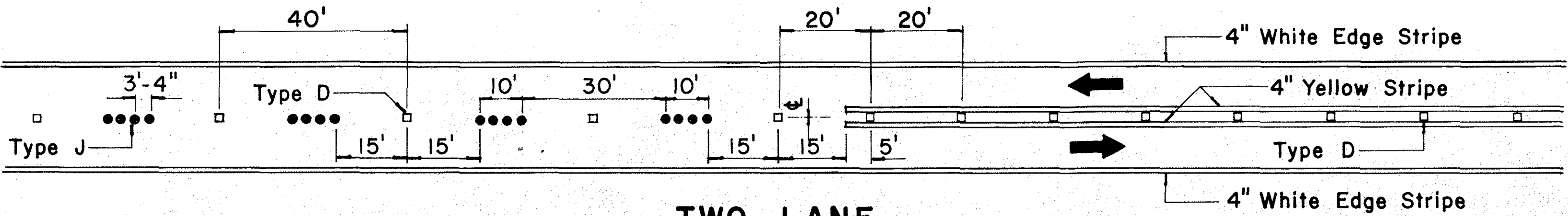
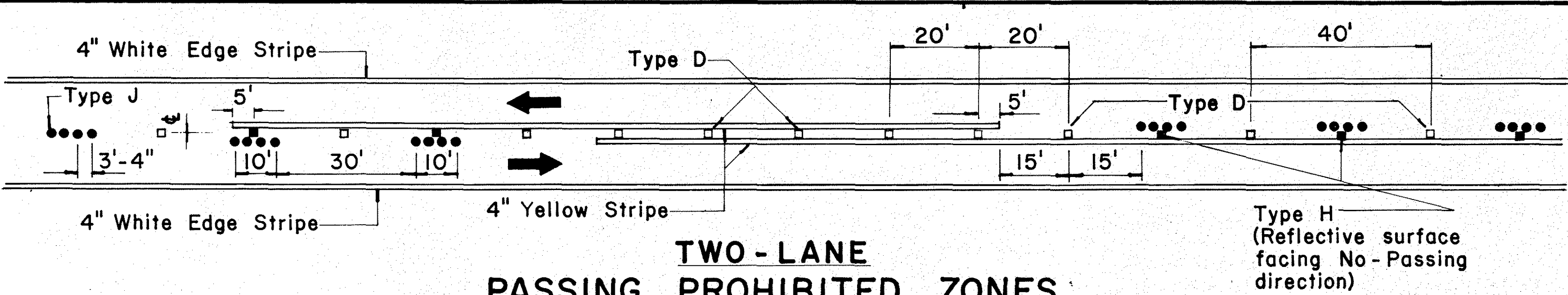


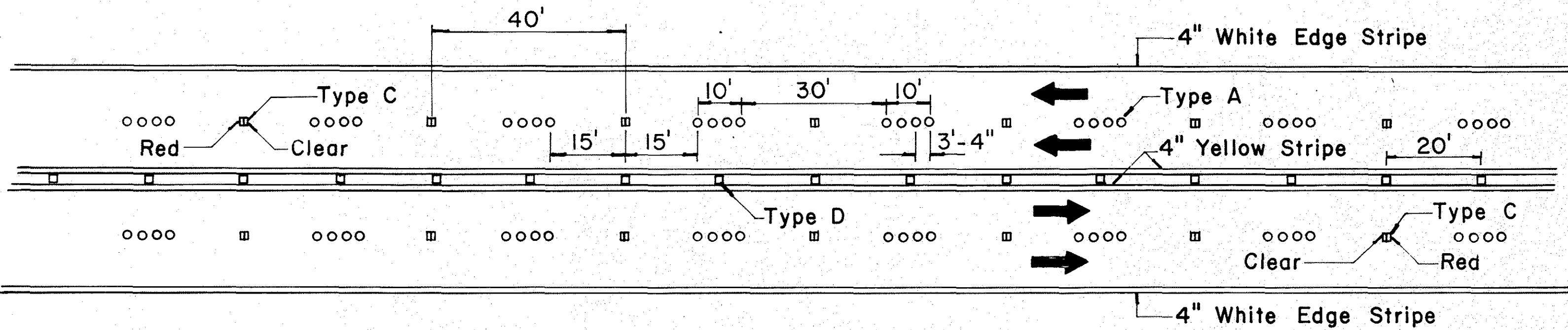
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	103-0750 (A)	1977	8	12



**TWO - LANE
PASSING PERMITTED AND PASSING PROHIBITED**

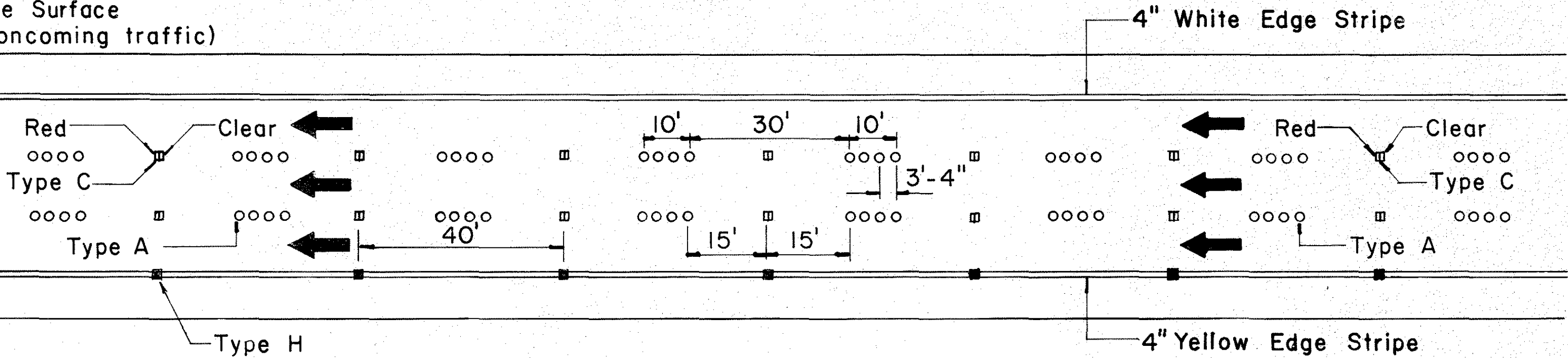


**TWO - LANE
PASSING PROHIBITED ZONES**

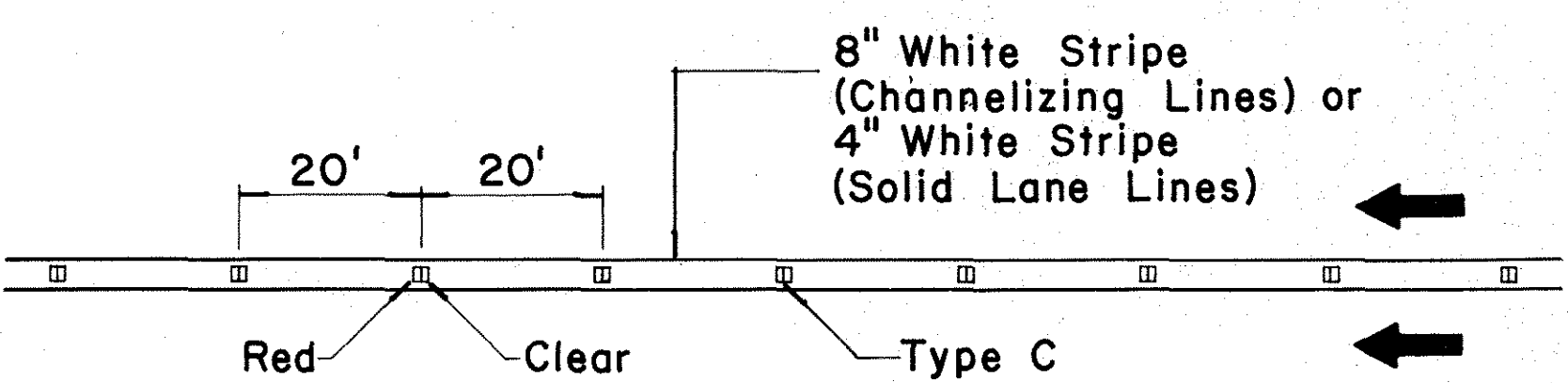


**MULTI - LANE
LANE LINES AND CENTER LINE**

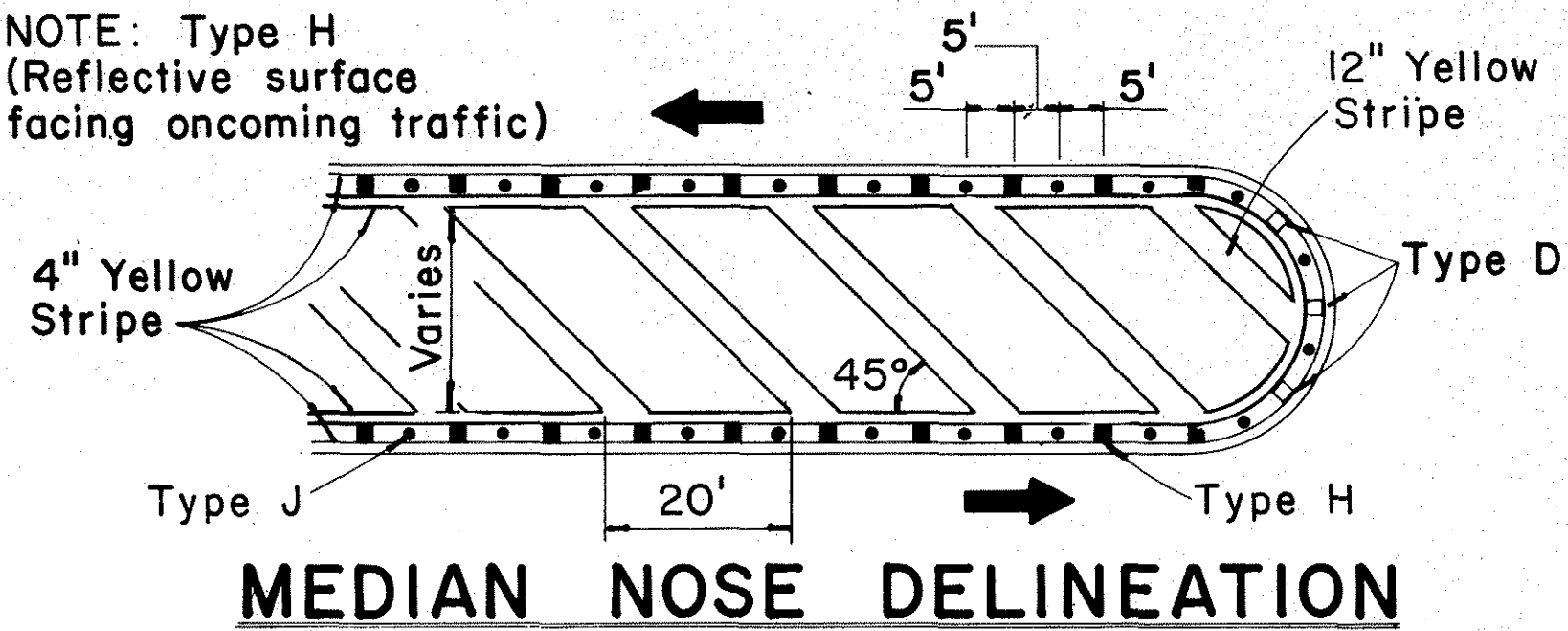
NOTE: Type H
(Reflective Surface
facing oncoming traffic)



