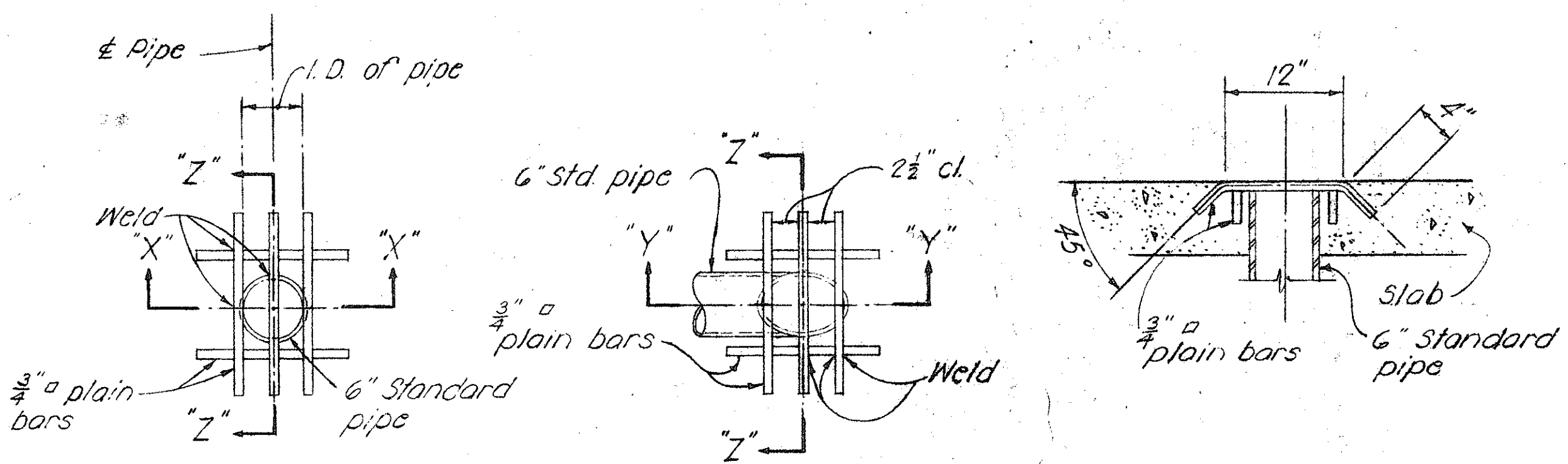


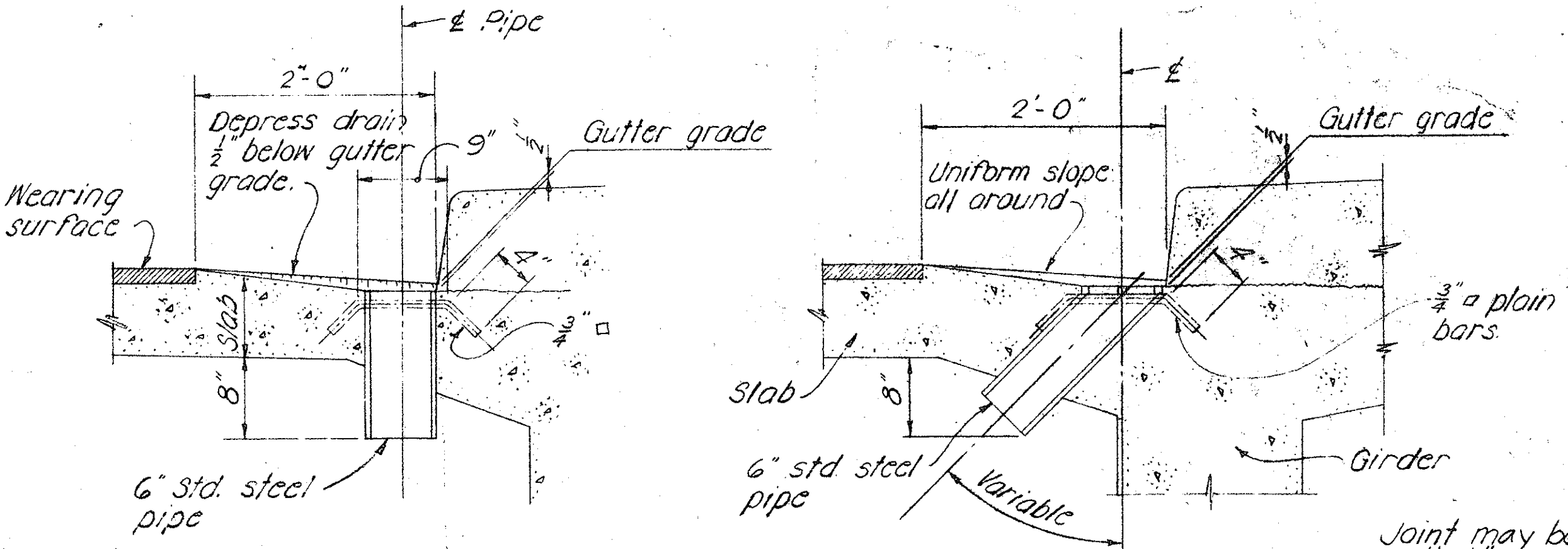
GENERAL NOTES

- All concrete shall be Class A unless otherwise noted.
- Reinforcing shall be detailed in accordance with A.C.I. Manual of Standard Practice for Detailing Reinforced Concrete Highway Structures unless otherwise noted.
- Clearance for reinforcing bars shall be as follows, unless otherwise noted.
 - 1/2" For stirrups of beams & pier caps.
 - 2" For ties of columns.
 - 2" For formed walls.
 - 3" For footings.
- Minimum spacing between parallel bars shall be 2 1/2 times the diameter of bars, but in no case shall the clear distance between the bars be less than 1 1/2 times the maximum size of the coarse aggregate.
- All dimensions relating to reinforcing are to centers of bars unless otherwise noted.
- Reinforcing bars shall be securely tied at all intersections & lap splices & shall be held in place during pouring to maintain their proper locations as shown on plans.
- Vertical column bars shall be arranged in such a manner as to miss pier cap bars above as directed by the Engineer.
- Except as otherwise noted on drawings, all exterior corners & re-entrant angles in concrete work shall be chamfered 3/4" x 3/4".
- Concrete seats receiving steel plates, lead plates or neoprene pads shall be poured monolithically with supporting structures & top of concrete seats shall be finished with a steel trowel to a smooth level surface at the elevation shown on the plans.
- Elastomeric Pads: Bottom of bridge bearing pads shall be secured against displacement with adhesives approved by the Engineer. Pads shall be incidental to concrete and will not be paid for separately.
- Forms for all exposed surfaces of separation structures and surfaces of retaining walls visible from a traveled way or from a populated area shall be plywood except that metal forms may be permitted provided a surface finish satisfactory to the Engineer can be obtained and the use of such forms is approved in writing by the Engineer. Forms for round columns shall be made of materials that will give a smooth finish and true dimensions as given in the plans. Forms for prestressed concrete members shall be either metal or plywood.
- Gothic letters and figures approximating dimensions shown will be acceptable if approved by the Engineer.
- The contractor shall verify the location of all existing utility lines and notify the respective owners before commencing work of excavation or driving of piles.
- Standard Detail Drawings refer to all structures in general, except for modifications as may be required for special conditions. For such modifications refer to the corresponding detailed drawings.

TYPICAL CONCRETE GROOVE DETAIL



DRIP DETAIL



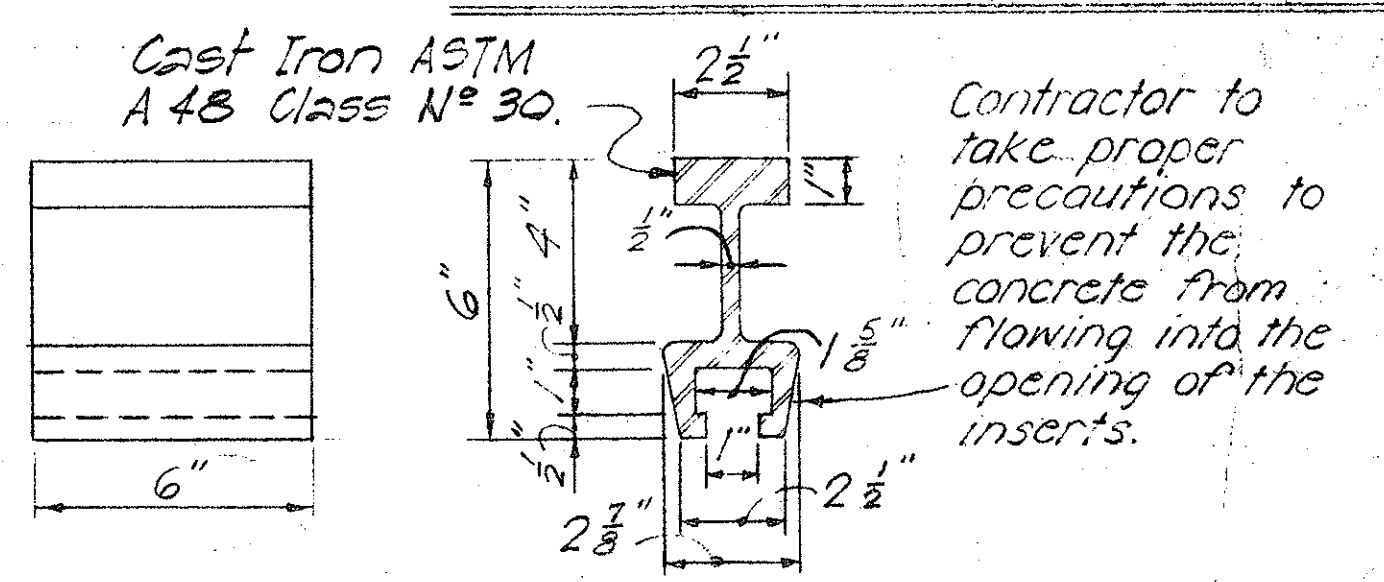
SECTION "X-X"

SECTION "Y-Y"

NOTE:

Metal drains shall be considered incidental to Class A. Concrete in both concrete and steel bridges and will not be paid for separately. Assembly of grillage and pipe shall be hot-dip galvanized after all welding is completed.

TYPICAL DRAINAGE DETAILS

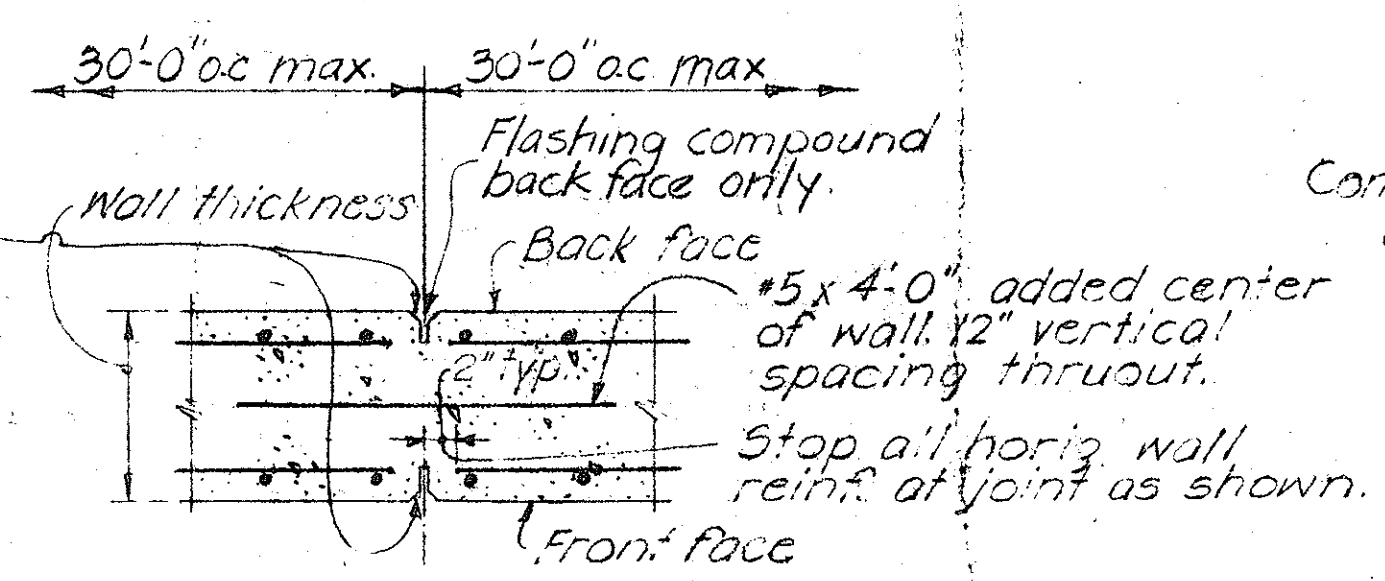


INSERT DETAIL

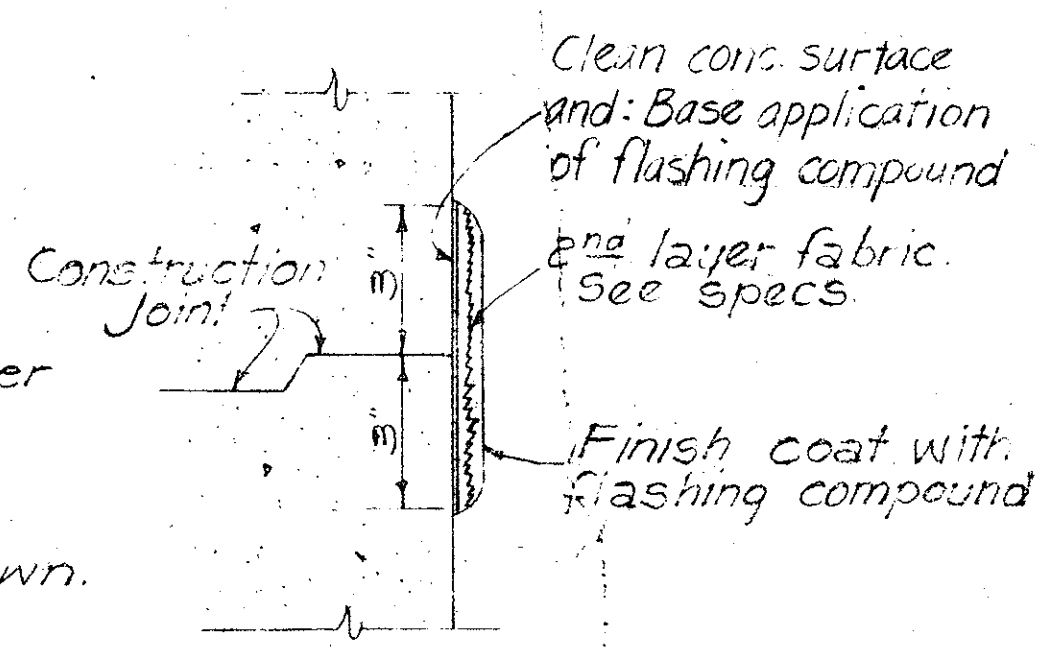
Contractor to take proper precautions to prevent the concrete from flowing into the opening of the inserts.

Vert. control joint on each face of wall to top of footing. See above detail and as directed by the Engineer.

CONTROL JOINT DETAILS



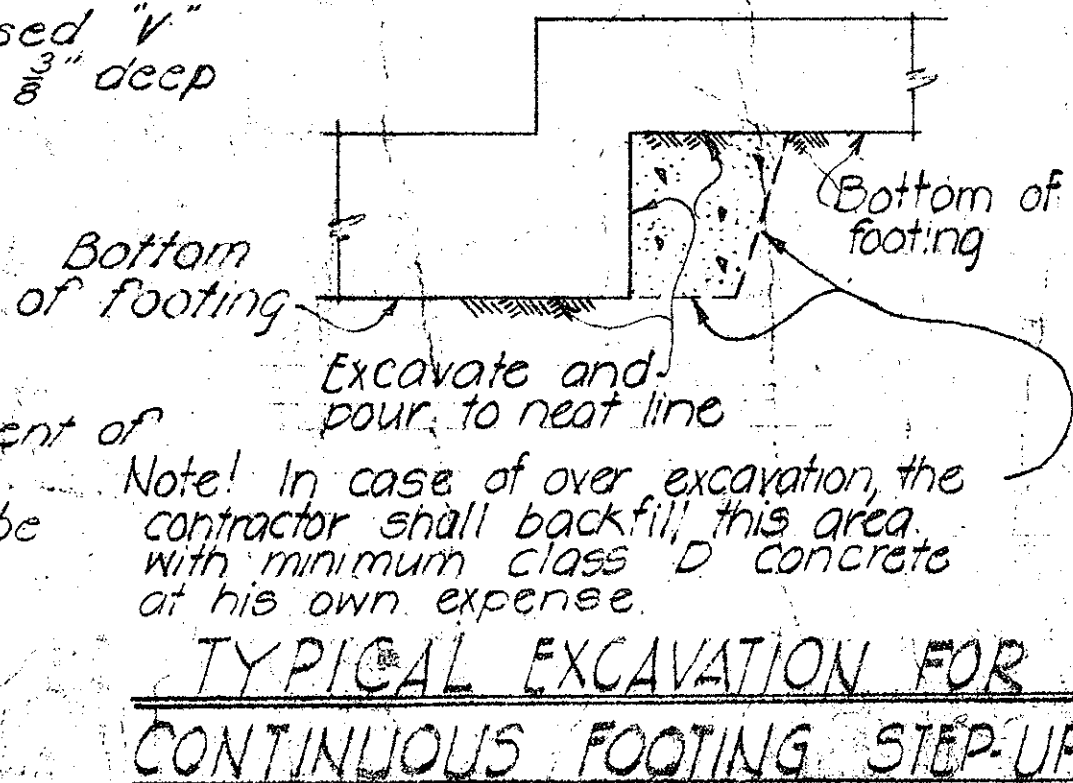
TYP. FLASHING COMPOUND WATERPROOFING DETAIL



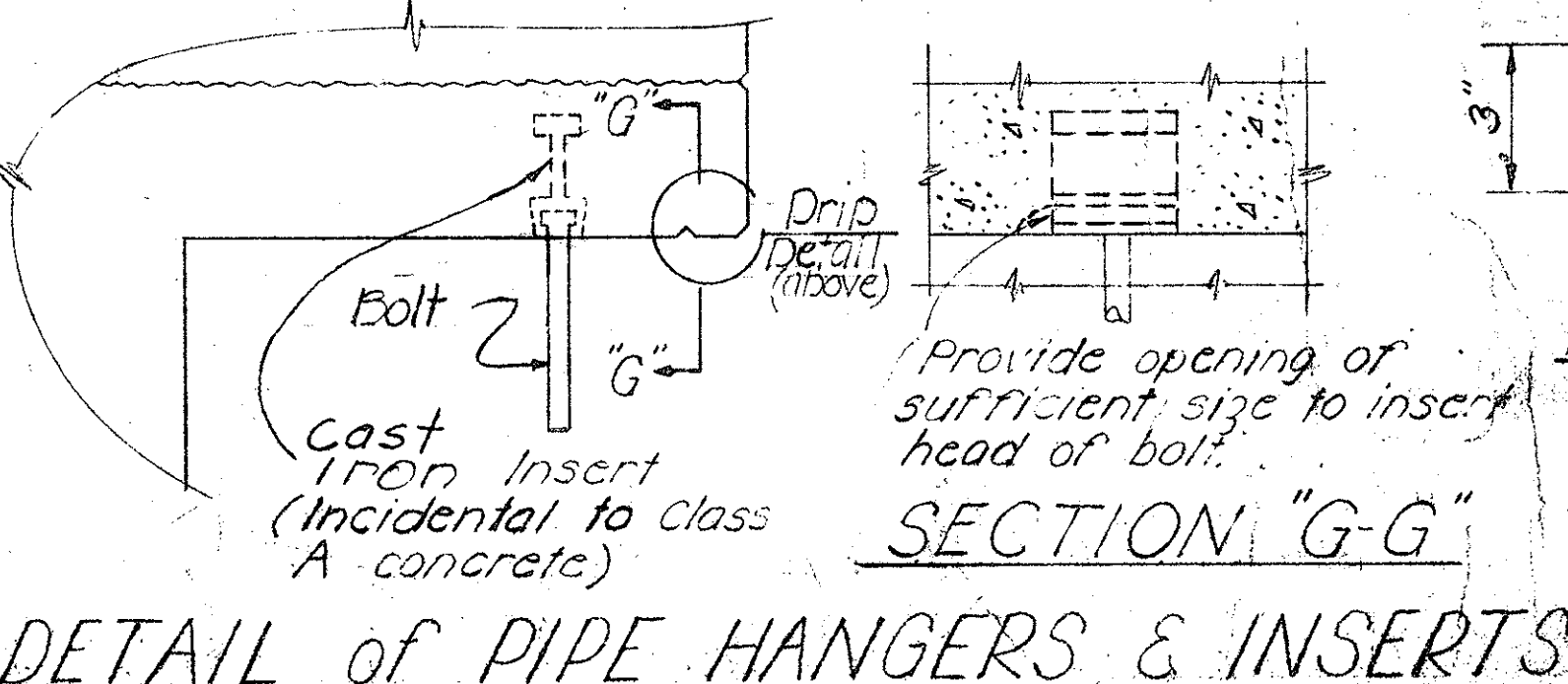
NAME DATE

Use correct name of bridge Date of Year built.
NOTE: Refer to corresponding detail drawings for placement of such names & dates at end post.
Exact details & spacing of letters & figures shall be as directed by the Engineer. See Note #12.

