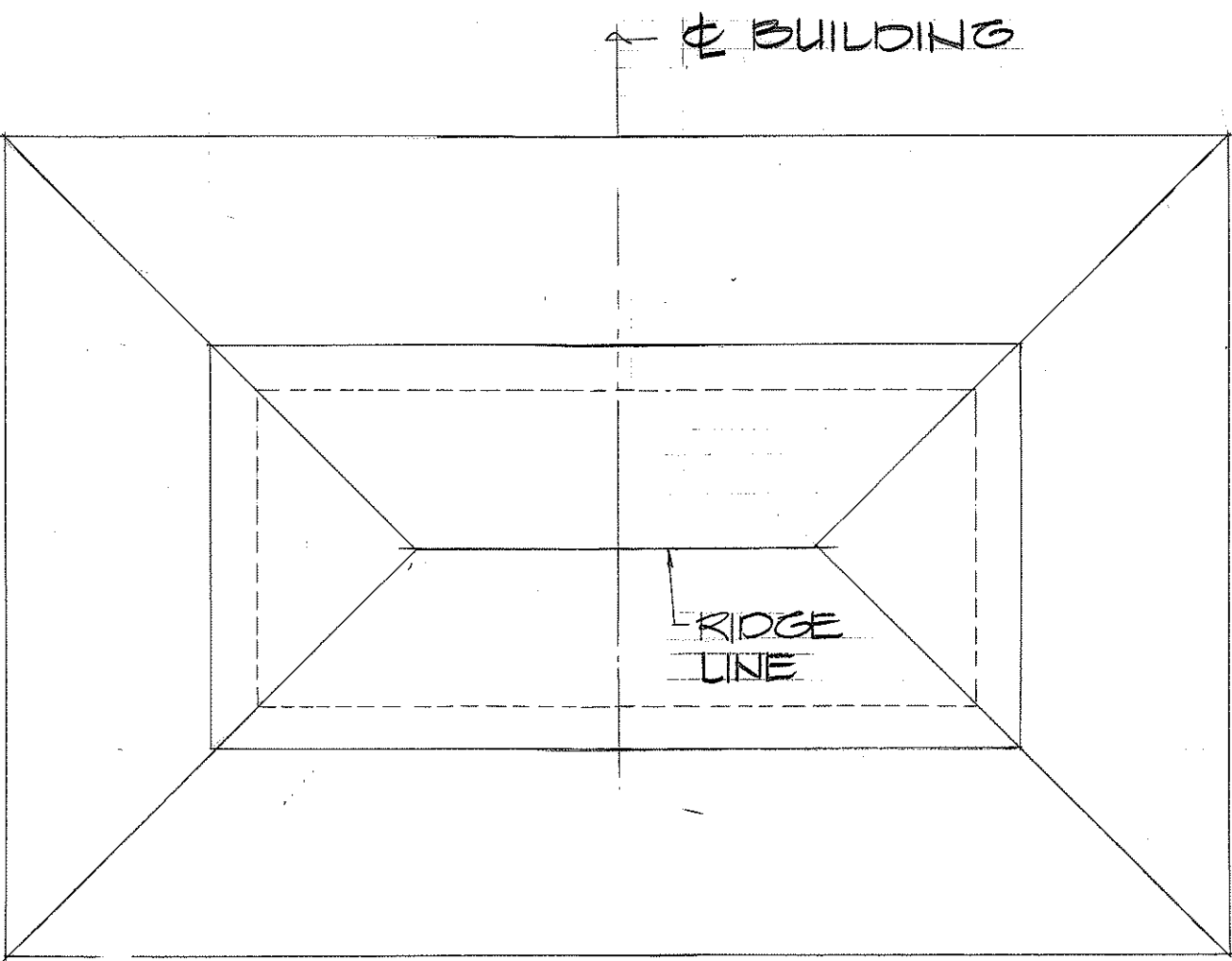
ROOF FRAMING PLAN
SCALE: 3/8"=1'-0"



