

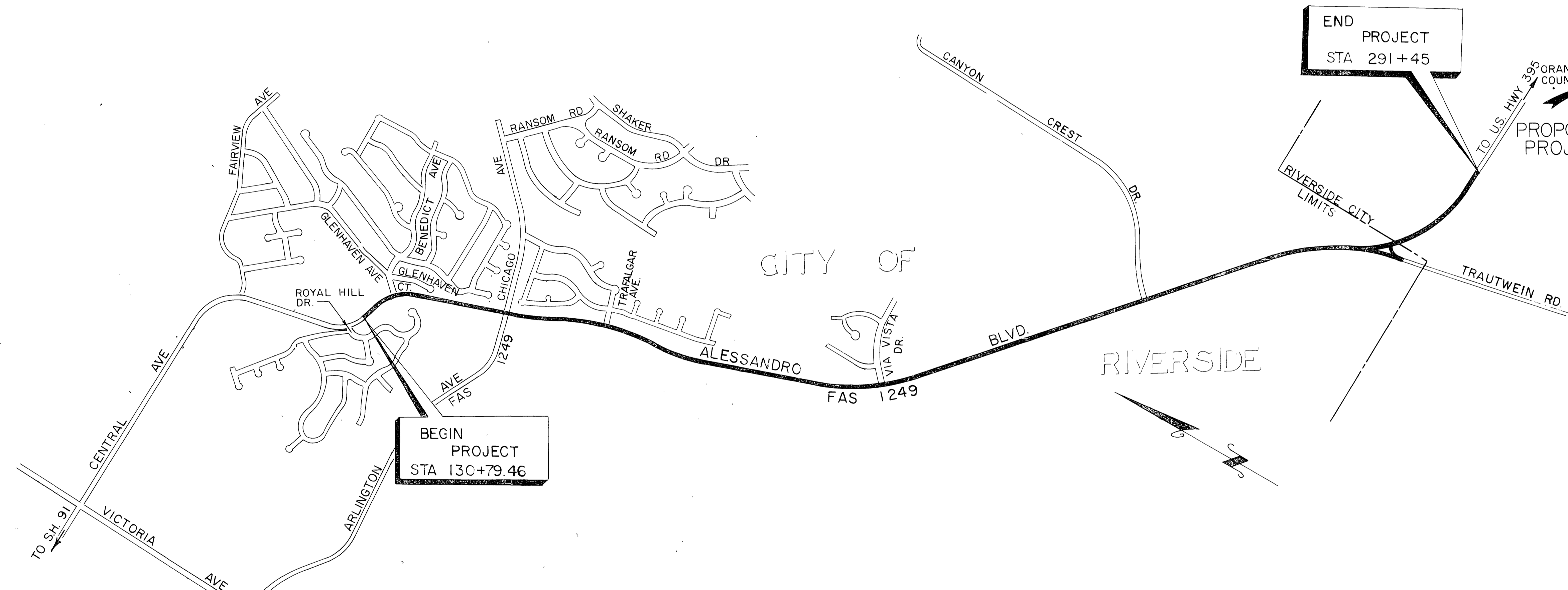
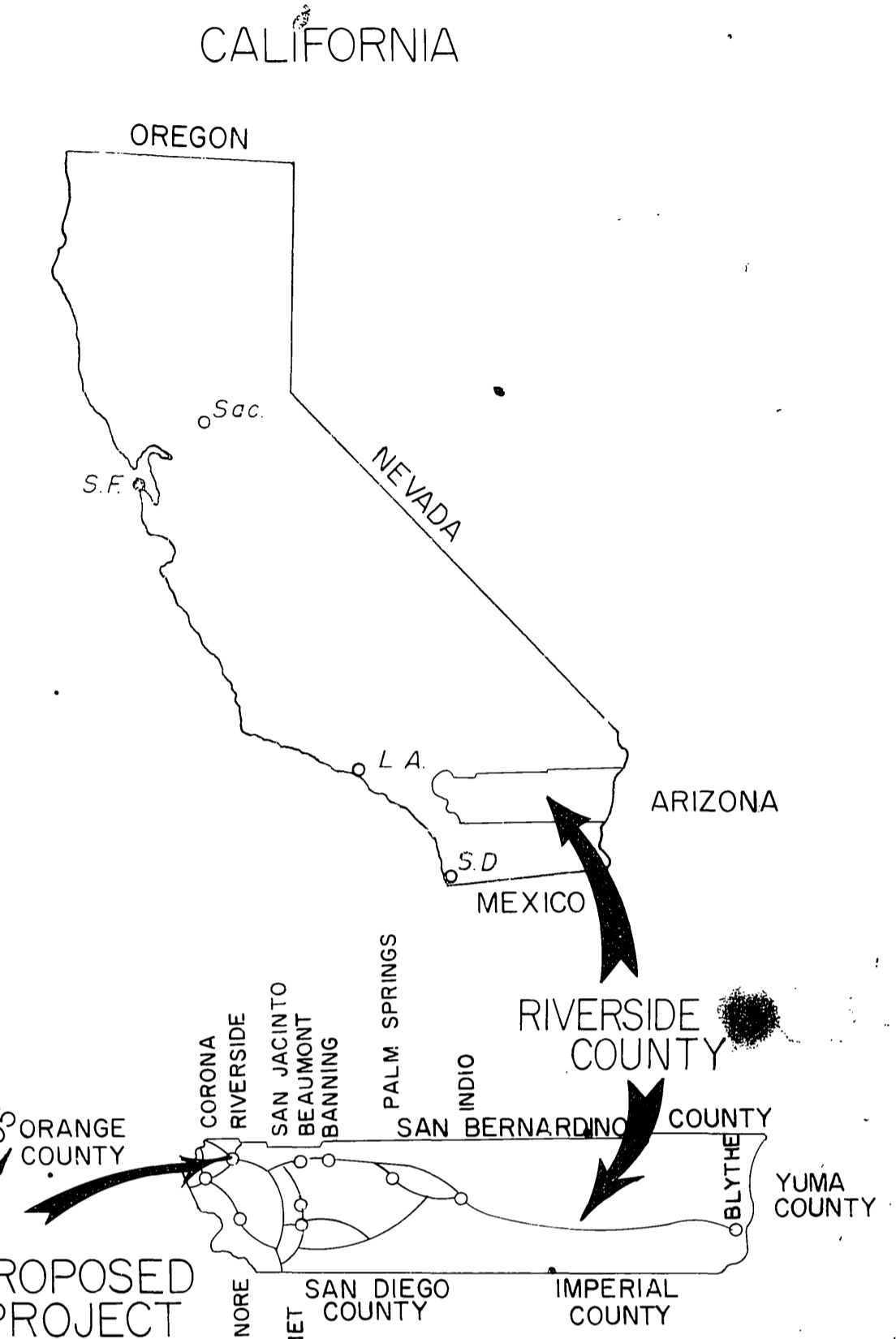
DIST.	COUNTY	PROJECT	SHEET No.	TOTAL SHEETS
08	RIV	1249-CR,RIV	1	44

INDEX OF SHEETS.

- SHEET NO 1 TITLE PAGE
- SHEET NO 2 TYPICAL SECTIONS
- SHEET NO 3-13 PLAN & PROFILE
- SHEET NO 14 STRIPING TRANSITION LAYOUT
- SHEET NO 15-17 INTERSECTION DETAILS
- SHEET NO 18 DRAINAGE STRUCTURE DETAILS
- SHEET NO 19 RETAINING WALL & MISCELLANEOUS DETAILS
- SHEET NO 20-21 DRAINAGE SUMMARY SHEETS
- SHEET NO 22 SIGNAL MODIFICATION PLANS
- SHEET NO 23-43 STANDARD PLANS
- SHEET NO 44 FEDERAL CONSTRUCTION IDENTIFICATION SIGNS
- SHEET NO 1-102 CROSS-SECTIONS
- SHEET NO 1 MASS DIAGRAM
- SHEET NO 1-8 SUPERELEVATION DIAGRAMS

STATE OF CALIFORNIA
TRANSPORTATION AGENCY
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS
PLANS FOR CONSTRUCTION ON
RIVERSIDE
COUNTY HIGHWAY

FEDERAL AID SECONDARY PROJECT NO. S-1249(2)
AND URBAN EXTENSION PROJECT NO. UE-1249-1
AND CITY SELECT SYSTEM PROJECT NO. SS-129
ALESSANDRO BOULEVARD
BETWEEN GLENHAVEN AVENUE IN THE CITY OF RIVERSIDE
AND 3.1 MILES SOUTHEASTERLY



CITY OF RIVERSIDE
[Signature]
ENGINEER & PUBLIC WORKS DIRECTOR - R.C.E. NO. 8134

COUNTY OF RIVERSIDE
[Signature]
ROAD COMMISSIONER - R.C.E. NO. 4388

CHAIRMAN, BOARD OF SUPERVISORS

STATE OF CALIFORNIA
[Signature]
CITY & COUNTY PROJECTS ENGINEER - R.C.E. NO. 6522

[Signature]
DISTRICT ENGINEER - R.C.E. NO. 6504

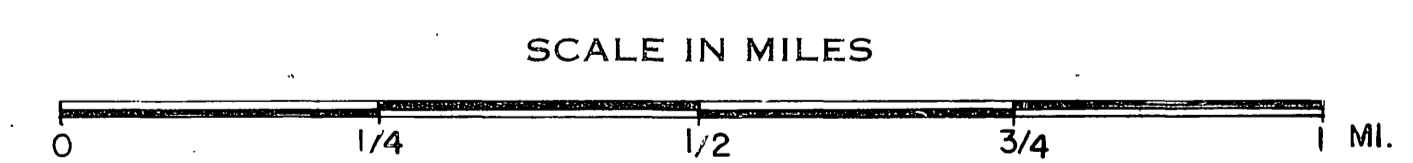
APPROVED, AUGUST 29, 1966

[Signature]
J.C. Womack
STATE HIGHWAY ENGINEER - R.C.E. NO. 5945

 BY *[Signature]*
DEPUTY STATE HIGHWAY ENGINEER - R.C.E. NO. 5630

CONVENTIONAL SIGNS

County Line	-----	Traveled Way	=====
City or Town Limits	-----	Railroad Tracks	=====
Township Line	-----	Levee	=====
Section Line	-----	Culverts	=====
Grant Line	-----	Drop Inlet	=====
Fence	-----	Power Pole	=====
Guard Rail	-----	Power Tower	=====
Unfenced Property	-----	Telegraph or Telephone Pole	=====
Right of Way Line	-----	Marsh	=====
Base or Survey Line	-----		



LENGTH OF PROJECT

SS. PROJECT 129 BEGINNING OF PROJECT TO STA 148+25	= 0.33 MILES
FAS. UE PROJECT UE-1249-1 STA 148+25 TO STA 234+75	= 1.64 MILES
FAS. PROJECT S-1249(2) STA 234+75 TO END PROJECT	= 1.07 MILES
TOTAL LENGTH	3.04 MILES

5-1249(2); UE-1249-1; 55-129

B.P. NO.	STATE	FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
7	CALIF		2	44

DIST	COUNTY	ROUTE	SEC	SHEET NO.	TOTAL SHEETS
08	RIV	1249	CR 201	2	44

A. C. Keith
ROAD COMMISSIONER R.C.E. NO 4388

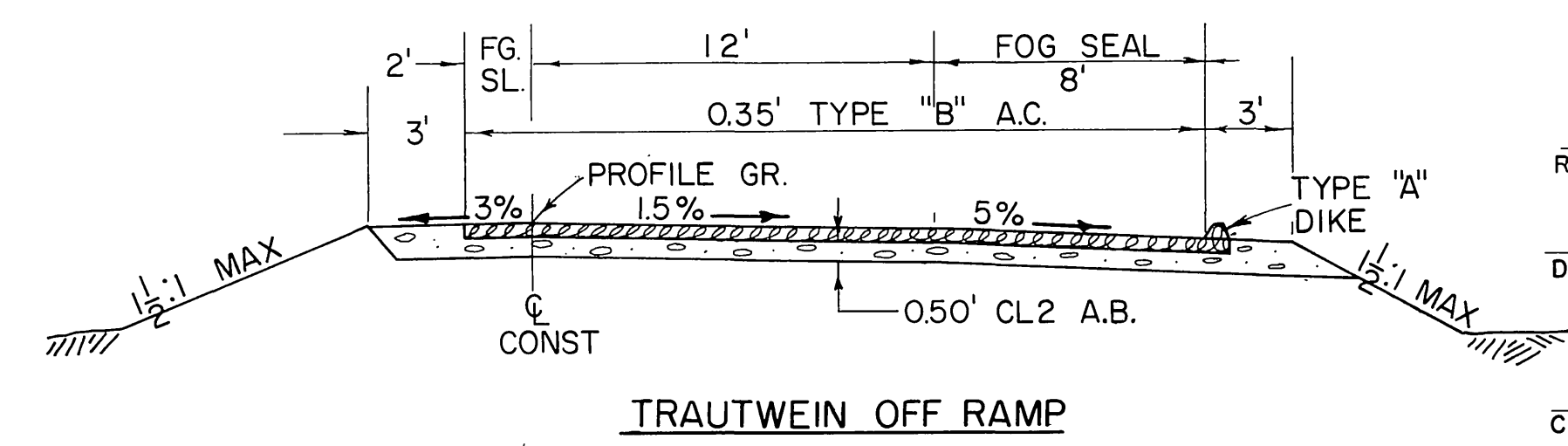
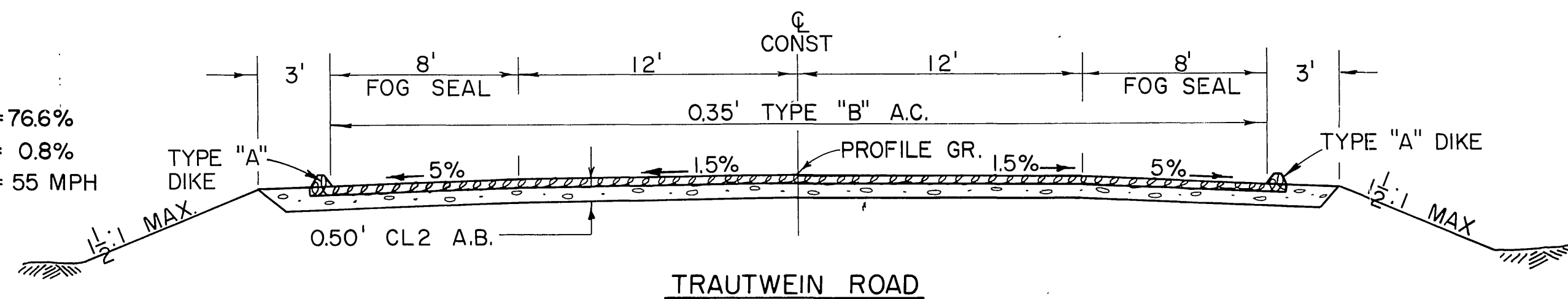
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DISTRICT ENGINEER DIST 08

APPROVED August 29, 1966

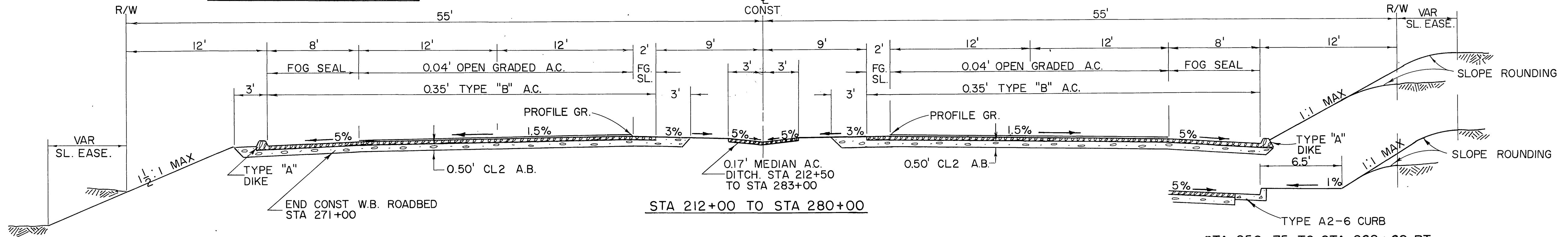
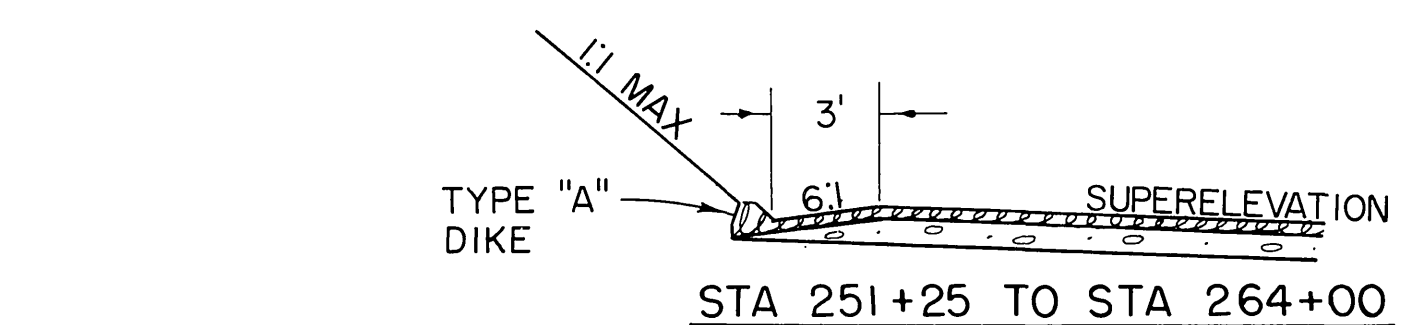
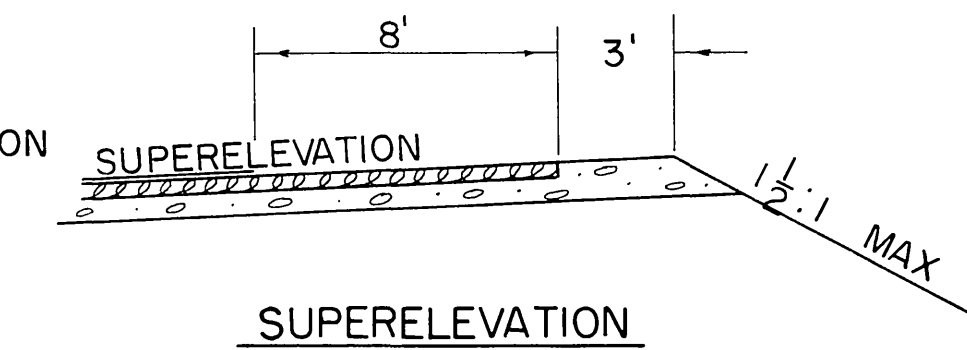
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CITY & COUNTY PROJECT ENGINEER R.C.E. NO 6522

[Signature]
ASSISTANT STATE HIGHWAY ENGINEER OPERATIONS

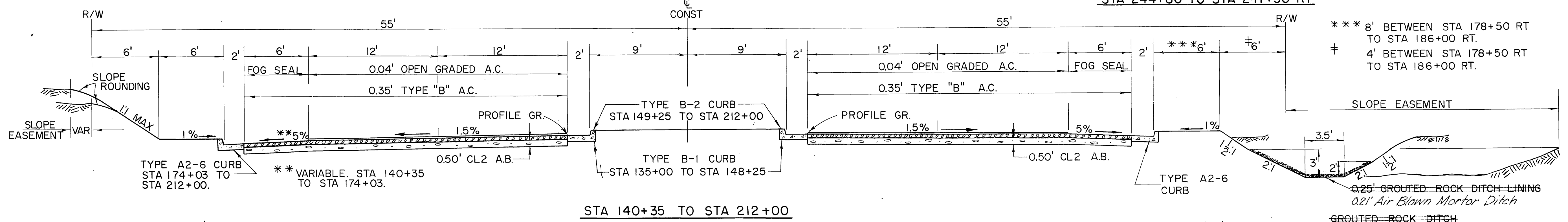
DESIGN DESIGNATION
ADT (1965) = 8,030 D=76.6%
ADT (1985) = 24,090 T= 0.8%
DHV = 3,200 V= 55 MPH



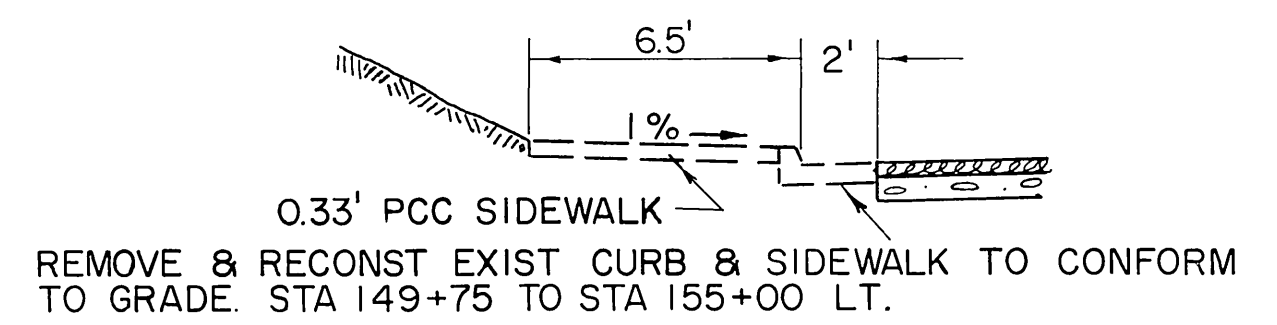
NOTE: TRANSITION FROM TWO ROADBEDS TO ONE ROADBED. STA 280+00 TO END PROJECT USE SAME STRUCTURAL SECTION THROUGHOUT. SEE TRANSITION LAYOUT.



STA 250+75 TO STA 262+60 RT
STA 244+80 TO STA 247+30 RT

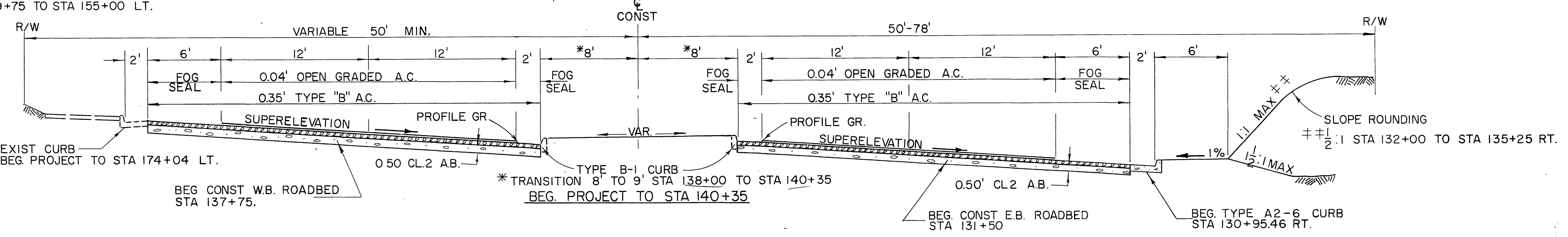


*** 8' BETWEEN STA 178+50 RT TO STA 186+00 RT.
4' BETWEEN STA 178+50 RT TO STA 186+00 RT.



Air Blown Mortar Ditch
Sta 151+50 to Sta 177+50
CCO #5

GROUTED ROCK DITCH
STA 151+50 TO STA 177+50 RT.
NOTE: EXCAVATION FOR DITCH WILL BE CONSIDERED AS ROADWAY EXCAVATION.



NOTE: ALL SLOPE ROUNDING AS DIRECTED BY THE ENGINEER.

LEGEND

- ASPHALT CONC. (A.C.)
 - OPEN GRADED ASPHALT CONCRETE OVER TYPE A, B OR C ASPHALT CONC. (OR GR. A.C.)
 - AGGREGATE BASE (AB)
 - AGGREGATE SUBBASE (AS)
 - PORTLAND CEMENT CONCRETE (PCC)
 - ORIGINAL GROUND
- DIMENSIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.

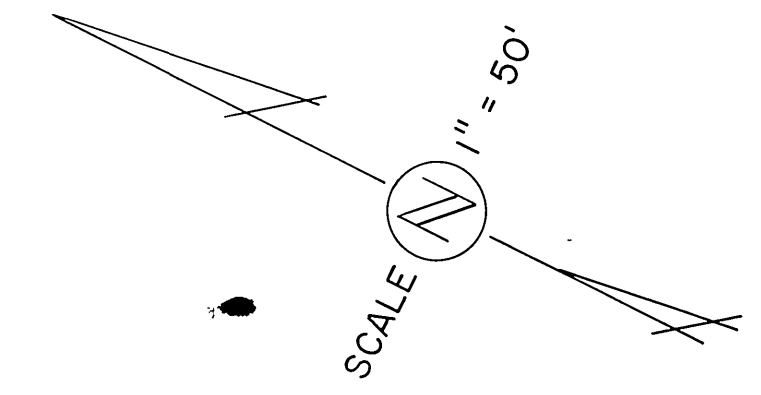
TYPICAL ROAD SECTIONS
ALESSANDRO BOULEVARD
08-RIV-SS-129-S-1249(2) & UE 1249-1

SCALE 1" = 5'

346 GG
R-888

APPROVED August 23, 1966
 CITY & COUNTY PROJECT ENGINEER R.C.E. NO 6522

NOTE: ALL WATER & GAS VALVES TO BE ADJUSTED BY OTHERS.

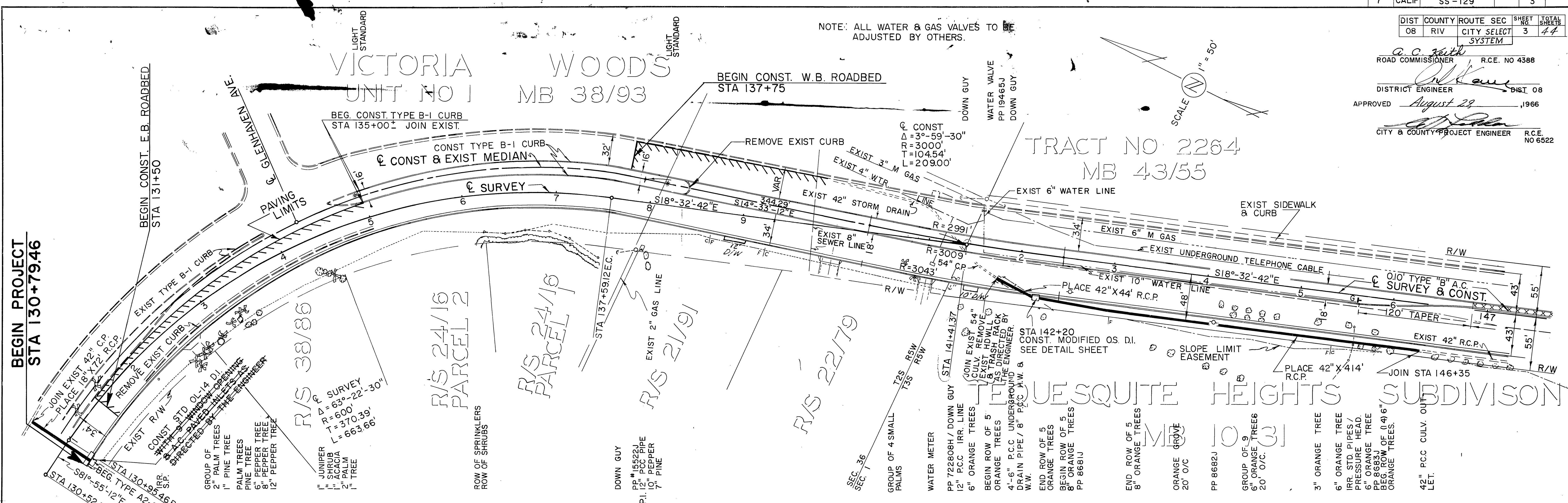


VICTORIA WOODS UNIT NO 1 MB 38/93

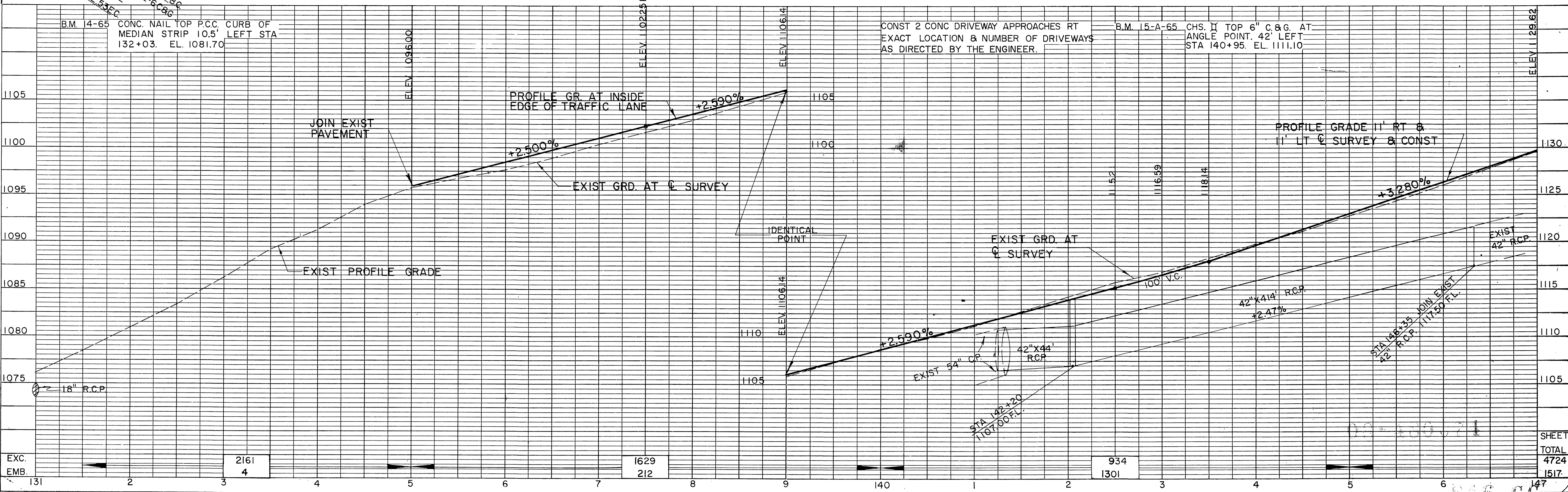
TRACT NO 2264 MB 43/55

BEGIN PROJECT STA 130+79.46

PLAN	DATE
SURVEYED BY	
ALIGNED BY	
NOTE BOOK NO.	
RT. OF WAY CHECKED BY	



PROFILE	DATE
SURVEYED BY	
ALIGNED BY	
NOTE BOOK NO.	
STRUCTURE NOTATION'S CHKD.	



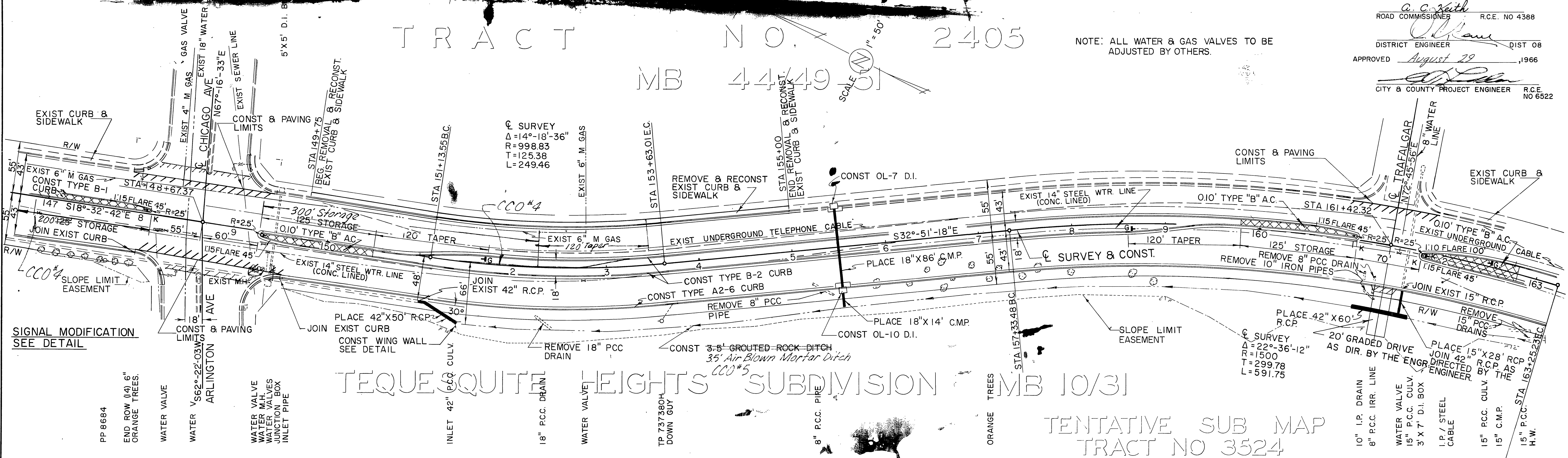
DIST	COUNTY	ROUTE	SEC	SHEET NO.	TOTAL SHEETS
08	RIV	1249	Riv	4	44

ROAD COMMISSIONER R.C.E. NO 4388
 DISTRICT ENGINEER DIST 08

APPROVED August 29, 1966
 CITY & COUNTY PROJECT ENGINEER R.C.E. NO 6522

TRACT NO. 2405 MB 44/49

NOTE: ALL WATER & GAS VALVES TO BE ADJUSTED BY OTHERS.



DATE	BY	REVISION

PLAN	NO.

DATE	BY	REVISION

PROFILE	NO.

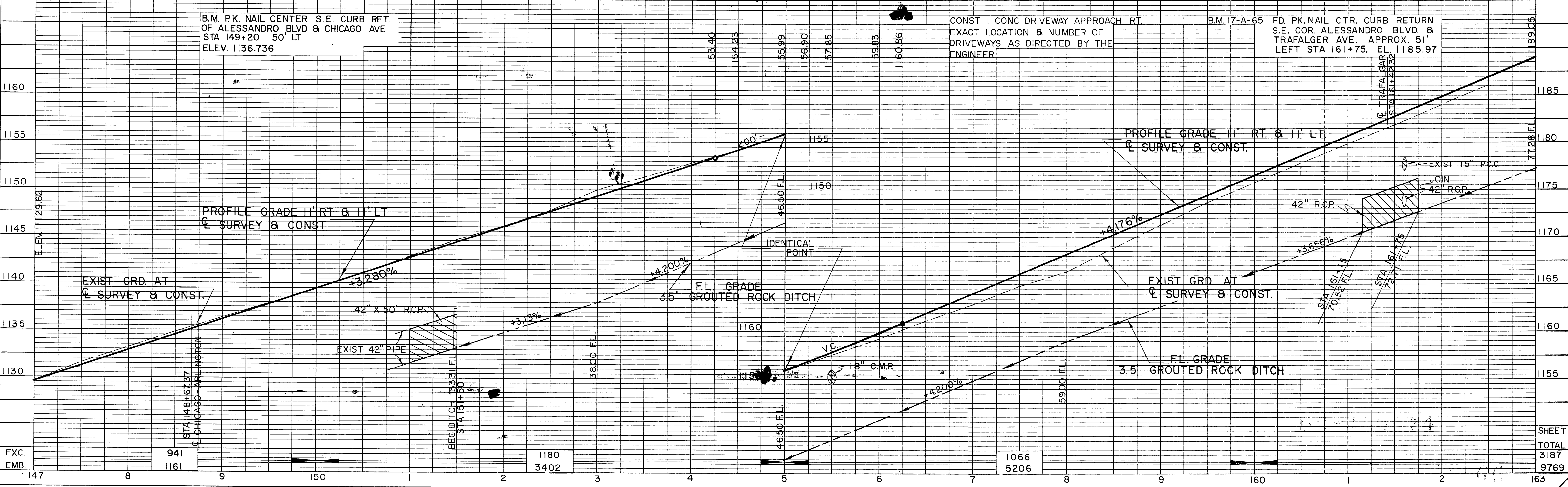


PLATE 1—PLAN PROFILE & P. H. STANDARD

DIST	COUNTY	ROUTE	SEC	SHEET NO.	TOTAL SHEETS
08	RIV	1249	Riv	6	44

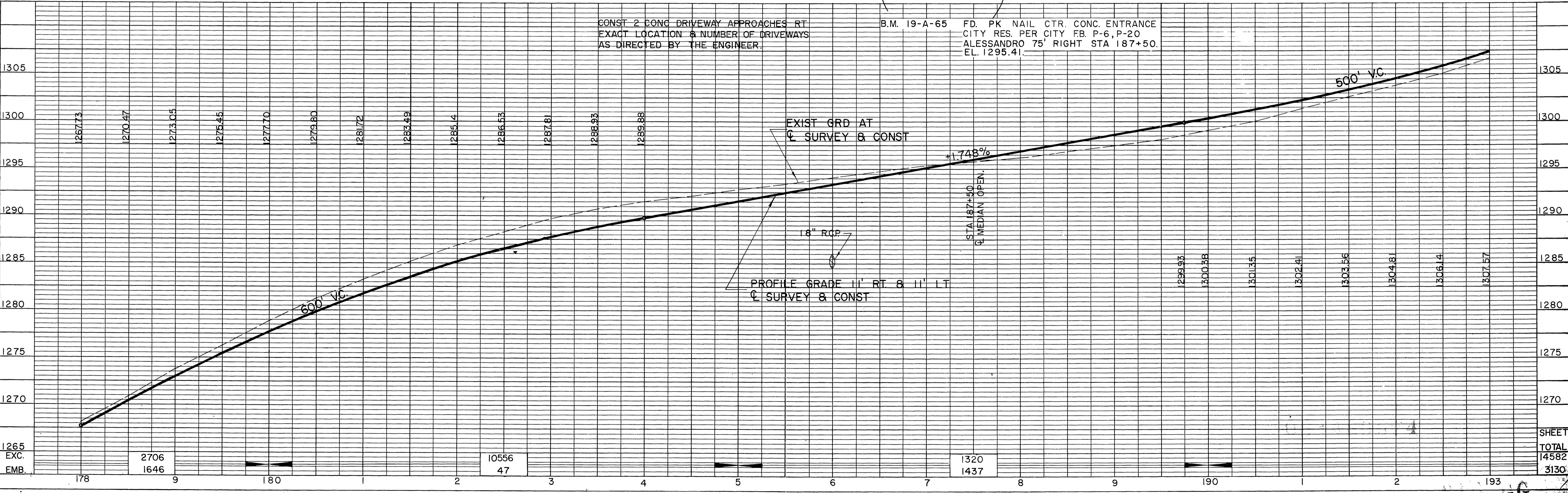
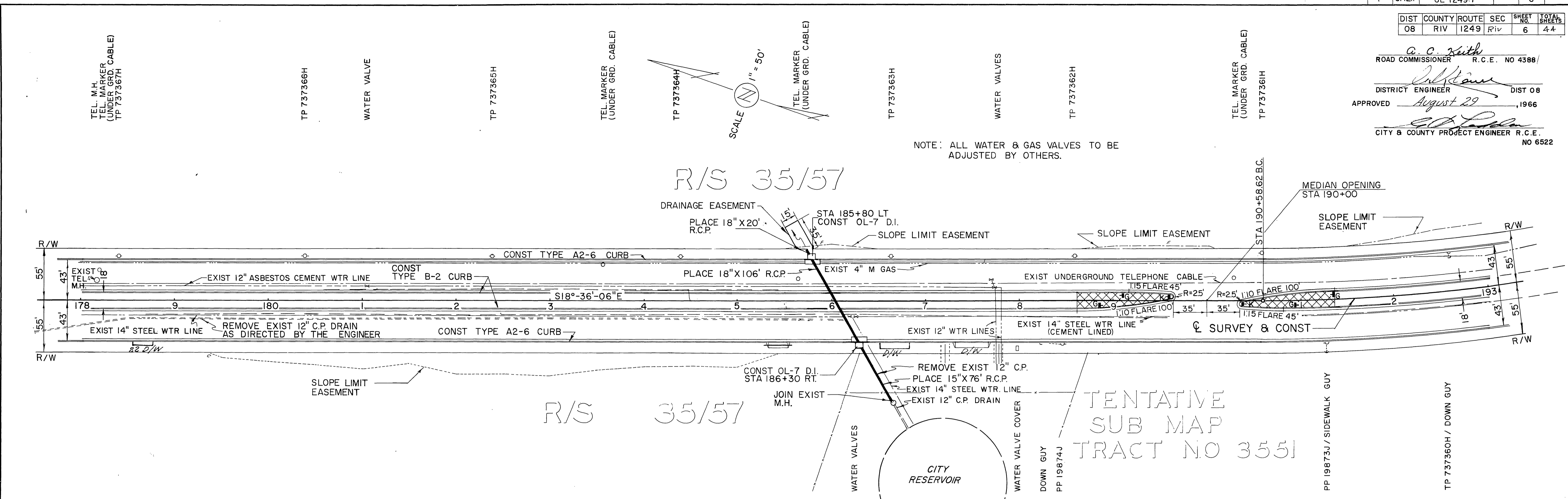
A. C. Keith
 ROAD COMMISSIONER R.C.E. NO 4388/
[Signature]
 DISTRICT ENGINEER DIST 08
 APPROVED August 29, 1966
[Signature]
 CITY & COUNTY PROJECT ENGINEER R.C.E. NO 6522

DATE	BY	REVISION

PLAN SURVEYED BY DATE
 NOTE BOOK NO. ALIGNMENT CHECKED RT. OF WAY CHECKED

DATE	BY	REVISION

PROFILE SURVEYED BY DATE
 NOTE BOOK NO. GRADES CHECKED B.M.'S NOTED STRUCTURE NOTATIONS CHECKED

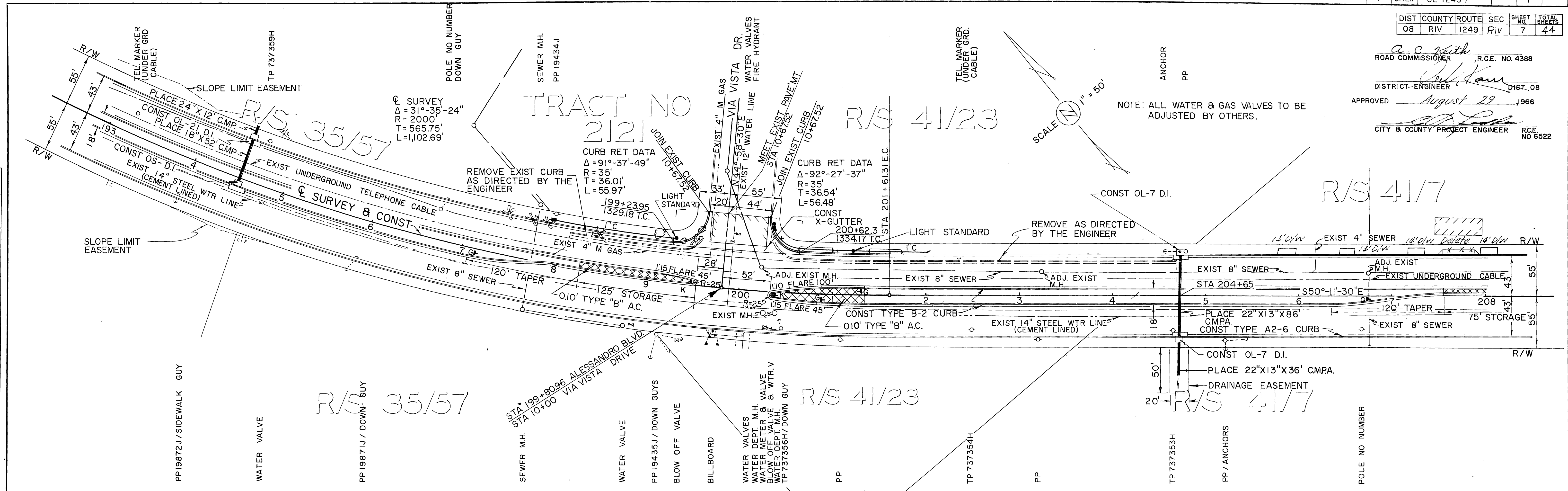


R-888

A. C. Keith
 ROAD COMMISSIONER, R.C.E. NO. 4388
 DISTRICT ENGINEER, DIST. 08
 APPROVED *August 29*, 1966
 CITY & COUNTY PROJECT ENGINEER, R.C.E. NO. 6522

DATE	BY

PLAN
 SURVEY PLOTTED
 ALIGNMENT CHECKED
 RT. OF WAY CHECKED
 NO.



DATE	BY

PROFILE
 SURVEY PLOTTED
 GRADES CHECKED
 B.M.'S NOTED
 SUBSTANTIAL CHNG.
 NO.

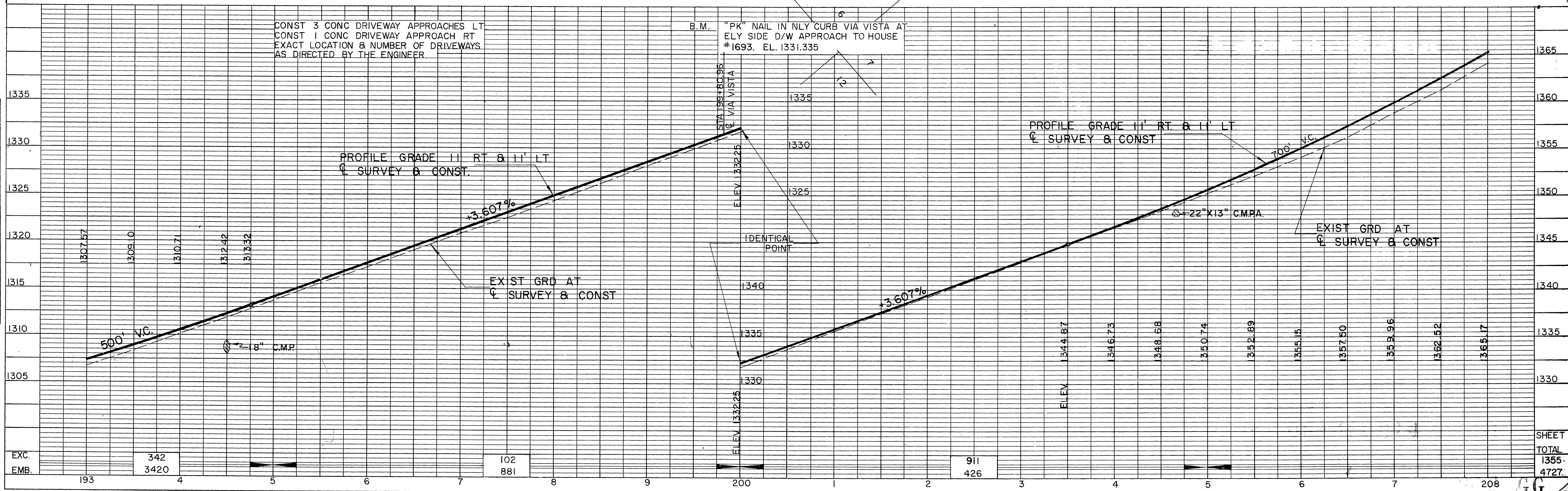
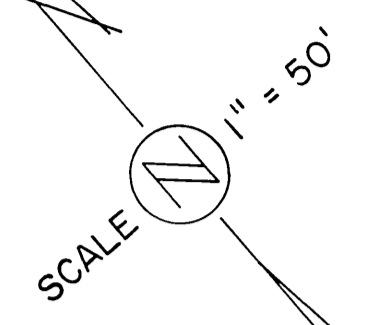


PLATE 1-PLAN PROFILE B.P.R. STANDARD



NOTE: ALL WATER & GAS VALVES TO BE ADJUSTED BY OTHERS.

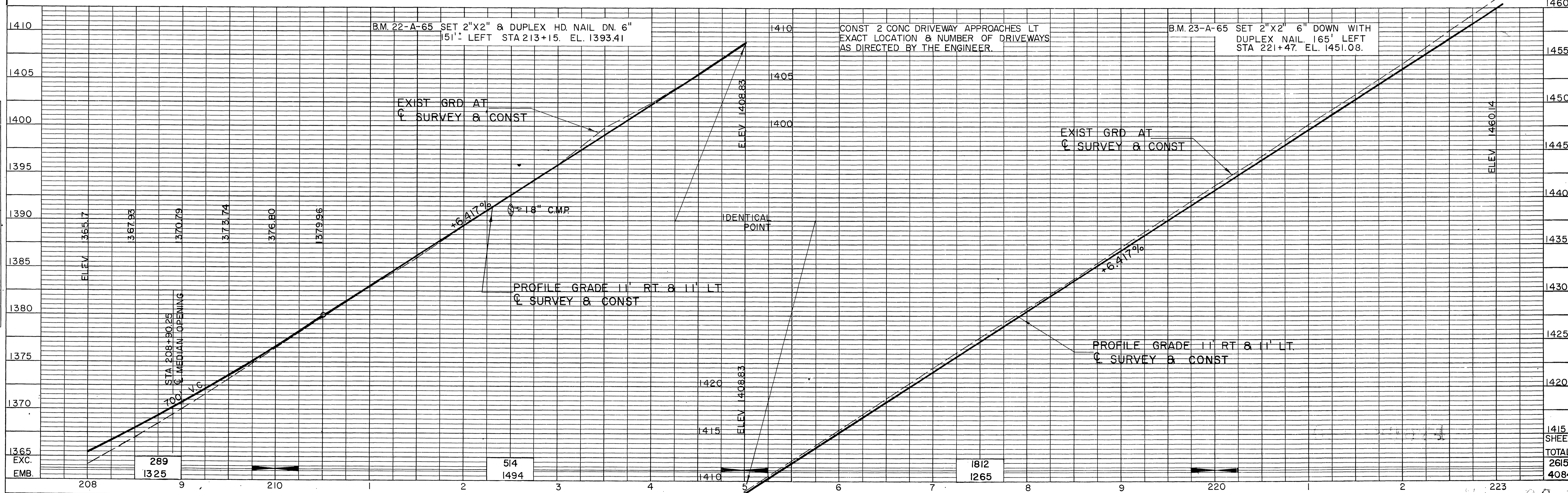
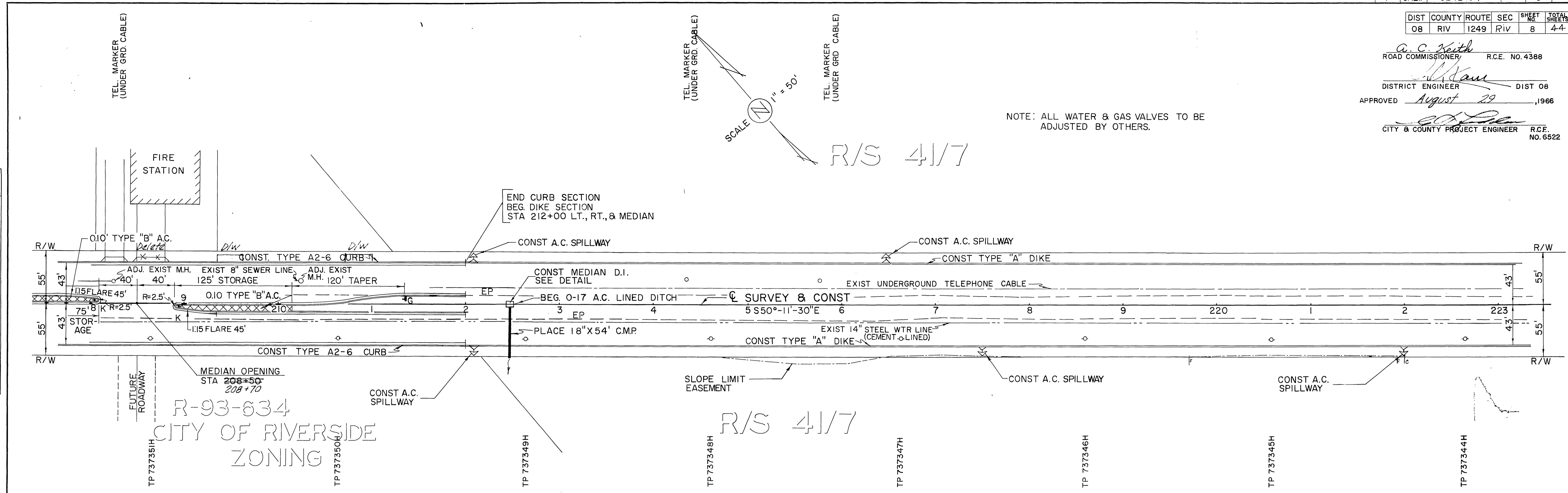
R/S 4/17

R/S 4/17

R-93-634
CITY OF RIVERSIDE
ZONING

PLAN	DATE
BY	
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	
NO. 6	
NO. 7	
NO. 8	
NO. 9	
NO. 10	
NO. 11	
NO. 12	
NO. 13	
NO. 14	
NO. 15	
NO. 16	
NO. 17	
NO. 18	
NO. 19	
NO. 20	

PROFILE	DATE
BY	
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	
NO. 6	
NO. 7	
NO. 8	
NO. 9	
NO. 10	
NO. 11	
NO. 12	
NO. 13	
NO. 14	
NO. 15	
NO. 16	
NO. 17	
NO. 18	
NO. 19	
NO. 20	



A. C. Keith
 ROAD COMMISSIONER R.C.E. NO. 4388
 DISTRICT ENGINEER DIST 08
 APPROVED August 29, 1966
 CITY & COUNTY PROJECT ENGINEER R.C.E. NO. 6522

PLAN	DATE
SURVEYED	
NOTED	
ALIGNED	
CHECKED	
BY	
NO.	

PROFILE	DATE
SURVEYED	
NOTED	
GRADES	
CHECKED	
BY	
NO.	

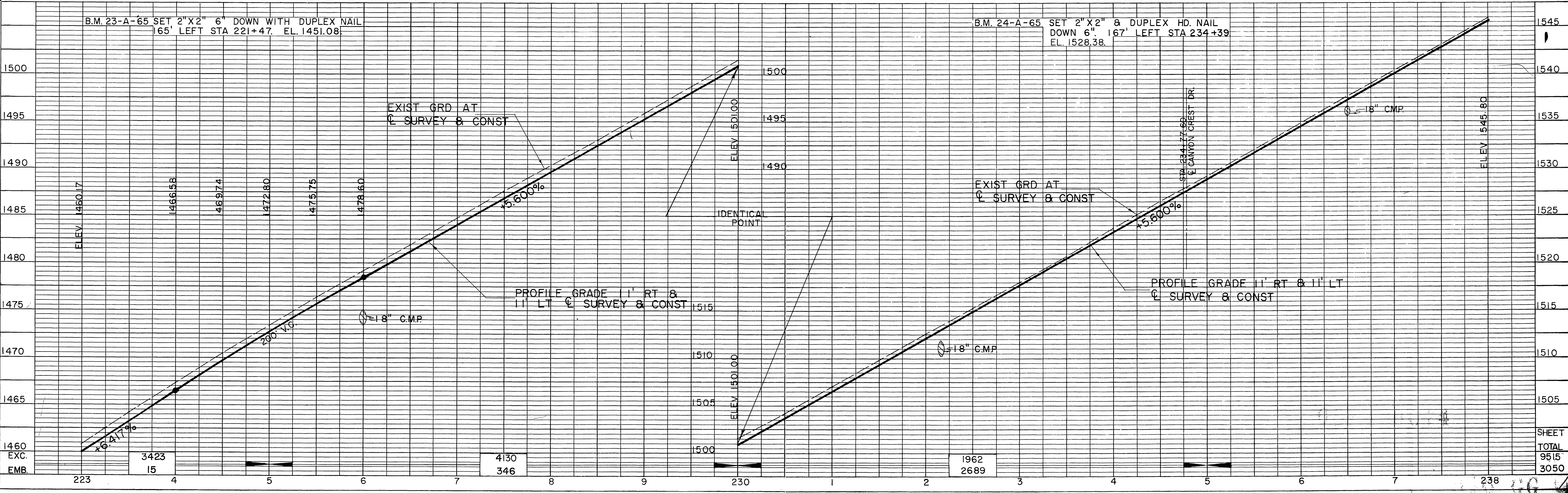
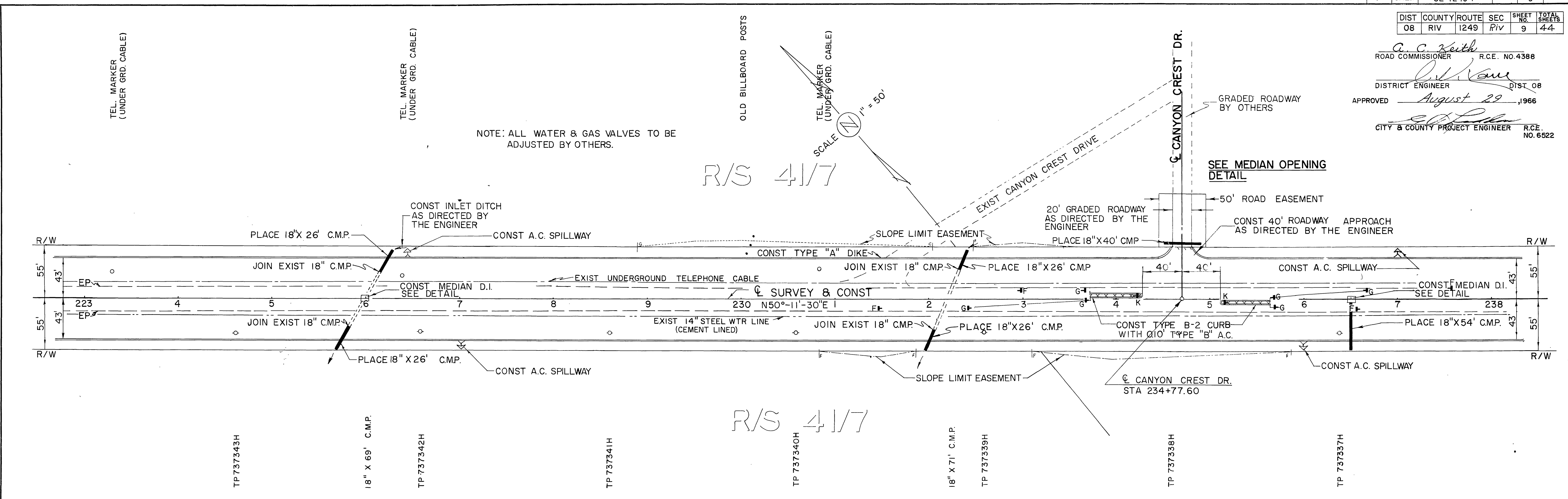


PLATE 1—PLAN PROFILE

G. C. Keith
 ROAD COMMISSIONER R.C.E. NO. 4388
 DISTRICT ENGINEER DIST 08
 APPROVED August 29, 1966
 CITY & COUNTY PROJECT ENGINEER R.C.E. NO. 6522

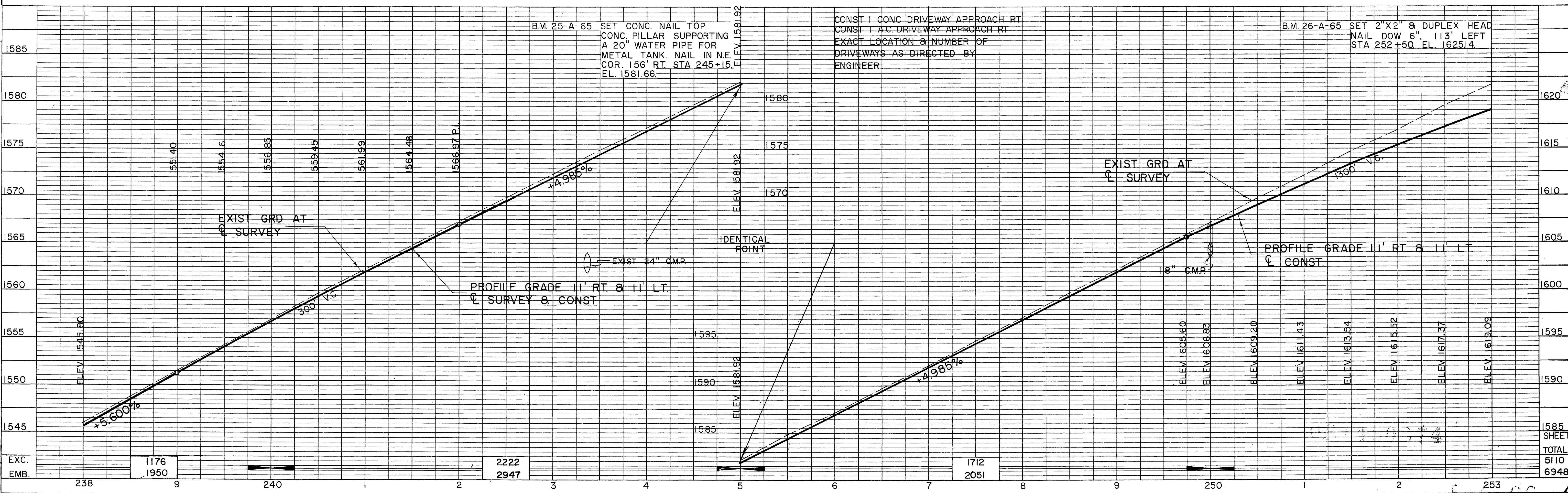
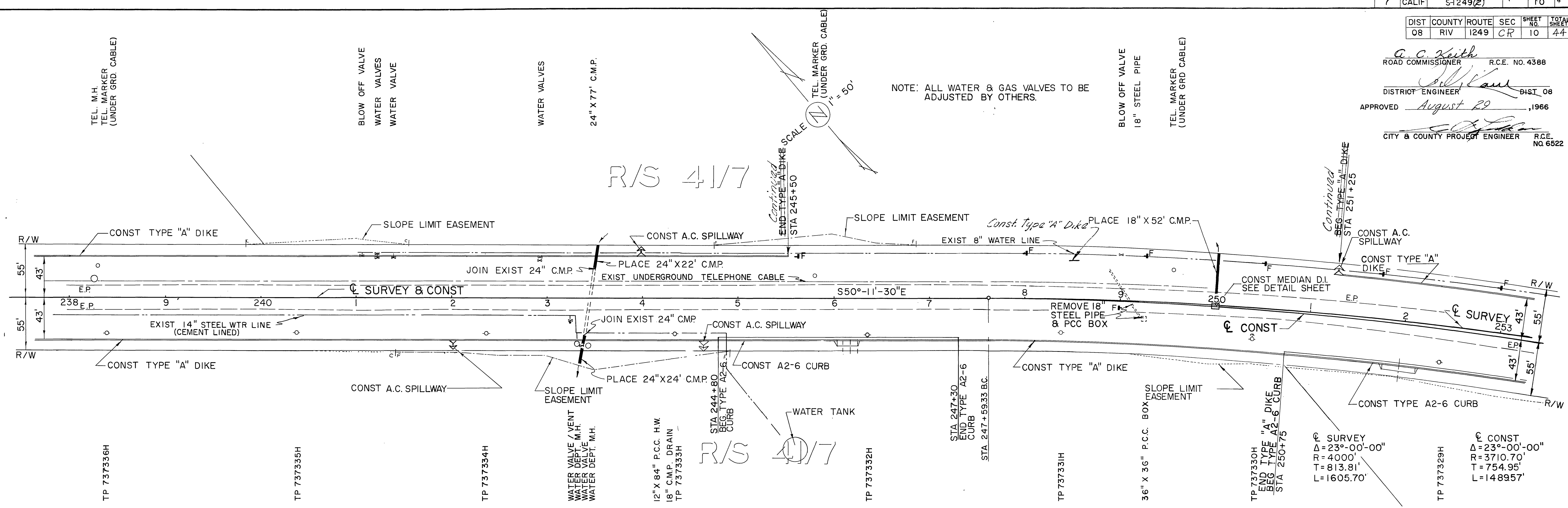
NOTE: ALL WATER & GAS VALVES TO BE ADJUSTED BY OTHERS.

R/S 41/7

R/S 41/7

PLAN	SURVEYED	DATE
NO.		
NO.		

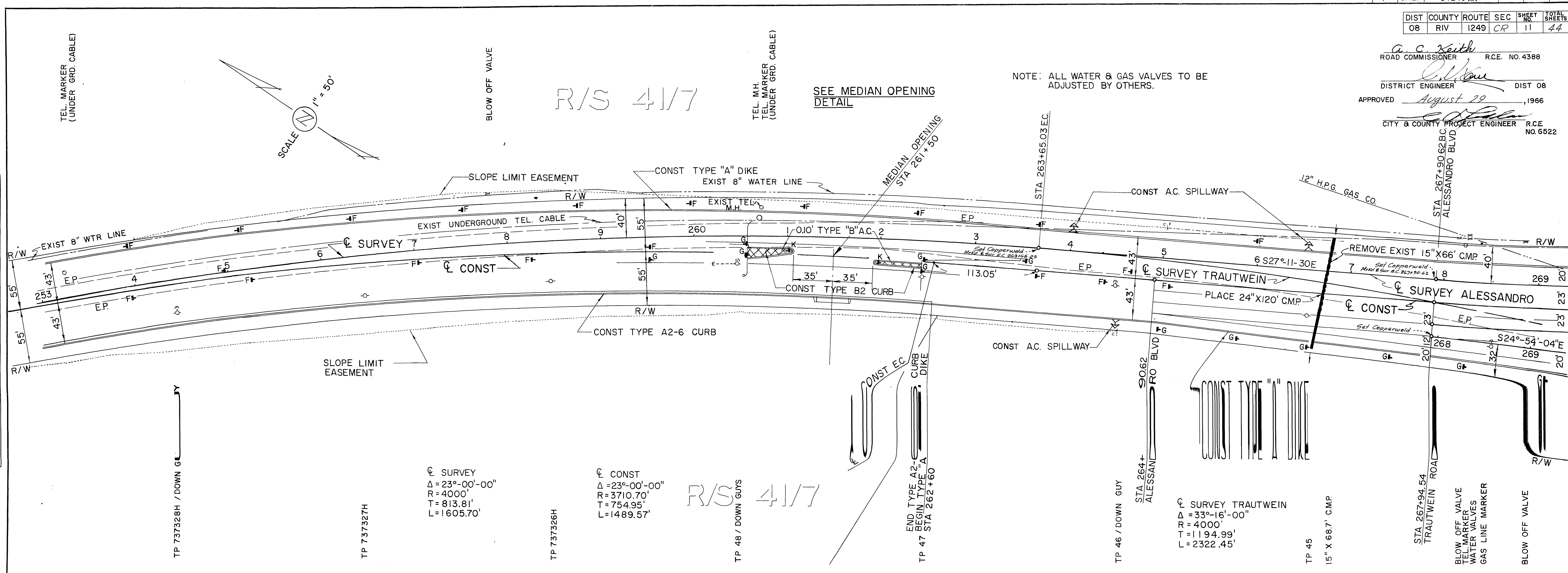
PROFILE	SURVEYED	DATE
NO.		
NO.		



A. C. Faith
 ROAD COMMISSIONER R.C.E. No. 4388
[Signature]
 DISTRICT ENGINEER DIST 08
 APPROVED August 29, 1966
[Signature]
 CITY & COUNTY PROJECT ENGINEER R.C.E. No. 6522

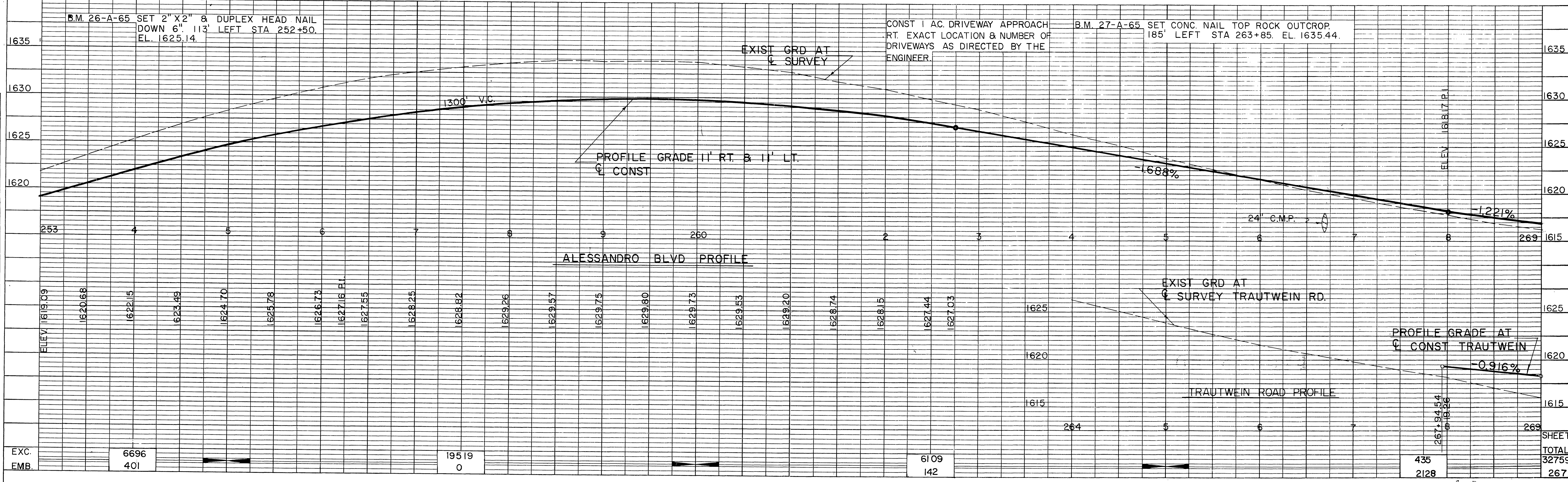
DATE	BY

PLAN
 SURVEYED, PLOTTED, ALIGNED, CHECKED, REVISIONS
 NOTE BOOK NO. 22



DATE	BY

PROFILE
 SURVEYED, PLOTTED, GRADES CHECKED, STRUCTURE NOTATIONS CHECKED
 NOTE BOOK NO. 22



EXC.	6696	19519	6109	435
EMB.	401	0	142	2128
TOTAL				32759
				2671

A. C. Zeith
ROAD COMMISSIONER R.C.E. NO. 4388

[Signature]
DISTRICT ENGINEER DIST. 08

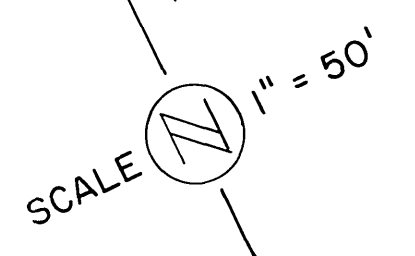
APPROVED *August 29*, 1966

[Signature]
CITY & COUNTY PROJECT ENGINEER R.C.E. NO. 6522

ALESSANDRO TRACT

MB 6/13 SB

NOTE: ALL WATER & GAS VALVES TO BE ADJUSTED BY OTHERS.



☉ SURVEY
 $\Delta = 63^\circ-34'-30"$
 $R = 1600'$
 $T = 991.56'$
 $L = 1775.35'$

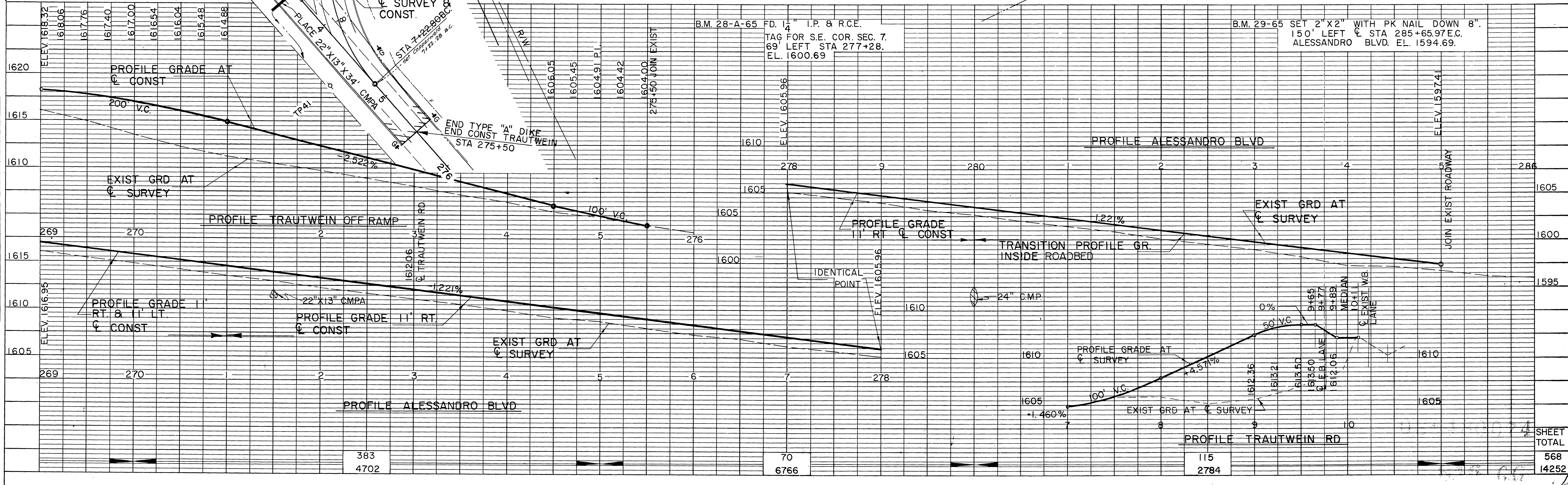
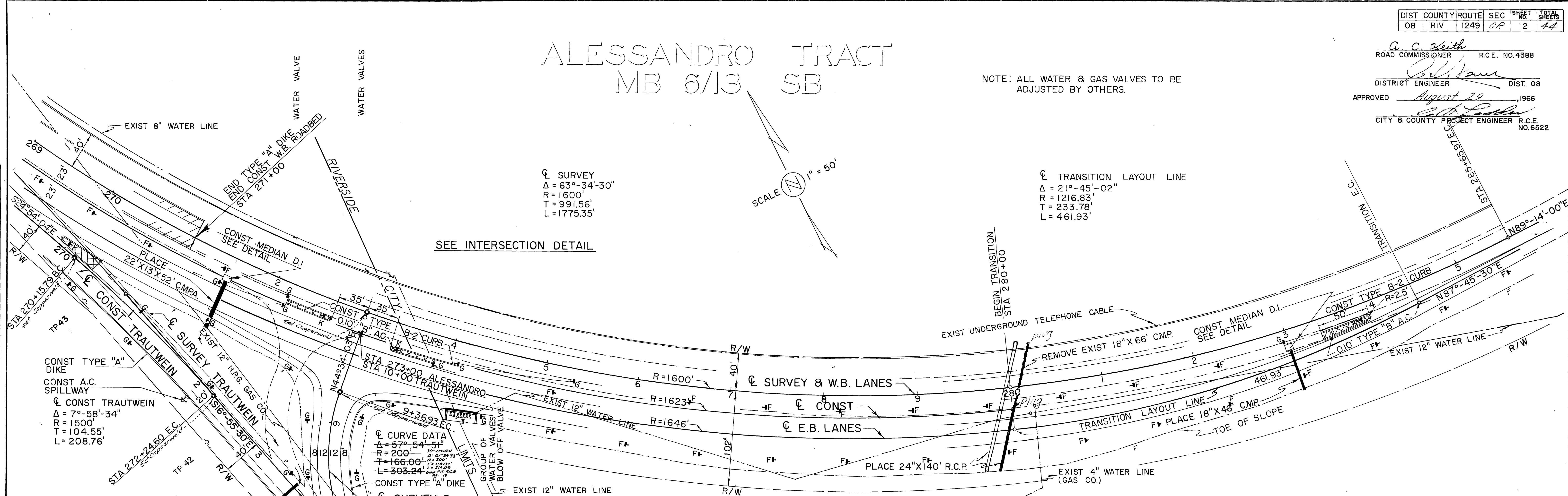
☉ TRANSITION LAYOUT LINE
 $\Delta = 21^\circ-45'-02"$
 $R = 1216.83'$
 $T = 233.78'$
 $L = 461.93'$

DATE	BY

PLAN
 SURVEYED
 PLOTTED
 ALIGNMENT CHECKED
 RT. OF WAY CHECKED
 NO. NO.

DATE	BY

PROFILE
 SURVEYED
 PLOTTED
 GRADES CHECKED
 STRUCTURE NOTATIONS CHECKED
 NO. NO.



SHEET TOTAL
568
14252

12

B. P. R. DIV. NO.	STATE	FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
7	CALIF	S-1249 (2)	13	44

DIST	COUNTY	ROUTE	SEC	SHEET NO.	TOTAL SHEETS
08	RIV	1249	CR	13	44

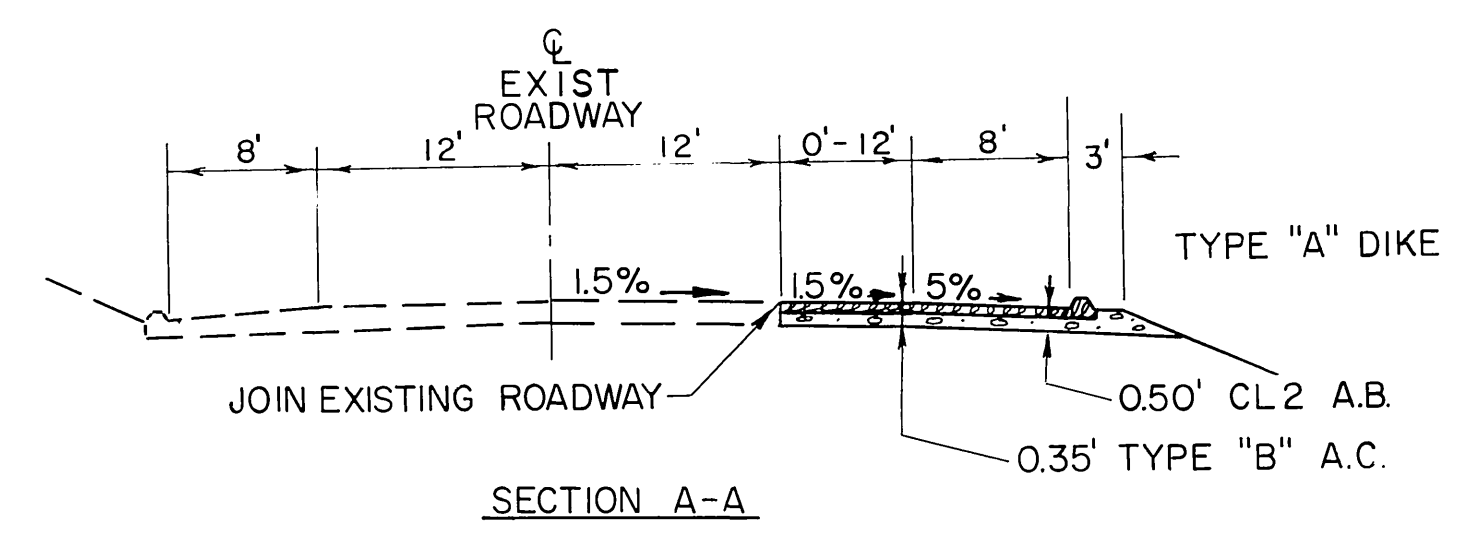
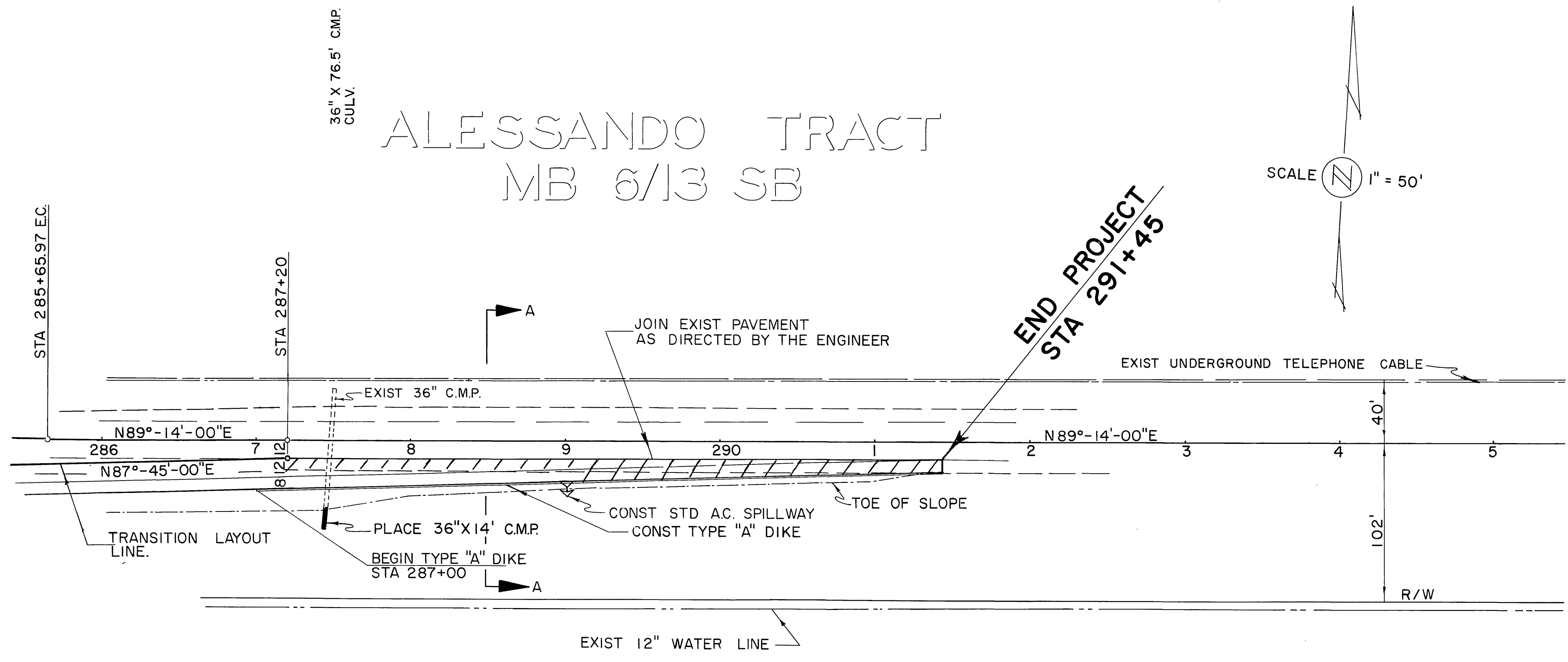
ROAD COMMISSIONER *A. C. Keith* R.C.E. NO. 4388
 DISTRICT ENGINEER *Paul Han* DIST 08
 APPROVED August 29, 1966, 1966
 CITY & COUNTY PROJECT ENGINEER *Paul Han* R.C.E. NO. 6522

ALESSANDRO TRACT MB 6/13 SB

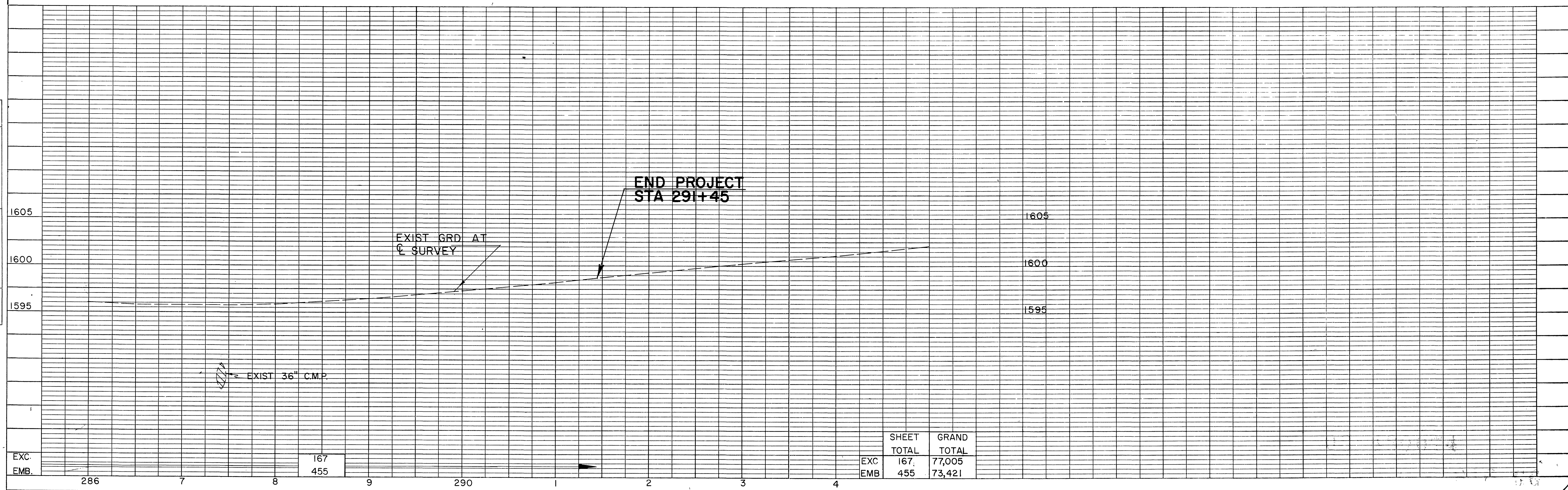
SCALE 1" = 50'

NOTE: ALL WATER & GAS VALVES TO BE ADJUSTED BY OTHERS.

