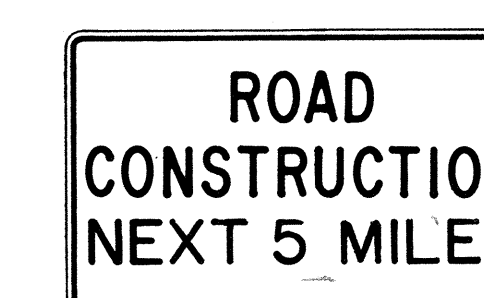


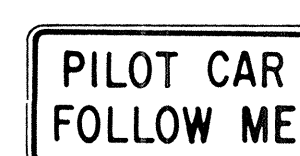
ORIGINAL	SURVEY PLOTTED BY	DATE
PLAN	DRAWN BY	44
	TRACED BY	44
NOTE BOOK	DESIGNED BY	00
	QUANTITIES BY	00
No.	CHECKED BY	00



CW21-2 30" x 30"



CG 20-1(5) 60" x 36"



CG 20-4 36" x 18"



CW 23-3(R) 48" x 48'

1. Sign details shall conform to the FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," 1971, and "Standard Highway Signs," 1972, and as amended.

2. All construction signs shall be reflectorized.
 3. All construction signs shall have $\frac{3}{8}$ " bolt holes drilled at appropriate locations.
 4. Numerals in () indicates numerals to be inserted for sign message. (R) or (L) indicates right or left.
 5. For "CW" series signs, suffixes a,b,c and d are as follows:
a-1500 FT, b-1000 FT,
c-500 FT and d-AHEAD.
- | NO. | REVISION | A |
|-----|------------------------|---|
| 1 | Supersedes Sht. DT 104 | |

3/21/72
DATE

3/23/15
DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

STANDARD DETAILS
CONSTRUCTION SIGNS

NOT TO SCALE

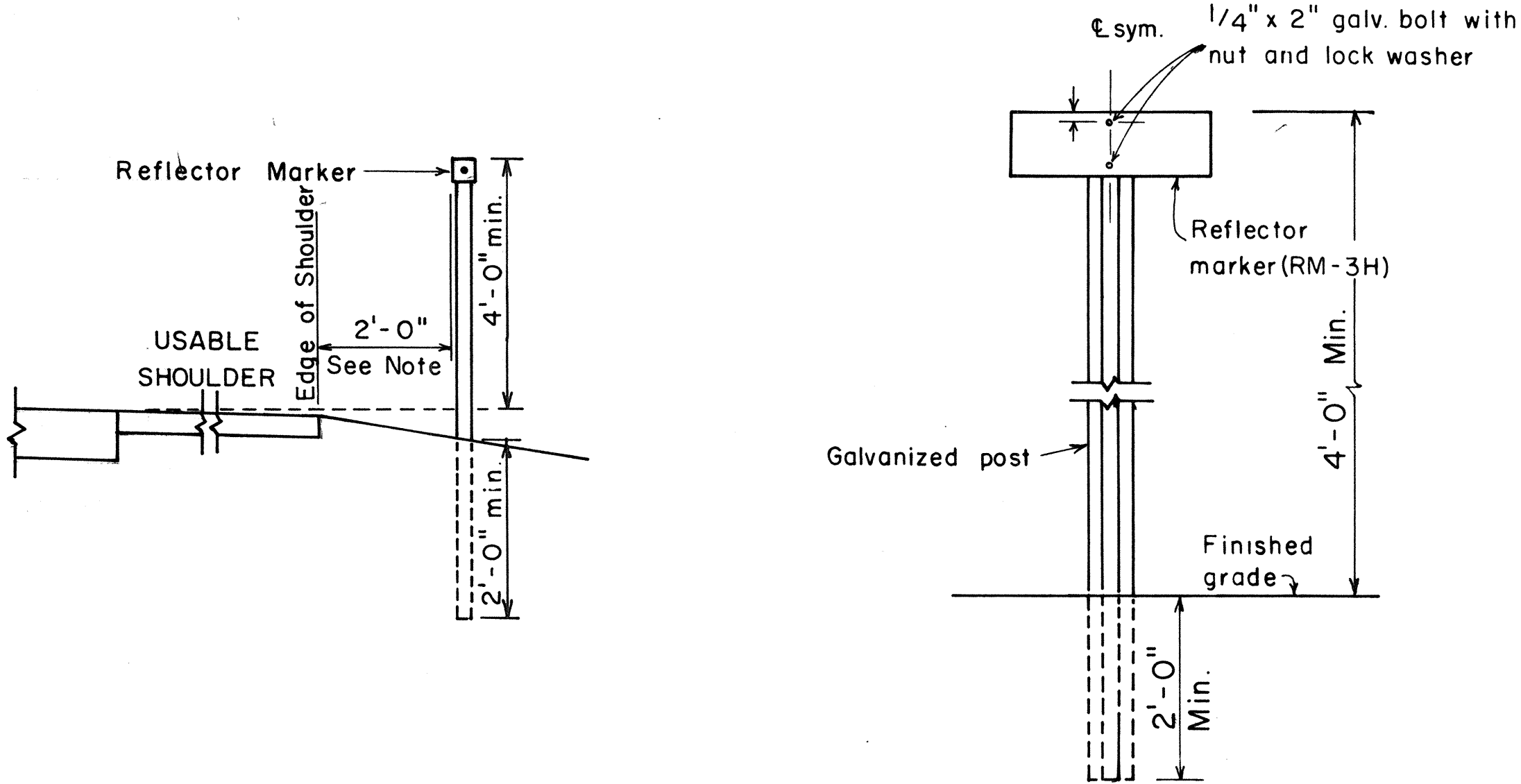
NOT TO SCALE

SHEET No. 1 OF 10 SHEETS DT 104

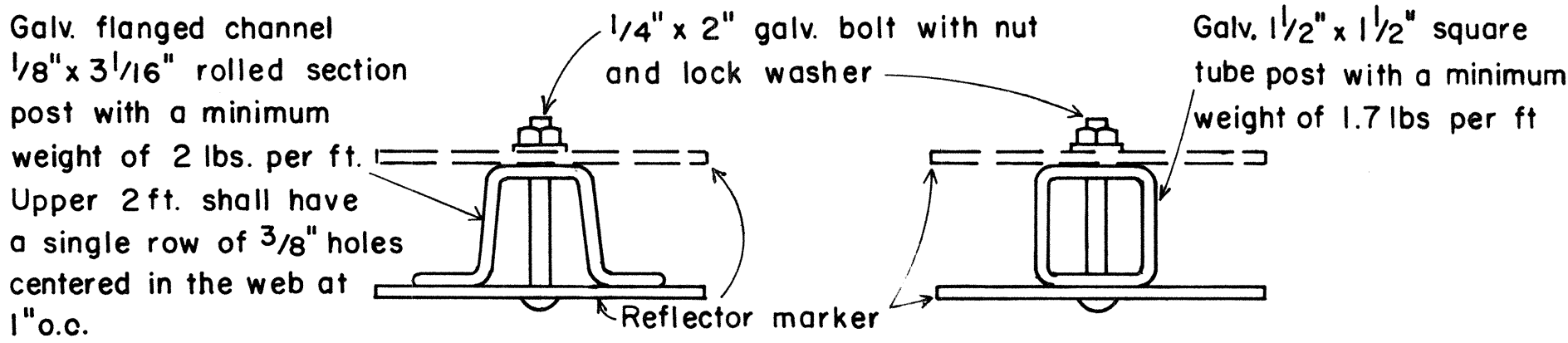
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	LT-K-02-70	1980	9	17

GENERAL NOTES:

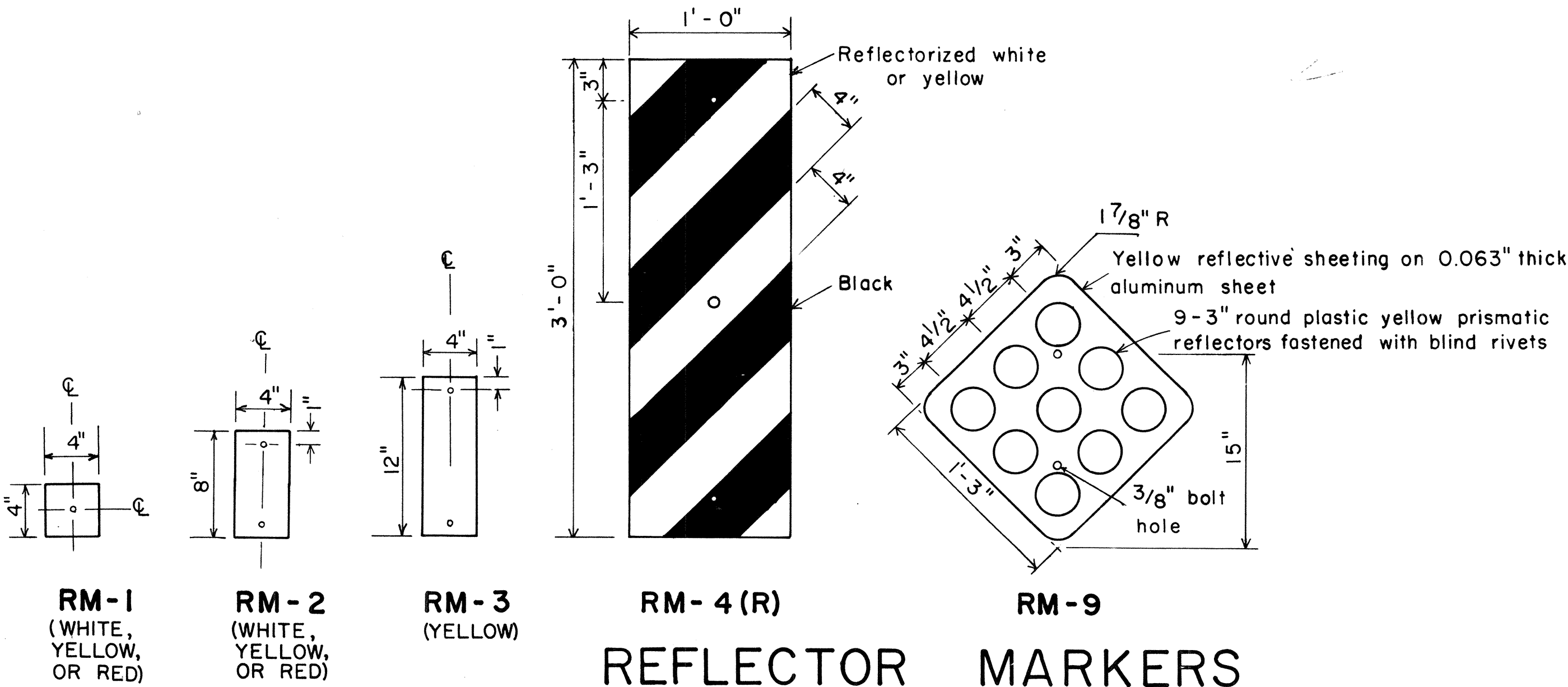
1. Clearance markers (RM-3, RM-4) shall be installed with the edge of the marker in line with the inner edge of the obstruction.
2. (R) or (L) indicates right or left and shall be as shown on the plans.
3. Reflector markers RM-1 and RM-2 shall be:
 - a) Yellow if placed along the left edge of divided roadways, one-way roadways, and ramps in the direction of travel.
 - b) White if placed along the right edge of divided roadways, one-way roadways, and ramps in the direction of travel.
4. For reflector marker RM-9, reflective sheeting material may be used as an alternate.
5. For RM-4, the stripes shall slope downward at an angle of 45° in the direction of traffic.



REFLECTOR MARKER MOUNTING DETAIL



TYPICAL SECTION OF ROAD DELINEATOR



APPROVAL RECOMMENDED:
Enishi Tanaka 11/1/77
 TRAFFIC ENGINEER DATE

APPROVED:
Herbert B. Sakai 11/15/77
 ASSISTANT CHIEF, ENGINEERING DATE

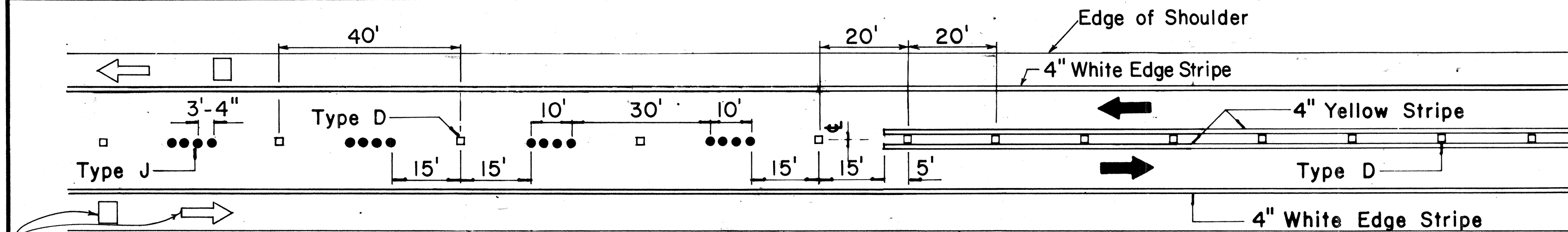
NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 LAND TRANSPORTATION FACILITIES DIVISION

STANDARD DETAILS
 MISCELLANEOUS REFLECTOR MARKERS

Not to scale June, 1977

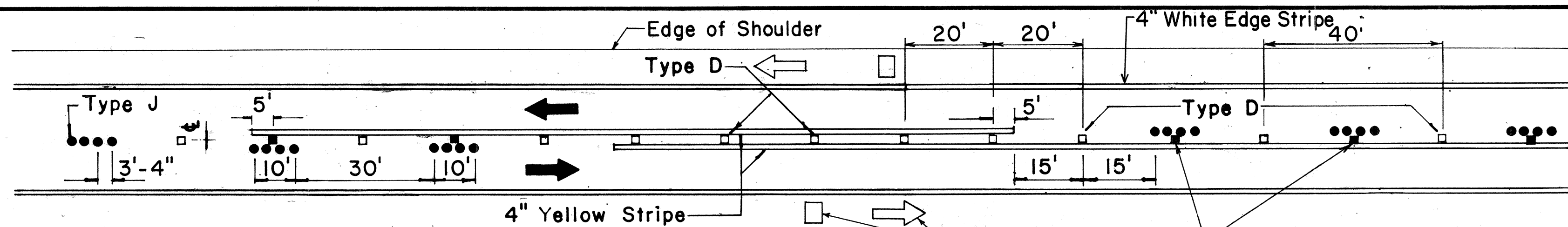
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	LT-K-02-79	1980	10	17



Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.

PASSING PERMITTED AND PASSING PROHIBITED

TWO - LANE



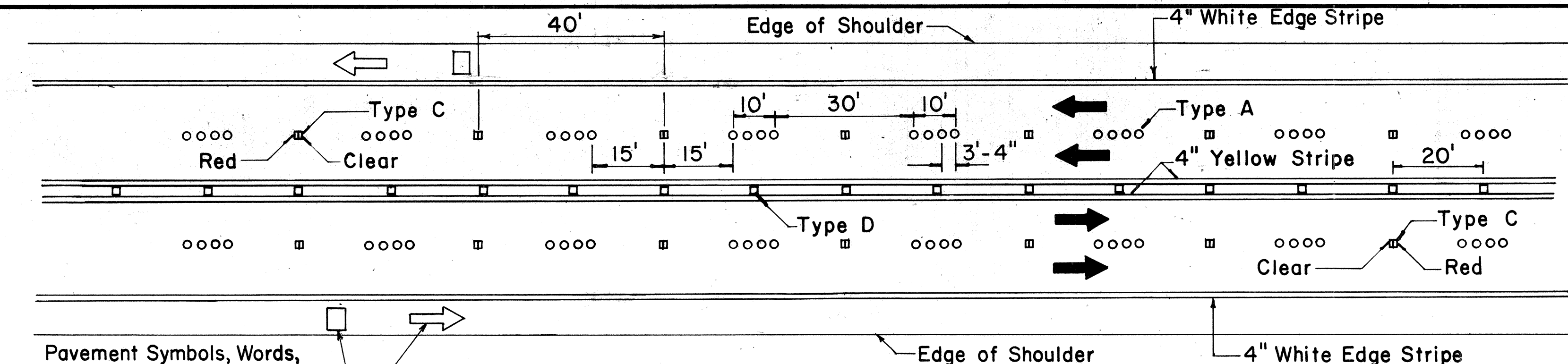
Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.