DETAIL B-2
(TYPICAL BEAM CONNECTION)
NO SCALE

PART ELEV. SHOWING PUNA STONE ANCHOR
NO SCALE

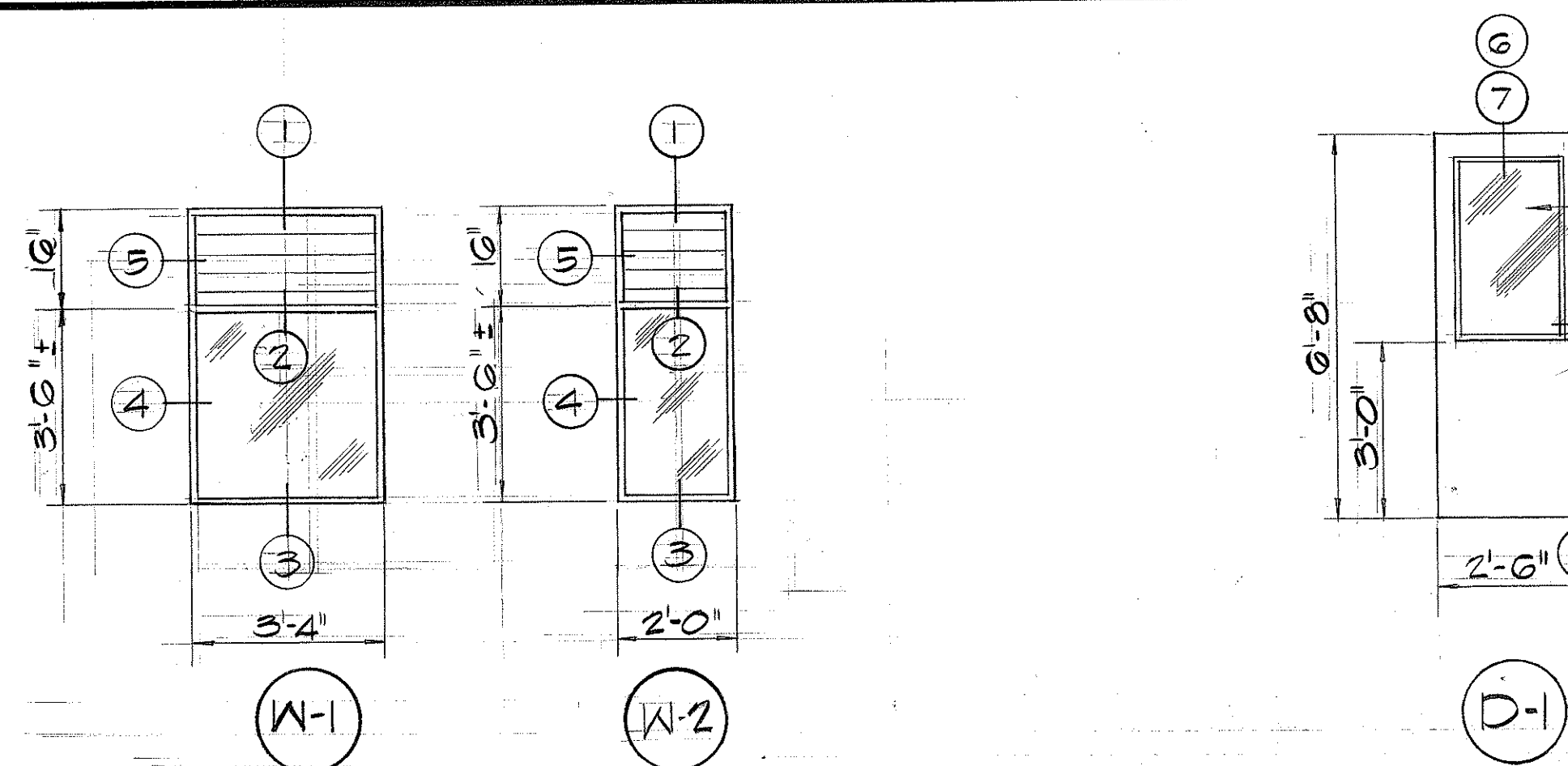
- ALL WOOD PRESSURE TREATED OR DIP TREATED WITH PENTA SHALL BE KILN DRIED BEFORE TREATMENT TO AN AVERAGE OF 12 TO 15% MOISTURE CONTENT.
- INSECT SCREEN SHALL BE 18 x 14 MESH, 0.0123-INCH DIAMETER WIRE WITH ALUMINUM FRAME.
- GYPSUM BOARD SHALL BE 1/2-INCH THICK AND CONFORM TO ASTM C36.
- JALOUSIE WINDOW FRAME SHALL BE EXTRUDED ALUMINUM SECTIONS OF 6063-T5 ALLOY. JALOUSIES SHALL BE THE "FULL SURROUND" TYPE AND SHALL BE THE STANDARD PRODUCT OF ONE MANUFACTURER.
- CEMENT MASONRY UNITS SHALL CONFORM TO ASTM DESIGNATION C90.
- MORTAR SHALL CONFORM TO ASTM DESIGNATION C270. EXCEPT THAT MORTAR SHALL DEVELOP A COMPRESSIVE STRENGTH OF 750 PSI AT 28 DAYS.
- ALL MASONRY JOINTS SHALL BE APPROXIMATELY 3/8-INCH WIDE WITH FULL MORTAR COVERAGE ON THE FACE SHELLS AND WEBS AND BE TOOLED WITH A ROUND BAR TO PRODUCE A SLIGHTLY CONCAVE SURFACE.