PLAN	SURVEYED	DATE
NOTE BOOK NO.	ALIGNMENT CHECKED	
	RT. OF WAY CHECKED	



PROFILE	SURVEYED	DATE
NOTE BOOK NO.	GRADES CHECKED	
	B. M.'S NOTED	
	STRUCTURE NOTATIONS CHKD.	



EXC.	167	SHEET TOTAL	77,005
EMB.	455	GRAND TOTAL	73,421

B.P.R. DIV. NO.	STATE	FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
7	CALIF	S-1249(2)	14	44

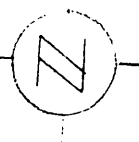
DIST	COUNTY	ROUTE	SEC	SHEET NO.	TOTAL SHEETS
08	RIV	1249	CP	14	44

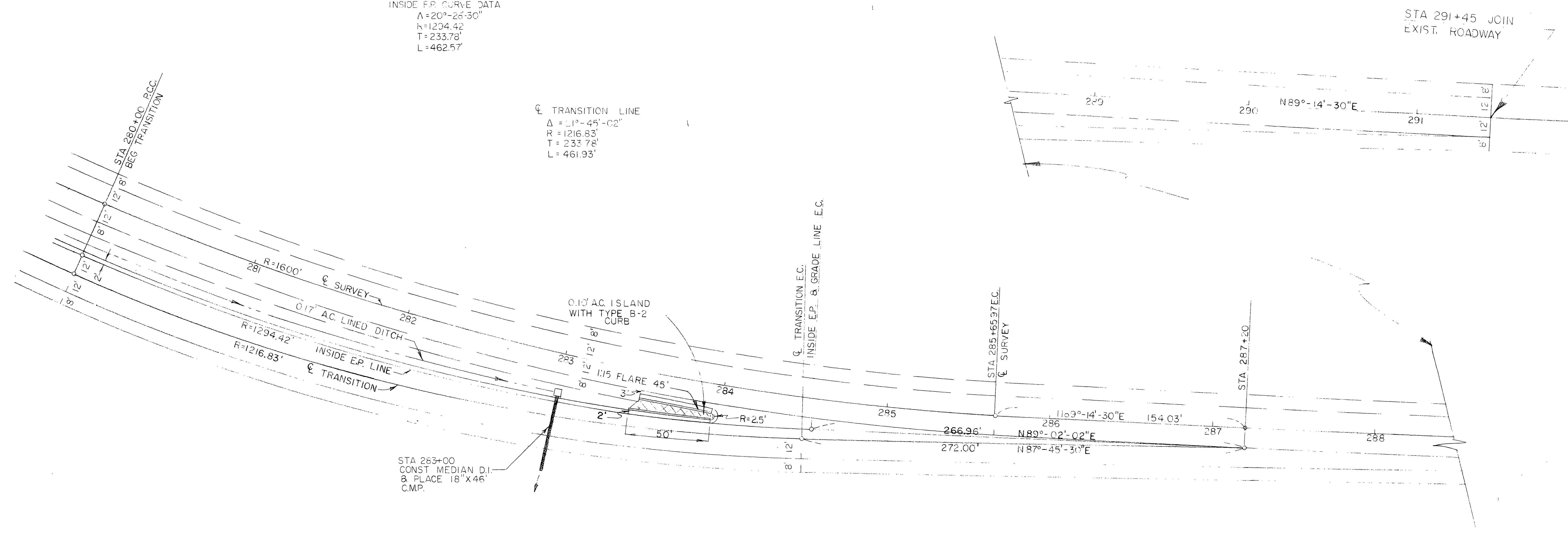
R.C.E. NO 4388
 ROAD COMMISSIONER
 DISTRICT ENGINEER
 APPROVED August 29, 1966
 CITY & COUNTY PROJECT ENGINEER R.C.E. NO 6522

☉ SURVEY
 $\Delta = 119^{\circ} - 16' - 02''$
 $R = 1600'$
 $T = 289.97'$
 $L = 565.97'$

INSIDE E.P. CURVE DATA
 $\Delta = 20^{\circ} - 28' - 30''$
 $R = 1234.42'$
 $T = 233.78'$
 $L = 462.57'$

☉ TRANSITION LINE
 $\Delta = 119^{\circ} - 45' - 02''$
 $R = 1216.83'$
 $T = 233.78'$
 $L = 461.93'$

SCALE  1" = 30'



STA 263+00
 CONST. MEDIAN D.I.
 & PLACE 18" X 46"
 C.M.P.

**STRIPING
 TRANSITION DETAILS
 AT
 STA 280+00 TO STA 291+45**

08-480074

846 GG

R-888

29

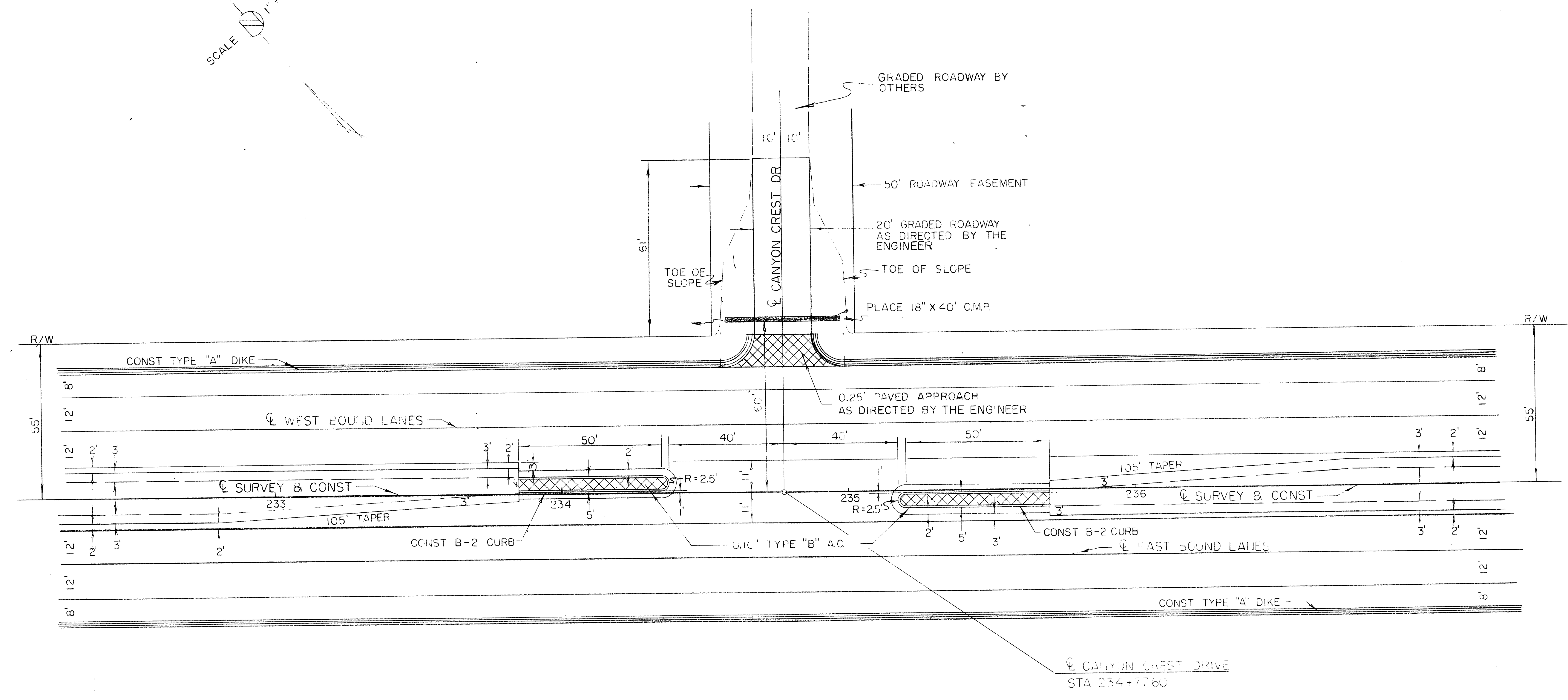
A.C. Keith
ROAD COMMISSIONER R.C.E. NO 4388

John Lane
DISTRICT ENGINEER DIST 08

APPROVED *August 20*, 1966

Ed. P. ...
CITY & COUNTY PROJECT ENGINEER R.C.E. NO 6522

SCALE 1" = 20'



**MEDIAN OPENING DETAIL
AT
STA 234+77.60 CANYON CREST DRIVE**

08-480074

846 CG

R-888

15

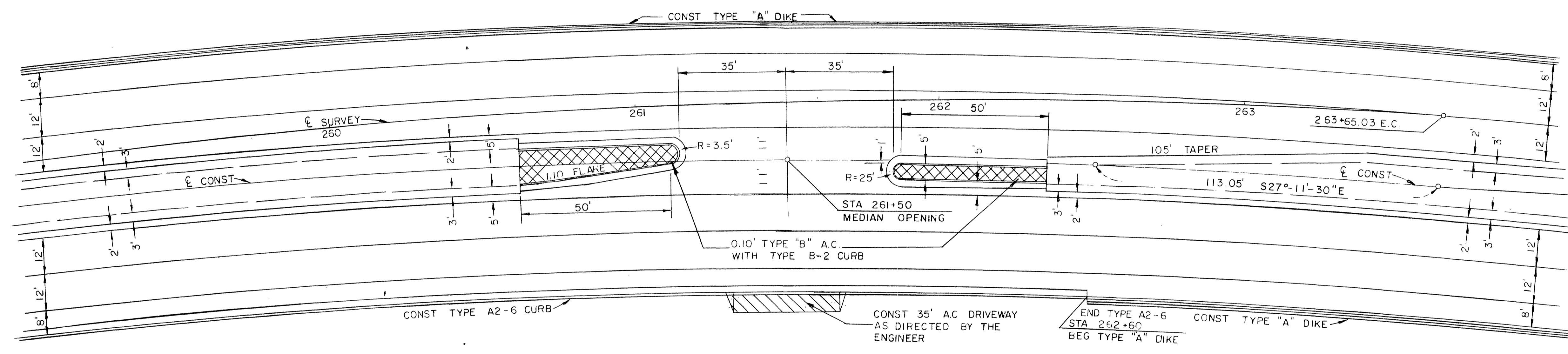
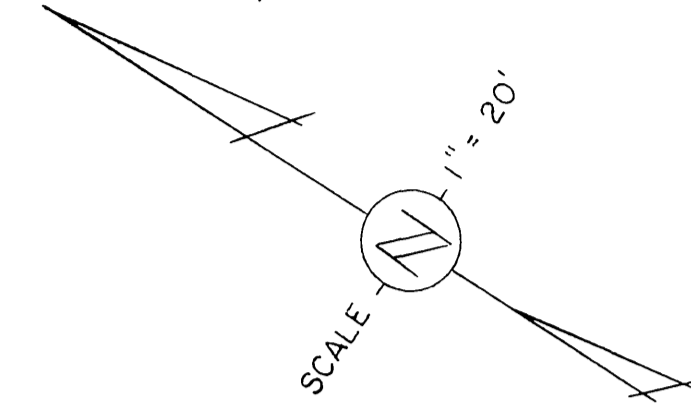
DIST	COUNTY	ROUTE	SEC	SHEET NO.	TOTAL SHEETS
08	RIV	1249	CR	16	44

A. C. Keith
ROAD COMMISSIONER R. C. E. NO 4388

DISTRICT ENGINEER [Signature] DIST 08

APPROVED August 29, 1966

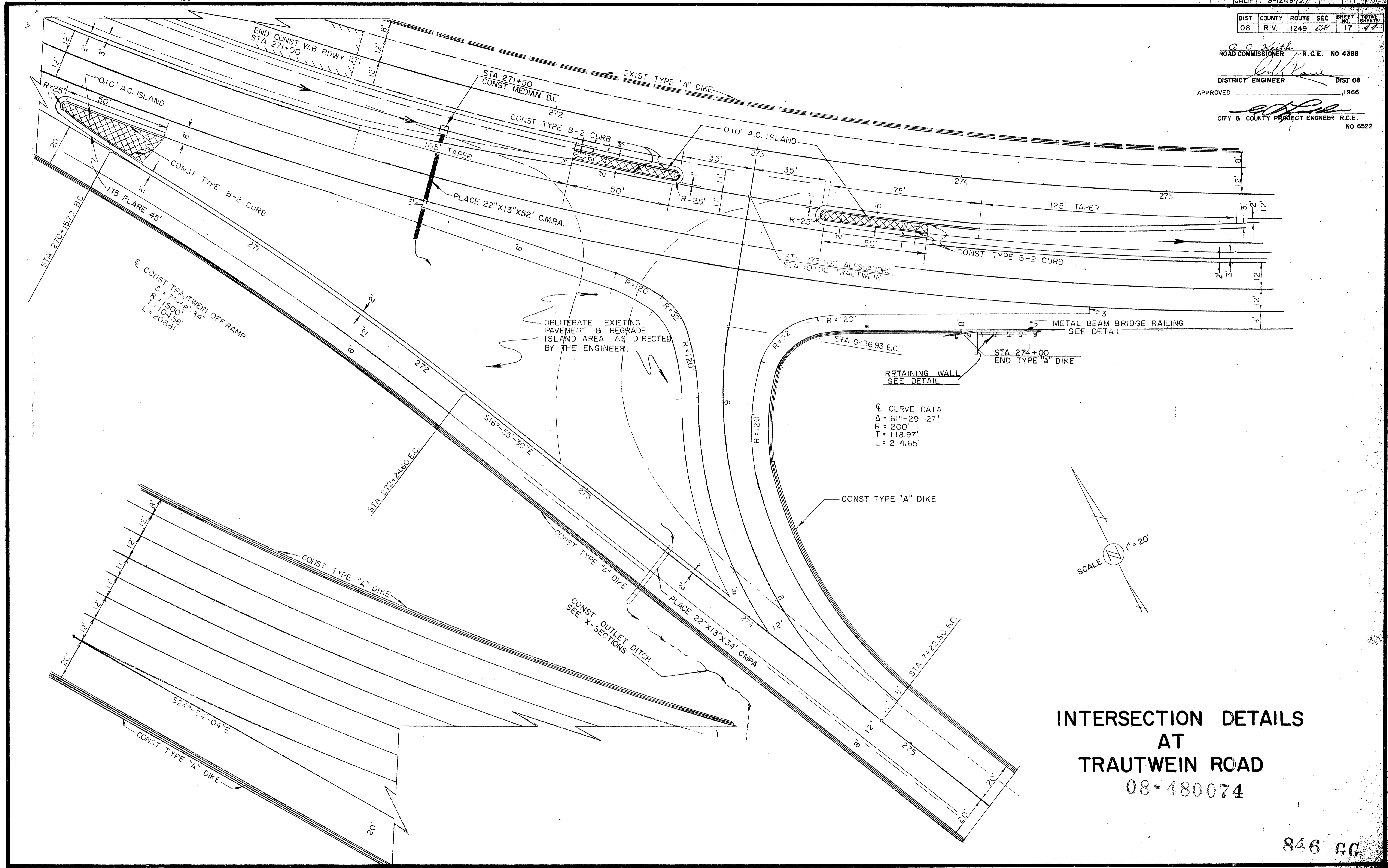
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CITY & COUNTY PROJECT ENGINEER R. C. E. NO 6522



MEDIAN OPENING DETAILS
AT 08-180074
STA 261+50

846 GG
R-888

16



**INTERSECTION DETAILS
 AT
 TRAUTWEIN ROAD
 08-480074**

846 GG
 R-888

17

B.P.R. NO.	STATE	FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
7	CALIF	S-1249 (2)	18	44

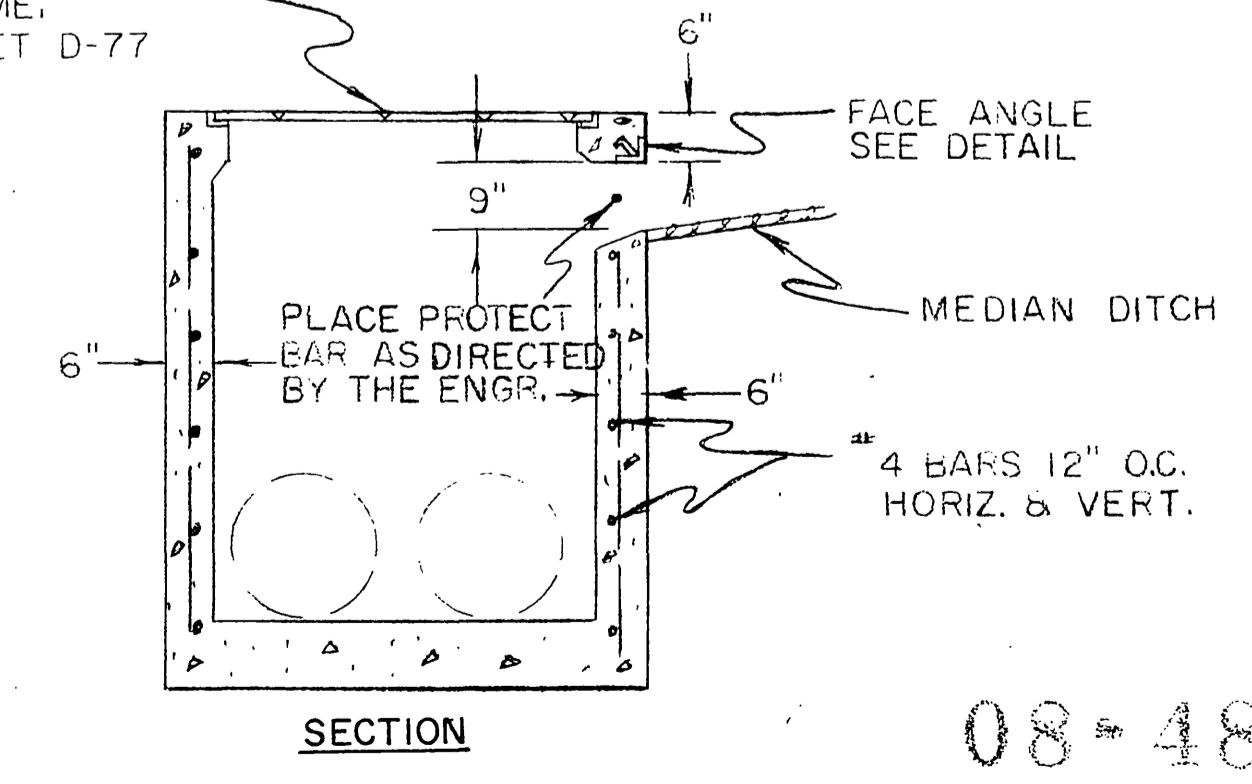
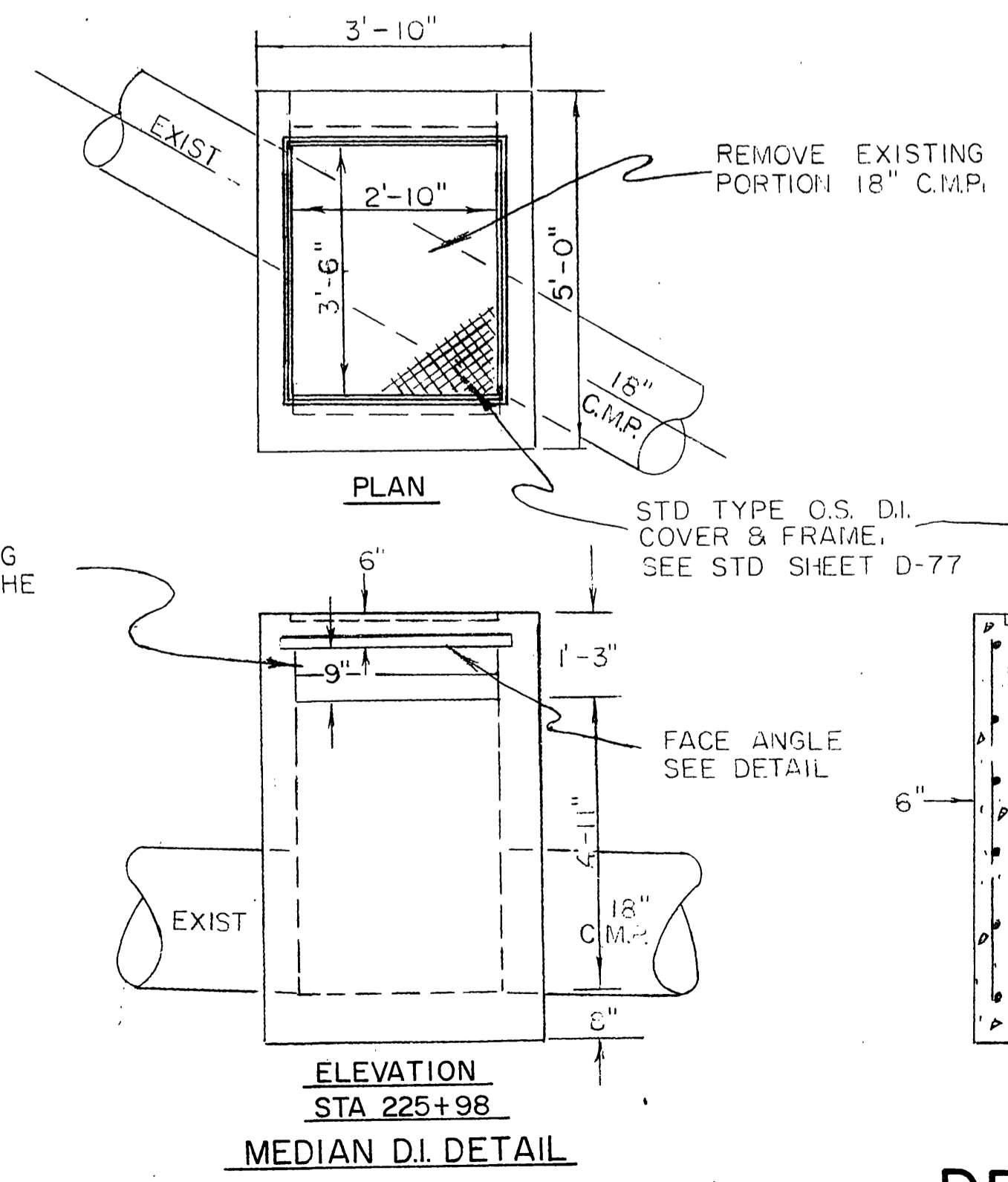
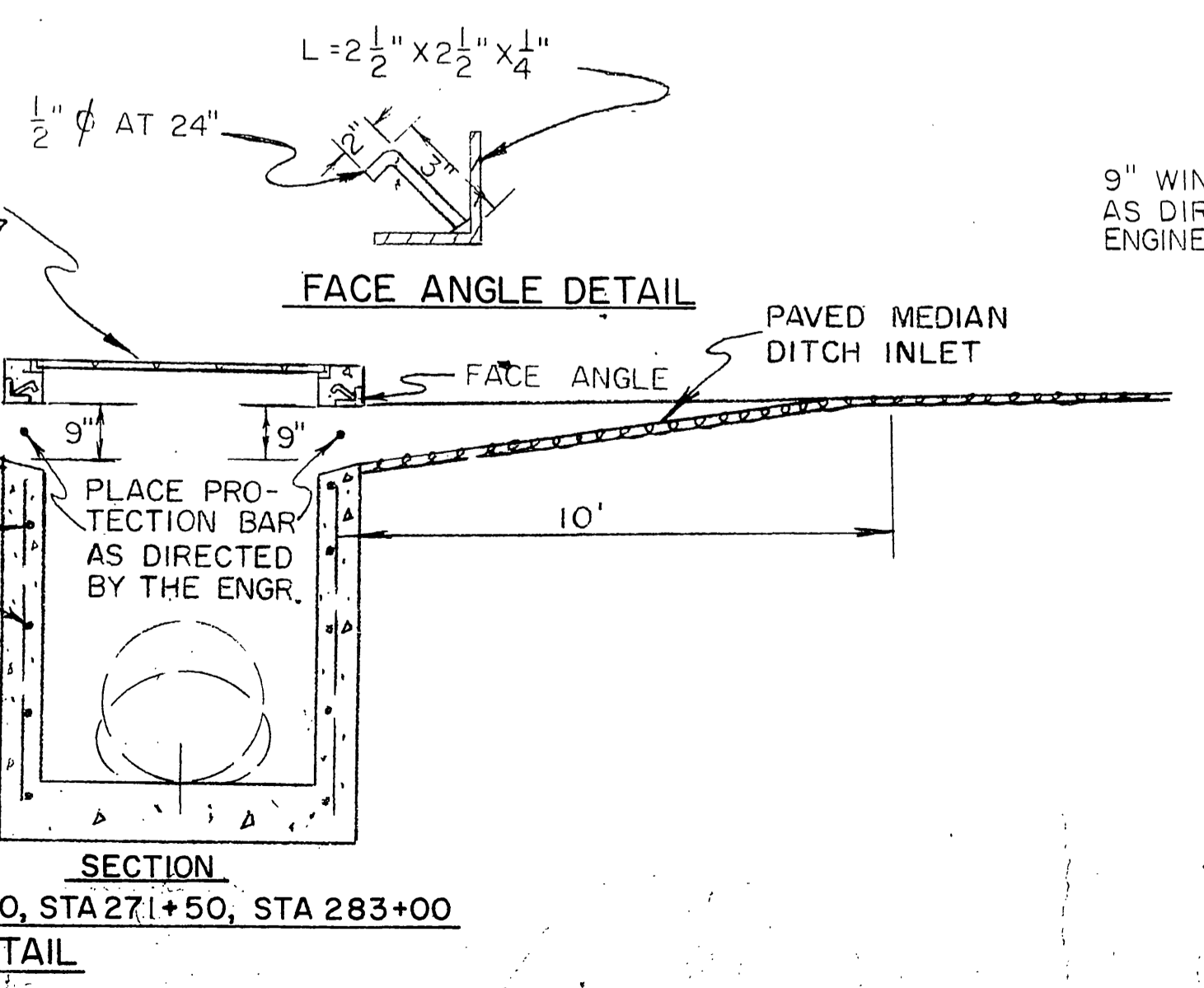
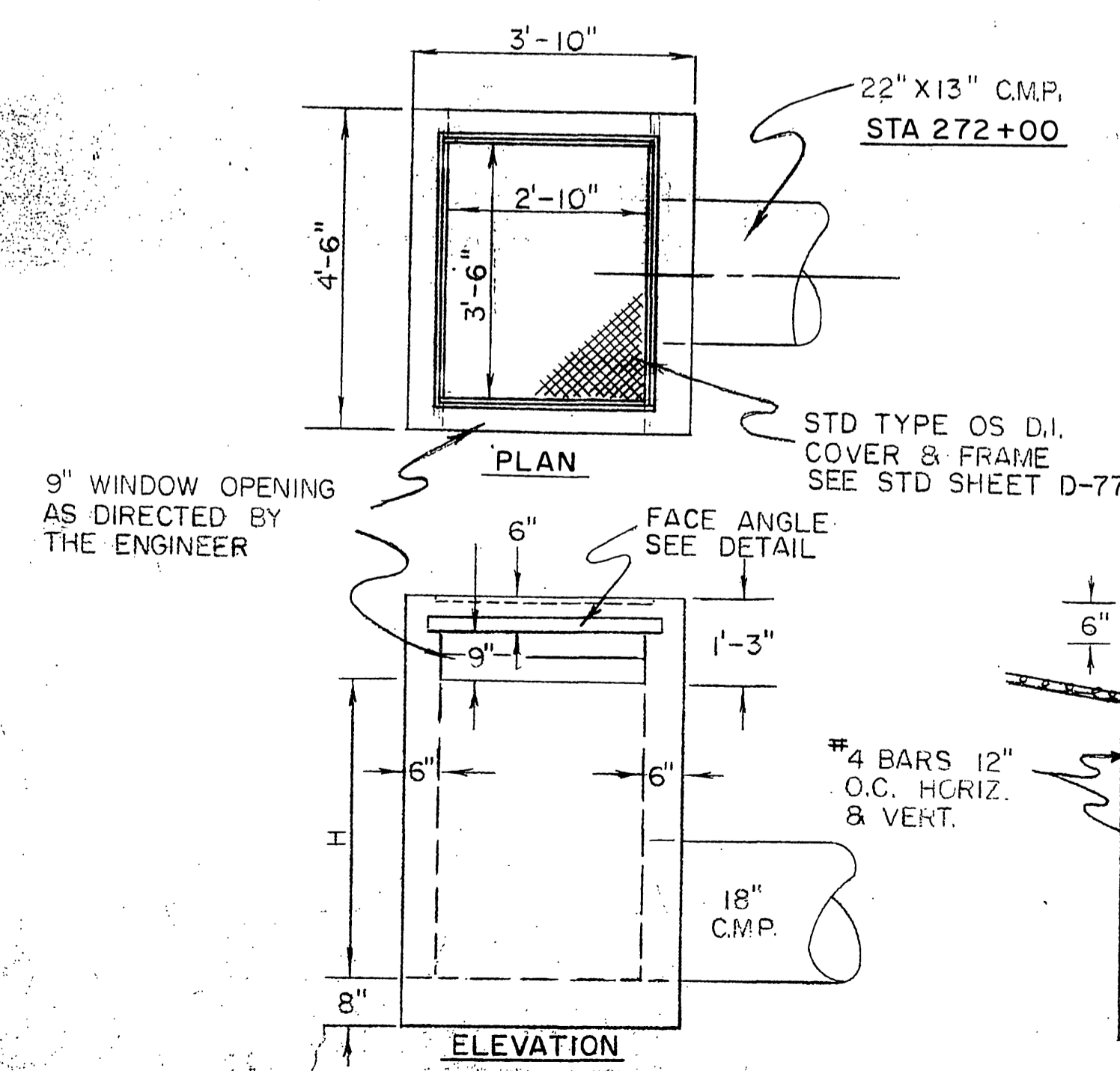
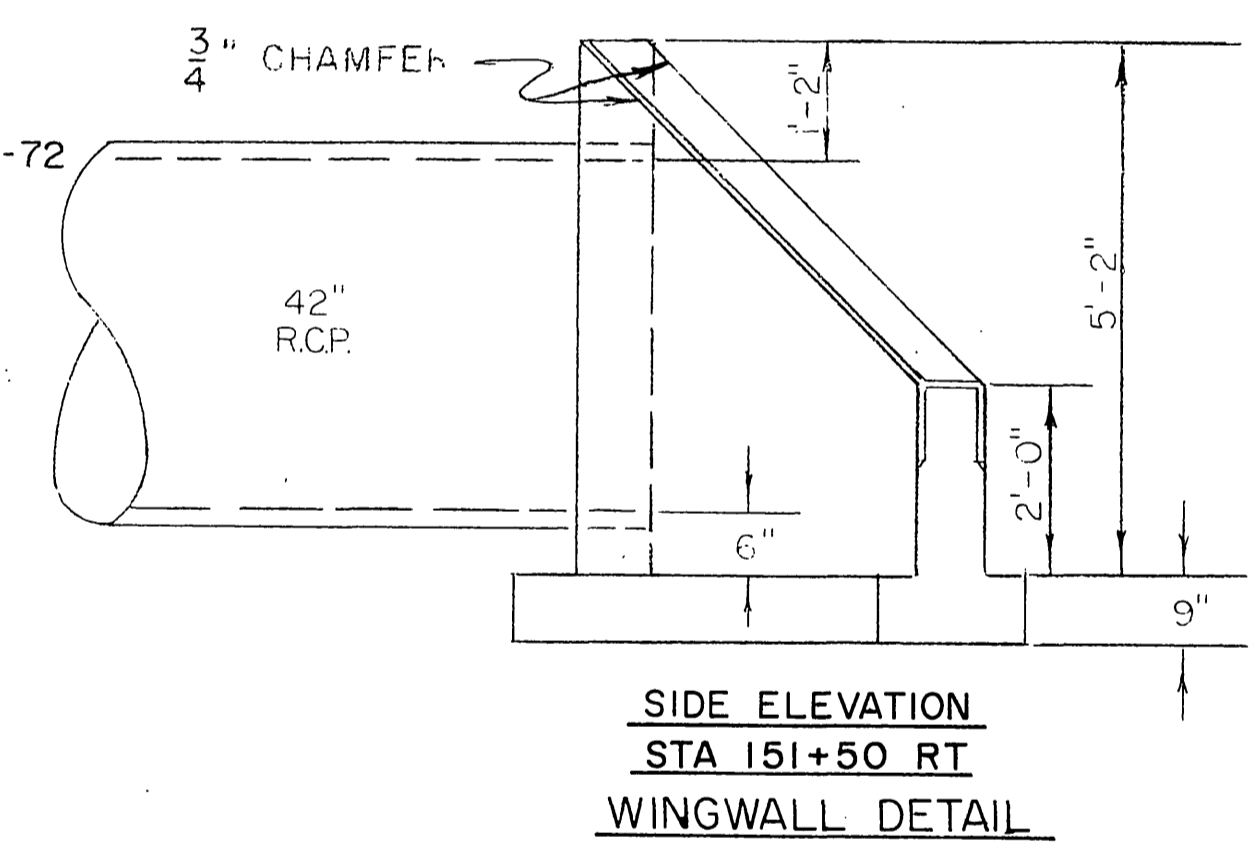
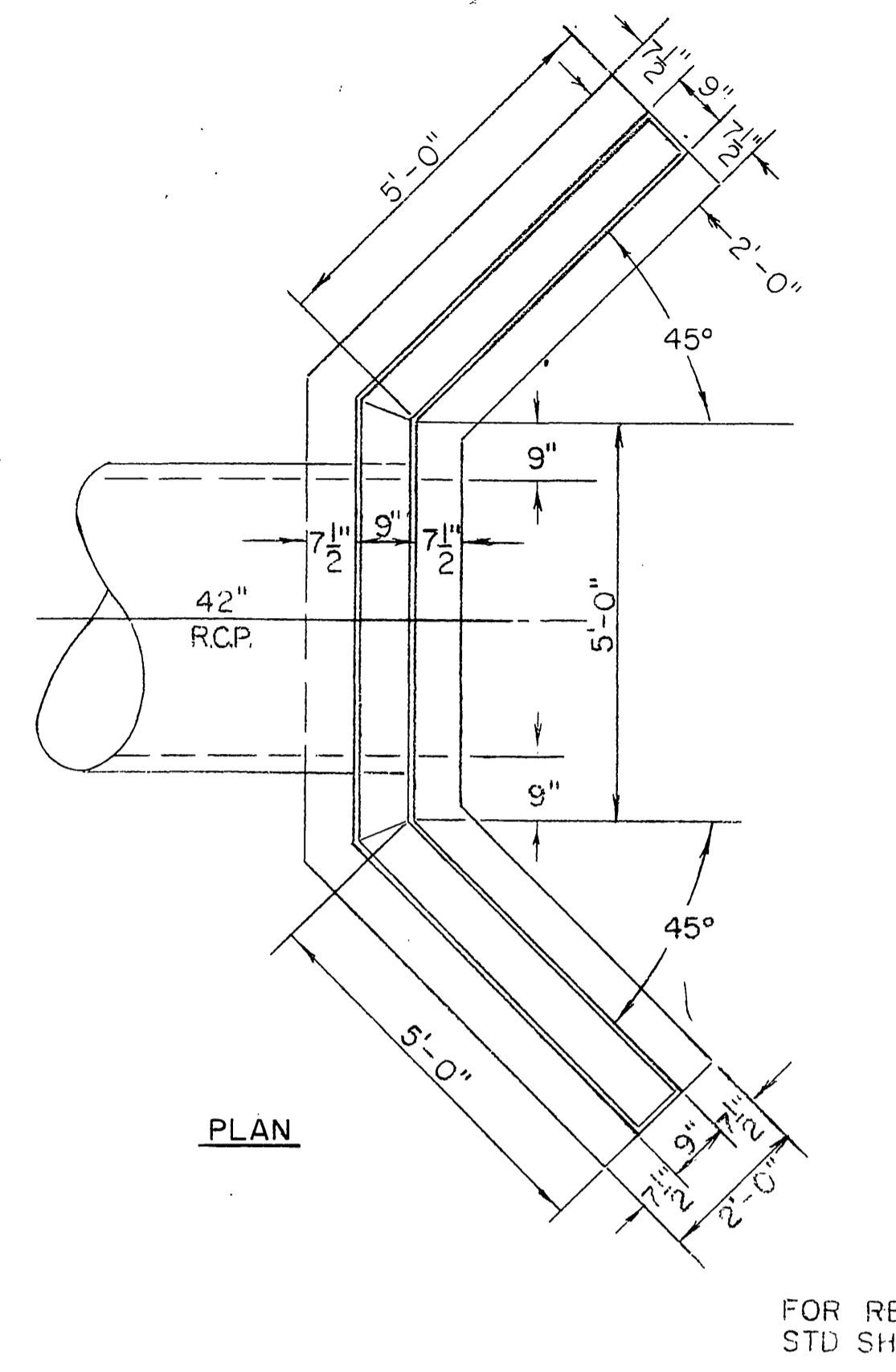
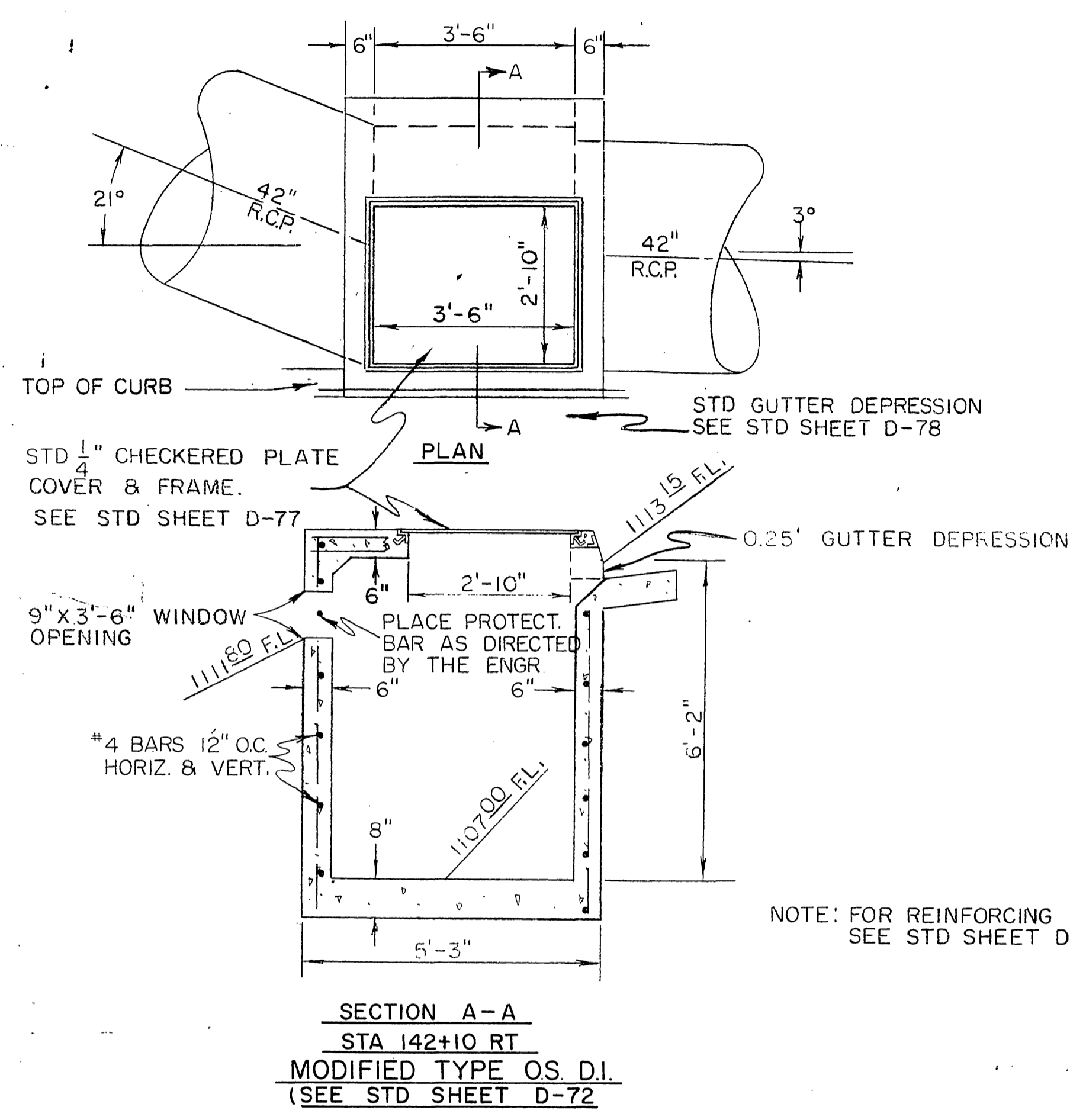
DIST	COUNTY	ROUTE	SEC	SHEET NO.	TOTAL SHEETS
08	RIV	1249	CR	18	44

A. C. Keith
 ROAD COMMISSIONER R.C.E. NO 4388

J. H. Kamm
 DISTRICT ENGINEER DIST 08

APPROVED August 29, 1966, 1966

CITY & COUNTY PROJECT ENGINEER R.C.E. NO 6522

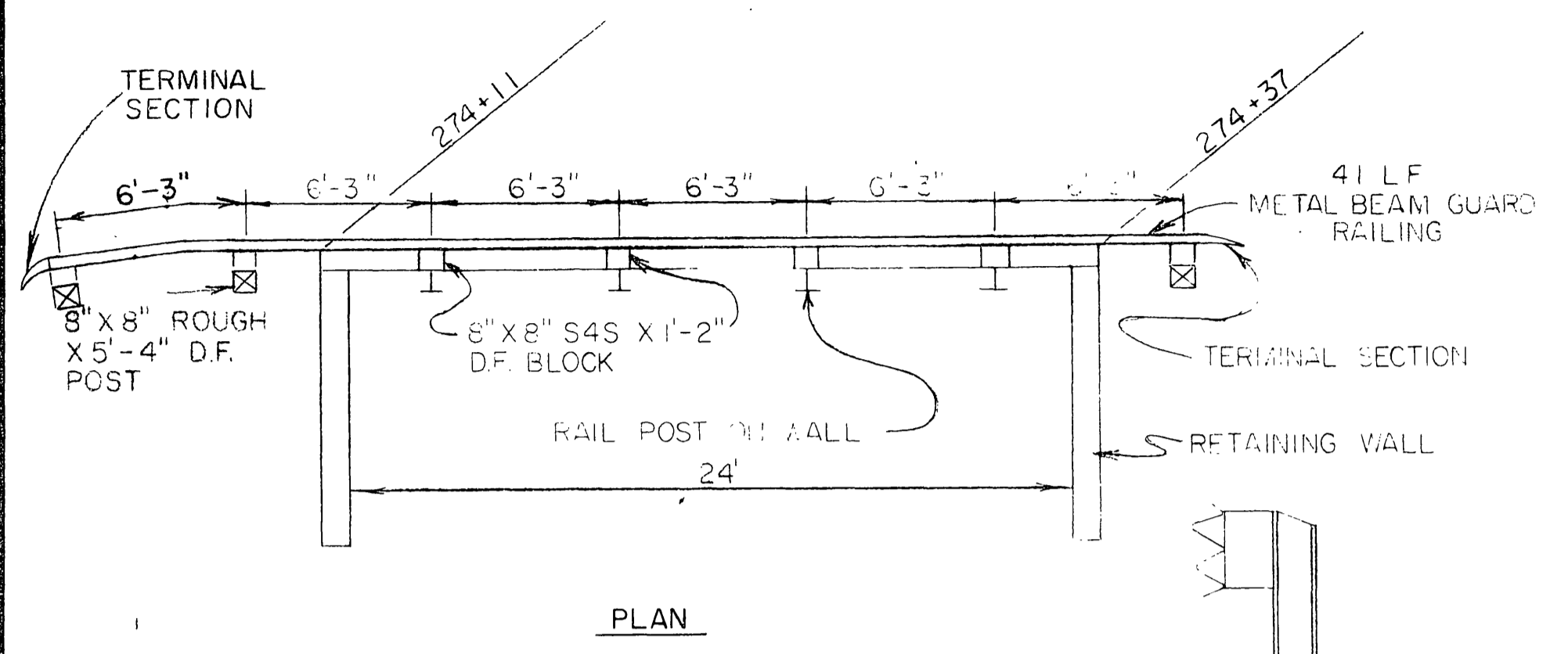


08-480074

DRAINAGE STRUCTURE DETAILS

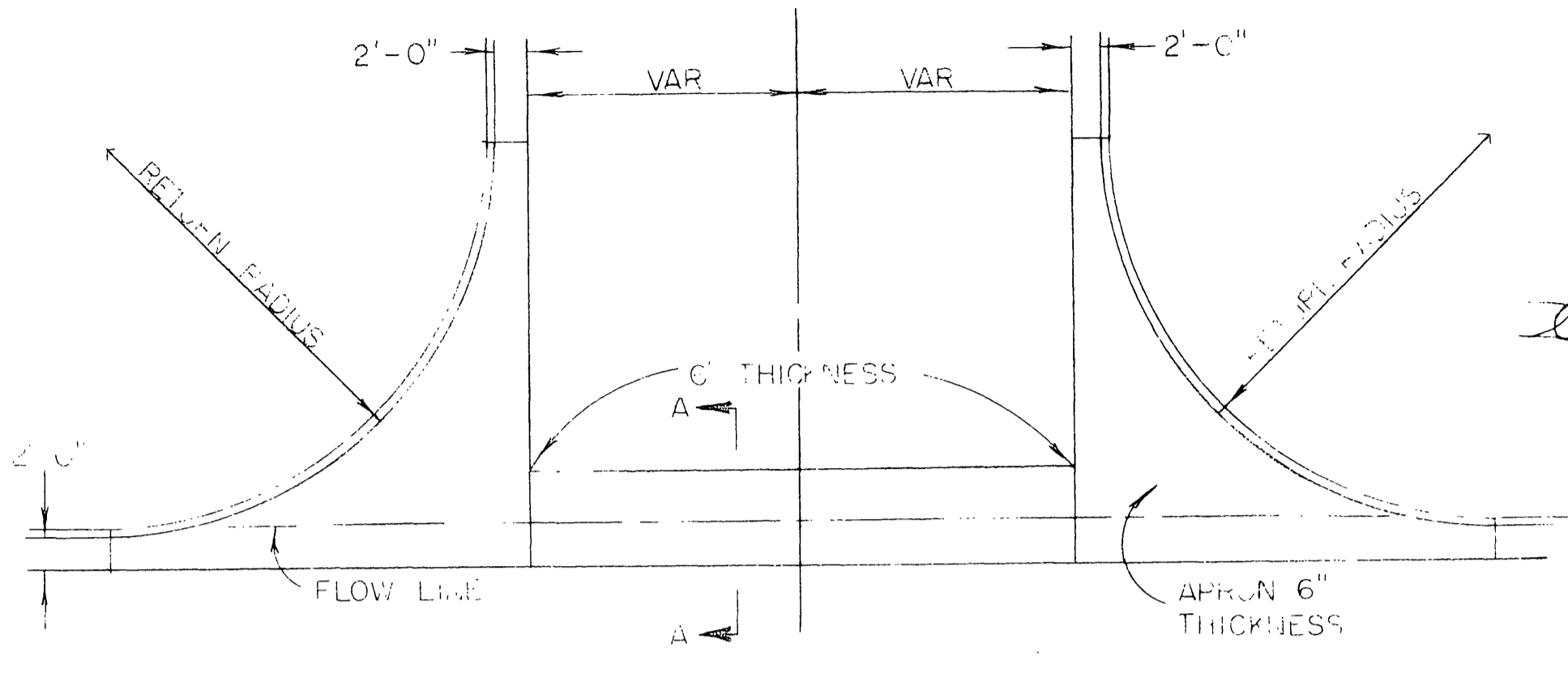
SCALE 1" = 2'

A. C. Keith
 ROAD COMMISSIONER R.C.E. NO 4388
 DISTRICT ENGINEER *[Signature]* DIST 08
 APPROVED August 29, 1966
 CITY & COUNTY PROJECT ENGINEER R.C.E. NO 6522

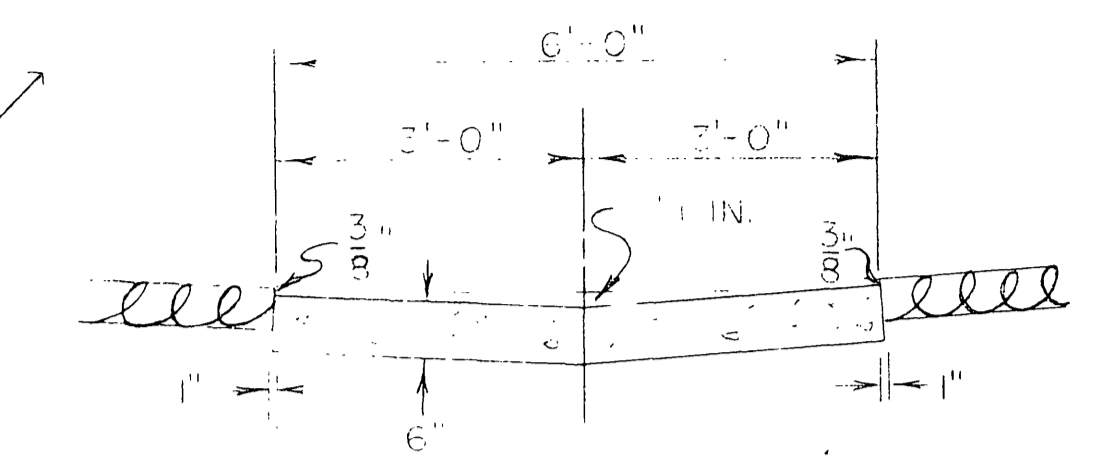


STA 274+09 TO STA 274+41
 RETAINING WALL
 POST & GUARD RAILING DETAIL

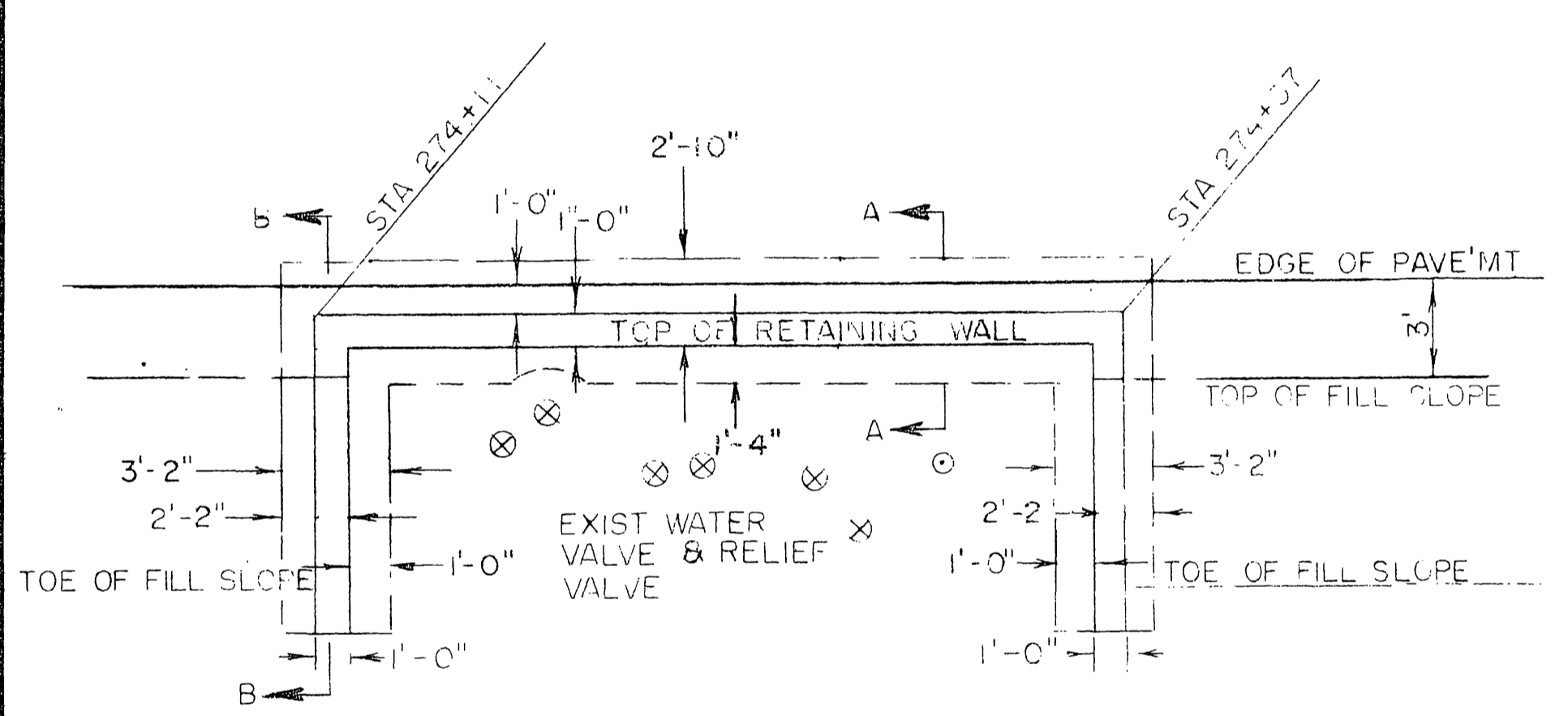
RAIL POST ON WALL
 SEE STD XS-9-62
 METAL BEAM BRIDGE
 RAILING



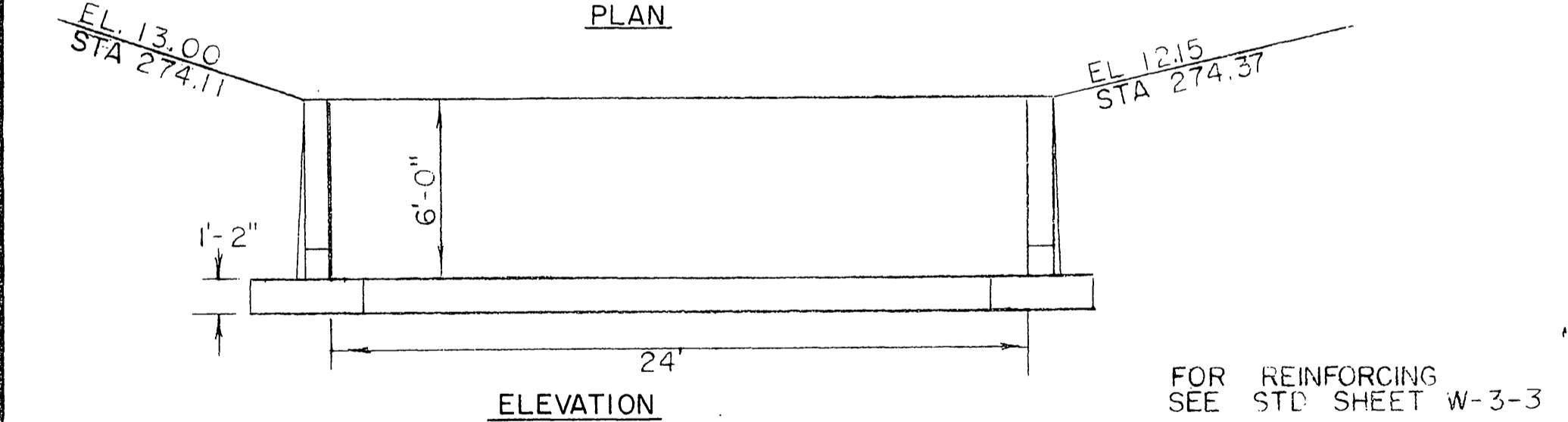
CROSS GUTTER DETAIL
 SCALE 1"=10'



SECTION A-A
 SCALE 1"=2'

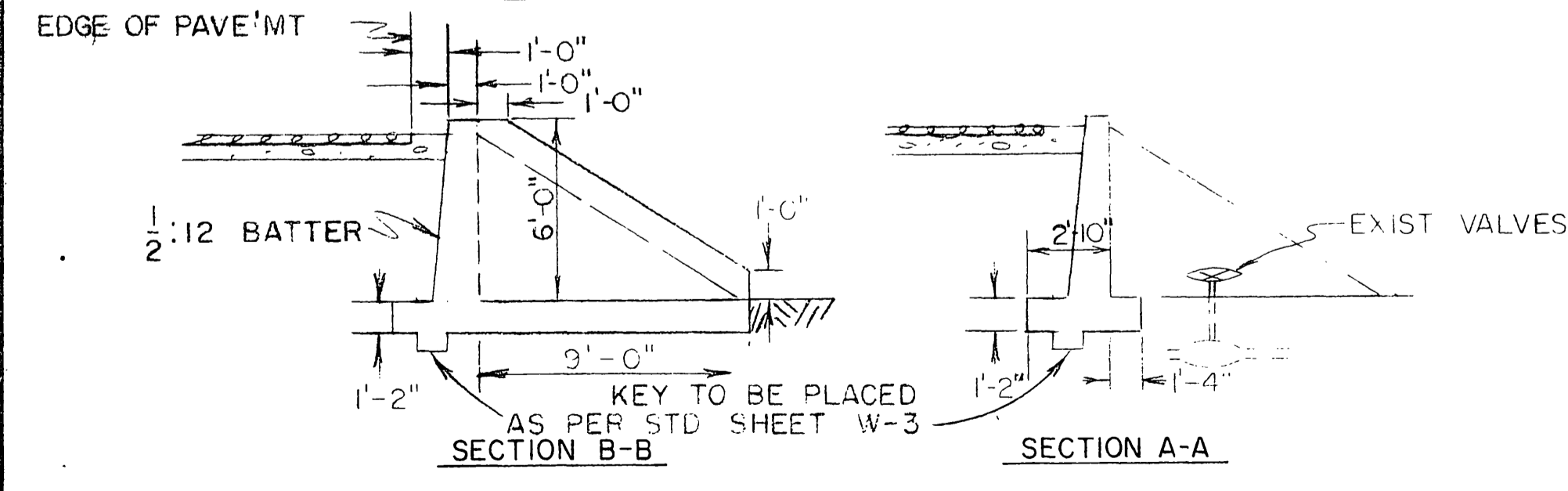


PLAN

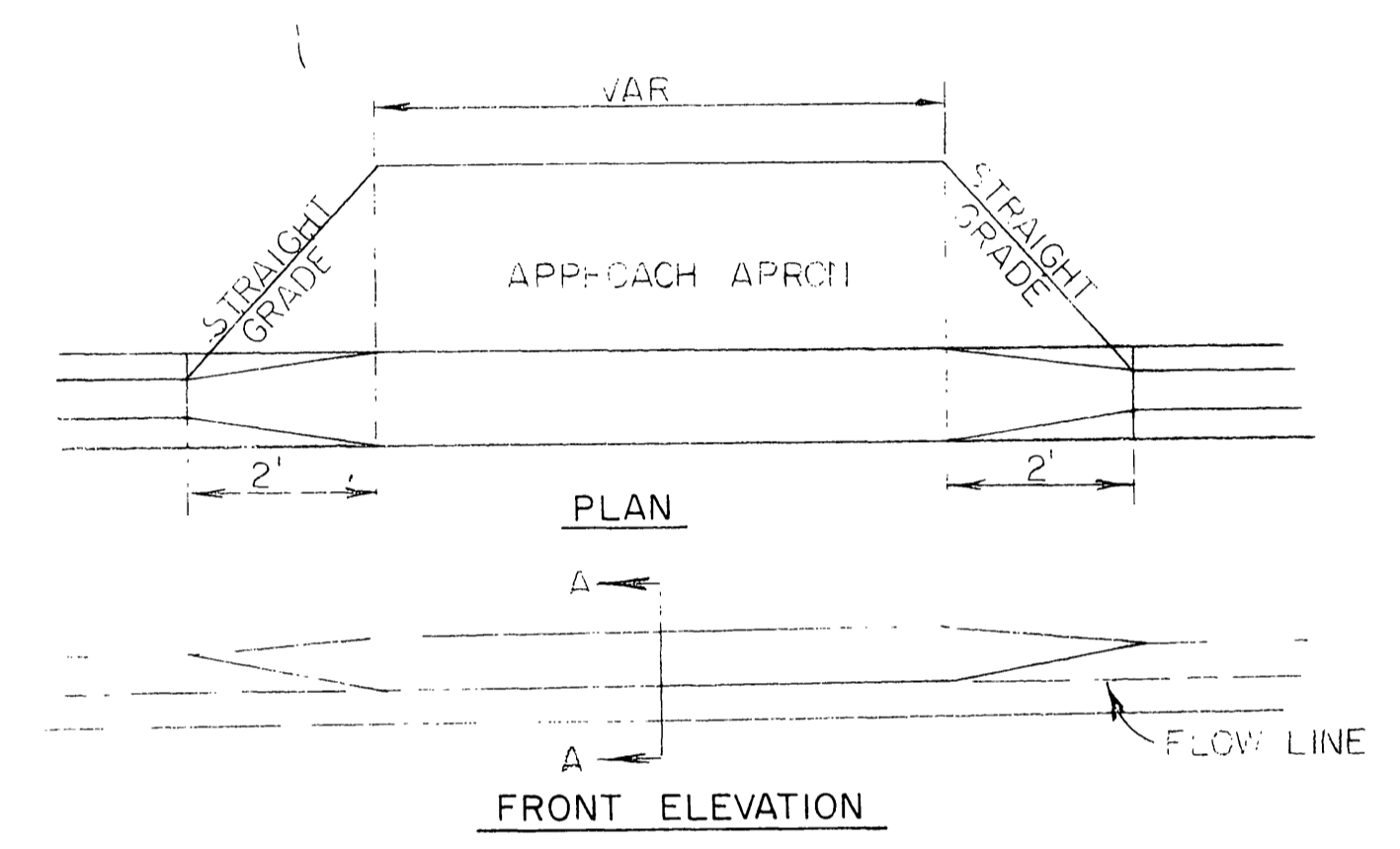


ELEVATION

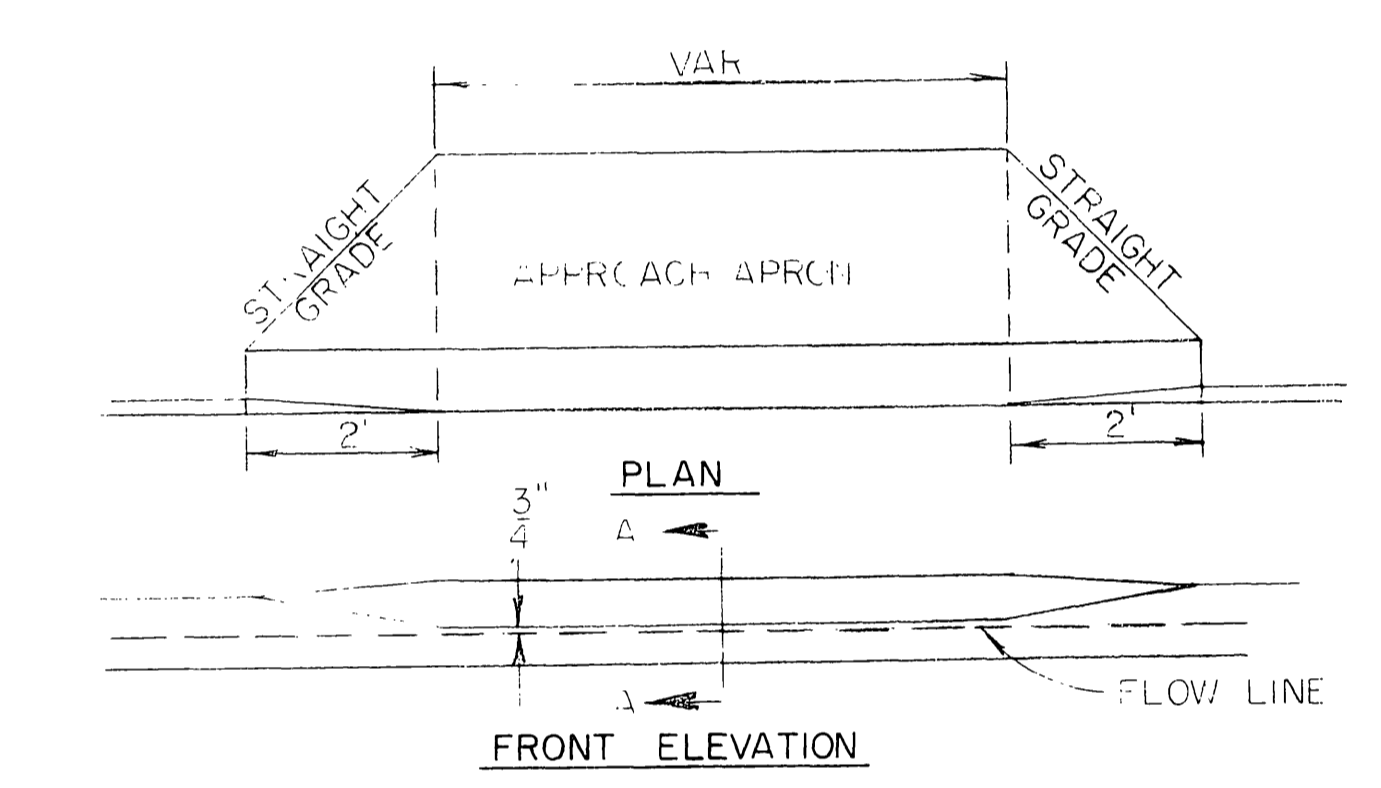
FOR REINFORCING
 SEE STD SHEET W-3-3



STA 274+09 TO STA 274+41
 RETAINING WALL
 POST & GUARD RAILING DETAIL



SECTION A-A
 DEPRESSED DIKE DETAIL
 SCALE 1"=2'



SECTION A-A
 DEPRESSED CURB DETAIL
 SCALE 1"=2'

0.50' CONC OR AS
 DIRECTED BY THE
 ENGINEER

SEE SUMMARY OF DRAINAGE
 STRUCTURES FOR RETAINING
 WALL QUANTITIES

RETAINING WALL &
 MISCELLANEOUS STRUCTURE DETAILS

08-180074

846 GG

MISSING SHEET

NOTE:
The precise determination of the following items
will be made by the Engineer in the field:
STATION FLOW LINE ELEVATION
SKEW DEPTH OF STRUCTURE
LENGTH

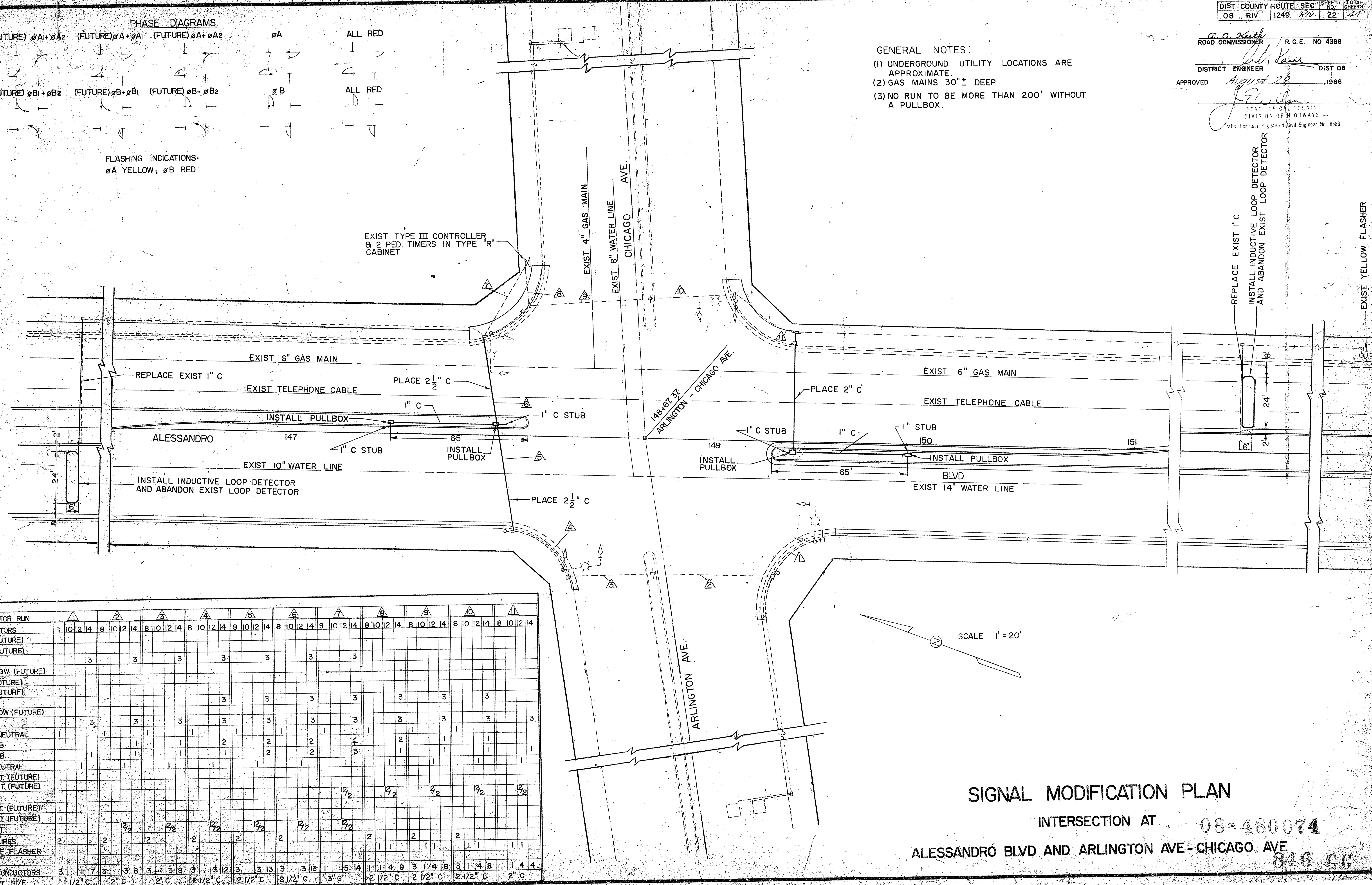
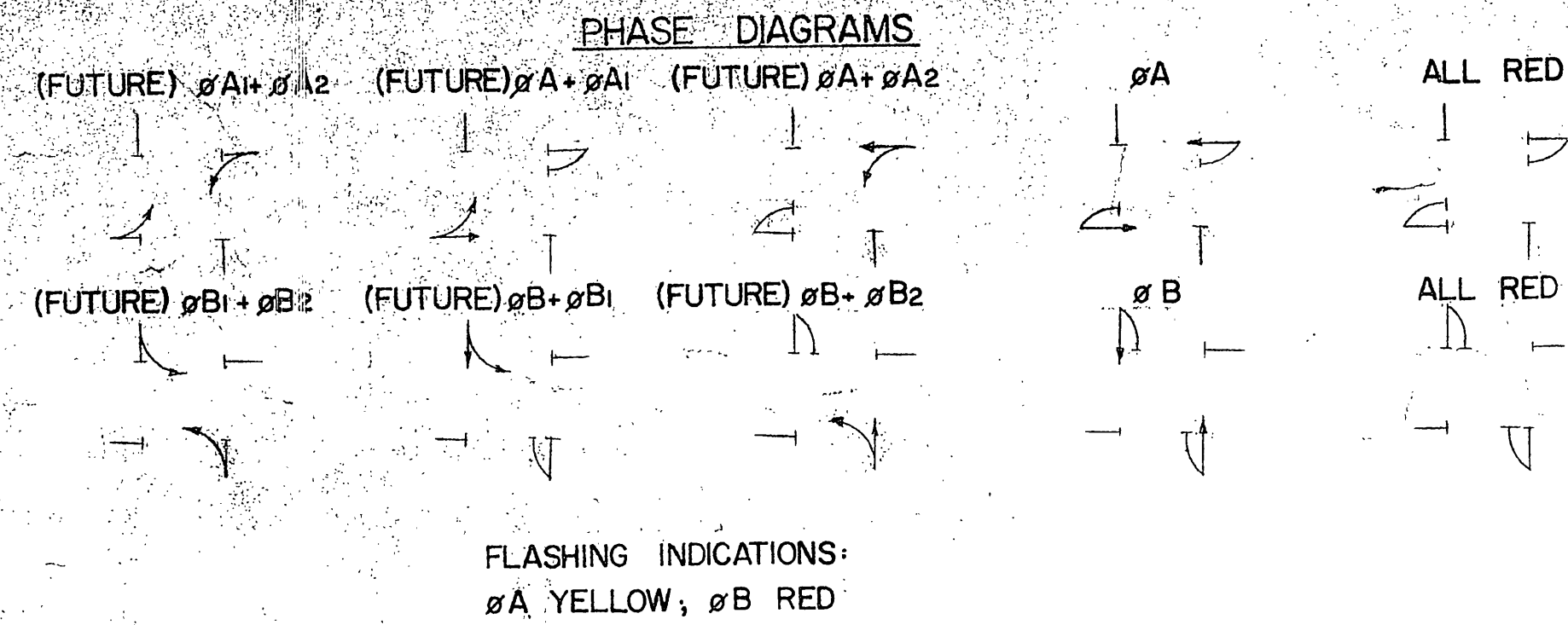
SUMMARY OF DRAINAGE STRUCTURES

A.C. Keith
ROAD COMMISSIONER R.C.E. NO. 4388
DISTRICT ENGINEER DIST 08
APPROVED August 29, 1966
CITY & COUNTY PROJECT ENGINEER R.C.E. NO. 6522

1/2" CHECKERED COVER & FRAME	MISCELLANEOUS IRON & STEEL LBS	CLASS "A" CONC. MINOR STRUCT. C.Y.	CLASS "M" CONC. STRUCTURES, C.Y.	BAR REINF. STEEL, LBS	DITCH & CHANNEL EXCAV, C.Y.	STRUCTURE EXCAV, C.Y.	STRUCTURE BACKFILL, C.Y.	PIPE LENGTHS							INSIDE WIDTH OF STRUCTURE OPENING DEPTH "H" OF STRUCTURE	WING WALLS, HEAD WALLS, LENGTH		CULVERT DATA				DESCRIPTION	STATION			
								CORR METAL PIPE			22" x 13"	CMPA		RCP		INLET	OUTLET	GAGE	APPROX F.L. ELEVATIONS		MIN SLOPE %			SKEW, DEGREES	LENGTH, FT.	
								18"	24"	36"		15"	18"	24"					42"	INLET						OUTLET
								18"	24"	36"		15"	18"	24"					42"	INLET						OUTLET
						8.8	6.1									14	61.02	59.00		24	1/3' RT - CONST STD. TYPE A.C. SPILLWAY	242+00				
						8.2	5.6									14	70.25	68.20		22	30' RT - PLACE 24" x 24" CMP	243+38				
																						30' LT - PLACE 24" x 22" CMP	243+48			
																						1/3' LT - CONST STD. TYPE A.C. SPILLWAY	244+00			
																						1/3' RT - CONST STD. TYPE A.C. SPILLWAY	244+70			
	1	184	1.04			15.8	11.6						2.83	2.50								CONST MEDIAN D.I. - SEE DETAIL	250+00			
																						PLACE 18" x 52' CMP	250+00			
																						CONST A.C. SPILLWAY FROM 18" x 52' CMP - SEE X-SECTIONS	250+00			
																						1/3' LT - CONST STD. TYPE A.C. SPILLWAY	251+25			
																						Q CONST - CONST 0.17' MEDIAN LINED DITCH - SEE X-SECTIONS	253+25 TO 260+60			
																						Q CONST - CONST 0.17' MEDIAN LINED DITCH	262+50 TO 272+00			
																						1/3' LT Q CONST - CONST STD TYPE A.C. SPILLWAY	264+00			
																						1/3' RT Q CONST - CONST STD TYPE A.C. SPILLWAY	264+50			
																						1/3' LT Q CONST - CONST STD TYPE A.C. SPILLWAY	266+50			
						49.6	34.9									14	16.50	14.50	8° Rt	120		PLACE 24" x 120' CMP	266+75			
	1	184	1.04									2.83	1.15									Q CONST - CONST MEDIAN D.I. - SEE DETAIL	271+50			
						16.3	9.6				52											Q CONST RT - PLACE 22" x 13" x 52' CMPA	271+50			
																						Q CONST - CONST 0.17' MEDIAN LINED DITCH	274+30 TO 283+00			
																						Q CONST 47' TO 50' RT - CONST RETAINING WALL - SEE DETAIL	274+09 TO 274+41			
				17.5	763	54.3	20.4															PLACE 24" x 140' RCP CLASS III	280+10			
						117.0	83.2															Q SURVEY 20' RT - CONST MEDIAN D.I. - SEE DETAIL	283+00			
	1	184	1.27																			Q SURVEY 20' RT - PLACE 18" x 46' CMP	283+00			
						11.7	7.5						2.83	2.00								Q SURVEY 34' RT - PLACE 36" x 14' CMP	287+15			
						5.5	13.9															Q SURVEY 30' RT - CONST STD. TYPE A.C. SPILLWAY	289+00			
																						20' RT - CONST STD TYPE A.C. SPILLWAY	272+00 TRAUTWEIN OFF RAMP			
						8.5	6.5				34											PLACE 22" x 13" x 34' CMPA	273+50 TRAUTWEIN OFF RAMP			
						20																26' RT - CONST OUTLET DITCH - SEE X-SECTIONS	273+50 TO 274+25 TRAUTWEIN OFF RAMP			
19	4055	45.13	17.5	763	46	1161.3	884.0				602	178	14			208				104	198	246	568			

A. C. Keith
 ROAD COMMISSIONER R.C.E. NO 4388
[Signature]
 DISTRICT ENGINEER DIST 08
 APPROVED August 29, 1966
[Signature]
 STATE OF CALIFORNIA
 DIVISION OF HIGHWAYS
 Traffic Engineer Registered Civil Engineer No. 8585

- GENERAL NOTES:
 (1) UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE.
 (2) GAS MAINS 30" ± DEEP.
 (3) NO RUN TO BE MORE THAN 200' WITHOUT A PULLBOX.

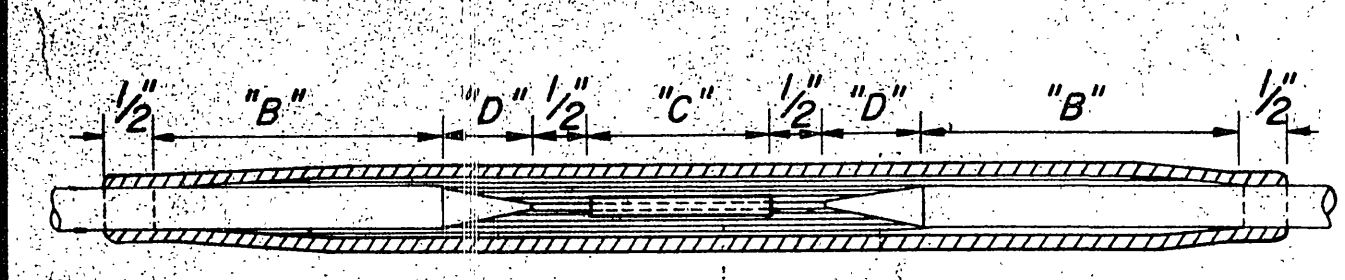


CONDUCTOR RUN	A				B				C				D				E				F							
CONDUCTORS	8	10	12	14	8	10	12	14	8	10	12	14	8	10	12	14	8	10	12	14	8	10	12	14	8	10	12	14
ϕA_1 (FUTURE)																												
ϕA_2 (FUTURE)																												
ϕA																												
ϕA W-DW (FUTURE)																												
ϕB_1 (FUTURE)																												
ϕB_2 (FUTURE)																												
ϕB																												
ϕB W-DW (FUTURE)																												
SPARES																												
120 V. NEUTRAL																												
ϕA PPB.																												
ϕB PPB.																												
12 V. NEUTRAL																												
ϕA_1 DET. (FUTURE)																												
ϕA_2 DET. (FUTURE)																												
ϕA DET.																												
ϕB_1 DET. (FUTURE)																												
ϕB_2 DET. (FUTURE)																												
ϕB DET.																												
LUMINAIRES																												
ADVANCE FLASHER																												
TOTAL CONDUCTORS	3	1	7	3	3	3	3	3	3	3	13	3	3	3	13	1	5	14	1	1	4	9	3	1	4	8	3	1
CONDUIT SIZE	1 1/2" C				2" C				2" C				2 1/2" C				2 1/2" C				3" C			2 1/2" C				

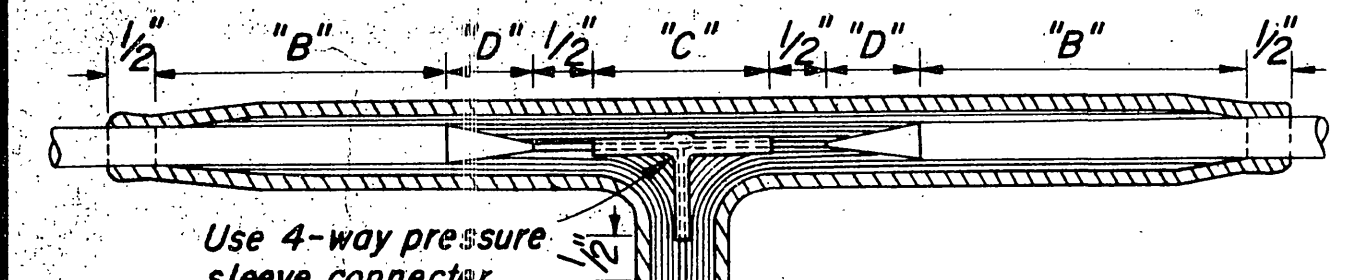
SIGNAL MODIFICATION PLAN
 INTERSECTION AT 08-480074
 ALESSANDRO BLVD AND ARLINGTON AVE - CHICAGO AVE
 846 GG

REG. No.	STATE	FEDERAL PROJECT No.	AREA
7	CALIF.		
DIST.	COUNTY	ROUTE	SECTION
OB	RVN	1249	OB, RVN
SHEET	TOTAL		
23	44		

December 1962
 APPROVED *[Signature]*
 Traffic Engineer Reg. Civil Eng. Lic. No. 8586
 August 29, 1966
 TO ACCOMPANY PLANS DATED



STRAIGHT SPLICE (600 V or 5000 V)



STRAIGHT SPLICE DIMENSIONS - Inches			
AWG	"B"	"D"	
600 Volt 14, 12 or 10 Solid	2"	1/2"	
600 Volt 8, 6 or 4 Stranded	2 1/2"	1/2"	
5000 Volt 8 Solid	3 1/4"	1"	

T-SPLICE DIMENSIONS - Inches			
AWG	"B"	"D"	
600 Volt 14, 12 or 10 Solid	2"	1/2"	

600 VOLT "T" SPLICE
 "C" = Connector length

PROCEDURE

- A. Remove insulation from each conductor to distance 1/2 C + 1/2" and pencil to dimension D. Roughen penciling.
- B. Train conductors and place connector, centering over butted cable ends
- C. Crimp connector. If crimping tool is not ratchet type, solder crimp connection.
- D. Insulate. Use method "A" on high voltage circuits unless otherwise specified.

INSULATING METHODS

Low Voltage Circuits (0-600 volts) Method "A"

1. Apply one coat of rubber cement and allow to dry.
2. Apply low voltage tape to a thickness equal to original insulation.

High Voltage Circuits (601-5000 volts) Method "A"

1. Apply one coat of rubber cement and allow to dry.
2. Apply high voltage tape to a thickness equal to original insulation.
3. Apply two layers of low voltage tape, half lapped.