PASSING PROHIBITED ZONES

TYPE A
NON-REFLECTIVE WHITE MARKER

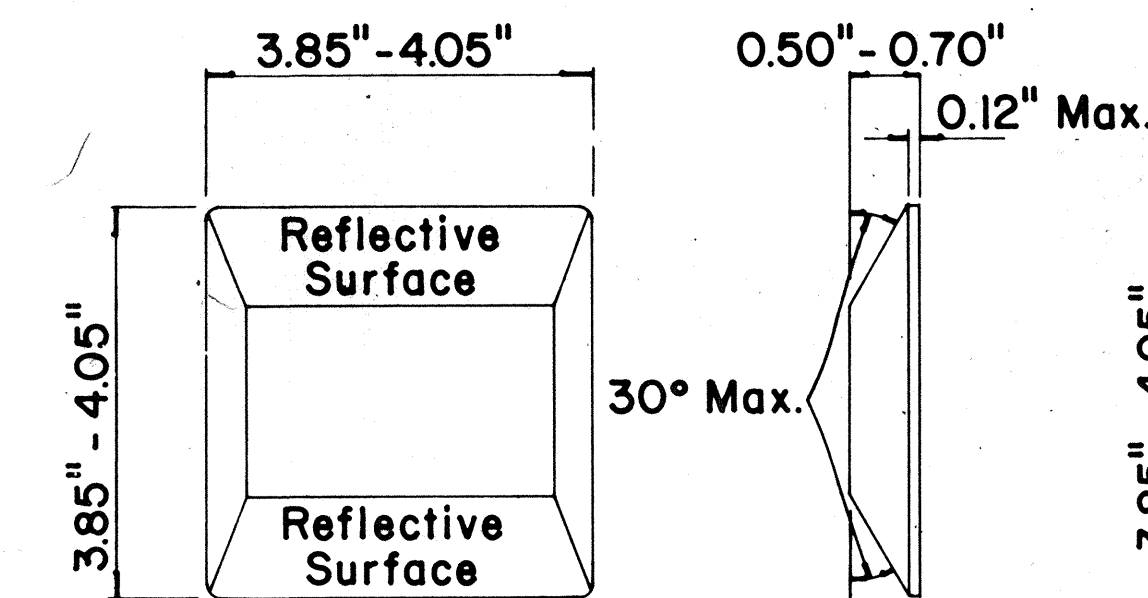
TYPE C
RED-CLEAR REFLECTIVE MARKER

TYPE J
NON-REFLECTIVE YELLOW MARKER

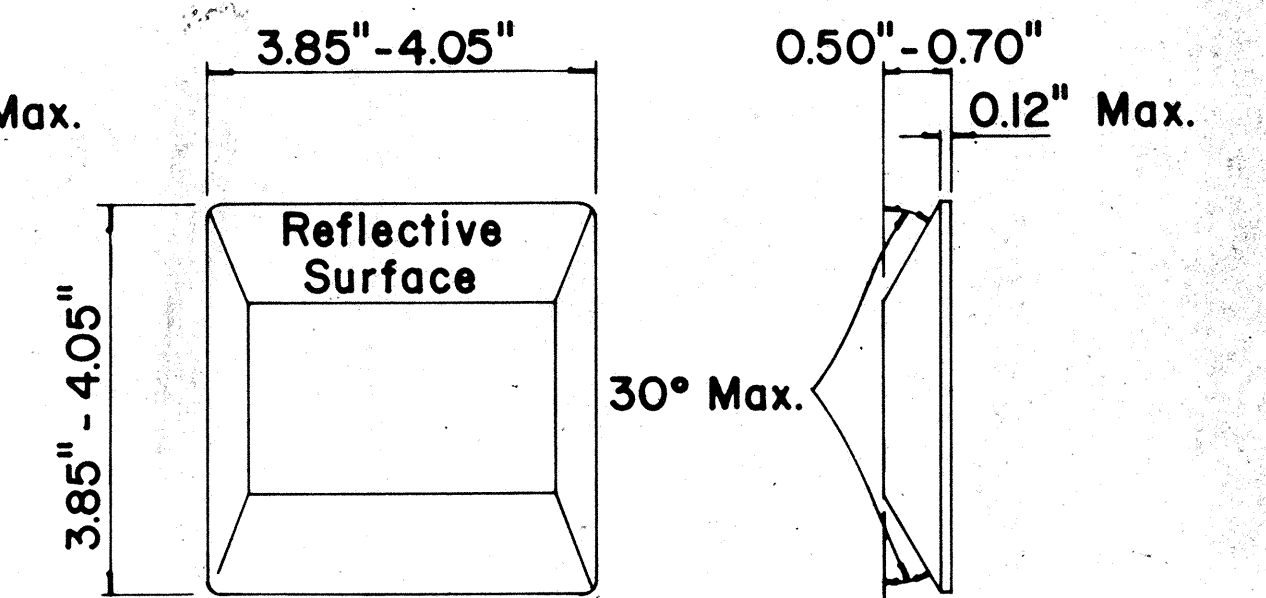


Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.

MULTI - LANE



TYPE D
TWO-WAY YELLOW REFLECTIVE MARKER



TYPE H
ONE-WAY YELLOW REFLECTIVE MARKER

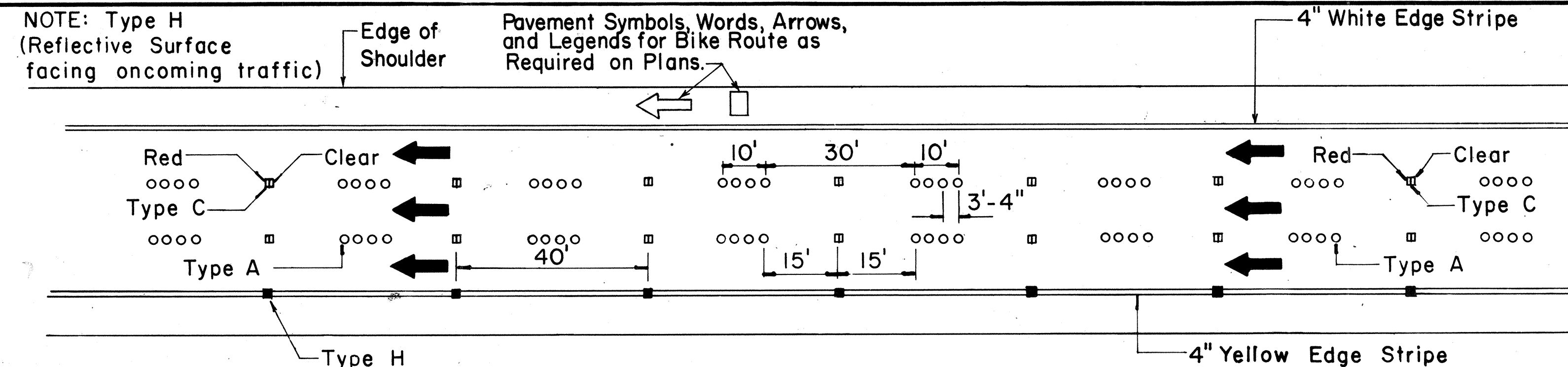
GENERAL NOTES

- 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

DIVIDED HIGHWAY
AND
FREEWAY



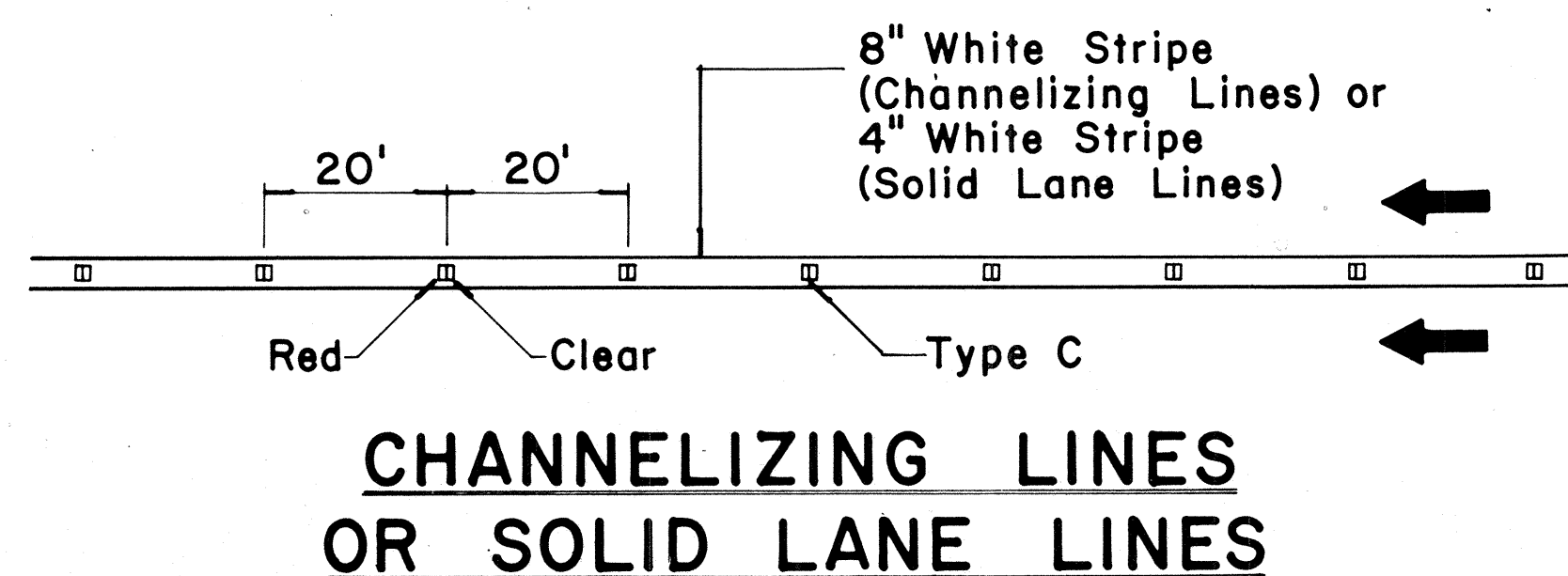
NOTE: Type H (Reflective Surface facing oncoming traffic)

Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.

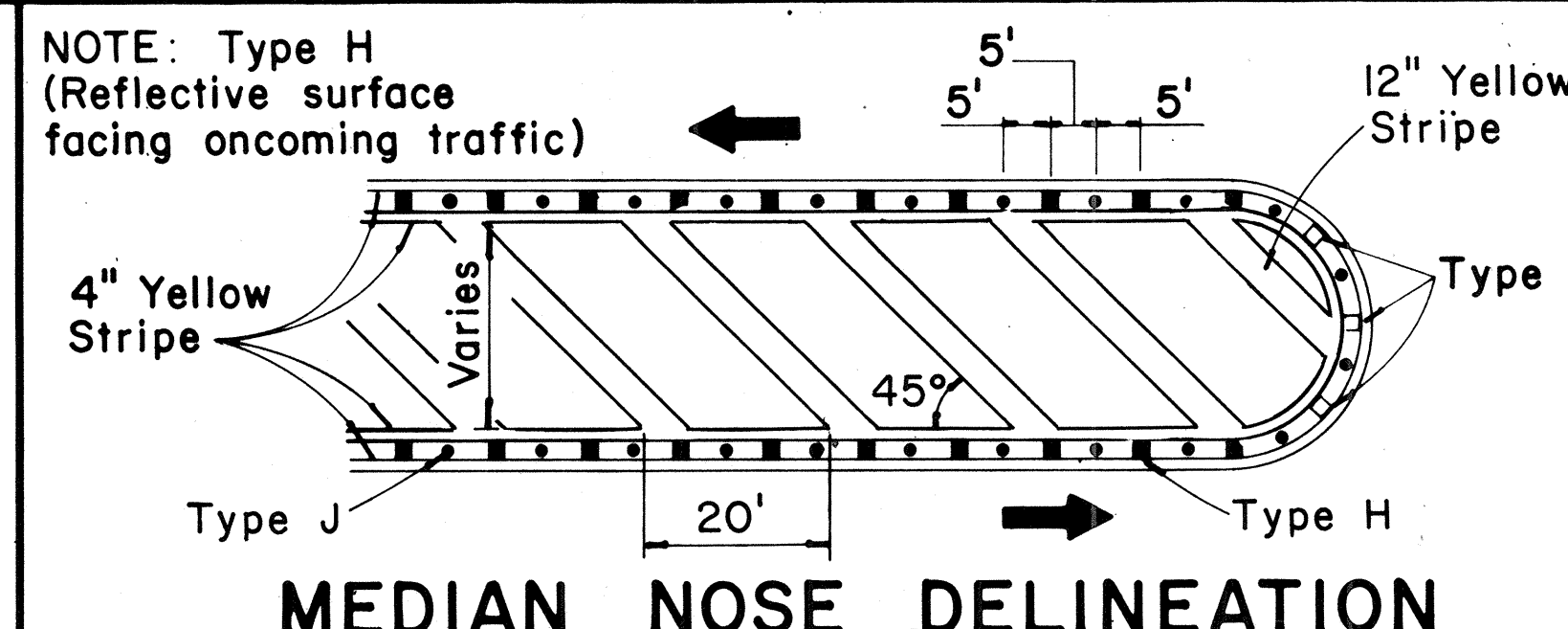
4" White Edge Stripe

4" Yellow Edge Stripe

MISCELLANEOUS



CHANNELIZING LINES OR SOLID LANE LINES



NOTE: Type H (Reflective surface facing oncoming traffic)

MEDIAN NOSE DELINEATION

No.	REVISION	APPROVED BY	DATE
1	Supersedes DT 300 approved 11/18/71.	H.T.	1/24/78
2	Delete Type A Markers from Bike Route Delineation.	H.T.	10/15/79

APPROVAL RECOMMENDED:
Eugene Tanaka
TRAFFIC ENGINEER

7/21/78
DATE

APPROVED:
Robert J. Zalewski
ASSISTANT CHIEF, ENGINEERING

1/24/78
DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

STANDARD DETAILS RAISED PAVEMENT MARKERS AND STRIPING

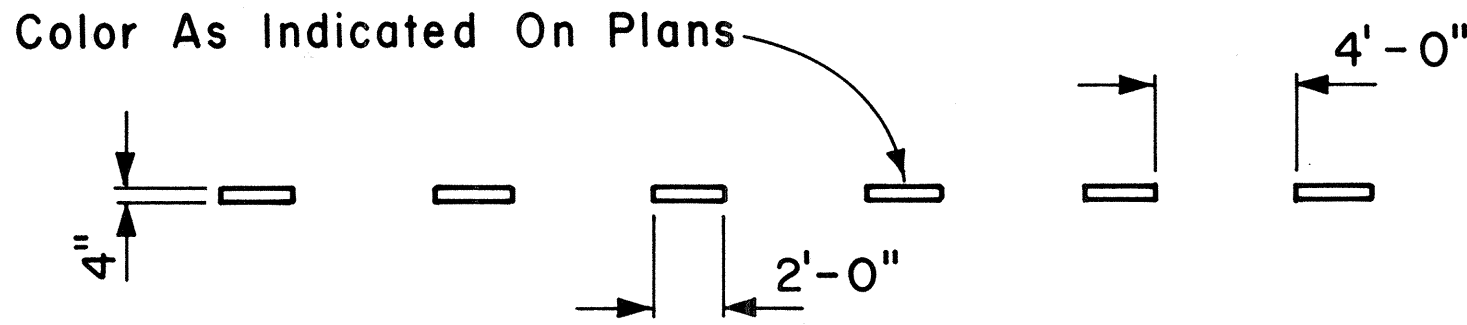
Not to Scale July 1978

SHEET No. 3 OF 10 SHEETS DT 300

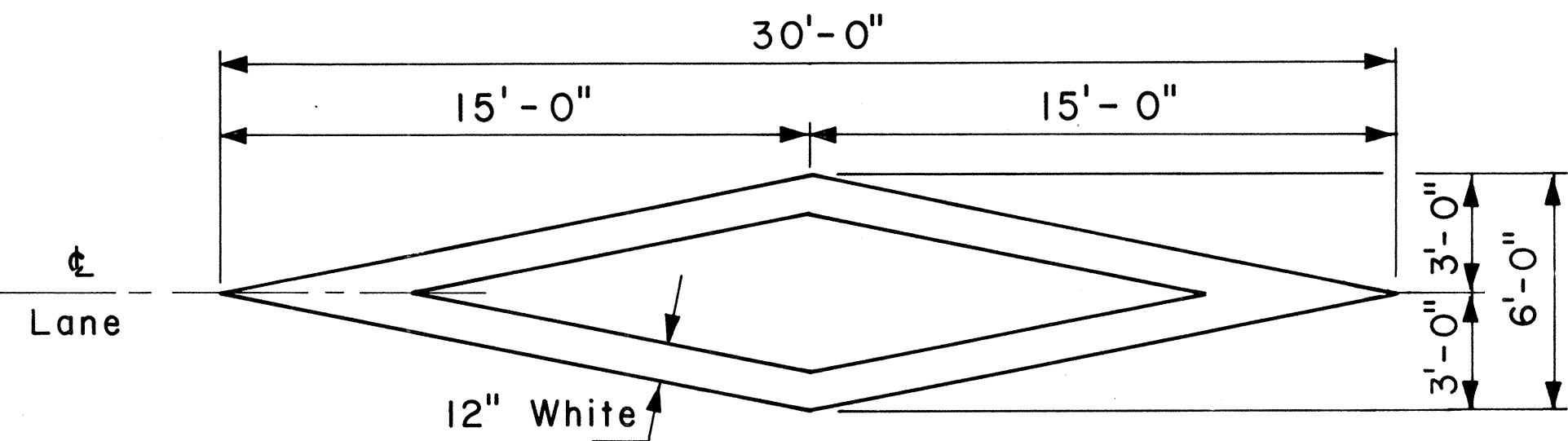
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	LT-X-0279	1980	11	17

GENERAL NOTES:

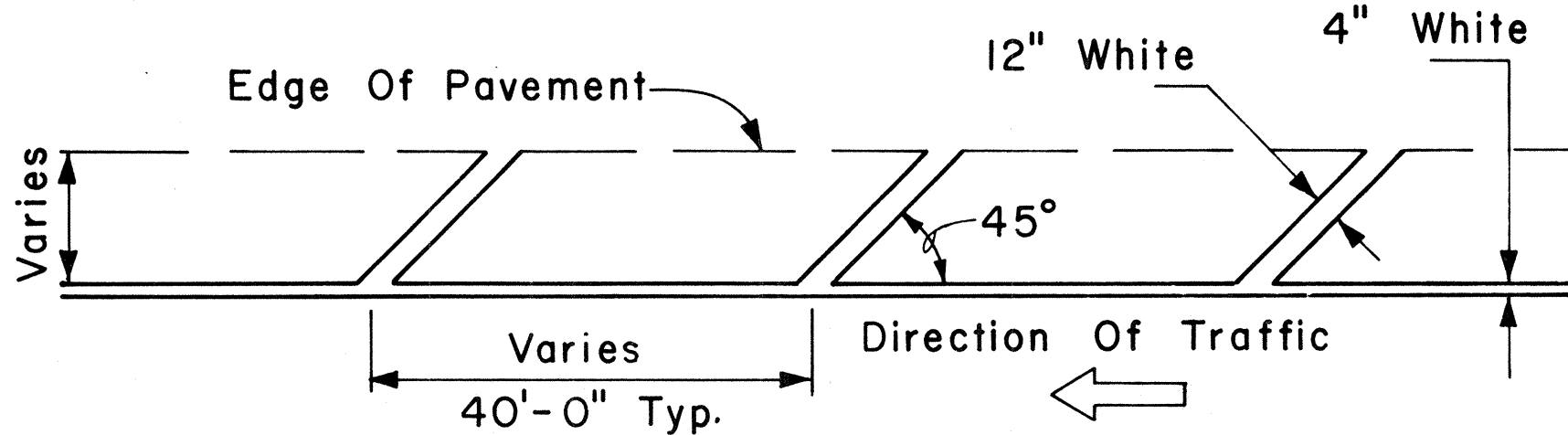
1. Pavement marking and striping shall conform to the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways," by the FHWA, and as amended.
2. Layout of pavement markings and striping shall be done by the Contractor. The Contractor shall check layout of markings and striping with the Engineer prior to performing work.
3. For additional pavement marking details, see sheet DT 300.