TYPICAL DETAIL OF LETTERS & FIGURES AT CONCRETE END POST



TYPICAL EXCAVATION FOR CONTINUOUS FOOTING STEP-UP



DETAIL OF PIPE HANGERS & INSERTS

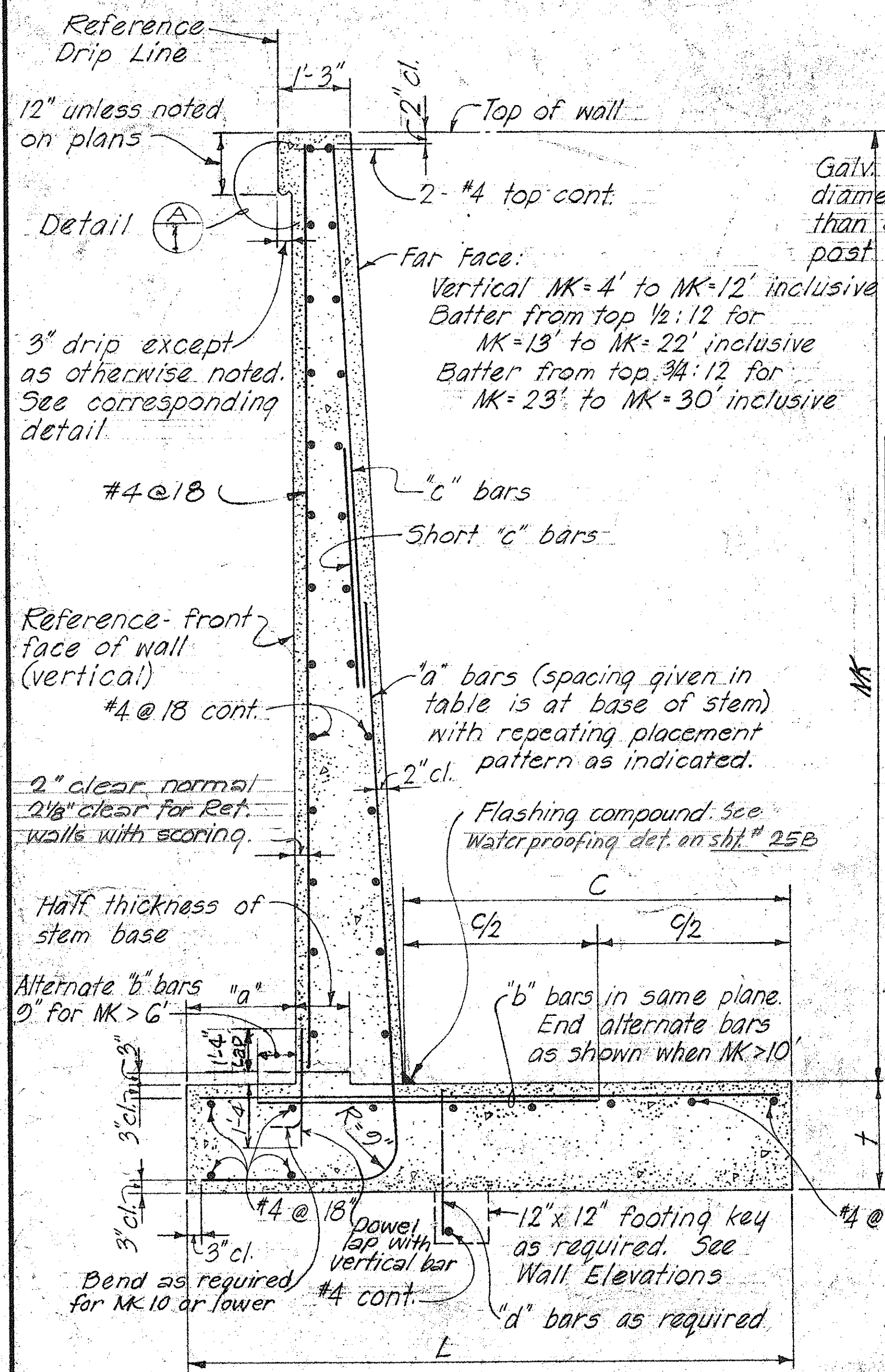
APPROVAL RECOMMENDED:
Paul T. Yamashita
BRIDGE DESIGN ENGINEER
DATE 1-23-79

APPROVED
Paul T. Yamashita
ASSISTANT CHIEF, ENGINEERING
DATE 1-28-79

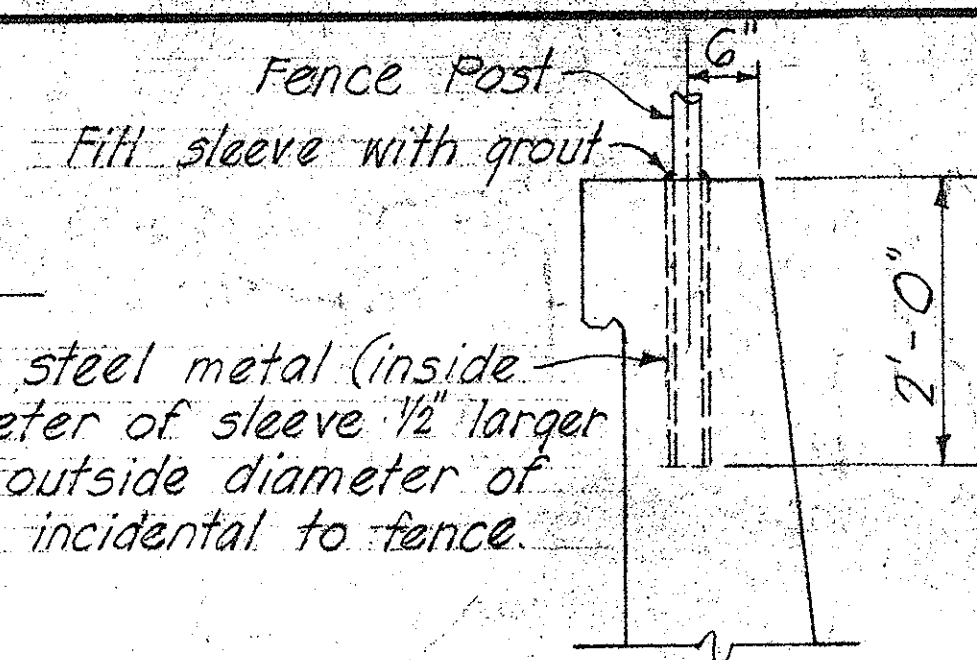
NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
NOTES AND MISCELLANEOUS
DETAILS
Date: October 1969
SHEET No. 256 OF 278 SHEETS DB-10

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

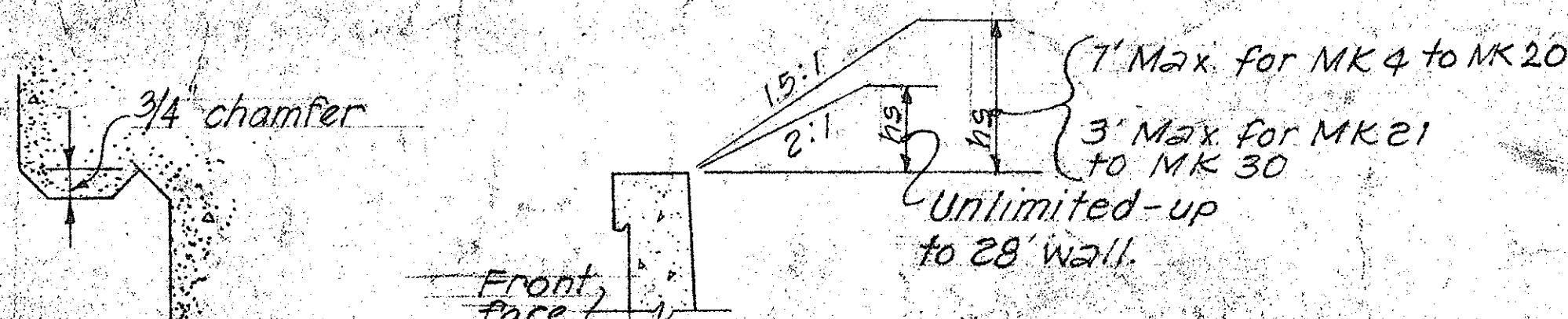


CHAIN LINK FENCE POST DETAIL



DETAIL 1

DESIGN LIMITS OF WALL SURCHARGE AND SLOPES

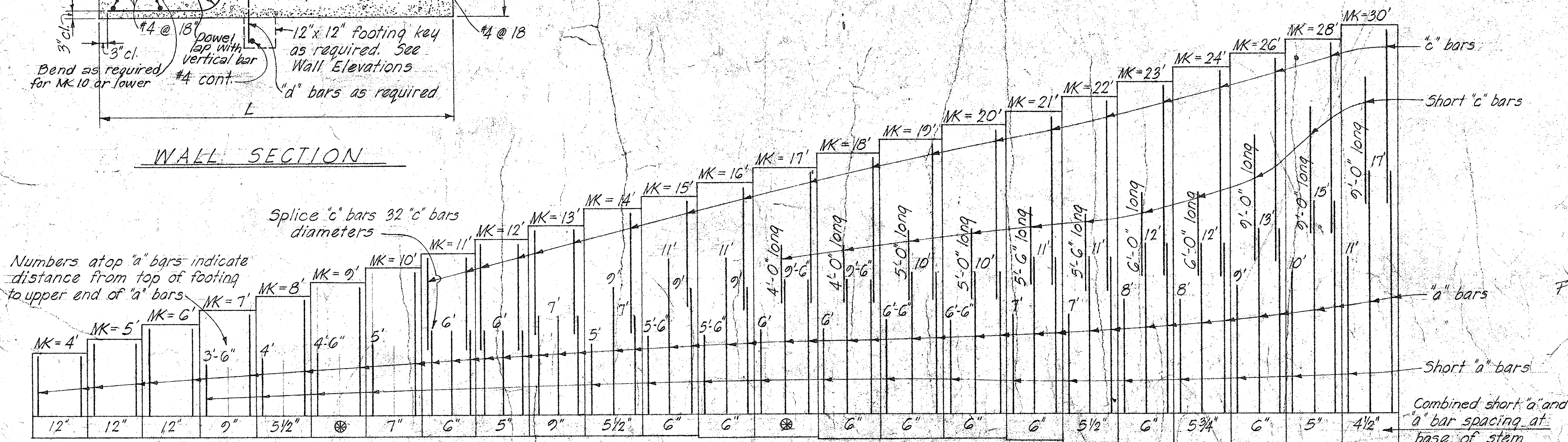


SCHEDULE OF DIMENSIONS AND REINFORCING STEEL

Maximum "MK"	4E	5E	6E	7E	8E	9E	10E	11E	12E	13E	14E	15E	16E	17E	18E	19E	20E	21E	22E	23E	24E	26E	28E	30E
a	6"	6"	6"	12"	12"	12"	12"	12"	12"	12"	15"	18"	21"	24"	24"	24"	27"	30"	33"	36"	39"	54"	60"	72"
t	14"	14"	14"	14"	14"	14"	14"	18"	18"	18"	18"	18"	21"	21"	24"	24"	24"	27"	30"	31"	33"	36"	39"	42"
L	2.5'	3.0'	3.5'	4.0'	4.5'	5.0'	5.5'	6.0'	6.5'	7.0'	7.75'	8.25'	9.0'	9.75'	10.5'	11.5'	12.5'	13.5'	14.5'	15.25'	16.0'	18.0'	20.0'	21.0'
"a" bars	#3 @ 12"	#3 @ 12"	#4 @ 12"	#4 @ 9"	#4 @ 5 1/2"	#5 @ 7"	#6 @ 7"	#6 @ 6"	#6 @ 5"	#7 @ 7"	#6 @ 5 1/2"	#7 @ 6"	#8 @ 6"	#8 @ 5 3/4"	#7 @ 6"	#7 @ 6"	#10 @ 6"	#10 @ 6"	#10 @ 5 1/2"	#10 @ 6"	#10 @ 5 3/4"	#11 @ 6"	#11 @ 5"	#11 @ 4 1/2"
"b" bars	#3 @ 12"	#3 @ 12"	#3 @ 12"	#3 @ 9"	#4 @ 11"	#4 @ 7"	#5 @ 7"	#5 @ 6"	#5 @ 5"	#7 @ 7"	#6 @ 5 1/2"	#7 @ 6"	#8 @ 6"	#7 @ 5 3/4"	#8 @ 6"	#7 @ 6"	#10 @ 6"	#10 @ 6"	#10 @ 5 1/2"	#10 @ 6"	#10 @ 5 3/4"	#11 @ 6"	#11 @ 5"	#11 @ 4 1/2"
"c" bars								#4	#4	#4	#4	#4	#5	#5	#5	#6	#6	#6	#7	#7	#7	#7	#7	#7
"d" bars	#3 @ 12"	#3 @ 12"	#3 @ 12"	#3 @ 12"	#4 @ 18"	#4 @ 15"	#4 @ 15"	#4 @ 12"	#4 @ 11"	#4 @ 9"	#5 @ 12"	#5 @ 12"	#5 @ 10"	#5 @ 9"	#5 @ 9"	#5 @ 8"	#6 @ 10"	#6 @ 9"	#7 @ 12"	#7 @ 11"	#7 @ 10"	#7 @ 10"	#7 @ 10"	#7 @ 10"

Wall on Rock	Maximum "MK"	4R	5R	6R	7R	8R	9R	10R	11R	12R	13R	14R	15R	16R	17R	18R	19R	20R	21R	22R	23R	24R	26R	28R	30R
	a	6"	6"	6"	12"	12"	12"	12"	12"	12"	15"	18"	21"	21"	21"	21"	24"	24"	27"	30"	33"	39"	39"	51"	
	t	14"	14"	14"	14"	14"	14"	14"	18"	18"	18"	18"	18"	18"	18"	21"	21"	21"	21"	24"	24"	27"	30"	36"	
	L	2.5'	3.0'	3.5'	4.0'	4.5'	5.0'	5.5'	6.0'	6.5'	7.25'	7.75'	8.25'	8.75'	9.25'	9.75'	10.25'	10.5'	11.0'	11.5'	12.0'	13.0'	14.0'	15.0'	
	"a" bars	#3@12"	#3@12"	#4@12"	#4@9"	#4@5 1/2"	#5@6"	#6@7"	#6@6"	#6@5"	#7@7"	#6@5 1/2"	#7@6"	#8@6"	#8@6"	#7@6"	#7@6"	#10@6"	#10@6"	#10@5 1/2"	#10@6"	#10@5 3/4"	#11@6"	#11@5"	#11@4 1/2"
	"b" bars	#3@12"	#3@12"	#3@12"	#3@9"	#4@11"	#4@6"	#5@7"	#5@6"	#5@5"	#7@7"	#6@5 1/2"	#7@6"	#7@6"	#8@6"	#7@6"	#7@6"	#10@6"	#10@6"	#10@5 1/2"	#10@6"	#10@5 3/4"	#10@6"	#10@5"	#11@4 1/2"
	"c" bars								#4	#4	#4	#4	#4	#5	#5	#5	#6	#6	#6	#7	#7	#7	#7	#7	#7
	"d" bars	#3@12"	#3@12"	#3@12"	#3@12"	#4@18"	#4@15"	#4@15"	#4@12"	#4@11"	#4@9"	#5@12"	#5@12"	#5@10"	#5@9"	#5@9"	#5@8"	#6@10"	#6@9"	#7@12"	#7@11"	#7@10"	#7@	#7@	#10@6"

WALL SECTION



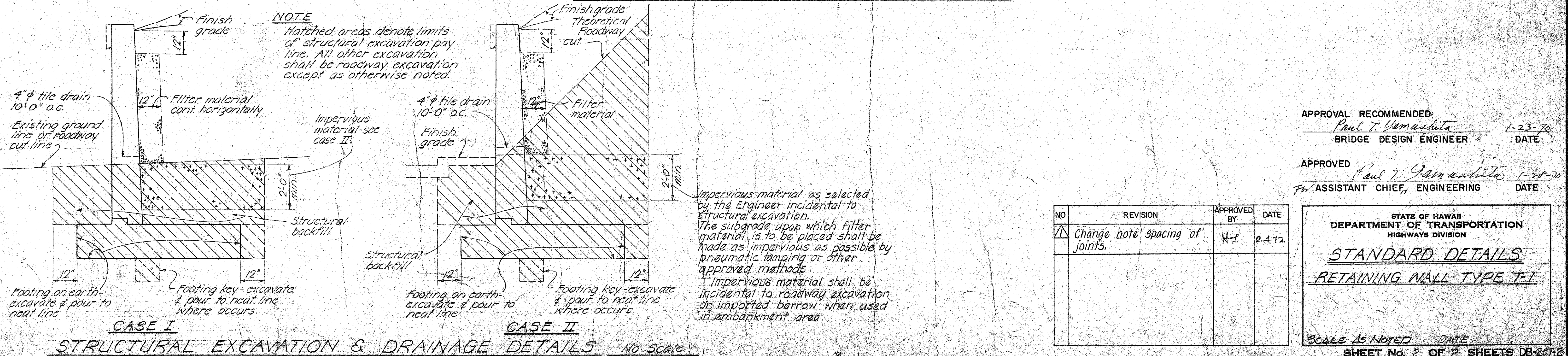
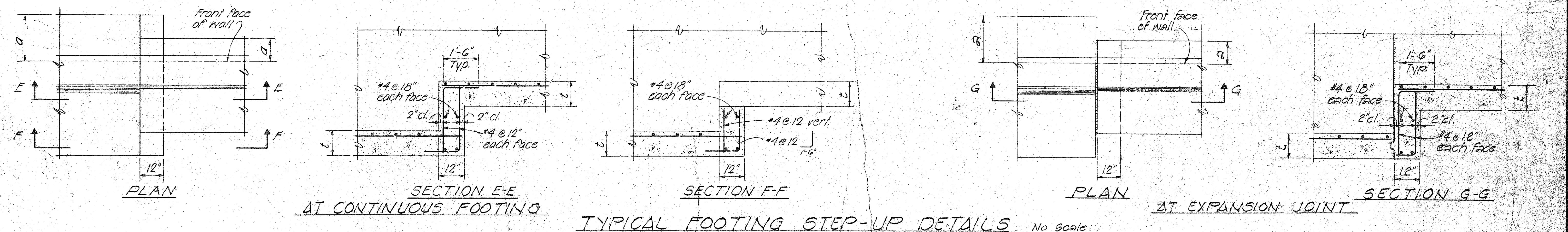
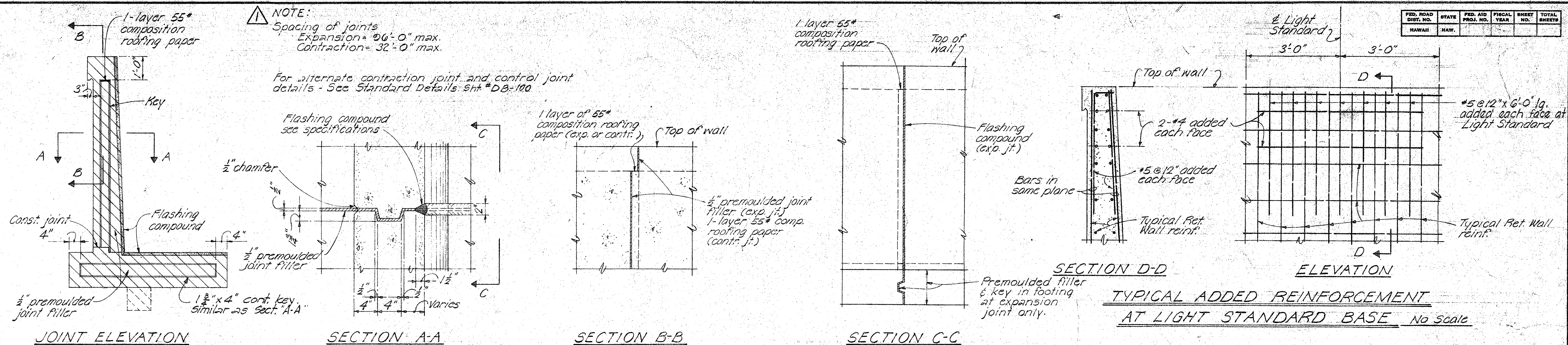
VERTICAL REINFORCING STEEL ARRANGEMENT

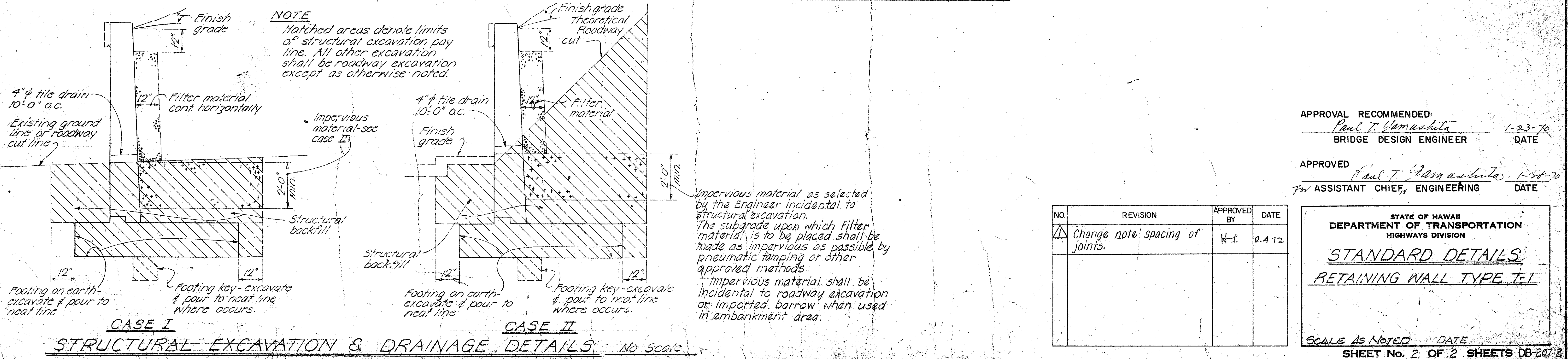
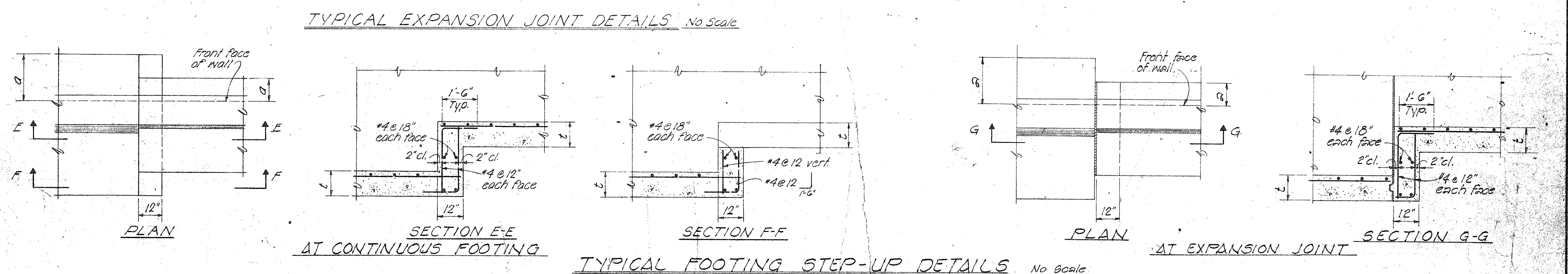
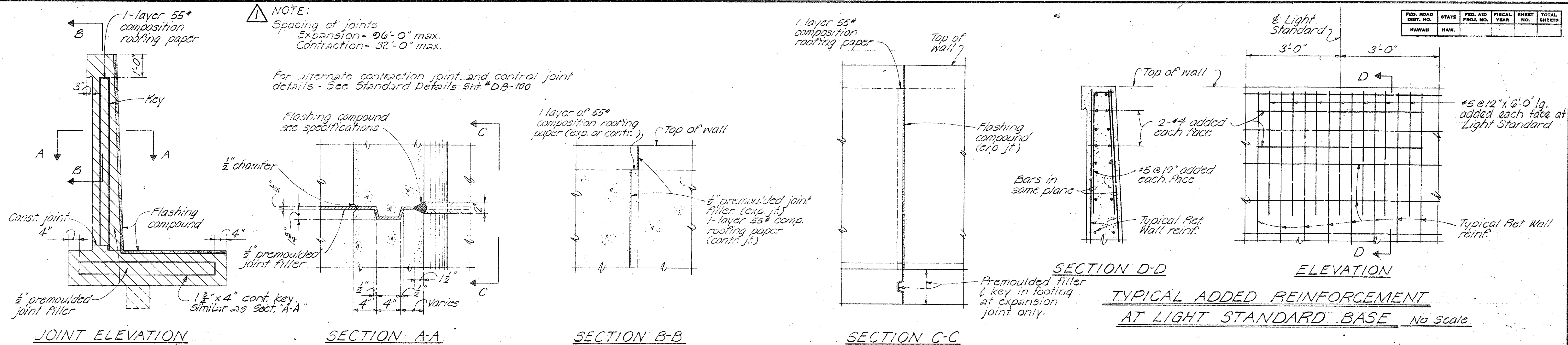
NO.	REVISION	APPROVED BY	DATE

APPROVAL RECOMMENDED
Paul T. Yamashita
 BRIDGE DESIGN ENGINEER 1-23-76
 DATE

APPROVED
Paul T. Yamashita
 ASSISTANT CHIEF, ENGINEERING 1-28-76
 DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
STANDARD DETAILS
RETAINING WALL TYPE T-1
 SCALE As Noted DATE
 SHEET No. 16B OF 17 SHEETS DB-201-1





APPROVAL RECOMMENDED:
Paul T. Yamashita 1-23-70
BRIDGE DESIGN ENGINEER DATE

APPROVED Paul T. Yamashita 1-28-70
FOR ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Change note spacing of joints.	H.T.	2.4.72

