

TITLE SALE:

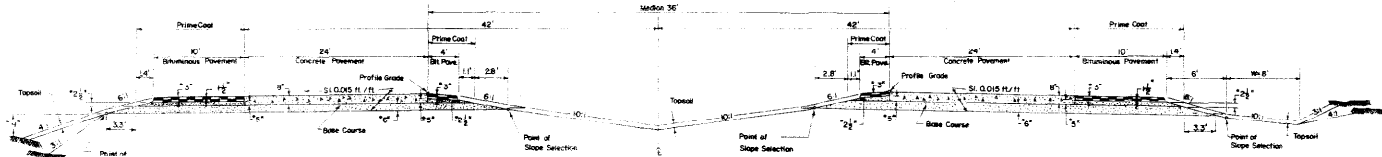
[illegible]

1000

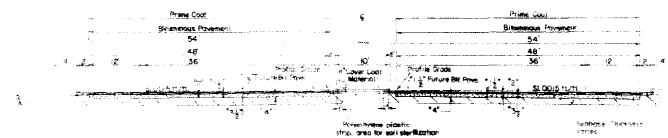
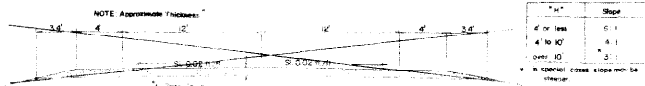
WE SEE SHEET NO 4. FOR 5 STANDARD

TYPICAL SECTIONS

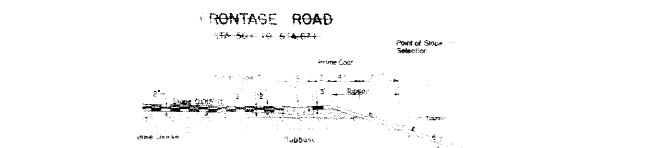
FEDERAL ROAD DISTRICT	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	1370-2171203	6	10
COLORADO	01E-0030-00		



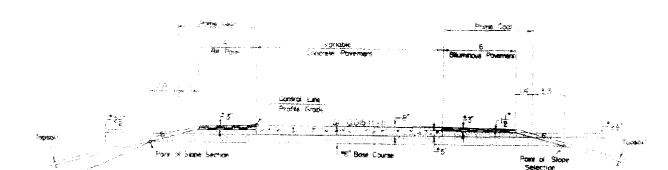
NOTE: Break points on slopes and in bottoms of ditches shall be rounded on construction for a pleasing appearance.



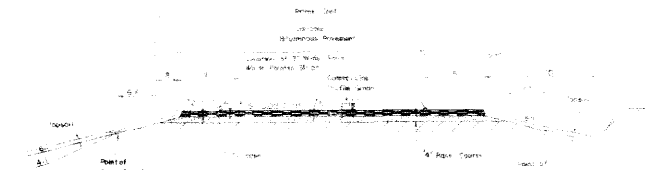
VASQUEZ BLVD



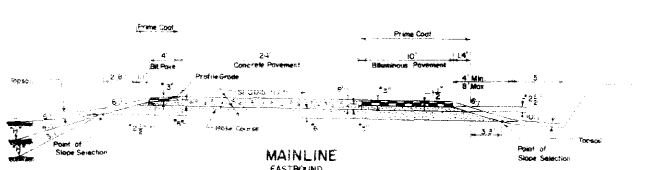
FRONTAGE ROAD
(VASQUEZ BLVD)



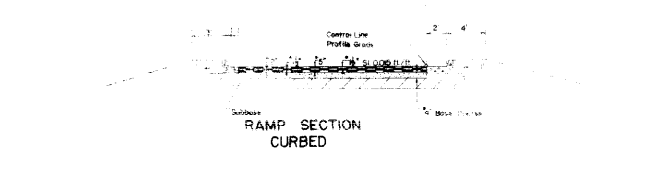
RAMP SECTION
(180 S)



RAMP SECTION



MAINLINE
EASTBOUND
WESTBOUND



RAMP SECTION
CURBED

FEDERAL ROAD REG. NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	CONGRALIC	(270-617) 293 012-0270-00	3	

SUMMARY OF EARTHWORK

AS CONST.		REFERENCES	
		RECEIVED BY AGC	DATE
		FROM BOX	NO.
EMB. MATERIAL (CONCRETE) 50 YD.		446	67-482
EMB. ST. 50 YD. 1000		366	67-482
EMBANKMENT FOR			
RAMP STAT. 24+100-24+150		6	67-482
YORK ST. RAMP NON-FED. 2,226		4	67-482
CON. NO. 1050 NON-FED. 5,296		4	67-482

Note: Material required for this project is available within project limits. Excess equipment will become the property of the Contractor and will not be paid for separately. See Section 01010.

*LIST OF REFUGEES — 1951

[illegible]

GENERAL NOTES

During Construction of this Project, Traffic Used the Present Travel Ramps.

Approximate quantities of Bituminous Materials and C&G Material, the following ratios of application were used:

Prime Coat (MC 70)	at	0.40 Gal per Sq Yd
Emulsified Asphalt SS-1h	at	0.06 gal per Sq Yd
C&G Material	at	4.80 Lbs per Sq Yd of thickness
Bituminous Pavement	at	110 Lbs per Sq Yd per 1/2" thickness

Material above the Subgrade is to be Constructed of Aggregate Material of Grade designated in the material tabulation. Estimated quantities involved in this operation and thickness of material required are tabulated in the Aggregate Material Plan.

Rates of application shall be as determined by the Engineer at the time of application.

Depth of Moisture-Density control for this project shall be as follows:

Full depth of all embankments

Rate of Cut and Fill 1/2 ft.

A simulation required for comparison of bases of rate and title will be considered as subsidiary to that operation and will not be paid for separately.

Weight	Dimensions	9" x 10" x 10" (H x W x D)
Weight	Dimensions	10" x 10" x 10" (H x W x D)

Any layer of Retention & Appraisal must be at least a minimum 100mm water
depth and all completed to 100mm depth exceeding layer is placed

Where 1000, 100 000 etc. are shown on the graph, the value of the variable is 1000, 100 000 etc. The horizontal axis is labeled with the variable name and the unit of measurement. The vertical axis is labeled with the variable name and the unit of measurement.

[illegible]

© 2005 Blackwell Publishing Ltd, *Journal of Internal Medicine* 258: 103–110

It is estimated that water for 500 persons will be required for the duration of the project, to which about 2000 gallons will be added for the 1000 persons.

© 2004 by Thompson & Sherrill and the Board of Directors of the American Psychological Association

A 50' Type Device at least 50' feet in length shall be furnished with good condition. Flare approved with 20' minimum; CONROX system

used in handling with compressed helium. The welding will be made in air.
The 1000 psi and 10000 psi areas are welded. The following shall be used:

NAME	SEX	AGE	WEIGHT	WING	TAIL	CLAW
Greater Shorttoed Petrel	Ad.	90	85	4.98		
White Swallow	Ad.	81	85	3.47		
Blue Gnat	Ad.	50	80	2.65		
White Warbler	Ad.	35	70	1.95		

Stark, Michel 129, 130, 131
 deutsche Literaturgeschichte 130, 131

The seedling period was Early Spring & Fall

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

[illegible]

SUMMARY OF APPROXIMATE AND FINAL QUANTITIES

FORM NO. 10-6	DP-1500	PROJ. NO.	1000	2000
1	0000000	1270-6171283	5	
		012-0270-00		

[illegible]

SUMMARY OF APPROXIMATE AND FINAL QUANTITIES

REFERENCE	CONTRACT (ITEM NO.)	CONTRACT ITEM	UNIT	FINAL RDWY.	ROADWAY	ROADWAY	FINAL RDWY.	STR. E-17-AT	FINAL STR. E-17-AT	COMBINED PROJECT TOTALS	FINAL COMBINED PROJECT TOTALS
		FORCE ACCOUNT & CHANGE ORDERS (Cont)									
ITEM 6000000		CHAIN LINK FENCE & BRIDGE END CONNECTORS (C.O. NO. 18703)	L.S.	0							0
FORCE ACCOUNT		TEMPORARY BARRIER FENCE (C.O. NO. 18723)	L.S.	0							0
ITEM 6000001		PAVE SHOULDER (C.O. NO. 11048)	L.S.	0							0
SHEET 3		PAVE SHOULDER MATERIAL (C.O. NO. 11050)	Cu Yd	0			5,296				5,296
FORCE ACCOUNT		REPAIR DECK OF STR. E-17-AT (C.O. 18706)	L.S.	0							0
		REDUCTION IN PRICE ON ITEM 304 A.B.C. CL. 6 (C.O. NO. 23503)	L.S.	0							0
		REDUCTION OF PRICE ON ITEM 410 CONC. PAVEMENT (8 IN) (C.O. NO. 23503)	L.S.	0							0
		REDUCTION IN PRICE ON ITEM 304 A.B.C. CL. 6 (C.O. NO. 23504)	L.S.	0							0
SHEET 13	615	4 inch Electrical Conduit (Mountain States Telephone Co.) is to	L.S.	0							0
FORCE ACCOUNT		Reimburse the Highway Department for this work (DELETED BY C.O. NO. 18497)	Lim. Ft.	0			731		0		731
		FURNISH AND INSTALL POWER LINES TO OVER-HEAD SIGNS (C.O. NO. 18704)	L.S.	0							0
		RIGHTS OF WAY									
		Right of Way - Final - Project	L.S.	0			0				0
		UTILITIES									
		Relocation of Utilities (Not by Others) - Project I 270-6(17) 293									
		Relocation of Gas for Highway by Public Service Co. of Colorado	L.S.	0			0				0
		Relocation of Water for Highway by Public Service Co. of Colorado	L.S.	0			0				0
FIELD BOOK 17		FURNISH AND INSTALL IDENTIFICATION SIGN	EACH	0	6					6	7
		270-6(17) 293 (GENERAL AID)	L.S.	0			0				0

TABULATION OF SURFACING

PROJECT NAME SECTION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	COLORADO	1 270-617293	5	

LOCATION	STATION	STATION	LENGTH	AGGREGATE BASE COURSE CLASS 1		AGGREGATE BASE COURSE CLASS 6		6" CONCRETE PAVEMENT	HOT BITUMINOUS PAVEMENT						LIQUID ASPHALTIC MATERIAL M.C. 70	EMULSIFIED ASPHALT (55-10)		COVER COAT MATERIAL (MEDIAN)	
				CU. FT.	TONS	CU. FT.	TONS		GRADING E		GRADING E		GRADING E						
									TOP LAYER	BOTTOM LAYER	TOP LAYER	BOTTOM LAYER	RAMP	SHOULDER		SQ. YDS.	GALS.	SQ. YDS.	GALS.
MAINLINE EASTBOUND LANE	29+88	40+00	10120			26,707	1,910	2,702			1,579	261		1,852	741	1,579	79		
	40+00	50+00	10000			26,390	1,887	2,670			1,560	257		1,830	732	1,560	78		
	50+00	60+00	10000			26,390	1,887	2,670			1,560	257		1,830	732	1,560	78		
	60+00	70+00	10000			26,390	1,887	2,670			1,560	257		1,830	732	1,560	78		
	70+00	80+00	10000			26,390	1,887	2,670			1,560	257		1,830	732	1,560	78		
	80+00	87+80	7800			20,984	1,472	2,083			1,217	201		1,427	571	1,217	61		
	87+80	91+37	3570			-	-	-			-	-		-	-	-	-		
STR. E-17-1E	91+37	97+86	6490			17,127	1,225	1,733			1,012	167		1,188	475	1,012	51		
STR. E-17-1B	97+86	100+54	2680			-	-	-			-	-		-	-	-	-		
	100+54	110+00	9460			24,965	1,785	2,526			1,476	244		1,731	692	1,476	74		
	110+00	120+00	10000			26,390	1,887	2,670			1,560	257		1,830	732	1,560	78		
	120+00	128+67	8670			22,880	1,636	2,315			1,353	223		1,547	605	1,353	68		
STR. E-17-1H	128+67	132+62	4150			-	-	-			-	-		-	-	-	-		
	132+62	142+58	9770			25,783	1,843	2,609			1,524	251		1,788	715	1,524	76		
STR. E-17-1K	142+58	146+57	3980			-	-	-			-	-		-	-	-	-		
	146+57	152+00	5430			15,830	1,132	1,783			847	140		994	396	847	42		
TOTAL EASTBOUND LANE						20,438		28,101			4,774			7,661		641			
MAINLINE WESTBOUND LANE	6+96	20+00	3040			8,023	574	812			474	78		566	222	474	24		
	20+00	30+00	10000			26,390	1,887	2,670			1,560	257		1,830	732	1,560	78		
	30+00	40+00	10000			26,390	1,887	2,670			1,560	257		1,830	732	1,560	78		
	40+00	50+00	10000			26,390	1,887	2,670			1,560	257		1,830	732	1,560	78		
	50+00	60+00	10000			26,390	1,887	2,670			1,560	257		1,830	732	1,560	78		
	60+00	70+00	10000			26,390	1,887	2,670			1,560	257		1,830	732	1,560	78		
	70+00	80+00	10000			26,390	1,887	2,670			1,560	257		1,830	732	1,560	78		
	80+00	87+80	7800			20,984	1,472	2,079			1,217	201		1,427	571	1,217	61		
	87+80	91+37	3560			-	-	-			-	-		-	-	-	-		
STR. E-17-1D	91+37	97+86	6490			17,127	1,225	1,733			1,012	167		1,188	475	1,012	51		
STR. E-17-1F	97+86	100+54	2680			-	-	-			-	-		-	-	-	-		
	100+54	110+00	9460			25,119	1,825	2,582			1,509	248		1,771	700	1,509	75		
	110+00	120+00	10000			26,390	1,887	2,670			1,560	257		1,830	732	1,560	78		
	120+00	128+67	8670			22,616	1,617	2,288			1,337	221		1,568	607	1,337	67		
STR. E-17-1J	128+67	132+62	4150			-	-	-			-	-		-	-	-	-		
	132+62	142+58	9730			24,094	1,723	2,438			1,424	230		1,671	660	1,424	71		
STR. E-17-1G	142+58	146+57	3970			-	-	-			-	-		-	-	-	-		
	146+57	152+00	5880			15,667	1,035	2,270			917	151		1,076	431	917	46		
TOTAL WESTBOUND LANE						22,942		32,442			7,096			8,610		935			
160% INTERCHANGE RAMP A	2+50	0+00	2500			3,203	229	167					278	46	317	97	278	14	
	0+00	8+63	8630			6,346	382	708					736	30	877	11	736	12	
	8+63	9+16	500			980	70	92					33	5	41	10	33	2	
	9+16	10+42	7270			13,507	966	1,212					808	33	1,026	410	808	40	
TOTAL RAMP A						16,47		2,177					223		664		68		
RAMP B	2+00	11+173	9173			16,007	1,145	1,631					815	34	1,091	436	815	41	
	11+173	14+173	3000			5,065	364	500					267	44	357	143	267	13	
	14+173	20+00	5827			10,042	718	907					647	107	822	325	647	32	
	20+00	22+12	2120			3,833	274	330					236	39	299	120	236	12	
	22+12	26+50	4360			7,183	514	681					487	60	560	220	487	24	
	26+50	31+13.8	4778			3,764	271	367					210	35	278	111	210	11	
TOTAL B RAMP						3,286		4,416					1,539		1,559		1,539		

TABULATION OF SURFACING

FEDERAL ROAD DISTRICT	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9 COLORADO	1 270-6171293 010-0070-00	7	

LOCATION	STATION	STATION	LENGTH	AGGREGATE BASE COURSE CLASS 1		AGGREGATE BASE COURSE CLASS 6		8" CONCRETE PAVEMENT	HOT BITUMINOUS PAVEMENT						LIQUID ASPHALTIC MATERIAL MC 70	EMULSIFIED ASPHALT (SS-1A)		COVER COAT MATERIAL (MEDIAN)						
				CU. FT.	TONS	CU. FT.	TONS		SQ. YDS.	GRADING E		GRADING E		GRADING E		SQ. YDS.	GALS.	SQ. YDS.	GALS.			SQ. YDS.	TONS	
										TOP LAYER	BOTTOM LAYER	RAMP SHOULDER												
VASQUEZ BLVD INTERCHANGE WEST RAMP	1+3575 1+8575 1+8960 1+8960 12+2960 2+8960	1+8975 1+44960 1+8960 12+2960 12+8960 13+7460	5400 998.85 4000 4000 6000 8500	2,069 37,511 4,415 1,273 1,769 2,834	147 2,682 101 91 126 203	477 8,667 330 328 451 667	34 620 24 23 32 46		141 2,774 107 98 133 212	16 305 12 11 15 23	282 5,548 213 195 266 424	23 456 18 16 22 35			154 3,062 113 110 152 233	62 1,225 40 44 61 93	282 5,548 213 195 266 424	14 277 11 10 13 21						
TOTAL WEST RAMP				3,350		787			382		572				1,580		346							
NORTH RAMP	2+452 10+470	10+70 1+50	8180 800	31,967 2,421	2,286 173	7,386 620	528 44		2,364 183	260 20	4,728 366	390 30			2,509 208	1,044 83	4,728 366	236 18						
TOTAL NORTH RAMP				2,459		572			280		420				1,127		244							
SOUTH RAMP	1+02 1+136 1+136 1+136	1+58 2+174.3 6+134.3 6+134.3	540 417.43 4000 6600	2,065 8,642 4,450 2,162	148 1,333 104 65	555 4,088 392 631	40 328 28 45		117 1,019 85 125	13 112 9 14	234 2,037 160 250	19 168 13 21	12 9 3 2		144 1,281 100 56	48 313 81 13	234 2,037 160 250	12 106 8 13						
TOTAL SOUTH RAMP				1,754		441			148		221		20		674		134							
EAST RAMP	1+02 2+889 7+389 7+389	6+889 7+389 7+389 8+685	5000 4000 1000 9000	2,065 1,766 765 2,862	148 125 26 510	555 440 97 510	40 31 7 50		1,298 98 20 140	143 11 2 15	2,596 195 40 281	19 16 3 20	12 9 3 20		1,234 27 26 185	48 48 10 16	2,596 195 40 281	19 10 2 14						
TOTAL EAST RAMP				2,257		510			177		236		23		707		156							
EAST INTERCHANGE	1+136 6+136	1+136 6+136	4000 2000	1,766 1,766	125 125	440 440	31 31		98 34	11 28	195 167	16 12			27 120	48 21	48 167	10 17						
TOTAL EAST INTERCHANGE				554		113			35		47				122		25							
VASQUEZ BLVD INTERCHANGE DIR. FLIGHT	8+30 8+40 9+400 13+003	1+00 8+40 23+103 25+50	60 100 3600 247.67	2,065 1,766 15,374 2,871	148 125 4,088 202	555 440 15,374 507	40 31 4,088 58		934 4,560 508 269	13 112 508 30	234 2,037 1,560 269	19 168 13 22			98 1,281 1,560 250	48 313 81 13	234 2,037 1,560 250	12 106 8 13						
TOTAL VASQUEZ BLVD				5,028		1,293			635		475				2,414		282		242					
Highway 100/101 Interchange				2,200		6,300		2,520	4,700						2,600		600		100					
PROJECT TOTALS				15,164		52,023		68,536	1,671		7,853		705		25,496		3,184		242					
PROJECT TOTALS - 100-0070-00				2,200		6,300		2,520	4,700						2,600		600		100					

Notes: 1. All Soil Test Situations
2. All Soil Test Situations
3. All Soil Test Situations
4. All Soil Test Situations
5. All Soil Test Situations
6. All Soil Test Situations
7. All Soil Test Situations
8. All Soil Test Situations
9. All Soil Test Situations
10. All Soil Test Situations
11. All Soil Test Situations
12. All Soil Test Situations
13. All Soil Test Situations
14. All Soil Test Situations
15. All Soil Test Situations
16. All Soil Test Situations
17. All Soil Test Situations
18. All Soil Test Situations
19. All Soil Test Situations
20. All Soil Test Situations
21. All Soil Test Situations
22. All Soil Test Situations
23. All Soil Test Situations
24. All Soil Test Situations
25. All Soil Test Situations
26. All Soil Test Situations
27. All Soil Test Situations
28. All Soil Test Situations
29. All Soil Test Situations
30. All Soil Test Situations
31. All Soil Test Situations
32. All Soil Test Situations
33. All Soil Test Situations
34. All Soil Test Situations
35. All Soil Test Situations
36. All Soil Test Situations
37. All Soil Test Situations
38. All Soil Test Situations
39. All Soil Test Situations
40. All Soil Test Situations
41. All Soil Test Situations
42. All Soil Test Situations
43. All Soil Test Situations
44. All Soil Test Situations
45. All Soil Test Situations
46. All Soil Test Situations
47. All Soil Test Situations
48. All Soil Test Situations
49. All Soil Test Situations
50. All Soil Test Situations
51. All Soil Test Situations
52. All Soil Test Situations
53. All Soil Test Situations
54. All Soil Test Situations
55. All Soil Test Situations
56. All Soil Test Situations
57. All Soil Test Situations
58. All Soil Test Situations
59. All Soil Test Situations
60. All Soil Test Situations
61. All Soil Test Situations
62. All Soil Test Situations
63. All Soil Test Situations
64. All Soil Test Situations
65. All Soil Test Situations
66. All Soil Test Situations
67. All Soil Test Situations
68. All Soil Test Situations
69. All Soil Test Situations
70. All Soil Test Situations
71. All Soil Test Situations
72. All Soil Test Situations
73. All Soil Test Situations
74. All Soil Test Situations
75. All Soil Test Situations
76. All Soil Test Situations
77. All Soil Test Situations
78. All Soil Test Situations
79. All Soil Test Situations
80. All Soil Test Situations
81. All Soil Test Situations
82. All Soil Test Situations
83. All Soil Test Situations
84. All Soil Test Situations
85. All Soil Test Situations
86. All Soil Test Situations
87. All Soil Test Situations
88. All Soil Test Situations
89. All Soil Test Situations
90. All Soil Test Situations
91. All Soil Test Situations
92. All Soil Test Situations
93. All Soil Test Situations
94. All Soil Test Situations
95. All Soil Test Situations
96. All Soil Test Situations
97. All Soil Test Situations
98. All Soil Test Situations
99. All Soil Test Situations
100. All Soil Test Situations

STANDARD CURBS AND GUTTERS

STANDARD M-609-A
(JULY 1, 1965)

SPECIAL THIS PROJECT ONLY

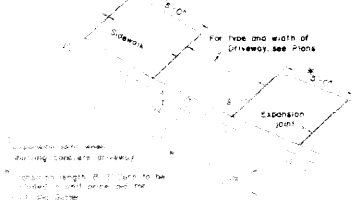
FED. ROAD DIST. NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLO.	1270-0471233 44-0070-00	1

REVISIONS	
NO.	DESCRIPTION
(R-1)	11-16-65 Submittals
(R-2)	2-14-66 General Notes
(R-3)	2-14-66 Page Notes and Plan Sheet Material
(R-4)	5-21-66 Provide variable width on conc. gtr. M.E.H.
(R-5)	9-9-66 Curb Transition at Inlet
	R.E.M.

CONCRETE PAVEMENT (DRIVEWAYS)



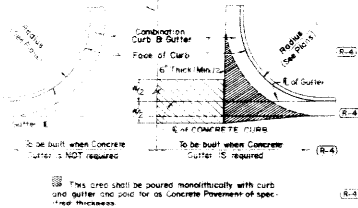
DETAIL OF CURB CUT FOR DRIVEWAYS



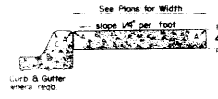
TRANSVERSE CONTRACTION JOINT FOR CONCRETE PAVEMENT (DRIVEWAYS)



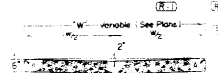
CONSTRUCTION OF CONCRETE GUTTERS AT INTERSECTIONS



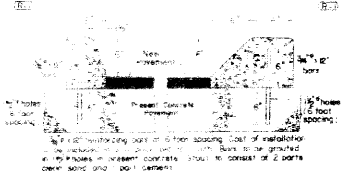
CONCRETE SIDEWALK



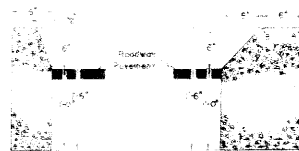
GUTTER Type 2



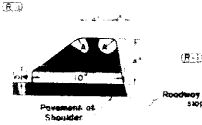
CURB Type 4 (6\"/>



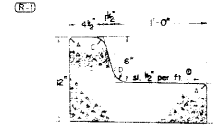
CURB Type 2 (6\"/>



CURB Type 6 (4\"/>

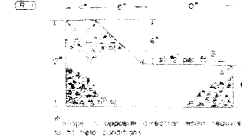


CURB AND GUTTER Type 2 (6\"/>



LEGEND FOR RADII	
A	1\"/>

CURB AND GUTTER Type 2 (6\"/>



CURB AND GUTTER Type 2 (6\"/>



CURB AND GUTTER Type 2 (6\"/>



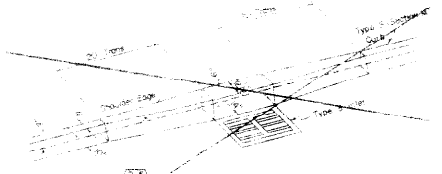
CURB AND GUTTER (Type 2) (4\"/>



SIDEWALK EXPANSION JOINT



DETAIL CURB TRANSITION AT INLET (to be paid for as Curb Type 6 (Section M))



GENERAL NOTES

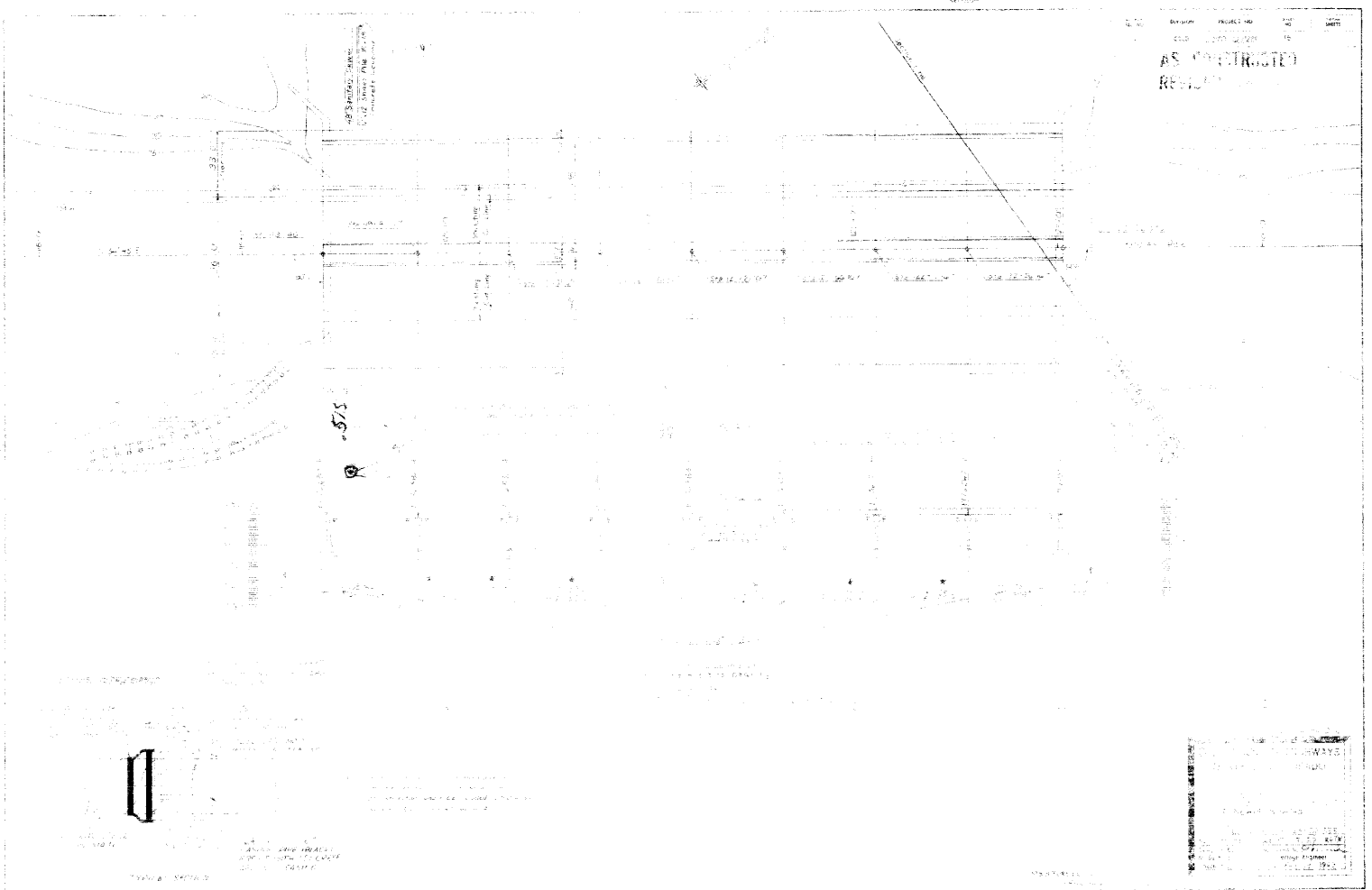
- All work shall be done in accordance with the Standard Specifications applicable to the project.
- On curves 15 degrees and sharper, Curb and/or Gutters are to be placed on the Arc of the curve unless otherwise noted on plans. A maximum chord length of 40 feet may be used when the degree of curve is less than 15 degrees.
- Expansion joints shall be installed between concrete curb and any fixed structure, sidewalk or bridge. Expansion joint material shall be 1/2\"/>
- Concrete shall be Class A or Class D.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS

CURBS AND GUTTERS

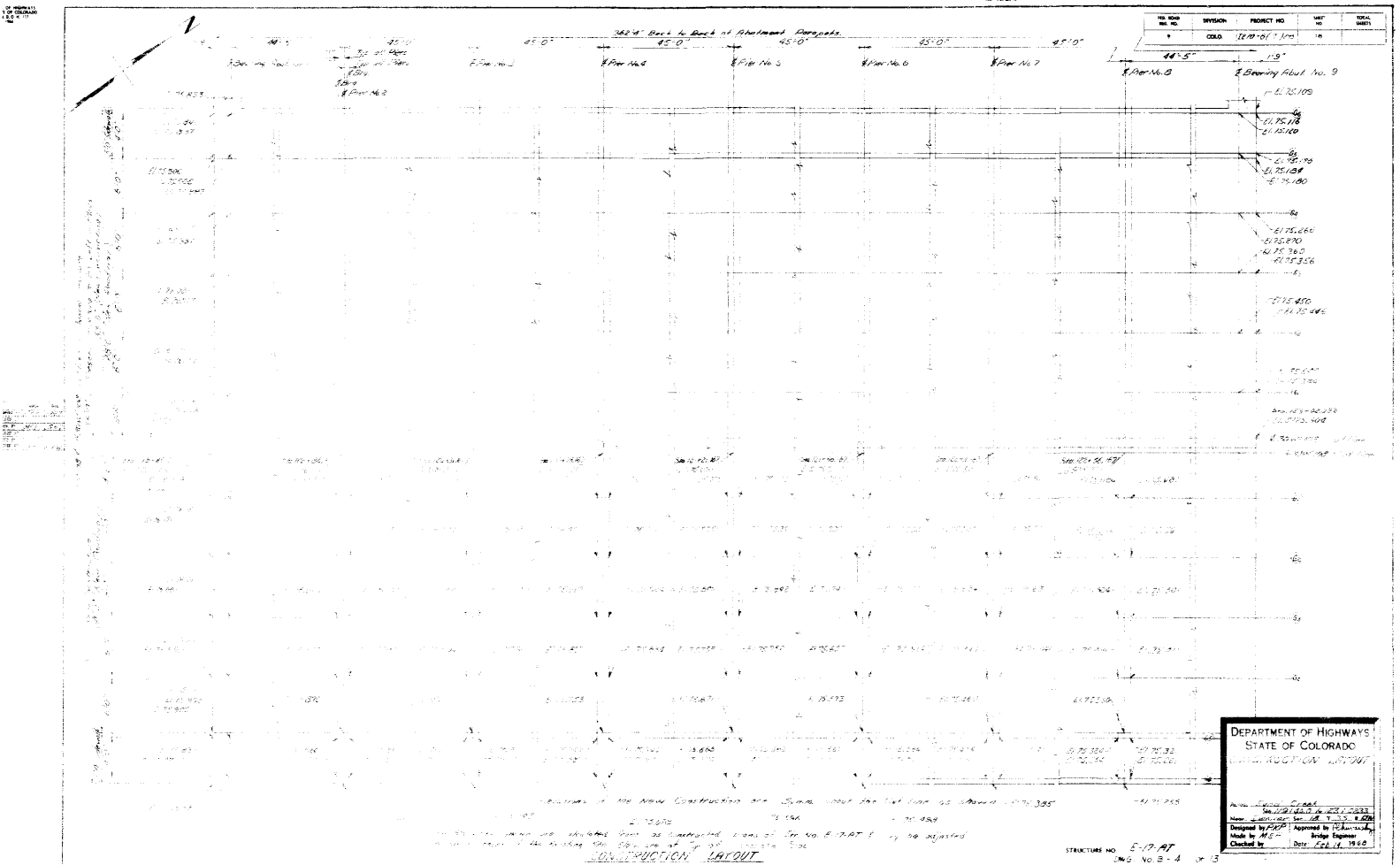
Designed by J.C. v.c.
Made by J.C. v.c.
Checked by J.C. v.c.
Approved by J.C. v.c.
Stamp: July 1, 1965

AS CONSTRUCTED
REVISION

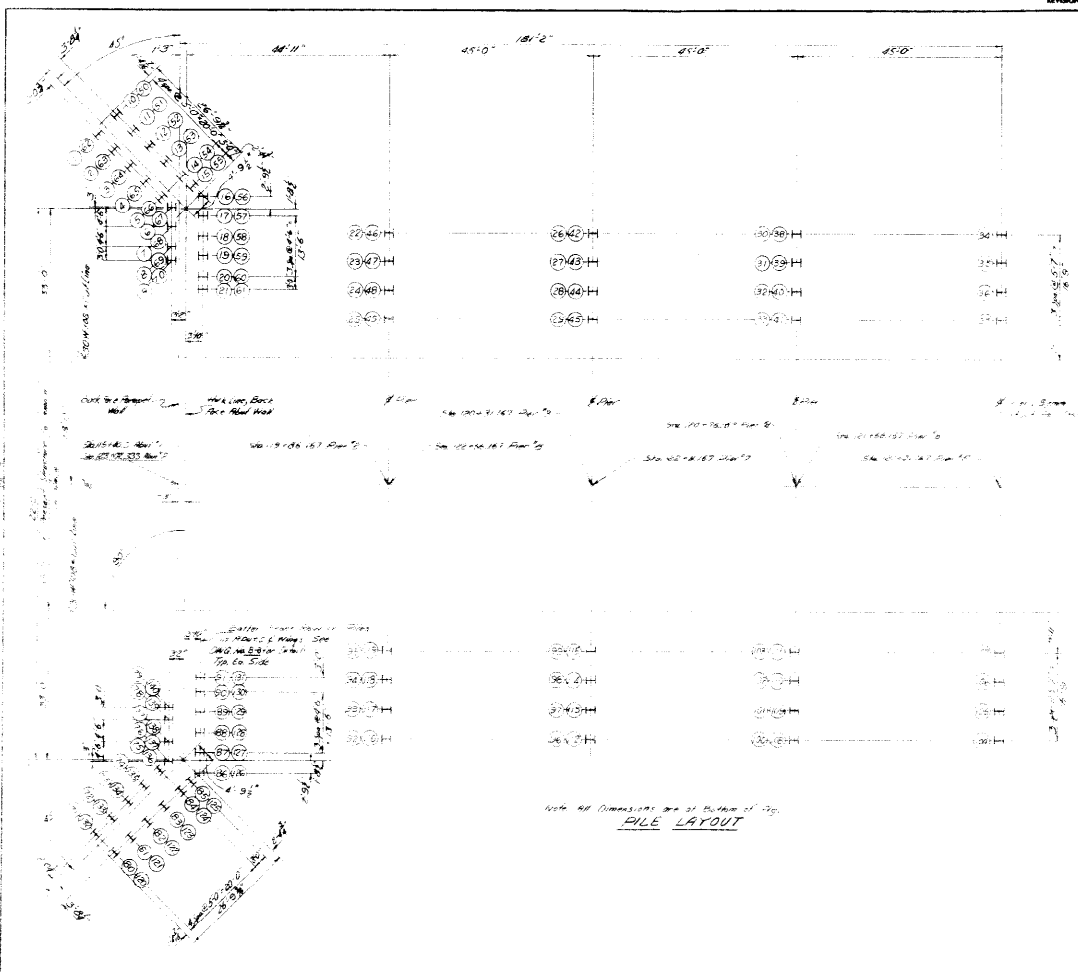


11

NO.	DESCRIPTION	DATE	BY	CHECKED
1	AS CONSTRUCTED	11/11/11	J. J. J.	J. J. J.
2	REVISION	11/11/11	J. J. J.	J. J. J.
3	REVISION	11/11/11	J. J. J.	J. J. J.
4	REVISION	11/11/11	J. J. J.	J. J. J.
5	REVISION	11/11/11	J. J. J.	J. J. J.
6	REVISION	11/11/11	J. J. J.	J. J. J.
7	REVISION	11/11/11	J. J. J.	J. J. J.
8	REVISION	11/11/11	J. J. J.	J. J. J.
9	REVISION	11/11/11	J. J. J.	J. J. J.
10	REVISION	11/11/11	J. J. J.	J. J. J.