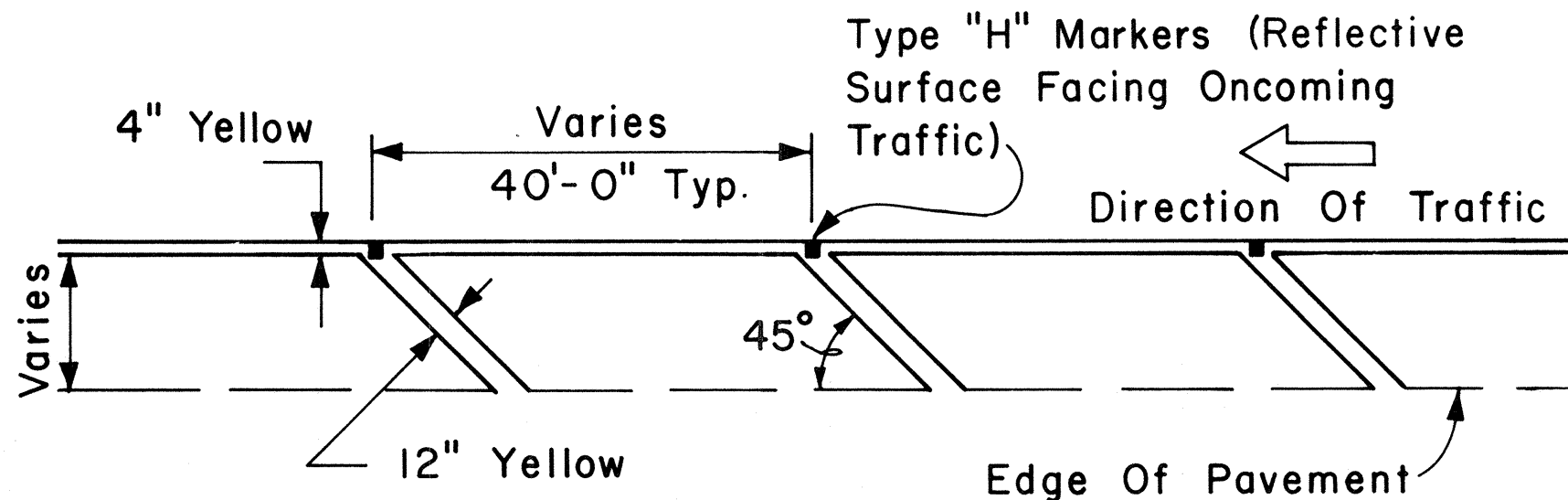
4" GUIDE LINE



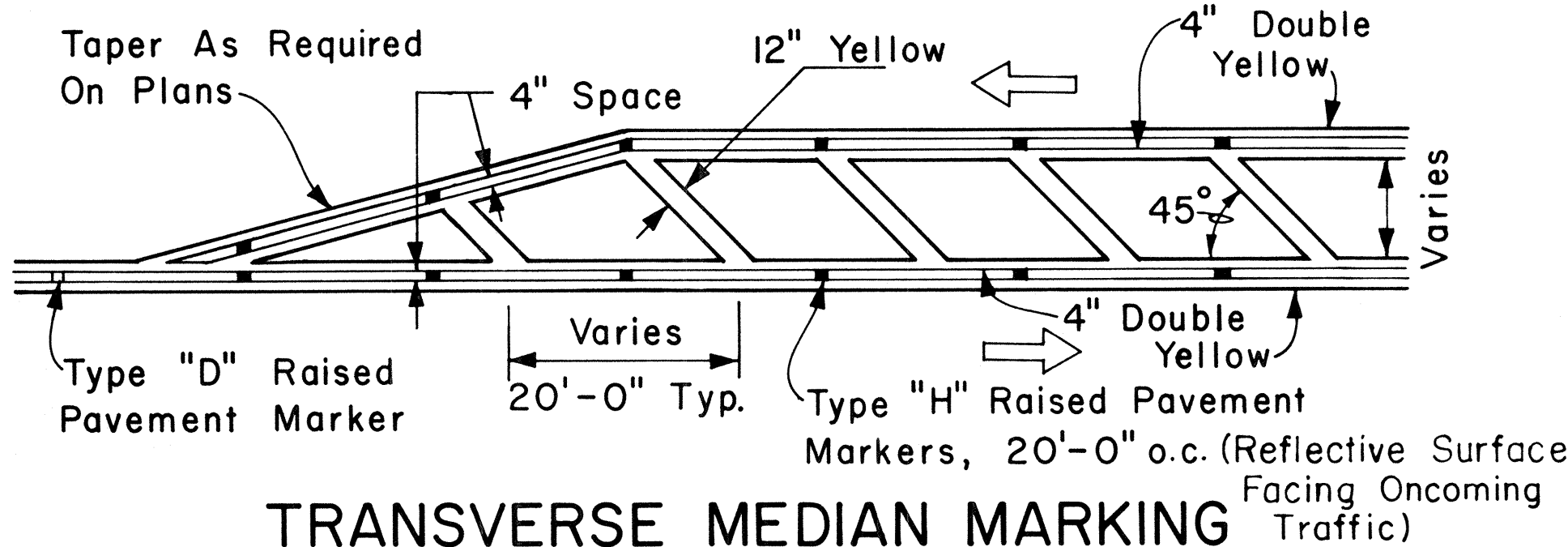
PAVEMENT DIAMOND



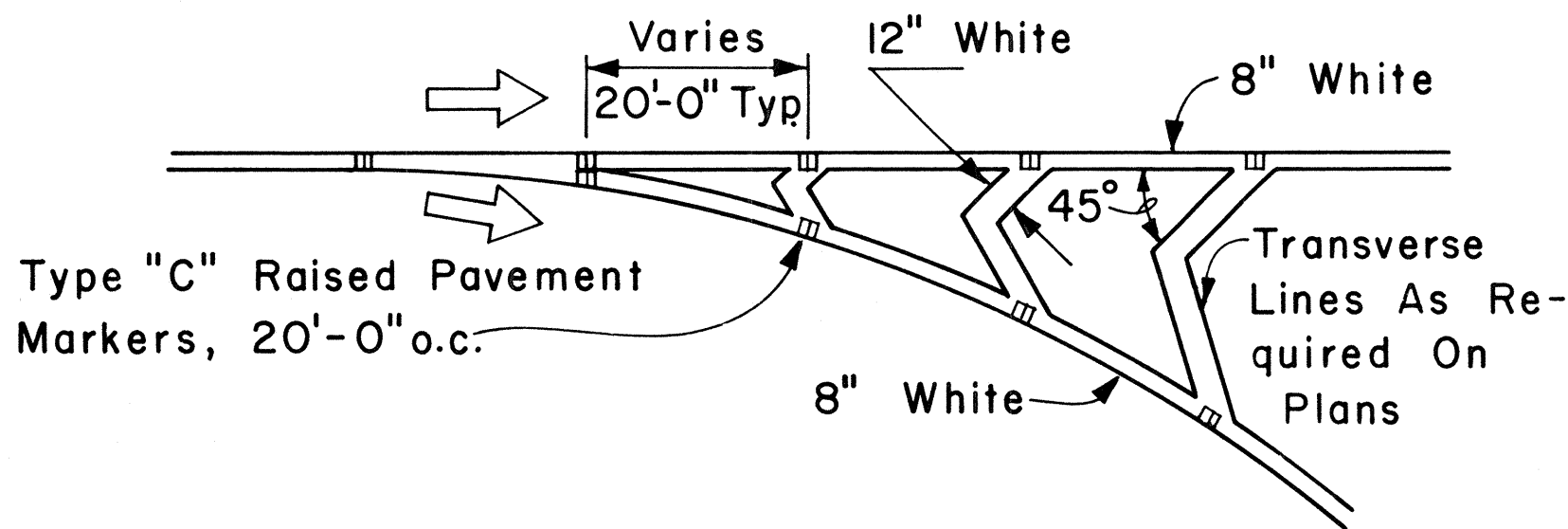
TRANSVERSE RIGHT SHOULDER MARKING



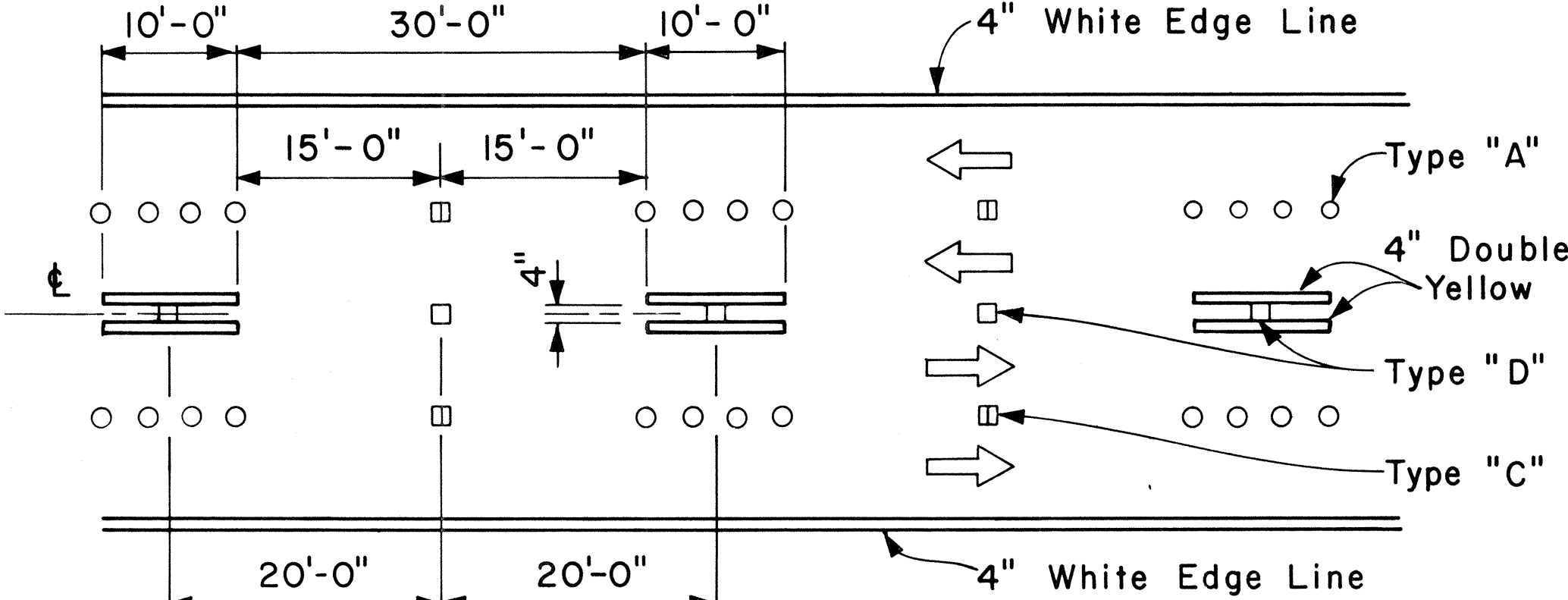
TRANSVERSE LEFT SHOULDER MARKING



TRANSVERSE MEDIAN MARKING

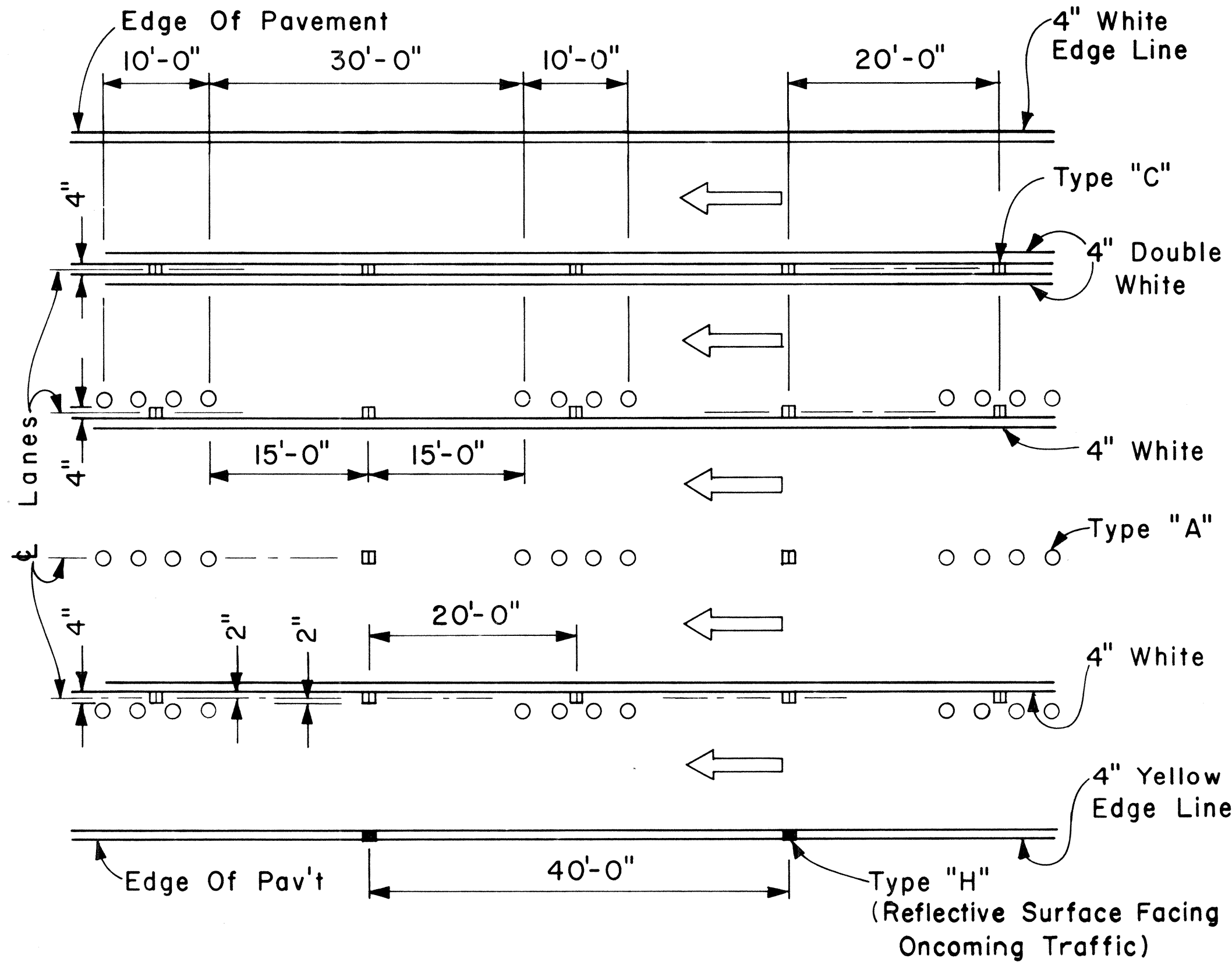


CHANNELIZING ISLAND



NOTE: Traffic Cone Usage Required.