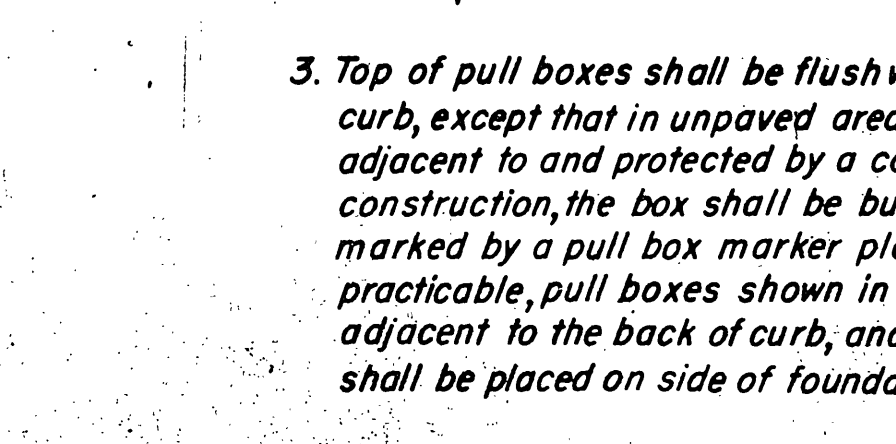
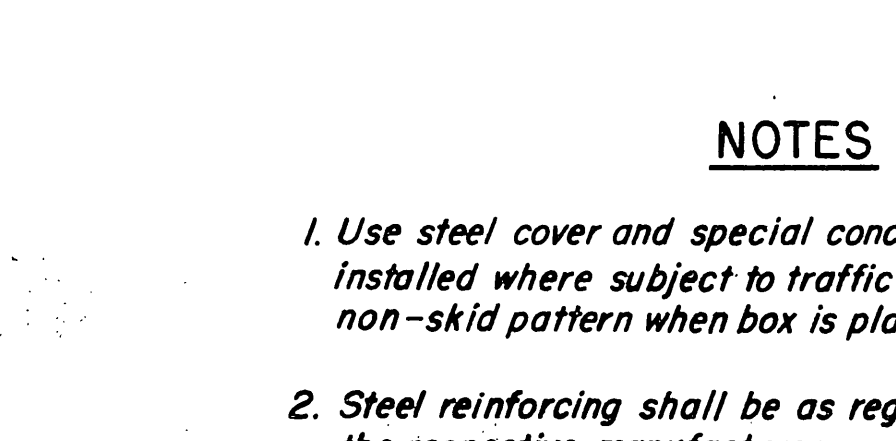
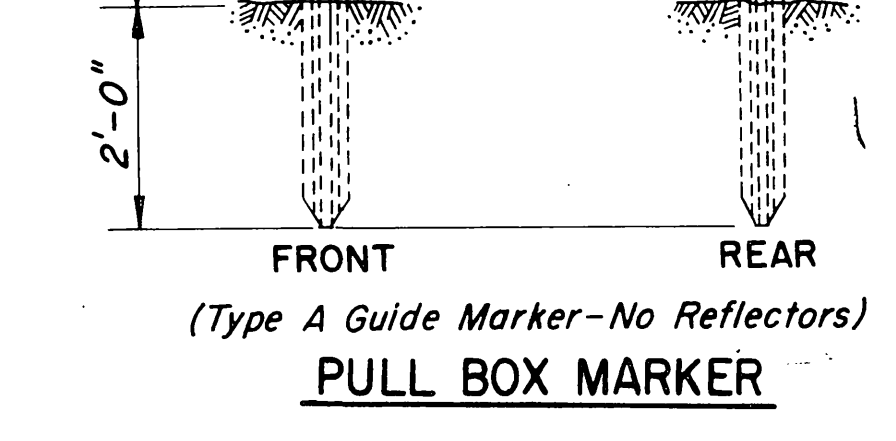
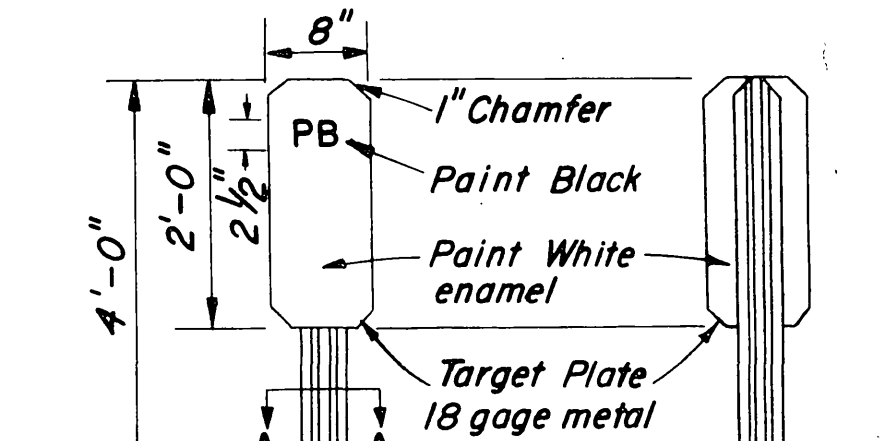
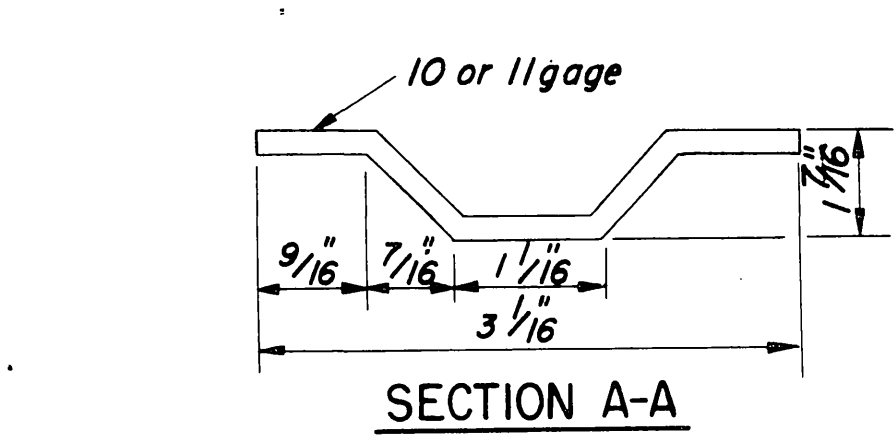
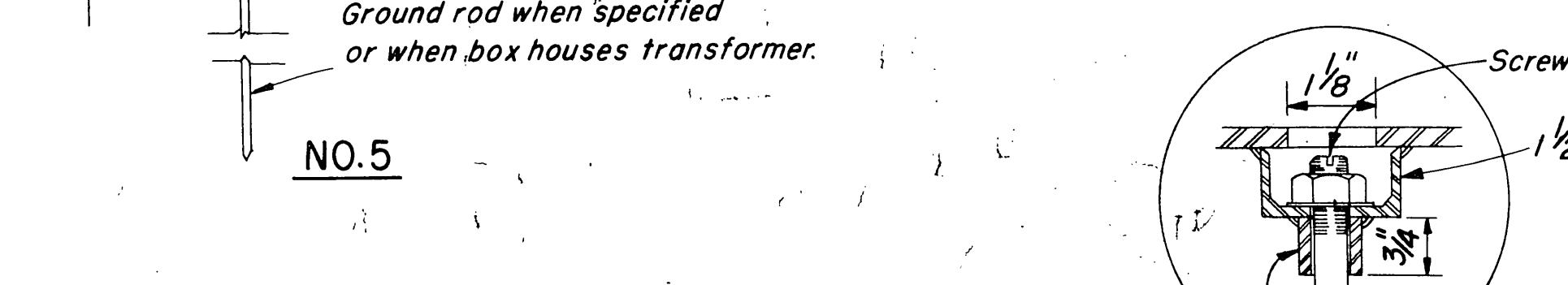
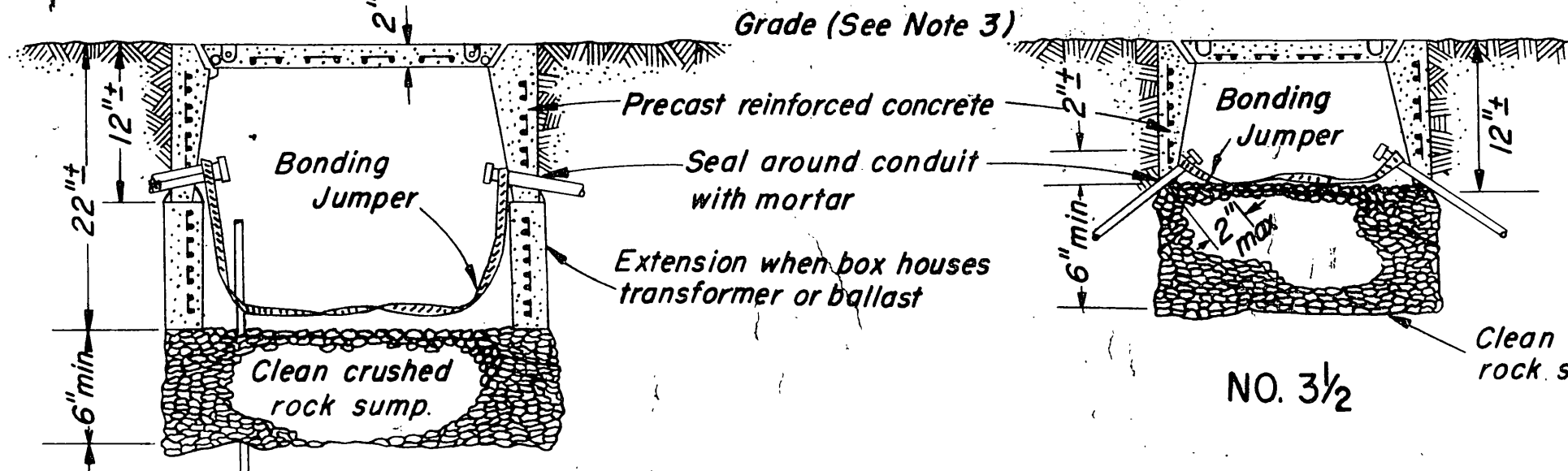
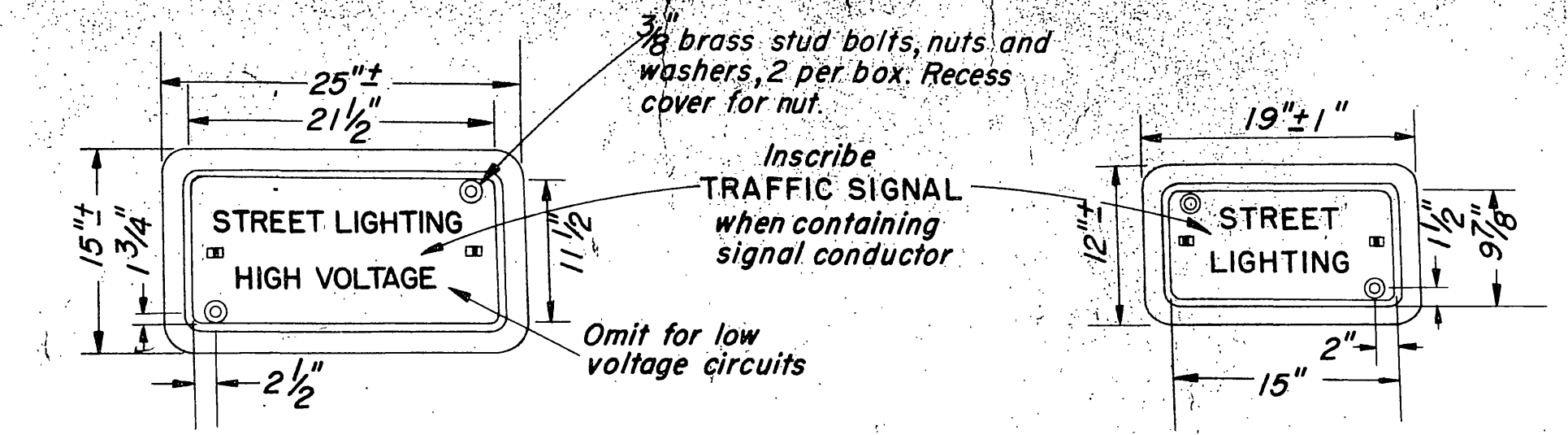
High Voltage or Low Voltage Circuits - Method "B"

1. Apply two layers, half lapped, of synthetic, oil resistant, self fusing rubber tape.
2. Apply .007" thick P.V.C. tape to a thickness equal to original insulation.
3. Apply two layers of asphalt impregnated, open meshed fabric tape and fuse in.

GENERAL NOTES

1. All dimensions are nominal.
2. Rubber tapes shall be rolled after application.
3. If P.V.C. low voltage tape is used as a final layer, paint finished splice with electrical insulating coating.

SPLICING



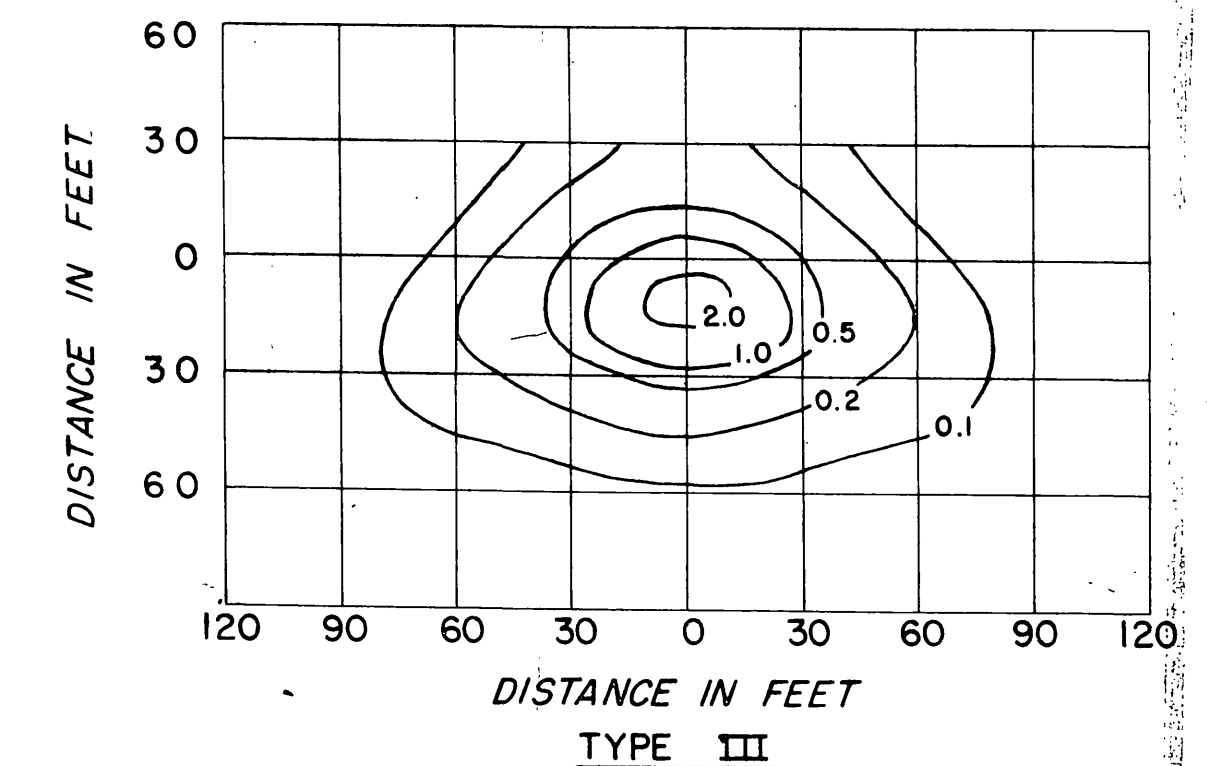
PULL BOX MARKER
 (Type A Guide Marker - No Reflectors)

PULL BOX WITH TRAFFIC COVER

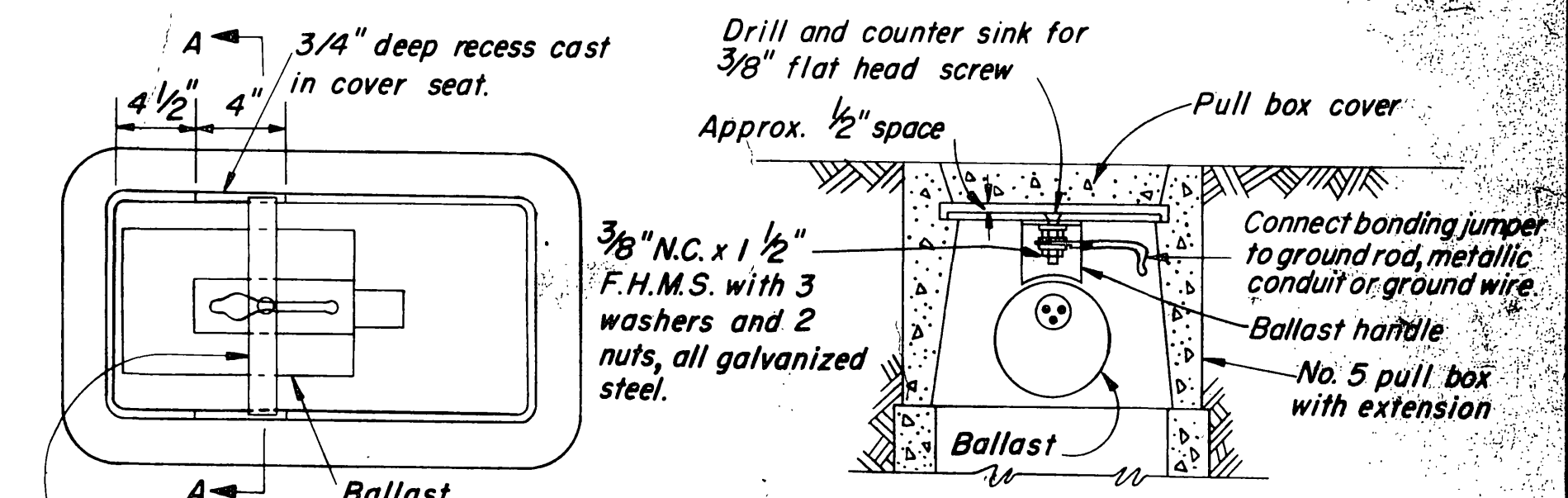
NOTES

1. Use steel cover and special concrete footing, as shown, when box is to be installed where subject to traffic loads. Steel cover shall have embossed non-skid pattern when box is placed in paved or sidewalk areas.
2. Steel reinforcing shall be as regularly used in the standard products of the respective manufacturer.
3. Top of pull boxes shall be flush with surrounding grade or top of adjacent curb, except that in unpaved areas where pull box is not immediately adjacent to and protected by a concrete foundation, pole or other protective construction, the box shall be buried 12 inches below grade and shall be marked by a pull box marker placed adjacent to the pull box. Where practicable, pull boxes shown in the vicinity of curbs shall be placed adjacent to the back of curb, and pull boxes shown adjacent to standards shall be placed on side of foundation facing traffic, unless otherwise noted.

PULL BOXES



TYPE III
 Shielded Highway Lighting Luminaire, 30'
 Mounting Height, 20,000 Lumen Mercury Vapor Lamp
ISOLUX LINES OF MINIMUM HORIZONTAL FOOT CANDLES



SECTION A-A
 BALLAST INSTALLATION IN PULL BOX
 No Scale

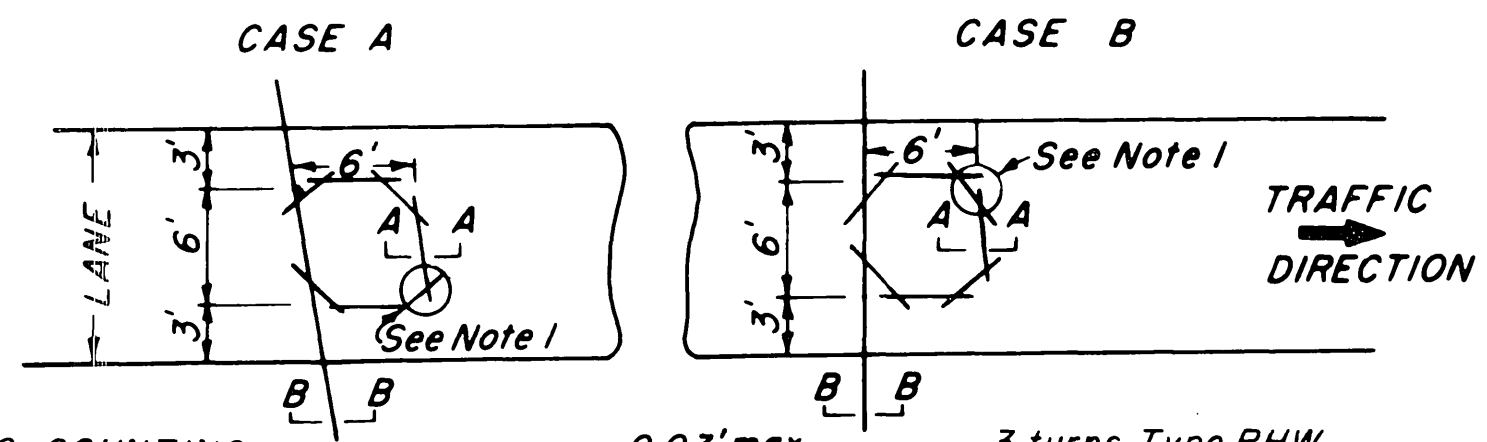
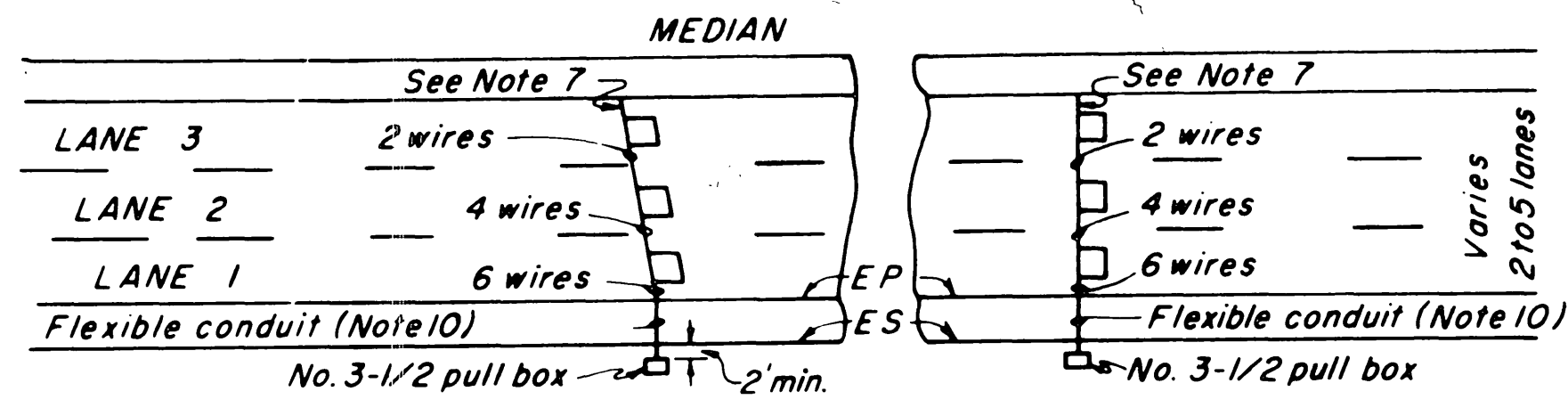
08-480074

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

STANDARD DETAILS NO. 3A
 TRAFFIC SIGNAL AND
 HIGHWAY LIGHTING
 INSTALLATIONS

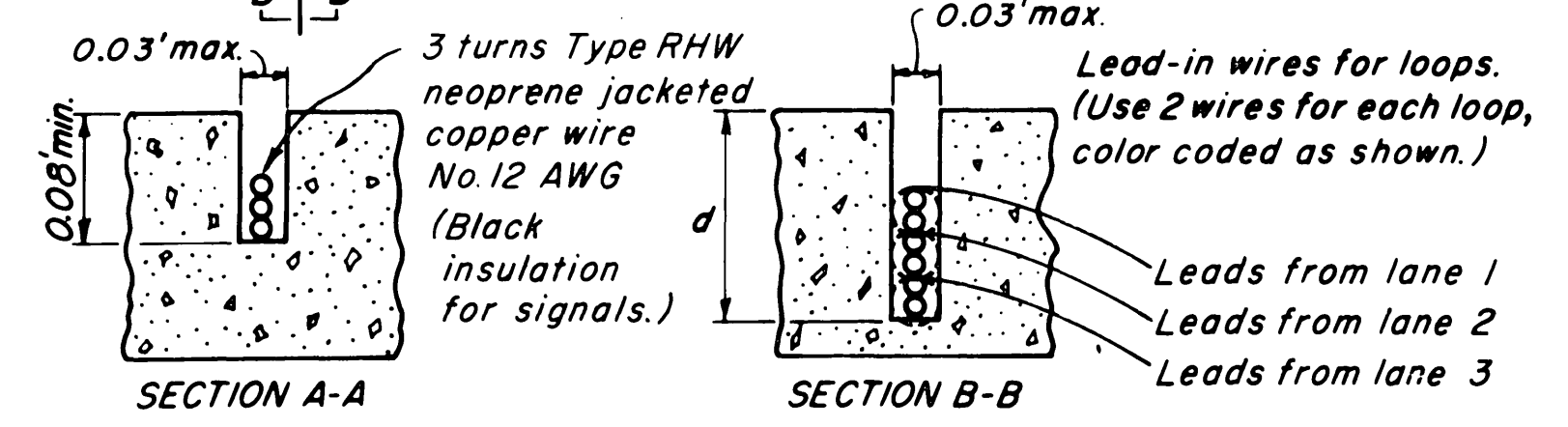
NOT TO SCALE
 Revised June 17, 1966

DRAWING NO. E

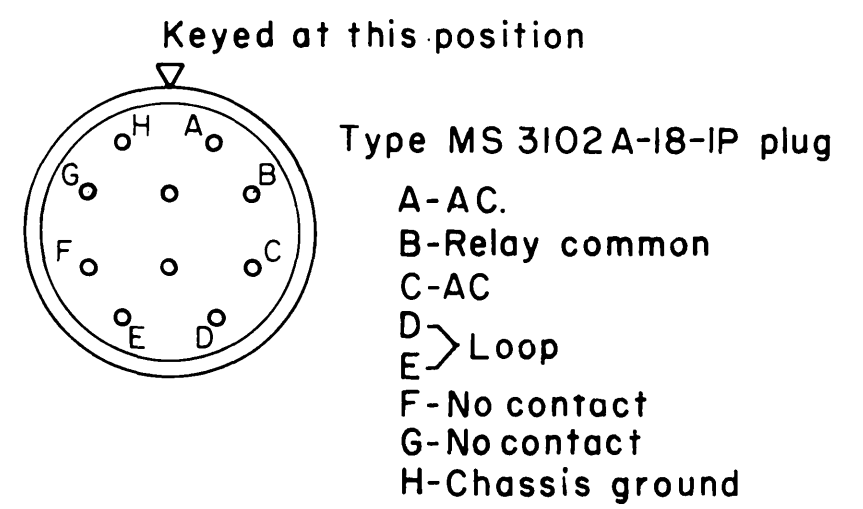


TRAFFIC COUNTING CONDUCTOR COLOR CODE

Lane	Color
1	Red
2	Yellow
3	Green
4	Blue
5	White

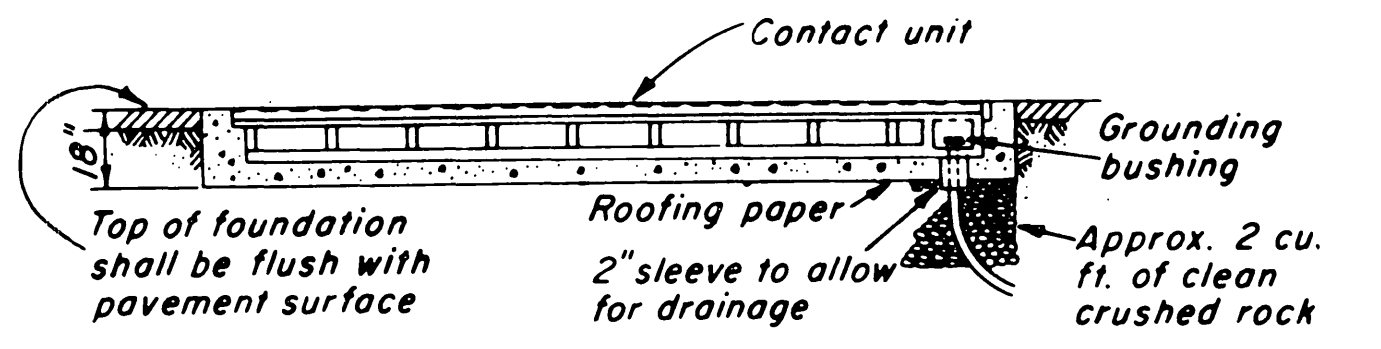


lanes	d
2	0.12' min.
3	0.14' min.
4	0.18' min.
5	0.21' min.



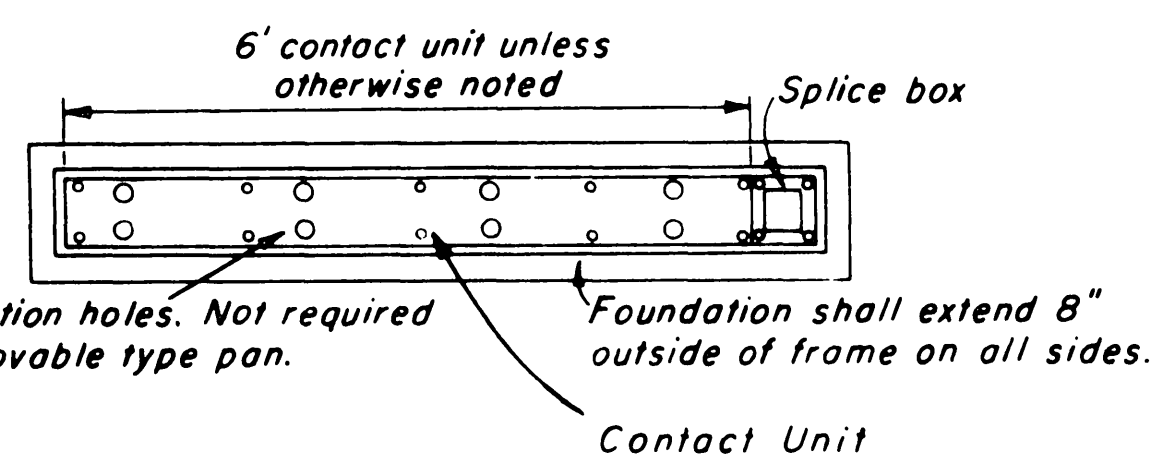
PLUG CONNECTOR FOR SENSOR UNIT WITH INTEGRAL POWER SUPPLY

INDUCTIVE LOOP DETECTOR INSTALLATION TRAFFIC COUNTING



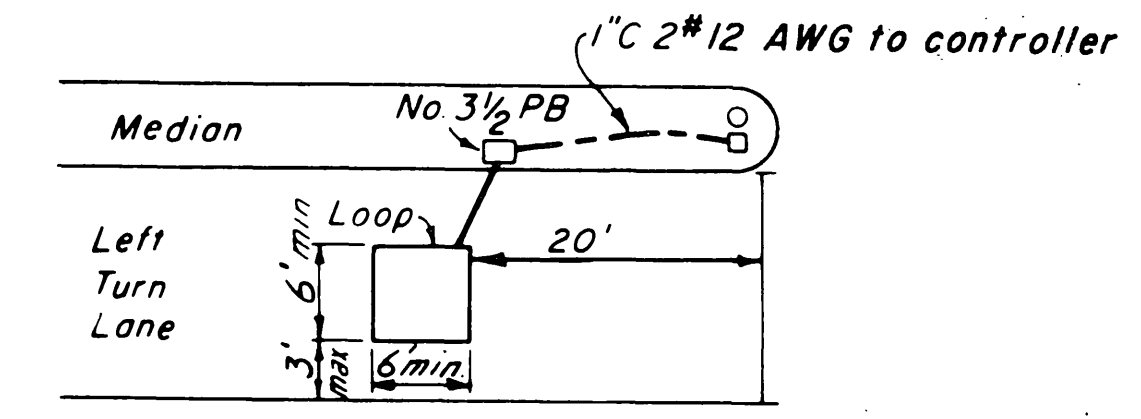
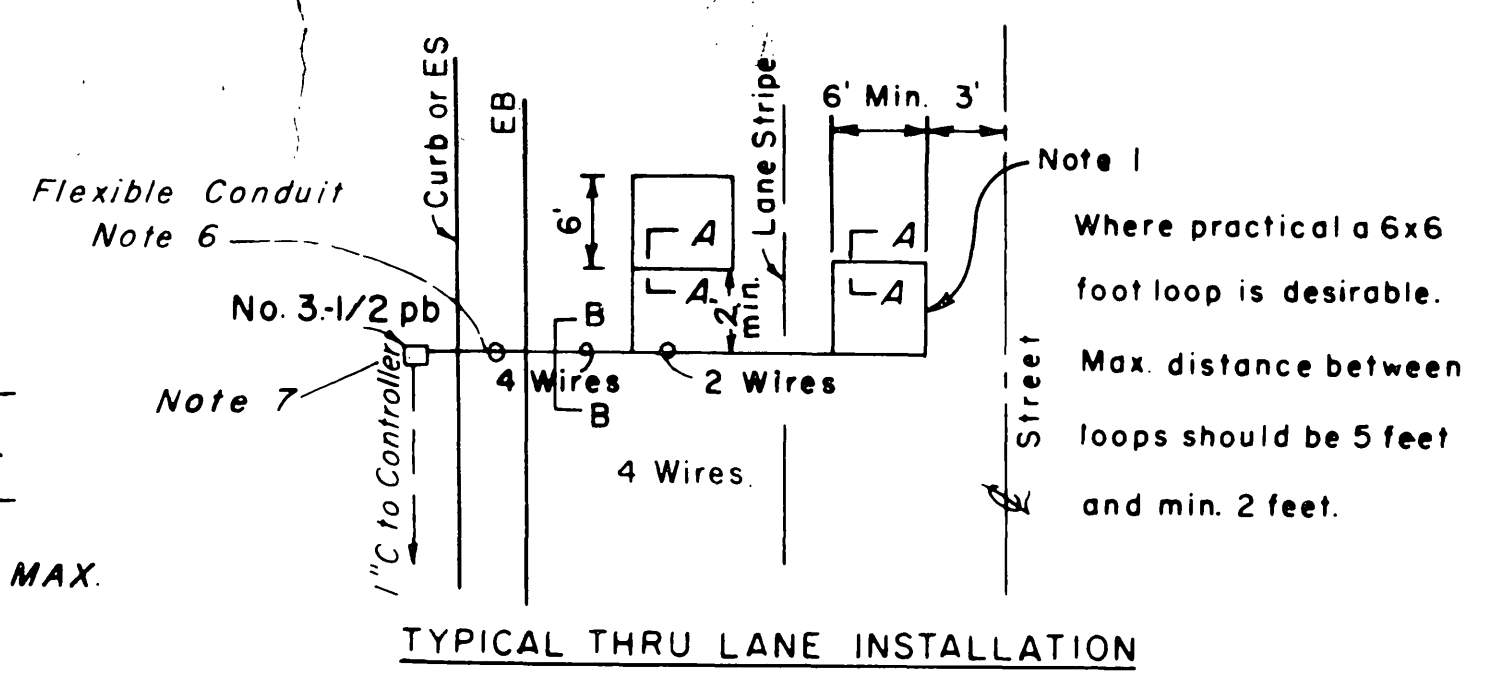
- Installation Notes:
- Detector position dimensions refer to contact unit.
 - Concrete under removable contact unit mounting pan shall be finished flush with top of pan supporting angles.
 - Detector contact unit surface shall be flush with rim of housing or no more than 1/8" higher, if low, unit shall be raised using one-piece, galvanized, sheet metal shims with dimensions the same as the bottom surface of the contact unit.
 - Screw threads shall be coated with anti-seize compound. All screws shall be tightened securely.

PRESSURE SENSITIVE DETECTOR



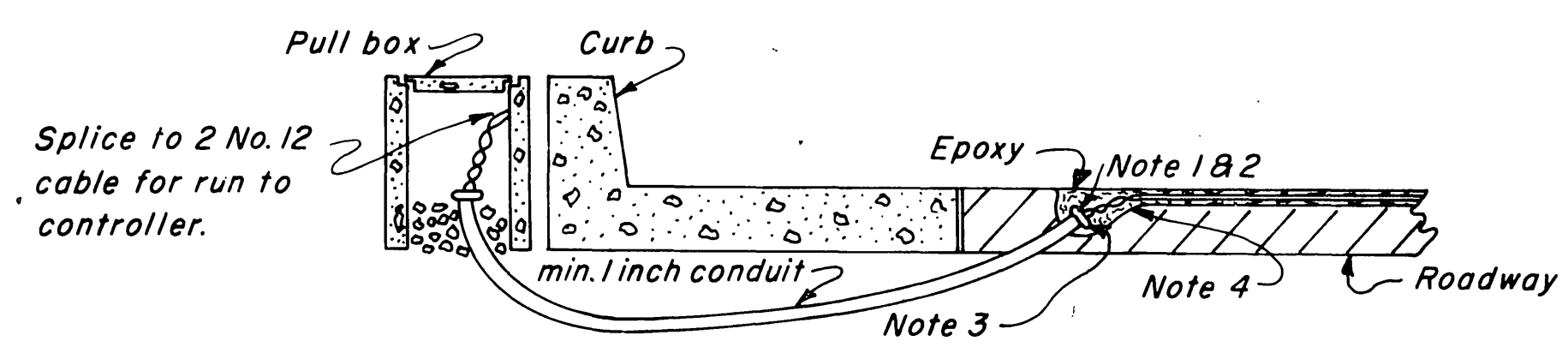
PLAN

VEHICLE DETECTORS



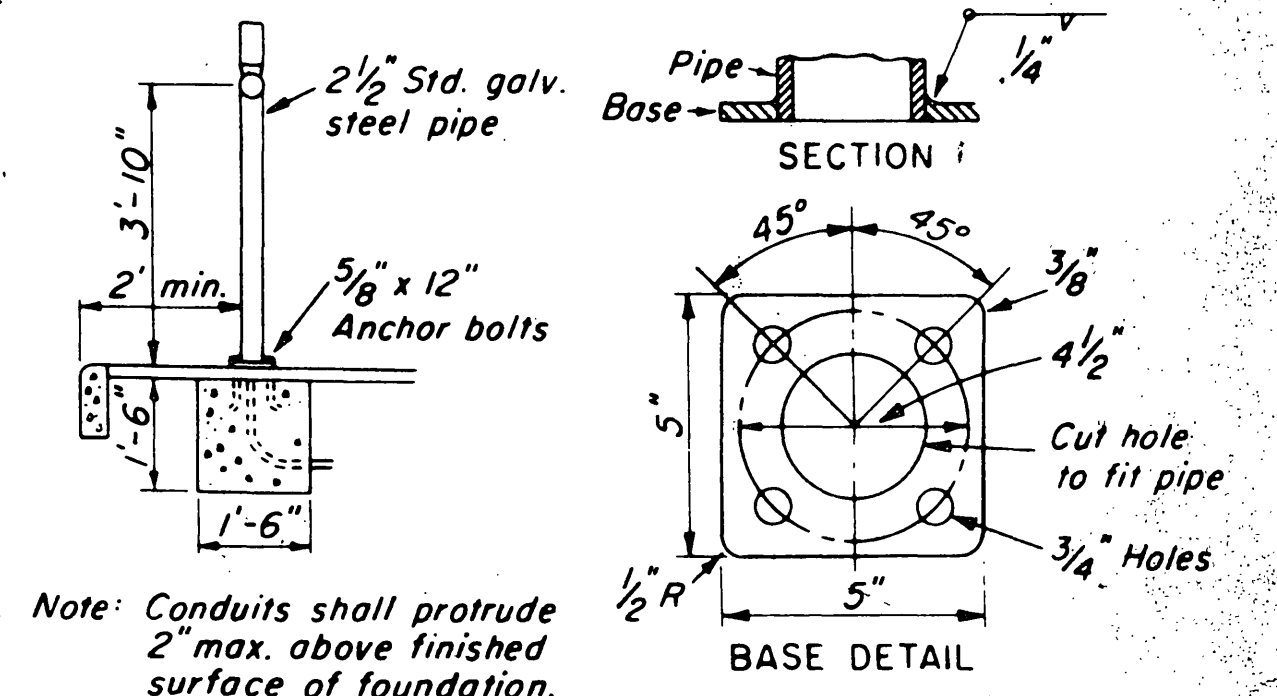
- Notes:
- Saw groove in pavement for loops. Corners may be diagonal as shown in detail "C". Use existing sawed joints when possible.
 - Overlap cuts at all corners so slots are full depth at corners.
 - Push wire in with wood. Do not use screwdriver or other metallic instrument.
 - Pour clean dry white silica sand in slot to cover conductors. Fill slot with flexible epoxy resin conforming to specifications. Repeat pouring clean dry white silica sand to fill slot.
 - Where there are existing unsawed joints install loops in center of 19 ft. pavement panels.
 - Maximum slot depth shall be 0.23'.
 - Make cut all the way across pavement.
 - Use either "Case A" or "Case B" depending on whether pavement weakened plane joints are perpendicular or skewed.
 - Provide a minimum of 5' of slack in each conductor at pull box.
 - Flexible conduit (size as required) to be placed in sawed channel slot or rigid conduit may be placed under curb or shoulder to pull box.
- TESTS:
- Test each loop for continuity.
 - A megger test shall be made between loops. Insulation resistance shall be not less than ten megohms.

INDUCTIVE LOOP DETECTOR INSTALLATION TRAFFIC SIGNAL

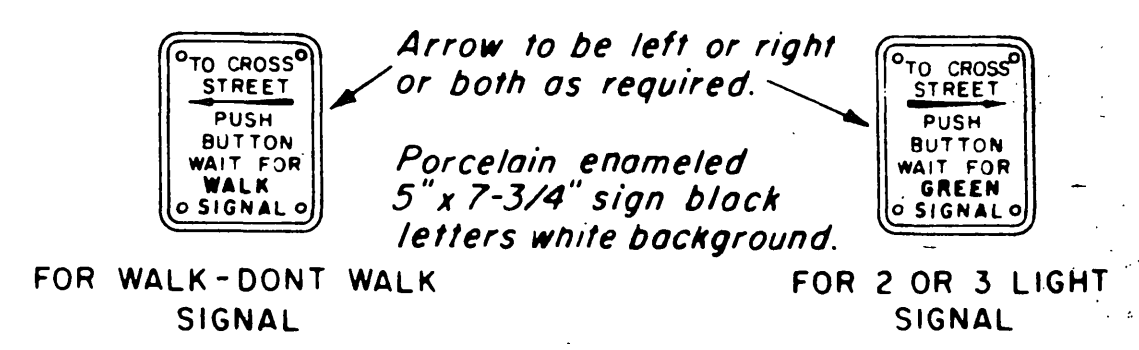


- Non-metallic bushing shall be used at roadway end of conduit.
- Tape wire 3 inches each side of roadway bushing.
- Install flexible compound on low side of roadway conduit before installing wire.
- Round all sharp edges where wire has to pass.
- End of roadway conduit shall be 2 inches below roadway.

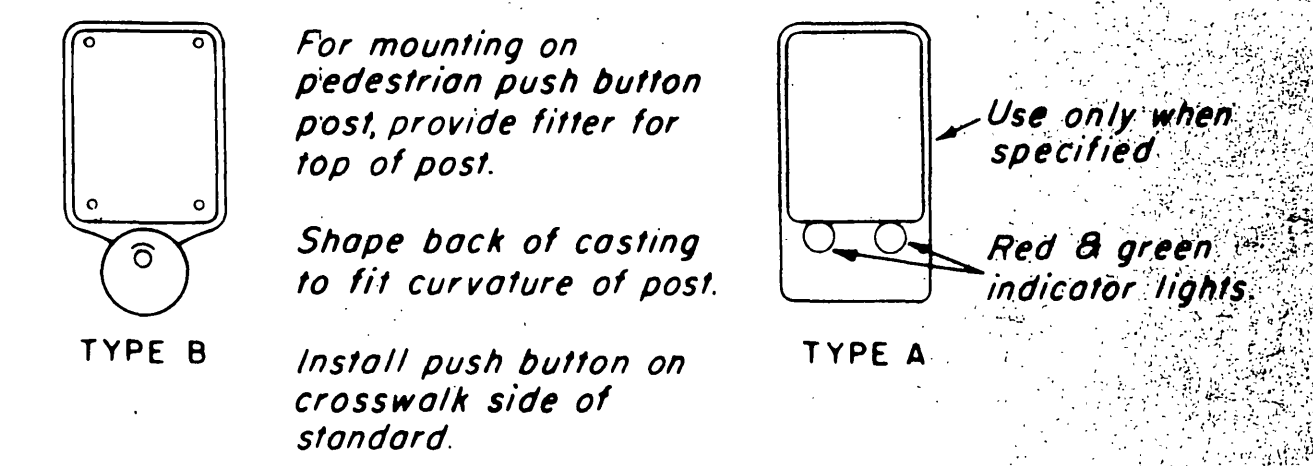
TYPICAL DETAIL OF RIGID CONDUIT BETWEEN ROADWAY AND PULL BOX



PEDESTRIAN PUSH BUTTON POST



SIGNS



PEDESTRIAN PUSH BUTTON & SIGN

08-480074

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

STANDARD DETAILS NO. 3B
 TRAFFIC SIGNAL AND HIGHWAY LIGHTING INSTALLATION

SCALE AS NOTED
 Revised Oct. 1965

DRAWING NO. E

08 PIV 1249 CR PIV 25 44
 FEBRUARY 1964
 J. E. ...
 TRAFFIC ENGINEER, REGISTERED C. E. NO. 8586
 TO ACCOMPANY PLANS DATED August 29, 1966

SYMBOLS

PROPOSED	EXISTING	
		Ultra-sonic detector (Side fire type)
		Inductive loop detector
		Non-directional magnetic detector
		Traffic signal with all colors louvered
		Traffic signal one way three color with backplate (On Type I-A standard unless otherwise specified)
		Walk-Don't Walk pedestrian signal (Type I standard unless otherwise indicated.)
		Mast arm traffic signal with backplate
		Electrolier, mast arm type
		Pedestrian push button
		Telephone pole
		Flashing beacon, one-way
		Overhead conductor
		Lighting conduit
		Controller
		Pendant soffit luminaire, Detail "P", (arrow - "street" side)
		Wall-mounted luminaire, Detail "W"

** 7000-lumen, mercury-vapor, ballast in closest pull box unless integral ballasts are specified.

CONDUIT

1. Unless otherwise indicated, conduit in service and detector runs shall be 1 inch and all other conduit shall be 1-1/2 inch.
2. Conduit shall be installed 18" minimum below curb grade in sidewalk areas and 30" minimum below grade or finished surface in all other areas except that conduit installed within curbed dividing strips constructed on existing pavement may be laid on and secured to the pavement.
3. Conduit runs parallel to curbs shall be placed adjacent to back of curb, except where in conflict with existing facilities. Minimum depth shall be 12 inches.
4. Existing underground conduit to be incorporated into new systems shall be cleaned with a mandrel and blown out with compressed air.
5. Conduit terminating in standards and pedestals shall extend 2" max. above finished top of foundation and shall slope toward the handhole.
6. Conduit entering controller cabinets shall be sealed with paraffin or other approved sealing compound.
7. Service risers shall be terminated with a service head and shall be sealed to prevent the entrance of water, as approved by the serving utility.
8. Conduit shall not be run through foundations for standards.

PULL BOXES

1. Pull boxes shall be No. 5 except as noted.

CONDUCTORS AND WIRING

1. Signal neutral shall be #10 AWG conductor.
2. Conductors between ballasts or transformers and luminaires shall be #10 AWG, 600 volt.
3. Conductors between series-to-multiple transformers and sign fixture ballasts shall be #12 AWG, 600 volt or larger.
4. Number of conductors indicated in signal system conduit includes three #14 AWG spares.
5. Conductors shall be identified with bands.
6. Underground conductors to signals shall be run without splices, except that where existing signals are being modified, signal conductors may be spliced where indicated.
7. Neutral conductors may be spliced in pull box.
8. Two feet of slack shall be provided in each conductor in each pull box.
9. A separate conductor, other than neutral, shall be run from each pressure detector to controller cabinet.
10. Connection to each terminal of a pedestrian push button shall be by a single conductor. Splices shall be made in nearest pull box.
11. Color coding for wiring to pedestrian signals shall be as specified for corresponding vehicular green and red indications.
12. One side of secondary circuit of series-to-multiple and step-down transformers shall be grounded. On structures the grounding electrode shall be the conduit system. Off structures, it shall be 1/2" x 8' ground rod installed through bottom of pull box.

SIGNAL EQUIPMENT

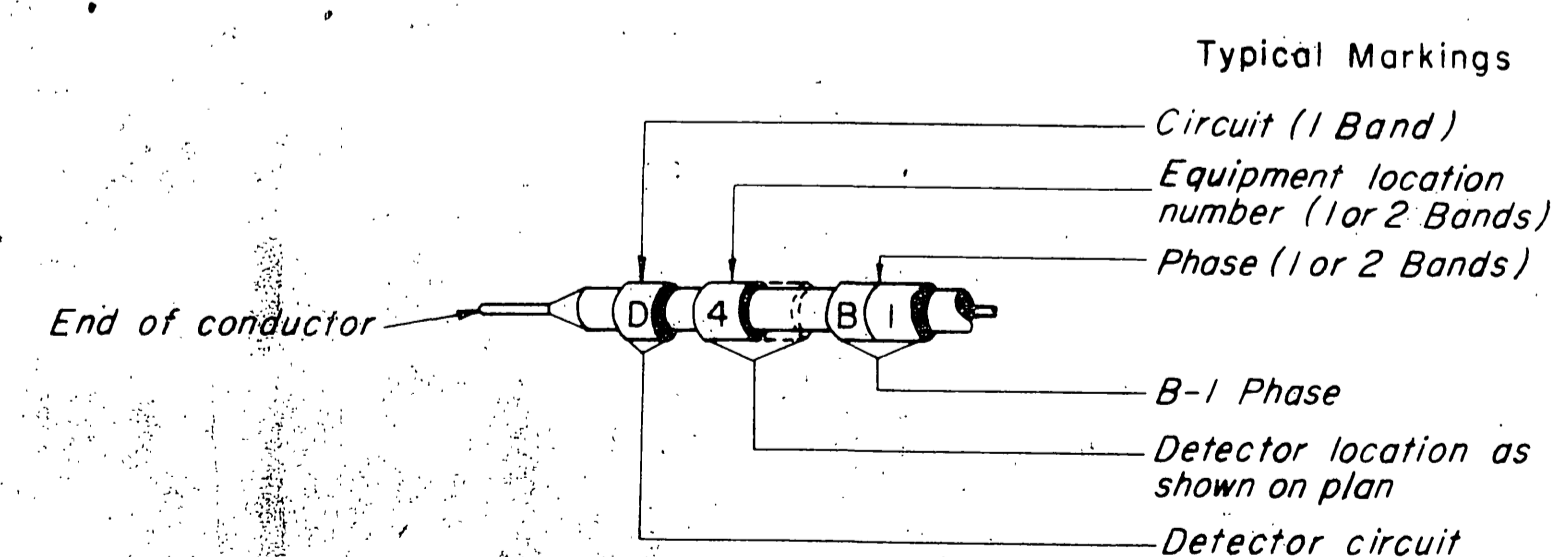
1. Vehicular and pedestrian signal mountings shall be oriented so as to provide maximum horizontal clearance to adjacent roadway.

ELECTROLIERS

1. A mercury-vapor lamp ballast shall be installed in a pull box adjacent to each electrolier, unless integral ballast type luminaires are used.

FOUNDATIONS

1. Top of foundations for standards shall be level with top of curb in curbed areas or 6 inches above surrounding grade in other areas.
2. Except as indicated, standards shall be installed with 2 foot clearance to face of curb, edge of shoulder, back of dikes, and back of ditches.



TYPICAL BANDING OF CONDUCTOR ENDS

08-480074

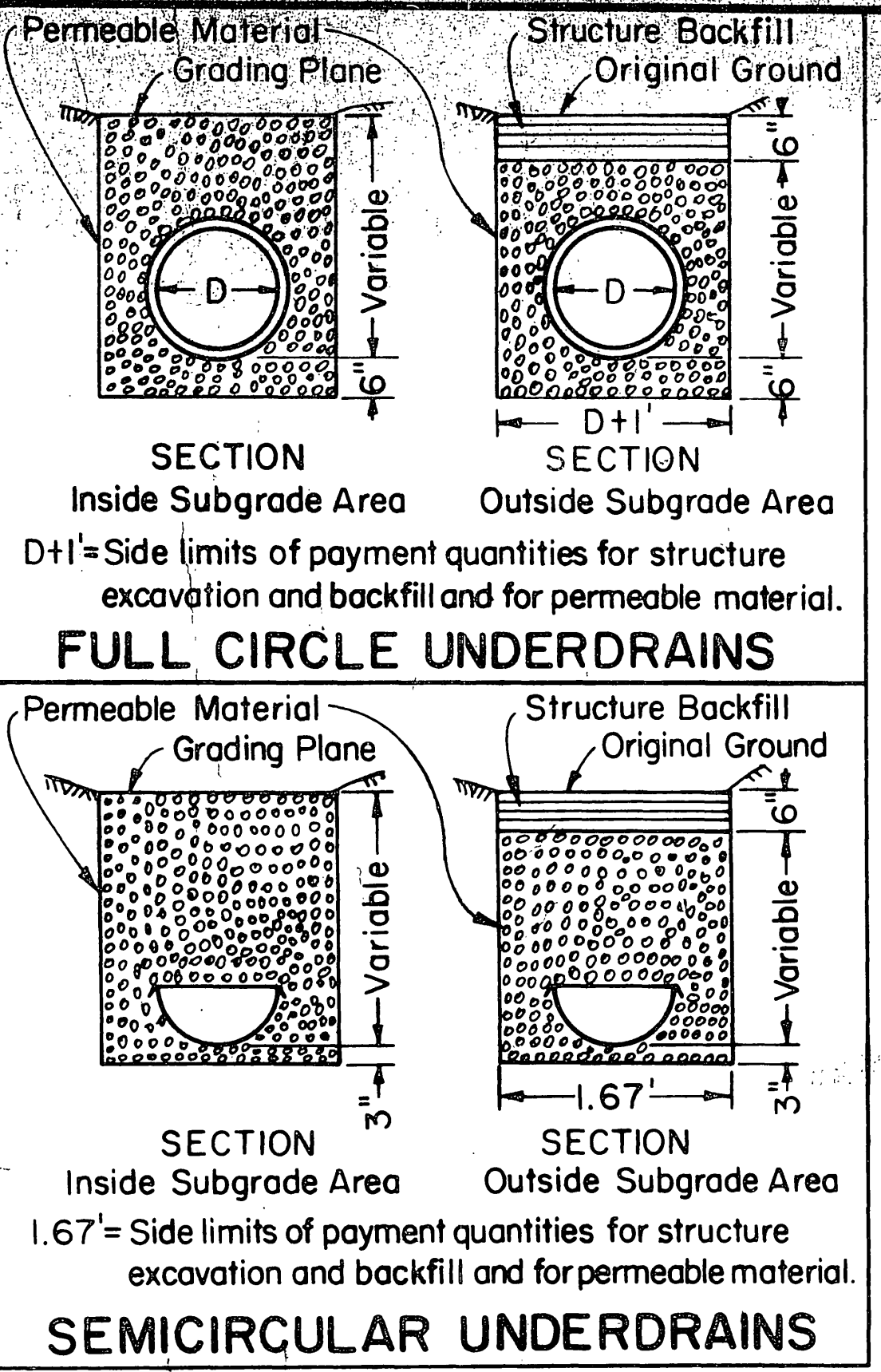
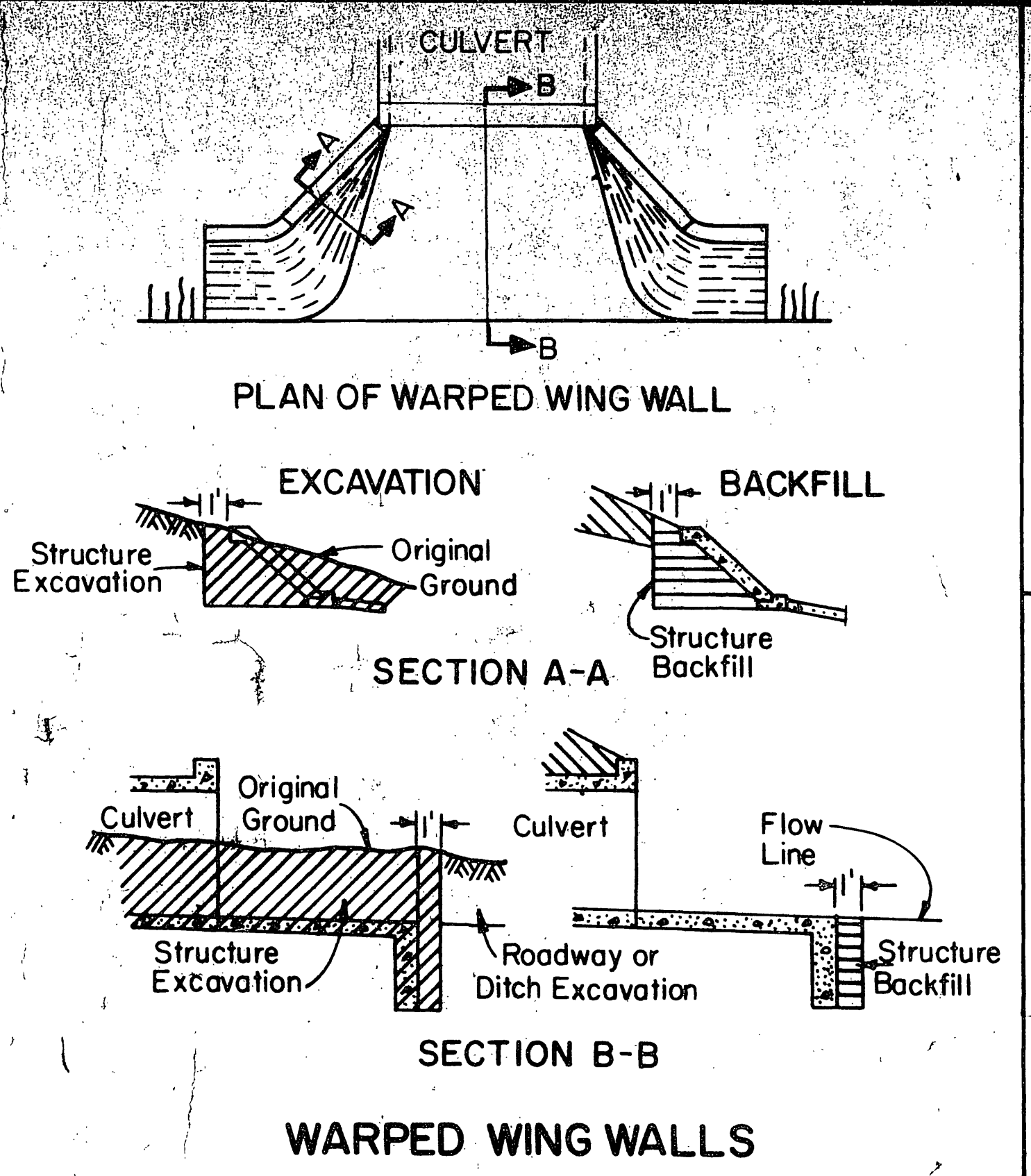
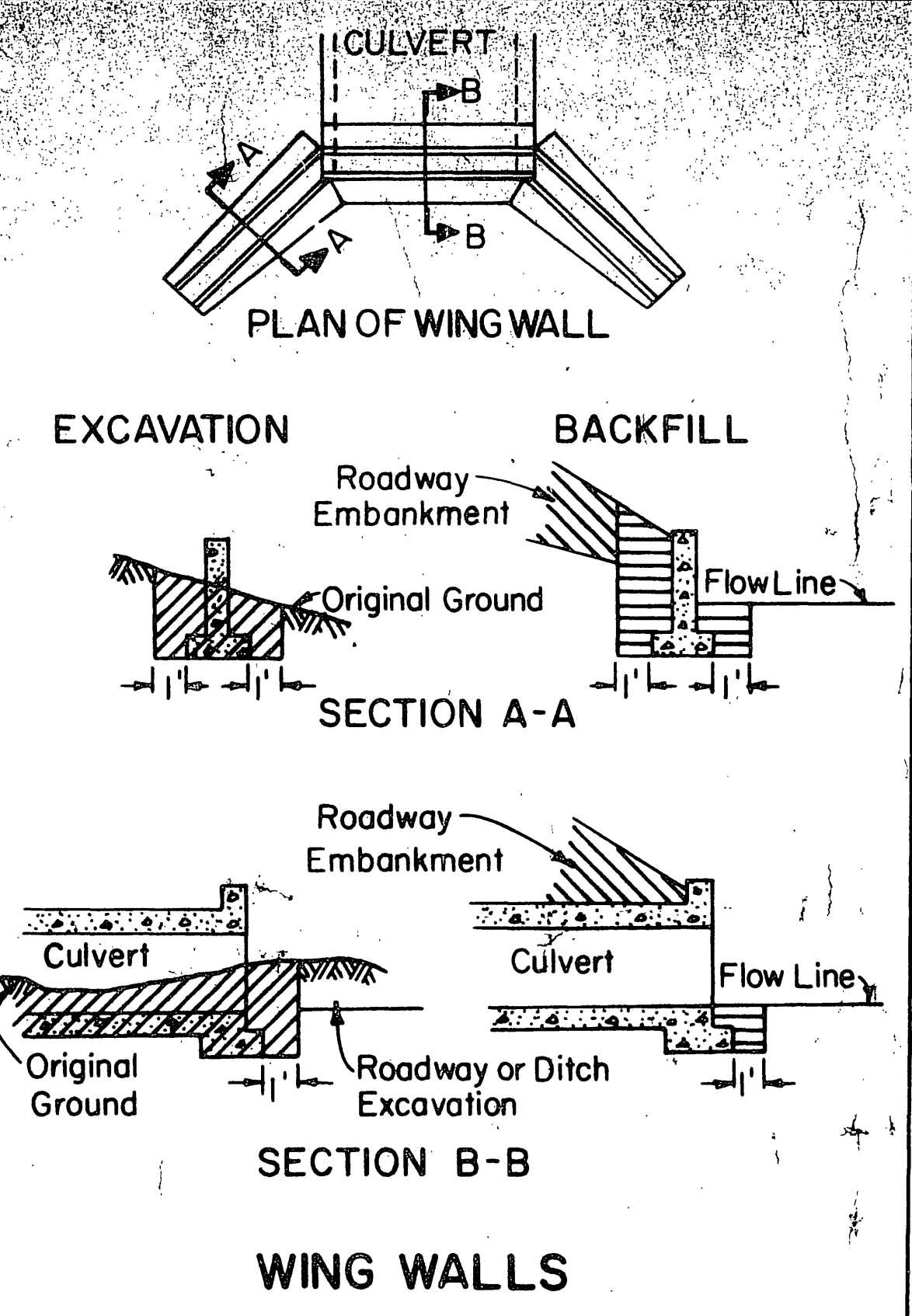
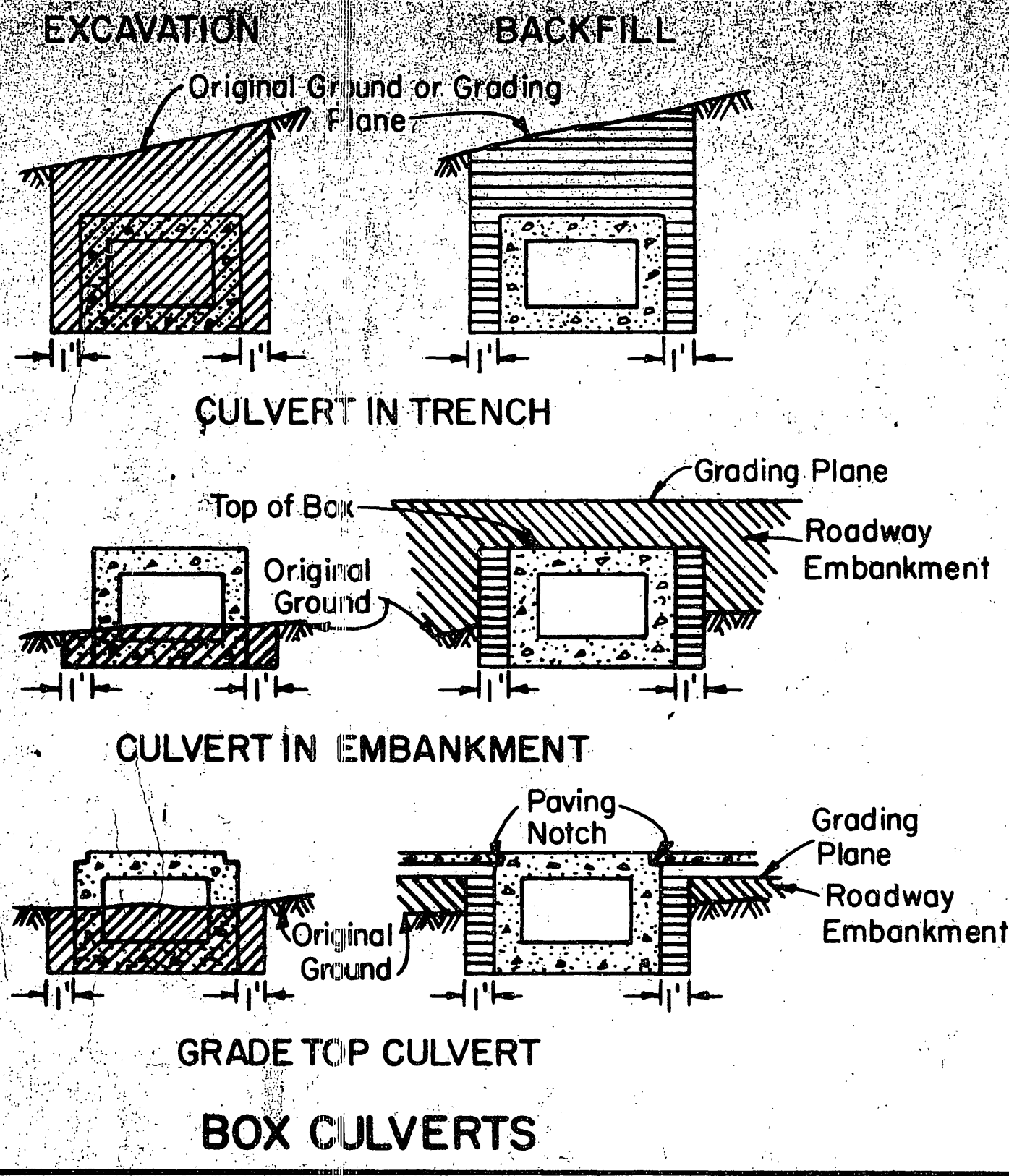
STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

STANDARD DETAILS NO. 4
 TRAFFIC SIGNAL AND
 HIGHWAY LIGHTING
 INSTALLATIONS

SCALE AS NOTED
 Revised 11/22/64

DRAWING NO. E-

846 CC ES-4-3
 R-888



To accompany plans dated August 29, 1966

DISTRICT	COUNTY	ROUTE	Post Miles - Total Project	SHEET NO.	TOTAL SHEETS
08	RV	1249	CR RV	26	44

APPROVAL RECOMMENDED

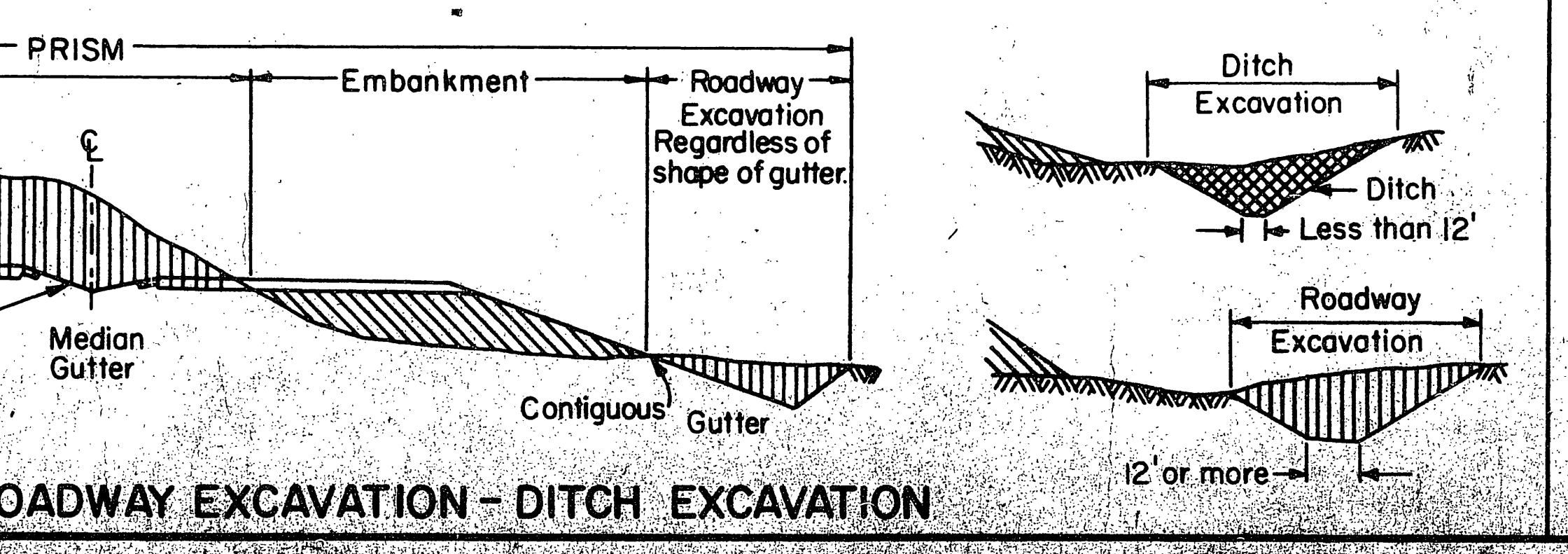
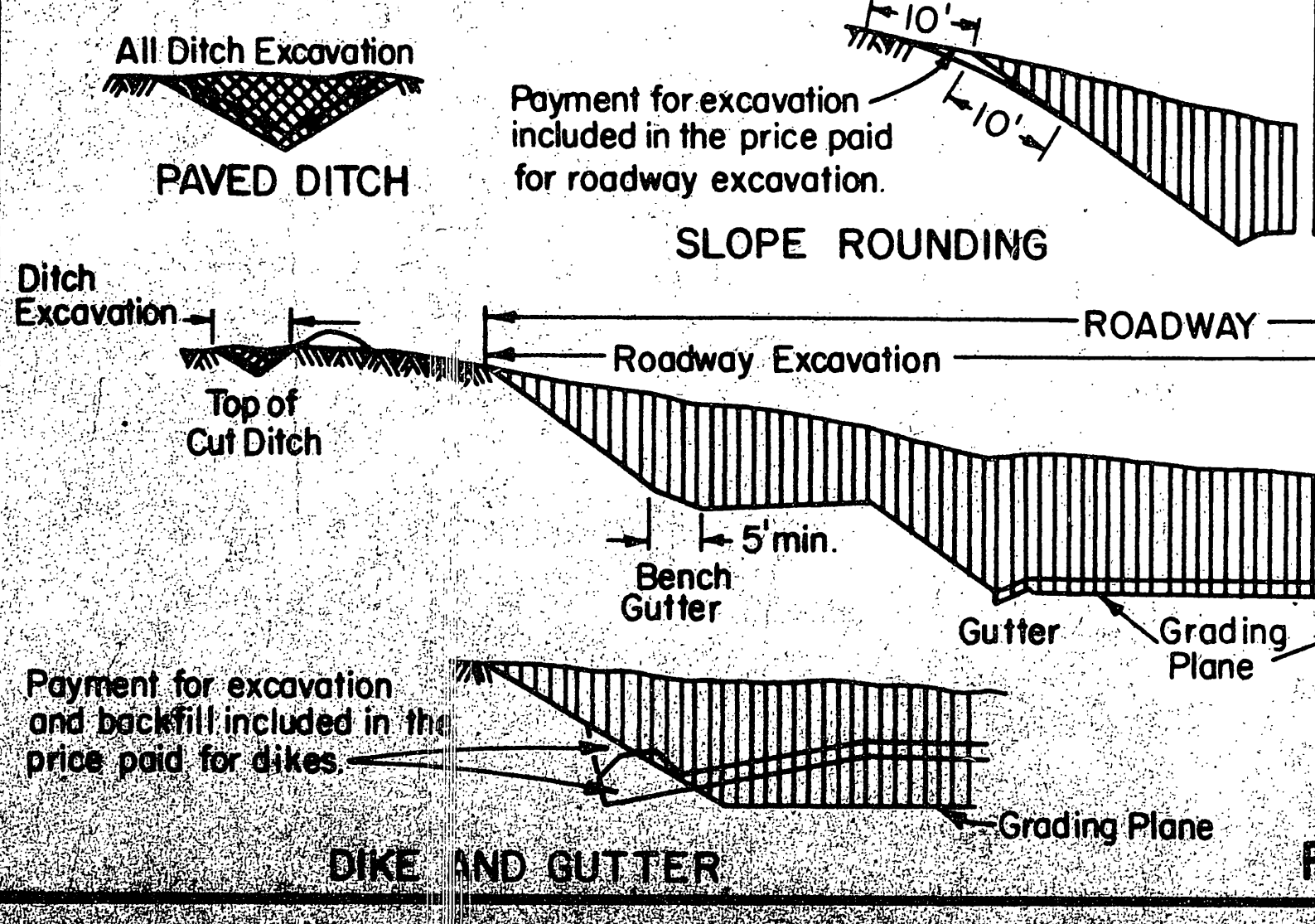
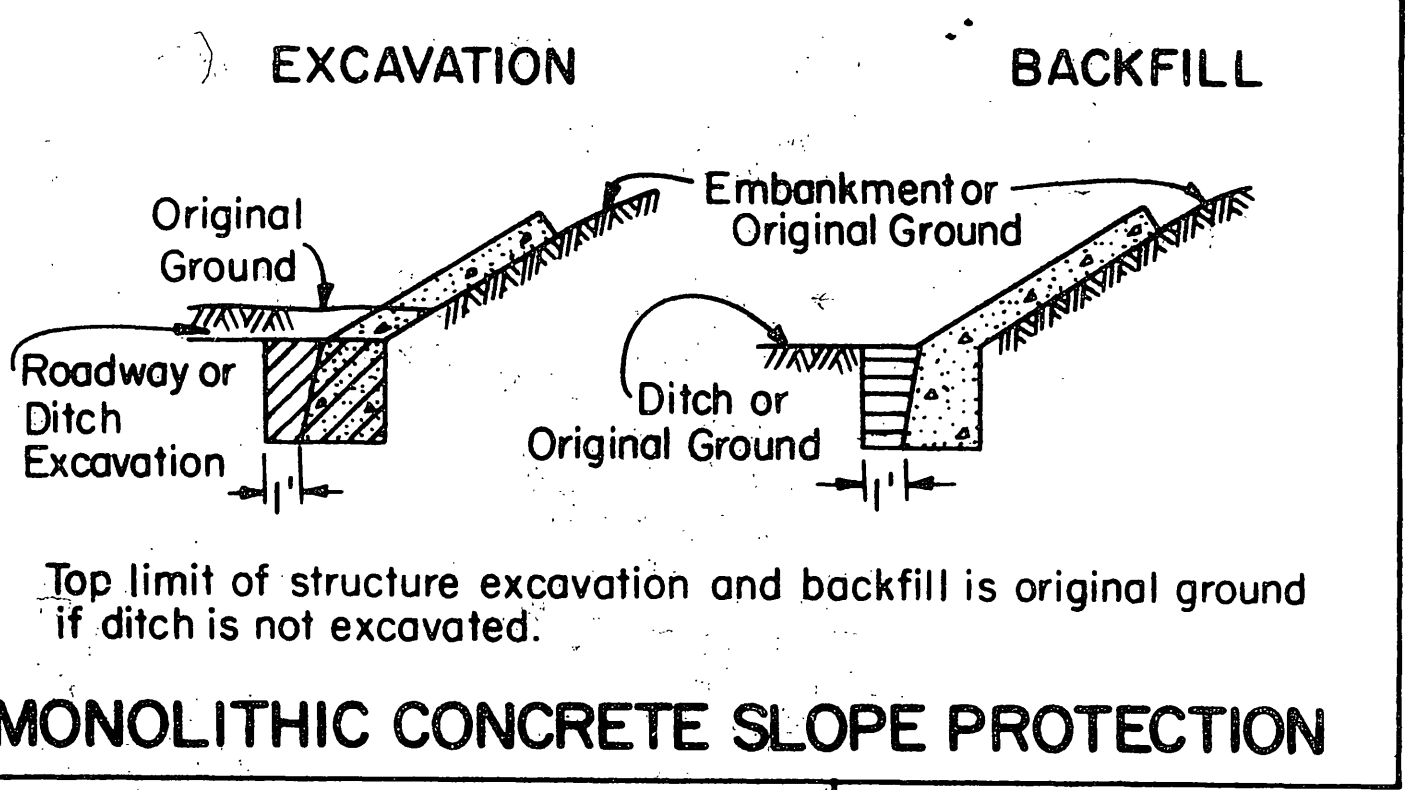
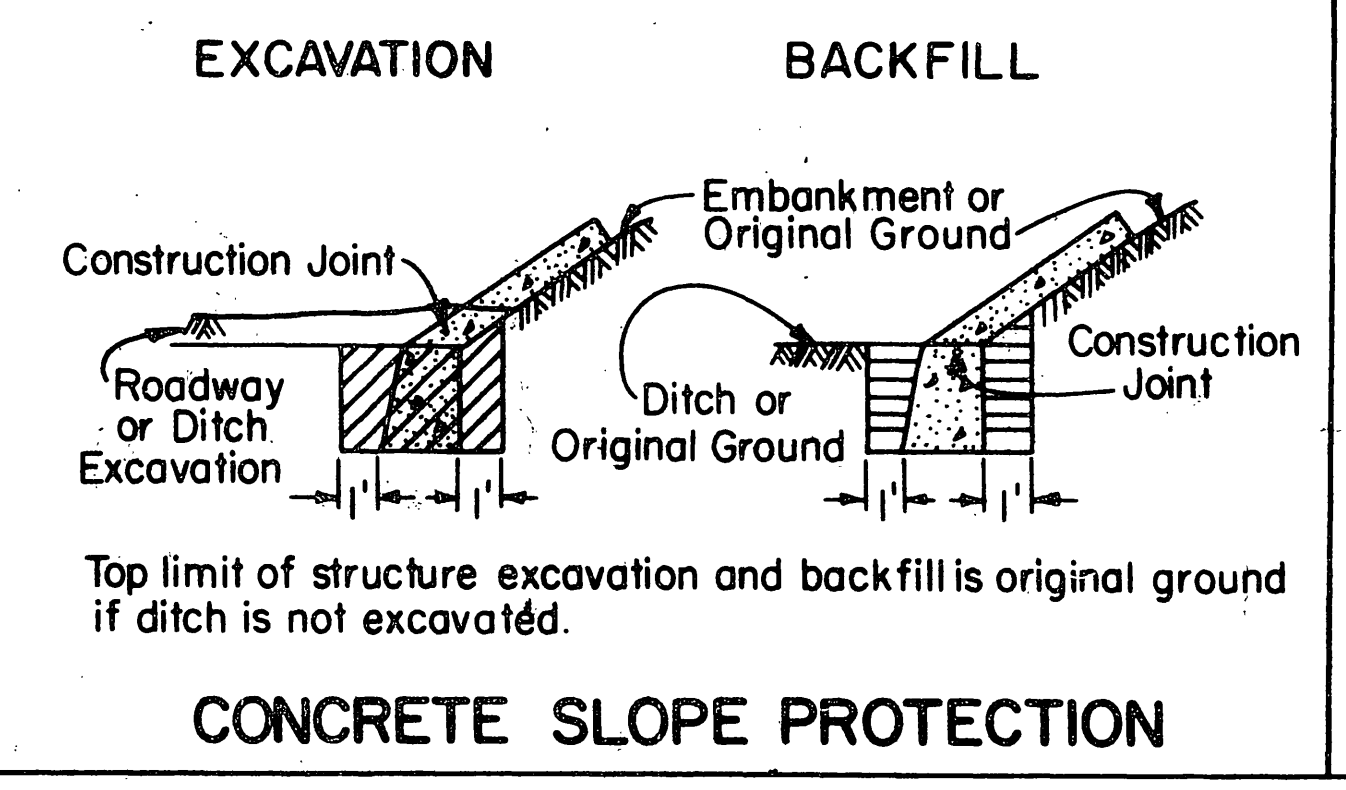
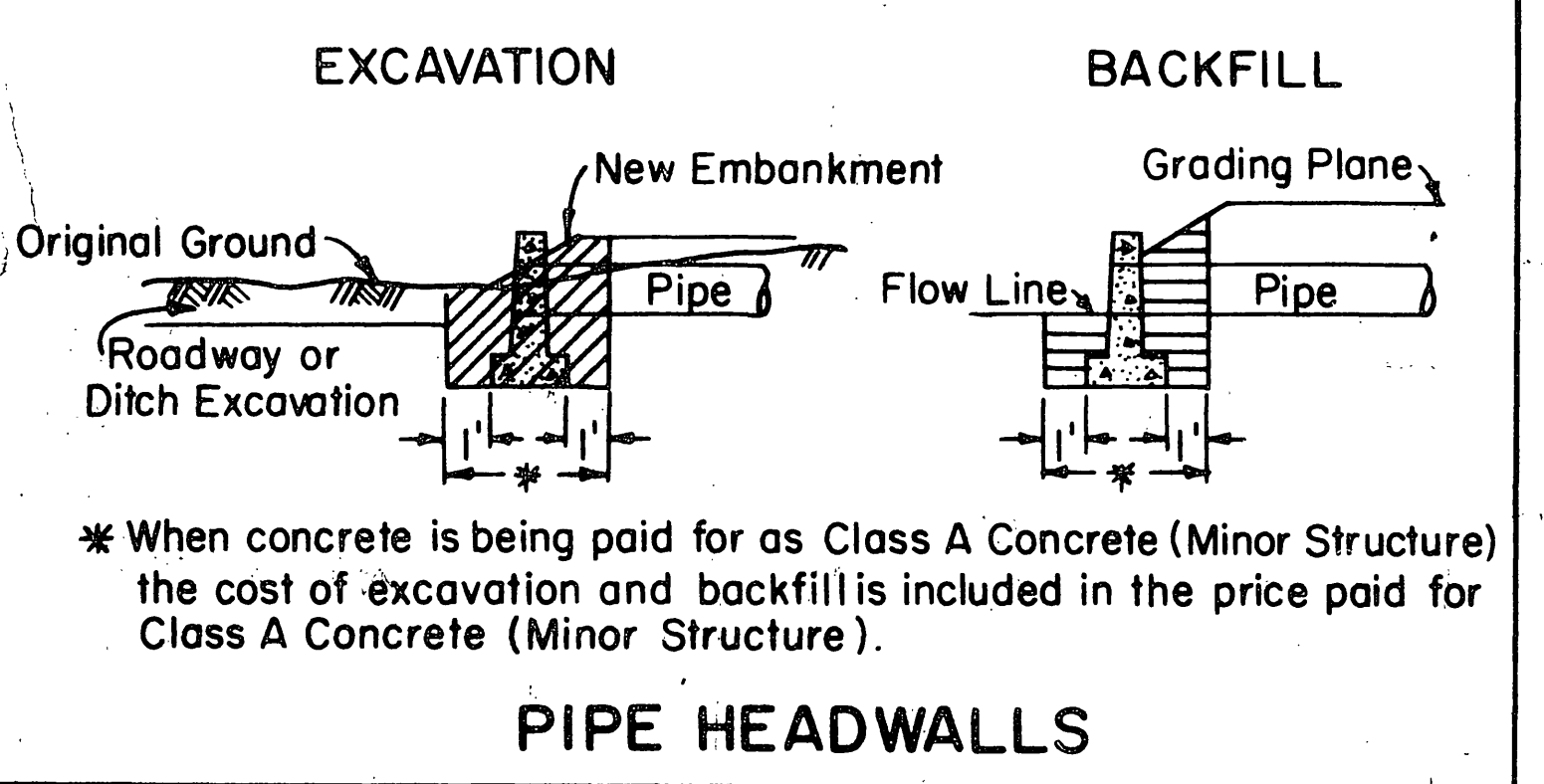
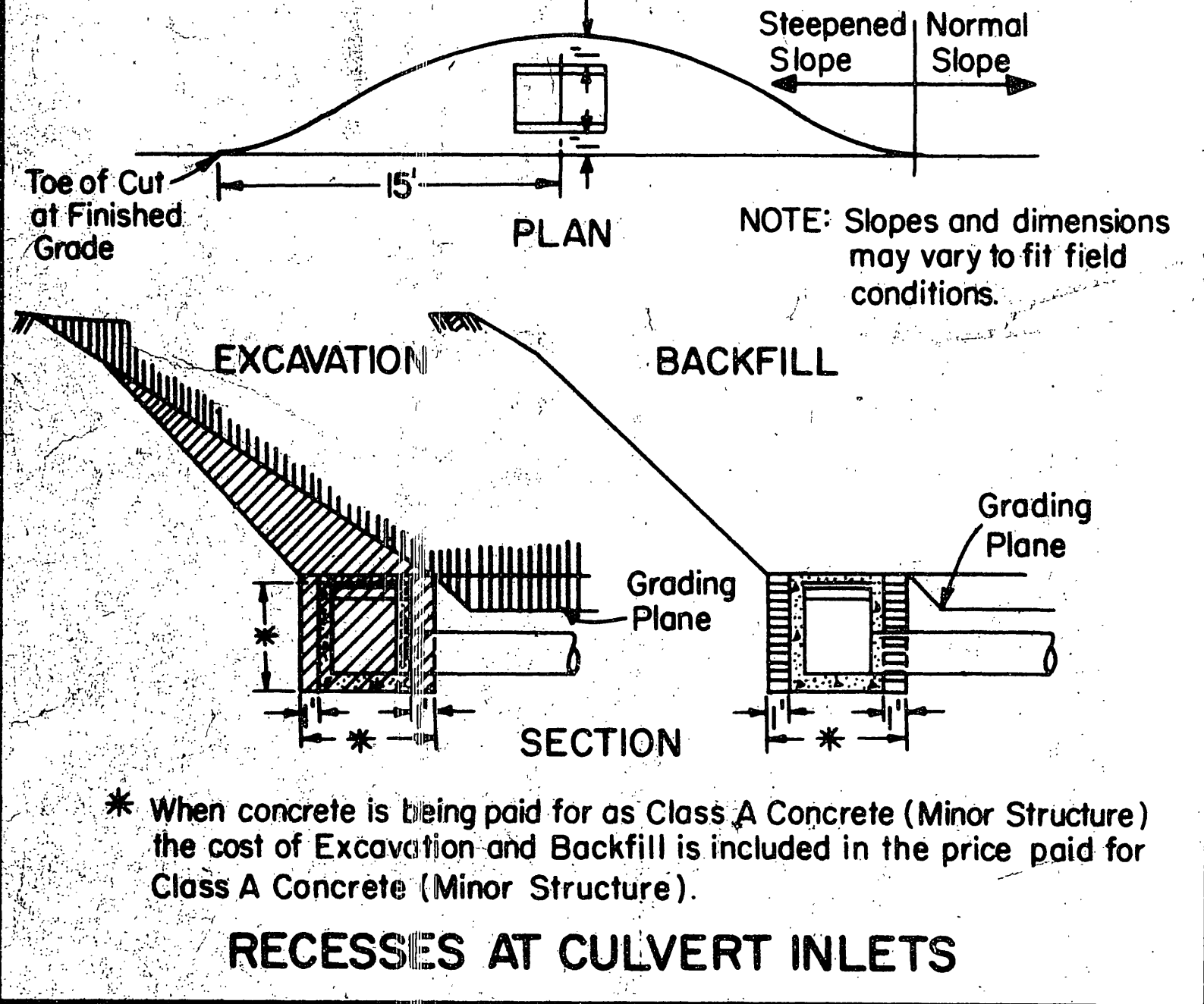
Jean Mader
Assistant State Highway Engineer - Bridges