**DIVIDED HIGHWAY
AND
FREEWAY**



**CHANNELIZING LINES
OR SOLID LANE LINES**

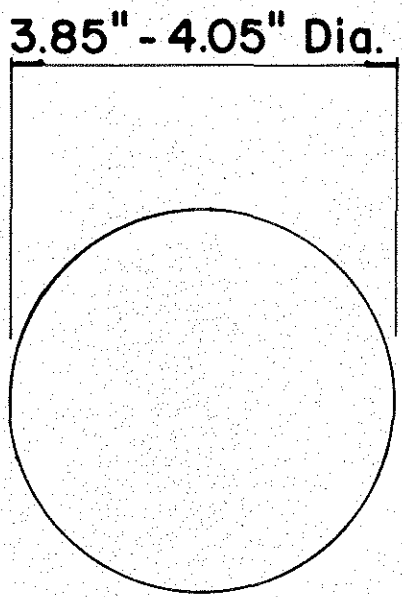


MEDIAN NOSE DELINEATION

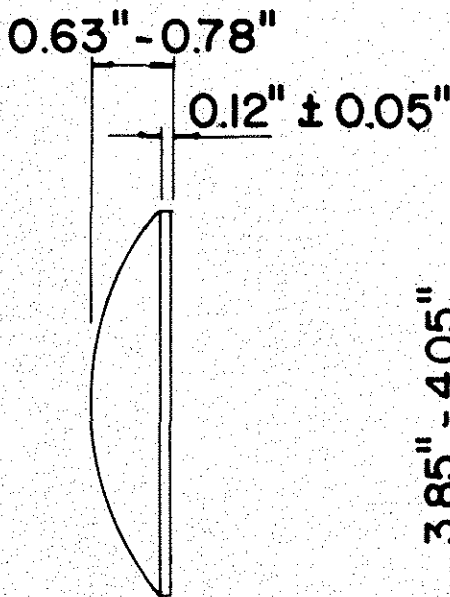
TWO - LANE

MULTI - LANE

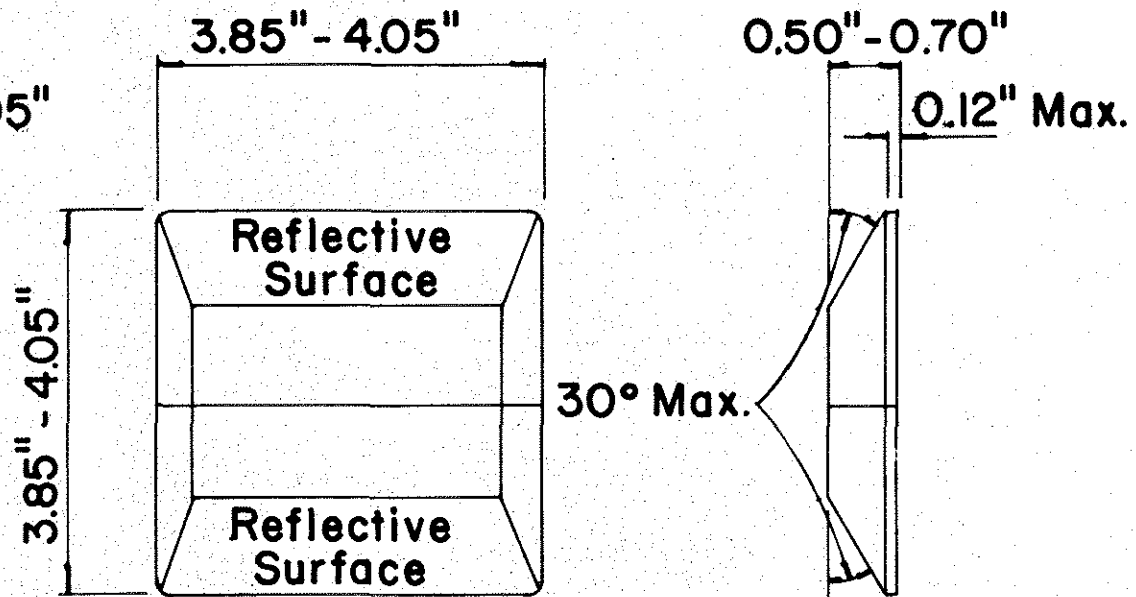
MISCELLANEOUS



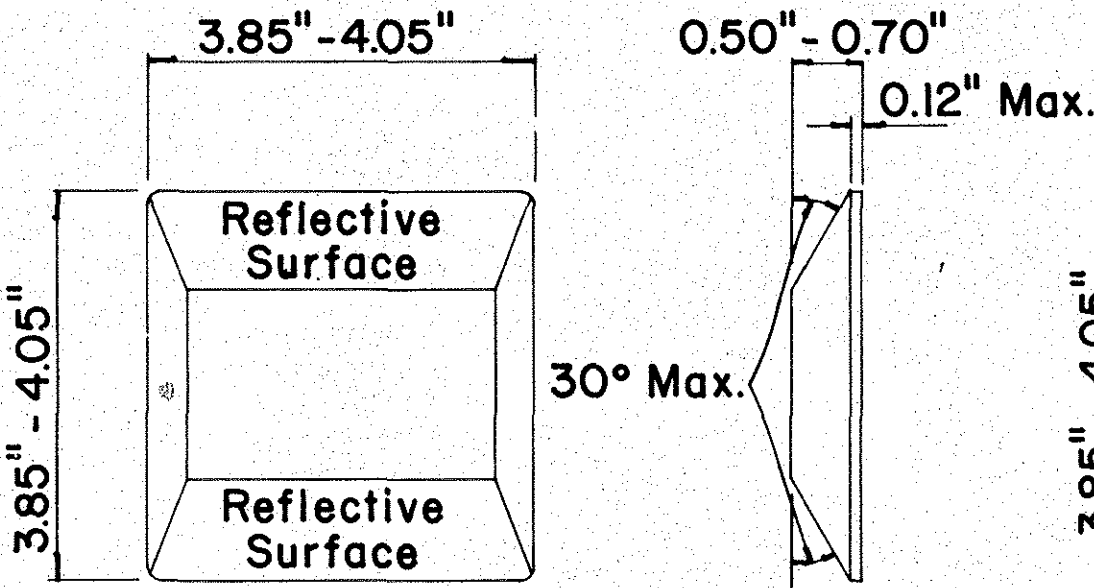
**TYPE A
NON - REFLECTIVE WHITE MARKER**



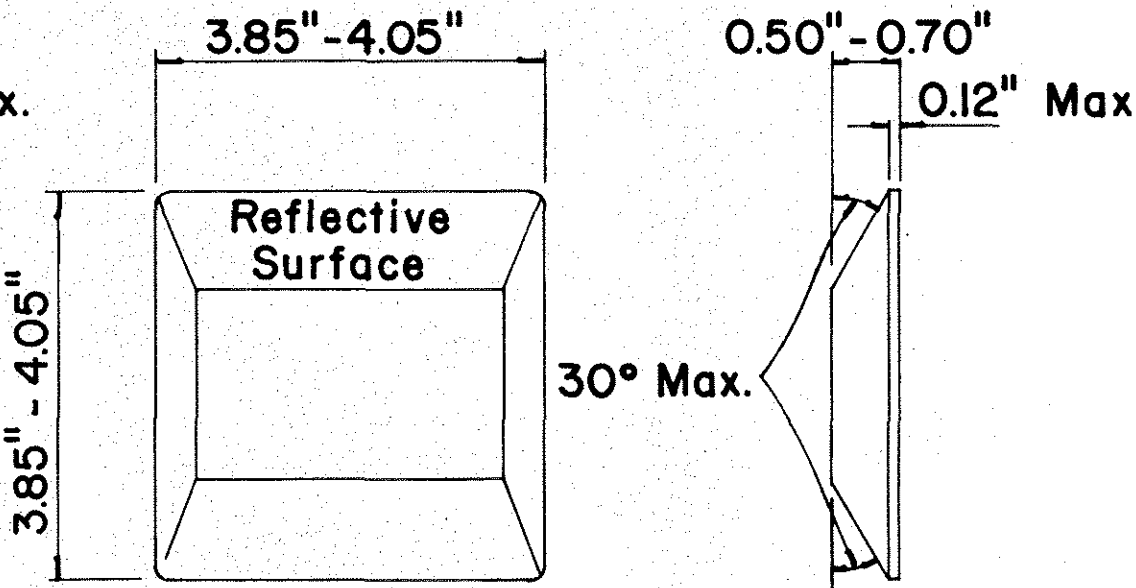
**TYPE J
NON - REFLECTIVE YELLOW MARKER**



**TYPE C
RED - CLEAR REFLECTIVE MARKER**



**TYPE D
TWO - WAY YELLOW REFLECTIVE MARKER**



**TYPE H
ONE - WAY YELLOW REFLECTIVE MARKER**

GENERAL NOTES

- Pavement marking and striping shall conform to the latest "Manual on Uniform Traffic Control Devices for Streets and Highways," and as amended.
- Layout and installation of pavement marking and striping shall be done by the Contractor. The Contractor shall check the layouts with the Engineer prior to performing work.

LEGEND

- Type A
- Type C
- Type D
- Type H
- Type J

APPROVAL RECOMMENDED:
Erich Tanaka 11/18/71
TRAFFIC ENGINEER DATE

APPROVED:
Shirley Zateish 11/18/71
ASSISTANT CHIEF, ENGINEERING DATE

No.	REVISION	APPROVED BY	DATE
1	Add reflector marker in each line gap.	H.T.	10-21-72
2	Revised General Notes.	H.T.	10-21-72
3	Change 4" white edge stripe to 4" solid yellow edge stripe to left edge of a travel path and Add Type H Reflector Marker.	H.T.	5-22-74
4	Revised details, General Notes & Title Box.	H.T.	1-13-77

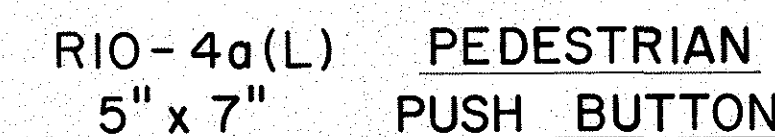
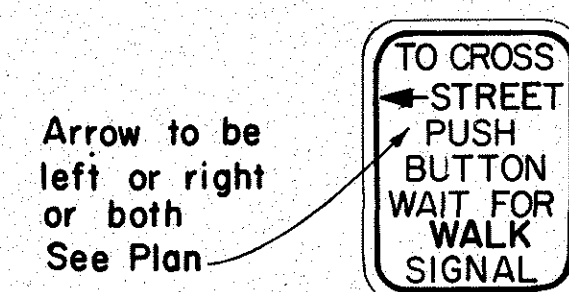
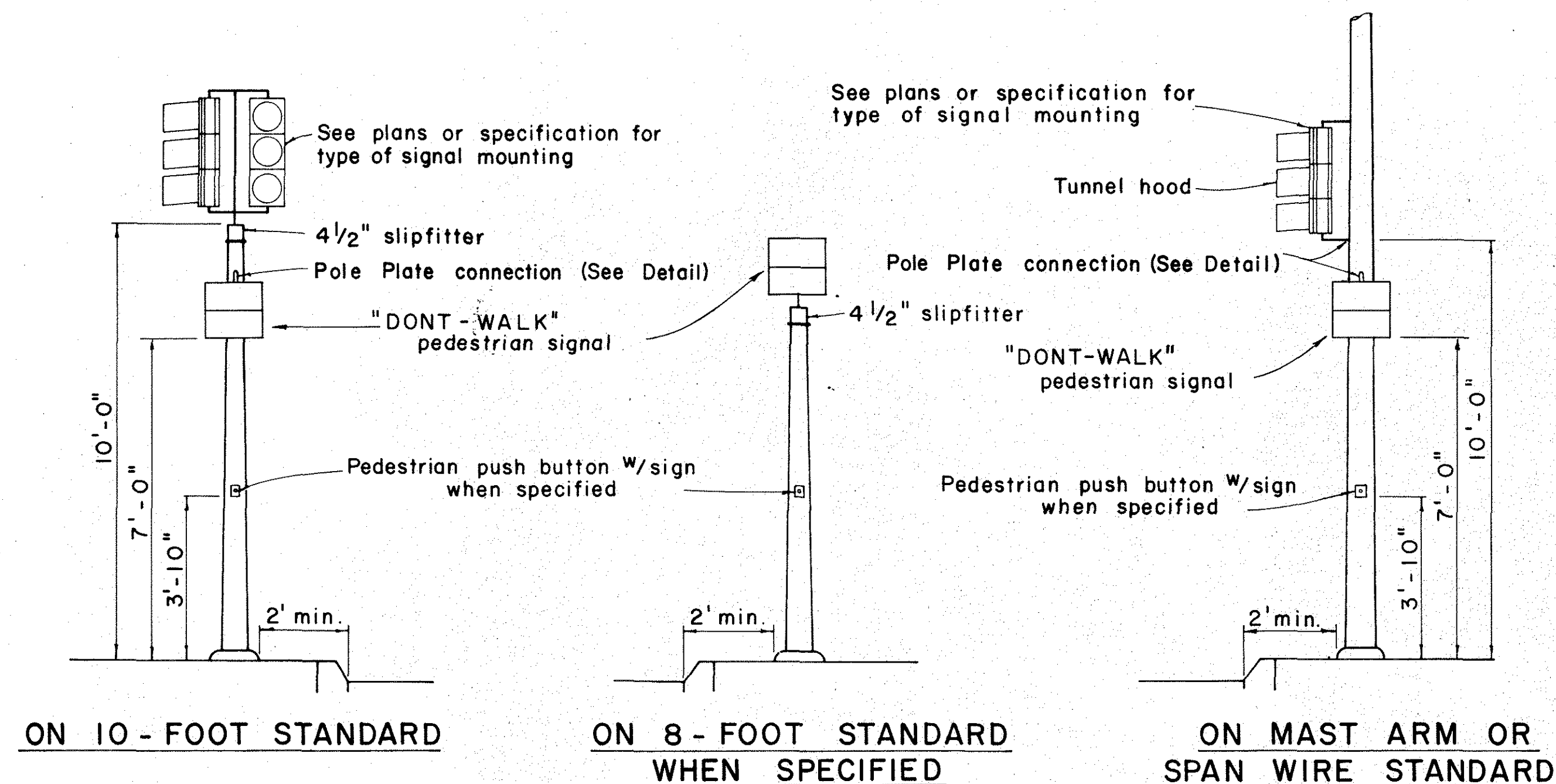
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