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
RETAINING WALL TYPE T-1

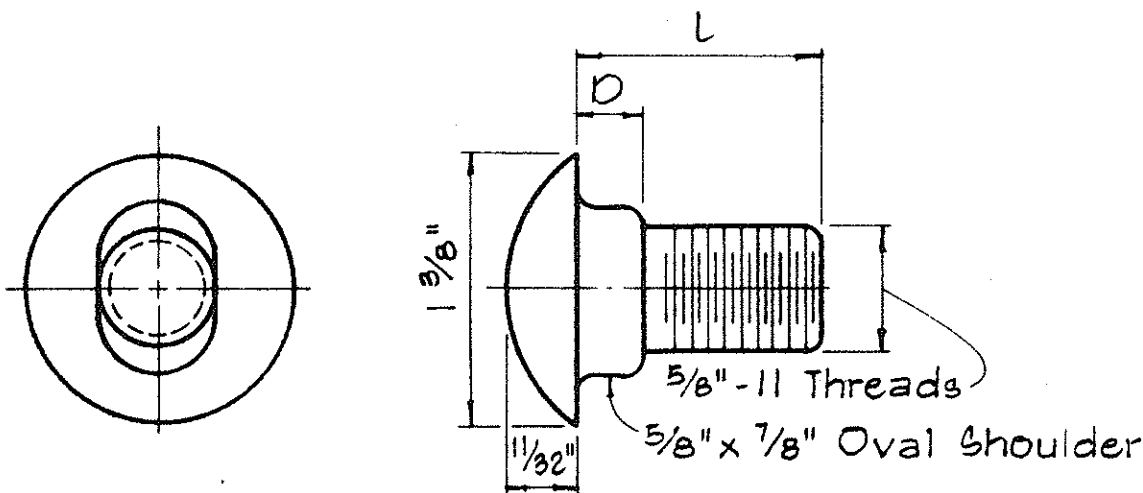
SCALE AS NOTED DATE

SHEET No. 2 OF 2 SHEETS DB-207-2

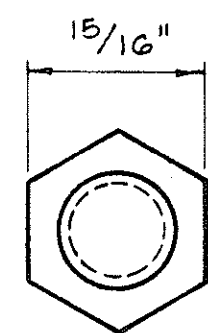
BOLT DIMENSIONS		
TYPE A BOLT		
	D	L
Splice Bolt	5/16"	1 1/4"
Post Bolt for Conc. Post w/ Double Wood Blocks	3/32"	24"
Post Bolt for Conc. Post w/ Single Wood Block	3/32"	18"
Rail Bolt for Metal Block	3/32"	2"

BOLT DIMENSIONS		
TYPE B BOLT		
	D	L
Post Bolt for Conc. Post w/ Metal Blocks	5/16"	9 1/2"
Post Bolt for Metal Post w/ Metal Block	1/4"	1 3/4"

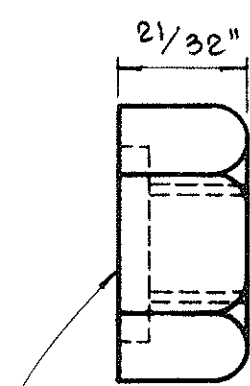
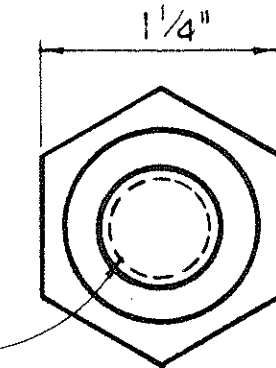
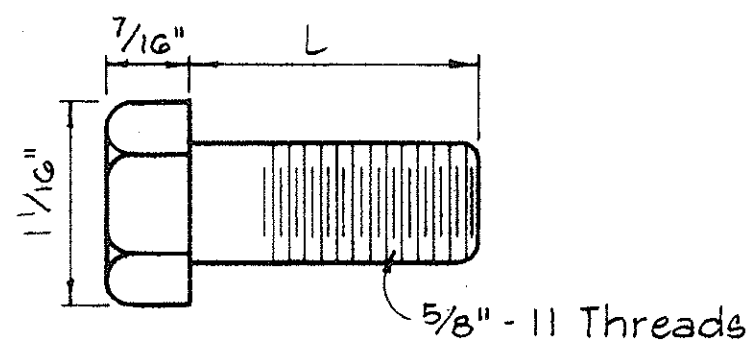
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H-1(57)-18	1973		



TYPE A BOLT



TYPE B BOLT



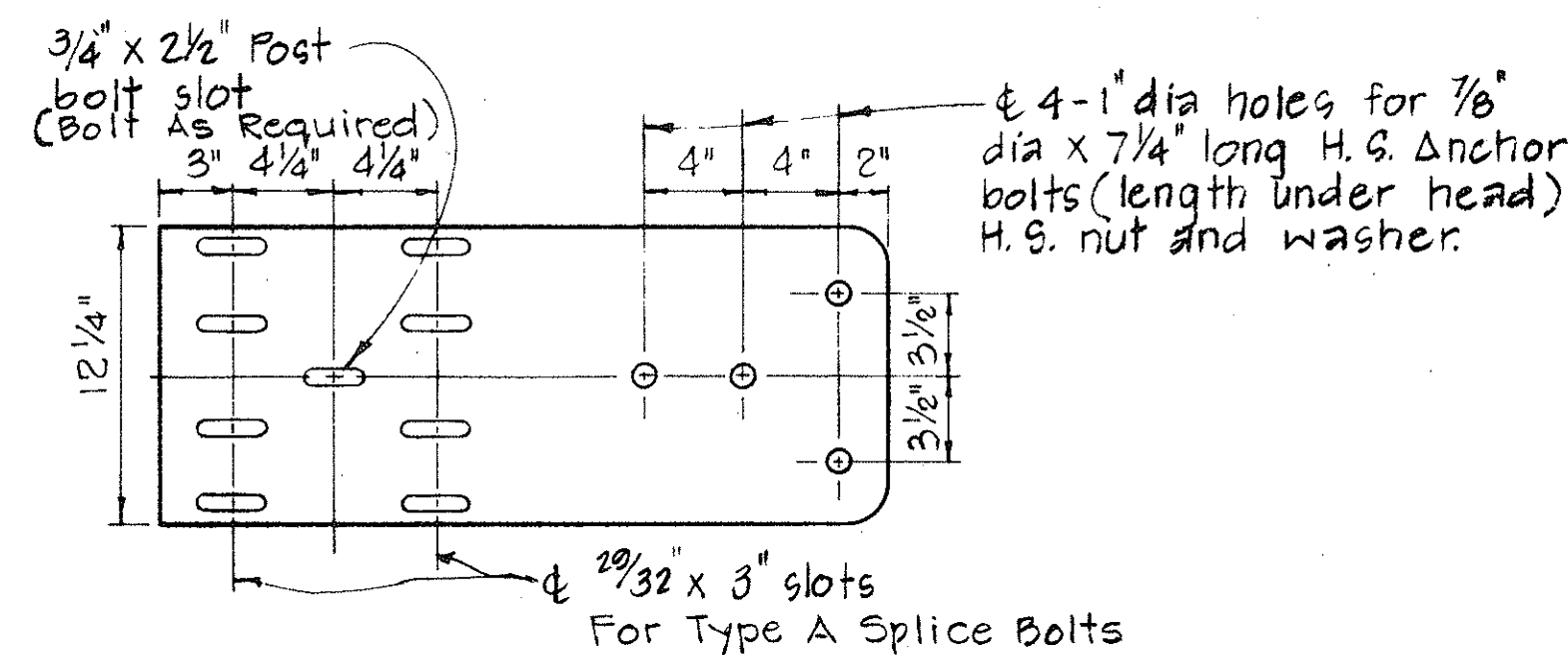
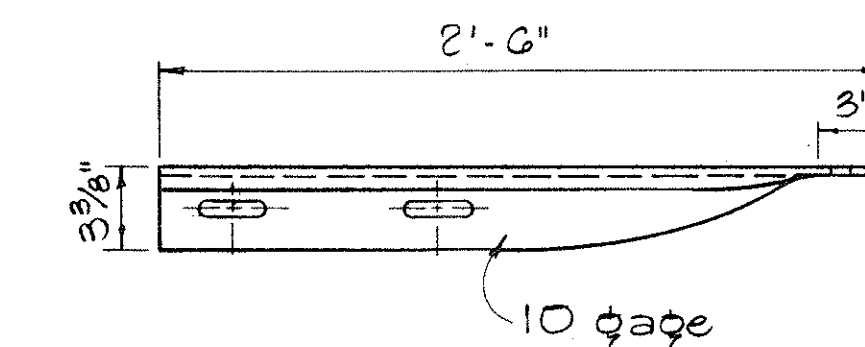
5/32" Deep x 15/16" Dia. C' Bore for Type A Bolt only. Plain nut for Type B Bolt.

SPUCE RAIL AND POST BOLTS

Scale: Full Size

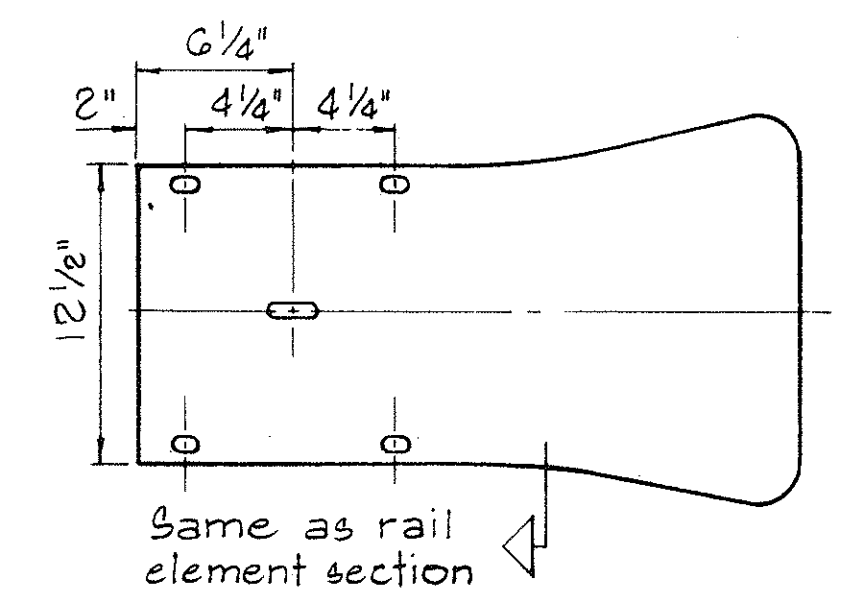
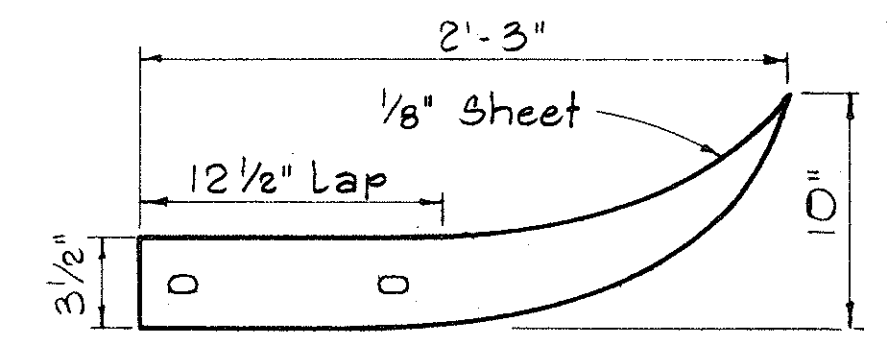
HEXAGON NUT

Scale: Full Size



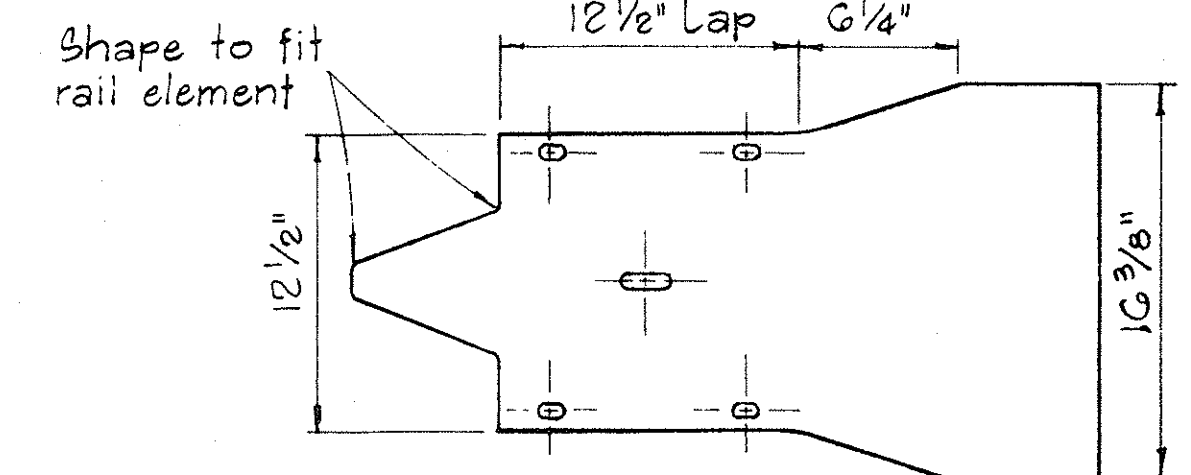
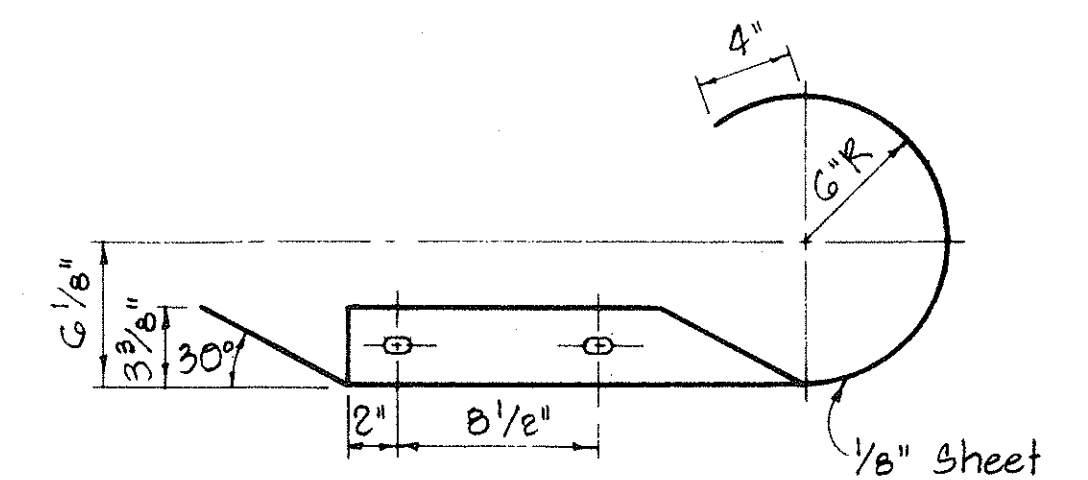
SPECIAL END SHOE

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



FLARED END

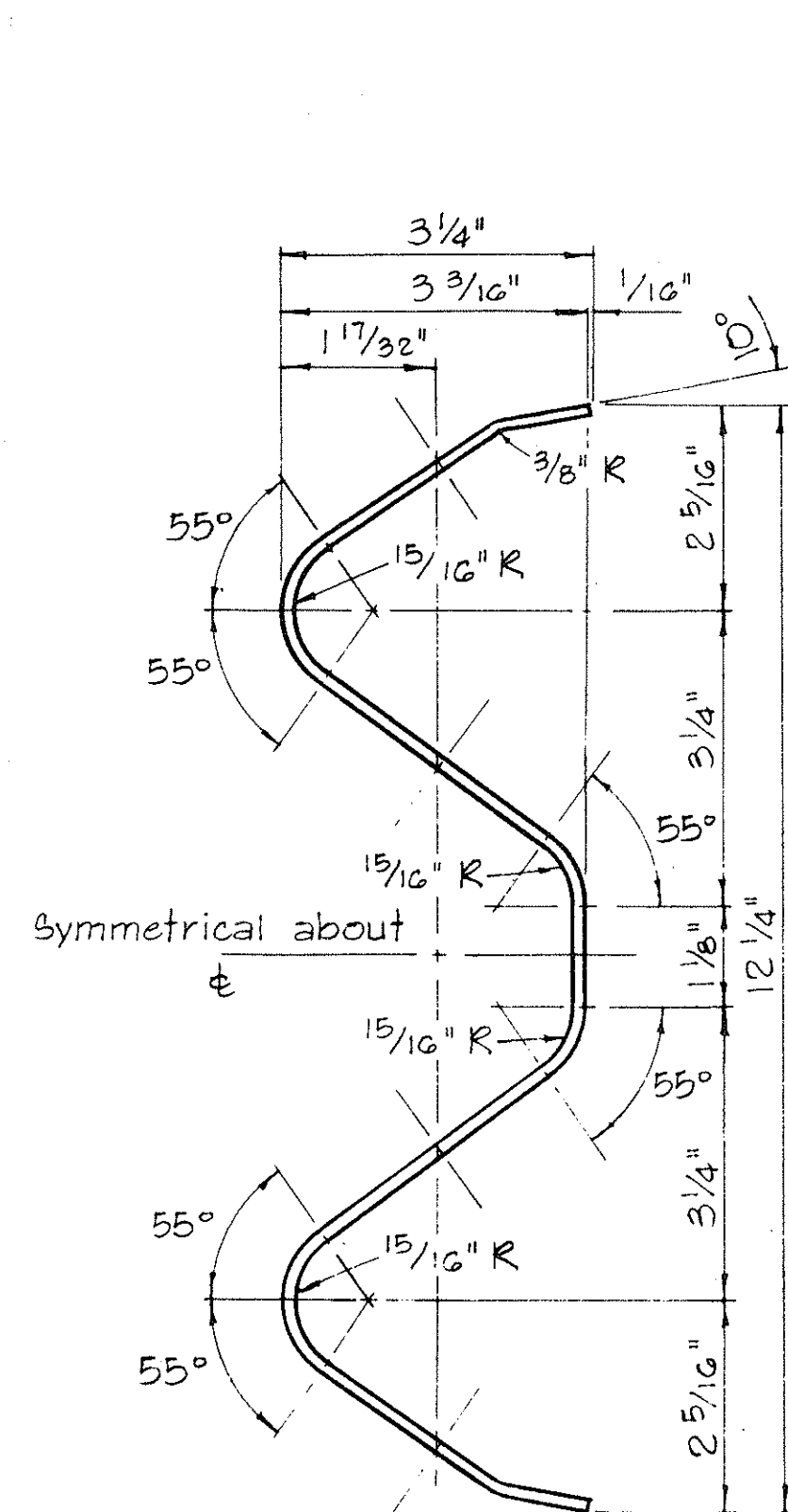
Scale: 1 1/2" = 1'-0"



CURVED END

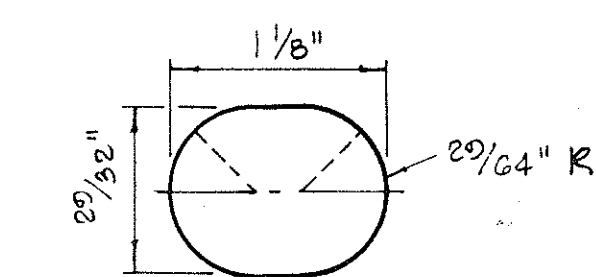
Scale: 1 1/2" = 1'-0"

APPROVAL RECOMMENDED:
E. J. Tanaka
 TRAFFIC ENGINEER
 APPROVED:
W. J. J. J.
 ASSISTANT CHIEF, ENGINEERING
 DATE: 12/29/63
 DATE: 12-30-63



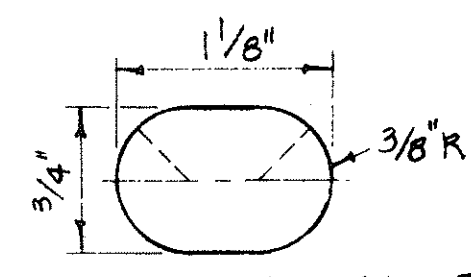
RAIL ELEMENT SECTION

Scale: 6" = 1'-0"

