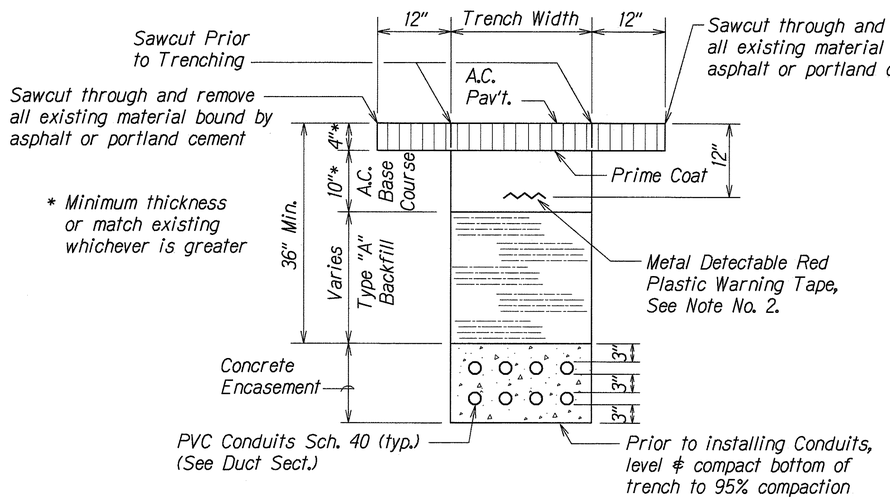
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	72C-01-00	2000	12	16

STATE RIGHT-OF-WAY BACKFILL NOTES

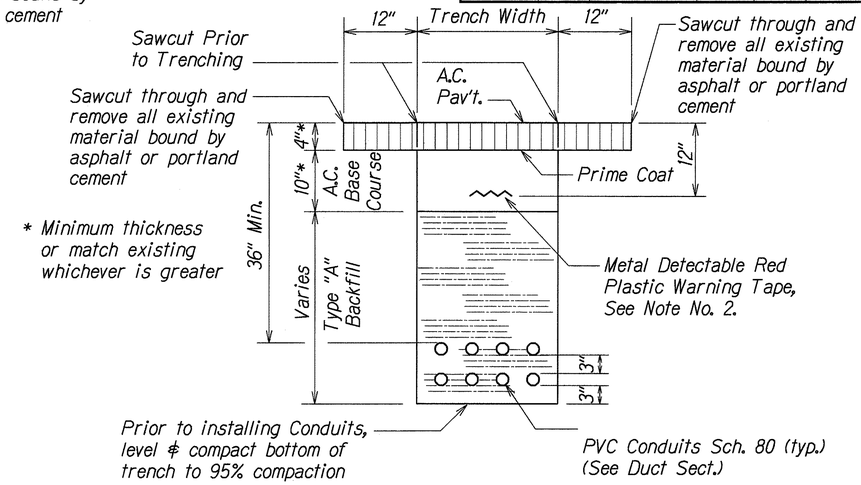
Trench Backfill Material "A"
Beach Sand, Earth, or Earth and Gravel. If Earth and Gravel used, the maximum shall contain not more than 50% by volume of rock particles. Maximum 8" loose fill per lift. Obtain 95% compaction for each lift.

Concrete
3000 psi compressive strength @ 3 days.

NOTE: Base Course & Sub-Base Course per 1994 State Standard Specifications for Highway Construction.