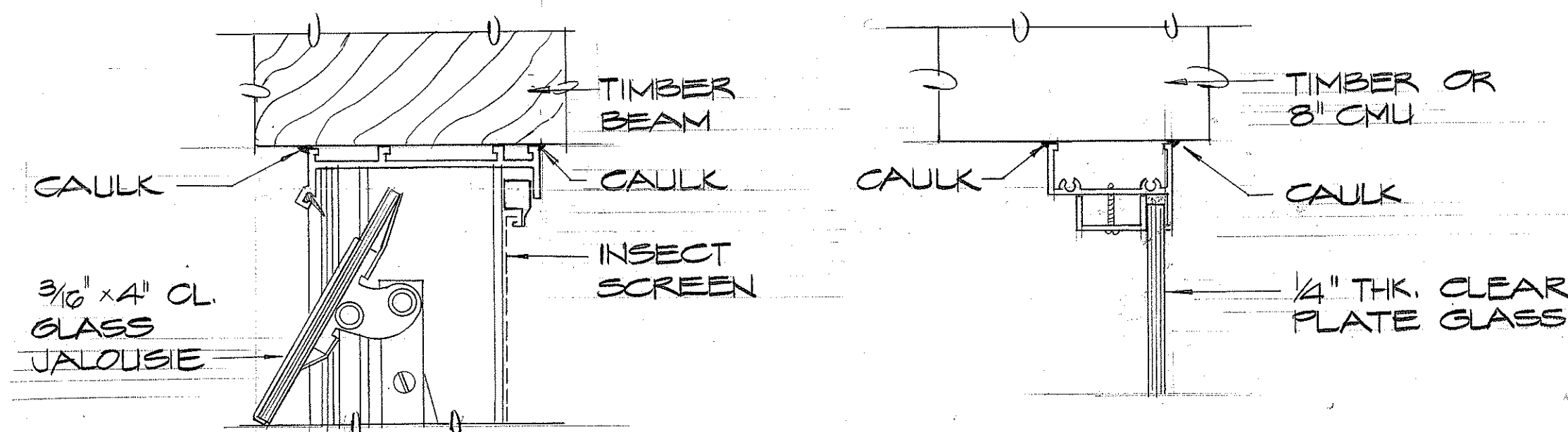
ROOF PLAN
SCALE: 3/8"=1'-0"