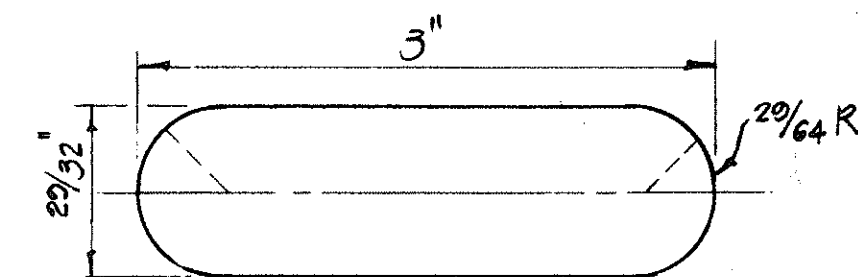


SPUCE BOLT SLOT

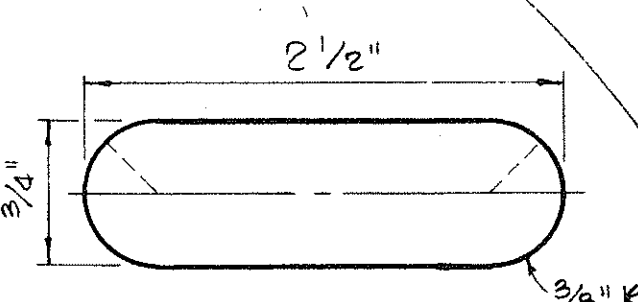
Scale: Full Size



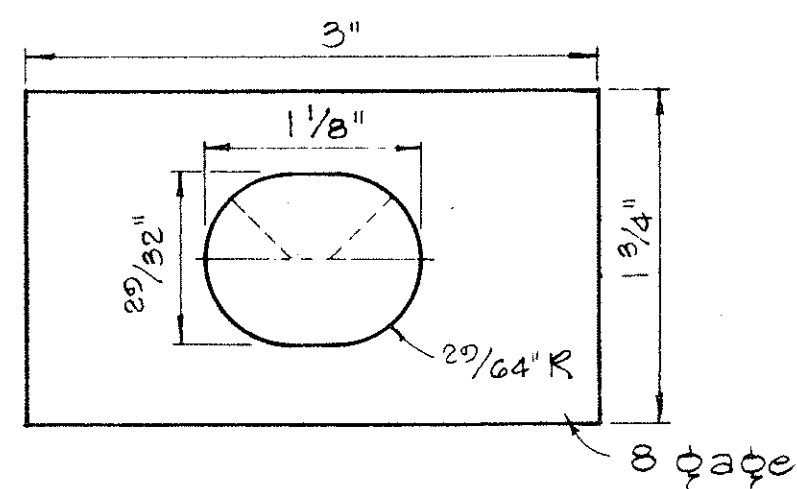
SPUCE BOLT SLOT FOR ALL ENDS



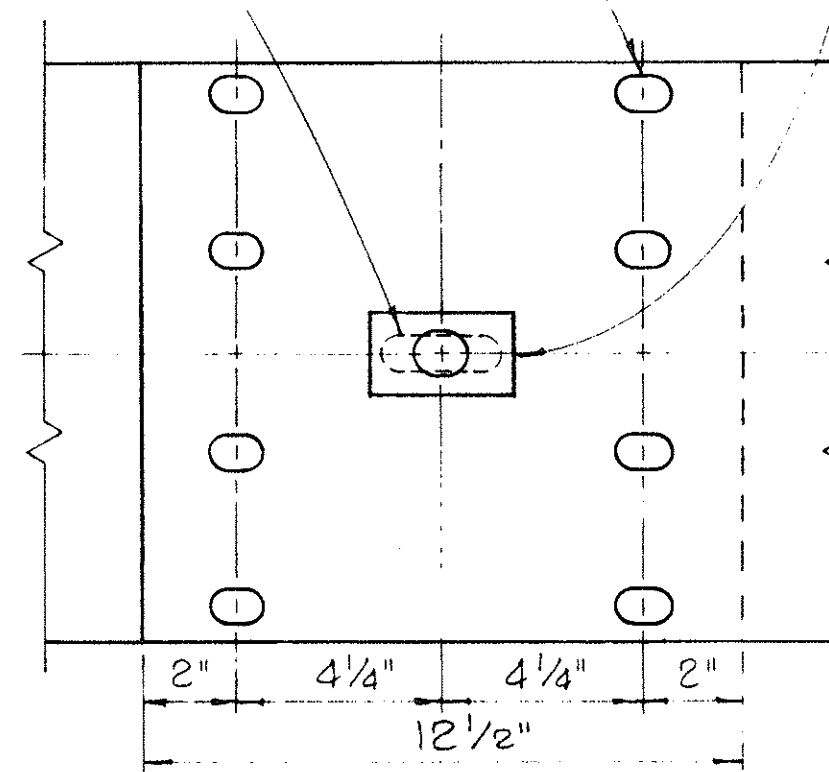
SPUCE BOLT SLOT FOR SPECIAL END SHOE



POST BOLT SLOT



RAIL WASHER



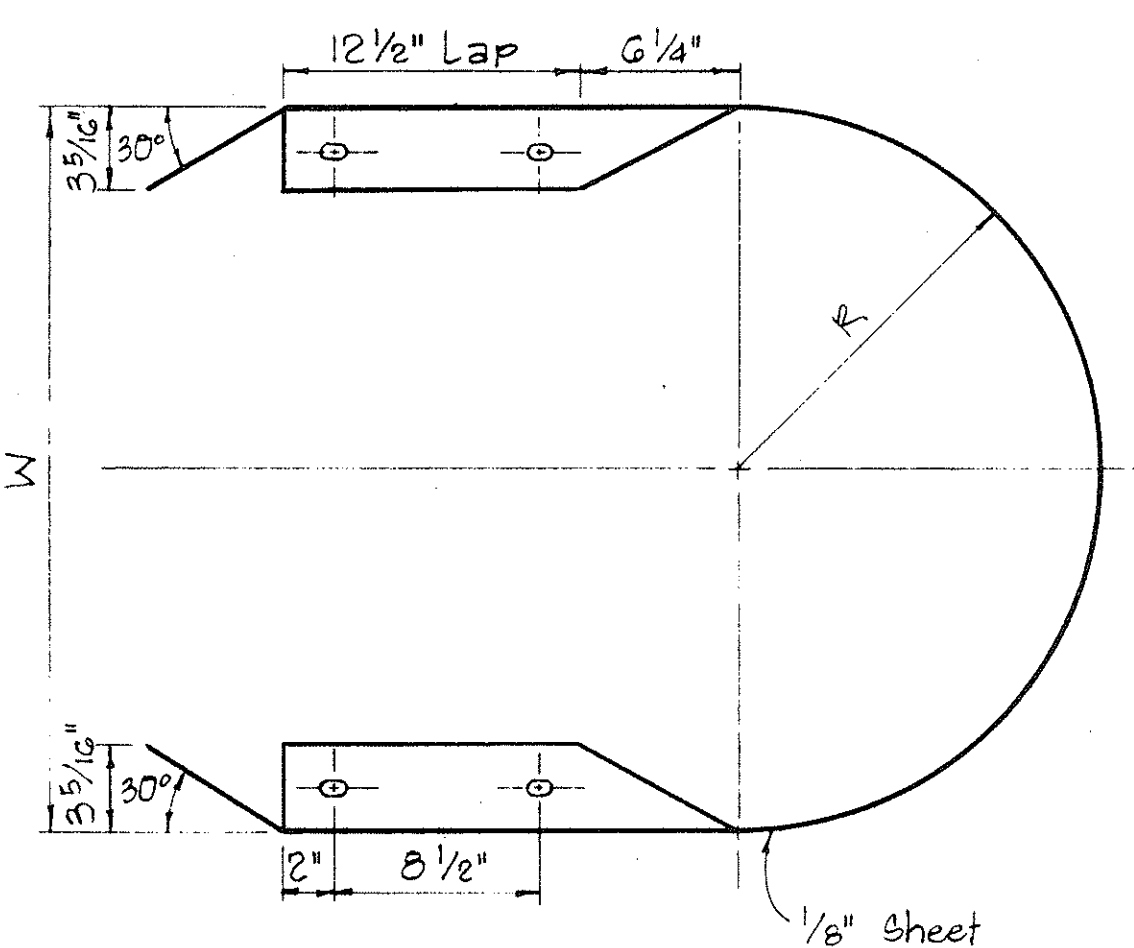
RAIL SPLICE

Scale: 3" = 1'-0"

NOTES:

- H.S. Bolts shall conform to the requirements of ASTM A 325.
- Special End Shoe shall be fabricated from 10 Gage steel conforming to the requirements of AASHTO 180.

MEDIAN END DIMENSIONS		
TYPE OF POST AND BLOCK	W	R
Double Metal Guard Rail on Concrete Post with Wood Blocks	29 3/4"	14 7/8"
Double Metal Guard Rail on Concrete Post with Metal Blocks (BJG)	26 1/2"	13 1/4"
Double Metal Guard Rail on Metal Post with Metal Blocks (BJG)	24 3/8"	12 3/16"



MEDIAN END

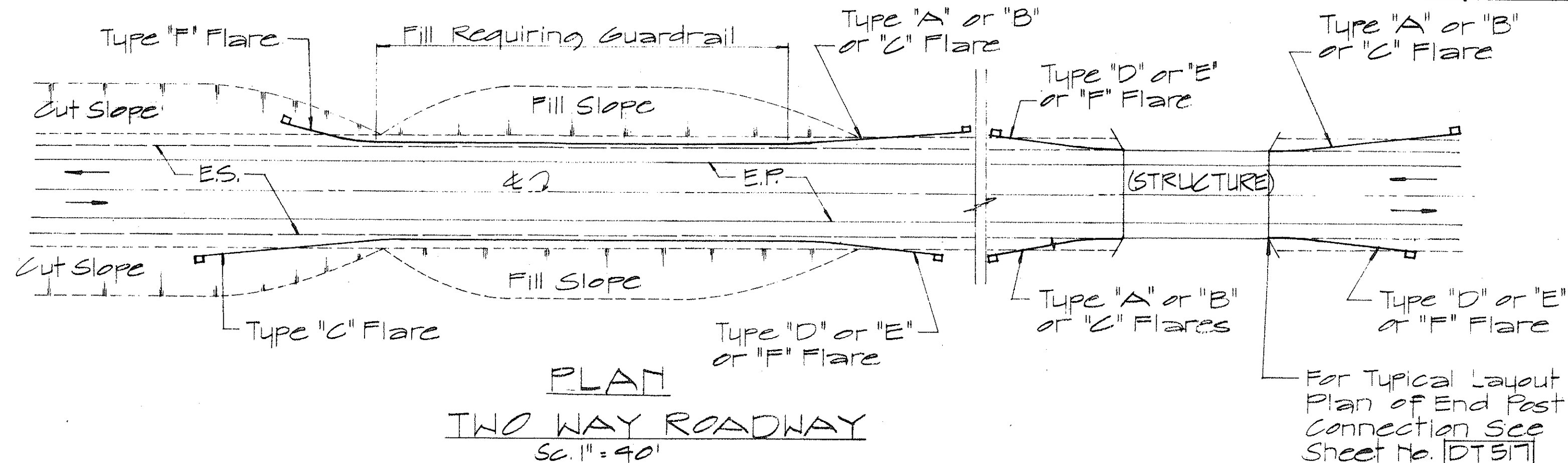
Scale: 1 1/2" = 1'-0"

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

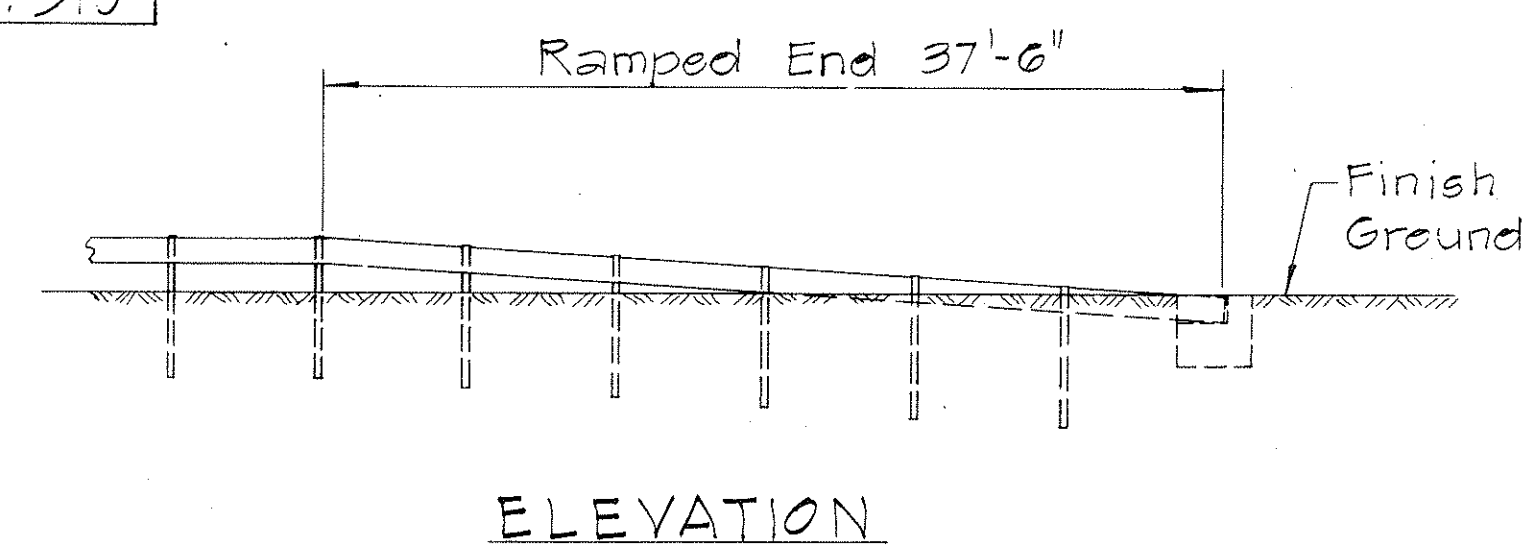
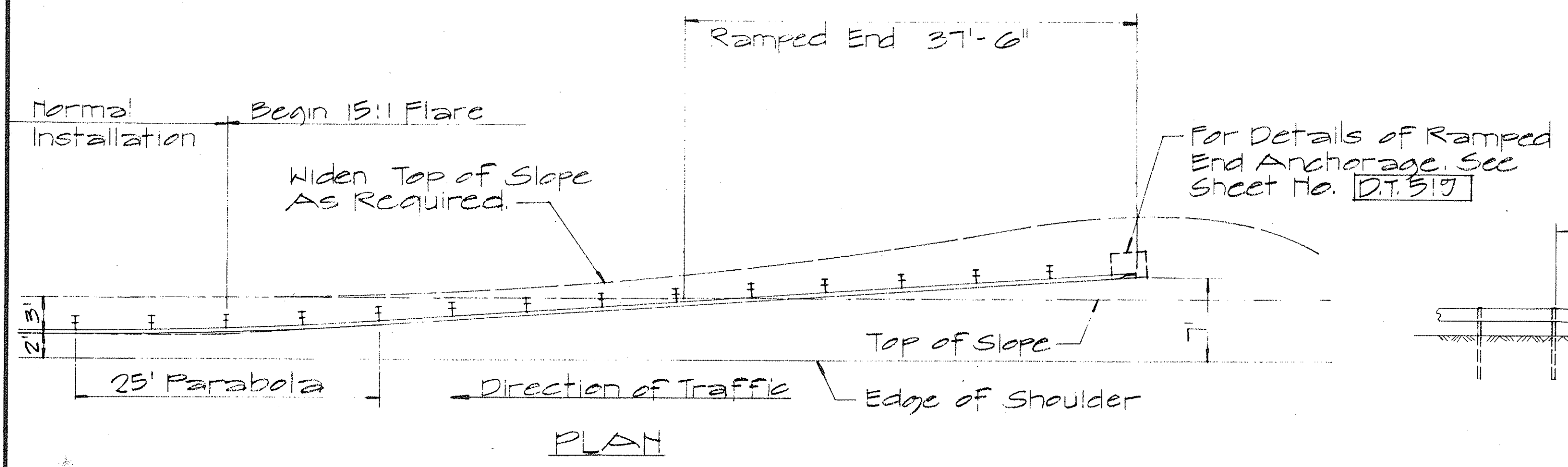
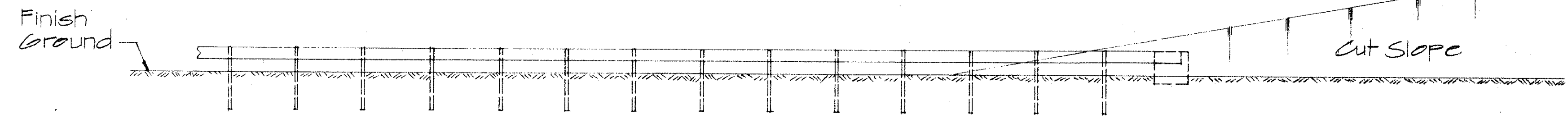
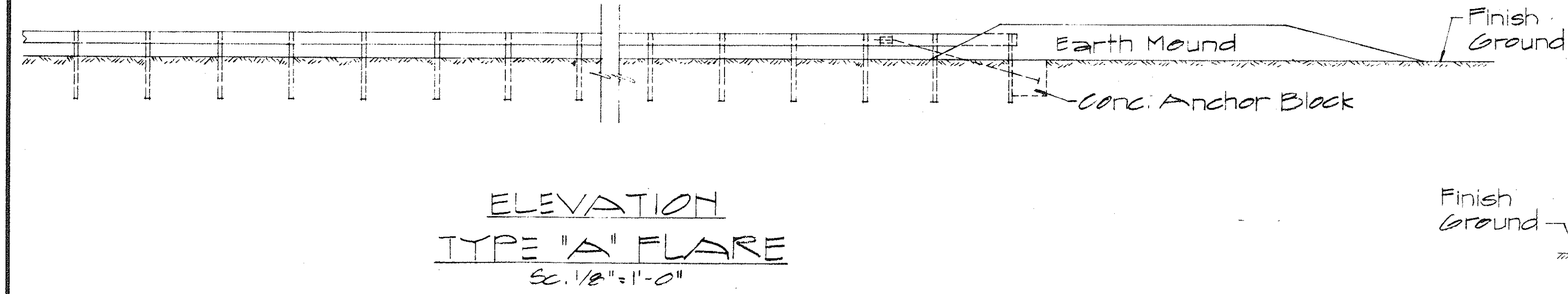
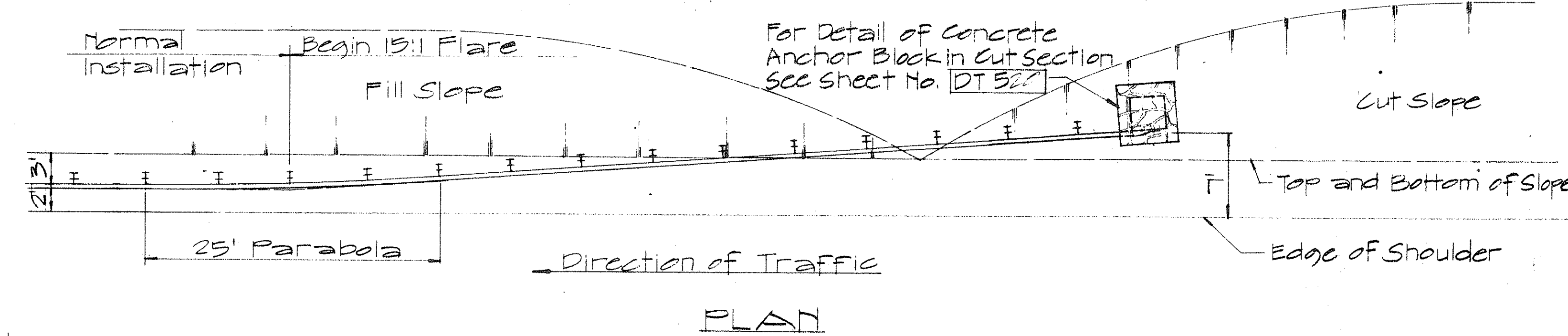
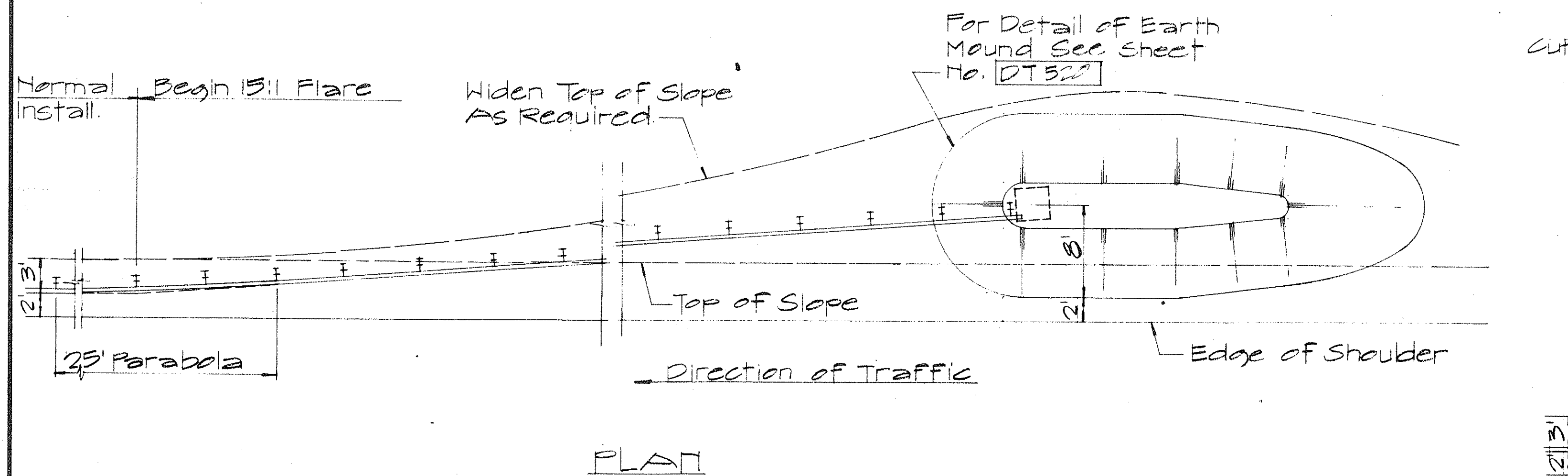
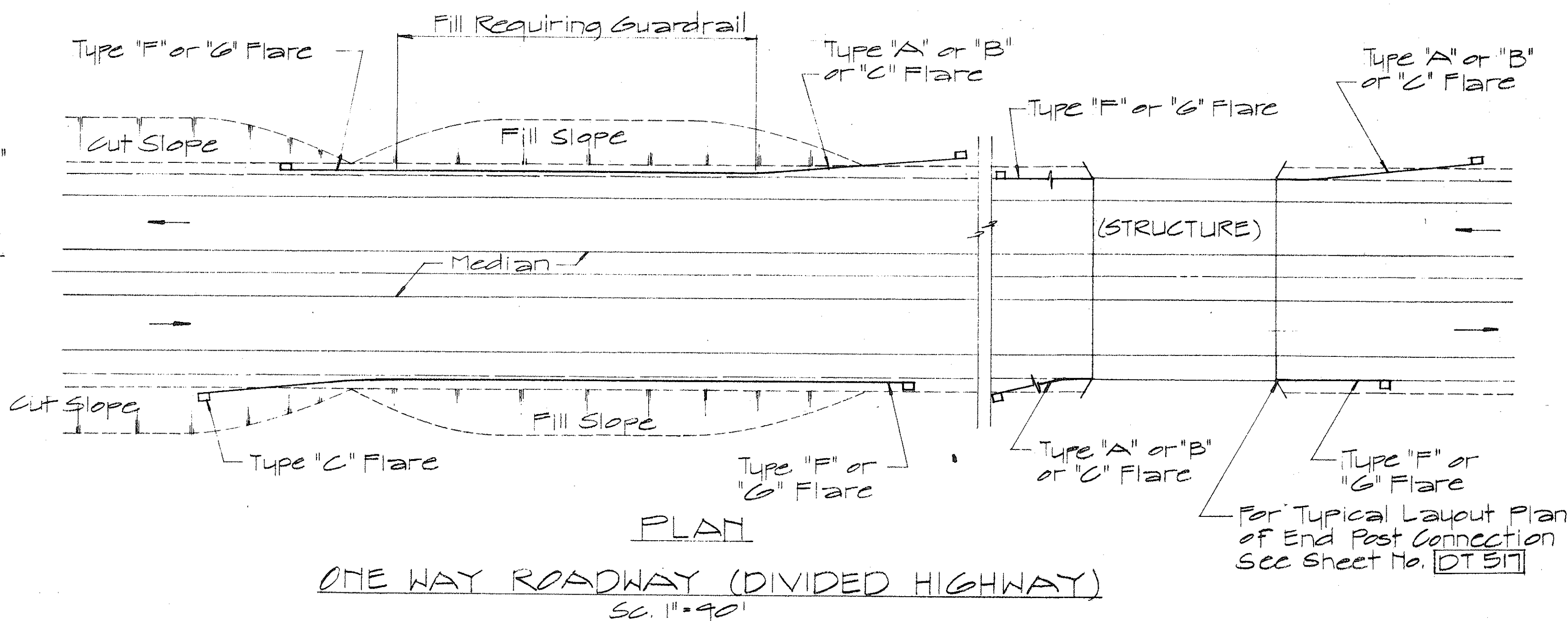
STANDARD DETAILS METAL GUARD RAIL

Scale: As Noted August, 1968
 SHEET No. OF SHEETS DT 501



NOTE:
Metal guard rail connection to structures requires End Post Connection. See structure plans.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	111(57)18	1973		



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

NO.	REVISION	APPROVED BY	DATE

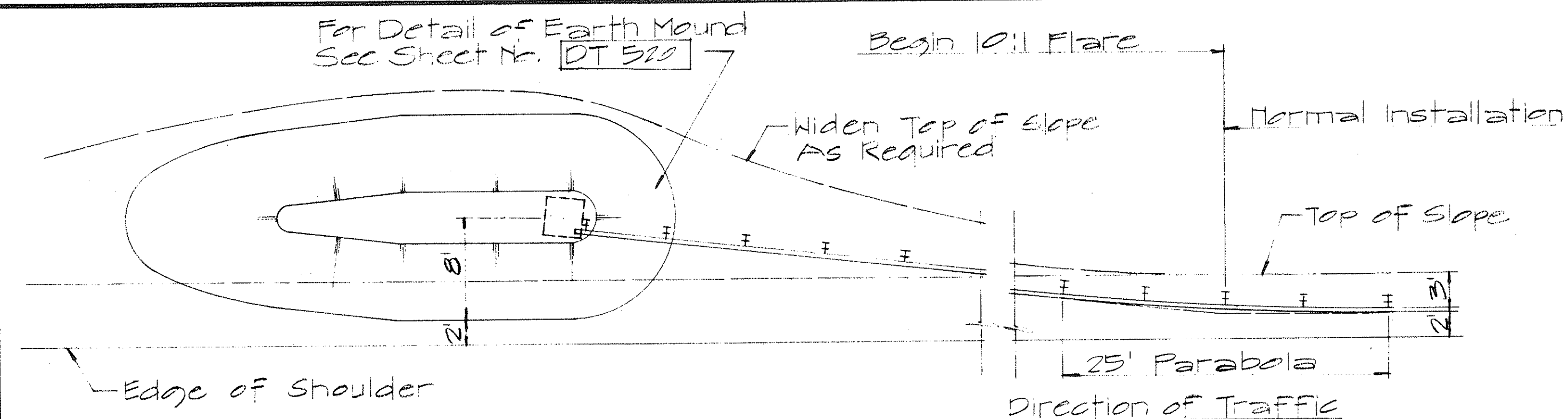
APPROVAL RECOMMENDED:
Etschi Tanaka
TRAFFIC ENGINEER
12/22/62
DATE

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

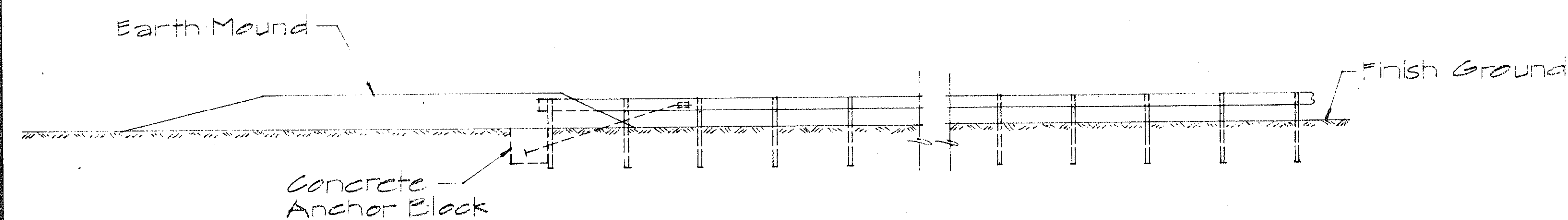
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**STANDARD DETAILS
OF APPROACH END
FLARE - ONE & TWO
WAY ROADWAY**
Sc. As Noted April 1969
SHEET No. OF SHEETS [DT 516]

DESIGNED BY
CHECKED BY
NOTED BY
No.