NO. OF SHEETS	APPROACH	PROJECT NO.	SHEET NO.	SHEET TOTAL
9	CRCL	2 220 61 7 220	19	



NOTE
 1. THIS IS A PILE LAYOUT
 2. THE PILE LAYOUT IS IN THE
 3. THE PILE LAYOUT IS IN THE
 4. THE PILE LAYOUT IS IN THE
 5. THE PILE LAYOUT IS IN THE
 6. THE PILE LAYOUT IS IN THE
 7. THE PILE LAYOUT IS IN THE
 8. THE PILE LAYOUT IS IN THE
 9. THE PILE LAYOUT IS IN THE
 10. THE PILE LAYOUT IS IN THE
 11. THE PILE LAYOUT IS IN THE
 12. THE PILE LAYOUT IS IN THE
 13. THE PILE LAYOUT IS IN THE
 14. THE PILE LAYOUT IS IN THE
 15. THE PILE LAYOUT IS IN THE
 16. THE PILE LAYOUT IS IN THE
 17. THE PILE LAYOUT IS IN THE
 18. THE PILE LAYOUT IS IN THE
 19. THE PILE LAYOUT IS IN THE
 20. THE PILE LAYOUT IS IN THE
 21. THE PILE LAYOUT IS IN THE
 22. THE PILE LAYOUT IS IN THE
 23. THE PILE LAYOUT IS IN THE
 24. THE PILE LAYOUT IS IN THE
 25. THE PILE LAYOUT IS IN THE
 26. THE PILE LAYOUT IS IN THE
 27. THE PILE LAYOUT IS IN THE
 28. THE PILE LAYOUT IS IN THE
 29. THE PILE LAYOUT IS IN THE
 30. THE PILE LAYOUT IS IN THE
 31. THE PILE LAYOUT IS IN THE
 32. THE PILE LAYOUT IS IN THE
 33. THE PILE LAYOUT IS IN THE
 34. THE PILE LAYOUT IS IN THE
 35. THE PILE LAYOUT IS IN THE
 36. THE PILE LAYOUT IS IN THE
 37. THE PILE LAYOUT IS IN THE
 38. THE PILE LAYOUT IS IN THE
 39. THE PILE LAYOUT IS IN THE
 40. THE PILE LAYOUT IS IN THE
 41. THE PILE LAYOUT IS IN THE
 42. THE PILE LAYOUT IS IN THE
 43. THE PILE LAYOUT IS IN THE
 44. THE PILE LAYOUT IS IN THE
 45. THE PILE LAYOUT IS IN THE
 46. THE PILE LAYOUT IS IN THE
 47. THE PILE LAYOUT IS IN THE
 48. THE PILE LAYOUT IS IN THE
 49. THE PILE LAYOUT IS IN THE
 50. THE PILE LAYOUT IS IN THE
 51. THE PILE LAYOUT IS IN THE
 52. THE PILE LAYOUT IS IN THE
 53. THE PILE LAYOUT IS IN THE
 54. THE PILE LAYOUT IS IN THE
 55. THE PILE LAYOUT IS IN THE
 56. THE PILE LAYOUT IS IN THE
 57. THE PILE LAYOUT IS IN THE
 58. THE PILE LAYOUT IS IN THE
 59. THE PILE LAYOUT IS IN THE
 60. THE PILE LAYOUT IS IN THE
 61. THE PILE LAYOUT IS IN THE
 62. THE PILE LAYOUT IS IN THE
 63. THE PILE LAYOUT IS IN THE
 64. THE PILE LAYOUT IS IN THE
 65. THE PILE LAYOUT IS IN THE
 66. THE PILE LAYOUT IS IN THE
 67. THE PILE LAYOUT IS IN THE
 68. THE PILE LAYOUT IS IN THE
 69. THE PILE LAYOUT IS IN THE
 70. THE PILE LAYOUT IS IN THE
 71. THE PILE LAYOUT IS IN THE
 72. THE PILE LAYOUT IS IN THE
 73. THE PILE LAYOUT IS IN THE
 74. THE PILE LAYOUT IS IN THE
 75. THE PILE LAYOUT IS IN THE
 76. THE PILE LAYOUT IS IN THE
 77. THE PILE LAYOUT IS IN THE
 78. THE PILE LAYOUT IS IN THE
 79. THE PILE LAYOUT IS IN THE
 80. THE PILE LAYOUT IS IN THE
 81. THE PILE LAYOUT IS IN THE
 82. THE PILE LAYOUT IS IN THE
 83. THE PILE LAYOUT IS IN THE
 84. THE PILE LAYOUT IS IN THE
 85. THE PILE LAYOUT IS IN THE
 86. THE PILE LAYOUT IS IN THE
 87. THE PILE LAYOUT IS IN THE
 88. THE PILE LAYOUT IS IN THE
 89. THE PILE LAYOUT IS IN THE
 90. THE PILE LAYOUT IS IN THE
 91. THE PILE LAYOUT IS IN THE
 92. THE PILE LAYOUT IS IN THE
 93. THE PILE LAYOUT IS IN THE
 94. THE PILE LAYOUT IS IN THE
 95. THE PILE LAYOUT IS IN THE
 96. THE PILE LAYOUT IS IN THE
 97. THE PILE LAYOUT IS IN THE
 98. THE PILE LAYOUT IS IN THE
 99. THE PILE LAYOUT IS IN THE
 100. THE PILE LAYOUT IS IN THE

NOTE: ALL DIMENSIONS ARE IN FEET AND INCHES.
 PILE LAYOUT

DEPARTMENT OF HIGHWAYS
 STATE OF COLORADO
 PILE LAYOUT

ALFRED J. GARDNER
 BRIDGE ENGINEER
 DESIGNED BY: J. G. GARDNER
 MADE BY: J. G. GARDNER
 CHECKED BY: J. G. GARDNER
 DATE: 10.15.1960

STRUCTURE NO. 2-11-AT

For Bridge Rail Details See Drawing B-13

SOS (New Construction) 2010

SOS (Old Construction) 2010

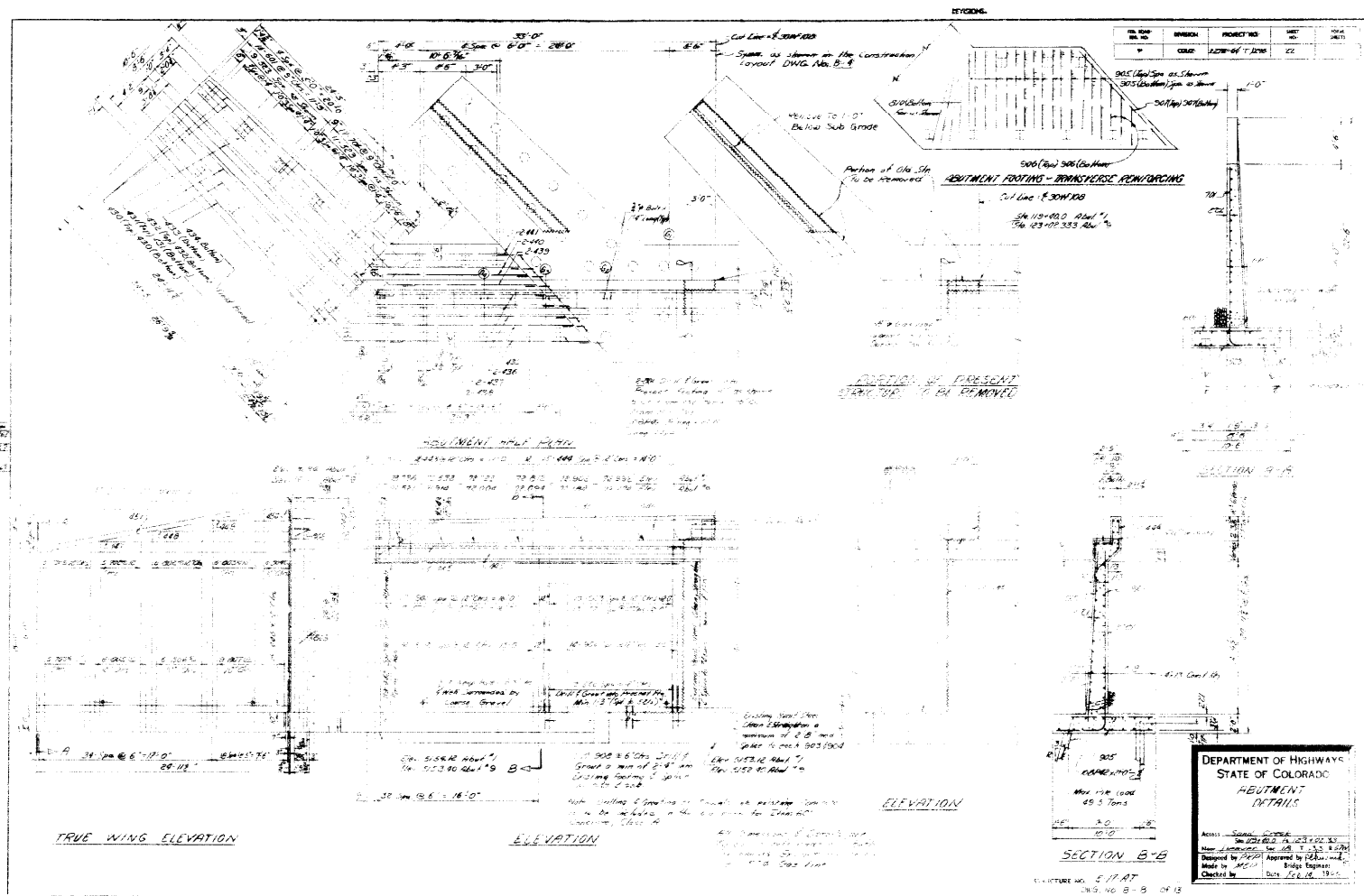
PORTION OF PRESENT STRUCTURE TO BE REMOVED

SECTION B-B

© 2004 Blackwell Publishing Ltd, *Journal of Internal Medicine* 255: 105–112

STRUCTURE NO. E-17-31
DWG. NO. B 7 of 13

1. ALL DIMENSIONS ARE IN FEET AND INCHES.
 2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
 3. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
 4. ALL DIMENSIONS ARE TO SURFACE UNLESS OTHERWISE NOTED.
 5. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
 6. ALL DIMENSIONS ARE TO SURFACE UNLESS OTHERWISE NOTED.
 7. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
 8. ALL DIMENSIONS ARE TO SURFACE UNLESS OTHERWISE NOTED.
 9. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
 10. ALL DIMENSIONS ARE TO SURFACE UNLESS OTHERWISE NOTED.

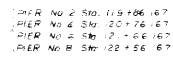


NO.	REVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	1	1278-61 T 1700	22	22

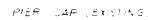
DEPARTMENT OF HIGHWAYS
 STATE OF COLORADO
 REINFORCEMENT
 DETAILS

APPROVED: SPECIAL CONTRACTOR
 IN CHARGE OF CONSTRUCTION
 DESIGNED BY: J. H. H. H. H. H.
 CHECKED BY: J. H. H. H. H. H.
 DATE: 12/1/55

FIGURE NO. 577 AT
 1278-61 T 1700

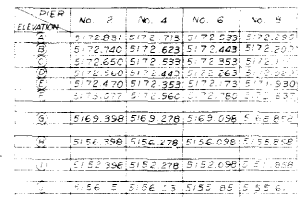


PIER CAP
(Top Bath Ends)

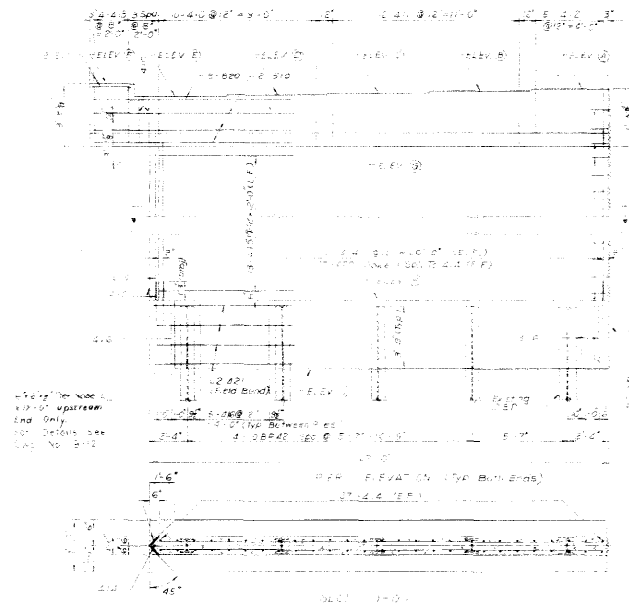


New Gap & Wall To Be Constructed. Exst. Gap & Wall To Be Cut & Remain

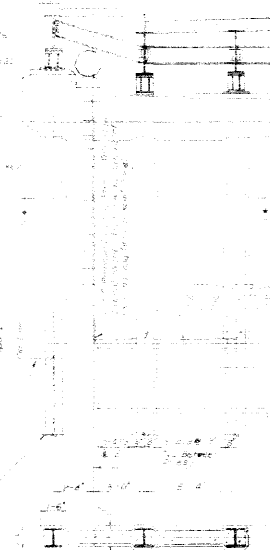
$\frac{d}{dt} \left(\frac{\partial L}{\partial \dot{x}} \right) = \frac{\partial L}{\partial x}$


$$v_{\text{eff}} = \frac{v}{1 + \frac{v^2}{c^2}}$$

The New Construction At Both Ends From
 of Bridge Are Shown As Shown Below - Is Notes.
 Max. H. 100.00 - 10.00
 For Big Poles of Both Ends Is, See Fig. 10
 & 11 - 100.00 - 10.00



EXISTING 12
31 @ Elev.
SPRUE



BRIDGE, S. T. M. 1960
ADULT 1960
60-0 NEW HOLD

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DETAILS OF SPEC
NO 2, NO 4, NO 5 & NO 8

Accession <u>DAWG CHESS</u>	
Ser. <u>119-81000-101000-111</u>	
Name <u>DENVER</u>	Ser. <u>119-81000-101000-111</u>
Designed by <u>W. H. H.</u>	Approved by <u>W. H. H.</u>
Made by <u>A. J.</u>	Bridge Engineer
Checked by	Date: <u>Feb 10 1968</u>

STRUCTURE NO. E-17-AT
DWG. NO. B-9 OF 13

REV.	BY/CHK.	PROJECT NO.	DATE	REVISION
1	CDM	1270-11920	24	

AS CONSTRUCTED
REVISED DATE **APR 1967**

STATION	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5
1	5163.348	5163.348	5163.348	5163.348	5163.348
2	5172.225	5172.225	5172.225	5172.225	5172.225
3	5180.888	5180.888	5180.888	5180.888	5180.888
4	5172.500	5172.500	5172.500	5172.500	5172.500
5	5163.348	5163.348	5163.348	5163.348	5163.348

Notes:
 1. Bridge is to be constructed on existing ground.
 2. Bridge is to be constructed on existing ground.
 3. Bridge is to be constructed on existing ground.
 4. Bridge is to be constructed on existing ground.
 5. Bridge is to be constructed on existing ground.

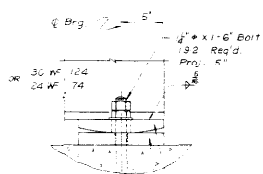
Notes:
 1. Bridge is to be constructed on existing ground.
 2. Bridge is to be constructed on existing ground.
 3. Bridge is to be constructed on existing ground.
 4. Bridge is to be constructed on existing ground.
 5. Bridge is to be constructed on existing ground.

Notes:
 1. Bridge is to be constructed on existing ground.
 2. Bridge is to be constructed on existing ground.
 3. Bridge is to be constructed on existing ground.
 4. Bridge is to be constructed on existing ground.
 5. Bridge is to be constructed on existing ground.

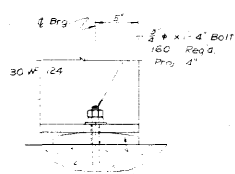
DEPARTMENT OF HIGHWAYS	
STATE OF CALIFORNIA	
Design by	Checked by
Drawn by	Approved by
Scale	Date

STRUCTURE NO. 1270-11920 OF 13

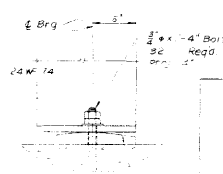
FIG. NO.	REVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	CON.	1-270-67293	25	



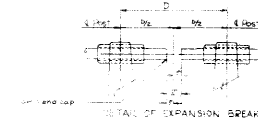
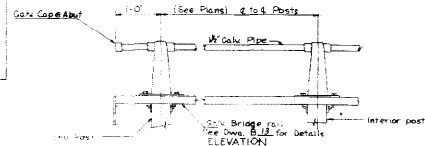
EXPANSION BEARING



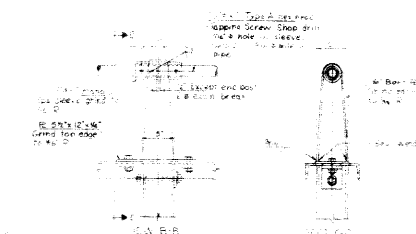
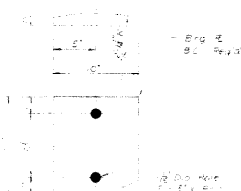
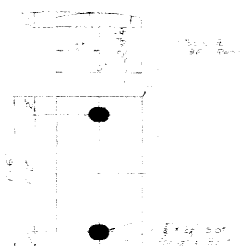
FIXED BEARING
INTERIOR GIRDER



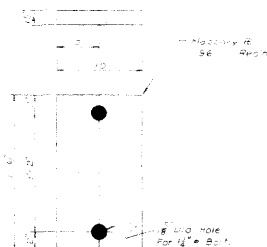
FIXED BEARING
EXTERIOR GIRDER



DETAIL OF EXPANSION BREAK



HAND RAIL DETAILS



NOTE:
All Anchor Bolt Nuts to be 3/4 inch dia. min. spaced
at the full depth of the concrete.

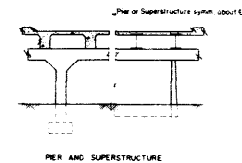
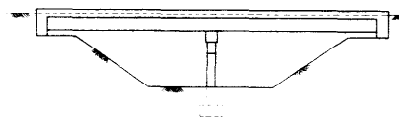
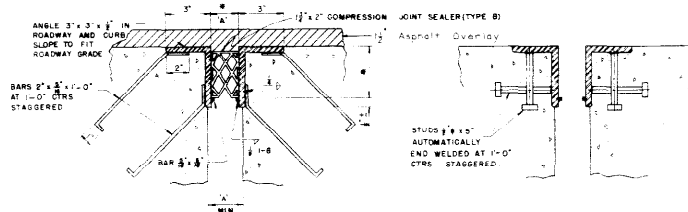


DEPARTMENT OF HIGHWAYS STATE OF COLORADO DETAILS OF BRIDGE HAND RAIL	
Author: ROAD DESIGN Date: 10/1/67 Drawn: J. W. H. Sec. 40, T. 28, R. 6E Checked: J. W. H. Sec. 40, T. 28, R. 6E Made by: J. W. H. Sec. 40, T. 28, R. 6E Checked by: J. W. H. Sec. 40, T. 28, R. 6E	Date: 10/1/67

STRUCTURE NO. E-17-A7
 25 SHEETS

REV.	DATE	BY	CHK.	DESCRIPTION
1				

* DIMENSIONS TO BE PROPORTIONATE WITH COMPRESSION JOINT SEALER SUPPLIED.



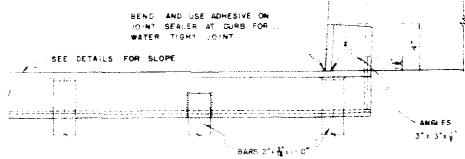
DETAILS AT JOINT

FORMED JOINT IN CURB FOR COMPRESSION JOINT SEALER

ALTERNATE

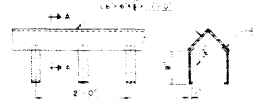
STREAM CROSSING IN OR NEAR URBAN AREA

DETAILS SHOWING PORTIONS OF STRUCTURE TO RECEIVE CLASS 2 SURFACE FINISH



OUTSIDE TEMP.	DIMENSION
4.0°	18
5.0°	16
6.0°	14
7.0°	12
8.0°	10
9.0°	8
10.0°	6

DETAIL JOINT SEALER ANGLES AT CURB



ANCHORS 2 1/2" x 11'-0" welded @ 12" ctrs. to alternate legs



5/8" x 5" Min. standard anchor steel automatically welded to angle.

ALTERNATE NOSE ANGLE

PIER NOSE ANGLE DETAILS

No. Ref. 2

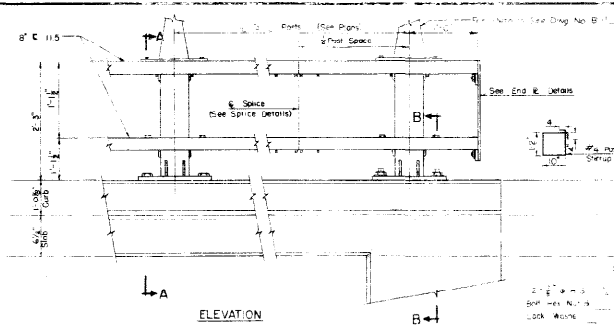
1100-20-67

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
COMPRESSION JOINT
SEALER, PIER NOSE
ANGLE, & SURFACE FINISH
DETAILS

Approved: _____
Checked by: _____
Designed by: _____
Made by: _____
Date: _____

STRUCTURE NO. E-12-AT
DWG. NO. B-12 OF 12

PROJECT NO.	DISTRICT	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1270-671-293	1	27	27	

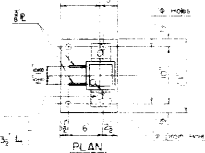


END ANCHORED POST
No. Rev'd 1, 2, 3

Type 1



PLAN



PLAN



SECTION

SECTION



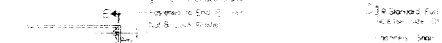
SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION



SECTION

SECTION

ELEVATION
DETAIL OF END CONNECTION FOR FASTENING BRIDGE RAIL
TO TRANSITION GUARD RAIL

Complete Unit Shall Be Galvanized After Fabrication
Detail Shown is For Right Hand Rail No. Rev'd 2
Opposite Hand For Left Hand Rail No. Rev'd 2

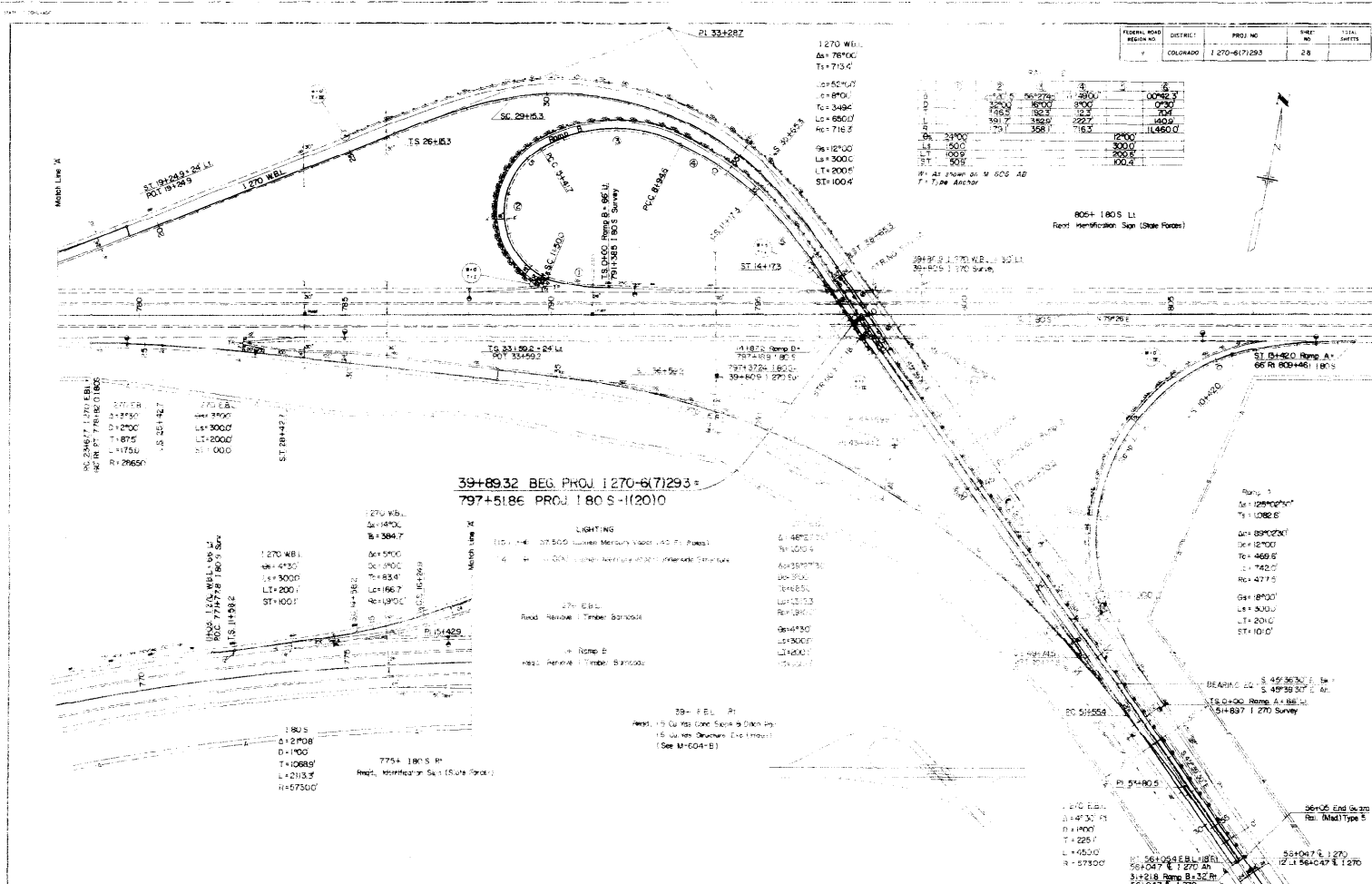
DETAIL AT TOP RAIL

END PLATE DETAIL
No. Rev'd 1, 2, 3

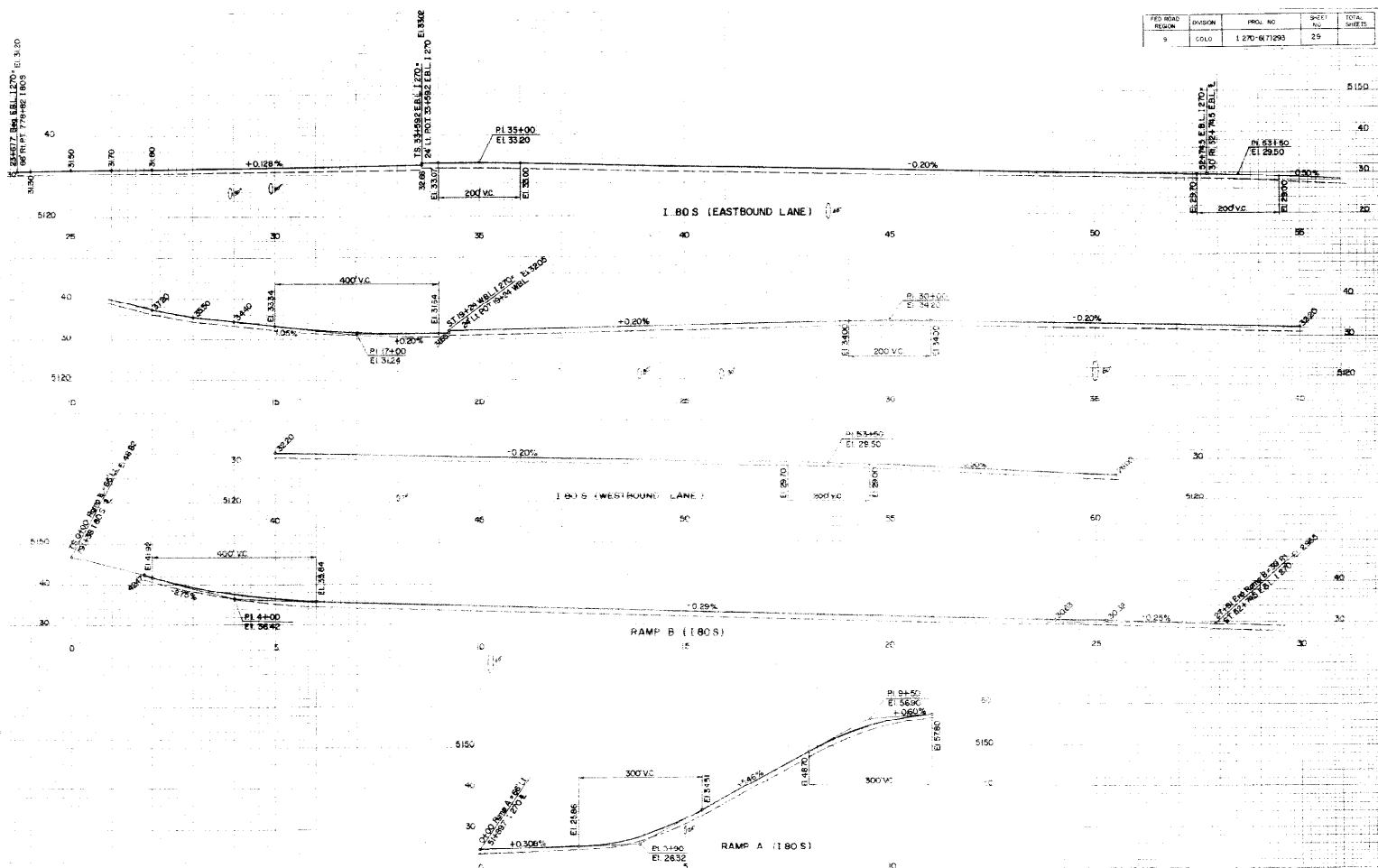
DIVISION OF HIGHWAYS

DETAILS OF GALVANIZED STEEL
BRIDGE RAIL

APPROVED	DESIGNED	CHECKED
BRIDGE ENGINEER	NUMBER	DATE
	DWG. No. 8	12 OF 12



5-23-677 Reg. 68.1.1270-
66' Rt. Pt. 778+82 1809 El. 34.20



ALL INDICATED CONSTRUCTION
FOR YORK ST RAMP IS VALID FOR
THIS PROJECT
(INCLUDING FRONTAGE ROAD)

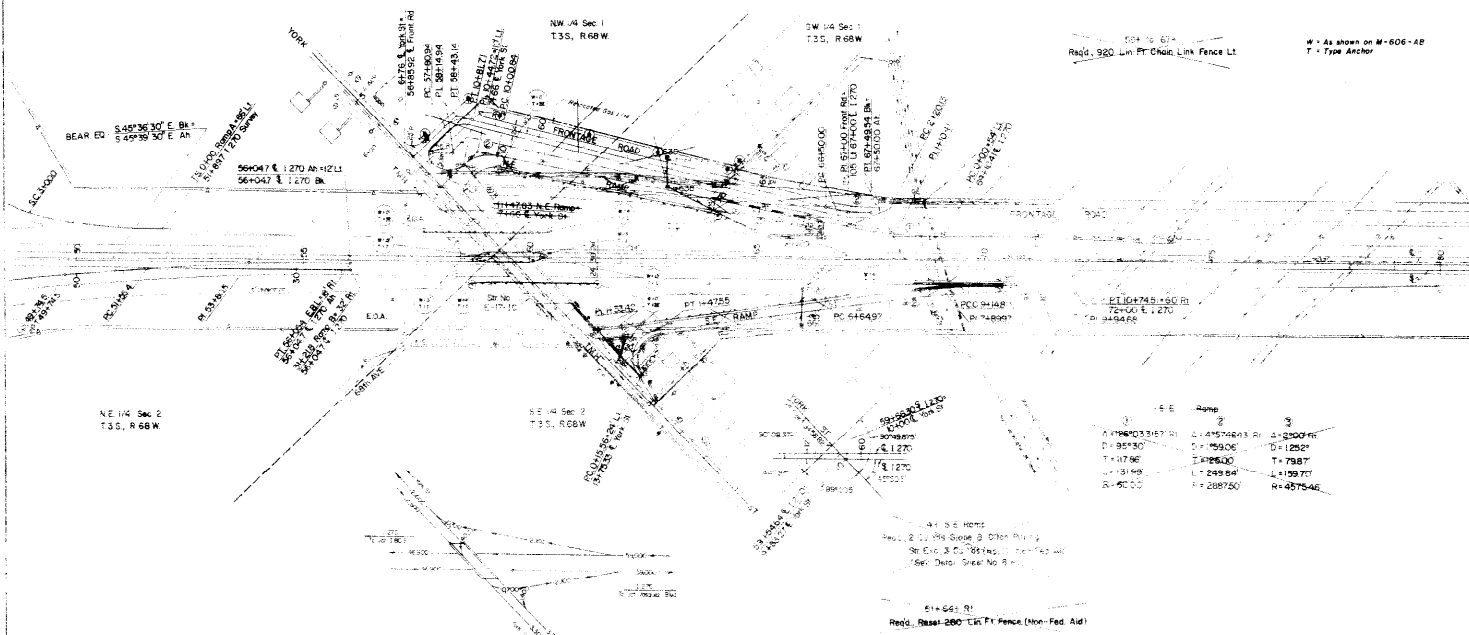
1270 - 6171295	3
010 - 0070 - 00	

Frontage Road	N.E. Ramp
$\Delta = 57^{\circ}29'00''$ R $D = 92^{\circ}25'16''$ $T = 34.00$ $L = 62.00$ $R = 62.00$	$\Delta = 13^{\circ}19'55''$ Lt $D = 13^{\circ}23'25''$ $T = 50.00$ $L = 70.04$ $R = 428.00$

S3D	S3B	S6C
65400 M.L. R Reqd. Inlet Type C Rim 3750 Inv 33.00 15" x 64" RCP to C30 Str. Exc. 62' to 70' (Haul) Str. Btfl. 14' to 18' (Haul) (Non-Fed Aid)	63400 M.L. R Reqd. Inlet Type C Rim 28.50 Inv 24.00 15" x 64" RCP to East Inlet Str. Exc. 62' to 70' (Haul) Str. Btfl. 14' to 18' (Haul) (Non-Fed Aid)	66400 M.L. R Reqd. Inlet Type C Rim 22.00 Inv 17.50 15" x 64" RCP to East Inlet Str. Exc. 62' to 70' (Haul) Str. Btfl. 14' to 18' (Haul) (Non-Fed Aid)

50+ to 67+
Reqd. 920 Lin Ft Chain Link Fence Lt

W = As shown on M-606-AB
T = Type Anchor

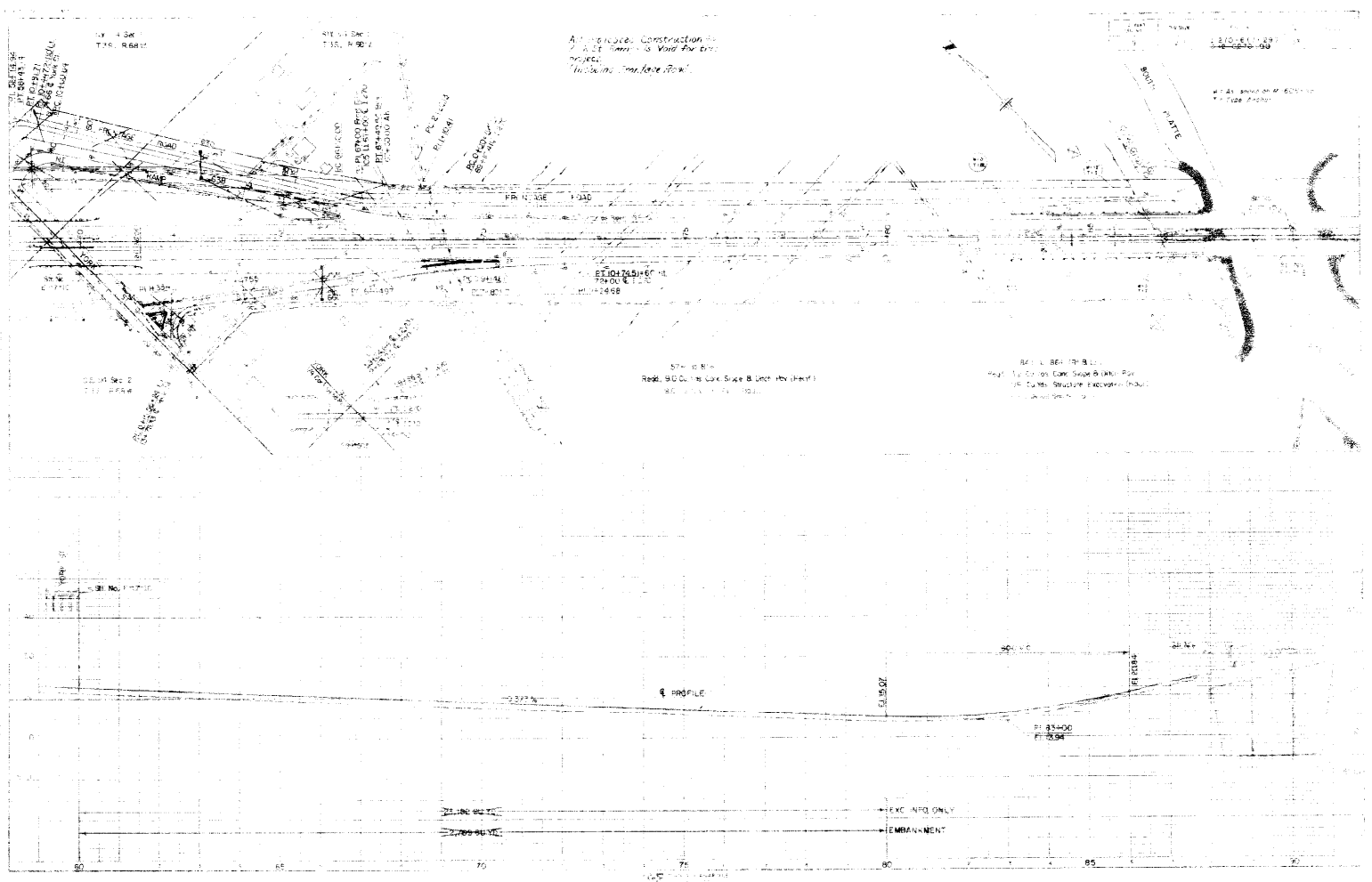


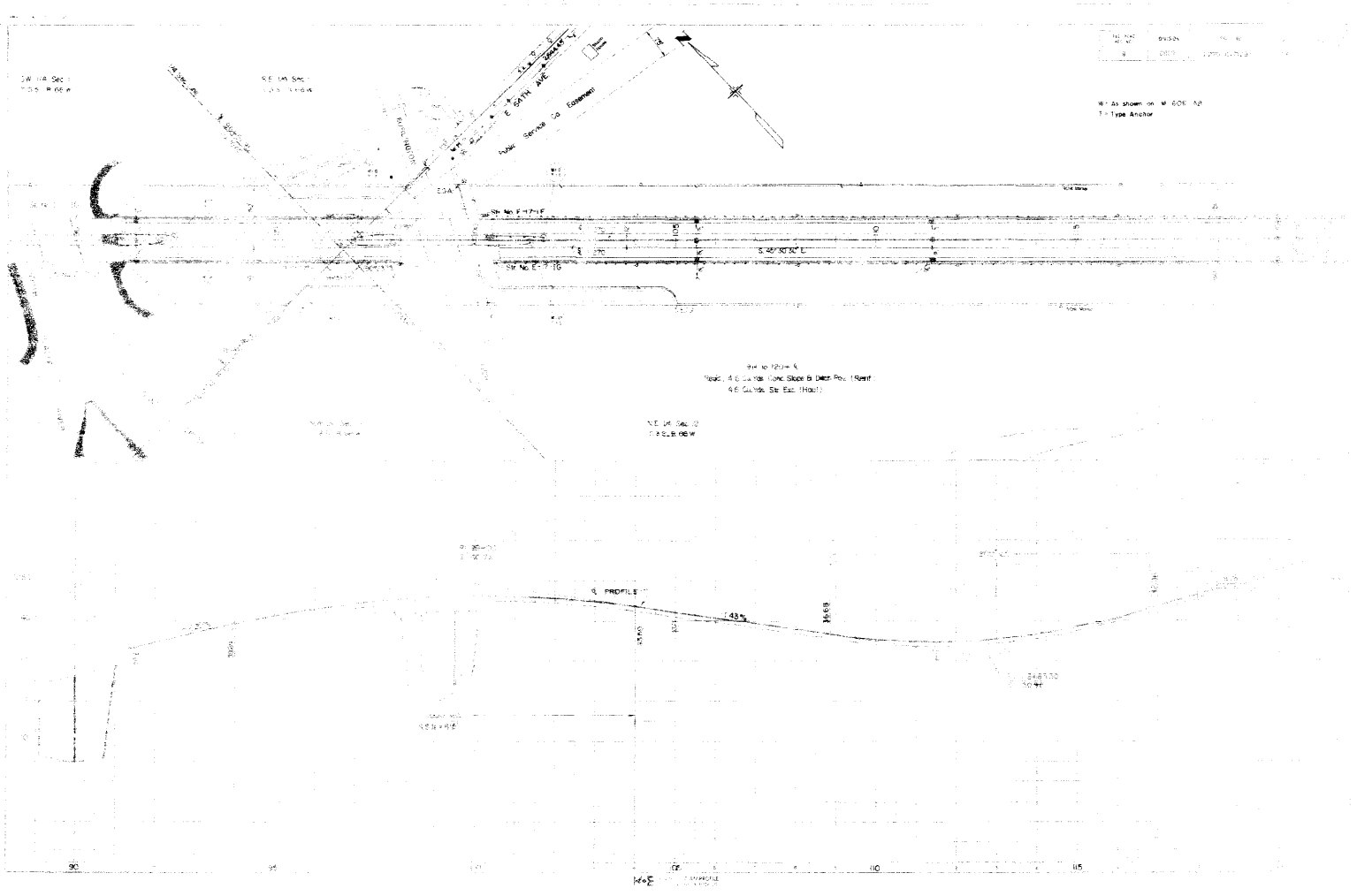
Traffic Legend
59,000 + 1990 AAWD
Traffic Assignment R-B

1	2	3
$\Delta = 176^{\circ}03'31''$ R $D = 93^{\circ}10'$ $T = 17.96$ $L = 131.98$ $R = 40.00$	$\Delta = 157^{\circ}46'43''$ R $D = 159^{\circ}06'$ $T = 79.87$ $L = 249.94$ $R = 208.750$	$\Delta = 320^{\circ}00'$ $D = 125^{\circ}2'$ $T = 79.87$ $L = 139.77$ $R = 45.7546$

61+565 R
Reqd. 280' L&R Ft Fence (Non-Fed Aid)

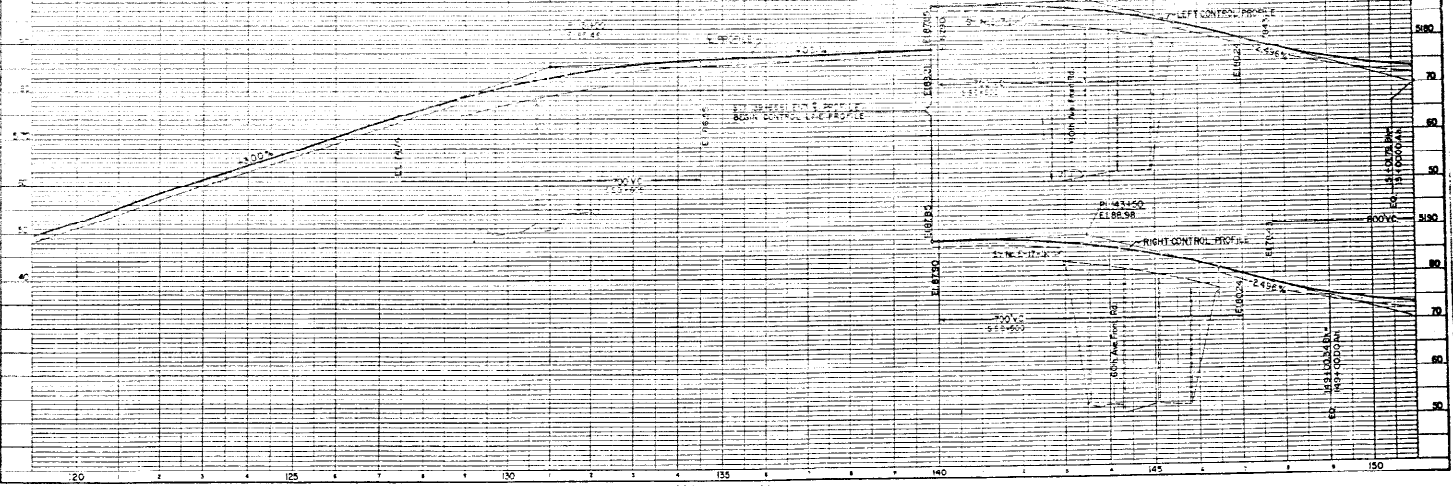
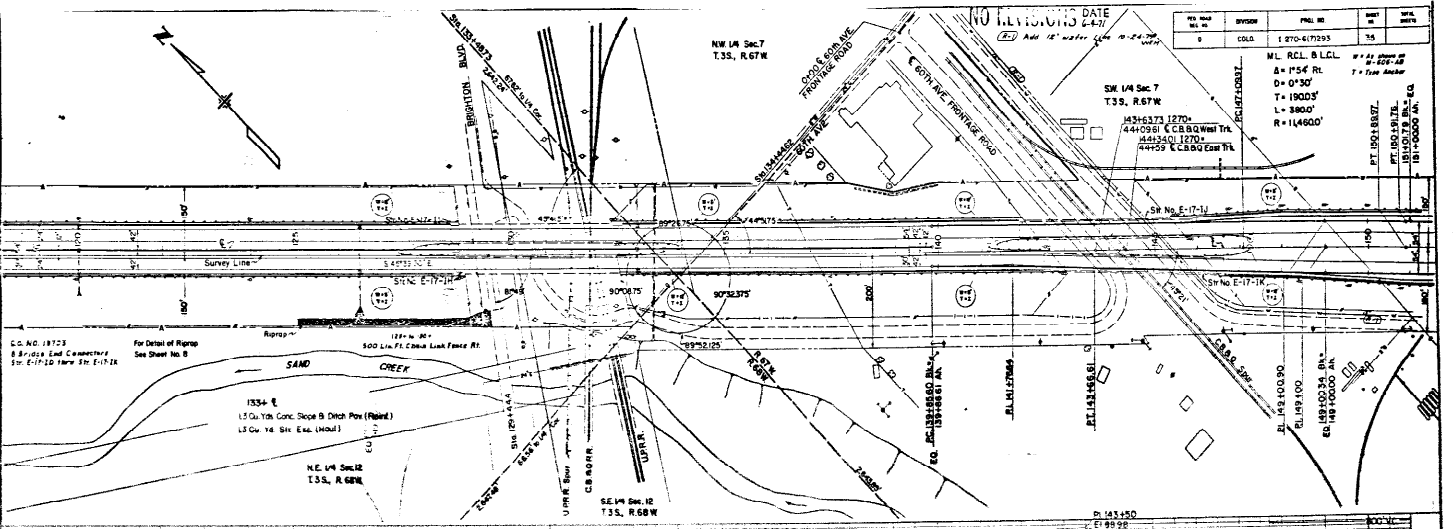
[illegible]