SURVEY PLOTTED BY	DATE
DRAWN 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.	U-FF-078-1(G)	1976	CO 255	142



WINDOW & DOOR TYPES

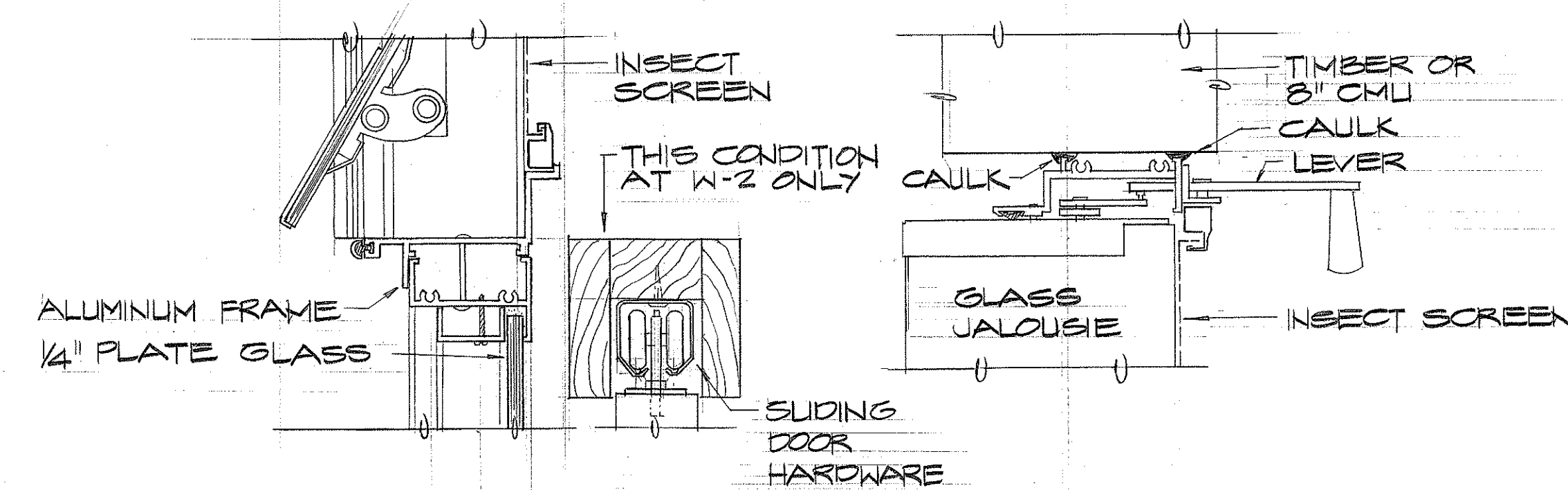


HEAD ①

JAMB ④

HEAD ⑥

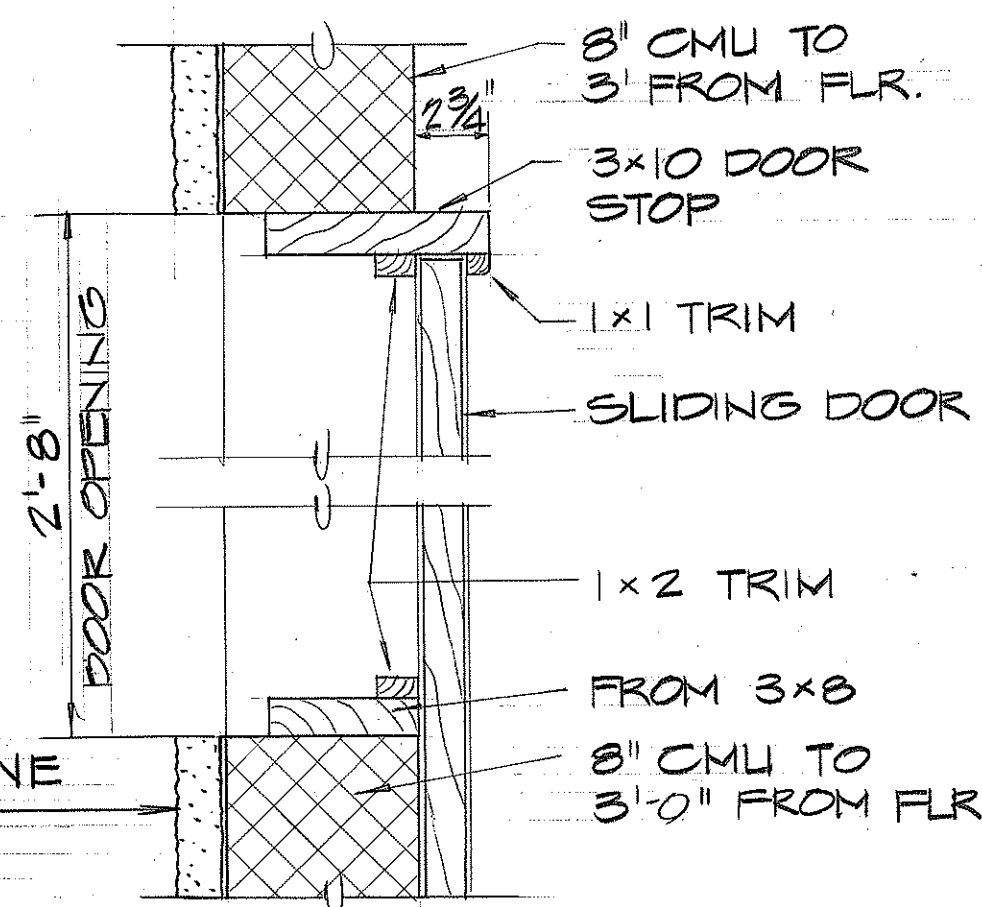