STANDARD DETAILS RAISED PAVEMENT MARKERS AND STRIPING

Not to Scale October 1971
SHEET No. 3 OF 7 SHEETS DT 300

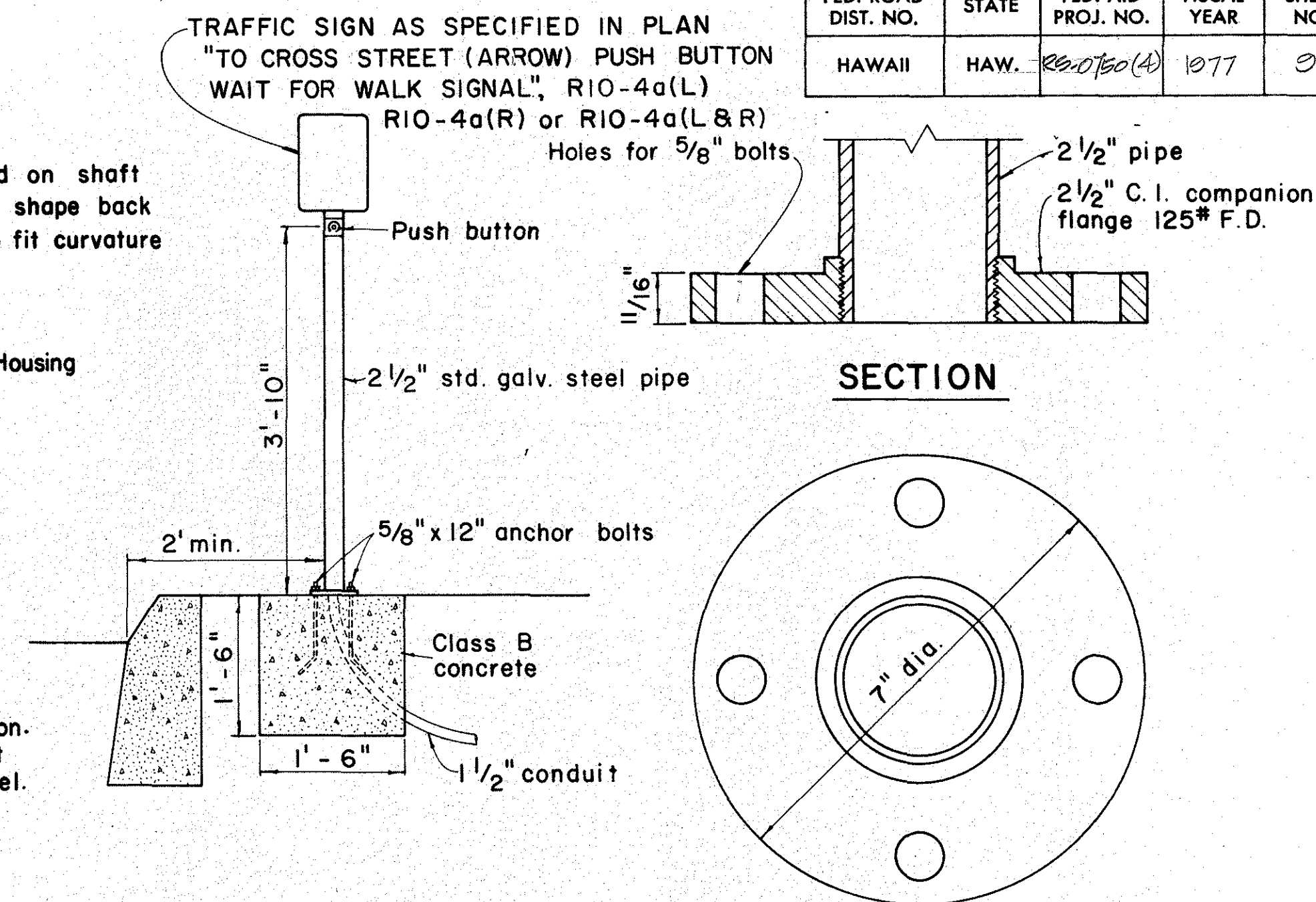
Office Copy

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	25-0750(4)	1977	9	12

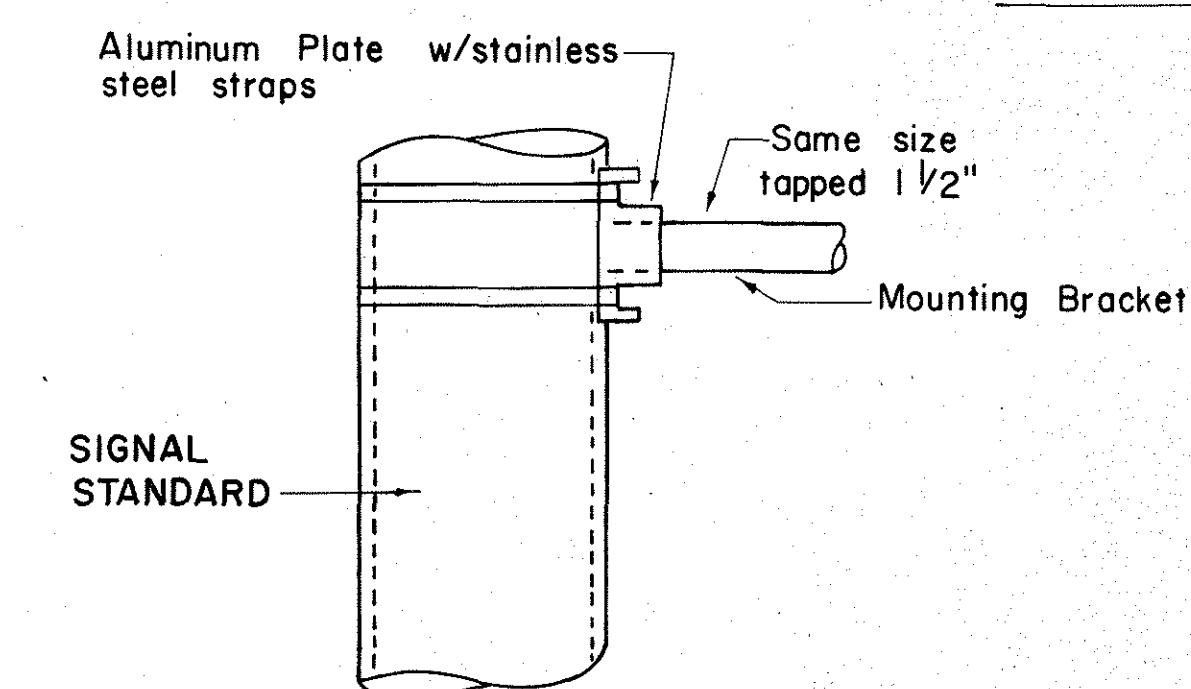


NOTE:

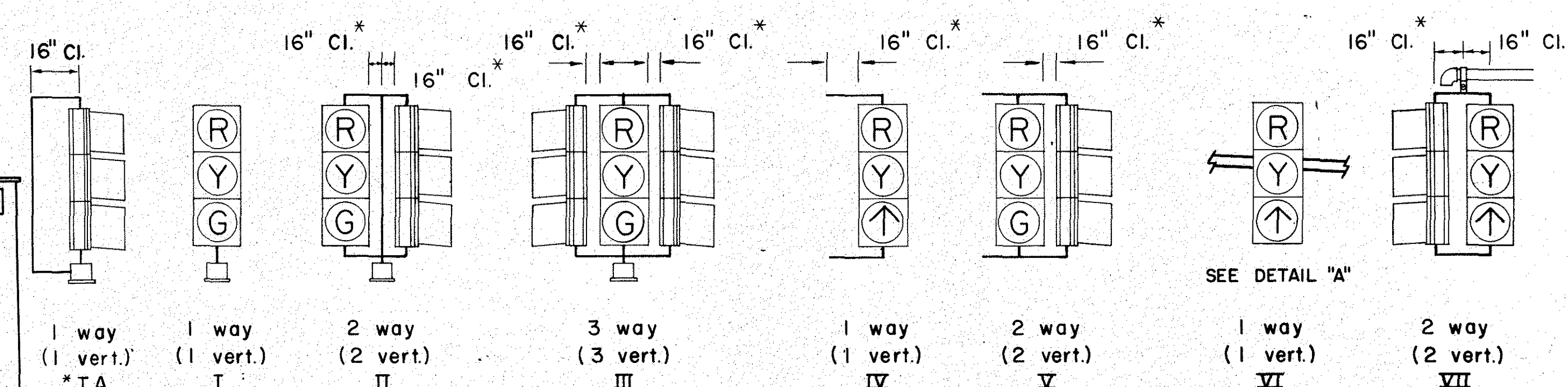
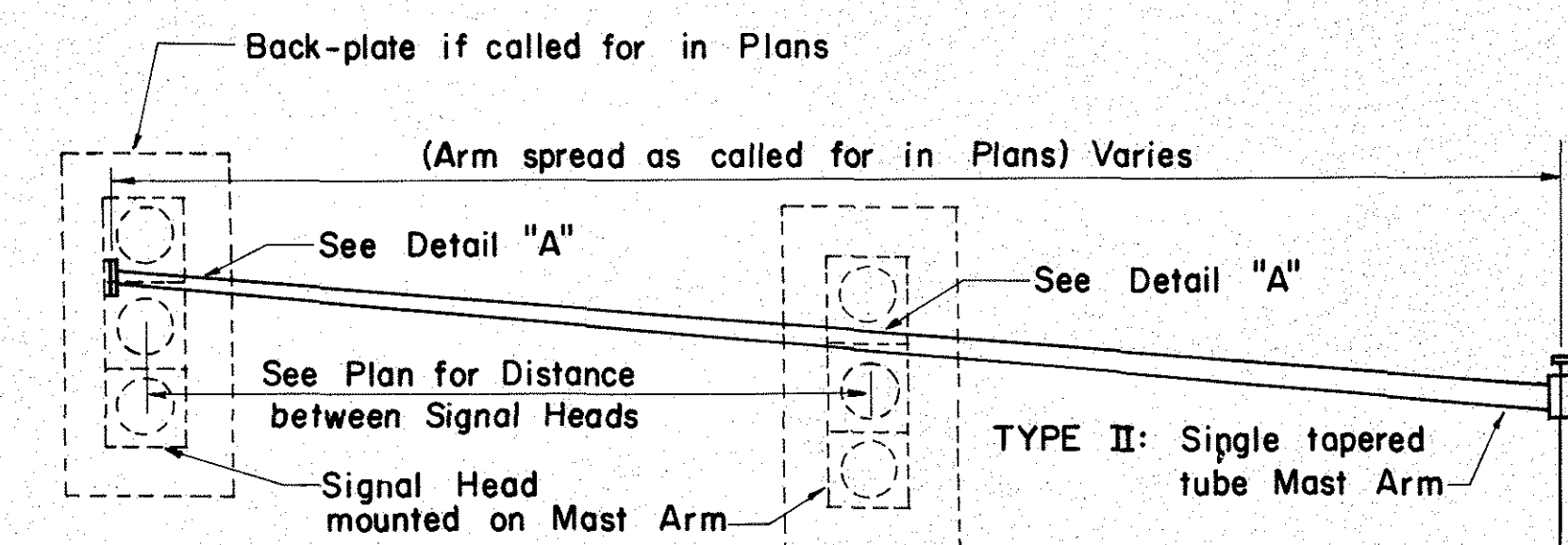
1. Conduits shall protrude 2" max. above finished surface of foundation.
2. Conduits shall slope away from pole foundation.
3. Post and base shall be painted with one coat of approved weather proof dark green enamel.



