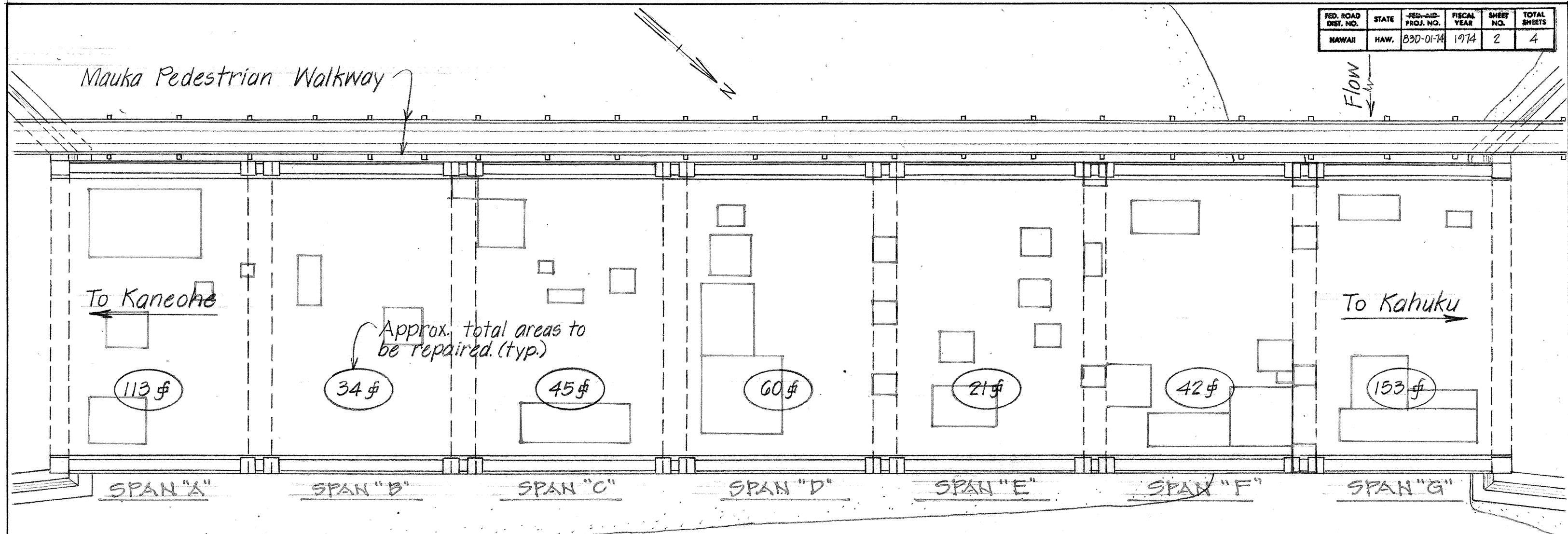
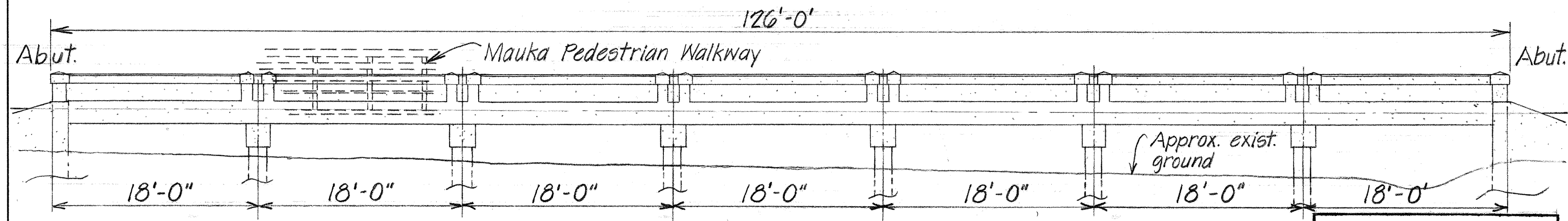


FED. ROAD DIST. NO.	STATE	FED.-AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83D-01-74	1974	2	4



LAYOUT AND FRAMING PLAN Scale: 1/8" = 1'-0"