MULTI-LANE REVERSIBLE LANES



MULTI-LANE LANE CHANGE RESTRICTION ZONES

APPROVAL RECOMMENDED:
Eishi Tanaka 5/2/78
 TRAFFIC ENGINEER DATE

APPROVED:
Herbert S. Zakeish 5/3/78
 ASSISTANT CHIEF, ENGINEERING DATE

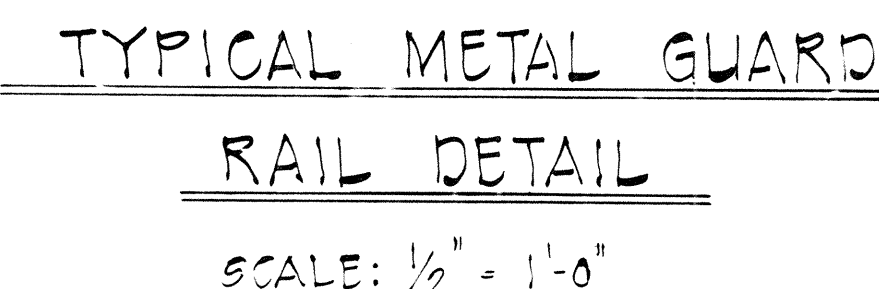
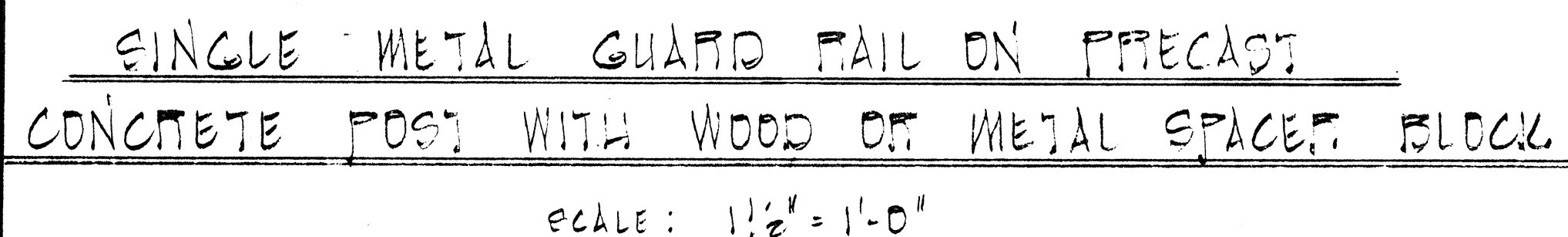
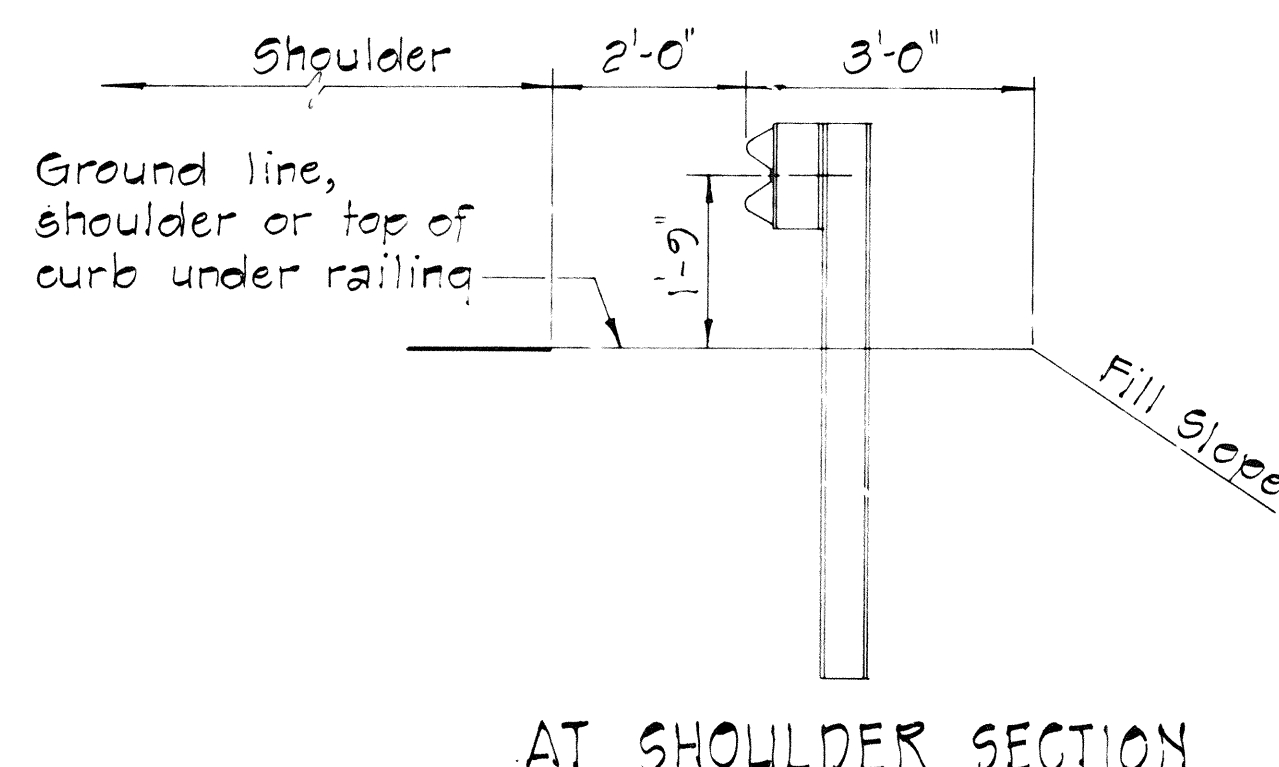
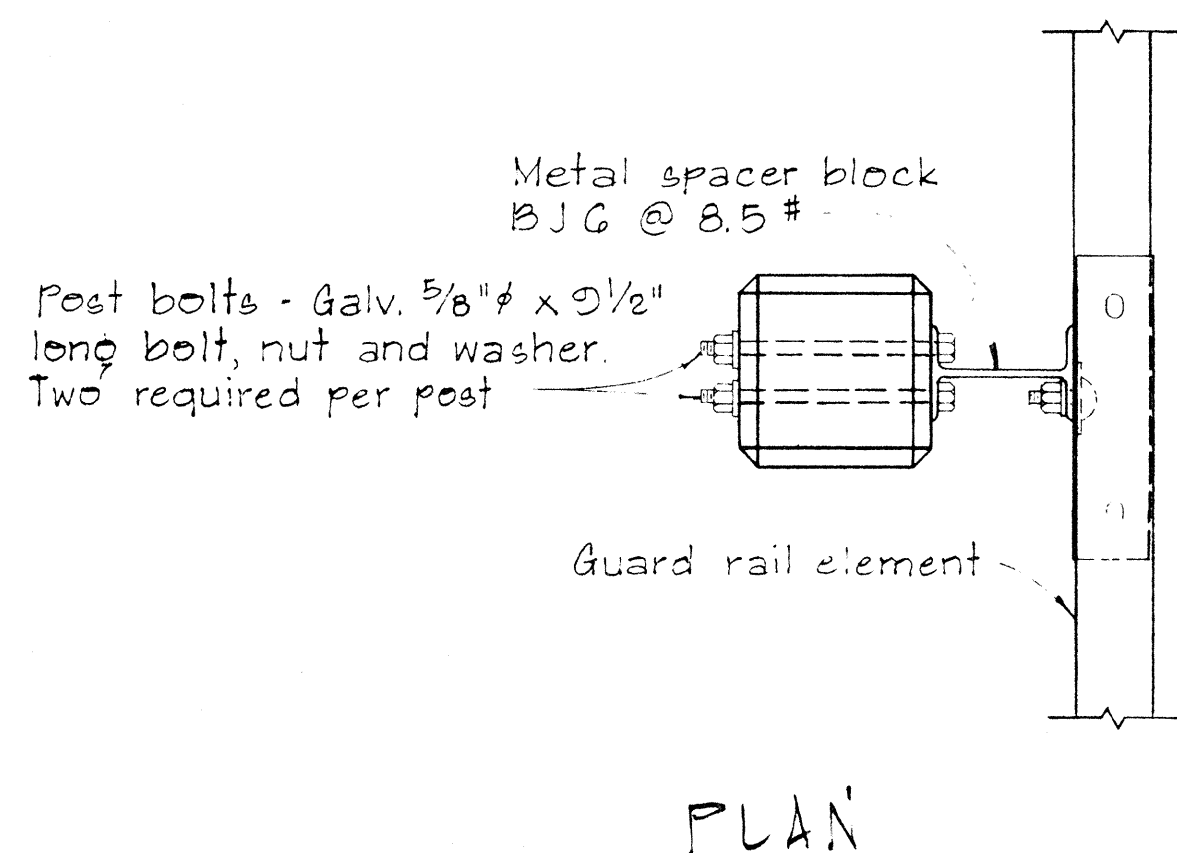
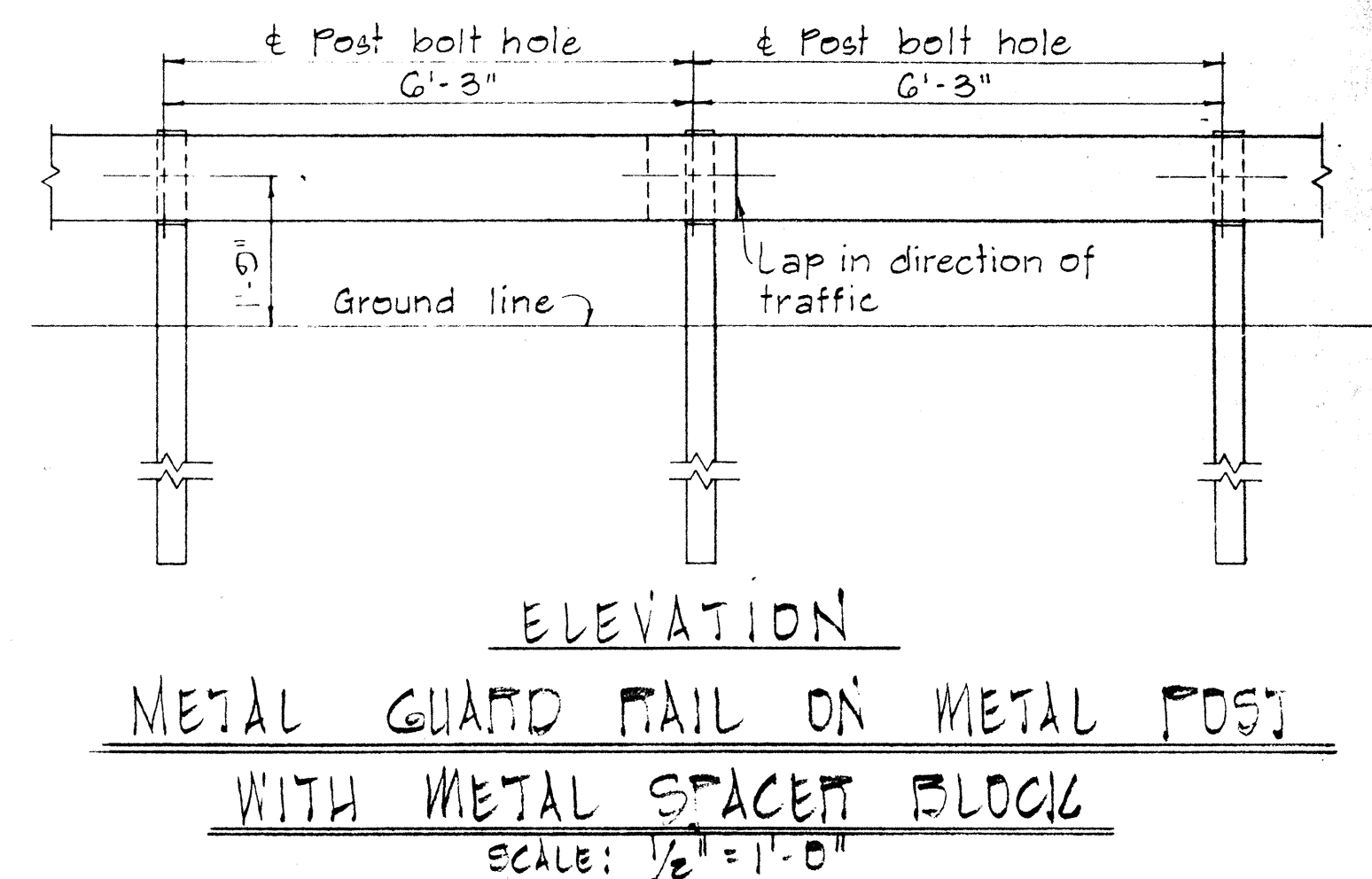
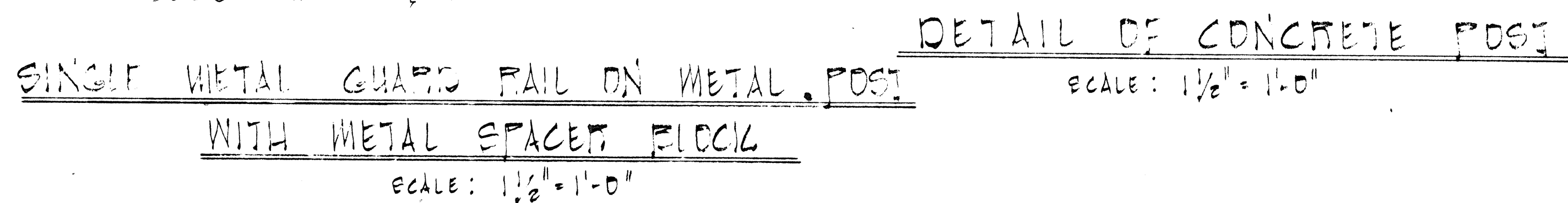
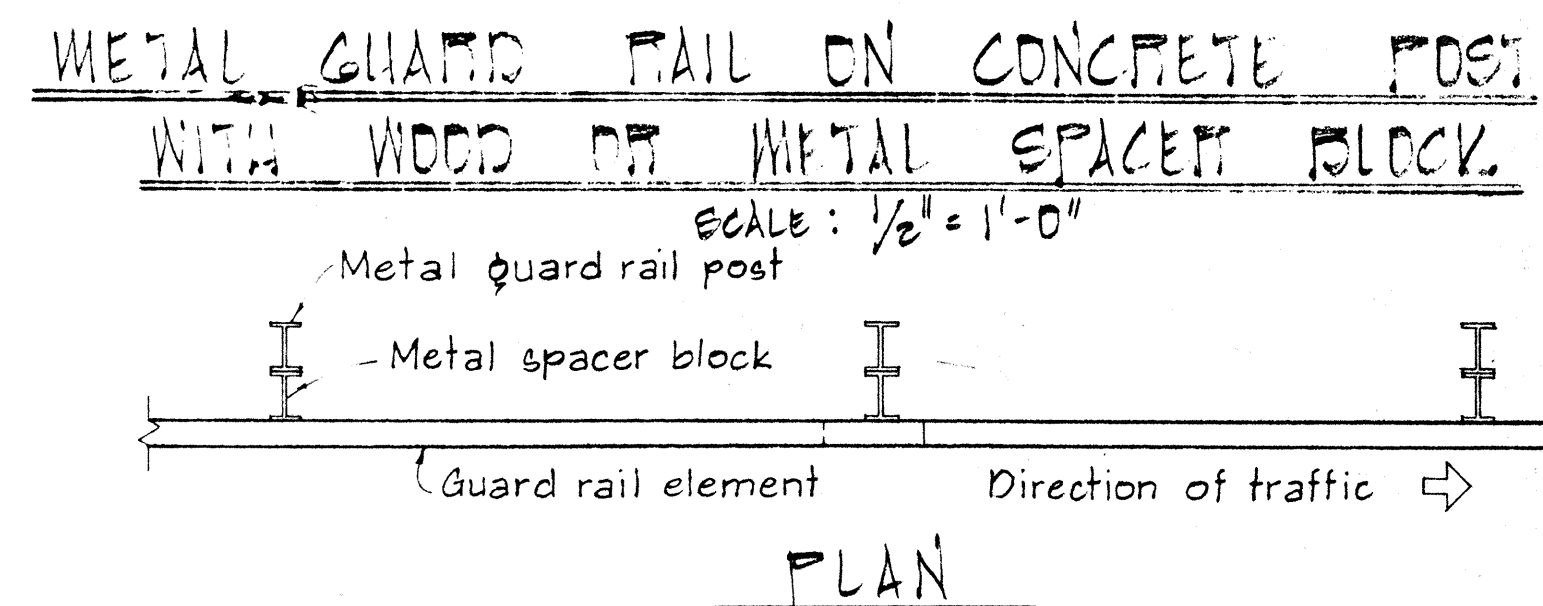
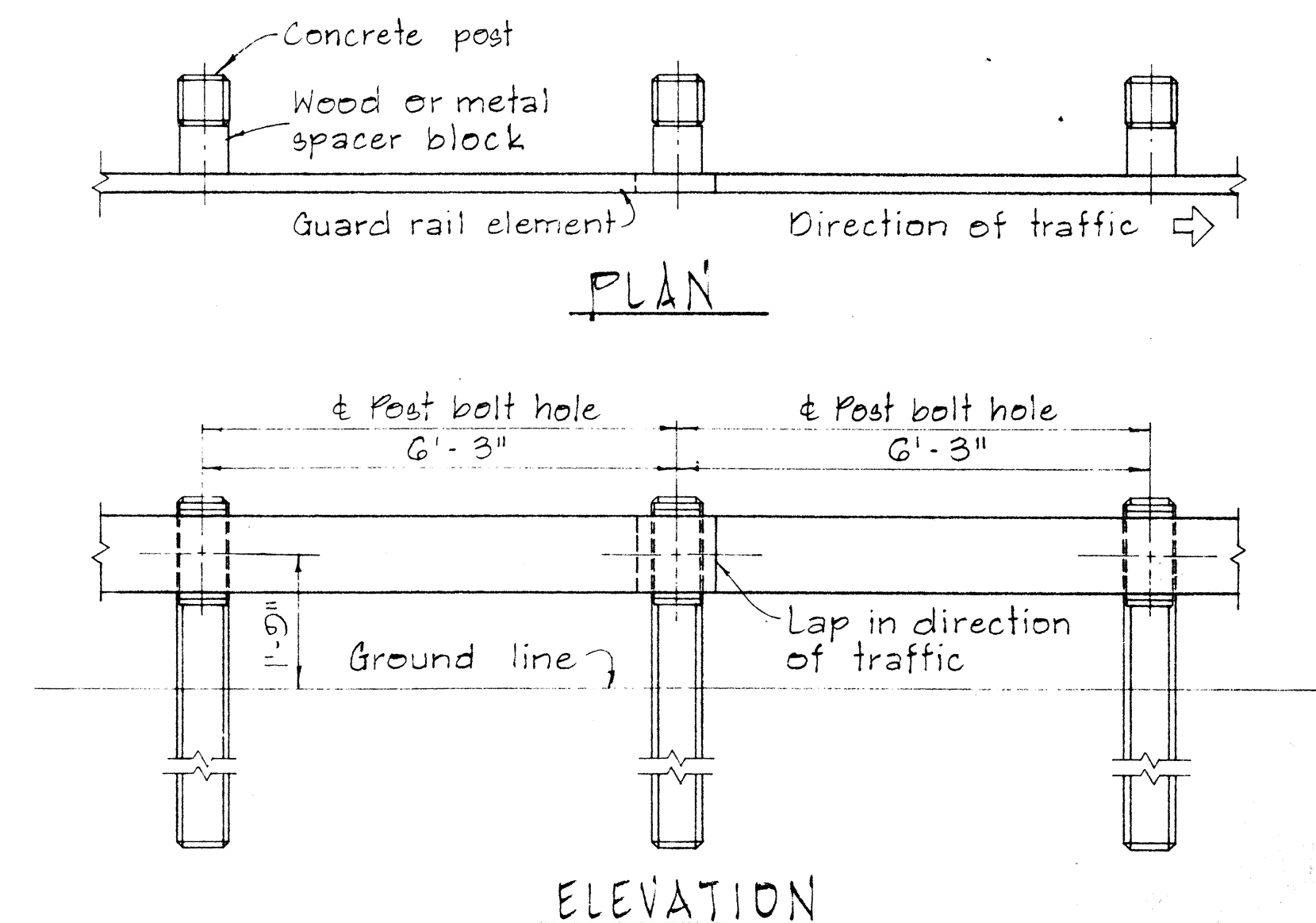
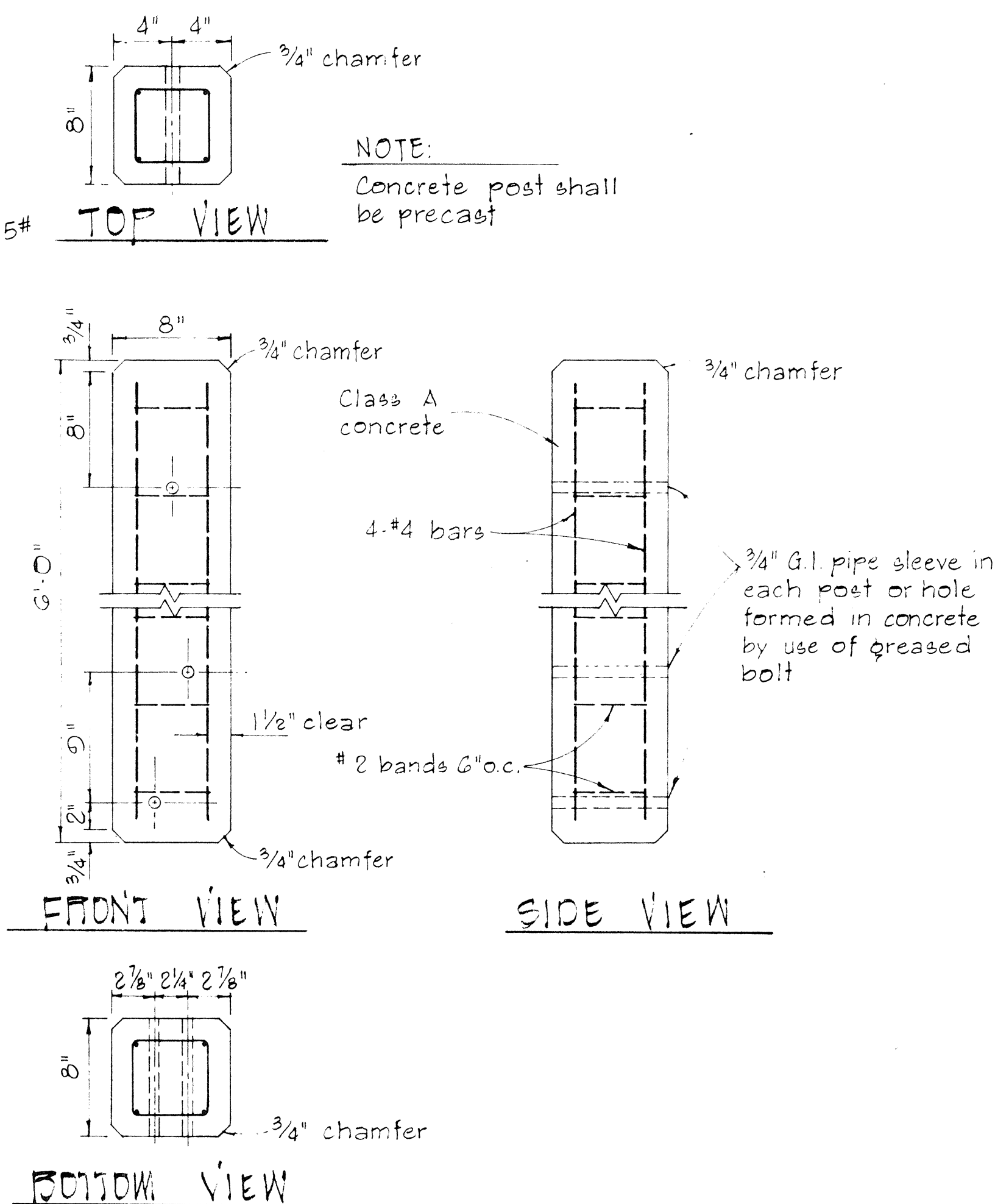
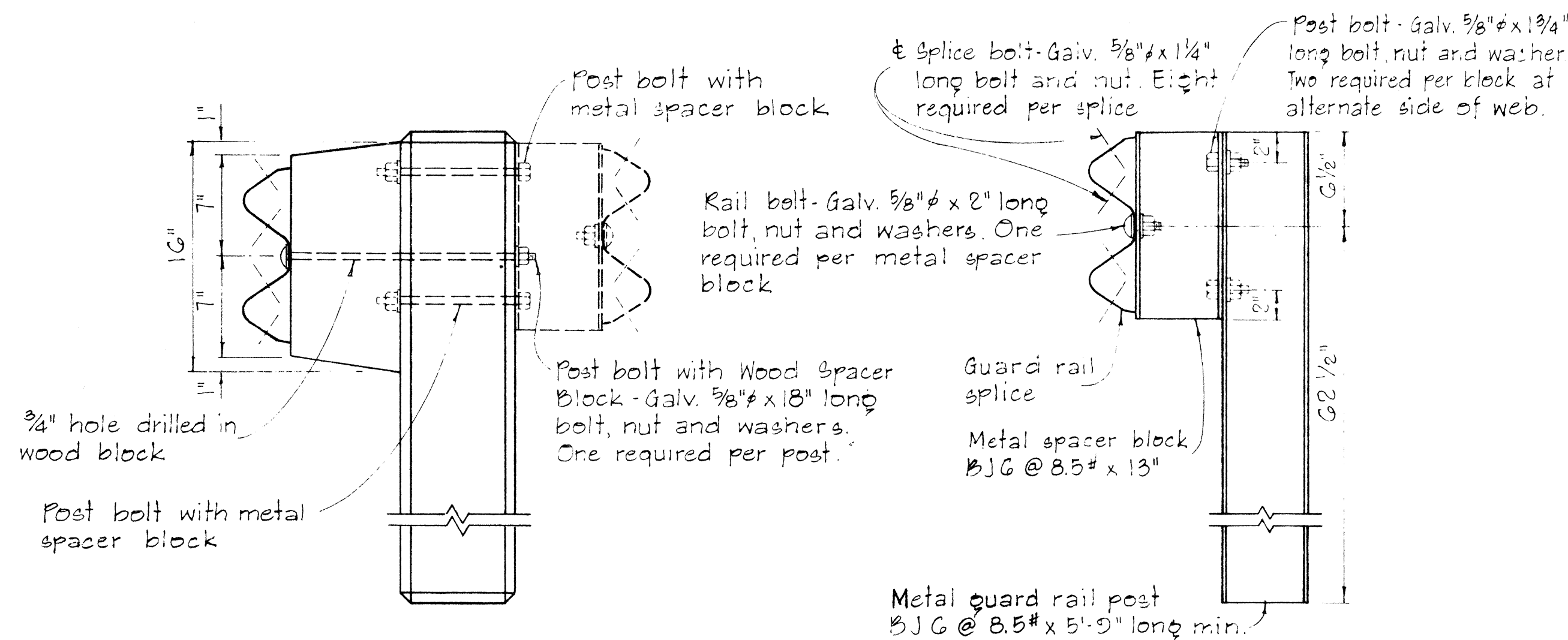
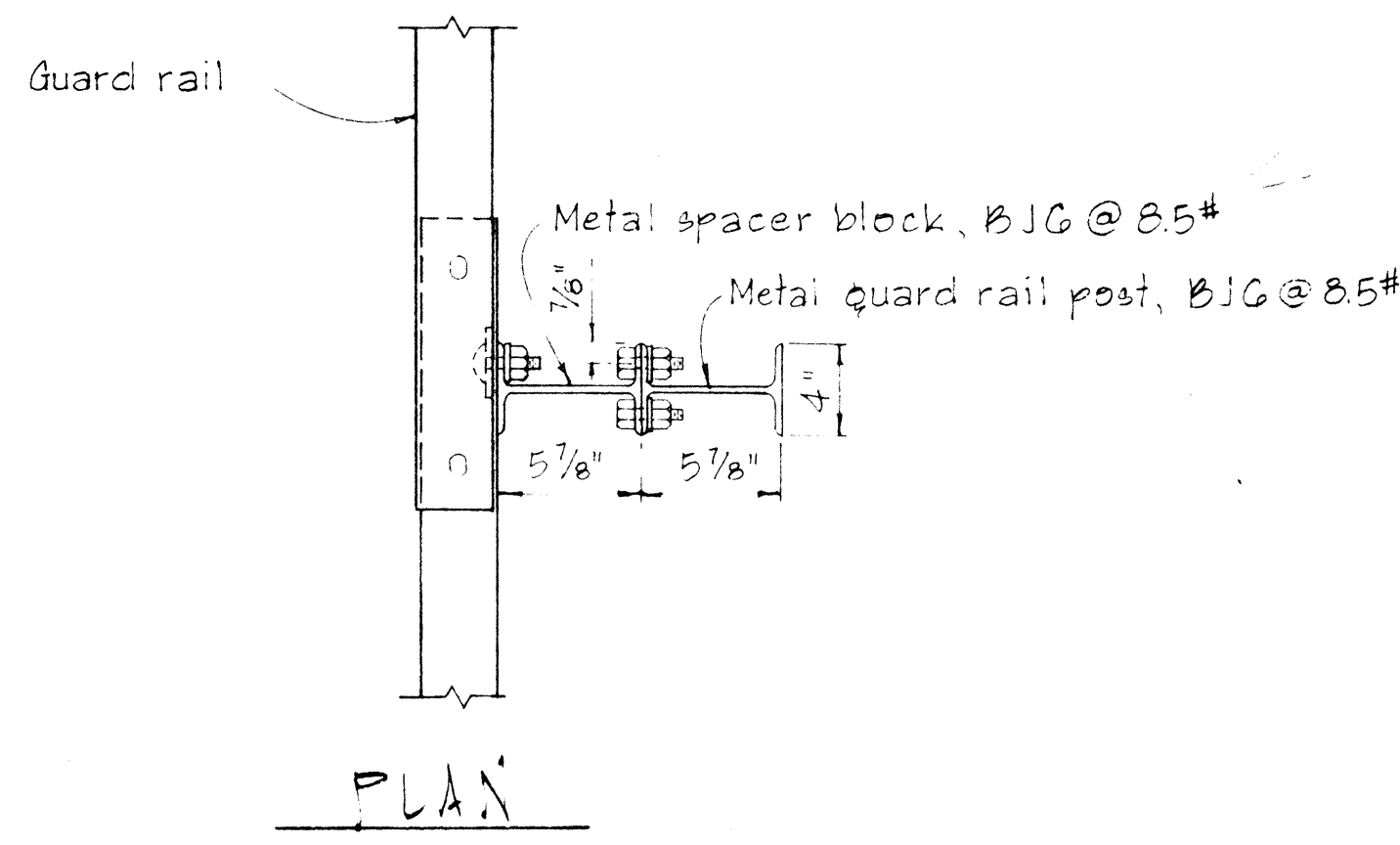
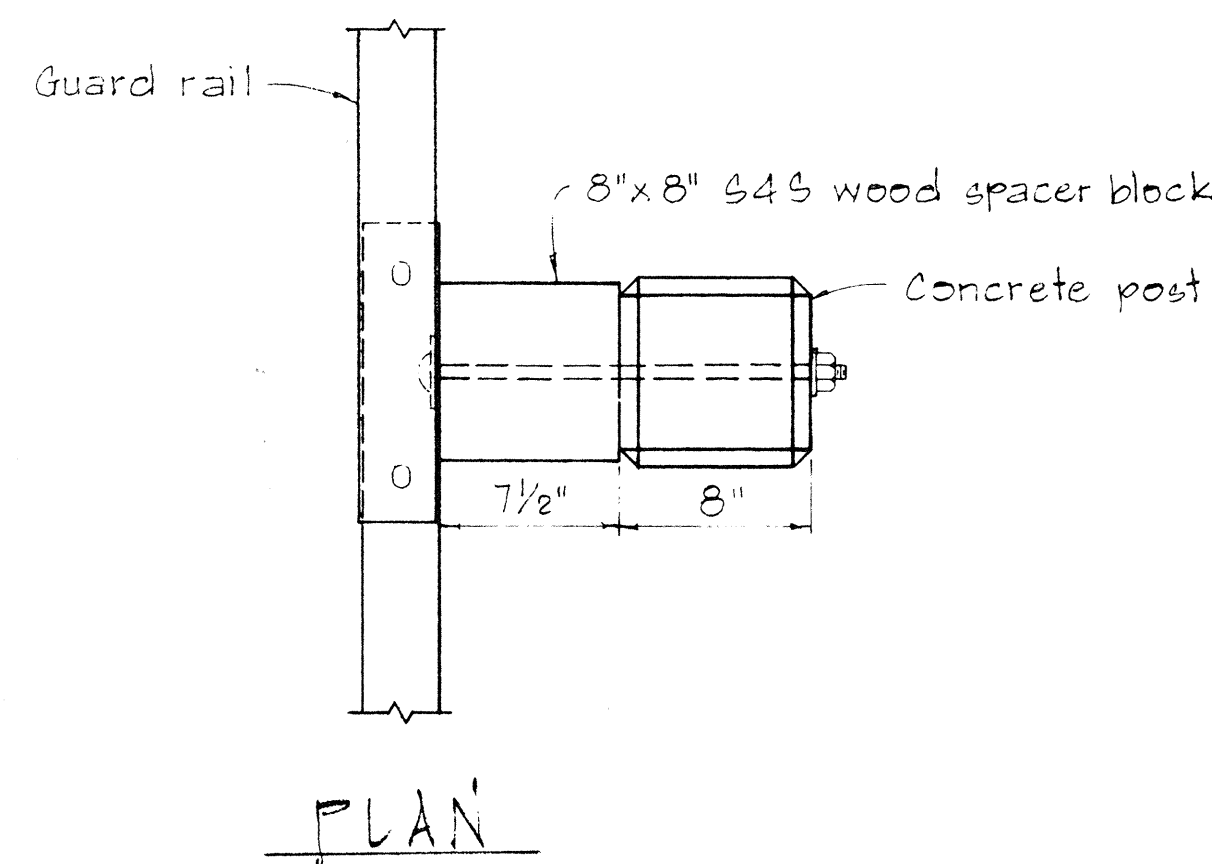
NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 LAND TRANSPORTATION FACILITIES DIVISION
STANDARD DETAILS
 MISCELLANEOUS
 PAVEMENT MARKINGS