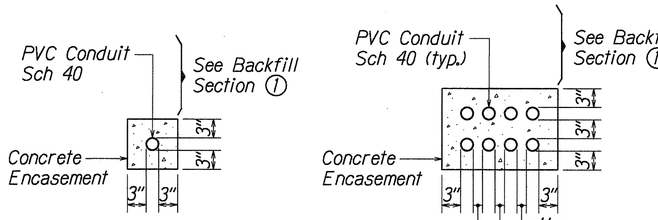
① TYPICAL BACKFILL SECTION WITH CONCRETE ENCASED DUCTS



② TYPICAL BACKFILL SECTION DIRECT BURIED DUCTS

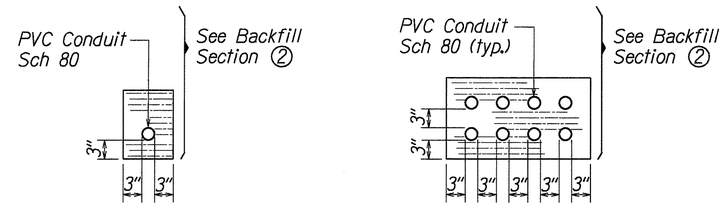
GENERAL NOTES

1. If trench is located on unpaved area, the Contractor shall replace 10" A.C. Base Course and 4" A.C. Pavement with Type "A" backfill material.
2. The Metal Detectable Red Plastic Warning Tape shall be a minimum 5 mils thick and 4" wide with a continuous metallic backing and corrosion resistant 1± mil thick foil core. The message on the tape shall read, "CAUTION - STATE TRAFFIC SIGNAL AND/OR HWY LIGHTING BURIED BELOW," utilizing 1½ inches series "C" black lettering. The message will be repeated with a 4¼" spacing between top line of message and start of next repeat.
3. The Contractor may begin backfilling the conduit trench when the concrete reaches 3000 psi compressive strength after 3 days.
4. Maximum four (4) Conduits per row for multiple conduit duct section.
5. For direct buried duct sections, the concrete jacket required at the conduit by-pass for various utilities, shall not be paid for separately but considered incidental to the direct buried conduits.
6. After installing all the traffic signal cables, the Contractor shall duct seal all conduits in the pullboxes, traffic signal standards and traffic signal controller cabinet concrete base. The duct seal material shall be approved by the Traffic Signal Inspector/Engineer and shall not be paid for separately but considered incidental to the direct buried and/or concrete encased conduits.



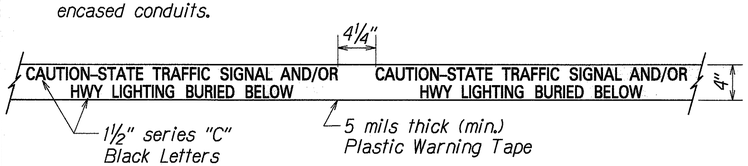
SINGLE CONDUIT — MULTIPLE CONDUIT

DUCT SECTIONS - CONC. ENCASED



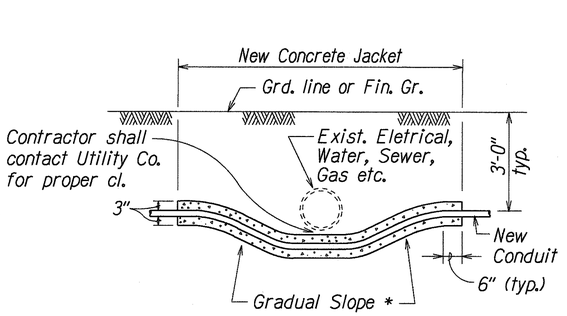
SINGLE CONDUIT — MULTIPLE CONDUIT

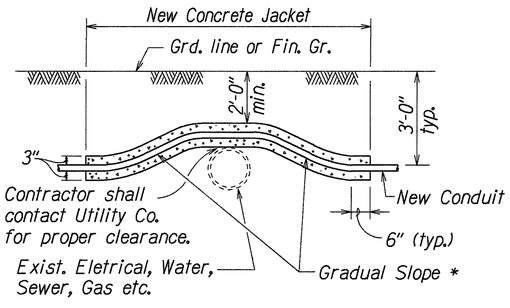
DUCT SECTIONS - DIRECT BURIED



For additional information see note no. 2.