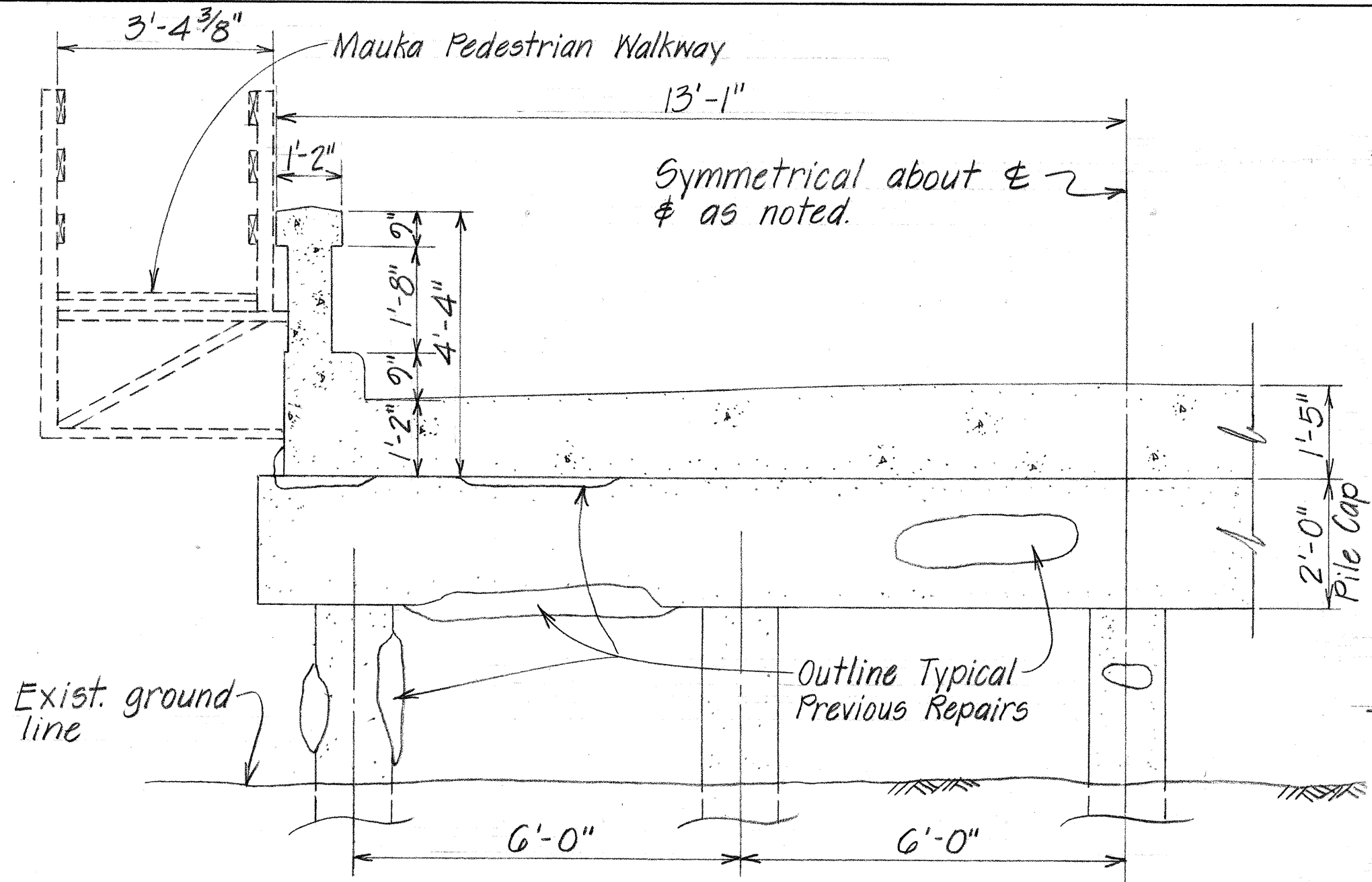


BRIDGE ELEVATION Scale: 1/8" = 1'-0"

DRAWN BY: []
 CHECKED BY: []
 DATE: 10/7/73
 DESIGNED BY: []
 QUANTITIES BY: []
 REVISIONS: []

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION & REPAIRS
 TO PUNALUU BRIDGE No 55
 PROJ. No 83D-01-74 NOV. 1973
 SHEET No. 1 OF 3 SHEETS