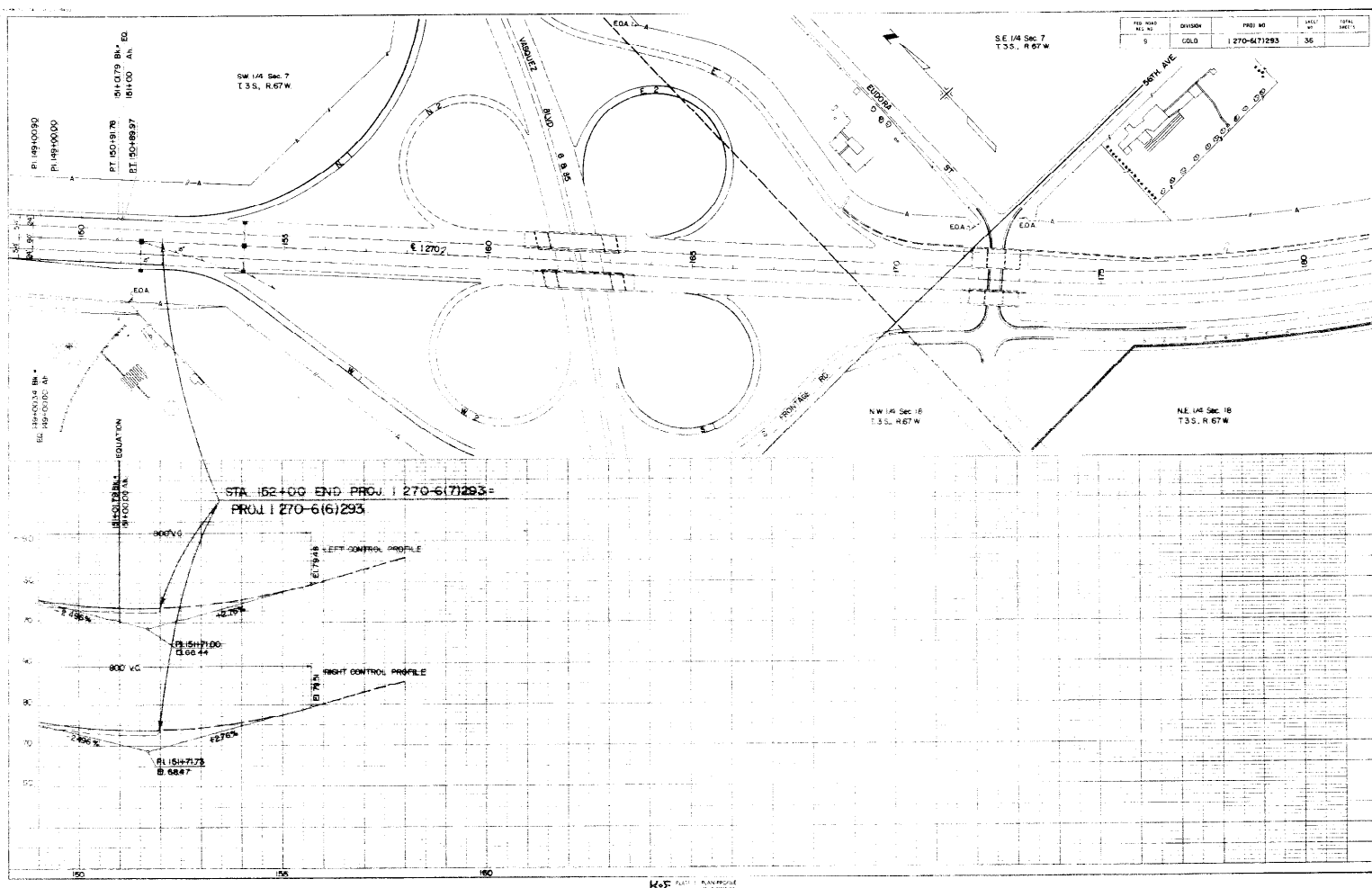


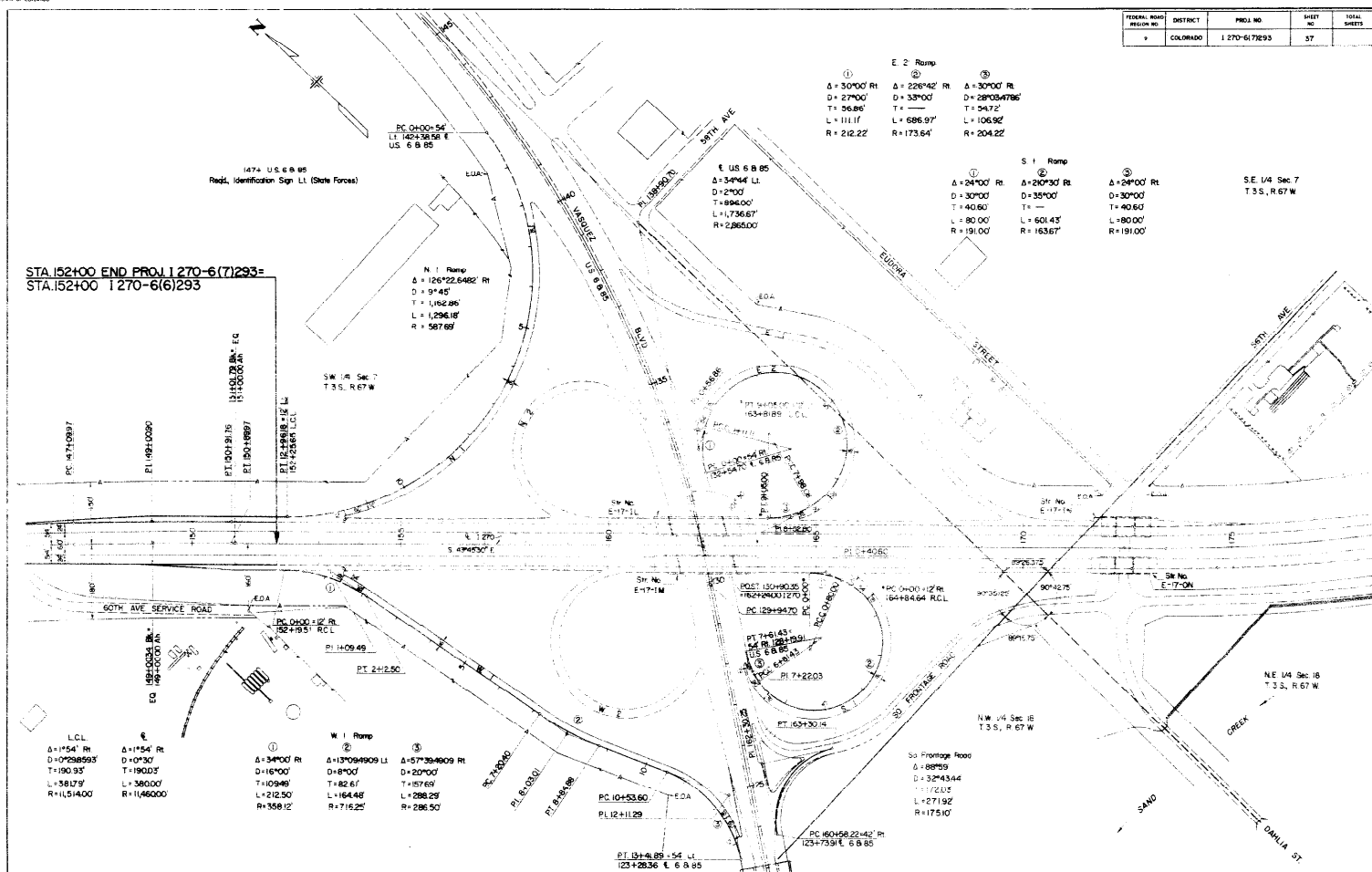


PLAN
SHEET NO. 1
DATE 10-1-77
BY J. L. HARRIS
CHECKED BY J. L. HARRIS
APPROVED BY J. L. HARRIS

PROFILE
SHEET NO. 1
DATE 10-1-77
BY J. L. HARRIS
CHECKED BY J. L. HARRIS
APPROVED BY J. L. HARRIS







FEDERAL ROAD DISTRICT	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1 COLORADO	1270-6(7)293	38	

2+00 N.I.
Realt., Remove 1 Timber Barricade

4+00 E. 2
Realt., Remove 1 Timber Barricade

4+00 S. 1
Realt., Remove 1 Timber Barricade

55+25 M.L. LI
Realt., Remove 1 Timber Barricade

M-1 AS SHOWN ON M-605-AB
7' Type Anchor

SE 1/4 Sec 7 T.35. R.67W

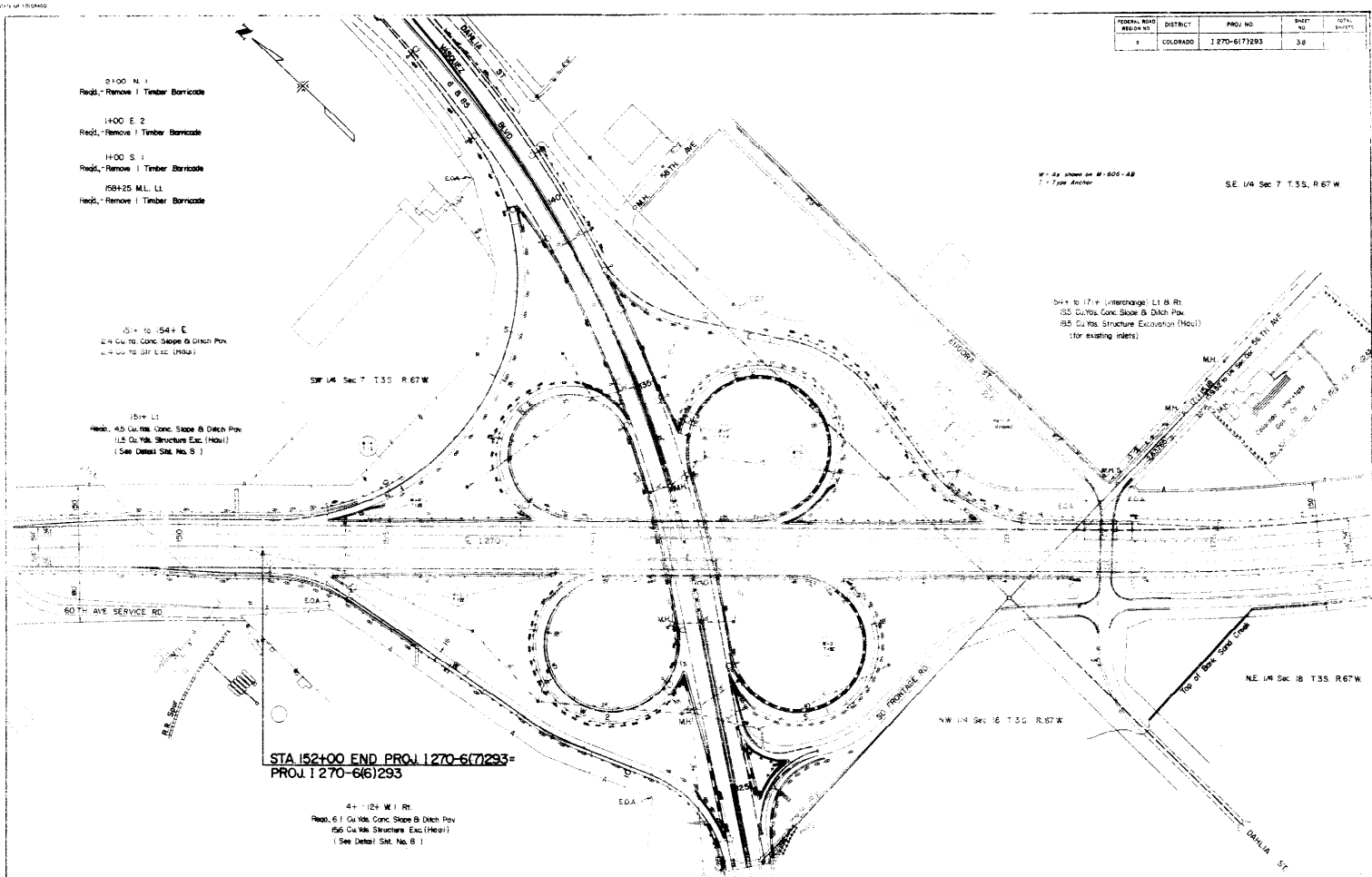
51+ to 54+ E
2.4 Cu Yds Conc Slope & Ditch Pav
1.4 Cu Yds Grt. L.C. (Haul)

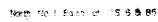
54+ to 57+ Interchange: LI & RT
135 Cu Yds Conc Slope & Ditch Pav
185 Cu Yds Structure Excavation (Haul)
(for existing inlets)

57+ LI
Haul, 4.5 Cu Yds Conc Slope & Ditch Pav
(1.5 Cu Yds Structure Exc. (Haul))
(See Detail Sht. No. 8)

STA 152+00 END PROJ 1270-6(7)293=
PROJ 1270-6(6)293

4+ to 12+ W. 1 Rt.
Haul, 6.1 Cu Yds Conc Slope & Ditch Pav
156 Cu Yds Structure Exc. (Haul)
(See Detail Sht. No. 8)





FABRICATION OF SIGNS

PROJECT	DISTRICT	SHEET NO.	DATE
12-01172		101	

SIGN NO.	SIGN CODE	STATION	SIGN PANEL SIZE	BACK- GROUND COLOR	REMOVE SIGN STRUCTURE (EACH)	RESET SIGN (EACH)	MODIFY SIGN LEGEND (EACH)	STEEL SIGN POST (EACH)	NO. OF POSTS	LENGTH OF POST	4x4 TIMBER	6x6 TIMBER	6x6x20 BEAM	6x6x20 KWF25	6x6x20 KWF25	CLASS I	CLASS II	CLASS III	SIGN ISLAND
55	IM4-1	67+00	DIAMOND 30"x15"	YELLOW					1	18'									
56A	IM6-H-15E	67+00	30"x15"	BLUE					1	17'									
56B	IM6-H-36G20	67+00	36"x20"	RED B. BLUE					1	17'									
57	SPECIAL	67+00	6'x3'	GREEN					1	18'									18.00
58	SPECIAL	67+00	15'x11'	GREEN					1	27'									165.00
59	IM2-16G	67+00	4'x5'	WHITE					1	18'									26.00
60	SPECIAL	67+00	6'x3'	GREEN					1	18'									18.00
61	SPECIAL	67+00	10'x4'	GREEN					1	27'									40.00
62	SPECIAL	67+00	17'x4'	GREEN					1	27'									170.00
63	SPECIAL	67+00	4'x5'	GREEN					1	18'									26.00
64	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00
65A	IM6-H-15N	67+00	30"x15"	BLUE					1	17'									18.00
65B	IM6-H-36G20	67+00	36"x20"	RED B. BLUE					1	17'									40.00
66	SPECIAL	67+00	17'x10'	GREEN					1	27'									170.00
67	SPECIAL	67+00	4'x5'	GREEN					1	18'									35.00
68	SPECIAL	67+00	16'x2'	GREEN					2	18'									26.00
69	IM3-15E	67+00	4'x5'	YELLOW					1	18'									20.00
70	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00
71	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00
72	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00
73	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00
74	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00
75	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00
76	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00
77	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00
78	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00
79	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00
80	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00
81	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00
82	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00
83	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00
84	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00
85	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00
86	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00
87	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00
88	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00
89	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00
90	IM2-16G	67+00	4'x5'	WHITE					1	18'									20.00

NOTES:

- SEE PLANS FOR FABRICATION DETAILS OF REGULATORY SIGNS, WARNING SIGNS, WHITE MARKERS, AND AUXILIARY MARKERS.
- PANELS FOR CLASS I SIGNS SHALL BE EITHER SINGLE SHEET ALUMINUM OR SINGLE SHEET STEEL AND SHALL BE REFLECTORIZED AS INDICATED. SEE STANDARD S-614-25B.
- PANELS FOR CLASS II SIGNS SHALL BE EITHER SINGLE SHEET ALUMINUM OR SINGLE SHEET STEEL, SHALL HAVE BACKING ZERIN, AND SHALL BE REFLECTORIZED AS INDICATED. SEE STANDARDS S-614-21B AND S-614-22B.

- PANELS FOR CLASS III SIGNS SHALL BE EITHER LAMINATED ALUMINUM, EXTRUDED ALUMINUM, OR SHEET ALUMINUM. SEE STANDARDS S-614-23C, S-614-24B, AND S-614-25C.
- CLASS III SIGNS WITH A GREEN BACKGROUND SHALL BE FABRICATED FROM EITHER LAMINATED ALUMINUM OR SHEET ALUMINUM AND SHALL HAVE A REFLECTORIZED BACKGROUND. CLASS III SIGNS WITH A BLUE OR A BLACK BACKGROUND SHALL BE FABRICATED FROM EITHER LAMINATED ALUMINUM OR EXTRUDED ALUMINUM AND SHALL HAVE A FINISH IN ENAMELED BACKGROUND.

- ALL SIGNS SHALL BE SET ON ALL CLASSES II SIGNS SHALL BE WHITE CUTOUT ALUMINUM OR REFLECTORIZED ALUMINUM.
- FOR TYPICAL GROUND SIGN PLACEMENT SEE STANDARD S-614-19A.

- FOR DETAILS OF SIGN SUPPORTS FOR GROUND SIGNS SEE STANDARD S-614-26B.
- FOR DETAILS OF FOOTINGS, PEDESTALS, AND SIGN ISLANDS SEE STANDARD S-614-27B.

TABULATION OF OVERHEAD SIGNS

NOTES

SIGN NO.	STATION	SIGN PANEL SIZE	BACK-ROUND COLOR	NO. OF POSTS	TYPE OF POST	STRUCTURE TYPE	FRAME SIZE	STRUCTURE NUMBER	GUARD RAIL TYPE 3 (L/N, FT.)	SIGN PANEL AREA (SQ. FT.)
17	79+00 1-805	14' x 12'	GREEN	—	—	SIGN BRIDGE (IN PLACE)	—	E-17-KV	—	168.00
71A	148+00 VASSAR BLVD	12' x 8'-4"	GREEN	2	III-S	SIGN BRIDGE	6' x 8'-10"	E-17-LB	450	
71C		12' x 8'-4"	GREEN							
76A	170+80 1-370	18' x 11'-2"	GREEN	2	III-S	SIGN BRIDGE	72' x 9'-8"	E-17-LA	—	
78B		14' x 11'-2"	GREEN							
82A	132+00 1-370	18' x 11'-2"	GREEN	2	III-S	SIGN BRIDGE	72' x 9'-8"	E-17-LC	300	
82B		14' x 11'-2"	GREEN							
84A	131+00 VASSAR BLVD	12' x 8'-2"	GREEN	2	II-S	SIGN BRIDGE	72' x 9'-8"	E-17-LD	450	
84B		12' x 8'-2"	GREEN							
TOTALS										1,200 168.00

1. PANELS FOR OVERHEAD SIGNS SHALL BE EITHER LAMINATED ALUMINUM OR EXTRUDED ALUMINUM. SEE STANDARDS S-614-14A, S-614-23C AND S-614-24B.
2. OVERHEAD SIGNS SHALL HAVE A PORCELAIN ENAMELED GREEN BACKGROUND.
3. LEGEND AND ORDER FOR OVERHEAD SIGNS SHALL BE WHITE CUTOUT ALUMINUM WITH REFLEX REFLECTORS.

TABULATION OF PAVEMENT MARKINGS

AS CONSTRUCTED
WITH NO REVISIONS
DATE 6-4-77

FEDERAL ROAD DISTRICT	PROJECT NO.	SHEET NO.	TOTAL SHEETS
COLORADO	1270-617/193 1270-0270-00	47	

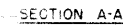
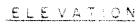
STATION	LOCATION	PAVEMENT MARKING LINES (Linear Feet)						CROSS-HATCH WHITE SOLID 2 INCH	MARKING SOLID 2 INCH
		LANE WHITE SOLID 5 INCH	EDGE WHITE SOLID 3 INCH	BARRIER YELLOW SOLID 3 INCH	CHANNELIZING WHITE SOLID 3 INCH	STOP WHITE SOLID 24 INCH			
765+00 to 765+30	W-B-1808	450	1300						
765+30 to 765+50	W-B-1805	3050	560						
765+50 to 774+00	W-B-1806	470	940						
774+00 to 82+60	1270-W-B-L		1070			1070			
82+60 to 88+70	1270-W-B-L	2,650	5,300						
88+70 to 91+00	1270-W-B-L	330	330			330			
91+00 to 96+50	1270-W-B-L	400	800						
96+50 to 778+00	E-B-1-805	300	760						
778+00 to 783+00	E-B-1-805	430	430			430			
783+00 to 785+00	E-B-1-805	190	380						
785+00 to 27+90	1270-E-B-L		420			420			
27+90 to 56+00	1270-E-B-L	2,810	5,620						
56+00 to 769+50	W-B-1-805	250	500						
769+50 to 79+40	W-B-1-805	190	380			380			
79+40 to 794+00	W-B-1-805	460	720						
794+00 to 797+00	Ramp B		190			190			
797+00 to 800+00	Ramp B		470						
800+00 to 800+30	Ramp B		150			150			
800+30 to 800+70	Ramp A		320			320			
800+70 to 801+00	Ramp A		1,500						
801+00 to 801+50	Ramp A		280			280			
801+50 to 801+80	Ramp A		350			350			
801+80 to 801+90	Ramp A		560			560			
801+90 to 802+00	Ramp A		570			570			
802+00 to 802+50	1270-E-B-L	5,770	3,540						
802+50 to 803+00	1270-W-B	117	2,230						
803+00 to 803+30	1270-W-B	5,090	4,990						
803+30 to 803+50	1270-E-B	914	1,828						
803+50 to 803+80	1270-E-B	1,820	4,150						
803+80 to 803+90	803+80 Avenue	30	580						
803+90 to 804+00	S-T Ramp		280			280			
804+00 to 804+30	S-T Ramp		500						
804+30 to 804+50	S-T Ramp		100						
804+50 to 804+80	S-T Ramp		380						
804+80 to 804+90	S-T Ramp		400			400			
804+90 to 805+00	S-T Ramp		140			140			
805+00 to 805+30	1270-E-B	880	1,760						
805+30 to 805+70	1270-E-B	50							
805+70 to 806+00	1270-E-B		450			450			
806+00 to 806+30	1270-E-B		90			90			
806+30 to 806+50	1270-E-B		80			80			
806+50 to 806+80	1270-E-B		130			130			
806+80 to 806+90	1270-E-B		90			90			
806+90 to 807+00	1270-E-B		1,220						
807+00 to 807+30	1270-E-B		50			50			
807+30 to 807+50	1270-E-B		90			90			
807+50 to 807+80	1270-E-B		160			160			
807+80 to 807+90	1270-E-B		160			160			
807+90 to 808+00	1270-E-B		1,760						

STATION		LOCATION	PAVEMENT MARKING LINES (Linear Feet)							MARKING
			LANE WHITE SOLID 5 INCH	EDGE WHITE SOLID 3 INCH	BARRIER YELLOW SOLID 3 INCH	CHANNELIZING WHITE SOLID 3 INCH	STOP WHITE SOLID 24 INCH	CROSS-HATCH WHITE SOLID 12 INCH		
0+00	to 2+50	N-1 Ramp					250			
156+10	to 159+90	1270-W-B					4990			
159+90	to 161+10	1270-W-B	120						70	
0+00	to 1+40	N-2 Ramp					140			
6+50	to 7+20	N-2 Ramp		70			70			
162+50	to 163+80	1-270-W-B	20150							
8+10	to 9+10	E-2 Ramp		100			100			
1+20	to 8+10	E-2 Ramp		1,380			50			
0+00	to 1+20	E-2 Ramp		120			120		70	
167+00	to 170+80	1-270-W-B					360			
0+00	to 1+60	E-1 Ramp					160			
132+80	to 135+00	N-B Vasquez Blvd					5,500		45	
131+50	to 132+80	N-B Vasquez Blvd	26,730	130						
130+00	to 131+50	N-B Vasquez Blvd								
128+20	to 130+00	N-B Vasquez Blvd	1,480	180						
127+50	to 128+20	N-B Vasquez Blvd		70						
124+80	to 125+50	N-B Vasquez Blvd		70						
123+70	to 124+80	N-B Vasquez Blvd	4,000	110			220			
119+70	to 123+70	N-B Vasquez Blvd	1,000	800		400				
114+70	to 119+70	N-B Vasquez Blvd	2,200	800						
142+30	to 143+50	S-B Vasquez Blvd	240							
139+00	to 142+30	S-B Vasquez Blvd	330				330			
135+80	to 139+00	S-B Vasquez Blvd	520	520						
132+00	to 135+80	S-B Vasquez Blvd	360	160						
130+20	to 132+00	S-B Vasquez Blvd		80						
129+20	to 130+20	S-B Vasquez Blvd	100	100						
126+00	to 129+20	S-B Vasquez Blvd	380				320			
124+80	to 126+00	S-B Vasquez Blvd	140	140						
123+30	to 124+80	S-B Vasquez Blvd	260	260						
114+50	to 123+30	S-B Vasquez Blvd	2,040	150						
115+70	to 116+50	S-B Vasquez Blvd	80	160		80				
1-0270-00 TOTALS			800	3,480	0	220	990	33	0	
PROJECT TOTALS			43,135	90,814	5,000	630	7,820	40	42	
PROJECT TOTALS			43,135	94,294	5,000	850	8,730	80	42	
FINAL COMBINED PROJECT TOTALS										

NOTE:
FOR DETAILS OF PAVEMENT MARKING
LINES AND LINE PLACEMENT, SEE
STANDARD S-614-29A

SUMMARY OF PAINT QUANTITIES		GALLONS		PROJECT		PROJECT	
OF PAINT		PLAN	CONSTR	PLAN	CONSTR	PLAN	CONSTR
YELLOW	0	0	0	0	0	0	0
WHITE	22	0	0	0	0	0	0
TOTAL	22	0	0	0	0	0	0

REVISÉ: FOR THIS PROJECT

[illegible]

SECTION A-A

Notes:

1. All work shall be done in accordance with the Standard Contract Conditions applicable to the Project.

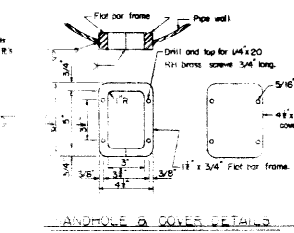
2. For GENERAL NOTES see agreement attached to the CONTRACT DOCUMENTS. INSTRUCTIONS AND EXPLANATIONS.

3. For the CONTRACT BILL OF MATERIALS, see Department of Highways Standard Standard WORKMANSHIP SIGNATURES AND OTHER WORKMANSHIP DETAILS.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
STANDARD OVERHEAD SIGNS
SIGN BRIDGES
STRUCTURAL FRAME MEMBERS

Designed by	Approved by <i>[Signature]</i>
Made by	Date: AUGUST 12 1965
Checked by	

FED. ROAD DISTRICT NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLA	I 270-6(7)-298	49

[illegible]

Line Type	Lower Section	Upper Section	Reducer Length	Transition "E"	Spigot	Base Size A x B	Plate Size A x B	Anchor Bolt	pedestal Size A x B	Feeding Size A x B	Longitudinal Feeding Member
1-S	AC 48 48.56 48.56	6" DIA # 28.55 34.24	7	61	4	2-1/2 x 1-9/16	6-1/8 x 2-7/8 x 5-5/8	10-0" x 10-0"	5-1/2" dia	5-1/2" dia	5-1/2" dia
2-S	4-0" dia 77.09 77.09	12" DIA # 43.77 43.77	1-1/2	61	5	2-1/2 x 2-1/2	6-1/8 x 2-7/8 x 5-5/8	10-0" x 10-0"	5-1/2" dia	5-1/2" dia	5-1/2" dia
3-S	6-1" dia 82.77 82.77	4-0" dia 54.57 54.57	1-1/2	61	5	2-1/2 x 2-1/2	6-1/8 x 2-7/8 x 5-5/8	10-0" x 10-0"	5-1/2" dia	5-1/2" dia	5-1/2" dia
4-S	1-1" dia 95.45 95.45	6-1" dia 60.56 60.56	3-3"	61	7	3-1/2 x 3-1/2	6-1/8 x 2-7/8 x 5-5/8	10-0" x 10-0"	5-1/2" dia	5-1/2" dia	5-1/2" dia
5-S	1-1" dia 104.13 104.13	8-0" dia 70.99 70.99	1-1/2	61	8	3-1/2 x 3-1/2	6-1/8 x 2-7/8 x 5-5/8	10-0" x 10-0"	5-1/2" dia	5-1/2" dia	5-1/2" dia
6-S	24-0" dia 125.49 125.49	20-0" dia 78.60 78.60	1-1/2	90	6	3-1/2 x 3-1/2	6-1/8 x 2-7/8 x 5-5/8	10-0" x 10-0"	5-1/2" dia	5-1/2" dia	5-1/2" dia

1. All wires shall be done in accordance with the Standard Specifications applicable to the Project.
2. For "GENERAL NOTES" see Department Divisions 504, 514, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.
3. Tapered ends of equivalent size and thickness may be substituted for pipe post.
4. For reinforcement embedded in clear to surface of not less than 2" to main reinforcement except as noted.
5. Base Plates, Pedestals and Footings, larger sizes shall be normal to the axis of sign.
6. Round one post of each structure with 10" to 15" feet of $\frac{3}{8}$ inch unthreaded ground rod and one structure to $\frac{3}{8}$ x 8" x 2" copper ground rod unless otherwise indicated.
7. FOR SIGN BRIDGES ONLY: A constant diameter size post of the base section size may be used in lieu of the two diameter section shown.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
OVERHEAD SIGN
POSTS - TYPES
I-S THRU VII-S

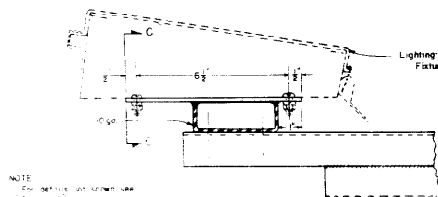
Designed by	Approved by <i>[Signature]</i>
Made by	Date: AUGUST 1, 1965
Checked by	

STANDARD S-614-15A

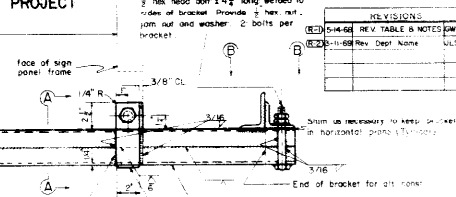
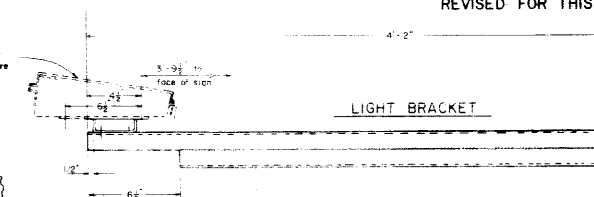
REVISED FOR THIS PROJECT

REV. NO.	DIVISION	PROJECT NO.	DATE
1	COLD	T 270-6(7)283	50

REV. NO.	REV. DATE	REV. NAME	REV. NO.
1	11-68	Rev. Dept. Name	1

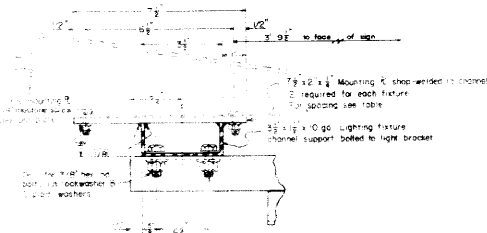


ALL SIGN PANELS

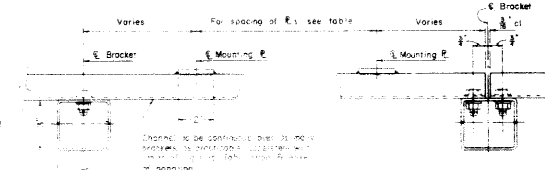


NOTE

For details of fixture use Detail A



DETAIL A



VIEW C-C



TYPICAL FIXTURE MOUNTING PLATE SPACING

TABULATION OF LIGHT BRACKETS AND LIGHT FIXTURES

SIGN NO.	STATION	FACING TRAFFIC	SIGN PANEL LENGTH	NUMBER OF SIGN PANELS	NUMBER OF TWO LAMP FIXTURES
1	13100	W.B.	14	4	2
2	13100	S.B.	12-24	4-8	2-4
3	13100	W.B.	32	7	5
4	13100	E.B.	32	7	5
5	13100	S.B.	12-12	4-4	2-2

FIXTURE MOUNTING PLATE SPACING

SIGN PANEL LENGTH (FEET)	NUMBER OF TWO LAMP FIXTURES	TYPICAL FIXTURE MOUNTING PLATE SPACING (INCHES)	SIGN PANEL LENGTH (FEET)	NUMBER OF TWO LAMP FIXTURES	TYPICAL FIXTURE MOUNTING PLATE SPACING (INCHES)
14	2	14	32	7	32
12	2	12	24	4	24
10	2	10	18	3	18
8	2	8	14	2	14
6	2	6	10	2	10
4	2	4	8	2	8
3	2	3	6	2	6
2	2	2	4	2	4
1	2	1	3	2	3



ALTERNATE VIEW B-B



ALTERNATE SECTION A-A



SECTION A-A



VIEW B-B

- NOTES
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS APPLICABLE TO THE PROJECT.
 - 2 LIGHTING REQUIREMENTS FOR SIGN PANELS PLACED END TO END AND DETERMINED ON THE BASIS OF ONE SIGN PANEL OF OVERALL LENGTH.
 - SPACING OF LIGHT BRACKETS SHALL BE UNIFORM EXCEPT AS NOTED AND SHALL NOT EXCEED 5'.
 - FOR GENERAL NOTES SEE DEPARTMENT STANDARD OVERHEAD SIGNS INSTRUCTIONS AND EXAMPLES.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
LIGHT BRACKET
AND FIXTURE
MOUNTING DETAILS

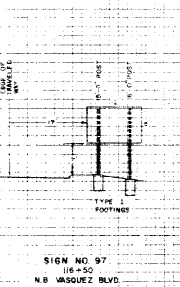
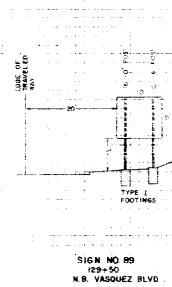
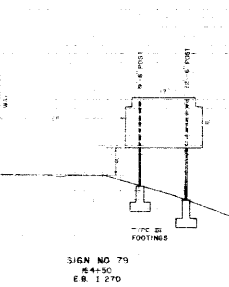
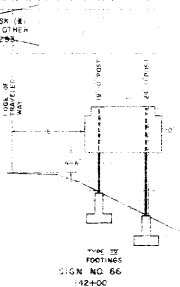
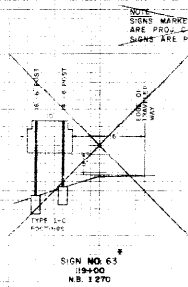
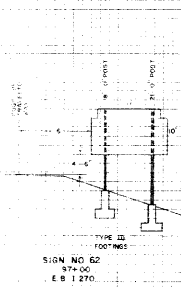
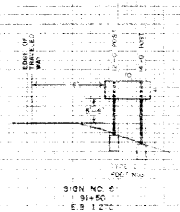
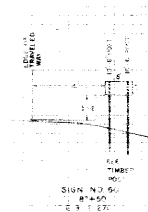
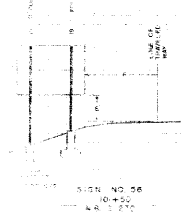
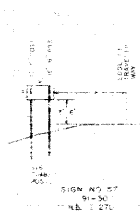
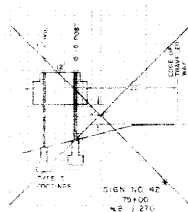
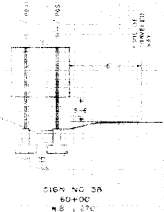
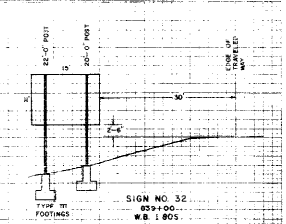
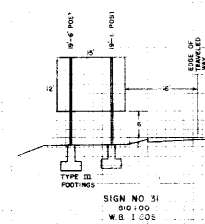
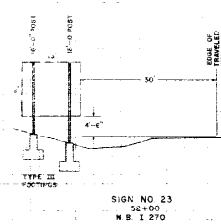
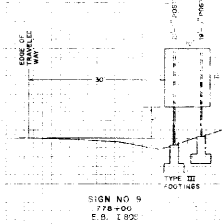
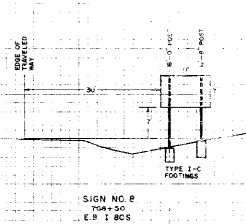
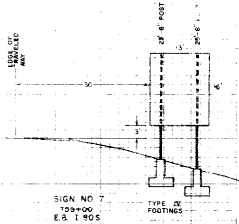
Drawn by: [Signature]
Checked by: [Signature]
Project No.: [Number]
Sheet No.: [Number]

* FIXTURES TO BE PAID FOR SEPARATELY UNDER SECTION 614 OF THE STANDARD SPECIFICATIONS.

STANDARD S-614-15A

CROSS SECTIONS AT CLASS II SIGN LOCATIONS

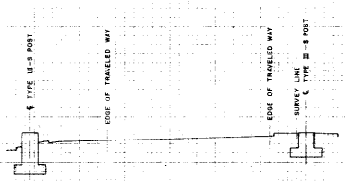
PERSONAL PROJECT NUMBER	DISTRICT	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	2 270-6177/293 O.R. DEWE-55	51	



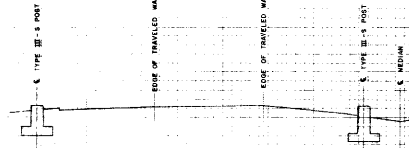
NO SIGN MARKER WITH AN asterisk (*) ARE POSTED. ALL OTHER SAME ARE POSTED. 2 270-6177/293

CROSS SECTIONS AT OVERHEAD SIGN LOCATIONS

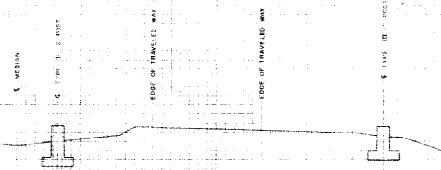
FEDERAL ROAD DISTRICT	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9 COLORADO	1 270-6(7)203	52	



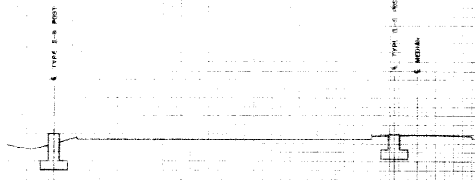
SIGN NO. 71
142+50
S.B. VASQUEZ BLVD
61 SPAN
STR NO. E-17-LB



SIGN NO. 78
170+90
N.B. I-270
72 SPAN
STR NO. E-17-LA



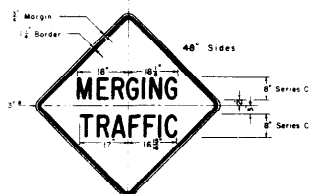
SIGN NO. 82
152+00
E.B. I-270
72 SPAN
STR NO. E-17-LC



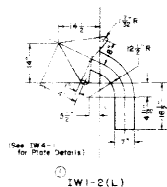
SIGN NO. 104
183+00
S.B. VASQUEZ BLVD
75 SPAN
STR NO. E-17-LD

UNIFORM STANDARD WARNING SIGNS

FEDERAL ROAD DISTRICT	DISTRICT	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	COLORADO	1270-6(7)293	53	



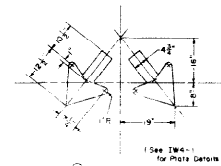
① IW4-1



② IW1-2(L)



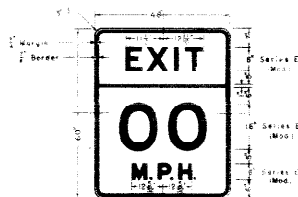
③ IW4-3(R)



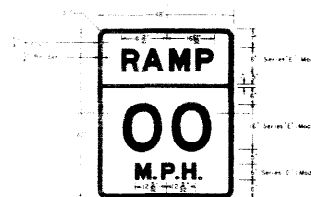
④ IW12-1



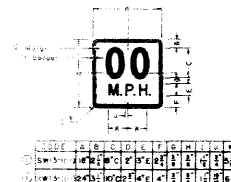
⑤ SW3-1



⑥ IW5-1(-)



⑦ IW13-1A(-)



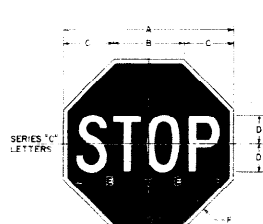
PANEL MATERIAL	
①	Sheet Steel U.S. Standard Gauge No. 16 or Sheet Aluminum 0.100" Min. Thick
②	Sheet Aluminum 0.125" Min. Thick
ALL SHEET STEEL TO BE GALVANIZED (SEE NOTE NO. 2)	

NOTES

- All Warning Signs shall have a Screen Processed Black Legend and Border on a ReflectORIZED Yellow Background.
- Galvanized Sheet Steel shall be not dip Galvanized sheets of structural quality 0.0596" min. thick, Grade A per ASTM Spec. A446-60T, 2 oz. coating class with a light Phosphate coating on surfaces that are to receive reflective sheeting per Federal Spec. TT-C-490 for Galvanized sheets.
- See appropriate Structures for installation details Class I or Class II as denoted in the Tabulation of Signs.