TYPICAL EQUIPMENT MOUNTINGS

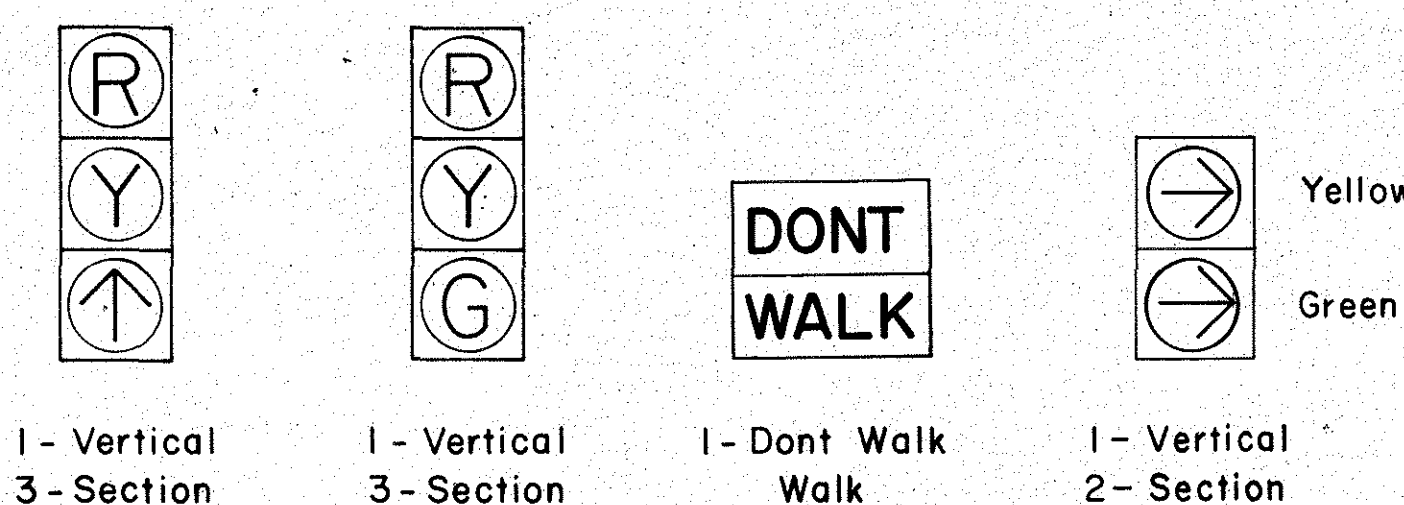


DETAIL OF POLE PLATE CONNECTIONS



* Use with Programmed Visibility Signal

TYPICAL VEHICULAR AND PEDESTRIAN SIGNAL MOUNTINGS



TYPICAL SIGNAL ARRANGEMENTS

NO.	REVISION	APPROVED BY	DATE
1	Revise code nos. for Pedestrian Push Button signs.	H.T.	3/1/23
2	Revise Details of Traffic and Pedestrian Signals, Standards and Pedestrian Push Button and Signs.	H.T.	3/5/23
3	Revise signal indications.	H.T.	9/2/23