FED. ROAD DIST. NO.	STATE	FED-AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83D-01-74	1974	3	4



NORMAL DECK SECTION
 Scale: 1/2" = 1'-0"

GENERAL NOTES

REPAIR NOTES:

- Face of exist. concrete →
- Hatch area denotes approx. damaged or deteriorated area. Apply bonding agent immediately before placing mortar or conc.
- Limits of conc. removal or conc. patch
1. Remove sections of spalled, deteriorated or cracked areas to sound concrete. All dimensions are minimum dimensions. Exact locations & limits of conc. repair to be determined in the field by the Engineer.
 2. Note "A" - Where exposed reinforcing bars occur, provide minimum 2" conc. cover at each bar. See specifications for welded wire fabric requirements.
 3. Reinforcing bars that have rusted more than 25% of their original cross sectional area shall be strengthened as shown on Repair Splice Detail, Sht. 3.

INCIDENTAL ITEMS: The following items shall be considered incidental to the various pay items of repairs & shall not be paid for separately.

1. Expansion bolts & other miscellaneous hardware including galvanizing of such hardware.
2. Reinforcing bars of repair splice for strengthening corroded bars.
3. Cleaning of all exposed, corroded reinforcing steel or rails to sound metal.

GENERAL:

1. All concrete to be Class A.
2. All reinforcing steel Grade 40.

ITEMS OF REPAIR AND ESTIMATED QUANTITIES			
ITEM NO	DESCRIPTION	UNIT	QUANTITY
646.81	Repairs to Bridge with Shotcrete and/or Hand-Placed Mortar.	S.F.	468

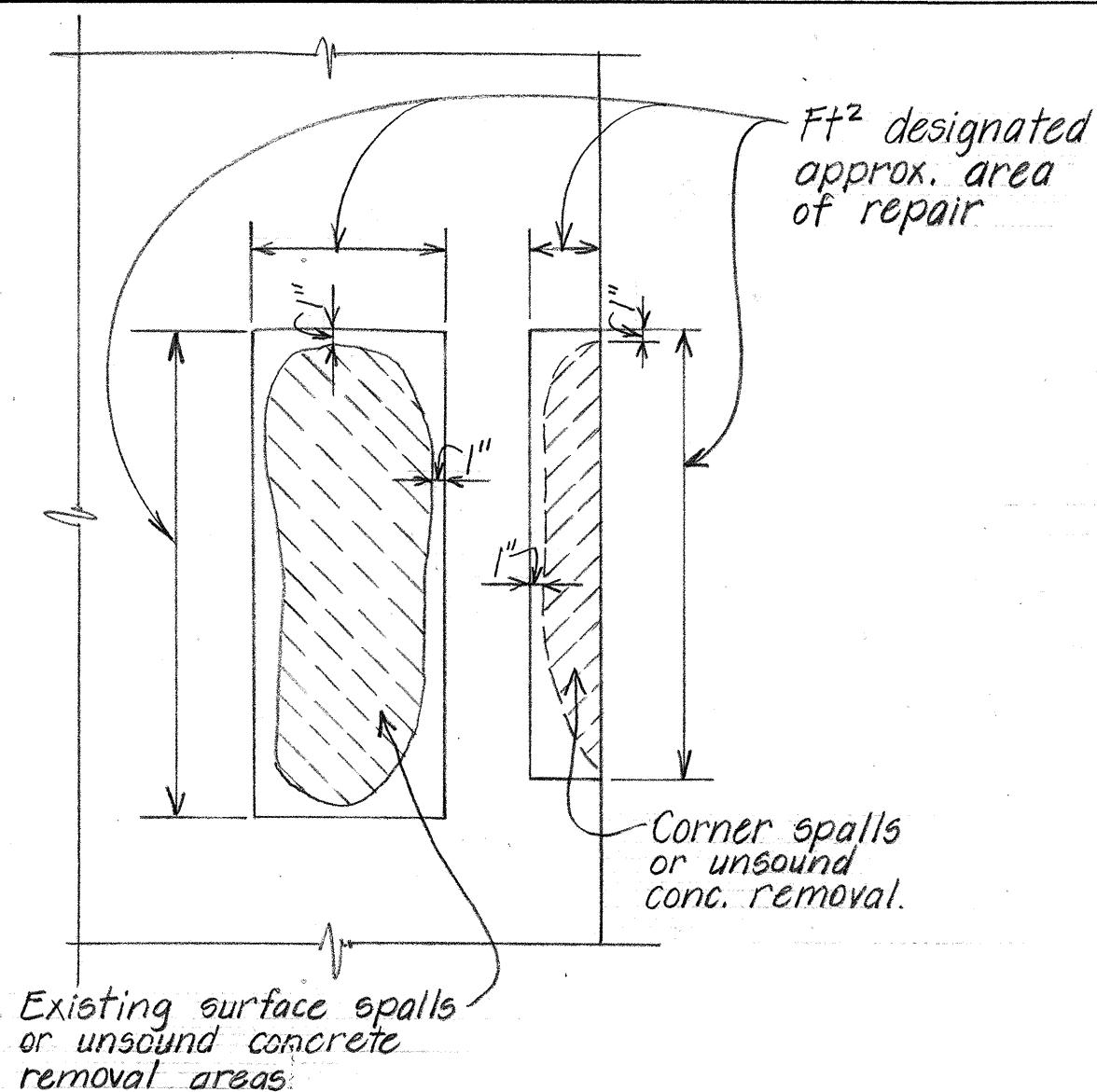
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