TYPICAL WALL MOUNTED LUMINAIRE DETAIL ⑩



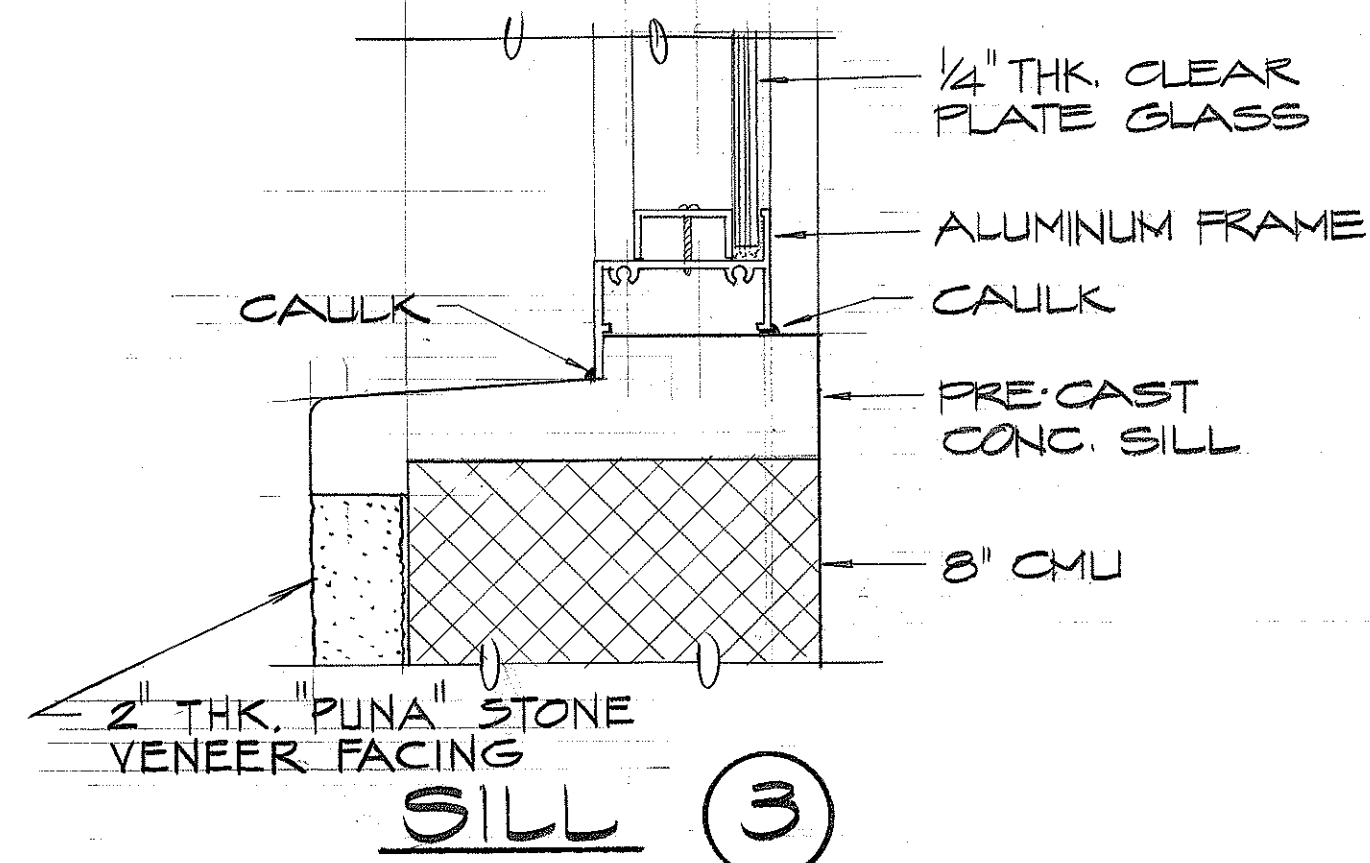
MULLION ②

JAMB ⑤

HEAD ⑦



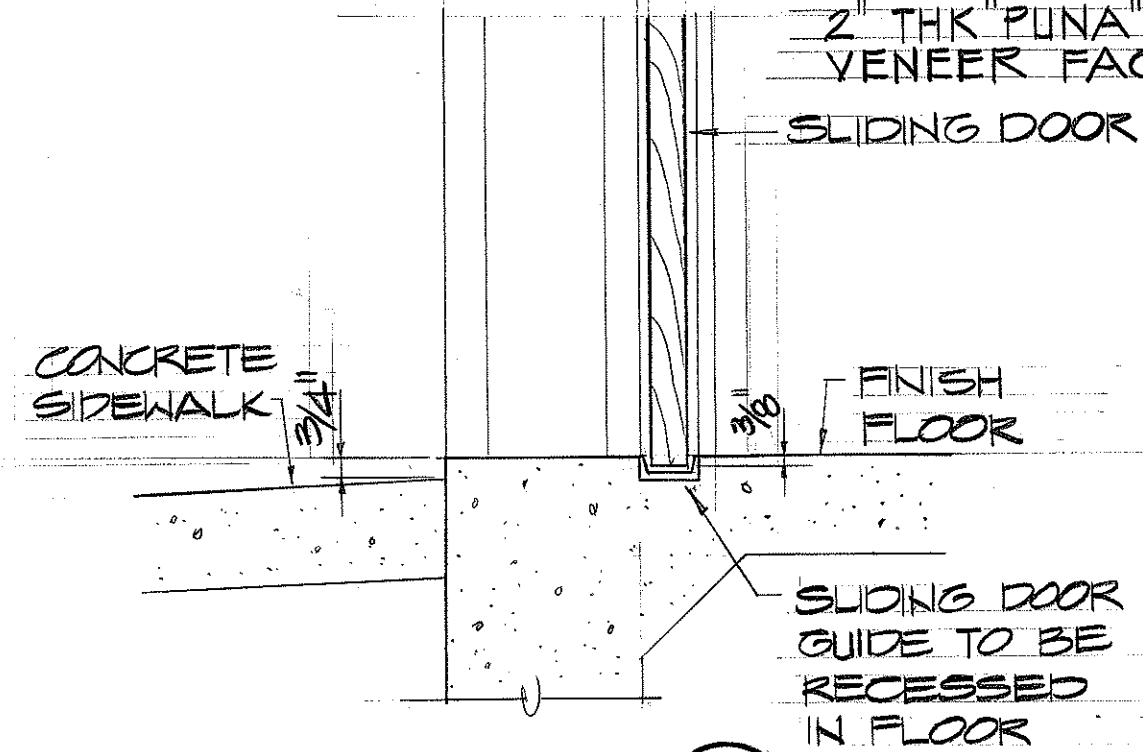