UNIFORM STANDARD REGULATORY SIGNS

DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
COLORADO	1-270-6177/002	5-4	



SERIES "C" LETTERS

CODE	A	B	C	D	E	F
100-A	24"	8"	1"	10"	4"	1"
100-B	36"	12"	1"	15"	6"	1"
100-C	48"	16"	1"	20"	8"	1"

Legend and border—Reflectorized white background reflectorized red reverse background reflectorized white.



CODE	A	B	C	D	E	F
100-A	36"	12"	1"	15"	6"	1"
100-B	48"	16"	1"	20"	8"	1"
100-C	60"	20"	1"	25"	10"	1"

Legend and border—Screen processed black background and margin are reflectorized white.



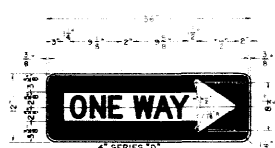
CODE	A	B	C	D	E	F
100-A	24"	8"	1"	10"	4"	1"
100-B	36"	12"	1"	15"	6"	1"
100-C	48"	16"	1"	20"	8"	1"

Legend and border are screen processed black background and margin are reflectorized white.



CODE	A	B	C	D	E	F
100-A	24"	8"	1"	10"	4"	1"
100-B	36"	12"	1"	15"	6"	1"
100-C	48"	16"	1"	20"	8"	1"

Legend and border—Reflectorized white background reflectorized red reverse background reflectorized white.



4" SERIES "D" ONE WAY (5' or L)

Legend and border—Screen processed black background and margin are reflectorized white.

NOTES

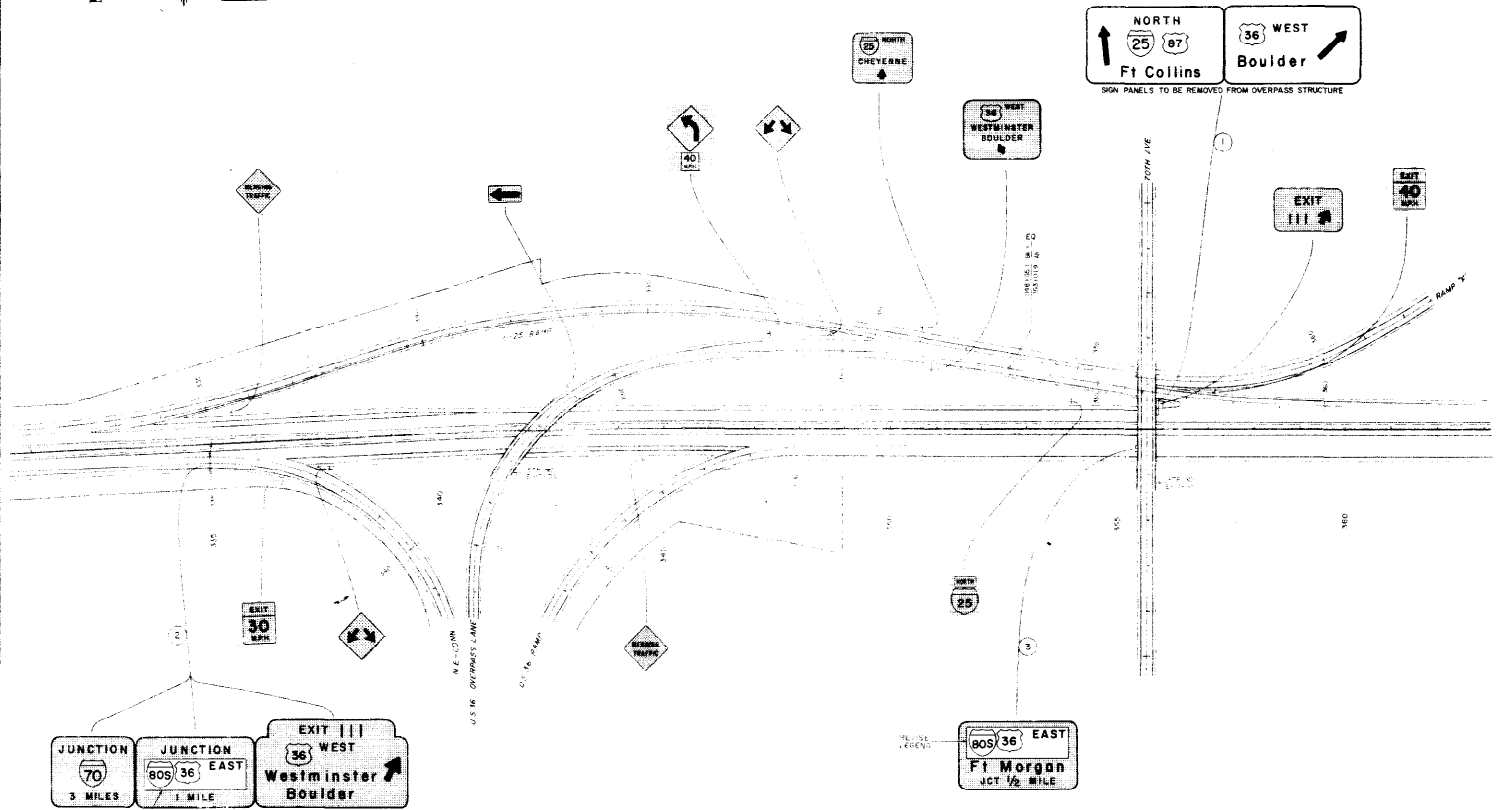
- See applicable Standards for installation, details, Class I or Class II as shown in the Suburban of Signs.
- Galvanized Sheet Steel shall be not dip galvanized sheets of structural quality, 0.0598 min. thick, Grade A per ASTM Spec. A446-60T. 2 oz. coating class with a light Phosphate coating on surfaces that are to receive reflective sheeting per Federal Spec. TT-C-490 for galvanized sheets.

PANEL MATERIAL

- Sheet Steel U.S. Standard Gauge No. 16 or Sheet Aluminum 0.100" Min. Thick.
 - Sheet Aluminum 0.125" Min. Thick.
- ALL SHEET STEEL TO BE GALVANIZED (SEE NOTE NO. 2)

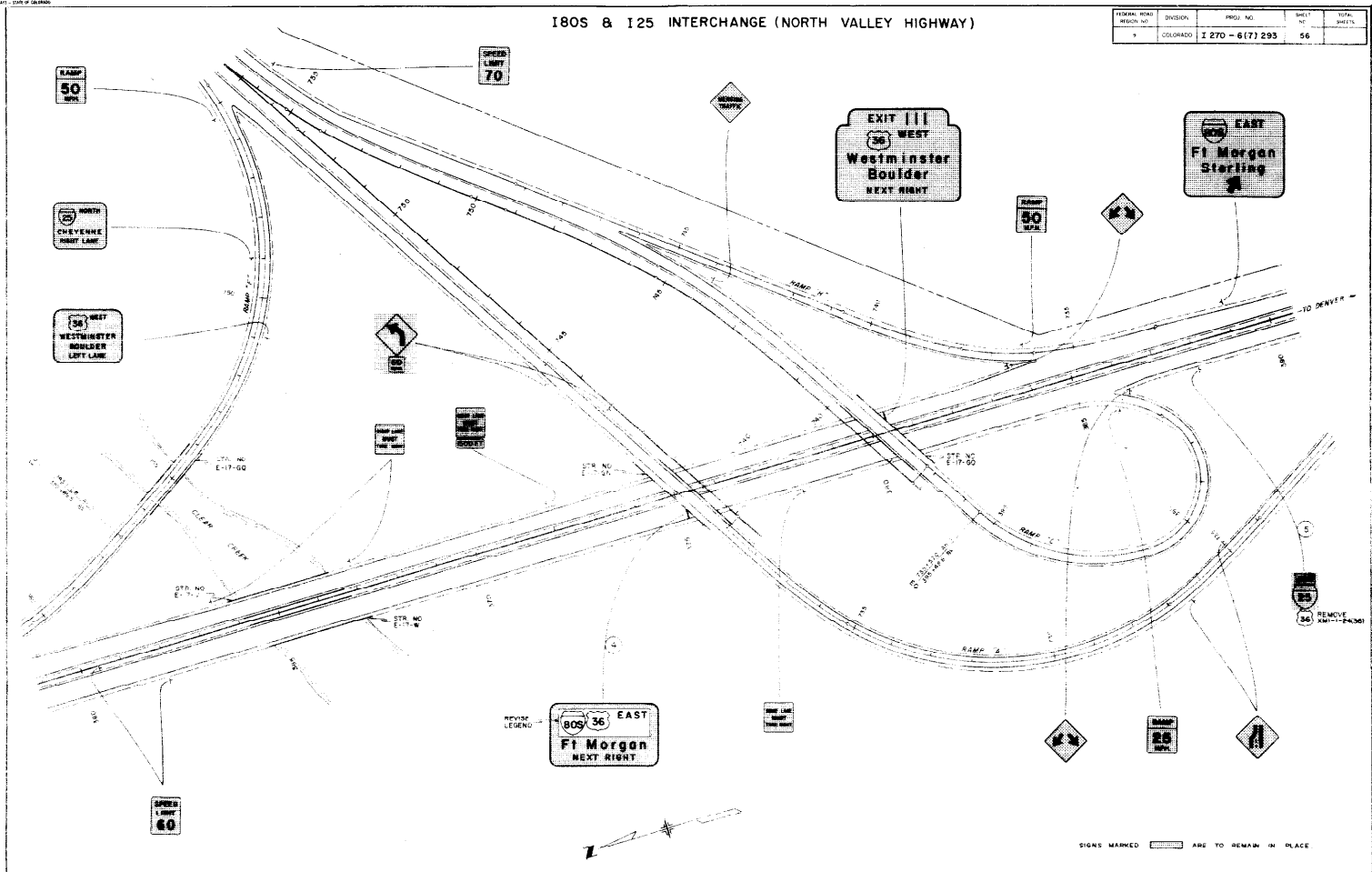
INTERCHANGE OF INTERSTATE HWYS 25, 80S, AND U.S. 36

PROJECT NO.	DATE	REV.	BY	CHKD.
I 270 - 6 (7) 293	55			

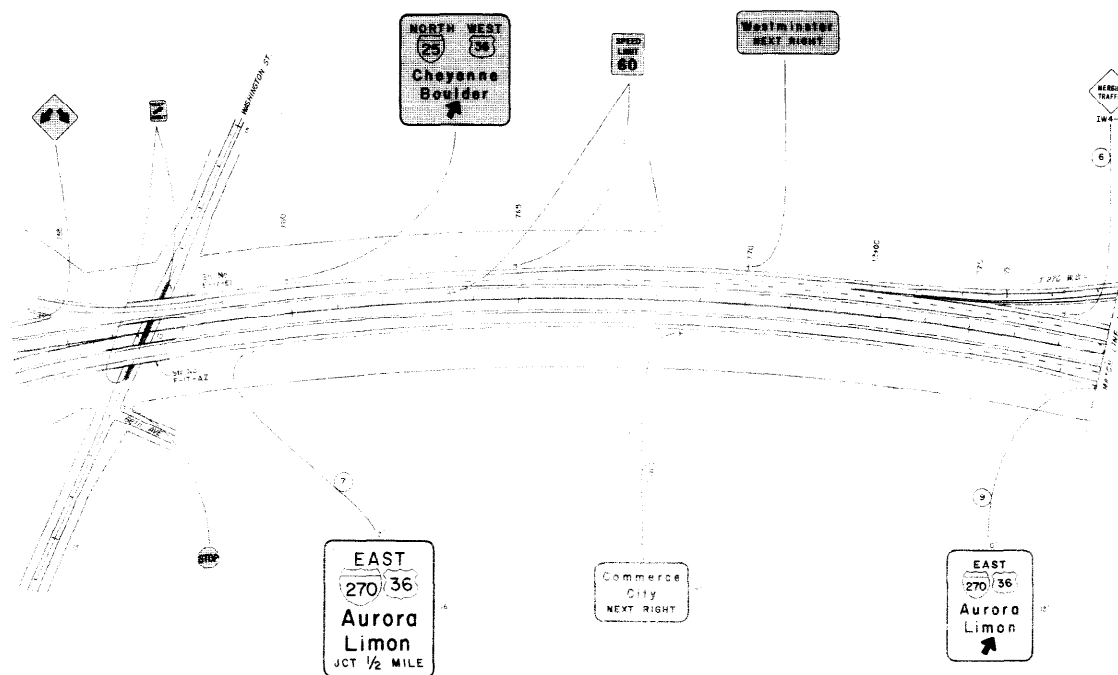


180S & I25 INTERCHANGE (NORTH VALLEY HIGHWAY)

FEDERAL ROAD DISTRICT NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	COLORADO	I 270 - 6(7) 293	56	

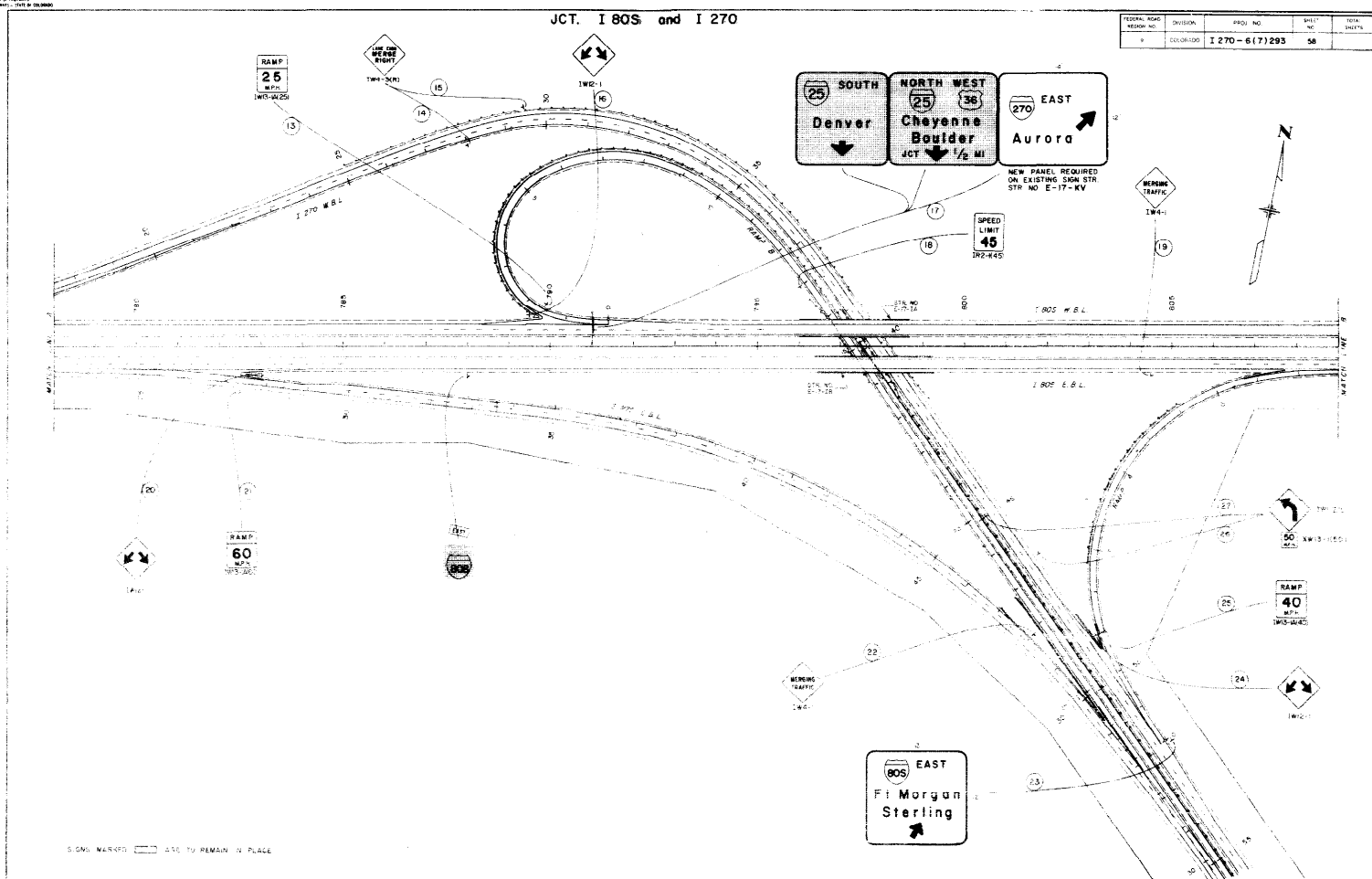


FEDERAL ROAD SECTION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	COLORADO	1 270-6471295	57	



SIGNS MARKED ARE TO REMAIN IN PLACE

FEDERAL ROAD WISCONSIN NO.	DIVISION	PROJ NO	SHEET NO	TOTAL SHEETS
9	COLORADO	I 270-6(7)293	58	



PROJECT NO.	DATE	BY	APPROVED
1	1/20/60	J. H. GIBSON	
2	1/20/60	J. H. GIBSON	
3	1/20/60	J. H. GIBSON	
4	1/20/60	J. H. GIBSON	
5	1/20/60	J. H. GIBSON	
6	1/20/60	J. H. GIBSON	
7	1/20/60	J. H. GIBSON	
8	1/20/60	J. H. GIBSON	
9	1/20/60	J. H. GIBSON	
10	1/20/60	J. H. GIBSON	
11	1/20/60	J. H. GIBSON	
12	1/20/60	J. H. GIBSON	
13	1/20/60	J. H. GIBSON	
14	1/20/60	J. H. GIBSON	
15	1/20/60	J. H. GIBSON	
16	1/20/60	J. H. GIBSON	
17	1/20/60	J. H. GIBSON	
18	1/20/60	J. H. GIBSON	
19	1/20/60	J. H. GIBSON	
20	1/20/60	J. H. GIBSON	
21	1/20/60	J. H. GIBSON	
22	1/20/60	J. H. GIBSON	
23	1/20/60	J. H. GIBSON	
24	1/20/60	J. H. GIBSON	
25	1/20/60	J. H. GIBSON	
26	1/20/60	J. H. GIBSON	
27	1/20/60	J. H. GIBSON	
28	1/20/60	J. H. GIBSON	
29	1/20/60	J. H. GIBSON	
30	1/20/60	J. H. GIBSON	
31	1/20/60	J. H. GIBSON	
32	1/20/60	J. H. GIBSON	
33	1/20/60	J. H. GIBSON	
34	1/20/60	J. H. GIBSON	
35	1/20/60	J. H. GIBSON	
36	1/20/60	J. H. GIBSON	
37	1/20/60	J. H. GIBSON	
38	1/20/60	J. H. GIBSON	
39	1/20/60	J. H. GIBSON	
40	1/20/60	J. H. GIBSON	
41	1/20/60	J. H. GIBSON	
42	1/20/60	J. H. GIBSON	
43	1/20/60	J. H. GIBSON	
44	1/20/60	J. H. GIBSON	
45	1/20/60	J. H. GIBSON	
46	1/20/60	J. H. GIBSON	
47	1/20/60	J. H. GIBSON	
48	1/20/60	J. H. GIBSON	
49	1/20/60	J. H. GIBSON	
50	1/20/60	J. H. GIBSON	
51	1/20/60	J. H. GIBSON	
52	1/20/60	J. H. GIBSON	
53	1/20/60	J. H. GIBSON	
54	1/20/60	J. H. GIBSON	
55	1/20/60	J. H. GIBSON	
56	1/20/60	J. H. GIBSON	
57	1/20/60	J. H. GIBSON	
58	1/20/60	J. H. GIBSON	
59	1/20/60	J. H. GIBSON	
60	1/20/60	J. H. GIBSON	
61	1/20/60	J. H. GIBSON	
62	1/20/60	J. H. GIBSON	
63	1/20/60	J. H. GIBSON	
64	1/20/60	J. H. GIBSON	
65	1/20/60	J. H. GIBSON	
66	1/20/60	J. H. GIBSON	
67	1/20/60	J. H. GIBSON	
68	1/20/60	J. H. GIBSON	
69	1/20/60	J. H. GIBSON	
70	1/20/60	J. H. GIBSON	
71	1/20/60	J. H. GIBSON	
72	1/20/60	J. H. GIBSON	
73	1/20/60	J. H. GIBSON	
74	1/20/60	J. H. GIBSON	
75	1/20/60	J. H. GIBSON	
76	1/20/60	J. H. GIBSON	
77	1/20/60	J. H. GIBSON	
78	1/20/60	J. H. GIBSON	
79	1/20/60	J. H. GIBSON	
80	1/20/60	J. H. GIBSON	
81	1/20/60	J. H. GIBSON	
82	1/20/60	J. H. GIBSON	
83	1/20/60	J. H. GIBSON	
84	1/20/60	J. H. GIBSON	
85	1/20/60	J. H. GIBSON	
86	1/20/60	J. H. GIBSON	
87	1/20/60	J. H. GIBSON	
88	1/20/60	J. H. GIBSON	
89	1/20/60	J. H. GIBSON	
90	1/20/60	J. H. GIBSON	
91	1/20/60	J. H. GIBSON	
92	1/20/60	J. H. GIBSON	
93	1/20/60	J. H. GIBSON	
94	1/20/60	J. H. GIBSON	
95	1/20/60	J. H. GIBSON	
96	1/20/60	J. H. GIBSON	
97	1/20/60	J. H. GIBSON	
98	1/20/60	J. H. GIBSON	
99	1/20/60	J. H. GIBSON	
100	1/20/60	J. H. GIBSON	

270 EAST
Aurora
NEXT RIGHT

JUNCTION
25
1/4 MILES

JUNCTION
270 EAST
1 MILE

SPEED
LIMIT
70

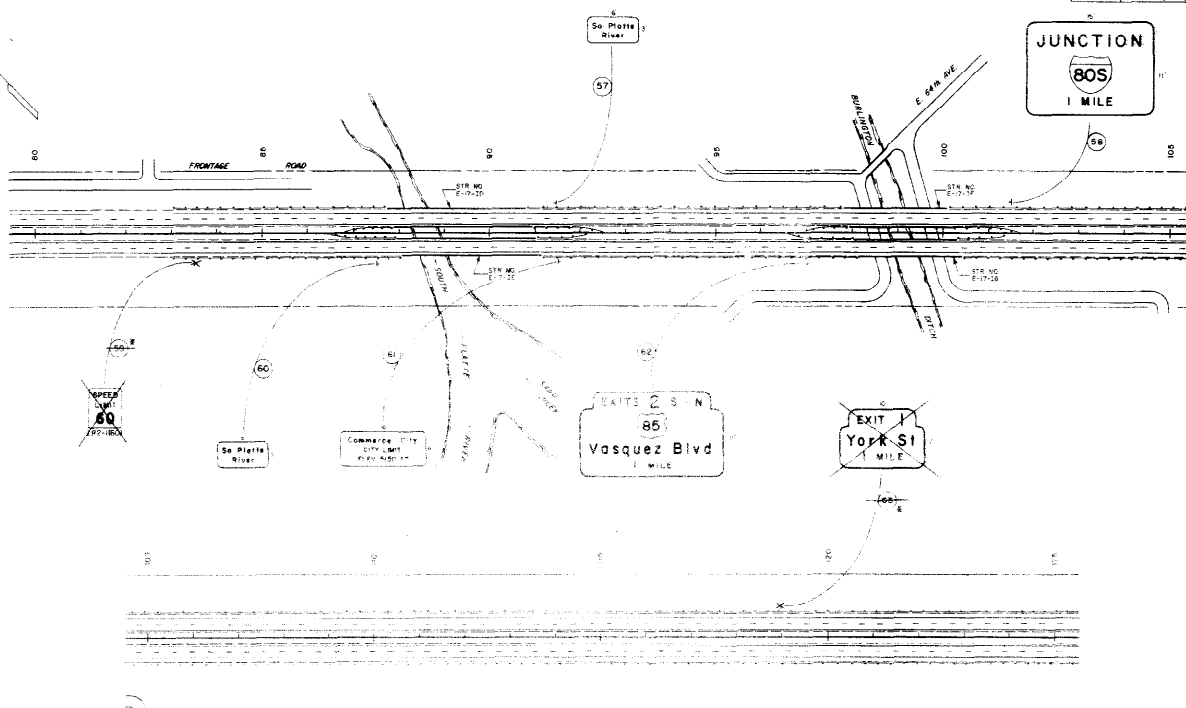
EXIT 4
74th Ave
3/4 MILE

SPEED
LIMIT
70

SIGNS MARKED ARE TO REMAIN IN PLACE

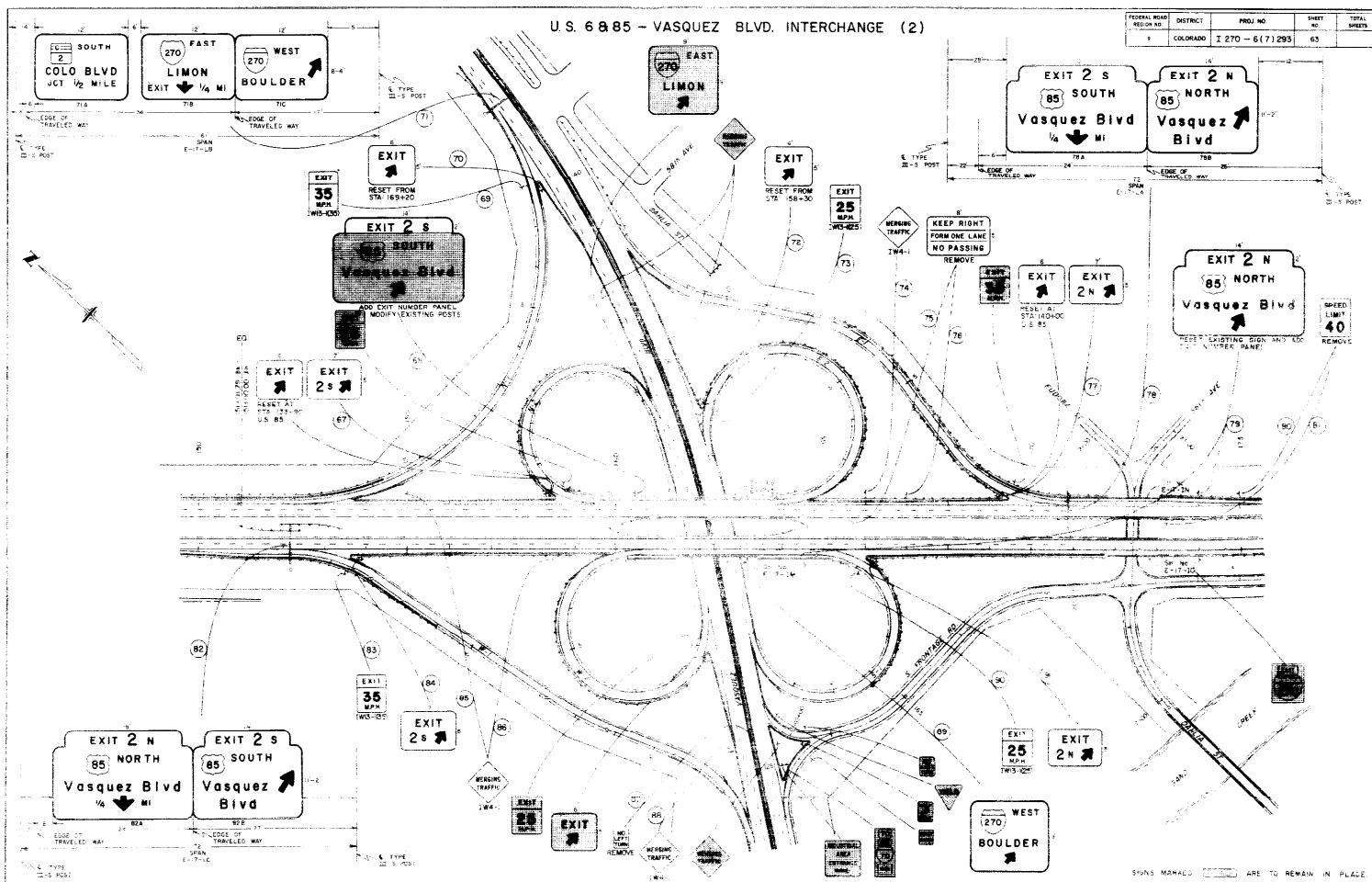
FEDERAL ROAD DISTRICT NO.	SECTION	PROJECT NO.	PROJECT NAME	TOTAL DISTANCE
1	COLORADO	1 270-6(7)200	61	100%
		0-10-0070-00		

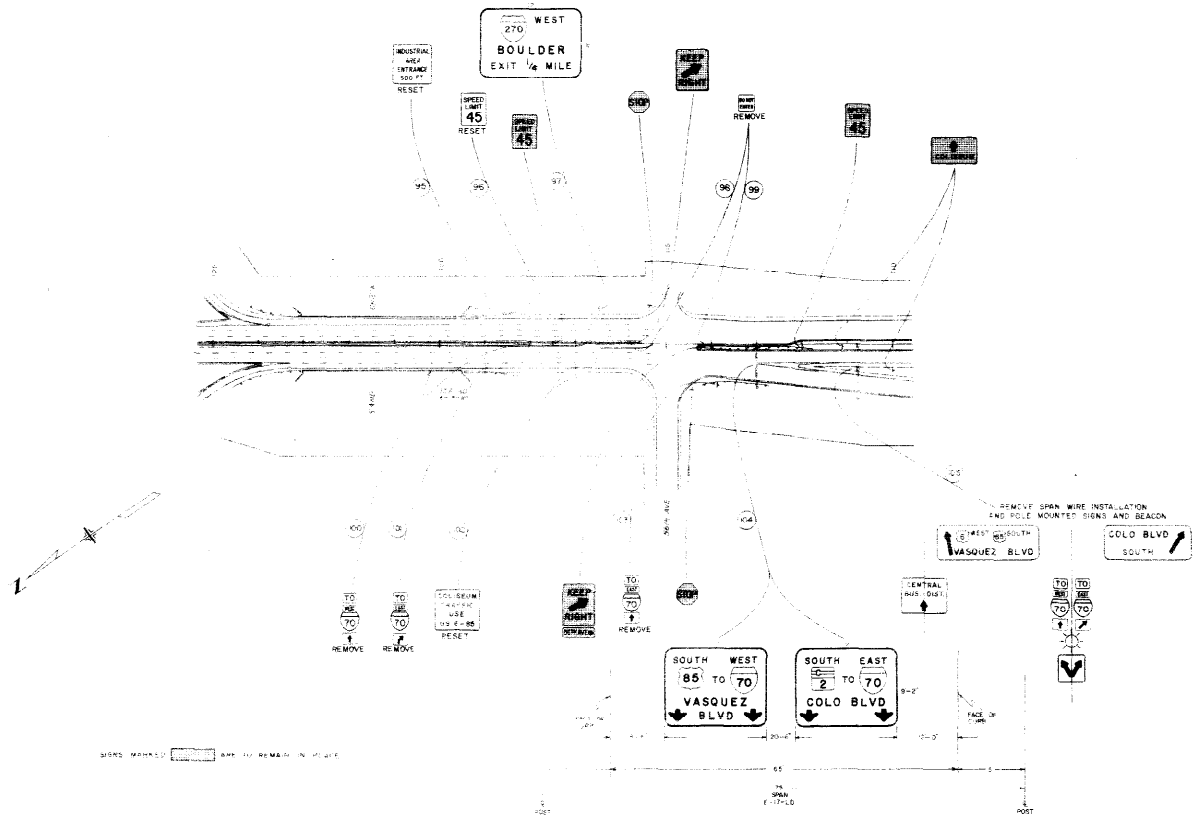
JUNCTION
805
1 MILE



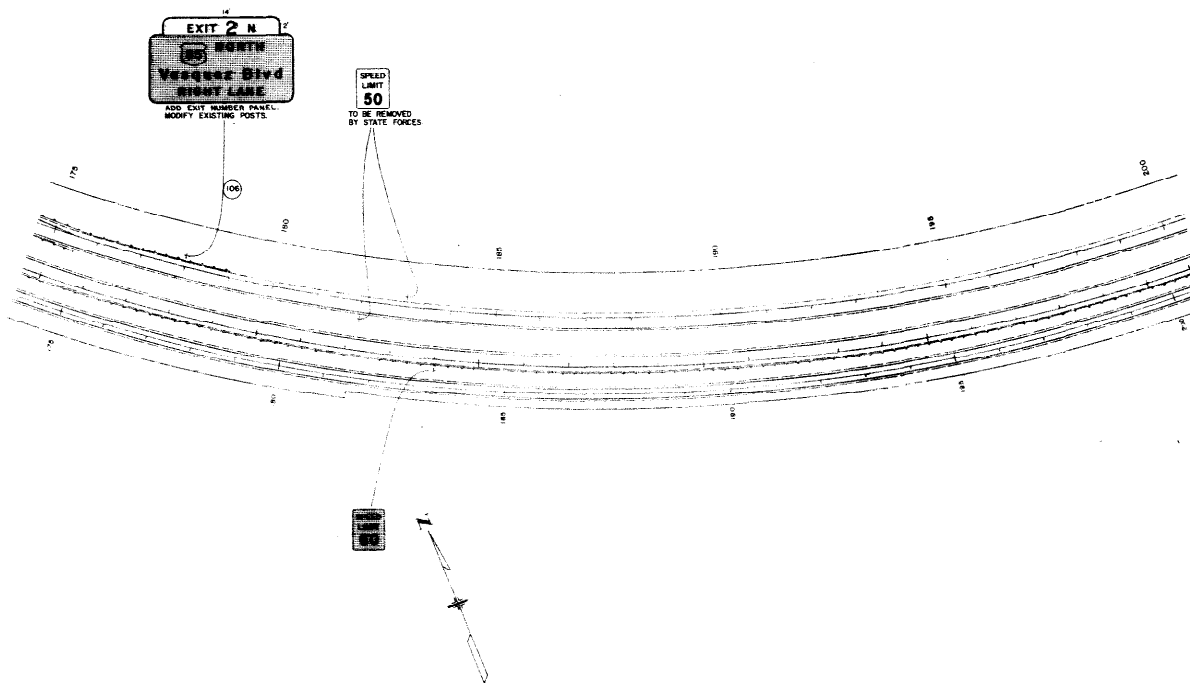
NOTE:
SIGNS MARKED WITH AN ASTERISK (*)
ARE FROM C-10-0070-00. ALL OTHER
SIGNS ARE FROM C-10-0070-00.

FEDERAL ROAD REG OR NO	DISTRICT	PROJ NO	SHEET NO	TOTAL SHEETS
8	COLORADO	I 270 - 6(7)293	63	





FEDERAL ROAD DISTRICT NO.	SECTION	PROJECT NO.	PROJECT NO.	PROJECT SHEET
9	COLORADO	3 270-6427 293	65	



SIGNS MARKED ARE TO REMAIN IN PLACE

FEDERAL ROAD DISTRICT NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	1270-6473-295	66	

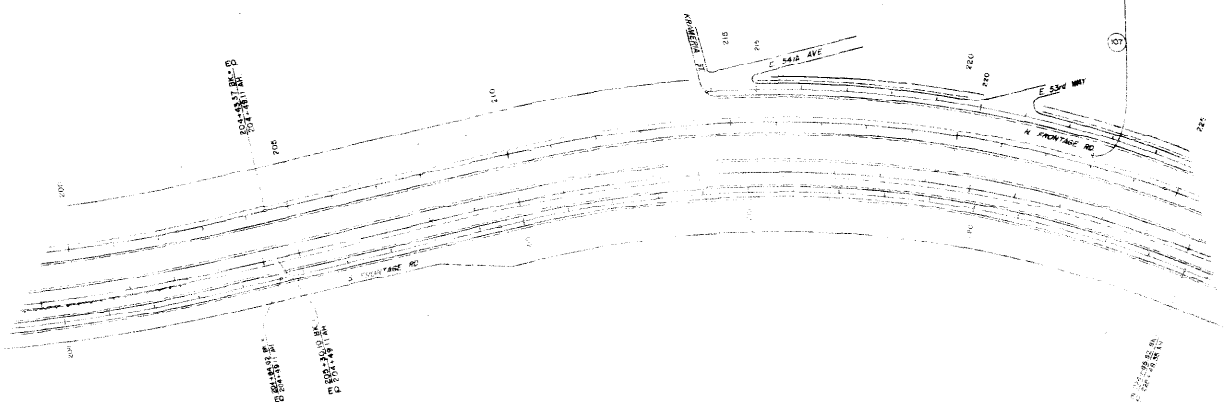
EXITS 2 N - S

885

Vasquez Blvd

MILL

ADD EXIT NUMBER PANEL AND
REVISE LAST LINE OF LEGEND
SHOW EXISTING PORTS



SIGNS MARKED ARE TO REMAIN IN PLACE

TYPICAL PANEL ELEVATIONS

STANDARD S-614-25 C

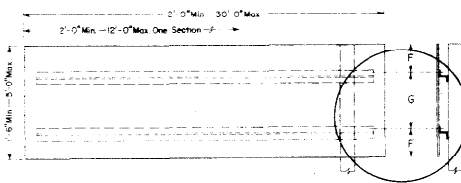
(SHEET 1 OF 2 SHEETS)

REVISED FOR THIS PROJECT

PROJECT NO.	CITY	PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	COLORADO	1270-6(7)293	66A	

REVISIONS

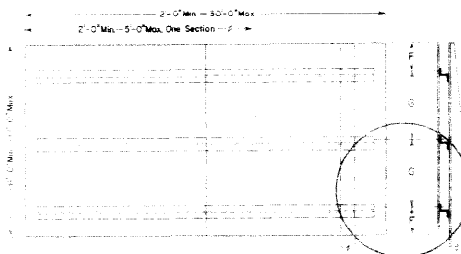
HORIZONTAL SECTIONS



SECTIONS REQUIRED
Height x 2'-0" to 12'-0" 1 Section
Height x 12'-0" to 24'-0" 2 Sections
Height x 24'-0" to 30'-0" 3 Sections

SEE TYPICAL DETAIL ON SHEET 2

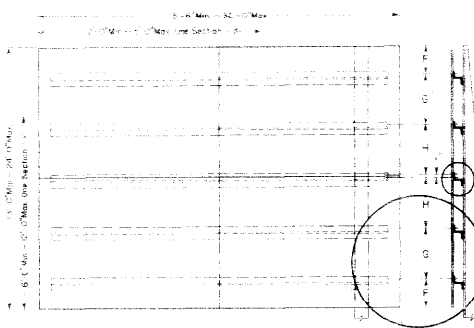
VERTICAL SECTIONS



SECTIONS REQUIRED
Height x 2'-0" to 5'-0" 1 Section
Height x 5'-0" to 10'-0" 2 Sections
Height x 10'-0" to 15'-0" 3 Sections
Height x 15'-0" to 20'-0" 4 Sections
Height x 20'-0" to 25'-0" 5 Sections
Height x 25'-0" to 30'-0" 6 Sections

SEE TYPICAL DETAIL ON SHEET 2

MULTI-VERTICAL SECTIONS



SECTIONS REQUIRED
Height x 0'-0" to 5'-0" 1 Section
Height x 5'-0" to 10'-0" 2 Sections
Height x 10'-0" to 15'-0" 3 Sections
Height x 15'-0" to 20'-0" 4 Sections
Height x 20'-0" to 25'-0" 5 Sections
Height x 25'-0" to 30'-0" 6 Sections

SEE TYPICAL SEAM CLOSURE ZEE DETAIL ON SHEET 2

SEE TYPICAL DETAIL ON SHEET 2

GENERAL NOTES

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS APPLICABLE TO THE PROJECT.
- SEE THE APPLICABLE STANDARDS FOR SIGN PLACEMENT, COATING DETAILS AND MOD. SPACING TABLE.
- A 1/2" 90° COUNTERSUNK ALUMINUM LOCKBOLT FASTENER SHALL BE USED TO FASTEN THE SIGN PANEL TO THE BACKING ZEE. A HEX-HEAD BOLT WITH NUT AND WASHERS SHALL BE USED TO FASTEN THE BACKING ZEE TO A TIMBER POST OR TO A STEEL POST.
- A PLAT WASHER SHALL BE PLACED BETWEEN THE BOLT HEAD AND THE BACKING ZEE. A LOCK WASHER SHALL BE PLACED UNDER THE BOLT HEAD ON A TIMBER POST.
- THE EXPOSED LOCKBOLT HEADS ON THE FACE OF THE SIGN PANEL SHALL BE COVERED WITH REFLECTIVE SHEETING AT THE 1/2" OF THE LOCKBOLT HEAD TO MATCH THE BACKING ZEE.
- ALL EXPOSED SIGN PANEL SECTION JOINTS, EXCEPT THE MULTI-VERTICAL SECTIONS HORIZONTAL SEAM, SHALL BE COVERED ON THE BACKSIDE OF THE SIGN PANEL WITH AN ALUMINUM CLOSURE STRIP. CLOSURE STRIPS SHALL BE BONDED TO THE SIGN PANEL WITH AN EPOXY RESIN WHICH MEETS THE REQUIREMENTS SPECIFIED IN ASTM DESIGNATION - D1763, PART 9. ALL BONDED SURFACES SHALL BE CLEAN AND FREE OF ANY FOREIGN MATTER.
- SIGN PANELS SHALL BE CONSTRUCTED FROM THE LEAST NUMBER OF SECTIONS. THE SECTIONS SHALL BE AS LARGE AS POSSIBLE AND AS NEARLY EQUAL IN SIZE AS POSSIBLE, ACCORDING TO THE LIMITS SHOWN.
- FOR ADDITIONAL POST AND PANEL INFORMATION SEE THE "TABULATION OF SIGNS" INCLUDED IN THE PLANS.