Scale: Not to Scale Date: April, 1978
 SHEET No. 4 OF 10 SHEETS DT 302

SURVEY PLOTTED BY	DATE
DRAWN BY	
CHECKED BY	
NOTE BOOK	
NO.	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	LT-02-70	1980	12	17



APPROVAL RECOMMENDED:
Enoch Tanaka
 TRAFFIC ENGINEER
 DATE: 12/23/62

APPROVED:
Hubert J. DeLeon
 ASSISTANT CHIEF, ENGINEERING
 DATE: 12-30-69

NO.	REVISION	APPROVED BY	DATE

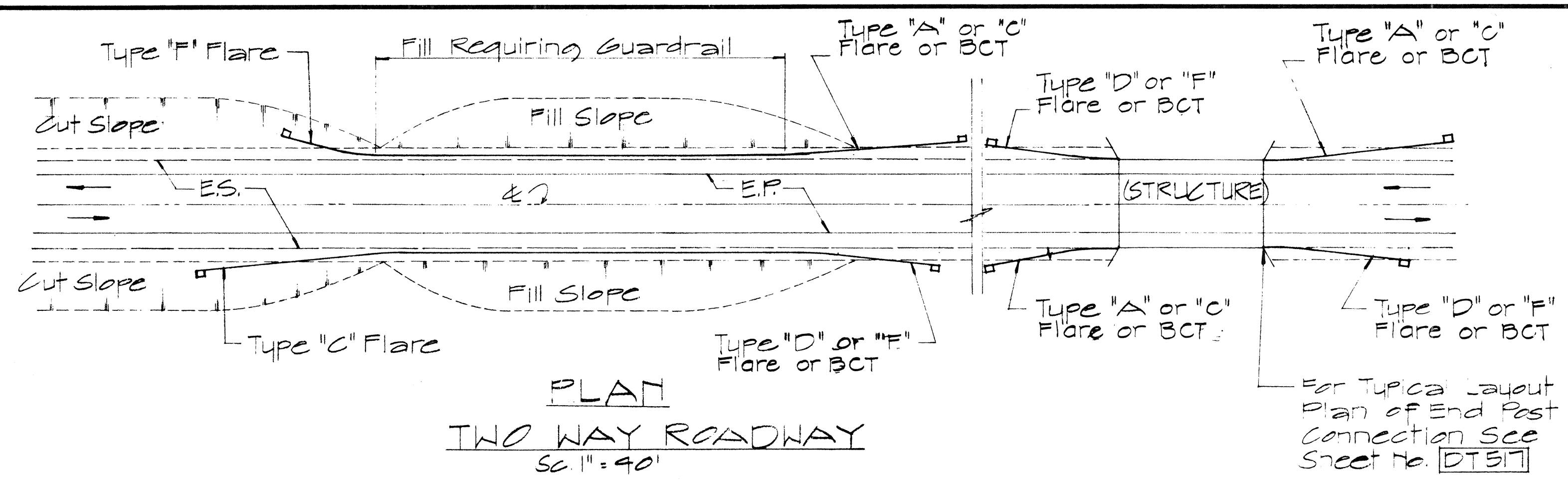
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 LAND TRANSPORTATION FACILITIES DIVISION