Al C. ...
Engineer of Design
Registered Civil Engineer No. 9837

Approved March 1, 1966

J. C. Womack
State Highway Engineer
Registered Civil Engineer No. 5945

By: *J. ...*
Deputy State Highway Engineer
Registered Civil Engineer No. 5645



- LEGEND**
- Structure Excavation
 - Structure Backfill
 - Ditch Excavation
 - Permeable Material
 - Roadway Excavation
 - Roadway Embankment
 - Original Ground

08-180074

STATE OF CALIFORNIA
TRANSPORTATION AGENCY
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

**LIMITS OF PAYMENT FOR
EXCAVATION AND BACKFILL
MISCELLANEOUS**

A62-A

To accompany plans dated August 29, 1966

DISTRICT	COUNTY	ROUTE	Post Miles - Total Project	Sheet No.	Total Sheets
28	Riv	1249	CR, Riv	27	44

Approval Recommended

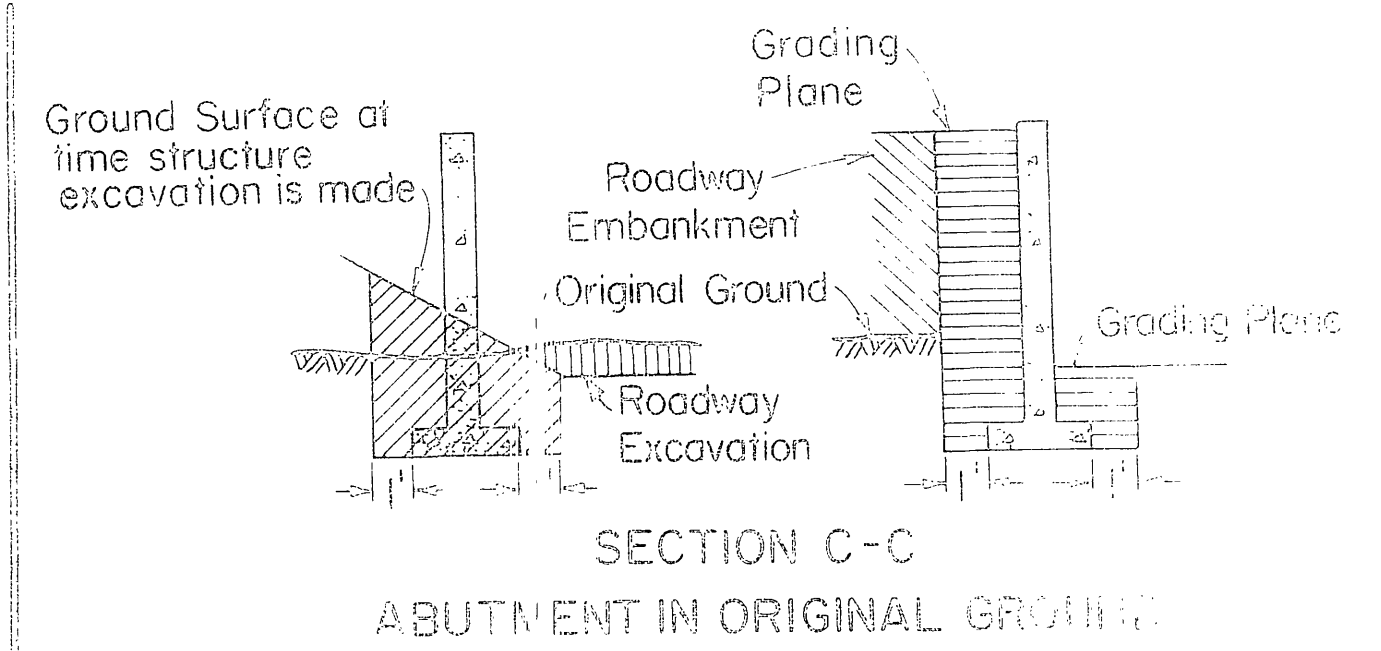
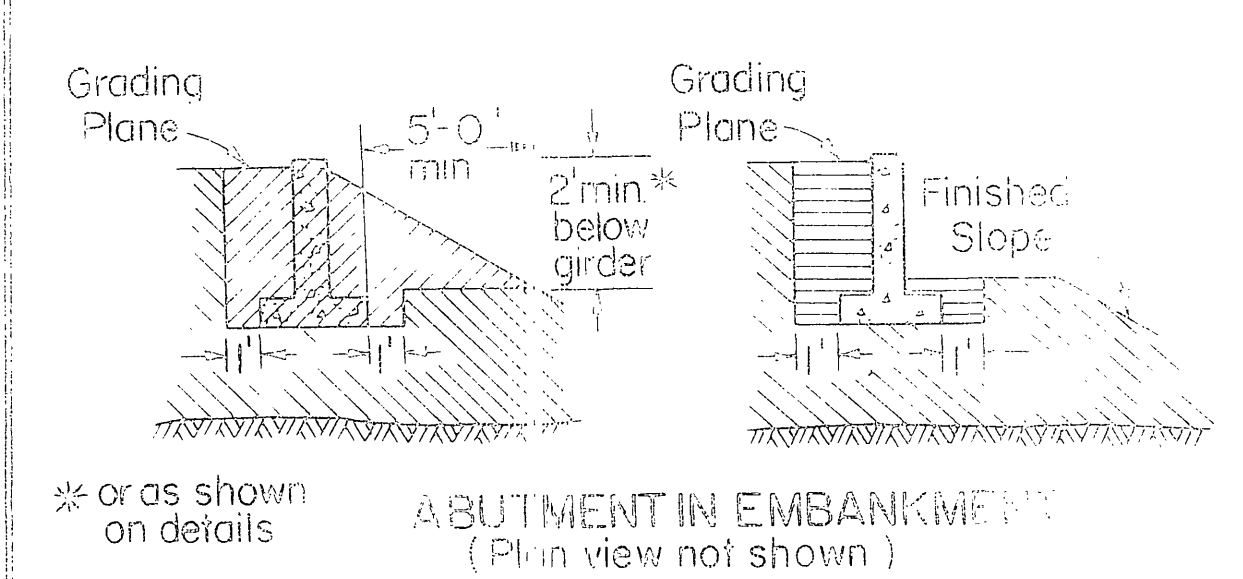
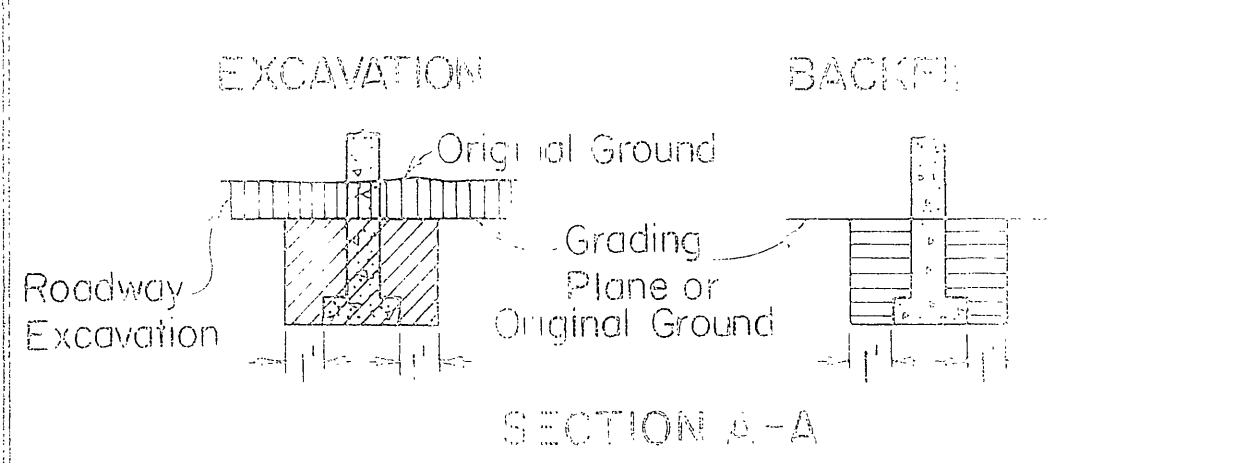
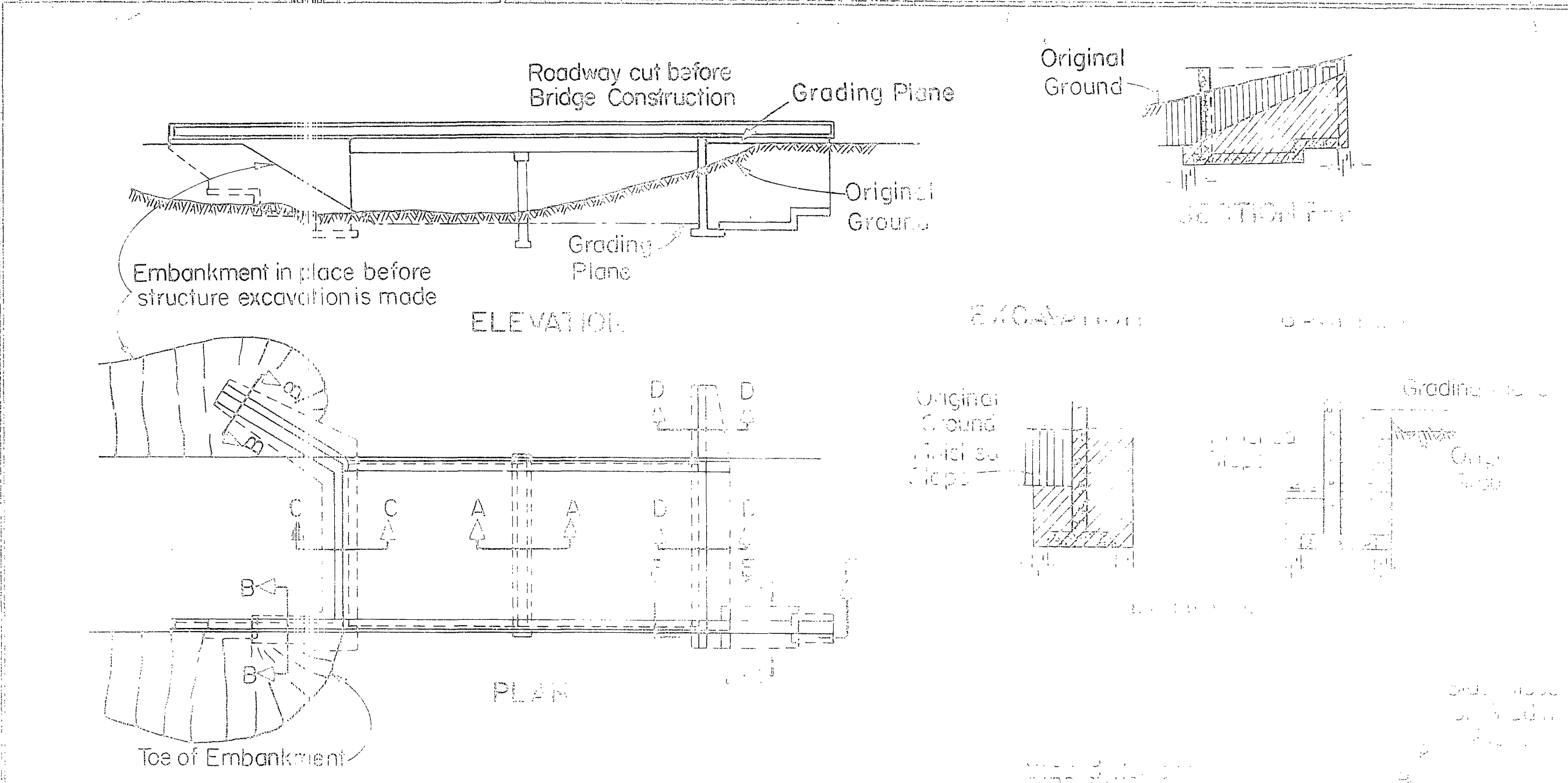
[Signature]
Assistant State Highway Engineer - Bridges

[Signature]
Engineer of Design
Registered Civil Engineer No. 9037

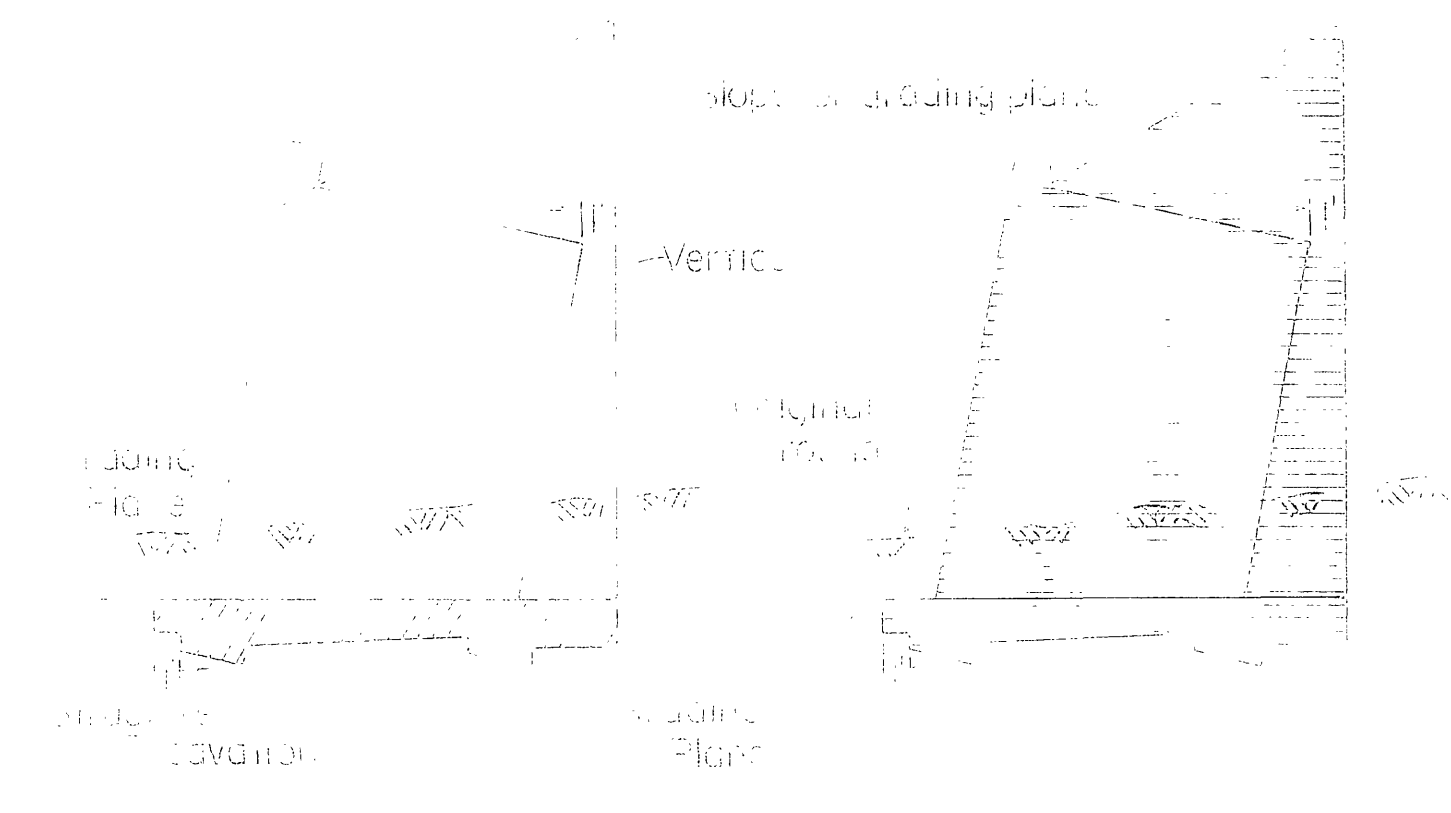
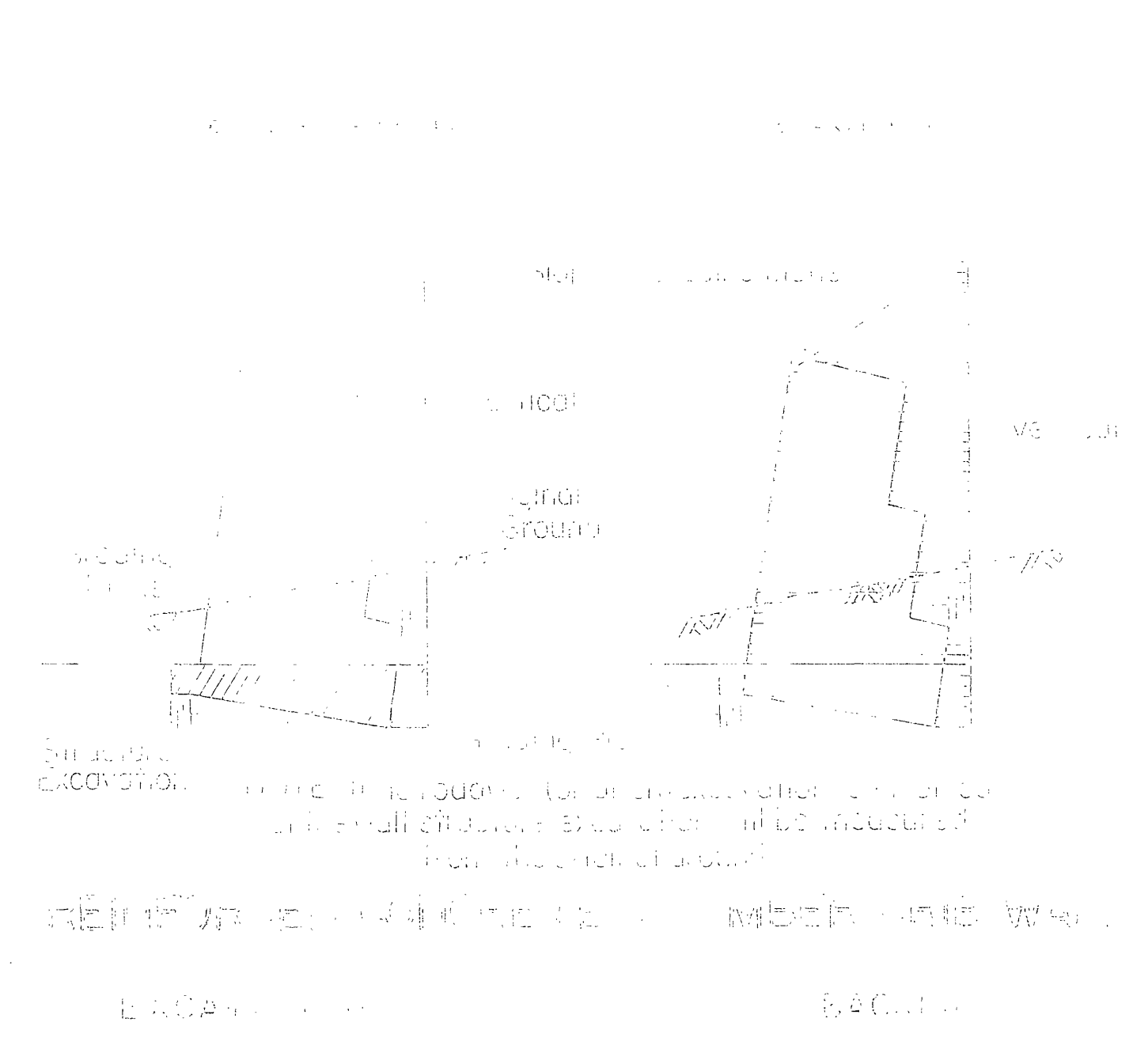
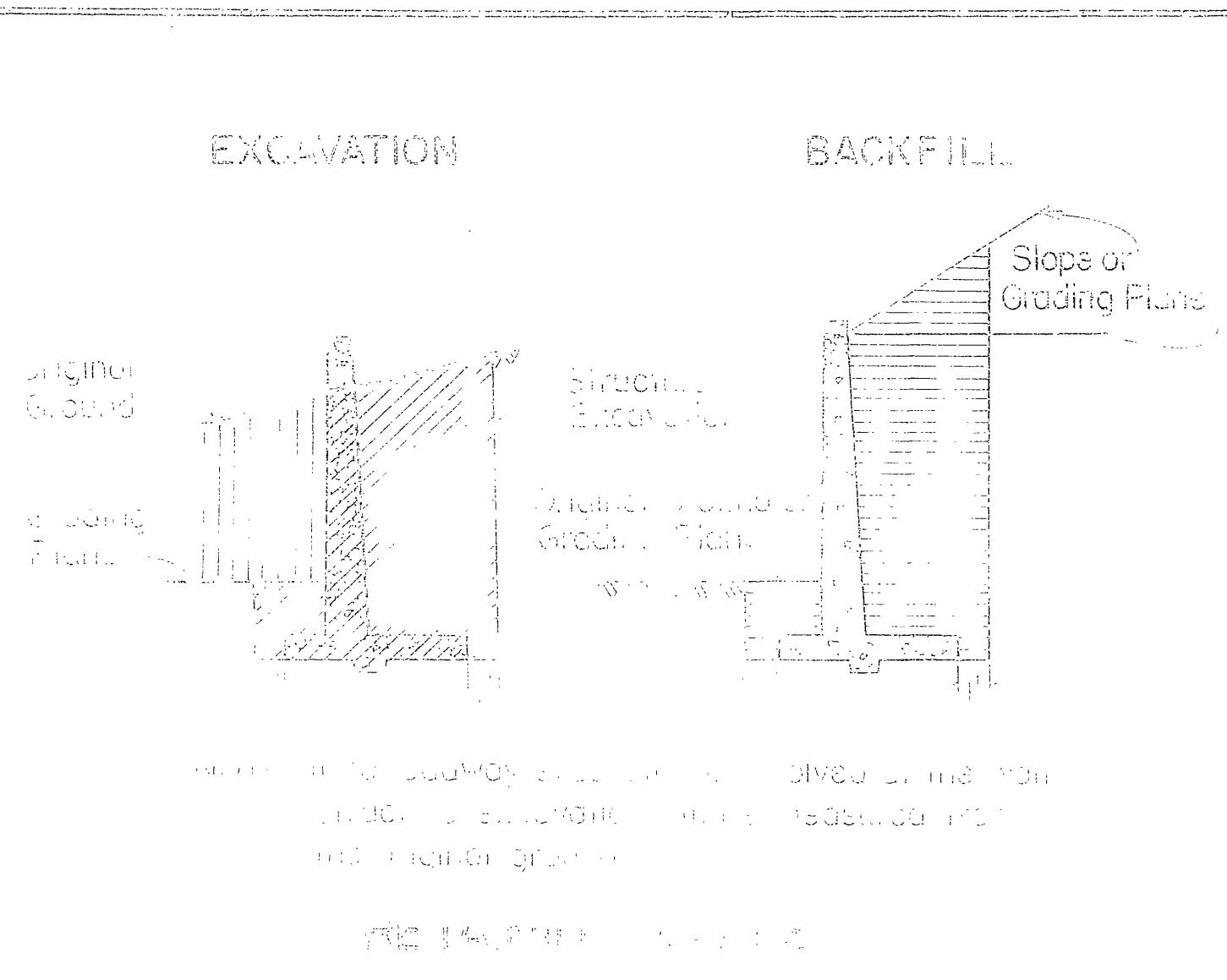
DATE: 8/29/66

[Signature]
State Highway Engineer
Registered Civil Engineer No. 5945

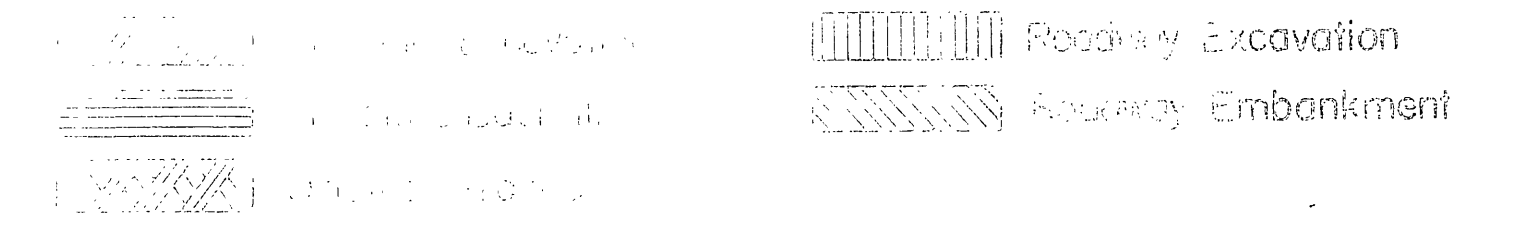
[Signature]
State Highway Engineer
Registered Civil Engineer No. 5645



NOTES:
1. In no roadway cut shall an abutment be used at bridge ends unless it is made in accordance with the original ground.
2. Quantities of earth excavation and backfill shall be specified and shall be paid for in accordance with the limits of payment for excavation and backfill in the specifications in the quantity and estimate books for the project.



NOTE: In no roadway cut shall an abutment be used at bridge ends unless it is made in accordance with the original ground.



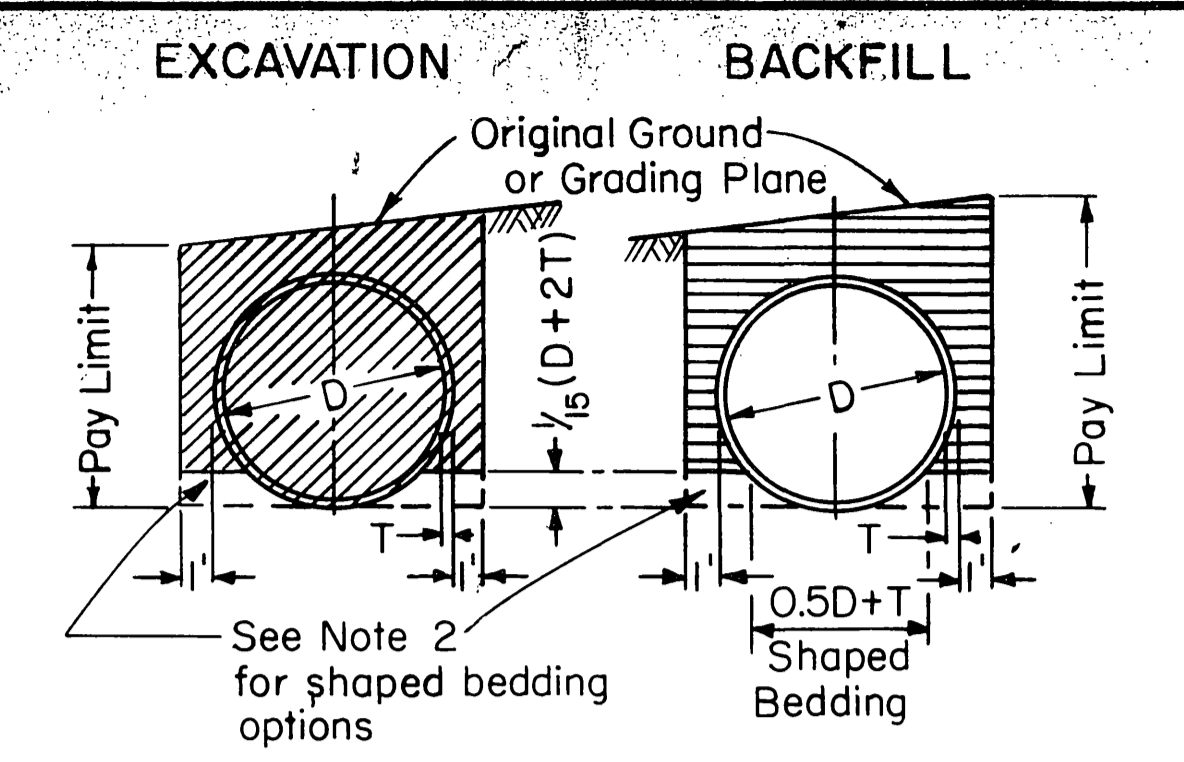
STATE OF CALIFORNIA
TRANSPORTATION AGENCY
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS
LIMITS OF PAYMENT FOR
EXCAVATION AND BACKFILL
BRIDGES AND WALLS

A62-B

APPROVAL RECOMMENDED
 J.C. Womack
 Assistant State Highway Engineer - Bridges
 J.C. Womack
 State Highway Engineer
 Registered Civil Engineer No. 5945
 Approved September 30, 1965

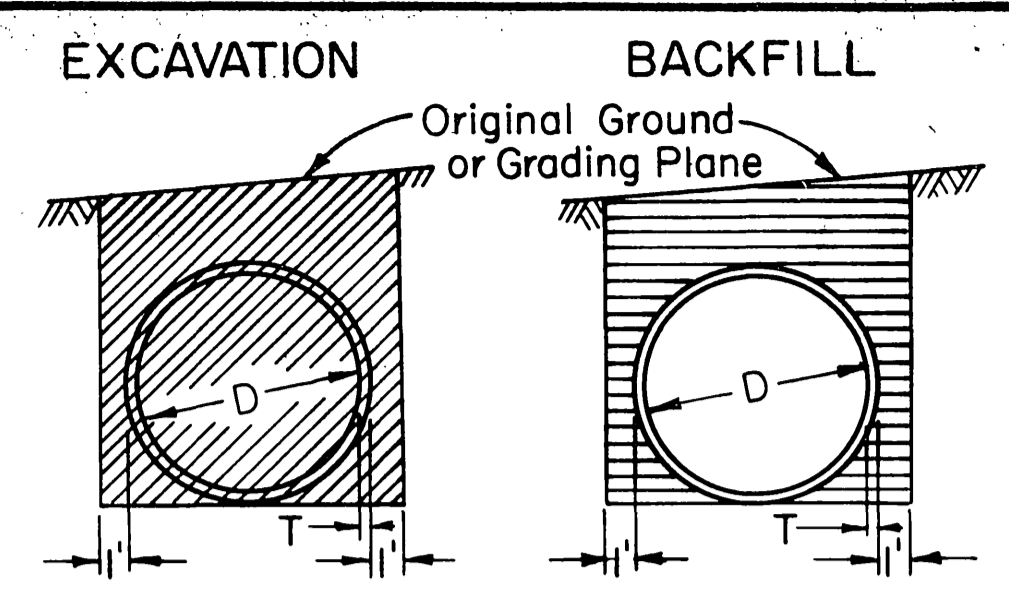
By: J. A. ...
 Deputy State Highway Engineer
 Registered Civil Engineer No. 5645

TYPE	SPANS	y
Pipe, Arch	6'-1" and over	0.06 span
Vehicular Underpass	12'-6"	4"
"	13'-3" to 14'-10"	5"
"	15'-5" to 17'-3"	9"
"	20'-3" to 20'-7"	7"



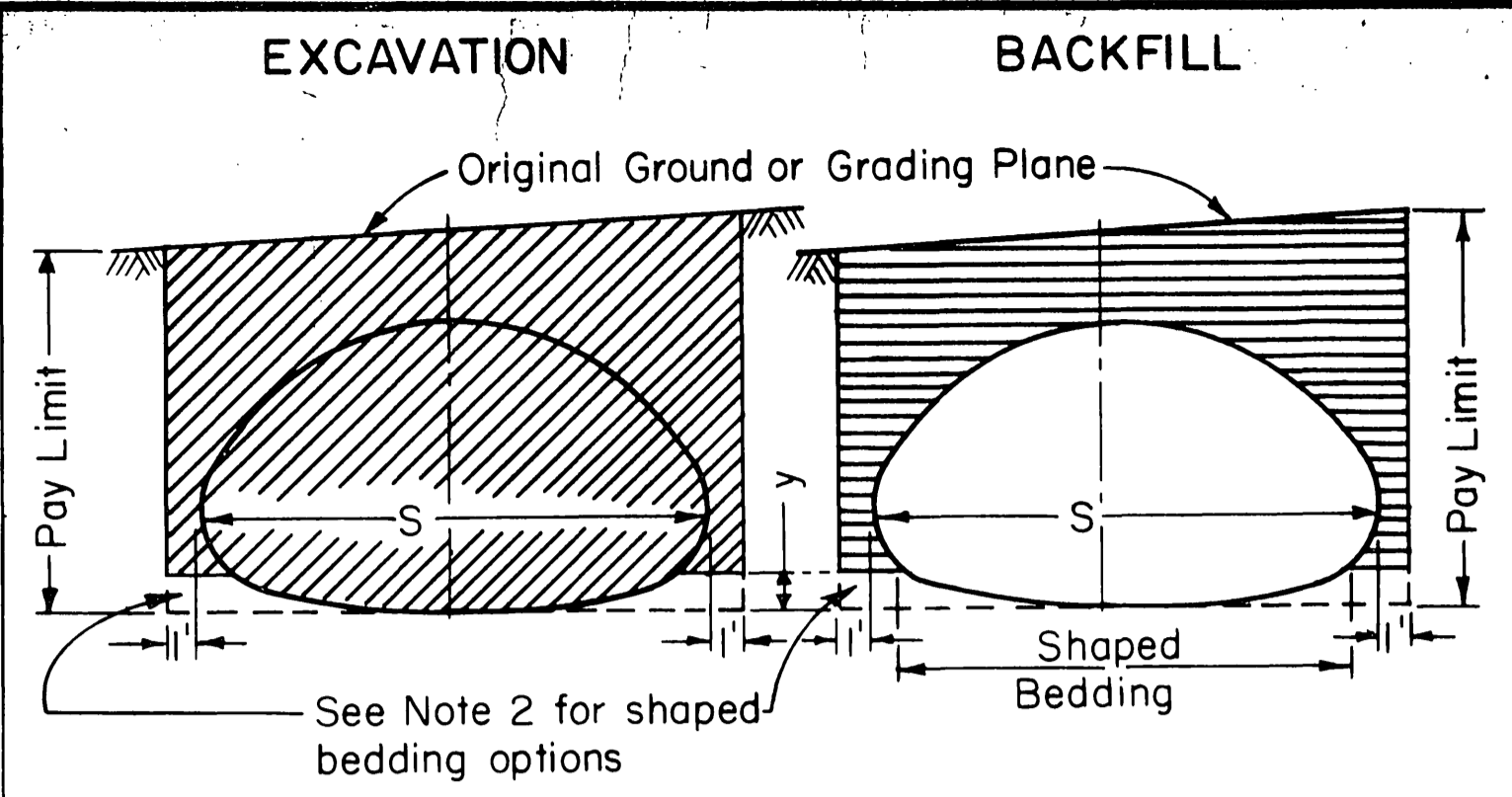
Pipes 42" diameter and less than 72" diameter with 50' or more depth of cover. Pipes 72" diameter and over, with any depth of cover.

SHAPED BEDDING IN TRENCH

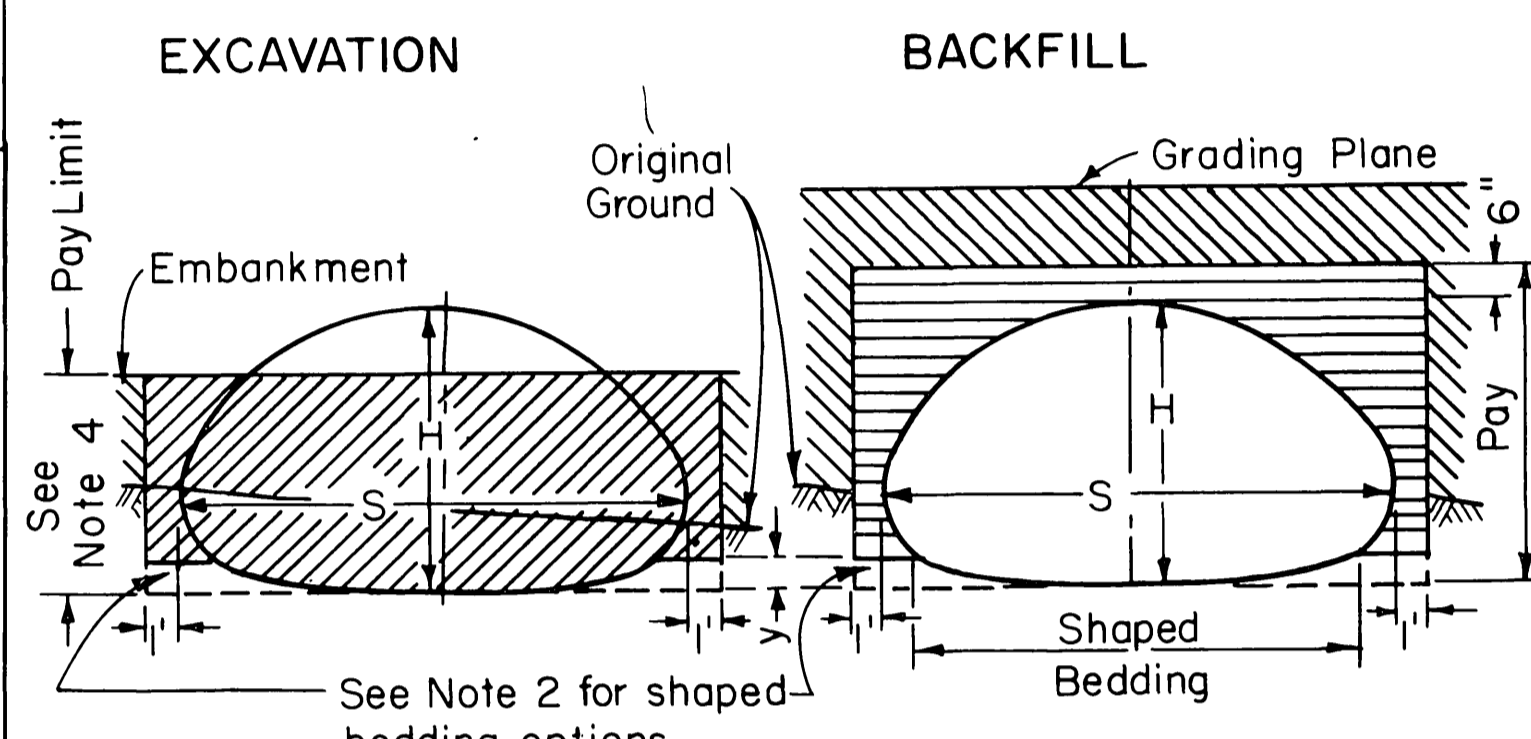


Pipes less than 42" diameter. Pipes 42" diameter and less than 72" diameter with less than 50' depth of cover.

FLAT BEDDING IN TRENCH

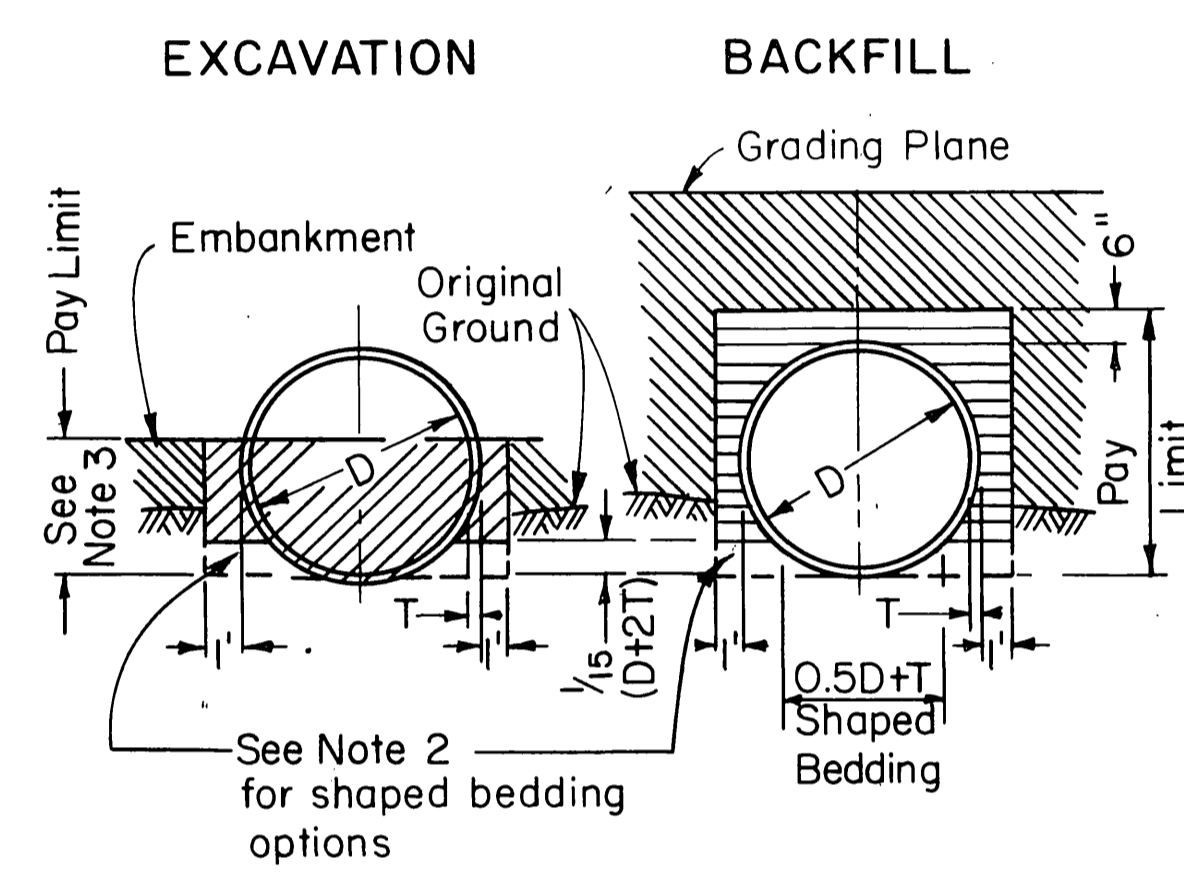


IN TRENCH



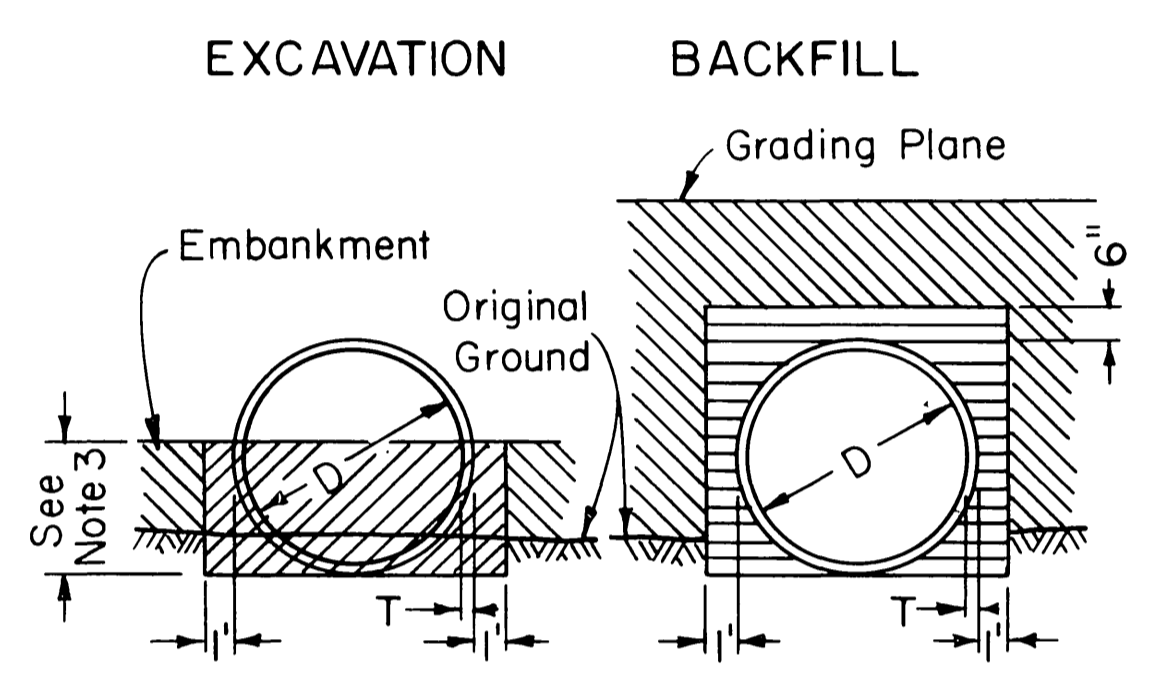
IN EMBANKMENT

STRUCTURAL PLATE PIPE, ARCHES, AND VEHICULAR UNDERPASSES



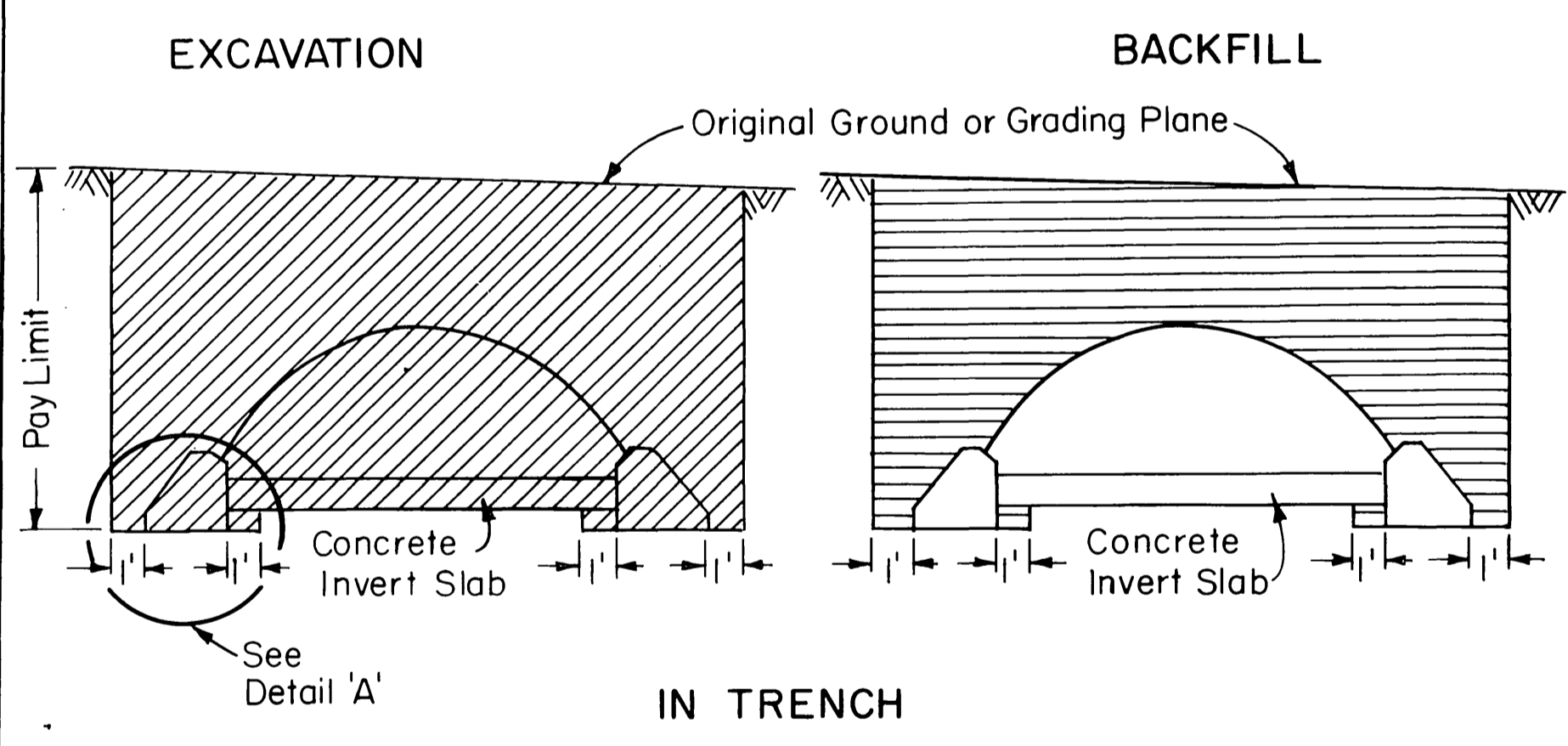
Pipes 42" diameter and less than 72" diameter with 50' or more depth of cover. Pipes 72" diameter and over, with any depth of cover.

SHAPED BEDDING IN EMBANKMENT

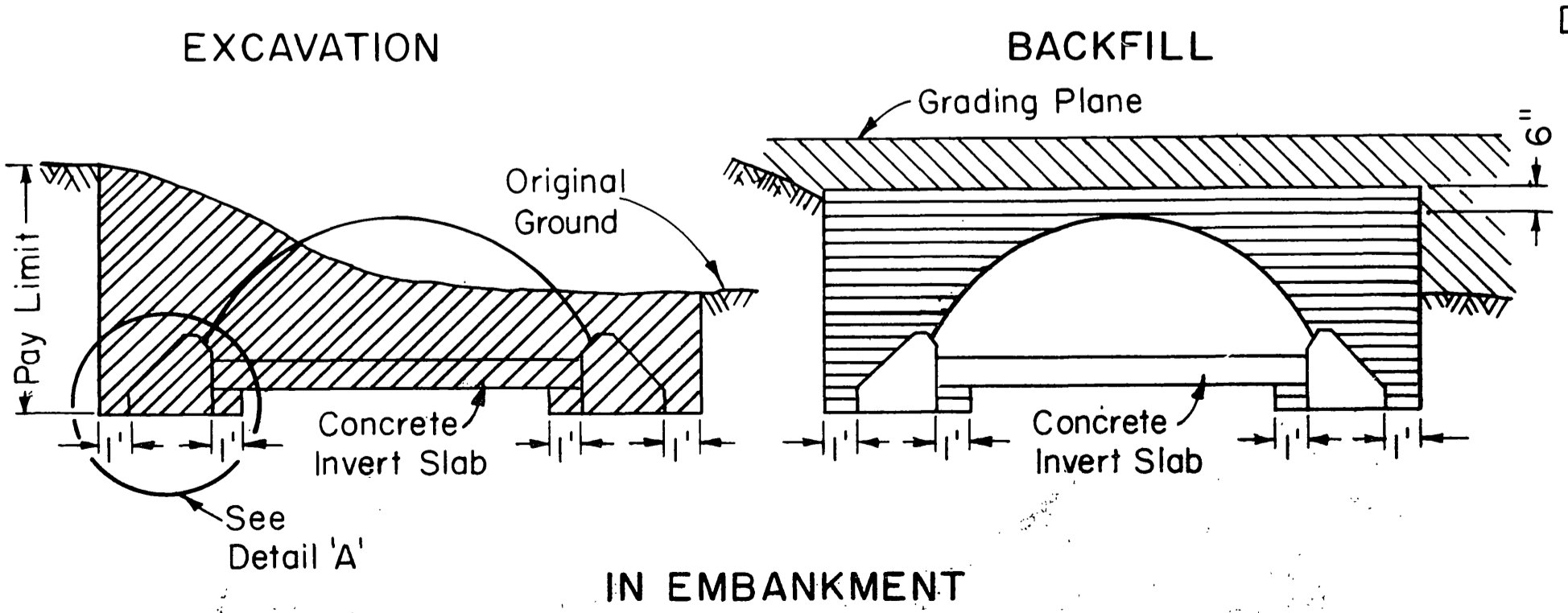


Pipes less than 42" diameter. Pipes 42" diameter and less than 72" diameter with less than 50' depth of cover. Rods and deadmen.

FLAT BEDDING IN EMBANKMENT

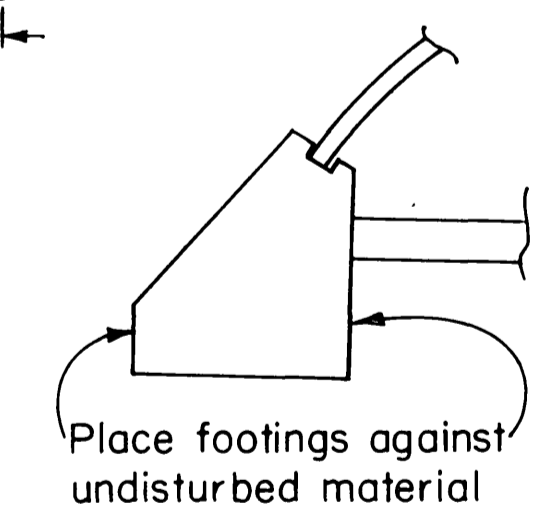


IN TRENCH

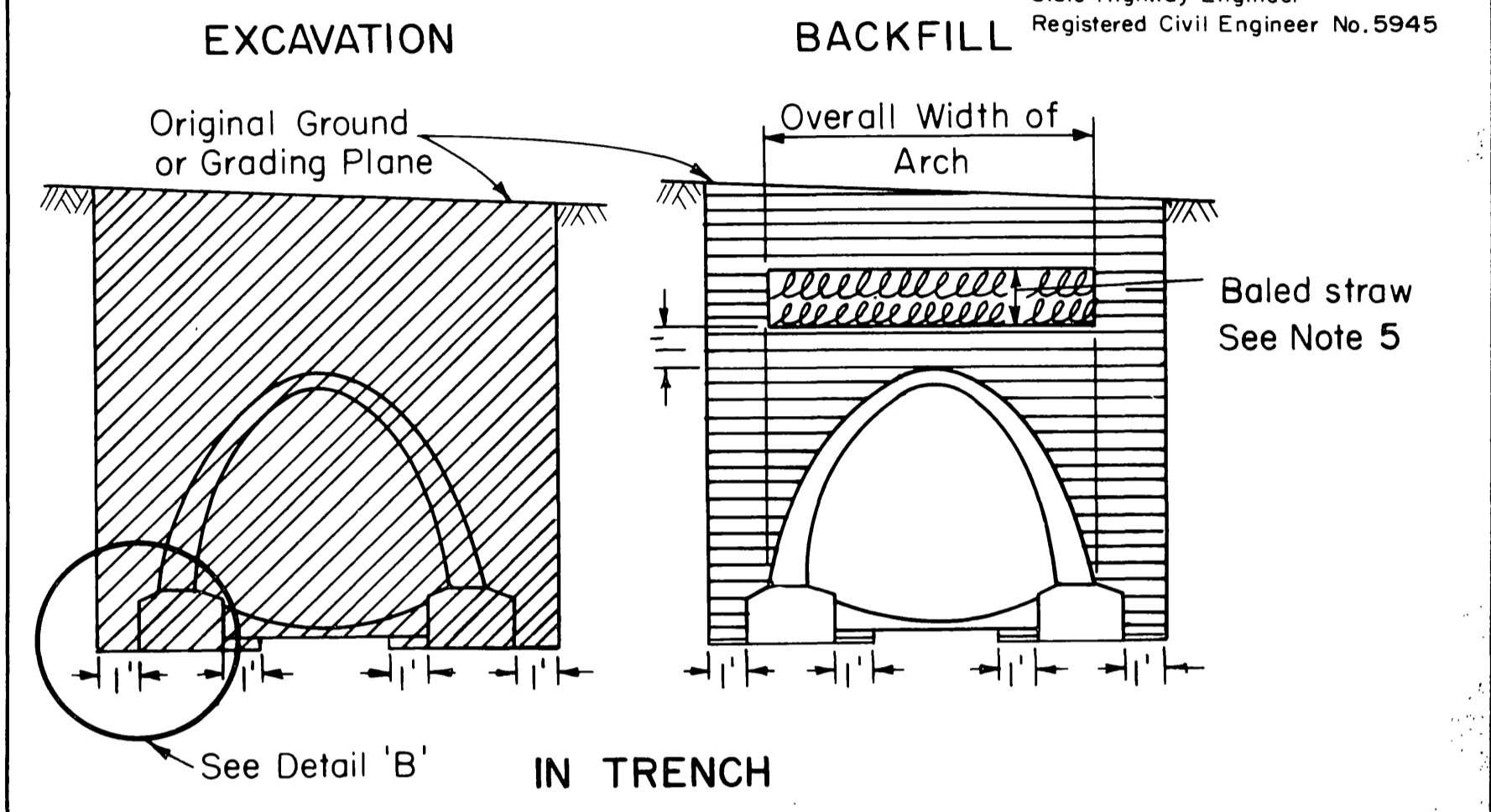


IN EMBANKMENT

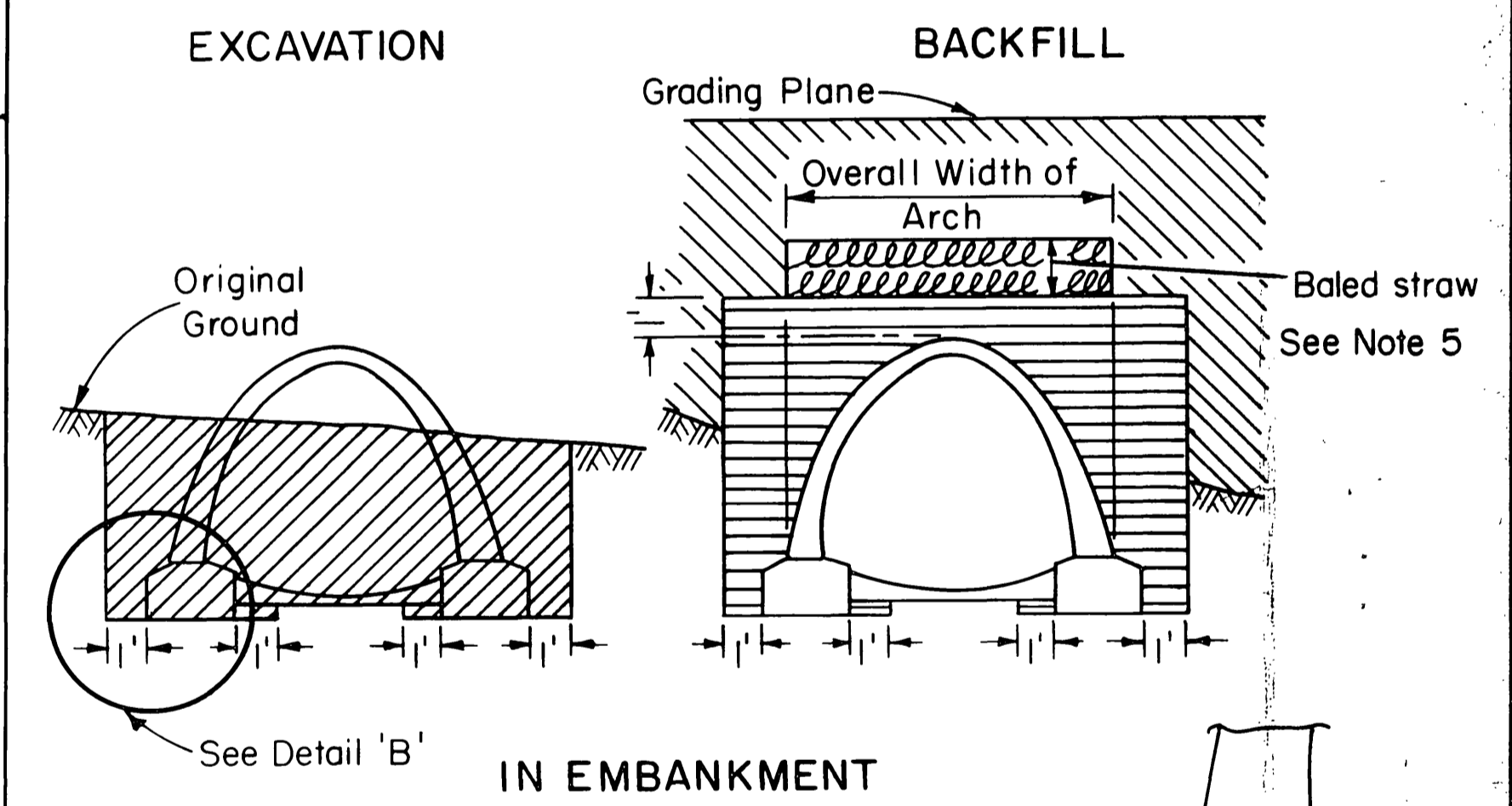
STRUCTURAL PLATE ARCHES



DETAIL 'A'



IN TRENCH



IN EMBANKMENT

Place footings against undisturbed material

R.C. ARCH CULVERTS

DETAIL 'B'

LEGEND

	Structure Excavation		Roadway Excavation
	Structure Backfill		Roadway Embankment
	Baled Straw Backfill		Original Ground

08-180074

STATE OF CALIFORNIA
 TRANSPORTATION AGENCY
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL CULVERT, PIPE and ARCH

A62-C

NOTES

- For payment quantities excavation and backfill concrete pipe, T = minimum wall thickness as shown in A.A.S.H.O. M170 for Class III Pipe, Wall A. For C.M.P. and S.P.P. T = 0.00
- Shaped Bedding
 Option 1 - Provide shaped bedding in excavation.
 Option 2 - Excavate full depth, backfill and shape bedding in backfill material.
- Embankment 6" above top of pipe for diameters of 24" and less. 30" minimum for diameters from 27" to 42" inclusive. 2/3 D for diameters of 45" or more.
- Embankment 6" above top of pipe, arch for height (H) less than 27". 30" minimum for height (H) from 27" to 57" inclusive. 1/2 H for heights of 60" and over.
- Depth of Baled straw = 0.02 x fill depth in feet, 2' minimum, but not greater than 0.60 span. Omit Baled straw when fill depth over crown is less than 1.4 x Span + 12'.
- Corrugated metal pipe, arches and structural plate pedestrian underpasses to be placed in flat bedding, pay limit is to the flow line of the pipe.
- Diagrams for circular pipes, above, do not apply to overside drains.

To accompany plans dated August 29, 1964

DISTRICT	COUNTY	ROUTE	Post Miles - Total	Project	Sheet	Total
08	RIV	1249	CR, RIV		29	44

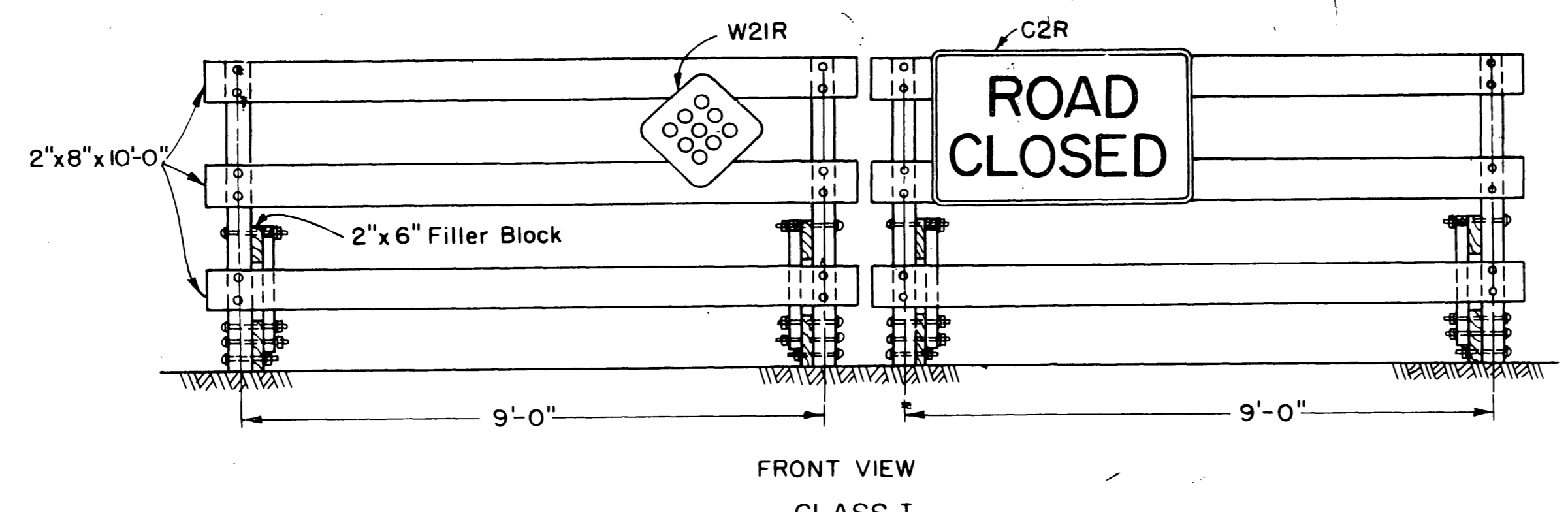
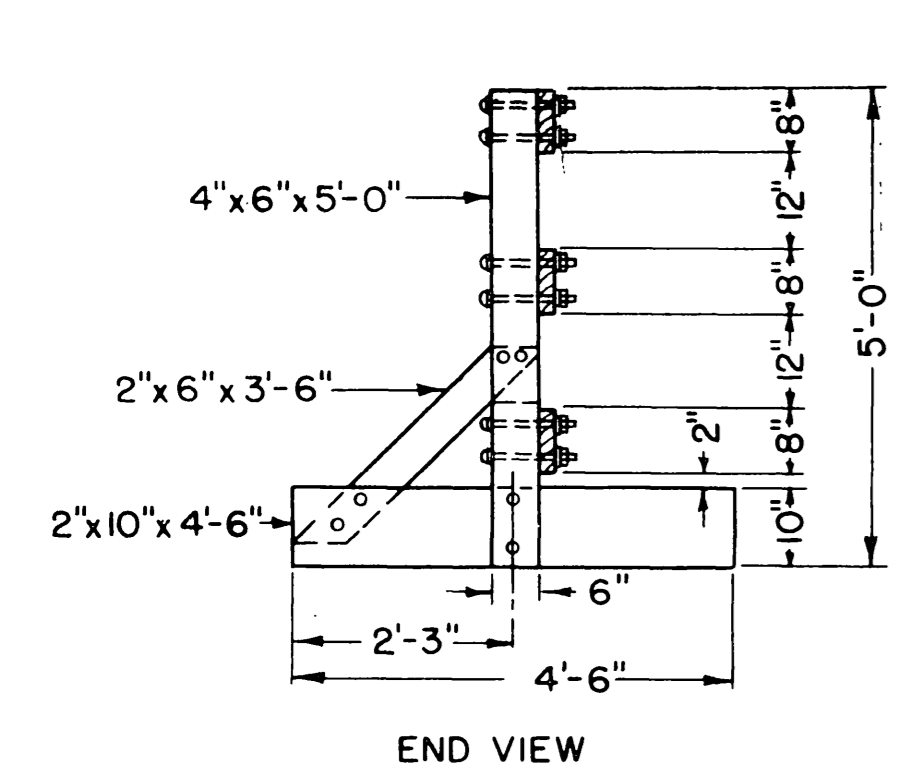
APPROVAL RECOMMENDED

E.W. Palmer-Jell
 Assistant Traffic Engineer
 Registered Civil Engineer No. 5930

ACCA
 Engineer of Design
 Registered Civil Engineer No. 9837

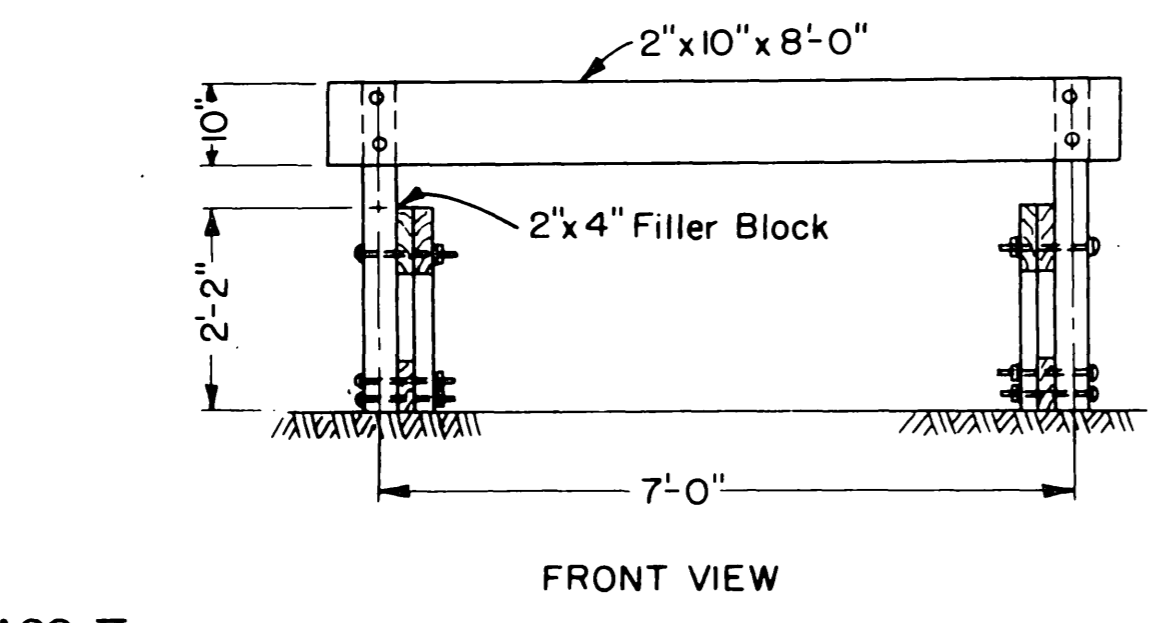
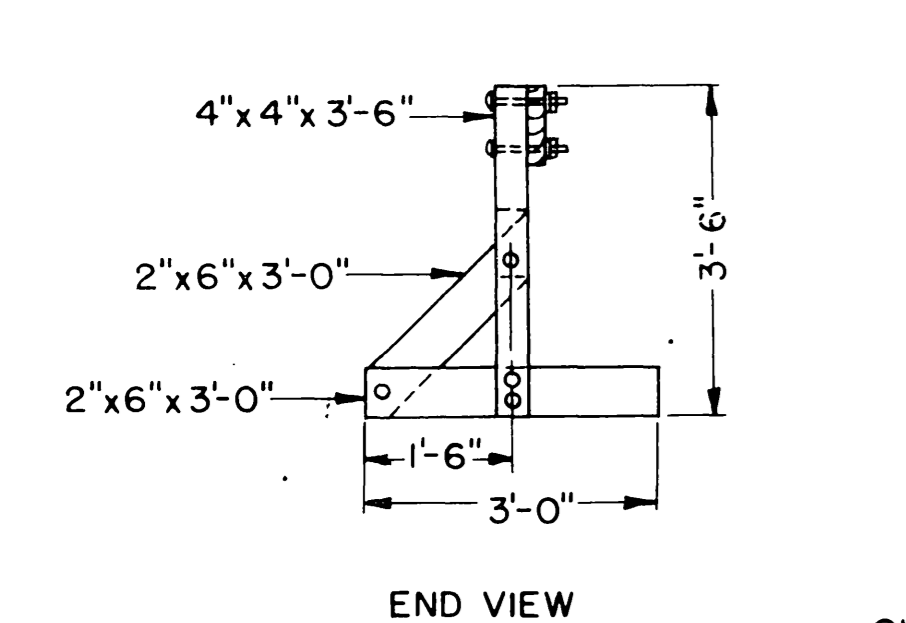
Approved December 23, 1964

State Highway Engineer
 Registered Civil Engineer No. 5945

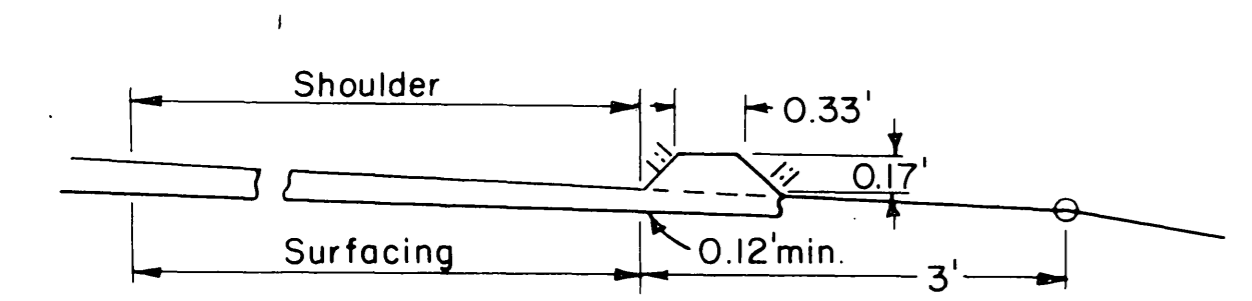


CLASS I
 TIMBER BARRICADES
 10' SECTIONS

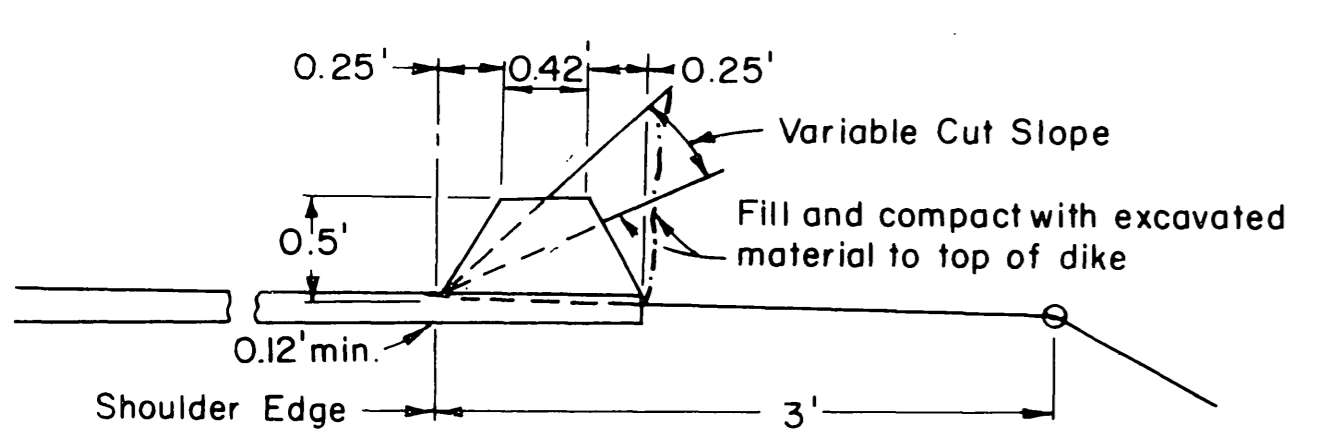
NOTE: Signs to be furnished by State.
 All timber to be S4S.
 Use 1/2" Carriage bolts with cut washers and nuts.