SPACING TABLE FOR ALUMINUM BACKING ZEES

SIGN NO.	POST NO.	NO. OF ZEES	ZEE SIZE	OVERHANG IN"	SPACING IN"	SPACING IN"
1	1	1	3 x 2 1/2 x 3.38	0-6"	2-6"	2-6"
2	2	2	3 x 2 1/2 x 3.38	0-6"	2-6"	2-6"
3	3	3	3 x 2 1/2 x 3.38	0-6"	2-6"	2-6"
4	4	4	3 x 2 1/2 x 3.38	0-6"	2-6"	2-6"
5	5	5	3 x 2 1/2 x 3.38	0-6"	2-6"	2-6"
6	6	6	3 x 2 1/2 x 3.38	0-6"	2-6"	2-6"
7	7	7	3 x 2 1/2 x 3.38	0-6"	2-6"	2-6"
8	8	8	3 x 2 1/2 x 3.38	0-6"	2-6"	2-6"
9	9	9	3 x 2 1/2 x 3.38	0-6"	2-6"	2-6"
10	10	10	3 x 2 1/2 x 3.38	0-6"	2-6"	2-6"
11	11	11	3 x 2 1/2 x 3.38	0-6"	2-6"	2-6"
12	12	12	3 x 2 1/2 x 3.38	0-6"	2-6"	2-6"
13	13	13	3 x 2 1/2 x 3.38	0-6"	2-6"	2-6"
14	14	14	3 x 2 1/2 x 3.38	0-6"	2-6"	2-6"
15	15	15	3 x 2 1/2 x 3.38	0-6"	2-6"	2-6"
16	16	16	3 x 2 1/2 x 3.38	0-6"	2-6"	2-6"
17	17	17	3 x 2 1/2 x 3.38	0-6"	2-6"	2-6"
18	18	18	3 x 2 1/2 x 3.38	0-6"	2-6"	2-6"
19	19	19	3 x 2 1/2 x 3.38	0-6"	2-6"	2-6"
20	20	20	3 x 2 1/2 x 3.38	0-6"	2-6"	2-6"

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS

SHEET ALUMINUM
PANELS FOR
CLASS III SIGNS

DESIGNED BY: J. B. TAYLOR
CHECKED BY: J. B. TAYLOR
DATE: 10/1/66

STANDARD S-614-25 C

(SHEET 2 OF 2 SHEETS)

REVISED FOR THIS PROJECT

DESIGN	PROJ. NO.	SHEET NO.	TOTAL SHEETS
CDLMD	1270-617/293	66 B	

REVISIONS

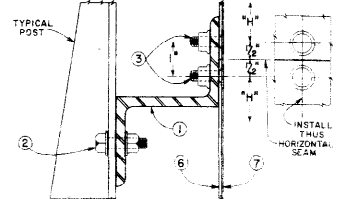
NO.	DESCRIPTION

FABRICATION NOTES

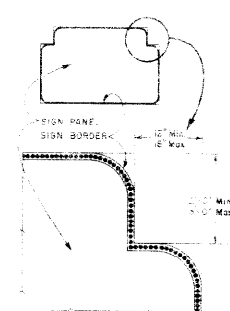
1. BACKING ZEE: See "SPACING TABLE" Aluminum Alloy 6061-T6. Each zee to be provided with a $\frac{1}{8}$ " x 2" horizontal slot for each post mounting bolt. The length of each zee to be 1" less than the sign panel width.
2. $\frac{1}{2}$ " HEX-HEAD BOLT: With nut and washers - 2 per backing zee. 2PT post are required.
3. $\frac{1}{2}$ " (No. 6) 90° COUNTERSUNK ALUMINUM LOCKBOLT FASTENER
4. 2" x 6080" ALUMINUM CLOSURE STRIP
5. $\frac{1}{4}$ " x 3" UNIVERSAL-HEAD, HOLLOW SHANK ALUMINUM RIVET
6. SHEET ALUMINUM: .0125" MINIMUM THICKNESS
7. NON-EXPOSED LENS REFLECTIVE SHEETING: To have a dry (best activated) adhesive backing

TYPICAL DETAIL SEAM CLOSURE ZEE

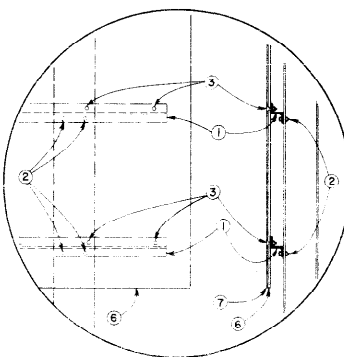
(Multi-Vertical Sections, Horizontal Seam)



TYPICAL DETAIL EXIT NUMBER PANEL

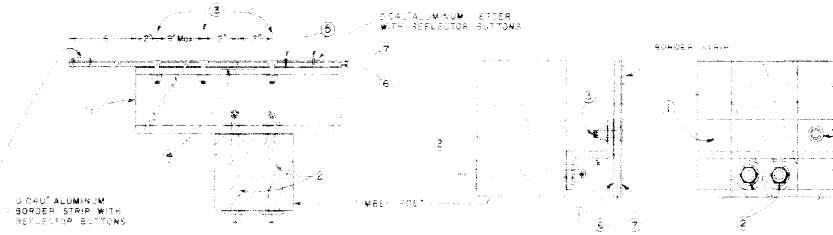


TYPICAL ELEVATION—DETAIL



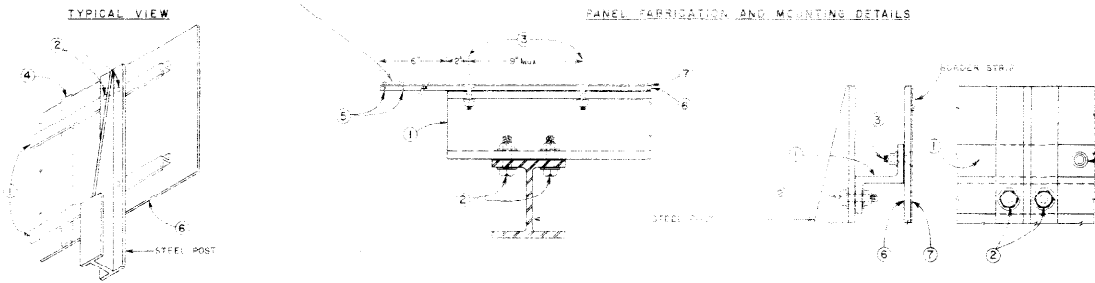
TYPICAL TIMBER POST INSTALLATION

PANEL FABRICATION AND MOUNTING DETAILS



TYPICAL STEEL POST INSTALLATION

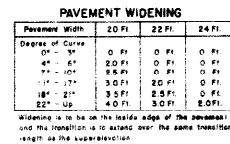
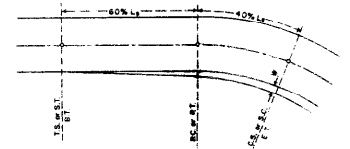
PANEL FABRICATION AND MOUNTING DETAILS



DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
SHEET ALUMINUM
PANELS FOR
CLASS III SIGNS

Prepared By: J. S. [Signature]
Checked By: J. S. [Signature]
Date: 10/15/66

FEDERAL ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.
8	COLORADO		



REVISIONS			
R-1	0-26-07	Supersed Template	M.R.H.
R-2	7-30-08	Template, Rate Tables and Dept. Name	M.R.H.

TABLE 2
SUPERELEVATION RATES FOR SPECIAL CASES

[illegible]

• Table 2 data may be used for City Streets & Interchanges.
NC = Normal Crown section.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS

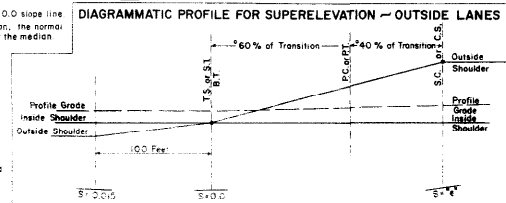
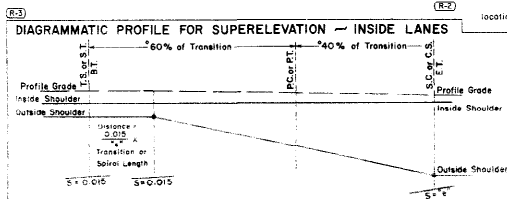
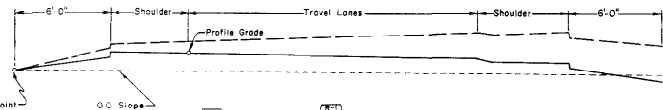
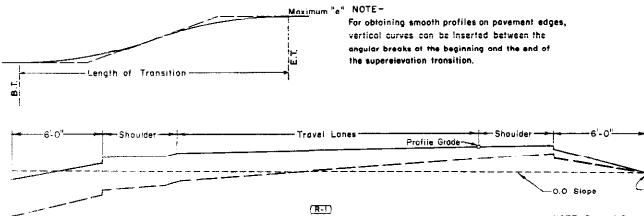
SUPERELEVATION &
WIDENING OF CURVES
CROWNED HIGHWAYS

Designed by S.B.L.	Approved by <i>[Signature]</i>
Made by S.B.L.	Staff Design Eng ^r
Checked by L.E.O.	Date <i>July 1, 1964</i>

STANDARD M-203-A-I

(JULY 1, 1965)

FEDERAL ROAD DISTRICT NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLORADO		



REVISIONS	
(R-1)	0-28-67 Superelev. Template (M.R.H.)
(R-2)	7-26-67 Mod on note (S.M.)
(R-3)	10-14-68(1) Norm. Slope Note (M.R.H.)

TABLE 1
SUPERELEVATION RATES FOR FOUR LANE DIVIDED HIGHWAYS

Design Speed M.P.H.	Maximum Superelevation 0.08		Maximum Superelevation 0.10	
	Required Super. Rate Ft./Ft.	Minimum Length of Transition or Spiral	Required Super. Rate Ft./Ft.	Minimum Length of Transition or Spiral
15	0.08	70	0.08	70
20	0.08	70	0.08	70
25	0.08	70	0.08	70
30	0.08	70	0.08	70
35	0.08	70	0.08	70
40	0.08	70	0.08	70
45	0.08	70	0.08	70
50	0.08	70	0.08	70
55	0.08	70	0.08	70
60	0.08	70	0.08	70
65	0.08	70	0.08	70
70	0.08	70	0.08	70
75	0.08	70	0.08	70
80	0.08	70	0.08	70
85	0.08	70	0.08	70
90	0.08	70	0.08	70
95	0.08	70	0.08	70
100	0.08	70	0.08	70

TABLE 2
SUPERELEVATION RATES FOR SPECIAL CASES

Design Speed M.P.H.	25 M.P.H.		30 M.P.H.		35 M.P.H.		40 M.P.H.		45 M.P.H.		50 M.P.H.		55 M.P.H.		60 M.P.H.		Degree of Curve
	Required Super. Rate Ft./Ft.	Minimum Length of Transition or Spiral	Required Super. Rate Ft./Ft.	Minimum Length of Transition or Spiral	Required Super. Rate Ft./Ft.	Minimum Length of Transition or Spiral	Required Super. Rate Ft./Ft.	Minimum Length of Transition or Spiral	Required Super. Rate Ft./Ft.	Minimum Length of Transition or Spiral	Required Super. Rate Ft./Ft.	Minimum Length of Transition or Spiral	Required Super. Rate Ft./Ft.	Minimum Length of Transition or Spiral	Required Super. Rate Ft./Ft.	Minimum Length of Transition or Spiral	
15	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.15
20	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.20
25	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.25
30	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.30
35	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.35
40	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.40
45	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.45
50	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.50
55	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.55
60	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.60
65	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.65
70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.70
75	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.75
80	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.80
85	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.85
90	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.90
95	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.95
100	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	0.08	70	1.00

NOTES - Points A and B use 0.10 Maximum Superelevation Rate.
Maintenance Areas & areas where using conditions frequently exist, use 0.08 Maximum Superelevation Rate.

NOTES - Transition or Spiral Lengths are shown in the tables for 4 Lane Divided Highways.
For 6 Lane Divided Highways use 1.2 times the lengths shown, rounded to the nearest 50 feet.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS

**SUPERELEVATION
OF CURVES
DIVIDED HIGHWAYS**

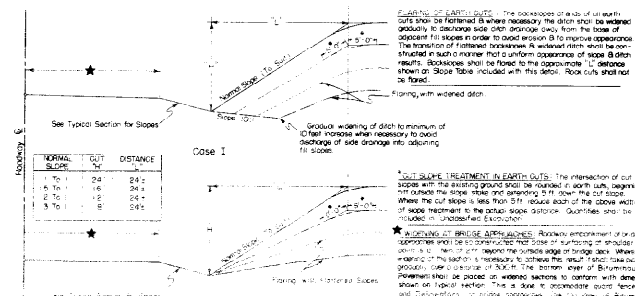
Designed by S.B.L. Made by S.B.L. Checked by L.E.G. Approved by S.B.L. Staff Design 100%

STANDARD SIDE APPROACH ROADS, FLARING, CUT SLOPE TREATMENT & WIDENING AT BRIDGES AND AT CREST OF GRADES

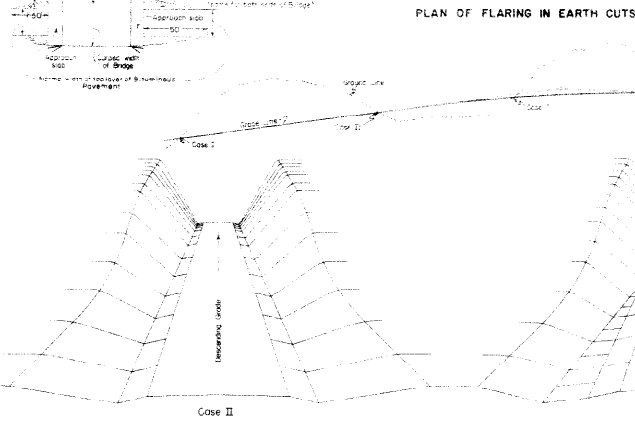
STANDARD M-203-B
(JULY 1, 1965)

REV. NO.	DIVISION	PROJECT NO.	SHEET NO.
1	000		

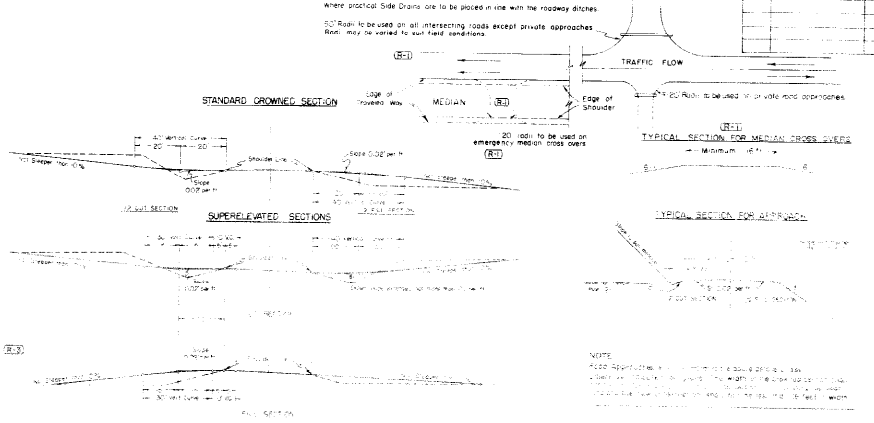
GENERAL DETAILS FOR FLARING OF EARTH CUTS, CUT SLOPE TREATMENT & WIDENING AT BRIDGES



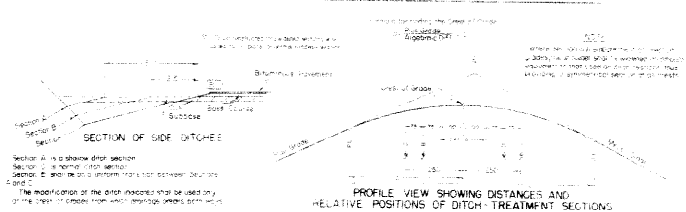
VERTICAL CURVE	CUT	DITCH
1 To 1	24	24
2 To 1	16	24
3 To 1	12	24
4 To 1	8	24



TYPICAL PLANS FOR SIDE APPROACH ROADS AND EMERGENCY MEDIAN CROSS OVERS



DETAILS FOR DITCH & WIDENED SHOULDERS AT CREST OF GRADES

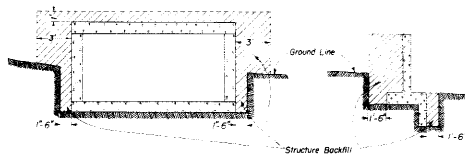


GENERAL NOTES

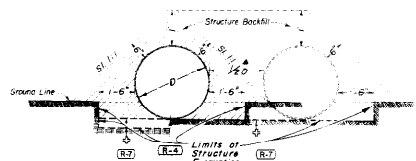
- All work shall be done in accordance with the Standard Specifications applicable to this project.
- The minimum width of the ditch shall be 24 inches. The ditch shall be constructed in such a manner that uniform appearance of slope & ditch results. Backslopes shall be flared to the approximate 1:1 slopes shown on Slope Table included with this sheet. Rock cuts shall not be flared.
- The minimum width of the ditch shall be 24 inches. The ditch shall be constructed in such a manner that uniform appearance of slope & ditch results. Backslopes shall be flared to the approximate 1:1 slopes shown on Slope Table included with this sheet. Rock cuts shall not be flared.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
APPROACH ROADS
FLARING, CUT SLOPE TREATMENT
BRIDGE & CREST WIDENING

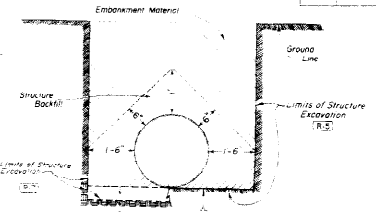
REVISION	PROJECT NO.	SHEET NO.
(R-1) 10-20-66 ADDED PER VIEW		MRH
(R-2) 12-7-66 STW EXC.		MRH
(R-3) 4-25-66 Class 2 Backfill (Trench)		MRH
(R-4) 3-17-67 Conduits, Underdrains, Box		MRH
(R-5) 4-26-68 Limit Str. Excavation		MRH
(R-6) 7-23-68 Dep. Name, Gen. Note		MRH
(R-7) 11-16-68 Limit Str. Excavation		MRH



CIRCULAR CONDUIT

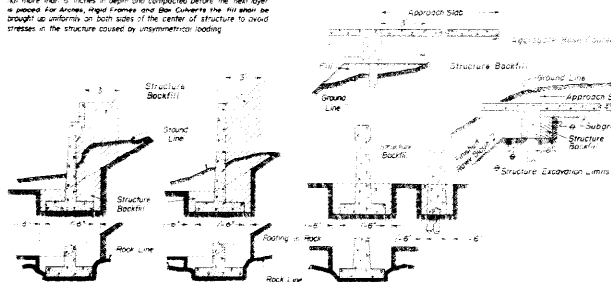


SIPHONS OR CONDUIT IN TRENCH

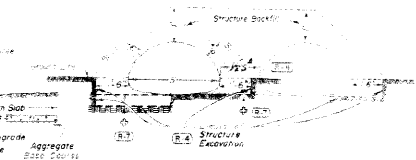


PIERS, ABUTMENTS, RETAINING WALLS, ETC.

All material that is to be compacted shall be placed in horizontal layers not more than 6 inches in depth and compacted before the next layer is placed. For dikes, rigid frames and box culverts the fill shall be brought up uniformly on both sides of the center of structure to avoid stresses in the structure caused by unsymmetrical loading.



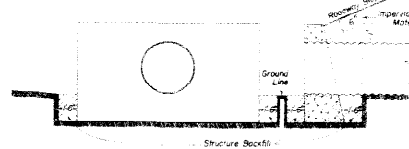
ELLIPTICAL OR ARCH CONDUIT



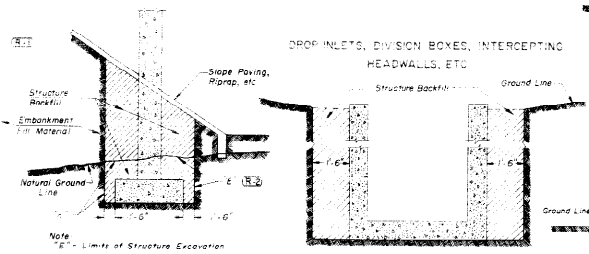
NOTES

- When two or more conduits are laid side by side they shall be spaced so that adjacent sides of pipe shall be at least the diameter of pipe or 3 feet, whichever is less. Minimum spacing shall not be less than 1 foot.
- The backfill material in excavation shall be Class M-2 backfill to depth, surface, or structural plate pile surface.
- Depth of trench excavation for approach limits of structure excavation shall be shown on plans or notes. The depth of the trench shall be shown on plans or notes.
- Backfill and approach limits shall be shown on plans or notes.
- Excavation for structure foundation shall be classified as "Structure Excavation" unless otherwise shown on plans.

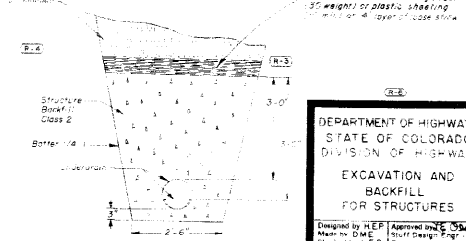
HEADWALLS AND END OF CULVERTS



DROP INLETS, DIVISION BOXES, INTERCEPTING HEADWALLS, ETC.



TRENCH FOR PIPE UNDERDRAIN



DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
EXCAVATION AND
BACKFILL
FOR STRUCTURES
Designed by H.E.P. Approved by C.E. Schmitt
Checked by D.W.E. 11/17/65
Checked by L.E.O. 1/28/66

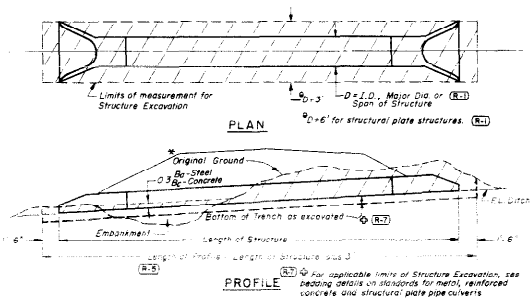
STANDARD M-206-A

(SHEET 2)
(JULY 1, 1965)

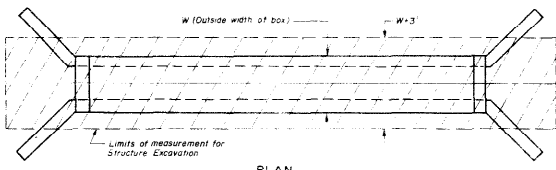
FEDERAL ROAD DISTRICT NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	COLORADO			

REVISIONS			
REVISION	DATE	BY	APPROVED
1	3-17-67	L. D. on Pipe Culvert Span in D.M.R.H.	M.R.H.
2	4-26-68	Structure Excavation in Fill	M.R.H.
3	7-23-68	Dept. Name & Detail	M.R.H.
4	11-1-68	Limit Str. Excavation	M.R.H.

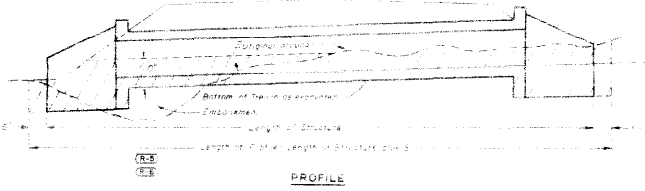
STRUCTURE EXCAVATION MEASUREMENT FOR PIPE CULVERTS



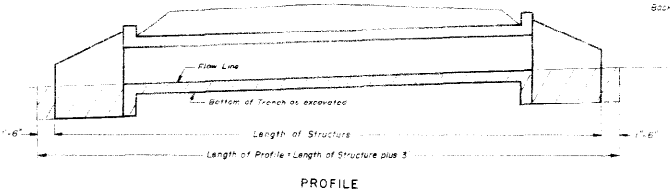
STRUCTURE EXCAVATION MEASUREMENT FOR CONCRETE BOX CULVERTS



Without Channel Change or Channel Improvement

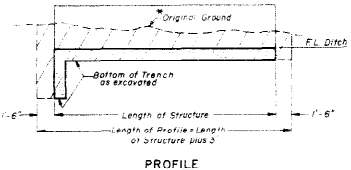
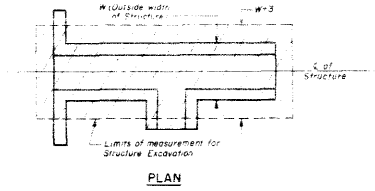


With Channel Change or Channel Improvement



NOTE
See Sheet 1 for Detail Notes and Backfilling Details

STRUCTURE EXCAVATION MEASUREMENT FOR DIVERSION OR DIVISION BOXES



* Along C of Structure
Areas to be used for Structure Excavation computations

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
EXCAVATION AND BACKFILL FOR STRUCTURES
Designed by: W.R.H. Approved by: [Signature]
Made by: H.P.B. Staff Design [Signature]
Checked by: [Signature]

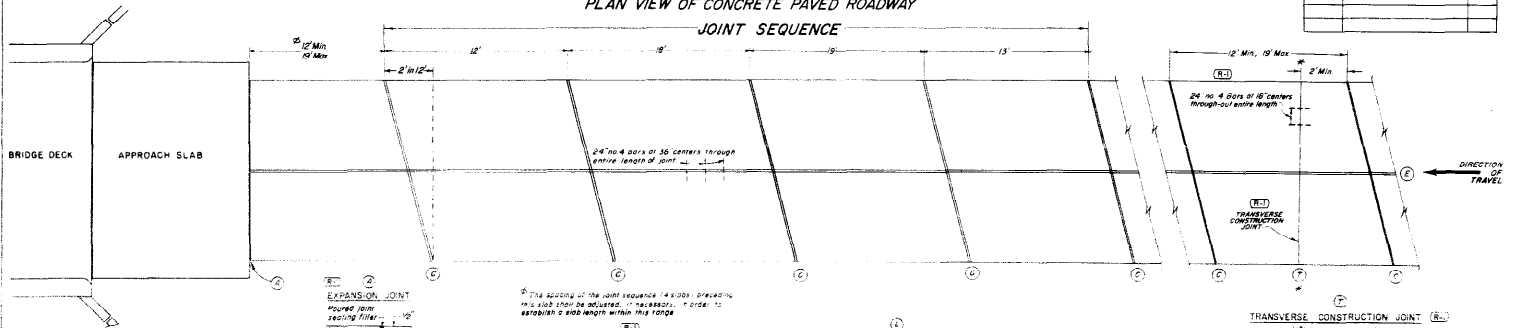
STANDARD CONCRETE PAVEMENT JOINT DETAILS

STANDARD M-412-AA
[MARCH 3, 1969]

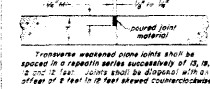
FED. ROAD DIST. NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLORADO		

REVISIONS	
1.	7-69 Change details - R-1 through R-10, M.M.H.
2.	
3.	
4.	
5.	

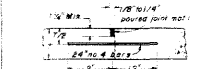
PLAN VIEW OF CONCRETE PAVED ROADWAY
JOINT SEQUENCE



CONTRACTION JOINT (R2)
TRANSVERSE WEAKENED PLANE JOINT

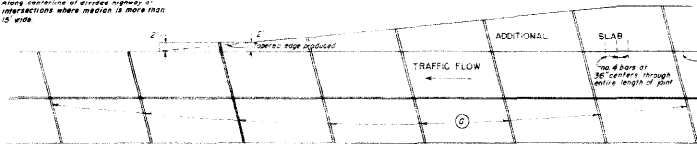


CONTRACTION JOINT
TRANSVERSE WEAKENED PLANE JOINT



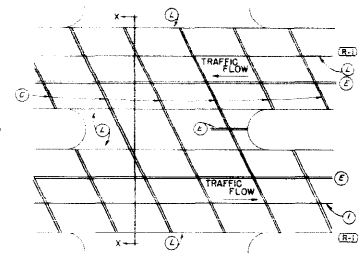
Notes for the following:
1. To ensure proper curing, the joint shall be covered and to divide lanes when 3 lanes are built simultaneously by slip-form method.
2. Along intersection of divided highway, intersections where median is more than 15' wide.

DETAILS FOR CONSTRUCTION OF ACCELERATION LANE,
DECELERATION LANE OR ADDITIONAL TRAFFIC LANE.



To be used when traffic lane is added and poured immediately after the existing lane is opened to traffic. The spacing of the joint sequence is subject to change, and the spacing of the first (C) joint should be established within this range.

TYPICAL STREET INTERSECTION



GENERAL NOTES

1. All work shall be done in conformity with the Standard Specifications for Highway Construction, 1967 Edition, as amended.
2. Bars designated by number in the "4 bars" are deformed reinforcing bars, minimum yield strength 60,000 psi.
3. The cost of all bars and joint material shown on this sheet is to be included in the bid price for Concrete Pavement.
4. See plans for dimension "T".
5. Concrete pavement shall retain a 10' dog finish unless another type finish is specified by the Engineer.
6. Type II Cement shall be used in pavement concrete.
7. Class "A" aggregate may be substituted for pavement aggregate. Other requirements for paving concrete are not affected.
8. Construction joints shall be constructed in concrete pavement by sawing or by installation of water stopping strip.
9. Dimensions and type of plastic parting strip shall be as shown, herein, or approved. Plastic strip shall be installed at the time of placing of the concrete and shall be left in place. Plastic strip shall be flush with the surface and vertical to the concrete pavement. Spacing shall be with ends butted.
10. Construction joint grooves shall be accomplished by forming, sawing, or as directed by the Engineer, to the dimensions shown.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
CONCRETE PAVEMENT JOINTS
Designed by M.H.M. Approved by C.E. (S) / J.R.B. Staff Design Eng. / Checked by R.S.M. June, March 3, 1969

STANDARD M-500-A

(JULY 1, 1965)

PROJECT NO.	DIVISION	SHEET NO.

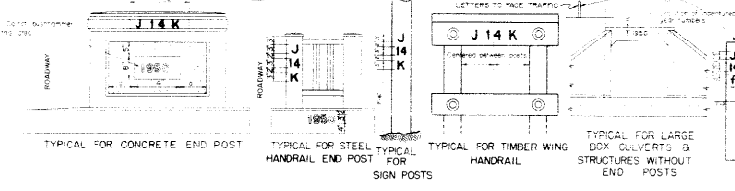
1 2 3 4 5 6 7 8 9 0.

A B C D E F G H I J K L

M N O P Q R S T U V W

a b c d e f g h i j k l m n o p q r s t u v w x y z

J 14 K



GENERAL NOTES

1. THE SIGN SHALL BE PLACED IN THE CENTER OF THE ROADWAY OR IN THE CENTER OF THE STRUCTURE. THE SIGN SHALL BE PLACED IN THE CENTER OF THE ROADWAY OR IN THE CENTER OF THE STRUCTURE. THE SIGN SHALL BE PLACED IN THE CENTER OF THE ROADWAY OR IN THE CENTER OF THE STRUCTURE.

REVISIONS

NO.	DESCRIPTION	DATE
1	REVISION	

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO

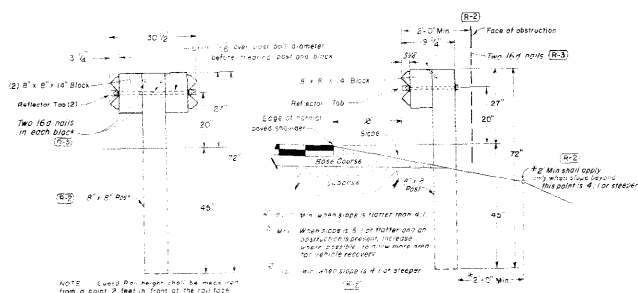
CENTERS AND FIGURES
FOR
STRUCTURE NUMBERS

Designed by _____
Checked by _____

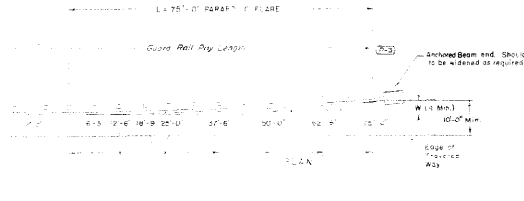
Approved by _____
Date _____

STANDARD M-606-AB (MARCH 1, 1968) (SHEET 1 OF 3)

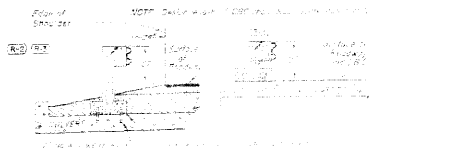
REVISION NO.	DESCRIPTION	DATE
1	ISSUED	3/1/68



TYPICAL POST INSTALLATIONS



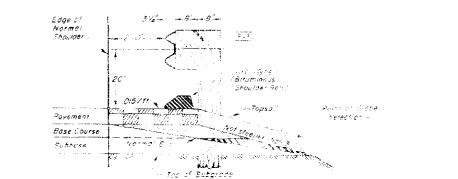
PARABOLIC TRANSITION & END TREATMENT



GUARD RAIL ACROSS CONCRETE BOX CULVERT



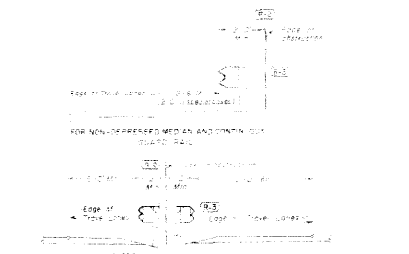
GUARD RAIL AT BRIDGES



GUARD RAIL WITH BITUMINOUS CURB
(Showing Typical Shoulder Widening)



BRIDGE APPROACH GUARD RAIL



GUARD RAIL FOR OBSTRUCTIONS IN MEDIAN

GENERAL NOTES

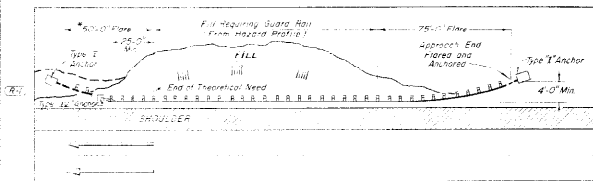
1. The guard rail shall be installed in accordance with the following specifications:
2. The guard rail shall be installed in accordance with the following specifications:
3. The guard rail shall be installed in accordance with the following specifications:
4. The guard rail shall be installed in accordance with the following specifications:
5. The guard rail shall be installed in accordance with the following specifications:
6. The guard rail shall be installed in accordance with the following specifications:
7. The guard rail shall be installed in accordance with the following specifications:
8. The guard rail shall be installed in accordance with the following specifications:
9. The guard rail shall be installed in accordance with the following specifications:
10. The guard rail shall be installed in accordance with the following specifications:

DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
GUARD RAIL
TYPE 3

STANDARD M-606-AB

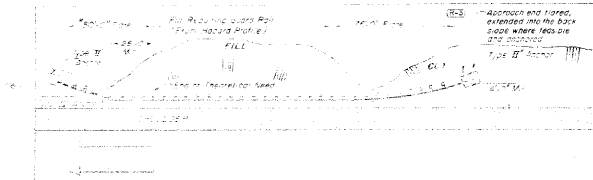
(MARCH 1, 1960)
(SHEET 2)

REVISIONS	DATE	BY	APP'D
1. 1-0-60 300' end, 300' end		M.B.H.	
2. 1-1-60 300' end, 300' end		M.B.H.	
3. 1-15-72 300' end, 300' end		M.B.H.	

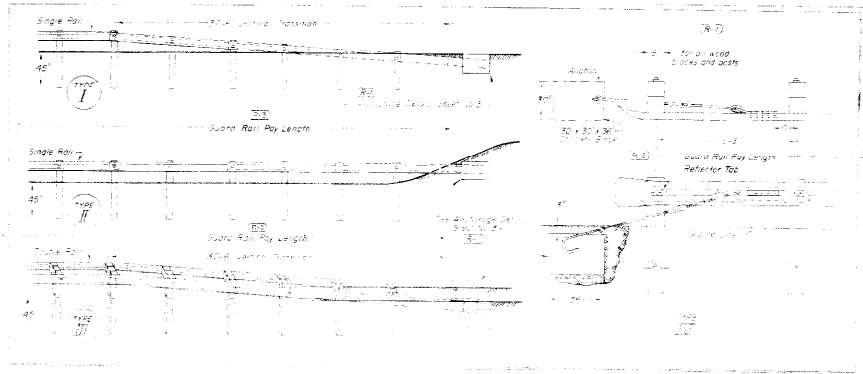


GUARD RAIL INSTALLATION ——— ROADSIDE FILL CONDITION

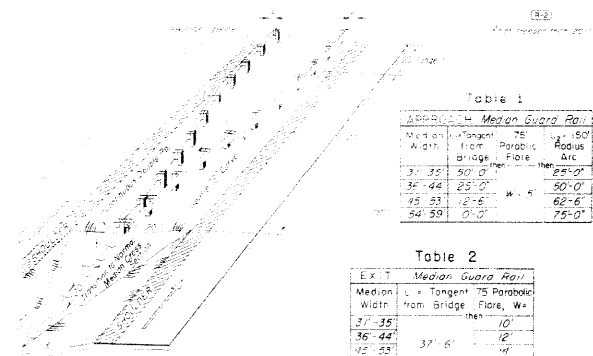
NOTES:
1. The end of the guard rail shall be 50 feet past the end of the theoretical road line and be fixed and anchored.



GUARD RAIL INSTALLATION ——— ROADSIDE CUT TO FILL CONDITION



TYPICAL END ANCHORAGE



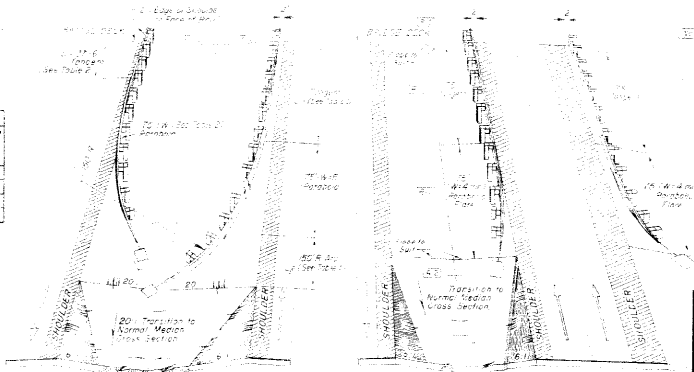
21' to 30' MEDIAN

Table 1
Approach Median Guard Rail

Median Width	Tangent	Radius
31'-35'	25'-0"	50'-0"
36'-44'	25'-0"	50'-0"
45'-53'	12'-6"	62'-6"
54'-59'	0'-0"	75'-0"

Table 2
EX. 1 Median Guard Rail

Median Width	Tangent	Radius
31'-35'	10'	10'
36'-44'	12'-6"	12'-6"
45'-53'	12'-6"	12'-6"
54'-59'	16'	16'



31' to 59' MEDIAN

MEDIAN 60' AND OVER

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS

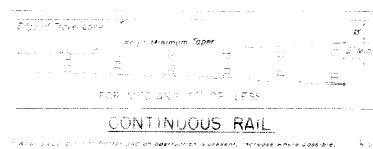
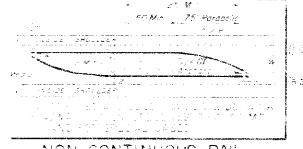
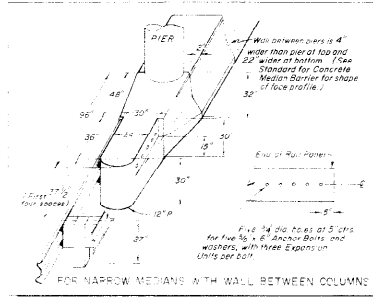
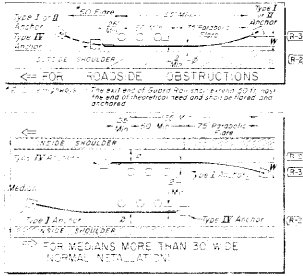
GUARD RAIL TYPE 3

DESIGNED BY: M.B.H. (10/10/59)
CHECKED BY: J.B.B. (10/10/59)
DATE: 10/10/59

STANDARD M-606-AB

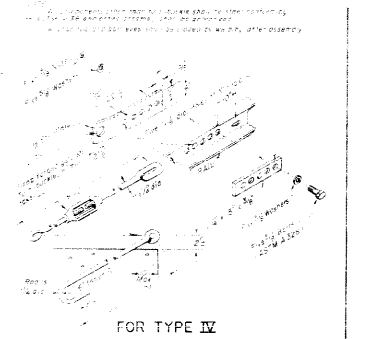
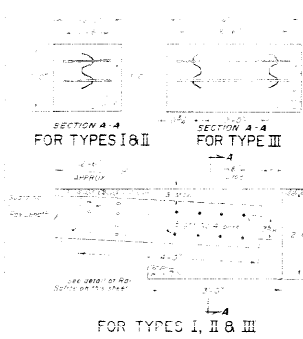
(MARCH 1, 1968)
(SHEET 3)

REVISION	DATE	BY	CHKD	APPROVED
1	1-10-68	W. H. HARRIS		
2	1-10-68	W. H. HARRIS		
3	1-10-68	W. H. HARRIS		
4	1-10-68	W. H. HARRIS		
5	1-10-68	W. H. HARRIS		
6	1-10-68	W. H. HARRIS		
7	1-10-68	W. H. HARRIS		
8	1-10-68	W. H. HARRIS		
9	1-10-68	W. H. HARRIS		
10	1-10-68	W. H. HARRIS		



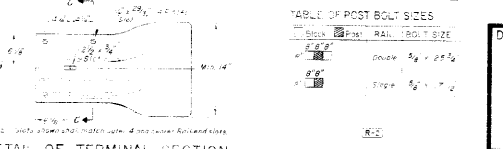
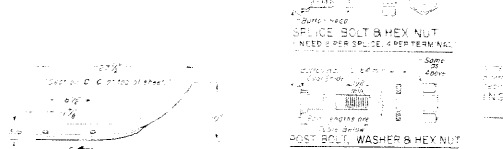
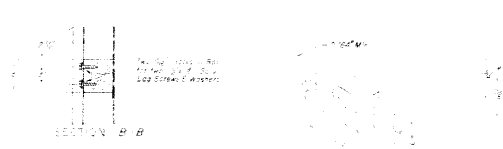
NON-CONTINUOUS RAIL

TYPICAL GUARD RAIL FOR OBSTRUCTIONS



DETAILS FOR TYPICAL END ANCHORAGE

DETAIL OF RAIL AND SPLICE



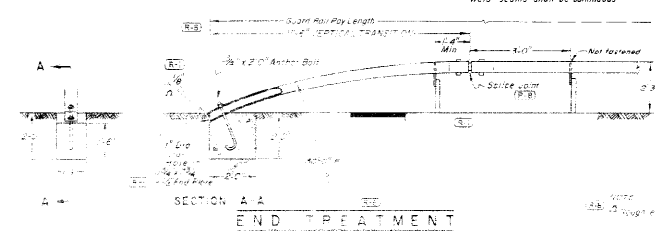
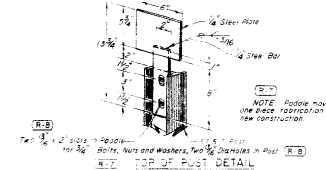
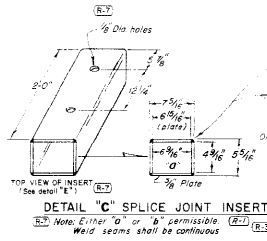
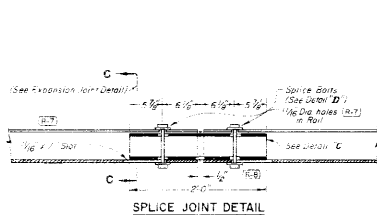
DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
GUARD RAIL
TYPE 3
Designed by M. H. HARRIS Approved by M. H. HARRIS
Checked by M. H. HARRIS Date 1-10-68

STANDARD M-606-B

(APRIL 20, 1967)
(SHEET 2)

FEDERAL ROAD DISTRICT NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
	COLORADO			

REVISED	REVISIONS	BY
6-28-67	Splice Joint and End Section	M.R.H.
8-18-67	Splice Joint Treat	M.R.H.
9-21-67	Splice Bolt Thread	M.R.H.
3-7-68	Air Top, Curves and Rail Washers	M.R.H.
7-22-68	Drawings to Detail Notes	M.R.H.
9-16-68	Rail Washers, Splice Joint, Double	M.R.H.
12-10-69	Vertical transition, Splice Joint, Post	M.R.H.