REHABILITATION & REPAIRS
 TO PUNALUU BRIDGE No 55

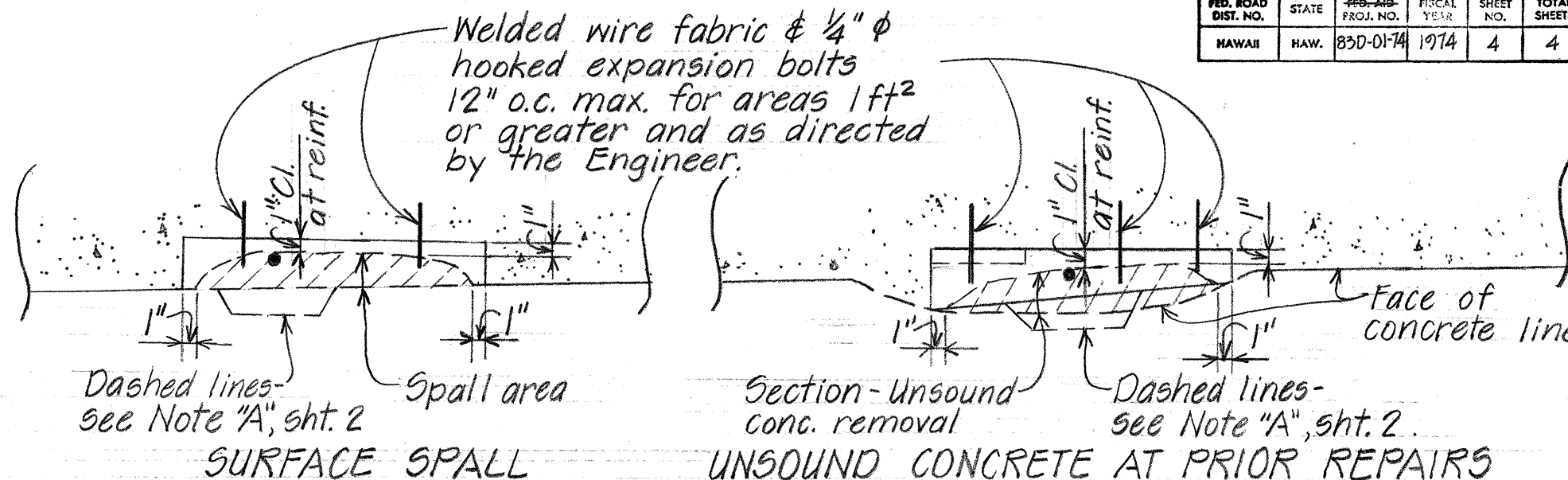
PROJ. No 83D-01-74 NOV. 1973
 SHEET No. 2 OF 3 SHEETS

DESIGNED BY: [blank]
 CHECKED BY: [blank]
 DATE: 10/7/73
 DRAWN BY: [blank]
 SCALE: [blank]