METAL DETECTABLE RED PLASTIC WARNING TAPE





* To be determined by County Electrical Inspector/Engineer

CONDUIT BY-PASS DETAIL AT VARIOUS UTILITIES

Not to Scale

ORIGINAL PLAN	SURVEY PLOTTED BY — DATE
	DRAWN BY M. Takafuji
	TRACED BY
NOTE BOOK dated	DESIGNED BY Steven Yoshida
No. dated	QUANTITIES BY
	CHECKED BY

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

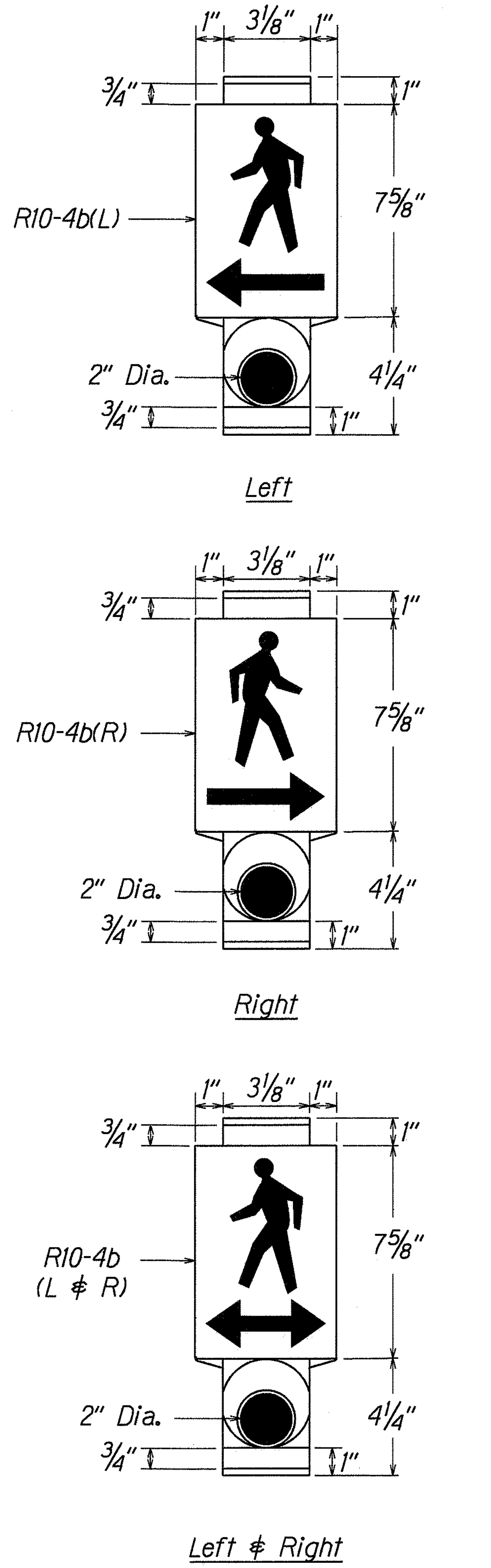
TRAFFIC SIGNAL DETAILS

KALANIANAOLE HIGHWAY
Installation of Traffic Signals
at Analii Street
Project No. 72C-01-00