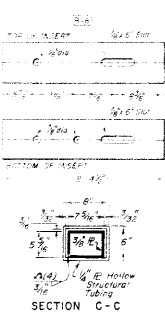
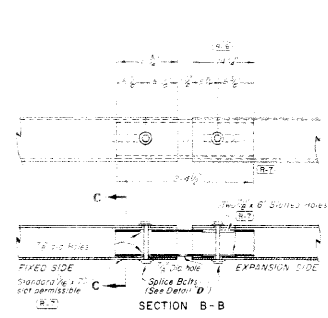


HORIZONTAL CURVES

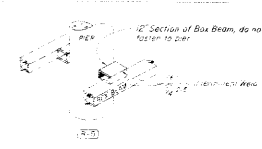
The distance between two splice center-to-center shall be a multiple of 8 feet. The width of beam rail panels shall not exceed that shown in the following table. Unless otherwise shown on plans, the maximum length of panels shall approximate 2' center to center.

SECTION	MAXIMUM NOMINAL LENGTH OF PANEL (Center to center of Rail Spreads)
4" x 10"	42 feet
4" x 12"	36 feet
6" x 12"	30 feet
8" x 12"	24 feet

Special Design



ALTERNATE FOR NARROW MEDIANS



DETAIL "E" SPlice Joint Treatment

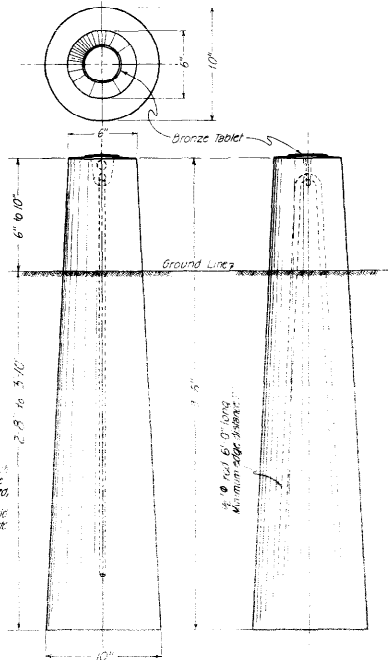


DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
GUARD RAIL
TYPE D
BOX BEAM MEDIAN BARRIER
STEEL

Designed by: M. R. H. Approved by: J. M. B. State Engineer
Checked by: J. M. B. State Engineer

RIGHT OF WAY MARKER POST STANDARD M-612-A (JULY 1, 1965)

REV. NO.	DIVISION	PROJECT NO.	SHEET NO.
1	COLORADO		
REVISIONS			
(S-1)	5-2-66	R.O.W. Marker Note	M.R.H.
(S-2)	7-24-68	Dept. Name	M.R.H.



NOTES FOR R.O.W. MARKER POSTS

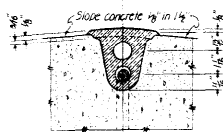
All work shall be done in accordance with the Standard Specifications applicable to the project.

Posts shall be made of class A concrete. The upper 12 inches of marker posts shall be rubbed free of form marks, and the top surface of the post must be constructed to drain thoroughly.

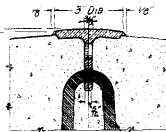
Light weight aggregate conforming to ASTM Designation C-330 must be utilized.

All exposed surfaces of the bronze tablet are to be ground to a smooth surface.

All letters are to be depressed a minimum of 1/16 inch. Information on the bronze tablet indicated by pin lines is to be stamped in relief by the engineering party after post is placed. The inch letters and figures to be used. Project designations on tablets shall be properly shown. (i.e. I for Interstate, F for Fed Aid Interstate, S for Fed Aid Secondary, etc. B C for State Projects. See details below.)



SECTION B-B



SECTION A-A

DETAIL OF BRONZE TABLET
FOR RIGHT OF WAY MARKER POST AND BENCH MARK

Unit and use 1/2" x 1/2" x 1/2" for Bench Mark Tablet

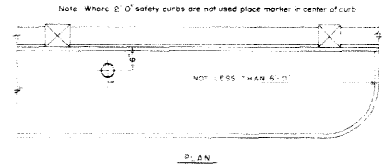
BENCH MARK

All work shall be done in accordance with standard specifications applicable to the project.

All exposed surfaces of the bronze tablet are to be ground to a smooth surface. All letters are to be depressed a minimum of 1/16 inch. Information on the bronze tablet indicated by pin lines is to be stamped in relief by the engineering party after marker is placed. 3/16 inch letters and figures to be used. Project designation on tablets shall be properly shown (i.e. I for Fed Aid Interstate, F for Fed Aid Primary, S for Fed Aid Secondary, etc. B C for State Projects. See details below).

Bronze Bench Mark Tablets will be furnished by the Department at no expense to the Contractor.

Installation of Bronze Bench Mark Tablets will not be paid for directly, but shall be included in the price bid for Concrete.



One marker to be placed on Bridges as shown. The station shown on marker shall be the center line stationing directly opposite the marker.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
**MARKER POSTS
AND
BENCH MARKS**
Designed by R.E.L. Approved by S.M.M.
Made by E.E.O. Staff Design Eng.
Checked by R.E.L. Date 10/1/65

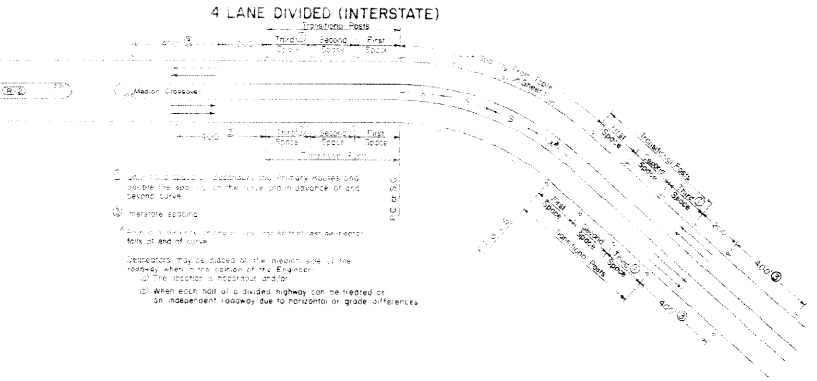
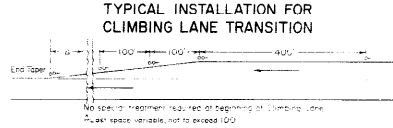
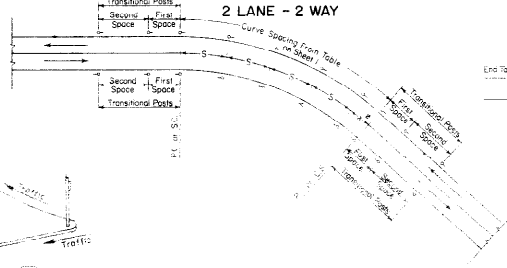
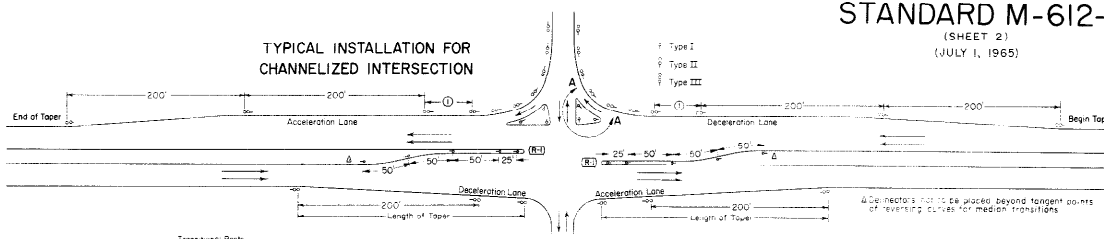
STANDARD M-612-C (SHEET 2) (JULY 1, 1965)

FIG. ROAD RES. NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLORADO		

REVISIONS			
(B-1)	5-4-67	Median and Island Delineators	M.R.H.
(B-2)	11-3-68	Median Crosswalk	M.R.H.
(B-3)	7-11-68	Division Name	M.R.H.

GENERAL NOTES

For Median greater than 200 Feet, use spacing from Table included on Sheet 1 of this Standard.
For additional General Notes, see Sheet 1 of this Standard.
Place face of marker at 90° to C of roadway.
Lengths of speed change areas including tapers shall be as shown on plans.



VIEW A-A

(B-2)

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS

DELINEATORS

Designed by C.R.M. Approved by **C.R.M.**
Checked by **C.R.M.** Street Design Dept.
Checked by **C.R.M.** **Bar** **Bar**

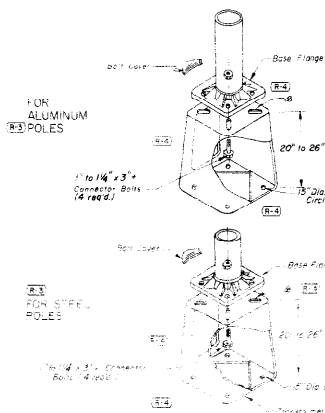
HIGHWAY LIGHTING

STANDARD M-613-AA

(APRIL 7, 1967)

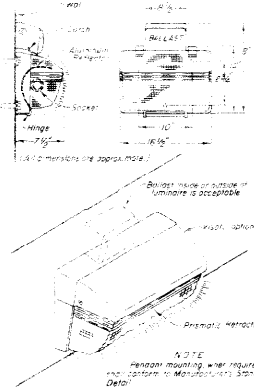
DESIGN NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	COLORADO			

TYPICAL DETAIL OF TRANSFORMER BASES

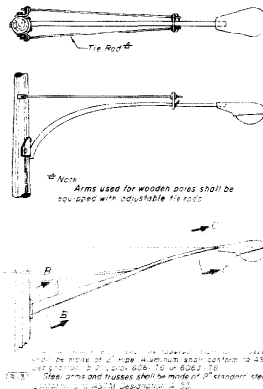


- NOTES FOR TRANSFORMER BASES (R-1, R-2)**
- (R-1) Base flange shall have continuous welds inside and outside.
 - (R-2) Transformer bases shall be aluminum castings of material conforming to ASTM Designation B26, alloy 6061-T6.
 - (R-3) All transformer bases shall have a vandol-resistant, removable access door.
 - (R-4) Transformer base to be mounted on concrete foundation pad shown below.
 - (R-5) Anchor bolts shall be secured and shall terminate above the top of foundation pad as recommended by the manufacturer. Anchor bolts shall not project through the transformer base.
 - (R-6) Minimum base circle for top of Transformer Base:
 - Aluminum: 40" M.M. x 15"
 - Steel: 40" M.M. x 15"

TYPICAL WALL TYPE LUMINAIRE FOR UNDERPASS LIGHTING

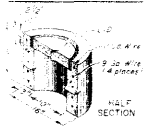


TYPICAL ARMS



- NOTES**
- (R-1) Arms used for wooden poles shall be 2x4 poles with adjustable tie rods.
 - (R-2) Arms for metal poles shall conform to ASTM Designation B26, alloy 6061-T6 or 6063-T6.
 - (R-3) Steel arms and trusses shall be made of A36 structural steel plate.
 - (R-4) All steel shall conform to ASTM Designation A36.

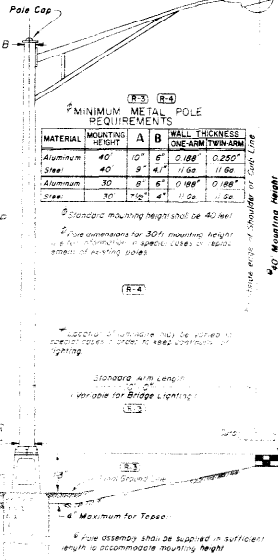
CONCRETE PULL BOX



General Notes

- (R-1) All work shall be done in accordance with the Standard Specifications for Highway Construction.
- (R-2) All steel poles shall be mounted on a triangular base unless otherwise designated.
- (R-3) When island or cut slope recess is required for Light Standard installation, the cost of excavation or embankment will be included in the work. Embankment shall be compacted in accordance with Section 205.
- (R-4) All metal poles shall be tapered and shall be supplied with pole caps.
- (R-5) Concrete shall be Class A or Class C.
- (R-6) The physical shapes of pole caps, brackets, base flanges, and concrete pull boxes are to be considered approximate as shown.
- (R-7) All metal poles shall be grounded.
- (R-8) All metal light standards shall be wired with a fused connector of proper capacity rating which shall be located in the transformer base.
- (R-9) Wood poles shall be treated or treated 30 feet from edge of traveled way or be physically protected from vehicle impact.
- (R-10) All steel poles, arms and base flanges shall be hot dip galvanized in accordance with ASTM Designation A-123. Units on which the spelter coating has been damaged shall be repaired as provided in AASHTO Designation M-16 or other approved method.
- (R-11) Aluminum shall conform to ASTM Designation B221 Alloy 6063-T6 or ASTM Designation B221 Alloy 6061-T6 or B221 Alloy 6061-T6.
- (R-12) Minimum yield strengths shall be as follows:
 - Aluminum: 45,000 psi
 - Steel: 46,000 psi

TYPICAL HIGHWAY LIGHT STANDARD



MINIMUM METAL POLE REQUIREMENTS

MATERIAL	HEIGHT	A	B	WALL THICKNESS
Aluminum	40'	10"	8"	0.088" (0.0035")
Steel	40'	8"	6"	0.088" (0.0035")
Aluminum	30'	8"	6"	0.088" (0.0035")
Steel	30'	6"	4"	0.088" (0.0035")

Standard mounting height shall be 40 feet.

Use dimensions for 30' mounting height as shown in detail of pole.

Direction of mounting may be varied to accommodate lighting.

Standard arm length variable for Bridge Lighting.

Maximum for Tees.

Pole assembly shall be supplied in sufficient length to accommodate mounting height.

Use dimensions for 30' mounting height as shown in detail of pole.

Direction of mounting may be varied to accommodate lighting.

ITEM	DESCRIPTION	REMARKS
R-1	Pole Cap	M.R.N.
R-2	Pole	M.R.N.
R-3	Arm	M.R.N.
R-4	Luminaire	M.R.N.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS

HIGHWAY
LIGHTING

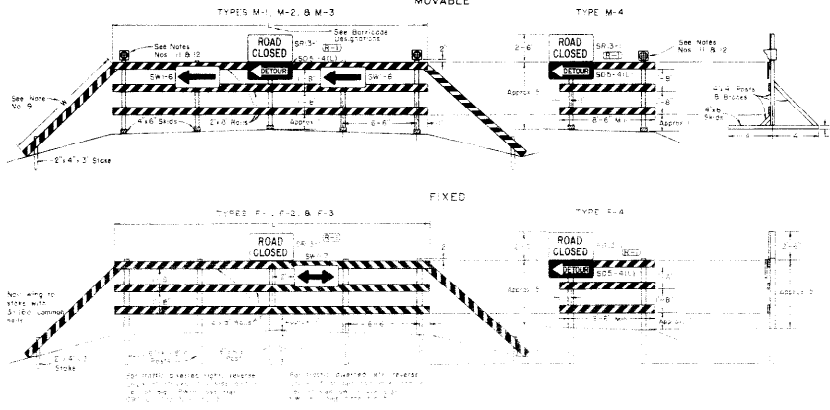
DESIGNED BY M.R.N. CHECKED BY J.B.B. DRAWN BY J.B.B. DATE 10/1/66

CLASS I BARRICADES (3 RAILS)

STANDARD M-614-A

(JULY 1, 1965)

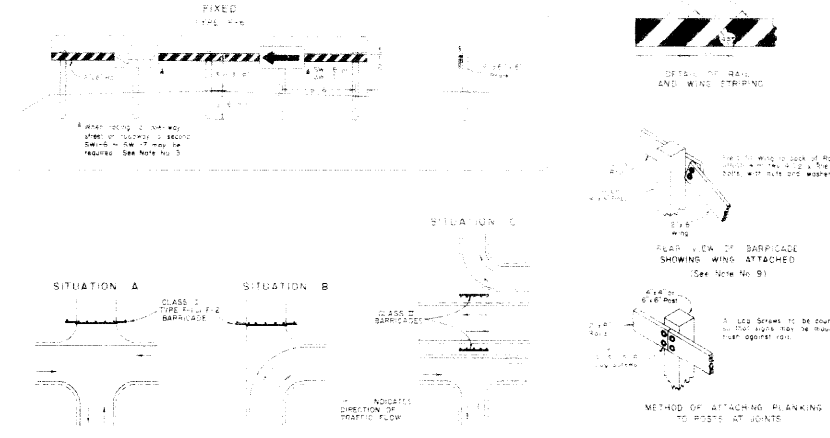
REVISIONS	REVISION NO.	REVISION DESCRIPTION	DATE	BY	CHKD.
1	5-68	Rev. Dept. Name & Code No.	JLS		
2	4-23-69	Rev. Code No. & Notes	JLS		



GENERAL NOTES

1. All work shall be done in accordance with the Standard Specifications applicable to the Project.
2. All signs and sign materials shall conform to the standards set forth in the Manual on Uniform Traffic Control Devices for Arterial Streets and Highways, published by the Department of Highways and this standard.
3. The various types and combinations of approved signs and Barricades for barricades required for each project shall be governed by field conditions and subject to approval by the Engineer. All traffic controls shall be placed for best visibility and legibility, and maintained in good condition at all times. Oversigning is to be avoided.
4. Barricades shall conform with the design of the Standard Specifications. All signs, lights, and posts shall be painted with 2 coats of "Exterior Black Paint" on all sides before adding reflective strips. Reflective strips shall be laid from smooth surface yellow reflective sheeting of a type approved by the Division.
5. Each barricade shall be equipped on the back side only with reflective yellow strips slanting downward at a 45° angle toward the rear of the barricade to turn or pass. See "DETAIL OF RAIL AND WING STRIPING".
6. When not closed, the barricade shall be placed in the center of the road, with the front of the barricade facing the direction of travel. The rear of the barricade shall be painted with 2 coats of "Exterior Black Paint".
7. All signs, lights, and posts shall be painted together with the barricade. All screws, bolts, nuts, and washers shall be painted with black paint.
8. Barricades shall be placed in the center of the road, with the front of the barricade facing the direction of travel. The rear of the barricade shall be painted with 2 coats of "Exterior Black Paint".
9. Barricades shall be placed in the center of the road, with the front of the barricade facing the direction of travel. The rear of the barricade shall be painted with 2 coats of "Exterior Black Paint".
10. Barricades shall be placed in the center of the road, with the front of the barricade facing the direction of travel. The rear of the barricade shall be painted with 2 coats of "Exterior Black Paint".
11. Barricades shall be placed in the center of the road, with the front of the barricade facing the direction of travel. The rear of the barricade shall be painted with 2 coats of "Exterior Black Paint".
12. Barricades shall be placed in the center of the road, with the front of the barricade facing the direction of travel. The rear of the barricade shall be painted with 2 coats of "Exterior Black Paint".
13. Barricades shall be placed in the center of the road, with the front of the barricade facing the direction of travel. The rear of the barricade shall be painted with 2 coats of "Exterior Black Paint".
14. Barricades shall be placed in the center of the road, with the front of the barricade facing the direction of travel. The rear of the barricade shall be painted with 2 coats of "Exterior Black Paint".
15. Barricades shall be placed in the center of the road, with the front of the barricade facing the direction of travel. The rear of the barricade shall be painted with 2 coats of "Exterior Black Paint".
16. Barricades shall be placed in the center of the road, with the front of the barricade facing the direction of travel. The rear of the barricade shall be painted with 2 coats of "Exterior Black Paint".
17. Barricades shall be placed in the center of the road, with the front of the barricade facing the direction of travel. The rear of the barricade shall be painted with 2 coats of "Exterior Black Paint".
18. Barricades shall be placed in the center of the road, with the front of the barricade facing the direction of travel. The rear of the barricade shall be painted with 2 coats of "Exterior Black Paint".
19. Barricades shall be placed in the center of the road, with the front of the barricade facing the direction of travel. The rear of the barricade shall be painted with 2 coats of "Exterior Black Paint".
20. Barricades shall be placed in the center of the road, with the front of the barricade facing the direction of travel. The rear of the barricade shall be painted with 2 coats of "Exterior Black Paint".

CLASS II BARRICADE (1 RAIL)



BARRICADE DESIGNATIONS

Design	Material	Color	Description
1	Wood	Black	Standard type with 1 rail and 1 wing
2	Wood	Black	Standard type with 1 rail and 1 wing, with 1 rail and 1 wing
3	Wood	Black	Standard type with 1 rail and 1 wing, with 1 rail and 1 wing
4	Wood	Black	Standard type with 1 rail and 1 wing, with 1 rail and 1 wing
5	Wood	Black	Standard type with 1 rail and 1 wing, with 1 rail and 1 wing
6	Wood	Black	Standard type with 1 rail and 1 wing, with 1 rail and 1 wing
7	Wood	Black	Standard type with 1 rail and 1 wing, with 1 rail and 1 wing
8	Wood	Black	Standard type with 1 rail and 1 wing, with 1 rail and 1 wing
9	Wood	Black	Standard type with 1 rail and 1 wing, with 1 rail and 1 wing
10	Wood	Black	Standard type with 1 rail and 1 wing, with 1 rail and 1 wing
11	Wood	Black	Standard type with 1 rail and 1 wing, with 1 rail and 1 wing
12	Wood	Black	Standard type with 1 rail and 1 wing, with 1 rail and 1 wing
13	Wood	Black	Standard type with 1 rail and 1 wing, with 1 rail and 1 wing
14	Wood	Black	Standard type with 1 rail and 1 wing, with 1 rail and 1 wing
15	Wood	Black	Standard type with 1 rail and 1 wing, with 1 rail and 1 wing
16	Wood	Black	Standard type with 1 rail and 1 wing, with 1 rail and 1 wing
17	Wood	Black	Standard type with 1 rail and 1 wing, with 1 rail and 1 wing
18	Wood	Black	Standard type with 1 rail and 1 wing, with 1 rail and 1 wing
19	Wood	Black	Standard type with 1 rail and 1 wing, with 1 rail and 1 wing
20	Wood	Black	Standard type with 1 rail and 1 wing, with 1 rail and 1 wing

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
TIMBER
BARRICADES

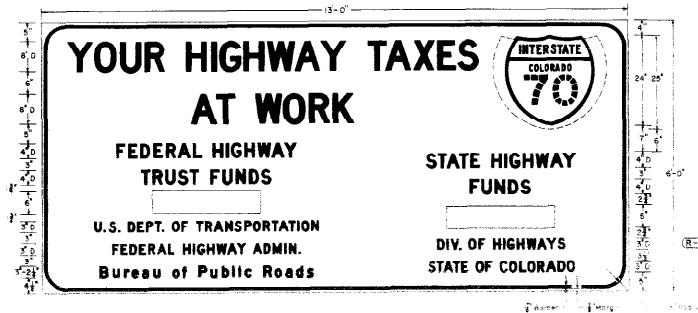
STANDARD M-614-A

STANDARD M-614-IC

JULY 5, 1968
(SHEET 1 OF 2 SHEETS)

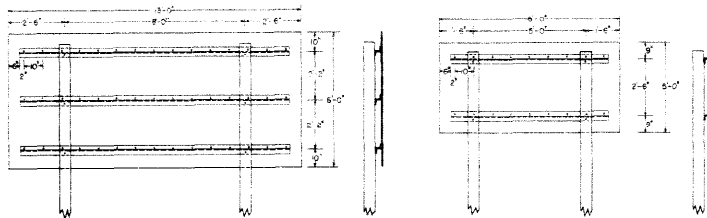
FEDERAL ROAD DISTRICT NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	COLORADO			

REVISIONS			
(R-1)	7-26-68	Rev. Legend and Notes	G.W.F.
(R-2)	5-20-69	Rev. Lateral Placement	J.J.B.

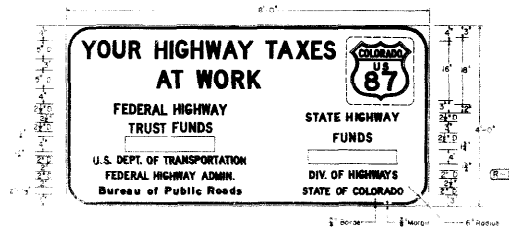


ALTERNATE LEGEND
 FEDERAL FUNDS

FABRICATION DETAILS



"AMOUNT OF FUNDS" PLAQUE DETAILS

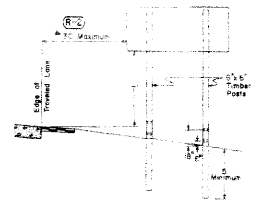


ALTERNATE LEGEND
 FEDERAL FUNDS

GENERAL NOTES

- These signs shall be fabricated and installed by state forces.
- All work shall be done in accordance with Standard Specifications applicable to the Project.
- Signs are to be placed facing traffic approaching the Project. They shall be installed so as to avoid where they will not obscure or detract from the effective use of other official signs.
- The lateral placement may be reduced to a minimum of 2 ft. outside of the shoulder edge where necessary to fit field conditions.
- When these signs are used on deactivation projects, the words "HIGHWAY" and "TRUST" on lines 2 and 4 shall be deleted and the words "FEDERAL" and "FUNDS" shall be used in accordance with the wording as shown under Alternate Legend.
- Sign panels shall be fabricated with 1/4" plywood.
- Route Marker plaques and "Amount of Funds" plaques shall be sheet aluminum 0.080" min. thickness.
- Signs shall have a screen processed black legend on a plain white background. "Amount of Funds" plaques shall have a screen processed black legend on a plain white background.
- Route Marker plaques shall be plain as indicated on the applicable standards.
- Backing steel shall be 3" x 5 1/2" x 1/4". Steel shall weigh 6.7 lbs. per ft. and aluminum shall be of 6061-T6 alloy weighing 2.33 lbs. per ft.
- Posts shall be 6" x 6", S&S timber, painted white.
- Each timber post shall be provided with two 2" diameter holes through the neutral axis, one 2'-0" and one 2'-6" above the ground level. The inside portion of each 2" diameter hole shall be painted white.
- Posts shall be fastened to backing steel with 1/4" throat head lockbolt fasteners.
- Backing steel shall be fastened to posts with 3/4" machine bolts.
- Route Marker plaques and "Amount of Funds" plaques shall be fastened to the sign panels with 5/8" #9 round head wood screws.
- Exposed lockbolt fastener heads and wood screw heads on the face of the sign shall be painted or primed to match the background color.
- The underground portion of each timber post shall be treated with creosote.
- Where a third governmental agency is shown as participating, its official name should be included (examples: lines 6, 7, and 8).
- It will not be necessary to change DEPT. to DIV. on any existing signs.

INSTALLATION DETAIL



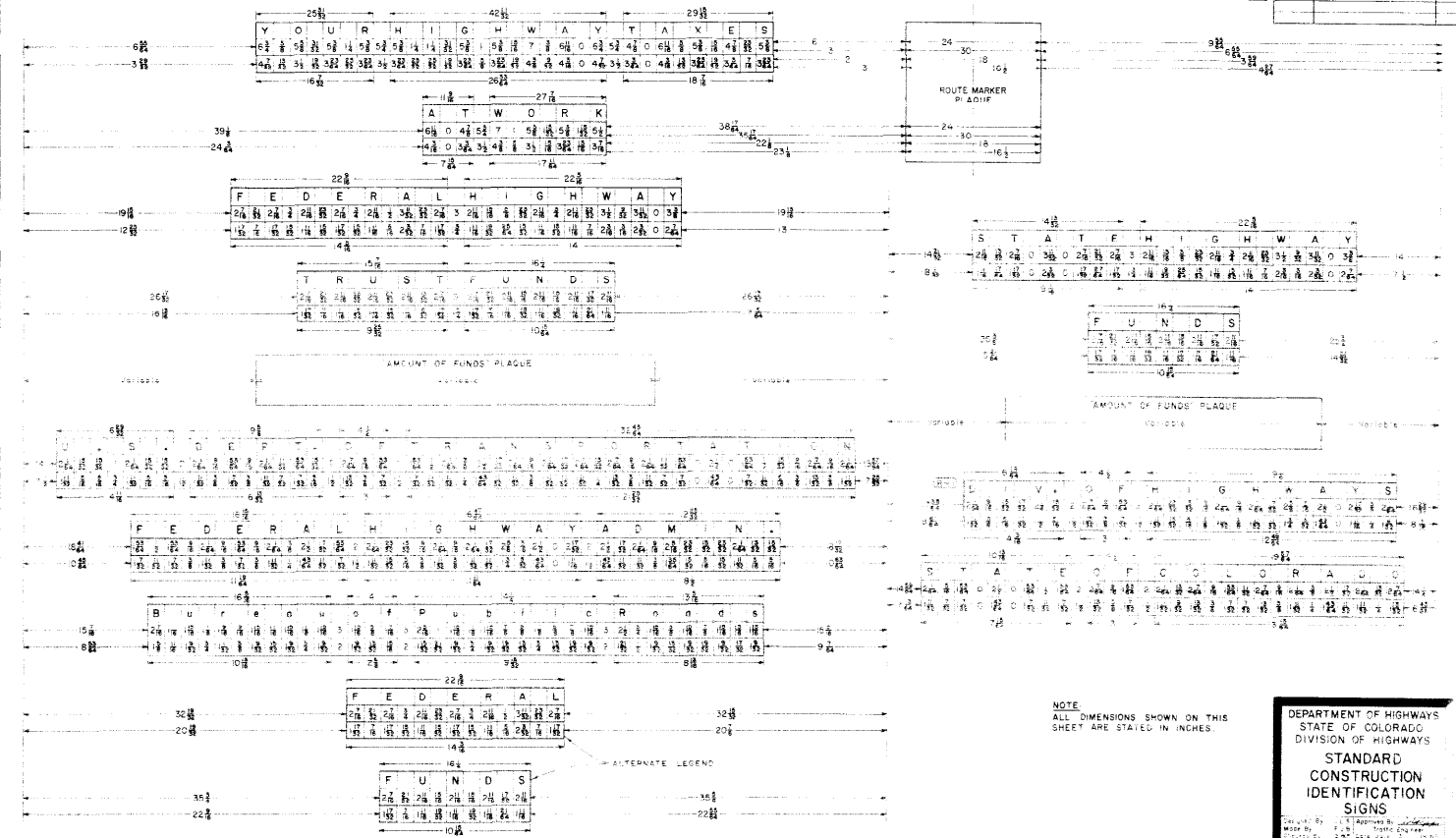
DEPARTMENT OF HIGHWAYS
 STATE OF COLORADO
 DIVISION OF HIGHWAYS
 STANDARD
 CONSTRUCTION
 IDENTIFICATION
 SIGNS

Designed By: L.L.S. Approved By: J.J.B.
 Made By: J.J.B. Traffic Engineer
 Date: 5-20-69

STANDARD M-614-IC

JULY 5, 1968
(SHEET 2 OF 2 SHEETS)

FEDERAL ROAD DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
1			
COLORADO			
REVISIONS			
7-26-68 Rev. Legend			JLB
5-20-68 Rev. Intent Placement			JLB



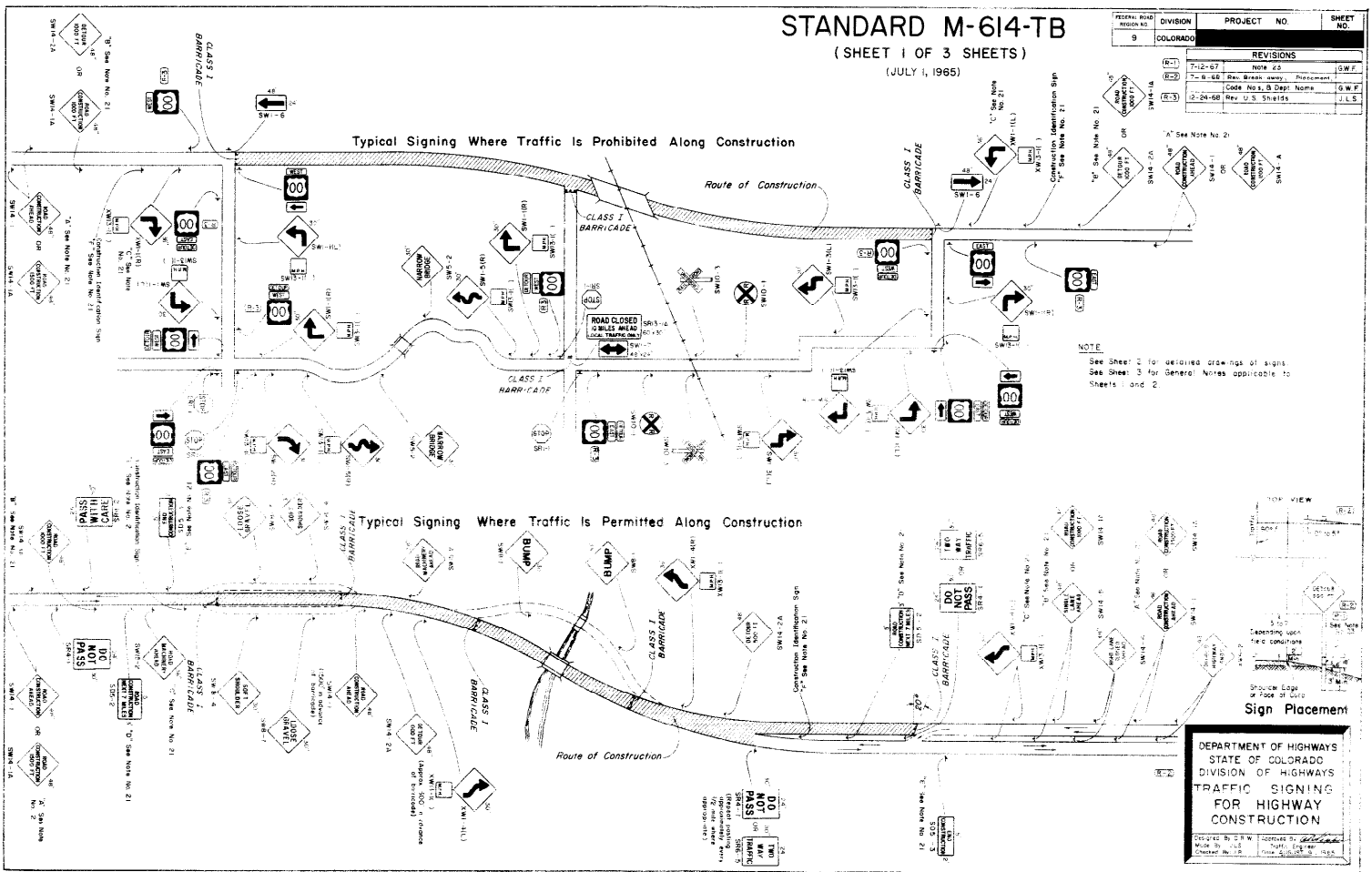
STANDARD M-614-TB

(SHEET 1 OF 3 SHEETS)

(JULY 1, 1965)

FEDERAL ROAD DISTRICT NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLORADO		

REVISIONS	
NO.	DESCRIPTION
1	7-12-67 Note 23
2	7-18-68 Rev. Breakaway Placement
3	Code No. 8 Dept. Name
4	2-24-68 Rev. U.S. Shields



STANDARD M-614-TB

(SHEET 2 OF 3 SHEETS)

(JULY 1, 1965)

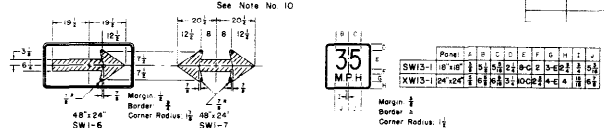
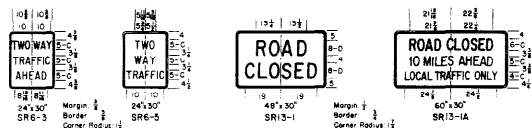
WARNING SIGNS

See Note No 10

SECTION ROAD	DIVISION	PROJECT NO.	SHEET NO.
1	COLORADO		

REVISIONS	DATE	BY	REASON
(1) 7-12-67		M.A.H.	
(2) 7-8-68		Rev. Code No. 8	Dept. Name
(3) 12-24-68		Added Notes	

REGULATORY SIGNS
See Note No. 9



WARNING SIGNS
See Note No 10

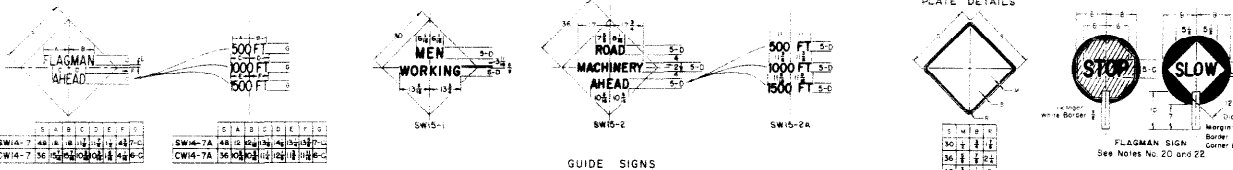
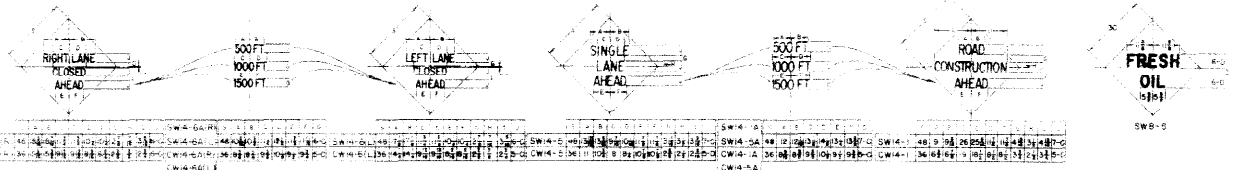
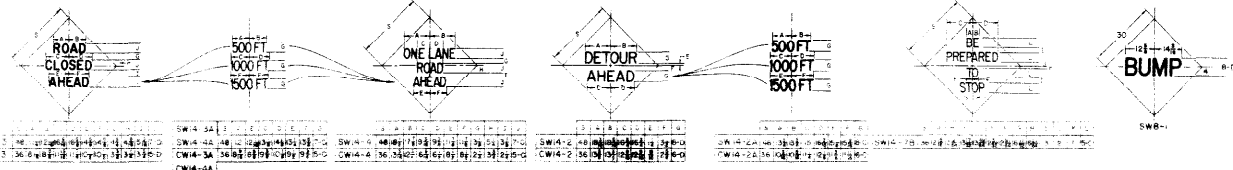
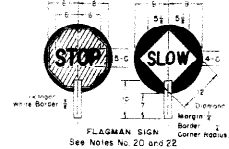
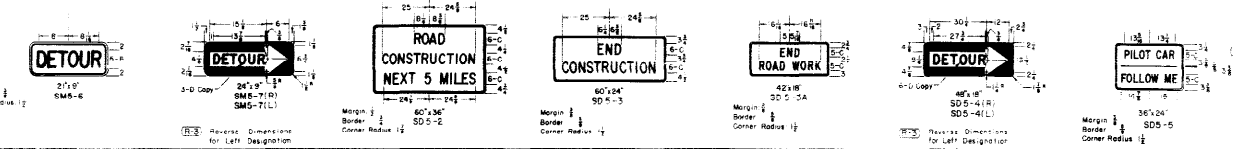


PLATE DETAILS



NOTES
SEE SHEET 1 FOR TYPICAL
SIGNING AND SIGN PLACEMENT
SEE SHEET 3 FOR GENERAL
NOTES APPLICABLE TO SHEETS
AND 2
ALL DIMENSIONS THAT ARE NOT
LABELED ARE IN INCHES

GUIDE SIGNS
See Note No 11



DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
TRAFFIC SIGNING
FOR HIGHWAY
CONSTRUCTION
Designed by: G.W.F.
Printed by: G.W.F.
Checked by: G.W.F.

STANDARD M-614-TB

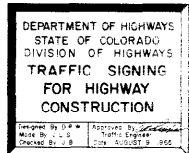
(SHEET 3 OF 3 SHEETS)

(JULY 1, 1965)

GENERAL NOTES

REVISION NO.	DIVISION	PROJECT NO.	SHEET NO.
1	COLORADO		
REVISIONS			
(R-1)	7-12-67	Added Note 25	GWP
(R-2)	7-8-68	Rev. Note 25 & Item Notes - Deleted Note	GWP
(R-3)	12-24-68	Rev. Note No. 18	G.L.S.