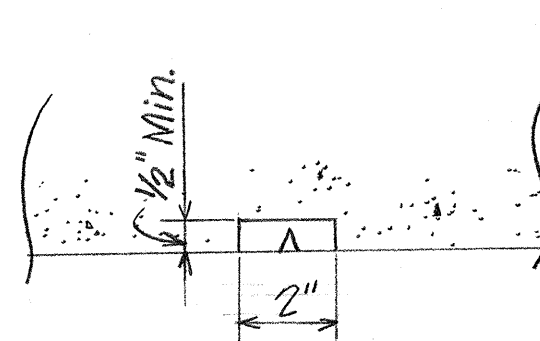
FED. ROAD DIST. NO.	STATE	FED-AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83D-01-74	1974	4	4



PLAN OR ELEVATION

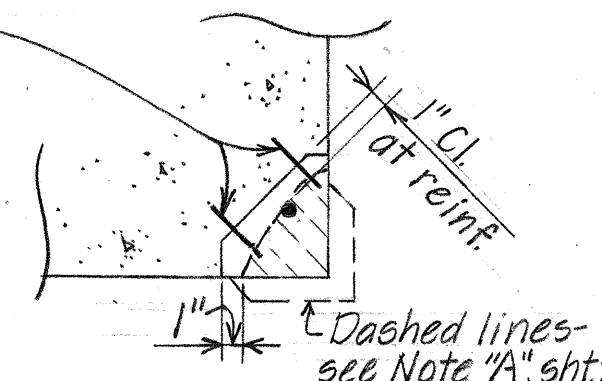


SURFACE SPALL OR CONCRETE REMOVAL



SURFACE CRACK

Welded wire fabric & 1/4" hooked expansion bolts 12" o.c. max. each direction for areas 1 ft² or greater and as directed by the Engineer.

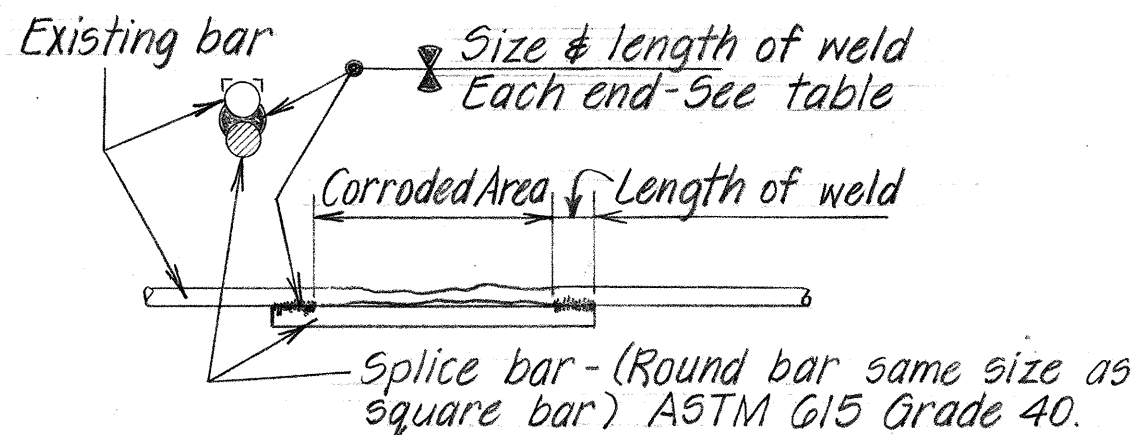


CORNER SPALL OR UNSOUND CONC. REMOVAL

TYPICAL SECTIONS

TYPICAL DETAILS - CONCRETE SURFACE REPAIRS No Scale

SPLICE BAR WELD SCHEDULE		
SIZE OF BAR	SIZE OF WELD	LENGTH OF WELD
1/4" ϕ	1/8"	1 1/2"
1/2" $\square$	1/4"	1 1/2"
3/4" $\square$	1/4"	3"
7/8" $\square$	5/16"	3 1/2"
1 1/8" $\square$	3/8"	4"



TYPICAL REINF. BAR REPAIR SPLICE DETAIL No Scale

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

REHABILITATION & REPAIRS
TO PUNALUU BRIDGE No 55

PROJ. No 83D-01-74 Nov. 1973
SHEET No. 3 OF 3 SHEETS