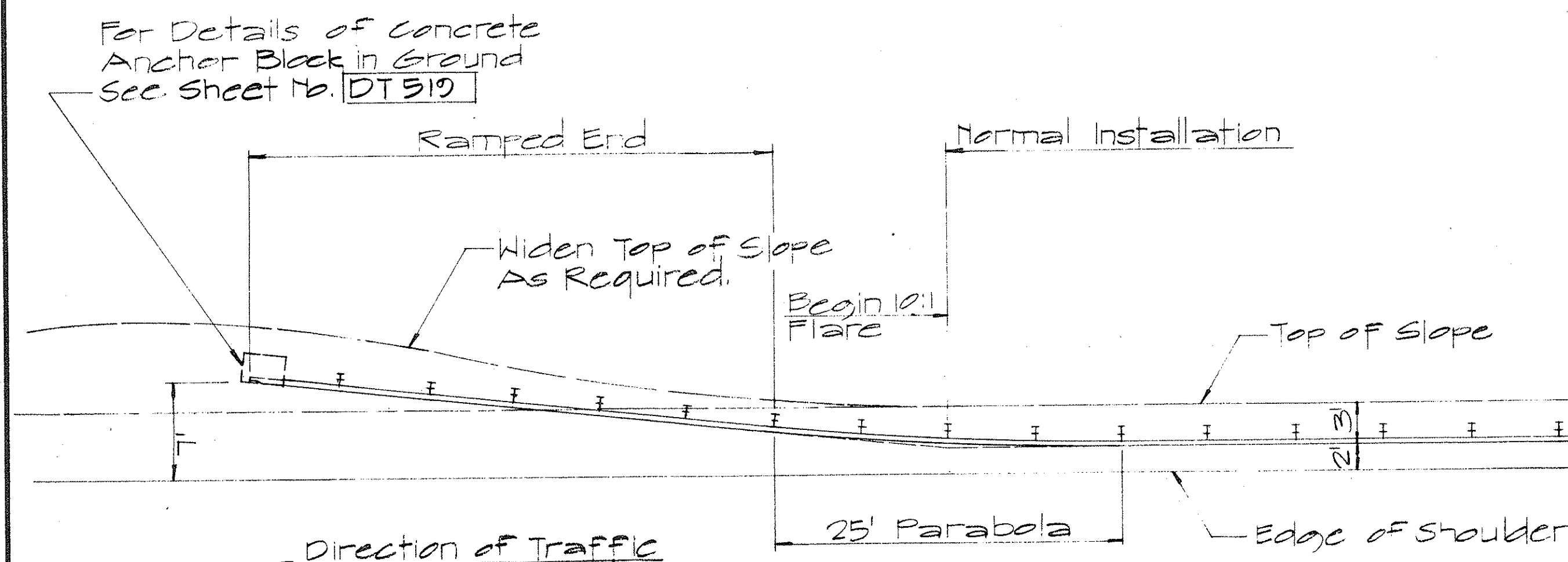
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	111(97)18	1973		



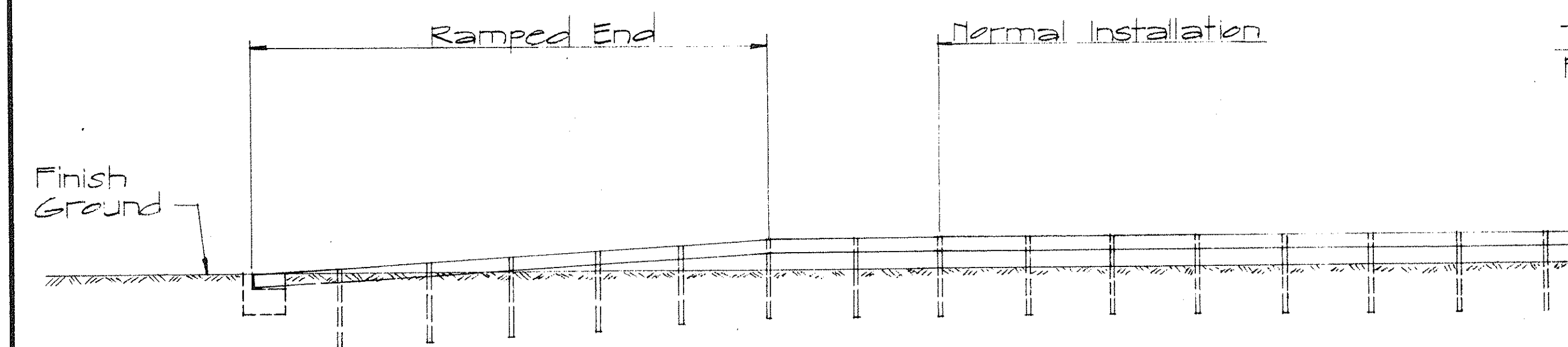
PLAN



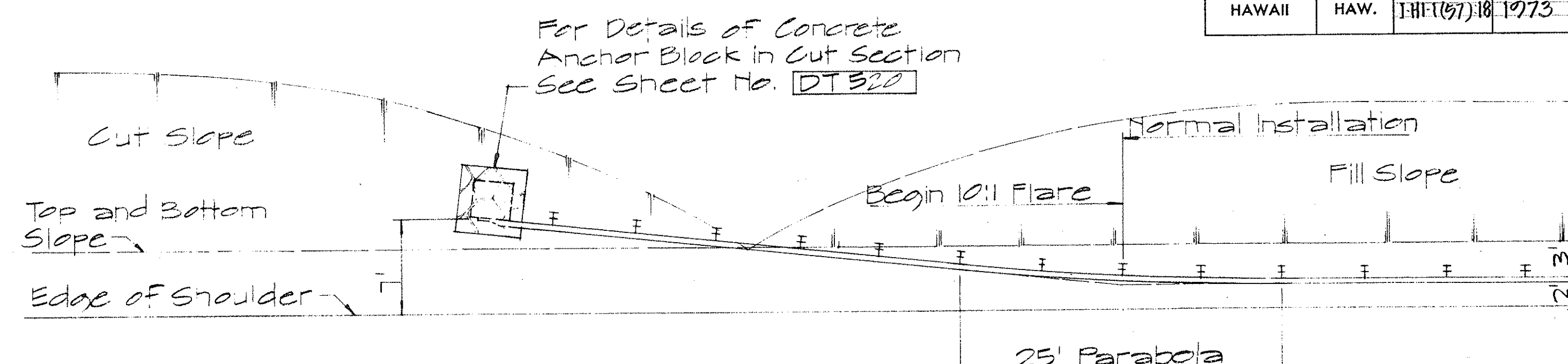
ELEVATION
TYPE "D" FLARE
Sc. 1/8" = 1'-0"



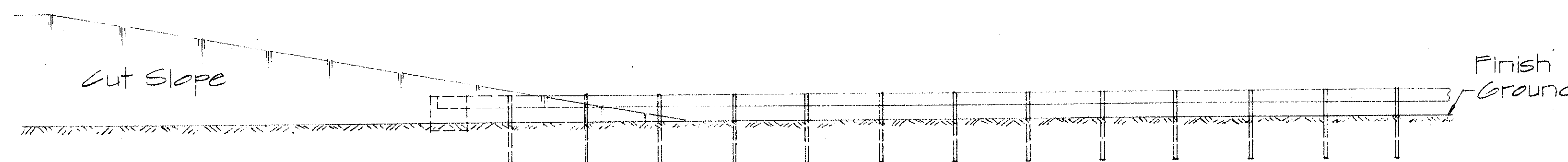
PLAN



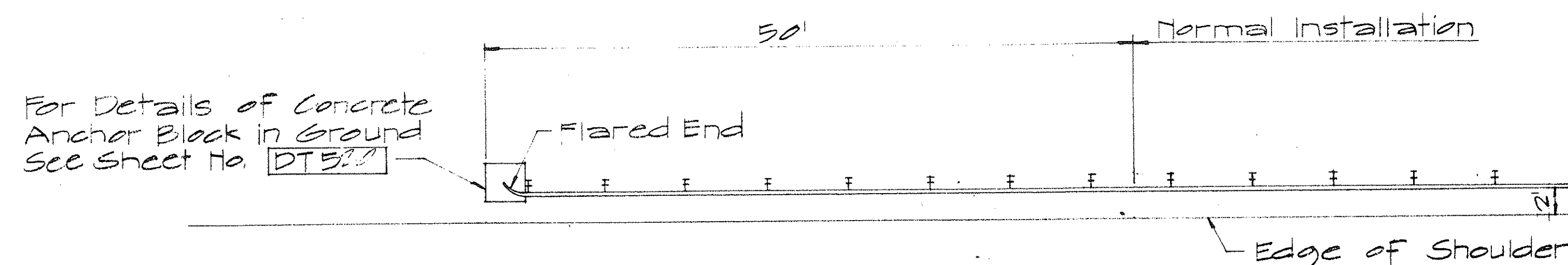
ELEVATION
TYPE "E" FLARE
Sc. 1/8" = 1'-0"



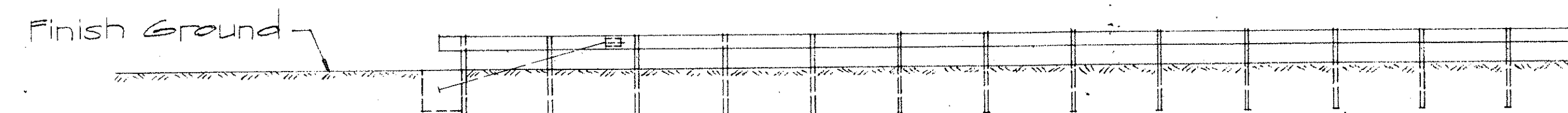
PLAN



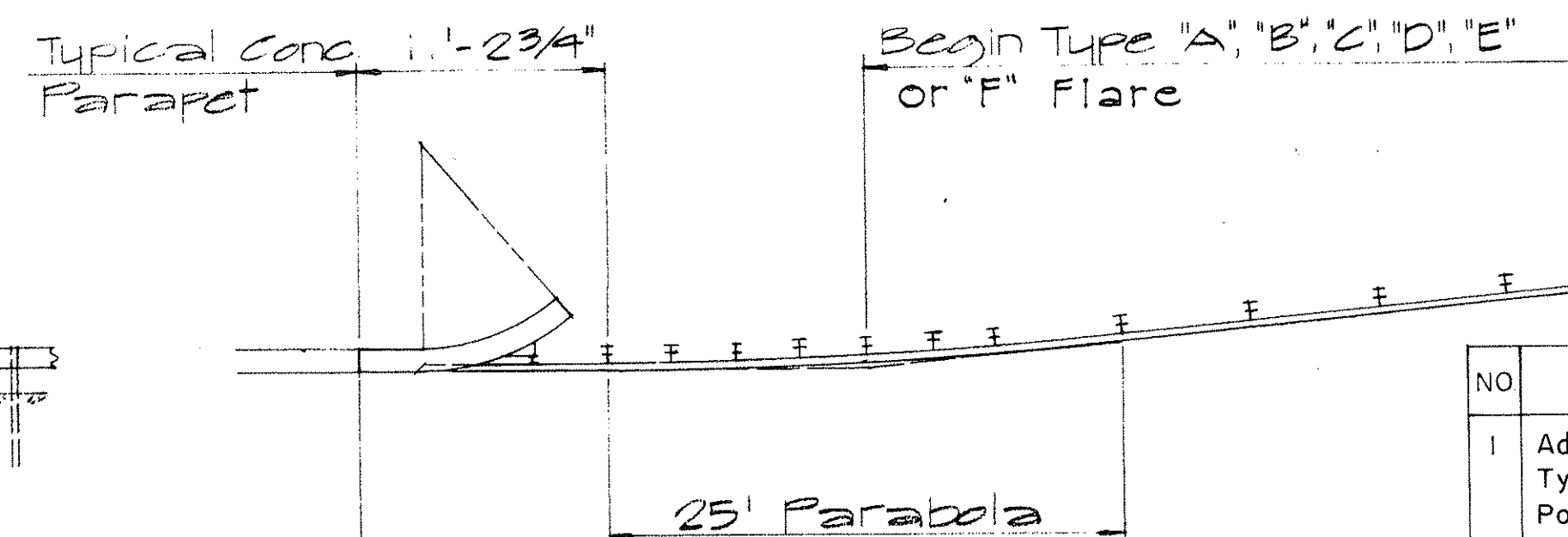
ELEVATION
TYPE "F" FLARE
Sc. 1/8" = 1'-0"



PLAN



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



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	R.C.	4-12-72

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

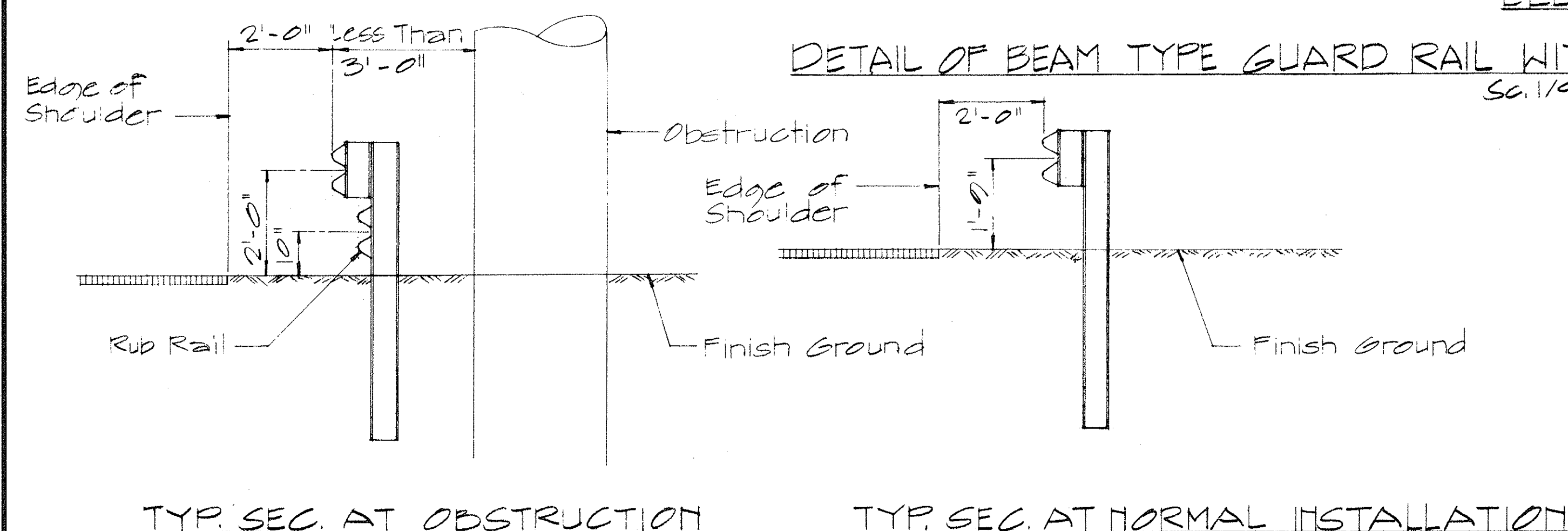
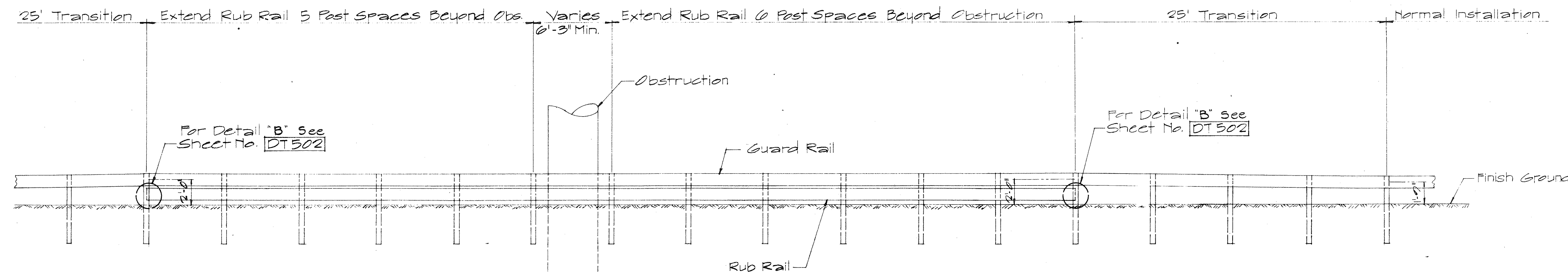
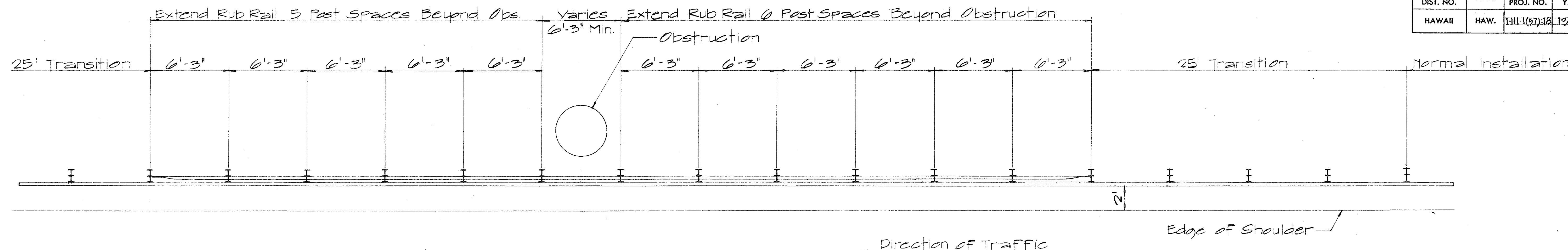
APPROVED:
Wm. J. J. J. 12-30-69
ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
TRAILING END
FLARE - ONE & TWO
WAY ROADWAY

Scale: As Noted April 1967
SHEET No. OF SHEETS DT 517

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-11-1(87)18	1973		



TYP. GUARD RAIL SECTIONS

Sc. 1/2" = 1'-0"

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

APPROVED: John A. Sato 12/30/69
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