1. All work shall be done in accordance with: (a) the Standard Specifications applicable to the Project, and (b) the "Manual on Uniform Traffic Control Devices" published by the Department of Highways.
2. Where traffic is maintained through or over any part of the Project, the Contractor will be required to mark all hazards within the limits of the Project (including connecting roads) with well-maintained Barricades, Warning, and Guide Signs. All Barricades and Signs shall be moved, added to, changed or removed as required during the progress of construction and removed entirely when the Project is completed.
3. Where traffic is prohibited from the Project the Detour will be marked by the Department except that the Contractor shall provide, erect and maintain Barricades, complete, when required at the ends of the Project, ends of the Detour and connecting roads. All U.S. or State Route Markers required for the Project will be furnished and installed by the Department. The location and positioning of Warning Signs, Barricades, and Regulatory Signs shall be as recommended by the appropriate District Engineering Forces of the Department.
4. Work on the Project shall not be started until all required signs are in place and approved by the Engineer, where speed control appears necessary, such speed control shall be requested from the Engineer. By the contractor, control of speed through a construction zone may be achieved by Advisory Speed plates in conjunction with Warning Signs (SW15-1) for use with 30" Warning Signs and (SW15-2) for use with 36" and 48" Warning Signs. The Advisory Speed plate is to be placed only at those locations where the zone speed is lower than the imposed Regulatory speed limit.
5. All Signs and Barricades shall be placed for use, visibility, and regulatory, maintained in good condition and kept clear and free of dirt and obstructions. Contractors and Engineer's vehicles and equipment must be parked so that signs and barricades are visible to approaching traffic at all times.
6. Where two identical signs are used for dual posting they are to be staggered on the two sides of the roadway for a minimum distance of 200 feet to avoid a flashing effect.
7. Examples for marking Projects, as shown on Sheet 1, are typical of signs required and are subject to alteration to fit actual conditions encountered on the field. Locations for advance devices are to be placed by the Engineer. In all cases warning signs are to be placed well in advance of the hazard, the distance depending on topography and existing approach speeds. Additional markings and any special signs required for the guidance and protection of traffic will be placed as required on the Project at the Contractor's expense.
8. Desirable sizes for signs are shown on Sheet 1 of this Standard. Larger or smaller signs shall be used where warranted. Detailed dimensions for signs normally used in connection with construction are shown on Sheet 2 of this Standard. For information on standard roadway signs not detailed on this Standard see the "Manual on Uniform Traffic Control Devices" for all Classes of Streets and Highways published by the Department of Highways.
9. Signs with the prefix "R" in the sign code are Regulatory signs and as such impose legal compulsion or restrictions on drivers and should only be used as authorized by the Engineer.
10. Signs with the prefix "W" in the sign code are Warning signs and are used to alert traffic to existing or potentially hazardous conditions.
11. Signs with the prefix "D" or "M" in the sign code are Guide signs. Those with the prefix "D" convey general information and those with the prefix "M" are used for marking the traffic route.
12. All signs shall be reflectorized unless otherwise specified on plans. Regulatory and Guide signs (unless otherwise specified) shall have a screen processed black legend and border on a white flexible reflective sheeting, non-exposed lens background. The back side of Regulatory and Guide signs shall be painted with two coats of "Exterior Sign White Paint." Warning signs shall have a screen processed black legend and border on a highway yellow flexible reflective sheeting, non-exposed lens background. The back side of Warning signs shall be painted with two coats of "Federal Yellow Synthetic Sign Enamel."
13. Painting for wood surfaces shall conform with Section 200 of the Standard Specifications.
14. Posts for regulatory, warning, and guide signs will normally be 4" x 4" or 6" x 6" and shall conform to the Standard Specifications for Unfinished Timber 240. Timber shall conform to Construction grade Paragraph 238 or 258 of Standard No. 16 Grading & Dressing Rules for West Coast Douglas Fir (1956) or Dense Structural 5B and L.L. Structural 5B Paragraph 284 or 285 of 1956 Grading Rules for Southern Pine. Posts shall be painted with one coat of "White Wood Primer" and one coat of "Outside White Paint."
15. Sign panels furnished by the Contractor for use only during construction may be fabricated from plywood, aluminum, steel or other suitable material but shall be stable and durable enough to meet other requirements of this Standard.
16. All material shall be sound and durable. Barricades, signs, symbols, and lettering shall be of good workmanship. Uneven lettering will not be accepted.
17. Alternate methods of processing signs or the substitution of symbols or other reflecting elements for painted symbols will be permitted only after approval by the Department.
- (R-3) 18. **Lanterns and Torches** - Lanterns, with red globes, shall be used only in low speed urban areas. Open-flame torches shall not be used under any circumstances.
19. **Barricades, Flashing Beacons and Flashers** - Refer to appropriate "M" Standard (Timber Barricades) for details.
20. **Flagmen Sign** - This sign shall have a black painted background on both sides to form a contrast for the diagonal Stop sign and the diamond Warning sign. The STOP sign shall be indicated by reverse screen process using transparent red paint on smooth surface above reflective sheeting. The SLOW side of the Flagmen Sign shall be black process paint on smooth surface yellow reflective sheeting. Panels to be placed on one side to indicate required right of way to Flagmen.
21. **Sign "A"** - This is the first advance warning sign and shall be placed 500 feet ahead of Barricades at project terminal. Right-of-way required on both sides of the roadway on divided highways. Dual posting is required where warranted on two-lane, two-way highways. **Sign "B"** - This is the second advance warning sign and shall be placed 1000 feet ahead of barricade or project terminal. Right-of-way required on both sides of the roadway on divided highways and single on two-lane, two-way highways. **Sign "C"** - This is the third advance warning sign in cases where barricades are used and shall be placed 500 to 700 feet ahead of barricade or project terminal. Right-of-way required on both sides of the roadway on divided highways and single on two-lane, two-way highways. **Sign "D"** - SD5-1 - This sign shall be placed to mark the beginning of a Project or more than 2 miles in extent, where traffic is maintained through the project. It shall be placed singly and near the beginning of construction. **Sign "E"** - SD5-3 - This sign shall be placed to mark the end of the Project. It shall be placed singly and may be placed opposite barricade if desirable. **Sign "F"** - Construction identification signs shall be furnished and installed by the Department on all Federal-aid and Federal-highway Projects where actual construction is in progress and visible to highway users. These signs should be located so as not to obscure or detract from the effectiveness of other official signs, where two or more projects are contiguous, the appropriate data may be included in one set of signs. Refer to appropriate "M" Standard (Identification Signs) for sign details. **Signs A through F** shall be furnished, installed and maintained by the Department.
22. When Flags are used in lieu of the Flagmen Sign, they shall be a minimum of 18" x 18" made of a good grade of bright red material, and fastened securely to a shaft of approximately 3 feet length. The free edge should be weighted to insure that the flag will hang vertically, even in heavy winds.
- (R-2) 23. Each 6" x 6" timber sign post shall be provided with two 2" diameter holes through the main axis, normal to the roadway, one hole at 6' and one hole at 18' above the ground line. The 4" x 4" timber posts shall not be provided with any type of break-away device. The inside portion of each 2" diameter hole shall be painted white. The underground portion of each timber post shall be treated with creosote.
- (R-2) 24. **Sign "G"** - This sign shall be placed to mark the beginning of a Project or more than 2 miles in extent, where traffic is maintained through the project. It shall be placed singly and near the beginning of construction. **Sign "H"** - SD5-3 - This sign shall be placed to mark the end of the Project. It shall be placed singly and may be placed opposite barricade if desirable. **Sign "I"** - Construction identification signs shall be furnished and installed by the Department on all Federal-aid and Federal-highway Projects where actual construction is in progress and visible to highway users. These signs should be located so as not to obscure or detract from the effectiveness of other official signs, where two or more projects are contiguous, the appropriate data may be included in one set of signs. Refer to appropriate "M" Standard (Identification Signs) for sign details. **Signs A through F** shall be furnished, installed and maintained by the Department.

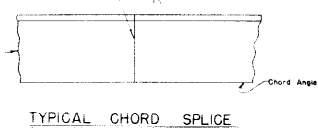
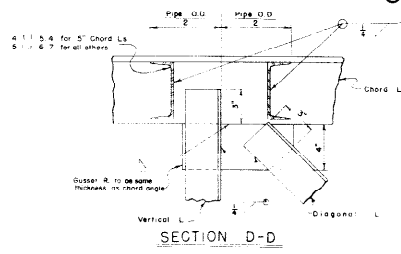
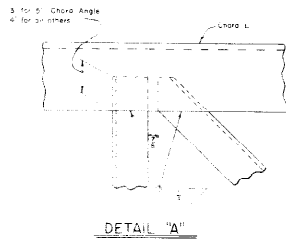


STANDARD S-614-2A

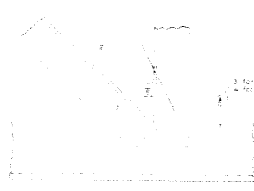
(AUG. 1, 1965)

FED. ROAD RES. NO.	DIVISION	PROJECT NUMBER	SHEET NUMBER
9	COLO.		

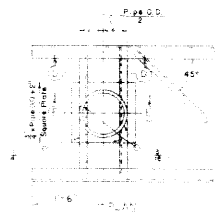
REVISIONS			
NO.	DATE	BY	APP.



TYPICAL CHORD SPLICE

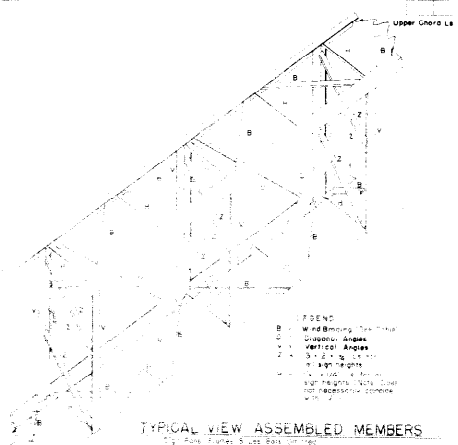


DETAIL "B"

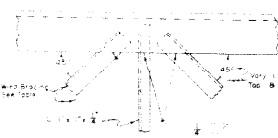


SECTION E-E

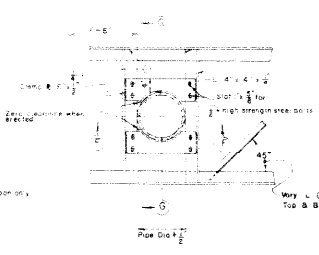
UPPER CHORD CONNECTION TO POST



TYPICAL VIEW ASSEMBLED MEMBERS

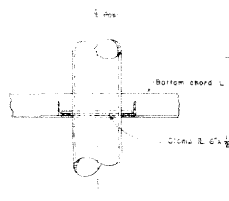


DETAIL "C"



SECTION F-F

LOWER CHORD CONNECTION TO POST



SECTION G-G

NOTES:
1. This standard shall be used in conjunction with the STANDARD TRUSS JOINT AND BARS (S-614-1) and the STANDARD...

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
STANDARD OVERHEAD SIGNS
SIGN BRIDGES
MISCELLANEOUS DETAILS

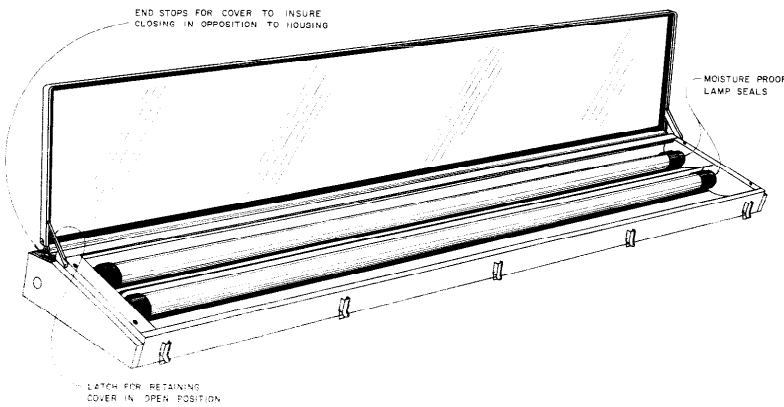
Designed by: _____
Made by: _____
Checked by: _____
Approved by: _____
Date: AUGUST 1965

STANDARD S-614-14A

STANDARD S-614-16A

(AUG. 1, 1965)

STANDARD NO.	DIVISION	PROJECT NO.	SHEET NO.
S-614-16A	9	COLORADO	1



NOTES

GENERAL

- All work shall be done in accordance with the Standard Specifications applicable to the Project.
- Fixtures shall be fabricated in a neat workmanlike manner in conformity with the current accepted practice of application of the various items and in accordance with the approved plan.
- All hardware and fastening devices shall be of non-corrosive material.
- Material shall be approved by the Engineer prior to installation.

FIXTURE HOUSING

- The housing of the fixture shall be steel (20 gauge minimum) or acceptable aluminum alloy of approved thickness.
- The housing ends may be castings of corrosion resistant aluminum alloy.
- Exposed steel shall be painted in accordance with subsection 614.08 of the Standard Specifications.

- All construction joints shall be dust-tight and rain-tight.
- Drain holes of 1/8 diameter are required in the bottom of fixture housing located so as to insure adequate drainage.

FIXTURE COVER

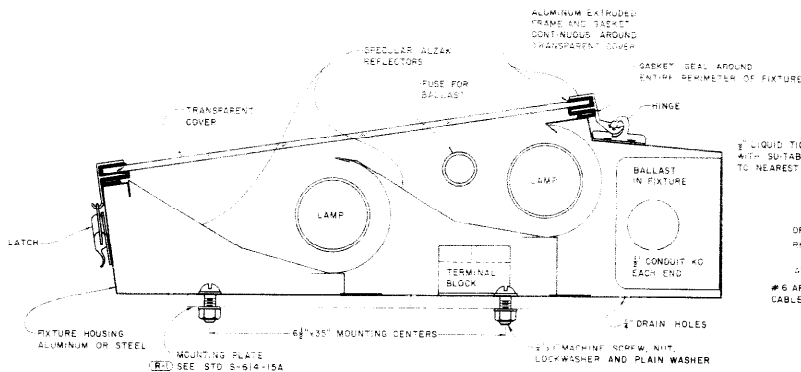
- The cover shall consist of a transparent panel framed with extruded aluminum or other acceptable material.
- The transparent panel shall be 1/8" minimum thickness not ribbed and of a heat-treated shock resistant material capable of withstanding the weather elements.
- Resilient gasketing shall be provided continuous in contact along the frame and transparent panel and also continuous between frame and fixture housing.
- Provisions for the cover shall include a means for opening and closing the cover without the use of tools and shall be provided with a means for locking the cover in the closed position.
- A locking device shall be provided for maintaining the cover in open position.

REFLECTORS

- Reflectors shall be of cast aluminum or aluminum with specular anodized finish and shall be of non-corrosive material as per drawing.

ELECTRICAL

- The fixture shall be provided with a 1/2" x 1/2" x 1/2" glass tube fuse in readily accessible location.
- A barrier type terminal block of adequate circuit capacity shall be provided.
- Compressive springs shall be independent of the compression springs and shall be cover guarded.
- Lamp sockets and lamps shall be protected by a flexible moisture proof boot.
- Each fixture shall be equipped with two F32T12 covered fluorescent lamps.
- Adjacent fixtures are to be connected with rigid conduit, elbows and bushings.
- Use #12 wire from switch box to fixtures.
- Secure flexible conduit to adjacent structural members using copper bonding straps.



TYPICAL LIGHT FIXTURE

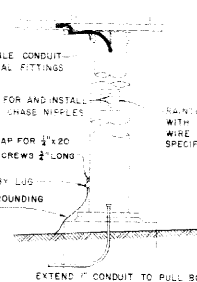
1/2" LIQUID TIGHT FLEXIBLE CONDUIT WITH SUITABLE TERMINAL FITTINGS TO NEAREST FIXTURE

TAP FOR AND INSTALL 1/2" CHASE NIPPLES

DRILL AND TAP FOR 1/2" x 20 RH BRASS SCREWS 2" LONG

ATTACHED BY LUG

#6 ARMORED GROUNDING CABLE



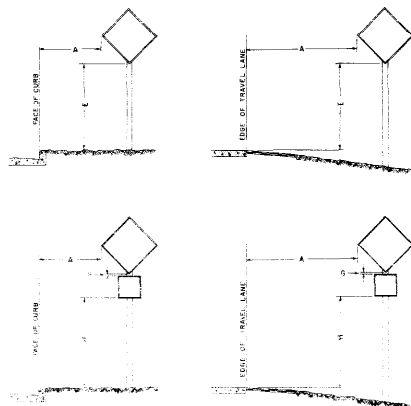
TYPICAL SIGN SWITCH INSTALLATION

SWITCH BOX (PAINTED ENAMEL OR GALV) WITH 20 AMP PLUG FUSE, EXDSN 2- WIRE SWITCH UNLESS OTHERWISE SPECIFIED

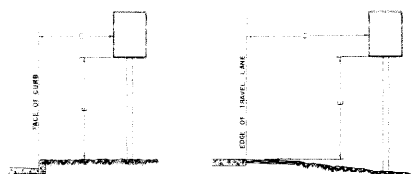
REVISIONS	
NO.	DESCRIPTION
10-19-65	Rev. Ref.
7-15-65	Rev. Title Block

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
FLUORESCENT SIGN
LIGHTING EQUIPMENT

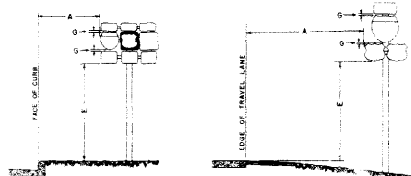
WARNING SIGN PLACEMENT



REGULATORY SIGN PLACEMENT



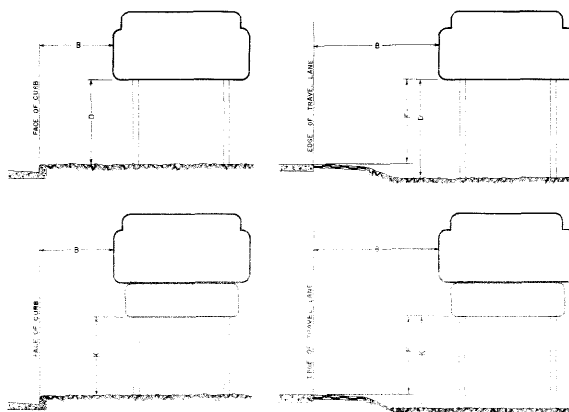
ROUTE MARKER ASSEMBLY PLACEMENT



STANDARD S-614-19A

MAY 27, 1968

CLASS III SIGN PLACEMENT



GENERAL NOTES

1. All work shall be done in accordance with the Standard Specifications applicable to the project.
2. The Engineer shall establish widths and locations for all sign posts in accordance with details shown on the plans.
3. Speed data shall be taken in sign locations to ensure an unobstructed view of each sign.
4. Signs shall be set to provide as much clear distance as existing conditions permit but shall not exceed maximum clearances as shown in the LATERAL PLACEMENT TABLE.
5. The lateral placement for all signs may be reduced to a minimum of 2 ft. outside of the shoulder edge or face of curb where necessary to fit field conditions or improve sign exposure.
6. The maximum lateral placement for Class III signs is 30 feet. This distance should vary only where field conditions dictate otherwise.

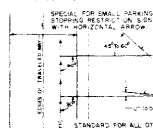
LATERAL PLACEMENT TABLE

KEY	ALL
	RURAL AND URBAN
A	22'-0" MAX
B	30'-0" MAX
C	18'-0" MAX

VERTICAL PLACEMENT TABLE

KEY	INTERSTATE & EXPRESSWAY	NON-EXPRESSWAY
	RURAL	URBAN
D	7'-0" MIN	7'-0" MIN
E	6'-0" MIN	2'-0" MIN
F	2'-6" MIN	2'-6" MIN
G	0'-0" MIN	0'-0" MIN
H	6'-0" MIN	4'-0" MIN
I	6'-0" MIN	6'-0" MIN

ANGULAR PLACEMENT (ALL GROUND SIGNS)

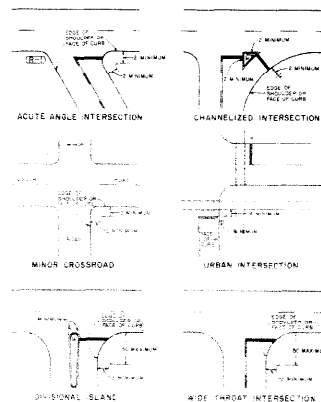


POST AND BEAM PLACEMENT

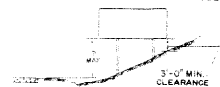
SEE APPLICABLE STANDARD FOR WOOD AND STEEL POSTS AND FOOTINGS DETAILS.



TYPICAL LOCATIONS STOP SIGNS AND YIELD SIGNS



CLASS III SIGNS PANEL GROUND CLEARANCE



DESIGNED BY: J. L. S. APPROVED BY: J. L. S.
CHECKED BY: G. W. F. DATE: May 27, 1968

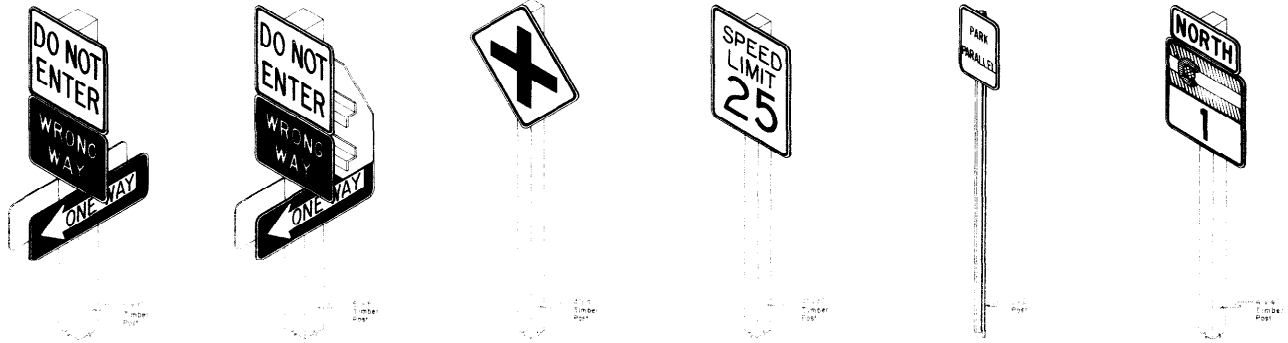
STANDARD S-614-19A

STANDARD S-614-20B

JULY 1, 1968

FEDERAL ROAD DISTRICT NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	COLORADO			
REVISIONS				

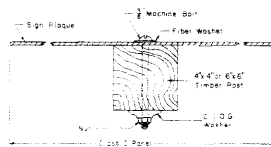
TYPICAL CLASS I GROUND SIGN INSTALLATIONS



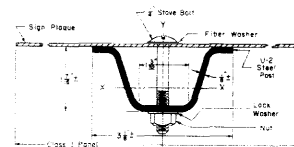
GENERAL NOTES

1. All work shall be done in accordance with the Standard Specifications applicable to the Project.
2. All Class I sign panels shall be either sheet steel (G4092) minimum thickness, or sheet aluminum (G4093) minimum thickness.
3. Class I sign panels shall be fastened directly to the post. Fasten round post with 2-1/2" stove bolts and to timber posts with 2-1/2" machine bolts. See "Typical Multi-Sign Installations" Standard for exceptions.
4. A plastic fiber washer shall be placed between the bolt head and the face of the sign panel. Use a C.I.O.G. washer under the nut on the back of the timber post.
5. Bolts, nuts and metal washers shall be galvanized or cadmium plated.
6. Exposed bolt heads and fiber washers on the face of the sign panel shall be painted or reflectiveized to match the surrounding color.
7. All reflective sheeting shall be of the Non-Exposed Lens Type.
8. For sign placement see "Typical Ground Sign Placement" Standard.
9. Steel posts shall meet requirements of Paragraph 4.5 U.S. Department of Commerce Commercial Standard (B4-S). U-2 post to weigh 2 lbs./ft. A mill tolerance of minus .3% of the weight of any one post will be allowed. Alternate post acceptable if section modulus is at least 0.200 in³ about the X-X axis and at least 0.250 in³ about the Y-Y axis.
10. For additional information refer to "TABULATION OF SIGNS". Timber posts shall be 4"x4" or 6"x6" as noted therein and shall conform to Standard Dressed (S4S) Sizes.

TYPICAL TIMBER POST SECTION



TYPICAL U-2 POST SECTION



DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
CLASS I
GROUND SIGN
INSTALLATIONS

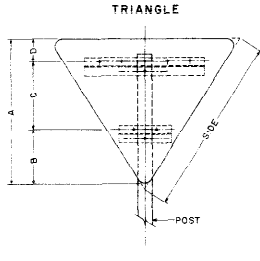
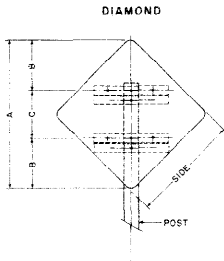
Designed By: J.L.S. Reviewed By: J.L.S.
Made By: J.L.S. Traffic Engineer
Checked By: G.W.P. Date: 10/25/68

STANDARD S-614-21B

JULY 1, 1968

FEDERAL ROAD DISTRICT NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	COLORADO			

REVISIONS			
NO.	DATE	REVISION	BY
1	4-22-69	REVISED TABLE	J.L.B.
2	12-1-99	REV. TABLE & ADD. NOTE	J.L.B.



CLASS II PANEL MOUNTING DATA (R-1) (R-2)						
SIGN TYPE	A	B	C	D	POST SIZE	BACKING ZEE LENGTH
DIAMOND 30" SIDES	40 7/8"	147 1/8"	12"	—	4" x 4"	1'-8"
36" SIDES	49 1/8"	14 1/2"	21"	—	6" x 6"	1'-8"
48" SIDES	65 1/8"	20 1/2"	25"	—	6" x 6"	2'-8"
TRIANGLE 36" SIDES	29 1/8"	14 1/8"	9"	6"	4" x 4"	1'-8", 1'-2"
48" SIDES	38 1/8"	14 1/8"	18"	6"	4" x 4"	2'-8", 1'-2"
60" SIDES	48"	20"	22"	6"	6" x 6"	2'-8", 1'-8"
OCTAGON 30" x 30"	50"	9"	12"	—	4" x 4"	1'-8"
48" x 48"	48"	12"	24"	—	6" x 6"	1'-8"
CIRCLE 36" DIAMETER	36"	8"	20"	—	6" x 6"	1'-8"
RECTANGLE 40" x 20"	20"	10"	—	—	4" x 4"	2'-8"
30" x 24"	24"	12"	—	—	4" x 4"	1'-8"
40" x 24"	24"	12"	—	—	4" x 4"	2'-8"
48" x 24"	24"	12"	—	—	6" x 6"	3'-2"
30" x 30"	30"	9"	12"	—	4" x 4"	1'-8"
48" x 30"	30"	9"	12"	—	6" x 6"	3'-2"
60" x 30"	30"	9"	12"	—	6" x 6"	4'-0"
30" x 36"	36"	9"	18"	—	6" x 6"	1'-8"
36" x 36"	36"	9"	18"	—	6" x 6"	2'-2"
48" x 36"	36"	9"	18"	—	6" x 6"	3'-2"
40" x 40"	40"	12"	22"	—	6" x 6"	2'-8"
36" x 42"	42"	9"	24"	—	6" x 6"	3'-2"
36" x 48"	48"	12"	24"	—	6" x 6"	3'-2"
40" x 48"	48"	12"	24"	—	6" x 6"	2'-8"
42" x 40"	48"	12"	24"	—	6" x 6"	1'-8"
48" x 48"	48"	12"	24"	—	6" x 6"	3'-2"
60" x 48"	48"	12"	24"	—	6" x 6"	4'-0"
48" x 54"	54"	12"	30"	—	6" x 6"	3'-2"
48" x 60"	60"	12"	36"	—	6" x 6"	4'-0"
54" x 72"	72"	12"	42"	—	6" x 6"	4'-0"
48" x 96"	96"	12"	24"	12"	6" x 6"	3'-2"

GENERAL NOTES

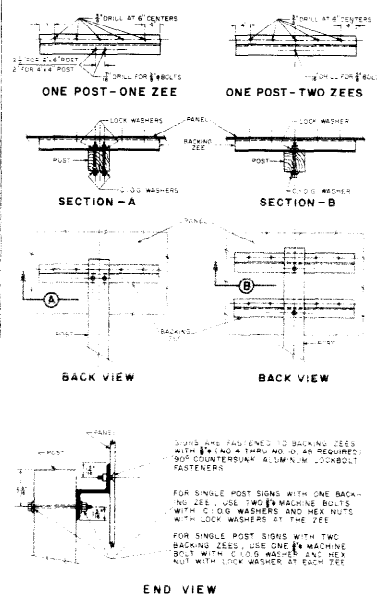
1. Where the sign panel is also subject to the Standard Specifications applicable to the project.
2. All Class II sign panels shall be either single sheet steel, 0.0598" minimum thickness, or single sheet aluminum, 0.0007" minimum thickness, and shall be furnished with backing zees.
3. Timber posts and, as 4" x 4" x 6" or 6" x 6" x 6" are noted in the "Tabulation of Signs" and shall conform to Standard (S45) Sizes.
4. Backing zees are 2" x 2 1/2" x 1/2" or 4" x 4" x 1/2" for steel or 4" x 4" x 1/2" for 6061-T6 aluminum.
5. Exposed bolt heads on the face of the sign shall be painted or reflectorized to match the surrounding color.
6. For sign placement see Typical Ground Sign Placement Standards.
7. All reflective sheeting shall be of the Non-Exposed Lens Type.
8. Bolts, nuts and metal washers shall be galvanized or cadmium plated.

SECONDARY PANEL MOUNTING

PANEL SIZE		'A' ZEE LENGTH	'B' ZEE SPACING	POST SIZE
PRIMARY	SECONDARY			
30" SIDES	18" SQUARE	1'-2"	24 1/8"	6" x 6"
36" SIDES	24" SQUARE	6"	27 1/8"	6" x 6"
48" SIDES	24" SQUARE	1'-8"	33 1/8"	6" x 6"

NOTE: SEE CLASS II PANEL MOUNTING DATA AND TYPICAL BACKING ZEE FOR OTHER DIMENSIONS AND FASTENERS.

TYPICAL BACKING ZEES



DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
CLASS II
GROUND SIGN
INSTALLATIONS

Designed By: J.L.B. (1968-11-15)
Drawn By: J.L.B. (1968-11-15)
Checked By: G.W.F. (1978-11-15) 9-58

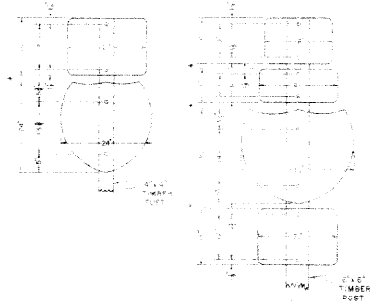
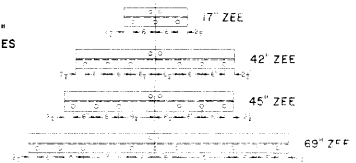
STANDARD S-614-22B

MAY 16, 1968

FEDERAL ROAD DISTRICT	PROJECT NO.	SHEET NO.	TOTAL SHEETS
2	COLORADO		

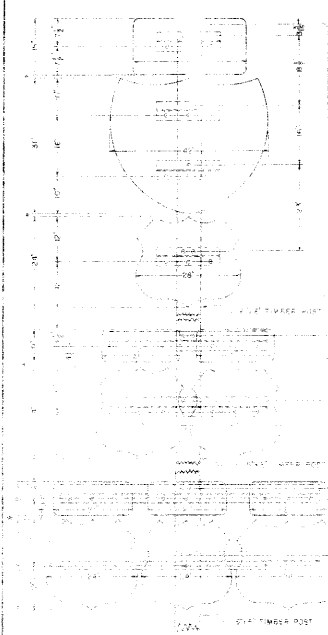
REVISIONS
(1) 6-27-68 Rev Title Block GWF

TYPICAL BACKING ZEES



GENERAL NOTES

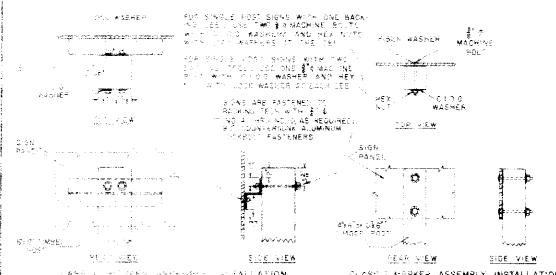
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS APPLICABLE TO THE PROJECT.
- FOR SIGN PLACEMENT SEE "TYPICAL GROUND SIGN PLACEMENT" STANDARD.
- FOR SIGN PANEL FABRICATION DETAILS SEE APPLICABLE STANDARDS.
- TIMBER POSTS SHALL BE 4" X 4" OR 6" X 6" AS NOTED IN THE SPECIFICATION. SIGN ZEE SHALL CONFORM TO STANDARD DRESSED (S&S) SIZES.
- POSTS SHALL BE SET IN DRILLED OR EXCAVATED HOLES, PLACED PLUMB, AND FIRMLY TAMPED IN PLACE.
- BACKING ZEES ARE 3" X 24" X 1/2" STEEL ZEES SHALL WEIGH 67 LBS PER FT. AND ALUMINUM ZEES SHALL BE OF 6061-T6 ALLOY WEIGHING 22 LBS PER FT.
- ALL REFLECTIVE SHEETING SHALL BE OF THE NON-EXPOSED LENS TYPE.
- VERTICAL SPACING BETWEEN PANELS SHALL BE 1" MINIMUM TO 1/2" MAXIMUM.
- VERTICAL SPACING BETWEEN GROUPS OF PANELS SHALL BE 4".
- BOLTS, NUTS AND METAL WASHERS SHALL BE GALVANIZED OR CADMIUM PLATED.
- EXPOSED BOLT HEADS AND FIBER WASHERS ON THE FACE OF THE SIGN PANEL SHALL BE PAINTED OR REFLECTORIZED TO MATCH THE SURROUNDING COLOR.



17" ZEES

42" ZEES

69" ZEES



STANDARD S-614-22B

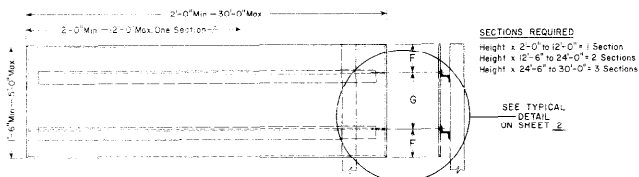
DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
TYPICAL MARKER
ASSEMBLY
INSTALLATIONS

OCTOBER 20, 1969

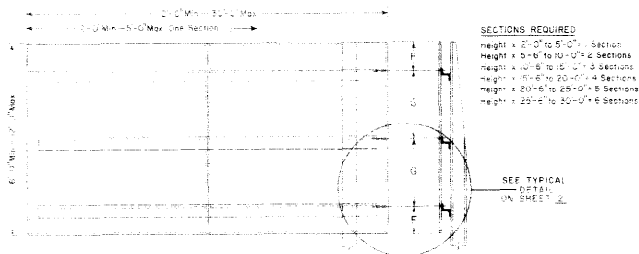
DESIGN NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO			

REVISIONS	
NO.	DESCRIPTION

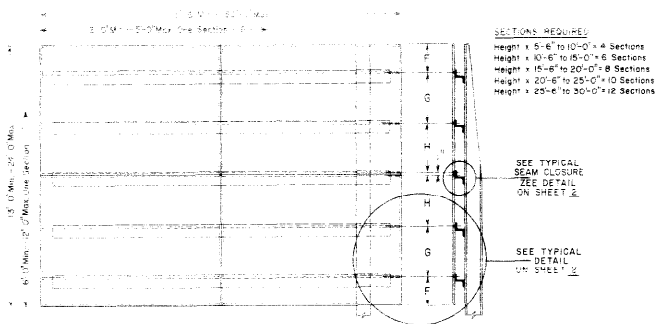
HORIZONTAL SECTIONS



VERTICAL SECTIONS



MULTI-VERTICAL SECTIONS



GENERAL NOTES

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS APPLICABLE TO THE PROJECT.
- SEE THE APPLICABLE STANDARDS FOR SIGN PLACEMENT AND FOOTING DETAILS.
- FASTENERS: A BUTTON-HEAD BOLT WITH NUT AND WASHERS SHALL BE USED TO FASTEN THE SIGN PANEL TO THE BACKING ZEE. A HEX-HEAD BOLT WITH NUT AND WASHERS SHALL BE USED TO FASTEN THE BACKING ZEE TO A TIMBER POST OR TO A STEEL POST.
- WASHERS: A FLAT WASHER WITH NEOPRENE SEAL SHALL BE PLACED BETWEEN THE BOLT HEAD AND THE PANEL FACE. A FLAT WASHER SHALL BE PLACED BETWEEN THE BOLT HEAD AND THE BACKING ZEE. A LOCK WASHER SHALL BE PLACED UNDER THE NUT ON A STEEL POST OR A BACKING ZEE. A 1 TO 6 WASHER SHALL BE PLACED UNDER THE BOLT HEAD ON A STEEL POST.
- BOLT HEADS AND WASHERS ON THE PANEL FACE SHALL BE DIPPED, PAINTED OR COVERED WITH REFLECTIVE SHEETING TO MATCH THE BACKGROUND COLOR OF THE SIGN.
- SIGN PANELS SHALL BE CONSTRUCTED FROM THE LEAST NUMBER OF SECTIONS THE SECTIONS SHALL BE AS LARGE AS POSSIBLE AND AS NEARLY EQUAL IN SIZE AS POSSIBLE, ACCORDING TO THE LIMITS SHOWN.
- FOR ADDITIONAL POST AND PANEL INFORMATION SEE THE TABULATION OF SIGNS INCLUDED IN THE PLANS.

SPACING TABLE for

ALUMINUM BACKING ZEE AND SUPPORT TUBES

SIGN PANEL HEIGHT	NUMBER OF TUBES 1" TUBES	OVERHANG F	SPACING G	SIGN PANEL HEIGHT	NUMBER OF TUBES 1" TUBES	OVERHANG F	SPACING	
							G	H
1'-2"	2	0'-5"	2'-4"	4'-0"	7-6	0'-5"	2'-4"	2'-10"
2'-6"	2	0'-6"	1'-8"	5'-0"	7-6	0'-0"	2'-2"	2'-10"
3'-0"	2	0'-7"	1'-10"	6'-0"	7-6	0'-6"	2'-6"	2'-10"
4'-0"	2	0'-11"	2'-2"	7'-0"	7-6	0'-0"	2'-6"	2'-10"
5'-0"	2	0'-3"	2'-6"	8'-0"	9-8	0'-4"	2'-2"	2'-10"
6'-0"	3	0'-0"	2'-2"	9'-0"	9-8	0'-0"	2'-2"	2'-10"
7'-0"	3	1'-0"	2'-6"	10'-0"	9-8	0'-4"	2'-2"	2'-10"
8'-0"	4	0'-9"	2'-2"	11'-0"	9-8	0'-6"	2'-6"	2'-10"
9'-0"	4	1'-3"	2'-2"	12'-0"	9-8	0'-0"	2'-6"	2'-10"
10'-0"	4	1'-3"	2'-6"	13'-0"	11-10	0'-8"	2'-2"	2'-10"
11'-0"	5	1'-2"	2'-2"	14'-0"	11-10	1'-2"	2'-2"	2'-10"
12'-0"	5	1'-0"	2'-6"					

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
LAMINATED ALUMINUM
PANELS AND POST
SPACING TABLE FOR
CLASS III SIGNS

STANDARD S-614-23 C

(SHEET 2 OF 2 SHEETS)

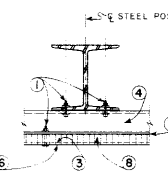
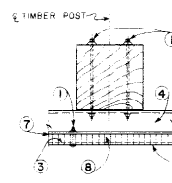
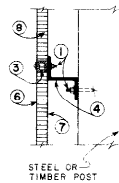
OCTOBER 20, 1969

FEDERAL ROAD DISTRICT NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO			

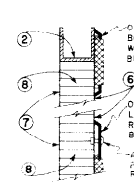
REVISIONS	

POST SPACING TABLE for LAMINATED, EXTRUDED, and SHEET ALUMINUM SIGN PANELS							
WIDTH OF SIGN	NO. OF POSTS	OVERHANG "A"	POST SPACING "B"	NO. OF POSTS	OVERHANG "A"	POST SPACING "C"	NO. OF POSTS
1'-6"	1	0'-9"					
2'-0"	2	1'-0"					
2'-6"	3	1'-3"					
3'-0"	4	2'-0"					
4'-0"	5	2'-6"					
6'-0"	7	3'-0"					
7'-0"	8	3'-6"					
8'-0"	9	4'-0"					
10'-0"	11	4'-6"					
12'-0"	13	5'-0"					
14'-0"	15	5'-6"					
16'-0"	17	6'-0"					
18'-0"	19	6'-6"					
20'-0"	21	7'-0"					
22'-0"	23	7'-6"					
24'-0"	25	8'-0"					
26'-0"	27	8'-6"					
28'-0"	29	9'-0"					
30'-0"	31	9'-6"					
32'-0"	33	10'-0"					
34'-0"	35	10'-6"					
36'-0"	37	11'-0"					
38'-0"	39	11'-6"					
40'-0"	41	12'-0"					

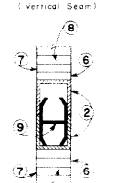
TYPICAL PANEL FABRICATION AND MOUNTING DETAILS



PANEL SECTION



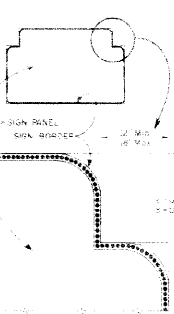
SEAM CLOSURE (Vertical Seam)



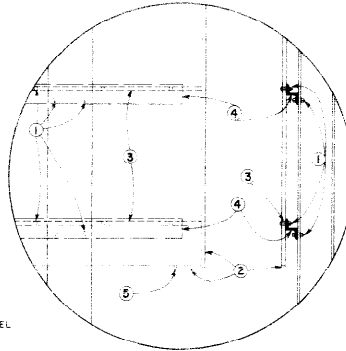
FABRICATION NOTES

1. $\frac{1}{8}$ " R BOLTS: Panel to backing Zee maximum spacing between bolts shall be 9". Backing Zee to post minimum of 1 bolt per backing Zee per post.
2. PERIMETER FRAME: 1/2" x 1/2" x 1/2" extruded aluminum channel.
3. SUPPORT TUBE: 1/2" x 1/2" x 1/2" extruded aluminum tubing.
4. BACKING ZEE: 1/2" x 1/2" x 1/2" Aluminum ANGLE BOLTS. Each Zee to be provided with 1/2" x 1/2" horizontal slot for each post mounting bolt. The length of each Zee to be at least the sign panel width.
5. WEEP HOLE: Three 1/8" weep holes to be provided in the perimeter frame at the bottom of each section. They shall be spaced approximately 8" apart each end and in the center of the section.
6. FACE SHEET: 0.043" Aluminum Sheet.
7. BACK SHEET: 0.043" Aluminum Sheet.
8. CORE: 1" Phenolic Impregnated Honeycombed Core.
9. ALUMINUM EXTRUSION: 0.063" Aluminum Extrusion.