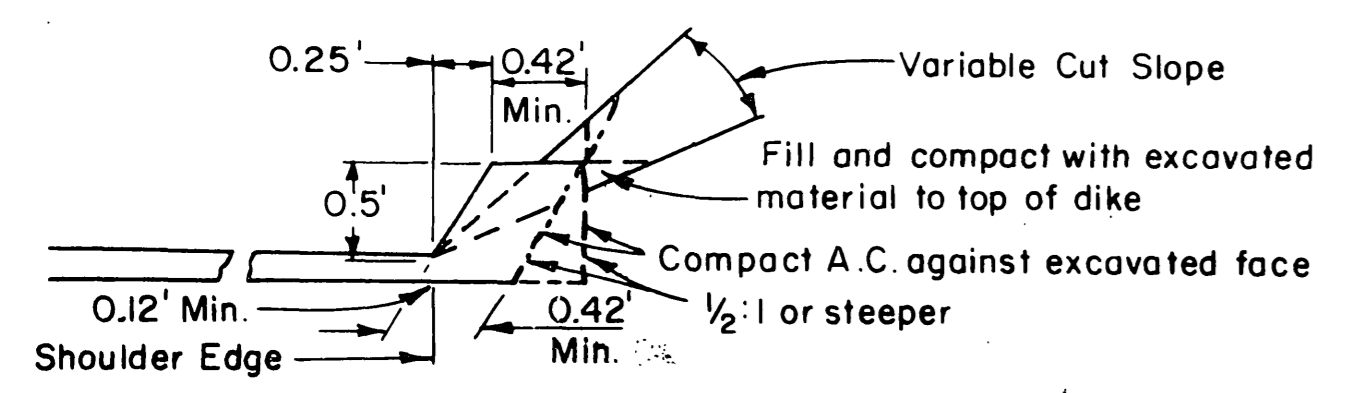
CLASS II
 TIMBER BARRICADE
 8' SECTION



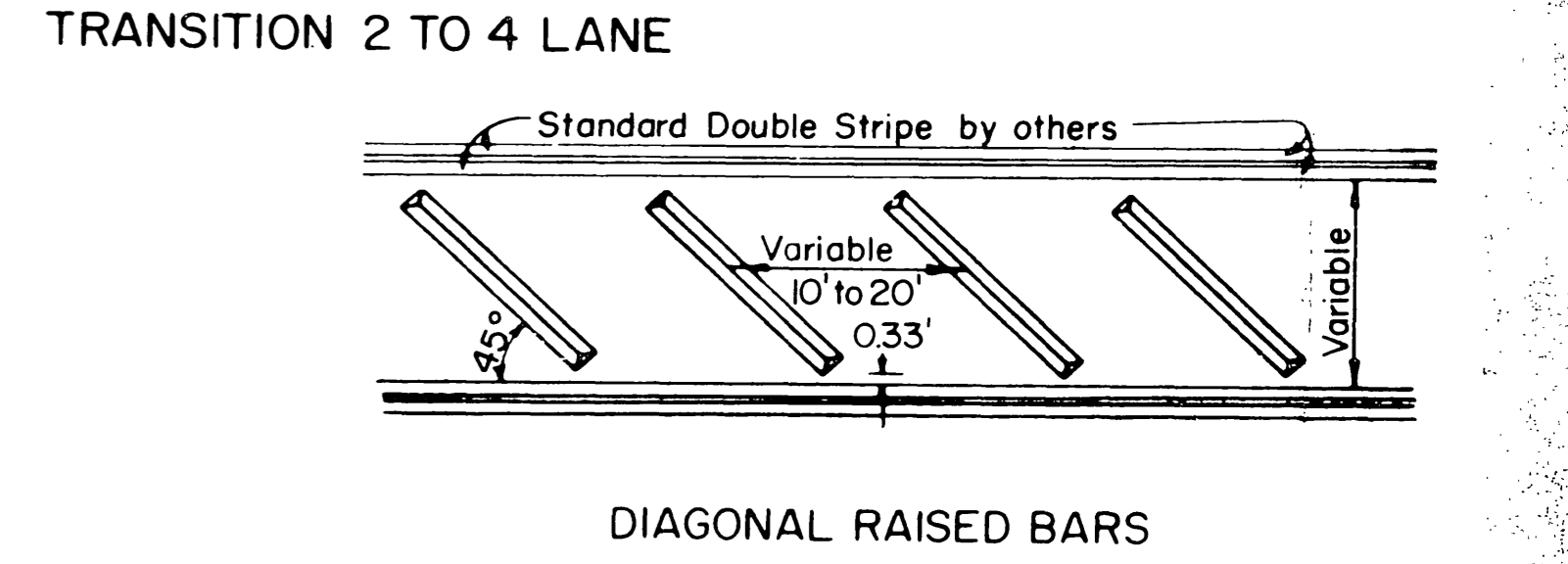
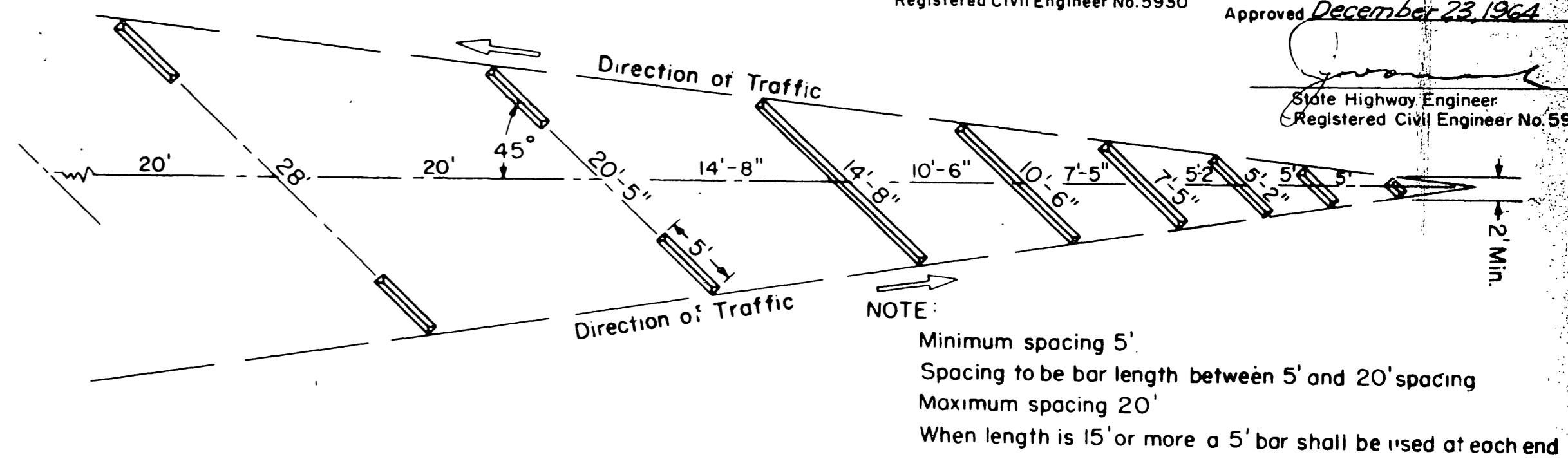
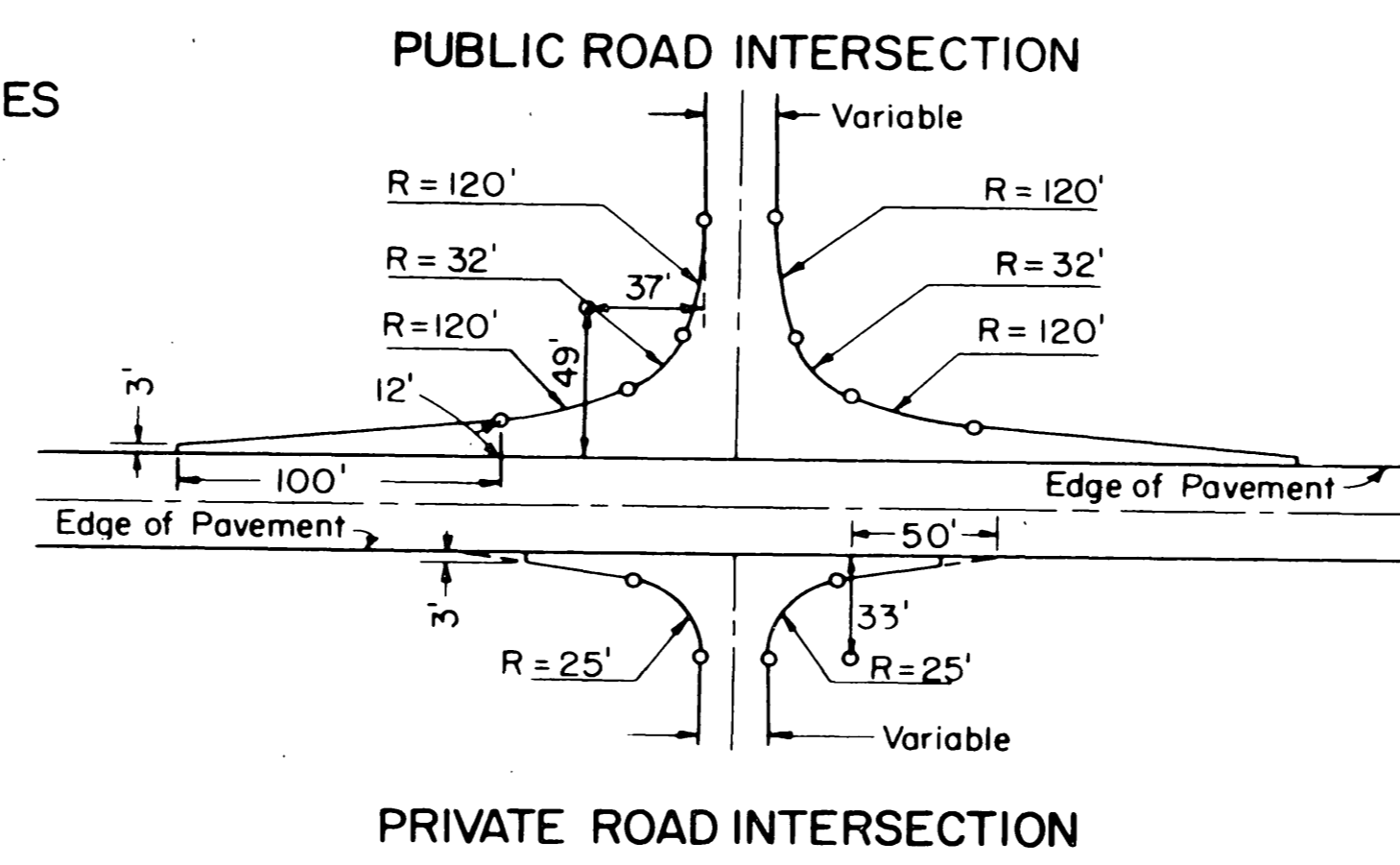
0.17' DIKE



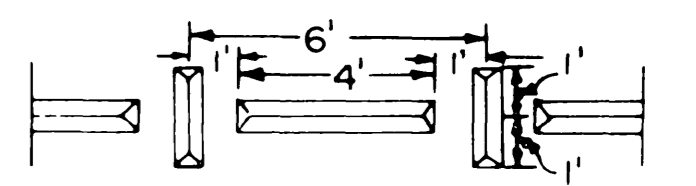
0.5' DIKE - TYPE A



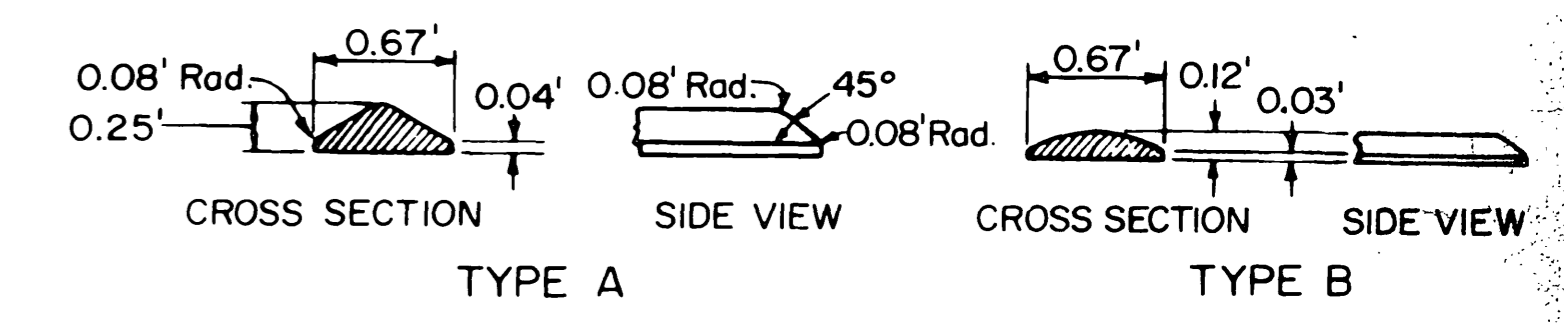
0.5' DIKE - TYPE B



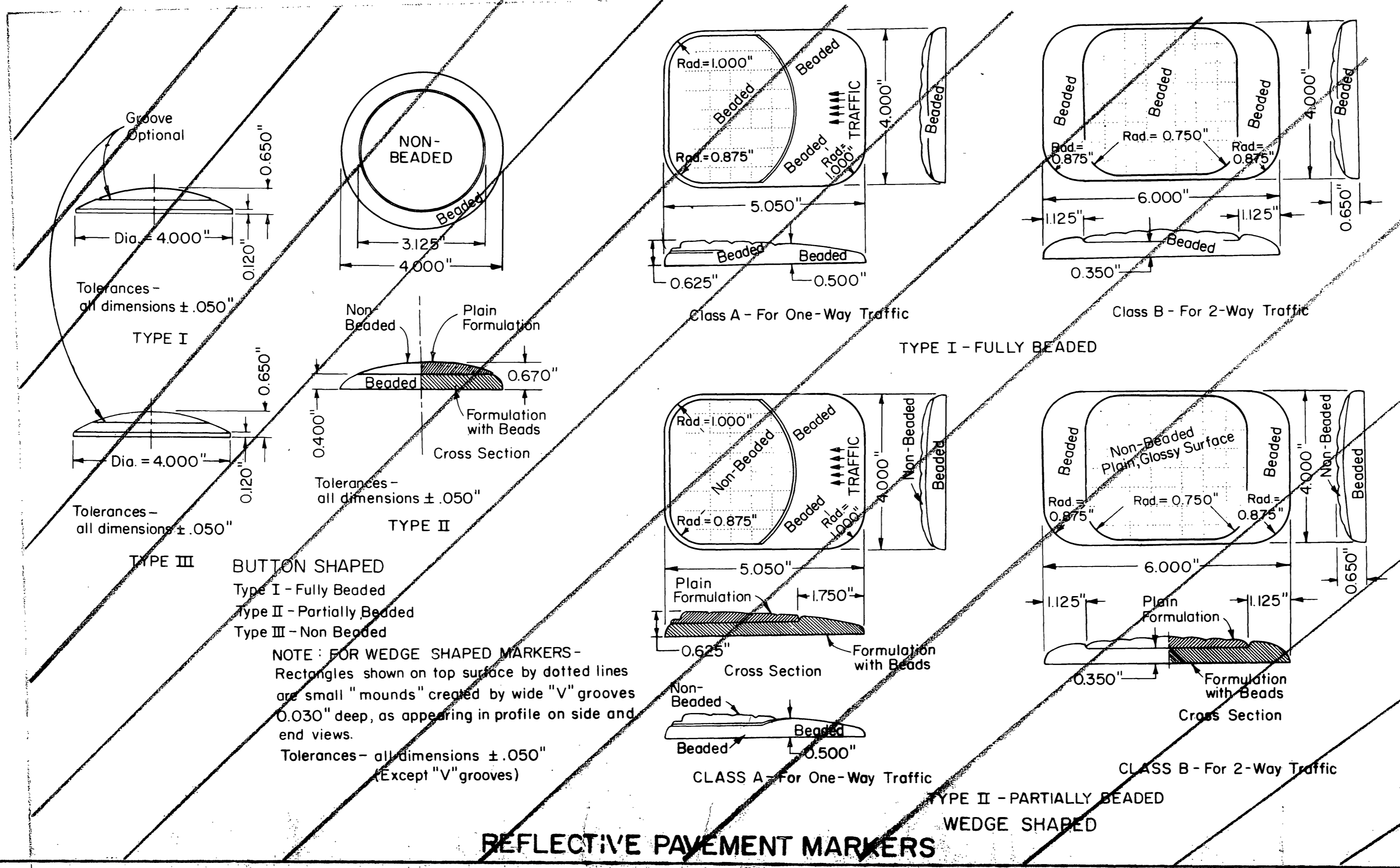
DIAGONAL RAISED BARS



T-TRAFFIC BARS



RAISED TRAFFIC BARS



REFLECTIVE PAVEMENT MARKERS

08-180074
 STATE OF CALIFORNIA
 TRANSPORTATION AGENCY
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

TIMBER BARRICADES, RAISED TRAFFIC BARS, DIKES AND REFLECTIVE PAVEMENT MARKERS

To Accompany Plans Dated August 29, 1965

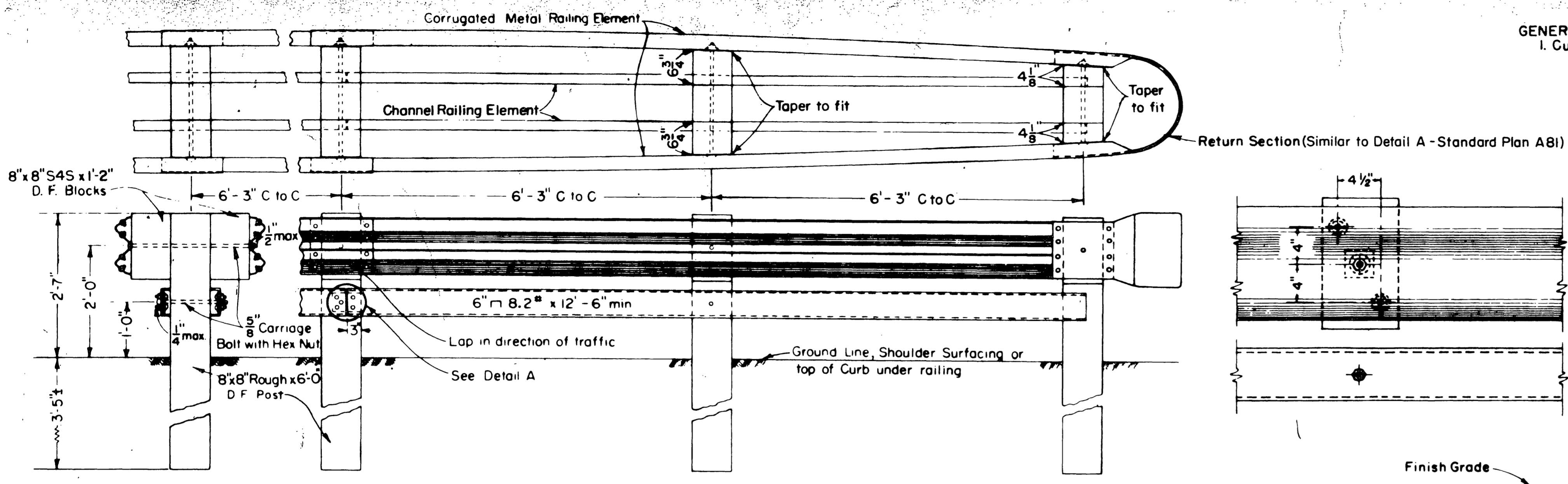
DISTRICT	COUNTY	ROUTE	Post Miles	Total Project	Sheet	Amount
08	RIV	1248	CR, RV	31	44	

APPROVAL RECOMMENDED
 Engineer of Design
 Registered Civil Engineer No. 8586

APPROVED
 Traffic Engineer
 Registered Civil Engineer No. 8586
 JULY 28, 1965

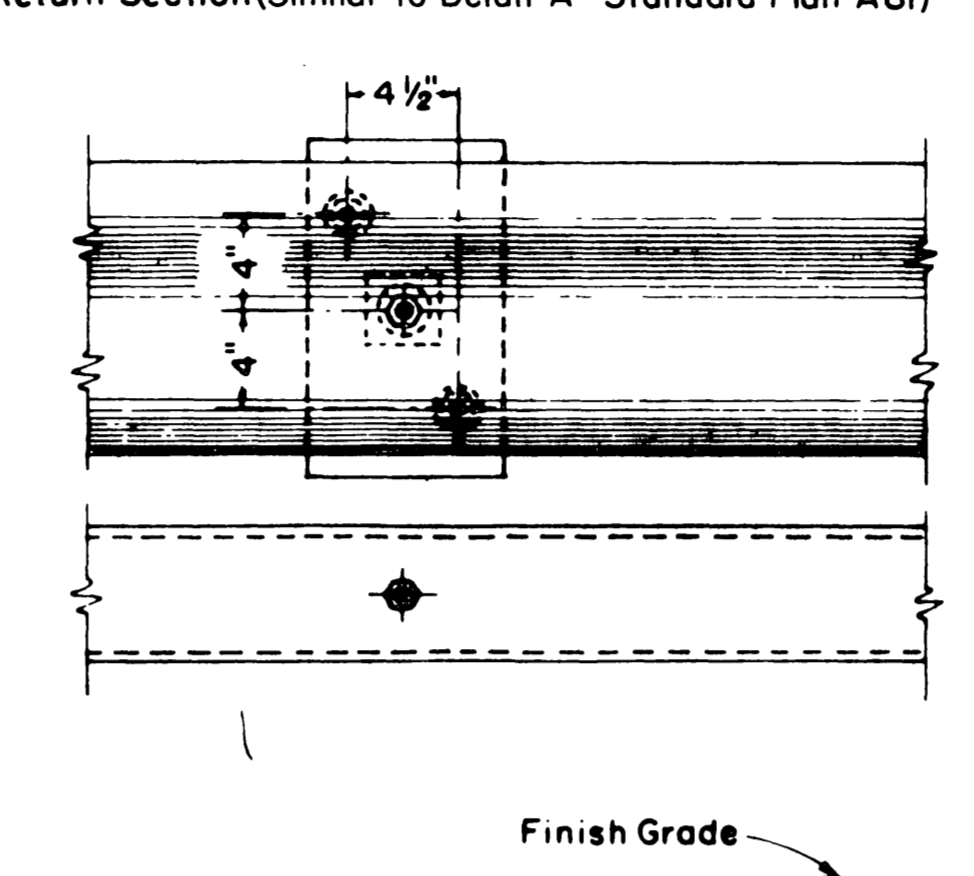
State Highway Engineer
 Registered Civil Engineer No. 5945

GENERAL NOTES:
 1. Cut washers are required at all bolt installations.

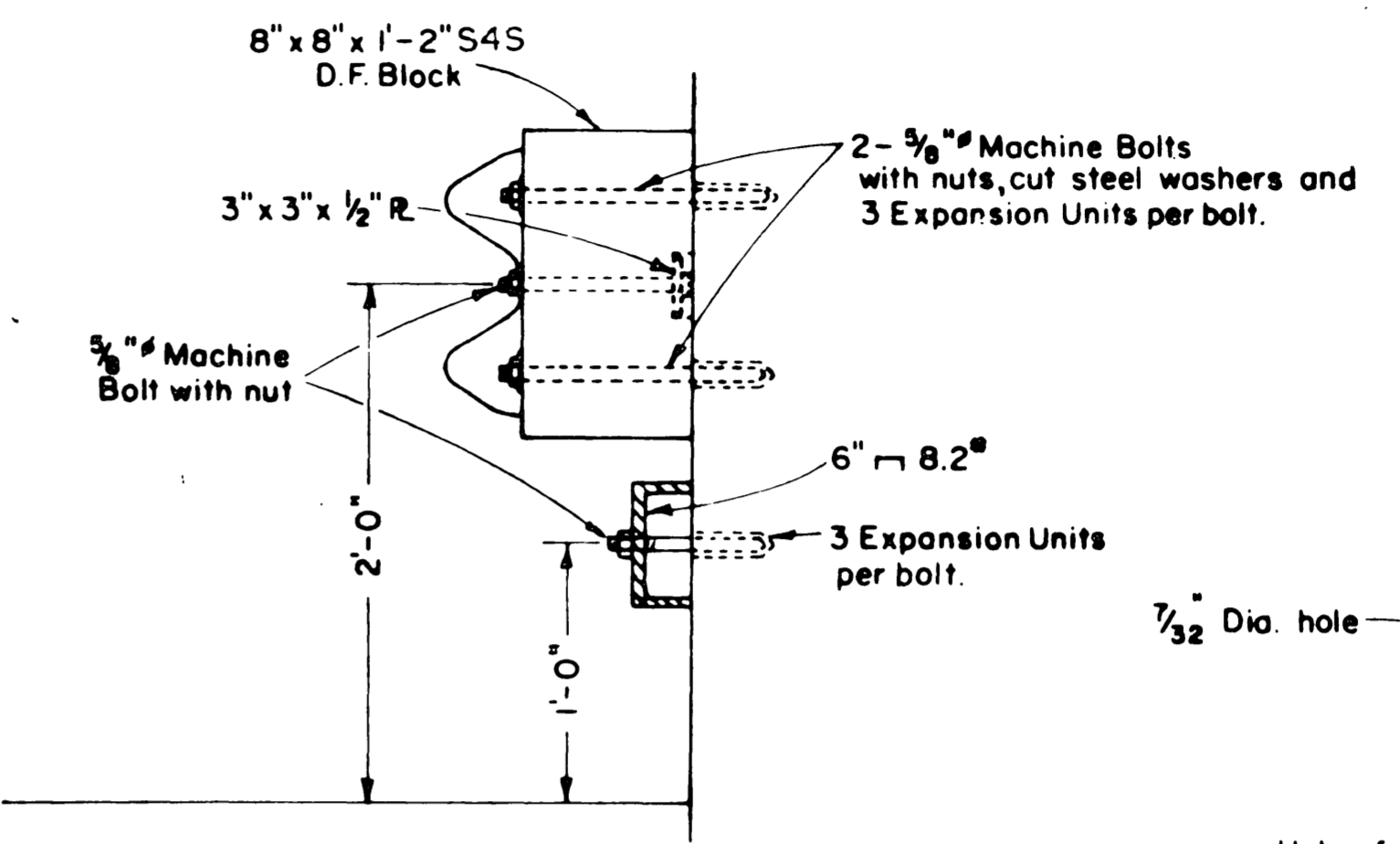


All nuts shown to be hex and placed on outside except rail splice bolts

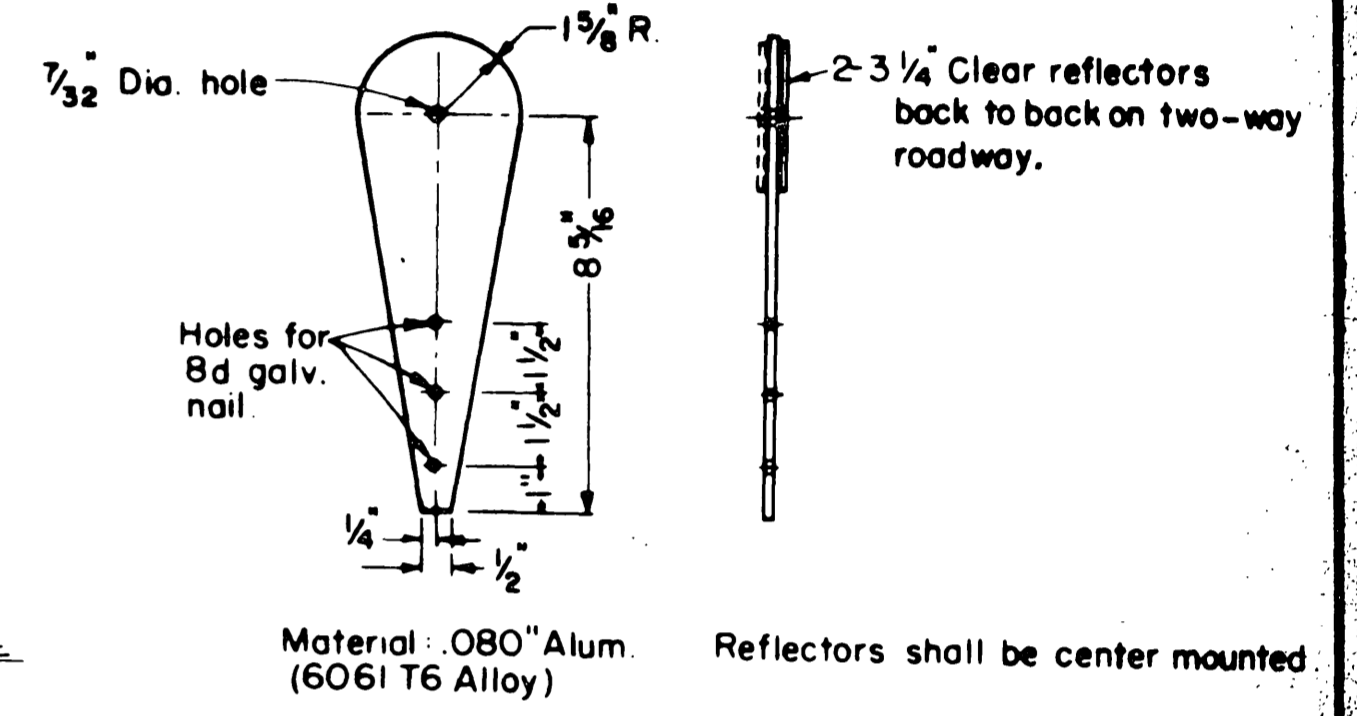
DOUBLE METAL BEAM BARRIER



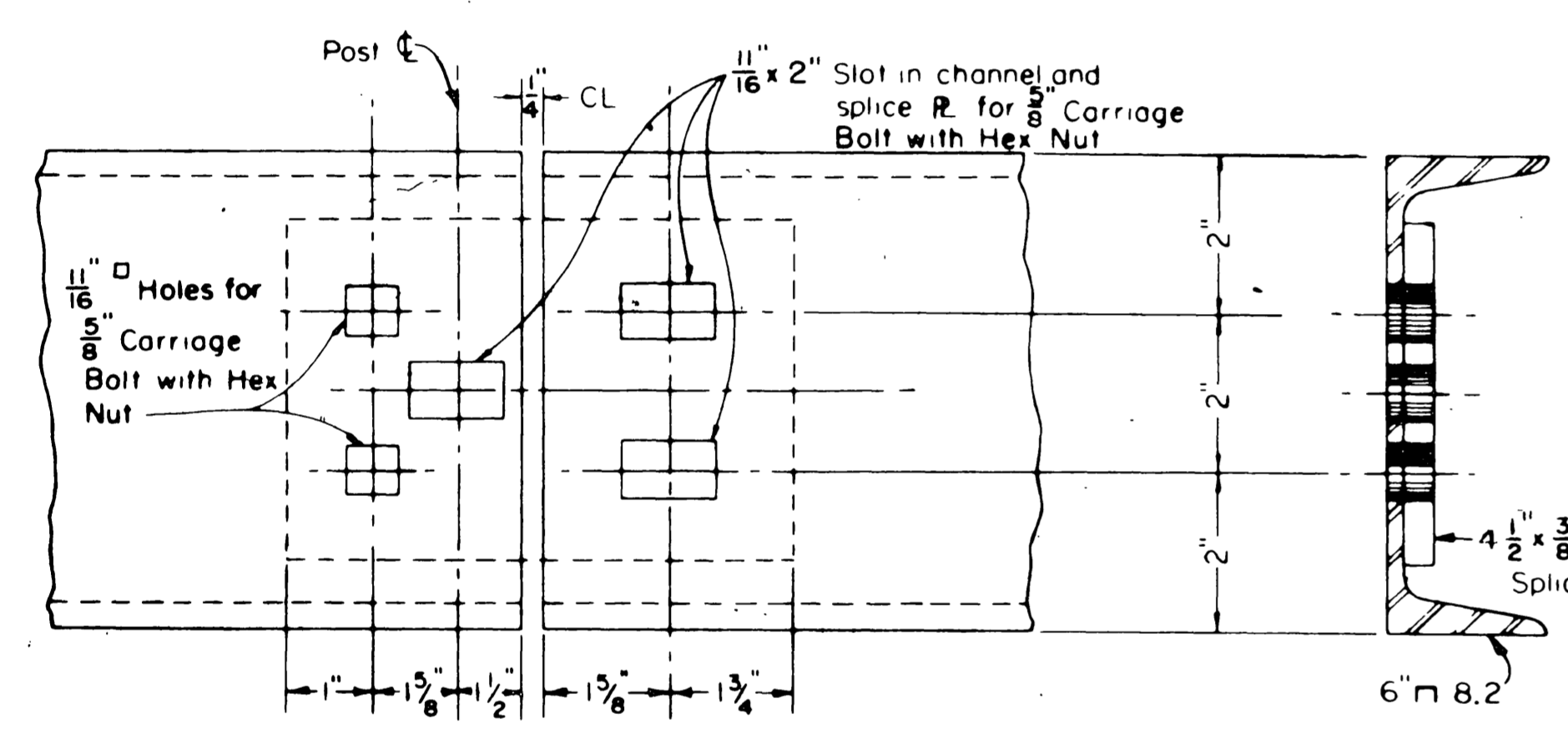
DETAIL B
 (Used only when necessary)



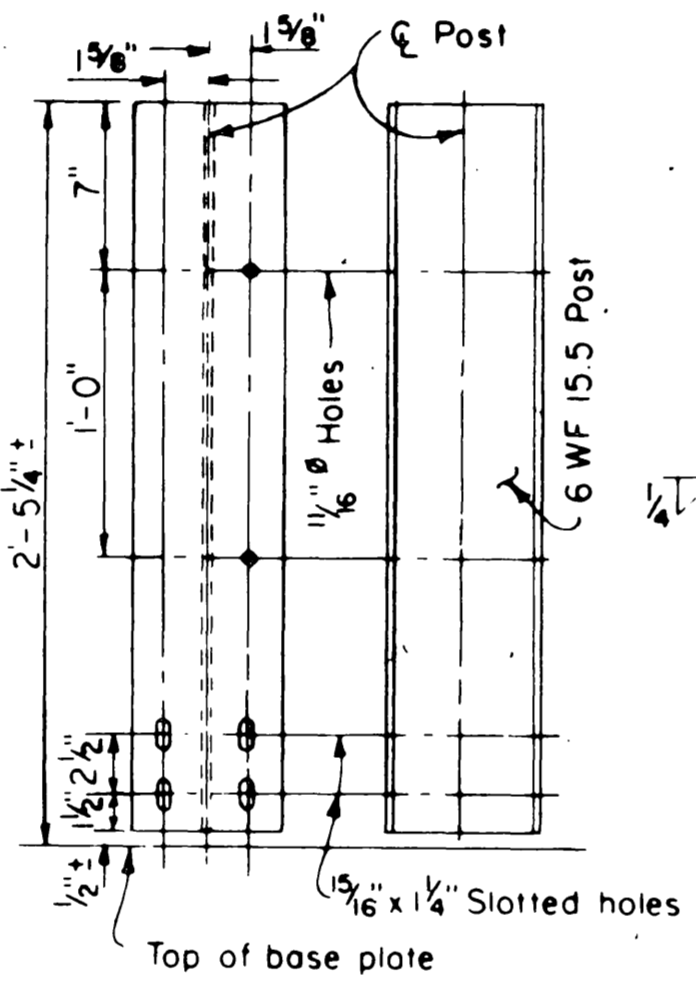
SAW TOOTH INSTALLATIONS



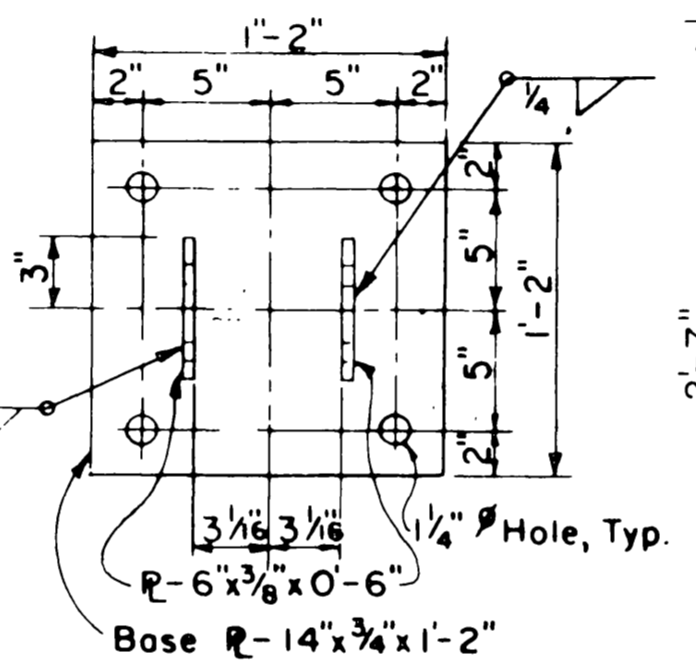
REFLECTOR ASSEMBLY



DETAIL 'A' OF BOTTOM RAIL SPLICE
 (Rail Splices to occur at Posts only)

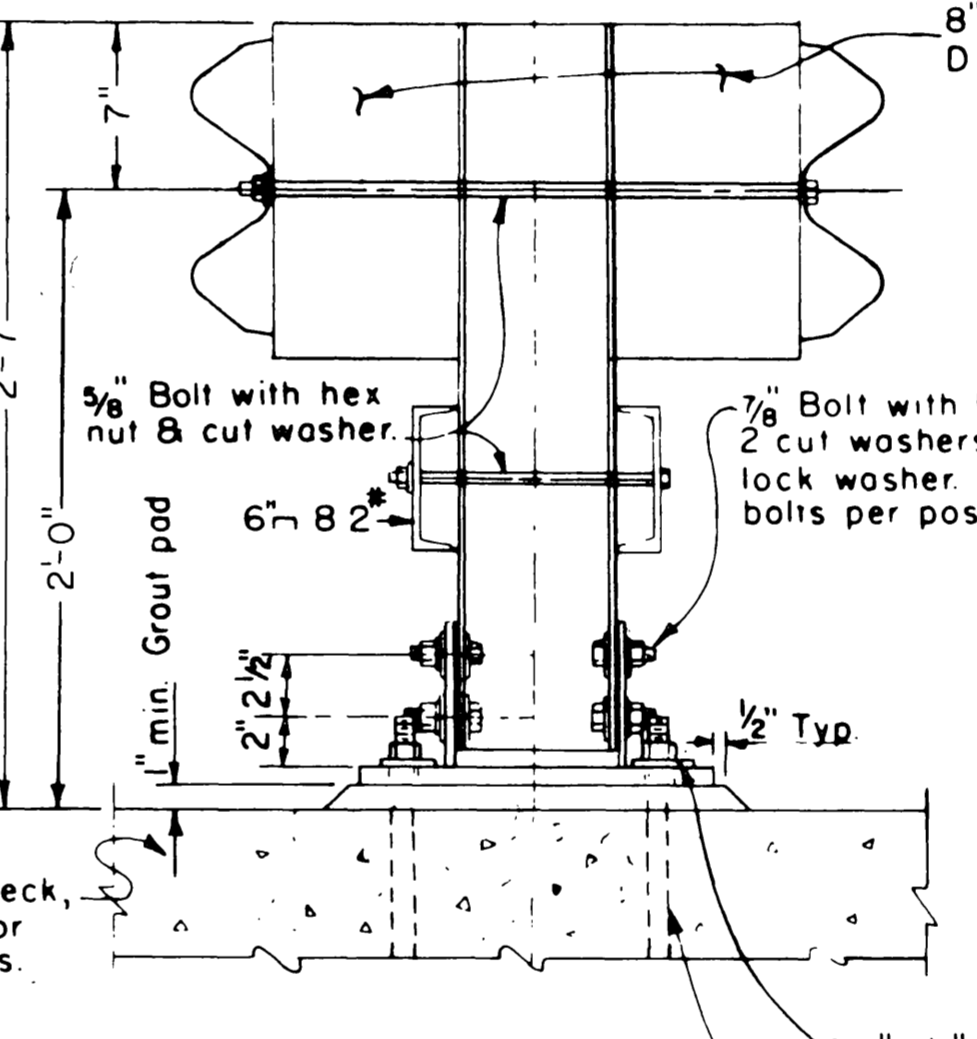


POST DETAILS

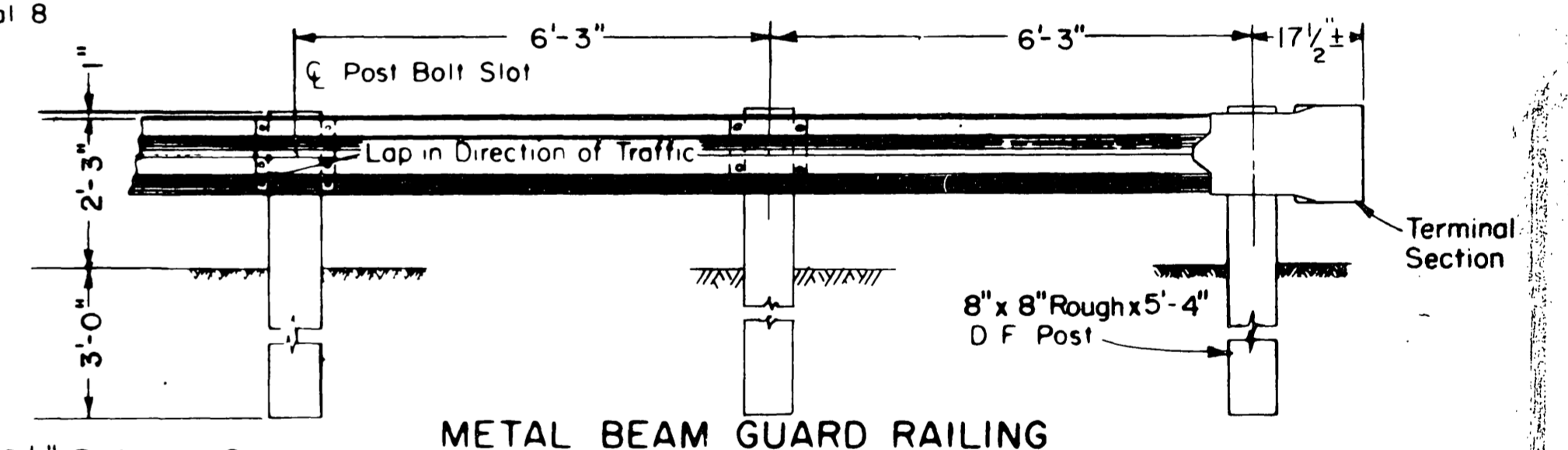


BASE PLATE PLAN

For connection to deck, see Bridge Plans or supplemental details.



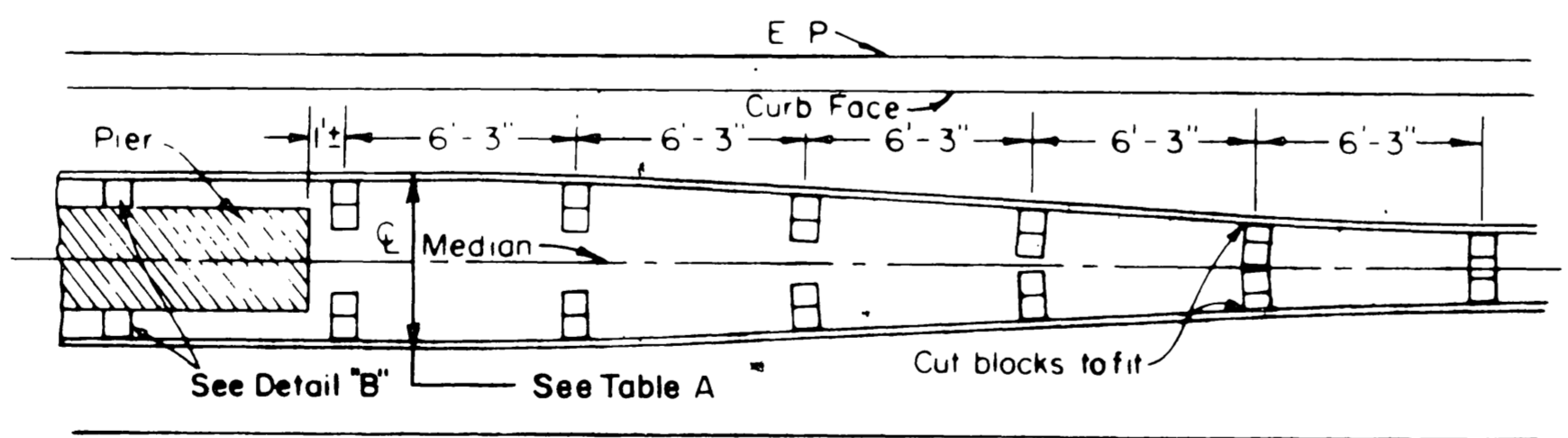
DOUBLE METAL BEAM BARRIER ON BRIDGE



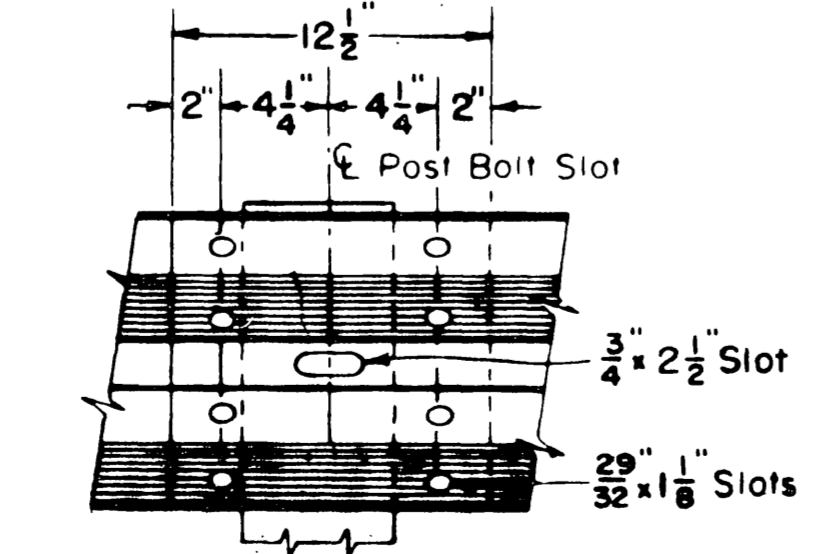
METAL BEAM GUARD RAILING

TABLE A

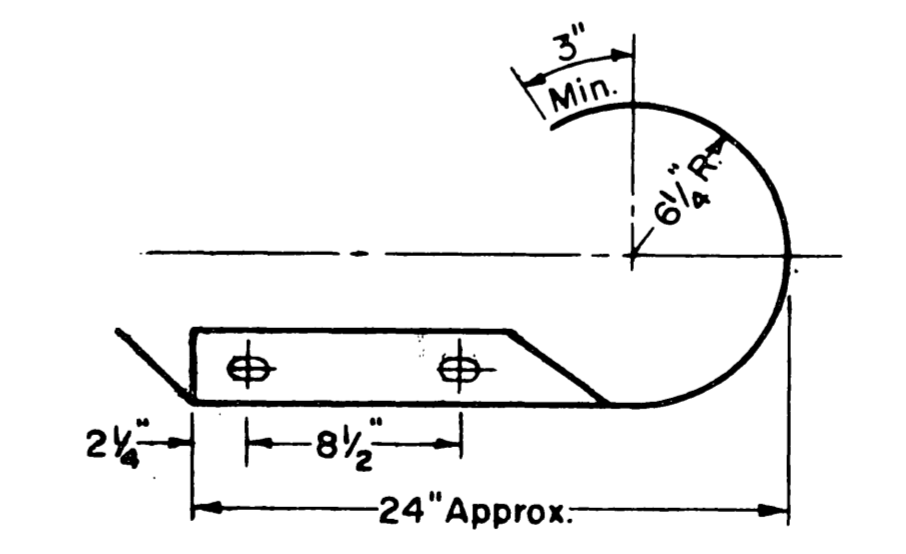
Median Width Ft.	Deflector Width - Ft.
22	6
23	7
24	8
25	9
26 and over	10



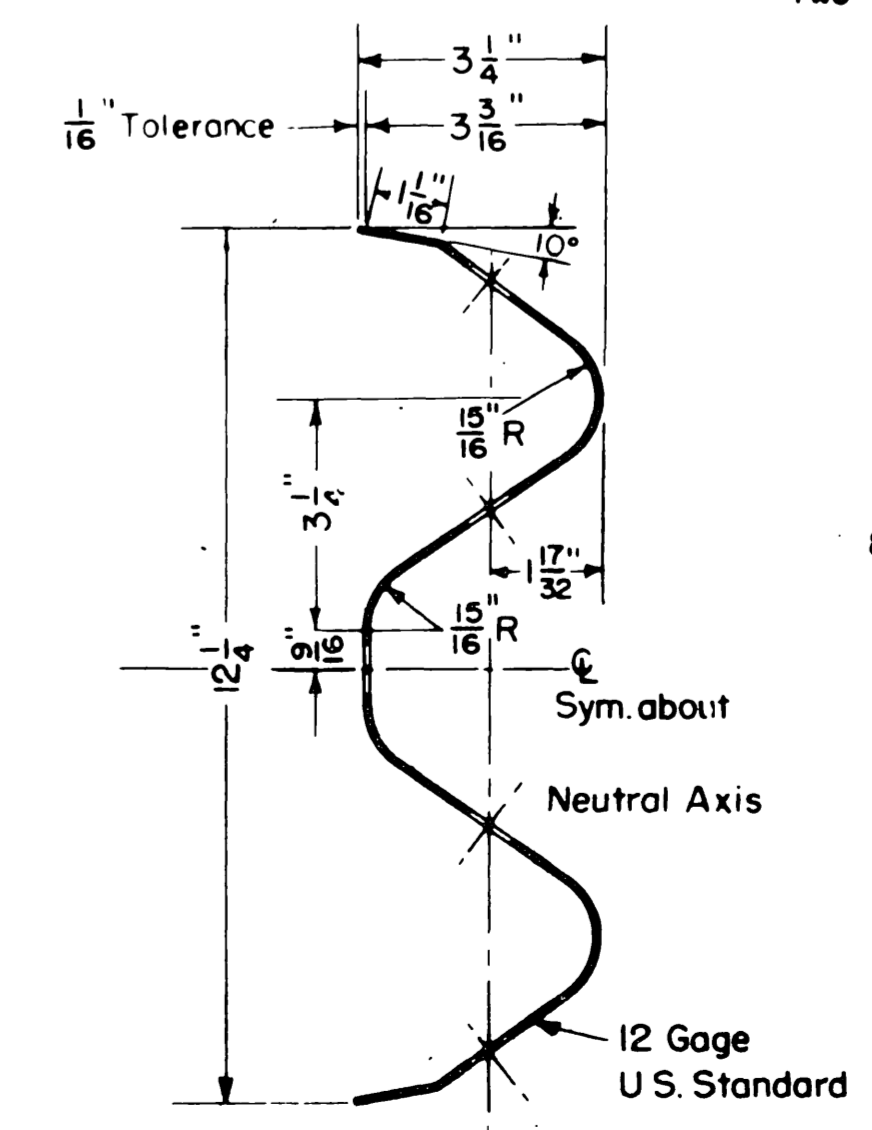
METAL BEAM BARRIER OBSTRUCTION DEFLECTOR
 PLAN AT BRIDGE PIERS OR MEDIAN OBSTRUCTIONS



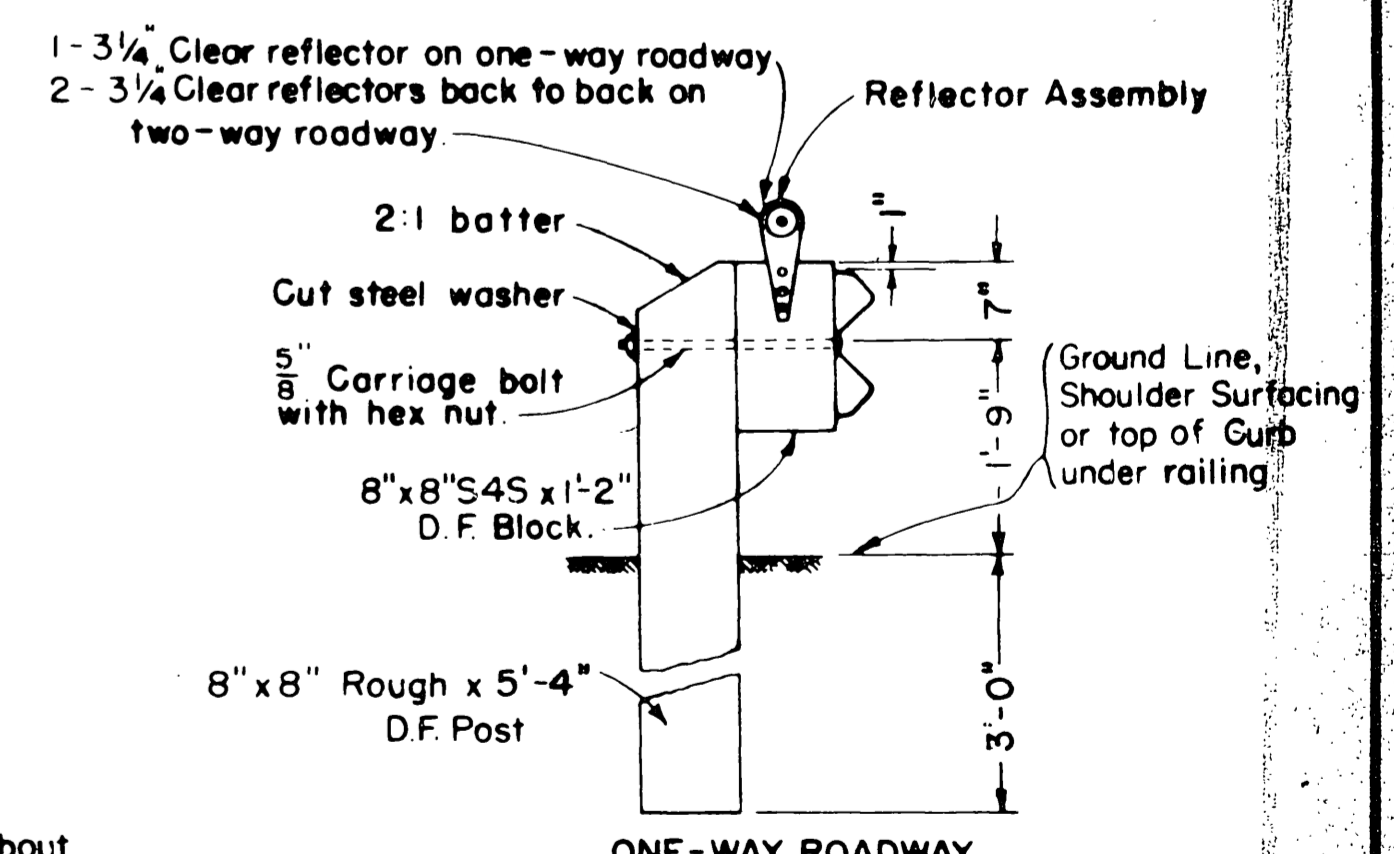
RAIL SPLICE
 5/8" x 1 1/4" button head oval shoulder bolts with hex nuts. Total 8 per splice and 4 per terminal section.



TERMINAL SECTION



SECTION THRU RAIL ELEMENT



METAL BEAM GUARD RAILING AND METAL BEAM BARRIER A77-A

STATE OF CALIFORNIA
 TRANSPORTATION AGENCY
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

SINGLE METAL BEAM BARRIER

To accompany plans dated August 29, 1966

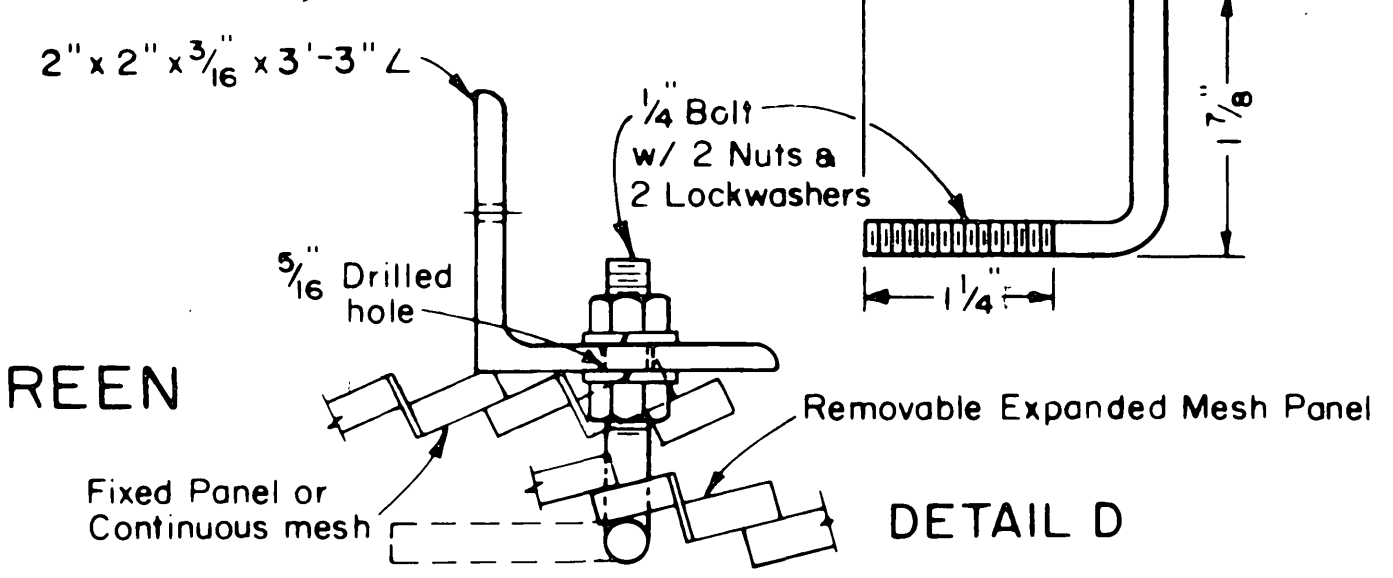
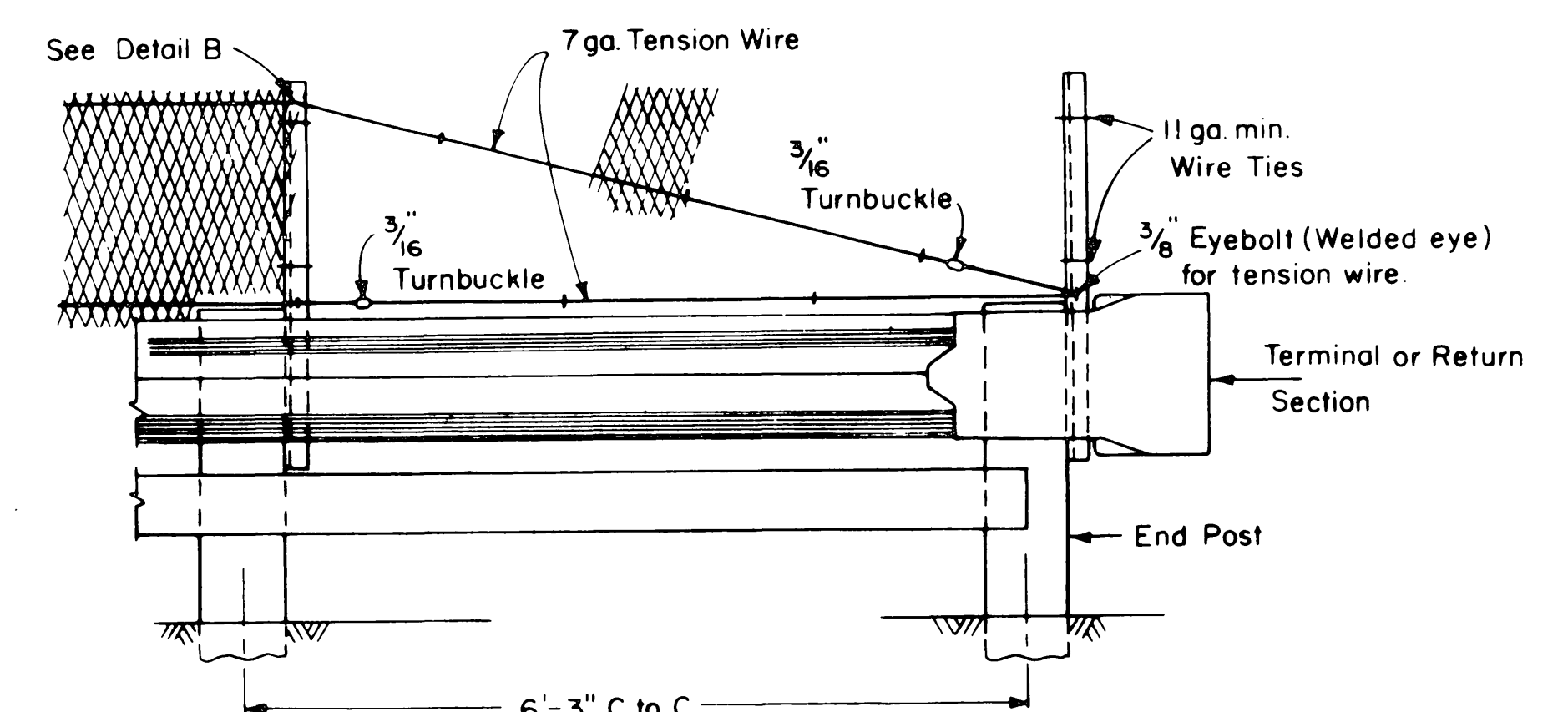
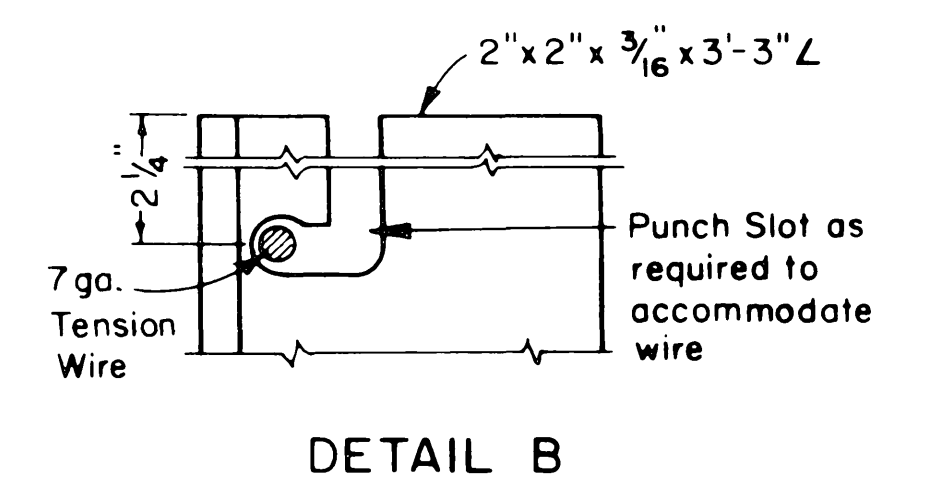
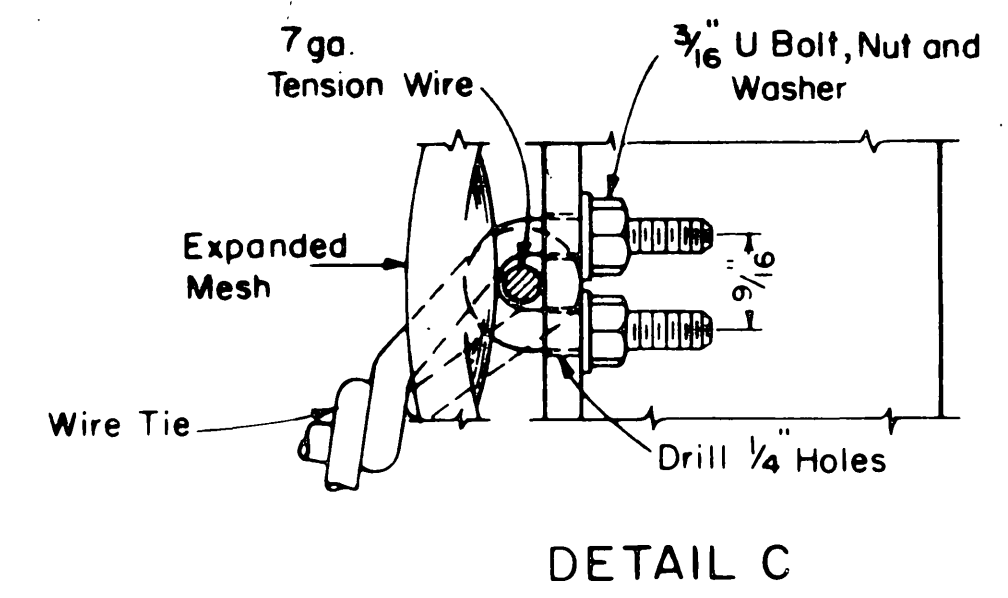
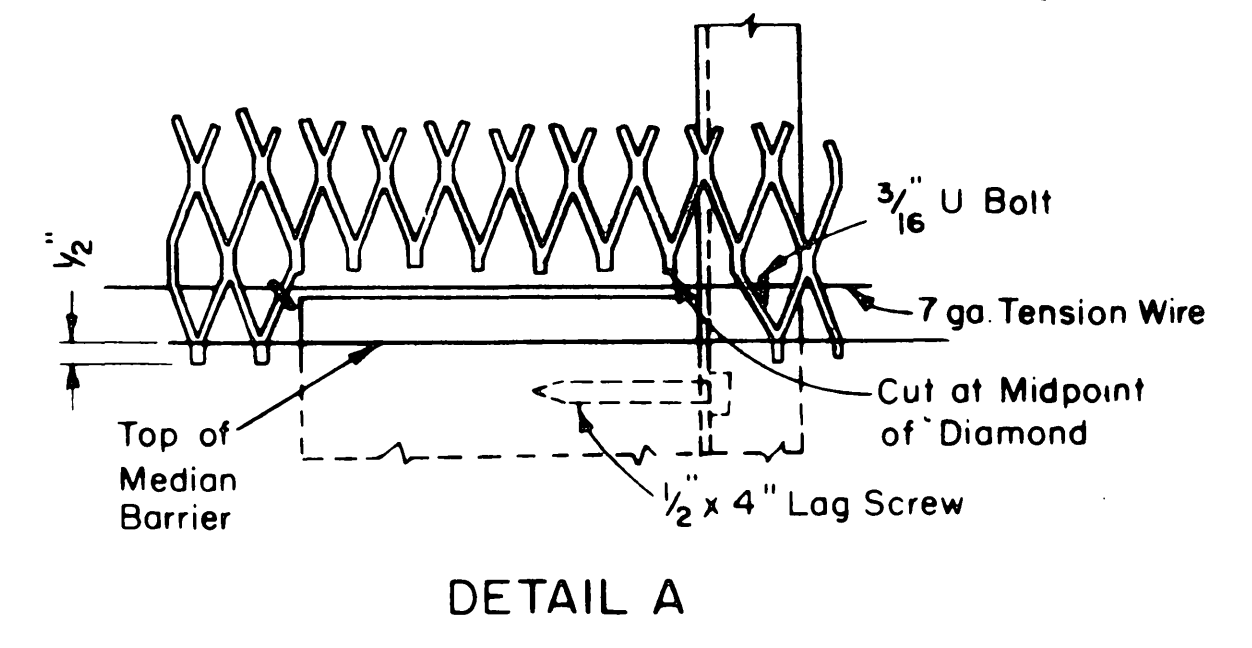
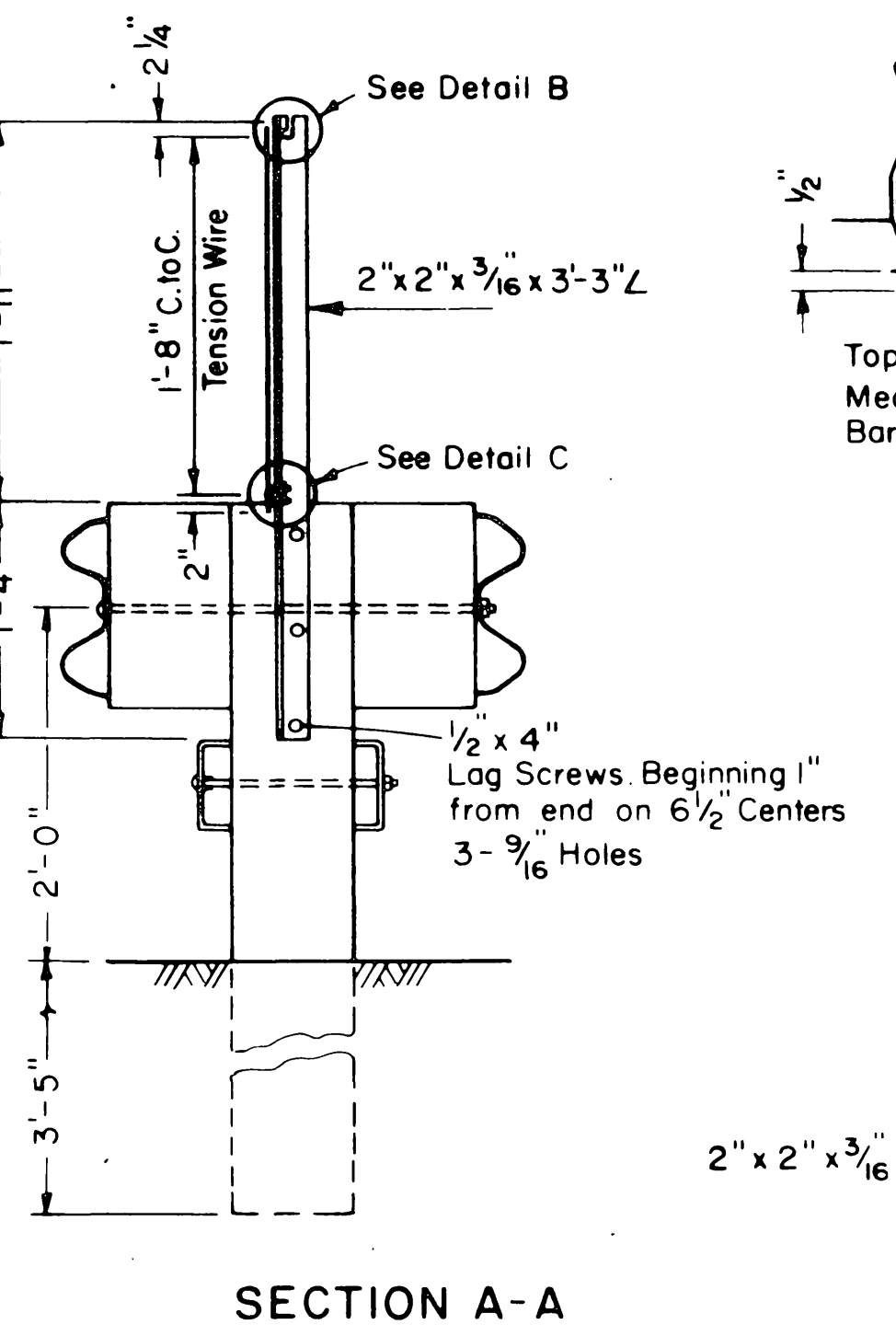
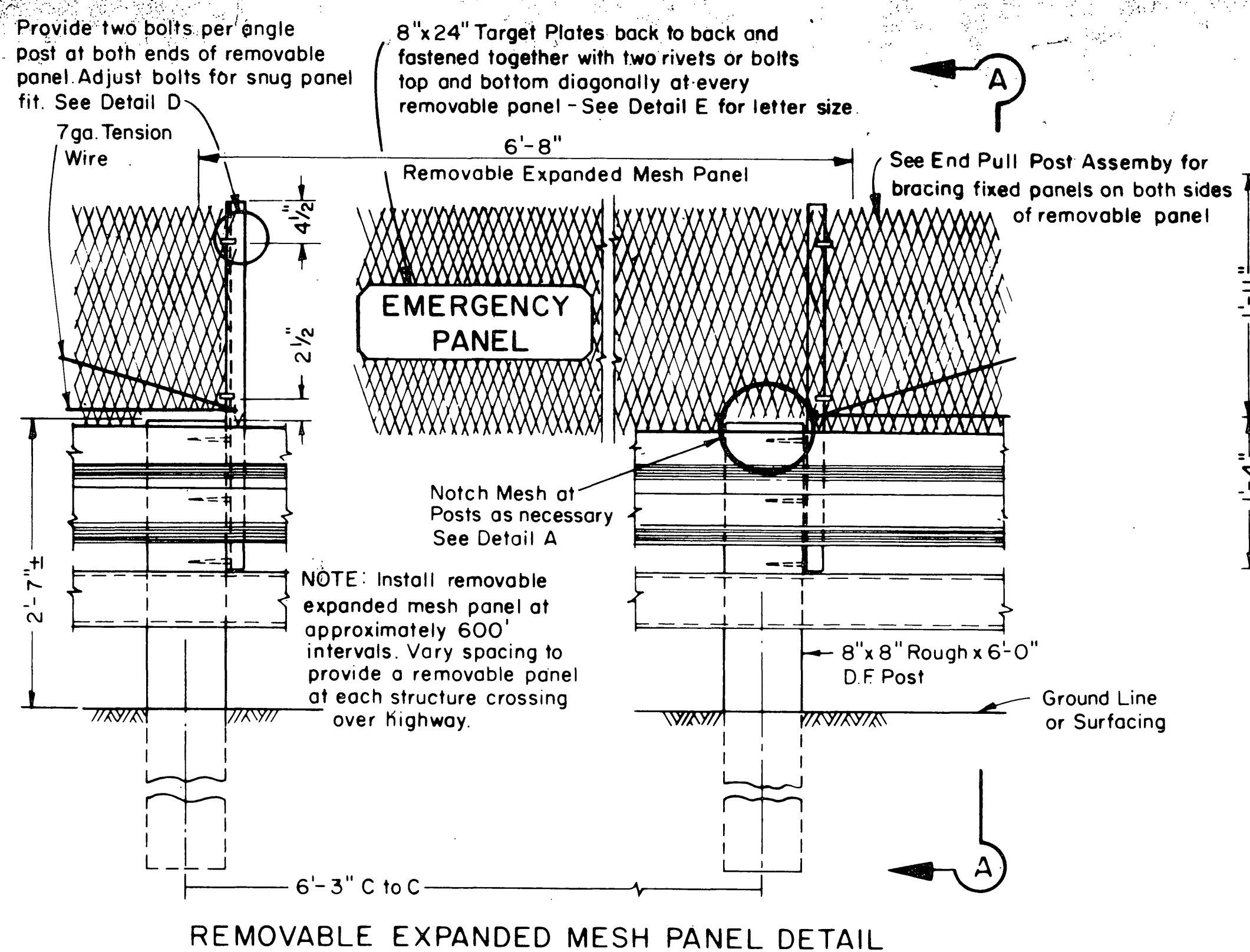
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08	RIV	1249	C.R. RIV	32	44

APPROVAL RECOMMENDED

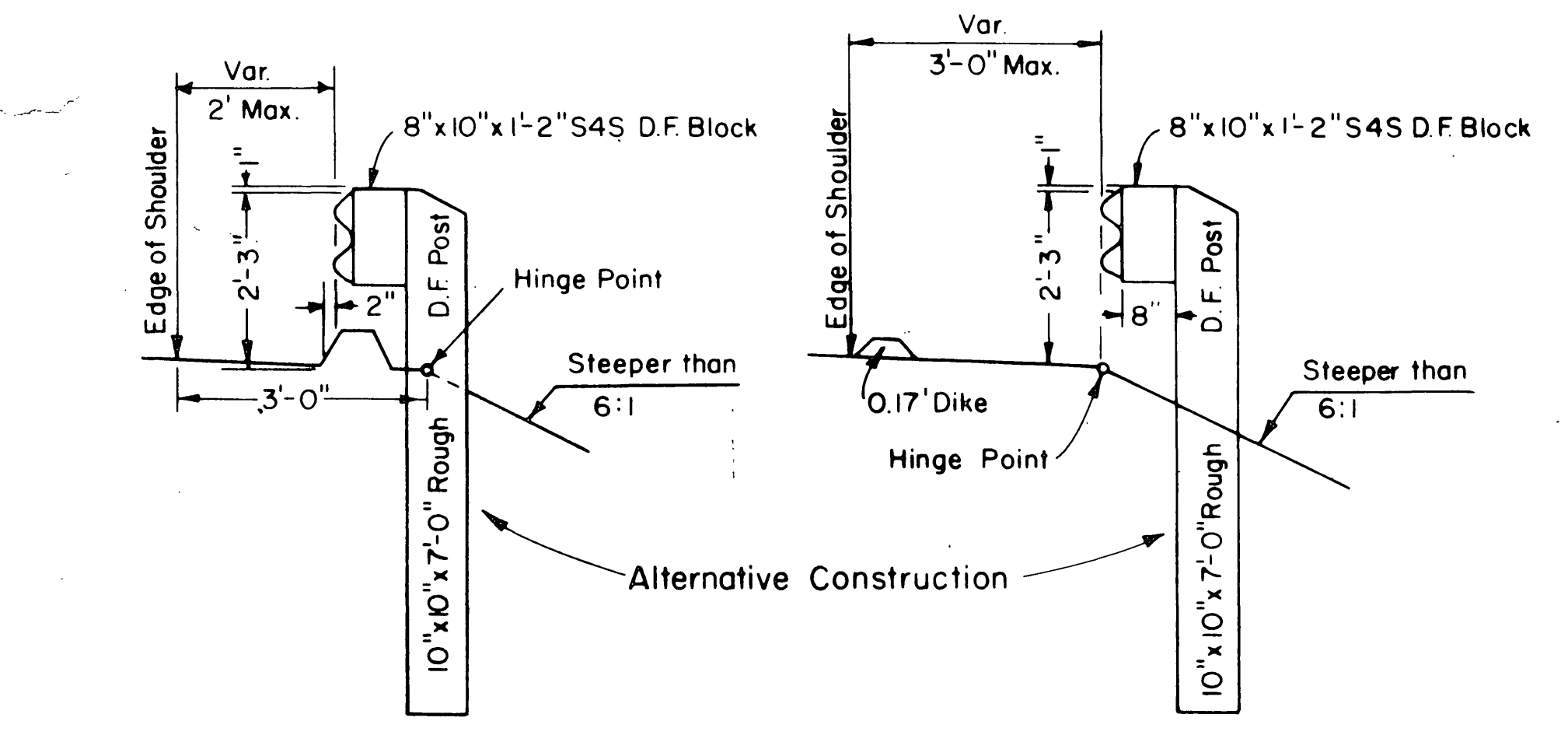
accator
 Engineer of Design
 Registered Civil Engineer No. 9837

Approved July 28, 1965

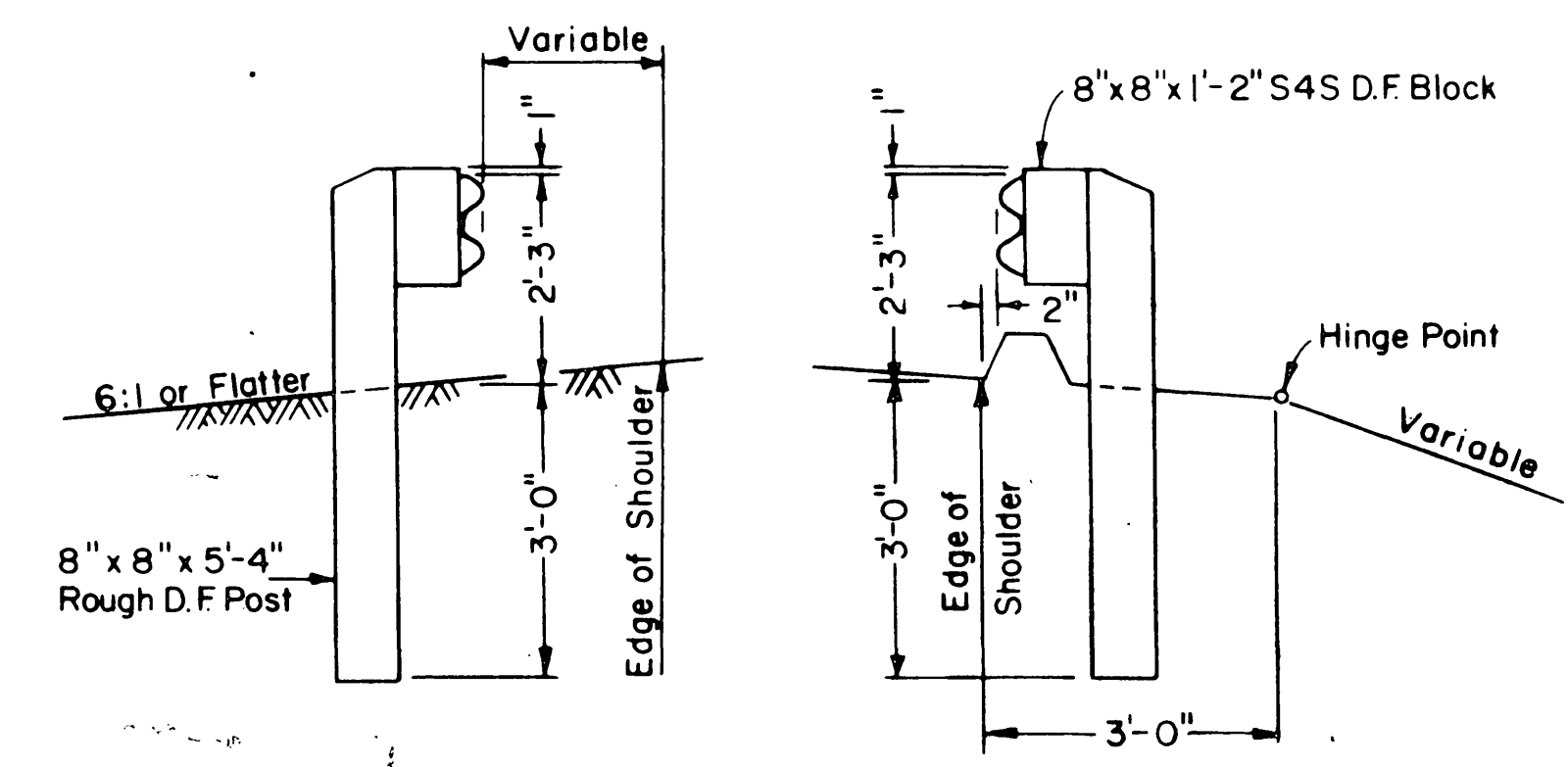
Journal
 State Highway Engineer
 Registered Civil Engineer No. 5945



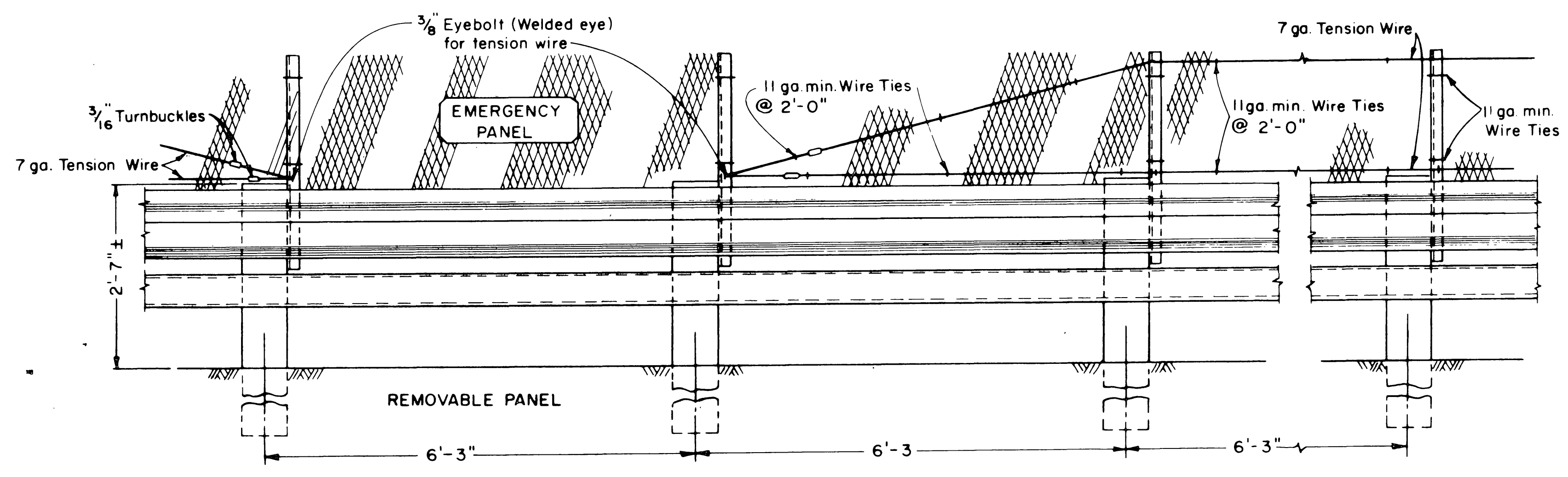
HEADLIGHT GLARE SCREEN



TERMINAL POSTS IN FILL SLOPES STEEPER THAN 6:1

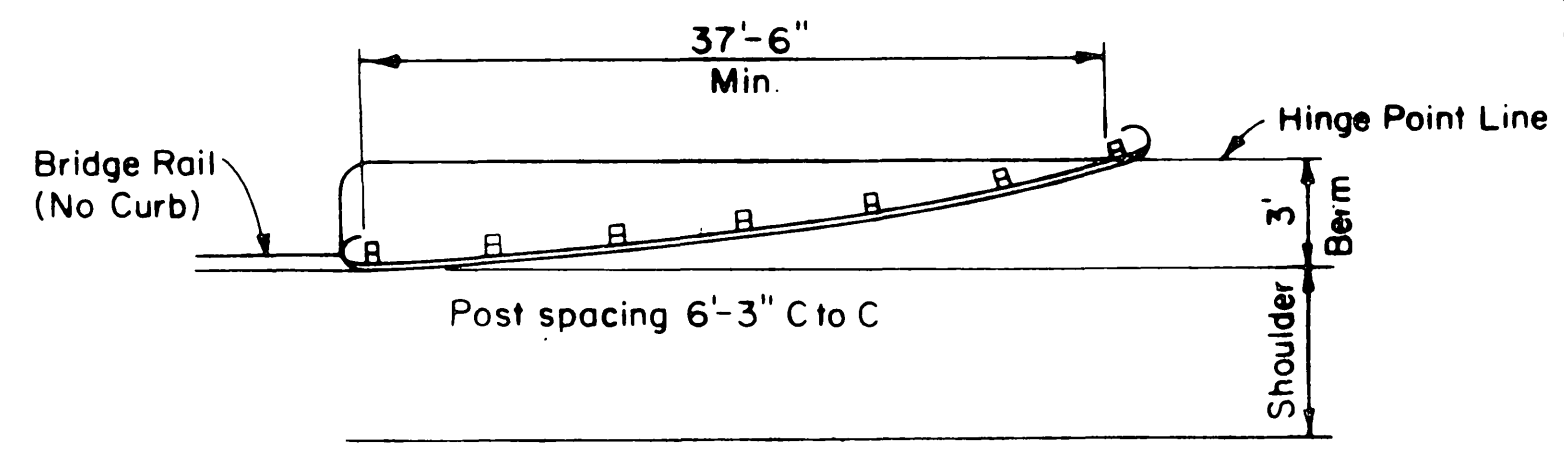


LINE POSTS 6'-3" C to C

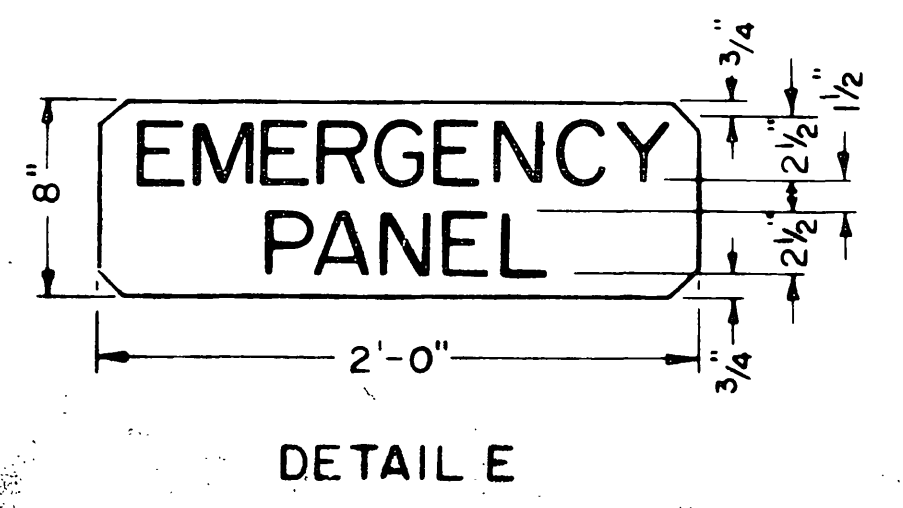


ELEVATION HEADLIGHT GLARE SCREEN

Mesh joints sha. occur at angle iron supports and shall overlap at least 2 diamonds