Not to Scale — Date: Jan., 2000

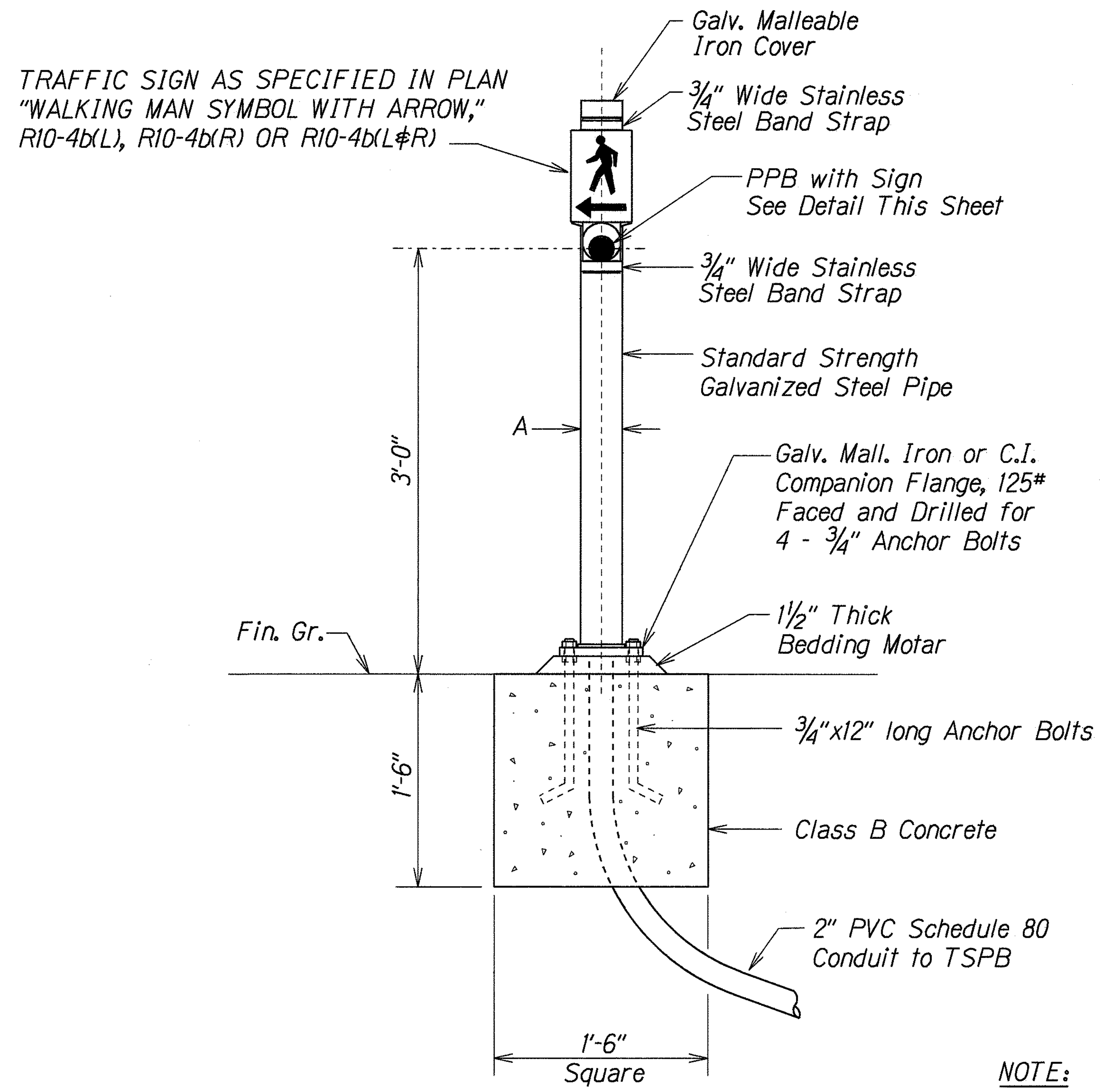
SHEET No. 1 OF 2 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	72C-01-00	2000	13	16