JAMB ⑨



SILL ③

WINDOW DETAILS

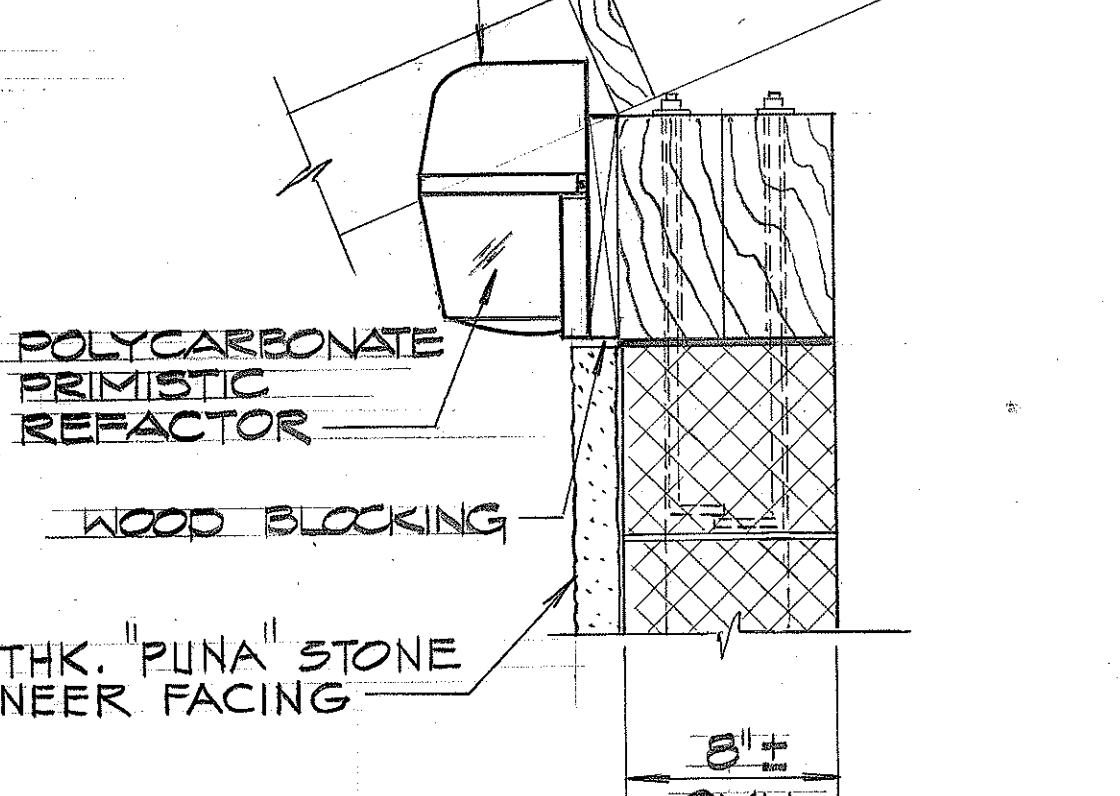
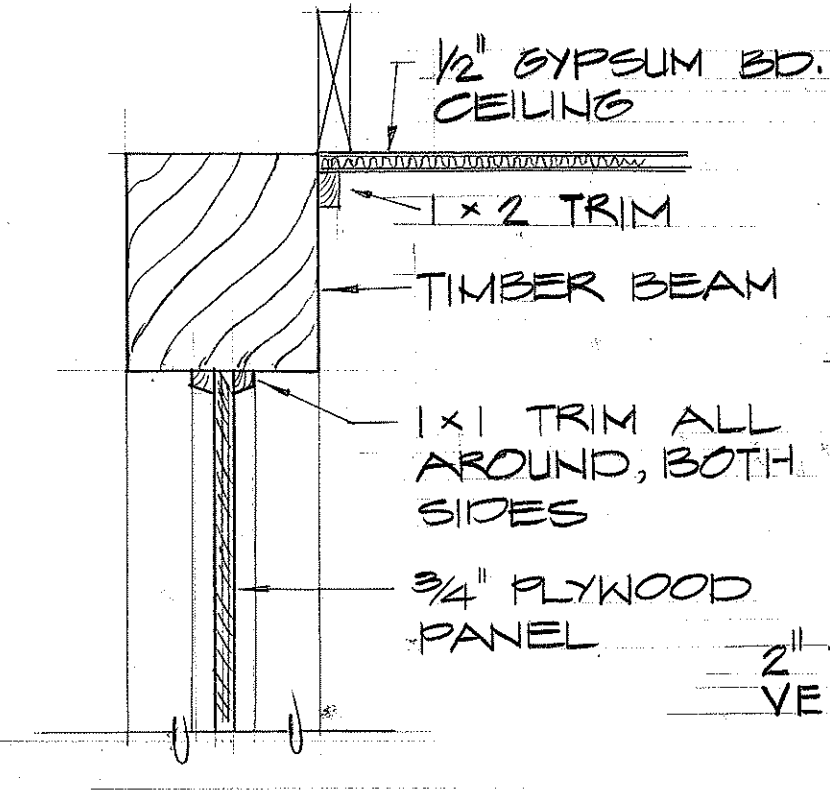
NO SCALE