APPROVAL RECOMMENDED

Enichi Tanaka 12/29/69
TRAFFIC ENGINEER DATE

Shah 2222 12/30/69
ASSISTANT CHIEF, ENGINEERING DATE

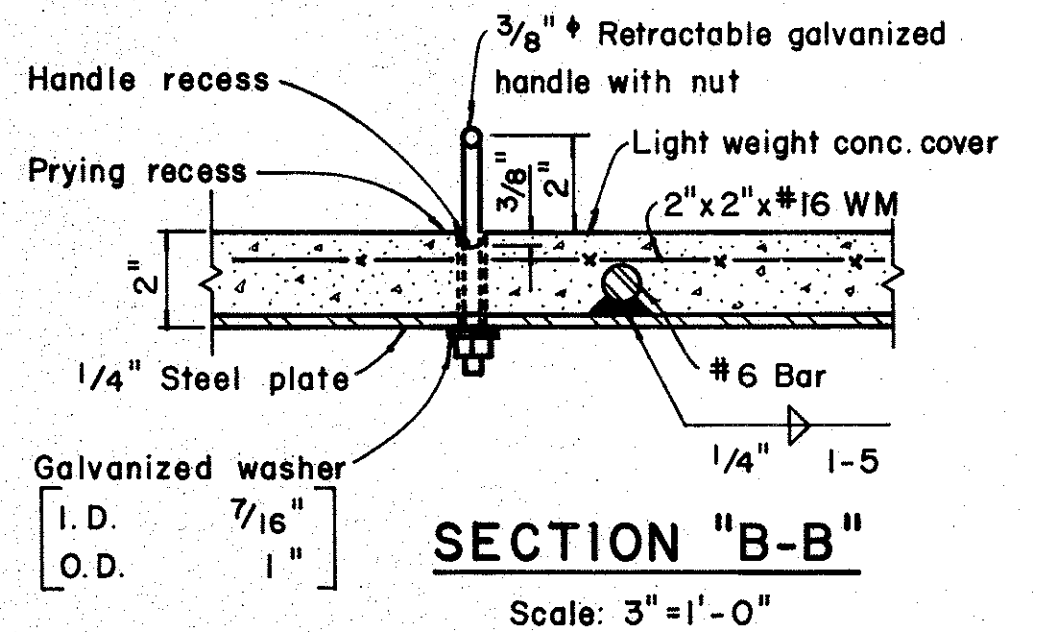
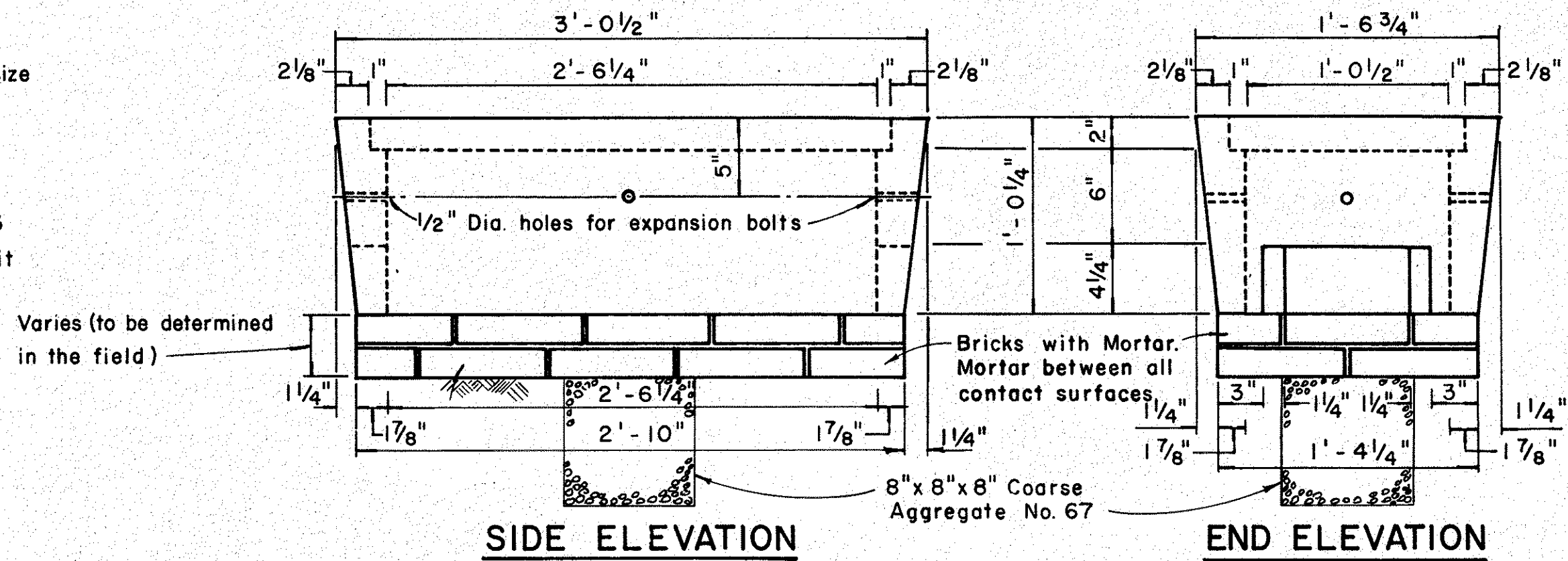
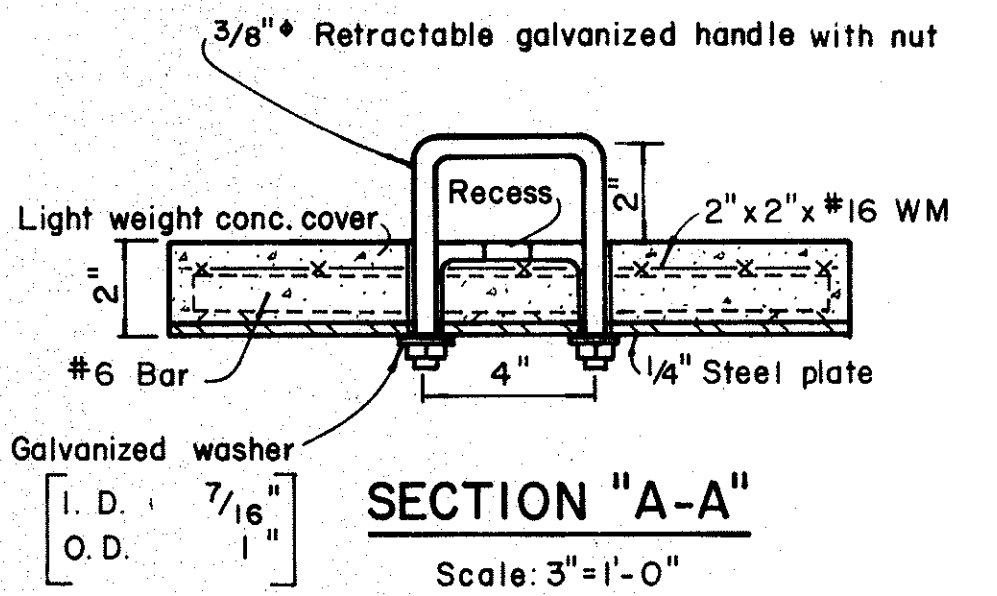
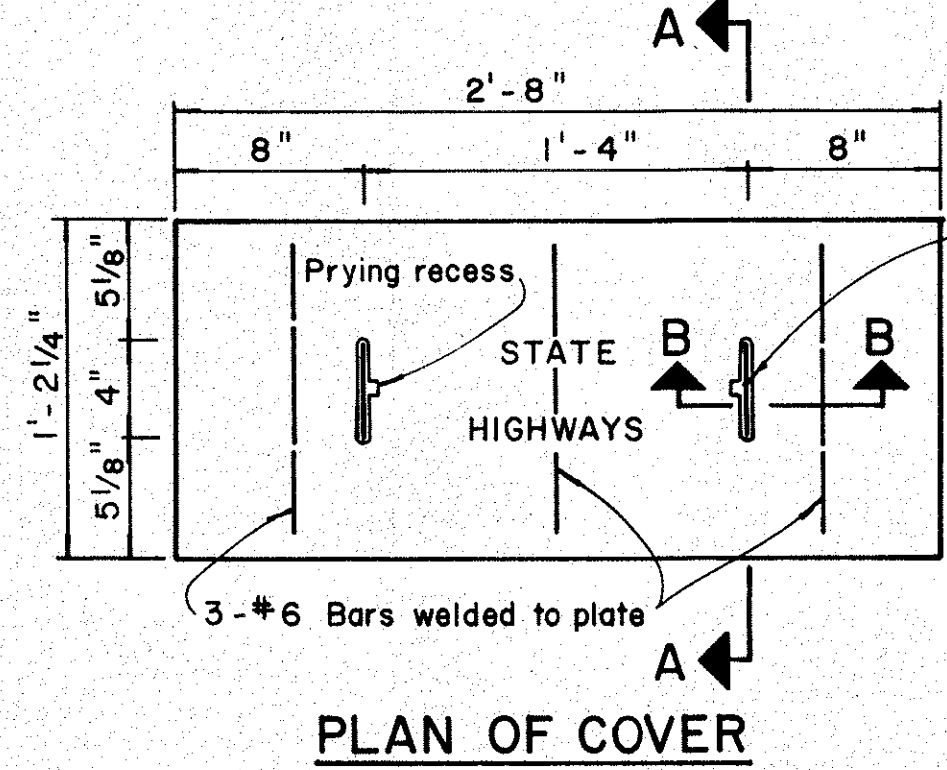
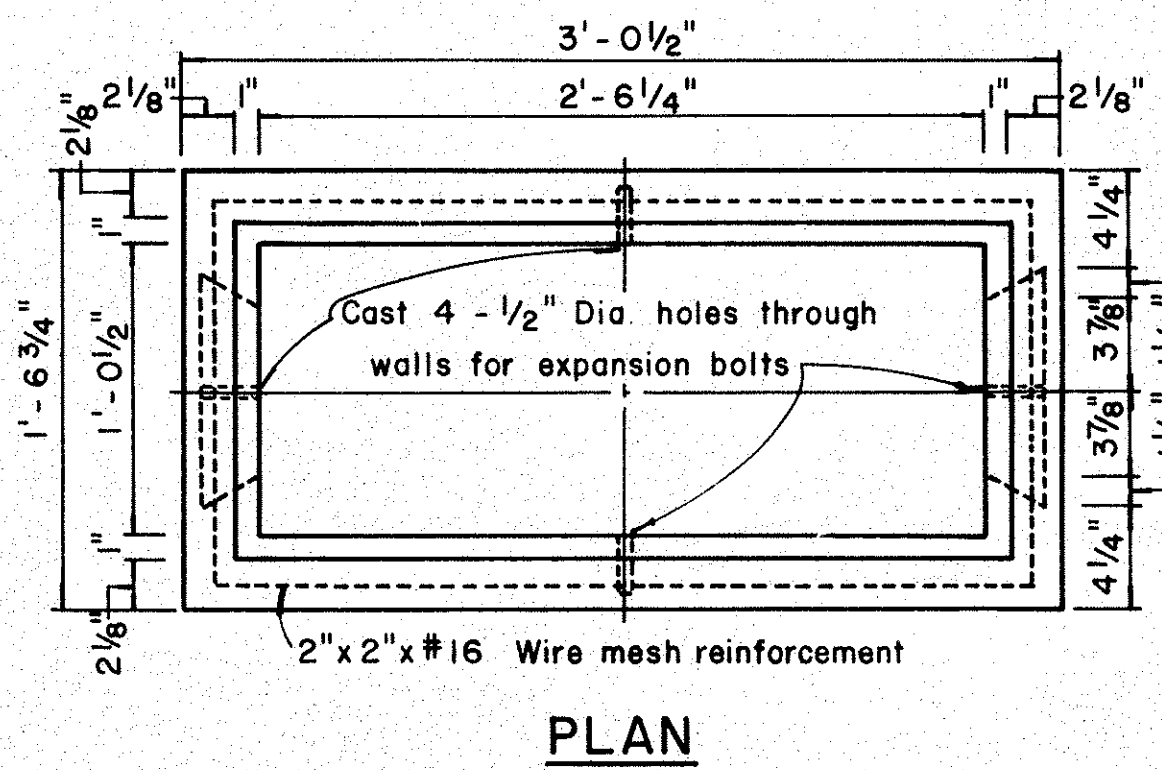
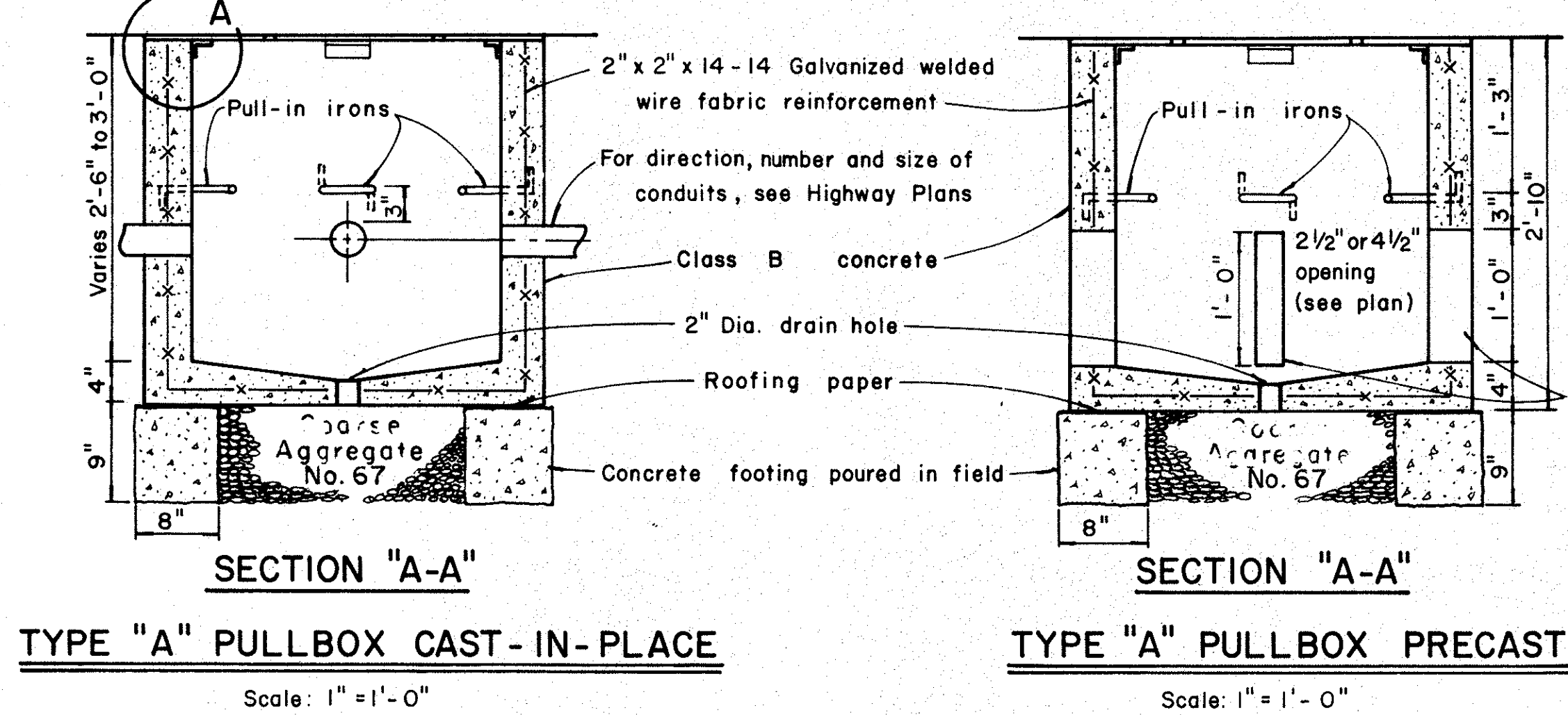
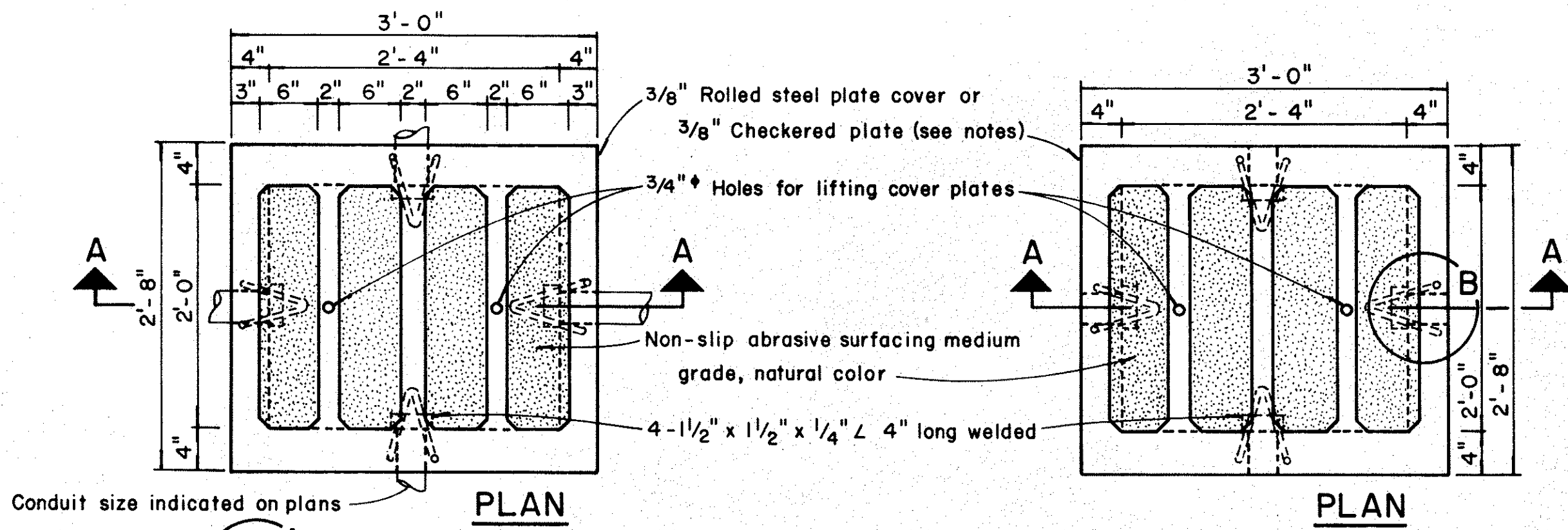
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION
TRAFFIC SIGNAL SYSTEM
MISCELLANEOUS DETAILS