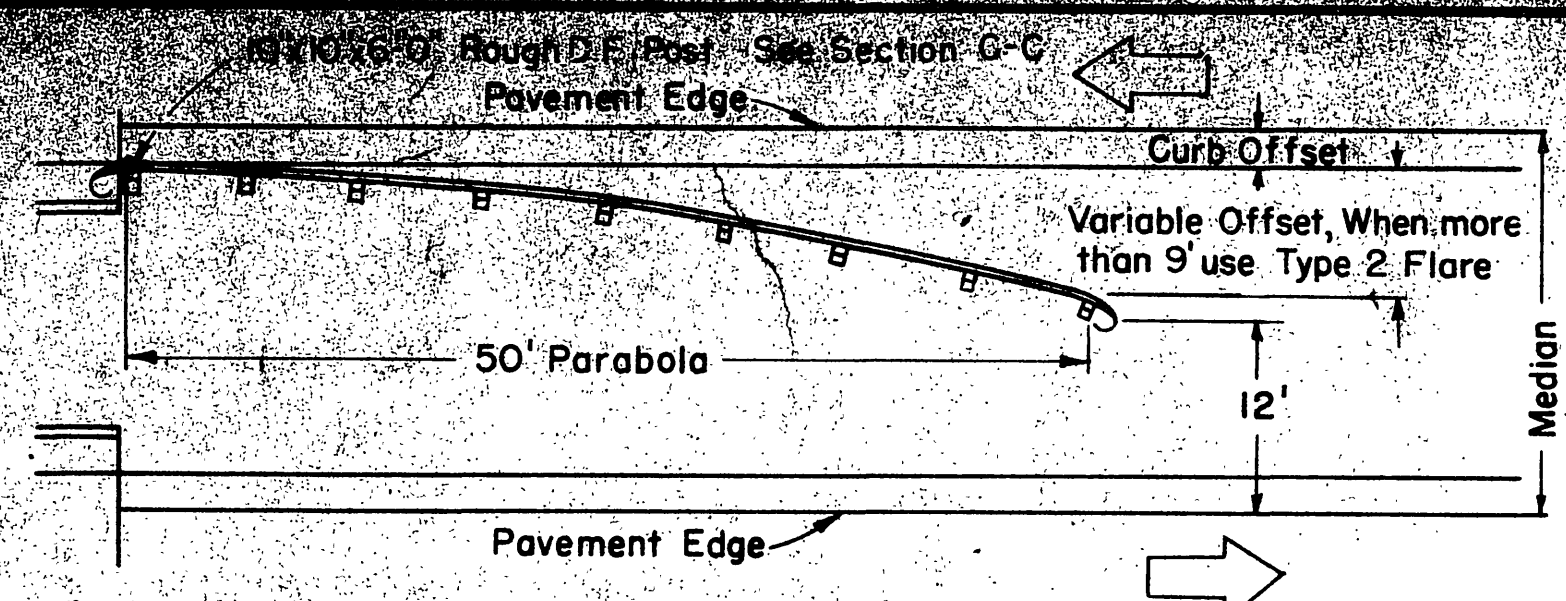
TYPE I FLARE FOR FULL WIDTH SHOULDERS ON BRIDGE For parabolic flare see Standard Plan A79-



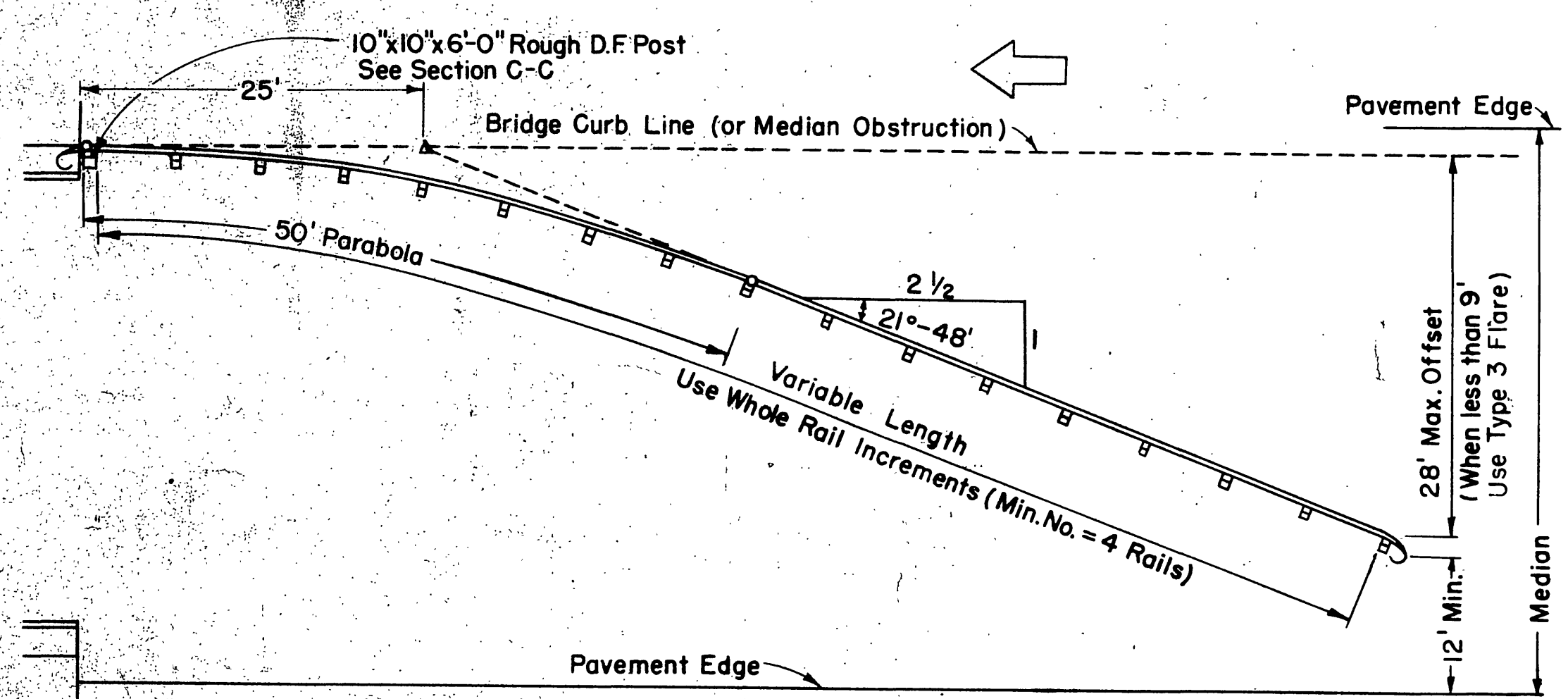
DETAIL E

08-150074
 STATE OF CALIFORNIA
 TRANSPORTATION AGENCY
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

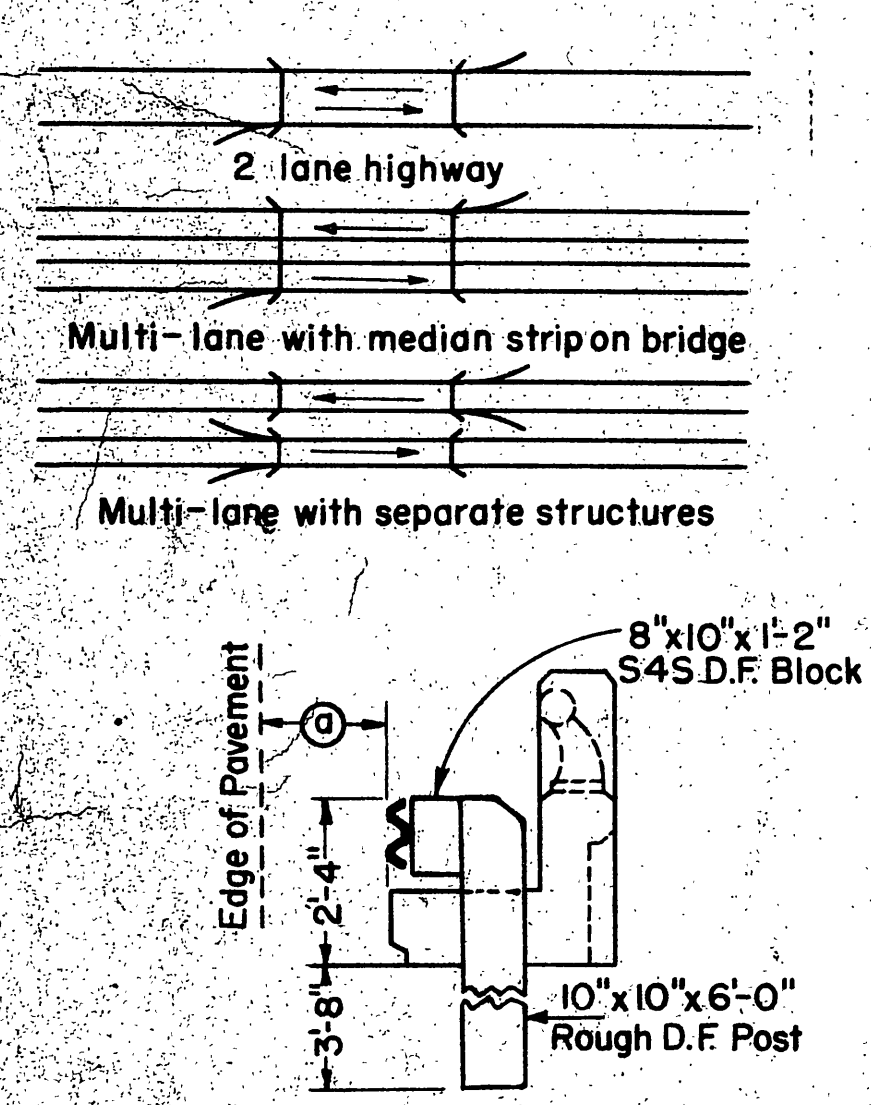
METAL BEAM GUARD RAILING AND METAL BEAM BARRIER A77-B



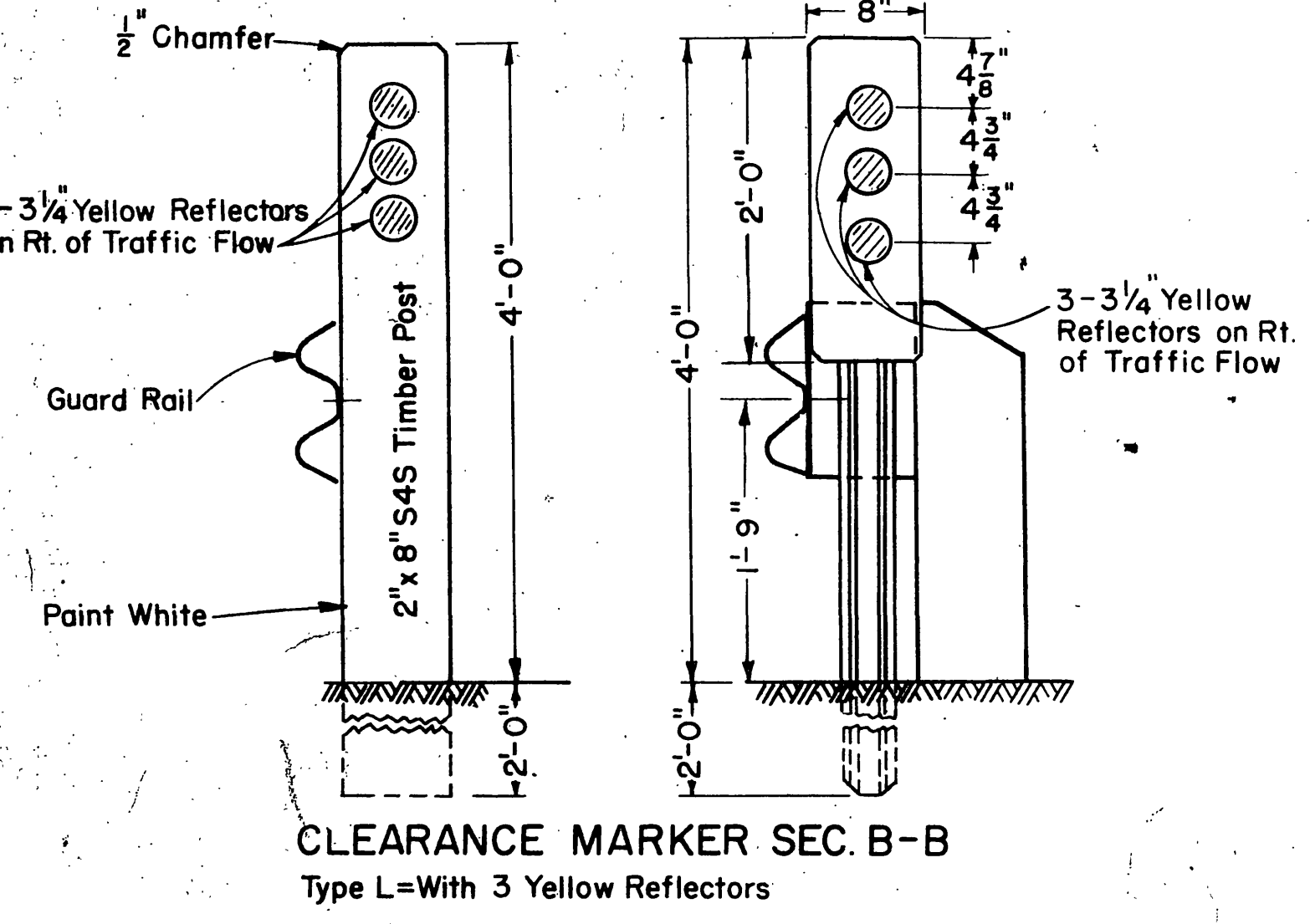
TYPE 3 FLARE - DETAIL A



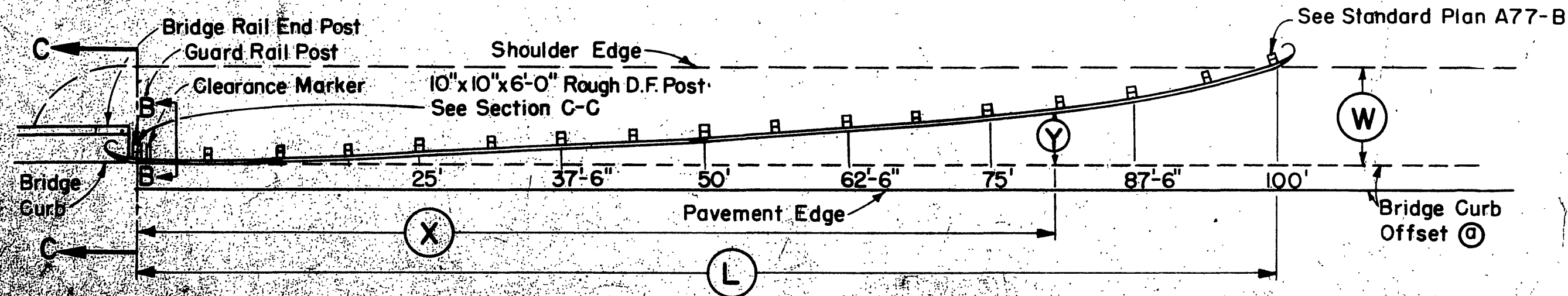
TYPE 2 FLARE MEDIAN RAIL



SECTION C-C
Offset mounting on curb at end of bridge



CLEARANCE MARKER SEC. B-B
Type L=With 3 Yellow Reflectors

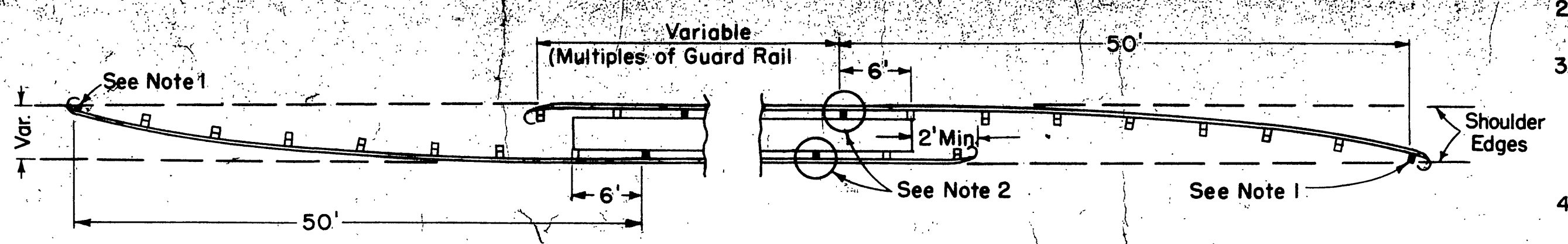


TYPE 1 FLARE SHOULDER ENCROACHMENTS (RT. or LT.)
For all width bridge shoulders see Standard Plan A77-B

TYPE 1 FLARE LENGTHS

L	W
37'-6"	3' or less
50'-0"	4' L=12.5 W
62'-6"	5'
75'-0"	6'
87'-6"	7'
100'-0"	8'

$$Y = \frac{W \cdot X^2}{L^2}$$



TYPE 3 FLARES - DETAIL B

- NOTES:
1. Do not block out rails at end posts on Detail B.
 2. Use timber shims without posts where rail to pier clearance is less than 15" (See Detail C)
 3. On median installations where footing is between 2' and 3' of surface, post may be embedded less than 3' but not less than 2'. When footings are less than 2' from surface, attach to piers using Detail C.
 4. All posts and blocks to be as shown on Standard Plan A77- except as noted.
 5. All guard rail post spacing to be 6'-3" center to center.

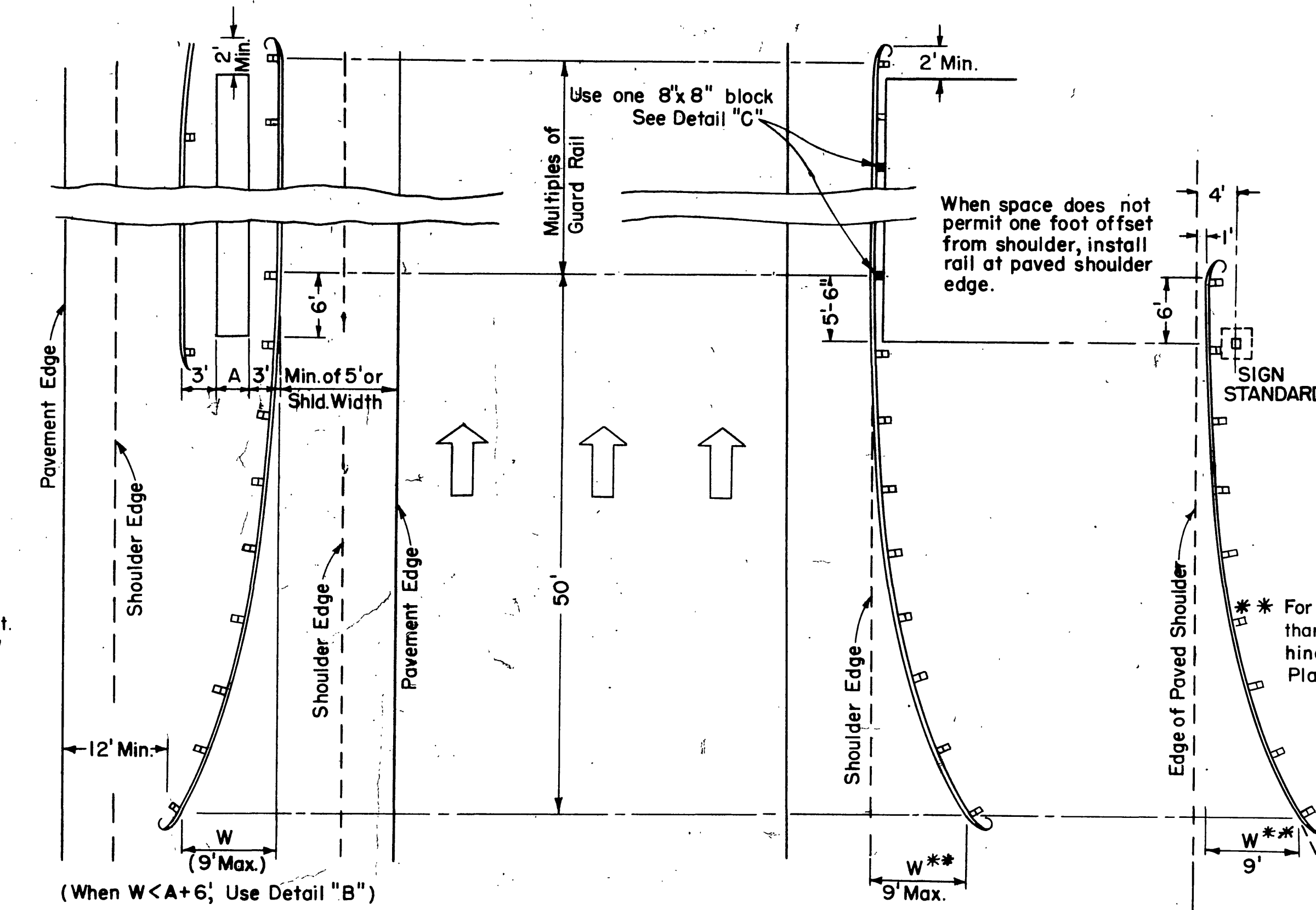
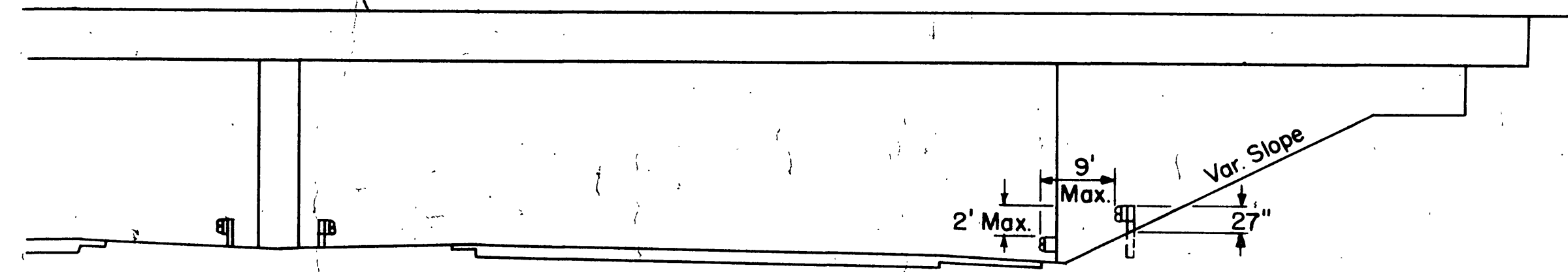
To accompany plans dated August 1965
 DISTRICT COUNTY ROUTE Post Miles Total Project
 08 RV 1249 BR RV 33 44
 APPROVAL RECOMMENDED

H. H. Oswald
 District Engineer of Highways
 Civil Engineer License No. 5200

J. E. Wilson
 Traffic Engineer Civil Engineer License No. 8584

Approved July 23, 1965

J. G. ...
 State Highway Engineer
 Civil Engineer License No. 5945

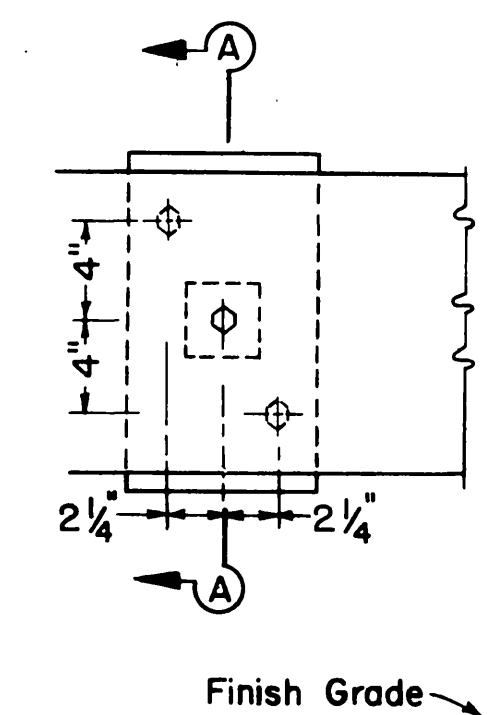


MEDIAN INSTALLATION AT BRIDGE AND/OR SIGN STANDARD

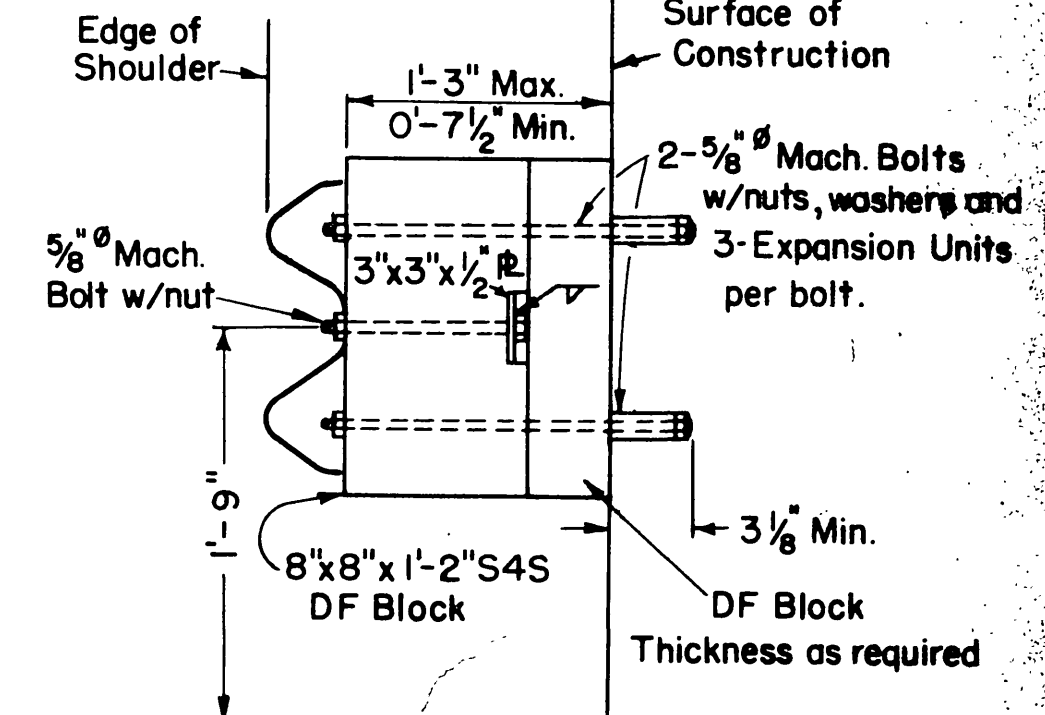
TYPE 3 FLARES

SHOULDER INSTALLATION AT BRIDGE

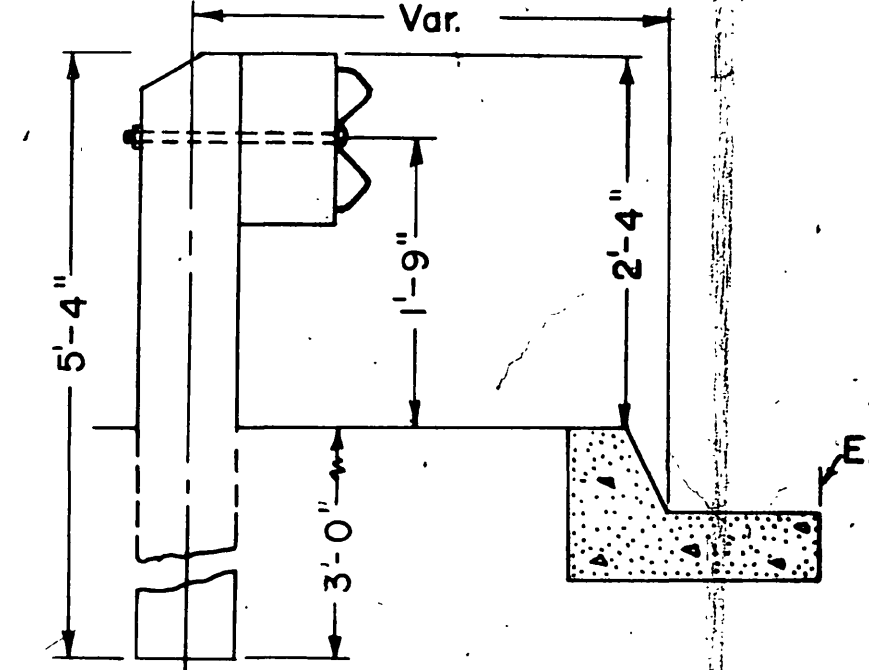
SHOULDER INSTALLATION AT SIGN STANDARD



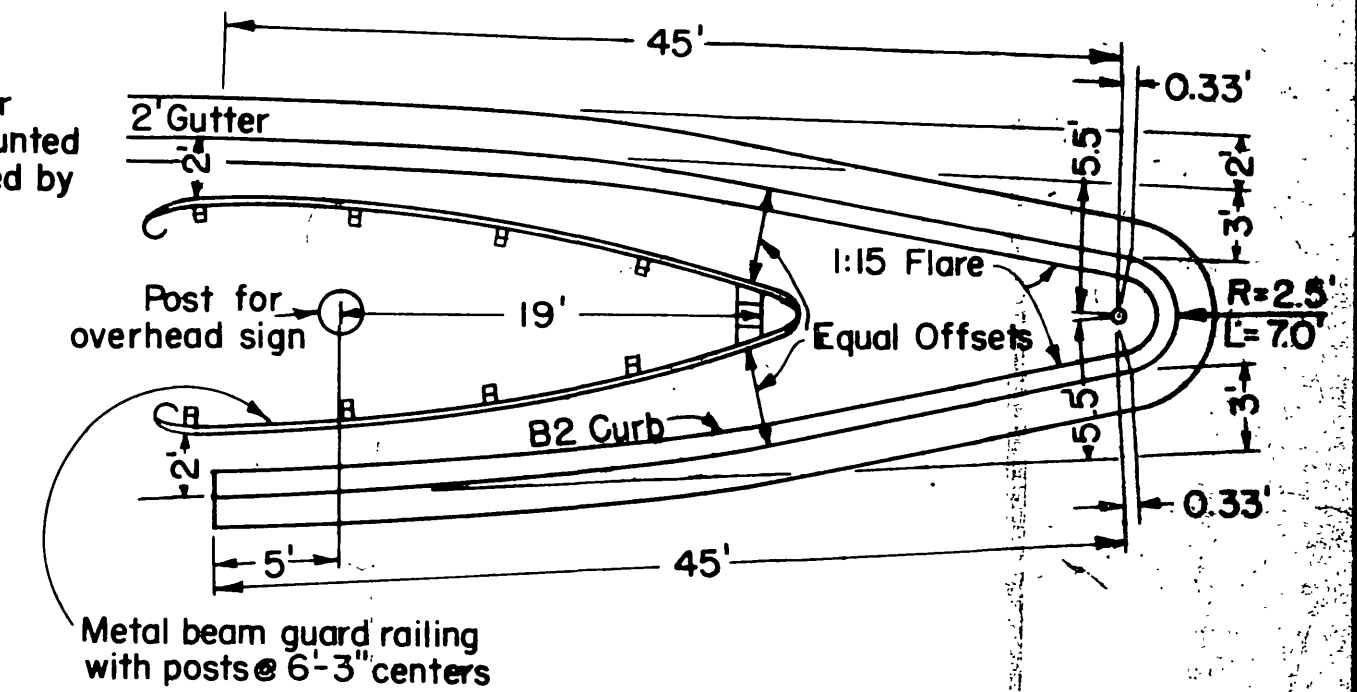
BLOCKOUT DETAIL - ELEVATION



SECTION A-A METAL BEAM RAIL OBSTRUCTION DETAIL C



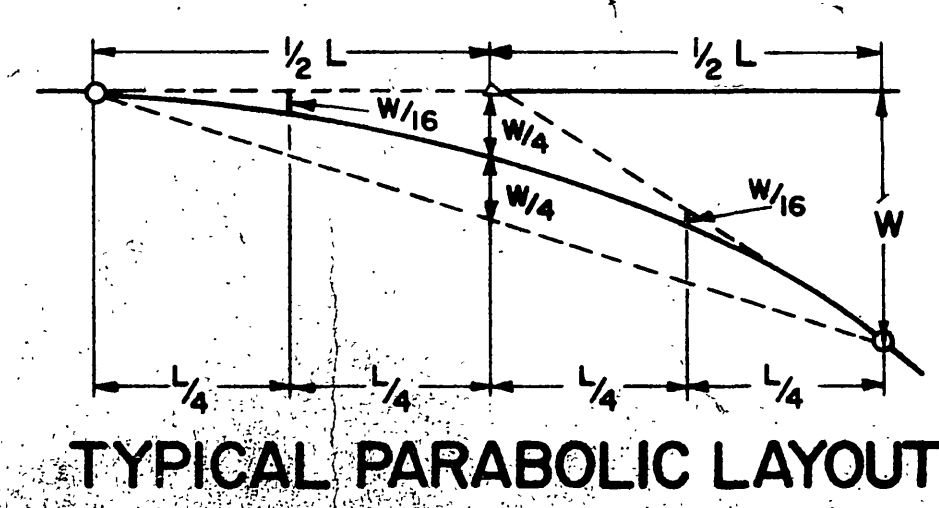
METAL BEAM GUARD RAILING AT CURB



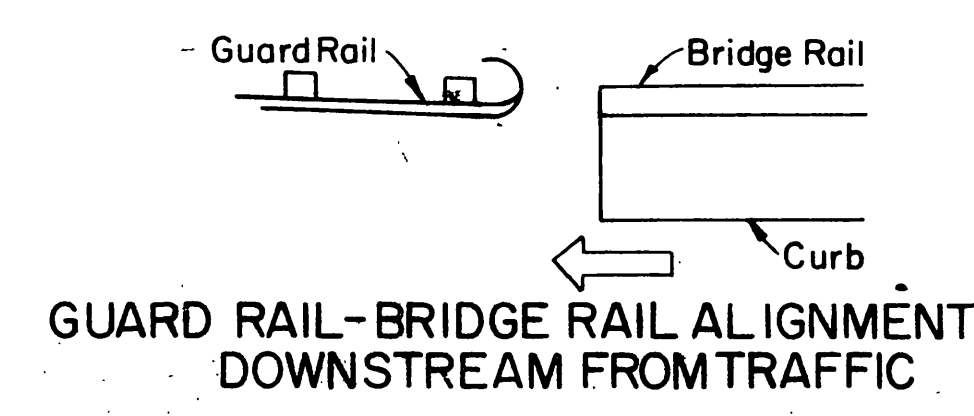
GORE INSTALLATION

08-480074

STATE OF CALIFORNIA
 TRANSPORTATION AGENCY
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS



TYPICAL PARABOLIC LAYOUT



GUARD RAIL-BRIDGE RAIL ALIGNMENT DOWNSTREAM FROM TRAFFIC

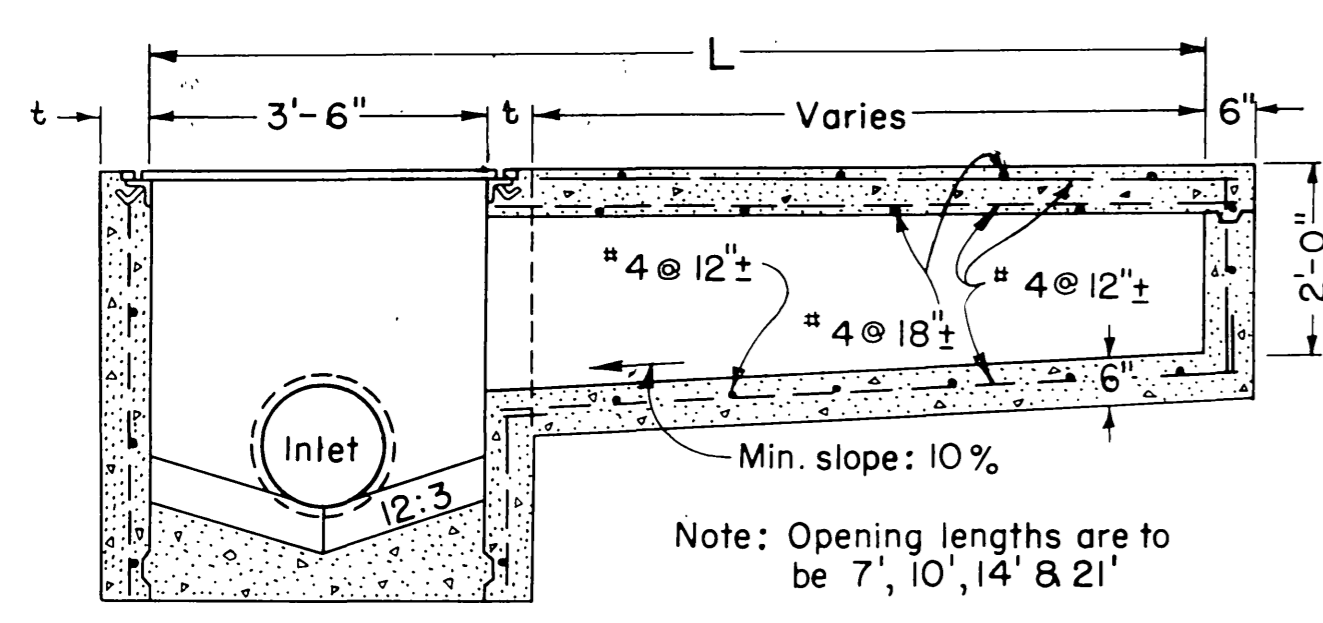
GUARD RAIL FLARES A79-4
 (AT PIERS, ABUTMENTS, SIGN STANDARDS, ETC.)

To accompany plans dated August 29, 1966

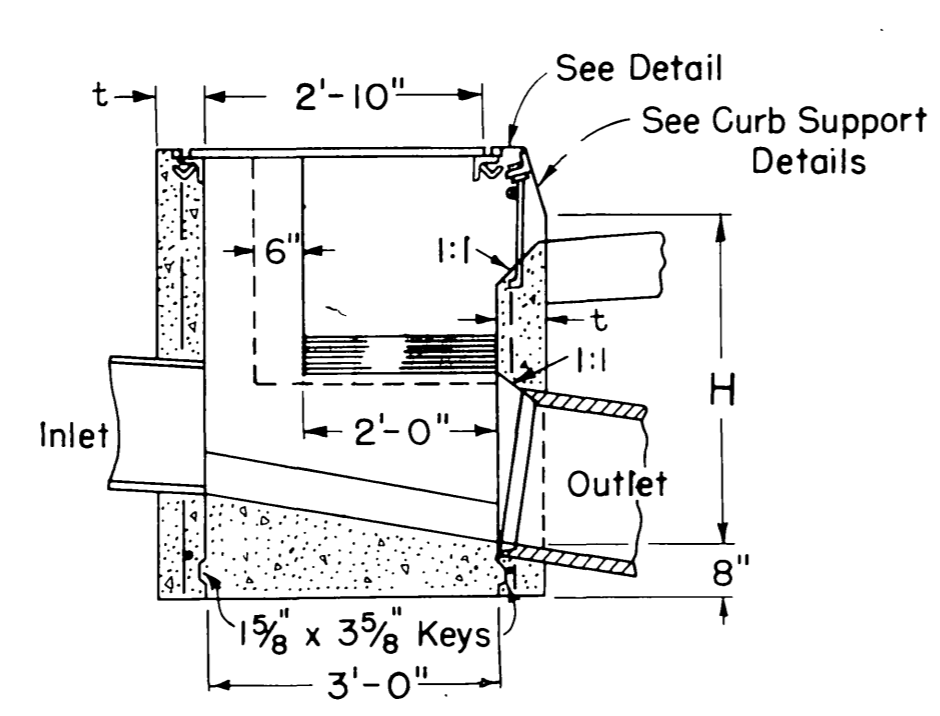
DISTRICT	COUNTY	ROUTE	Post Miles-Total Project	SHEET NO.	TOTAL SHEETS
08	RIV	1249	CR, Riv	34	44

H. L. Harris
ENGINEER OF DESIGN
CIVIL ENGINEER LICENSE NO. 7603

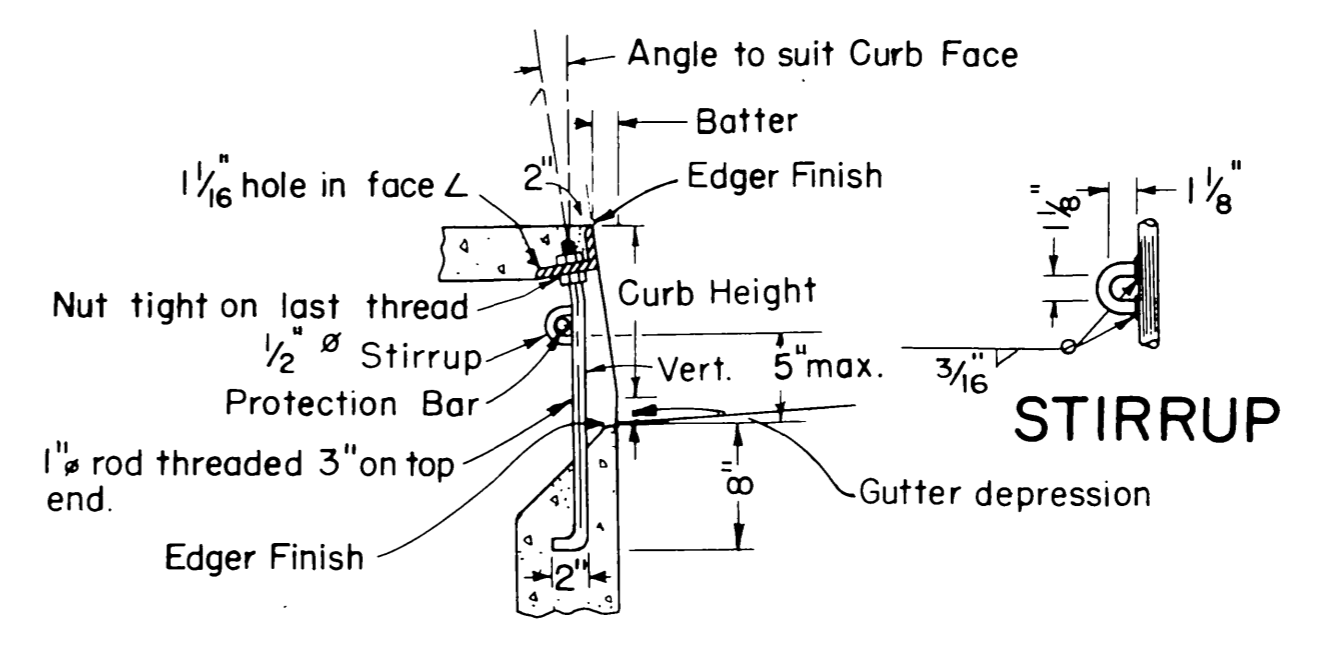
APPROVED *J. [Signature]*
STATE HIGHWAY ENGINEER
CIVIL ENGINEER LICENSE NO. 5945



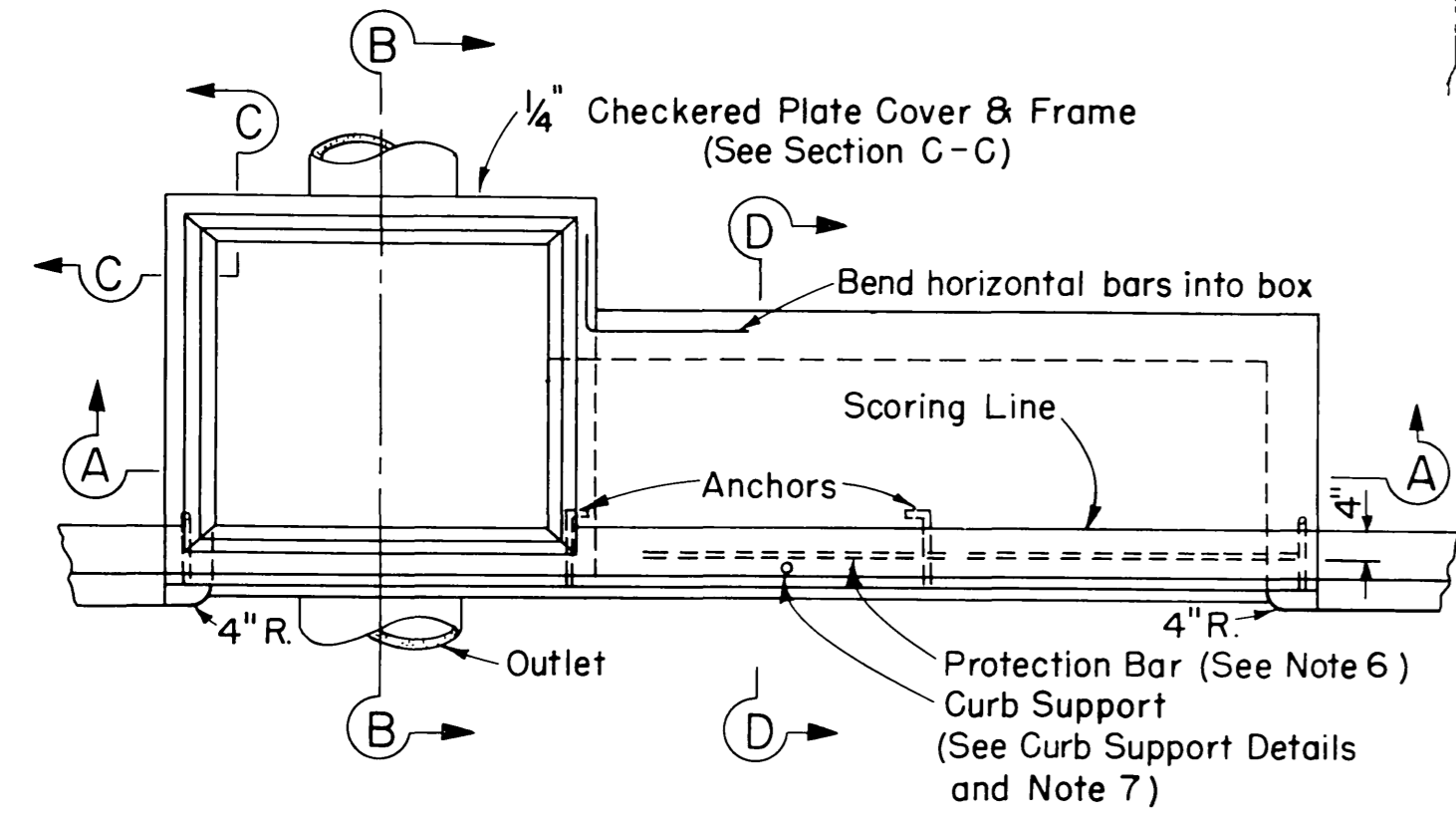
SECTION A-A



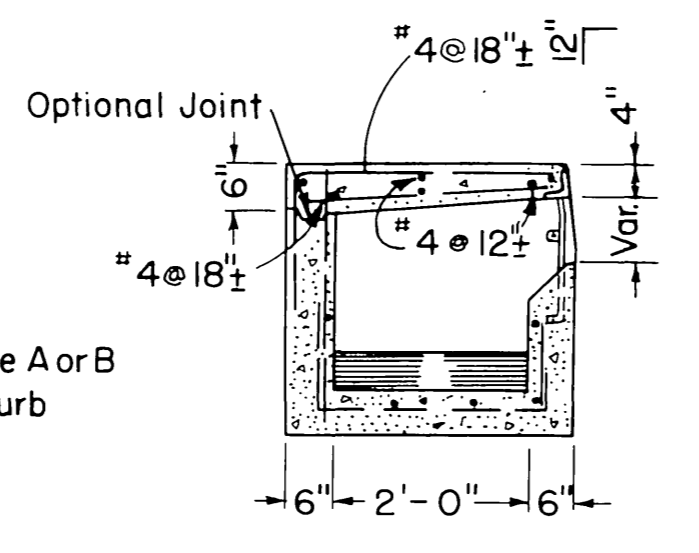
SECTION B-B



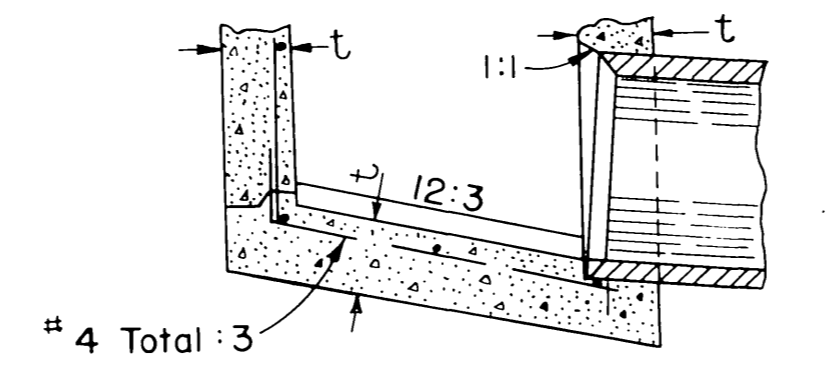
CURB SUPPORT DETAILS
(Shown for Type A Curbs)



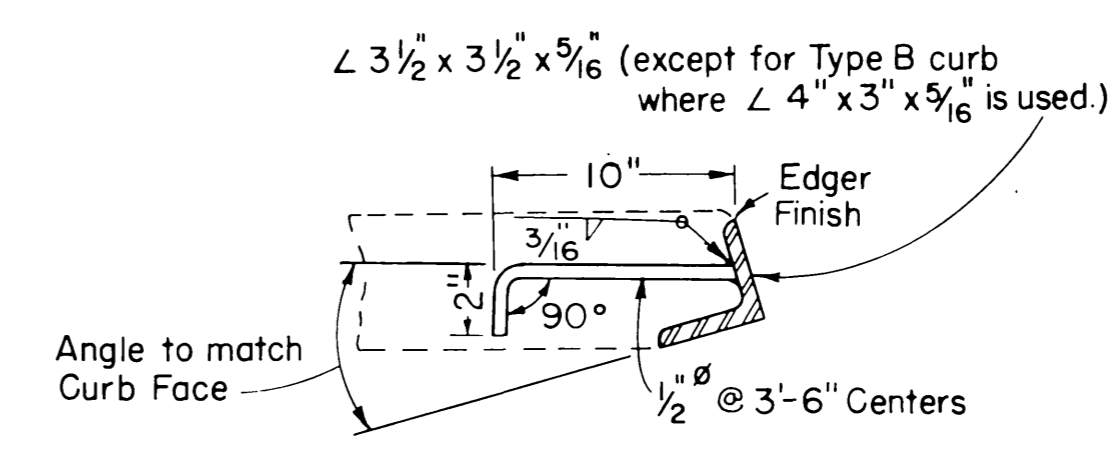
PLAN



SECTION D-D



ALTERNATIVE REINFORCED BOTTOM



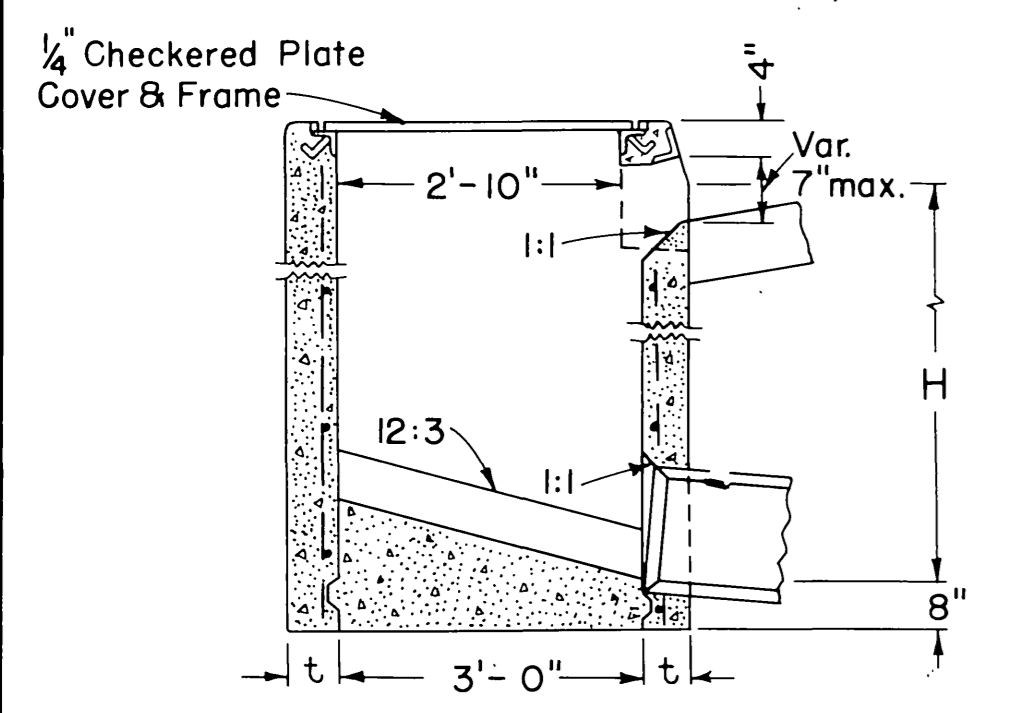
FACE ANGLE ANCHOR DETAIL

- GENERAL NOTES
- "H" is the difference in elevation between the outlet pipe flow line and the normal gutter grade line undepressed at the curb face.
 - For "t" wall thickness see Table.
 - Height of curb opening will vary with the type of curb and the depth of the local depression.
 - Reinforcing steel in walls shall be #4 bars @ 18 inches centers placed 1/2 inch clear to inside of box unless otherwise shown.
 - Steps - None required where "H" is 3'-6" or less. Install one step 16 inches above floor when "H" is more than 3'-6" and less than 5'-0". Where "H" is more than 5'-0", steps shall be evenly spaced @ 12 inch intervals from 16 inches above floor to within 12 inches of the top of the box. Place steps in wall without pipe openings.
 - When shown on the plans, place a #6 protection bar horizontally across the entire length of the opening and bend back 4 inches into the inlet wall on each side.
 - Curb openings longer than 7 feet shall have one curb support for each 7 foot increment or fraction thereof, evenly spaced.
 - Pipe(s) can be placed in any wall.
 - Curb section shall match adjacent curb.
 - Except for inlets used as junction boxes, basin floors shall have a minimum slope of 12:3 from all directions toward outlet pipe and shall have a wood trowel finish.
 - Galvanizing: See Standard Specifications or Special Provisions.
 - See "Standard Grate Details" D77 - for Grate and Frame Details and Weights of Miscellaneous Iron and Steel.
 - See Standard Plan D78 - or D79 - for Depression Details.
 - Full penetration butt welds may be substituted for the fillet welds on all anchors.
 - Standard square, hexagon, round or equivalent headed anchors may be substituted for the right angle hooks on the anchors shown on this plan.

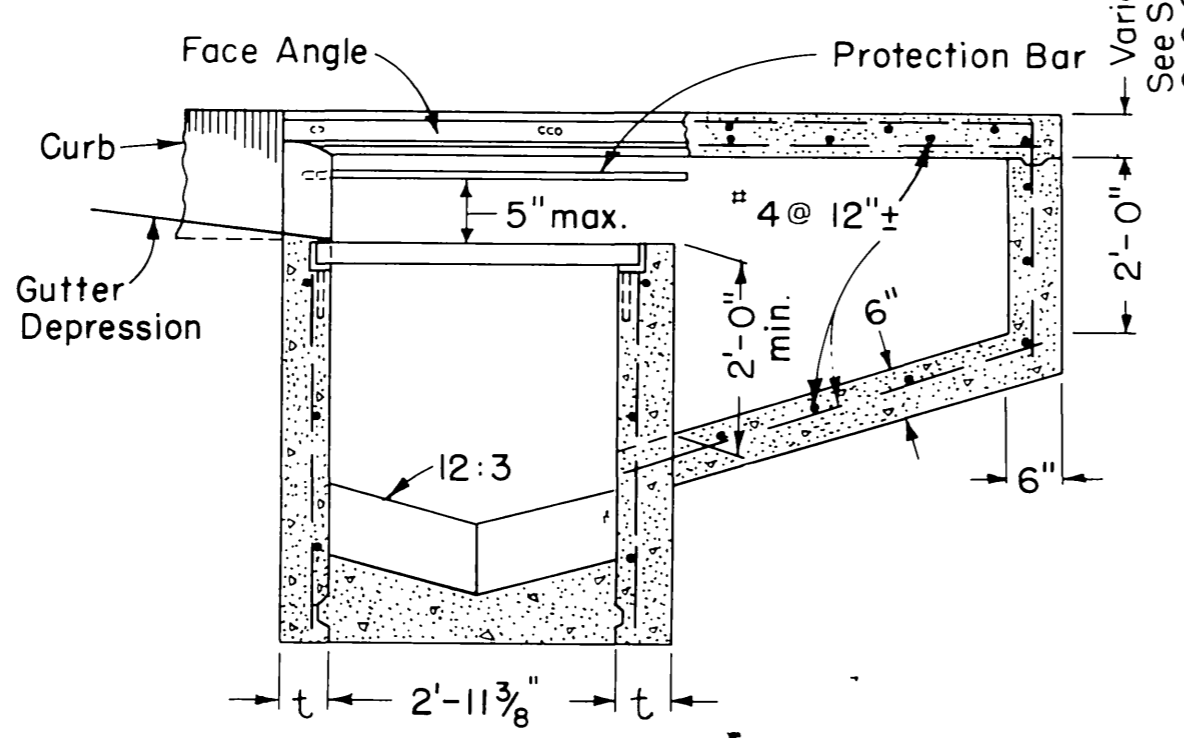
H	t
8'-0" or Less	6"
8'-1" to 20'-0"	8"

Length of Curb Opening	No. of Anchors
3'-6" or less	2
7'-0"	3
10'-0"	4
14'-0"	5
21'-0"	7

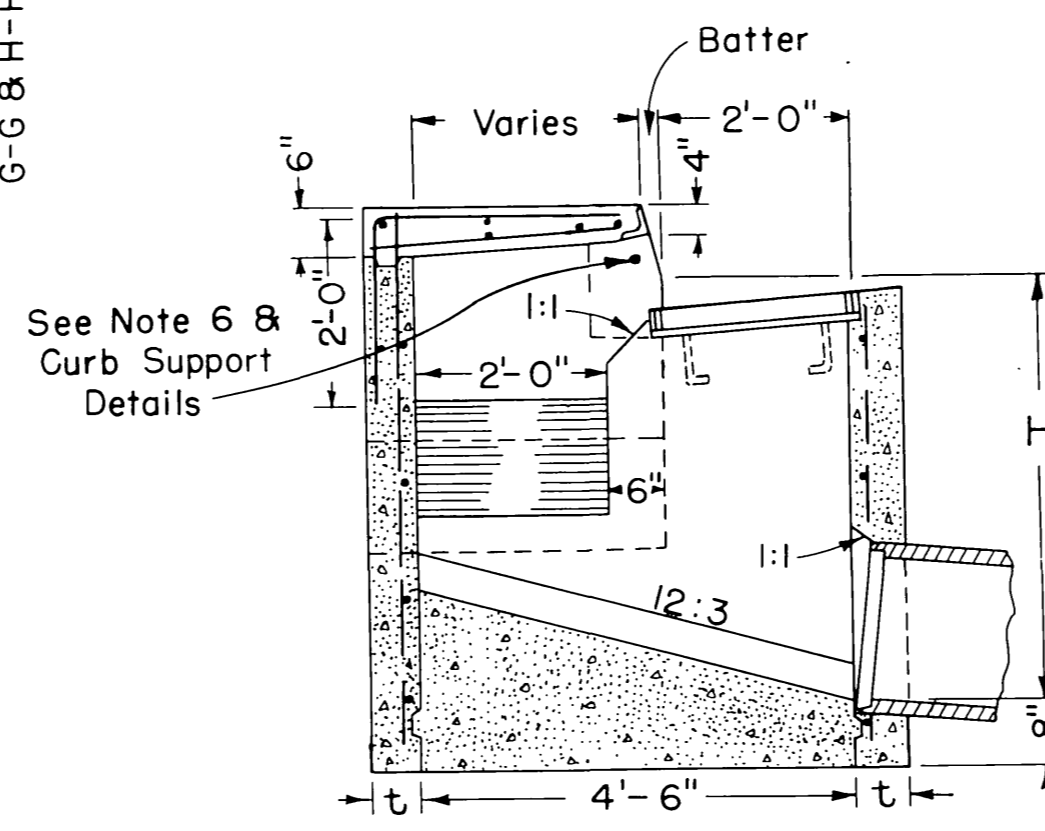
INLET TYPE OL



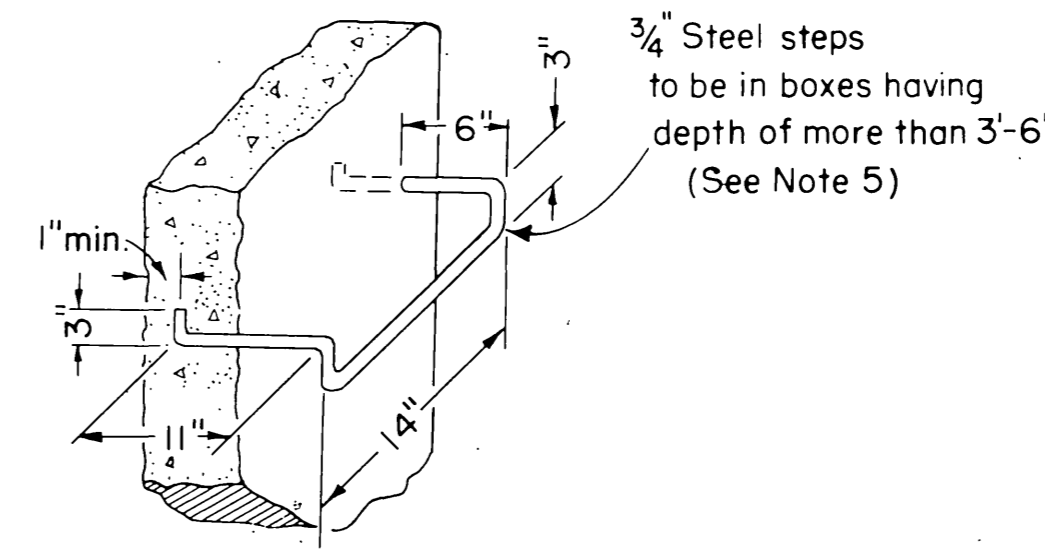
SECTION E-E



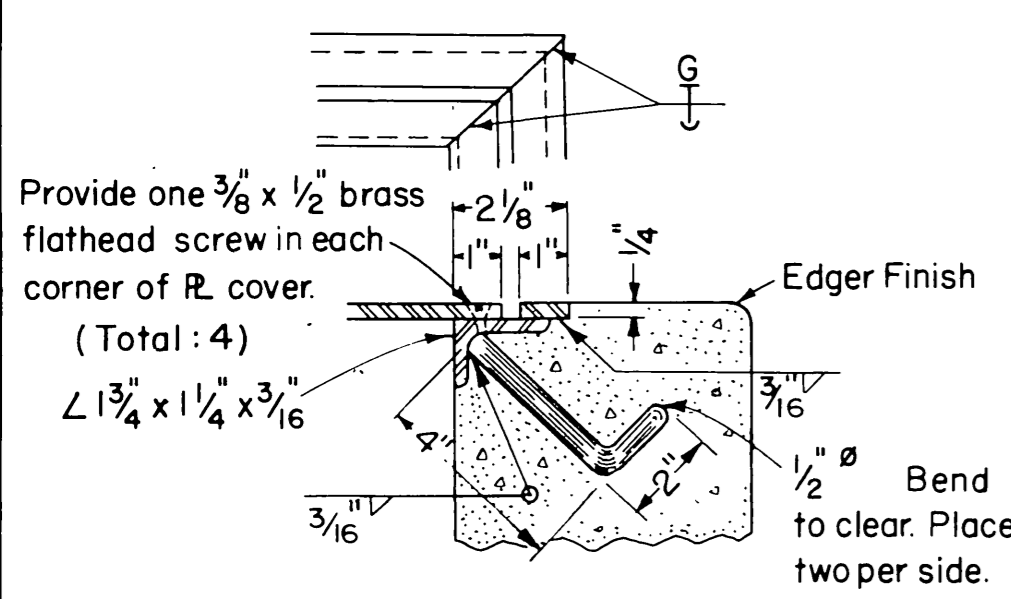
SECTION F-F



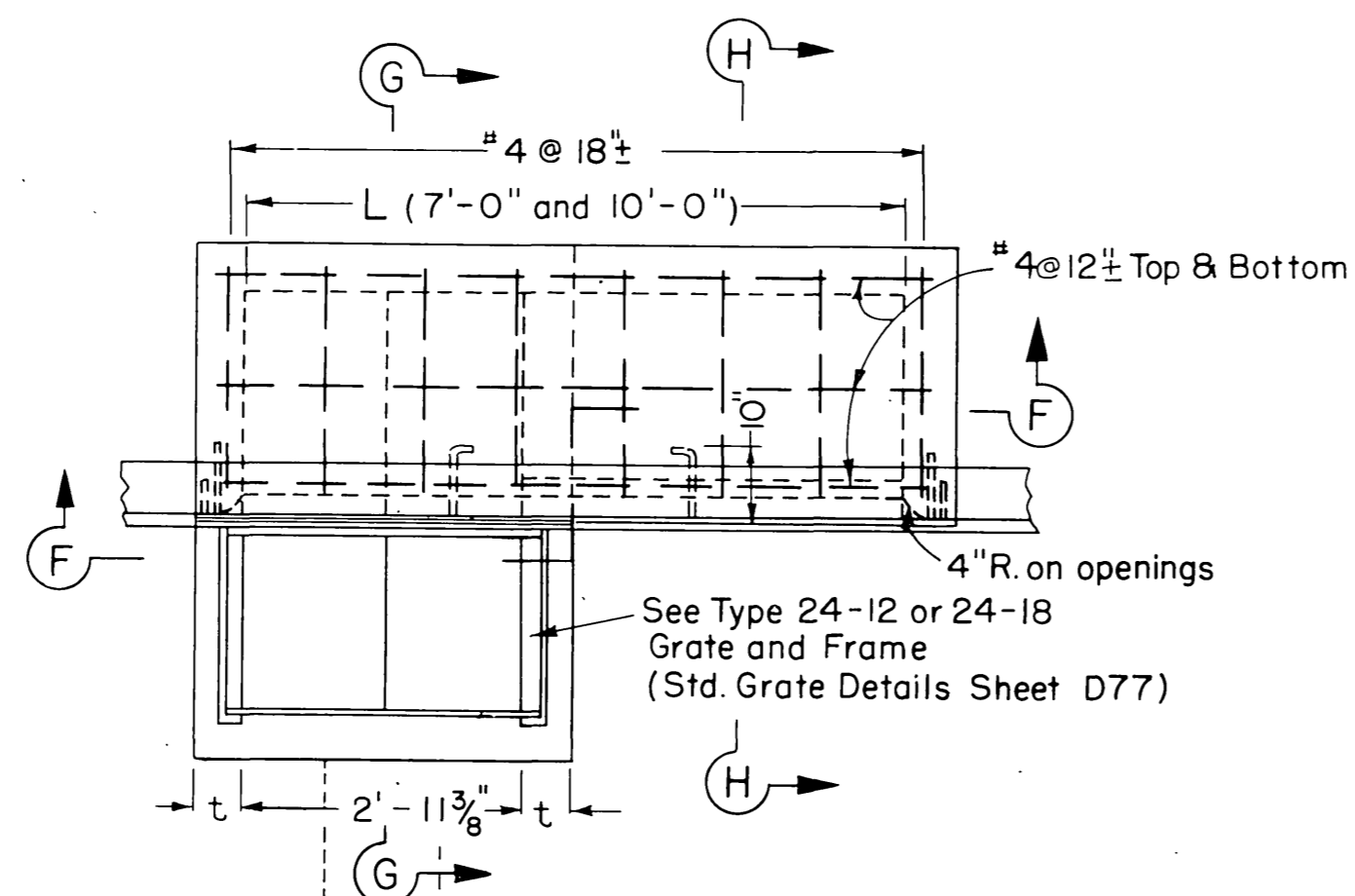
SECTION G-G



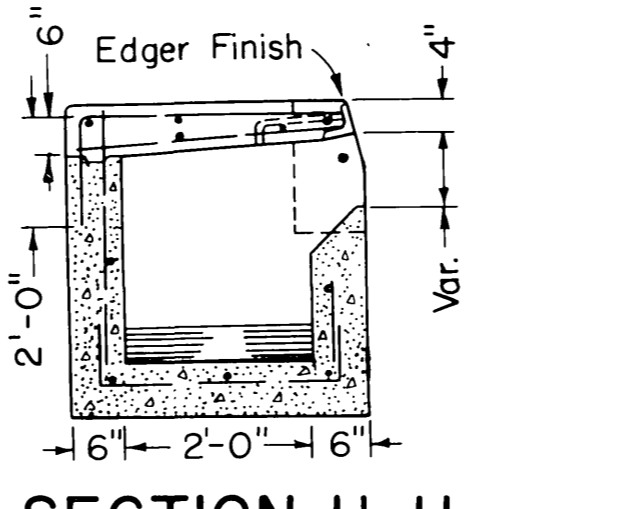
STEP DETAIL



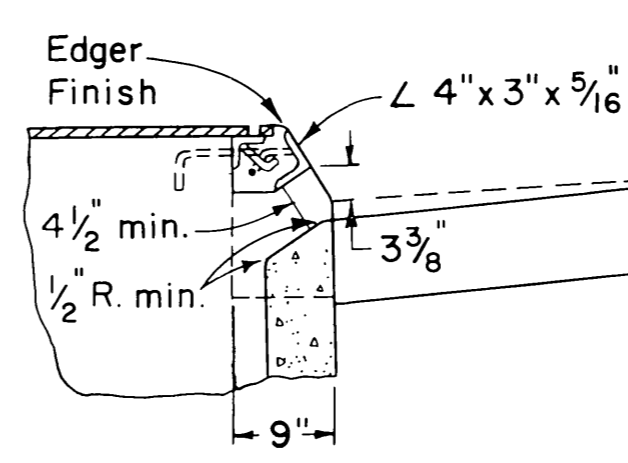
SECTION C-C



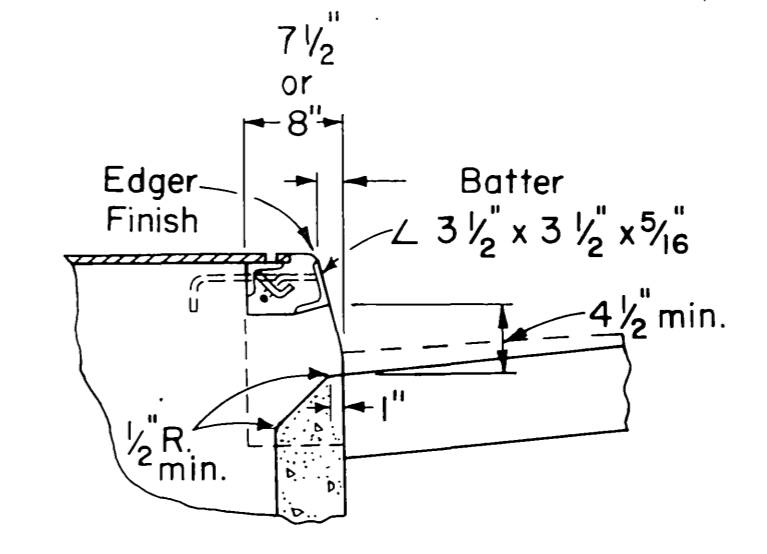
PLAN



SECTION H-H



TYPE B CURBS



TYPE A CURBS

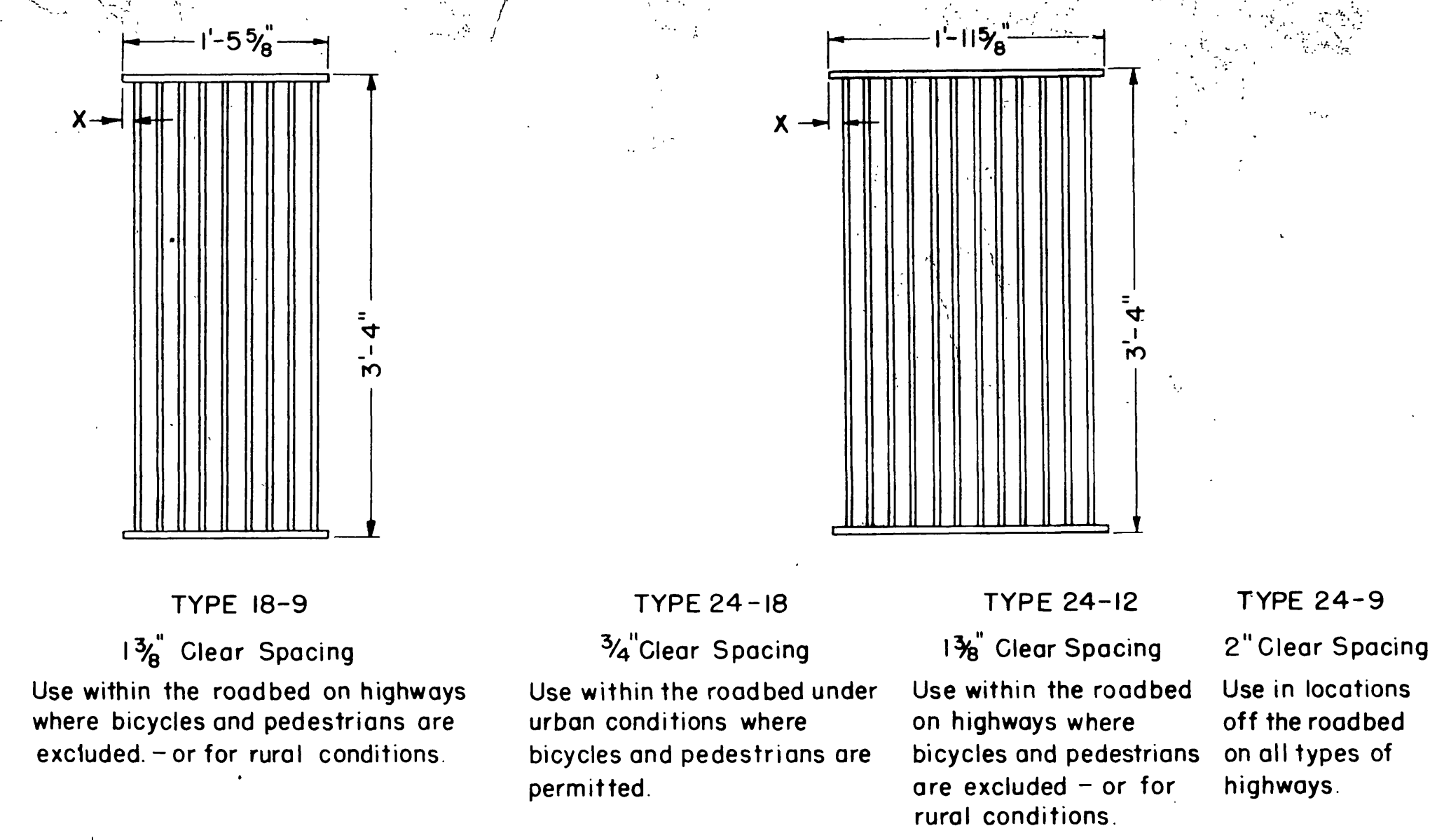
CURB OPENING DETAILS

STATE OF CALIFORNIA
TRANSPORTATION AGENCY
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

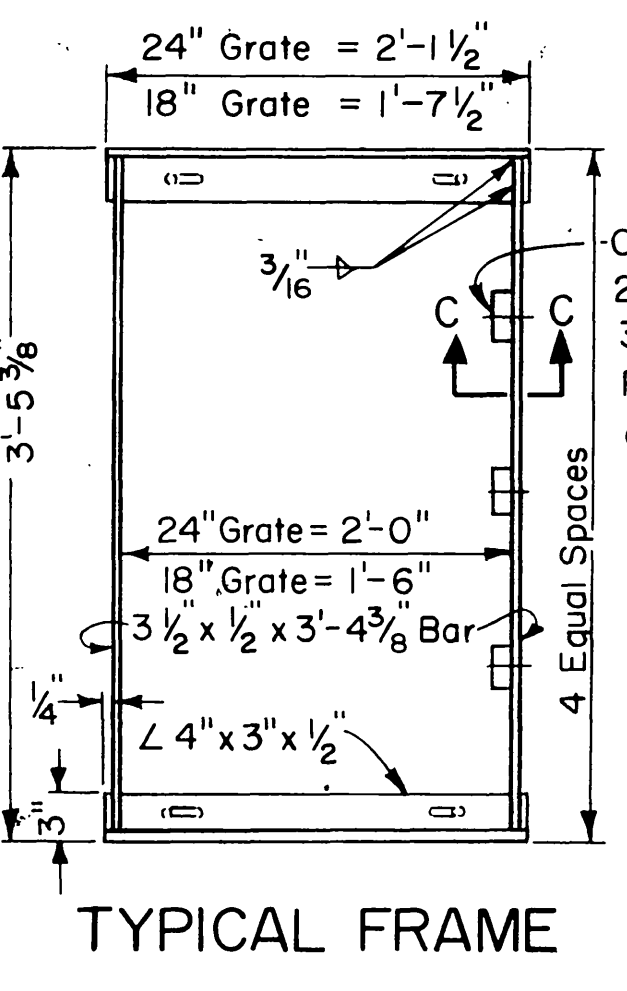
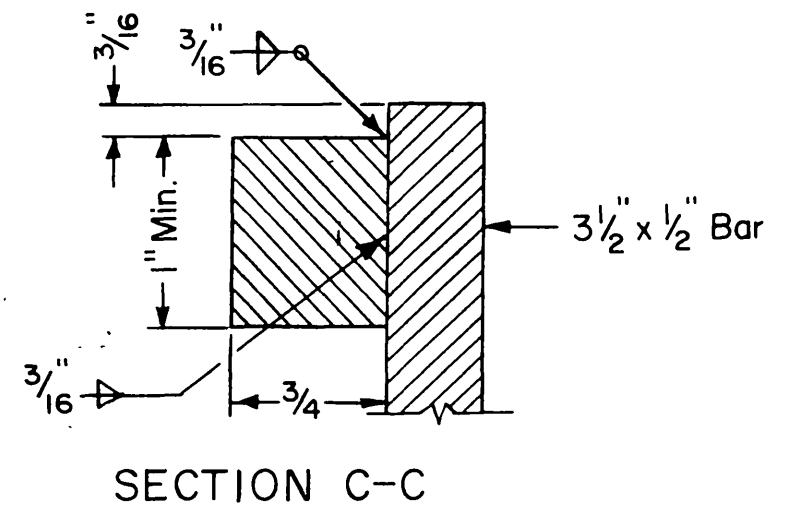
STANDARD
STORM DRAIN INLETS D72-5

W. H. Warren
 Engineer of Design
 Registered Civil Engineer No. 7603

Approved June 4, 1966
James
 State Highway Engineer
 Registered Civil Engineer No. 5945



RECTANGULAR GRATE DETAILS
 (SEE TABLE BELOW)

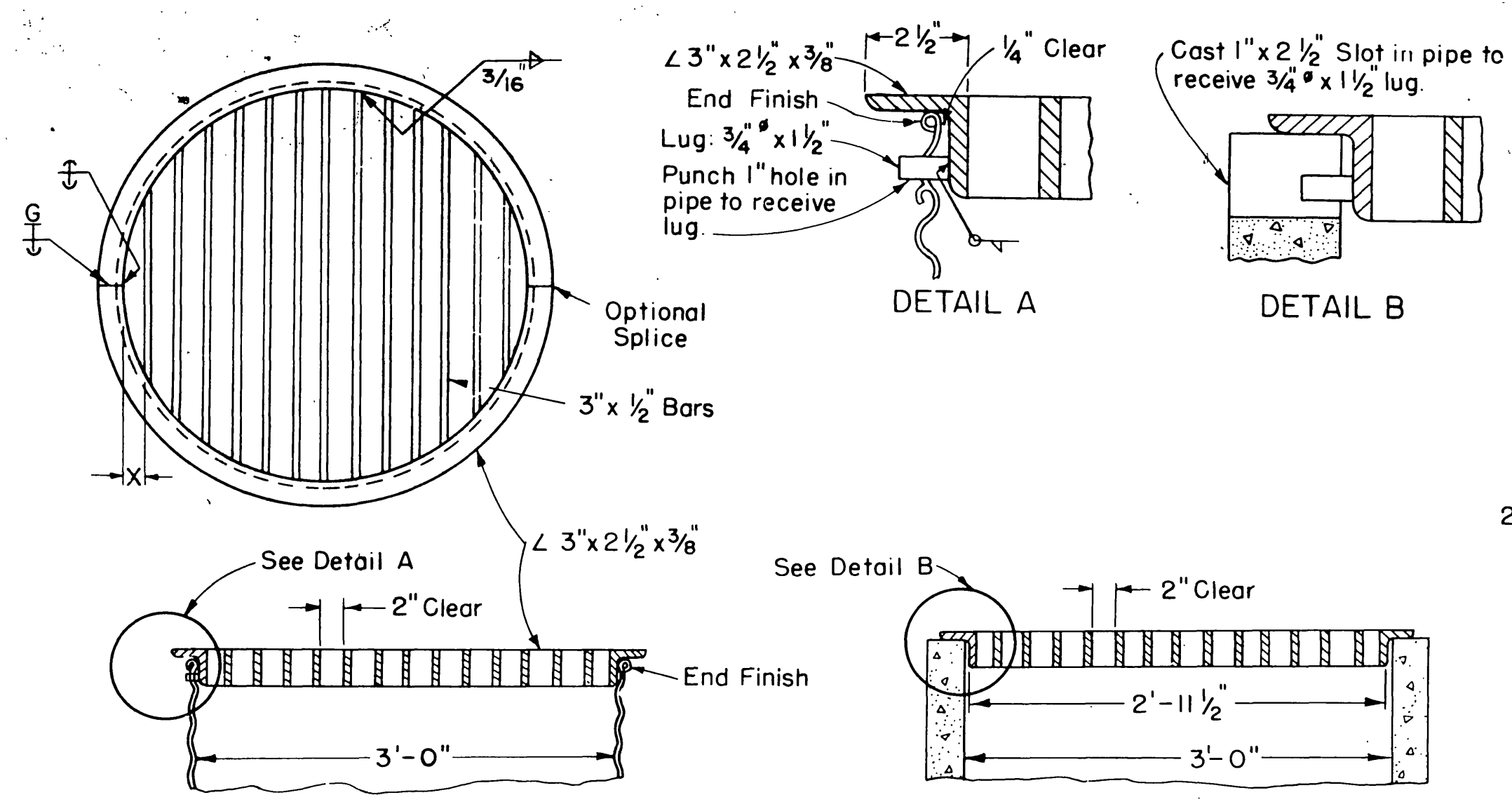


RECTANGULAR FRAME DETAILS
 (For all Rectangular Grates)