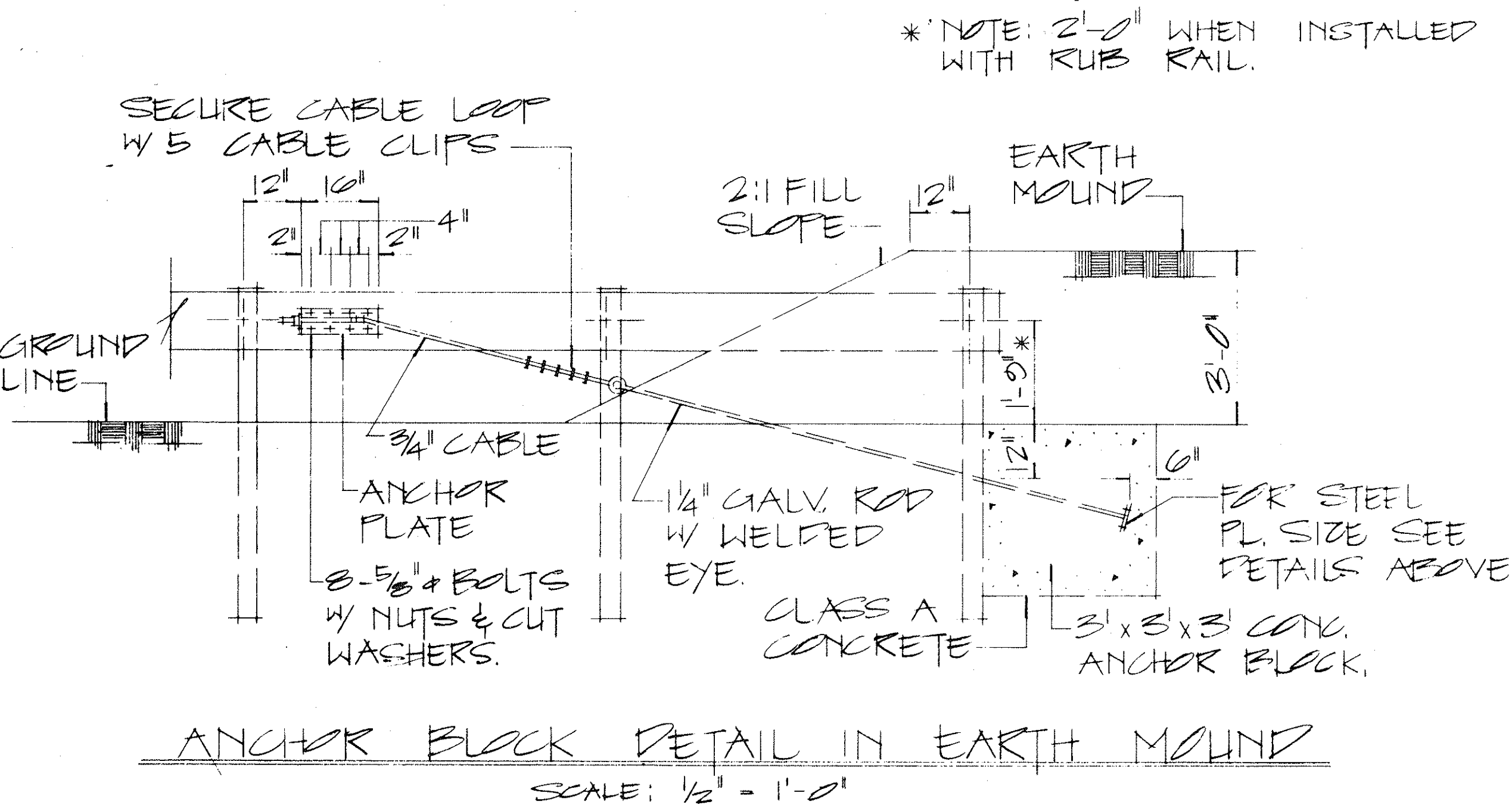
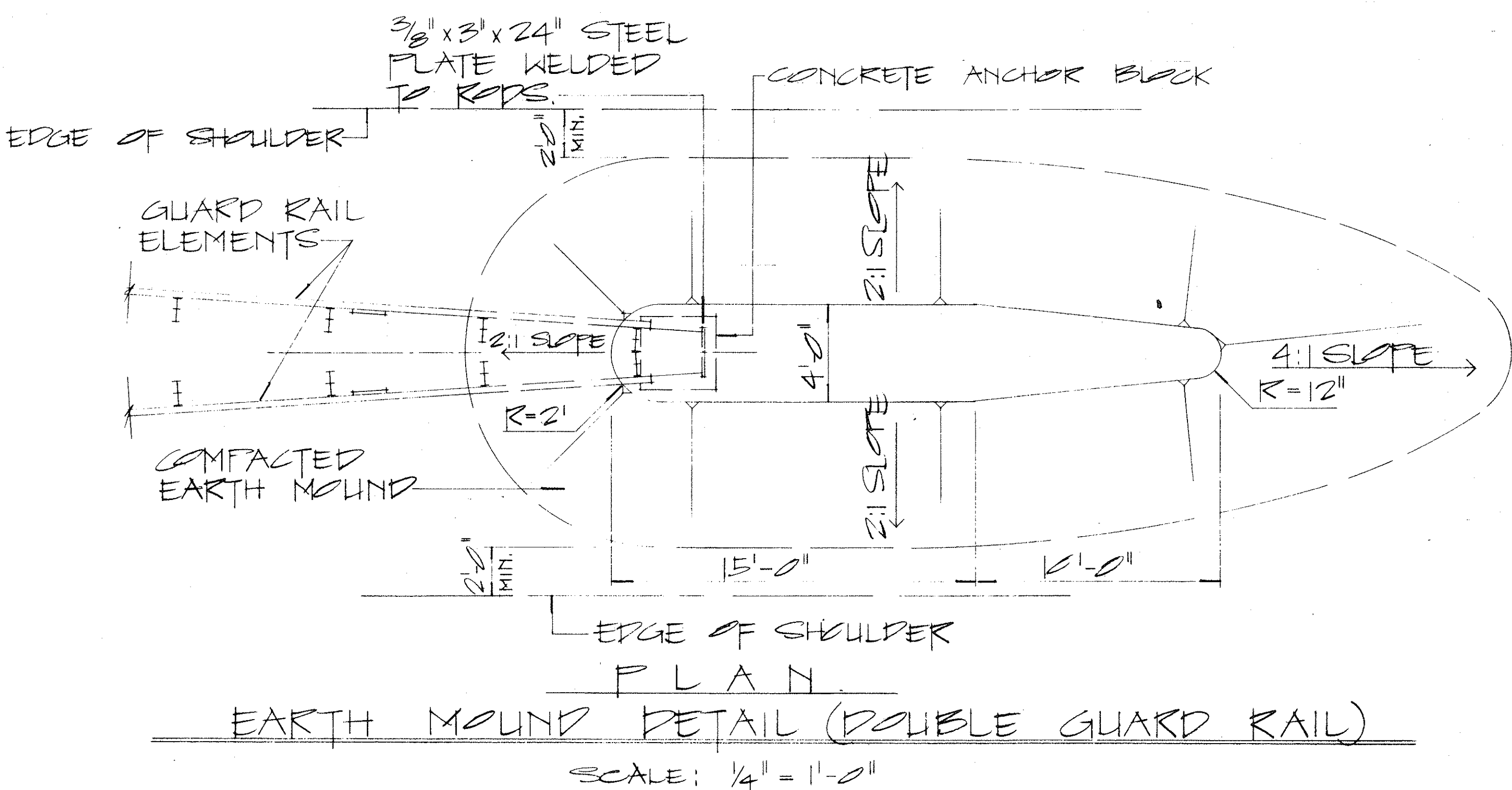
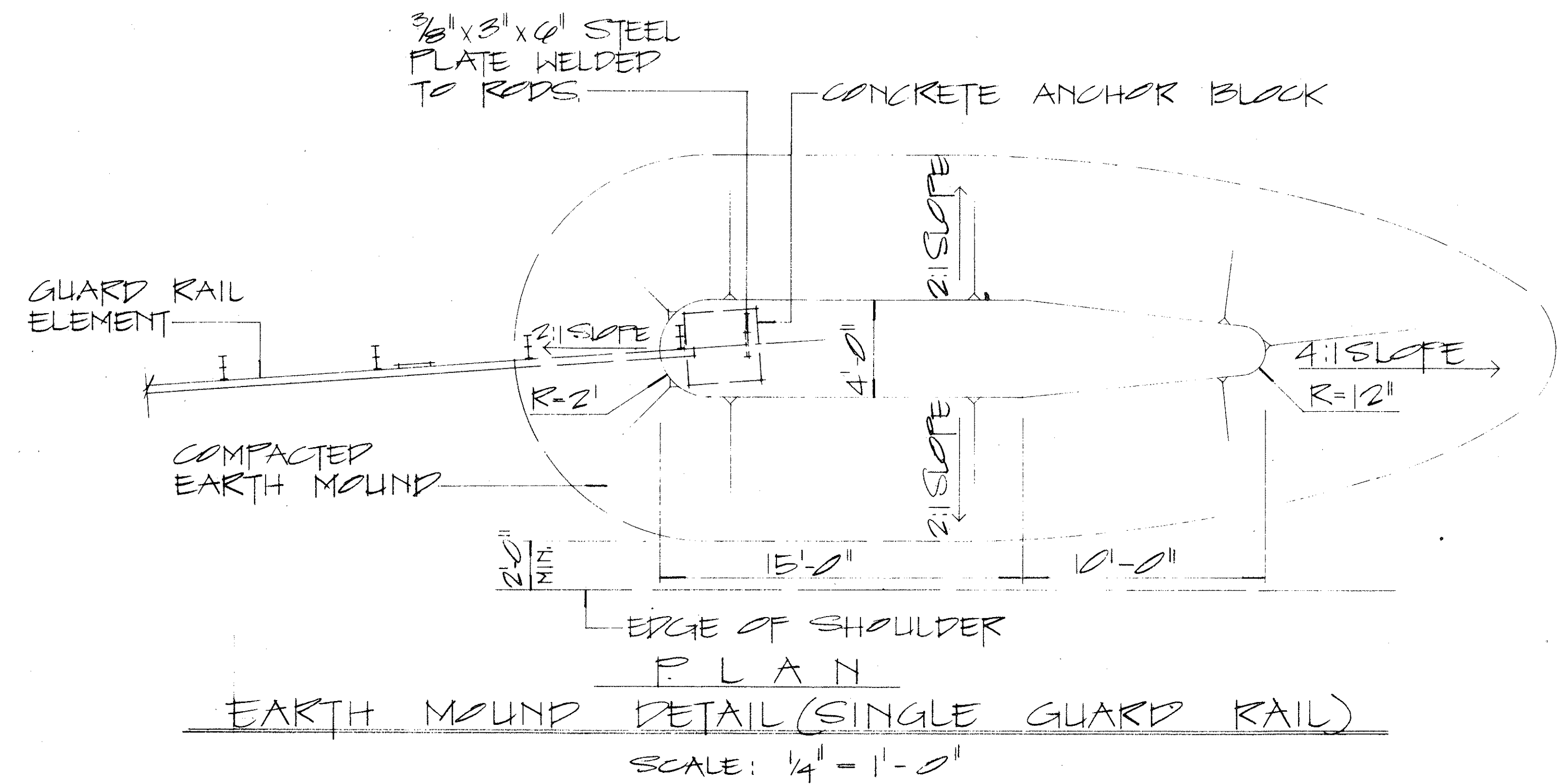
STANDARD DETAIL
BEAM TYPE GUARD RAIL
WITH RUB RAIL AT OB-
STRUCTION (SHOULDER INSTALL)

SC. AS SHOWN DATE: JUNE 1969

SHEET No. OF SHEETS DT 50

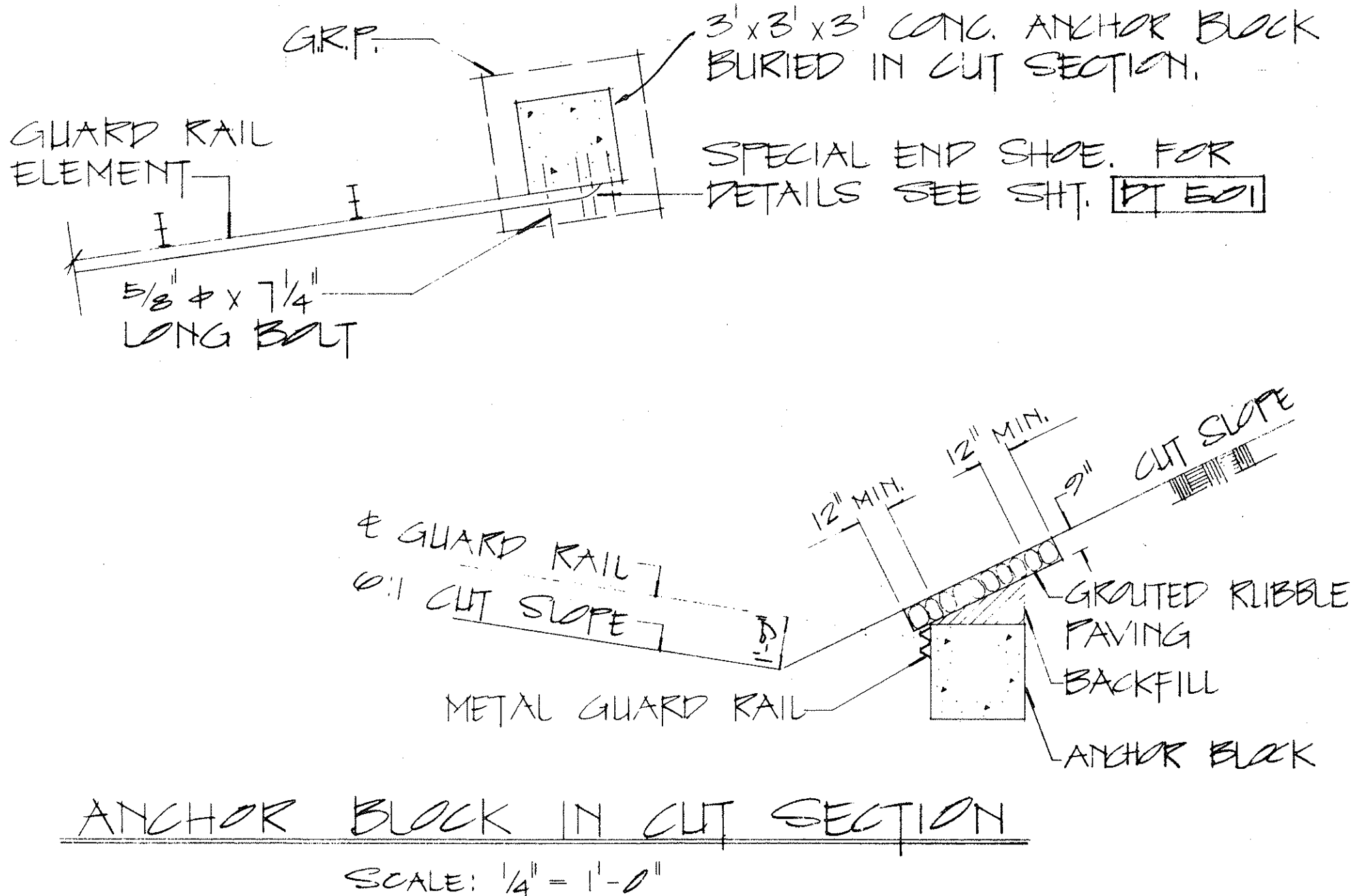
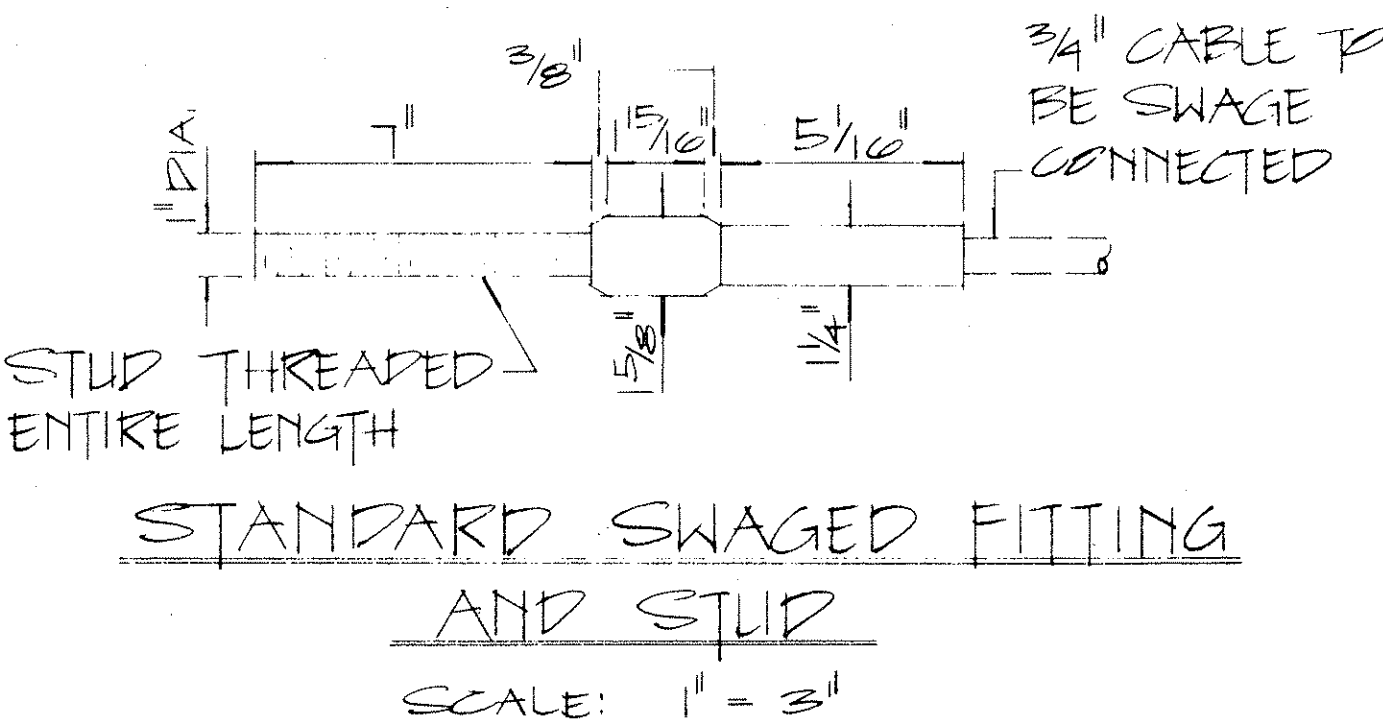
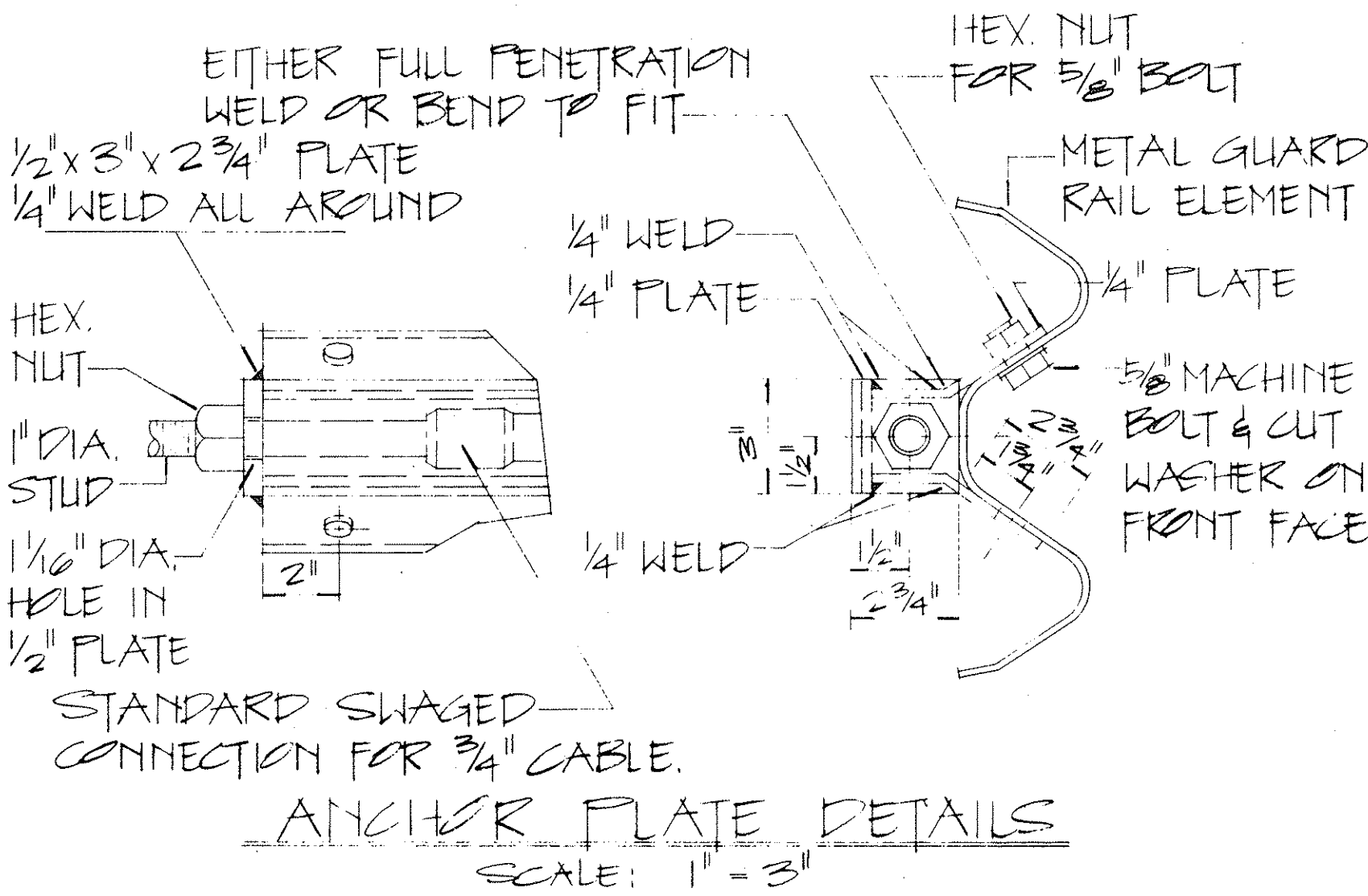
DATE	
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1111(57)18	1973		



NOTE:

1. GALVANIZED ANCHOR ROD, METAL GUARD RAIL AND POST BURIED IN GROUND SHALL BE COVERED WITH A MIN. 20-MIL THICKNESS OF COAL TAR ENAMEL, CONFORMING TO AWWA STANDARD: C 203
2. CONCRETE, GRP., EXCAVATION, EARTH MOUND, ANCHOR RODS AND MISCELLANEOUS APPURTENANCES NECESSARY TO ANCHOR THE GUARD RAIL ENDS SHALL BE INCIDENTAL TO THE METAL GUARD RAIL.



APPROVAL RECOMMENDED: *Eishi Tanaka* 12/29/69
TRAFFIC ENGINEER DATE

APPROVED: *W. W. S. S.* 12-30-69
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

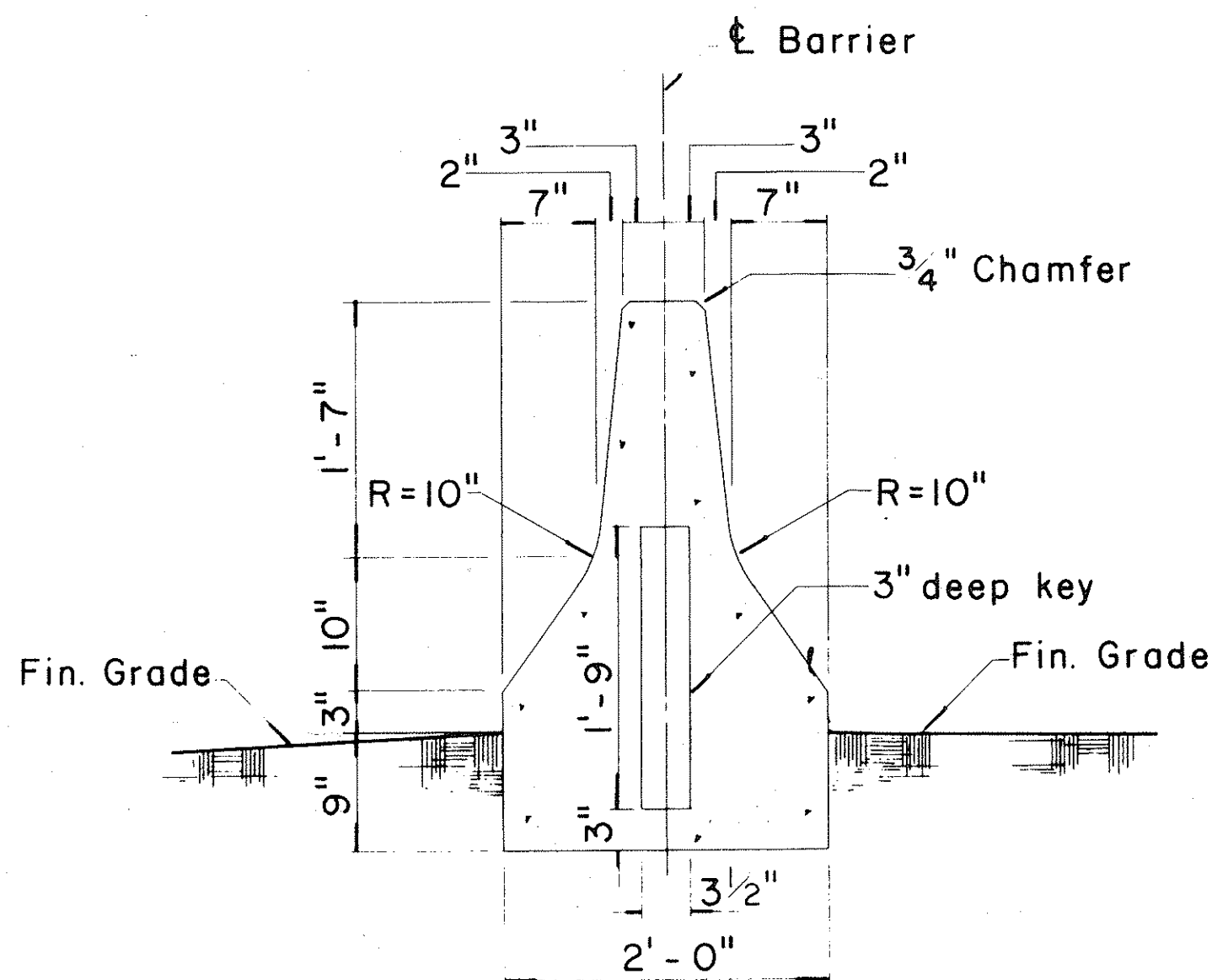
STANDARD DETAILS
EARTH MOUND AND
ANCHOR BLOCK DETAILS