Not to Scale

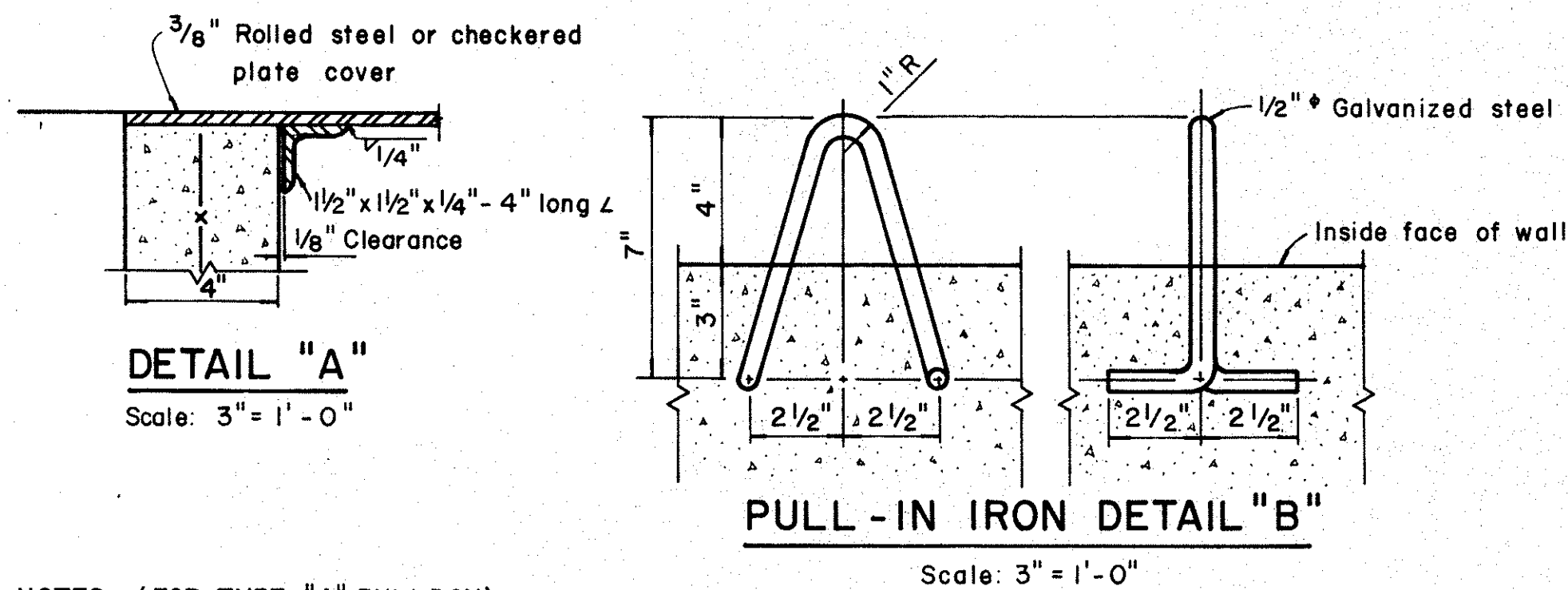
SHEET No. 4 OF 7 SHEETS DT 400

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

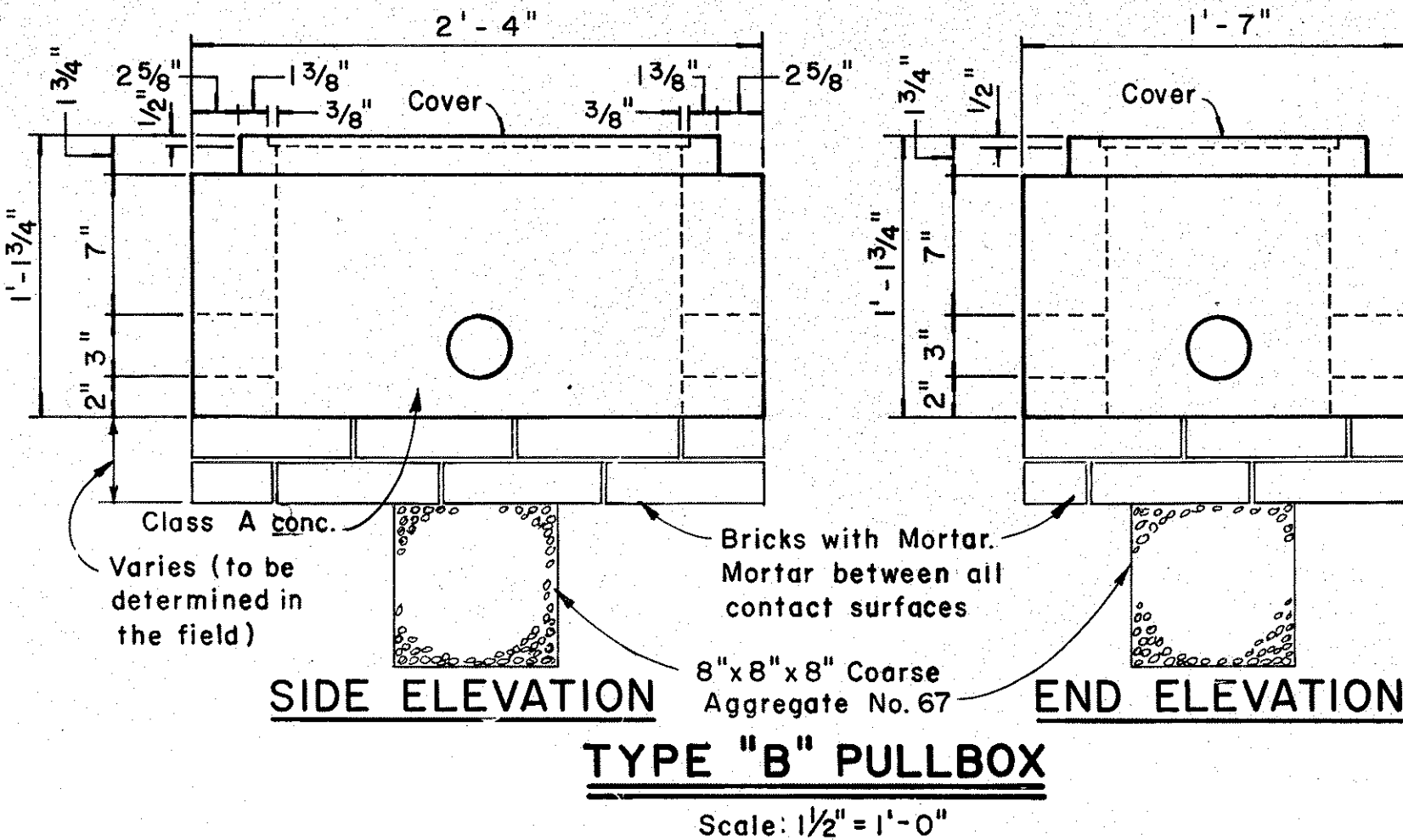
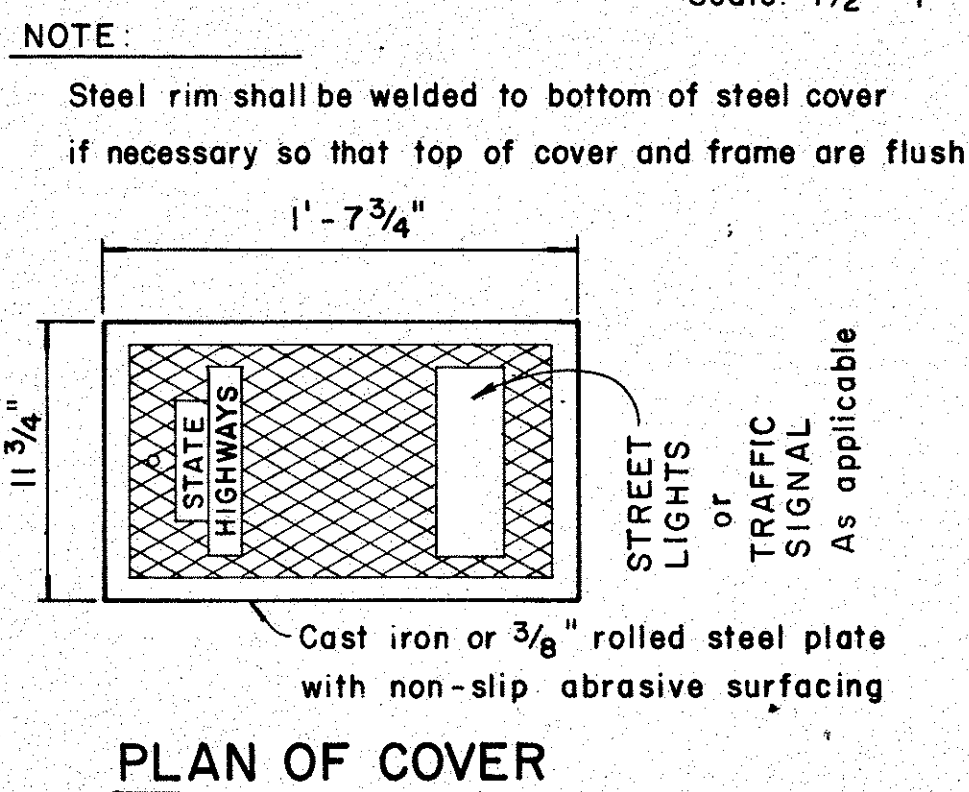
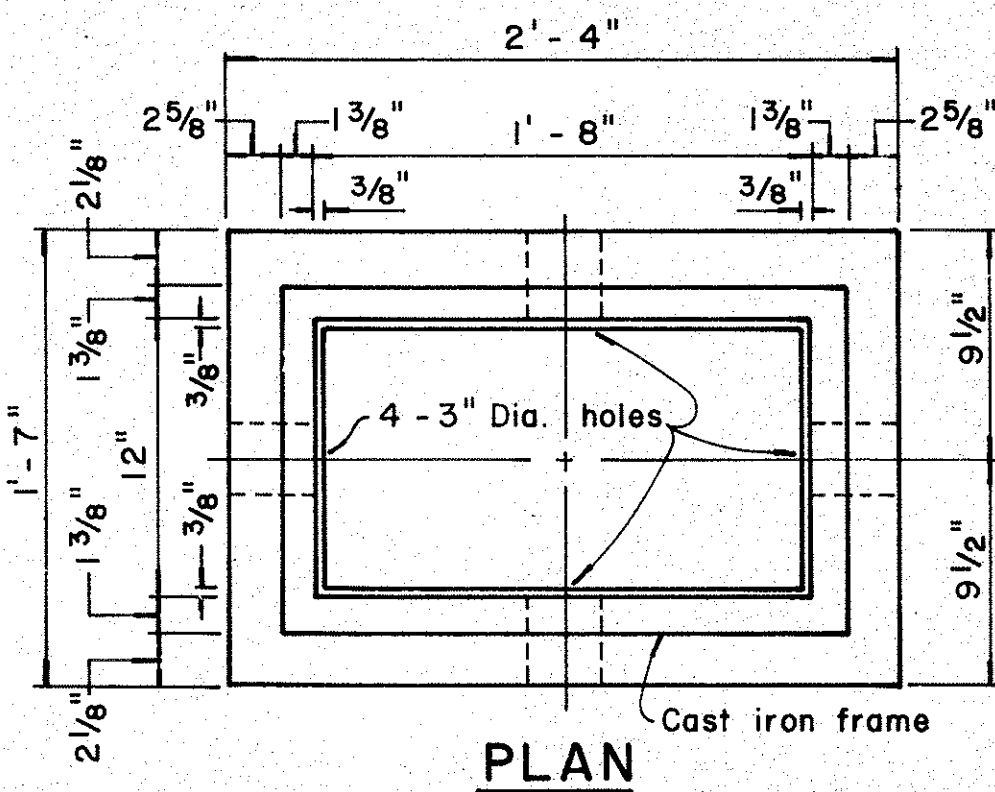
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	RE-050 (A)	1977	10	12



TYPE "C" PULLBOX
Scale: 1/2" = 1'-0"



- NOTES: (FOR TYPE "A" PULLBOX)
- 3/8" Rolled steel plate cover with non-slip abrasive surfacing medium grade, natural color shall be used on all pullboxes located on sidewalk areas where pedestrians are walking.
 - 3/8" Checkered plate cover shall be used on all pullboxes located in median areas and other locations where there are no pedestrians walking.
 - Pull irons shall be placed opposite each conduit slot.
 - Covers on all pullboxes located in sidewalk areas shall be set flush with the concrete sidewalk.
 - Each pullbox shall have a pair of pull irons opposite each other for lifting purposes.



NOTE:
Steel rim shall be welded to bottom of steel cover if necessary so that top of cover and frame are flush.

APPROVAL RECOMMENDED:
TRAFFIC ENGINEER
DATE: 12-1-69

APPROVED:
ASSISTANT CHIEF, ENGINEERING
DATE: 12-20-69

NO.	REVISION	APPROVED BY	DATE
1	Revised Type B & C Pullbox details	H.T.	3-5-76

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION
STANDARD DETAILS
PULLBOXES
Scale as noted
Date JUNE 15, 1977
SHEET No. 5 OF 7 SHEETS DT 401

3'-0" square

3" cl

#4 ties @ 12"

"d" bars

Diagram illustrating the reinforcement details for a square column. The outer square is labeled "a" square. The inner square, representing the core, is labeled "3'-0" square". The core contains "b" bars (longitudinal bars) and "4 ties @ 12" (stirrups). A "2" cl." (clearance) is indicated between the core and the outer square. A dimension line shows the "3'-0" square" is 3 feet 0 inches wide.