STANDARD DETAILS
 METAL GUARD RAIL

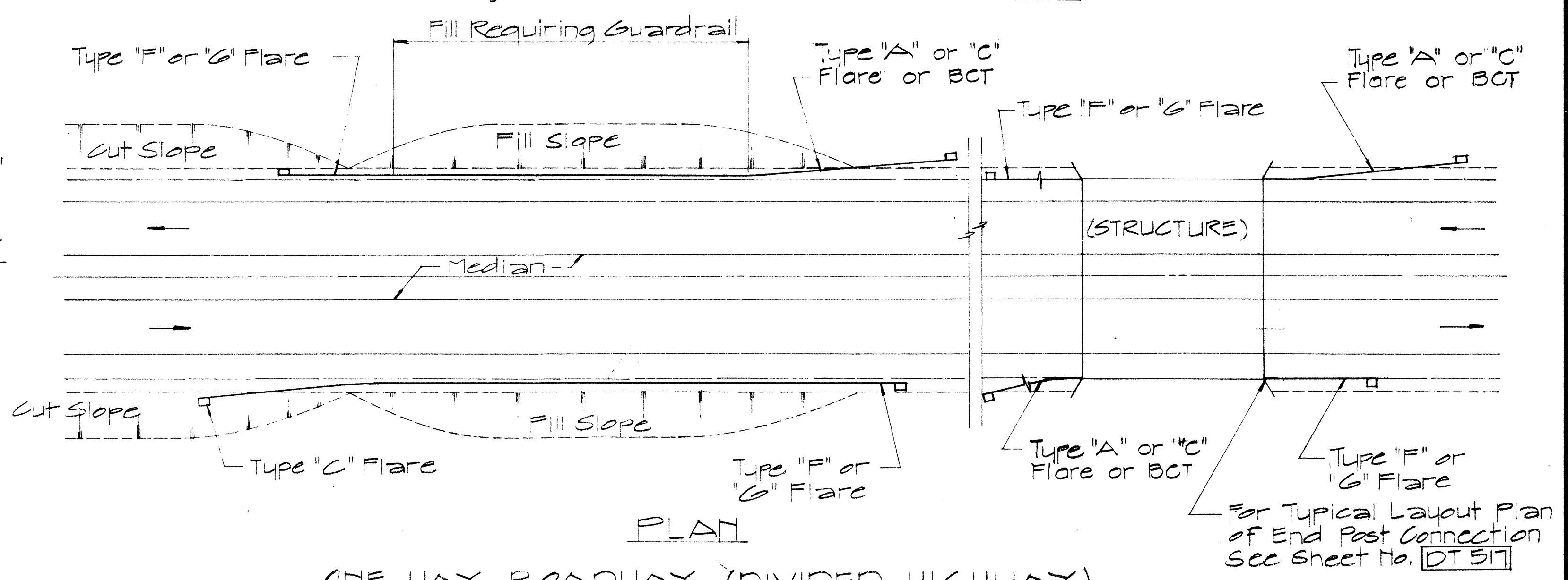
SCALE: AS SHOWN NOV. 1968

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	LT-K-02-70	1980	14	17

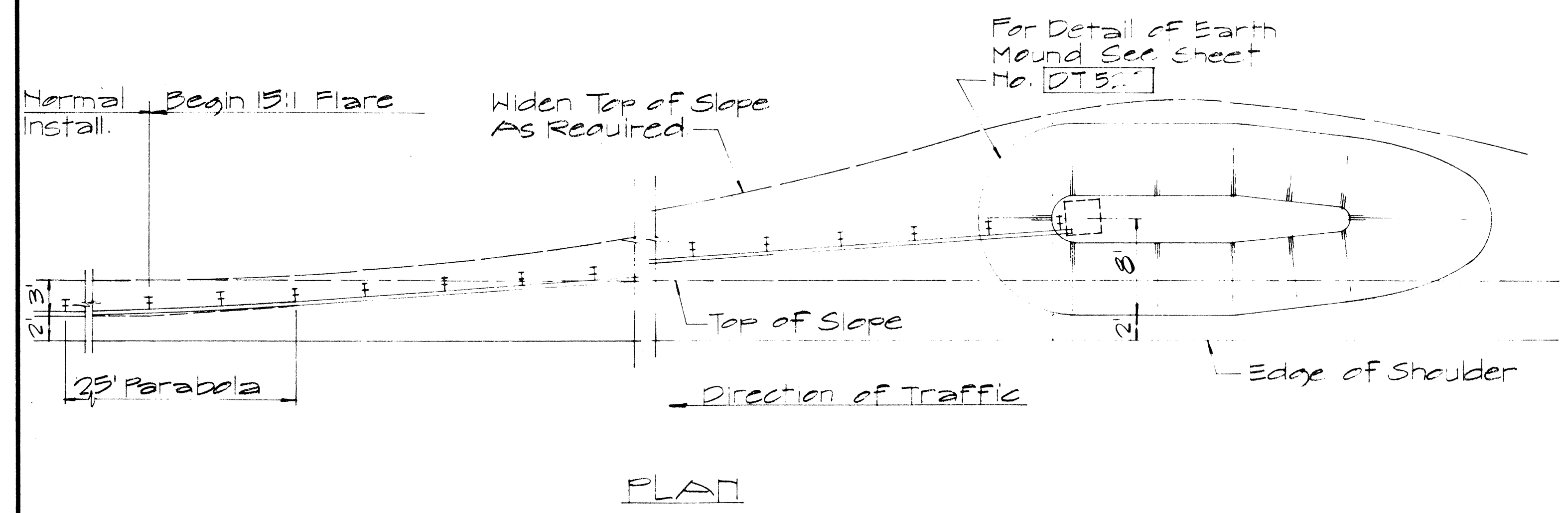
NOTE:
 1. Metal guard rail connection to structures requires End Post Connection. See structure plans.
 2. For detail of Breakaway Cable Terminal (BCT) See sheet No. DT 519



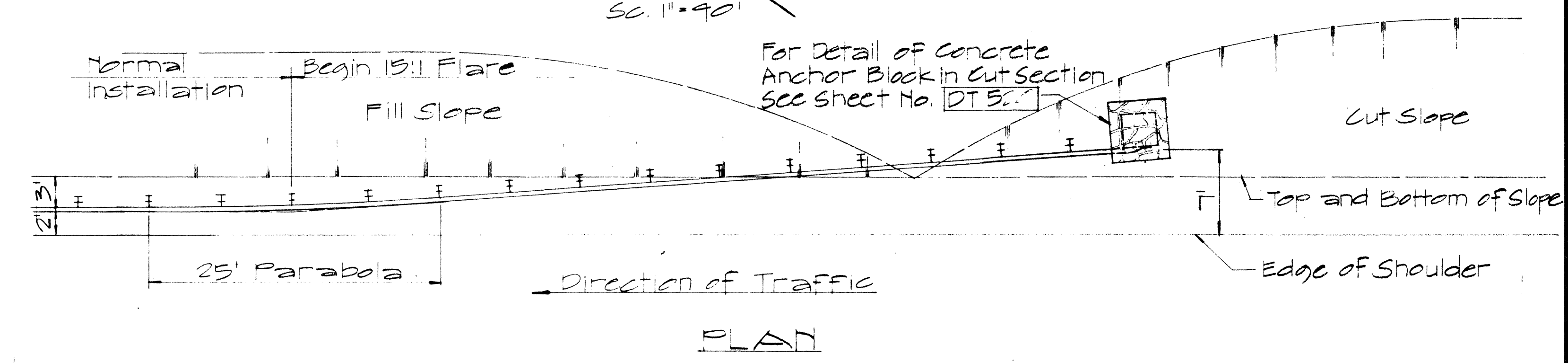
PLAN
 TWO WAY ROADWAY
 SC. 1" = 40'



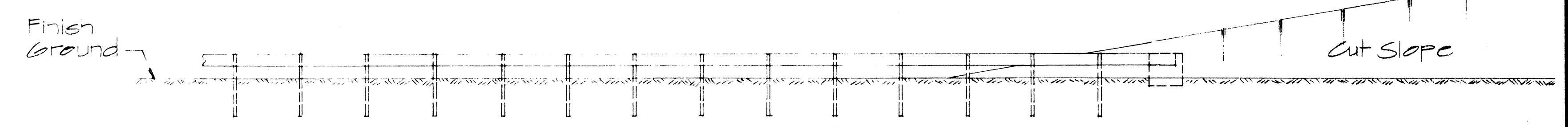
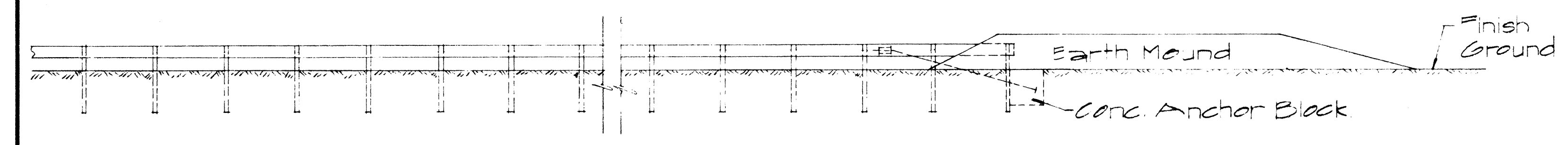
PLAN
 ONE WAY ROADWAY (DIVIDED HIGHWAY)
 SC. 1" = 40'



PLAN
 ELEVATION
 TYPE "A" FLARE
 SC. 1/8" = 1'-0"



PLAN
 ELEVATION
 TYPE "C" FLARE
 SC. 1/8" = 1'-0"



APPROVAL RECOMMENDED:
Erich Tanaka 12/29/69
 TRAFFIC ENGINEER DATE

APPROVED:
W. B. Delaney 12-30-69
 ASSISTANT CHIEF, ENGINEERING DATE

NO	REVISION	APPROVED BY	DATE
1	Delete Type "B" Flare and Type "E" Flare	H.T.	6/15/78

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 LAND TRANSPORTATION FACILITIES DIVISION

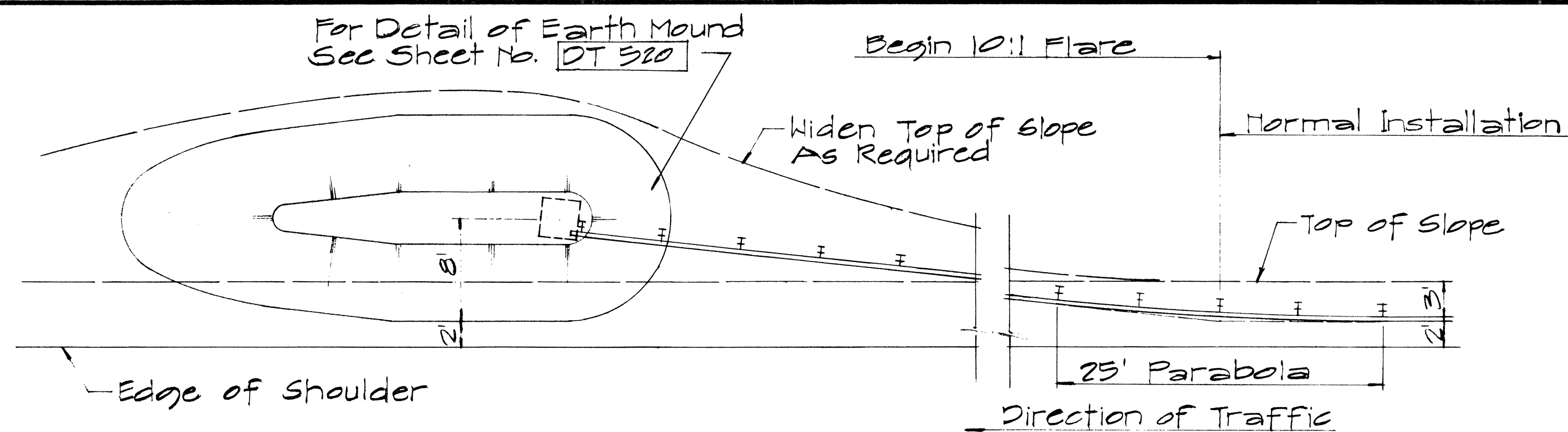
**STANDARD DETAILS
 OF APPROACH END
 FLARE - ONE & TWO
 WAY ROADWAY**

SC. As Noted April 1969

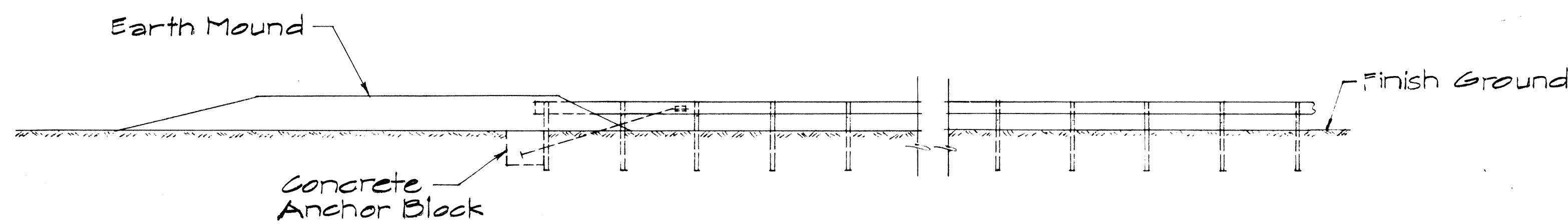
SHEET No. 7 OF 10 SHEETS DT 516

DATE	
SURVEY PLOTTED BY	
DRAWN BY	
TRACED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	LT-K-0279	1980	15	17

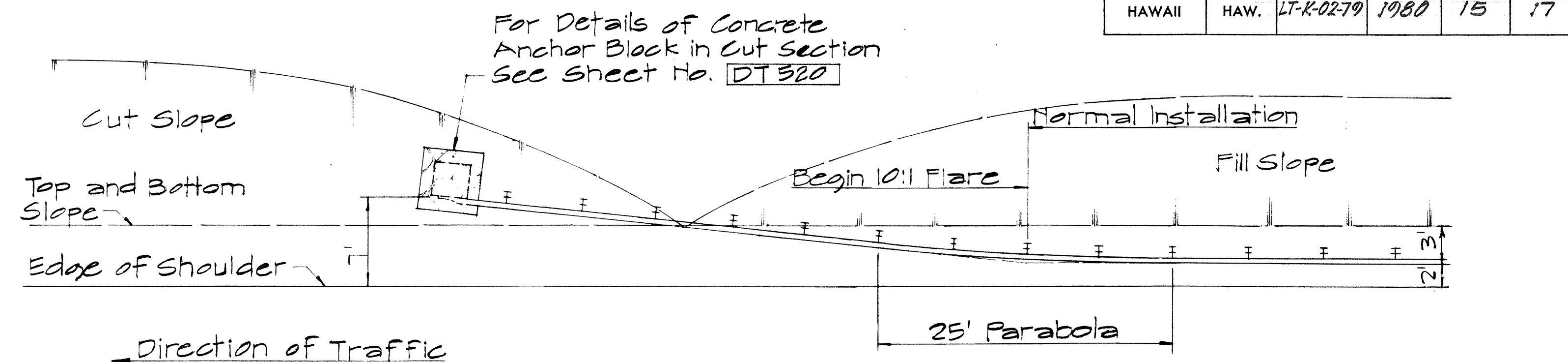


PLAN

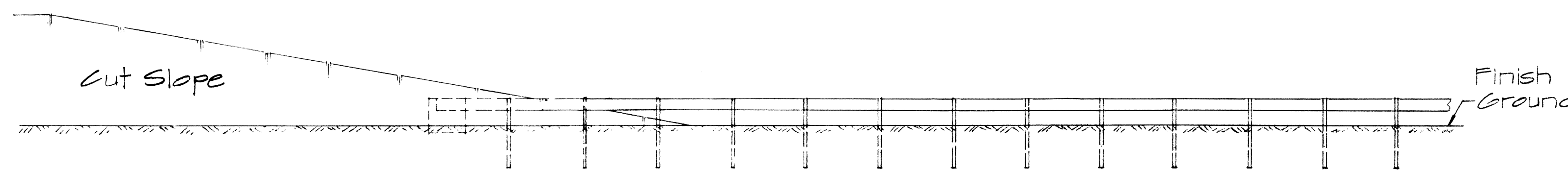


ELEVATION

TYPE "D" FLARE
Sc. 1/8" = 1'-0"

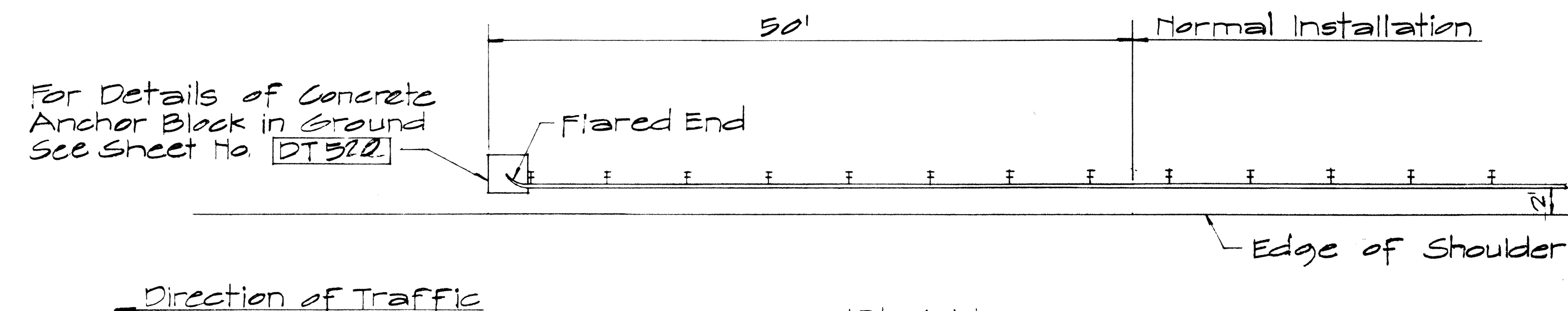


PLAN

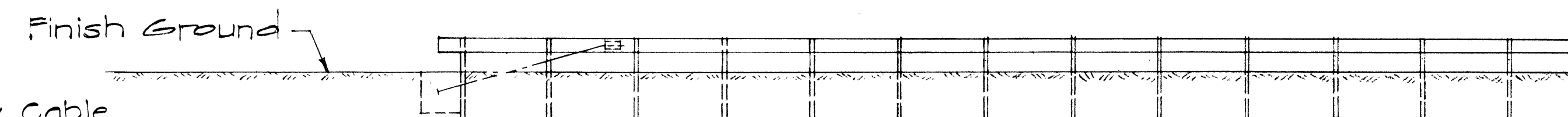


ELEVATION

TYPE "F" FLARE
Sc. 1/8" = 1'-0"