PEDESTRIAN PUSH BUTTON WITH SIGN

Man, Arrow & Push Button - White
Background - Black

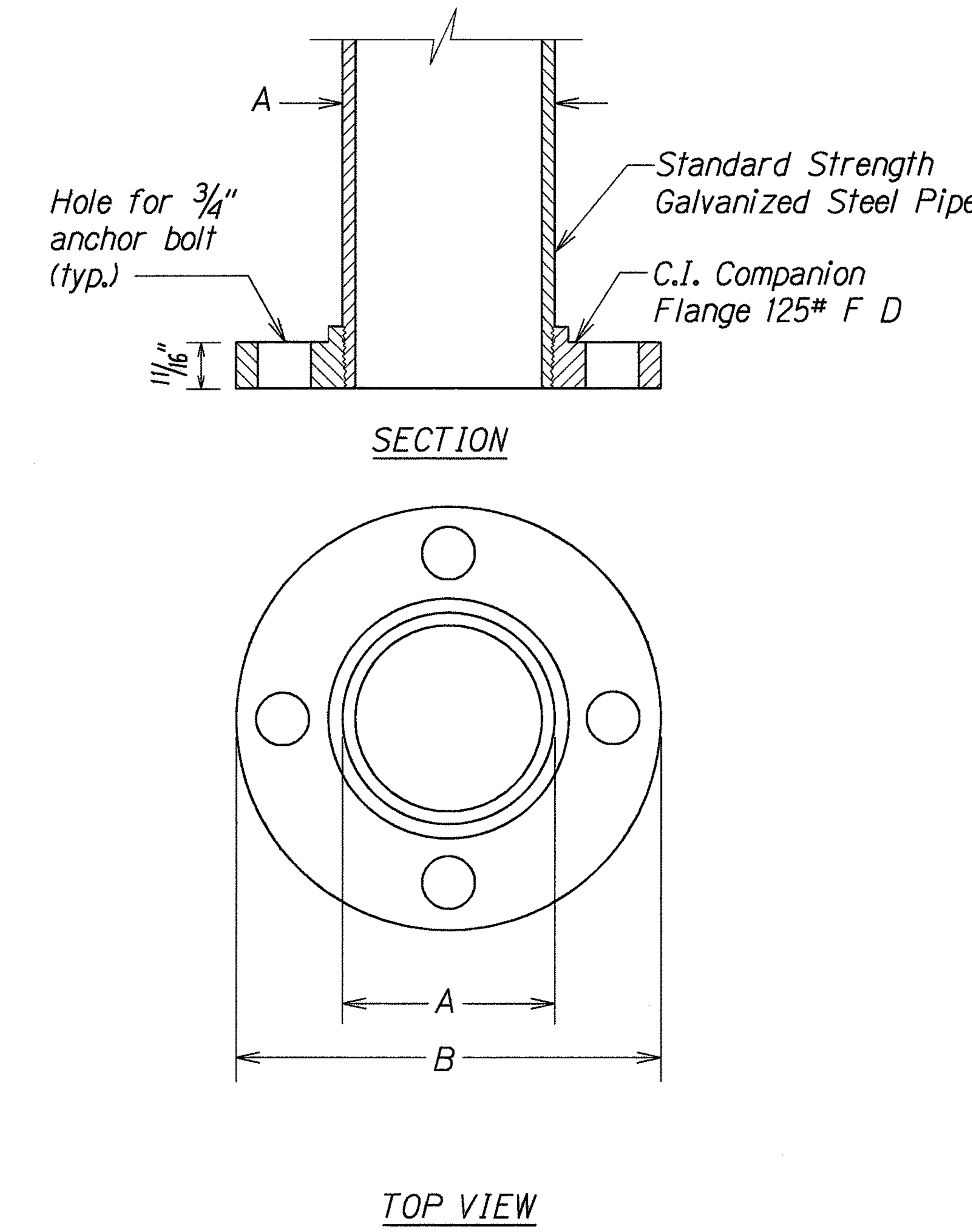


PPB POST AND FOOTING DETAIL

DATA TABLE FOR PPB POST		
AMOUNT OF PPB	DIMENSIONS	
	A	B
1	3½"	8"
2→3	4½"	9"

NOTE:

1. Conduits shall protrude 2" max. above finished surface of foundation.
2. Conduits shall slope away from post foundation.



FLANGE DETAIL

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL DETAILS

PEDESTRIAN PUSHBUTTON DETAILS

KALANIANAOLE HIGHWAY

Installation of Traffic Signals at Analii Street

Project No. 72C-01-00

Scale: Not to scale Date: Jan., 2000

SHEET No. 2 OF 2 SHEETS

ORIGINAL PLAN — SURVEY PLOTTED BY / DRAWN BY M. Takafuji / TRACED BY / DESIGNED BY Steven Yoshida / QUANTITIES BY / CHECKED BY — NOTE BOOK td2.mey — No. ekaltsd2 — DATE