Diagram illustrating the construction details of a concrete pile foundation. The pile is shown with a diameter of 12 inches (12" dia.). The pile is embedded in a concrete base. The diagram includes the following annotations:

- Size and length of anchor bolts and diameter of bolt vary.** (Referring to the top of the pile)
- See manufacturer's literature.** (Referring to the anchor bolts)
- Form upper 6" of base.** (Referring to the top section of the concrete base)
- "d" bars** (Referring to the longitudinal reinforcement bars)
- #4 ties @ 12"** (Referring to the cross-ties)
- Place conc. neat.** (Referring to the concrete placement)
- To pullbox** (Referring to the connection point)
- 2"-90° elbow** (Referring to the elbow connection)
- Fin. gr.** (Referring to the finished grade)
- Grounding type bushing** (Referring to the top connection)
- 12" dia.** (Referring to the pile diameter)

[illegible]

MAST ARM LENGTH	" c "	" d " BARS
16' - 18'	5' - 0"	12 - [#] 6
20'	5' - 6"	12 - [#] 6
25'	6' - 0"	12 - [#] 6
30'	6' - 6"	12 - [#] 6
35'	7' - 0"	12 - [#] 8
40'	8' - 0"	12 - [#] 8

MAST ARM LENGTH	"a"	"b" BARS
16'- 18'	5' - 0"	12 - #6
20'	5' - 6"	12 - #6
25'	6' - 0"	12 - #6
30'	6' - 6"	12 - #8
35'	6' - 6"	12 - #8
40'	7' - 0"	12 - #8

FOOTING FOR MAST ARM STANDARD

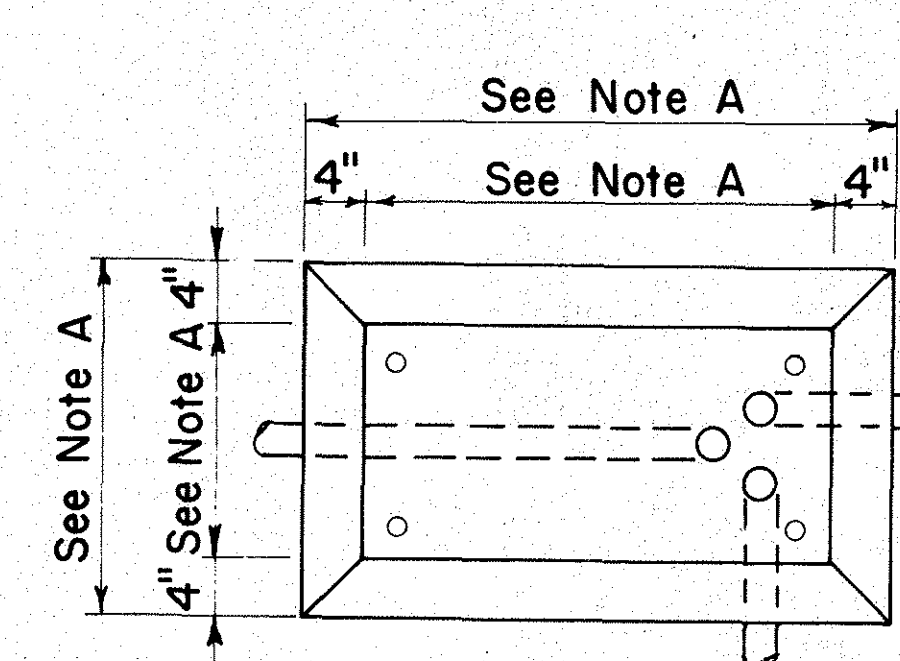


Diagram illustrating the foundation details for a structure, showing the placement of conduits, anchor bolts, and ground rods.

Labels and Dimensions:

- Conduit extended above
- Anchor Bolts to be furnished by Contractor
- Top of Exist. grd.
- 1'-6"
- Class B concrete
- Bushings
- Conduits (for direction, size & No., see Plans)
- Ground 5/8" x 8'-0"

CONCRETE BASE FOR CONTROLLER CABINET

A. Dimensions to be determined by the size of the Controller Cabinet to be furnished under this Contract.

B. Details of Conduits, Anchor Bolts, etc., are approximate only. Exact details shall be secured by the Contractor from Manufacturer.

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

NO.	REVISION	APPROVED BY	DATE

APPROVAL RECOMMENDED:
Eichi Tanaka 3/4/76
TRAFFIC ENGINEER DATE

APPROVED: Harbert W. Zakrisch 2-5-76
ASSISTANT CHIEF, ENGINEERING DATE

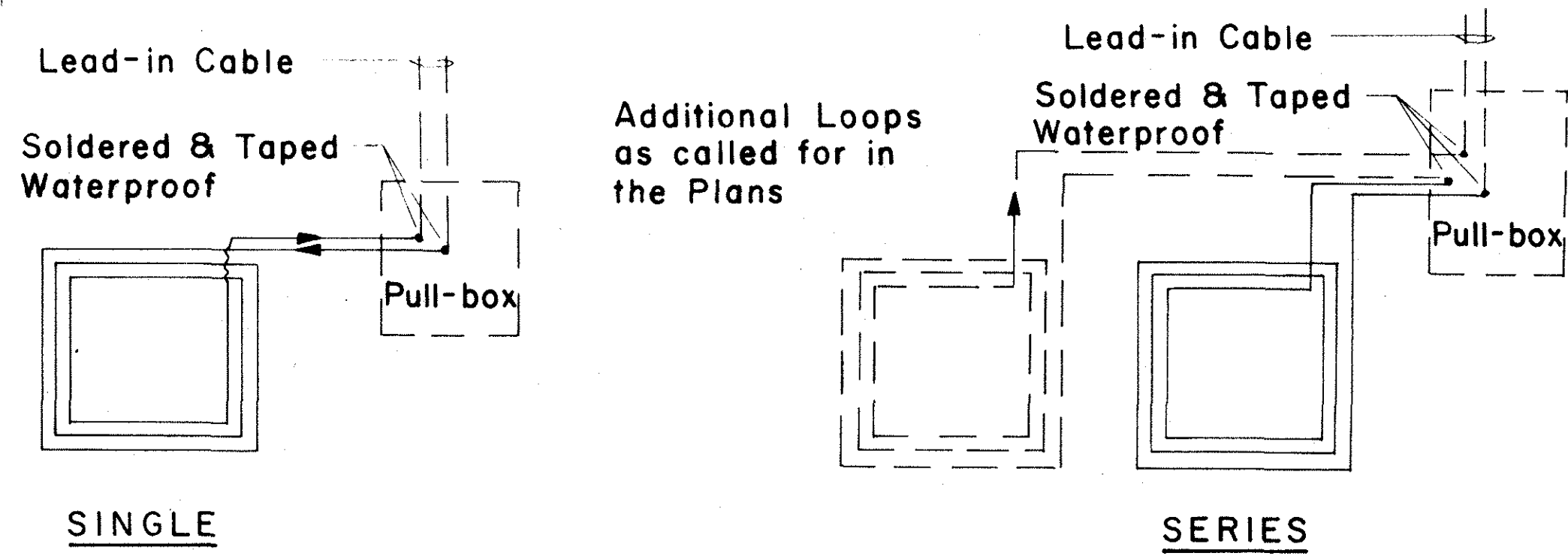
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

TRAFFIC SIGNAL SYSTEM
MISCELLANEOUS DETAILS

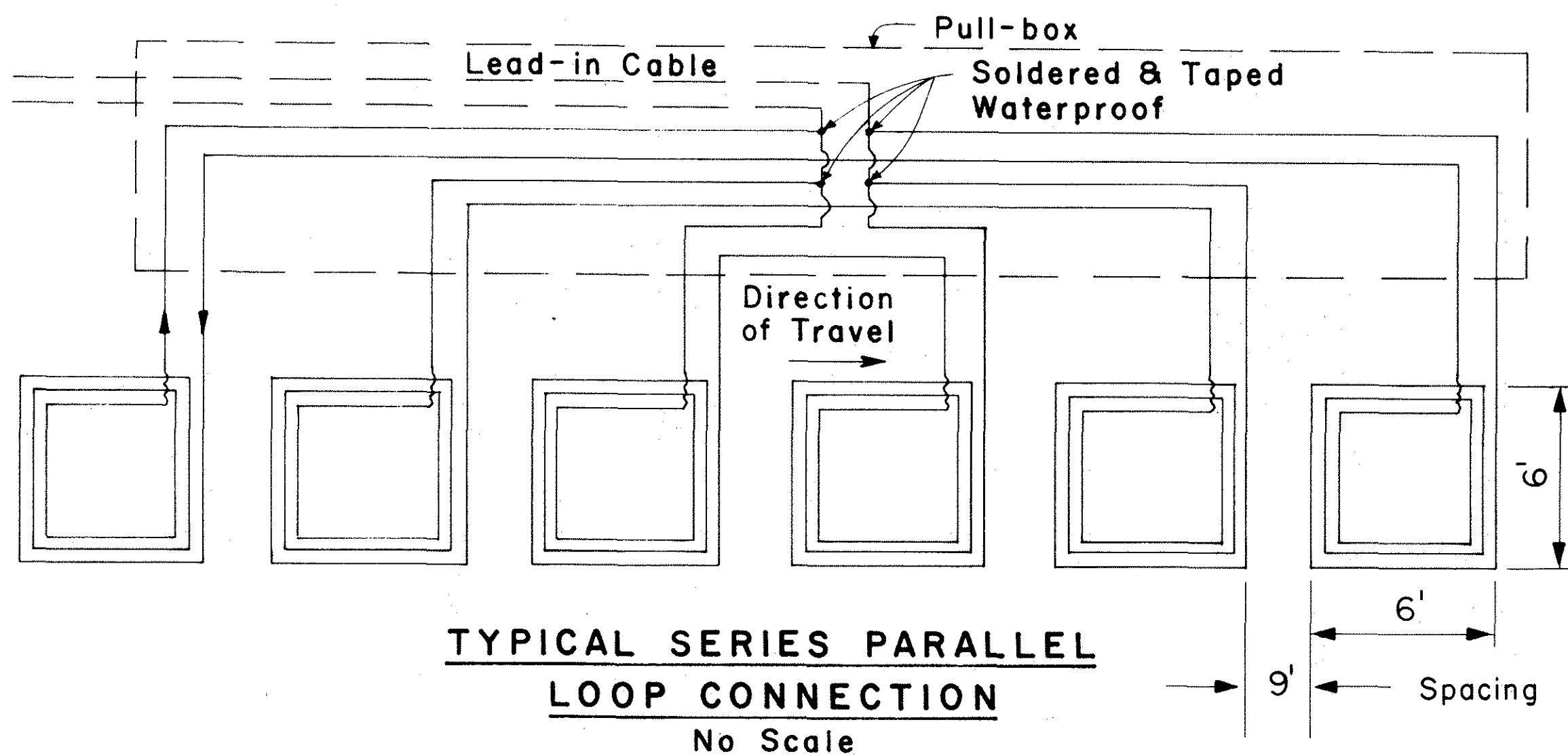
Not to Scale

SHEET No. 6 OF 7 SHEETS DT404

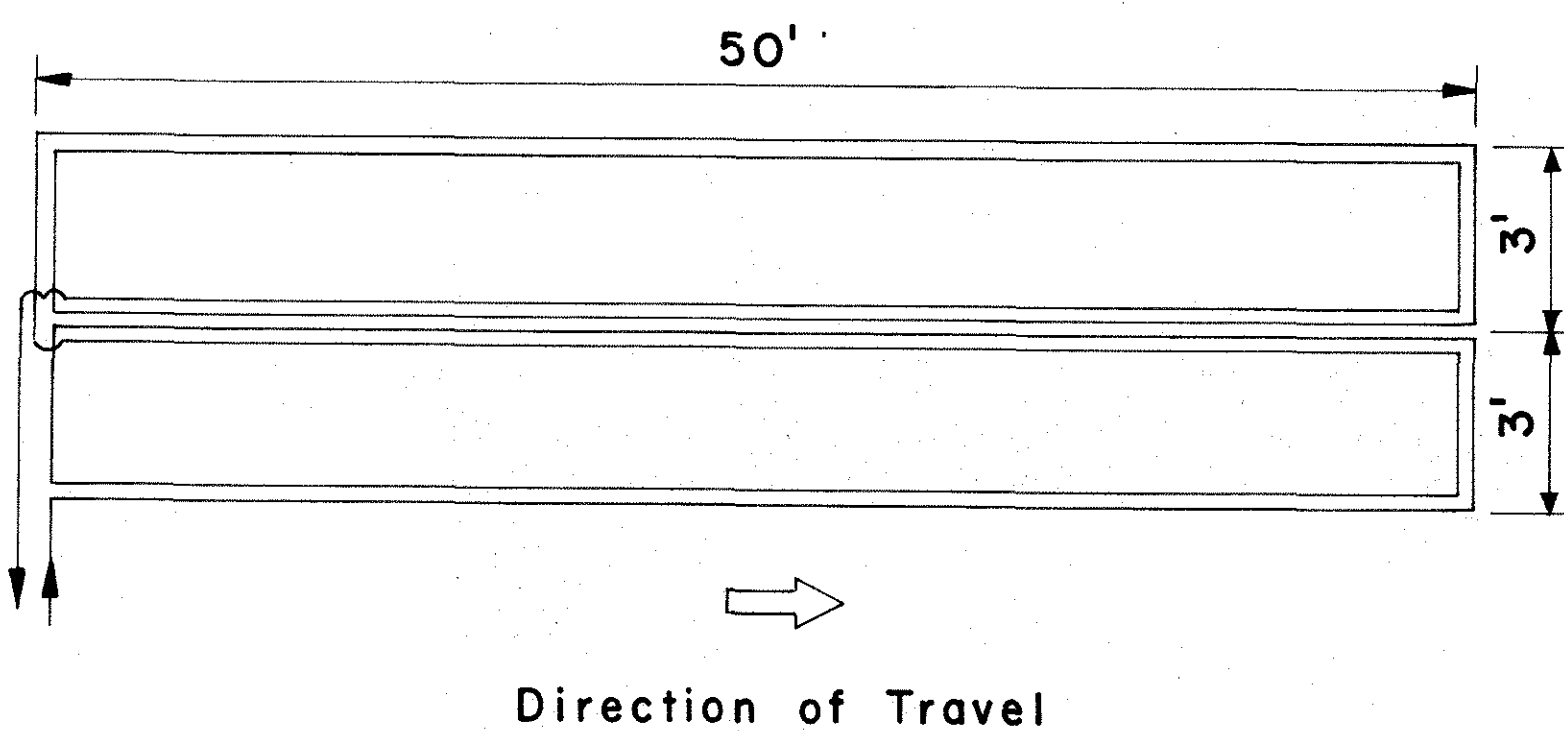
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	28-0180(A)	1977	12	12