GRATE BAR SPACING TABLE

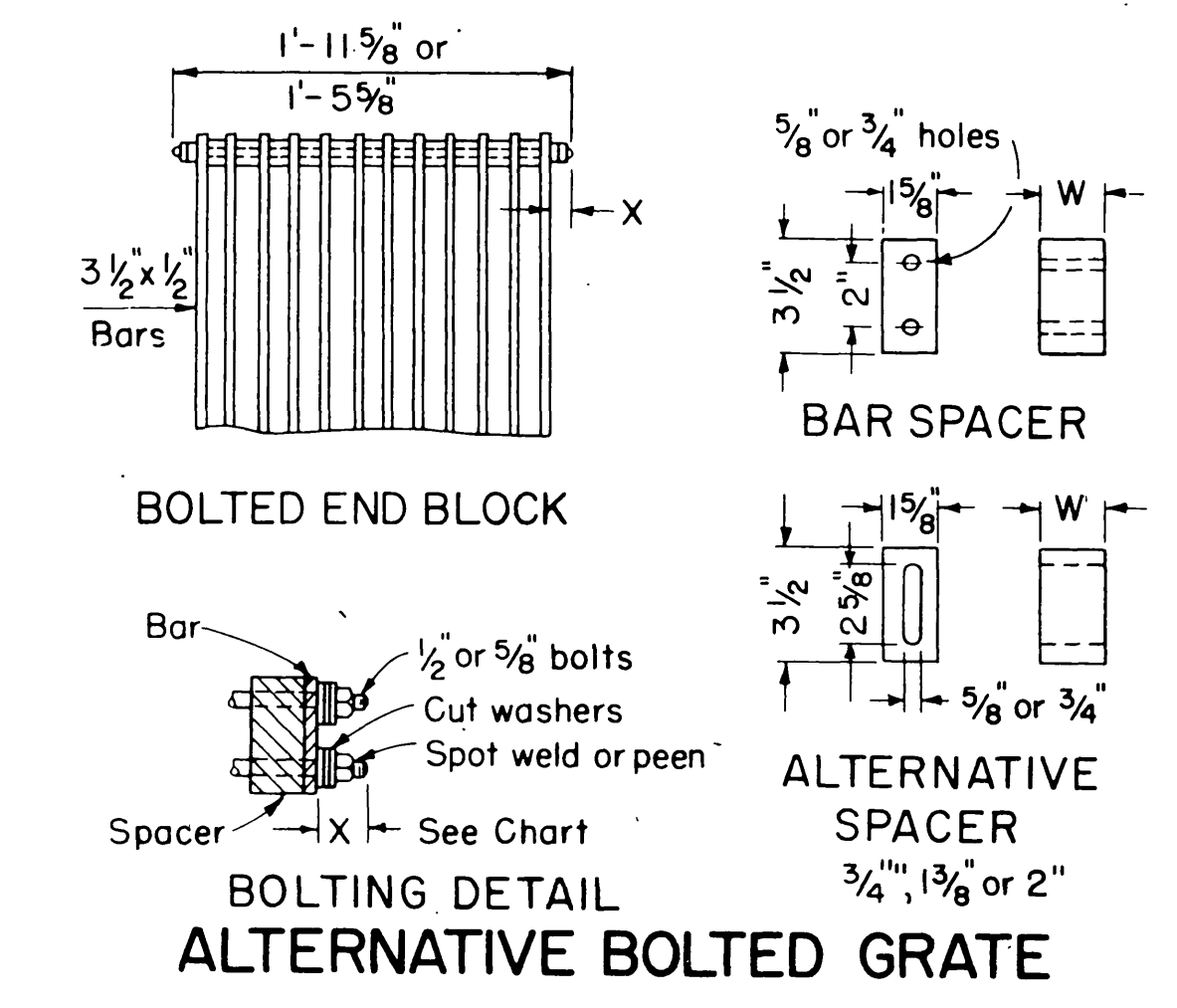
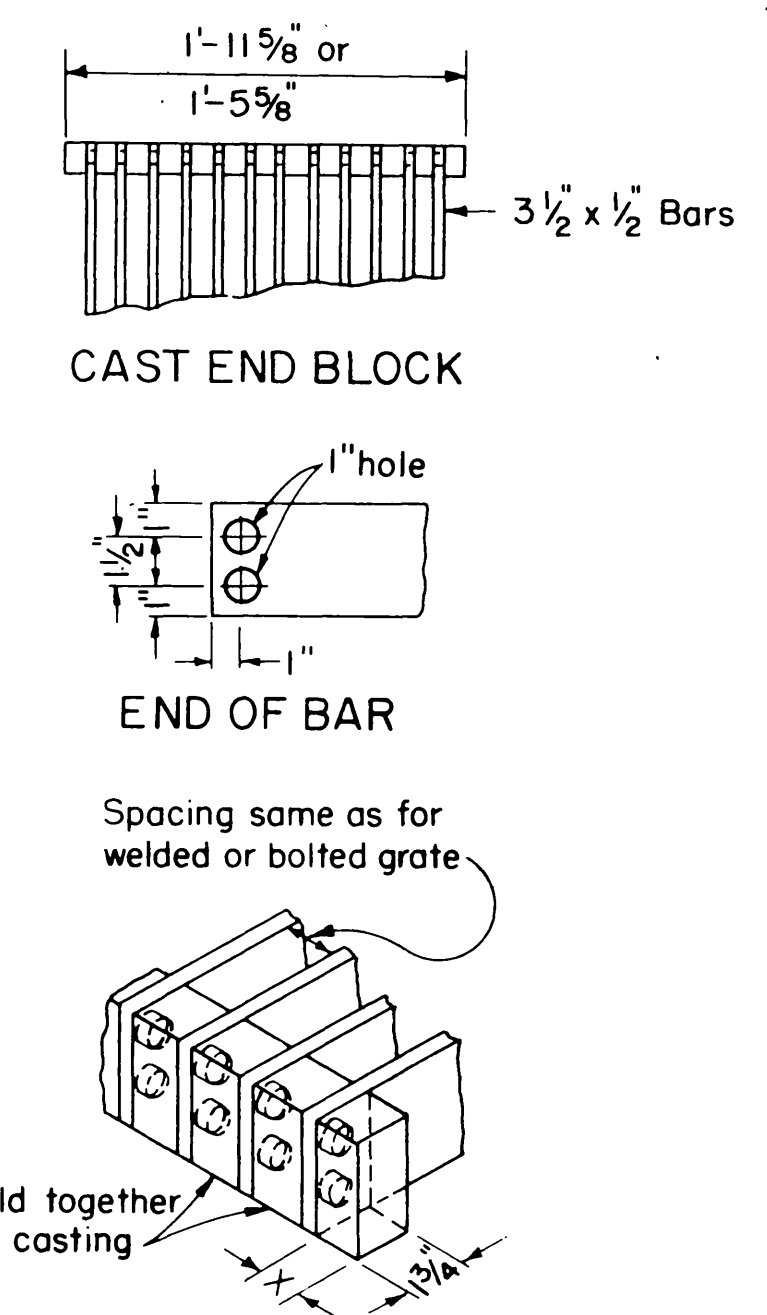
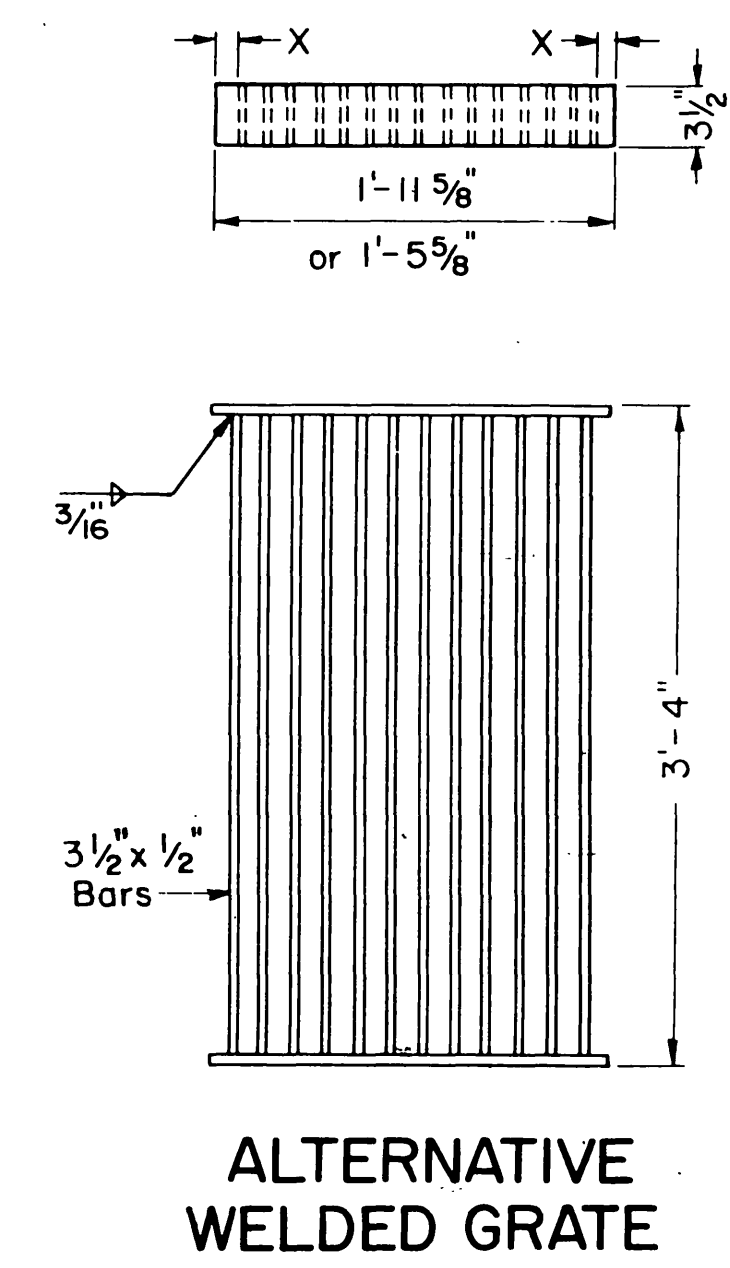
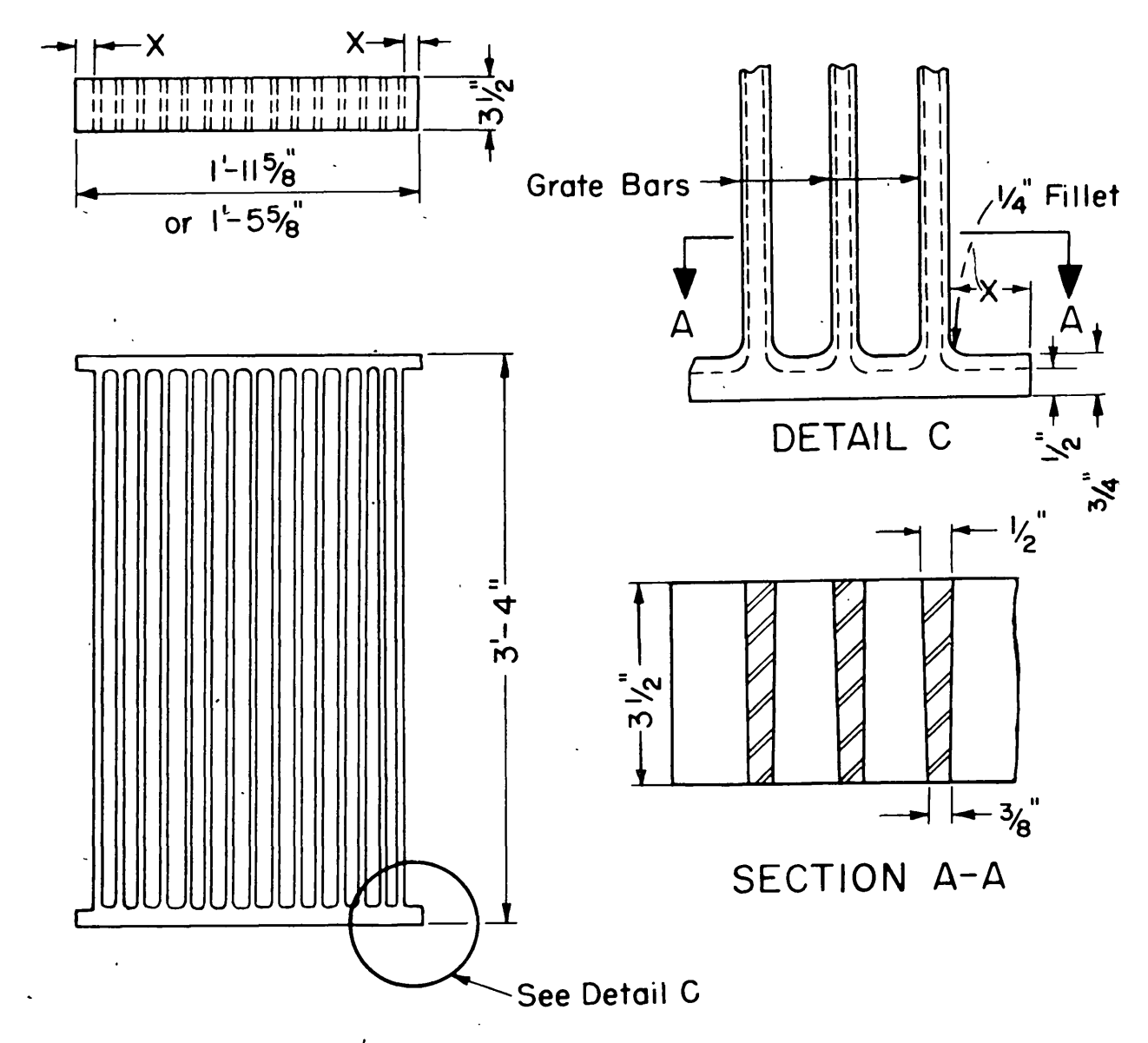
TYPE	NO. BARS	CLEAR BAR SPACING	X
18-9	9	1 3/8"	1 1/16"
24-9	9	2"	1 9/16"
24-12	12	1 3/8"	1 1/4"
24-18	18	3/4"	1 5/16"
36R	13	2"	2 1/8"

INLET TYPE	COVER TYPE	WEIGHT	PROTECT. BAR WT.
OS	PLATE	184	6
OL-7	PLATE	210	12
OL-10	PLATE	236	16
OL-14	PLATE	265	22
OL-21	PLATE	321	33
OCP	PLATE	109	
OCP1	PLATE	122	
OCP1	REDWOOD	13	
OMP	PLATE	180	
OMPI	PLATE	193	



ALTERNATIVE CAST NODULAR IRON GRATE OR CAST STEEL GRATE TYPE 36R

- GENERAL NOTES**
1. Grate type numbers refer to width of grate in inches and number of bars, respectively.
 2. Contractor has the option of using cast nodular iron, cast steel, welded, bolted or cast end block grate.
 3. Grates and frames may be galvanized or asphalt dipped. See Standard Specifications or Special Provisions.
 4. Rounded top of bars optional on all grates.
 5. Pipe drop inlets with a grate shall be placed so that bars parallel direction of principal surface flow.
 6. Full penetration butt welds may be substituted for the fillet welds on all anchors.
 7. Standard square, hexagon, round or equivalent headed anchors may be substituted for the right angle hooks on the anchors shown on this plan.



ALTERNATIVE CAST NODULAR IRON GRATE OR CAST STEEL GRATE

INLET TYPE	GRATE TYPE	WEIGHT	PROTECT. BAR WT.
GDO	24-12	642	5
	24-18	787	5
GOL-7	24-12	380	12
	24-18	477	12
GOL-10	24-12	406	16
	24-18	503	16
G1,G2,G3,G4(24")	24-9	270	
	24-12	321	
	24-18	418	
G4(18") G5,G6	18-9	251	
GT-1	18-9	555	
GT-2	18-9	573	
GT-3	24-12	693	
	24-18	842	
GT-4	24-12	712	
	24-18	860	
GMP,GCP	36R	224	
GMP1,GCP1	36R	224	

BASIS FOR MISC. IRON & STEEL FINAL PAY WEIGHTS FOR STORM DRAIN INLETS

STATE OF CALIFORNIA
 TRANSPORTATION AGENCY
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

STANDARD GRATE DETAILS D77-7

To accompany plans dated August 29, 1966

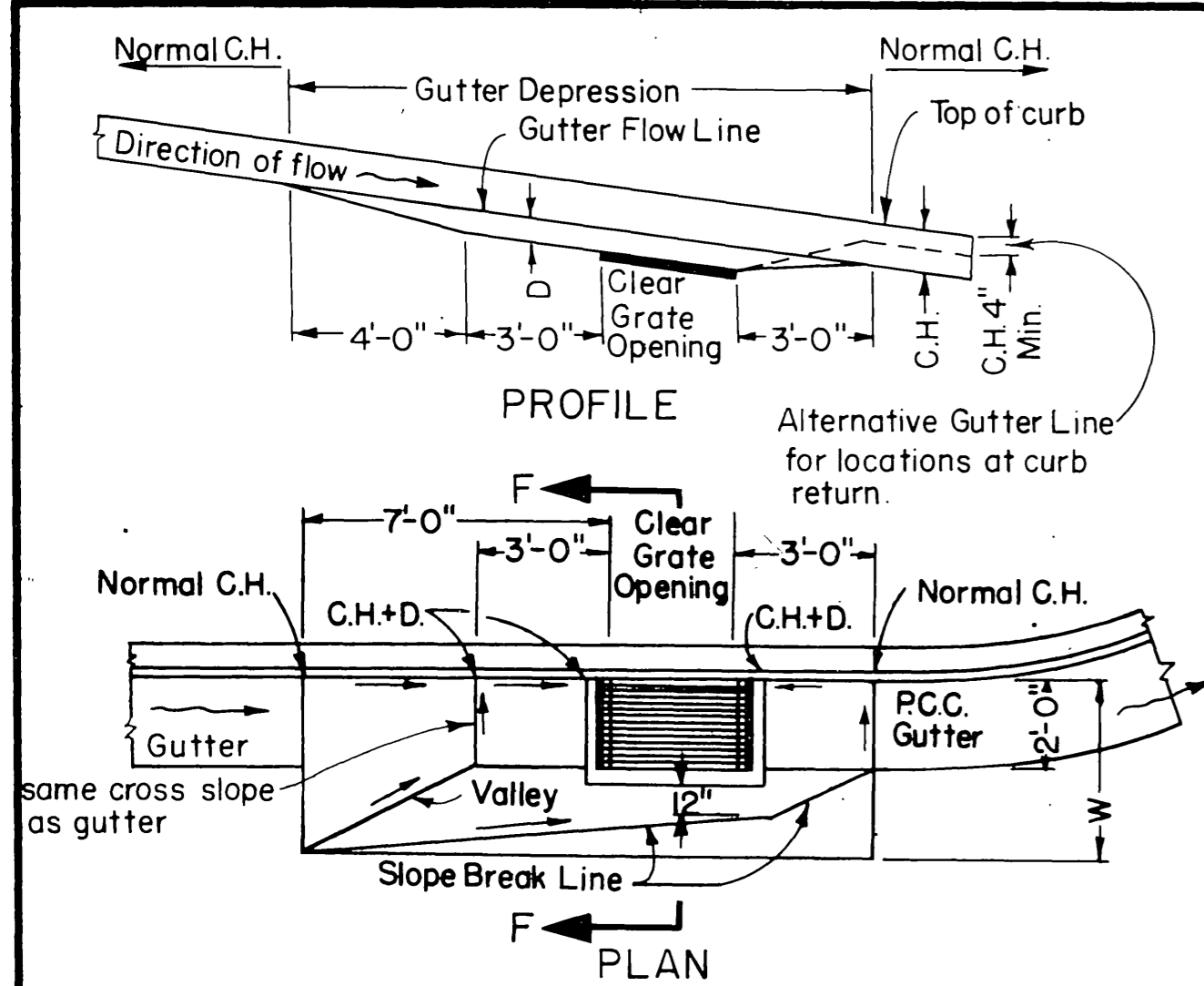
DISTRICT	COUNTY	ROUTE	Post Miles	Total Project	SHEET No.	TOTAL SHEETS
08	RVN	1289		CR, RVN	36	44

APPROVAL RECOMMENDED

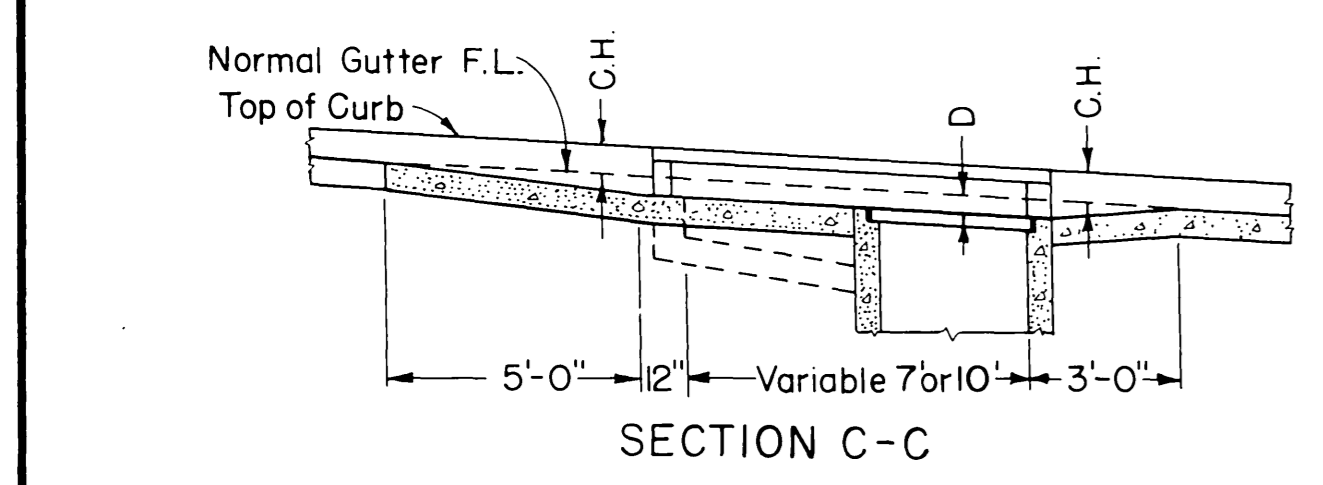
W. L. Harwin
 Engineer of Design
 Registered Civil Engineer No. 7603

Approved February 5, 1962

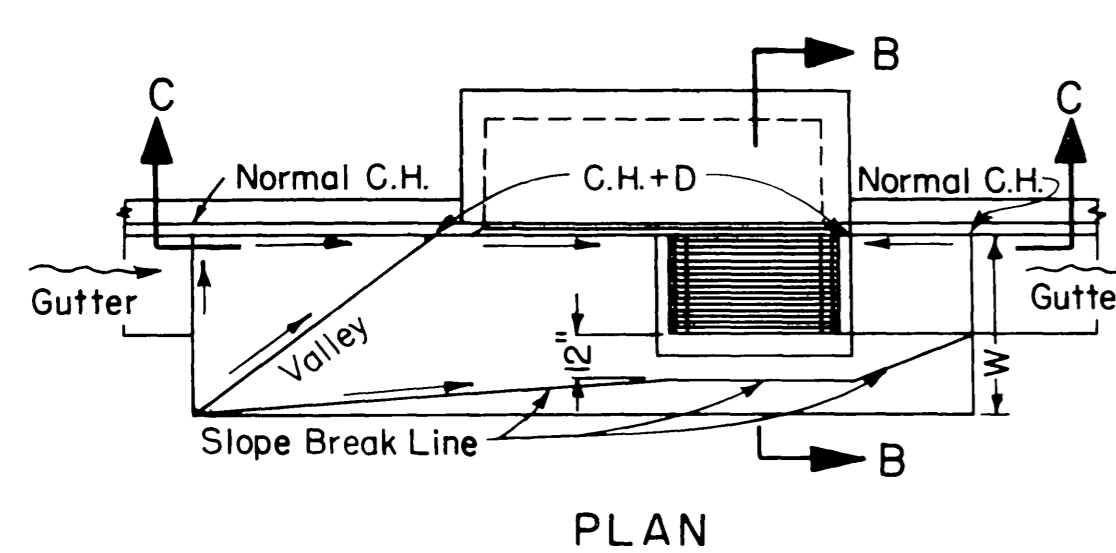
Chambers
 State Highway Engineer
 Registered Civil Engineer No. 5945



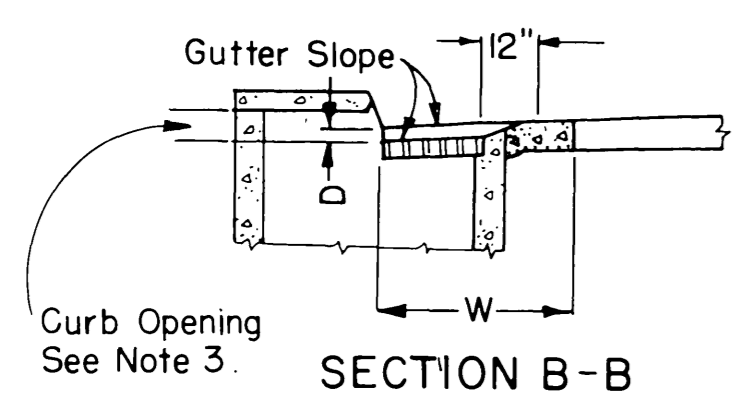
TYPE G₁ THRU G₆ INLETS ON GRADE



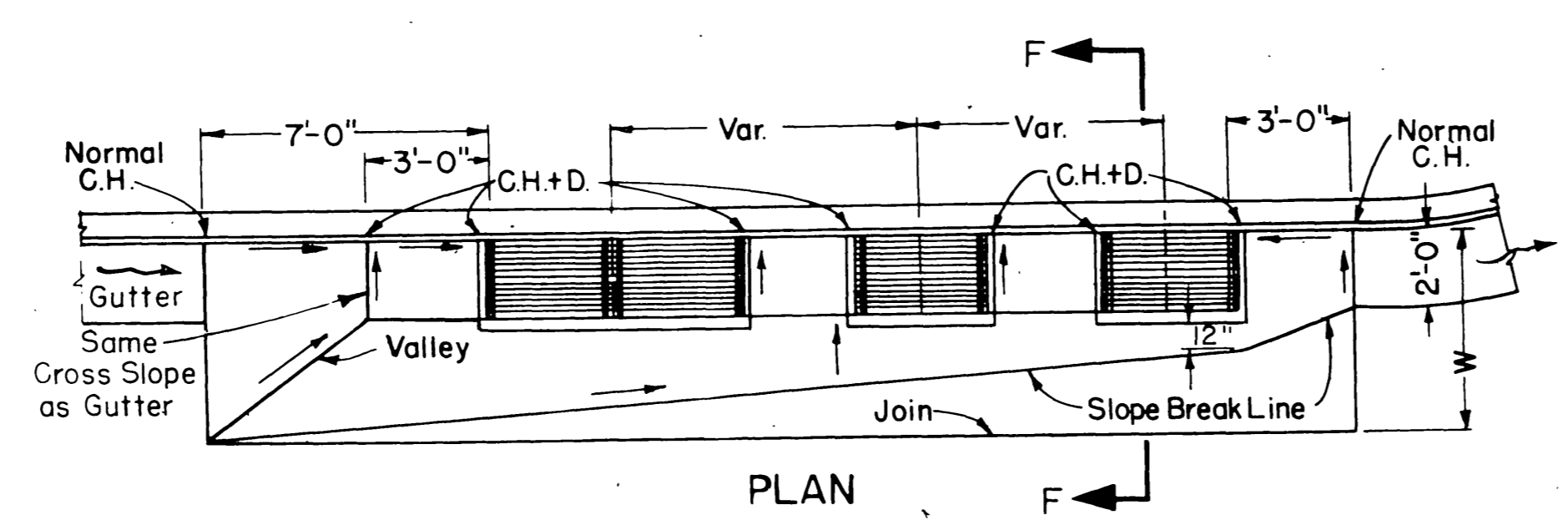
SECTION C-C



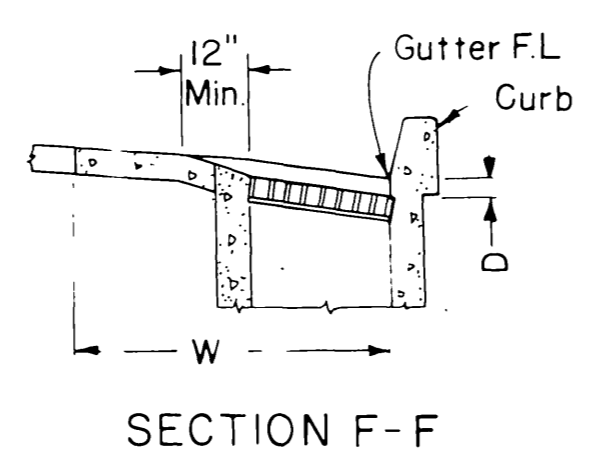
TYPE G_{0L} INLET ON GRADE



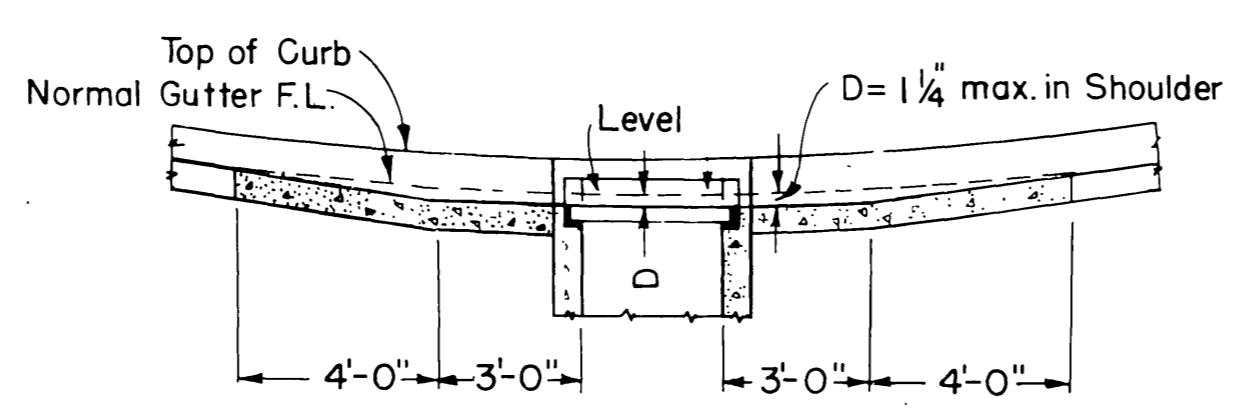
SECTION B-B



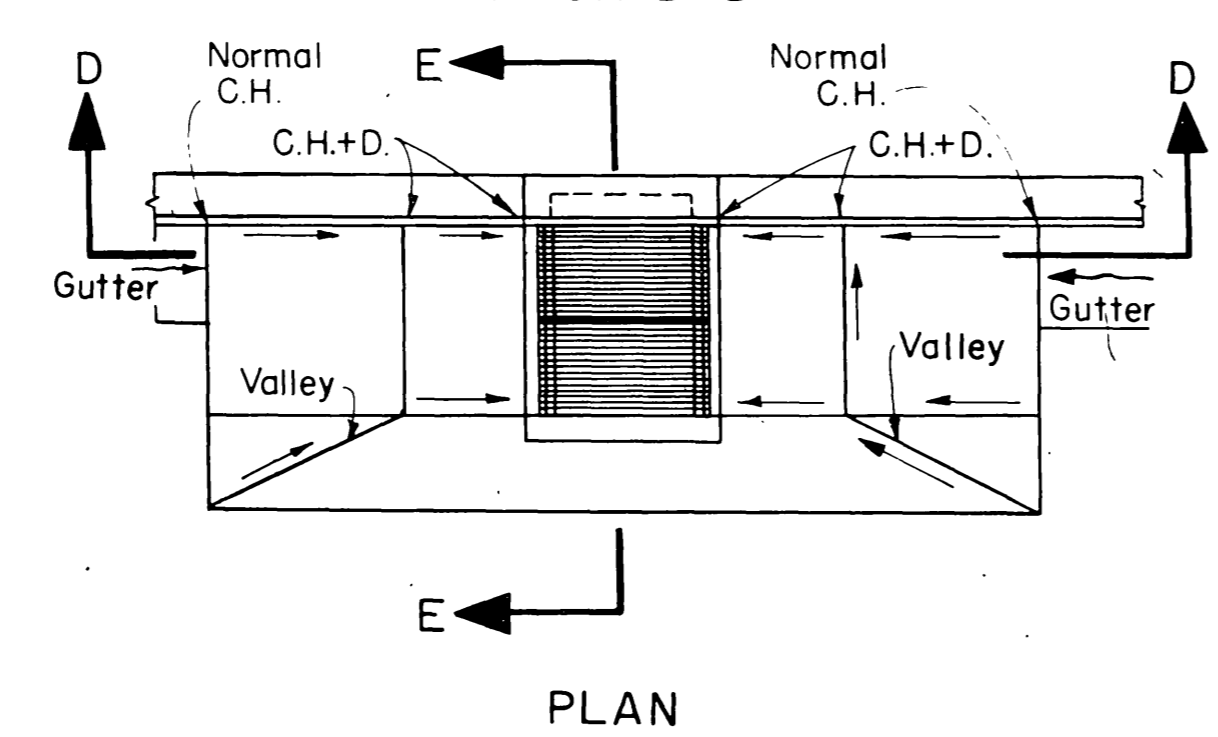
GRATE INLET IN SERIES



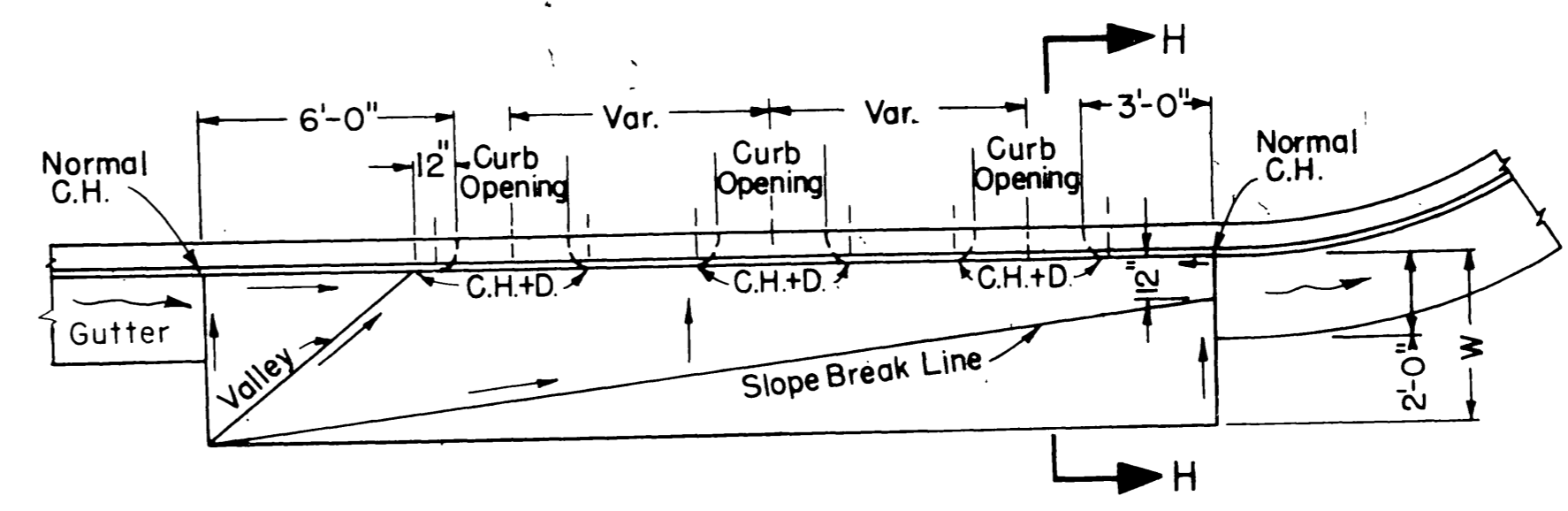
SECTION F-F



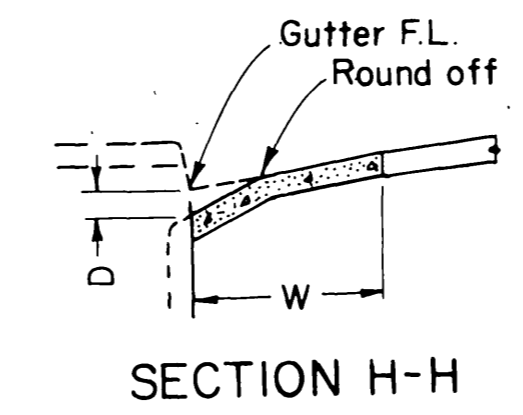
SECTION D-D



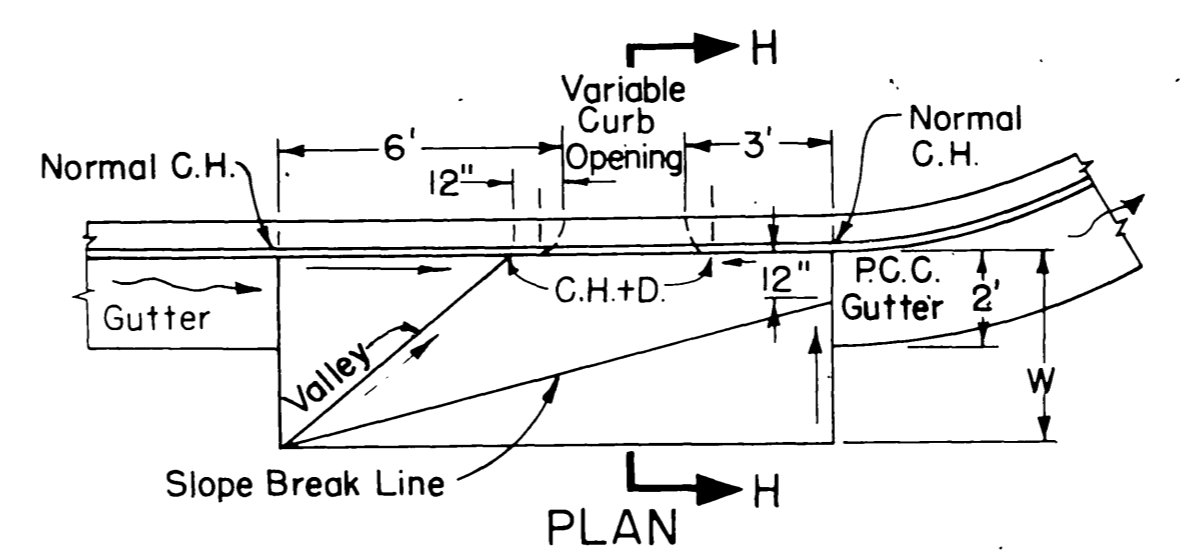
TYPE G_{DO} INLET IN GRADE SAG



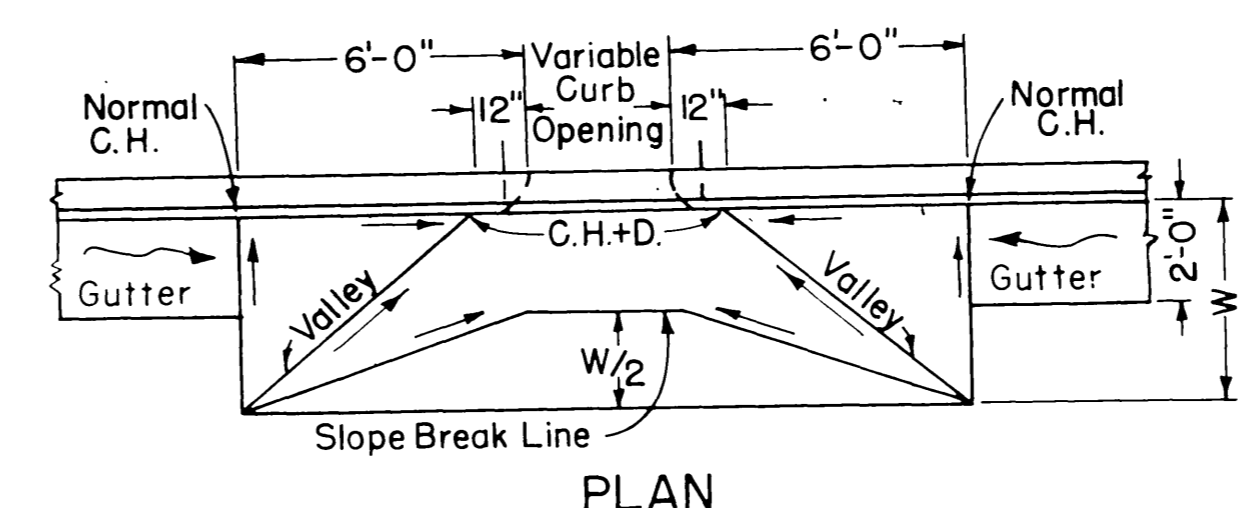
TYPE OS & OL INLETS IN SERIES ON GRADE



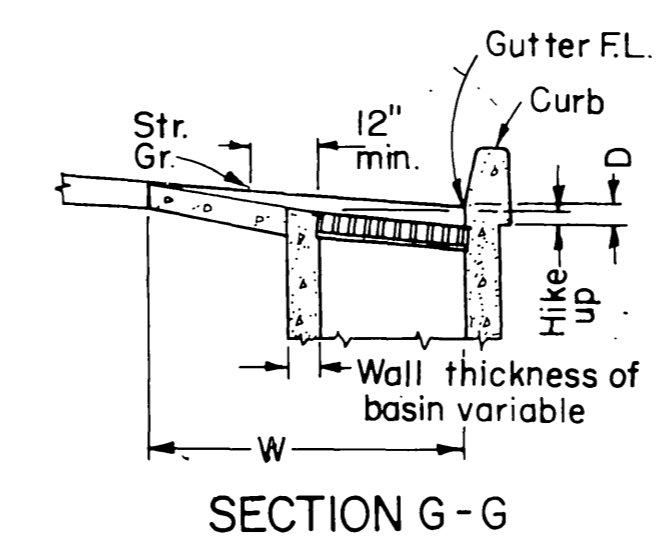
SECTION H-H



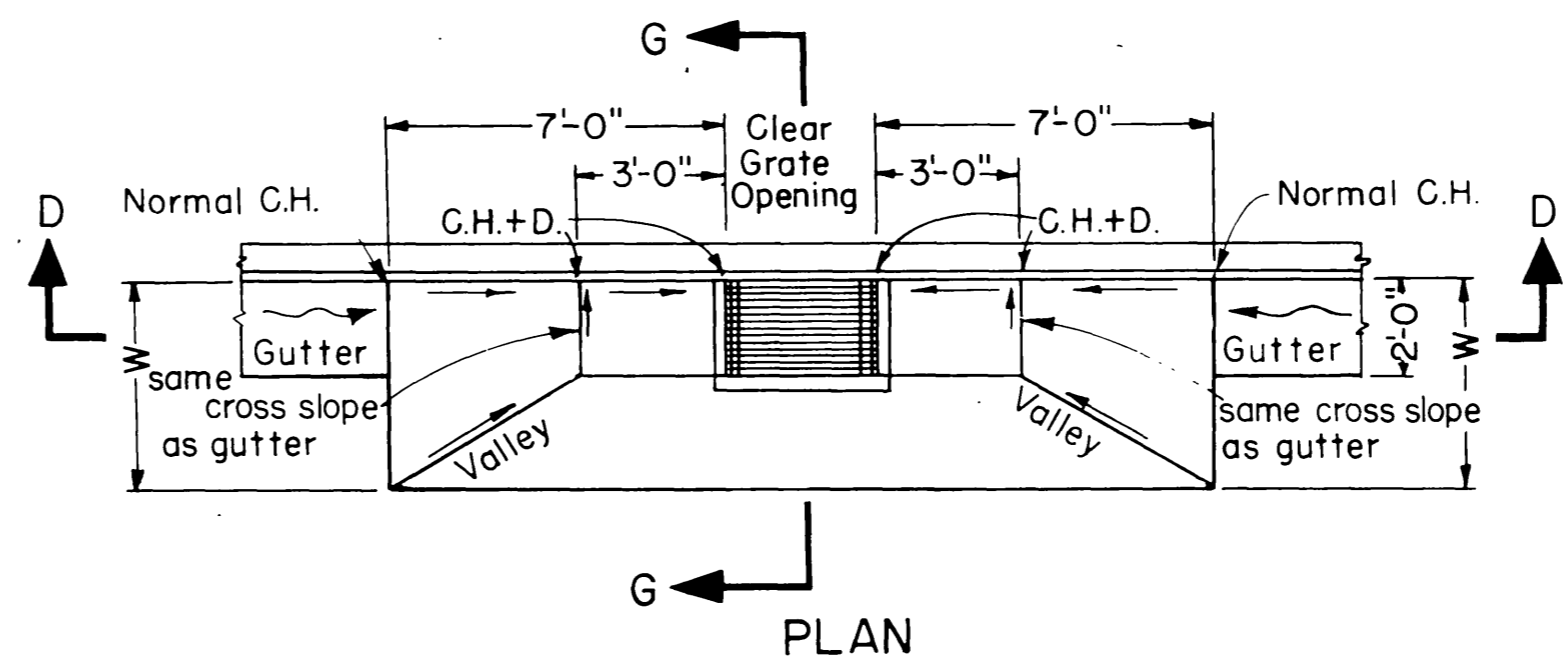
TYPE OS & OL INLETS ON GRADE



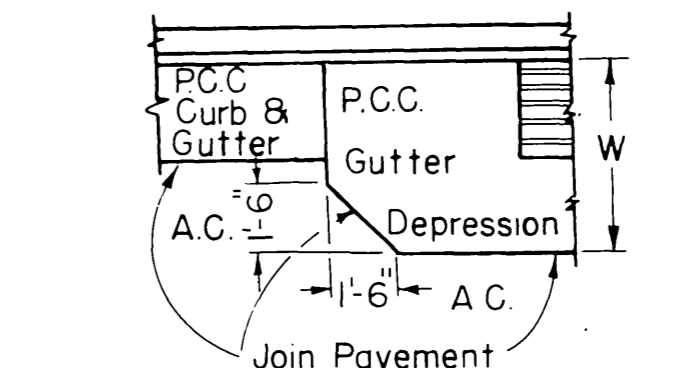
TYPE OS & OL INLETS IN GRADE SAG



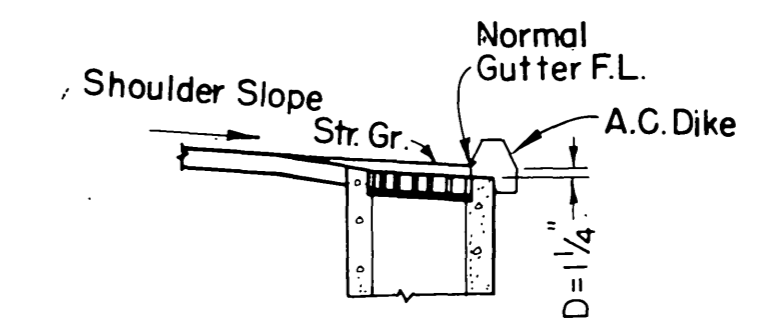
SECTION G-G



TYPE G₁ THRU G₆, GT₃ & GT₄ INLETS IN GRADE SAG



DETAIL OF ASPHALT CONCRETE PAVEMENT (See Note 4)

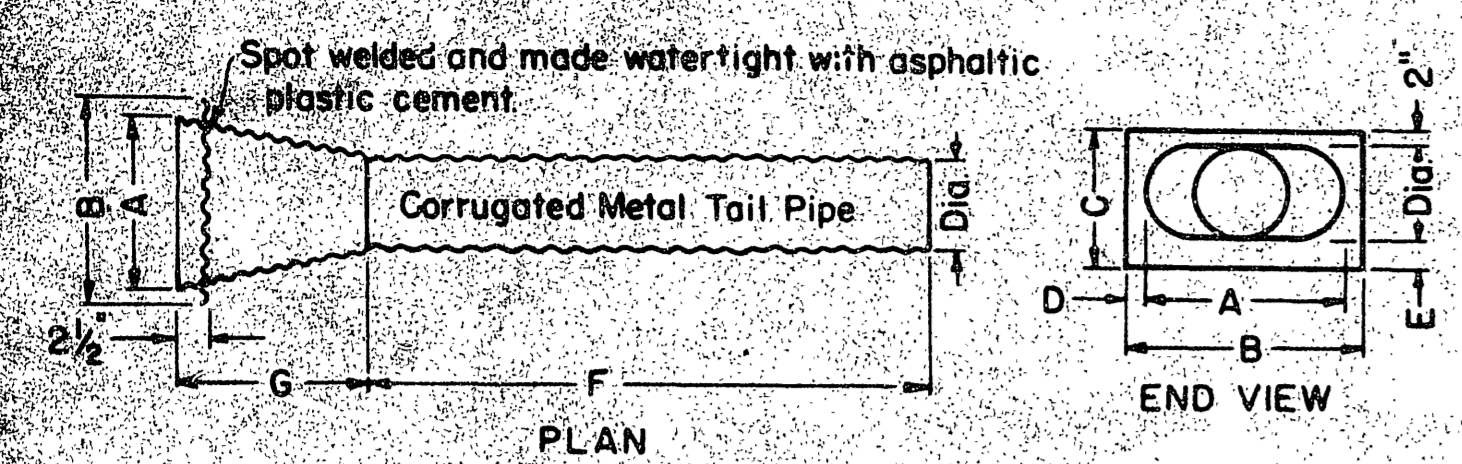


DETAIL OF INLET WITH DIKE (SINGLE GRATE SHOWN)

GENERAL NOTES

1. W = Width of depressed apron and shall be 4' on shoulders and 4' to 6' in city street gutters unless otherwise shown.
2. D = Gutter Depression. It shall be 1/4" for shoulders and 1/4" to 3/8" in city street gutters or locations outside of shoulders unless otherwise shown.
3. C.H. = Curb Height.
4. — = Straight Grade, Downward Slope.
5. ~ = Gutter or Shoulder direction of flow.
6. Gutter depressions shall be Class "B" P.C.C. 8" thick.
7. Establish curb opening height at midpoint of grate.
8. Details shown for P.C.C. pavement. When A.C. pavement is used corners to be cut off as shown on Detail of Asphalt Concrete Pavement.

STATE OF CALIFORNIA
 HIGHWAY TRANSPORTATION AGENCY
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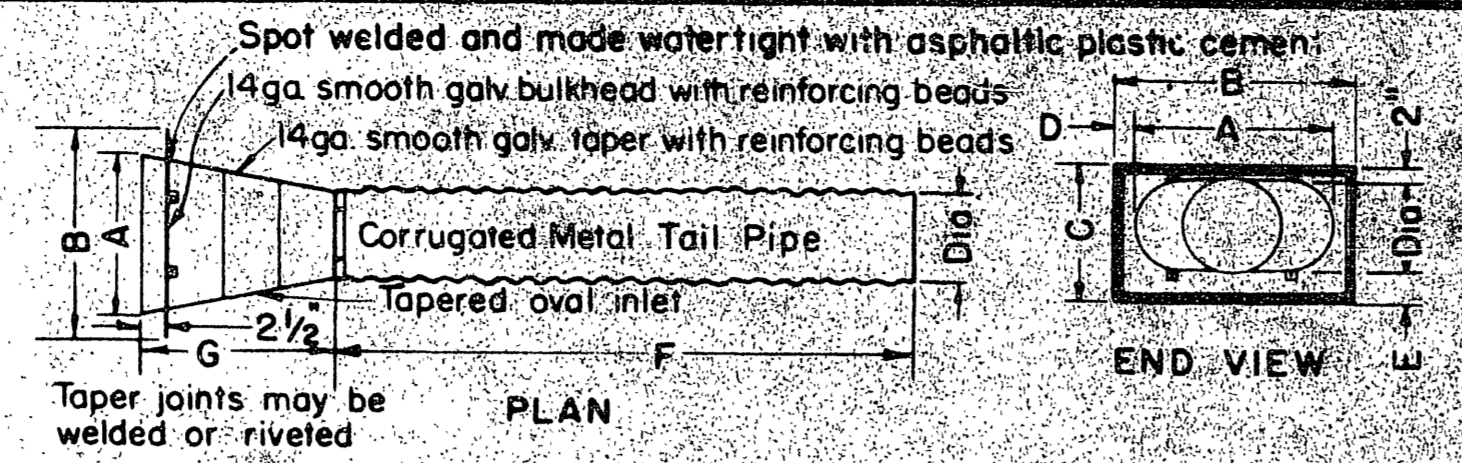


Taper joints may be welded or riveted.
Bulkhead and taper to be galvanized corrugated metal of the same gage as the outlet pipe.
Dimensions to be as tabulated below for Alternatives A and B.

Dia.	A	B	C	D	E	F	G
8"	16"	25 1/2"	15"	4 3/4"	5"	6"	2"
12"	18"	25 1/2"	19"	3 3/4"	5"	6"	2"
15"	21"	30"	23"	4 1/2"	6"	6"	2"
18"	24"	34"	27"	5"	7"	6"	2"
24"	34"	46"	35"	6"	9"	4"	4"

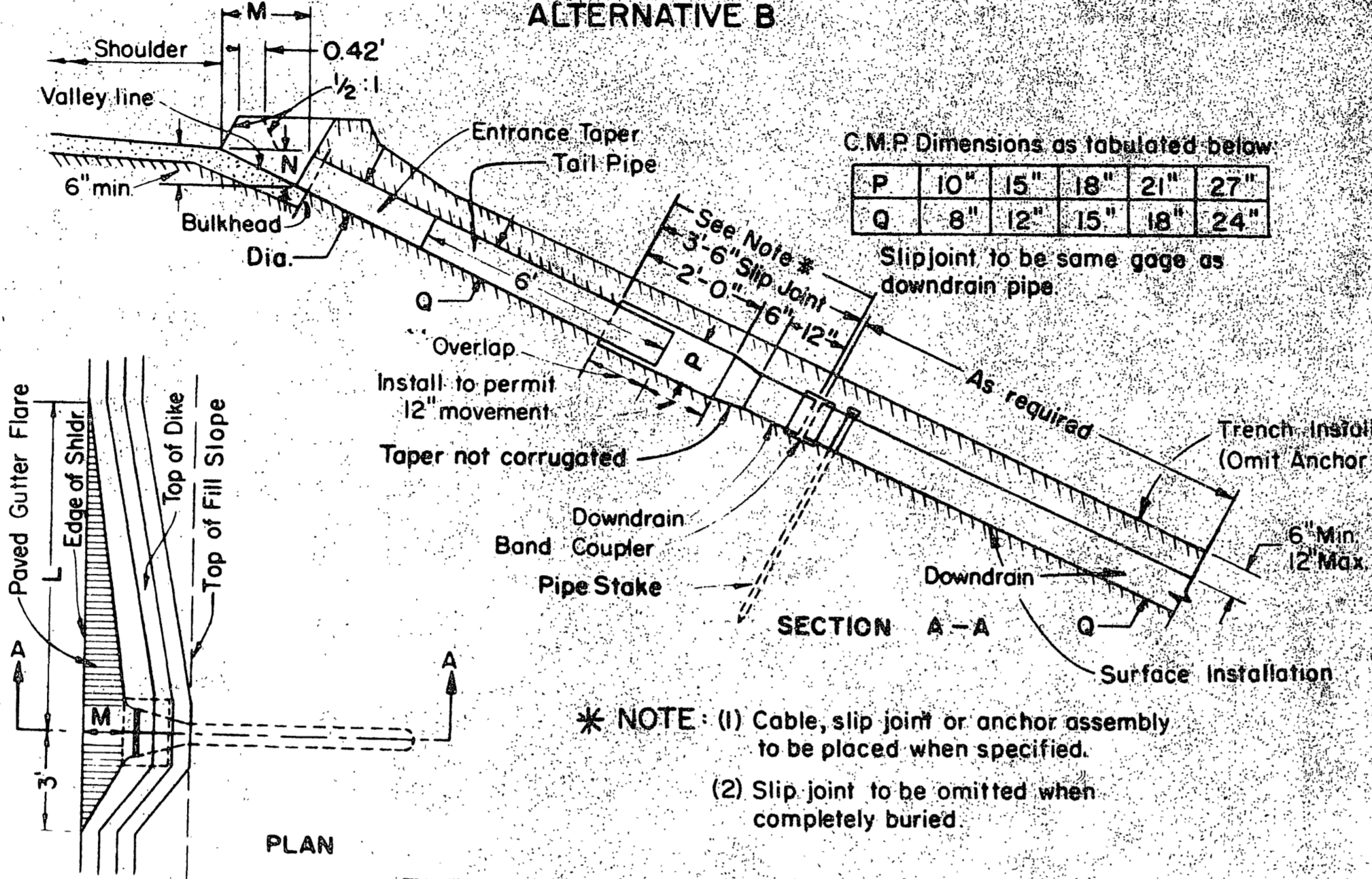
Dia.	Min. L	M	N
8"	10'	18"	8"
12"	15'	20"	12"
15"	25'	24"	15"
18"	30'	30"	16"
24"	40'	36"	18"

ENTRANCE TAPER ALTERNATIVE A



Spot welded and made watertight with asphaltic plastic cement.
14 ga. smooth galv. bulkhead with reinforcing beads
14 ga. smooth galv. taper with reinforcing beads
Taper joints may be welded or riveted.

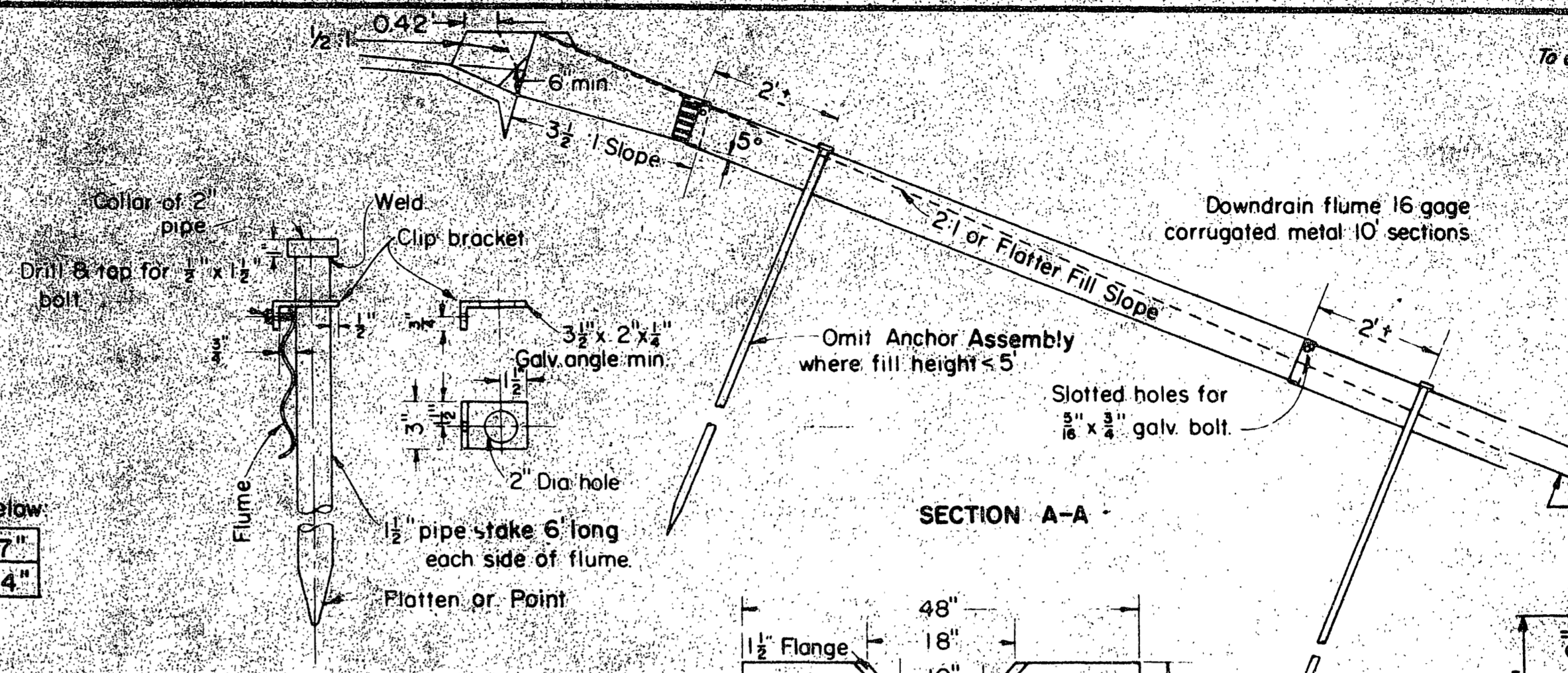
ENTRANCE TAPER ALTERNATIVE B



C.M.P. Dimensions as tabulated below

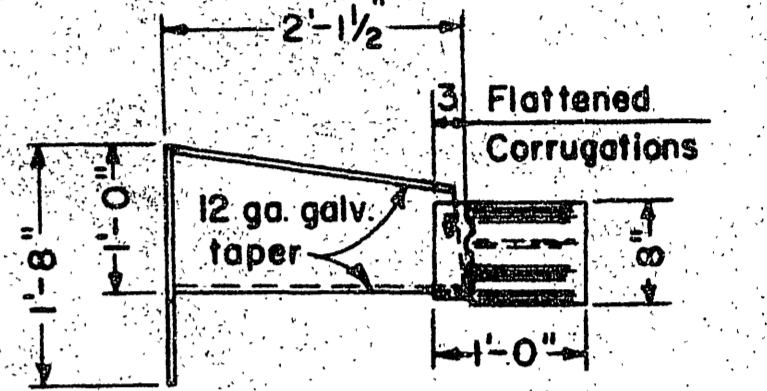
P	10"	15"	18"	21"	27"
Q	8"	12"	15"	18"	24"

* NOTE: (1) Cable, slip joint or anchor assembly to be placed when specified.
(2) Slip joint to be omitted when completely buried.

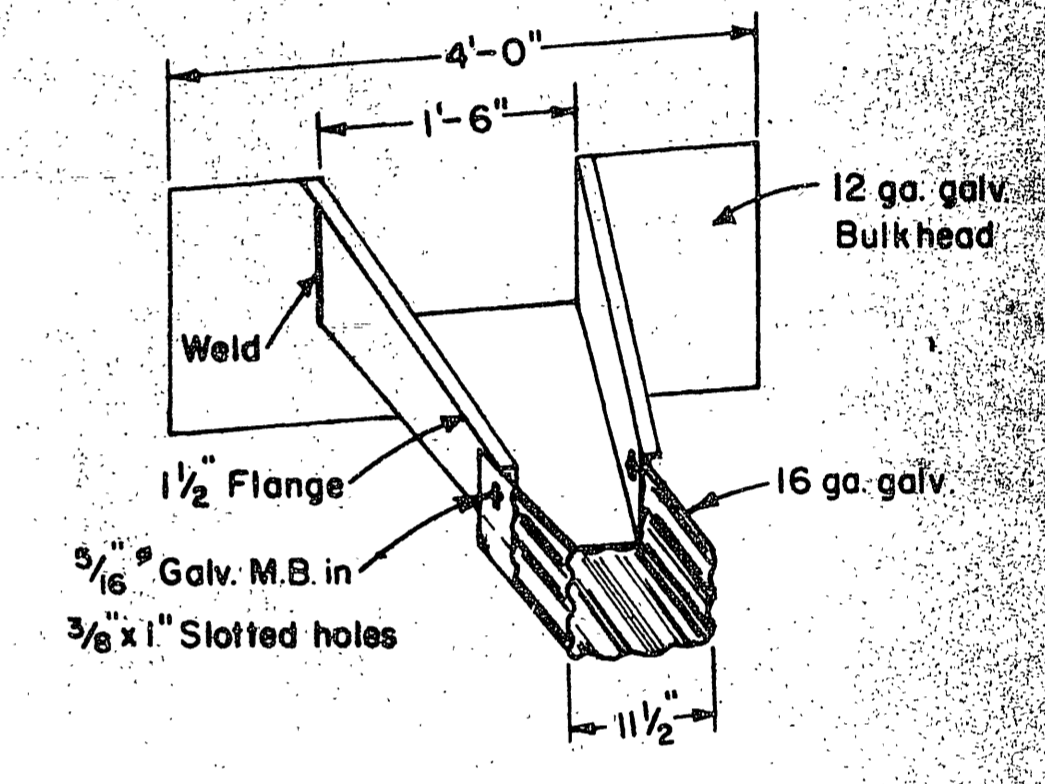


ANCHOR DETAIL

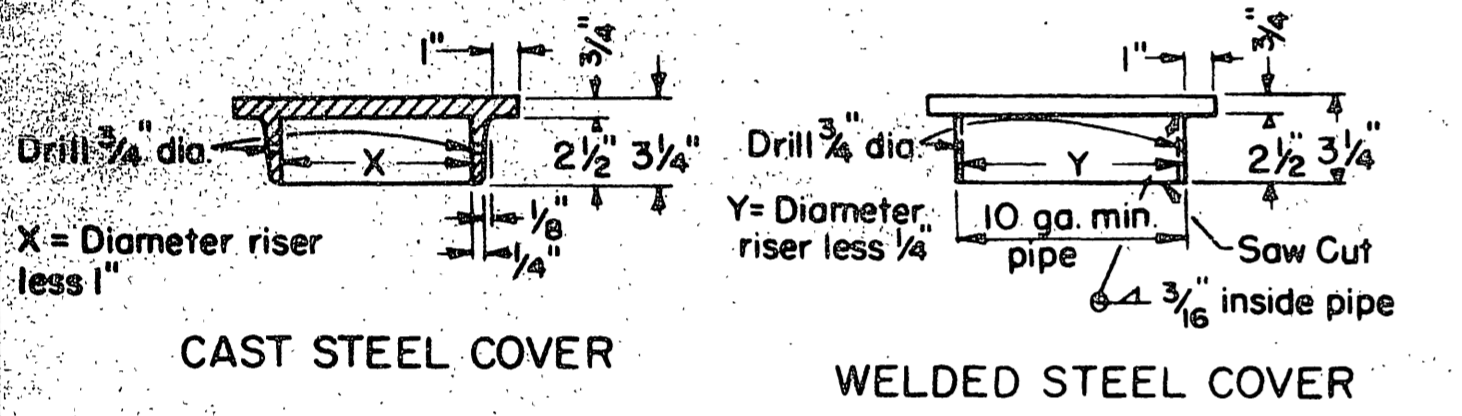
SECTION A-A



ANCHOR ASSEMBLY SECTION B-B

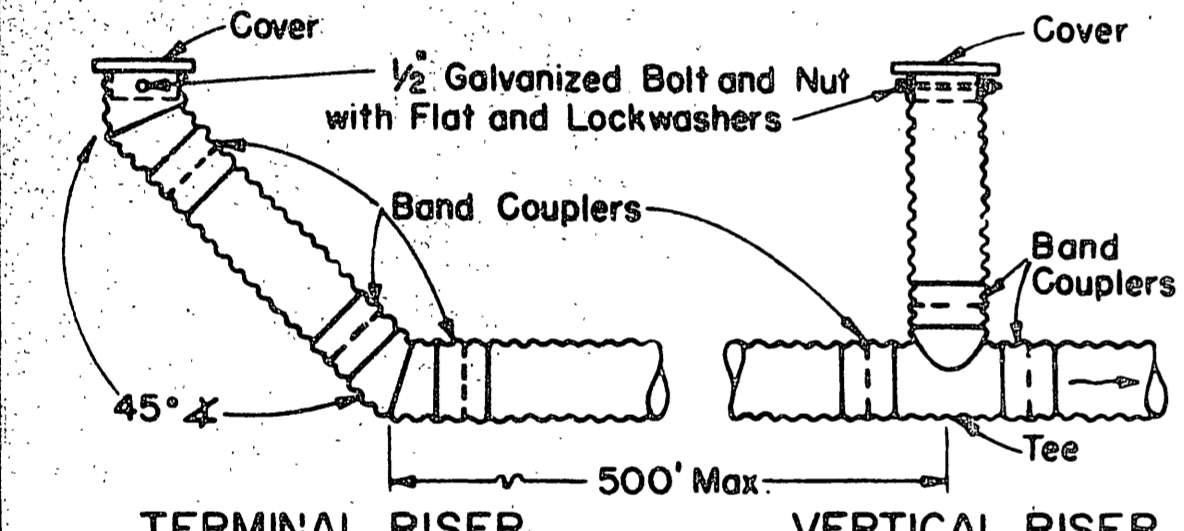


TAPERED INLET



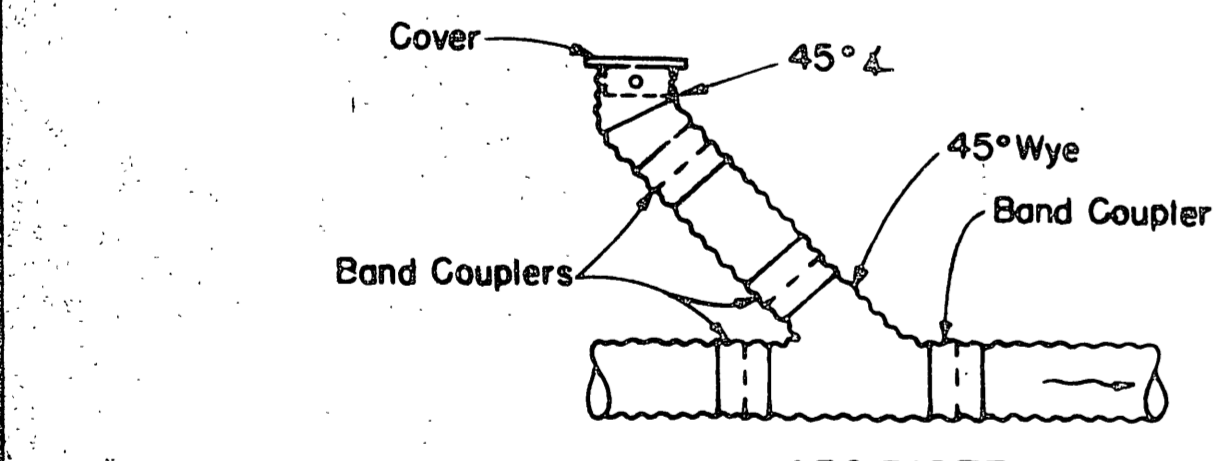
CAST STEEL COVER

WELDED STEEL COVER

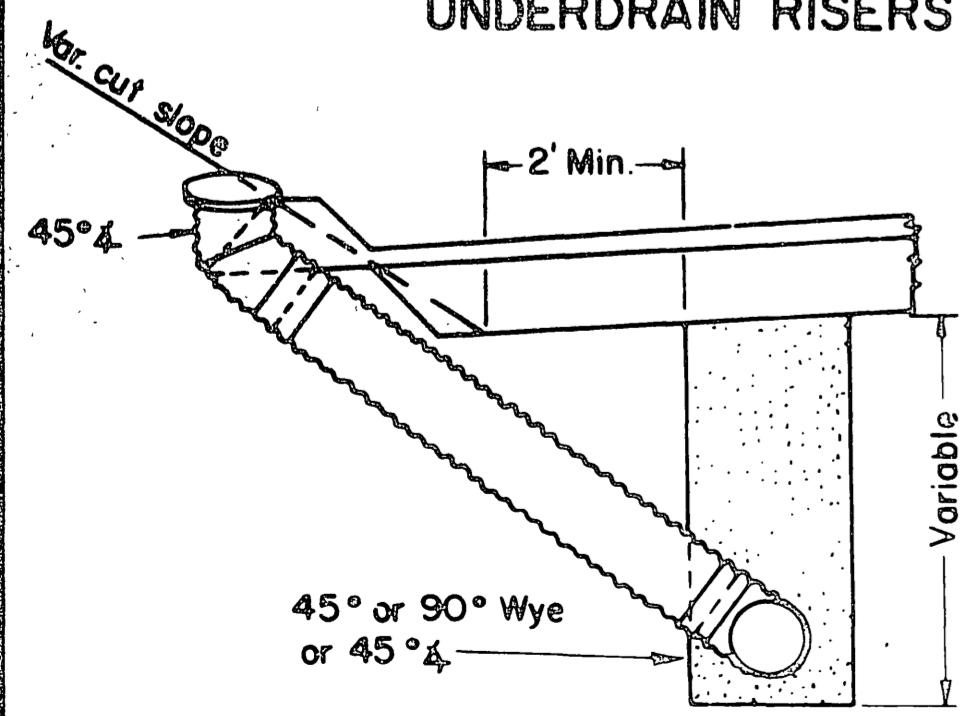


TERMINAL RISER

VERTICAL RISER



45° RISER UNDERDRAIN RISERS



UNDERDRAIN LOCATION AND RISERS ANGLED TO CUT SLOPE

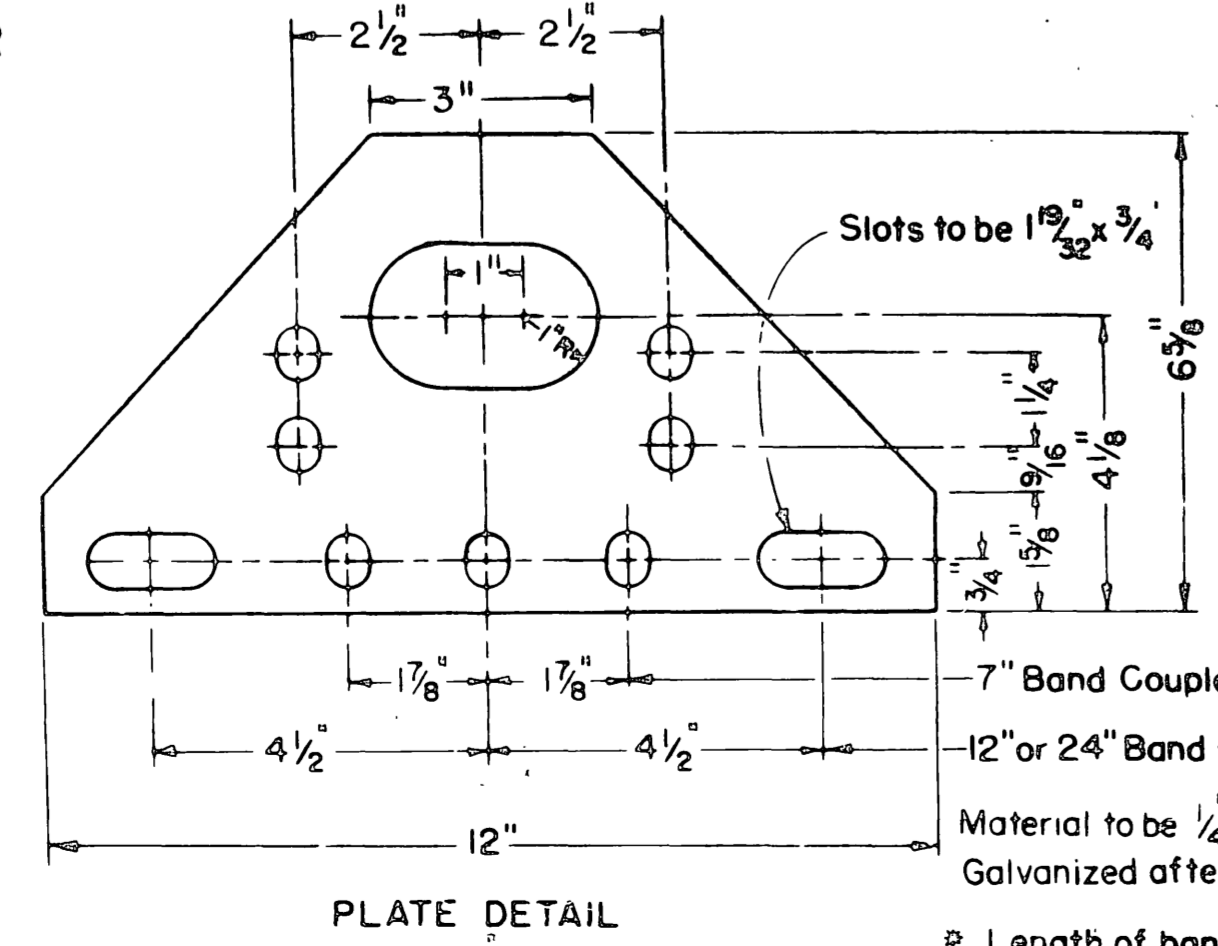
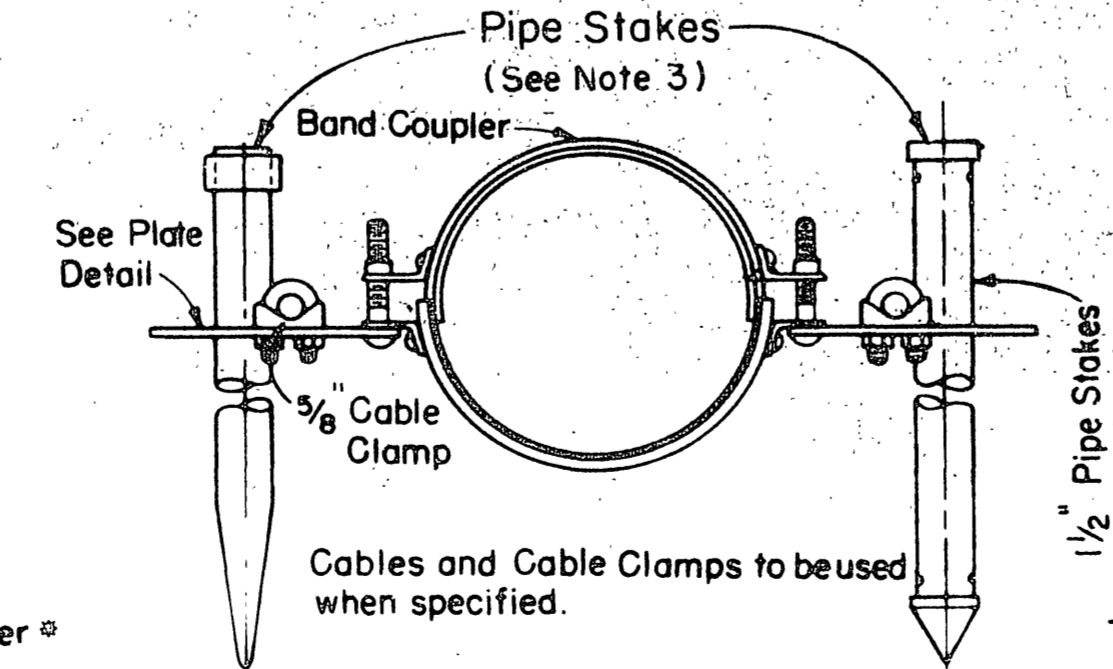


PLATE DETAIL

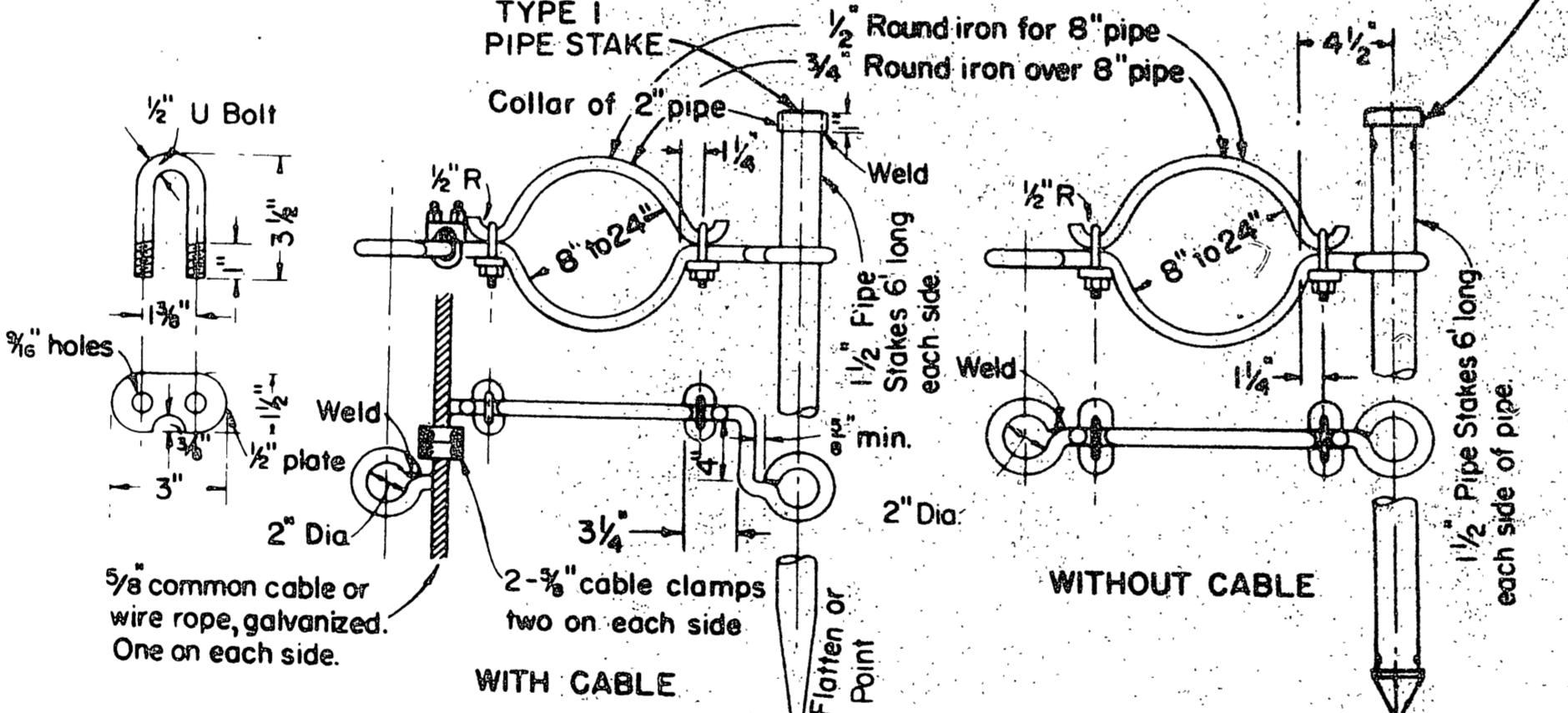
ANCHOR ASSEMBLY ALTERNATIVE A



ANCHOR ASSEMBLY ALTERNATIVE B

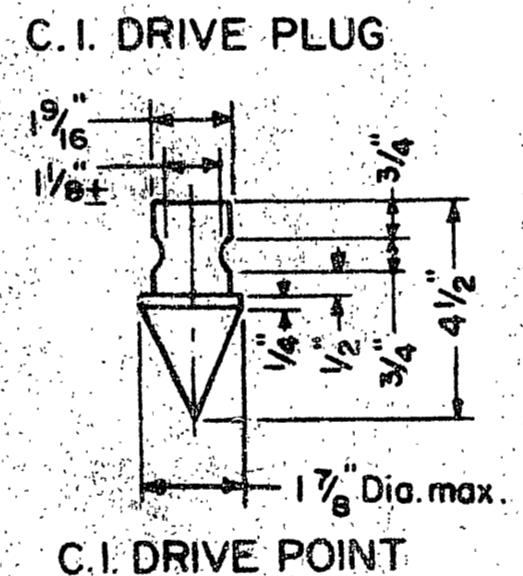
ENTRANCE TAPER AND PIPE DOWNDRAIN

TYPE 2 PIPE STAKE



WITHOUT CABLE

WITH CABLE

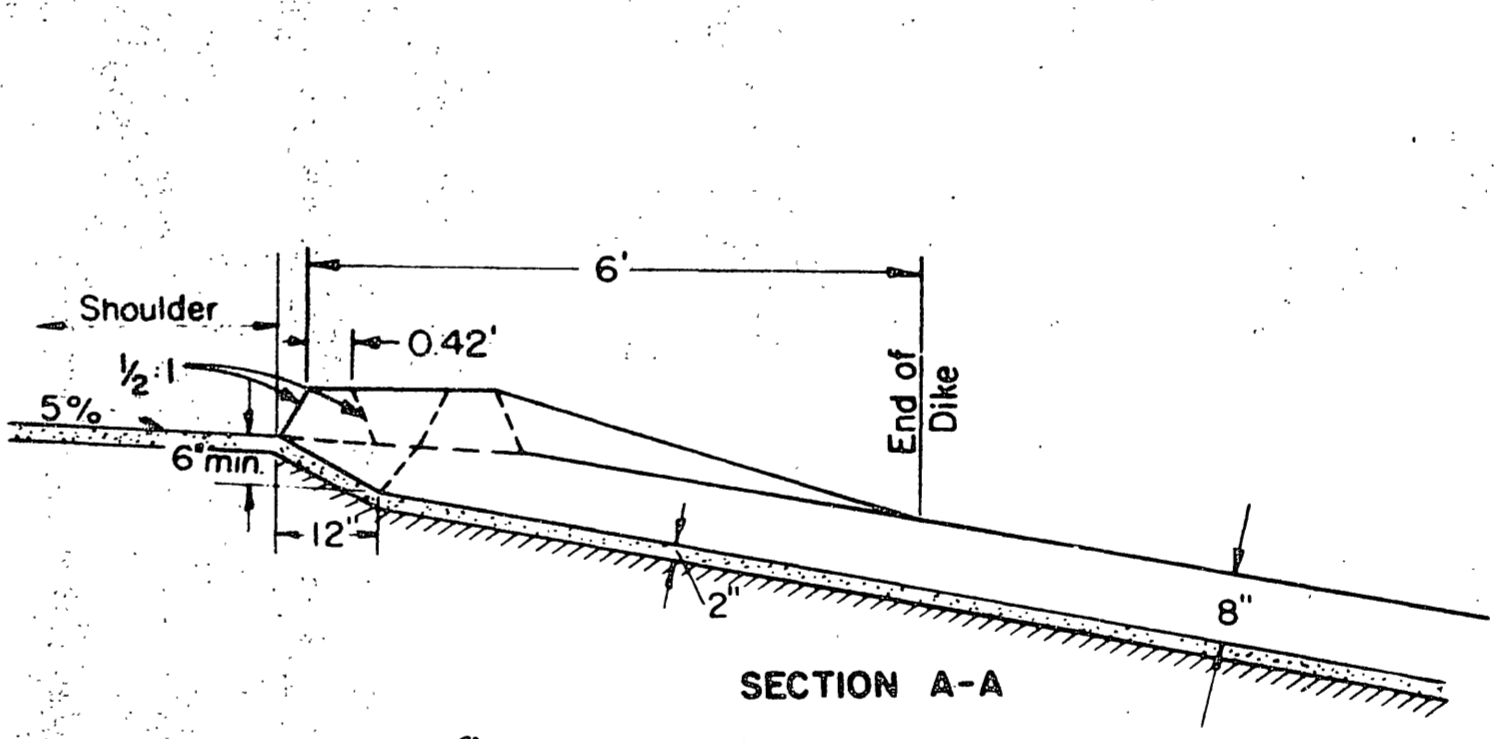


C.I. DRIVE PLUG

C.I. DRIVE POINT

PIPE STAKE ASSEMBLY DETAILS TYPE 2

TAPERED INLET AND FLUME DOWNDRAIN



SECTION A-A

SECTION B-B

SECTION C-C

ASPHALT CONCRETE SPILLWAY

- NOTES
- 1-For payment purposes an Anchor Assembly shall include two Pipe Stakes
 - 2-All Pipe Stakes and Hardware to be galvanized after fabrication.
 - 3-Either Alternative A or Alternative B Anchor Assemblies and Type 1 or Type 2 Pipe Stakes may be used at contractor's option.

to be used on fill slopes flatter than 2:1 Use min. 10' length of gutter on both sides in a sag location

To accompany plans dated August 28, 1966
DISTRICT COUNTY ROUTE Post Miles - Total Project
CR RIV 1249 CR-RIV 37.44

APPROVAL RECOMMENDED

Approved: *[Signature]*
Engineer of Design
Registered Civil Engineer No. 9837
March 1, 1966
State Highway Engineer
Registered Civil Engineer No. 5468

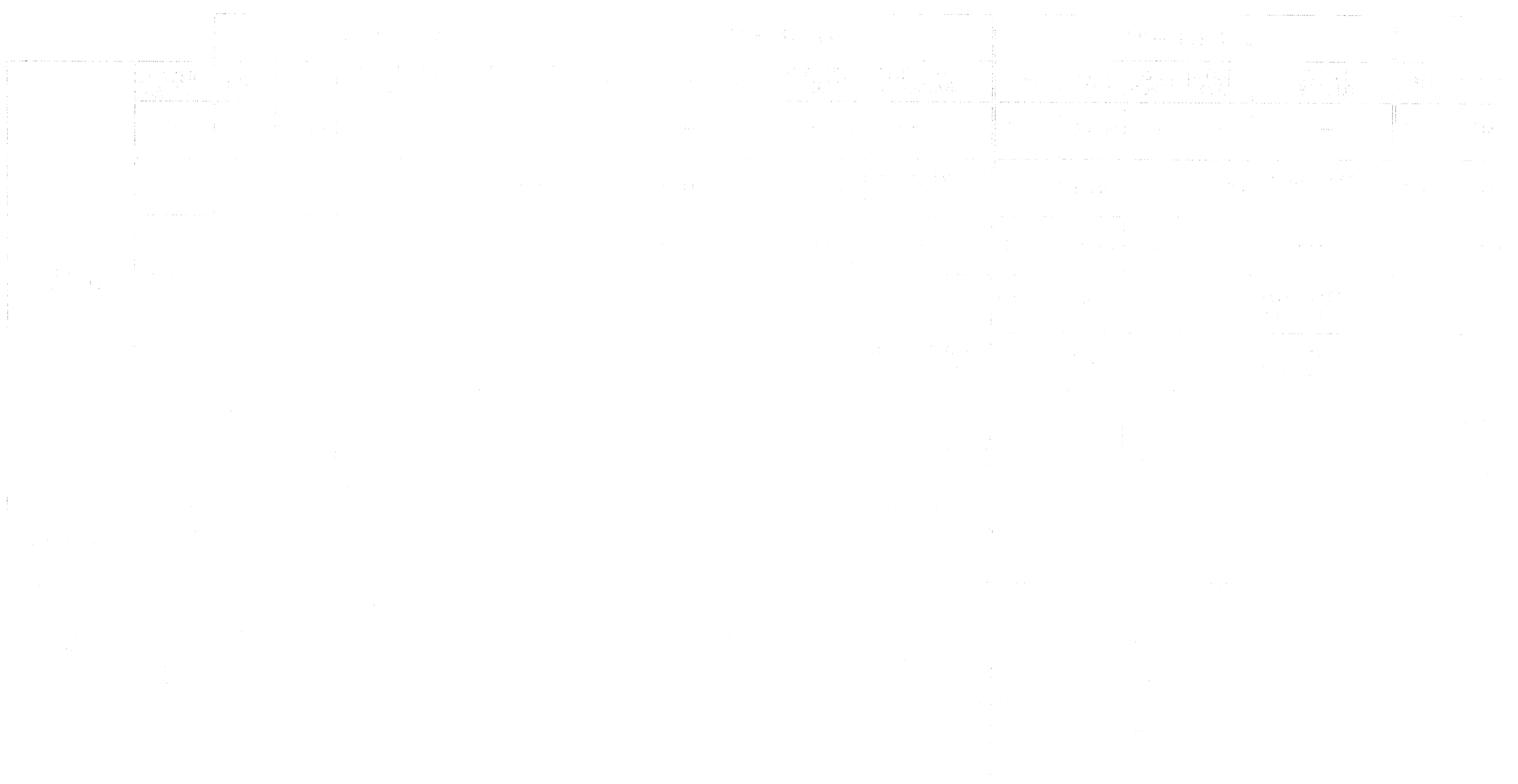
AS BUILT
CORRECTIONS BY *[Signature]*
CONTRACT NO. *[Signature]*

GENERAL NOTE
For all galvanizing see Specifications.