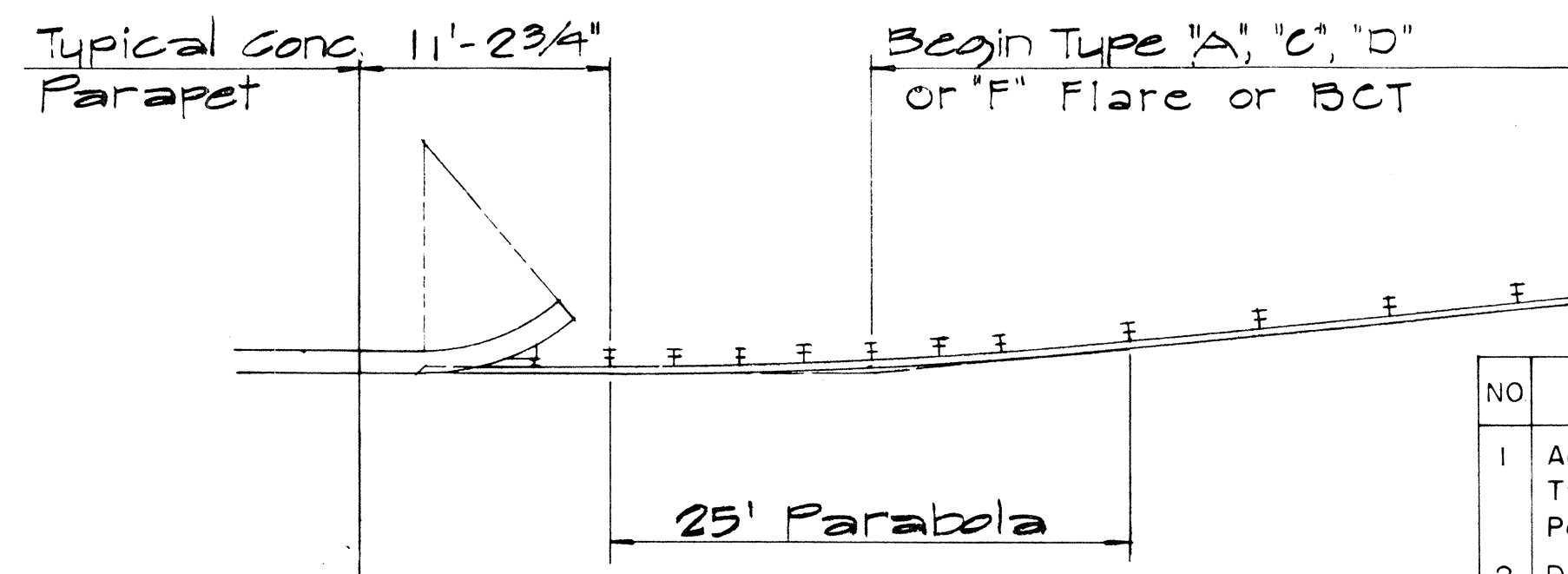
PLAN



ELEVATION

TYPE "G" FLARE
Sc. 1/8" = 1'-0"

NOTE:
For detail of Breakaway Cable Terminal (BCT) See Sheet No. DT 519



TYPICAL LAYOUT PLAN OF
END POST CONNECTION
Sc. 1/8" = 1'-0"

NO	REVISION	APPROVED BY	DATE
1	Additional Posts Added to Typical Layout Plan Of End Post Connection	H.C.	4-12-72
2	Delete Type "B" Flare and Type "E" Flare	H.C.	6-15-78

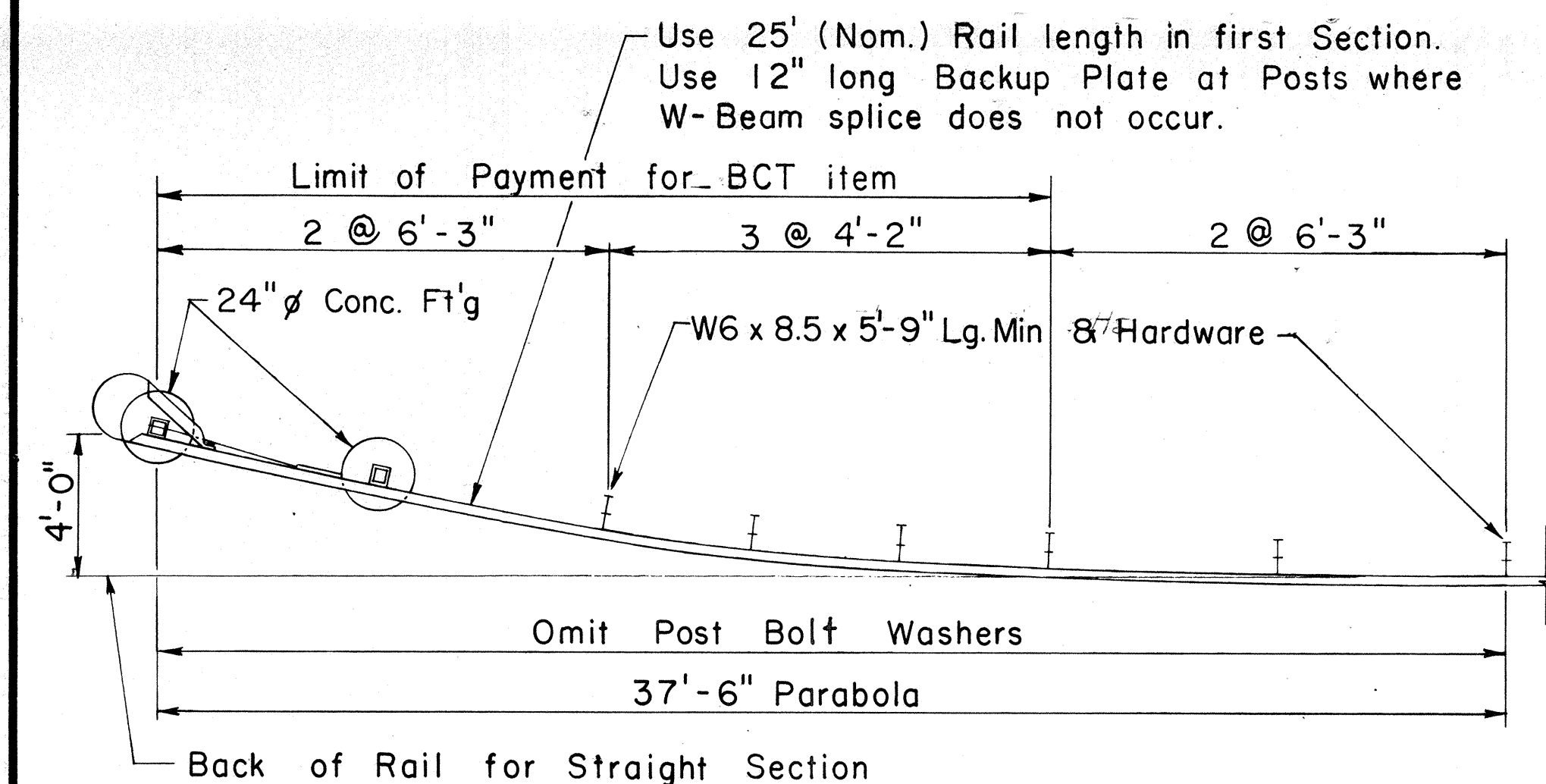
APPROVAL RECOMMENDED:
Eiichi Tanaka 12/29/69
 TRAFFIC ENGINEER DATE
 APPROVED:
Wm. J. Sal 12-30-69
 ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 LAND TRANSPORTATION FACILITIES DIVISION
STANDARD DETAILS
TRAILING END
FLARE - ONE & TWO
WAY ROADWAY
 Scale: As Noted April 1969
 SHEET No. 8 OF 10 SHEETS DT 517

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	LT-K-02-70	1980	16	17

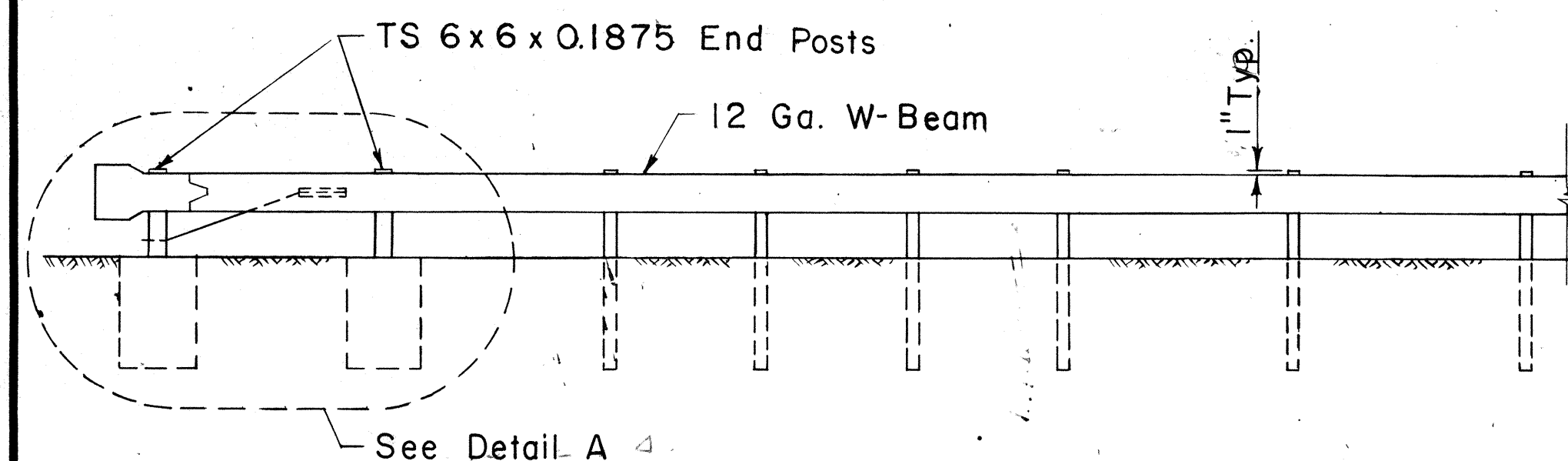
NOTES:

1. Anchor Plate and Anchor Cable Assembly (Standard Swaged Fitting and Stud). See Standard Detail Sheet No. DT 520.
2. Other Anchor Cable Assemblies may be used. Minimum breaking strength of assembly should be 40,000 lbs.
3. Second Terminal Post does not require holes to accommodate Anchor Cable.
4. Slip Base Load shall be controlled with a Calibrated Torque Wrench - Torque 155 - 170 ft. lbs.
5. Concrete shall be Class A.



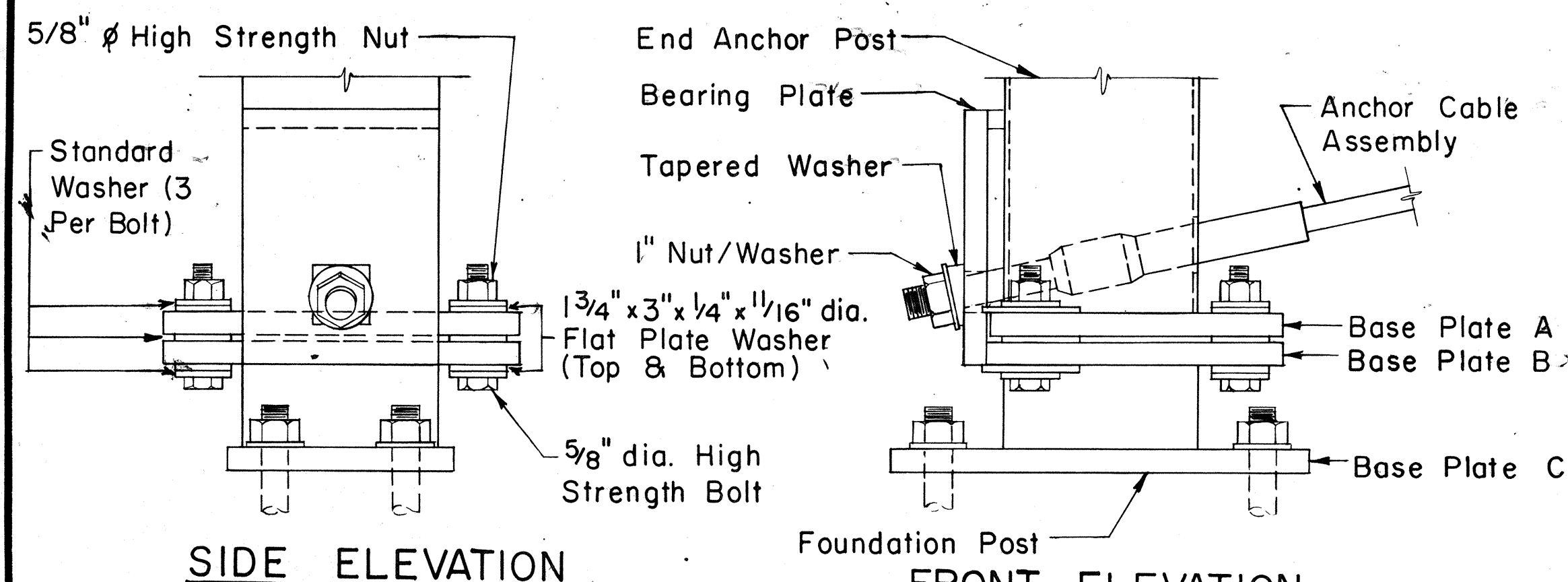
PLAN

Scale: 1/4" = 1'-0"



ELEVATION

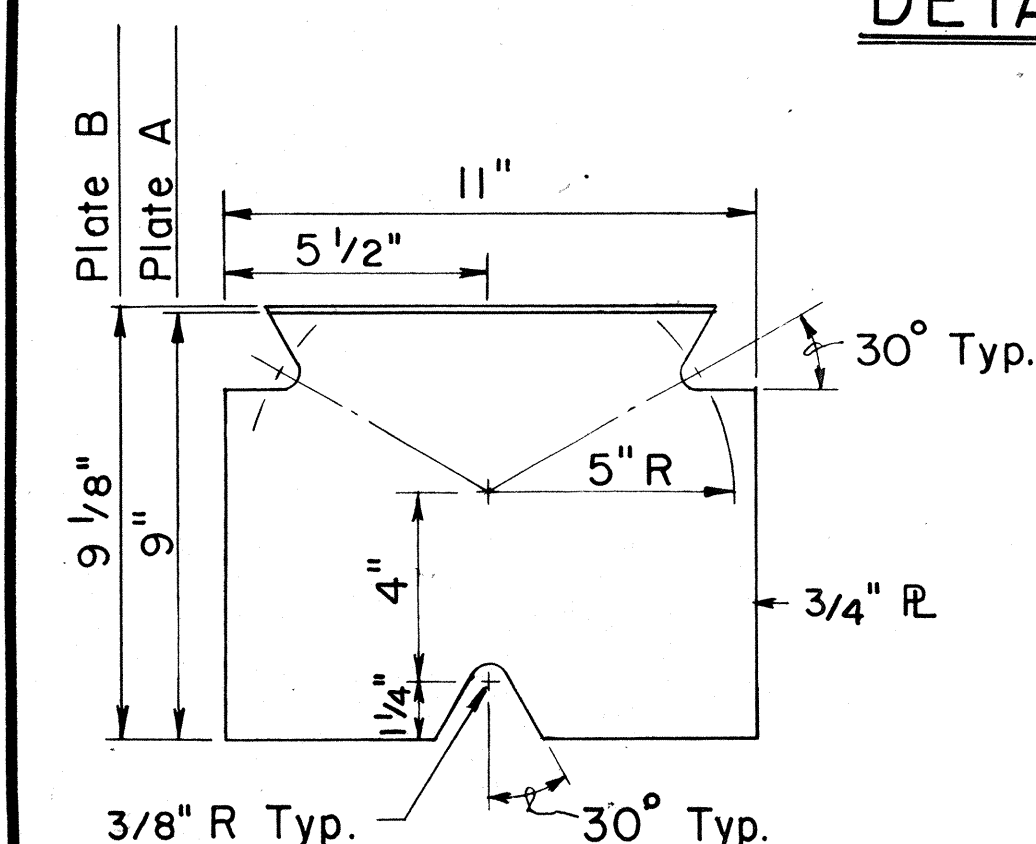
Scale: 1/4" = 1'-0"