TYPICAL DETAIL EXIT NUMBER PANEL

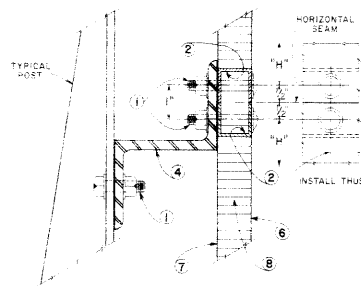


TYPICAL ELEVATION DETAIL

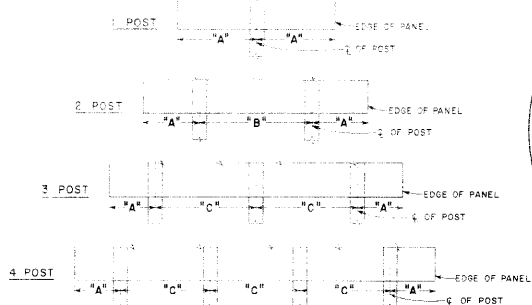


TYPICAL DETAIL SEAM CLOSURE ZEE

(Multi-Horizontal Sections, Horizontal Seam)



TYPICAL POST SPACING



DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
LAMINATED ALUMINUM
PANELS AND POST
SPACING TABLE FOR
CLASS III SIGNS

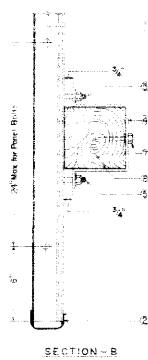
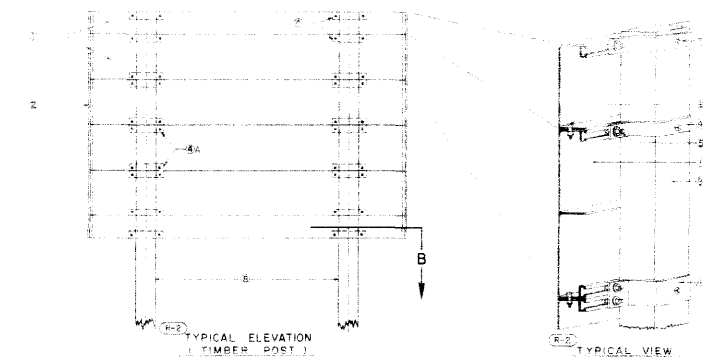
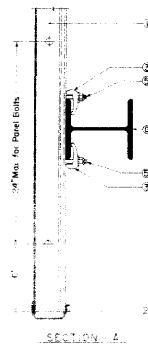
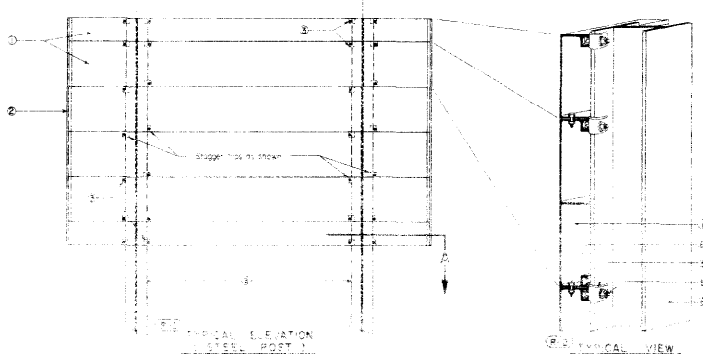
STANDARD S-614-24B

(April 4, 1967)

DETAILS OF EXTRUDED ALUMINUM SIGN PANELS

FEDERAL ROAD DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
1 COLORADO			

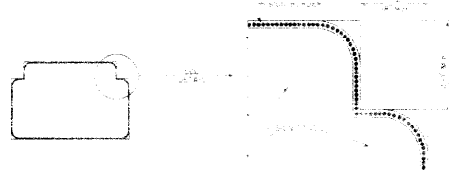
REVISIONS	
(R-1)	8-2-67 Exit Number Panel Detail
(R-2)	3-19-69 Connections, Notes and Title Block



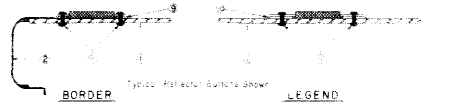
GENERAL NOTES

- All work shall be done in accordance with the Standard Specifications applicable to the Project.
- Panel minimum section modulus shall be 0.600 in.³ for 10 inch panels and 0.840 in.³ for 6 inch panels.
- ALTERNATE SIGN PANEL MATERIALS AND PANEL TO POST CONNECTIONS are permitted if approved by the ENGINEER prior to installation. The alternates shall be capable of developing the following required minimum Tensile Strength Panel-5730 lb./sq. in. and Force in Connection-10,000 lbs.
- Clip mounting accessories, spare bolt assemblies and trim are to be included with the sign and shall not be measured and paid for separately.
- Use clips, fasteners and other accessories as furnished by manufacturer.
- See applicable Standards for post and footing details.
- For additional information refer to "Fabrication of Signs" and "Installation of Overhead Signs".

PANEL DETAIL (EXIT NUMBER PANELS)



TYPICAL ATTACHMENT DETAILS



TYPICAL FABRICATION NOTES

- Extruded Aluminum Sign Panel (6" or 10")
- Side Trim Molding (1/2" or 1")
- Post Clip (Flange fastener)
- 1/2" x 3/4" Mounting Strap (2 Bolts)
- 1/2" x 3/4" Mounting Strap (4 Bolts)
- Post Clip Bolt, Nut, and Washer
- Panel Bolt, Nut, and Washer
- Log Screw (1/2" x 3/4")
- Sign Post (Steel Shape or Timber)
- Aluminum Border Strip (0.040" min. thickness)
- Aluminum Letter (0.040" min. thickness)
- Universal Mount, Hollow Shape Aluminum Rivet (1/2" x 1/2")

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
EXTRUDED ALUMINUM
PANELS FOR
CLASS III SIGNS

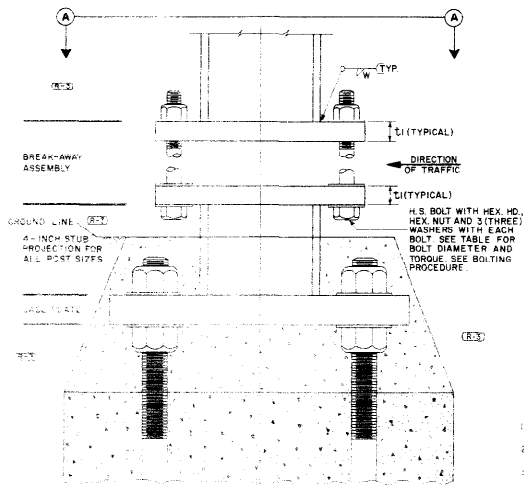
STANDARD S-614-26B

(SHEET 1 OF 2 SHEETS)
(MAY 4, 1967)

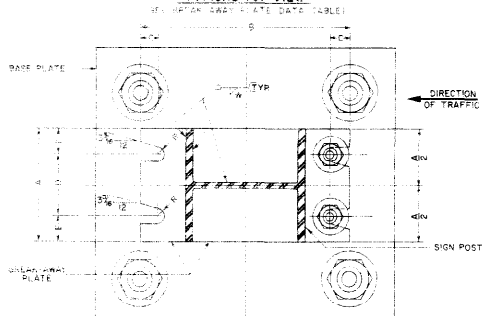
FEDERAL ROAD DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
COLORADO			

REVISIONS		
NO.	DESCRIPTION	DATE
1	Rev. of notes for timber posts and rev. of notes for steel posts	1-2-68
2	Rev. of notes for steel posts and rev. of notes for timber posts	1-2-68
3	Rev. of notes for steel posts and rev. of notes for timber posts	1-2-68
4	Rev. of notes for steel posts and rev. of notes for timber posts	1-2-68
5	Rev. of notes for steel posts and rev. of notes for timber posts	1-2-68

**TYPICAL ELEVATION
STEEL POST ASSEMBLY**

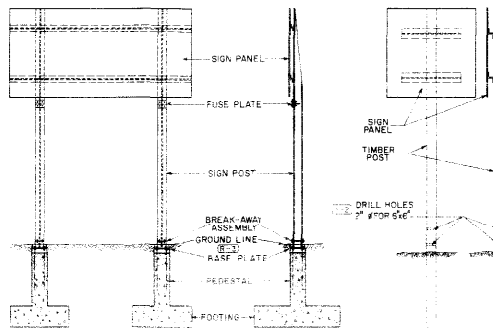


**SECTION A-A
TYPICAL TOP VIEW**

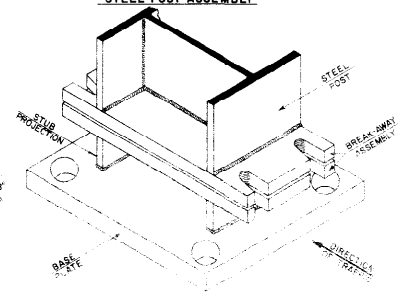


SECTION SHOWN IS FOR INSTALLATION ON RIGHT SHOULDER AND IN GORE. PLATE SLOT BEVELLED SHOWN OPPOSITE HAND FROM THAT REQUIRED FOR INSTALLATION ON LEFT SHOULDER

**TYPICAL BREAK-AWAY SIGN SUPPORT INSTALLATIONS
FOR STEEL AND TIMBER POSTS**



**TYPICAL VIEW
STEEL POST ASSEMBLY**



GENERAL NOTES

- All work shall be done in accordance with the Standard Specifications applicable to the project.
- Design conforms with AASHTO specifications for the design and construction of Structures.
- Design conforms with AASHTO specifications for the design and construction of Structures.
- Design conforms with AASHTO specifications for the design and construction of Structures.
- Design conforms with AASHTO specifications for the design and construction of Structures.
- Design conforms with AASHTO specifications for the design and construction of Structures.
- Design conforms with AASHTO specifications for the design and construction of Structures.
- Design conforms with AASHTO specifications for the design and construction of Structures.
- Design conforms with AASHTO specifications for the design and construction of Structures.
- Design conforms with AASHTO specifications for the design and construction of Structures.
- Design conforms with AASHTO specifications for the design and construction of Structures.
- Design conforms with AASHTO specifications for the design and construction of Structures.
- Design conforms with AASHTO specifications for the design and construction of Structures.
- Design conforms with AASHTO specifications for the design and construction of Structures.
- Design conforms with AASHTO specifications for the design and construction of Structures.

BREAK-AWAY PLATE DATA TABLE

POST SIZE	BOLT SIZE	TORQUE	STUB LENGTH
12 WF 40	3/4" x 3 1/2"	1250 Lb.	0'-4"
12 WF 31	3/4" x 3 1/2"	1250 Lb.	0'-4"
10 WF 25	3/4" x 3 1/2"	1250 Lb.	0'-4"
8 WF 20	3/4" x 3 1/2"	1250 Lb.	0'-4"
6 WF 20	3/4" x 3 1/2"	1250 Lb.	0'-4"

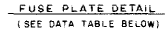
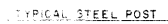
BOLTING PROCEDURE FOR ASSEMBLY OF BREAK-AWAY PLATES

- Assemble post to stub with bolts and with one flat washer on each bolt top, bottom, and between the break-away plates.
- Tighten all bolts to a snug tight condition with a 12 to 18" wrench to bed washers and to clean bolt threads; then loosen each bolt in turn and retension in a systematic order to the prescribed torque. (See Break-Away Plate Data Table.)
- Burr threads at junction with nut using a center punch to prevent nut loosening.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
**BREAK-AWAY SIGN
SUPPORT DETAILS
FOR
GROUND SIGNS**

(SHEET 2 OF 2 SHEETS)
(MAY 4 , 1967)

REVISIONS		
(R-1)	7-11-87	Rev. Ground Line G.W.F.
(R-2)	6-7-68	Rev of title sizes for numbers posts and rev of notes 11, 12 & 13 G.W.F.
(R-3)	12-9-68	Rev Title Block & Table J.L.S.



FABRICATION NOTE
IMPORTANT - ALL FUSE PLATE HINGE BOLTS SHALL BE TIGHTENED IN THE SHOP FOLLOWING A METHOD APPROVED BY THE ENGINEER. TIGHTENING SHALL BE TO SUCH A DEGREE AS TO OBTAIN THE MINIMUM RESIDUAL TENSION IN EACH BOLT AS SHOWN IN THE FUSE PLATE DATA TABLE.

DEPARTMENT OF HIGHWAYS
 STATE OF COLORADO
 DIVISION OF HIGHWAYS
 BREAK-AWAY SIGN
 SUPPORT DETAILS
 FOR
 GROUND SIGNS

Designed By: G.W.F.
 Made By: P.B.
 Checked By: G.W.F. Date: May 4, 1967

Approved By: *[Signature]*
 Traffic Engineer

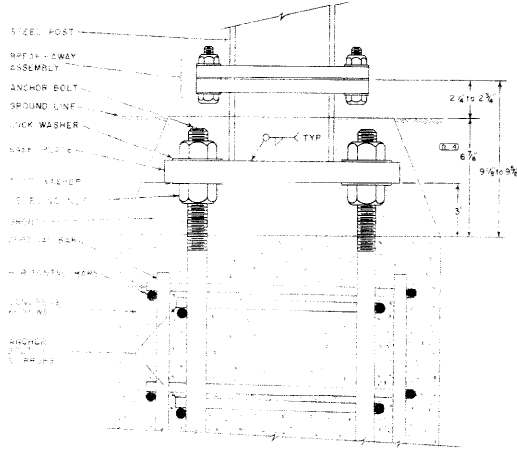
STANDARD S-614-27B

(SHEET 1 OF 2 SHEETS)

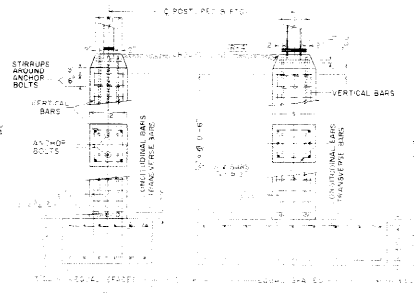
MAY 4, 1967

FEDERAL ROAD DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
COLORADO			
REVISIONS			
7-11-67	Rev. Ground Line	S.W.F.	
11-20-67	Rev. Title	S.W.F.	
6-26-68	Rev. Title and Title Block	S.W.F.	
11-21-68	Rev. Title, Fig. D11 and Ground Line	J.L.S.	
3-16-69	Rev. Lateral Placement	J.L.S.	

TYPICAL FOOTING ASSEMBLY

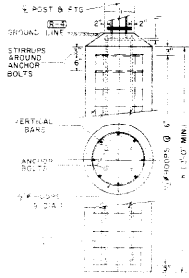


TYPICAL DETAIL TYPE I THRU V FOOTINGS - PEDESTALS



DETAIL TYPE I-C FOOTING

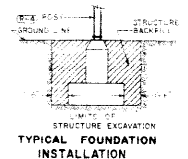
NOTE: TYPE I-C FOOTING
DRILL TO O.D. OF POST NEAR LINE
USE FORM TUBE FOR 8MM OF 12"
FROM TOP IF WALLS ARE INSTEAD
USE TUBE TO BOTTOM



NOTES:

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS APPLICABLE TO THE PROJECT.
- WHEN FOOTINGS OVERLAP USE ONE FOOTING OF THE LENGTH SHOWN AND OF WIDTH EQUAL TO THE DISTANCE BETWEEN POSTS PLUS THE WIDTH OF ONE FOOTING SHOWN IN PEDESTALS AND FOOTINGS DATA TABLE.
- ANCHOR BOLT TO PROJECT ABOVE PEDESTAL 4" PLUS BASE PLATE THICKNESS PLUS BOLT DIAMETER. THREAD UPPER PORTION - PROJECTION PLUS 2" GALVANIZE UPPER PORTION - PROJECTION PLUS 4".
- ALL CONCRETE IS TO BE CLASS "B" OR "CLASS" "C".
- FOR ADDITIONAL INFORMATION, REFER TO TABULATION OF SIGNS INCLUDED IN THE PLANS.
- WOOD POSTS SHALL BE FREE OF HEART CENTERS, KNOTS, RESIN, AND MUST BE SET IN A MINIMUM GRADE WITH A MINIMUM EXPOSURE OF 900 PS ON THE EXTREME FIBERS WHEN SUBJECTED TO BENDING AND 500 PS WHEN SUBJECTED TO COMPRESSION PARALLEL TO THE GRAIN.

THE LONGER SIMILARITY OF THE FOOTINGS, PEDESTALS AND BASE PLATES SHALL BE PARALLEL TO THE ROADWAY.



TYPICAL FOUNDATION INSTALLATION

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
PEDESTALS, FOOTINGS
AND SIGN ISLANDS
FOR CLASS III SIGNS

DESIGNED BY: S.W.F. CHECKED BY: J.L.S.
DRAWN BY: J.L.S. DATE: MAY 4, 1967

PEDESTALS AND FOOTINGS DATA TABLE

POST*	MAXIMUM ALLOWABLE MOMENT	WELD POST TO BASE	BASE PLATE		ANCHOR BOLTS	PEDESTAL		VERTICAL BARS IN PEDESTAL		FOOTINGS		LONGITUDINAL FOOTING BARS		TRANSVERSE (X-Y) FOOTING BARS		STIRRUPS AROUND ANCHOR BOLTS
			W	T		S	T	TYPE	W	D	TOP	BOTTOM	TOP	BOTTOM		
2" W x 40	15.0 K	1" FILLET	21/4"	16"	2-1/2"	4-1/2" x 3-5"	2-1/2"	1-8"	6-1/2" x 11-8"	2	12-5"	6-5"	3-1/2" x 11-8"	2-1/2" x 5-8"	7-1/2" x 5-8"	2-1/2"
2" W x 31	55.4 K	1/2" FILLET	9 3/4"	14"	2"	4-1/2" x 3-5"	2-1/2"	1-8"	6-1/2" x 11-8"	2	12-5"	6-5"	3-1/2" x 11-8"	2-1/2" x 5-8"	7-1/2" x 5-8"	2-1/2"
2" W x 25	34.8 K	1/2" FILLET	6 1/2"	14"	2"	4-1/2" x 3-5"	2-1/2"	1-8"	6-1/2" x 11-8"	2	12-5"	6-5"	3-1/2" x 11-8"	2-1/2" x 5-8"	7-1/2" x 5-8"	2-1/2"
2" W x 20	21.8 K	1/2" FILLET	4 1/2"	14"	2"	4-1/2" x 3-5"	2-1/2"	1-8"	6-1/2" x 11-8"	2	12-5"	6-5"	3-1/2" x 11-8"	2-1/2" x 5-8"	7-1/2" x 5-8"	2-1/2"
2" W x 16	17.8 K	1/2" FILLET	4 1/2"	12 1/2"	1 1/2"	4-1/2" x 3-5"	2-1/2"	1-8"	6-1/2" x 11-8"	2	12-5"	6-5"	3-1/2" x 11-8"	2-1/2" x 5-8"	7-1/2" x 5-8"	2-1/2"
2" W x 12	12.5 K	1/2" FILLET	4 1/2"	12 1/2"	1 1/2"	4-1/2" x 3-5"	2-1/2"	1-8"	6-1/2" x 11-8"	2	12-5"	6-5"	3-1/2" x 11-8"	2-1/2" x 5-8"	7-1/2" x 5-8"	2-1/2"
2" W x 8	8.0 K	1/2" FILLET	4 1/2"	12 1/2"	1 1/2"	4-1/2" x 3-5"	2-1/2"	1-8"	6-1/2" x 11-8"	2	12-5"	6-5"	3-1/2" x 11-8"	2-1/2" x 5-8"	7-1/2" x 5-8"	2-1/2"

*TIMBER POSTS SHALL BE S1, DRIED OR KILN-DRIED, 10% MOISTURE, 10' LONG, 10" DIA. TOP AND 8" DIA. BASE
POSTS SHALL BE BOLTED, NAIL BOLTED, OR FASTENED WITH FASTENED MATERIALS. ALL THROUGH NAILS MUST BE DOUBLE

Timber Posts shall be sawn, drilled or processed to meet the following specifications:
Posts shall be placed, braced, installed with reinforced materials and thoroughly rammed into place.

STANDARD S-614-27B

(SHEET 2 OF 2 SHEETS)

(MAY 4, 1967)

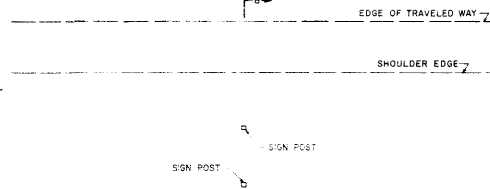
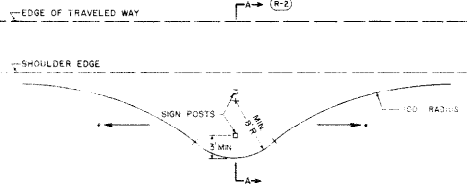
DETAILS OF SIGN PLACEMENT

FEDERAL ROAD DISTRICT NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	COLORADO			

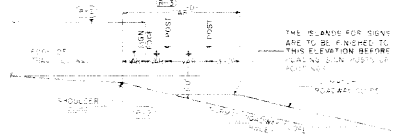
REVISIONS		
NO.	DATE	REVISION
1	7-11-67	Rev. Ground Line
2	8-20-67	Rev. Max Dist. for Sign Placement
3	8-26-68	Rev. Title Block
4	11-21-68	Rev. Ground Line
5	5-18-69	Rev. Letters: Placement

TYPICAL SIGN ISLAND PLAN

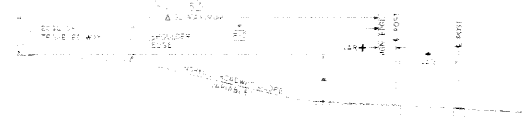
MAXIMUM CLEARANCE PLAN



TYPICAL FILL SECTION A-A



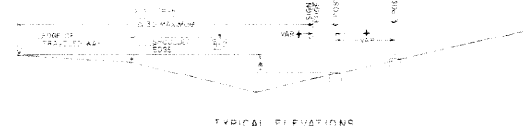
TYPICAL FILL SECTION B-B



TYPICAL CUT SECTION A-A

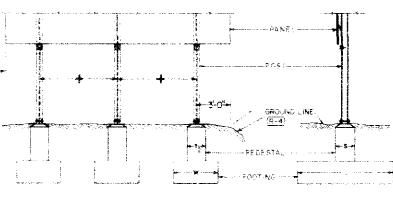


TYPICAL CUT SECTION B-B



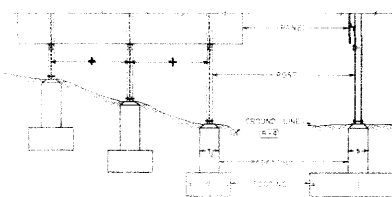
TYPICAL SIGN ISLAND ELEVATIONS

FRONT VIEW SIDE VIEW



TYPICAL ELEVATIONS

FRONT VIEW SIDE VIEW



- LEGEND**
- FOR DIMENSIONS SEE APPLICABLE STANDARD INCLUDED IN THE PLANS
 - THE SIGN ISLAND SIDE SLOPE PARALLEL TO THE ROADWAY SHALL BE 4:1 OR FLATTER. VARIABLE SEE SIGN ISLAND WIDTH COLUMN IN TABULATION OF SIGNS INCLUDED WITH THE PLANS, OR SEE APPLICABLE STANDARD.
 - FOR CROSS-SECTIONS VARIABLE, SEE CROSS-SECTIONS FOR PLACEMENT
 - THE LATERAL PLACEMENT MAY BE REDUCED TO A MINIMUM OF 2 FT FROM THE SHOULDER EDGE TO FIT FIELD CONDITIONS WHEN THE DESIRABLE 30 FT MAXIMUM PLACEMENT IS NOT FEASIBLE. (SEE CROSS-SECTIONS)
- NOTE**
- EMBANKMENT FOR SIGN ISLANDS TO BE COMPACTED AS REQUIRED UNDER ITEM 203 OF THE STANDARD SPECIFICATIONS
 - FOR SHOULDER PLACEMENT OF SIGNS, SEE APPLICABLE STANDARD INCLUDED IN THE PLANS. THERE SHALL BE A MINIMUM EARTH COVER OF 3" TO ANY EXPOSURE OF THE FOOTING

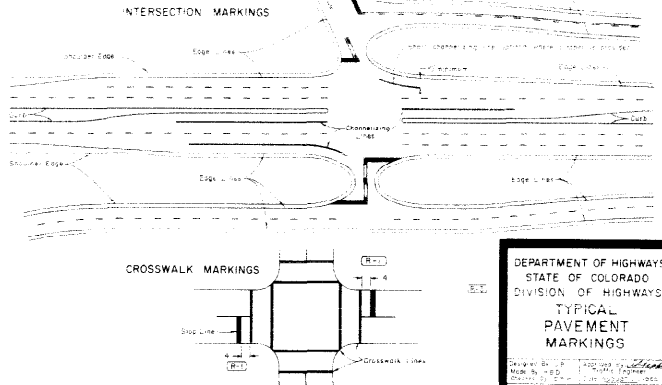
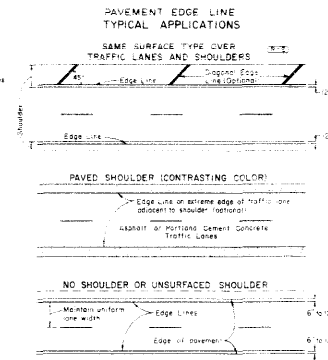
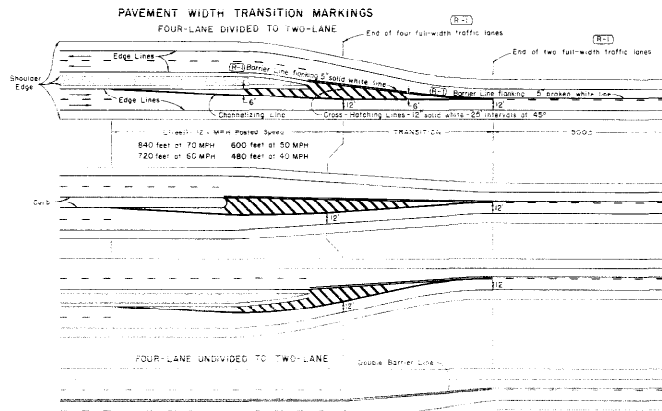
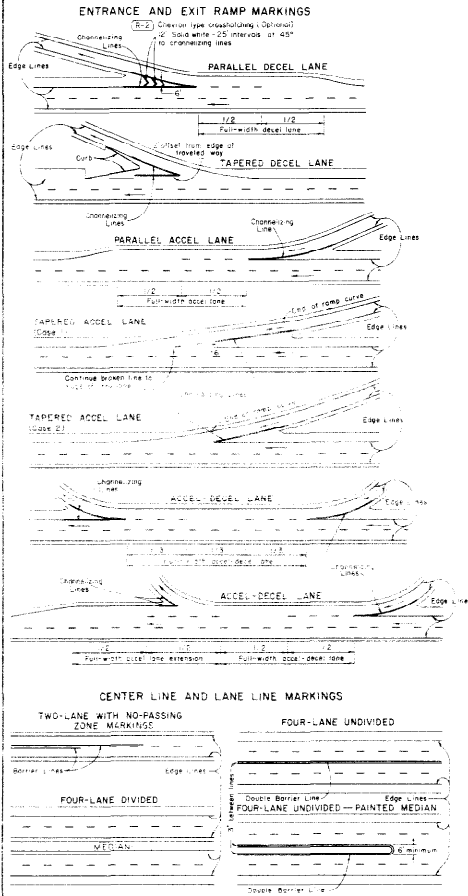
DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
PEDESTALS, FOOTINGS
AND SIGN ISLANDS
FOR CLASS III SIGNS

Designed By: J.W. Approved By: J.W.
Drawn By: J.W. Checked By: J.W.
Standard No. S-614-27B

STANDARD S-614-29A (AUG. 1, 1965)

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO			

REVISIONS			
1	7-11-67	Shaping & Notes	G.W.F.
2	12-15-68	Day edge line & Channelizing lines	G.W.F.
3	1-10-69	Rev. Title Block	G.W.F.



GENERAL NOTES

All work shall be done in accordance with the Standard Specifications applicable to the Project

LANE LINES AND CENTER LINES

- Broken white, 5 inches wide - 15 foot segments with 25 foot gaps
- Solid white, 5 inches wide - if noted

BARRIER LINES

- Solid white, 5 inches wide
- Apply parallel to and spaced 3 inches from other indicated line

EDGE LINES

- Parallel - Solid white, 3 inches wide
- Diagonal - Solid white, 12 inches wide, spaced at intervals of 20'-100'

CHANNELIZING LINES

- Solid white, 10 inches wide

STOP LINES

- Solid white, 24 inches wide
- Shall extend across all approach lanes at location indicated on plans
- Locate at the desired stopping point not more than 30 feet nor less than 6 feet from the nearest edge of the intersecting traffic lane

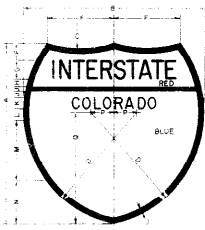
CROSSWALK LINES

- Solid white, 12 inches wide
- Shall extend across all approach lanes at location indicated on plans
- Locate at the desired stopping point not more than 30 feet nor less than 6 feet from the nearest edge of the intersecting traffic lane
- The distance between lines is usually determined by the width of the sidewalk or gutter and shall not be less than 6 feet

STANDARD S-614-30A (AUG. 1, 1965)

FEDERAL ROAD DISTRICT NO.	DIVISION	PROJECT NO.	SHEET NO.
#	COLORADO		

INTERSTATE ROUTE MARKERS FOR INDEPENDENT USE



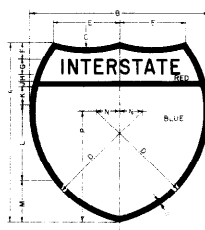
IM-1-14(15) For Shield Dimensions
IM-1-24(70) See Table, Line 2

IM-1-36(15) For Shield Dimensions
IM-1-36(70) See Table, Line 4

IM-1-25(60) For Shield Dimensions
IM-1-25(225) See Table, Line 5

IM-1-36(60) For Shield Dimensions
IM-1-36(225) See Table, Line 5

INTERSTATE SHIELDS FOR USE ON GUIDE SIGN PANELS

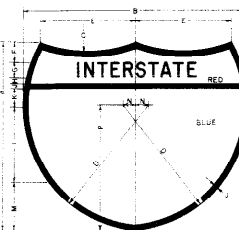


IM-1-10(24/25) For Shield Dimensions
IM-1-10(24/70) See Table, Line 6

IM-1-15(25/25) For Shield Dimensions
IM-1-15(36/70) See Table, Line 5

IM-1-15(36/60) For Shield Dimensions
IM-1-15(36/225) See Table, Line 6

IM-1-10(48/25) For Shield Dimensions
IM-1-10(48/70) See Table, Line 11

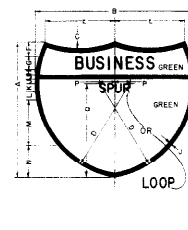


IM-1-10(24/60) For Shield Dimensions
IM-1-10(25/225) See Table, Line 7

IM-1-15(48/60) For Shield Dimensions
IM-1-15(36/225) See Table, Line 10

IM-1-10(48/60) For Shield Dimensions
IM-1-10(48/225) See Table, Line 8

BUSINESS ROUTE MARKERS FOR INDEPENDENT USE
OR USE AS SHIELDS ON GUIDE SIGN PANELS

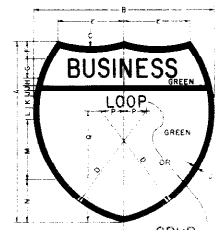


IM-1-10(25/60) For Shield Dimensions
IM-1-10(25/70) See Table, Line 3

IM-1-10(25/60) For Shield Dimensions
IM-1-10(25/70) See Table, Line 3

IM-1-10(48/60) For Shield Dimensions
IM-1-10(48/70) See Table, Line 3

IM-1-10(48/60) For Shield Dimensions
IM-1-10(48/70) See Table, Line 5



IM-1-10(24/25) For Shield Dimensions
IM-1-10(24/70) See Table, Line 2

IM-1-10(24/25) For Shield Dimensions
IM-1-10(24/70) See Table, Line 4

IM-1-10(48/25) For Shield Dimensions
IM-1-10(48/70) See Table, Line 7

IM-1-10(48/25) For Shield Dimensions
IM-1-10(48/70) See Table, Line 4

SHIELD DIMENSIONS

Line No.	Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	24 X 24	24	24	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
2	30 X 30	30	30	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
3	36 X 36	36	36	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
4	48 X 48	48	48	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
5	24 X 24	24	24	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
6	30 X 30	30	30	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
7	36 X 36	36	36	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
8	48 X 48	48	48	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
9	24 X 24	24	24	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
10	30 X 30	30	30	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
11	36 X 36	36	36	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
12	48 X 48	48	48	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
13	24 X 24	24	24	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12

NOTES

- All work shall be done in accordance with the Standard Specifications applicable to the project.
- Letters, numerals, and borders are reflectorized white.
- Background areas designated as red, blue, or green shall be reflectorized Interstate colors.
- Reversed sheeting on reflective sheeting.
- All reflective sheeting shall be Non-Exposed Lens Type.
- Route markers for use on guide signs and for assembly installations are color plaques and shall be either steel sheets 0.0599 minimum thickness or aluminum sheets 0.0801 minimum thickness for route markers 25" or less in height and 0.100" minimum thickness for route markers more than 25" in height.
- Materials shall conform to Section 713 of the Standard Specifications.
- The code number indicates the shape, word message, height, and route numeral.
EXAMPLE: IM-1-1-36(180S)
IM-1 = Interstate Shield
1 = Single
36 = 36" Height
(180S) = Route number 180 (Three digit)

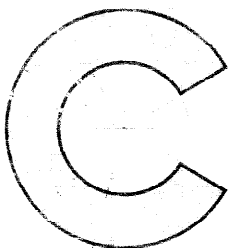
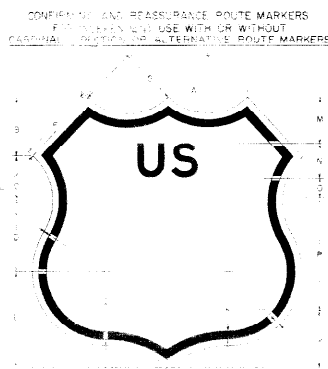
REVISIONS

No.	Description	Date
1	REPLACES S-614-30A SHIELD S-614-30A	11-1-64
2	REPLACES S-614-30A SHIELD S-614-30A	11-1-64

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
INTERSTATE
ROUTE MARKERS

Designed by: J. H. H. Made by: J. H. H. Checked by: J. H. H. Date: 11-1-64

REVISIONS			
3-1-89	Rev	Dept Name	JLS

[illegible]

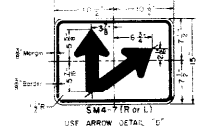
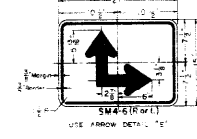
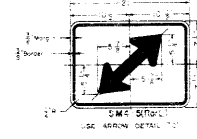
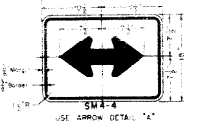
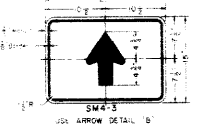
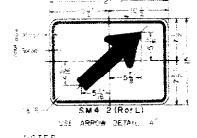
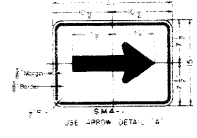
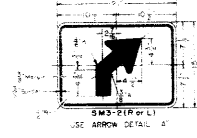
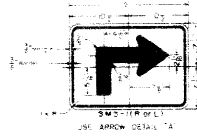
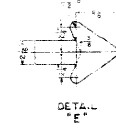
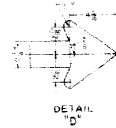
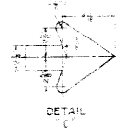
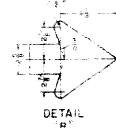
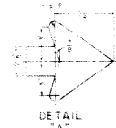
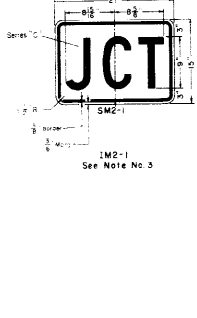
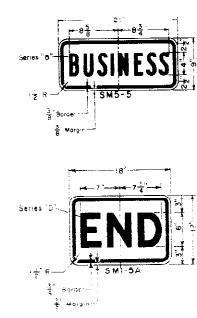
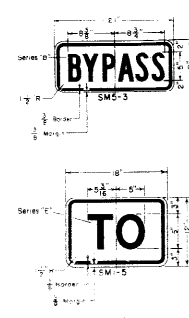
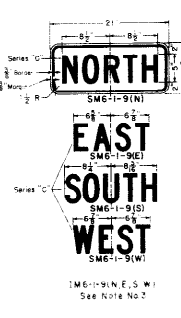
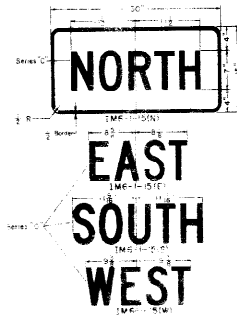
Desired By: S. A. STEVENSON
Made By: S. A. STEVENSON
Cleveland, O. S. A. STEVENSON, 1948

STANDARD S-614-32A

(AUG 1, 1965)

FEDERAL ROAD BOARD NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLORADO		

REVISIONS	
5-4-68	Add sign SM-5, dated note 5, G.W.F.
7-15-68	Rev. Title Block G.W.F.



All arrow signs may be interstate type with prefix letter "I" in lieu of "S". See note no. 3.

- NOTES
1. All work shall be done in accordance with the Standard Specifications applicable to the Project.
 2. Dimensions of basic standard type signs denoted by the prefix letter "S" are as illustrated with a screen pressed black legend and border on a reflectorized white background.
 3. Interstate issue signs denoted by the prefix letter "I" have a reflectorized white legend and border on a reflectorized blue background (Reversed screened on reflective sheeting). The margin is one-half inch wider than that of the corresponding basic standard.
 4. Auxiliary markers shall be either steel sheets 0.0508 min. thickness or aluminum sheets 0.030 min. thickness for markers 24" or less in its greater dimension and 0.100 min. thickness for those larger than 24" in its greater dimension.
 5. Reflective sheeting for both prefixes "S" and "I" shall be Non-Exposed Lens Type.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS

AUXILIARY
MARKERS

Designed by: J.B. Approved by: J.B. Traffic Engineer
Checked by: J.B. Date: Aug. 11, 1965

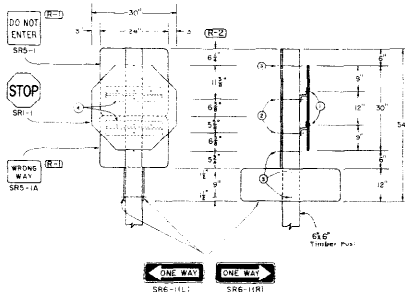
STANDARD S-614-35A

JULY 1, 1968

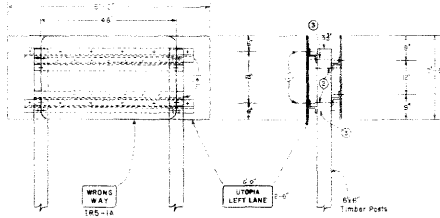
FEDERAL ROAD DISTRICT NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
8	COLORADO			

REVISIONS	
REV. 1	11-14-68 Reverse Side Panel
REV. 2	12-10-68 Reverse Dimensions and Signs
	Sign Details

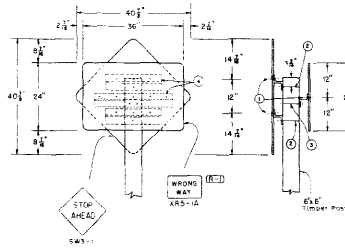
OFF RAMP TERMINAL INSTALLATION



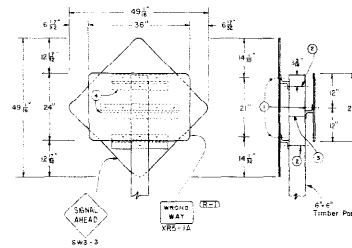
ALUMINUM GUIDE SIGN and 48"x30" WRONG/WAY



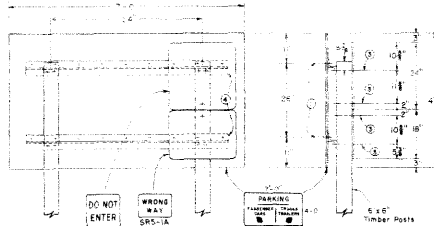
30" DIAMOND and 36"x24" WRONG/WAY



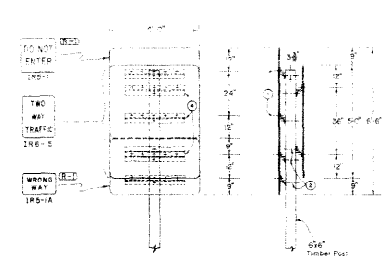
36" DIAMOND and 36"x24" WRONG/WAY



ALUMINUM GUIDE SIGN and 24"x24" REGULATORY SIGN - 24"x18" WRONG/WAY



4'x4' REGULATORY SIGN and 48"x30" WRONG/WAY



GENERAL NOTES

- All work shall be done in accordance with the Standard Specifications applicable to the Project.
- For sign placement see "Typical Ground Sign Placement" Standard.
- For Typical Class I, II and III Ground Sign Installation details see Applicable Standards.
- The "DO NOT / ENTER" and "WRONG / WAY" plaques used in the multi-sign installations indicated shall have a flat black enameled reverse (back) side.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
TYPICAL
MULTI-SIGN
INSTALLATIONS

Designed by J. L. B. Approved by J. L. B.
Checked by J. L. B. Date 11-14-68