STATE OF CALIFORNIA
TRANSPORTATION AGENCY
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

UNDERDRAINS AND
OVERSIDE DRAINS D87-A

Handwritten notes and a small table in the top right corner. The table has two columns and two rows of data.



To accompany plans dated August 28, 1966

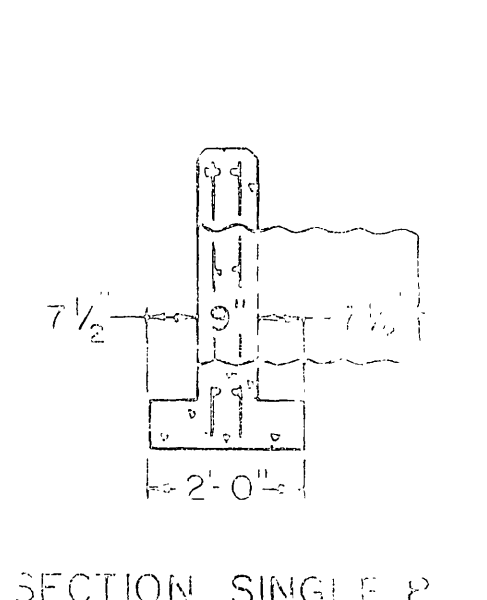
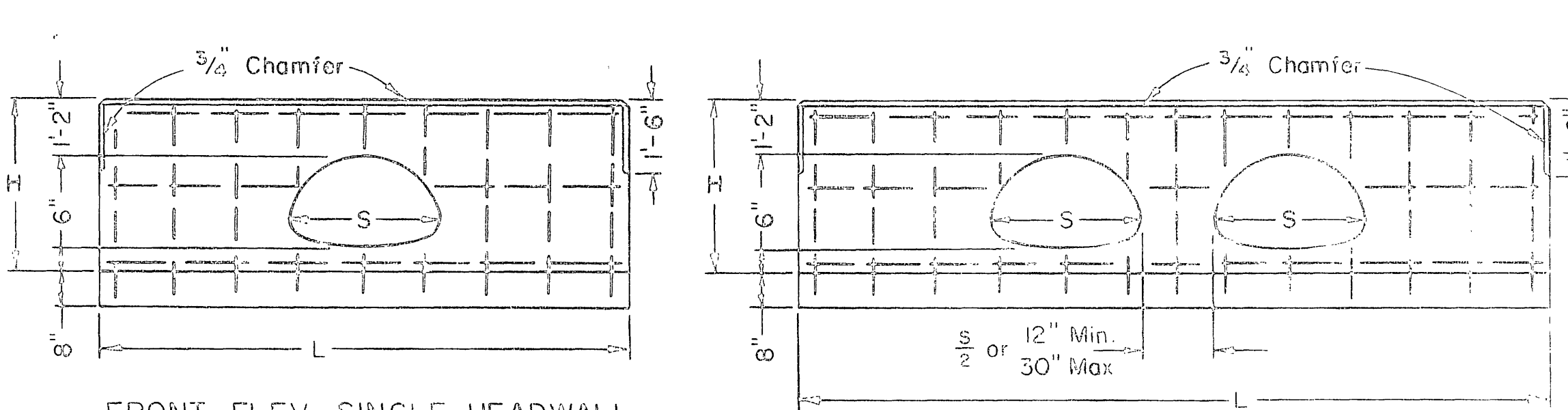
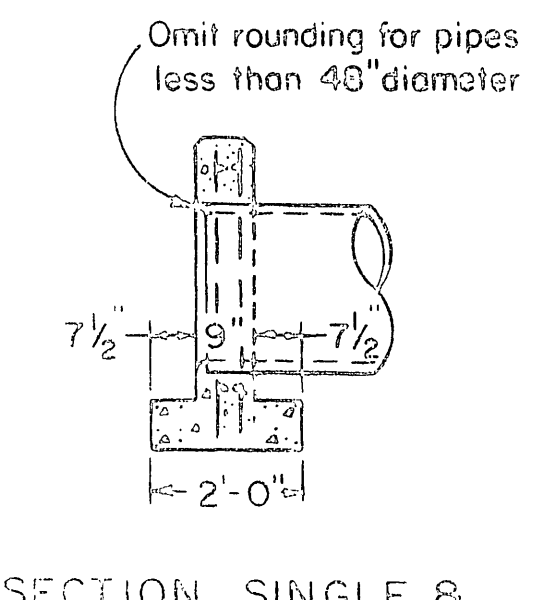
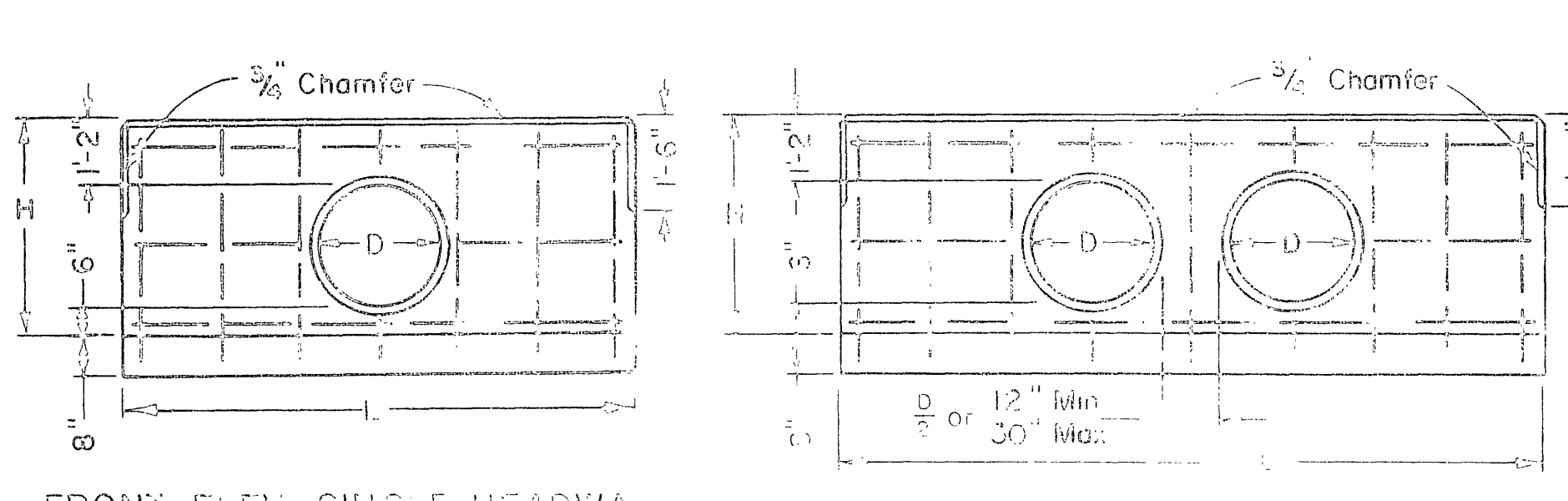
DISTRICT	COUNTY	ROUTE	Post Miles - Total Project	SHEET NO.	TOTAL SHEETS
08	PIV	1249	CR PIV	39	44

APPROVAL RECOMMENDED:

H. B. ...
 Assistant Engineer of Design
 Registered Civil Engineer No. 5600

Approved MARCH 18, 1965

...
 State Highway Engineer
 Registered Civil Engineer No. 5345



FRONT ELEV. SINGLE HEADWALL

FRONT ELEV. DOUBLE HEADWALL

SECTION, SINGLE & DOUBLE HEADWALLS

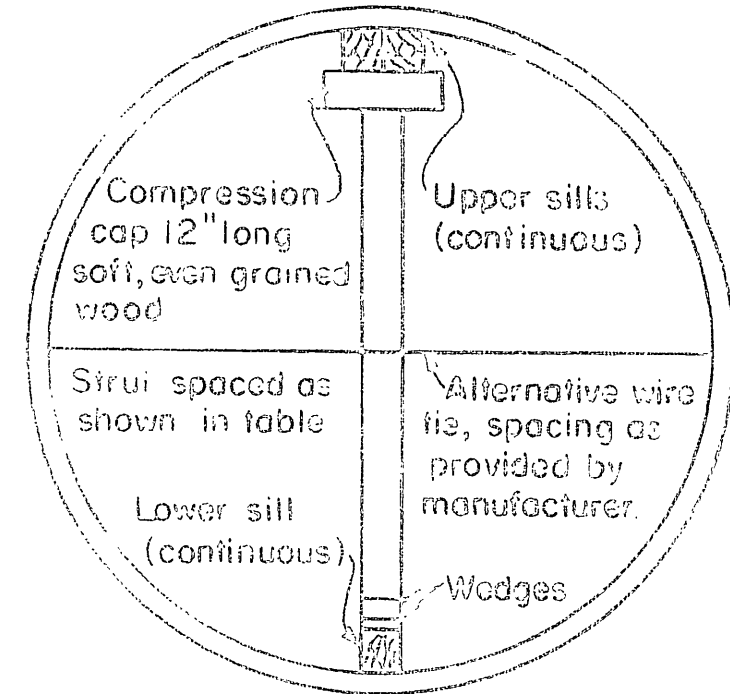
FRONT ELEV. SINGLE HEADWALL

FRONT ELEV. DOUBLE HEADWALL

SECTION, SINGLE & DOUBLE HEADWALLS

D	H	SINGLE		DOUBLE	
		L	Steel Lbs. Conc. Cu Yds.	L	Steel Lbs. Conc. Cu Yds.
12	2-8	5-0	33 0.60	7-0	43 0.82
15	2-11	6-0	40 0.73	8-6	53 1.04
18	3-2	7-0	50 0.91	9-3	62 1.21
21	3-5	7-6	60 1.02	10-6	80 1.38
24	3-8	8-6	75 1.20	11-6	91 1.57
27	3-11	9-6	95 1.38	13-0	107 1.84
30	4-2	10-0	95 1.32	14-0	113 2.04
33	4-5	11-0	100 1.73	15-0	120 2.25
36	4-8	12-0	105 1.95	16-6	140 2.56
39	4-11	12-6	130 2.09	17-6	163 2.79
42	5-2	13-8	140 2.34	18-6	180 3.05
45	5-5	14-6	150 2.60	20-0	195 3.38
48	5-8	15-0	160 2.73	21-0	200 3.64
51	5-11	16-0	180 3.03	22-6	225 4.02
54	6-2	17-0	190 3.31	23-6	240 4.30

NOTE: Compression caps and sills to be same dimension timber as struts. Timber for struts and sills shall be Douglas Fir "Construction Grade"

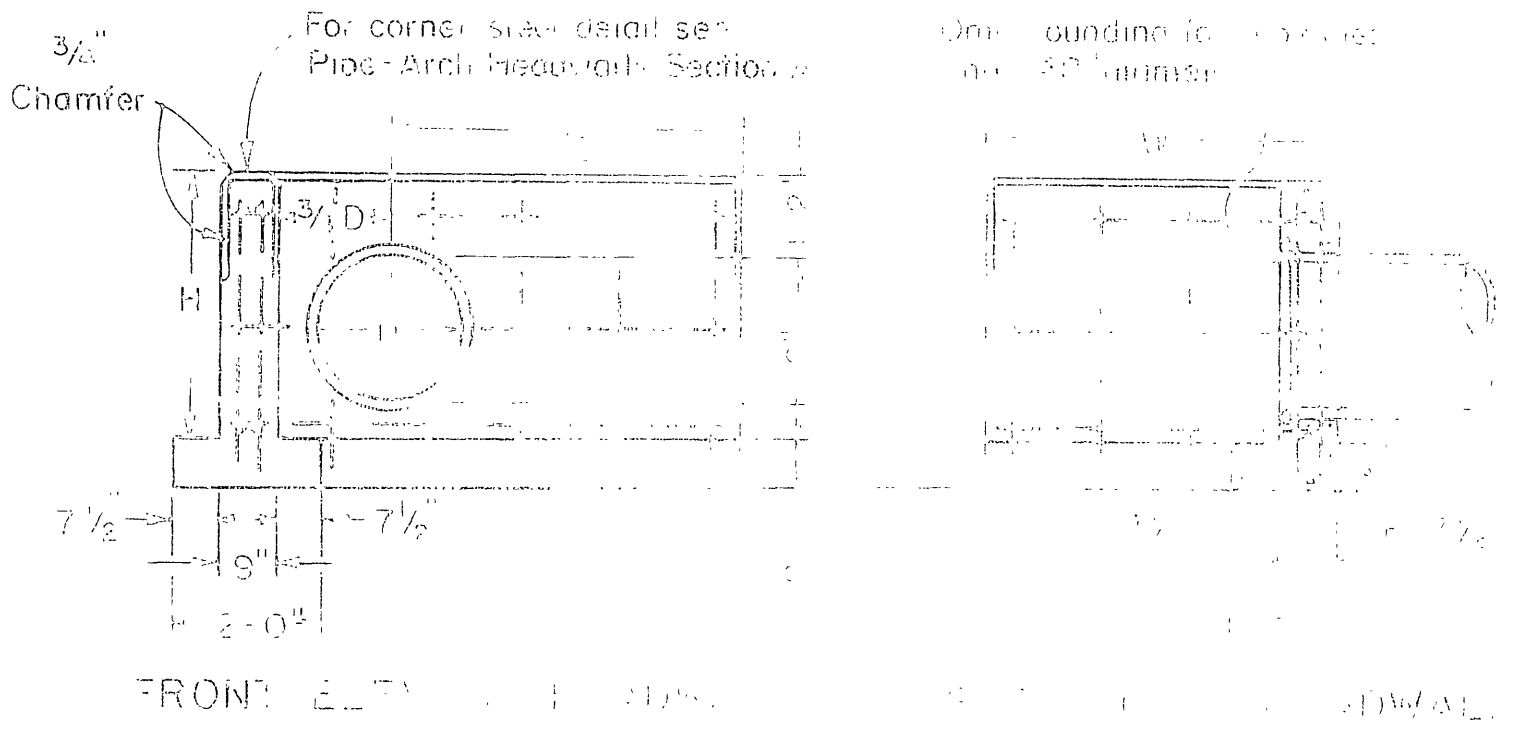


STRUT DETAILS

C.M.P. ARCH SIZE	SINGLE				DOUBLE		
	H	L	Steel Lbs.	Conc. Cu Yds.	L	Steel Lbs.	Conc. Cu Yds.
18"x11"	2'-7"	5'-6"	37	.63	8'-0"	52	.91
22"x13"	2'-9"	6'-6"	45	.77	9'-0"	56	1.04
25"x16"	3'-0"	7'-6"	50	.95	10'-6"	66	1.27
29"x16"	3'-2"	8'-6"	56	1.03	12'-6"	82	1.56
36"x22"	3'-6"	10'-6"	84	1.42	15'-0"	113	1.96
45"x27"	3'-11"	12'-6"	107	1.70	18'-0"	140	2.49
50"x31"	4'-3"	14'-6"	125	2.19	21'-0"	166	3.03
58"x36"	4'-8"	17'-0"	153	2.73	24'-6"	203	3.75
65"x40"	5'-0"	19'-6"	171	3.15	27'-0"	222	4.25
72"x44"	5'-4"	21'-0"	190	3.68	30'-0"	243	4.91

STRAIGHT HEADWALLS

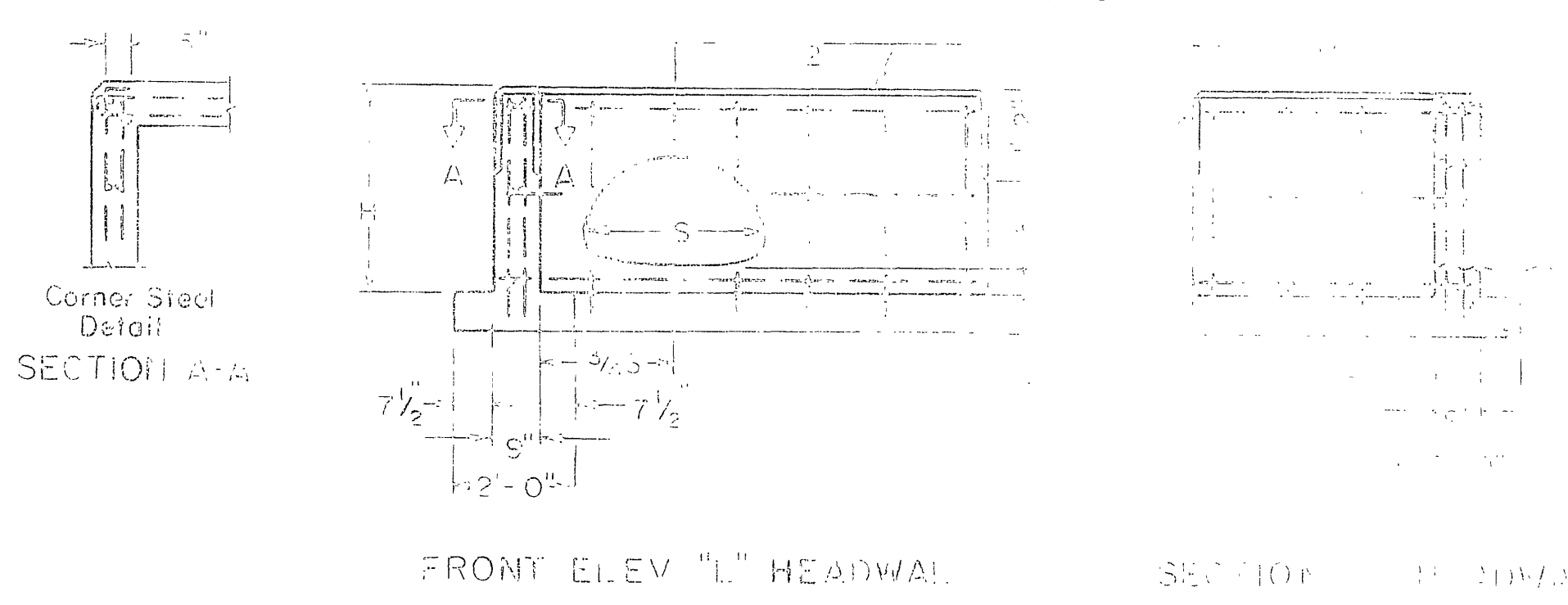
NOTES:
 1. No deduction made in quantities for thickness of pipe walls.
 2. All reinforcing steel #3 bars. All vertical and horizontal bars 16" maximum spacing.
 3. Length of wall "W" may be varied in any conditions encountered in the field, and struts may be interpolated to calculate quantities.



FRONT ELEV. FULL CIRCLE PIPE ARCH HEADWALL

FRONT ELEV. FULL CIRCLE PIPE ARCH HEADWALL

PIPE SIZE	STRUT SIZE	HEIGHT OF FILL IN FEET							
		0-20	30	40	50	60	70	80	100+
4"x4"	4"x4"	5.0	5.5						
4"x6"	4"x6"	6.0	5.0	4.0	3.5	3.0			
4"x8"	4"x8"			6.0	5.0	4.5			
4"x10"	4"x10"	6.0	4.0	3.0					
4"x12"	4"x12"	6.0	4.5	3.5	3.0				
6"x6"	6"x6"			5.5	4.5	4.0	3.5	3.0	
6"x8"	6"x8"	5.0	3.0			5.5	4.5	4.0	
6"x10"	6"x10"	6.0	5.0	3.5	3.0				
6"x12"	6"x12"			6.0	4.5	4.0	3.5	3.0	
8"x8"	8"x8"					5.0	4.5	4.0	3.5
8"x10"	8"x10"	6.0	6.0	5.0	4.0	3.5	3.0		
8"x12"	8"x12"			5.0	4.5	4.0	3.5	3.0	
10"x10"	10"x10"			5.5	4.5	4.0	3.5	3.0	
10"x12"	10"x12"	6.0	5.0	3.5	3.0				
10"x14"	10"x14"			6.0	5.5	4.0	3.5	3.0	
12"x12"	12"x12"					6.0	5.5	4.0	3.0
12"x14"	12"x14"	6.0	6.0	5.5	4.0	3.5	3.0		
12"x16"	12"x16"			6.0	5.5	4.5	4.0	3.5	3.0
14"x14"	14"x14"			6.0	5.5	4.5	4.0	3.5	3.0
14"x16"	14"x16"	6.0	6.0	5.5	4.5	4.0	3.5	3.0	
14"x18"	14"x18"			6.0	5.5	4.5	4.0	3.5	3.0
16"x16"	16"x16"			6.0	5.5	4.5	4.0	3.5	3.0
16"x18"	16"x18"	6.0	6.0	5.5	4.5	4.0	3.5	3.0	
16"x20"	16"x20"			6.0	5.5	4.5	4.0	3.5	3.0
18"x18"	18"x18"			6.0	5.5	4.5	4.0	3.5	3.0
18"x20"	18"x20"	6.0	6.0	5.5	4.5	4.0	3.5	3.0	
18"x22"	18"x22"			6.0	5.5	4.5	4.0	3.5	3.0



SECTION A-A

FRONT ELEV. "L" HEADWALL

SECTION B-B

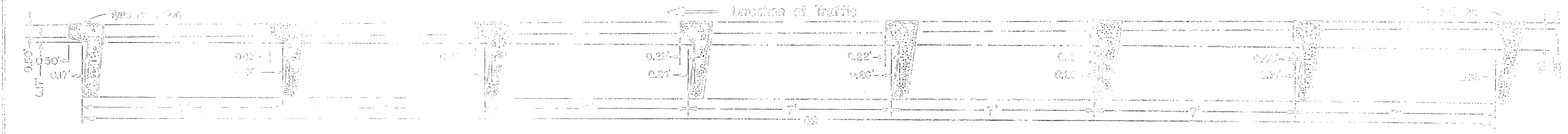
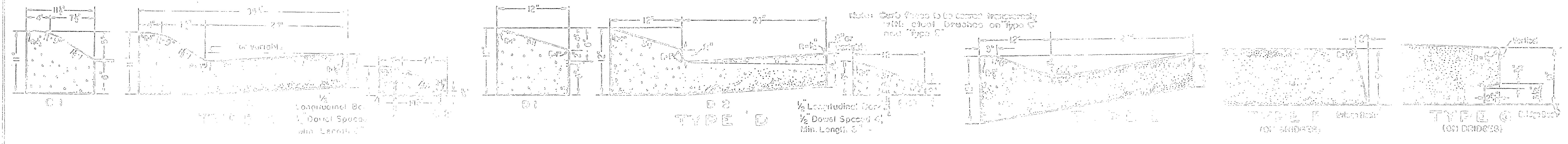
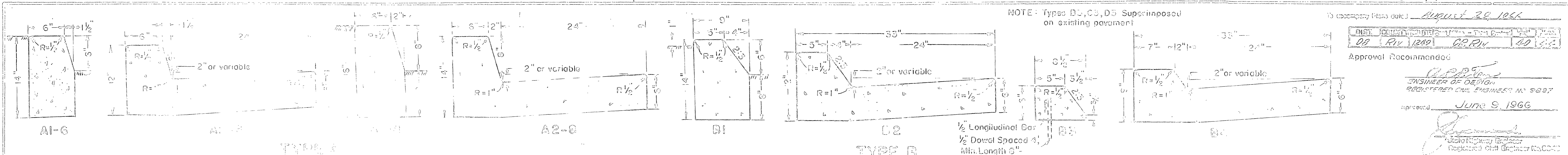
D	H	L/2	LENGTH OF W											
			3'-0"		4'-0"		6'-0"		8'-0"		10'-0"		12'-0"	
in.	ft-in.	ft-in.	Steel Lbs.	Conc. Cu Yds.	Steel Lbs.	Conc. Cu Yds.	Steel Lbs.	Conc. Cu Yds.	Steel Lbs.	Conc. Cu Yds.	Steel Lbs.	Conc. Cu Yds.	Steel Lbs.	Conc. Cu Yds.
12	2-8	5-0	33	0.60	43	0.82	53	1.04	62	1.21	71	1.38	80	1.57
15	2-11	6-0	40	0.73	50	0.91	60	1.02	75	1.20	95	1.38	110	1.56
18	3-2	7-0	50	0.91	60	1.02	75	1.20	95	1.38	110	1.56	130	1.73
21	3-5	7-6	60	1.02	75	1.20	95	1.38	110	1.56	130	1.73	150	1.95
24	3-8	8-6	75	1.20	95	1.38	110	1.56	130	1.73	150	1.95	170	2.09
27	3-11	9-6	95	1.38	110	1.56	130	1.73	150	1.95	170	2.09	190	2.25
30	4-2	10-0	95	1.32	110	1.56	130	1.73	150	1.95	170	2.09	190	2.25
33	4-5	11-0	100	1.73	120	1.84	140	2.09	160	2.25	180	2.49	200	2.79
36	4-8	12-0	105	1.95	125	2.06	145	2.31	165	2.49	185	2.73	205	3.03
39	4-11	12-6	130	2.09	150	2.25	170	2.49	190	2.73	210	3.03	230	3.38
42	5-2	13-8	140	2.34	160	2.49	180	2.73	200	3.03	220	3.38	240	3.64
45	5-5	14-6	150	2.60	170	2.73	190	3.03	210	3.38	230	3.64	250	3.98
48	5-8	15-0	160	2.73	180	2.85	200	3.15	220	3.64	240	3.98	260	4.25
51	5-11	16-0	180	3.03	200	3.15	220	3.64	240	3.98	260	4.25	280	4.59
54	6-2	17-0	190	3.31	210	3.38	230	3.75	250	4.25	270	4.59	290	4.91

FULL CIRCLE PIPE ARCH HEADWALLS

C.M.P. ARCH SIZE	H	L/2	LENGTH OF W											
			3'-0"		4'-0"		6'-0"		8'-0"		10'-0"		12'-0"	
			Steel Lbs.	Conc. Cu Yds.	Steel Lbs.	Conc. Cu Yds.	Steel Lbs.	Conc. Cu Yds.	Steel Lbs.	Conc. Cu Yds.	Steel Lbs.	Conc. Cu Yds.	Steel Lbs.	Conc. Cu Yds.
16"x11"	2'-7"	2'-9"	37	.63	45	.77	50	.95	56	1.03	66	1.27	71	1.38
22"x13"	2'-9"	3'-3"	45	.77	50	.95	56	1.03	66	1.27	71	1.38	82	1.56
25"x16"	3'-0"	3'-9"	50	.95	56	1.03	66	1.27	71	1.38	82	1.56	95	1.73
29"x16"	3'-2"	4'-3"	56	1.03	66	1.27	71	1.38	82	1.56	95	1.73	110	1.95
36"x22"	3'-6"	5'-3"	84	1.42	95	1.61	107	1.70	125	2.19	140	2.49	150	2.60
45"x27"	3'-11"	6'-3"	107	1.70	125	2.19	140	2.49	150	2.60	170	2.73	180	2.85
50"x31"	4'-3"	7'-3"	125	2.19	140	2.49	150	2.60	170	2.73	180	2.85	200	3.03
58"x36"	4'-8"	8'-3"	153	2.73	170	2.85	180	2.85	200	3.03	220	3.38	240	3.64
65"x40"	5'-0"	9'-3"	171	3.15	190	3.38	200	3.15	220	3.38	240	3.64	260	3.98
72"x44"	5'-4"	10'-3"	190	3.68	210	3.75	220	3.68	240	3.98	260	4.25	280	4.59

CORRUGATED METAL PIPE ARCH FULL CIRCLE PIPE ARCH HEADWALLS

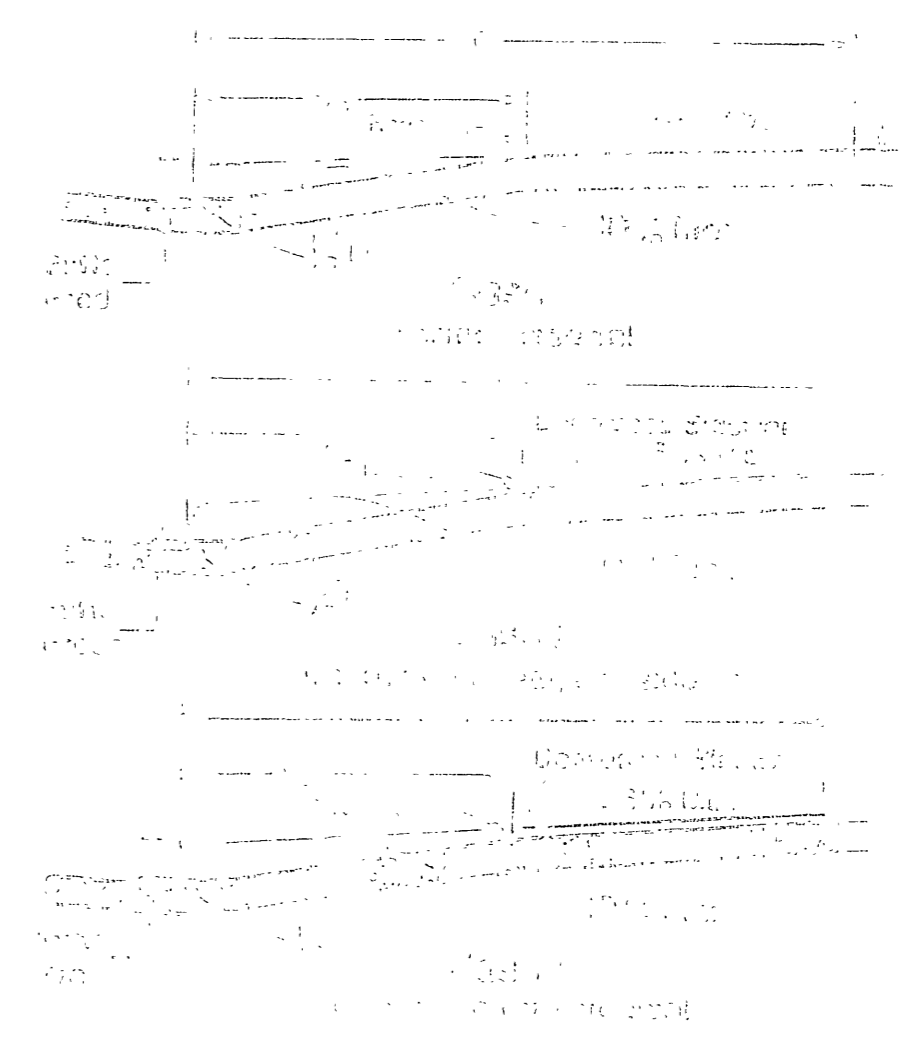
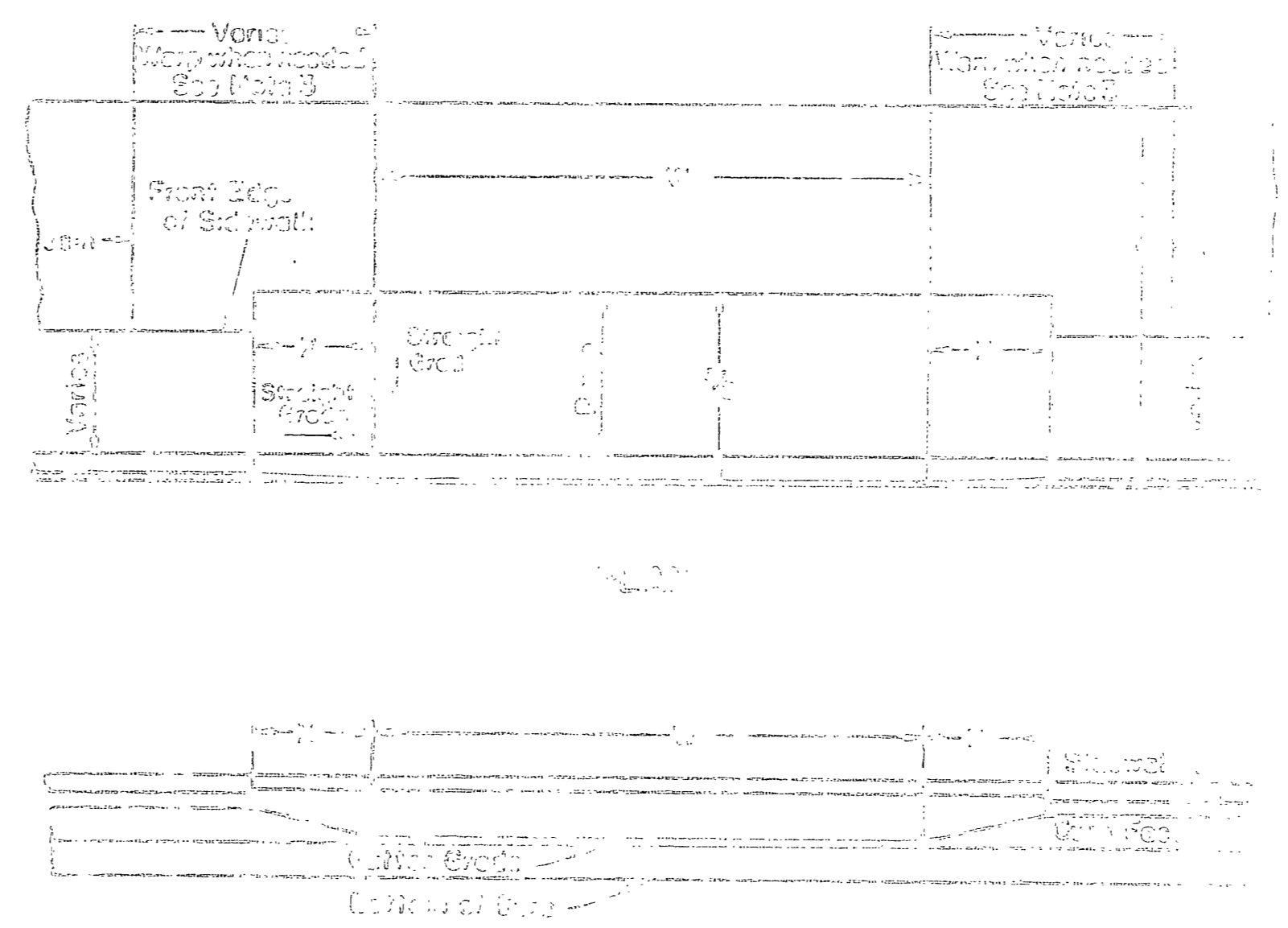
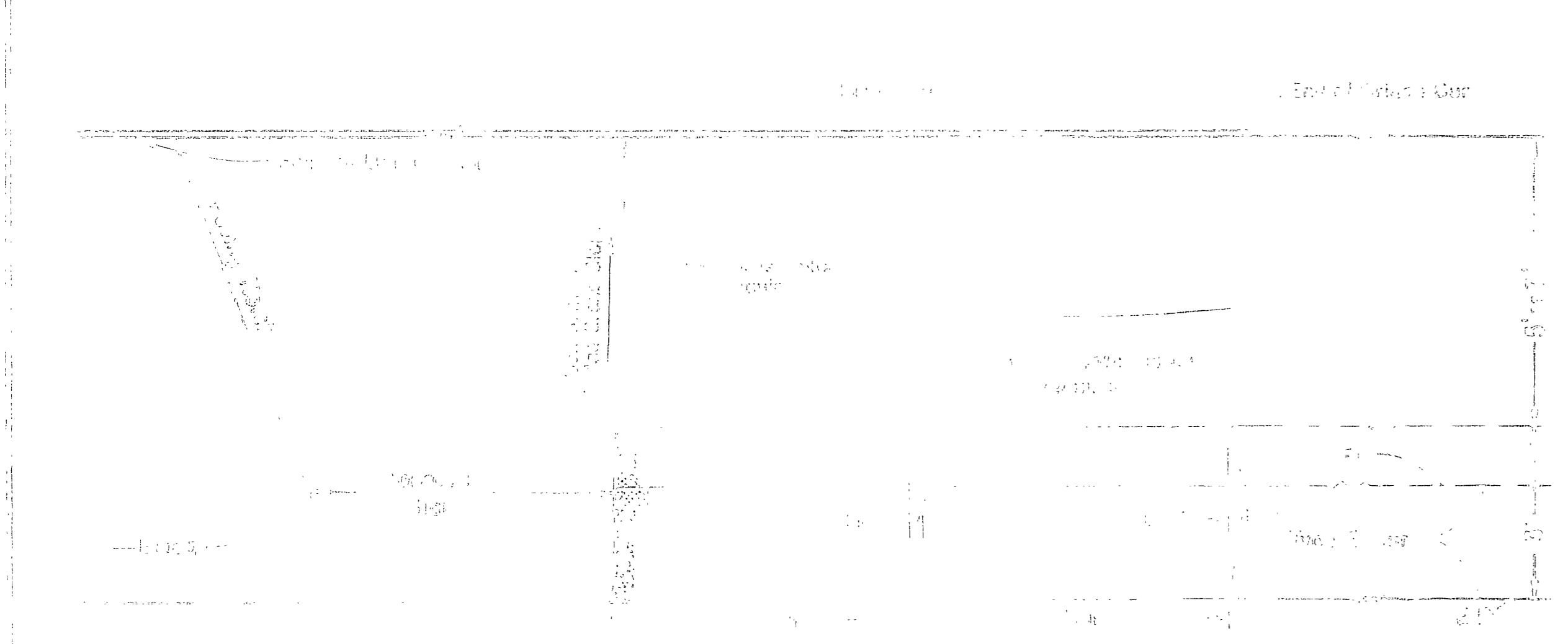
PIPE HEADWALLS AND STRUT DETAILS 089-1



CURE QUANTITIES			
Type	CY Per Lin. Ft.	Type	CY Per Lin. Ft.
A1-C	0.08587	B1	0.08782
A2-B	0.08407	B2	0.08387
A3-B	0.08196	B3	0.08586
C1-B	0.03476	D1	0.03075
D1	0.02856	D2	0.03702
D2	0.0617	D3	0.04223
D3	0.1004	E	0.06081
E	0.03702		

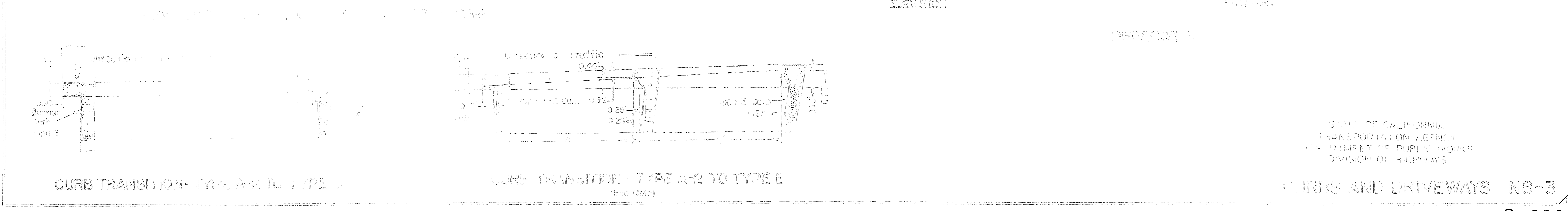
STANDARD CURB TRANSITION-TYPE E TO TYPE A-2

See Note 1 in Part 1 of the Specifications for Highway Construction, California Department of Transportation, 1965 Edition.



NOTES:

1. Curb shall be cast in place.
2. Use Class II concrete with a minimum compressive strength of 3,000 psi.
3. All concrete shall be placed and finished in accordance with the provisions of the Specifications for Highway Construction, California Department of Transportation, 1965 Edition.
4. The curb shall be cast on a prepared subgrade or on a prepared concrete base.
5. The curb shall be cast on a prepared subgrade or on a prepared concrete base.
6. The curb shall be cast on a prepared subgrade or on a prepared concrete base.
7. The curb shall be cast on a prepared subgrade or on a prepared concrete base.
8. The curb shall be cast on a prepared subgrade or on a prepared concrete base.
9. The curb shall be cast on a prepared subgrade or on a prepared concrete base.
10. The curb shall be cast on a prepared subgrade or on a prepared concrete base.



STATE OF CALIFORNIA
 TRANSPORTATION AGENCY
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

CURBS AND DRIVEWAYS N8-3

June 14, 1965
 State Highway Engineer
 Civil Engineer License 13080

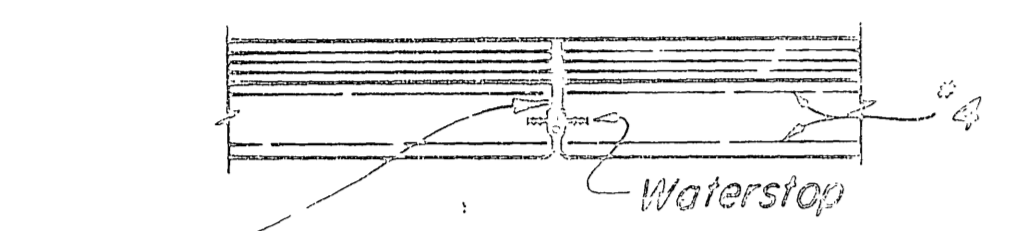
Vertical layout line
 Stem as constructed

Offset as follows:
 H 4 = 1/4" H 18 = 1 1/2"
 H 6 = 3/8" H 20 = 1 3/4"
 H 8 = 1/2" H 22 = 2"
 H 10 = 5/8" H 24 = 2 1/4"
 H 12 = 3/4" H 26 thru
 H 14 = 1" H 36 = 2 1/2"
 H 16 = 1 1/4"

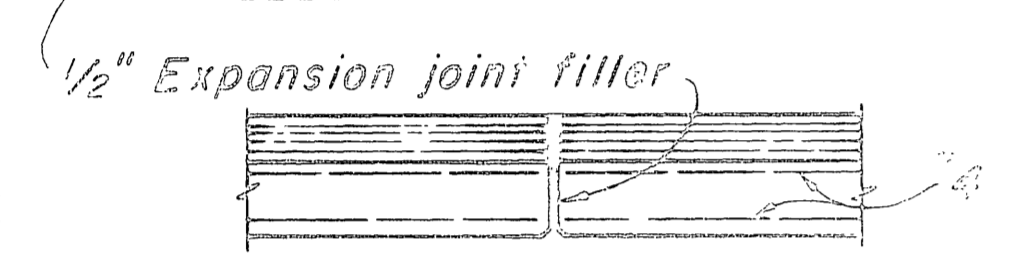
20' VC AT TOP OF WALL SLOPE CHANGE
 WHERE SHOWN ON THE PLANS

APPROX. WALL OFFSET VALUES
 Not required for wall types 3 and 4

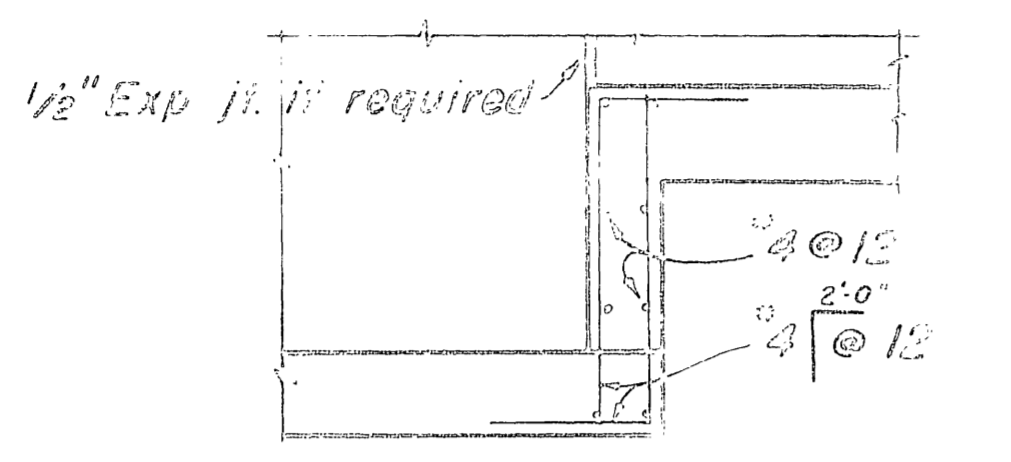
Values for offsetting forms to be determined by the Engineer.



PLAN OF WALL WITH DETAIL W-1



PLAN OF WALL WITH EXPANSION JOINT ONLY



FOOTING STEP



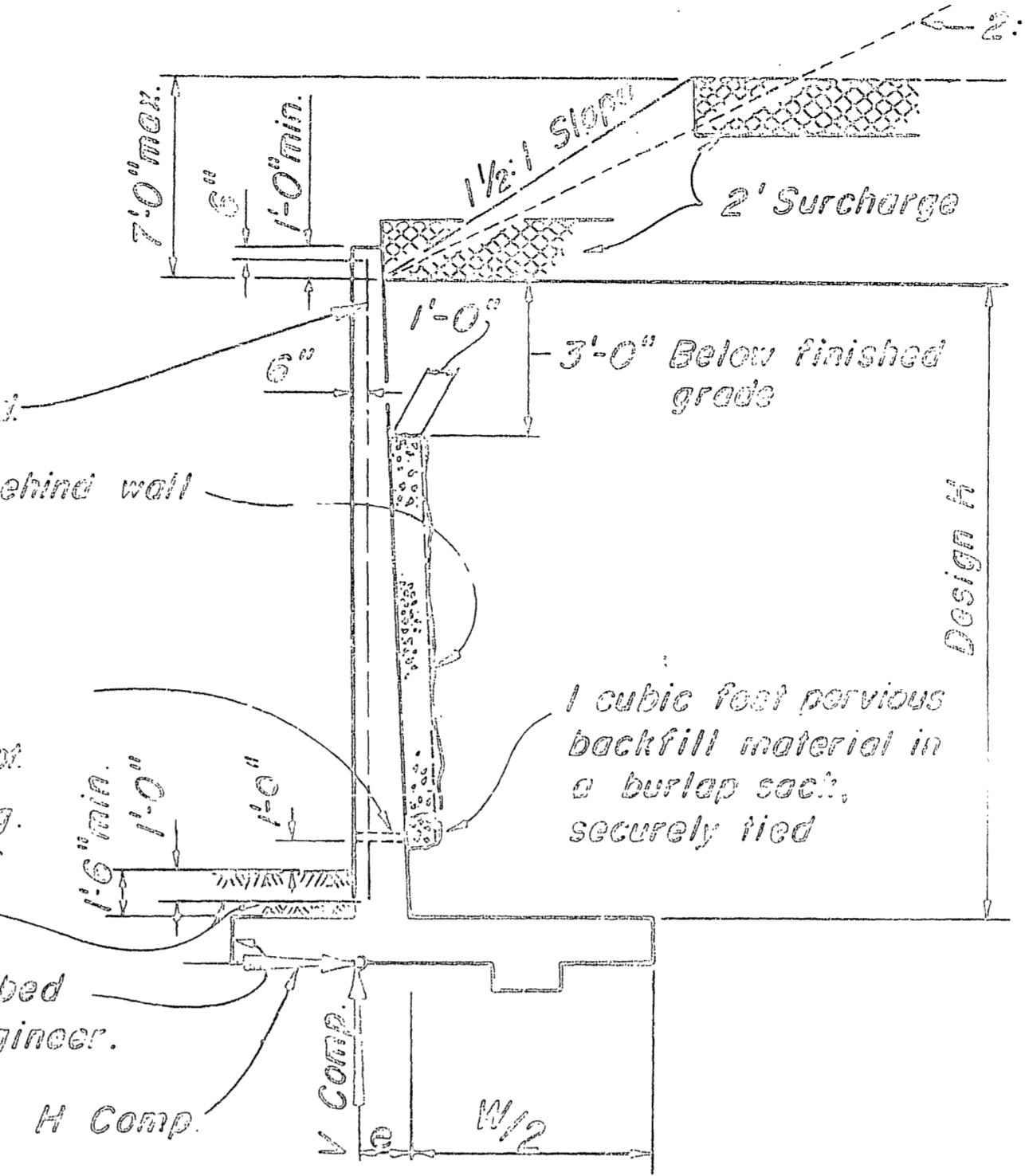
FOOTING STEP

Place waterstop as shown when required.

Pervious backfill material continuous behind wall

4" drains @ 22.5' cirs. max. (9' cirs. for Type 3 & 4 Ret. Walls), to discharge through contemplated curb or 1' above outside ground surface. Slope 1/2" per foot. Backfill sufficiently to prevent ponding. To be done after removal of wall forms and before backfilling behind wall.

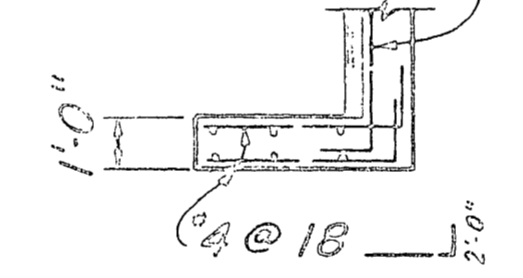
Place concrete in toe against undisturbed material, except as permitted by the Engineer.



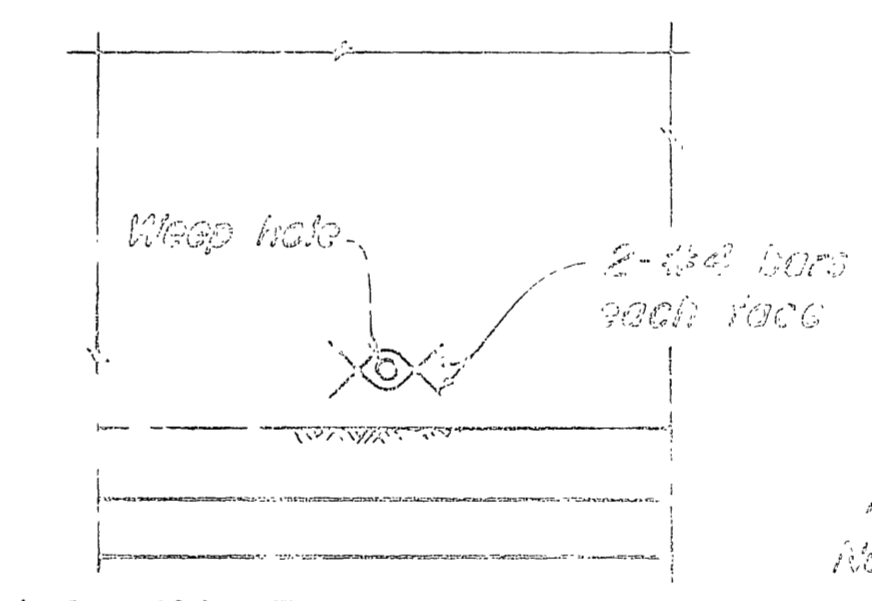
DESIGN AND DRAINAGE

Surcharge limits shown apply to Retaining walls Type 1 and 3.

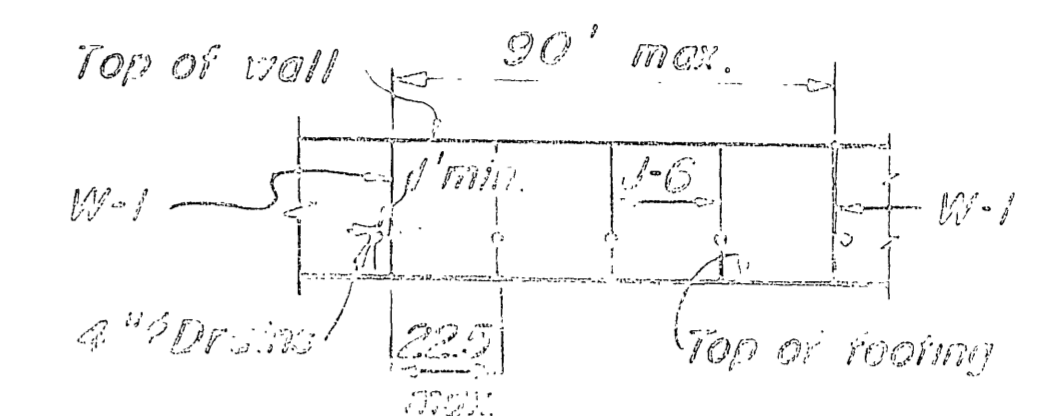
Std. reinforcement, bend as shown



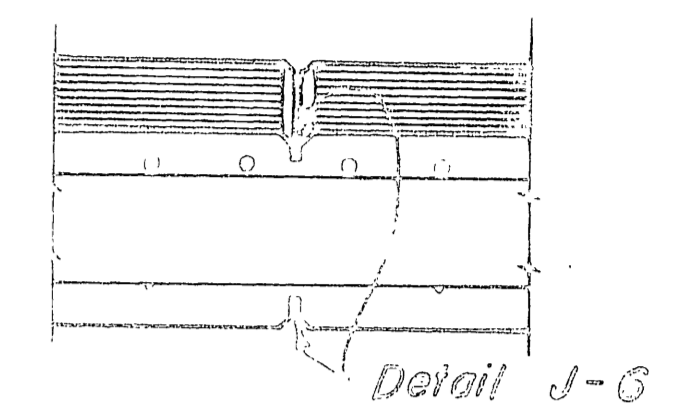
PLAN



DRAIN REINF. DETAIL

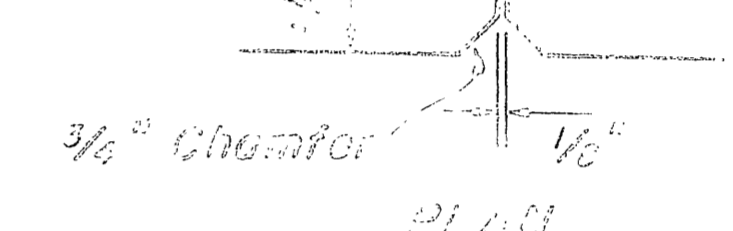


ELEVATION



SECTION

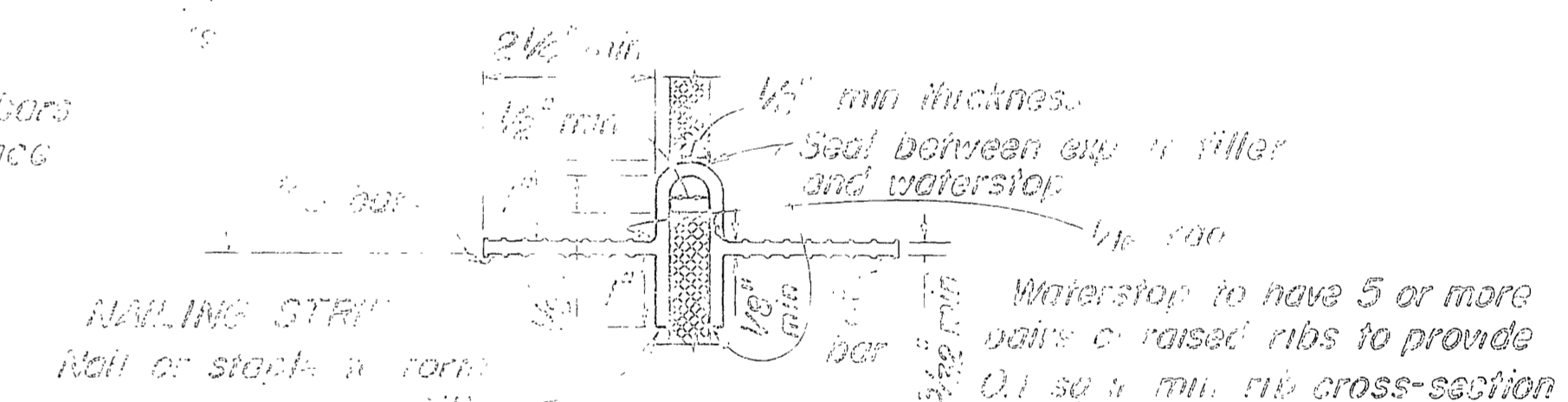
Joint may be formed with 1/2" sheetrock and cut back to the root of the chamber on the exposed face.



PLAN DETAIL J-6

Face of wall

Holes will be permitted in the outer 1/2" of the web for wire, rods, etc. The web to be reinforcing bars at 12" max. intervals to support the waterstop in proper position during concrete placement. Alternative detail may be submitted for approval of the Engineer.



DETAIL W-1

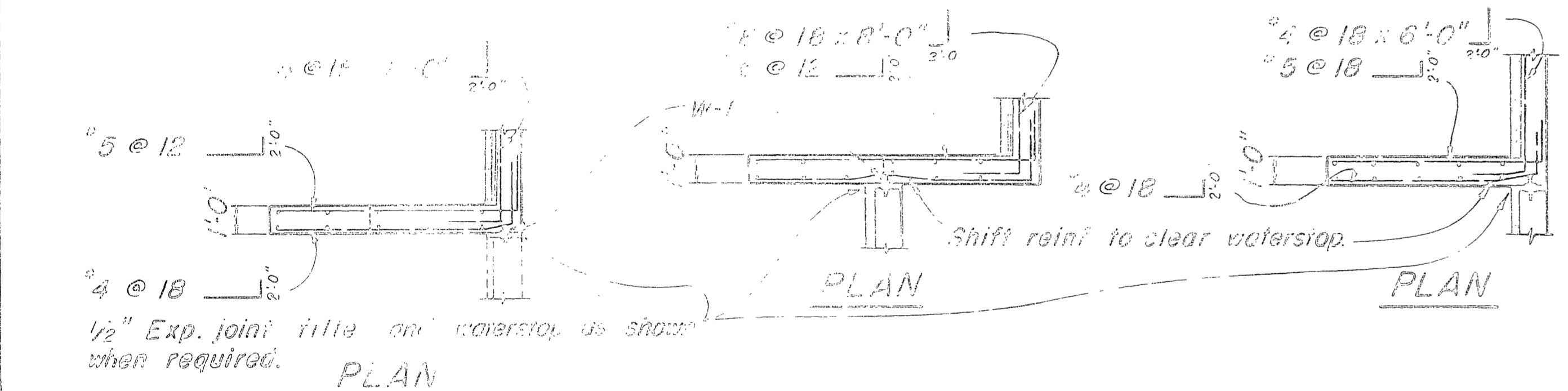
NOTES:

Design Conditions:

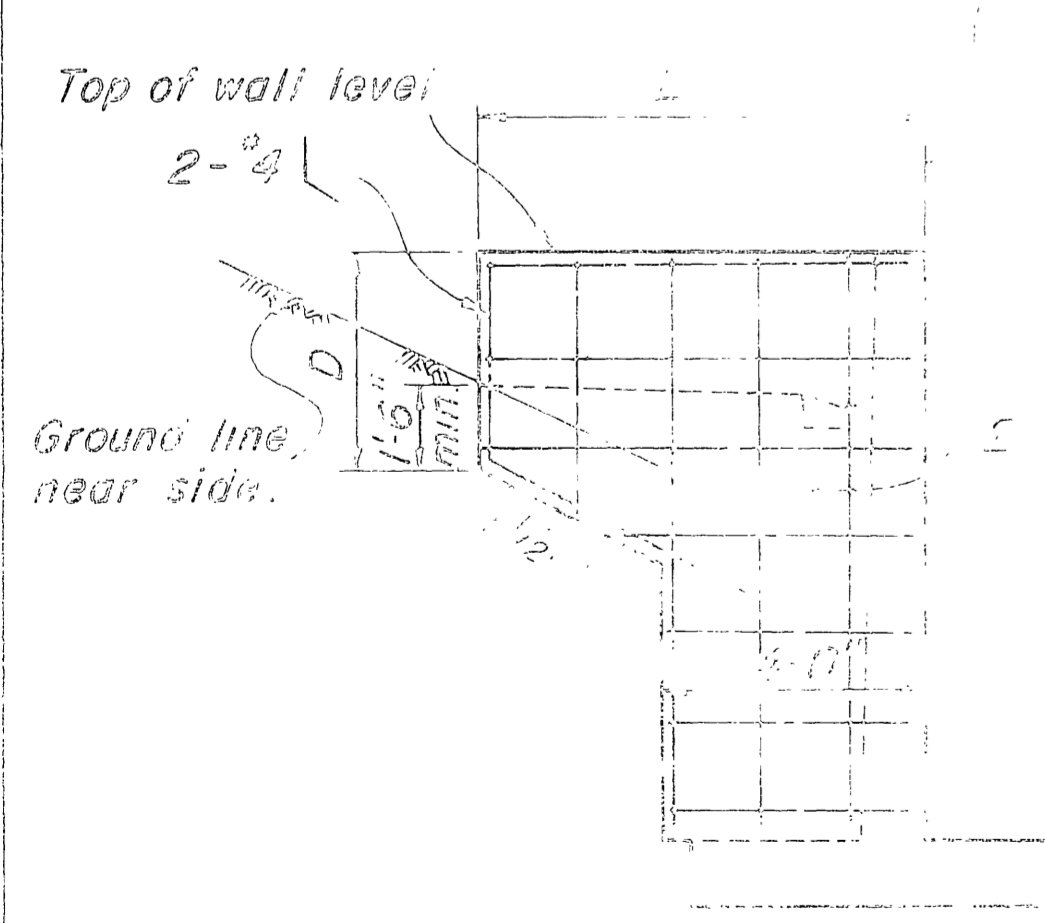
Design H may be exceeded by 6' extra going to the next size.
 Footing key is required except when local geotechnical engineer in the contract.
 Special footing design is required when foundation material is inadequate of supporting the pressure and listed in spec.
 Return wall not required unless shown otherwise.

Design Data:

W = 120# psf
 E = 29,000,000 psi
 Equivalent fluid pressure = 36 psf per ft. of height of wall
 E = 29,000,000 psi
 E = 29,000,000 psi



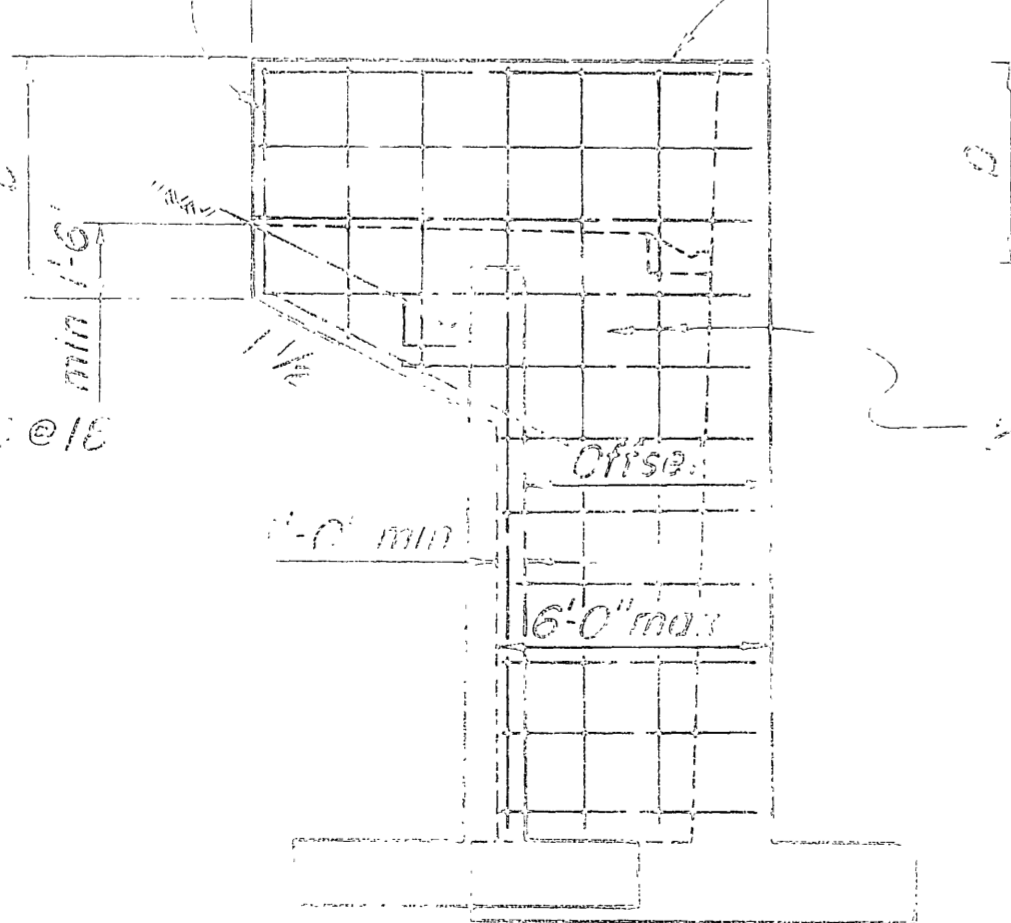
PLAN



ELEVATION

RETURN WALL TYPE 'A'

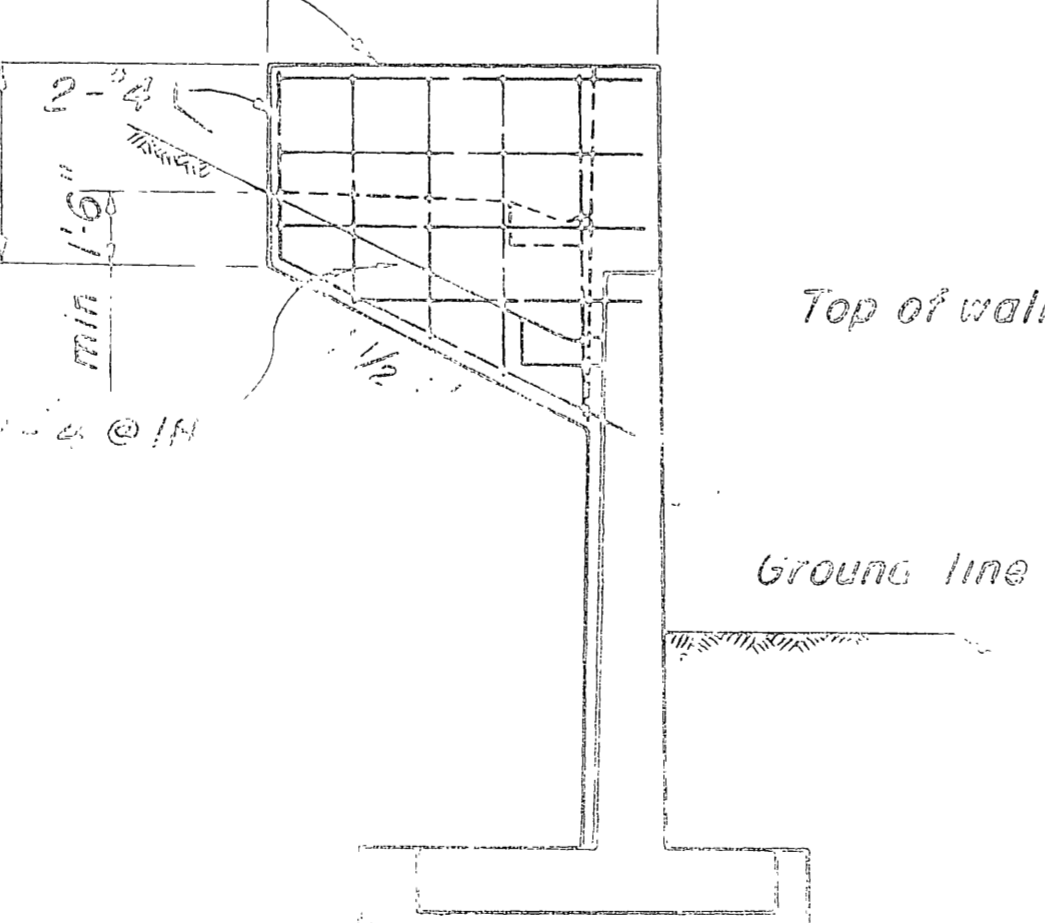
Use where H = 8' or less



ELEVATION

RETURN WALL TYPE 'B'

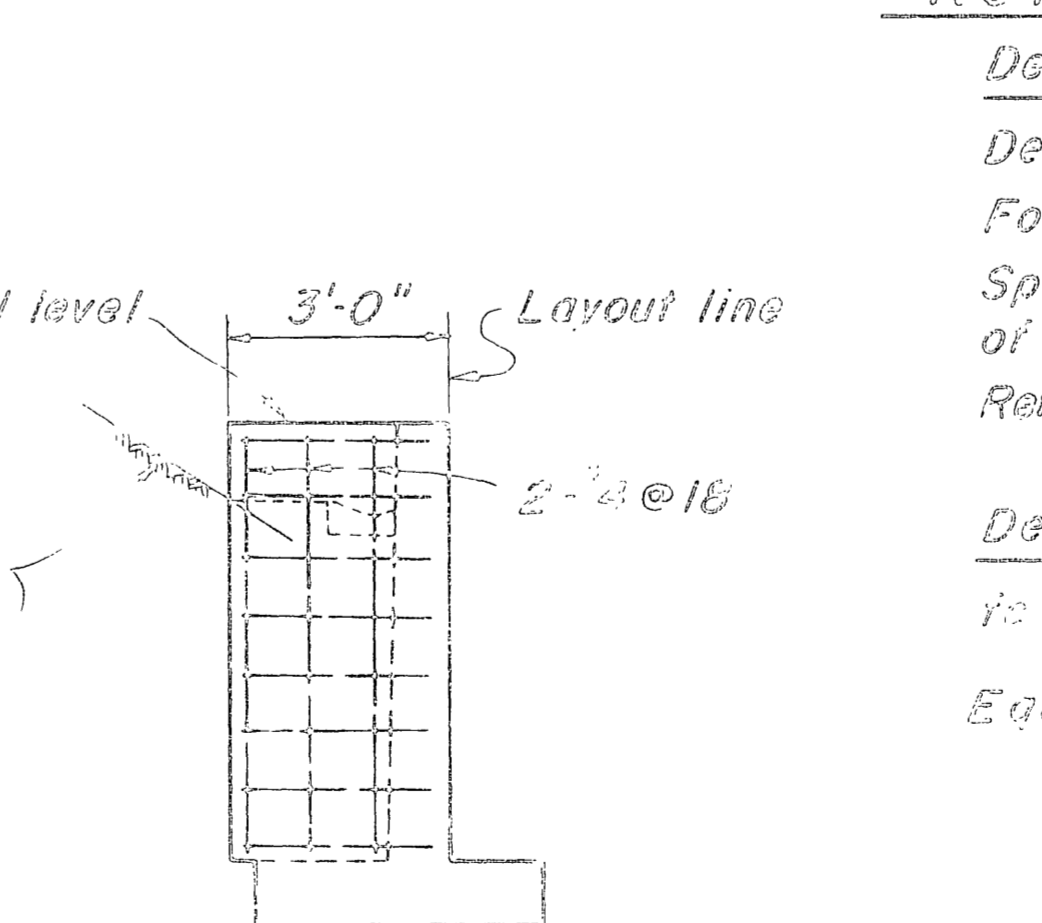
Use where H = 10' or more on offset walls



ELEVATION

RETURN WALL TYPE 'C'

Use where H = 10' or more on straight walls



ELEVATION

RETURN WALL TYPE 'D'

Use where H = 6' or less

John J. ...
 6749

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W.O.

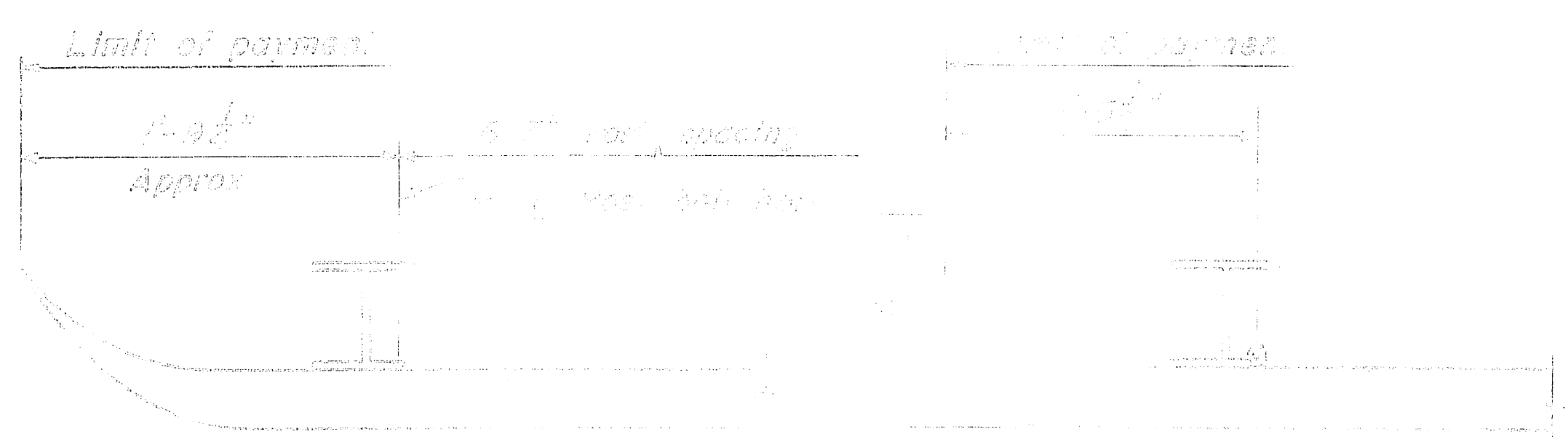
Directional bearing chart, revision 07/13

STATE OF CALIFORNIA HIGHWAY TRANSPORTATION AGENCY DEPARTMENT OF PUBLIC WORKS DIVISION OF HIGHWAY		74. 105-3-05
12/60	WI-6	
RETAINING WALL DETAILS NO. 1		
DATE	POST FILE	DRAWING NO.
REVISION DATA (PRELIMINARY STAGE ONLY)		

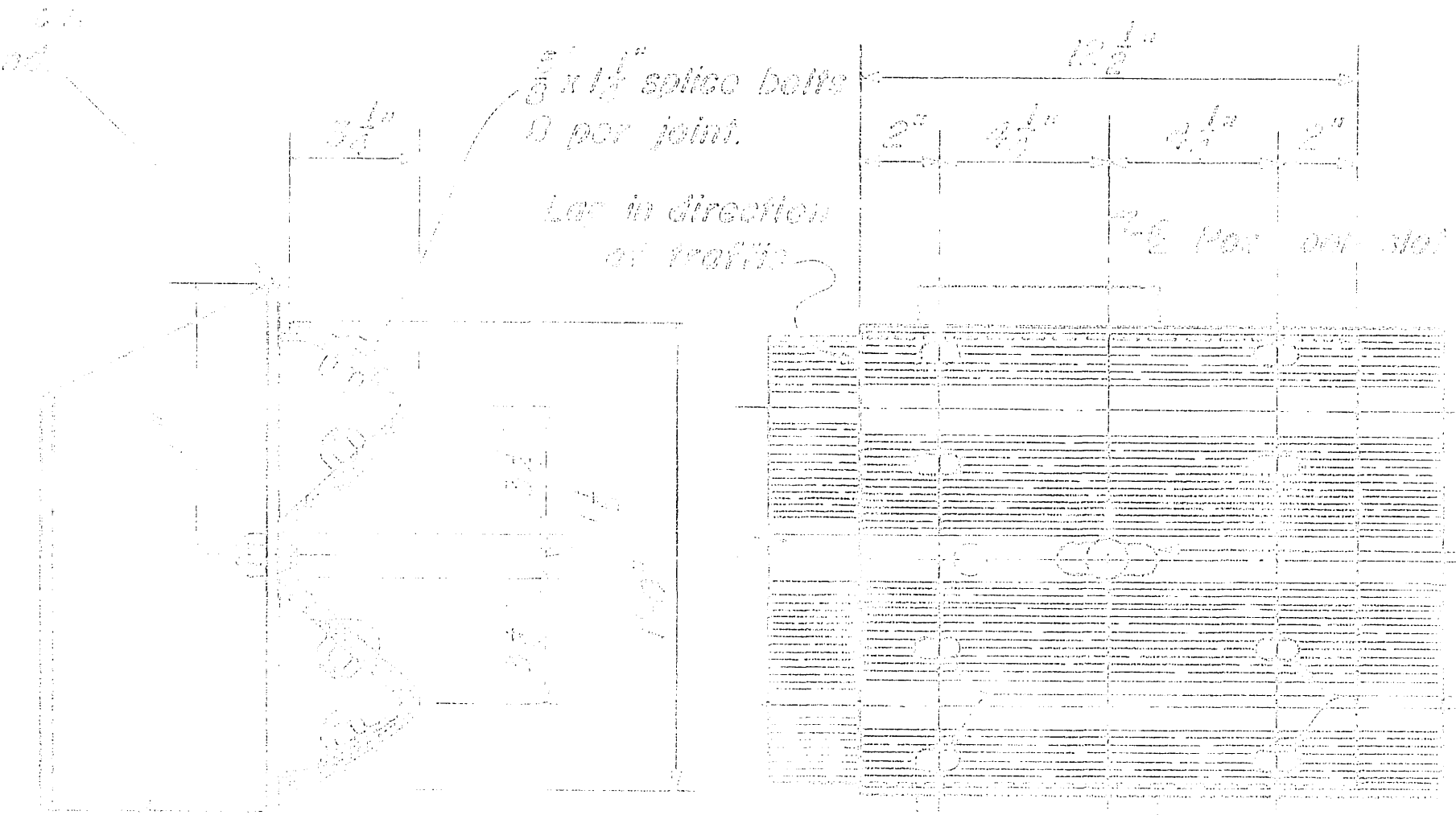
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DIST	COUNTY	ROUTE	POST MILES TO POINT	PROJECT	SHEET	TOTAL SHEETS
08	PRY	1240	CR. FIN.	13	22	

DATE APPROVED: August 22 1966
 [Signature]



SPUR 21
 at grade



1. In the case where a concrete form is bridge deck, slot holes in movable section shall be placed in amount of movement as is provided in bridge deck design drawings and located between rail standards. Adjust bolts to provide proper clearance on both sides.
 2. The top edge of the concrete at anchor bolts shall be finished with a smooth surface. The top edge of the concrete on the face of the bridge deck shall be finished with a smooth surface to allow proper drainage of water from the bridge deck.
 3. The bottom edge of the concrete at anchor bolts shall be finished with a smooth surface. The bottom edge of the concrete on the face of the bridge deck shall be finished with a smooth surface to allow proper drainage of water from the bridge deck.
 4. The concrete shall be finished with a smooth surface. The concrete on the face of the bridge deck shall be finished with a smooth surface to allow proper drainage of water from the bridge deck.
 5. The concrete shall be finished with a smooth surface. The concrete on the face of the bridge deck shall be finished with a smooth surface to allow proper drainage of water from the bridge deck.



DATE	BY	SCALE	SHEET
08-22-66	[Signature]	AS SHOWN	13

APPROVED: [Signature]

To accompany this check August 29, 1966

STATE HIGHWAY FUNDS - CALIFORNIA
08 1011100 0000 100000

APPROVAL REQUIRED HEREIN

J.E. Wil
State Treasurer - California State Highway Funds

Approved: *[Signature]*
State Highway Engineer
California State Highway Funds

STATE HIGHWAY FUNDS

100	GENERAL - STATE	1000000000
101	STATE HIGHWAY FUNDS	1000000000
102	STATE HIGHWAY FUNDS	1000000000
103	STATE HIGHWAY FUNDS	1000000000
104	STATE HIGHWAY FUNDS	1000000000
105	STATE HIGHWAY FUNDS	1000000000

STATE HIGHWAY FUNDS

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101	STATE HIGHWAY FUNDS	1000000000
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STATE HIGHWAY FUNDS

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