SCALE: AS SHOWN OCT 1969

SHEET No. OF SHEETS PT 520

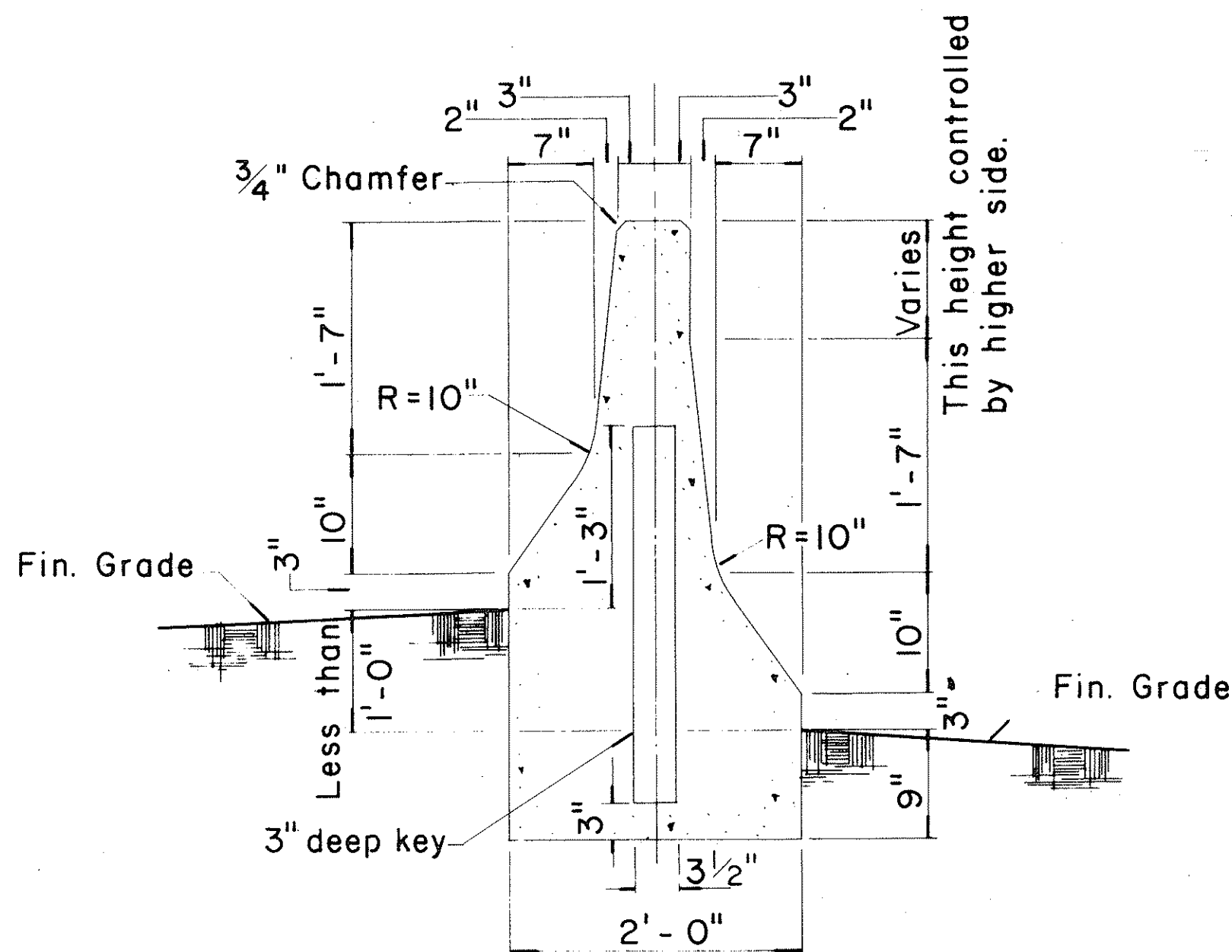
DATE	
DESIGNED BY	
TRACED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
NO.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1973	1973		



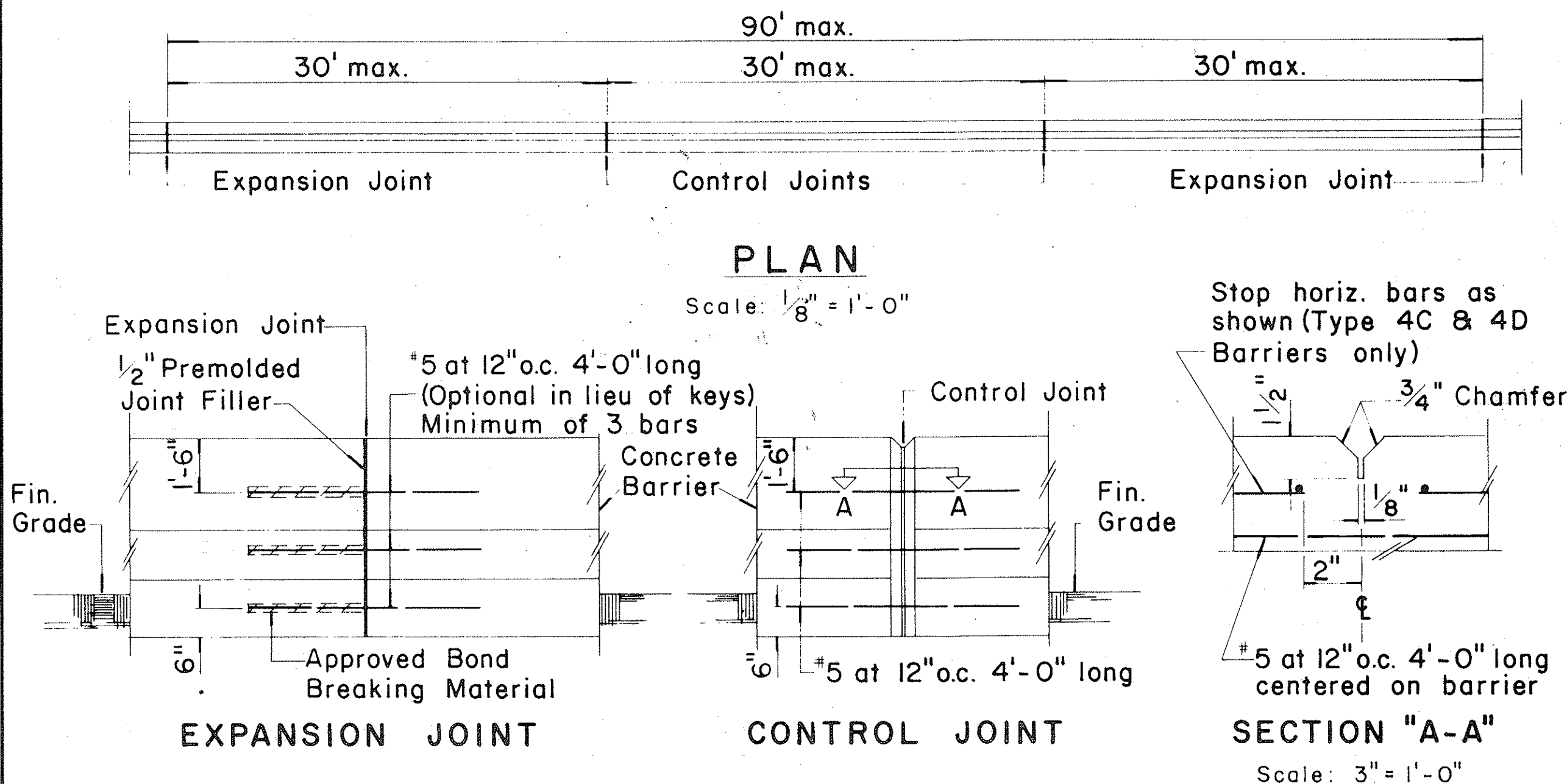
TYPE 4A

Scale: 1" = 1'-0"



TYPE 4B

Scale: 1" = 1'-0"

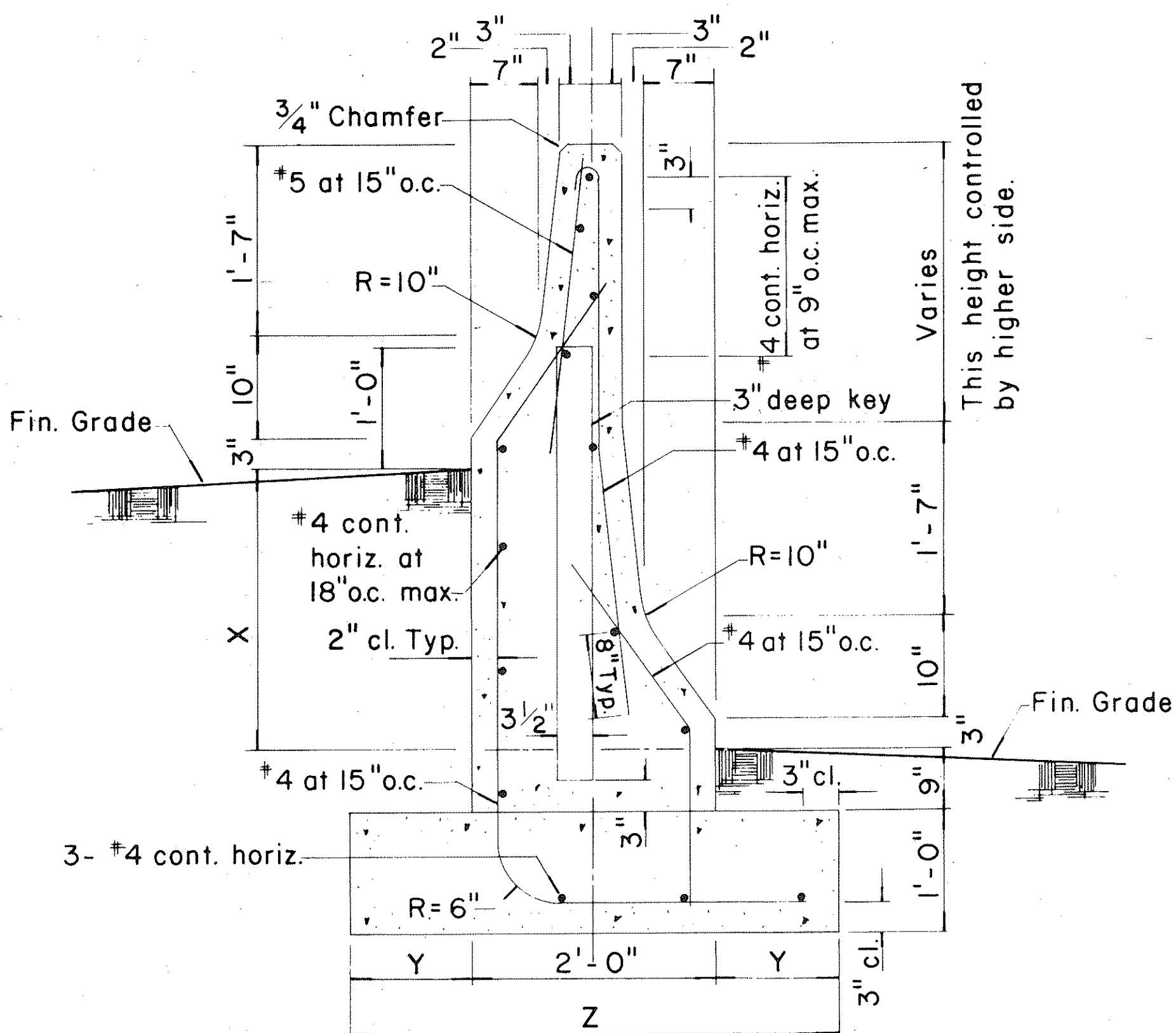


PLAN

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

ELEVATION

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

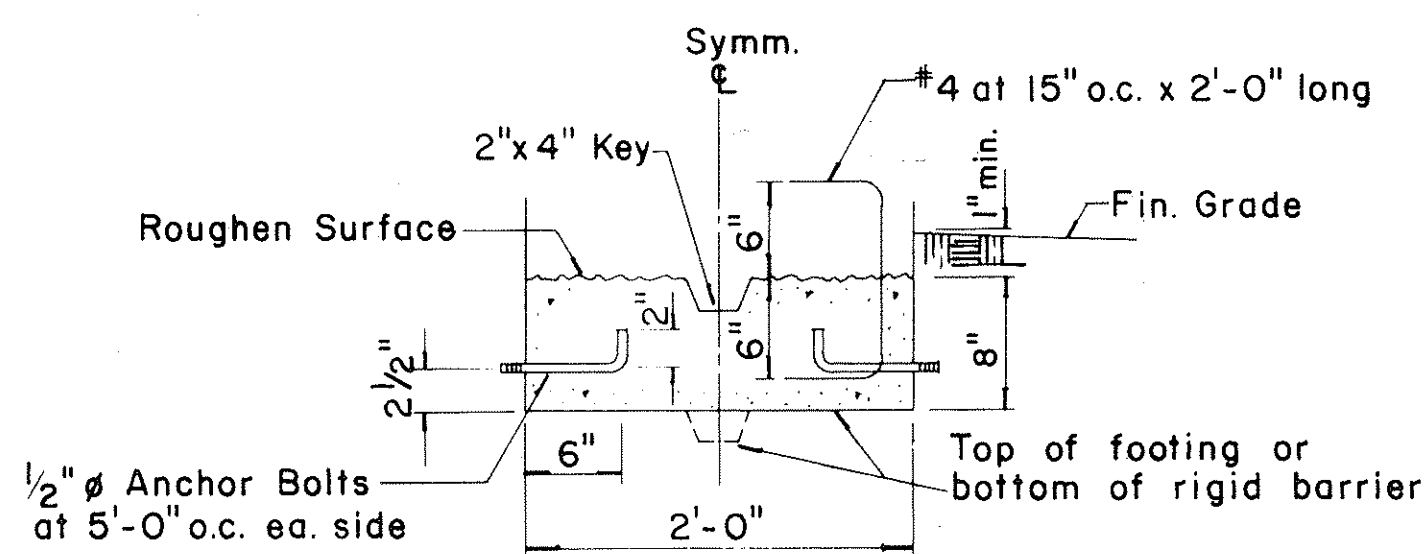


TYPE 4C & TYPE 4D

Scale: 1" = 1'-0"

TYPE	DIFFERENCE IN FIN. GRADE	FOOTING
4C	1'-0" min., 2'-4" max.	1'-0" 4'-0"
4D	Greater than 2'-4", 4'-4" max.	1'-3" 4'-6"

NOTE: Except where noted all dimensions shall be the same for Type 4C and Type 4D.



OPTIONAL CONSTRUCTION

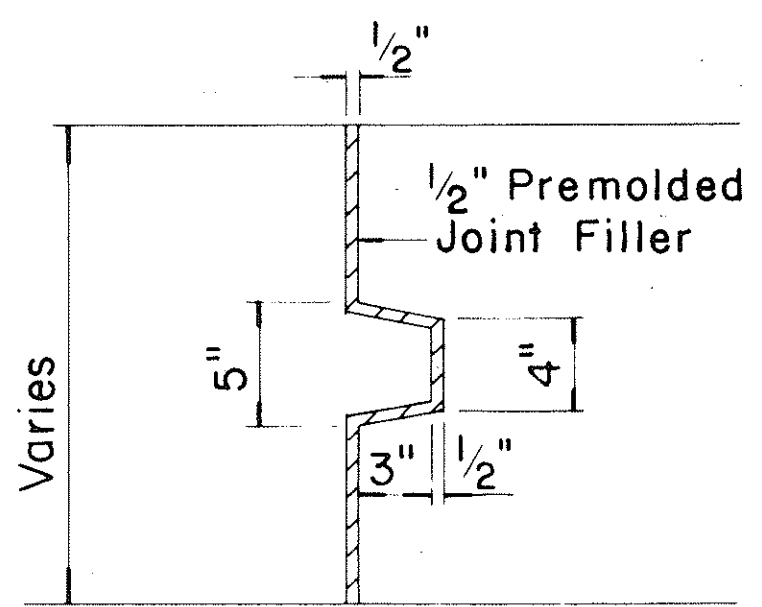
JOINT DETAILS

Scale: 1" = 1'-0"

NOTE: The intent of the optional construction joint details for the Type 4 Rigid Barrier Guard Rail is to provide a method of securing the forms and preventing uplift so that the barrier will have a uniform and presentable appearance. The contractor may submit an alternate method of constructing the barrier for the approval of the Engineer and for use on a trial basis. Any unsatisfactory work shall be removed or corrected as directed by the Engineer and at the Contractor's expense.

- GENERAL NOTES**
- Precast Rigid Barrier Guard Rail may be installed as an option to cast-in-place Type 4 Rigid Barrier Guard Rail. Contractor shall submit shop drawings to Engineer for approval.
 - Expansion Joints shall be constructed at ninety-foot (90 ft.) maximum intervals and at existing expansion joints of structures. (Use 1/2" premolded joint filler, incidental to Type 4 Rigid Barrier Guard Rail). Control Joints shall be placed between expansion joints at 30' maximum. Shear keys shall be required at all construction joints.
 - The exterior surface and vertical alignment of the Type 4 Rigid Barrier Guard Rail shall be constructed to give a uniform and presentable appearance. Variation of more than 1/4" in 20' max. and 1/2" in 40' or more will be considered objectionable. The Engineer shall determine the acceptability of the work. During the course of the work, samples may be tested and measurements made to establish whether or not the specified values or dimensions are being met. If the specified values or dimensions are not being met, the Engineer shall determine the degree of the non-conformance, the effect on the serviceability of the project, whether the work be accepted and remain in place and, if so, the amount to be paid for such work, or whether the work shall be removed and replaced or otherwise corrected at the Contractor's expense.

NO.	REVISION	APPROVED BY	DATE
1	Supersede Sht. DT 521 Approved 12-30-69	H.T.	2/10/12