SIDE ELEVATION

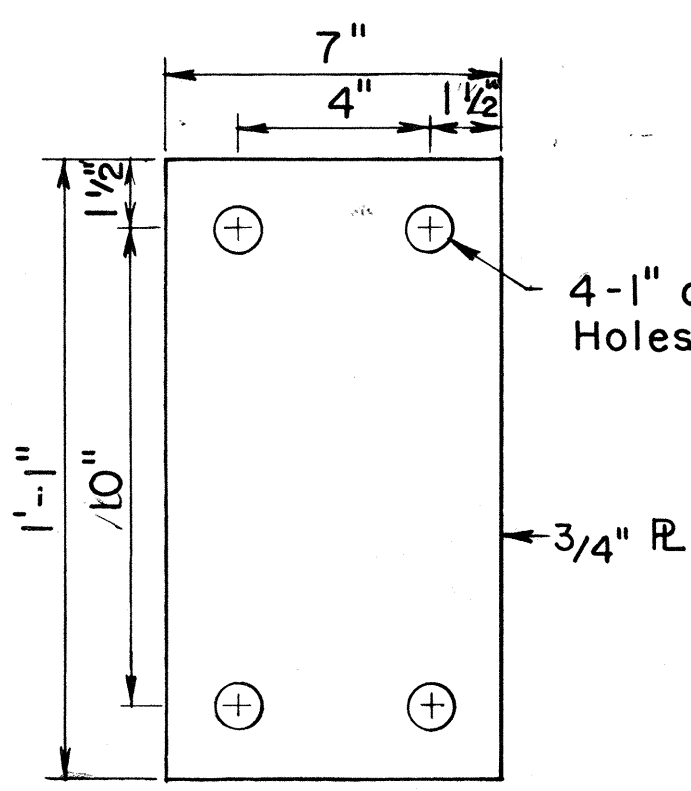
DETAIL B

FRONT ELEVATION



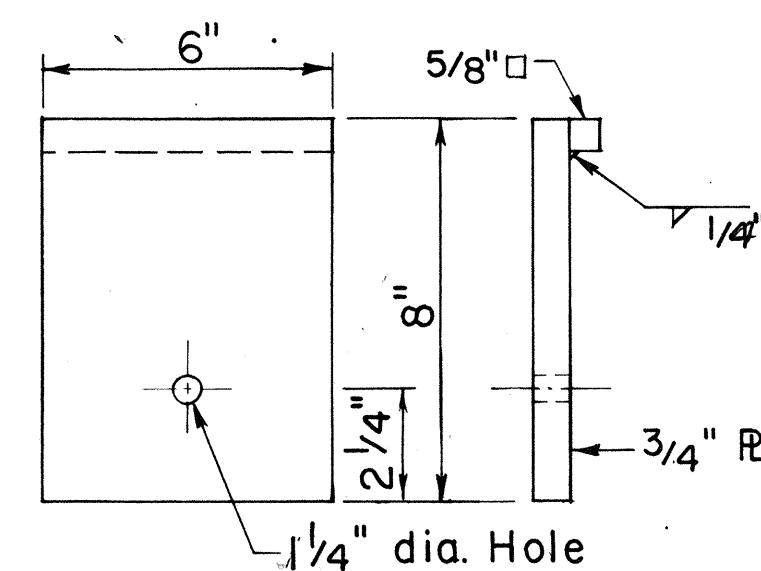
BASE PLATES A & B

Scale: 3" = 1'-0"



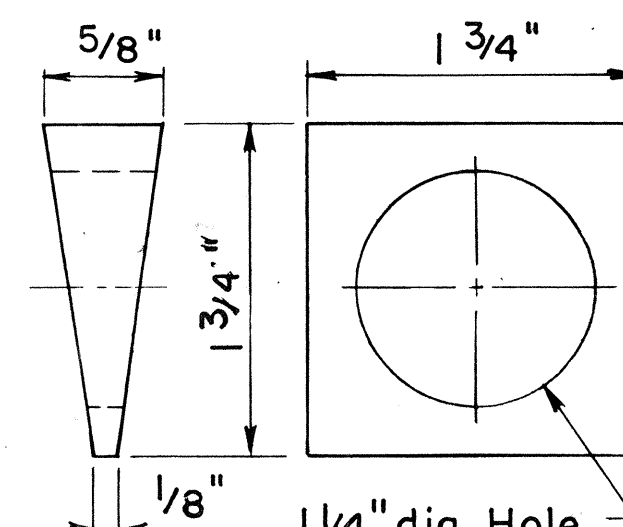
BASE PLATE C

Scale: 3" = 1'-0"



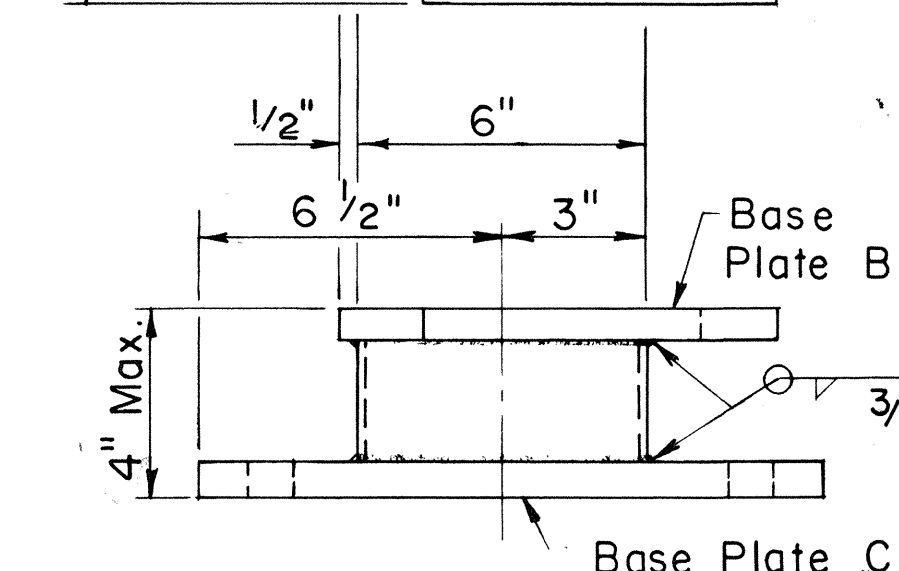
BEARING PLATE

Scale: 3" = 1'-0"



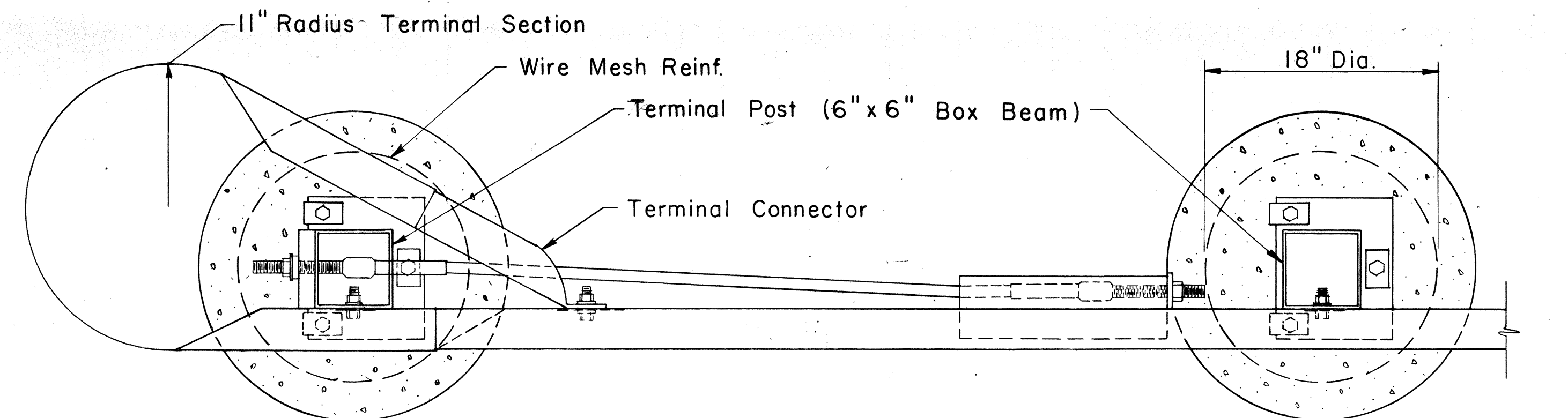
TAPERED WASHER

Scale: Full Size

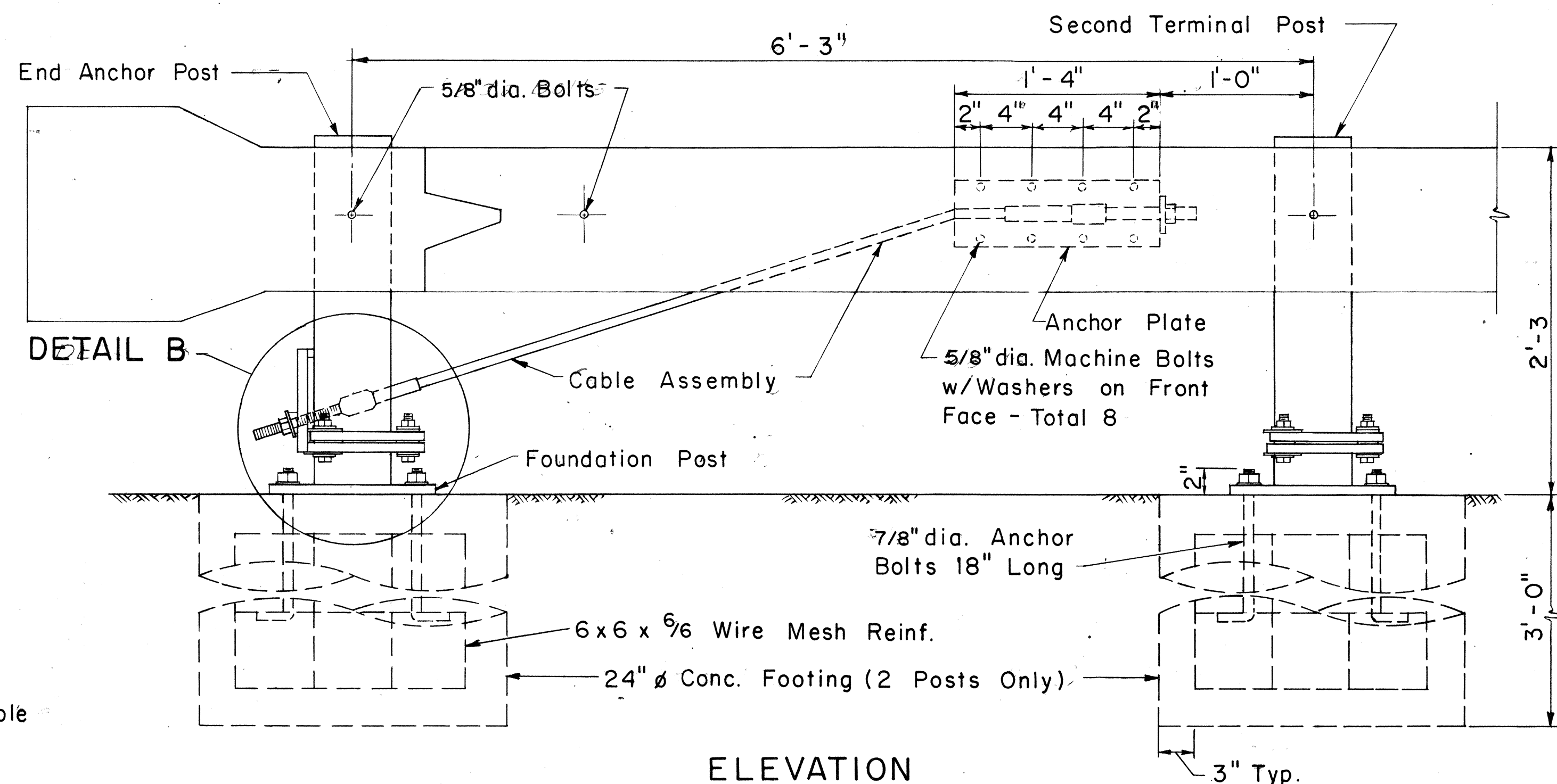


FOUNDATION POST

Scale: 3" = 1'-0"



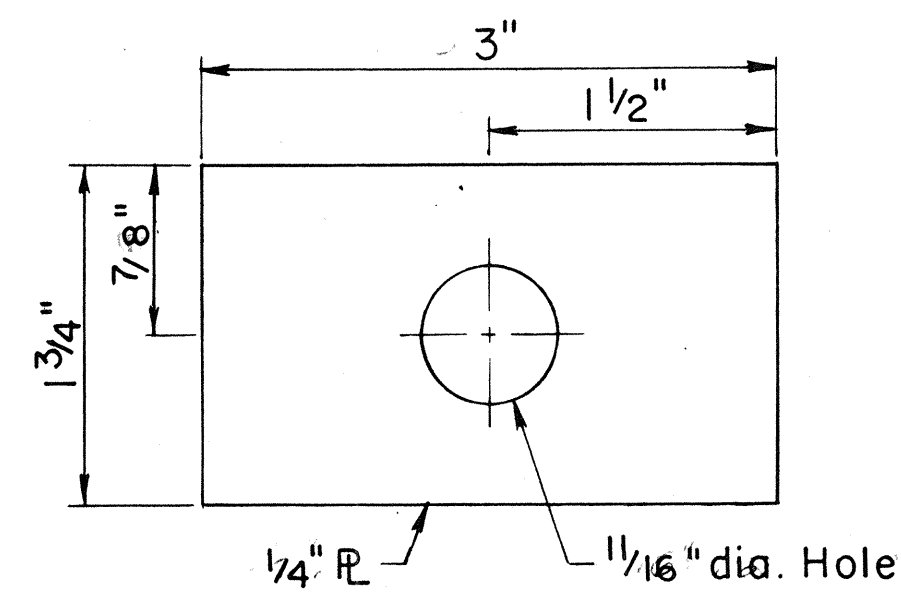
PLAN



ELEVATION

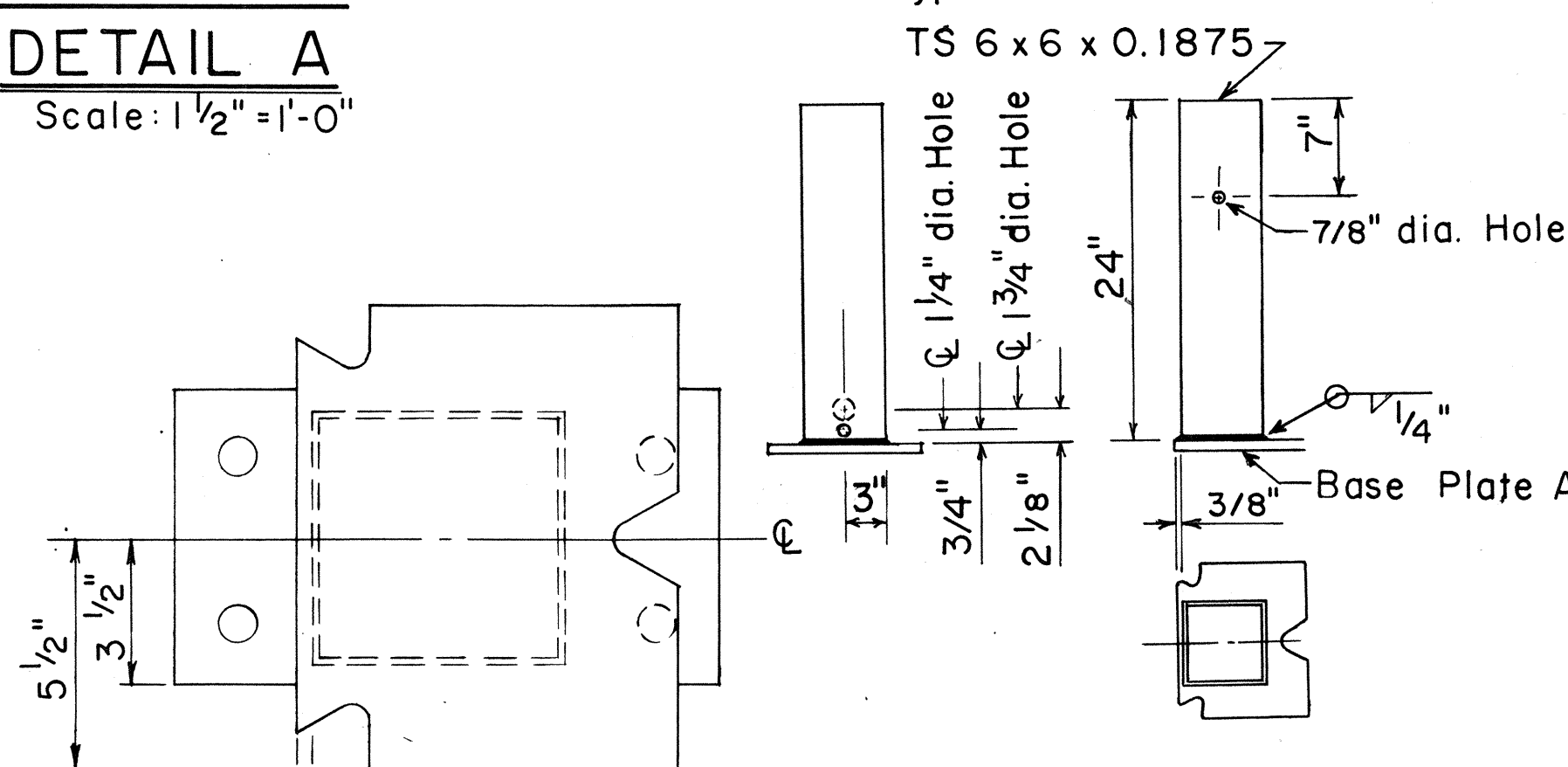
DETAIL A

Scale: 1 1/2" = 1'-0"



FLAT PLATE WASHER

Scale: Full Size



TERMINAL POST

Scale: 1" = 1'-0"

NO.	REVISION	APPROVED BY	DATE
	Supersedes Sht. DT 519 Approved 12/30/69	H.T.	6/15/78

APPROVAL RECOMMENDED:

Eishi Tanaka
TRAFFIC ENGINEER
6/14/78
DATE

APPROVED:

Harbor Zafish
ASSISTANT CHIEF, ENGINEERING
6/15/78
DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION
STANDARD DETAIL
BREAKAWAY CABLE TERMINAL (BCT)

Scale: As Shown Date: June 1978
SHEET No. 9 OF 10 SHEETS DT 519

ORIGINAL PLAN	DATE
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