SILL ⑧

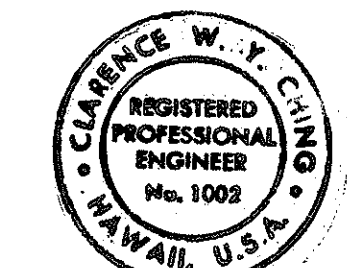
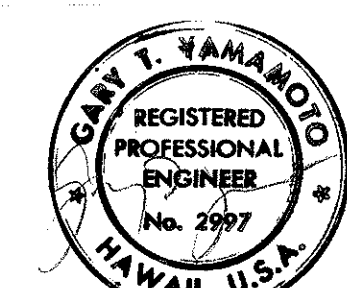
DOOR DETAILS

NO SCALE



LEGEND:

- WIRING IN CONDUIT IN SLAB OR UNDERGROUND SLASHES INDICATE NUMBER OF WIRES, NO SLASH
- WIRING IN CEILING OR WALL
- DUPLEX RECEPTACLE, 15A, 120V W/ GRD.
- TELEPHONE OUTLET
- FLUORESCENT FIXTURE, 48" 2-40WATT W/ PLASTIC COVER, 120V, SURFACE MTD.
- WEATHERPROOF, WALL MOUNTING LUMINAIRE, 70W HPS, REACTOR TYPE BALLAST, 120V.
- 120V, 1Φ NEMA 1 LIGHT PANEL, 1P, 50A MAIN C.B. AND 4-1P 20A BRANCH C.B.
- ELEC. AND TEL. BOX 18" x 36" SVC BOX (HECO STD. DWG. NO. 011310) 12" x 20" METER BOX (HTCO. DWG. NO. 436T)



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FORT SHAFTER SENTRY HOUSE

MOANALUA ROAD
PUULOA I.C. TO MIDDLE ST. - UNIT 1
F.A. Proj. NO. U-FF-078-1(G)

SCALE: AS SHOWN DATE: 2/2/78
SHEET NO. 3 OF 3 SHEETS

C.012 S-5