SECTION THRU KEY

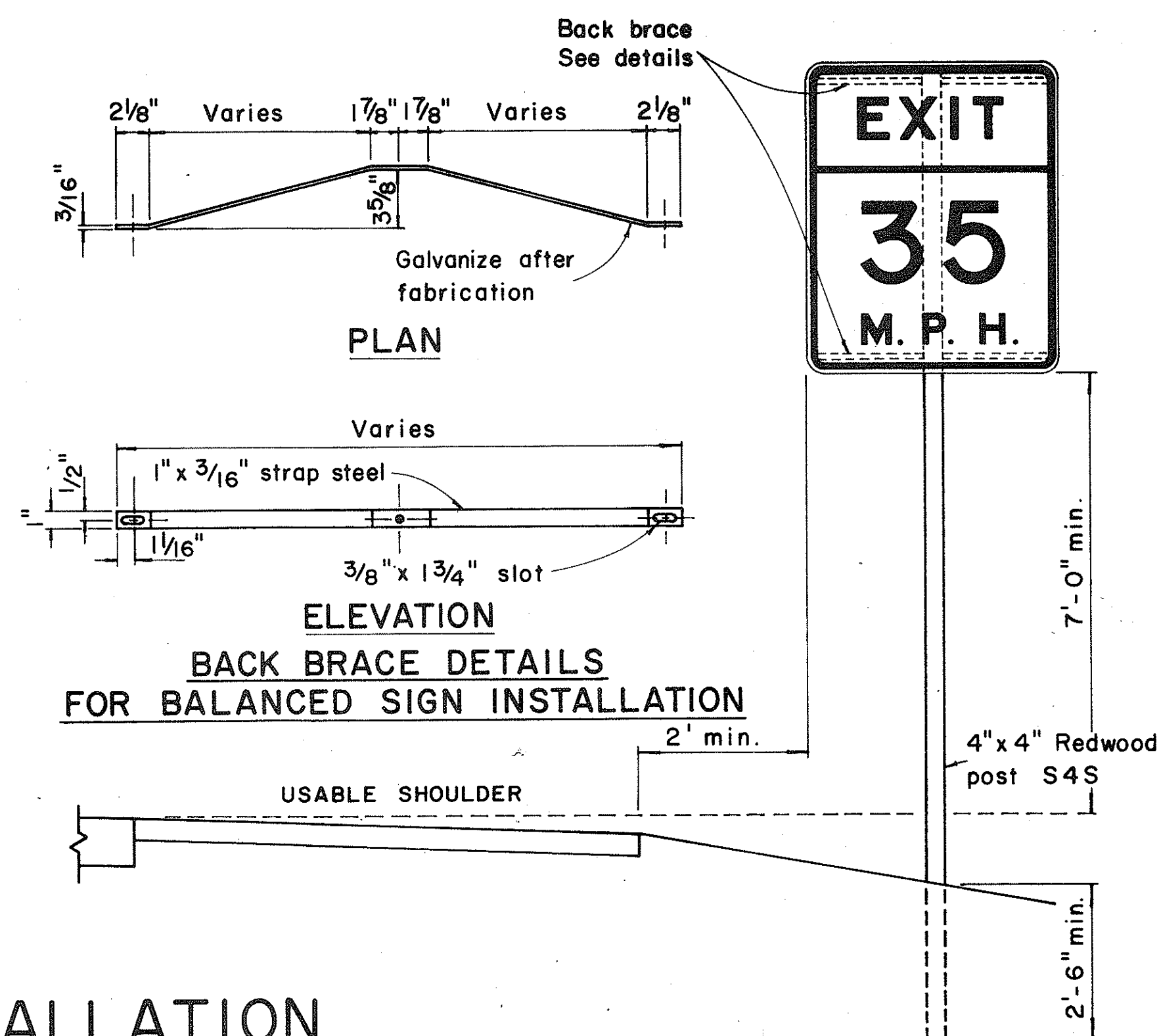
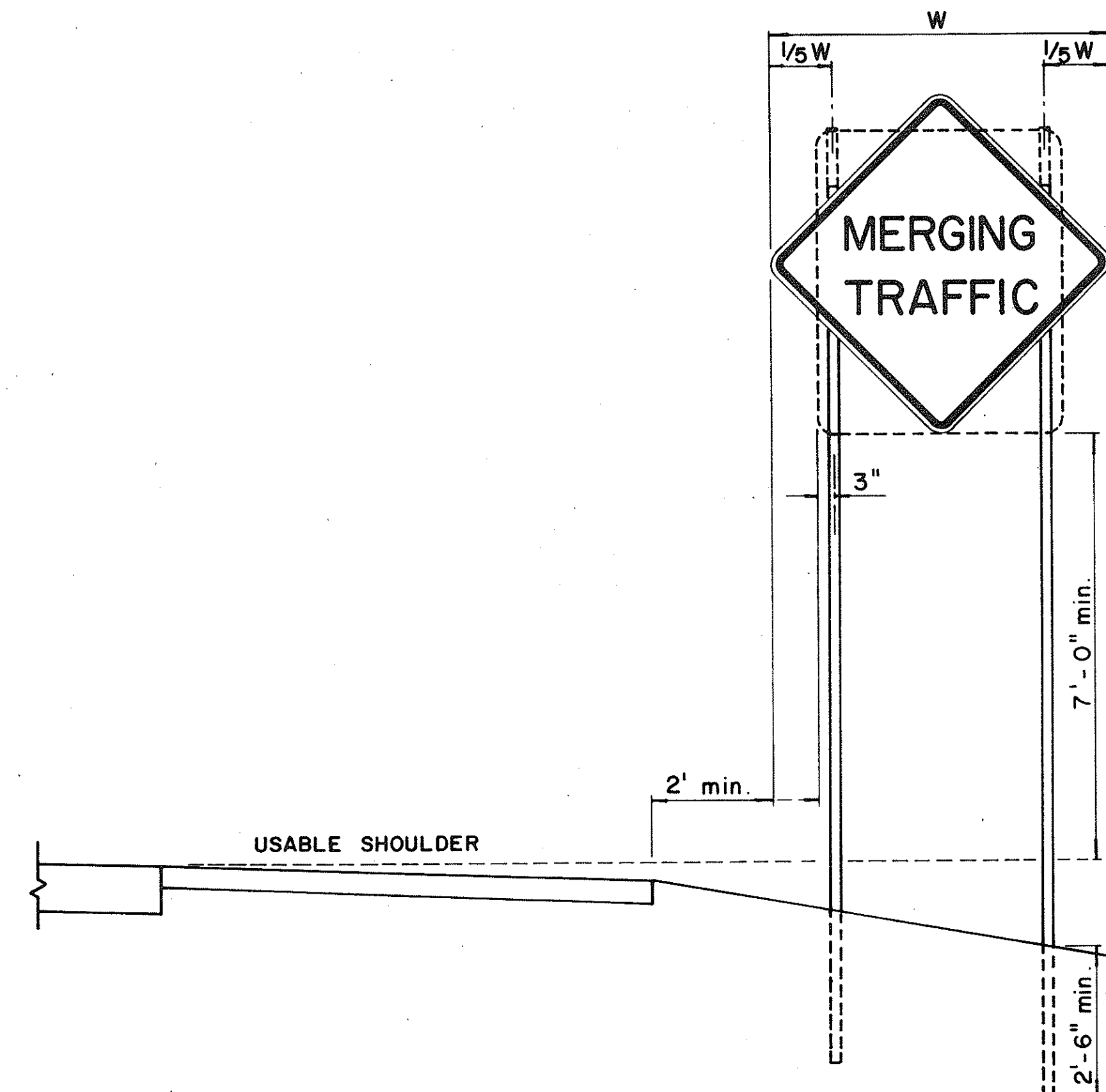
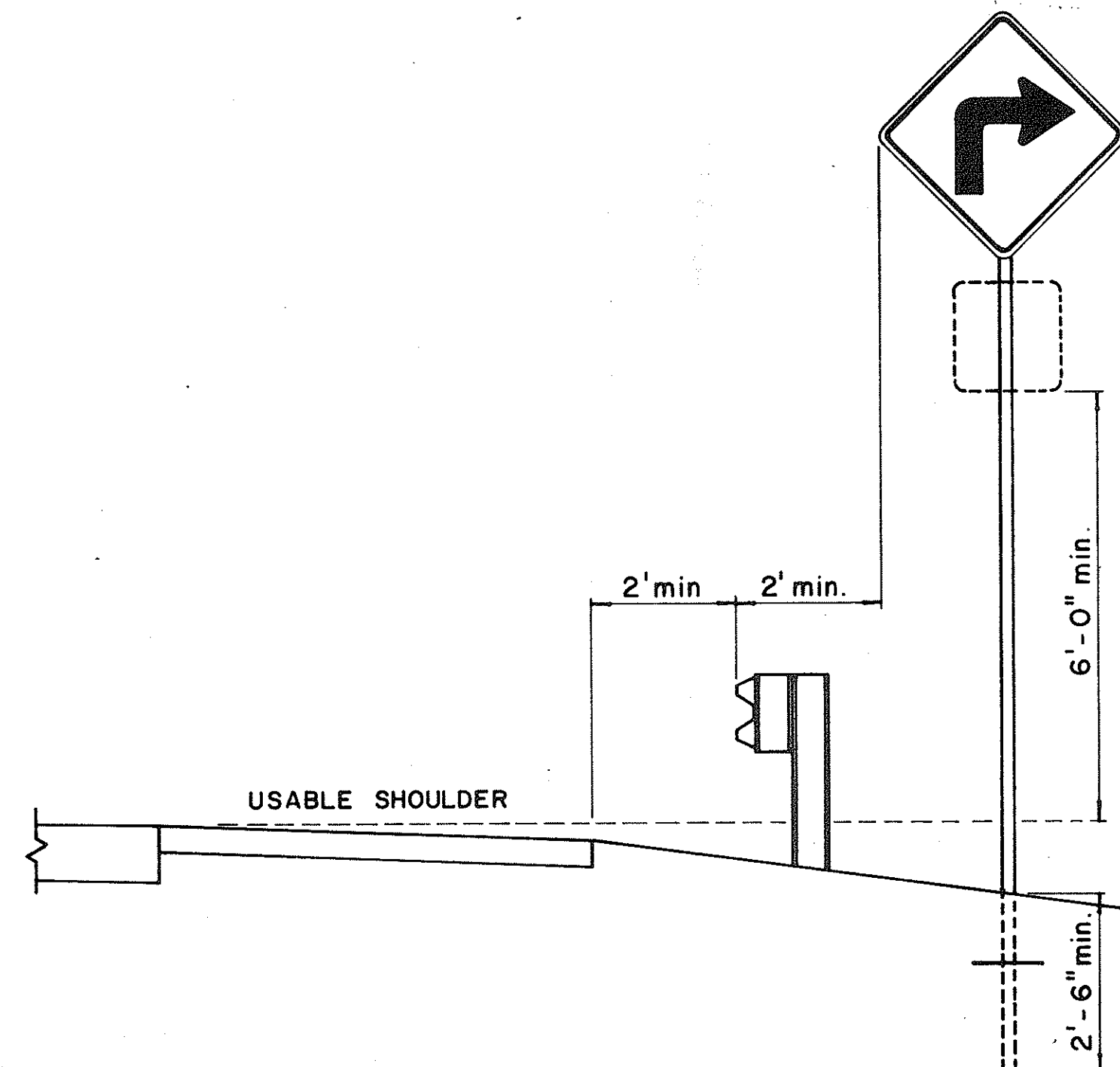
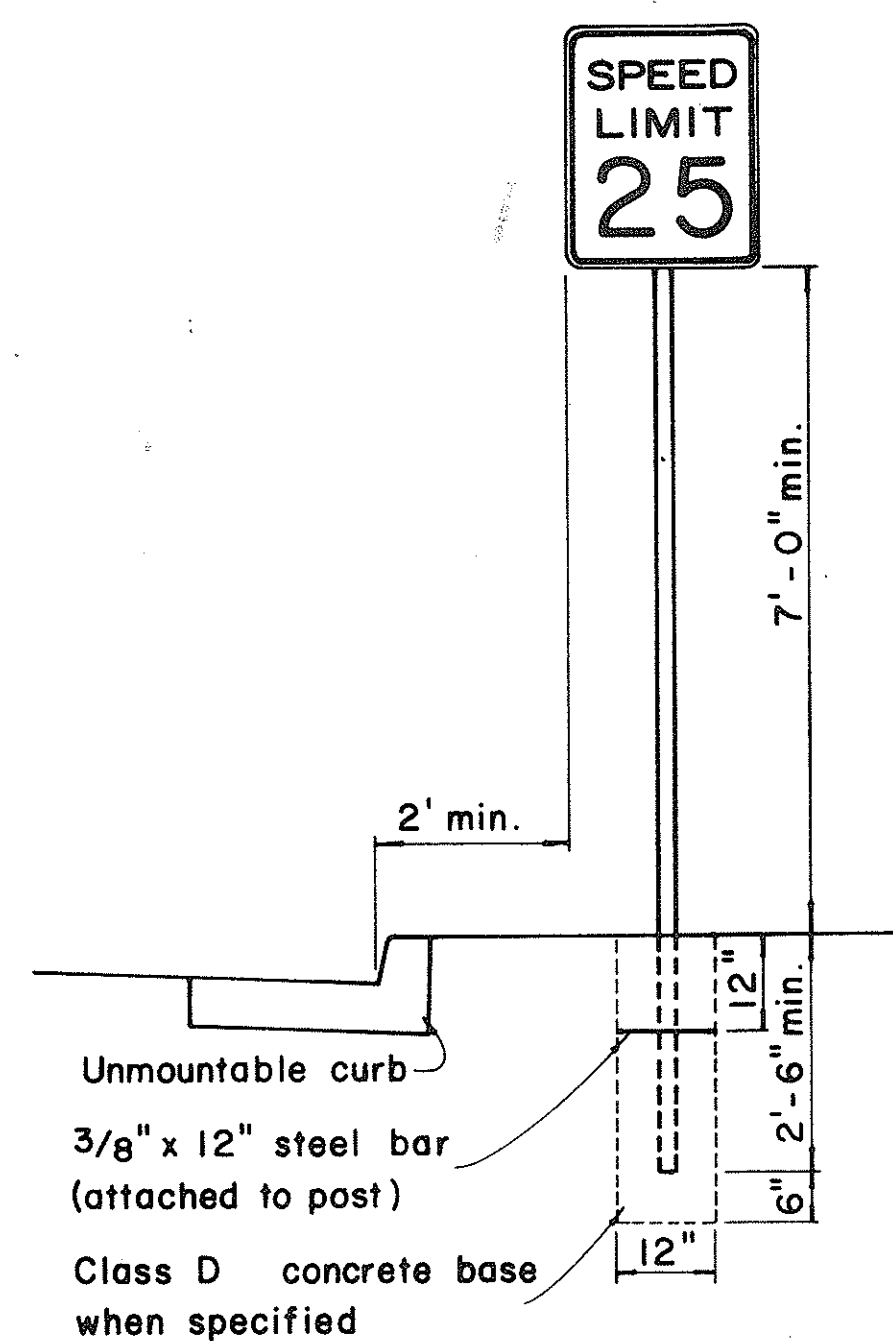
AT EXPANSION JOINT

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

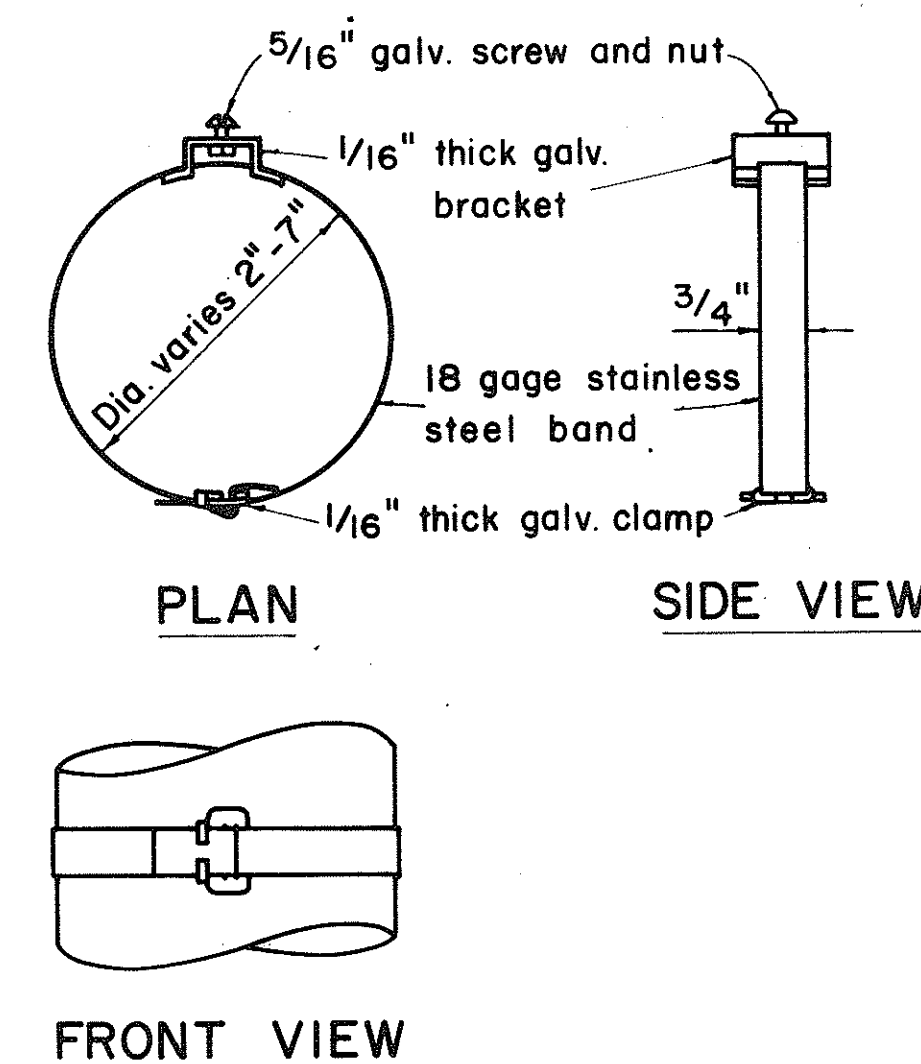
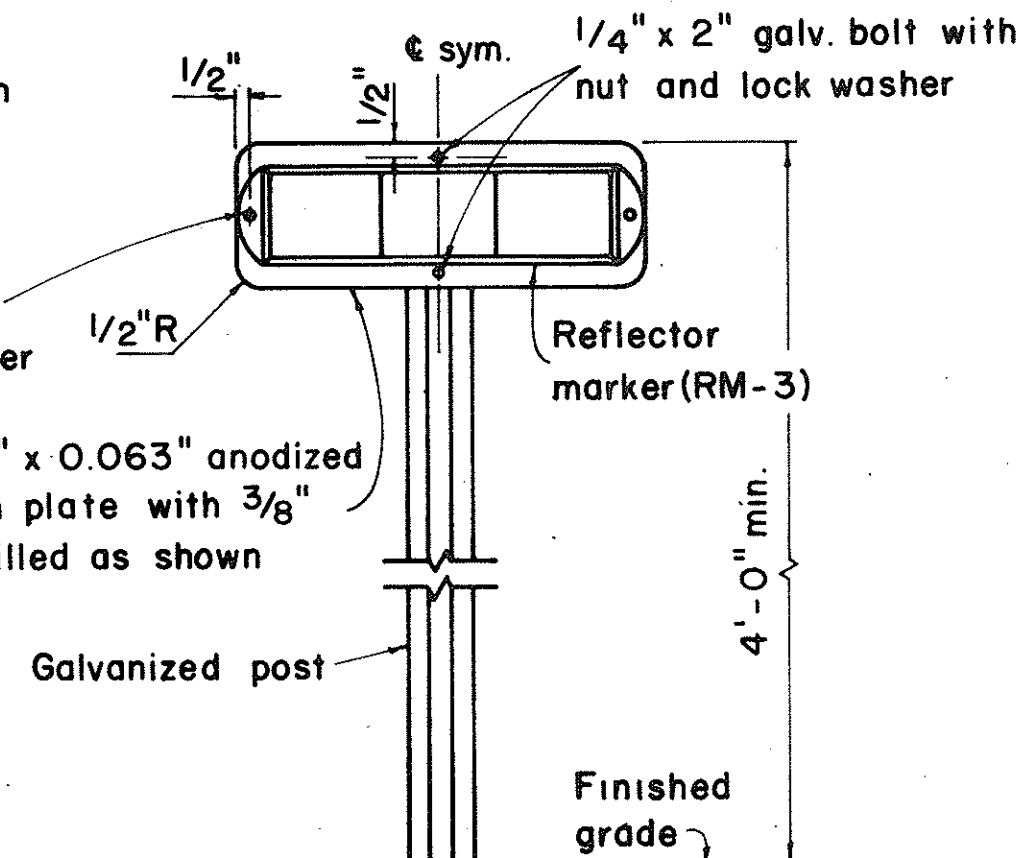
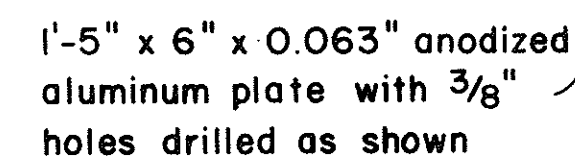
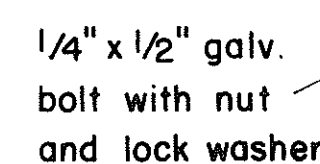
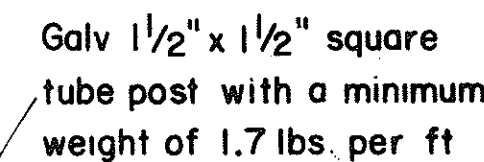
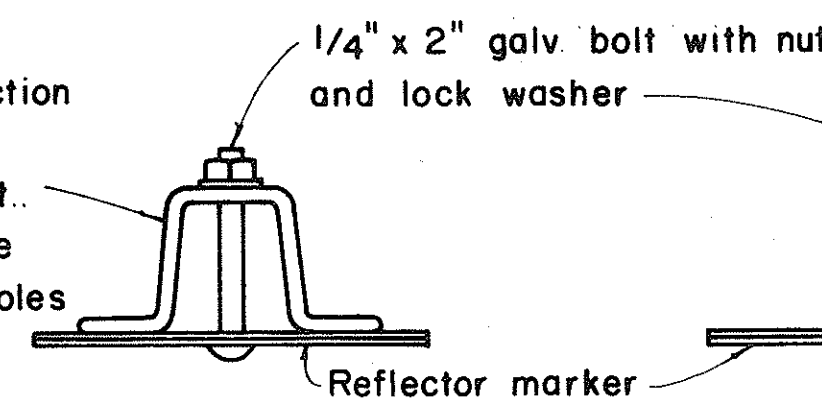
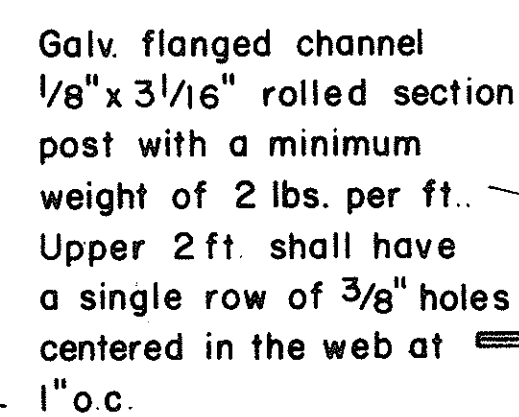
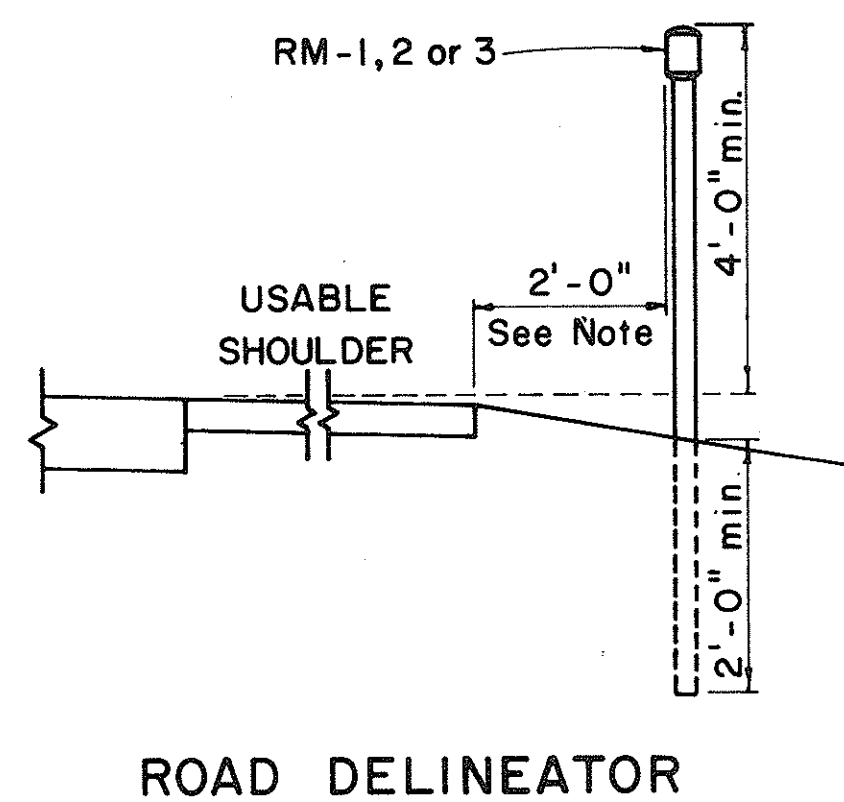
APPROVAL RECOMMENDED:
Erich Tanaka 2/10/12
 TRAFFIC ENGINEER DATE
 APPROVED:
Shirley J. J. J. 2/10/12
 ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
STANDARD DETAILS
GUARD RAIL TYPE 4
(RIGID BARRIER)
 Scale: As Shown
 SHEET No. OF SHEETS DT 521

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(57)18	1972	99	171

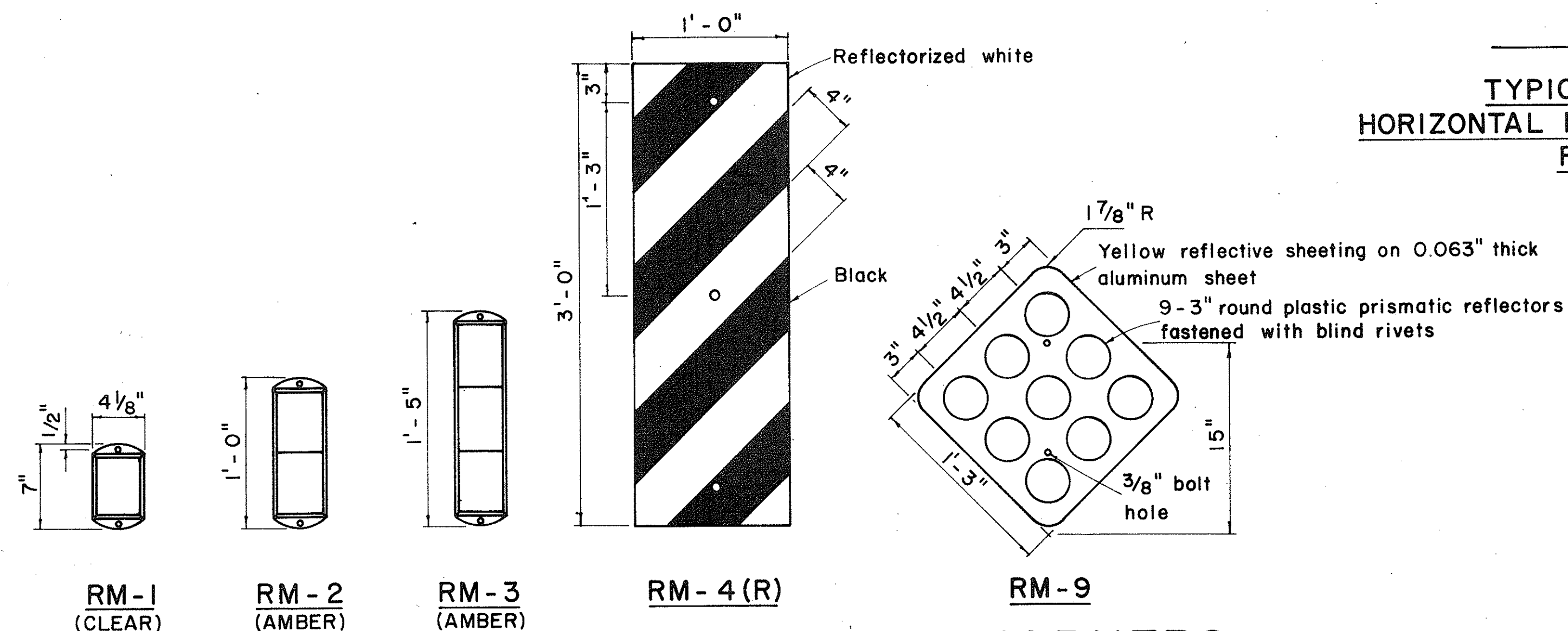


HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATION



GENERAL NOTES:

1. Sign posts shall be 2" galv. standard pipe or 2" x 2" galv. sq. tube post.
2. Signs 48" and wider or larger than 10 sq. ft. in area shall be mounted on two 2" galv. standard pipe or two 2" x 2" galv. sq. tube post or 4" x 4" redwood post S4S.
3. Signs shall be attached to post with $\frac{5}{16}$ " galv. bolts with nuts and $\frac{7}{8}$ " x 0.06 stainless steel washers with neoprene rubber gasket.
4. Sign posts shall extend $3\frac{1}{2}$ " above sign where required for City and County street name signs.
5. Reflector markers RM-1, 2, 3 shall be glass sphere reflector markers with 4" x 5" reflector units (as shown) or plastic prismatic reflector markers with 3" diameter reflector units.
6. Clearance markers (RM-3, RM-4) shall be installed with the edge of the marker in line with the inner edge of the obstruction.
7. (R) or (L) indicates right or left and shall be as shown on the plans.



TYPICAL DETAIL
HORIZONTAL REFLECTOR MARKER
RM - 3H

TYPICAL BAND BRACKET FOR MOUNTING TRAFFIC SIGNS

NO.	REVISION	APPROVED BY	DATE

APPROVAL RECOMMENDED: Eichi Tanaka 12/29/06
TRAFFIC ENGINEER DATE

APPROVED: 22 Feb 12-30-6
ASSISTANT CHIEF, ENGINEERING DATE

**STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION**

STANDARD DETAILS

MISCELLANEOUS SIGN DETAILS

Not to scale March, 1968

SHEET No. 16 OF 32 SHEETS DT 16

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

PRINTED ON NO. 100RH CLEARPRIN