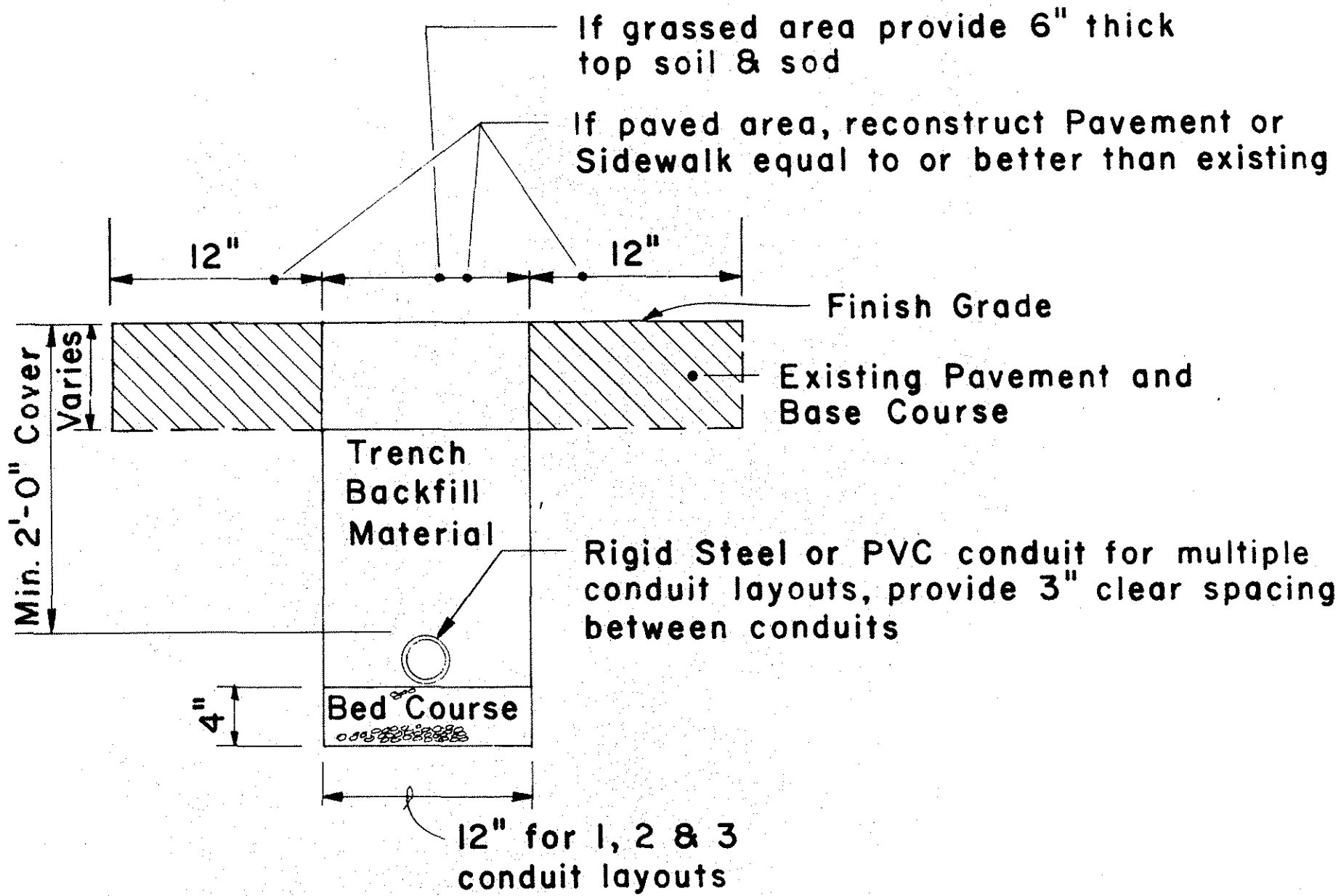
TYPICAL LOOP CONFIGURATIONS
No Scale



TYPICAL SERIES PARALLEL LOOP CONNECTION
No Scale

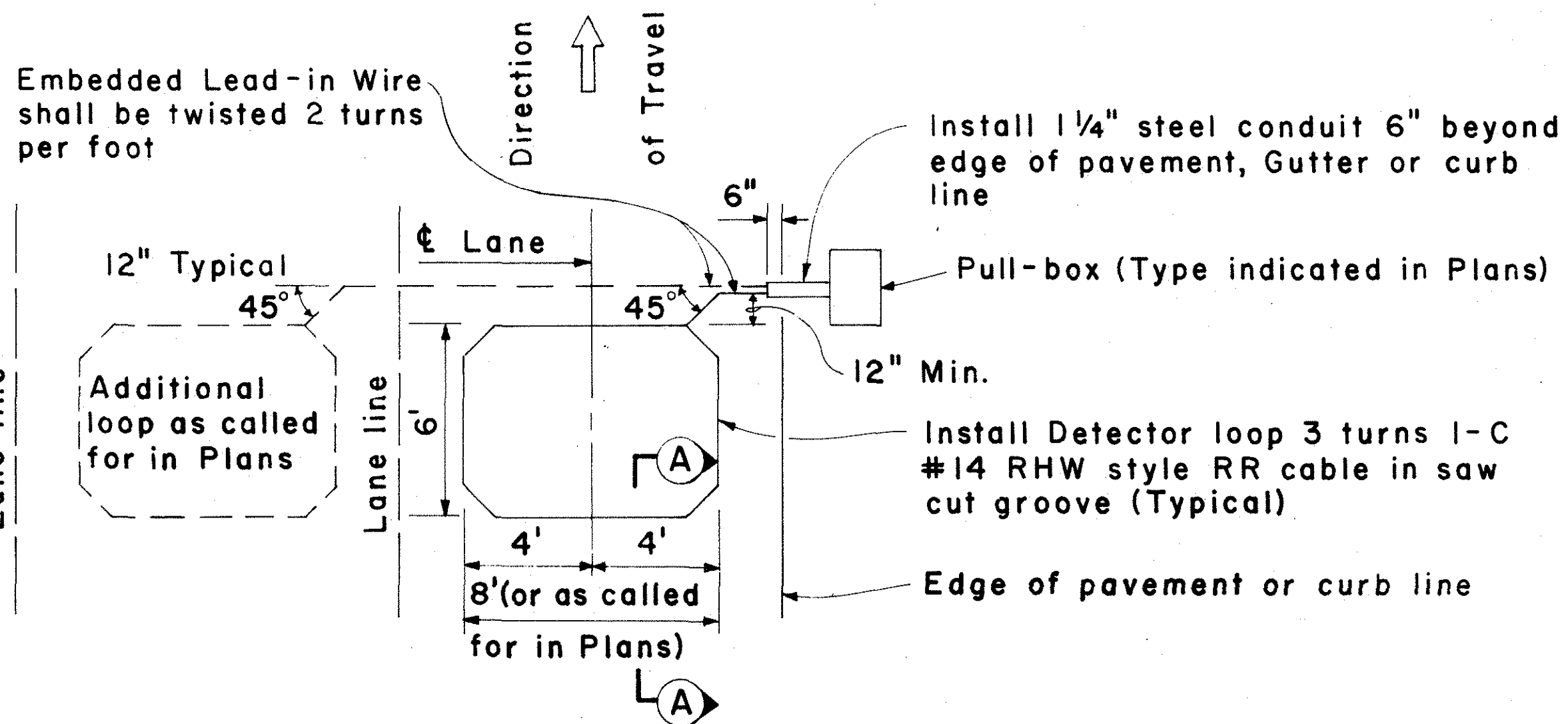


WIRING FOR 6' x 50' LOOP DETECTOR
No Scale

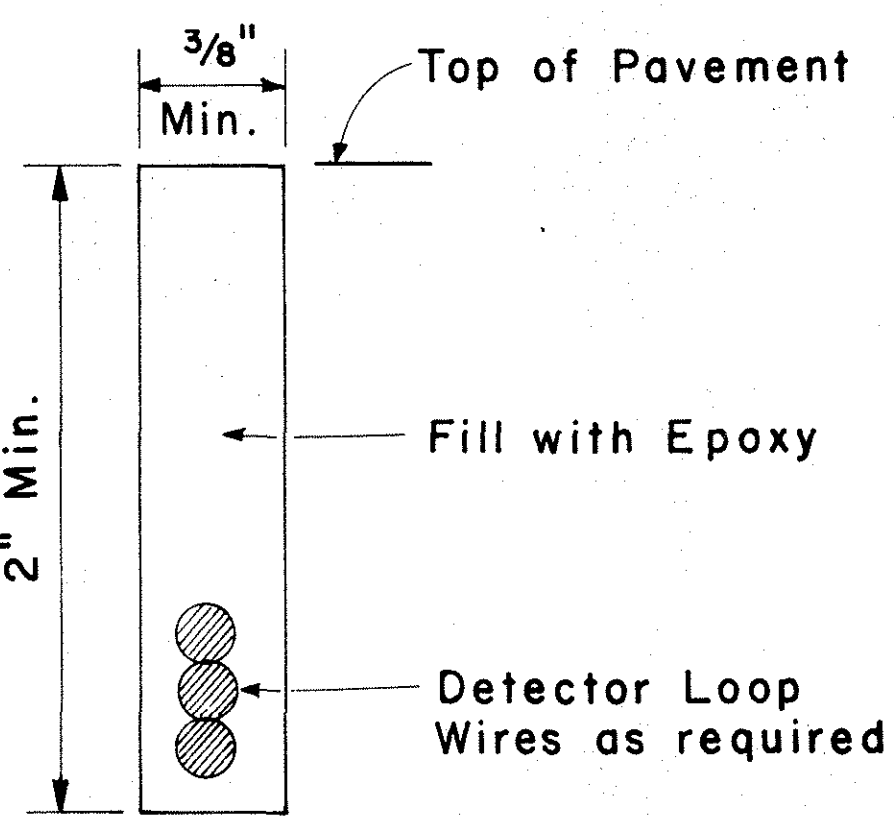


TYPICAL TRENCH SECTION FOR CONDUIT
Scale : 1 1/2" = 1' - 0"

NOTE:
1. All conduits under roadways shall be steel or PVC schedule 80. All other conduits shall be steel or PVC schedule 40.



PLAN - MULTIPLE LOOP LAYOUT
Scale : 1/4" = 1' - 0"



Detector Loop Saw-Cut SECTION A-A (TYPICAL)
No Scale

APPROVAL RECOMMENDED:
Erich Tanaka 3/4/76
TRAFFIC ENGINEER DATE

APPROVED:
Hubert B. Balentine 3-5-76
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Add dimensions to Loop Configurations	H.T.	9-22-76

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

**TRAFFIC SIGNAL SYSTEM
MISCELLANEOUS DETAILS**

Scale : As Noted

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